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UTENSILERIA MECCANICA

CATALOGO UTENSILI 2026/1



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UTENSILERIA MECCANICA



UTENSILERIA MECCANICA

DA 20 ANNI
AFFIDABILITÀ E QUALITÀ

BF SERVICE studia e progetta utensili su misura di altissima qualità e affidabilità, per soddisfare le più svariate esigenze nell'ambito dell'utensileria meccanica. Grazie all'esperienza e macchinari d'avanguardia, offre ai propri clienti un prodotto di alta qualità insieme ad un servizio personalizzato e tempestivo, oltre alla rivendita di alcuni tra i marchi più prestigiosi.

Consulenza Tecnica

Un tecnico specializzato che conduce analisi approfondite direttamente sul campo ci permette di comprendere appieno le esigenze del cliente e di soddisfarle al meglio.

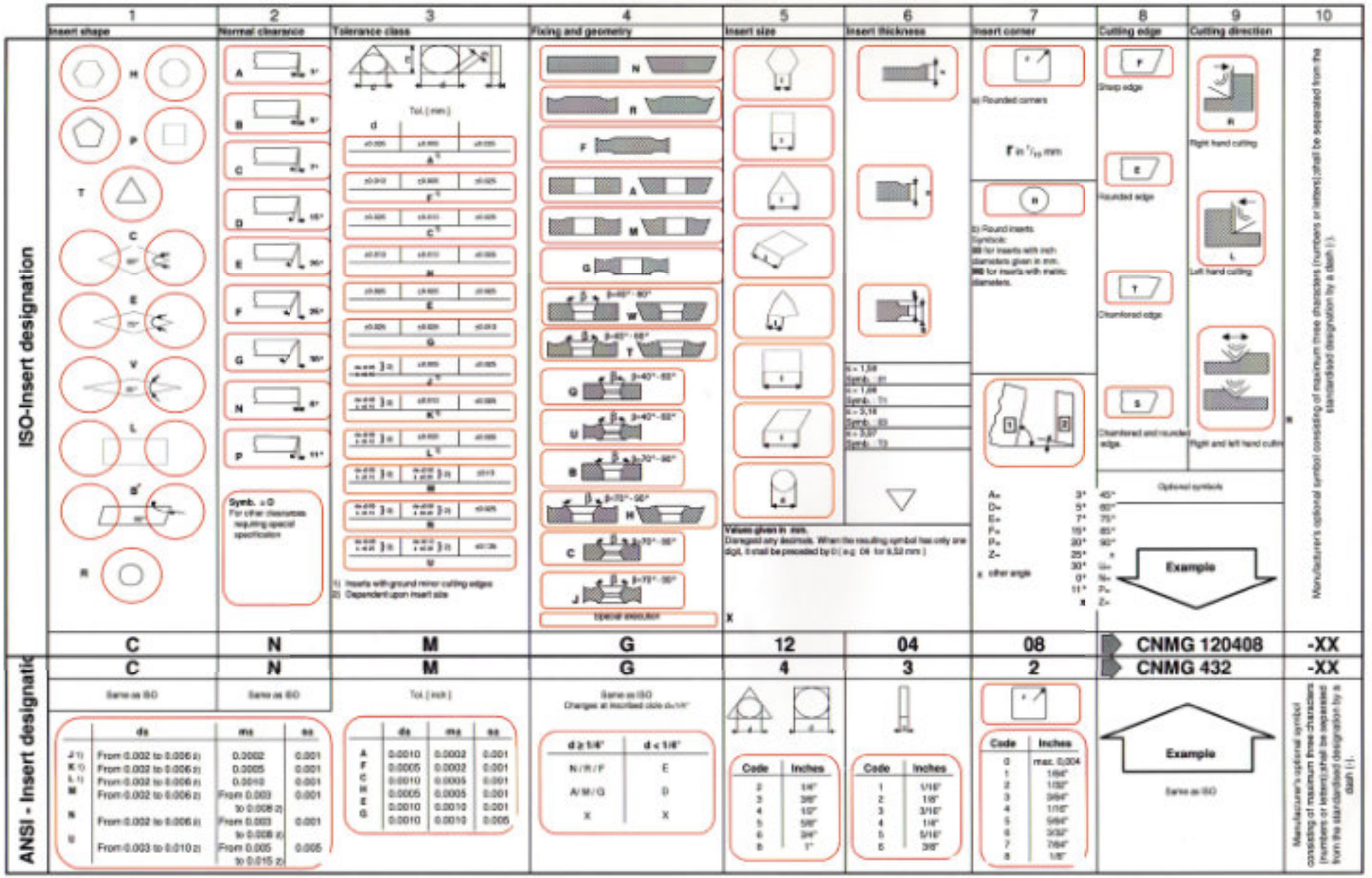
Servizio assistenza

L'esperienza acquisita ci permette di garantire interventi di riparazione tempestivi e mirati per risolvere nel più breve tempo possibile le problematiche di lavorazione.

Distribuzione diretta

Il servizio di distribuzione diretto è uno dei punti di forza: eseguito direttamente dal titolare specializzato e in costante aggiornamento, come del resto tutti i collaboratori.

Via Mariuccia Rocco, 26 - 25030 Lograto (BS)
Tel: +39 338 5648477 - Fax: +39 030 9787316 - Email amministrazione@bf-service.it


1
Insert shape
2
Normal clearance
3
Tolerance class
4
Fixing and geometry
5
Insert size
6
Insert thickness
7
Insert corner
8
Cutting edge
9
Cutting direction
10
ISO-Insert designation
Sharp edge
Rounded edge
Chamfered edge
Chamfered and rounded edge
Right hand cutting
Left hand cutting
Right and left hand cutting
Optional symbols
Example
Values given in mm.
Example
C
N
M
G
12
04
08
CNMG 120408
-XX
ANSI - Insert designation
C
N
M
G
4
3
2
CNMG 432
-XX
Same as ISO
Same as ISO
Tol. (inch)
Same as ISO
Example
Same as ISO

FORMULE E DEFINIZIONI
Formulas and Definitions

Fresatura - *Milling*

Avanzamento tavola, mm/min

$$v_f = f_z \times n \times Zn$$

Velocità di taglio, m/min

$$v_c = \frac{\pi \times DC_{ap} \times n}{1000}$$

Velocità di rotazione mandrino, giri/min

$$n = \frac{v_c \times 1000}{\pi \times DC_{ap}}$$

Avanzamento per dente, mm

$$f_z = \frac{v_f}{n \times Zn}$$

Avanzamento per giro, mm/giro

$$f_n = \frac{v_f}{n}$$

Volume di truciolo asportato, cm³/min

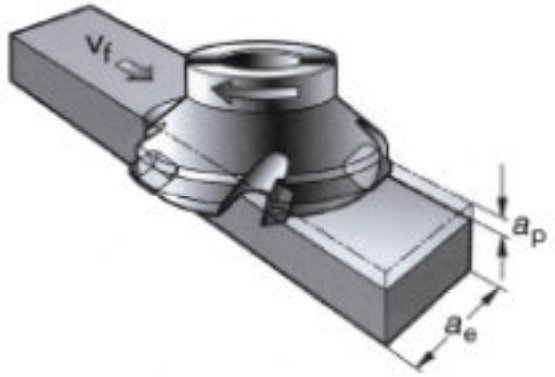
$$Q = \frac{AP \times a_e \times v_f}{1000}$$

Potenza netta, kW

$$P_c = \frac{a_e \times AP \times v_f \times k_c}{60 \times 10^6}$$

Coppia, Nm

$$M_c = \frac{P_c \times 30 \times 10^3}{\pi \times n}$$



a_e	Profondità di taglio assiale	mm
AP	Profondità di taglio	mm
DC_{ap}	Diametro di taglio a profondità di taglio AP	mm
D_m	Diametro lavorato (diametro del componente)	mm
f_z	Avanzamento per dente	mm
f_n	Avanzamento per giro	mm/giro
n	Velocità di rotazione mandrino	giri/min
v_c	Velocità di taglio	m/min
v_f	Avanzamento tavola	mm/min
Zn	Numero di denti effettivi	pz
h_{ex}	Spessore massimo del truciolo	mm
h_m	Spessore medio del truciolo	mm
k_c	Forza di taglio specifica	N/mm²
P_c	Potenza netta	kW
M_c	Coppia	Nm
Q	Volume di truciolo asportato	cm³/min

Tornitura - *Turning*

Velocità di taglio, m/min

$$v_c = \frac{\pi \times D_m \times n}{1000}$$

Velocità di rotazione mandrino, giri/min

$$n = \frac{v_c \times 1000}{\pi \times D_m}$$

Tempo di lavorazione, min

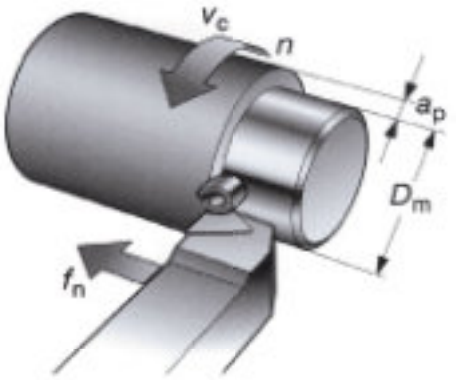
$$T_c = \frac{l_m}{f_n \times n}$$

Volume di truciolo asportato, cm³/min

$$Q = v_c \times AP \times f_n$$

Velocità di avanzamento, mm/min

$$P_c = \frac{v_c \times AP \times f_n \times k_c}{60 \times 10^3}$$



D_m	Diametro lavorato	mm
f_n	Avanzamento per giro	mm/giro
AP	Profondità di taglio	mm
v_c	Velocità di taglio	m/min
n	Velocità di rotazione mandrino	giri/min
P_c	Potenza netta	kW
Q	Volume di truciolo asportato	cm³/min
h_m	Spessore medio del truciolo	mm
h_{ex}	Spessore massimo del truciolo	mm
T_c	Tempo di contatto	min
l_m	Lunghezza lavorata	mm
k_c	Forza di taglio specifica	N/mm²

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Tabella di conversione per scale di durezza
Conversion table for hardness scales

Nell'industria vengono utilizzati vari sistemi per misurare la durezza del materiale.
La seguente tabella mette a confronto tre dei metodi più comunemente usati.
I dati di taglio consigliati in questa guida sono espressi in Durezza Brinell (HB).

Various systems are used in industry to measure the hardness of the material.
This table compares three of the most common methods used.
The data of cuts recommended in this guide are given in Brinell hardness (HB)

HB 180 per Acciaio	- Steel
HB 180 per Acciaio Inossidabile	- Stainless Steel Hardened Steel
HB 220 per Ghisa Grigia	- Cast Iron
HB 250 per Ghisa Nodulare	- Nodular Cast Iron
HB 75 per Alluminio e Materiali non Ferrosi	- Aluminium & Non-Ferrous
HB 350 per Superleghe Resistenti al Calore	- High Temperature Resistant
HRC 60 per Materiali Temprati	- Hardened Steel

Carico di rottura N/mm²	Vickers HV	Brinell HB	Rockwell HRC	Rockwell HRB
255	80	76.0	–	–
270	85	80.7	–	41.0
285	90	85.5	–	48.0
305	95	90.2	–	52.0
320	100	95.0	–	56.2
350	110	105	–	62.3
385	120	114	–	66.7
415	130	124	–	71.2
450	140	133	–	75.0
480	150	143	–	78.7
510	160	152	–	81.7
545	170	162	–	85.0
575	180	171	–	87.5
610	190	181	–	89.5
640	200	190	–	91.5
660	205	195	–	92.5
675	210	199	–	93.5
690	215	204	–	94.0
705	220	209	–	95.0
720	225	214	–	96.0
740	230	219	–	96.7
770	240	228	20.3	98.1
800	250	238	22.2	99.5
820	255	242	23.1	–
835	260	247	24.0	(101)
850	265	252	24.8	–
865	270	257	25.6	(102)
900	280	266	27.1	–
930	290	276	28.5	(105)
950	295	280	29.2	–
965	300	285	29.8	–
995	310	295	31.0	–

Carico di rottura N/mm²	Vickers HV	Brinell HB	Rockwell HRC
1030	320	304	32.2
1060	330	314	33.3
1095	340	323	34.4
1125	350	333	35.5
1155	360	342	36.6
1190	370	352	37.7
1220	380	361	38.8
1255	390	371	39.8
1290	400	380	40.8
1320	410	390	41.8
1350	420	399	42.7
1385	430	409	43.6
1420	440	418	44.5
1485	460	437	46.1
1555	480	–	47.7
1595	490	–	48.4
1630	500	–	49.1
1665	510	–	49.8
1700	520	–	50.5
1740	530	–	51.1
1775	540	–	51.7
1810	550	–	52.3
1845	560	–	53.0
1880	570	–	53.6
1920	580	–	54.1
1955	590	–	54.7
1995	600	–	55.2
2030	610	–	55.7
2070	620	–	56.3
2105	630	–	56.8
2145	640	–	57.3
2180	650	–	57.8

$$P_c = \frac{v_c \times AP \times f_n \times k_c}{60 \times 10^3}$$

T_c	Tempo di contatto	min
l_m	Lunghezza lavorata	mm
k_c	Forza di taglio specifica	N/mm²

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BRESCIA













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MUSEO
MILLE MIGLIA





















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Amando profondamente la nostra città, noi della BF Service abbiamo scelto da anni di essere sponsor del BRESCIA CALCIO in quanto crediamo nello sport e nel suo valore educativo e aggregativo, orgogliosi di tenere alta la bandiera della nostra squadra FORZA BRESCIA!









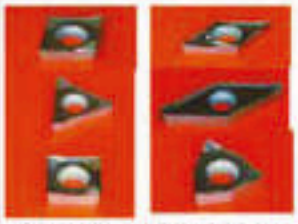
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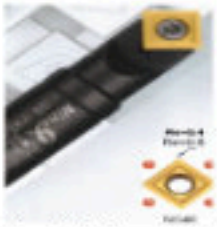
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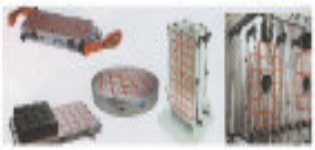
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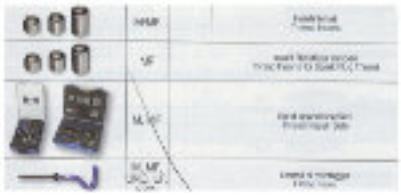
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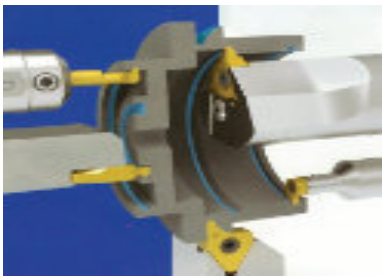




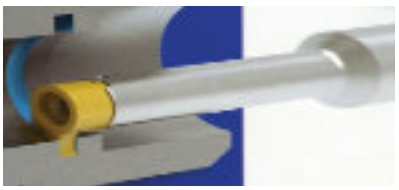
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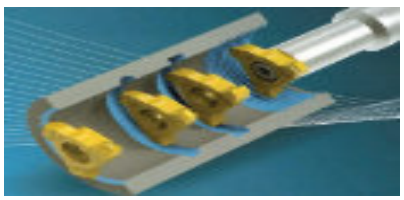
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2025

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TOOL CATALOGUE
WERKZEUG KATALOG

versiyon 21-1
version
auflage

***konuşulan** kalite...*
***the spoken** quality...*
***qualität über die** man spricht...*

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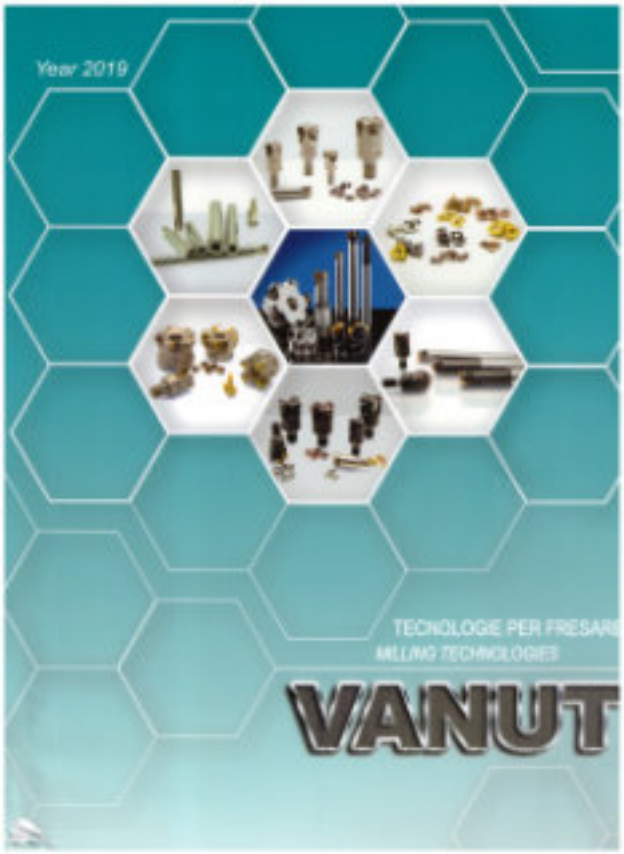
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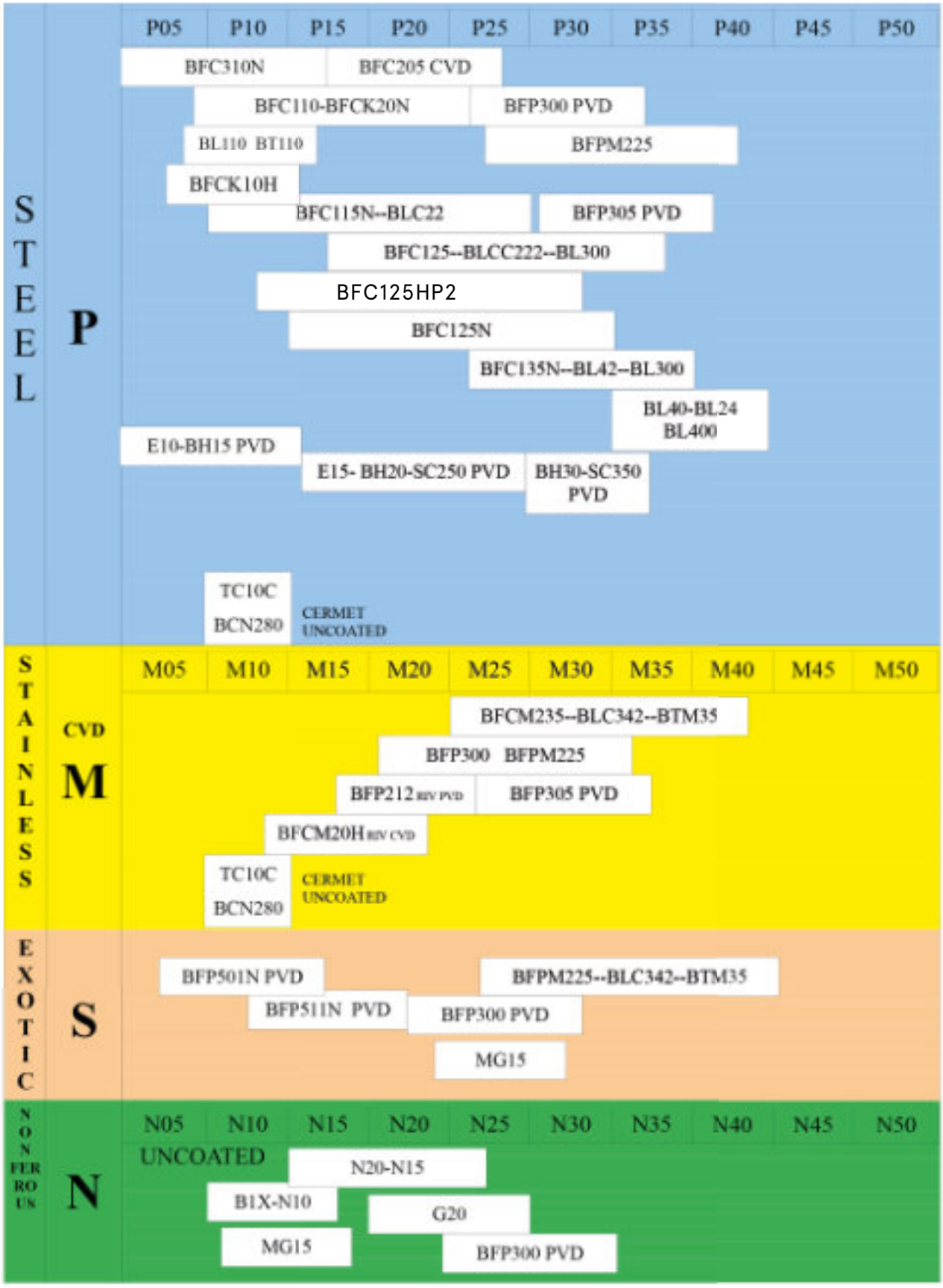
FRESE E INSERTI PER FRESATURA
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KINTEK



TORNITURA-TURNING-TOURNAGE-DREHEN-DRAAIEN

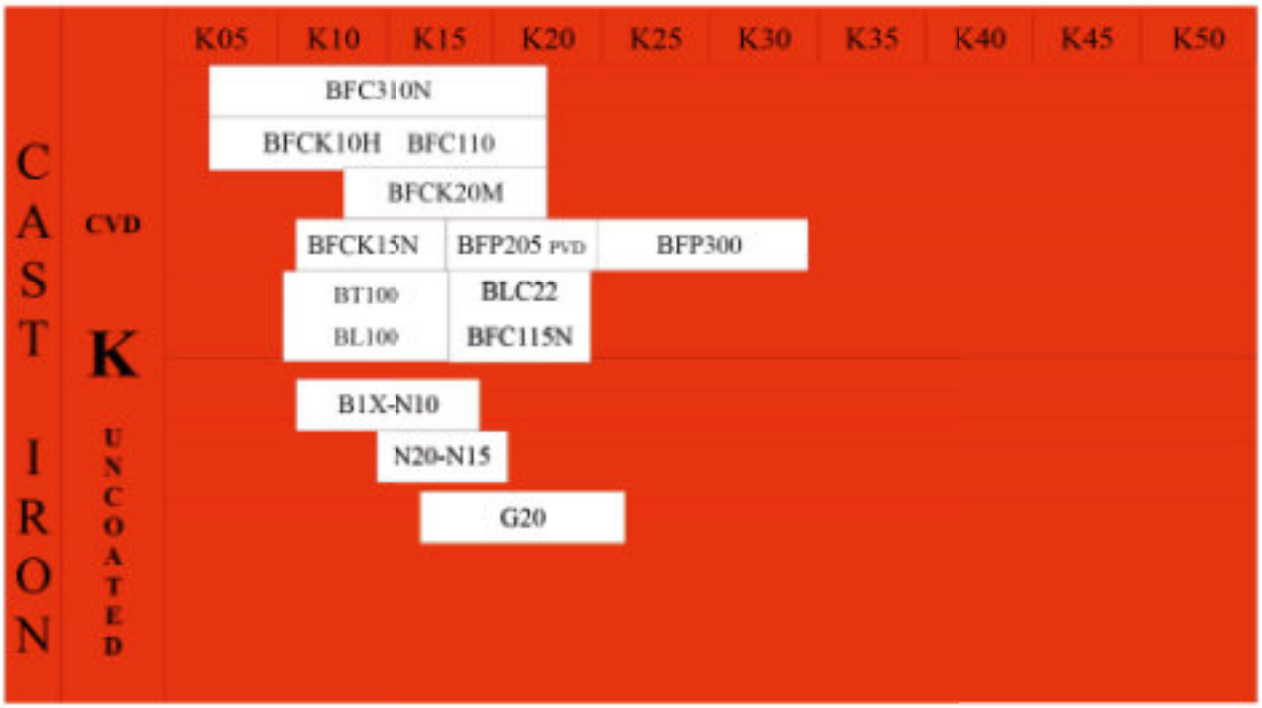
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WENDEPLATTEN SOTREN-WISSELPLATEN SOORTEN
CVD COATED



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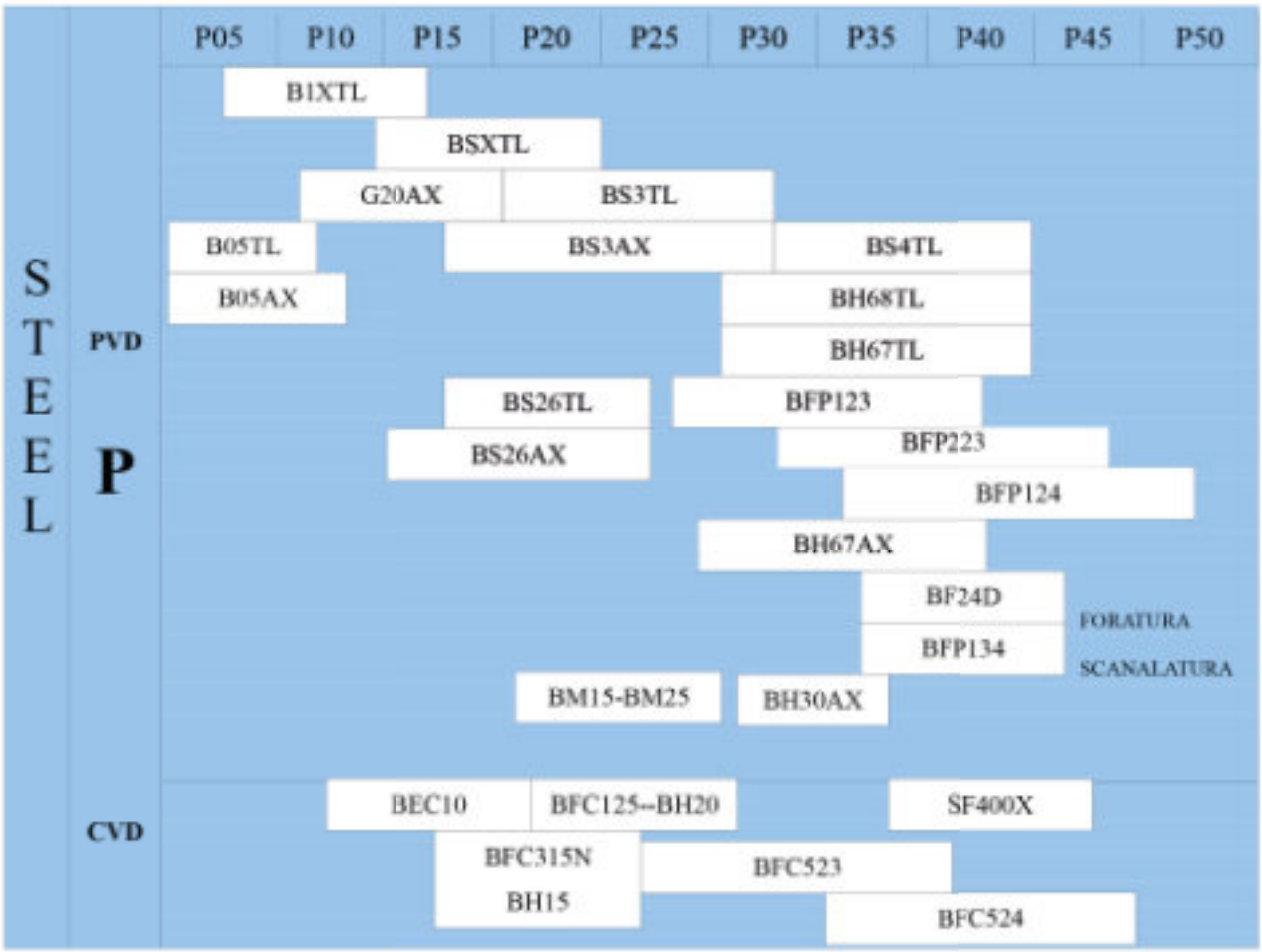
TORNITURA-TURNING-TOURNAGE-DREHEN-DRAAIEN

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WENDEPLATTEN SOTREN-WISSELPLATEN SOORTEN



FRESATURA MILLING-FRAISAGE-FREZEN

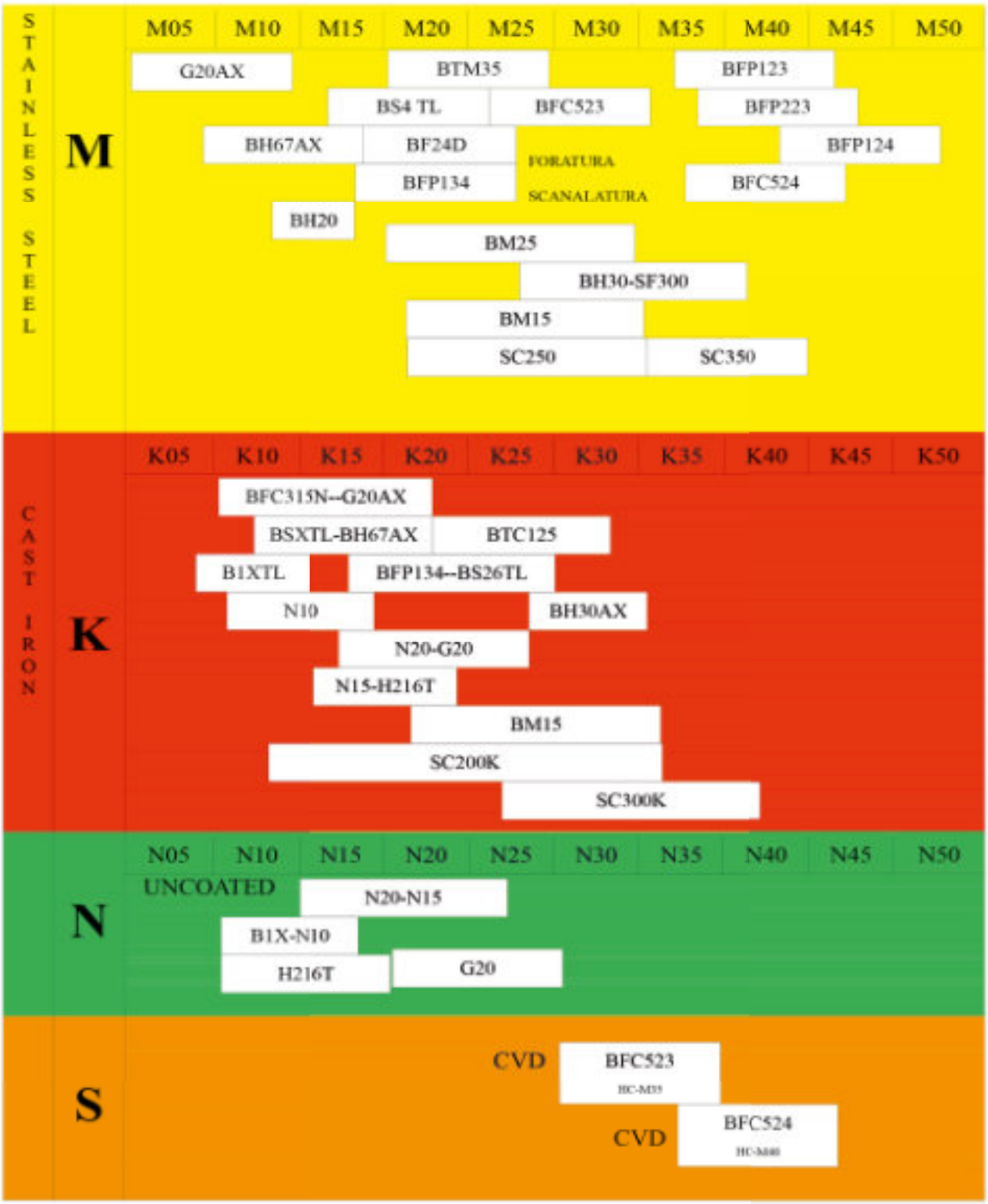
INSERTS GRADES-PLAQUETTES NUANCES
WENDEPLATTEN SOTREN-WISSELPLATEN SOORTEN



BF SERVICE

FRESATURA MILLING-FRAISAGE-FREZEN

INSERTS GRADES-PLAQUETTES NUANCES
WENDEPLATTEN SOTREN-WISSELPLATEN SOORTEN



BF SERVICE


BF SERVICE
UTENSILERIA MECCANICA

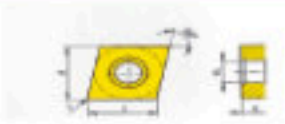
BF SERVICE
UTENSILERIA MECCANICA

EXK+

TORNITURA
TURNING
TOURNAGE
DREHEN
DRAAIEN
FINISHING/SEMI ROUGHING

ROMPITRUCCIOLO
CHIP PREAKER
BRISE COPEAUX
SPANBRECHER
SPAANBREKER



DESCRIZIONE	GRADE BFP212 FOR INOX AND STEEL OR IRON FINISHING/SEMI ROUGHING PER ACCIAIO INOX E ACCIAIO AL CARBONIO O Fe ADATTO PER FINITURA E SEMISGROSSATURA A TAGLIO CONTINUO	PARAMETRI A PAG. 22
		
CNGP 120402 EXK+	●	d=12,7 I=12,9 S=4,76 r=0,2 d1=5,16
CNGP 120404 EXK+	●	d=12,7 I=12,9 S=4,76 r=0,4 d1=5,16
CNGP 120408 EXK+	●	d=12,7 I=12,9 S=4,76 r=0,8 d1=5,16
CNGP 120412 EXK+	●	d=12,7 I=12,9 S=4,76 r=1,2 d1=5,16
		
DNGP 150404 EXK+	●	d=12,7 I=15,5 S=4,76 r=0,4 d1=5,16
DNGP 150602 EXK+	●	d=12,7 I=15,5 S=6,35 r=0,2 d1=5,16
DNGP 150604 EXK+	●	d=12,7 I=15,5 S=6,35 r=0,4 d1=5,16
DNGP 150608 EXK+	●	d=12,7 I=15,5 S=6,35 r=0,8 d1=5,16
		
VNGP 160402 EXK+	●	D=9,52 I=16,6 S=4,76 r=0,2 d1=3,81
VNGP 160404 EXK+	●	D=9,52 I=16,6 S=4,76 r=0,4 d1=3,81
		
WNGP 080404 EXK+	●	D=12,7 I=8,69 S=4,76 r=0,4 d1=5,16
WNGP 080408 EXK+	●	D=12,7 I=8,69 S=4,76 r=0,8 d1=5,16

● = A MAGAZZINO \ IN STOCK + = CHIEDERE DISPONIBILITA \ ASK FOR AVAILABILITY

BF SERVICE
UTENSILERIA MECCANICA

HD2

TORNITURA
TURNING
TOURNAGE
DREHEN
DRAAIEN
FINISHING/SEMI ROUGHING

ROMPITRUCCIOLO
CHIP PREAKER
BRISE COPEAUX
SPANBRECHER
SPAANBREKER



● = A MAGAZZINO \ IN STOCK + =CHIEDERE DISPONIBILITA' / ASK FOR AVAILABILITY

DESCRIZIONE		GRADO BFC115N	GRADO BFC125HP2	GRADO BFC135N
				
CNMM 120408 HD2	d=12,7 l=12,9 S=4,76 r=0,8 d1=5,16	●	●	●
CNMM 120412 HD2	d=12,7 l=12,9 S=4,76 r=1,2 d1=5,16		●	+
				
DNMM 150608 HD2	d=12,7 l=15,5 S=6,35 r=0,8 d1=5,16	●	●	●

General cutting parameters depending on the application

Work piece material		Type of treatment/alloy	Hardness HB	Coated carbide BFC115N VC: [m/min]	Coated carbide BFC125HP2 VC: [m/min]	Coated carbide BFC135N VC: [m/min]	Application Chip groove	Depth of cut and feed rate ap [mm]	Depth of cut and feed rate f (mm)
P	Steel	Non alloyed steel 0 - 0.45 %C	150 – 250	220 – 400	170 – 240	170 – 190	HD2	1.5 to 12	0.50 to 0.9
P	Steel	Low alloyed steel	250 – 300	200 – 320	100 – 190	90 – 150	Ex: CNMM 120408-HD2 for CK60 Different in each application		
P	Steel	High alloyed steel	200	180 – 320	130 – 210	120 – 200			
P	Steel	Corrosion resistant steel	200	200 – 320	130 – 210	140 – 180			
M	Stainless steel	Ferritic	200	220 – 320	140 – 210	140 – 200			
M	Stainless steel	Austenitic	180	–	100 – 210	110 – 190			
M	Stainless steel	Duplex	230 – 260	–	–	80 – 150			
M	Stainless steel	Martensitic	330	–	70 – 100	55 – 75			
K	Cast iron	Grey cast iron	180	140 – 370	130 – 210	–			
K	Cast iron	Spheroidal	160	190 – 430	120 – 240	–			
K	Cast iron	Malleable/Tempered iron	130	180 – 520	150 – 250	–			

Consistent cutting depth	Inconsistent cutting depth	Interrupted cut
●	●	○



BF SERVICE

BF SERVICE
UTENSILERIA MECCANICA

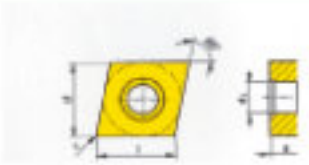
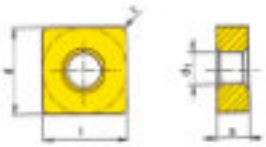
HD5

TORNITURA
TURNING
TOURNAGE
DREHEN
DRAAIEN

ROMPITRUCCIOLO
CHIP PREAKER
BRISE COPEAUX
SPANBRECHER
SPAANBREKER



● = A MAGAZZINO \ IN STOCK + =CHIEDERE DISPONIBILITA' / ASK FOR AVAILABILITY

DESCRIZIONE		GRADO BFC115N	GRADO BFC125HP2	GRADO BFC135N
				
CNMM 120412 HD5	d=12,7 l=12,9 S=4,76 r=1,2 d1=5,16	●	●	●
CNMM 120416 HD5	d=12,7 l=12,9 S=4,76 r=1,6 d1=5,16		●	●
CNMM 160612 HD5	d=15,88 l=16,10 S=6,35 r=1,2 d1=6,35	●	●	●
CNMM 190612 HD5	d=19,05 l=19,30 S=6,35 r=1,2 d1=7,94	●	●	+
CNMM 190616 HD5	d=19,05 l=19,30 S=6,35 r=1,6 d1=7,94		●	+
CNMM 250724 HD5	d=25,40 l=25,80 S=7,94 r=2,4 d1=9,12		●	+
CNMM 250924 HD5	d=25,40 l=25,80 S=9,52 r=2,4 d1=9,12		●	+
				
SNMM 190612 HD5	d=19,05 l=19,05 S=6,35 r=1,2 d1=7,94		●	+
SNMM 190616 HD5	d=19,05 l=19,05 S=6,35 r=1,6 d1=7,94		●	+
SNMM 250724 HD5	d=25,40 l=25,40 S=7,94 r=2,4 d1=9,12		●	
SNMM 250924 HD5	d=25,40 l=25,40 S=9,52 r=2,4 d1=9,12		●	+
				
DNMM 150612 HD5	d=12,7 l=15,5 S=6,35 r=1,2 d1=5,16	●	●	●

PARAMETRI VEDI PAG. 22

BF SERVICE
UTENSILERIA MECCANICA

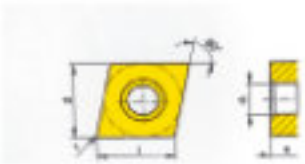
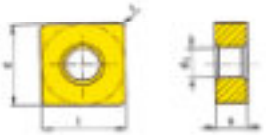
HD8

TORNITURA
TURNING
TOURNAGE
DREHEN
DRAAIEN

ROMPITRUCCIOLO
CHIP PREAKER
BRISE COPEAUX
SPANBRECHER
SPAANBREKER



● = A MAGAZZINO \ IN STOCK + =CHIEDERE DISPONIBILITA' / ASK FOR AVAILABILITY

DESCRIZIONE	GRADO BFC115N	GRADO BFC125HP2	GRADO BFC135N
 			
CNMM 190616SN HD8 d=19,05 l=19,30 S=6,35 r=1,6 d1=7,94		●	+
CNMM 190624SN HD8 d=19,05 l=19,30 S=6,35 r=2,4 d1=7,94		●	+
CNMM 250924SN HD8 d=25,40 l=25,80 S=9,52 r=2,4 d1=9,12		●	+
CNMM 250932SN HD8 d=25,40 l=25,80 S=9,52 r=3,2 d1=9,12		●	
 			
SNMM 190616SN HD8 d=19,05 l=19,05 S=6,35 r=1,6 d1=7,94		●	+
SNMM 190624SN HD8 d=19,05 l=19,05 S=6,35 r=2,4 d1=7,94		●	+
SNMM 250924SN HD8 d=25,40 l=25,40 S=9,52 r=2,4 d1=9,12		●	+
SNMM 250932SN HD8 d=25,40 l=25,40 S=9,52 r=3,2 d1=9,12		●	

General cutting parameters depending on the application

Work piece material		Type of treatment/alloy	Hardness HB	Coated carbide BFC115N VC: [m/min]	Coated carbide BFC125HP2 VC: [m/min]	Coated carbide BFC135N VC: [m/min]	Application Chip groove	Depth of cut and feed rate ap [mm]	Depth of cut and feed rate f (mm)
P	Steel	Non alloyed steel 0 - 0.45 % C	150 – 250	220 – 400	170 – 240	170 – 190	HD8	2.5 to 12.0	1.20 to 0.35
		Low alloyed steel	250 – 300	200 – 320	100 – 190	90 • 150	Ex: CNMM 190616-HD8 for CK60		
		High alloyed steel	200	180 – 320	130 – 210	120 – 200	Different in each application		
		Corrosion resistant steel	200	200 – 320	130 – 210	140 – 180			
M	Stainless steel	Ferritic	200	220 – 320	140 – 210	140 – 200			
		Austenitic	180	–	100 – 210	110 – 190			
		Duplex	230 – 260	–	–	80 – 150			
		Martensitic	330	–	70 – 100	55 – 75			
K	Cast iron	Grey cast iron	180	140 – 370	130 – 210	–			
		Spheroidal	160	190 – 430	120 – 240	–			
		Malleable/Tempered iron	130	180 – 520	150 – 250	–			

		
Constant cutting depth	Inconstant cutting depth	Interrupted cut
●	●	●

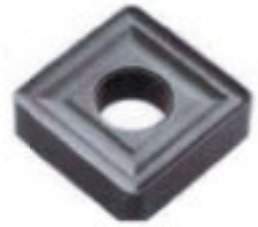
BF SERVICE

BF SERVICE
UTENSILERIA MECCANICA

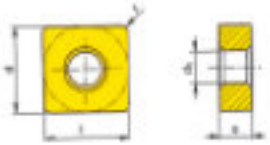
TCH

TORNITURA
TURNING
TOURNAGE
DREHEN
DRAAIEN

ROMPITRUCCIOLO
CHIP PREAKER
BRISE COPEAUX
SPANBRECHER
SPAANBREKER



● = A MAGAZZINO \ IN STOCK + =CHIEDERE DISPONIBILITA' / ASK FOR AVAILABILITY

DESCRIZIONE	GRADO BFC115N	GRADO BFC125HP2	GRADO BFC135N
 			
SNMM 190616EN TCH d=19,05 l=19,05 S=6,35 r=1,6 d1=7,94		●	+
SNMM 250924EN TCH d=25,40 l=25,40 S=9,52 r=2,4 d1=9,12		●	+

General cutting parameters depending on the application

Work piece material		Type of treatment/alloy	Hardness HB	Coated carbide BFC115N VC: [m/min]	Coated carbide BFC125HP2 VC: [m/min]	Coated carbide BFC135N VC: [m/min]	Application Chip groove	Depth of cut and feed rate ap [mm]	Depth of cut and feed rate f (mm)
P	Steel	Non alloyed steel 0 - 0.45 % C	150 – 250	220 – 400	170 – 240	170 – 190	TCH	2.5 to 10.0	0.60 to 0.30
		Low alloyed steel	250 – 300	200 – 320	160 – 190	90 – 150	Different in each application		
		High alloyed steel	200	180 – 320	130 – 210	120 – 200			
		Corrosion resistant steel	200	200 – 320	130 – 210	140 – 180			
M	Stainless steel	Ferritic	200	220 – 320	140 – 210	140 – 200			
		Austenitic	180	–	160 – 210	110 – 190			
		Duplex	230 – 280	–	–	80 – 150			
		Martensitic	330	–	70 – 160	55 – 75			
K	Cast iron	Grey cast iron	180	140 – 370	130 – 210	–			
		Sphercidal	160	190 – 430	120 – 240	–			
		Malleable/Tempered iron	130	180 – 520	150 – 250	–			

Consistent cutting depth	Inconsistent cutting depth	Interrupted cut
●	●	○

BF SERVICE
UTENSILERIA MECCANICA

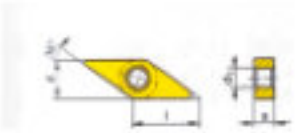
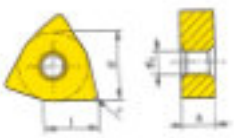
TORNITURA
TURNING
TOURNAGE
DREHEN
DRAAIEN

WL+

ROMPITRUCCIOLO
CHIP PREAKER
BRISE COPEAUX
SPANBRECHER
SPAANBREKER



NUOVO ROMPITRUCCIOLO CON RASCHIANTE

DESCRIZIONE		GRADO BFC115N	GRADO BFC125HP2
			
CNMG 090304 WL+	d=9,52 l=9,70 S=3,18 r=0,4 d1=3,81	•	
CNMG 120404 WL+	d=12,70 l=12,90 S=4,76 r=0,4 d1=5,16	•	•
CNMG 120408 WL+	d=12,70 l=12,90 S=4,76 r=0,8 d1=5,16	•	•
			
DNMG 110404 WL+	d=9,52 l=11,60 S=4,76 r=0,4 d1=3,81	•	•
DNMG 150604 WL+	d=12,70 l=15,50 S=6,35 r=0,4 d1=5,16		+
DNMG 150608 WL+	d=12,70 l=15,50 S=6,35 r=0,8 d1=5,16	•	
			
VNMG 160404 WL+	d=9,52 l=16,60 S=4,76 r=0,4 d1=3,81	•	
			
WNMG 060404 WL+	d=9,52 l=6,50 S=4,76 r=0,4 d1=3,81	•	
WNMG 080404 WL+	d=12,70 l=8,69 S=4,76 r=0,4 d1=5,16	•	•

● = A MAGAZZINO \ IN STOCK + = CHIEDERE DISPONIBILITA' \ ASK FOR AVAILABILITY

PARAMETRI DI TAGLIO PAG. 22

BF SERVICE

BF SERVICE
UTENSILERIA MECCANICA

909+

TORNITURA
TURNING
TOURNAGE
DREHEN
DRAAIEN

ROMPITRUCCIOLO
CHIP PREAKER
BRISE COPEAUX
SPANBRECHER
SPAANBREKER







CNMG

		GRADO BFCK10H	GRADO BFCK20M	GRADO BFC115N	GRADO BFC125HP2	GRADO BFC135N
120408	d=12,70 l=12,90 s=4,79 r=0,8 d1=5,16	●	●	+	+	+
120412	d=12,70 l=12,90 s=4,79 r=1,2 d1=5,16	●	●	+	+	+
160608	d=15,88 l=16,10 s=6,35 r=0,8 d1=6,35		●			●
160612	d=15,88 l=16,10 s=6,35 r=1,2 d1=6,35	●	●	+	●	●
190612	d=19,05 l=19,30 s=6,35 r=1,2 d1=7,94		●	+	●	●
190616	d=19,05 l=19,30 s=6,35 r=1,6 d1=7,94		+	+	●	●
250924	d=25,40 l=25,80 s=9,52 r=2,4 d1=9,12		+	+	+	+





WNMG

		GRADO BFCK10H	GRADO BFCK20M	GRADO BFC115N	GRADO BFC125HP2	GRADO BFC135N
060404	d=9,52 l=6,50 s=4,76 r=0,4 d1=3,81		+	+	+	+
060408	d=9,52 l=6,50 s=4,76 r=0,8 d1=3,81		+	+	+	+
080404	d=12,70 l=8,69 s=4,76 r=0,4 d1=5,16		+	+	+	+
080408	d=12,70 l=8,69 s=4,76 r=0,8 d1=5,16	●	●	+	+	+
080412	d=12,70 l=8,69 s=4,76 r=1,2 d1=5,16	●	●	+	+	+





TNMG

		GRADO BFCK10H	GRADO BFCK20M	GRADO BFC115N	GRADO BFC125HP2	GRADO BFC135N
160404	d=9,52 l=16,50 s=4,76 r=0,4 d1=3,81		+	+	+	+
160408	d=9,52 l=16,50 s=4,76 r=0,8 d1=3,81	●	●	+	+	+
160412	d=9,52 l=16,50 s=4,76 r=1,2 d1=3,81		+	+	+	+
220408	d=12,70 l=22,00 s=4,76 r=0,8 d1=5,16		+	+	+	+
220412	d=12,70 l=22,00 s=4,76 r=1,2 d1=5,16		+	+	●	+

● = A MAGAZZINO \ IN STOCK + = CHIEDERE DISPONIBILITA' \ ASK FOR AVAILABILITY

PARAMETRI DI TAGLIO A PAG. 20

BF SERVICE
UTENSILERIA MECCANICA

TORNITURA
TURNING
TOURNAGE
DREHEN
DRAAIEN

909+

ROMPITRUCCIOLO
CHIP PREAKER
BRISE COPEAUX
SPANBRECHER
SPAANBREKER

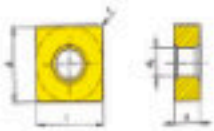






DNMG	GRADO BFCK10H	GRADO BFCK20N	GRADO BFC115N	GRADO BFC125HP2	GRADO BFC135N
110408 d=9,52 l=11,60 s=4,76 r=0,8 d1=3,81		+	+	+	+
110412 d=9,52 l=11,60 s=4,76 r=1,2 d1=3,81		+	+	+	+
150604 d=12,70 l=15,50 s=6,35 r=0,4 d1=5,16		+	+	+	+
150608 d=12,70 l=15,50 s=6,35 r=0,8 d1=5,16	+	●	+	+	+
150612 d=12,70 l=15,50 s=6,35 r=1,2 d1=5,16	+		+	+	+





SNMG	GRADO BFCK10H	GRADO BFCK20N	GRADO BFC115N	GRADO BFC125HP2	GRADO BFC135N
120408 d=12,70 l=12,70 s=4,76 r=0,8 d1=5,16		●	+	+	+
120412 d=12,70 l=12,70 s=4,76 r=1,2 d1=5,16	●	+	+	+	+
150608 d=15,88 l=15,88 s=6,35 r=0,8 d1=6,35		+	+	+	+
150612 d=15,88 l=15,88 s=6,35 r=1,2 d1=6,35		+	+	●	●
150616 d=15,88 l=15,88 s=6,35 r=1,6 d1=6,35		+	+	+	+
190608 d=19,05 l=19,05 s=6,35 r=0,8 d1=7,94		+	+	+	+
190612 d=19,05 l=19,05 s=6,35 r=1,2 d1=7,94		+	+	●	●

● = A MAGAZZINO \ IN STOCK + = CHIEDERE DISPONIBILITA \ ASK FOR AVAILABILITY

PARAMETRI DI TAGLIO A PAG. 20

BF SERVICE

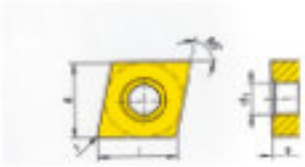
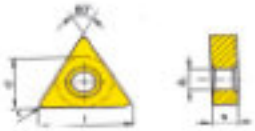
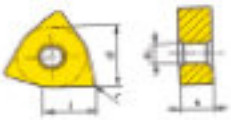
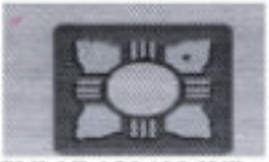
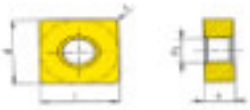
BF SERVICE
UTENSILERIA MECCANICA

WR+

TORNITURA
TURNING
TOURNAGE
DREHEN
DRAAIEN

ROMPITRUCCIOLO
CHIP PREAKER
BRISE COPEAUX
SPANBRECHER
SPAANBREKER



	DESCRIZIONE	GRADO BFC115N	GRADO BFC125HP2
 CNMG 120408 WR+	 d=12,70 l=12,90 s=4,76 r=0,8 d1=5,16	•	•
CNMG 120412 WR+	d=12,70 l=12,90 s=4,76 r=1,2 d1=5,16		•
 DNMG 150608 WR+	 d=12,70 l=15,50 s=4,76 r=0,8 d1=5,16	•	•
DNMG 150612 WR+	d=12,70 l=15,50 s=4,76 r=1,2 d1=5,16	•	•
 TNMG 160408 WR+	 d=9,52 l=16,50 s=4,76 r=0,8 d1=3,18		•
TNMG 160412 WR+	d=9,52 l=16,50 s=4,76 r=1,2 d1=3,18		•
 WNMG 080408 WR+	 d=12,70 l=8,69 s=4,76 r=0,8 d1=5,16	+	•
WNMG 080412 WR+	d=12,70 l=8,69 s=4,76 r=1,2 d1=5,16		•
 SNMG 120408 WR+	 d=12,70 l=12,70 s=4,76 r=0,8 d1=5,16		•
SNMG 120412 WR+	d=12,70 l=12,70 s=4,76 r=1,2 d1=5,16		•

● = A MAGAZZINO \ IN STOCK + = CHIEDERE DISPONIBILITA \ ASK FOR AVAILABILITY

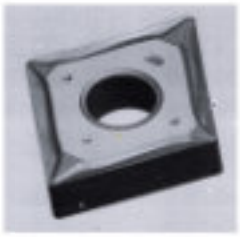
PARAMETRI DI TAGLIO A PAG. 22

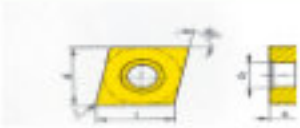
BF SERVICE
UTENSILERIA MECCANICA

TORNITURA
TURNING
TOURNAGE
DREHEN
DRAAIEN

JF CERMET

ROMPITRUCCIOLO
CHIP PREAKER
BRISE COPEAUX
SPANBRECHER
SPAANBREKER



CERMET FINISHING		GRADE TC10C
		GRADE TC10C GRADE TC10C
CNMG 120404EN JF	d=12,70 l=12,90 s=4,76 r=0,4 d1=5,16	•
CNMG 120408EN JF	d=12,70 l=12,90 s=4,76 r=0,8 d1=5,16	•
		
DNMG 110404EN JF	d=9,52 l=11,60s=4,76 r=0,4 d1=3,18	•
DNMG 150604EN JF	d=12,70 l=15,50 s=6,35 r=0,4 d1=5,16	•

General cutting parameters depending on the application

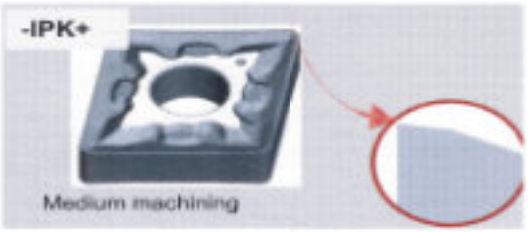
Work Piece material	Type of treatment / alloy	Hardness HB	Cermet TC10C Vc: m/min	Application Chip Groove	Depth of Cut and Feed rate ap (mm)	fn(mm)
Steel	Non alloyed steel 0-0.65% C	150-250	230-270	JF	0.1 to 2.0	0.20 to 0.05
	Low alloyed steel	250-300	180-230			
	High alloyed steel	200	160-200			
	Corrosion resistant steel	200	230-270			
Stainless steel	Ferritic	200	170-240			
	Austenitic	180	200-240			
	Duplex	230-260	-			
	Martensitic	330	130-160			
Cast iron	Grey cast iron	180	-			
	Spheroidal	160	220-300			
	Malleable / Tempered iron	130	250-350			

Ex: CNMG 120404EN-JF
Different in each application

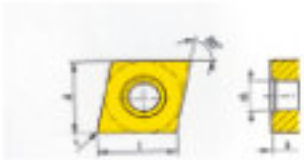
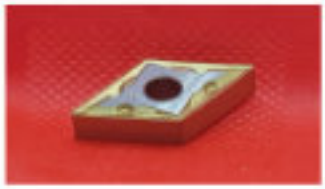
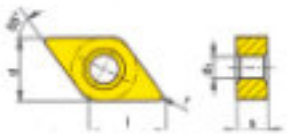
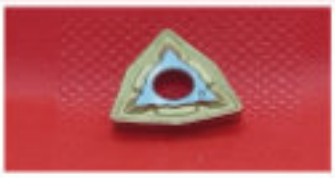
Constant Cutting Depth	Inconstant Cutting Depth	Interrupted Cut
●	✖	✖

BF SERVICE

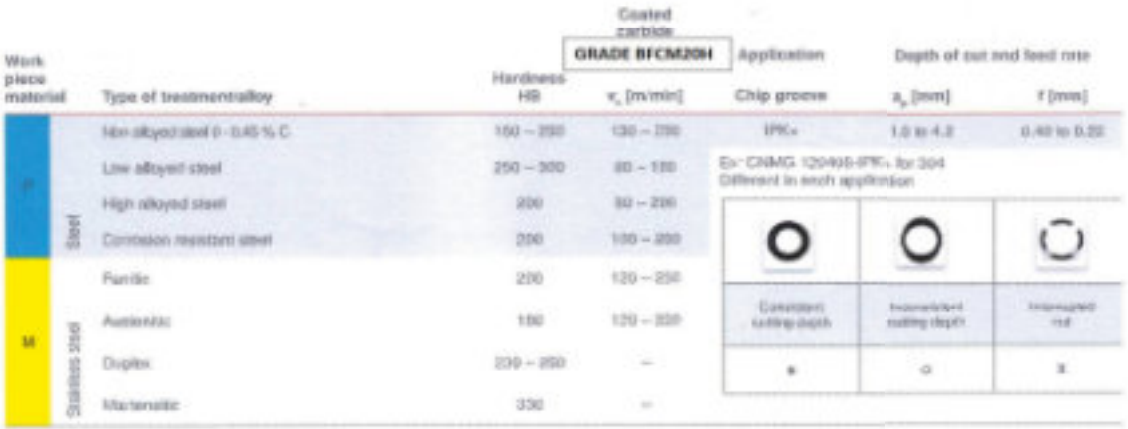
NEW GRADE !!!!!!!!!
BFCM20H
IPK+

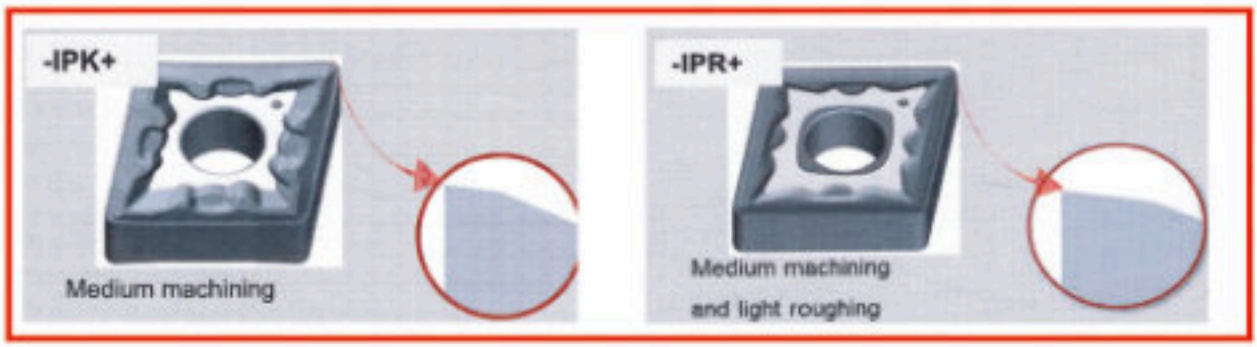


ACCIAIO INOX / STAINLESS STEEL – POSSIBILE APPLICAZIONE PER ACCIAI AL CARBONIO

 		GRADE **BFCM20H IPK+** ACCIAIO INOX/STAINLESS STEEL POSSIBILE APPLICAZIONE SU Fe O ACCIAI AL CARBONIO
CNMG 120404	**d=12,70 l=12,90 s=4,76 r=0,4 d1=5,16**	•
CNMG 120408	**d=12,70 l=12,90 s=4,76 r=0,8 d1=5,16**	•
 		GRADE **BFCM20H IPK+** ACCIAIO INOX/STAINLESS STEEL POSSIBILE APPLICAZIONE SU Fe O ACCIAI AL CARBONIO
DNMG 150604	**d=12,70 l=15,50 s=6,35 r=0,4 d1=5,16**	•
DNMG 150608	**d=12,70 l=15,50 s=6,35 r=0,8 d1=5,16**	•
 		GRADE **BFCM20H IPK+** ACCIAIO INOX/STAINLESS STEEL POSSIBILE APPLICAZIONE SU Fe O ACCIAI AL CARBONIO
WNMG 080404	**d=12,70 l=8,69 s=4,76 r=0,4 d1=5,16**	•
WNMG 080408	**d=12,70 l=8,69 s=4,76 r=0,8 d1=5,16**	•

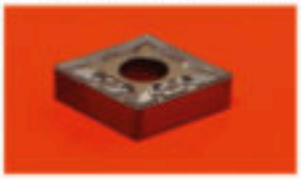
● = A MAGAZZINO \ IN STOCK **+ = CHIEDERE DISPONIBILITA \ ASK FOR AVAILABILITY**

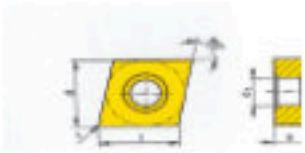




PARAMETRI A PAG. 23

N.B. NELLE FOTOGRAFIE A SEGUIRE E' RAPPRESENTATO IL TIPO IPK+



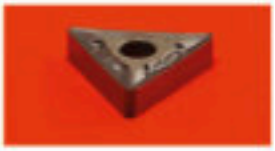


		GRADE BFPM225 IPK+	GRADE BFPM225 IPR+
CNMG 090304	d=9,52 I=9,70 s=3,18 r=0,4 d1=3,81	•	
CNMG 090308	d=9,52 I=9,70 s=3,18 r=0,8 d1=3,81	•	
CNMG 120404	d=12,70 I=12,90 s=4,76 r=0,4 d1=5,16	•	
CNMG 120408	d=12,70 I=12,90 s=4,76 r=0,8 d1=5,16	•	•
CNMG 120412	d=12,70 I=12,90 s=4,76 r=1,2 d1=5,16		•
CNMG 160612	d=15,88 I=16,10 s=6,35 r=1,2 d1=6,35		•
CNMG 160616	d=15,88 I=16,10 s=6,35 r=1,6 d1=6,35		+





		GRADE BFPM225 IPK+	GRADE BFPM225 IPR+
WNMG 060404	d=9,52 I=6,50 s=4,76 r=0,4 d1=3,81	•	
WNMG 060408	d=9,52 I=6,50 s=4,76 r=0,8 d1=3,81	•	
WNMG 080404	d=12,70 I=8,69 s=4,76 r=0,4 d1=5,16	•	
WNMG 080408	d=12,70 I=8,69 s=4,76 r=0,8 d1=5,16	•	•
WNMG 080412	d=12,70 I=8,69 s=4,76 r=1,2 d1=5,16	•	•

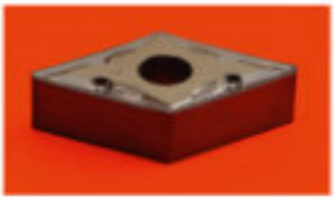




		GRADE BFPM225 IPK+	GRADE BFPM225 IPR+
TNMG 160404	d=9,52 I=16,50 s=4,76 r=0,4 d1=3,81	•	
TNMG 160408	d=9,52 I=16,50 s=4,76 r=0,8 d1=3,81	•	•
TNMG 160412	d=9,52 I=16,50 s=4,76 r=1,2 d1=3,81		•

● = A MAGAZZINO \ IN STOCK + = CHIEDERE DISPONIBILITA '\ ASK FOR AVAILABILITY

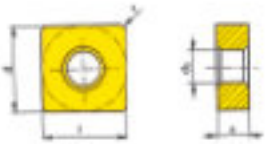
BF SERVICE



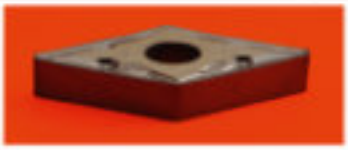


		GRADO BFPM225 IPK+	GRADO BFPM225 IPR+
DNMG 110404	d=9,52 l=11,60 s=4,76 r=0,4 d1=3,81	●	
DNMG 110408	d=9,52 l=11,60 s=4,76 r=0,8 d1=3,81	●	
DNMG 150404	d=12,70 l=15,50 s=4,76 r=0,4 d1=5,16	●	
DNMG 150408	d=12,70 l=15,50 s=4,76 r=0,8 d1=5,16	●	
DNMG 150604	d=12,70 l=15,50 s=6,35 r=0,4 d1=5,16	●	
DNMG 150608	d=12,70 l=15,50 s=6,35 r=0,8 d1=5,16	●	●
DNMG 150612	d=12,70 l=15,50 s=6,35 r=1,2 d1=5,16		●





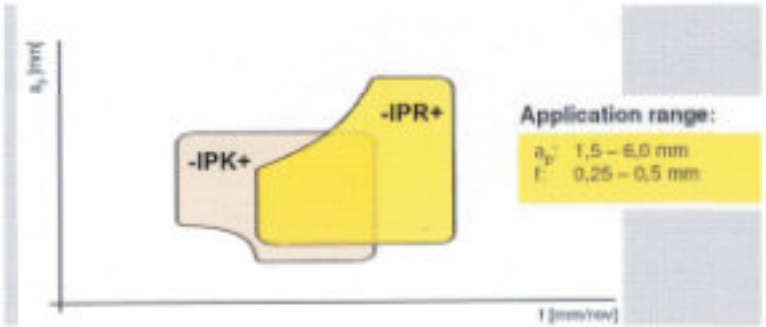
		GRADO BFPM225 IPK+	GRADO BFPM225 IPR+
SNMG 120408	d=12,70 l=12,70 s=4,76 r=0,8 d1=5,16	●	





		GRADO BFPM225 IPK+	GRADO BFPM225 IPR+
VNMG 160404	d=9,52 l=16,60 s=4,76 r=0,4 d1=3,81		
VNMG 160408	d=9,52 l=16,60 s=4,76 r=0,8 d1=3,81	●	

● = A MAGAZZINO \ IN STOCK + = CHIEDERE DISPONIBILITA' \ ASK FOR AVAILABILITY



PARAMETRI A PAG. 23

N.B. NELLE FOTOGRAFIE E' RAPPRESENTATO IL TIPO **IPK+**

BF SERVICE
UTENSILERIA MECCANICA

TORNITURA
TURNING
TOURNAGE
DREHEN
DRAAIEN

GHISA CAST IRON



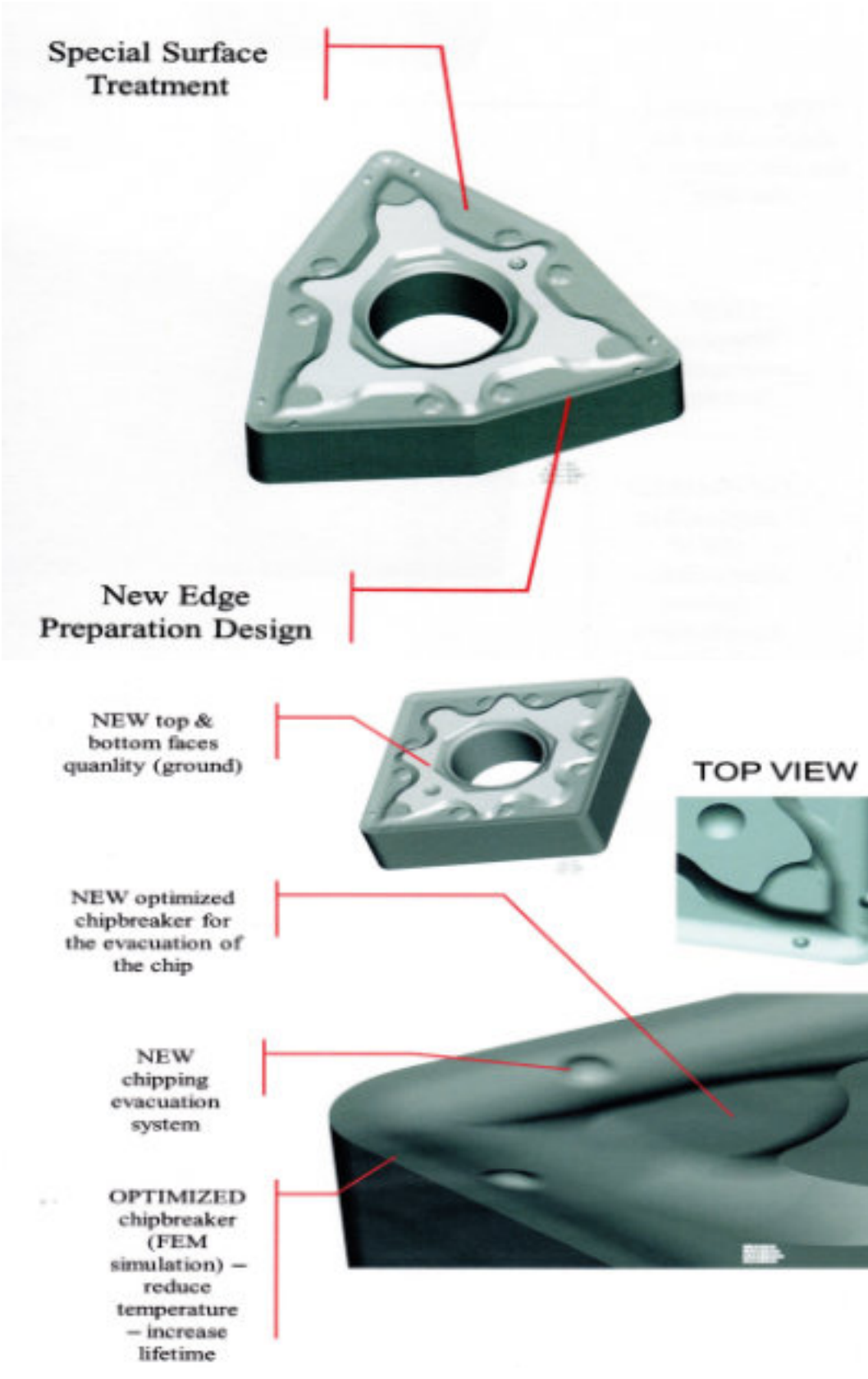
● = A MAGAZZINO \ IN STOCK + = CHIEDERE DISPONIBILITA' \ ASK FOR AVAILABILITY

PARAMETRI DI TAGLIO A PAG. 20	DESCRIZIONE	GRADE BFCK10N	GRADE BFCK20N
	**CNMA 120408EN** d=12,7 l=12,9 s=4,76 r=0,8 d1=5,16	●	●
	CNMA 1204012EN d=12,7 l=12,9 s=4,76 r=1,2 d1=5,16		●
	CNMA 1204016EN d=12,7 l=12,9 s=4,76 r=1,6 d1=5,16		●
	**SNMA 120408EN** d=12,70 l=12,70 s=4,76 r=0,8 d1=5,16		●
	SNMA 120412EN d=12,70 l=12,70 s=4,76 r=1,2 d1=5,16		+
	**DNMA 150608EN** d=12,70 l=15,50 s=6,35 r=0,8 d1=5,16		●
	DNMA 150612EN d=12,70 l=15,50 s=6,35 r=1,2 d1=5,16		+
	**TNMA 160408EN** d=9,52 l=16,50 s=4,76 r=0,8 d1=3,81		●
	TNMA 160412EN d=9,52 l=16,50 s=4,76 r=1,2 d1=3,81		+
	**WNMA 080408EN** d=12,70 l=8,69 s=4,76 r=0,8 d1=5,16		●
	WNMA 080412EN d=12,70 l=8,69 s=4,76 r=1,2 d1=5,16	●	+

BF SERVICE

ROMPITRUCCIOLO
CHIP BREAKER
BRISE COPEAUX
SPANBRECHER
SPAANBREKER

WM+



BF SERVICE

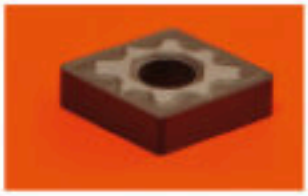
BF SERVICE
UTENSILERIA MECCANICA

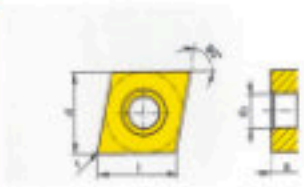
TORNITURA
TURNING
TOURNAGE
DREHEN
DRAAIEN

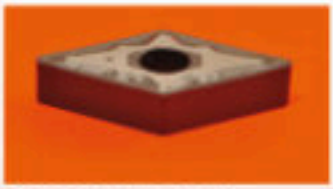
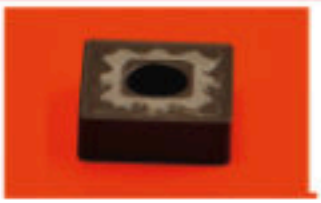
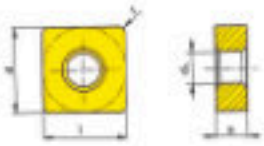
WM+

ROMPITRUCCIOLO
CHIP PREAKER
BRISE COPEAUX
SPANBRECHER
SPAANBREKER





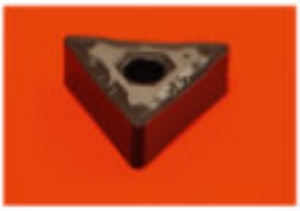
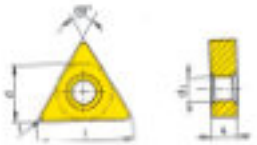
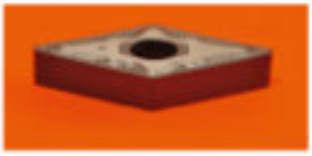
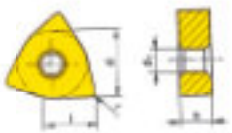


	GRADE BFC115N	GRADE BFC125HP2	GRADE BFC135N	GRADE BFCK20N
CNMG 120404 WM+ d=12,70 l=12,90 s=4,76 r=0,4 d1=5,16	●	●		
CNMG 120408 WM+ d=12,70 l=12,90 s=4,76 r=0,8 d1=5,16	●	●	●	●
CNMG 120412 WM+ d=12,70 l=12,90 s=4,76 r=1,2 d1=5,16	●	●	●	●
 				
DNMG 110404 WM+ d=9,52 l=11,60 s=4,76 r=0,4 d1=3,81	●	●		
DNMG 110408 WM+ d=9,52 l=11,60 s=4,76 r=0,8 d1=3,81	●	●	●	
DNMG 150404 WM+ d=12,70 l=15,50 s=4,76 r=0,4 d1=5,16		●		
DNMG 150408 WM+ d=12,70 l=15,50 s=4,76 r=0,8 d1=5,16		●		
DNMG 150604 WM+ d=12,70 l=15,50 s=6,35 r=0,4 d1=5,16	●	●		
DNMG 150608 WM+ d=12,70 l=15,50 s=6,35 r=0,8 d1=5,16	●	●	●	●
DNMG 150612 WM+ d=12,70 l=15,50 s=6,35 r=1,2 d1=5,16	●	●	●	●
 				
SNMG 120408 WM+ d=12,70 l=12,7 s=4,76 r=0,8 d1=5,16	●	●	●	●
SNMG 120412 WM+ d=12,70 l=12,7 s=4,76 r=1,2 d1=5,16	●	●	●	

● = A MAGAZZINO \ IN STOCK + = CHIEDERE DISPONIBILITA' \ ASK FOR AVAILABILITY

PARAMETRI DI TAGLIO A PAG. 23

BF SERVICE

	GRADE BFC115N	GRADE BFC125HP2	GRADE BFC135N	GRADE BFCK20N
 				
TNMG 160404 WM+ d=9,52 l=16,50 s=4,76 r=0,4 d1=3,81	●	●		
TNMG 160408 WM+ d=9,52 l=16,50 s=4,76 r=0,8 d1=3,81	●	●	●	●
TNMG 160412 WM+ d=9,52 l=16,50 s=4,76 r=1,2 d1=3,81	●	●		●
TNMG 220404 WM+ d=12,7 l=22,00 s=4,76 r=0,4 d1=5,16		●		
TNMG 220408 WM+ d=12,7 l=22,00 s=4,76 r=0,8 d1=5,16		●		●
 				
VNMG 160404 WM+ d=9,52 l=16,60 s=4,76 r=0,4 d1=3,81	●	●		
VNMG 160408 WM+ d=9,52 l=16,60 s=4,76 r=0,8 d1=3,81	●	●		
 				
WNMG 060404 WM+ d=9,52 l=6,50 s=4,76 r=0,4 d1=3,81	●	●		
WNMG 060408 WM+ d=9,52 l=6,50 s=4,76 r=0,8 d1=3,81	●	●		
WNMG 080404 WM+ d=12,70 l=8,69 s=4,76 r=0,4 d1=5,16	●	●		
WNMG 080408 WM+ d=12,70 l=8,69 s=4,76 r=0,8 d1=5,16	●	●	●	●
WNMG 080412 WM+ d=12,70 l=8,69 s=4,76 r=1,2 d1=5,16	●	●	●	●

● = A MAGAZZINO \ IN STOCK + = CHIEDERE DISPONIBILITA \ ASK FOR AVAILABILITY

PARAMETRI TAGLIO VEDI PAG. 23

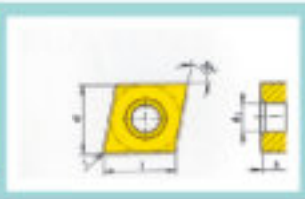
BF SERVICE
UTENSILERIA MECCANICA

NEW GRADE BFC125HP2

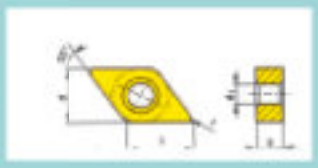
WM+

ROMPITRUCCIOLO
CHIP PREAKER
BRISE COPEAUX
SPANBRECHER
SPAANBREKER

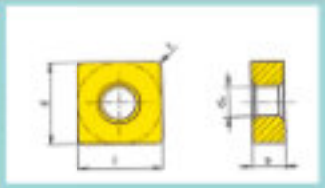


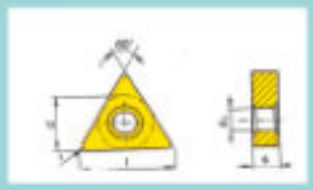
CNMG 120408 WM+ BFC125HP2
d=12,70 l=12,90 s=4,76 r=0,8 d1=5,16
CNMG 120412 WM+ BFC125HP2
d=12,70 l=12,90 s=4,76 r=1,2 d1=5,16

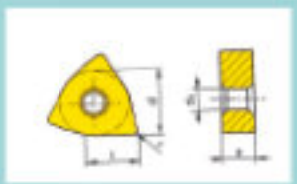
DNMG 150608 WM+ BFC125HP2
d=12,70 l=15,50 s=6,35 r=0,8 d1=5,16

SNMG 120408 WM+ BFC125HP2
d=12,70 l=12,70 s=4,76 r=0,8 d1=5,16

TNMG 160408 WM+ BFC125HP2
d=9,52 l=16,50 s=4,76 r=0,8 d1=3,81

WNMG 080408 WM+ BFC125HP2
d=12,70 l=8,69 s=4,76 r=0,8 d1=5,16
WNMG 080412 WM+ BFC125HP2
d=12,70 l=8,69 s=4,76 r=1,2 d1=5,16

Work piece material		Type of treatment/alloy	Hardness HB	v_c [m/min]	Application Chip groove	Depth of cut and feed rate a_p [mm]	f [mm]
P	Steel	Non alloyed steel 0 - 0,45 % C	150 – 250	170 – 270	WM+	1 to 4	0,44 to 0,22
		Low alloyed steel	250 – 300	100 – 210	Ex: CNMG 120408-WM+ for CK60		
		High alloyed steel	200	130 – 230	Different in each application		
		Corrosion resistant steel	200	130 – 230			
M	Stainless steel	Ferritic	200	140 – 210			
		Austenitic	180	100 – 210			
		Duplex	230 – 260	–			
		Martensitic	350	70 – 100			
K	Cast iron	Grey cast iron	180	130 – 210			
		Spheroidal	180	120 – 240			
		Malleable/Tempered iron	130	150 – 250			

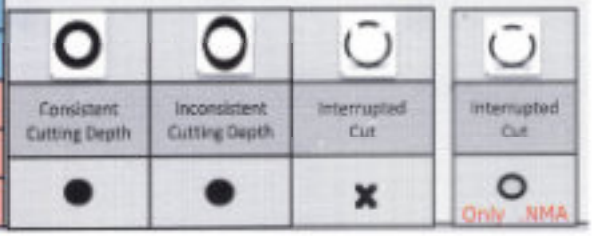
Consistent cutting depth	Inconsistent cutting depth	Interrupted cut
•	•	○

GRADE BFC125HP2

BF SERVICE

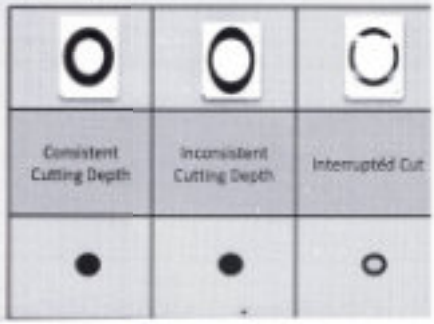
General cutting parameters depending on the application

Work Piece material	909+ GHISA		Coated Carbide BFCK20N	Application	Depth of Cut and Feed rate	
	Type of treatment / alloy	Hardness HB	VC: m/min	Chip Groove	ap (mm)	f (mm)
Steel	Non alloyed steel 0-0.45% C	150-250	200-340	909+	2.0 to 4.8	0.48 to 0.30
Steel	Low alloyed steel	250-300	150-290	Ex: CNM. 120408-909+ for GC25		
Steel	High alloyed steel	200	150-290	Different in each application		
Steel	Corrosion resistant steel	200	160-290			
Cast iron	Grey cast iron	180	150-400			
Cast iron	Spheroidal	160	200-450			
Cast iron	Malleable / Tempered iron	130	200-550			



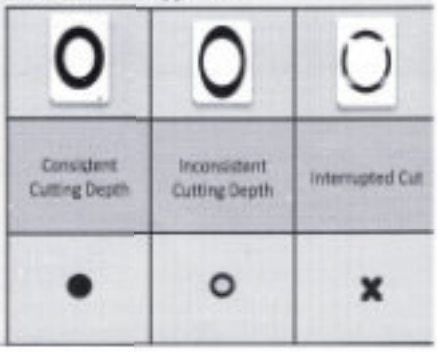
General cutting parameters depending on the application

Work Piece material	WM+		Coated Carbide BFC115N	BFC125HP2	BFC135N	Application	Depth of Cut and Feed rate	
	Type of treatment / alloy	Hardness HB	VC: m/min	VC: m/min	VC: m/min	Chip Groove	ap (mm)	f (mm)
Steel	Non alloyed steel 0-0.45% C	150-250	220-400	170-240	170-190	WM+	1.5 to 5.0	0.50 to 0.30
Steel	Low alloyed steel	250-300	200-320	100-190	90-150			
Steel	High alloyed steel	200	190-320	130-210	120-200	Different in each application		
Steel	Corrosion resistant steel	200	200-320	130-210	120-190			
Stainless steel	Ferritic	200	220-320	140-210	140-200			
Stainless steel	Austenitic	180	-	100-210	110-190			
Stainless steel	Duplex	230-260	-	-	80-150			
Stainless steel	Martensitic	330	-	70-100	55-75			
Cast iron	Grey cast iron	180	140-370	130-210	-			
Cast iron	Spheroidal	160	190-430	120-240	-			
Cast iron	Malleable / Tempered iron	130	180-520	150-250	-			



General cutting parameters depending on the application

Work Piece material	909+		Coated Carbide BFC115N	BFC125HP2	BFC135N	Application	Depth of Cut and Feed rate	
	Type of treatment / alloy	Hardness HB	VC: m/min	VC: m/min	VC: m/min	Chip Groove	ap (mm)	f (mm)
Steel	Non alloyed steel 0-0.45% C	150-250	220-400	170-240	170-190	909+	3.2 to 7.6	1.00 to 0.60
Steel	Low alloyed steel	250-300	200-320	100-190	90-150			
Steel	High alloyed steel	200	190-320	130-210	120-200	Ex: CNMG 190616-909+ for CK60		
Steel	Corrosion resistant steel	200	200-320	130-210	120-190	Different in each application		
Stainless steel	Ferritic	200	220-320	140-210	140-200			
Stainless steel	Austenitic	180	-	100-210	110-190			
Stainless steel	Duplex	230-260	-	-	80-150			
Stainless steel	Martensitic	330	-	70-100	55-75			
Cast iron	Grey cast iron	180	140-370	130-210	-			
Cast iron	Spheroidal	160	190-430	120-240	-			
Cast iron	Malleable / Tempered iron	130	180-520	150-250	-			



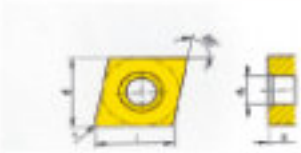
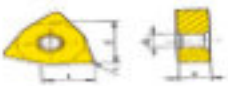
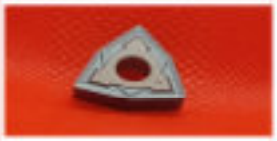
BF SERVICE
UTENSILERIA MECCANICA

IPE+

- INOSSIDABILI AD ELEVATA RESISTENZA
- LEGHE DI TITANIO
- SUPERLEGHE
- EXOTIC MATERIALS

ROMPITRUCCIOLO
CHIP PREAKER
BRISE COPEAUX
SPANBRECHER
SPAANBREKER



 BFP511N	GRADE BFP511N		GRADE BFP501N	 BFP501N
CNMG 120404 IPE+	•	d=12,70 l=12,90 s=4,76 r=0,4 1=5,16	•	CNMG 120404 IPE+
CNMG 120408 IPE+	•	d=12,70 l=12,90 s=4,76 r=0,8 1=5,16	•	CNMG 120408 IPE+
 TNMG 160404 IPE+	+	 d=9,52 l=16,50 s=4,76 r=0,4 1=3,81	+	 TNMG 160404 IPE+
TNMG 160408 IPE+	•	d=9,52 l=16,50 s=4,76 r=0,8 1=3,81	•	TNMG 160408 IPE+
TNMG 220408 IPE+	•	d=12,7 l=22,00 s=4,76 r=0,8 1=5,16	•	TNMG 220408 IPE+
 WNMG 080404 IPE+	+	 d=12,7 l=8,69 s=4,76 r=0,4 1=5,16	+	 WNMG 080404 IPE+
WNMG 080408 IPE+	•	d=12,7 l=8,69 s=4,76 r=0,8 1=5,16	•	WNMG 080408 IPE+
 DNMG 150604 IPE+	+	 d=12,7 l=15,50 s=6,35 r=0,4 1=5,16	+	 DNMG 150604 IPE+
DNMG 150608 IPE+	•	d=12,7 l=15,50 s=6,35 r=0,8 1=5,16	•	DNMG 150608 IPE+
 SNMG 120408 IPE+	•	 d=12,7 l=12,7 s=4,76 r=0,8 1=5,16	•	 SNMG 120408 IPE+
 VNMG 160408 IPE+	+	 D=9,52 l=16,60 s=4,76 r=0,8 1=3,81	+	 VNMG 160408 IPE+

PER PARAMETRI DI TAGLIO CONSULTARE TABELLA PAG. 23

BF SERVICE

General cutting parameters depending on the application

HD5

Work piece material		Type of treatment/alloy	Hardness HB	Coated carbide BFC115N VC: [m/min]	Coated carbide BFC125HP2 VC: [m/min]	Coated carbide BFC135N VC: [m/min]
P	Steel	Non alloyed steel 0 - 0.45 % C	150 – 250	220 – 400	170 – 240	170 – 190
		Low alloyed steel	250 – 300	200 – 320	100 – 190	90 – 150
		High alloyed steel	200	180 – 320	130 – 210	120 – 200
		Corrosion resistant steel	200	200 – 320	130 – 210	140 – 180
M	Stainless steel	Ferritic	200	220 – 320	140 – 210	140 – 200
		Austenitic	180	–	100 – 210	110 – 190
		Duplex	230 – 280	–	–	80 – 150
		Martensitic	330	–	70 – 100	55 – 75
K	Cast iron	Grey cast iron	180	140 – 370	130 – 210	–
		Spheroidal	160	190 – 430	120 – 240	–
		Malleable/Tempered iron	130	180 – 520	150 – 250	–

Application	Depth of cut and feed rate	
Chip groove	ap [mm]	f (mm)
HD5	2.0 to 12.0	0.80 to 0.30

Ex: CNMM 190616-HD5 for CK60
Different in each application



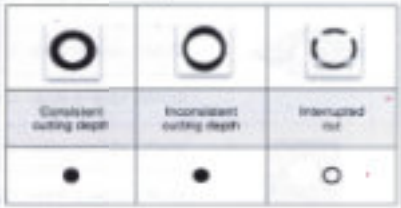
General cutting parameters depending on the application

WR+

Work piece material		Type of treatment/alloy	Hardness HB	Coated carbide BFC115N VC: [m/min]	Coated carbide BFC125HP2 VC: [m/min]	Coated carbide BFC135N VC: [m/min]
P	Steel	Non alloyed steel 0 - 0.45 % C	150 – 250	220 – 400	170 – 240	170 – 190
		Low alloyed steel	250 – 300	200 – 320	100 – 190	90 – 150
		High alloyed steel	200	180 – 320	130 – 210	120 – 200
		Corrosion resistant steel	200	200 – 320	130 – 210	140 – 180
M	Stainless steel	Ferritic	200	220 – 320	140 – 210	140 – 200
		Austenitic	180	–	100 – 210	110 – 190
		Duplex	230 – 280	–	–	80 – 150
		Martensitic	330	–	70 – 100	55 – 75
K	Cast iron	Grey cast iron	180	140 – 370	130 – 210	–
		Spheroidal	160	190 – 430	120 – 240	–
		Malleable/Tempered iron	130	180 – 520	150 – 250	–

Application	Depth of cut and feed rate	
Chip groove	ap [mm]	f (mm)
WR+	1.5 to 5.0	0.50 to 0.30

Ex: CNMG 120408-WR+ for CK60
Different in each application



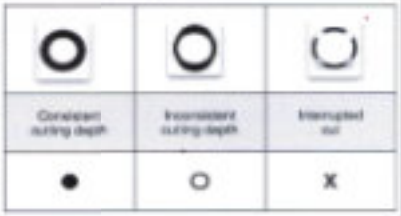
General cutting parameters depending on the application

WL+

Work piece material		Type of treatment/alloy	Hardness HB	Coated carbide BFC115N VC: [m/min]	Coated carbide BFC125HP2 VC: [m/min]	Coated carbide BFC135N VC: [m/min]
P	Steel	Non alloyed steel 0 - 0.45 % C	150 – 250	220 – 400	170 – 240	170 – 190
		Low alloyed steel	250 – 300	200 – 320	100 – 190	90 – 150
		High alloyed steel	200	180 – 320	130 – 210	120 – 200
		Corrosion resistant steel	200	200 – 320	130 – 210	140 – 180
M	Stainless steel	Ferritic	200	220 – 320	140 – 210	140 – 200
		Austenitic	180	–	100 – 210	110 – 190
		Duplex	230 – 280	–	–	80 – 150
		Martensitic	330	–	70 – 100	55 – 75
K	st iron	Grey cast iron	180	–	–	–
		Spheroidal	160	–	–	–

Application	Depth of cut and feed rate	
Chip groove	ap [mm]	f (mm)
WL+	0.5 to 2	0.2 to 0.1

Ex: CNMG 120408-WL+ for CK60
Different in each application



General cutting parameters depending on the application

EXK+

Work piece material		Type of treatment/alloy	Hardness HB	Coated carbide BFP212 Vc [m/min]
M	Stainless steel	Ferritic	200	150 – 200
		Austenitic	180	120 – 200
		Duplex	230 – 280	90 – 160
		Martensitic	330	60 – 80
K	Cast iron	Grey cast iron	180	120 – 160
		Spheroidal	160	120 – 160
		Malleable / Tempered iron	130	140 – 220
N	Non Ferrous		100	100 – 400
			150	100 – 400
			90	100 – 600
			100	100 – 400
S	Exotic	Fe base	200	20 – 50
		Nickel or Kobalt base	250	20 – 50
		Nickel or Kobalt base	250	15 – 40
		Nickel or Kobalt base		20 – 35
		Titanium	Rm 440°	60 – 140

Application	Depth of cut and feed rate	
Chip groove	ap [mm]	f (mm)
EXK+	0.5 to 2.5	0.25 to 0.10

Ex: CNGP 120408-EXK+ for [illegible]
Different in each application



General cutting parameters depending on the application

Work Piece material	IPK+ / IPR+		Coated Carbide BFPM225	Coated Carbide BFPM235	Application	Depth of Cut and Feed rate	
	Type of treatment / alloy	Hardness HB	VC: m/min	VC: m/min	Chip Groove	ap (mm)	f (mm)
Steel	Non alloyed steel 0-0.45% C	150-250	130-250	170-190	IPK+ / IPR+	1.0-4.2 / 1.5-6.0	0.4-0.22 / 0.5-0.25
Steel	Low alloyed steel	250-300	60-180	80-150			
Steel	High alloyed steel	200	80-200	120-200			
Steel	Corrosion resistant steel	200	100-200	140-180			
Stainless steel	Ferritic	200	120-250	140-200			
Stainless steel	Austenitic	180	100-220	130-190			
Stainless steel	Duplex	230-260	60-160	80-150			
Stainless steel	Martensitic	330	40-100	55-75			

Ex: CNMG 120408-IPR+ for 304
Different in each application

Consistent Cutting Depth	Inconsistent Cutting Depth	Interrupted Cut
●	●	○

General cutting parameters depending on the application

Work Piece material	WM+ GHISA		Coated Carbide BFCK20N	Application	Depth of Cut and Feed rate	
	Type of treatment / alloy	Hardness HB	VC: m/min	Chip Groove	ap (mm)	f (mm)
Steel	Non alloyed steel 0-0.45% C	150-250	200-340	WM+	1.0 to 3.0	0.41 to 0.22
Steel	Low alloyed steel	250-300	150-290			
Steel	High alloyed steel	200	150-290			
Steel	Corrosion resistant steel	200	160-290			
Cast iron	Grey cast iron	180	150-400			
Cast iron	Spheroidal	160	200-450			
Cast iron	Malleable / Tempered iron	130	200-550			

Ex: CCMT 09T308-WM+ for GG25
Different in each application

Consistent Cutting Depth	Inconsistent Cutting Depth	Interrupted Cut
●	●	✖

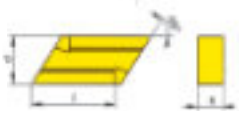
General cutting parameters depending on the application

Work Piece material	IPE+		Coated Carbide BFP501N	Coated Carbide BFP511N	Application	Depth of Cut and Feed rate	
	Type of treatment / alloy	Hardness HB	VC: m/min	VC: m/min	Chip Groove	ap (mm)	f (mm)
Stainless steel	Ferritic	200	150-230	130-220	IPE+	0.8 to 3.0	0.30 to 0.10
Stainless steel	Austenitic	180	140-190	120-180			
Stainless steel	Duplex	230-260	60-100	50-90			
Stainless steel	Martensitic	330	-	-			
Exotic	Febase	200	80-120	80-120			
Exotic	Nickel or Kobalt base	280	60-100	60-100			
Exotic	Nickel or Kobalt base	250	35-90	35-90			
Exotic	Nickel or Kobalt base		30-50	30-50			
Exotic	Titanium	Rm 440*	70-120	70-120			

Ex: CNMG 120408-IPE+ for Super Alliage
Different in each application

Consistent Cutting Depth	Inconsistent Cutting Depth	Interrupted Cut
●	○	✖

BF SERVICE

KNUX	GRADE BLC222	GRADE BL42	GRADE BFC125HP2	GRADE BFPM225
  **KNUX ...ER**				
160405ER.N11 d=9,52 l=16,00 s=4,76 r=0,5	●	●		
  **KNUX...EL**				
160405EL.N11 d=9,52 l=16,00 s=4,76 r=0,5	●	●		
 				
160405ER N11 d=9,52 l=16,00 s=4,76 r=0,5			●	●
160405EL N11 d=9,52 l=16,00 s=4,76 r=0,5			●	●
160410ER N11 d=9,52 l=16,00 s=4,76 r=1,0			●	+
160410EL N11 d=9,52 l=16,00 s=4,76 r=1,0			●	+

General cutting parameters depending on the application

Work piece material		Type of treatment/alloy	Hardness HB	Coated carbide BFC115 VC: [m/min]	Coated carbide BFC125HP2 VC: [m/min]	Coated carbide BLC222 VC: [m/min]	BFPM 225 BL42 VC: [m/min]
P	Steel	Non alloyed steel 0 - 0.45 % C	150 – 250	220 – 400	170 – 240	170 – 200	170 – 190
		Low alloyed steel	250 – 300	200 – 320	100 – 190	90 – 160	90 – 150
		High alloyed steel	200	160 – 320	130 – 210	130 – 170	120 – 200
		Corrosion resistant steel	200	200 – 320	130 – 210	130 – 180	140 – 180
M	Stainless steel	Ferritic	200	220 – 320	140 – 210	140 – 180	140 – 200
		Austenitic	180	–	100 – 210	100 – 170	110 – 150
		Duplex	230 – 260	–	–	–	80 – 150
		Martensitic	330	–	70 – 100	–	55 – 75
K	Cast iron	Grey cast iron	180	140 – 370	130 – 210	–	–
		Spheroidal	160	190 – 430	120 – 240	–	–
		Malleable/Tempered iron	130	160 – 520	150 – 250	–	–

BF SERVICE
UTENSILERIA MECCANICA

TORNITURA TURNING TOURNAGE DREHEN DRAAIEN
POSITIVE INSERTS-PLAQUETTES POSITIVES
POSITIVE WENDEPLATTEN-POSITIEVE WISSELPLATEN

General cutting parameters depending on the application

Work piece material		FN-EF		Coated carbide BFP212	Application	Depth of cut and feed rate	
		Type of treatment/alloy	Hardness HB	Vc [m/min]	Chip groove	ap [mm]	f (mm)
M	Stainless steel	Ferritic	200	150 – 200	FN-EF	0.05 to 1.35	0.02 to 0.1
		Austenitic	180	120 – 200			
		Duplex	230 – 260	90 – 160			
		Martensitic	330	60 – 80			
K	Cast iron	Grey cast iron	180	120 – 160			
		Spheroidal	160	120 – 160			
		Malleable / Tempered iron	130	140 – 220			
N	Non Ferrous		100	100 – 400			
			130	100 – 400			
			90	100 – 600			
			100	100 – 400			
S	Exotic	Fe base	200	20 – 50			
		Nickel or Kobalt base	280	20 – 50			
		Nickel or Kobalt base	250	15 – 40			
		Nickel or Kobalt base		20 – 35			
		Titanium	Rm 440°	60 – 140			

Ex: CPGT 09T0301..-EF for 304
Different in each application

Consistent cutting depth	Inconsistent cutting depth	Interrupted cut
●	X	X

General cutting parameters depending on the application

Work piece material		JF		Cermet TC10C	Application	Depth of cut and feed rate	
		Type of treatment/alloy	Hardness HB	Vc [m/min]	Chip groove	ap [mm]	f (mm)
P	Steel	Non alloyed steel 0 - 0.45 % C	150 – 250	230 – 270	JF	0.1 to 1.85	0.20 to 0.05
		Low alloyed steel	250 – 300	180 – 230			
		High alloyed steel	200	180 – 200			
		Corrosion resistant steel	200	230 – 270			
M	Stainless steel	Ferritic	200	170 – 240			
		Austenitic	180	200 – 240			
		Duplex	230 – 260	–			
		Martensitic	330	130 –160			
K	Cast iron	Grey cast iron	180	–			
		Sphercidal	160	220 – 300			
		Malleable/Tempered iron	130	250 – 350			

Ex: CCMT 09T304-JF
Different in each application

Consistent cutting depth	Inconsistent cutting depth	Interrupted cut
●	X	X



BF SERVICE

BF SERVICE
UTENSILERIA MECCANICA

TORNITURA
TURNING
TOURNAGE
DREHEN
DRAAIEN

EF

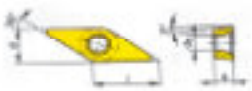
ROMPITRUCCIOLO
CHIP PREAKER
BRISE COPEAUX
SPANBRECHER
SPAANBREKER



PARAMETRI TAGLIO A PAG. 25

	UNCOATED GRADE K10 S	COATED GRADE BFP212	CERMET GRADE TC10C
  **CCGT**			
CCGT 060200FN-EF d=6,35 l=6,40 s=2,38 r=0,00 d1=2,80	+	●	+
CCGT 060201FN-EF d=6,35 l=6,40 s=2,38 r=0,10 d1=2,80	+	●	+
CCGT 060202FN.EF d=6,35 l=6,40 s=2,38 r=0,20 d1=2,80	+	+	+
CCGT 09T300FN-EF d=9,52 l=9,70 s=3,97 r=0,00 d1=4,40	+	●	+
CCGT 09T301FN-EF d=9,52 l=9,70 s=3,97 r=0,10 d1=4,40	+	●	+
CCGT 09T302FN-EF d=9,52 l=9,70 s=3,97 r=0,20 d1=4,40	+	+	+

	UNCOATED GRADE K10 S	COATED GRADE BFP212	CERMET GRADE TC10C
  **DCGT**			
DCGT 070200ENFN d=6,35 l=7,75 s=2,38 r=0,00 d1=2,80	+	●	+
DCGT 070201ENFN d=6,35 l=7,75 s=2,38 r=0,10 d1=2,80	+	●	+
DCGT 11T300ENFN d=9,52 l=11,60 s=3,97 r=0,00 d1=4,40	+	●	+
DCGT 11T301ENFN d=9,52 l=11,60 s=3,97 r=0,10 d1=4,40	+	●	+

	UNCOATED GRADE K10 S	COATED GRADE BFP212	CERMET GRADE TC10C
  **VCGT**			
VCGT 110300ENFN d=6,35 l=11,10 s=3,18 r=0,00 d1=2,80	+	●	+
VCGT 110301ENFN d=6,35 l=11,10 s=3,18 r=0,10 d1=2,80	+	●	+
VCGT 160400ENFN d=9,52 l=16,60 s=4,76 r=0,00 d1=4,40	+	●	+
VCGT 160401ENFN d=9,52 l=16,60 s=4,76 r=0,10 d1=4,40	+	●	+

● = A MAGAZZINO \ IN STOCK + = CHIEDERE DISPONIBILITA \ ASK FOR AVAILABILITY

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UTENSILERIA MECCANICA

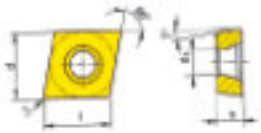
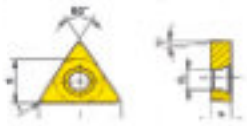
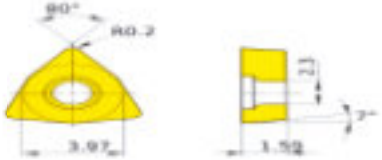
TORNITURA
TURNING
TOURNAGE
DREHEN
DRAAIEN

JF

ROMPITRUCCIOLO
CHIP PREAKER
BRISE COPEAUX
SPANBRECHER
SPAANBREKER



PARAMETRI DI TAGLIO A PAG. 25

		CERMET GRADE TC10C	TC10C
 **CCMT**			
CCMT 060202 JF	d=6,35 l=6,40 s=2,38 r=0,20 d1=2,80	+	
CCMT 060204 JF	d=6,35 l=6,40 s=2,38 r=0,40 d1=2,80	●	
CCMT 09T302 JF	d=9,52 l=9,70 s=3,97 r=0,20 d1=4,40	+	
CCMT 09T304 JF	d=9,52 l=9,70 s=3,97 r=0,40 d1=4,40	●	
 **DCMT**			
DCMT 070204 JF	d=6,35 l=7,75 s=2,38 r=0,40 d1=2,8	●	
DCMT 11T302 JF	d=9,52 l=11,60 s=3,97 r=0,20 d1=4,4	+	
DCMT 11T304 JF	d=9,52 l=11,60 s=3,97 r=0,40 d1=4,4	●	
 **TCMT**			
TCGT 110202 JF	d=6,35 l=11,00 s=2,38 r=0,20 d1=2,8	+	
TCMT 110204 JF	d=6,35 l=11,00 s=2,38 r=0,40 d1=2,8	●	
 **WCGT**			
WCGT 020102 JF		●	

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UTENSILERIA MECCANICA

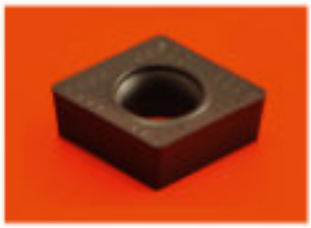
TORNITURA
TURNING
TOURNAGE
DREHEN
DRAAIEN

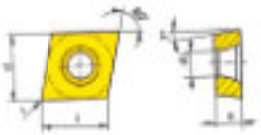
WM+

ROMPITRUCCIOLO
CHIP PREAKER
BRISE COPEAUX
SPANBRECHER
SPAANBREKER

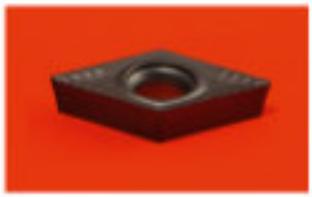


PARAMETRI A PAG. 34





	GRADE BFC115N	GRADE BFPM225	GRADE BFC125HP2	GRADE BFCK20N
CCMT 060204 WM+ d=6,35 l=6,40 s=2,38 r=0,40 d1=2,80	●	●	●	●
CCMT 060208 WM+ d=6,35 l=6,40 s=2,38 r=0,80 d1=2,80	●	●	●	+
CCMT 09T304 WM+ d=9,52 l=9,70 s=3,97 r=0,40 d1=4,40	●	●	●	●
CCMT 09T308 WM+ d=9,52 l=9,70 s=3,97 r=0,80 d1=4,40	●	●	●	●
CCMT 120404 WM+ d=12,70 l=12,90 s=4,76 r=0,40 d1=5,30		●	●	+
CCMT 120408 WM+ d=12,70 l=12,90 s=4,76 r=0,80 d1=5,30		●	●	●
CCMT 120412 WM+ d=12,70 l=12,90 s=4,76 r=1,20 d1=5,30		●	●	+





DCMT 070204 WM+ d=6,35 l=7,75 s=2,38 r=0,40 d1=2,80		●	●	●
DCMT 070208 WM+ d=6,35 l=7,75 s=2,38 r=0,80 d1=2,80		●	●	+
DCMT 11T304 WM+ d=9,52 l=11,60 s=3,97 r=0,40 d1=4,40	●	●	●	●
DCMT 11T308 WM+ d=9,52 l=11,60 s=3,97 r=0,80 d1=4,40	●	●	●	●

● = A MAGAZZINO \ IN STOCK + = CHIEDERE DISPONIBILITA \ ASK FOR AVAILABILITY

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UTENSILERIA MECCANICA

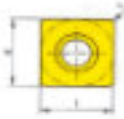
TORNITURA
TURNING
TOURNAGE
DREHEN
DRAAIEN

WM+

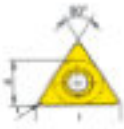
ROMPITRUCCIOLO
CHIP PREAKER
BRISE COPEAUX
SPANBRECHER
SPAANBREKER



● = A MAGAZZINO \ IN STOCK + = CHIEDERE DISPONIBILITA \ ASK FOR AVAILABILITY

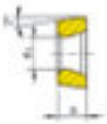



	GRADE BFC115N	GRADE BFPM225	GRADE BFC125HP2	GRADE BFC135N	GRADE BFCK20N
SCMT 09T304 WM+ d=9,52 l=9,52 s=3,97 r=0,40 d1=4,40		●	●		●
SCMT 09T308 WM+ d=9,52 l=9,52 s=3,97 r=0,80 d1=4,40		●	●		●
SCMT 120404 WM+ d=12,70 l=12,70 s=4,76 r=0,40 d1=5,30	●	●	●		+
SCMT 120408 WM+ d=12,70 l=12,70 s=4,76 r=0,80 d1=5,30		●	●		●
SCMT 120412 WM+ d=12,70 l=12,70 s=4,76 r=1,20 d1=5,30		●	●		+

TCMT 090204 WM+ d=5,56 l=9,60 s=2,38 r=0,40 d1=2,50		●	●		●
TCMT 110204 WM+ d=6,35 l=11,00 s=2,38 r=0,40 d1=2,80	●	●	●		●
TCMT 110208 WM+ d=6,35 l=11,00 s=2,38 r=0,80 d1=2,80		●	●		●
TCMT 16T304 WM+ d=9,52 l=16,50 s=3,97 r=0,40 d1=4,40		●	●		●
TCMT 16T308 WM+ d=9,52 l=16,50 s=3,97 r=0,80 d1=4,40		●	●		●
TCMT 16T312 WM+ d=9,52 l=16,50 s=3,97 r=1,20 d1=4,40		●	●		+





RCMT 0803MO WM+ d=8,00 l=8,00 s=3,18 r=4,00 d1=3,40				●	
RCMT 1003MO WM+ d=10,00 l=10,00 s=3,18 r=5,00 d1=4,00				●	
RCMT 1204MO WM+ d=12,00 l=12,00 s=4,76 r=6,00 d1=4,90				●	

PARAMETRI A PAG. 34

BF SERVICE

BF SERVICE
UTENSILERIA MECCANICA

TORNITURA
TURNING
TOURNAGE
DREHEN
DRAAIEN

WM+

ROMPITRUCCIOLO
CHIP PREAKER
BRISE COPEAUX
SPANBRECHER
SPAANBREKER



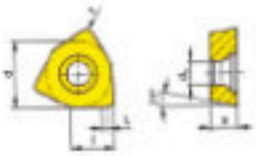
PARAMETRI DI TAGLIO PAG. 34





	GRADE BFC115N	GRADE BFPM225	GRADE BFC125HP2	GRADE BFCK20N
VCMT 110304 WM+ d=6,35 l=11,10 s=3,18 r=0,40 d1=2,80		●	●	+
VCMT 110308 WM+ d=6,35 l=11,10 s=3,18 r=0,80 d1=2,80		●	●	+
VCMT 160404 WM+ d=9,52 l=16,60 s=4,76 r=0,40 d1=4,40	●	●	●	+
VCMT 160408 WM+ d=9,52 l=16,60 s=4,76 r=0,80 d1=4,40	+	●	●	+





WCMT 040204 WM+ d=6,35 l=4,30 s=2,38 r=0,40 d1=2,80		●	●	+
WCMT 040208 WM+ d=6,35 l=4,30 s=2,38 r=0,80 d1=2,80		●	●	+
WCMT 050308 WM+ d=7,94 l=5,40 s=3,18 r=0,80 d1=3,20		+	+	+
WCMT 06T304 WM+ d=9,52 l=6,50 s=3,97 r=0,40 d1=4,40		●	●	+
WCMT 06T308 WM+ d=9,52 l=6,50 s=3,97 r=0,80 d1=4,40		●	●	+
WCMT 080404 WM+ d=12,70 l=8,7 s=4,76 r=0,40 d1=5,50		●	●	+
WCMT 080408 WM+ d=12,70 l=8,7 s=4,76 r=0,80 d1=5,50		●	●	+
WCMT 080412 WM+ d=12,70 l=8,7 s=4,76 r=1,20 d1=5,50		●	●	+

● = A MAGAZZINO \ IN STOCK + = CHIEDERE DISPONIBILITA \ ASK FOR AVAILABILITY

BF SERVICE
UTENSILERIA MECCANICA

TORNITURA
TURNING
TOURNAGE
DREHEN
DRAAIEN

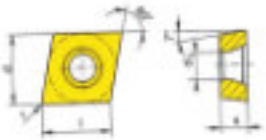
WSF+

ROMPITRUCCIOLO
CHIP PREAKER
BRISE COPEAUX
SPANBRECHER
SPAANBREKER



PARAMETRI DI TAGLIO PAG. 34

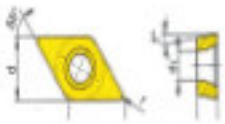




CCMT

	GRADE BFCM20H NEW PER INOX E PER ACCIAI AL CARBONIO	GRADE BFPM225	GRADE BFC115 N	GRADE BFC125HP2	GRADE BFC135N
CCMT 060202 WSF+ d=6,35 l=6,40 s=2,38 r=0,20 d1=2,8	●	●		●	
CCMT 060204 WSF+ d=6,35 l=6,40 s=2,38 r=0,40 d1=2,8	●	●	●	●	
CCMT 09T302 WSF+ d=9,52 l=9,70 s=3,97 r=0,20 d1=4,40	●	●		●	
CCMT 09T304 WSF+ d=9,52 l=9,70 s=3,97 r=0,40 d1=4,40	●	●	●	●	
CCMT 09T308 WSF+ d=9,52 l=9,70 s=3,97 r=0,80 d1=4,40	+	●	●	●	●
CCMT 120404 WSF+ d=12,70 l=12,90 s=4,76 r=0,40 d1=5,30			●	+	
CCMT 120408 WSF+ d=12,70 l=12,90 s=4,76 r=0,80 d1=5,30		+		+	





DCMT

DCMT 070202 WSF+ d=6,35 l=7,75 s=2,38 r=0,20 d1=2,80	●	●		●	
DCMT 070204 WSF+ d=6,35 l=7,75 s=2,38 r=0,40 d1=2,80	●	●	●	●	
DCMT 11T302 WSF+ d=9,52 l=11,60 s=3,97 r=0,20 d1=4,40	●	●		●	
DCMT 11T304 WSF+ d=9,52 l=11,60 s=3,97 r=0,40 d1=4,40	●	●	+	●	
DCMT 11T308 WSF+ d=9,52 l=11,60 s=3,97 r=0,80 d1=4,40	+	●		●	+

BF SERVICE

BF SERVICE
UTENSILERIA MECCANICA

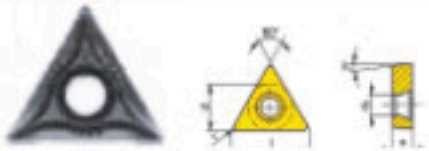
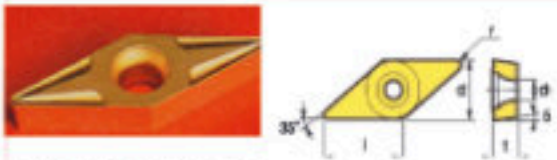
TORNITURA
TURNING
TOURNAGE
DREHEN
DRAAIEN

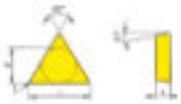
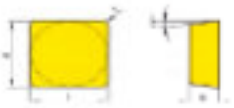
WSF+

ROMPITRUCCIOLO
CHIP PREAKER
BRISE COPEAUX
SPANBRECHER
SPAANBREKER



PARAMETRI DI TAGLIO PAG. 34

	GRADE BFCM20H	GRADE BFPM225	GRADE BFC115N	GRADE BFC125HP2	GRADE BFC135N
 **TCMT**	NEW PER INOX E PER ACCIAI AL CARBONIO				
TCMT 110202 WSF+ d=6,35 l=11,00 s=2,38 r=0,20 d1=2,80	+	●	+	+	+
TCMT 110204 WSF+ d=6,35 l=11,00 s=2,38 r=0,40 d1=2,80	+	+	+	+	+
TCMT 16T304 WSF+ d=9,52 l=16,50 s=3,97 r=0,40 d1=4,40	+	+	+	+	+
TCMT 16T308 WSF+ d=9,52 l=16,50 s=3,97 r=0,80 d1=4,40	+	+	+	+	+
 **VCMT**					
VCMT 110302 WSF+ d=6,35 l=11,10 s=3,18 r=0,20 d1=2,80	●	●	+	●	+
VCMT 110304 WSF+ d=6,35 l=11,10 s=3,18 r=0,40 d1=2,80	●	●	+	●	+
VCMT 160404 WSF+ d=9,52 l=16,60 s=4,76 r=0,40 d1=4,40	●	●	●	●	+
VCMT 160408 WSF+ d=9,52 l=16,60 s=4,76 r=0,80 d1=4,40	●	+	+	●	+
 **VBMT XM1+**		GRADE BFPM225	GRADE BFC115N	GRADE BFC125HP2	GRADE BFC135N
VBMT 160404 XM1+ d=9,52 l=15,69 s=4,76 r=0,40 d1=4,40			●	●	
VBMT 160408 XM1+ d=9,52 l=14,69 s=4,76 r=0,80 d1=4,40				●	

	UNCOATED			CVD COATED				
 **TNUN**	**B1X**	**BS3**	**BS4**	GRADE BFC125	GRADE BFC135	GRADE BLC22	GRADE BLC222	GRADE BL42
TNUN 110304	+	+	+	+	+	+	+	+
TNUN 110308	+	+	+	+	+	+	+	+
TNUN 160404	+	+	+	+	+	+	+	+
TNUN 160408	+	+	+	+	+	+	+	+
TNUN 160412	+	+	+	+	+	+	+	+
TNUN 220412			+	+	+	+	+	+
  **TPMR**								
TPMR 110304 d=6,35 l=11,00 s=3,18 r=0,40	+	+	+	+	+	+	+	+
TPMR 110308 d=6,35 l=11,00 s=3,18 r=0,80	+	+	+	+	+	+	+	+
TPMR 160404 d=9,52 l=16,50 s=3,18 r=0,40	+	+	+	+	+	+	•	+
TPMR 160408 d=9,52 l=16,50 s=3,18 r=0,80	+	+	+	+	+	+	•	+
  **SPMR**								
SPMR 090304 d=9,52 l=9,52 s=3,18 r=0,40	+	+	+	+	+	+	+	+
SPMR 090308 d=9,52 l=9,52 s=3,18 r=0,80	+	+	+	+	+	+	+	+
SPMR 120304 d=12,70 l=12,70 s=3,18 r=0,40	+	+	+	+	+	+	•	+
SPMR 120308 d=12,70 l=12,70 s=3,18 r=0,80	+	+	+	+	+	+	•	+
 **SNUN**								
SNUN 090304	+	+	+	+	+	+	+	+
SNUN 090308	+	+	+	+	+	+	+	+
SNUN 120404	+	+	+	+	+	+	+	+
SNUN 120408	+	+	+	+	+	+	+	+
SNUN 120412	+	+	+	+	+	+	+	+
SNUN 190408	+	+	+	+	+	+	+	+

BF SERVICE

General cutting parameters depending on the application

Work Piece material	WM+		Coated Carbide BFPM225	Coated Carbide BFPM235	Application	Depth of Cut and Feed rate	
	Type of treatment / alloy	Hardness HB	VC: m/min	VC: m/min	Chip Groove	ap (mm)	f (mm)
Steel	Non alloyed steel 0-0.45% C	150-250	130-250	170-190	WM+	0.5 to 3	0.21 to 0.12
Steel	Low alloyed steel	250-300	60-180	90-150			
Steel	High alloyed steel	200	80-200	120-200			
Steel	Corrosion resistant steel	200	100-200	140-180			
Stainless steel	Ferritic	200	120-250	140-200			
Stainless steel	Austenitic	180	100-220	110-190			
Stainless steel	Duplex	230-260	60-160	80-150			
Stainless steel	Martensitic	330	40-100	55-75			

Ex: CCMT 09T304-WM+ for 304
Different in each application

Consistent Cutting Depth	Inconsistent Cutting Depth	Interrupted Cut
●	●	○

General cutting parameters depending on the application

Work Piece aterial	WSF+		Coated Carbide BFPM225	Coated Carbide BFPM235	Application	Depth of Cut and Feed rate	
	Type of treatment / alloy	Hardness HB	VC: m/min	VC: m/min	Chip Groove	ap (mm)	f (mm)
Steel	Non alloyed steel 0-0.45% C	150-250	130-250	170-190	WSF+	0.50 to 2.25	0.14 to 0.07
Steel	Low alloyed steel	250-300	60-180	90-150			
Steel	High alloyed steel	200	80-200	120-200			
Steel	Corrosion resistant steel	200	100-200	140-180			
Stainless steel	Ferritic	200	120-250	140-200			
Stainless steel	Austenitic	180	100-220	110-190			
Stainless steel	Duplex	230-260	60-160	80-150			
Stainless steel	Martensitic	330	40-100	55-75			

Ex: CCMT 09T304WSF+ for 304
Different in each application

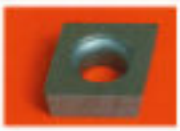
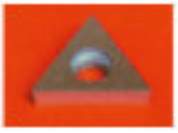
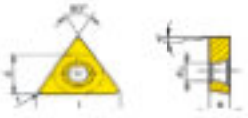
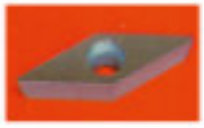
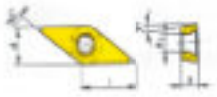
Consistent Cutting Depth	Inconsistent Cutting Depth	Interrupted Cut
●	○	X

General cutting parameters depending on the application

Work piece material		WSF+		Coated carbide BFC115N BFCM20H	BFC125HP2	Coated carbide BFC135N	Application	Depth of cut and feed rate	
		Type of treatment/alloy	Hardness HB	VC: [m/min]		VC: [m/min]	VC: [m/min]	Chip groove	ap [mm]	f [mm]
P	Steel	Non alloyed steel 0 - 0.45 % C	150 – 250	220 – 400		170 – 240	170 – 190	WSF+	0.50 to 2.25	0.14 to 0.07
P	Steel	Low alloyed steel	250 – 300	200 – 320		100 – 190	90 – 150			
P	Steel	High alloyed steel	200	180 – 320		130 – 210	120 – 200			
P	Steel	Corrosion resistant steel	200	200 – 320		130 – 210	140 – 180			
M	Stainless steel	Ferritic	200	220 – 320		140 – 210	140 – 200			
M	Stainless steel	Austenitic	180	**140-210**		100 – 210	110 – 190			
M	Stainless steel	Duplex	230 – 260	**80–190**		–	80 – 150			
M	Stainless steel	Martensitic	330	**60-130**		70 – 100	55 – 75			
K	Cast iron	Grey cast iron	180	140 – 370		130 – 210	–			
K	Cast iron	Spheroidal	160	190 – 430		120 – 240	–			
K	Cast iron	Malleable/Tempered iron	130	180 – 520		150 – 250	–			

Ex: CCMT 09T304WSF+ for CK60
Different in each application

Consistent cutting depth	Inconsistent cutting depth	Interrupted cut
●	○	X

	UNCOATED		PVD	CVD COATED				
  **CCMW**	B1X	BS3	GRADE B1XTL	GRADE BFC310N	GRADE BL100	GRADE BFCK120	GRADE BLC22	GRADE BLC222
CCMW 060202 d=6,35 l=6,40 s=2,38 r=0,20 d1=2,80	+	+	+	+	+	+	+	+
CCMW 060204 d=6,35 l=6,40 s=2,38 r=0,40 d1=2,80	•	+	•	+	+	+	+	+
CCMW 060208 d=6,35 l=6,40 s=2,38 r=0,80 d1=2,80	•	+	•	+	+	+	+	+
CCMW 09T304 d=9,52 l=9,70 s=3,97 r=0,40 d1=4,40	+	+	+	+	+	+	+	+
CCMW 09T308 d=9,52 l=9,70 s=3,97 r=0,80 d1=4,40	+	+	+	+	+	+	+	+
CCMW 120404 d=12,70 l=12,90 s=4,76 r=0,40 d1=5,3	+	+	+	+	+	+	+	+
CCMW 120408 d=12,70 l=12,90 s=4,76 r=0,80 d1=5,3	+	+	+	+	+	+	+	+
  **DCMW**								
DCMW 070202 d=6,35 l=7,75 s=2,38 r=0,20 d1=2,80	+	+	+	+	+	+	+	+
DCMW 070204 d=6,35 l=7,75 s=2,38 r=0,40 d1=2,80	+	+	+	+	+	+	+	+
DCMT 11T304 d=9,52 l=11,60 s=3,97 r=0,40 d1=4,40	+	+	+	+	+	+	+	+
DCMT 11T308 d=9,52 l=11,60 s=3,97 r=0,80 d1=4,40	+	+	+	+	+	+	+	+
DCMW 150404	+	+	+	+	+	+	+	+
DCMW 150408	+	+	+	+	+	+	+	+
  **TCMW**								
TCMW 110202 d=6,35 l=11,00 s=2,38 r=0,20 d1=2,80	+	+	+	+	+	+	+	+
TCMW 110204 d=6,35 l=11,00 s=2,38 r=0,40 d1=2,80	+	+	+	+	+	+	+	+
TCMW 16T304 d=9,52 l=16,50 s=3,97 r=0,40 d1=4,40	+	+	+	+	+	+	+	+
TCMW 22M504	+	+	+	+	+	+	+	+
  **VCMW**								
VCMW 160404 d=9,52 l=16,60 s=4,76 r=0,40 d1=4,40	+	+	+	+	+	+	+	+
VCMW 160408 d=9,52 l=16,60 s=4,76 r=0,80 d1=4,40	+	+	+	+	+	+	+	+
VBGW 160401	+	+	+	+	+	+	+	+

BF SERVICE

BF SERVICE
UTENSILERIA MECCANICA

TORNITURA
TURNING
TOURNAGE
DREHEN
DRAAIEN

PWX

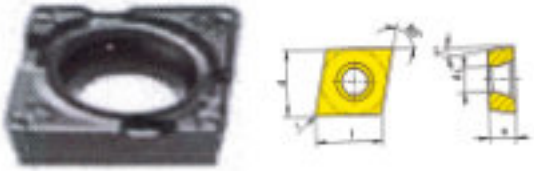
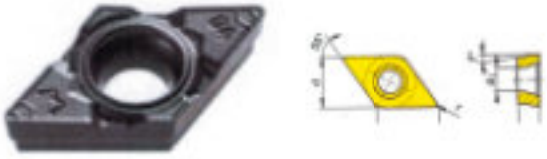
ROMPITRUCCIOLO
CHIP PREAKER
BRISE COPEAUX
SPANBRECHER
SPAANBREKER



New chipbreaker

NEW !

Nuovo rompitrucciolo Raschiante

	GRADE BFPM235	GRADE BFC115N	GRADE BFC125HP2	GRADE BFC135N
 **CCMX**				
CCMX 09T304 PWX d=9,52 l=9,70 s=3,97 r=0,40 d1=4,40	●		●	
CCMX 09T308 PWX d=9,52 l=9,70 s=3,97 r=0,80 d1=4,40	●		●	
 **DCMX**				
DCMX 070204 PWX d=6,35 l=7,75 s=2,38 r=0,40 d1=2,80			●	
DCMX 11T304 PWX d=9,52 l=11,60 s=3,97 r=0,40 d1=4,40	●		●	
DCMX 11T308 PWX d=9,52 l=11,60 s=3,97 r=0,80 d1=4,40	●		●	

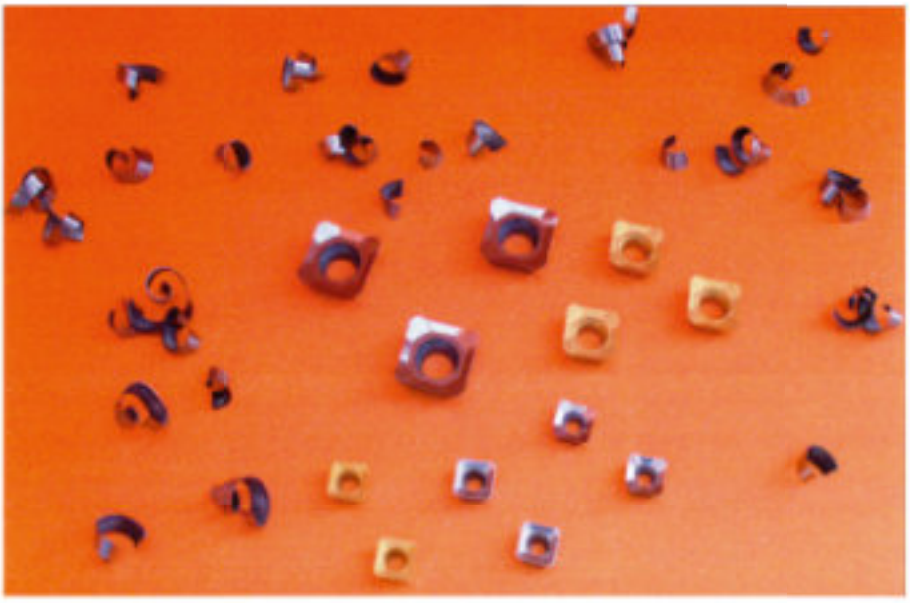
General cutting parameters depending on the application

Work piece material		PWX		Coated carbide			Application	Depth of cut and feed rate	
				BFC115N	BFC125HP2	BFPM235			
		Type of treatment/alloy	Hardness HB	Vc: [m/min]	Vc: [m/min]	Vc: [m/min]	Chip groove	ap [mm]	f (mm)
P	Steel	Non alloyed steel 0 - 0.45 % C	150 – 250	220 – 400	170 – 240	170 – 190	PWX	1 to 3.5	0.3 to 0.15
P	Steel	Low alloyed steel	250 – 300	200 – 320	100 – 190	90 – 150	Ex: CCMX 09T308PWX for CK60 Different in each application		
P	Steel	High alloyed steel	200	180 – 320	130 – 210	120 – 200			
P	Steel	Corrosion resistant steel	200	200 – 320	130 – 210	140 – 180			
M	Stainless steel	Ferritic	200	220 – 320	140 – 210	140 – 200			
M	Stainless steel	Austenitic	180	–	100 – 210	110 – 190			
M	Stainless steel	Duplex	230 – 260	–	–	*90 – 150			
M	Stainless steel	Martensitic	330	–	70 – 100	55 – 75			
K	Cast iron	Grey cast iron	180	140 – 370	130 – 210	–			
K	Cast iron	Spheroidal	160	190 – 430	120 – 240	–			
K	Cast iron	Malleable/Tempered iron	130	180 – 520	150 – 250	–			

Consistent cutting depth	Inconsistent cutting depth	Interrupted cut
●	○	X

BF SERVICE
UTENSILERIA MECCANICA

INSERTI POSITIVI - POSITIVE INSERTS - PLAQUETTES POSITIVES
POSITIVE WENDEPLATTEN - POSITIEVE WISSELPLATEN
ALLUMINIO - ALLUMINIUM - LM ALLOYS - LEICHTMETALLE





General cutting parameters depending on the application

Work piece material		Type of treatment/alloy	Hardness HB	Coated carbide H216T / B1X VC: [m/min]	Application Chip groove	Depth of cut and feed rate ap [mm]	f (mm)
K	Cast iron	Grey cast iron	180	120 – 160	LMF+ / FN ALU	1.5 to 6.5	0.50 to 0.20
		Spheroidal	160	130 – 170	Ex: CCGT 120408FN-LMF+ for AlMg1 Different in each application		
		Malleable/Tempered iron	130	140 – 200			
N	Alu Cuivre	Aluminium wrought alloys	100	100 – 3000			
		Aluminium cast alloys	130	100 – 800			
		Copper and copper alloys	90	100 – 600			
		Non-metallic materials	100	100 – 300			
S	Exotic	Fe base	200	30 – 45			
		Nickel or Kobalt base	280	20 – 35			
		Nickel or Kobalt base	250	20 – 35			
		Nickel or Kobalt base	–	18 – 30			
		Titanium	Rm 440°	60 – 120			

Consistent cutting depth	Inconsistent cutting depth	Interrupted cut	
●	●	○	

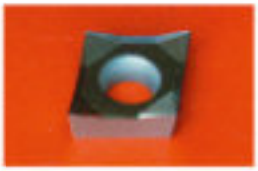
BF SERVICE

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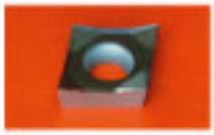
FN ALU / LMF+

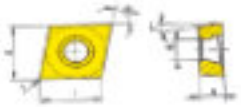
ALLUMINIO
ALLUMINIUM
LM ALLOYS
ALLIAGES LEGERS
LEICHTMETALLE

ROMPITRUCCIOLO
CHIP PREAKER
BRISE COPEAUX
SPANBRECHER
SPAANBREKER



PARAMETRI DI TAGLIO A PAG. 37





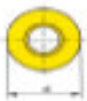
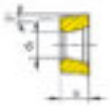
CCGT	GRADO NON RIVESTITO UNCOATED GRADE **B1X**	GRADO RIVESTITO PVD COATED GRADE PVD **B1XTL / H216TTL**	GRADO NON RIVESTITO UNCOATED GRADE **H216T**
CCGT 060201 d=6,35 l=6,40 s=2,38 r=0,10 d1=2,80		+	+
CCGT 060202 d=6,35 l=6,40 s=2,38 r=0,20 d1=2,80	•	+	+
CCGT 060204 d=6,35 l=6,40 s=2,38 r=0,40 d1=2,80	•	+	+
CCGT 09T302 d=9,52 l=9,70 s=3,97 r=0,20 d1=4,40	+	+	+
CCGT 09T304 d=9,52 l=9,70 s=3,97 r=0,40 d1=4,40	•	+	+
CCGT 09T308 d=9,52 l=9,70 s=3,97 r=0,80 d1=4,40	•	+	+
CCGT 120402 d=12,70 l=12,90 s=4,76 r=0,20 d1=5,30			
CCGT 120404 d=12,70 l=12,90 s=4,76 r=0,40 d1=5,30	•	+	+
CCGT 120408 d=12,70 l=12,90 s=4,76 r=0,80 d1=5,30	•	+	+





DCGT			
DCGT 070201 d=6,35 l=7,75 s=2,38 r=0,10 d1=2,80		+	+
DCGT 070202 d=6,35 l=7,75 s=2,38 r=0,20 d1=2,80		+	+
DCGT 070204 d=6,35 l=7,75 s=2,38 r=0,40 d1=2,80		+	+
DCGT 070208 d=6,35 l=7,75 s=2,38 r=0,80 d1=2,80			+
DCGT 11T301 d=9,52 l=11,60 s=3,97 r=0,10 d1=4,40			
DCGT 11T302 d=9,52 l=11,60 s=3,97 r=0,20 d1=4,40		+	+
DCGT 11T304 d=9,52 l=11,60 s=3,97 r=0,40 d1=4,40	•	+	+
DCGT 11T308 d=9,52 l=11,60 s=3,97 r=0,80 d1=4,40	•	+	+

• = A MAGAZZINO \ IN STOCK + = CHIEDERE DISPONIBILITA' \ ASK FOR AVAILABILITY

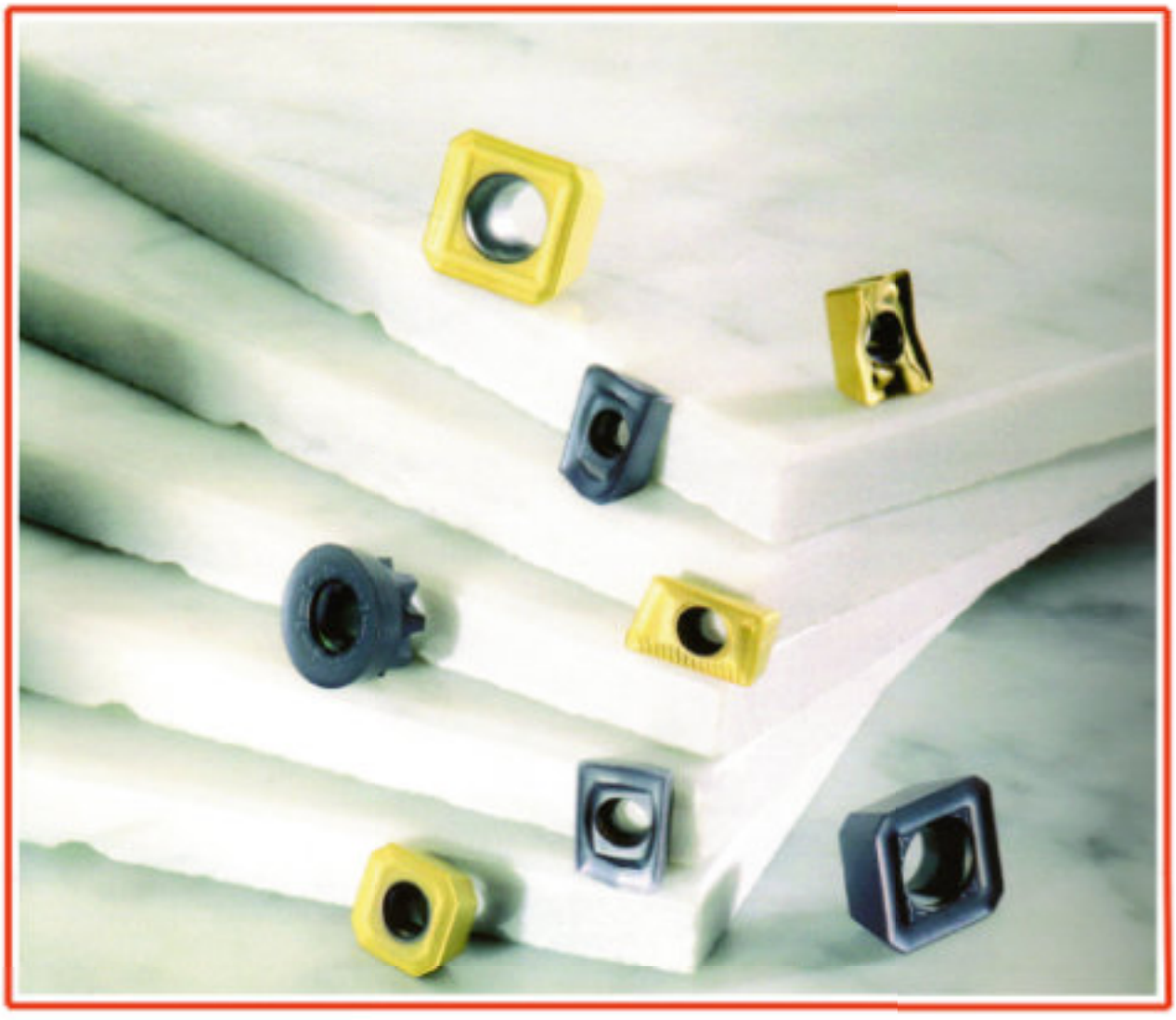
	GRADO NON RIVESTITO UNCOATED GRADE **B1X**	GRADO RIVESTITO PVD COATED GRADE PVD **B1XTL**	**GRADO NON RIVESTITO UNCOATED GRADE H216T**
   **RCGT**			
RCGT 0803MO d=8,00 l=8,00 s=3,18 r=4,00 d1=3,40	+	+	
RCGT 1003MO d=10,00 l=10,00 s=3,18 r=5,00 d1=4,00	+	+	
RCGT 1204MO d=12,00 l=12,00 s=4,76 r=6,00 d1=4,90	+	+	
   **SCGT**			
SCGT 09T304 d=9,52 l=9,52 s=3,97 r=0,40 d1=4,40	+	+	+
SCGT 09T308 d=9,52 l=9,52 s=3,97 r=0,80 d1=4,40	+	+	+
SCGT 120404 d=12,70 l=12,70 s=4,76 r=0,40 d1=5,30	+	+	
SCGT 120408 d=12,70 l=12,70 s=4,76 r=0,80 d1=5,30	+	+	
   **TCGT**			
TCGT 110202 d=6,35 l=11,00 s=2,38 r=0,20 d1=2,80			
TCGT 110204 d=6,35 l=11,00 s=2,38 r=0,40 d1=2,80	•	+	+
TCGT 16T304 d=9,52 l=16,50 s=3,97 r=0,40 d1=4,40	•	+	+
TCGT 16T308 d=9,52 l=16,50 s=3,97 r=0,80 d1=4,40	•	+	+
  **VCGT**			
VCGT 110302 d=6,35 l=11,10 s=3,18 r=0,20 d1=2,80 **VCGT 130302** d=7,94 l=13,00 s=3,18 r=0,20 d1=3,40	+	+	+
VCGT 110304 d=6,35 l=11,10 s=3,18 r=0,40 d1=2,80 **VCGT 130304** d=7,94 l=13,00 s=3,18 r=0,40 d1=3,40	+	+	+
VCGT 160404 d=9,52 l=16,60 s=4,76 r=0,40 d1=4,40	•	+	+
VCGT 160408 d=9,52 l=16,60 s=4,76 r=0,80 d1=4,40	•	+	+
VCGT 160412 d=9,52 l=16,60 s=4,76 r=1,20 d1=4,40	•	+	+
VCGT 220530 d=12,70 l=22,10 s=5,56 r=3,00 d1=5,50	+	+	+

● = A MAGAZZINO \ IN STOCK + = CHIEDERE DISPONIBILITA \ ASK FOR AVAILABILITY

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UTENSILERIA MECCANICA

INSERTI FRESATURA - MILLING - FRAISAGE - FREZEN





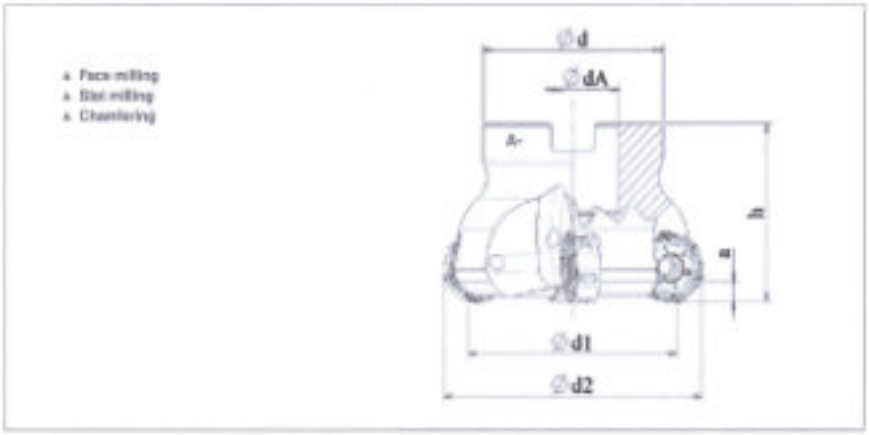
BF SERVICE
UTENSILERIA MECCANICA

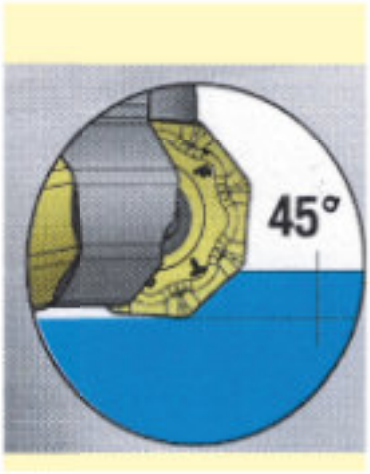
NEW !!!

FRESA PER SPIANATURA
FACE MILLING CUTTER



Milling body (HNKU)





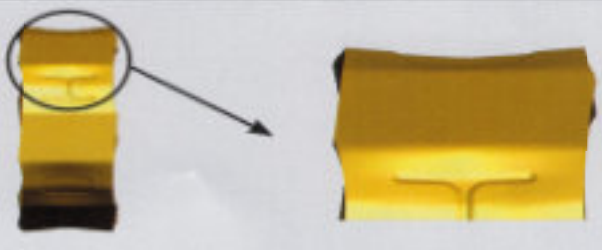
Description	d1 [mm]	d2 [mm]	h [mm]	d [mm]	dA [mm]	a [mm]	n_{max} [min^{-1}]	z
A-DSM-H08.40.R.04	40	52	40	38	16	4.5	15900	4
A-DSM-H08.50.R.04	50	62	40	43	22	4.5	12700	4
A-DSM-H08.63.R.05	63	75	40	48	22	4.5	10100	5
A-DSM-H08.80.R.06	80	92	50	58	27	4.5	7900	6
A-DSM-H08-100.R.08	100	102	50	78	32	4.5	6400	8
A-DSM-H08-125.R.09	125	137	63	88	40	4.5	5100	9

VITI COD. 4015-M4X11

INSERTO INSERT	BFC23 BFP035 BFC315N	BFC315N	BFC523 BFP035
HNKU 0806AZER SCM / HCM	•	•	•

Excellent surface finishing

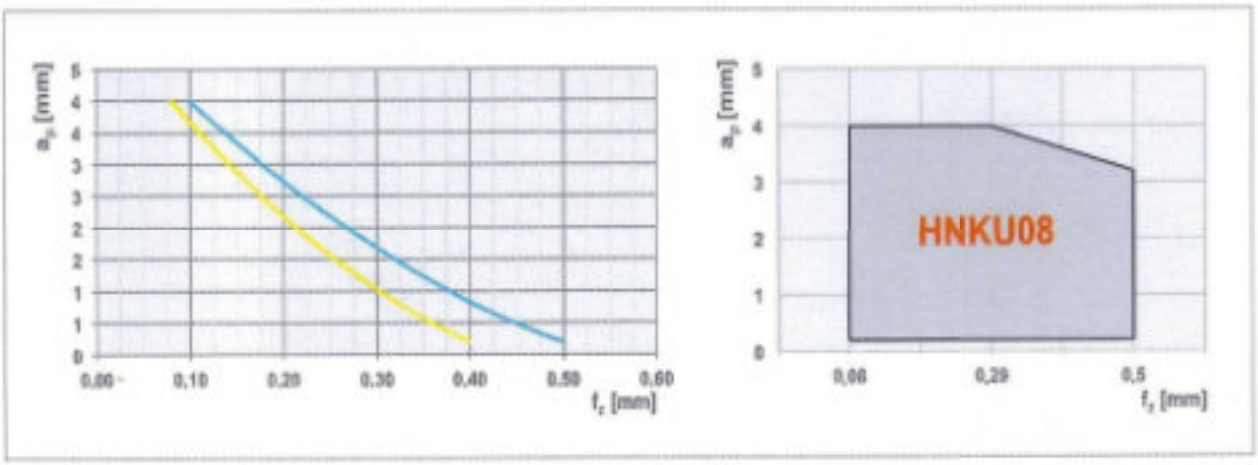
- HNKU 0806AZER SCM
- Double sided positive (positive rake angle)



BF SERVICE

Cutting data HNKU

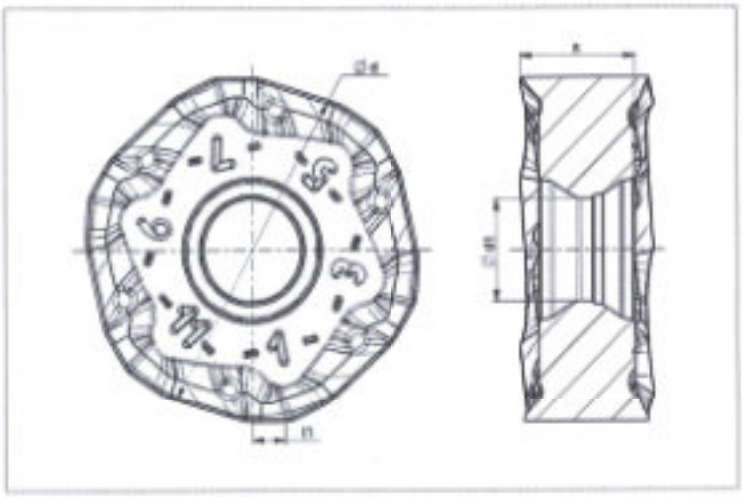
Starting parameters:



Grades and materials:

	Material group	Chipbreaker	Grade	Cutting data v_c [m/min]	Cutting data f_z [mm]	Cutting data a_p [mm]
P	CAST IRON Steel	HCM	BFC315N BFC23	220 – 60	0.1 – 0.5	4 – 0.2
M	Stainless steel	SCM	BFP035 BFC523	200 – 80	0.08 – 0.4	4 – 0.2

Insert (HNKU)





-HCM



-SCM

Description	d [mm]	s [mm]	f1 [mm]	d1 [mm]
HNKU 0806 AZER-HCM HNKU 0806 AZER-SCM	14.7	5.3	1.5	4.1

BF SERVICE

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UTENSILERIA MECCANICA

90°

FRESATURA
MILLING
FRAISAGE
FREZEN



PARAMETRI DI TAGLIO A PAG. 45

	GRADE BFC523	GRADE BFC524	GRADE BS26TL	GRADE BH60TL	GRADE BH67TL	GRADE BH67AX	GRADE BFC125	GRADE BFC315N
 **ADKT 1505PDER-SCM** l=15,5 s=5,65 d=9,45 ap=13,8 l1=1,4 r=0,75 d1=4,2 x=12°				+		+	•	
 **APKT 1003PDER-SCT** l=10,9 s=3,5 d=6,74 ap=10 l1=1 r=0,5 d1=2,8 x=11°			+		•	•		
APKT 1604PDER-SCT l=17,1 s=5,25 d=9,5 ap=15,3 l1=1,4 r=0,85 d1=4,4 x=11,5°			+		•	•		
 **APKT 1003PDER-TCM** l=10,9 s=3,5 d=6,74 ap=10 l1=1 r=0,5 d1=2,8 x=11°			+	+		+	+	
APKT 1604PDER-TCM l=17,1 s=5,25 d=9,5 ap=15,3 l1=1,4 r=0,85 d1=4,4 x=11,5°			+	+		+	+	
 **APKT 1003PDER SCT** l=10,9 s=3,5 d=6,74 ap=10 l1=1 r=0,5 d1=2,8 x=11°	•	+						
APKT 1604PDER SCT l=17,1 s=5,25 d=9,5 ap=15,3 l1=1,4 r=0,85 d1=4,4 x=11,5°	•	•						

NEW !!
INOX
TITANIO
STAINLESS STEEL TITANIUM

● = A MAGAZZINO \ IN STOCK + = CHIEDERE DISPONIBILITA' \ ASK FOR AVAILABILITY

BF SERVICE

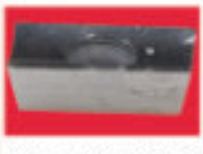
BF SERVICE
UTENSILERIA MECCANICA

90°

FRESATURA
MILLING
FRAISAGE
FREZEN



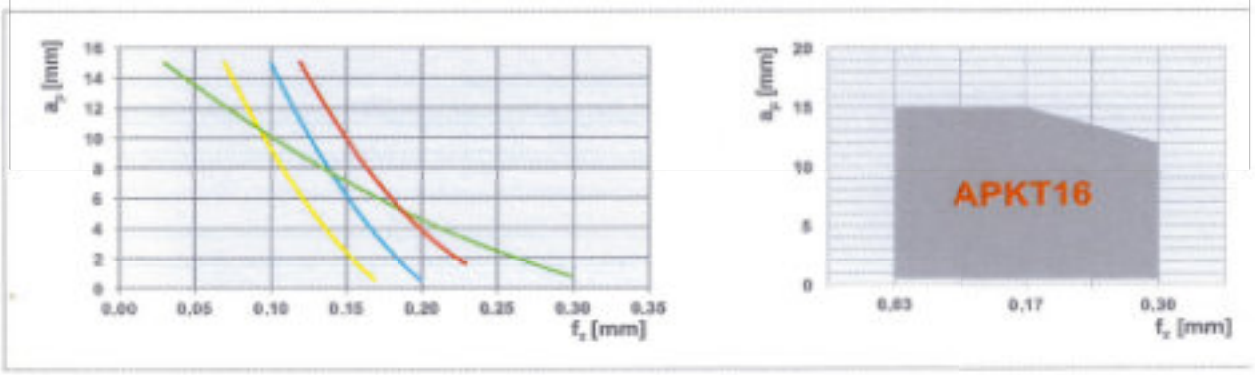
PARAMETRI DI TAGLIO A PAG.45

	NON RIVESTITI		RIVEST. PVD/PVD COATED								CVD COATED	
	GRADE B1X	GRADE G20	GRADE B1X DLC	GRADE SK20 DLC	GRADE B85TL	GRADE B84TL	GRADE B828TL	GRADE BFC523	GRADE BH67 TL	BH67 AX	BFC 125	BFC 315N
 **RAGGIATI**												
APKT 100316 BF l=11,7 s=3,4 d=6,66 ap=10,4 li=0 r=1,6 di=2,85 s=11°								●	+	●	+	
APKT 100320 BF l=11,7 s=3,4 d=6,66 ap=10,2 li=0,1 r=2,0 di=2,85 s=11°									+	●	+	
APKT 100330 BF l=11,7 s=3,4 d=6,66 ap=10,1 li=0,2 r=3,0 di=2,85 s=11°									+	+	+	
APKT 160410 BF l=17,15 s=5,25 d=9,5 ap=15,3 li=0,65 r=1,0 di=4,4 s=11,5°										●		
APKT 160416 BF l=17,15 s=5,25 d=9,5 ap=15,3 li=0,65 r=1,6 di=4,4 s=11,5°									+	●	+	
APKT 160420 BF l=17,15 s=5,25 d=9,5 ap=15,3 li=0,65 r=2,0 di=4,4 s=11,5°										●		
APKT 160424 BF l=17,15 s=5,25 d=9,5 ap=15,3 li=0,6 r=2,4 di=4,4 s=11,5°								●	+	●	+	
APKT 160430 BF l=17,15 s=5,25 d=9,5 ap=15,3 li=0,6 r=3,0 di=4,4 s=11,5°										●		
APKT 160432 BF l=17,1 s=5,25 d=9,5 ap=15,3 li=0,3 r=3,2 di=4,4 s=11,5°									+	●	+	
APKT 160440 BF l=17,1 s=5,25 d=9,5 ap=15,3 li=0,3 r=4,0 di=4,4 s=11,5°										+		
												
APKT 1003PDER-HCT l=10,9 s=3,5 d=6,74 ap=10 li=1 r=0,5 di=2,8 s=11,5°											●	+
APKT 1604PDER-HCT l=17,15 s=5,25 d=9,5 ap=15,3 li=1,4 r=0,85 di=4,4 s=11,5°						+					●	+
 **ALLUMINIUM**												
APET 1003PDFR XE l=10,68 s=3,22 d=6,82 ap=10 li=1,8 r=0,5 di=2,85 s=11°	●		●									
APET 1604PDFR XE l=17,10 s=4,76 d=9,52 ap=16,50 li=2,0 r=1,0 di=4,4 s=11°		●		●								

● = A MAGAZZINO \ IN STOCK + = CHIEDERE DISPONIBILITA' \ ASK FOR AVAILABILITY

Cutting data APKT16

Starting parameters:

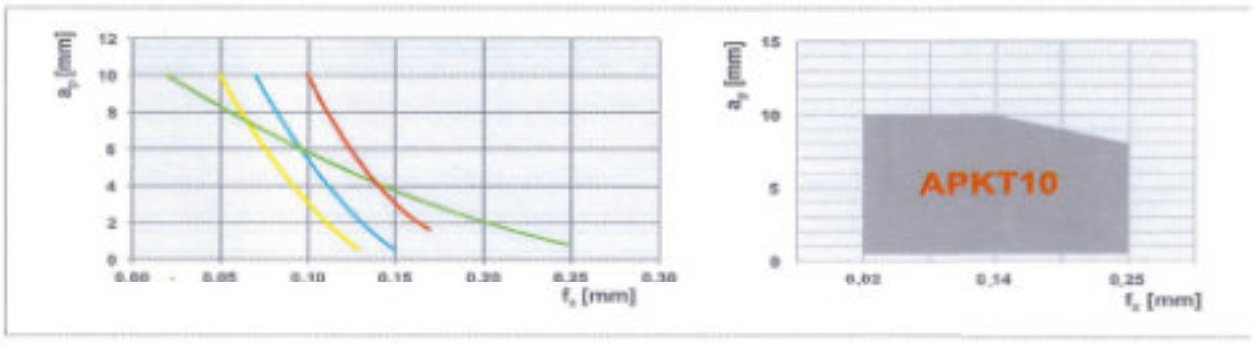


Grades and materials:

Material group		Chipbreaker	Grade	v_c [m/min]	Cutting data f_z [mm]	Cutting data a_p [mm]
P	Steel	HCM **SCT** RAGGIATI	BH67AX	**250-80**	0.1 – 0.2 0.12 – 0.23	15 – 0.5 15 – 0.5
M	Stainless steel	SCM SCT RAGGIATI	BFC523(A SECCO) BFC524(A UMIDO)	**200-60** **180-50**	0.07 – 0.17 0.12 – 0.23	15 – 0.5 15 – 0.5
K	Cast iron	**HCT**	**BFC315N**	320 – 100	0.12 – 0.23	15 – 0.5
N	Non-ferrous	LMM **/ XE**	H216T **/ G20**	< 2 000	0.03 – 0.30	15 – 0.8

Cutting data APKT10

Starting parameters:



Grades and materials:

Material group		Chipbreaker	Grade	v_c [m/min]	Cutting data f_z [mm]	Cutting data a_p [mm]
P	Steel	HCM RCM	**BH67AX**	**250-80**	0.07 – 0.15 0.1 – 0.17	10 – 0.5 10 – 1.6
M	Stainless steel	SCM **SCT**	BFC523(A SECCO) BFC540(A UMIDO)	200-60 180-50	0.05 – 0.13 0.1 – 0.17	10 – 0.5 10 – 1.6
K	Cast iron	**HCT**	**BFC315N**	320 – 100	0.1 – 0.17	10 – 1.6
N	Non-ferrous	LMM **/XE**	H216T **/B1X**	< 2000	0.02 – 0.3	10 – 0.8

BF SERVICE

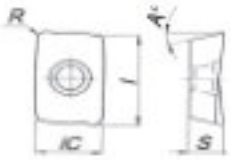
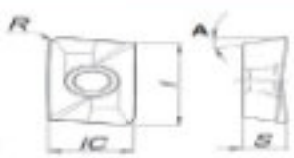
BF SERVICE
UTENSILERIA MECCANICA

90°

FRESATURA
MILLING
FRAISAGE
FREZEN

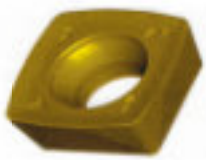


PVD COATED RIVESTIMENTO PVD

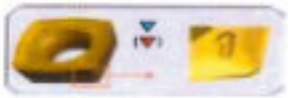
PARAMETRI DI TAGLIO A PAG. 61	GRADE BIXTL	GRADE BSXTL	GRADE BS5TL	GRADE BS4TL	GRADE BS26TL	GRADE BH68TL	GRADE BH67TL
 ADLT 150308 BF L=15 D=9,52 S=3,18 R=0,8 A°=15	+		•	+			
 LDMW 150308 L=15 D=9,52 S=3,18 R=0,8 A°=15	•	+	•	•			
 LDMW 150320 L=15 D=9,52 S=3,18 R=2,0 A°=15	+	+	•	+			
LDMW 150330 L=15 D=9,52 S=3,18 R=3,0 A°=15	+	+	•	+			
LDMW 150340 L=15 D=9,52 S=3,18 R=4,0 A°=15	+	+	•	+			
  AOMT 11T308 IC=6,80 S=3,50 L=11 R=0,8 A°=21			+	+			
AOMT 170408 IC=9,60 S=4,70 L=17 R=0,8 A°=19			+	+			
AOMT 170412 IC=9,60 S=4,70 L=17 R=1,2 A°=19			+	+			
AOMT 180612 IC=11,0 S=6,35 L=16,7 R=1,2 A°=15			+	+			
  XOHX 120408 E R2 IC=8,18 S=4,0 L=12 R=0,8 A°=14		•		•			
XOHX 120412 E R2 IC=8,18 S=4,0 L=12 R=1,2 A°=14		+		+			
XOHX 120416 E R2 IC=8,18 S=4,0 L=12 R=1,6 A°=14		+		+			
XOHX 120420 E R2 IC=8,18 S=4,0 L=12 R=2,0 A°=14		+		+			

BF SERVICE
UTENSILERIA MECCANICA

HIGHT FEED MILLING CUTTER
INSERTI PER ALTI AVANZAMENTI



Which chipbreaker to use?



HCM
Strong cutting edge for general steel applications and hard conditions milling.



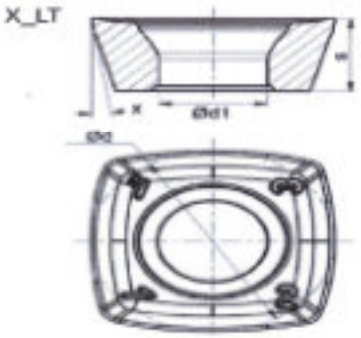
SCM
Sharp cutting edge for general stainless steel applications and for finishing in steels.

	P	M	K	S
XDLT 10T308ER HCM d=10 s=3,97 r=0,8 d1=4,4 x°=9	BFC315N		BFC315N	
XDLT 10T308SR HCM d=10 s=3,97 r=0,8 d1=4,4 x°=9	BFP035 BFC23			
XOLT 130410ER HCM d=13 s=4,76 r=1,0 d1=5,5 x°=9	BFP035 BFC23			
XOLT 130410SR HCM d=13 s=4,76 r=1,0 d1=5,5 x°=9	BFC315N		BFC315N	
XDLT 10T308ER SCM d=10 s=3,97 r=0,8 d1=4,4 x°=9		BFC523 BFP035		BFC524
XOLT 130410ER SCM d=13 s=4,76 r=1,0 d1=5,5 x°=9		BFC523 BFP035		BFC524

ESEMPI DI LAVIRAZIONE - *PROCESSING EXAMPLES* :

INSERTO XOLT 130410ER SCM BFC523
--AISI 316 - FRESA DIAM. 63 Z5- Vc 175- N rpm 884 – F 4420- Ap 1,0mm- Ae 50mm

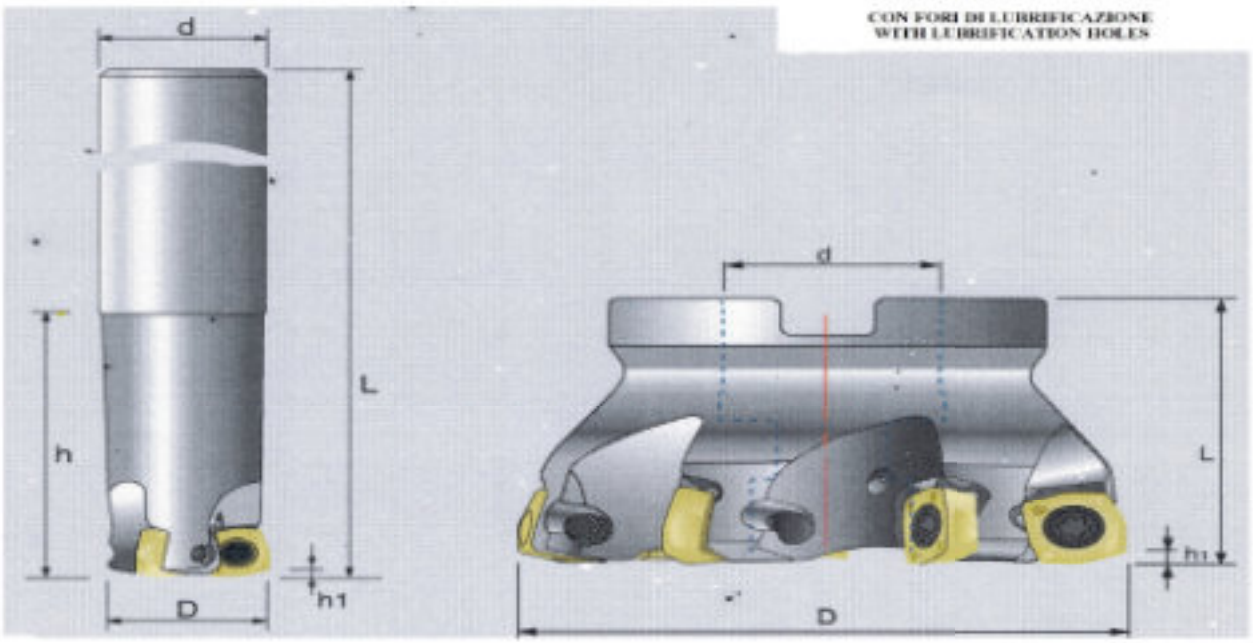
INSERTO XOLT 130410ER SCM BFC523
--AISI F51 - FRESA DIAM. 80 Z6- Vc 100- N rpm 400 – F 1000- Ap 1,5mm- Ae 80mm



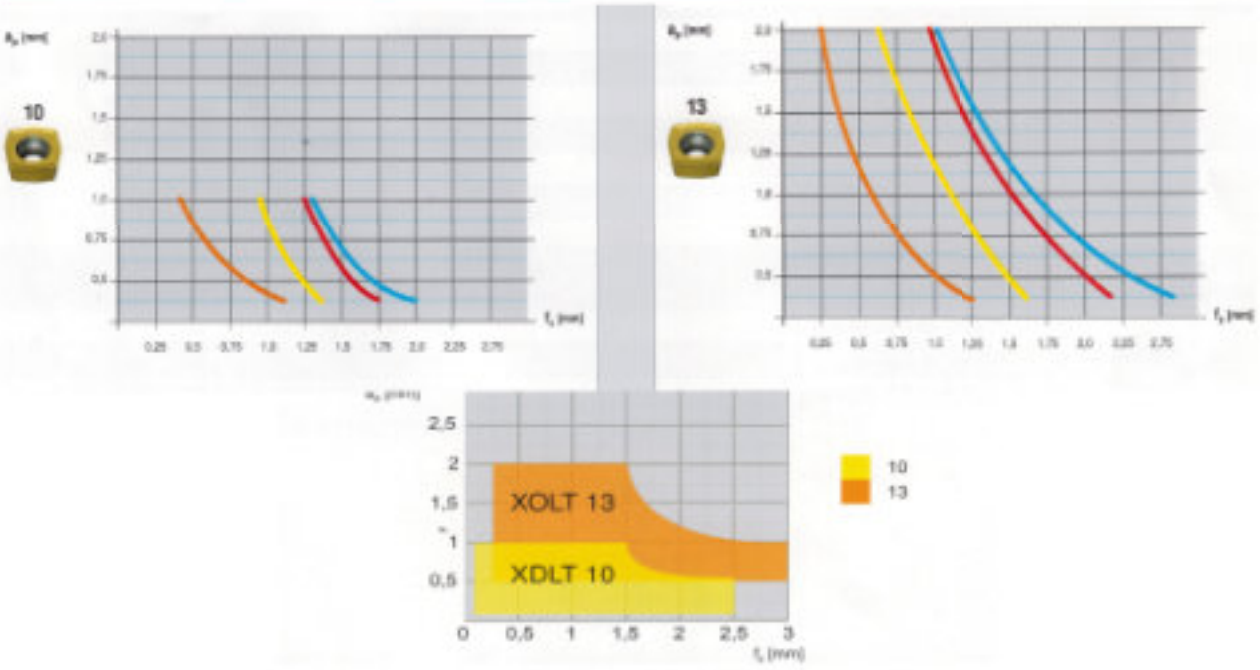

-HCM


-SCM

BF SERVICE



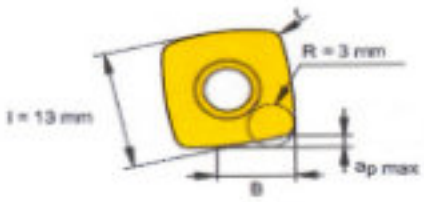
CODICE CODE	NUMBER OF INSERTS	D	L	h1	d	h	
C-SSM-HFC10-25.R.03-A-50-225	3	25	225	1,0	25	50	XDLT 10T308
C-SSM-HFC10-32-R.03-A-60-250	3	32	250	1,0	32	60	XDLT 10T308
A-SSM-HFC10-40.R.04	4	40	40	1,0	16	-	XDLT 10T308
A-SSM-HFC10-50.R.05	5	50	40	1,0	22	-	XDLT 10T308
A-SSM-HFC10-63.R.06	6	63	40	1,0	22	-	XDLT 10T308
A-SSM-HFC13-50.R04	4/5	50	40	2,0	22	-	XOLT 130410
A-SSM-HFC13-63.R05	5/6	63	40	2,0	22	-	XOLT 130410
A-SSM-HFC13-80.R06	6/7	80	50	2,0	27	-	XOLT 130410
A-SSM-HFC13-100.R07	7/8	100	50	2,0	27	-	XOLT 130410



BF SERVICE

Depth of cut and remaining material

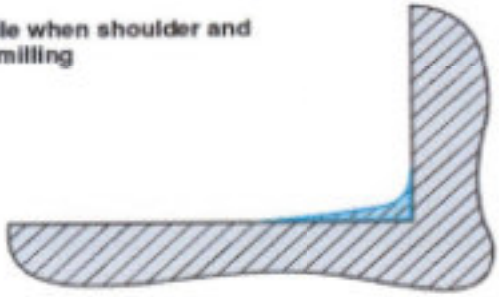
INS. XDLT 10..
INS. XOLT 13..



R = programmed radius

Recommended $f_z \geq 0.5$ / tooth

Profile when shoulder and slot milling



Insert	l [mm]	R [mm]	B [mm]	r [mm]	$a_{p\ max}$ [mm]
XDLT10	10	2.0	5.9	0.8	1.0
XDLX10	10	2.0	5.9	0.8	1.0
XOLT13	13	3.0	8.5	1.0	2.0

Grades and materials: **INS. XDLT 10T308**

Material group		Chipbreaker	Grade	Cutting data v_c [m/min]	Cutting data f_z [mm]	Cutting data a_p [mm]
	CAST IRON					
P	Steel	HCM	BFC315N BFP035 BFC23	220 – 60	0.15 – 2.5	1 – 0.1
M	Stainless steel	SCM	BFP035 BFC523 BFC524	200-60 200-60 180-50	0.1 – 2.4	1 – 0.1

Grades and materials: **INS. XOLT 130410**

Material group		Chipbreaker	Grade	Cutting data v_c [m/min]	Cutting data f_z [mm]	Cutting data a_p [mm]
	CAST IRON					
P	Steel	HCM	BFC315N BFP035 BFC23	220 – 60	0.15 – 3	2 – 0.1
M	Stainless steel	SCM	BFP035 BFC523 BFC524	200-60 200-60 180-50	0.1 – 2.8	2 – 0.1

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BF SERVICE
UTENSILERIA MECCANICA

FRESATURA
MILLING
FRAISAGE
FREZEN

PARAMETRI DI TAGLIO A PAG. 62	RIVEST. PVD/PVD COATED						CVD-COATED			
	GRADE B05AX	GRADE BEXTL	GRADE BSXTL	GRADE BS3TL	GRADE BS4TL	GRADE BH67AX	BFC 125	BH 15	BM 20	BH 30AX
										
RDMT 10T3MOSN IC=10 S=3,97		+	•		+	+	+			
										
RDMX 1003MO IC=10 S=3,18								•	•	•
RDMX 12T3MO IC=12 S=3,97								•	•	•
										
RDHW 0701MOT IC=7,0 S=2,38	+	+								
RDHW 0702MOT IC=7,0 S=2,38	+	•	+							
RDHW 1003MOT IC=10 S=3,18	+	•	+	+	+					
RDHW 12T3MO IC=12 S=3,97		+	+	+	+					
RDHW 1604MO IC=16 S=4,76		+	+	•	+					

● = A MAGAZZINO \ IN STOCK + = CHIEDERE DISPONIBILITA \ ASK FOR AVAILABILITY

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FRESATURA
MILLING
FRAISAGE
FREZEN



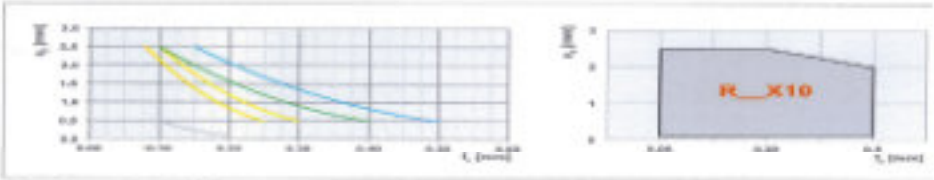
PARAMETRI DI TAGLIO PAG. 52

	GRADE BFC523	GRADE BFC524	GRADE BFP315H	GRADE BFC23	GRADE BFP035	G20 DLC	G20
Insert (RPMX, RPHX, RDHW and RDHX)							
RPHX 10T3MO XCM d=10 s=3,97 d 1=3,4 x=11°	•	•					
RPMX 10T3MO SCM d=10 s=3,97 d1=3,4 x=11°	•				•		
RDHW10T3 d=10 s=3,97 d1=3,4 x=15°			•				
RDHX 1003MO-LM d=10 s=3,97 d1=3,4 x=15° NO FERROUS						•	•
RPHX 1204MO XCM d=12 s=4,76 d1=4,4 x=11°	•	•					
RPMX 1204MO SCM d=12 s=4,76 d1=4,4 x=11°				•	•		
RDHX 1204MO LMM d=12 s=4,76 d1=4,4 x=15° NO FERROUS						•	•
RDHX 12T3MO LMM d=12 s=4,76 d1=4,4 x=15° NO FERROUS						•	•
RDHW 1204MOSN d=12 s=4,76 d1=4,4 x=15°			•				
RPHX 1605MO XCM d=16 s=5,56 d1=5,5 x=11°	•	•					
RPMX 1605MO SCM d=16 s=5,56 d1=5,5 x=11°				•	•		

OTTIMA QUALITA' PER LAVORAZIONE DI ACCIAIO INOX DUPLEX TITANIO ECC .

BFC523: IDEALE PER ACCIAIO INOX -DUPLEX

BFC524: IDEALE PER TITANIO CON LUBRIF. 10/12%



Cutting data R10

Starting parameters:

Grades and materials:

Material group		Chipbreaker	Grade	v_c [m/min]	Cutting data f_z [mm]	a_p [mm]
P	Steel	HCM	BFC23 BFP035	220 – 60	0.15 – 0.5	0.5 – 0.5
M	Stainless steel	SCM	BFP035 BFC523	200 – 60	0.1 – 0.3	2.5 – 0.5
K	Non-ferrous	LMM	MG20	< 2000	0.1 – 0.4	2.5 – 0.5
S	Heat-resistant alloys	XCM	BFC523 BFC524	75 – 25	0.08 – 0.35	2.5 – 0.5
S	Titanium	XCM				
H	Hard materials	–	BFP315H	180 – 100	0.1 – 0.2	0.5 – 0.1

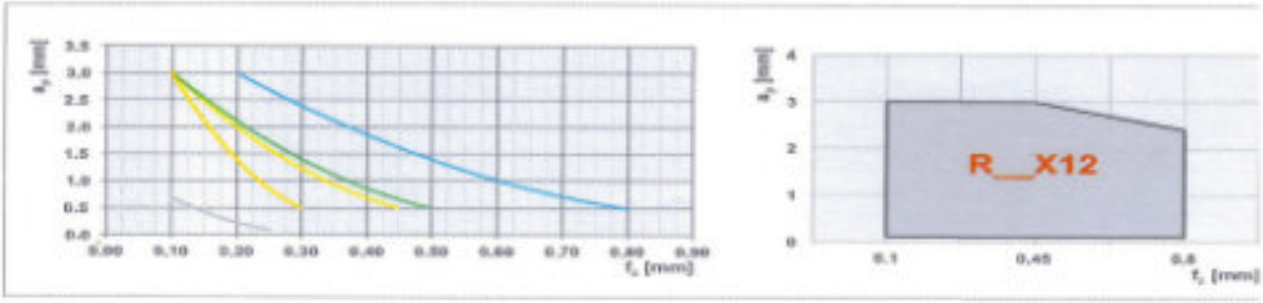
	4 times	8 times
ø [mm]	a_{p} [mm]	a_{pmax} [mm]	a_{pmax} [mm]
10	2.5	4.5	1.4
12	3.0	5.6	1.7
16	4.0	7.5	2.3

Recommended!

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Cutting data R12

Starting parameters:



Grades and materials:

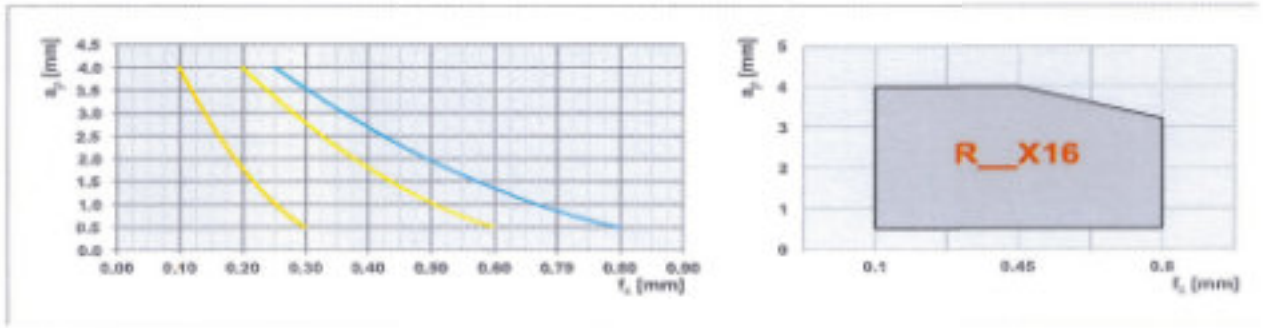
Material group		Chipbreaker	Grade	Cutting data v_c [m/min]	Cutting data f_z [mm]	Cutting data a_p [mm]
P	Steel	HCM	**BFC23** BFP035	220 – 60	0.2 – 0.8	3 – 0.5
M	Stainless steel	SCM	BFP035 **BFC523**	200 – 80	0.1 – 0.45	3 – 0.5
N	Non-ferrous	LMM	**G20**	< 2000	0.1 – 0.5	3 – 0.5
S	Heat-resistant alloys	XCM	**BFC523**	75 – 25	0.1 – 0.3	3 – 0.5
S	Titanium	XCM	**BFC524**			
H	Hard materials	–	**BFP315H**	180 – 100	0.1 – 0.25	0.7 – 0.1

ø [mm]	4 times a_p [mm]	4 times a_{pmax} [mm]	8 times a_{pmax} [mm]
10	2.5	4.5	1.4
12	3.0	5.5	1.7
16	4.0	7.5	2.3

Recommended!

Cutting data R16

Starting parameters:



Grades and materials:

Material group		Chipbreaker	Grade	Cutting data v_c [m/min]	Cutting data f_z [mm]	Cutting data a_p [mm]
P	Steel	HCM	**BFC23** BFP035	220 – 60	0.25 – 0.8	4 – 0.5
M	Stainless steel	SCM	BFP035 **BFC523**	200 – 60	0.2 – 0.6	4 – 0.5
S	Heat-resistant alloys	XCM	**BFC523**	75 – 25	0.1 – 0.3	4 – 0.5
S	Titanium	XCM	**BFC524**			

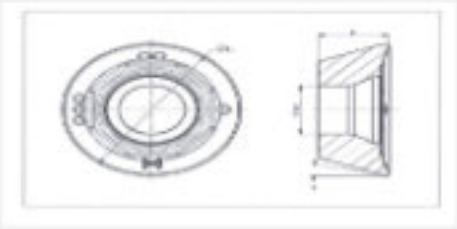
ø [mm]	4 times a_p [mm]	4 times a_{pmax} [mm]	8 times a_{pmax} [mm]
10	2.5	4.5	1.4
12	3.0	5.5	1.7
16	4.0	7.5	2.3

Recommended!

BF SERVICE

BF SERVICE
UTENSILERIA MECCANICA

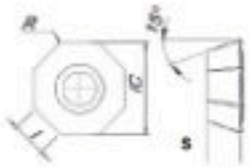
FRESATURA
MILLING
FRAISAGE
FREZEN

	No coated/ non riv.	PVD COATED RIVEST.PVD					
	GRADE G20	GRADE B1XTL	GRADE B5XTL	GRADE B83TL	GRADE B84TL	BFP 123	BH67AX
							
 RPMW 1204MOSN **d=12 s=4,76 d1=4,4 x=11°**		•	•		•	+	+
 RPMT 1204MOSN **d=12 s=4,76 d1=4,4 x=11°**		+	•		+	+	+
 RPET 1204MOSN **d=12 s=4,76 d1=4,4 x=11°**		+	+		•	+	+
 **ALLUMINIO** RPGT 10T3MOFN **d=10 s=3,97 d1=3,4 x=11°**	•						
RPGT 1204MOFN **d=12 s=4,76 d1=4,4 x=11°**	•						

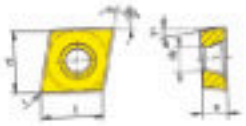
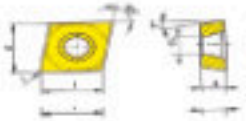
● = A MAGAZZINO \ IN STOCK + = CHIEDERE DISPONIBILITA \ ASK FOR AVAILABILITY

PARAMETRIDI TAGLIO CONSULTARE PAG. 62

BF SERVICE

PARAMETRI DI TAGLIO CONSULTARE PAG. 61	GRADE BFC523	GRADE BS3TL	GRADE BS4TL	GRADE BH68TL	GRADE BFC125	GRADE BH67AX
 						
ODMT 060508EN 53K IC= 15,8 S=5,56 L=6 R=0,8	●	+	+	●	+	●
ODHT 050408X E V2 IC= 12,7 S=4,76 L=5 R=0,8		●	+			

NO COATED/NON RIVESTITI — RIV. PVD/PVD COATED

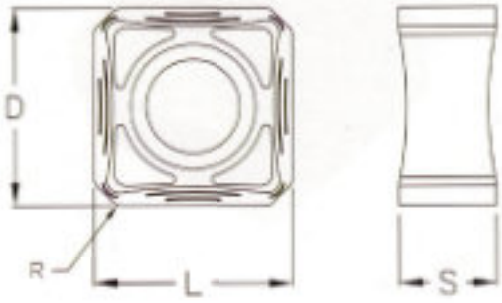
PARAMETRI DI TAGLIO CONSULTARE PAG. 61	GRADE B1X	GRADE G20	GRADE B1XTL	GRADE BSXTL	GRADE BS3TL
 					
CCMT 060204 XM1 d=6,35 l=6,40 s=2,38 r=0,40 d1=2,80	+		●		
CCMT 09T304 XM1 d=9,52 l=9,70 s=3,97 r=0,40 d1=4,40	+		●		
CCMT 09T308 XM1 d=9,52 l=9,70 s=3,97 r=0,80 d1=4,40	+		+		
 					
CCMW 060204 d=6,35 l=6,40 s=2,38 r=0,40 d1=2,80	+		●		
CCMW 060208 d=6,35 l=6,40 s=2,38 r=0,80 d1=2,80	+		●		
CCMW 09T304 d=9,52 l=9,70 s=3,97 r=0,40 d1=4,40			+		
CCMW 09T308 d=9,52 l=9,70 s=3,97 r=0,80 d1=4,40			●		
 					
XDHW 040110 IC= 4,0 S=1,60 L=4,0 R=1,0			+		
XDHW 060210 IC= 6,5 S=2,38 L=6,2 R=1,0			●		
XDHW 10T310 IC= 10 S=3,97 L=9,9 R=1,0			●		

● = A MAGAZZINO \ IN STOCK + = CHIEDERE DISPONIBILITA' \ ASK FOR AVAILABILITY

BF SERVICE

SNMX 12/14..-M2

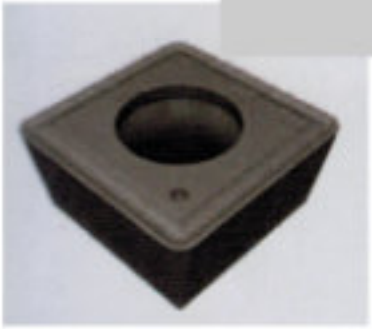




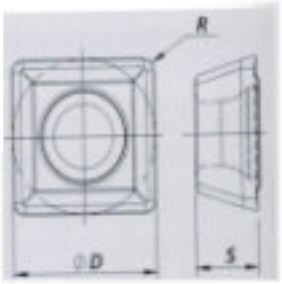
CODE	(mm)				
	L	D	S	R	A°
SNMX 1205 ANN M2	12,70	12,70	6,35	-	-
SNMX 1206 ANN M2	12,70	12,70	6,35	-	-
SNMX 1406 ANN M2	14,00	14,00	6,35	-	-

PARAMETRI PAG. 62	GRADE B1XTL	GRADE BSXTL	GRADE BS3TL	GRADE BS4TL	GRADE BH68TL	GRADE BFC125	GRADE BFP123	GRADE BFP223
SNMX 1205ANN M2			+					+
SNMX 1206ANN M2			+					+

SPKX 05.....14



D	S	R
5,00	2,38	0,4
6,00	2,38	0,4
7,94	3,97	0,8
9,80	4,30	0,8
11,50	4,80	0,8
14,30	5,20	1,2



INSERTI PER PUNTE VEDI PAG.

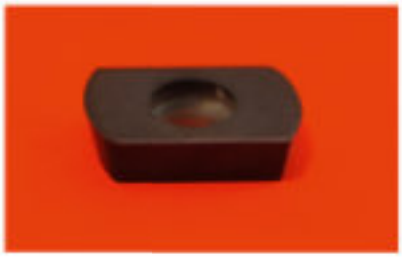
B.F. SERVICE	GRADE B1XTL	GRADE BSXTL	GRADE BS3TL	GRADE BS4TL	GRADE BH68TL	GRADE BFC125	GRADE BFP123	GRADE BFP223
SPKX 050204			+	+				+
SPKX 060204			+	+				+
SPKX 07T308			+	+				+
SPKX 090408			+	+				+
SPKX 110408			+	+				+
SPKX 140512			+	+				+

● = A MAGAZZINO \ IN STOCK + = CHIEDERE DISPONIBILITA \ ASK FOR AVAILABILITY

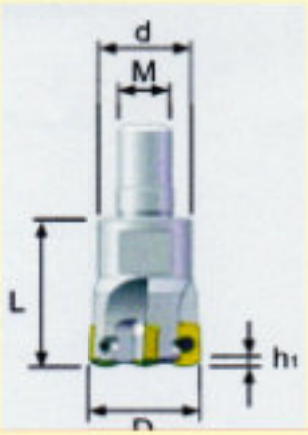
BF SERVICE

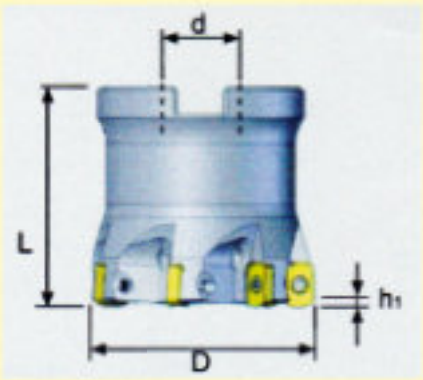
BF SERVICE
UTENSILERIA MECCANICA

HIGHT FEED MILLING CUTTER
INSERTI PER ALTI AVANZAMENTI

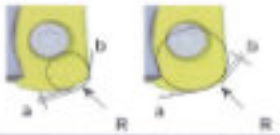


CODICE CODE	NUMBER OF INSERTS	D	L	h1	d	M
BFT016.ED103	2	16	25	1,5	12,7	8
BFT020.ED103	3	20	30	1,5	17,7	10
BFT025.ED103	4	25	35	1,5	20,7	12
BFT032.ED103	5	32	40	1,5	28,7	16
BFT040.ED103	6	40	40	1,5	28,7	16
TUTTE CON FORI DI LUBRIFICAZIONE ALL WITH COOLANT HOLES						
BFP042.ED103	6	42	40	1,5	16	-
BFP052.ED103	7	52	50	1,5	22	-
BFP063.ED103	8	63	50	1,5	22	-





Raggio di programmazione
Programming radius
Programmierradius

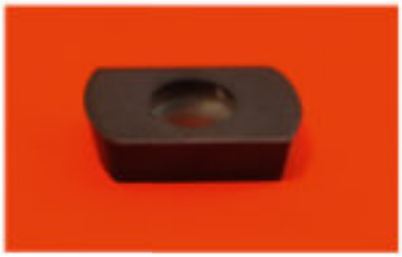


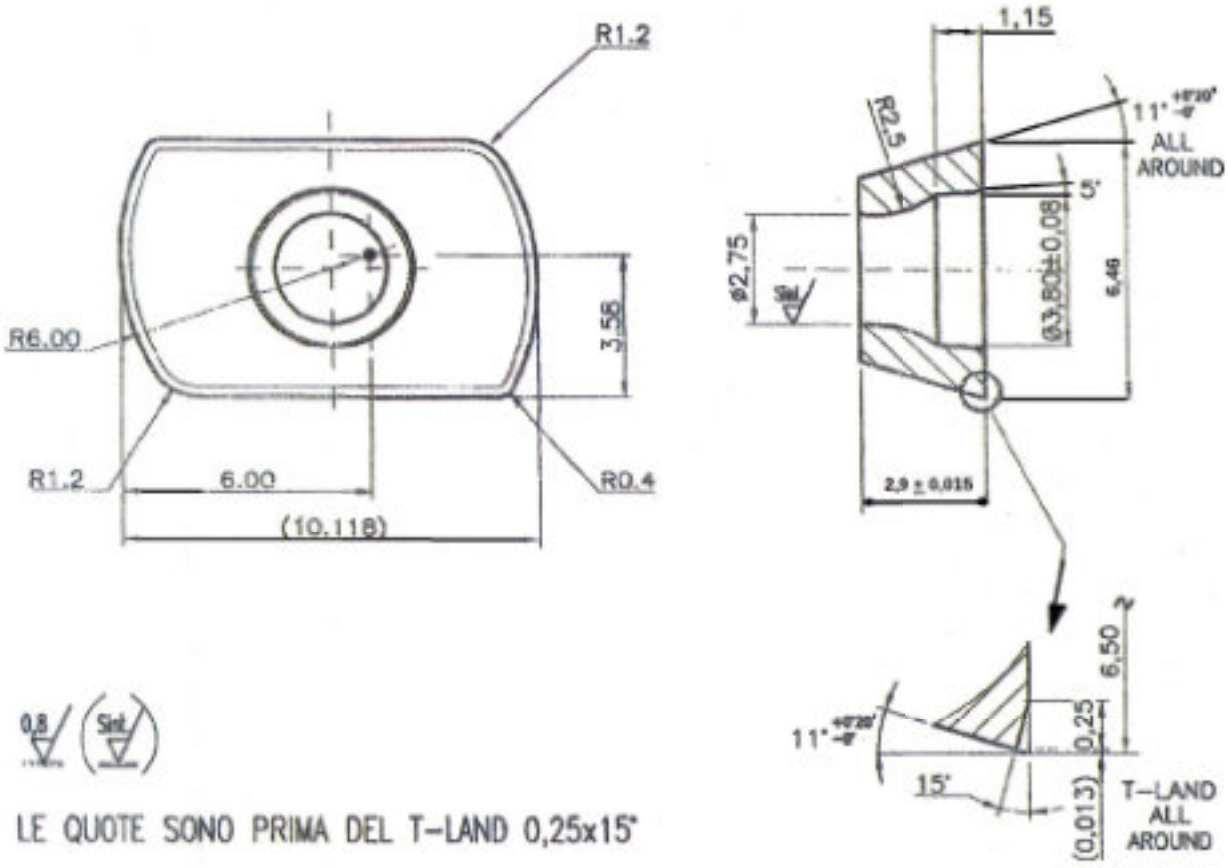
R (mm)	a (mm)	b (mm)
Raggio di programmazione *Programming radius* *Programmierradius*	Sezione non asportata *Uncut portion* *Ungefräste Fläche*	Sezione asportata in eccesso *Overcut portion* *Gefräste Fläche*
2,0	0,77	0,00
2,5	0,45	0,24
3,0	0,2	0,59
3,5	0,05	0,97

INSERTO INSERT	CODICE CODE	DIMENSIONE DIMENSIONS		P	K QUALITA' PER TEMPRATO 50-60 HRC	M	AP	Fz
		L	S					
	EDHW1035	10,118	2,,9	G20AX	B05AX G20AX	G20AX	0.5-1,5	0,5-1,5

BF SERVICE
UTENSILERIA MECCANICA

HIGHT FEED MILLING CUTTER
INSERTI PER ALTI AVANZAMENTI





LE QUOTE SONO PRIMA DEL T-LAND 0,25x15°

ESEMPI DI PARAMETRI DI LAVORAZIONE:

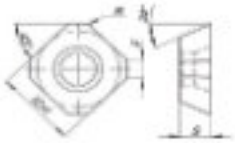
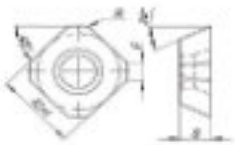
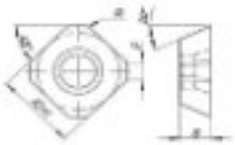
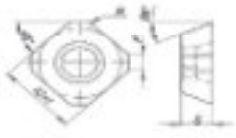
MAT. C45 FRESA DIAM. 63 Z8 Ap= 0,5 Av= 10000 N= 1250 INS. G20AX
MAT. K110 FRESA DIAM. 42 Z6 Ap= 0,5 Av= 6000 N= 2400 INS. G05AX
MAT. 2311 FRESA DIAM. 25 Z4 Ap= 0,7 Av= 7000 N= 2800 INS. G20AX
MAT. 2312 FRESA DIAM. 52 Z7 Ap= 0.6 Av= 8000 N= 1300 INS. G20AX
MAT. 2312 FRESA DIAM. 25 Z4 Ap= 0,5 Av= 9000 N= 2800 INS. G05AX
MAT. 2738HH FRESA DIAM. 25 Z4 Ap=0,5 Av= 8500 N= 2600 INS. G05AX
MAT. 2738 FRESA DIAM. 20 Z3 Ap= 0.5 Av= 8400 N= 3500 INS. G20AX
MAT. INOX AISI 316L FRESA DIAM.25 Z4 Ap= 0,3 Av=7000 N=2500 INS.G20AX
MAT. 2343 FRESA DIAM. 32 Z5 Ap= 0.5 Av= 9200 N= 1750 INS. G20AX

BF SERVICE

BF SERVICE
UTENSILERIA MECCANICA

45°

FRESATURA
MILLING
FRAISAGE
FREZEN

PARAMETRI A PAG. 89	NON RIV\UNCOATED		RIVEST PVD\PVD COATED							
	GRADE BIX	GRADE TCN84 CERMET	GRADE BIX TL	GRADE B93 TL	GRADE B84TL	GRADE BHD9	GRADE BHD0	BFP123	BFP223	BFC125 CVD
  **SEHW 1204AFSN** IC=12,7 S=4,76 L=12,7 F=2,8	+	•	+	•	+			+		
  **SEKT 1204AFER SCM** IC=12,7 S=4,76 L=12,7 F=2,8								+	+	•
  **SEHT1204AFSN** IC=12,7 S=4,76 L=12,7 F=2,8			+	•	+			+		
  **ALLUMINIO** **SEHT 1204AFFN-85** IC=12,7 S=4,76 L=12,7 F=2,0	•		+		+					
  **SEMT 13T3AGSN** IC=13,3 S=3,97 L=10,0 F=2,0						•	•			
ALLUMINIO **SEET 13T3-LL** IC=13,3 S=3,97 L=10,0 F=2,3	•	•								

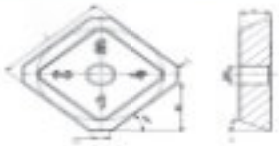
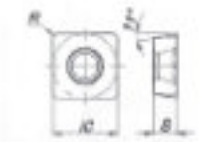
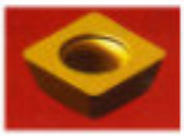
● = A MAGAZZINO \ IN STOCK + = CHIEDERE DISPONIBILITA' \ ASK FOR AVAILABILITY

BF SERVICE

BF SERVICE
UTENSILERIA MECCANICA

45° 75° 90°

FRESATURA
MILLING
FRAISAGE
FREZEN

PARAMETRI A PG. 61	NON RIV. UNCOATED		RIVEST. PVD-PVD COATED					CVD	
	GRADE B1X	GRADE G20	GRADE B6XTL	GRADE B8XTL	GRADE B83TL	GRADE B84TL	BFP 123	BFCM 235	BFC 315N
  **SPKN 1203PDR** l=12,7 s=3,18 ap=9,8 l1=1,2 r=0,5 d1=2,5 x=11°	+		+	+	•	+	+		
SPKN 1504PDR l=15,87 s=4,72 ap=12,8 l1=2,8 r=1 d1=2,5 x=11°	+		+	+	•	+	+		
  **SEKN 1203AFSN** l=12,7 s=3,18 ap=6,3 l1=2 r=0,45 d1=2,5 x=25°	+		+	+	•	+	+		
  **SPLX(T)120408.17** IC=12,7 S=4,76 R=0,8				+	+	+	+		
  **SPLW 120408** IC=12,7 S=4,76 R=0,8				+	+	+	+		
  **WNMX 040304** IC=6,73 S=3,3 L=4,0 R=0,4									
WNMX 080608 IC=12,5 S=6,5 L=7,5 R=0,8			•		•			•	
  **TPKN 1603PDER** l=16,5 s=3,18 d=9,52 ap=13,3 l1=1,45 r=0,2 d1=2,5 x=11,25°					•	•			
TPKN 2204PDER l=22 s=4,76 d=12,7 ap=18,7 l1=1,55 r=0,2 d1=2,5 x=11,25°					•				

● = A MAGAZZINO \ IN STOCK + = CHIEDERE DISPONIBILITA' \ ASK FOR AVAILABILITY

BF SERVICE

CLASSIFICAZIONE DEI MATERIALI - *GRADING OF MATERIALS*

GRUPPO - GROUP	DESCRIZIONE - DESCRIPTION		Rm(N/mm)
ACCIAIO, ACCIAIO INOSSIDABILE FERRTICO E MARTESITICO - *STEEL, STAINLESS STEEL FERRITIC AND MARTENSITIC*			
1	Acciai molto teneri al carbonio - Acciai ferritici	*Not alloy steel annealed (soft)*	<450
2	Acciai automatici		400<700
3	Acciai al carbonio con tenore basso -medio (c<0,5%)	*Cast steel quenched and tempered*	450<550
4	Acciai al carbonio con tenore medio-alto (c>0,5%) Acciai medio duri per trattamenti termici - Acciai debolmente legati Acciai inossidabili ferritici e martensitici	*Low alloy steel*	550<700
5	Acciai da utensili Acciai duri per trattamenti termici Acciai inossidabili martensitici	*High alloy steel, tool steel annealed (soft) quenched and tempered*	700<900
6	Acciai da utensili di difficile lavorabilità Acciai con elevata durezza Acciai inossidabili martensitici	*Stainless steel annealed quenched and tempered*	900<1200
7	Acciai ad alta resistenza di difficile lavorabilità (42-56 hrc) Acciai temprati dei gruppi 3-6 Acciai inossidabili martensitici	*Stainless steel Ferritic - Martensitic*	>1200
ACCIAI INOSSIDABILI AUTOMATICI, AUSTENITICI E DUPLEX - *STAINLESS STEEL, AUSTENITIC STEEL*			
8	Acciai inossidabili di facile lavorabilità Acciai inossidabili automatici Acciai inossidabili trattati al calcio	*Stainless steel Austenitic 180 HB*	
9	Acciai inossidabilidi media lavorabilità Acciai inossidabili austenitici e duplex		
10	Acciai inossidabili di difficile lavorabilità Acciai inossidabili austenitici e duplex	*Stainless steel 230 - 260 HB*	
11	Acciai inossidabili di lavorabilità estremamente difficile Acciai inossidabili austenitici e duplex		
GHISA - *CAST IRON*			
12	Ghise di media durezza Ghise grigie	*Grey cast iron*	
13	Ghise debolmente legate Ghise malleabili Ghise nodulari	*Modular cast iron*	
14	Ghise mediamente legate Ghise malleabili di media lavorabilità Ghise nodulari	*Malleable cast iron 130 HB*	
15	Ghise altamente legate di difficile lavorabilità Ghise malleabili di difficile lavorabilità Ghise nodulari	*Malleable cast iron 230 HB*	
ALTRI MATERIALI - *OTHER MATERIALS*			
16	Leghe di alluminio: a basso contenuto di Si	*Aluminium alloys*	
17	Leghe di alluminio: ad alto contenuto di Si	*Aluminium alloys*	
18	Leghe di rame	*Copper, copper alloys*	
19	Superleghe a base ferro	*high temperature alloys* *Fe Basic*	
20	Superleghe a base cobalto	*Co Basic*	
21	Superleghe a base nichel	*Ni Basic*	
22	Leghe di titanio	*Titanium, titanium alloys*	

BF SERVICE

PARAMETRI TAGLIO PER INS. ADLT / ADLW / LDMW / AOMT / XOMT

MATERIALI MATERIALS	B1XTL						BSXTL						BS3TL			BS4TL		
	fz (mm/dente)			fz (mm/dente)			fz (mm/dente)			fz (mm/dente)			fz (mm/dente)			fz (mm/dente)		
	0,05	0,10	0,16	0,05	0,10	0,16	0,05	0,10	0,16	0,05	0,10	0,16	0,10	0,15	0,20	0,10	0,15	0,20
1	500	425	370				350	300	265				335	300	275	285	255	235
2	425	360	320				300	255	225				285	255	235	240	220	200
3	350	300	265				250	215	190				235	210	190	200	180	160
4	300	250	220				215	180	160				200	180	165	170	155	140
5	250	210	185				180	150	130				165	150	135	140	130	115
6	215	185	160				150	130	115				145	130	-	125	110	-
7	60	50	-				43	36	-				40	36	-			
8													230	205	190	200	175	160
9													180	160	150	155	135	130
10													150	130	-	130	110	-
11													110	100	-	94	85	-
12	260	220	190				185	160	135				175	155	145			
13	230	200	175				160	140	125				155	135	125			
14	190	160	145				135	115	100				130	115	105			
15	160	140	120				115	100	85				105	95	-			
16																		
17																		
18																		
19	-	-	-				51	43	-				48	43	-	41	36	-
20	-	-	-				41	35	-				39	35	-	33	29	-
21	-	-	-				36	30	-				33	30	-	29	26	-
22	-	-	-				85	72	-				80	70	-	68	60	-

TABELLA CLASSIFICAZIONE MATERIALI A PAG.60

Inserti - Insert type: TP..16 / TP..22 / SP.. / SE..

ISO	Material - Tipo di Acciaio	HB (N/mm²) / Grade	V_c (m/min)		Feed f_z (mm/t)	
			BS3TL	BS4TL	TP... 16 SPMR... 12	TP... 22 SPMR... 15
P	Unalloyed steel - Acciai non legati	125-220	150-230	130-160	0,08-0,20	0,10-0,30
	Low-alloyed steel - Acciai bassa tenacità	220-280	140-220	120-150	0,08-0,20	0,10-0,30
	High-alloy steel - Acciai alta tenacità	280-380	130-180	100-130	0,08-0,18	0,10-0,25

Inserti - Insert type: XDHW.. CCM..

ISO	Material - Tipo di Acciaio	HB (N/mm²) / Grade	V_c (m/min)		Feed f_z (mm/t)		
			B1XTL	BSXTL	XDHW04...	XDHW06... CCM...06	XDHW10... CCM...09
P	Unalloyed steel - Acciai non legati	125-220	180-300	180-250	0,10-0,40	0,20-0,70	0,30-0,80
	Low-alloyed steel - Acciai bassa tenacità	220-280	180-250	170-210	0,10-0,40	0,20-0,70	0,30-0,80
	High-alloy steel - Acciai alta tenacità	280-380	180-230	160-200	0,10-0,40	0,20-0,70	0,30-0,80
K	Malleable cast iron - Ghisa malleabile	130-230	-	170-300	0,10-0,37	0,20-0,70	0,20-0,80
	Grey cast iron - Ghisa grigia	180-245	-	150-250	0,10-0,37	0,20-0,50	0,20-0,70
	Nodular cast iron - Ghisa nodulare	160-250	-	90-210	0,10-0,30	0,20-0,50	0,20-0,70
H	Hardened Steels - Acciai Temprati	45-65 HRC	120-180	-	0,10-0,50	0,20-0,70	0,20-0,80

Inserti - Insert type: ODHT... ODM...

ISO	Material - Tipo di Acciaio	HB (N/mm²) / Grade	V_c (m/min)	Feed f_z (mm/t)	
			BH67AX BS3TL	ODHT 050408...	ODHT 060508... ODMT 080508
P	Unalloyed steel - Acciai non legati	125-220	180-245	0,15-0,25	0,15-0,35
	Low-alloyed steel - Acciai bassa tenacità	220-280	130-200	0,10-0,22	0,10-0,25
	High-alloy steel - Acciai alta tenacità	280-380	105-145	0,08-0,15	0,10-0,22
M	Ferritic/martensitic - Ferritico / Martensitico	200-330	130-175	0,10-0,22	0,10-0,35
	Austenitic - Austenitico	200-330	105-135	0,08-0,20	0,10-0,25
	Austenitic-Ferretic - Austenitico / Ferritico	230-260	80-110	0,08-0,18	0,10-0,20
K	Malleable cast iron - Ghisa malleabile	130-230	150-110	0,10-0,22	0,10-0,35
	Grey cast iron - Ghisa grigia	180-245	100-130	0,08-0,20	0,10-0,25
	Nodular cast iron - Ghisa nodulare	160-250	80-110	0,08-0,18	0,10-0,20

BF SERVICE

Inserti - Insert type: RD..07 - 10 - 12 - 16 - 20

ISO	Materiali - Tipo di Acciaio	HB (Brinell) / Grade	V_c (mm/min)						
			BS5AX	SX MG25	BS1XTL BH15	BS3TL BH25	BS4TL	BM20	BH30
P	Unalloyed steel - Acciai non legati	125-220	180-300	-	180-250	150-230	130-160	160-190	150-180
	Low-alloyed steel - Acciai bassa tenacità	220-280	180-250	-	170-210	140-220	120-150	140-180	140-170
	High-alloy steel - Acciai alta tenacità	280-380	160-230	-	160-200	130-180	100-130	130-160	120-150
M	Ferritic/martensitic - Ferritico / Martensitico	200-330	-	-	-	120-160	100-120	-	-
	Austenitic - Austenitico	200-330	-	-	-	100-150	80-110	-	-
	Austetenitic-Ferretic - Austenitico / Ferritico	230-260	-	-	-	70-110	70-100	-	-
K	Malleable cast iron - Ghisa malleabile	130-230	-	-	170-300	150-280	130-250	-	-
	Grey cast iron - Ghisa grigia	180-245	-	-	150-250	130-230	110-220	-	-
	Nodular cast iron - Ghisa nodulare	160-250	-	-	90-210	80-190	80-170	-	-
N	Alluminium and Non Ferrous Alluminio e materiali non ferrosi	30-130	-	350-1000	-	-	-	-	-
S	Heat Resistant Super Alloys Super Leghe resistenti al calore	200-320	-	-	-	20-90	20-80	-	-
H	Hardened Steels - Acciai Temprati	40-55 HRC	120-180	-	100 - 150	-	-	-	-

ISO	Materiali - Tipo di Acciaio	HB (Brinell)	RD... 07		RD... 10		RD... 12		RD... 16		RD... 20	
			f_z (mm/t)	a_p (mm)	f_z (mm/t)	a_p (mm)	f_z (mm/t)	a_p (mm)	f_z (mm/t)	a_p (mm)	f_z (mm/t)	a_p (mm)
P	Unalloyed steel - Acciai non legati	125-220	≤0,18	≤1,50	≤0,24	≤2,50	≤0,27	≤2,50	≤0,33	≤3,50	≤0,33	≤5,00
	Low-alloyed steel - Acciai bassa tenacità	220-280	≤0,18	≤1,50	≤0,24	≤2,50	≤0,25	≤2,50	≤0,33	≤3,50	≤0,33	≤5,00
	High-alloy steel - Acciai alta tenacità	280-380	≤0,15	≤1,50	≤0,21	≤2,50	≤0,20	≤2,50	≤0,27	≤3,50	≤0,27	≤5,00
M	Ferritic/martensitic - Ferritico / Martensitico	200-330	≤0,17	≤1,50	≤0,18	≤2,50	≤0,21	≤2,50	≤0,25	≤3,50	≤0,25	5,00
	Austenitic - Austenitico	200-330	≤0,17	≤1,50	≤0,18	≤2,50	≤0,21	≤2,50	≤0,25	≤3,50	≤0,25	5,00
	Austetenitic-Ferretic - Austenitico / Ferritico	230-260	≤0,15	≤1,50	≤0,15	≤2,50	≤0,18	≤2,50	≤0,21	≤3,50	≤0,21	5,00
K	Malleable cast iron - Ghisa malleabile	130-230	≤0,20	≤1,50	≤0,25	≤2,50	≤0,24	≤2,50	≤0,35	≤3,50	≤0,35	5,00
	Grey cast iron - Ghisa grigia	180-245	≤0,20	≤1,50	≤0,25	≤2,50	≤0,24	≤2,50	≤0,35	≤3,50	≤0,35	5,00
	Nodular cast iron - Ghisa nodulare	160-250	≤0,18	≤1,50	≤0,22	≤2,50	≤0,22	≤2,50	≤0,32	≤3,50	≤0,32	5,00
N	Alluminium and Non Ferrous Alluminio e materiali non ferrosi	30-130	≤0,45	≤1,50	≤0,80	≤2,50	≤0,22	≤2,50	≤0,32	≤3,50	≤0,32	5,00
S	Heat Resistant Super Alloys Super Leghe resistenti al calore	200-320	≤0,10	≤1,50	≤0,15	≤2,50	≤0,17	≤2,50	≤0,16	≤3,50	≤0,12	5,00
H	Hardened Steels - Acciai Temprati	40-55 HRC	≤0,12	≤1,50	≤0,18	≤2,50	≤0,18	≤2,50	≤0,25	≤3,50	≤0,20	5,00

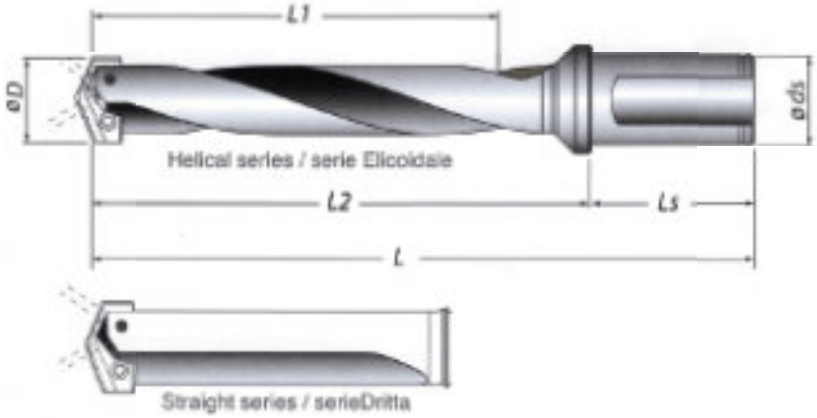
Inserti - Insert type: SNMX12..

ISO	Materiali - Tipo di Acciaio	HB (Brinell) / Grade	V_c (mm/min)	Feed f_z (mm/t)	
			BS3TL	SNMX 1205...	SNMX 1206...
P	Unalloyed steel - Acciai non legati	125-220	160-290	0,10-0,40	0,10-0,40
	Low-alloyed steel - Acciai bassa tenacità	220-280	110-200	0,10-0,35	0,10-0,35
	High-alloy steel - Acciai alta tenacità	280-380	95-145	0,10-0,30	0,10-0,30
K	Malleable cast iron - Ghisa malleabile	130-230	100-150	0,10-0,30	0,10-0,30
	Grey cast iron - Ghisa grigia	180-245	85-130	0,10-0,20	0,10-0,30
	Nodular cast iron - Ghisa nodulare	160-250	70-110	0,10-0,15	0,10-0,25

BF SERVICE

BF SERVICE
UTENSILERIA MECCANICA





ATTACCO WELDON - Weldon Shank

CODICE / Code	Ø D da / a (from / to)	Ø ds	L1	L2	L	LS	INSERTO Insert Type	SCARICO Flute Type
V130 - 175 - U63 - W20	13 - 17,5	20	63,5	92	142	50	HSS M48.. Da Ø 13 a Ø 17,5 From Ø 13 To Ø 17,5	Elicoidale / Helical
V130 - 175 - U114 - W20	13 - 17,5	20	114,3	143	193	50		Elicoidale / Helical
V130 - 175 - U177 - W20	13 - 17,5	20	177,8	206	256	50		Elicoidale / Helical
V130 - 175 - U295D - W20	13 - 17,5	20	295	324	374	50		Dritto / Straight
V130 - 175 - U387D - W20	13 - 17,5	20	387	416	466	50		Dritto / Straight
V155 - 175 - U63 - W20	15,5 - 17,5	20	63,5	92	142	50	HSS M48.. Da Ø 15,5 a Ø 17,5 From Ø 15,5 To Ø 17,5	Elicoidale / Helical
V155 - 175 - U114 - W20	15,5 - 17,5	20	114,3	143	193	50		Elicoidale / Helical
V155 - 175 - U177 - W20	15,5 - 17,5	20	177,8	206	256	50		Elicoidale / Helical
V180 - 240 - U117 - W25	18 - 24	25	117,5	155	210	56	HSS M48.. Da Ø 18 a Ø 24 From Ø 18 To Ø 24	Elicoidale / Helical
V180 - 240 - U168 - W25	18 - 24	25	168,3	205	260	56		Elicoidale / Helical
V180 - 240 - U269 - W25	18 - 24	25	269,9	307	363	56		Elicoidale / Helical
V180 - 240 - U457D - W25	18 - 24	25	457	495	550	56		Dritto / Straight
V180 - 240 - U569D - W25	18 - 24	25	569	603	660	56		Dritto / Straight
V250 - 350 - U136 - W32	25 - 35	32	136,5	180	240	60	HSS M48.. Da Ø 25 a Ø 35 From Ø 25 To Ø 35	Elicoidale / Helical
V250 - 350 - U187 - W32	25 - 35	32	187,3	230	290	60		Elicoidale / Helical
V250 - 350 - U288 - W32	25 - 35	32	288,9	332	392	60		Elicoidale / Helical
V250 - 350 - U511D - W32	25 - 35	32	511	554	615	60		Dritto / Straight
V250 - 350 - U692D - W32	25 - 35	32	692	735	796	60		Dritto / Straight
V360 - 470 - U165- W40	36 - 47	40	165,1	218	289	70	HSS M48.. Da Ø 36 a Ø 47 From Ø 36 To Ø 47	Elicoidale / Helical
V360 - 470 - U209- W40	36 - 47	40	209,6	262	332	70		Elicoidale / Helical

Ordinabile su richiesta
ordered on request

Inserti intercambiabili con / Interchangeable inserts with:
AMEC / YG1 / ARNO

A RICHIESTA SONO FORNIBILI CUSPIDI E CORPI PUNTA DI VARIE LUNGHEZZE E DIAMETRI.

BF SERVICE

Materiali	Durezza (Bhn)	Durezza (HRc)	Grado HSS*	Vc (m/min) TiN	Vc (m/min) TiCN	Vc (m/min) TiAlN	fn (mm/giro) Ø 9.5 – 12.5	fn (mm/giro) Ø 13 – 17.5	fn (mm/giro) Ø 18 – 24	fn (mm/giro) Ø 25 – 35	fn (mm/giro) Ø 36 – 47
Acciai Automatici 9SMn36, 95MnPb28 10SPb20 etc	100-150		HSS	69	87	100	0,19	0,29	0,39	0,46	0,48
	150-200	-13	HSS	64	77	90	0,17	0,27	0,36	0,41	0,48
	200-250	13-24	HSS	56	73	86	0,14	0,24	0,34	0,39	0,48
Acciai a basso tenore di carbonio C10, C15, C22, C25 etc	85-125		HSS	59	74	82	0,17	0,25	0,32	0,40	0,46
	125-175	-7	HSS	56	69	80	0,17	0,25	0,32	0,40	0,46
	175-225	7-20	HSS	54	64	75	0,15	0,21	0,27	0,36	0,43
	225-275	20-28	HSS	50	62	72	0,15	0,21	0,27	0,36	0,43
Acciai a medio tenore di carbonio C35, C40, C45 etc	125-175	-7	HSS	57	69	84	0,17	0,24	0,34	0,41	0,45
	175-225	7-20	HSS	53	65	80	0,14	0,22	0,31	0,39	0,43
	225-275	20-28	HSS	50	62	74	0,14	0,22	0,31	0,39	0,43
	275-325	28-34	SH, PH	46	57	70	0,12	0,19	0,29	0,36	0,38
Acciai strutturali S33, St37-2, St44-2 St52, St60 etc	100-150		HSS	48	62	72	0,19	0,27	0,36	0,41	0,44
	150-250	-24	HSS	43	52	60	0,14	0,24	0,31	0,36	0,38
	250-350	24-37	SH, PH	35	45	50	0,12	0,22	0,29	0,31	0,34
Ghise / S.G GG10, 20, 25, 35, 40 GGG50, 70 GTW35, GTS70 etc	120-150		HSS	57	70	90	0,19	0,29	0,39	0,48	0,59
	150-200	-13	HSS	53	64	80	0,17	0,27	0,36	0,46	0,56
	200-220	13-19	HSS	46	58	70	0,14	0,22	0,31	0,41	0,46
	220-260	19-26	SH, PH	39	48	60	0,12	0,19	0,27	0,34	0,35
	260-320	26-34	SH, PH	32	39	50	0,12	0,17	0,24	0,27	0,28
Acciai legati 45CrMo4, 42CrMo4 16MnCr5, Ck75 35CrMo4, 16MnCr5 etc	125-175	-7	HSS	53	64	74	0,17	0,24	0,34	0,41	0,43
	175-225	7-20	HSS	50	62	70	0,14	0,22	0,31	0,39	0,42
	225-275	20-28	HSS	45	55	65	0,14	0,22	0,31	0,39	0,41
	275-325	28-34	SH, PH	43	52	60	0,12	0,19	0,29	0,36	0,38
	325-375	34-40	SH, PH	40	47	55	0,10	0,17	0,27	0,34	0,36
Acciai da utensili 102Cr6, 105WCr6, C75W etc	150-200	-13	SH	28	37	40	0,10	0,17	0,24	0,29	0,28
	200-250	13-24	SH, PH	21	30	33	0,10	0,17	0,24	0,29	0,28
Leghe resist. calore Hastelloy B,Inconel etc	140-220	-19	SH, PH	10	12	15	0,10	0,17	0,22	0,27	0,30
	220-310	19-33	PH	9	10	13	0,10	0,14	0,19	0,24	0,25
Acciai alto legati 36CrNiMo4, 34CrNiMo6 40NiCrMo73 etc	225-300	-32	SH, PH	28	37	40	0,14	0,22	0,27	0,31	0,36
	300-350	32-37	SH, PH	21	29	30	0,12	0,19	0,24	0,29	0,36
	350-400	37-43	PH	18	23	25	0,10	0,17	0,22	0,27	0,30
Alluminio AlCuMn, AlMg5Cr5, AlZnMgCu1,5 etc	30		HSS	206	252	244	0,19	0,33	0,41	0,50	0,54
	180	-8	HSS	101	151	137	0,19	0,33	0,41	0,46	0,54
Acciai Inox X5Cr13, X10Cr4118, X5CrNi189, X5CrNiMo1810 etc	135-185	-9	HSS	26	32	38	0,17	0,22	0,29	0,34	0,36
	185-275	9-28	HSS	22	25	35	0,14	0,19	0,27	0,29	0,30

LEGENDA

Vc - Velocità di taglio (m/min)
Giri - Numero di giri (giri/min)
fn - Avanzamento a giro (mm/giro)
Vf - Avanzamento tavola (mm/min)
D - Diametro nominale punta (mm)

FORMULE

$$Vc = \frac{\pi \times D \times N}{1000} = (m/min)$$

$$Giri = \frac{Vc \times 1000}{\pi \times D} = (giri/min)$$

Vf = Giri x fn (mm/min)

*** Grado HSS : HSS** = HSS , **SH** = Super HSS , **PH** = Premium HSS M48

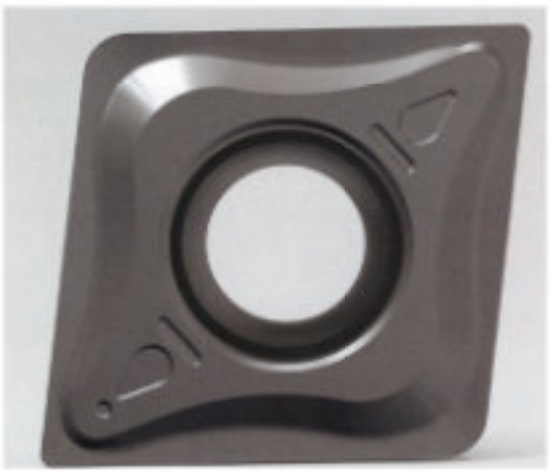
I parametri di taglio indicativi rappresentati in tabella sono da considerarsi un buon punto di partenza, ogni lavorazione deve comunqu essere valutata secondo il contesto in cui si opera.

Per i gradi sopra menzionati operare una riduzione del 20% della Vc e del 10% del parametro Vf per approcciare alla lavorazione.

MULTICUT



XPNT

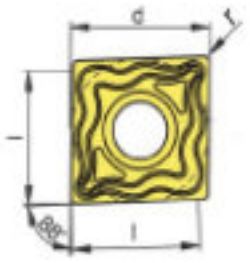


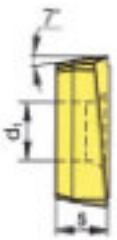
XPET ALLUMINIO



BF SERVICE

Designation	d [mm]	l [mm]	s [mm]	r [mm]	d_1 [mm]	BFC205	BFP300	BFP305
XPNT 040204EL	4.50	4.00	1.80	0.40	2.10	on request	12052485	12052488
XPNT 040204ER	4.50	4.00	1.80	0.40	2.10	on request	12052490	12052492
XPNT 050204EN	5.80	5.00	2.10	0.40	2.25	on request	12052495	12052497
XPNT 060204EN	6.50	6.00	2.92	0.40	2.50	on request	12052498	12052499
XPNT 070304EN	7.60	7.00	3.87	0.40	2.80	on request	12052501	12052503
XPNT 080304EN	8.50	8.00	3.87	0.40	3.40	on request	12131066	12131067
XPNT 090404EN	9.60	9.00	4.66	0.40	3.40	on request	12053144	12053143
XPNT 100404EN	10.60	10.00	4.66	0.40	4.40	on request	12053158	12053146
XPNT 100408EN	10.60	10.00	4.66	0.80	4.40	on request	12053160	12053159
XPNT 130504EN	13.50	12.50	5.45	0.40	5.30	on request	12053165	12053162
XPNT 130508EN	13.50	12.50	5.45	0.80	5.30	on request	12053168	12053166
XPNT 170608EN	17.50	16.00	6.25	0.80	5.30	on request	12053173	12053172

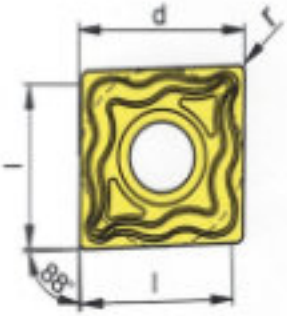


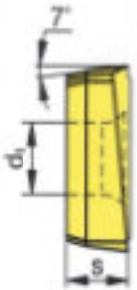


	BFC205	BFP300	BFP305
P	•	•	•
M	○	•	○
K	•	○	•
N		○	
S		•	
H			

• Main application
○ Extended application

Designation	d [mm]	l [mm]	s [mm]	r [mm]	d_1 [mm]	MG15
XPET 050204FN	5.80	5.00	2.10	0.40	2.25	12564629
XPET 060204FN	6.50	6.00	2.92	0.40	2.50	12558732
XPET 070304FN	7.60	7.00	3.87	0.40	2.80	12545420
XPET 080304FN	8.50	8.00	3.87	0.40	3.40	12558731
XPET 09T304FN	9.60	9.00	4.66	0.40	3.40	12558729
XPET 10T304FN	10.60	10.00	4.66	0.40	4.40	12564630
XPET 130404FN	13.50	12.50	5.45	0.40	5.30	12564631
XPET 170508FN	17.50	16.00	6.25	0.80	5.30	12564633





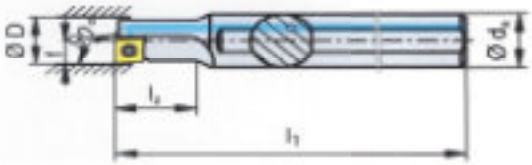
	MG15
P	
M	
K	
N	•
S	
H	

BF SERVICE

Drilling depth up to 1.5 x D

Available range for XPNT and XPET

D [mm]	Type Description	Material	d_A [mm]	l_1 [mm]	l_2 [mm]	f [mm]	[XPNT/XPET]	
8.00	MC 08R-1.5D 04*	12035031	12.00	80.00	12.00	4.00	XPNT 0402	3006-M1.8X4
	MC 08L-1.5D 04*	12035027						
10.00	MC 10R-1.5D 05	12035040	12.00	90.00	15.00	5.00	XP...T 0502	3006-M2X4
	MC 10L-1.5D 05	12035034						
12.00	MC 12R-1.5D 06	12035057	16.00	100.00	18.00	6.00	XP...T 0602	3007-M2.2X5
	MC 12L-1.5D 06	12035052						
14.00	MC 14R-1.5D 07	12035065	16.00	110.00	21.00	7.00	XP...T 0703	3008-M2.5X6
	MC 14L-1.5D 07	12160177						
16.00	MC 16R-1.5D 08	12035070	20.00	125.00	24.00	8.00	XP...T 0803	3008-M3X7
	MC 16L-1.5D 08	12158340						
18.00	MC 18R-1.5D 09	12035453	25.00	135.00	27.00	9.00	XP...T 0904	3008-M3X7
	MC 18L-1.5D 09	12160172						
20.00	MC 20R-1.5D 10	12035456	25.00	150.00	30.00	10.00	XP...T 1004	3010-M3.5X9
	MC 20L-1.5D 10	12160171						
25.00	MC 25R-1.5D 13	12035458	32.00	180.00	37.50	12.50	XP...T 1305	4015-M4.5X11
	MC 25L-1.5D 13	12160170						
32.00	MC 32R-1.5D 17	12035460	40.00	200.00	48.00	16.00	XP...T 1706	4015-M4.5X11
	MC 32L-1.5D 17	12160168						



* Right-hand
* Left-hand

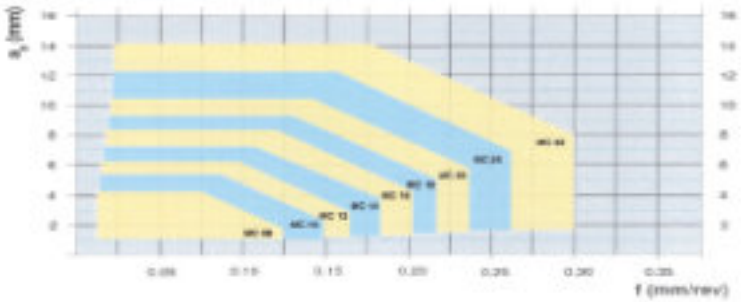
Depth of cut / feed rate – 1.5 x D

PROFONDITA' DI TAGLIO — VELOCITA' DI AVANZAMENTO



Turning of internal profiles

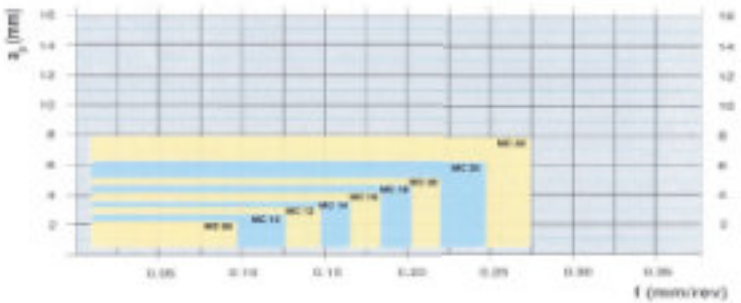
LAVORAZIONE TORNITURA INTERNA





Facing operations

LAVORAZIONE FRONTALE



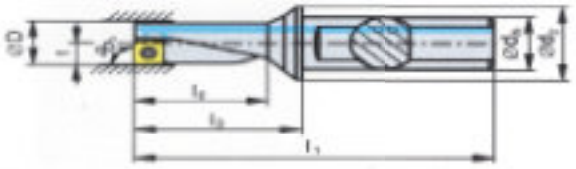
BF SERVICE

Drilling depth up to 2.25 x D

Available range for XPNT and XPET

D [mm]	Type Description	Material	d_a [mm]	d_2 [mm]	l_1 [mm]	l_2 [mm]	l_3 [mm]	f [mm]	[XPNT/XPET]	
8.00	MC 08R-2.25D 04* MC 08L-2.25D 04*	12035032 12035029	10.00	15.00	60.00	18.00	22.00	4.00	XPNT 0402	3006-M1.8X4
10.00	MC 10R-2.25D 05 MC 10L-2.25D 05	12035047 12035037	12.00	18.00	69.50	22.50	27.50	5.00	XP...T 0502	3006-M2X4
12.00	MC 12R-2.25D 06 MC 12L-2.25D 06	12035064 12035054	16.00	22.00	78.00	27.00	33.00	6.00	XP...T 0602	3007-M2.2X5
14.00	MC 14R-2.25D 07 MC 14L-2.25D 07	12035069 12160167	16.00	23.00	83.50	31.50	38.50	7.00	XP...T 0703	3008-M2.5X6
16.00	MC 16R-2.25D 08 MC 16L-2.25D 08	12035076 12160165	20.00	28.00	94.00	36.00	44.00	8.00	XP...T 0803	3008-M3X7
18.00	MC 18R-2.25D 09 MC 18L-2.25D 09	12035454 12160164	25.00	36.00	109.50	40.50	53.50	9.00	XP...T 0904	3009-M3X7
20.00	MC 20R-2.25D 10 MC 20L-2.25D 10	12035457 12160163	25.00	35.00	111.00	45.00	55.00	10.00	XP...T 1004	3010-M3.5X9
25.00	MC 25R-2.25D 13 MC 25L-2.25D 13	12035459 12160162	32.00	44.00	129.00	56.50	69.00	12.50	XP...T 1304	4015-M4.5X11
32.00	MC 32R-2.25D 17 MC 32L-2.25D 17	12035461 12160157	40.00	54.00	158.00	72.00	88.00	16.00	XP...T 1706	4015-M4.5X11

* Right-hand hold
* Left-hand hol



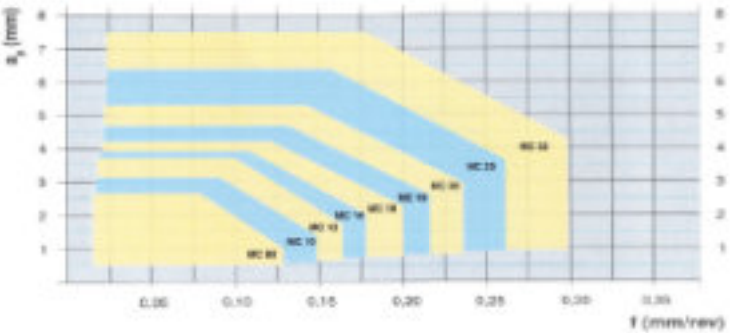
Depth of cut / feed rate – 2.25 x D

PROFONDITA' DI TAGLIO VELOCITA' DI AVANZAMENTO



Turning of internal profiles

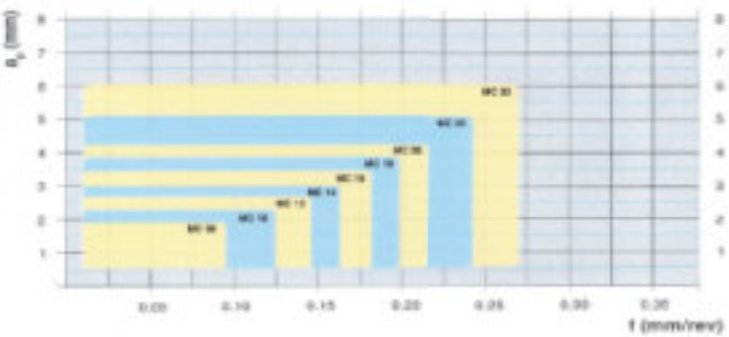
LAVORAZIONE TORNITURA INTERNA





Facing operations

LAVORAZIONE FRONTALE



BF SERVICE

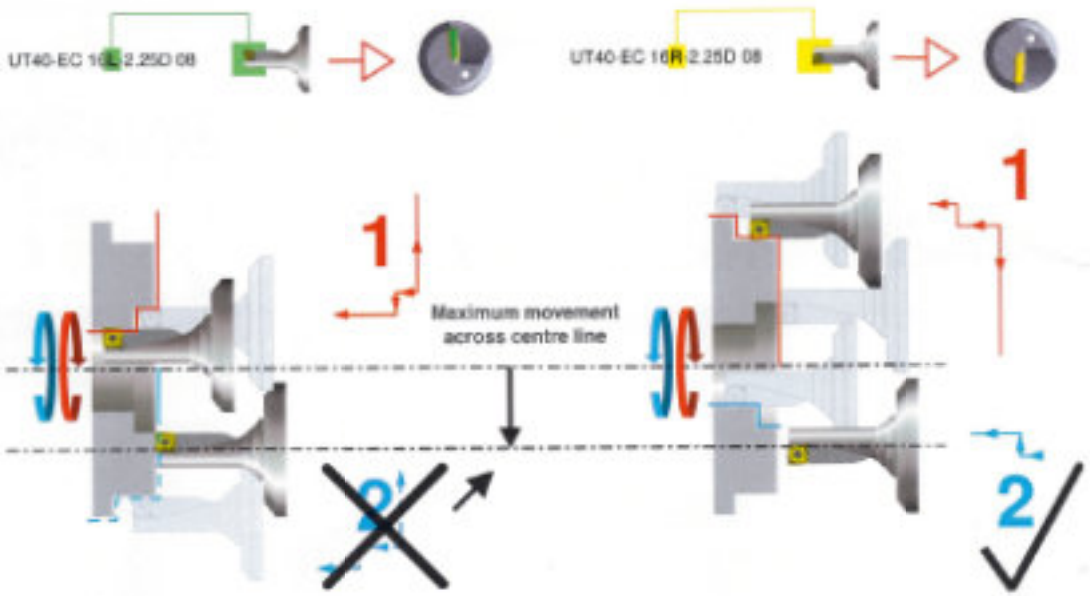
MULTICUT

Work piece material		Type of treatment / alloy	Coated carbide BFC205 v_c [m/min]	BFP300 v_c [m/min]	BFP305 v_c [m/min]	MG15 v_c [m/min]
P	Steel	Non-alloyed steel	270 – 90	230 – 50	250 – 70	–
		Low-alloyed steel	270 – 70	160 – 50	180 – 60	–
		High-alloyed steel	170 – 60	150 – 50	160 – 50	–
		Corrosion-resistant steel	200 – 90	180 – 50	180 – 70	–
	Stainless steel	Stainless steel	200 – 90	160 – 50	180 – 90	–
			–	–	–	–
			–	–	–	–
			–	–	–	–
	Cast iron	Grey cast iron	250 – 120	180 – 90	230 – 90	–
		Spheroidal cast iron	250 – 110	180 – 90	230 – 110	–
		Malleable cast iron	250 – 100	140 – 60	230 – 90	–
			–	–	–	–
	Non-ferrous metals	Aluminium wrought alloys	–	1800 – 70	1800 – 70	100 – 2250
		Aluminium cast alloys	–	1350 – 70	1350 – 70	100 – 1250
		Copper and copper alloys (bronze, brass)	–	360 – 70	360 – 70	100 – 600
		Non-metallic materials	–	180 – 50	180 – 50	60 – 220
	Heat resistant alloys	Heat-resistant alloys	–	80 – 20	50 – 10	–
		Titanium alloys	–	90 – 30	110 – 30	–
			–	–	–	–
			–	–	–	–

BF SERVICE

Machining across centre line

Application



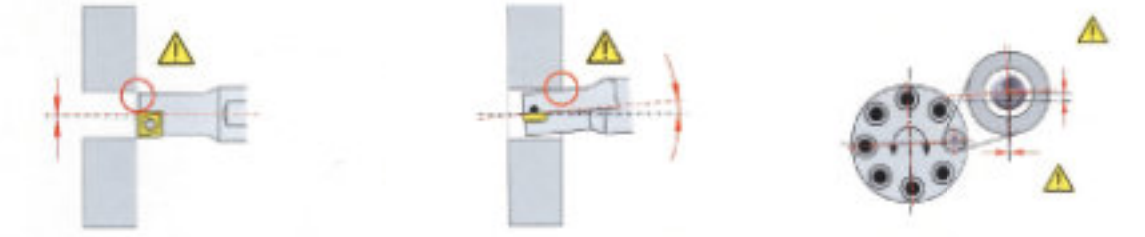
Situation:
In case of insufficient movement of the machine across the centre line the external diameter cannot be machined with the same tool

Solution:
Use a right-hand MultiCut tool

Application reference

Application

Axial displacement of the machine



Displacement in x -direction

Correct tool positioning

Angular error

Turret and/or spindle adjustment

Turret position error

Adjust turret plate (Y-axis)



Mounting of the insert

For tools Ø 8 mm right-hand or left-hand inserts are required. From Ø 10-32 mm neutral inserts are applied.

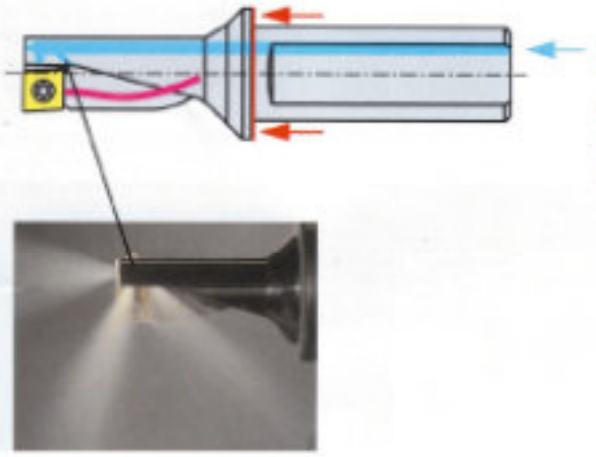
Through hole

With through holes a sharp-edged disk is created as tool break-out occurs. Safety measures are necessary

BF SERVICE

Chip booster / coolant pressure

Application



Internal coolant supply (chip booster)

Helical chip pocket (stability)

Axial abutment face (stability)

EcoCut offers an innovative detail solution for range 2.25D, namely additional bidirectional coolant supply for better chip evacuation.

An additional backwards directed coolant stream improves chip evacuation from the flute area. A minimum coolant pressure of 1.5 – 3 bar (optimum 5 – 7 bar) is required.

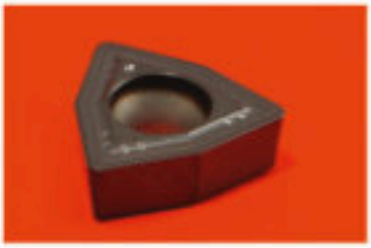
Grade description	Standard designation ISO	ANSI		Application range 01 05 10 15 20 25 30 35 40 45 50	P Steel	M Stainless steel	K Cast iron	N Non-ferrous metals	S Heat resistant alloys	H Hard materials
BFC205	HC-P25	C6	PVD		•					
	HC-K30	C1	PVD				•			
	HC-M20	-	PVD			○				
BFP300	HC-P30	C6	CVD		•					
	HC-M25	-	CVD			•				
	HC-S25	-	CVD			○			•	
	HC-K30	C1	CVD				○			
	HC-N25	C2	CVD					○		
BFP305	HC-P35	C5	CVD		•					
	HC-M30	-	CVD			•				
	HC-S30	-	CVD						•	
MG15	HW-K15	C2	-					•		

• Main application
○ Extended application

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UTENSILERIA MECCANICA

INSERTI PER PUNTE
DRILLING INSERTS



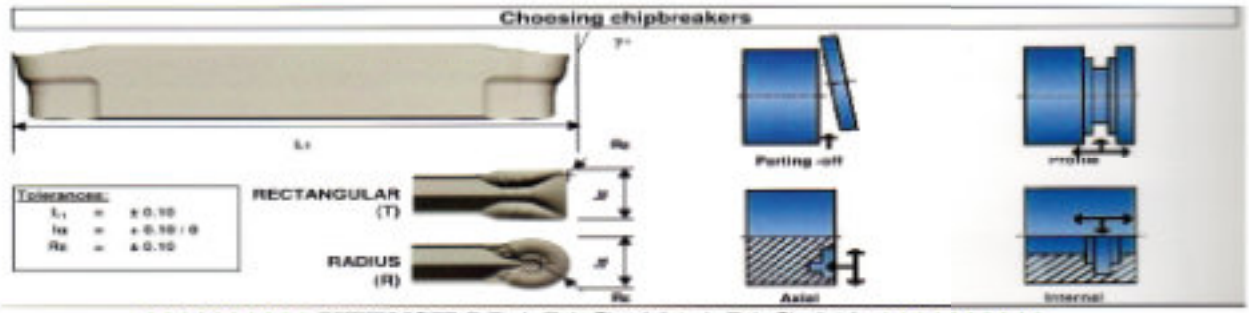


PER LE PUNTE CONSULTARE CATALOGO AKKO	GRADO BF24D
	P
	M
	K
WCMT 030208 DG IC=5,56 S=2,38 R=08	•
WCMT 040208 DG IC=6,35 S=2,38 R=08	•
WCMT 050308 DG IC=7,49 S=3,18 R=08	•
WCMT 06T308 DG IC=9,55 S=3,97 R=08	•
WCMT 080412 DG IC=12,7 S=4,76 R=12	•



BF SERVICE
UTENSILERIA MECCANICA

INSERTI SCANALATURA



********** UTENSILI DA PAG. 281 A PAG. 319 **********

DESIGNATION	LUNGHEZZA LENGHT L1	SPESSORE WIDTH Ià	RAGGIO RADIUS RÊ	AP MAX	GRADE BFP134
WD22N 2.00S-0.20-T	22	2	0,2	1,5	•
WD22N 2.50S-0.20-T	22	2,5	0,2	2	+
WD22N 3.00S-0.30-T	22	3	0,3	2,5	•
					
WD25N 4.00S-0.40-T	25	4	0,4	3	•
WD25N 5.00S-0.40-T	25	5	0,4	3,5	•
WD25N 6.00S-0.40-T	25	6	0,4	4	•
					
WD22N 3.00S-1.50-R	22	3	1,5	3	•
					
WD25N 4.00S-2.00-R	25	4	2	4	•
WD25N 5.00S-2.50-R	25	5	2,5	4	+
WD25N 6.00S-3.00-R	25	6	3	5	+

BF SERVICE

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UTENSILERIA MECCANICA

INSERTI NEGATIVI TORNITURA PCBN

	PCBN GRADE UNCOATED 1317 EDGE PREP. SN-013E B3	PCBN GRADE UNCOATED 1319 EDGE PREP. SN-013E B3	PCBN GRADE UNCOATED 1321 EDGE PREP. SN-020E B3	PCBN GRADE COATED 1318 EDGE PREP. SN-013E B3	PCBN GRADE COATED 1320 EDGE PREP. SN-013E B3	PCBN GRADE COATED 1322 EDGE PREP. SN-020E B3
 **L=12,70 S=4,76**						
CNGA 120402	+	+	+	+	+	+
CNGA 120404	**12145050**	**12145051**	**12145052**	+	+	+
CNGA 120408	**12145053**	**12145055**	**12145056**	+	+	+
CNGA 120412	**12145061**	**12145062**	**12145064**	+	+	+
 **L=12,70 S=6,35**						
DNGA 150602	+	+	+	+	+	+
DNGA 150604	**12145087**	**12145089**	**12145090**	+	+	+
DNGA 150608	**12145092**	**12145094**	**12145096**	+	+	+
DNGA 151612	**12145098**	**12145100**	**12145101**	+	+	+
 **L=16,50 S=4,76**						
TNGA 160402	+	+	+	+	+	+
TNGA 160404	**12145150**	**12145151**	**12145153**	+	+	+
TNGA 160408	**12145154**	**12145155**	**12145156**	+	+	+
TNGA 160412	**12145157**	**12145158**	**12145159**	+	+	+
 **L=16,60 S=4,76**						
VNGA 160402	+	+	+	+	+	+
VNGA 160404	+	+	+	+	+	+
VNGA 160408	+	+	+	+	+	+
VNGA 160412	+	+	+	+	+	+

L=LATO S=SPESSORE

BF SERVICE
UTENSILERIA MECCANICA

INSERTI NEGATIVI TORNITURA PCBN

 L=12,7 S=4,76	PCBN GRADE UNCOATED 1317 EDGE PREP. SN-013E B3	PCBN GRADE UNCOATED 1319 EDGE PREP. SN-013E B3	PCBN GRADE UNCOATED 1321 EDGE PREP. SN-020E B3	PCBN GRADE COATED 1318 EDGE PREP. SN-013E B3	PCBN GRADE COATED 1320 EDGE PREP. SN-013E B3	PCBN GRADE COATED 1322 EDGE PREP. SN-020E B3
SNGA 120404	+	+	+	+	+	+
SNGA 120408	+	+	+	+	+	+
SNGA 120412	+	+	+	+	+	+
 L=12,7 S=4,76						
WNGA 080402	+	+	+	+	+	+
WNGA 080404	+	+	+	+	+	+
WNGA 080408	+	+	+	+	+	+
WNGA 080412	+	+	+	+	+	+

CODE = A MAGAZZINO \ IN STOCK + = CHIEDERE DISPONIBILITA' \ ASK FOR AVAILABILITY

L=LATO S=SPESSORE

BF SERVICE

BF SERVICE
UTENSILERIA MECCANICA

INSERTI POSITIVI TORNITURA PCBN

 L=LATO S=SPESSORE R=RAGGIO	PCBN GRADE UNCOATED 1317 EDGE PREP. SN-013E B3	PCBN GRADE UNCOATED 1319 EDGE PREP. SN-013E B3	PCBN GRADE UNCOATED 1321 EDGE PREP. SN-020E B3	PCBN GRADE COATED 1318 EDGE PREP. SN-013E B3	PCBN GRADE COATED 1320 EDGE PREP. SN-013E B3	PCBN GRADE COATED 1322 EDGE PREP. SN-020E B3
CCGW 060202 L=6,35 S=2,38 R=0,2	12145031	12145033	12145034	+	+	+
CCGW 060204 L=6,35 S=2,38 R=0,4	12145035	12145036	12145038	+	+	+
CCGW 060208 L=6,35 S=2,38 R=0,8	+	+	+	+	+	+
CCGW 09T302 L=9,52 S=3,97 R=0,2	+	+	+	+	+	+
CCGW 09T304 L=9,52 S=3,97 R=0,4	12145039	12145040	12145041	+	+	+
CCGW 09T308 L=9,52 S=3,97 R=0,8	12145042	12145043	12145045	+	+	+
CCGW 120402 L=12,70 S=4,76 R=0,2	+	+	+	+	+	+
CCGW 120404 L=12,70 S=4,76 R=0,4	12145046	12145048	12145049	+	+	+
CCGW 120408 L=12,70 S=4,76 R=0,8	+	+	+	+	+	+
CCGW 120412 L=12,70 S=4,76 R=1,2	+	+	+	+	+	+
						
DCGW 070202 L=7,80 S=2,38 R=0,2	12145065	12145069	12145070	+	+	+
DCGW 070204 L=7,80 S=2,38 R=0,4	12145072	12145074	12145075	+	+	+
DCGW 070208 L=7,80 S=2,38 R=0,8	+	+	+	+	+	+
DCGW 11T302 L=11,60 S=3,97 R=0,2	12145077	12145079	12145081	+	+	+
DCGW 11T304 L=11,60 S=3,97 R=0,4	12145083	12145084	12145085	+	+	+
DCGW 11T308 L=11,60 S=3,97 R=0,8	+	+	+	+	+	+
						
SCGW 09T302 L=9,52 S=3,97 R=0,2	+	+	+	+	+	+
SCGW 09T304 L=9,52 S=3,97 R=0,4	+	+	+	+	+	+
SCGW 09T308 L=9,52 S=3,97 R=0,8	+	+	+	+	+	+
SCGW 120402 L=12,70 S=4,76 R=0,2	+	+	+	+	+	+
SCGW 120404 L=12,70 S=4,76 R=0,4	+	+	+	+	+	+
SCGW 120408 L=12,70 S=4,76 R=0,8	+	+	+	+	+	+
SCGW 120412 L=12,70 S=4,76 R=1,2	+	+	+	+	+	+

CODE = A MAGAZZINO \ IN STOCK + = CHIEDERE DISPONIBILITA' \ ASK FOR AVAILABILITY

BF SERVICE
UTENSILERIA MECCANICA

INSERTI POSITIVI TORNITURA PCBN

 L=LATO S=SPESSORE R=RAGGIO	PCBN GRADE UNCOATED 1317 EDGE PREP. SN-013E B3	PCBN GRADE UNCOATED 1319 EDGE PREP. SN-013E B3	PCBN GRADE UNCOATED 1321 EDGE PREP. SN-020E B3	PCBN GRADE COATED 1318 EDGE PREP. SN-013E B3	PCBN GRADE COATED 1320 EDGE PREP. SN-013E B3	PCBN GRADE COATED 1322 EDGE PREP. SN-020E B3
TCGW 090202 L=9,52 S=2,38 R=0,2	+	+	+	+	+	+
TCGW 090204 L=9,52 S=2,38 R=0,4	+	+	+	+	+	+
TCGW 090208 L=9,52 S=2,38 R=0,8	+	+	+	+	+	+
TCGW 110202 L=11,00 S=2,38 R=0,2	+	+	+	+	+	+
TCGW 110204 L=11,00 S=2,38 R=0,4	**12145104**	**12145106**	**12145108**	+	+	+
TCGW 110208 L=11,00 S=2,38 R=0,8	**12145110**	**12145113**	**12145116**	+	+	+
TCGW 16T302 L=16,5 S=3,97 R=0,2	+	+	+	+	+	+
TCGW 16T304 L=16,5 S=3,97 R=0,4	**12145119**	**12145121**	**12145124**	+	+	+
TCGW 16T308 L=16,5 S=3,97 R=0,8	**12145147**	**12145148**	**12145149**	+	+	+
 L=LATO S=SPESSORE R=RAGGIO						
VCGW 110302	+	+	+	+	+	+
VCGW 110304	**12145160**	**12145162**	**12145163**	+	+	+
VCGW 110308	+	+	+	+	+	+
VCGW 160402	+	+	+	+	+	+
VCGW 160404	**12145165**	**12145167**	**12145168**	+	+	+
VCGW 160408	**12145169**	**12145172**	**12145174**	+	+	+
VCGW 160412				+	+	+

CODE = A MAGAZZINO \ IN STOCK + = CHIEDERE DISPONIBILITA' \ ASK FOR AVAILABILITY

BF SERVICE

INSERTI POSITIVI TORNITURA PCBN

Parametri di taglio - *Schnittparameter*

Inserti CBN - *CBN-Wendeschneidplatten*

Gradi *Sorten*	Acciai temprati a taglio continuo *Gehärtete Stähle mit kontinuierlichem Schnitt*			Acciai temprati a taglio interrotto *Gehärtete Stähle mit unterbrochenem Schnitt*			Acciai e ghise temprati *Gehärtete Stähle und Gusseisen* 450 - 750HB (48-65HRC)			Ghise grigie *Grauguss*		
	Vt	Av	Ap	Vt	Av	Ap	Vt	Av	Ap	Vt	Av	Ap
1317	180 - 300	0,07 - 0,15	0,1 - 0,4	-	-	-	100 - 180	0,1 - 0,35	0,5 - 1,0	-	-	-
1319	-	-	-	150 - 240	0,05 - 0,20	0,1 - 0,3	-	-	-	1000 - 2000	0,2 - 0,45	0,5 - 2,0

	VT	AV	AP	VT	AV	AP	VT	AV	AP	VT	AV	AP
1321							50 250	0,05 0,2	0,5 1,0			

PRECISION MACHINING — CBN – CUBIC BORON NITRIDE

Grade description	Application	Properties
1317	▲ For hard turning in slightly interrupted cut and hard finish milling of hardened steel (50-63 Hrc) in continuous cut ▲ Very good resistance to cratering ▲ Extremely fine structure to achieve surface roughness in the submicron range ▲ Cutting speed: (180-300 m/min) – (590-980 sfm) ▲ Feed rate: (0.07-0.15 mm/rev) – (0.003-0.006 inch/rev)	approx. 45% PCBN Submicron PCBN grain size TiCN binder
1319	▲ For turning of all common hardened steels with slightly to strongly interrupted cut ▲ Optimal balance between toughness and resistance to cratering and clearance face wear ▲ Also suitable for plunging when producing valve seat rings ▲ Cutting speed: (150-240 m/min) – (490-790 sfm) ▲ Feed rate: (0.1-0.2 mm/rev) – (0.004-0.008 inch/rev)	approx. 65% PCBN Grain size 1.5 µm Primarily TiC binder
1321	▲ Ideal for applications with long tool life ▲ Suitable for the machining of grey cast iron and hard cast iron materials, milling of hardened steel and for the machining of most valve seat ring alloys in strongly interrupted cut ▲ First choice for most powder metals containing iron ▲ Cutting speed: (50-200 m/min) – (160-650 sfm) ▲ Feed rate: (0.05-0.2 mm/rev) – (0.002-0.008 inch/rev)	approx. 90% PCBN Grain size 4 µm New binder system

BF SERVICE
UTENSILERIA MECCANICA

INSERTI POSITIVI TORNITURA PCD

 L=LATO S=SPESSORE R=RAGGIO	EDGE PREPER. PREPARAZ. TAGLIENTE	PCD GRADE 1323 UNCOATED	PCD GRADE 1324 UNCOATED
CCGW 060202 L=6,35 S=2,38 RAGGIO=0,2	FN-A3	12145501	12145502
CCGW 060204 L=6,35 S=2,38 RAGGIO=0,4	FN-A3	12145503	12145504
CCGW 060208 L=6,35 S=2,38 RAGGIO=0,8	FN-A3	+	+
CCGW 09T302 L=9,52 S=3,97 RAGGIO=0,2	FN-A3	+	+
CCGW 09T304 L=9,52 S=3,97 RAGGIO=0,4	FN-A3	12145505	12145506
CCGW 09T308 L=9,52 S=3,97 RAGGIO=0,8	FN-A3	12145507	12145509
CCGW 120402 L=12,70 S=4,76 RAGGIO=0,2	FN-A3	+	+
CCGW 120404 L=12,70 S=4,76 RAGGIO=0,4	FN-A3	+	+
CCGW 120408 L=12,70 S=4,76 RAGGIO=0,8	FN-A3	12145510	12145511
CCGW 120412 L=12,70 S=4,76 RAGGIO=1,2	FN-A3	+	+
			
CCGT 060202 L=6,35 S=2,38 RAGGIO=0,2	FN-A3	12145512	12145513
CCGT 060204 L=6,35 S=2,38 RAGGIO=0,4	FN-A3	12145514	12145515
CCGT 060208 L=6,35 S=2,38 RAGGIO=0,8	FN-A3	+	+
CCGT 09T302 L=9,52 S=3,97 RAGGIO=0,2	FN-A3	+	+
CCGT 09T304 L=9,52 S=3,97 RAGGIO=0,4	FN-A3	12145516	12145517
CCGT 09T308 L=9,52 S=3,97 RAGGIO=0,8	FN-A3	12145518	12145519
CCGT 09T312 L=9,52 S=3,97 RAGGIO=1,2	FN-A3	+	+
CCGT 120402 L=12,70 S=4,76 RAGGIO=0,2	FN-A3	+	+
CCGT 120404 L=12,70 S=4,76 RAGGIO=0,4	FN-A3	+	+
CCGT 120408 L=12,70 S=4,76 RAGGIO=0,8	FN-A3	12145520	12145521

CODE = A MAGAZZINO \ IN STOCK + = CHIEDERE DISPONIBILITA' \ ASK FOR AVAILABILITY

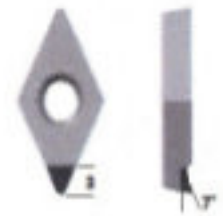
BF SERVICE

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UTENSILERIA MECCANICA

INSERTI POSITIVI TORNITURA PCD



L=LATO S=SPESSORE R=RAGGIO	EDGE PREPER. PREPARAZ. TAGLIENTE	PCD GRADE 1323 UNCOATED	PCD GRADE 1324 UNCOATED
DCGW 070201 L=7,8 S=2,38 RAGGIO=0,1	FN-A3	+	+
DCGW 070202 L=7,8 S=2,38 RAGGIO=0,2	FN-A3	12145522	12145525
DCGW 070204 L=7,8 S=2,38 RAGGIO=0,4	FN-A3	12145526	12145529
DCGW 070208 L=7,8 S=2,38 RAGGIO=0,8	FN-A3	+	+
DCGW 11T301 L=11,60 S=3,97 RAGGIO=0,1	FN-A3	+	+
DCGW 11T302 L=11,60 S=3,97 RAGGIO=0,2	FN-A3	12145540	12145542
DCGW 11T304 L=11,60 S=3,97 RAGGIO=0,4	FN-A3	12145543	12145545
DCGW 11T308 L=11,60 S=3,97 RAGGIO=0,8	FN-A3	12145546	12145547
DCGW 11T312 L=11,60 S=3,97 RAGGIO=1,2	FN-A3	+	+



DCGT 070201 L=7,8 S=2,38 RAGGIO=0,1	FN-A3	+	+
DCGT 070202 L=7,8 S=2,38 RAGGIO=0,2	FN-A3	12145551	12145552
DCGT 070204 L=7,8 S=2,38 RAGGIO=0,4	FN-A3	12145553	12145555
DCGT 070208 L=7,8 S=2,38 RAGGIO=0,8	FN-A3	+	+
DCGT 11T301 L=11,60 S=3,97 RAGGIO=0,1	FN-A3	+	+
DCGT 11T302 L=11,60 S=3,97 RAGGIO=0,2	FN-A3	12145557	12145558
DCGT 11T304 L=11,60 S=3,97 RAGGIO=0,4	FN-A3	12145559	12145561
DCGT 11T308 L=11,60 S=3,97 RAGGIO=0,8	FN-A3	12145564	12145565
DCGT 11T312 L=11,60 S=3,97 RAGGIO=1,2	FN-A3	+	+

CODE = A MAGAZZINO \ IN STOCK + = CHIEDERE DISPONIBILITA \ ASK FOR AVAILABILITY

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INSERTI POSITIVI TORNITURA PCD

 L=LATO S=SPESSORE R=RAGGIO	EDGE PREPER. PREPARAZ. TAGLIENTE	PCD GRADE 1323 UNCOATED	PCD GRADE 1324 UNCOATED
SCGW 097302 L=9,52 S=3,97 RAGGIO=0,2	FN-A3	+	+
SCGW 097304 L=9,52 S=3,97 RAGGIO=0,4	FN-A3	+	+
SCGW 097308 L=9,52 S=3,97 RAGGIO=0,8	FN-A3	+	+
SCGW 097312 L=9,52 S=3,97 RAGGIO=1,2	FN-A3	+	+
SCGW 120404 L=12,70 S=4,76 RAGGIO=0,4	FN-A3	+	+
SCGW 120408 L=12,70 S=4,76 RAGGIO=0,8	FN-A3	+	+
SCGW 120412 L=12,70 S=4,76 RAGGIO=1,2	FN-A3	+	+
 **SCGT 097302** L=9,52 S=3,97 RAGGIO=0,2	FN-A3	+	+
SCGT 097304 L=9,52 S=3,97 RAGGIO=0,4	FN-A3	12145566	12145567
SCGT 097308 L=9,52 S=3,97 RAGGIO=0,8	FN-A3	12145568	12145569
SCGT 097312 L=9,52 S=3,97 RAGGIO=1,2	FN-A3	+	+
SCGT 120404 L=12,70 S=4,76 RAGGIO=0,4	FN-A3	+	+
SCGT 120408 L=12,70 S=4,76 RAGGIO=0,8	FN-A3	+	+
SCGT 120412 L=12,70 S=4,76 RAGGIO=1,2	FN-A3	+	+

CODE = A MAGAZZINO \ IN STOCK + = CHIEDERE DISPONIBILITA \ ASK FOR AVAILABILITY

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UTENSILERIA MECCANICA

INSERTI POSITIVI TORNITURA PCD

 L=LATO S=SPESSORE R=RAGGIO	EDGE PREPER. PREPARAZ. TAGLIENTE	PCD GRADE 1323 UNCOATED	PCD GRADE 1324 UNCOATED
TCGW 090202 L=9,52 S=2,38 RAGGIO=0,2	**FN-A3**	+	+
TCGW 090204 L=9,52 S=2,38 RAGGIO=0,4	**FN-A3**	+	+
TCGW 090208 L=9,52 S=2,38 RAGGIO=0,8	**FN-A3**	+	+
TCGW 110202 L=11 S=2,38 RAGGIO=0,2	**FN-A3**	+	+
TCGW 110204 L=11 S=2,38 RAGGIO=0,4	**FN-A3**	**12145571**	**12145572**
TCGW 110208 L=11 S=2,38 RAGGIO=0,8	**FN-A3**	+	+
TCGW 16T302 L=16,50 S=3,97 RAGGIO=0,2	**FN-A3**	+	+
TCGW 16T304 L=16,50 S=3,97 RAGGIO=0,4	**FN-A3**	**12145573**	**12145574**
TCGW 16T308 L=16,50 S=3,97 RAGGIO=0,8	**FN-A3**	**12145795**	**12145797**
TCGW 16T312 L=16,50 S=3,97 RAGGIO=1,2	**FN-A3**	+	+
			
TCGT 090202 L=9,52 S=2,38 RAGGIO=0,2	**FN-A3**	+	+
TCGT 090204 L=9,52 S=2,38 RAGGIO=0,4	**FN-A3**	+	+
TCGT 090208 L=9,52 S=2,38 RAGGIO=0,8	**FN-A3**	+	+
TCGT 110202 L=11 S=2,38 RAGGIO=0,2	**FN-A3**	**12145799**	**12145800**
TCGT 110204 L=11 S=2,38 RAGGIO=0,4	**FN-A3**	**12145801**	**12145802**
TCGT 110208 L=11 S=2,38 RAGGIO=0,8	**FN-A3**	+	+
TCGT 16T302 L=16,50 S=3,97 RAGGIO=0,2	**FN-A3**	+	+
TCGT 16T304 L=16,50 S=3,97 RAGGIO=0,4	**FN-A3**	**12145804**	**12145805**
TCGT 16T308 L=16,50 S=3,97 RAGGIO=0,8	**FN-A3**	**12145806**	**12145807**
TCGT 16T312 L=16,50 S=3,97 RAGGIO=1,2	**FN-A3**	+	+

CODE = A MAGAZZINO \ IN STOCK + = CHIEDERE DISPONIBILITA \ ASK FOR AVAILABILITY

 L=LATO S=SPESSORE R=RAGGIO	EDGE PREPER. PREPARAZ. TAGLIENTE	PCD GRADE 1323 UNCOATED	PCD GRADE 1324 UNCOATED
VCGW 110301 L=11,10 S=3,18 RAGGIO=0,1	**FN-A3**	+	+
VCGW 110302 L=11,10 S=3,18 RAGGIO=0,2	**FN-A3**	**12145809**	**12145810**
VCGW 110304 L=11,10 S=3,18 RAGGIO=0,4	**FN-A3**	**12145811**	**12145812**
VCGW 110308 L=11,10 S=3,18 RAGGIO=0,8	**FN-A3**	+	+
VCGW 160401 L=16,60 S=4,76 RAGGIO=0,1	**FN-A3**	+	+
VCGW 160402 L=16,60 S=4,76 RAGGIO=0,2	**FN-A3**	+	+
VCGW 160404 L=16,60 S=4,76 RAGGIO=0,4	**FN-A3**	**12145813**	**12145814**
VCGW 160408 L=16,60 S=4,76 RAGGIO=0,8	**FN-A3**	+	+
VCGW 160412 L=16,60 S=4,76 RAGGIO=1,2	**FN-A3**	+	+
			
VCGT 110301 L=11,10 S=3,18 RAGGIO=0,1	**FN-A3**	+	+
VCGT 110302 L=11,10 S=3,18 RAGGIO=0,2	**FN-A3**	**12145815**	**12145816**
VCGT 110304 L=11,10 S=3,18 RAGGIO=0,4	**FN-A3**	**12145817**	**12145818**
VCGT 110308 L=11,10 S=3,18 RAGGIO=0,8	**FN-A3**	+	+
VCGT 160401 L=16,60 S=4,76 RAGGIO=0,1	**FN-A3**	+	+
VCGT 160402 L=16,60 S=4,76 RAGGIO=0,2	**FN-A3**	**12145819**	**12145820**
VCGT 160404 L=16,60 S=4,76 RAGGIO=0,4	**FN-A3**	**12145821**	**12145822**
VCGT 160408 L=16,60 S=4,76 RAGGIO=0,8	**FN-A3**	**12145824**	**12145825**
VCGT 160412 L=16,60 S=4,76 RAGGIO=1,2	**FN-A3**	+	+

CODE = A MAGAZZINO \ IN STOCK + = CHIEDERE DISPONIBILITA \ ASK FOR AVAILABILITY

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INSERTI POSITIVI TORNITURA PCD/PKD

Parametri di taglio - *Schnittparameter*

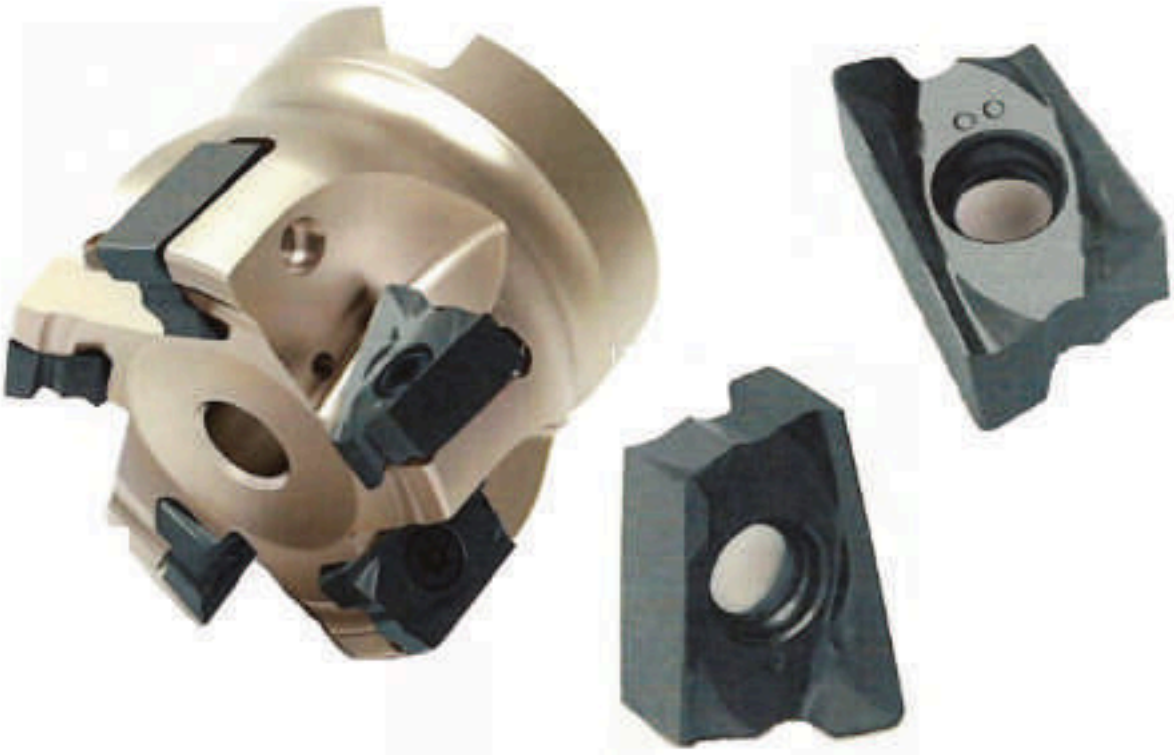
Inserti PCD - *PKD-Wendeschneidplatten*

Gradi *Sorten*	Leghe di Alluminio Si<13% *Aluminiumlegierungen Si<13%*			Leghe di Alluminio 13%<Si<16% *Aluminiumlegierungen 13%<Si<16%*			Leghe di Alluminio Si>16% *Aluminiumlegierungen Si>16%*			Rame e sue leghe *Kupfer und Kupferlegierungen*		
	Vt	Av	Ap	Vt	Av	Ap	Vt	Av	Ap	Vt	Av	Ap
1323	500 + 2100	0,09 + 0,35	0,3 + 5,0	400 + 1700	0,09 + 0,35	0,3 + 5,0	400 + 800	0,09 + 0,35	0,3 + 5,0	300 + 600	0,09 + 0,35	0,3 + 5,0
1321	VT	AV	AP	VT	AV	AP	VT	AV	AP	VT	AV	AP
				500 2000	0,09 0,35	0,2 2,0	500 1000	0,9 0,35	0,2 2,0	400 900	0,09 0,35	0,2 2,0

Grade description	Application	Properties
1323	▲ Ideal grade for roughing and finishing with only one tool ▲ Recommended for alloys with low or medium aluminium content ▲ For numerous applications where a balance of toughness and wear resistance is required	Average grain size: 10 µm.
1324	▲ Suitable for MMCs, aluminium alloys with high silicon content, high-tensile cast iron and the machining of bimetallic materials ▲ Excellent abrasion resistance and good heat resistance ▲ Very good wear resistance and cutting edge stability	Grain sizes from 2 – 30 µm.

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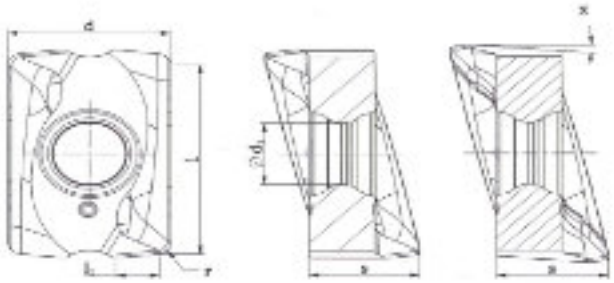
INSERTO A SPALLAMENTO 90°
4 LATI LNKU / LOKU120608



BF SERVICE

INSERTO A 4 TAGLIENTI 90°

Insert (LNKU12 / LOKU12)

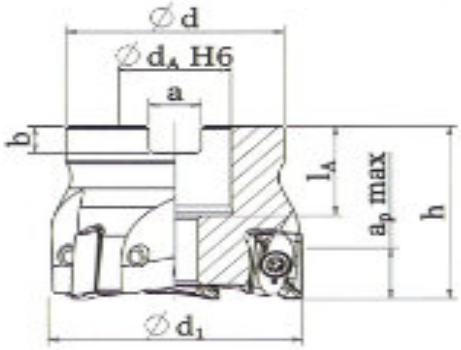


Description	d [mm]	l [mm]	s [mm]	l_1 [mm]	r [mm]	d_1 [mm]	x [°]
LNKU 120308ER-HCM	10	13.4	6.78	2.7	0.8	4.4	0
LNKU 120508ER-SCM	10	13.4	6.78	2.7	0.8	4.4	0
LNKU 120308ER-CCM	10	13.4	6.78	2.7	0.8	4.4	0
LOKU 120508ER-SCM	10	13.4	6.87	2.7	0.8	4.4	5
LOKU 120508ER-XCM	10	13.4	6.87	2.7	0.8	4.4	6

Milling body (LNKU12 / LOKU12)

A-

- Face milling
- Angled milling
- Helical plunging
- Shoulder milling
- Slot milling
- Pocket milling

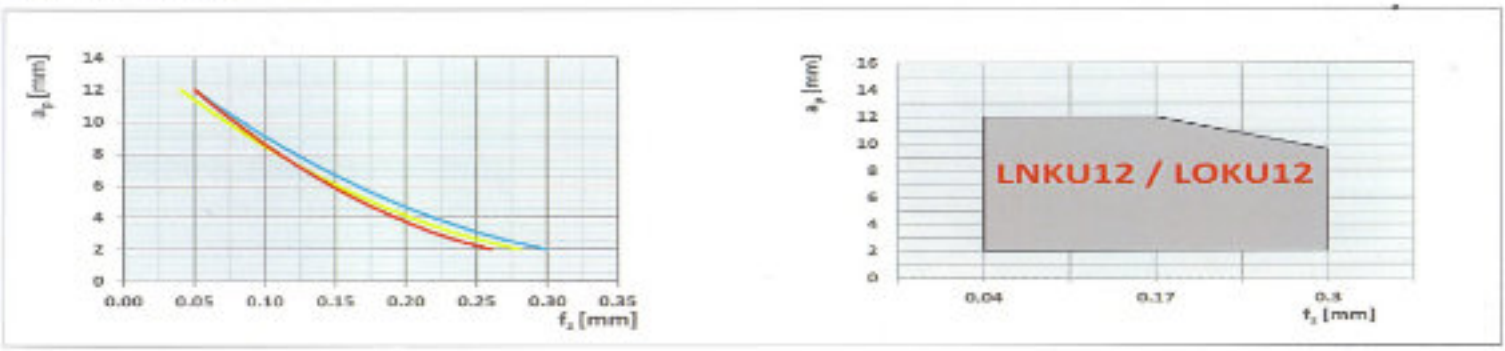


Description	Ød$_1$ [mm]	h [mm]	Ø d_A H6/h6 [mm]	a_p max [mm]	n_{max} [min^{-1}]	z	Ø d [mm]	l_A [mm]	a [mm]	b [mm]
A-DSM-LO/LN12-40.R.04	40	40 / 40.44*	16	12	17000	4	38	20	8.4	5.6
A-DSM-LO/LN12-50.R.05	50	40 / 40.44*	22	12	14800	5	43	20	10.4	6.3
A-DSM-LO/LN12-63.R.06	63	40 / 40.44*	22	12	12850	6	48	21	10.4	6.3
A-DSM-LO/LN12-80.R.07	80	50 / 50.44*	27	12	11250	7	58	22	12.4	7

*with LOKU Insert

Cutting data LNKU12 / LOKU 12

Starting parameters:



Grades and materials:

Material group		Chipbreaker	Grade	Cutting data v_c [m/min]	f_z [mm]	a_p [mm]
P	Steel	HCM	**BFC23** **BFP035**	220 – 60	0.05 – 0.30	12 – 2.0
M	Stainless steel	SCM	**BPM24**	200 – 60	0.04 – 0.26	12 – 2.0
K	Cast iron	CCM	**BFCK15N**	320 – 100	0.05 – 0.26	12 – 2.0

Available range LNKU12 / LOKU 12

Insert	Designation	Chipbreaker	Material number	Available
	LNKU 120608ER-HCM **BFC23**	...-HCM	12434604	•
	LNKU 120608ER-HCM **BFP035**	...-HCM	12158008	•
	LNKU 120608ER-SCM **BPM24**	...-SCM	12373789	•
	LNKU 120608ER-CCM **BFCK15N**	...-CCM	14659156	•
	LOKU 120608ER-SCM **BPM24**	...-SCM	12373779	•
	LOKU 120608ER-XCM **BFC523**	...-XCM		○
	LOKU 120608ER-XCM **BFC524**	...-XCM		○

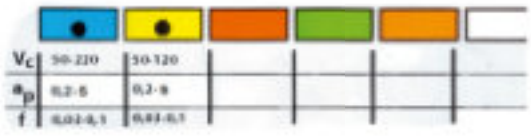
Body	Designation	ø Milling cutter [mm]	z	Material number	Available
	A-DSM-LO/LN12-40.R.04	40	4	14549248	•
	A-DSM-LO/LN12-50.R.05	50	5	12367555	•
	A-DSM-LO/LN12-63.R.06	63	6	12645968	•
	A-DSM-LO/LN12-80.R.07	80	7	12645971	•

Spare parts	Designation	Torque moment [Nm]	Material number	Available
	M4.0 x 11 – T15	5	11042274	•
	Power screw M10.0 x 31.0	20	11040298	•

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FRESE A INSERTI DIAM. 12 E DIAM. 14 A 2 TAGLIENTI
INSERTS MILLS DIAM. 12 AND 14 WITH 2 CUTTING EDGES



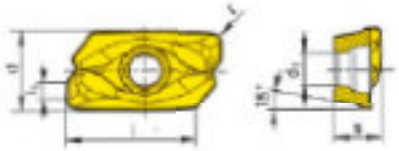




		d	L	D
DIAM. 12X115 Z2	•	12	115	11,8
DIAM. 14X115 Z2	•	14	115	13,8
		PER INOX FOR STAINLESS STEEL	PER ACCIAIO E Fe FOR IRON AND STEEL	PER LEGHE LEGGERE ALUMINUM
XDKT 070304 SR M5		•	•	
XDKT 070304 FR F2				•

● = A MAGAZZINO \ IN STOCK + - CHIEDERE DISPONIBILITA' \ ASK FOR AVAILABILITY

	d	l	s	ll	r	d1
	mm	mm	mm	mm	mm	mm
SR M5	4,9	7,8	3,18	1	0,4	2,5
ALU FR F2	4,9	7,8	3,18	1,5	0,4	2,5



Inserti - Insert type: SEHT1204.. / SEHW1204.. / SEMT13T3.. / SEET13T3

ISO	Material - Tipo di Acciaio	HB (Brinell) / Grade	V_c (min/min)			
			B1X	TCN54	BFP123 / BH20 BFC125 / BS3TL	BS4TL / BH30 BFP223
P	Unalloyed steel - Acciai non legati	125-220	-	180-400	150-230	130-160
	Low-alloyed steel - Acciai bassa tenacità	220-280	-		140-220	120-150
	High-alloy steel - Acciai alta tenacità	280-380	-		130-180	100-130
M	Ferritic/martensitic - Ferritico / Martensitico	200-330	-	150-300	120-160	100-120
	Austenitic - Austenitico	200-330	-		100-150	80-110
	Austetenitic-Ferretic - Austenitico / Ferritico	230-260	-		70-110	70-100
K	Malleable cast iron - Ghisa malleabile	130-230	-		150-280	130-250
	Grey cast iron - Ghisa grigia	180-245	-		130-230	110-220
	Nodular cast iron - Ghisa nodulare	160-250	-		80-190	80-170
N	Alluminium and Non Ferrous Alluminio e materiali non ferrosi	30-130	35 =1000		-	-
S	Heat Resistant Super Alloys Super Leghe resistenti al calore	200-320	-		20-90	20-80

Feed f_z (mm/t)				
SEHT 1204 AFSN	SEKT 1204AFER SCM SEMT 13T3AGSN	SEHT 1204 AF-alu SEET 13T3-LL	SEHW 1204 AFSN	SEHW 1204 AFTN
0,10-0,15	0,10-0,30	-	0,10-0,20	0,10-0,30
0,10-0,15	0,10-0,30	-	0,10-0,20	0,10-0,30
0,10-0,15	0,10-0,30	-	0,10-0,20	0,10-0,30
0,10-0,15	0,10-0,30	-	-	0,10-0,30
0,10-0,15	0,10-0,30	-	-	0,10-0,30
0,10-0,15	0,10-0,30	-	-	0,10-0,30
0,10-0,20	0,10-0,35	-	0,10-0,25	0,10-0,35
0,10-0,20	0,10-0,35	-	0,10-0,25	0,10-0,35
0,10-0,20	0,10-0,35	-	0,10-0,25	0,10-0,35
-	-	0,10-0,30	-	-
0,10-0,20	-	-	0,10-0,20	-

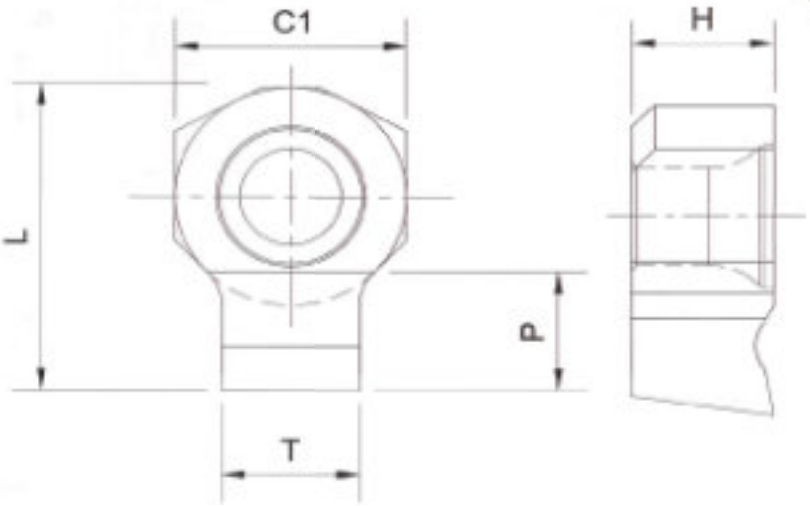
BF SERVICE

STOZZATURA ST

PROGRAMMA COMPLETO STOZZATURA
COMPLETE PROGRAM SLOTTING MACHINES

Inserti e utensili per la realizzazione di sedi chiavetta/lunetta.
Varie tipologie di connessioni, tra le più utilizzate.
Possibilità di variare il rivestimento inserto su richiesta.





Inserti metallo duro

CODICI ST/Codes ST			C1	H	L	P	T	Tolleranza su T	
STHZ -90-0604-30	H7	HM33*	6	4,7	7	2	3	H7	+0,012 0,000
STHZ -90-0604-30	C11	HM33*						C11	+0,145 +0,070
STHZ -90-0604-40	H7	HM33*	6	4,7	8	3	4	H7	+0,012 0,000
STHZ -90-0604-40	C11	HM33*						C11	+0,145 +0,070
STHZ -90-0604-50	H7	HM33*	6	4,7	8	3,2	5	H7	+0,012 0,000
STHZ -90-0604-50	C11	HM33*						C11	+0,145 +0,070
STHZ -1006-60	H7	HM33*	10	6,3	13,8	4,9	6	H7	+0,012 0,000
STHZ -1006-60	C11	HM33*						C11	+0,145 +0,070
STHZ -1006-80	H7	HM33*	10	6,3	13,8	5,2	8	H7	+0,015 0,000
STHZ -1006-80	C11	HM33*						C11	+0,170 +0,080
STHZ -1309-100	H7	HM33*	13	9,4	18,5	6,2	10	H7	+0,015 0,000
STHZ -1309-100	C11	HM33*						C11	+0,170 +0,080
STHZ -1309-120	H7	HM33*	13	9,4	18,5	7,2	12	H7	+0,018 0,000
STHZ -1309-120	C11	HM33*						C11	+0,205 +0,095

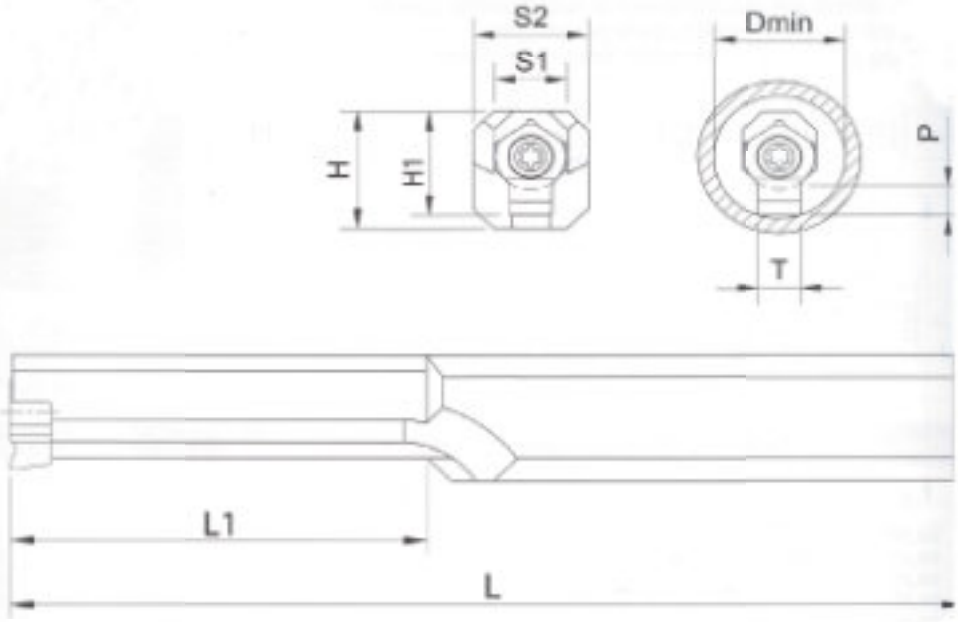
Fissaggio inserto con appoggio vite su sede conica, per una migliore stabilità.
HM33 rivestimento Nit+TiAlCN (rosso) per applicazioni generiche con durezza HV 3200
Coefficiente d'attrito 0,4 - temp max lavorazione 600°

★ Su ordinazione, con quantitativo minimo e tempo di consegna 7 giorni lavorativi disponibili rivestimenti HM31 e HM34.
-HM31 rivestimento TiN (oro) per migliore taglienza, con durezza HV 2500/coefficiente d'attrito 0,4/temperatura max lavorazione 500°
-HM34 rivestimento TiAlN+WC/C (nero) per ripresa materiale pretrattato, con durezza HV 3500/coefficiente d'attrito 0,15/temperatura max lavorazione 850°

STOZZATURA ST

PROGRAMMA COMPLETO STOZZATURA
COMPLETE PROGRAM SLOTTING MACHINES

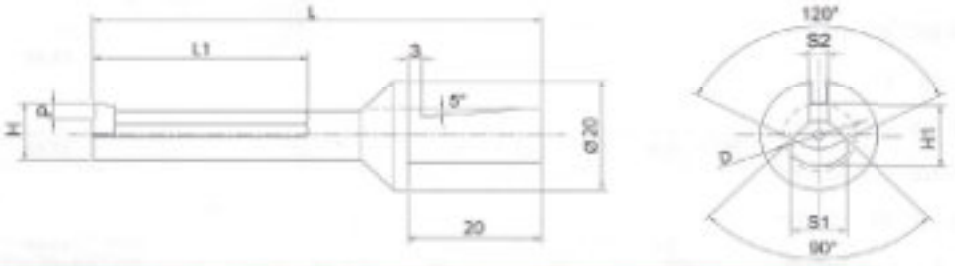




Porta inserti per STHZ

CODICE ST/Code ST	H	H1	S2	S1	L1	L	T	Dmin	Pmax	VITE INS	RIF INSERTO
STPHZ -06-1	11,3	9,3	11,3	8,2	35	165	3	9,9	2	M2,5X10/07P	STHZ-90-0604 -30
STPHZ -06-2	11,3	10	11,3	7	60	200	4	10,4	3	M2,5X10/07P	STHZ-90-0604 -40
	11,3	10	11,3	7	60	200	5	10,8	3,2	M2,5X10/07P	STHZ-90-0604 -50
STPHZ -10	15,5	16,2	12	-	-	220	6	17,9	4,9	M4X15/15P	STHZ 10 06 -60
	15,5	16,2	12	-	-	220	8	18,4	5,2	M4X15/15P	STHZ 10 06 -80
STPHZ -13	20,6	21,5	14	-	-	250	10	23,8	6,2	M6X18/20	STHZ 13 09 -100
	20,6	21,5	14	-	-	250	12	24,2	7,2	M6X18/20	STHZ 13 09 -120





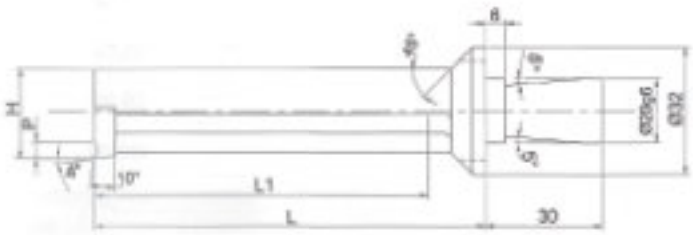
Utensili modulari per STHZ

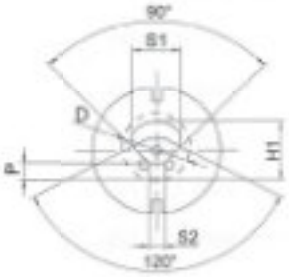
CODICE ST/Code ST	L1	L	H1	H	S1	S2	Dmin	Pmax	VITE INS	RIF INSERTO
STCHZ-12-40-06-3	40	74	8	8,3	7	2,5	8,7	2	M2,5X10/07P	STHZ-90-0604 -30
STCHZ-12-50-06-4	50	84	8,5	9	8	3,5	9,7	3	M2,5X10/07P	STHZ-90-0604 -40
STCHZ-12-60-06-5	60	94	10,5	11	11	0,45	13	3,2	M2,5X10/07P	STHZ-90-0604 -50
STCHZ-12-65-10-6	65	99	15,3	12	12	5,5	16,8	4,2	M4X15/15P	SZ10 06 -60
STCHZ-12-75-10-6-8	75	107	16	16	16	5,5	17,5	4,2	M4X15/15P	SZ10 06 -60 **SZ10 06 -80**

BF SERVICE

PROGRAMMA COMPLETO STOZZATURA
COMPLETE PROGRAM SLOTTING MACHINES

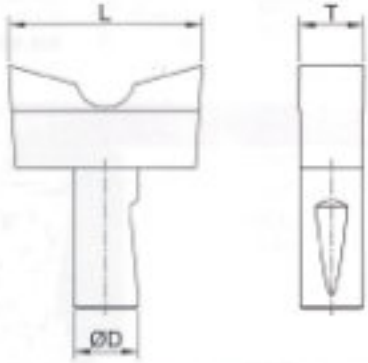






Utensili modulari per STHZ

CODICE ST/Code ST	L1	L	H1	H	S1	S2	Dmin	Pmax	VITE INS	RIF INSERTO
STCHZ-20-100-10-8	100	148	18	18,5	16	5,5	21	5,2	M4X15/15P	STHZ1006 -80
STCHZ-20-120-13-10	120	168	25,5	26	24	9,5	29	6,2	M6X18/20	STHZ1309 -100 STHZ1309 -120





Inserti STSTZ H7 NON RIV

CODICE ST/Code ST	d	L	T	TOLL. H7
STSTZ-0404-H7 22S	4	11	4	+0,012 0,000
STSTZ-0505-H7 22S	5	12	5	+0,012 0,000
STSTZ-0606-H7 22S	6	18	6	+0,012 0,000
STSTZ-0808-H7 22S	8	21	8	+0,015 0,000
STSTZ-1010-H7 22S	10	30	10	+0,015 0,000
STSTZ-1212-H7 22S	12	38	12	+0,018 0,000
STSTZ-1414-H7 22S	14	40	14	+0,018 0,000
STSTZ-1616-H7 22S	16	45	16	+0,018 0,000
STSTZ-1818-H7 22S	18	55	18	+0,018 0,000
STSTZ-2020-H7 22S	20	65	20	+0,021 0,000
STSTZ-2022-H7 22S	20	65	22	+0,021 0,000

BF SERVICE

STOZZATURA ST

PROGRAMMA COMPLETO STOZZATURA
COMPLETE PROGRAM SLOTTING MACHINES

Inserti STSTZ C11 NON RIV

CODICE ST/*Code ST*	d	L	T	TOLL. C11
STSTZ-0404-C11 22S	4	11	4	+0,145 / 0,070
STSTZ-0505-C11 22S	5	12	5	+0,145 / 0,070
STSTZ-0606-C11 22S	6	18	6	+0,145 / 0,070
STSTZ-0808-C11 22S	8	21	8	+0,170 / 0,080
STSTZ-1010-C11 22S	10	30	10	+0,0170 / 0,080
STSTZ-1212-C11 22S	12	38	12	+0,205 / 0,095
STSTZ-1414-C11 22S	14	40	14	+0,205 / 0,095
STSTZ-1616-C11 22S	16	45	16	+0,205 / 0,095
STSTZ-1818-C11 22S	18	55	18	+0,0205 / 0,095
STSTZ-2020-C11 22S	20	65	20	+0,240 / 0,110
STSTZ-2022-C11 22S	20	65	22	+0,240 / 0,110

Inserti STSTZ H7 RIV PVD

CODICE ST/*Code ST*	d	L	T	TOLL. H7
STSTZ-0404-H7 22R*	4	11	4	+0,012 / 0,000
STSTZ-0505-H7 22R*	5	12	5	+0,012 / 0,000
STSTZ-0606-H7 22R*	6	18	6	+0,012 / 0,000
STSTZ-0808-H7 22R*	8	21	8	+0,015 / 0,000
STSTZ-1010-H7 22R*	10	30	10	+0,015 / 0,000
STSTZ-1212-H7 22R*	12	38	12	+0,018 / 0,000
STSTZ-1414-H7 22R*	14	40	14	+0,018 / 0,000
STSTZ-1616-H7 22R*	16	45	16	+0,018 / 0,000
STSTZ-1818-H7 22R*	18	55	18	+0,018 / 0,000
STSTZ-2020-H7 22R*	20	65	20	+0,021 / 0,000
STSTZ-2022-H7 22R*	20	65	22	+0,021 / 0,000

Inserto e sottopiastrina in acciaio rapido per evitare problemi con la brasatura.
22R rivestimento Nit+TiAlCN (rosso) universale, prima scelta, con durezza HV 3200
Coefficiente d'attrito 0,4 - temp max lavorazione 600°

★ Su ordinazione, con quantitativo minimo e tempo di consegna 7 giorni lavorativi disponibili rivestimenti HM31 e HM34.
-21R rivestimento TiN (oro) per migliore taglienza, con durezza HV 2500/coefficiente d'attrito 0,4/temperatura max lavorazione 500°
-23R rivestimento TiAlN+WC/C (nero) per ripresa materiale pretrattato, con durezza HV 3500/coefficiente d'attrito 0,15/temperatura max lavorazione

BF SERVICE

PROGRAMMA COMPLETO STOZZATURA
COMPLETE PROGRAM SLOTTING MACHINES





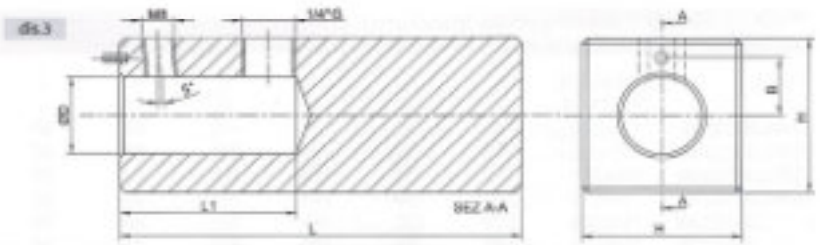
Porta inserti per STSTZ

CODICE ST/Code ST	A	B	L	ØD	H	L1	VITE	RIF INSERTO
STPST-04	14	19	200	4	10,5	42	M5	STSTZ -0404
STPST-05	14	19	200	5	11,5	52	M5	STSTZ -0505
STPST-06	14	19	220	6	17	62	M6	STSTZ -0606
STPST-08	14	19	220	8	-	-	M8	STSTZ -0808
STPST-10	18	28	250	10	-	-	M10	STSTZ -1010
STPST-12	22	34	250	12	-	-	M10	STSTZ -1212
STPST-14	22	34	300	14	-	-	M12	STSTZ -1414
STPST-16	24	39	350	16	-	-	M12	STSTZ -1616
STPST-18	29	45	375	18	-	-	M14	STSTZ -1818
STPST-20	35	54	430	20	-	-	M14	STSTZ -2020 STSTZ -2022









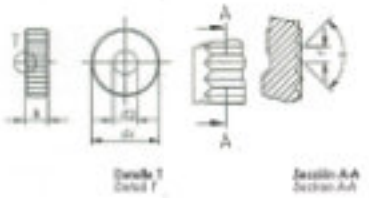
Bussole per porta inserti modulari PER STSTZ

CODICE/Code	D	L	L1	H	B	Dis.
STBHZ-025-23-12	12	125	44	23	8,5	1
STBHZ-25 -25-12	12	125	30	25	8,5	2
STBHZ-40 -40-20	20	100	30	40	15	3

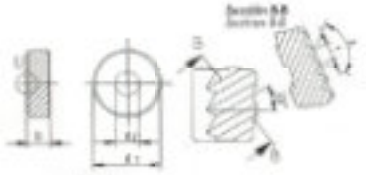
MOLETAS SEGÚN DIN 403
KNURLS ACCORDING TO DIN403

INIEGI

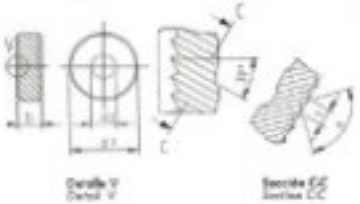
AA
Moleta con dentado recto
Straight pattern Knurl



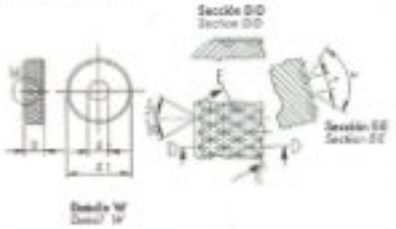
BL
Moleta con dentado helicoidal izquierdo
Lefthand spiral Knurl



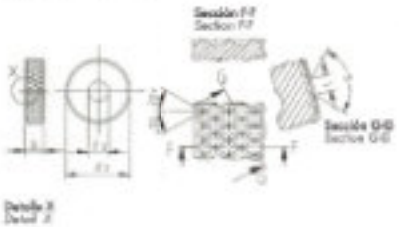
BR
Moleta con dentado helicoidal derecho
Righthand spiral Knurl



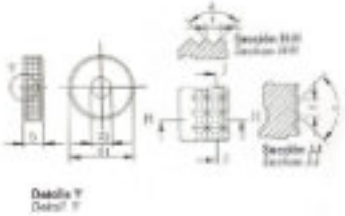
GE
Moleta con dentado cruzado puntas salientes
Cross-knurl, points up (male)



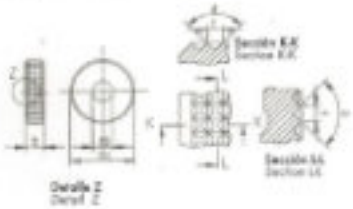
GV
Moleta con dentado cruzado puntas entrantes
Cross-knurl, points down (female)



KE
Moleta con dentado cuadrado puntas salientes
Square knurl, points up (male)



KV
Moleta con dentado cuadrado puntas entrantes
Square knurl, point down (female)



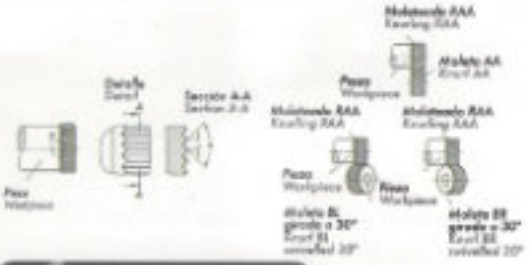
BF SERVICE

INTEGI

MOLETEADO EN PIEZA SEGÚN DIN 82
KNURLING ON COMPONENTS ACCORDING TO DIN82

RAA

Moleteado con estrías paralelas al eje
Knurling with grooves parallel to axis



RBL

Moleteado helicoidal izquierdo
Left-hand knurling



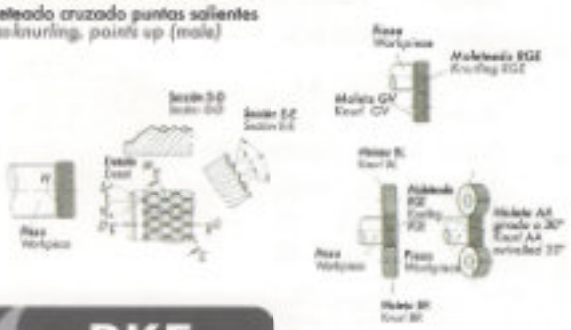
RBR

Moleteado helicoidal derecho
Right-hand knurling



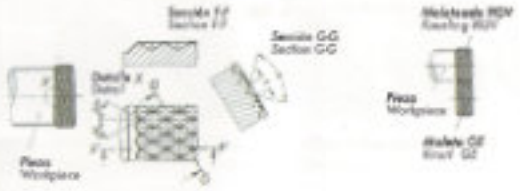
RGE

Moleteado cruzado puntas salientes
Cross-knurling, points up (male)



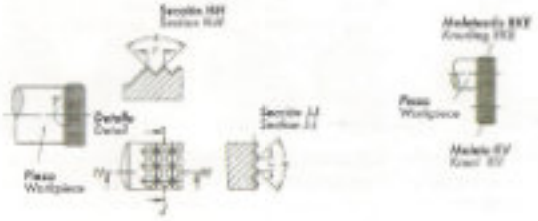
RGV

Moleteado cruzado, puntas entrantes
Cross-knurling, points down (female)



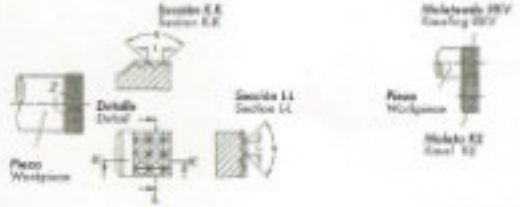
RKE

Moleteado cuadrado, puntas salientes
Square knurling, points up (male)



RKV

Moleteado cuadrado, puntas entrantes
Square knurling, points down (female)



MOLETAS
KNURLS

INIECI

- Moletas según DIN 403 para la realización de moleteados según DIN82
- Caras laterales y agujero rectificados
- Dientes fresados
- Fabricadas en los siguientes materiales:
  - HSS... para moletas de presión
  - PC (acero pulvimetalurgico con Co)... para moletas de corte
- Templadas a 62±1 HRc

- *Knurls according to DIN 403 for knurlings profiles on workpiece according to DIN82*
- *Ground faces and central bore*
- *Fine-milled teeth*
- *Produced in the following materials:*
  - *HSS... for form knurls*
  - *PC (Powder Metal Steel with Co)... for cut knurls*
- *Hardened to 62±1 HRc*

Recubrimientos / *Coatings:*

- Nitruro de titanio, TiN
  Titanium nitride, TiN
- Carbonitruro de titanio, TiCN
  Titanium carbonitride, TiCN
- Nitrurado
  Nitrided
- Nitruro de titanio y aluminio, TiAlN
  Titanium nitride and aluminium, TiAlN
- Otros... / *Other...*

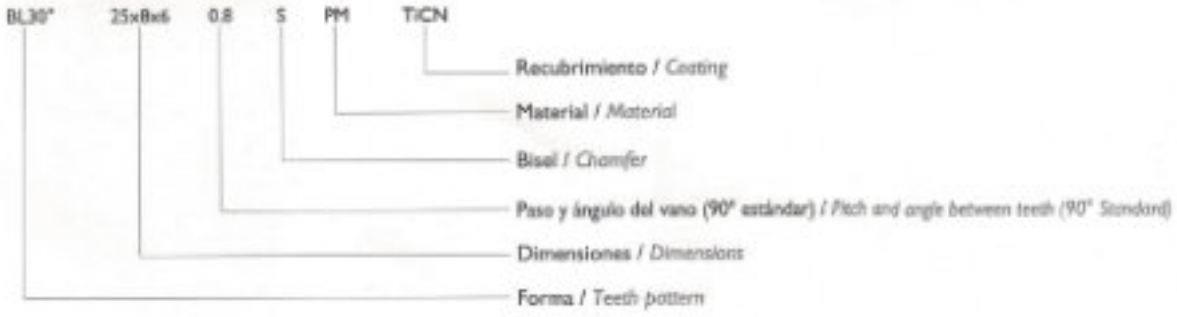
Biselados posibles / *Available chamfers:*

- **Sin bisel (S)**
  No chamfer (S)
- **Biselado una cara (E)**
  One side chamfered (E)
- **Biselado ambas caras (F)**
  Both sides chamfered (F)

Salvo indicación contraria del cliente, las moletas se suministran de la siguiente manera:
- Moletas de presión: Tipo F (con biseles en ambas caras)
- Moletas de corte: Tipo S (sin biseles)

Unless specifically requested, knurls will be supplied as follows:
- *Form knurls: Type F (both sides chamfered)*
- *Cut knurls: Type S (no chamfer)*

Ejemplo de forma de pedido para una moleta de tamaño 25x8x6, con forma BL30°, de paso 0.8 y ángulo de vano estándar, sin bisel y fabricada en PM y recubierta con carbonitruro de titanio: / *Ordering example for a 25x8x6 size knurl, BL30° teeth pattern, a pitch of 0.8mm and standard angle between teeth, without chamfer, manufactured in PM and coated with Titanium Carbonitride:*



BF SERVICE

INTEGI

MOLETAS
KNURLS

MOLETAS PARA MOLETEADOS POR CORTE
CUT KNURLS



Dientes tallados mediante fresado fino
Fine-milled teeth

Dimensiones / Dimensions	Pasos Estándar / Standard Pitches																
	0.3	0.4	0.5	0.6	0.7	0.8	1.0	1.2	1.4	1.5	1.6	1.8	2.0	2.5	3.0	3.5	4.0
8.9x3.5x4	✔	✔	✔	✔	✔	✔	✔	-	-	-	-	-	-	-	-	-	-
10x3x6	O	O	O	O	O	O	O	-	-	-	-	-	-	-	-	-	-
14.5x3x5	-	✔	✔	✔	✔	✔	✔	✔	-	-	-	-	-	-	-	-	-
15x4x8	-	O	O	O	O	O	O	O	-	-	-	-	-	-	-	-	-
21.5x5x8	-	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	-	-	-	-
25x6x8	-	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	-	-	-	-
32x8x14	-	-	-	-	-	-	✔	-	-	✔	-	-	✔	-	✔	-	-
32x13x16	-	-	-	-	-	-	O	-	-	O	-	-	O	-	O	-	-
42x13x16	-	-	-	-	-	-	O	-	-	O	-	-	-	-	O	O	O
42x12x18	-	-	-	-	-	-	✔	-	-	✔	-	-	-	-	✔	✔	✔

✔= Stock permanente / *Permanent Stock* — O= Entrega en plazo reducido / *Short term delivery*

MOLETAS PARA MOLETEADOS POR DEFORMACIÓN
FORM KNURLS



Dientes tallados mediante fresado fino
Fine-milled teeth

Huella efectuada por deformación
Pattern performed by indentation

Dimensiones / Dimensions	Pasos Estándar / Standard Pitches											
	0.3	0.4	0.5	0.6	0.7	0.8	1.0	1.2	1.5	1.6	1.8	2.0
10x4x4	✔	✔	✔	✔	✔	✔	✔	✔	-	-	-	-
10x5x4	✔	✔	✔	✔	✔	✔	✔	✔	-	-	-	-
15x4x4	✔	✔	✔	✔	✔	✔	✔	✔	-	-	-	-
15x5x4	✔	✔	✔	✔	✔	✔	✔	✔	-	-	-	-
15x6x4	✔	✔	✔	✔	✔	✔	✔	✔	-	-	-	-
15x5x5	O	O	O	O	O	O	O	O	-	-	-	-
15x6x5	O	O	O	O	O	O	O	O	-	-	-	-
15x6x6/11	O	O	O	O	O	O	O	O	-	-	-	-
20x8x6	-	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
20x6x6	-	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
20x8x6/13	-	O	O	O	O	O	O	O	O	O	O	O

Dimensiones / Dimensions	Pasos Estándar / Standard Pitches											
	0.3	0.4	0.5	0.6	0.7	0.8	1.0	1.2	1.5	1.6	1.8	2.0
20x10x6	-	4	4	✔	✔	✔	✔	✔	✔	✔	✔	✔
20x8x6.5	-	O	O	O	O	O	O	O	O	O	O	O
25x10x6.5	-	O	O	O	O	O	O	O	O	O	O	O
25x6x6	-	O	O	O	O	O	O	O	O	O	O	O
25x8x6	-	O	O	O	O	O	O	O	O	O	O	O
25x8x8	-	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
25x10x6	-	O	O	O	O	O	O	O	O	O	O	O
25x10x8	-	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
25x12x8	-	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
25x10x15/11	-	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔

✔= Stock permanente / *Permanent Stock* — O= Entrega en plazo reducido / *Short term delivery*

MOLETAS ESPECIALES
SPECIAL KNURLS

- Todo tipo de moletas especiales (cónicas, cóncavas, convexas...) fabricadas según especificaciones del cliente
- Caras laterales y agujero rectificados
- Dientes fresados
- Amplia gama de materiales y recubrimientos disponibles
- Templadas a 62±1 HRc

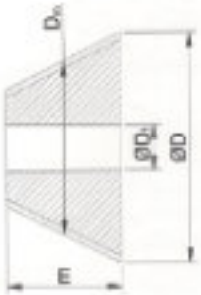
- *All types of special knurls (conical, concave, convex...) produced according to client's specifications*
- *Ground faces and bore*
- *Fine-milled teeth*
- *Wide range of materials and coatings*
- *Hardened to 62±1 HRc*



Moletas cónicas
Conical knurls

Datos necesarios **para la fabricación de moletas cónicas:**

- Forma de tallado (KAA, KBL, ...)
- Ángulo del diente
- Diámetro D
- Diámetro del agujero D_1
- Espesor E
- Paso en D_x
- Diámetro medio D_x o ángulo del cono
- Material
- Recubrimiento
- Biselados



Necessary data to manufacture conical knurls:

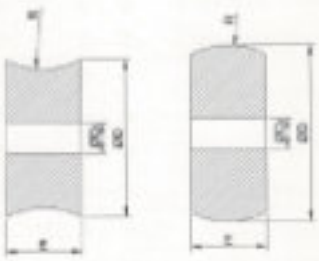
- *Knurling pattern (KAA, KBL, ...)*
- *Teeth angle*
- *D diameter*
- *D_1 bore diameter*
- *E width*
- *Pitch measured at D_x*
- *D_x mid-diameter or angle of the cone*
- *Material*
- *Coating*
- *Chamfer*



Moletas cóncavas y convexas
Concave and convex knurls

Datos necesarios para la fabricación de moletas cóncavas y convexas:

- Forma de la moleta
- Forma de tallado
- Ángulo del diente
- Diámetro D
- Diámetro del agujero D_1
- Espesor E
- Paso en D
- Radio
- Material
- Recubrimiento
- Biselados



Necessary data to manufacture concave and convex knurls:

- *Knurl form*
- *Knurling pattern*
- *Teeth angle*
- *D diameter*
- *D_1 bore diameter*
- *E width*
- *Pitch*
- *Radius*
- *Material*
- *Coating*
- *Chamfer*

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UTENSILERIA MECCANICA

Moleteadores por deformación

Form knurling tools



MODELO M1
M1 MODEL

INTEGI

MOLETEADORES POR DEFORMACIÓN
FORM-KNURLING TOOLS

Características
- Herramienta de moletear por deformación para trabajos no repetitivos y de precisión media
- Indicada tanto para moleteados axiales (F) como radiales (R)
- Moleteados axiales (F) solo para las formas RAA, RBL, RBR
- Ejes de HSS fijados mediante circlips
- Recomendado para moleteados rectos tipo AA

Tipos de máquinas
- Para tornos convencionales

Features
- *Form-knurling tool to perform medium accuracy knurling operations*
- *Not intended for intensive use*
- *Suitable for both traverse (F) and radial (R) feed*
- *Traverse feed (F) only for RAA, RBL, RBR patterns*
- *HSS axles fixed with circlips*
- *Recommended for AA straight knurlings*

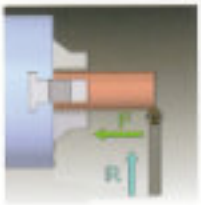
Machine Types
- *For conventional lathes*

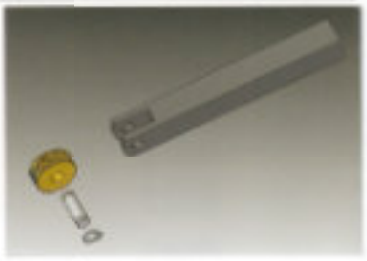


Tipos de moleteados según DIN 82 / ***Knurlings according to DIN 82***

Tipo *Pattern*	RAA	RBL30°	RBL45°	RBR30°	RBR45°	RGE30°	RGE45°	RGV30°	RGV45°	RKE	RKV
Moleta *Knurl*	AA	BR30°	BR45°	BL30°	BL45°	GV30°	GV45°	GE30°	GE45°	KV	KE
Avance *Feed*	F☑ R☑	F☑ R☑	F☑ R☑	F☑ R☑	F☑ R☑	F☐ R☑	F☐ R☑	F☐ R☑	F☐ R☑	F☐ R☑	F☐ R☑







Código *Code*	Referencia *Reference*	Versión *Version*	Capacidad *Capacity*	Moleta *Knurl*	kg *kg*	Repuesto *Spare Part*	
01010100	M1 20.08.14	R+L	ϕ8÷200	20x8x6	0.2	EM1	

KIT M1-M7:

Conjunto básico de moleteado por deformación que contiene:
1xM1 20.08.14
1xM7 20.08.25
2xEM7, eje de repuesto para moleteador M7
1xEM1, eje de repuesto para moleteador M1
Un juego de moletas (BR30° + BL30°) de paso 0.8
Un juego de moletas (BR30° + BL30°) de paso 1.2
Un juego de moletas (BR30° + BL30°) de paso 1.6
1 moleta AA de paso 0.8, otra de paso 1.2 y otra de paso 1.6

Form-kurling basic kit that consists of:
1xM1 20.08.14
1xM7 20.08.25
2xEM7, spare axle for M7 tool
1xEM1, spare axle for M1 tool
One pair of knurls (BR30° + BL30°) pitch 0.8
One pair of knurls (BR30° + BL30°) pitch 1.2
One pair of knurls (BR30° + BL30°) pitch 1.6
1 AA knurl pitch 0.8, 1 AA knurl pitch 1.2, 1 AA knurl pitch 1.6

Nota: Las moletas suministradas en este kit son de medida 20x8x6 mm
Notice: Knurls delivered within this kit are 20x8x6 mm sized



Código *Code*	Referencia *Reference*	kg *kg*
01110100	KM1-M7	1.3

BF SERVICE

MOLETEADORES POR DEFORMACIÓN
FORM-KNURLING TOOLS

INIEGI

MODELO M7
M7 MODEL

Características

- Herramienta de moletear por deformación para trabajos no repetitivos y de precisión media
- Cabeza portamoletas basculante para un mejor centrado de las moletas sobre la pieza
- Indicada tanto para moleteados axiales (F) como radiales (R)
- Ejes de HSS fijados mediante circlips

Tipos de máquinas

- Para tornos convencionales

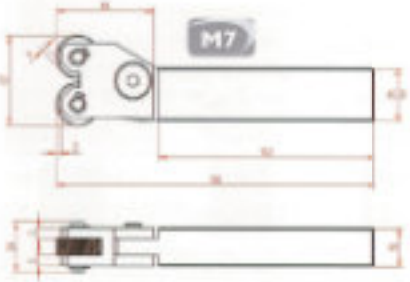
Features

- *Form-knurling tool to perform medium accuracy knurling operations*
- *Not intended for intensive use*
- *Tilting head for a better knurl centering on the workpiece*
- *Suitable for both traverse (F) and radial (R) feed*
- *HSS axles fixed with circlips*

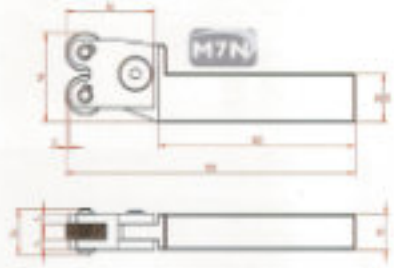
Machine types

- *For conventional lathes*





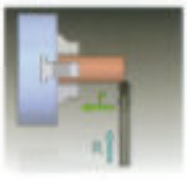


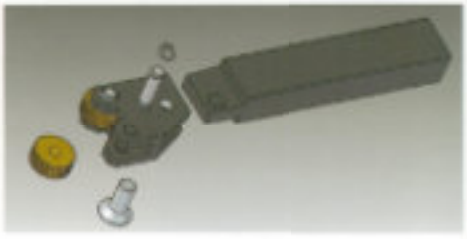


Tipos de moleteados según DIN 82
Knurlings according to DIN 82

Tipo *Pattern*	RAA	RGE30°	RGE45°
Moleta *Knurl*	AA+AA	BL30°+BR30°	BL45°+BR45°
Avance *Feed*	F☑ R☑	F☑ R☑	F☑ R☑







Código *Code*	Referencia *Reference*	Versión *Version*	Capacidad *Capacity*	Moleta *Knurl*	D	kg *kg*	Repuesto *Spare Part*	
01160100	M7 20.08.25	R+L	⌀8÷200	20X8X6	25	0.7	EM7	
01160200	M7N 20.08.20	R+L	⌀8÷200	20X8X6	20	0.7		
01160300	M7N 20.08.25	R+L	⌀8÷200	20X8X6	25	0.7		

MODELO M2
M2 MODEL

INEGI

MOLETEADORES POR DEFORMACIÓN
FORM-KNURLING TOOLS

Características

- Herramienta de moletear por deformación con cabezal revólver con capacidad para tres pares de moletas
- La capacidad de rotación del cabezal asegura el autocentrado de las moletas sobre la pieza
- Indicada tanto para moleteados axiales (F) como radiales (R)
- Recomendada para moleteado cruzado tipo RGE

Tipos de máquinas

- Para tornos convencionales

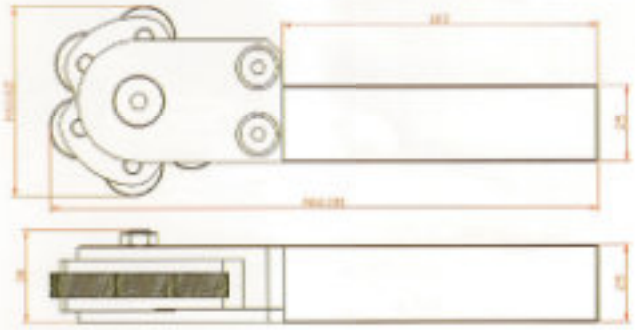
Features

- *Form-knurling tool with revolving head able to hold three knurling-wheel pairs*
- *The ability to rotate that the head has ensures the centering of the knurls on the workpiece*
- *Suitable for both traverse (F) and radial (R) feeds*
- *Recommended for RGE crossed knurlings*

Machine Types

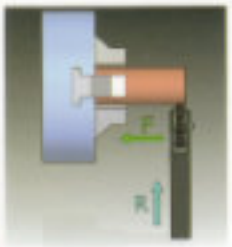
- *For conventional lathes*

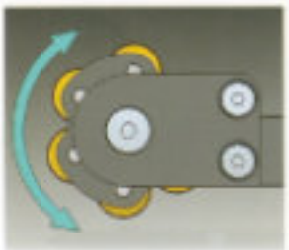


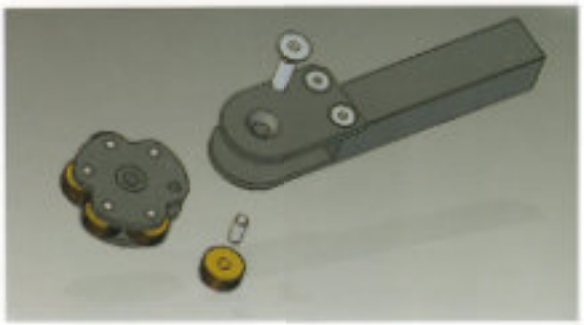


Tipos de moleteados según DIN 82
Knurlings according to DIN 82

	RAA	RGE30°	RGE45°
Tipo *Pattern*			
Moleta *Knurl*	AA+AA	BL30°+BR30°	BL45°+BR45°
Avance *Feed*	F☑ R☑	F☑ R☑	F☑ R☑







Código *Code*	Referencia *Reference*	Versión *Version*	Capacidad *Capacity*	Moleta *Knurl*	kg *kg*	Repuesto *Spare Part*	
01020100	M2 20.08.25	R+L	Ø8÷200	20X8X6	1.0	EM2	

BF SERVICE

MOLETEADORES POR DEFORMACIÓN
FORM-KNURLING TOOLS

INIECI

MODELO M3
M3 MODEL

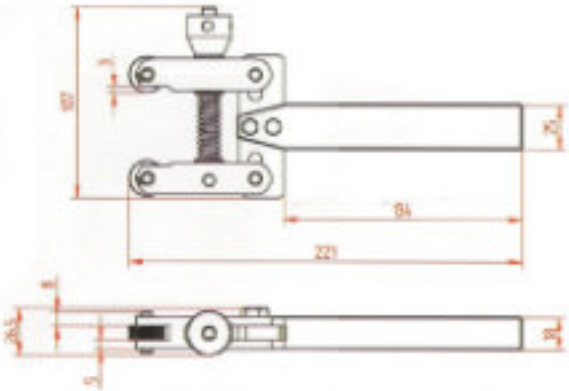
Características
- Herramienta de moletear por deformación
- Ajuste simétrico de la posición de las moletas al diámetro de la pieza mediante un husillo roscado
- Fácil ajuste mediante la tuerca de regulación
- No ejerce presión en los rodamientos del torno ya que el esfuerzo es absorbido por la herramienta
- Elimina el riesgo de flexión en la pieza, al compensarse entre sí la presión de cada moleta
- Indicada tanto para moleteados longitudinales (F), como para radiales (R)
- Ejes de HSS bloqueados mediante circlips

Tipos de máquinas
- Para tornos convencionales

Features
- *Form-knurling tool*
- *Knurls symmetrically adjustable to the workpiece's diameter through a threaded spindle*
- *Easy adjustment due to the regulation nut*
- *It does not transmit stress to the lathe's bearings as it is wholly stood by the tool*
- *It eliminates the risk of deflection on the workpiece as the pressure exerted by the knurls is counterbalanced*
- *Suitable for both traverse (F) and radial (R) feed*
- *HSS axles fixed with circlips*

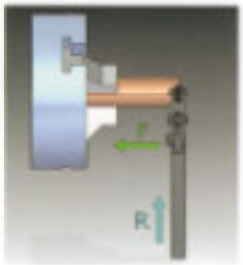
Machine Types
- *For conventional lathes*





Tipos de moleteados según DIN 82
Knurlings according to DIN 82

Tipo *Pattern*	RAA	RGE30°	RGE45°
			
Moleta *Knurl*	AA+AA	BL30°+BR30°	BL45°+BR45°
Avance *Feed*	F☑ R☑	F☑ R☑	F☑ R☑





Código *Code*	Referencia *Reference*	Versión *Version*	Capacidad *Capacity*	Moleta *Knurl*	kg *kg*	Repuesto *Spare Part*	
01030100	M3 20.08.25	R+L	Ø4÷50	20x8x6	1.2	EM3	

MODELO M6
M6 MODEL

INTEGI

MOLETEADORES POR DEFORMACIÓN
FORM-KNURLING TOOLS

Características
- Herramienta de moletear por deformación
- Posibilidad de corrección del ángulo de ataque de la moleta mediante dos espárragos Allen situados en el mango
- Indicada tanto para moleteados axiales (F) como radiales (R)
- Moleteados axiales (F) solo para las formas RAA, RBL, RBR
- Eje de metal duro
- Eje fijado mediante prisionero, lo que permite un cambio rápido de la moleta

Tipos de máquinas
- Tornos automáticos, multihusillo, de cabezal móvil, convencionales y CNC

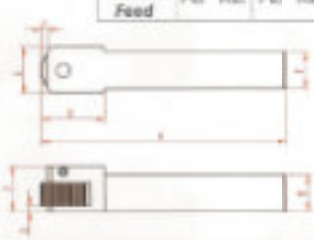
Features
- *Form-knurling tool*
- *Possibility to vary clearance angle by means of a pair of screws placed in the shank*
- *Suitable for both traverse (F) and radial (R) feed*
- *Traverse feed (F) only for RAA, RBL, RBR patterns*
- *Carbide axle*
- *Axle fixed with a screw for an instant knurl change*

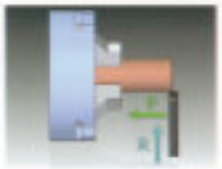
Machine Types
- *Swiss type , multi-spindle, sliding head, conventional and CNC lathes*



Tipos de moleteados según DIN 82 / *Knurlings according to DIN 82*

Tipo *Pattern*	RAA		RBL30°		RBL45°		RBR30°		RBR45°		RGE30°		RGE45°		RGV30°		RGV45°		RKE		RKV	
Moleta *Knurl*	AA		BR30°		BR45°		BL30°		BL45°		GV30°		GV45°		GE30°		GE45°		KV		KE	
Avance *Feed*	F□	R□	F□	R□	F□	R□	F□	R□	F□	R□	F□	R□	F□	R□	F□	R□	F□	R□	F□	R□	F□	R□







Código *Code*	Referencia *Reference*	Versión *Version*	Capacidad *Capacity*	Moleta *Knurl*	A	B	C	D	E	F	G	H	kg kg	Repuesto *Spare Part*
01062800	M6.15.06.08-N	R+L	Ø3÷100	15x4x4	100	20	8	8	14	3 (Ø15)	3,5	14	0,2	DIN 14.4 HPI
01062900	M6.15.06.10-N	R+L	Ø3÷100	*10x4x4	100	20	10	10	14		3,5	14	0,2	
01063000	M6.15.06.12-N	R+L	Ø3÷100	*10x5x4 *13x4x4	102,5	22,5	12	12	14	3,5 (Ø15)	3,5	14	0,2	
01063100	M6.15.06.14-N	R+L	Ø3÷100	*13x5x4	102,5	22,5	14	14	14		3,5	14	0,2	
01061200	M6.20.06.10	R+L	Ø5÷200	20X6X6	105	28	10	10	20	3	3,5	20	0,2	DIN 20.6 HPI
01061400	M6.20.06.12	R+L	Ø5÷200		105	28	12	12	20		3,5	20	0,3	
01061500	M6.20.06.14	R+L	Ø5÷200		105	28	14	14	20		3,5	20	0,3	
01061600	M6.20.06.16	R+L	Ø5÷200		105	28	16	16	20		3,5	20	0,3	
01061700	M6.20.08.10	R+L	Ø5÷200	20x8x6 *20X6X6	105	28	10	10	20	3	3,5	20	0,5	
01061800	M6.20.08.10	R+L	Ø5÷200		105	28	10	10	20		3,5	20	0,5	
01061900	M6.20.08.12	R+L	Ø5÷200		105	28	12	12	20		3,5	20	0,5	
01062000	M6.20.08.14	R+L	Ø5÷200		105	28	14	14	20		3,5	20	0,3	
01062100	M6.20.08.16	R+L	Ø5÷200		105	28	16	16	20		3,5	20	0,4	
01062200	M6.20.08.20	R+L	Ø5÷200		105	28	20	20	20		3,5	20	0,5	
01062300	M6.20.10.10	R+L	Ø5÷200	30x10x8 *20X6X6 *20X8X6	105	28	10	10	20	3	3,5	20	0,3	
01063400	M6.20.10.12	R+L	Ø5÷200		105	28	12	12	20		3,5	20	0,3	
01062500	M6.20.10.14	R+L	Ø5÷200		105	28	14	14	20		3,5	20	0,3	
01062600	M6.20.10.16	R+L	Ø5÷200		105	28	16	16	20		3,5	20	0,4	
01062700	M6.20.10.20	R+L	Ø5÷200		105	28	20	20	20		3,5	20	0,5	



* Con arandelas de suplemento / *Using backing washers*

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MOLETEADORES POR DEFORMACIÓN
FORM-KNURLING TOOLS

INIECI

MODELO M12 10.04
M12 10.04 MODEL

Características
- Herramienta de moletear por presión
- Ajuste simétrico de la posición de las moletas al diámetro de la pieza mediante un husillo roscado
- Fácil ajuste mediante el simple uso de una llave Allen
- Sistema modular que permite la utilización de diferentes mangos manteniendo el resto de componentes
- No ejerce presión en los rodamientos del torno ya que el esfuerzo es absorbido por la herramienta
- Elimina el riesgo de flexión en la pieza, al compensarse entre sí la presión de cada moleta
- Dispone de un sistema de auto-centrado para compensar un posible desalineamiento entre la torreta y el eje de la máquina
- Indicada tanto para moleteados longitudinales (F), como para radiales (R)
- Ejes bloqueados mediante tornillo para un rápido cambio de moletas
- Ejes de metal duro

Tipos de máquinas
- Tornos automáticos y multi-husillo

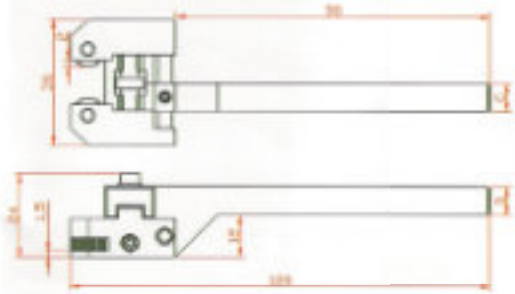


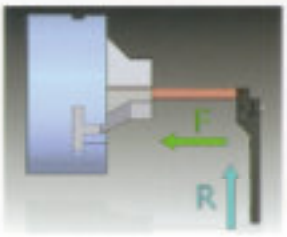
Features
- *Form-knurling tool*
- *Knurls symmetrically adjustable to the workpiece's diameter through a threaded spindle*
- *Easy adjustment just using an Allen wrench*
- *Modular system that allows the use of several different shanks while keeping the rest of the components*
- *It does not transmit stress to the lathe's bearings as it is wholly stood by the tool*
- *It eliminates the risk of deflection on the workpiece as the pressure exerted by the knurls is counterbalanced*
- *It features an auto-centering system to make up for any possible disalignment between the turret and the machine axis*
- *Suitable for both traverse (F) and radial (R) feed*
- *Carbide axles fixed with circlips for an instant knurl change*

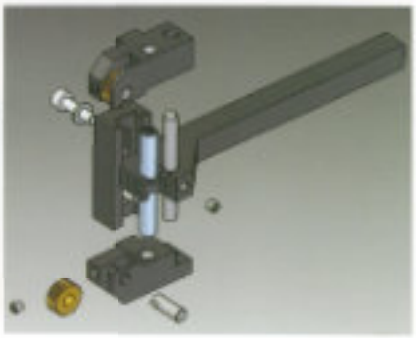
Machine Types
- *For Swiss type and multi-spindle lathes*

Tipos de moleteados según DIN 82
Knurlings according to DIN 82

Tipo *Pattern*	RAA	RGE30°	RGE45°
Moleta *Knurl*	AA+AA	BL30°+BR30°	BL45°+BR45°
Avance *Feed*	F☑ R☑	F☑ R☑	F☑ R☑







Código *Code*	**Referencia** *Reference*	**Versión** *Version*	**Capacidad** *Capacity*	**Moleta** *Knurl*	**C**	**D**	**kg** *kg*	**Repuesto** *Spare Part*
01120500	M12 10.04.08 R	R	Ø1÷10	10x4x4	8	12	0,2	EM12
01120600	M12 10.04.08 L	L	Ø1÷10	10x4x4	8	12	0,2	
01120700	M12 10.04.10 R	R	Ø1÷10	10x4x4	10	12	0,2	
01120800	M12 10.04.10 L	L	Ø1÷10	10x4x4	10	12	0,2	
01120900	M12 10.04.12 R	R	Ø1÷10	10x4x4	12	12	0,2	
01121000	M12 10.04.12 L	L	Ø1÷10	10x4x4	12	12	0,2	

MODELO M8 / *M8 MODEL*

INTEGI

MOLETEADORES POR DEFORMACIÓ / *FORM-KNURLING TOOL*

Características

- Herramienta de moletear por deformación
- Posibilidad de corrección del ángulo de ataque de la moleta mediante dos espárragos Allen situados en el mango
- Indicada tanto para moleteados axiales (F) como radiales (R)
- Moleteados axiales (F) solo para las formas RAA, RBL, RBR
- Eje de metal duro
- Eje fijado mediante prisionero, lo que permite un cambio rápido de la moleta

Tipos de máquinas

- Tornos automáticos, multihusillo, de cabezal móvil, convencionales y CNC.



Features

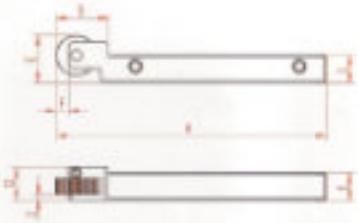
- *Form-knurling tool*
- *Possibility to vary clearance angle by means of a pair of screws placed in the shank*
- *Suitable for both traverse (F) and radial (R) feed*
- *Traverse feed (F) only for RAA, RBL, RBR patterns*
- *Carbide axle*
- *Axles fixed with a screw for an instant knurl change*

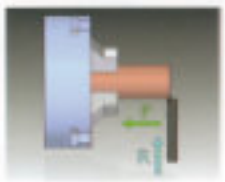
Tipos de máquinas

- *Swiss type, multi-spindle, conventional and CNC lathes.*

Tipos de moleteados según DIN 82 / *Knurlings according to DIN 82*

Tipo / *Pattern*	RAA	RBL30°	RBL45°	RBR30°	RBR45°	RGE30°	RGE45°	RGV30°	RGV45°	RKE	RKV
Moleta / *Knurl*	AA	BR30°	BR45°	BL30°	BL45°	GV30°	GV45°	GE30°	GE45°	KV	KE
Avance / *Feed*	F☐ R☑	F☑ R☑	F☑ R☑	F☑ R☑	F☑ R☑	F☐ R☑	F☐ R☑	F☐ R☑	F☐ R☑	F☐ R☑	F☐ R☑







Código / *Code*	Referencia / *Reference*	Ver. / *Ver.*	Capacidad / *Capacity* Ø10	Ø15	Moleta / *Knurl* Ø10	Ø15	A Ø10	A Ø15	B Ø10	B Ø15	C	E Ø11	E Ø15	F Ø11	F Ø15	kg kg	Repuesto / *Spare Part*
01201300	MB 15.06.08 R	R	Ø3÷50	Ø3÷100	–	15x6x4	96,5	99	16,5	19	8	15	17,5	2	4,5	0,2	SMB 12.4 HM
01200700	MB 15.05.08 R				10x5x4	15x5x4											
01200100	MB 15.04.08 R				10x6x4	15x6x4											
01201400	MB 15.06.08 L	L	Ø3÷50	Ø3÷100	–	15x6x4	96,5	99	16,5	19	8	15	17,5	2	4,5	0,2	
01200800	MB 15.05.08 L				10x5x4	15x5x4											
01200200	MB 15.04.08 L				10x6x4	15x6x4											
01201300	MB 15.06.10 R	R	Ø3÷50	Ø3÷100	–	15x6x4	96,5	99	16,5	19	10	15	17,5	2	4,5	0,2	
01200900	MB 15.05.10 R				10x5x4	15x5x4											
01200300	MB 15.04.10 R				10x6x4	15x6x4											
01201400	MB 15.06.10 L	L	Ø3÷50	Ø3÷100	–	15x6x4	96,5	99	16,5	19	10	15	17,5	2	4,5	0,2	
01200400	MB 15.05.10 L				10x5x4	15x5x4											
01201000	MB 15.04.10 L				10x6x4	15x6x4											
01201700	MB 15.06.12 R	R	Ø3÷50	Ø3÷100	–	15x6x4	96,5	99	16,5	19	12	15	17,5	2	4,5	0,2	
01201100	MB 15.05.12 R				10x5x4	15x5x4											
01201800	MB 15.06.12 L	L	Ø3÷50	Ø3÷100	–	15x6x4	96,5	99	16,5	19	12	15	17,5	2	4,5	0,2	
01201200	MB 15.05.12 L				10x5x4	15x5x4											

BF SERVICE

MOLETEADORES POR DEFORMACIÓN
FORM-KNURLING TOOLS

INTEGI

MODELO M9
M9 MODEL

Características
- Herramienta de moletear por deformación
- Cabeza portamoletas basculante para un mejor centrado de las moletas sobre la pieza
- Cabeza portamoletas reversible para trabajar tanto a derechas como a izquierdas.
- Posibilidad de corrección del ángulo de ataque de la moleta mediante dos espárragos Allen situados en el mango
- Indicada tanto para moleteados axiales (F) como radiales (R)
- Eje de metal duro
- Ejes fijados mediante prisionero, lo que permite un cambio rápido de la moleta

Tipos de máquinas
- Tornos automáticos, multihusillo, de cabezal móvil, convencionales y CNC

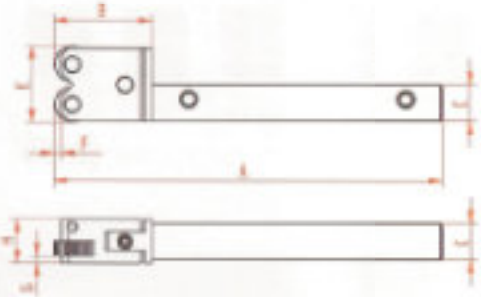


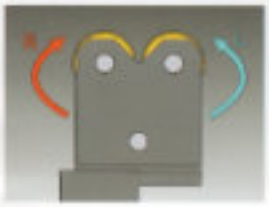
Features
- *Form-knurling tool*
- *Tilting head for a better centering of the knurls on the workpiece*
- *Ability to work on left-handed and right-handed lathes just turning over the head*
- *Possibility to vary clearance angle by means of a pair of screws placed in the shank*
- *Suitable for both traverse (F) and radial (R) feed*
- *Carbide axles*
- *Axles fixed with screws for an instant knurl change*

Machine Types
- *Swiss type, multi-spindle, sliding head, conventional and CNC lathes*

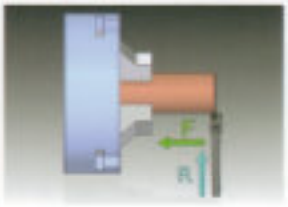
Tipos de moleteados según DIN 82
Knurlings according to DIN 82

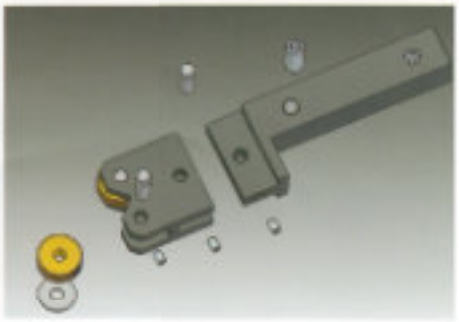
Tipo *Pattern*	RAA	RGE30°	RGE45°
Moleta *Knurl*	AA+AA	BL30°+BR30°	BL45°+BR45°
Avance *Feed*	F☑ R☑	F☑ R☑	F☑ R☑











Código *Code*	**Referencia** *Reference*	**Versión** *Version*	**Capacidad** *Capacity*	**Moleta** *Knurl*	**A**	**B**	**C**	**E**	**F**	**G**	**H**	**kg** *kg*	**Repuesto** *Spare Part*
01180100	M9 10.04.08	R+L	Ø3÷30		107	27	8	21	2	2	12	0.1	
01180200	M9 10.04.10	R+L	Ø3÷30	10x4x4	107	27	10	21	2	2	12	0.1	EM9 12.4 HM
01180300	M9 10.04.12	R+L	Ø3÷30		107	27	12	21	2	2	12	0.1	
01180400	M9 15.04.16	R+L	Ø5÷100	15x4x4	120.5	40.5	16	32	1.5	3	16	0.2	
01180500	M9 15.05.16	R+L	Ø5÷100	15x5x4	120.5	40.5	16	32	1.5	3	16	0.2	EM9 16.4 HM
01180600	M9 15.06.16	R+L	Ø5÷100	15x6x4	120.5	40.5	16	32	1.5	3	16	0.2	



MODELO M4
M4 MODEL

INTEGI

MOLETEADORES POR DEFORMACIÓN
FORM-KNURLING TOOLS

Características

- Herramienta de moletear por deformación
- Posibilidad de corrección del ángulo de ataque de la moleta mediante dos espárragos Allen situados en el mango
- Indicada tanto para moleteados axiales (F) como radiales (R)
- Moleteados axiales (F) solo para las formas RAA, RBL, RBR
- Eje de metal duro
- Eje fijado mediante prisionero, lo que permite un cambio rápido de la moleta

Tipos de máquinas

- Tornos automáticos, multihusillo, convencionales y CNC

Features

- *Form-knurling tool*
- *Possibility to vary clearance angle by means of a pair of screws placed in the shank*
- *Suitable for both traverse (F) and radial (R) feed*
- *Traverse feed (F) only for RAA, RBL, RBR patterns*
- *Carbide axle*
- *Axle fixed with a screw for an instant knurl change*

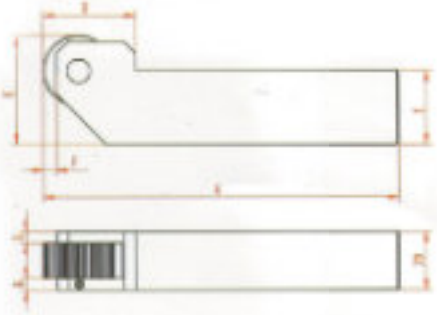
Machine Types

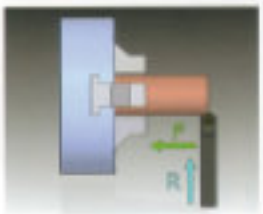
- *Swiss type, multi-spindle conventional and CNC lathes*

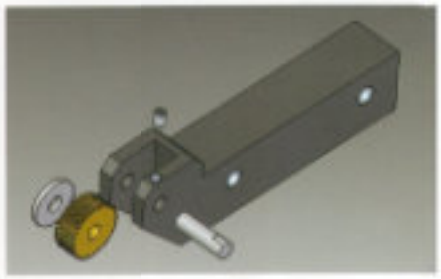


Tipos de moleteados según DIN 82 / *Knurlings according to DIN 82*

Tipo *Pattern*	RAA	RBL30°	RBL45°	RBR30°	RBR45°	RGE30°	RGE45°	RGV30°	RGV45°	RKE	RKV
Moleta *Knurl*	AA	BR30°	BR45°	BL30°	BL45°	GV30°	GV45°	GE30°	GE45°	KV	KE
Avance *Feed*	F☑ R☑	F☑ R☑	F☑ R☑	F☑ R☑	F☑ R☑	F☐ R☑	F☐ R☑	F☐ R☑	F☐ R☑	F☐ R☑	F☐ R☑







Código *Code*	Referencia *Reference*	Versión *Version*	Capacidad *Capacity*	Moleta *Knurl*	A	B	C	E	F	kg *Kg*	Repuesto *Spare Part*
0104 1300	M4 20.08.20	R+L	Ø8÷20	20x8x6	119.5	29.5	20	30	2.5	0.4	EM4/M5 20.6 HM
0104 1400	M4 20.08.25	R+L	Ø8÷20	*20x8x6	119.5	29.5	25	35	2.5	0.5	
0104 1500	M4 20.10.20	R+L	Ø8÷20	20x10x6 *20x8x6 *20x8x8	119.5	29.5	20	30	2.5	0.4	
0104 1600	M4 20.10.25	R+L	Ø8÷20		119.5	29.5	25	35	2.5	0.5	
0104 1700	M4 25.08.20	R+L	Ø8÷20	25x8x8	122	32	20	32.5	5	0.4	EM4/M5 20.8 HM
0104 1800	M4 25.08.25	R+L	Ø8÷20		122	32	25	37.5	5	0.5	
0104 1900	M4 25.10.20	R+L	Ø8÷20	25x10x8 *25x8x8	122	32	20	32.5	5	0.4	
0104 2000	M4 25.10.25	R+L	Ø8÷20		122	32	25	37.5	5	0.5	
0104 2100	M4 25.12.20	R+L	Ø8÷20	25x12x8 *25x8x8 *25x10x8	122	32	20	32.5	5	0.4	
0104 2200	M4 25.12.25	R+L	Ø8÷20		122	32	25	37.5	5	0.5	



* Con arandelas de suplemento / * *Using backing washers*

BF SERVICE

MOLETEADORES POR DEFORMACIÓN
FORM-KNURLING TOOLS

INIECGI

MODELO M5
M5 MODEL

Características
- Herramienta de moletear por deformación
- Cabeza portamoletas basculante para un mejor centrado de las moletas sobre la pieza
- Cabeza portamoletas reversible para trabajar tanto a derechas como a izquierdas
- Posibilidad de corrección del ángulo de ataque de la moleta mediante dos espárragos Allen situados en el mango
- Indicada tanto para moleteados axiales (F) como radiales (R)
- Ejes de metal duro
- Ejes fijados mediante prisionero, lo que permite un cambio rápido de la moleta

Tipos de máquinas
- Tornos automáticos, multihusillo, convencionales y CNC

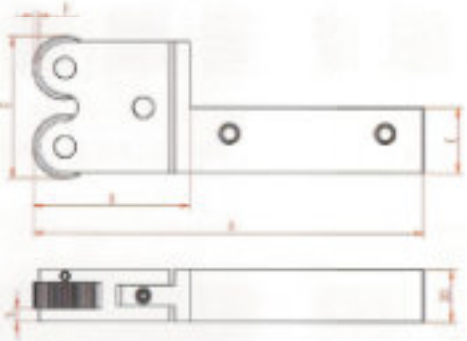


Features
- *Form-knurling tool*
- *Tilting head for a better centering of the knurls on the workpiece*
- *Ability to work on left-handed and right-handed lathes just turning over the head*
- *Possibility to vary clearance angle by means of a pair of screws placed in the shank*
- *Suitable for both traverse (F) and radial (R) feed*
- *Carbide axles*
- *Axles fixed with screws for an instant knurl change*

Machine Types
- *Swiss type, multi-spindle, sliding head, conventional and CNC lathes*

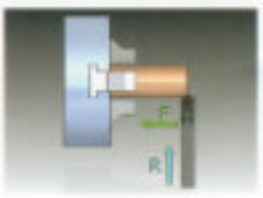
Tipos de moleteados según DIN 82
Knurlings according to DIN 82

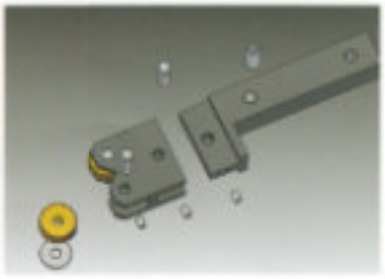
	RAA	RGE30°	RGE45°
Tipo *Pattern*			
Moleta *Knurl*	AA+AA	BL30°+BR30°	BL45°+BR45°
Avance *Feed*	F☑ R☑	F☑ R☑	F☑ R☑











Código *Code*	Referencia *Reference*	Versión *Version*	Capacidad *Capacity*	Moleta *Knurl*	A	B	C	E	F	kg *kg*	Repuesto *Spare Part*	
01050700	MS 20.08.20	R+L	Ø8÷200	20x8x6	139.5	49	20	42	2.5	1.0	EP6/MS 20.06 HM	
01050800	MS 20.08.23	R+L	Ø8÷200	*20x8x6	139.5	49	25	42	2.5	1.0		
01050900	MS 20.10.20	R+L	Ø8÷200	20x10x6 *20x8x6	139.5	49	20	42	2.5	1.0		
01051000	MS 20.10.23	R+L	Ø8÷200	*20x8x6	139.5	49	25	42	2.5	1.0		
01050100	MS 25.08.20	R+L	Ø8÷300	25x8x8	150	60	20	55	2.1	1.0	EP6/MS 20.08 HM	
01050200	MS 25.08.23	R+L	Ø8÷300		150	60	25	55	2.1	1.0		
01050300	MS 25.10.20	R+L	Ø8÷300	25x10x8	150	60	20	55	2.1	1.0		
01050400	MS 25.10.23	R+L	Ø8÷300	*25x8x8	150	60	25	55	2.1	1.0		
01050500	MS 25.12.20	R+L	Ø8÷300	25x12x8 *25x8x8	150	60	20	55	2.1	1.0		
01050600	MS 25.12.23	R+L	Ø8÷300	*25x10x8	150	60	25	55	2.1	1.0		

* Con arandelas de sujetamuelas / * *Using backing washers*

MODELO M20
M20 MODEL

INIECI

MOLETEADORES POR DEFORMACIÓN
FORM-KNURLING TOOLS

Características
- Herramienta de moletear por deformación
- Posibilidad de corrección de ángulo de ataque de la moleta mediante dos espárragos Allen situados en el mango
- Indicada tanto para moleteados axiales (F) como radiales (R)
- Moleteados axiales (F) solo para las formas **RAA, RBL, RBR**
- Ejes fijados mediante prisionero, lo que permite un cambio rápido de la moleta
- Para moleteados hasta una cara lateral

Tipo de máquinas
- Tornos automáticos, multihusillo, de cabezal móvil, convencionales y CNC

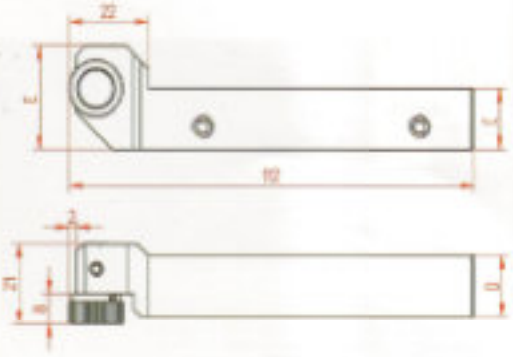


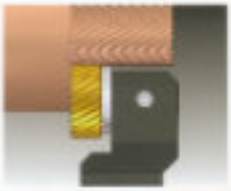
Features
- *Form-knurling tool*
- *Possibility to vary clearance angle by means of a pair of screws placed in the shank*
- *Suitable for both traverse (F) and radial (R) feed*
- *Traverse feed (F) only for RAA, RBL and RBR patterns*
- *Axles fixed with screws for an instant knurl change*
- *For knurlings up to a vertical face*

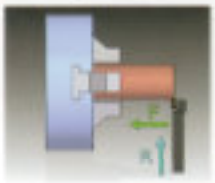
Machine types
- *Swiss type, multi-spindle, sliding head, conventional and CNC lathes*

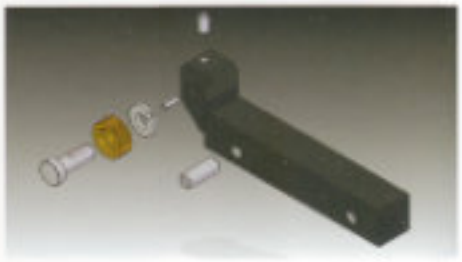
Tipos de moleteados según DIN 82 / *Knurlings according to DIN 82*

	RAA	RBL30°	RBL45°	RBR30°	RBR45°	RGE30°	RGE45°	RGV30°	RGV45°	RKE	RKV
Tipo *Pattern*											
Moleta *Knurl*	AA	BR30°	BR45°	BL30°	BL45°	GV30°	GV45°	GE30°	GE45°	KV	KE
Avance *Feed*	F R	F R	F R	F R	F R	F R	F R	F R	F R	F R	F R









Código *Code*	Referencia *Reference*	Versión *Version*	Capacidad *Capacity*	Moleta *Knurl*	C	D	kg *kg*	Repuesto *Spare Part*
01290300	M20 15.06.10 R	R	Ø3÷100	15x6x10/6	10	10	0.3	EAP03M20
01290400	M20 15.06.10 L	L			10	10	0.3	
01290500	M20 15.06.12 R	R			12	16	0.3	
01290600	M20 15.06.12 L	L			12	16	0.3	
01290700	M20 15.06.16 R	R			16	16	0.3	
01290800	M20 15.06.16 L	L			16	16	0.3	

BF SERVICE

MODELO M21
M21 MODEL

INTEGI

MOLETEADORES POR DEFORMACIÓN
FORM-KNURLING TOOL

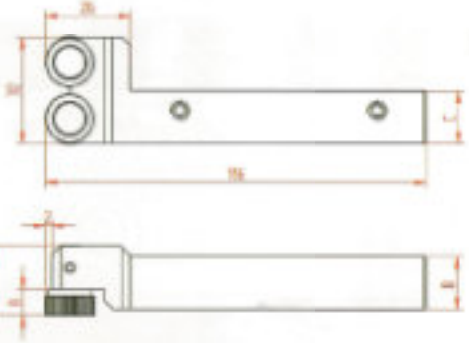
Características
- Herramienta de moletear por deformación
- Posibilidad de corrección de ángulo de ataque de la moleta mediante dos espárragos Allen situados en el mango
- Indicada tanto para moleteados axiales (F) como radiales (R)
- Ejes fijados mediante prisionero, lo que permite un cambio rápido de la moleta
- Para moleteados hasta una cara lateral

Tipo de máquinas
- Tornos automáticos, multihusillo, de cabezal móvil, convencionales y CNC

Features
- *Form-knurling tool*
- *Possibility to vary clearance angle by means of a pair of screws placed in the shank*
- *Suitable for both traverse (F) and radial (R) feed*
- *Axles fixed with screws for an instant knurl change*
- *For knurlings up to a vertical face*

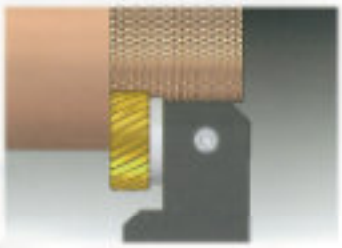
Machine types
- *Swiss type, multi-spindle, sliding head, conventional and CNC lathes*

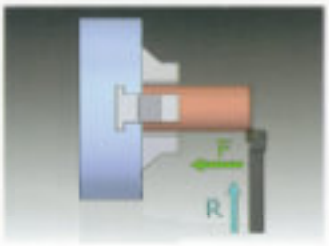


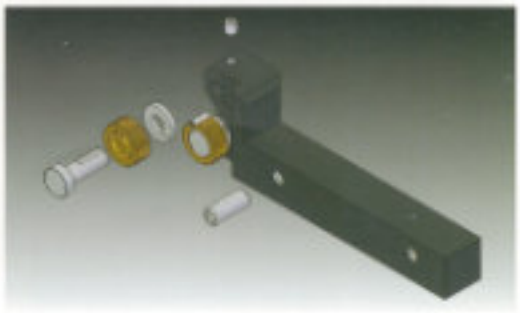


Tipos de moleteados según DIN 82
Knurlings according to DIN 82

Tipo *Pattern*	RAA	RGE30°	RGE45°
Moleta *Knurl*	AA+AA	BL30°+BR30°	BL45°+BR45°
Avance *Feed*	F☑ R☑	F☑ R☑	F☑ R☑







Código *Code*	Referencia *Reference*	Versión *Version*	Capacidad *Capacity*	Moleta *Knurl*	C	D	kg *kg*	Repuesto *Spare Part*
01290300	M21 15.06.10 R	R	Ø3÷100	15x6x10/6	10	10	0.4	EAM20/M21
01290400	M21 15.06.10 L	L			10	10	0.4	
01290500	M21 15.06.12 R	R			12	16	0.4	
01290600	M21 15.06.12 L	L			12	16	0.4	
01290700	M21 15.06.16 R	R			16	16	0.4	
01290800	M21 15.06.16 L	L			16	16	0.4	

MODELO M10
M10 MODEL

INEGI

MOLETEADORES POR DEFORMACIÓN
FORM-KNURLING TOOLS

Características
- Herramienta de moletear por deformación
- Posibilidad de corrección del ángulo de ataque de la moleta mediante dos espárragos Allen situados en el mango
- Indicada tanto para moleteados axiales (F) como radiales (R)
- Moleteados axiales (F) solo para las formas RAA, RBL, RBR
- Ejes fijados mediante prisionero, lo que permite un cambio rápido de la moleta
- Para moleteados hasta una cara lateral

Tipos de máquinas
- Tornos automáticos, multihusillo, convencionales y CNC

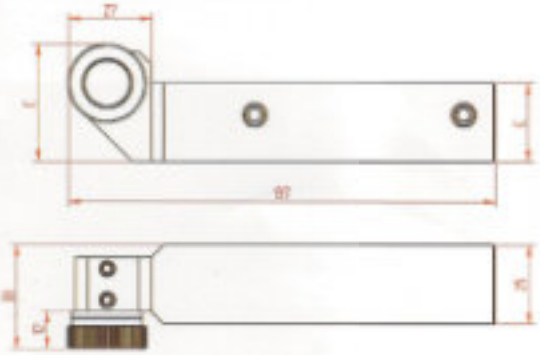
Features
- *Form-knurling tool*
- *Possibility to vary clearance angle by means of a pair of screws placed in the shank*
- *Suitable for both traverse (F) and radial (R) feed*
- *Traverse feed (F) only for RAA, RBL, RBR patterns*
- *Axles fixed with screws for an instant knurl change*
- *For knurlings up to a vertical face*

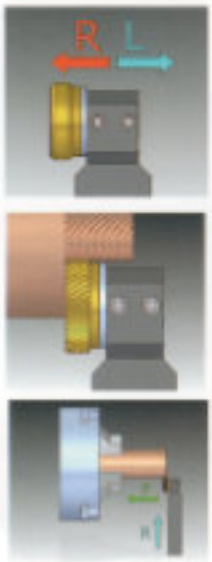
Machine Types
- *Swiss type, multi-spindle, conventional and CNC lathes*



Tipos de moleteados según DIN 82 / *Knurlings according to DIN 82*

Tipo *Pattern*	RAA	RBL30°	RBL45°	RBR30°	RBR45°	RGE30°	RGE45°	RGV30°	RGV45°	RKE	RKV
Moleta *Knurl*	AA	BR30°	BR45°	BL30°	BL45°	GV30°	GV45°	GE30°	GE45°	KV	KE
Avance *Feed*	F☑ R☑	F☑ R☑	F☑ R☑	F☑ R☑	F☑ R☑	F☐ R☑	F☐ R☑	F☐ R☑	F☐ R☑	F☐ R☑	F☐ R☑







Código *Code*	Referencia *Reference*	Versión *Version*	Capacidad *Capacity*	Moleta *Knurl*	C	E	kg kg	Repuesto *Spare Part*	
01070100	M10 25.10.20	R+L	Ø8÷200	25x10x15/11	20	30	0.7	EAM10	
01070200	M10 25.10.25	R+L			25	35	0.8		

BF SERVICE

MOLETEADORES POR DEFORMACIÓN
FORM-KNURLING TOOLS

INTEGI

MODELO M11
M11 MODEL

Características

- Herramienta de moletear por deformación
- Cabeza portamoletas basculante para un mejor centrado de las moletas sobre la pieza
- Dada la posición de las moletas, la herramienta puede realizar moleteados hasta una cara lateral
- Posibilidad de corrección del ángulo de ataque de la moleta mediante dos espárragos Allen situados en el mango
- Indicada tanto para moleteados axiales (F) como radiales (R)
- Ejes fijados mediante prisionero, lo que permite un cambio rápido de la moleta
- Para moleteados hasta una cara lateral

Tipos de máquinas

- Tornos automáticos, multihusillo, convencionales y CNC

Features

- *Form-knurling tool*
- *Tilting head for a better centering of the knurls on the workpiece*
- *Possibility to vary clearance angle by means of a pair of screws placed in the shank*
- *Suitable for both traverse (F) and radial (R) feed*
- *Axles fixed with screws for an instant knurl change*
- *For knurlings up to a vertical face*

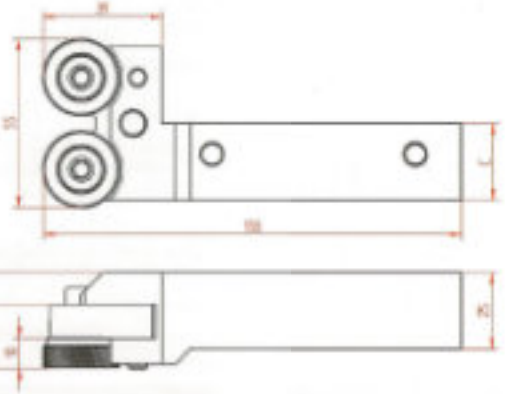
Machine Types

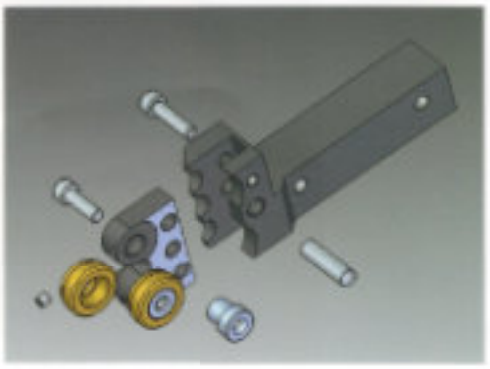
- *Swiss type, multi-spindle, conventional and CNC lathes*

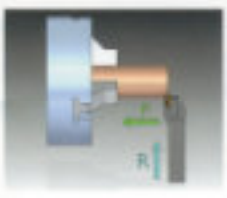


Tipos de moleteados según DIN 82
Knurlings according to DIN 82

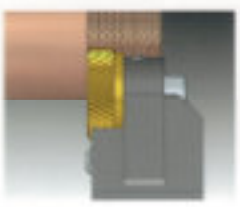
Tipo *Pattern*	RAA	RGE30°	RGE45°
Moleta *Knurl*	AA+AA	BL30°+BR30°	BL45°+BR45°
Avance *Feed*	F☑ R☑	F☑ R☑	F☑ R☑











Código *Code*	Referencia *Reference*	Versión *Version*	Capacidad *Capacity*	Moleta *Knurl*	C	kg *kg*	Repuesto *Spare Part*
01080100	M11 25.10.20R	R+L	Ø8÷200	25x10x15/11	20	1.0	ETM11
01080200	M11 25.10.20L	R+L	Ø8÷200		20	1.0	
01080300	M11 25.10.25R	R+L	Ø8÷200		25	1.2	
01080400	M11 25.10.25L	R+L	Ø8÷200		25	1.2	

MODELO M17
M17 MODEL

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MOLETEADORES POR DEFORMACIÓN
FORM-KNURLING TOOLS

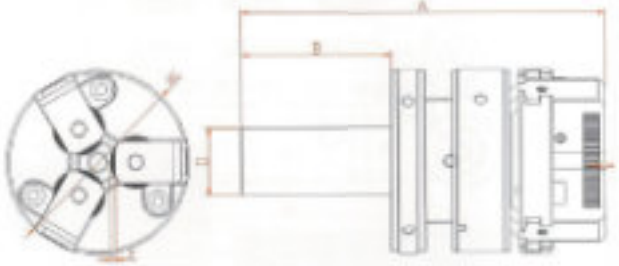
Características
- Cabezal de moletear por presión de tres garras para moleteados sobre pequeños diámetros
- Tres garras portamoletas dispuestas a 120° accionadas simultáneamente mediante un anillo sincronizador
- La unión entre el vástago de anclaje a máquina y el cuerpo principal de la herramienta dispone de un sistema de autoajuste que permite corregir posibles desalineamientos entre la torreta y el cabezal de la máquina
- Herramienta para moleteado frontal (F)
- Ejes de metal duro
- Ejes asegurados mediante un prisionero para facilitar los cambios de moletas

Tipos de máquinas
- Tornos convencionales, CNC, multihusillo, de cabezal móvil y automáticos



Features
- *Three wheeled form-knurling tool to perform knurlings on small diameter workpieces*
- *Three knurl bearing jaws placed at 120° moved by a synchronizing ring*
- *The coupling between the shank and the head has an auto adjusting system that allows to make up for any possible disalignment between the turret and the chuck of the machine*
- *Suitable only for frontal (F) knurlings*
- *Carbide axles*
- *Axles fixed with circlips for instant knurl change*

Tipos de máquinas
- *Conventional, CNC, multi-spindle, sliding head and Swiss type lathes*



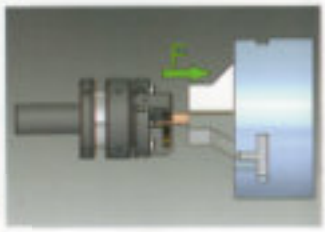
Tipos de moleteados según DIN 82
Knurlings according to DIN 82

Tipo *Pattern*	RAA	RGE30°	RGE45°
Moleta *Knurl*	AA+AA+AA	BL30°+BL30°+BR30°	BL45°+BL45°+BR45°
Avance *Feed*	F☑ R☐	F☑ R☐	F☑ R☐

LONGITUD MÁXIMA DE MOLETEADO (mm)
MAXIMUM KNURLING LENGTH (mm)

Modelo *Model*	Ø Pieza *Piece Ø*	Mango Standard *Standard Shaft*	Mango Especial Taladro *Special Bored Shaft*
M17 10.04	2÷10	40	105
M17 20.06	4÷14	69	135
M17 20.06	4÷21	37	-
M17 20.06	4÷30	17	-





Código *Code*	Referencia *Reference*	Versión *Version*	Capacidad *Capacity*	Moleta *Knurl*	A	B	C	D	F	kg *kg*	Repuesto *Spare Part*
01170100	M17 1004 20	R+L	Ø2÷10	10x4x4	107	57.5	44	16	0.5	1.0	EM17 10.04
01170200	M17 1004 20 02"	R+L						12.7		1.0	
01170200	M17 2006 40	R+L	Ø4÷30	20x6x6	129	57.5	70	20	1.7	1.4	EM17 20.06
01170400	M17 2006 40 1"							25.4		1.5	
01170600	M17 2006 40 1 1/2							32		1.5	
01170500	M17 2006 40 3/4"							19.05		1.4	



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MOLETEADORES POR DEFORMACIÓN
FORM-KNURLING TOOLS

INTECI

MODELO M12 25
M12 25 MODEL

Características

- Herramienta de moletear por presión
- Ajuste simétrico de la posición de las moletas al diámetro de la pieza mediante un husillo roscado
- Fácil ajuste mediante el simple uso de una llave Allen
- Sistema modular que permite la utilización de diferentes mangos manteniendo el resto de componentes
- No ejerce presión en los rodamientos del torno ya que el esfuerzo es absorbido por la herramienta
- Posibilidad de montaje tanto a derechas como a izquierdas
- Elimina el riesgo de flexión en la pieza, al compensarse entre sí la presión de cada moleta
- Dispone de un sistema de auto-centrado para compensar un posible desalineamiento entre la torreta y el eje de la máquina
- Indicada tanto para moleteados longitudinales (F), como para radiales (R)
- Ejes de metal duro
- Ejes bloqueados mediante tornillo para un rápido cambio de moletas

Tipos de máquinas

- Tornos convencionales, CNC y multi-husillo



Features

- *Form-knurling tool*
- *Knurls symmetrically adjustable to the workpiece's diameter through a threaded spindle*
- *Easy adjustment just using an Allen wrench*
- *Modular system that allows the use of several different shanks keeping the rest of the components*
- *It does not transmit stress to the bearings of the machine as it is stood by the tool*
- *Possibility to mount on right-handed or left-handed lathes*
- *It eliminates the risk of deflection on the workpiece as the pressure exerted by the knurls is counterbalanced*
- *It has an auto-centering system that compensates for any possible misalignment between the turret and the machine axis*
- *Suitable for both traverse (F) and radial (R) feed*
- *Carbide axles*
- *Axles fixed with a screw for an instant knurl change*

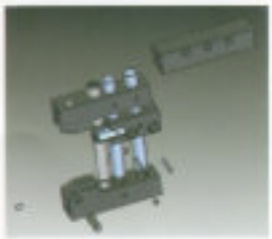
Machine Types

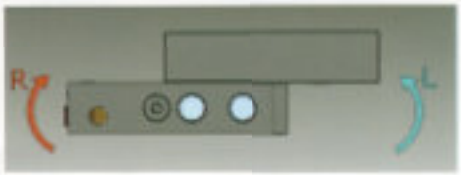
- *Conventional, CNC and multi-spindle lathes*

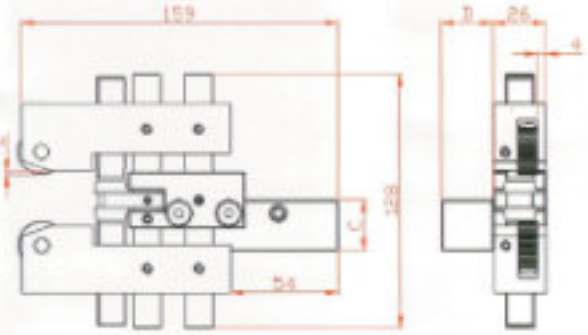
Tipos de moleteados según DIN 82
Knurlings according to DIN 82

Tipo *Pattern*	RAA	RGE30°	RGE45°
Moleta *Knurl*	AA+AA	BL30°+BR30°	BL45°+BR45°
Avance *Feed*	F☑ R☑	F☑ R☑	F☑ R☑









Código *Code*	Referencia *Reference*	Versión *Version*	Capacidad *Capacity*	Moleta *Knurl*	C	D	kg *kg*	Repuesto *Spare Part*
01120100	M12 25.10.20	R+L	Ø5÷50	25x10x8	20	25	2.1	EM12 25.10 HM
01120800	M12 25.10.25	R+L	Ø5÷50	25x10x8	25	25	2.1	

MODELO M19
M19 MODEL

INTEGI

MOLETEADORES POR DEFORMACIÓN
FORM-KNURLING TOOLS

Características
- Herramienta de moletear por deformación para moleteaados interiores
- Indicada tanto para moleteados axiales (F) como radiales (R)
- Moleteados axiales (F) solo para las formas RAA, RBL, RBR
- Sustitución rápida de la moleta (eje asegurado mediante espárragos roscados)

Tipos de máquinas
- Tornos automáticos, multihusillo, convencionales y CNC

Features
- *Form-knurling tool for internal knurlings*
- *Suitable for both traverse (F) and radial (R) knurlings*
- *Traverse feeding (F) only for RAA, RBL and RBR patterns*
- *Axle fixed with screws for instant knurl change*

Machine Types
- *Swiss type, multi-spindle, conventional and CNC lathes*



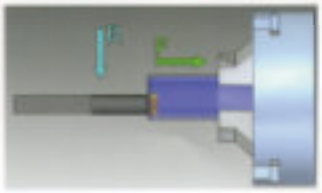
Tipos de moleteados según DIN 82 / *Knurlings according to DIN 82*

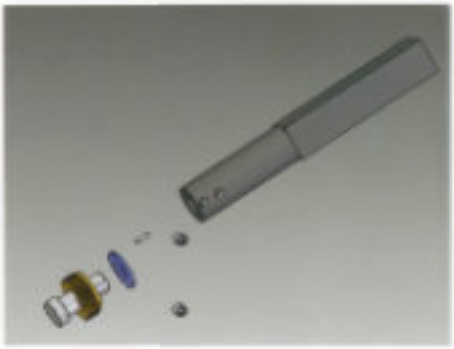
	RAA	RBL30°	RBL45°	RBR30°	RBR45°	RGE30°	RGE45°	RGV30°	RGV45°	RKE	RKV
Tipo *Pattern*											
Moleta *Knurl*	AA	BR30°	BR45°	BL30°	BL45°	GV30°	GV45°	GE30°	GE45°	KV	KE
Avance *Feed*	F☒ R☒	F☒ R☒	F☒ R☒	F☒ R☒	F☒ R☒	F☐ R☒	F☐ R☒	F☐ R☒	F☐ R☒	F☐ R☒	F☐ R☒











Código *Code*	Referencia *Reference*	Versión *Version*	Capacidad *Capacity*	Moleta *Knurl*	C	kg *kg*	Repuesto *Spare Part*
01190100	M19 25.10.20	R+L	Ø27÷200	25x10x15/11	20	0.2	EAM10 
01190200	M19 25.10.25	R+L	Ø27÷200		25	0.3	

BF SERVICE

MOLETEADORES POR DEFORMACIÓN
FORM-KNURLING TOOLS

INIEGI

MODELO M15
M15 MODEL

Características

- Herramienta de moletear por deformación para moleteados cónicos o frontales
- Cabeza portamoletas giratoria para posicionar la moleta de acuerdo al ángulo del cono de la pieza
- Doble sistema de bloqueo de la cabeza porta-moletas que confiere una gran rigidez al conjunto porta-moletas-mango
- Posibilidad de montaje tanto a derechas como a izquierdas
- Eje de metal duro
- Eje fijado mediante un prisionero para un cambio rápido de la moleta

Tipos de máquinas

- Tornos automáticos, multihusillo, convencionales y CNC

Features

- *Form-knurling tool for conical or frontal knurlings*
- *Swivel head to place the knurl according to the workpiece's cone angle*
- *Double head blocking system that confères high rigidity to the whole tool assembly*
- *Possibility to work in both right-handed and left-handed lathes*
- *Carbide axle*
- *Axle fixed with a screw for an instant knurl change*

Machine Types

- *Automatic, multi-spindle, conventional and CNC lathes*



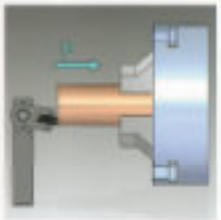
Tipos de moleteados según DIN 82
Knurlings according to DIN 82

	RKAA	RKBL30°	RKBR30°
Tipo *Pattern*			
Moleta *Knurl*	KAA	KBR30°	KBL30°
Avance *Feed*	P	P	P

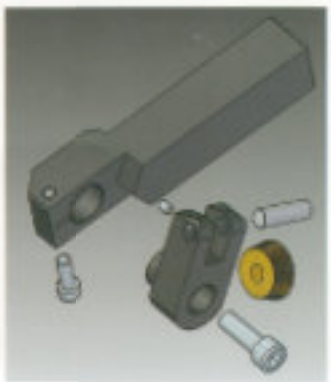












Código *Code*	Referencia *Reference*	Versión *Version*	Capacidad *Capacity*	A	B	C	kg kg	Repuesto *Spare Part*
01150300	M15 25.08.20	R+L	CÓNICA *CONICAL*	160	46	20	0.6	EM15 25.08 HM 
01150400	M15 25.08.25	R+L		160	46	25	0.8	
01150500	M15 25.10.20	R+L		160	46	20	0.6	
01150600	M15 25.10.25	R+L		160	46	25	0.8	
01150700	M15 25.12.20	R+L		160	46	20	0.6	
01150800	M15 25.12.25	R+L		160	46	25	0.8	

MODELO M16
M16 MODEL

INTERGI

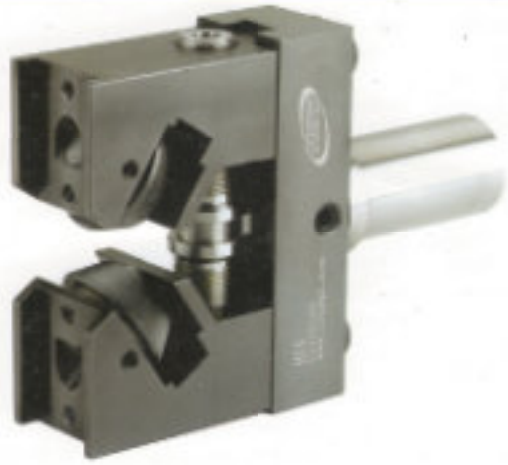
MOLETEADORES POR DEFORMACIÓN
FORM-KNURLING TOOLS

Características
- Herramienta de moletear por deformación para moleteados cónicos
- Especial para norma DIN-72783
- Ajuste simétrico de la posición de las moletas al diámetro de la pieza mediante un husillo roscado
- Fácil ajuste mediante el simple uso de una llave Allen
- Sistema modular que permite la utilización de diferentes mangos manteniendo el resto de componentes
- Fabricación del mango según el acoplamiento de la máquina a la que vaya destinada
- Posibilidad de montaje tanto a derechas como a izquierdas
- No ejerce presión en los rodamientos del torno ya que el esfuerzo es absorbido por la herramienta
- Elimina el riesgo de flexión en la pieza, al compensarse la presión de cada moleta
- Dispone de un sistema de auto-centrado para compensar un posible desalineamiento entre la torreta y el eje de la máquina
- Para moleteado frontal (F)
- Ejes de metal duro
- Eje bloqueado mediante tornillo para un rápido cambio de moletas

Tipos de máquinas
- Tornos automáticos, multihusillo, convencionales y CNC

Features
- *Form-knurling tool for conical knurlings*
- *Special for DIN-72783 knurlings*
- *Symmetrical knurl set to the workpiece's diameter using a threaded spindle*
- *Easy adjustment just using an Allen wrench*
- *Modular system that allows the use of several different shanks keeping the same components*
- *Shank manufactured to client's specification*
- *Possibility to work in both right-handed and left-handed lathes*
- *It does not transmit stress to the bearings of the machine as it is stood by the tool*
- *It eliminates the risk of deflection on the workpiece as the pressure exerted by the knurls is counterbalanced*
- *It features an auto-centering system to compensate for a possible disalignment between the turret and the machine axis*
- *For frontal knurlings (F)*
- *Carbide axles*
- *Axles fixed with screws for an instant knurl change*

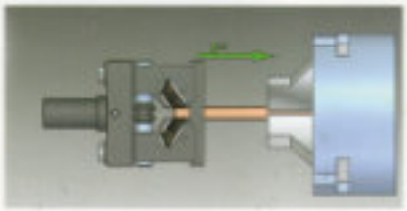
Machine Types
- *Swiss type, multi-spindle, conventional and CNC lathes*



Tipos de moleteados según DIN 82
Knurlings according to DIN 82

	RKAA	RKGE30°	RKGE45°
Tipo *Pattern*			
Moleta *Knurl*	KAA+KAA	KBL30°+KBR30°	KBL45°+KBR45°
Avance *Feed*	F☑ R☐	F☑ R☐	F☑ R☐







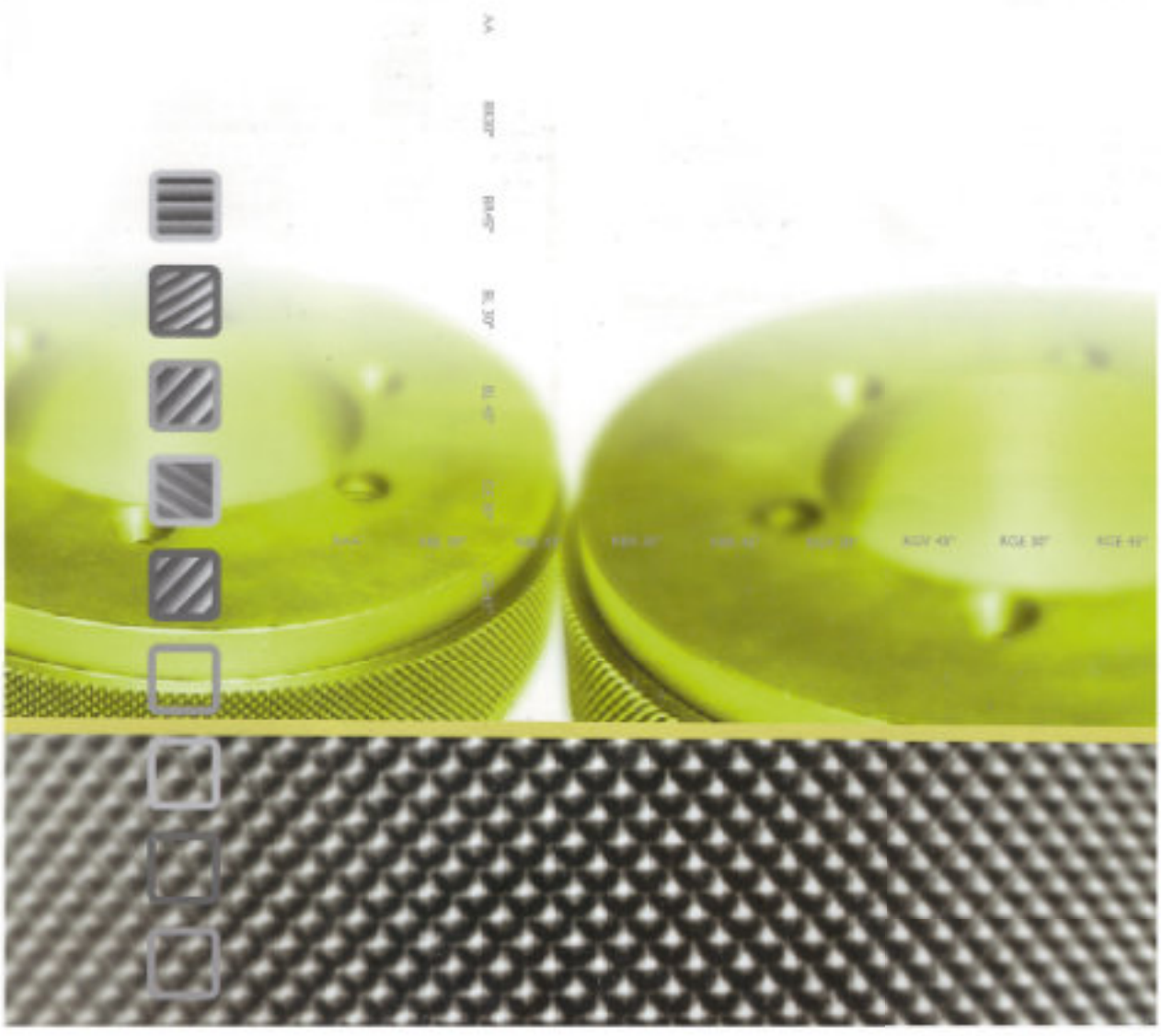


Código *Code*	Referencia *Reference*	Versión *Version*	Capacidad *Capacity*	Moleta *Knurl*	kg *kg*	Repuesto *Spare Part*	
01210100	M16	FRONTAL *FRONTAL*	Ø1÷12	CÓNICA *CONICAL*	1.5	EM16 HM	

BF SERVICE

Moleteadores por corte

Cut-knurling tools



MODELO MFS 89.25
MFS 89.25 MODEL

INNOCENTI

MOLETEADORES POR CORTE
CUT-KNURLING TOOLS

Características
- Herramienta de moletear por corte
- Fácil ajuste mediante el simple uso de una llave Allen
- Cabeza pivotante para un mejor alineamiento de la moleta
- Sistema modular que permite la utilización de diferentes mangos con la misma cabeza portamoletas
- Posibilidad de corrección del ángulo de ataque
- Indicada sólo para moleteados longitudinales (F)

Tipos de máquinas
Tornos de cabezal móvil y automáticos

Features
- *Cut knurling tool*
- *Easy setting just using an Allen wrench*
- *Pivoting head for a better knurl alignment*
- *Modular system that allows the use of different shanks keeping the same head*
- *Possibility to vary the clearance angle*
- *Suitable only for traverse (F) feed*

Machine Types
- *Sliding-head and Swiss type lathes*

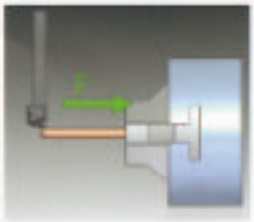


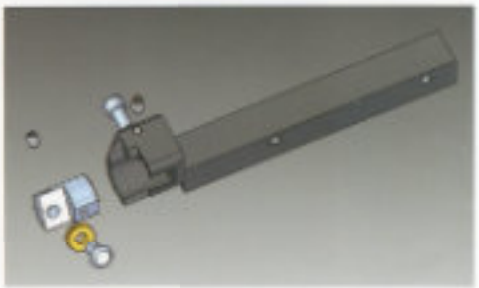


Tipos de moleteados según DIN 82
Knurlings according to DIN 82

Tipo *Pattern*	RAA	RBR30°	RAA	RBL30°
Moleta *Knurl*	BR30°	AA	BL30°	AA
Con hta. *With tool*	**Versión derecha (R)** *Right -handed (R)*		**Versión izquierda (L)** *Left -handed (L)*	
Avance *Feed*	F☑ R☐	F☑ R☐	F☑ R☐	F☑ R☐







Código *Code*	Referencia *Reference*	Versión *Version*	Capacidad *Capacity*	Moleta *Knurl*	C	D	kg *kg*	Repuesto *Spare Part*	
01090900	MFS 89.25.08 R	R	Ø1.5÷12	8.9x2.5x4	8	8	0.2	ES 89.25 HSS	
01091000	MFS 89.25.08 L	L	Ø1.5÷12		8	8	0.2		
01091100	MFS 89.25.10 R	R	Ø1.5÷12		10	10	0.2		
01091200	MFS 89.25.10 L	L	Ø1.5÷12		10	10	0.2		
01091300	MFS 89.25.12 R	R	Ø1.5÷12		12	12	0.2		
01091400	MFS 89.25.12 L	L	Ø1.5÷12		12	12	0.2		

BF SERVICE

MOLETEADORES POR CORTE
CUT-KNURLING TOOLS

INIECI

MODELO MF 89.25
MF 89.25 MODEL

Características

- Herramienta de moletear por corte
- Ajuste de las moletas según el diámetro de la pieza a moletear mediante escala graduada
- Fácil ajuste mediante el simple uso de una llave Allen
- Posibilidad de trabajar tanto a derechas como a izquierdas en función del mango montado
- Cabeza pivotante para un mejor alineado de las moletas
- Sistema modular que permite la utilización de diferentes mangos con la misma cabeza portamoletas
- Posibilidad de corrección del ángulo de ataque
- Indicada sólo para moleteados longitudinales (F)

Tipos de máquinas

- Tornos de cabezal móvil y automáticos

Features

- *Cut-knurling tool*
- *Easy knurl setting to the diameter of the workpiece thanks to a graduated scale*
- *Easy adjustment just using an Allen wrench*
- *Possibility to work on right-handed or left-handed lathes depending on the mounted shank*
- *Tilting head for a better knurl alignment*
- *Modular system that allows the use of several different shanks keeping the same head*
- *Possibility to vary the clearance angle*
- *Suitable only for traverse (F) feed*

Machine Types

- *Sliding-head and Swiss type lathes*

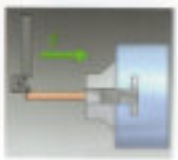


Tipos de moleteados según DIN 82
Knurlings according to DIN 82

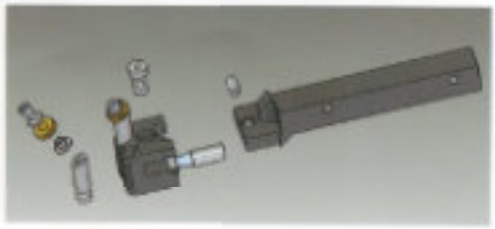
	RGE30°	RGE45°	RGE60°
Tipo *Pattern*			
Moleta *Knurl*	AA+AA	BL15°+BR15°	BL30°+BR30°
Avance *Feed*	F☒ R☐	F☒ R☐	F☒ R☐











Código *Code*	Referencia *Reference*	Versión *Version*	Capacidad *Capacity*	Moleta *Knurl*	C	kg *kg*	Repuesto *Spare Part*	
01101300	MF 89.25.08 R	R	Ø1.5÷12	8.9x2.5x4	8	0.2	EAT 89.25	
01101400	MF 89.25.08 L	L	Ø1.5÷12	8.9x2.5x4	8	0.2		
01101500	MF 89.25.10 R	R	Ø1.5÷12	8.9x2.5x4	10	0.2		
01101600	MF 89.25.10 L	L	Ø1.5÷12	8.9x2.5x4	10	0.2		
01101700	MF 89.25.12 R	R	Ø1.5÷12	8.9x2.5x4	12	0.2		
01101800	MF 89.25.12 L	L	Ø1.5÷12	8.9x2.5x4	12	0.2		

MODELO MFS1 14.53
MFS1 14.53 MODEL

INTEGI

MOLETEADORES POR CORTE
CUT-KNURLING TOOLS

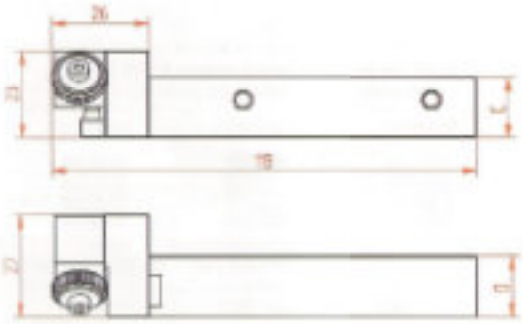
Características
- Herramienta de moletear por corte
- Fácil ajuste mediante el simple uso de una llave Allen
- Cabeza pivotante para un mejor alineamiento de la moleta
- Sistema modular que permite la utilización de diferentes mangos con la misma cabeza portamoletas
- Posibilidad de corrección del ángulo de ataque
- Indicada sólo para moleteados longitudinales (F)

Tipos de máquinas
- Tornos de cabezal móvil y automáticos

Features
- *Cut knurling tool*
- *Easy setting just using an Allen wrench*
- *Pivoting head for a better knurl alignment*
- *Modular system that allows the use of different shanks keeping the same head*
- *Possibility to vary the clearance angle*
- *Suitable only for traverse (F) feeds*

Machine Types
- *Sliding-head and Swiss type lathes*

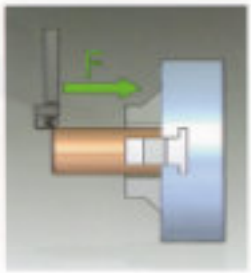


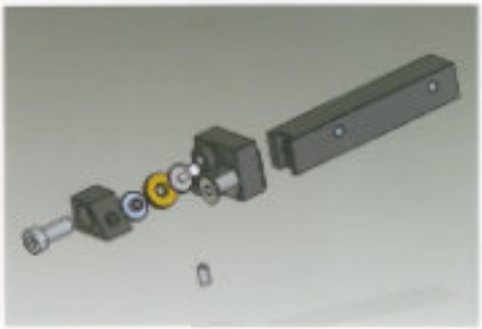


Tipos de moleteados según DIN 82
Knurlings according to DIN 82

Tipo *Pattern*	RAA	RBR30°	RAA	RBL30°
Moleta *Knurl*	BR30°	AA	BL30°	AA
Con hta. *With tool*	**Versión derecha (R)** *Right -handed (R)*		**Versión izquierda (L)** *Left -handed (L)*	
Avance *Feed*	F☑ R☐	F☑ R☐	F☑ R☐	F☑ R☐







Código *Code*	Referencia *Reference*	Versión *Version*	Capacidad *Capacity*	Moleta *Knurl*	C	D	kg *kg*	Repuesto *Spare Part*
01260100	MFS1 14.53.12 R	R	Ø3÷50	14.5x3x5	14	12	0.3	EAT 14.53
01260200	MFS1 14.53.12 L	L						
01260300	MFS1 14.53.14 R	R	Ø3÷50	14.5x3x5	14	14	0.3	
01260400	MFS1 14.53.14 L	L						
01260500	MFS1 14.53.16 R	R	Ø3÷50	14.5x3x5	16	16	0.3	
01260600	MFS1 14.53.16 L	L						

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MOLETEADORES POR CORTE
CUT-KNURLING TOOLS

INTEGI

MODELO MF1 14.53
MF1 14.53 MODEL

Características
- Herramienta de moletear por corte
- Ajuste de las moletas según el diámetro de la pieza a moletear mediante escala graduada
- Fácil ajuste mediante el simple uso de una llave Allen
- Posibilidad de trabajar tanto a derechas como a izquierdas variando la posición del mango
- Sistema modular que permite la utilización de diferentes mangos con la misma cabeza portamoletas
- Posibilidad de corrección del ángulo de ataque
- Indicada sólo para moleteados longitudinales (F)

Tipos de máquinas
- Tornos de cabezal móvil y automáticos

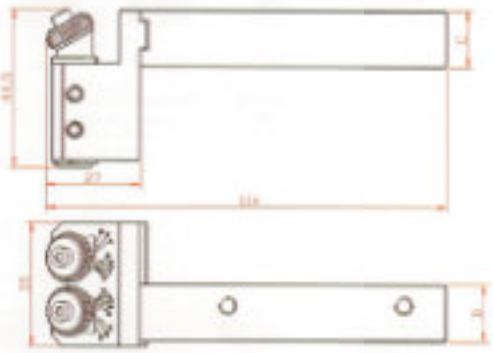
Features
- *Cut-knurling tool*
- *Knurl setting to the diameter of the workpiece thanks to a graduated scale*
- *Easy adjustment just using an Allen wrench*
- *Possibilty to work on right-handed or left-handed lathes changing the position of the shank*
- *Modular system that allows the use of different shanks keeping the same head*
- *Possibilty to vary the clearance angle*
- *Suitable only for traverse (F) feed*

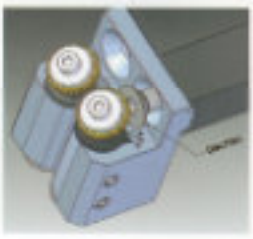
Machine Types
- *Sliding-head and Swiss type lathes*

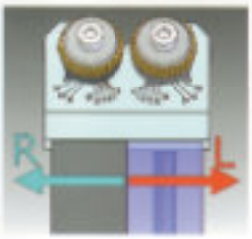


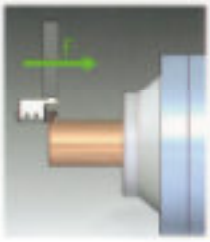
Tipos de moleteados según DIN 82
Knurlings according to DIN 82

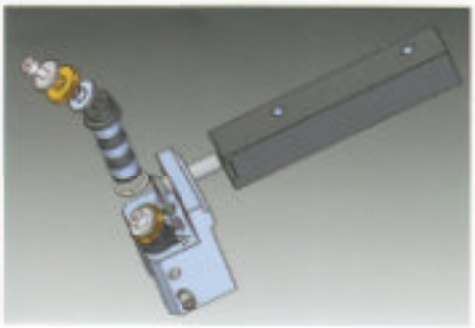
Tipo *Pattern*	RGE30°	RGE45°	RGE60°
Moleta *Knurl*	AA+AA	BL15°+BR15°	BL30°+BR30°
Avance *Feed*	F☑ R☐	F☑ R☐	F☑ R☐











Código *Code*	Referencia *Reference*	Versión *Version*	Capacidad *Capacity*	Moleta *Knurl*	C	D	kg *kg*	Repuesto *Spare Part*
01250100	MF1 14.53.12	R+L	Ø3÷50	14.5x3x5	14	12	0.5	EAT 14.53
01250200	MF1 14.53.14	R+L			14	14	0.5	
01250300	MF1 14.53.16	R+L			16	16	0.5	

MODELO MFS 14.53
MFS 14.53 MODEL

INTECI

MOLETEADORES POR CORTE
CUT-KNURLING TOOLS

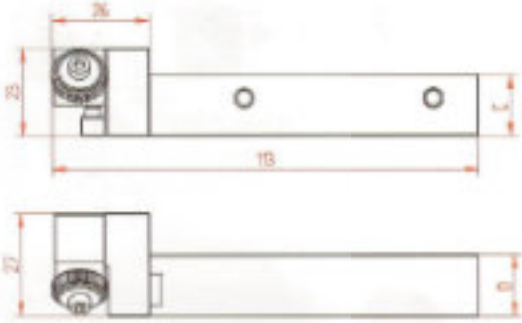
Características
- Herramienta de moletear por corte
- Fácil ajuste mediante el simple uso de una llave Allen
- Posibilidad de trabajar tanto a derechas como a izquierdas simplemente girando la cabeza
- Cabeza pivotante para un mejor alineamiento de la moleta
- Sistema modular que permite la utilización de diferentes mangos con la misma cabeza portamoletas
- Posibilidad de corrección del ángulo de ataque
- Indicada sólo para moleteados longitudinales (F)

Tipos de máquinas
- Tornos automáticos, multihusillo, convencionales y CNC

Features
- *Cut-knurling tool*
- *Easy setting just using an Allen wrench*
- *Possibilty to work on right-handed and left-handed lathes just turning over the head*
- *Tilting head for a better knurl alignment*
- *Modular system that allows the use of different shanks keeping the same head*
- *Possibilty to vary the clearance angle*
- *Suitable only for traverse (F) feed*

Machine Types
- *Swiss type, multi-spindle, conventional and CNC lathes*

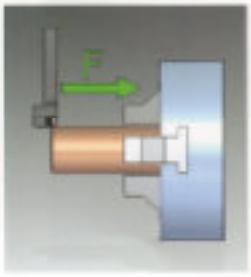


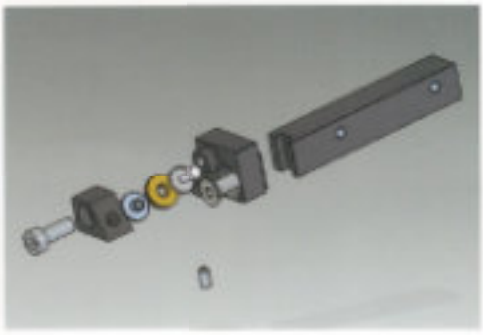


Tipos de moleteados según DIN 82
Knurlings according to DIN 82

Tipo *Pattern*	RAA	RBR30°	RAA	RBL30°
Moleta *Knurl*	BR30°	AA	BL30°	AA
Con hta. *With tool*	**Versión derecha (R)** *Right -handed (R)*		**Versión izquierda (L)** *Left -handed (L)*	
Avance *Feed*	F☑ R☐	F☑ R☐	F☑ R☐	F☑ R☐







Código *Code*	Referencia *Reference*	Versión *Version*	Capacidad *Capacity*	Moleta *Knurl*	C	D	kg *kg*	Repuesto *Spare Part*	
01090500	MFS 14.53.12	R+L	Ø3÷50mm	14.5X3X5	12	16	0.232	EAT 14.53	
01090100	MFS 14.53.14	R+L	Ø3÷50mm		14	16	0.232		
01090200	MFS 14.53.16	R+L	Ø3÷50mm		16	16	0.232		

BF SERVICE

MOLETEADORES POR CORTE
CUT-KNURLING TOOLS

INIECGI

MODELO MF 14.53
MF 14.53 MODEL

Características

- Herramienta de moletear por corte
- Ajuste de las moletas según el diámetro de la pieza a moletear mediante escala graduada
- Fácil ajuste mediante el simple uso de una llave Allen
- Posibilidad de trabajar tanto a derechas como a izquierdas en función del mango montado
- Cabeza pivotante para un mejor alineamiento de las moletas
- Sistema modular que permite la utilización de diferentes mangos con la misma cabeza portamoletas
- Posibilidad de corrección del ángulo de ataque
- Indicada sólo para moleteados longitudinales (F)

Tipos de máquinas

- Tornos automáticos, multihusillo, convencionales y CNC

Features

- *Cut-knurling tool*
- *Knurl setting to the diameter of the workpiece thanks to a graduated scale*
- *Easy adjustment just using an Allen wrench*
- *Possibility to work on right-handed or left-handed lathes depending on the assembled shank*
- *Tilting head for a better knurl alignment*
- *Modular system that allows the use of different shanks keeping the same head*
- *Possibility to vary the clearance angle*
- *Suitable only for traverse (F) feed*

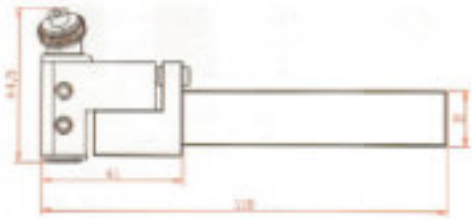
Machine Types

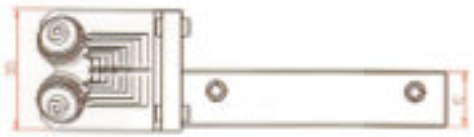
- *Swiss type, multi-spindle, convectional and CNC lathes*



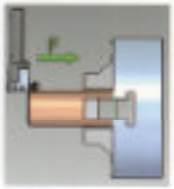
Tipos de moleteados según DIN 82
Knurlings according to DIN 82

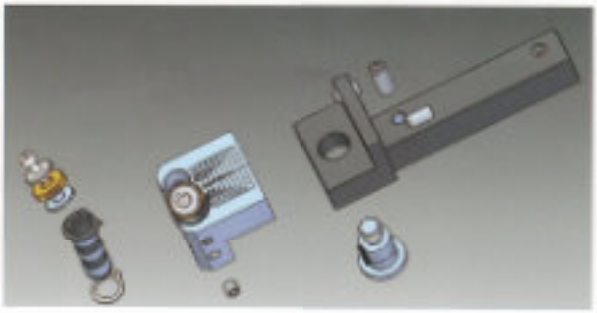
	RGE30°	RGE45°	RGE60°
Tipo *Pattern*			
Moleta *Knurl*	AA+AA	BL15°+BR15°	BL30°+BR30°
Avance *Feed*	F☑ R☐	F☑ R☐	F☑ R☐











Código *Code*	Referencia *Reference*	Versión *Version*	Capacidad *Capacity*	Moleta *Knurl*	C	D	kg *kg*	Repuesto *Spare Part*	
01101000	MF 14.53.12 L	L	Ø3÷50	14.5x3x5	12	16	0.5	EAT 14.53	
01100900	MF14.53.12 R	R	Ø3÷50	14.5x3x5	12	16	0.5		
01100100	MF 14.53.14 R	R	Ø3÷50	14.5x3x5	14	16	0.5		
01100200	MF 14.53.14 L	L	Ø3÷50	14.5x3x5	14	16	0.5		
01100300	MF 14.53.16 R	R	Ø3÷50	14.5x3x5	16	16	0.5		
01100400	MF 14.53.16 L	L	Ø3÷50	14.5x3x5	16	16	0.5		

MODELO MFS 21.55
MFS 21.55 MODEL

INTECI

MOLETEADORES POR CORTE
CUT-KNURLING TOOLS

Características
- Herramienta de moletear por corte
- Fácil ajuste mediante el simple uso de una llave Allen
- Cabeza pivotante para un mejor alineamiento de la moleta
- Posibilidad de trabajar tanto a derechas como a izquierdas simplemente girando la cabeza
- Sistema modular que permite la utilización de diferentes mangos con la misma cabeza portamoletas
- Posibilidad de corrección del ángulo de ataque
- Indicada sólo para moleteados longitudinales (F)

Tipos de máquinas
- Tornos automáticos, multihusillo, convencionales y CNC

Features
- *Cut-knurling tool*
- *Easy adjustment just using an Allen wrench*
- *Tilting head for a better knurl alingment*
- *Possibility to work on right-handed and left-handed lathes just turning over the head*
- *Modular system that allows the use of different shanks keeping the same head*
- *Possibility to vary the clearance angle*
- *Suitable only for traverse (F) feed*

Machine Types
- *Swiss type, multi-spindle, conventional and CNC lathes*



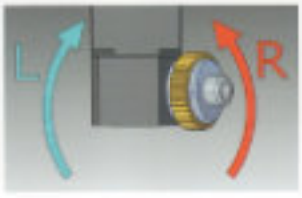




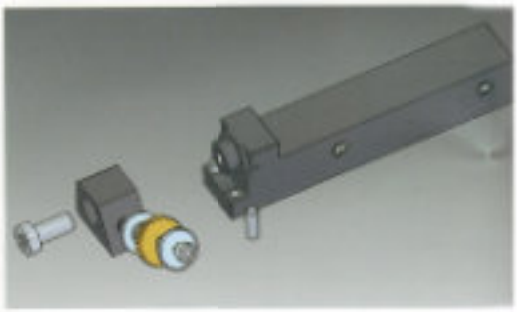
Tipos de moleteados según DIN 82
Knurlings according to DIN 82

Tipo *Pattern*	RAA	RBR30°	RAA	RBL30°
Moleta *Knurl*	BR30°	AA	BL30°	AA
Con hta. *With tool*	**Versión derecha (R)** *Right -handed (R)*		**Versión izquierda (L)** *Left -handed (L)*	
Avance *Feed*	F☑ R☐	F☑ R☐	F☑ R☐	F☑ R☐









Código *Code*	Referencia *Reference*	Versión *Version*	Capacidad *Capacity*	Moleta *Knurl*	C	D	kg *kg*	Repuesto *Spare Part*	
01090300	MFS 21.55.20	R+L	Ø4÷250	21.5x5x8	20	25	0.2	EAT 21.55	
01090400	MFS 21.55.25	R+L	Ø4÷25		25	25	0.2		

BF SERVICE

MOLETEADORES POR CORTE
CUT-KNURLING TOOLS

INTEGI

MODELO MF 21.55
MF 21.55 MODEL

Caracteristicas
- Herramienta de moletear por corte
- Ajuste de las moletas según el diámetro de la pieza a moletear mediante escala graduada
- Fácil ajuste mediante el simple uso de una llave Allen
- Posibilidad de trabajar tanto a derechas como a izquierdas simplemente girando la cabeza
- Sistema modular que permite la utilización de diferentes mangos con la misma cabeza portamoletas
- Posibilidad de corrección del ángulo de ataque
- Indicada sólo para moleteados longitudinales (F)

Tipos de máquinas
- Tornos automáticos, multihusillo, convencionales y CNC

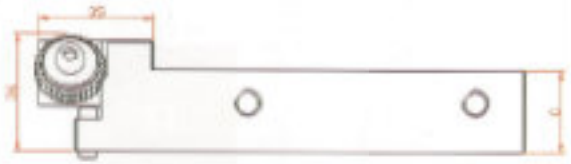
Features
- *Cut-knurling tool*
- *Knurl setting to the diameter of the workpiece thanks to a graduated scale*
- *Easy adjustment just using an Allen wrench*
- *Possibility to work on right-handed or left-handed lathes just turning over the head*
- *Modular system that allows the use of different shanks keeping the same head*
- *Possibility to vary the clearance angle*
- *Suitable only for traverse (F) feed*

Machine Types
- *Swiss type, multi-spindle, conventional and CNC lathes*



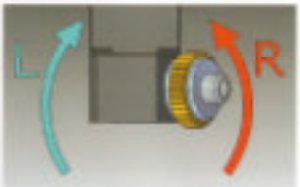
Tipos de moleteados según DIN 82
Knurlings according to DIN 82

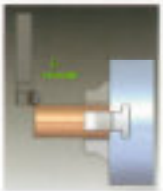
Tipo *Pattern*	RGE30°	RGE45°	RGE60°
Moleta *Knurl*	AA+AA	BL15°+BR15°	BL30°+BR30°
Avance *Feed*	F☑ R☐	F☑ R☐	F☑ R☐

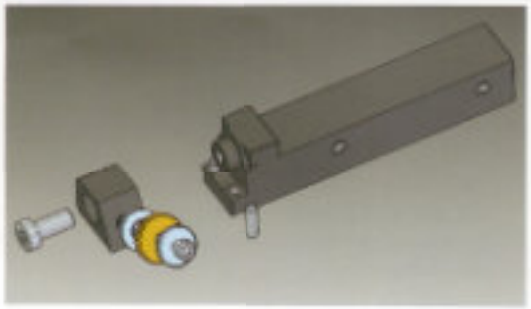












Código *Code*	Referencia *Reference*	Versión *Version*	Capacidad *Capacity*	Moleta *Knurl*	C	D	kg *kg*	Repuesto *Spare Part*	
01100500	MF 21.55.20	R+L	Ø5÷250mm	21.5X5X8	20	25	1.3	EAT 21.55	
01100700	MF 21.55.25	R+L	Ø5÷250mm		25	25	1.4		

MODELO MF 21.55 VDI
MF 21.55 VDI MODEL

INTERGI

MOLETEADORES POR CORTE
CUT-KNURLING TOOLS

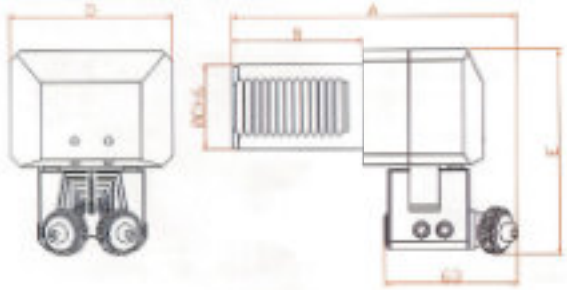
Características
- Herramienta de moletear por corte
- Ajuste de las moletas según el diámetro de la pieza a moletear mediante escala graduada
- Fácil ajuste mediante el simple uso de una llave Allen
- Cabeza pivotante para un mejor alineamiento de las moletas
- Indicada sólo para moleteados longitudinales (F)

Tipos de máquinas
- Tornos CNC con torreta según DIN 69880

Features
- *Cut-knurling tool*
- *Knurl setting to the diameter of the workpiece thanks to a graduated scale*
- *Easy adjustment just using an Allen wrench*
- *Tilting head for a better knurl alignment*
- *Suitable only for traverse (F) feed*

Machine Types
- *CNC lathes with DIN 69880 type turrets*

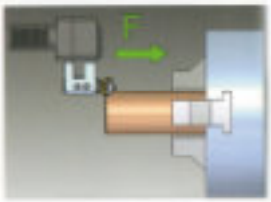




Tipos de moleteados según DIN 82
Knurlings according to DIN 82

	RGE30°	RGE45°	RGE60°
Tipo *Pattern*			
Moleta *Knurl*	AA+AA	BL15°+BR15°	BL30°+BR30°
Avance *Feed*	F☑ R☐	F☑ R☐	F☑ R☐





Código *Code*	Referencia *Reference*	Versión *Version*	Capacidad *Capacity*	Moleta *Knurl*	A	B	C	D	E	kg *kg*	Repuesto *Spare Part*
01140100	MF 21.55 VDI 30R	R	Ø3÷50	21.5x5x8	126	55	30	68	95	2.6	EAT 21.55
01140200	MF 21.55 VDI 30L	L			126	55	30	68	95	2.6	
01140300	MF 21.55 VDI 40R	R			136	63	40	78	98	2.9	
01140400	MF 21.55 VDI 40L	L			136	63	40	78	98	2.9	

KIT MF 21.55 - MFS 21.55
Kit básico de moleteado por corte que incluye:
- 1 MF 21.55
- 1 MFS 21.55
- Llaves Allen de servicio

KIT MF 21.55 - MFS 21.55
Basic cut-knurling kit comprised of:
- *1 MF 21.55*
- *1 MFS 21.55*
- *Allen wrenches*



Codigo *Code*	Mango *Shank*	Referencia *Reference*	Kg *Kg*
01220200	20x25	KMF 20	3
01220300	25x25	KMF 25	3.3

BF SERVICE

MOLETEADORES POR CORTE
CUT-KNURLING TOOLS

INTEGI

MODELO MF 12
MF 12 MODEL

Características
- Herramienta de acción compensada para moleteado por corte. Recomendada para moleteados de perfil RGE 30° y RGE 45°
- Ajuste simétrico de la posición de las moletas al diámetro de la pieza mediante un husillo roscado
- Fácil ajuste mediante el simple uso de una llave Allen
- Sistema modular que permite la utilización de diferentes mangos manteniendo el resto de componentes
- No ejerce presión en los rodamientos del torno ya que el esfuerzo es absorbido por la herramienta
- Elimina el riesgo de flexión en la pieza, al compensarse la presión de cada moleta
- Dispone de un sistema de auto-centrado para compensar un posible desalineamiento entre la torreta y el eje de la máquina
- Únicamente admite moleteados longitudinales (F)
- Eje bloqueado mediante tornillo para un rápido cambio de moletas

Tipos de máquinas
- Tornos automáticos y multi-husillo

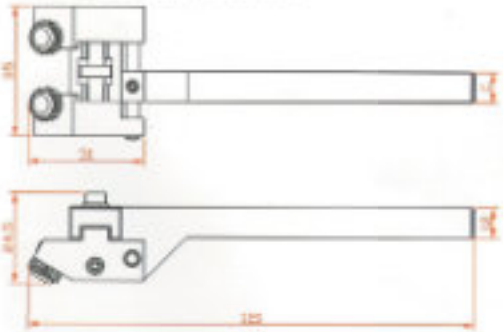


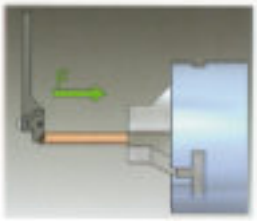
Features
- *Balanced action cut-knurling tool. Recommended for RGE 30° and RGE 45° pattern knurlings*
- *Knurls symmetrically adjustable to the workpiece's diameter through a threaded spindle*
- *Easy adjustment just using an Allen wrench*
- *Modular system that allows the use of several different shanks keeping the rest of the components*
- *It does not transmit any stress to the bearings of the lathe as it is stood by the tool*
- *It eliminates the risk of deflection on the workpiece as the pressure exerted by the knurls is counterbalanced*
- *It features an auto-centering system that makes up for any possible disalignment between the turret and the machine axis.*
- *Suitable only for traverse (F) feed*
- *Axles fixed with screws for an instant knurl change*

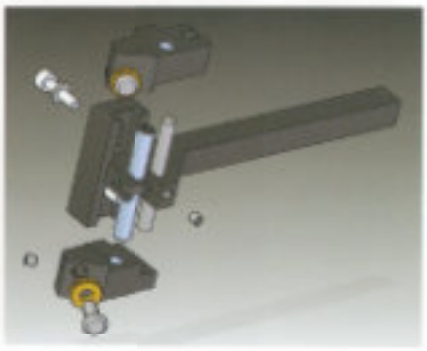
Machine Type
- *Swiss type and multi-spindle lathes*

Tipos de moleteados según DIN 82
Knurlings according to DIN 82

	RGE30°	RGE45°	RGE60°
Tipo *Pattern*			
Moleta *Knurl*	AA+AA	BL15°+BR15°	BL30°+BR30°
Avance *Feed*	F☒ R☐	F☒ R☐	F☒ R☐







Código *Code*	Referencia *Reference*	Versión *Version*	Capacidad *Capacity*	Moleta *Knurl*	C	D	kg *kg*	Repuesto *Spare Part*	
01130100	MF12 89.25.08R	R	Ø1÷10	8,9x2,3x4	8	12	0,2	EMF 12	
01130200	MF12 89.25.08L	L			8	12	0,2		
01130300	MF12 89.25.10R	R			10	12	0,2		
01130400	MF12 89.25.10L	L			10	12	0,2		
01130500	MF12 89.25.12R	R			12	12	0,2		
01130600	MF12 89.25.12L	L			12	12	0,2		

MODELO MFS 42.12
MFS 42.12 MODEL

INTEGI

MOLETEADORES POR CORTE
CUT-KNURLING TOOLS

Características
- Herramienta de moletear por corte
- Fácil ajuste mediante el simple uso de una llave Allen
- Posibilidad de trabajar tanto a derechas como a izquierdas simplemente girando la cabeza
- Cabeza pivotante para un mejor alineamiento de la moleta
- Sistema modular que permite la utilización de diferentes mangos con la misma cabeza portamoletas
- Indicada sólo para moleteados longitudinales (F)

Tipos de máquinas
- Para grandes tornos

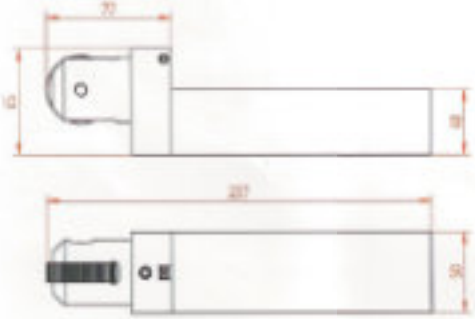
Features
- *Cut knurling tool*
- *Easy setting just using an Allen wrench*
- *Possibilty to work on both right-handed and left-handed lathes just turning the head*
- *Pivoting head for a better knurl alignment*
- *Modular system that allows the use of different shanks keeping the same head*
- *Suitable only for traverse (F) feeds*

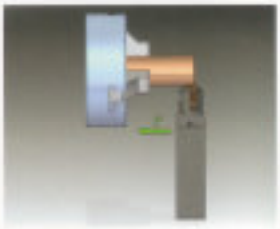
Machine Types
- *For big sized lathes*



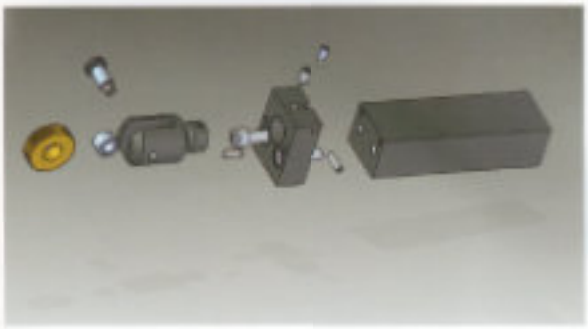
Tipos de moleteados según DIN 82
Knurlings according to DIN 82

Tipo *Pattern*	RAA	RBR30°	RAA	RBL30°
Moleta *Knurl*	BR30°	AA	BL30°	AA
Con hta. *With tool*	**Versión derecha (R)** *Right -handed (R)*		**Versión izquierda (L)** *Left -handed (L)*	
Avance *Feed*	F☑ R☐	F☑ R☐	F☑ R☐	F☑ R☐









Código *Code*	Referencia *Reference*	Versión *Version*	Capacidad *Capacity*	Moleta *Knurl*	kg kg	Repuesto *Spare Part*	
01270100	MFS 42.12.40	R+L	Ø30 ÷ 3000	42x12x18	7.0	C 42..12	

BF SERVICE

MOLETEADORES POR CORTE
CUT-KNURLING TOOLS

INTECI

MODELO MF 42
MF 42 MODEL

Características
- Herramienta de moletear por corte
- Ajuste de las moletas según el diámetro de la pieza a moletear mediante escala graduada
- Fácil ajuste mediante el simple uso de una llave Allen
- Posibilidad de trabajar tanto a derechas como a izquierdas simplemente girando la cabeza
- Sistema modular que permite la utilización de diferentes mangos con la misma cabeza portamoletas
- Indicada sólo para moleteados longitudinales (F)

Tipos de máquinas
- Para grandes tornos

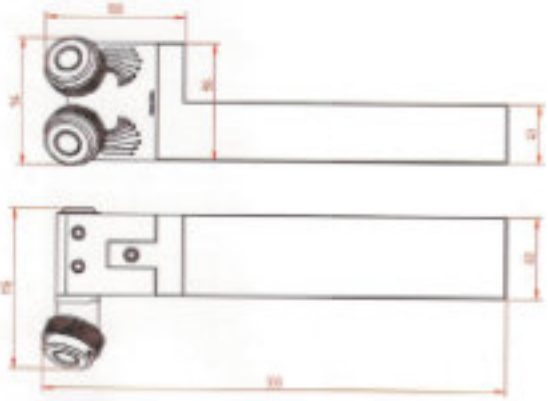
Features
- *Cut-knurling tool*
- *Knurl setting to the diameter of the workpiece thanks to a graduated scale*
- *Easy adjustment just using an Allen wrench*
- *Possibilty to work on right-handed or left-handed lathes just turning over the head*
- *Modular system that allows the use of several different shanks keeping the same head*
- *Suitable only for traverse (F) feed*

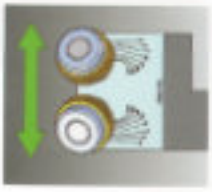
Machine Types
- *For big sized lathes*



Tipos de moleteados según DIN 82
Knurlings according to DIN 82

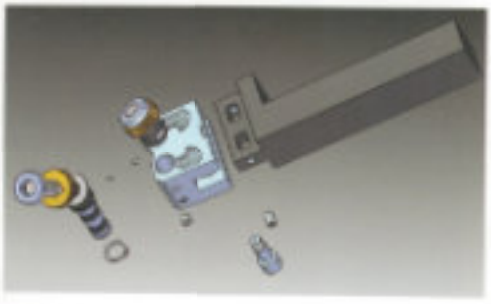
Tipo *Pattern*	RGE30°	RGE45°	RGE60°
Moleta *Knurl*	AA+AA	BL15°+BR15°	BL30°+BR30°
Avance *Feed*	F☒ R☐	F☒ R☐	F☒ R☐











Código *Code*	Referencia *Reference*	Versión *Version*	Capacidad *Capacity*	Moleta *Knurl*	kg *kg*	Repuesto *Spare Part*	
01240100	MF 42.12	R+L	Ø30 ÷ 3000	42x12x18	9.0	BAT 42.11	

INTEGI

MOLETEADO POR DEFORMACIÓN (DATOS TÉCNICOS)
PRESSURE KNURLING (TECHNICAL DATA)

Se produce por el conformado en frío del material mientras las moletas presionan la pieza. Dicha deformación produce un incremento del diámetro de partida de la pieza, según los valores aproximados indicados en la siguiente tabla:

This is done by cold forming the material while the knurls exert pressure on the workpiece. This causes an increase in the starting diameter of the part in accordance with the approximate values indicated in the following table:

Incremento del diámetro de la pieza moleteada (Valores en mm)
Increase in knurled part diameter (mm)

Material / Material	Tipo	Paso (mm) / Pitch (mm) 0.3	0.4	0.5	0.6	0.8	1.0	1.2	1.4	1.6	1.8	2.0
Acero de 90 Kg / 90 Kg steel	RAA	0.08	0.13	0.18	0.22	0.36	0.43	0.50	0.58	0.66	0.68	0.96
	RBL	0.08	0.13	0.21	0.24	0.33	0.43	0.52	0.65	0.70	0.76	0.87
	RBR	0.08	0.13	0.21	0.24	0.33	0.43	0.52	0.65	0.70	0.76	0.87
	RGE	0.10	0.18	0.17	0.30	0.38	0.51	0.63	0.70	0.83	0.93	0.95
Acero de 60 Kg / 60 Kg steel	RAA	0.08	0.15	0.20	0.24	0.38	0.45	0.52	0.60	0.68	0.70	0.98
	RBL	0.10	0.15	0.23	0.26	0.35	0.45	0.54	0.67	0.72	0.78	0.90
	RBR	0.10	0.15	0.23	0.26	0.35	0.45	0.54	0.67	0.72	0.78	0.90
	RGE	0.12	0.20	0.29	0.32	0.40	0.53	0.65	0.73	0.85	0.95	0.98
Acero inoxidable / Stainless steel	RAA	0.10	0.14	0.20	0.25	0.33	0.45	0.50	0.60	0.70	0.80	0.90
	RBL	0.12	0.20	0.23	0.29	0.40	0.50	0.60	0.70	0.78	0.88	0.98
	RBR	0.12	0.20	0.23	0.29	0.40	0.50	0.60	0.70	0.78	0.88	0.98
	RGE	0.10	0.14	0.20	0.25	0.33	0.53	0.52	0.65	0.70	0.75	0.80
Aluminio / Aluminium	RAA	0.10	0.15	0.20	0.25	0.33	0.45	0.50	0.58	0.65	0.79	0.85
	RBL	0.12	0.17	0.24	0.27	0.39	0.49	0.57	0.58	0.65	0.80	0.95
	RBR	0.12	0.17	0.24	0.27	0.39	0.49	0.57	0.58	0.65	0.80	0.95
	RGE	0.11	0.15	0.22	0.25	0.33	0.45	0.53	0.65	0.70	0.74	0.90
Latón / Brass	RAA	0.10	0.15	0.20	0.25	0.30	0.35	0.42	0.45	0.50	0.52	0.56
	RBL	0.10	0.15	0.20	0.23	0.30	0.40	0.45	0.53	0.59	0.63	0.68
	RBR	0.10	0.15	0.20	0.23	0.30	0.40	0.45	0.53	0.59	0.63	0.68
	RGE	0.12	0.17	0.20	0.23	0.30	0.38	0.40	0.46	0.50	0.60	0.65

Los valores arriba mostrados sirven solo como guía, pudiéndose obtener mejores resultados mediante pruebas a pie de máquina.
These values are intended as a guide, and better results may be obtained by tests carried out on machines

BF SERVICE

MOLETEADO POR DEFORMACIÓN (DATOS TÉCNICOS)
PRESSURE KNURLING (TECHNICAL DATA)

INIEGI

El moleteado por deformación se puede ejecutar de dos maneras:

- *Moleteado radial, cuando la longitud moleteado en la pieza coincide con el espesor de la moleta a utilizar.*
- *Moleteado axial, cuando la longitud excede al espesor de la moleta. Para este segundo caso* ***la moleta siempre ha de estar biselada en sus extremos.***

La norma DIN 82 (véase pag. 3) regula las diferentes tipos de moleteados que se pueden mecanizar en las piezas. La mayoría de ellos pueden ser realizados indistintamente de ambos modos utilizando una, dos o tres moletas, exceptuando los RGV y RKV que recomendamos realizarlos trabajando radialmente.

Cuando se trabaja con una herramienta de deformación se pueden conseguir diferentes tipos de moleteados en función del número y de la forma de las moletas montadas.

Pressure knurling can be done in two ways:

- *Radial method when the length of knurl on the component coincides with the width of the knurl wheel being used.*
- *Axial method when the length of knurl required exceeds the width of the knurl wheel being used. In this case, the knurl (s) travel along the component and therefore, they must be bevelled.*

The DIN 82 standard (see page 3) specifies the different kinds of knurling patterns that can be machined on components. Most of these can be done in either of the two ways, using one, two or three knurls, except for the RGV and RKV knurling patterns, which we recommend should be done by the radial method.
When working with a pressure knurling tool, different kinds of knurling patterns can be obtained, depending on the type of knurls and tools being used.

Herramienta / Tool	Moleta / Knurl	Moleteado / Knurling	Avance radial / Radial feeding ↑	Avance axial / Traverse feeding ←	Avance axial / Traverse feeding →
Moleteador de presión de una moleta / Pressure knurling with one wheel knurling tool	AA	RAA	✔	✔	✔
	BL30°	RBR30°	✔	✔	✔
	BL45°	RBR45°	✔	✔	✔
	BR30°	RBL30°	✔	✔	✔
	BR45°	RBL45°	✔	✔	✔
	GE30°	RGV30°	✔		
	GE45°	RGV45°	✔		
	GV30°	RGE30°	✔		
	GV45°	RGE45°	✔		
	KE	RKV	✔		
	KV	RKE	✔		
Moleteador de presión de dos moletas / Pressure knurling with two wheels knurling tool	AA + AA	RAA	✔	✔	✔
	BL 30° + BR30°	RGE30°	✔	✔	✔
	BL45° + BR45°	RGE45°	✔	✔	✔
Moleteador de presión de tres moletas / Pressure knurling with three wheels knurling tool	AA + AA + AA	RAA	✔	✔	✔
	BL 30° + BR30° + BR30°	RGE30°	✔	✔	✔
	BL45° + BR45° + BR45°	RGE45°	✔	✔	✔

MOLETEADO POR CORTE (DATOS TÉCNICOS)
CUT-KNURLING (TECHNICAL DATA)

INIECI

Se produce por corte del material. **En este caso las moletas** *trabajan como una fresa y el mecanizado* **del material respecto** *del diámetro de origen es muy pequeño.Asimismo el* **esfuerzo** *soportado por la pieza, cabezal y contrapunto de la máquina es mínimo.* **Las moletas han de tener la arista viva y no se puede trabajar radialmente, salvo en el inicio del moleteado en el extremo del mismo.**

In this case the knurls actually cut the material, working like a milling tool with a very small increase in the diameter of the material. Likewise, the stress withstood by the part, head and tailstock of the machine is minimal. **The knurl wheels must have sharp edges and cannot be plunged radially except when starting to knurl at the corner edge of the component.**

La norma DIN 82 (véase pag. 3) regula las diferentes tipos de moleteados que se pueden mecanizar en las piezas. Utilizando el sistema de moleteado por corte, las moleteados tipo RGV y RKV no pueden ser realizados.
Cuando se trabaja con una herramienta de corte se pueden conseguir diferentes tipos de moleteados en función del número y la forma de las moletas montadas y de la versión de la herramienta utilizada.

The DIN 82 standard (see page 3) specifies the different kinds of knurling patterns that can be machined on components. Using the cut-knurling system the RGV and RKV type knurling patterns cannot be made.
When working with a cut-knurling tool, different kinds of knurling patterns can be obtained, depending on the type of knurls and tools being used.

Herramienta *Tool*	Modelo *version*	Moleta *Knurl*	Moleteado *Knurling*	Avance axial *Traverse feeding* ←	Avance axial *Traverse feeding* →
Moleteador de corte de una moleta: *Cut-Knurling with one wheel cut-knurling tool:*	Derecha (R) *Right (R)*	AA	RBR30°	✔	
		BR30°	RAA	✔	
	Izquierda (L) *Left (L)*	AA	RBL30°		✔
		BL30°	RAA		✔
Moleteador de corte de dos moletas: *cut-Knurling with one wheel cut-knurling tool:*	Derecha (R) *Right (R)*	AA+AA	RGE30°	✔	
		BL15°+BR15°	RGE45°	✔	
		BL30°+BR30°	RGE60°	✔	
	Izquierda (L) *Left (L)*	AA+AA	RGE30°		✔
		BL15°+BR15°	RGE45°		✔
		BL30°+BR30°	RGE60°		✔

Los valores arriba mostrados sirven solo como guía, pudiéndose obtener mejores resultados mediante pruebas a pie de máquina.
These values are intended as a guide, and better results may be obtained by tests carried out on machines

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INTEGI

VELOCIDADES DE CORTE Y AVANCES PARA MOLETEADOS POR CORTE
TABLE OF FEEDS AND SPEEDS FOR CUT KNURLING

Material / Material	Ø pieza (mm) workpiece Ø (mm)	Ø moleta (mm) knurl Ø (mm)	Vc (m/min)	Avance radial (mm/rev): f radial (mm/rev):	Avance axial (mm/rev) para pasos: f axial (mm/rev) Pitch:			
					0.3 ÷ 0.6	0.6 ÷ 1.2	1.2 ÷ 1.6	1.6 ÷ 2.0
Acero de 60 Kg / 60 Kg steel	<12	8.9	35	0.04 ÷ 0.10	0.14	0.09	0.06	0.05
		14.5	45		0.15	0.10	0.08	0.06
	12-50		40		0.20	0.13	0.10	0.07
		21.5	60		0.22	0.15	0.12	0.08
	50-100		55		0.25	0.18	0.12	0.08
	100-250		50		0.30	0.20	0.13	0.09
	>250	42	95		0.32	0.21	0.14	0.10
Acero de 90 Kg / 90 Kg steel	<12	8.9	25	0.04 ÷ 0.10	0.12	0.07	0.05	0.05
		14.5	35		0.13	0.08	0.07	0.05
	12-50		30		0.18	0.11	0.08	0.05
		21.5	45		0.20	0.13	0.10	0.06
	50-100		40		0.22	0.14	0.10	0.06
	100-250		35		0.28	0.18	0.12	0.07
	>250	42	60		0.30	0.20	0.12	0.08
Acero inoxidable / Stainless steel	<12	8.9	22	0.04 ÷ 0.10	0.12	0.08	0.05	0.04
		14.5	30		0.13	0.09	0.07	0.05
	12-50		28		0.17	0.11	0.09	0.06
		21.5	35		0.19	0.13	0.10	0.07
	50-100		32		0.21	0.15	0.10	0.07
	100-250		30		0.26	0.17	0.11	0.08
	>250	42	50		0.27	0.18	0.12	0.09
Acero fundido / Cast iron	<12	8.9	22	0.04 ÷ 0.10	0.12	0.08	0.05	0.04
		14.5	30		0.13	0.09	0.07	0.05
	12-50		28		0.17	0.11	0.09	0.06
		21.5	35		0.19	0.13	0.10	0.07
	50-100		32		0.21	0.15	0.10	0.07
	100-250		30		0.26	0.17	0.11	0.08
	>250	42	50		0.27	0.18	0.12	0.09
Aluminio / Aluminium	<12	8.9	70	0.04 ÷ 0.10	0.18	0.11	0.08	0.06
		14.5	80		0.20	0.13	0.10	0.07
	12-50		70		0.25	0.16	0.13	0.09
		21.5	110		0.27	0.18	0.14	0.09
	50-100		100		0.31	0.23	0.15	0.10
	100-250		95		0.38	0.25	0.16	0.11
	>250	42	150		0.40	0.26	0.18	0.13
Latón / Brass	<12	8.9	60	0.04 ÷ 0.10	0.15	0.09	0.06	0.05
		14.5	70		0.17	0.10	0.07	0.06
	12-50		60		0.21	0.14	0.11	0.07
		21.5	100		0.22	0.16	0.12	0.07
	50-100		90		0.26	0.19	0.13	0.08
	100-250		85		0.32	0.21	0.14	0.09
	>250	42	140		0.34	0.22	0.15	0.11
Bronce / Bronze	<12	8.9	35	0.04 ÷ 0.10	0.13	0.07	0.05	0.05
		14.5	45		0.15	0.08	0.06	0.05
	12-50		40		0.19	0.12	0.10	0.06
		21.5	60		0.20	0.14	0.10	0.06
	50-100		55		0.24	0.17	0.11	0.07
	100-250		50		0.30	0.20	0.12	0.08
	>250	42	95		0.32	0.20	0.13	0.10

Los valores arriba mostrados sirven solo como guía, pudiéndose obtener mejores resultados mediante pruebas a pie de máquina.
These values are intended as a guide, and better results may be obtained by tests carried out on machines

EJEMPLOS DE UTILIZACIÓN
KNURLING APPLICATIONS

INIECI

Por deformación — *Pressure knurling*

El moleteado por deformación es insustituible entre otros en los ejemplos que siguen:

Pressure knurling is widely used. Some common examples are described as follows:

Para recrecer el diámetro de origen. (Fig. 1)

Knurling to increase the workpiece diameter. (Fig. 1)



Fig. 1

Para moletear en el fondo de gargantas. (Fig. 2)

Knurling at the bottom of grooves. (Fig. 2)


Fig. 2

Para moletear en toda su longitud diámetros limitados por caras. (Fig. 3)

Knurling up to a shoulder. (Fig. 3)


Fig. 3

Para moletear sobre zonas cónicas. (Fig. 4)

Knurling conical areas. (Fig. 4)


Fig. 4

Para moletear axialmente. (Fig. 5)

Knurling "bands" of knurl midway along a component diameter. (Fig. 5)


Fig. 5

Por Corte — *Cut-knurling*

El moleteado por corte hace que el recrecimiento del diámetro de la pieza mecanizado sea muy inferior al que se produce utilizando el metodo de deformación. (Fig. 6)

Cut-knurling means the increase of the machined part diameter would be considerably less than when using pressure knurling. (Fig. 6)


Fig. 6

Posibilita moletear piezas tubulares cuya ejecución sería irrealizable por deformación. (Fig. 7 y 8)

Allows tubular parts to be knurled which would otherwise be impossible by pressure. (Fig. 7 and 8)


Fig. 7

Es indispensable para moletear piezas de materiales plásticos y hierro fundido ya que el moleteado por deformación sobre dichos materiales no consigue hacer fluir el material necesario para conformar las crestas.

It is essential for knurling plastic materials and cast iron, because pressure impedes the necessary material flow to shape ridges.


Fig. 8

Dado que los moletas van dispuestos angularmente en el soporte, esto provoca que al moletear un diámetro limitado por una cara quede un espacio entre esta y el final del moleteado. (Fig. 9)

Due to the angular arrangement of the knurls in the holder, it is not possible to knurl right up to a shoulder. (Fig. 9)

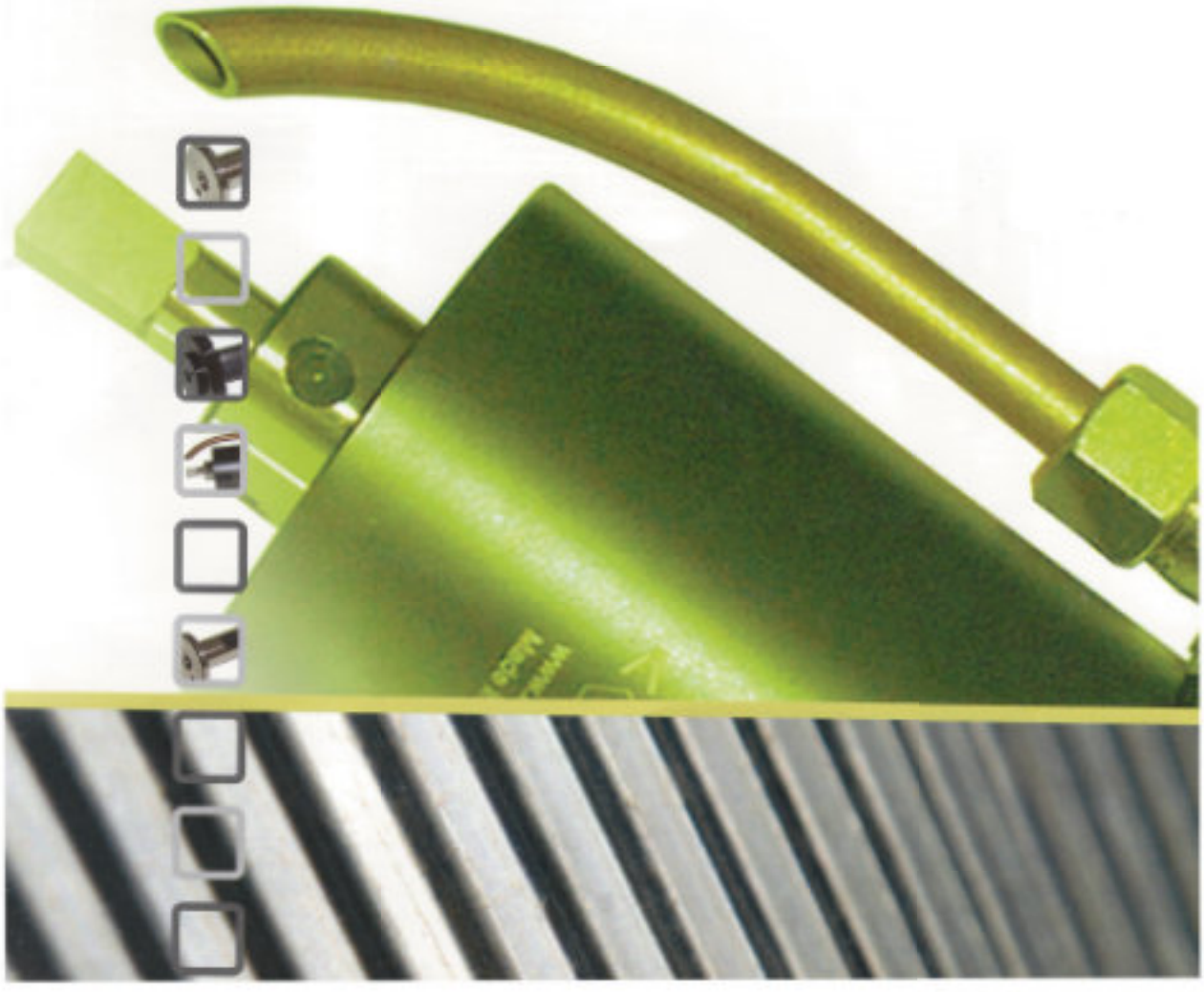

Fig. 9

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UTENSILERIA MECCANICA

Cabezales brochadores "POLIPROFILE"

"PROLIPROFILE" Broach Heads



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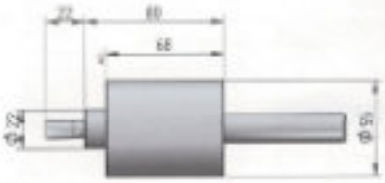
INTEGI

TIPOS DE MANGO
TYPES OF SHANKS

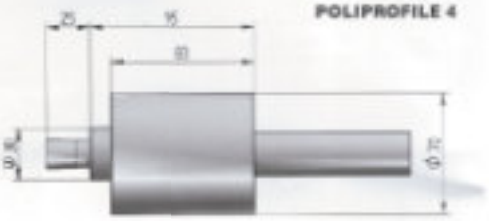
POLIPROFILE 2



POLIPROFILE 3



POLIPROFILE 4



POLIPROFILE 2 ■ < 8 ● < 10 mm



Código Code	Referencia Reference	Mango Shank
06010203	POLIPROFILE 2 + C16	Cilindrico / Cylindrical Ø 16 mm
06010204	POLIPROFILE 2 + C20	Cilindrico / Cylindrical Ø 20 mm
06010201	POLIPROFILE 2 + M1	MORSE 1 DIN 228-B
06010202	POLIPROFILE 2 + M2	MORSE 2 DIN 228-B
06010207	POLIPROFILE 2 + VDI20	VDI 20 DIN 69880
06010208	POLIPROFILE 2 + VDI30	VDI 30 DIN 69880
06010205	POLIPROFILE 2 + W16	WELDON DIN 1835-B Ø 16 mm
06010206	POLIPROFILE 2 + W20	WELDON DIN 1835-B Ø 20 mm

POLIPROFILE 3 ■ < 10 ● < 14 mm



Código Code	Referencia Reference	Mango Shank
06010303	POLIPROFILE 3 + C16	Cilindrico / Cylindrical Ø 16 mm
06010304	POLIPROFILE 3 + C20	Cilindrico / Cylindrical Ø 20 mm
06010305	POLIPROFILE 3 + C25	Cilindrico / Cylindrical Ø 25 mm
06010301	POLIPROFILE 3 + M2	MORSE 2 DIN 228-B
06010302	POLIPROFILE 3 + M3	MORSE 3 DIN 228-B
06010308	POLIPROFILE 3 + VDI20	VDI 20 DIN 69880
06010309	POLIPROFILE 3 + VDI30	VDI 30 DIN 69880
06010306	POLIPROFILE 3 + W20	WELDON DIN 1835-B Ø 20 mm
06010307	POLIPROFILE 3 + W25	WELDON DIN 1835-B Ø 25 mm

POLIPROFILE 4 ■ < 16 ● < 24 mm



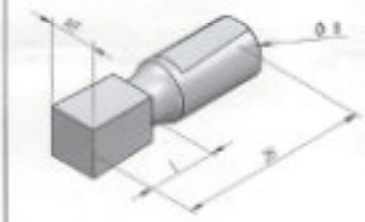
Código Code	Referencia Reference	Mango Shank
06010403	POLIPROFILE 4 + C25	Cilindrico / Cylindrical Ø 25 mm
06010404	POLIPROFILE 4 + C32	Cilindrico / Cylindrical Ø 32 mm
06010405	POLIPROFILE 4 + C40	Cilindrico / Cylindrical Ø 40 mm
06010401	POLIPROFILE 4 + M3	MORSE 3 DIN 228-B
06010402	POLIPROFILE 4 + M4	MORSE 4 DIN 228-B
06010408	POLIPROFILE 4 + VDI30	VDI 20 DIN 69880
06010409	POLIPROFILE 4 + VDI40	VDI 30 DIN 69880
06010406	POLIPROFILE 4 + W25	WELDON DIN 1835-B Ø 25 mm
06010407	POLIPROFILE 3 + W32	WELDON DIN 1835-B Ø 32 mm

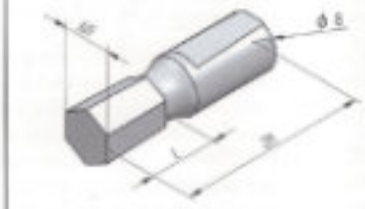
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PUNZONES
BROACHING TOOLS

INTEGI

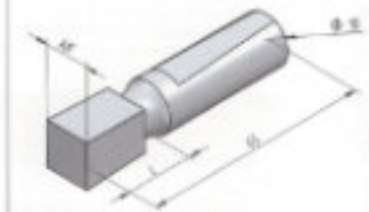
Punzones para POLIPROFILE 2
Broaches for POLIPROFILE 2

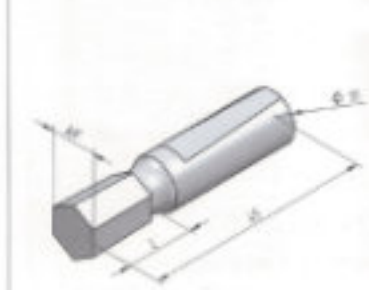




Código Code	Referencia Reference	Medida A/F Dimension A/F (+0,12 / +0,15)	Medida L Dimension L
06050201	POL2-PC1.2	1.2 mm	1,8 mm
06050202	POL2-PC1.5	1.5 mm	2,3 mm
06050203	POL2-PC2	2 mm	3,0 mm
06050204	POL2-PC3	3 mm	4,6 mm
06050205	POL2-PC4	4 mm	6,1 mm
06050206	POL2-PC5	5 mm	8,6 mm
06050207	POL2-PC6	6 mm	9,0 mm
06050208	POL2-PC7	7 mm	10,1 mm
06050209	POL2-PC8	8 mm	10,8 mm
06050221	POL2-PH1.2	1.2 mm	1,8 mm
06050222	POL2-PH1.5	1.5 mm	2,8 mm
06050223	POL2-PH2	2 mm	3,0 mm
06050224	POL2-PH2.5	2.5 mm	3,8 mm
06050225	POL2-PH3	3 mm	4,6 mm
06050226	POL2-PH4	4 mm	6,1 mm
06050227	POL2-PH5	5mm	8,6 mm
06050228	POL2-PH6	6 mm	9,0 mm
06050229	POL2-PH7	7 mm	10,1 mm
06050230	POL2-PH8	8 mm	10,8 mm
06050231	POL2-PH9	9 mm	13,2 mm
06050232	POL2-PH10	10 mm	11,8 mm

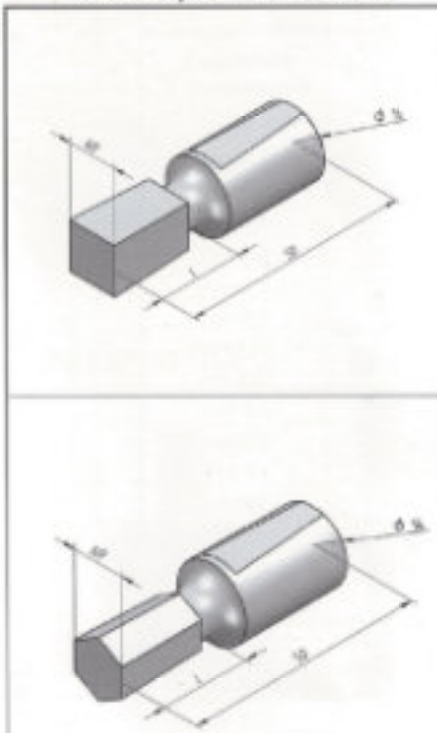
Punzones para POLIPROFILE 3
Broaches for POLIPROFILE 3





Código Code	Referencia Reference	Medida A/F Dimension A/F (+0,12 / +0,15)	Medida L Dimension L
06050301	POL3-PC1.2	1.2 mm	1,8 mm
06050302	POL3-PC1.5	1.5 mm	2,3 mm
06050303	POL3-PC2	2 mm	3,0 mm
06050304	POL3-PC2.5	2.5 mm	3,8 mm
06050305	POL3-PC3	3 mm	4,6 mm
06050306	POL3-PC4	4 mm	6,1 mm
06050307	POL3-PC5	5 mm	7,9 mm
06050308	POL3-PC6	6 mm	9,0 mm
06050309	POL3-PC7	7 mm	10,1 mm
06050310	POL3-PC8	8 mm	12,4 mm
06050311	POL3-PC9	9 mm	13,4 mm
06050312	POL3-PC10	10 mm	15,0 mm
06050321	POL3-PH1.2	1.2 mm	1,8 mm
06050322	POL3-PH1.5	1.5 mm	2,3 mm
06050323	POL3-PH2	2 mm	3,0 mm
06050324	POL3-PH2.5	2.5 mm	3,8 mm
06050325	POL3-PH3	3 mm	4,6 mm
06050326	POL3-PH4	4 mm	6,1 mm
06050327	POL3-PH5	5mm	7,9 mm
06050328	POL3-PH6	6 mm	9,0 mm
06050329	POL3-PH7	7 mm	10,1 mm
06050330	POL3-PH8	8 mm	12,4 mm
06050331	POL3-PH9	9 mm	13,4 mm
06050332	POL3-PH10	10 mm	15,0 mm
06050333	POL3-PH11	11 mm	15,4 mm
06050334	POL3-PH12	12 mm	16,4 mm
06050335	POL3-PH14	14 mm	15,6 mm

Punzones para POLIPROFILE 4
Broaches for POLIPROFILE 4



Código Code	Referencia Reference	Medida A/F Dimension A/F (+0,12 / +0,15)	Medida L Dimension L
06050401	POL4-PC2.5	2.5 mm	3,8 mm
06050402	POL4-PC3	3 mm	4,6 mm
06050403	POL4-PC4	4 mm	6,1 mm
06050404	POL4-PC5	5 mm	7,9 mm
06050405	POL4-PC6	6 mm	9,4 mm
06050406	POL4-PC8	8 mm	12,9 mm
06050407	POL4-PC10	10 mm	15,4 mm
06050408	POL4-PC12	12 mm	17,1 mm
06050409	POL4-PC14	14 mm	18,6 mm
06050410	POL4-PC16	16 mm	19,3 mm
06050421	POL4-PH2.5	2.5 mm	3,8 mm
06050422	POL4-PH3	3 mm	4,6 mm
06050423	POL4-PH4	4 mm	6,1 mm
06050424	POL4-PH5	5 mm	7,9 mm
06050425	POL4-PH6	6 mm	9,4 mm
06050426	POL4-PH8	8 mm	12,9 mm
06050427	POL4-PH10	10 mm	15,4 mm
06050428	POL4-PH12	12 mm	17,1 mm
06050429	POL4-PH14	14 mm	18,6 mm
06050430	POL4-PH16	16 mm	19,3 mm
06050431	POL4-PH17	17 mm	21,8 mm
06050432	POL4-PH18	18 mm	21,8 mm
06050433	POL4-PH19	19 mm	19,7 mm
06050434	POL4-PH22	22 mm	20,1 mm
06050435	POL4-PH24	24 mm	20,6 mm

INTRODUCCIÓN
INTRODUCTION

Los cabezales de brochar "Poliprofile" son de utilización en todo tipo de tornos ya sean convencionales, CNC, automáticos, etc. Asimismo se pueden utilizar en taladros, fresadoras, maquinas transfer, etc.

Los cabezales de brochar "Poliprofile" pueden por su sistema de rotación pendular, realizar de manera sencilla, rápida y económica el brochado de perfiles internos, ciegos o pasantes, así como perfiles externos, en ambos casos con secciones regulares e irregulares, sobre piezas de los más diversos materiales.

Mediante un movimiento rotatorio pendular, generado por una determinada inclinación del eje porta-útil, y acoplándoles la brocha o matriz adecuada para cada trabajo, cizallan el material de manera gradual y progresiva, obteniendo en la pieza trabajada, la forma idénticamente opuesta a la del útil empleado.

"Polyprofile" broach heads can be used on all types of conventional, CNC and automatic lathes. They can also be used with drilling, milling and transfer machines.

The pendulous rotation system of "Polyprofile" broach heads enables simple, fast and economic broaching of internal, blind or through profiles. It also enables external profiles with both regular and irregular sections of components to be made from a wide variety of materials.

The pendulous rotary movement gradually and progressively trims the material to obtain a shape identically opposite to that of the tool being used. This movement is generated by a determined inclination of the tool holder shaft fitted with the broach or form required for each job.

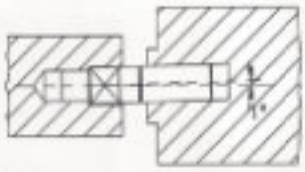


Fig. 1: Ejemplo de corte progresivo interno
Fig.1: Example of progressive internal broaching

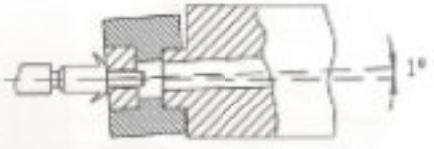


Fig. 2: Ejemplo de corte progresivo externo
Fig.2: Example of progressive external broaching

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INSTRUCCIONES
INSTRUCTIONS

Para la ejecución de un polígono regular interior es recomendable realizar en la pieza a trabajar un orificio previo ligeramente menor respecto del diámetro nominal inscrito en dicho polígono. No obstante si el polígono a elaborar no necesita de una gran precisión de forma, o el material de la pieza a brochar es especialmente duro, el usuario puede según su criterio aumentar la medida del orificio previo, liberando así al conjunto maquina-utillaje de una parte importante del esfuerzo de trabajo.

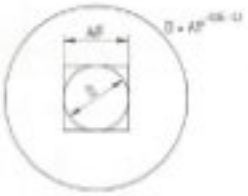


Fig. 3 Ejemplo de pieza con d < L
Fig. 3 Example of a component with d < L

Si el polígono interno a brochar es ciego, es recomendable que la profundidad del orificio previo sea aproximadamente 1,5 veces la longitud a brochar, para evitar que la acumulación del material cortado produzca la rotura del útil, u otros accidentes (ver figura 5).
En todos los trabajos, tanto ciegos como pasantes, y como indica la figura 5, es indispensable hacer una pre-guía de entre 60°-90° que facilite la correcta entrada y direccionalidad de la brocha. Para realizar perfiles externos, se recomienda que la longitud máxima a brochar no exceda de 1,5 veces el diámetro de trabajo. Ver en la figura 6 esta y otras recomendaciones.

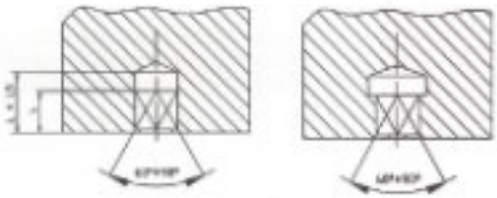


Fig. 5 Profundidad de orificio y ángulo de entrada
Fig. 5 Hole depth and entry angle

To form a regular internal polygon, first make a hole in the component with a diameter that is slightly smaller than the circle that fits inside the polygon. However, if the polygon to be created does not require high shape precision, or the material of the part to be broached is especially hard, the user may increase the size of the hole as desired, thus freeing the machine-tool from doing a large part of the work.

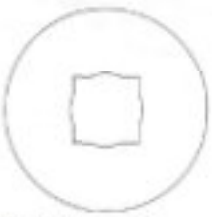


Fig. 4 Ejemplo de pieza con d < L
Fig. 4 Example of a component with d > L

If the internal polygon to be broached is blind, the depth of the hole should be about 1.5 times the working diameter to be broached to prevent the build-up of swarf and any subsequent tool breakages (Refer to Figure 5). In all components, whether blind or through (as indicated in Figure 5), a 60°-90° incl. lead is required to enable the correct entry and direction of the broach.
For external profiles, the maximum length to be broached should not exceed 1.5 times the working diameter. See this and other recommendations in Figure 6.

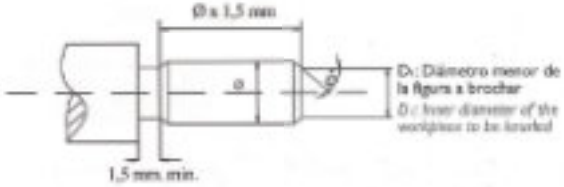


Fig. 6 Ejemplo de torneado previo al brochado externo
Fig. 6 Example of turning component previous to external broaching

REGLAJE DE LA BROCHA
ADJUSTING THE BROACH

En el cuadro inferior se muestra la correcta posición de la zona de corte de la brocha en función de la herramienta seleccionada.

MODELO *MODEL*	COTA A *DIMENSION A*
POLIPROFILE 2	15 MM
POLIPROFILE 3	22 MM
POLIPROFILE 4	25 MM

En la figura 7 se muestra el sistema de puesta a punto de la cota A. La regulación de la distancia se realiza actuando sobre el tornillo "nº2" donde se apoya la base del punzón. Un desplazamiento del mencionado tornillo hace que la distancia A se modifique ajustando así dicha cota a la medida requerida.
Una desviación de ± 0,5 mm en la cota A no impide la correcta consecución del brochado.

The table below shows the correct position of the cutting area of the broach for each type of tool.

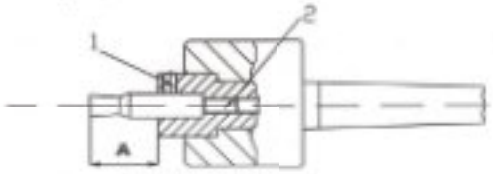


Fig. 7 Regulación de la distancia de la brocha
Fig. 7 Adjusting the broach distance

Figure 7 shows how to set up dimension "A". The distance is adjusted by turning screw "No.2" which support the punch base. Adjusting this screw changes the distance "A" thereby setting it to the required size. Correct broaching will be achieved providing the deviation of dimension "A" is ± 0,5 mm.

INTEGI

RECOMENDACIONES DE VELOCIDAD DE TRABAJO Y AVANCE
RECOMMENDATIONS FOR WORKING SPEED AND ADVANCE-RATE

Velocidad entre 450 ÷ 1200 r.p.m.
Avances entre 0,01 ÷ 0,1 mm por vuelta.
Estos valores se aplicarán en función de la sección del útil a emplear así como del tipo de material a trabajar y de la potencia de la maquina utilizada.
Posibilidad de aplicación sobre aceros, metales no férricos, materiales plásticos etc.

Speed between 450 - 1200 rpm
Advance between 0.01 - 0.1 mm per rev.
These values depend on the section of the tool being used as well as the type of material being machined and the power of the machine. Applicable to steel, non-ferrous metals, plastics, etc.

REGLAJE DE LA MATRIZ
FITTING A TOOL HOLDER TO THE POLYPROFILE FOR EXTERNAL BROACHING

Para realizar brochados externos, la cara cortante "C" de la matriz deberá quedar rasante con la cara frontal "C1" del soporte porta-matriz quedando de esta manera exactamente definida la cota "A" (figura 8). Las matrices de corte suministradas por INTEGI mantienen en origen de forma exacta dicha cota "A".

Al modificarse la distancia "A" a consecuencia de los sucesivos afilados de la matriz, la recuperación de la misma se consigue calzando la matriz cortante mediante arandelas de suplemento (figura 9). (Existencia de arandelas de 1 y 2 mm de espesor).
Una desviación de ± 0,5 mm en la cota "A", no impide la correcta consecución del brochado.

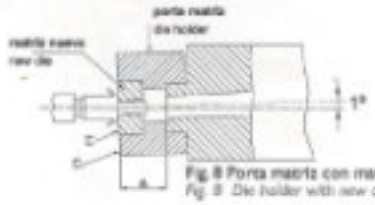


Fig. 8 Porta matriz con matriz nueva
Fig. 8 Die holder with new die

For external broaching the cutting side "C" of the form must be in line with the front face "C1" of the tool chuck thus precisely defining dimension "A" (Figure 8).
The cutting tool forms supplied by INTEGI will maintain dimension "A" correctly.

As the distance "A" changes due to successive sharpening of the tool form, it can be adjusted by packing the cutting form with washers (Figure 9). (1 and 2 mm thickness washers are available).
Correct broaching will be achieved providing the deviation of dimension "A" is ± 0.5 mm.

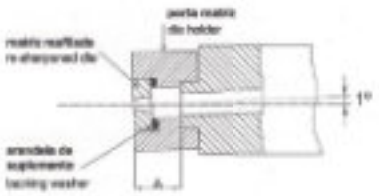


Fig. 9 Porta matriz con matriz rectificada
Fig. 9 Die holder with re-sharpened die

MODIFICACIÓN DIMENSIONAL DEL PERFIL DE LOS UTILES AL SER REAFILADOS
DIMENSIONAL CHANGE OF THE TOOL PROFILE ON RE-SHARPENING

- Brochas: Disminución de 0,005 mm por 0,1 mm de afilado frontal
- Matrices: Incremento de 0,005 mm por 0,1 mm de afilado frontal

Todas nuestras indicaciones son aportadas por INTEGI S.A. a título orientativo. Los mejores resultados los obtendrá el usuario con su experimentación sobre maquina.

- *Broaches: Reduction of 0.005 mm per 0.1 mm of frontal re-sharpening*
- *Forms: Increase of 0.005 mm per 0.1 mm of frontal re-sharpening*

All these recommendations are provided by INTEGI S.A. as guidelines only. The user will obtain the best results by experimenting on the machine.

UTILIZACIÓN DE LA PALANCA AUXILIAR DE POSICIONAMIENTO
USE OF THE AUXILIARY POSITIONING LEVER

Con cada aparato POLIPROFILE se suministra una varilla o palanca, que ocasionalmente puede ser utilizada entre otros, en los casos que siguen:

a) Orientar la figura a brochar respecto de alguna referencia de la pieza de trabajo.
b) Evitar las desviaciones tipo hélice al brochar agujeros profundos.
c) Facilitar la iniciación del trabajo de brochado, particularmente al utilizar brochas de pequeña sección, y muy especialmente sobre piezas de material blando.

La palanca auxiliar debe apoyarse sobre una horquilla guía o tope, que en el caso de aplicarse a un torno deberá ser solidario al plato o al elemento de sujeción de la pieza de trabajo. Véase figura 10. Cuando el trabajo se realice sobre taladros, fresadoras, etc, la horquilla guía deberá fijarse al útil de sujeción de la pieza a trabajar. Véase figura 11.

Each Polyprofile unit is supplied with a rod or lever that can be used for the following purposes:-

a) Positioning the profile to be broached in relation to the component.
b) Preventing "tripping" effect when broaching deep holes.
c) Simplifying the start of the broaching, especially when using broaches with a small section and on components made from soft materials.

The auxiliary lever should be placed against a fork guide or stop which on a lathe should be firmly fixed to the plate or chuck. See Figure 10. When working with drilling or milling machines, the fork guide should be fixed to the component fixture. See figure 11.

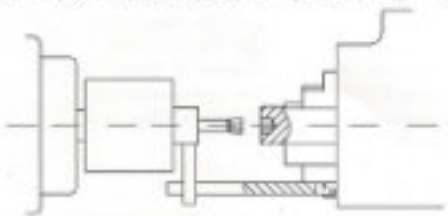


Fig. 10 Aplicación de la palanca auxiliar sobre un torno
Fig. 10 Use of the auxiliary lever with a lathe

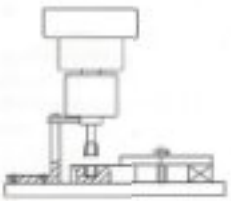


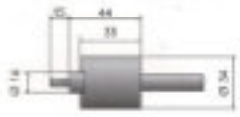
Fig. 11 Aplicación de la palanca auxiliar sobre un taladro o fresadora
Fig. 11 Use of the auxiliary lever with a drilling or milling machine

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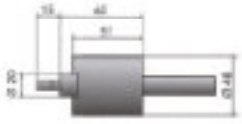
CABEZALES BROCHADORES
BROACHING HEADS

POLIPROFILE
POLIPROFILE

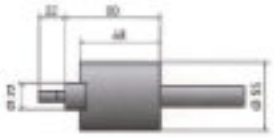
> POLIPROFILE 1



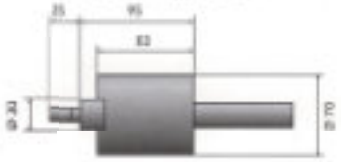
> POLIPROFILE 2



> POLIPROFILE 3



> POLIPROFILE 4



Mango Cilíndrico — Cylindrical Shank



■ <5 ● <6 mm

Poliprofile 1

Código Code	Mango Shank
06010103	Ø 16 mm

■ <8 ● <10 mm

Poliprofile 2

Código Code	Mango Shank
06010203	Ø 16 mm
06010204	Ø 20 mm

■ <10 ● <14 mm

Poliprofile 3

Código Code	Mango Shank
06010303	Ø 16 mm
06010304	Ø 20 mm
06010305	Ø 25 mm

■ <16 ● <24 mm

Poliprofile 4

Código Code	Mango Shank
06010403	Ø 25 mm
06010404	Ø 32 mm
06010405	Ø 40 mm

WELDON DIN 1835-B



■ <5 ● <6 mm

Poliprofile 1

Código Code	Mango Shank
06010105	WELDON 16 mm

■ <8 ● <10 mm

Poliprofile 2

Código Code	Mango Shank
06010205	WELDON 16 mm
06010206	WELDON 20 mm

■ <10 ● <14 mm

Poliprofile 3

Código Code	Mango Shank
06010306	WELDON 20 mm
06010307	WELDON 25 mm

■ <16 ● <24 mm

Poliprofile 4

Código Code	Mango Shank
06010406	WELDON 25 mm
06010407	WELDON 32 mm

MORSE DIN 228



■ <5 ● <6 mm

Poliprofile 1

Código Code	Mango Shank
06010101	MORSE 1

■ <8 ● <10 mm

Poliprofile 2

Código Code	Mango Shank
06010201	MORSE 1
06010202	MORSE 2

■ <10 ● <14 mm

Poliprofile 3

Código Code	Mango Shank
06010301	MORSE 2
06010302	MORSE 3

■ <16 ● <24 mm

Poliprofile 4

Código Code	Mango Shank
06010401	MORSE 3
06010402	MORSE 4

VDI DIN 69880



■ <8 ● <10 mm

Poliprofile 2

Código Code	Mango Shank
06010207	VDI 20
06010208	VDI 30

■ <10 ● <14 mm

Poliprofile 3

Código Code	Mango Shank
06010308	VDI 20
06010309	VDI 30

■ <16 ● <24 mm

Poliprofile 4

Código Code	Mango Shank
06010408	VDI 30
06010409	VDI 40

Portamatriz para brochado externo
Die holder for external broaching

Código Code	Referencia Reference	Cabezal Head
06060100	POL1-PTM	POLIPROFILE 1
06060200	POL2-PTM	POLIPROFILE 2
06060300	POL3-PTM	POLIPROFILE 3
06060400	POL4-PTM	POLIPROFILE 4



BF SERVICE
UTENSILERIA MECCANICA

TASTATORI TRIDIMENSIONALI



TASTATORE / *MEASURING INSTRUMENTS*

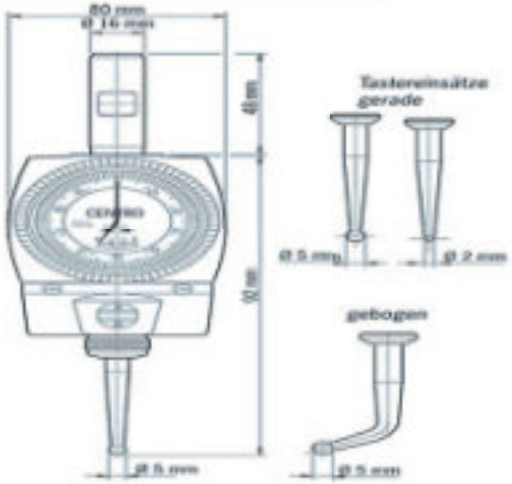
CODICE *CODE*	DIAMETRO QUADRANTE *QUADRANT DIAMETER*	DIAMETRO CONNESSIONE *COUPLING DIAMETER*	LUNGHEZZA ASTINA *L. SENSOR ROD*
80.360.00	40	10	35
80.360.00NG	52	12	25
80.360.00.FHN	52	20	25



ASTINA DI RICAMBIO / *SENSOR ROD*

CODICE *CODE*	DIAMETRO SFERA *DIAMETER SPHERE*	LUNGHEZZA *LENGHT*
80.302.00	4	60
80.303.00	6	60





PER FORI ART. 80.300.00.FHN **PUNTALINI DI RICAMBIO piegato ART. 80.302.00**

PUNTALINI DI RICAMBIO diritto ART. 80.303.00 diam.2

PUNTALINI DI RICAMBIO diritto ART. 80.301.00 diam.5

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Inserti Multifunzione
N9MT11



Un solo Utensile per molteplici impieghi

Elevata efficienza! Bassi costi!

BF SERVICE
UTENSILERIA MECCANICA



Caratteristiche:

- Ogni inserto ha 4 taglienti.
- Torni CNC, centri di lavoro CNC e centri di tornitura.
- Impieghi generici, tagliente e spoglia completamente rettificati.

● Migliore ◎ Adatto ○ Possibile

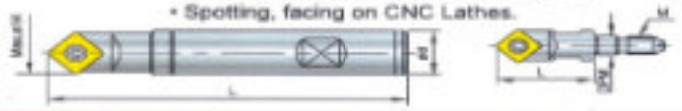
	P Acciaio	M Inox	K Ghisa	N Alluminio
NC40	●	○	◎	
NC10		●	●	◎



Codice		Rivestimento	Grado		Dimensioni L	S	Re	Dmax.	Tmax.
N9MT11T3CT	NC40	TiN	P35		11.11	3.97	0.8	14	7
	NC10	TiAlN	K10F		11.11	3.97	0.3		

▸ Holder >>

- Single cutting edge design gives higher precision when spotting.
- Applications : • Spotting, engraving, grooving and chamfering on milling machines, machining centers.
  • Spotting, facing on CNC Lathes.





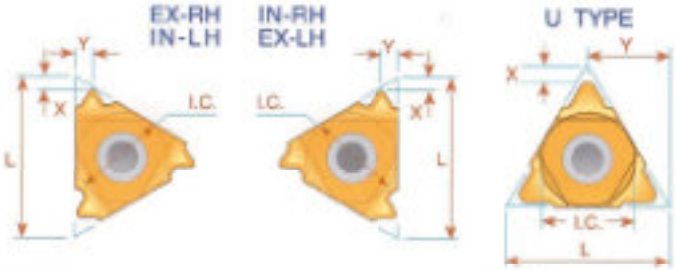
Code	Parts No.	Ød	L	M	DPM	Screw	Key
604002	00-99616-14-12	12	100	-	-		
604004	00-99616-14	16	100	-	-		
604007	00-99616-14-150L	16	150	-	-		
604009	00-99616-14-220L	20	220	-	-	NS-35080 2.5 Nm	NK-T15
614001	00-99616-14-1/2	1/2"	100	-	-		
614002	00-99616-14-5/8	5/8"	100	-	-		
624001	00-99616-14-M8	-	30	M8xP1.25	8.5		

Note: • Balanced type holder is on request.

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UTENSILERIA MECCANICA

Partial Profile 60°

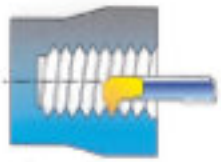




L	I.C. in	Pitch Range mm	Pitch Range TPI	EXTERNAL Ordering Code Right Hand	EXTERNAL Ordering Code Left Hand	INTERNAL Ordering Code Right Hand	INTERNAL Ordering Code Left Hand	X	Y
6	5/32	0.5 -1.25	48-20	*ULTRA MINIATURE* →		*06 IR A60	*06 IL A60	0.6	0.6
8	3/16	0.5 -1.5	48-16	*MINIATURE* →		*08 IR A60	*08 IL A60	0.6	0.7
8U	3/16U	1.75-2.0	14-11	*"U" MINIATURE* →		*08U IR/L U60		0.8	4.0
11	1/4	0.5 -1.5	48-16	11 ER A60	11 EL A60	11 IR A60	11 IL A60	0.8	0.9
16	3/8	0.5 -1.5	48-16	16 ER A60	16 EL A60	16 IR A60	16 IL A60	0.8	0.9
16	3/8	1.75-3.0	14- 8	16 ER G60	16 EL G60	16 IR G60	16 IL G60	1.2	1.7
16	3/8	0.5 -3.0	48- 8	16 ER AG60	16 EL AG60	16 IR AG60	16 IL AG60	1.2	1.7
22	1/2	3.5 -5.0	7- 5	22 ER N60	22 EL N60	22 IR N60	22 IL N60	1.7	2.5
22U	1/2U	5.5 -8.0	4.5- 3.25	22U E/I/R/L U60				0.6	11.0
27	5/8	5.5 -6.0	4.5- 4	27 ER Q60	27 EL Q60	27 IR Q60	27 IL Q60	2.1	3.1
27U	5/8U	6.5 -9.0	4- 2.75	27U E/I/R/L U60				1.0	13.7

Order example: 16 ER G60 MXC

* Available only in BXC and BMA grades



Type B

Ground Profile with Sintered Chip-breaker

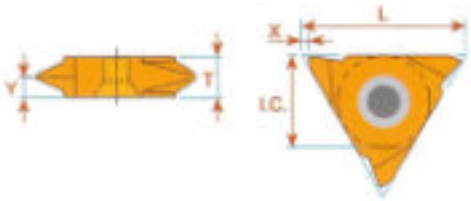


L	I.C. in	Pitch Range mm	Pitch Range TPI	EXTERNAL Ordering Code Right Hand	INTERNAL Ordering Code Left Hand	X	Y
16	3/8	0.5 -1.5	48-16	16 ER B A60	16 IR B A60	0.8	0.9
16	3/8	1.75-3.0	14- 8	16 ER B G60	16 IR B G60	1.2	1.7
16	3/8	0.5 -3.0	48- 8	16 ER B AG60	16 IR B AG60	1.2	1.7

Order example: 16 ER B G60 BMA

BF SERVICE

Partial Profile 60°
Vertical



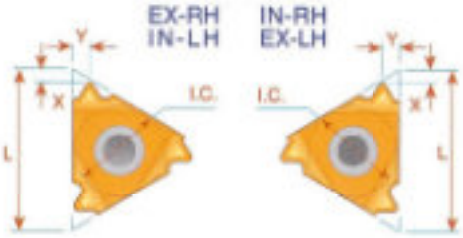
L	I.C.	Pitch Range		EXTERNAL Ordering Code		INTERNAL Ordering Code		X	Y	T
	in	mm	TPI	Right Hand	Left Hand	Right Hand	Left Hand			
16	3/8	0.5 - 1.5	48-16	**16V ER A60**	16V EL A60			1.0	0.9	3.6
16	3/8	1.75- 3.0	14- 8	**16V ER G60**	16V EL G60			1.0	1.8	3.6
16	3/8	0.5 - 3.0	48- 8	**16V ER AG60**	16V EL AG60			1.0	1.8	3.6
22	1/2	1.75- 3.0	14- 8	**22V ER G60**	22V EL G60			1.2	1.7	4.0
22	1/2	0.5 - 5.0	7- 5	**22V ER N60**	22V EL N60			1.2	2.5	4.8
27	5/8	6.0 -10.0	4- 2.5	**27V ER V60**	27V EL V60	**27V IR V60**	27V IL V60	1.8	5.2	10.4

Order example: 16V ER G60 BMA

BF SERVICE

Partial Profile 55°

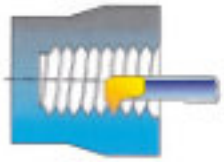




L	I.C. in	Pitch Range mm	Pitch Range TPI	EXTERNAL Ordering Code Right Hand	EXTERNAL Ordering Code Left Hand	INTERNAL Ordering Code Right Hand	INTERNAL Ordering Code Left Hand	X	Y
6	5/32	0.5 -1.25	48-20	*ULTRA MINIATURE* →		*06 IR A55	*06 IL A55	0.5	0.6
8	3/16	0.5 -1.5	48-16	*MINIATURE* →		*08 IR A55	*08 IL A55	0.6	0.7
8U	3/16U	1.75-2.0	14-11	*"U" MINIATURE* →		*08U IR/L U55		0.9	4.0
11	1/4	0.5 -1.5	48-16	11 ER A55	11 EL A55	11 IR A55	11 IL A55	0.8	0.9
16	3/8	0.5 -1.5	48-16	16 ER A55	16 EL A55	16 IR A55	16 IL A55	0.8	0.9
16	3/8	1.75-3.0	14- 8	16 ER G55	16 EL G55	16 IR G55	16 IL G55	1.2	1.7
16	3/8	0.5 -3.0	48- 8	16 ER AG55	16 EL AG55	16 IR AG55	16 IL AG55	1.2	1.7
22	1/2	3.5 -5.0	7- 5	22 ER N55	22 EL N55	22 IR N55	22 IL N55	1.7	2.5
22U	1/2U	5.5 -8.0	4.5- 3.25	22U E/R/L U55				0.9	11.0
27	5/8	5.5 -6.0	4.5- 4	27 ER Q55	27 EL Q55	27 IR Q55	27 IL Q55	2.0	2.9
27U	5/8U	6.5 -9.0	4 - 2.75	27U E/R/L U55				1.2	13.7

Order example: 16 ER G55 MXC

* Available only in BXC and BMA grades



Type B

Ground Profile with Sintered Chip-breaker



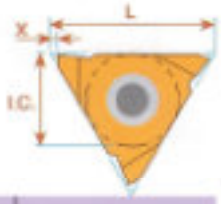
L	I.C. in	Pitch Range mm	Pitch Range TPI	EXTERNAL Ordering Code Right Hand	INTERNAL Ordering Code Right Hand	X	Y
16	3/8	1.75-3.0	14-8	16 ER B G55	16 IR B G55	1.2	1.7
16	3/8	0.5-3.0	48-8	16 ER B AG55	16 IR B AG55	1.2	1.7

Order example: 16 ER B G55 BMA

BF SERVICE

Partial Profile 55°
Vertical





L	I.C. in	Pitch Range mm	Pitch Range TPI	EXTERNAL Ordering Code Right Hand	EXTERNAL Ordering Code Left Hand	INTERNAL Ordering Code Right Hand	INTERNAL Ordering Code Left Hand	X	Y	T
16	3/8	0.5 - 1.5	48-16	16V ER A55	16V EL A55			1.0	0.9	3.6
16	3/8	1.75- 3.0	14- 8	16V ER G55	16V EL G55			1.0	1.7	3.6
16	3/8	0.5 - 3.0	48- 8	16V ER AG55	16V EL AG55			1.0	1.8	3.6
22	1/2	3.5 - 5.0	7- 5	22V ER N55	22V EL N55			1.2	2.5	4.8
27	5/8	6.0 -10.0	4- 2.5	27V ER V55	27V EL V55	27V IR V55	27V IL V55	1.8	5.2	10.4

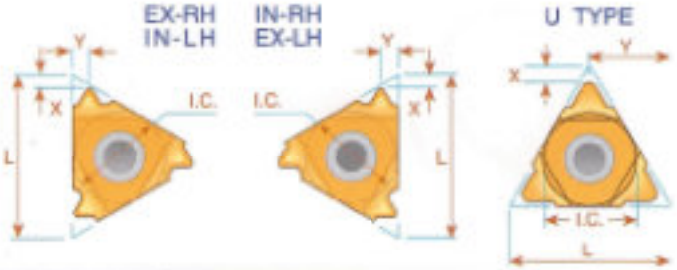
Order example: 22V ER N55 BMA

IN BASE AL PROPIO CNC ,E' POSSIBILE
SCARICARE IL SOFTWARE SUL SITO :
www.carmex.com

BF SERVICE

ISO - metric





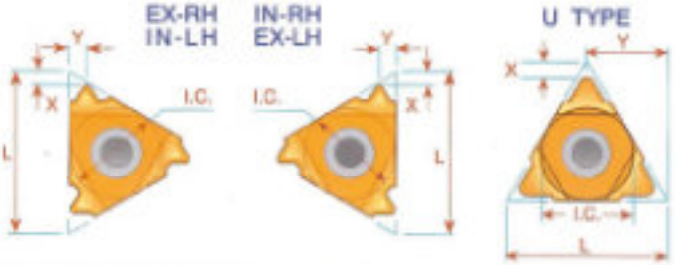
Pitch mm	L	I.C. in	EXTERNAL Ordering Code Right Hand	EXTERNAL Ordering Code Left Hand	X	Y	INTERNAL Ordering Code Right Hand	INTERNAL Ordering Code Left Hand	X	Y
0.5	6	5/32					*06 IR 0.5 ISO	*06 IL 0.5 ISO	0.9	0.5
0.75	6	5/32	ULTRA MINIATURE →				*06 IR 0.75 ISO	*06 IL 0.75 ISO	0.8	0.5
1.0	6	5/32					*06 IR 1.0 ISO	*06 IL 1.0 ISO	0.7	0.6
1.25	6	5/32					*06 IR 1.25 ISO	*06 IL 1.25 ISO	0.6	0.6
0.5	8	3/16					*08 IR 0.5 ISO	*08 IL 0.5 ISO	0.6	0.5
0.75	8	3/16					*08 IR 0.75 ISO	*08 IL 0.75 ISO	0.6	0.5
1.0	8	3/16	MINIATURE →				*08 IR 1.0 ISO	*08 IL 1.0 ISO	0.6	0.6
1.25	8	3/16					*08 IR 1.25 ISO	*08 IL 1.25 ISO	0.6	0.7
1.5	8	3/16					*08 IR 1.5 ISO	*08 IL 1.5 ISO	0.6	0.7
1.75	8	3/16					*08 IR 1.75 ISO	*08 IL 1.75 ISO	0.6	0.8
2.0	8U	3/16U	"U" MINIATURE →				*08U IR/L 2.0 ISO		0.9	4.0
0.35	11	1/4	11 ER 0.35 ISO	11 EL 0.35 ISO	0.8	0.4	11 IR 0.35 ISO	11 IL 0.35 ISO	0.8	0.3
0.4	11	1/4	11 ER 0.4 ISO	11 EL 0.4 ISO	0.7	0.4	11 IR 0.4 ISO	11 IL 0.4 ISO	0.8	0.4
0.45	11	1/4	11 ER 0.45 ISO	11 EL 0.45 ISO	0.7	0.4	11 IR 0.45 ISO	11 IL 0.45 ISO	0.8	0.4
0.5	11	1/4	11 ER 0.5 ISO	11 EL 0.5 ISO	0.6	0.6	11 IR 0.5 ISO	11 IL 0.5 ISO	0.6	0.6
0.6	11	1/4	11 ER 0.6 ISO	11 EL 0.6 ISO	0.6	0.6	11 IR 0.6 ISO	11 IL 0.6 ISO	0.6	0.6
0.7	11	1/4	11 ER 0.7 ISO	11 EL 0.7 ISO	0.6	0.6	11 IR 0.7 ISO	11 IL 0.7 ISO	0.6	0.6
0.75	11	1/4	11 ER 0.75 ISO	11 EL 0.75 ISO	0.6	0.6	11 IR 0.75 ISO	11 IL 0.75 ISO	0.6	0.6
0.8	11	1/4	11 ER 0.8 ISO	11 EL 0.8 ISO	0.6	0.6	11 IR 0.8 ISO	11 IL 0.8 ISO	0.6	0.6
1.0	11	1/4	11 ER 1.0 ISO	11 EL 1.0 ISO	0.7	0.7	11 IR 1.0 ISO	11 IL 1.0 ISO	0.6	0.7
1.25	11	1/4	11 ER 1.25 ISO	11 EL 1.25 ISO	0.8	0.9	11 IR 1.25 ISO	11 IL 1.25 ISO	0.8	0.8
1.5	11	1/4	11 ER 1.5 ISO	11 EL 1.5 ISO	0.8	1.0	11 IR 1.5 ISO	11 IL 1.5 ISO	0.8	1.0
1.75	11	1/4	11 ER 1.75 ISO	11 EL 1.75 ISO	0.8	1.1	11 IR 1.75 ISO	11 IL 1.75 ISO	0.8	1.1
2.0	11	1/4					11 IR 2.0 ISO	11 IL 2.0 ISO	0.8	0.9
2.5	11	1/4					11 IR 2.5 ISO	11 IL 2.5 ISO	0.8	1.2
0.35	16	3/8	16 ER 0.35 ISO	16 EL 0.35 ISO	0.8	0.4	16 IR 0.35 ISO	16 IL 0.35 ISO	0.8	0.3
0.4	16	3/8	16 ER 0.4 ISO	16 EL 0.4 ISO	0.7	0.4	16 IR 0.4 ISO	16 IL 0.4 ISO	0.8	0.4
0.45	16	3/8	16 ER 0.45 ISO	16 EL 0.45 ISO	0.7	0.4	16 IR 0.45 ISO	16 IL 0.45 ISO	0.8	0.4
0.5	16	3/8	16 ER 0.5 ISO	16 EL 0.5 ISO	0.6	0.6	16 IR 0.5 ISO	16 IL 0.5 ISO	0.6	0.6
0.6	16	3/8	16 ER 0.6 ISO	16 EL 0.6 ISO	0.6	0.6	16 IR 0.6 ISO	16 IL 0.6 ISO	0.6	0.6
0.7	16	3/8	16 ER 0.7 ISO	16 EL 0.7 ISO	0.6	0.6	16 IR 0.7 ISO	16 IL 0.7 ISO	0.6	0.6
0.75	16	3/8	16 ER 0.75 ISO	16 EL 0.75 ISO	0.6	0.6	16 IR 0.75 ISO	16 IL 0.75 ISO	0.6	0.6
0.8	16	3/8	16 ER 0.8 ISO	16 EL 0.8 ISO	0.6	0.6	16 IR 0.8 ISO	16 IL 0.8 ISO	0.6	0.6
1.0	16	3/8	16 ER 1.0 ISO	16 EL 1.0 ISO	0.7	0.7	16 IR 1.0 ISO	16 IL 1.0 ISO	0.6	0.7
1.25	16	3/8	16 ER 1.25 ISO	16 EL 1.25 ISO	0.8	0.9	16 IR 1.25 ISO	16 IL 1.25 ISO	0.8	0.9
1.5	16	3/8	16 ER 1.5 ISO	16 EL 1.5 ISO	0.8	1.0	16 IR 1.5 ISO	16 IL 1.5 ISO	0.8	1.0
1.75	16	3/8	16 ER 1.75 ISO	16 EL 1.75 ISO	0.9	1.2	16 IR 1.75 ISO	16 IL 1.75 ISO	0.9	1.2
2.0	16	3/8	16 ER 2.0 ISO	16 EL 2.0 ISO	1.0	1.3	16 IR 2.0 ISO	16 IL 2.0 ISO	1.0	1.3
2.5	16	3/8	16 ER 2.5 ISO	16 EL 2.5 ISO	1.1	1.5	16 IR 2.5 ISO	16 IL 2.5 ISO	1.1	1.5
3.0	16	3/8	16 ER 3.0 ISO	16 EL 3.0 ISO	1.2	1.6	16 IR 3.0 ISO	16 IL 3.0 ISO	1.1	1.5
3.5	16	3/8	16 ER 3.5 ISO	16 EL 3.5 ISO	1.2	1.7	16 IR 3.5 ISO	16 IL 3.5 ISO	1.2	1.7

* Available only in BXC and BMA grades →

BF SERVICE

ISO - metric

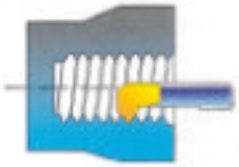


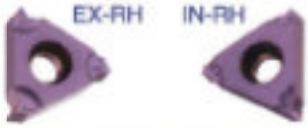


Pitch mm	L	I.C. in	EXTERNAL Ordering Code Right Hand	EXTERNAL Ordering Code Left Hand	X	Y	INTERNAL Ordering Code Right Hand	INTERNAL Ordering Code Left Hand	X	Y
3.5	22	1/2	22 ER 3.5 ISO	22 EL 3.5 ISO	1.6	2.3	22 IR 3.5 ISO	22 IL 3.5 ISO	1.6	2.3
4.0	22	1/2	22 ER 4.0 ISO	22 EL 4.0 ISO	1.6	2.3	22 IR 4.0 ISO	22 IL 4.0 ISO	1.6	2.3
4.5	22	1/2	22 ER 4.5 ISO	22 EL 4.5 ISO	1.7	2.4	22 IR 4.5 ISO	22 IL 4.5 ISO	1.6	2.4
5.0	22	1/2	22 ER 5.0 ISO	22 EL 5.0 ISO	1.7	2.5	22 IR 5.0 ISO	22 IL 5.0 ISO	1.6	2.3
5.5	22	1/2	22 ER 5.5 ISO	22 EL 5.5 ISO	1.7	2.6	22 IR 5.5 ISO	22 IL 5.5 ISO	1.6	2.3
6.0	22	1/2	**22 ER 6.0 ISO	**22 EL 6.0 ISO	1.9	2.7	22 IR 6.0 ISO	22 IL 6.0 ISO	1.6	2.4
5.5	22U	1/2U	22U ER/L 5.5 ISO		2.3	11.0	22U IR/L 5.5 ISO		2.4	11.0
6.0	22U	1/2U	22U ER/L 6.0 ISO		2.6	11.0	22U IR/L 6.0 ISO		2.1	11.0
5.5	27	5/8	27 ER 5.5 ISO	27 EL 5.5 ISO	1.9	2.7	27 IR 5.5 ISO	27 IL 5.5 ISO	1.6	2.3
6.0	27	5/8	27 ER 6.0 ISO	27 EL 6.0 ISO	2.0	2.9	27 IR 6.0 ISO	27 IL 6.0 ISO	1.8	2.5
8.0	27U	5/8U	27U ER/L 8.0 ISO		2.4	13.7	27U IR/L 8.0 ISO		2.4	13.7
12.0	33U	3/4U	33U ER/L 12.0 ISO		2.5	16.5	33U IR/L 12.0 ISO		3.5	16.9

Order example: 22 IR 3.5 ISO BMA

** Special holder required





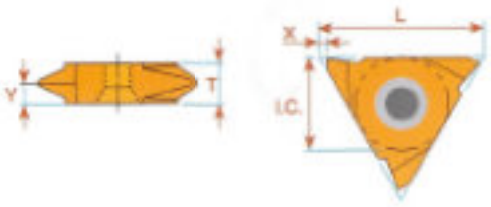
Type B

Ground Profile with Sintered Chip-breaker

Pitch mm	L	I.C. in	EXTERNAL Ordering Code Right Hand	X	Y	INTERNAL Ordering Code Right Hand	X	Y
0.5	11	1/4				11 IR B 0.5 ISO	0.6	0.6
0.75	11	1/4				11 IR B 0.75 ISO	0.6	0.6
0.8	11	1/4				11 IR B 0.8 ISO	0.6	0.6
1.0	11	1/4				11 IR B 1.0 ISO	0.6	0.6
1.25	11	1/4				11 IR B 1.25 ISO	0.8	0.9
1.5	11	1/4				11 IR B 1.5 ISO	0.8	0.9
1.75	11	1/4				11 IR B 1.75 ISO	0.8	0.9
2.0	11	1/4				11 IR B 2.0 ISO	0.8	0.9
0.8	16	3/8	16 ER B 0.8 ISO	0.6	0.6			
1.0	16	3/8	16 ER B 1.0 ISO	0.7	0.7	16 IR B 1.0 ISO	0.6	0.7
1.25	16	3/8	16 ER B 1.25 ISO	0.8	0.9	16 IR B 1.25 ISO	0.8	0.9
1.5	16	3/8	16 ER B 1.5 ISO	0.8	1.0	16 IR B 1.5 ISO	0.8	1.0
1.75	16	3/8	16 ER B 1.75 ISO	0.9	1.2	16 IR B 1.75 ISO	0.9	1.2
2.0	16	3/8	16 ER B 2.0 ISO	1.0	1.3	16 IR B 2.0 ISO	1.0	1.3
2.5	16	3/8	16 ER B 2.5 ISO	1.1	1.5	16 IR B 2.5 ISO	1.1	1.5
3.0	16	3/8	16 ER B 3.0 ISO	1.2	1.6	16 IR B 3.0 ISO	1.1	1.5

BF SERVICE

ISO - metric
Vertical



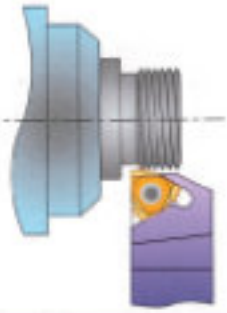
Pitch mm	L	I.C. in	EXTERNAL Ordering Code Right Hand	EXTERNAL Ordering Code Left Hand	INTERNAL Ordering Code Right Hand	INTERNAL Ordering Code Left Hand	X	Y	T
0.5	16	3/8	16V ER 0.5 ISO	16V EL 0.5 ISO			1.0	0.6	3.6
0.75	16	3/8	16V ER 0.75 ISO	16V EL 0.75 ISO			1.0	0.6	3.6
0.8	16	3/8	16V ER 0.8 ISO	16V EL 0.8 ISO			1.0	0.6	3.6
1.0	16	3/8	16V ER 1.0 ISO	16V EL 1.0 ISO			1.0	0.7	3.6
1.25	16	3/8	16V ER 1.25 ISO	16V EL 1.25 ISO			1.0	0.9	3.6
1.5	16	3/8	16V ER 1.5 ISO	16V EL 1.5 ISO			1.0	0.9	3.6
1.75	16	3/8	16V ER 1.75 ISO	16V EL 1.75 ISO			1.0	1.2	3.6
2.0	16	3/8	16V ER 2.0 ISO	16V EL 2.0 ISO			1.0	1.3	3.6
2.5	16	3/8	16V ER 2.5 ISO	16V EL 2.5 ISO			1.0	1.5	3.6
3.0	16	3/8	16V ER 3.0 ISO	16V EL 3.0 ISO			1.0	1.7	3.6
* 8.0	27	5/8	27V ER 8.0 ISO	27V EL 8.0 ISO	27V IR 8.0 ISO	27 IL 8.0 ISO	1.8	5.2	10.4
** 10.0	27	5/8	27V ER 10.0 ISO	27V EL 10.0 ISO	27V IR 10.0 ISO	27 IL 10.0 ISO	1.8	5.2	10.4

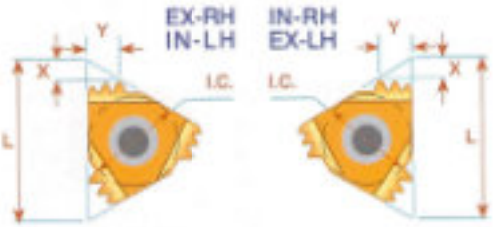
Order example: 16V ER 1.5 ISO BMA

* Minimum bore: Ø60 mm

** Minimum bore: Ø72 mm

Multitooth



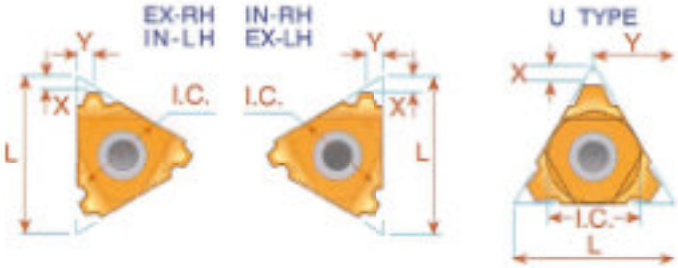


Pitch mm	L	I.C. in	Number of Teeth	EXTERNAL Ordering Code	Anvil	INTERNAL Ordering Code	Anvil	X	Y
1.0	16	3/8	3	16 ER 1.0 ISO 3M	AE16M	16 IR 1.0 ISO 3M	AI16M	1.7	2.5
1.5	16	3/8	2	16 ER 1.5 ISO 2M	AE16M	16 IR 1.5 ISO 2M	AI16M	1.5	2.3
1.5	22	1/2	3	22 ER 1.5 ISO 3M	AE22M	22 IR 1.5 ISO 3M	AI22M	2.3	3.7
2.0	22	1/2	2	22 ER 2.0 ISO 2M	AE22M	22 IR 2.0 ISO 2M	AI22M	2.0	3.0
2.0	22	1/2	3	22 ER 2.0 ISO 3M	AE22M	22 IR 2.0 ISO 3M	AI22M	3.1	5.0
3.0	27	5/8	2	27 ER 3.0 ISO 2M	AE27M	27 IR 3.0 ISO 2M	AI27M	2.9	4.6

BF SERVICE

Acme

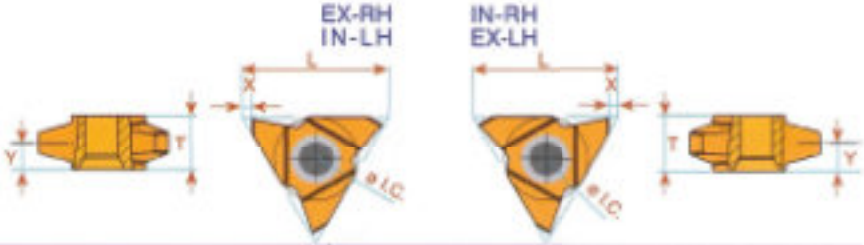




Pitch TPI	L	I.C. in	EXTERNAL Ordering Code Right Hand	EXTERNAL Ordering Code Left Hand	INTERNAL Ordering Code Right Hand	INTERNAL Ordering Code Left Hand	X	Y
16	8	3/16	*MINIATURE* →		**08 IR 16 ACME	**08 IL 16 ACME	0.6	0.6
14	8U	3/16U	*"U" MINIATURE* →		*08U IR/L 14 ACME		0.8	4.0
12	8U	3/16U			*08U IR/L 12 ACME		0.8	4.0
10	8U	3/16U			*08U IR/L 10 ACME		0.8	4.0
16	11	1/4	11 ER 16 ACME	11 EL 16 ACME	11 IR 16 ACME	11 IL 16 ACME	0.9	1.0
16	16	3/8	16 ER 16 ACME	16 EL 16 ACME	16 IR 16 ACME	16 IL 16 ACME	0.9	1.0
14	16	3/8	16 ER 14 ACME	16 EL 14 ACME	16 IR 14 ACME	16 IL 14 ACME	1.0	1.2
12	16	3/8	16 ER 12 ACME	16 EL 12 ACME	16 IR 12 ACME	16 IL 12 ACME	1.1	1.2
10	16	3/8	16 ER 10 ACME	16 EL 10 ACME	16 IR 10 ACME	16 IL 10 ACME	1.3	1.3
8	16	3/8	16 ER 8 ACME	16 EL 8 ACME	16 IR 8 ACME	16 IL 8 ACME	1.5	1.5
6	16	3/8	(1) 16 ER 6 ACME	(1) 16 EL 6 ACME	(1) 16 IR 6 ACME	(1) 16 IL 6 ACME	1.7	1.8
6	22	1/2	22 ER 6 ACME	22 EL 6 ACME	22 IR 6 ACME	22 IL 6 ACME	1.8	2.1
5	22	1/2	22 ER 5 ACME	22 EL 5 ACME	22 IR 5 ACME	22 IL 5 ACME	2.0	2.3
4	22	1/2	(1) 22 ER 4 ACME	(1) 22 EL 4 ACME	(1) 22 IR 4 ACME	(1) 22 IL 4 ACME	2.1	2.2
4	22U	1/2U	22U ER/L 4 ACME		22U IR/L 4 ACME		2.3	11.0
4	27	5/8	27 ER 4 ACME	27 EL 4 ACME	27 IR 4 ACME	27 IL 4 ACME	2.3	2.7
3	27U	5/8U	27U ER/L 3 ACME		27U IR/L 3 ACME		2.8	13.7
2	33U	3/4U	33U ER/L 2 ACME		33U IR/L 2 ACME		4.3	16.9

Order example: 16 ER 16 ACME MXC
* Available only in BXC and BMA grades
** One cutting edge
(1) Special holder is required or standard holder can be ammended by customer.

Acme
Vertical



Pitch TPI	L	I.C. in	EXTERNAL Ordering Code Right Hand	EXTERNAL Ordering Code Left Hand	X	Y	T	INTERNAL Ordering Code Right Hand	INTERNAL Ordering Code Left Hand	X	Y	T
* 3.5	27	5/8	27V ER 3.5 ACME	———	1.8	5.0	10.4	27V IR 3.5 ACME	———	1.8	4.0	10.4
* 3	27	5/8	27V ER 3 ACME	———	1.8	5.0	10.4	27V IR 3 ACME	———	1.8	4.6	10.4
** 2	27	5/8	27V ER 2 ACME	27V EL 2 ACME	1.8	5.0	10.4	27V IR 2 ACME	27V IL 2 ACME	1.8	5.0	10.4

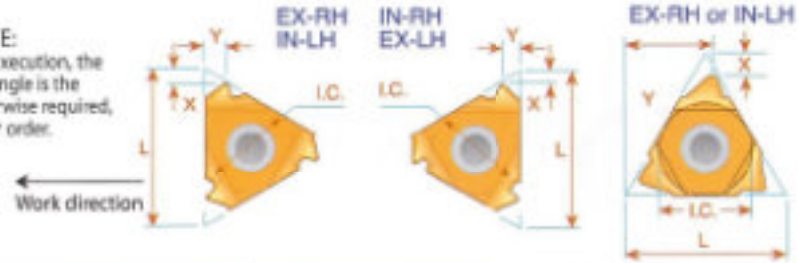
Order example: 27V ER 2 ACME BMA

BF SERVICE

American Buttress



IMPORTANT NOTE:
In Carmex standard execution, the flank with the large angle is the leading edge. If otherwise required, please specify in your order.

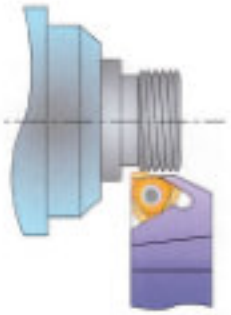


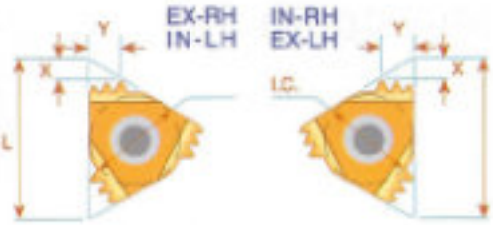
Pitch TPI	L	I.C. in	EXTERNAL Ordering Code Right Hand	EXTERNAL Ordering Code Left Hand	INTERNAL Ordering Code Right Hand	INTERNAL Ordering Code Left Hand	X	Y
20	11	1/4	11 ER 20 ABUT	11 EL 20 ABUT	11 IR 20 ABUT	11 IL 20 ABUT	1.0	1.3
16	11	1/4	11 ER 16 ABUT	11 EL 16 ABUT	11 IR 16 ABUT	11 IL 16 ABUT	1.0	1.5
20	16	3/8	16 ER 20 ABUT	16 EL 20 ABUT	16 IR 20 ABUT	16 IL 20 ABUT	1.0	1.3
16	16	3/8	16 ER 16 ABUT	16 EL 16 ABUT	16 IR 16 ABUT	16 IL 16 ABUT	1.0	1.5
12	16	3/8	16 ER 12 ABUT	16 EL 12 ABUT	16 IR 12 ABUT	16 IL 12 ABUT	1.4	2.0
10	16	3/8	16 ER 10 ABUT	16 EL 10 ABUT	16 IR 10 ABUT	16 IL 10 ABUT	1.5	2.3
8	22	1/2	22 ER 8 ABUT	22 EL 8 ABUT	22 IR 8 ABUT	22 IL 8 ABUT	2.1	3.3
6	22	1/2	22 ER 6 ABUT	22 EL 6 ABUT	22 IR 6 ABUT	22 IL 6 ABUT	2.1	3.4
4	22U	1/2U	22U ER 4 ABUT	22U EL 4 ABUT	22U IR 4 ABUT	22U IL 4 ABUT	2.3	9.5
3	27U	5/8U	27U ER 3 ABUT	27U EL 3 ABUT	27U IR 3 ABUT	27U IL 3 ABUT	3.1	11.7

Order example: 16 IL 12 ABUT MXC

Most applications requires anvil change in toolholder

Multitooth





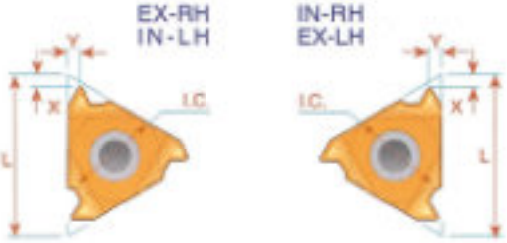
Pitch TPI	L	I.C. in	Number of Teeth	EXTERNAL Ordering Code	Anvil	INTERNAL Ordering Code	Anvil	X	Y
12	22	1/2	2	22 ER 12 ABUT 2M	AE22M	22 IR 16 ABUT 2M	AI22M	2.5	4.0

Order example: 22 IR 16 ABUT 2M BMA

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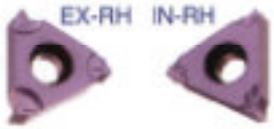
BSPT





Pitch TPI	L	I.C. in	EXTERNAL Ordering Code Right Hand	EXTERNAL Ordering Code Left Hand	INTERNAL Ordering Code Right Hand	INTERNAL Ordering Code Left Hand	X	Y
28	6	5/32	ULTRA MINIATURE →		*06 IR 28 BSPT	*06 IL 28 BSPT	0.7	0.6
28	8	3/16			*08 IR 28 BSPT	*08 IL 28 BSPT	0.6	0.6
19	8	3/16	MINIATURE →		*08 IR 19 BSPT	*08 IL 19 BSPT	0.6	0.6
28	11	1/4			11 IR 28 BSPT	11 IL 28 BSPT	0.6	0.6
19	11	1/4			11 IR 19 BSPT	11 IL 19 BSPT	0.8	0.9
14	11	1/4			11 IR 14 BSPT	11 IL 14 BSPT	0.9	1.0
11	11	1/4			(1) 11 IR 11 BSPT	(1) 11 IL 11 BSPT	0.9	1.2
28	16	3/8	16 ER 28 BSPT	16 EL 28 BSPT	16 IR 28 BSPT	16 IL 28 BSPT	0.6	0.6
19	16	3/8	16 ER 19 BSPT	16 EL 19 BSPT	16 IR 19 BSPT	16 IL 19 BSPT	0.8	0.9
14	16	3/8	16 ER 14 BSPT	16 EL 14 BSPT	16 IR 14 BSPT	16 IL 14 BSPT	1.0	1.2
11	16	3/8	16 ER 11 BSPT	16 EL 11 BSPT	16 IR 11 BSPT	16 IL 11 BSPT	1.1	1.5

Order example: 11 IR 14 BSPT BMA
* Available only in BXC and BMA grades
(1) Special holder is required or standard holder can be ammended by customer.



Type B

Ground Profile with Sintered Chip-breaker

Pitch TPI	L	I.C. in	EXTERNAL Ordering Code Right Hand	INTERNAL Ordering Code Right Hand	X	Y
19	11	1/4		11 IR B 19 BSPT	0.8	0.9
19	16	3/8	16 ER B 19 BSPT		1.0	1.1
14	16	3/8	16 ER B 14 BSPT	16 IR B 14 BSPT	1.2	1.0
11	16	3/8	16 ER B 11 BSPT	16 IR B 11 BSPT	1.5	1.1

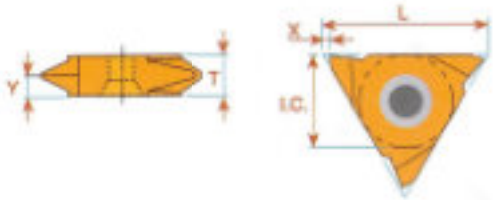
Order example: 16 ER B 11BSPT BMA

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BSPT

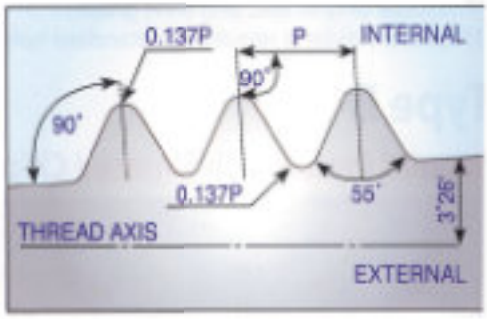
Vertical



Pitch TPI	L	I.C. in	EXTERNAL Ordering Code Right Hand	EXTERNAL Ordering Code Left Hand	X	Y	T
28	16	3/8	16V ER 28 BSPT	16V EL 28 BSPT	1.0	0.6	3.6
19	16	3/8	16V ER 19 BSPT	16V EL 19 BSPT	1.0	0.9	3.6
14	16	3/8	16V ER 14 BSPT	16V EL 14 BSPT	1.0	1.2	3.6
11	16	3/8	16V ER 11 BSPT	16V EL 11 BSPT	1.0	1.5	3.6

Order example: 16V ER 19 BSPT BMA

DIN 477

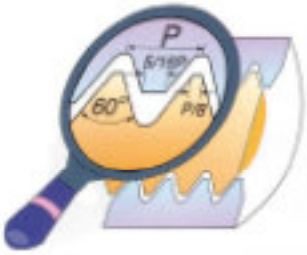


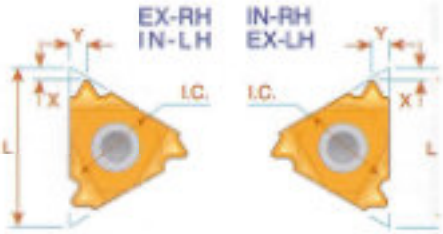
Pitch TPI	L	I.C. in	Taper Ratio	EXTERNAL Ordering Code Right Hand	INTERNAL Ordering Code Right Hand	X	Y	Thread Designation
14	16	3/8	3/25	16 ER 14 DIN477		1.0	1.2	W19.8x1/14 keg(Ext.)
14	11	1/4	3/25	———	*11 IR 14 DIN477	0.9	1.0	W19.8x1/14 keg(Int.)
14	16	3/8	3/25	16 ER 14 DIN477	**16 IR 14 DIN477	1.0	1.2	W28.8x1/14 keg
14	16	3/8	3/25	16 ER 14 DIN477	***16 IR 14 DIN477	1.0	1.2	W31.3x1/14 keg

* Holder to use: SIR0010H11/SIR0010K11
** Holder to use: SIR0016P16
*** Holder to use: SIR0020P16

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MJ - ISO 5855



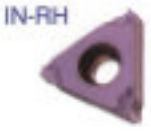


Pitch mm	L	I.C. in	EXTERNAL Ordering Code Right Hand	INTERNAL Ordering Code Right Hand	X	Y
1.0	11	1/4		11 IR 1.0 MJ	0.7	0.8
1.25	11	1/4		11 IR 1.25 MJ	0.8	0.9
1.5	11	1/4		11 IR 1.5 MJ	0.8	1.0
2.0	11	1/4		11 IR 2.0 MJ	0.9	1.0
1.0	16	3/8	16 ER 1.0 MJ	16 IR 1.0 MJ	0.7	0.8
1.25	16	3/8	16 ER 1.25 MJ	16 IR 1.25 MJ	0.8	0.9
1.5	16	3/8	16 ER 1.5 MJ	16 IR 1.5 MJ	0.8	1.0
2.0	16	3/8	16 ER 2.0 MJ	16 IR 2.0 MJ	1.0	1.3

Order example: 16 ER 1.5 MJ BMA

Type B

Ground Profile with Sintered Chip-breaker



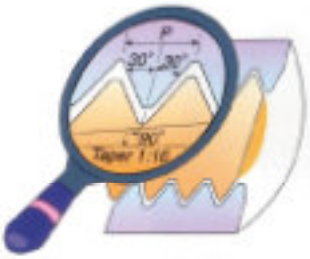
Pitch mm	L	I.C. in	INTERNAL Ordering Code Right Hand	X	Y
1.0	11	1/4	11 IR B 1.0 MJ	0.6	0.6
1.5			11 IR B 1.5 MJ	0.8	0.9

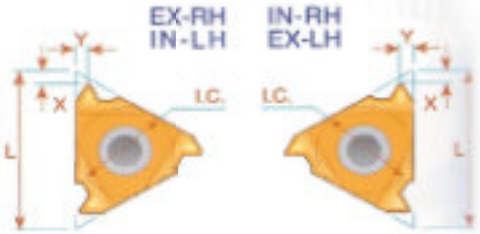
Order example: 11 IR B 1.5 MJ BMA

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NPT





Pitch TPI	L	I.C. in	EXTERNAL Ordering Code Right Hand	EXTERNAL Ordering Code Left Hand	INTERNAL Ordering Code Right Hand	INTERNAL Ordering Code Left Hand	X	Y
27	6	5/32	ULTRA MINIATURE →		*06 IR 27 NPT	*06 IL 27 NPT	0.6	0.6
27	8	3/16			*08 IR 27 NPT	*08 IL 27 NPT	0.6	0.6
18	8	3/16	MINIATURE →		*08 IR 18 NPT	*08 IL 18 NPT	0.6	0.6
27	11	1/4	11 ER 27 NPT	11 EL 27 NPT	11 IR 27 NPT	11 IL 27 NPT	0.7	0.8
18	11	1/4	11 ER 18 NPT	11 EL 18 NPT	11 IR 18 NPT	11 IL 18 NPT	0.8	1.0
14	11	1/4	11 ER 14 NPT	11 EL 14 NPT	11 IR 14 NPT	11 IL 14 NPT	0.8	1.0
27	16	3/8	16 ER 27 NPT	16 EL 27 NPT	16 IR 27 NPT	16 IL 27 NPT	0.7	0.8
18	16	3/8	16 ER 18 NPT	16 EL 18 NPT	16 IR 18 NPT	16 IL 18 NPT	0.8	1.0
14	16	3/8	16 ER 14 NPT	16 EL 14 NPT	16 IR 14 NPT	16 IL 14 NPT	0.9	1.2
11.5	16	3/8	16 ER 11.5 NPT	16 EL 11.5 NPT	16 IR 11.5 NPT	16 IL 11.5 NPT	1.1	1.5
8	16	3/8	16 ER 8 NPT	16 EL 8 NPT	16 IR 8 NPT	16 IL 8 NPT	1.3	1.8

Order example: 16 ER 14 NPT MXC
* Available only in BXC and BMA grades

Type B

Ground Profile with Sintered Chip-breaker

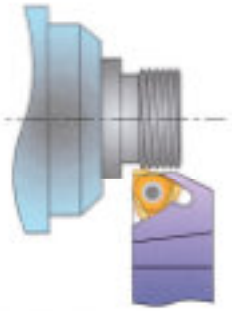


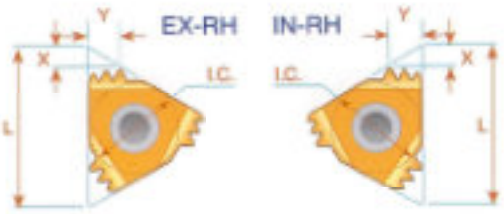
Pitch TPI	L	I.C. in	EXTERNAL Ordering Code Right Hand	INTERNAL Ordering Code Right Hand	X	Y
18	11	1/4		11 IR B 18 NPT	0.8	0.9
18	16	3/8	16 ER B 18 NPT	16 IR B 18 NPT	0.8	1.0
14	16	3/8	16 ER B 14 NPT	16 IR B 14 NPT	0.9	1.2
11.5	16	3/8	16 ER B 11.5 NPT	16 IR B 11.5 NPT	1.1	1.5
8	16	3/8	16 ER B 8 NPT	16 IR B 8 NPT	1.3	1.8

Order example: 16 IR B 11.5 NPT BMA

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NPT
Multitooth





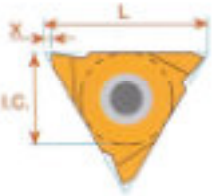
Pitch TPI	L	I.C. in	Number of Teeth	EXTERNAL Ordering Code	Anvil	INTERNAL Ordering Code	Anvil	X	Y
14	16	3/8	2	16 ER 14 NPT 2M	AE16M	16 IR 14 NPT 2M	AI16M	1.7	2.8
11.5	22	1/2	2	22 ER 11.5 NPT 2M	AE22M	22 IR 11.5 NPT 2M	AI22M	2.3	3.5
11.5	27	5/8	3	27 ER 11.5 NPT 3M	AE27M	27 IR 11.5 NPT 3M	AI27M	3.3	5.5
8	27	5/8	2	27 ER 8 NPT 2M	AE27M	27 IR 8 NPT 2M	AI27M	3.1	5.0

Order example: 22 ER 11.5 NPT 2M MXC

For recommended number of passes see page 62

NPT
Vertical





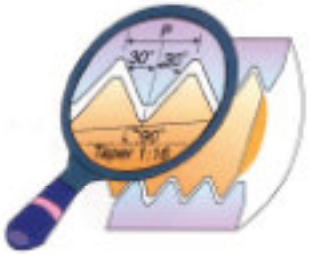
Pitch TPI	L	I.C. in	EXTERNAL Ordering Code Right Hand	EXTERNAL Ordering Code Left Hand	X	Y	T
27	16	3/8	16V ER 27 NPT	16V EL 27 NPT	1.0	0.8	3.6
18	16	3/8	16V ER 18 NPT	16V EL 18 NPT	1.0	1.0	3.6
14	16	3/8	16V ER 14 NPT	16V EL 14 NPT	1.0	1.2	3.6
11.5	16	3/8	16V ER 11.5 NPT	16V EL 11.5 NPT	1.0	1.5	3.6

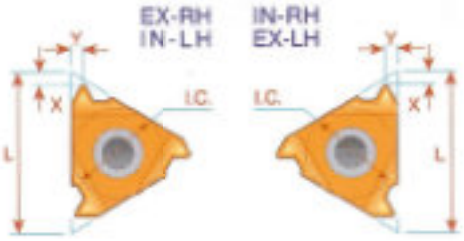
Order example: 16V ER 14 NPT BMA

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NPTF - Dryseal





Pitch TPI	L	I.C. in	EXTERNAL Ordering Code Right Hand	EXTERNAL Ordering Code Left Hand	INTERNAL Ordering Code Right Hand	INTERNAL Ordering Code Left Hand	X	Y
27	6	5/32	ULTRA MINIATURE →		*06 IR 27 NPTF	*06 IL 27 NPTF	0.7	0.6
27	8	3/16			*08 IR 27 NPTF	*08 IL 27 NPTF	0.6	0.6
18	8	3/16	MINIATURE →		*08 IR 18 NPTF	*08 IL 18 NPTF	0.6	0.6
27	11	1/4	11 ER 27 NPTF	11 EL 27 NPTF	11 IR 27 NPTF	11 IL 27 NPTF	0.7	0.7
18	11	1/4	11 ER 18 NPTF	11 EL 18 NPTF	11 IR 18 NPTF	11 IL 18 NPTF	0.8	1.0
14	11	1/4	11 ER 14 NPTF	11 EL 14 NPTF	11 IR 14 NPTF	11 IL 14 NPTF	0.8	1.0
27	16	3/8	16 ER 27 NPTF	16 EL 27 NPTF	16 IR 27 NPTF	16 IL 27 NPTF	0.7	0.7
18	16	3/8	16 ER 18 NPTF	16 EL 18 NPTF	16 IR 18 NPTF	16 IL 18 NPTF	0.8	1.0
14	16	3/8	16 ER 14 NPTF	16 EL 14 NPTF	16 IR 14 NPTF	16 IL 14 NPTF	0.9	1.2
11.5	16	3/8	16 ER 11.5 NPTF	16 EL 11.5 NPTF	16 IR 11.5 NPTF	16 IL 11.5 NPTF	1.1	1.5
8	16	3/8	16 ER 8 NPTF	16 EL 8 NPTF	16 IR 8 NPTF	16 IL 8 NPTF	1.3	1.8

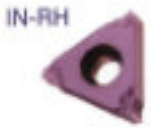
Order example: 11 ER 27 NPTF MXC

* Available only in BXC and BMA grades

Type B

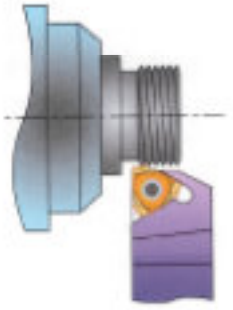
Ground Profile with Sintered Chip-breaker

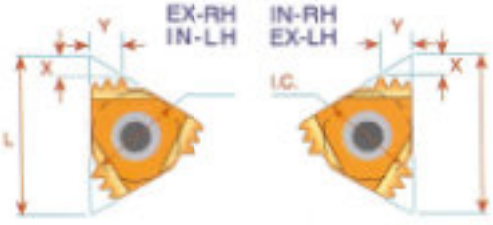
Pitch TPI	L	I.C. in	INTERNAL Ordering Code Right Hand	X	Y
18	11	1/4	11 IR B 18 NPTF	0.8	0.9



For Carbide Grade and Cutting Speed see page 60-61

Multitooth





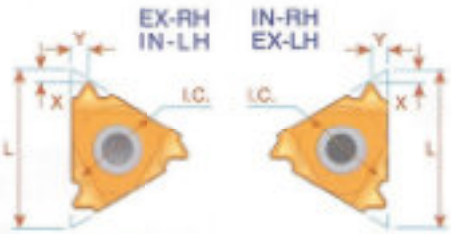
Pitch TPI	L	I.C. in	Number of Teeth	EXTERNAL Ordering Code	Anvil	INTERNAL Ordering Code	Anvil	X	Y
11.5	22	1/2	2	22 ER 11.5 NPTF 2M	AE22M	22 IR 11.5 NPTF 2M	AI22M	2.3	3.5

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OIL Threads

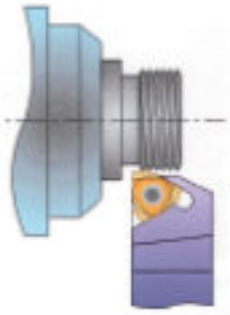
API Round

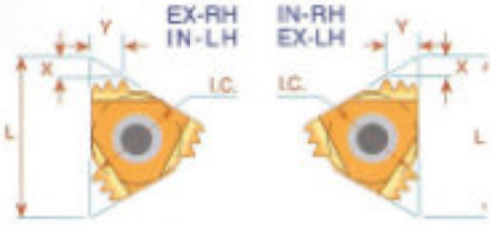




Pitch TPI	L	I.C. in	Taper IPF	EXTERNAL Ordering Code Right Hand	INTERNAL Ordering Code Right Hand	X	Y
10	16	3/8	0.75	16 ER 10 API RD	16 IR 10 API RD	1.5	1.4
8	16	3/8	0.75	16 ER 8 API RD	16 IR 8 API RD	1.3	1.6

Multitooth



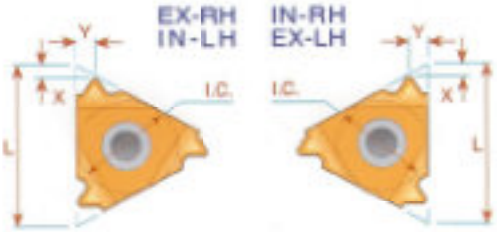


Pitch TPI	L	I.C. in	Number of Teeth	EXTERNAL Ordering Code	Anvil	INTERNAL Ordering Code	Anvil	X	Y
10	22	1/2	2	22 ER 10API RD 2M	AE22M	22 IR 10API RD 2M	AI22M	2.4	3.7
10	27	5/8	3	27 ER 10API RD 3M	AE27M	27 IR 10API RD 3M	AI27M	3.8	6.2
8	27	5/8	2	27 ER 8API RD 2M	AE27M	27 IR 8API RD 2M	AI27M	3.0	4.5

BF SERVICE

OIL Threads





V-0.040

Pitch TPI	L	I.C. in	Taper IPF	EXTERNAL Ordering Code Right Hand	INTERNAL Ordering Code Right Hand	X	Y	Connection No. or Size
5	22	1/2	3	22 ER 5 API 403	22 IR 5 API 403	1.8	2.5	2⅜-4½ REG

V-0.038R

Pitch TPI	L	I.C. in	Taper IPF	EXTERNAL Ordering Code Right Hand	INTERNAL Ordering Code Right Hand	X	Y	Connection No. or Size
4	27	5/8	2	27 ER 4 API 382	27 IR 4 API 382	2.1	2.8	NC23-NC50
4	27	5/8	3	27 ER 4 API 383	27 IR 4 API 383	2.1	2.8	NC56-NC77

V-0.050

Pitch TPI	L	I.C. in	Taper IPF	EXTERNAL Ordering Code Right Hand	INTERNAL Ordering Code Right Hand	X	Y	Connection No. or Size
4	27	5/8	2	27 ER 4 API 502	27 IR 4 API 502	2.0	3.0	6⅝ REG
4	27	5/8	3	27 ER 4 API 503	27 IR 4 API 503	2.0	3.0	5½, 7⅝, 8⅝ REG

V-0.055

Macaroni Tubing (MT)
American Macaroni Tubing (AMT)
American Mining Macaroni Tubing (AMMT)

Pitch TPI	L	I.C. in	Taper IPF	EXTERNAL Ordering Code Right Hand	INTERNAL Ordering Code Right Hand	X	Y	Connection No. or Size
6	22	1/2	1.5	22 ER 6 API 551.5	-	2.0	1.7	NC10,NC12,NC13,NC16
6	16	3/8	1.5	-	16 IR 6 API 551.5	2.0	1.7	NC10,NC12,NC13 *
6	22	1/2	1.5	-	22 IR 6 API 551.5	2.0	1.7	NC16 **

* For NC10,NC12 use holder SIR0016P16CB
For NC13 use holders SIR0020P16/SIR0020P16B/SIR0020S16CB

** For NC16 use holder SIR0025R22

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OIL Threads Extreme - Line Casing



Pitch TPI	L	I.C. in	Taper IPF	EXTERNAL Ordering Code Right Hand	INTERNAL Ordering Code Right Hand	X	Y	Connection No. or Size
6	22	1/2	1.50	22 ER 6 EL 1.5	22 IR 6 EL 1.5	1.9	1.9	5-7 5/8
5	22	1/2	1.25	22 ER 5 EL 1.25	22 IR 5 EL 1.25	2.4	2.3	8 5/8-10 3/4

Buttress Casing

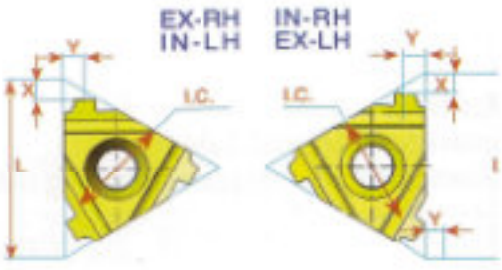


Pitch TPI	L	I.C. in	Taper IPF	EXTERNAL Ordering Code Right Hand	INTERNAL Ordering Code Right Hand	X	Y	Connection No. or Size
5	22	1/2	0.75	22 ER 5 BUT 0.75	22 IR 5 BUT 0.75	2.2	2.4	4 1/2-13 3/8
5	22	1/2	1.00	22 ER 5 BUT 1.0	22 IR 5 BUT 1.0	2.3	2.4	16-20

Order example: 22 ER 5 BUT 0.75 MXC

VAM





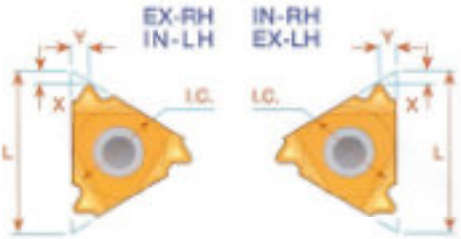
Pitch TPI	L	I.C. in	Taper IPF	EXTERNAL Ordering Code Right Hand	X	Y	INTERNAL Ordering Code Right Hand	X	Y	Connection No. or Size
8	16	3/8	0.75	16 ER 8 VAM	1.7	1.8	16 IR 8 VAM	1.7	1.8	2 3/8" - 2 7/8"
6	22	1/2	0.75	22 ER 6 VAM	2.4	2.4	22 IR 6 VAM	2.5	2.5	3 1/2" - 4 1/2"
5	22	1/2	0.75	22 ER 5 VAM	2.4	2.7	22 IR 5 VAM	2.4	2.5	5" - 13 3/8"

Order example: 16 ER 8 VAM BMA

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PG - DIN 40430





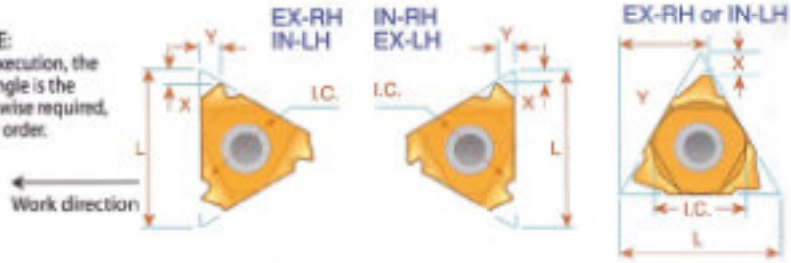
Pitch TPI	L	I.C. in	EXTERNAL Ordering Code Right Hand	EXTERNAL Ordering Code Standard	INTERNAL Ordering Code Right Hand	INTERNAL Ordering Code Standard	X	Y
20	8	3/16	*MINIATURE* →		*08 IR 20 PG	(PG 7)	0.6	0.7
18	11	1/4			11 IR 18 PG	(PG 9)	0.8	0.9
20	16	3/8	16 ER 20 PG	(PG 7)			0.7	0.8
18	16	3/8	16 ER 18 PG	(PG 9, 11, 13.5, 16)	16 IR 18 PG	(PG 11, 13.5, 16)	0.8	0.9
16	16	3/8	16 ER 16 PG	(PG 21, 29, 36, 42, 48)	16 IR 16 PG	(PG 21, 29, 36, 42, 48)	0.8	1.0

Order example: 16 ER 16 PG BMA
* Available only in BXC and BMA grades

Sagengewinde- DIN 513



IMPORTANT NOTE:
In Carmex standard execution, the flank with the large angle is the leading edge. If otherwise required, please specify in your order.



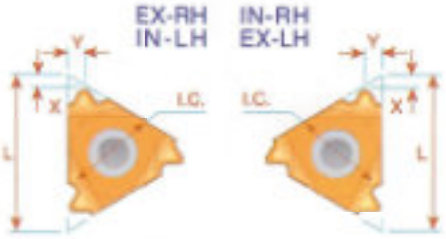
Pitch TPI	L	I.C. in	EXTERNAL Ordering Code Right Hand	EXTERNAL Ordering Code Left Hand	X	Y	INTERNAL Ordering Code Right Hand	INTERNAL Ordering Code Left Hand	X	Y
2.0	16	3/8	16 ER 2 SAGE	16 EL 2 SAGE	1.1	1.6	16 IR 2 SAGE	16 IL 2 SAGE	1.2	1.7
3.0	22	1/2	22 ER 3 SAGE	22 EL 3 SAGE	1.5	2.4	22 IR 3 SAGE	22 IL 3 SAGE	1.9	2.9
4.0	22	1/2	22 ER 4 SAGE	22 EL 4 SAGE	1.9	3.1	22 IR 4 SAGE	22 IL 4 SAGE	2.3	3.5
*5.0	22U	1/2U	22U ER 5 SAGE	22U EL 5 SAGE	1.2	11.6	22U IR 5 SAGE	22U IL 5 SAGE	1.9	11.7
*6.0	22U	1/2U	22U ER 6 SAGE	22U EL 6 SAGE	1.2	11.7	22U IR 6 SAGE	22U IL 6 SAGE	2.1	11.9

Order example: 22 IR 4 SAGE BMA
* Requires a special anvil AER 22U-1.5 SAGE 5/6, AEL 22U-1.5 SAGE 5/6, AIR 22U-1.5 SAGE 5/6, AIL 22U-1.5 SAGE 5/6.

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Round - DIN 405



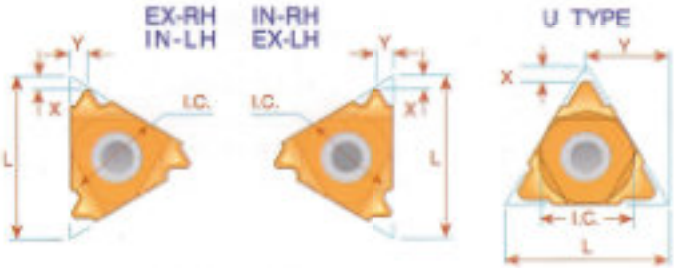


Pitch TPI	L	I.C. in	EXTERNAL Ordering Code Right Hand	EXTERNAL Ordering Code Left Hand	X	Y	INTERNAL Ordering Code Right Hand	INTERNAL Ordering Code Left Hand	X	Y
10	16	3/8	16 ER 10 RD	16 EL 10 RD	1.1	1.2	16 IR 10 RD	16 IL 10 RD	1.1	1.2
8	16	3/8	16 ER 8 RD	16 EL 8 RD	1.4	1.3	16 IR 8 RD	16 IL 8 RD	1.4	1.4
6	16	3/8	16 ER 6 RD	16 EL 6 RD	1.5	1.7	16 IR 6 RD	16 IL 6 RD	1.4	1.5
6	22	1/2	22 ER 6 RD	22 EL 6 RD	1.5	1.7	22 IR 6 RD	22 IL 6 RD	1.5	1.7
4	22	1/2	22 ER 4 RD	22 EL 4 RD	2.2	2.3	22 IR 4 RD	22 IL 4 RD	2.2	2.3
4	27	5/8	27 ER 4 RD	27 EL 4 RD	2.2	2.3	27 IR 4 RD	27 IL 4 RD	2.2	2.3

Order example: 27 IL 4 RD BMA

Round - DIN 20400





Pitch mm	L	I.C. in	EXTERNAL Ordering Code Right Hand	INTERNAL Ordering Code Right Hand	X	Y
4.0	22	1/2	22 ER 4.0 RD 20400	22 IR 4.0 RD 20400	1.4	1.4
5.0	22	1/2	22 ER 5.0 RD 20400	22 IR 5.0 RD 20400	1.7	1.8
6.0	22	1/2	22 ER 6.0 RD 20400	22 IR 6.0 RD 20400	1.7	2.0
8.0	27U	5/8U	*27U - 8.0 RD 20400		3.0	13.7
10.0	27U	5/8U	*27U - 10.0 RD 20400		3.4	13.7

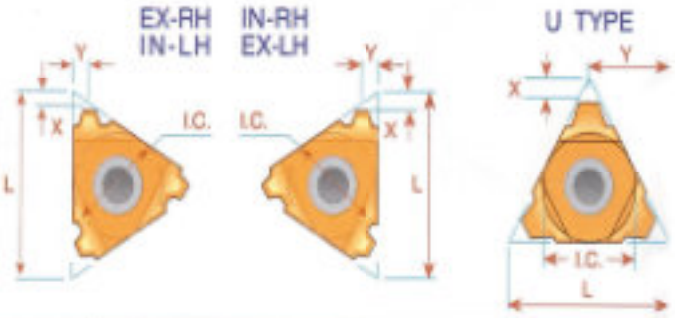
Order example: 22 ER 4.0 RD 20400 MXC

* Same insert for Internal and External Right Hand Thread

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Stub Acme





Pitch TPI	L	I.C. in	EXTERNAL Ordering Code Right Hand	EXTERNAL Ordering Code Left Hand	INTERNAL Ordering Code Right Hand	INTERNAL Ordering Code Left Hand	X	Y
16	8	3/16	MINIATURE →		**08 IR 16 STACME	**08 IL 16 STACME	0.6	0.6
14	8U	3/16U	"U" MINIATURE →		*08U IR/L 14 STACME		0.8	4.0
12	8U	3/16U			*08U IR/L 12 STACME		0.9	4.0
10	8U	3/16U			*08U IR/L 10 STACME		1.0	4.0
16	11	1/4	11 ER 16 STACME	11 EL 16 STACME			1.0	1.0
16	16	3/8	16 ER 16 STACME	16 EL 16 STACME	16 IR 16 STACME	16 IL 16 STACME	1.0	1.0
14	16	3/8	16 ER 14 STACME	16 EL 14 STACME	16 IR 14 STACME	16 IL 14 STACME	1.1	1.1
12	16	3/8	16 ER 12 STACME	16 EL 12 STACME	16 IR 12 STACME	16 IL 12 STACME	1.2	1.2
10	16	3/8	16 ER 10 STACME	16 EL 10 STACME	16 IR 10 STACME	16 IL 10 STACME	1.3	1.3
8	16	3/8	16 ER 8 STACME	16 EL 8 STACME	16 IR 8 STACME	16 IL 8 STACME	1.5	1.5
6	16	3/8	16 ER 6 STACME	16 EL 6 STACME	16 IR 6 STACME	16 IL 6 STACME	1.8	1.8
5	22	1/2	22 ER 5 STACME	22 EL 5 STACME	22 IR 5 STACME	22 IL 5 STACME	2.0	2.3
4	22	1/2	22 ER 4 STACME	22 EL 4 STACME	22 IR 4 STACME	22 IL 4 STACME	2.3	2.4
4	22U	1/2U	22U ER/L 4 STACME		22U IR/L 4 STACME		2.5	11.0
3	22U	1/2U	22U ER/L 3 STACME		22U IR/L 3 STACME		3.3	11.0
4	27	5/8	27 ER 4 STACME	27 EL 4 STACME	27 IR 4 STACME	27 IL 4 STACME	2.3	2.4
3	27	5/8	27 ER 3 STACME	27 EL 3 STACME	27 IR 3 STACME	27 IL 3 STACME	2.8	2.9
2	33U	3/4U	33U ER/L 2 STACME		33U IR/L 2 STACME		5.0	16.9

Order example: 22 IR 5 STACME MXC

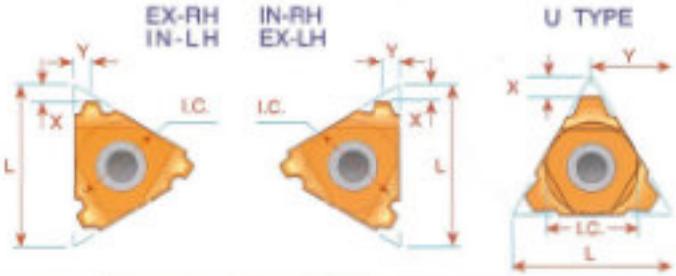
* Available only in BXC and BMA grades

** One cutting edge

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Trapez - DIN 103





Pitch mm	L	I.C. in	EXTERNAL Ordering Code Right Hand	EXTERNAL Ordering Code Left Hand	INTERNAL Ordering Code Right Hand	INTERNAL Ordering Code Left Hand	X	Y
1.5	8	3/16	*MINIATURE* →		**08 IR 1.5 TR	**08 IL 1.5 TR	0.6	0.6
2.0	8U	3/16U	*"U" MINIATURE* →		*08U IR/L 2 TR		0.9	4.0
1.5	16	3/8	16 ER 1.5 TR	16 EL 1.5 TR			1.0	1.1
2.0	16	3/8	16 ER 2 TR	16 EL 2 TR	16 IR 2 TR	16 IL 2 TR	1.0	1.3
3.0	16	3/8	16 ER 3 TR	16 EL 3 TR	16 IR 3 TR	16 IL 3 TR	1.3	1.5
4.0	16	3/8	(1)16 ER 4 TR	(1)16 EL 4 TR	(2)16 IR 4 TR	(2)16 IL 4 TR	1.3	1.5
5.0	16	3/8U			***16U IR/L 5 TR		2.3	8.2
4.0	22	1/2	22 ER 4 TR	22 EL 4 TR	22 IR 4 TR	22 IL 4 TR	1.8	1.9
5.0	22	1/2	22 ER 5 TR	22 EL 5 TR	22 IR 5 TR	22 IL 5 TR	2.0	2.4
6.0	22	1/2	(1)22 ER 6 TR	(1)22 EL 6 TR	(1)22 IR 6 TR	(1)22 IL 6 TR	2.0	2.4
6.0	22U	1/2U	22U ER/L 6 TR		22U IR/L 6 TR		2.0	11.0
7.0	22U	1/2U	22U ER/L 7 TR		22U IR/L 7 TR		2.3	11.0
(3)7.0	22U	1/2U			(3)22U IR/L 7 TR40		2.6	11.0
8.0	22U	1/2U	22U ER/L 8 TR		22U IR/L 8 TR		2.5	11.0
6.0	27	5/8	27 ER 6 TR	27 EL 6 TR	27 IR 6 TR	27 IL 6 TR	2.3	2.7
7.0	27	5/8	27 ER 7 TR	27 EL 7 TR	27 IR 7 TR	27 IL 7 TR	2.2	2.6
8.0	27U	5/8U	27U ER/L 8 TR		27U IR/L 8 TR		2.5	13.7
9.0	27U	5/8U	27U ER/L 9 TR		27U IR/L 9 TR		3.0	13.7
10.0	27U	5/8U	**27U ER/L 10 TR		**27U IR/L 10 TR		3.2	13.7
12.0	33U	3/4U	33U ER/L 12 TR		33U IR/L 12 TR		3.9	16.9

Order example: 22 IR 5 TR MXC

* Available only in BXC and BMA grades

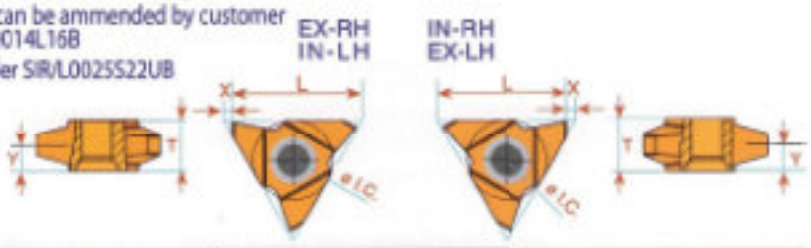
** One cutting edge

(1) Special holder is required or standard holder can be ammended by customer.

(2) Special holder is required or standard holder can be ammended by customer or to used with holders: SIR/L0012L16B; SIR/L0014L16B

(3) Only for Tr 40 x 7.0. To be used only with holder SIR/L0025S22UB

Trapez - DIN 103
Vertical



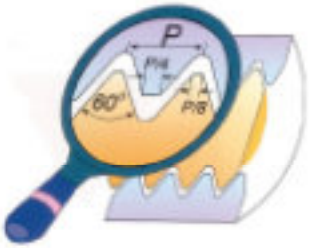
Pitch mm	L	I.C. in	EXTERNAL Ordering Code Right Hand	EXTERNAL Ordering Code Left Hand	INTERNAL Ordering Code Right Hand	INTERNAL Ordering Code Left Hand	X	Y	T
*9	27	5/8	27V ER 9 TR	27V EL 9 TR	27V IR 9 TR	27V IL 9 TR	1.8	5.2	10.4
*10	27	5/8	27V ER 10 TR	27V EL 10 TR	27V IR 10 TR	27V IL 10 TR	1.8	5.2	10.4
**12	27	5/8	27V ER 12 TR	27V EL 12 TR	27V IR 12 TR	27V IL 12 TR	1.8	5.2	10.4

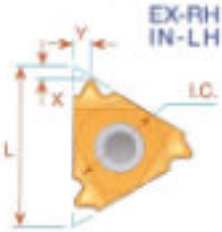
Order example: 27V ER 10 TR BMA

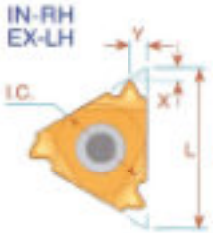
* Minimum bore: Ø65 mm ** Minimum bore: Ø73 mm

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UN - Unified UNC, UNF, UNEF, UNS









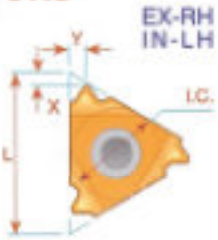
Pitch TPI	L	I.C. in	EXTERNAL Ordering Code Right Hand	EXTERNAL Ordering Code Left Hand	X	Y	INTERNAL Ordering Code Right Hand	INTERNAL Ordering Code Left Hand	X	Y
32	6	5/32					*06 IR 32 UN	*06 IL 32 UN	0.8	0.5
28	6	5/32					*06 IR 28 UN	*06 IL 28 UN	0.8	0.6
24	6	5/32	ULTRA MINIATURE →				*06 IR 24 UN	*06 IL 24 UN	0.7	0.6
20	6	5/32					*06 IR 20 UN	*06 IL 20 UN	0.6	0.5
18	6	5/32					*06 IR 18 UN	*06 IL 18 UN	0.6	0.7
32	8	3/16					*08 IR 32 UN	*08 IL 32 UN	0.6	0.5
28	8	3/16					*08 IR 28 UN	*08 IL 28 UN	0.6	0.6
24	8	3/16					*08 IR 24 UN	*08 IL 24 UN	0.6	0.6
20	8	3/16	MINIATURE →				*08 IR 20 UN	*08 IL 20 UN	0.6	0.7
18	8	3/16					*08 IR 18 UN	*08 IL 18 UN	0.6	0.7
16	8	3/16					*08 IR 16 UN	*08 IL 16 UN	0.6	0.7
14	8	3/16					*08 IR 14 UN	*08 IL 14 UN	0.6	0.8
13	8	3/16					**08 IR 13 UN		0.8	0.9
13	8U	3/16U					*08U IR/L 13 UN		1.0	4.0
12	8U	3/16U	"U" MINIATURE →				*08U IR/L 12 UN		0.9	4.0
11	8U	3/16U					*08U IR/L 11 UN		0.9	4.0
72	11	1/4	11 ER 72 UN	11 EL 72 UN	0.8	0.4	11 IR 72 UN	11 IL 72 UN	0.8	0.3
64	11	1/4	11 ER 64 UN	11 EL 64 UN	0.8	0.4	11 IR 64 UN	11 IL 64 UN	0.8	0.4
56	11	1/4	11 ER 56 UN	11 EL 56 UN	0.7	0.4	11 IR 56 UN	11 IL 56 UN	0.7	0.4
48	11	1/4	11 ER 48 UN	11 EL 48 UN	0.6	0.6	11 IR 48 UN	11 IL 48 UN	0.6	0.6
44	11	1/4	11 ER 44 UN	11 EL 44 UN	0.6	0.6	11 IR 44 UN	11 IL 44 UN	0.6	0.6
40	11	1/4	11 ER 40 UN	11 EL 40 UN	0.6	0.6	11 IR 40 UN	11 IL 40 UN	0.6	0.6
36	11	1/4	11 ER 36 UN	11 EL 36 UN	0.6	0.6	11 IR 36 UN	11 IL 36 UN	0.6	0.6
32	11	1/4	11 ER 32 UN	11 EL 32 UN	0.6	0.6	11 IR 32 UN	11 IL 32 UN	0.6	0.6
28	11	1/4	11 ER 28 UN	11 EL 28 UN	0.6	0.7	11 IR 28 UN	11 IL 28 UN	0.6	0.7
27	11	1/4	11 ER 27 UN	11 EL 27 UN	0.7	0.8	11 IR 27 UN	11 IL 27 UN	0.7	0.8
24	11	1/4	11 ER 24 UN	11 EL 24 UN	0.7	0.8	11 IR 24 UN	11 IL 24 UN	0.7	0.8
20	11	1/4	11 ER 20 UN	11 EL 20 UN	0.8	0.9	11 IR 20 UN	11 IL 20 UN	0.8	0.9
18	11	1/4	11 ER 18 UN	11 EL 18 UN	0.8	1.0	11 IR 18 UN	11 IL 18 UN	0.8	1.0
16	11	1/4	11 ER 16 UN	11 EL 16 UN	0.9	1.1	11 IR 16 UN	11 IL 16 UN	0.9	1.1
14	11	1/4	11 ER 14 UN	11 EL 14 UN	0.9	1.1	11 IR 14 UN	11 IL 14 UN	0.9	1.1
13	11	1/4					11 IR 13 UN	11 IL 13 UN	0.8	1.0
12	11	1/4					11 IR 12 UN	11 IL 12 UN	0.9	1.1
11	11	1/4					11 IR 11 UN	11 IL 11 UN	0.8	1.1
72	16	3/8	16 ER 72 UN	16 EL 72 UN	0.8	0.4	16 IR 72 UN	16 IL 72 UN	0.8	0.3
64	16	3/8	16 ER 64 UN	16 EL 64 UN	0.8	0.4	16 IR 64 UN	16 IL 64 UN	0.8	0.4
56	16	3/8	16 ER 56 UN	16 EL 56 UN	0.7	0.4	16 IR 56 UN	16 IL 56 UN	0.7	0.4
48	16	3/8	16 ER 48 UN	16 EL 48 UN	0.6	0.6	16 IR 48 UN	16 IL 48 UN	0.6	0.6
44	16	3/8	16 ER 44 UN	16 EL 44 UN	0.6	0.6	16 IR 44 UN	16 IL 44 UN	0.6	0.6
40	16	3/8	16 ER 40 UN	16 EL 40 UN	0.6	0.6	16 IR 40 UN	16 IL 40 UN	0.6	0.6
36	16	3/8	16 ER 36 UN	16 EL 36 UN	0.6	0.6	16 IR 36 UN	16 IL 36 UN	0.6	0.6

* Available only in RXC and BMA grades

BF SERVICE

UN - Unified UNC, UNF, UNEF, UNS









Pitch TPI	L	I.C. in	EXTERNAL Ordering Code Right Hand	EXTERNAL Ordering Code Left Hand	X	Y	INTERNAL Ordering Code Right Hand	INTERNAL Ordering Code Left Hand	X	Y
32	16	3/8	16 ER 32 UN	16 EL 32 UN	0.6	0.6	16 IR 32 UN	16 IL 32 UN	0.6	0.6
28	16	3/8	16 ER 28 UN	16 EL 28 UN	0.6	0.7	16 IR 28 UN	16 IL 28 UN	0.6	0.7
27	16	3/8	16 ER 27 UN	16 EL 27 UN	0.7	0.8	16 IR 27 UN	16 IL 27 UN	0.7	0.8
24	16	3/8	16 ER 24 UN	16 EL 24 UN	0.7	0.8	16 IR 24 UN	16 IL 24 UN	0.7	0.8
20	16	3/8	16 ER 20 UN	16 EL 20 UN	0.8	0.9	16 IR 20 UN	16 IL 20 UN	0.8	0.9
18	16	3/8	16 ER 18 UN	16 EL 18 UN	0.8	1.0	16 IR 18 UN	16 IL 18 UN	0.8	1.0
16	16	3/8	16 ER 16 UN	16 EL 16 UN	0.9	1.1	16 IR 16 UN	16 IL 16 UN	0.9	1.1
14	16	3/8	16 ER 14 UN	16 EL 14 UN	1.0	1.2	16 IR 14 UN	16 IL 14 UN	0.9	1.2
13	16	3/8	16 ER 13 UN	16 EL 13 UN	1.0	1.3	16 IR 13 UN	16 IL 13 UN	1.0	1.3
12	16	3/8	16 ER 12 UN	16 EL 12 UN	1.1	1.4	16 IR 12 UN	16 IL 12 UN	1.1	1.4
11.5	16	3/8	16 ER 11.5 UN	16 EL 11.5 UN	1.1	1.5	16 IR 11.5 UN	16 IL 11.5 UN	1.1	1.5
11	16	3/8	16 ER 11 UN	16 EL 11 UN	1.1	1.5	16 IR 11 UN	16 IL 11 UN	1.1	1.5
10	16	3/8	16 ER 10 UN	16 EL 10 UN	1.1	1.5	16 IR 10 UN	16 IL 10 UN	1.1	1.5
9	16	3/8	16 ER 9 UN	16 EL 9 UN	1.2	1.7	16 IR 9 UN	16 IL 9 UN	1.2	1.7
8	16	3/8	16 ER 8 UN	16 EL 8 UN	1.2	1.6	16 IR 8 UN	16 IL 8 UN	1.1	1.5
7	22	1/2	22 ER 7 UN	22 EL 7 UN	1.6	2.3	22 IR 7 UN	22 IL 7 UN	1.6	2.3
6	22	1/2	22 ER 6 UN	22 EL 6 UN	1.6	2.3	22 IR 6 UN	22 IL 6 UN	1.6	2.3
5	22	1/2	22 ER 5 UN	22 EL 5 UN	1.7	2.5	22 IR 5 UN	22 IL 5 UN	1.6	2.3
4.5	22U	1/2U	22U ER/L 4.5 UN		2.0	11.0	22U IR/L 4.5 UN		2.4	11.0
4	22U	1/2U	22U ER/L 4 UN		2.0	11.0	22U IR/L 4 UN		2.4	11.0
4.5	27	5/8	27 ER 4.5 UN	27 EL 4.5 UN	1.9	2.7	27 IR 4.5 UN	27 IL 4.5 UN	1.7	2.4
4	27	5/8	27 ER 4 UN	27 EL 4 UN	2.1	3.0	27 IR 4 UN	27 IL 4 UN	1.8	2.7
3	27U	5/8U	27U ER/L 3 UN		2.5	13.7	27U IR/L 3 UN		2.7	13.7
2	33U	3/4U	33U ER/L 2 UN		2.8	16.5	27U IR/L 2 UN		3.6	16.9

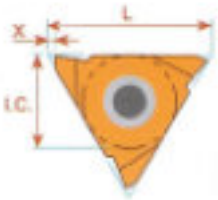
Order example: 22ER 7 UN BMA

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UN - Unified
Vertical



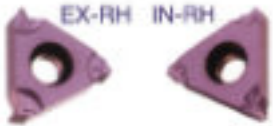


Pitch TPI	L	I.C. in	EXTERNAL Ordering Code Right Hand	EXTERNAL Ordering Code Left Hand	INTERNAL Ordering Code Right Hand	INTERNAL Ordering Code Left Hand	X	Y	T
32	16	3/8	16V ER 32 UN	16V EL 32 UN			1.0	0.6	3.6
28	16	3/8	16V ER 28 UN	16V EL 28 UN			1.0	0.7	3.6
24	16	3/8	16V ER 24 UN	16V EL 24 UN			1.0	0.8	3.6
20	16	3/8	16V ER 20 UN	16V EL 20 UN			1.0	0.9	3.6
18	16	3/8	16V ER 18 UN	16V EL 18 UN			1.0	1.0	3.6
16	16	3/8	16V ER 16 UN	16V EL 16 UN			1.0	1.1	3.6
14	16	3/8	16V ER 14 UN	16V EL 14 UN			1.0	1.2	3.6
12	16	3/8	16V ER 12 UN	16V EL 12 UN			1.0	1.4	3.6
10	16	3/8	16V ER 10 UN	16V EL 10 UN			1.0	1.5	3.6
8	16	3/8	16V ER 8 UN	16V EL 8 UN			1.0	1.6	3.6
7	22	1/2	22V ER 7 UN	22V EL 7 UN			1.2	2.3	4.8
*3	27	5/8	27V ER 3 UN	27V EL 3 UN	27V IR 3 UN	27 IL 3 UN	1.8	5.2	10.4

Order example: 22V ER 7UN MXC

* Minimum bore: Ø65 mm

UN - Unified UNC, UNF, UNEF, UNS
Type B



Ground Profile with Sintered Chip-breaker

Pitch TPI	L	I.C. in	EXTERNAL Ordering Code Right Hand	X	Y	INTERNAL Ordering Code Right Hand	X	Y
32	11	1/4				11 IR B 32 UN	0.6	0.6
28	11	1/4				11 IR B 28 UN	0.6	0.6
24	11	1/4				11 IR B 24 UN	0.6	0.6
20	11	1/4				11 IR B 20 UN	0.8	0.9
18	11	1/4				11 IR B 18 UN	0.8	0.9
16	11	1/4				11 IR B 16 UN	0.8	0.9
14	11	1/4				11 IR B 14 UN	0.8	0.9
12	11	1/4				11 IR B 12 UN	0.8	0.9
24	16	3/8	16 ER B 24 UN	0.7	0.8	16 IR B 24 UN	0.7	0.8
20	16	3/8	16 ER B 20 UN	0.8	0.9	16 IR B 20 UN	0.8	0.9
18	16	3/8	16 ER B 18 UN	0.8	1.0	16 IR B 18 UN	0.8	1.0
16	16	3/8	16 ER B 16 UN	0.9	1.1	16 IR B 16 UN	0.9	1.1
14	16	3/8	16 ER B 14 UN	1.0	1.2	16 IR B 14 UN	0.9	1.2
13	16	3/8	16 ER B 13 UN	1.0	1.3			
12	16	3/8	16 ER B 12 UN	1.1	1.4	16 IR B 12 UN	1.1	1.4
11	16	3/8	16 ER B 11 UN	1.1	1.5			
10	16	3/8	16 ER B 10 UN	1.1	1.5	16 IR B 10 UN	1.1	1.5
9	16	3/8	16 ER B 9 UN	1.2	1.7			
8	16	3/8	16 ER B 8 UN	1.2	1.6	16 IR B 8 UN	1.1	1.1

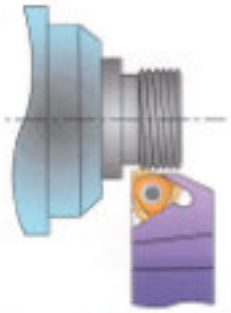
Order example: 16 IR B 12 UN BMA

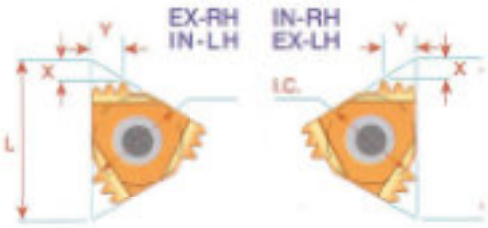
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Thread Turning Inserts

Carmex Precision Tools Ltd

Multitooth





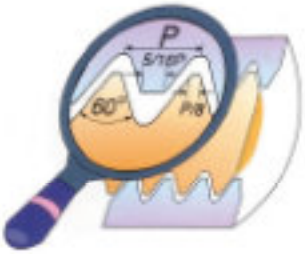
Pitch TPI	L	I.C. in	Number of Teeth	EXTERNAL Ordering Code	Anvil	INTERNAL Ordering Code	Anvil	X	Y
24	16	3/8	2	16 ER 24 UN 2M	AE16M	16 IR 24 UN 2M	AI16M	1.1	1.7
20	16	3/8	2	16 ER 20 UN 2M	AE16M	16 IR 20 UN 2M	AI16M	1.4	2.0
18	16	3/8	2	16 ER 18 UN 2M	AE16M	16 IR 18 UN 2M	AI16M	1.5	2.2
16	16	3/8	2	16 ER 16 UN 2M	AE16M	16 IR 16 UN 2M	AI16M	1.5	2.3
14	16	3/8	2	16 ER 14 UN 2M	AE16M	16 IR 14 UN 2M	AI16M	1.7	2.7
12	16	3/8	2	16 ER 12 UN 2M	AE16M	16 IR 12 UN 2M	AI16M	2.0	3.1
16	22	1/2	3	22 ER 16 UN 3M	AE22M	22 IR 16 UN 3M	AI22M	2.5	4.0
13	22	1/2	3	22 ER 13 UN 3M	AE22M	-		3.0	4.9
12	22	1/2	2	22 ER 12 UN 2M	AE22M	22 IR 12 UN 2M	AI22M	2.2	3.4
12	22	1/2	3	22 ER 12 UN 3M	AE22M	22 IR 12 UN 3M	AI22M	3.3	5.3
8	27	5/8	2	27 ER 8 UN 2M	AE27M	27 IR 8 UN 2M	AI27M	3.1	4.9

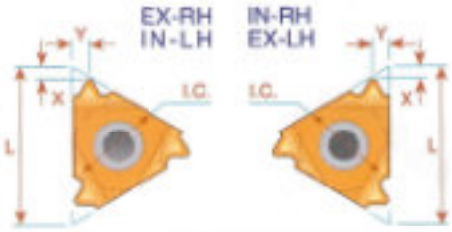
Order example: 22 IR 16 UN 3M BMA

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UNJ UNJC, UNJF, UNJEF, UNJS





Pitch TPI	L	I.C. in	EXTERNAL Ordering Code Right Hand	EXTERNAL Ordering Code Left Hand	INTERNAL Ordering Code Right Hand	INTERNAL Ordering Code Left Hand	X	Y
48	11	1/4	11 ER 48 UNJ	11 EL 48 UNJ	11 IR 48 UNJ	11 IL 48 UNJ	0.6	0.6
44	11	1/4	11 ER 44 UNJ	11 EL 44 UNJ	11 IR 44 UNJ	11 IL 44 UNJ	0.6	0.6
40	11	1/4	11 ER 40 UNJ	11 EL 40 UNJ	11 IR 40 UNJ	11 IL 40 UNJ	0.6	0.6
36	11	1/4	11 ER 36 UNJ	11 EL 36 UNJ	11 IR 36 UNJ	11 IL 36 UNJ	0.6	0.6
32	11	1/4	11 ER 32 UNJ	11 EL 32 UNJ	11 IR 32 UNJ	11 IL 32 UNJ	0.6	0.6
28	11	1/4	11 ER 28 UNJ	11 EL 28 UNJ	11 IR 28 UNJ	11 IL 28 UNJ	0.6	0.6
24	11	1/4	11 ER 24 UNJ	11 EL 24 UNJ	11 IR 24 UNJ	11 IL 24 UNJ	0.7	0.8
20	11	1/4	11 ER 20 UNJ	11 EL 20 UNJ	11 IR 20 UNJ	11 IL 20 UNJ	0.8	0.9
18	11	1/4	11 ER 18 UNJ	11 EL 18 UNJ	11 IR 18 UNJ	11 IL 18 UNJ	0.8	1.0
16	11	1/4	11 ER 16 UNJ	11 EL 16 UNJ	11 IR 16 UNJ	11 IL 16 UNJ	0.8	1.0
14	11	1/4	11 ER 14 UNJ	11 EL 14 UNJ	11 IR 14 UNJ	11 IL 14 UNJ	0.9	1.0
48	16	3/8	16 ER 48 UNJ	16 EL 48 UNJ	16 IR 48 UNJ	16 IL 48 UNJ	0.6	0.6
44	16	3/8	16 ER 44 UNJ	16 EL 44 UNJ	16 IR 44 UNJ	16 IL 44 UNJ	0.6	0.6
40	16	3/8	16 ER 40 UNJ	16 EL 40 UNJ	16 IR 40 UNJ	16 IL 40 UNJ	0.6	0.6
36	16	3/8	16 ER 36 UNJ	16 EL 36 UNJ	16 IR 36 UNJ	16 IL 36 UNJ	0.6	0.6
32	16	3/8	16 ER 32 UNJ	16 EL 32 UNJ	16 IR 32 UNJ	16 IL 32 UNJ	0.6	0.6
28	16	3/8	16 ER 28 UNJ	16 EL 28 UNJ	16 IR 28 UNJ	16 IL 28 UNJ	0.6	0.6
24	16	3/8	16 ER 24 UNJ	16 EL 24 UNJ	16 IR 24 UNJ	16 IL 24 UNJ	0.7	0.8
20	16	3/8	16 ER 20 UNJ	16 EL 20 UNJ	16 IR 20 UNJ	16 IL 20 UNJ	0.8	0.9
18	16	3/8	16 ER 18 UNJ	16 EL 18 UNJ	16 IR 18 UNJ	16 IL 18 UNJ	0.8	1.0
16	16	3/8	16 ER 16 UNJ	16 EL 16 UNJ	16 IR 16 UNJ	16 IL 16 UNJ	0.8	1.0
14	16	3/8	16 ER 14 UNJ	16 EL 14 UNJ	16 IR 14 UNJ	16 IL 14 UNJ	1.0	1.2
13	16	3/8	16 ER 13 UNJ	16 EL 13 UNJ	16 IR 13 UNJ	16 IL 13 UNJ	1.0	1.3
12	16	3/8	16 ER 12 UNJ	16 EL 12 UNJ	16 IR 12 UNJ	16 IL 12 UNJ	1.1	1.4
11	16	3/8	16 ER 11 UNJ	16 EL 11 UNJ	16 IR 11 UNJ	16 IL 11 UNJ	1.1	1.5
10	16	3/8	16 ER 10 UNJ	16 EL 10 UNJ	16 IR 10 UNJ	16 IL 10 UNJ	1.1	1.5
9	16	3/8	16 ER 9 UNJ	16 EL 9 UNJ	16 IR 9 UNJ	16 IL 9 UNJ	1.2	1.6
8	16	3/8	16 ER 8 UNJ	16 EL 8 UNJ	16 IR 8 UNJ	16 IL 8 UNJ	1.2	1.6

Order example: 16 IR 16 UNJ MXC

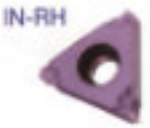
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UNJ UNJC, UNJF, UNJEF, UNJS

Type B

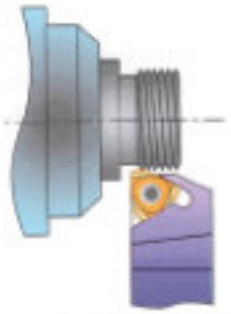
Ground Profile with Sintered Chip-breaker

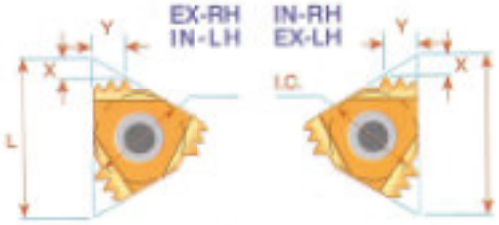


Pitch TPI	L	I.C. in	INTERNAL Ordering Code Right Hand	X	Y
32	11	1/4	11 IR B 32 UNJ	0.6	0.6
28	11	1/4	11 IR B 28 UNJ	0.6	0.6
24	11	1/4	11 IR B 24 UNJ	0.6	0.6
20	11	1/4	11 IR B 20 UNJ	0.8	0.9
18	11	1/4	11 IR B 18 UNJ	0.8	0.9
16	11	1/4	11 IR B 16 UNJ	0.8	0.9
14	11	1/4	11 IR B 14 UNJ	0.8	0.9

Order example: 11 IR B 20 UNJ BMA

Multitooth





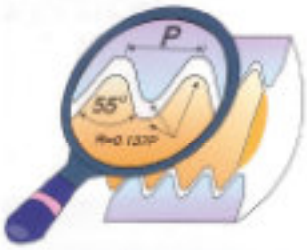
Pitch TPI	L	I.C. in	Number of Teeth	EXTERNAL Ordering Code	Anvil	INTERNAL Ordering Code	Anvil	X	Y
16	16	3/8	2	16 ER 16 UNJ 2M	AE16M	-	-	1.6	2.4
16	22	1/2	3	22 ER 16 UNJ 2M	AE22M	-	-	2.3	3.8

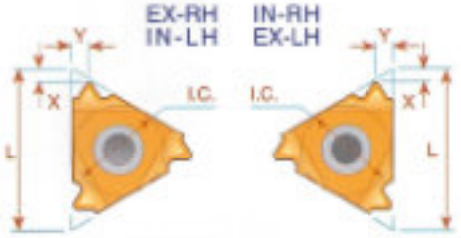
Order example: 22 ER 16 UNJ 2M BMA

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Whitworth - 55° BSW, BSF, BSP, BSB







Pitch TPI	L	I.C. in	EXTERNAL Ordering Code Right Hand	EXTERNAL Ordering Code Left Hand	INTERNAL Ordering Code Right Hand	INTERNAL Ordering Code Left Hand	X	Y
26	6	5/32			*06 IR 26 W	*06 IL 26 W	0.7	0.6
22	6	5/32	ULTRA MINIATURE →		*06 IR 22 W	*06 IL 22 W	0.6	0.6
20	6	5/32			*06 IR 20 W	*06 IL 20 W	0.6	0.7
18	6	5/32			*06 IR 18 W	*06 IL 18 W	0.6	0.7
28	8	3/16			*08 IR 28 W	*08 IL 28 W	0.6	0.6
24	8	3/16			*08 IR 24 W	*08 IL 24 W	0.6	0.6
20	8	3/16	→		*08 IR 20 W	*08 IL 20 W	0.6	0.7
19	8	3/16	MINIATURE		*08 IR 19 W	*08 IL 19 W	0.6	0.7
18	8	3/16			*08 IR 18 W	*08 IL 18 W	0.6	0.7
16	8	3/16			*08 IR 16 W	*08 IL 16 W	0.6	0.7
14	8U	3/16U			*08U IR/L 14 W		1.0	4.0
12	8U	3/16U	"U" MINIATURE →		*08U IR/L 12 W		0.9	4.0
11	8U	3/16U			*08U IR/L 11 W		0.9	4.0
72	11	1/4	11 ER 72 W	11 EL 72 W	11 IR 72 W	11 IL 72 W	0.7	0.4
60	11	1/4	11 ER 60 W	11 EL 60 W	11 IR 60 W	11 IL 60 W	0.7	0.4
56	11	1/4	11 ER 56 W	11 EL 56 W	11 IR 56 W	11 IL 56 W	0.7	0.4
48	11	1/4	11 ER 48 W	11 EL 48 W	11 IR 48 W	11 IL 48 W	0.6	0.6
40	11	1/4	11 ER 40 W	11 EL 40 W	11 IR 40 W	11 IL 40 W	0.6	0.6
36	11	1/4	11 ER 36 W	11 EL 36 W	11 IR 36 W	11 IL 36 W	0.6	0.6
32	11	1/4	11 ER 32 W	11 EL 32 W	11 IR 32 W	11 IL 32 W	0.6	0.6
28	11	1/4	11 ER 28 W	11 EL 28 W	11 IR 28 W	11 IL 28 W	0.6	0.7
26	11	1/4	11 ER 26 W	11 EL 26 W	11 IR 26 W	11 IL 26 W	0.7	0.7
24	11	1/4	11 ER 24 W	11 EL 24 W	11 IR 24 W	11 IL 24 W	0.7	0.8
22	11	1/4	11 ER 22 W	11 EL 22 W	11 IR 22 W	11 IL 22 W	0.8	0.9
20	11	1/4	11 ER 20 W	11 EL 20 W	11 IR 20 W	11 IL 20 W	0.8	0.9
19	11	1/4	11 ER 19 W	11 EL 19 W	11 IR 19 W	11 IL 19 W	0.8	1.0
18	11	1/4	11 ER 18 W	11 EL 18 W	11 IR 18 W	11 IL 18 W	0.8	1.0
16	11	1/4	11 ER 16 W	11 EL 16 W	11 IR 16 W	11 IL 16 W	0.9	1.1
14	11	1/4	11 ER 14 W	11 EL 14 W	11 IR 14 W	11 IL 14 W	0.9	1.1
12	11	1/4			11 IR 12 W	11 IL 12 W	0.1	1.1
11	11	1/4			(1) 11 IR 11 W	(1) 11 IL 11 W	0.9	1.2
72	16	3/8	16 ER 72 W	16 EL 72 W	16 IR 72 W	16 IL 72 W	0.7	0.4
60	16	3/8	16 ER 60 W	16 EL 60 W	16 IR 60 W	16 IL 60 W	0.7	0.4
56	16	3/8	16 ER 56 W	16 EL 56 W	16 IR 56 W	16 IL 56 W	0.7	0.4
48	16	3/8	16 ER 48 W	16 EL 48 W	16 IR 48 W	16 IL 48 W	0.6	0.6
40	16	3/8	16 ER 40 W	16 EL 40 W	16 IR 40 W	16 IL 40 W	0.6	0.6
36	16	3/8	16 ER 36 W	16 EL 36 W	16 IR 36 W	16 IL 36 W	0.6	0.6
32	16	3/8	16 ER 32 W	16 EL 32 W	16 IR 32 W	16 IL 32 W	0.6	0.6
28	16	3/8	16 ER 28 W	16 EL 28 W	16 IR 28 W	16 IL 28 W	0.6	0.7
26	16	3/8	16 ER 26 W	16 EL 26 W	16 IR 26 W	16 IL 26 W	0.7	0.7
24	16	3/8	16 ER 24 W	16 EL 24 W	16 IR 24 W	16 IL 24 W	0.7	0.8

* Available only in BXC and BMA grades

(1) Special holder is required or standard holder can be ammended by customer.

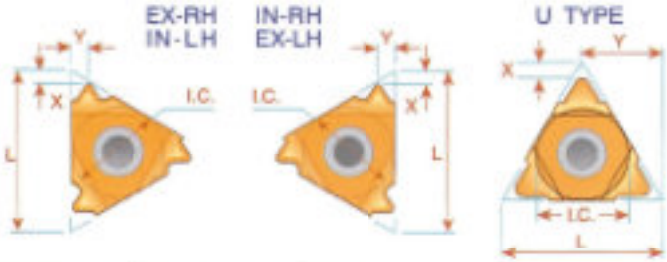
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Thread Turning Inserts

Carmex Precision Tools Ltd.

Whitworth - 55° BSW, BSF, BSP, BSB





Pitch TPI	L	I.C. in	EXTERNAL Ordering Code Right Hand	EXTERNAL Ordering Code Left Hand	INTERNAL Ordering Code Right Hand	INTERNAL Ordering Code Left Hand	X	Y
22	16	3/8	16 ER 22 W	16 EL 22 W	16 IR 22 W	16 IL 22 W	0.8	0.9
20	16	3/8	16 ER 20 W	16 EL 20 W	16 IR 20 W	16 IL 20 W	0.8	0.9
19	16	3/8	16 ER 19 W	16 EL 19 W	16 IR 19 W	16 IL 19 W	0.8	1.0
18	16	3/8	16 ER 18 W	16 EL 18 W	16 IR 18 W	16 IL 18 W	0.8	1.0
16	16	3/8	16 ER 16 W	16 EL 16 W	16 IR 16 W	16 IL 16 W	0.9	1.1
14	16	3/8	16 ER 14 W	16 EL 14 W	16 IR 14 W	16 IL 14 W	1.0	1.2
12	16	3/8	16 ER 12 W	16 EL 12 W	16 IR 12 W	16 IL 12 W	1.1	1.4
11	16	3/8	16 ER 11 W	16 EL 11 W	16 IR 11 W	16 IL 11 W	1.1	1.5
10	16	3/8	16 ER 10 W	16 EL 10 W	16 IR 10 W	16 IL 10 W	1.1	1.5
9	16	3/8	16 ER 9 W	16 EL 9 W	16 IR 9 W	16 IL 9 W	1.2	1.7
8	16	3/8	16 ER 8 W	16 EL 8 W	16 IR 8 W	16 IL 8 W	1.2	1.5
7	22	1/2	22 ER 7 W	22 EL 7 W	22 IR 7 W	22 IL 7 W	1.6	2.3
6	22	1/2	22 ER 6 W	22 EL 6 W	22 IR 6 W	22 IL 6 W	1.6	2.3
5	22	1/2	22 ER 5 W	22 EL 5 W	22 IR 5 W	22 IL 5 W	1.7	2.4
4.5	22U	1/2U	22U E/I/R/L 4.5 W				2.3	11.0
4	22U	1/2U	22U E/I/R/L 4 W				2.8	11.0
4.5	27	5/8	27 ER 4.5 W	27 EL 4.5 W	27 IR 4.5 W	27 IL 4.5 W	1.8	2.6
4	27	5/8	27 ER 4 W	27 EL 4 W	27 IR 4 W	27 IL 4 W	2.0	2.9
3.5	27U	5/8U	27U E/I/R/L 3.5 W				2.1	13.7
3.25	27U	5/8U	27U E/I/R/L 3.25 W				2.0	13.7
3	27U	5/8U	27U E/I/R/L 3 W				2.3	13.7
2.75	27U	5/8U	27U E/I/R/L 2.75 W				2.4	13.7

Order example: 16 IR 18 W BMA

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BF SERVICE

Whitworth - 55° BSW, BSF, BSP, BSB

Type B

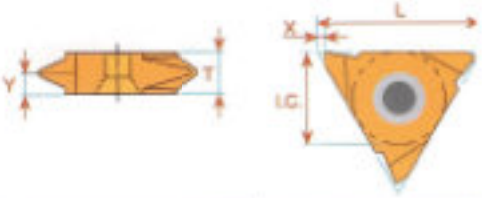
Ground Profile with Sintered Chip-breaker



Pitch TPI	L	I.C. in	EXTERNAL Ordering Code Right Hand	INTERNAL Ordering Code Right Hand	X	Y
28	11	1/4		11 IR B 28 W	0.6	0.6
24	11	1/4		11 IR B 24 W	0.6	0.6
20	11	1/4		11 IR B 20 W	0.8	0.9
19	11	1/4		11 IR B 19 W	0.8	0.9
18	11	1/4		11 IR B 18 W	0.8	0.9
16	11	1/4		11 IR B 16 W	0.8	0.9
14	11	1/4		11 IR B 14 W	0.8	0.9
19	16	3/8	16 ER B 19 W	16 IR B 19 W	0.8	1.0
16	16	3/8	16 ER B 16 W	16 IR B 16 W	0.9	1.1
14	16	3/8	16 ER B 14 W	16 IR B 14 W	1.0	1.2
11	16	3/8	16 ER B 11 W	16 IR B 11 W	1.1	1.5
10	16	3/8	16 ER B 10 W	16 IR B 10 W	1.1	1.5

Order example: 16 IR B 10 W BMA

Vertical

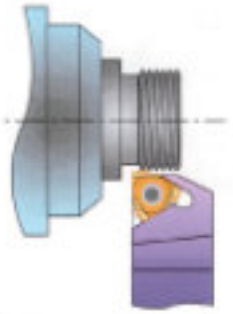


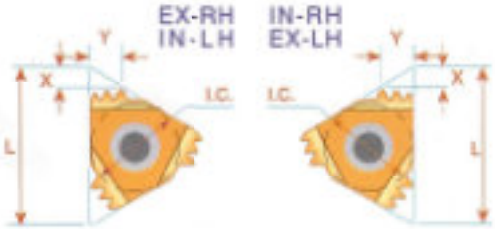
Pitch TPI	L	I.C. in	EXTERNAL Ordering Code Right Hand	EXTERNAL Ordering Code Left Hand	X	Y	T
20	16	3/8	16V ER 20 W	16V EL 20 W	1.0	0.9	3.6
19	16	3/8	16V ER 19 W	16V EL 19 W	1.0	0.9	3.6
18	16	3/8	16V ER 18 W	16V EL 18 W	1.0	1.0	3.6
16	16	3/8	16V ER 16 W	16V EL 16 W	1.0	1.0	3.6
14	16	3/8	16V ER 14 W	16V EL 14 W	1.0	1.2	3.6
12	16	3/8	16V ER 12 W	16V EL 12 W	1.0	1.4	3.6
11	16	3/8	16V ER 11 W	16V EL 11 W	1.0	1.5	3.6

Order example: 16V ER 14 W MXC

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Multitooth





Pitch TPI	L	I.C. in	Number of Teeth	EXTERNAL Ordering Code	Anvil	INTERNAL Ordering Code	Anvil	X	Y
14	16	3/8	2	16 ER 14 W 2M	AE16M	16 IR 14 W 2M	AI16M	1.7	2.7
14	22	1/2	3	22 ER 14 W 3M	AE22M	22 IR 14 W 3M	AI22M	2.8	4.5
11	22	1/2	2	22 ER 11 W 2M	AE22M	22 IR 11 W 2M	AI22M	2.3	3.4

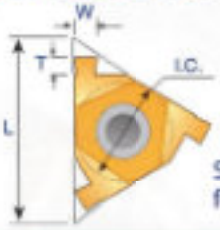
Order example: 16 ER 14 W 2M MXC

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Grooving Inserts

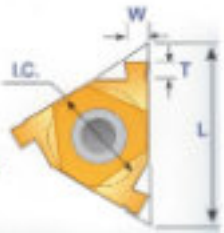




External & Internal

ER / IL
Same insert can be used for EX.RH and for IN.LH.

IR / EL
Same insert can be used for IN.RH and for EX.LH.



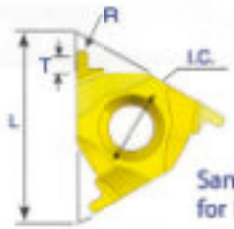
W ±0.02	T	I.C. in	L mm	Ordering Code ER/IL Inserts	Anvil	Ordering Code IR/EL Inserts	Anvil
0.50	1.4	1/4	11	11 ER/IL 0.50	-	11 IR/EL 0.50	-
0.60	1.4	1/4	11	11 ER/IL 0.60	-	11 IR/EL 0.60	-
0.70	1.4	1/4	11	11 ER/IL 0.70	-	11 IR/EL 0.70	-
0.80	1.4	1/4	11	11 ER/IL 0.80	-	11 IR/EL 0.80	-
1.00	1.3	1/4	11	11 ER/IL 1.00	-	11 IR/EL 1.00	-
1.20	1.4	1/4	11	11 ER/IL 1.20	-	11 IR/EL 1.20	-
0.50	1.4	3/8	16	16 ER/IL 0.50	AE 16-0	16 IR/EL 0.50	AI 16-0
1.00	1.4	3/8	16	16 ER/IL 1.00	AE 16-0	16 IR/EL 1.00	AI 16-0
1.20	1.6	3/8	16	16 ER/IL 1.20	AE 16-0	16 IR/EL 1.20	AI 16-0
1.40	1.8	3/8	16	16 ER/IL 1.40	AE 16-0	16 IR/EL 1.40	AI 16-0
1.70	2.0	3/8	16	16 ER/IL 1.70	AE 16-0	16 IR/EL 1.70	AI 16-0
1.95	2.0	3/8	16	16 ER/IL 1.95	AE 16-0	16 IR/EL 1.95	AI 16-0
2.25	2.25	3/8	16	16 ER/IL 2.25	AE 16-0	16 IR/EL 2.25	AI 16-0

Order example: 16 ER/IL 1.20 BXC
* The inserts should be used with our standard threading toolholders
* The anvil must be changed to AE 16-0 or AI 16-0 before using size 16mm (3/8") inserts
* Size 16 internal holders without anvil can't be used

Grooving Inserts for Snap Ring

Carbide Grade: BXC

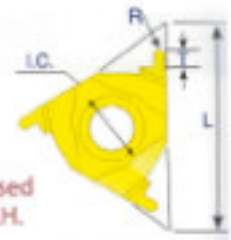




External & Internal Partial Profile Inserts

ER / IL
Same insert can be used for EX.RH and for IN.LH.

IR / EL
Same insert can be used for IN.RH and for EX.LH.



R ±0.04	T	I.C. in	L mm	Ordering Code ER/IL Inserts	Anvil	Ordering Code IR/EL Inserts	Anvil
0.5	1.4	3/8	16	16 ER/IL R0.50	AE 16 - 0	16 IR/EL R0,50	AI 16 - 0
0.6	1.6	3/8	16	16 ER/IL R0.60	AE 16 - 0	16 IR/EL R0.60	AI 16 - 0
0.9	2.0	3/8	16	16 ER/IL R0.90	AE 16 - 0	16 IR/EL R0,90	AI 16 - 0
1.0	2.0	3/8	16	16 ER/IL R1.00	AE 16 - 0	16 IR/EL R1.00	AI 16 - 0
1.1	2.15	3/8	16	16 ER/IL R1.10	AE 16 - 0	16 IR/EL R1,10	AI 16 - 0
1.2	2.25	3/8	16	16 ER/IL R1.20	AE 16 - 0	16 IR/EL R1.20	AI 16 - 0

Order example: 16ER/IL R1.20 BXC
* The inserts should be used with our standard threading toolholders
* The anvil must be changed to AE 16-0 or AI 16-0 before using size 16mm (3/8") inserts
* Size 16 internal holders without anvil can't be used

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Grooving Kits



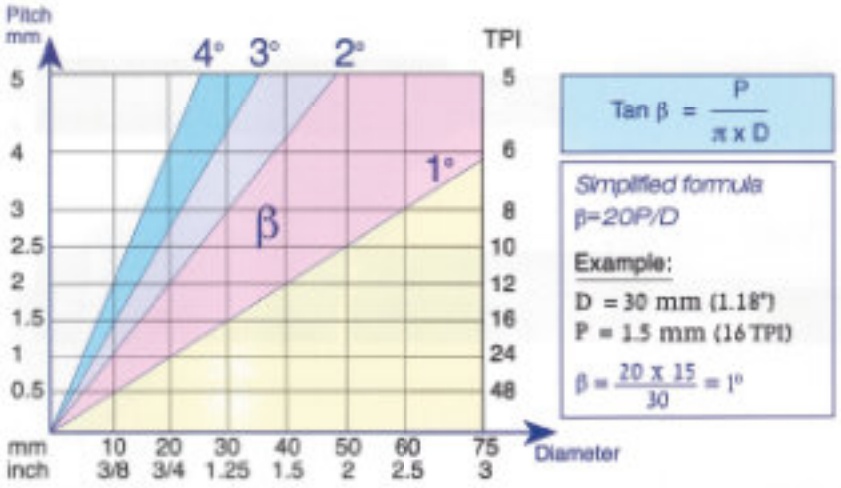
ER / IL INSERT KGRO - EXTERNAL		
16 ER / IL 1.0	BXC	1 unit
16 ER / IL 1.2	BXC	1 unit
16 ER / IL 1.4	BXC	1 unit
16 ER / IL 1.7	BXC	1 unit
16 ER / IL 1.95	BXC	1 unit
16 ER / IL 2.25	BXC	1 unit
ANVIL AE 16 - 0		1 unit

IR / EL INSERT KGRO - INTERNAL		
16 IR / EL 1.0	BXC	1 unit
16 IR / EL 1.2	BXC	1 unit
16 IR / EL 1.4	BXC	1 unit
16 IR / EL 1.7	BXC	1 unit
16 IR / EL 1.95	BXC	1 unit
16 IR / EL 2.25	BXC	1 unit
ANVIL AI 16 - 0		1 unit

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Thread Helix Angle

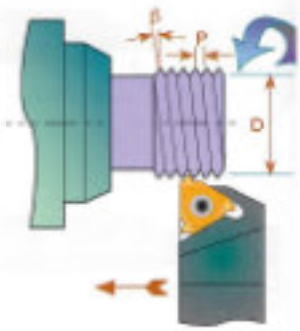


$$\tan\beta = \frac{P}{\pi \times D}$$

Simplified formula
$\beta = 20P/D$

Example:
D = 30 mm (1.18")
P = 1.5 mm (16 TPI)

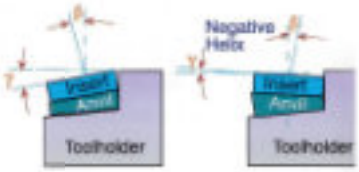
$$\beta = \frac{20 \times 15}{30} = 1°$$



Standard and Slanted Anvils

CARMEX Toolholder Pockets have a built in 1.5° helix angle. This angle may be adjusted to better match the thread helix angle by simply changing the anvil.

Negative helix is usually used when threading RH thread with LH Holder or LH thread with RH Holder.



L	IC	Pocket Angle γ ⟶ 4.5°	3.5°	2.5°	1.5° Standard	0.5°	-0.5°	-1.5°
16	3/8	EX-RH OR IN-LH	AE16+4.5	AE16+3.5	AE16+2.5	**AE16**	AE16+0.5	AE16-0.5	AE16-1.5
16	3/8	EX-LH OR IN-RH	AI 16+4.5	AI 16+3.5	AI 16+2.5	**AI 16**	AI 16+0.5	AI 16-0.5	AI 16-1.5
22	1/2	EX-RH OR IN-LH	AE22+4.5	AE22+3.5	AE22+2.5	**AE22**	AE22+0.5	AE22-0.5	AE22-1.5
22	1/2	EX-LH OR IN-RH	AI 22+4.5	AI 22+3.5	AI 22+2.5	**AI 22**	AI 22+0.5	AI 22-0.5	AI 22-1.5
22U	1/2U	EX-RH OR IN-LH	AE22U+4.5	AE22U+3.5	AE22U+2.5	**AE22U**	AE22U+0.5	AE22U-0.5	AE22U-1.5
22U	1/2U	EX-LH OR IN-RH	AI 22U+4.5	AI 22U+3.5	AI 22U+2.5	**AI 22U**	AI 22U+0.5	AI 22U-0.5	AI 22U-1.5
27	5/8	EX-RH OR IN-LH	AE27+4.5	AE27+3.5	AE27+2.5	**AE27**	AE27+0.5	AE27-0.5	AE27-1.5
27	5/8	EX-LH OR IN-RH	AI 27+4.5	AI 27+3.5	AI 27+2.5	**AI 27**	AI 27+0.5	AI 27-0.5	AI 27-1.5
27U	5/8U	EX-RH OR IN-LH	AE27U+4.5	AE27U+3.5	AE27U+2.5	**AE27U**	AE27U+0.5	AE27U-0.5	AE27U-1.5
27U	5/8U	EX-LH OR IN-RH	AI 27U+4.5	AI 27U+3.5	AI 27U+2.5	**AI 27U**	AI 27U+0.5	AI 27U-0.5	AI 27U-1.5

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Anvil Kits

5 AE and 5 AI anvils with various helix angles





AE (FOR EX.RH. & IN.LH.)



AI (FOR IN.RH. & EX.LH.)

Ordering Code	Contents				
KA16	AE16+4.5 AI 16+4.5	AE16+3.5 AI 16+3.5	AE16+2.5 AI 16+2.5	AE16+0.5 AI 16+0.5	AE16-1.5 AI 16-1.5
KA22	AE22+4.5 AI 22+4.5	AE22+3.5 AI 22+3.5	AE22+2.5 AI 22+2.5	AE22+0.5 AI 22+0.5	AE22-1.5 AI 22-1.5
KA22U	AE22U+4.5 AI 22U+4.5	AE22U+3.5 AI 22U+3.5	AE22U+2.5 AI 22U+2.5	AE22U+0.5 AI 22U+0.5	AE22U-1.5 AI 22U-1.5
KA27	AE27+4.5 AI 27+4.5		AE27+2.5 AI 27+2.5		AE27-1.5 AI 27-1.5
KA27U	AE27U+4.5 AI 27U+4.5		AE27U+2.5 AI 27U+2.5		AE27U-1.5 AI 27U-1.5

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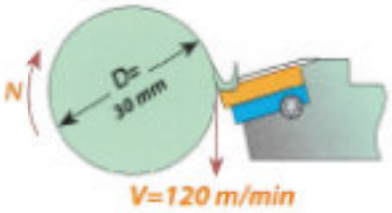
Recommended cutting speed (m/min) for thread turning inserts

ISO Standard	Material		Condition	HBA	BLU	BMA	P25C	MXC	BXC	K20	P30
P	Non-Alloy Steel and Cast Steel, Free Cutting Steel	<0.25%C	Annealed		110-210	120-180	100-180	100-180	70-150		50-130
		≥0.25%C	Annealed								
		<0.55%C	Quenched & Tempered								
		≥0.55%C	Annealed								
			Quenched & Tempered								
	Low Alloy Steel and Cast Steel (less than 5% alloying elements)		Annealed		90-140	80-130	70-120	70-120	60-90		50-80
			Quenched & Tempered								
	High Alloy Steel, Cast Steel and Tool Steel		Annealed		70-90	60-80	50-60	55-70	50-60		40-50
			Quenched & Tempered								
M	Stainless Steel and Cast Steel		Ferritic / Martensitic		110-160	90-130	60-90	60-90	50-80	50-80	
			Martensitic								
			Austenitic								
K	Cast Iron Nodular (GGG)		Ferritic / Pearlitic		120-150	100-130		80-110	60-90		
			Pearlitic								
	Grey Cast Iron (GG)		Ferritic		140-150	120-130		90-100	65-85		
			Pearlitic								
	Malleable Cast Iron		Ferritic		110-140	100-130		80-100	60-85		
			Pearlitic								
N	Aluminum-Wrought Alloy		Not Cureable		700-1000			600-800	450-600	600-800	350-500
			Cured								
	Aluminum-Cast, Alloyed	<=12% Si	Not Cureable		280-750			200-550	150-350	200-550	110-300
			Cured								
		>12% Si	High Temperature								
	Copper Alloys	>1% Pb	Free Cutting		190-350			150-250	110-180	150-250	90-150
			Brass								
			Electrolytic Copper								
	Non Metallic		Duroplastics, Fiber Plastics					200-300	150-210	100-200	110-150
			Hard Rubber								
S	High Temp. Alloys, Super Alloys	Fe based	Annealed	20-80	30-65	25-60					
			Cured								
		Ni or Co based	Annealed								
			Cured								
			Cast								
	Titanium Alloys		Alpha +Beta Alloys Cured	30-60	40-50	35-45				35-45	
H	Hardened Steel		Hardened 45-50 HRc	30-60	40-50	35-45					
			Hardened 51-55 HRc								
			Hardened 56-62 HRc								
	Chilled Cast Iron		Cast	20-50	30-40	25-35					
	Cast Iron		Hardened	20-40	20-30	15-25					

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Conversion of Cutting Speed to Rotational Speed

Conversion of a selected cutting speed to rotational speed is calculated by the following formula:



Example

$$N = \frac{V \times 1000}{\pi \times D} = \frac{120 \times 1000}{3.14 \times 30} = 1274\ RPM$$

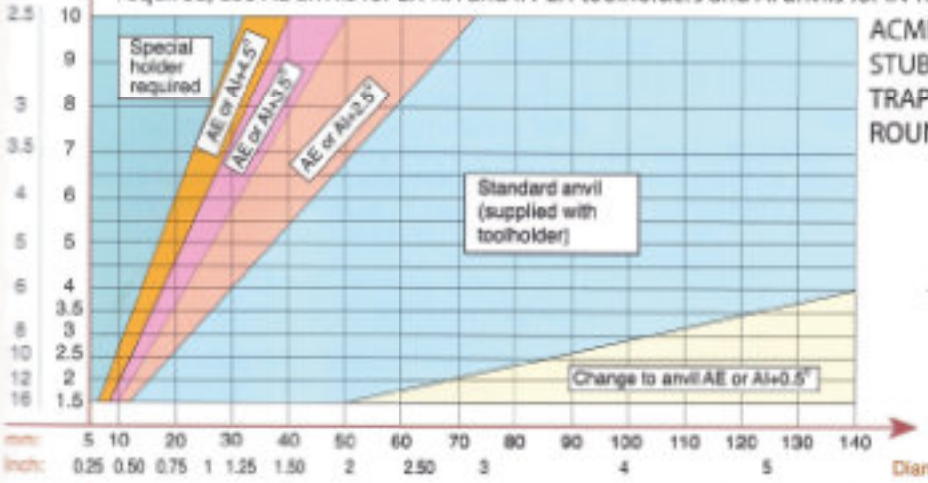
Number of passes and depth of cut per pass for multitooth insert

	Pitch mm	Insert Size		No. of Teeth	Ordering Code	No. of Passes	Depth of Cut per pass			
		L	I.C. (in)				1	2	3	4
ISO External	1.00	16	3/8	3	16 ER 1.0 ISO 3M	2	0.38	0.25		
	1.50	16	3/8	2	16 ER 1.5 ISO 2M	3	0.42	0.30	0.20	
	1.50	22	1/2	3	22 ER 1.5 ISO 3M	2	0.55	0.37		
	2.00	22	1/2	2	22 ER 2.0 ISO 2M	3	0.57	0.40	0.28	
	2.00	22	1/2	3	22 ER 2.0 ISO 3M	2	0.76	0.49		
	3.00	27	5/8	2	27 ER 3.0 ISO 2M	4	0.59	0.51	0.42	0.32
ISO Internal	1.00	16	3/8	3	16 IR 1.0 ISO 3M	2	0.33	0.25		
	1.50	16	3/8	2	16 IR 1.5 ISO 2M	3	0.38	0.29	0.20	
	1.50	22	1/2	3	22 IR 1.5 ISO 3M	2	0.50	0.37		
	2.00	22	1/2	2	22 IR 2.0 ISO 2M	3	0.52	0.37	0.26	
	2.00	22	1/2	3	22 IR 2.0 ISO 3M	2	0.70	0.45		
	3.00	27	5/8	2	27 IR 3.0 ISO 2M	4	0.58	0.46	0.39	0.30
UN External	16	16	3/8	2	16 ER 16 UN 2M	3	0.44	0.31	0.22	
	16	22	1/2	3	22 ER 16 UN 3M	2	0.58	0.39		
	12	22	1/2	2	22 ER 12 UN 2M	3	0.59	0.42	0.30	
	12	22	1/2	3	22 ER 12 UN 3M	2	0.78	0.52		
	8	27	5/8	2	27 ER 8 UN 2M	4	0.62	0.54	0.45	0.35
UN Internal	16	16	3/8	2	16 IR 16 UN 2M	3	0.42	0.28	0.22	
	16	22	1/2	3	22 IR 16 UN 3M	2	0.55	0.37		
	12	22	1/2	2	22 IR 12 UN 2M	3	0.53	0.38	0.31	
	12	22	1/2	3	22 IR 12 UN 3M	2	0.74	0.48		
	8	27	5/8	2	27 IR 8 UN 2M	4	0.63	0.50	0.40	0.30
Whitworth 55° External	14	16	3/8	2	16 ER 14 W 2M	3	0.52	0.37	0.27	
	14	22	1/2	3	22 ER 14 W 3M	2	0.70	0.46		
	11	22	1/2	2	22 ER 11 W 2M	3	0.67	0.47	0.34	
Whitworth 55° Internal	14	16	3/8	2	16 IR 14 W 2M	3	0.52	0.37	0.27	
	14	22	1/2	3	22 IR 14 W 3M	2	0.70	0.46		
	11	22	1/2	2	22 IR 11 W 2M	2	0.67	0.47	0.34	
NPT External	14	16	3/8	2	16 ER 14 NPT 2M	3				
	11.5	22	1/2	2	22 ER 11.5 NPT 2M	4	0.54	0.47	0.37	0.30
	11.5	27	5/8	3	27 ER 11.5 NPT 3M	4	0.76	0.54	0.38	
	8	27	5/8	2	27 ER 8 NPT 2M	4	0.81	0.60	0.55	0.45
NPT Internal	14	16	3/8	2	16 IR 14 NPT 2M	3				
	11.5	22	1/2	2	22 IR 11.5 NPT 2M	4	0.54	0.47	0.37	0.30
	11.5	27	5/8	3	27 IR 11.5 NPT 3M	4	0.76	0.54	0.38	
	8	27	5/8	2	27 IR 8 NPT 2M	4	0.81	0.60	0.55	0.45
API Round External	10	22	1/2	2	22 ER 10 APIRD 2M	3	0.60	0.50	0.31	
	10	27	5/8	3	27 ER 10 APIRD 3M	2	1.00	0.41		
	8	27	5/8	2	27 ER 8 APIRD 2M	3	0.80	0.60	0.41	
API Round Internal	10	22	1/2	2	22 IR 10 APIRD 2M	3	0.60	0.50	0.31	
	10	27	5/8	3	27 IR 10 APIRD 3M	2	1.00	0.41		
	8	27	5/8	2	27 IR 8 APIRD 2M	3	0.80	0.60	0.41	

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Anvil Change Recommendation

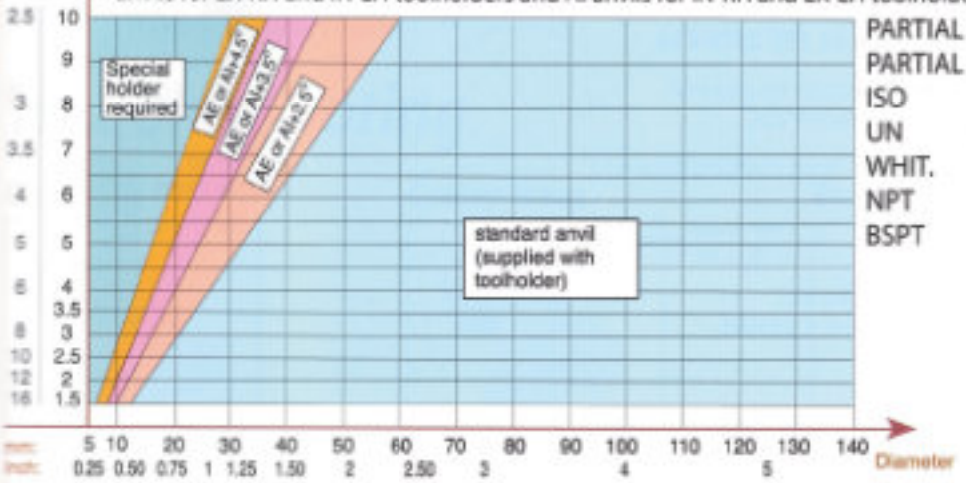
As can be seen from the chart, some Pitch to Diameter combinations require an anvil change. If change is required, use AE anvils for EX-RH and IN-LH toolholders and AI anvils for IN-RH and EX-LH toolholders.



ACME
STUB ACME
TRAPEZ (DIN 103)
ROUND (DIN 405)

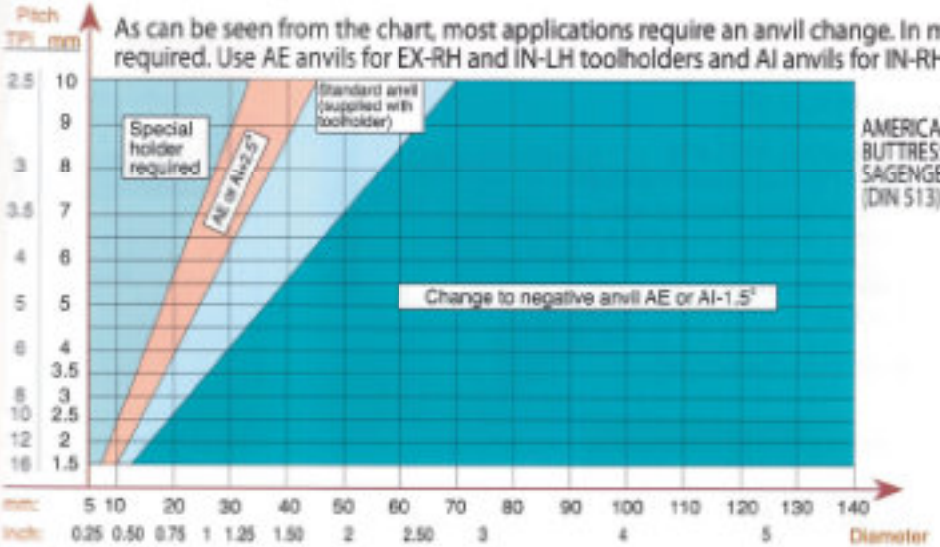


As can be seen from the chart, most applications do not require an anvil change. If change is required, use AE anvils for EX-RH and IN-LH toolholders and AI anvils for IN-RH and EX-LH toolholders.

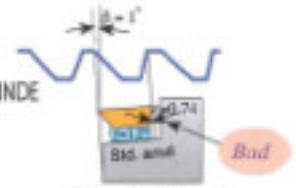


PARTIAL PROFILE 60°
PARTIAL PROFILE 55°
ISO
UN
WHIT.
NPT
BSPT

As can be seen from the chart, most applications require an anvil change. In most cases a negative anvil is required. Use AE anvils for EX-RH and IN-LH toolholders and AI anvils for IN-RH and EX-LH toolholders.

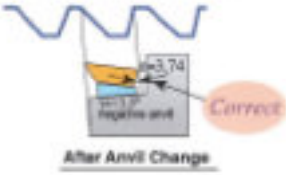


AMERICAN BUTTRESS SAGENGEWINDE (DIN 513)



Before Anvil change

Replacing the standard anvil with an anvil with negative angle, will eliminate side rubbing

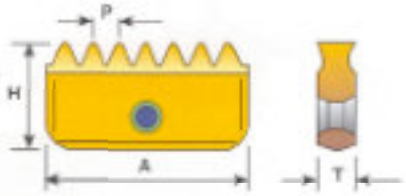


After Anvil Change

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ISO





Pitch mm		Insert Size = A 12	14	21	30	40
0.5	Ext.					
0.5	Int.	* 12 I 0.5 ISO	14 I 0.5 ISO			
0.75	Ext.		14 E 0.75 ISO			
0.75	Int.	* 12 I 0.75 ISO	14 I 0.75 ISO			
1.0	Ext.		14 E 1.0 ISO	21 E 1.0 ISO		
1.0	Int.	* 12 I 1.0 ISO	14 I 1.0 ISO	21 I 1.0 ISO		
1.25	Ext.		14 E 1.25 ISO			
1.25	Int.	* 12 I 1.25 ISO	14 I 1.25 ISO			
1.5	Ext.		14 E 1.5 ISO	21 E 1.5 ISO	30 E 1.5 ISO	40 E 1.5 ISO
1.5	Int.	* 12 I 1.5 ISO	14 I 1.5 ISO	21 I 1.5 ISO	30 I 1.5 ISO	40 I 1.5 ISO
1.75	Ext.		14 E 1.75 ISO			
1.75	Int.		14 I 1.75 ISO	21 I 1.75 ISO		
2.0	Ext.		14 E 2.0 ISO	21 E 2.0 ISO	30 E 2.0 ISO	40 E 2.0 ISO
2.0	Int.		14 I 2.0 ISO	21 I 2.0 ISO	30 I 2.0 ISO	40 I 2.0 ISO
2.5	Ext.		14 E 2.5 ISO	21 E 2.5 ISO		
2.5	Int.		14 I 2.5 ISO	21 I 2.5 ISO		
3.0	Ext.			21 E 3.0 ISO	30 E 3.0 ISO	40 E 3.0 ISO
3.0	Int.			21 I 3.0 ISO	30 I 3.0 ISO	40 I 3.0 ISO
3.5	Ext.				30 E 3.5 ISO	
3.5	Int.			21 I 3.5 ISO	30 I 3.5 ISO	40 I 3.5 ISO
4.0	Ext.				30 E 4.0 ISO	40 E 4.0 ISO
4.0	Int.				30 I 4.0 ISO	40 I 4.0 ISO
4.5	Ext.					
4.5	Int.				30 I 4.5 ISO	40 I 4.5 ISO
5.0	Ext.					40 E 5.0 ISO
5.0	Int.				30 I 5.0 ISO	40 I 5.0 ISO
5.5	Ext.					
5.5	Int.				30 I 5.5 ISO	40 I 5.5 ISO
6.0	Ext.					40 E 6.0 ISO
6.0	Int.					40 I 6.0 ISO

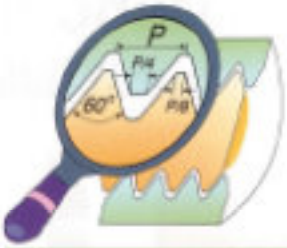
H	6.3	7.5	12	16	20
T	2.9	3.1	4.7	5.5	6.3

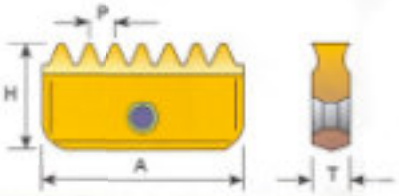
Order example: 14 I 1.5 ISO MT7

* One cutting edge

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UN UNC, UNF, UNEF, UNS





Pitch TPI		Insert Size = A				
		12	14	21	30	40
32	Ext.		14 E 32 UN			
32	Int.	* 12 I 32 UN	14 I 32 UN			
28	Ext.		14 E 28 UN			
28	Int.	* 12 I 28 UN	14 I 28 UN			
27	Ext.					
27	Int.		14 I 27 UN			
24	Ext.		14 E 24 UN	21 E 24 UN		
24	Int.	* 12 I 24 UN	14 I 24 UN	21 I 24 UN		
20	Ext.		14 E 20 UN	21 E 20 UN	30 E 20 UN	
20	Int.	* 12 I 20 UN	14 I 20 UN	21 I 20 UN	30 I 20 UN	
18	Ext.		14 E 18 UN	21 E 18 UN	30 E 18 UN	
18	Int.	* 12 I 18 UN	14 I 18 UN	21 I 18 UN	30 I 18 UN	
16	Ext.		14 E 16 UN	21 E 16 UN	30 E 16 UN	40 E 16 UN
16	Int.	* 12 I 16 UN	14 I 16 UN	21 I 16 UN	30 I 16 UN	40 I 16 UN
14	Ext.		14 E 14 UN	21 E 14 UN	30 E 14 UN	40 E 14 UN
14	Int.		14 I 14 UN	21 I 14 UN	30 I 14 UN	40 I 14 UN
12	Ext.		14 E 12 UN	21 E 12 UN	30 E 12 UN	40 E 12 UN
12	Int.		14 I 12 UN	21 I 12 UN	30 I 12 UN	40 I 12 UN
11	Ext.		14 E 11 UN	21 E 11 UN		
11	Int.		14 I 11 UN			
10	Ext.		14 E 10 UN	21 E 10 UN	30 E 10 UN	40 E 10 UN
10	Int.		14 I 10 UN	21 I 10 UN	30 I 10 UN	40 I 10 UN
9	Ext.					
9	Int.		.: 14 I 9 UN			
8	Ext.				30 E 8 UN	40 E 8 UN
8	Int.			21 I 8 UN	30 I 8 UN	40 I 8 UN
7	Ext.					
7	Int.			21 I 7 UN		
6	Ext.				30 E 6 UN	40 E 6 UN
6	Int.				30 I 6 UN	40 I 6 UN
5	Ext.					
5	Int.				30 I 5 UN	
4.5	Ext					
4.5	Int.					40 I 4.5UN
4	Ext					
4	Int.					40 I 4 UN
H		6.3	7.5	12	16	20
T		2.9	3.1	4.7	5.5	6.3

Order example: 21 I 18 UN MT7

* One cutting edge

** Cannot be used with carbide shank Toolholders.

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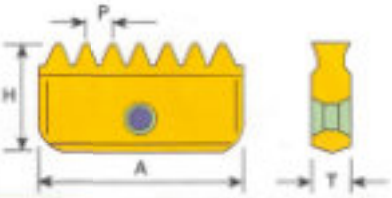
Mill - Thread Inserts

Carmex Precision Tools Ltd.

WHIT BSW, BSF, BSP



Same Insert for External and Internal thread.



Pitch TPI	Insert Size = A 12	14	21	30	40
24		14-24 W			
20		14-20 W	21-20 W		
19	* 12 - 19 W	14-19 W	21-19 W		
16		14-16 W	21-16 W	30-16 W	
14		14-14 W	21-14 W	30-14 W	
11		14-11 W	21-11 W	30-11 W	40-11 W
8					40- 8 W
H	6.3	7.5	12	16	20
T	2.9	3.1	4.7	5.5	6.3

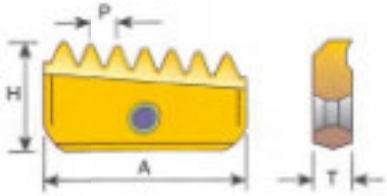
* One cutting edge

Order example: 21-11 W MT7

BSPT



Conical pipe thread inserts are one-sided and may be used for both External and Internal threading.

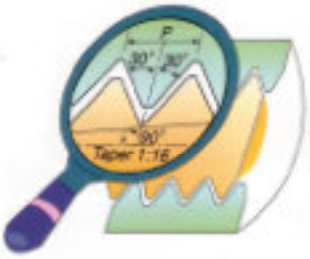


Pitch TPI	Insert Size = A 12	14	21	30	40
19	12-19 BSPT	14-19 BSPT			
14		14-14 BSPT	21-14 BSPT		
11			21-11 BSPT	30-11 BSPT	40-11 BSPT
H	6.3	7.5	12	16	20
T	2.9	3.1	4.7	5.5	6.3

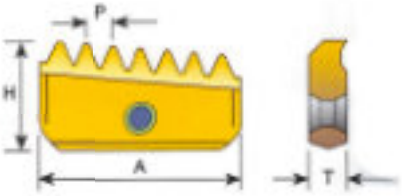
Order example: 14-19 BSPT MT7

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NPT



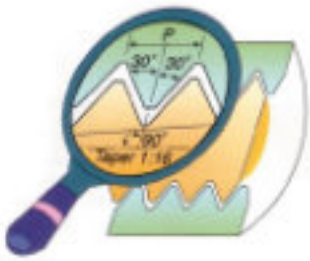
Conical pipe thread inserts are one-sided and may be used for both External and Internal threading.



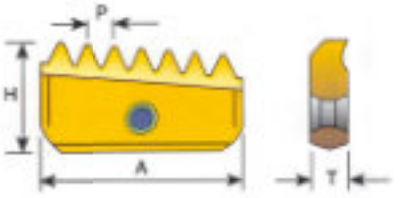
Pitch TPI	Insert Size = A 12	14	21	30	40
18	12-18 NPT	14-18 NPT			
14		14-14 NPT	21-14 NPT		
11.5			21-11.5 NPT	30-11.5 NPT	40-11.5 NPT
8				30- 8 NPT	40- 8 NPT
H	6.3	7.5	12	16	20
T	2.9	3.1	4.7	5.5	6.3

Order example: 30-11.5 NPT MT7

NPTF



Conical pipe thread inserts are one-sided and may be used for both External and Internal threading.



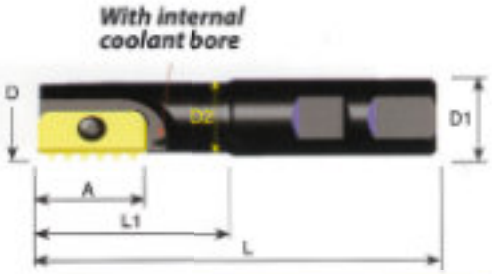
Pitch TPI	Insert Size = A 12	14	21	30	40
18	12-18 NPTF	14-18 NPTF			
14		14-14 NPTF	21-14 NPTF		
11.5			21-11.5 NPTF	30-11.5 NPTF	40-11.5 NPTF
8				30- 8 NPTF	40- 8 NPTF
H	6.3	7.5	12	16	20
T	2.9	3.1	4.7	5.5	6.3

Order example: 21-14 NPTF MT7

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Single Insert Toolholders





Ordering Code	A	D	D1	D2	L	L1	Insert Screw	Torx Key
* SR0009H12	12	9.5	20	7.5	85	14	S12	K12
SR0010H12	12	9.9	20	7.6	85	16	S12	K12
SR0012F14	14	12.0	20	8.9	75	20	S14	K14
SR0014H14	14	14.5	20	11.2	85	25	S14	K14
SR0017H14	14	17.0	20	13.4	85	30	S14	K14
** SR0018H21	21	18.0	20	14.4	85	30	S21	K21
SR0021H21	21	21.0	20	16.5	94	40	S21	K21
SR0029J30	30	29.0	25	22.4	110	50	S30	K30
SR0048M40	40	48.0	40	35.0	153	78	S40	K40

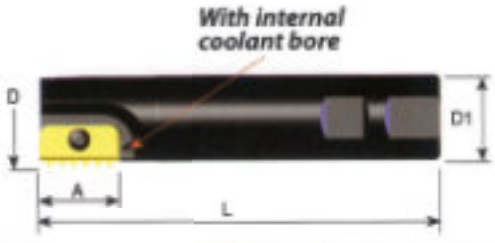
Order example: SR0029J30

* Not for conical inserts: 12-18 NPT, 12-18 NPTF, 12-19 BSPT

** Cannot be used with the following inserts:
21 I 3.5 ISO, 21 I 8 UN, 21 I 7 UN, 21-11 BSPT, 21-11.5 NPT, 21-11.5 NPTF

Long Shank Toolholders





Ordering Code	A	D	D1	L	Insert Screw	Torx Key
SR0025K21	21	25	20	125	S21	K21
SR0031M30	30	31	25	150	S30	K30
SR0038M30	30	38	32	150	S30	K30
SR0048R40	40	48	40	210	S40	K40

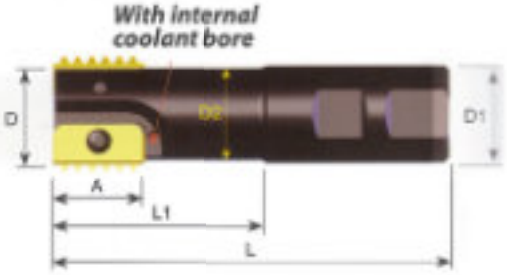
Order example: SR0031M30

For holders with long overhang reduce the cutting speed and feed rate between 20% to 40% (depends on workpiece material, pitch and overhang)

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Twin Insert Toolholders





Ordering Code	A	D	D1	D2	L	L1	No. of Inserts	Insert Screw	Torx Key
SR0020H14-2	14	20	20	16	93	41	2	S14	K14
SR0030J21-2	21	30	25	24	108	52	2	S21	K21
SR0040L30-2	30	40	32	30	130	70	2	S30	K30
SR0050M40-2	40	50	40	38	153	78	2	S40	K40

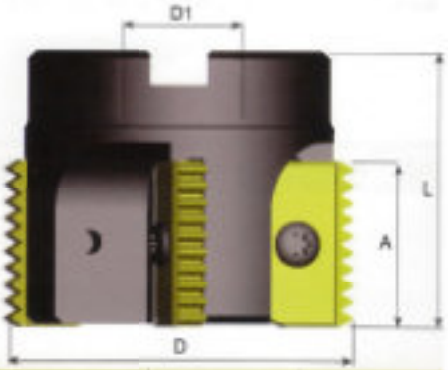
Order example: SR0040L30-2

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Multi Insert Toolholders



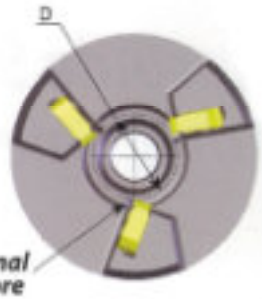


Ordering Code	A	D	D1	L	No. of Inserts	Insert Screw	Torx Key
SR0063C21-5	21	63	22	50	5	S21	K21
SR0063C30-4	30	63	22	50	4	S30	K30
SR0080D30-4	30	80	27	55	4	S30	K30
SR0100D30-4	30	100	32	60	4	S30	K30
SR0100D30-8	30	100	32	60	8	S30	K30
SR0080D40-4	40	80	27	65	4	S40	K40
SR0100E40-4	40	100	32	70	4	S40	K40
SR0100E40-6	40	100	32	70	6	S40	K40

Order example: SR0080D30-4

External Multi Insert Toolholder

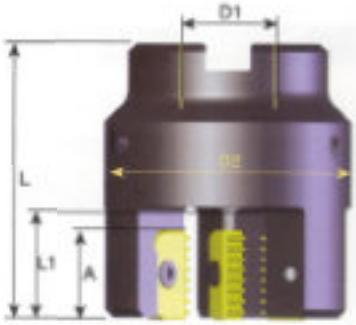
- Reduced machining time
- Optimal coolant supply



With internal coolant bore







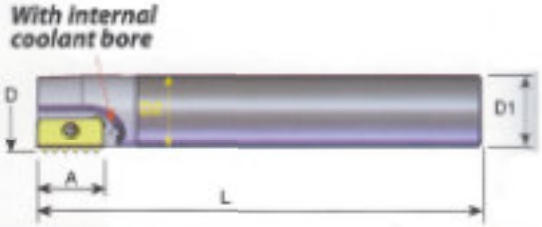
Ordering Code	A	D	D1	D2	L	L1	No. of Inserts	Insert Screw	Torx Key
SLE0020D21-3	21	20	22	58	65	25	3	S21	K21
SLE0030D21-3	21	30	22	68	65	25	3	S21	K21
SLE0045E21-4	21	45	27	83	70	25	4	S21	K21

Order example: SLE0030D21-3

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Long Carbide Shank Toolholders





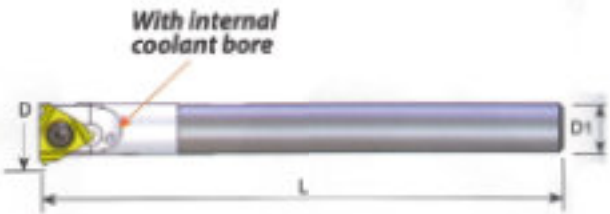
Ordering Code	A	D	D1	D2	L	Insert Screw	Torx Key
SR0010K12C	12	9.9	8	8	125	S12	K12
SR0013H14C	14	13.2	10	10	110	S14	K14
SR0013J14C	14	13.2	10	10	155	S14	K14
SR0015K14C	14	15.2	12	12	175	S14	K14
SR0021K21C	21	21.0	16	16	130	S21	K21
SR0021M21C	21	21.0	16	16	200	S21	K21
SR0027S30C	30	27.0	20	20	270	S30	K30

Order example: SR0015K14C

For holders with long overhang reduce the cutting speed and feed rate between 20% to 40% (depends on workpiece material, pitch and overhang)

Carbide Shank Toolholders for Single Point Threading





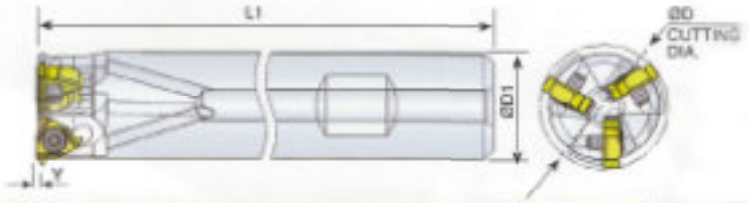
Ordering Code		Pitch Range mm	Pitch Range TPI	D	D1	L	Insert Screw	Torx Key
SR0005D06C	6	0.5-1.25	48-20	6.8	5.0	63	S06	K06
SR0006H08C	8	0.5-1.75	48-14	8.8	6.0	100	S08	K08
* SR0010M11C	11	0.5-2.00	48-11	13.2	10.0	150	S11	K11

For Inserts see the Thread Turning Tools section of this catalog
For an internal application use an internal R.H. insert.

* For an external application use an external L.H. insert.

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D-Thread Mill-Thread Inserts & Toolholders for machining deep threads



Ordering Code	Insert Size L	Insert Size I.C	Y	D	D1	L1	No. of Inserts	Insert Screw	Torx Key
SR0023Q11	11	1/4	1	23.5	20	190	3	SE11	K11

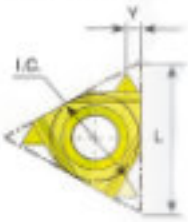
Partial 60° Size 11

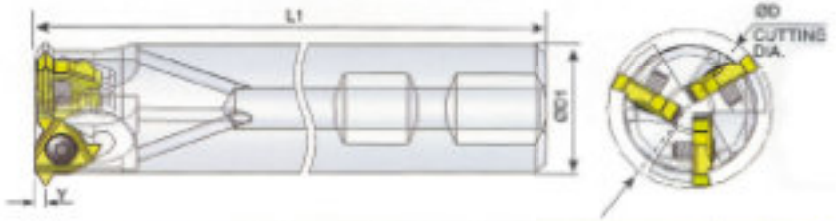
Ordering Code		Pitch mm	Pitch TPI
11 60D	INT.	1.0 - 2.0	24 - 12
	EX.	0.75 - 1.5	32 - 14

Coated Grade: BMA

Partial 55° Size 11

Ordering Code		Pitch TPI
11 55D	INT./EX.	24 - 14





Ordering Code	Insert Size L	Insert Size I.C	Y	D	D1	L1	No. of Inserts	Insert Screw	Torx Key
SR0031R16	16	3/8	1.8	31	25	225	3	SE16	K16

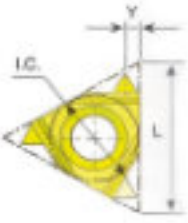
Partial 60° Size 16

Ordering Code		Pitch mm	Pitch TPI
16 60D	INT.	2.5 - 3.5	10 - 7
	EX.	2.0 - 3.0	12 - 8

Coated Grade: BMA

Partial 55° Size 16

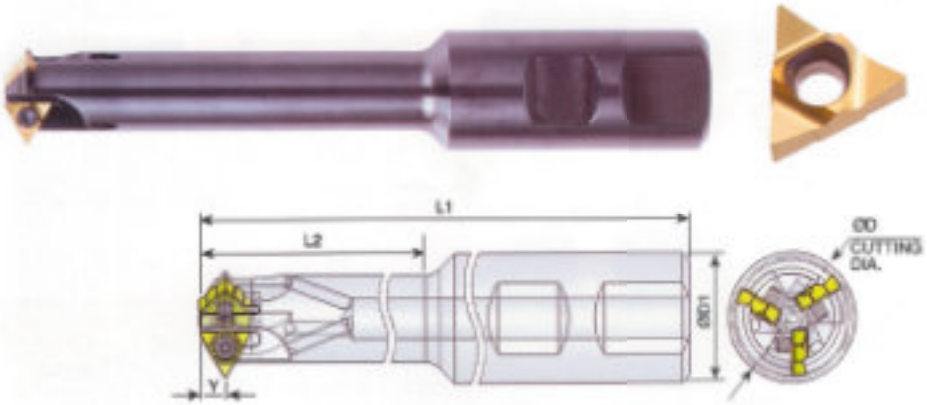
Ordering Code		Pitch TPI
16 55D	INT./EX.	12 - 8



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BF SERVICE

D-Thread Mill-Thread Inserts & Toolholders for machining deep threads



Ordering Code	Insert Size L	Insert Size I.C	Y	D	D1	L1	L2	No. of Inserts	Insert Screw	Torx Key
SR0023M11U	11U	1/4U	5	23	25	150	88	3	SE11	K11

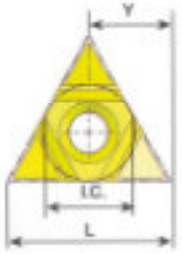
Partial 60° Size 11U

Ordering Code		Pitch mm	Pitch TPI
11U 60D	INT.	2.5 - 4.0	10 - 6
	EX.	2.0 - 3.0	12 - 8
11U 60D-18-12	INT.	1.5 - 2.0	18 - 12
	EX.	1.25 - 1.75	20 - 14

Coated Grade: BMA

Partial 55° Size 11U

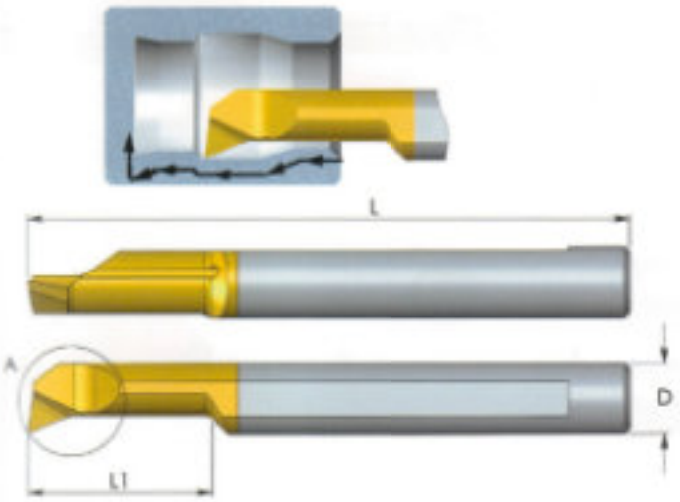
Ordering Code		Pitch TPI
11U 55D	INT./EX.	12 - 7

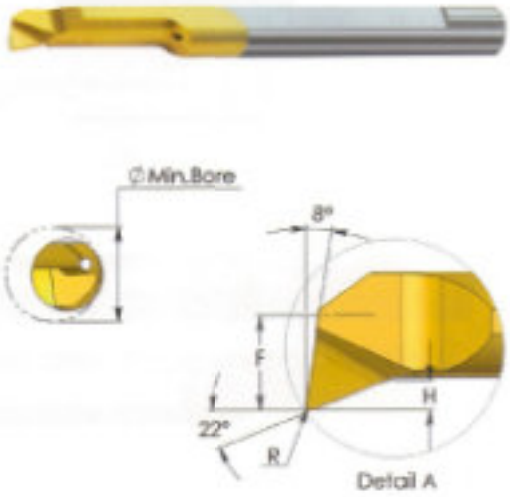


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MPR Bars Profiling and Boring





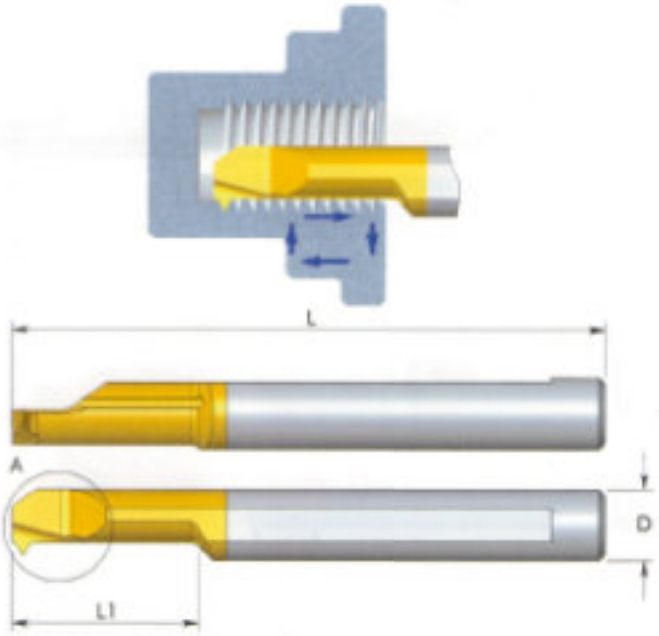
D	Ordering Code	L	L1	R	H	F	Min. Bore Dia.	Holder*
5.0	MPR 5 R0.1 L22	51	22	0.10	1.2	2.1	5.1	SIM ... H5
	MPR 5 R0.1 L30	76	30	0.10	1.2	2.1	5.1	
	MPR 5 R0.2 L10	51	10	0.20	1.2	2.1	5.1	
	MPR 5 R0.2 L15	51	15	0.20	1.2	2.1	5.1	
	MPR 5 R0.2 L22	51	22	0.20	1.2	2.1	5.1	
	MPR 5 R0.2 L30	76	30	0.20	1.2	2.1	5.1	
6.0	MPR 6 R0.2 L15	51	15	0.20	1.4	2.8	6.1	SIM ... H6
	MPR 6 R0.2 L22	51	22	0.20	1.4	2.8	6.1	
	MPR 6 R0.2 L30	76	30	0.20	1.4	2.8	6.1	
7.0	MPR 7 R0.2 L22	62	22	0.20	1.5	3.3	7.1	SIM ... H7
	MPR 7 R0.2 L30	62	30	0.20	1.5	3.3	7.1	
	MPR 7 R0.2 L35	62	35	0.20	1.5	3.3	7.1	
8.0	MPR 8 R0.2 L15	64	15	0.20	1.6	3.8	8.1	SIM ... H8
	MPR 8 R0.2 L22	64	22	0.20	1.6	3.8	8.1	
	MPR 8 R0.2 L35	76	35	0.20	1.6	3.8	8.1	
10.0	MPR 10 R0.2 L35	73	35	0.20	2.0	4.8	10.1	SIM ... H10

Order example: MPR 4 R0.2 L15 BXC
For L.H. Bars specify MPL instead of MPR

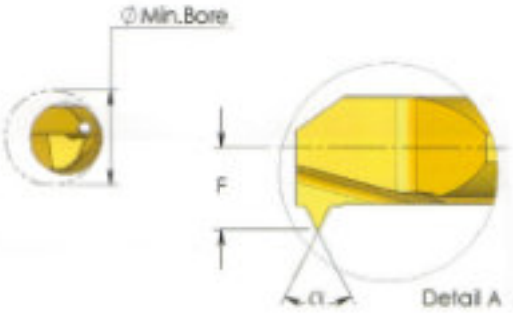
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MIR Bars Threading







Partial Profile 55°

D	Ordering Code	L	L1	α	Pitch Range mm	Pitch Range TPI	F	Min. Bore Dia.	Holder*
3.0	MIR 3 L15 A55	39	15	55	0.5 - 1.0	48 - 24	1.4	3.2	SIM ... H3
4.0	MIR 4 L15 A55	51	15	55	0.5 - 1.0	48 - 24	1.8	4.1	SIM ... H4
5.0	MIR 5 L15 A55	51	15	55	0.5 - 1.25	48 - 20	2.3	5.1	SIM ... H5
	MIR 5 L22 A55	51	22	55	0.5 - 1.25	48 - 20	2.3	5.1	
6.0	MIR 6 L15 A55	51	15	55	0.5 - 1.5	48 - 16	2.6	6.0	SIM ... H6
	MIR 6 L22 A55	51	22	55	0.5 - 1.5	48 - 16	2.6	6.0	

Order example: MIR 5 L15 A55 BXC

Partial Profile 60°

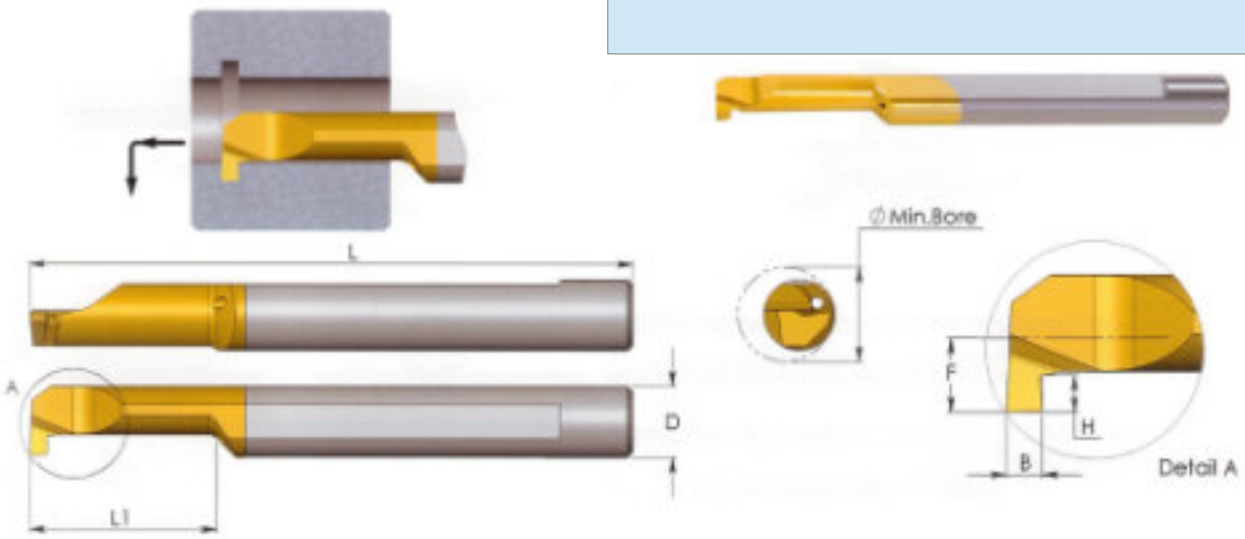
D	Ordering Code	L	L1	α	Pitch Range mm	Pitch Range TPI	F	Min. Bore Dia.	Holder*
3.0	MIR 1 L5 A60	39	4.8	60	0.25 - 0.35	100 - 72	0.55	1.2	SIM ... H3
	MIR 1.5 L6 A60	39	6.3	60	0.35 - 0.45	72 - 56	0.65	1.4	
3.0	MIR 2 L8 A60	39	8	60	0.45 - 0.7	56 - 32	1.0	2.1	SIM ... H3
3.0	MIR 3 L15 A60	39	15	60	0.7 - 1.0	32 - 24	1.4	3.2	SIM ... H3
4.0	MIR 4 L15 A60	51	15	60	0.8 - 1.0	32 - 24	1.8	4.1	SIM ... H4
5.0	MIR 5 L15 A60	51	15	60	1.0 - 1.25	24 - 20	2.3	5.1	SIM ... H5
	MIR 5 L22 A60	51	22	60	1.0 - 1.25	24 - 20	2.3	5.1	
6.0	MIR 6 L15 A60	51	15	60	1.0 - 1.5	24 - 16	2.6	6.0	SIM ... H6
	MIR 6 L22 A60	51	22	60	1.0 - 1.5	24 - 16	2.6	6.0	
8.0	MIR 8 L22 A60	64	22	60	1.0 - 2.0	24 - 13	3.6	8.0	SIM ... H8

Order example: MIR 5 L15 A60 BXC
For L.H. bars specify MIL instead of MIR

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MGR Bars Grooving



D	Ordering Code	L	L1	B	H	F	Min. Bore Dia.	Holder*
3.0	MGR 3 B0.7 L10	39	10	0.7	0.6	1.3	1.3	SIM ... H3
4.0	MGR 4 B1.0 L10	51	10	1.0	1.0	1.7	4.1	SIM ... H4
	MGR 4 B1.0 L15	51	15	1.0	1.0	1.7	4.1	
	MGR 4 B1.5 L10	51	10	1.5	1.0	1.7	4.1	
5.0	MGR 5 B1.0 L15	51	15	1.0	1.2	2.3	5.1	SIM ... H5
	MGR 5 B1.0 L22	51	22	1.0	1.2	2.3	5.1	
	MGR 5 B1.5 L15	51	15	1.5	1.2	2.3	5.1	
	MGR 5 B1.5 L22	51	22	1.5	1.2	2.3	5.1	
	MGR 5 B2.0 L15	51	15	2.0	1.2	2.3	5.1	
	MGR 5 B2.0 L22	51	22	2.0	1.2	2.3	5.1	
6.0	MGR 6 B1.0 L15	51	15	1.0	1.4	2.8	6.1	SIM ... H6
	MGR 6 B1.0 L22	51	22	1.0	1.4	2.8	6.1	
	MGR 6 B1.5 L15	51	15	1.5	1.4	2.8	6.1	
	MGR 6 B1.5 L22	51	22	1.5	1.4	2.8	6.1	
	MGR 6 B2.0 L15	51	15	2.0	1.4	2.8	6.1	
	MGR 6 B2.0 L22	51	22	2.0	1.4	2.8	6.1	
6.0	MGR 6 B1.0 L17	51	17	1.0	1.8	2.8	6.1	SIM ... H6
	MGR 6 B1.5 L17	51	17	1.5	1.8	2.8	6.1	
	MGR 6 B2.0 L17	51	17	2.0	1.8	2.8	6.1	
7.0	MGR 7 B1.0 L15	62	15	1.0	2.5	3.3	7.1	SIM ... H7
	MGR 7 B1.0 L22	62	22	1.0	2.5	3.3	7.1	
	MGR 7 B1.0 L30	62	30	1.0	2.5	3.3	7.1	
	MGR 7 B1.5 L15	62	15	1.5	2.5	3.3	7.1	
	MGR 7 B1.5 L22	62	22	1.5	2.5	3.3	7.1	
	MGR 7 B1.5 L30	62	30	1.5	2.5	3.3	7.1	
	MGR 7 B2.0 L15	62	15	2.0	2.5	3.3	7.1	
	MGR 7 B2.0 L22	62	22	2.0	2.5	3.3	7.1	
	MGR 7 B2.0 L30	62	30	2.0	2.5	3.3	7.1	
8.0	MGR 8 B1.0 L22	64	22	1.0	1.7	3.8	8.1	SIM ... H8
	MGR 8 B1.5 L22	64	22	1.5	1.7	3.8	8.1	
	MGR 8 B2.0 L22	64	22	2.0	2.6	3.8	8.1	

Order example: MGR 5 B1.5 L15 BXC
For LH. bars specify MGL instead of MGR

Chamfering and Grooving

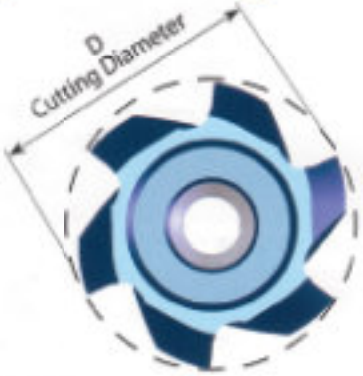


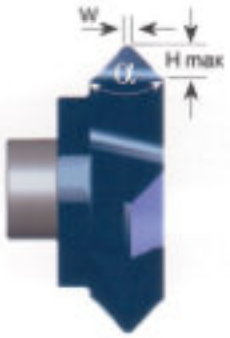


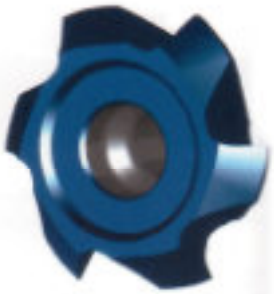
Insert Type	Ordering Code	D	H	W	α	Holder Code*
C10	C10 C90	10.0	1.30	0.4	90°	H1, 2, 12
C12	C12 C90	12.0	1.35	0.3	90°	H3, 4, 5, 14
C18	C18 C90	17.8	1.95	1.1	90°	H6, 7, 8, 9, 16
C25	C25 C90	25.0	2.50	1.0	90°	H10, 11, 17, 18

Chamfering, Grooving and Boring

Multi Flute



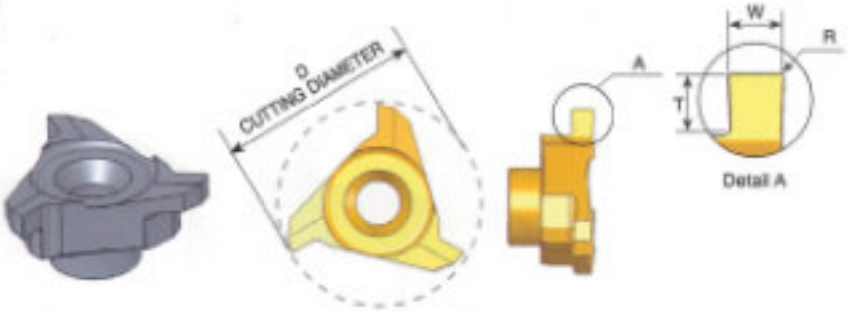




Insert Type	Ordering Code	D	H max	W	α	No. of Flutes	Holder Code
S17	SC160 E H14	16.0	1.35	0.2	90°	5	H3, 4, 5, 14, 15
S20	SC170 E H14	17.0	1.35	0.2	90°	5	H6, 7, 8, 9, 16
	SC200 F H14	20.0	1.35	0.2	90°	6	H6, 7, 8, 9, 16
	SC200 F H24	20.0	2.35	0.2	90°	6	
S35	SC350 F H42	35.0	4.20	0.2	90°	6	H19, 20, 21
S20	SC200 F H20	20.0	1.95	1.0	90°	6	H6, 7, 8, 9, 16
	SC200 F H17	20.0	1.70	1.5	90°	6	
	SC200 F H15	20.0	1.50	2.0	90°	6	
	SC200 F H12	20.0	1.20	2.5	90°	6	

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Groove Milling



Insert Type	Ordering Code	D	W ±0.02	T max.	R	Groove Dia. (min.)	Holder Code
C10	C10 W08	10.0	0.80	0.80	0.1	Ø > 10.0	H1, 2, 12, 13
	C10 W09		0.90	0.90			
	C10 W10		1.00	0.90			
C12	C12 W08	12.0	0.80	0.80	0.1	Ø > 12.0	H3, 4, 5, 14, 15
	C12 W10		1.00	0.90			
C18	C18 W10	17.8	1.00	1.50	0.1	Ø > 17.8	H6, 7, 8, 9, 16
	C18 W12		1.20	1.50			
	C18 W15		1.50	1.95			
	C18 W20		2.00	2.80			H16
C25	C25 W20	25.0	2.00	3.00	0.2	Ø > 25	H10, 11, 17, 18
	C25 W25		2.50	3.00			
	C25 W30		3.00	3.00			
	C25 W35		3.50	3.50			
	C25 W40		4.00	3.50			
	C25 W50		5.00	3.50			

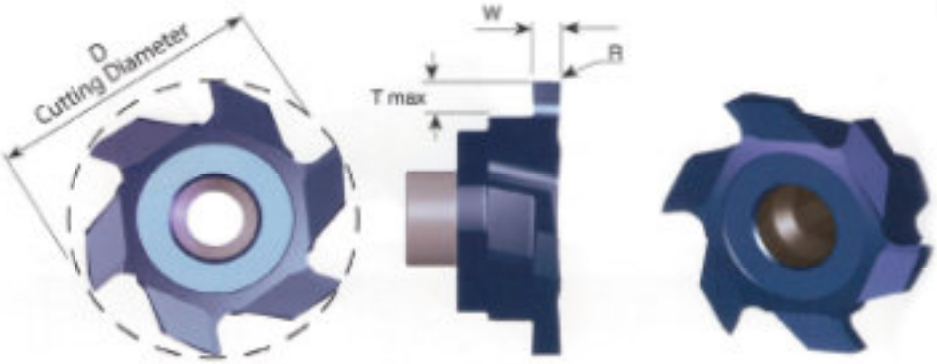
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Groove Milling

Multi Flute



Insert Type	Ordering Code	D	W ±0.02	T Max.	R	Groove Dia. (min)	No. of Flutes	Holder Code
S17	SG170 F W15	17.0	1.5	2.8	0.2	Ø > 17	6	H3, 4, 5, 14, 15
	SG170 F W20	17.0	2.0					
	SG170 F W25	17.0	2.5					
S20	SG200 F W15	20.0	1.5	2.9	0.2	Ø > 20	6	H6, 7, 8, 9, 16
	SG200 F W20	20.0	2.0					
	SG200 F W25	20.0	2.5					
	SG200 F W30	20.0	3.0					
	SG200 F W40	20.0	4.0					
	SG200 F W49	20.0	4.9					
S20	SG200 E W20T	20.0	2.0	3.7	0.2	Ø > 20	5	H16
	SG200 E W25T	20.0	2.5					
	SG200 E W30T	20.0	3.0					
S35	SG350 F W30T	35.0	3.0	6.3	0.2	Ø > 35	6	H19, 20, 21
	SG350 F W40T	35.0	4.0					
	SG350 F W50T	35.0	5.0					
	SG350 F W60T	35.0	6.0					
	SG350 F W80T	35.0	8.0					

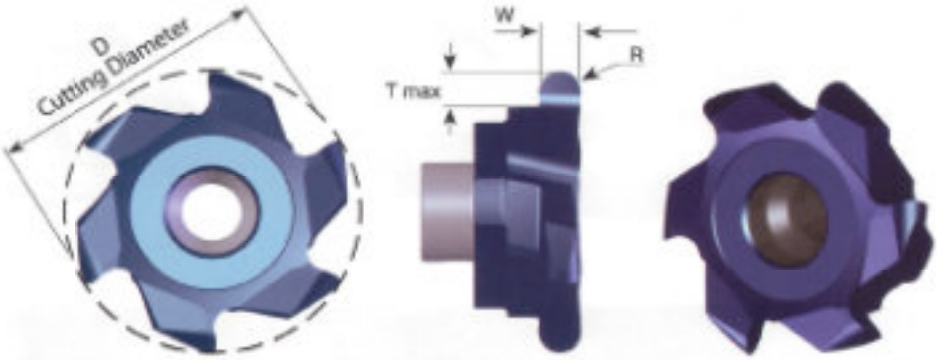
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Full Radius Groove Milling

Multi Flute



Insert Type	Ordering Code	D	R	W ±0.02	T Max.	Groove Dia. (min)	No. of Flutes	Holder Code
S20	SG200 F R10	20.0	1.0	2.0	2.9	Ø > 20	6	H6, 7, 8, 9, 16
	SG200 F R12	20.0	1.2	2.4				
	SG200 F R15	20.0	1.5	3.0				
	SG200 F R20	20.0	2.0	4.0				

Face Milling and Finishing



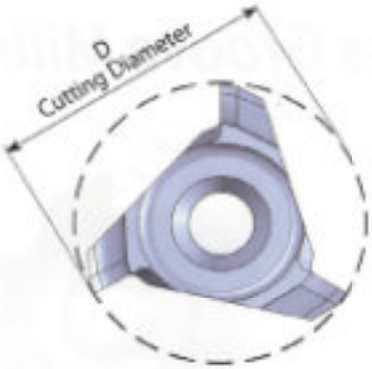
Insert Type	Ordering Code	D	W	R	Holder Code
C18	C18 F R0.1	17.8	5.0	0.1	H6, 7, 8, 9, 16
C25	C25 F R0.2	25.0	6.0	0.2	H10, 11, 17, 18

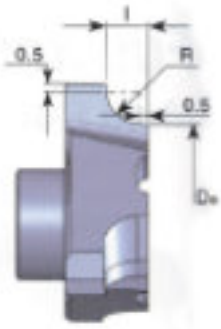
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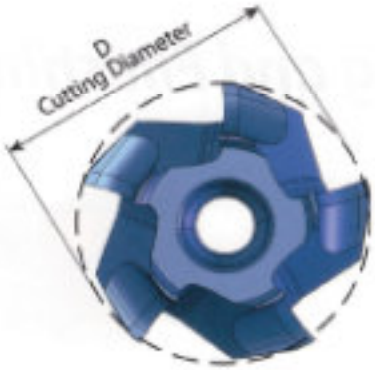
Corner Rounding

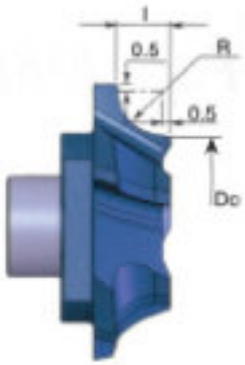




Insert Type	Ordering Code	D	Do	R	I	Holder Code
C10	C10 CR05	10.0	7.9	0.5	1.05	H1, 2, 12, 13
	C10 CR10	10.0	6.9	1.0	1.55	
C18	C18 CR13	17.8	14.2	1.25	1.80	H6, 7, 8, 9, 16
	C18 CR15	17.8	13.7	1.5	2.05	
	C18 CR20	17.8	12.7	2.0	2.55	

Corner Rounding
Multi Flute





Insert Type	Ordering Code	D	Do	R	I	No. of Flutes	Holder Code
S17	S170 E CR10	17.0	13.9	1.0	1.55	5	H3, 4, 5, 14, 15
	S170 E CR13	17.0	13.4	1.25	1.80	5	
	S170 E CR15	17.0	12.9	1.5	2.05	5	

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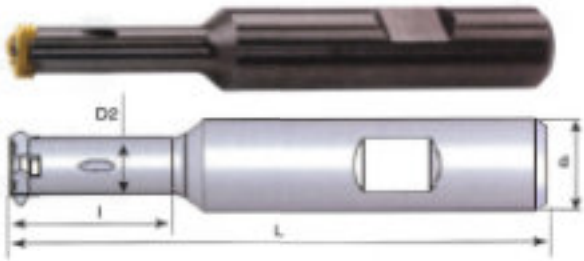
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CMT Vertical Mill-Thread

Carmex Precision Tools Ltd

Steel Toolholders

With internal coolant



Tool No.	Ordering Code	Insert Type	d	D2	l	L	Insert Screw	Torx Key
H1	SRC 1210 E	C10	12	7.3	19	70	S5	K5
H2	SRC 1610 G		16		19	90		
H3	SRC 1212 E	C12, S17	12	9.0	25	70	S10	K10
H4	SRC 1612 G		16		25	90		
H5	SRC 1612 H		16		35	100		
H6	SRC 1618 H	C18, S20	16	13.8	48	100	S16	K16
H7	SRC 2018 H		20		32	100		
H8	SRC 2018 J		20		48	110		
H9	SRC 2018 L		20		74	140		
H10	SRC 2525 J	C25	25	17.5	45	115	S27	K27
H11	SRC 2525 M		25		80	150		
H19	SRC 2535 H	S35	25	22	40	100	S33	K33
H20	SRC 2535 K		25		60	130		

Carmex Precision Tools Ltd. CMT Vertical Mill-Thread

Carbide Shank Toolholders

With internal coolant



Tool No.	Ordering Code	Insert Type	d	D2	l	L	Insert Screw	Torx Key
H12	CRC 0810 L35 K	C10	8	7.3	35	125	S5	K5
H13	CRC 0810 K		8	8.0	—	125	S5	K5
H14	CRC 1012 L40 M	C12, S17	10	9.0	40	150	S10	K10
H15	CRC 1012 M		10	10.0	—	150	S10	K10
H16	CRC 1218 P	C18, S20	12	12.0	—	170	S16	K16
H17	CRC 1625 R	C25	16	16.0	—	205	S27	K27
H18	CRC 2025 L85 S		20	17.5	85	250	S27	K27
H21	CRC 2035 S	S35	20	22.0	—	260	S33	K33

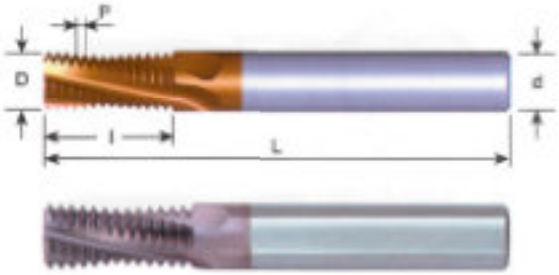
Toolholders without Weldon

BF SERVICE

ISO

Tools for Internal thread





Pitch mm	M coarse	M fine	Ordering Code	d	D	No. of Flutes	l	L
0.5	M3	Ø ≥ 4	MT06022C5 0.5 ISO	6	2.2	3	5.3	58
0.5		Ø ≥ 5	MT06038C10 0.5 ISO	6	3.8	3	10.3	58
0.7	M4	Ø ≥ 5	MT06031C7 0.7 ISO	6	3.1	3	7.4	58
0.75		Ø ≥ 6	MT06045C10 0.75 ISO	6	4.5	3	10.1	58
0.8	M5	Ø ≥ 6	MT06036C9 0.8 ISO	6	3.6	3	9.2	58
1.0	M6	Ø ≥ 7	MT0604C10 1.0 ISO	6	4.0	3	10.5	58
1.0	M6	Ø ≥ 7	MT0604C14 1.0 ISO	6	4.0	3	14.5	58
1.0		Ø ≥ 9	MT0606C12 1.0 ISO	6	6.0	3	12.5	58
1.0		Ø ≥ 10	MT0808D16 1.0 ISO	8	8.0	4	16.5	64
1.25	M8	Ø ≥ 10	MT0605C14 1.25 ISO	6	5.0	3	14.4	58
1.25	M8	Ø ≥ 10	MT0605C19 1.25 ISO	6	5.0	3	19.4	58
1.5	M10	Ø ≥ 12	MT0807C17 1.5 ISO	8	7.0	3	17.3	64
1.5	M10	Ø ≥ 12	MT0807C24 1.5 ISO	8	7.0	3	24.8	76
1.5		Ø ≥ 14	MT1010D21 1.5 ISO	10	10.0	4	21.8	73
1.5		Ø ≥ 20	MT1616F33 1.5 ISO	16	16.0	6	33.8	105
1.75	M12	Ø ≥ 14	MT0808C20 1.75 ISO	8	8.0	3	20.1	64
1.75	M12	Ø ≥ 14	MT0808C28 1.75 ISO	8	8.0	3	28.9	76
2.0	M16	Ø ≥ 17	MT1010C27 2.0 ISO	10	10.0	3	27.0	73
2.0	M16	Ø ≥ 17	MT1010C39 2.0 ISO	10	10.0	3	39.0	105
2.0		Ø ≥ 18	MT1212D27 2.0 ISO	12	12.0	4	27.0	84
2.0		Ø ≥ 26	MT2020F41 2.0 ISO	20	20.0	6	41.0	105
2.5	M20	Ø ≥ 22	MT1414D33 2.5 ISO	14	14.0	4	33.8	84
2.5	M20	Ø ≥ 22	MT1414D48 2.5 ISO	14	14.0	4	48.8	105
3.0	M24	Ø ≥ 25	MT1616C40 3.0 ISO	16	16.0	3	40.5	105
3.0	M24	Ø ≥ 25	MT1616C58 3.0 ISO	16	16.0	3	58.5	120
3.0	M27	Ø ≥ 28	MT2020D43 3.0 ISO	20	20.0	4	43.5	105

Order example: MT 1212D27 2.0 ISO MT7

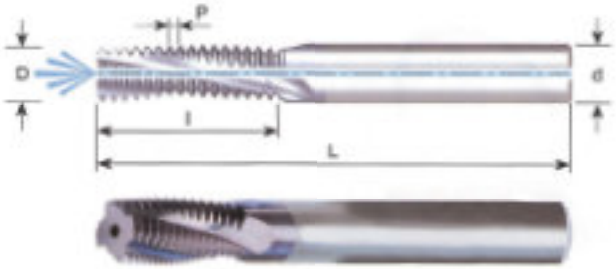
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ISO With internal coolant bore

Tools for Internal thread





Pitch mm	M coarse	M fine	Ordering Code	d	D	No. of Flutes	l	L
0.5		Ø ≥ 5	MTB06038C10 0.5 ISO	6	3.8	3	10.3	58
0.7	M4	Ø ≥ 5	MTB06031C7 0.7 ISO	6	3.1	3	7.4	58
0.75		Ø ≥ 6	MTB06045C10 0.75 ISO	6	4.5	3	10.1	58
0.75		Ø ≥ 12	MTB1010D24 0.75 ISO	10	10.0	4	24.4	73
0.8	M5	Ø ≥ 6	MTB06038C9 0.8 ISO	6	3.8	3	9.2	58
1.0	M6	Ø ≥ 7	MTB06046C10 1.0 ISO	6	4.6	3	10.5	58
1.0	M6	Ø ≥ 7	MTB06046C14 1.0 ISO	6	4.6	3	14.5	58
1.0		Ø ≥ 9	MTB0606C12 1.0 ISO	6	6.0	3	12.5	58
1.0		Ø ≥ 10	MTB0808D16 1.0 ISO	8	8.0	4	16.5	64
1.0		Ø ≥ 12	MTB1010D24 1.0 ISO	10	10.0	4	24.5	73
1.25	M8	Ø ≥ 10	MTB0606C14 1.25 ISO	6	6.0	3	14.4	58
1.25	M8	Ø ≥ 10	MTB0606C19 1.25 ISO	6	6.0	3	19.4	58
1.5	M10	Ø ≥ 12	MTB08078C17 1.5 ISO	8	7.8	3	17.0	64
1.5	M10	Ø ≥ 12	MTB08078C24 1.5 ISO	8	7.8	3	24.8	76
1.5		Ø ≥ 14	MTB1010D21 1.5 ISO	10	10.0	4	21.8	73
1.5		Ø ≥ 16	MTB1212D26 1.5 ISO	12	12.0	4	26.3	84
1.5		Ø ≥ 20	MTB1616F33 1.5 ISO	16	16.0	6	33.8	105
1.75	M12	Ø ≥ 12	MTB1009C20 1.75 ISO	10	9.0	3	20.1	73
1.75	M12	Ø ≥ 12	MTB1009C28 1.75 ISO	10	9.0	3	28.9	73
2.0	M14	Ø ≥ 15	MTB1010C27 2.0 ISO	10	10.0	3	27.0	73
2.0	M16	Ø ≥ 17	MTB12118D27 2.0 ISO	12	11.8	4	27.0	84
2.0	M16	Ø ≥ 17	MTB12118D39 2.0 ISO	12	11.8	4	39.0	105
2.0		Ø ≥ 26	MTB2020F41 2.0 ISO	20	20.0	6	41.0	105
2.5	M20	Ø ≥ 22	MTB1615E33 2.5 ISO	16	15.0	5	33.8	105
2.5	M20	Ø ≥ 22	MTB1615E48 2.5 ISO	16	15.0	5	48.8	105
3.0	M24	Ø ≥ 25	MTB2018D40 3.0 ISO	20	18.0	4	40.5	105
3.0	M24	Ø ≥ 25	MTB2018D58 3.0 ISO	20	18.0	4	58.5	120
3.0	M27	Ø ≥ 27	MTB2020D43 3.0 ISO	20	20.0	4	43.5	105

Order example: MTB 08078C17 1.5 ISO MT7

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Mill - Thread Solid Carbide

Carmex Precision Tools Ltd.

ISO With internal coolant through the flutes

Tools for Internal Thread





Pitch mm	M coarse	M fine	Ordering Code	d	D	No. of Flutes	l	L
1.0	M6	Ø ≥ 7	MTZ06048C10 1.0 ISO	6	4.8	3	10.5	58
1.0		Ø ≥ 9	MTZ0606C12 1.0 ISO	6	6.0	3	12.5	58
1.0		Ø ≥ 10	MTZ0808D16 1.0 ISO	8	8.0	4	16.5	64
1.25	M8	Ø ≥ 10	MTZ0606C14 1.25 ISO	6	6.0	3	14.4	58
1.25	M8	Ø ≥ 10	MTZ0606C19 1.25 ISO	6	6.0	3	19.4	58
1.5	M10	Ø ≥ 12	MTZ08078C17 1.5 ISO	8	7.8	3	17.0	64
1.5		Ø ≥ 14	MTZ1010D21 1.5 ISO	10	10.0	4	21.8	73
1.5		Ø ≥ 16	MTZ1212D26 1.5 ISO	12	12.0	4	26.3	84
1.5		Ø ≥ 20	MTZ1616E33 1.5 ISO	16	16.0	5	33.8	101
1.75	M12	Ø ≥ 12	MTZ1009C20 1.75 ISO	10	9.0	3	20.1	73
1.75	M12	Ø ≥ 12	MTZ1009C28 1.75 ISO	10	9.0	3	28.9	73
2.0	M14	Ø ≥ 15	MTZ1010C27 2.0 ISO	10	10.0	3	27.0	73
2.0	M16	Ø ≥ 17	MTZ12118D27 2.0 ISO	12	11.8	4	27.0	84
2.5	M20	Ø ≥ 22	MTZ1615E33 2.5 ISO	16	15.0	5	33.8	101

Order example: MTZ 08078C17 1.5 ISO MT7

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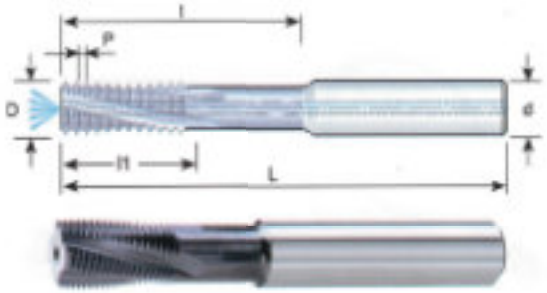
BF SERVICE

Mill - Thread Solid Carbide

ISO With relieved neck and internal coolant bore

Tools for Internal Thread





Pitch TPI	M fine	Ordering Code	d	D	No. of Flutes	l1	l	L
1.0	Ø ≥ 12	MTQ1010D32 1.0 ISO	10	10.0	4	18.0	32.0	73
1.0	Ø ≥ 14	MTQ1212D38 1.0 ISO	12	12.0	4	21.0	38.0	84
1.0	Ø ≥ 18	MTQ1616F45 1.0 ISO	16	16.0	6	26.0	45.0	105
1.5	Ø ≥ 13	MTQ1010D30 1.5 ISO	10	10.0	4	18.0	30.0	73
1.5	Ø ≥ 15	MTQ1212D34 1.5 ISO	12	12.0	4	19.5	34.5	84
1.5	Ø ≥ 19	MTQ1616F43 1.5 ISO	16	16.0	6	25.5	43.5	105
1.5	Ø ≥ 23	MTQ2020F60 1.5 ISO	20	20.0	6	36.0	60.0	105
2.0	Ø ≥ 16	MTQ1212D42 2.0 ISO	12	12.0	4	24.0	42.0	84
2.0	Ø ≥ 20	MTQ1616E45 2.0 ISO	16	16.0	5	26.0	45.0	105
2.0	Ø ≥ 24	MTQ2020F56 2.0 ISO	20	20.0	6	34.0	56.0	105
3.0	Ø ≥ 22	MTQ1616D45 3.0 ISO	16	16.0	4	30.0	45.0	105
3.0	Ø ≥ 26	MTQ2020E54 3.0 ISO	20	20.0	5	33.0	54.0	105
3.5	Ø ≥ 26	MTQ2020D45 3.5 ISO	20	20.0	4	28.0	45.5	105
4.0	Ø ≥ 31	MTQ2525D64 4.0 ISO	25	25.0	4	40.0	64.0	160

Order example: MTQ 1010D30 1.5 ISO MT7

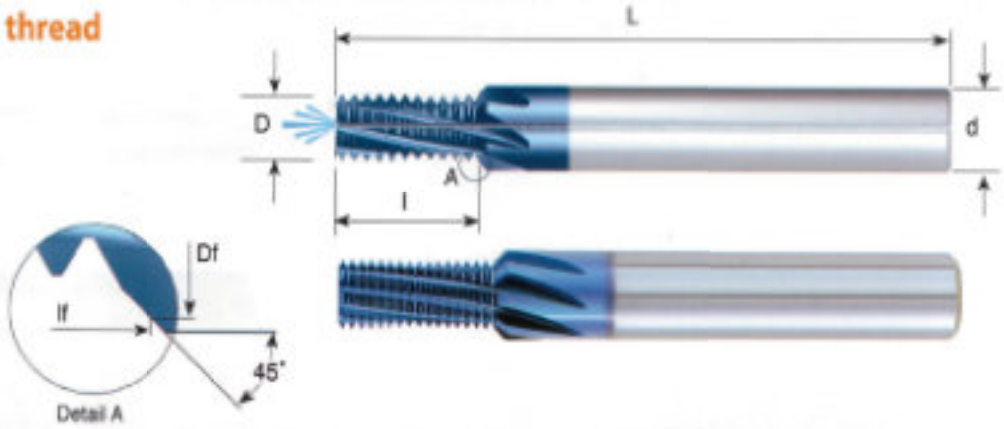
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ISO Fast MT With internal coolant bore

Tools for Internal thread



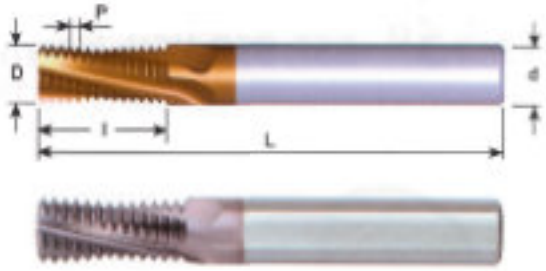
Pitch mm	M coarse	M fine	Ordering Code	d	D	Df	Flutes	l	lf	L
1.0	M6	Ø ≥ 7	FMT 08048 F10 1.0 ISO	8	4.8	6.8	6	10.5	11.5	64
1.25	M8	Ø ≥ 10	FMT 10064 G14 1.25 ISO	10	6.4	9.6	7	14.4	16.0	73
1.5	M10	Ø ≥ 12	FMT 1008 G17 1.5 ISO	10	8.0	9.8	7	17.3	18.2	73
1.75	M12	Ø ≥ 12	FMT 12095 G20 1.75 ISO	12	9.5	11.7	7	20.1	21.2	84

Order example: FMT 1008 G17 1.5 ISO MT8

G (55°) BSF, BSP

Same Tool for Internal and External Thread





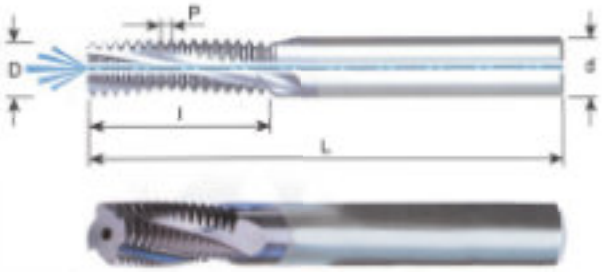
Pitch TPI	Standard	Ordering Code	d	D	No. of Flutes	l	L
28	G1/16-G1/8	MT0606C9 28 W	6	6.0	3	9.5	58
19	G1/4-3/8	MT0808C14 19 W	8	8.0	3	14.0	64
14	G1/2-7/8	MT1212D19 14 W	12	12.0	4	19.0	84
14	G1/2-7/8	MT1212D26 14 W	12	12.0	4	26.3	84
11	G≥1	MT1212C24 11 W	12	12.0	3	24.2	84
11	G≥1	MT1616D38 11 W	16	16.0	4	38.1	105
11	G≥1	MT2020E47 11 W	20	20.0	5	47.3	105

Order example: MT 1212D19 14 W MT7

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G (55°) BSF, BSP With internal coolant bore

Same Tool for Internal and External Thread



Pitch TPI	Standard	Ordering Code	d	D	No. of Flutes	l	L
28	G1/8	MTB08078C14 28W	8	7.8	3	14.1	64
19	G1/4-3/8	MTB1010D16 19W	10	10.0	4	16.7	73
14	G1/2-7/8	MTB1616E26 14W	16	16.0	5	26.3	105
11	G≥1	MTB1616D38 11W	16	16.0	4	38.1	105
11	G≥1	MTB2020E47 11W	20	20.0	5	47.3	105

Order example: MTB 1010D16 19 W MT7

G 55° BSF, BSP With internal coolant through the flutes

Same Tool for Internal and External Thread





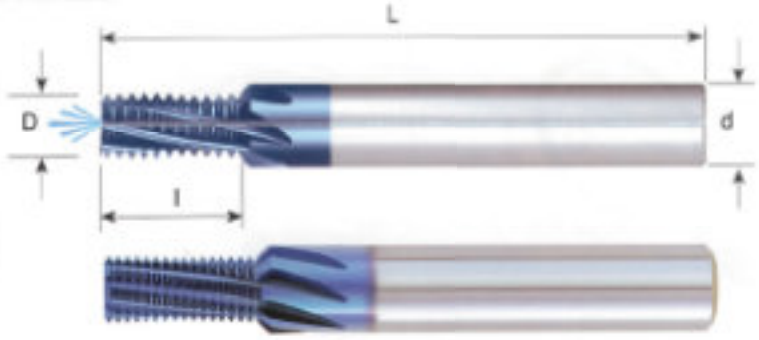
Pitch TPI	Standard	Ordering Code	d	D	No. of Flutes	l	L
28	G1/8	MTZ08078C14 28W	8	7.8	3	14.1	64
19	G1/4-3/8	MTZ1010D16 19W	10	10.0	4	16.7	73
14	G1/2-7/8	MTZ1616E26 14W	16	16.0	5	26.3	101
11	G≥1	MTZ1616D38 11W	16	16.0	4	38.1	101

Order example: MTZ 08078C14 28 W MT7

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G 55° Fast MT With internal coolant bore

Same Tool for Internal and External Thread



Pitch TPI	Standard	Ordering Code	d	D	No. of Flutes	l	L
28	G1/8	FMT08078H14 28W	8	7.8	8	14.1	64
19	G1/4-3/8	FMT1010G16 19W	10	10.0	7	16.7	73
14	G1/2-7/8	FMT1616H26 14W	14	14.0	8	26.3	84
11	G≥1	FMT1616H38 11W	16	16.0	8	38.1	105

Order example: FMT 1616 H38 11W MT8

* Without cutting chamfer

Whitworth BSW With internal coolant through the flutes

Same Tool for Internal and External Thread





Pitch TPI	Standard	Ordering Code	d	D	No. of Flutes	l	L
* 20	1/4	MTZ06046C12 20W	6	4.6	3	12.1	58
18	5/16	MTZ06053C14 18W	6	5.3	3	14.8	58
16	3/8	MTZ08064C16 16W	8	6.8	3	16.7	64
16	1/2	MTZ10092D24 16W	10	9.2	4	24.6	73
14	7/16	MTZ08078D20 14W	8	7.8	4	20.9	64
12	1/2	MTZ10086D24 12W	10	8.6	4	24.4	73
11	5/8	MTZ12109D28 11W	12	10.9	4	28.9	84

Order example: MTZ 08064C16 16 W MT7

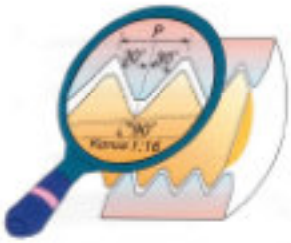
* Cutter without coolant

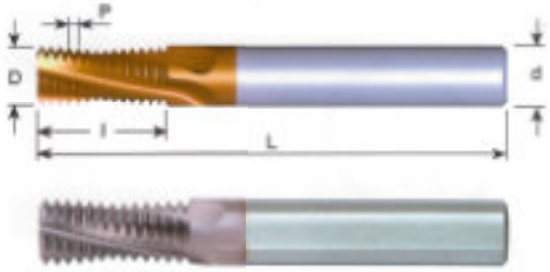
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Mill - Thread Solid Carbide

NPT

Same Tool for Internal and External Thread



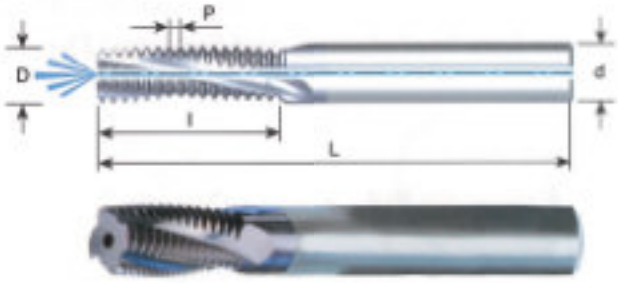


Pitch TPI	Standard	Ordering Code	d	D	No. of Flutes	l	L
27	1/16-1/8	MT0606C9 27 NPT	6	6.0	3	9.9	58
18	1/4-3/8	MT0808C14 18 NPT	8	8.0	3	14.8	64
14	1/2-3/4	MT1212D20 14 NPT	12	12.0	4	20.9	84
11.5	1-2	MT1616D27 11.5 NPT	16	16.0	4	27.6	105
8	≥2 1/2	MT2020D39 8 NPT	20	20.0	4	39.7	105

Order example: MT 0808C14 18 NPT MT7

NPT With internal coolant

Same Tool for Internal and External Thread



Pitch TPI	Standard	Ordering Code	d	D	No. of Flutes	l	L
27	1/8	MTB08076C10 27 NPT	8	7.6	3	10.8	64
18	1/4-3/8	MTB1010D16 18 NPT	10	10.0	4	16.2	73
14	1/2-3/4	MTB16155D22 14 NPT	16	15.5	4	22.7	105
11.5	1-2	MTB2020D29 11.5 NPT	20	20.0	4	29.8	105
8	≥2 1/2	MTB2020D39 8 NPT	20	20.0	4	39.7	105

Order example: MTB 1010D16 18 NPT MT7

For thread mills with coolant through the flutes see next page

BF SERVICE

NPT With internal coolant through the flutes

Same Tool for Internal and External Thread





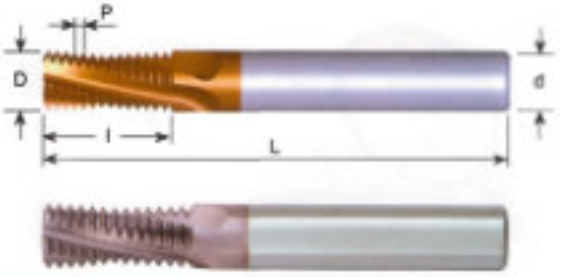
Pitch TPI	Standard	Ordering Code	d	D	No. of Flutes	l	L
27	1/8	MTZ08076C10 27NPT	8	7.6	3	10.8	64
18	1/4-3/8	MTZ1010D16 18NPT	10	10.0	4	16.2	73
14	1/2-3/4	MTZ16155D22 14NPT	16	15.5	4	22.7	101

Order example: MTZ 08076C10 27 NPT MT7

NPTF

Same Tool for Internal and External Thread





Pitch TPI	Standard	Ordering Code	d	D	No. of Flutes	l	L
27	1/16-1/8	MT0606C9 27 NPTF	6	6.0	3	9.9	58
18	1/4-3/8	MT0808C14 18 NPTF	8	8.0	3	14.8	64
14	1/2-3/4	MT1212D20 14 NPTF	12	12.0	4	20.9	84
11.5	1-2	MT1616D27 11.5 NPTF	16	16.0	4	27.6	105
8	≥2 1/2	MT2020D39 8 NPTF	20	20.0	4	39.7	105

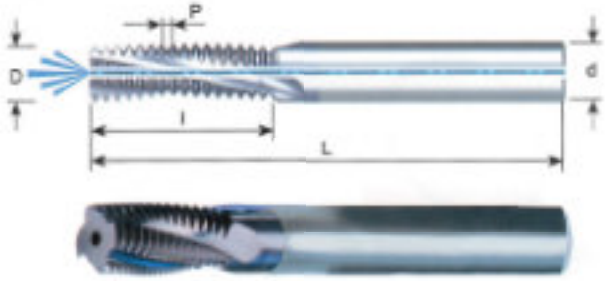
Order example: MT 1212D20 14 NPTF MT7

For thread mills with coolant bore see next page

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NPTF With internal coolant bore
Same Tool for Internal and External Thread

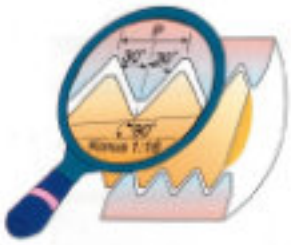


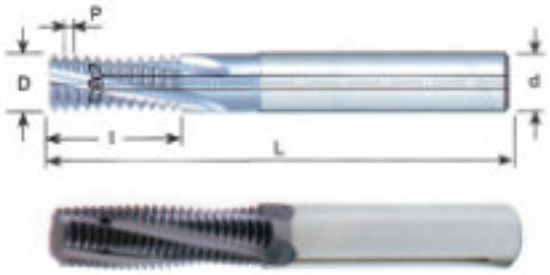


Pitch TPI	Standard	Ordering Code	d	D	No. of Flutes	l	L
27	1/8	MTB08076C10 27 NPTF	8	7.6	3	10.8	64
18	1/4-3/8	MTB1010D16 18 NPTF	10	10.0	4	16.2	73
14	1/2-3/4	MTB16155D22 14 NPTF	16	15.5	4	22.7	105
11.5	1-2	MTB2022D29 11.5 NPTF	20	20.0	4	29.8	105
8	≥ 2 1/2	MTB2020D39 8 NPTF	20	20.0	4	39.7	105

Order example: MTB 16155D22 14 NPTF MT7

NPTF With internal coolant through the flutes
Same Tool for Internal and External Thread





Pitch TPI	Standard	Ordering Code	d	D	No. of Flutes	l	L
27	1/8	MTZ08076C10 27 NPTF	8	7.6	3	10.8	64
18	1/4-3/8	MTZ1010D16 18 NPTF	10	10.0	4	16.2	73
14	1/2-3/4	MTZ16155D22 14 NPTF	16	15.5	4	22.7	101

Order example: MTZ 1010D16 18 NPTF MT7

DISPONIBILI IN ALTRE GEOMETRIE E DIMENSIONI.
CONSULTARE IL CATALOGO GENERALE SUL SITO:
www.bf-service.it

BF SERVICE

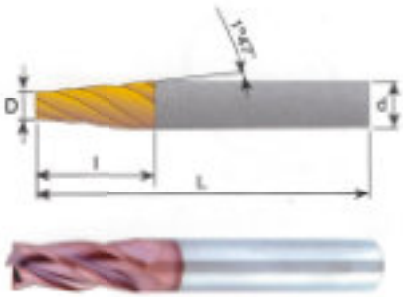
Carmex Precision Tools Ltd.

Solid Carbide Tapered End Mills

Solid carbide tapered end mills are used for milling preparation of conical threads before the thread milling operation.

Advantages:

- Increases the tool life of mill thread cutters and indexable inserts.
- Equal and uniform load along the cutting edge of the mill thread cutter.
- Shorter machining time during the mill thread operation, due to the tapered preparation.



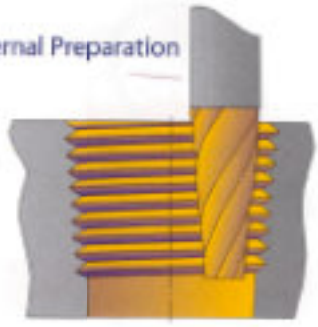
Ordering Code	d	D	l	L	No. of Flutes	Size
SC0652D12	6	5.2	12	58	4	NPT 1/16" - 1/8" NPTF 1/16" - 1/8" BSPT 1/16" - 1/8"
SC1085D24	10	8.5	24	73	4	NPT 1/8" - 1" NPTF 1/8" - 1" BSPT 1/8" - 1"
SC1210D32	12	10	32	84	4	NPT 1/4" - 3" NPTF 1/4" - 3" BSPT 1/4" - 3"

Order example: SC 1085D24 MT7
Carbide grade: MT7

External Preparation



Internal Preparation



IN BASE AL PROPIO CNC ,E' POSSIBILE
SCARICARE IL SOFTWARE SUL SITO :
www.carmex.com

DISPONIBILI IN ALTRE GEOMETRIE E DIMENSIONI.
CONSULTARE IL CATALOGO GENERALE SUL SITO:
www.bf-service.it

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Carmex Mill-Thread catalog and CNC programming Software



This software is provided by Carmex to assist you, the threadmilling user, to select and apply the correct tool to machine threads on CNC machining centers. The program will find tools and inserts which are suitable for your application, calculate cutting data and generate a CNC program for a variety of controls.

The software is available at our web site: www.carmex.com

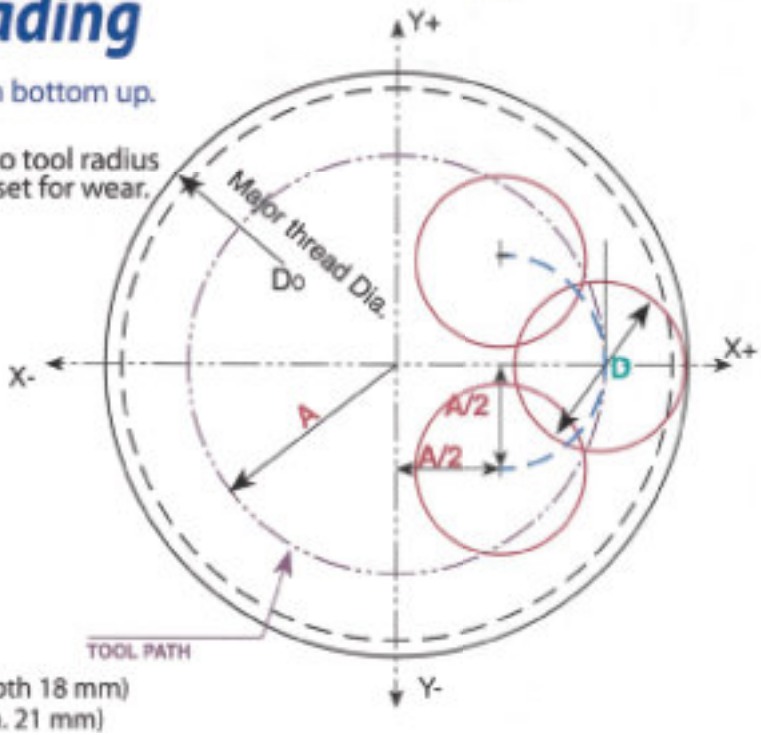
Example of Thread Milling CNC Program for Internal Threading

Right hand thread (climb milling) from bottom up.

Program is based on tool center.
This method of programming needs no tool radius compensation value other than an offset for wear.

$$A = \frac{Do - D}{2}$$

A =Radius of tool path
Do=Major thread dia.
D =Cutting dia.



General Program

```
G90 G00 G54 G43 H1X0 Y0 Z10 S---
G00 Z- ( TO THREAD DEPTH )
G01 G91 G41 D1 X(A/2) Y-(A/2) Z0 F---
G03 X(A/2) Y(A/2) R(A/2) Z(1/8 PITCH)
G03 X0 Y0 I-(A) J0 Z(PITCH)
G03 X-(A/2) Y(A/2) R(A/2) Z(1/8 PITCH)
G01 G40 X-(A/2) Y-(A/2) Z0
G90 X0 Y0 Z0
```

Internal Thread

EXAMPLE : M 32 X 2.0 (Thread depth 18 mm)
TOOLHOLDER : SR0021 H21 (Cutting dia. 21 mm)
INSERT: 21 I 2.0 ISO
A = (32-21)/2 = 5.5

```
G90 G00 G54 G43 H1X0 Y0 Z0.39 S2800
G00 Z-0.71
G01 G91 G41X0.1150 Y-0.1150 Z0 F3.35 D1
G03 X0.1150
Y0.1150 R0.1150 Z0.0104
G03 X0 Y0 I-0.23 J0 Z0.0833
G03 X-0.1150 Y0.1150 R0.1150 Z0.0104
G01 G40 X-0.1150 Y-0.1150 Z0
G90 G0 X0 Y0 Z0
```

BF SERVICE

CATALOGO PRODOTTI

LAME SEGANASTRO

PRODUCT CATALOGUE

BIMETAL BANDSAW BLADES



BF SERVICE
UTENSILERIA MECCANICA

Soluzioni
di taglio a 360°

DESCRIZIONE STRADATURE E DENTATURE / SETTING AND RAKE ANGLE

FORME DI STRADATURA / TYPES OF SETTINGS

Stradatura standard / Standard setting



Stradatura a gruppi / Group setting



Stradatura ondulata / Wavy setting



ANGOLO DI SPOGLIA / RAKE ANGLE



Zero



Positivo / Positive

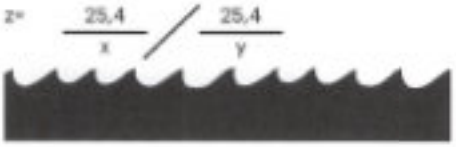


Pro Rinforzato / Pro Reinforced



Trapezoidale / Triplechip

TIPOLOGIA PASSO DENTE - TOOTH PITCH



VARIABILE: misurare col calibro la distanza tra punta e punta del dente più grosso = x mm; 25,4:x = Z1 e quindi del dente più piccolo = y mm; 25,4 : y = Z2. Passo alternato: Z1/ Z2

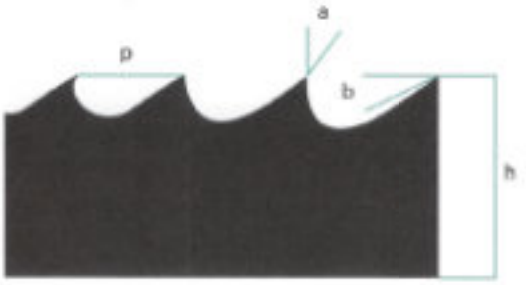
VARIABLE: to be calculated by measuring the distance from tooth to tooth of the largest tooth = x mm; 25,4:x = Z1 and the distance on the smallest tooth = y mm; 25,4 : y = Z2. Variable tooth: Z1/ Z2



CONTINUO: Misurare col calibro la distanza tra dente e dente = X mm; 25,4 : X= Z oppure contare quante punte del dente sono comprese in un intervallo tra gola e gola di 25,4 mm.

CONSTANT: Calculate the distance between two edges=X mm; 25,4:X=Z or count the number of the teeth between a distance of 25,4 mm from gullet to gullet.

DIMENSIONI CARATTERISTICHE LAMA - GEOMETRY SPECS OF BANDSAW BLADES





h= altezza nastro - blade width
s= spessore nastro - thickness
p= passo dente - TPI
a= angolo di spoglia - rake angle
b= angolo di spalla dente - back angle
w= larghezza stradatura - set width

LAME AI CARBURI DI TUNGSTENO E DIAMANTE - TUNGSTEN GRIT BLADE AND DIAMOND



CONTINUA/CONTINOUS

Utilizzata con sezioni di taglio inferiori a 10 mm
Used with section smaller than 10 mm



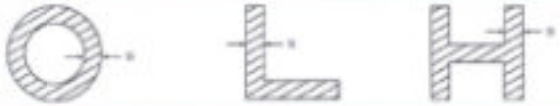
GOLA DI LUPO/GULLET

Utilizzata con sezioni di taglio maggiori di 10 mm
Used with section bigger than 10 mm

Ci riserviamo il diritto di apportare modifiche.
Le immagini sono puramente indicative e possono non corrispondere al prodotto reale.
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TABELLA SELEZIONE DENTATURE PER LAME STEELBAND
TOOTHING AND QUALITY SELECTION

SPESSORE MM THICKNESS MM	DENTATURA CONTINUA Z CONTINUOUS TOOTHING Z	DENTATURA VARIABILE Z VARIABLE TOOTHING Z		
FINO A (UP TO) 1,5	14		10/14	
DA (FROM) 1 A (TO) 2	10	8/11 PRO	8/12	10/14
DA (FROM) 2 A (TO) 3	8	8/11 PRO	8/12	
DA (FROM) 3 A (TO) 5	6	5/7 PRO	4/6 PRO	6/10 V
DA (FROM) 4 A (TO) 6	6	5/7 PRO	4/6 PRO	5/8 V
DA (FROM) 6 A (TO) 12	4	3/4 PRO	4/6 PRO	
OLTRE (OVER 12)	--	2/3 PRO	3/4 PRO	3/4 P



PIENI (ROD) Ø O L MM	DENTATURA CONTINUA Z CONTINUOUS TOOTHING Z	DENTATURA VARIABILE Z VARIABLE TOOTHING Z		
FINO A (UP TO) 30	8	8/11 PRO	4/6 PRO	6/10 V
DA (FROM) 30 A (TO) 60	6	5/7 PRO	4/6 P	5/8V
DA (FROM) 40 A (TO) 100	4	4/6 PRO	3/4 PRO	3/4 PRO
DA (FROM) 80 A (TO) 150	3	3/4 P	2/3 P	
DA (FROM) 120 A (TO) 300	2 - 3		1,4/2 P	
DA (FROM) 250 A (TO) 600	0,75 - 1,25 - 2		0,7/1,2 P	
OLTRE (OVER) 600	--			



IMPORTANTISSIMO / VERY IMPORTANT

Rispetto alla dentatura impiegata, se il materiale ha una sezione più grande del massimo (oppure più piccola del minimo) valore indicato in tabella in corrispondenza di quella dentatura, ridurre la penetrazione fino a graffiare il materiale. Lasciando inalterata la velocità di discesa: se più grande, le gole non riescono a scaricare i trucioli e quindi soffocano i taglienti. Se più piccola, il materiale entra nella gola tra punta e punta del dente e, non essendovi almeno due denti in presa, si strappano i denti: in entrambi i casi provoca la rottura prematura del dente. NB: per le leghe leggere bisogna adoperare un passo più grande (denti più larghi) di quello necessario per il taglio della corrispondente sezione in ferro a cui le tabelle si riferiscono, mentre per gli acciai Inox un passo più piccolo (denti più stretti) del corrispettivo in tabella.

According to the toothing used, if the material has a larger cutting section than the maximum (smaller than the minimum) value indicated in the table corresponding to that toothing, reduce the penetration until you scratch the material. Leaving the advancing speed unchanged: if larger section, the gullets are not able to unload the chips that suffocate the cutting edge. If smaller, the material goes into the gullet between the tips of the teeth, there are not at least two teeth gripped and therefore in both cases the teeth are torn. NB: for light alloys a larger step (wider teeth) than the one necessary for cutting the corresponding section in iron must be used, whereas a smaller step (narrower teeth) for stainless steel of the corresponding iron is necessary.

NOTE / NOTES

EMULSIONE / EMULSION: 7 - 10°%
SECCO / DRY CUT GHISA (Cast iron), K110
VELOCITA' LAMA: RIDOTTA PER INOX O LARGHE SEZIONI / BLADE VELOCITY: REDUCED FOR STAINLESS STEEL OR LARGE SECTIONS

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LAME A NASTRO BIMETALLICHE M42 / BIMETAL BANDSAW BLADES M 42

STB 8

Lama in Bimetallo in **M42 al cobalto 8%** per tutti gli impieghi su tutti i tipi di acciaio dall'alluminio all'acciaio **inox, titanio compreso**, ove si cerca qualità, affidabilità e massime prestazioni.

Bimetal Bandsaw **Blade M42 8% cobalt** for all kind of cut on every steel: non ferrous steel, **stainless steel**, mild steel up to **Titanium**, usefull when You need high performances and consistancy on cut.

DIMENSIONI / DIMENSIONS		PESO per M / WEIGHT per M	DENTATURE / TPI
in MM	Pollici/Inches	in Kg	
6 x 0.6	1/4 x 0,025	0,04	6 10/14
6 x 0.9	1/4 x 0,035	0,04	6 10 10/14 14
10 x 0.6	3/8 x 0,025	0,05	6 10/14
10 x 0.9	3/8 x 0,035	0,05	4 6 8 10 10/14 14
13 x 0.6	1/2 x 0,025	0,06	4 6 6/10 8/12 10* 10/14 14 18
13 x 0.9	1/2 x 0,035	0,09	3 4 6 6/10 8* 8/12 10* 10/14 14
20 x 0.9	3/4 x 0,035	0,14	3 4 4/6 5/8 6* 6/10 8* 8/12 10* 10/14 18
27 x 0.9	1 x 0,035	0,19	2 2/3 3 3/4 4* 4/6 5/8 6 6/10 8* 8/12 10* 10/14 14*
34 x 1.1	1-1/4 x 0042	0,29	1,25* 1,4/2 2* 2/3 3/4 4/6 5/8 6* 6/10 8/12
41 x 1.3	1-1/2 x 0,050	0,41	1,4/2 2* 2/3 3/4 4/6 5/8 6* 6/10
54 x 1.3	2 x 0,050	0,53	1,4/2 2/3 3/4 4/6
54 x 1.6	2 x 0,063	0,65	0,7/1,25 1,4/2 2/3 3/4 4/6
67 x 1.6	2-5/8 x 0,063	0,82	0,7/1,25 1,4/2 2/3
80 x 1.6	3 x 0,063	0,98	0,7/1,25 1,4/2

* FINO AD ESAURIMENTO SCORTE / * AVAILABLE UP TO END OF STOCK

STB 8 PRO

Lama in Bimetallo in **M42 al cobalto 8%** con stradatura e geometria **dente a rinforzo speciale** per tubi, profilati sottili e per piccoli pieni o macchine manuali con produzioni di dimensioni varie.
IV Evoluzione del profilo dente z 5/7 con maggiore gola per garantire migliore asportazione e ampliare il campo di applicazione sia su pieni che profilati. **Ottime performance su Inox e profilati** di alluminio.

Bimetal Bandsaw blade **M42 8% Cobalt** with special setting and **reinforced tooth geometry** in order to cut various shapes and dimensions with one single TPI espacially on manual machines. Usefull for cutting pipes, profiles, solid also on different kind of steel.
4th evolution of the 5/7 Tpi with this geometry we have achieved a good compromize between gullet and reinforced tooth in order to ensure high resilience of the teeth and to grant best performances also when the tpi selected is not the proper one.

DIMENSIONI / DIMENSIONS		PESO per M / WEIGHT per M	DENTATURE / TPI
in MM	Pollici/Inches	in Kg	
20 x 0.9	3/4 x 0,035	0,14	-- -- 4/6* 5/7 8/11
27 x 0.9	1 x 0,035	0,19	-- 3/4 4/6 5/7 8/11
34 x 1.1	1-1/4 x 0042	0,29	2/3 3/4 4/6 5/7
41 x 1.3	1-1/2 x 0,050	0,41	2/3 3/4 4/6
54 x 1.6	2 x 0,063	0,65	2/3 3/4 4/6
67 x 1.6	2-5/8 x 0,063	0,82	2/3 3/4

* FINO AD ESAURIMENTO SCORTE / * AVAILABLE UP TO END OF STOCK

STB 8 HPS

Lama bimetallica **M42** idonea per taglio di materiali pieni alto legati di grosse sezioni laddove si ricercano le migliori performance in termini di tempo di taglio. L' innovativa geometria del dente consente di ottenere **tagli più veloci e maggiore rigidità** lama sotto forti pressioni di taglio.

Based on **Stb 8** quality it ensures a better strenght of the body when the blades is cutting at high feed rates for a long time. It is indicated when You need high production rate with machine working in continuos for several hours. The special body treatement, the rake angle and the setting ensure **fast cut,** good finiture and **higher blade life** also on high feed rate.

DIMENSIONI / DIMENSIONS		PESO per M / WEIGHT per M	DENTATURE / TPI
in MM	Pollici/Inches	in Kg	
41 x 1.3	1-1/2 x 0,050	0,41	-- -- 1,4/2P 2/3P* 3/4P* 4/6P
54 x 1.6	2 x 0,063	0,65	0,7/1,25P 1,4/2P 2/3P* 3/4P* 4/6P
67 x 1.6	2-5/8 x 0,063	0,82	0,7/1,25P 1,4/2P 2/3P
80 x 1.6	3 x 0,063	0,98	0,7/1,25P 1,4/2P

* DISPONIBILE ANCHE IN VERSIONE SPOGLIA EXTRA POSITIVA / * AVAILABLE IN EXTRA POSITIVE RAKE ANGLE

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LAME A NASTRO BIMETALLICHE M51 / BIMETAL BANDSAW BLADES M51

CBX

Lama in Bimetallo al **cobalto 10% M51** per applicazioni speciali su acciai estremamente duri con alti regimi di asportazione e macchine estremamente rigide o su colonne.

Special blade with **10% cobalt M51** for cutting in high production rate hard and tough steel such as stainless steel, on strong and modern machines.

DIMENSIONI / DIMENSIONS		PESO per M / WEIGHT per M	DENTATURE / TPI				
in MM	**Pollici/Inches**	**in Kg**					
27 x 0.9	1 x 0,035	0,19	--	--	2/3	3/4	4/6
34 x 1.1	1-1/4 x 0042	0,29	--	--	2/3	3/4	4/6
41 x 1.3	1-1/2 x 0,050	0,41	--	1,4/2	2/3	3/4	4/6
54 x 1.6	2 x 0,063	0,65	--	1,4/2	2/3		
67 x 1.6	2-5/8 x 0,063	0,82	0,7/1,25				
80 x 1.6	3 x 0,063	0,98	0,7/1,25				

LAME BIMETALLICHE M42 DENTE RETTIFICATO / BIMETAL BANDSAW BLADES M 42 GROUND TOOTH

STB 8 HPSG

Lama bimetallica **M42 con dente rettificato** idonea per taglio di materiali **pieni alto legati di grosse sezioni.** L' innovativa geometria del dente consente di ottenere tagli più veloci e maggiore rigidità lama sotto forti pressioni di taglio. Il dente rettificato e la speciale spoglia consentono poi di avere maggiore precisione al taglio, migliore finitura e minore usura dente.

Bimetal bandsaw blade with **ground tooth.** The innovative triplechip geometry and the different height of the teeth permit to better control the chips reducing their surface and also the resistance of the material to be cut. It must be used with high performances machine, better if double column, with hidraulic feed. With this blade You can increase the production rate on **high alloyed steels** on **big solid sections**, achieving an optimum surface, straight cut and reducing the wear out of the teeth.

DIMENSIONI / DIMENSIONS		PESO per M / WEIGHT per M	DENTATURE / TPI			
in MM	**Pollici/Inches**	**in Kg**				
27 x 0.9	1 x 0,035	0,19			2/3P	3/4P*
34 x 1.1	1-1/4 x 0042	0,29		1,4/2P	2/3P*	3/4P*
41 x 1.3	1-1/2 x 0,050	0,41		1,4/2P	2/3P*	3/4P*
54 x 1.6	2 x 0,063	0,65	0,7/1,25P	1,4/2P	2/3P*	3/4P*
67 x 1.6	2-5/8 x 0,063	0,82	0,7/1,25P	1,4/2P	2/3P	
80 x 1.6	3 x 0,063	0,98	0,7/1,25P	1,4/2P		

* DISPONIBILE IN SPOGLIA EXTRA POSITIVA/ AVAILABLE IN EXTRA POSITIVE RAKE ANGLE

LAME GRIT AL TUNGSTENO O DIAMANTE / GRIT BANDSAW BLADES TUNGSTEN OR DIAMOND

SRG

Lama **senza denti ai Carburi di Tungsteno** per taglio di acciai temprati, vetro, vetroresina, ferodi, bronzine e tutto ciò che non è tagliabile con il Bimetallo. Lavora per abrasione, non per asportazione. Versione speciale per taglio pneumatici.

Tungsten grit bandsaw blade for cutting tempered steels, fiber, glass or any steel whenever You cannot succed with bimetal bandsaw blades. It is an abrasive blade without chip removal and for this reason the cutting rate is quite small, but it can work also on small pivoting manual machine.

DIMENSIONI / DIMENSIONS		PESO per M / WEIGHT per M	DENTATURE / TPI		
in MM	**Pollici/Inches**	**in Kg**			
10 x 0.6	3/8 x 0,025	0,05	GM	CM	
13 x 0.6	1/2 x 0,025	0,06	GM	GMG	CM
20 x 0.8	3/4 x 0,035	0,13	GM	CM	
25 x 0.9	1 x 0,035	0,18	GG	CG	
32 x 1.1	1-1/4 x 0042	0,23	GG		

GRT

Lama al Diamante per impieghi speciali su materiali estremamente abrasivi e molto duri non tagliabili con SRG (es. marmo e vetro temprato).

Diamond grit blade for special applications on very hard materials such as marble, silicium, gress, glass, ceramic.

DIMENSIONI / DIMENSIONS		PESO per M / WEIGHT per M	GRANA / GRIT
in MM	**Pollici/Inches**	**in Kg**	
13 x 0.65	1/2 x 0,025	0,06	CONTINUA / CONTINOUS
25 x 0.90	1 x 0,035	0,18	CONTINUA / CONTINOUS
13 x 0.65	1/2 x 0,025	0,06	GOLA / GULLET

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MDD

Lama con **dente in Metallo Duro** per le massime performance di taglio idonea per taglio di materiali pieni. Disegno dente **Triplechip** che consente l'impiego **su tutti i tipi di acciai** con ottime performance e buona finitura pezzo. Disponibile con dente a sezione maggiorata per taglio blocchi di leghe non ferrose.

Carbide tipped blade for max. performances suitable for cutting rounds. **The triplechip tooth form is good to be used on all kind of steel** with outstanding performances and very good finishing. It is available also with tooth with larger tooth tip for cutting non ferrous large blocks.

DIMENSIONI / DIMENSIONS		PESO per M / WEIGHT per M	DENTATURE / TPI					
in MM	Pollici/Inches	in Kg						
27 x 0.9	1 x 0,035	0,19	--	--	--	2/3	3	3/4
34 x 1.1	1-1/4 x 0042	0,29	--	--	--	2/3	--	3/4
41 x 1.3	1-1/2 x 0,050	0,41	--	--	1,4/2	2/3	--	3/4
54 x 1.3	2 x 0,050	0,53	--	--	1,4/2	2/3	--	--
54 x 1.6	2 x 0,063	0,65	0,7/1,25	1,1/1,4	1,4/2	2/3	--	--
67 x 1.6	2-5/8 x 0,063	0,82	0,7/1,25	1,1/1,4	1,4/2	2/3	--	--

MDA

Lama con **dente in Metallo Duro** per le massime performance di taglio idonea per taglio di **leghe non ferrose quali Alluminio**, Bronzo, Rame e Graphite. La speciale geometria a dente la rende idonea per fusioni di alluminio in sabbia e conferisce minore usura dente e migliore finitura pezzo.

Carbide tipped blade for max. cutting performances, suitable for cutting **non ferrous metals such as Aluminium** alloys and bronzes copper alloys, graphite. The special geometry of tooth form is really good for cutting sand cast aluminium allowing less tooth rounding and better finish.

DIMENSIONI / DIMENSIONS		PESO per M / WEIGHT per M	DENTATURE / TPI					
in MM	Pollici/Inches	in Kg						
20 x 0.9	3/4 x 0,035	0,14	--	--	--	--	3	--
27 x 0.9	1 x 0,035	0,19	--	--	--	2/3	3	3/4
34 x 1.1	1-1/4 x 0042	0,29	--	--	1,4/2	2/3	--	3/4
41 x 1.3	1-1/2 x 0,050	0,41	--	--	1,4/2	2/3	--	3/4
54 x 1.3	2 x 0,050	0,53	--	--	1,4/2	2/3	--	--
54 x 1.6	2 x 0,063	0,65	0,7/1,25	--	1,4/2	2/3	--	--
67 x 1.6	2-5/8 x 0,063	0,82	0,7/1,25	--	1,4/2	--	--	--
80 x 1.6	3 x 0,063	0,98	0,7/1,25	--	--	--	--	--

MDDS

Lama con **dente in Metallo Duro** idonea per taglio di materiali pieni di acciai duri o con molte tensioni residue quali Titanio, Inox, leghe non ferrose abrasive o leghe speciali. **La speciale combinazione della dentatura Triplechip e del gruppo dente stradato** consente di poter ottenere un costante regime di asportazione anche con materiali che oppongono grossa resistenza al taglio.

Carbide tipped blade for max. cutting performances suitable for cutting solids of tough and tensioned material such as Titanium, stainless steel, abrasive materiales, special alloys. **The special combination of Triplechip tooth form with setted teeth** allows a consistant asportation even with materials with very poor machinability.

DIMENSIONI / DIMENSIONS		PESO per M / WEIGHT per M	DENTATURE / TPI					
in MM	Pollici/Inches	in Kg						
27 x 0.9	1 x 0,035	0,19	--	--	--	2/3	3	3/4
34 x 1.1	1-1/4 x 0042	0,29	--	--	--	2/3	--	3/4
41 x 1.3	1-1/2 x 0,050	0,41	--	--	1,4/2	2/3	--	--
54 x 1.3	2 x 0,050	0,53	--	--	1,4/2	2/3	--	--
54 x 1.6	2 x 0,063	0,65	0,7/1,25	--	1,4/2	2/3	--	--
67 x 1.6	2-5/8 x 0,063	0,82	0,7/1,25	--	1,4/2	--	--	--
80 x 1.6	3 x 0,063	0,98	0,7/1,25	--	1,4/2	--	--	--

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BF SERVICE

MDM

Lama con **dente in Metallo Duro con speciale dentatura Multichip** per ottenere le migliori prestazioni di taglio su pieni di acciai quali Inox, acciai per lavorazioni a freddo o a caldo, leghe di Nichel, leghe Alluminio - Silicio, Titanio o leghe esotiche dure da tagliare con le tradizionali lame.

Carbide tipped blade for max. cutting performances with **Multi Chip tooth** form suitable for cutting solids, Stainless Steel, cold and hot working steels, Nichel alloys, Aluminium – Silicon alloys, Titanium and exotic, tough to cut alloys with traditional blades.

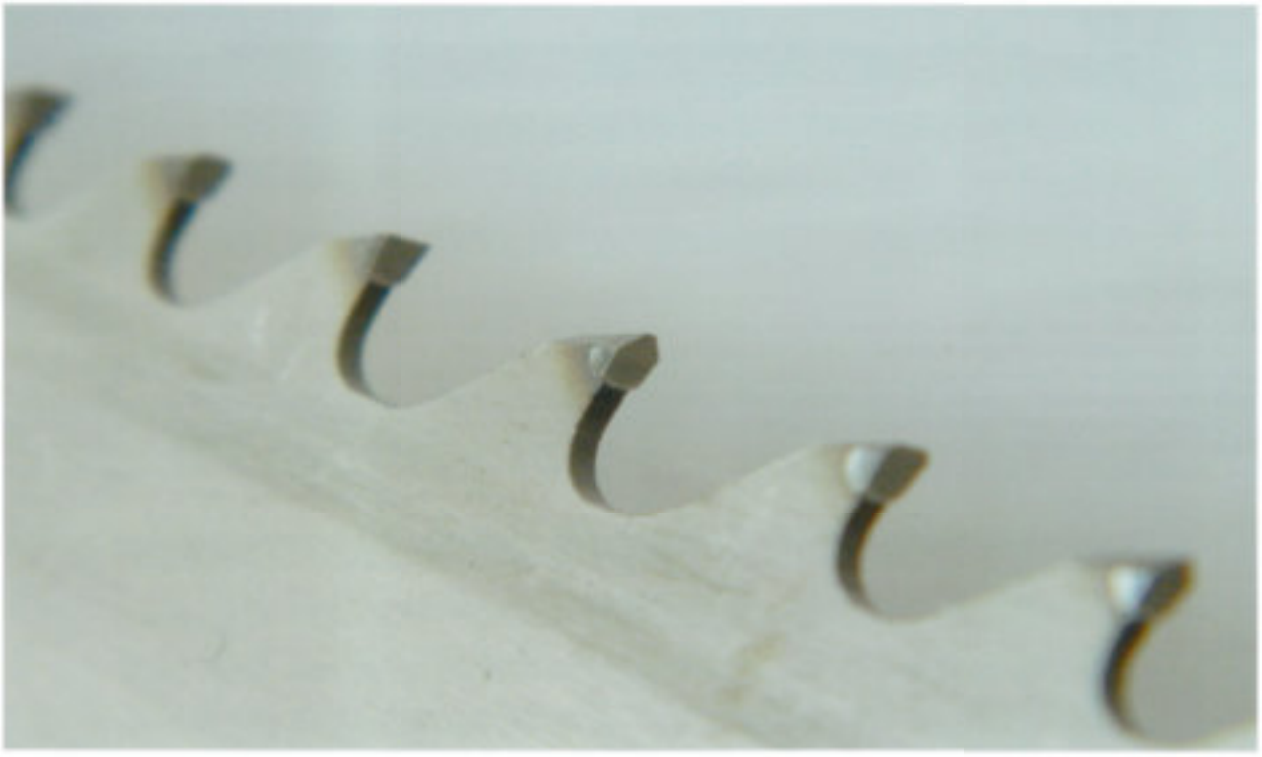
DIMENSIONI / DIMENSIONS		PESO per M / WEIGHT per M	DENTATURE / TPI				
in MM	Pollici/Inches	in Kg					
27 x 0.9	1 x 0,035	0,19	--	--	--	2/3	3/4
34 x 1.1	1-1/4 x 0042	0,29	--	--	1.4/2	2/3	3/4
41 x 1.3	1-1/2 x 0,050	0,41	--	--	1.4/2	2/3	3/4
54 x 1.3	2 x 0,050	0,53	--	--	1.4/2	2/3	--
54 x 1.6	2 x 0,063	0,65	0.7/1.2	1.1/1.4	1.4/2	2/3	3/4
67 x 1.6	2-5/8 x 0,063	0,82	0.7/1.2	1.1/1.4	1.4/2	2/3	--
80 x 1.6	3 x 0,063	0,98	0.7/1.2	--	--	--	--

MDN

Lama con **dente in Metallo Duro** per le massime performance di taglio idonea per **taglio di materiali pieni con durezze fino a 62HRC** quali pistoni induriti per induzione, Barre cromate e temprate. Disegno dente **Multichip con speciale spoglia** che consente il taglio di materiali estremamente duri.

Carbide tipped blade with Multi chip tooth form and **special rake angle** for max. cutting performances on rounds with hardness up to 62 HRC such as induction hardened rods and hard Chromium plated materials.

DIMENSIONI / DIMENSIONS		PESO per M / WEIGHT per M	DENTATURE / TPI				
in MM	Pollici/Inches	in Kg					
27 x 0.9	1 x 0,035	0,19	--	--	--	2/3	3/4
34 x 1.1	1-1/4 x 0042	0,29	--	--	--	2/3	3/4
41 x 1.3	1-1/2 x 0,050	0,41	--	--	--	2/3	3/4
54 x 1.6	2 x 0,063	0,65	--	--	--	2/3	--



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BF SERVICE

Gli speciali rivestimenti studiati permettono di incrementare ulteriormente le performances dei ns prodotti. Il rivestimento conferisce alla lama una maggiore resistenza all'usura con naturale conseguenza di **una maggiore vita lama e di aumento della produttività grazie alla possibilità di aumentare la velocità di avanzamento** al taglio. Disponibile nelle qualità e misure sotto elencate.

The special coatings on the blades edges allow to increase the performances of our products. The coating gives the blade greater resistance to wear and, as a natural consequence, **a longer blade life and increased productivity thanks to the possibility of increasing the cutting speed and the feeding force.**
Below You can find available items that can be provided coated

STB8 HPS-C

Lama **bimetallica M42** idonea per taglio di materiali pieni alto legati di grosse sezioni laddove si ricercano le migliori performance in termini di tempo di taglio. L' innovativa geometria del dente consente di ottenere tagli più veloci e maggiore rigidità lama sotto forti pressioni di taglio.

Based on **Stb 8 quality** it ensures a better strenght of the body when the blades is cutting at high feed rates for a long time. It is indicated when You need high production rate with machine working in continuos for several hours. The special body treatement, the rake angle and the setting ensure fast cut, good finiture and higher blade life also on high feed rate.

DIMENSIONI / DIMENSIONS		PESO per M / WEIGHT per M	DENTATURE / TPI					
in MM	Pollici/Inches	in Kg						
41 x 1.3	1-1/2 x 0,050	0,41	--	--	1,4/2	2/3	--	--
54 x 1.3	2 x 0,050	0,53	--	--	1,4/2	2/3	--	--
54 x 1.6	2 x 0,063	0,65	--	--	1,4/2	2/3	--	--
67 x 1.6	2-5/8 x 0,063	0,82	--	--	1,4/2	2/3	--	--
80 x 1.6	3 x 0,063	0,98	--	--	1,4/2			

STB8 PRO-C

Lama in **Bimetallo in M42 al cobalto 8%** con stradatura e geometria **dente a rinforzo speciale** per tubi, profilati sottili e per piccoli pieni o macchine manuali con produzioni di dimensioni varie.

Bimetal Bandsaw blade **M42 8% Cobalt** with special setting and **reinforced tooth geometry** in order to cut various shapes and dimensions with one single TPI especially on manual machines. Usefull for cutting pipes, profiles, solid also on different kind of steel.

DIMENSIONI / DIMENSIONS		PESO per M / WEIGHT per M	DENTATURE / TPI	
in MM	Pollici/Inches	in Kg		
41 x 1.3	1-1/2 x 0,050	0,41	2/3	3/4
54 x 1.6	2 x 0,063	0,65	2/3	3/4
67 x 1.6	1-1/2 x 0,050	0,82	2/3	3/4

STB8 HPSG-C

Lama **bimetallica M42 con dente rettificato** idonea per taglio di materiali **pieni alto legati di grosse sezioni.** L' innovativa geometria del dente consente di ottenere tagli più veloci e maggiore rigidità lama sotto forti pressioni di taglio. Il dente **rettificato** e la **speciale** spoglia consentono poi di avere maggiore precisione al taglio, migliore finitura e minore usura dente.

Bimetal bandsaw blade with ground tooth. The innovative triplechip geometry and the different height of the teeth permit to better control the chips reducing their surface and also the resistance of the material to be cut. It must be used with high performances machine, better if double column, with hidraulic feed. With this blade You can increase the production rate on **high alloyed steels on big solid sections,** achieving an optimum surface, straight cut and reducing the wear out of the teeth.

DIMENSIONI / DIMENSIONS		PESO per M / WEIGHT per M	DENTATURE / TPI					
in MM	Pollici/Inches	in Kg						
41 x 1.3	1 x 0,035	0,41	--	--	1,4/2	2/3*	--	--
54 x 1.6	1-1/4 x 0042	0,65	--	--	1,4/2	2/3	--	--
67 x 1.6	1-1/2 x 0,050	0,82	--	--	1,4/2	2/3	--	--
80 x 1.6	2 x 0,063	0,98	--	--	1,4/2	--	--	--

* DISPONIBILE IN SPOGLIA EXTRA POSITIVA/ AVAILABLE IN EXTRA POSITIVE RAKE ANGLE

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BF SERVICE

Gli speciali rivestimenti studiati permettono di incrementare ulteriormente le performances dei ns prodotti. Il rivestimento conferisce alla lama una maggiore resistenza all'usura con naturale conseguenza di **una maggiore vita lama e di aumento della produttività grazie alla possibilità di aumentare la velocità di avanzamento** al taglio. Disponibile nelle qualità e misure sotto elencate.

The special coatings on the blades edges allow to increase the performances of our products. The coating gives the blade greater resistance to wear and, as a natural consequence, **a longer blade life and increased productivity thanks to the possibility of increasing the cutting speed and the feeding force.**
Below You can find available items that can be provided coated

CBXG-C

Lama **bimetallica M51** con dente rettificato idonea per taglio di materiali pieni alto legati di grosse sezioni. L' innovativa geometria del dente consente di ottenere tagli più veloci e maggiore rigidità lama sotto forti pressioni di taglio. Il dente rettificato e la speciale spoglia consentono poi di avere maggiore precisione al taglio, migliore finitura e minore usura dente.

Special blade with **10% cobalt M51** for cutting in high production rate hard and tough steel such as stainless steel, on strong and modern machines.

DIMENSIONI / DIMENSIONS		PESO per M / WEIGHT per M	DENTATURE / TPI				
in MM	Pollici/Inches	in Kg					
41 x 1.3	1 x 0.035	0,41	--	--	1,4/2P	2/3P	
54 x 1.6	1-1/4 x 0042	0,65	--	1,1/1,4	1,4/2P	2/3P	
67 x 1.6	1-1/2 x 0,050	0,82	--	1,1/1,4	1,4/2P	2/3P	
80 x 1.6	2 x 0,063	0,98	--	1,1/1,4			

MDDS-C

Lama con dente in **Metallo Duro** idonea per taglio di materiali pieni di acciai duri o con molte tensioni residue quali **Titanio, Inox, leghe non ferrose abrasive o leghe speciali.** La speciale combinazione della dentatura **Triplechip e del gruppo dente stradato** consente di poter ottenere un costante regime di asportazione anche con materiali che oppongono grossa resistenza al taglio.

Carbide tipped blade for max. cutting performances suitable for cutting solids of tough and tensioned material such as **Titanium, stainless steel, abrasive materiales, special alloys**. The special combination of **Triplechip tooth form with setted teeth** allows a consistant asportation even with materials with very poor machinability.

DIMENSIONI / DIMENSIONS		PESO per M / WEIGHT per M	DENTATURE / TPI					
in MM	Pollici/Inches	in Kg						
41 x 1.3	1-1/2 x 0,050	0.41	--	--	1,4/2	2/3	--	--
54 x 1.3	2 x 0.050	0.53	--	--	1,4/2	2/3	--	--
54 x 1.6	2 x 0,063	0.65	--	--	1,4/2	2/3	--	--
67 x 1.6	2-5/8 x 0,063	0.82	--	--	1,4/2	--	--	--
80 x 1.6	3 x 0.063	0.98	--	--	1,4/2	--	--	--

MDM-C

Lama con dente in **Metallo Duro con speciale dentatura Multichip** per ottenere le migliori prestazioni di taglio su pieni di acciai quali Inox, acciai per lavorazioni a freddo o a caldo, leghe di Nichel, leghe Alluminio - Silicio, Titanio o leghe esotiche dure da tagliare con le tradizionali lame.

Carbide tipped blade for max. cutting performances with **Multi Chip tooth form** suitable for cutting solids, Stainless Steel, cold and hot working steels, Nichel alloys, Aluminium – Silicon alloys, Titanium and exotic, tough to cut alloys with traditional blades.

DIMENSIONI / DIMENSIONS		PESO per M / WEIGHT per M	DENTATURE / TPI					
in MM	Pollici/Inches	in Kg						
41 x 1.3	1-1/2 x 0,050	0,41	--	--	1,4/2	2/3	--	--
54 x 1.3	2 x 0,050	0,53	--	--	1,4/2	2/3	--	--
54 x 1.6	2 x 0,063	0,65	--	1,1/1,4	1,4/2	2/3	--	--
67 x 1.6	2-5/8 x 0,063	0,82	--	1,1/1,4	1,4/2	2/3	--	--
80 x 1.6	3 x 0,063	0,98	--	--	1,4/2	--	--	--

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DIFETTI CAUSE RIMEDI

In caso di denti rotti, lame rotte o durata lama non sufficiente, stendete la lama rotta per terra, controllate i difetti del corpo e dei denti, cercateli sulle tabelle e troverete la soluzione del vostro problema di taglio

1. PREMATURA ED ECCESSIVA USURA DEI DENTI

Pressione spinta troppo leggera, aumentarla
Ridurre la velocità dei volani
Getto refrigerante scarso
Emulsione non appropriata
Dentatura non giusta, usare una più fitta
Non idoneo rodaggio lama
Denti avanzano direzione opposta al taglio, girare la lama

2. LA LAMA VIBRA

Aumentare o diminuire la velocità volani
Vibrazione sorda: aumentare tensione lama
Denti troppo grossi per pezzo al taglio
Si ripercuote nel basamento: diminuire pressione taglio
Vibrazione alta frequenza aumentare discesa testata
Materiale non perfettamente bloccato
Usare passo variabile o dentatura positiva

3. I DENTI SI ROMPONO

Denti troppo grossi per la sezione al taglio
Materiale non perfettamente bloccato
Refrigerante non idoneo
Refrigerante insufficiente
Pressione taglio troppo elevata: controllare il truciolo
Velocità volani troppo basse
Gole si sovraccaricano di materiale tagliato

4. SUPERFICIE DI TAGLIO TROPPO RUVIDA

Scegliere un passo dente più fine
Aumentare la velocità volani
Diminuire la discesa della testata
Dosare meglio il refrigerante

5. PREMATURA ROTTURA DELLA LAMA

Spessore lama troppo alto per diametro volani
Guidalama troppo aperti ad alta velocità
Aumentare o diminuire la velocità
Controllare i volani senza difetti
Dentatura troppo grossa
Tensione lama troppo elevata; la lama sdraiata si alza ai lati
Spinta testata troppo alta: il dorso lama è lucido e ricalcato
Pattini guidalama troppo stretti: la lama sdraiata si avvolge a spirale come una molla. Più sono stretti, più si svergola
Scarso refrigerante

6. TAGLI A FORMA DI PANCIA

Aumentare la tensione
Avvicinare i guidalama al taglio
Denti troppo fini
Diminuire la pressione di taglio

7. TAGLIO STORTO

Avvicinare guidalama al taglio
Controllare pieno appoggio del pezzo in bolla con il pezzo
Controllare perpendicolarità lama: se fuori agire sui guidalama
Dentatura troppo fitta
Denti rotti o screziati
Aumentare la velocità

8. LAMA FA RUMORE SUI CUSCINETTI REGGISPINTA

Sbavare o rettificare il dorso
Controllare allineamento volani
Controllare usura reggispinta
Saldatura non perfetta

9. LA LAMA SI INARCA POSITIVAMENTE

Ridurre la pressione di taglio
Usare denti più grossi per aumentare penetrazione
Avvicinare guidalama al taglio



10. LA LAMA SI INARCA NEGATIVAMENTE

Il dorso forza contro i pattini superiori reggispinta; controllare luce sulla battuta dei volani e sul reggispinta a taglio fermo e lama in moto
Controllare allineamento volani



11. RITMO TAGLIO LENTO, TRUCIOLI FINI

Aumentare velocità volani
Aumentare pressione taglio
Usare denti più grossi
Usare refrigerante idoneo

12. PERDITA PREMATURA DELLA STRADATURA

Raggio di curvatura troppo stretto per la lama
Ridurre la velocità volani
Aumentare refrigerante

13. LA LAMA SI SVERGOLA COME UNA MOLLA

Lama troppo larga per il raggio da tagliare
Ridurre pressione di taglio
Diminuire la tensione lama
Pressione dei pattini eccessiva: regolarla
Avvicinare i guidalama al taglio

14. IL TRUCIOLO SI SALDA AL DENTE, TRUCIOLI TROPPO GROSSI

Diminuire pressione di taglio
Usa refrigerante idoneo e abbondante
Controllare l'efficienza della spazzola per la pulizia dei trucioli dalle gole

15. LA LAMA È SEGNATA O PIEGATA DA UN LATO

Controllo inserti guidalama per usura
Gli inserti premono troppo sul dorso lama
Controllare allineamento e perpendicolarità dei guidalama

16. BAVA O RICALCATURA SUL DORSO

Aumentare la tensione e aggiustare i guidalama
Controllare la pressione e l'allineamento dei reggispinta sul dorso lama
Ridurre la pressione di taglio
Usare dentature più grossa

17. IL PEZZO TAGLIATO È SEGNATO DI NERO

Il dorso striscia sul taglio
Sulla SN: il guidalama SN è fuori asse
Sulla DS: il guidalama DS è fuori squadra
Su tutta la linea di taglio: i guidalame sono fuori squadra oppure
La pressione è eccessiva oppure
La tensione lama è bassa oppure
I denti sono troppo fitti e non scaricano oppure
Il refrigerante è errato

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PROBLEM CAUSE SOLUTION

In the case of broken teeth, broken blades or insuffi cient blade life, lay the broken blade on the fl oor. Check any defects of the body and the teeth, look for them in the tables and you will fi nd the solution to your cutting problem.

1. TEETH ARE EXCESSIVELY AND PREMATURELY WORN OUT

Feeding pressure is too light, increase
Reduce wheel speed
Poor cooling
Emulsion not appropriate
Incorrect toothing, user fi ner pitch
Incorrect blade break-in
Teeth go in opposite direction, turn the blade

2. THE BLADE VIBRATES

Increase or decrease the blade speed
Dull vibration: increase blade tension
Teeth are too big for the piece to be cut
Dull vibration in the base: decrease the cutting pressure
High frequency vibration: increase head descent
Material not perfectly blocked
Use variable pitch or positive toothing

3. THE TEETH BREAK

Teeth are too big for the piece to be cut
Material is not perfectly blocked
Coolant is not suitable
Insuffi cient coolant
Cutting pressure is too high: check the chips
Blade speed is too low
Gullets are overloaded with cut material

4. CUTTING SURFACE IS TOO ROUGH

Choose a finer toothing
Increase blade speed
Decrease head descent
Use a better proportion of coolant

5. BLADE PREMATURELY BREAKS

Blade thickness is too high for wheel diameters
Blade guides too open at high speed
Increase or decrease speed
Check the wheels without defects
Toothing too coarse
Blade tension is too high: blade fl at raises at the sides
Feeding pressure too high: the back of the blade
is shiny and pressed down
Blade guides are too tight: blade fl at winds up like a spring
The narrower they are, the more it twists
Coolant is scarce

6. BELLY SHAPED CUTS

Increase tension
Move the blade guides towards the cut
Teeth are too fi ne
Decrease the cutting pressure

7. CURVED CUT

Move the blade guides towards the cut
Check the piece base parallel with the piece
Check the perpendicularity of the blade: if off, move guides
Teeth are broken or chipped

8. BLADE MAKES A NOISE ON TOP GUIDES

Rectify the back
Check wheel alignment
Check top guide wear
Weld not perfect

9. THE BLADE ARCHES POSITIVELY

Reduce the cutting pressure
Use larger teeth to increase penetration
Move the blade guides towards the cut



10. THE BLADE ARCHES NEGATIVELY

The back forces on top guides
Check span on the wheel beat and on top guides with the blade stopped and the blade in movement
Check wheel alignment



11. LOW CUTTING RATE, FINE CHIPS

Increase blade speed
Increase cutting pressure
Use coarser teeth
Use suitable coolant

12. PREMATURE LOSS OF SET

Radius of curvature too narrow for the blade
Reduce blade speed
Increase coolant

13. THE BLADE TWISTS LIKE A SPRING

Blade is too wide for the radius to be cut
Reduce feeding pressure
Reduce blade tension
Move the blade guides towards the cut
Guides too tight

14. CHIP WELDED TO THE TOOTH, CHIPS TOO BIG

Decrease feeding pressure
Use suitable and abundant coolant
Replace or adjust brushes

15. THE BLADE IS MARKED OR SCRATCHED ON ONE SIDE

Check the blades guide inserts for wear
The inserts press too much on the back of the blade
Check alignment and perpendicularity of the blade guides

16. BURR OR HEADING ON THE BACK

Increase the tension and adjust the blade guides
Check the pressure and alignment of the top guides
Reduce cutting pressure
Use coarser toothing

17. THE CUT PIECE HAS BLACK MARKS

In the back slides on the cut are:
On the left: the left blade guide is out of axis
On the right: the right blade guide is out of axis
On the entire cutting line: both guides are out of axis or
the pressure is excessive or
the blade tension is low or
the teeth are too fi ne and do not unload or

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COME NASCE IL BIMETALLO / BIMETAL BANDSAW BLADES PRODUCTION

OLTRE 40 ANNI DI ESPERIENZA PRODUTTIVA MATURATA IN ITALIA, IN GERMANIA, IN AMERICA, CI CONSENTONO DI DIRVI TUTTO, O QUASI, SUL BIMETALLO.

OVER 40 YEARS EXPERIENCE IN ITALY, GERMANY AND AMERICA ALLOW US TO TELL YOU ALMOST EVERYTHING ABOUT BIMETAL.

COME NASCE / WHAT IS



RACCOMANDAZIONI IMPORTANTI / IMPORTANT RECOMMENDATIONS

Usare i valori più alti per le sezioni al taglio con diametro fino a 80 mm. Oltre, fino a 400 mm, ridurre in proporzione ai valori minimi. Oltre i 400 mm ridurre i minimi del 10%. Effettuare almeno 300 cm2 di taglio a regime di rodaggio quando si monta una lama nuova riducendo i valori di velocità e asportazione previsti del 20%. Poi portare piano piano a migliore regime di compromesso tra tempo di taglio e durata lama. Controllare i trucioli (se spessi e blu ridurre la penetrazione, se molto filamentosi aumentare la penetrazione) e le vibrazioni (se ad alta frequenza tipo violino significa che il dente non è in presa e quindi diminuire la velocità lama e/o aumentare la penetrazione, se a bassa frequenza, tipo rumore sordo che si ripercuote sul basamento, il dente è troppo in presa quindi diminuire la penetrazione). In entrambi i casi si può avere la rottura dei denti per il distacco della saldatura dall'HSS sul portante o per sovraccarico di pressione sul tagliente. Dopo alcuni tagli ricontrollare la tensione lama perché tende a salire anche del 30%. Non riprendere mai un vecchio taglio con una lama nuova: ci potrebbe essere un pezzo di tagliente lasciato nel materiale che arrotonderebbe tutti i taglienti della lama nuova. Mai fare brusche riduzioni della velocità della lama: rischiereste lo strappo dei denti.

Use the highest values for the cutting sections with diameters up to 80 mm. Over up to 400 mm, reduce according to the minimum values. Over 400 mm, reduce the minimum by 10%. Carry out at least 300 cm2 of break-in cutting when a new blade is mounted, reducing the prevued speed and removal values by 20%. Then very slowly bring to the best balance, compromising between cutting time and blade life. Check the chips (if thick and blue reduce penetration, if there are lot or fi lamants, increase penetration) and the vibrations (if they are high frequency vibrations such as a violin, this means that the tooth is not gripped and therefore the blade speed must be reduced and/or penetration must be increased, if they are low frequency vibrations such as a dull noise that can be felt on the basement, the tooth is too gripped and therefore penetration must be decreased). In both cases the detschment of the welding of the back from the HSS or pressure overload on the cutting edge can cause the teeth to be broken. After some cuts check the blade tension again because it tends to go up as much as 30%. Never use a new blade on an old cut because there could be a piece of cutting edge left in the material which would round all the cutting edges of the new blade.

ATTENZIONE / ATTENTION

INDOSSATE SEMPRE GUANTI ED OCCHIALI NEL MANEGGIARE IL PRODOTTO:
IL CORPO È UNA MOLLA TEMPERATA DI 160 NEWTON/MM2 DI RESISTENZA, MENTRE I DENTI SONO CAPACI DI INCIDERE ANCHE IL VETRO.

ALWAYS WEAR GLOVES AND GLASSES WHEN HANDLING OUR PRODUCT:
THE BACK IS A HARDNED SPRING OF 160 NEWTON/ MM2 RESISTANCE AND THE TEETH CAN EVEN CUT GLASS.

Ci riserviamo il diritto di apportare modifiche.
Le immagini sono puramente indicative e possono non corrispondere al prodotto reale.
Tutti i diritti riservati - è vietata ogni riproduzione di testi, tabelle, immagini senza autorizzazione.

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PARAMETRI DI TAGLIO / CUTTING PARAMETERS

GRUPPO ACCIAI STEEL GROUP	DENOMINAZIONE DIN DIN DENOMINATION	VELOCITÀ MT/MIN SPEED MT/MIN	ASPORTAZIONE CM2/MIN REMOVAL CM2/MIN	EMULSIONE % EMULSION %
	ACCIAI DA COSTRUZIONE - CONSTRUCTION STEEL			
PROFIL. CARP. STRUCTURAL	ST37-ST42-ST50-ST60-ST70	50 / 80	40 / 60	SI 10
CEMENTAZ. CEMENTATION	C10-C45-16MN CR5-14NI CR14-15CR13	50 / 70	20 / 40	SI 10
NITRURAZIONE NITRIDING	34CR AL6-34CR AL NI7-31CR MO V9	30 / 40	20 / 30	SI 7
AUTOMATICO AUTOMATIC	9S20-45S20-10SPB20-95 MN28	60 / 90	40 / 60	SI 10
BONIFICA HEAT TREAT	C35-C45-41CR4-42CR MO4-36NI CR6	50 / 70	30 / 50	SI 5
CUSCINETTI BEARING	100CR6-105CR2-100CR MN6	40 / 60	15 / 30	SI 5
MOLLE SPRING	50CR V4-60SI CR7-65SI7	40 / 60	10 / 30	SI 5
	ACCIAI PER UTENSILI - TOOL STEEL			
NON LEGATO NOT ALLOYED	C60W-C80W1-C105W2-C125W	40 / 50	20 / 30	SI 5
LAV. A FREDDO COLD WORK	X210CR13-X200CR12-X155CR V MO121	30 / 40	6 / 20	SI 10
LAV. A CALDO HOT WORK	X40CR MO V51-56NI CR MO V7	20 / 35	10 / 20	SI 5
RAPIDO HSS	S18.0.1-S6.5.2-S2.10.1.8	20 / 45	8 / 20	SI 5
	ACCIAI SPECIALI - GHISE - SPECIAL STEELS - CAST IRON			
INOX STAINLESS	X5CR NI18.10-X2CR NI MO1712-X100CR MO13	26 / 45	6 / 20	SI 10
VALVOLE VALVES	X45CR SI93-X45CR NI W189	35 / 50	20 / 30	SI 7
ALTA TEMP. HIGH TEMP.	X12CR CO2120-X20CR MO V211-X5NI CR TI2615	30 / 40	6 / 15	SI 7
REFRATTARI REFRACTORY	X15CR NI SI2520-X12NI CR SI3616	15 / 35	6 / 12	SI 10
INCONEL INCONEL	NI CR 19 NB MO	10 / 25	6 / 15	SI 20
HASTELLOY HASTELLOY	NI MO30	15 / 25	5 / 10	SI 15
NIMONIC NIMONIC	NI13 MO8 TI3	10 / 20	5 / 10	SI 15
INCOLOY INCOLOY	X8CR NI AL TI2020	10 / 20	5 / 10	SI 15
TITANIO TITANIUM	TI	20 / 30	3 / 7	SI 10
TEMPRATI HARDENED	50-60HRC	45 / 75	3 / 7	SI 10
GHISA CAST IRON	GG15-GG30-GGG50-GTW40-RING250HB	40 / 60	30 / 60	NO
BONIFICA HEAT TREAT	OLTRE/OVER 250 HB	20 / 40	6 / 30	NO
	ACCIAI LEGHE LEGGERE - NON FERROSE - LIGHT ALLOYS - NOT FERROUS			
ALLUMINIO ALUMINIUM	AL99.5-AL MG1-G AL SI5MG	80 / 600	60 / 450	SI
BRONZO BRONZE	CU SN6-CU SN6ZN (110HB)	70 / 120	40 / 70	SI
BRONZO DURO HARD BRONZE	220 HB	30 / 60	6 / 20	SI
OTTONE BRASS	CU ZN10-CU ZN31SI-CU ZN40PB2	70 / 350	25 / 80	SI
OTTONE ROSSO RED BRASS	G.CU SN10ZN-G.CU SN5ZN PB	40 / 80	10 / 25	SI
RAME COPPER	G.CU-KE.CU	50 / 720		SI

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PIANI MAGNETICI ELETTROPERMANENTI ULTRA QUAD
ULTRA QUAD ELECTRO PERMANENT MAGNETIC CHUCKS

Sistemi di ancoraggio magnetico
Magnetic clamping system

CE

I sistemi di ancoraggio magnetico **ULTRA QUAD** garantiscono flessibilità e rapidità di piazzamento del pezzo nelle lavorazioni con centri di lavoro. Grazie ai poli quadri si ottiene un ancoraggio magnetico uniforme.
Le elevate forze di ancoraggio sviluppate permettono la lavorazione di svariati particolari che vanno dagli stampi ai pezzi più impegnativi come i forgiati.
La necessità di ridurre sempre più i tempi di lavorazione e quelli di fermo macchina rendono l'uso dei nostri sistemi UQ vincenti ed unici nel loro genere

Vantaggi
Tra i molteplici vantaggi che l'uso di UQ offre, vi è la possibilità di lavorare cinque facce libere in un solo piazzamento. Infatti mediante l'uso delle espansioni polari fisse è possibile lavorare sollevati dal piano magnetico, eseguendo spianatura, contornatura e forature passanti senza impedimenti di staffe. **(A)**.

Un altro grande vantaggio è dato dalle espansioni polari mobili **(B)** che, grazie alla loro caratteristica, trovano applicazione nei casi di pezzi grezzi o con superfici irregolari garantendo i seguenti vantaggi:

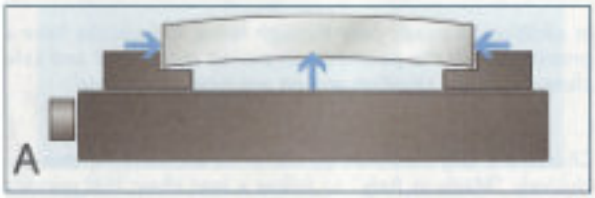
- Si adattano al profilo del pezzo da lavorare; il loro utilizzo crea infatti un letto flessibile che segue il profilo del pezzo in lavorazione
- Spessorazione uniforme
- Eliminazione delle vibrazioni
- Maggiore durata degli utensili
- Ottima planarità del pezzo finito

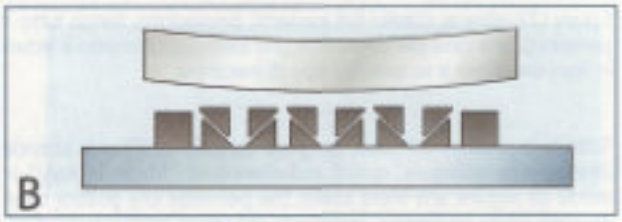
*The **ULTRA QUAD** magnetic clamping system guarantees flexibilty and fast positioning of the piece when working on CNC machines. Its square pole technology ensures an even magnetic clamping.*
The high clamping capacity allows different kinds of operations on work pieces such as moulding and forging.
What makes the UQ system innovative and unique is the possibilty of dramatically reducing machining and idle times.

Advantages
*One of the many advantages offered by UQ is the possibilty of machining five faces simultaneously. Contouring and through drilling is achieved using a bed of fix polar extensions. **(A)***
*Another great advantage is represented by the mobile polar extensions **(B)** which are ideal for raw pieces or pieces with irregular surfaces:*

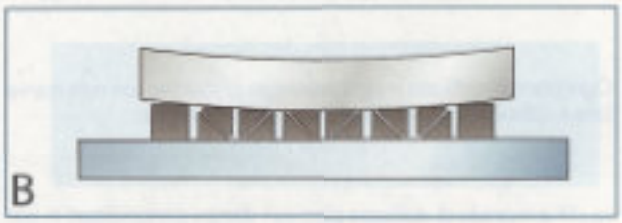
- *They perfectly adapt to the work piece surface thanks to a flexible magnetic bed*
- *Quick and even shimming of the work piece*
- *Distortion-free clamping*
- *Longer life of tools*
- *Excellent planarity of the work piece*

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Art.			189H	188H
Poli quadri	*Pole dimensions*	mm	50 x 50	75 x 75
Forza attrazione polo a contatto	*Force-pole*	daN	405*	820*
Spessore minimo/massimo pezzo	*Piece minimum/maximum thickness*	mm	10	16
Altezza piano	*Chuck height*	mm	60	60

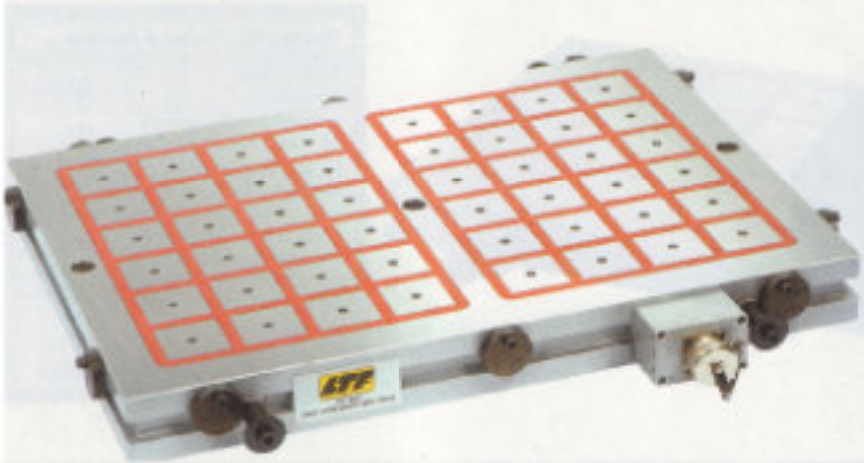
Comando a distanza in dotazione / *Remote control supplied as standard*

* Dato di riferimento con condizione: **contraferro = 0 mm** / * *Data refer in direct contact with the full magnetic area at: **0 mm air-gap***

PIANI MAGNETICI ELETTROPERMANENTI PER FRESATURA ULTRA QUAD
ULTRA QUAD ELECTRO PERMANENT MAGNETIC CHUCKS FOR MILLING

art. **189H** — Piani elettropermanenti con poli quadri 50 x 50 mm
Electro-permanent chucks with square poles 50 x 50 mm

CE

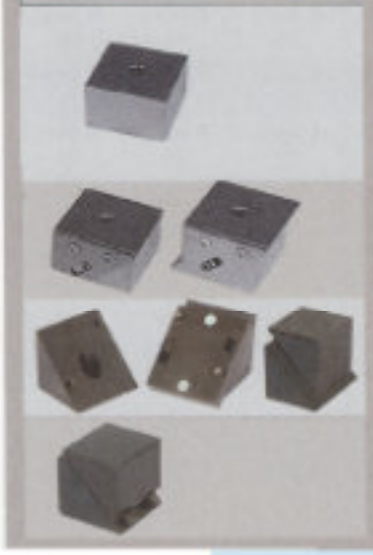


Dati tecnici / *Technical features*	
Passo polare *Pole pitch*	60 mm
Foro di fissaggio nel polo *Mounting hole in the chuck*	M8
Forza in Gauss misurata a *Gauss force measured in*	17.000 gap -1,5 mm
Forza polare vertic. nomin. *Nominal Vertical pole force*	405 daN
Spessore minimo consigliato *Minimum suggested thickness*	10 mm
Dimens. minime pezzo *Minimum piece size*	10 x 10 cm = 100 cm²

Art.	Lunghezza [mm] *Length* [mm]	Larghezza [mm] *Width* [mm]	Spessore [mm] *Thickness* [mm]	Poli [n] *Poles* [n]	Forza magnetica [daN]* *Magnetic force* [daN]*
189.01H	590	300	60	32	12.160
189.02H	750	300	60	40	15.200
189.03H	990	300	60	56	21.280
189.04H	430	420	60	36	13.680
189.05H	590	420	60	48	18.240
189.06H	750	420	60	60	22.800
189.07H	990	420	60	84	31.920
189.08H	600	480	60	56	21.280
189.09H	750	480	60	70	26.600
189.10H	990	480	60	98	37.240

* Dato di riferimento con condizione: **contraferro = 0 mm** / * Data refer in direct contact with the fullmagnetic area at: **0 mm air-gap**

ESTENSIONI POLARI, MOBILI E FISSE PER SISTEMI DI ANCORAGGIO MAGNETICO A POLARITÀ QUADRATA
MOBILE AND FIX POLAR EXTENSIONS FOR MAGNETIC CLAMPING SYSTEMS



Art.		Dimensioni / *Sizes*		
EF50	Estensione polare fissa per EM50 *Fix polar extension for EM50*	L [mm] 50	P [mm] 50	H [mm] 32
EFC50	Estensione polare fissa per EMC50 *Fix polar extension for EMC50*	L [mm] 50	P [mm] 50	H [mm] 57
EFM50	Estensione polare fissa per EMM50 *Fix polar extension for EMM50*	L [mm] 50	P [mm] 50	H [mm] 56
EM50	Estensione polare mobile polo 50 mm *Mobile polar extension pole 50 mm*	L [mm] 50	P [mm] 50	H [mm] 34
EMC50	Estensione polare mobile con magnete polo 50 mm *Mobile polar extension with magnet pole 50 mm*	L [mm] 50	P [mm] 50	H [mm] 58
EMM50	Estensione polare mobile con molla polo 50 mm *Mobile polar extension with spring pole 50 mm*	L [mm] 50	P [mm] 50	H [mm] 57

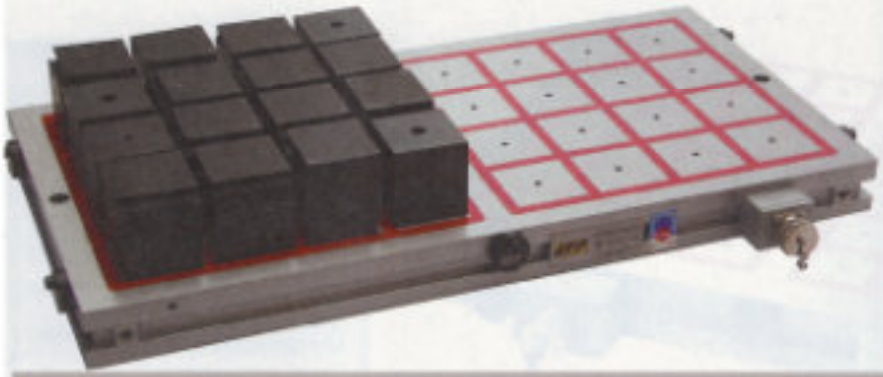
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PIANI MAGNETICI ELETTROPERMANENTI PER FRESATURA ULTRA QUAD
ULTRA QUAD ELECTRO PERMANENT MAGNETIC CHUCKS FOR MILLING

art. **188H** — Piani elettropermanenti con poli quadri 75 x 75 mm
Electro-permanent chucks with square poles 75 x 75 mm

CE

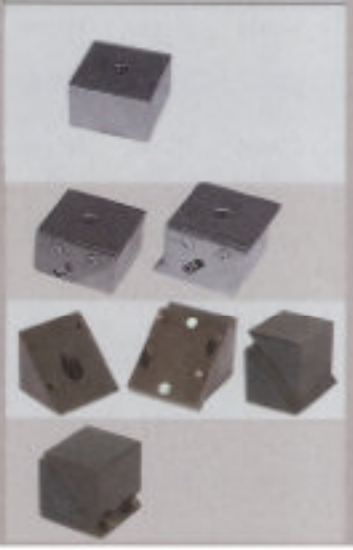


Dati tecnici / *Technical features*	
Passo polare *Pole pitch*	80 mm
Foro di fissaggio nel polo *Mounting hole in the chuck*	M8
Forza in Gauss misurata a *Gauss force measured in*	8.000 gap -1,5 mm
Forza polare vertic. nomin. *Nominal Vertical pole force*	820 daN
Spessore minimo consigliato *Minimum suggested thickness*	16 mm
Dimens. minime pezzo *Minimum piece size*	15 x 15 cm = 225 cm²

Art.	Lunghezza [mm] *Length* [mm]	Larghezza [mm] *Width* [mm]	Spessore [mm] *Thickness* [mm]	Poli [n] *Poles* [n]	Forza magnetica [daN]* *Magnetic force* [daN]*
188.01H	601	327	60	18	14.400
188.02H	815	327	60	24	19.200
188.03H	1029	327	60	30	24.000
188.04H	415	425	60	16	12.800
188.05H	601	415	60	24	19.200
188.06H	815	415	60	32	25.600
188.07H	1029	415	60	40	32.000
188.08H	513	503	60	25	20.000
188.09H	815	503	60	40	32.000
188.10H	1029	503	60	50	40.000

* Dato di riferimento con condizione: **con traferro = 0 mm** / * *Data refer in direct contact with the fullmagnetic area at:* ***0 mm air-gap***

ESTENSIONI POLARI, MOBILI E FISSE PER SISTEMI DI ANCORAGGIO MAGNETICO A POLARITÀ QUADRATA
MOBILE AND FIX POLAR EXTENSIONS FOR MAGNETIC CLAMPING SYSTEMS



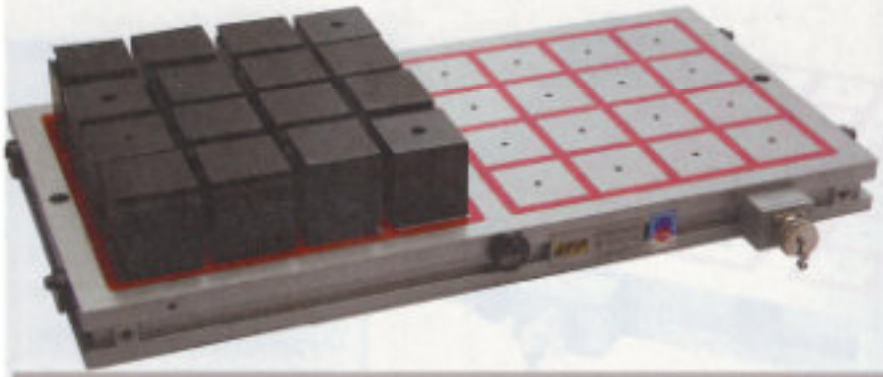
Art.		Dimensioni / *Sizes*		
EF75	Estensione polare fissa per EM75 *Fix polar extension for EM75*	L [mm] 75	P [mm] 75	H [mm] 50
EFC75	Estensione polare fissa per EMC75 *Fix polar extension for EMC75*	L [mm] 75	P [mm] 75	H [mm] 86
EFM75	Estensione polare fissa per EMM75 *Fix polar extension for EMM75*	L [mm] 75	P [mm] 75	H [mm] 84
EM75	Estensione polare mobile polo 75 mm *Mobile polar extension pole 75 mm*	L [mm] 75	P [mm] 75	H [mm] 52
EMC75	Estensione polare mobile con magnete polo 75 mm *Mobile polar extension with magnet pole 75 mm*	L [mm] 75	P [mm] 75	H [mm] 87
EMM75	Estensione polare mobile con molla polo 75 mm *Mobile polar extension with spring pole 75 mm*	L [mm] 75	P [mm] 75	H [mm] 85

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PIANI MAGNETICI ELETTROPERMANENTI PER FRESATURA ULTRA QUAD
ULTRA QUAD ELECTRO PERMANENT MAGNETIC CHUCKS FOR MILLING

art. **188H** — Piani elettropermanenti con poli quadri 75 x 75 mm
Electro-permanent chucks with square poles 75 x 75 mm

CE

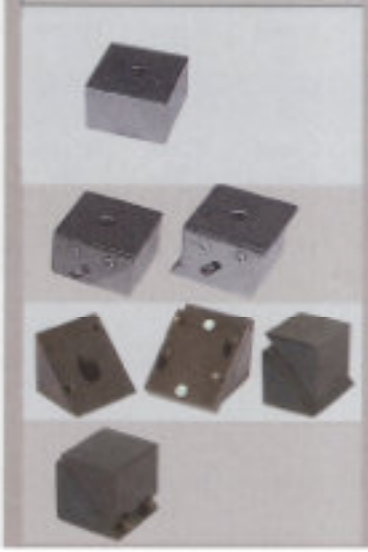


Dati tecnici / *Technical features*	
Passo polare *Pole pitch*	80 mm
Foro di fissaggio nel polo *Mounting hole in the chuck*	M8
Forza in Gauss misurata a *Gauss force measured in*	8.000 gap -1,5 mm
Forza polare vertic. nomin. *Nominal Vertical pole force*	820 daN
Spessore minimo consigliato *Minimum suggested thickness*	16 mm
Dimens. minime pezzo *Minimum piece size*	15 x 15 cm = 225 cm²

Art.	Lunghezza [mm] *Length* [mm]	Larghezza [mm] *Width* [mm]	Spessore [mm] *Thickness* [mm]	Poli [n] *Poles* [n]	Forza magnetica [daN]* *Magnetic force* [daN]*
188.01H	601	327	60	18	14.400
188.02H	815	327	60	24	19.200
188.03H	1029	327	60	30	24.000
188.04H	415	425	60	16	12.800
188.05H	601	415	60	24	19.200
188.06H	815	415	60	32	25.600
188.07H	1029	415	60	40	32.000
188.08H	513	503	60	25	20.000
188.09H	815	503	60	40	32.000
188.10H	1029	503	60	50	40.000

* Dato di riferimento con condizione: **con traferro = 0 mm** / * *Data refer in direct contact with the fullmagnetic area at:* ***0 mm air-gap***

ESTENSIONI POLARI, MOBILI E FISSE PER SISTEMI DI ANCORAGGIO MAGNETICO A POLARITÀ QUADRATA
MOBILE AND FIX POLAR EXTENSIONS FOR MAGNETIC CLAMPING SYSTEMS



Art.		Dimensioni / *Sizes*		
EF75	Estensione polare fissa per EM75 *Fix polar extension for EM75*	L [mm] 75	P [mm] 75	H [mm] 50
EFC75	Estensione polare fissa per EMC75 *Fix polar extension for EMC75*	L [mm] 75	P [mm] 75	H [mm] 86
EFM75	Estensione polare fissa per EMM75 *Fix polar extension for EMM75*	L [mm] 75	P [mm] 75	H [mm] 84
EM75	Estensione polare mobile polo 75 mm *Mobile polar extension pole 75 mm*	L [mm] 75	P [mm] 75	H [mm] 52
EMC75	Estensione polare mobile con magnete polo 75 mm *Mobile polar extension with magnet pole 75 mm*	L [mm] 75	P [mm] 75	H [mm] 87
EMM75	Estensione polare mobile con molla polo 75 mm *Mobile polar extension with spring pole 75 mm*	L [mm] 75	P [mm] 75	H [mm] 85

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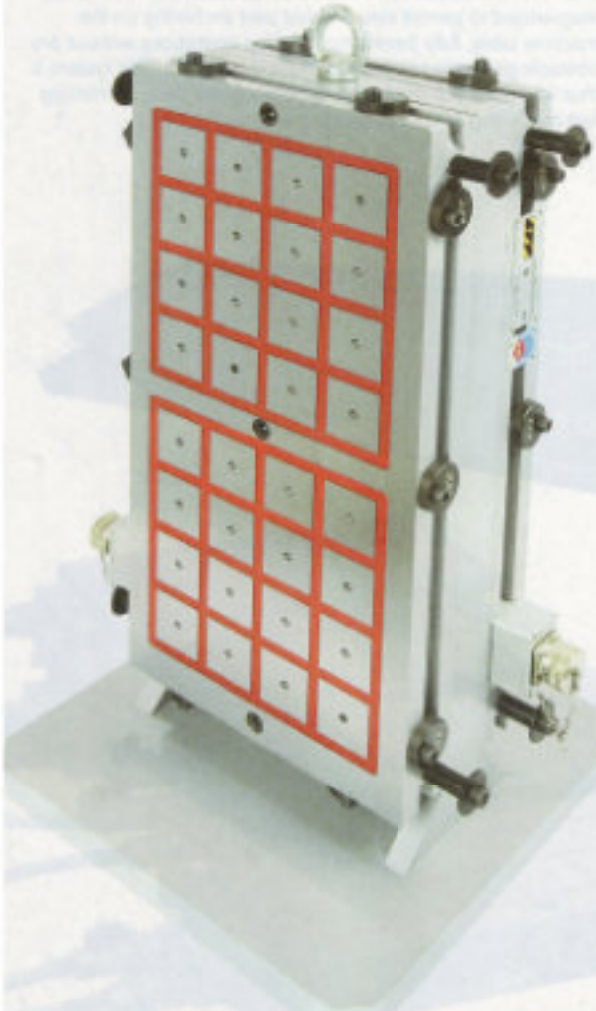
PIANI ELETTROPERMANENTI SPECIALI COSTRUITI A DISEGNO
ON DEMAND ELECTRO PERMANENT CHUCKS

art. 189/188.HSPE — **Piani speciali per utilizzi mirati**
Special chucks for specific uses

CE

I tecnici della LTF spa sono capaci di operare nei contesti più diversi, affrontare progetti particolari, realizzare diverse tipologie costruttive con gli stessi elevati standard qualitativi. Con l'ausilio del nostro ufficio di Ricerca e Sviluppo possiamo realizzare piani ed attrezzature di qualsiasi forma e dimensione e potenza anche per applicazioni speciali. Il nostro staff di tecnici risponderà prontamente ad ogni richiesta, dopo aver studiato l'esigenza del cliente, con la miglior soluzione in termini di produttività, precisione, affidabilità e sicurezza. Esperienza e competenza dunque, unite a grande professionalità e a risorse tecniche qualificate, sono gli strumenti fondamentali per raggiungere la nostra mission:
GARANTIRE LA REALIZZAZIONE DI OGNI APPLICAZIONE RICHIESTA E RISPONDERE AL MEGLIO ALLE ESIGENZE COSTRUTTIVE DEL CLIENTE.





LTF spa technicians are able to work in various contexts, face special projects, create different construction types with the same high quality standards. With the assistance of our Research and Development department we can create chucks and tools of any shape, size and power, even for special applications. Our technicians quickly respond to any request, after studying the customer's needs, with the best solution in terms of productivity, precision, reliability and safety. Thus, experience and skill, combined with expertise and qualified technicians, are key tools to achieve our mission:
GUARANTEE THE CONSTRUCTION OF ANY REQUESTED APPLICATION AND BEST MEET THE CUSTOMER'S CONSTRUCTION NEEDS.



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CONSULTARE IL CATALOGO GENERALE SUL SITO:
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SISTEMI DI ANCORAGGIO MAGNETICO
MAGNETIC CLAMPING SYSTEMS

art. PRESS-MAG — **Sistemi magnetici elettropermanenti per cambio rapido stampi su presse a iniezione plastica e stampaggio metalli**
Electro-permanent magnetic systems for fast mould change on plastic injection and metal presses.

La linea PRESS-MAG offre i più evoluti sistemi di cambio stampo verticale e orizzontale.
Il mondo della produzione punta sempre più alla riduzione dei tempi di set up e al fermo macchina.
Argomento molto sentito anche nello stampaggio delle materie plastiche e metalli dove, l'attrezzaggio della macchina per la produzione di piccoli lotti, incide molto sui costi per unità pezzo.
Il sistema magnetico PRESS-MAG permette cambi stampo in tempi ridotti, eliminando così tutti gli staffaggi meccanici.

Vantaggi

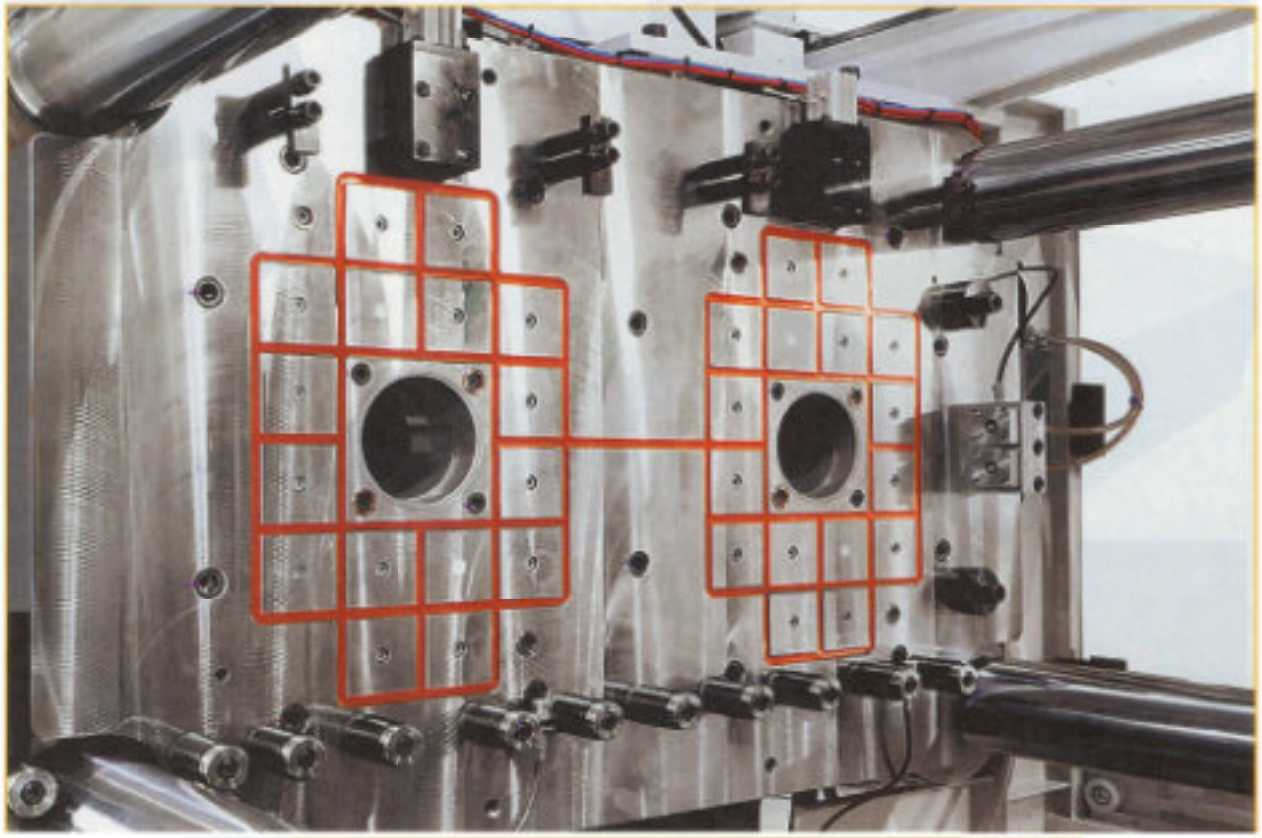
- Lo stampo viene ancorato in modo uniforme su tutta la sua superficie eliminando così eventuali deformazioni dello stesso e lo staffaggio meccanico
- La riduzione dei tempi di fermo macchina e riduzione della mano d'opera
- Riduzione dello scarto prodotti per difetti
- Forza di ancoraggio magnetico costante nel tempo e ad ogni cambio stampo
- Ottimizzazione della sicurezza dell'operatore
- I sistemi PRESS-MAG sono dotati di sensori di prossimità e di saturazione che rilevano la presenza stampo intervenendo sull'elettronica, segnalando l'anomalia
- L'operatore svolge tutte le operazioni di cambio stampo a bordo macchina

The PRESS-MAG line offers the latest vertical and horizontal mould change systems.
The production world always aims to reduce machine set up and downtime.
This is also very true for the plastic and metal press world where machine outfitting for small lot production highly affects single piece costs.
The PRESS-MAG magnetic system permits fast mould change, eliminating all mechanical supports.

Pluses

- *The mould is evenly anchored on its entire surface, eliminating any deformations and mechanical supports*
- *Reduction of machine downtime and reduction of labour costs*
- *Defective product rejections*
- *Constant magnetic anchoring force and at each mould change*
- *Improved operator safety*
- *PRESS-MAG systems are equipped with proximity sensors that detect the mould, electronically signalling faults*
- *The operator can carry out all the die-clamping procedure on-board the machine*

CE



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UNITÀ DI CONTROLLO PER SISTEMI DI ANCORAGGIO MAGNETICO
CONTROL UNIT FOR MAGNETIC ANCHORING SYSTEMS

art. **UCSQ** — **Centraline UCSQ PER ULTRAQUAD 188H - 189H**
UCSQ control for ULTRAQUAD 188H - 189H

CE

La centralina elettronica permette di magnetizzare e smagnetizzare i piani magnetici. Ogni unità di controllo è dotata di un cavo di scarica, di un cavo di rete e di un telecomando. L'unità di controllo è realizzata con un'elettronica all'avanguardia e garantisce la giusta saturazione dei moduli magnetici. Tutte le unità di controllo UCSQ hanno la possibilità di settare la potenza di magnetizzazione su otto livelli diversi. Sono disponibili versioni a uno, due e quattro canali per consentire di controllare più piani con una sola unità di controllo. Tutte le unità sono dotate di un software all'avanguardia in grado di garantire l'assenza di ogni residuo magnetico. Presenta di serie le abilitazioni di consenso macchina quindi la macchina non parte se il piano non è magnetizzato.

Fornitura standard:
cavo di scarica 3 m, cavo di alimentazione 3 m, telecomando.

UCQ electronic control units have been designed for quick activation and deactivation cycles. Each unit is supplied with a chuck-controller armored cable, mains cable and a remote control. The control unit has a state-of-the-art electronic technology, a system that guarantees the right saturation of magnetic elements. All UCSQ control units can set magnetising power on 8 different levels. One, two and four channel versions are available to control several chucks with a single UCSQ control unit. All our control units are equipped with advanced software and are able to guarantee the absence of any magnetic residue. It is equipped with machine authorization devices, so that the machine will not start if the chuck is not magnetized.

Standard supply:
discharge cable m 3, power cable m 3, remote control.

Art.	Corrente max. *Max current (A)*	Canali *Channels*
UCSQ01-25A	25	1 x fresatura *1 x milling*
UCSQ01-32A	32	1 x fresatura *1 x milling*
UCSQ01-50A	50	1 x fresatura *1 x milling*
UCSQ02-32A	32	2 x fresatura *2 x milling*
UCSQ02-50A	50	2 x fresatura *2 x milling*
UCSQ04-32A	32	4 x fresatura *4 x milling*
UCSQ04-50A	50	4 x fresatura *4 x milling*



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ACCESSORI E RICAMBI
ACCESSORIES AND SPARE PARTS

Connettori ed accessori
Connectors and accessories

Art.	Descrizione *Description*	
CMMG22	Connettore maschio da prolunga con ghiera 22 IP67- 4pin *Mobile male connector with 22 ring nut IP67- 4pin*	
CMFG22	Connettore femmina da prolunga con ghiera 22 IP67- 4pin *Mobile female connector with 22 ring nut IP67- 4pin*	
CMM22	Connettore maschio da prolunga senza ghiera 22 IP67- 4pin *Mobile male connector without 22 ring nut IP67- 4pin*	
CFM22	Connettore maschio da quadro 22 IP67- 4pin *Male fixed connector 22 IP67- 4pin*	
CFF22	Connettore femmina da quadro 22 IP67- 4pin *Female fixed connector 22 IP67- 4pin*	
TAP22	Tappo per connettore 22 completo di catenella IP67 *Cap with chain 22 IP67*	
SEAL22	Guarnizione da pannello per connettori 22 IP67 *Seal 22 IP67*	

Art.	Descrizione *Description*	
CMMG18	Connettore maschio da prolunga con ghiera 18 IP67- 5pin *Mobile male connector with 18 ring nut IP67- 5pin*	
CMFG18	Connettore femmina da prolunga con ghiera 18 IP67- 5pin *Mobile female connector with 18 ring nut IP67- 5pin*	
CMM18	Connettore maschio da prolunga senza ghiera 18 IP67- 5pin *Mobile male connector without 18 ring nut IP67- 5pin*	
CFM18	Connettore maschio da quadro 18 IP67- 5pin *Male fixed connector 18 IP67- 5pin*	
CFF18	Connettore femmina da quadro 18 IP67- 5pin *Female fixed connector 18 IP67- 5pin*	
TAP18	Tappo per connettore 18 completo di catenella IP67 *Cap with chain 18 IP67*	
SEAL18	Guarnizione da pannello per connettori 18 IP67 *Seal 18 IP67*	

Art.	Descrizione *Description*	
MANICA25	Manicotto per cavo armato 3G 2,5 mm² *Sleeve for armored cable 3G 2,5 mm²*	
MANICA40	Manicotto per cavo armato 3G 4 mm² *Sleeve for armored cable 3G 4 mm²*	
SERRACAVO16	Serracavo inox MS16 8-14 *Stainless steel cable clamp MS16 8-14*	

Art.	Descrizione *Description*	
CAV25	Cavo armato antiacido 3G 2,5 mm² *Anhydous armored cable 3G 2,5 mm²*	
CAV40	Cavo armato antiacido 3G 4 mm² *Anhydous armored cable 3G 4 mm²*	

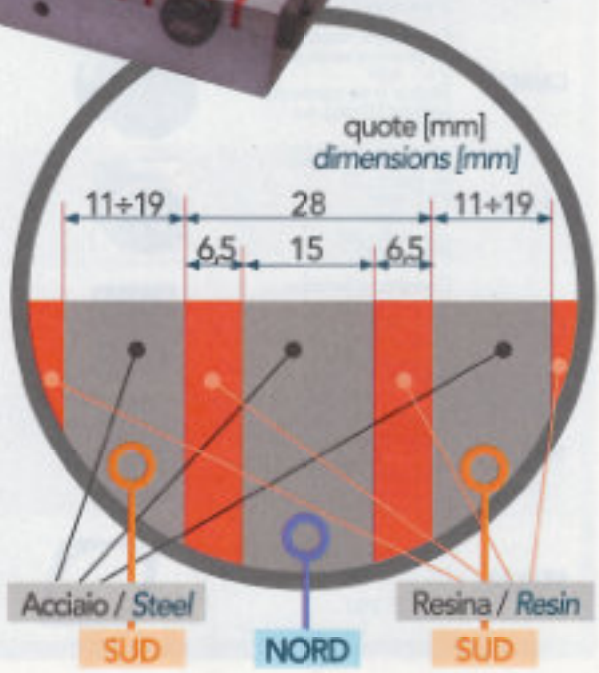
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PIANI MAGNETICI ELETTROPERMANENTI PER RETTIFICA
ELECTRO-PERMANENT MAGNETIC CHUCKS FOR GRINDING

art. **192E** — **Piani elettropermanenti per rettifica polarità Ferro-Resina**
Electro-permanent chucks for grinding Iron-Resin polarity

CE





Dati tecnici / *Technical features*

È la soluzione universale per rettifiche
This is the universal solution for grinding machines

Forza polare vertic. nomin. *Nominal Vertical pole force*	100 N/cm²
Spessore minimo consigliato *Minimum suggested thickness*	4 mm
Spessore massima prestazione *Max performance thickness*	10 mm
Dimens. minime pezzo *Minimum piece size*	4x4 cm = 16 cm²
Alimentazione standard centralina *Standard power supply*	380 V / 50÷60 Hz

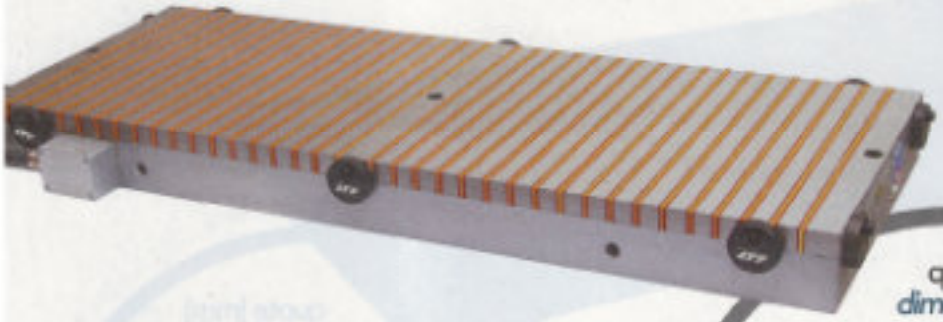
Art.	Dimensioni Lunghezza Length [mm]	 Larghezza Dimensions Width [mm]	 Altezza Height [mm]	Distanza e successione poli Pole pitch	Peso Weight [Kg]
192E.01	600	200	70	Acciaio 11÷19 mm Resina 6,5 mm Acciaio 15 mm Resina 6,5 mm Acciaio 11÷19 mm	54,6
192E.02	600	300	70		81,9
192E.03	800	300	70		109,2
192E.04	1000	300	70		136,5
192E.05	600	400	70		109,2
192E.06	700	400	70		127,4
192E.07	800	400	70		145,6
192E.08	1000	400	70		182,0
192E.09	1200	400	70		218,4
192E.10	1500	400	70		273,0
192E.11	1000	500	70		227,5
192E.12	1200	500	70		273,0
192E.13	1500	500	70		341,3
192E.14	1200	600	70		327,6

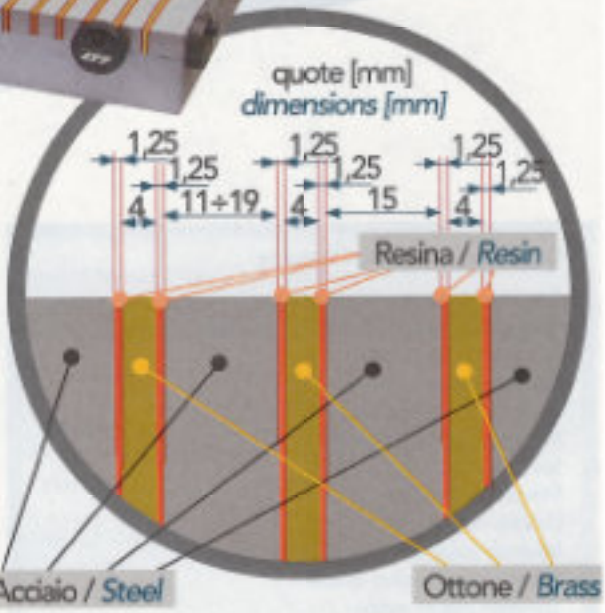
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PIANI MAGNETICI ELETTROPERMANENTI PER RETTIFICA
ELECTRO-PERMANENT MAGNETIC CHUCKS FOR GRINDING

art. **192EOF** — Piani elettropermanenti per rettifica polarità Ferro-Ottone
Electro-permanent chucks for grinding Iron-Brass polarity

CE





Dati tecnici / *Technical features*	
È la soluzione specifica per pezzi di basso spessore ***This is the specific solution for thin pieces***	
Forza polare vertic. nomin. *Nominal Vertical pole force*	90 N/cm²
Spessore minimo consigliato *Minimum suggested thickness*	4 mm
Spessore massima prestazione *Max performance thickness*	8 mm
Dimens. minime pezzo *Minimum piece size*	4x4 cm = 16 cm²
Alimentazione standard centralina *Standard power supply*	380 V / 50÷60 Hz

Art.	Dimensioni Lunghezza / Length [mm]	Larghezza / Width [mm]	Altezza / Height [mm]	Distanza e successione poli / Pole pitch	Peso / Weight [Kg]
192EOF.01	600	200	70	Acciaio 11÷19 mm Resina 1,25 mm Ottone 4 mm Resina 1,25 mm Acciaio 15 mm	54,6
192EOF.02	600	300	70		81,9
192EOF.03	800	300	70		109,2
192EOF.04	1000	300	70		136,5
192EOF.05	600	400	70		109,2
192EOF.06	700	400	70		127,4
192EOF.07	800	400	70		145,6
192EOF.08	1000	400	70		182,0
192EOF.09	1200	400	70		218,4
192EOF.10	1500	400	70		273,0
192EOF.11	1000	500	70		227,5
192EOF.12	1200	500	70		273,0
192EOF.13	1500	500	70		341,3
192EOF.14	1200	600	70		327,6

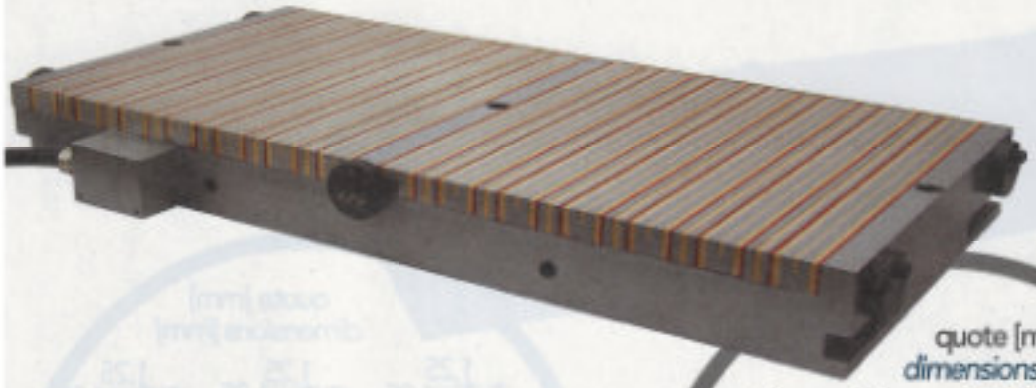
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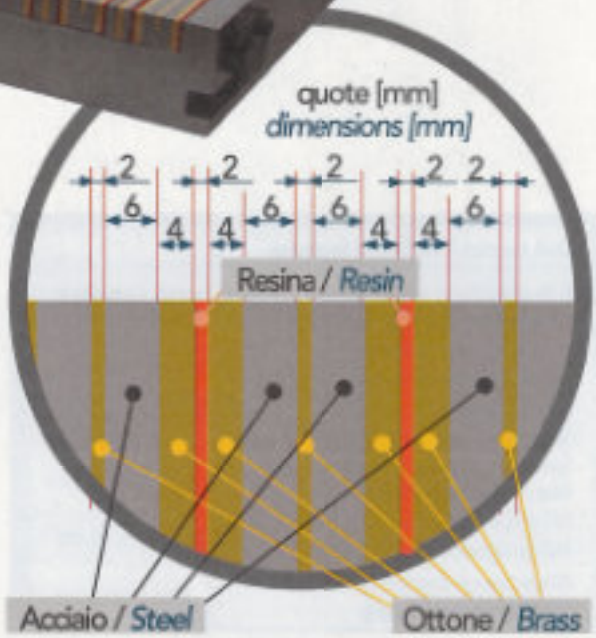
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PIANI MAGNETICI ELETTROPERMANENTI PER RETTIFICA
ELECTRO-PERMANENT MAGNETIC CHUCKS FOR GRINDING

art. **192EOFF** — Piani elettropermanenti per rettifica polarità fitta
Electro-permanent chucks for grinding dense polarity

CE





Dati tecnici / *Technical features*	
È la soluzione specifica per pezzi di basso spessore ***This is the specific solution for thin pieces***	
Forza polare vertic. nomin. *Nominal Vertical pole force*	85 N/cm²
Spessore minimo consigliato *Minimum suggested thickness*	4 mm
Spessore massima prestazione *Max performance thickness*	8 mm
Dimens. minime pezzo *Minimum piece size*	4x4 cm = 16 cm²
Alimentazione standard centralina *Standard power supply*	380 V / 50÷60 Hz

Art.	Dimensioni Lunghezza / Length [mm]	Larghezza / Width [mm]	Altezza / Height [mm]	Distanza e successione poli / Pole pitch	Peso / Weight [Kg]
192EOFF.01	600	200	70	Ottone 4,0 mm	54,6
192EOFF.02	600	300	70		81,9
192EOFF.03	800	300	70	Acciaio 6÷8 mm	109,2
192EOFF.04	1000	300	70		136,5
192EOFF.05	600	400	70	Ottone 2,0 mm	109,2
192EOFF.06	700	400	70		127,4
192EOFF.07	800	400	70		145,6
192EOFF.08	1000	400	70	Acciaio 6÷8 mm	182,0
192EOFF.09	1200	400	70		218,4
192EOFF.10	1500	400	70	Ottone 4,0 mm	273,0
192EOFF.11	1000	500	70		227,5
192EOFF.12	1200	500	70	Resina 2,0 mm	273,0
192EOFF.13	1500	500	70		341,3
192EOFF.14	1200	600	70		327,6

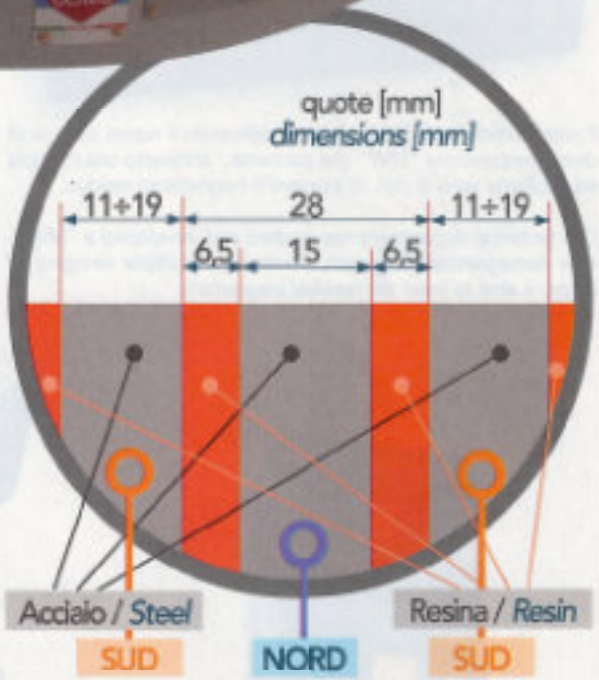
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PIANI MAGNETICI ELETTROPERMANENTI SPECIALI A DISEGNO
ELECTRO-PERMANENT MAGNETIC CHUCKS FOR SPECIAL APPLICATIONS

art. 192.EC — Piano elettropermanente circolare per rettifica / *Electro-permanent round chuck for grinding*

CE





Dati tecnici / *Technical features*	
È la soluzione universale per rettifiche ***This is the universal solution for grinding machines***	
Forza polare vertic. nomin. *Nominal Vertical pole force*	90 N/cm²
Spessore minimo consigliato *Minimum suggested thickness*	4 mm
Spessore massima prestazione *Max performance thickness*	10 mm
Dimens. minime pezzo *Minimum piece size*	4x4 cm = 16 cm²
Alimentazione standard centralina *Standard power supply*	380 V / 50÷60 Hz

Le tavole magnetiche 192EC per il fissaggio di pezzi sui piani delle rettifiche, sono di forma circolare e non possono essere standardizzate vista la peculiarità della richiesta tecnica che il cliente presenta, di conseguenza possono essere realizzate ad hoc per ogni esigenza. È sufficiente sottoporre il problema di fissaggio al nostro ufficio tecnico per avere risposte celeri ed adeguate.
A richiesta forniamo collettore rotante al mercurio.

192EC magnetic chucks used to secure parts on grinding tables are circular and cannot be standardised given the customer's specific technical requests, thus they can be customised for any need. Simply submit the anchoring problem to our engineering department for a quick and satisfactory response.
Mercury commutator on request.

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UNITÀ DI CONTROLLO PER SISTEMI DI ANCORAGGIO MAGNETICO
CONTROL UNIT FOR MAGNETIC ANCHORING SYSTEMS

art. **UCSQR** — **Centraline UCSQR per 192E**
UCSQR control units for 192E

CE

La centralina elettronica permette di magnetizzare e smagnetizzare i piani magnetici 192E. Ogni unità di controllo è dotata di un cavo di scarica, di un cavo di rete e di un telecomando. L'unità di controllo è realizzata con un'elettronica all'avanguardia e garantisce la giusta saturazione dei moduli magnetici. Tutte le unità di controllo UCSQ hanno la possibilità di settare la potenza di magnetizzazione su 8 livelli diversi. Sono disponibili versioni ad uno, due e quattro canali per consentire di controllare più piani con una sola unità di controllo UCSQ. Tutte le nostre unità sono dotate di un software all'avanguardia e grazie al nuovo sistema di demagnetizzazione "MVP", sono in grado di garantire l'assenza di ogni residuo magnetico e gestire diverse curve di smagnetizzazione in modo da poter demagnetizzare materiali differenti ad avere sempre il miglior distacco del pezzo.
Presenta di serie le abilitazioni di consenso macchina quindi la macchina non parte se il piano non è magnetizzato.

The electronic control units magnetise and demagnetise 192E magnetic chucks. Each control unit is equipped with a discharge cord, network cord and remote control. The control unit is constructed with cutting-edge electronics and guarantees the correct magnetic module saturation. All UCSQ control units can set magnetising power on 8 different levels. One, two and four channel versions are available to control several chucks with a single UCSQ control unit. All our control units are equipped with advanced software and, thanks to the new "MVP" demagnetising system, are able to guarantee the absence of any magnetic residue and they can handle different demagnetization curves to be able to demagnetize different materials and to have in any case the best workpiece detachment.
It is equipped with machine authorization devices, so that the machine will not start if the chuck is not magnetized.



Il nostro ufficio tecnico ha ideato e sviluppato il nuovo sistema di demagnetizzazione "MVP" che permette, attraverso una multipla ed oscillante serie di cicli, di azzerare il magnetismo residuo.

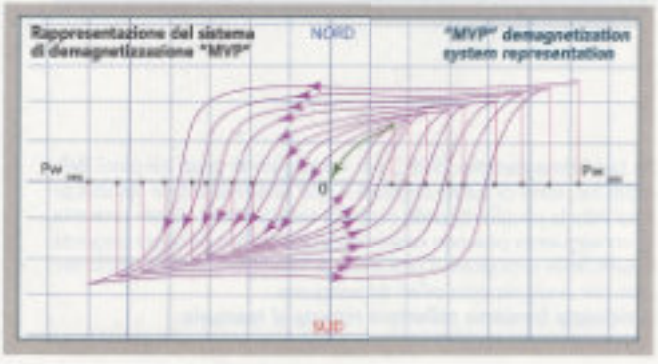
Our technical department has created and developed a "MVP"-new demagnetization system, thanks to a multiple swinging of loops, is able to reset the residual magnetism.

Art.	Corrente max. Max current [A]	Canali Channels
UCSQ01R-25A	25	1 x rettifica 1 x grinding
UCSQ01R-32A	32	1 x rettifica 1 x grinding
UCSQ01R-50A	50	1 x rettifica 1 x grinding
UCSQ02R-32A	32	2 x rettifica 2 x grinding
UCSQ02R-50A	50	2 x rettifica 2 x grinding
UCSQ04R-32A	32	4 x rettifica 4 x grinding
UCSQ04R-50A	50	4 x rettifica 4 x grinding









DABtool

Damper Antivibration Bar



Barre Antivibranti
Antivibration Bars
Barres Antivibrations
Schwingungsgedämpfte Bohrstangen
Barras Antivibraciones

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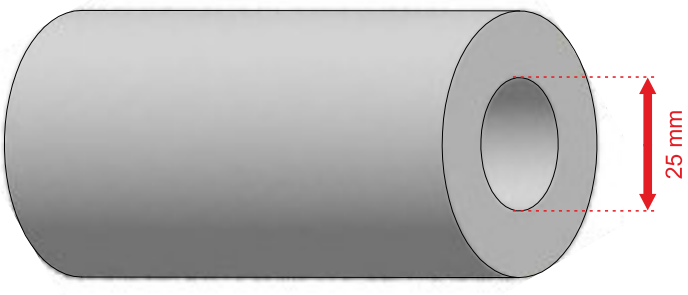
DABtool, perché sono necessarie? / *Why are they needed?*

Generalmente nelle lavorazioni di BARENATURA PROFONDA il diametro della barra è limitato dal diametro del foro da lavorare. Più piccolo è il foro, più piccolo è il diametro della barra da utilizzare. Questo significa che una barra "piccola" potrebbe causare delle vibrazioni se il foro da lavorare fosse troppo profondo.

Normally in DEEP HOLE BORING operations the diameter of the boring bar is limited by the dimensions of the hole diameter to be bored.
The smaller the hole the smaller the diameter of the bar and has to be.
This also means that a "thin" bar will possibly cause vibrations if the hole to be machined is deep.

LE GAMMA DELLE BARRE ANTIVIBRANTI *DABtool* DISPONE DI PICCOLI DIAMETRI CHE POSSONO EVITARE LA MAGGIOR PARTE DELLE VIBRAZIONI.

DABtool ANTI-VIBRATIONS BARS PROVIDE SMALL DIAMETERS AND CAN PREVENT MOST VIBRATIONS



Gli utensili standard arrivano al massimo ad un rapporto di profondità di barenatura di 4 volte il diametro.
Gli utensili in Metallo Duro hanno un rapporto massimo di profondità di barenatura 6 volte il diametro.
Solo utensili come le barre antivibranti ***DABtool*** svolgono perfettamente la lavorazione oltre i 6 x D.

Standard tools can only reach a maximum cutting ratio of 4 x Diameter.
Tools in HM can reach a cutting ratio of 6 x D.
*But, beyond this, only specialized tools, such as a **DABtool** anti-vibration bars, can get the job done.*

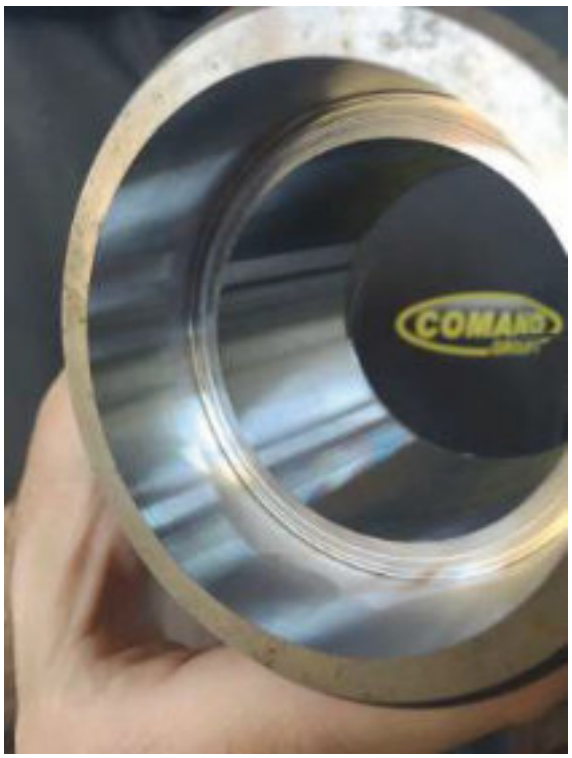
DABtool garantiscono / *can manage*:

- **LAVORAZIONI ACCURATE**
  ACCURATE MACHINING
- **TOLLERANZE PRECISE**
  PRECISE TOLERANCES
- **OTTIME FINITURE**
  GOOD FINISH

Le lavorazioni di barenatura profonda hanno svariati problemi, ma i 3 più comuni sono:

Deep hole boring has different issues, but 3 are the most common:

- LIMITATA DURATA DELL'INSERTO
  POOR INSERT LIFE
- DIFFICOLTÀ NEL MANTENERE LE TOLLERANZE
  POOR MACHINING TOLERANCE
- FINITURE NON SODDISFACENTI
  POOR SURFACE FINISH



*Machining with **DABtool***

DABtool*: tre, due, uno... / *three, two, one...

L'esperienza, la ricerca e lo sviluppo interno in Comand Tool hanno consentito la "creazione" del sistema TRE, DUE, UNO: il sistema ***DABtool.***
*Comand Tool experience and R&D have developed a simple THREE, TWO, ONE boring bar solution, the **DABtool** system.*

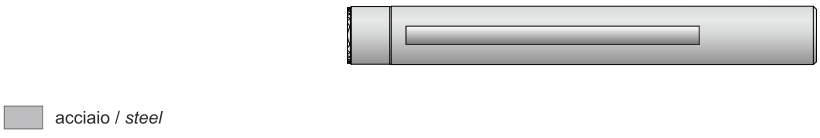
3 LINEE DI BARRE / *LINES OF BARS*

2 LINEE DI TESTINE / *LINE OF HEADS*

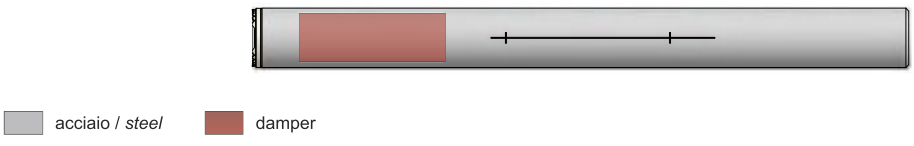
1 SISTEMA DI ACCOPPIAMENTO TESTINE / *HEAD COUPLING SYSTEM*

Le **3 LINEE DI BARRE** sono così composte / *The **3 LINE OF BARS** are composed as follows*:

1- **ACCIAIO / *STEEL***
- Diametri / *diameters* 20, 25, 32, 40, 50, 60 mm
- 5 volte il diametro / *5 times diameter*

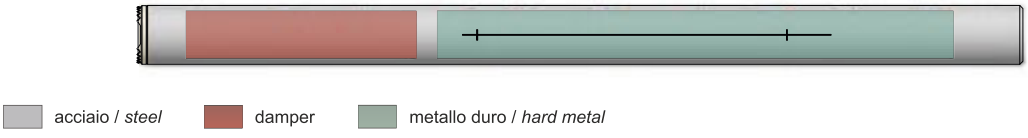


2- **ACCIAIO con DAMPER / *STEEL with DAMPER***
- Diametri / *diameters* 20, 25, 32, 40, 50, 60 mm
- 8 e 10 volte il diametro / *8 and 10 times diameter*



3- **ACCIAO con METALLO DURO e DAMPER / *STEEL with HM and DAMPER***
- Diametri / *diameters* 20, 25, 32 mm
- 12 e 14 volte il diametro / *12 and 14 times diameter*

- Diametri / *diameters* 40, 50, 60 mm
- 12 volte il diametro / *12 times diameter*

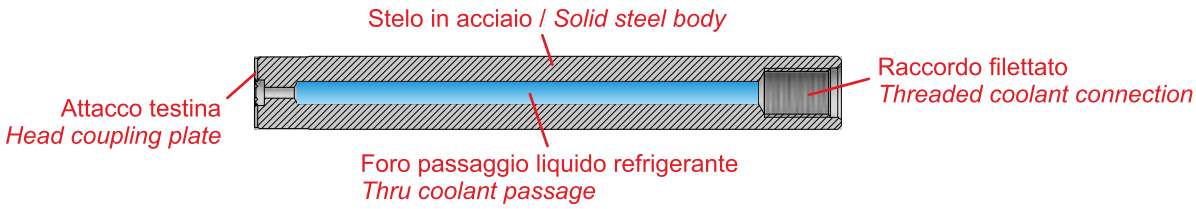


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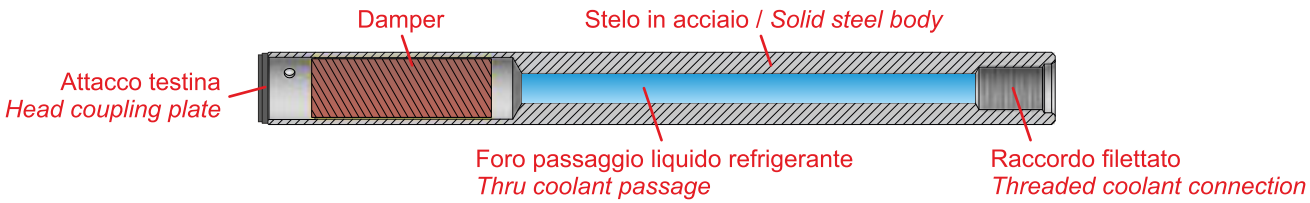
Caratteristiche delle barre / *Bars features*

- Stelo in acciaio speciale
  Solid steel body
- L'acciaio viene trattato appositamente per ottenere il massimo smorzamento delle vibrazioni
  Steel is specially treated to obtain vibration damping specifications
- Foro per il passaggio del liquido refrigerante
  Thru coolant passage
- Raccordo filettato resistente fino a 70 bar
  Threaded coolant connection for high pressure 70 bar max
- Un unico attacco per diversi modelli di testina
  Head coupling plate for different head models
- Attacco accoppiamento testina compatibile con più marche
  Head coupling with multi brand compatible attachment
- Damper per assorbimento delle vibrazioni con foro per il passaggio del liquido refrigerante
  Vibration damper system with through coolant passage
- Inserto in Metallo Duro, con foro per il passaggio del liquido refrigerante, per conferire maggiore rigidità e massimo assorbimento delle vibrazioni
  Hard Metal insert with thru coolant for additional rigidity and vibration damping capability

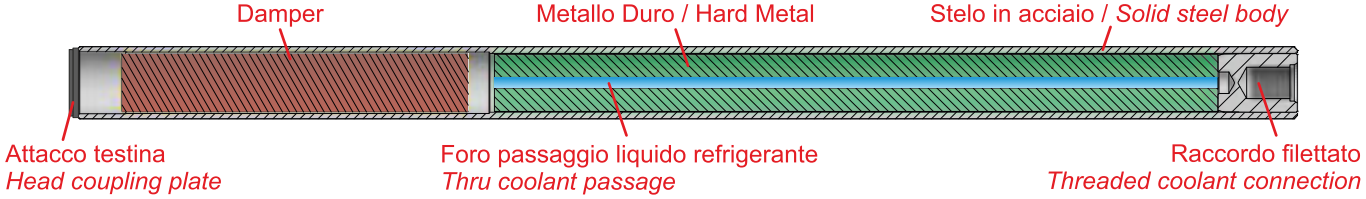
1- **ACCIAIO / *STEEL*** - D 20, 25, 32, 40, 50, 60 mm - **5 x D**



2- **ACCIAIO con DAMPER / *STEEL with DAMPER*** - D 20, 25, 32, 40, 50, 60 mm - **8/10 x D**



3- **ACCIAIO con MD e DAMPER / *STEEL with HM and DAMPER*** - D 20, 25, 32 - **12/14 x D** | D 40, 50, 60 - **12xD**



Linee di Testine / *Line of Heads*

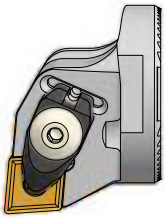
2 **LINEE DI TESTINE** che si dividono principalmente in:
LINE OF HEADS *that are mainly divided into:*

1- **CS20 - 12 modelli / *models* (destra e sinistra / *right and left*)**
possono essere montate su barre di diametro 20 ,25, 32 mm
can be mounted on bars with 20, 25, 32 mm diameter

2- **CS40 - 18 modelli / *models* (destra e sinistra / *right and left*)**
possono essere montate su barre di diametro 40, 50, 60 mm
can be mounted on bars with 40, 50, 60 mm diameter

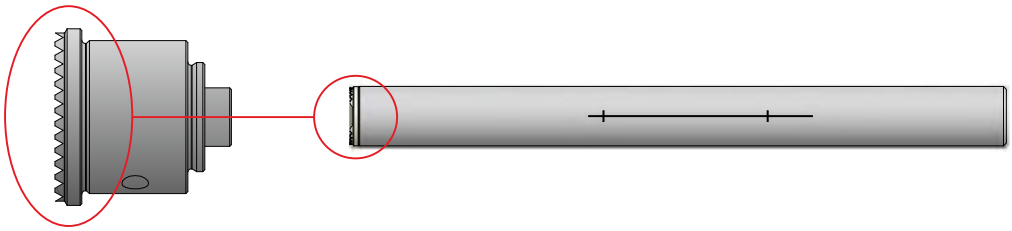
esempio di testina CS20
example of CS20 head





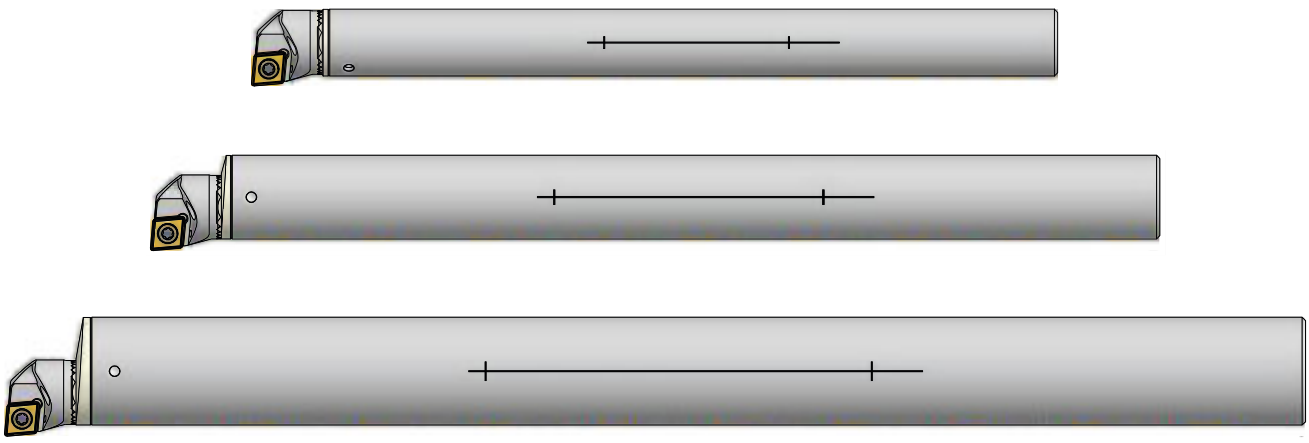
esempio di testina CS40
example of CS40 head

1 **SISTEMA DI ACCOPPIAMENTO TESTINE / *HEAD COUPLING SYSTEM***



UNA TESTINA TRE BARRE DI DIVERSO DIAMETRO - MASSIMO ADATTAMENTO
ONE HEAD THREE BAR DIAMETERS - MAXIMUM FLEXIBILITY

La stessa testina può essere utilizzata su barre di diverso diametro, non c'è bisogno di cambiare testina per utilizzare barre più grandi.
The same head can be used on different diameter bars, no need to switch heads when using a bigger bar.



esempio di uno stesso modello di testina montato su tre barre di diametro diverso
example of the same head model mounted on three bars of different diameter

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Caratteristiche delle Testine / *Heads features*

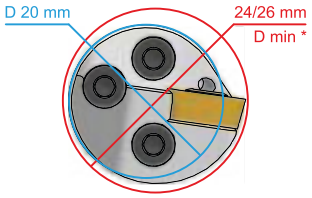
Come già detto uno stesso modello di testina può essere montato su diametri di barre diverse:
- Testine CS20 con barre di diametro 20, 25 e 32 mm
- Testine CS40 con barre di diametro 40, 50 e 60 mm

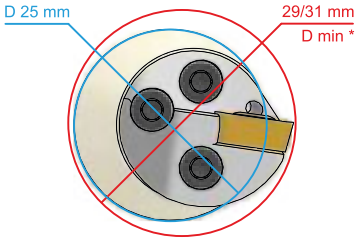
As already mentioned, the same head model can be mounted on different bars diameters:
- CS20 heads on bars with 20, 25 and 32 mm diameters
- CS40 heads on bars with 40, 50 and 60 mm diameters

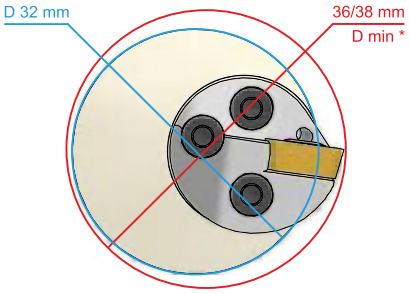
L'unica accortezza è quella di assicurarsi che il diametro minimo di lavorazione sia rispettato. Uno spazio limitato all'interno del foro provocherà la formazione di trucioli, una scarsa qualità di lavorazione ed, eventualmente, danni.
Inoltre in base alla lavorazione da fare devono essere utilizzati determinati inserti.

The only caution is to make sure that the minimum machining diameter requirements are met. Limited space inside the hole will cause chip build up, bad machining quality and, possibly, damage.
Depending on the type of machining to be carried out the appropriate head geometry and insert should be used.

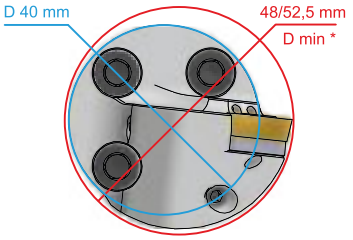
CS20 montano solo inserti positivi
only positive inserts are used

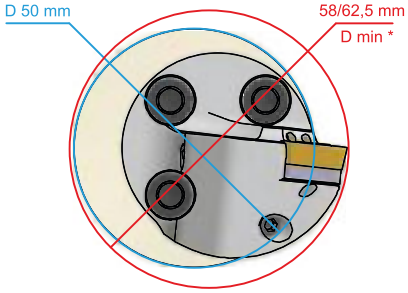


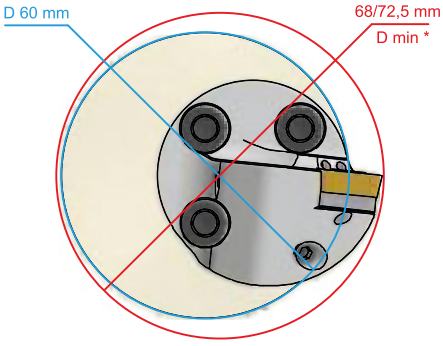




CS40 montano sia inserti positivi che negativi
both positive and negative inserts are used







* Diametro minimo variabile in base al modello di testina / *The minimum diameter is variable according to the model of the head*

Metodo di bloccaggio della barra / *Bar holding methods*

PROPORZIONI DI SPORGENZA E BLOCCAGGIO
Le barre antivibranti ***DABtool*** hanno precisi valori da rispettare durante il processo di bloccaggio. Ad esempio, nel caso della barra 60 mm 10 x D la lunghezza totale della barra è di 840 mm e deve così suddividersi:

- 600 mm di sporgenza
- 240 mm per il bloccaggio

Se queste indicazioni e misure non vengono rispettate la capacità di smorzamento delle vibrazioni della barra viene meno ed il potenziale antivibrante non verrà espresso al massimo.

OVERHANG PROPORTIONS
DABtool *antivibration bars must have a very precise overhang length. In the case of 60 mm 10 x D the overall length will be of 840mm so divided:*

- *600 mm overhang*
- *240 mm for clamping in collet*

Going over suggested lengths will minimize vibration damping capabilities. Staying below suggested values means the full potential of the DABtool system bars will not be expressed.



esempio di bloccaggio con barra D 60 mm - 10 x D
example of holding method with D 60 mm - 10 x D bar

Ci sono 4 metodi di bloccaggio, alcuni non consoni per sfruttare al massimo il potenziale antivibrante delle barre ed altri eccellenti. Per bloccare e far rendere al meglio le barre DABtool i metodi migliori sono il 3° e il 4°, come da tabella:
There are 4 methods to hold the bars. DAB Tools suggests to use method 3 or 4 for the best possible results:

Descrizione *Description*	Vite *Screw*	Bussola *Bushing*	Portautensile *Collar*	Valutazione *Rating*
Un punto solo *Single point*	Singola *Single*	No *No*	Intero *One piece*	Non accettabile *Not suitable*
Un punto solo con bussola tagliata *Single point with split bushing*	Singola *Single*	Tagliata *Split*	Intero *One piece*	Accettabile *Suitable*
Più punti con portautensile tagliato *Multipoint with split collar*	Multiple *Multiple*	No *No*	Tagliato *Split*	Buono *Good*
Più punti con portautensile tagliato e bussola tagliata *Multipoint with split collar and split bushing*	Multiple *Multiple*	Tagliata *Split*	Tagliato *Split*	Ottimo *Excellent*

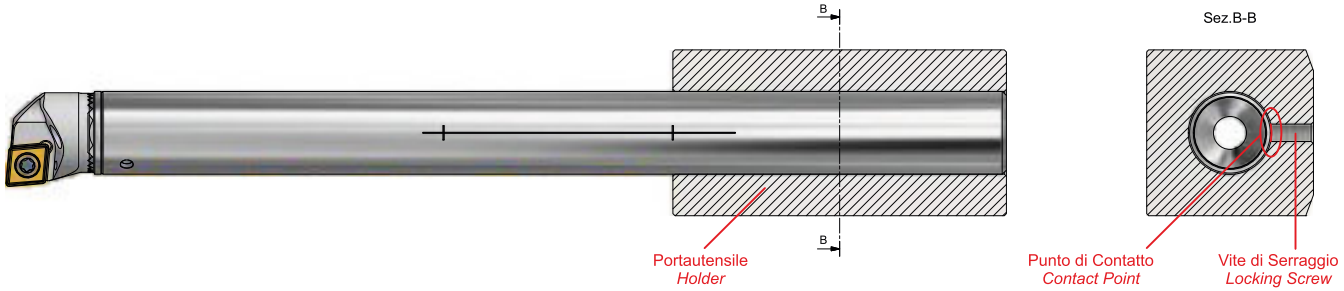
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Metodo di bloccaggio della barra / *Bar holding methods*

Metodo non adatto / *Not suitable method*

SOLUZIONE #1 – NON ADATTA ALLO SMORZAMENTO DELLE VIBRAZIONI
Un singolo contatto che poggia direttamente sulla barra non offre sufficiente bloccaggio perché ***il punto di contatto è solo 1***

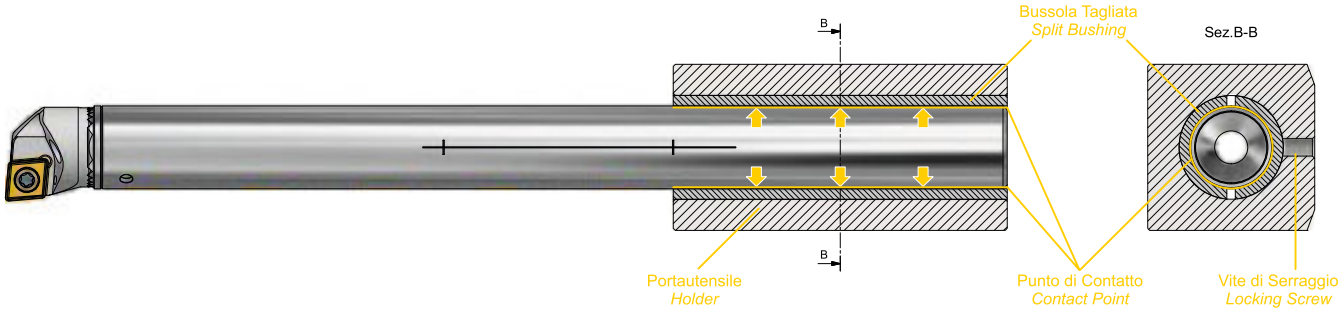
SOLUTION #1 – NOT SUITABLE FOR EFFICIENT VIBRATION DAMPING
Single locking pushing directly on the bar. Will not offer sufficient hold as there is ***only 1 contact point***



Metodo poco adatto / *Suitable method*

SOLUZIONE #2 – POCO ADATTA ALLO SMORZAMENTO DELLE VIBRAZIONI
Un singolo contatto che poggia sulla barra attraverso una BUSSOLA TAGLIATA. Nonostante il singolo contatto, la forza di serraggio è distribuita lungo la lunghezza della bussola tagliata.
Offre un sistema adatto, ma non perfetto, per lo smorzamento delle vibrazioni.

SOLUTION #2 – SUITABLE FOR VIBRATION DAMPING
Single locking pushing on the bar through a SPLIT BUSHING. Despite the single contact the clamping force is distributed along the length of the split bushing.
It offers a suitable system for vibration damping.

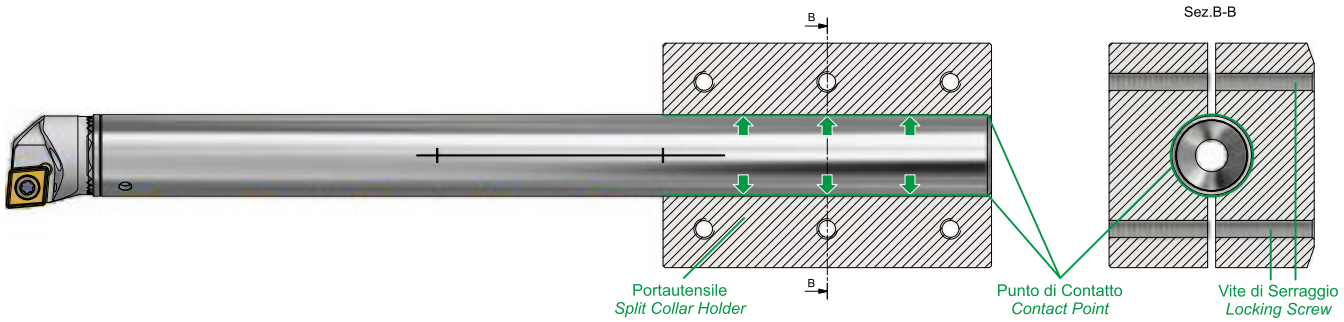


Metodo di bloccaggio della barra / *Bar holding methods*

Metodo buono / *Good method*

SOLUZIONE #3 – BUONA PER LO SMORZAMENTO DELLE VIBRAZIONI
*Serraggio **MULTIPLO** grazie alle viti che bloccano la barra attraverso un COLLARE TAGLIATO. La forza di bloccaggio è uniformemente distribuita lungo la lunghezza del collare e sulla barra.*
Questo metodo offre un buon sistema di smorzamento delle vibrazioni.

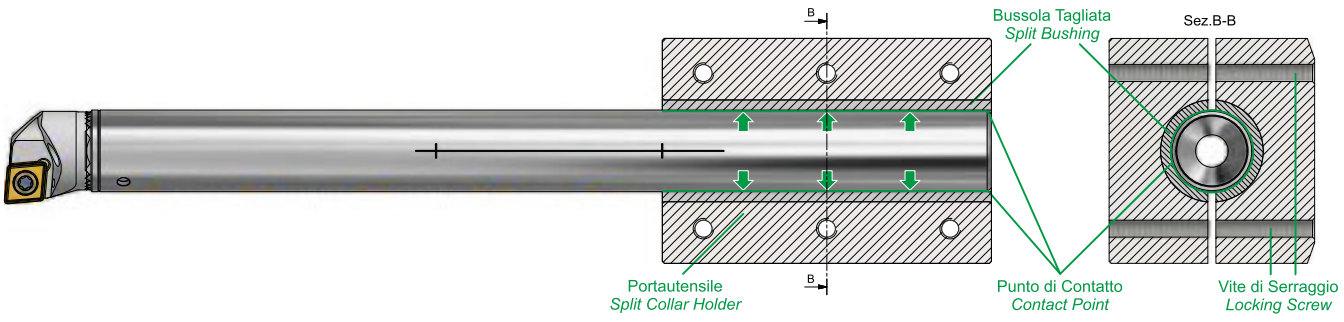
SOLUTION #3 – GOOD FOR VIBRATION DAMPING
***MULTIPLE** locking screws pushing on the bar through a SPLIT COLLAR. The clamping force is evenly distributed along the length of the split collar and onto the bar.*
It offers a good system for vibration damping.



Metodo ottimale / *Excellent method*

SOLUZIONE #4 – OTTIMALE PER LO SMORZAMENTO DELLE VIBRAZIONI
*Serraggio **MULTIPLO** grazie alle viti che bloccano la barra attraverso un COLLARE TAGLIATO e una BUSSOLA TAGLIATA. La forza di bloccaggio è uniformemente e ben distribuita su tutta la lunghezza del bussola.* ***Questo metodo è il migliore per lo smorzamento delle vibrazioni.***

SOLUTION #4 – EXCELLENT FOR VIBRATION DAMPING
***MULTIPLE** locking screws pushing on the bar through a SPLIT COLLAR and onto a SPLIT BUSHING. The clamping force is well distributed along the length of the split bushing.*
It provides the best solution for vibration damping.

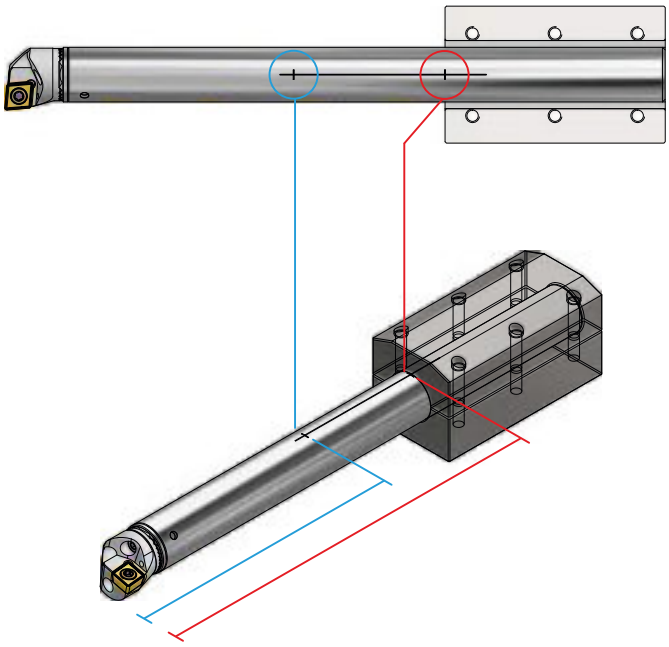


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Metodo di centraggio della barra / *Bar centering methods*

Trovare il centraggio perfetto nelle barre antivibranti ***DABtool*** è molto semplice: basta regolarsi con linea tracciata sulla barra stessa e posizionarsi tra le due tacche limite.

Perfect centering in the ***DABtool*** anti-vibration bars is very simple: adjust with the line drawn on the bar and position between the two notches.



5 x D		
Ø mm	min	max
20	40	100
25	45	125
32	52	160
40	72	200
50	82	250
60	92	300

8 x D		
Ø mm	min	max
20	105	160
25	120	200
32	142	256
40	180	320
50	215	400
60	247	480

10 x D		
Ø mm	min	max
20	120	200
25	140	250
32	165	320
40	200	400
50	245	500
60	280	600

12 x D		
Ø mm	min	max
20	135	240
25	159	300
32	188	384
40	215	480
50	270	600
60	325	720

14 x D		
Ø mm	min	max
20	152	280
25	181	350
32	216	448
40	/	/
50	/	/
60	/	/

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Massima performance / *Best performance*

Bisogna tenere in considerazione alcune variabili per essere certi che le barre antivibranti ***DABtool*** si esprimano al massimo del proprio potenziale.
Un metodo “a colpo d'occhio” è dato dalla “matrice di vibrazioni” che tiene conto di tutte le variabili potenziali che possono determinare le prestazioni della barra antivibrante.

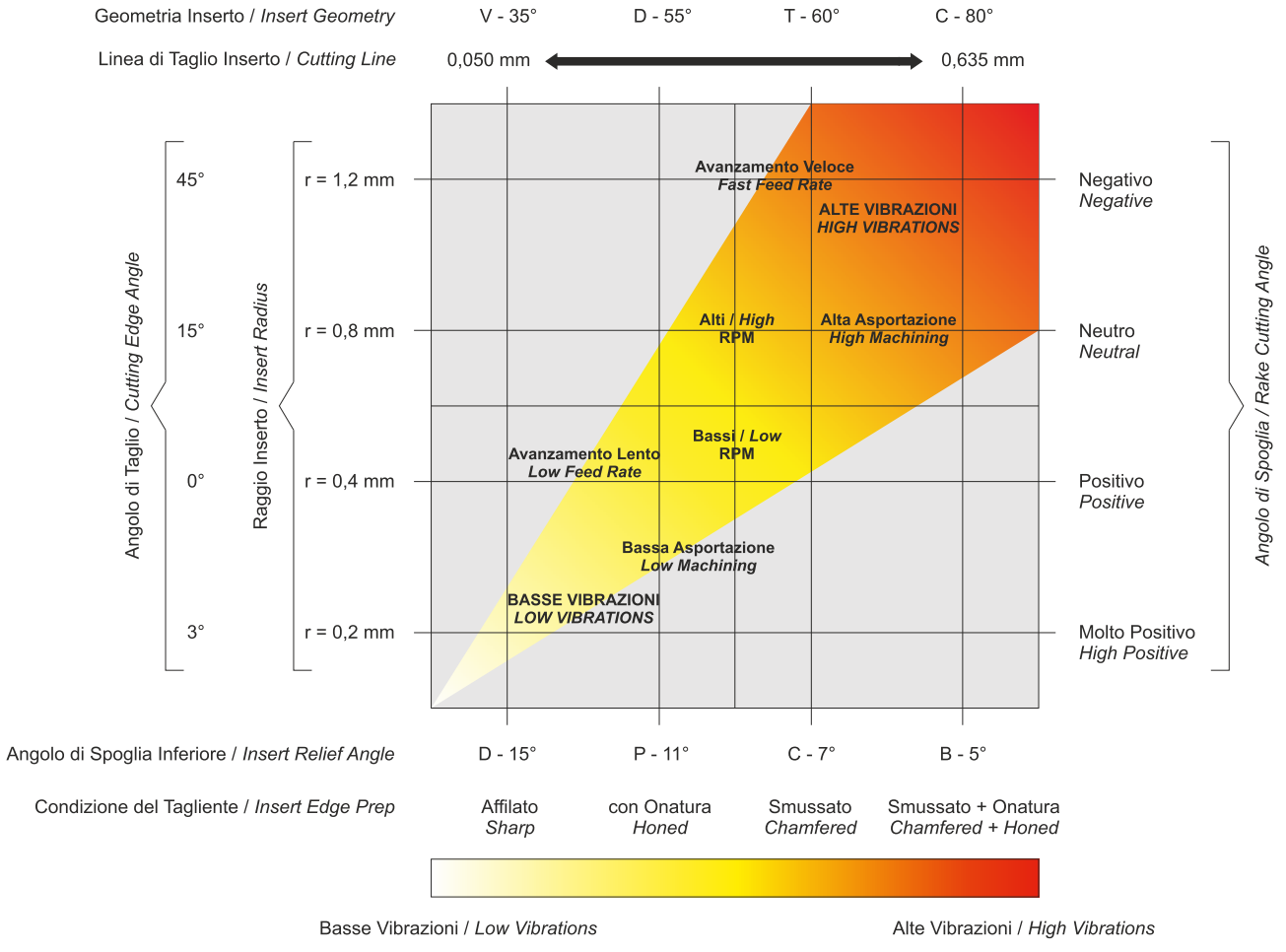
La scelta di un inserto “sbagliato” nella sua geometria, nel raggio, nell’angolo di taglio e/o spoglia e le condizioni del tagliente influiscono negativamente sulla lavorazione.
Utilizzare il raggio più piccolo possibile dell’inserto per le lavorazioni, come:

- **V** per **profilatura** e **finitura**
- **D** per **lavorazioni generali**
- **T** per **sgrossatura superficiale** e **finitura**
- **C** per **sgrossatura profonda**

*Many variables must be taken into consideration to make sure your **DABtool** boring bars are always performing at the peak of their specifications.*
An “at a glance” method is given by the “vibration matrix” which takes into account all potential variables that can determine the antivibration bar’s performance.

Choosing an “incorrect” insert in its geometry, radius, cut and / or blade angle and cutting edge conditions will adversely affect machining.
Use the smallest insert angle geometry for the operation, like:

- ***V** for **profiling** and **finishing***
- ***D** for **general application***
- ***T** for **light roughing** and **finishing***
- ***C** for **heavy roughing***



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Progettazione e realizzazione / *Design and production*

LE BARRE ***DABtool*** SONO PROGETTATE, TESTATE E APPROVATE PER L'USO IN COMAND TOOL. TUTTI I PROCESSI SONO ESEGUITI ALL'INTERNO DELL'AZIENDA PER CONTROLLARE COSTANTEMENTE LA PRODUZIONE E GARANTIRE LA MASSIMA QUALITÀ.

THE ***DABtool*** *ARE DESIGNED, ENGINEERED TESTED AND VALIDATED IN COMAD TOOL. PRODUCTION PROCESS IS KEPT WITHIN THE COMPANY TO MAINTAIN CONSTANT CONTROL OF QUALITY AND SPECIFICATION.*





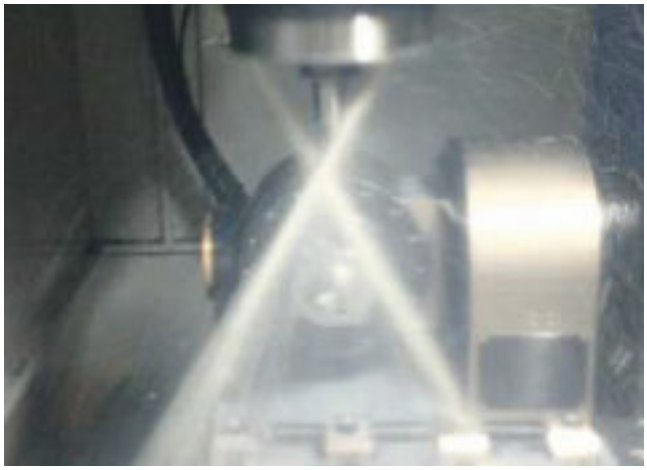
Comand Tool progetta e sviluppa ogni barra e ogni singola testina nei minimi dettagli.
È necessaria la massima precisione per realizzarle, per questo il controllo è costante in tutte le fasi del processo di produzione.

Comand Tool designs, develops and engineers each bar and each head down to the last detail. When maximum precision is required bars and head must be seen through every step of production.
Frequent quality controls are carried out during all of the production process.



Le barre e le testine ***DABtool*** sono realizzate con sistemi tecnologici e utensili di ultima generazione. Tavole girevoli a 5 assi e centri di lavoro di ultima generazione consentono di produrre e assicurare altissima qualità alla linea ***DABtool.***

Cutting edge technology for fast and precise production of DAB TOOL heads.
5 axis direct drive rotary tables, brand new machine tools and the most accurate positioning systems to ensure quality in
every step of the production line.



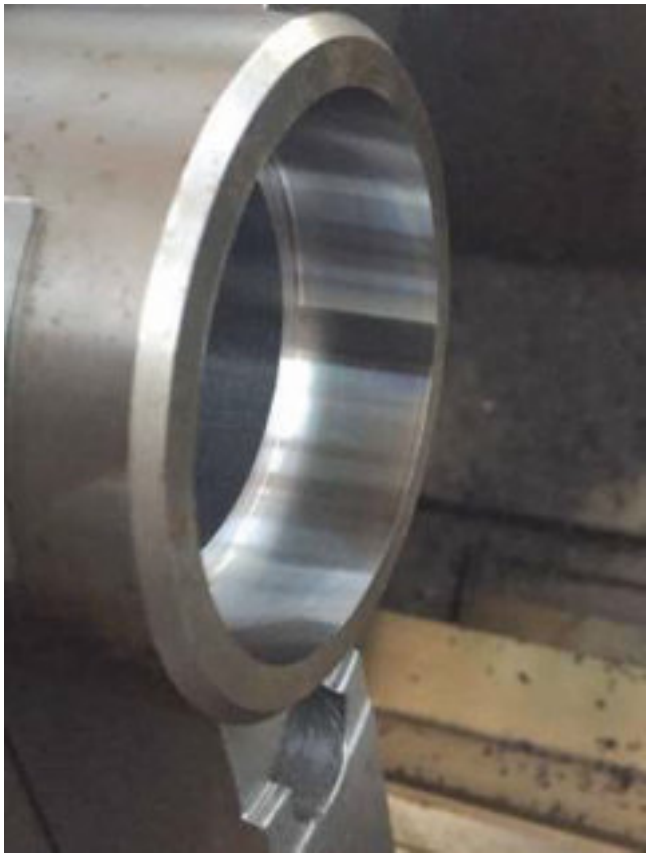
Test d'esempio / *Example Test*

***DABtool* utilizzata per il test AFS50-10-668:**
700 mm lunghezza (D 50 - 10 x D)
500 mm - porzione di barra fuori dal bloccaggio
Tipo testina: CS40-STUCR-16
Inserto: TCMT16T304-CT4125

Lavorazione - Sgrossatura profonda
Diametro esterno pezzo: 120 mm
Diametro interno lavorato: 85 mm
Profondità di taglio (a_p): 1,5 mm
N° passate: 4
Velocità di taglio (v_c): 200 mt/min
Velocità di avanzamento (f_n): 0,2 mm

DABtool used for the test AFS50-10-668:
700 mm length (D 50 - 10 x D)
500 mm - portion of bar out of tool holder
Head: CS40-STUCR-16
Insert: TCMT16T304-CT4125

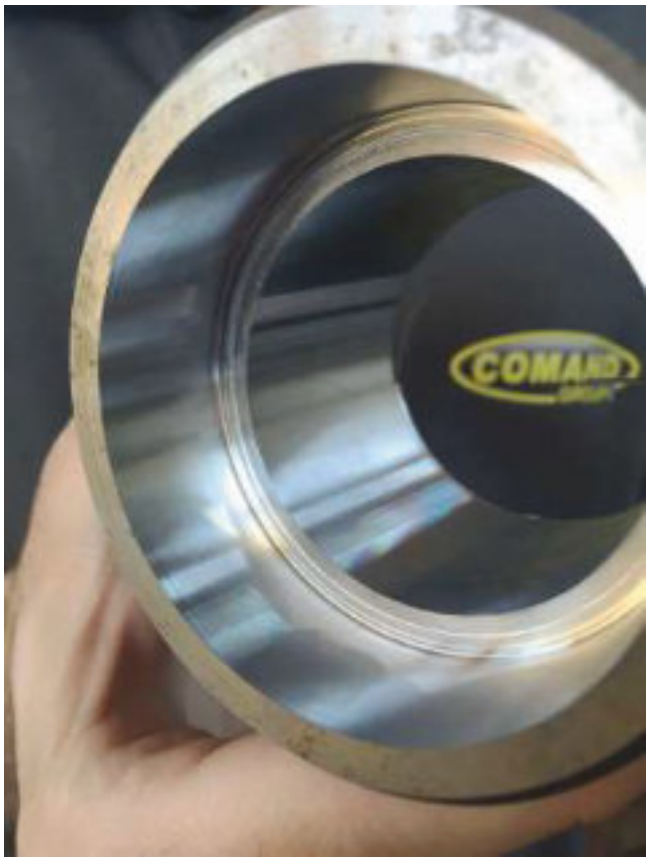
Machining - Deep grooving
External diameter: 120 mm
Internal diameter machining: 85 mm
Depth cut (a_p): 1,5 mm
Nr machining operations: 4
Cutting speed (v_c): 200 mt/min
Feed rate (f_n): 0,2 mm



RISULTATI:
Nonostante la difficoltà per ottenere buone finiture con l'acciaio **Fe510C** il risultato è stato molto positivo.
La **mancanza di vibrazioni** e la **stabilità dell'utensile** hanno consentito di raggiungere **Ra 1,9** finitura.

Tipicamente i risultati di Ra da diversi processi di lavorazione sono i seguenti:
- Fresatura Ra 3,2
- Rettifica Ra 1,6
- Lappatura 0,8

Il test ha evidenziato come, con le barre ***DABtool***, si possa ottenere fin da subito una lavorazione molto vicina ai valori della rettifica e quindi una superficie interna lavorata con ottimi risultati in sgrossatura e finitura, il tutto con un solo utensile.



RESULTS:
Despite the difficulty of achieving good finishes with Fe510C steel the result was very positive.
Lack of vibrations and tool stability allowed to reach Ra 1,9 finish.

Typically Ra results from different machining processes are the following:
- *Milling Ra 3,2*
- *Grinding Ra 1,6*
- *Honing 0,8*

*The test was a fraction above grinding process so **DABtool** manged to provide a machined internal surface with excellent values in finish and rough cutting, all with one tool.*

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Chiave di lettura dei Codici - Barre / *Code Key - Bars*

esempio codice / *example code*

1	2	3	4	5	6
A	**N**	**S**	**20**	**05**	**160**

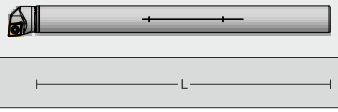
1 - Barra / Bar
A
Barra con Foro Refrigerazione *Bars with Coolant Hole*

2 - Caratteristiche Attacco / *Shank's Features*	
N	**F**
Senza Dispositivo Antivibrante *Shank without Antivibration device*	Con Dispositivo Antivibrante *Shank with Antivibration device*

3 - Materiale Attacco / *Shank's Material*	
S	**H**
Attacco in Acciao *Steel Shank*	Metallo Duro all'interno *Carbide Shank inside*

4 - Diametro Barra / *Shank's Diameter*					
20	**25**	**32**	**40**	**50**	**60**
CS20			CS40		

5 - Lungh. Lavoro x D / *Work Lenght for Diameter*				
05	**08**	**10**	**12**	**14**
ANS...	AFS...		AFS... AFH...	AFH...

6 - Lunghezza Totale Barra / *Total Tool Lenght*

L



Chiave di lettura dei Codici - Testine / *Code Key - Heads*



esempio codice / *example code*

0	1	2	3	4	5	9
CS20	**S**	**C**	**L**	**C**	**R**	**09**



0 - Tipologia Testina / *Heads Type*	
CS20	**CS40**
...	...

1 - Sistema Bloccaggio / *Clamping Type*	
D	**S**
Staffa+Vite / Clamp+Screw	Vite / Screw

2 - Forma dell'Inserto / *Insert Shape*					
					
C - 80°	**D** - 55°	**T** - 60°	**V** - 35°	**W** - 80°	**I** - 60°

3 - Tipo di Attacco / *Shank Type*					
L	**N**	**Q**	**R**	**U**	**X**
95°	63°	15°	75°	93°	Special

4 - Angolo spoglia Inserto / *Rake Angles*	
C 	**N** 
C - 7°	N - 0°

5 - Lato Lavorazione / *Machining Side*	
R 	**L** 
Destra / *Right*	Sinistra / *Left*

9 - Lunghezza Tagliente / *Cutting Edge Lenght*												
C 		D 			T 			V 		W 	I 	
09	**12**	**07**	**11**	**15**	**11**	**16**	**22**	**11**	**16**	**08**	**16**	

Icone / *Icons*

Passaggio refrigerante
Through coolant

Trucioli "no problem"
Chips "no problem"

Vibrazioni ridotte
Reduced vibrations

Intercambiabile
Interchangeable

Alta qualità
High quality

Alte prestazioni
High performance

Quick set
Quick set

Vite senza testa
Socket screw

Damper
Damper

Sottoplacchetta
Seat

Staffa
Clamp

OR per CS20
OR for CS20

OR Staffa
OR clamp

OR per CS40
OR for CS40

Perno centraggio
Centering pin

Chiave a brugola
Hex key

Sfera refrigerazione
Through coolant sphere

Metallo duro
Hard metal

Vite sottoplacchetta
Seat screw

Vite staffa
Clamp screw

Vite a brugola
Hex screw

Bussola filettata
Bushing

Vite torx
Torx screw

Vite torx
Torx screw

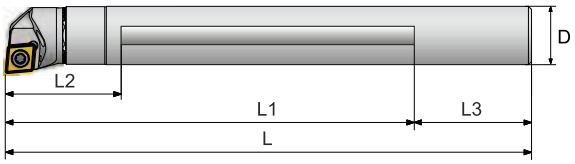
Chiave torx
Torx key

Vite blocca sfera
Locking sphere

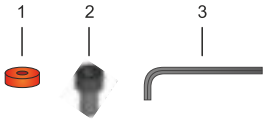
Non tagliare
Don't cut



ANS...-05-...







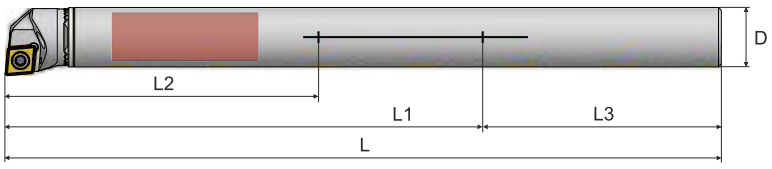
Le immagini raffigurano una barra D 20 / *Pictures represent D 20 bar*

Codice Articolo *Item Code*	Rapporto *Boring Ratio*	D	L	L1	L2	L3	M	Peso *Weight*
ANS20-05-160	5 x D	20	180	100	40	40	1/4 G	0,35 Kg
ANS25-05-205		25	225	130	45	50	1/4 G	0,73 Kg
ANS32-05-268		32	288	172	52	64	1/4 G	11,60 Kg

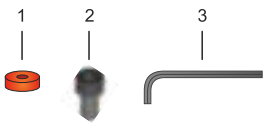
Parti di Ricambio / *Spare Parts*

1	2	3
CSC72 (*5 pcs*)	VB0308 (*10 pcs*)	CBR25

AFS...-08-...



damper





Le immagini raffigurano una barra D 20 / *Pictures represent D 20 bar*

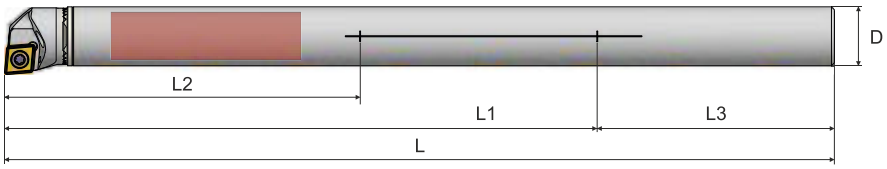
Codice Articolo *Item Code*	Rapporto *Boring Ratio*	D	L	L1	L2	L3	M	Peso *Weight*
AFS20-08-220	8 x D	20	240	160	105	80	1/4 G	0,60 Kg
AFS25-08-280		25	300	200	120	100	1/4 G	1,10 Kg
AFS32-08-364		32	384	256	142	128	3/8 G	2,20 Kg

Parti di Ricambio / *Spare Parts*

1	2	3
CSC72 (*5 pcs*)	VB0308 (*10 pcs*)	CBR25

BF SERVICE

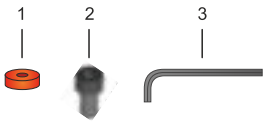
AFS...-10-...





damper





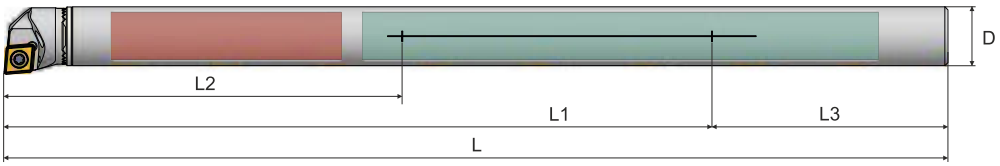
Le immagini raffigurano una barra D 20 / *Pictures represent D 20 bar*

Codice Articolo *Item Code*	Rapporto *Boring Ratio*	D	L	L1	L2	L3	M	Peso *Weight*
AFS20-10-260	10 x D	20	280	200	120	80	1/4 G	0,70 Kg
AFS25-10-330		25	350	250	140	100	1/4 G	1,30 Kg
AFS32-10-428		32	448	320	165	128	3/8 G	2,60 Kg

Parti di Ricambio / *Spare Parts*

1	2	3
		
CSC72 (*5 pcs*)	VB0308 (*10 pcs*)	CBR25

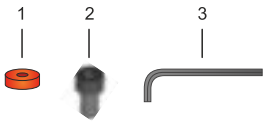
AFH...-12-...





damper metallo duro / *hard metal*





Le immagini raffigurano una barra D 20 / *Pictures represent D 20 bar*

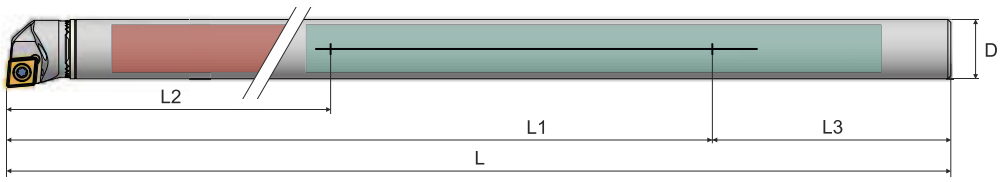
Codice Articolo *Item Code*	Rapporto *Boring Ratio*	D	L	L1	L2	L3	M	Peso *Weight*
AFH20-12-300	12 x D	20	320	240	135	80	1/8 G	- - -
AFH25-12-380		25	400	300	159	100	1/4 G	- - -
AFH32-12-492		32	512	384	188	128	1/4 G	- - -

Parti di Ricambio / *Spare Parts*

1	2	3
		
CSC72 (*5 pcs*)	VB0308 (*10 pcs*)	CBR25

BF SERVICE

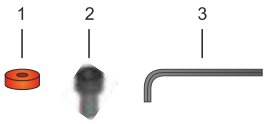
AFH...-14-...





damper metallo duro / *hard metal*





Le immagini raffigurano una barra D 20 / *Pictures represent D 20 bar*

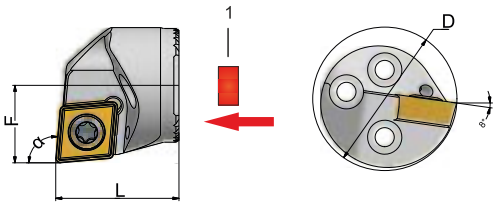
Codice Articolo *Item Code*	Rapporto *Boring Ratio*	D	L	L1	L2	L3	M	Peso *Weight*
AFH20-14-340	14 x D	20	360	280	152	80	1/8 G	- - -
AFH25-14-430		25	450	350	181	100	1/4 G	- - -
AFH32-14-556		32	576	448	216	128	1/4 G	- - -

Parti di Ricambio / *Spare Parts*

1	2	3
		
CSC72 (*5 pcs*)	VB0308 (*10 pcs*)	CBR25

CS20-SCLCR/L-09





Le immagini raffigurano la testina destra / *Pictures represent right head*

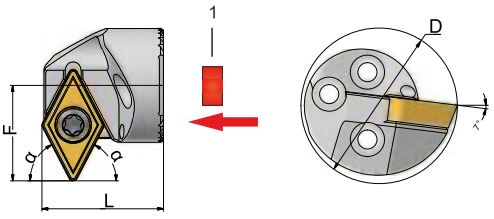
Codice Articolo *Item Code*	Barra *Bar*	D	L	F	α	Inserto *Insert*	Peso *Weight*
CS20-SCLCR/L-09	A...20-...-...	24	20,5	13	95°	CC...09T3	0,10 Kg
	A...25-...-...	29					
	A...32-...-...	36					

Parti di Ricambio / *Spare Parts*

1	2	3
CSC72 (*5 pcs*)	TX3509	BTX15

CS20-SDNCR/L-11





Le immagini raffigurano la testina destra / *Pictures represent right head*

Codice Articolo *Item Code*	Barra *Bar*	D	L	F	α	Inserto *Insert*	Peso *Weight*
CS20-SDNCR/L-11	A...20-...-...	26	20,5	16	62,5°	DC...11T3	0,10 Kg
	A...25-...-...	31					
	A...32-...-...	38					

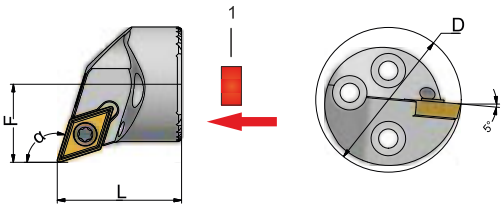
Parti di Ricambio / *Spare Parts*

1	2	3
CSC72 (*5 pcs*)	TX3509	BTX15

BF SERVICE

CS20-SDQCR/L-07





Le immagini raffigurano la testina destra / *Pictures represent right head*

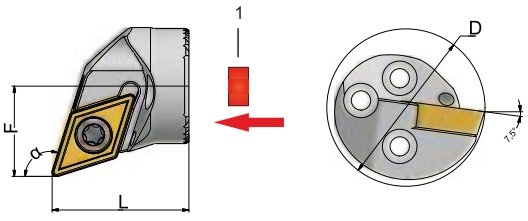
Codice Articolo *Item Code*	Barra *Bar*	D	L	F	α	Inserto *Insert*	Peso *Weight*
CS20-SDQCR/L-07	A...20-...-...	24	20,5	13	107,5°	DC...0702	0,10 Kg
	A...25-...-...	29					
	A...32-...-...	36					

Parti di Ricambio / *Spare Parts*

1	2	3
CSC72 (*5 pcs*)	TX2506	BTX08

CS20-SDQCR/L-11





Le immagini raffigurano la testina destra / *Pictures represent right head*

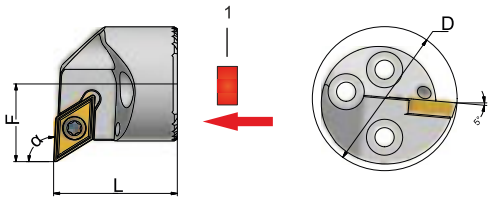
Codice Articolo *Item Code*	Barra *Bar*	D	L	F	α	Inserto *Insert*	Peso *Weight*
CS20-SDQCR/L-11	A...20-...-...	26	22,5	15	107,5°	DC...11T3	0,10 Kg
	A...25-...-...	31					
	A...32-...-...	38					

Parti di Ricambio / *Spare Parts*

1	2	3
CSC72 (*5 pcs*)	TX3509	BTX15

CS20-SDUCR/L-07





Le immagini raffigurano la testina destra / *Pictures represent right head*

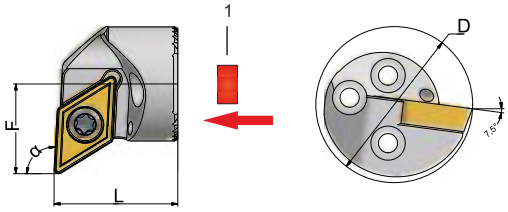
Codice Articolo *Item Code*	Barra *Bar*	D	L	F	α	Inserto *Insert*	Peso *Weight*
CS20-SDUCR/L-07	A...20-...-...	24	20,5	13	93°	DC...0702	0,10 Kg
	A...25-...-...	29					
	A...32-...-...	36					

Parti di Ricambio / *Spare Parts*

1	2	3
CSC72 (*5 pcs*)	TX2506	BTX08

CS20-SDUCR/L-11





Le immagini raffigurano la testina destra / *Pictures represent right head*

Codice Articolo *Item Code*	Barra *Bar*	D	L	F	α	Inserto *Insert*	Peso *Weight*
CS20-SDUCR/L-11	A...20-...-...	26	20,5	15	93°	DC...11T3	0,10 Kg
	A...25-...-...	31					
	A...32-...-...	38					

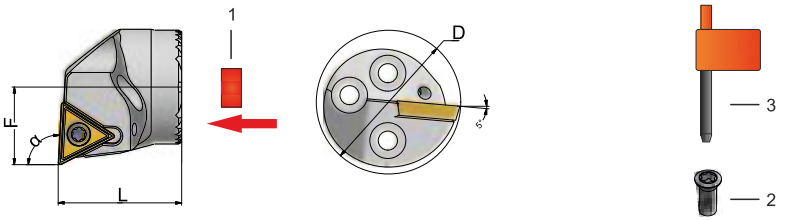
Parti di Ricambio / *Spare Parts*

1	2	3
CSC72 (*5 pcs*)	TX3509	BTX15

BF SERVICE

CS20-STUCR/L-11





Le immagini raffigurano la testina destra / *Pictures represent right head*

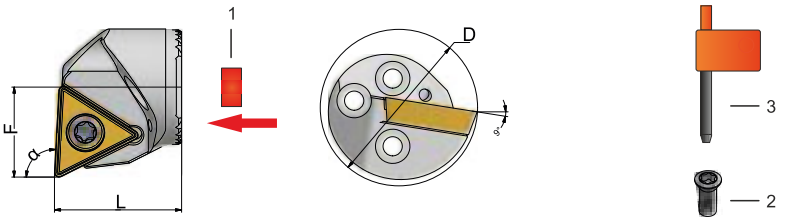
Codice Articolo *Item Code*	Barra *Bar*	D	L	F	α	Inserto *Insert*	Peso *Weight*
CS20-STUCR/L-11	A...20-...-...	24	20,5	13	93°	TC...1102	0,10 Kg
	A...25-...-...	29					
	A...32-...-...	36					

Parti di Ricambio / *Spare Parts*

1	2	3
CSC72 (*5 pcs*)	TX2506	BTX08

CS20-STUCR/L-16





Le immagini raffigurano la testina destra / *Pictures represent right head*

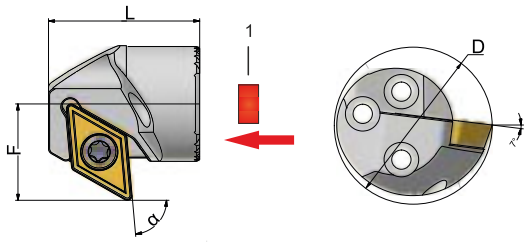
Codice Articolo *Item Code*	Barra *Bar*	D	L	F	α	Inserto *Insert*	Peso *Weight*
CS20-STUCR/L-16	A...20-...-...	26	21	15	93°	TC...16T3	0,10 Kg
	A...25-...-...	31					
	A...32-...-...	38					

Parti di Ricambio / *Spare Parts*

1	2	3
CSC72 (*5 pcs*)	TX3509	BTX15

CS20-SDXCR/L-11





Le immagini raffigurano la testina destra / *Pictures represent right head*

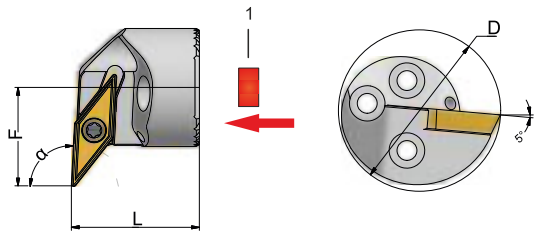
Codice Articolo *Item Code*	Barra *Bar*	D	L	F	α	Inserto *Insert*	Peso *Weight*
CS20-SDXCR/L-11	A...20-...-...	26	25	16	85°	DC...11T3	0,10 Kg
	A...25-...-...	31					
	A...32-...-...	38					

Parti di Ricambio / *Spare Parts*

1	2	3
CSC72 (*5 pcs*)	TX3509	BTX15

CS20-SVUCR/L-11





Le immagini raffigurano la testina destra / *Pictures represent right head*

Codice Articolo *Item Code*	Barra *Bar*	D	L	F	α	Inserto *Insert*	Peso *Weight*
CS20-SVUCR/L-11	A...20-...-...	26	20,5	16	93°	VC...1103	0,10 Kg
	A...25-...-...	31					
	A...32-...-...	38					

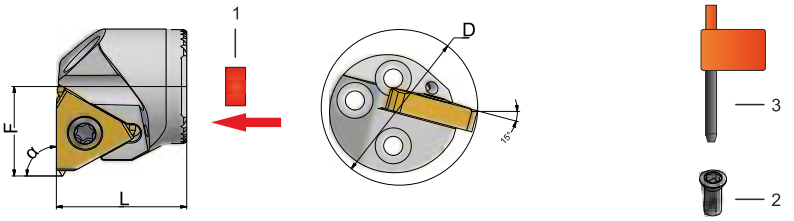
Parti di Ricambio / *Spare Parts*

1	2	3
CSC72 (*5 pcs*)	TX2506	BTX08

BF SERVICE

CS20-SIR/L-16





Le immagini raffigurano la testina destra / *Pictures represent right head*

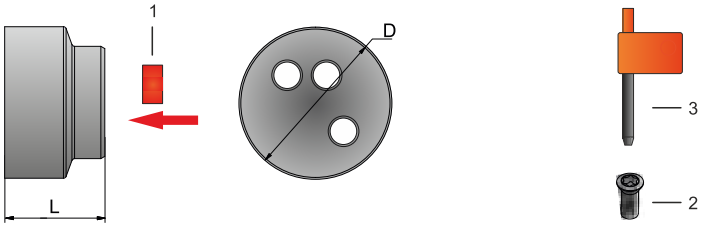
Codice Articolo *Item Code*	Barra *Bar*	D	L	F	α	Inserto *Insert*	Peso *Weight*
CS20-SIR/L-16	A...20-...-...	26	21,7	15	90°	16 IR...	0,10 Kg
	A...25-...-...	31					
	A...32-...-...	38					

Parti di Ricambio / *Spare Parts*

1	2	3
CSC72 (*5 pcs*)	TX3509	BTX15

CS20-XXR/L





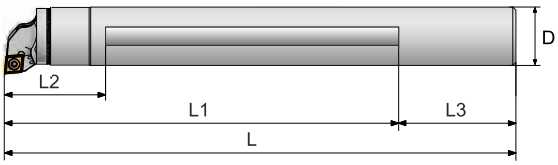
Le immagini raffigurano la testina destra / *Pictures represent right head*

Codice Articolo *Item Code*	Barra *Bar*	D	L	F	α	Inserto *Insert*	Peso *Weight*
CS20-XXR/L	A...20-...-...	29	24,8	...	...°	...	0,10 Kg
	A...25-...-...	29					
	A...32-...-...	29					

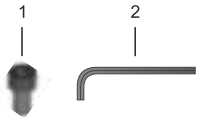
Parti di Ricambio / *Spare Parts*

1	2	3
CSC72 (*5 pcs*)	TX3509	BTX15

ANS...-05-...







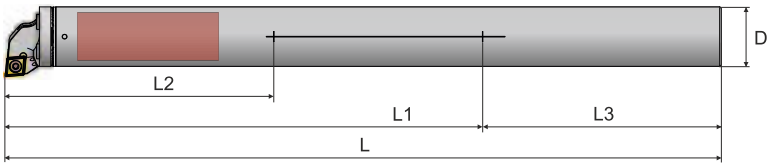
Le immagini raffigurano una barra D 40 / *Pictures represent D 40 bar*

Codice Articolo *Item Code*	Rapporto *Boring Ratio*	D	L	L1	L2	L3	M	Peso *Weight*
ANS40-05-328	5 x D	40	360	280	72	80	1/2 G	2,60 Kg
ANS50-05-418		50	450	350	82	100	1/2 G	5,70 Kg
ANS60-05-508		60	540	420	92	120	1/2 G	10,25 Kg

Parti di Ricambio / *Spare Parts*

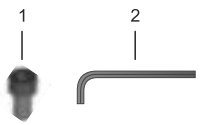
1	2
	
VB0612 (*10 pcs*)	CBR50

AFS...-08-...



damper





Le immagini raffigurano una barra D 40 / *Pictures represent D 40 bar*

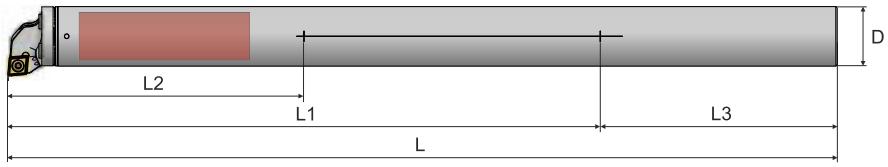
Codice Articolo *Item Code*	Rapporto *Boring Ratio*	D	L	L1	L2	L3	M	Peso *Weight*
AFS40-08-448	8 x D	40	480	320	180	160	1/2 G	4,00 Kg
AFS50-08-568		50	600	400	215	200	1/2 G	8,20 Kg
AFS60-08-688		60	720	480	247	240	1/2 G	14,60 Kg

Parti di Ricambio / *Spare Parts*

1	2
	
VB0612 (*10 pcs*)	CBR50

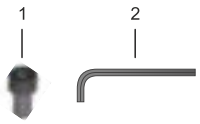
BF SERVICE

AFS...-10-...





damper



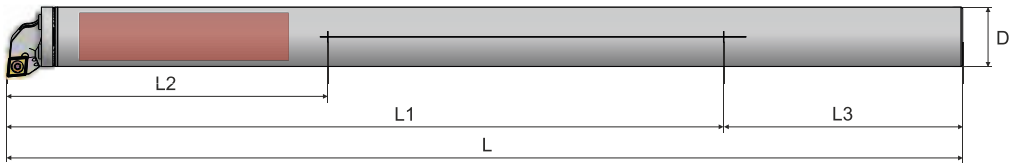
Le immagini raffigurano una barra D 40 / *Pictures represent D 40 bar*

Codice Articolo *Item Code*	Rapporto *Boring Ratio*	D	L	L1	L2	L3	M	Peso *Weight*
AFS40-10-528	10 x D	40	560	400	200	160	1/2 G	5,30 Kg
AFS50-10-668		50	700	500	245	200	1/2 G	11,00 Kg
AFS60-10-808		60	840	600	280	240	1/2 G	13,00 Kg

Parti di Ricambio / *Spare Parts*

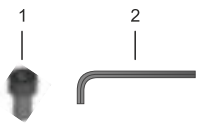
1	2
	
VB0612 (*10 pcs*)	CBR50

AFS...-12-...





damper



Le immagini raffigurano una barra D 40 / *Pictures represent D 40 bar*

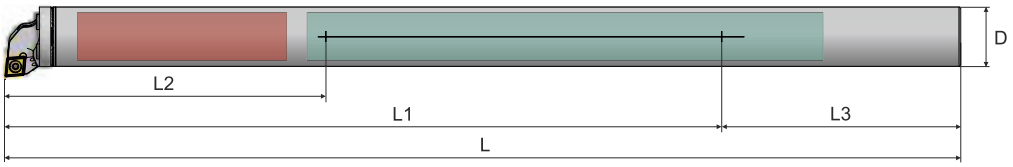
Codice Articolo *Item Code*	Rapporto *Boring Ratio*	D	L	L1	L2	L3	M	Peso *Weight*
AFS40-12-608	12 x D	40	640	480	215	160	1/2 G	6,50 Kg
AFS50-12-768		50	800	600	270	200	1/2 G	13,00 Kg
AFS60-12-928		60	960	720	325	240	1/2 G	23,00 Kg

Parti di Ricambio / *Spare Parts*

1	2
	
VB0612 (*10 pcs*)	CBR50

BF SERVICE

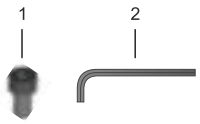
AFH...-12-...





damper metallo duro / *hard metal*





Le immagini raffigurano una barra D 40 / *Pictures represent D 40 bar*

Codice Articolo *Item Code*	Rapporto *Boring Ratio*	D	L	L1	L2	L3	M	Peso *Weight*
AFH40-12-608	12 x D	40	640	480	215	160	1/2 G	- - -
AFH50-12-768		50	800	600	270	200	1/2 G	- - -
AFH60-12-928		60	960	720	325	240	1/2 G	- - -

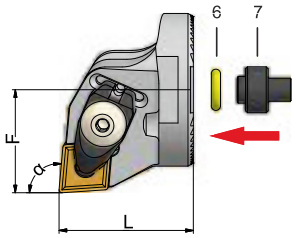
Parti di Ricambio / *Spare Parts*

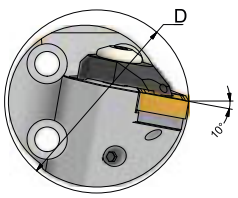
1	2	
		
VB0612 (*10 pcs*)	CBR50	

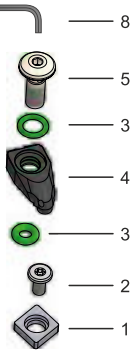
BF SERVICE

CS40-DCLNR/L-12









Le immagini raffigurano la testina destra / *Pictures represent right head*

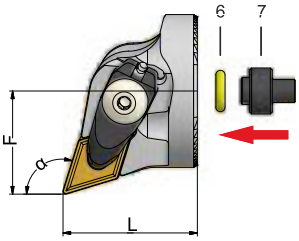
Codice Articolo *Item Code*	Barra *Bar*	D	L	F	α	Inserto *Insert*	Peso *Weight*
CS40-DCLNR/L-12	A...40-...-...	48	35,0	27	95°	CN...1204	0,20 Kg
	A...50-...-...	58					
	A...60-...-...	68					

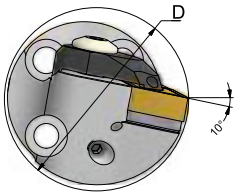
Parti di Ricambio / *Spare Parts*

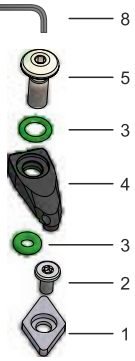
1	2	3	4	5	6	7	8
S8012P	VD0408	OR-SET (*10+10 pcs*)	DT21R/L	V6017	OR-CS40 (*5 pcs*)	DM-05-000	CBR30

CS40-DDQNR/L-15









Le immagini raffigurano la testina destra / *Pictures represent right head*

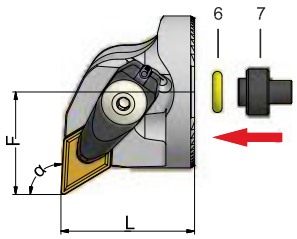
Codice Articolo *Item Code*	Barra *Bar*	D	L	F	α	Inserto *Insert*	Peso *Weight*
CS40-DDQNR/L-15	A...40-...-...	48	35,0	27	107,5°	DN...1506	0,20 Kg
	A...50-...-...	58					
	A...60-...-...	68					

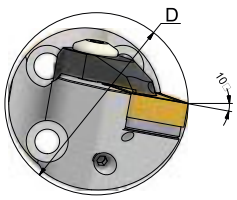
Parti di Ricambio / *Spare Parts*

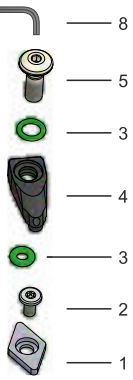
1	2	3	4	5	6	7	8
S5515D	VD0408	OR-SET (*10+10 pcs*)	DT22R/L	V6017	OR-CS40 (*5 pcs*)	DM-05-000	CBR30

CS40-DDUNR/L-15









Le immagini raffigurano la testina destra / *Pictures represent right head*

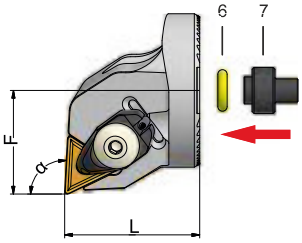
Codice Articolo *Item Code*	Barra *Bar*	D	L	F	α	Inserto *Insert*	Peso *Weight*
CS40-DDUNR/L-15	A...40-...-...	48	35,0	27	93°	DN...1506	0,20 Kg
	A...50-...-...	58					
	A...60-...-...	68					

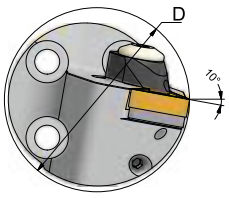
Parti di Ricambio / *Spare Parts*

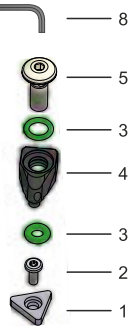
1	2	3	4	5	6	7	8
S5515D	VD0408	OR-SET (*10+10 pcs*)	DT22N	V6017	OR-CS40 (*5 pcs*)	DM-05-000	CBR30

CS40-DTUNR/L-16









Le immagini raffigurano la testina destra / *Pictures represent right head*

Codice Articolo *Item Code*	Barra *Bar*	D	L	F	α	Inserto *Insert*	Peso *Weight*
CS40-DTUNR/L-16	A...40-...-...	48	35,0	27	107,5°	TN...1604	0,20 Kg
	A...50-...-...	58					
	A...60-...-...	68					

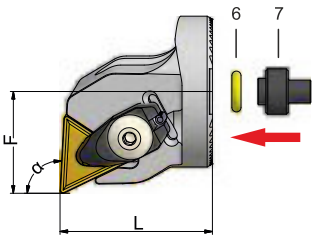
Parti di Ricambio / *Spare Parts*

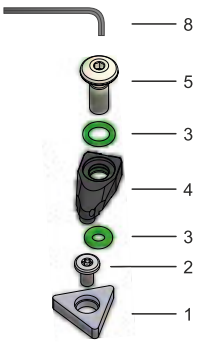
1	2	3	4	5	6	7	8
S6016D	VD0308	OR-SET (*10+10 pcs*)	DT23R/L	V6017	OR-CS40 (*5 pcs*)	DM-05-000	CBR30

BF SERVICE

CS40-DTUNR/L-22







Le immagini raffigurano la testina destra / *Pictures represent right head*

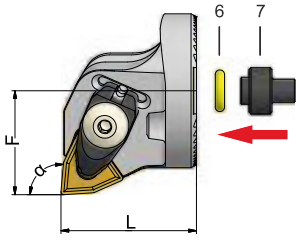
Codice Articolo *Item Code*	Barra *Bar*	D	L	F	α	Inserto *Insert*	Peso *Weight*
CS40-DTUNR/L-22	A...40-...-...	48	40,0	27	93°	TN...22	0,20 Kg
	A...50-...-...	58					
	A...60-...-...	68					

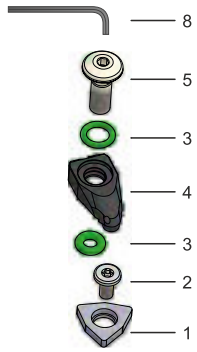
Parti di Ricambio / *Spare Parts*

1	2	3	4	5	6	7	8
S6022D	VD0408	OR-SET (*10+10 pcs*)	DT21R/L	V6017	OR-CS40 (*5 pcs*)	DM-05-000	CBR30

CS40-DWLNR/L-08







Le immagini raffigurano la testina destra / *Pictures represent right head*

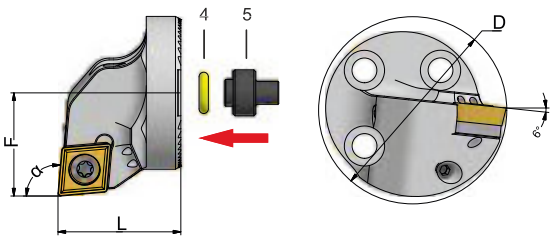
Codice Articolo *Item Code*	Barra *Bar*	D	L	F	α	Inserto *Insert*	Peso *Weight*
CS40-DWLNR/L-08	A...40-...-...	48	35,0	27	95°	WN...0804	0,20 Kg
	A...50-...-...	58					
	A...60-...-...	68					

Parti di Ricambio / *Spare Parts*

1	2	3	4	5	6	7	8
S8008P	VD0408B	OR-SET (*10+10 pcs*)	DT21R/L	V6017	OR-CS40 (*5 pcs*)	DM-05-000	CBR30

CS40-SCLCR/L-12







Le immagini raffigurano la testina destra / *Pictures represent right head*

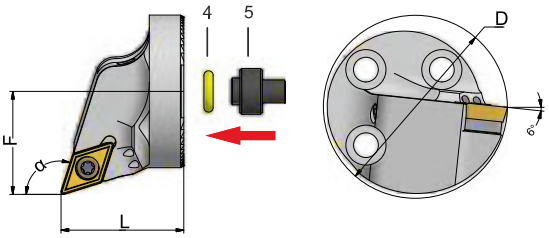
Codice Articolo *Item Code*	Barra *Bar*	D	L	F	α	Inserto *Insert*	Peso *Weight*
CS40-SCLCR/L-12	A...40-...-...	49	32,0	27	95°	CC...1204	0,20 Kg
	A...50-...-...	59					
	A...60-...-...	69					

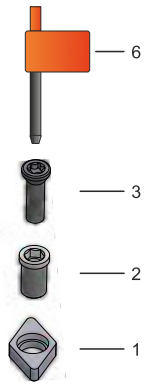
Parti di Ricambio / *Spare Parts*

1	2	3	4	5	6		
S8012P	B0609	TX4014	OR-CS40 (*5 pcs*)	DM-05-000	BTX15		

CS40-SDQCR/L-11







Le immagini raffigurano la testina destra / *Pictures represent right head*

Codice Articolo *Item Code*	Barra *Bar*	D	L	F	α	Inserto *Insert*	Peso *Weight*
CS40-SDQCR/L-11	A...40-...-...	48	32,0	27	107,5°	DC...11T3	0,20 Kg
	A...50-...-...	58					
	A...60-...-...	68					

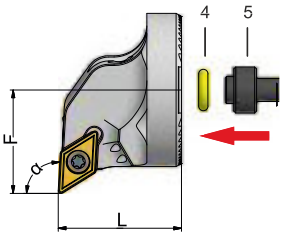
Parti di Ricambio / *Spare Parts*

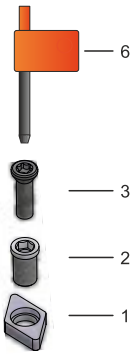
1	2	3	4	5	6		
S5511P	B0509	TX3513	OR-CS40 (*5 pcs*)	DM-05-000	BTX15		

BF SERVICE

CS40-SDUCR/L-11







Le immagini raffigurano la testina destra / *Pictures represent right head*

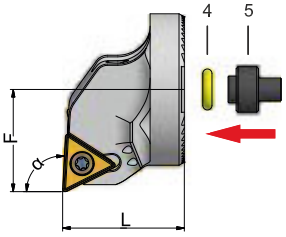
Codice Articolo *Item Code*	Barra *Bar*	D	L	F	α	Inserto *Insert*	Peso *Weight*
CS40-SDUCR/L-11	A...40-...-...	49	32,0	27	93°	DC...11T3	0,20 Kg
	A...50-...-...	59					
	A...60-...-...	69					

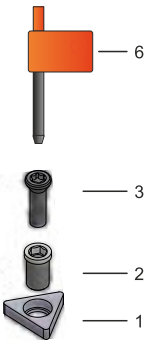
Parti di Ricambio / *Spare Parts*

1	2	3	4	5	6
S5511P	B0509	TX3513	OR-CS40 (*5 pcs*)	DM-05-000	BTX15

CS40-STUCR/L-16







Le immagini raffigurano la testina destra / *Pictures represent right head*

Codice Articolo *Item Code*	Barra *Bar*	D	L	F	α	Inserto *Insert*	Peso *Weight*
CS40-STUCR/L-16	A...40-...-...	49	32,0	27	93°	TC...16T3	0,20 Kg
	A...50-...-...	59					
	A...60-...-...	69					

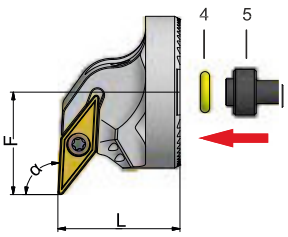
Parti di Ricambio / *Spare Parts*

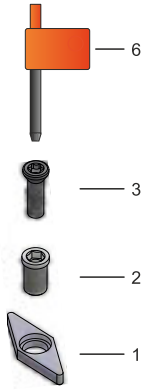
1	2	3	4	5	6
S6016P	B0509	TX3513	OR-CS40 (*5 pcs*)	DM-05-000	BTX15

BF SERVICE

CS40-SVUCR/L-16







Le immagini raffigurano la testina destra / *Pictures represent right head*

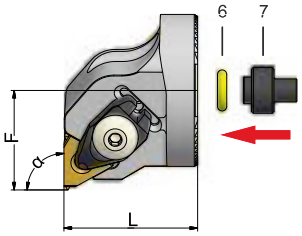
Codice Articolo *Item Code*	Barra *Bar*	D	L	F	α	Inserto *Insert*	Peso *Weight*
CS40-SVUCR/L-16	A...40-...-...	49	32,0	27	93°	VC...1604	0,20 Kg
	A...50-...-...	59					
	A...60-...-...	69					

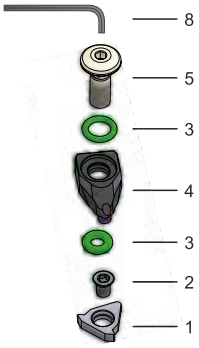
Parti di Ricambio / *Spare Parts*

1	2	3	4	5	6		
S3516P	B0509	TX3513	OR-CS40 (*5 pcs*)	DM-05-000	BTX15		

CS40-DIR/L-16







Le immagini raffigurano la testina destra / *Pictures represent right head*

Codice Articolo *Item Code*	Barra *Bar*	D	L	F	α	Inserto *Insert*	Peso *Weight*
CS40-DIR/L-16	A...40-...-...	49	35,0	26	90°	16 IR...	0,20 Kg
	A...50-...-...	59					
	A...60-...-...	69					

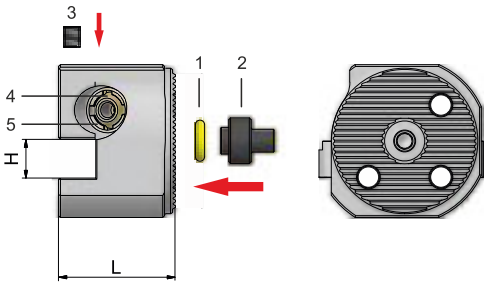
Parti di Ricambio / *Spare Parts*

1	2	3	4	5	6	7	8
S6016R	TX4007	OR-SET (*10+10 pcs*)	DT24R/L	V6017	OR-CS40 (*5 pcs*)	DM-05-000	CBR30

BF SERVICE

CS40-PU10R/L





Le immagini raffigurano la testina destra / *Pictures represent right head*

Codice Articolo *Item Code*	Barra *Bar*	D *	L	H	α	Utensile *Tool*	Peso *Weight*
CS40-PU10R/L	A...40-...-...	...	32,0	10	...°	1010	0,20 Kg
	A...50-...-...	...					
	A...60-...-...	...					

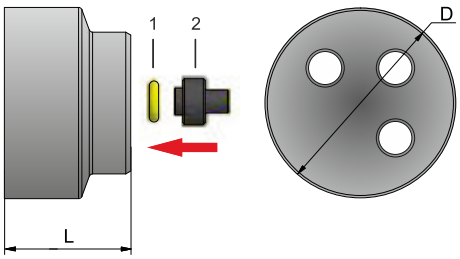
Parti di Ricambio / *Spare Parts*

1	2	3	4	5
OR-CS40 (*5 pcs*)	DM-05-000	GR0620	SF13990	BS13989

* Diametro minimo "D" variabile a seconda della posizione dell'utensile / *Minimum diameter "D" can vary depending on tool position*

CS40-XXR/L





Le immagini raffigurano la testina destra / *Pictures represent right head*

Codice Articolo *Item Code*	Barra *Bar*	D	L	F	α	Inserto *Insert*	Peso *Weight*
CS40-XXR/L	A...40-...-...	54	36,0	...	...°	...	0,20 Kg
	A...50-...-...	54					
	A...60-...-...	54					

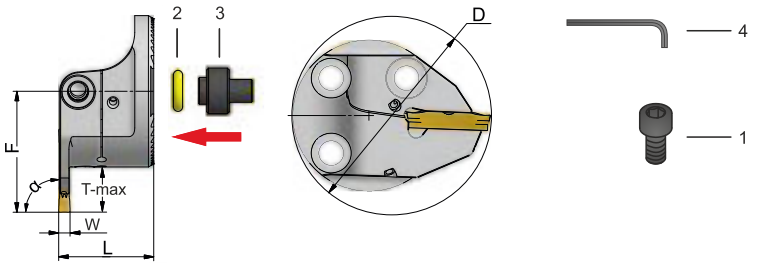
Parti di Ricambio / *Spare Parts*

1	2
OR-CS40 (*5 pcs*)	DM-05-000

CS40-CIGR/L-20-11

Utilizzare solo con barra ANS...-05-... max 3 x D
Use only with ANS bar ...- 05 -... max 3 x D





Le immagini raffigurano la testina destra / *Pictures represent right head*

Codice Articolo *Item Code*	Barra *Bar*	D	L	F	α	W	T-max	Inserto *Insert*	Peso *Weight*
CS40-CIGR/L-20-11	A...40-...-...	52,5	25,0	32	90°	2,0	11	CTSN 22-20	0,20 Kg
	A...50-...-...	62,5							
	A...60-...-...	72,5							

Parti di Ricambio / *Spare Parts*

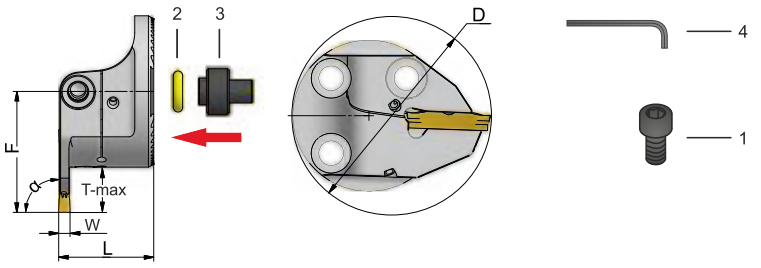
1	2	3	4
VB0518	OR-CS40 (*5 pcs*)	DM-05-000	CBR40

INSERTI A PAG. 73

CS40-CIGR/L-30-11

Utilizzare solo con barra ANS...-05-... max 3 x D
Use only with ANS bar ...- 05 -... max 3 x D





Le immagini raffigurano la testina destra / *Pictures represent right head*

Codice Articolo *Item Code*	Barra *Bar*	D	L	F	α	W	T-max	Inserto *Insert*	Peso *Weight*
CS40-CIGR/L-30-11	A...40-...-...	52,5	25,0	32	90°	3,0	11	CTSN 22-30	0,20 Kg
	A...50-...-...	62,5							
	A...60-...-...	72,5							

Parti di Ricambio / *Spare Parts*

1	2	3	4
VB0518	OR-CS40 (*5 pcs*)	DM-05-000	CBR40

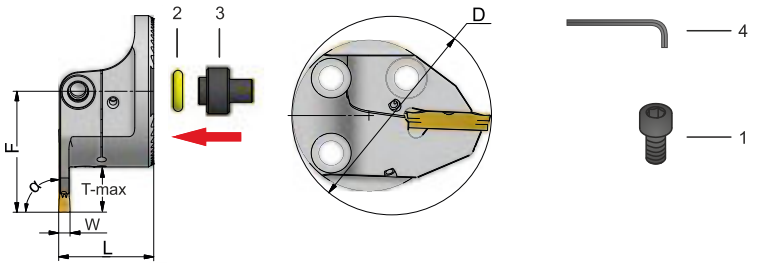
INSERTI A PAG. 73

BF SERVICE

CS40-CIGR/L-40-11

Utilizzare solo con barra ANS...-05-... max 3 x D
Use only with ANS bar ...- 05 -... max 3 x D





Le immagini raffigurano la testina destra / *Pictures represent right head*

Codice Articolo *Item Code*	Barra *Bar*	D	L	F	α	W	T-max	Inserto *Insert*	Peso *Weight*
CS40-CIGR/L-40-11	A...40-...-...	52,5	25,0	32	90°	4,0	11	CTSN 25-40	0,20 Kg
	A...50-...-...	62,5							
	A...60-...-...	72,5							

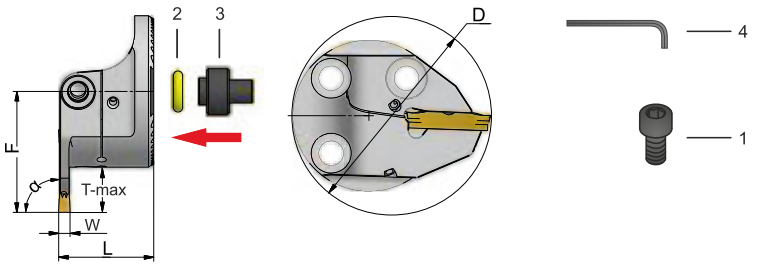
Parti di Ricambio / *Spare Parts*

1	2	3	4
VB0518	OR-CS40 (*5 pcs*)	DM-05-000	CBR40

CS40-CIGR/L-50-11

Utilizzare solo con barra ANS...-05-... max 3 x D
Use only with ANS bar ...- 05 -... max 3 x D





Le immagini raffigurano la testina destra / *Pictures represent right head*

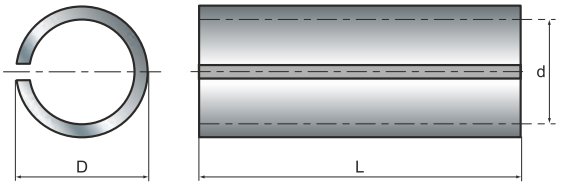
Codice Articolo *Item Code*	Barra *Bar*	D	L	F	α	W	T-max	Inserto *Insert*	Peso *Weight*
CS40-CIGR/L-50-11	A...40-...-...	52,5	25,0	32	90°	5,0	11	CTSN 25-50	0,20 Kg
	A...50-...-...	62,5							
	A...60-...-...	72,5							

Parti di Ricambio / *Spare Parts*

1	2	3	4
VB0518	OR-CS40 (*5 pcs*)	DM-05-000	CBR40

INSERTI A PAG. 73

BDT





Codice Articolo *Item Code*	D Diametro Esterno / *External Diameter*	d Diametro Interno / *Internal Diameter*	L *Length*
BDT 2520-080	25	20	80
BDT 3225-100	32	25	100
BDT 4032-128	40	32	128
BDT 5040-160	50	40	160
BDT 6050-200	60	50	200

Caratteristiche Generali / *Technical Data*

Le **Bussole di Bloccaggio Barra** consentono il corretto fissaggio delle **Barre Antivibranti *DABtool*** su portautensili.
*The **Toolholder Bushing** allow **DABtool Antivibrations Bar** to be fixed to the toolholders of the machine tools.*

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Tabelle di riepilogo / *Summary tables*

MASSIMA SPORGENZA RACCOMANDATA / *MAXIMUM OVERHANG RECOMMENDED*

Tipo di Barra / *Bar Type* **DABtool**		Tornitura *Turning*	Scanalatura *Grooving*	Filettatura *Threading*
ANS...	Barre Alesatura Acciaio *Boring Steel Bars*	5 x *dm* m	3 x *dm* m	3 x *dm* m
AFS...	Barre Alesatura Antivibranti Acciaio *Boring Antivibrations Steel Bars*	8 x *dm* m 10 x *dm* m	4 x *dm* m * 5 x *dm* m *	4 x *dm* m * 5 x *dm* m *
AFH...	Barre Alesatura Antivibranti Acciaio rinforzate con Metallo Duro *Boring Antivibrations Steel Bars with Hard Metal*	12 x *dm* m 14 x *dm* m	6 x *dm* m 7 x *dm* m	7 x *dm* m

* Utilizzare Barre di Alesatura rinforzate con Metallo Duro / *Use Boring Antivibrations Steel Bars with Hard Metal*

COMBINAZIONI POSSIBILI DI BARRE E TESTINE / *BARS AND HEADS POSSIBLE COMBINATIONS*

CS20

Bar Diameter	CS20-SCLCR/L-09	CS20-SDNCR/L-11	CS20-SDQCR/L-07	CS20-SDQCR/L-11	CS20-SDUCR/L-07	CS20-SDUCR/L-11	CS20-STUCR/L-11	CS20-STUCR/L-16	CS20-SDXCR/L-11	CS20-SVUCR/L-11	CS20-SIR/L-16	CS20-XXR/L		
	Min Diameter (mm)													
Diam. 20	24	26	24	26	24	26	24	26	26	26	26	29		
Diam. 25	29	31	29	31	29	31	29	31	31	31	31	29		
Diam. 32	36	38	36	38	36	38	36	38	38	38	38	39		

CS40

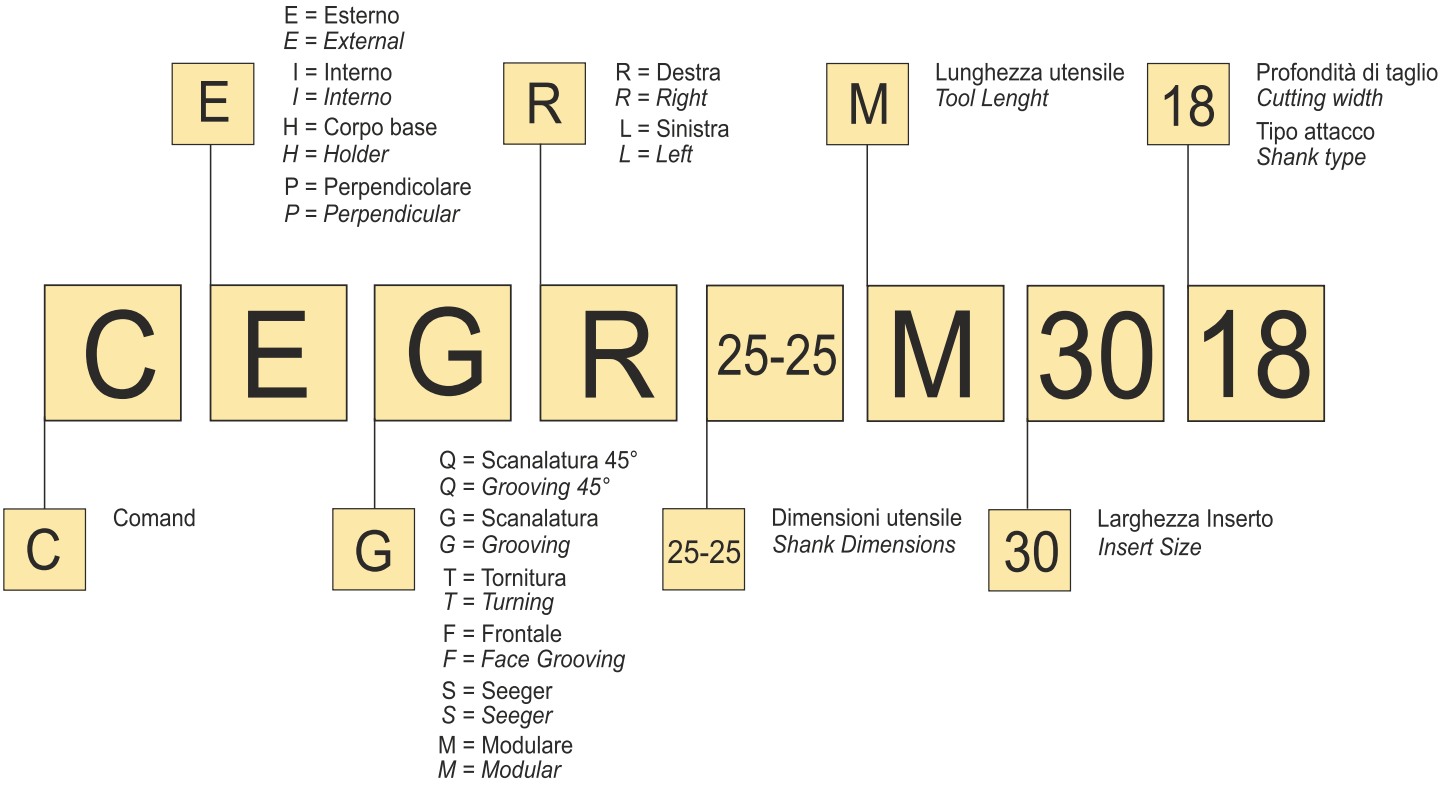
Bar Diameter	CS40-DCLNR/L-12	CS40-DDQNR/L-15	CS40-DDUNR/L-15	CS40-DTUNR/L-16	CS40-DTUNR/L-22	CS40-DWLNR/L-08	CS40-SCLCR/L-12	CS40-SDQCR/L-11	CS40-SDUCR/L-11	CS40-STUCR/L-16	CS40-SVUCR/L-16	CS40-DIR/L-16	CS40-CIGR/L-...-11	CS40-XXR/L
	Min Diameter (mm)													
Diam. 40	48	48	48	48	48	48	49	48	49	49	49	49	52,5	54
Diam. 50	58	58	58	58	58	58	59	58	59	59	59	59	62,5	54
Diam. 60	68	68	68	68	68	68	69	68	69	69	69	69	72,5	54

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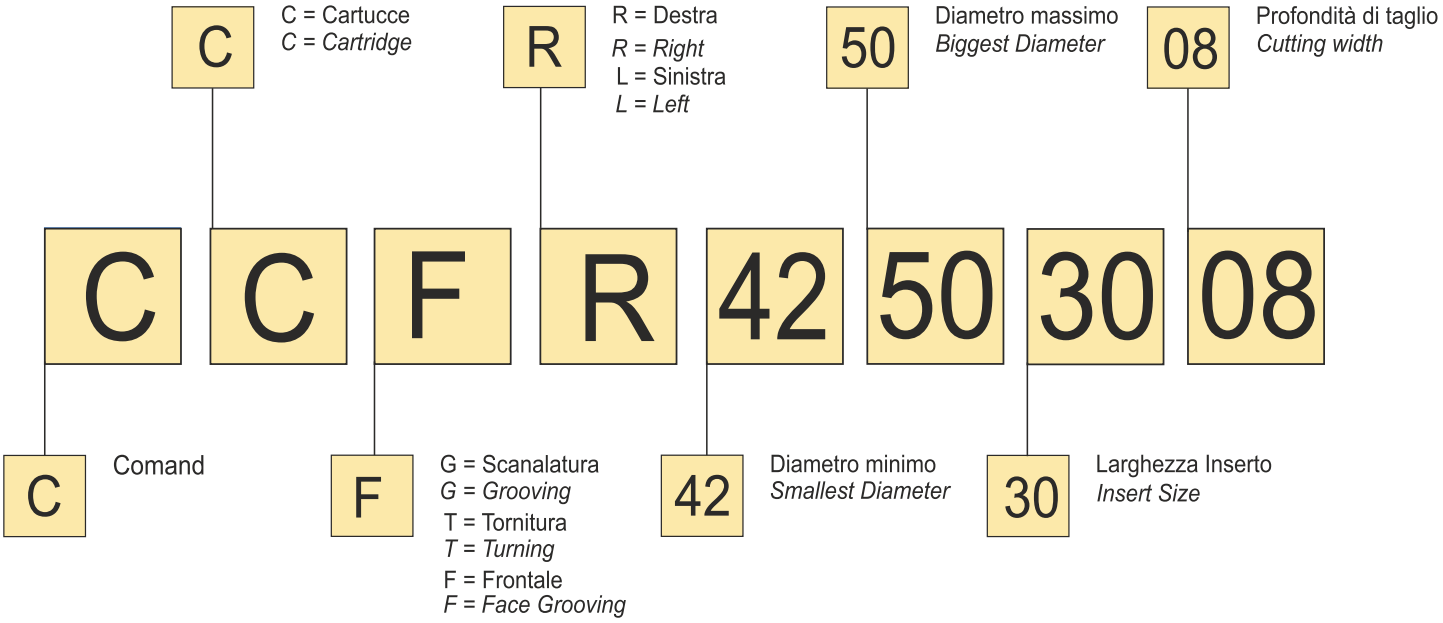
Sistema di codifica Utensili Troncatura

Designation code for face grooving holders



Sistema di codifica Cartucce Troncatura

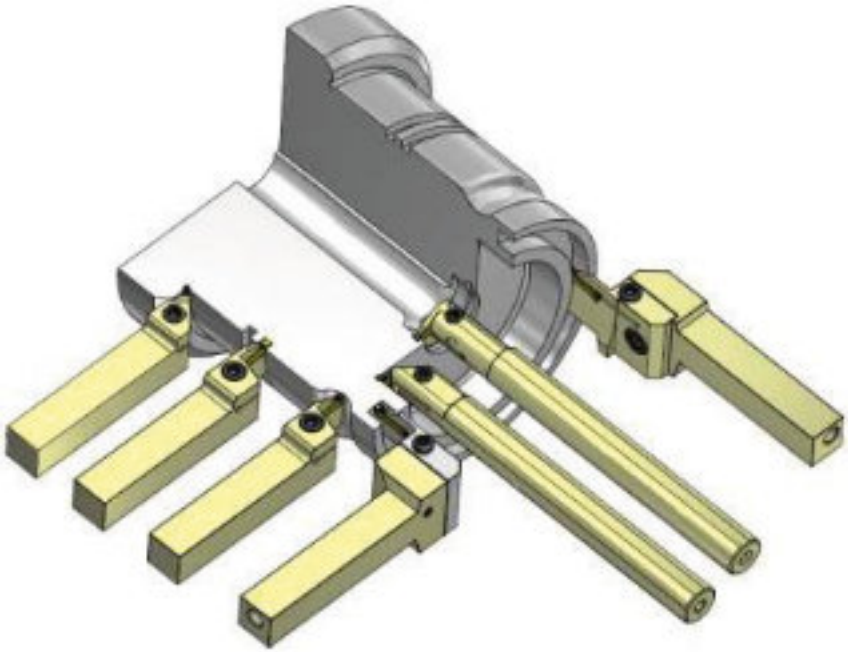
Designation code for face grooving cartridges



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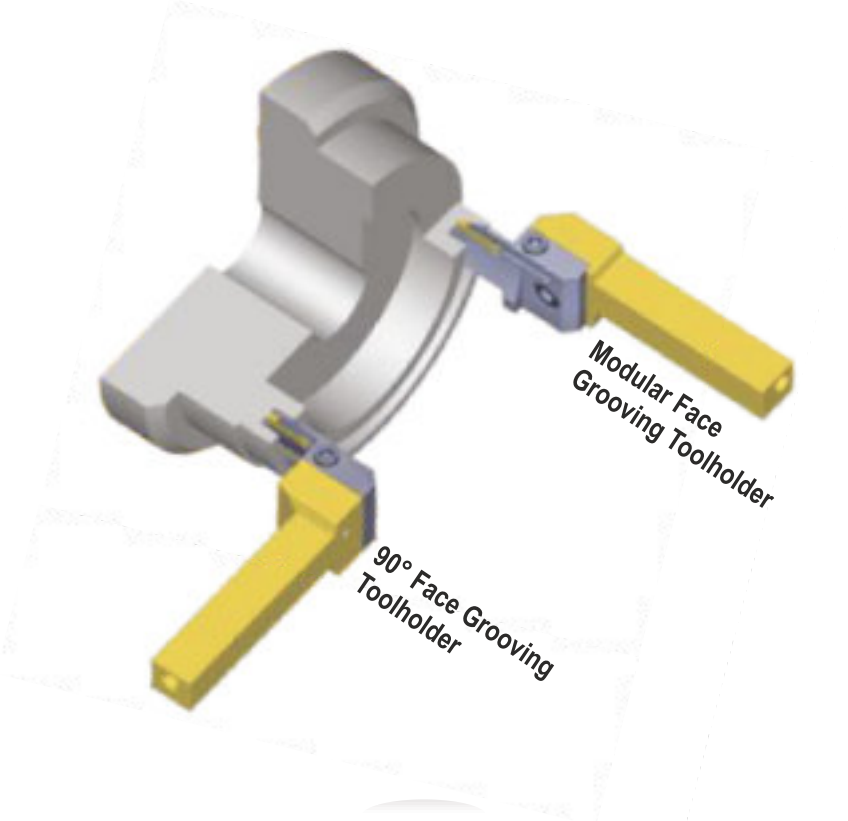
Nuovo Sistema Tornitura, Scanalatura e Taglio

Turning, Grooving and Parting-off New System



Nuovo Sistema Modulare di Scanalatura Frontale

New Face Grooving Modular System

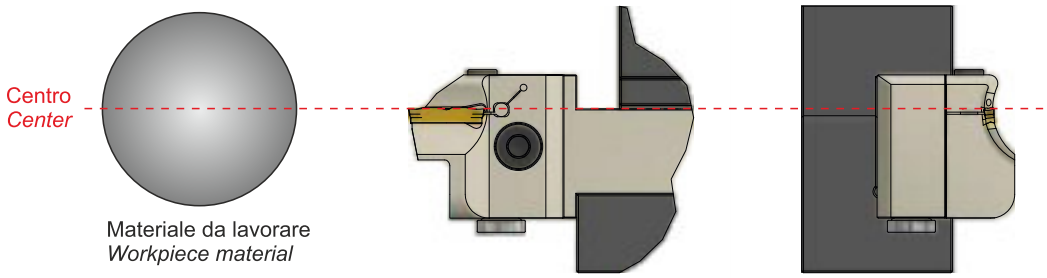


Sistema di troncatura modulare Fastcut

Fastcut Modular Face Grooving System

CHE COS'E
Sistema di posizionamento con sfere calibrate di altissima precisione Ø ± 1 µ ideato e perfezionato da COMAND TOOL
WHAT IS IT?
High precision cartridge positioning system created by COMAND TOOL. System is based on the use of calibrated spheres (precision ±1µ diameter) for an extremely accurate setting.

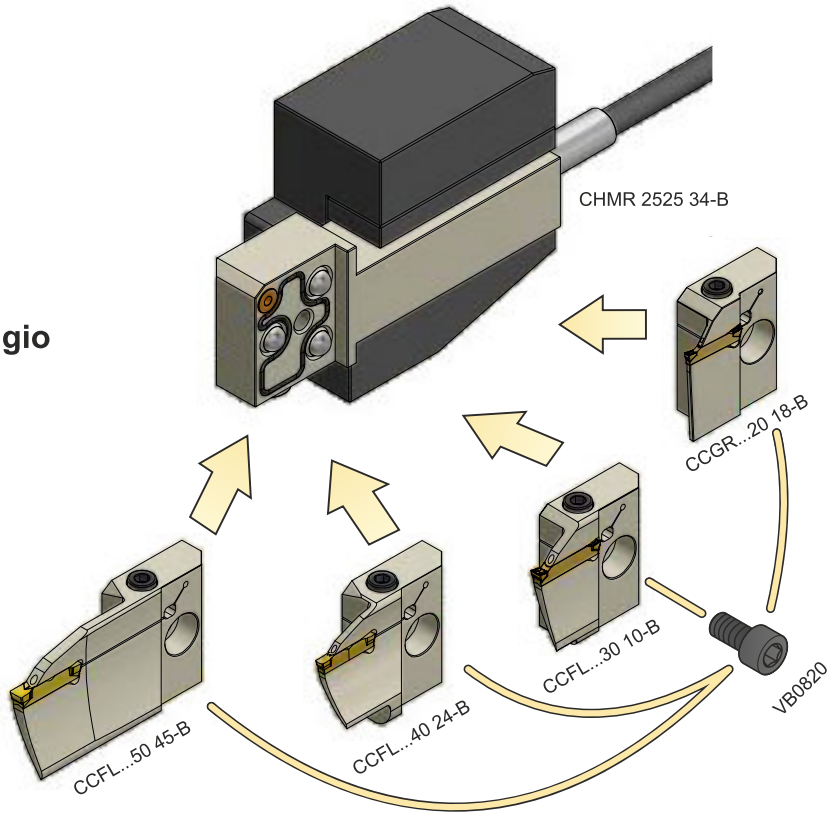
A COSA SERVE?
Nato per garantire un perfetto posizionamento della cartuccia senza la necessità di smontare il corpo porta-utensile dalla torretta del tornio.
Massima RIPETITIBILITA' e grande FLESSIBILTA' nel cambio delle cartucce sul corpo porta-utensile
WHAT IS IT USED FOR?
Designed to allow cartridge change without having to remove the tool from the tool-holder on the lathe turret. Features great REPEATABILITY and FLEXIBILITY in cartridge type change.



COME FUNZIONA?
Con una sola vite di blocco/sblocco è possibile cambiare la cartuccia mantenendo il corpo in posizione nel portautensili. I vantaggi di questo sistema sono molteplici.
HOW DOES IT WORK?
By acting on a single locking/unlocking screw it is possible to change the cartridge type without losing insert position and alignment. Here are some of the advantages of the system.

Vantaggi / *Advantages*

- **Posizione costante**
  Fixed positioning
- **Ripetitibilità garantita**
  Guaranteed repeatability
- **Singola vite per montaggio/smontaggio**
  Only one locking/unlocking screw
- **FLESSIBILITA' DI LAVORAZIONE CON CARTUCCE MODULARI**
  FLEXIBILITY IN WORKING WITH DIFFERENT MODULAR CARTRIDGES



A destra alcuni esempi di diverse cartucce da montare su uno stesso corpo modulare
On the right some examples of different cartridges to be mounted on the same modular holder

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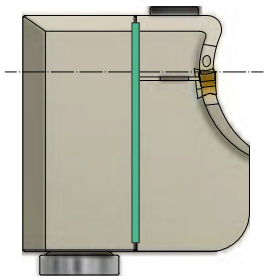
O-Ring

Contatto Perfetto / Perfect Contact

Con O-Ring / *With O-Ring*

O-Ring con durezza calibrata per garantire un perfetto accoppiamento sui tre punti di contatto tra sfere e cartuccia, l'allineamento è sempre preciso. La presenza dell'O-Ring funge anche da elemento smorzante, diminuendo possibili risonanze di lavorazione per una maggiore qualità di finitura.

Calibrated hardness O-Ring guarantees that there are always three contact points between cartridge and tool body for perfect alignment. The O-ring also helps reduce any possible machining vibrations for an improved workpiece quality.

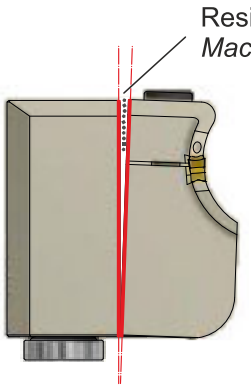


Allineamento perfetto
Perfect alignment

Senza O-Ring / *Without O-Ring*

Senza O-Ring si correrebbe il rischio di non avere la cartuccia perfettamente allineata con il corpo perché i piccoli residui delle lavorazioni e la polvere impedirebbero il perfetto contatto dei tre punti.

Without O-ring, cartridge and tool-body pairing might be compromised due to chips and machining residue build up in between.



Allineamento errato
Wrong alignment

Sistema Refrigerante

Cooling System

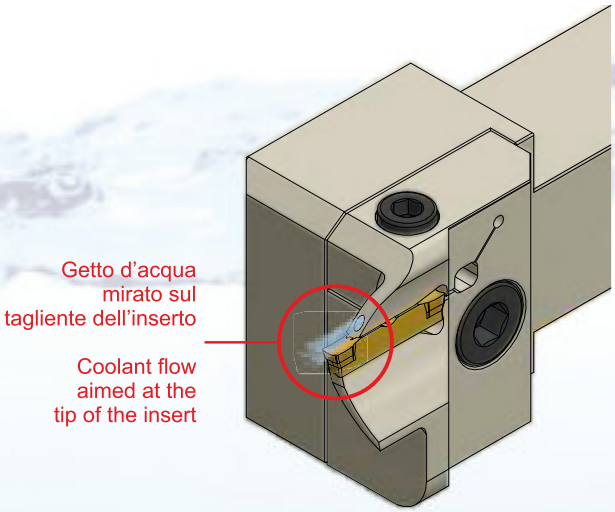
Passaggio refrigerante ad alta pressione (fino a 200 bar) per garantire la massima qualità di lavorazione con qualsiasi tipo di cartuccia e inserto utilizzato. Il getto di liquido refrigerante è posizionato in modo da agire sulla punta dell'inserto.

***Acqua Stream**, high pressure cooling system (up to 200 bar) for maximum machining performance with any kind of cartridge and insert.*

Vantaggi del sistema *AcquaStream* / *Advantages of the AcquaStream System*

- ***migliore evacuazione del truciolo***
- ***aumento della qualità di lavorazione***
- ***+200% incremento durata dell'inserto***
- ***temperatura costante***
- ***riduzione dell'attrito sul tagliente dell'inserto***
- ***migliori performance***

- *improved chip removal*
- *improved machining quality*
- *+200% increase of insert life*
- *constant insert temperature*
- *reduced friction on the cutting edge*
- *better performance*



V-lock² ® e .A.P.S. ®

Sistemi di Bloccaggio Inserto / Insert Locking System

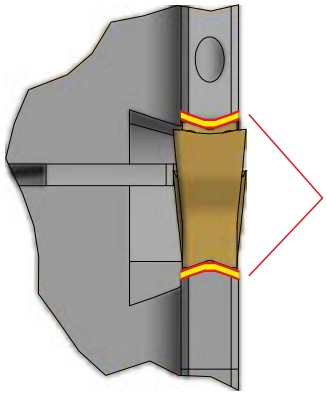
Una sede inserto non precisa potrebbe compromettere il corretto inserimento, e conseguente bloccaggio, di un inserto nell'apposita cartuccia o utensile.
Se la sede fosse troppo larga l'inserto avrebbe maggiori possibilità di movimento, andando così a pregiudicarne il posizionamento nel bloccaggio e una corretta lavorazione.
Viceversa, se la sede fosse molto stretta si verificherebbero difficoltà nell'inserimento e nella rimozione dell'inserto.

Insert seat must be very accurate to guarantee perfect positioning and high performance machining.
Insert seat is too wide: increases probability of insert being locked in the wrong position because of positioning tolerances being too large. Insert seat is too tight: difficulty in inserting an extracting insert from cartridge.

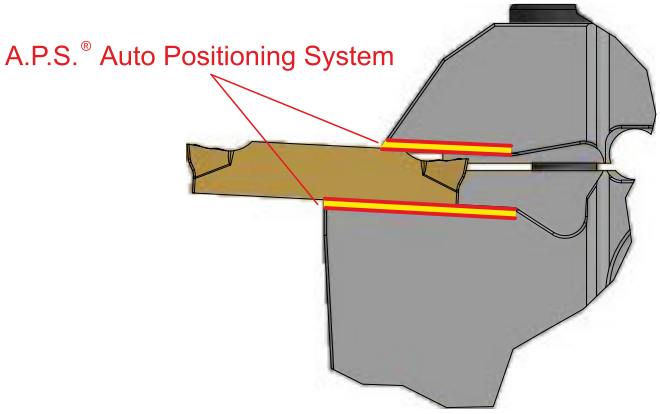
Per ovviare a questi inconvenienti in Comand Tool sono stati studiati, progettati e realizzati due sistemi di precisione per l'inserimento ed il bloccaggio dell'inserto:

In order to avoid such problems COMAND TOOL has researched, developed and produced two precision positioning systems:

V-lock² ®

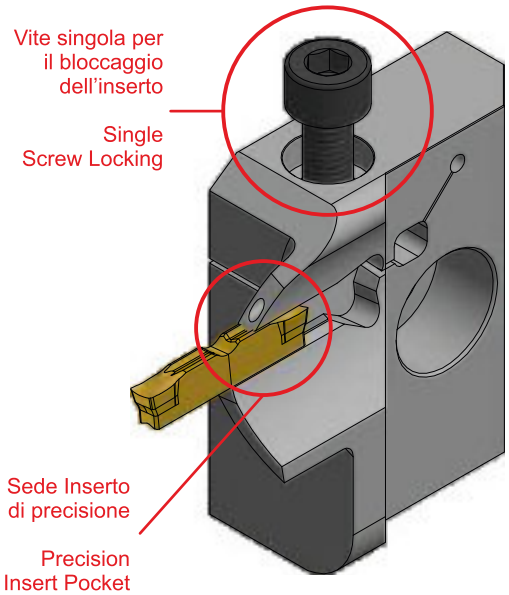


.A.P.S. ®



I sistemi progettati da *COMAND TOOL* hanno i seguenti vantaggi:
COMAND TOOL system has the following advantages:

- Il bloccaggio dell'inserto avviene tramite la vite singola, posta nella parte superiore della cartuccia.
  Single screw locking
- Il sistema **V-LOCK²** consente un perfetto bloccaggio ed una precisa angolazione dell'inserto.
  V-LOCK² system for perfect insert alignment and angle
- Il sistema **A.P.S. Auto Positioning System**, ideato da COMAND TOOL, fa si che l'inserto si allinei automaticamente e perfettamente all'interno della sede.
  A.P.S. insert seat engineered to guarantee maximum precision and ease during insertion and extraction of insert

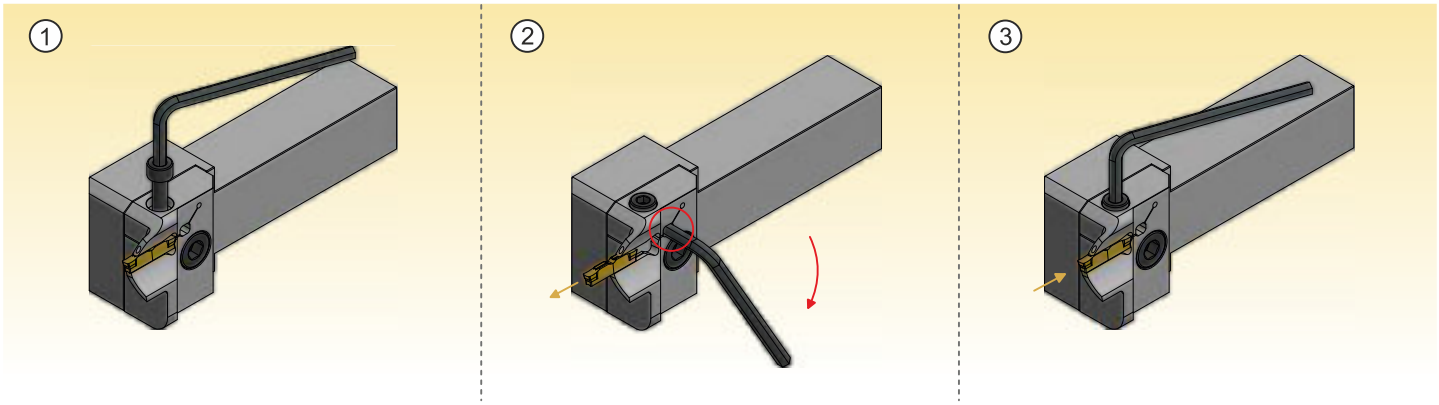


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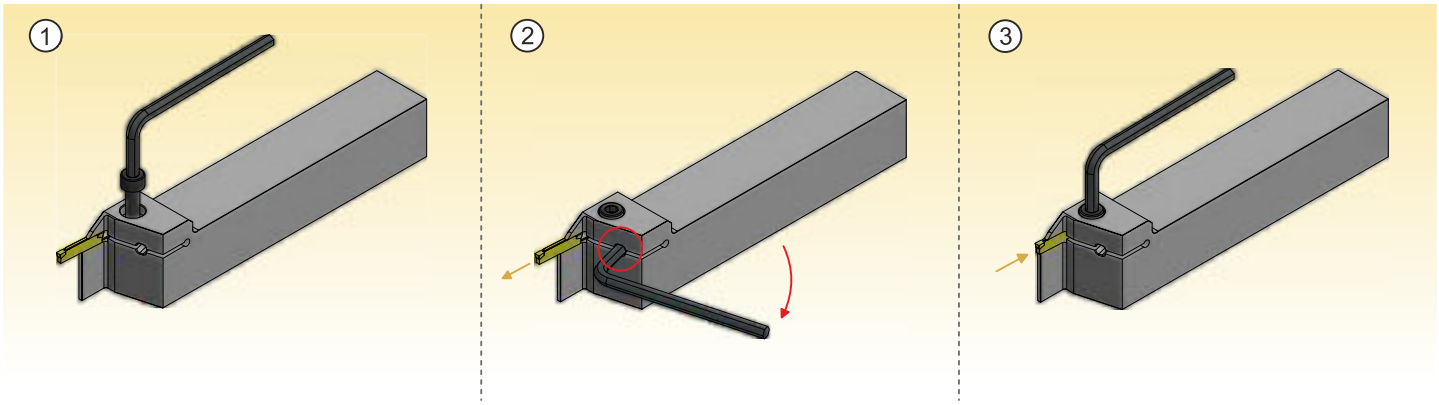
.A.P.S.® consigli per posizionamento e bloccaggio inserto

A.P.S. System: positioning and locking insert guide

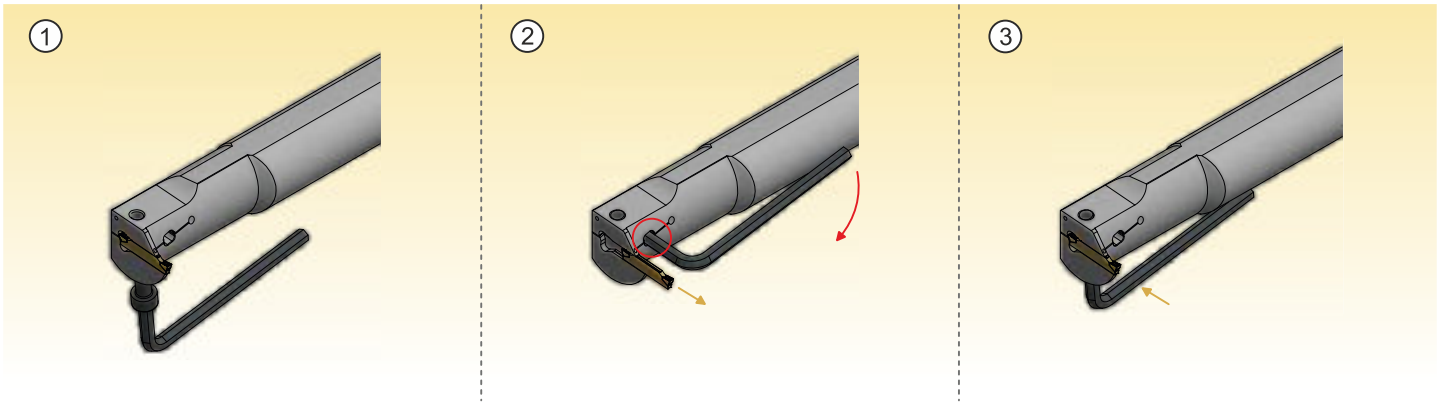
CCG... / CCF... Cartucce / *Cartridge*



CEG... Utensili per Scanalatura e Troncatura Esterna / *Holder for Grooving and Parting-off*



CIG... Utensili per Scanalatura Interna / *Holder for Internal Grooving*



① Svitare la vite sopra con l'apposita chiave / *Unlock the top screw using the key provided.*

② Posizionare la stessa chiave nella sede. Ruotare la chiave per sbloccare la sede per rimuovere e sostituire l'inserto.
Place the same key in the "pocket." Turn and hold the key to loosen the pocket. Remove and replace the insert.

③ Ora rimuovere la chiave dalla sede e bloccare l'inserto avvitando la vite sopra
Now remove the key from the pocket and secure the insert by firmly locking the top screw.

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Consigli per la Lavorazione di Tornitura Frontale

Modular Face Turning and Grooving machining guide

Pre-lavorazione / *Pre-work*

1 Scelta dell'utensile
Tool Selection

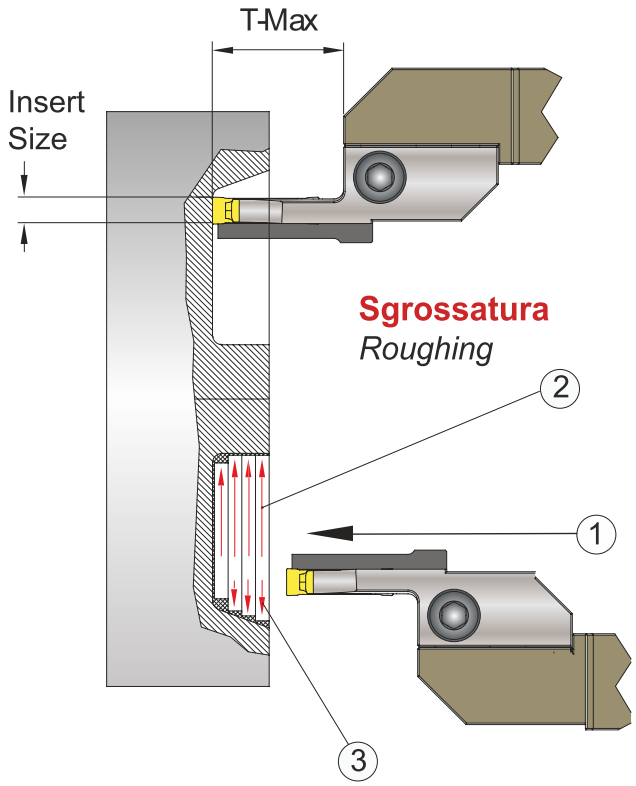
1.1 Utilizzare l'inserto più ampio e l'utensile più largo possibile per ottenere un miglior rapporto tra il materiale rimosso e rigidità nella finitura.
Use the widest Insert and the largest Toolholder permissible, (for a better rate of material removal, better rigidity and surface finish)

1.2 Utilizzare l'utensile con una sporgenza più corta (T Max) per ottenere un miglior rapporto tra il materiale rimosso e rigidità nella finitura.
Use the shortest Grooving Tool overhang (T max), (for a better rate of material removal, better rigidity and surface finish)

1.3 Utilizzare l'utensile più largo con il diametro massimo in relazione al primo taglio di scanalatura. Se il diametro dell'incudine è troppo largo interferirà col diametro esterno; se è troppo piccolo interferirà col diametro interno.
Use the largest Grooving Tool with the maximum diameter in relation with the first grooving cut. If the Grooving Tool Anvil diameter is too large, will interferes with the outer Dia., if it is to small will interferes with the inner Dia.

2 Preparazione dell'utensile
Tool Set-Up

2.1 Utilizzare l'inserto più ampio e l'utensile più largo possibile per ottenere un miglior rapporto tra il materiale rimosso e rigidità nella finitura.
Use the widest Insert and the largest Toolholder permissible, (for a better rate of material removal, better rigidity and surface finish)



Lavorazioni / *Operations*

3 Sgrossatura
Roughing

3.1 Effettuare il primo taglio vicino al diametro esterno. La profondità del taglio deve essere la stessa nelle seguenti operazioni di tornitura.
Make the First Cut Diameter close to the outer Dia. the depth of cut to be the same of the following face turning operation

3.2 Scanalatura della stessa profondità di taglio della successiva tornitura.
Step groove the same depth of cut selected for the next face turning

3.3 Una volta raggiunta la profondità di scanalatura, tornire dal centro verso il diametro esterno.
Once reached the depth of the groove, face turn away from center close to the outer Dia.

3.4 Riportare l'inserto alla posizione iniziale, e tornire verso il centro vicino al diametro interno.
Bring the Insert to the initial position, and face turn toward the center close to the inner Dia.

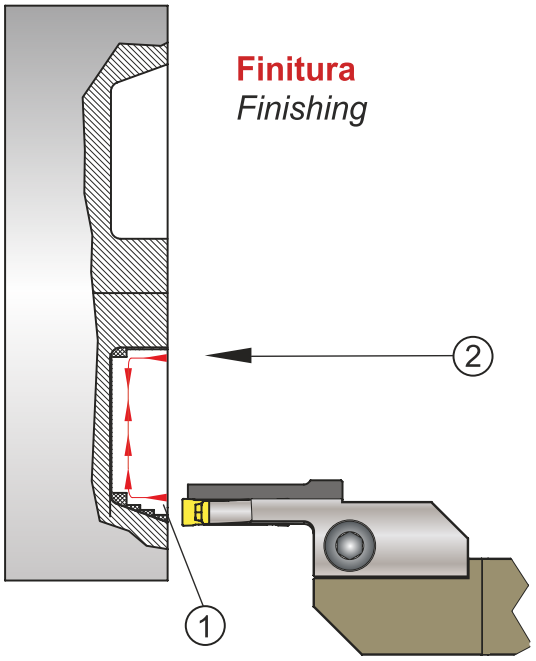
3.5 Ripetere l'operazione finchè la scanalatura approssimativa è completa e pronta per l'operazione di finitura.
Repeat the operation till the groove is complete roughed and ready for the finishing operation

4 Finitura
Finishing

4.1 Posizionare l'utensile vicino al diametro esterno.
Position the Grooving Tool close to the outer Dia.

4.2 Finire il diametro esterno alla profondità di scanalatura finale, continuare a tornire verso il centro senza toccare la parete.
Finish boring the outer Diameter to the final groove depth, continue face turning to the center without touching the wall

4.3 Rapido movimento dell'utensile sull'angolo del diametro interno, finire il diametro interno fino alla profondità di scanalatura finale.
Rapid move the Grooving Tool on the edge of the inner Diameter, Finish boring the inner Diameter to the final groove depth.

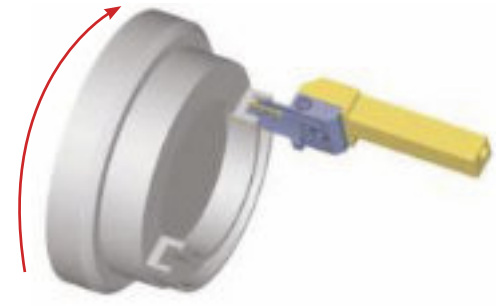


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Uso corretto dell'utensile di Tornitura / Scanalatura Frontale

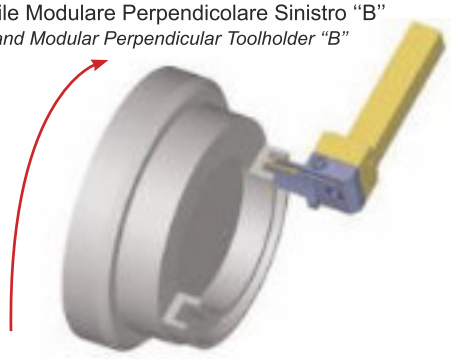
Modular Face Turning and Grooving working rotation

Utensile Modulare Sinistro "B"
Left Hand Modular Toolholder "B"

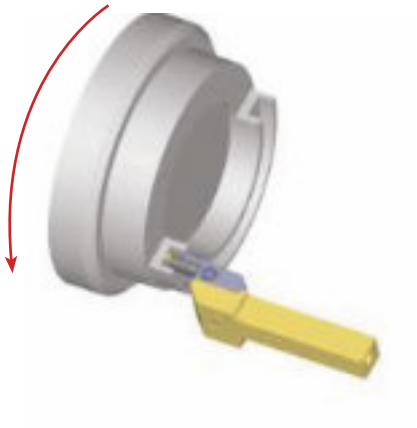


Rotazione Oraria
Clock wise rotation

Utensile Modulare Perpendicolare Sinistro "B"
Left Hand Modular Perpendicular Toolholder "B"

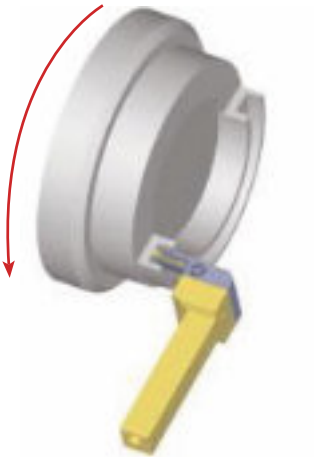


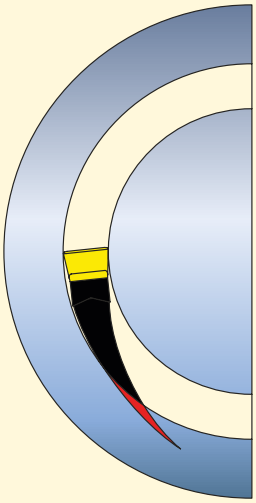
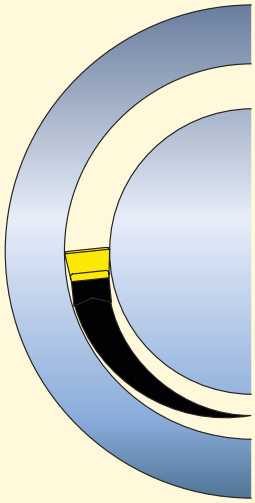
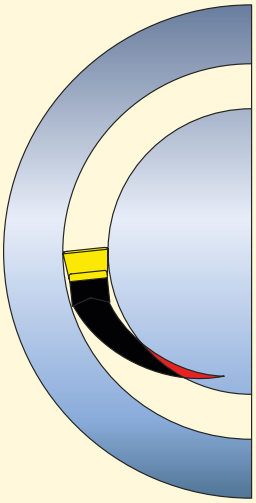
Utensile Modulare Destro "A"
Right Hand Modular Toolholder "A"



Rotazione Anti-Oraria
Counter clock wise rotation

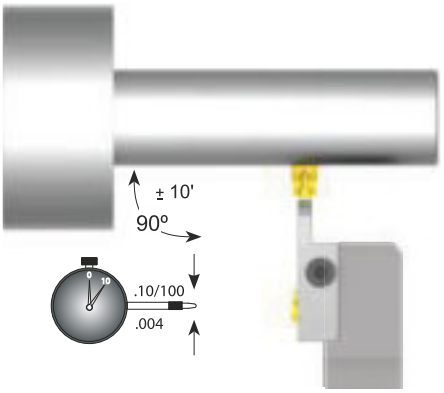
Utensile Modulare Perpendicolare Destro "A"
Right Hand Modular Perpendicular Toolholder "A"



Danno causato al Primo Taglio quando gli utensili sono scelti in maniera sbagliata *Damage caused at the First Cut when tools are chosen incorrectly*		
Utensile non corretto, Diametro troppo largo *Uncorrect Toolholder, Large Dia. Anvil*	Utensile corretto, Diametro esatto *Correct Toolholder, Right Dia. Anvil*	Utensile non corretto, Diametro troppo stretto *Uncorrect Toolholder, Small Dia. Anvil*
		

Azzeramento utensile

Azzerare l'utensile in modo che sia perpendicolare al pezzo da lavorare.
Per una migliore performance in tornitura e scanalatura, l'utensile deve essere posizionato a 90° +/- 10'.

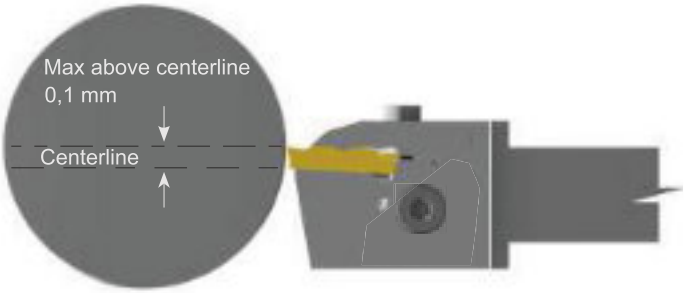


Tool Set-Up

Set the toolholder to be set-up square and perpendicular to the workpiece.
For best turning and grooving performance, surface finish and a straight and square face, the toolholder must be positioned at 90° within ± 10'

Altezza tagliente

Il tagliente dell'inserto non deve mai essere sotto la mezzeria del pezzo.
Per evitare vibrazioni o scheggiature del tagliente è consigliabile posizionarlo (0.1 mm) sopra la mezzeria.

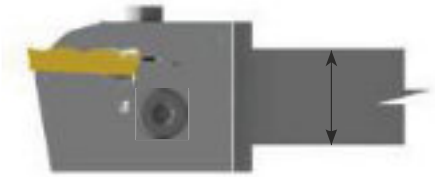


Tool Center Height

The cutting edge of the insert, should never be under the center line.
The if the insert is under the center line, it will cause vibration and cutting edge chipping.
For best results set the insert .004" (.1mm) above the center line.

Scelta utensile

Per un miglior risultato in tornitura e scanalatura, scegliere l'utensile con lo stelo più grande possibile.
Per garantire una miglior finitura, tolleranze più strette e riduzione delle vibrazioni, è indispensabile una buona rigidità.

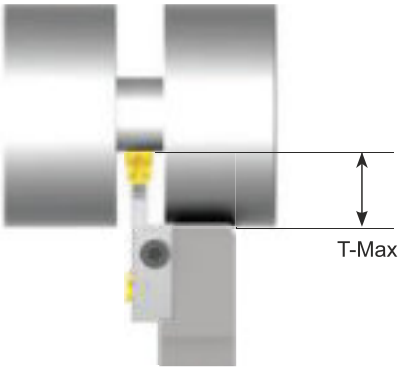


Shank Size

For best turning and grooving performance, select a toolholder with the largest shank permissible.
With high rigidity, vibration are eliminate, with a better surface finish and close working tolerance.

Scelta delle profondità di taglio

In tornitura e scanalatura, la rigidità è fondamentale per ottenere le migliori prestazioni di taglio, buona finitura superficiale, strette tolleranze e allungare la durata dell' inserto.
Nella scelta del portautensili, utilizzare sempre la "T" più corta possibile per evitare flessione durante la lavorazione.

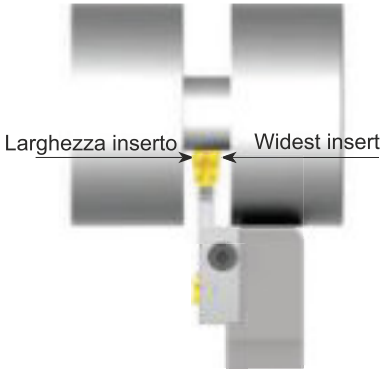


Extended "T" Depth of Cut

In Turning and grooving, rigidity it is critical to achieve best cutting performance, surface finish, close tolerance and insert life.
In choosing the toolholder, always use the shortest "T" overhang possible, to avoid deflection under the cutting pressure.

Larghezza inserto

Per ottenere un miglior risultato, utilizzare l'inserto con maggior larghezza possibile, permettendo anche di ottenere una miglior finitura, maggior profondità di taglio e tolleranze più strette.



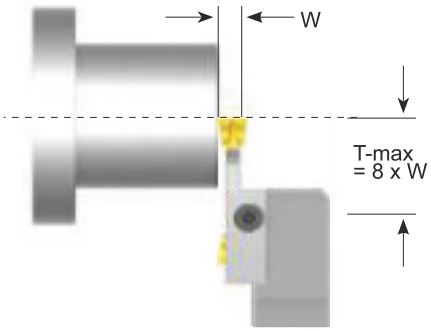
Insert Width

In turning and grooving operation: for maximize the performance choose the widest insert permissible.
A wide insert, will not deflect under cutting pressure, allowing larger depth of cut, better surface finish and close tolerances.

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Massima profondità di scanalatura - T-max

Nelle operazioni di scanalatura e troncatura, la profondità massima di scanalatura è direttamente correlata alla larghezza e la geometria l'inserto tagliente.
T = max. profondità di troncatura diritta
8 x W (larghezza inserto)
T = max. profondità di troncatura inclinata
6 x W (larghezza inserto).

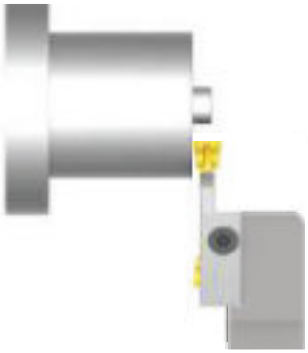


Max.Grooving Depth T-max

In Grooving and Parting-Off operation,
for optimum results, the maximum grooving depth is directly related to the width and the geometry of the insert cutting edge.
T= For Straight Insert Cutting Edge,
8 x W (insert width)
T= For Angled Insert Cutting Edge,
6 x W (insert width)

Velocità di taglio - Vc

Per ottenere una buona finitura superficiale è necessario utilizzare una velocità di taglio costante ed aumentarla più ci si avvicina al centro del pezzo da troncare.

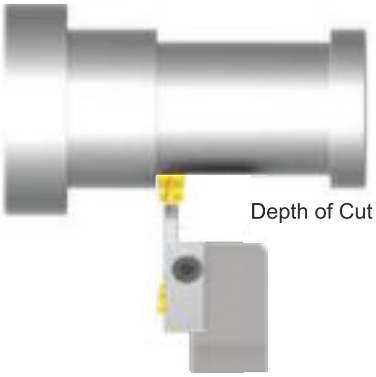


Cutting Speed Vc

For a good surface finish, straight face and long insert life, a constant Vc must be applied, meaning as the insert approaches the center of the work piece, RPM must increase.

Profondità di taglio/passata

Per ottenere buoni risultati durante la tornitura, un buon controllo del truciolo e una migliore durata dell'inserto, utilizzare l'utensile con la T=max più corta possibile e non superare mai la metà della larghezza dell'inserto per le profondità di taglio e/o passata.
Esempio:
5 mm larghezza inserto
Max profondità di passata 2,5 mm
La rottura dell'inserto potrebbe essere causata dalle vibrazioni dovute alla eccessiva lunghezza o sporgenza dell'utensile.

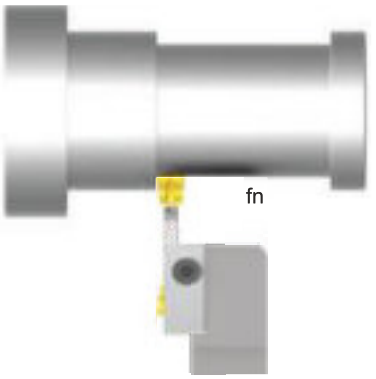


Depth of Cut

For best turning performance, chip control, and insert life under the best cutting condition with the shortest overhang, the depth of cut is not to exceed 50% of the width of the insert.
For Example:
5mm Insert
Max Depth of Cut 2.5mm
Reduce the depth of cut with extended overhang, vibration, insert chipping and toolholder breakage may result from an over extended overhang.

Avanzamento - fn

Per ottenere buoni risultati durante la tornitura, un buon controllo del truciolo e una migliore durata dell'inserto, utilizzare l'utensile con la T=max più corta possibile e la velocità dell'avanzamento non deve mai superare mai la metà della larghezza del raggio dell'inserto.
Esempio:
Raggio inserto 0,5
Max. Avanzamento 0,25 mm
La rottura dell'inserto potrebbe essere causata dalle vibrazioni dovute alla eccessiva velocità di avanzamento o dalla lunghezza o sporgenza dell'utensile.

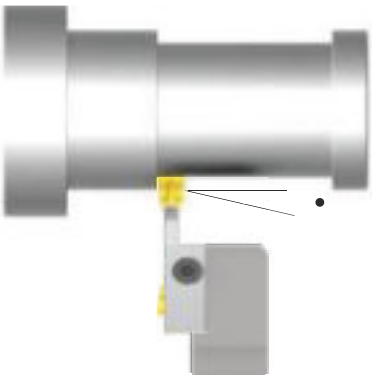


Feed Rate fn

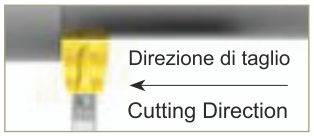
For best turning performance, chip control, and insert life under the best cutting condition with the shortest overhang, the feed rate is not to exceed 1/2 of the insert radius.
For Example:
.5mm Insert Radius Max. Feed Rate of .25mm
Reduce the feed rate, with extended overhang, vibration, insert chipping and toolholder breakage may result from an over extended overhang.

Wiper/Raschiante

Durante lo sforzo di taglio, l'inserto viene spinto via nella direzione opposta creando un angolo aperto.
Questo angolo crea un'azione raschiante, con il risultato di ottenere una buona finitura superficiale.
L'angolo Wiper/raschiante può essere controllato con avanzamento e la profondità di taglio.



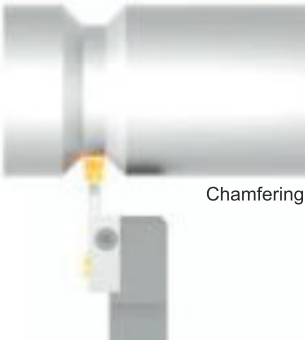
Wiper

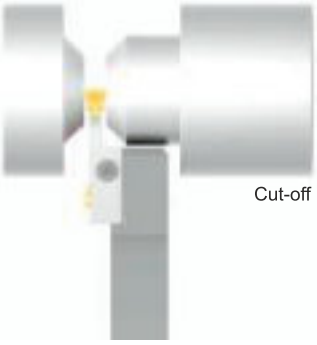


Under cutting pressure, the insert is pushed away from the cutting direction creating an open space in form of relieve angle on trailing side of the insert. This angle creates a Wiper action, resulting a good surface finish.
The Wiper angle can be controlled with feed rate and depth of cut.

Operazioni Multiple


Grooving

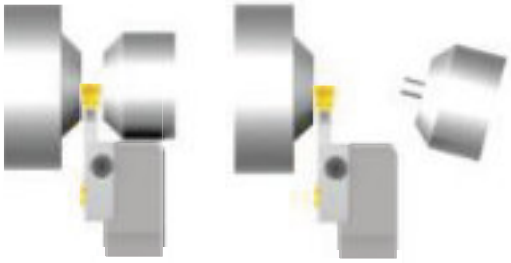

Chamfering


Cut-off

Multiple Operation

Troncatura diritta

In caso di troncatura diritta, utilizzare la miglior combinazione possibile tra inserto, velocità di taglio e di avanzamento.
Tuttavia si rende necessaria una seconda operazione di finitura per rimuovere la parte centrale restante del pezzo troncato.

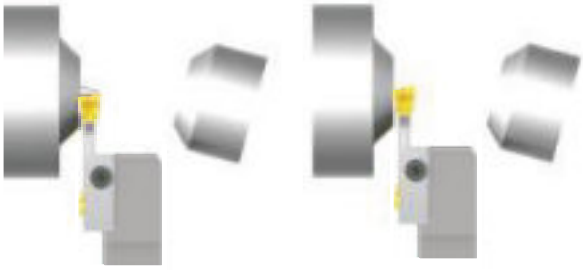


Straight Cutting Edge Insert

Use Turning and Grooving insert, with Straight Cutting Edge for fast material removal, good surface finish, deep grooving, parting-off and facing.
However, a second operation is required to remove the center tip of the workpiece when cut-off.

Troncatura inclinata

In caso di troncatura con inserto inclinato, questa permette di eliminare in un'unica operazione anche la parte centrale del pezzo troncato.
Questo però è possibile riducendo del 20%-30% la Vc e Fn.

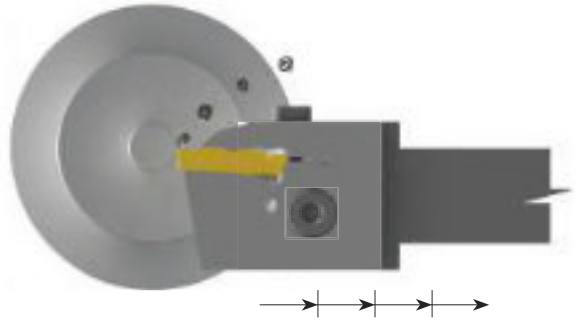


Angled Cutting Edge Face

Use Turning and Grooving insert, with Angled Cutting Edge to reduce the formation of center tip of workpiece when part-off eliminating the a secondary operations to remove the center tip.
However to avoid tapered face and rough surface finish Vc and fn, as to be reduced 20% to 30% compared to full face insert.

Troncatura a tratti

Quando la troncatura supera 8 volte la larghezza dell'inserto è buona norma effettuare brevi soste , per permettere l'evacuazione del truciolo ed evitarne la rottura.

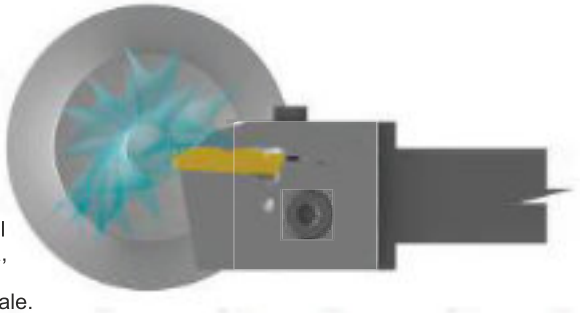


Pecking

When machining deep groove or parting large diameter above 8 time the width of the insert, it is a good practice to use pecking to achieve a better swarf control and avoid clogging of the groove,the major cause of premature insert failure.

Refrigerante

L'uso di refrigerante in tornitura e scanalatura è fondamentale per ottenere le migliori prestazioni di qualità, finitura superficiale e durata dell'inserto.
Refrigerante ad alta pressione è consigliato, per raffreddare i trucioli e spingerli lontano dal tagliente, per evitare che eventuali trucioli rimangano all'interno del pezzo durante le operazioni di troncatura, evitando così la prematura rottura dell'inserto e una cattiva finitura superficiale.



Coolant

The use of coolant in turning and grooving operations is critical to achieve best performance in quality, surface finish, and insert life. High pressure coolant is recommended, to cool the chips and force them to evacuate away from insert, to avoid any chip built-upon insert cutting edge, the cause of premature insert failure and rough surface finish.

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Fase 1.
Prima scanalatura

Azzerare il portautensili vicino al punto di partenza della scanalatura.
Effettuare il primo taglio alla profondità del diametro di finito.

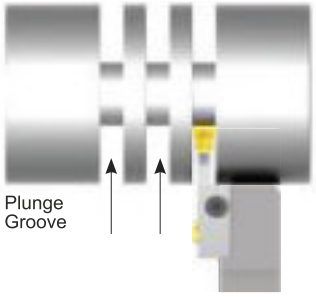


Step 1.
First Groove

Set the toolholder close to starting point of the groove.
Cut the first groove above the diameter finish dimension.

Fase 2.
Scanalatura di sgrossatura

Ripetere l'operazione a distanze uguali, facendo in modo che lo spessore delle parti rimanenti sia del 20% in meno della larghezza dell'inserto usato per la lavorazione.
Esempio:
inserto 5 mm spessore pareti 4,0 mm

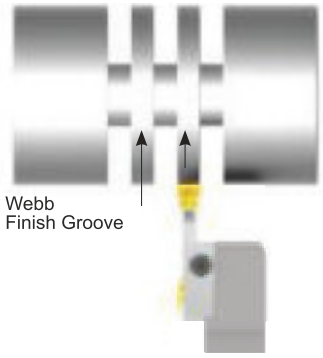


Step 2.
Groove Roughing

Repeat the operation in equal segments for the total length to be turned. The wall of the segment should be the with of the insert less 20%.
For Example:
5 mm Insert Wall 4.0 mm width
.200" Insert Wall .180" width

Fase 3.
Rimozione pareti

Eliminare le pareti rimanenti fino allo stesso diametro delle precedenti scanalature.

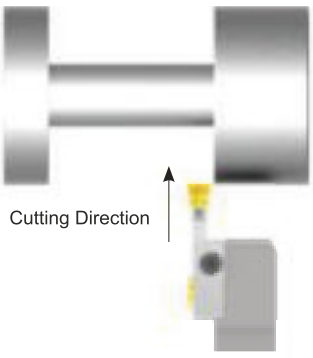


Step 3.
Web Roughing

Cut the webs with the same diameter of the grooves.

Fase 4.
Scanalatura di finitura

Effettuare la tornitura di finitura al diametro richiesto. Ritrarre l'utensile uscendo a 45° del lato della parete.

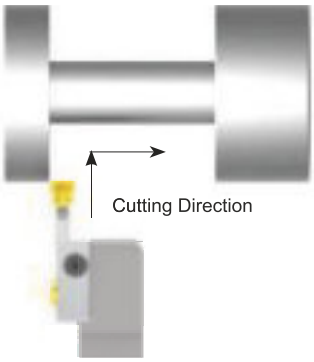


Step 4.
First Finishing Cut

Face-off at finish dimension one side of the groove to the finished the diameter, then retract the toolholder at 45° away from the wall.

Fase 5.
Finitura

Partire dal lato opposto alla precedente lavorazione. Iniziare asportando parte della parete fino al diametro finale ed uscire a 45° non intaccando il lato precedentemente lavorato.

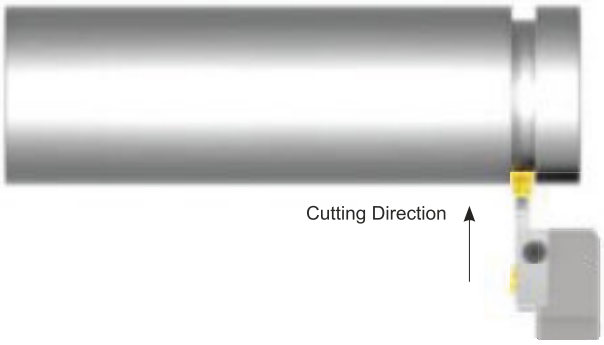


Step 5.
Final Finishing Cut

Move the toolholder on the other side of the wall of the groove face-off to the finished diameter and continue to cut the entire surface till the other wall is reached, then retract the toolholder at 45° away from the wall.

Fase 1.
Prima scanalatura

Azzerare il portautensili vicino al punto di partenza della scanalatura. Effettuare il primo taglio alla profondità del diametro finito.

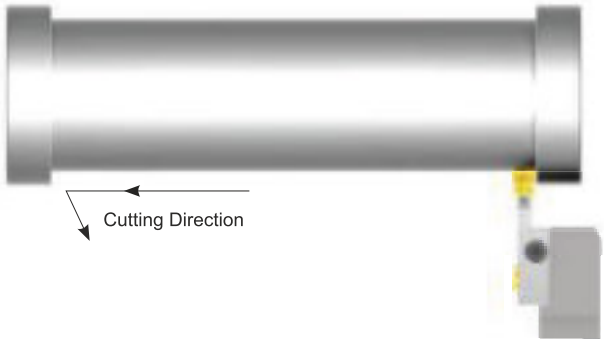


Step 1.
Starting Groove

Set the toolholder close to the starting point of the groove
Cut the first groove to depth of the first roughing cutting diameter.

Fase 2.
Prima tornitura di sgrossatura

Una volta fatta la prima profondità di scanalatura, effettuare la tornitura del prezzo fino alla lunghezza di tornitura richiesta. Ritrarre sempre l'utensile uscendo a 45° del pezzo da lavorare.

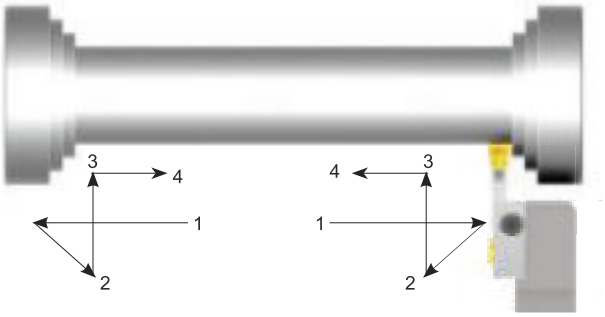


Step 2.
First Turning Roughing Cut

Once on the first groove is cut, feed the insert toward the other side of the workpiece. Cut till the end is reached then retract the toolholder at 45° away from the wall.

Fase 3.
Tornitura multipla di sgrossatura

Dopo il primo taglio di sgrossatura, ripetere la operazione da un lato all'altro fino a quando la sgrossatura è completa.

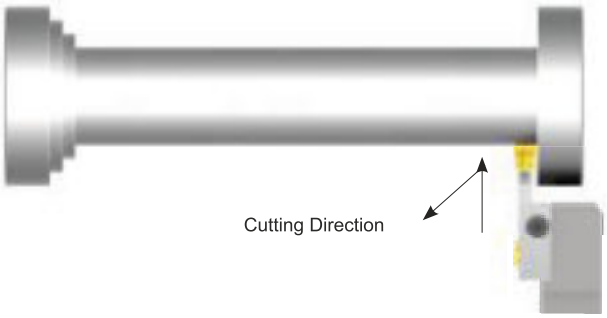


Step 3.
Multi Turning Roughing Cut

After the first roughing cut, repeat the operation from side to side until the roughing operation is complete.

Fase 4.
Scanalatura di finitura

Effettuare la tornitura di finitura al diametro richiesto. Ritrarre l'utensile uscendo a 45° del lato della parete.

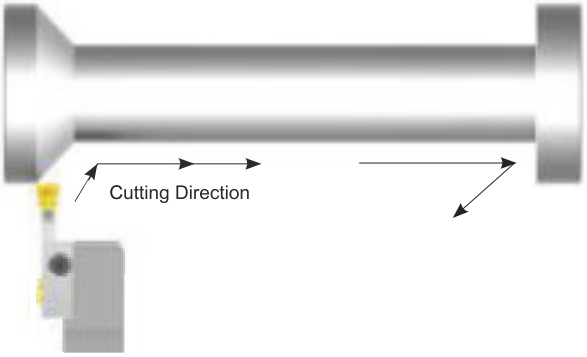


Step 4.
First Finishing Cut

Face-off at finish dimension one side of the groove to the finished diameter, then retract the toolholder at 45° away from the wall.

Fase 4.
Finitura

Partire dal lato opposto alla precedente lavorazione. Iniziare asportando parte della parete fino al diametro finale ed uscire a 45° non intaccando il lato precedentemente lavorato.



Step 5.
Final Finishing Cut

Move the toolholder on the other side of the wall of the groove face-off to the finished diameter and continue to cut the entire surface till the other wall is reached,then retract the toolholder at 45° away from the wall.

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Guida alla scelta degli Utensili Modulari con attacco “Poligonale”

“Polygonal” Modular Tools Selection guide

NEW

Utensile Modulare Poligonale 90° tipo “A”
Modular Polygonal Toolholder 90° type “A”

CCGL...-A





CCFR...-A



CPML-C...-A

Utensile Modulare Poligonale Doppio 0° “AB”
Modular Polygonal Double Toolholder 0° “AB”



CHMN-C...-AB

Inserti = 2-3-4-5-6
Inserts = 2-3-4-5-6

Utensile Modulare Poligonale 90° tipo “B”
Modular Polygonal Toolholder 90° type “B”

CCGR...-B





CCFL...-B



CPMR-C...-B

Guida alla scelta degli Utensili Modulari con attacco “Standard”

“Standard” Modular Tools selection guide

Utensile Modulare 0° tipo “A”
Modular Toolholder 0° type “A”



CHML...-A

Inserti = 2-3-4-5-6
Inserts = 2-3-4-5-6

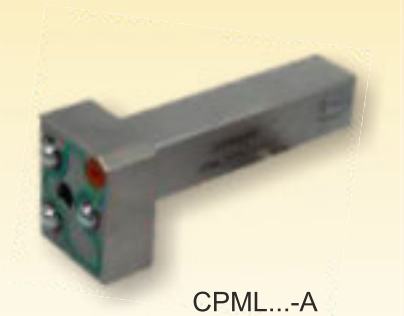
CCGL...-A





CCFR...-A

Utensile Modulare 90° tipo “A”
Modular Toolholder 90° type “A”



CPML...-A

Utensile Modulare 0° tipo “B”
Modular Toolholder 0° type “B”



CHMR...-B

Inserti = 2-3-4-5-6
Inserts = 2-3-4-5-6

CCGR...-B





CCFL...-B

Utensile Modulare 90° tipo “B”
Modular Toolholder 90° type “B”



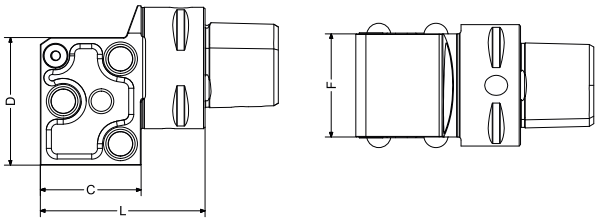
CPMR...-B

BF SERVICE

CHMN-C... NEW

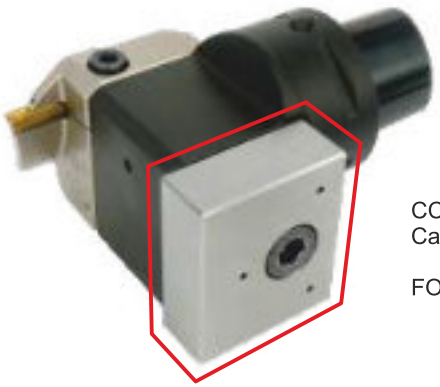
Modular Polygonal Toolholders 0° ISO 26623-1
Porte-outils Polygonaux Modulaires 0° ISO 26623-1
Modulare Polygonhalter 0° ISO 26623-1
Utensilios Modulares Poligonales 0° ISO 26623-1

Utensili Modulari 0° con attacco Poligonale ISO 26623-1





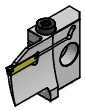
Codice *Code*	Dimensioni / *Dimensions*					Cartuccia *Cartridge*	Parti di ricambio / *Spare parts*		
	Attacco / *Shank Coupling*	C	D	F	L				
CHMN-C04-AB	C04	33	42	34	54	CCGL...-A CCFR...-A CCGR...-B CCFL...-B	VB08..	CSC83	CBR60
CHMN-C05-AB	C05	33	42	37	54		VB08..	CSC83	CBR60
CHMN-C06-AB	C06	33	42	49	56		VB08..	CSC83	CBR60



CCPN-00
Cartuccia-Tappo / *Cartridge-Plug*

FORNITA IN DOTAZIONE / *SUPPLIED*

C 25 - C 26
C 27 - C 28 - C 29



INSERTI A PAG. 73

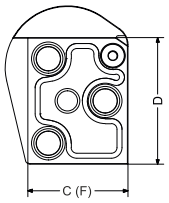
BF SERVICE

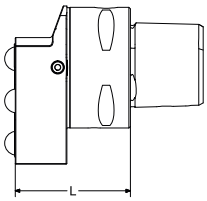
CPML-C...-A

NEW

Modular Polygonal Toolholders 90° ISO 26623-1 type "A"
Porte-outils Polygonaux Modulaires 90° ISO 26623-1 type "A"
Modulare Polygonhalter 90° ISO 26623-1 "A"
Utensilios Modulares Poligonales 90° ISO 26623-1 tipos "A"

Utensili Modulari 90° con attacco Poligonale ISO 26623-1 Tipo "A"

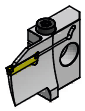






Codice *Code*	Dimensioni / *Dimensions*					Cartuccia *Cartridge*	Parti di ricambio / *Spare parts*		
	Attacco / *Shank Coupling*	C	D	F	L				
CPML-C04-A	C04	33	42	33	38	CCFR...-A CCGL...-A	VB08..	CSC83	CBR60
CPML-C05-A	C05	33	42	33	38		VB08..	CSC83	CBR60
CPML-C06-A	C06	33	42	33	40		VB08..	CSC83	CBR60

C 25 - C 26
C 27 - C 28 - C 29

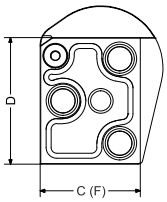


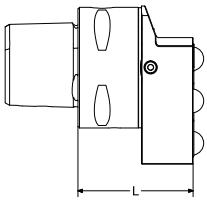
BF SERVICE

CPMR-C...-B NEW

Modular Polygonal Toolholders 90° ISO 26623-1 type "B"
Porte-outils Polygonaux Modulaires 90° ISO 26623-1 type "B"
Modulare Polygonhalter 90° ISO 26623-1 "B"
Utensilios Modulares Poligonales 90° ISO 26623-1 tipos "B"

Utensili Modulari 90° con attacco Poligonale ISO 26623-1 Tipo "B"

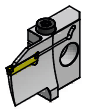






Codice *Code*	Dimensioni / *Dimensions*					Cartuccia *Cartridge*	Parti di ricambio / *Spare parts*		
	Attacco / *Shank Coupling*	C	D	F	L				
CPMR-C04-B	C04	33	42	33	38	CCFL...-B CCGR...-B	VB08..	CSC83	CBR60
CPMR-C05-B	C05	33	42	33	38		VB08..	CSC83	CBR60
CPMR-C06-B	C06	33	42	33	40		VB08..	CSC83	CBR60

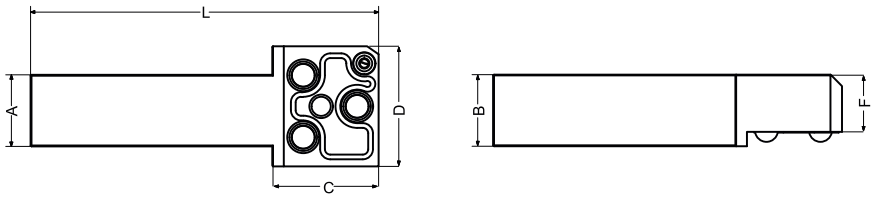
C 25 - C 26
C 27 - C 28 - C 29



CHML...34-A

Toolholders with cartridges for 0° face grooving
Outil avec cartouche pour rainurage frontal a 0°
Klemmhalter mit kassetten zum 0° Planstechen
Utensilios con cartucha para ranura frontal a 0°

Utensili Modulari 0° tipo "A" con cartucce per scanalatura

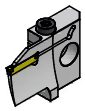




Codice *Code*	Dimensioni / *Dimensions*						Cartuccia *Cartridge*	Parti di ricambio / *Spare parts*		
	A	B	C	D	F	L				
CHML 2020K 34-A	20	20	37	42	15	106	CCFR...-A CCGL...-A	VB0820	CSC83	CBR60
CHML 2525M 34-A	25	25	37	42	20	121		VB0820	CSC83	CBR60
CHML 3225P 34-A	32	25	37	42	20	136		VB0820	CSC83	CBR60



C 25 - C 26
C 27 - C 28 - C 29

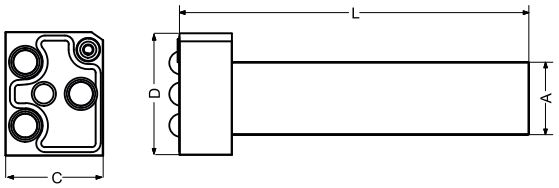


BF SERVICE

CPML...34-A

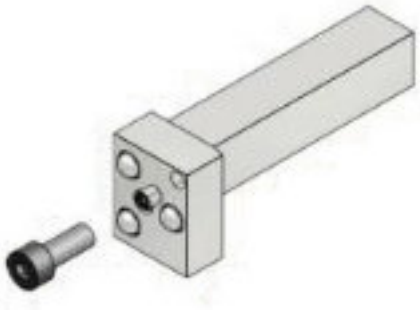
Toolholders with cartridges for 90° face grooving
Outil avec cartouche pour rainurage frontal a 90°
Klemmhalter mit kassetten zum 90° Planstechen
Utensilios con cartucha para ranura frontal a 90°

Utensili Modulari 90° tipo "A" con cartucce per scanalatura

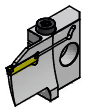




Codice *Code*	Dimensioni / *Dimensions*						Cartuccia *Cartridge*	Parti di ricambio / *Spare parts*		
	A	B	C	D	F	L				
CPML 2020K 34-A	20	20	33	42	33	111	CCFR...-A CCGL...-A	VB0820	CSC83	CBR60
CPML 2525M 34-A	25	25	33	42	33	120		VB0820	CSC83	CBR60
CPML 3232P 34-A	32	32	33	42	33	130		VB0820	CSC83	CBR60



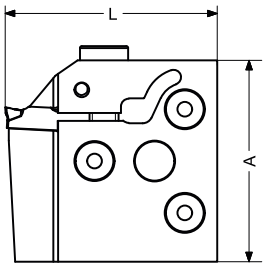
C 25 - C 26
C 27 - C 28 - C 29

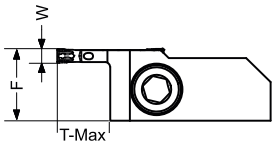


Cartridges for radial grooving
Cartouche pour rainurage radial
Kassetten zum radialschlitz
Cartuchas para ranura radial

CCGL...20/30/40/50/60-A

Cartucce per scanalatura radiale con inserto 2 / 3 / 4 / 5 /6 mm





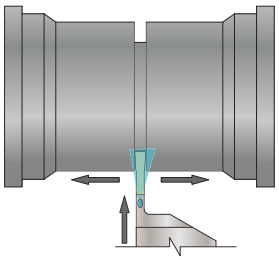


P M K N S

Codice *Code*	Dimensioni / *Dimensions*					Inserto *Insert*	Parti di ricambio / *Spare parts*	
	T max	L	A	F	W			
CCGL 20 09-A	09	43	42	14	2.0	CTSN 22-20	VB0624	CBR40
CCGL 20 18-A	18	52	42	14	2.0	CTSN 22-20	VB0624	CBR40
CCGL 30 10-A	10	44	42	14,5	3.0	CTSN 22-30..	VB0624	CBR40
CCGL 30 20-A	20	54	42	14,5	3.0	CTSN 22-30..	VB0624	CBR40
CCGL 40 12-A	12	46	42	15	4.0	CTSN 25-40..	VB0624	CBR40
CCGL 40 24-A	24	58	42	15	4.0	CTSN 25-40..	VB0624	CBR40
CCGL 50 15-A	15	50	42	15,5	5.0	CTSN 25-50..	VB0624	CBR40
CCGL 50 30-A	30	65	42	15,5	5.0	CTSN 25-50..	VB0624	CBR40
CCGL 60 20-A	20	55	42	16	6.0	CTSN 25-60..	VB0624	CBR40
CCGL 60 40-A	40	75	42	16	6.0	CTSN 25-60..	VB0624	CBR40

INS. A PAG. 73

Tipo di lavorazione - Machining Types



C x 5

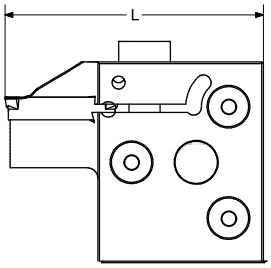


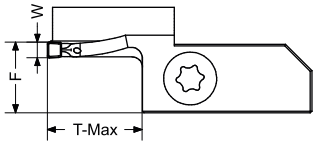
BF SERVICE

CCFR...30-A

Cartridges for face grooving
Cartouche pour rainurage frontal
Kassetten zum planstechen
Cartuchas para ranura frontal

Cartucce per scanalatura frontale con inserto 3 mm



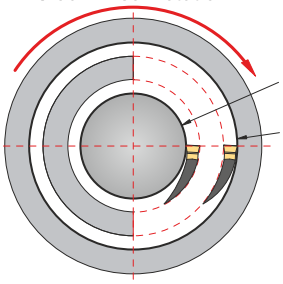




P M K N S

Codice *Code*	Dimensioni / *Dimensions*						Inserto *Insert*	Parti di ricambio / *Spare parts*	
	D min.	D max.	T max	L	W	F			
Prof. taglio 10 mm / Depth of Cut 10 mm									
CCFR 2230 30 10-A	22	36	10	45	3.0	14	CTSN 22-30..	VB0518	CBR40
CCFR 3038 30 10-A	30	44	10	45	3.0	14	CTSN 22-30..	VB0518	CBR40
CCFR 3848 30 10-A	38	54	10	45	3.0	14	CTSN 22-30..	VB0518	CBR40
CCFR 4860 30 10-A	48	66	10	45	3.0	14	CTSN 22-30..	VB0518	CBR40
CCFR 6075 30 10-A	60	81	10	45	3.0	14	CTSN 22-30..	VB0518	CBR40
CCFR 75100 30 10-A	75	106	10	45	3.0	14	CTSN 22-30..	VB0518	CBR40
CCFR 100200 30 10-A	100	206	10	45	3.0	14	CTSN 22-30..	VB0518	CBR40
CCFR 200-> 30 10-A	200	>206	10	45	3.0	14	CTSN 22-30..	VB0518	CBR40
Prof. taglio 20 mm / Depth of Cut 20 mm									
CCFR 6075 30 20-A	60	81	20	55	3.0	14	CTSN 22-30..	VB0518	CBR40
CCFR 75100 30 20-A	75	106	20	55	3.0	14	CTSN 22-30..	VB0518	CBR40
CCFR 100200 30 20-A	100	206	20	55	3.0	14	CTSN 22-30..	VB0518	CBR40
CCFR 200-> 30 20-A	200	>206	20	55	3.0	14	CTSN 22-30..	VB0518	CBR40

Direzione rotazione oraria
Clock Wise Rotation



INSERTI A PAG. 73

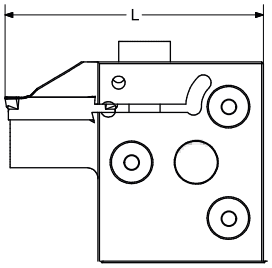
C x 5

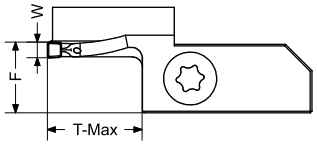


CCFR...40-A

Cartridges for face grooving
Cartouche pour rainurage frontal
Kassetten zum planstechen
Cartuchas para ranura frontal

Cartucce per scanalatura frontale con inserto 4 mm







P M K N S

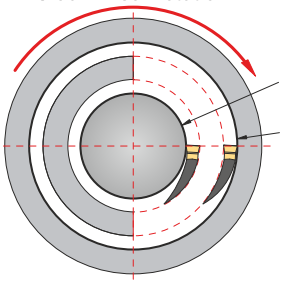
Codice *Code*	Dimensioni / *Dimensions*						Inserto *Insert*	Parti di ricambio / *Spare parts*	
	D min.	D max.	T max	L	W	F			
Prof. taglio 12 mm / Depth of Cut 12 mm									
CCFR 3048 40 12-A	30	56	12	54	4.0	14,5	CTSN 25-40..	VB0518	CBR40
CCFR 4860 40 12-A	48	68	12	54	4.0	14,5	CTSN 25-40..	VB0518	CBR40
CCFR 6075 40 12-A	60	83	12	54	4.0	14,5	CTSN 25-40..	VB0518	CBR40
CCFR 75100 40 12-A	75	108	12	54	4.0	14,5	CTSN 25-40..	VB0518	CBR40
CCFR 100150 40 12-A	100	158	12	54	4.0	14,5	CTSN 25-40..	VB0518	CBR40
CCFR 150-> 40 12-A	150	>158	12	54	4.0	14,5	CTSN 25-40..	VB0518	CBR40
Prof. taglio 24 mm / Depth of Cut 24 mm									
CCFR 3048 40 24-A	30	56	24	60	4.0	14,5	CTSN 25-40..	VB0518	CBR40
CCFR 4860 40 24-A	48	68	24	60	4.0	14,5	CTSN 25-40..	VB0518	CBR40
CCFR 6075 40 24-A	60	83	24	60	4.0	14,5	CTSN 25-40..	VB0518	CBR40
CCFR 75100 40 24-A	75	108	24	60	4.0	14,5	CTSN 25-40..	VB0518	CBR40
CCFR 100150 40 24-A	100	158	24	60	4.0	14,5	CTSN 25-40..	VB0518	CBR40
CCFR 150-> 40 24-A	150	>158	24	60	4.0	14,5	CTSN 25-40..	VB0518	CBR40

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C x 5



Direzione rotazione oraria
Clock Wise Rotation

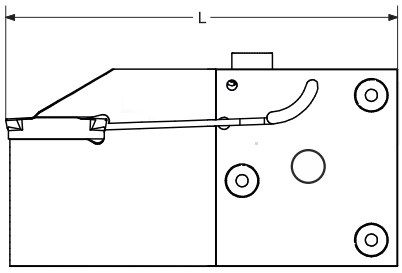


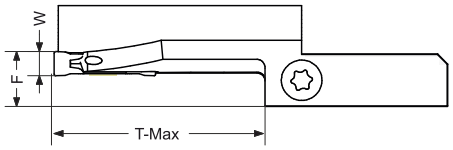
BF SERVICE

CCFR...50-A

Cartridges for face grooving
Cartouche pour rainurage frontal
Kassetten zum planstechen
Cartuchas para ranura frontal

Cartucce per scanalatura frontale con inserto 5 mm



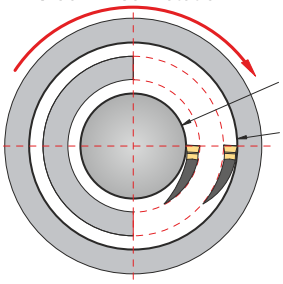




P M K N S

Codice *Code*	Dimensioni / *Dimensions*						Inserto *Insert*	Parti di ricambio / *Spare parts*	
	D min.	D max.	T max	L	W	F			
Prof. taglio 22 mm / Depth of Cut 22 mm									
CCFR 4255 50 22-A	42	55	22	60	5.0	14	CTSN 25-50..	VB0518	CBR40
CCFR 5575 50 22-A	55	85	22	60	5.0	14	CTSN 25-50..	VB0518	CBR40
CCFR 75130 50 22-A	75	140	22	60	5.0	14	CTSN 25-50..	VB0518	CBR40
CCFR 130200 50 22-A	130	210	22	60	5.0	14	CTSN 25-50..	VB0518	CBR40
CCFR 200-> 50 22-A	200	>210	22	60	5.0	14	CTSN 25-50..	VB0518	CBR40
Prof. taglio 45 mm / Depth of Cut 45 mm						14			
CCFR 130200 50 45-A	130	210	45	92	5.0	14	CTSN 25-50..	VB0518	CBR40
CCFR 200450 50 45-A	200	460	45	92	5.0	14	CTSN 25-50..	VB0518	CBR40
CCFR 450-> 50 45-A	450	>460	45	92	5.0	14	CTSN 25-50..	VB0518	CBR40

Direzione rotazione oraria
Clock Wise Rotation



INSERTI A PAG. 73 C x 5

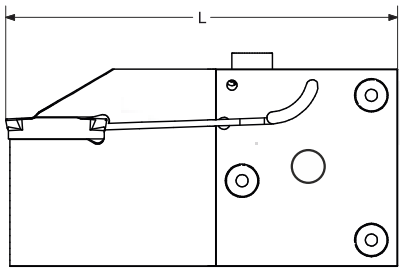


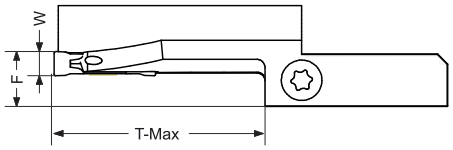
BF SERVICE

CCFR...60-A

Cartridges for face grooving
Cartouche pour rainurage frontal
Kassetten zum planstechen
Cartuchas para ranura frontal

Cartucce per scanalatura frontale con inserto 6 mm







P M K N S

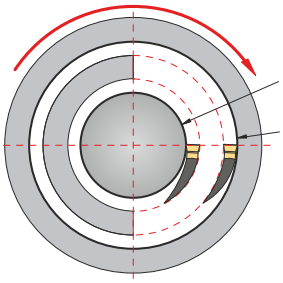
Codice *Code*	Dimensioni / *Dimensions*						Inserto *Insert*	Parti di ricambio / *Spare parts*	
	D min.	D max.	T max	L	W	F			
Prof. taglio 22 mm / Depth of Cut 22 mm									
CCFR 4255 60 22-A	42	67	22	60	6.0	14	CTSN 25-60..	VB0518	CBR40
CCFR 5575 60 22-A	55	87	22	60	6.0	14	CTSN 25-60..	VB0518	CBR40
CCFR 75130 60 22-A	75	142	22	60	6.0	14	CTSN 25-60..	VB0518	CBR40
CCFR 130200 60 22-A	130	212	22	60	6.0	14	CTSN 25-60..	VB0518	CBR40
CCFR 200-> 60 22-A	200	>212	22	60	6.0	14	CTSN 25-60..	VB0518	CBR40
Prof. taglio 45 mm / Depth of Cut 45 mm						14			
CCFR 130200 60 45-A	130	212	45	92	6.0	14	CTSN 25-60..	VB0518	CBR40
CCFR 200450 60 45-A	200	462	45	92	6.0	14	CTSN 25-60..	VB0518	CBR40
CCFR 450-> 60 45-A	450	>462	45	92	6.0	14	CTSN 25-60..	VB0518	CBR40

INSERTI A PAG. 73

C x 5



Direzione rotazione oraria
Clock Wise Rotation



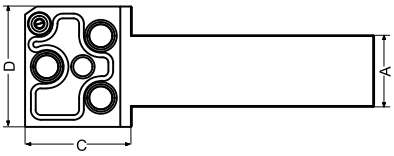
BF SERVICE

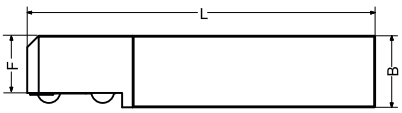
Note

CHMR...34-B

Toolholders with cartridges for face grooving
Outil avec cartouche pour rainurage frontal
Klemmhalter mit kassetten zum Planstechen
Utensilios con cartucha para ranura frontal

Utensili Modulari 0° tipo "B" con cartucce per scanalatura



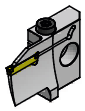




Codice *Code*	Dimensioni / *Dimensions*						Cartuccia *Cartridge*	Parti di ricambio / *Spare parts*		
	A	B	C	D	F	L				
CHMR 2020K 34-B	20	20	37	42	15	106	CCFL...-B CCGR...-B	VB0820	CSC83	CBR60
CHMR 2525M 34-B	25	25	37	42	20	121		VB0820	CSC83	CBR60
CHMR 3225P 34-B	32	25	37	42	20	136		VB0820	CSC83	CBR60



C 33 - C 34
C 35 - C 36 - C 37

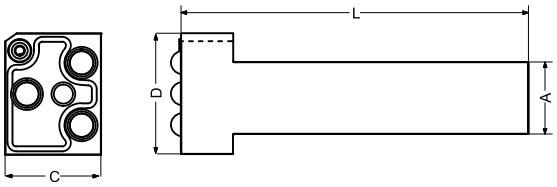


BF SERVICE

Toolholders with cartridges for 90° face grooving
Outil avec cartouche pour rainurage frontal a 90°
Klemmhalter mit kassetten zum 90° Planstechen
Utensilios con cartucha para ranura frontal a 90°

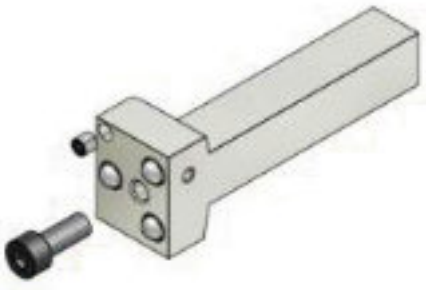
CPMR...34-B

Utensili Modulari 90° tipo "B" con cartucce per scanalatura

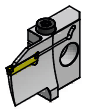




Codice *Code*	Dimensioni / *Dimensions*						Cartuccia *Cartridge*	Parti di ricambio / *Spare parts*		
	A	B	C	D	F	L				
CPMR 2020K 34-B	20	20	33	42	33	111	CCFL...-B CCGR...-B	VB0820	CSC83	CBR60
CPMR 2525M 34-B	25	25	33	42	33	120		VB0820	CSC83	CBR60
CPMR 3232P 34-B	32	32	33	42	33	130		VB0820	CSC83	CBR60



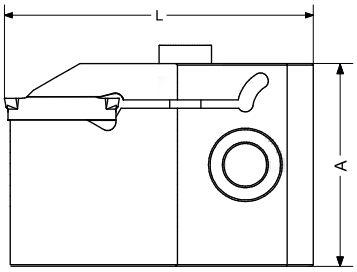
C 33 - C 34
C 35 - C 36 - C 37

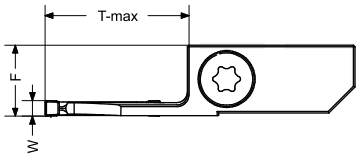


Cartridges for radial grooving
Cartouche pour rainurage radial
Kassetten zum radialschlitz
Cartuchas para ranura radial

CCGR...20/30/40/50/60-B

Cartucce per scanalatura radiale con inserto 2 / 3 / 4 /5 / 6 mm





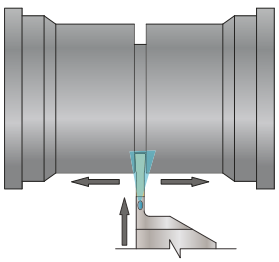


P M K N S

Codice *Code*	Dimensioni / *Dimensions*					Inserto *Insert*	Parti di ricambio / *Spare parts*	
	T max	L	A	F	W			
CCGR 20 09-B	09	43	42	14	2.0	CTSN 22-20	VB0624	CBR40
CCGR 20 18-B	18	52	42	14	2.0	CTSN 22-20	VB0624	CBR40
CCGR 30 10-B	10	44	42	15	3.0	CTSN 22-30..	VB0624	CBR40
CCGR 30 20-B	20	54	42	15	3.0	CTSN 22-30..	VB0624	CBR40
CCGR 40 12-B	12	46	42	14,5	4.0	CTSN 25-40..	VB0624	CBR40
CCGR 40 24-B	24	58	42	14,5	4.0	CTSN 25-40..	VB0624	CBR40
CCGR 50 15-B	15	50	42	15,5	5.0	CTSN 25-50..	VB0624	CBR40
CCGR 50 30-B	30	65	42	15,5	5.0	CTSN 25-50..	VB0624	CBR40
CCGR 60 20-B	20	55	42	16	6.0	CTSN 25-60..	VB0624	CBR40
CCGR 60 40-B	40	75	42	16	6.0	CTSN 25-60..	VB0624	CBR40

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Tipo di lavorazione - Machining Types



C x 5

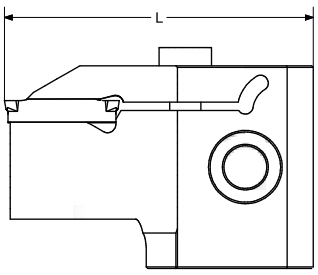


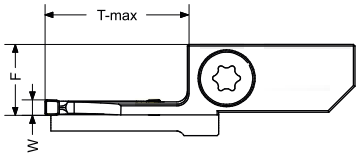
BF SERVICE

CCFL...30-B

Cartridges for face grooving
Cartouche pour rainurage frontal
Kassetten zum planstechen
Cartuchas para ranura frontal

Cartucce per scanalatura frontale con inserto 3 mm







P M K N S

Codice *Code*	Dimensioni / *Dimensions*						Inserto *Insert*	Parti di ricambio / *Spare parts*	
	D min.	D max.	T max	L	W	F			
Prof. taglio 10 mm / Depth of Cut 10 mm									
CCFL 2230 30 10-B	22	36	10	50	3.0	14	CTSN 22-30..	VB0518	CBR40
CCFL 3038 30 10-B	30	44	10	50	3.0	14	CTSN 22-30..	VB0518	CBR40
CCFL 3848 30 10-B	38	54	10	50	3.0	14	CTSN 22-30..	VB0518	CBR40
CCFL 4860 30 10-B	48	66	10	50	3.0	14	CTSN 22-30..	VB0518	CBR40
CCFL 6075 30 10-B	60	81	10	50	3.0	14	CTSN 22-30..	VB0518	CBR40
CCFL 75100 30 10-B	75	106	10	50	3.0	14	CTSN 22-30..	VB0518	CBR40
CCFL 100200 30 10-B	100	206	10	50	3.0	14	CTSN 22-30..	VB0518	CBR40
CCFL 200-> 30 10-B	200	>206	10	50	3.0	14	CTSN 22-30..	VB0518	CBR40
Prof. taglio 20 mm / Depth of Cut 20 mm									
CCFL 6075 30 20-B	60	81	20	60	3.0	14	CTSN 22-30..	VB0518	CBR40
CCFL 75100 30 20-B	75	106	20	60	3.0	14	CTSN 22-30..	VB0518	CBR40
CCFL 100200 30 20-B	100	206	20	60	3.0	14	CTSN 22-30..	VB0518	CBR40
CCFL 200-> 30 20-B	200	>206	20	60	3.0	14	CTSN 22-30..	VB0518	CBR40

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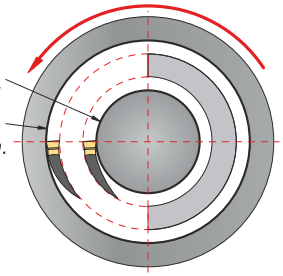
C x 5



Direzione di rotazione antioraria
Counter Clock Wise Rotation

D. Min. 1° taglio
Min. First Cut Dia.

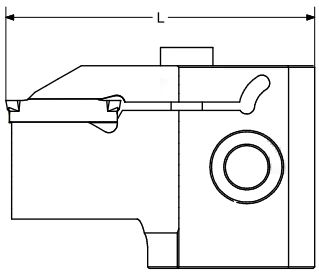
D. Max. 1° taglio
Max. First Cut Dia.

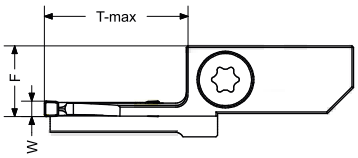


CCFL...40-B

Cartridges for face grooving
Cartouche pour rainurage frontal
Kassetten zum planstechen
Cartuchas para ranura frontal

Cartucce per scanalatura frontale con inserto 4 mm







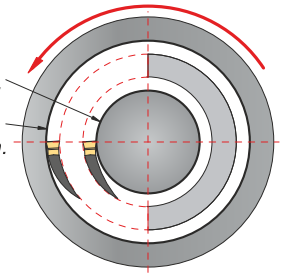
P M K N S

Codice *Code*	Dimensioni / *Dimensions*						Inserto *Insert*	Parti di ricambio / *Spare parts*	
	D min.	D max.	T max	L	W	F			
Prof. taglio 12 mm / Depth of Cut 12 mm									
CCFL 3048 40 12-B	30	56	12	54	4.0	14,5	CTSN 25-40..	VB0518	CBR40
CCFL 4860 40 12-B	48	68	12	54	4.0	14,5	CTSN 25-40..	VB0518	CBR40
CCFL 6075 40 12-B	60	83	12	54	4.0	14,5	CTSN 25-40..	VB0518	CBR40
CCFL 75100 40 12-B	75	108	12	54	4.0	14,5	CTSN 25-40..	VB0518	CBR40
CCFL 100150 40 12-B	100	158	12	54	4.0	14,5	CTSN 25-40..	VB0518	CBR40
CCFL 150-> 40 12-B	150	>158	12	54	4.0	14,5	CTSN 25-40..	VB0518	CBR40
Prof. taglio 24 mm / Depth of Cut 24 mm									
CCFL 3048 40 24-B	30	56	24	60	4.0	14,5	CTSN 25-40..	VB0518	CBR40
CCFL 4860 40 24-B	48	68	24	60	4.0	14,5	CTSN 25-40..	VB0518	CBR40
CCFL 6075 40 24-B	60	83	24	60	4.0	14,5	CTSN 25-40..	VB0518	CBR40
CCFL 75100 40 24-B	75	108	24	60	4.0	14,5	CTSN 25-40..	VB0518	CBR40
CCFL 100150 40 24-B	100	158	24	60	4.0	14,5	CTSN 25-40..	VB0518	CBR40
CCFL 150-> 40 24-B	150	>158	24	60	4.0	14,5	CTSN 25-40..	VB0518	CBR40

Direzione di rotazione antioraria
Counter Clock Wise Rotation

D. Min. 1° taglio
Min. First Cut Dia.

D. Max. 1° taglio
Max. First Cut Dia.



INSERTI A PAG. 73

C x 5

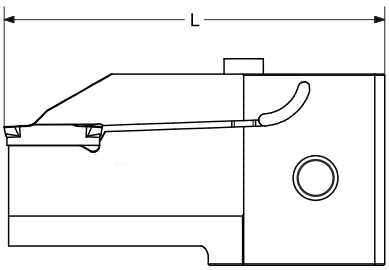


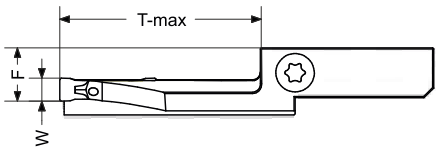
BF SERVICE

CCFL...50-B

Cartridges for face grooving
Cartouche pour rainurage frontal
Kassetten zum planstechen
Cartuchas para ranura frontal

Cartucce per scanalatura frontale con inserto 5 mm







P M K N S

Codice *Code*	Dimensioni / *Dimensions*						Inserto *Insert*	Parti di ricambio / *Spare parts*	
	D min.	D max.	T max	L	W	F			
Prof. taglio 22 mm / Depth of Cut 22 mm									
CCFL 4255 50 22-B	42	55	22	60	5.0	14	CTSN 25-50..	VB0518	CBR40
CCFL 5575 50 22-B	55	85	22	60	5.0	14	CTSN 25-50..	VB0518	CBR40
CCFL 75130 50 22-B	75	140	22	60	5.0	14	CTSN 25-50..	VB0518	CBR40
CCFL 130200 50 22-B	130	210	22	60	5.0	14	CTSN 25-50..	VB0518	CBR40
CCFL 200-> 50 22-B	200	>210	22	60	5.0	14	CTSN 25-50..	VB0518	CBR40
Prof. taglio 45 mm / Depth of Cut 45 mm						14			
CCFL 130200 50 45-B	130	210	45	92	5.0	14	CTSN 25-50..	VB0518	CBR40
CCFL 200450 50 45-B	200	460	45	92	5.0	14	CTSN 25-50..	VB0518	CBR40
CCFL 450-> 50 45-B	450	>460	45	92	5.0	14	CTSN 25-50..	VB0518	CBR40

INSERTI A PAG. 73

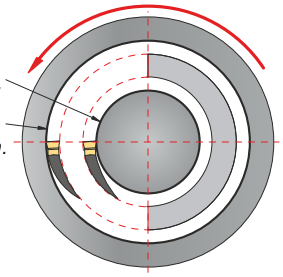
C x 5



Direzione di rotazione antioraria
Counter Clock Wise Rotation

D. Min. 1° taglio
Min. First Cut Dia.

D. Max. 1° taglio
Max. First Cut Dia.

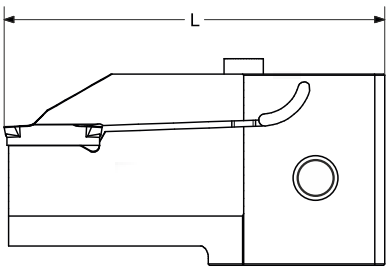


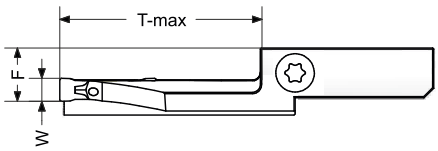
BF SERVICE

CCFL...60-B

Cartridges for face grooving
Cartouche pour rainurage frontal
Kassetten zum planstechen
Cartuchas para ranura frontal

Cartucce per scanalatura frontale con inserto 6 mm







P M K N S

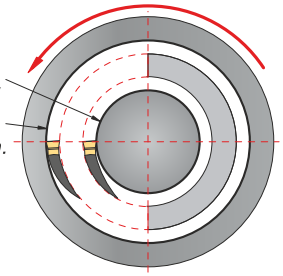
Codice *Code*	Dimensioni / *Dimensions*						Inserto *Insert*	Parti di ricambio / *Spare parts*	
	D min.	D max.	T max	L	W	F			
Prof. taglio 22 mm / Depth of Cut 22 mm									
CCFL 4255 60 22-B	42	67	22	60	6.0	14	CTSN 25-60..	VB0518	CBR40
CCFL 5575 60 22-B	55	87	22	60	6.0	14	CTSN 25-60..	VB0518	CBR40
CCFL 75130 60 22-B	75	142	22	60	6.0	14	CTSN 25-60..	VB0518	CBR40
CCFL 130200 60 22-B	130	212	22	60	6.0	14	CTSN 25-60..	VB0518	CBR40
CCFL 200-> 60 22-B	200	>212	22	60	6.0	14	CTSN 25-60..	VB0518	CBR40
Prof. taglio 45 mm / Depth of Cut 45 mm						14			
CCFL 130200 60 45-B	130	212	45	92	6.0	14	CTSN 25-60..	VB0518	CBR40
CCFL 200450 60 45-B	200	462	45	92	6.0	14	CTSN 25-60..	VB0518	CBR40
CCFL 450-> 60 45-B	450	>462	45	92	6.0	14	CTSN 25-60..	VB0518	CBR40

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Direzione di rotazione antioraria
Counter Clock Wise Rotation

D. Min. 1° taglio
Min. First Cut Dia.

D. Max. 1° taglio
Max. First Cut Dia.



C x 5



BF SERVICE

High Pressure Accessories
Accessoires haute pression
Hochdruck-Zubehör
Accesorios de alta presión

Accessori per l'Alta Pressione

Tubi - Raccordi - Tappi

Tubi per l'Alta Pressione / *High Pressure Tubing*	Codice / *Code*	Descrizione / *Description*
	HPT20-6	Tubo Alta Pressione / *High Pressure Tubing* - 200 mm
	HPT25-6	Tubo Alta Pressione / *High Pressure Tubing* - 250 mm
	HPT30-6	Tubo Alta Pressione / *High Pressure Tubing* - 300 mm

Raccordi per l'Alta Pressione / *High Pressure Fittings*	Codice / *Code*	Descrizione / *Description*
 0°  90°	HP00C-1/8x6	Raccordo Alta Pr / *High Pr Fitting* | 0° - G1/8" - 250 bar
	HP90C-1/8x6	Raccordo Alta Pr / *High Pr Fitting* | 90° - G1/8" - 250 bar

Tappo per l'Alta Pressione / *High Pressure Plug*	Codice / *Code*	Descrizione / *Description*
	P18-06	Tappo Alta Pressione / *High Pressure Plug*

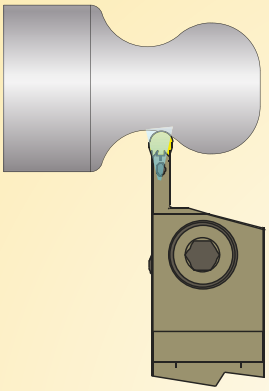
Nuovo Sistema Troncatura, Scanalatura e Taglio esterno



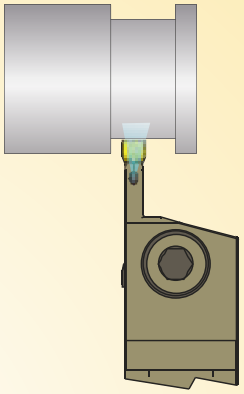


New system external Cutting, Grooving and Parting-off

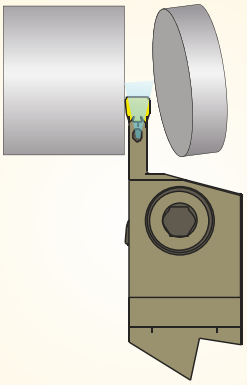
Profilatura
Profiling



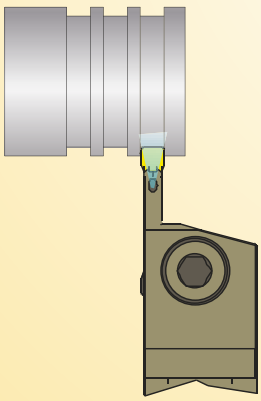
Tornitura e Scanalatura
Turning & Grooving



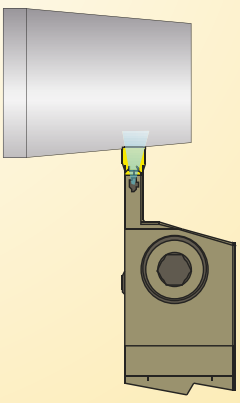
Taglio
Part-off



Scanalatura
Grooving



Tornitura
Turning



BF SERVICE

Lama per Troncare

Cutting Blades

LACG...

NEW

26-2

32-5

32-2



Lama di nuova concezione con INNOVATIVO sistema di bloccaggio inserti, veloce e pratico.
Blade with new design and innovative locking system inserts, fast and practical.

Inserto con nuovo rompitruciolo ad altissima efficienza.
Insert with new chip-breaker high efficiency.



VANTAGGI / *ADVANTAGES*

Sblocco rapido
Quick release



- maggiore produttività con inserti a **2 taglienti**
  Increased productivity with inserts with 2 cutting
- eccellente stabilità durante la lavorazione
  excellent stability during machining
- finitura di qualità superiore
  higher quality finishing
- nuovo sistema di bloccaggio facile e sicuro
  new clamping system easy and secure
- marcatura su lama per riferimento visivo lavorazioni
  marking on the blade for visual reference work

Tipi di lavorazione
Machining type

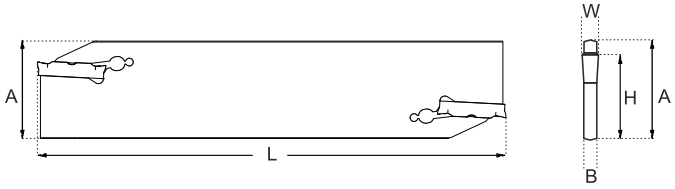


HQ HP

INSERTI A PAG. 73

LACG...

Lama per troncare

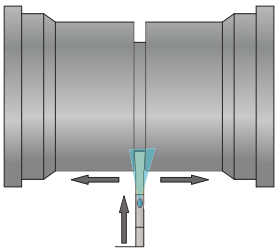




P M K N S

Codice *Code*	Dimensioni / *Dimensions*					Inserto *Insert*	Parti di ricambio / *Spare parts*
	A	W	H	B	L		
LACG 26-2	26	2	21.4	1.6	110	CTSN 22-20...	CLG-475
LACG 26-3	26	3	21.4	2.4	110	CTSN 22-30...	CLG-475
LACG 26-4	26	4	21.4	3.2	110	CTSN 25-40...	CLG-475
LACG 32-2	32	2	25	1.6	150	CTSN 22-20...	CLG-475
LACG 32-3	32	3	25	2.4	150	CTSN 22-30...	CLG-475
LACG 32-4	32	4	25	3.2	150	CTSN 25-40...	CLG-475
LACG 32-5	32	5	25	3.2	150	CTSN 25-50...	CLG-475

Tipo di lavorazione - Machining Types



INSERTI A PAG. 73

C x 5



L 2 - L 7

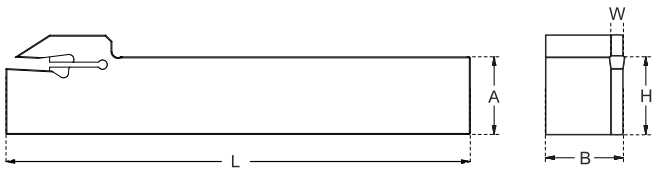


BF SERVICE

Holder for grooving and parting-off
Porte plaquettes a rainurer et a tronçonner
Klemmhalter zum Abstechen
Utensilios para ranura y troncadura exterior

CEGR/L...

Utensili per scanalatura / troncatura esterna



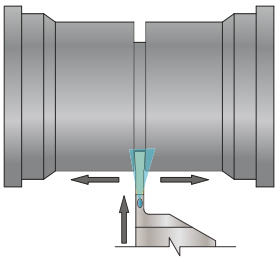


P M K N S

Codice *Code*	Dimensioni / *Dimensions*						Inserto *Insert*	Parti di ricambio / *Spare parts*	
	A	B	H	L	W	T max			
CEGR/L 1616K 20-10	16	16	16	125	2.0	10	CTSN 22-20..	VB0520	CBR40
CEGR/L 1616K 25-12	16	16	16	125	2.5	12	CTSN 22-25..	VB0520	CBR40
CEGR/L 1616K 30-14	16	16	16	125	3.0	14	CTSN 22-30..	VB0520	CBR40
CEGR/L 2020K 20-12	20	20	20	125	2.0	12	CTSN 22-20..	VB0520	CBR40
CEGR/L 2020K 25-14	20	20	20	125	2.5	14	CTSN 22-25..	VB0520	CBR40
CEGR/L 2020K 30-18	20	20	20	125	3.0	18	CTSN 22-30..	VB0520	CBR40
CEGR/L 2020K 40-20	20	20	20	125	4.0	20	CTSN 25-40..	VB0520	CBR40
CEGR/L 2020K 50-22	20	20	20	125	5.0	22	CTSN 25-50..	VB0620	CBR50
CEGR/L 2525M 20-12	25	25	25	150	2.0	12	CTSN 22-20..	VB0520	CBR40
CEGR/L 2525M 25-14	25	25	25	150	2.5	14	CTSN 22-25..	VB0520	CBR40
CEGR/L 2525M 30-18	25	25	25	150	3.0	18	CTSN 22-30..	VB0520	CBR40
CEGR/L 2525M 40-20	25	25	25	150	4.0	20	CTSN 25-40..	VB0520	CBR40
CEGR/L 2525M 50-22	25	25	25	150	5.0	22	CTSN 25-50..	VB0620	CBR50
CEGR/L 2525M 60-24	25	25	25	150	6.0	24	CTSN 25-60..	VB0620	CBR50
CEGR/L 3232P 30-18	32	32	32	170	3.0	18	CTSN 22-30..	VB0520	CBR40
CEGR/L 3232P 40-20	32	32	32	170	4.0	20	CTSN 25-40..	VB0520	CBR40
CEGR/L 3232P 50-22	32	32	32	170	5.0	22	CTSN 25-50..	VB0620	CBR50
CEGR/L 3232P 60-24	32	32	32	170	6.0	24	CTSN 25-60..	VB0620	CBR50

INSERTI A PAG. 73

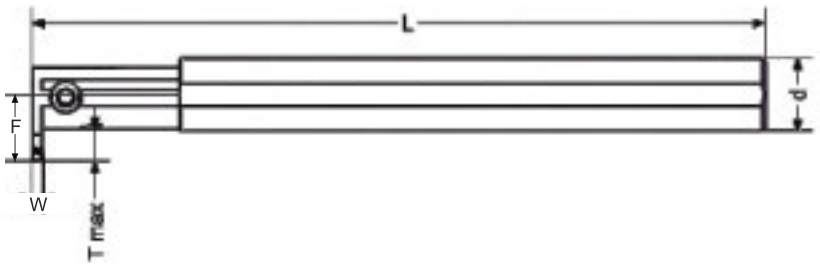
Tipo di lavorazione - Machining Types

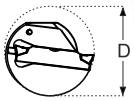


CIGR/L...

Holder for internal grooving
Porte plaquettes a rainurer interieur
Klemmhalter zum Abstechen
Utensilios para ranura interior

Utensili per scanalatura interna







P M K N S

Codice *Code*	Dimensioni / *Dimensions*						Inserto *Insert*	Parti di ricambio / *Spare parts*	
	D	d	F	L	W	T max			
CIGR/L 0020Q 20	25	20	14	180	2.0	7	CTSN 22-20..	VB0512	CBR40
CIGR/L 0020Q 30	25	20	14	180	3.0	7	CTSN 22-30..	VB0512	CBR40
CIGR/L 0020Q 40	28	20	17	180	4.0	9	CTSN 25-40..	VB0512	CBR40
CIGR/L 0025R 20	32	25	18	200	2.0	9	CTSN 22-20..	VB0516	CBR40
CIGR/L 0025R 30	32	25	18	200	3.0	9	CTSN 22-30..	VB0516	CBR40
CIGR/L 0025R 40	32	25	18	200	4.0	9	CTSN 25-40..	VB0516	CBR40
CIGR/L 0032S 30	38	32	22	250	3.0	11	CTSN 22-30..	VB0516	CBR40
CIGR/L 0032S 40	38	32	22	250	4.0	11	CTSN 25-40..	VB0516	CBR40
CIGR/L 0032S 50	38	32	22	250	5.0	11	CTSN 25-50..	VB0516	CBR40

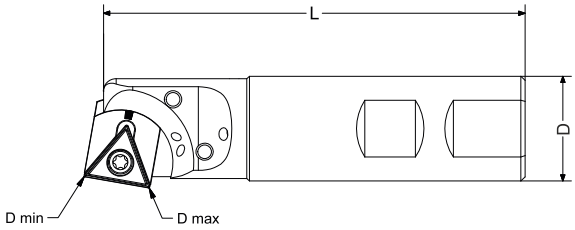
INSERTI A PAG. 73

BF SERVICE

SRT... NEW

Flaring milling cutter
Fraise à chanbrer
Frässenker
Fresas para chaflanar

Fresa per smussare con angolo regolabile per inserto TCMT..



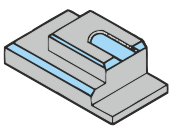


P M K

Codice *Code*	Dimensioni / *Dimensions*					Inserto *Insert*	Parti di ricambio / *Spare parts*				
	D	Dmin	Dmax	L	Z						
SRT0520-20	20	5	20	100	1	TC..1102..	CR-T11	TX4010	TX2506	BTX15	BTX08
SRT0523-25	25	5	23	100	1	TC..16T3..	CR-T16	TX5013	TX4007	BTX20	BTX15

	MATERIALI - MATERIALS	HB	fz (mm)	ap (mm)	Velocità di Taglio – Cutting Speed – Vc m/min							
					PT8130							
P	ACCIAIO NON LEGATO - NOT ALLOY STEEL	120-300	0,2	1–3	180							
P	ACCIAIO LEGATO - ALLOY STEEL	180-350	0,15	1–3	140							
P	ACCIAIO ALTO LEGATO - HIGH ALLOY STEEL	300-330	0,15	1–3	100							
M	INOX AUSTENITICO - DUPLEX - STAINLESS STEEL	180-230	0,1	1–3	120							
K	GHISA GRIGIA - GREY CAST IRON	120-260	0,25	1–3								
K	GHISA SFEROIDALE - SPHEROIDAL CAST IRON	160-250	0,2	1–3								
K	GHISA MALLEABILE - MALLEABLE CAST IRON	130-230	0,2	1–3								
N	ALLUMINIO E SUE LEGHE - ALLUMINIUM	60-130	0,2	1–3								
N	RAME E SUE LEGHE - COPPER	90-110	0,15	1–3								
N	NON METALLICI - PLASTICS		0,15	1–3								
S	LEGHE RESIST. AL CALORE - HIGH TEMP. ALLOY	200-320	0,1	1–3								
S	TITANIO E SUE LEGHE - TITANIUM	400-1050	0,1	1–3								

Tipo di lavorazione - Recommended machining types



BF SERVICE

MD...

Grooving and cut-off mill
Fraise à rainurer et à tronçonner
Scheibenfräser
Fresas circulares para acanalar y cortar

Fresa per scanalatura e taglio per inserto SNHX..







P M K N S



Codice Code	Dimensioni / *Dimensions*						Inserto *Insert*	Parti di ricambio / *Spare parts*	
	D	d	Z	W	E	H			
MD063-04	63	22	8	4	8	14	SNHX1102	TX3503	BTX07
MD063-05	63	22	8	5	8	14	SNHX1103	TX3504	BTX07
MD063-06	63	22	6	6	8	14	SNHX1203	TX4005	BTX15
MD080-04	80	22	10	4	8	22	SNHX1102	TX3503	BTX07
MD080-05	80	22	10	5	8	22	SNHX1103	TX3504	BTX07
MD080-06	80	22	8	6	8	22	SNHX1203	TX4005	BTX15
MD100-04	100	27	12	4	12	25	SNHX1102	TX3503	BTX07
MD100-05	100	27	12	5	12	25	SNHX1103	TX3504	BTX07
MD100-06	100	27	10	6	12	25	SNHX1203	TX4005	BTX15
MD100-07/08	100	27	10	7/8	12	25	SNHX1204/1245	TX4007	BTX15
MD100-10	100	27	10	10	12	25	SNHX1205	TX4008	BTX15
MD125-04	125	32	12	4	12	31	SNHX1102	TX3503	BTX07
MD125-05	125	32	12	5	12	31	SNHX1103	TX3504	BTX07
MD125-06	125	32	12	6	12	31	SNHX1203	TX4005	BTX15
MD125-07/08	125	32	12	7/8	12	31	SNHX1204/1245	TX4007	BTX15
MD125-10	125	32	12	10	12	31	SNHX1205	TX4008	BTX15
MD125-12	125	32	12	12	12	31	SNHX1207	TX4011	BTX15

	MATERIALI - MATERIALS	HB	fz (mm)	ap (mm)	Velocità di Taglio – Cutting Speed – Vc m/min						
						PM4125	PM4325		PM6515			
P	ACCIAIO NON LEGATO - NOT ALLOY STEEL	120-300	0,2	1-3		200	220					
P	ACCIAIO LEGATO - ALLOY STEEL	180-350	0,15	1-3		160	180					
P	ACCIAIO ALTO LEGATO - HIGH ALLOY STEEL	300-330	0,15	1-3		140	150					
M	INOX AUSTENITICO - DUPLEX - STAINLESS STEEL	180-230	0,1	1-3								
K	GHISA GRIGIA - GREY CAST IRON	120-260	0,25	1-3					180			
K	GHISA SFEROIDALE - SPHEROIDAL CAST IRON	160-250	0,2	1-3					160			
K	GHISA MALLEABILE - MALLEABLE CAST IRON	130-230	0,2	1-3					180			
N	ALLUMINIO E SUE LEGHE - ALLUMINIUM	60-130	0,2	1-3					1000			
N	RAME E SUE LEGHE - COPPER	90-110	0,15	1-3					400			
N	NON METALLICI - PLASTICS		0,15	1-3					500			
S	LEGHE RESIST. AL CALORE - HIGH TEMP. ALLOY	200-320	0,1	1-3					40			
S	TITANIO E SUE LEGHE - TITANIUM	400-1050	0,1	1-3					40			

Tipo di lavorazione - Recommended machining types



INS. A PAG. 328

VEDI ANCHE PAG. 951-952

BF SERVICE

MD...

Grooving and cut-off mill
Fraise à rainurer et à tronçonner
Scheibenfräser
Fresas circulares para acanalar y cortar

Fresa per scanalatura e taglio per inserto SNHX..







P M K N S



Codice *Code*	Dimensioni / *Dimensions*						Inserto *Insert*	Parti di ricambio / *Spare parts*	
	D	d	Z	W	E	H			
MD160-04	160	40	18	4	12	44	SNHX1102	TX3503	BTX07
MD160-05	160	40	18	5	12	44	SNHX1103	TX3504	BTX07
MD160-06	160	40	16	6	12	44	SNHX1203	TX4005	BTX15
MD160-07/08	160	40	16	7/8	12	44	SNHX1204/1245	TX4007	BTX15
MD160-10	160	40	16	10	12	44	SNHX1205	TX4008	BTX15
MD160-12	160	40	16	12	12	44	SNHX1207	TX4011	BTX15
MD160-14	160	40	15	14	14	44	SNHX1205	TX4008	BTX15
MD200-04	200	50	18	4	12	62	SNHX1102	TX3503	BTX07
MD200-05	200	50	18	5	12	62	SNHX1103	TX3504	BTX07
MD200-06	200	50	18	6	12	62	SNHX1203	TX4005	BTX15
MD200-07/08	200	50	18	7/8	12	62	SNHX1204/1245	TX4007	BTX15
MD200-10	200	50	18	10	12	62	SNHX1205	TX4008	BTX15
MD200-12	200	50	18	12	12	62	SNHX1207	TX4011	BTX15
MD200-14	200	50	18	14	14	62	SNHX1205	TX4008	BTX15
MD250-10	250	50	24	10	12	87	SNHX1205	TX4008	BTX15
MD250-12	250	50	20	12	12	87	SNHX1207	TX4011	BTX15
MD250-14	250	50	24	14	14	87	SNHX1205	TX4008	BTX15

	MATERIALI - MATERIALS	HB	fz (mm)	ap (mm)	Velocità di Taglio – Cutting Speed – Vc m/min						
						PM4125	PM4325		PM6515			
P	ACCIAIO NON LEGATO - NOT ALLOY STEEL	120-300	0,2	1-3		200	220					
P	ACCIAIO LEGATO - ALLOY STEEL	180-350	0,15	1-3		160	180					
P	ACCIAIO ALTO LEGATO - HIGH ALLOY STEEL	300-330	0,15	1-3		140	150					
M	INOX AUSTENITICO - DUPLEX - STAINLESS STEEL	180-230	0,1	1-3								
K	GHISA GRIGIA - GREY CAST IRON	120-260	0,25	1-3					180			
K	GHISA SFEROIDALE - SPHEROIDAL CAST IRON	160-250	0,2	1-3					160			
K	GHISA MALLEABILE - MALLEABLE CAST IRON	130-230	0,2	1-3					180			
N	ALLUMINIO E SUE LEGHE - ALLUMINIUM	60-130	0,2	1-3					1000			
N	RAME E SUE LEGHE - COPPER	90-110	0,15	1-3					400			
N	NON METALLICI - PLASTICS		0,15	1-3					500			
S	LEGHE RESIST. AL CALORE - HIGH TEMP. ALLOY	200-320	0,1	1-3					40			
S	TITANIO E SUE LEGHE - TITANIUM	400-1050	0,1	1-3					40			

Tipo di lavorazione - Recommended machining types



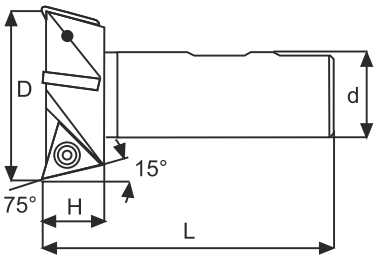
INSERTI A PAG. 328
VEDI ANCHE PAG. 951-952

BF SERVICE

D15X...

Dovetail cutter 15°
Fraises à angle de 15°
Winkelfräser 15°
Fresas de angulo 15°

Frese ad angolo 15° per inserto TDEX..



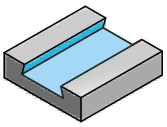


P M K N S

Codice *Code*	Dimensioni / *Dimensions*					Inserto *Insert*	Parti di ricambio / *Spare parts*	
	D	d	Z	H	L			
D15X-12-TD11-10	12.7	10	1	9.1	61	TDEX11	TX2506D	BTX07
D15X-25-TD11-12	25.4	12	3	9.1	61	TDEX11	TX2506D	BTX07
D15X-50-TD16-20	47.6	20	3	14.0	76	TDEX16	TX4008D	BTX15
D15X-65-TD22-25	63.5	25	3	19.1	95	TDEX22	TX5010D	BTX20

	MATERIALI - MATERIALS	HB	fz (mm)	ap (mm)	Velocità di Taglio – Cutting Speed – Vc m/min							
							PM4630		PM6515			
P	ACCIAIO NON LEGATO - NOT ALLOY STEEL	120-300	0,1-0,2	1–3			220					
P	ACCIAIO LEGATO - ALLOY STEEL	180-350	0,1-0,2	1–3			180					
P	ACCIAIO ALTO LEGATO - HIGH ALLOY STEEL	300-330	0,1-0,2	1–3			150					
M	INOX AUSTENITICO - DUPLEX - STAINLESS STEEL	180-230	0,1-0,2	1–3								
K	GHISA GRIGIA - GREY CAST IRON	120-260	0,1-0,2	1–3					180			
K	GHISA SFEROIDALE - SPHEROIDAL CAST IRON	160-250	0,1-0,2	1–3					160			
K	GHISA MALLEABILE - MALLEABLE CAST IRON	130-230	0,1-0,2	1–3					180			
N	ALLUMINIO E SUE LEGHE - ALLUMINIUM	60-130	0,1-0,2	1–3					1000			
N	RAME E SUE LEGHE - COPPER	90-110	0,1-0,2	1–3					400			
N	NON METALLICI - PLASTICS		0,1-0,2	1–3					500			
S	LEGHE RESIST. AL CALORE - HIGH TEMP. ALLOY	200-320	0,1-0,2	1–3					40			
S	TITANIO E SUE LEGHE - TITANIUM	400-1050	0,1-0,2	1–3					40			

Tipo di lavorazione - Recommended machining types



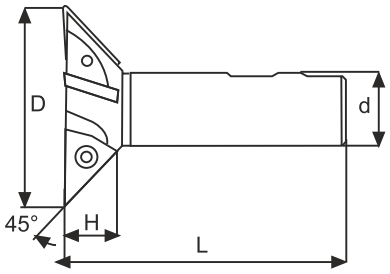
INSERTI A PAG. 329

BF SERVICE

Dovetail cutter 45°
Fraises à angle de 45°
Winkelfräser 45°
Fresas de angulo 45°

D45X...

Frese ad angolo 45° per inserto TDEX..



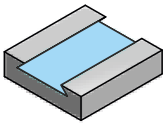


P M K N S

Codice *Code*	Dimensioni / *Dimensions*					Inserto *Insert*	Parti di ricambio / *Spare parts*	
	D	d	Z	H	L			
D45X-12TD09-10	12.7	10	1	3.2	60	TDEX09	TX2506D	BTX07
D45X-20TD09-10	19.1	10	2	4.0	60	TDEX09	TX2506D	BTX07
D45X-25TD09-12	25.4	12	3	6.3	60	TDEX09	TX2507D	BTX07
D45X-35TD17-16	34.9	16	2	11.1	73	TDEX17	TX4008D	BTX15
D45X-50TD17-20	47.6	20	3	11.1	76	TDEX17	TX4008D	BTX15
D45X-60TD25-25	57.2	25	2	15.9	89	TDEX25	TX5010D	BTX20
D45X-65TD25-25	63.5	25	3	16.5	89	TDEX25	TX5010D	BTX20

	MATERIALI - MATERIALS	HB	fz (mm)	ap (mm)	Velocità di Taglio – Cutting Speed – Vc m/min							
							PM4630		PM6515			
P	ACCIAIO NON LEGATO - NOT ALLOY STEEL	120-300	0,1-0,2	1–3			220					
P	ACCIAIO LEGATO - ALLOY STEEL	180-350	0,1-0,2	1–3			180					
P	ACCIAIO ALTO LEGATO - HIGH ALLOY STEEL	300-330	0,1-0,2	1–3			150					
M	INOX AUSTENITICO - DUPLEX - STAINLESS STEEL	180-230	0,1-0,2	1–3								
K	GHISA GRIGIA - GREY CAST IRON	120-260	0,1-0,2	1–3					180			
K	GHISA SFEROIDALE - SPHEROIDAL CAST IRON	160-250	0,1-0,2	1–3					160			
K	GHISA MALLEABILE - MALLEABLE CAST IRON	130-230	0,1-0,2	1–3					180			
N	ALLUMINIO E SUE LEGHE - ALLUMINIUM	60-130	0,1-0,2	1–3					1000			
N	RAME E SUE LEGHE - COPPER	90-110	0,1-0,2	1–3					400			
N	NON METALLICI - PLASTICS		0,1-0,2	1–3					500			
S	LEGHE RESIST. AL CALORE - HIGH TEMP. ALLOY	200-320	0,1-0,2	1–3					40			
S	TITANIO E SUE LEGHE - TITANIUM	400-1050	0,1-0,2	1–3					40			

Tipo di lavorazione - Recommended machining types



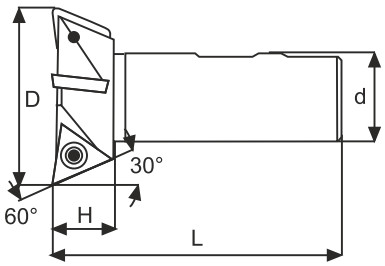
INSERTI A PAG. 329

BF SERVICE

D60X...

Dovetail cutter 60°
Fraises à angle de 60°
Winkelfräser 60°
Fresas de angulo 60°

Frese ad angolo 60° per inserto TDEX..



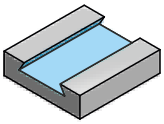


P M K N S

Codice *Code*	Dimensioni / *Dimensions*					Inserto *Insert*	Parti di ricambio / *Spare parts*	
	D	d	Z	H	L			
D60X-12TD11-10	12.7	10	1	5	60	TDEX11	TX2506D	BTX07
D60X-20TD11-10	19.1	10	2	8.3	60	TDEX11	TX2506D	BTX07
D60X-25TD11-12	25.4	12	3	8.3	60	TDEX11	TX2506D	BTX07
D60X-35TD16-16	34.9	16	3	13	73	TDEX16	TX4008D	BTX15
D60X-50TD16-20	47.6	20	3	13	76	TDEX16	TX4008D	BTX15
D60X-60TD22-25	57.2	25	3	17.8	89	TDEX22	TX5010D	BTX20
D60X-65TD22-25	63.5	25	3	17.8	89	TDEX22	TX5010D	BTX20

	MATERIALI - MATERIALS	HB	fz (mm)	ap (mm)	Velocità di Taglio – Cutting Speed – Vc m/min							
							PM4630		PM6515			
P	ACCIAIO NON LEGATO - NOT ALLOY STEEL	120-300	0,1-0,2	1–3			220					
P	ACCIAIO LEGATO - ALLOY STEEL	180-350	0,1-0,2	1–3			180					
P	ACCIAIO ALTO LEGATO - HIGH ALLOY STEEL	300-330	0,1-0,2	1–3			150					
M	INOX AUSTENITICO - DUPLEX - STAINLESS STEEL	180-230	0,1-0,2	1–3								
K	GHISA GRIGIA - GREY CAST IRON	120-260	0,1-0,2	1–3					180			
K	GHISA SFEROIDALE - SPHEROIDAL CAST IRON	160-250	0,1-0,2	1–3					160			
K	GHISA MALLEABILE - MALLEABLE CAST IRON	130-230	0,1-0,2	1–3					180			
N	ALLUMINIO E SUE LEGHE - ALLUMINIUM	60-130	0,1-0,2	1–3					1000			
N	RAME E SUE LEGHE - COPPER	90-110	0,1-0,2	1–3					400			
N	NON METALLICI - PLASTICS		0,1-0,2	1–3					500			
S	LEGHE RESIST. AL CALORE - HIGH TEMP. ALLOY	200-320	0,1-0,2	1–3					40			
S	TITANIO E SUE LEGHE - TITANIUM	400-1050	0,1-0,2	1–3					40			

Tipo di lavorazione - Recommended machining types



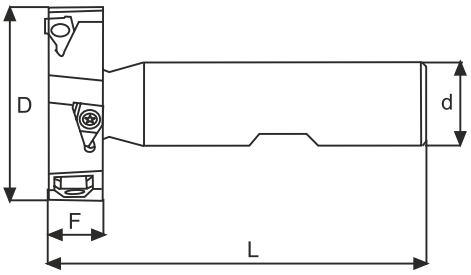
INSERTI A PAG. 329

BF SERVICE

DWKC...

Woodruff key seat cutter
Fraises pour rainures woodruff
Fräsen für Woodruff-Nuten
Fresas Woodruff para acanalar

Fresa per cave woodruff per inserto TEHW0602





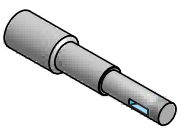
P M K N S



Codice *Code*	Dimensioni / *Dimensions*					Inserto *Insert*	Parti di ricambio / *Spare parts*	
	D	d	Z	F	L			
DWKC-195-TE06-10	19.5	10	2	5	63	TEHW0602	TX2005D	BTX06
DWKC-196-TE06-10	19.5	10	2	6	63	TEHW0602	TX2005D	BTX06
DWKC-225-TE06-10	22.5	10	2	5	63	TEHW0602	TX2005D	BTX06
DWKC-226-TE06-10	22.5	10	2	6	63	TEHW0602	TX2005D	BTX06
DWKC-228-TE06-10	22.5	10	2	8	63	TEHW0602	TX2005D	BTX06
DWKC-256-TE06-10	25.5	10	3	6	63	TEHW0602	TX2005D	BTX06
DWKC-286-TE06-10	28.5	10	6	6	63	TEHW0602	TX2005D	BTX06
DWKC-288-TE06-10	28.5	10	6	8	63	TEHW0602	TX2005D	BTX06
DWKC-2810-TE06-12	28.5	12	6	10	71	TEHW0602	TX2005D	BTX06
DWKC-328-TE06-12	32.5	12	6	8	71	TEHW0602	TX2005D	BTX06
DWKC-3210-TE06-12	32.5	12	6	10	71	TEHW0602	TX2005D	BTX06
DWKC-4510-TE06-12	45.5	12	6	10	71	TEHW0602	TX2005D	BTX06

	MATERIALI - MATERIALS	HB	fz (mm)	ap (mm)	Velocità di Taglio – Cutting Speed – Vc m/min							
							PM4630		PM6515			
P	ACCIAIO NON LEGATO - NOT ALLOY STEEL	120-300	0,03-0,06	1–3			250					
P	ACCIAIO LEGATO - ALLOY STEEL	180-350	0,03-0,06	1–3			200					
P	ACCIAIO ALTO LEGATO - HIGH ALLOY STEEL	300-330	0,03-0,06	1–3			180					
M	INOX AUSTENITICO - DUPLEX - STAINLESS STEEL	180-230	0,03-0,06	1–3								
K	GHISA GRIGIA - GREY CAST IRON	120-260	0,03-0,06	1–3					180			
K	GHISA SFEROIDALE - SPHEROIDAL CAST IRON	160-250	0,03-0,06	1–3					160			
K	GHISA MALLEABILE - MALLEABLE CAST IRON	130-230	0,03-0,06	1–3					180			
N	ALLUMINIO E SUE LEGHE - ALLUMINIUM	60-130	0,03-0,06	1–3					1000			
N	RAME E SUE LEGHE - COPPER	90-110	0,03-0,06	1–3					400			
N	NON METALLICI - PLASTICS		0,03-0,06	1–3					500			
S	LEGHE RESIST. AL CALORE - HIGH TEMP. ALLOY	200-320	0,03-0,06	1–3					40			
S	TITANIO E SUE LEGHE - TITANIUM	400-1050	0,03-0,06	1–3					40			

Tipo di lavorazione - Recommended machining types



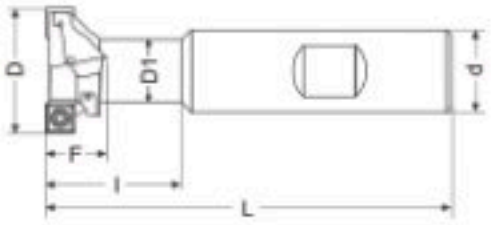
INSERTI A PAG. 329

BF SERVICE

SLOT... NEW

T-slot milling cutter
Fraises pour rainures en T
Fräsen für "T"-Nuten
Fresas para acanalar tipo T

Frese per cave a "T" per inserto XPMT..





P M K N S

Codice *Code*	Dimensioni / *Dimensions*							Inserto *Insert*	Parti di ricambio / *Spare parts*	
	D	D1	d	F	l	L	Z			
SLOT-21-09	21	11	16	09	26	76	2	XP..06	TX2506	BTX08
SLOT-25-11	25	13	16	11	31	82	4	XP..06	TX2506	BTX08
SLOT-32-14	32	17	20	14	38	88	4	XP..09	TX3509	BTX15
SLOT-40-17	40	21	25	17	50	108	4	XP..09	TX3509	BTX15
SLOT-50-22	50	27	32	22	56	120	4	XP..12	TX5011	BTX20

	MATERIALI - MATERIALS	HB	fz (mm)	ap (mm)	Velocità di Taglio – Cutting Speed – Vc m/min							
							PM4325					
P	ACCIAIO NON LEGATO - NOT ALLOY STEEL	120-300	0,05-0,1	1-3			220					
P	ACCIAIO LEGATO - ALLOY STEEL	180-350	0,05-0,1	1-3			180					
P	ACCIAIO ALTO LEGATO - HIGH ALLOY STEEL	300-330	0,05-0,1	1-3			150					
M	INOX AUSTENITICO - DUPLEX - STAINLESS STEEL	180-230	0,05-0,1	1-3								
K	GHISA GRIGIA - GREY CAST IRON	120-260	0,05-0,1	1-3								
K	GHISA SFEROIDALE - SPHEROIDAL CAST IRON	160-250	0,05-0,1	1-3								
K	GHISA MALLEABILE - MALLEABLE CAST IRON	130-230	0,05-0,1	1-3								
N	ALLUMINIO E SUE LEGHE - ALLUMINIUM	60-130	0,05-0,1	1-3								
N	RAME E SUE LEGHE - COPPER	90-110	0,05-0,1	1-3								
N	NON METALLICI - PLASTICS		0,05-0,1	1-3								
S	LEGHE RESIST. AL CALORE - HIGH TEMP. ALLOY	200-320	0,05-0,1	1-3								
S	TITANIO E SUE LEGHE - TITANIUM	400-1050	0,05-0,1	1-3								

Tipo di lavorazione - Recommended machining types



INSERTI A PAG. 330
VEDI ANCHE PAG 949-950

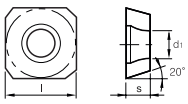
BF SERVICE

Qualità - *Qualities*

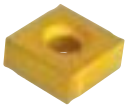
FRESATURA *MILLING*

Materiale *Material*

Acciaio - Steel	P		■		■	■	■			■		
Acciaio inox - Stainless steel	M		◩		◩	■	■					
Ghisa - Cast iron	K		■		◩	■				■		
Leghe leggere - Aluminium alloys	N									◩		
Resistenti al calore - Heat resistant	S				◩	◩	◩			◩		
Materiali temprati - Hardened material	H									■		



Codice di ordinazione *Ordering code*	Dimensioni - *Size*					HC Ricoperti - *Coated*								HW non ricoperti *uncoated*
	l	d	s	d_1	r	PM4125	PM4135	PM4325	PM4425	PM4530	PM4630	PM6505	PM6515	PM8140	WM1010
SNHX...															
SNHX 1102	11.0	11.0	2.30	4.40	-	•		•					•		
SNHX 1103	11.0	11.0	2.70	4.40	-	•		•					•		
SNHX 1203	12.7	12.7	3.20	5.0	-	•		•					•		
SNHX 1204	12.7	12.7	4.00	5.0	-	•		•					•		
SNHX 1245	12.7	12.7	4.50	5.0	-	•		•					•		
SNHX 1205	12.7	12.7	5.40	5.0	-	•		•					•		
SNHX 1207	12.7	12.7	7.00	5.0	-	•		•					•		



■ Applicazione Consigliata *Recommended Application*

◩ Applicazione Possibile *Possible Application*

• Disponibile *In stock*

○ A richiesta *On request*

FRESE A DISCO A PAG. 321-322

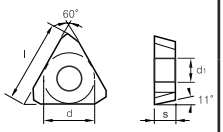
BF SERVICE UTENSILERIA MECCANICA

Qualità - *Qualities*

FRESATURA *MILLING*

Materiale *Material*

		P	M	K	N	S	H
Acciaio - Steel	P	■					■		■		
Acciaio inox - Stainless steel	M	■					■				
Ghisa - Cast iron	K	■					◪		■		
Leghe leggere - Aluminium alloys	N								◪		
Resistenti al calore - Heat resistant	S	◪					◪		◪		
Materiali temprati - Hardened material	H								■		



Codice di ordinazione *Ordering code*	Dimensioni - *Size*					HC Ricoperti - *Coated*									HW non ricoperti *uncoated*
	l	d	s	d_1	r	PT8130	PM4125	PM4135	PM4325	PM4425	PM4530	PM4630	PM6505	PM6515	PM8140	WM1010
TDEX...																
TDEX 090202	9.0	9.0	2.38	3.00	0.2							•		•		
TDEX 090204	9.0	9.0	2.38	3.00	0.4							•		•		
TDEX 110204	11	6.35	2.38	2.80	0.4							•		•		
TDEX 110208	11	6.35	2.38	2.80	0.8							•		•		
TDEX 160304	16	9.52	3.18	4.40	0.4							•		•		
TDEX 160308	16	9.52	3.18	4.40	0.8							•		•		
TDEX 17T304	17	17.0	4.76	4.40	0.4							•		•		
TDEX 17T308	17	17.0	4.76	4.40	0.8							•		•		
TDEX 220404	22	12.7	4.76	5.50	0.4							•		•		
TDEX 220408	22	12.7	4.76	5.50	0.8							•		•		
TDEX 250404	25	25.0	4.76	5.50	0.4							•		•		
TDEX 250408	25	25.0	4.76	5.50	0.8							•		•		
TEHW...																
TEHW 0602-AEEN	6.0	4.0	2.38	2.50	-							•		•		

FRESE DA PAG.323 A PAG. 325

FRESE A PAG.326

■ Applicazione Consigliata *Recommended Application*

◪ Applicazione Possibile *Possible Application*

• Disponibile *In stock*

o A richiesta *On request*

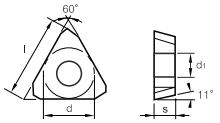
BF SERVICE

Qualità - *Qualities*

FRESATURA *MILLING*

Materiale *Material*

Acciaio - Steel	P		■		■	■	■							
Acciaio inox - Stainless steel	M		◪		◪	■	■							
Ghisa - Cast iron	K		■		◪	■								
Leghe leggere - Aluminium alloys	N													
Resistenti al calore - Heat resistant	S				◪	◪	◪							
Materiali temprati - Hardened material	H													



Codice di ordinazione *Ordering code*	Dimensioni - *Size*						HC Ricoperti - *Coated*								HW non ricoperti *uncoated*
	l	d	s	d_1	r		PM4125	PM4135	PM4325	PM4425	PM4530	PM4630	PM6505	PM6515	PM8140	WM1010
XPMT 060304	6.35	6.35	3.2	2.90	0.4				•							
XPMT 09T308	9.52	9.52	3.7	4.40	0.8				•							
XPMT 120408	12.70	12.70	4.8	5.50	0.8				•							

XPMT...

NEW



FRESE A PAG. 327

■ Applicazione Consigliata *Recommended Application*

◪ Applicazione Possibile *Possible Application*

• Disponibile *In stock*

o A richiesta *On request*

BF SERVICE UTENSILERIA MECCANICA

Smontaconi

Assembly Support
Supports d'assemblage
Montageblock
Desmontador de conos

SMT-CN...

SMT-CN...

Facile e veloce da utilizzare
Simply and Quickly to use

NEW 45°



Leva per bloccaggio coni
Locking knob

Leva per rotazione corpo
Indexing knob

Fori per fissaggio smontaconi
Mounting holes



Posizione 45° sinistra
45° left-hand position



Posizione 45° destra
45° right-hand position



Posizione orizzontale sinistra
Horizontal left-hand position



Posizione verticale
Vertical position



Posizione orizzontale destra
Horizontal right-hand position

Per posizionare lo smontaconi
Positioning

1) Tirare leva di rotazione corpo
2) Posizionare lo smontaconi
3) Rilasciare la leva

1) Pull the indexing knob to unlock
2) Turn into a new position
3) Release the knob to block

Per caricare/scaricare un mandrino
Holder loading/unloading

1) Inserire il mandrino nello smontaconi - *Put the holder inside*
2) Ruotare la leva di bloccaggio - *Rotate locking knob to lock holder*
3) Eseguire le operazioni sul mandrino - *Load or unload holder*
4) Riposizionare centralmente la leva - *Rotate locking knob to unlock holder*
5) Estrarre il mandrino - *Put holder off*

BF SERVICE

Disponibile nelle seguenti versioni

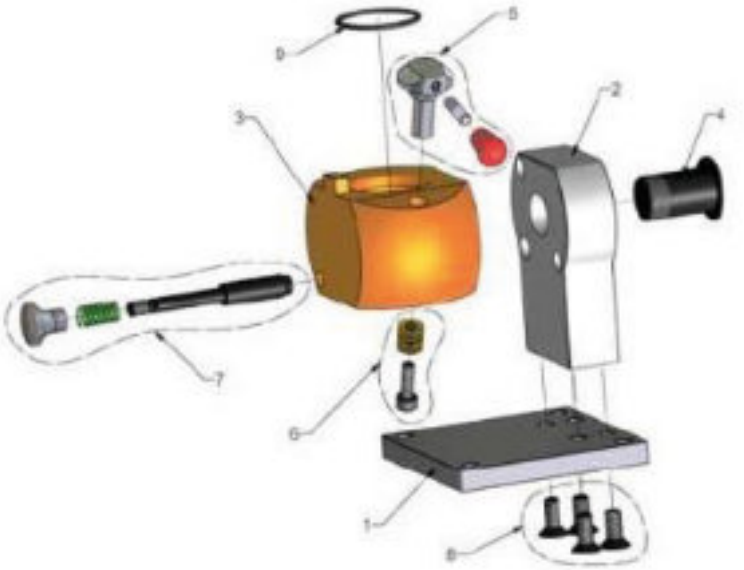
Available in the following versions

Descrizione	Codice *Code*	*Description*
Smontacono per mandrini ISO30 e BT30	**SMT-CN30**	*Tool setter for SK30 and BT30*
Smontacono per mandrini ISO40 e BT40	**SMT-CN40**	*Tool setter for Sk40 and BT40*
Smontacono per mandrini ISO50 e BT50	**SMT-CN50**	*Tool setter for SK50 and BT50*
Smontacono per mandrini HSK63	**SMT-HSK-63**	*Tool setter for HSK63*
Smontacono per mandrini HSK100	**SMT-HSK100**	*Tool setter for HSK100*



Ricambi

Spare parts



Rif.	Descrizione	Codice
1	Piastra Base	-01
2	Corpo Fisso	-02
3	Corpo Rotante	-03
4	Perno per Rotazione	-04
5	Set Leva per Bloccaggio Coni	-05
6	Set vite e molle a tazza per leva bloccaggio	-06
7	Set Perno per bloccaggio rotazione	-07
8	Set viti fissaggio con corpo fisso	-08
9	O-ring	-09

Chiave per la composizione dei codici dei ricambi

Spare parts code key

SmtCN	40	-01
1	2	3

1: Prefisso
2: Taglia mandrino:
-30- ISO/BT 30
-40- ISO/BT 40
-50- ISO/BT 50
-63- HSK 63
-100- HSK 100

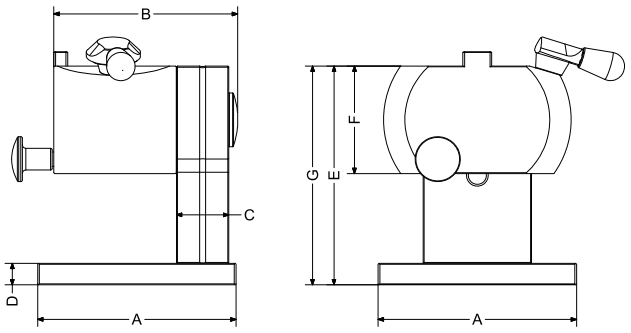
3: Codice ricambio

Esempio di codice completo
Example of order
SMTCN 40-01

SMT-CN...

Assembly Support
Supports d'assemblage
Montageblock
Desmontador de conos

Smontaconi





Codice *Code*	A mm	B mm	C mm	D mm	E mm	F mm	G mm	Peso *Weight*
SMT-CN30	110	97	29	12	122	60	50	5 kg
SMT-CN40	110	97	29	12	122	60	50	5 kg
SMT-CN50	130	128	29	12	172	89	70	12,5 kg
SMT-HSK63	130	101	29	12	122	60	50	5,2 kg
SMT-HSK100	130	97	29	12	122	60	50	5 kg

L 2 - L 7



BF SERVICE

Note

COMAND TOOL

FASTABLE



Tavole Girevoli - Rotary Tables
Tables Tournants - Drehtische
Mesas Rotatorias

BF SERVICE

Le nostre Tavole Girevoli sono progettate e realizzate completamente in ITALIA

COMAND TOOL si avvale di materie prime di alta qualità e di macchinari sofisticati per realizzare le sue tavole girevoli. Queste sono il recente risultato dell'unione di un'esperienza ultraventennale e dell'abilità manifatturiera dei fondatori dell'azienda in questo settore.

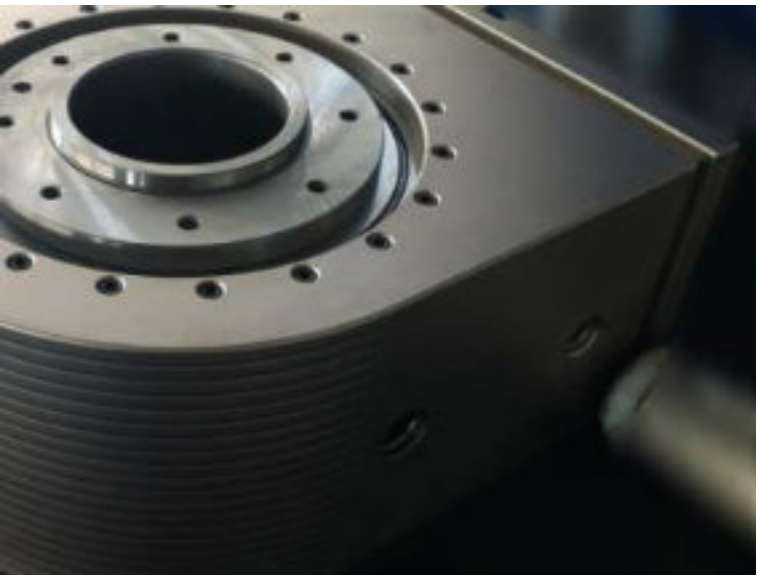
Our Rotary Table are designed and made in ITALY

COMAND TOOL makes use of top quality materials and sophisticated machinery to produce his rotary tables. These are the latest result of the union of over twenty years experience and the manufacturing skill of Comand Tool founders of the company in this area.



Vantaggi delle Tavole Girevoli Comand Tool

Advantages of Comand Tool's Rotary Table



Corpo Tavola Nichelato
Nickel Plated Faceplate

Il corpo tavola nichelato ed il carter motore anodizzato, unito alla pressurizzazione, migliorano notevolmente la resistenza alla corrosione.

One-piece faceplate and drive shaft, hardened to 62HRC, provides industry-high rigidity. Faceplate is nickel plated for high corrosion resistance.



Elevatissima Coppia Bloccaggio
High Precision Double Roller Bearing

Il nuovo sistema idraulico ad espansione assicura una elevatissima forza di bloccaggio pari a **5 VOLTE** quella delle altre tavole girevoli presenti sul mercato.

*The new, hydraulic, braking system guarantees an extremely high clamping force. Up to **5 TIMES HIGHER** than other same diameter rotary tables available on the market.*



Resistenza alle infiltrazioni
Leak proofing

Gli O-Rings altamente performanti assicurano il 100% di impermeabilità. Una finestrella permette di controllare eventuali perdite. Un'apertura per il flusso d'aria nel vano motore previene la formazione di condense.

High performance O-Rings provide 100% waterproofing. A see-thru window is provided for leak-check. Air flow inlet in the motor compartment prevents dew condensation.

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Componenti Esterni

External Components

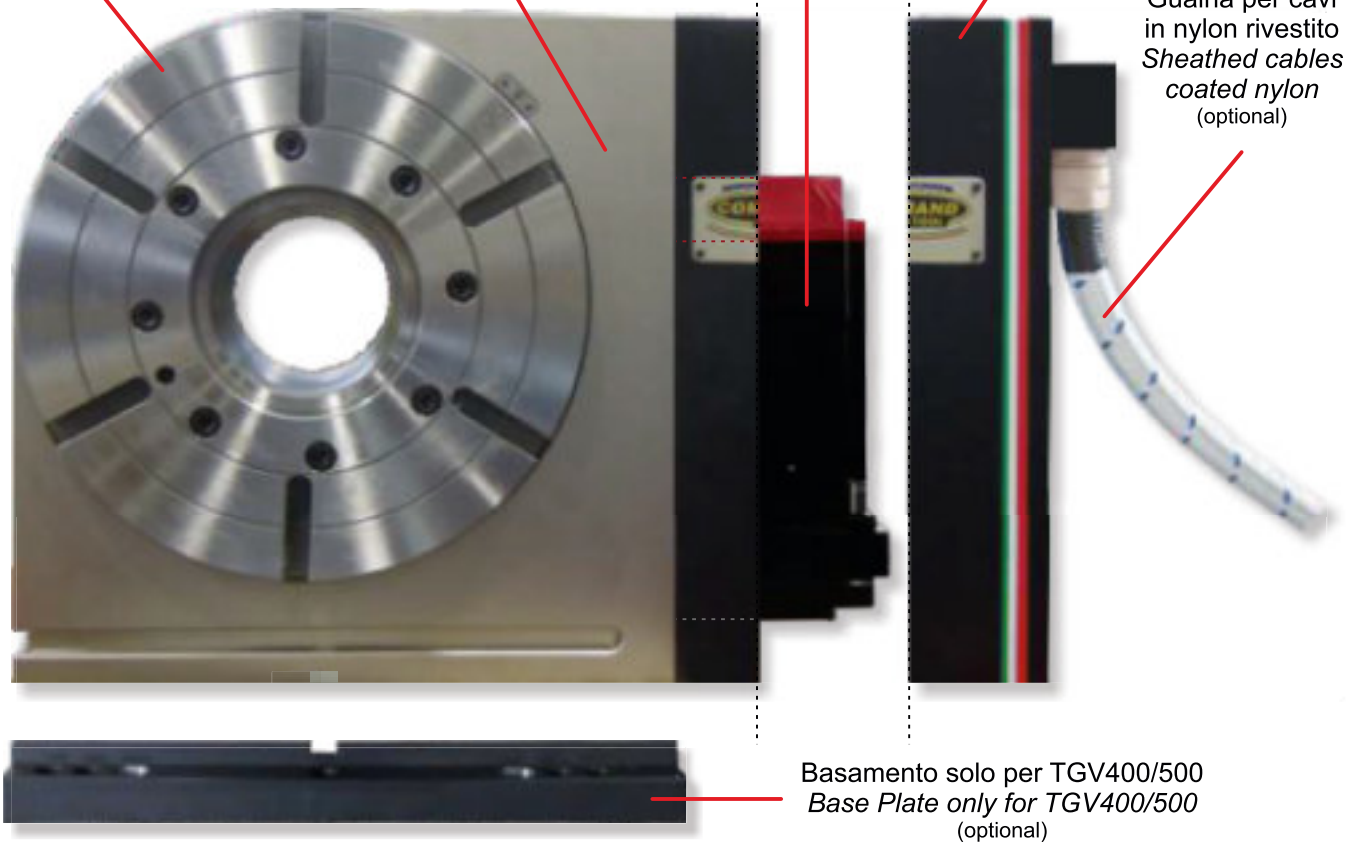
Platorello
temprato e rettificato
Hardened and grinding Plated

Corpo della tavola in acciaio
ricavato dal pieno
Rotary table body machined out of a solid block of steel

Motore
Motor
(optional)

Carter
a tenuta stagna
Watertight Casing

Guaina per cavi
in nylon rivestito
Sheathed cables coated nylon
(optional)



Basamento solo per TGV400/500
Base Plate only for TGV400/500
(optional)



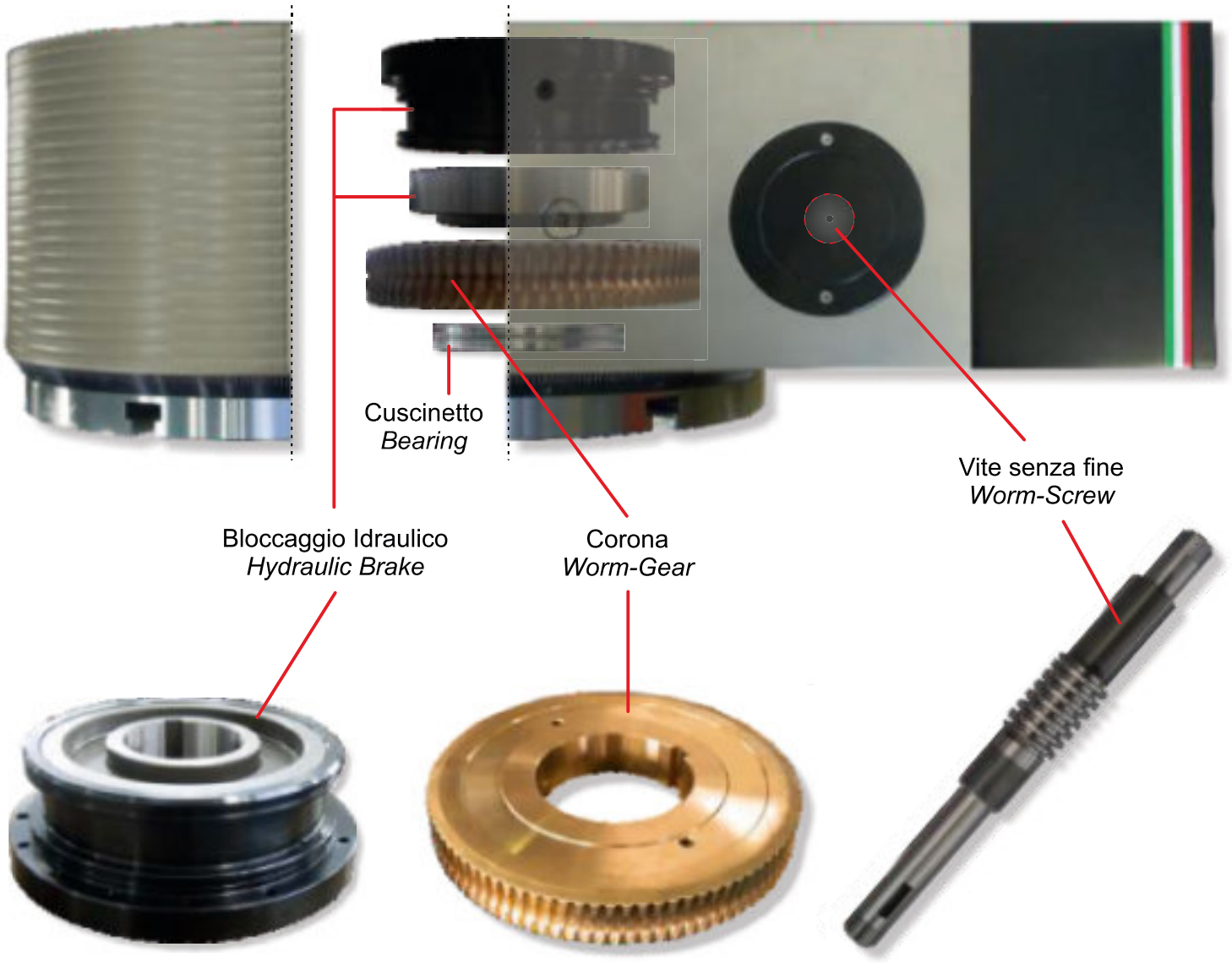
Encoder
(optional)



Controllo Remoto A100
Remote Control A100
(optional)

Componenti Interni

Internal Components



Bloccaggio Idraulico
Il nuovo sistema di frenante idraulico ad espansione assicura una elevatissima forza di bloccaggio pari a 5 volte quella delle altre tavole girevoli presenti sul mercato.

Hydraulic Brake
Two double crossed roller bearings enable the Rotary Table to support 5 times more working weight than the closest competition.

Corona
Il materiale costruttivo è il bronzo-alluminio, una lega autolubrificante che consente di applicare un precarico a tutte le tavole, per una migliore precisione dinamica ed un annullamento del gioco di inversione.

Worm-Gear
Constructed from aluminium-bronze, this selflubricating alloy allows a preload to be applied to all tables for increased dynamic accuracy and no backlash.

Vite senza fine
Viene utilizzata una vite senza fine in acciaio temprato e rettificato con un profilo particolare che garantisce un'ottima ampiezza di superficie di contatto.

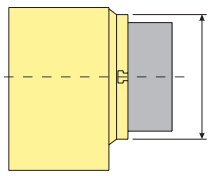
Worm-Screw
Using a worm-screw made of tempered and grinded steel having a unique precision ground profile that guarantees a wide contact surface.

BF SERVICE

Guida alla scelta della Tavola Girevole

Factors to consider for selection of appropriate NC Rotary Rable

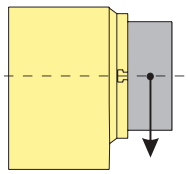
1.



Dimensioni pezzo da lavorare
I pezzi da lavorare non devono essere più larghi del diametro della tavola girevole.

Workpiece Size Requirement
Workpiece should not be larger than the rotary table diameter.

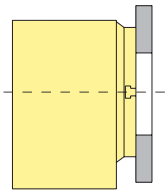
2.



Peso pezzo da lavorare
I pezzi da lavorare non devono essere più pesanti del peso che può sopportare la tavola girevole.

Workpiece Weight Requirement
Workpiece should not be heavier than the max. allowable weight for the rotary table.

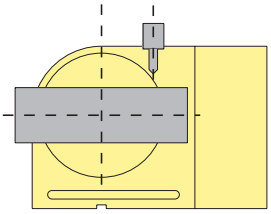
3.



Combinazione dimensioni e peso
Per i pezzi leggeri ma che hanno un diametro più largo di quello della tavola girevole, assicurarsi che questi non interferiscano con la base della macchina. L'inerzia del pezzo da lavorare non deve essere superiore al valore specificato per la tavola girevole.

Size and Weight Combination
For workpieces that are light but have diameters larger than the rotary table diameter, make sure that they do not interfere with the machine bed. Workpiece Inertia should not be more than the specified value for the rotary table.

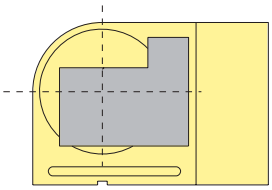
4.



Massimo carico di spinta
Il massimo carico di spinta (FxL) non deve superare quello del valore consentito alla tavola girevole.

Maximum Moment
The moment created by the workpiece (FxL) should not exceed the allowable value for the rotary table.

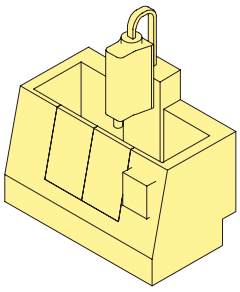
5.



«Inerzia» massima
L'«inerzia» del pezzo lavorato non deve essere maggiore di quella massima consentita per la tavola girevole. Assicurarsi che il pezzo da lavorare non interferisca con il movimento della macchina.

Maximum Inertia
Workpiece inertia should not be greater than the max. allowable inertia for the rotary table. Make sure that the workpiece does not interfere with machine when it swings.

6.



Nessuna interferenza con la macchina
la tavola girevole e il pezzo da lavorare non devono interferire con:
- la «colonna» della macchina
- Porte e chiusure
- ATC
- Peso massimo consentito sulla tavola della macchina

No Machine Interference
Rotary table and workpiece should not interfere with:
- The machine column and Z-axis
- Doors and covers
- ATC
- Total weight allowable by the machine

BF SERVICE

TGV - 4° Asse - Destra

4th Axis - Right

Caratteristiche / *Features*

- ***Foro Passante*** *Through Bore*
- ***Destra*** *Right*
- ***Controllo Remoto*** *Remote Control*
- ***Bloccaggio Idraulico*** *Hydraulic Brake*
- ***Encoder*** *Encoder*
- ***Salva Spazio*** *Space Saver*

HP HQ



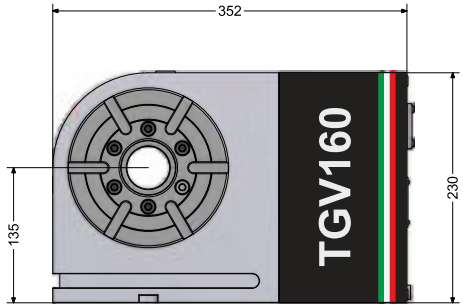
Dati Tecnici / *Technical Data*		Unità *Unit*	*TGV160*	*TGV200*	*TGV250*	*TGV320*	*TGV400*	*TGV500*
Diametro Tavola / *Table Diameter*		mm	160	200	250	320	400	500
D Foro Passante / *Through Bore D*		mm	43,5	50,5	70,5	110	130	180
Altezza Punte / *Center Height*		mm	135	150	175	230	275	310
Scanalatura T / *T-Slot Width*		mm	10	12	12	12	12	18
Sistema Bloccaggio / *Clamping System*		-	Idraulico / *Hydraulic*	Idraulico / *Hydraulic*	Idraulico / *Hydraulic*	Idraulico / *Hydraulic*	Idraulico / *Hydraulic*	Idraulico / *Hydraulic*
Forza Frenante / *Clamping Torque*		N·m	1200	2000	3000	3000	3000	3000
Motore / *Servo Motor*		rpm max	α2/4000(5000)	α4/4000(5000)	α4/5000	α8/4000	α8/4000	α12
Min. Incremento / *Min. Increment*		-	0,001	0,001	0,001	0,001	0,001	0,001
Velocità Rotazione / *Rotation Speed*		rpm	33,3 (44,4)	44,4 (55,5)	22,2	22,2	22,2	11,1
Rapp. Vite/Corona / *Screw/Gear ratio*		-	1/60	1/60	1/90	1/120	1/120	1/80
Rapp. Motore/Corona / *Motor/Gear ratio*		-	1/90	1/90	1/144	1/180	1/180	-
Precisione / *Indexing Accuracy*		sec	20	20	20	20	15	20
Ripetitibilità / *Servo Motor*		sec	4	4	4	4	4	4
Max carico di lavoro applicabile sulla tavola *Max allowable work weight on the table*	Verticale *Vertical*	Kg	200	350	400	500	600	750
	Orizzontale *Horizontal*	Kg	700	1200	1500	1800	1800	2000
Max carico di spinta applicabile sulla tavola *Max allowable tool load on the table*		N	17000	23000	25000	28000	35000	50000
		N·m	600	800	1000	1200	1500	2500
		N·m	1600	2000	2200	2500	4000	3500
Massima Inerzia *Max Work Inertia*	Verticale *Vertical*	Kg·m²	10,5	10,5	10,5	10,5	10,5	3,49
Coppia di Lavoro *Driving Torque*	Corona Dentata *Worm Gear*	N·m	240	397	698	1270	1270	2500
Peso Netto / *Net Weight*		Kg	50	70	110	190	240	300

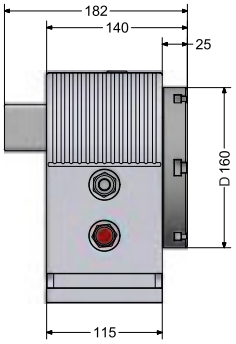
BF SERVICE

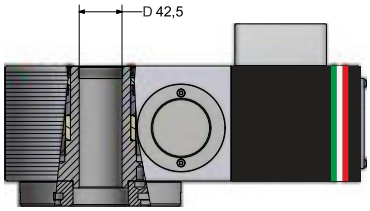
TGV - 4° Asse - Destra

Disegni Tecnici e Dimensioni / *Technical Drawing and Size*

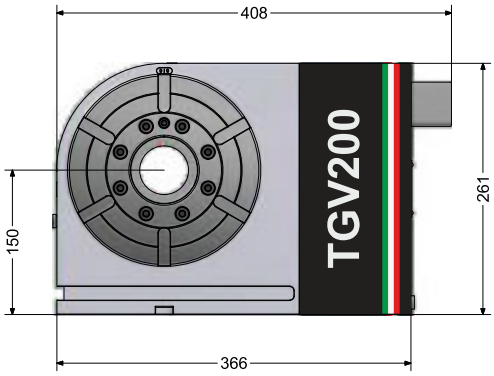
TGV160

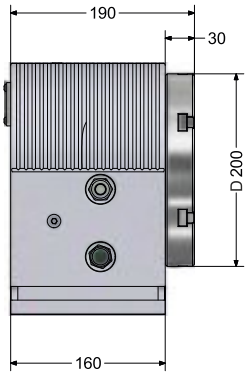


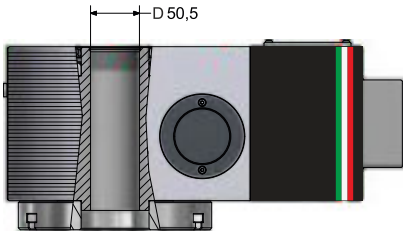




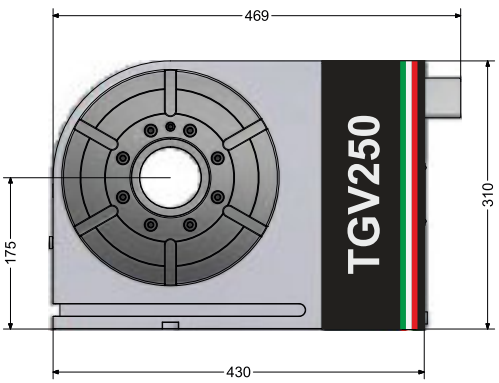
TGV200

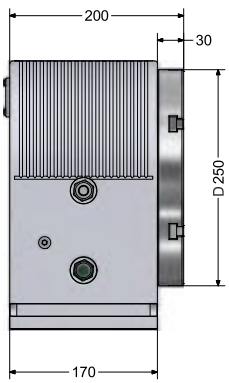


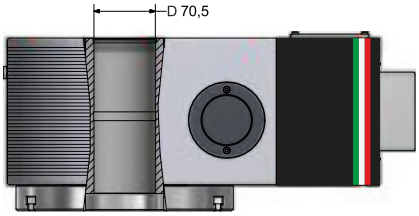




TGV250





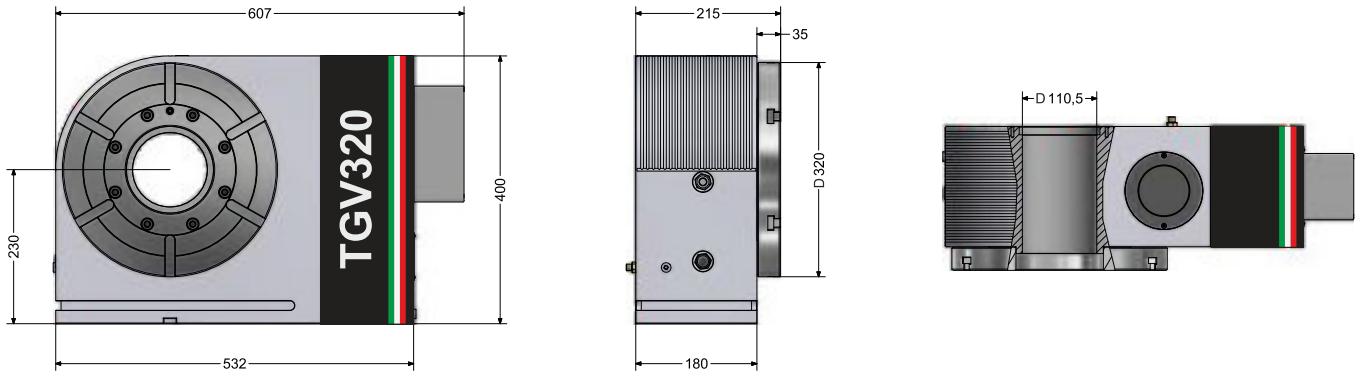


BF SERVICE

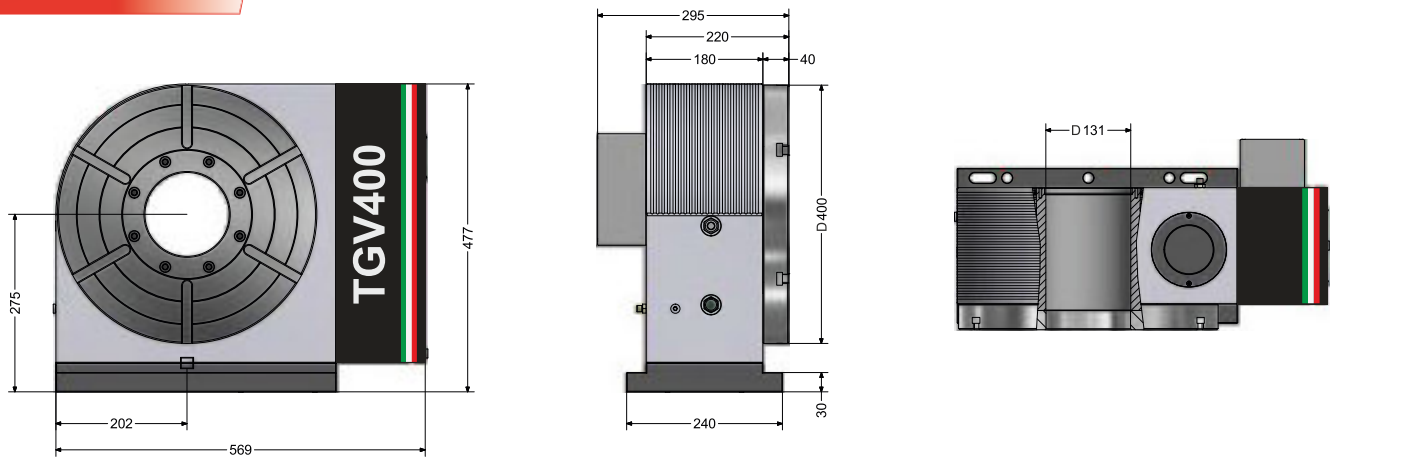
TGV - 4° Asse - Destra

Disegni Tecnici e Dimensioni / *Technical Drawing and Size*

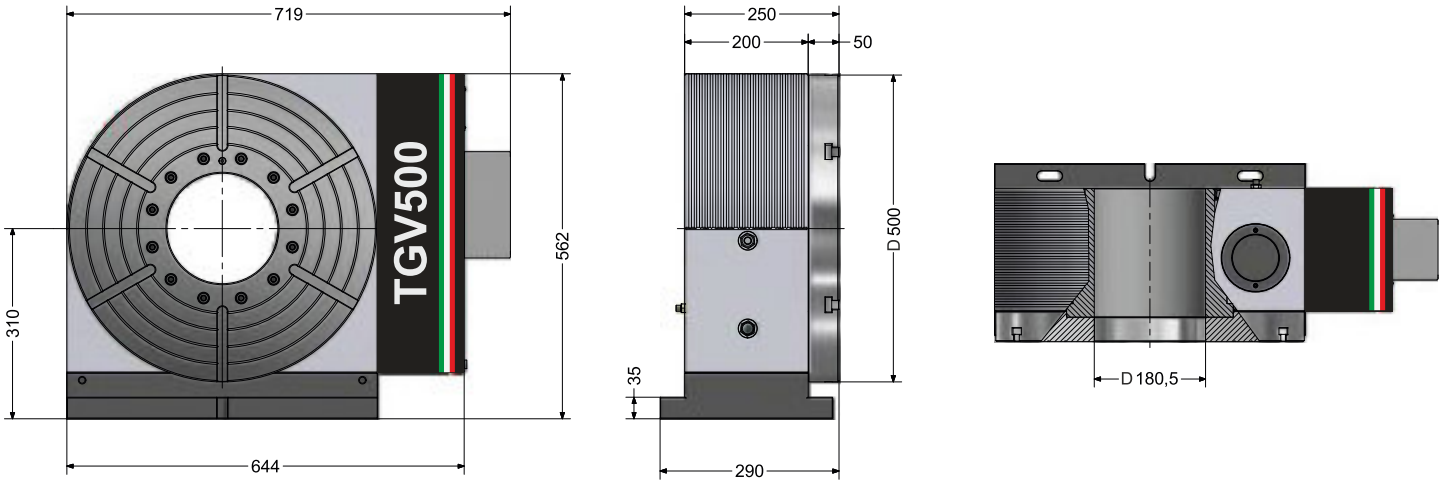
TGV320



TGV400



TGV500



BF SERVICE

TGV - 4° Asse - Sinistra

4th Axis - Left

Caratteristiche / *Features*

- ***Foro Passante*** *Through Bore*
- ***Sinistra*** *Left*
- ***Controllo Remoto*** *Remote Control*
- ***Bloccaggio Idraulico*** *Hydraulic Brake*
- ***Encoder*** *Encoder*
- ***Salva Spazio*** *Space Saver*

HP HQ



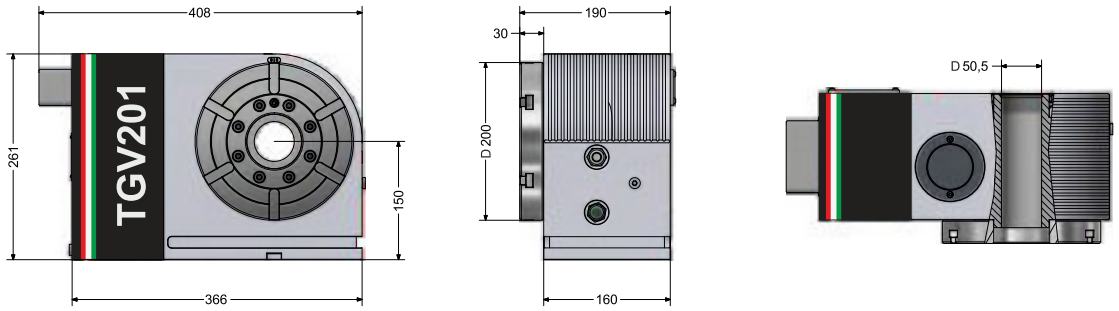
Dati Tecnici / *Technical Data*		Unità *Unit*	-	*TGV201*	*TGV251*	*TGV321*	*TGV401*	-
Diametro Tavola / *Table Diameter*		mm	-	200	250	320	400	-
D Foro Passante / *Through Bore D*		mm	-	50,5	70,5	110	130	-
Altezza Punte / *Center Height*		mm	-	150	175	230	275	-
Scanalatura T / *T-Slot Width*		mm	-	12	12	12	12	-
Sistema Bloccaggio / *Clamping System*		-	-	Idraulico / *Hydraulic*	Idraulico / *Hydraulic*	Idraulico / *Hydraulic*	Idraulico / *Hydraulic*	-
Forza Frenante / *Clamping Torque*		N·m	-	2000	3000	3000	3000	-
Motore / *Servo Motor*		rpm max	-	α4/4000(5000)	α4/5000	α8/4000	α8/4000	-
Min. Incremento / *Min. Increment*		-	-	0,001	0,001	0,001	0,001	-
Velocità Rotazione / *Rotation Speed*		rpm	-	44,4 (55,5)	22,2	22,2	22,2	-
Rapp. Vite/Corona / *Screw/Gear ratio*		-	-	1/60	1/90	1/120	1/120	-
Rapp. Motore/Corona / *Motor/Gear ratio*		-	-	1/90	1/144	1/180	1/180	-
Precisione / *Indexing Accuracy*		sec	-	20	20	20	15	-
Ripetitibilità / *Servo Motor*		sec	-	4	4	4	4	-
Max carico di lavoro applicabile sulla tavola *Max allowable work weight on the table*	Verticale *Vertical*	Kg	-	350	400	500	600	-
	Orizzontale *Horizontal*	Kg	-	1200	1500	1800	1800	-
Max carico di spinta applicabile sulla tavola *Max allowable tool load on the table*		N	-	23000	25000	28000	35000	-
		N·m	-	800	1000	1200	1500	-
		N·m	-	2000	2200	2500	4000	-
Massima Inerzia *Max Work Inertia*	Verticale *Vertical*	Kg·m²	-	10,5	10,5	10,5	10,5	-
Coppia di Lavoro *Driving Torque*	Corona Dentata *Worm Gear*	N·m	-	397	698	1270	1270	-
Peso Netto / *Net Weight*		Kg	-	70	110	190	240	-

BF SERVICE

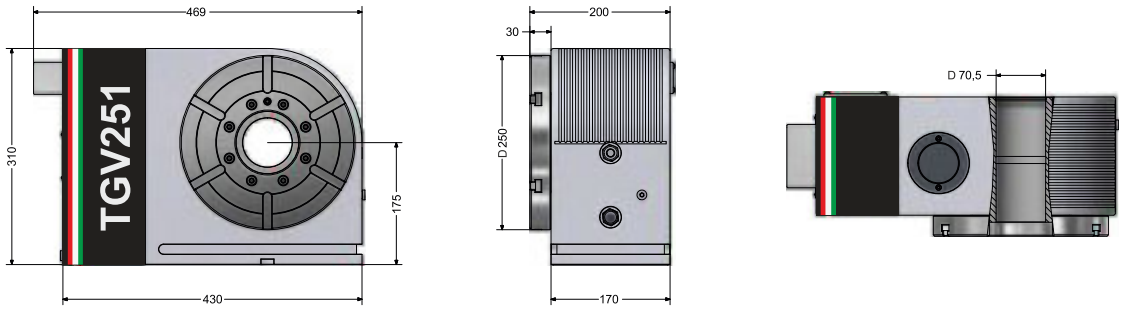
TGV - 4° Asse - Sinistra

Disegni Tecnici e Dimensioni / *Technical Drawing and Size*

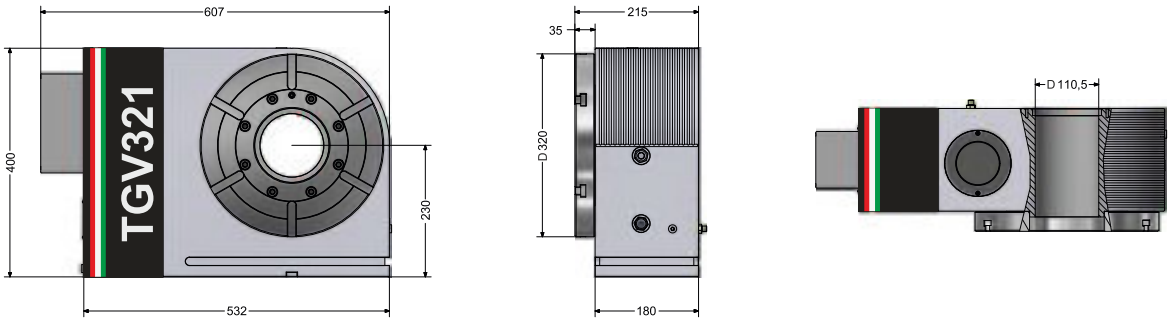
TGV201



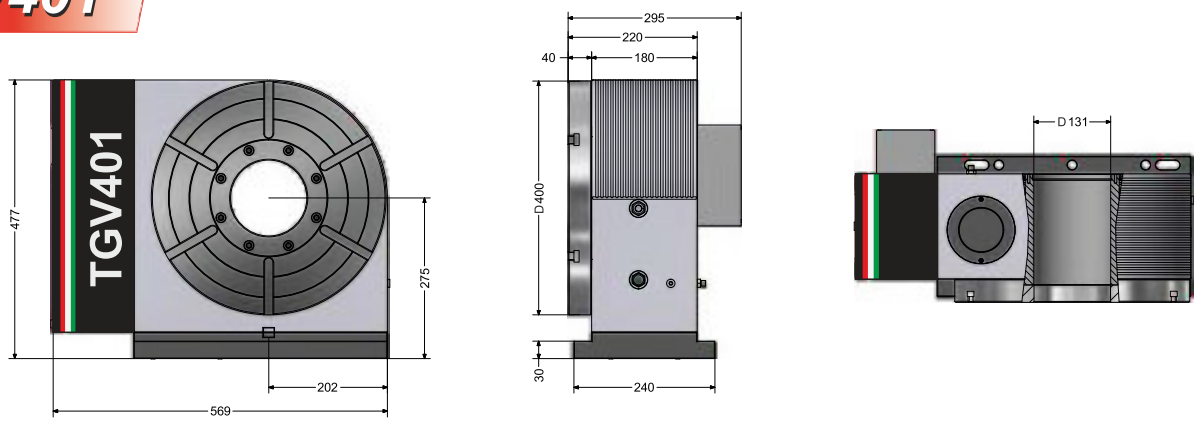
TGV251



TGV321



TGV401



BF SERVICE

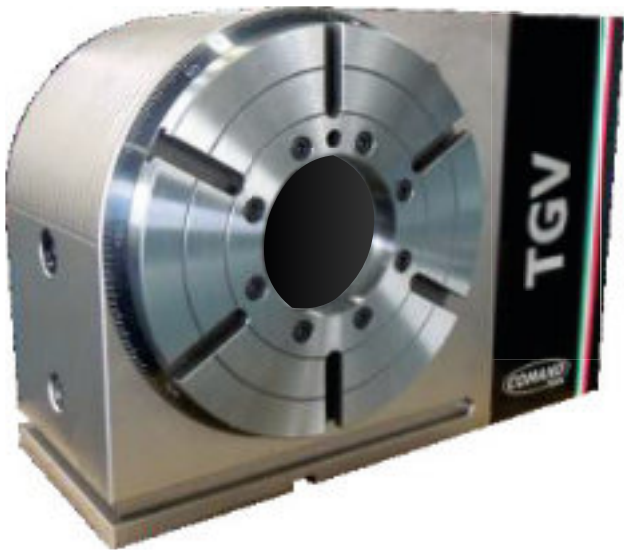
TGV - 4° Asse - Foro Maggiorato

4th Axis - Wider Center Bore

Caratteristiche / *Features*

- ***Foro Passante Magg.*** *Wider Through Bore*
- ***Destra*** *Right*
- ***Controllo Remoto*** *Remote Control*
- ***Bloccaggio Idraulico*** *Hydraulic Brake*
- ***Encoder*** *Encoder*
- ***Salva Spazio*** *Space Saver*

HP HQ



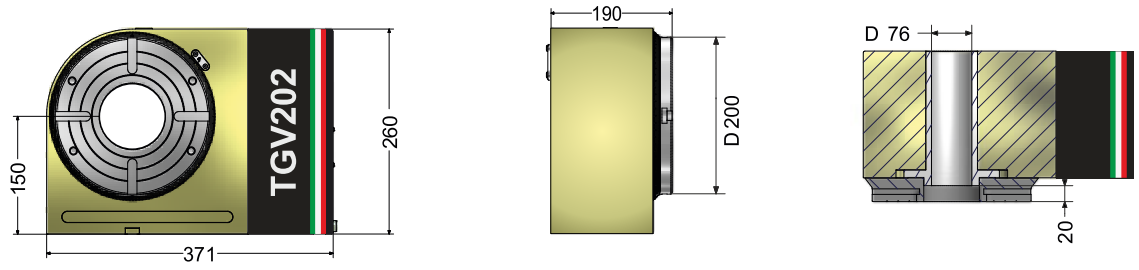
Dati Tecnici / *Technical Data*		Unità *Unit*	-	*TGV202*	*TGV252*	*TGV322*	*TGV402*	-
Diametro Tavola / *Table Diameter*		mm	-	200	250	320	400	-
D Foro Passante / *Through Bore D*		mm	-	76	102	140	180	-
Altezza Punte / *Center Height*		mm	-	150	175	230	275	-
Scanalatura T / *T-Slot Width*		mm	-	12	12	12	12	-
Sistema Bloccaggio / *Clamping System*		-	-	Idraulico / *Hydraulic*	Idraulico / *Hydraulic*	Idraulico / *Hydraulic*	Idraulico / *Hydraulic*	-
Forza Frenante / *Clamping Torque*		N·m	-	2000	3000	3000	3000	-
Motore / *Servo Motor*		rpm max	-	α4/4000(5000)	α4/4000(5000)	α8/4000	α8/4000	-
Min. Incremento / *Min. Increment*		-	-	0,001	0,001	0,001	0,001	-
Velocità Rotazione / *Rotation Speed*		rpm	-	44,4 (55,5)	22,2	22,2	22,2	-
Rapp. Vite/Corona / *Screw/Gear ratio*		-	-	1/60	1/90	1/60	1/90	-
Rapp. Motore/Corona / *Motor/Gear ratio*		-	-	1/90	1/144	1/180	1/180	-
Precisione / *Indexing Accuracy*		sec	-	20	20	20	15	-
Ripetitibilità / *Servo Motor*		sec	-	4	4	4	4	-
Max carico di lavoro applicabile sulla tavola *Max allowable work weight on the table*	Verticale *Vertical*	Kg	-	300	350	450	600	-
	Orizzontale *Horizontal*	Kg	-	1000	1000	1500	1500	-
Max carico di spinta applicabile sulla tavola *Max allowable tool load on the table*		N	-	21000	21000	25000	30000	-
		N·m	-	700	700	1000	1100	-
		N·m	-	1800	1800	3500	3500	-
Massima Inerzia *Max Work Inertia*	Verticale *Vertical*	Kg·m²	-	10,5	10,5	10,5	10,5	-
Coppia di Lavoro *Driving Torque*	Corona Dentata *Worm Gear*	N·m	-	397	397	1270	1270	-
Peso Netto / *Net Weight*		Kg	-	70	110	190	240	-

BF SERVICE

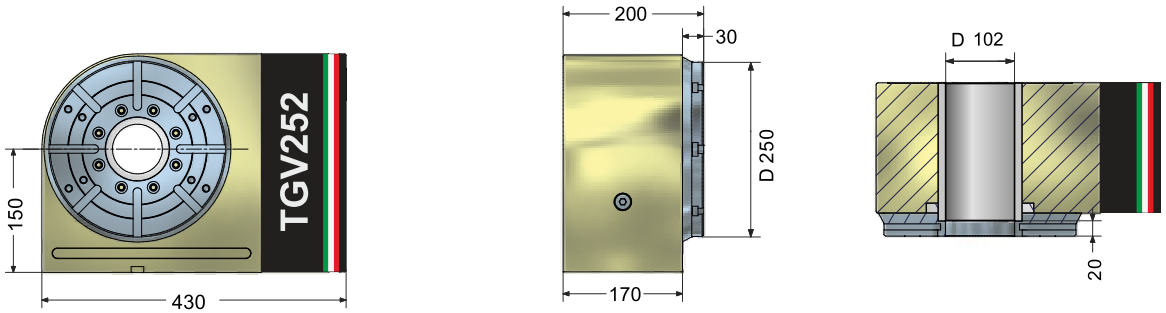
TGV - 4° Asse - Foro Maggiorato

Disegni Tecnici e Dimensioni / *Technical Drawing and Size*

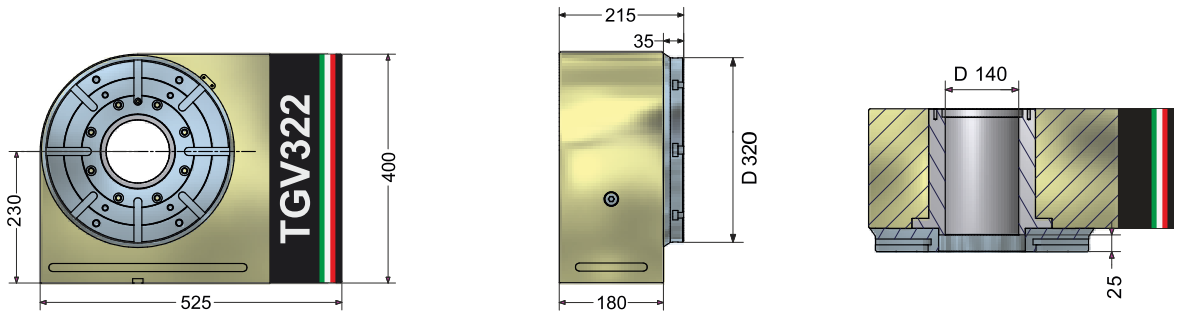
TGV202



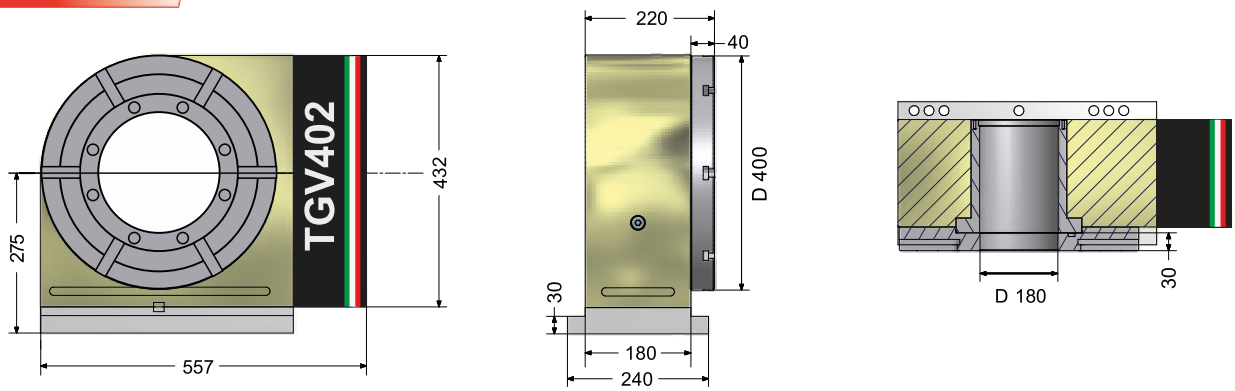
TGV252



TGV322



TGV402



BF SERVICE

TGV / TGH - 4° Asse - Doppio Centraggio

4th Axis - Double Centering

Caratteristiche / *Features*

- ***Foro Passante*** *Through Bore*
- ***Destra-Sinistra*** *Right-Left*
- ***Controllo Remoto*** *Remote Control*
- ***Bloccaggio Idraulico*** *Hydraulic Brake*
- ***Encoder*** *Encoder*
- ***Salva Spazio*** *Space Saver*

HP HQ





Dati Tecnici / *Technical Data*		Unità *Unit*	-	***TGV203***	***TGV323***	***TGH253***	***TGH255***	-
Diametro Tavola / *Table Diameter*		mm	-	200	320	250x2	250x2	-
D Foro Passante / *Through Bore D*		mm	-	50,5	110	90 h7x2 *	70,5	-
Altezza Punte / *Center Height*		mm	-	150	230	200	200	-
Scanalatura T / *T-Slot Width*		mm	-	12	12	12	12	-
Sistema Bloccaggio / *Clamping System*		-	-	Idraulico / *Hydraulic*	Idraulico / *Hydraulic*	Idraulico / *Hydraulic*	Idraulico / *Hydraulic*	-
Forza Frenante / *Clamping Torque*		N·m	-	2000	3000	2500	3000	-
Motore / *Servo Motor*		rpm max	-	α4/4000(5000)	α8/4000	α8/4000	α8/4000	-
Min. Incremento / *Min. Increment*		-	-	0,001	0,001	0,001	0,001	-
Velocità Rotazione / *Rotation Speed*		rpm	-	44,4 (55,5)	22,2	22,2/44,4 max	22,2/44,4 max	-
Rapp. Vite/Corona / *Screw/Gear ratio*		-	-	1/60	1/120	1/90	1/90	-
Rapp. Motore/Corona / *Motor/Gear ratio*		-	-	1/90	1/180	max 180 bar	1/180	-
Precisione / *Indexing Accuracy*		sec	-	20	20	20	20	-
Ripetitibilità / *Servo Motor*		sec	-	4	4	4	4	-
Max carico di lavoro applicabile sulla tavola *Max allowable work weight on the table*	Verticale *Vertical*	Kg	-	300	400	300	300	-
	Orizzontale *Horizontal*	Kg	-	-	-	800	800	-
Max carico di spinta applicabile sulla tavola *Max allowable tool load on the table*		N	-	23000	28000	20000	20000	-
		N·m	-	800	1200	1000	1000	-
		N·m	-	2000	2500	2000	2000	-
Massima Inerzia *Max Work Inertia*	Verticale *Vertical*	Kg·m²	-	10,5	10,5	15,1	15,1	-
Coppia di Lavoro *Driving Torque*	Corona Dentata *Worm Gear*	N·m	-	397	1270	698	698	-
Peso Netto / *Net Weight*		Kg	-	70	190	225	225	-

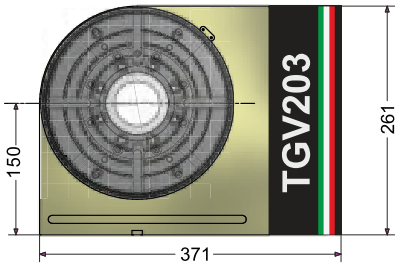
* Centraggio del Naso Mandrino / *Spindle Nose Centering*

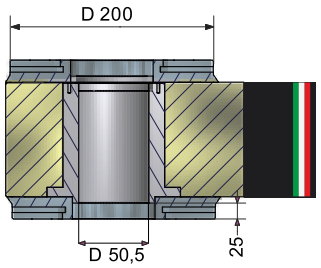
BF SERVICE

TGV / TGH - 4° Asse - Doppio Centraggio

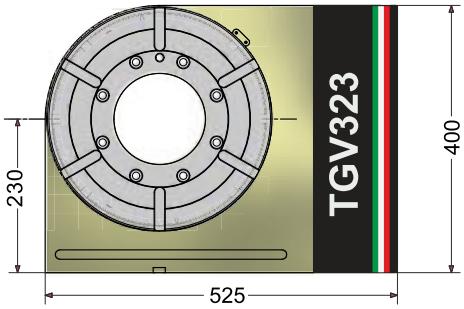
Disegni Tecnici e Dimensioni / *Technical Drawing and Size*

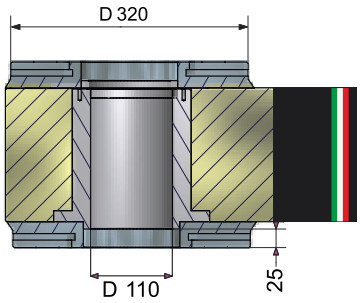
TGV203



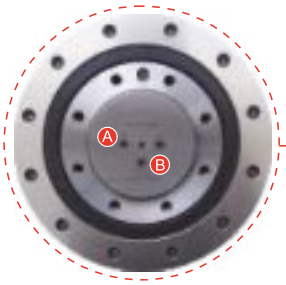


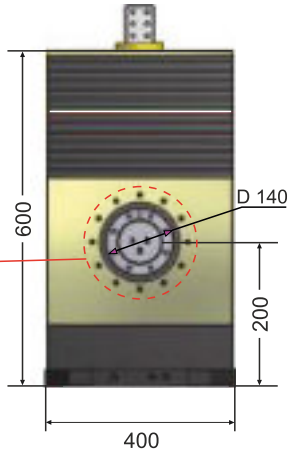
TGV323

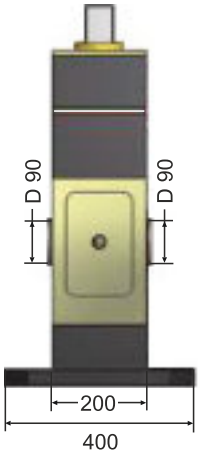




TGH253







Doppio Sistema Idraulico & Pneumatico
The Double Hydraulic & Pneumatic System

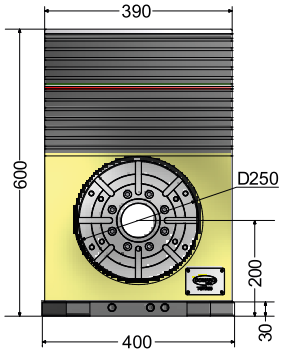
A — I doppi passaggi idraulici ad alta pressione (max. 180 bar) garantiscono un esclusivo e sicuro sistema di blocco/sblocco attrezzatura.

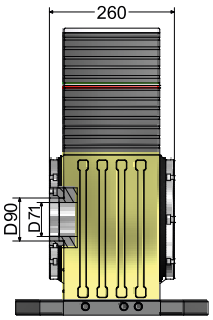
The double high pressure hydraulic ways (max. 180 bar) guarantee an exclusive and safe locking/unlocking system of the equipment.

B — I doppi passaggi pneumatici a 6 bar, permettono di installare un sistema di controllo presenza pezzo.

The double 6 bar pneumatic ways, allow to set up a control system of tool presence.

TGH255





Elevata Coppia Bloccaggio
High Locking Strenght

Il nuovo sistema idraulico ad espansione assicura una forza bloccaggio pari a 5 (cinque) volte quella delle altre tavole presenti sul mercato.

The new expanding hydraulic system ensure a locking strenght, equal to 5 (five) time the other rotary tables on the market.

BF SERVICE

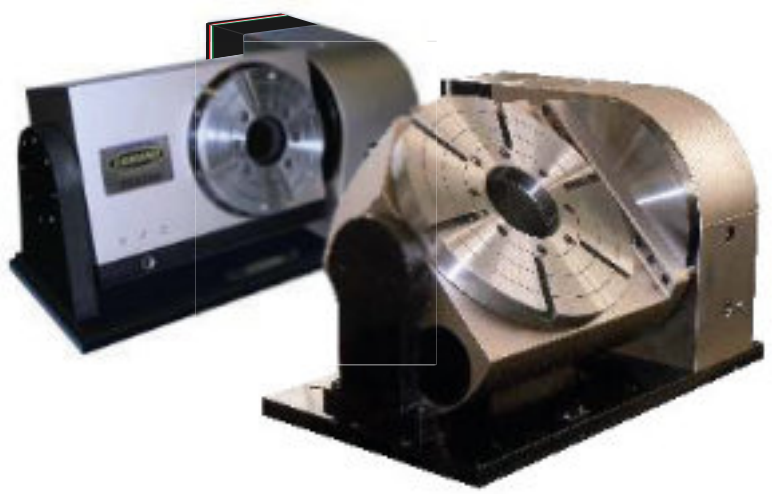
T5X - 4°- 5° Asse

4th-5th Axis

Caratteristiche / *Features*

- ***Foro Passante*** *Through Bore*
- ***Destra*** *Right*
- ***Controllo Remoto*** *Remote Control*
- ***Bloccaggio Idraulico*** *Hydraulic Brake*
- ***Encoder*** *Encoder*
- ***Salva Spazio*** *Space Saver*

HP HQ



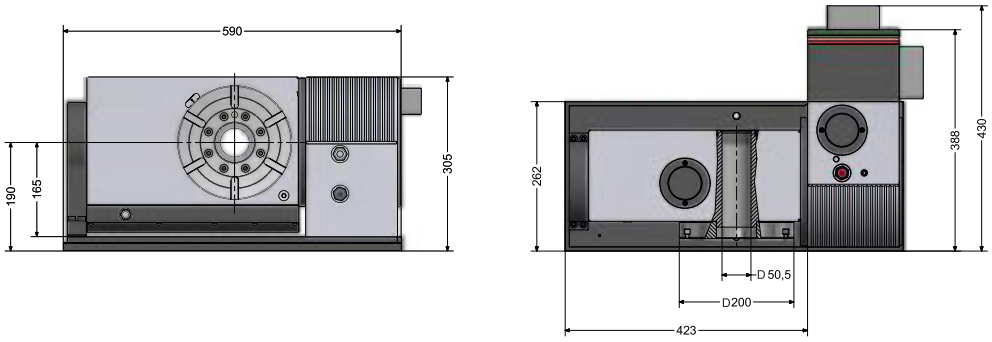
Dati Tecnici / *Technical Data*		Unità *Unit*	-	*T5X200*		*T5X210*		*T5X271*		*T5X400*		-
				Rotary	Tilting	Rotary	Tilting	Rotary	Tilting	Rotary	Tilting	
Campo d'Inclinazione / *Tilting Range*		mm	-	-10° ~ +120°		-10° ~ +120°		-10° ~ +120°		-10° ~ +120°		-
Altezza Piano Tavola a 0° / *Table Height at 0°*		mm	-	290		290		315		370		-
Diametro Tavola / *Table Diameter*		mm	-	200		200		270		400		-
Scanalatura T / *T-Slot Width*		mm	-	12		12		n.6 x 12		14		-
Altezza Punte a 90° / *Center Height at 90°*		mm	-	190		190		230		260		-
D Centraggio / *Center Bore*		mm	-	70		70		90		130		-
D Foro Passante / *Through Bore D*		mm	-	50,5		50,5		71		130		-
Sistema Bloccaggio / *Clamping System*		-	-	Idraulico / *Hydraulic*		Idraulico / *Hydraulic*		Idraulico / *Hydraulic*		Idraulico / *Hydraulic*		-
Forza Frenante / *Clamping Torque*		N·m	-	1200	1500	1200	1500	1500	1800	3000	3500	-
Rapp. Vite/Corona / *Screw/Gear ratio*		-	-	1/90	1/120	1/90	1/120	1/90	1/120	1/120	1/120	-
Velocità Rotazione / *Rotation Speed*		rpm	-	20	30	20	30	30	20	20	10	-
Min. Incremento / *Min. Increment*		-	-	0,001°	0,001°	0,001°	0,001°	0,001°	0,001°	0,001°	0,001°	-
Precisione / *Indexing Accuracy*		arcsec	-	20	40	20	40	20	40	20	40	-
Motore / *Servo Motor*		min^{-1}	-	α4/3000	α4/2000	α4/3000	α4/2000	α4/5000	α4/3000	α4/5000	α12/3000	-
Encoder / *Encoder*		imp/rev	-	4000	3-18000	4000	3-18000	4000	3-18000	4000	3-1800	-
Max carico di lavoro applicabile sulla tavola *Max allowable work weight on the table*	0° - 30°	Kg	-	150		150		200		250		-
	30° - 90°	Kg	-	100		110		130		200		-
Max carico di spinta applicabile sulla tavola *Max thrust load allowable on the table*		N	-	13800		13800		16500		20000		-
		N·m	-	7200		7200		7900		8500		-
		N·m	-	3550		3550		4100		4000		-
		N·m	-	520		520		590		900		-
Massima Inerzia *Max Work Inertia*	Verticale *Vertical*	$Kg·m^2$	-	0,5		0,5		0,5		3,5		-
Coppia di Lavoro *Driving Torque*	Corona Dentata *Worm Gear*	N·m	-	180	240	180	240	180	240	300	330	-
Peso Netto / *Net Weight*		Kg	-	130		190		360		130		-

BF SERVICE

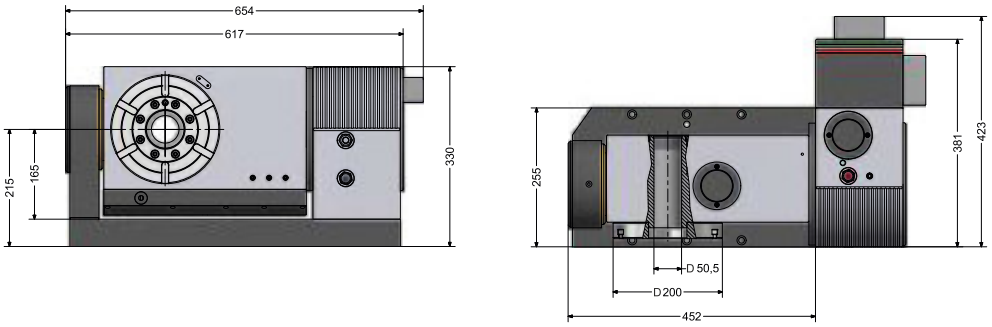
T5X - 4°- 5° Asse

Disegni Tecnici e Dimensioni / *Technical Drawing and Size*

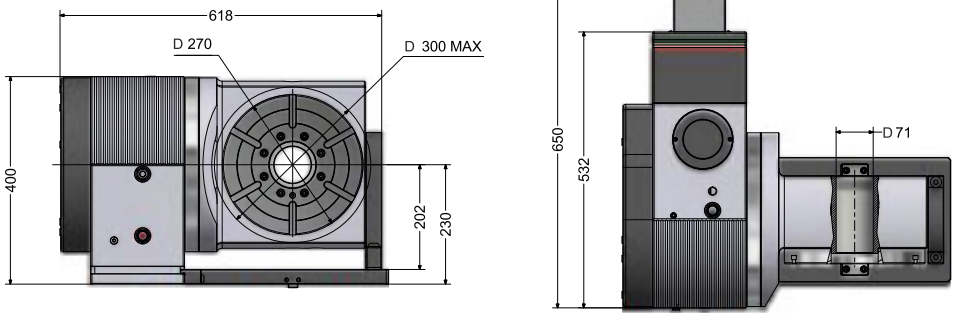
T5X200



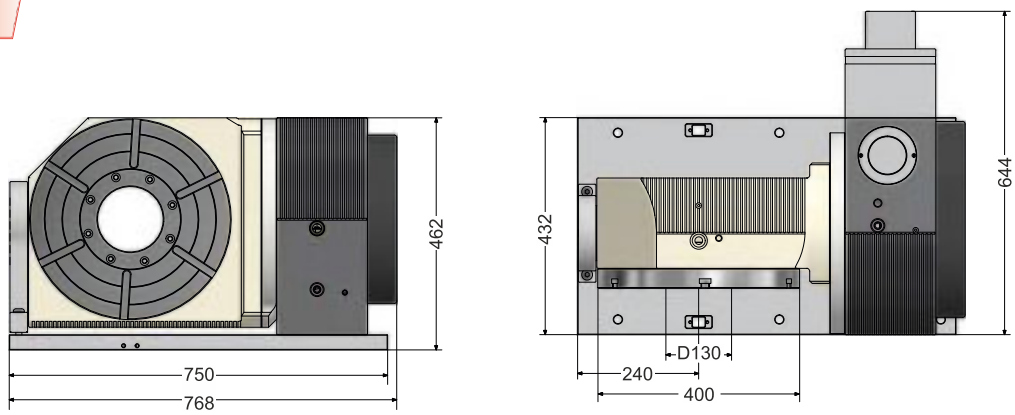
T5X210



T5X271



T5X400



BF SERVICE

T5X207 - 4°- 5° Asse Direct Drive

4th-5th Axis Direct Drive

Caratteristiche / *Features*

- ***Foro Passante*** *Through Bore*
- ***Direct Drive*** *Direct Drive*
- ***Alta Velocità*** *High Speed*
- ***Blocc. Pneumatico*** *Pneumatic Brake*
- ***Encoder Assoluti*** *Encoder Assoluti*
- ***Salva Spazio*** *Space Saver*

HP HQ



Dati Tecnici / *Technical Data*	Unità *Unit*	Rotary	Tilting
Campo d'Inclinazione / *Tilting Range*	mm	-120° ~ +120°	
Altezza Piano Tavola a 0° / *Table Height at 0°*	mm	280	
Diametro Tavola / *Table Diameter*	mm	200	
Scanalatura T / *T-Slot Width*	mm	12	
Altezza Punte a 90° / *Center Height at 90°*	mm	190	
D Centraggio / *Center Bore*	mm	70	
D Foro Passante / *Through Bore D*	mm	51	
Sistema Bloccaggio / *Clamping System*	-	Pneumatico/Pneumatic	
Forza Frenante / *Clamping Torque*	N·m	500	750
Velocità Rotazione / *Rotation Speed*	min	200	150
Min. Incremento / *Min. Increment*	-	0,001°	0,001°
Precisione / *Indexing Accuracy*	arcsec	10	10
Motore / *Servo Motor*	min	DiS 60/400	DiS 70/300
Encoder / *Encoder*	imp/rev	αICZ 512A	
Peso Netto / *Net Weight*	Kg	120	

Dati Tecnici *Technical Data*	Unità *Unit*	Posizione / *Position*	Rotary	Tilting
Max carico di lavoro applicabile sulla tavola *Max allowable work weight on the table*	Kg	0° - 30°	75	
	Kg	30° - 90°	50	
Max carico di spinta applicabile sulla tavola *Max thrust load allowable on the table*	N		6900	
	N·m		3600	
	N·m		1775	
	N·m		260	
Massima Inerzia *Max Work Inertia*	Kg·m²	Verticale *Vertical*	0,5	
Coppia di Lavoro *Driving Torque*	N·m		130	160

T5X207 - 4°- 5° Asse Direct Drive

4th-5th Axis Direct Drive

SR-KWS20 – Sistema di Raffreddamento Tavole - *Rotary Table Cooling System*





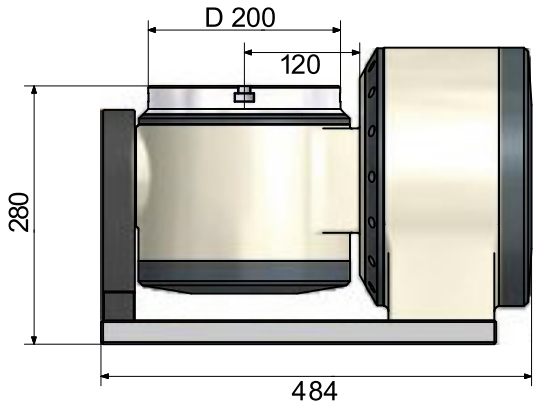
Elevate potenze di raffreddamento in dimensioni ridotte
High cooling power and small size

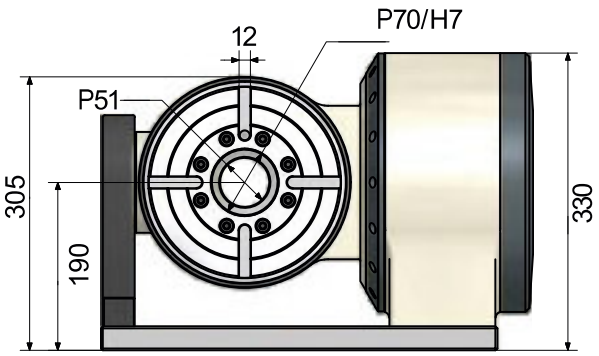
Esenti da manutenzione ordinaria
No ordinary mantenance

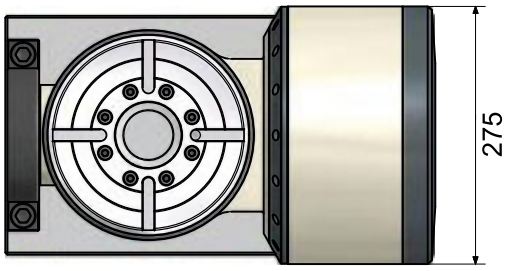
Temperatura costante anche con elevate velocità di rotazione
Constant temperature even with high rotation speed

T5X207

Disegni Tecnici e Dimensioni / *Technical Drawing and Size*







BF SERVICE

Zero Point System

Lo ***ZERO POINT*** è un sistema di posizionamento ed ancoraggio istantaneo che permette il corretto set-up e il bloccaggio immediato dei dispositivi.

ZERO POINT is a positioning and instant anchor system, that allows all fixtures immediate proper set-up.



Caratteristiche / *Features*

- Notevole diminuzione dei tempi di preparazione della macchina
  Decrease machine set-up times
- Miglioramento della produzione
  Production optimization
- Risparmio sulle attrezzature
  Saving of fixtures
- Attivazione immediata
  Immediate start-up

Preciso, Rapido, Sicuro

Accurate, Quickset and Safe Positioning

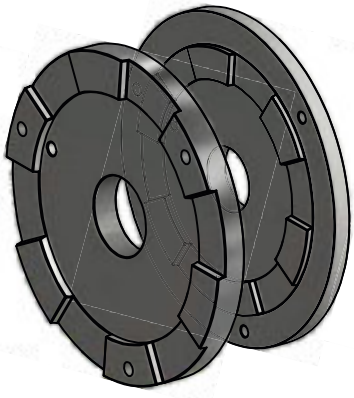


ZPS...00
Flangia Att. Base
Basic Holder Flange



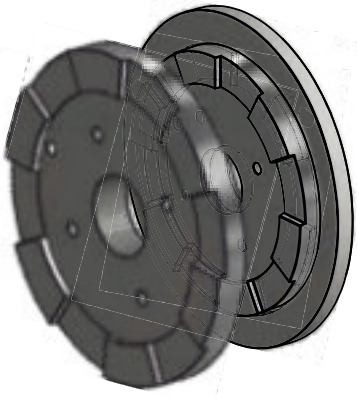
ZPS...01
Flangia Neutra
Neutral Flange

ZPS...02
Flangia Neutra Maggiorata
Neutral Bigger Flange



ZPS...03
Flangia per Autocentrante
Flange for Chuck

ZPS...04
Flangia per Autocentrante Magg.
Flange for Bigger Chuck

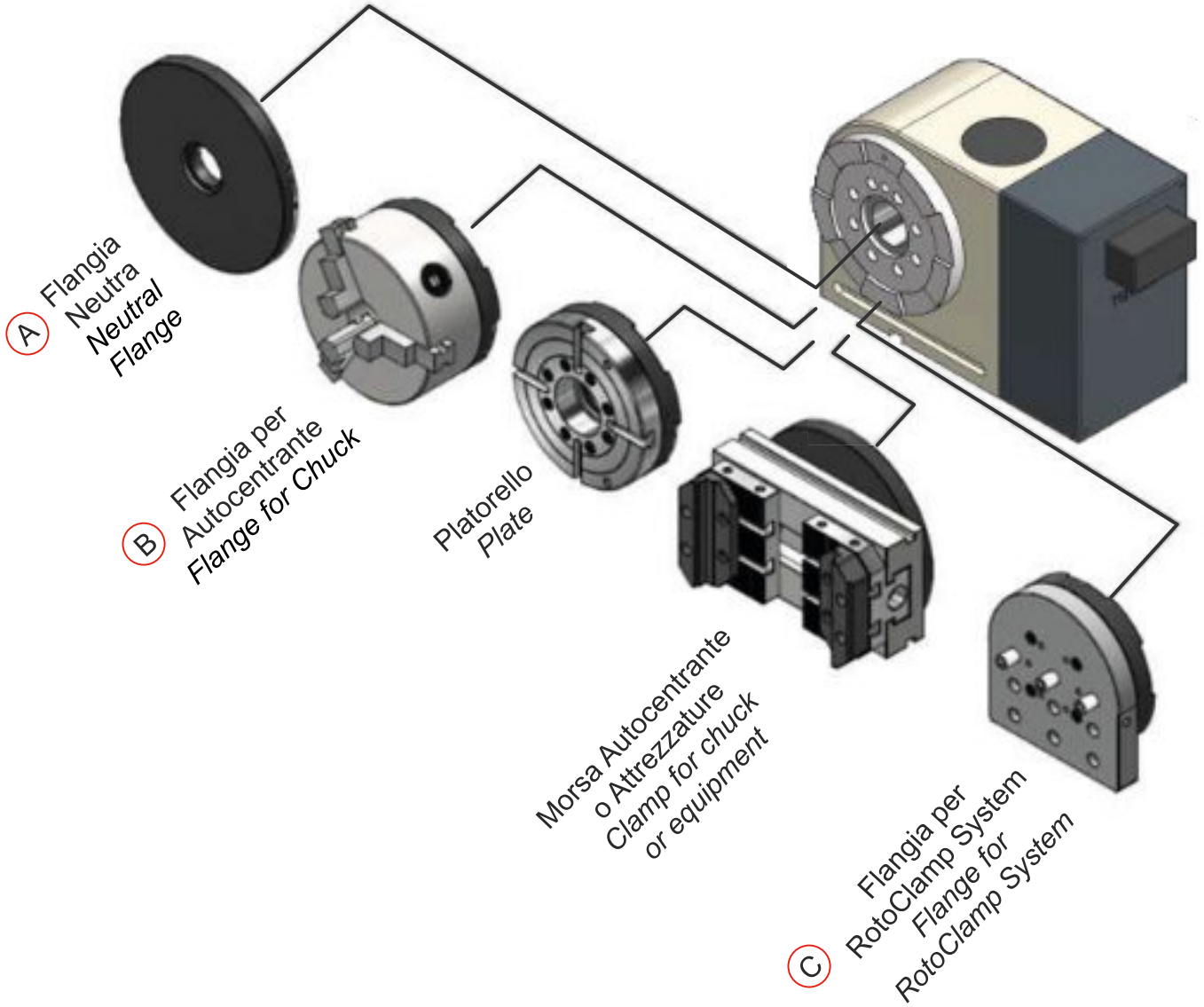


ZPS...05
Flangia per RotoClamp
Flange for RotoClamp

ZPS...06
Flangia per RotoClamp Magg.
Flange for Bigger RotoClamp

Zero Point System

Possibili Soluzioni / *Possible Solutions*



A

ZPS...-01 - Flangia Neutra / *Neutral Flange*
Ø 200-250-300

ZPS...-02 - Flangia Neutra Maggiorata / *Neutral Bigger Flange*
Ø 200-250-320

B

ZPS 200-03 - Flangia per Autocentrante
Flange for Chuck
Ø 200-250-320

ZPS 200-04 Flangia per Autocentrante Maggiorato
Flange for Bigger Chuck
Ø 200-250-320

C

ZPS...-05 - Flangia per RotoClamp System
Flange for RotoClamp System
Ø 200-250-320

ZPS...-06 - Flangia per RotoClamp System Maggiorato
Flange for bigger RotoClamp System
Ø 200-250-320

BF SERVICE

RotoClamp System

Il ***ROTOCLAMP SYSTEM*** by Comand offre soluzioni per ogni tipo di applicazione
The ROTOCLAMP SYSTEM offers solutions for every type of application

- Standard di massima qualità
- *Maximum quality standards*

- Possibilità di cambio rapido delle piastre base in meno di 30 secondi
- *Possibility of quick change of base plates in less than 30 seconds*

- Ripetibilità del posizionamento in ± 0,02 mm
- *Repeatability of positioning ± 0,02 mm*

- Sistema di bloccaggio piastre base con viti speciali CAMLOCK
- *Locking system of the base plate with CAMLOCK special screws*

- Possibilità di posizionamento delle piastre base su 3 livelli
- *Possibility for placement of the plates base on 3 levels*

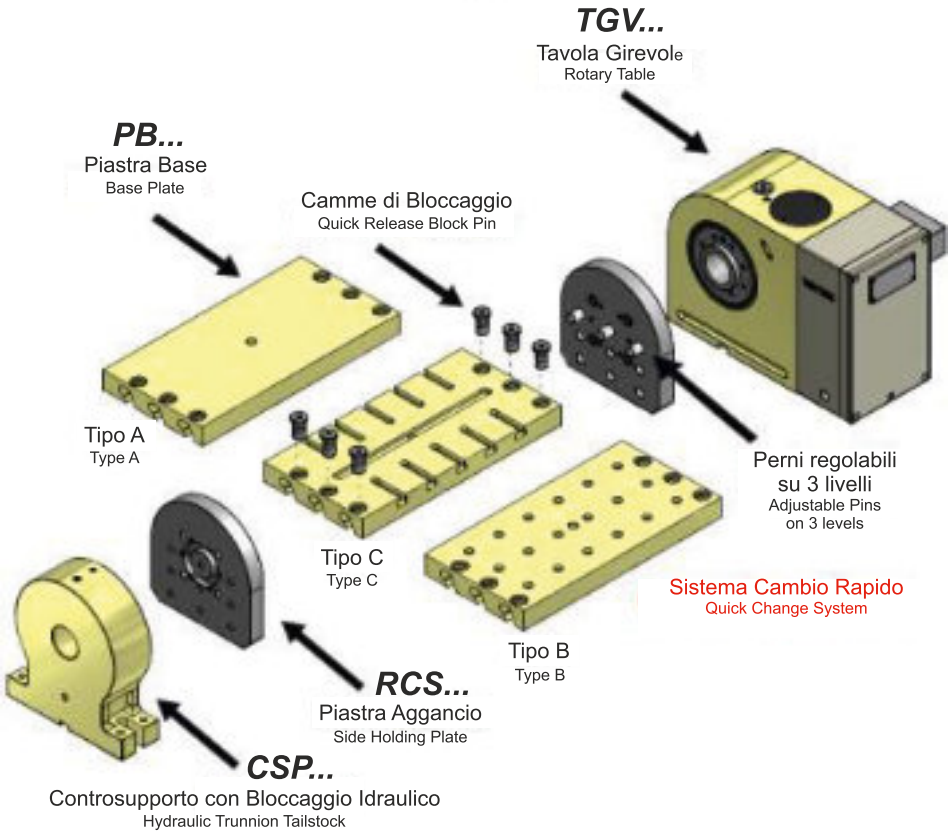


- Impianto frenante idraulico sia sulla tavola sia sul controsupporto
- *Hydraulic brake system on both sides*

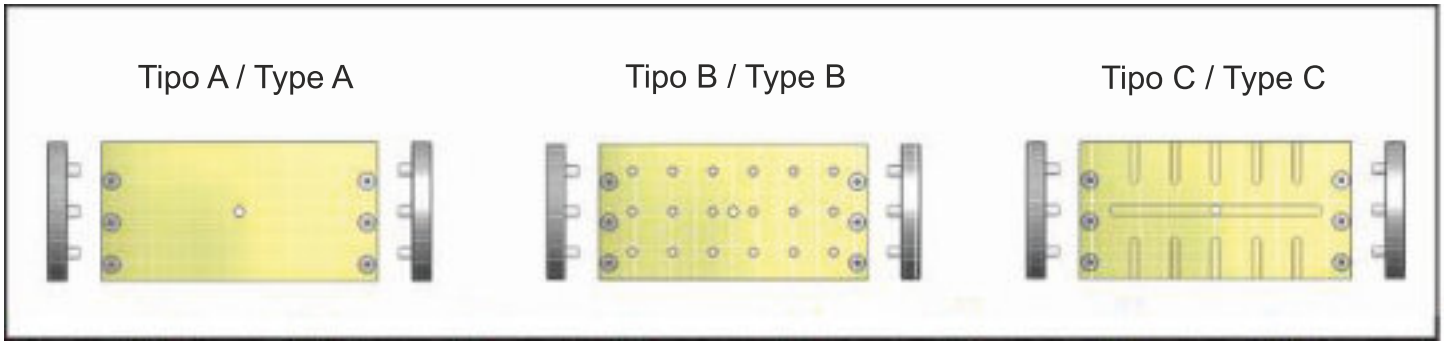
- Possibilità di collegare direttamente la tavola alla macchina utensile
- *Possibility to connect directly the rotary table to the machine tool*

- Possibilità di collegare la tavola con il controllo CN con funzione M
- *Possibility to connect the rotary table with the CN control by "M Function"*

- Possibilità di richiedere Sotto Piastra con lunghezze speciali
- *Possibility to request under plate with special lengths*



Esempi di utilizzo / *Examples of use*



Magnetic System

Il ***MAGNETIC SYSTEM*** *by Comand* è stato sviluppato agli inizi degli anni 2000 per risolvere il problema delle lavorazioni di lame per cesoie. Questo sistema garantisce la possibilità di lavorare completamente le lame su 3 lati, con ottima asportazione truciolo e facilità di cambio pezzo. L'elevata forza di bloccaggio idraulica delle tavole, rende il sistema sicuro e con infinite possibilità di utilizzo. Le dimensioni del piano variano secondo le richieste del cliente e/o le esigenze di lavorazione

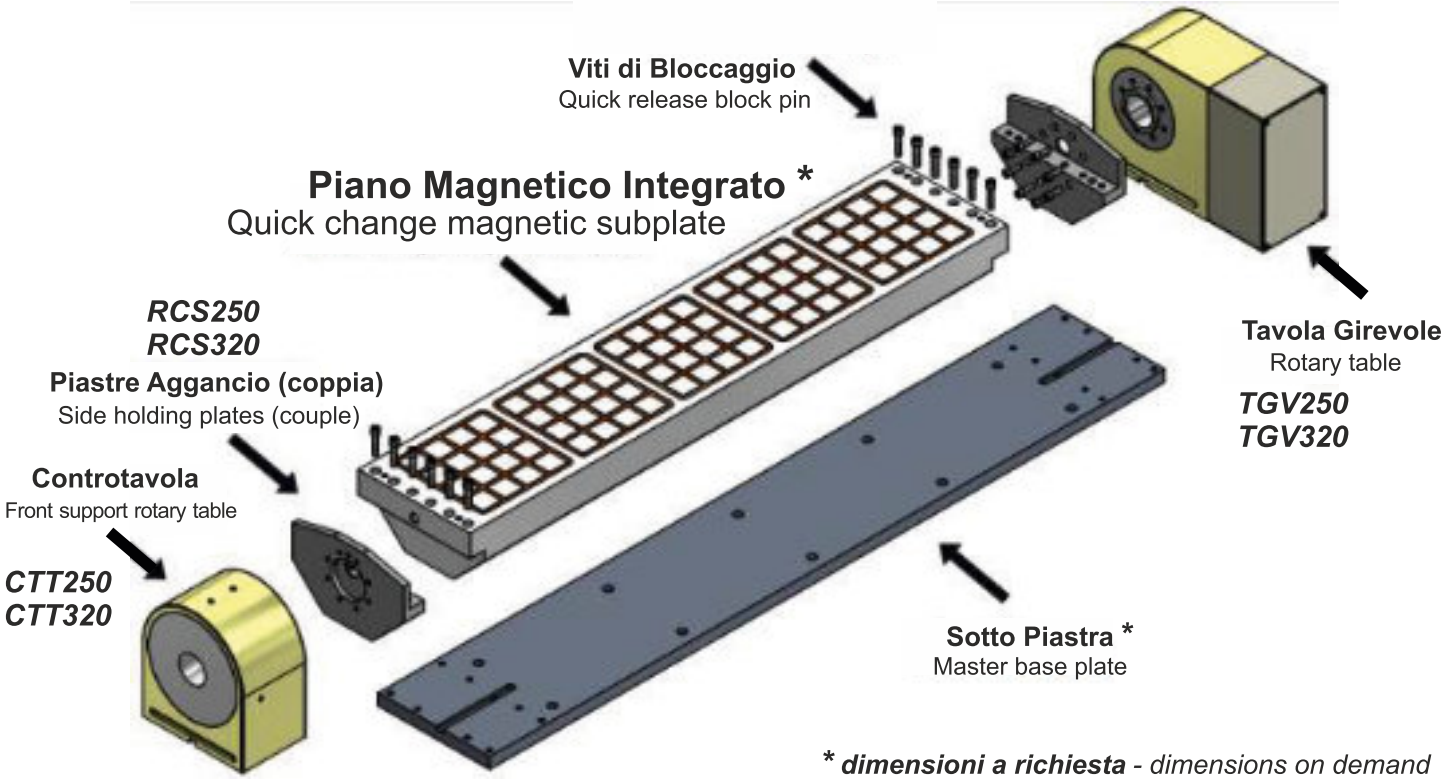
MAGNETIC SYSTEM by Comand was developed at the beginning of 2000 to find a solution to machine sheare blades. This system guarantee the possibility to machine the blades on three faces with excellent chipbreaker remuval and quick change of the piece. The high hydraluic locking power of the rotary table makes this system safe and gives endless possibilities of employment. The dimensions of the Magnetic System change according to the requests of the customer and/or the processing requirements.

1ST



PRIMI AL MONDO
FIRST IN THE WORLD





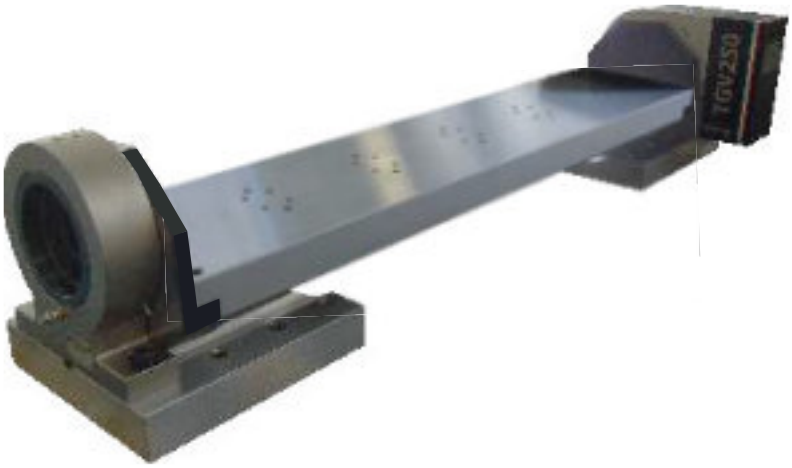
* ***dimensioni a richiesta*** - *dimensions on demand*

BF SERVICE

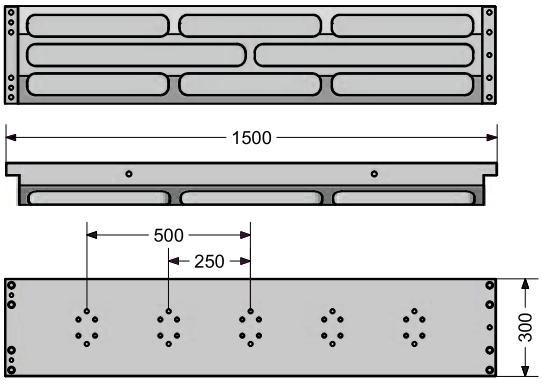
Mobile Plate System

Il ***MOBILE PLATE SYSTEM*** conferisce notevoli vantaggi in fase di lavorazione:
1- Possibilità di lavorare i pezzi su tre lati utilizzando più morse;
2- Elevata rigidità grazie al sistema di rafforzamento inferiore;
3- Dimensioni della piastra variabili in funzione dell'installazione della macchina utensile.
Le dimensioni del piano variano secondo le richieste del cliente e/o le esigenze di lavorazione.

The MOBILE PLATE SYSTEM gives significant advantages during the working phase:
1- Ability to work on parts on three sides using multiple clamps;
2- High rigidity thanks to strengthening lower;
3- plate dimensions variable according to the installation of the machine tool.
The size of the plane will vary according to the requests of the customer and / or the processing requirements.



Mobile Plate



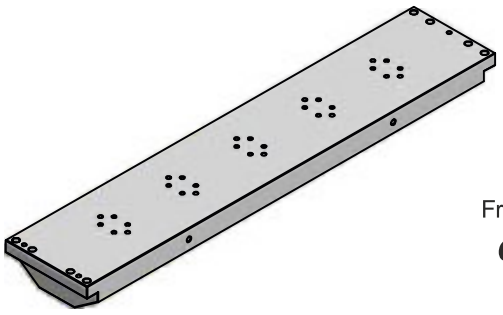


Tavola Girevole
Rotary table
TGV200
TGV250
TGV320

Morse (optional)
Clamps (optional)

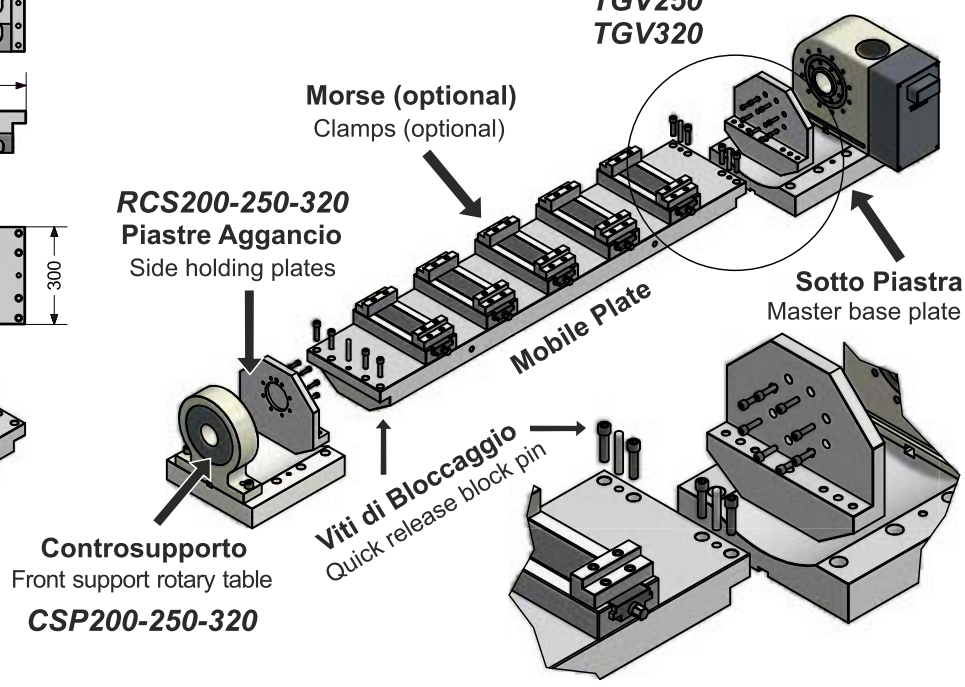
RCS200-250-320
Piastre Aggancio
Side holding plates

Sotto Piastra
Master base plate

Mobile Plate

Viti di Bloccaggio
Quick release block pin

Controsupporto
Front support rotary table
CSP200-250-320



Contropunte

Tailstock

CPM...

Contropunta Manuale / *Manual Tailstock*

con Regolazione Assiale / *Axial Control*





CPP...

Contropunta Pneumatica / *Pneumatic Tailstock*

con Regolazione Assiale / *Axial Control*





CPI...

Contropunta Idraulica / *Idraulic Tailstock*

con Regolazione Assiale / *Axial Control*





BF SERVICE

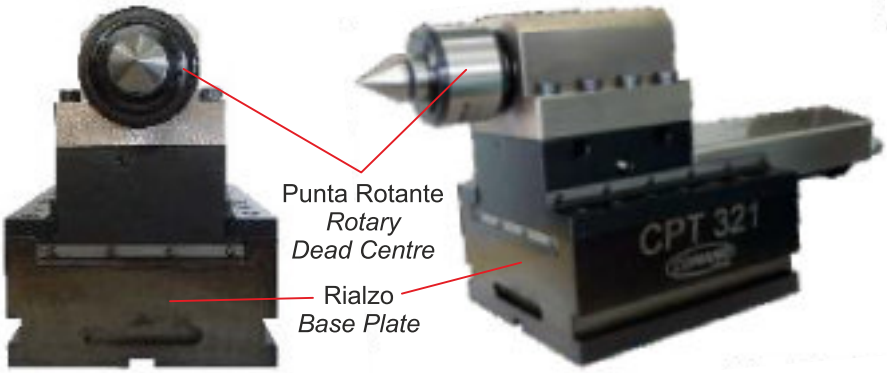
Contropunte Traslanti

Moving Tailstock

CPT...1

Contropunta Traslante Idraulica con Regolazione Assiale
Hydraulic Moving Tailstock with Axial Control





CPT...2

Contropunta Traslante Idraulica con Regolazione Assiale e Radiale
Hydraulic Moving Tailstock with Axial and Radial Control

Regolazione Radiale
Radial setting



Regolazione Assiale
Axial setting





CSP...

Controsupporto
Supports



CTT...

Controtavola
Supports



Note

Per maggiori informazioni sulle Tavole Girevoli Comand Tool richiedete il catalogo completo FASTABLE

For more information on Comand Tool's Rotary Table, please ask for the FASTABLE complete catalogue



BF SERVICE

Note

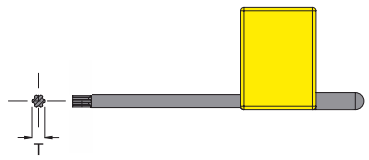
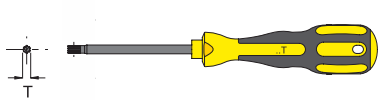
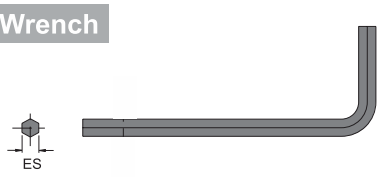
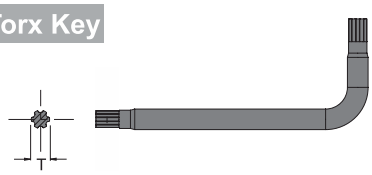
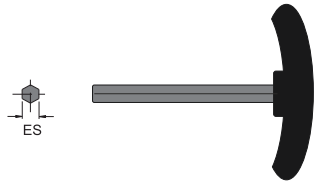
RICAMBI



Accessori e Ricambi
Accessories and Spare Parts
Accessoires et Rechange
Zubehör und Ersatzteile
Accessorios y Repuestos

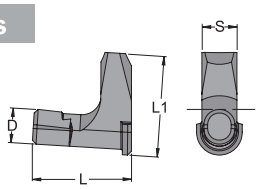
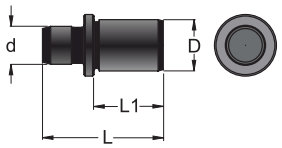
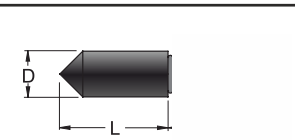
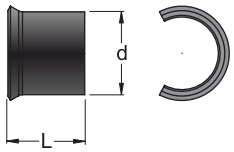
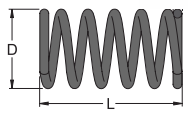
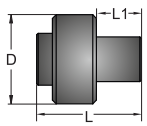
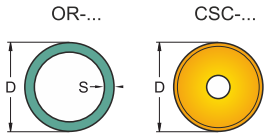
Accessori

Accessories
Accessoires
Zubehör
Accesorios

Accessori *Accessories*	**Codice** *Code*	**Descrizione** *Description*	**T**	**ES**	
Flag Key 	BTX06	Bandierina Torx 06	06		
	BTX07	Bandierina Torx 07	07		
	BTX08	Bandierina Torx 08	08		
	BTX10	Bandierina Torx 10	10		
	BTX15	Bandierina Torx 15	15		
	BTX20	Bandierina Torx 20	20		
	BTX30	Bandierina Torx 30	30		
Screw 	CTX06	Cacciavite Torx 06	06		
	CTX07	Cacciavite Torx 07	07		
	CTX08	Cacciavite Torx 08	08		
	CTX10	Cacciavite Torx 10	10		
	CTX15	Cacciavite Torx 15	15		
	CTX20	Cacciavite Torx 20	20		
	CTX25	Cacciavite Torx 25	25		
	CTX30	Cacciavite Torx 30	30		
Wrench 	CBR25	Chiave Brugola 2.5		2.5	
	CBR30	Chiave Brugola 3.0		3.0	
	CBR40	Chiave Brugola 4.0		4.0	
	CBR50	Chiave Brugola 5.0		5.0	
	CBR60	Chiave Brugola 6.0		6.0	
Torx Key 	CLTX30	Chiave per Cartucce Torx 30	30		
	CLT5	Chiave Lame Fastcut			
Wrench 	CET05	Chiave Bloccaggio Mandrini PC1		5.0	
	CET06	Chiave Bloccaggio Mandrini PC2		6.0	

Ricambi

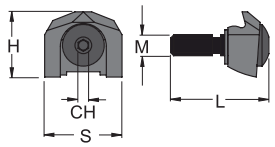
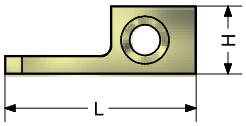
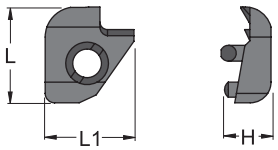
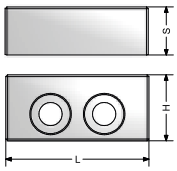
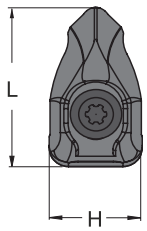
Spare Parts
Rechange
Ersatzteile
Repuestos

Ricambi *Spare Parts*	**Codice** *Code*	**Descrizione** *Description*	**L**	**L1**	**S**	**D**	
Levers 	LV00	LEVA per A20Q PC..09	8.1	06	06	06	
	LV01	LEVA per PC..09	11.9	07	07	07	
	LV02	LEVA per PC..12	12.8	08	08	08	
	LV05	LEVA per PC..15	14.5	10	10	10	
	LV06	LEVA per PC..16	16.8	15	15	15	
	LV09	LEVA per PC..19	21.0	20	20	20	
	LV25	LEVA per PC/PS..25	25.0	26	08	08	
Pins 	**Codice**	**Descrizione**	**D**	**d**	**L**	**L1**	
	P0500	PERNO per A25R MTFNR/L16	5.0	3.6	10.2	5.3	
	P0501	PERNO per MT..16 Torn.Int.	5.0	3.6	12.5	8.0	
	P0502	PERNO per MT..16 Torn.Est.	5.0	3.6	16.3	11	
	P0601	PERNO per A25R MWLNR/L08	6.0	5.0	14.0	7.6	
	P0602	PERNO per MW..08	6.0	5.0	15.0	9.5	
	SC510	SPINA per CK	5.0	-	10.0	19	
Springs 	S311	Spina per CK	-	3.3	11.8	-	
	S535	Spina per PC 09	-	5.3	5.5	-	
	S635	Spina per PC..12/PD..15	-	7.0	6.0	-	
	S840	Spina per PC..16	-	8.2	9.1	-	
	S990	Spina per PC..19	-	10.3	11.0	-	
	S1225	Spina per PC..25	-	13.5	12.0	-	
	M428	Molla per Staffa per CK	9.3	-	21.5	-	
	M6210	Molla per Staffa serie D	7.5	-	10.0	-	
	M8520	Molla per Staffa serie D..19	8.5	-	20.0	-	
Centering 	DM-05-000	Perno Centraggio per Testine CS40	13	6	-	12	
O-Ring 	OR-CS40	O-Ring per Testine CS40	-	-	-	11	
	CSC72	O-Ring per Testine CS20	-	-	-	7	
	CSC83	O-Ring per Corpi Modulari	-	-	-	8	
	OR-Set *(2 pcs)*	O-Ring per ACQUASTREAM	-	-	1,7	9 / 11	

BF SERVICE

Ricambi

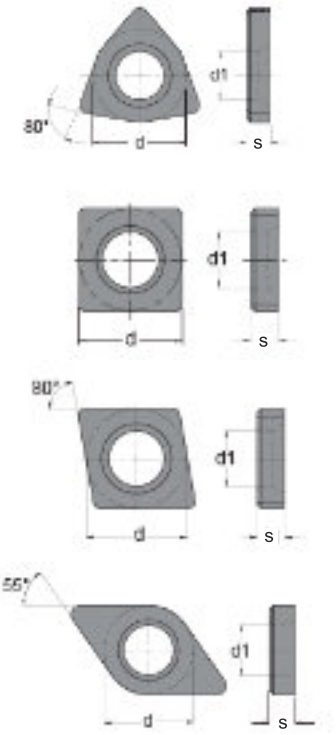
Spare Parts
Rechange
Ersatzteile
Repuestos

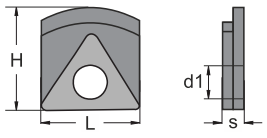
Ricambi *Spare Parts*	**Codice** *Code*	**Descrizione** *Description*	**M**	**L**	**S**	**H**	**CH**
Brackets 	C6016N	STAFFA per MT..16	5.0	24.0	18.0	15.2	2.5
	C8008N	STAFFA per MW..08	6.0	23.0	18.0	17.5	3.0
	STFGEL3	STAFFA per FCGEL per CGN3	-	29	7.0	10	-
	STFGER3	STAFFA per FCGER per CGN3	-	29	7.0	10	-
	STFGEL4	STAFFA per FCGEL per CGN4	-	36	7.0	10	-
	STFGER4	STAFFA per FCGER per CGN4	-	36	7.0	10	-
	STFGEL5	STAFFA per FCGEL per CGN5	-	42	7.0	10	-
	STFGER5	STAFFA per FCGER per CGN5	-	42	7.0	10	-
	CKN16L	STAFFA per CK Sx.	-	11.8	23.0	25.4	-
	CKN16R	STAFFA per CK Dx.	-	11.8	23.0	25.4	-
	STL19	STAFFA PORTALAMA PLC..19	-	35	14	16	-
	STL26	STAFFA PORTALAMA PLC..26	-	40	14	18	-
	STL2616	STAFFA PORTALAMA PLC..26-16	-	35	14	18	-
	STL32	STAFFA PORTALAMA PLC..32	-	50	14	18	-
	DT01N	STAFFA per DC..12		27.0		12.5	
	DT02N	STAFFA per DD..15		31.5		12.5	
	DT03N	STAFFA per DT..16		23.5		12.5	
	DT04N	STAFFA per DC..19		31.5		12.5	
	DT05R/L	STAFFA per WN..08		27.2		12.5	
	DT05N	STAFFA per CN..12		27.3		12.5	
	DT06N	STAFFA per DN..12		31.7		12.5	
	DT07R/L	STAFFA per TN..16		24.8		12.5	
	DT21R/L	STAFFA per WN..08 / CN..12 / TN..22		26.0		12.5	
	DT22R/L	STAFFA per DN..15		31.7		12.5	
	DT22N	STAFFA per DN..15		31.8		12.5	
	DT23R/L	STAFFA per TN..16		23.5		12.5	
	DT24R/L	STAFFA per 16 IR..		24.2		12.5	

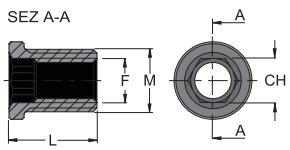
BF SERVICE

Ricambi

Spare Parts
Rechange
Ersatzteile
Repuestos

Ricambi *Spare Parts*	**Codice** *Code*	**Descrizione** *Description*	**d**	**s**	**d1**		
Seats 	S3516P	SUPPORTO per SV	8.4	3.18	5.6		
	S5511P	SUPPORTO per SD	8.4	3.18	5.6		
	S5515D	SUPPORTO per DD..15	12.45	3.18	7.1		
	S5515N	SUPPORTO per PD	11.8	3.18	6.6		
	S6016D	SUPPORTO per DT..16	9.6	3.18	3.8		
	S6016N	SUPPORTO per PT	8.9	3.18	5.0		
	S6016P	SUPPORTO per MT-ST	8.4	3.18	5.6		
	S6016RL	SUPPORTO Filettatura Interna	9.3	3.18	5.6		
	S6022L	SUPPORTO Filettatura Int. Sx	12.4	4.76	6.4		
	S6022R	SUPPORTO Filettatura Int. Dx	12.4	4.76	6.4		
	S6022D	SUPPORTO per TN..22	12.4	4.76	6.4		
	S8008N	SUPPORTO per PW..08	12.5	3.18	6.6		
	S8008P	SUPPORTO per MW-DW..08	12.5	3.18	6.6		
	S8009N	SUPPORTO per PC..09	8.4	3.18	4.4		
	S8012N	SUPPORTO per PC..12	11.8	3.18	6.6		
	S8012P	SUPPORTO per SC-DC..12	11.4	3.18	6.6		
	S8016N	SUPPORTO per PC..16	14.6	4.76	8.05		
	S8019N	SUPPORTO per PC..19	18.0	4.76	9.75		
	S8025N	SUPPORTO per PC..25	25.3	6.35	12.9		
	S9012N	SUPPORTO per PS..12	11.8	3.18	6.6		
	S9012P	SUPPORTO per SS-DS..12	11.4	3.18	6.6		
	S9019N	SUPPORTO per PS..19	18.0	4.76	9.75		
	S9025N	SUPPORTO per PS..19	24.3	6.35	12.9		
	SKN16L	SUPPORTO per CKJNL	14.5	4.76	3.3		
	SKN16R	SUPPORTO per CKJNR	14.5	4.76	3.3		
	SP8212	SUPPORTO per M82	10.25	3.18	4.2		
	SP13213	SUPPORTO per M 132	10.3	3.18	5.6		

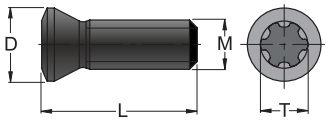
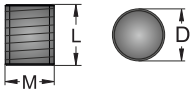
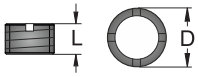
Cartridge 	**Codice**	**Descrizione**	**H**	**L**	**d1**	**s**	
	CR-T11	CARTUCCIA REGOLABILE SRT...	12.80	11.0	3.0	3.0	
	CR-T16	CARTUCCIA REGOLABILE SRT...	19.45	16.10	4.60	4.80	

Bushes 	**Codice**	**Descrizione**	**F**	**M**	**L**	**CH**	
	B0509	VITE SUPPORTO per SD-ST-SV	3.5 x 0.60	M5x0.5	9.0	3.5	
	B0609	VITE SUPPORTO per SC-SS	4.0 x 0.50	M6x0.75	9.0	4.0	

BF SERVICE

Ricambi

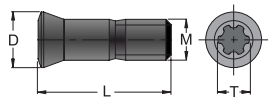
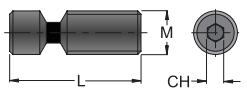
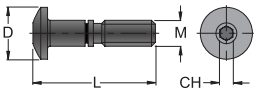
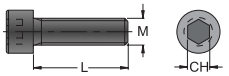
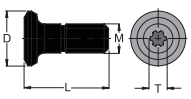
Spare Parts
Rechange
Ersatzteile
Repuestos

Ricambi *Spare Parts*	**Codice** *Code*	**Descrizione** *Description*	**D**	**M**	**L**	**Torx**	
Screw 	TX2005	VITE per FASTDRILL LC..05	2.8	M2	4.5	6	
	TX2206	VITE per SB08/09	3.0	M2.2	4.5	6	
	TX2207	VITE per FASTDRILL LC..07	3.1	M2.2	5.8	7	
	TX2505	VITE per Minibar	3.6	M2.5	6.0	8	
	TX2506	VITE per SB / FASTMILL / SRT	3.6	M2.5	5.2	8	
	TX2507	VITE FASTMILL	3.7	M2.5	6.9	8	
	TX3007	VITE per SB / FASTDRILL WC..05	4.1	M3.0	7.0	8	
	TX3503	VITE per MD...-04	5.0	M3.5	3.0	7	
	TX3504	VITE per MD...-05	5.1	M3.5	3.5	7	
	TX3508	VITE per FASTDRILL WC..06	4.8	M3.5	8.4	10	
	TX3509	VITE per FASTDRILL e DABtool	5.1	M3.5	8.8	15	
	TX3511	VITE INSERTO per SD-ST-SV	5.5	M3.5	10.4	15	
	TX3513	VITE INSERTO per SD-ST-SV	5.5	M3.5	13.6	15	
	TX4005	VITE per MD...-06	6.2	M4.0	5.2	15	
	TX4006	VITE per ADL..M82	5.0	M4.0	6.6	15	
	TX4007	VITE per MD...-07/08 / SRT	6.3	M4.0	6.3	15	
	TX4008	VITE per MD...-10/14	6.3	M4.0	8.0	15	
	TX4008D	VITE per D60X...	5.6	M4.0	7.7	15	
	TX4009	VITE per ADL15-RP12	5.0	M4.0	9.5	15	
	TX4010	VITE per APK16/ADK15/WC08/SRT	5.4	M4.0	10	15	
	TX4011	VITE per MD...-12	6.3	M4.0	10.7	15	
	TX4014	VITE per SC-SS	6.8	MB4.0	14	15	
	TX4016	VITE STAFFA per FGC..	6.8	M4.0	16	15	
	TX5011	VITE per M72	6.4	M4.0	10.8	20	
	TX5013	VITE per SRT	6.5	M5.0	13	20	
	TXST3507	VITE per RDHW12	5.1	M4.0	6.8	15	
	TXST4511	VITE per M152	10.7	M4.5	11	20	
	TX2005D	VITE per DWKC	2.8	M2.0	4.7	6	
	TX5010D	VITE per D60X	7.3	M5.0	10	20	
	TX6025	VITE per Cartucce	10	M6.0	25	30	
	TX4012	VITE per M24..	5.4	M4.0	12	15	
	TX1804	VITE per M300	2.4	M1.8	4.09	6	
Socket Screw 	GR0620	VITE SENZA TESTA per CS40	6.0	M6.0	20	-	
	GR80	VITE SENZA TESTA per RDS	12.0	M12.0	20	-	
Locking Sphere 	BS13989	VITE BLOCCA SFERA	12	-	4.5	-	
Through Coolant Sphere 	SF13990	SFERA REFRIGERAZIONE	10	-	-	-	

BF SERVICE

Ricambi

Spare Parts
Rechange
Ersatzteile
Repuestos

Ricambi *Spare Parts*	**Codice** *Code*	**Descrizione** *Description*	**D**	**M**	**L**	**Torx**	**CH**
	TX2506D	VITE per SLOT	3.5	M2.5	6.0	7	
Screw	TX2507A	VITE per CPH08	3.1	2.5x0.4	6.3	6	
	TX3007R	VITE per CWR08	4.3	3.0x0.5	7	6	
	TX3008A	VITE per CPH10	4.6	3.0x0.5	8	7	
	TX3509A	VITE per CPH12	4.6	3.5x0.5	10	10	
	TX4008R	VITE per CWR10	5.8	4.0x0.5	9	15	
	TX4013A	VITE per CPH16	5.8	4.0x0.7	13	15	
	TX5009R	VITE per CWR12	6.6	5.0x0.5	9	20	
	TX5012R	VITE per CWR16	7.5	5.0x0.5	12	20	
	TX5015R	VITE per CWR20	7.5	5.0x0.5	15	20	
	TX5016A	VITE per CPH20	7.0	5.0x0.8	16	20	
	TX6020A	VITE per CPH25	8.0	6.0x1.0	21	30	
	TX6020R	VITE per CWR25	9.5	6.0x0.75	21	30	
	TX8025A	VITE per CPH32	12	8.0x0.75	26	30	
	TX8025R	VITE per CWR32	12	8.0x0.75	26	30	
	V0501	VITE per A20Q PCLNR/L 09		5x1	12		2.0
	V0601	VITE per PC..09		6x1	16		2.5
	V0801	VITE per PC..12		8x1	19		3.0
	V0802	VITE per PC..12/16		8x1	21		3.0
	V0805	VITE per PD..15		8x1	21		3.0
	V1019	VITE per PS..19		10x1	27		4.0
	V1225	VITE per PS..25		12x1	37		5.0
	V60CK	VITE per CK..16	10	M6.0	30		4.0
	V6016	VITE per MT..16	10	M5.0	24		2.5
	V6017	VITE per Testine *DABtool* Tipo D	12	M6.0	21		-
	V6020	VITE per Ut. Tipo D	10	M6.0	25		3.0
	V8008	VITE per MW..08	10	M6.0	23		3.0
	V8040	VITE per Ut. Tipo D..19	13.5	M8.0	40		5.0
	VB0308	VITE per *DABtool* CS20		M3.0	8		-
	VB0518	VITE per CS40-CIGR/L		M5.0	18		-
	VB0612	VITE per *DABtool* CS40		M6.0	12		-
	VB0616	VITE per CEQRL/L		M6.0	16		4.0
	VB0620	VITE per CEGR/L		M6.0	20		4.0
	VB0820	VITE per CHM/CPM		M8.0	20		5.0
	VB282	VITE BLOCCAGGIO M282D50		M10.0	26		-
	VB312	VITE PERNO per MT..25/32	5.5	M3.0	12		2.0
	VB306	VITE PERNO per MT..20	5.5	M3.0	6		2.0
	VB8022	VITE per M82	13	8x1L	23		4.0
	VD0308	VITE per Ut. Tipo DT	6.5	M3.0	8		3.0
	VD0408	VITE per Ut. Tipo D	7.5	M4.0	8		3.0
	VD0408B	VITE per Ut. Tipo D	7.5	M4.0	8		3.0

BF SERVICE

NEW !!!!



90°

NEW !!!!

Customer benefits

- High precision 90° milling
- Economic solution:
  High chip volume on low power machines
  Reduced cost per cutting edge compared to current insert solutions. (APKT and ADKT)
- Reduced machining costs:
  Compared to APKT10: +20 % to +30 % in price
  Advantage: up to 35 % cost reduction per cutting edge!

Which geometry to use?



HCM
Strong cutting edge for general steel applications and hard conditions milling.



SCM
Sharp cutting edge for general stainless steel applications and for finishing in steels.



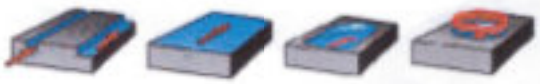
CCM
Strong cutting edge for cast iron applications.



LMM
Extremely sharp cutting edge for aluminum and non-ferrous metals.

Applications

1 Slot milling
2 Face milling
3 Shoulder milling



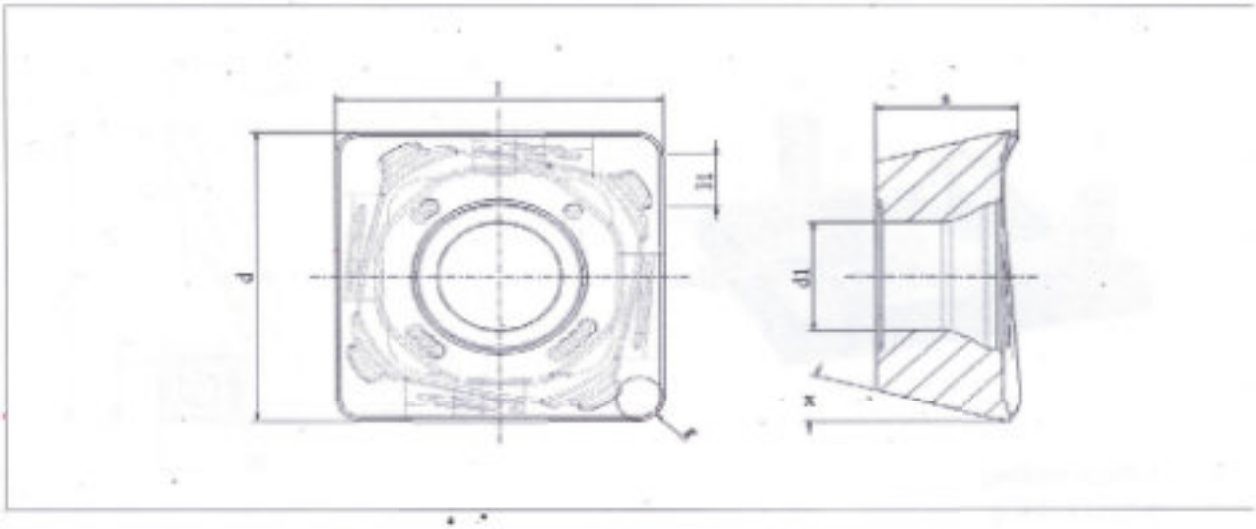
Chip grooves

HCM: Steel – Cast iron
SCM: Stainless steel – Exotic – Titanium
CCM: Cast iron
LMM: Aluminium and non-ferrous metals

4 effective cutting edges



BF SERVICE





-HCM



-SCM



-XCM



-LMM

Description	d [mm]	s [mm]	l1 [mm]	r1 [mm]	r2 [mm]	d1 [mm]	x [°]
SDKT 09T308SR-HCM	9	3.97	2.5	0.8	3.4	15	
SDKT 09T308SR-SCM							
SDKT 09T308SR-CCM							
SDHT 09T308FR-LMM							

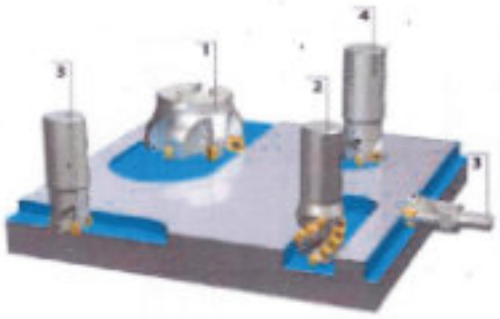
Available range SDKT09

Insert	Designation		Chipbreaker	Material number	Available
	SDKT 09T308SR-HCM **BFC23**		...-HCM	11979028	•
	SDKT 09T308SR-HCM **BFP035**		...-HCM	11979030	•
	SDKT 09T308SR-SCM **BPM24**	NEW	...-SCM	12251212	•
	SDKT 09T308SR-SCM **BFC523**		...-SCM	11584645	•
	SDKT 09T308SR-SCM **BFC524**		...-SCM	11710695	•
	SDKT 09T308SR-CCM **BFCK15N**	NEW	...-CCM	12193340	•
	SDHT 09T308FR-LMM **H216T** LEGHE LEGGERE		...-LMM	11713400	•

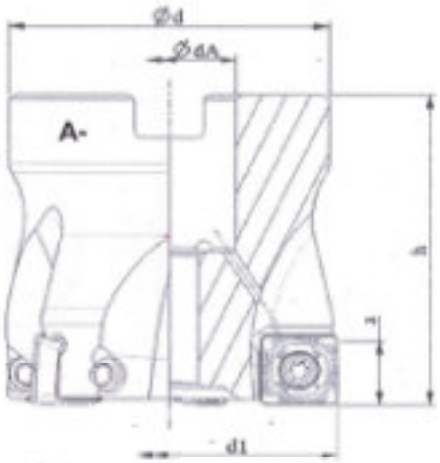
Body	Designation	ø Milling cutter	z	Material number	Available
	C-SSM-S09-25.R.03-B-32	25	3	11596014	•
	C-SSM-S09-32.R.04-B-40	32	4	11596009	•
	A-SSM-S09-40.R.05	40	5	11596010	•
	A-SSM-S09-50.R.06	50	6	11584233	•
	A-SSM-S09-63.R.07	63	7	11596011	•
	A-SSM-S09-80.R.09	80	9	11596013	•

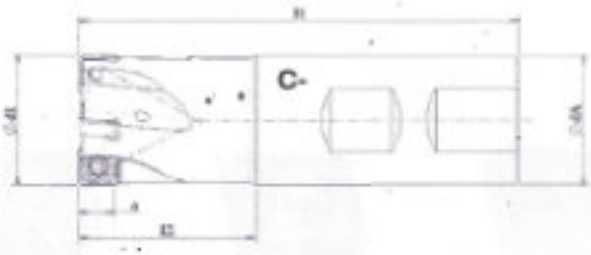
Spare parts	Designation	Material number	Available
	M3.0 x **B**	4010-M3X8	•
	Power screw M8.0 x 30.0 (7818267) only for A-SSM-S09-40.R.04	11036880	•

BF SERVICE



1-Face milling
2-Slot milling
3-Shoulder milling
4-Angled milling

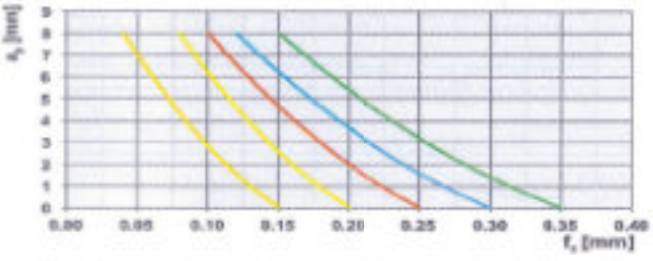


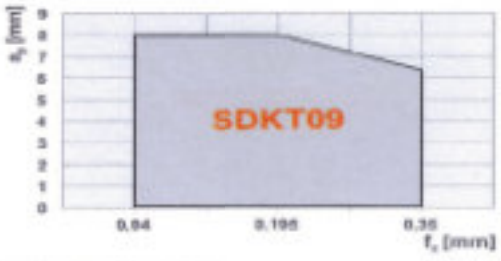


Description	d1 [mm]	l1 [mm]	l2 [mm]	h [mm]	d [mm]	dA [mm]	a [mm]	nmax [min-1]	z
C-SSM-S09-25.R.03-B	25	85	32	–	–	25	5	23700	3
C-SSM-S09-32.R.04-B	32	100	40	–	–	32		19700	4
A-SSM-S09-40.R.05	40	–	–	40	38	16		17000	5
A-SSM-S09-50.R.06	50	–	–	40	43	22		14800	6
-A-SSM-S09-63.R.07	63	–	–	40	48	22		12850	7
A-SSM-S09-80.R.09	80	–	–	50	58	27		11250	9

Cutting data SDKT09

Starting parameters:





Grades and materials:

Material group		Chipbreaker	Grade	Cutting data v_c [m/min]	f_n [mm]	a_p [mm]
P	Steel	HCM	BFC23 BFP035	220 – 60	0.12 – 0.3	8 – 0.05
M	Stainless steel	SCM	BPM24 BFC523	200 – 80	0.09 – 0.2	8 – 0.05
K	Cast iron	CCM	BFCK15N	320 – 100	0.1 – 0.25	8 – 0.05
N	Non-ferrous	LMM	H216T	< 2000	0.15 – 0.35	8 – 0.05
S	Heat resistant alloys	SCM	BFC523	75 – 25	0.04 – 0.15	8 – 0.05
S	Titanium	SCM	BFC524			

BF SERVICE

Tamponi lisci H7 "passa" e "non passa"

Grenzlehrdorne H7 "Gut" und "Ausschuss"

Limit plug gauges H7 "go" and "no go"

- Acciaio utensili temprato
- Precisione H7 (altre a richiesta)
- Conformità DIN 2245
- Vari set in cofanetti disponibili

- Gehärteter Lehrenstahl
- Passung H7 (andere auf Anfrage)
- Bauart nach DIN 2245
- Verschiedene Sätze im Koffer erhältlich

- Hardened tool steel
- Tolerance H7 (others on request)
- Conformity to DIN 2245
- Various sets in bag available



575.240

Codice N° / Bestell Nr. / Order Code	Ø mm / Ø mm / Ø mm
575.020	2
575.030	3
575.040	4
575.050	5
575.060	6
575.070	7
575.080	8
575.090	9
575.100	10
575.110	11
575.120	12
575.130	13
575.140	14

Codice N° / Bestell Nr. / Order Code	Ø mm / Ø mm / Ø mm
575.150	15
575.160	16
575.170	17
575.180	18
575.190	19
575.200	20
575.210	21
575.220	22
575.230	23
575.240	24
575.250	25
575.260	26
575.270	27

Codice N° / Bestell Nr. / Order Code	Ø mm / Ø mm / Ø mm
575.280	28
575.290	29
575.300	30
575.320	32
575.330	33
575.340	34
575.350	35
575.360	36
575.370	37
575.380	38
575.400	40
575.420	42
575.440	44

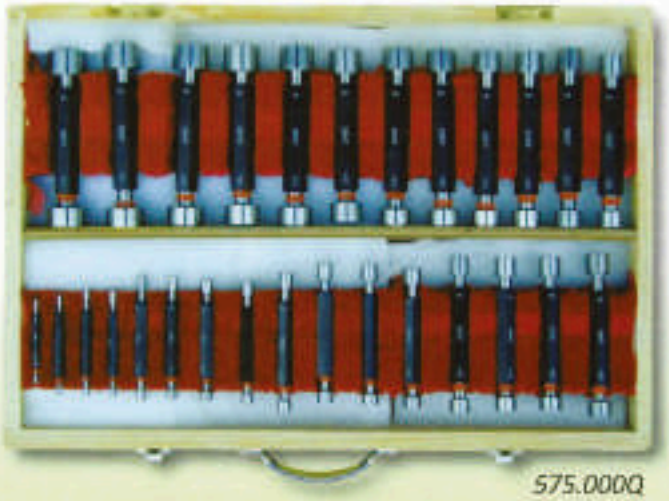
Codice N° / Bestell Nr. / Order Code	Ø mm / Ø mm / Ø mm
575.450	45
575.460	46
575.470	47
575.480	48
575.500	50
575.520	52
575.550	55
575.580	58
575.600	60
575.620	62
575.650	65
575.680	68
575.700	70

Codice N° / Bestell Nr. / Order Code	Ø mm / Ø mm / Ø mm
575.720	72
575.750	75
575.780	78
575.800	80
575.820	82
575.850	85
575.880	88
575.900	90
575.920	92
575.950	95
575.980	98
576.000	100



575.002

Codice N° / Bestell Nr. / Order Code	Pezzi / Stück / pieces	Misure tamponi / Grössen Grenzlehrdorne / Sizes limit plug gauges
	Astuccio plastica	
575.002	7	3 - 4 - 5 - 6 - 8 - 10 - 12



575.000Q

	Astuccio legno		
575.000Q	28	3 - 30	finitura extra

Confez. 28pz: 3-4-5-6-7-8-9-10-11-12-13-14-15 16-17-18-19-20-21-22-23-24-25-26-27-28-29-30

	Astuccio legno		
575.001Q	16	32 - 62	finitura extra

Confezione 16pz: 32-35-37-38-40-42 45-47-48-50-52-55-56-58-60-62

BF SERVICE

Anelli di azzeramento

Einstellringe
Setting rings

- Acciaio utensili temprato
- Conformità DIN 2250 forma C (>200)
- Precisione fino a 200 DIN 286 o JS 3
- Precisione oltre 200 DIN 286 o JS 4

- Gehärteter Lehrenstahl
- Bis 200 DIN 2250 Form C
- Genauigkeit bis 200 DIN 286 o JS 3
- Genauigkeit über 200 DIN 286 o JS 4

- Hardened tool steel
- Conformity DIN 2250 form C (>200)
- Precision up to 200 DIN 286 o JS 3
- Precision over 200 DIN 286 o JS 4



576.480

Incisione laser della misura millesimale esatta
Laserbeschriftet mit genauem Millimetermass
Laser incision with exact micron size

Codice N° Bestell Nr. Order Code	Ø mm Ø mm Ø mm
576.030	3
576.035	3,5
576.040	4
576.045	4,5
576.050	5
576.060	6
576.070	7
576.080	8
576.090	9
576.100	10
576.110	11
576.120	12
576.130	13
576.140	14
576.150	15
576.160	16
576.170	17
576.180	18
576.190	19
576.200	20

Codice N° Bestell Nr. Order Code	Ø mm Ø mm Ø mm
576.210	21
576.220	22
576.230	23
576.240	24
576.250	25
576.260	26
576.270	27
576.280	28
576.290	29
576.300	30
576.310	32
576.320	33
576.330	34
576.340	35
576.350	36
576.360	37
576.380	38
576.400	40
576.420	42
576.440	44

Codice N° Bestell Nr. Order Code	Ø mm Ø mm Ø mm
576.450	45
576.460	46
576.470	47
576.480	48
576.500	50
576.520	52
576.550	55
576.580	58
576.600	60
576.620	62
576.650	65
576.680	68
576.700	70
576.720	72
576.750	75
576.780	78
576.800	80
576.820	82
576.850	85
576.880	88

Codice N° Bestell Nr. Order Code	Ø mm Ø mm Ø mm
576.900	90
576.920	92
576.950	95
576.980	98
577.000	100
577.050	105
577.100	110
577.125	112,5
577.150	115
577.200	120
577.250	125
577.300	130
577.350	135
577.375	137,5
577.400	140
577.450	145
577.500	150
577.550	155
577.600	160
577.625	162,5

Codice N° Bestell Nr. Order Code	Ø mm Ø mm Ø mm
577.650	165
577.700	170
577.750	175
577.800	180
577.850	185
577.875	187,5
577.900	190
577.950	195
578.000	200
578.250	225
578.500	250
578.750	275
579.000	300
579.250	325
579.500	350
580.000	400

Vedi anche pagina 25 capitolo 4B anelli piccoli (per alesametri) Schwenk
Siehe auch Seite 25 Kapitel 4B kleine Ringe (für Innenmessgeräte) Schwenk
See also page 25 chapter 4B small rings (for bore gauges) Schwenk

Codice N° Bestell Nr. Order Code	Campo Messber. Range	Codice N° Bestell Nr. Order Code	Campo Messber. Range	Codice N° Bestell Nr. Order Code	Campo Messber. Range	Codice N° Bestell Nr. Order Code	Campo Messber. Range	Codice N° Bestell Nr. Order Code	Campo Messber. Range	Codice N° Bestell Nr. Order Code	Campo Messber. Range
Anelli di azzeramento (misure nominali) - Einstellringe (Nennmasse) - Setting rings (nominal sizes)													
533.501	1,00	533.507	2,00	533.513	3,50	533.519	6,00	533.525	9,00	533.531	15,00
533.502	1,10	533.508	2,25	533.514	3,75	533.520	6,50	533.526	10,00	533.532	16,00
533.503	1,20	533.509	2,50	533.515	4,00	533.521	7,00	533.527	11,00	533.533	17,00
533.504	1,30	533.510	2,75	533.516	4,50	533.522	7,50	533.528	12,00	533.534	18,00
533.505	1,40	533.511	3,00	533.517	5,00	533.523	8,00	533.529	13,00	533.535	19,00
533.506	1,75	533.512	3,25	533.518	5,50	533.524	8,50	533.530	14,00	533.536	20,00

Serie di anelli (stessa quantità dei tastini) sostituire 6 al relativo codice dell'alesametro (0,1,2)
Esempio: La serie completa di anelli per l'alesametro 533.206 da 4,15 a 12,50 con 13 testine diventa 533.606 con 13 anelli da 4,50 a 12,00

Tamponi filettati "p/np" passo grosso DIN 13

Gewinde-Grenzlehrdorne "Gut" und "Ausschuss" Grobgewinde DIN 13

Limit thread gauges "go" and "no go" rough thread DIN 13

- Acciaio utensili temprato
- Precisione 6H
- Conformità DIN 13
- Codici non in grassetto a richiesta

- Gehärteter Lehrenstahl
- Passung 6H
- Bauart nach DIN 13
- Nicht fettgedruckte Best.Nr. auf Anfrage

- Hardened tool steel
- Tolerance 6H
- Conformity to DIN 13
- Not fat printed codes on request



572.026

Codice N° Bestell Nr. Order Code	Misura M Grösse M Size M
572.001	1x0,25
572.002	1,2x0,25
572.003	1,4x0,3
572.004	1,6x0,35
572.005	1,8x0,35
572.006	2x0,4
572.008	2,5x0,45

Codice N° Bestell Nr. Order Code	Misura M Grösse M Size M
572.009	3x0,5
572.010	3,5x0,6
572.011	4x0,7
572.012	5x0,8
572.013	6x1
572.014	7x1
572.015	8x1,25

Codice N° Bestell Nr. Order Code	Misura M Grösse M Size M
572.016	9x1,25
572.017	10x1,5
572.018	11x1,5
572.019	12x1,75
572.020	14x2
572.021	16x2
572.022	18x2,5

Codice N° Bestell Nr. Order Code	Misura M Grösse M Size M
572.023	20x2,5
572.024	22x2,5
572.025	24x3
572.026	27x3
572.027	30x3,5
572.028	33x3,5
572.029	36x4

Codice N° Bestell Nr. Order Code	Misura M Grösse M Size M
572.030	39x4
572.031	42x4,5
572.032	45x4,5
572.033	48x5
572.034	52x5
572.035	56x5,5
572.036	60x5,5

Serie tamponi filettati "p/np" passo grosso DIN 13

Sätze Gewinde-Grenzlehrdorne "Gut" und "Ausschuss" Grobgewinde DIN 13

Sets limit thread gauges "go" and "no go" rough thread DIN 13

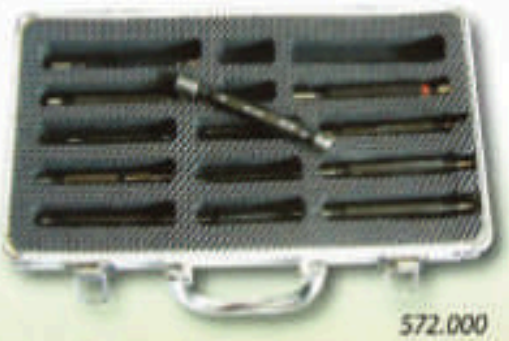
- Acciaio utensili temprato
- Precisione 6H
- Conformità DIN 13
- Equipaggiamenti diversi a richiesta

- Gehärteter Lehrenstahl
- Passung 6H
- Bauart nach DIN 13
- Bestückungsvarianten auf Anfrage

- Hardened tool steel
- Tolerance 6H
- Conformity to DIN 13
- Different equipments on request



572.100



572.000

Codice N° Bestell Nr. Order Code	Pezzi Stück pieces	Misure tamponi Grössen Grenzlehrdorne Sizes limit plug gauges
		Astucci plastica
572.100	7	3x0,5 - 4x0,7 - 5x0,8 - 6x1 - 8x1,25 - 10x1,5 - 12x1,75
		Cofanetti alluminio
572.000	13	3x0,5 - 4x0,7 - 5x0,8 - 6x1 - 8x1 - 8x1,25 - 10x1 10x1,25 - 10x1,5 - 12x1,5 - 12x1,75 - 14x1,5 - 14x2
		Cofanetti plastica
572.200	21	2x0,4 - 2,5x0,45 - 3x0,5 - 3,5x0,6 - 4x0,7 - 5x0,8 - 6x1 7x1 - 8x1,25 - 9x1,25 - 10x1,5 - 11x1,5 - 12x1,75 - 14x2 16x2 - 18x2,5 - 20x2,5 - 22x2,5 - 24x3 - 27x3 - 30x3,5

BF SERVICE

Tamponi filettati "p/np" passo fine DIN 13

Gewinde-Grenzlehrdorne "Gut" und "Ausschuss" Feingewinde DIN 13

Limit thread gauges "go" and "no go" fine thread DIN 13

- Acciaio utensili temprato
- Precisione 6H
- Conformità DIN 13
- Codici non in grassetta a richiesta

- Gehärteter Lehrenstahl
- Passung 6H
- Bauart nach DIN 13
- Nicht fettgedruckte Best.Nr. auf Anfrage

- Hardened tool steel
- Tolerance 6H
- Conformity to DIN 13
- Not fat printed codes on request



573.320

Codice N° Bestell Nr. Order Code	Misura M Grösse M Size M
573.001	1x0,2
573.002	1,2x0,2
573.003	1,4x0,2
573.004	1,6x0,2
573.005	1,8x0,2
573.031	2x0,25
573.032	2,2x0,25
573.033	2,5x0,25
573.034	3x0,25
573.035	3,5x0,25
573.036	4x0,25
573.037	5x0,25
573.038	6x0,25
573.041	2x0,35
573.042	2,2x0,35
573.043	2,5x0,35
573.044	3x0,35
573.045	3,5x0,35
573.046	4x0,35
573.047	4,5x0,35
573.048	5x0,35
573.049	6x0,35
573.050	7x0,35
573.051	8x0,35
573.052	9x0,35
573.053	10x0,35
573.102	3,5x0,5
573.103	4x0,5
573.104	4,5x0,5
573.105	5x0x5
573.106	6x0,5
573.107	7x0,5
573.108	8x0,5
573.109	9x0,5
573.110	10x0,5
573.111	11x0,5
573.112	12x0,5
573.113	13x0,5
573.114	14x0,5

Codice N° Bestell Nr. Order Code	Misura M Grösse M Size M
573.115	15x0,5
573.117	17x0,5
573.119	19x0,5
573.120	20x0,5
573.205	5x0,75
573.206	6x0,75
573.207	7x0,75
573.208	8x0,75
573.209	9x0,75
573.210	10x0,75
573.211	11x0,75
573.212	12x0,75
573.213	13x0,75
573.214	14x0,75
573.215	15x0,75
573.216	16x0,75
573.218	18x0,75
573.220	20x0,75
573.308	8x1
573.309	9x1
573.310	10x1
573.311	11x1
573.312	12x1
573.313	13x1
573.314	14x1
573.315	15x1
573.316	16x1
573.317	17x1
573.318	18x1
573.319	19x1
573.320	20x1
573.321	21x1
573.322	22x1
573.323	23x1
573.324	24x1
573.325	25x1
573.326	26x1
573.327	27x1
573.328	28x1
573.330	30x1

Codice N° Bestell Nr. Order Code	Misura M Grösse M Size M
573.332	32x1
573.333	33x1
573.334	34x1
573.335	35x1
573.336	36x1
573.338	38x1
573.339	39x1
573.340	40x1
573.342	42x1
573.344	44x1
573.345	45x1
573.346	46x1
573.348	48x1
573.350	50x1
573.352	52x1
573.355	55x1
573.356	56x1
573.360	60x1
573.410	10x1,25
573.412	12x1,25
573.414	14x1,25
573.512	12x1,5
573.513	13x1,5
573.514	14x1,5
573.515	15x1,5
573.516	16x1,5
573.517	17x1,5
573.518	18x1,5
573.520	20x1,5
573.522	22x1,5
573.524	24x1,5
573.525	25x1,5
573.526	26x1,5
573.527	27x1,5
573.528	28x1,5
573.530	30x1,5
573.532	32x1,5
573.533	33x1,5
573.534	34x1,5
573.535	35x1,5

Codice N° Bestell Nr. Order Code	Misura M Grösse M Size M
573.536	36x1,5
573.538	38x1,5
573.539	39x1,5
573.540	40x1,5
573.542	42x1,5
573.544	44x1,5
573.545	45x1,5
573.546	46x1,5
573.548	48x1,5
573.550	50x1,5
573.552	52x1,5
573.556	56x1,5
573.558	58x1,5
573.560	60x1,5
573.562	62x1.5
573.618	18x2
573.620	20x2
573.622	22x2
573.624	24x2
573.625	25x2
573.626	26x2
573.627	27x2
573.628	28x2
573.630	30x2
573.632	32x2
573.633	33x2
573.634	34x2
573.635	35x2
573.636	36x2
573.638	38x2
573.639	39x2
573.640	40x2
573.642	42x2
573.645	45x2
573.648	48x2
573.650	50x2
573.655	55x2
573.656	56x2
573.658	58x2
573.660	60x2
573.662	62x2

Anelli filettati passo grosso DIN 13

Gewinde-Lehrringe Grobgewinde DIN 13

Thread ring gauges rough thread DIN 13

- Acciaio utensili temprato
- Precisione 6g
- Conformità DIN 13
- Codici non in grassetto a richiesta

- Gehärteter Lehrenstahl
- Passung 6g
- Bauart nach DIN 13
- Nicht fettgedruckte Best.Nr. auf Anfrage

- Hardened tool steel
- Tolerance 6g
- Conformity to DIN 13
- Not fat printed codes on request



569.021



569.017N

Passa - Gut - Go

Codice N° / Bestell Nr. / Order Code	Misura M / Grösse M / Size M
569.001	1x0,25
569.002	1,2x0,25
569.003	1,4x0,3
569.004	1,6x0,35
569.005	1,8x0,35
569.006	2x0,4
569.008	2,5x0,45

Codice N° / Bestell Nr. / Order Code	Misura M / Grösse M / Size M
569.009	3x0,5
569.010	3,5x0,6
569.011	4x0,7
569.012	5x0,8
569.013	6x1
569.014	7x1
569.015	8x1,25

Codice N° / Bestell Nr. / Order Code	Misura M / Grösse M / Size M
569.016	9x1,25
569.017	10x1,5
569.018	11x1,5
569.019	12x1,75
569.020	14x2
569.021	16x2
569.022	18x2,5

Codice N° / Bestell Nr. / Order Code	Misura M / Grösse M / Size M
569.023	20x2,5
569.024	22x2,5
569.025	24x3
569.026	27x3
569.027	30x3,5
569.028	33x3,5
569.029	36x4

Codice N° / Bestell Nr. / Order Code	Misura M / Grösse M / Size M
569.030	39x4
569.031	42x4,5
569.032	45x4,5
569.033	48x5
569.034	52x5
569.035	56x5,5
569.036	60x5,5

Non Passa - Ausschuss - No Go

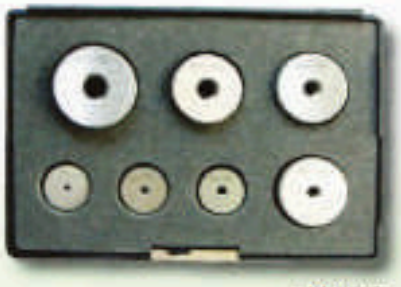
Codice N° / Bestell Nr. / Order Code	Misura M / Grösse M / Size M
569.001n	1x0,25
569.002n	1,2x0,25
569.003n	1,4x0,3
569.004n	1,6x0,35
569.005n	1,8x0,35
569.006n	2x0,4
569.008n	2,5x0,45

Codice N° / Bestell Nr. / Order Code	Misura M / Grösse M / Size M
569.009n	3x0,5
569.010n	3,5x0,6
569.011n	4x0,7
569.012n	5x0,8
569.013n	6x1
569.014n	7x1
569.015n	8x1,25

Codice N° / Bestell Nr. / Order Code	Misura M / Grösse M / Size M
569.016n	9x1,25
569.017n	10x1,5
569.018n	11x1,5
569.019n	12x1,75
569.020n	14x2
569.021n	16x2
569.022n	18x2,5

Codice N° / Bestell Nr. / Order Code	Misura M / Grösse M / Size M
569.023n	20x2,5
569.024n	22x2,5
569.025n	24x3
569.026n	27x3
569.027n	30x3,5
569.028n	33x3,5
569.029n	36x4

Codice N° / Bestell Nr. / Order Code	Misura M / Grösse M / Size M
569.030n	39x4
569.031n	42x4,5
569.032n	45x4,5
569.033n	48x5
569.034n	52x5
569.035n	56x5,5
569.036n	60x5,5



569.000

Codice N° / Bestell Nr. / Order Code	Pezzi / Stück / pieces	Misure anelli passa / Grössen Gutlehrringe / Sizes go thread ring gauges
Passa - Gut - Go		
569.000	7	3x0,5 - 4x0,7 - 5x0,8 - 6x1 - 8x1,25 - 10x1,5 - 12x1,75

Codice N° / Bestell Nr. / Order Code	Pezzi / Stück / pieces	Misure anelli non passa / Grössen Ausschusslehrringe / Sizes no go thread ring gauges
Non Passa - Ausschuss - No Go		
569.000N	7	3x0,5 - 4x0,7 - 5x0,8 - 6x1 - 8x1,25 - 10x1,5 - 12x1,75

Anelli filettati "passa" passo fine DIN 13

Gewinde-Lehrringe "Gut" Feingewinde DIN 13

Thread ring gauges "Go" fine thread DIN 13

- Acciaio utensili temprato
- Precisione 6g
- Conformità DIN 13
- Codici non in grassetto a richiesta

- Gehärteter Lehrenstahl
- Passung 6g
- Bauart nach DIN 13
- Nicht fettgedruckte Best.Nr. auf Anfrage

- Hardened tool steel
- Tolerance 6g
- Conformity to DIN 13
- Not fat printed codes on request



570.210

Codice N° / Bestell Nr. / Order Code	Misura M / Grösse M / Size M
570.001	1x0,2
570.002	1,2x0,2
570.003	1,4x0,2
570.004	1,6x0,2
570.005	1,8x0,2
570.031	2x0,25
570.032	2,2x0,25
570.033	2,5x0,25
570.034	3x0,25
570.035	3,5x0,25
570.036	4x0,25
570.037	5x0,25
570.038	6x0,25
570.041	2x0,35
570.042	2,2x0,35
570.043	2,5x0,35
570.044	3x0,35
570.045	3,5x0,35
570.046	4x0,35
570.047	4,5x0,35
570.048	5x0,35
570.049	6x0,35
570.050	7x0,35
570.051	8x0,35
570.052	9x0,35
570.053	10x0,35
570.102	3,5x0,5
570.103	4x0,5
570.104	4,5x0,5
570.105	5x0x5
570.106	6x0,5
570.107	7x0,5
570.108	8x0,5
570.109	9x0,5
570.110	10x0,5
570.111	11x0,5
570.112	12x0,5
570.113	13x0,5
570.114	14x0,5

Codice N° / Bestell Nr. / Order Code	Misura M / Grösse M / Size M
570.115	15x0,5
570.117	17x0,5
570.119	19x0,5
570.120	20x0,5
570.205	5x0,75
570.206	6x0,75
570.207	7x0,75
570.208	8x0,75
570.209	9x0,75
570.210	10x0,75
570.211	11x0,75
570.212	12x0,75
570.213	13x0,75
570.214	14x0,75
570.215	15x0,75
570.216	16x0,75
570.218	18x0,75
570.220	20x0,75
570.308	8x1
570.309	9x1
570.310	10x1
570.311	11x1
570.312	12x1
570.313	13x1
570.314	14x1
570.315	15x1
570.316	16x1
570.317	17x1
570.318	18x1
570.319	19x1
570.320	20x1
570.321	21x1
570.322	22x1
570.323	23x1
570.324	24x1
570.325	25x1
570.326	26x1
570.327	27x1
570.328	28x1
570.330	30x1

Codice N° / Bestell Nr. / Order Code	Misura M / Grösse M / Size M
570.332	32x1
570.333	33x1
570.334	34x1
570.335	35x1
570.336	36x1
570.338	38x1
570.339	39x1
570.340	40x1
570.342	42x1
570.344	44x1
570.345	45x1
570.346	46x1
570.348	48x1
570.350	50x1
570.352	52x1
570.355	55x1
570.356	56x1
570.360	60x1
570.410	10x1,25
570.412	12x1,25
570.414	14x1,25
570.512	12x1,5
570.513	13x1,5
570.514	14x1,5
570.515	15x1,5
570.516	16x1,5
570.517	17x1,5
570.518	18x1,5
570.520	20x1,5
570.522	22x1,5
570.524	24x1,5
570.525	25x1,5
570.526	26x1,5
570.527	27x1,5
570.528	28x1,5
570.530	30x1,5
570.532	32x1,5
570.533	33x1,5
570.534	34x1,5
570.535	35x1,5

Codice N° / Bestell Nr. / Order Code	Misura M / Grösse M / Size M
570.536	36x1,5
570.538	38x1,5
570.539	39x1,5
570.540	40x1,5
570.542	42x1,5
570.544	44x1,5
570.545	45x1,5
570.546	46x1,5
570.548	48x1,5
570.550	50x1,5
570.552	52x1,5
570.556	56x1,5
570.558	58x1,5
570.560	60x1,5
570.562	62x1.5
570.618	18x2
570.620	20x2
570.622	22x2
570.624	24x2
570.625	25x2
570.626	26x2
570.627	27x2
570.628	28x2
570.630	30x2
570.632	32x2
570.633	33x2
570.634	34x2
570.635	35x2
570.636	36x2
570.638	38x2
570.639	39x2
570.640	40x2
570.642	42x2
570.645	45x2
570.648	48x2
570.650	50x2
570.655	55x2
570.656	56x2
570.658	58x2
570.660	60x2
570.662	62x2

BF SERVICE

Anelli filettati "non passa" passo fine DIN 13

Gewinde-Lehrringe "Ausschuss" Feingewinde DIN 13

Thread ring gauges "No Go" fine thread DIN 13

- Acciaio utensili temprata
- Precisione 6g
- Conformità DIN 13
- Codici non in grassetto a richiesta

- Gehärteter Lehrenstahl
- Passung 6g
- Bauart nach DIN 13
- Nicht fettgedruckte Best.Nr. auf Anfrage

- Hardened tool steel
- Tolerance 6g
- Conformity to DIN 13
- Not fat printed codes on request



570.318N

Codice N° / Bestell Nr. / Order Code	Misura M / Grösse M / Size M
570.001n	1x0,2
570.002n	1,2x0,2
570.003n	1,4x0,2
570.004n	1,6x0,2
570.005n	1,8x0,2
570.031n	2x0,25
570.032n	2,2x0,25
570.033n	2,5x0,25
570.034n	3x0,25
570.035n	3,5x0,25
570.036n	4x0,25
570.037n	5x0,25
570.038n	6x0,25
570.041n	2x0,35
570.042n	2,2x0,35
570.043n	2,5x0,35
570.044n	3x0,35
570.045n	3,5x0,35
570.046n	4x0,35
570.047n	4,5x0,35
570.048n	5x0,35
570.049n	6x0,35
570.050n	7x0,35
570.051n	8x0,35
570.052n	9x0,35
570.053n	10x0,35
570.102n	3,5x0,5
570.103n	4x0,5
570.104n	4,5x0,5
570.105n	5x0x5
570.106n	6x0,5
570.107n	7x0,5
570.108n	8x0,5
570.109n	9x0,5
570.110n	10x0,5
570.111n	11x0,5
570.112n	12x0,5
570.113n	13x0,5
570.114n	14x0,5

Codice N° / Bestell Nr. / Order Code	Misura M / Grösse M / Size M
570.115n	15x0,5
570.117n	17x0,5
570.119n	19x0,5
570.120n	20x0,5
570.205n	5x0,75
570.206n	6x0,75
570.207n	7x0,75
570.208n	8x0,75
570.209n	9x0,75
570.210n	10x0,75
570.211n	11x0,75
570.212n	12x0,75
570.213n	13x0,75
570.214n	14x0,75
570.215n	15x0,75
570.216n	16x0,75
570.218n	18x0,75
570.220n	20x0,75
570.308n	8x1
570.309n	9x1
570.310n	10x1
570.311n	11x1
570.312n	12x1
570.313n	13x1
570.314n	14x1
570.315n	15x1
570.316n	16x1
570.317n	17x1
570.318n	18x1
570.319n	19x1
570.320n	20x1
570.321n	21x1
570.322n	22x1
570.323n	23x1
570.324n	24x1
570.325n	25x1
570.326n	26x1
570.327n	27x1
570.328n	28x1
570.330n	30x1

Codice N° / Bestell Nr. / Order Code	Misura M / Grösse M / Size M
570.332n	32x1
570.333n	33x1
570.334n	34x1
570.335n	35x1
570.336n	36x1
570.338n	38x1
570.339n	39x1
570.340n	40x1
570.342n	42x1
570.344n	44x1
570.345n	45x1
570.346n	46x1
570.348n	48x1
570.350n	50x1
570.352n	52x1
570.355n	55x1
570.356n	56x1
570.360n	60x1
570.410n	10x1,25
570.412n	12x1,25
570.414n	14x1,25
570.512n	12x1,5
570.513n	13x1,5
570.514n	14x1,5
570.515n	15x1,5
570.516n	16x1,5
570.517n	17x1,5
570.518n	18x1,5
570.520n	20x1,5
570.522n	22x1,5
570.524n	24x1,5
570.525n	25x1,5
570.526n	26x1,5
570.527n	27x1,5
570.528n	28x1,5
570.530n	30x1,5
570.532n	32x1,5
570.533n	33x1,5
570.534n	34x1,5
570.535n	35x1,5

Codice N° / Bestell Nr. / Order Code	Misura M / Grösse M / Size M
570.536n	36x1,5
570.538n	38x1,5
570.539n	39x1,5
570.540n	40x1,5
570.542n	42x1,5
570.544n	44x1,5
570.545n	45x1,5
570.546n	46x1,5
570.548n	48x1,5
570.550n	50x1,5
570.552n	52x1,5
570.556n	56x1,5
570.558n	58x1,5
570.560n	60x1,5
570.562n	62x1,5
570.618n	18x2
570.620n	20x2
570.622n	22x2
570.624n	24x2
570.625n	25x2
570.626n	26x2
570.627n	27x2
570.628n	28x2
570.630n	30x2
570.632n	32x2
570.633n	33x2
570.634n	34x2
570.635n	35x2
570.636n	36x2
570.638n	38x2
570.639n	39x2
570.640n	40x2
570.642n	42x2
570.645n	45x2
570.648n	48x2
570.650n	50x2
570.655n	55x2
570.656n	56x2
570.658n	58x2
570.660n	60x2
570.662n	62x2

BF SERVICE

Tamponi ed anelli filettati passo Ww Gas cilindrico

Gewinde-Grenzlehrdorne und Ringe zylindrisches Ww Rohrgewinde

Limit thread gauges and rings cylindrical Ww pipe threads

- Acciaio utensili temprato
- Tolleranza classe A
- Precisione ± 6 µm
- Codici non in grassetto a richiesta

- Gehärteter Lehrenstahl
- Toleranz Klasse A
- Präzision ± 6 µm
- Nicht fettgedruckte Best.Nr. auf Anfrage

- Hardened tool steel
- Tolerance class A
- Precision ± 6 µm
- Not fat printed codes on request



574.021

Codice N° / Bestell Nr. / Order Code	Misura ' / Grösse ' / Size '
574.003	G 1/8
574.006	G 1/4
574.009	G 3/8
574.012	G 1/2

Codice N° / Bestell Nr. / Order Code	Misura ' / Grösse ' / Size '
574.015	G 5/8
574.018	G 3/4
574.021	G 7/8
574.030	G 1

Codice N° / Bestell Nr. / Order Code	Misura ' / Grösse ' / Size '
574.033	G 1 1/8
574.036	G 1 1/4
574.042	G 1 1/2
574.048	G 1 3/4

Codice N° / Bestell Nr. / Order Code	Misura ' / Grösse ' / Size '
574.060	G 2
574.061	G 2 1/4
574.062	G 2 1/2
574.063	G 2 3/4



571.521

Passa - Gut - Go

Codice N° / Bestell Nr. / Order Code	Misura ' / Grösse ' / Size '
571.503	G 1/8
571.506	G 1/4
571.509	G 3/8
571.512	G 1/2

Codice N° / Bestell Nr. / Order Code	Misura ' / Grösse ' / Size '
571.515	G 5/8
571.518	G 3/4
571.521	G 7/8
571.530	G 1

Codice N° / Bestell Nr. / Order Code	Misura ' / Grösse ' / Size '
571.533	G 1 1/8
571.536	G 1 1/4
571.542	G 1 1/2
571.548	G 1 3/4

Codice N° / Bestell Nr. / Order Code	Misura ' / Grösse ' / Size '
571.560	G 2
571.061	G 2 1/4
571.062	G 2 1/2
571.063	G 2 3/4



571.521n

Non Passa - Ausschuss - No Go

Codice N° / Bestell Nr. / Order Code	Misura ' / Grösse ' / Size '
571.503n	G 1/8
571.506n	G 1/4
571.509n	G 3/8
571.512n	G 1/2

Codice N° / Bestell Nr. / Order Code	Misura ' / Grösse ' / Size '
571.515n	G 5/8
571.518n	G 3/4
571.521n	G 7/8
571.530n	G 1

Codice N° / Bestell Nr. / Order Code	Misura ' / Grösse ' / Size '
571.533n	G 1 1/8
571.536n	G 1 1/4
571.542n	G 1 1/2
571.548n	G 1 3/4

Codice N° / Bestell Nr. / Order Code	Misura ' / Grösse ' / Size '
571.560n	G 2
571.061n	G 2 1/4
571.062n	G 2 1/2
571.063n	G 2 3/4

BF SERVICE

PUNTE IN HM PER RIMUOVERE I MASCHI ROTTI | SOLID CARBIDE DRILLS TO REMOVE BROKEN TAPS

P HM 701



P HM 701



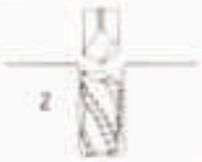
M	Ø D	L	l	d h6	CODE	HM 7701.... € TITANITE
M3	2,5	38	10	3	...30003	68,14
M4	3,3	46	14	4	...30004	96,12
M5	4,2	50	19	5	...30005	108,17
M6	5	50	23	6	...30006	120,16
M8	6,8	60	23	8	...30008	132,22
M10	8,5	80	25	10	...30010	168,22
M12	10,2	80	35	12	...30012	244,36

CONSIGLI PER UTILIZZO PUNTA CON LUBRIFICANTE | ADVISE FOR THE CORRECT USE OF THE DRILL WITH LUBRICATION



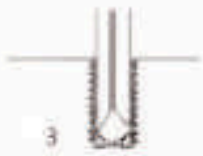
1 - Per un buon centraggio rettificare in piano i maschi spezzati obliquamente

1 - For good centring, obliquely broken off taps have to be ground flat



2 - Il centraggio si ottiene dopo essersi avvicinati più volte con l'utensile

2 - Create a centring point by multiple approaches with the drilling out tool



3 - Proseguire con avanzamento costante. Scaricare i trucioli più volte

3 - Drill out with an even feed rate. Evacuate chips frequently



4 - Pulire il foro e rimuovere i residui con un utensile a punta

4 - Clean up the hole and remove debris with a pointed tool

Vc = (m/min) 30 - 60	
	mm/rev
M3	0,06
M4	0,08
M5	0,11
M6	0,11
M8	0,12
M10	0,16
M12	0,20

BF SERVICE

VELOCITÀ CONSIGLIATE
RECOMMENDED SPEED
EMPFOHLENE GESCHWINDIGKEIT
VITESSE RECOMANDEE
VELOCIDAD RECOMANDADA

Velocità consigliate Tutte le velocità consigliate nella tabella sotto riportata sono espresse X 1.000 rpm Recommended Speeds All Speeds in the table below quoted X 1.000 rpm	Ø Diametro - Diameter						
	3 mm	6 mm	8 mm	10mm	12 mm	16 mm	19 mm
Alluminio Aluminium	58 - 75	16 - 58	12 - 55	10 - 48	7 - 30	6 - 22	5 - 18
Ottone-Bronzo-Rame Brass-Bronze-Copper	45 - 75	20 - 55	18 - 45	15 - 40	10 - 27	8 - 20	6 - 15
Fibra di Carbonio Carbon Fiber	57 - 75	30 - 48	25 - 40	19 - 28	14 - 21	12 - 17	9 - 14
Fibra di vetro Fiberglass	57 - 75	30 - 48	25 - 40	19 - 28	14 - 21	12 - 17	9 - 14
Ghisa Cast Iron	45 - 75	20 - 55	18 - 45	15 - 40	10 - 27	8 - 20	6 - 15
Plastica Plastic	58 - 75	16 - 58	12 - 55	10 - 48	7 - 30	6 - 22	5 - 18
Acciaio 40-50 HRC 40-50 HRC Steel	57 - 75	30 - 48	25 - 40	19 - 28	14 - 21	12 - 17	9 - 14
Acciaio 55-60 HRC 55-60 HRC Steel	57 - 75	30 - 48	25 - 40	19 - 28	14 - 21	12 - 17	9 - 14
Acciaio al Carbonio Carbon Steel	55 - 75	42 - 58	38 - 50	27 - 38	20 - 28	17 - 19	15 - 17
Acciaio Nikel Cromo Nikel Chrome Steel	57 - 75	30 - 48	25 - 40	19 - 28	14 - 21	12 - 17	9 - 14
Acciaio Inox Stainless Steel	57 - 75	30 - 48	25 - 40	19 - 28	14 - 21	12 - 17	9 - 14
Titanio Titanium	57 - 75	30 - 48	25 - 40	19 - 28	14 - 21	12 - 17	9 - 14
Zinco Zinc	45 - 75	20 - 55	18 - 45	15 - 40	10 - 27	8 - 20	6 - 15

BF SERVICE

APPLICAZIONI CONSIGLIATE





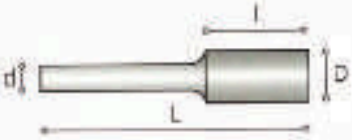


Applicazioni - Application	Taglio Alluminio Aluminium Cut LR401	Taglio singolo Single Cut LR402	Taglio rompitruciolo Chip Breaker LR403	Diamante Diamant Cut LR404	Taglio doppio Double Cut LR406
Alluminio Aluminium	•				
Ottone-Bronzo-Rame Brass-Bronze-Copper			•		•
Fibra di Carbonio Carbon Fiber		•			
Fibra di vetro Fiberglass				•	
Ghisa Cast Iron		•	•		•
Plastica Plastic	•		•	•	•
Acciaio 40-50 HRC 40-50 HRC Steel		•	•	•	•
Acciaio 55-60 HRC 55-60 HRC Steel		•	•	•	•
Acciaio al Carbonio Carbon Steel		•	•		•
Acciaio Nikel Cromo Nikel Chrome Steel		•	•	•	•
Acciaio Inox Stainless Steel		•	•		•
Titanio Titanium		•	•		•
Zinco Zinc	•				

cilindrica 1 taglio
cylindrical 1 cut (ZYA)



LR401
LR402
LR403
LR404
LR406







A401 A402 A403 A404 A406

D	d	l	L	Code USA	Code
3,00	3,00	13	38	SA-43M	...00313
4,00	3,00	13	51	SA-52M	...00413
5,00	6,00	16	61	SA-53M	...00516
6,00	6,00	16	61	SA-1M	...00616
8,00	6,00	20	65	SA-2M	...00820
10,00	6,00	20	65	SA-3M	...01020
12,00	6,00	25	70	SA-5M	...01225
16,00	6,00	25	70	SA-6M	...01625
19,00	6,00	25	70	SA-7M	...01925

cilindrica 2 tagli
cylindrical 2 cut (ZYA-S)



LR401
LR402
LR403
LR404
LR406







B401 B402 B403 B404 B406

D	d	l	L	Code USA	Code
3,00	3,00	13	38	SB-43M	...00313
4,00	3,00	13	51	SB-52M	...00413
5,00	6,00	16	61	SB-53M	...00516
6,00	6,00	16	61	SB-1M	...00616
8,00	6,00	20	65	SB-2M	...00820
10,00	6,00	20	65	SB-3M	...01020
12,00	6,00	25	70	SB-5M	...01225
16,00	6,00	25	70	SB-6M	...01625
19,00	6,00	25	70	SB-7M	...01925

cilindrica sferica
cylindrical spherical (WRC)



LR401
LR402
LR403
LR404
LR406







D	d	l	L	Code USA	Code	C401	C402	C403	C404	C406
3,00	3,00	13	38	SC-43M	...00313					
4,00	3,00	13	51	SC-52M	...00413					
5,00	3,00	13	51	SC-53M	...00513					
6,00	6,00	16	64	SC-1M	...00616					
8,00	6,00	20	65	SC-2M	...00820					
10,00	6,00	20	65	SC-3M	...01020					
12,00	6,00	25	70	SC-5M	...01225					
16,00	6,00	25	70	SC-6M	...01625					
19,00	6,00	25	70	SC-7M	...01925					

A richiesta/On request

cilindrica sferica L 250
cylindrical spherical length 250 mm



D	d	l	L	Code USA	Code	C406
6	6	5,4	250			
8	6	7,2	250			
10	6	9	250			
12	6	11	250			
16	6	14	250			
Altre lunghezze - Other lengths						
6	6	16	80			
6	6	16	100			
6	6	16	70			

sferica
spherical (KUD)



LR401
LR402
LR403
LR404
LR406







D401 D402 D403 D404 D406

D	d	l	L	Code USA	Code
3,00	3,00	2,3	38	SD-41M	...00302
4,00	3,00	3	41	SD-52M	...00403
5,00	3,00	4	43	SD-53M	...00504
6,00	6,00	5,4	51	SD-1M	...00605
8,00	6,00	7,2	52	SD-2M	...00807
10,00	6,00	9	54	SD-3M	...01009
12,00	6,00	11	56	SD-5M	...01211
16,00	6,00	14	60	SD-6M	...01614
19,00	6,00	19	67	SD-7M	...01919

A richiesta/On request

sferica L. 250
spherical length 250 mm



D 406

D	d	l	L	Code USA	Code
6	6	5,4	250		
8	6	7,2	250		
10	6	9	250		
12	6	11	250		
16	6	14	250		

ovale
oval (TRE)



LR401
LR402
LR403
LR404
LR406







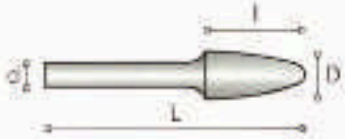
E401 E402 E403 E404 E406

D	d	l	L	Code USA	Code
3,00	3,00	7	38	SE-41M	...00307
5,00	3,00	8	46	SE-53M	...00508
6,00	6,00	10	55	SE-1M	...00610
8,00	6,00	13	58	SE-2M	...00813
10,00	6,00	16	61	SE-3M	...01016
12,00	6,00	20	65	SE-5M	...01220
16,00	6,00	25	70	SE-6M	...01625

ogiva a punta raggiata
tree shape-radius end (RBF)



LR401
LR402
LR403
LR404
LR406







F401 F402 F403 F404 F406

D	d	l	L	Code USA	Code
3,00	3,00	13	38	SF-41M	...00313
5,00	3,00	13	51	SF-53M	...00513
6,00	6,00	18	63	SF-1M	...00618
8,00	6,00	20	65	SF-2M	...00820
10,00	6,00	20	65	SF-3M	...01020
12,00	6,00	25	70	SF-5M	...01225
16,00	6,00	25	70	SF-6M	...01625

ogiva a punta
tree shape-pointed end (SPG)



LR401
LR402
LR403
LR404
LR406







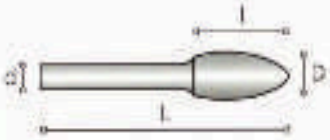
G401 G402 G403 G404 G406

D	d	l	L	Code USA	Code
3,00	3,00	13	38	SG-44M	...00313
5,00	3,00	13	51	SG-53M	...00513
6,00	6,00	18	63	SG-1M	...00618
8,00	6,00	20	65	SG-2M	...00820
10,00	6,00	20	65	SG-3M	...01020
12,00	6,00	25	65	SG-5M	...01225
16,00	6,00	25	70	SG-6M	...01625

fiamma
flame (HM)



LR401
LR402
LR403
LR404
LR406







H401 H402 H403 H404 H406

D	d	l	L	Code USA	Code
3,00	3,00	13	38	SH-41M	...00313
6,00	6,00	18	63	SH-1M	...00618
8,00	6,00	20	65	SH-2M	...00820
10,00	6,00	20	65	SH-3M	...01020
12,00	6,00	32	77	SH-5M	...01232
16,00	6,00	36	81	SH-6M	...01636

conica 60°
60 ° cone shape (KSJ)



LR401
LR402
LR403
LR404
LR406







D	d	l	L	Code USA	Code
3,00	3,00	3	38	SJ-42M	...00303
6,00	6,00	5,2	50	SJ-1M	...00605
10,00	6,00	8	53	SJ-3M	...01008
12,00	6,00	10	55	SJ-5M	...01210
16,00	6,00	14	60	SJ-6M	...01613

J401 J402 J403 J404 J406

conica 90°
90° cone shape (KSK)



LR401
LR402
LR403
LR404
LR406







D	d	l	L	Code USA	Code
3,00	3,00	2	38	SK-42M	...00302
6,00	6,00	3	48	SK-1M	...00603
8,00	6,00	4	48	SK-2M	...00804
10,00	6,00	5	50	SK-3M	...01005
12,00	6,00	6	51	SK-5M	...01206
16,00	6,00	8	53	SK-6M	...01608

K401 K402 K403 K404 K406

conica con punta raggiata
cone shape-radius end (KEL)



LR401
LR402
LR403
LR404
LR406







L401 L402 L403 L404 L406

D	d	l	L	Code USA	Code
3,00	3,00	13	38	SL-42M	...00313
6,00	6,00	16	61	SL-1M	...00616
8,00	6,00	22	67	SL-2M	...00822
10,00	6,00	25	70	SL-3M	...01025
12,00	6,00	28	73	SL-4M	...01228
16,00	6,00	33	78	SL-6M	...01633

conica a punta
cone shape (SKM)



LR401
LR402
LR403
LR404
LR406







M401 M402 M403 M404 M406

D	d	l	L	Code USA	Code
3,00	3,00	13	38	SM-42M	...00313
6,00	6,00	18	63	SM-1M	...00618
8,00	6,00	20	63	SM-2M	...00820
10,00	6,00	20	63	SM-4M	...01020
12,00	6,00	25	70	SM-5M	...01225
16,00	6,00	25	70	SM-6M	...01625

conica rovesciata
inverted cone shape (WKN)



LR401
LR402
LR403
LR404
LR406



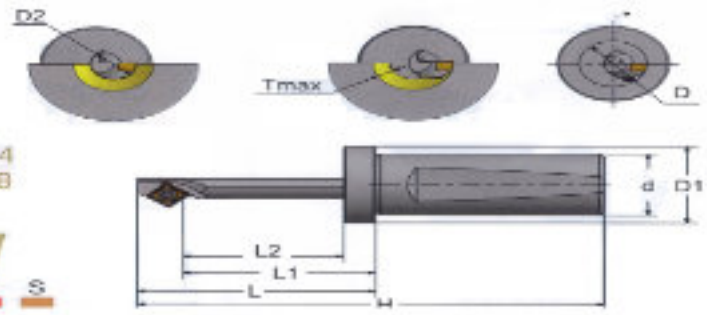




N401 N402 N403 N404 N406

D	d	l	L	Code USA	Code
3,00	3,00	7	38	SN-42M	...00307
6,00	6,00	7	52	SN-1M	...00607
10,00	6,00	10	55	SN-2M	...01010
12,00	6,00	13	58	SN-4M	...01213
16,00	6,00	15	61	SN-6M	...01615





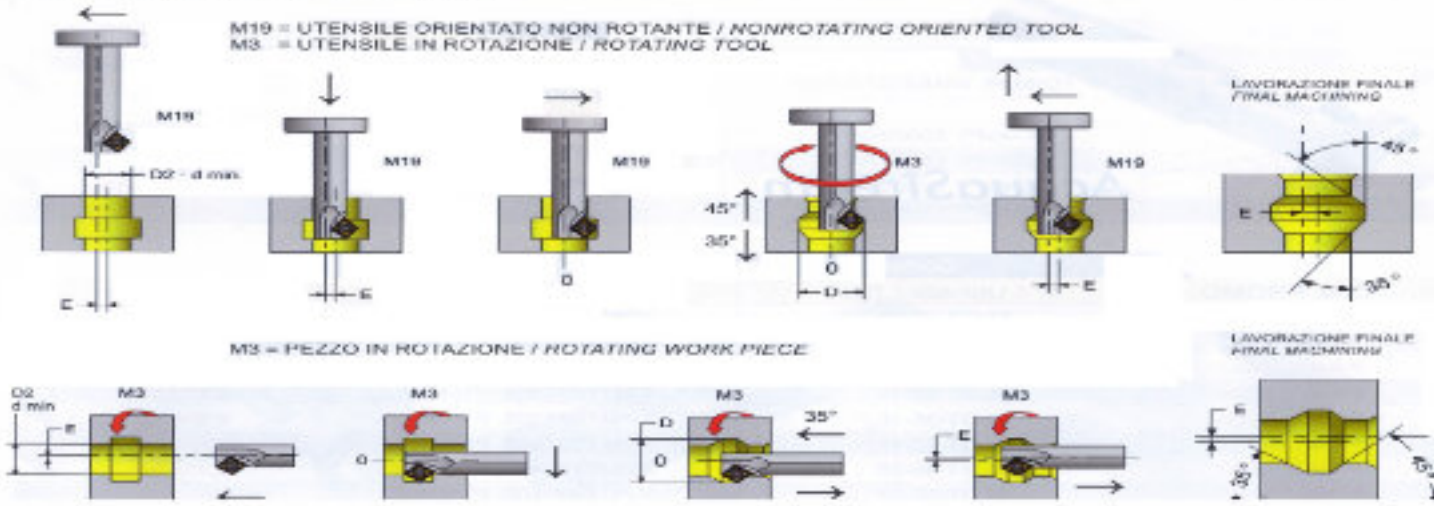
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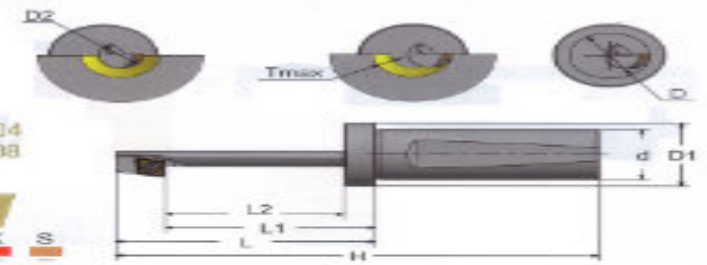
Articolo / *Item*	Ins.	D	D2	D1	d	Tmax	E	H	L	L1	L2
FB45D150-06	CC..06	15	10	25	20	2,5	2,8	100	50	42	35
FB45D200-06	CC..06	20	14	25	20	3	3,2	105	55	47	40
FB45D230-06	CC..06	23	17	25	20	3	3,2	115	65	57	50
FB45D270-09	CC..09	27	21	25	20	3	3,4	138	88	77	70
FB45D310-09	CC..09	31	24	25	20	3,5	3,9	148	98	87	80

Istruzioni per l'utilizzo Frese per Smussi a Trazione 45°

Instruction for use 45° back Chamfering Mills







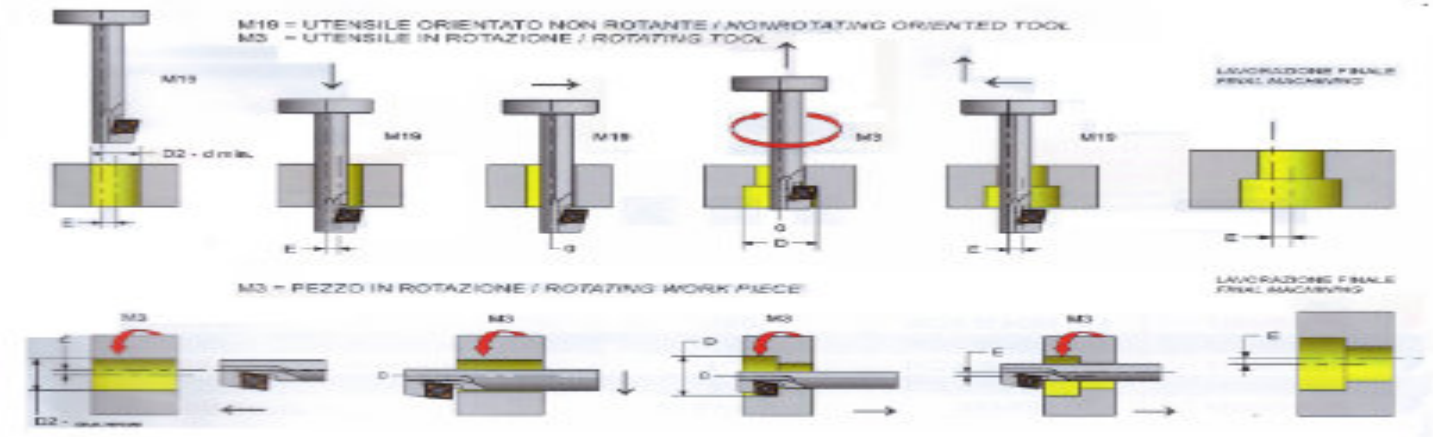
CCMT060204
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Articolo / *Item*	Ins.	D	D2	D1	d	Tmax	E	H	L	L1	L2
FB90D180-06	CC..06	18	10,5	25	20	3,75	4	108	58	47	40
FB90D200-06	CC..06	20	13	25	20	3,5	3,75	113	63	52	45
FB90D240-06	CC..06	24	15	25	20	4,5	4,75	118	68	57	50
FB90D260-06	CC..06	26	17	25	20	4,5	5	128	78	67	60
FB90D300-06	CC..06	30	19	25	20	5,5	6	133	83	72	65
FB90D330-09	CC..09	33	21	25	20	6	6,6	148	98	82	75

Istruzioni per l'utilizzo Frese per Lamatura a Trazione 90°

Instruction for use 90° back Spot-Facing Mills

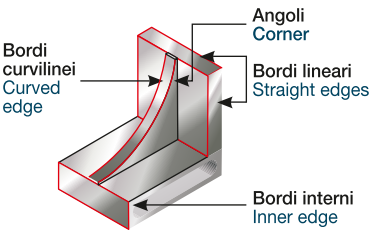


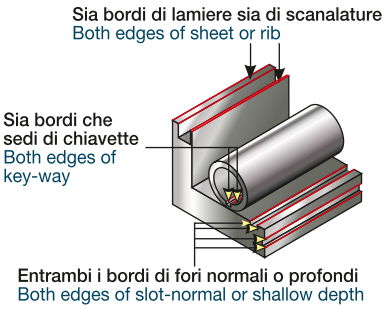
SBAVATORI
DEBURRING TOOLS

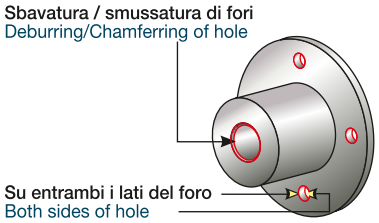
INFORMAZIONI SULLA SBAVATURA / DEBURRING INFO

Le sbavature sono quella parte di metallo che rimane sui bordi dei componenti dopo la lavorazione o produzione.
Gli sbavatori offrono una soluzione rapida, efficiente ed economica per l'eliminazione della bava.
Campi d'impiego: bordi superfici lineari, interne e curvilinee, entrambi i lati di fori, sedi di chiavette, scanalature, spigoli, lamiere ad angolo, ecc.

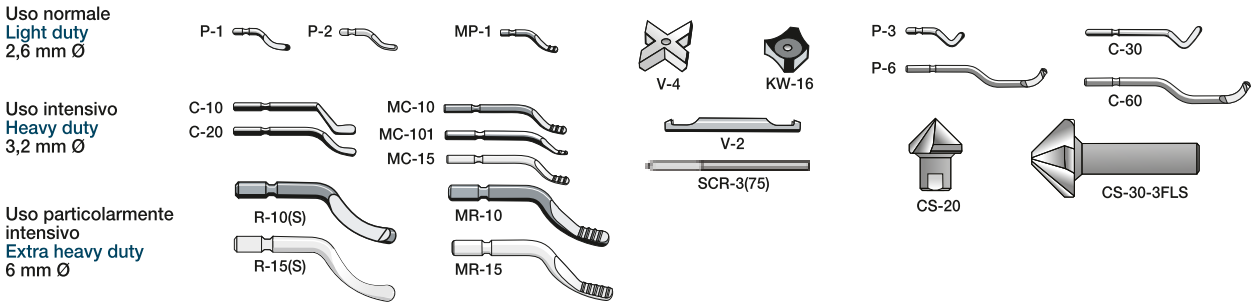
Burrs are the unwanted portion of metal which remain at the edges of components after machining. Deburring tools offer fast, efficient and economical solution for burr removal.
Application overview: deburring of edges-straight, internal and curved, both sides of slots, key-ways, ribs, ridge, sheets, corners, single or both sides of hole ect.







GAMMA DI UTENSILI / VARIETY OF TOOLS



Per la sbavatura di materiali come acciaio, alluminio, rame, ottone, ghisa, acciaio inox, ghisa, plastica dura, ecc. sono disponibili diverse forme di lama e di angoli di tagliente.

For deburring of component materials such as steel, Al., copper, brass, cast iron, stainless steel, alloy steel, hard plastic etc., blades of different shapes and cutting angles are available.

TIPI DI LAMA BLADES TYPE	ADATTO PER LA SBAVATURA DI SUITABLE FOR DEBURRING OF
P-1, C-10, R-10(S), MP-1, MC-10, MC-70, MR-10	acciaio, alluminio, rame, etc steel, aluminium, copper, etc
P-2, C-20, MP-2, MC-20, MC-40, MC-80	ghisa, ottone cast iron, brass
P-3, P-6, C-30, C-60, MC-40	fori in lamiera sheet metal holes
C-15, R-15(S), MC-15, MR-15	acciaio inox stainless steel
C-101, MC-101	fori piccoli small holes
C-100, C-150, rivestita - M35 coated - M35	metalli duri hard metals
S-12, V-2, V-4	lamiere/scanalature - su entrambi i lati sheet/ribs - both sides
KW-9, KW-16	sedi di chiavette/fessure key-way/slots
SCR-3(75), SCR-345, SCR-6(2), SCR-8	finitura superficiale/raschiatura, pulitura dei bordi surface finishing/scraping, corner cleaning
CS-12, CS-20, CS-30, CS-12-3FLS, CS-20-3FLS, CS-30-3FLS, CS-40-3FLS	sbavatura/smussatura dei fori hole deburring/chamfering

Le lame per sbavatura sono realizzate in acciaio M2 o M35 per alta velocità.
The deburring blades are made of high speed steel - M2 or M35 grade material.

BF SERVICE

SBAVATORI
DEBURRING TOOLS

SBAVATORE DT-1 / DEBURRING TOOL DT-1

ART. 5001.01

Completo di lama fissa tipo C-10 e impugnatura esagonale 8 mm in alluminio verniciato a polvere con pocket clip.

Provided with not replaceable C-10 blade and aluminium 8 mm hex body powder coated handle with pocket clip.



SBAVATORE DT-2 / DEBURRING TOOL DT-2

ART. 5001.02

Completo di lama intercambiabile tipo C-10 e impugnatura esagonale con attacco 3/8" in alluminio verniciato a polvere.

Provided with interchangeable C-10 blade and aluminium 3/8" hex body powder coated handle.



SBAVATORE DT-3 / DEBURRING TOOL DT-3

ART. 5001.04

Completo di tre lame intercambiabili tipo C-10, C-20, C-30 da Ø 3,2 mm e impugnatura esagonale tipo DM.

Provided with 3 interchangeable C-10, C-20, C-30, 3.2 mm Ø blades and DM hex body handle.



IMPUGNATURA DM / DM HANDLE

ART. 5011.02

Impugnatura esagonale, attacco 5/8" in alluminio verniciato a polvere con supporto metallico per lame Ø 3,2 mm.

Aluminium 5/8" hex body, powder coated handle with metallic blade holder for 3.2 mm Ø blades.



SBAVATORE MT-1 / DEBURRING TOOL MT-1

ART. 5001.06

Completo di lama fissa girevole tipo C-101 da Ø 3,2 mm e impugnatura ergonomica rivestimento soft grip.

Provided with not replaceable C-101 3.2 mm Ø blade and soft grip body handle.



RASCHIETTO MT / SCRAPER MT

ART. 5001.07

Completo di lama fissa tipo SCR-3(75) e impugnatura ergonomica rivestimento soft grip.

Provided with not replaceable SCR-3(75) blade and soft grip body handle.



SBAVATORE ET-1 / DEBURRING TOOL ET-1

ART. 5001.08

Completo di lama intercambiabile girevole tipo P-1 Ø 2,6 mm, supporto metallico tipo DT(P) e impugnatura ergonomica tipo ET-1 con rivestimento soft grip e comodo poggiamano sferico.

Provided with revolving interchangeable P-1 2.6 mm Ø blade, DT(P) metallic holder and ET-1 handle with soft grip sleeve and comfortable ball end hand rest.



SBAVATORE ET-2 / DEBURRING TOOL ET-2

ART. 5001.09

Completo di lama intercambiabile tipo C-10 Ø 3,2 mm, supporto metallico tipo DT(C) e impugnatura ergonomica tipo ET-2 con rivestimento soft grip e comodo poggiamano sferico.

Provided with interchangeable C-10 3.2 mm Ø blade, DT(C) metallic holder and ET-2 handle with soft grip sleeve and comfortable ball end hand rest.



BF SERVICE

SBAVATORI
DEBURRING TOOLS

SBAVATORE CG-1 / DEBURRING TOOL CG-1

ART. 5001.10

Completo di lama girevole intercambiabile tipo P-1 Ø 2,6 mm e impugnatura ergonomica tipo CG-1 con comodo poggiamano sferico.

Provided with interchangeable P-1 2.6 mm Ø swivel blade and CG-1 handle with comfortable ball end hand rest.



RASCHIETTO TRIANGOLARE CG
TRIANGULAR SCRAPER GC

ART. 5001.11

Completo di lama estensibile intercambiabile tipo SCR-3(75) e impugnatura ergonomica tipo CG con comodo poggiamano sferico.

Provided with extensible and interchangeable SCR-3(75) blade and CG handle with comfort grip zone and ball end knob.



SBAVATORE RDT-MK / DEBURRING TOOL RDT-MK

ART. 5001.12

Completo di due lame intercambiabili tipo R-10(S) e R-15(S) da Ø 6 mm per applicazioni extra pesanti e impugnatura ergonomica multicomponente tipo R-SD-MK.

Provided with multi-component R-SD-MK handle with 6 mm Ø R-10(S) and R-15(S) interchangeable blades for extra heavy duty application.



SBAVATORE DT-MK / DEBURRING TOOL DT-MK

ART. 5001.13

Completo di tre lame intercambiabili tipo C-10, C-20, C-30 da Ø 3,2 mm e impugnatura ergonomica multicomponente tipo D-SD-MK.

Provided with multi-component DSD-MK handle with 3.2 mm Ø C-10, C-20, C-30 interchangeable blades.

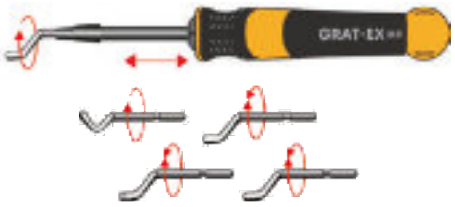


SBAVATORE TELESCOPICO DT-5C-MK
TELESCOPIC DEBURRING TOOL DT-5C-MK

ART. 5001.14

Completo di cinque lame intercambiabili tipo C-10, C-20, C-30, C-15, C-35 da Ø 3,2 mm, impugnatura ergonomica multicomponente tipo T-SD-MK e supporto tipo DT(C).

Provided with multi-component TSD-MK handle and DT(C) holder with 3.2 mm Ø C-10, C-20, C-30, C-15, C-35 interchangeable blades.

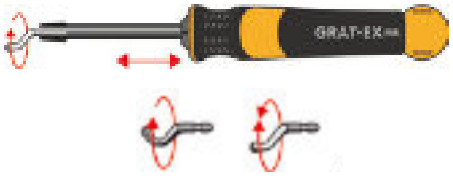


SBAVATORE TELESCOPICO DT-3P-MK
TELESCOPIC DEBURRING TOOL DT-3P-MK

ART. 5001.15

Completo di tre lame intercambiabili tipo P-1, P-2, P-3 da Ø 2,6 mm per applicazioni leggere, impugnatura ergonomica multicomponente tipo TSD-MK e supporto tipo DT(P).

Provided with multi-component TSD-MK handle, DT(P) holder with 2.6 mm Ø P-1, P-2, P-3 interchangeable blades for light duty application.



SBAVATORE V-2-MK / DEBURRING TOOL V-2-MK

ART. 5001.16

Completo di lama doppia tipo V-2 per entrambi i bordi fino a 4 mm di larghezza e lama per lato singolo Ø 6,5 mm, impugnatura ergonomica multicomponente tipo T-SD-MK.

Provided with multi-component T-SD-MK handle with double ended V-2 blade for both edge up to 4 mm width and single edge 6.5 mm Ø deburring blade.



BF SERVICE

SBAVATORI
DEBURRING TOOLS

SBAVATORE VDT-MK / DEBURRING TOOL VDT-MK

ART. 5001.17

Per sbavatura simultanea. Completo di lama tipo V-4 adatta per cave e per tagliare bordi a 2 posizioni, impugnatura ergonomica multicomponente tipo T-SD-MK e supporto telescopico tipo VT.

Provided with multi-component T-SD-MK handle and VT telescopic holder with V-4 blade for simultaneous deburring of both edges of sheet.



SBAVATORE KWS-MK / DEBURRING TOOL KWS-MK

ART. 5001.18

Per sedi di chiavette e scanalature sia interne che esterne. Completo di due lame intercambiabili tipo KW-9 (0-9 mm) e KW-16 (0-16 mm), impugnatura ergonomica multicomponente tipo TSD-MK e supporto telescopico tipo KW.

For internal and external keyways. Provided with two interchangeable KW-9 (0-9 mm) and KW-16 (0-16 mm) blades, T-SD-MK multi-component handle and KW telescopic holder.



SBAVATORE CT-MK / DEBURRING TOOL CT-MK

ART. 5001.19

Per sbavatura di materiali plastici, in metallo e temprati. Completo di lama in ceramica tipo C-1 e impugnatura ergonomica multicomponente tipo T-SD-MK.

Safe general purpose ceramic tool for equal results on plastics, metal and hardened materials. Provided with C-1 ceramic blade and multi-component TSD-MK handle.



SVASATORE F-MK / COUNTERSINK F-MK

ART. 5001.20

Composto da un'impugnatura ergonomica multicomponente tipo T-SD-MK, da un supporto telescopico tipo CS-Long e da uno svasatore a 2 taglienti da 20 mm tipo CS-20.

Provided with multi-component T-SD-MK handle, CS-Long telescopic holder and 20 mm 2-flute CS-20 countersink.



RASCHIETTO TRIANGOLARE SCR-3
TRIANGULAR SCRAPER SCR-3

ART. 5006.01

Con lama fissa in HSS da 3 mm ed impugnatura esagonale in alluminio.

With fixed 3 mm HSS blade and aluminium hex handle.



RASCHIETTO TRIANGOLARE SCR-8
TRIANGULAR SCRAPER SCR-8

ART. 5006.02

Con lama intercambiabile in HSS da 8 mm tipo SCR-8B ed impugnatura esagonale in alluminio.

With interchangeable SCR-8B 8 mm HSS blade and aluminium hex handle.



RASCHIETTO COMBINATO SCR-6(2)-MK
COMBO SCRAPER SCR-6(2)-MK

ART. 5006.03

Completo di lama doppia in HSS Ø 6 mm tipo SCR-6(2), triangolare su un lato e per interni sull'altro lato, impugnatura ergonomica multicomponente tipo T-SD-MK.

Provided with multi-component T-SD-MK handle with SCR-6(2) scraper. Double ended - triangular and internal Ø 6 mm HSS blade.



BF SERVICE UTENSILERIA MECCANICA

SBAVATORI
DEBURRING TOOLS

LAME V-2 E V-4 / BLADES V-2 AND V-4

ART. 5012

Adatte per cave, per tagliare bordi a 2 posizioni.

Suitable for slots, for cutting edges in 2 positions.

CODE	MOD.	Descrizione / Description
22	V-2	a doppia estremità, sbava entrambi i bordi fino a 4 mm di spessore su un lato e un bordo sull'altro lato. double ended, for both edges deburring up to 4 mm from one side and single edge from another side
04	V-4	con estremità a "V": 2 con ampiezza 1-12 mm - 2 con ampiezza 0-4 mm with V shape: 2 with 1-12 mm width, 2 with 0-4 mm width


V-2


V-4

LAME KW-9 E KW-16 / BLADES KW-9 AND KW-16

ART. 5012

Adatte per cave, per tagliare bordi a 2 posizioni.

Suitable for slots, for cutting edges in 2 positions.

CODE	MOD.	Descrizione / Description
01	KW-9	ampiezza 0-9 mm per profondità standard width 0-9 mm for standard depth
02	KW-16	ampiezza 0-16 mm per profondità inferiori allo standard width 0-16 mm for depth lesser than standard


KW-9 KW-16

LAMA IN CERAMICA / CERAMIC BLADE

ART. 5012

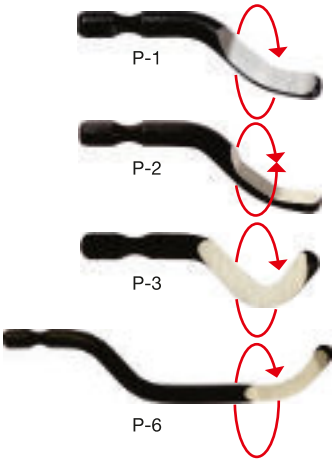
CODE	MOD.	Descrizione / Description
26	C-1	lama in ceramica ceramic blade



LAME Ø 2,6 mm / BLADES Ø 2.6 mm

ART. 5012

CODE	MOD.	Descrizione / Description	Conf. Pack
15	P-1	per applicazioni leggere come acciaio, alluminio, rame, zinco, plastica etc. for light duty application such as steel, aluminium, copper, zinc, plastics, etc.	10
16	P-2	per applicazioni leggere come ghisa, ottone etc. for light duty application such as cast iron, brass etc.	10
17	P-3	per entrambi i lati dei fori metallici fino ad uno spessore di 6 mm. for both sides deburring of sheet metal holes up to 6 mm thickness.	10
18	P-6	per la sbavatura posteriore fino ad uno spessore di 20 mm for backside deburring up to 20 mm thickness	5

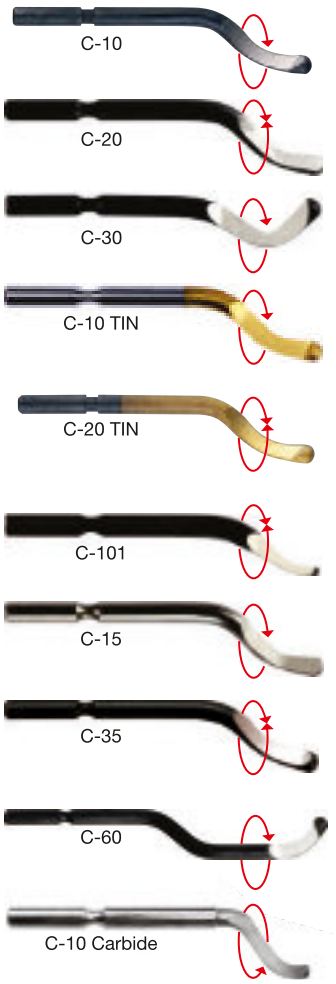


BF SERVICE

LAME Ø 3,2 mm / BLADES Ø 3.2 mm

ART. 5012

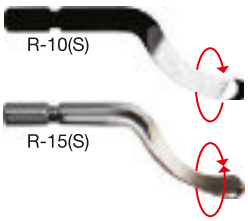
CODE	MOD.	Descrizione / Description	Conf. Pack
05	C-10	per materiali con bavature a spirale come acciaio, alluminio, rame, plastica etc. for materials having spiral chips such as steel, aluminium, copper, plastics, etc.	10
06	C-20	per materiali con bavature fragili come ghisa ed ottone etc. for material having brittle burrs such as cast iron and brass etc.	10
07	C-30	per materiali con bavature simultanee interne ed esterne di fori di lamine di metallo con spessore fino a 10 mm for both sides deburring of sheet metal holes up to 10 mm thickness	10
08	C-10 TiN	per materiali duri con maggiore durata rispetto all'Art. 5012.05 perché rivestita in Titanio for hard materials; lasts longer than 5012.05 thanks to its Titanium coat	10
09	C-20 TiN	per materiali duri con maggiore durata rispetto all'Art. 5012.06 perché rivestita in Titanio for hard materials; lasts longer than 5012.06 thanks to its Titanium coat	10
10	C-101	per piccoli fori da Ø 1,5 mm in acciaio e alluminio for small holes from 1.5 mm Ø in steel and aluminium	10
11	C-15	per acciaio inox e plastica dura for stainless steel and hard plastics	10
19	C-35	per bordi dritti sulla maggior parte dei materiali for straight edges on most material	10
20	C-60	per la sbavatura posteriore fino ad uno spessore di 20 mm for backside deburring up to 20 mm thickness	5
21	C-10 Carbide	in carburo per la sbavatura di metalli duri in carbide for hard metal deburring	1



LAME Ø 6 mm / BLADES Ø 6 mm

ART. 5012

CODE	MOD.	Descrizione / Description	Conf. Pack
12	R-10(S)	per sbavature extra dure, per materiali con bavature a spirale come acciaio, alluminio, rame, zinco etc. for extra burrs, for materials with spiral burrs such as steel, aluminium, copper, zinc etc.	5
13	R-15(S)	per acciaio inox for stainless steel application	5



BF SERVICE

SBAVATORI
DEBURRING TOOLS

LAME SCR / BLADES SCR

ART. 5012

CODE	MOD.	Descrizione / Description
14	SCR-8B	Lama triangolare in HSS 8 mm Triangular 8 mm HSS blade
23	SCR-3(75)	lama triangolare in HSS 3 mm, per lavori di precisione. Lunghezza 75 mm Triangular 3 mm HSS scraper blade. 75 mm length
24	SCR-345	lama in HSS 3,2 mm piegata a 45° per sbavature interne. Lunghezza 75 mm 3.2 mm HSS blade 45 degree internal scraper. 75 mm length
25	SCR-6(2) Combo	doppia lama in HSS da 6 mm. Un lato con lama raschietto triangolare ed un lato con lama per sbavature interne double ended 6 mm blade. Triangular scraper on one side and internal scraper on another side


SCR-8B


SCR-3(75)


SCR-345


SCR-6(2) Combo

SVASATORI PER USO MANUALE
HAND COUNTERSINKS

ART. 5007

CODE	MOD.	Descrizione / Description
05	CS-12	a 2 taglienti per fori da 3 a 12 mm 2 flute for holes from 3 to 12 mm
06	CS-20	a 2 taglienti per fori da 3 a 20 mm 2 flute for holes from 3 to 20 mm
07	CS-30	a 2 taglienti per fori da 3 a 30 mm 2 flute for holes from 3 to 30 mm


CS-12 CS-20 CS-30

FRESE PER SVASARE A MACCHINA
MACHINE COUNTERSINKS

ART. 5007

CODE	MOD.	Descrizione / Description
08	CS-12-3FLS	a 3 taglienti, gambo lungo per fori da 3 a 12 mm 3 flute, long shank for holes from 3 to 12 mm
09	CS-20-3FLS	a 3 taglienti, gambo lungo per fori da 5 a 20 mm 3 flute, long shank for holes from 5 to 20 mm
10	CS-30-3FLS	a 3 taglienti, gambo lungo per fori da 5 a 30 mm 3 flute, long shank for holes from 5 to 30 mm
11	CS-40-3FLS	a 3 taglienti, gambo lungo per fori da 5 a 40 mm 3 flute, long shank for holes from 5 to 40 mm


CS-12-3FLS


CS-20-3FLS


CS-30-3FLS


CS-40-3FLS

SET

ART. 5008.06

Composizione / Content
1 impugnatura D-SD-MK e n°10 lame per sbavatura Ø 3,2 mm: 2 pz ciascuno di C-10, C-20, C-101, 1 pz ciascuno di C-30, C-15, C-35, C-10 rivestita D-SD-MK handle and 10 blades of 3.2 mm Ø: 2 pcs each of C-10, C-20, C-101 and 1 pcs each of C-30, C-15, C-35, C-10 coated



BF SERVICE

SBAVATORI
DEBURRING TOOLS

SMART KIT

ART. 5008.07

Composizione / Content
N°1 sbavatore MC-1 / N°1 deburring tool MC-1
N°1 sbavatore ET-2 / N°1 deburring tool ET-2
N°1 sbavatore RDT-MK / N°1 deburring tool RDT-MK
N°1 sbavatore DT-MK / N°1 deburring tool DT-MK
N°1 sbavatore V-2-MK / N°1 deburring tool V-2-MK
N°1 svasatore F-MK / N°1 countersink F-MK
N°1 raschietto MT / N°1 scraper MT
N°1 raschietto SCR-6(2)-MK / N°1 scraper SCR-6(2)-MK
N°1 utensile in ceramica CT-MK / N°1 ceramic tool CT-MK
1 confezione da n°10 lame Ø 3,2 mm: 2 pz ciascuno di C-10, C-20, C-101, 1 pz ciascuno di C-15, C-35, C-30, C-10 rivestita 10 pcs. pack of 3.2 mm Ø blades: 2 pcs each of C-10, C-20, C-101 and 1 pcs each of C-15, C-35, C-30, C-10 coated
1 confezione da n°5 lame Ø 6 mm: 2 pz. R-10(S) e 3 pz. R-15(S) 5 pcs pack of 6 mm Ø blades: 2 pcs of R-10(S) and 3 pcs of R-15(S)



SUPPORTI TELESCOPICI
TELESCOPIC BLADE HOLDERS

ART. 5010

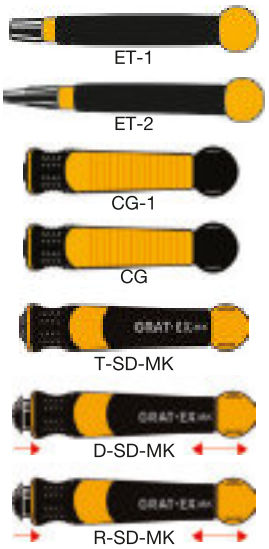
CODE	MOD.	Descrizione / Description
01	DT(C)	per lame tipo C, MC da Ø 3,2 mm holds Ø 3.2 mm C, MC blades
02	VT	per lame tipo V-4 holds V-4 blades
03	KW	per lame per sbavatori di sedi di chiavette/fessure holds key-way/slot deburring blades
04	DT(P)	per lame tipo P, MP da Ø 2,6 mm holds Ø 2.6 mm P, MP blades
05	CS-Long	tipo lungo per svasatori a 2 taglienti long length, holds all 2-flute countersinks



IMPUGNATURE / HANDLES

ART. 5011

CODE	MOD.	Descrizione / Description
05	ET-1	per lame da Ø 2,6 mm tipo P, MP holds all Ø 2.6 mm P, MP blades
06	ET-2	per lame da Ø 3,2 mm tipo C, MC holds all Ø 3.2 mm C, MC blades
07	CG-1	per lame da Ø 2,6 mm tipo P, MP holds all Ø 2.6 mm P, MP blades
08	CG	per lame raschietto da Ø 3,2 mm holds Ø 3.2 mm scraper
09	T-SD-MK	per supporti telescopici holds all telescopic holders
10	D-SD-MK	per lame da Ø 3,2 mm tipo C, MC holds all Ø 3.2 mm C, MC blades
11	R-SD-MK	per lame da Ø 6 mm tipo R, MR holds all Ø 6 mm R, MR blades



BF SERVICE

SBAVATORI
DEBURRING TOOLS

INNOVATIVO DESIGN NEGLI UTENSILI PER SBAVATURA
BREAK-THROUGH DESIGN IN THE HISTORY OF DEBURRING







LAME PER SBAVATURA STANDARD
STANDARD DEBURRING BLADES



Effettiva zona di taglio
Effective cutting edge portion

NUOVA LAMA PER SBAVATURA
CON TAGLIENTE MULTIPLO
NEW MULTI-CUTTING EDGE DEBURRING BLADES



Guide
Guides

Effettiva zona di taglio
Effective cutting edge portion





acciaio - tagliente 1
steel - cutting edge 1

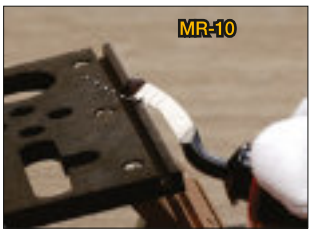


acciaio - tagliente 2
steel - cutting edge 2

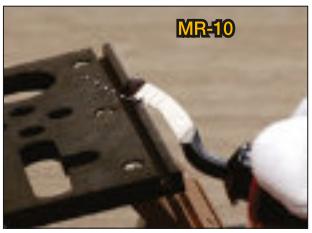


su foro di ottone - tagliente 3
on brass hole - cutting edge 3





acciaio - tagliente 3
steel - cutting edge 3



acciaio - tagliente 4
steel - cutting edge 4



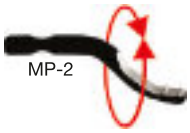
per piccoli fori su acciaio
for small hole deburring of steel

LAME Ø 2,6 mm / BLADES Ø 2.6 mm

ART. 6012

CODE	MOD.	Descrizione / Description	N. taglienti N. cutting edges	Conf. Pack
13	MP-1	applicazioni leggere come acciaio, alluminio, rame, zinco, plastica etc. for light duty application: steel, aluminium, copper, zinc, plastics, etc.	2	10
14	MP-2	per applicazioni leggere come acciaio legato, ottone etc. for light duty application such as cast iron, brass etc.	2	10



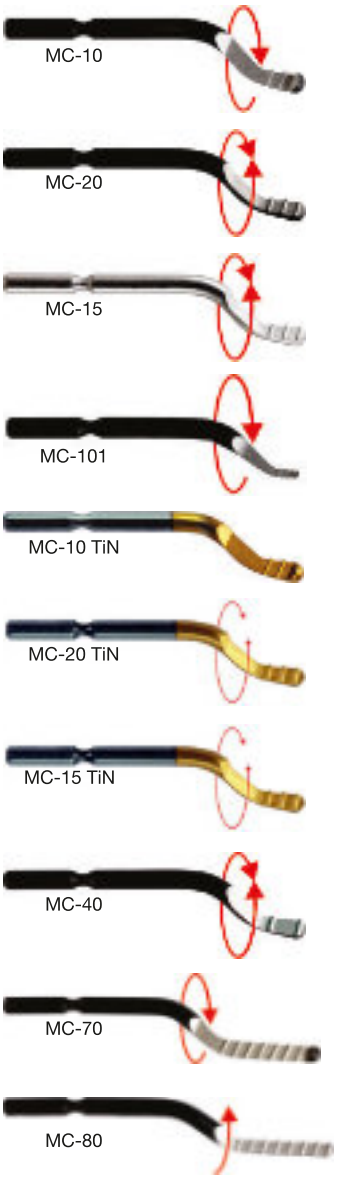


BF SERVICE

LAME Ø 3,2 mm / BLADES Ø 3.2 mm

ART. 6012

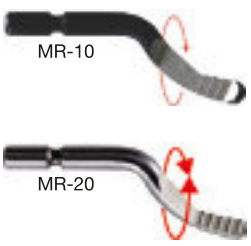
CODE	MOD.	Descrizione / Description	N. taglienti N. cutting edges	Conf. Pack
03	MC-10	per materiali con bavature a spirale come acciaio, alluminio, rame, zinco, plastica etc. for materials having spiral chips such as steel, aluminium, copper, zinc, plastics, etc.	3	10
04	MC-20	per materiali con bavature fragili come acciao legato, ottone, etc. for materials having brittle burr such as cast iron, brass, etc.	3	10
05	MC-15	per acciaio inox e plastica dura for stainless steel and hard plastics	3	10
06	MC-101	per la sbavatura di piccoli fori da Ø 1,5 mm in acciaio e alluminio for small holes from 1.5 mm Ø in steel and aluminium	2	10
07	MC-10 TiN	per materiali duri con maggiore durata rispetto al tipo 6012.03 perchè rivestita in Titanio for hard materials; lasts longer than 6012.03 thanks to its Titanium coat	3	10
08	MC-20 TiN	per materiali duri con maggiore durata rispetto all'Art. 6012.04 perché rivestita in Titanio for hard materials; lasts longer than 6012.04 thanks to its Titanium coat	3	10
09	MC-15 TiN	per materiali duri con maggiore durata rispetto all'Art. 6012.05 perché rivestita in Titanio for hard materials; lasts longer than 6012.05 thanks to its Titanium coat	3	10
10	MC-40	per sbavature di fori su tutti i metalli for hole deburring of all metals	2	10
11	MC-70	di lunga durata, con 8 taglienti per sbavature su bordi dritti di acciaio, alluminio, rame, zinco, etc. long lasting blade with 8 cutting edges for straight edge deburring of steel, aluminium, copper, zinc, ect.	8	10
12	MC-80	di lunga durata, con 8 taglienti per sbavature su bordi dritti di acciaio legato ed ottone long lasting blade with 8 cutting edges for straight edge deburring of cast iron and brass	8	10



LAME Ø 6 mm / BLADES Ø 6 mm

ART. 6012

CODE	MOD.	Descrizione / Description	N. taglienti N. cutting edges	Conf. Pack
01	MR-10	per sbavature extra dure, per materiali con bavature a spirale come acciaio, alluminio, rame, zinco, etc. for extra burrs, for materials with spiral burrs such as steel, aluminium, copper, zinc, etc.	4	5
02	MR-15	per applicazioni su acciaio inox for stainless steel application	5	5



BF SERVICE

SBAVATORI
DEBURRING TOOLS

SBAVATORE DT-SD-MC (3-IN-1)
DEBURRING TOOL DT-SD-MC (3-IN-1)

ART. 6001.01

Composto da un'impugnatura ergonomica multicomponente tipo R-SD-MK con supporti SD-C, SD-P e n°6 lame: (MR-10, MC-10, MC-20, MC-101, MP-1 e MP-2). Unico utensile con possibilità di montare lame di dimensioni diverse. Le lame ed i supporti possono essere alloggiati nel manico.

Provided with multi-component R-SD-MK handle with SD-C, SD-P holders and 6 blades: (MR-10, MC-10, MC-20, MC-101, MP-1, MP-2). Unique tool which holds 3 sizes of multi-cutting blades in a one handle. Spare blades can be stored inside.



RASCHIETTI TRIANGOLARI / TRIANGULAR SCRAPERS

ART. 6001

Composti da un'impugnatura ergonomica multicomponente.

Provided with multi-component handle based scraper.

CODE	MOD.	Descrizione / Description
02	HS-80	con lama doppia da 4,2 mm, lunghezza 80 mm with double ended hollow scraper of 4.2 mm, length 80 mm
03	HS-120	con lama doppia da 7,4 mm, lunghezza 120 mm with double ended hollow scraper of 7.4 mm, length 120 mm



Art. 6001.02



Art. 6001.03

LAME TRIANGOLARI HS / TRIANGULAR BLADES HS

ART. 6012

CODE	MOD.	Descrizione / Description
15	HS-80	lama doppia da 4,2 mm, lunghezza 80 mm double ended hollow scraper of 4.2 mm, length 80 mm
16	HS-120	lama doppia da 7,4 mm, lunghezza 120 mm double ended hollow scraper of 7.4 mm, length 120 mm



HS-80



HS-120

SET

ART. 6008.01

Composizione / Content
1 impugnatura D-SD-MK e n°10 lame Ø 3,2 mm: 2 pz MC-10, 2 pz MC-20, 2 pz MC-15, 2 pz MC-101, 2 pz MC-40 D-SD-MK handle and 10 blades of 3.2 mm Ø: 2 pcs MC-10, 2 pcs MC-20, 2 pcs MC-15, 2 pcs MC-101, 2 pcs MC-40



BF SERVICE

ELEMENTI DI STAFFAGGIO
CLAMPING ELEMENTS

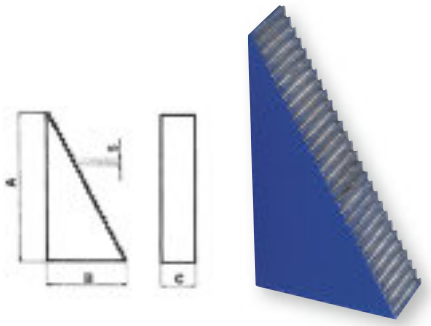
Materiale: acciaio bonificato R=80 ÷ 90 kg/mm² - Esecuzione: verniciata a forno
Material: hardened and tempered steel R=80 ÷ 90 kg/mm² - Heat treated

APPOGGI DI FISSAGGIO GRADINATO / STEP BLOCKS

ART. 1021

CODE			01	02	03
Altezza / Height	A	mm	34	65	125
Base / Base	B	mm	21	40	70
Spessore / Thickness	C	mm	30	30	30
Altezza accoppiamento Coupling height	min max	mm	21 53	38 105	70 208

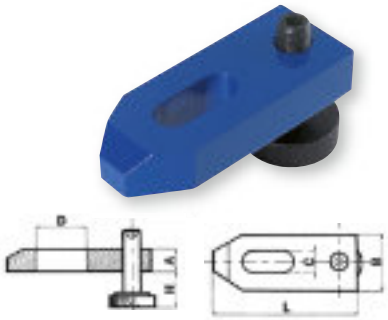
Utilizzabili in coppia o singolarmente con staffa art. 1061
Can be used as a pair or individually with clamp art. 1061



STAFFE REGOLABILI /ADJUSTABLE CLAMPS

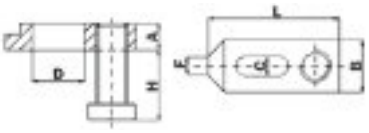
ART. 1024

CODE			01	02	03
Altezza / Height	A	mm	15	20	25
Base / Base	B	mm	30	40	50
Lunghezza / Length	L	mm	80	100	125
Altezza regolabile / Adjustable height	H	mm	8 ÷ 28	10 ÷ 32	13 ÷ 40
Larghezza cava / Slot width	C	mm	11	15	18
Lunghezza cava / Slot length	D	mm	30	40	45
Per vite filettatura / For thread			M10	M12-14	M16-18



STAFFE CON APPOGGIO VITE QUADRA
CLAMPS WITH SUPPORT SCREW

ART. 1027

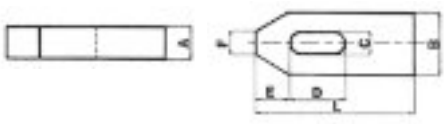




CODE			01	02	03	04	05	06	07	08
Altezza / Height	A	mm	20	20	20	25	25	25	30	30
Base / Base	B	mm	40	40	40	50	50	50	60	60
Lunghezza / Length	L	mm	100	125	160	125	160	200	160	200
Altezza regolabile / Adjustable height	H	mm	13÷40	13÷40	13÷40	13÷45	13÷45	13÷45	13÷60	13÷60
Larghezza cava / Slot width	C	mm	15	15	15	18	18	18	22	22
Lunghezza cava / Slot length	D	mm	40	54	70	54	70	110	60	90
Larghezza punta / Tip width	F	mm	14	14	14	18	18	18	22	22
Ø x passo vite / Thread pitch size			M24x4	M24x4	M24x4	M24x4	M24x4	M24x4	M35x5	M35x5
Per vite filettatura / For thread			M12-14	M12-14	M12-14	M16-18	M16-18	M16-18	M20-22	M20-22

STAFFE SEMPLICI / PLAIN CLAMPS

ART. 1041





CODE			01	02	03	04	05	06	07	08	09	10	11	12	13
Altezza / Height	A	mm	10	12	15	20	20	25	25	30	30	30	30	40	40
Base / Base	B	mm	20	25	30	40	40	50	50	60	60	70	70	80	80
Lunghezza / Length	L	mm	50	60	80	100	125	125	160	160	200	200	250	250	315
Larghezza cava / Slot width	C	mm	7	9	11	14	14	18	18	22	22	26	26	34	34
Lunghezza cava / Slot length	D	mm	20	22	30	40	50	45	65	60	80	80	105	100	130
Distanza cava / Slot distance	E	mm	10	13	15	21	21	26	26	30	30	35	35	45	45
Larghezza punta Tip width	F	mm	8	10	12	14	14	18	18	22	22	26	26	34	34
Per vite filettatura/ For thread			M6	M8	M10	M12	M14	M16	M18	M20	M22	M24	M24	M30	M30

Precisione secondo: norme DIN 6314 / Accuracy according to DIN 6314

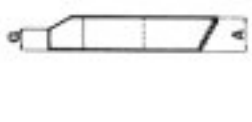
BF SERVICE

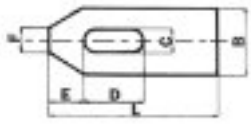
ELEMENTI DI STAFFAGGIO
CLAMPING ELEMENTS

Materiale: acciaio bonificato R=80 ÷ 90 kg/mm² - Esecuzione: verniciata a forno
Material: hardened and tempered steel R=80 ÷ 90 kg/mm² - Heat treated

STAFFE DENTATE / SERRATED END CLAMPS

ART. 1061



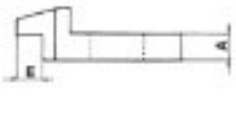


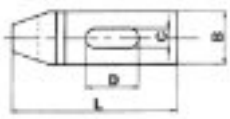


CODE		01	02	03	04	05	06	07
Altezza / Height	A mm	10	12	15	20	25	30	30
Base / Base	B mm	20	25	30	40	50	60	70
Lunghezza / Length	L mm	50	60	80	100	125	160	200
Larghezza cava / Slot width	C mm	7	9	11	14	18	22	26
Lunghezza cava / Slot length	D mm	20	22	30	40	45	60	80
Distanza cava Slot distance	E mm	10	13	15	21	26	30	35
Larghezza punta / Tip width	F mm	8	10	12	14	18	22	26
Altezza punta /Tip height	G mm	6	7	9	12	15	18	18
Per vite filettatura/ For thread		M6	M8	M10	M12-14	M16-18	M20-22	M24

STAFFE A GOMITO / STEP BLOCKS

ART. 1131





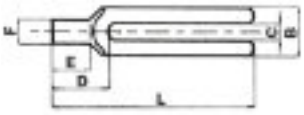


CODE		01	02	03	04	05	06	07
Altezza / Height	A mm	20	25	25	25	30	30	30
Base / Base	B mm	40	50	50	50	60	60	70
Lunghezza / Length	L mm	125	160	160	160	200	200	250
Larghezza cava / Slot width	C mm	14	16	18	22	22	26	26
Lunghezza cava / Slot length	D mm	40	60	60	60	90	90	120
Larghezza punta / Tip width	E mm	25	30	30	30	35	35	35
Per vite filettatura/ For thread		M12	M14	M16	M20	M20	M24	M24

STAFFE A FORCELLA GAMBO CILINDRICO
FORKED CLAMPS WITH PIN END

ART. 1091







CODE		01	02	03	04	05	06	07	08	09	10	11	12
Altezza / Height	A mm	15	20	25	25	30	30	40	40	40	40	50	50
Base / Base	B mm	30	30	40	40	50	50	60	60	70	70	80	80
Lunghezza / Length	L mm	100	125	160	200	200	250	250	315	250	315	315	400
Larghezza cava / Slot width	C mm	9	11	14	14	18	18	22	22	26	26	34	34
Distanza cava Slot distance	D mm	30	36	45	45	55	55	70	70	85	85	85	85
Lunghezza gambo Pin length	E mm	18	24	30	30	36	36	45	45	56	56	56	56
Ø gambo / Pin Ø	F mm	12	16	20	20	24	24	30	30	38	38	45	45
Per vite filettatura/ For thread		M8	M10	M12-14	M12-14	M16-18	M16-18	M20-22	M20-22	M24	M24	M30	M30

Precisione secondo norme DIN 6315C / Accuracy according to DIN 6315C

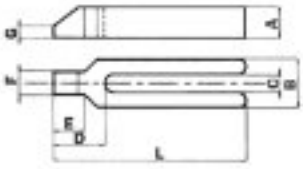
BF SERVICE

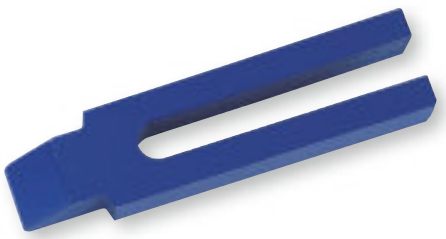
ELEMENTI DI STAFFAGGIO
CLAMPING ELEMENTS

Materiale: acciaio bonificato R=80 ÷ 90 kg/mm² - Esecuzione: verniciata a forno
Material: hardened and tempered steel R=80 ÷ 90 kg/mm² - Heat treated

STAFFE A FORCELLA CON NASELLO
FORKED CLAMPS WITH NARROW NOSE

ART. 1111

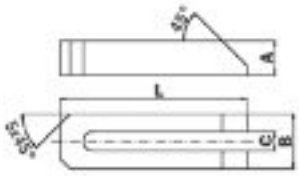




CODE			01	02	03	04	05	06
Altezza / Height	A	mm	15	20	25	25	30	30
Base / Base	B	mm	30	30	40	40	50	50
Lunghezza / Length	L	mm	100	125	160	200	200	250
Larghezza cava / Slot width	C	mm	9	11	14	14	18	18
Distanza cava / Slot distance	D	mm	32	38	47	47	57	57
Lunghezza nasello / Nose length	E	mm	18	24	30	30	36	36
Larghezza nasello / Nose width	F	mm	16	20	25	25	28	28
Min altezza nasello / Min. nose height	G	mm	5	6	7	7	8	8
Per vite filettatura / For thread			M8	M10	M12-14	M12-14	M16-18	M16-18
CODE			**07**	**08**	**09**	**10**	**11**	**12**
Altezza / Height	A	mm	40	40	40	40	50	50
Base / Base	B	mm	60	60	70	70	80	80
Lunghezza / Length	L	mm	250	315	250	315	315	400
Larghezza cava / Slot width	C	mm	22	22	26	26	34	34
Distanza cava / Slot distance	D	mm	68	68	83	83	88	88
Lunghezza nasello / Nose length	E	mm	45	45	56	56	56	56
Larghezza nasello / Nose width	F	mm	40	40	43	43	50	50
Min altezza nasello / Min. nose height	G	mm	10	10	10	10	12	12
Per vite filettatura / For thread			M20-22	M20-22	M24	M24	M30	M30

STAFFE A FORCELLA CON SMUSSO
TAPERED FORKED CLAMPS

ART. 1141





CODE			01	02	03	04	05	06	07	08	09	10
Altezza / Height	A	mm	15	15	20	25	25	25	30	30	40	40
Base / Base	B	mm	21	30	31	40	40	40	50	50	50	62
Lunghezza / Length	L	mm	60	80	100	125	160	200	160	200	250	200
Larghezza cava / Slot width	C	mm	7	9	11	14	14	14	18	18	18	22
Per vite filettatura / For thread			M6	M8	M10	M12-14	M12-14	M12-14	M16-18	M16-18	M16-18	M20-22
CODE			**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
Altezza / Height	A	mm	40	40	40	40	40	50	50	50	60	60
Base / Base	B	mm	62	62	66	66	66	74	74	74	100	100
Lunghezza / Length	L	mm	250	300	200	250	315	250	315	400	400	600
Larghezza cava / Slot width	C	mm	22	22	26	26	26	34	34	34	40	40
Per vite filettatura / For thread			M20-22	M20-22	M24	M24	M24	M30	M30	M30	M36	M36

Precisione secondo: Norme DIN 6315B / Accuracy according to: DIN 6315B

BF SERVICE

ELEMENTI DI STAFFAGGIO
CLAMPING ELEMENTS

Materiale: acciaio bonificato R=80 ÷ 90 kg/mm² - Esecuzione: verniciata a forno
Material: hardened and tempered steel R=80 ÷ 90 kg/mm² - Heat treated

APPOGGI A VITE
SUPPORT SCREWS

ART. 1031





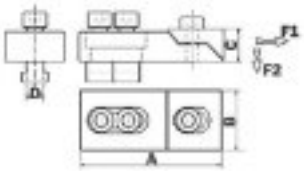
CODE			01	02	03	04	05	06
Ø testata Head Ø	d	mm	34	50	50	65	70	80
Ø corpo Body Ø	D	mm	34	50	50	65	80	100
Ø vite Screw Ø	V	mm	24	35	35	40	50	65
Altezza Height	min	mm	38	50	70	100	140	190
	max	mm	50	70	100	140	210	300

Materiale: acciaio bonificato R=80 ÷ 90 kg/mm² - Esecuzione superficiale: brunitura
Material: hardened and tempered steel R=80 ÷ 90 kg/mm² - Black oxide finish

MORSETTI PER STAFFAGGIO LATERALE
LOW HEIGHT CLAMPING JAWS

ART. 1142



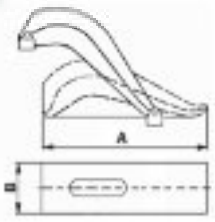


CODE			01	02	03	04	05	06
Lunghezza Length	A	mm	115					
Larghezza Width	B	mm	50					
Altezza Height	C	mm	30					
Larghezza cava Slot width	D	mm	10	12	14	16	18	20
Forza applicata Applied force	F1	KN	13,98					
	F2	KN	10,77					

STAFFE DI SERRAGGIO AD ALTEZZA VARIABILE
STEPLESS HEIGHT ADJUSTABLE CLAMPS

ART. 1020





CODE			01	02	03
Lunghezza Length	A	mm	125	150	200
Larghezza Width	B	mm	37	47	57
Per cave For grooves			14-16	18-20	20-22
Per viti For screws			M12	M16	M18

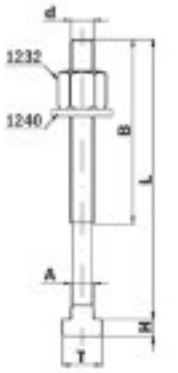
BF SERVICE

ELEMENTI DI STAFFAGGIO
CLAMPING ELEMENTS

Materiale: acciaio bonificato R=80 ÷ 90 kg/mm² - Esecuzione superficiale: brunitura - Classe 8.8
Material: hardened and tempered steel R=80 ÷ 90 kg/mm² - Black oxide finish - Class 8.8

VITI A TESTA MARTELLO COMPLETE DI DADO E RONDELLA
T-BOLTS WITH NUT AND WASHER

ART. 1174





CODE		04	05	06	07	08	09	10	11	12	13	14
d	M	10	10	10	10	10	10	10	12	12	12	12
L	mm	45	60	80	100	120	140	160	50	60	80	100
B	mm	30	30	35	45	55	45	45	30	35	40	45
A	mm	9,7	9,7	9,7	9,7	9,7	9,7	9,7	11,7	11,7	11,7	11,7
T	mm	17	17	17	17	17	17	17	20	20	20	20
H	mm	6	6	6	6	6	6	6	7	7	7	7
Per cave / For grooves		10	10	10	10	10	10	10	12	12	12	12
CODE		**15**	**16**	**17**	**18**	**19**	**20**	**21**	**22**	**23**	**24**	**25**
d	M	12	12	12	12	12	14	14	14	14	14	14
L	mm	115	125	145	175	205	60	70	80	100	120	150
B	mm	45	55	55	55	55	35	40	45	45	55	75
A	mm	11,7	11,7	11,7	11,7	11,7	13,7	13,7	13,7	13,7	13,7	13,7
T	mm	20	20	20	20	20	23	23	23	23	23	23
H	mm	7	7	7	7	7	9	9	9	9	9	9
Per cave / For grooves		12	12	12	12	12	14	14	14	14	14	14
CODE		**26**	**27**	**28**	**29**	**30**	**31**	**32**	**33**	**34**	**35**	**36**
d	M	14	14	14	16	16	16	16	16	16	16	16
L	mm	180	200	240	60	80	100	120	160	180	210	240
B	mm	75	65	80	40	60	45	55	65	75	75	75
A	mm	13,7	13,7	13,7	15,7	15,7	15,7	15,7	15,7	15,7	15,7	15,7
T	mm	23	23	23	25	25	25	25	25	25	25	25
H	mm	9	9	9	10	10	10	10	10	10	10	10
Per cave / For grooves		14	14	14	16	16	16	16	16	16	16	16
CODE		**37**	**38**	**39**	**40**	**41**	**42**	**43**	**44**	**45**	**46**	**47**
d	M	18	18	18	18	18	18	18	20	20	20	20
L	mm	80	100	120	160	180	210	240	80	100	120	150
B	mm	45	45	55	65	65	65	65	35	55	55	75
A	mm	17,7	17,7	17,7	17,7	17,7	17,7	17,7	19,7	19,7	19,7	19,7
T	mm	30	30	30	30	30	30	30	32	32	32	32
H	mm	10,5	10,5	10,5	10,5	10,5	10,5	10,5	12	12	12	12
Per cave / For grooves		18	18	18	18	18	18	18	20	20	20	20
CODE		**48**	**49**	**50**	**51**	**52**	**53**	**54**	**55**	**56**	**57**	**58**
d	M	20	20	20	22	22	22	22	24	24	24	24
L	mm	180	210	240	130	210	265	315	130	210	265	310
B	mm	70	70	75	80	80	80	80	70	70	80	80
A	mm	19,7	19,7	19,7	21,7	21,7	21,7	21,7	23,7	23,7	23,7	23,7
T	mm	32	32	32	35	35	35	35	40	40	40	40
H	mm	12	12	12	14,5	14,5	14,5	14,5	16	16	16	16
Per cave / For grooves		20	20	20	22	22	22	22	24	24	24	24

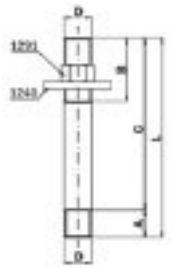
BF SERVICE

ELEMENTI DI STAFFAGGIO
CLAMPING ELEMENTS

Materiale: acciaio bonificato R=80 ÷ 90 kg/mm² - Esecuzione superficiale: brunitura - Classe 8.8
Material: hardened and tempered steel R=80 ÷ 90 kg/mm² - Black oxide finish - Class 8.8

TIRANTI FILETTATI PER DADI A "T" COMPLETI DI DADO E RONDELLA
THREADED BOLTS FOT T-NUTS WITH NUT AND WASHER

ART. 1251



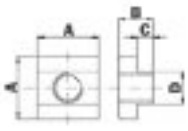


CODE		01	02	03	04	05	06	07	08	09	10	11	12	13
D	M	12	12	12	12	12	12	14	14	14	14	14	14	16
L	mm	75	95	115	135	165	215	65	96	115	135	165	215	85
A	mm	15	15	15	15	15	15	15	15	15	15	15	15	20
B	mm	35	55	60	70	80	100	35	45	70	70	90	90	45
C	mm	60	80	100	120	150	200	50	80	100	120	150	200	65
CODE		**14**	**15**	**16**	**17**	**18**	**19**	**20**	**21**	**22**	**23**	**24**	**25**	**26**
D	M	16	16	16	16	16	18	18	18	18	18	18	20	20
L	mm	120	140	170	220	245	110	140	170	220	245	270	115	145
A	mm	20	20	20	20	20	20	20	20	20	20	20	28	28
B	mm	60	70	80	90	100	50	70	90	120	100	120	50	70
C	mm	100	120	150	200	225	90	120	150	200	225	250	87	117

CODE		27	28	29	30	31	32	33	34	35	36	37
D	M	20	20	20	22	22	22	22	24	24	24	24
L	mm	175	225	275	150	230	280	330	155	235	285	335
A	mm	28	28	28	30	30	30	30	35	35	35	35
B	mm	90	115	115	60	70	115	115	80	105	140	105
C	mm	147	191	247	120	200	210	300	120	200	250	300

DADI A "T" PER SCANALATURE DI MACCHINE UTENSILI
T-NUTS FOR MACHINE TOOL GROOVES

ART. 1310





CODE		01	02	03	04	05	06	07	08	09
Filetto / Thread	M	10	12	14	16	18	20	22	24	8
A	mm	18	22	25	28	32	36	40	44	15
B	mm	14	16	18	20	24	28	32	36	12
C	mm	7	8	9	10	12	14	16	18	6
D	mm	11,7	13,7	15,7	17,7	19,7	21,7	23,7	27,7	9,7
Per cava For grooves		12	14	16	18	20	22	24	28	10

Precisione secondo: Norme DIN 508 / Accuracy according to: DIN 508

BF SERVICE

ELEMENTI DI STAFFAGGIO
CLAMPING ELEMENTS

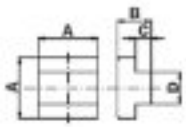
Materiale: acciaio bonificato R=80 ÷ 90 kg/mm² - Esecuzione superficiale: brunitura - Classe 8.8
Material: hardened and tempered steel R=80 ÷ 90 kg/mm² - Black oxide finish - Class 8.8

DADI A "T" NON FORATI, PER SCANALATURE DI MACCHINE UTENSILI
T-NUTS BLANKS FOR MACHINE TOOL GROOVES

ART. 1311



CODE		01	02	03	04	05
A	mm	15	18	22	25	28
B	mm	12	14	16	18	20
C	mm	6	7	8	9	10
D	mm	9,7	11,7	13,7	15,7	17,7
Per cava / For groove		10	12	14	16	18
CODE		**06**	**07**	**08**	**09**	
A	mm	32	36	40	44	
B	mm	24	28	32	36	
C	mm	12	14	16	18	
D	mm	19,7	21,7	23,7	27,7	
Per cava / For groove		20	22	24	28	

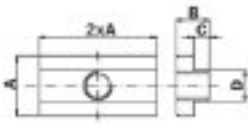


DADI A "T" LUNGHEZZA DOPPIA, PER SCANALATURE DI MACCHINE UTENSILI
EXTENDED T-NUTS FOR MACHINE TOOL GROOVES

ART. 1312



CODE		01	02	03	04	05
Filetto / Thread	M	8	10	12	14	16
A	mm	15	18	22	25	28
B	mm	12	14	16	18	20
C	mm	6	7	8	9	10
D	mm	9,7	11,7	13,7	15,7	17,7
Per cava / For groove		10	12	14	16	18
CODE		**06**	**07**	**08**	**09**	
Filetto / Thread	M	18	20	22	24	
A	mm	32	36	40	44	
B	mm	24	28	32	36	
C	mm	12	14	16	18	
D	mm	19,7	21,7	23,7	27,7	
Per cava / For groove		20	22	24	28	

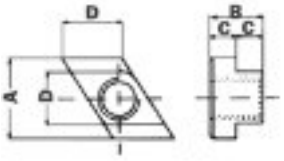


DADI A "T" FORMA ROMBOIDALE, PER SCANALATURE DI MACCHINE UTENSILI
RHOMBOIDAL T- NUTS FOR MACHINE TOOL GROOVES

ART. 1313



CODE		01	02	03	04	05
Filetto / Thread	M	8	10	12	14	16
A	mm	15	18	22	25	28
B	mm	12	14	16	18	20
C	mm	6	7	8	9	10
D	mm	9,7	11,7	13,7	15,7	17,7
Per cava / For groove		10	12	14	16	18
CODE		**06**	**07**	**08**	**09**	
Filetto / Thread	M	18	20	22	24	
A	mm	32	36	40	44	
B	mm	24	28	32	36	
C	mm	12	14	16	18	
D	mm	19,7	21,7	23,7	27,7	
Per cava / For groove		20	22	24	28	



BF SERVICE

ELEMENTI DI STAFFAGGIO
CLAMPING ELEMENTS

Materiale: acciaio bonificato R=80 ÷ 90 kg/mm² - Esecuzione superficiale: brunitura - Classe 8.8
Material: hardened and tempered steel R=80 ÷ 90 kg/mm² - Black oxide finish - Class 8.8

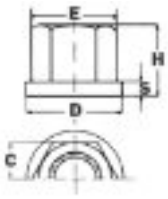
DADI DI MANOVRA CON RONDELLA
RHOMBOIDAL T- NUTS FOR MACHINE TOOL GROOVES

ART. 1233



CODE		01	02	03	04	05
Filetto / Thread	M	8	10	12	14	16
C	mm	13	17	19	22	24
E	mm	15	19,6	21,9	25,4	27,7
H	mm	12	15	18	21	24
S	mm	3,5	4	4	4,5	5
D	mm	18	22	25	28	31

CODE		06	07	08	09
Filetto / Thread	M	18	20	22	24
C	mm	27	30	32	36
E	mm	31,2	34,6	37	41,5
H	mm	27	30	33	36
S	mm	5	6	6	6
D	mm	34	37	40	45



Precisione secondo: Norme DIN 6331 / Accuracy according to: DIN 6331

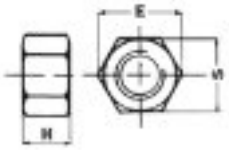
DADI BASSI / LOW NUTS

ART. 1291



CODE		01	02	03	04
Filetto / Thread	M	12	14	16	18
S	mm	19	22	24	27
E	mm	21,5	25	27,5	31
H	mm	12	14	16	18

CODE		05	06	07
Filetto / Thread	M	20	22	24
S	mm	30	32	36
E	mm	34,5	37	41,5
H	mm	20	22	24



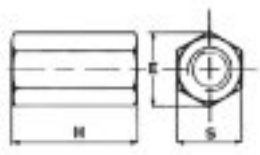
MANICOTTI DI GIUNZIONE / COUPLING NUTS

ART. 1301



CODE		01	02	03	04	05
Filetto / Thread	M	12	14	16	18	20
S	mm	19	22	24	27	30
E	mm	21,5	25	27,5	31	34,5
H	mm	30	35	40	45	50

CODE		06	07	08	09
Filetto / Thread	M	22	24	8	10
S	mm	32	36	14	17
E	mm	37	41,5	16	19,5
H	mm	55	60	22	24



BF SERVICE

ELEMENTI DI STAFFAGGIO
CLAMPING ELEMENTS

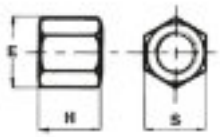
Materiale: acciaio bonificato R=80 ÷ 90 kg/mm² - Esecuzione superficiale: brunitura - Classe 8.8
Material: hardened and tempered steel R=80 ÷ 90 kg/mm² - Black oxide finish - Class 8.8

DADI DI MANOVRA / FIXTURE NUTS

ART. 1232



CODE		01	02	03	04	05
Filetto / Thread	M	8	10	12	14	16
S	mm	13	17	19	22	24
E	mm	15	19,6	21,9	25,4	27,7
H	mm	12	15	18	21	24
CODE		**06**	**07**	**08**	**09**	
Filetto / Thread	M	18	20	22	24	
S	mm	27	30	32	36	
E	mm	31,2	34,6	37	41,5	
H	mm	27	30	32	36	

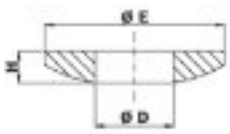


RONDELLE FORMA CONVESSA / CONVEX WASHERS

ART. 1243



CODE		01	02	03	04
D	mm	10,5	13	15	17
E	mm	21	24	28	30
H	mm	4	4,6	5	5,3
CODE		**05**	**06**	**07**	**08**
D	mm	19	21	23	25
E	mm	30	36	36	44
H	mm	6,2	6,3	7,5	8,2



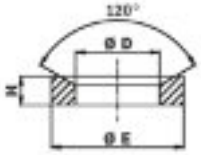
Precisione secondo: Norme DIN 6319C / Accuracy according to: DIN 6319C

RONDELLE FORMA CONCAVA / CONCAVE WASHERS

ART. 1244



CODE		01	02	03	04
D	mm	10,5	13	15	17
E	mm	21	24	28	30
H	mm	4,2	5	5,6	6,2
CODE		**05**	**06**	**07**	**08**
D	mm	19	21	26	28
E	mm	33	36	40	44
H	mm	6,2	7	8,5	9,5



Precisione secondo: Norme DIN 6319D / Accuracy according to: DIN 6319D

BF SERVICE

ELEMENTI DI STAFFAGGIO
CLAMPING ELEMENTS

Materiale: acciaio bonificato R=80 ÷ 90 kg/mm² - Esecuzione superficiale: brunitura
Material: hardened and tempered steel R=80 ÷ 90 kg/mm² - Black oxide finish

RONDELLE ALTE TORNITE / THICK WASHERS

ART. 1321

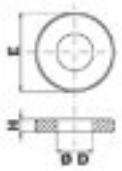




CODE		01	02	03	04	05	06	07
D	mm	13	15	17	19	21	23	25
E	mm	40	45	50	50	50	50	55
H	mm	8	10	10	10	12	12	12

RONDELLE ALTE / HIGH WASHERS

ART. 1242

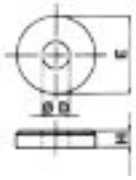




CODE		01	02	03	04	05	06	07
Per vite For Screw	M	10	12	14	16	18	20	8
D	mm	10,5	13	15	17	19	21	8,2
E	mm	25	30	35	40	45	45	25
H	mm	4	5	6	6	7	7	4,5

RONDELLE ALTA RESISTENZA
HIGH RESISTANCE WASHERS

ART. 1240





CODE		01	02	03	04	05	06	07
D	mm	13	15	17	19	21	23	25
E	mm	24	28	30	34	36	40	44
H	mm	3	4	4	4	4	4	4

Materiale: acciaio bonificato R=80 ÷ 90 kg/mm² - Esecuzione superficiale: brunitura - Classe 8.8
Material: hardened and tempered steel R=80 ÷ 90 kg/mm² - Black oxide finish - Class 8.8

VITI PER TORRETTA TORNI / SCREWS FOR LATHE TURRET

ART. 1331



CODE	01	02	03	04	05	06	07	08	09
Ø filettatura / Thread Ø	M8	M10	M12	M14	M16	3/8”	7/16”	1/2”	9/16”

BF SERVICE

RASTRELLIERE PER SERIE BULLONI CON TESTA MARTELLO
T-BOLTS AND WASHERS SET

ART. 1162



PER CAVA 10 mm FOR 10 mm SLOTS		
CODE		**01**
COMPOSIZIONE / CONTENT		
ART.		Pz/Pcs
1242.01	Rondelle / Washers	14
1174.04	Viti TM / T-bolts	2
1174.05	Viti TM / T-bolts	2
1174.06	Viti TM / T-bolts	2
1174.07	Viti TM / T-bolts	2
1174.08	Viti TM / T-bolts	2
1174.09	Viti TM / T-bolts	2
1174.10	Viti TM / T-bolts	2

PER CAVA 12 mm FOR 12 mm SLOTS		
CODE		**02**
COMPOSIZIONE / CONTENT		
ART.		Pz/Pcs
1242.02	Rondelle / Washers	18
1174.11	Viti TM / T-bolts	2
1174.12	Viti TM / T-bolts	2
1174.13	Viti TM / T-bolts	2
1174.14	Viti TM / T-bolts	2
1174.15	Viti TM / T-bolts	2
1174.16	Viti TM / T-bolts	2
1174.17	Viti TM / T-bolts	2
1174.18	Viti TM / T-bolts	2
1174.19	Viti TM / T-bolts	2

PER CAVA 14 mm FOR 14 mm SLOTS		
CODE		**03**
COMPOSIZIONE / CONTENT		
ART.		Pz/Pcs
1242.03	Rondelle / Washers	18
1174.20	Viti TM / T-bolts	2
1174.21	Viti TM / T-bolts	2
1174.22	Viti TM / T-bolts	2
1174.23	Viti TM / T-bolts	2
1174.24	Viti TM / T-bolts	2
1174.25	Viti TM / T-bolts	2
1174.26	Viti TM / T-bolts	2
1174.27	Viti TM / T-bolts	2
1174.28	Viti TM / T-bolts	2

PER CAVA 16 mm FOR 16 mm SLOTS		
CODE		**04**
COMPOSIZIONE / CONTENT		
ART.		Pz/Pcs
1242.04	Rondelle / Washers	16
1174.29	Viti TM / T-bolts	2
1174.30	Viti TM / T-bolts	2
1174.31	Viti TM / T-bolts	2
1174.32	Viti TM / T-bolts	2
1174.33	Viti TM / T-bolts	2
1174.34	Viti TM / T-bolts	2
1174.35	Viti TM / T-bolts	2
1174.36	Viti TM / T-bolts	2

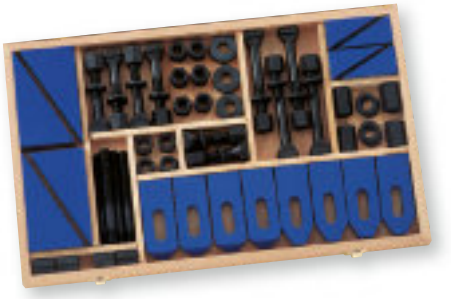
PER CAVA 18 mm FOR 18 mm SLOTS		
CODE		**05**
COMPOSIZIONE / CONTENT		
ART.		Pz/Pcs
1242.05	Rondelle / Washers	14
1174.37	Viti TM / T-bolts	2
1174.38	Viti TM / T-bolts	2
1174.39	Viti TM / T-bolts	2
1174.40	Viti TM / T-bolts	2
1174.41	Viti TM / T-bolts	2
1174.42	Viti TM / T-bolts	2
1174.43	Viti TM / T-bolts	2

PER CAVA 20 mm FOR 20 mm SLOTS		
CODE		**06**
COMPOSIZIONE / CONTENT		
ART.		Pz/Pcs
1242.06	Rondelle / Washers	14
1174.44	Viti TM / T-bolts	2
1174.45	Viti TM / T-bolts	2
1174.46	Viti TM / T-bolts	2
1174.47	Viti TM / T-bolts	2
1174.48	Viti TM / T-bolts	2
1174.49	Viti TM / T-bolts	2
1174.50	Viti TM / T-bolts	2

BF SERVICE

CASSETTE ASSORTIMENTI ATTREZZI DI FISSAGGIO PER MACCHINE UTENSILI
MACHINIST CLAMP SET IN WOODEN BOX

ART. 1169



PER CAVA 12 mm FOR 12 mm SLOTS		
CODE		**01**
COMPOSIZIONE / CONTENT		
ART.		Pz/Pcs
1021.02	Appoggi / Supports	4
1021.03	Appoggi / Supports	4
1061.04	Staffe / Clamps	4
1041.04	Staffe / Clamps	4
1174.12	Viti TM / T-bolts	2
1174.14	Viti TM / T-bolts	4
1174.16	Viti TM / T-bolts	4
1251.03	Tiranti / Bolts	4
1232.03	Dadi alti / High nuts	6
1301.01	Manicotti Coupling nuts	4
1242.02	Rondelle / Washers	6
1310.01	Dadi a T / T-nuts	4

PER CAVA 14 mm FOR 14 mm SLOTS		
CODE		**02**
COMPOSIZIONE / CONTENT		
ART.		Pz/Pcs
1021.02	Appoggi / Supports	4
1021.03	Appoggi / Supports	4
1061.04	Staffe / Clamps	4
1041.04	Staffe / Clamps	4
1174.20	Viti TM / T-bolts	2
1174.22	Viti TM / T-bolts	4
1174.24	Viti TM / T-bolts	4
1251.09	Tiranti / Bolts	4
1232.04	Dadi alti / High nuts	6
1301.02	Manicotti Coupling nuts	4
1242.03	Rondelle / Washers	6
1310.02	Dadi a T / T-nuts	4

PER CAVA 16 mm FOR 16 mm SLOTS		
CODE		**03**
COMPOSIZIONE / CONTENT		
ART.		Pz/Pcs
1021.02	Appoggi / Supports	4
1021.03	Appoggi / Supports	4
1061.05	Staffe / Clamps	4
1041.06	Staffe / Clamps	4
1174.30	Viti TM / T-bolts	2
1174.32	Viti TM / T-bolts	4
1174.34	Viti TM / T-bolts	4
1251.15	Tiranti / Bolts	4
1232.05	Dadi alti / High nuts	6
1301.03	Manicotti Coupling nuts	4
1242.04	Rondelle / Washers	6
1310.03	Dadi a T / T-nuts	4

Materiale: acciaio bonificato R=80 ÷ 90 kg/mm² - Esecuzione superficiale: brunitura
Material: hardened and tempered steel R=80 ÷ 90 kg/mm² - Black oxide finish

CHIAVI DI SICUREZZA BREVETTATE PER AUTOCENTRANTI
PATENTED SAFETY WRENCHES FOR SELF-CENTRING CHUCKS

ART. 1329



CODE		**01**	**02**	**03**	**04**	**05**	**06**
Quadro Square	mm	6	7	8	9	10	11
CODE		**07**	**08**	**09**	**10**	**11**	**12**
Quadro Square	mm	12	13	14	15	16	17
CODE		**13**	**14**	**15**	**16**		
Quadro Square	mm	18	19	20	22		

CHIAVI DI SICUREZZA BREVETTATE PER PIATTAFORME
PATENTED SAFETY WRENCHES FOR INDIPENDENT CHUCKS

ART. 1330



CODE		**01**	**02**	**03**	**04**	**05**	**06**	**07**
Quadro Square	mm	9	10	11	12	13	14	15
CODE		**08**	**09**	**10**	**11**	**12**	**13**	
Quadro Square	mm	16	17	18	19	20	22	

BF SERVICE

ELEMENTI DI STAFFAGGIO
CLAMPING ELEMENTS

Materiale: acciaio bonificato R=80 ÷ 90 kg/mm² - Esecuzione superficiale: brunitura
Material: hardened and tempered steel R=80 ÷ 90 kg/mm² - Black oxide finish

CHIAVI PER TORRETTE TORNI
LATHE TOOL POST WRENCHES

ART. 1332



CODE		01	02	03	04
Quadro / Square	mm	10	12	14	16

CHIAVI PER MANDRINI AUTOCENTRANTI TORNI
SELF-CENTRING LATHE CHUCK WRENCHES

ART. 1334



CODE		01	02	03	04	05
Quadro / Square	mm	10	12	13	14	15

CHIAVI PER PIATTAFORME TORNI
LATHE INDIPENDENT CHUCKS WRENCHES

ART. 1335



CODE		01	02	03	04	05	06
Quadro / Square	mm	8	9	10	11	12	13
CODE		**07**	**08**	**09**	**10**	**11**	
Quadro / Square	mm	14	15	16	17	18	

CHIAVI A PIPA / SOCKET WRENCHES

ART. 1336



CODE		01	02	03	04
Esagono / Hexagon	mm	12	14	17	19

BARRE FILETTATE RULLATE IN ACCIAIO 8.8
8.8 STEEL ROLLING THREADED BARS

ART. 1253

Lunghezza 1 m, campo di tolleranza filettatura 7g

Length 1 m, thread tolerance class 7g



CODE		01	02	03	04	05	06
Filetto / Thread	M	6	8	10	12	14	16
CODE		**07**	**08**	**09**	**10**	**11**	**12**
Filetto / Thread	M	18	20	22	24	27	30

BARRE FILETTATE RULLATE IN ACCIAIO 10.9
10.9 STEEL ROLLING THREADED BARS

ART. 1254

Lunghezza 1 m, campo di tolleranza filettatura 7g

Length 1 m, thread tolerance class 7g



CODE		01	02	03	04	05	06
Filetto / Thread	M	6	8	10	12	14	16
CODE		**07**	**08**	**09**	**10**	**11**	**12**
Filetto / Thread	M	18	20	22	24	27	30

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ELEMENTI DI STAFFAGGIO
CLAMPING ELEMENTS

BARRE FILETTATE RULLATE IN ACCIAIO INOX AMAGNETICO AISI 304-A2
NON-MAGNETIC AISI 304-A2 STAINLESS STEEL ROLLING THREADED BARS

ART. 1200



Lunghezza 1 m, campo di tolleranza filettatura 6g

Length 1 m, thread tolerance class 6g

CODE		01	02	03	04	05	06	07	08
Filetto / Thread	M	3	4	5	6	8	10	12	14
CODE		**09**	**10**	**11**	**12**	**13**	**14**	**15**	
Filetto/ Thread	M	16	18	20	22	24	27	30	

BARRE FILETTATE RULLATE IN ACCIAIO INOX AMAGNETICO AISI 316-A4
NON-MAGNETIC AISI 316-A4 STAINLESS STEEL ROLLING THREADED BARS

ART. 1300



Lunghezza 1 m, campo di tolleranza filettatura 6g

Length 1 m, thread tolerance class 6g

CODE		01	02	03	04	05	06	07
Filetto/ Thread	M	4	5	6	8	10	12	14
CODE		**08**	**09**	**10**	**11**	**12**	**13**	**14**
Filetto/ Thread	M	16	18	20	22	24	27	30

BARRE FILETTATE RULLATE IN OTTONE / BRASS ROLLING THREADED BARS

ART. 1400



Lunghezza 1 m, campo di tolleranza filettatura 7g

Length 1m, thread tolerance class 7g

CODE		01	02	03	04	05	06	07
Filetto/ Thread	M	3	4	5	6	8	10	12
CODE		**08**	**09**	**10**	**11**	**12**	**13**	
Filetto/ Thread	M	14	16	18	20	22	24	

BARRE FILETTATE RULLATE IN FERRO 6S
6S IRON ROLLING THREADED BARS

ART. 1110



Lunghezza 1 m, campo di tolleranza filettatura 7g

Length 1 m, thread tolerance class 7g

CODE		01	02	03	04	05	06	07	08
Filetto/ Thread	M	3	4	5	6	8	10	12	14
CODE		**09**	**10**	**11**	**12**	**13**	**14**	**15**	
Filetto/ Thread	M	16	18	20	22	24	27	30	

BARRE FILETTATE RULLATE IN FERRO ZINCATO ELETTROLITICAMENTE
GALVANIZED IRON ROLLING THREADED BARS

ART. 1100



Lunghezza 1 m, campo di tolleranza filettatura 7g

Length 1 m, thread tolerance class 7g

CODE		01	02	03	04	05	06	07	08
Filetto/ Thread	M	3	4	5	6	8	10	12	14
CODE		**09**	**10**	**11**	**12**	**13**	**14**	**15**	
Filetto/ Thread	M	16	18	20	22	24	27	30	

BF SERVICE

MICROMETRI
MICROMETERS

MICROMETRI CENTESIMALI PER ESTERNI
OUTSIDE MICROMETERS GRADUATION 0.01 mm

Arco verniciato con contatti in metallo duro. Lettura facilitata da un'accurata esecuzione dei caratteri, profondità delle incisioni. Lavorazione asta a vite particolarmente accurata, ottenuta in ambiente mantenuto a 20°C. Vite interamente temprata e stabilizzata, dopo la sgrossatura del filetto viene sottoposta ad uno speciale trattamento di invecchiamento, prima della finitura, per evitare variazioni dovute a tensioni interne residue. Superfici di contatto super rifinite Ra 0,025 µm. Dispositivo di bloccaggio facilmente accessibile. Piastre ad isolamento termico applicate sull'arco. Frizione a lamina in acciaio che, per dimensione e posizione sul tamburo, soddisfa la duplice esigenza di accessibilità sia sul supporto (vedi SUM) che in quella più frequente con in mano il pezzo e lo strumento.
I micrometri per misure superiori a 100 mm hanno un campo di misura di 50 mm disponendo di una controasta regolabile. Per le misure fino a 200 mm sono disponibili micrometri a controasta fissa campo misura 25 mm. **Non forniti di riscontro di azzeramento.**

Painted frame with hard metal faces. Easy reading characters, as very accurate and deep engraved. Particularly accurate spindle, wrought at a temperature of 20°C. The hardened and stabilized micrometer head is subjected to a special ageing treatment after the thread roughing to avoid changes due to residual internal stress. Faces are super finished Ra 0.025 µm. Easy accessible lock nut. Thermal insulated plates on the frame. The steel friction thimble is of easy access both when the instrument is used on a stand (see SUM) or, more frequently, when the micrometer and the workpiece are hand held. Micrometers for measurement over 100 mm have a measuring range of 50 mm and are equipped with an adjustable anvil. For measurement up to 200 mm micrometers are available with a fixed anvil and a measuring range of 25 mm. **Not equipped with setting standards.**







ART.	Campo di misura Measuring range mm	Risoluzione nonio Graduation mm	Profondità arco Frame depth mm	Ø asta vite Spindle Ø mm
ME1W	0 ÷ 25	0,01	32	8
ME2W	25 ÷ 50	0,01	33	8
ME3W	50 ÷ 75	0,01	40	8
ME4W	75 ÷ 100	0,01	55	8
ME5AW	100 ÷ 125	0,01	80	8
ME5W	100 ÷ 150	0,01	80	8
ME5BW	125 ÷ 150	0,01	80	8
ME6AW	150 ÷ 175	0,01	105	8
ME6W	150 ÷ 200	0,01	105	8
ME6BW	175 ÷ 200	0,01	105	8
ME7W	200 ÷ 250	0,01	132	8
ME8W	250 ÷ 300	0,01	157	8

Precisione secondo: Norme DIN 863 - UNI 5708 - ISO 3611 / **Accuracy according to:** DIN 863 - UNI 5708 - ISO 3611

BF SERVICE

MICROMETRI
MICROMETERS

MICROMETRI CENTESIMALI PER ESTERNI PER GRANDI DIAMETRI
LARGE OUTSIDE MICROMETERS GRADUATION 0.01 mm

Arco verniciato in lega leggera. Lettura facilitata da una accurata esecuzione dei caratteri, profondità delle incisioni. Dispositivo di bloccaggio a ghiera facilmente accessibile. Incudini di misura provviste di metallo duro. Frizioni a scatto. Superfici di misurazione lappate e pian parallele. Ogni strumento è provvisto di N. 4 incudini intercambiabili, con differenza di lunghezza di 25 mm che coprono una capacità totale di 100 mm. Ogni strumento è fornito in cassetta di legno con relativi riscontri di azzeramento.

Light alloy painted frame. Easy reading characters, as very accurate and deep engraved. Easily accessible lock nut. Hard metal tipped anvils. Ratchet stop. Lapped measuring parallel plane faces. Each instrument has 4 interchangeable anvils, with a length difference of 25 mm and covering a total capacity of 100 mm. Each instrument is supplied in a wooden case with setting standards.



ME9W

ART.	Campo di misura Measuring range mm	Risoluzione nonio Graduation mm	Ø asta vite Spindle Ø mm	Passo vite Spindle pitch mm
ME9W	300 ÷ 400	0,01	10	1
ME10W	400 ÷ 500	0,01	10	1
ME11W	500 ÷ 600	0,01	10	1
ME12W	600 ÷ 700	0,01	10	1
ME13W	700 ÷ 800	0,01	10	1
ME14W	800 ÷ 900	0,01	10	1
ME15W	900 ÷ 1000	0,01	10	1

A richiesta si forniscono micrometri fino a 2.000 mm, con campo di misura 100 mm.
Precisione secondo: Norme DIN 863 - UNI 5708 - ISO 3611
On request micrometers up to 2,000 mm with 100 mm measuring range can be supplied.
Accuracy according to: DIN 863 - UNI 5708 - ISO 3611

MICROMETRI CENTESIMALI PER ESTERNI AD ASTE COMPONIBILI
OUTSIDE MICROMETERS WITH INTERCHANGEABLE ANVILS GRADUATION 0.01 mm

Arco in lega con struttura laminata e tranciata fino a 300 mm e con struttura tubolare per le misure superiori. Lettura facilitata da un'accurata esecuzione dei caratteri, profondità delle incisioni. Dispositivo di bloccaggio a ghiera facilmente accessibile. Incudini di misura provviste di metallo duro. Frizione a scatto. Superfici di misurazione lappate e pian parallele. Ogni strumento è provvisto di 4 incudini intercambiabili, con differenza di lunghezza di 25 mm che coprono una capacità totale di 100 mm. Ogni strumento è fornito in cassetta di legno con relativi riscontri di azzeramento.

Alloy frame with laminated structure and cut up to 300 mm, with tubular structure for greater measurements. Easy reading characters, as very accurate and deep engraved. Easily accessible lock nut. Hard metal tipped anvils. Ratchet thimble. Lapped measuring parallel plane faces. Each instrument has 4 interchangeable anvils, with a length difference of 25 mm and covering a total capacity of 100 mm. Each instrument is supplied in a wooden case with relative setting standards.



MEAC1W



MEAC10W

ART.	Campo di misura Measuring range mm	Risoluzione nonio Graduation mm	Ø asta vite Spindle Ø mm	Passo vite Spindle pitch mm
MEAC1W	0 ÷ 100	0,01	8	0,5
MEAC2W	100 ÷ 200	0,01	8	0,5
MEAC3W	200 ÷ 300	0,01	8	0,5
MEAC10W	300 ÷ 400	0,01	8	0,5
MEAC11W	400 ÷ 500	0,01	8	0,5
MEAC12W	500 ÷ 600	0,01	8	0,5
MEAC13W	600 ÷ 700	0,01	8	0,5
MEAC14W	700 ÷ 800	0,01	8	0,5
MEAC15W	800 ÷ 900	0,01	8	0,5
MEAC16W	900 ÷ 1000	0,01	8	0,5

Precisione secondo: Norme DIN 863 - UNI 5708 - ISO 3611 / **Accuracy according to:** DIN 863 - UNI 5708 - ISO 3611

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MICROMETRI
MICROMETERS

MICROMETRI CENTESIMALI PER ESTERNI COMPLETI DI RISCONTRI DI AZZERAMENTO
OUTSIDE MICROMETERS WITH SETTING STANDARDS GRADUATION 0.01 mm

Alle caratteristiche di alta qualità costruttiva è unita quella della maneggevolezza che rende tale tipo di micrometro particolarmente adatto a operatori di controllo, tecnici di officina, riparatori e addetti al servizio di assistenza. Arco in acciaio legato, forgiato e coniato, verniciato e dotato di piastre isolanti. Vite micrometrica temprata e stabilizzata. Contatti in metallo duro, rettificati e lappati con elevato grado di planarità e parallelismo e rugosità Ra = 0,03 µm. Tamburo graduato Ø 17 mm munito di ghiera di frizione. Bloccaggio a leva di facile utilizzo. Gli strumenti sono forniti in solido astuccio e dotati di certificato di garanzia.

The high quality design and easy handling make this micrometer suitable for checking operators, workshop technicians, repairers and service staff. Alloy steel frame, drop forged and coined, painted and fitted with insulating plates. Hardened and stabilized micrometer head. Carbide contacts, ground and lapped with a high degree of flatness, parallelism and surface roughness Ra = 0.03 µm. Graduated friction thimble Ø 17 mm. Easy to use lock lever. The instruments are supplied with solid case and warranty.



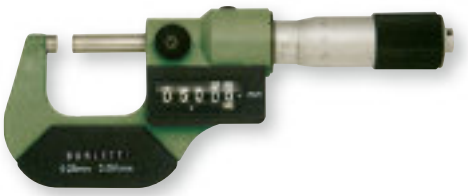
ART.	Campo di misura Measuring range mm	Risoluzione nonio Graduation mm	Ø asta vite Spindle Ø mm	Passo vite Spindle pitch mm
MELN/1W	0 ÷ 25	0,01	6,5	0,5
MELN/2W	25 ÷ 50	0,01	6,5	0,5
MELN/3W	50 ÷ 75	0,01	6,5	0,5
MELN/4W	75 ÷ 100	0,01	6,5	0,5
MELN/5W	100 ÷ 125	0,01	6,5	0,5
MELN/6W	125 ÷ 150	0,01	6,5	0,5
MELN/7W	150 ÷ 175	0,01	6,5	0,5
MELN/8W	175 ÷ 200	0,01	6,5	0,5
MELN/18W	0 ÷ 200	Serie completa - Micrometri confezionati singolarmente Full set - Micrometers are individually packed		

Precisione secondo: Norme DIN 863 - UNI 5708 - ISO 3611 / **Accuracy according to:** DIN 863 - UNI 5708 - ISO 3611

MICROMETRI MILLESIMALI PER ESTERNI A NUMERATORE
OUTSIDE MICROMETERS WITH COUNTER GRADUATION 0.001 mm

Questi micrometri a lettura immediata, oltre a possedere le stesse caratteristiche della serie normale (vedi ME), dispongono di un sistema di lettura a numeratore che ne facilita estremamente l'impiego, anche a personale non esperto. Arco con isolamento termico. Contatti in metallo duro.

These immediate readout micrometers, besides having the same features as the standard series (see ME), have a counter which makes them extremely easy to use, even to unskilled staff. Frame with thermal insulation. Carbide contacts.



ART.	Campo di misura Measuring range mm	Risoluzione nonio Graduation mm	Lettura numeratore Counter reading mm	Ø asta vite Spindle Ø mm	Forza di misura Measuring force N
MNE1W	0 ÷ 25	0,01	0,01	6,5	8,3
MNE2W	25 ÷ 50	0,01	0,001	6,5	8,3
MNE3W	50 ÷ 75	0,01	0,001	6,5	8,3
MNE4W	75 ÷ 100	0,01	0,001	6,5	8,3
MNE5W	100 ÷ 125	0,01	0,001	6,5	8,3
MNE6W	125 ÷ 150	0,01	0,001	6,5	8,3
MNE7W	150 ÷ 175	0,01	0,001	6,5	8,3
MNE8W	175 ÷ 200	0,01	0,001	6,5	8,3

SET DI MICROMETRI PER ESTERNI A NUMERATORE (confezione unica)
SET OF EXTERNAL MICROMETERS WITH COUNTER (one package)

ART.	Serie micrometri / Micrometer set n°	Campo di misura / Measuring range mm
SMNE3W	3	0 ÷ 75
SMNE4W	4	0 ÷ 100
SMNE6W	6	0 ÷ 150
SMNE8W	8	0 ÷ 200
SMNE12W	12	0 ÷ 300

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MICROMETRI
MICROMETERS

MICROMETRI MILLESIMALI PER ESTERNI
OUTSIDE MICROMETERS GRADUATION 0.001 mm

Arco in acciaio legato, forgiato e coniato, verniciato e dotato di piastre isolanti. Vite micrometrica temprata e stabilizzata.
Forniti di riscontro di azzeramento (a partire dall'articolo MEM2W).

Alloy steel frame, drop forged and coined, painted and fitted with insulating plates. Hardened and stabilized micrometric head. **Provided with setting standard (from article MEM2W on).**



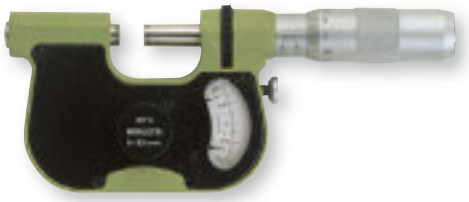
ART.	Campo di misura Measuring range mm	Risoluzione nonio Graduation mm	Profondità arco Frame depth mm	Ø asta vite Spindle Ø mm
MEM1W	0 ÷ 25	0,001	30	6,5
MEM2W	25 ÷ 50	0,001	33	6,5
MEM3W	50 ÷ 75	0,001	40	6,5
MEM4W	75 ÷ 100	0,001	55	6,5

Precisione secondo: Norme DIN 863 - UNI 5708 - ISO 3611 / **Accuracy according to:** DIN 863 - UNI 5708 - ISO 3611

MICROMETRI MILLESIMALI
MICROMETERS GRADUATION 0.001 mm

Tutte le parti del congegno sensibile di amplificazione sono montate in un unico complesso rigido indipendente dal corpo del micrometro. I perni e le altre parti soggette ad usura sono temprati e lappati accuratamente per limitare al massimo il loro logoramento e mantenere così inalterata la precisione dello strumento. Costruiti con acciaio di primissima qualità, indeformabile, inossidabile e di grande resistenza all'usura per l'elevato tenore di cromo. Punti di contatto in metallo duro.
Temperatura di esercizio: 20°C.

All parts of the amplification device are mounted in a single rigid unit detached from the body of the micrometer. The pins and other parts subject to wear are carefully hardened and lapped to minimise their attrition and maintaining the accuracy of the instrument. Made of top quality steel, stress-resistant, rustproof and highly wear resistant because of their high chrome content. Carbide contact points.
Operating temperature: 20°C



MS1W

ART.	Campo di misura Measuring range mm	Risoluzione quadrante Dial reading mm	Risoluzione nonio Graduation mm	Campo misura quadrante Dial measuring range mm	Tolleranza asta vite Spindle tolerance mm	Ø asta vite Spindle Ø mm	Forza di misura Measuring force N
MS1W	0 ÷ 25	0,001	0,01	± 0,02	± 0,002	8	9,8

MICROMETRI MILLESIMALI CON CONTATTI IN METALLO DURO
MICROMETERS WITH CARBIDE CONTACTS GRADUATION 0.001 mm

Questi micrometri hanno microindicatore incorporato, arco di struttura moderna e rinforzata, controasta mobile ed indici di tolleranza regolabili.

These micrometers have a built-in micro-indicator, a reinforced frame with modern design, mobile anvil and adjustable tolerance markers.



ART.	Campo di misura Measuring range mm	Risoluzione quadrante Dial reading mm	Risoluzione nonio Graduation mm	Campo misura quadrante Dial measuring range mm	Ø asta vite Spindle Ø mm	Forza di misura Measuring force N	Asta supporto pezzo Workpiece stop
MST1W	0 ÷ 25	0,001	0,01	± 0,045	6,5	8,3	●
MST2W	25 ÷ 50	0,001	0,01	± 0,045	6,5	8,3	●
MST3W	50 ÷ 75	0,001	0,01	± 0,045	6,5	8,3	
MST4W	75 ÷ 100	0,001	0,01	± 0,045	6,5	8,3	

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MICROMETRI DIGITALI
DIGITAL MICROMETERS

MICROMETRI MILLESIMALI ELETTRONICI DIGITALI PER ESTERNI
DIGITAL OUTSIDE MICROMETERS RESOLUTION 0.001 mm

Display a cristalli liquidi con grande angolo visivo. Possibilità di conversione immediata millimetri/pollici, memorizzazione della misura effettuata, impostazione tolleranza con funzione di calibro «Passa - Non passa», misurazioni assolute/relative contemporaneamente, uscita dati alla stampante o computer. Superfici di contatto in metallo duro, spegnimento automatico dopo 5 minuti di inutilizzo. Grado protezione CEIEN 60529 IP54.
• **Batteria:** SR44-1x1,5V

Wide LCD display. Immediate mm/inch conversion, data hold, can be used as a go/no go gauge, absolute/relative measurements are possible at the same time, data output via printer or pc. Carbide contacts, auto shutdown after 5 minutes.
CEIEN 60529 IP54 protection.
• **Battery:** SR44-1x1,5V



ART.	Campo di misura Measuring range mm	Risoluzione display Display resolution mm	Precisione Accuracy mm	Ø asta vite Spindle Ø mm	Profondità arco Frame depth mm	ON OFF	ABS INC	Preset	mm inch	Azzeramento Reset
MDE1	0 ÷ 25	0,001	0,0012	6,5	23	●	●	●	●	●
MDE2	25 ÷ 50	0,001	0,0015	6,5	32	●	●	●	●	●
MDE3	50 ÷ 75	0,001	0,0018	6,5	45	●	●	●	●	●
MDE4	75 ÷ 100	0,001	0,002	6,5	57	●	●	●	●	●
MDE5	100 ÷ 125	0,001	0,0023	6,5	69	●	●	●	●	●
MDE6	125 ÷ 150	0,001	0,0025	6,5	82	●	●	●	●	●
MDE7	150 ÷ 175	0,001	0,0027	6,5	95	●	●	●	●	●
MDE8	175 ÷ 200	0,001	0,003	6,5	106	●	●	●	●	●

Precisione secondo: Norme DIN 863 - ISO 3611 / **Accuracy according to:** DIN 863 - ISO 3611

MICROMETRI MILLESIMALI DIGITALI RAPIDI PER ESTERNI
DIGITAL OUTSIDE MICROMETERS RESOLUTION 0.001 mm

NEW

Display LCD. Batteria al litio tipo CR2032 3V. Stelo non rotante. Bluetooth incorporato.

LCD Display. CR2032 3V lithium battery. Non rotating spindle. Built-in Bluetooth.

IP65



BMD925W

ART.	Campo di misura Measuring range mm	Risoluzione Resolution mm	Precisione Accuracy mm	ON OFF	ABS INC	mm inch	Azzeramento Reset
BMD925W	0 ÷ 25	0,001	0,003	●	●	●	●
BMD950W	25 ÷ 50	0,001	0,003	●	●	●	●

BF SERVICE UTENSILERIA MECCANICA

MICROMETRI DIGITALI
DIGITAL MICROMETERS

MICROMETRI MILLESIMALI DIGITALI RAPIDI PER ESTERNI
DIGITAL OUTSIDE MICROMETERS RESOLUTION 0.001 mm

NEW

CE

Display LCD. Batteria al litio tipo CR2032 3V. Stelo non rotante. Uscita dati.

LCD Display. CR2032 3V lithium battery. Non rotating spindle. Data output.

IP65



BMD950

ART.	Campo di misura Measuring range mm	Risoluzione Resolution mm	Precisione Accuracy mm	ON OFF	ABS INC	mm inch	Azzeramento Reset
BMD925	0 ÷ 25	0,001	0,003	●	●	●	●
BMD950	25 ÷ 50	0,001	0,003	●	●	●	●

MICROMETRI MILLESIMALI DIGITALI PER ESTERNI
DIGITAL OUTSIDE MICROMETERS RESOLUTION 0.001 mm

NEW

CE

Display LCD. Batteria al litio tipo CR2032 3V. Uscita dati.

LCD Display. CR2032 3V lithium battery. Data output.

IP65



BMD325

ART.	Campo di misura Measuring range mm	Risoluzione Resolution mm	Precisione Accuracy mm	ON OFF	ABS INC	mm inch	Azzeramento Reset
BMD325	0 ÷ 25	0,001	0,003	●	●	●	●
BMD350	25 ÷ 50	0,001	0,003	●	●	●	●
BMD375	50 ÷ 75	0,001	0,004	●	●	●	●
BMD3100	75 ÷ 100	0,001	0,004	●	●	●	●

MICROMETRI MILLESIMALI DIGITALI PER ESTERNI
DIGITAL OUTSIDE MICROMETERS RESOLUTION 0.001 mm

NEW

CE

Display LCD. Batteria al litio tipo CR2032 3V

LCD Display. CR2032 3V lithium battery.

IP65



BMD775

ART.	Campo di misura Measuring range mm	Risoluzione Resolution mm	Precisione Accuracy mm	ON OFF	ABS INC	mm inch	Azzeramento Reset
BMD725	0 ÷ 25	0,001	0,003	●	●	●	●
BMD750	25 ÷ 50	0,001	0,003	●	●	●	●
BMD775	50 ÷ 75	0,001	0,004	●	●	●	●
BMD7100	75 ÷ 100	0,001	0,004	●	●	●	●
BMD7125	100 ÷ 125	0,001	0,005	●	●	●	●
BMD7150	125 ÷ 150	0,001	0,005	●	●	●	●

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MICROMETRI
MICROMETERS

RISCONTRI DI AZZERAMENTO PER MICROMETRI
MICROMETER SETTING STANDARDS

Esecuzione in acciaio temprato. Superfici di contatto lappate. Per le dimensioni da 50 mm in poi i riscontri sono dotati di impugnatura in materiale isolante per evitare errori dovuti alla dilatazione durante l'impiego. Per controllo taratura di tutti i micrometri con campo di misura oltre 25 mm.

Made of hardened steel. Lapped contact faces. Standards with size from 50 mm onwards are provided with insulating grips to prevent errors caused by thermal expansion during use. For calibration testing of micrometers with measuring range over 25 mm.


R2


R3


R4


R5/A

ART.	Lunghezza Length mm	Per micrometro con campo di misura For micrometer with measuring range mm
R2	25	25 ÷ 50
R3	50	50 ÷ 75
R4	75	75 ÷ 100
R4/A	100	100 ÷ 125
R5	125	100 ÷ 150 - 125 ÷ 150
R5/A	150	150 ÷ 175
R6	175	150 ÷ 200 - 175 ÷ 200
R7	225	200 ÷ 250
R8	275	250 ÷ 300

SET DI VETRI INTERFEROMETRICI PER PLANARITÀ E PARALLELISMO
OPTICAL PARALLEL SET FOR FLATNESS AND PARALLELISM



ART.	Campo di misura micrometri per esterni Measuring range of external micrometers mm	Planarità Flatness µm	Ø mm	Spessore nominale Rated thickness mm
SVIM1	0 ÷ 25	0,15	30	12 - 12,12 12,25 - 12,37
SVIM2	25 ÷ 50	0,15	30	25 - 25,12 25,25 - 25,37

VETRO INTERFEROMETRICO PER PLANARITÀ E PARALLELISMO
OPTICAL PARALLEL FOR FLATNESS AND PARALLELISM

ART.	Planarità / Flatness µm	Ø mm
VIM1	0,1	30 x 10



VETRI INTERFEROMETRICI PER PLANARITÀ
OPTICAL PARALLEL FOR FLATNESS

SINGOLA FACCIA / SINGLE SIDED		
ART.	Planarità / Flatness µm	Ø mm
VIBS1	0,1	45 x 15

DOPPIA FACCIA / DOUBLE SIDED		
ART.	Planarità / Flatness µm	Ø mm
VIBD1	0,1	45 x 15

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MICROMETRI
MICROMETERS

MICROMETRI CENTESIMALI PER INGRANAGGI
GEAR TOOTH MICROMETERS GRADUATION 0.01 mm

Servono per verificare il gioco dei fianchi e lo spessore dei denti degli ingranaggi con profilo ad evolvente e moduli da 0,5 a 4,5. Essi possono eseguire non solo controlli su pezzi finiti, ma anche verifiche durante il corso della lavorazione, quali ad esempio la determinazione dell'avanzamento dell'utensile. Le superfici dei dischi di contatto hanno una durezza non inferiore a 60 HRC; tale durezza, dovuta ad opportuna scelta del materiale ad alto tenore di cromo e ad adeguato trattamento termico, assicura una grandissima resistenza all'usura. Le superfici di contatto sono rigorosamente piane, parallele fra loro e perpendicolari all'asse di rotazione della vite.

Used to check the clearances between sides and tooth thickness of involute gears and modules from 0.5 to 4.5. Can be used not only to check finished parts, but also to carry out measurements while working, such as determining the feed of the tool. The surfaces of contact discs have a hardness of at least 60 HRC; such a hardness, due to an accurate choice of material with a high chrome content and adequate heat treatment, ensures great wear resistance. Contact surfaces are rigorously flat, parallel to each other and perpendicular to the axis of rotation of the spindle.

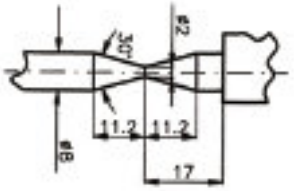


ART.	Campo di misura Measuring range mm	Risoluzione nonio Graduation mm	Profondità arco Frame depth mm	Ø asta vite Spindle Ø mm	Ø disco di contatto Contact disc Ø mm	Spessore esterno piattello Outer plate thickness mm
MIE1	0 ÷ 25	0,01	32	8	22	0,6
MIE2	25 ÷ 50	0,01	33	8	22	0,6
MIE3	50 ÷ 75	0,01	40	8	22	0,6
MIE4	75 ÷ 100	0,01	55	8	22	0,6

MICROMETRI CENTESIMALI PER ALBERI SCANALATI
MICROMETERS FOR SPLINED SHAFT GRADUATION 0.01 mm

Questi micrometri hanno le stesse caratteristiche di quelli normali (vedi serie ME) agli effetti della precisione e della durata, in più permettono la misura dei diametri del nocciolo degli alberi scanalati e di eseguire misure su zone non accessibili ai normali micrometri.

These micrometers have the same features as the standard ones (see ME series) in terms of precision and long life, but in addition they allow the measurement of splined shaft, also carrying out measurements on areas that are not accessible to normal micrometers.





ART.	Campo di misura Measuring range mm	Risoluzione nonio Graduation mm	Profondità arco Frame depth mm	Ø asta vite Spindle Ø mm	Ø punte di contatto Contact tips Ø mm	Lunghezza del cono Cone length mm	Angolo del cono Cone angle
MAS1	0 ÷ 25	0,01	33	8	2	11,2	30°
MAS3	50 ÷ 75	0,01	55	8	2	11,2	30°
MAS4	75 ÷ 100	0,01	80	8	2	11,2	30°

Precisione secondo: Norme DIN 863 - UNI 5708 - ISO 3611 / **Accuracy according to**: DIN 863 - UNI 5708 - ISO 3611

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MICROMETRI
MICROMETERS

MICROMETRI CENTESIMALI PER FILETTI
SCREW THREAD MICROMETERS GRADUATION 0.01 mm

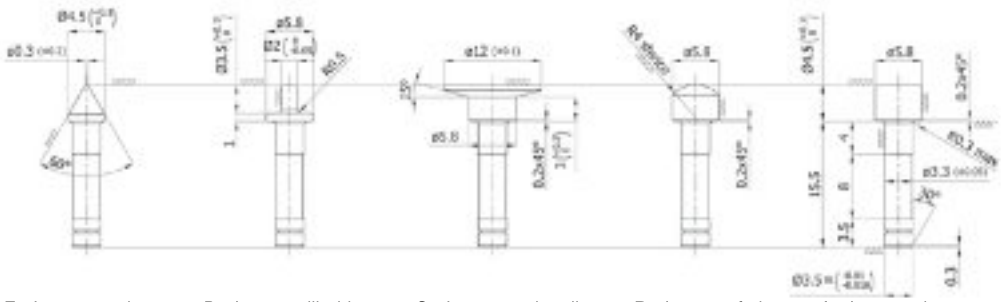
Questi micrometri hanno le stesse caratteristiche della serie ME, differenziandosi unicamente per il loro impiego: il controllo delle filettature. Pertanto sono previsti fori per l'inserimento di punte e capruggini sull'incudine mobile e fissa. Inoltre l'incudine fissa è provvista di ghiera di registrazione per la messa a zero del micrometro. Sono previste punte e capruggini per filettature: METRICA, WHITWORTH, ISO, TRAPEZIA, AMERICANA.
La precisione dovuta alla vite micrometrica come per i micrometri normali, è 0,003 mm.

These micrometers have the same features as the ME series, the only difference is their application: thread measurement. The micrometers are provided with bores for interchangeable anvils both on the anvil tips and the spindle. The anvil is also provided with an adjusting ring nut for zero setting. Anvil and spindle tips are provided for threads: METRIC, WHITWORTH, ISO, TRAPEZOIDAL, AMERICAN.
The micrometer head ensures an accuracy of 0.003 mm.



ART.	Campo di misura Measuring range mm	Risoluzione nonio Graduation mm	Profondità arco Frame depth mm	Ø asta vite Spindle Ø mm	Ø tamburo graduato Graduated thimble Ø mm
MF1	0 ÷ 25	0,01	23	6	17
MF2	25 ÷ 50	0,01	35	6	17
MF3	50 ÷ 75	0,01	47	6	17
MF4	75 ÷ 100	0,01	60	6	17

INSERTI SPECIALI, IN COPPIA, PER MICROMETRI SERIE MF
PAIR OF ANVILS FOR MF SERIES MICROMETERS



E - Inserto conico
Point anvil

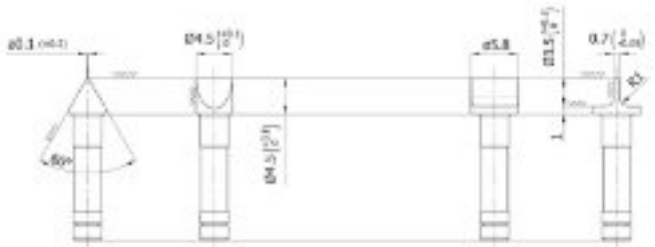
D - Inserto cilindrico
Spline anvil

C - Inserto a piattello
Disc anvil

B - Inserto sferico
Spherical anvil

A - Inserto piatto
Flat anvil

ART.	INSERTI / ANVILS
A	piatti / flat
B	sferici / spherical
C	a piattello / disc
D	cilindrici / spline
E	conici / point
F	a coltello / blade
G	a cuneo / knife-edge

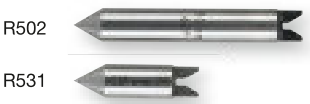


G - Inserto a cuneo
Knife-edge anvil

F - Inserto a coltello
Blade anvil

RISCONTRI PER TARATURA PER MICROMETRI SERIE MF
STANDARDS FOR SCREW THREAD MICROMETERS





FILETTATURE METRICHE 60° METRIC THREADS 60°		FILETTATURA WHITWORTH 55° WHITWORTH THREADS 55°		FILETTATURA TRAPEZIA 30° TRAPEZOIDAL THREADS 30°	
ART.	Riscontro / Standard mm	**ART.**	Riscontro / Standard mm	**ART.**	Riscontro / Standard mm
R501	25	**R531**	25	**R561**	25
R502	50	**R532**	50	**R562**	50
R503	75	**R533**	75	**R563**	75

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MICROMETRI
MICROMETERS

PUNTE DI CONTATTO PER IL CONTROLLO DEL DIAMETRO MEDIO
CONTACT TIPS FOR CHECKING THE PITCH DIAMETER

Punta per il controllo Ø medio per filettature ISO: metriche, Whitworth e americane 60°.
Capruggine per il controllo Ø medio per filettature ISO: metriche, Whitworth e americane 60°.

Anvil tip for checking the pitch Ø for ISO threads: metrics, Whitworth and American 60°.
Spindle tip for checking the pitch Ø for ISO threads: metrics, Whitworth and American 60°.

FILETTATURA METRICA 60° / METRIC THREAD 60°

Passo / Pitch mm		N. Ord. / Order N.
0,4 ÷ 0,6	punta / anvil tip	PC 110
	capruggine / spindle tip	PC 111
0,6 ÷ 1	punta / anvil tip	PC 112
	capruggine / spindle tip	PC 113
1 ÷ 1,75	punta / anvil tip	PC 114
	capruggine / spindle tip	PC 115
1,75 ÷ 3	punta / anvil tip	PC 116
	capruggine / spindle tip	PC 117

FILETTATURA METRICA 60° / METRIC THREAD 60°

Passo / Pitch mm		N. Ord. / Order N.
3 ÷ 5	punta / anvil tip	PC 118
	capruggine / spindle tip	PC 119
5 ÷ 7,5	punta / anvil tip	PC 120
	capruggine / spindle tip	PC 121
0,4 ÷ 0,5	punta / anvil tip	PC 510
	capruggine / spindle tip	PC 511
0,6 ÷ 0,8	punta / anvil tip	PC 512
	capruggine / spindle tip	PC 513

FILETTATURA METRICA 60° / METRIC THREAD 60°

Passo / Pitch mm		N. Ord. / Order N.
1 ÷ 1,25	punta / anvil tip	PC 514
	capruggine / spindle tip	PC 515
1,5 ÷ 1,75	punta / anvil tip	PC 516
	capruggine / spindle tip	PC 517
2 ÷ 2,5	punta / anvil tip	PC 518
	capruggine / spindle tip	PC 519

FILETTATURA METRICA 60° / METRIC THREAD 60°

Passo / Pitch mm		N. Ord. / Order N.
3 ÷ 4	punta / anvil tip	PC 520
	capruggine / spindle tip	PC 521
4,5 ÷ 6	punta / anvil tip	PC 522
	capruggine / spindle tip	PC 523

FILETTATURA WHITWORTH 55° / WHITWORTH THREAD 55°

Passo filetti / Thread pitch		N. Ord. / Order N.
60 ÷ 48	punta / anvil tip	PC 210
	capruggine / spindle tip	PC 211
48 ÷ 40	punta / anvil tip	PC 212
	capruggine / spindle tip	PC 213
40 ÷ 32	punta / anvil tip	PC 214
	capruggine / spindle tip	PC 215
32 ÷ 24	punta / anvil tip	PC 216
	capruggine / spindle tip	PC 217
24 ÷ 18	punta / anvil tip	PC 218
	capruggine / spindle tip	PC 219

FILETTATURA WHITWORTH 55° / WHITWORTH THREAD 55°

Passo filetti / Thread pitch		N. Ord. / Order N.
18 ÷ 14	punta / anvil tip	PC 220
	capruggine / spindle tip	PC 221
14 ÷ 10	punta / anvil tip	PC 222
	capruggine / spindle tip	PC 223
10 ÷ 7	punta / anvil tip	PC 224
	capruggine / spindle tip	PC 225
7 ÷ 4,5	punta / anvil tip	PC 226
	capruggine / spindle tip	PC 227
4,5 ÷ 3	punta / anvil tip	PC 228
	capruggine / spindle tip	PC 229

FILETTATURE AMERICANE 60° - TIPO NC e NF / AMERICAN THREADS - TYPE NC and NF

Filetti/" Threads/" N.	Ø esterno / External Ø pollici / inch	Ø esterno / External Ø mm	Passo Pitch	N. Ord. Order N. Coppia (punta e capruggine) Pair
64	0,073	1,854	0,397	PC 410-411
64	0,086	2,184	0,397	
56	0,086	2,184	0,454	
56	0,099	2,515	0,454	
48	0,099	2,515	0,529	
48	0,112	2,845	0,529	
44	0,125	3,175	0,577	PC 412-413
40	0,112	2,845	0,635	
40	0,125	3,175	0,635	
40	0,138	3,505	0,635	
36	0,164	4,166	0,706	
32	0,138	3,505	0,794	
32	0,164	4,166	0,794	
32	0,190	4,826	0,794	
28	0,216	5,486	0,907	PC 414-415
28	1/4	6,350	0,907	
24	0,190	4,826	1,058	
24	0,216	5,486	1,058	
24	5/16	7,938	1,058	
24	3/8	9,525	1,058	
20	1/4	6,350	1,270	
20	7/16	11,112	1,270	
20	1/2	12,700	1,270	
18	5/16	7,938	1,411	
18	9/16	14,288	1,411	
18	5/8	15,875	1,411	

FILETTATURE AMERICANE 60° - TIPO NC e NF / AMERICAN THREADS - TYPE NC and NF

Filetti/" Threads/" N.	Ø esterno / External Ø pollici / inch	Ø esterno / External Ø mm	Passo Pitch	N. Ord. Order N. Coppia (punta e capruggine) Pair
16	3/8	9,525	1,588	PC 416-417
16	3/4	19,050	1,588	
14	7/16	11,112	1,814	
14	7/8	22,225	1,814	
14	1	25,400	1,814	
13	1/2	12,700	1,954	
12	9/16	14,288	2,117	
12	1	25,400	2,117	
12	1 1/8	28,575	2,117	
12	1 1/4	31,750	2,117	
12	1 3/8	34,925	2,117	
12	1 1/2	38,100	2,117	
11	5/8	15,875	2,309	
10	3/4	19,050	2,540	
9	7/8	22,225	2,822	PC 418-419
8	1	25,400	3,175	
7	1 1/8	28,575	3,629	
7	1 1/4	31,750	3,629	
6	1 3/8	34,925	4,233	
6	1 1/2	38,100	4,233	
5	1 3/4	44,450	5,080	PC 420-421
4 1/2	2	50,800	5,644	
4	3 15/16	100,012	6,350	PC 420-423

BF SERVICE

MICROMETRI
MICROMETERS

PUNTE DI CONTATTO PER IL CONTROLLO DEL DIAMETRO MEDIO
CONTACT TIPS FOR CHECKING THE PITCH DIAMETER

Punta per il controllo Ø medio per filettature trapezie.
Capruggine per il controllo Ø medio per filettature trapezie.

Anvil tip for checking the pitch Ø of trapezoidal threads.
Spindle tip for checking the pitch Ø of trapezoidal threads.

FILETTATURA TRAPEZIA 30° / TRAPEZOIDAL THREAD 30°		
Passo / Pitch mm		N. Ord. / Order N.
2	punta / anvil tip	**PC 310**
	capruggine / spindle tip	**PC 311**
3	punta / anvil tip	**PC 312**
	capruggine / spindle tip	**PC 313**
4	punta / anvil tip	**PC 314**
	capruggine / spindle tip	**PC 315**
5 ÷ 6	punta / anvil tip	**PC 316**
	capruggine / spindle tip	**PC 317**

FILETTATURA TRAPEZIA 30° / TRAPEZOIDAL THREAD 30°		
Passo / Pitch mm		N. Ord. / Order N.
7 ÷ 8	punta / anvil tip	**PC 318**
	capruggine / spindle tip	**PC 319**
9 ÷ 10	punta / anvil tip	**PC 320**
	capruggine / spindle tip	**PC 321**
12	punta / anvil tip	**PC 322**
	capruggine / spindle tip	**PC 323**
16	punta / anvil tip	**PC 324**
	capruggine / spindle tip	**PC 325**

PUNTE DI CONTATTO PER IL CONTROLLO DEL NOCCIOLO
CONTACT TIPS FOR CHECKING THE CORE

Punta per il controllo Ø del nocciolo per filettature metriche e Whitworth.
Capruggine per il controllo Ø del nocciolo per filettature metriche e Whitworth.

Anvil tip for checking the core of metric and Whitwort threads.
Spindle tip for checking the core of metric and Whitworth threads.

FILETTATURA METRICA / METRIC THREAD		
Passo / Pitch mm		N. Ord. / Order N.
1	punta / anvil tip	**PC 151**
	capruggine / spindle tip	**PC 152**
1,25	punta / anvil tip	**PC 151**
	capruggine / spindle tip	**PC 154**
1,5	punta / anvil tip	**PC 151**
	capruggine / spindle tip	**PC 156**
1,75	punta / anvil tip	**PC 151**
	capruggine / spindle tip	**PC 158**

FILETTATURA METRICA / METRIC THREAD		
Passo / Pitch mm		N. Ord. / Order N.
2	punta / anvil tip	**PC 151**
	capruggine / spindle tip	**PC 160**
2,5	punta / anvil tip	**PC 151**
	capruggine / spindle tip	**PC 162**
3	punta / anvil tip	**PC 151**
	capruggine / spindle tip	**PC 164**

FILETTATURA METRICA / METRIC THREAD		
Passo filetti / Thread pitch mm		N. Ord. / Order N.
3,5	punta / anvil tip	**PC 151**
	capruggine / spindle tip	**PC 166**
4	punta / anvil tip	**PC 151**
	capruggine / spindle tip	**PC 168**
4,5	punta / anvil tip	**PC 151**
	capruggine / spindle tip	**PC 170**

FILETTATURA METRICA / METRIC THREAD		
Passo / Pitch mm		N. Ord. / Order N.
5	punta / anvil tip	**PC 151**
	capruggine / spindle tip	**PC 172**
5,5	punta / anvil tip	**PC 151**
	capruggine / spindle tip	**PC 174**
6	punta / anvil tip	**PC 151**
	capruggine / spindle tip	**PC 176**

FILETTATURA WHITWORTH / WHITWORTH THREAD		
Passo filetti / Thread pitch		N. Ord. / Order N.
40	punta / anvil tip	**PC 251**
	capruggine / spindle tip	**PC 252**
32	punta / anvil tip	**PC 251**
	capruggine / spindle tip	**PC 254**
28	punta / anvil tip	**PC 251**
	capruggine / spindle tip	**PC 256**
26	punta / anvil tip	**PC 251**
	capruggine / spindle tip	**PC 258**
24	punta / anvil tip	**PC 251**
	capruggine / spindle tip	**PC 260**

FILETTATURA WHITWORTH / WHITWORTH THREAD		
Passo filetti / Thread pitch		N. Ord. / Order N.
22	punta / anvil tip	**PC 251**
	capruggine / spindle tip	**PC 262**
20	punta / anvil tip	**PC 251**
	capruggine / spindle tip	**PC 264**
18	punta / anvil tip	**PC 251**
	capruggine / spindle tip	**PC 266**
16	punta / anvil tip	**PC 251**
	capruggine / spindle tip	**PC 268**
14	punta / anvil tip	**PC 251**
	capruggine / spindle tip	**PC 270**

FILETTATURA WHITWORTH / WHITWORTH THREAD		
Passo filetti / Thread pitch		N. Ord. / Order N.
12	punta / anvil tip	**PC 251**
	capruggine / spindle tip	**PC 272**
11	punta / anvil tip	**PC 251**
	capruggine / spindle tip	**PC 274**
10	punta / anvil tip	**PC 251**
	capruggine / spindle tip	**PC 276**
9	punta / anvil tip	**PC 251**
	capruggine / spindle tip	**PC 278**
8	punta / anvil tip	**PC 251**
	capruggine / spindle tip	**PC 280**

FILETTATURA WHITWORTH / WHITWORTH THREAD		
Passo filetti / Thread pitch		N. Ord. / Order N.
7	punta / anvil tip	**PC 251**
	capruggine / spindle tip	**PC 282**
6	punta / anvil tip	**PC 251**
	capruggine / spindle tip	**PC 284**
5	punta / anvil tip	**PC 251**
	capruggine / spindle tip	**PC 286**
4 1/2	punta / anvil tip	**PC 251**
	capruggine / spindle tip	**PC 288**

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MICROMETRI
MICROMETERS

MICROMETRI CENTESIMALI AD ASTE MULTIPLE PER CONTROLLO PROFONDITÀ
DEPTH MICROMETERS WITH INTERCHANGEABLE RODS GRADUATION 0.01 mm

I micrometri di questo tipo hanno la superficie del ponte d'appoggio scanalata, rettificata e lappata. Le aste di prolungamento AMP hanno progressione di 25 mm e la loro estremità possiede una durezza vitrea; tale durezza, dovuta ad opportuno trattamento termico e al procedimento di finitura, assicura una elevatissima resistenza all'usura.

These micrometers have a ground, lapped and grooved base. The AMP extension rods have a progression of 25 mm. With hardened measuring faces that thanks to a proper heat treatment and a special finish ensure very high wear resistance.



ART.	Campo di misura Measuring range mm	Risoluzione nonio Graduation mm	Ø asta vite Spindle Ø mm	Ø tamburo graduato Graduated thimble Ø mm	Ponte d'appoggio Base mm
MP1	0 ÷ 25	0,01	8	20	85x18
MP2	0 ÷ 150	0,01	8	20	85x18
MP3	0 ÷ 250	0,01	8	20	85x18



ACCESSORI / ACCESSORIES	
ART.	Campo di misura Measuring range mm
Tappo asta vite / Screw rod cap	
AMP0	0 ÷ 25
Asta di prolunga / Extension rod	
AMP1	25 ÷ 50
AMP2	50 ÷ 75
AMP3	75 ÷ 100
AMP4	100 ÷ 125

ACCESSORI / ACCESSORIES	
ART.	Campo di misura Measuring range mm
Asta di prolunga / Extension rod	
AMP5	125 ÷ 150
AMP6	150 ÷ 175
AMP7	175 ÷ 200
AMP8	200 ÷ 225
AMP9	225 ÷ 250

Precisione secondo: Norme DIN 863 / **Accuracy according to:** DIN 863

SUPPORTO UNIVERSALE PER MICROMETRI
UNIVERSAL STAND FOR MICROMETERS

SUM

Base robusta, stabile, verniciata. Provvista di ganasce orientabili. Impiegato per tutti i micrometri ad arco. La base ovale lo rende perfettamente stabile qualunque sia l'inclinazione data.

Sturdy, stable, painted base. With adjustable jaws. For all frame micrometers. Oval base makes it perfectly stable whatever the inclination given.



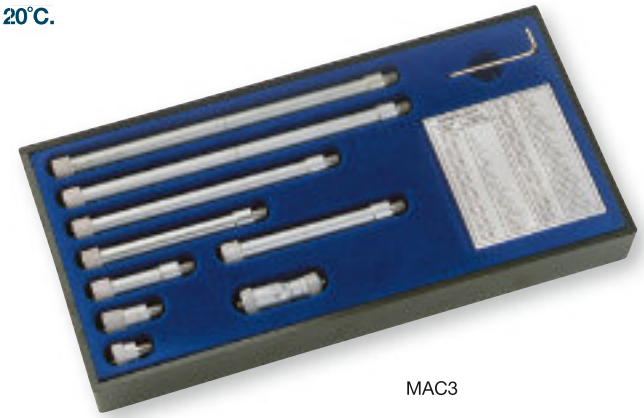
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MICROMETRI
MICROMETERS

MICROMETRI CENTESIMALI AD ASTE COMBINABILI PER INTERNI
INSIDE MICROMETERS WITH INTERCHANGEABLE RODS GRADUATION 0.01 mm

Utilissimi per la misurazione del diametro di fori o più in genere quando sia necessario misurare la distanza fra superfici interne. Sono costituiti da una testina micrometrica avente il campo di misura di 13 mm e da varie aste di prolungamento che opportunamente accoppiate fra loro, consentono le varie combinazioni. Le estremità delle aste di misurazione sono temprate. La precisione del passo della vite micrometrica è uguale a: 0,004 mm.
La precisione delle misure che si possono effettuare con le combinazioni previste per ogni lunghezza fino a 900 mm è:
± (4 + l/50) µm l = lunghezza totale della combinazione in mm.
Temperatura di riferimento: 20°C.

Useful for measuring the diameter of bores or more generally when measuring the distance between inner surfaces is required. They consist of a micrometer head with a measuring range of 13 mm and extension rods that allow various combinations. The ends of the measuring rods are hardened. The precision of micrometric screw pitch is equal to: 0.004 mm. The precision of measurements that can be made with the combinations for each length up to 900 mm is:
± (4 + l/50) µm l = total length of the combination in mm.
Reference temperature: 20°C.



MAC3



MAC0

ART.	Campo di misura Measuring range mm	Composizione serie (aste) Set content (rods)
MAC0	50 ÷ 63	(testina micrometrica) (micrometer head)
MAC1	50 ÷ 150	0+1+2+3
MAC2	50 ÷ 400	0+1+2+3+4+5
MAC3	50 ÷ 900	0+1+2+3+4+4+5+6+6

A richiesta le aste combinabili possono essere fornite singolarmente
On request combined rods can be supplied individually

ART.	Asta / Rod N.	Lunghezza / Length mm
AMAC1	1	13
AMAC2	2	25
AMAC3	3	50
AMAC4	4	100
AMAC5	5	150
AMAC6	6	200

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MICROMETRI
MICROMETERS

MICROMETRI CENTESIMALI AD ASTE COMBINABILI PER INTERNI
INSIDE MICROMETERS WITH INTERCHANGEABLE RODS GRADUATION 0.01 mm

Le superfici di contatto (sferica e piana) vengono sottoposte ad uno speciale procedimento di "super finitura" che assicura una elevatissima resistenza all'usura. La precisione del passo della vite micrometrica è uguale a 0,004 mm. I micrometri MAC-S, nelle varie combinazioni, consentono misurazioni fino a 900 mm.
Temperatura di riferimento: 20°C.

The contact surfaces (spherical and flat) are subject to a special "super-finish" treatment that ensures a very high wear resistance. The precision of micrometer head pitch is equal to 0.004 mm. MAC-S micrometer range allows measurements up to 900 mm.
Reference temperature: 20°C.





ART.	Campo di misura Measuring range mm	Composizione serie (aste) Set content (rods)
MAC0S	50 ÷ 63	(testina micrometrica) (micrometer head)
MAC1S	50 ÷ 150	0+1+2+3
MAC2S	50 ÷ 400	0+1+2+3+4+5
MAC3S	50 ÷ 900	0+1+2+3+4+5+6+7

A richiesta le aste combinabili possono essere fornite singolarmente
On request combined rods can be supplied individually

	Asta / Rod N.	Lunghezza / Length mm
AMAC1S	1	13
AMAC2S	2	25
AMAC3S	3	50
AMAC4S	4	100
AMAC5S	5	150
AMAC6S	6	200
AMAC7S	7	300

A richiesta siamo in grado di fornire misure fino a 5.000 mm
On request measures up to 5,000 mm can be supplied

VITE MICROMETRICA CENTESIMALE
MICROMETER HEAD GRADUATION 0.01 mm

Ha le stesse caratteristiche di quelli normali (vedi serie ME) agli effetti della precisione e della durata, differenziandosi unicamente per la mancanza della controasta e del relativo arco. Contatto in metallo duro. Per il montaggio su macchine e dispositivi di misurazione quali tavole a croce, carrelli di misura. Serve inoltre per regolazioni di precisione su macchine utensili.

It has the same features of the ME series in terms of accuracy and duration; the only difference is that there are no anvil and frame. Hard metal face. To be used on machines and measuring devices as cross tables. It can be also used for precise setting on machine tools.



ART.	Campo di misura Measuring range mm	Risoluzione nonio Graduation mm	Ø asta vite Spindle Ø mm	Ø tamburo graduato Graduated thimble Ø mm	Lunghezza totale Overall length mm	Lunghezza gambo attacco Stem length mm	Ø gambo attacco Stem Ø mm
VMW	0 ÷ 25	0,01	8	20	110	18	14 g 6

Precisione secondo: Norme DIN 863 / **Accuracy according to:** DIN 863

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MICROMETRI PER INTERNI A 3 PUNTE TIPO EXPORT
3-POINT INSIDE MICROMETERS – EXPORT TYPE

Punti di contatto in metallo duro. Indicato per la misurazione di fori passanti, fori ciechi, etc. La prolunga (in dotazione) permette la rilevazione di misure su fori profondi. Anello di azzeramento in dotazione.

Carbide contact points. Suitable for measuring through and blind holes, etc. Can measure deep holes by attaching an extension rod (included). Setting ring included.





ART.	Campo di misura Measuring range mm	Risoluzione nonio Graduation mm	Precisione Accuracy mm
MDIS008	6 ÷ 8	0,001	0,004
MDIS010	8 ÷ 10	0,001	0,004
MDIS012	10 ÷ 12	0,001	0,004
MDIS016	12 ÷ 16	0,005	0,004
MDIS020	16 ÷ 20	0,005	0,004
MDIS025	20 ÷ 25	0,005	0,004
MDIS030	25 ÷ 30	0,005	0,004
MDIS040	30 ÷ 40	0,005	0,004
MDIS050	40 ÷ 50	0,005	0,005
MDIS063	50 ÷ 63	0,005	0,005
MDIS075	62 ÷ 75	0,005	0,005
MDIS088	75 ÷ 88	0,005	0,005
MDIS100	87 ÷ 100	0,005	0,005

SET DI MICROMETRI PER INTERNI A 3 PUNTE (confezione unica)
3-POINT INSIDE MICROMETER SET (one package)

ART.	Serie micrometri Micrometer set N.	Campo di misura Measuring range mm	Risoluzione nonio Graduation mm	Precisione Accuracy mm
SMDIS612	3	6 ÷ 12	0,001	0,004
SMDIS1220	2	12 ÷ 20	0,005	0,004
SMDIS2050	4	20 ÷ 50	0,005	0,004
SMDIS50100	4	50 ÷ 100	0,005	0,005

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MICROMETRI
MICROMETERS

MICROMETRI PER INTERNI A 3 PUNTE
3-POINT INSIDE MICROMETERS

• **Vite micrometrica** in acciaio indeformabile, inossidabile, di alta qualità, temprata e quindi resistente all'usura; durezza 63 HRC.
• **Tamburo di lettura** con incisioni e divisioni 0,005 mm.
• **Frizione a scatto tarata.**
Possibilità di applicare prolunghe che permettono di aumentare la profondità di misura di 152 mm.
Nella confezione è compreso l'anello di azzeramento.

• **Micrometer head** made of high quality stainless steel, non-deformable, hardened and wear resistant; hardness 63 HRC.
• **Reading thimble** with engravings and 0.005 mm divisions.
• **Calibrated ratchet stop.**
Can measure up to 152 mm by attaching an extension rod.
Setting ring included.





ART.	Campo di misura Measuring range		Risoluzione nonio Graduation	Precisione Accuracy	Max profondità di misura Max measuring depth	Contatti di misura Measuring contacts
	mm	pollici / inch	mm	mm	mm	N.
MDI2.5	2 ÷ 2,5	0,079 ÷ 0,098	0,001	0,003	12	2
MDI3	2,5 ÷ 3	0,098 ÷ 0,118	0,001	0,003	12	2
MDI4	3 ÷ 4	0,118 ÷ 0,157	0,001	0,003	12	2
MDI5	4 ÷ 5	0,157 ÷ 0,197	0,001	0,003	20	2
MDI6	5 ÷ 6	0,197 ÷ 0,250	0,001	0,003	20	2
MDI8	6 ÷ 8	1/4 ÷ 5/16	0,005	0,003	58	3
MDI10	8 ÷ 10	5/16 ÷ 3/8	0,005	0,003	58	3
MDI12.5	10 ÷ 12,5	3/8 ÷ 1/2	0,005	0,003	58	3
MDI16	12,5 ÷ 16	1/2 ÷ 5/8	0,005	0,003	62	3
MDI20	16 ÷ 20	5/8 ÷ 3/4	0,005	0,003	62	3
MDI25	20 ÷ 25	3/4 ÷ 1	0,005	0,004	66	3
MDI35	25 ÷ 35	1 ÷ 1 3/8	0,005	0,004	66	3
MDI50	35 ÷ 50	1 3/8 ÷ 2	0,005	0,004	66	3
MDI65	50 ÷ 65	2 ÷ 2 5/8	0,005	0,005	80	3
MDI80	65 ÷ 80	2 5/8 ÷ 3 1/4	0,005	0,005	80	3
MDI100	80 ÷ 100	3 1/4 ÷ 4	0,005	0,005	82	3
MDI125	100 ÷ 125	4 ÷ 5	0,005	0,005	82	3
MDI150	125 ÷ 150	5 ÷ 6	0,005	0,006	105	3
MDI175	150 ÷ 175	6 ÷ 7	0,005	0,006	105	3
MDI200	175 ÷ 200	7 ÷ 8	0,005	0,007	105	3
MDI225	200 ÷ 225	8 ÷ 9	0,005	0,007	105	3
MDI250	225 ÷ 250	9 ÷ 10	0,005	0,007	105	3
MDI275	250 ÷ 275	10 ÷ 11	0,005	0,007	105	3
MDI300	275 ÷ 300	11 ÷ 12	0,005	0,007	105	3

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MICROMETRI
MICROMETERS

MICROMETRI DIGITALI MILLESIMALI PER INTERNI CON ELETTRONICA SYLVAC SYSTEM
DIGITAL INSIDE MICROMETERS WITH SYLVAC SYSTEM ELECTRONICS
RESOLUTION 0.001 mm

CE

Risultato dell'applicazione di una sofisticata elettronica sulla collaudata affidabilità e precisione della meccanica dei micrometri serie MDI. Alimentati a batterie, coprono un campo di misura da 1 a 300 mm (0,4" a 12") con risoluzione 0,001 mm (0,0005"). L'unità elettronica digitale è selezionabile sia in mm che in pollici, partendo dal valore zero oppure da un valore predeterminato, con uscita diretta per la stampante oppure per il PC. Dallo strumento MDEI8 i tastatori di misura sono in metallo duro. Nella confezione è compreso l'anello di azzeramento.

- **Risoluzione display:** 0,001 mm
- **Funzioni:**
  ON-OFF
  Preset
  mm-inch
  Azzeramento
  Uscita dati
- **Batteria:** CR2032-1x3V

These micrometers are the result of applying a sophisticated electronics on the proven mechanics reliability and accuracy of MDI series micrometers. Battery-powered, they cover a measuring range from 1 to 300 mm (0.4" to 12") with 0.001 mm (0.0005") resolution. The digital electronic unit has mm/inch conversion, starting from value zero or a predetermined value, with a direct output to the printer or to the PC. From the MDEI8 model onwards the probes are made of carbide. Setting ring included.

- **Display resolution:** 0.001 mm
- **Functions:**
  ON-OFF
  Preset
  mm-inch
  Reset
  Data output
- **Battery:** CR2032-1x3V





ART.	Campo di misura Measuring range		Precisione Accuracy	Max profondità di misura Max measuring depth	Contatti di misura Measuring contacts
	mm	pollici / inch	mm	mm	N.
MDEI2.5	2 ÷ 2,5	0,079 ÷ 0,098	0,003	12	2
MDEI3	2,5 ÷ 3	0,098 ÷ 0,118	0,003	12	2
MDEI4	3 ÷ 4	0,118 ÷ 0,157	0,003	12	2
MDEI5	4 ÷ 5	0,157 ÷ 0,197	0,003	20	2
MDEI6	5 ÷ 6	0,197 ÷ 0,250	0,003	20	2
MDEI8	6 ÷ 8	1/4 ÷ 5/16	0,003	58	3
MDEI10	8 ÷ 10	5/16 ÷ 3/8	0,003	58	3
MDEI12.5	10 ÷ 12,5	3/8 ÷ 1/2	0,003	58	3
MDEI16	12,5 ÷ 16	1/2 ÷ 5/8	0,003	62	3
MDEI20	16 ÷ 20	5/8 ÷ 3/4	0,003	62	3
MDEI25	20 ÷ 25	3/4 ÷ 1	0,004	66	3
MDEI35	25 ÷ 35	1 ÷ 1 3/8	0,004	66	3
MDEI50	35 ÷ 50	1 3/8 ÷ 2	0,004	66	3
MDEI65	50 ÷ 65	2 ÷ 2 5/8	0,005	80	3
MDEI80	65 ÷ 80	2 5/8 ÷ 3 1/4	0,005	80	3
MDEI100	80 ÷ 100	3 1/4 ÷ 4	0,005	82	3
MDEI125	100 ÷ 125	4 ÷ 5	0,005	82	3
MDEI150	125 ÷ 150	5 ÷ 6	0,006	105	3
MDEI175	150 ÷ 175	6 ÷ 7	0,006	105	3
MDEI200	175 ÷ 200	7 ÷ 8	0,007	105	3
MDEI225	200 ÷ 225	8 ÷ 9	0,007	105	3
MDEI250	225 ÷ 250	9 ÷ 10	0,007	105	3
MDEI275	250 ÷ 275	10 ÷ 11	0,007	105	3
MDEI300	275 ÷ 300	11 ÷ 12	0,007	105	3

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MICROMETRI
MICROMETERS

SET DI MICROMETRI MDEI CON ELETTRONICA SYLVAC SYSTEM
SET OF MDEI MICROMETERS WITH SYLVAC SYSTEM ELECTRONICS

ART.	Campo di misura / Measuring range		Testine di misura Measuring heads
	mm	pollici / inch	N.
SMDEI6	2 ÷ 6	0,079 ÷ 0,25	5
SMDEI10	6 ÷ 10	1/4 ÷ 3/8	2
SMDEI20	10 ÷ 20	3/8 ÷ 3/4	3
SMDEI50	20 ÷ 50	3/4 ÷ 2	3
SMDEI100	50 ÷ 100	2 ÷ 4	2
SMDEI200	100 ÷ 200	4 ÷ 8	4



PROLUNGHE / EXTENSIONS

ACCESSORI / ACCESSORIES	
ART.	Prolunghe per effettuare misure più profonde / Extensions for deeper measurements
AP1	per micrometri / for micrometers MDI 16-20 (l=100 mm)
AP2	per micrometri / for micrometers MDI 25-35-50 (l=150 mm)
AP3	per micrometri / for micrometers MDI 65-80-100-125-150-175-200-225-250-275-300 (l=150 mm)
AP4	per micrometri / for micrometers MDI 8-10 (l=63 mm)
AP5	per micrometri / for micrometers MDI 12,5 (l=76 mm)

MICROMETRI DIGITALI MILLESIMALI PER INTERNI CON IMPUGNATURA A PISTOLA E CON ELETTRONICA SYLVAC SYSTEM
ELECTRONIC PISTOL GRIP INSIDE MICROMETERS WITH SYLVAC SYSTEM ELECTRONICS RESOLUTION 0.001 mm

Punti di contatto in metallo duro. Indicato per la misurazione di fori passanti, fori ciechi, etc. La prolunga (in dotazione) permette la rilevazione di misure su fori profondi. Anello di azzeramento in dotazione. L'elettronica ha un grado di protezione IP54.
- **Risoluzione display:** 0,001 mm
- **Funzioni:**
  ON-OFF
  Preset
  mm-inch
  Azzeramento
  Uscita dati
- **Batteria:** CR2032-1x3V

Carbide contact points. Suitable for measuring through and blind holes, etc. Can measure deep holes by attaching an extension rod (included). Setting ring included. The electronic parts have a IP54 degree of protection.
- **Display resolution:** 0.001 mm
- **Functions:**
  ON-OFF
  Preset
  mm-inch
  Reset
  Data output
- **Battery:** CR2032-1x3V



ART.	Campo di misura Measuring range		Precisione Accuracy	Max profondità di misura Max measuring depth	Tipo impugnatura Grip	Contatti di misura Measuring contacts
	mm	pollici / inch	mm	mm	N.	N.
MDEH2.5	2 ÷ 2,5	0,080 ÷ 0,100	0,004	12	1	2
MDEH3	2,5 ÷ 3	0,100 ÷ 0,120	0,004	12	1	2
MDEH4	3 ÷ 4	0,120 ÷ 0,160	0,004	12	1	2
MDEH5	4 ÷ 5	0,160 ÷ 0,200	0,004	20	1	2
MDEH6	5 ÷ 6	0,200 ÷ 0,250	0,004	20	1	2
MDEH8	6 ÷ 8	1/4 ÷ 5/16	0,004	58	2	3
MDEH10	8 ÷ 10	5/16 ÷ 3/8	0,004	58	2	3
MDEH12.5	10 ÷ 12,5	3/8 ÷ 1/2	0,004	58	2	3
MDEH16	12,5 ÷ 16	1/2 ÷ 5/8	0,004	62	2	3
MDEH20	16 ÷ 20	5/8 ÷ 3/4	0,004	62	2	3
MDEH25	20 ÷ 25	3/4 ÷ 1	0,004	66	3	3
MDEH35	25 ÷ 35	1 ÷ 1 3/8	0,004	66	3	3
MDEH50	35 ÷ 50	1 3/8 ÷ 2	0,004	66	3	3
MDEH65	50 ÷ 65	2 ÷ 2 5/8	0,005	80	3	3
MDEH80	65 ÷ 80	2 5/8 ÷ 3 1/4	0,005	80	3	3
MDEH100	80 ÷ 100	3 1/4 ÷ 4	0,005	82	3	3
MDEH125	100 ÷ 125	4 ÷ 5	0,005	82	4	3
MDEH150	125 ÷ 150	5 ÷ 6	0,005	105	4	3
MDEH175	150 ÷ 175	6 ÷ 7	0,005	105	4	3
MDEH200	175 ÷ 200	7 ÷ 8	0,005	105	4	3

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MICROMETRI
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SET MICROMETRI MDEH CON ELETTRONICA SYLVAC SYSTEM
SET OF MDEH MICROMETERS WITH SYLVAC SYSTEM ELETRONICS



ART.	Campo di misura Measuring range		Testine di misura Measuring heads
	mm	pollici / inch	N.
SMDEH6	2 ÷ 6	0,079 ÷ 0,25	5
SMDEH10	6 ÷ 10	1/4 ÷ 3/8	2
SMDEH620	6 ÷ 20	1/4 ÷ 3/4	5
SMDEH20	10 ÷ 20	3/8 ÷ 3/4	3
SMDEH50	20 ÷ 50	3/4 ÷ 2	3
SMDEH20100	20 ÷ 100	3/4 ÷ 4	5
SMDEH100	50 ÷ 100	2 ÷ 4	2
SMDEH200	100 ÷ 200	4 ÷ 8	4

MICROMETRI ELETTRONICI PER INTERNI A 3 PUNTE TIPO EXPORT
3-POINT ELECTRONIC INSIDE MICROMETERS - EXPORT TYPE

Punti di contatto in metallo duro. Indicato per la misurazione di fori passanti, fori ciechi, etc. La prolunga (in dotazione) permette la rilevazione di misure su fori profondi. Anello di azzeramento in dotazione. L'elettronica ha un grado di protezione IP54.
- **Risoluzione display:** 0,001 mm
- **Batteria:** SR44-1x1,5V

Carbide contact points. Suitable for measuring through and blind holes, etc. Can measure deep holes by attaching an extension rod (included). Setting ring included. The electronic parts have a IP54 protection degree.
- **Display resolution:** 0.001 mm
- **Battery:** SR44-1x1,5V





ART.	Campo di misura Measuring range mm	Precisione Accuracy mm	ON OFF	ABS INC	Preset	mm inch	Azzeramento Reset
MDEIS008	6 ÷ 8	0,004	●	●	●	●	●
MDEIS010	8 ÷ 10	0,004	●	●	●	●	●
MDEIS012	10 ÷ 12	0,004	●	●	●	●	●
MDEIS016	12 ÷ 16	0,004	●	●	●	●	●
MDEIS020	16 ÷ 20	0,004	●	●	●	●	●
MDEIS025	20 ÷ 25	0,004	●	●	●	●	●
MDEIS030	25 ÷ 30	0,004	●	●	●	●	●
MDEIS040	30 ÷ 40	0,004	●	●	●	●	●
MDEIS050	40 ÷ 50	0,005	●	●	●	●	●
MDEIS063	50 ÷ 63	0,005	●	●	●	●	●
MDEIS070	50 ÷ 70	0,005	●	●	●	●	●
MDEIS075	62 ÷ 75	0,005	●	●	●	●	●
MDEIS088	75 ÷ 88	0,005	●	●	●	●	●
MDEIS100	87 ÷ 100	0,005	●	●	●	●	●
MDEIS70100	70 ÷ 100	0,005	●	●	●	●	●
MDEIS150	100 ÷ 150	0,005	●	●	●	●	●
MDEIS250	150 ÷ 250	0,007	●	●	●	●	●
MDEIS300	200 ÷ 300	0,007	●	●	●	●	●
MDEIS500	200 ÷ 500	0,007	●	●	●	●	●
MDEIS1000	200 ÷ 1.000	0,007	●	●	●	●	●

BF SERVICE

COMPARATORI A QUADRANTE
DIAL INDICATORS



4 Fori
4 Holes

A richiesta
On request

COMPARATORI CENTESIMALI CORSA 10 mm
INDICATORS GRADUATION 0.01 mm STROKE 10 mm

ART.		SC001	SC001ANT	SC001ATT
Campo di misura / Measuring range	mm	10	10	10
Unità di formato / Graduation	mm	0,01	0,01	0,01
Lettura quadrante / Dial reading	mm	1	1	1
Antiurto / Shock resistant			●	
Ø D	mm	58	58	58
A	mm	17	17	17
B	mm	21	21	21
C	mm	115	115	115
Attacco posteriore / Back lug				●

ART.		SC001ATT/ANT	SC001F4	SC001ANTF4
Campo di misura / Measuring range	mm	10	10	10
Unità di formato / Graduation	mm	0,01	0,01	0,01
Lettura quadrante / Dial reading	mm	1	1	1
Antiurto / Shock resistant		●		●
Ø D	mm	58	58	58
A	mm	17	17	17
B	mm	21	21	21
C	mm	115	115	115
Attacco posteriore / Back lug		●		
Attacco 4 fori / 4-hole connection			●	●

Precisione secondo: Norme DIN 878 / **Accuracy according to**: DIN 878



SC001ANT

COMPARATORI CENTESIMALI CORSA 10 mm
INDICATORS GRADUATION 0.01 mm STROKE 10 mm

ART.		SC60	SC60ANT	SC60ATT	SC60A/ANT
Campo di misura / Measuring range	mm	10	10	10	10
Unità di formato / Graduation	mm	0,01	0,01	0,01	0,01
Lettura quadrante / Dial reading	mm	1	1	1	1
Antiurto / Shock resistant			●		●
Ø D	mm	60	60	60	60
A	mm	17	17	17	17
B	mm	20	20	20	20
C	mm	109	109	109	109
Attacco posteriore / Back lug				●	●

ART.		SC60F4	SC60ANTF4	SC60WA	SC60WA/ATT
Campo di misura / Measuring range	mm	10	10	10	10
Unità di formato / Graduation	mm	0,01	0,01	0,01	0,01
Lettura quadrante / Dial reading	mm	1	1	1	1
Antiurto / Shock resistant			●		
IP65				●	●
Ø D	mm	60	60	63	63
A	mm	17	17	17	17
B	mm	20	20	20	20
C	mm	109	109	122	122
Attacco posteriore / Back lug					●
Attacco 4 fori / 4-hole connection		●	●		

Precisione secondo: Norme UNI 4180-70-2 / **Accuracy according to**: UNI 4180-70-2



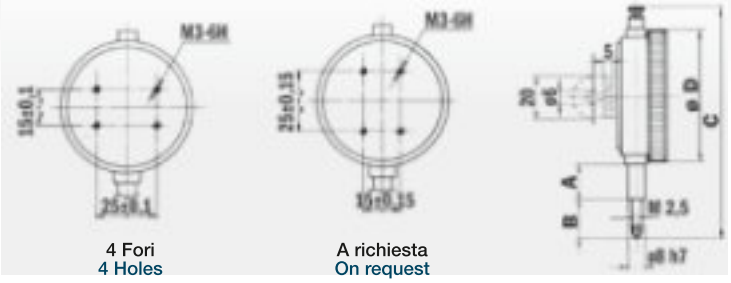
SC60ANT



SC60WA

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COMPARATORI A QUADRANTE
DIAL INDICATORS



COMPARATORI CENTESIMALI CORSA 5 mm
INDICATORS GRADUATION 0.01 mm STROKE 5 mm

ART.		SC605	SC605ATT	SC605F4
Campo di misura / Measuring range	mm	5	5	5
Unità di formato / Graduation	mm	0,01	0,01	0,01
Lettura quadrante / Dial reading	mm	0,5	0,5	0,5
Antiurto / Shock resistant		●	●	●
Ø D	mm	60	60	60
A	mm	18	18	18
B	mm	18	18	18
C	mm	108	108	108
Attacco posteriore / Back lug			●	
Attacco 4 fori / 4-hole connection				●

Precisione secondo: Norme UNI 4180-70-2 / **Accuracy according to**: UNI 4180-70-2


SC605

COMPARATORI CENTESIMALI CORSA LIMITATA
LIMITED STROKE INDICATORS GRADUATION 0.01 mm

ART.		SC64	SC64ATT	SC64F4
Campo di misura / Measuring range	mm	0,9	0,9	0,9
Unità di formato / Graduation	mm	0,01	0,01	0,01
Lettura quadrante / Dial reading	mm	± 0,45	± 0,45	± 0,45
Antiurto / Shock resistant		●	●	●
Ø D	mm	60	60	60
A	mm	17	17	17
B	mm	20	20	20
C	mm	108	108	108
Attacco posteriore / Back lug			●	
Attacco 4 fori / 4-hole connection				●

Precisione secondo: Norme UNI 4180-70-2 / **Accuracy according to**: UNI 4180-70-2


SC64

COMPARATORI CENTESIMALI CORSA 5 mm
INDICATORS GRADUATION 0.01 mm STROKE 5 mm

ART.		SC40	SC40ANT	SC40ATT	SC40A/ANT
Campo di misura / Measuring range	mm	5	5	5	5
Unità di formato / Graduation	mm	0,01	0,01	0,01	0,01
Lettura quadrante / Dial reading	mm	1	1	1	1
Antiurto / Shock resistant			●		●
Ø D	mm	43	43	43	43
A	mm	17	17	17	17
B	mm	12	12	12	12
C	mm	88	88	88	88
Attacco posteriore / Back lug				●	●

ART.		SC40F4	SC40ANTF4	SC40WA	SC40WA/ATT
Campo di misura / Measuring range	mm	5	5	5	5
Unità di formato / Graduation	mm	0,01	0,01	0,01	0,01
Lettura quadrante / Dial reading	mm	1	1	1	1
Antiurto / Shock resistant			●		
IP65				●	●
Ø D	mm	43	43	49	49
A	mm	17	17	17	17
B	mm	12	12	12	12
C	mm	88	88	103	103
Attacco posteriore / Back lug					●
Attacco 4 fori / 4-hole connection		●	●		

Precisione secondo: Norme UNI 4180-70-2 / **Accuracy according to**: UNI 4180-70-2


SC40


SC40WA

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COMPARATORI A QUADRANTE
DIAL INDICATORS

COMPARATORI CENTESIMALI CORSA 5 mm
INDICATORS GRADUATION 0.01 mm STROKE 5 mm

ART.		SC405	SC405ATT	SC405F4
Campo di misura / Measuring range	mm	5	5	5
Unità di formato / Graduation	mm	0,01	0,01	0,01
Lettura quadrante / Dial reading	mm	0,5	0,5	0,5
Antiurto / Shock resistant		●	●	●
Ø D	mm	43	43	43
A	mm	17	17	17
B	mm	11	11	11
C	mm	89	89	89
Attacco posteriore / Back lug			●	
Attacco 4 fori / 4-hole connection				●

Precisione secondo: Norme UNI 4180-70-2 / **Accuracy according to**: UNI 4180-70-2


SC405

COMPARATORI CENTESIMALI CORSA 3 mm
INDICATORS GRADUATION 0.01 mm STROKE 3 mm

ART.		SC40/O
Campo di misura / Measuring range	mm	3
Unità di formato / Graduation	mm	0,01
Lettura quadrante / Dial reading	mm	1
Ø D	mm	42
A	mm	13
B	mm	8
C	mm	77
Attacco posteriore / Back lug		

Precisione secondo: Norme UNI 4180-70-2 / **Accuracy according to**: UNI 4180-70-2


SC40/O

COMPARATORI CENTESIMALI INVERSI E SIMMETRICI
REVERSE AND SYMMETRIC INDICATORS GRADUATION 0.01 mm

ART.		SC40I	SC40I/ATT	SC40IF4
Campo di misura / Measuring range	mm	5	5	5
Unità di formato / Graduation	mm	0,01	0,01	0,01
Lettura quadrante / Dial reading	mm	1	1	1
Inverso indic. sinistra / Reverse left reading		●	●	●
Ø D	mm	43	43	43
A	mm	17	17	17
B	mm	12	12	12
C	mm	88	88	88
Attacco posteriore / Back lug			●	
Attacco 4 fori / 4-hole connection				●

ART.		SC40S	SC40S/ATT	SC40SF4
Campo di misura / Measuring range	mm	5	5	5
Unità di formato / Graduation	mm	0,01	0,01	0,01
Lettura quadrante / Dial reading	mm	± 0,5	± 0,5	± 0,5
Simmetrico / Symmetric		●	●	●
Ø D	mm	43	43	43
A	mm	17	17	17
B	mm	12	12	12
C	mm	88	88	88
Attacco posteriore / Back lug			●	
Attacco 4 fori / 4-hole connection				●

Precisione secondo: Norme UNI 4180-70-2 / **Accuracy according to**: UNI 4180-70-2


SC40I
Inverso
Reverse

SC40S
Simmetrico
Symmetric

PORTACOMPARATORI IN LEGA LEGGERA PER COMPARATORI A 4 FORI
4-SCREW INDICATOR MOUNTING BACKS MADE OF LIGHT ALLOY

ART.	
SC4	Per comparatori Ø 40 mm / For Ø 40 mm indicators
SC6	Per comparatori Ø 60 mm / For Ø 60 mm indicators

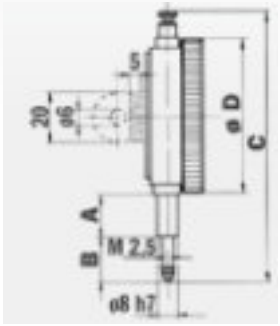


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COMPARATORI A QUADRANTE
DIAL INDICATORS

Gli strumenti sfruttano il principio combinato dall'amplificazione a leva e ad ingranaggi. La pressione di controllo è costante su tutto il campo di misura. La corsa a vuoto impedisce che eventuali urti accidentali danneggino il comparatore, inoltre i cinematismi interni sono protetti con dispositivo antiurto (CM1). Il quadrante di lettura è nitido e l'azzeramento avviene con la rotazione del quadrante che porta gli indici di tolleranza (CM1-CM5). Una levetta posteriore funziona da alzatasto (CM1). La scelta dei materiali che compongono ogni parte dello strumento è stata curata allo scopo di avere la massima resistenza all'usura e quindi la massima garanzia di precisione nel tempo. Applicabili su strumenti di misura portatili e attrezzature multiquote per controlli di precisione.

These indicators use the principle of combined lever and gear amplification. The checking pressure is constant over the whole measuring range. The idle stroke prevents accidental impacts from damaging the indicator, also the internal gears are protected with an anti-shock mechanism (CM1). The reading dial is clear. Bezel with limit hand rotates for zero setting. (CM1-CM5). A back lever acts as lifting lever.
The chosen materials are extremely resistant to wear, therefore ensure maximum accuracy throughout time. Can be used on portable measuring instruments and multi-level precision checking devices.



COMPARATORI MILLESIMALI CORSA 1 mm
INDICATORS GRADUATION 0.001 mm STROKE 1 mm

ART.		CM1	CM1ATT	CM1/40
Campo di misura / Measuring range	mm	1	1	1
Unità di formato / Graduation	mm	0,001	0,001	0,001
Lettura quadrante / Dial reading	mm	0,2	0,2	0,2
Ø D	mm	54	54	40
A	mm	17	17	13
B	mm	15	15	9
C	mm	103	103	74
Forza di misura max / Max measuring force	N	0,98	0,98	0,98
Attacco posteriore / Back lug			●	


CM1


CM1/40

COMPARATORE MILLESIMALE CORSA 1 mm MOVIMENTO SU RUBINI
INDICATOR GRADUATION 0.001 mm STROKE 1 mm WITH RUBY BEARING

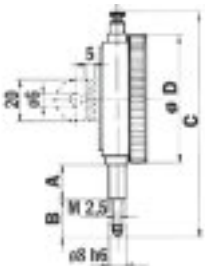
ART.		CM1S
Campo di misura / Measuring range	mm	1
Unità di formato / Graduation	mm	0,001
Lettura quadrante / Dial reading	mm	0,1
Ø D	mm	60
A	mm	20
B	mm	10
C	mm	101
Forza di misura max / Max measuring force	N	0,98


CM1S

COMPARATORI MILLESIMALI CORSA 5 mm
INDICATORS GRADUATION 0.001 mm STROKE 5 mm

ART.		CM5	CM5ATT
Campo di misura / Measuring range	mm	5	5
Unità di formato / Graduation	mm	0,001	0,001
Lettura quadrante / Dial reading	mm	0,2	0,2
Ø D	mm	57	57
A	mm	18	18
B	mm	20	20
C	mm	112	112
Forza di misura max / Max measuring force	N	1,6	1,6
Attacco posteriore / Back lug			●

ART.	ACCESSORI / ACCESSORIES
CM1A	Fondello per comparatore CM1 / CM1 indicator back
CM5A	Fondello per comparatore CM5 / CM5 indicator back




CM5

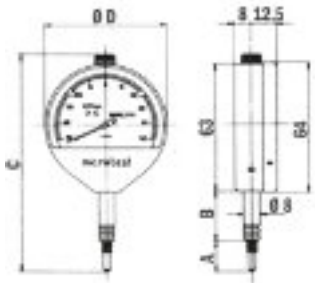
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COMPARATORI A QUADRANTE
DIAL INDICATORS

Quadrante con divisione simmetrica (±50 µm), messa a zero tramite bottone posto sopra il quadrante. Asta di misura montata su tre guide a sfera che rendono praticamente nulli gli attriti e i giochi durante la traslazione. Cinematismi a leva e ingranaggi montati su rubini che garantiscono la precisione e la durata dello strumento. Pressione di misura costante su tutto il campo. Indice dello strumento bilanciato con piccola inerzia. Adatti per controlli di alta precisione, sia in sala collaudo su stativi universali e alesametri, sia in officina su attrezzi per controlli multipli. Fornito con flessibile di sollevamento.

Dial with symmetrical division (±50 µm), reset through button placed above the dial. The measuring rod is mounted on three ball bearing guideways that make virtually both frictions and clearances during travel equal to zero. The lever and the gear mobile parts are mounted on rubies that guarantee instrument accuracy and long life. The measuring pressure is constant over the whole measuring range. Device marker balanced with small inertia. Suitable for high precision testing, both in the inspecting room on universal stands and bore gauges and in workshop on multi-gauge equipment. Supplied with flexible lifting device.

COMPARATORE MILLESIMALE “MICROTEST”
“MICROTEST” DIAL INDICATOR GRADUATION 0.001 mm





ART.		A1
Campo di misura / Measuring range	mm	0,1
Unità di formato / Graduation	mm	0,001
Lettura quadrante / Dial reading	mm	± 0,05
Ø D	mm	61
A	mm	16
B	mm	25
C	mm	115
Ripetibilità / Repeatability	µm	0,2
Errore di inversione / Inversion error	µm	0,4
Forza di misura max / Max measuring force	N	1,2

Precisione secondo: Norme DIN 879 / **Accuracy according to:** DIN 879

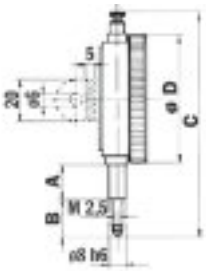
COMPARATORI CENTESIMALI A QUADRANTE GRANDE
LARGE DIAL INDICATORS GRADUATION 0.01 mm

Meccanismo con molla per la ripresa dei giochi, pressione di controllo costante su tutta la corsa, quadrante di lettura ampio e nitido, asta a cremagliera in acciaio inossidabile, temprata e lappata. Azzeramento con rotazione del quadrante. Indici di tolleranza regolabili. Ideale per letture da grandi distanze, su supporti, basi magnetiche, calibri e macchine utensili che non permettono di posizionare il comparatore in prossimità dell’operatore.

Spring mechanism for backlash recovery, constant checking pressure over the whole measuring range, large and clear reading dial, stainless steel, hardened and lapped rack rod. Bezel rotates for zero setting. Adjustable limit hand. Ideal for readings from great distances, on supports, magnetic bases, calipers and machine tools that do not allow to place the indicator near the operator.



ART.		CC80	CC80ATT	CC100	CC100ATT
Campo di misura Measuring range	mm	10	10	10	10
Unità di formato / Graduation	mm	0,01	0,01	0,01	0,01
Lettura quadrante / Dial reading	mm	1	1	1	1
Ø D	mm	80	80	100	100
A	mm	18	18	18	18
B	mm	18	18	18	18
C	mm	130	130	140	140
Attacco posteriore / Back lug			●		●



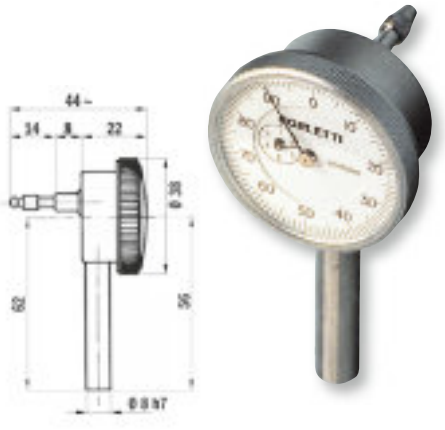
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COMPARATORI A QUADRANTE
DIAL INDICATORS

COMPARATORE CENTESIMALE A TASTO DORSALE
BACK PLUNGER DIAL INDICATOR GRADUATION 0.01 mm

Asta di misurazione disposta a 90° rispetto al quadrante e sul dorso del corpo. Trovano impiego in attrezzature di posizionamento e controllo pezzi per rendere più facile la lettura all'operatore. La ghiera del quadrante è girevole per la messa a zero.

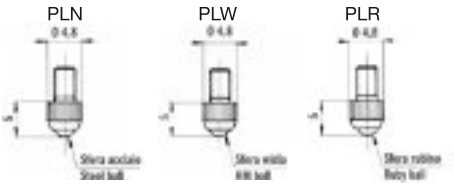
The spindle is placed at 90° to the dial on the back of the unit. They are used for positioning and testing. Bezel rotates for zero setting.



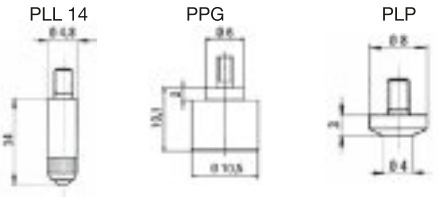
ART.		CD38
Campo di misura / Measuring range	mm	5
Unità di formato / Graduation	mm	0,01
Lettura quadrante / Dial reading	mm	1
Ø D	mm	38
A	mm	38
B	mm	44
C	mm	76

ACCESSORI PER COMPARATORI CENTESIMALI
ACCESSORIES FOR INDICATORS WITH GRADUATION 0.01 mm

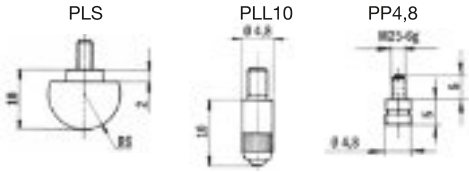
ART.	PUNTALINI / CONTACT POINTS
PLN	Puntalino standard con sfera in acciaio, attacco filettato M2,5 Standard steel contact point with steel ball, thread M2,5
PLW	Puntalino con sfera in metallo duro Contact point with carbide ball
PLR	Puntalino con sfera in rubino / Contact point with ruby ball



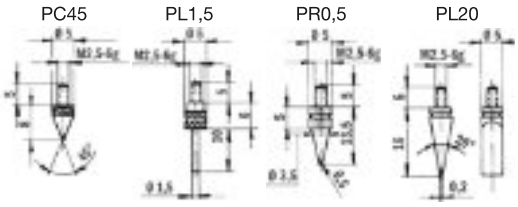
PLL14	Puntalino lunghezza 14 mm / Contact point length 14 mm
PPG	Puntalino a piattello Ø 10 mm / Plate contact point Ø 10 mm
PLP	Puntalino piatto Ø 4 mm / Flat contact point Ø 4 mm



PLS	Puntalino a forma semisferica R5 Semi-spherical contact point R5
PLL10	Puntalino, lunghezza 10 mm con sfera acciaio Contact point, length 10 mm with steel ball
PP4,8	Puntalino piatto Ø 4,8 mm / Flat contact point Ø 4,8 mm



PC45	Puntalino cuspide 45° / Conical contact point 45°
PL1,5	Puntalino piatto Ø 1,5 mm / Flat contact point Ø 1,5 mm
PR0,5	Puntalino cuspide R 0,5 / Conical contact point R 0,5
PL20	Puntalino a coltello 20° / Knife contact point 20°
SI	Soffietto impermeabile / Waterproof rubber boot
CI	Cappuccio impermeabile / Waterproof spindle cap



ART.	PROLUNGHE PER PUNTALINI EXTENSIONS FOR CONTACT POINTS
APR10	Prolunga per puntalini di misurazione L=10 mm Extension for contact points L=10 mm
APR20	Prolunga per puntalini di misurazione L=20 mm Extension for contact points L=20 mm
APR30	Prolunga per puntalini di misurazione L=30 mm Extension for contact points L=30 mm
APR40	Prolunga per puntalini di misurazione L=40 mm Extension for contact points L=40 mm

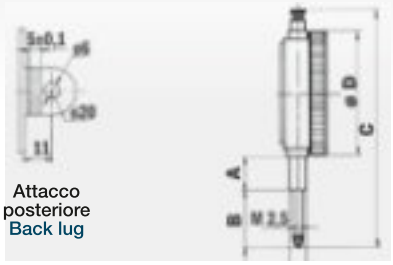


ART.	LEVETTE / SMALL LEVERS
LV10	Levetta di sollevamento per comparatori centesimali corsa 10 mm Lifting lever for indicator with graduation 0.01 mm stroke 10 mm
LV5	Levetta di sollevamento per comparatori centesimali corsa 4÷5 mm Lifting lever for indicator with graduation 0.01 mm stroke 4÷5 mm


LV10

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COMPARATORI A QUADRANTE
DIAL INDICATORS



COMPARATORI CENTESIMALI CORSA LUNGA
LONG STROKE INDICATORS GRADUATION 0.01 mm

ART.		SC25	SC25ATT
Campo di misura Measuring range	mm	25	25
Unità di formato Graduation	mm	0,01	0,01
Lettura quadrante Dial reading	mm	1	1
Ø D	mm	58	58
A	mm	17	17
B	mm	33	33
C	mm	124	124
Ø codulo attacco Stem Ø	mm	8h7	8h7
Attacco posteriore Back lug			●


SC25

COMPARATORI CENTESIMALI CORSA LUNGA
LONG STROKE INDICATORS GRADUATION 0.01 mm

ART.		SC30	SC30ATT	SC30ANT	SC30A/ANT	SC30S
Campo di misura Measuring range	mm	30	30	30	30	30
Unità di formato Graduation	mm	0,01	0,01	0,01	0,01	0,01
Lettura quadrante Dial reading	mm	1	1	1	1	1
Antiurto Shock resistant				●	●	
Ø D	mm	58	58	58	58	60
A	mm	20	20	20	20	20
B	mm	41	41	41	41	38
C	mm	148	148	148	148	130
Ø codulo attacco Stem Ø	mm	8h7	8h7	8h7	8h7	8h7
Attacco posteriore Back lug			●		●	


SC30 SC30S

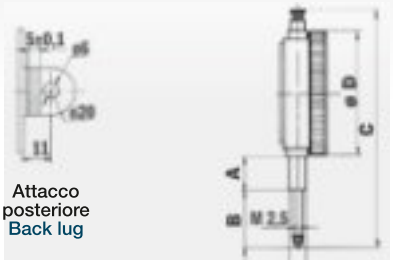
COMPARATORI CENTESIMALI CORSA LUNGA
LONG STROKE INDICATORS GRADUATION 0.01 mm

ART.		SC30/80	SC30/80ATT	SC30/100	SC30/100ATT
Campo di misura Measuring range	mm	30	30	30	30
Unità di formato Graduation	mm	0,01	0,01	0,01	0,01
Lettura quadrante Dial reading	mm	1	1	1	1
Ø D	mm	80	80	100	100
A	mm	18	18	18	18
B	mm	38	38	38	38
C	mm	170	170	170	170
Ø codulo attacco Stem Ø	mm	8h6	8h6	8h6	8h6
Attacco posteriore Back lug			●		●


SC30/80 SC30/100

BF SERVICE

COMPARATORI A QUADRANTE
DIAL INDICATORS



COMPARATORI CENTESIMALI CORSA LUNGA
LONG STROKE INDICATORS GRADUATION 0.01 mm

ART.		SC50	SC50ATT	SC50ANT	SC50A/ANT	SC50S
Campo di misura Measuring range	mm	50	50	50	50	50
Unità di formato Graduation	mm	0,01	0,01	0,01	0,01	0,01
Lettura quadrante Dial reading	mm	1	1	1	1	1
Antiurto Shock resistant				●	●	
Ø D	mm	58	58	58	58	60
A	mm	36	36	36	36	51
B	mm	60	60	60	60	60
C	mm	232	232	232	232	260
Ø codulo attacco Stem Ø	mm	8h6	8h6	8h6	8h6	8h7
Attacco posteriore Back lug			●		●	
Amagnetico Non-magnetic						●


SC50

COMPARATORI CENTESIMALI CORSA LUNGA
LONG STROKE INDICATORS GRADUATION 0.01 mm

ART.		SC50/80	SC50/80ATT	SC50/100	SC50/100ATT
Campo di misura Measuring range	mm	50	50	50	50
Unità di formato Graduation	mm	0,01	0,01	0,01	0,01
Lettura quadrante Dial reading	mm	1	1	1	1
Ø D	mm	80	80	100	100
A	mm	25	25	16	16
B	mm	61	61	61	61
C	mm	232	232	232	232
Ø codulo attacco Stem Ø	mm	8h6	8h6	8h6	8h6
Attacco posteriore Back lug			●		●


SC50/80


SC50/100

COMPARATORI CENTESIMALI CORSA LUNGA
LONG STROKE INDICATORS GRADUATION 0.01 mm

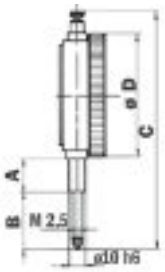
ART.		SC50/80S	SC80/80S
Campo di misura Measuring range	mm	50	80
Unità di formato Graduation	mm	0,01	0,01
Lettura quadrante Dial reading	mm	1	1
Ø D	mm	80	80
A	mm	28	51,5
B	mm	60	89
C	mm	180	360
Ø codulo attacco Stem Ø	mm	8h7	8h7
Amagnetico Non-magnetic		●	●

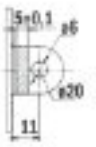

SC80/80S

BF SERVICE

COMPARATORI A QUADRANTE
DIAL INDICATORS

COMPARATORI CENTESIMALI CORSA LUNGA ATTACCO COMPARATORE Ø 10 h6 mm
LONG STROKE INDICATORS GRADUATION 0.01 mm STEM Ø 10 h6 mm





Attacco posteriore
Back lug



SC100/80

ART.		SC100/80	SC100/80ATT
Campo di misura / Measuring range	mm	100	100
Unità di formato / Graduation	mm	0,01	0,01
Lettura quadrante / Dial reading	mm	1	1
Ø D	mm	80	80
A	mm	65	65
B	mm	111	111
C	mm	383	383
Ø codulo attacco / Stem Ø	mm	10h6	10h6
Attacco posteriore / Back lug			●

COMPARATORI CENTESIMALI A TASTO ORIENTABILE
LEVER DIAL INDICATORS GRADUATION 0.01 mm

Tasto orientabile in un piano parallelo rispetto al quadrante. Pulsante per l'inversione del movimento del tastatore. Messa a zero mediante rotazione del quadrante. Frizione con carico di 400 g. Utilizzato per la centratura pezzi, trasferimento quote da micrometri per altezze, controlli di rettilineità, spessori, concentricità e ovalità di fori e alberi.

Stylus can be positioned parallel to the face. Button for reversing the movement of the stylus. Reset by rotating the bezel. Clutch with 400 g load, used to centre pieces, transfer values from height gauges, to check straightness, thickness, concentricity and ovality.





SC20

ESEMPI DI APPLICAZIONI / APPLICATION EXAMPLES



Controllo di spessori
Thickness check



Controllo di rettilineità
Straightness check



Controllo di esterni (eccentricità)
External check (eccentricity)



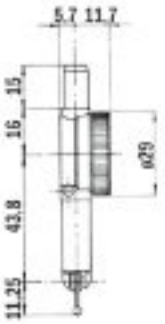
Controllo di rasamenti (perpendicolarità)
Perpendicularity check



Controllo di interni (concentricità)
Internal check (concentricity)



Centratura pezzi
Piece centring





ASC20

ART.		SC20
Campo di misura / Measuring range	mm	0,8
Unità di formato / Graduation	mm	0,01
Lettura quadrante / Dial reading	mm	0 - 40 - 0
Ø quadrante / Dial Ø	mm	29
Lunghezza tastatore / Stylus length	mm	11,25
Ø codulo attacco / Stem Ø	mm	8
Ø puntalini / Contact point Ø	mm	2
Con braccio / With bar		

ART.	ACCESSORI / ACCESSORIES
ASC20	Braccio con attacco snodato Ø 8 mm per la presa su macchine utensili Bar with swivel clamp Ø 8 mm for mounting on machine tools

BF SERVICE

COMPARATORI A QUADRANTE
DIAL INDICATORS

COMPARATORI CENTESIMALI A TASTO ORIENTABILE MOVIMENTO SU RUBINI
LEVER DIAL INDICATORS WITH RUBY BEARINGS GRADUATION 0.01 mm

Tasto orientabile e leva per l'inversione del movimento del tastatore. Messa a zero mediante rotazione del quadrante. Palpatore a sfere in metallo duro, orientabile a 210°. Utilizzato su supporti, basi magnetiche, per la centratura pezzi, trasferimento quote da micrometri per altezze, controlli di rettilineità, spessori, concentricità e ovalità di fori e alberi.
SC20/D: a corpo verticale
SC20/E: a corpo frontale

With adjustable stylus and lever to reverse the measuring direction. Bezel rotates for zero setting. Hard metal ball stylus, adjustable within 210°. Used on support magnetic stands, to centre pieces, transfer values from height gauges, to check straightness, thickness, concentricity and ovality.
SC20/D: vertical body
SC20/E: parallel body

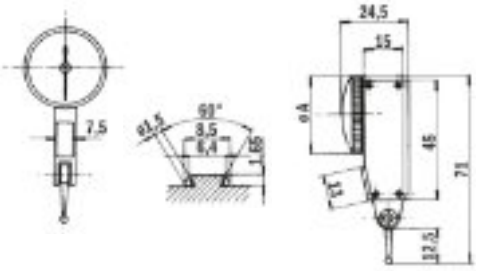
ART.		SC20/D	SC20/E
Campo di misura / Measuring range	mm	0,8	0,8
Unità di formato / Graduation	mm	0,01	0,01
Lettura quadrante / Dial reading	mm	0 - 40 - 0	0 - 40 - 0
Ø quadrante / Dial Ø	mm	29	29
Lunghezza tastatore / Stylus length	mm	11	11
Ø codulo attacco / Stem Ø	mm	4 – 8	4 – 8
Ø puntalini / Contact point Ø	mm	2	2


SC20/D SC20/E

COMPARATORI CENTESIMALI E BIMILLESIMALI A TASTO ORIENTABILE, AMAGNETICI "OMNITAST EXTRA PRECISO"
LEVER DIAL INDICATORS, NON-MAGNETIC "OMNISTAT EXTRA PRECISE" GRADUATION 0.01 – 0.002 mm

Tasto orientabile in senso perpendicolare rispetto al quadrante. Movimento di alta precisione, montato su 6 rubini. Inversione automatica del senso di misura. Corpo robusto monoblocco provvisto di 3 code di rondine, cromatura opaca, resistente alla corrosione e protetto contro l'infiltrazione di polveri. Alta resistenza agli urti. Perno del tastatore montato su sfere. Palpatore a sfere in metallo duro, orientabile a 210° e intercambiabile. Messa a zero mediante rotazione del quadrante. Utilizzato su supporti, basi magnetiche, per la centratura pezzi, trasferimento quote da micrometri per altezze, controlli di rettilineità, spessori, concentricità e ovalità.

Stylus can be positioned vertically to the face. High precision movement, mounted on 6 ruby bearings. Automatic reversal of measuring direction. Robust one-piece body featuring three dovetails, chrome finish, corrosion resistant and protected against the infiltration of dust. High impact resistance. Stylus mounted on ball bearings. Carbide ball stylus, adjustable within 210° and interchangeable. Bezel rotates for zero setting. Used on supports, magnetic stands, to centre pieces, to transfer values from height gauges, to check straightness, thickness, concentricity and ovality.




SC280 SC281 SC381 SC282 SC382

ART.		SC280	SC380	SC280/2	SC281	SC281L	SC381	SC381L	SC282	SC382
Campo di misura Measuring range	mm	0,8	0,8	0,2	0,8	0,5	0,8	0,5	0,2	0,2
Unità di formato Graduation	mm	0,01	0,01	0,002	0,01	0,01	0,01	0,01	0,002	0,002
Lettura quadrante Dial reading	mm	0 - 40 - 0	0 - 40 - 0	0 - 100 - 0	0 - 40 - 0	0 - 25 - 0	0 - 40 - 0	0 - 25 - 0	0 - 100 - 0	0 - 100 - 0
Ø quadrante / Dial Ø	mm	28	38	28	28	28	38	38	28	38
Lunghezza tastatore Stylus length	mm	16	16	16	12,5	35	12,5	35	12,5	12,5
Ø codulo attacco / Stem Ø	mm	6 - 8	6 - 8	6 - 8	4 - 8	4 - 8	4 - 8	4 - 8	4 - 8	4 - 8
Ø puntalini Contact point Ø	mm	2	2	2	2	2	2	2	2	2

Precisione secondo: Norme DIN 2270 / **Accuracy according:** to DIN 2270

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COMPARATORI A QUADRANTE
DIAL INDICATORS

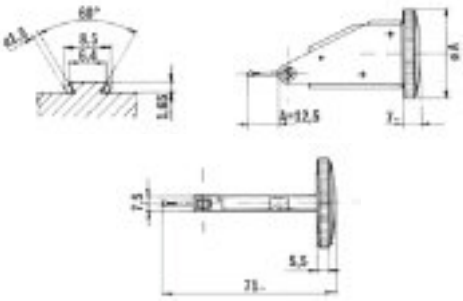
COMPARATORI CENTESIMALI, A TASTO ORIENTABILE, A CORPO VERTICALE, AMAGNETICI
VERTICAL LEVER DIAL INDICATORS, NON-MAGNETIC GRADUATION 0.01 mm

Tasto orientabile con corpo verticale e quadrante orizzontale. Movimento di alta precisione. Inversione automatica del senso di misura. Corpo robusto monoblocco provvisto di 3 code di rondine, cromatura opaca, resistente alla corrosione e protetto contro l'infiltrazione di polveri. Alta resistenza agli urti. Perno del tastatore montato su sfere. Palpatore a sfere in metallo duro, orientabile a 210° e intercambiabile. Messa a zero mediante rotazione del quadrante. Utilizzato su supporti, basi magnetiche, per facilitare operazioni di centratura, rettilineità, parallelismo, ovalità, grazie alla posizione orizzontale del quadrante.

Adjustable stylus with vertical body and horizontal dial. High precision movement. Automatic reversal of measuring direction. Robust one-piece body featuring three dovetails, chrome finish, corrosion resistant and protected against the infiltration of dust. High impact resistance. Stylus mounted on ball bearings. Interchangeable carbide ball stylus, adjustable within 210°. Reset by rotating the bezel. Used on supports, magnetic stands, to centre pieces, to transfer values from height gauges, to check straightness, thickness, concentricity and ovality.


SC283


SC383



ART.		SC283	SC383
Campo di misura / Measuring range	mm	0,8	0,8
Unità di formato / Graduation	mm	0,01	0,01
Lettura quadrante / Dial reading	mm	0 - 40 - 0	0 - 40 - 0
Ø quadrante / Dial Ø	mm	28	38
Lunghezza tastatore / Stylus length	mm	12,5	12,5
Ø codulo attacco / Stem Ø	mm	4 - 8	4 - 8
Ø puntalini / Contact point Ø	mm	1-2-3	1-2-3

Precisione secondo: Norme DIN 2270 / **Accuracy according:** to DIN 2270

COMPARATORI CENTESIMALI E BIMILLESIMALI, A TASTO ORIENTABILE, AMAGNETICI "OMNITAST EXTRA PRECISO"
LEVER DIAL INDICATORS, NON-MAGNETIC "OMNISTAT EXTRA PRECISE" GRADUATION 0.01 - 0.002 mm

Alta sensibilità. Inversione automatica del senso del palpatore senza inversione del senso di rotazione dell'indice. Asse del perno montato su cuscinetti a sfera di precisione. Palpatore a sfere in metallo duro, orientabile a 240° e intercambiabile.
Utilizzato su supporti, basi magnetiche, quale strumento per la centratura pezzi, trasferimento quote di micrometri per altezze, controlli di rettilineità, spessori, concentricità e ovalità di alberi o fori.

High sensitivity. Automatic reversal of the stylus direction without reversing the direction of rotation. Axis of the spindle mounted on precision ball bearings. Carbide ball stylus, adjustable within 240° and interchangeable. Used on supports, magnetic stands, to centre pieces, to transfer values from height gauges, to check straightness, thickness, concentricity and ovality.


SC427 SC537 SC437

ART.		SC427	SC437	SC527	SC537	SC627	SC637
Campo di misura / Measuring range	mm	0,2	0,8	0,8	0,5	0,5	0,2
Unità di formato / Graduation	mm	0,002	0,01	0,01	0,01	0,01	0,002
Lettura quadrante / Dial reading	mm	0 - 100 - 0	0 - 40 - 0	0 - 40 - 0	0 - 25 - 0	0 - 25 - 0	0 - 100 - 0
Ø quadrante / Dial Ø	mm	27,4	37	27,4	37	27,4	37
Lunghezza tastatore / Stylus length	mm	12	12	12	36	36	12
Ø codulo attacco / Stem Ø	mm	4 - 8	4 - 8	4 - 8	4 - 8	4 - 8	4 - 8
Ø puntalini / Contact point Ø	mm	2	2	2	2	2	2

Precisione secondo: Norme DIN 2270 / **Accuracy according:** to DIN 2270

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COMPARATORI A QUADRANTE
DIAL INDICATORS

ACCESSORI PER COMPARATORI A TASTO ORIENTABILE
ACCESSORIES FOR LEVER DIAL INDICATORS

ART.	POSIZIONE		
AN	1	Supporto articolato corto Short articulated holder	Ø 8x30 mm
AO	2	Supporto articolato lungo Long articulated holder	Ø 8x90 mm
AP	3	Supporto regolazione fine corto Fine adjustment short holder	Ø 8x40 mm
AQ	4	Supporto regolazione fine lungo Fine adjustment long holder	Ø 8x150 mm
AR	5	Supporto articolato regolazione fine corto Fine adjustment short articulated holder	Ø 8x20 mm snodo / joint L 35 mm
AS	6	Supporto articolato regolazione fine lungo Fine adjustment long articulated holder	Ø 8x125 mm snodo / joint L 35 mm
AT	7	Snodo di fissaggio Swivel clamp	Ø 5,6 mm Ø 9,5 mm
AU	8	Supporto prismatico Holding bar	13x6x50 mm attacco / stem Ø 5,6 mm
AV	9	Supporto cilindrico Holding rod	Ø 8x80 mm attacco / stem 5,6 mm
AZ	10	Supporto a squadra Squared holder	Ø 8x25 mm foro / hole 8 mm
BA	11	Supporto di centraggio Centring holder	Ø 8x25 mm foro / hole 4 mm
BB	12	Supporto strumento / Tool holder	Ø 8 mm
BC	13	Supporto strumento / Tool holder	Ø 6 mm
BD	14	Supporto strumento / Tool holder	Ø 4 mm



COMPARATORI CENTESIMALI ANALOGICI PER MISURE INTERNE
INSIDE DIAL CALIPER GAUGES GRADUATION 0.01 mm

Movimento di precisione. Quadrante girevole per azzeramento fine, nitido e di facile lettura. Totalizzatore giri. Bracci appositamente studiati per rilevazioni di difficile accesso. Utilizzato per il controllo di sedi OR, scanalature e cave.

Precision movement. Rotating dial for fine reset, clear and easy to read. Revolution counter. Arms specifically designed for detection in difficult access points. Used for checking OR seats, grooves and slots.



ART.		CMI0007	CMI0010	CMI0030	CMI0050	CMI0070
Campo di misura / Measuring range	mm	2,5 ÷ 7,5	5 ÷ 10	10 ÷ 30	30 ÷ 50	50 ÷ 70
Unità di formato / Graduation	mm	0,005	0,005	0,01	0,01	0,01
Lettura quadrante / Dial reading	mm	1	1	2	2	2
Max errore ammesso / Max admitted error	mm	0,015	0,015	0,03	0,03	0,03
Ø quadrante / Dial Ø	mm	57	57	63	63	63
Lunghezza bracci / Arm length	mm	10	22	80	80	80
Max profondità misurabile Max measurable depth	mm	0,7	2,2	4,5	6	6
Min larghezza cave / Min slot width	mm	0,6	1,7	1,8	2,5	2,5

ART.		CMI0090	CMI0100	CMI0150	CMI0200
Campo di misura / Measuring range	mm	70 ÷ 90	80 ÷ 100	100 ÷ 150	150 ÷ 200
Unità di formato / Graduation	mm	0,01	0,01	0,05	0,05
Lettura quadrante / Dial reading	mm	2	2	5	5
Max errore ammesso / Max admitted error	mm	0,03	0,03	0,05	0,05
Ø quadrante / Dial Ø	mm	63	63	63	63
Lunghezza bracci / Arm length	mm	80	80	175	175
Max profondità misurabile Max measurable depth	mm	8	8	8	8
Min larghezza cave / Min slot width	mm	2,5	2,5	3,3	3,3

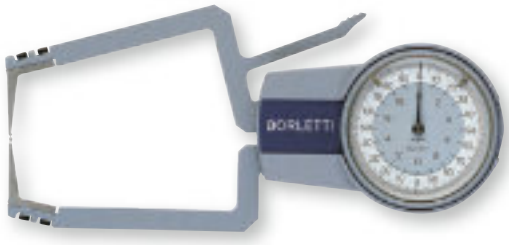
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COMPARATORI A QUADRANTE
DIAL INDICATORS

COMPARATORI CENTESIMALI ANALOGICI PER MISURE ESTERNE
OUTSIDE DIAL CALIPER GAUGES GRADUATION 0.01 mm

Movimento di precisione. Quadrante girevole per azzeramento fine, nitido e di facile lettura. Totalizzatore giri. Bracci appositamente studiati per rilevazioni di difficile accesso. Utilizzato per il controllo di scanalature, spessori e gole.

Precision movement. Rotating dial for fine reset, clear and easy to read. Revolution counter. Arms specifically designed for detection in difficult access points. Used for checking OR seats, grooves and slots.



ART.		CME020	CME050	CME100	CME150
Campo di misura / Measuring range	mm	0 ÷ 20	0 ÷ 50	50 ÷ 100	100 ÷ 150
Unità di formato / Graduation	mm	0,01	0,05	0,05	0,05
Lettura quadrante / Dial reading	mm	2	2	2	2
Max errore ammesso / Max admitted error	mm	0,03	0,05	0,05	0,05
Ø quadrante / Dial Ø	mm	63	63	63	63
Lunghezza bracci / Arm length	mm	80	170	170	170
Max profondità misurabile Max measurable depth	mm	22	32	32	32
Min larghezza cave / Min slot width	mm	3	3	3	3

COMPARATORI CENTESIMALI ELETTRONICI A BRACCI PER MISURE INTERNE CLASSE DI PROTEZIONE IP67
ELECTRONIC INTERNAL CALIPER GAUGES WITH ARMS PROTECTION CLASS IP67 RESOLUTION 0.01 mm

CE

- **Funzioni:**
  ON-OFF
  Preset
  mm-inch
  Azzeramento
  ABS - INC
- **Batteria:** AA-1x1,5V

- **Functions:**
  ON-OFF
  Preset
  mm-inch
  Reset
  ABS - INC
- **Battery:** AA-1x1,5V





ART.		CMIE012	CMIE050	CMIE070	CMIE090	CMIE115
Campo di misura / Measuring range	mm	2,5 ÷ 12,5	30 ÷ 50	50 ÷ 70	70 ÷ 90	75 ÷ 115
Unità di formato / Graduation	mm	0,005	0,01	0,01	0,01	0,02
Max errore ammesso / Max admitted error	mm	0,015	0,02	0,02	0,02	0,04
Ø quadrante / Dial Ø	mm	66	66	66	66	66
Lunghezza bracci / Arm length	mm	10	54	54	54	114
Max profondità misurabile Max measurable depth	mm	0,7	6	7,5	6	8
Min larghezza cave / Min slot width	mm	0,6	2	2	2	3,3

BF SERVICE

COMPARATORI A QUADRANTE
DIAL INDICATORS

COMPARATORI CENTESIMALI ELETTRONICI A BRACCI PER MISURE ESTERNE CLASSE DI PROTEZIONE IP67
ELECTRONIC OUTSIDE CALIPER GAUGES PROTECTION CLASS IP67 RESOLUTION 0.01 mm

- **Funzioni:**
  ON-OFF
  Preset
  mm-inch
  Azzeramento
  ABS - INC
- **Batteria:** AA-1x1,5V

- **Functions:**
  ON-OFF
  Preset
  mm-inch
  Reset
  ABS - INC
- **Battery:** AA-1x1,5V





ART.		CMEE20	CMEE40
Campo di misura / Measuring range	mm	0 ÷ 20	0 ÷ 40
Unità di formato / Graduation	mm	0,01	0,02
Max errore ammesso / Max admitted error	mm	0,02	0,05
Ø quadrante / Dial Ø	mm	66	66
Lunghezza bracci / Arm length	mm	50	115
Max profondità misurabile Max measurable depth	mm	16	22
Min larghezza cave / Min slot width	mm	1,5	3

COMPARATORI CENTESIMALI ELETTRONICI A BRACCI PER MISURE INTERNE-TIPO EXPORT
ELECTRONIC OUTSIDE CALIPER GAUGES EXPORT TYPE RESOLUTION 0.01 mm

Pressione di misura garantita su tutta la corsa. Utilizzato per misurazioni interne, in particolare quelle relative a scanalature ed a diametri di fori; la forma particolare dei tastatori consente la misurazione di sedi seeger all'interno di fori.

- **Funzioni:**
  ON-OFF
  Preset
  mm-inch
  ABS - INC
- **Batteria:** CR2032-1x3V

Measuring pressure is constant over the entire stroke. Used for inside measurements, in particular for grooves and bore diameters; the particular shape of the stylus enables the measurement of seeger seats.

- **Functions:**
  ON-OFF
  Preset
  mm-inch
  ABS - INC
- **Battery:** CR2032-1x3V



ART.		CMIES025	CMIES030	CMIES040	CMIES050
Campo di misura / Measuring range	mm	5 ÷ 25	10 ÷ 30	20 ÷ 40	30 ÷ 50
Unità di formato / Graduation	mm	0,01	0,01	0,01	0,01
Max errore ammesso / Max admitted error	mm	0,025	0,025	0,025	0,025
Ø quadrante / Dial Ø	mm	60	60	60	60
Lunghezza bracci / Arm length	mm	35	54	80	80
Max profondità misurabile Max measurable depth	mm	1,5	3,5	6,5	8,5
Min larghezza cave / Min slot width	mm	2	2,5	3	5

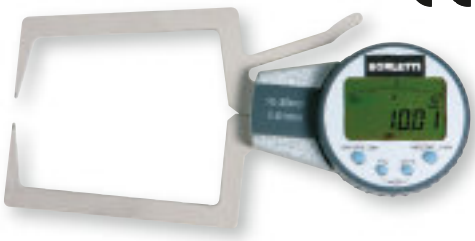
COMPARATORI CENTESIMALI ELETTRONICI A BRACCI PER MISURE ESTERNE-TIPO EXPORT
ELECTRONIC OUTSIDE CALIPER GAUGES EXPORT TYPE RESOLUTION 0.01 mm

Pressione di misura garantita su tutta la corsa. Utilizzato per misurazioni esterne, in particolare quelle relative a: spessori, diametri di alberi, alberi scanalati, alberi con sedi di chiavette o seeger etc.

- **Funzioni:**
  ON-OFF
  Preset
  mm-inch
  ABS - INC
- **Batteria:** CR2032-1x3V

Measuring pressure is constant over the entire stroke. Used for outside measurements, in particular for thickness, shaft diameters, splined shafts, seeger seats, etc.

- **Functions:**
  ON-OFF
  Preset
  mm-inch
  ABS - INC
- **Battery:** CR2032-1x3V



ART.		CMEES020	CMEES030	CMEES040	CMEES050
Campo di misura / Measuring range	mm	0 ÷ 20	10 ÷ 30	20 ÷ 40	30 ÷ 50
Unità di formato / Graduation	mm	0,01	0,01	0,01	0,01
Max errore ammesso / Max admitted error	mm	0,025	0,025	0,025	0,025
Ø quadrante / Dial Ø	mm	60	60	60	60
Lunghezza bracci / Arm length	mm	80	80	80	80
Max profondità misurabile / Max measurable depth	mm	25	25	25	25
Min larghezza cave / Min slot width	mm	3	3	5	5

BF SERVICE

COMPARATORI DIGITALI
DIGITAL DIAL INDICATORS

COMPARATORI MILLESIMALI DIGITALI
DIGITAL DIAL INDICATORS 0.001 mm RESOLUTION

NEW

IP54

Grande display LCD. Batteria al litio tipo CR2032 3V. Bluetooth incorporato.

Large LCD Display. CR2032 3V lithium battery. Built-in Bluetooth.

ART.		SC9110W	SC9125W
Campo di misura / Measuring range	mm	0 ÷ 12,7	0 ÷ 25,4
Risoluzione / Resolution	mm	0,001	0,001
Precisione / Accuracy	mm	0,004	0,004
Funzione passa/non passa / Go/no go function		•	•
Settaggio direzione conteggio Selection of counting direction		•	•
ON/OFF		•	•
ABS INC		•	•
mm/INCH conversione / Metric/INCH conversion		•	•
Azzerramento / Zero setting		•	•



SC9110W

COMPARATORI MILLESIMALI DIGITALI
DIGITAL DIAL INDICATORS 0.001 mm RESOLUTION

NEW

IP54

Grande display LCD. Batteria al litio tipo CR2032 3V.

Large LCD Display. CR2032 3V lithium battery.

ART.		SC9110	SC9125	SC950
Campo di misura/Measuring range	mm	0 ÷ 12,7	0 ÷ 25,4	0 ÷ 50,8
Risoluzione /Resolution	mm	0,001	0,001	0,001
Precisione/Accuracy	mm	0,004	0,004	0,005
Funzione passa/non passa / Go/no go function		•	•	•
Settaggio direzione conteggio Selection of counting direction		•	•	•
ON/OFF		•	•	•
ABS INC		•	•	•
mm/INCH conversione / Metric/INCH conversion		•	•	•
Azzerramento / Zero setting		•	•	•



SC9110

COMPARATORI CENTESIMALI DIGITALI
DIGITAL DIAL INDICATORS 0.01 mm RESOLUTION

NEW

IP54

Grande display LCD. Batteria al litio tipo CR2032 3V. Bluetooth incorporato.

Large LCD Display. CR2032 3V lithium battery. Built-in Bluetooth.

ART.		SC9110NW	SC9125NW
Campo di misura / Measuring range	mm	0 ÷ 12,7	0 ÷ 25,4
Risoluzione / Resolution	mm	0,01	0,01
Precisione / Accuracy	mm	0,01	0,01
Funzione passa/non passa / Go/no go function		•	•
Settaggio direzione conteggio Selection of counting direction		•	•
ON/OFF		•	•
ABS INC		•	•
mm/INCH conversione / Metric/INCH conversion		•	•
Azzerramento / Zero setting		•	•



SC9125NW

BF SERVICE

COMPARATORI DIGITALI
DIGITAL DIAL INDICATORS

COMPARATORI CENTESIMALI DIGITALI
DIGITAL DIAL INDICATORS 0.01 mm RESOLUTION

IP54

NEW

Grande display LCD. Batteria al litio tipo CR2032 3V.

Large LCD Display. CR2032 3V lithium battery.

ART.		SC9110N	SC9125N	SC9150N
Campo di misura / Measuring range	mm	0 ÷ 12,7	0 ÷ 25,4	0 ÷ 50,8
Risoluzione / Resolution	mm	0,01	0,01	0,01
Precisione / Accuracy	mm	0,01	0,01	0,015
Funzione passa/non passa / Go/no go function		•	•	•
Settaggio direzione conteggio Selection of counting direction		•	•	•
ON/OFF		•	•	•
ABS INC		•	•	•
mm/INCH conversione / Metric/INCH conversion		•	•	•
Azzerramento / Zero setting		•	•	•



SC9110N

COMPARATORI CENTESIMALI DIGITALI
DIGITAL DIAL INDICATOR 0.01 mm RESOLUTION

IP54

NEW

Display LCD. Batteria al litio tipo CR2032 3V.

LCD Display. CR2032 3V lithium battery.

ART.		SC920
Campo di misura / Measuring range	mm	0 ÷ 12,7
Risoluzione / Resolution	mm	0,01
Precisione / Accuracy	mm	0,015
Settaggio direzione conteggio / Selection of counting direction		•
ON/OFF		•
ABS INC		•
mm/INCH conversione / Metric/INCH conversion		•
Azzerramento / Zero setting		•



SC920

COMPARATORI MILLESIMALI DIGITALI
DIGITAL DIAL INDICATOR 0.001 mm RESOLUTION

IP54

NEW

Grande display LCD. Batteria al litio tipo CR2032 3V.

Large LCD Display. CR2032 3V lithium battery.

ART.		SC91
Campo di misura / Measuring range	mm	0 ÷ 12,7
Risoluzione / Resolution	mm	0,001
Precisione / Accuracy	mm	0,01
Rotazione display 330° / Display rotation		•
ON/OFF		•
ABS INC		•
mm/INCH conversione / Metric/INCH conversion		•
Azzerramento / Zero setting		•



SC91

COMPARATORI CENTESIMALI DIGITALI
DIGITAL DIAL INDICATORS 0.01 mm RESOLUTION

IP54

NEW

Grande display LCD. Batteria al litio tipo CR2032 3V.

Large LCD Display. CR2032 3V lithium battery.

ART.		SC222	SC225
Campo di misura / Measuring range	mm	0 ÷ 12,7	0 ÷ 25,4
Risoluzione / Resolution	mm	0,01	0,01
Precisione / Accuracy	mm	0,02	0,03
Rotazione display 330° / Display rotation		•	•
ON OFF		•	•
ABS INC		•	•
mm/INCH conversione / Metric/INCH conversion		•	•
Azzerramento / Zero setting		•	•



SC222

BF SERVICE

COMPARATORI A QUADRANTE
DIAL INDICATORS

GONIOMETRO CON ELETTRONICA SYLVAC SYSTEM $
PROTRACTOR WITH SYLVAC SYSTEM ELECTRONICS $

CE

Costruito in acciaio INOX con corpo cromato ed aste smussate.

Made of stainless steel with chrome plated body and bevelled rods.

ART.	GEDS
FUNZIONI / FUNCTIONS	
Autospegnimento / Auto shut-down	10 minuti / 10 minutes
Indicazione angolo / Angle indication	sessagesimale/decimale sexasagimal/decimal
Azzeramento / Reset	●
Regolazione fine / Fine adjustment	●
Memoria / Memory	●
Data / Hold	●
Uscita dati / Data output	●
Batterie / Battery	CR2032-1x3V
Autonomia ore / Operating hours	2000
Campo di misura / Measuring range	1x360° 2x180° 4x90°
Scale lettura / Scale readings	Gradi/Degrees 1' Gradi/Degrees 0,01°
Risoluzione / Resolution	1' - 0,01°
Precisione angolare / Angolar precision	± 1' - ± 0,01°
Errore di digitazione / Typing error	± 1 digit
Lunghezza asta / Blade length	300 mm



ALESAMETRI
BORE GAUGES

ALESAMETRI DI PRECISIONE PER COMPARATORI CENTESIMALI E MILLESIMALI
PRECISION BORE GAUGES FOR INDICATORS WITH GRADUATION 0.01 mm AND 0.001 mm

Servono per il controllo di ovalità e conicità di fori e alesaggi in genere. La serie di prolunghe intercambiabili ha la punta di contatto in acciaio al cromo durezza 62/64 HRC. L'asta è interamente cromata e dotata di apposita impugnatura termoisolante, con staffe di centratura in acciaio. L'esecuzione della misura è semplice in quanto lo strumento si centra automaticamente sul diametro. Forniti in cassetta legno.

Used for checking the ovality and taper of holes and bores in general. The interchangeable extension set has the contact tip made of chromed steel hardness 62/64 HRC. The rod is completely chrome-plated and equipped with special insulating grip, with steel centring brackets. Measurement is easy as the device automatically centre itself on the diameter. Supplied in wooden case.



ART.	Campo di misura Measuring range mm	Max profondità misurabile Max measuring depth mm
AC35	Ø 15 ÷ 35	125
AC100	Ø 30 ÷ 100	175
AC180	Ø 50 ÷ 180	180
AC180L	Ø 50 ÷ 180	450
AC300	Ø 100 ÷ 300	180

ALESAMETRI RABITO RA
BORE GAUGES RABITO RA

Strumenti facili da utilizzare, ideali per controlli in produzione come nel controllo finale.

Easy-to-use devices, ideal for production checks, such as final inspection.

ART.	Campo di misura Measuring range mm	Corsa di misura Measuring stroke mm	Profondità di misura esecuzione standard Measuring depth standard process mm
RA35	18 ÷ 35	1,3	176
RA60	35 ÷ 60	1,4	176
RA150	50 ÷ 150	1,4	176

SERIE ALESAMETRI / BORE GAUGE SET

ART.	Campo di misura Measuring range mm	Corsa di misura Measuring stroke mm	Profondità di misura esecuzione standard Measuring depth standard process mm	Alesametri Bore gauges N.
RA18150	18 ÷ 150	1,3/1,4	176	2



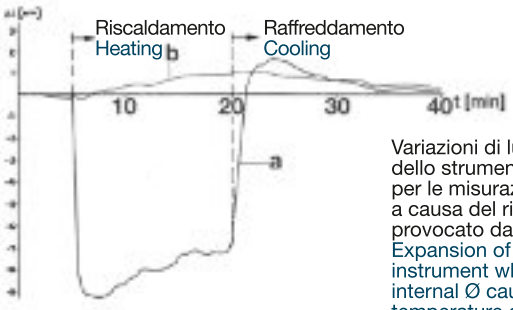
NB: Gli alesametri non sono comprensivi di comparatore
NB: Bore gauges don't include indicators

BF SERVICE

ALESAMETRI SUBITO “SUB”
BORE GAUGES SUBITO “SUB”

Costruiti con materiale di alta qualità e con coefficiente di dilatazione molto basso che, in unione al particolare sistema di trasmissione, consentono di ottenere altissime precisioni di misura. Nel caso di misure millesimali l’influenza della temperatura, ad esempio calore della mano, è determinante e comporta errori; nell’alesametro BORLETTI-SUBITO, essendo i materiali stabilizzati in temperatura, tali errori sono ridotti di 1/10 rispetto ai normali alesametri e quindi praticamente nulli. **IMG. 1.**
L’assenza di gioco nel trasferimento del movimento del tastatore allo strumento indicatore, ottenuto mediante il segmento circolare, è determinante per garantire la precisione. **IMG. 2.**
La ripetibilità dello strumento è di 0,0005 mm. La linearità su tutta la corsa del tastatore mobile è di 0,002 mm max. La staffa mobile di centraggio dello strumento ha la configurazione di settore sferico e ciò facilita l’introduzione anche se lo strumento non è perfettamente in asse col foro. **IMG. 3.**
Gli strumenti che hanno il campo di misura da 4,5 mm a 20 mm hanno sia i tastatori fissi che il tastatore di misura con riporti in metallo duro. A richiesta, si possono fornire anche staffe di centraggio con contatti in metallo duro. Possono essere impiegati in sala collaudo, per la misura di pezzi singoli, per controllo di serie di pezzi, per misure durante la lavorazione su macchine utensili. Per facilitare la messa a punto dello strumento, si consiglia di montare il comparatore sul relativo supporto senza effettuarne il bloccaggio definitivo, e di eseguire tale operazione al momento della registrazione dell’apparecchio, che si effettua agevolmente usando un pezzo con foro assunto come misura campione; oppure valendosi di uno strumento adatto (micrometro od altro). **Gli alesametri sono forniti in cassette di legno senza comparatore.** Si consigliano, per misure millesimali, i comparatori A1, CM1; per misure centesimali i comparatori SC001. Poiché è uno strumento comparativo, occorre per prima cosa effettuarne l’azzeramento con l’impiego dello speciale supporto ATA, anelli di azzeramento, o mediante pezzi campione.

Constructed with high quality material and with very low coefficient of expansion which, combined with the particular transmission system, allows to obtain very high accuracies. In case of millesimal measurements the influence of temperature, for example the heat of the operator hand may result in a significant error; with the BORLETTI-SUBITO bore gauges, being the materials stabilized in temperature, such errors are reduced by 1/10 compared to normal bore gauges and therefore virtually non-existent. **IMG. 1.**
The straightness of the probe to the indicator is crucial to ensure accuracy. **IMG. 2.**
The repeatability of the instrument is 0.0005 mm. The linearity over the full stroke of the movable probe is 0.002 mm max. The mobile centring bracket of the instrument is spherical, which facilitates the introduction even if the instrument is not perfectly aligned with the hole. **IMG. 3.**
The tools whose measuring range is between 4.5 mm and 20 mm have both fixed probes and probes with carbide contacts. On request, we can also provide centring brackets with carbide contacts. They can be used in testing rooms, for measuring single pieces, for serial check of pieces, for measuring while working with machine tools. To facilitate the setting of the device, it is recommended to mount the indicator on its holder without actually locking it and to do this operation only during device adjustment, which can be easily made by using a piece with hole as sample; or using a suitable tool (micrometer or other). **The bore gauges are supplied in wooden cases without indicator.** We recommend, for millesimal measurements, the A1, CM1 indicators; for centesimal measurements the SC001 indicators. Since it is a comparative tool, it is necessary to reset it using the special ATA support, setting rings or standards.



Variazioni di lunghezza dello strumento SUBITO per le misurazioni di Ø interni a causa del riscaldamento provocato dalla mano.
Expansion of the SUBITO instrument when measuring internal Ø caused by the temperature of the hand.

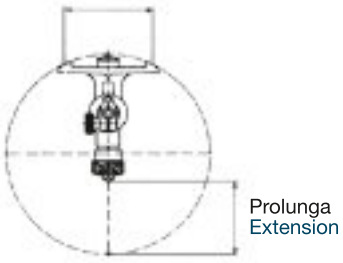
a - senza stabilizzazione termica
without thermal stabilization
b - con stabilizzazione termica
with thermal stabilization

IMG. 1



IMG. 2

Staffa di centraggio
Centring bracket



IMG. 3

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ALESAMETRI
BORE GAUGES







SERIE ALESAMETRI / BORE GAUGE SET			
Con tastatori in METALLO DURO With CARBIDE probes	Con tastatori in ACCIAIO With STEEL probes	Campo di misura Measuring range mm	Testine di misura Measuring heads N.
ART.	**ART.**		
SUB9W	**SUB9**	18 ÷ 100	3
SUB11W	**SUB11**	50 ÷ 160	2
SUB16W	**SUB16**	18 ÷ 150	3
SUB17W	**SUB17**	50 ÷ 230	2

Con tastatori in METALLO DURO With CARBIDE probes	Con tastatori in ACCIAIO With STEEL probes	Campo di misura Measuring range mm	Corsa di misura Measuring stroke mm	Profondità di misura Measuring depth mm
ART.	**ART.**			
SUB1W	-	4,5 ÷ 6	0,35	80
SUB2W	-	6 ÷ 8	0,50	100
SUB3W	-	8 ÷ 12	0,70	100
SUB4W	-	12 ÷ 20	0,90	100
SUB5W	**SUB5**	18 ÷ 35	1,30	110
SUB6W	**SUB6**	35 ÷ 60	1,30	140
SUB7W	**SUB7**	50 ÷ 100	1,40	180
SUB7WPROL	**SUB7PROL**	50 ÷ 150	1,40	180
SUB10W	**SUB10**	100 ÷ 160	1,60	230
SUB12W	**SUB12**	160 ÷ 290	1,60	230
SUB13W	**SUB13**	280 ÷ 410	2,60	400
SUB13WPROL	**SUB13PROL**	280 ÷ 510	2,60	400
SUB15W	**SUB15**	400 ÷ 800	2,60	700

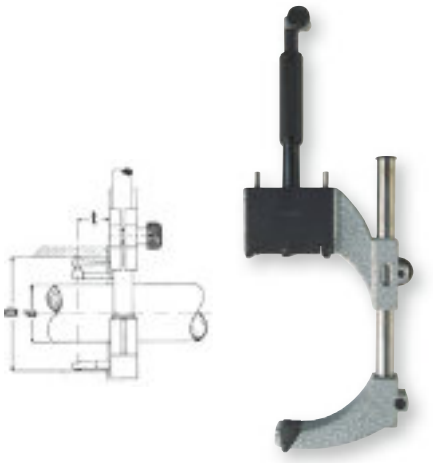
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ALESAMETRI
BORE GAUGES

ALESAMETRI PER MISURE CON BARENO INSERITO SUBITO “BI”
BORE GAUGES FOR MEASUREMENTS WITH RECTRACTING BORING BAR - SUBITO “BI”

Lo strumento è composto da un blocco di misura con due punti di centraggio, da un tastatore a sbalzo e da un tastatore fisso a sbalzo, montato su asta scorrevole millimetrata. Utilizzato per eseguire misurazioni su alesatrici, barenatrici, senza dover togliere l’utensile.

The instrument consists of a measurement unit with two centring points, a cantilever probe and a cantilever fixed probe, mounted on a graduated sliding rod. Used to obtain measurements on boring machines without having to remove the tool.



ART.	D Campo di misura Measuring range mm	d Ø max bareno Boring bar max Ø mm	t Profondità di misura Measuring depth mm
SUB1/BI	25 ÷ 70	45	12
SUB2/BI	30 ÷ 105	70	17,5
SUB3/BI	100 ÷ 210	130	30
SUB4/BI	100 ÷ 280	130	30

N.B. Per misurazioni di profondità superiori e maggiori dimensioni di bareno, possono essere costruiti apparecchi speciali fornendo disegni tecnici dettagliati e delle condizioni di misura.
Please Note: For measurements of greater depths and larger boring bars, special equipment can be supplied by providing detailed technical drawings and measuring conditions.

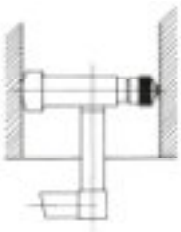
ALESAMETRI CON TESTA AD ANGOLO RETTO SUBITO “AR”
BORE GAUGES WITH RIGHT-ANGLE HEAD – SUBITO “AR”

Stesse caratteristiche della serie SUB agli effetti della precisione e della durata, differenziandosi unicamente per la sua testa di misura posizionata a 90°. Impiegato quando lo spazio di misura è ristretto e l’accesso al foro risulta difficoltoso con i tipi normali.

Same features of the SUB series in terms of precision and duration, the only difference is that the measuring head is placed at 90°. To be used when the measurement space is limited and access to the hole is difficult with the standard models.



Con tastatori in METALLO DURO With CARBIDE probes ART.	Con tastatori in ACCIAIO With STEEL probes ART.	Campo di misura Measuring range mm	Profondità di misura Measuring depth mm
SUB1W/AR	-	4,5 ÷ 6	30
SUB2W/AR	-	6 ÷ 8	30
SUB3W/AR	-	8 ÷ 12	30
SUB4W/AR	-	12 ÷ 20	50
SUB5W/AR	SUB5/AR	18 ÷ 35	50
SUB6W/AR	SUB6/AR	35 ÷ 60	60
SUB7W/AR	SUB7/AR	50 ÷ 100	60
SUB8W/AR	SUB8/AR	50 ÷ 150	60
SUB9W/AR	SUB9/AR	100 ÷ 160	70
SUB10W/AR	SUB10/AR	160 ÷ 290	70
SUB11W/AR	SUB11/AR	280 ÷ 410	70
SUB12W/AR	SUB12/AR	280 ÷ 510	80
SUB13W/AR	SUB13/AR	500 ÷ 800	80
SUB14W/AR	SUB14/AR	100 ÷ 230	80
SUB15W/AR	SUB15/AR	160 ÷ 360	80



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ALESAMETRI
BORE GAUGES

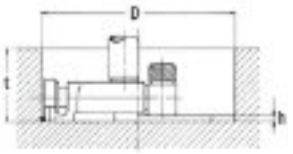
ALESAMETRI PER FORI CIECHI CON TASTATORI IN METALLO DURO – SUBITO "FC"
BORE GAUGES FOR BLIND HOLES WITH CARBIDE PROBES – SUBITO "FC"

Stesse caratteristiche della serie SUB agli effetti della durata e della precisione, differenziandosi per la loro particolare staffa di centraggio e per le controaste piatte e regolabili.

Same features of the SUB series in terms of duration and precision, the only differences are the special contact points and the flat and adjustable sub-anvils.



ART.	D Campo di misura Measuring range mm	Controasta piatta regolabile Adjustable flat sub-anvil mm	t Profondità di misura Measuring depth mm	h min altezza misurabile Min measurable height mm
SUB1W/FC	20 ÷ 60	20-30/30-40 40-50/50-60	60	1,5
SUB2W/FC	50 ÷ 140	50-80/80-110 110-140	70	1,5
SUB3W/FC	110 ÷ 300	110-150/150-200 200-250/250-300	80	2
SUB4W/FC	110 ÷ 400	300-350 350-400	90	2



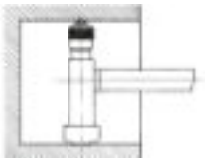
ALESAMETRI PER MISURE DI SUPERFICI PARALLELE CON TASTATORI IN METALLO DURO – SUBITO "SP"
BORE GAUGES FOR MEASURING PARALLEL SURFACES WITH CARBIDE PROBES – SUBITO "SP"

Impiegati nella misura di fori quadri, profilati estrusi, anche a grande profondità.

Used in the measurement of square holes, extruded profiles, also at great depth.



ART.	Campo di misura Measuring range mm	Profondità di misura Measuring depth mm
SUB3W/SP	50 ÷ 100	180
SUB5W/SP	6 ÷ 8	100
SUB6W/SP	8 ÷ 20	100
SUB7W/SP	18 ÷ 50	110
SUB8W/SP	50 ÷ 200	180



ALESAMETRI PER IL CONTROLLO DI DENTATURE INTERNE
BORE GAUGES FOR INTERNAL GEARINGS

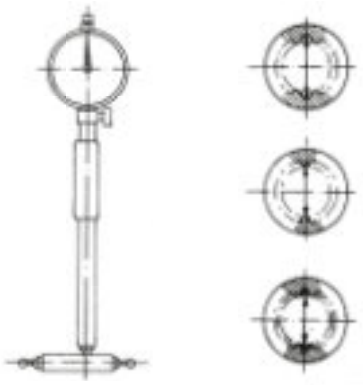
Costituiti da un alesametro con tastatori a sfera o sagomati per il rilievo dei diametri primitivi, di fondo e di cresta. I tastatori a sfera (art. KTS) vengono forniti a parte. Specificare il diametro sfere in fase d'ordine.

It is used to measure internal profiles and internal gear teeth, groove and spline bore hub profiles. Carbide ball insert (art. KTS) should be ordered separately. Specify ball diameter when ordering.

ART.	Campo di misura Measuring range mm	Profondità di misura Measuring depth mm
KT12	8 ÷ 12	100
KT22	12 ÷ 22	100
KT55	22 ÷ 55	140
KT250	55 ÷ 250	200

ACCESSORI: set sfere / ACCESSORIES: ball set

ART.	Ø max sfere misura Max Ø measuring ball mm	Tipo alesametro Bore gauge type
KTS12	-	KT12
KTS22	4	KT22
KTS55A	7	KT55
KTS55B	oltre / over 7	KT55
KTS250A	7	KT250
KTS250B	oltre / over 7	KT250



KT

BF SERVICE

ALESAMETRI
BORE GAUGES

ALESAMETRI PER IL CONTROLLO DELLA COASSIALITÀ DEI FORI – SUBITO “K”
BORE GAUGES FOR HOLE COAXIALITY CHECK SUBITO “K”

Costituiti da una testina di alesametro accoppiata ad una spina con punti di riferimento registrabili in lunghezza. La misura viene rilevata da un comparatore che resta fisso durante le rotazioni imposte ai tastatori. Corsa telescopica tra i due tastatori 40 mm.

Consisting of a bore gauge head coupled to a plug with reference points adjustable in length. The measurement is detected by a indicator, which remains fixed during rotations given by the probes. Telescopic stroke between the two probes 40 mm.

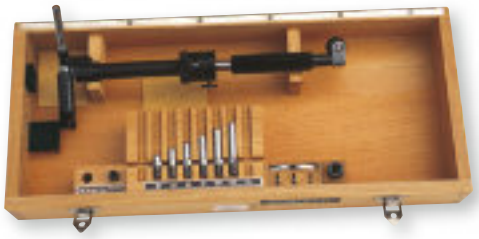


ART.	Campo di misura Measuring range mm	Min distanza interasse da controllare Min centre distance to be checked mm	Min lunghezza fori da controllare Min hole length to be checked mm
K20	14 ÷ 20	60	9
K35	20 ÷ 35	60	10
K50	35 ÷ 50	60	12
K100	50 ÷ 100	60	12

ALESAMETRI PER Ø DI CAVE INTERNE SUBITO “AST”
BORE GAUGES FOR INTERNAL SLOT Ø SUBITO “AST”

Impiegati per misure di diametri, sedi di cuscinetti, 0 ring, cave varie e in generale dove il diametro da misurare sia maggiore del diametro del foro di accesso. La testa di misura ruota su se stessa di 180° riducendo la propria dimensione di circa la metà per poter passare nei fori più piccoli rispetto a quelli da misurare.

Used for measurements of diameters, bearing seats, 0 rings, slots and in general where the diameter to be measured is greater than the diameter of the access hole.
The measuring head rotates on itself by 180°, reducing its size by about half to pass through holes smaller than those to be measured.



ART.	Campo di misura Measuring range mm	Max rofondità di misura Measuring depth mm
AST52	30 ÷ 52	60
AST70	50 ÷ 70	65
AST100	60 ÷ 100	80
AST150	80 ÷ 150	110
AST220	120 ÷ 220	120
AST360	180 ÷ 360	140
AST530	290 ÷ 530	180

ALESAMETRI DI PROFONDITÀ E DISTANZA DI CAVE OSITAST OT
BORE GAUGES FOR SLOTS AND GROOVE DIAMETERS OSISTAST OT

Costituiti da un piano di appoggio a ponte o a piattello e da un gambo con tasteggio laterale.

Consisting of a bridge or plate support surface and a shank with side detection sensor.



OT

OT4

ALESAMETRI STANDARD / STANDARD BORE GAUGES		
ART.	Campo di misura Measuring range mm	Dimensione base appoggio Support base size mm
OT175	175	80
OT325	325	80

ALESAMETRI A PISTOLA / PISTOL GRIP BORE GAUGES		
ART.	Campo di misura Measuring range mm	Min Ø di passaggio Min passage Ø mm
OT4-15	150	6,5
OT4-30	300	6,5

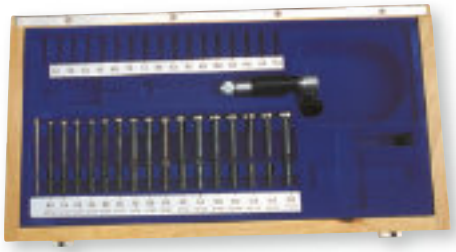
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ALESAMETRI
BORE GAUGES

ALESAMETRI SERIE OSIMESS
OSIMESS SERIES BORE GAUGES

Ripetibilità ± 0,2 µm. Utilizzabili con qualsiasi comparatore millesimale meccanico o elettronico con attacco Ø 8 mm. Inalterata precisione per minimo consumo delle facce del cono dell'ago di misura. Sicurezza di centraggio dovuta alla limitata corsa dei tastatori. Facilità di sostituzione e bloccaggio dei tastatori. Vengono utilizzati con grande successo per la misura singola, di serie, di pezzi in fase di rifinitura, nel controllo e nei laboratori, per la verifica del parallelismo tra due facce, di cave, larghezze di chiavette. Il portacomparatore può essere richiesto con pulsante di ricarica per facilitare l'introduzione dello strumento.

Repeatability ± 0.2 µm. Usable with any mechanical or electronic indicator with dial mounting rod of Ø 8 mm. Unaltered accuracy for minimum wear of the needle. Centring accuracy due to the limited travel of the probes. Probes are easy to lock and to replace. They are ideal for single and series measurements of pieces undergoing finish, during checks and in laboratories, to check the parallelism between two faces, slots, widths of keys. The indicator holder can be requested with reload button to facilitate the introduction of the instrument.



TASTATORI / PROBES		Acciaio / Steel	Metallo duro / Carbide	Acciaio / Steel	Metallo duro / Carbide	Acciaio / Steel	Metallo duro / Carbide	Acciaio / Steel	Metallo duro / Carbide
ART.		**-**	**OSI2W**	**OSI3**	**OSI3W**	**OSI5**	**OSI5W**	**OSI4**	**OSI4W**
Campo di misura nominale / Measuring rated range	mm	1,75÷4,00		4,50÷7,50		8,00÷12,00		13,00÷20,00	
Tastatori / Probes	N.	10		7		5		8	
Campi di misura reali e profondità / Real measuring range and depth	mm	Tastatore / Probe	Campo reale di misura / Real measuring range	Profondità / Depth	Tastatore / Probe	Campo reale di misura / Real measuring range	Profondità / Depth	Tastatore / Probe	Campo reale di misura / Real measuring range	Profondità / Depth	Tastatore / Probe	Campo reale di misura / Real measuring range	Profondità / Depth
		1,75	1,50÷1,90	17	4,50	4,15÷4,80	41	8,00	7,70÷8,30	45	13,00	12,20÷13,50	45
		2,00	1,80÷2,20	17	5,00	4,70÷5,30	41	8,50	8,20÷8,80	45	14,00	13,40÷14,60	45
		2,25	2,05÷2,45	17	5,50	5,20÷5,80	41	9,00	8,70÷9,30	45	15,00	14,40÷15,60	45
		2,50	2,30÷2,70	25	6,00	5,70÷6,30	41	10,00	9,20÷10,50	45	16,00	15,40÷16,60	45
		2,75	2,55÷2,95	25	6,50	6,20÷6,80	41	11,00	10,20÷11,50	45	17,00	16,40÷17,60	45
		3,00	2,80÷3,20	25	7,00	6,70÷7,30	45	12,00	11,20÷12,50	45	18,00	17,40÷18,60	45
		3,25	3,05÷3,45	25	7,50	7,20÷7,80	45				19,00	18,40÷19,60	45
		3,50	3,30÷3,70	25							20,00	19,40÷20,50	45
		3,75	3,55÷3,95	25									
		4,00	3,80÷4,20	25									

ACCESSORI / ACCESSORIES		
ART.	Anelli di azzeramento ± 0,5 µm / Setting rings ± 0,5 µm	N.
SA2	Anelli per / rings for OSI2W	10
SA3	Anelli per / rings for OSI3/OSI3W	7
SA5	Anelli per / rings for OSI5/OSI5W	5
SA4	Anelli per / rings for OSI4/OSI4W	8

PCS	Portacomparatore standard / Standard indicator holder
PCR	Portacomparatore con ricarica / Indicator holder with charging
AR1	Arresto regolabile / Adjustable stop
DEV	Deviatore a 90° / 90° diverter

ATTREZZI DI TARATURA PER ALESAMETRI - ATA
BORE GAUGE CHECKER – ATA

Consentono di effettuare con facilità, azzeramenti estremamente accurati degli alesametri, con il solo ausilio di blocchetti pianparalleli di riscontro.

Allows easy setting of dial bore gauges using gauge blocks.



ART.	Capacità di azzeramento per alesametri con campo di misura / Setting of bore gauges with measuring range mm
ATA1	4,5 ÷ 160
ATA2	160 ÷ 510
ATA3	160 ÷ 800

BF SERVICE

ALESAMETRI
BORE GAUGES

PROLUNGHE PER ALESAMETRI – SUBITO
EXTENSIONS FOR BORE GAUGES – SUBITO

Per aumentare la profondità di misura sui tipi standard a partire da 35 mm (SUB 6). L'applicazione di tali prolunghe è molto semplice e rapida. La somma di più prolunghe è stata appositamente evitata.

To increase measuring depth on standard types from 35 mm (SUB 6). The application of these extensions is very simple and fast. The use of more extensions has been specifically avoided.



ART.	Lunghezza / Length mm
PAS25	250
PAS50	500
PAS75	750
PAS100	1.000
PAS150	1.500
PAS200	2.000

MISURATORI DI CIRCONFERENZE ESTERNE
OUTSIDE CIRCUMFERENCE MEASURING TAPES

Utilizzati per la rilevazione di circonferenze e diametri esterni di pezzi con forma tonda regolare e circonferenze di pezzi ovali. Costruiti con bande in acciaio flessibile da 16 mm di larghezza, lettura sul nonio 0,1 mm.

Used for measurements of circumferences and outer diameters of pieces with regular round shape and circumferences of oval pieces. Built with flexible steel bands 16 mm wide, 0.1 mm vernier reading.



ART.	Ø		Circonferenza / Circumference	
	min mm	max mm	min mm	max mm
CEI1	20	300	60	950
CEI2	300	700	940	2.200
CEI3	700	1.100	2.190	3.460
CEI4	1.100	1.500	3.450	4.720
CEI5	1.500	1.900	4.710	5.980
CEI6	1.900	2.300	5.970	7.230
CEI7	2.300	2.700	7.220	8.500
CEI8	2.700	3.100	8.490	9.760
CEI9	3.100	3.500	9.730	11.010

MISURATORI A NASTRO CON IMPUGNATURA PER RICAVARE DIAMETRI INTERNI – SERIE MID
TAPE MEASURERS WITH GRIP TO DETECT INTERNAL DIAMETERS – MID SERIES

Strumenti indispensabili per rilevare, con precisione di 0,1/0,2 mm diametri interni su materiali elastici o flessibili.

Indispensable tools to measure internal diameters of elastic or flexible materials with a precision of 0.1/0.2 mm.



ART.	Campo di misura Measuring range		Profondità di misura Measuring depth	
	min mm	max mm	min mm	max mm
MID1	14	24	15	50
MID2	22	40	15	50
MID3	35	60	15	50
MID4	55	100	15	50
MID5	95	180	15	50
MID6	170	255	15	50

MISURATORI A NASTRO DA TAVOLO PER RICAVARE DIAMETRI INTERNI – SERIE MIT
MEASURING TAPES TO DETECT INTERNAL DIAMETERS MIT SERIES

Strumenti indispensabili per rilevare, con precisione di 0,1/0,2 mm diametri interni su materiali elastici o flessibili.

Indispensable tools to measure internal diameters of elastic or flexible material with a precision of 0.1/0.2 mm.



ART.	Campo di misura Measuring range		Lettura sul nonio Vernier reading
	min mm	max mm	mm
MIT1	40	74	0,1
MIT2	70	104	0,1
MIT3	100	134	0,1
MIT4	130	164	0,1
MIT5	160	194	0,1
MIT6	190	224	0,1

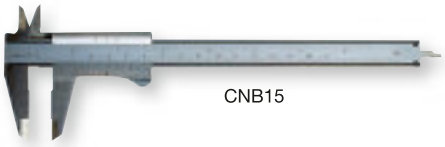
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CALIBRI
CALIPERS

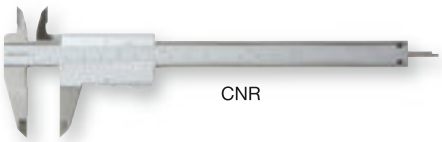
CALIBRI ANALOGICI VENTESIMALI
VERNIER CALIPERS GRADUATION 0.05 mm

Asta graduata e corsoio in acciaio INOX temprato. Scala cromata opaca. Monoblocco. Scala ribassata. Completi di tabella filettature Metriche e Whitworth sul retro del nonio.

Graduated bar and slide made of hardened stainless steel. Matt chrome scale. Monobloc. Stepped scale. With Metrics and Whitworth thread table on the back of the vernier.


CNB15


CN15SR


CNR


CN20P


CTS15


CN30

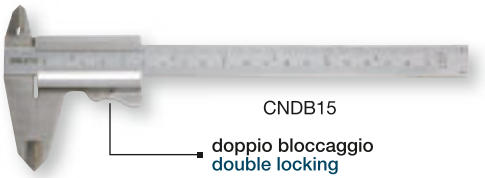
ART.	Campo di misura Measuring range mm	Lettura nonio Reading: Scala inferiore Vernier scale mm	Lettura nonio Reading: Scala superiore Main scale	Lunghezza scala Scale length mm	Becchi / Jaws: Esterni Outside mm	Becchi / Jaws: Interni Inside mm	Bloccaggio nonio Vernier locking: Inferiore a leva Thumb lock	Bloccaggio nonio Vernier locking: Superiore a vite Upper screw	Bloccaggio nonio Vernier locking: Inferiore a vite Lower screw	Asta e becchi arrotondati Rounded bar and jaws
CNB15	150	0,05	1/128”	200	45	16	●			
CNR	150	0,05	1/128”	200	42	16	●			
CTS15	150	0,05	1/128”	200	40	16	●			
CN15	150	0,05	1/128”	190	40	16			●	
CN20	200	0,05	1/128”	240	50	20			●	
CN30	300	0,05	1/128”	350	63	20			●	
CN15SR	150	0,05	1/128”	190	40	18		●		
CN15P	150	0,05	1/128”	190	40	16	●			
CN20SR	200	0,05	1/128”	240	50	20		●		
CN20P	200	0,05	1/128”	240	50	20	●			
CN30SR	300	0,05	1/128”	350	63	20		●		●

Precisione secondo: Norme DIN 862 – UNI 3599 / **Accuracy according to:** DIN 862 – UNI 3599

CALIBRI ANALOGICI VENTESIMALI
VERNIER CALIPERS GRADUATION 0.05 mm

Asta graduata e corsoio in acciaio INOX temprato. Scala cromata opaca. Monoblocco. Scala ribassata. Completi di tabella filettature Metriche e Whitworth sul retro del nonio.

Graduated bar and slide made of hardened stainless steel. Matt chrome scale. Monobloc. Stepped scale. With Metrics and Whitworth thread table on the back of the vernier.


CNDB15

doppio bloccaggio
double locking


CNAT16

ART.	Campo di misura Measuring range mm	Lettura nonio Reading: Scala inferiore Vernier scale mm	Lettura nonio Reading: Scala superiore Main scale	Lunghezza scala Scale length mm	Becchi / Jaws: Esterni Outside mm	Becchi / Jaws: Interni Inside mm	Bloccaggio nonio Vernier locking: Inferiore a leva Thumb lock	Asta profondità tonda Round depth rod
CNDB15	150	0,05	1/128”	190	47	16	● (doppio / double)	
CNAT16	158	0,05	1/128”	200	40	16	●	● (Ø 1,7 mm)

Precisione secondo: Norme DIN 862 – UNI 3599 / **Accuracy according to:** DIN 862 – UNI 3599

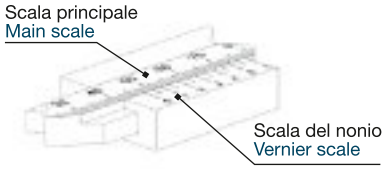
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CALIBRI
CALIPERS

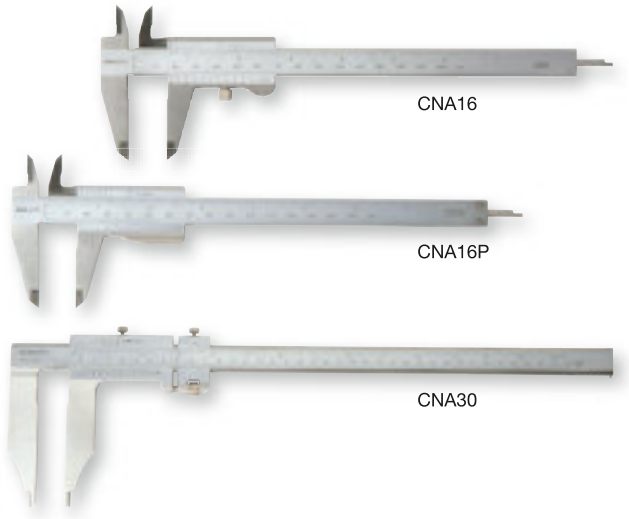
CALIBRI ANALOGICI VENTESIMALI E CINQUANTESIMALI ESECUZIONE ANTIPARALLASSE
PARALLAX FREE VERNIER CALIPERS GRADUATION 0.05 AND 0.02 mm

Asta graduata e corsoio in acciaio INOX temprato. Scala cromata opaca. Monoblocco. Completi di tabella filettature Metriche e Whitworth.
CNA25 - CNA30 con dispositivo di regolazione micrometrica.

Graduated bar and slide made of hardened stainless steel. Matt chrome scale. Monobloc. Stepped scale. With Metrics and Whitworth thread table.
CNA25 - CNA30 with fine adjustment.



Lettura esente da errore di parallasse
Parallax error free reading



ART.	Campo di misura Measuring range mm	Lettura nonio Reading: Scala inferiore Vernier scale mm	Lettura nonio Reading: Scala superiore Main scale	Lunghezza scala Scale length mm	Becchi / Jaws: Esterni Outside mm	Becchi / Jaws: Interni Inside mm	Larghezza becchi interni inferiori Inside lower jaw width mm	Bloccaggio nonio Vernier locking: Inferiore a leva Thumb lock	Bloccaggio nonio Vernier locking: Superiore a vite Upper screw	Bloccaggio nonio Vernier locking: Inferiore a vite Lower screw
CNA16	150	0,05	1/128”	200	40	16	-			●
CNA16P	150	0,05	1/128”	200	40	16	-	●		
CNA20	200	0,02	1/64”	250	65	20	-		●	
CNA25	250	0,02	1/64”	300	80	-	20		●	

Precisione secondo: Norme DIN 862 – UNI 3599 / **Accuracy according to:** DIN 862 – UNI 3599

CALIBRI ANALOGICI CON OROLOGIO
DIAL CALIPERS

Asta graduata in acciaio INOX temprato. Scala cromata opaca. Rullo di regolazione. Cremagliera protetta. Quadrante girevole. Astina di profondità. Bloccaggio nonio superiore a vite.

Hardened stainless steel graduated bar. Matt chrome scale. Adjustment roller. Covered rack. Rotating dial. Depth rod. Vernier locking upper screw.



ART.	Campo di misura Measuring range mm	Unità di formato Graduation mm	Lunghezza scala Scale length mm	Becchi / Jaws: Esterni / Outside mm	Becchi / Jaws: Interni / Inside mm
COC100S	158	0,01	190	40	16
COC50S	158	0,02	190	40	16
COD21S	200	0,01	250	52	18
COD22S	200	0,02	240	50	20
COD31S	300	0,01	350	62	20
COD30S	300	0,02	350	62	20

Precisione secondo: Norme DIN 862 / **Accuracy according to:** DIN 862

BF SERVICE

CALIBRI
CALIPERS

SET CALIBRI ANALOGICI CON OROLOGIO CINQUANTESIMALI
SET OF DIAL CALIPERS GRADUATION 0.02 mm

ART.
CODC223050S/3
Composizione / Content
COD22S
COD30S
COC50S



SET CALIBRI ANALOGICI CON OROLOGIO CENTESIMALI
SET OF DIAL CALIPERS GRADUATION 0.01 mm

ART.
CODC2131100S/3
Composizione / Content
COD21S
COD31S
COC100S



PIEDE D'APPOGGIO PER CALIBRI
DEPTH BASE ATTACHMENT FOR CALIPERS

Base 6x75 mm per aste graduate 3x16 mm.

Base 6x75 mm for graduated rods 3x16 mm.

ART.
BSC



CALIBRI DIGITALI IP54 / DIGITAL CALIPERS IP54

Modello professionale. Corpo in acciaio INOX temprato, becchi rettificati e lappati. Velocità di scorrimento illimitata. Grande display LCD. Rotella di regolazione. Bloccaggio nonio superiore a vite. Batteria 3V.

Professional type. Unlimited response speed. Large LCD display with clear figures. Hardened stainless steel body, finely ground and lapped jaws. With adjustment roller. Vernier locking upper screw. 3V battery.



ART.	Campo di misura Measuring range mm	Risoluzione nonio Vernier resolution mm	Precisione Accuracy mm	Grado di protezione Protection degree	ON OFF	ABS INC	mm inch	Azzeramento Reset
CEDWW15	150	0,01	0,02	IP54	●	●	●	●
CEDWW20	200	0,01	0,03	IP54	●	●	●	●
CEDWW30	300	0,01	0,03	IP54	●	●	●	●

Precisione secondo: Norme DIN 862 / **Accuracy according to:** DIN 862

CALIBRI DIGITALI IP66 / DIGITAL CALIPERS IP66

Corpo temprato in acciaio INOX, con becchi rettificati e lappati. Resistente all'acqua e alla polvere. Becchi inferiori arrotondati, ideali per misurazioni interne. Dispositivo di regolazione micrometrica. Bloccaggio nonio superiore a vite. Batteria da 3V.

Hardened stainless steel body, lapped and ground jaws. Water and dust resistant. Lower jaws are rounded for accurate inside measurement. With fine adjustment. Vernier locking upper screw. 3V battery.



ART.	Campo di misura Measuring range mm	Risoluzione nonio Vernier resolution mm	Becchi / Jaws		ABS INC	mm inch
			Esterni / Outside mm	Interni / Inside mm		
CEDW60	600	0,01	150	20	●	●
CEDW80	800	0,01	150	20	●	●
CEDW100	1000	0,01	150	20	●	●
CEDW150	1500	0,01	200	20		
CEDW200	2000	0,01	200	20		

Precisione secondo: Norme DIN 862 / **Accuracy according to:** DIN 862

BF SERVICE

CALIBRI DIGITALI
DIGITAL CALIPERS

CALIBRI DIGITALI IP67 / DIGITAL CALIPERS IP67

Costruiti in acciaio INOX. L'elettronica è costruita in modo da garantire un grado di protezione contro getti d'acqua e polvere (CEI EN 60529). Display di chiara lettura numeri alti 8 mm. Velocità di scorrimento superiore a 1m/sec.
Bloccaggio nonio superiore a vite.

Made of stainless steel.
The electronic parts ensure protection against dust and water jets (CEI EN 60529). Easy to read display, numbers are 8 mm high.
Displacement speed > 1m/sec.
Vernier locking upper screw.


CEDWP15



CEDIP67/15

ART.	Campo di misura Measuring range mm	Nonio / Vernier Risoluzione Resolution mm	Nonio / Vernier Precisione Accuracy mm	Ingombro Overall dimensions mm	Becchi / Jaws Esterni Outside mm	Becchi / Jaws Interni Inside mm	Grado protezione Protection degree	mm	inch	Batterie Batteries	
CEDIP67/15	150	0,01	0,03	240	40	16	IP67	●		CR2032-1x3V	NEW
CEDWP15	150	0,01	0,03	240	40	16	IP67	●		CR2032-1x3V	
CEDWP20	200	0,01	0,03	290	50	19	IP67	●		CR2032-1x3V	
CEDWP30	300	0,01	0,03	400	60	20	IP67	●		CR2032-1x3V	

Precisione secondo: Norme DIN 862 / **Accuracy according to:** DIN 862

CALIBRI DIGITALI CON USCITA DATI USB
DIGITAL CALIPERS WITH USB DATA OUTPUT

Cassa in metallo. Autoaccensione muovendo il corsoio, autospegnimento dopo 5 minuti di inattività.
Alla riaccensione il display mostra l'ultima misurazione effettuata. Velocità di scorrimento illimitata. Si può riazzerare in qualsiasi posizione, comodo per passare da misurazioni relative a assolute. Basso consumo di batteria al litio da 3V e lunga durata (≥2.5 anni).
Bloccaggio nonio superiore a vite.

INTERFACCIA PER L'ACQUISIZIONE DATI
Si tratta di un sistema di trasferimento dati unificato per strumenti di misura digitali; non è necessario installare nessun driver per il suo funzionamento. Pensato per essere usato con fogli di lavoro (come Excel). Mostra dati sotto forma di cifre o di percentuali.
Si collega al PC tramite porta USB.



Metal case. Auto power on (when moving slider), auto power-off (after 5 min inactivity). Origin setting without zero-setting. When the power is turned ON, the display will always show the current exact measurement. Unlimited response speed.

Zero-setting at any position, convenient for relative and absolute measurement conversion. Low power consumption with long life battery (≥2.5 years). 3V lithium battery, more environmental friendly.
Vernier locking upper screw.

DATA SAMPLING SYSTEM
The product is a unified data sampling system for digital measuring instruments; with plug and play feature, multiple data identification format. This product can be used with spreadsheet such as Excel. It shows figures in thousand decimal or percentage. The product connects to PC with USB interface.

ART.	Campo di misura Measuring range mm	Risoluzione nonio Vernier resolution mm	ON OFF	ABS INC	mm inch	Azzeramento Reset
CEDU15	150	0,01	●	●	●	●
CEDU20	200	0,01	●	●	●	●
CEDU30	300	0,01	●	●	●	●

Precisione secondo: Norme DIN 862 / **Accuracy according to:** DIN 862

ART.	ACCESSORI / ACCESSORIES
IUSB	Cavo USB + interfaccia per PC / USB cable + PC interface

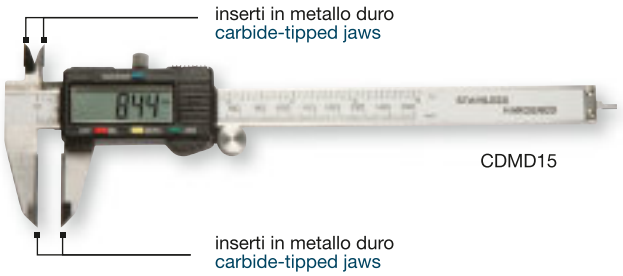
BF SERVICE

CALIBRI DIGITALI
DIGITAL CALIPERS

CALIBRI DIGITALI CON INSERTI IN METALLO DURO SUI BECCHI
DIGITAL CALIPERS WITH CARBIDE-TIPPED JAWS

Costruiti in acciaio INOX. Display di chiara lettura numeri alti 12 mm. Velocita di scorrimento superiore a 1 m/sec. Rullo di regolazione.
Bloccaggio nonio superiore a vite.
Batteria SR44-1x1,5V.

Made of stainless steel. Easy-to-read display, numbers are 12 mm high. Displacement speed greater than 1 m/sec. Adjustment roller.
Vernier locking with upper screw.
Battery SR44-1x1,5V.



CDMD15

ART.	Campo di misura Measuring range mm	Nonio / Vernier Risoluzione Resolution mm	Nonio / Vernier Precisione Accuracy mm	Ingombro Overall dimensions mm	Becchi / Jaws Esterni Outside mm	Becchi / Jaws Interni Inside mm	ON OFF	ABS INC	mm inch	Azzeramento Reset
CDMD15	150	0,01	0,03	235	40	16	●	●	●	●
CDMD20	200	0,01	0,03	285	50	19	●	●	●	●
CDMD30	300	0,01	0,03	400	60	20	●	●	●	●

Precisione secondo: Norme DIN 862 / **Accuracy according to:** DIN 862

CALIBRI DIGITALI EXTRA PRECISI
EXTRA PRECISE DIGITAL CALIPERS

Costruiti in acciaio INOX. Display di chiara lettura numeri alti 12 mm. Velocità di scorrimento superiore a 1 m/sec. Rullo di regolazione.
Bloccaggio nonio superiore a vite.
Batteria SR44-1x1,5V.

Made of stainless steel. Easy-to-read display, numbers are 12 mm high. Displacement speed greater than 1 m/sec. Adjustment roller.
Vernier locking with upper screw.
Battery SR44-1x1,5V.



CDJAAB15

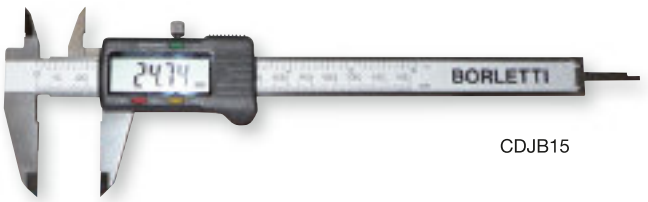
ART.	Campo di misura Measuring range mm	Nonio / Vernier Risoluzione Resolution mm	Nonio / Vernier Precisione Accuracy mm	Ingombro Overall dimensions mm	Becchi / Jaws Esterni Outside mm	Becchi / Jaws Interni Inside mm	ON OFF	ABS INC	mm inch	Azzeramento Reset
CDJAAB15	153	0,01	0,03	235	40	16	●	●	●	●
CDJAAB20	200	0,01	0,03	285	50	19	●	●	●	●
CDJAAB30	300	0,01	0,03	400	60	20	●	●	●	●

Precisione secondo: Norme DIN 862 / **Accuracy according to:** DIN 862

CALIBRI DIGITALI EXTRA PRECISI
EXTRA PRECISE DIGITAL CALIPERS

Costruiti in acciaio INOX. Display di chiara lettura numeri alti 12 mm. Velocità di scorrimento superiore a 1 m/sec.
Bloccaggio nonio superiore a vite.
Batteria SR44-1x1,5V.

Made of stainless steel. Easy-to-read display, numbers are 12 mm high. Displacement speed greater than 1 m/sec. Adjustment roller.
Vernier locking with upper screw.
Battery SR44-1x1,5V.



CDJB15

ART.	Campo di misura Measuring range mm	Nonio / Vernier Risoluzione Resolution mm	Nonio / Vernier Precisione Accuracy mm	Ingombro Overall dimensions mm	Becchi / Jaws Esterni Outside mm	Becchi / Jaws Interni Inside mm	ON OFF	mm inch	Azzeramento Reset
CDJB15	153	0,01	0,03	235	40	16	●	●	●
CDJB20	200	0,01	0,03	285	50	19	●	●	●

Precisione secondo: Norme DIN 862 / **Accuracy according to:** DIN 862

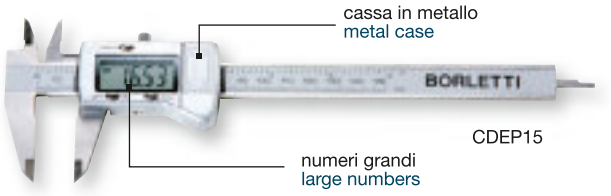
BF SERVICE

CALIBRI DIGITALI
DIGITAL CALIPERS

CALIBRI DIGITALI CASSA IN METALLO
DIGITAL CALIPERS WITH METAL CASE

Costruiti in acciaio INOX. Display di chiara lettura numeri grandi. Velocità di scorrimento superiore a 1 m/sec. Bloccaggio nonio superiore a vite. Batteria SR44-1x1,5V.

Made of stainless steel. Easy-to-read display, large numbers. Displacement speed greater than 1 m/sec. Vernier locking upper screw. Battery SR44-1x1,5V.



CDEP15

ART.	Campo di misura Measuring range mm	Nonio / Vernier Risoluzione Resolution mm	Nonio / Vernier Precisione Accuracy mm	Ingombro Overall dimensions mm	Becchi / Jaws Esterni Outside mm	Becchi / Jaws Interni Inside mm	ON OFF	mm inch	Azzeramento Reset
CDEP15	150	0,01	0,02	235	40	16	●	●	●
CDEP20	200	0,01	0,02	285	50	19	●	●	●

Precisione secondo: Norme DIN 862 / **Accuracy according to:** DIN 862

CALIBRI DIGITALI / DIGITAL CALIPERS

Costruiti in acciaio INOX. Display di chiara lettura numeri grandi. Velocità di scorrimento superiore a 1 m/sec. Bloccaggio nonio inferiore a leva. Batteria SR44-1x1,5V.

Made of stainless steel. Easy-to-read display, large numbers. Displacement speed greater than 1 m/sec. Thumb locking. Battery SR44-1x1,5V.



CEP15

ART.	Campo di misura Measuring range mm	Nonio / Vernier Risoluzione Resolution mm	Nonio / Vernier Precisione Accuracy mm	Ingombro Overall dimensions mm	Becchi / Jaws Esterni Outside mm	Becchi / Jaws Interni Inside mm	ON OFF	mm inch	Azzeramento Reset
CEP15	150	0,01	0,02	235	40	16	●	●	●
CEP20	200	0,01	0,02	285	50	19	●	●	●
CEP30	300	0,01	0,02	400	60	20	●	●	●

Precisione secondo: Norme DIN 862 / **Accuracy according to:** DIN 862

PILE DI RICAMBIO PER CALIBRI ELETTRONICI
SPARE BATTERIES FOR ELECTRONIC CALIPERS

ART.	
CEDS15/1	Pila modello CR2032 / Battery CR2032
CEDS15/2	Pila modello SR44 / Battery SR44

BF SERVICE

CALIBRI DIGITALI
DIGITAL CALIPERS

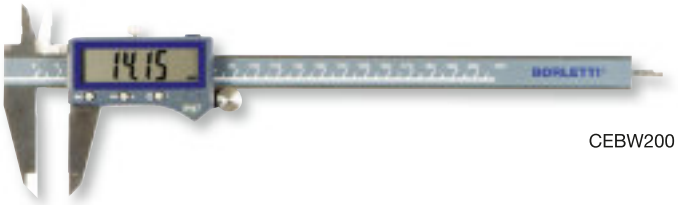
CALIBRI DIGITALI IP67
DIGITAL CALIPERS IP67

NEW

Modello professionale. Corpo in acciaio INOX, con becchi rettificati. Bloccaggio display tramite vite superiore. Rotella inferiore di regolazione. Etichetta protettiva per asta graduata. Display LCD con caratteri alti 11 mm. Indicatore batteria scarica. Bluetooth incorporato.

Professional type. Hardened stainless steel body and ground jaws. Upper locking screw for LCD display. Lower adjustment thumb screw. Beam protection sticker. LCD Display with large 11 mm digits. Low battery indicator. Built-in Bluetooth for data transmission.

IP67



CEBW200

ART.	Campo di misura Measuring range mm	Risoluzione Resolution mm	Precisione Accuracy mm	ON OFF	ABS INC	mm inch	Azzeramento Reset
CEBW150	150	0,01	0,03	●	●	●	●
CEBW200	200	0,01	0,03	●	●	●	●
CEBW300	300	0,01	0,04	●	●	●	●

CALIBRI DIGITALI IP67
DIGITAL CALIPERS IP67

NEW

Modello professionale. Corpo in acciaio INOX, con becchi rettificati. Bloccaggio display tramite vite superiore. Rotella inferiore di regolazione. Etichetta protettiva per asta graduata. Display LCD con caratteri alti 11 mm. Indicatore batteria scarica.

Professional type. Hardened stainless steel body and ground jaws. Upper locking screw for LCD display. Lower adjustment thumb screw. Beam protection sticker. LCD Display with large 11 mm digits. Low battery indicator.

IP67



CEB150

ART.	Campo di misura Measuring range mm	Risoluzione Resolution mm	Precisione Accuracy mm	ON OFF	ABS INC	mm inch	Azzeramento Reset
CEB150	150	0,01	0,03	●	●	●	●
CEB200	200	0,01	0,03	●	●	●	●
CEB300	300	0,01	0,04	●	●	●	●

CALIBRI DIGITALI IP54
DIGITAL CALIPERS IP54

NEW

Modello professionale. Corpo in acciaio INOX, con becchi rettificati. Bloccaggio display tramite vite superiore. Rotella inferiore di regolazione. Etichetta protettiva per asta graduata. Display LCD. Uscita dati.

Professional type. Hardened stainless steel body and ground jaws Upper locking screw for LCD display. Lower adjustment thumb screw. Beam protection sticker. LCD Display. Data output.

IP54



CAB300

ART.	Campo di misura Measuring range mm	Risoluzione Resolution mm	Precisione Accuracy mm	ON OFF	ABS INC	mm inch	Azzeramento Reset
CAB150	150	0,005	0,02	●	●	●	●
CAB200	200	0,005	0,02	●	●	●	●
CAB300	300	0,005	0,03	●	●	●	●

BF SERVICE

CALIBRI DIGITALI
DIGITAL CALIPERS

CALIBRI DIGITALI PER MISURARE LO SPESSORE DEI TUBI
DIGITAL CALIPERS FOR MEASURING PIPE THICKNESS

NEW

Modello professionale. Corpo in acciaio INOX, con becchi rettificati. Bloccaggio display tramite vite superiore. Rotella inferiore di regolazione. Etichetta protettiva per asta graduata. Display LCD.

Professional type. Hardened stainless steel body and ground jaws. Upper locking screw for LCD display. Lower adjustment thumb screw. Beam protection sticker. LCD Display.

IP54



CYD200

ART.	Campo di misura Measuring range mm	Risoluzione Resolution mm	Precisione Accuracy mm	ON OFF	ABS INC	mm inch	Azzeramento Reset
CYD150	150	0,01	0,03	●	●	●	●
CYD200	200	0,01	0,03	●	●	●	●

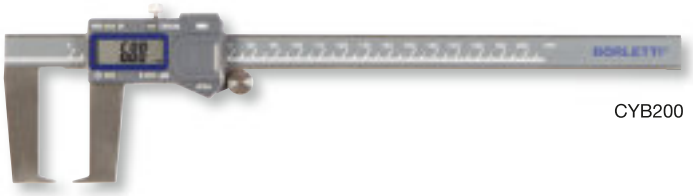
CALIBRI DIGITALI PER SCANALATURE ESTERNE
DIGITAL CALIPERS FOR EXTERNAL GROOVES

NEW

Modello professionale. Corpo in acciaio INOX, con becchi rettificati. Bloccaggio display tramite vite superiore. Rotella inferiore di regolazione. Etichetta protettiva per asta graduata. Display LCD. Uscita dati.

Professional type. Hardened stainless steel body and ground jaws. Upper locking screw for LCD display. Lower adjustment thumb screw. Beam protection sticker. LCD Display. Data output.

IP54



CYB200

ART.	Campo di misura Measuring range mm	Risoluzione Resolution mm	Precisione Accuracy mm	ON OFF	ABS INC	mm inch	Azzeramento Reset
CYB150	150	0,01	0,03	●	●	●	●
CYB200	200	0,01	0,03	●	●	●	●

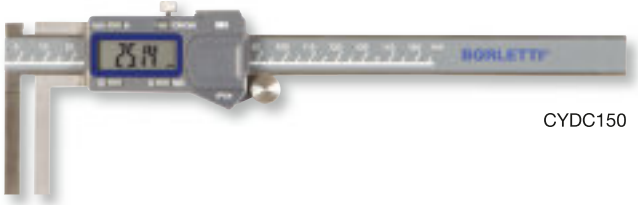
CALIBRI DIGITALI PER SCANALATURE INTERNE
DIGITAL CALIPERS FOR INTERNAL GROOVES

NEW

Modello professionale. Corpo in acciaio INOX, con becchi rettificati. Bloccaggio display tramite vite superiore. Rotella inferiore di regolazione. Etichetta protettiva per asta graduata. Display LCD. Uscita dati.

Professional type. Hardened stainless steel body and ground jaws. Upper locking screw for LCD display. Lower adjustment thumb screw. Beam protection sticker. LCD Display. Data output.

IP54



CYDC150

ART.	Campo di misura Measuring range mm	Risoluzione Resolution mm	Precisione Accuracy mm	ON OFF	ABS INC	mm inch	Azzeramento Reset
CYDC150	150	0,01	0,02	●	●	●	●
CYDC200	200	0,01	0,02	●	●	●	●

BF SERVICE

CALIBRI DIGITALI
DIGITAL CALIPERS

CALIBRI DIGITALI DI PROFONDITÀ A DOPPIO UNCINO PER GOLE INTERNE
DIGITAL DOUBLE HOOK END DEPTH GAUGE FOR INTERNAL GROOVES

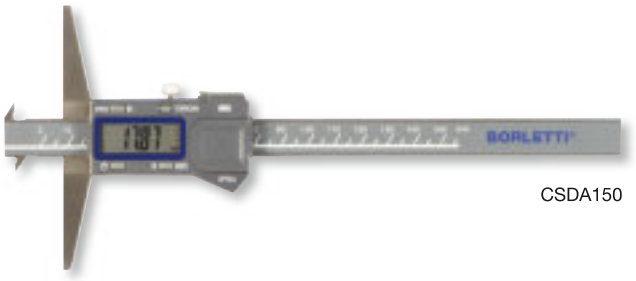
NEW

CE

Modello professionale. Corpo in acciaio INOX, con becchi rettificati. Bloccaggio display tramite vite superiore. Rotella inferiore di regolazione. Etichetta protettiva per asta graduata. Display LCD. Uscita dati.

Professional type. Hardened stainless steel body and ground jaws. Upper locking screw for LCD display. Lower adjustment thumb screw. Beam protection sticker. LCD Display. Data output.

IP54



CSDA150

ART.	Campo di misura Measuring range mm	Risoluzione Resolution mm	Precisione Accuracy mm	ON OFF	ABS INC	mm inch	Azzeramento Reset
CSDA150	150	0,01	0,02	●	●	●	●
CSDA200	200	0,01	0,03	●	●	●	●

CALIBRI DIGITALI DI PROFONDITÀ
DIGITAL DEPTH GAUGES

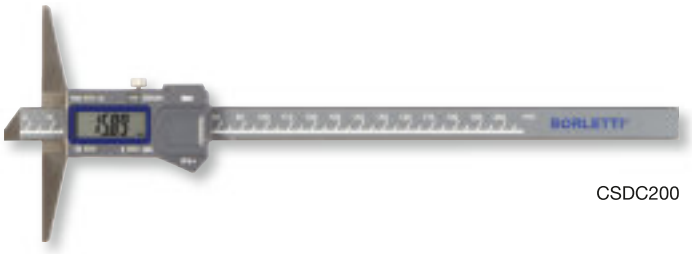
NEW

CE

Modello professionale. Corpo in acciaio INOX, con becchi rettificati. Bloccaggio display tramite vite superiore. Rotella inferiore di regolazione. Etichetta protettiva per asta graduata. Display LCD. Uscita dati.

Professional type. Hardened stainless steel body and ground jaws. Upper locking screw for LCD display. Lower adjustment thumb screw. Beam protection sticker. LCD Display. Data output.

IP54



CSDC200

ART.	Campo di misura Measuring range mm	Risoluzione Resolution mm	Precisione Accuracy mm	ON OFF	ABS INC	mm inch	Azzeramento Reset
CSDC150	150	0,01	0,03	●	●	●	●
CSDC200	200	0,01	0,03	●	●	●	●

BF SERVICE

CALIBRI
CALIPERS

SET CALIBRI ELETTRONICI CON BLOCCAGGIO INFERIORE A LEVA
SET OF DIGITAL CALIPERS WITH THUMB LOCKING

ART.
CEP152030/3
Composizione / Content
CEP15
CEP20
CEP30



SET CALIBRI ELETTRONICI CON INSERTI IN METALLO DURO
SET OF DIGITAL CALIPERS WITH CARBIDE-TIPPED JAWS

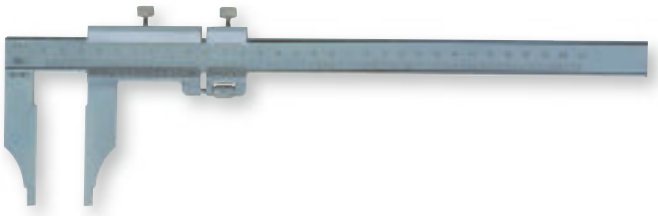
ART.
CDMD152030/3
Composizione / Content
CDMD15
CDMD20
CDMD30



CALIBRI ANALOGICI CINQUANTESIMALI
VERNIER CALIPERS GRADUATION 0.02 mm

Asta graduata e corsoio in acciaio INOX temprato. Scala cromata opaca e ribassata. Monoblocco.
Bloccaggio nonio superiore a vite.
Dispositivo regolazione micrometrica.

Graduated bar and slide made of hardened stainless steel. Matt chrome and stepped scale. Monobloc.
Vernier locking upper screw.
Fine adjustment.



ART.	Campo di misura Measuring range mm	Lettura nonio Vernier reading mm	Lunghezza scala Scale length mm	Becchi Jaws mm	Min. misura becchi interni Min. measuring inside jaws mm
CNE20	200	0,02	250	62	10
CNE25	250	0,02	300	75	10
CNE30	300	0,02	350	90	10
CNE35	350	0,02	400	90	10
CNE40	400	0,02	450	125	20
CNE45	450	0,02	500	125	20
CNE50	500	0,02	550	125	20
CNE55	550	0,02	600	125	20
CNE60	600	0,02	650	125	20
CNE70	700	0,02	750	150	20
CNE80	800	0,02	850	150	20
CNE100	1000	0,02	1050	150	20
CNE120	1200	0,02	1250	150	20
CNE150	1500	0,02	1550	150	20
CNE200	2000	0,02	2050	200	20
CNE300	3000	0,02	3050	300	20

Precisione secondo: Norme DIN 862 e UNI 6906 / **Accuracy according to:** DIN 862 and UNI 6906

BF SERVICE

CALIBRI
CALIPERS

CALIBRI ANALOGICI CINQUANTESIMALI CON BECCHI LUNGHI
VERNIER CALIPERS WITH LONG JAWS GRADUATION 0.02 mm

Asta graduata e corsoio in acciaio INOX temprato. Scala cromata opaca e ribassata. Monoblocco.
Bloccaggio nonio supeiore a vite.
Dispositivo regolazione micrometrica.

Graduated bar and slide made of hardened stainless steel. Matt chrome and stepped scale. Monobloc.
Vernier locking upper screw.
Fine adjustment.



ART.	Campo di misura Measuring range mm	Lettura nonio Vernier reading mm	Limiti di errore Accuracy ±	Lunghezza scala Scale length mm	Becchi Jaws mm	Min. misura becchi interni Min. measuring inside jaws mm
CNBL2512	250	0,02	0,06	300	120	10
CNBL3015	300	0,02	0,08	350	150	10
CNBL3515	350	0,02	0,08	400	150	10
CNBL3520	350	0,02	0,10	400	200	10
CNBL4515	450	0,02	0,08	500	150	20
CNBL4520	450	0,02	0,10	500	200	20
CNBL4525	450	0,02	0,12	500	250	20
CNBL5515	550	0,02	0,08	600	150	20
CNBL5520	550	0,02	0,10	600	200	20
CNBL5525	550	0,02	0,12	600	250	20
CNBL5530	550	0,02	0,15	600	300	20
CNBL6030	600	0,02	0,15	650	300	20
CNBL8020	800	0,02	0,10	850	200	20
CNBL8030	800	0,02	0,15	850	300	20
CNBL10020	1000	0,02	0,10	1050	200	20
CNBL10030	1000	0,02	0,15	1050	300	20

Precisione secondo: Norma interna / **Accuracy according to:** Internal standard

CALIBRI ANALOGICI CINQUANTESIMALI CON BECCHI SUPERIORI PER ESTERNI
VERNIER CALIPERS WITH UPPER JAWS FOR OUTSIDE MEASUREMENTS GRADUATION 0.02 mm

Asta graduata e corsoio in acciaio INOX temprato. Scala cromata opaca e ribassata. Monoblocco.
Bloccaggio nonio supeiore a vite.
Dispositivo regolazione micrometrica.

Graduated bar and slide made of hardened stainless steel. Matt chrome and stepped scale. Monobloc.
Vernier locking upper screw.
Fine adjustment.



ART.	Campo di misura Measuring range mm	Lettura nonio Vernier reading mm	Lunghezza scala Scale length mm	Becchi Jaws mm	Becchi Jaws	
					Interni / Inside mm	Superiori / Upper mm
CNBPE18	180	0,02	250	62	10	20
CNBPE25	250	0,02	300	80	10	30

Precisione secondo: Norme DIN 862 e UNI 6906 / **Accuracy according to:** DIN 862 and UNI 6906

BF SERVICE

CALIBRI
CALIPERS

CALIBRI ANALOGICI ULTRA LEGGERI
ULTRA LIGHT VERNIER CALIPERS

Asta e nonio in alluminio anodizzato. Superficie indurita (1100HV), particolarmente rigido ed estremamente leggero.
Bloccaggio nonio superiore a vite.

Anodized aluminum bar and slide. Hardened surface (1100HV), particularly rigid and extremely light.
Vernier locking upper screw.



ART.	Campo di misura Measuring range mm	Lettura nonio Vernier reading mm	Lunghezza scala Scale length mm	Becchi Jaws mm	Becchi Jaws		Peso Weight kg
					Interni / Inside mm	Superiori / Upper mm	
CLED50	500	0,02	670	150	20	32	1,2
CLED80	800	0,02	970	150	20	32	1,5
CLED100	1000	0,02	1050	150	20	32	1,65
CLED150	1500	0,05	1670	200	30	42	2,1
CLED200	2000	0,05	2170	200	30	42	2,5

CALIBRI ANALOGICI CINQUANTESIMALI DI PROFONDITÀ
DEPTH GAUGES GRADUATION 0.02 mm

Asta graduata e corsoio in acciaio INOX temprato. Scala cromata opaca. Monoblocco.
Bloccaggio nonio superiore a vite.
Dispositivo regolazione micrometrica.

Graduated bar and slide made of hardened stainless steel. Matt chrome scale. Monobloc.
Vernier locking upper screw.
Fine adjustment.



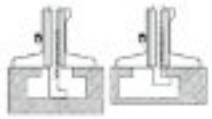
ART.	Campo di misura Measuring range mm	Lettura nonio Vernier reading mm	Lunghezza scala Scale length mm	Dimensioni base appoggio Base dimensions mm
CPE25	250	0,02	300	100
CPE30	300	0,02	350	100
CPE45	450	0,02	500	150

Precisione secondo: Norme DIN 862 e UNI 6906 / **Accuracy according to:** DIN 862 and UNI 6906

CALIBRI ANALOGICI CINQUANTESIMALI DI PROFONDITÀ PER GOLE INTERNE
DEPTH GAUGES FOR INSIDE GROOVES GRADUATION 0.02 mm

Asta graduata e corsoio in acciaio INOX temprato. Scala incisa su ambo i lati; ruotando l'asta di 180° si ottiene uno strumento con le stesse caratteristiche della serie CPE. Utilizzabile per misurazioni di gole e come calibro di profondità.
Monoblocco.
Bloccaggio nonio superiore a vite.
Dispositivo regolazione micrometrica.

Graduated bar and slide made of hardened stainless steel. Scale engraved on both sides; rotating the rod by 180° it is possible to obtain a tool with the same features of the CPE series. Used for measurements of grooves and as depth gauge.
Monobloc.
Vernier locking upper screw.
Fine adjustment.





ART.	Campo di misura Measuring range mm	Lettura nonio Vernier reading mm	Lunghezza scala Scale length mm	Dimensioni base appoggio Base dimensions mm
CPP25	250	0,02	300	100
CPP30	300	0,02	350	100
CPP45	450	0,02	500	150

Precisione secondo: Norme DIN 862 e UNI 6906 / **Accuracy according to:** DIN 862 and UNI 6906

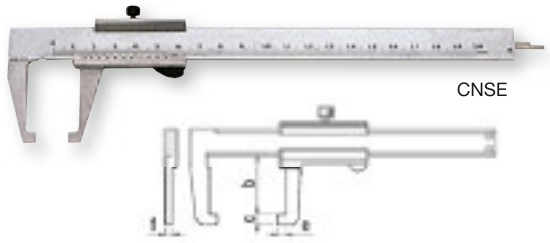
BF SERVICE

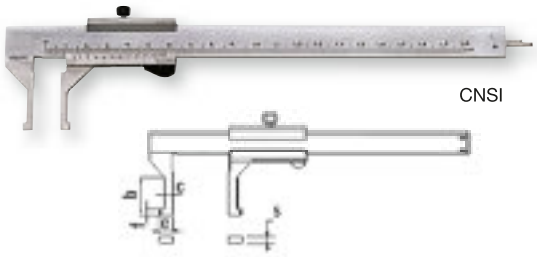
CALIBRI
CALIPERS

CALIBRI ANALOGICI VENTESIMALI PER SCANALATURE INTERNE – ESTERNE
VERNIER CALIPERS FOR INSIDE-OUTSIDE GROOVES GRADUATION 0.05 mm

Calibri con becchi rastremati per la misurazione del diametro interno o esterno di scanalature. Asta e corsoio in acciaio INOX temprato. Scala cromata opaca.
Bloccaggio nonio superiore a vite.

With tapered jaws for measurement of the outer or inner diameter of grooves. Graduated bar and slide made of hardened stainless steel. Matt chrome scale.
Vernier locking upper screw.


CNSE


CNSI

ART.	Campo di misura Measuring range mm	Lettura nonio Vernier reading mm	Lunghezza scala Scale length mm	b mm	c mm	e mm	f mm	s mm
Interni / Inside								
CNSI	150	0,05	200	24	2,5	5	2,5	4
Esterni / Outside								
CNSE	150	0,05	200	34	5,3	5	2,7	-

Precisione secondo: Norme DIN 862 / **Accuracy according to:** DIN 862

CALIBRI ANALOGICI VENTESIMALI PER TRACCIATURE
TRAMMELS GRADUATION 0.05 mm

Calibri a corsoio in acciaio INOX temprato.

Hardened stainless steel slide.



ART.	Campo di misura Measuring range mm	Lettura nonio Vernier reading mm	Lunghezza scala Scale length mm	Lunghezza punte Jaws length mm
CCT25	300	0,05	320	50
CCT50	500	0,05	550	50
CCT100	1000	0,05	1050	50
CCT150	1500	0,05	1550	50

NEW

CALIBRI ANALOGICI VENTESIMALI PER TRACCIATURE
TRAMMELS GRADUATION 0.05 mm

Calibri a corsoio in acciaio indeformabile con vite micrometrica.

Trammels made of carbon steel with fine adjustment.



ART.	Campo di misura Measuring range mm	Lettura nonio Vernier reading mm	Lunghezza scala Scale length mm	Lunghezza punte Jaws length mm
CCTVM25	300	0,05	320	50
CCTVM50	500	0,05	550	50
CCTVM100	1000	0,05	1050	50
CCTVM150	1500	0,05	1550	50
CCTVM200	2000	0,05	2050	50

NEW

COPPIA PUNTE DI RICAMBIO PER CCT E CCTVM
SET OF TWO SPARE POINTS FOR CCT AND CCTVM

ART. **CPT50**



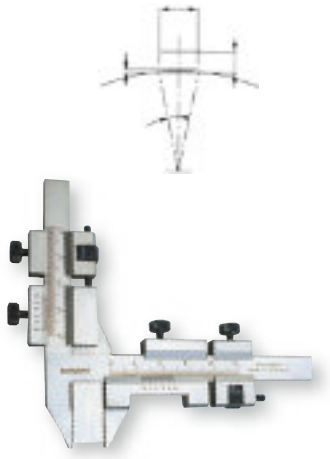
BF SERVICE

CALIBRI
CALIPERS

CALIBRO ANALOGICO CINQUANTESIMALE PER INGRANAGGI
CALIPER FOR GEARS GRADUATION 0.02 mm

Il corsoio verticale è impiegato per l'impostazione della profondità dalla testa del dente al diametro primitivo, il corsoio orizzontale è utilizzato per la misurazione dello spessore e del dente sul diametro primitivo. Superfici di misura temprate, rettificate e lappate. Vite micrometrica per spostamenti fini su nonio verticale e orizzontale. Costruito in acciaio INOX. Bloccaggio doppio nonio superiore a vite.

The vertical slide is used for setting the depth from the head of the tooth to the pitch diameter, the horizontal slide is used for measuring the thickness and the tooth on the pitch diameter. Hardened, ground and lapped measuring surfaces. Micrometer head for fine movements on vertical and horizontal slide. Made of stainless steel. Double vernier locking upper screw.



ART.	Campo di misura (modulo) Measuring range (module)	Lettura doppio nonio Double vernier reading mm
CIN26	1 ÷ 26	0,02

Precisione secondo: Norme DIN 862 / **Accuracy according to:** DIN 862

TRUSCHINI
HEIGHT GAUGES

TRUSCHINI ANALOGICI CINQUANTESIMALI CON LENTE E SCALA MOBILE
VERNIER HEIGHT GAUGES WITH MAGNIFIER AND ADJUSTABLE SCALE GRADUATION 0.02 mm

Scala di lettura e nonio cromati opachi. Regolazione micrometrica per le operazioni di azzeramento dello strumento. Lente d'ingrandimento scorrevole per migliorare la lettura e limitare l'errore di parallasse. Base di appoggio larga e ben dimensionata che conferisce stabilità allo strumento. Punta a tracciare con estremità in carburo di tungsteno in dotazione. Dispositivo regolazione micrometrica.

Matt chrome reading scale and vernier. Fine adjustment for resetting. Sliding magnifier to improve reading and to limit the parallax error. The broad and well-sized base gives stability. Tungsten carbide tipped scriber supplied as standard. Fine adjustment.



ART.	Campo di misura Measuring range		Lettura nonio Vernier reading		Lunghezza scala Scale length	
	mm	inch	mm	inch	mm	inch
TT300	300	12"	0,02	1/1000"	350	14,5"
TT450	450	18"	0,02	1/1000"	500	20"
TT600	600	24"	0,02	1/1000"	650	26"
TT1000	1000	40"	0,02	1/1000"	1050	42"

Precisione secondo: Norme DIN 862 / **Accuracy according to:** DIN 862

TRUSCHINI ANALOGICI CENTESIMALI CON COMPARATORE E NUMERATORE
VERNIER HEIGHT GAUGES WITH INDICATOR AND COUNTER GRADUATION 0.01 mm

Base di appoggio larga e ben dimensionata che conferisce stabilità allo strumento. Corsoio, scorrevole su due aste cilindriche, con comparatore e numeratori. Punta a tracciare con estremità in carburo di tungsteno. Facilità di lettura con il comparatore, che limita l'errore di parallasse.

The broad and well-sized base gives stability. Sliding on two cylindrical shafts, with indicator and counter. Tungsten carbide tipped scriber. The easy-to-read indicator avoid parallax errors.



ART.	Campo di misura Measuring range mm	Unità di formato Graduation mm	Lettura quadrante Dial reading mm
TTC300	300	0,01	1
TTC450	450	0,01	1
TTC500	500	0,01	1
TTC600	600	0,01	1

Precisione secondo: Norme DIN 862 / **Accuracy according to:** DIN 862

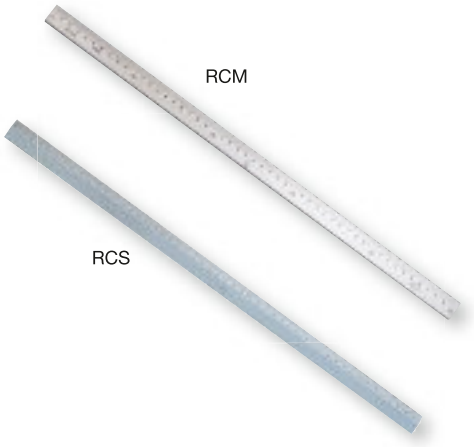
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RIGHE DI CONTROLLO, SQUADRE, PRISMI
CONTROL RULES, SQUARES, V BLOCKS

RIGHE DI CONTROLLO MILLIMETRATE IN ACCIAIO INOX TEMPRATO
HARDENED STAINLESS STEEL MILLIMETER CONTROL RULES

Tipo a sezione rettangolare With rectangular section	Tipo con smusso With chamfer	Lunghezza totale Overall length mm	Scala graduata utile Measuring range mm
ART.	ART.		
-	RCS30	310	300
RCM50	RCS50	510	500
RCM75	RCS75	760	750
RCM100	RCS100	1010	1000
RCM150	RCS150	1510	1500
RCM200	-	2010	2000
RCM300	-	3020	3000

Precisione secondo: Norme DIN 866 / **Accuracy according to:** DIN 866



SQUADRE IN ACCIAIO INOX TEMPRATO
HARDENED STAINLESS STEEL SQUARES

Lappatura di alta precisione. Fornite in robusto astuccio di legno.

High precision lapping. Supplied in sturdy wooden case.

Tipo semplice Standard	Tipo con cappello With base	Dimensioni Dimensions mm	Precisione di normalità Squareness accuracy µm
ART.	ART.		
SNS50	SNC50	50x34	6
SNS70	SNC70	70x50	6,4
SNS100	SNC100	100x70	7
SNS150	SNC150	150x100	8
SNS200	SNC200	200x130	9
SNS250	SNC250	250x165	10
SNS300	SNC300	300x200	11
SNS400	SNC400	400x265	13
SNS500	SNC500	500x330	15
SNS600	SNC600	600x400	17
SNS800	SNC800	800x500	21
SNS1000	SNC1000	1000x600	25

Precisione secondo: Norme DIN 875/0 / **Accuracy according to:** DIN 875/0



SQUADRE IN ACCIAIO INOX
STAINLESS STEEL SQUARES

Fornite in scatole di cartone.

Supplied in cardboard boxes.

Tipo semplice Standard	Tipo con cappello With base	Dimensioni Dimensions mm
ART.	ART.	
SSC75	SCC75	75x50
SSC100	SCC100	100x70
SSC150	SCC150	150x100
SSC200	SCC200	200x130
SSC250	SCC250	250x165
SSC300	SCC300	300x200
SSC400	SCC400	400x265
SSC500	SCC500	500x330

Precisione secondo: Norme DIN 875/I / **Accuracy according to:** DIN 875/I



BF SERVICE

RIGHE DI CONTROLLO, SQUADRE, PRISMI
CONTROL RULES, SQUARES, V BLOCKS

SQUADRE IN ACCIAIO INOX BISELLATE
STAINLESS STEEL CHAMFERED SQUARES

Spigoli e superfici laterali rettificati. Fornite in robusto astuccio di legno.

Ground edges and faces. Supplied in sturdy wooden case.



Tipo semplice / Standard

ART.	Dimensioni Dimensions mm	Precisione di normalità Squareness accuracy µm
SFS50	50x34	2,5
SFS70	70x50	2,7
SFS100	100x70	3
SFS150	150x100	3,5
SFS200	200x130	4
SFS250	250x165	4,5
SFS300	300x200	5
SFS400	400x265	6
SFS500	500x330	7
SFS600	600x400	8

Precisione secondo: Norme DIN 875/00 / **Accuracy according to:** DIN 875/00

SQUADRE IN ACCIAIO INOX A 120°
STAINLESS STEEL 120° SQUARES

Fornite in robusto astuccio di legno.

Supplied in sturdy wooden cases.

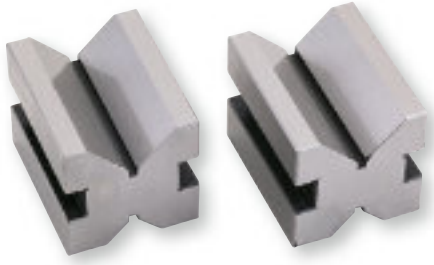


ART.	Dimensioni Dimensions mm	Precisione di normalità Squareness accuracy µm
SSO6	60x60	10
SSO10	100x100	12
SSO15	150x150	14

PRISMI IN ACCIAIO INOX TEMPRATO
HARDENED STAINLESS STEEL V BLOCKS

Angolo del prisma 90°. Precisione di parallelismo delle facce inferiore a 0,005 mm. Forniti in coppia, completi di staffe.

90° angle. Parallelism accuracy of faces lower than 0.005 mm. Supplied as a pair, with clamps.





PRISMI / V BLOCKS	Dimensioni Dimensions mm
ART.	
PCS40	40x40x36
PCS70	70x46x40
PCS71	70x63x42
PCS125	125x90x70

BF SERVICE

LIVELLE - BASI PORTACOMPARATORE
LEVELS - INDICATOR STANDS

LIVELLE QUADRE DI PRECISIONE A BOLLA D'ARIA
PRECISION SQUARE FRAME SPIRIT LEVELS

Superfici di appoggio, piane e piane prismatiche, finemente rettificate e collaudate. Impugnatura termicamente isolante.

With plane and prismatic bearing faces, finely adjusted and tested. Thermal-insulated grip.



ART.	Dimensioni / Dimensions mm	Sensibilità / Sensitivity mm x 1 m
LPQ105	100x100	0,05
LPQ110	100x100	0,10
LPQ151	150x150	0,10
LPQ152	150x150	0,02
LPQ155	150x150	0,05
LPQ202	200x200	0,02
LPQ205	200x200	0,05
LPQ210	200x200	0,10
LPQ251	250x250	0,10
LPQ252	250x250	0,02
LPQ255	250x250	0,05

Precisione secondo: Norme DIN 877 / **Accuracy according to:** DIN 877

LIVELLE LINEARI DI PRECISIONE A BOLLA D'ARIA
PRECISION LINEAR SPIRIT LEVELS

Base d'appoggio, piano prismatica, finemente rettificata e collaudata. Impugnatura termicamente isolante.

Prismatic base, finely adjusted and tested. Thermal-insulated grip.



ART.	Lunghezza / Length mm	Sensibilità / Sensitivity mm x 1 m
LPL1502	150	0,02
LPL1510	150	0,10
LPL2002	200	0,02
LPL2005	200	0,05
LPL2010	200	0,10
LPL2502	250	0,02
LPL2505	250	0,05
LPL2510	250	0,10
LPL3002	300	0,02
LPL3005	300	0,05
LPL3010	300	0,10

Precisione secondo: Norme DIN 877 / **Accuracy according to:** DIN 877

BASI DI SUPPORTO PER COMPARATORI
INDICATOR STANDS

Base robusta in ghisa, piano di appoggio rettificato; colonna in acciaio INOX di grande diametro; bloccaggio sulla colonna per regolazione rapida in altezza; manopola sull'estremità del braccio per l'avvicinamento micrometrico al pezzo da misurare.

Sturdy cast iron base, ground anvil; stainless steel column with large diameter; locking on the column for quick height adjustment, knob on the arm end for fine adjustment.

ART.		AC23
Ø attacco comparatore sonda Indicator stem Ø	mm	8
Superficie utile piano appoggio Anvil size	mm	105x125
Max dimensione misurabile Max measuring range	mm	130
Distanza comparatore colonna Distance indicator column	mm	73
Ø colonna / Column Ø	mm	30
Peso / Weight	kg	6,5



AC23

BF SERVICE

BASI PORTACOMPARATORE
INDICATOR STANDS

STATIVO PER MILLESIMETRI
STANDS FOR INDICATORS WITH GRADUATION 0.001 mm

Base in ghisa, colonna in acciaio rettificata con ghiera per regolazione rapida dell'altezza. Il braccio portastrumenti può ruotare intorno alla colonna.

Cast iron base, ground steel threaded column for quick adjustment. The holder arm can rotate around the column.




AMIL1A


AMIL1B


AMIL2


AMIL2B


AMIL3


AMIL3A


AMIL4


AMIL4A


AMIL5


AMIL12A

ART.		AMIL1
Dimensioni base / Base dimensions	mm	210x314
Altezza utile / Height	mm	220
Ø colonna / Column Ø	mm	50
Ø attacco strumento / Stem Ø	mm	28
Distanza strumento colonna / Distance device column	mm	155
Peso / Weight	kg	18

Lo stativo deve essere completato con almeno uno dei piani sotto indicati.
The stand must be completed with at least one of the anvil described below.

ACCESSORI / ACCESSORIES	
AMIL1A	Piano rettangolare in acciaio scanalato 156x196 mm Rectangular serrated steel anvil 156x196 mm
AMIL1B	Piano rettangolare in diabase liscio 156x196 mm Rectangular flat diabase anvil 156x196 mm
AMIL2	Piano circolare in acciaio liscio Ø 90 mm Flat round steel anvil Ø 90 mm
AMIL2B	Tavolino porta incudine per AMIL2 Anvil holder for AMIL2
AMIL3	Incudine Ø 6 mm per AMIL2B Anvil Ø 6 for AMIL2B
AMIL3A	Incudine Ø 8 mm per AMIL2B Anvil Ø 8 for AMIL2B
AMIL4	Incudine semisferico raggio 20 mm per AMIL2B Domed anvil radius 20 mm for AMIL2B
AMIL4A	Incudine a "V" 90° per AMIL2B V-shaped anvil 90° for AMIL2B
AMIL5	Supporto con contropunte 60° max Ø 110 mm Support with tailstock 60° max Ø 110 mm
AMIL12A	Riduttore per comparatori attacco gambo Ø 8 mm; esterno Ø 28 mm - interno Ø 8 h7 mm Reduction for Ø 8 mm stem indicator; external Ø 28 mm - internal Ø 8 h7 mm

BF SERVICE

BASI PORTACOMPARATORE
INDICATOR STANDS

BASI MAGNETICHE PORTACOMPARATORE / INDICATOR MAGNETIC STANDS

Basi con magnete permanente con elevata resistenza alla trazione. Provviste di un'asta fissa ed una orientabile (due aste orientabili per AC/MDS e AC/MGDS). Utilizzate per controlli di concentricità su macchine o misurazioni comparative e di parallelismo.

Stand with permanent magnet with high tensile strength. Equipped with a fixed and an adjustable rod (two adjustable rods for AC/MDS e AC/MGDS). Used for testing concentrity on machine tools, for comparative measurements of parallelism.


AC/M
AC/MG


AC/MDS
AC/MGDS


ACM/PG


ACM/PE


AC/MV


AC/MGV

ART.		AC/M	AC/MG	AC/MDS	AC/MGDS	ACM/PG	ACM/PE	AC/MV	AC/MGV
Forza magnetica / Magnetic force	kg (N)	45 (440)	80 (785)	45 (440)	80 (785)	10 (98)	10 (98)	60 (590)	70 (690)
Dimensioni base / Base dimensions	mm	40x48x48	75x63x63	40x48x48	75x63x63	Ø 35,5x30	Ø 35,5x30	48x64x55	50x70x65
Asta verticale / Vertical rod	mm	Ø 16x160	Ø 22x200	Ø 16x160	Ø 22x200	Ø 12x100	Ø 12x165	Ø 16x160	Ø 22x200
Asta orientabile / Adjustable rod	mm	Ø 12x150	Ø 16x190	Ø 12x150	Ø 16x190	Ø 12x100	Ø 8x153	Ø 12x150	Ø 16x190
Asta intermedia / Intermediate rod	mm	-	-	Ø 12x200	Ø 16x250	-	-	-	-
Sbraccio laterale / Lateral outreach	mm	135	170	310	390	80	130	135	170
Max estensione / Max extension	mm	290	370	450	560	160	290	290	370
Regolazione micrometrica comparatore / Indicator fine adjustment		●	●	●	●	●	-	●	●
Base appoggio piana / Flat support base		●	●	●	●	●	●	-	-
Base appoggio prismatica / Prismatic support base		-	-	-	-	-	-	●	●
Pulsante attivazione magnete / Magnetic On-Off switch		●	●	●	●	-	-	-	-
Leva attivazione magnete / Magnetic On-Off lever		-	-	-	-	-	-	●	●

BASI MAGNETICHE PORTACOMPARATORE CON BRACCIO SNODATO
INDICATOR MAGNETIC STANDS WITH FLEXIBLE ARM

Basi con magnete permanente con elevata resistenza alla trazione. Provviste di un braccio snodato che, dopo essere orientato in posizione di misura, viene irrigidito tramite apposita leva. Utilizzate per controlli di concentricità su macchine o misurazioni comparative e di parallelismo.

Bases with permanent magnet and high tensile strength. Equipped with a flexible arm that can be locked in any measuring position using a lever. Used for testing concentrity on machine tools, for comparative measurements and parallelism.

ART.		AC/MBS	AC/MGBS	ACM/BS/I	ACMG/BS/I
Forza magnetica / Magnetic force	kg (N)	45 (440)	80 (785)	45 (440)	80 (785)
Dimensioni base / Base dimensions	mm	40x48x48	75x63x63	40x48x48	75x63x63
Lunghezza braccio snodato / Articulated arm length	mm	255	330	290	290
Raggio d'azione / Range	mm	180	260	260	260
Regolazione micrometrica comparatore / Indicator fine adjustment				●	●
Base appoggio piana / Flat support base		●	●	●	●
Pulsante attivazione magnete / Magnetic On-Off switch		●	●	●	●


AC/MBS
AC/MGBS


ACM/BS/I
ACMG/BS/I

BF SERVICE

BASI PORTACOMPARATORE
INDICATOR STANDS

BASI MAGNETICHE PORTACOMPARATORE
INDICATOR MAGNETIC STANDS

Regolazione micrometrica vicino alla base per ridurre al minimo le oscillazioni durante la regolazione.

Fine adjustment near the base to minimize oscillations during adjustment.

ART.		ACM/AB/I	ACMG/AB/I
Forza magnetica / Magnetic force	kg (N)	45 (440)	80 (785)
Dimensioni base / Base dimensions	mm	40x48x48	75x63x63
Lunghezza braccio snodato Articulated arm length	mm	260	260
Raggio d'azione / Range	mm	235	235
Regolazione micrometrica comparatore Indicator fine adjustment		●	●
Base appoggio piana / Flat support base		●	●
Pulsante attivazione magnete Magnetic On-Off switch		●	●



ACM/AB/I
ACMG/AB/I

BASI MAGNETICHE PORTACOMPARATORE BRACCIO ORIGINALE SVIZZERO
ORIGINAL SWISS ARM INDICATOR MAGNETIC STANDS

ART.		AC/MAB	AC/MGAB
Forza magnetica / Magnetic force	kg (N)	45 (440)	80 (785)
Dimensioni base / Base dimensions	mm	40x48x48	75x63x63
Lunghezza braccio snodato Articulated arm length	mm	335	335
Raggio d'azione / Range	mm	310	310
Regolazione micrometrica comparatore Indicator fine adjustment		●	●
Base appoggio piana / Flat support base		●	●
Pulsante attivazione magnete Magnetic On-Off switch		●	●



AC/MAB
AC/MGAB

BASE PORTACOMPARATORE A VENTOSA
INDICATOR VACUUM STAND

Utilizzata per piani in granito, per piani amagnetici (ottone, alluminio, inox, plastiche, etc).

Used for granite surfaces, non-magnetic surfaces (brass, aluminum, stainless steel, plastic, etc).

ART.		AC/MP
Forza coesione / Cohesive force	kg (N)	40 (400)
Dimensioni base / Base dimensions	mm	Ø 92x22
Lunghezza braccio snodato Articulated arm length	mm	290
Raggio d'azione / Range	mm	260
Regolazione micrometrica comparatore Indicator fine adjustment		●



AC/MP

ACCESSORI PER BASI MAGNETICHE
ACCESSORIES FOR MAGNETIC STANDS

ART.	
AF	Snodo Ø 8/8 mm / Joint Ø 8/8 mm
AG	Snodo Ø 8/12 mm / Joint Ø 8/12 mm
AH	Snodo Ø 12/12 mm / Joint Ø 12/12 mm
AI	Snodo Ø 12/16 mm / Joint Ø 12/16 mm
AL	Snodo Ø 16/16 mm / Joint Ø 16/16 mm
AM	Snodo Ø 16/22 mm / Joint Ø 16/22 mm



BF SERVICE

BLOCCHETTI DI RISCONTRO PIANPARALLELI
GAUGE BLOCKS

Precisione secondo: norme DIN 861 ISO 3650

Grado K Specifico per sale metrologiche e laboratori di misura. **Solo a richiesta è fornibile la serie da 122 pz.**
Grado 0 Per controlli di alta precisione, quali misure campione per sale metrologiche.
Grado 1 Per controlli e regolazioni di strumenti di misura.
Grado 2 Per lavori in officina.

Accuracy according to: DIN 861 ISO 3650

Degree K Specific for measuring rooms and test labs. **The 122 pcs series can be supplied exclusively on request.**
Degree 0 Used as reference standards for setting high precision measuring equipment
Degree 1 For checking the accuracy of gauges
Degree 2 For workshops

Lunghezza nominale Nominal length mm		Grado precisione / Grade		
		0	1	2
oltre beyond	fino a up to	Tolleranza di planarità Flatness tolerance µm		
-	150	0,10	0,15	0,25
150	500	0,15	0,18	0,25
500	1000	0,18	0,20	0,25

Campi di lunghezza nominale Nominal length range mm		Scostamenti sulla lunghezza nominale in ogni punto Tolerance on deviation of measured central length µm		
		Grado / Grade		
oltre beyond	fino a up to	0	1	2
-	10	± 0,12	± 0,20	± 0,45
10	25	± 0,14	± 0,30	± 0,60
25	50	± 0,20	± 0,40	± 0,80
50	75	± 0,25	± 0,50	± 1,00
75	100	± 0,30	± 0,60	± 1,20
100	150	± 0,40	± 0,80	± 1,60
150	200	± 0,50	± 1,00	± 2,00
200	250	± 0,60	± 1,20	± 2,40
250	300	± 0,70	± 1,40	± 2,80
300	400	± 0,90	± 1,80	± 3,60
400	500	± 1,10	± 2,20	± 4,40
500	600	± 1,30	± 2,60	± 5,00
600	700	± 1,50	± 3,00	± 6,00
700	800	± 1,70	± 3,40	± 6,50
800	900	± 1,90	± 3,80	± 7,50
900	1000	± 2,00	± 4,20	± 8,00

BLOCCHETTI IN ACCIAIO / STEEL GAUGE BLOCKS

BRA

Costruiti in acciaio speciale legato e di elevata durezza non inferiore a 800 HV ed elevata resistenza all'usura.

Made with special alloy steel, hardness greater than 800 HV and high wear resistance.

BLOCCHETTI IN METALLO DURO (CARBURO DI TUNGSTENO) HARD METAL GAUGE BLOCKS

BRMD

Ideale l'applicazione sia in collaudo che in produzione. L'alta resistenza alla corrosione e all'usura ne consigliano l'impiego in officina. Basso coefficiente di dilatazione lineare. Durezza 1400 VICKERS e resistenza all'usura garantiscono stabilità dimensionale e longevità. Forza di adesione ottima.

Ideal for both testing and production. The high resistance to corrosion and wear makes them suitable for use in workshops. Low coefficient of thermal expansion. 1400 VICKERS hardness and wear resistance ensure dimensional stability and long life. High wringing force.

BLOCCHETTI CERAMICI / CERAMIC GAUGE BLOCKS

BRC

Ideale l'applicazione sia in collaudo che in produzione. Alta resistenza alla corrosione. Durezza 1350 HV. Estremamente stabili e resistenti all'usura. Alto potere di adesione.

Ideal for both testing and production. High resistance to corrosion Hardness 1350 HV. Extremely stable and resistant to wear. High wringing force.

BF SERVICE UTENSILERIA MECCANICA

BLOCCHETTI DI RISCONTRO PIANPARALLELI
GAUGE BLOCKS

BLOCCHETTI DI RISCONTRO PIANPARALLELI
GAUGE BLOCKS

ART.	Grado di precisione Grade	Misura nominale Nominal length mm	Incrementi Increments mm	Pezzi Pieces N.
SCATOLE DA 103 PEZZI / CASES WITH 103 PIECES				
BRA103/0	0			
BRA103/1	1	1,005	-	1
BRA103/2	2	1,01-1,49	0,01	49
BRMD103/0	0	0,50-24,50	0,5	49
BRMD103/1	1	25-100	25	4
BRMD103/2	2			
BRC103/0	0			
SCATOLE DA 87 PEZZI / CASES WITH 87 PIECES				
BRA87/0	0			
BRA87/1	1	1,001-1,009	0,001	9
BRA87/2	2	1,01-1,49	0,01	49
BRMD87/0	0	0,50-9,50	0,5	19
BRMD87/1	1	10-100	10	10
BRMD87/2	2			
BRC87/0	0			
SCATOLE DA 47 PEZZI / CASES WITH 47 PIECES				
BRA47/0	0			
BRA47/1	1	1,005	-	1
BRA47/2	2	1,01-1,20	0,01	20
BRMD47/0	0	1,30-1,90	0,10	7
BRMD47/1	1	1-9	1	9
BRMD47/2	2	10-100	10	10
BRC47/0	0			
SCATOLE DA 32 PEZZI / CASES WITH 32 PIECES				
BRA32/0	0	1,005	-	1
BRA32/1	1	1,01-1,09	0,01	9
BRA32/2	2	1,10-1,90	0,1	9
BRMD32/0	0	1-9	1	9
BRMD32/1	1	10-30	10	3
BRMD32/2	2	50	-	1
BRC32/0	0			
SCATOLE DA 10 PEZZI / CASES WITH 10 PIECES				
BRA10/1 (per controllo micrometri) (for check micrometers)	1	2,5 - 5,1 - 7,7 - 10,3 12,9 - 15 - 17,6 20,2 - 22,8 - 25	-	10



BRA



BRMD



BRC

BLOCCHETTI IN ACCIAIO - BLA
STEEL GAUGE BLOCKS - BLA

ART.	Grado di precisione Grade	Misura nominale Nominal length mm	Incrementi Increments mm	Pezzi Pieces N.
SCATOLE DA 10 PEZZI / CASES WITH 10 PIECES				
BLA10/1	1	50 125-200 250-300 400-500	- 25 50 100	2 4 2 2
SCATOLE DA 12 PEZZI / CASES WITH 12 PIECES				
BLA12/1	1	50 100-1000	- 100	2 10



BLA10/1

BLA12/1



BF SERVICE

BLOCCHETTI DI RISCONTRO PIANPARALLELI
GAUGE BLOCKS

BLOCCHETTI IN ACCIAIO FORNITI SCIOLTI GRADO 1 – BLS
INDIVIDUAL STEEL GAUGE BLOCKS GRADE 1 – BLS

ART.		BLS200	BLS300	BLS400	BLS500	BLS600	BLS700	BLS800	BLS900	BLS1000
Dimensioni / Dimensions	mm	200	300	400	500	600	700	800	900	1000

BLOCCHETTI DI RISCONTRO SCIOLTI GRADO 0 E GRADO 1
INDIVIDUAL STEEL GAUGE BLOCKS GRADE 0 AND GRADE 1



Grado / Grade	ART.	CODE	050	100	01	101	102	103	104	105	106	107	108	109
0	BLS0/													
1	BLS1/													
Dimensioni / Dimensions	mm		0,50	1,00	1,005	1,01	1,02	1,03	1,04	1,05	1,06	1,07	1,08	1,09
Grado / Grade	ART.	CODE	110	111	112	113	114	115	116	117	118	119	120	121
0	BLS0/													
1	BLS1/													
Dimensioni / Dimensions	mm		1,10	1,11	1,12	1,13	1,14	1,15	1,16	1,17	1,18	1,19	1,20	1,21
Grado / Grade	ART.	CODE	122	123	124	125	126	127	128	129	130	131	132	133
0	BLS0/													
1	BLS1/													
Dimensioni / Dimensions	mm		1,22	1,23	1,24	1,25	1,26	1,27	1,28	1,29	1,30	1,31	1,32	1,33
Grado / Grade	ART.	CODE	134	135	136	137	138	139	140	141	142	143	144	145
0	BLS0/													
1	BLS1/													
Dimensioni / Dimensions	mm		1,34	1,35	1,36	1,37	1,38	1,39	1,40	1,41	1,42	1,43	1,44	1,45
Grado / Grade	ART.	CODE	146	147	148	149	150	160	170	180	190	200	250	300
0	BLS0/													
1	BLS1/													
Dimensioni / Dimensions	mm		1,46	1,47	1,48	1,49	1,50	1,60	1,70	1,80	1,90	2,00	2,50	3,00
Grado / Grade	ART.	CODE	350	400	450	500	550	600	650	700	750	800	850	900
0	BLS0/													
1	BLS1/													
Dimensioni / Dimensions	mm		3,50	4,00	4,50	5,00	5,50	6,00	6,50	7,00	7,50	8,00	8,50	9,00
Grado / Grade	ART.	CODE	950	1000	1050	1100	1150	1200	1250	1300	1350	1400	1450	1500
0	BLS0/													
1	BLS1/													
Dimensioni / Dimensions	mm		9,50	10,00	10,50	11,00	11,50	12,00	12,50	13,00	13,50	14,00	14,50	15,00
Grado / Grade	ART.	CODE	1550	1600	1650	1700	1750	1800	1850	1900	1950	2000	2050	2100
0	BLS0/													
1	BLS1/													
Dimensioni / Dimensions	mm		15,50	16,00	16,50	17,00	17,50	18,00	18,50	19,00	19,50	20,00	20,50	21,00
Grado / Grade	ART.	CODE	2150	2200	2250	2300	2350	2400	2450	2500	3000	4000	5000	6000
0	BLS0/													
1	BLS1/													
Dimensioni / Dimensions	mm		21,50	22,00	22,50	23,00	23,50	24,00	24,50	25,00	30,00	40,00	50,00	60,00
Grado / Grade	ART.	CODE	7000	7500	8000	9000	02							
0	BLS0/													
1	BLS1/													
Dimensioni / Dimensions	mm		70,00	75,00	80,00	90,00	100,00							

BF SERVICE

BLOCCHETTI DI RISCONTRO PIANPARALLELI
GAUGE BLOCKS

ACCESSORI PER BLOCCHETTI DI RISCONTRO
ACCESSORIES FOR GAUGE BLOCKS

ART.	DD1	
Descrizione Description	Specifiche Specifications	Quantità Quantity
Base / Base	h 25 mm	1
Impacchettatore / Holder	25 ÷ 60 mm	1
Impacchettatore / Holder	25 ÷ 100 mm	1
Impacchettatore / Holder	220 mm	1
Terminali semitondi / Half-round jaws	Ø 4 mm	2
Terminali semitondi / Half-round jaws	Ø 10 mm	2
Terminali semitondi / Half-round jaws	Ø 20 mm	2
Terminali conici / Points		2
Punta a centrare / Centre point		1
Punta a tracciare / Scriber point		1
Righe / Plain jaws	100 mm	2
Guardapiano / Straight edge	100 mm	2



PROVINI DI RUGOSITÀ
ROUGHNESS STANDARDS

PROVINI CAMPIONE DI RUGOSITÀ
ROUGHNESS STANDARDS

Costruiti secondo la Norma ISO 5436 per la taratura di rugosimetri a tastatore. Montati su supporti metallici e disponibili in due versioni: standard e con speciale copertura al nichel/boro.

Manufactured in accordance with ISO 5436 for the calibration of probe roughness tester. Mounted on metal supports and available in two versions: standard and with special nickel/boron coating.



STANDARD	CON COPERTURA WITH COATING	ISO 5436 modello Model	Formato profilo e parametri approssimativi Profile format and approximate parameters
ART.	ART.		
PCR/RS1	PCR/RS1C	A	d=1µm – W=100µm solco singolo / single groove
PCR/RS2	PCR/RS2C	B	Ra=0,4µm – RSm=15µm profilo triangolare / triangular profile
PCR/RS3	PCR/RS3C	C	Ra=3,15µm – RSm=100µm profilo sinusoidale / sinusoidal profile
PCR/RS4	PCR/RS4C	C	Ra=3,0µm – RSm=100µm profilo sinusoidale / sinusoidal profile
PCR/RS5	PCR/RS5C	C	Ra=0,5µm – RSm=50µm profilo sinusoidale / sinusoidal profile
PCR/RS6	PCR/RS6C	C	Ra=0,1µm – RSm=10µm profilo sinusoidale / sinusoidal profile
PCR/RS7	PCR/RS7C	C	Ra=1,0µm – RSm=100µm profilo sinusoidale / sinusoidal profile

ACCESSORI PER STRUMENTAZIONE VARIA
ACCESSORIES FOR MEASURING INSTRUMENTS

TAVOLI MOBILETTI DI SUPPORTO PER MACCHINE DI MISURA
CABINET STANDS FOR MEASURING DEVICES

ART.	Dimensioni / Dimensions mm
TMS650	700x600xh650
TMS850	700x600xh850



BF SERVICE

ACCESSORI PER STRUMENTAZIONE VARIA
ACCESSORIES FOR MEASURING INSTRUMENTS

PIANI DI RISCONTRO IN DIABASE
GRANITE SURFACE PLATES

PGS-PGE

Superficie di appoggio lappata. Indicati per l'utilizzo in sale collaudo.

Lapped surface. Suitable for testing rooms





Durezza / Hardness	7 ÷ 8,5 gradi/grades MOHS 60-70 HRC
Peso specifico / Specific weight	3 kg/dm³
Porosità / Porosity	0,76%
Resistenza alla compressione Resistance to compression	1600÷2400 kg/cm²
Resistenza alla flessione Resistance to flexion	100÷175 kg/cm²
Coefficiente di dilatazione termica lineare Coefficient of linear thermal expansion	(5÷6,7) x 10^{-6} °C^{-1}
Conduttività termica Coefficient of thermal conduction	2,5÷3,4 kcal (m.h. °C)

Grado Grade 00		Grado Grade 0		Dimensioni Dimensions mm	Peso Weight kg	ACCESSORI / ACCESSORIES		
						Tavoli supporto senza cassetti Stand without drawers	Tavoli supporto con cassetti Stand with drawers	Dimensioni Dimensions mm
ART.	µm	**ART.**	µm			**ART.**	**ART.**	
PGS01	3	**PGE01**	6	300x200x50	9,6	-	-	-
PGS02	3	**PGE02**	6	300x300x70	20,1	-	-	-
PGS03	3	**PGE03**	6	400x250x70	22,4	-	-	-
PGS04	3	**PGE04**	6	400x400x70	35,8	-	-	-
PGS05	4	**PGE05**	7	630x400x100	80	**TS05**	**TSC05**	630x400x790
PGS06	4	**PGE06**	7	630x630x100	127	**TS06**	**TSC06**	630x630x790
PGS07	4	**PGE07**	8	800x500x100	128	**TS07**	**TSC07**	800x500x790
PGS08	4	**PGE08**	8	1000x630x150	300	**TS08**	**TSC08**	1000x630x790
PGS09	4	**PGE09**	8	1000x750x150	339	**TS09**	**TSC09**	1000x750x790
PGS10	4	**PGE10**	8	1000x1000x150	453	**TS10**	**TSC10**	1000x1000x790
PGS11	6	**PGE11**	11	1600x1000x200	965	**TS11**	**TSC11**	1600x1000x790
PGS12	6	**PGE12**	12	2000x1000x200	1207	**TS12**	**TSC12**	2000x1000x790
PGS13	5	**PGE13**	9	1200x800x150	434	**TS13**	**TSC13**	1200x800x790

SQUADRE DI RISCONTRO E CONTROLLO DI ALTA PRECISIONE IN DIABASE – GRADO 00
GRANITE HIGH PRECISION MEASURING SQUARES - GRADE 00

Precisione secondo:
Norme DIN 875 – Grado 00

Accuracy according to:
DIN 875 – Grade 00



ART.	Dimensioni / Dimensions mm	µm
SG01	100x63x17	3
SG02	160x100x19,5	4
SG03	250x160x25	5
SG04	400x250x41	6
SG05	630x400x62	9
SG06	1000x630x82	12

Nota: Il grado di precisione indicato è garantito sia sulle due planarità che sulle ortogonalità rispettive.
Note: The accuracy grade is ensured on both two flatnesses and relevant orthogonality.

BF SERVICE

ACCESSORI PER STRUMENTAZIONE VARIA
ACCESSORIES FOR MEASURING INSTRUMENTS

RIGHE IN DIABASE GRADO 00
GRANITE STRAIGHT RULES - GRADE 00

ART.	Planarità Flatness µm	Parallelismo Parallelism µm	Ortogonalità Squareness µm	Dimensioni Dimensions mm	Peso Weight kg
RG400	1,6	2,4	8,0	400x60x25	1,8
RG630	2,1	3,2	10,5	630x100x35	6,7
RG1000	3,0	4,5	15	1000x160x50	24
RG1600	4,4	6,6	22	1600x250x80	96,5
RG2000	5,4	8,1	27	2000x300x100	180,5



STATIVI CON BASE IN GRANITO NERO
STANDS WITH BLACK GRANITE BASE

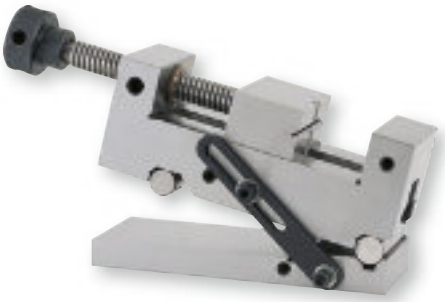
ART.	Dimensioni / Dimensions mm
MG01	150x100
MG02	200x150
MG03	300x200



MORSE DI PRECISIONE / TOOLMAKERS' VICES

Morse realizzate in acciaio legato temprato durezza 58-62 HRC. Accoppiamenti rettificati con alta precisione. Tolleranza 0,005 mm su parallelismo e quadratura. Ideali per lavori di rettifica elettroerosione, fresatura e nei sistemi di misurazione.

Vices made of hardened alloy steel, hardened to 58-62 HRC. Precision ground on all faces. Squareness and parallelism to within 0.005 mm. Ideal for EDM grinding and milling and for measurements in general.



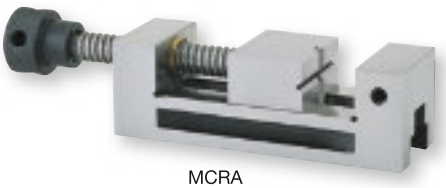
MBSA

CHIUSURA A VITE BARRA SENO AD APERTURA LONGITUDINALE WITH LOCKING SCREW AND SINE BAR WITH LONGITUDINAL OPENING				
ART.	Lunghezza totale Overall length mm	GANASCE / JAW Larghezza Width mm	Altezza Height mm	Apertura Opening mm
MBSA155	155	50	25	65
MBSA210	210	73	35	100
MBSA250	250	88	40	125
MBSA300	300	125	50	160
CHIUSURA RAPIDA AD APERTURA LONGITUDINALE WITH LOCKING SCREW AND SINE BAR WITH LONGITUDINAL OPENING				
MBSB140	140	50	25	65
MBSB200	200	80	40	100
MBSB245	245	100	45	125
MBSB285	285	125	50	160



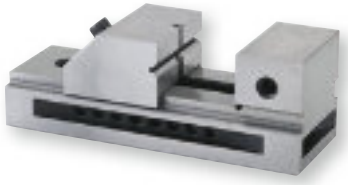
MBSB

CHIUSURA A VITE / WITH SCREW LOCKING				
ART.	Lunghezza totale Overall length mm	GANASCE / JAW Larghezza Width mm	Altezza Height mm	Apertura Opening mm
MCRA155	155	50	25	65
MCRA210	210	73	35	100
MCRA250	250	88	40	125
MCRA260	260	100	45	125
MCRA300	300	125	50	160



MCRA

CHIUSURA RAPIDA / QUICK LOCKING				
ART.	Lunghezza totale Overall length mm	GANASCE / JAW Larghezza Width mm	Altezza Height mm	Apertura Opening mm
MCRB140	140	50	25	65
MCRB175	175	63	32	85
MCRB200	200	80	40	100
MCRB245	245	100	45	125
MCRB285	285	125	50	160



MCRB

BF SERVICE

ACCESSORI PER STRUMENTAZIONE VARIA
ACCESSORIES FOR MEASURING INSTRUMENTS

PESIERE IN ACCIAIO INOX LUCIDATO AMAGNETICO
POLISHED NON-MAGNETIC STAINLESS STEEL SET OF WEIGHTS

Confezioni in scatole di legno composte da n. 12 pezzi in classe F2. Secondo le norme OIML.

Supplied in wooden cases with 12 pieces F2 class. According to OIML standards.



PEMG12



PEGR12

ART.	Peso Weight	Composizione / Content								
		1 pezzo piece	2 pezzi pieces	1 pezzo piece	1 pezzo piece	2 pezzi pieces	1 pezzo piece	1 pezzo piece	2 pezzi pieces	1 pezzo piece
PEMG12	mg	1	2	5	10	20	50	100	200	500
PEGR12	gr									

PESIERE IN ACCIAIO INOX LUCIDATO AMAGNETICO
POLISHED NON-MAGNETIC STAINLESS STEEL SET OF WEIGHTS

Confezioni in scatole di legno composte da 5 pezzi da 1 kg a 10 kg in classe M1. Secondo le norme OIML.

Supplied in wooden cases with 5 pieces from 1 kg to 10 kg M1 class. According to OIML standards.



ART.	Peso Weight	Composizione / Content			
		1 pezzo piece	2 pezzi pieces	1 pezzo piece	1 pezzo piece
PEKG5	kg	1	2	5	10

PESI SINGOLI IN ACCIAIO INOX LUCIDATO AMAGNETICO
POLISHED NON-MAGNETIC STAINLESS STEEL SINGLE WEIGHTS

Classe M1.
Secondo le norme OIML.

Class M1.
According to OIML standards.



ART.	Peso / Weight kg
PESKG01	1
PESKG02	2
PESKG05	5
PESKG10	10

BF SERVICE

AUTOSERRANTI TIPO INDUSTRIALE
INDUSTRIAL KEYLESS CHUCKS

ART. 02.B2

Con ghiera di bloccaggio brevettata — With patented locking nut



CODE		01012	01038	01210	01312	01338	01613
Per punte Ø / For drill bits Ø	mm	1-10	1-10	1-10	1-13	1-13	1-13
Attacco / Shank		1/2"x20	3/8"x24	B12	1/2"x20	3/8"x24	B16

ART. 02.01



CODE		01012	01016	01038	01210	01312
Per punte Ø / For drill bits Ø	mm	1-10	1-10	1-10	1-10	1-13
Attacco / Shank		B12	B16	3/8"x24	1/2"x20	1/2"x20
CODE		**01316**	**01618**	**0J110**	**0J213**	**0J616**
Per punte Ø / For drill bits Ø	mm	1-13	1-16	1-10	1-13	1-16
Attacco / Shank		B16	B18	J1	J2	J6

AUTOSERRANTI PER TRAPANO / KEYLESS DRILL CHUCKS

ART. 02.00



CODE		01016	01316	01618	01012
Per punte Ø / For drill bits Ø	mm	1-10	1-13	1-16	1-10
Attacco / Shank		B16	B16	B18	1/2"x20
CODE		**01038**	**01312**	**01338**	
Per punte Ø / For drill bits Ø	mm	1-10	1,5-13	1,5-13	
Attacco / Shank		3/8"x24	1/2"x20	3/8"x24	

PER TRAPANO TIPO JACOBS / JACOBS DRILL CHUCKS

ART. 02.B1



CODE		01012	01038
Per punte Ø / For drill bits Ø	mm	1-10	1-10
Attacco / Shank		1/2"x20	3/8"x24

MANDRINI A CREMAGLIERA TIPO INDUSTRIALE
INDUSTRIAL KEYED DRILL CHUCKS

ART. 02.02



CODE		01012	01016	01038	01312	01316
Per punte Ø / For drill bits Ø	mm	1-10	1-10	1-10	1-13	1-13
Attacco / Shank		1/2"x20	B16	3/8"x24	1/2"x20	B16
CODE		**01338**	**01618**	**01658**	**02022**	
Per punte Ø / For drill bits Ø	mm	1-13	3-16	1-16	5-20	
Attacco / Shank		3/8"x24	B18	5/8"x16	B22	

*I dati sopra riportati non sono impegnativi e a discrezione del costruttore possono essere modificati.
*The data above is not binding and can be changed at the discretion of the manufacturer.

BF SERVICE

ATTACCHI CONICI PER MANDRINI
MORSE TAPER CHUCK ADAPTERS

ART. 02.03

Acciaio temprato e rettificato

Hardened and ground steel



CODE	01000	01001	01002	01200	01201	01202	01601	01602
Attacco / Shank	B10	B10	B10	B12	B12	B12	B16	B16
CM / MT	0	1	2	0	1	2	1	2
CODE	**01603**	**01604**	**01801**	**01802**	**01803**	**01804**	**02202**	**02203**
Attacco / Shank	B16	B16	B18	B18	B18	B18	B22	B22
CM / MT	3	4	1	2	3	4	2	3

BUSSOLE DI RIDUZIONE
REDUCTION SLEEVES

ART. 02.04

Acciaio cementato e temprato, rettificate internamente ed esternamente.

Hardened and tempered steel, ground both internally and externally.

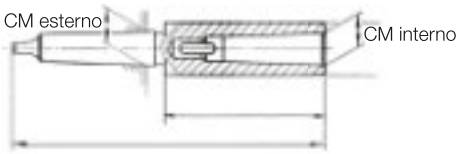


CODE	00100	00201	00301	00302	00401	00402	00403	00501
CM esterno External MT	1	2	3	3	4	4	4	5
CM interno Internal MT	0	1	1	2	1	2	3	1
CODE	**00502**	**00503**	**00504**	**00601**	**00602**	**00603**	**00604**	**00605**
CM esterno External MT	5	5	5	6	6	6	6	6
CM interno Internal MT	2	3	4	1	2	3	4	5

ART. 02.05

Tipo lungo in acciaio, temprate e rettificate.

Long type made of steel, hardened and ground.





CODE		00101	00102	00201	00202	00203	00301	00302	00303	00304	00402
L	mm	145	160	160	175	196	175	194	215	240	215
A	mm	83	98	85	100	121	81	100	121	146	97,5
CM esterno External MT		1	1	2	2	2	3	3	3	3	4
CM interno Internal MT		1	2	1	2	3	1	2	3	4	2

CODE		00403	00404	00405	00503	00504	00505	00603	00604	00605
L	mm	240	265	300	268	300	335	330	355	390
A	mm	122,5	148	182	119	151	186	120	145	180
CM esterno External MT		4	4	4	5	5	5	6	6	6
CM interno Internal MT		3	4	5	3	4	5	3	4	5

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BF SERVICE

ESTRATTORI IN ACCIAIO PER CONI MORSE
STEEL MORSE TAPER EXTRACTORS

ART. 02.06



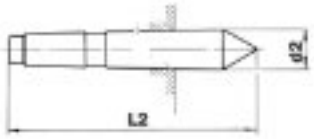
CODE	00012	00003	00004	00056
CM / MT	1-2	3	4	5-6

CONTROPUNTE FISSE IN ACCIAIO
STANDARD STEEL DEAD CENTERS

Cuspide a 60°, esecuzione in acciaio temprate e rettificate.

60° point, made of hardened and ground steel.

ART. 02.07



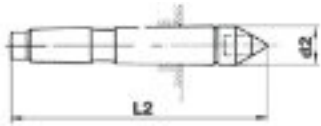


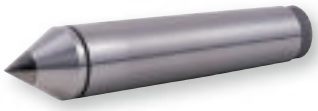
02.07

CODE		00000	00001	00002	00003	00004	00005	00006
CM / MT		0	1	2	3	4	5	6
Ø d2	mm	9,2	12,2	18,0	24,1	31,6	44,7	63,8
L2	mm	70	80	100	125	160	200	270
Peso / Weight	kg	0,030	0,060	0,160	0,350	0,800	1,900	5,300

CONTROPUNTE FISSE CON CUSPIDE IN METALLO DURO
CARBIDE TIPPED DEAD CENTERS

ART. 02.09





02.09

CODE		00000	00001	00002	00003	00004	00005	00006
CM / MT		0	1	2	3	4	5	6
Ø d2	mm	9,2	12,2	18,0	24,1	31,6	44,7	63,8
L2	mm	70	80	100	125	160	200	270
Peso / Weight	kg	0,033	0,065	0,170	0,355	0,820	1,950	5,400

CONTROPUNTE ROTANTI DI ALTISSIMA PRECISIONE
HIGH PRECISION LIVE CENTERS

ART. 02.11

Esecuzione in lega di acciaio forgiato. Parti rotanti ed attacco temprati, rettificati.

Manufactured from drop forged alloy steel. Body and shank are hardened and ground.



CODE		00101	00102	00103	00104	00105	00106
CM / MT		1	2	3	4	5	6
Ø corpo / Body Ø	mm	38	40	56	62	85	130
Ø punta / Point Ø	mm	15	18	24	28	41	63
Lunghezza totale / Overall length	mm	103	128	156	184	237	333

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BF SERVICE

CONTROPUNTE ROTANTI COMPLETE DI CUSPIDI
LIVE CENTERS WITH INTERCHANGEABLE POINTS

ART. 02.19

Esecuzione in lega di acciaio forgiato. Parti rotanti ed attacco temprati, rettificati.

Manufactured from drop forged alloy steel. Body and shank are hardened and ground.



CODE		00102	00103	00104	00105	00106
CM / MT		2	3	4	5	6
Ø corpo / Body Ø	mm	42	56	64	85	130
Lunghezza totale (senza cuspide) Overall length (without point)	mm	103	132	158	198	276

CONTROPUNTE ROTANTI CON CUSPIDE INTERCAMBIABILE
BULL NOSE LIVE CENTERS WITH INTERCHANGEABLE POINT

Cono tronco, per corpi cavi / For tubular workpieces

ART. 02.20

Esecuzione in lega di acciaio forgiato. Parti rotanti ed attacco temprati, rettificati.

Manufactured from drop forged alloy steel. Body and shank are hardened and ground.



CODE	CM MT	Ø cono Cone Ø mm		Lunghezza totale Overall length	N° giri N° of revolutions	Massa support. Admitted weight
		min	max	mm	1/min	kg
00102	2	30	60	104	5000	180
00103	3	30	80	140	4500	350
00104	4	40	100	171	3000	600

CONTROPUNTE ROTANTI CON CUSPIDE PROLUNGATA
LIVE CENTERS WITH EXTENDED POINT

ART. 02.22

Esecuzione in lega di acciaio forgiato. Parti rotanti ed attacco temprati, rettificati.

Manufactured from drop forged alloy steel. Body and shank are hardened and ground.



CODE	CM MT	Ø min corpo Min body Ø	Ø max punta Max point Ø	Lunghezza totale Overall length	N° giri N° of revolutions	Massa support. Admitted weight
		mm	mm	mm	1/min	kg
00102	2	40	18	135	5000	200
00103	3	56	24	166	4000	400
00104	4	62	28	200	3000	800
00105	5	85	40	260	2500	1600
00106	6	130	62	360	2000	3000

TRASCINATORE / DRIVE CENTERS

ART. 02.25

Esecuzione in lega di acciaio forgiato. Parti rotanti ed attacco temprati, rettificati.

Manufactured from drop forged alloy steel. Body and points are hardened and ground.



CODE	CM MT	Ø corpo Body Ø	Ø min presa Min clamping Ø
		mm	mm
00004	4	68	27
00005	5	81	40

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BF SERVICE

MANDRINI AUTOCENTRANTI DOPPIA GUIDA
SELF-CENTRING CHUCKS WITH DOUBLE JAW GUIDES

Mandrino autocentrante per attacco flangia con griffe doppia guida. Corona e pignone di comando forgiati e lavorati finemente per garantire la massima precisione. Completi di morsetti base in acciaio temperato (hard master), griffe reversibili interni - esterni (hard top), chiave di servizio, viti fissaggio griffe.

Self-centring chuck with back mount and double jaw guides. Scroll plate and pinion are forged and finely worked for maximum precision. Supplied with tempered steel hard master jaws, reversible inside-outside hard solid jaws, wrench and fixing screws.



ART. 02.23

A 3 GRIFFE / WITH 3 JAWS						
CODE		**00125**	**00165**	**00200**	**00250**	**00315**
Ø esterno / External Ø	mm	125	165	200	250	315
Ø foro / Hole Ø	mm	32	42	55	76	105
Altezza con griffe / Height with jaws	mm	110	121	139	157	169
Peso / Weight	kg	5,3	11,6	15,9	32,3	44,4



ART. 02.24

A 4 GRIFFE / WITH 4 JAWS						
CODE		**00125**	**00165**	**00200**	**00250**	**00315**
Ø esterno / External Ø	mm	125	165	200	250	315
Ø foro / Hole Ø	mm	32	42	55	76	105
Altezza con griffe / Height with jaws	mm	110	121	139	157	169
Peso / Weight	kg	5,25	12,5	16,5	32,75	43,75

SERIE MORSETTI NON TEMPRATI (SOFT TOP)
SOFT TOP JAW SET

ART. 02.40

N°3 MORSETTI PER MANDRINO 02.23 / 3 JAWS FOR CHUCK 02.23						
CODE		**00125**	**00165**	**00200**	**00250**	**00315**
Ø mandrino / Chuck Ø	mm	125	165	200	250	315



ART. 02.41

N°4 MORSETTI PER MANDRINO 02.24 / 4 JAWS FOR CHUCK 02.24						
CODE		**00125**	**00165**	**00200**	**00250**	**00315**
Ø mandrino / Chuck Ø	mm	125	165	200	250	315

SERIE GRIFFE / JAW SET

Composto da hard master più hard top.

Hard master and hard top jaw set

ART. 02.42

N°3 GRIFFE PER MANDRINO 02.23 / 3 JAWS FOR CHUCKS 02.23						
CODE		**00125**	**00165**	**00200**	**00250**	**00315**
Ø mandrino / Chuck Ø	mm	125	165	200	250	315



ART. 02.43

N°4 GRIFFE PER MANDRINO 02.24 / 4 JAWS FOR CHUCKS 02.24						
CODE		**00125**	**00165**	**00200**	**00250**	**00315**
Ø mandrino / Chuck Ø	mm	125	165	200	250	315

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BF SERVICE

MANDRINI AUTOCENTRANTI TIPO EXTRA
SELF-CENTRING CHUCKS EXTRA TYPE

Mandrino autocentrante per attacco flangia con griffe guida semplice. Esecuzione in ghisa con passaggio barra; griffe in acciaio temprate e rettificate. Completi di griffe per interni e per esterni.

Self-centring chucks with back mount and single jaw guide. Cast iron execution with spindle bore; hardened and ground steel jaws. Supplied with internal and external jaws.

ART. 02.30

A 3 GRIFFE / WITH 3 JAWS							
CODE		**00080**	**00100**	**00125**	**00160**	**00200**	**00250**
Ø esterno External Ø	mm	80	100	125	160	200	250
Ø foro / Hole Ø	mm	16	20	32	42	55	76
Altezza con griffe Height with jaws	mm	60	78	84	90	106	113
Peso / Weight	kg	1,8	3,6	5,0	7,9	13,2	19,7
CODE		**00315**	**00400**	**00500**	**00630**	**00800**	
Ø esterno External Ø	mm	315	400	500	630	800	
Ø foro / Hole Ø	mm	103	136	190	252	320	
Altezza con griffe Height with jaws	mm	130	146	160	185	229	
Peso / Weight	kg	33,5	70,0	142,0	240,0	382,0	



ART. 02.31

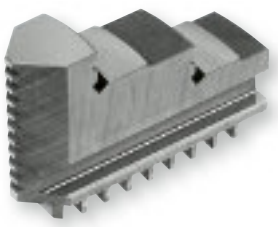
A 4 GRIFFE / WITH 4 JAWS					
CODE		**00125**	**00160**	**00200**	**00250**
Ø esterno External Ø	mm	125	160	200	250
Ø foro / Hole Ø	mm	32	42	55	76
Altezza con griffe Height with jaws	mm	84	90	106	113
Peso / Weight	kg	5,2	8,3	14,0	20,7
CODE		**00315**	**00400**	**00500**	**00630**
Ø esterno External Ø	mm	315	400	500	630
Ø foro / Hole Ø	mm	103	136	190	252
Altezza con griffe Height with jaws	mm	130	146	160	185
Peso / Weight	kg	34,5	72,0	145,0	245,0



SERIE GRIFFE / JAW SET

ART. 02.34

N°3 GRIFFE PER INTERNI PER MANDRINO 02.30 3 INSIDE SOLID JAWS FOR CHUCK 02.30							
CODE		**00080**	**00100**	**00125**	**00160**	**00200**	**00250**
Ø mandrino Chuck Ø	mm	80	100	125	160	200	250
CODE		**00315**	**00400**	**00500**	**00630**	**00800**	
Ø mandrino Chuck Ø	mm	315	400	500	630	800	



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BF SERVICE

SERIE GRIFFE / JAW SET

ART. 02.35

N°3 GRIFFE PER ESTERNI PER MANDRINO 02.30
3 OUTSIDE SOLID JAWS FOR CHUCK 02.30

CODE		00080	00100	00125	00160	00200	00250
Ø mandrino Chuck Ø	mm	80	100	125	160	200	250
CODE		**00315**	**00400**	**00500**	**00630**	**00800**	
Ø mandrino Chuck Ø	mm	315	400	500	630	800	



ART. 02.36

N°3 GRIFFE NON TEMPRATE PER MANDRINO 02.30
3 SOFT SOLID JAWS FOR CHUCK 02.30

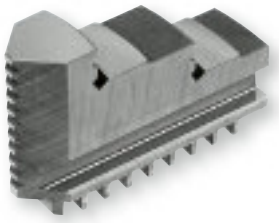
CODE		00080	00100	00125	00160	00200	00250
Ø mandrino Chuck Ø	mm	80	100	125	160	200	250
CODE		**00315**	**00400**	**00500**	**00630**	**00800**	
Ø mandrino Chuck Ø	mm	315	400	500	630	800	



ART. 02.37

N°4 GRIFFE PER INTERNI PER MANDRINO 02.31
4 INSIDE SOLID JAWS FOR CHUCK 02.31

CODE		00125	00160	00200	00250
Ø mandrino Chuck Ø	mm	125	160	200	250
CODE		**00315**	**00400**	**00500**	**00630**
Ø mandrino Chuck Ø	mm	315	400	500	630



ART. 02.38

N°4 GRIFFE PER ESTERNI PER MANDRINO 02.31
4 OUTSIDE SOLID JAWS FOR CHUCK 02.31

CODE		00125	00160	00200	00250
Ø mandrino Chuck Ø	mm	125	160	200	250
CODE		**00315**	**00400**	**00500**	**00630**
Ø mandrino Chuck Ø	mm	315	400	500	630



ART. 02.39

N°4 GRIFFE NON TEMPRATE PER MANDRINO 02.31
4 SOFT SOLID JAWS FOR CHUCK 02.31

CODE		00125	00160	00200	00250
Ø mandrino Chuck Ø	mm	125	160	200	250
CODE		**00315**	**00400**	**00500**	**00630**
Ø mandrino Chuck Ø	mm	315	400	500	630



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BF SERVICE

CORONE DENTATE / SCROLL PLATES

ART. 02.51

PER MANDRINI 02.30-02.31 / FOR CHUCKS 02.30-02.31						
CODE		**00080**	**00100**	**00125**	**00160**	**00200**
Ø mandrino Chuck Ø	mm	80	100	125	160	200
CODE		**00250**	**00315**	**00400**	**00500**	**00630**
Ø mandrino Chuck Ø	mm	250	315	400	500	630



PIGNONI / PINIONS

ART. 02.52

PER MANDRINI 02.30-02.31 / FOR CHUCKS 02.30-02.31							
CODE		**00080**	**00100**	**00125**	**00160**	**00200**	**00250**
Ø mandrino Chuck Ø	mm	80	100	125	160	200	250
CODE		**00315**	**00400**	**00500**	**00630**	**00800**	
Ø mandrino Chuck Ø	mm	315	400	500	630	800	



MANDRINI AUTOCENTRANTI TIPO STANDARD / STANDARD SELF-CENTERING CHUCKS

Mandrino autocentrante per attacco flangia con griffe guida semplice. Esecuzione in ghisa normalizzata indeformabile, griffe in acciaio temperate e rettificate.

Self-centring chuck with back mount and single jaw guide. Normalized and non-deformable cast iron, hardened and ground steel jaws.

ART. 02.28

3 griffe (3+3) dal Ø 80 al 315 mm compresi. 3 griffe reversibili per i Ø 380 e 500 mm

3 jaws (3+3) from Ø 80 to 315 mm included. 3 reversible jaws for Ø 380 and 500 mm

A 3 GRIFFE / 3 JAWS						
CODE		**00080**	**00100**	**00125**	**00165**	**00200**
Ø mandrino Chuck Ø	mm	80	100	125	165	200
CODE		**00250**	**00315**	**00380**	**00500**	
Ø mandrino Chuck Ø	mm	250	315	380	500	



ART. 02.29

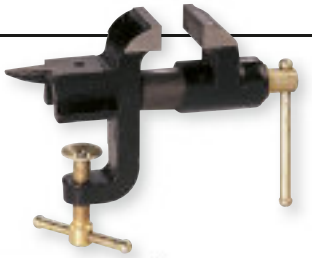
A 4 GRIFFE (4 + 4) / 4 JAWS (4 + 4)				
CODE		**00100**	**00125**	**00165**
Ø mandrino Chuck Ø	mm	100	125	165
CODE		**00200**	**00250**	**00315**
Ø mandrino Chuck Ø	mm	200	250	315



MORSA DA BANCO IN ACCIAIO PER MECCANICA FINE
STEEL BENCH VICES FOR LIGHT MECHANICS

ART. 11.31

CODE	Larghezza ganasce Jaw width mm	Apertura max ganasce Max jaw opening mm
00040	40	45



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BF SERVICE

MORSE
VICES

MORSE DI PRECISIONE PER TRAPANI
PRECISION DRILL VICES

NEW

ART. 02.65N

CODE	Larghezza ganasce Jaw width mm	Capacità serraggio Clamping capacity mm	Base / Base: Lunghezza totale Overall length mm	Base / Base: Larghezza totale Overall width mm	Cave per viti Bolt slots	Peso Weight kg
05085	85	65	230	135	M10	3,3
05100	100	85	280	156	M12	4,4
05120	120	110	320	175	M12	5,4



MORSE DI PRECISIONE PER TRAPANI
PRECISION DRILL VICES

NEW

ART. 02.66N

CODE	Larghezza ganasce Jaw width mm	Capacità serraggio Clamping capacity mm	Base / Base: Lunghezza totale Overall length mm	Base / Base: Larghezza totale Overall width mm	Cave per viti Bolt slots	Peso Weight kg
00002	100	110	460	170	M10	7
00003	140	140	610	220	M12	11



MORSE PER TRAPANI TIPO STANDARD
STANDARD DRILL VICES

NEW

ART. 02.78N



CODE	Larghezza ganasce Jaw width mm	Capacità serraggio Clamping capacity mm	Base / Base: Lunghezza totale Overall length mm	Base / Base: Larghezza totale Overall width mm	Cave per viti Bolt slot	Peso Weight kg
00075	80	55	215	130	M10	2,2
00100	100	90	260	162	M10	3,1
00125	125	110	300	182	M10	4,4
00150	125	135	328	208	M10	5,8
00200	200	190	400	248	M10	10,5

MORSE GIREVOLI PER MACCHINE / SWIVEL VICES FOR MACHINES

ART. 11.03

Elevata capacità di serraggio; fornite complete di base girevole graduata, guide di scorrimento rettificate.

Wide jaw opening; supplied with graduated swivel base, ground sliding guides.



CODE	Larghezza ganasce Jaw width mm	Lunghezza morsa Vice length mm	Altezza totale Overall height mm	Apertura max Max jaw opening mm	Peso Weight kg
00100	100	255	110	85	10
00125	125	400	130	100	16
00160	160	400	160	125	32
00200	200	450	180	160	55

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BF SERVICE

MORSE
VICES

MORSE GIREVOLI ED INCLINABILI PER MACCHINE
SWIVEL AND TILTING VICES FOR MACHINES

ART. 11.04

Elevata capacità di serraggio; inclinazione verticale 60°, orizzontale 360°.

Wide jaw opening; vertical tilt 60°, swivel 360°.



CODE	Larghezza ganasce Jaw width mm	Lunghezza morsa Vice length mm	Altezza totale Overall height mm	Apertura max Max jaw opening mm	Peso Weight kg
00100	100	320	150	85	18
00125	125	370	185	105	29
00160	160	410	180	125	43

MORSE A CROCE
CROSS VICES

NEW

ART. 11.08



CODE		00001	00002	00003
Dimensioni base / Base dimensions	mm	218x175	270x275	320x235
Apertura ganasce / Jaw opening	mm	85	135	165
Dimensione ganasce / Jaw dimensions	mm	100x34	150x40	200x54
Corsa asse X / X axis travel	mm	140	150	160
Corsa asse Y / Y axis travel	mm	80	110	140
Altezza / Height	mm	156	170	185
Peso / Weight	kg	11	16	24

MORSE A CROCE
CROSS VICES

NEW

ART. 11.09



CODE		00001	00002	00003	00004
Dimensioni base / Base dimensions	mm	200x180	218x195	270x205	320x205
Apertura ganasce / Jaw opening	mm	80	100	150	200
Dimensione ganasce / Jaw dimensions	mm	82x32	101x39	150x39	202x39
Corsa asse X / X axis travel	mm	100	110	120	130
Corsa asse Y / Y axis travel	mm	60	70	100	120
Altezza / Height	mm	168	138	174	180
Peso / Weight	kg	7,5	10,5	14,5	21,5

SUPPORTO PER TRAPANO TIPO MBS 165
DRILL STAND MBS 165 TYPE

ART. 02.69

Esecuzione delle parti mobili e della base in pressofusione di alluminio, con colonne in acciaio. Movimento salita-discesa tramite pignone dentato, regolazione di arresto e di profondità di foratura. Adatto per trapani con collarino fino a 43 mm massimo.

Removable parts and base manufactured from die cast aluminum with steel column. Rack and pinion drive. Depth adjustment and stop. Suitable for drills with collar up to 43 mm.



CODE	Corsa massima tramite pignone Maximum pinion stroke mm	Altezza massima tra mandrino e tavola porta pezzi Maximum distance between chuck and worktable mm	Peso Weight kg
00001	65	280	5,2

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BF SERVICE

TAVOLE A DIVIDERE
ROTARY TABLES

TAVOLE CIRCOLARI ORIZZONTALI E VERTICALI
HORIZONTAL AND VERTICAL TABLES

ART. 11.05

Elevata precisione, registrazione micrometrica, ingranaggi in bagno d'olio, doppia leva di bloccaggio.

High accuracy, fine adjustment, gears in oil bath, double locking lever.

CODE			00200	00250	00320
Ø tavola / Table Ø		mm	200	250	320
Foro centrale / Centre hole		CM / MT	3	3	4
Ø foro posizionamento / Bore Ø		mm	30 H7	30 H7	40 H7
Altezza centro in verticale / Distance from centre to base		mm	150	170	210
Cave a "T" / T-slots	Larghezza / Width	mm	12	12	14
		N°	4	6	6
Rapporto vite senza fine / Worm gear ratio			1:90	1:90	1:90
Divisione piano tavola / Setup table scale			360°	360°	360°
Lettura / Graduation			1°	1°	1°
Lettura nonio / Vernier graduation			10"	10"	10"
Peso / Weight		kg	32	46	77



TAVOLE CIRCOLARI INCLINABILI / TILTING TABLES

ART. 11.06

Elevata precisione, doppia leva di bloccaggio, registrazione micrometrica.

High accuracy, double locking lever, fine adjustment.

CODE			00250	00320
Ø tavola / Table Ø		mm	250	320
Foro centrale / Centre hole		CM / MT	3	4
Ø foro posizionamento / Bore Ø		mm	30 H7	40 H7
Cave a "T" / T-slots	Larghezza / Width	mm	12	14
		N°	6	6
Rapporto vite senza fine / Worm gear ratio			1:90	1:90
Divisione piano tavola / Setup table scale			360°	360°
Lettura / Graduation			1°	1°
Lettura nonio / Vernier graduation			10"	10"
Inclinazione tavola / Tilting angle			0°-90°	0°-90°
Lettura valore min. inclinazione / Tilt vernier graduation			2'	2'
Peso / Weight		kg	95	135



DIVISORI UNIVERSALI / UNIVERSAL DIVIDING HEADS

ART. 11.07

Alta precisione, attacco destro, forniti completi di autocentrante, serie ingranaggi e contropunte.

High accuracy, right coupling, supplied with self-centring chuck, gears and tailstocks.

CODE		00100	00125	00160
Altezza punte / Centre height	mm	100	125	160
Angolo allineamento asse mandrino / Chuck swivelling range		-5° ÷ +95°	-5° ÷ +95°	-5° ÷ +95°
Lettura minima / Min graduation		10"	10"	10"
Rapporto vite senza fine / Worm gear ratio		1:40	1:40	1:40
Testa / Head	CM / MT	3	4	4
Disco divisore / Divisions		24-25-28-30-34-37-38-39-41-42-43-46-47-49-51-53-54-57-58-59-62-66		
Ø mandrino dotazione / Chuck Ø	mm	125	160	200
Peso / Weight	kg	67	100	125



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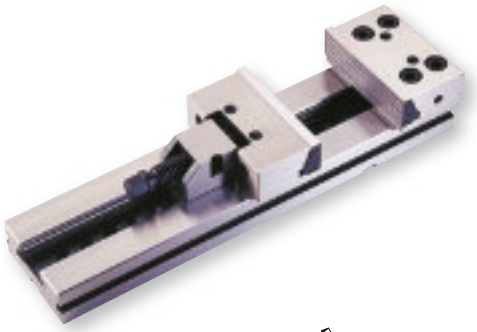
BF SERVICE

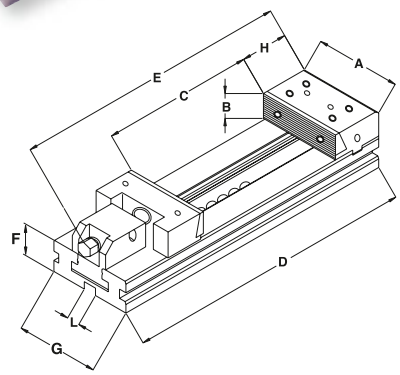
MORSE MODULARI DI PRECISIONE
PRECISION MODULAR VICES

ART. 02.81

PER MACCHINE UTENSILI
Morse di precisione realizzate in acciaio cementato e temperato con durezza di circa 60 HRC.
Completamente rettificate con precisione centesimale; ganasce discendenti all'atto del serraggio. Adatte per lavori dove sono richiesti affidabilità, ripetibilità e bloccaggio sicuro.

FOR MACHINE TOOLS
Precision vice made of hardened steel with hardness of approx. 60 HRC. Completely ground with centesimal precision; jaws lowering when tightening. Suitable for work that require reliability, repeatability and secure clamping.





DATI TECNICI / TECHNICAL DATA

CODE	A mm	B mm	C mm	D mm	E mm	F mm	G mm	H mm	L mm	Peso Weight kg
00125	125	40	150	345	410	40	95	77,9	16	12,9
02150	150	50	200	420	500	50	125	89,4	16	25,5
03150	150	50	300	520	600	50	125	89,4	16	29
02175	175	60	200	455	530	58	145	96,9	16	37
03175	175	60	300	555	630	58	145	96,9	16	42
04175	175	60	400	655	730	58	145	96,9	16	47
05175	175	60	500	755	830	58	145	96,9	16	52
02200	200	65	200	495	580	70	170	113,4	16	64
03200	200	65	300	595	680	70	170	113,4	16	69
04200	200	65	400	695	780	70	170	113,4	16	74
05200	200	65	500	795	880	70	170	113,4	16	79

TAVOLA A CROCE
COMPOUND SLIDE TABLE

ART. 02.85

CODE		00001
DATI TECNICI / TECHNICAL DATA		
Spostamento / Travel	mm	300x180
Dimensioni tavola / Table dimensions	mm	475x150
Dimensioni base / Base dimensions	mm	270x200
Dimensioni / Dimensions	mm	340x590xh125
Cava / Slot	M	14
Interasse asole staffaggio Mounting hole distance centre	mm	160
Peso / Weight	kg	26

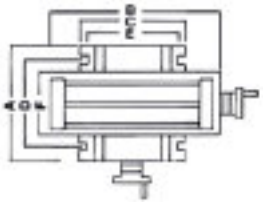


TAVOLA A CROCE
COMPOUND SLIDE TABLE

ART. 02.85

CODE		00002	00003	00004
DATI TECNICI / TECHNICAL DATA				
A	mm	360		153
B	mm	730	600	185
C	mm	280		130
D	mm	230		100
E	mm	245		102
F	mm	210	190	100
Cava / Slot	mm	12		10
Altezza / Height	mm	180		100
Dimensioni tavola / Table dimensions	mm	725x210	600x190	184x100
Spostamenti / Travel	mm	160x360	145x290	50x80
Divisione / Division	mm	0,05		0,01
Peso / Weight	kg	86	75	16





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BF SERVICE

TORRETTE PORTAUTENSILI
TOOL POSTS

ART. 480

A CAMBIO RAPIDO PER TORNI
Il materiale che costituisce queste torrette è di ottima qualità e i pezzi che le compongono sono temprati, rettificati e cementati.
Le torrette sono composte da:
■ n° 3 portautensili normali / piani ■ n° 1 portautensili con incavo prismatico ■ n° 1 portapunte ■ n° 1 chiave esagonale ■ n° 1 chiave a T.

QUICK CHANGE TOOL POSTS FOR LATHES
Excellent material, every piece is hardened and ground.
Post content:
■ 3 normal/flat tool post ■ 1 tool post with prismatic slot ■ 1 bit holder ■ 1 Allen key ■ 1 T-wrench.





Porta utensili piano
Flat tool post



Porta utensili a "V"
"V" tool post



Cono Morse
Morse taper

ACCESSORI OPZIONALI / OPTIONAL ACCESSORIES

ART.	Portautensili piano Flat tool post	Portautensili a "V" "V" tool post	Cono Morse Morse taper
PER ART. **480.A** / FOR ART. **480.A**			
480.A2	●		
480.A3		●	
480.A4			CM / MT 2
PER ART. **480.B** / FOR ART. **480.B**			
480.B2	●		
480.B3		●	
480.B4			CM / MT 3
PER ART. **480.C** / FOR ART. **480.C**			
480.C2	●		
480.C3		●	
480.C4			CM / MT 4
PER ART. **480.D** / FOR ART. **480.D**			
480.D2	●		
480.D3		●	
480.D4			CM / MT 4
PER ART. **480.M** / FOR ART. **480.M**			
480.M2	●		
480.M3		●	
480.M4			CM / MT 1

DATI TECNICI / TECHNICAL DATA

CODE	Dimensioni del corpo Dimensions mm	Per torni con altezza punte For lathes with centre height mm	Dimensioni max utensile piano e prismatico Max flat and prismatic tool size mm	Dimensioni max utensile Max tool size CM / MT
A	100x100	da 150 a 200	20	2
B	125x125	da 200 a 250	30	3
C	141x141	da 250 a 300	32	4
D	170x170	da 300 a 400	40	4
M	70x70	sino a 150	18	1

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BF SERVICE

CONVOGLIATORI PER LIQUIDI REFRIGERANTI
COOLANT SYSTEMS

CONVOGLIATORI CON FLESSIBILE DA 300 mm
COOLANT SYSTEM WITH FLEXIBLE HOSE FROM 300 mm

ART. 226



CON BASE MAGNETICA / WITH MAGNETIC BASE	
ART.	Descrizione / Description
226.01	Rapida applicazione in qualsiasi posizione. Regolazione del flusso tramite rubinetto a vite. Quick application in any position. Flow adjustment through screw tap.

CON FISSAGGIO MECCANICO / WITH MECHANICAL BASE	
226.04	N° 2 tubi in acciaio: Ø 16x250 mm e Ø 16x100 mm. Regolazione del flusso tramite rubinetto a vite. Forma ad angolo retto. Adatto per applicazioni su torni. 2 steel hoses: Ø 16x250 mm and Ø 16x100 mm. Flow adjustment through screw tap. 90° shape. Suitable for lathes.

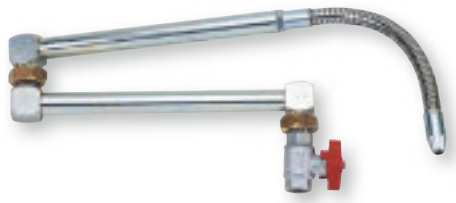




ACCESSORI / ACCESSORIES	
226.02	Tubo flessibile cromato 1/4" L=300 mm Flexible chromed hose 1/4" L=300 mm
226.03	Tubo flessibile cromato 1/4" L=400 mm Flexible chromed hose 1/4" L=400 mm
226.05	Tubo flessibile cromato 1/4" L=500 mm Flexible chromed hose 1/4" L=500 mm
226.06	Tubo flessibile cromato 1/4" L=600 mm Flexible chromed hose 1/4" L=600 mm

CONVOGLIATORE CON FLESSIBILE DA 300 mm
COOLANT SYSTEM WITH FLEXIBLE HOSE FROM 300 mm

ART. 228



ART.	Descrizione / Description
228.01	Adatto per applicazioni su fresatrici e macchine similari. Tubi in acciaio Ø 18 mm con 2 snodi sferici. Lunghezza 750 mm. Suitable for milling machines and similar machines. Steel hoses Ø 18 mm with 2 ball joints. Length: 750 mm

ACCESSORI / ACCESSORIES	
228.02	Tubo flessibile cromato 3/8" L=200 mm Flexible chromed hose 3/8" L=200 mm
228.03	Tubo flessibile cromato 3/8" L=300 mm Flexible chromed hose 3/8" L=300 mm
228.04	Tubo flessibile cromato 3/8" L=400 mm Flexible chromed hose 3/8" L=400 mm
228.05	Tubo flessibile cromato 3/8" L=500 mm Flexible chromed hose 3/8" L=500 mm
228.06	Tubo flessibile cromato 3/8" L=600 mm Flexible chromed hose 3/8" L=600 mm

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BF SERVICE

SISTEMI MODULARI PORTALIQUIDI, ARIA
MODULAR HOSES SYSTEMS

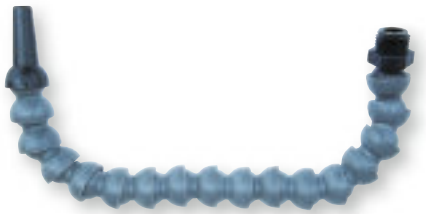
TUBI COMPONIBILI SNODABILI PER LIQUIDI REFRIGERANTI
MODULAR FLEXIBLE COOLANT HOSE SYSTEM

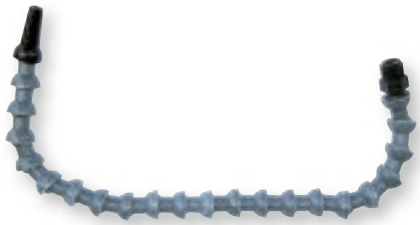
ART. 225

Costruiti con materiale plastico antiurto, inattaccabile dai normali agenti chimici, perfetta ermeticità ed estrema flessibilità, resistente alle vibrazioni.

Made of impact-resistant plastic, unaffected by common chemicals, perfectly sealed and extremly flexible, resistant to vibrations.

CODE	COMPOSIZIONE / CONTENT	
01	Tubo interno Ø 6 mm - 1/4" completo di ugelli e raccordi lunghezza totale 350 mm N°20 segmenti N°1 ugello foro Ø 1,5 mm N°1 ugello foro Ø 3 mm N°1 raccordo 1/8" N°1 raccordo 1/4"	Hose inner Ø 6 mm - 1/4" with nozzles and connectors, total length 350 mm 20 segments 1 nozzle Ø 1,5 mm 1 nozzle Ø 3 mm 1 connector 1/8" 1 connector 1/4"
02	N°1 raccordo filettatura 1/8" / 1 connector 1/8"	
03	N°1 raccordo filettatura 1/4" / 1 connector 1/4"	
04	N°1 ugello foro uscita Ø 1,5 mm / 1 nozzle Ø 1,5 mm	
05	N°1 ugello foro uscita Ø 3 mm / 1 nozzle Ø 3 mm	
06	N°1 ugello a spatola, bocca uscita 24x0,8 mm 1 flare nozzle, width 24x0,8 mm	
07	Tubo interno Ø 12 mm – 1/2" completo di ugello e raccordo lunghezza totale 400 mm N°16 segmenti N°1 ugello foro Ø 5 mm N°1 raccordo 1/2"	Hose inner Ø 12 mm - 1/2" with nozzle and connector, total length 400 mm 16 segments 1 nozzle Ø 5 mm 1 connector 1/2"
08	N°1 raccordo filettatura 1/2" / 1 connector 1/2"	
09	N°1 ugello foro uscita Ø 5 mm / 1 nozzle Ø 5 mm	
10	N°1 ugello a spatola, bocca uscita 32x4,5 mm 1 flare nozzle, width 32x4,5 mm	
11	N°64 segmenti, tubo 1 m Ø interno 6 mm - 1/4" 64 segments, hose 1 m, inner Ø 6 mm - 1/4"	
12	N°48 segmenti, tubo 1 m Ø interno 12 mm - 1/2" 48 segments, hose 1 m, inner Ø 12 mm - 1/2"	
13	N°1 base magnetica permanente 1/4" in nylon 1 nylon permanent magnetic base 1/4"	
14	N°1 ugello piatto 16 fori Ø 1,5 mm 1 flare nozzle, 16 holes Ø 1,5 mm	
16	N°1 ugello foro uscita Ø 8 mm / 1 nozzle Ø 8 mm	
22	N°1 riduzione 1/2" a 1/4" 1 adapter 1/2" to 1/4"	
30	**Maxi set 1/4":** N°8 segmenti flessibili lunghezza 140 mm N°2 raccordi filetto 1/8" N°4 raccordi filetto 1/4" N°2 ugelli tondi foro Ø 1,5 mm N°2 ugelli tondi foro Ø 3 mm N°2 ugelli tondi foro Ø 5 mm N°2 ugelli piatti 24x2 mm N°2 ugelli piatti 16 fori Ø 1,5 mm N°2 attacchi a Y N°1 manicotto doppio innesto 6 mm N°2 valvole di chiusura N°1 pinza di montaggio	 8 flexible segments, length 140 mm 2 connectors 1/8" 4 connectors 1/4" 2 nozzles Ø 1,5 mm 2 nozzles Ø 3 mm 2 nozzles Ø 5 mm 2 flare nozzles 24x2 mm 2 flare nozzles, 16 holes Ø 1,5 mm 2 Y fittings 1 double socket 6 mm 2 shut-off valves 1 assembly pliers
33	N°1 regolatore di flusso	1 NTP valve
34	N°1 manicotto doppio innesto	1 double socket
35	N°1 manicotto doppio innesto 1/2"	1 double socket 1/2"


225.07


225.01


225.13


225.30

ART. 300.14

N°1 pinza montaggio sistema 1/4" — 1 assembly pliers 1/4"


300.14

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BF SERVICE

LAMPADE
LAMPS

LAMPADE LED WATERPROOF A RISPARMIO ENERGETICO
ENERGY SAVING WATERPROOF LED LAMPS

NEW

CE

ART. 94

Grado di protezione IP67 IP67 protection



CODE		01	01T	02	02T	03	03T
Flusso luminoso Luminous flux	lumen	500	500	900	900	1200	1200
Temperatura di colore Colour temperature	K	5000	5000	5000	5000	5000	5000
Alimentazione Power		24V AC/DC 5 W	AC100V-240V 5 W	24V AC/DC 10 W	AC100V-240V 10 W	24V AC/DC 10 W	AC100V-240V 10 W
Dimensioni Dimensions	mm	230x32x23	230x32x23	320x32x23	320x32x23	320x32x23	320x32x23
Peso Weight	g	180	180	240	240	240	240
Trasformatore Electric transformer		no	si/yes	no	si/yes	no	si/yes

LAMPADE LED WATERPROOF A RISPARMIO ENERGETICO CON BRACCIO METALLICO
ENERGY SAVING WATERPROOF LED LAMPS WITH METALLIC ARM

NEW

CE

ART. 93

Grado di protezione IP67 IP67 protection



CODE		01	01T	02	02T
Alimentazione Power		24V AC/DC 3 W	AC100V-240V 3 W	24V AC/DC 3 W	AC100V-240V 3 W
Lunghezza braccio Arm length	mm	520	520	620	620
Trasformatore Electric transformer		no	si/yes	no	si/yes



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BF SERVICE

LAMPADE
LAMPS

LAMPADE 6 LED PER MACCHINE UTENSILI
6 LED LAMPS FOR MACHINE TOOLS

NEW

CE

ART. 96

Grado di protezione IP65 — IP65 protection

CODE		01	01T	02	02T
Alimentazione Power		24V AC/DC 5 W	AC100V-240V 5 W	24V AC/DC 5 W	AC100V-240V 5 W
Bracci / Arms	n°	2	2	2	2
Snodi / Joints	n°	3	3	3	3
Lunghezza braccio Arm length	mm	280x280	280x280	380x380	380x380
Trasformatore Electric transformer		no	si/yes	no	si/yes



ART. 96S

Grado di protezione IP65 — IP65 protection

CODE	01	01T
Alimentazione Power	24V AC/DC 5 W	AC100V-240V 5 W
Trasformatore Electric transformer	no	si/yes



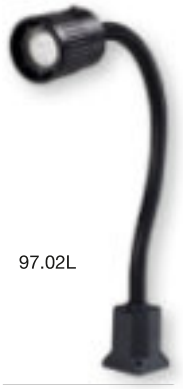
LAMPADE A LED / LED LAMPS

CE

ART. 97

CON TRASFORMATORE INCORPORATO ALIMENTAZIONE 220V 50Hz – 5W
5W BUILT-IN TRANSFORMER HALOGEN LAMP POWER SUPPLY 220V 50Hz

CODE	Lunghezza totale Total length mm	Grado di protezione Protection degree
02L	640	IP20



97.02L

ART. 98

CON 6 LED SENZA TRASFORMATORE INCORPORATO ALIMENTAZIONE 24V - 16W
16W 6-LED HALOGEN LAMP WITHOUT TRANSFORMER POWER SUPPLY 24V

CODE	Lunghezza totale Total length mm	Grado di protezione Protection degree
02L	760	IP54



98.02L

99.02L

ART. 99

LAMPADA A 6 LED CON TRASFORMATORE INCORPORATO ALIMENTAZIONE 220V 50Hz - 12W
12W BUILT-IN TRANSFORMER HALOGEN LAMP WITH 6 LED POWER SUPPLY 220V 50Hz

CODE	Lunghezza totale Total length mm	Grado di protezione Protection degree
02L	760	IP54

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BF SERVICE

LAMPADE
LAMPS

LAMPADE LED PER MACCHINE UTENSILI
LED LAMPS FOR MACHINE TOOLS

NEW

CE

ART. 95

Grado di protezione IP65 — IP65 protection


95.01T

95.02/03

CODE		01T	02	02T	03	03T
Alimentazione Power		AC100V-240V 5 W	24V AC/DC 5 W	AC100V-240V 5 W	24V AC/DC 5 W	AC100V-240V 5 W
Bracci / Arms	n°	1	2	2	2	2
Snodi / Joints	n°	2	3	3	3	3
Lunghezza braccio Arm length	mm	280	220x220	220x220	280x280	280x280
Trasformatore Electric transformer		si/yes	no	si/yes	no	si/yes

LAMPADE LED PER MACCHINE UTENSILI CON BRACCIO FLESSIBILE
LED LAMPS FOR MACHINE TOOLS WITH FLEXIBLE ARM

NEW

CE

ART. 95F

Grado di protezione IP65 — IP65 protection



CODE		01	01T	02	02T
Alimentazione Power		24V AC/DC 5 W	AC100V-240V 5 W	24V AC/DC 5 W	AC100V-240V 5 W
Lunghezza braccio Arm length	mm	465	465	620	620
Trasformatore Electric transformer		no	si/yes	no	si/yes

ACCESSORI OPZIONALI
OPTIONAL ACCESSORIES


95.50


95.51


95.49


95.52

ART.	
95.49	Base magnetica / magnetic base
95.50	Squadretta 90° / 90° square
95.51	Squadretta con morsetto 90° / square with clamp
95.52	Base da tavolo / table base

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BF SERVICE

IDROPULITRICI AD ACQUA FREDDA

CE

ART. 710 1441

Pratici supporti per pistola a spruzzo manuale, lancia, tubo flessibile ad alta pressione e cavo elettrico
Pulisce senza schizzi d'acqua
Total Stop System (TSS)
Pompa a 3 pistoni assiali comandati dal piattello oscillante, testa in alluminio. Pistoni in acciaio inox temprato
Protezione termica del motore
Valvola di by-pass automatica con azzeramento della pressione
Funziona solo in posizione verticale
Avvolgitubo con manovella
Serbatoio per detergente integrato
Sistema di attacco rapido
CLICK-FAST

DOTAZIONE DI SERIE:
■ Pistola a spruzzo ■ Lancia con ugello rotante monogetto ■ Lancia con ugello multifunzione ■ Pulitrice per superfici ■ Avvolgitubo con tubo flessibile ad alta pressione da 6 m ■ Ugello schiuma

DIY Do it Yourself



ART. 710 1481

Pratici supporti per pistola a spruzzo manuale, lancia, tubo flessibile ad alta pressione e cavo elettrico
Total Stop System (TSS)
Pompa a 3 pistoni assiali comandati dal piattello oscillante, testa in ottone
Pistoni in acciaio inox temprato
Motore elettrico monofase a induzione con protezione termica
Valvola di by-pass automatica con azzeramento della pressione
Funziona solo in posizione verticale
Avvolgitubo con manovella
Serbatoio per detergente integrato
Sistema di attacco rapido
CLICK-FAST

DOTAZIONE DI SERIE:
■ Pistola a spruzzo manuale ■ Lancia con ugello rotante monogetto ■ Lancia con ugello multifunzione ■ Avvolgitubo bloccabile con tubo flessibile ad alta pressione da 8 m

DIY Do it Yourself



Modello		HDR-K 44-13	HDR-K 48-15
ART.		**710 1441**	**710 1481**
DATI TECNICI			
Pressione di lavoro	bar	100	125
Pressione massima	bar	135	150
Portata massima	l/h	330	420
Temperatura massima		50° C	50° C
Lunghezza cavo elettrico	m	5	5
Potenza motore 230 V ~50 Hz	kW	1,8	2,5
Numero giri motore	rpm	3.400	2.800
Lunghezza tubo flessibile ad alta pressione	m	6	8
Dimensioni	mm	420 x 340 x 870	420 x 360 x 930
Peso	kg	12,9	22,5

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BF SERVICE

ACCESSORI PER IDROPULITRICI AD ACQUA FREDDA

Modello			HDR-K 44-13	HDR-K 48-15
ART.				
711 1001		Pistola a spruzzo*	●	
711 1002		Pistola a spruzzo*		●
711 3003		Ugello per schiuma*	●	
711 4001		Tubo ad alta pressione 6 m*	●	
711 4002		Tubo ad alta pressione rinforzato 8 m*		●
711 4005		Kit pulizia 16 m	●	●
711 4007		Estensione del tubo flessibile 8 m	●	
711 4008		Estensione del tubo flessibile 8 m		●
711 5000		Spazzola di lavaggio	●	●
711 5001		Spazzola di lavaggio rotante	●	●
711 2001		Lancia con ugello regolabile*	●	
711 2002		Lancia con ugello regolabile*		●
711 2003		Lancia con ugello rotante*	●	
711 2004		Lancia con ugello rotante*		●
711 2011		Lancia per pulizia pavimenti	●	
711 2012		Lancia per pulizia pavimenti		●
711 3010		Adattatore per otturatore a baionetta Kärcher	●	●
711 6001		Filtro acqua (3 pz)	●	●
711 5003		Spazzola per superfici*	●	
711 5004		Spazzola per superfici		●

* inclusi nella fornitura standard

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BF SERVICE

ASPIRATORE A UMIDO/SECCO

ART. 710 1135

Versione a umido/secco per aspirare liquidi, trucioli e parti molto piccole di altri materiali solidi
Tutti i motori sono dotati di avvolgimenti in rame e salvamotore
La guarnizione speciale tra la parte superiore e il contenitore resiste ai residui di olio e sostanze chimiche senza perdere elasticità
2 tubi rigidi a incastro in alluminio rivestito con materiale plastico, leggeri e solidi
Tubo flessibile ed elastico, resistente ai carichi elevati e a qualsiasi tipo di torsione
Contenitore con sistema di blocco sul raccordo per il tubo flessibile per evitare che si stacchi durante l'uso
Design ergonomico della parte superiore con gancio per il cavo
Motori con filtro antirumore per assicurare un funzionamento silenzioso
Fusto in acciaio inox
Presa integrata per il collegamento di elettroutensili

DOTAZIONE DI SERIE:
■ Tubo flessibile 2 m ■ Impugnatura con controllo aspirazione ■ Tubo rigido a incastro ■ Bocchetta pavimenti con spazzola retraibile ■ Bocchetta tappezzerie ■ Bocchetta rotonda con spazzola ■ Bocchetta piatta ■ Filtro nanotech



Modello		wetCAT 133 IE
ART.		**700 1135**
DATI TECNICI		
Tipo aspirazione		a umido/secco
Potenza motore 230 V ~50 Hz	kW	1
Portata aria	l/min	3333
Volume contenitore	l	33
Ø tubo flessibile	mm	36
Lunghezza tubo flessibile	m	2
Numero motori		1
Raffreddamento motore		Bypass
Livello di pressione acustica	dB(A)	71,2
Lunghezza cavo	m	8,5
Materiale serbatoio		Acciaio Inox
Pressione negativa	mbar	247
Dimensioni	mm	430 x 430 x 830
Peso	kg	15

Filtri velcro

Made in Germany

Questi filtri velcro offrono molti vantaggi. In particolar modo hanno una capacità doppia o tripla rispetto al contenuto del corrispettivo sacchetto in carta.
Microfeltri quadrati
Controllati secondo norme DIN/ISO
Certificati TUV
Resistenti agli strappi
Adatti ad aspirare anche la fuliggine
Imbocco con flangia in plastica

ART.	DESCRIZIONE	PZ
701 0251	Filtro in velcro capacità 2 l	5
701 0252	Filtro in velcro capacità 3 l	5
701 0253	Filtro in velcro capacità 15 l	5
701 0254	Filtro in velcro capacità 30 l	5
701 0255	Filtro in velcro capacità 42 l	5

*I dati sopra riportati non sono impegnativi e a discrezione del costruttore possono essere modificati.
*The data above is not binding and can be changed at the discretion of the manufacturer.

BF SERVICE

ACCESSORI PER ASPIRATORE wetCAT 133 IE

ART.		
701 0000		Spazzola per tappeti
701 3000		Bocchetta per tappezzerie
701 3040		Bocchetta per pavimenti a umido*
701 3041		Bocchetta per pavimenti a secco*
701 3042		Elemento angolare per bocchetta pavimenti
701 3045		Tubo rigido Ø 38 mm Alluminio / Plastica 0,5 m*
701 3043		Spazzola rotonda*
701 3051		Tubo flessibile Ø 38 mm
701 3052		Tubo flessibile Ø 38 mm / 4,0 m con pezzi di collegamento*
701 3048		Impugnatura con controllo aspirazione*
701 3001		Bocchetta piatta Ø 36 mm*
701 3044		Bocchetta piatta Ø 38 mm
701 3046		Adattatore per tubo Ø 38 mm
701 3047		Riduttore Ø 36 mm / 38 mm*
701 3049		Adattatore tubo flessibile / Impugnatura
701 3050		Adattatore tubo flessibile / Serbatoio
701 3002		Adattatore universale Ø 26 mm/ 32 mm / 36 mm
701 0101		Sacchetto filtro di carta (5 pz)
701 0102		Prefiltro di policarbonato
701 0253		Sacchetto filtro- capacità 15 l (5 pz)
701 3070		Prefiltro / Kit completo filtro
701 3071		Prefiltro / Filtro*



Galleggiante per assicurare l'arresto se il contenitore raggiunge il livello di pieno



Il filtro in tessuto nanotech trattiene batteri, muffe e microparassiti



Clip in nylon anti rottura per agganciare la parte superiore al contenitore



Carrello in materiale plastico con supporti per bocchette e tubo rigido

* inclusi nella fornitura standard

*I dati sopra riportati non sono impegnativi e a discrezione del costruttore possono essere modificati.

*The data above is not binding and can be changed at the discretion of the manufacturer.

BF SERVICE

ASPIRAPOLVERE PORTATILE

CE

ART. 700 3110

Aspirapolvere a secco leggero e compatto
Portatile con una tracolla mentre è in funzione
Molto maneggevole, si rivela utile per aspirare in spazi ristretti e di difficile accesso
Il filtro a cartuccia con superficie filtrante molto ampia ed il sistema di pulizia filtro "easy push" garantiscono una potenza di aspirazione costante
Tubo flessibile ed elastico, resistente ai carichi elevati e a qualsiasi tipo di torsione
Supporti per tubo flessibile
e bocchette

DOTAZIONE DI SERIE:
■ Tubo flessibile 1 m ■ Impugnatura con controllo aspirazione ■ Bocchetta rotonda con spazzola ■ Bocchetta per fughe ■ Tracolla ■ Filtro a cartuccia

ACCESSORI:
Vedere tabella a pag 49






Sistema pulizia filtro “Easy Push”

Modello		flexCAT 16 H
ART.		**700 3110**
DATI TECNICI		
Tipo aspirazione		a secco
Potenza motore 230 V ~50 Hz	kW	1,2
Portata aria	l/min	1800
Volume contenitore	l	6
Ø tubo flessibile	mm	35
Lunghezza tubo flessibile	m	1
Numero motori		1
Raffreddamento motore		Flusso continuo
Livello di pressione acustica	dB(A)	72,6
Lunghezza cavo	m	4,5
Materiale serbatoio		Materiale plastico
Pressione negativa	mbar	194
Dimensioni	mm	290 x 240 x 430
Peso	kg	4


Portatile grazie alla comoda tracolla

*I dati sopra riportati non sono impegnativi e a discrezione del costruttore possono essere modificati.
*The data above is not binding and can be changed at the discretion of the manufacturer.

BF SERVICE

ASPIRAPOLVERI SPECIALI

ASPIRAPOLVERE PER USO INDUSTRIALE PER LUBRIFICANTI, REFRIGERANTI, OLII E TRUCIOLI DI METALLO

CE

ART. 700 3380

Modello adatto per aspirare liquidi, trucioli e parti molto piccole di altri materiali solidi, ad es. lubrificanti per refrigerazione, liquidi molto oleosi e trucioli di metallo grezzo
Elemento filtrante rimovibile per smaltire separatamente i trucioli di metallo
Valvola a sfera per il deflusso dei liquidi
Motori dotati di avvolgimenti in rame e salvamotore
Per pulizie impegnative di macchinari per il trattamento e la lavorazione professionale dei metalli
La guarnizione speciale tra la parte superiore e il contenitore resiste ai residui di olio e alle sostanze chimiche senza perdere elasticità
Tubo flessibile resistente all'olio, ai carichi elevati e a qualsiasi tipo di torsione
Contenitore in acciaio resistente ai trucioli dei metalli taglienti
Raccordo di aspirazione laterale per una migliore potenza di aspirazione
Contenitore con sistema di blocco sul raccordo metallico per evitare che il tubo si stacchi durante l'uso
Galleggiante per assicurare l'arresto se il serbatoio raggiunge il livello di pieno
Motori con filtro antirumore per assicurare un funzionamento silenzioso
3 motori con interruttori separati per accensione e spegnimento
L'operatore può decidere quanti motori devono funzionare. Ciò consente un notevole risparmio di energia.
Robusto carrello in acciao con sistema antiribaltamento per svuotare facilmente il serbatoio

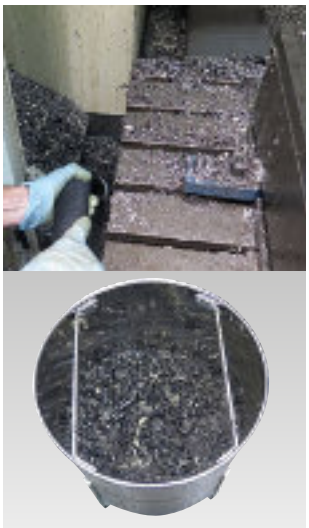
DOTAZIONE DI SERIE:
■ Tubo rigido in acciaio cromato ad incastro ■ Bocchetta di metallo con inserti intercambiabili ■ Bocchetta piatta in acciaio cromato ■ Tubo flessibile speciale 4 m, resistente agli olii

ACCESSORI:
Vedere tabella a pag 49





Modello		flexCAT 378 EOT-PRO
ART.		**700 3380**
DATI TECNICI		
Tipo aspirazione		umido/secco
Potenza motore 230 V ~50 Hz	kW	3,3
Portata aria	l/min	10750
Volume contenitore	l	78
Ø tubo flessibile	mm	38
Lunghezza tubo flessibile	m	4
Numero motori		3
Raffreddamento motore		Bypass
Livello di pressione acustica	dB(A)	76
Lunghezza cavo	m	8,5
Materiale serbatoio		Acciaio Inox
Pressione negativa	mbar	245
Dimensioni	mm	635x580x1.030
Peso	kg	34

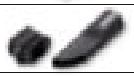


Contenitore in acciaio resiste ai trucioli di metallo taglienti

*I dati sopra riportati non sono impegnativi e a discrezione del costruttore possono essere modificati.
*The data above is not binding and can be changed at the discretion of the manufacturer.

BF SERVICE UTENSILERIA MECCANICA

ACCESSORI PER ASPIRATORI SERIE flexCAT

ART.		flexCAT 16 H	flexCAT 378 EOT-PRO
701 0250	 Filtro salvamotore*	●	
701 0251	 Sacchetto filtro-capacità 2 l (5 pz)	●	
701 3120	 Bocchetta piatta e spazzola inseribile*	●	
701 3121	 Tubo flessibile 1m Ø 35 mm con pezzo di collegamento e impugnatura*	●	
701 3122	 Tracolla*	●	
701 3123	 Tubo flessibile 3m Ø 35 mm con pezzo di collegamento e impugnatura	●	
701 3125	 Boccola-Riduttore con bordo 32 mm – 35 mm	●	
701 3126	 Bocchetta turbo 32 mm	●	
701 3127	Tubo rigido telescopico in plastica 32 mm	●	
701 3128	 Bocchetta per parquet 32 mm	●	
701 3129	 Bocchetta combinata 32 mm	●	
701 3130	 Spazzola mobili 35 mm	●	
701 3131	 Bocchetta flessibile per fughe	●	
701 3132	 Bocchetta corta per fughe 32 mm	●	
701 3133	 Bocchetta lunga per fughe 35 mm	●	
701 3134	 Spazzola per polvere in crine di cavallo 32 mm	●	
701 3135	 Spazzola per polvere in Nylon 35 mm	●	
701 0001	Morsetto di supporto del tubo di aspirazione per aspirapolvere con carrello		●
701 0310	 Kit di aspirazione a secco		●
701 0311	 Tubo flessibile speciale resistente all'olio*		●
701 0312	 Tubi rigidi cromati* (2 pz.)		●
701 0313	 Spazzola pavimenti a umido*		●
701 0315	 Bocchetta piatta cromata*		●
701 0316	 Filtro di ricambio		●
701 0412	 Gabbia di protezione in metallo		●

* inclusi nella fornitura standard

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*The data above is not binding and can be changed at the discretion of the manufacturer.

BF SERVICE

ASPIRAPOLVERI SPECIALI

ASPIRAPOLVERE CON DOPPIO SISTEMA FILTRANTE PER CENERI DI CAMINI/FORNI E GRIGLIE

CE

ART. 700 3130

Aspira senza fatica e in modo affidabile cenere, sabbia e sporco grossolano
L'unità di aspirazione può essere rimossa con facilità semplicemente aprendo le chiusure a staffa, per procedere allo svuotamento del serbatoio
Facile stivaggio delle bocchette in dotazione sull'apparecchio
Funzione soffiaggio per ravvivare le braci o soffiar via lo sporco dalle superfici
Elevata capacità di aspirazione grazie al potente motore
Con filtro a cartuccia HEPA lavabile
Grande serbatoio di raccolta in metallo con maniglia per il trasporto

DOTAZIONE DI SERIE:
■ Tubo flessibile 1 m completo di attacchi ■ Tubo di raccordo ■ Bocchetta per fughe ■ Filtro a cartuccia ■ Griglie metalliche di protezione



Stivaggio degli accessori sull'apparecchio



Modello		flexCAT 120 VCA
ART.		**700 3130**
DATI TECNICI		
Tipo aspirazione		a secco
Potenza motore 230 V ~50 Hz	kW	1,2
Portata aria	l/min	1500
Volume contenitore	l	20
Ø tubo flessibile	mm	38
Lunghezza tubo flessibile	m	1
Numero motori		1
Raffreddamento motore		Bypass
Livello di pressione acustica	dB(A)	76
Pressione negativa	mbar	150
Lunghezza cavo	m	3,5
Materiale serbatoio		Metallo
Superficie filtrante	cm^2	150
Dimensioni	mm	310x310x420
Peso	kg	4,4

ACCESSORI		
ART.		DESCRIZIONE
701 3300		Tubo flessibile Ø 38 mm 1 m incluso raccordi*
701 3301		Tubo di collegamento*
701 3302		Bocchetta piatta*
701 3303		Filtro a cartuccia HEPA*
701 3304		Griglia di protezione in metallo*
701 3305		Panno-filtro

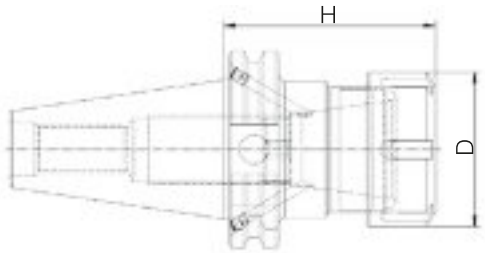
* inclusi nella fornitura standard

*I dati sopra riportati non sono impegnativi e a discrezione del costruttore possono essere modificati.
*The data above is not binding and can be changed at the discretion of the manufacturer.

BF SERVICE

MANDRINI DIN 69871
CHUCKS DIN 69871

MANDRINI PORTA PINZE ER DIN 6499/B - ATTACCO DIN 69871 AD/B
COLLET CHUCKS ER DIN 6499/B - DIN 69871 AD/B SHANK



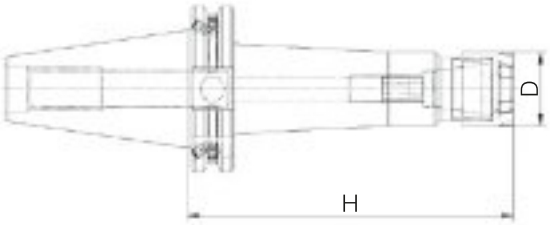


ART.	ISO	Pinza Collet	D mm	H mm
9994016	40	ER16	32	70
9994016L	40	ER16	32	100
9994016L130	40	ER16	32	130
9994020	40	ER20	35	70
9994020L	40	ER20	35	100
9994020L130	40	ER20	35	130
9994025	40	ER25	42	70
9994025L	40	ER25	42	100
9994025L130	40	ER25	42	130
9994025L160	40	ER25	42	160
9994025L200	40	ER25	42	200
9994032	40	ER32	50	70
9994032L	40	ER32	50	100
9994032L130	40	ER32	50	130
9994032L160	40	ER32	50	160
9994032L200	40	ER32	50	200
9994040	40	ER40	63	70
9994040L	40	ER40	63	100
9994040L130	40	ER40	63	130
9994040L160	40	ER40	63	160
9994040L200	40	ER40	63	200

ART.	ISO	Pinza Collet	D mm	H mm
9995020	50	ER20	35	80
9995020L	50	ER20	35	100
9995025	50	ER25	42	80
9995025L	50	ER25	42	100
9995025L130	50	ER25	42	130
9995025L160	50	ER25	42	160
9995025L200	50	ER25	42	200
9995032	50	ER32	50	80
9995032L	50	ER32	50	100
9995032L130	50	ER32	50	130
9995032L160	50	ER32	50	160
9995032L200	50	ER32	50	200
9995040	50	ER40	63	80
9995040L	50	ER40	63	100
9995040L130	50	ER40	63	130
9995040L160	50	ER40	63	160
9995040L200	50	ER40	63	200

Bilanciati G.6,3 a 12.000 R.P.M
A richiesta sono fornibili mandrini cono ISO 30
Balanced to 12,000 R.P.M at G.6,3
ISO 30 chucks are availableon request

MANDRINI PORTA PINZE ER DIN 6499/B GHIERA MINI - ATTACCO DIN 69871 AD/B
SHRINK FIT COLLET CHUCKS ER DIN 6499/B - DIN 69871 AD/B SHANK





ART.	ISO	Pinza Collet	D mm	H mm
9994011ML	40	ER11	16	100
9994011ML130	40	ER11	16	130
9994016ML	40	ER16	22	100
9994016ML130	40	ER16	22	130
9994016ML160	40	ER16	22	160
9994016ML200	40	ER16	22	200
9994020ML	40	ER20	28	100
9994020ML130	40	ER20	28	130
9994020ML160	40	ER20	28	160
9994020ML200	40	ER20	28	200
9994025ML	40	ER25	35	100
9994025ML130	40	ER25	35	130
9994025ML160	40	ER25	35	160
9994025ML200	40	ER25	35	200

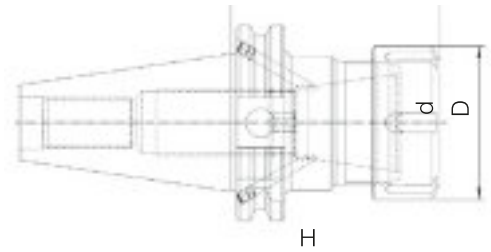
ART.	ISO	Pinza Collet	D mm	H mm
9995016ML	50	ER16	22	100
9995016ML130	50	ER16	22	130
9995016ML160	50	ER16	22	160
9995016ML200	50	ER16	22	200
9995020ML	50	ER20	28	100
9995020ML130	50	ER20	28	130
9995020ML160	50	ER20	28	160
9995020ML200	50	ER20	28	200
9995025ML	50	ER25	35	100
9995025ML130	50	ER25	35	130
9995025ML160	50	ER25	35	160
9995025ML200	50	ER25	35	200

Bilanciati G.6,3 a 12.000 R.P.M – A richiesta sono fornibili mandrini cono ISO 30 / Balanced to 12,000 R.P.M at G.6,3 – ISO 30 chucks are available on request

BF SERVICE

MANDRINI DIN 69871
CHUCKS DIN 69871

MANDRINI PORTA FRESE TIPO WELDON - ATTACCO DIN 69871 AD/B
WELDON MILLING CHUCKS - DIN 69871 AD/B SHANK





ART.	ISO	d mm	D mm	H mm
99940W06	40	6	25	50
99940W06L	40	6	25	100
99940W06L130	40	6	25	130
99940W06L160	40	6	25	160
99940W08	40	8	28	50
99940W08L	40	8	28	100
99940W08L130	40	8	28	130
99940W08L160	40	8	28	160
99940W10	40	10	35	50
99940W10L	40	10	35	100
99940W10L130	40	10	35	130
99940W10L160	40	10	35	160
99940W12	40	12	42	50
99940W12L	40	12	42	100
99940W12L130	40	12	42	130
99940W12L160	40	12	42	160
99940W14	40	14	44	50
99940W14L	40	14	44	100
99940W14L130	40	14	44	130
99940W14L160	40	14	44	160
99940W16	40	16	48	63
99940W16L	40	16	48	100
99940W16L130	40	16	48	130
99940W16L160	40	16	48	160
99940W18	40	18	50	63
99940W18L	40	18	50	100
99940W18L130	40	18	50	130
99940W18L160	40	18	50	160
99940W20	40	20	52	63
99940W20L	40	20	52	100
99940W20L130	40	20	52	130
99940W20L160	40	20	52	160
99940W25L	40	25	65	100
99940W25L130	40	25	65	130
99940W25L160	40	25	65	160
99940W32L	40	32	72	100
99940W32L160	40	32	72	160
99940W40	40	40	80	115

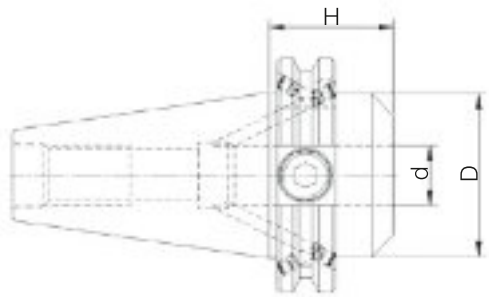
ART.	ISO	d mm	D mm	H mm
99950W06	50	6	25	63
99950W06L	50	6	25	100
99950W06L130	50	6	25	130
99950W06L160	50	6	25	160
99950W06L200	50	6	25	200
99950W08	50	8	28	63
99950W08L	50	8	28	100
99950W08L130	50	8	28	130
99950W08L160	50	8	28	160
99950W08L200	50	8	28	200
99950W10	50	10	35	63
99950W10L	50	10	35	100
99950W10L130	50	10	35	130
99950W10L160	50	10	35	160
99950W10L200	50	10	35	200
99950W12	50	12	42	63
99950W12L	50	12	42	100
99950W12L130	50	12	42	130
99950W12L160	50	12	42	160
99950W12L200	50	12	42	200
99950W14	50	14	44	63
99950W14L	50	14	44	100
99950W14L130	50	14	44	130
99950W14L160	50	14	44	160
99950W14L200	50	14	44	200
99950W16	50	16	48	63
99950W16L	50	16	48	100
99950W16L130	50	16	48	130
99950W16L160	50	16	48	160
99950W16L200	50	16	48	200
99950W18	50	18	50	63
99950W18L	50	18	50	100
99950W18L130	50	18	50	130
99950W18L160	50	18	50	160
99950W18L200	50	18	50	200
99950W20	50	20	52	63
99950W20L	50	20	52	100
99950W20L130	50	20	52	130
99950W20L160	50	20	52	160
99950W20L200	50	20	52	200
99950W25	50	25	65	80
99950W25L	50	25	65	100
99950W25L130	50	25	65	130
99950W25L160	50	25	65	160
99950W25L200	50	25	65	200
99950W32L	50	32	72	100
99950W32L130	50	32	72	130
99950W32L160	50	32	72	160
99950W40	50	40	80	120
99950W40L160	50	40	80	160
99950W50	50	50	90	130

Bilanciati G.6,3 a 12.000 R.P.M
A richiesta sono fornibili mandrini cono ISO 30
Balanced to 12,000 R.P.M at G.6,3
ISO 30 chucks are available on request

BF SERVICE

MANDRINI DIN 69871
CHUCKS DIN 69871

MANDRINI PORTA FRESE TIPO WELDON CORTO - ATTACCO DIN 69871 AD/B
SHORT WELDON MILLING CHUCKS - DIN 69871 AD/B SHANK



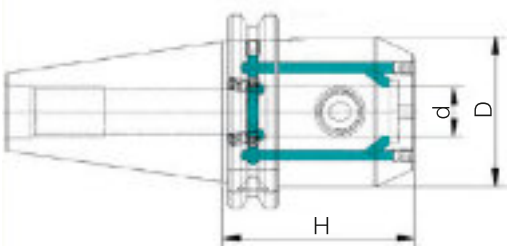


ART.	ISO	d mm	D mm	H mm
99940W16C	40	16	44	35
99940W20C	40	20	44	35
99940W25C	40	25	50	35
99940W32C	40	32	72	70

ART.	ISO	d mm	D mm	H mm
99950W16C	50	16	70	35
99950W20C	50	20	70	35
99950W25C	50	25	70	35
99950W32C	50	32	80	35
99950W40C	50	40	80	35

Bilanciati G.6,3 a 12.000 R.P.M – A richiesta sono fornibili mandrini cono ISO 30 / Balanced to 12,000 R.P.M at G.6,3 – ISO 30 chucks are available on request

MANDRINI PORTA FRESE TIPO WELDON CON CANALINI DI LUBRIFICAZIONE ATTACCO DIN 69871 AD/B
WELDON MILLING CHUCKS WITH COOLANT-CHANNELS - DIN 69871 AD/B SHANK



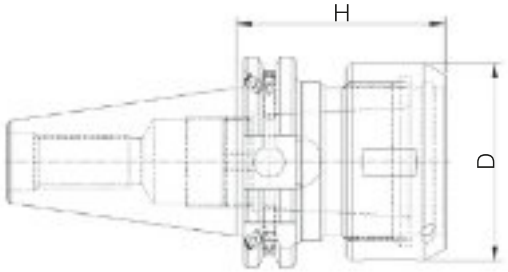


ART.	ISO	d mm	D mm	H mm
99940W06CL	40	6	25	50
99940W08CL	40	8	28	50
99940W10CL	40	10	35	50
99940W12CL	40	12	42	50
99940W14CL	40	14	44	50
99940W16CL	40	16	48	63
99940W18CL	40	18	50	63
99940W20CL	40	20	52	63
99940W25CL	40	25	65	100
99940W32CL	40	32	72	100

ART.	ISO	d mm	D mm	H mm
99950W06CL	50	6	25	63
99950W08CL	50	8	28	63
99950W10CL	50	10	35	63
99950W12CL	50	12	42	63
99950W14CL	50	14	44	63
99950W16CL	50	16	48	63
99950W18CL	50	18	50	63
99950W20CL	50	20	52	63
99950W25CL	50	25	65	80
99950W32CL	50	32	72	100

Bilanciati G.6,3 a 12.000 R.P.M – A richiesta sono fornibili mandrini cono ISO 30 / Balanced to 12,000 R.P.M at G.6,3 – ISO 30 chucks are available on request

MANDRINI PORTA PINZE EOP DIN 6388/B - ATTACCO DIN 69871 AD/B
COLLET CHUCKS EOP DIN 6388/B - DIN 69871 AD/B D SHANK





ART.	ISO	Pinza Collet	D mm	H mm
99940EOP16	40	EOP16	43	70
99940EOP25	40	EOP25	60	70
99940EOP32	40	EOP32	72	80

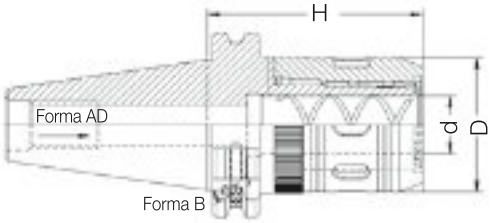
ART.	ISO	Pinza Collet	D mm	H mm
99950EOP16	50	EOP16	43	70
99950EOP25	50	EOP25	60	70
99950EOP32	50	EOP32	72	80

Bilanciati G.6,3 a 12.000 R.P.M – A richiesta sono fornibili mandrini cono ISO 30 / Balanced to 12,000 R.P.M at G.6,3 – ISO 30 chucks are available on request

BF SERVICE

MANDRINI DIN 69871
CHUCKS DIN 69871

MANDRINI A FORTE SERRAGGIO - ATTACCO DIN 69871 A
POWER MILLING CHUCKS - DIN 69871 A SHANK

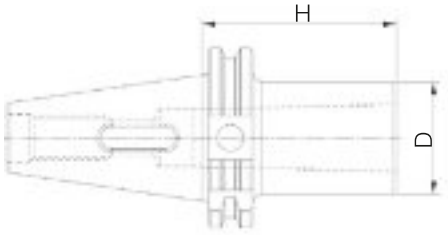




ART.	ISO	d mm	D mm	H mm
3334020FS	40	20	46	75
3334032FS	40	32	62	95
3335032FS	50	32	62	85

Bilanciati G.6,3 a 12.000 R.P.M – A richiesta sono fornibili mandrini cono ISO 30 / Balanced to 12,000 R.P.M at G.6,3 – ISO 30 chucks are available on request

MANDRINI RIDUZIONE CONO MORSE PER PUNTE - ATTACCO DIN 69871 A
MORSE TAPER ADAPTERS FOR DRILL BITS - DIN 69871 A SHANK



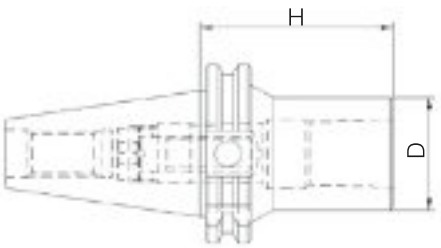


ART.	ISO	Tipo Type	CM MT	D mm	H mm
33340CM1P	40	AD/B	1	25	50
33340CM1PL	40		1	25	120
33340CM2P	40	AD/B	2	32	50
33340CM2PL	40		2	32	120
33340CM3P	40	AD/B	3	40	76
33340CM3PL	40		3	40	135
33340CM4P	40	AD/B	4	48	95
33340CM4PL	40		4	48	165

ART.	ISO	Tipo Type	CM MT	D mm	H mm
33350CM1P	50	AD/B	1	25	45
33350CM1PL	50		1	25	120
33350CM2P	50	AD/B	2	32	60
33350CM2PL	50		2	32	140
33350CM3P	50	AD/B	3	40	65
33350CM3PL	50		3	40	150
33350CM4P	50	AD/B	4	48	95
33350CM4PL	50		4	48	180
33350CM5P	50	AD/B	5	63	105
33350CM5PL	50		5	63	220

Bilanciati G.6,3 a 12.000 R.P.M – A richiesta sono fornibili mandrini cono ISO 30
Balanced to 12,000 R.P.M at G.6,3 – ISO 30 chucks are available on request

MANDRINI RIDUZIONE CONO MORSE PER FRESE COMPLETI DI VITE - ATTACCO DIN 69871 A
MORSE TAPER ADAPTERS FOR END MILLS WITH SCREW - DIN 69871 A SHANK





ART.	ISO	Tipo Type	CM MT	D mm	H mm
33340CM1F	40	AD/B	1	25	50
33340CM1FL	40		1	25	120
33340CM2F	40	AD/B	2	32	50
33340CM2FL	40		2	32	120
33340CM3F	40	AD/B	3	40	70
33340CM3FL	40		3	40	135
33340CM4F	40	AD/B	4	48	95
33340CM4FL	40		4	48	165

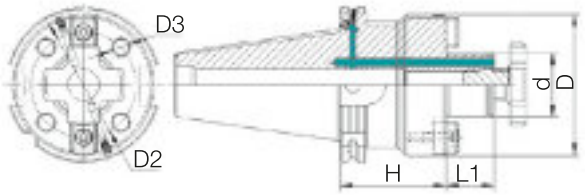
ART.	ISO	Tipo Type	CM MT	D mm	H mm
33350CM1F	50	AD/B	1	25	50
33350CM2F	50	AD/B	2	32	50
33350CM2FL	50		2	32	170
33350CM3F	50	AD/B	3	40	65
33350CM3FL	50		3	40	170
33350CM4F	50	AD/B	4	48	95
33350CM4FL	50		4	48	170
33350CM5F	50	AD/B	5	63	120
33350CM5FL	50		5	63	220

Bilanciati G.6,3 a 12.000 R.P.M – A richiesta sono fornibili mandrini cono ISO 30 / Balanced to 12,000 R.P.M at G.6,3 – ISO 30 chucks are available on request

BF SERVICE

MANDRINI DIN 69871
CHUCKS DIN 69871

MANDRINI PORTA FRESE AD INSERTI - ATTACCO DIN 69871 A
FACE MILL HOLDERS - DIN 69871 A SHANK

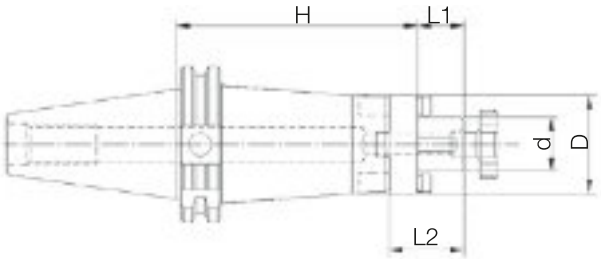




ART.	ISO	d mm	D mm	H mm	L1 mm	D2 mm	D3
3334040FI	40	40	89	60	30	66,7	M12
3335040FI	50	40	89	70	30	66,7	M12
3335060FI	50	60	129	70	40	101,6	M16

Bilanciati G.6,3 a 12.000 R.P.M – A richiesta sono fornibili mandrini cono ISO 30
Balanced to 12,000 R.P.M at G.6,3 – ISO 30 chucks are available on request

MANDRINI PORTA FRESE CON TRASCINATORE FRONTALE - ATTACCO DIN 69871 A
FACE MILL TOOL HOLDERS WITH DRIVE DOG - DIN 69871 A SHANK





ART.	ISO	d mm	D mm	H mm	L1 mm	L2 mm
3334016U	40	16	32	55	17	27
3334016UL	40	16	32	100	17	27
3334016UL130	40	16	32	130	17	27
3334022U	40	22	40	55	19	31
3334022UL	40	22	40	100	19	31
3334022UL130	40	22	40	130	19	31
3334027U	40	27	48	55	21	33
3334027UL	40	27	48	100	21	33
3334027UL130	40	27	48	130	21	33
3334032U	40	32	58	60	24	38
3334032UL	40	32	58	100	24	38
3334032UL130	40	32	58	130	24	38
3334040U	40	40	70	60	27	41
3334040UL	40	40	70	100	27	41
3334040UL130	40	40	70	130	27	41

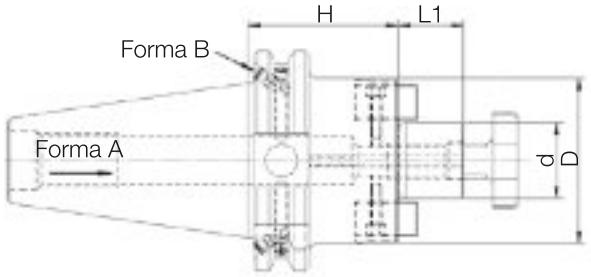
ART.	ISO	d mm	D mm	H mm	L1 mm	L2 mm
3335016U	50	16	32	55	17	27
3335016UL	50	16	32	100	17	27
3335016UL130	50	16	32	130	17	27
3335016UL160	50	16	32	160	17	27
3335022U	50	22	40	55	19	31
3335022UL	50	22	40	100	19	31
3335022UL130	50	22	40	130	19	31
3335022UL160	50	22	40	160	19	31
3335027U	50	27	48	55	21	33
3335027UL	50	27	48	100	21	33
3335027UL130	50	27	48	130	21	33
3335027UL160	50	27	48	160	21	33
3335032U	50	32	58	55	24	38
3335032UL	50	32	58	100	24	38
3335032UL130	50	32	58	130	24	38
3335032UL160	50	32	58	160	24	38
3335040U	50	40	70	55	27	41
3335040UL	50	40	70	100	27	41
3335040UL130	50	40	70	130	27	41
3335040UL160	50	40	70	160	27	41

Bilanciati G.6,3 a 12.000 R.P.M – A richiesta sono fornibili mandrini cono ISO 30
Balanced to 12,000 R.P.M at G.6,3 – ISO 30 chucks are available on request

BF SERVICE

MANDRINI DIN 69871
CHUCKS DIN 69871

MANDRINI PORTA FRESE CON TRASCINATORE FISSO - ATTACCO DIN 69871 AD
FACE MILL TOOL HOLDERS WITH FIXED DOG DRIVE - DIN 69871 AD SHANK



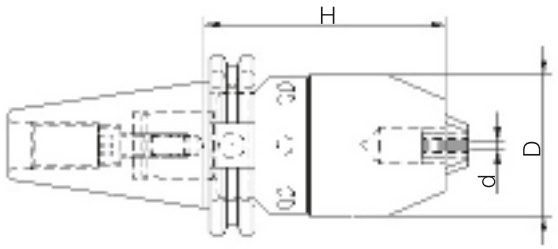


ART.	ISO	d mm	D mm	H mm	L1 mm
9994016TF	40	16	38	45	17
9994016TFL	40	16	39	100	17
9994016TFL130	40	16	39	130	17
9994016TFL160	40	16	39	160	17
9994016TFL200	40	16	39	200	17
9994022TF	40	22	46	45	19
9994022TFL	40	22	46	100	19
9994022TFL130	40	22	46	130	19
9994022TFL160	40	22	46	160	19
9994022TFL200	40	22	46	200	19
9994027TF	40	27	58	50	21
9994027TFL	40	27	58	100	21
9994027TFL130	40	27	58	130	21
9994027TFL160	40	27	58	160	21
9994027TFL200	40	27	58	200	21
9994032TF	40	32	78	55	24
9994032TFL	40	32	78	100	24
9994032TFL130	40	32	78	130	24
9994032TFL160	40	32	78	160	24
9994032TFL200	40	32	78	200	24
9994040TF	40	40	88	55	27
9994040TFL	40	40	88	100	27
9994040TFL130	40	40	88	130	27
9994040TFL160	40	40	88	160	27

ART.	ISO	d mm	D mm	H mm	L1 mm
9995016TF	50	16	38	45	17
9995016TFL	50	16	39	100	17
9995016TFL130	50	16	39	130	17
9995016TFL160	50	16	39	160	17
9995016TFL200	50	16	39	200	17
9995022TF	50	22	50	45	19
9995022TFL	50	22	50	100	19
9995022TFL130	50	22	50	130	19
9995022TFL160	50	22	50	160	19
9995022TFL200	50	22	50	200	19
9995027TF	50	27	55	45	21
9995027TFL	50	27	55	100	21
9995027TFL130	50	27	55	130	21
9995027TFL160	50	27	55	160	21
9995027TFL200	50	27	55	200	21
9995032TF	50	32	66	55	24
9995032TFL	50	32	66	100	24
9995032TFL130	50	32	66	130	24
9995032TFL160	50	32	66	160	24
9995032TFL200	50	32	66	200	24
9995040TF	50	40	88	55	27
9995040TFL	50	40	70	100	27
9995040TFL130	50	40	70	130	27
9995040TFL160	50	40	70	160	27

Bilanciati G.6,3 a 12.000 R.P.M – A richiesta sono fornibili mandrini cono ISO 30 / **Balanced to 12,000 R.P.M at G.6,3 –** ISO 30 chucks are available on request

MANDRINI PORTA PUNTE INTEGRALI - ATTACCO DIN 69871 A
INTEGRAL KEYLESS DRILL CHUCKS - DIN 69871 A SHANK





ART.	ISO	d mm	D mm	H mm
33340PC13	40	1-13	50	85
33340PC16	40	3-16	57	106

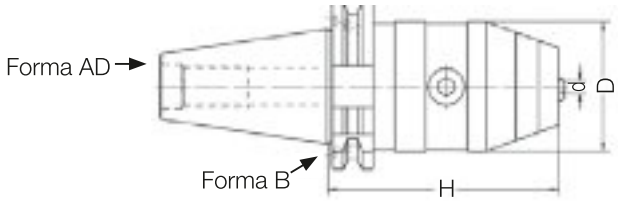
ART.	ISO	d mm	D mm	H mm
33350PC13	50	1-13	50	87
33350PC16	50	3-16	57	106

Bilanciati G.6,3 a 12.000 R.P.M – A richiesta sono fornibili mandrini cono ISO 30 / **Balanced to 12,000 R.P.M at G.6,3 –** ISO 30 chucks are available on request

BF SERVICE

MANDRINI DIN 69871
CHUCKS DIN 69871

MANDRINI PORTA PUNTE INTEGRALI CON CHIAVE ESAGONALE - ATTACCO DIN 69871 AD/B
INTEGRAL DRILL CHUCKS WITH HEX KEY- DIN 69871 AD/B SHANK



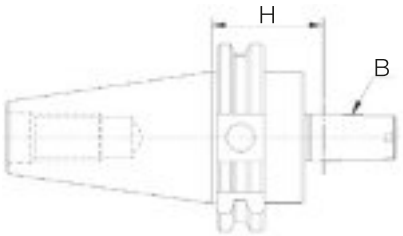


ART.	ISO	d mm	D mm	H mm
33340PC13I	40	1-13	50	88
33340PC16I	40	3-16	57	93

ART.	ISO	d mm	D mm	H mm
33350PC13I	50	1-13	50	88
33350PC16I	50	3-16	57	97

A richiesta sono fornibili mandrini cono ISO 30 / ISO 30 chucks are available on request

ATTACCHI PER MANDRINI PORTA PUNTE CILINDRICHE - ATTACCO DIN 69871 A
DRILL CHUCK ADAPTERS - DIN 69871 A SHANK



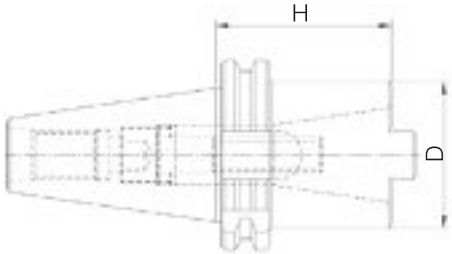


ART.	ISO	B	H mm
33340B12	40	B12	40
33340B16	40	B16	40
33340B18	40	B18	40

ART.	ISO	B	H mm
33350B12	50	B12	40
33350B16	50	B16	40
33350B18	50	B18	40

Bilanciati G.6,3 a 12.000 R.P.M – A richiesta sono fornibili mandrini cono ISO 30 / Balanced to 12,000 R.P.M at G.6,3 – ISO 30 chucks are available on request

MANDRINI RIDUZIONE - ATTACCO DIN 69871
CHUCK ADAPTERS - DIN 69871 SHANK



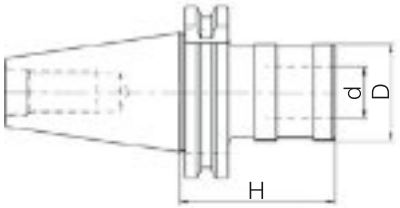


ART.	ISO	ISO interno Internal	D mm	H mm
33340300	40	30	49	60

ART.	ISO	ISO interno Internal	D mm	H mm
33350400	50	40	68	70

A richiesta sono fornibili mandrini cono ISO 30 / ISO 30 chucks are available on request

MANDRINI PORTA MASCHI A CAMBIO RAPIDO CON DOPPIA COMPENSAZIONE ATTACCO DIN 69871 AD/B
QUICK-CHANGE TAP HOLDERS WITH DOUBLE COMPENSATION - DIN 69871 SHANK





ART.	ISO	Tipo Type	d mm	D mm	H mm
33340M312	40	gr.1	19	38	60
33340M820	40	gr.2	31	54	92

ART.	ISO	Tipo Type	d mm	D mm	H mm
33350M312	50	gr.1	19	38	62
33350M820	50	gr.2	31	54	83

A richiesta sono fornibili mandrini cono ISO 30 / ISO 30 chucks are available on request

BF SERVICE

MANDRINI DIN 69871
CHUCKS DIN 69871

MANDRINI CON STELO TENERO LAVORABILE - ATTACCO DIN 69871 A
BORING BAR BLANKS WITH SOFT BODY - DIN 69871 A SHANK



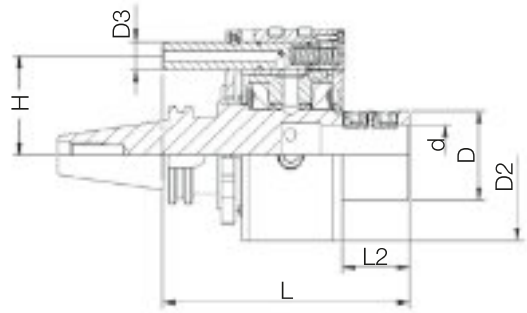


ART.	ISO	D mm	H mm
3334063STL	40	63	250

ART.	ISO	D mm	H mm
3335095STL	50	97	315

A richiesta sono fornibili mandrini cono ISO 30 / ISO 30 chucks are available on request

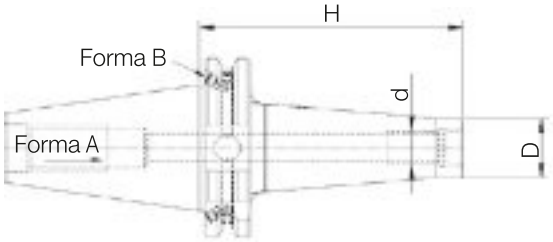
DISTRIBUTORI ROTANTI DI REFRIGERANTE - ATTACCO DIN 69871
COOLANT INDUCERS - DIN 69871 SHANK





ART.	ISO	d mm	D mm	D2 mm	D3 mm	H mm	L mm	L2 mm
33340W32DRA	40	32	48	95	18	65	150	33,8
33350W40DRA	50	40	58	110	18	80	165	49

MANDRINI PER FRESE CON ATTACCO FILETTATO - ATTACCO DIN 69871 A
CHUCKS FOR END MILLS WITH THREADED SHANK - DIN 69871 A SHANK





ART.	ISO	d	D mm	H mm
99940M08L55	40	M8	13	55
99940M08L75	40	M8	13	75
99940M08L95	40	M8	13	95
99940M08L115	40	M8	13	115
99940M10L55	40	M10	18	55
99940M10L75	40	M10	18	75
99940M10L95	40	M10	18	95
99940M10L115	40	M10	18	115
99940M10L145	40	M10	18	145
99940M12L55	40	M12	21	55
99940M12L75	40	M12	21	75
99940M12L95	40	M12	21	95
99940M12L115	40	M12	21	115
99940M12L145	40	M12	21	145
99940M16L55	40	M16	29	55
99940M16L75	40	M16	29	75
99940M16L95	40	M16	29	95
99940M16L115	40	M16	29	115
99940M16L145	40	M16	29	145

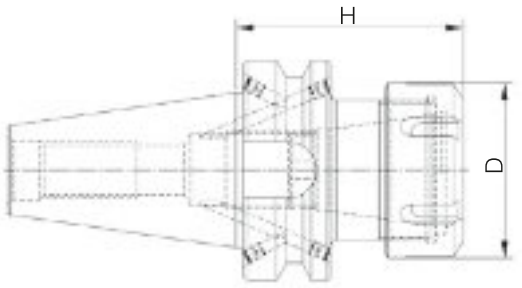
ART.	ISO	d	D mm	H mm
99950M10L85	50	M10	18	85
99950M10L135	50	M10	18	135
99950M10L185	50	M10	18	185
99950M12L85	50	M12	21	85
99950M12L135	50	M12	21	135
99950M12L185	50	M12	21	185
99950M12L235	50	M12	21	235
99950M16L85	50	M16	29	85
99950M16L135	50	M16	29	135
99950M16L185	50	M16	29	185
99950M16L235	50	M16	29	235

Bilanciati G.2,5 a 20.000 R.P.M – A richiesta sono fornibili mandrini cono ISO 30
Balanced to 20,000 R.P.M at G.2,5 – ISO 30 chucks are available on request

BF SERVICE

MANDRINI MAS 403 BT
CHUCKS MAS 403 BT

MANDRINI PORTA PINZE ER DIN 6499/B - ATTACCO MAS BT AD/B
COLLET CHUCKS ER DIN 6499/B - MAS BT AD/B SHANK



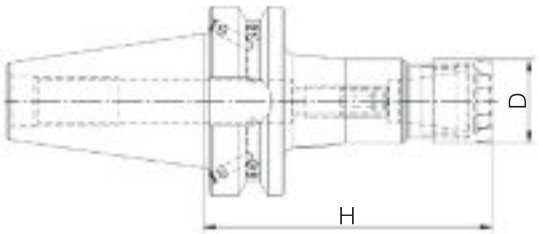


ART.	ISO	Pinza Collet	D mm	H mm
6664016	40	ER16	32	70
6664016L	40	ER16	32	100
6664016L130	40	ER16	32	130
6664020	40	ER20	35	70
6664020L	40	ER20	35	100
6664020L130	40	ER20	35	130
6664025	40	ER25	42	70
6664025L	40	ER25	42	100
6664025L130	40	ER25	42	130
6664025L160	40	ER25	42	160
6664025L200	40	ER25	42	200
6664032	40	ER32	50	70
6664032L	40	ER32	50	100
6664032L130	40	ER32	50	130
6664032L160	40	ER32	50	160
6664032L200	40	ER32	50	200
6664040	40	ER40	63	70
6664040L	40	ER40	63	100
6664040L130	40	ER40	63	130
6664040L160	40	ER40	63	160
6664040L200	40	ER40	63	200

ART.	ISO	Pinza Collet	D mm	H mm
6665016	50	ER16	32	80
6665020	50	ER20	35	80
6665025	50	ER25	42	80
6665025L	50	ER25	42	100
6665025L130	50	ER25	42	130
6665025L160	50	ER25	42	160
6665025L200	50	ER25	42	200
6665032	50	ER32	50	80
6665032L	50	ER32	50	100
6665032L130	50	ER32	50	130
6665032L160	50	ER32	50	160
6665032L200	50	ER32	50	200
6665040	50	ER40	63	80
6665040L	50	ER40	63	100
6665040L130	50	ER40	63	130
6665040L160	50	ER40	63	160
6665040L200	50	ER40	63	200

Bilanciati G.6,3 a 12.000 R.P.M – A richiesta sono fornibili mandrini cono ISO 30
Balanced to 12,000 R.P.M at G.6,3 – ISO 30 chucks are available on request

MANDRINI PORTA PINZE ER DIN 6499/B GHIERA MINI - ATTACCO MAS BT AD/B
SHRINK FIT COLLET CHUCKS ER DIN 6499/B - MAS BT AD/B SHANK





ART.	ISO	Pinza Collet	D mm	H mm
6664011ML	40	ER11	16	100
6664011ML130	40	ER11	16	130
6664016ML	40	ER16	22	100
6664016ML130	40	ER16	22	130
6664016ML160	40	ER16	22	160
6664016ML200	40	ER16	22	200
6664020ML	40	ER20	28	100
6664020ML130	40	ER20	28	130
6664020ML160	40	ER20	28	160
6664020ML200	40	ER20	28	200
6664025ML	40	ER25	35	100
6664025ML130	40	ER25	35	130
6664025ML160	40	ER25	35	160
6664025ML200	40	ER25	35	200

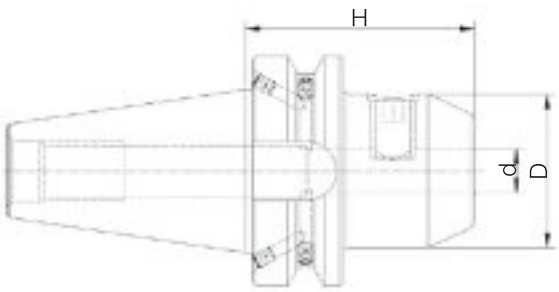
ART.	ISO	Pinza Collet	D mm	H mm
6665016ML	50	ER16	22	100
6665016ML130	50	ER16	22	130
6665016ML160	50	ER16	22	160
6665016ML200	50	ER16	22	200
6665020ML	50	ER20	28	100
6665020ML130	50	ER20	28	130
6665020ML160	50	ER20	28	160
6665020ML200	50	ER20	28	200
6665025ML	50	ER25	35	100
6665025ML130	50	ER25	35	130
6665025ML160	50	ER25	35	160
6665025ML200	50	ER25	35	200

Bilanciati G.6,3 a 12.000 R.P.M – A richiesta sono fornibili mandrini cono ISO 30
Balanced to 12,000 R.P.M at G.6,3 – ISO 30 chucks are available on request

BF SERVICE

MANDRINI MAS 403 BT
CHUCKS MAS 403 BT

MANDRINI PORTA FRESE TIPO WELDON - ATTACCO MAS BT AD/B
WELDON SHRINK FIT COLLET CHUCKS ER DIN 6499/B - MAS BT AD/B SHANK





ART.	ISO	d mm	D mm	H mm
66640W06	40	6	25	50
66640W06L	40	6	25	100
66640W06L130	40	6	25	130
66640W06L160	40	6	25	160
66640W08	40	8	28	50
66640W08L	40	8	28	100
66640W08L130	40	8	28	130
66640W08L160	40	8	28	160
66640W10	40	10	35	63
66640W10L	40	10	35	100
66640W10L130	40	10	35	130
66640W10L160	40	10	35	160
66640W12	40	12	42	63
66640W12L	40	12	42	100
66640W12L130	40	12	42	130
66640W12L160	40	12	42	160
66640W14	40	14	44	63
66640W14L	40	14	44	100
66640W14L130	40	14	44	130
66640W14L160	40	14	44	160
66640W16	40	16	48	63
66640W16L	40	16	48	100
66640W16L130	40	16	48	130
66640W16L160	40	16	48	160
66640W18	40	18	50	63
66640W18L	40	18	50	100
66640W18L130	40	18	50	130
66640W18L160	40	18	50	160
66640W20	40	20	52	63
66640W20L	40	20	52	100
66640W20L130	40	20	52	130
66640W20L160	40	20	52	160
66640W25	40	25	65	90
66640W25L160	40	25	65	160
66640W32L	40	32	72	100
66640W32L160	40	32	72	160
66640W40	40	40	80	105
66650W06	50	6	25	63
66650W06L	50	6	25	100
66650W06L130	50	6	25	130
66650W06L160	50	6	25	160
66650W06L200	50	6	25	200
66650W08	50	8	28	63
66650W08L	50	8	28	100
66650W08L130	50	8	28	130
66650W08L160	50	8	28	160

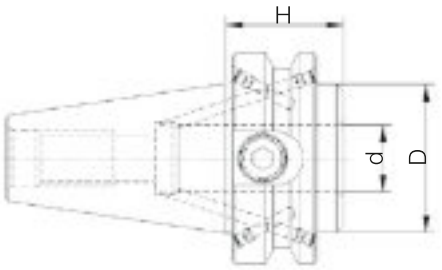
ART.	ISO	d mm	D mm	H mm
66650W08L200	50	8	28	200
66650W10	50	10	35	70
66650W10L	50	10	35	100
66650W10L130	50	10	35	130
66650W10L160	50	10	35	160
66650W10L200	50	10	35	200
66650W12	50	12	42	80
66650W12L	50	12	42	100
66650W12L130	50	12	42	130
66650W12L160	50	12	42	160
66650W12L200	50	12	42	200
66650W14	50	14	44	80
66650W14L	50	14	44	100
66650W14L130	50	14	44	130
66650W14L160	50	14	44	160
66650W14L200	50	14	44	200
66650W16	50	16	48	80
66650W16L	50	16	48	100
66650W16L130	50	16	48	130
66650W16L160	50	16	48	160
66650W16L200	50	16	48	200
66650W18	50	18	50	80
66650W18L	50	18	50	100
66650W18L130	50	18	50	130
66650W18L160	50	18	50	160
66650W18L200	50	18	50	200
66650W20	50	20	52	80
66650W20L	50	20	52	100
66650W20L130	50	20	52	130
66650W20L160	50	20	52	160
66650W20L200	50	20	52	200
66650W25L	50	25	65	100
66650W25L130	50	25	65	130
66650W25L160	50	25	65	160
66650W25L200	50	25	65	200
66650W32	50	32	72	105
66650W32L130	50	32	72	130
66650W32L160	50	32	72	160
66650W40	50	40	80	120
66650W40L130	50	40	80	130
66650W40L160	50	40	80	160
66650W50	50	50	90	125

Bilanciati G.6,3 a 12.000 R.P.M – A richiesta sono fornibili mandrini cono ISO 30
Balanced to 12,000 R.P.M at G.6,3 – ISO 30 chucks are available on request

BF SERVICE

MANDRINI MAS 403 BT
CHUCKS MAS 403 BT

MANDRINI PORTA FRESE TIPO WELDON CORTO - ATTACCO MAS BT AD/B
SHORT WELDON MILLING CHUCKS - MAS BT AD/B SHANK



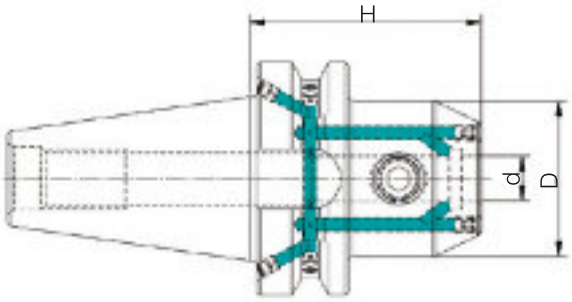


ART.	ISO	d mm	D mm	H mm
66640W16C	40	16	44	35
66640W20C	40	20	44	35
66640W25C	40	25	44	35
66640W32C	40	32	72	70

ART.	ISO	d mm	D mm	H mm
66650W16C	50	16	70	44
66650W20C	50	20	70	44
66650W25C	50	25	70	44
66650W32C	50	32	80	44
66650W40C	50	40	80	44

Bilanciati G.6,3 a 12.000 R.P.M – A richiesta sono fornibili mandrini cono ISO 30
Balanced to 12,000 R.P.M at G.6,3 – ISO 30 chucks are available on request

MANDRINI PORTA FRESE TIPO WELDON CON CANALINI DI LUBRIFICAZIONE ATTACCO MAS BT AD/B
WELDON MILLING CHUCKS WITH COOLANT-CHANNELS - MAS BT AD/B SHANK

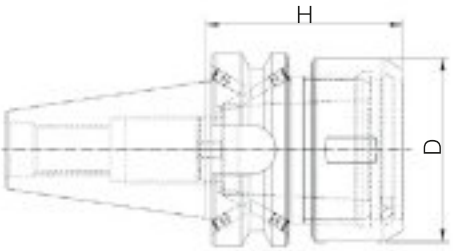


ART.	ISO	d mm	D mm	H mm
66640W06CL	40	6	25	50
66640W08CL	40	8	28	50
66640W10CL	40	10	35	63
66640W12CL	40	12	42	63
66640W14CL	40	14	44	63
66640W16CL	40	16	48	63
66640W18CL	40	18	50	63
66640W20CL	40	20	52	63
66640W25CL	40	25	65	90
66640W32CL	40	32	72	100

ART.	ISO	d mm	D mm	H mm
66650W06CL	50	6	25	63
66650W08CL	50	8	28	63
66650W10CL	50	10	35	63
66650W12CL	50	12	42	80
66650W14CL	50	14	44	80
66650W16CL	50	16	48	80
66650W18CL	50	18	50	80
66650W20CL	50	20	52	80
66650W25CL	50	25	65	100
66650W32CL	50	32	72	105

Bilanciati G.6,3 a 12.000 R.P.M – A richiesta sono fornibili mandrini cono ISO 30 / Balanced to 12,000 R.P.M at G.6,3 – ISO 30 chucks are available on request

MANDRINI PORTA PINZE EOP DIN 6388/B - ATTACCO MAS BT AD/B
COLLET CHUCKS EOP DIN 6499/B - MAS BT AD/B SHANK





ART.	ISO	Pinza Collet	D mm	H mm
66640EOP16	40	EOP16	43	70
66640EOP25	40	EOP25	60	70
66640EOP32	40	EOP32	72	80

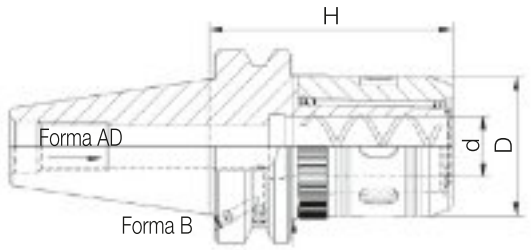
ART.	ISO	Pinza Collet	D mm	H mm
66650EOP16	50	EOP16	43	70
66650EOP25	50	EOP25	60	85
66650EOP32	50	EOP32	72	90

Bilanciati G.6,3 a 12.000 R.P.M – A richiesta sono fornibili mandrini cono ISO 30 / Balanced to 12,000 R.P.M at G.6,3 – ISO 30 chucks are available on request

BF SERVICE

MANDRINI MAS 403 BT
CHUCKS MAS 403 BT

MANDRINI A FORTE SERRAGGIO - ATTACCO MAS BT AD/B
POWER MILLING CHUCKS - MAS BT AD/B SHANK

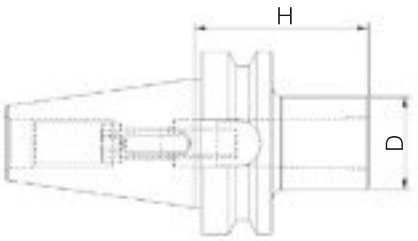




ART.	ISO	d mm	D mm	H mm
1114020FS	40	20	46	80
1114032FS	40	32	62	85
1115032FS	50	32	62	100

Bilanciati G.6,3 a 12.000 R.P.M – A richiesta sono fornibili mandrini cono ISO 30
Balanced to 12,000 R.P.M at G.6,3 – ISO 30 chucks are available on request

MANDRINI RIDUZIONE CONO MORSE PER PUNTE - ATTACCO MAS BT A
MORSE TAPER ADAPTERS FOR DRILL BITS - MAS BT A SHANK



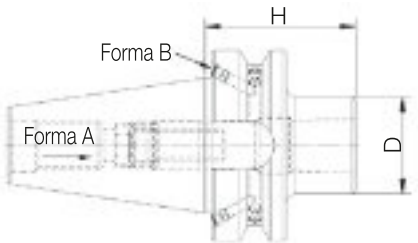


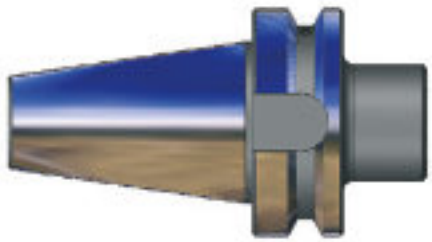
ART.	ISO	Tipo Type	CM MT	D mm	H mm
11140CM1P	40	AD/B	1	25	50
11140CM1PL	40		1	25	115
11140CM2P	40	AD/B	2	32	60
11140CM2PL	40		2	32	120
11140CM3P	40	AD/B	3	40	76
11140CM3PL	40		3	40	140
11140CM4P	40	AD/B	4	48	94,5
11140CM4PL	40		4	48	165

ART.	ISO	Tipo Type	CM MT	D mm	H mm
11150CM1P	50	AD/B	1	25	45
11150CM1PL	50		1	25	120
11150CM2P	50	AD/B	2	32	60
11150CM2PL	50		2	32	140
11150CM3P	50	AD/B	3	40	65
11150CM3PL	50		3	40	150
11150CM4P	50	AD/B	4	48	95
11150CM4PL	50		4	48	180
11150CM5P	50	AD/B	5	63	105
11150CM5PL	50		5	63	220

Bilanciati G.6,3 a 12.000 R.P.M – A richiesta sono fornibili mandrini cono ISO 30
Balanced to 12,000 R.P.M at G.6,3 – ISO 30 chucks are available on request

MANDRINI RIDUZIONE CONO MORSE PER FRESE COMPLETI DI VITE - ATTACCO MAS BT A
MORSE TAPER ADAPTERS FOR END MILLS WITH SCREW - MAS BT A SHANK





ART.	ISO	Tipo Type	CM MT	D mm	H mm
11140CM1F	40	AD/B	1	25	50
11140CM1FL	40		1	25	120
11140CM2F	40	AD/B	2	32	50
11140CM2FL	40		2	32	120
11140CM3F	40	AD/B	3	40	75
11140CM3FL	40		3	40	135
11140CM4F	40	AD/B	4	48	95
11140CM4FL	40		4	48	165

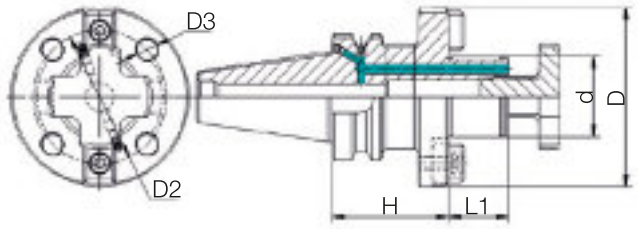
ART.	ISO	Tipo Type	CM MT	D mm	H mm
11150CM1F	50	AD/B	1	25	50
11150CM1FL	50		1	25	185
11150CM2F	50	AD/B	2	32	50
11150CM2FL	50		2	32	185
11150CM3F	50	AD/B	3	40	65
11150CM3FL	50		3	40	185
11150CM4F	50	AD/B	4	48	95
11150CM4FL	50		4	48	185
11150CM5F	50	AD/B	5	63	120

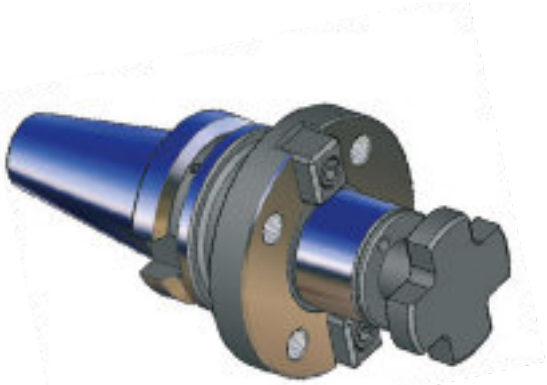
Bilanciati G.6,3 a 12.000 R.P.M – A richiesta sono fornibili mandrini cono ISO 30
Balanced to 12,000 R.P.M at G.6,3 – ISO 30 chucks are available on request

BF SERVICE

MANDRINI MAS 403 BT
CHUCKS MAS 403 BT

MANDRINI PORTA FRESE AD INSERTI - ATTACCO MAS BT A
FACE MILL HOLDERS - MAS BT A SHANK

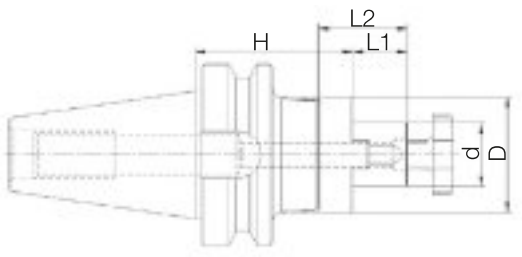




ART.	ISO	d mm	D mm	H mm	L1 mm	D2 mm	D3
1114040FI	40	40	89	60	30	66,7	M12
1115040FI	50	40	89	70	30	66,7	M12
1115060FI	50	60	129	80	40	101,6	M12

Bilanciati G.6,3 a 12.000 R.P.M – A richiesta sono fornibili mandrini cono ISO 30
Balanced to 12,000 R.P.M at G.6,3 – ISO 30 chucks are available on request

MANDRINI PORTA FRESE CON TRASCINATORE FRONTALE - ATTACCO MAS BT A
FACE MILL TOOL HOLDERS WITH DRIVE DOG - MAS BT A SHANK





ART.	ISO	d mm	D mm	H mm	L1 mm	L2 mm
1114016U	40	16	32	55	17	27
1114016UL	40	16	32	100	17	27
1114016UL130	40	16	32	130	17	27
1114022U	40	22	40	55	19	31
1114022UL	40	22	40	100	19	31
1114022UL130	40	22	40	130	19	31
1114027U	40	27	48	55	21	33
1114027UL	40	27	48	100	21	33
1114027UL130	40	27	48	130	21	33
1114032U	40	32	58	60	24	38
1114032UL	40	32	58	100	24	38
1114032UL130	40	32	58	130	24	38
1114040U	40	40	70	60	27	41
1114040UL	40	40	70	100	27	41
1114040UL130	40	40	70	130	27	41

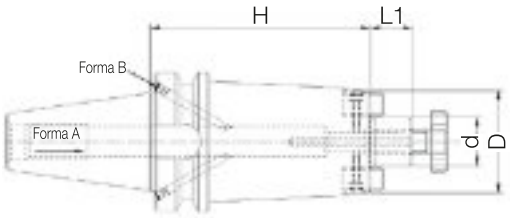
ART.	ISO	d mm	D mm	H mm	L1 mm	L2 mm
1115016U	50	16	32	70	17	27
1115016UL	50	16	32	100	17	27
1115016UL130	50	16	32	130	17	27
1115016UL160	50	16	32	160	17	27
1115022U	50	22	40	70	19	31
1115022UL	50	22	40	100	19	31
1115022UL130	50	22	40	130	19	31
1115022UL160	50	22	40	160	19	31
1115027U	50	27	48	70	21	33
1115027UL	50	27	48	100	21	33
1115027UL130	50	27	48	130	21	33
1115027UL160	50	27	48	160	21	33
1115032U	50	32	58	70	24	38
1115032UL	50	32	58	100	24	38
1115032UL130	50	32	58	130	24	38
1115032UL160	50	32	58	160	24	38
1115040U	50	40	70	70	27	41
1115040UL	50	40	70	100	27	41
1115040UL130	50	40	70	130	27	41
1115040UL160	50	40	70	160	27	41

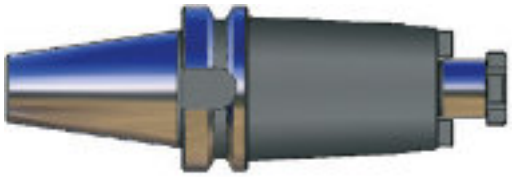
Bilanciati G.6,3 a 12.000 R.P.M – A richiesta sono fornibili mandrini cono ISO 30
Balanced to 12,000 R.P.M at G.6,3 – ISO 30 chucks are available on request

BF SERVICE

MANDRINI MAS 403 BT
CHUCKS MAS 403 BT

MANDRINI PORTA FRESE CON TRASCINATORE FISSO - ATTACCO MAS BT AD/B
FACE MILL TOOL HOLDERS WITH FIXED DRIVE DOG - MAS BT AD/B SHANK



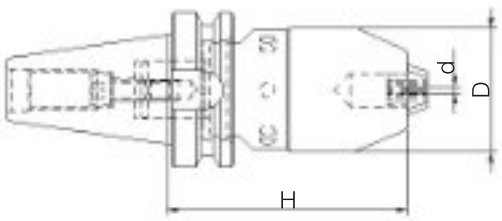


ART.	ISO	d mm	D mm	H mm	L1 mm
6664016TF	40	16	38	45	17
6664016TFL	40	16	39	100	17
6664016TFL130	40	16	39	130	17
6664016TFL160	40	16	39	160	17
6664016TFL200	40	16	39	200	17
6664022TF	40	22	50	45	19
6664022TFL	40	22	50	100	19
6664022TFL130	40	22	50	130	19
6664022TFL160	40	22	50	160	19
6664022TFL200	40	22	50	200	19
6664027TF	40	27	58	45	21
6664027TFL	40	27	55	100	21
6664027TFL130	40	27	55	130	21
6664027TFL160	40	27	55	160	21
6664027TFL200	40	27	55	200	21
6664032TF	40	32	78	50	24
6664032TFL	40	32	66	100	24
6664032TFL130	40	32	66	130	24
6664032TFL160	40	32	66	160	24
6664032TFL200	40	32	66	200	24
6664040TF	40	40	88	55	27
6664040TFL	40	40	70	100	27
6664040TFL130	40	40	70	130	27
6664040TFL160	40	40	70	160	27
6664040TFL200	40	40	70	200	27

ART.	ISO	d mm	D mm	H mm	L1 mm
6665016TF	50	16	38	50	17
6665016TFL	50	16	39	100	17
6665016TFL130	50	16	39	130	17
6665016TFL160	50	16	39	160	17
6665016TFL200	50	16	39	200	17
6665022TF	50	22	39	50	19
6665022TFL	50	22	50	100	19
6665022TFL130	50	22	50	130	19
6665022TFL160	50	22	50	160	19
6665022TFL200	50	22	50	200	19
6665027TF	50	27	58	50	21
6665027TFL	50	27	55	100	21
6665027TFL130	50	27	55	130	21
6665027TFL160	50	27	55	160	21
6665027TFL200	50	27	55	200	21
6665032TF	50	32	78	50	24
6665032TFL	50	32	66	100	24
6665032TFL130	50	32	66	130	24
6665032TFL160	50	32	66	160	24
6665032TFL200	50	32	66	200	24
6665040TF	50	40	88	50	27
6665040TFL	50	40	70	100	27
6665040TFL130	50	40	70	130	27
6665040TFL160	50	40	70	160	27
6665040TFL200	50	40	70	200	27

Bilanciati G.6,3 a 12.000 R.P.M – A richiesta sono fornibili mandrini cono ISO 30 / Balanced to 12,000 R.P.M at G.6,3 – ISO 30 chucks are available on request

MANDRINI PORTA PUNTE INTEGRALI - ATTACCO MAS BT AD/B
INTEGRAL KEYLESS DRILL CHUCKS - MAS BT AD/B SHANK





ART.	ISO	d mm	D mm	H mm
11140PC13	40	1-13	50	98
11140PC16	40	1-16	57	98

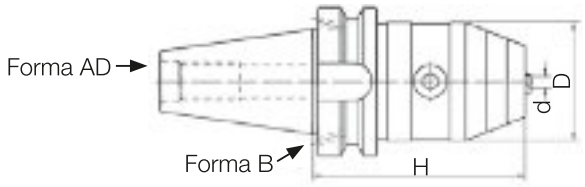
ART.	ISO	d mm	D mm	H mm
11150PC13	50	1-13	50	109
11150PC16	50	1-16	57	109

Bilanciati G.6,3 a 12.000 R.P.M – A richiesta sono fornibili mandrini cono ISO 30
Balanced to 12,000 R.P.M at G.6,3 – ISO 30 chucks are available on request

BF SERVICE

MANDRINI MAS 403 BT
CHUCKS MAS 403 BT

MANDRINI PORTA PUNTE INTEGRALI CON CHIAVE ESAGONALE - ATTACCO MAS BT AD/B
INTEGRAL DRILL CHUCKS WITH HEX KEY - MAS BT AD/B SHANK



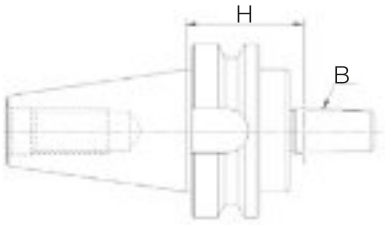


ART.	ISO	d mm	D mm	H mm
66640PC13I	40	1-13	50	98
66640PC16I	40	3-16	57	104

ART.	ISO	d mm	D mm	H mm
66650PC13I	50	1-13	50	90
66650PC16I	50	3-16	57	95

A richiesta sono fornibili mandrini cono ISO 30 / ISO 30 chucks are available on request

ATTACCHI PER MANDRINI PORTA PUNTE CILINDRICHE - ATTACCO MAS BT AD/B
DRILL CHUCK ADAPTERS - MAS BT AD/B SHANK



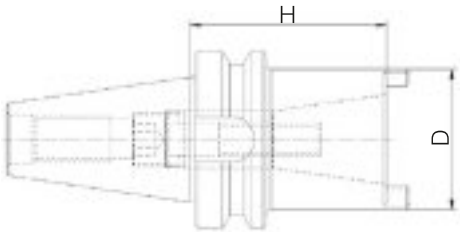


ART.	ISO	B	H mm
11140B12	40	B12	45
11140B16	40	B16	45
11140B18	40	B18	45

ART.	ISO	B	H mm
11150B12	50	B12	45
11150B16	50	B16	45
11150B18	50	B18	45

Bilanciati G.6,3 a 12.000 R.P.M – A richiesta sono fornibili mandrini cono ISO 30 / Balanced to 12,000 R.P.M at G.6,3 – ISO 30 chucks are available on request

MANDRINI RIDUZIONE - ATTACCO MAS BT A
CHUCK ADAPTERS - MAS BT A SHANK



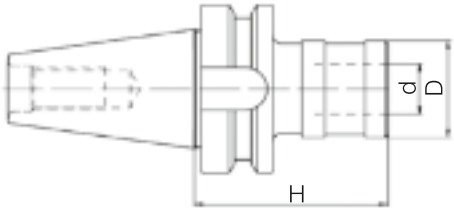


ART.	ISO	ISO interno Internal	D mm	H mm
11140300	40	30	50	70

ART.	ISO	ISO interno Internal	D mm	H mm
11150400	50	40	78	70

A richiesta sono fornibili mandrini cono ISO 30 / ISO 30 chucks are available on request

MANDRINI PORTA MASCHI A CAMBIO RAPIDO CON DOPPIA COMPENSAZIONE ATTACCO MAS BT AD/B
QUICK-CHANGE TAP HOLDERS WITH DOUBLE COMPENSATION - MAS BT AD/B SHANK





ART.	ISO	Tipo Type	d mm	D mm	H mm
11140M312	40	gr.1	19	38	67
11140M820	40	gr.2	31	54	93

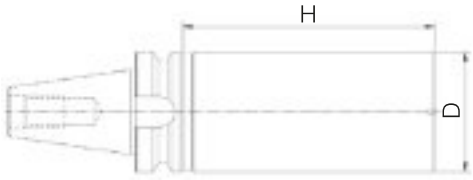
ART.	ISO	Tipo Type	d mm	D mm	H mm
11150M312	50	gr.1	19	38	80
11150M820	50	gr.2	31	54	102

A richiesta sono fornibili mandrini cono ISO 30 / ISO 30 chucks are available on request

BF SERVICE

MANDRINI MAS 403 BT
CHUCKS MAS 403 BT

MANDRINI CON STELO TENERO LAVORABILE - ATTACCO MAS BT AD
BORING BAR BLANKS WITH SOFT BODY - MAS BT AD SHANK



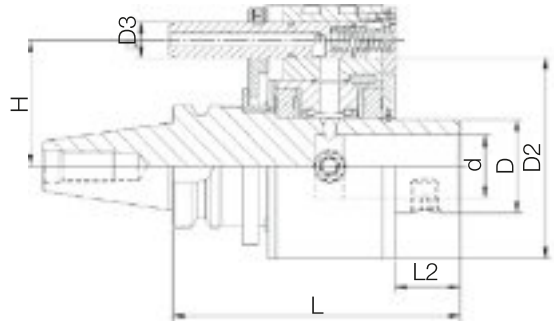


ART.	ISO	D mm
1114063STL	40	63

ART.	ISO	D mm
1115095STL	50	97

A richiesta sono fornibili mandrini cono ISO 30 / ISO 30 chucks are available on request

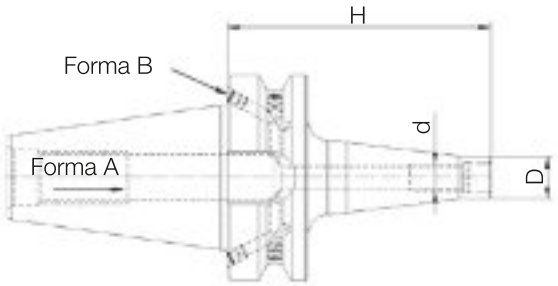
DISTRIBUTORI ROTANTI DI REFRIGERANTE - ATTACCO MAS BT
COOLANT INDUCERS - MAS BT SHANK





ART.	ISO	d mm	D mm	D2 mm	D3 mm	L mm	L2 mm	H mm
11140W32DRA	40	32	48	95	18	150	34	65
11140W40DRA	40	40	58	110	18	160	44	65
11150W40DRA	50	40	58	110	18	165	49	80

MANDRINI PER FRESE CON ATTACCO FILETTATO - ATTACCO MAS BT AD/B
CHUCKS FOR END MILLS WITH THREADED SHANK - MAS BT AD/B SHANK





ART.	ISO	d	D mm	H mm
66640M06L63	40	M6	9,7	63
66640M06L83	40	M6	9,7	83
66640M08L63	40	M8	13	63
66640M08L83	40	M8	13	83
66640M08L103	40	M8	13	103
66640M10L63	40	M10	18	63
66640M10L83	40	M10	18	83
66640M10L103	40	M10	18	103
66640M10L123	40	M10	18	123
66640M12L63	40	M12	21	63
66640M12L83	40	M12	21	83
66640M12L103	40	M12	21	103
66640M12L123	40	M12	21	123
66640M16L63	40	M16	29	63
66640M16L83	40	M16	29	83

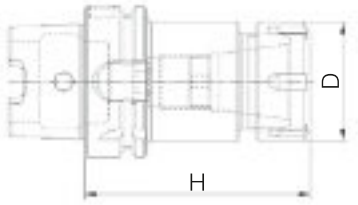
ART.	ISO	d	D mm	H mm
66640M16L103	40	M16	29	103
66640M16L123	40	M16	29	123
66640M16L153	40	M16	29	153
66650M12L104	50	M12	21	104
66650M12L154	50	M12	21	154
66650M12L204	50	M12	21	204
66650M12L254	50	M12	21	254
66650M16L104	50	M16	29	104
66650M16L154	50	M16	29	154
66650M16L204	50	M16	29	204
66650M16L254	50	M16	29	254

Bilanciati G.2,5 a 20.000 R.P.M – A richiesta sono fornibili mandrini cono ISO 30
Balanced to 20,000 R.P.M at G.2,5 – ISO 30 chucks are available on request

BF SERVICE

MANDRINI HSK DIN 69893
CHUCKS HSK DIN 69893

MANDRINI PORTA PINZE ER DIN 6499/B - ATTACCO DIN 69893
COLLET CHUCK ER DIN 6499/B - DIN 69893 SHANK



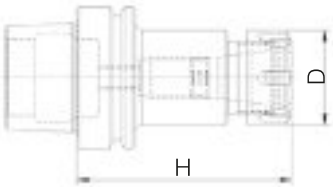


ART.	HSK/A	Pinza Collet	D mm	H mm
44450A16	50	ER16	32	70
44450A16L	50	ER16	32	100
44450A25	50	ER25	42	70
44450A25L	50	ER25	42	100
44450A32	50	ER32	50	70
44450A32L	50	ER32	50	100
44463A16	63	ER16	32	75
44463A16L	63	ER16	32	100
44463A16L160	63	ER16	32	160
44463A20	63	ER20	35	75
44463A20L	63	ER20	35	100
44463A20L160	63	ER20	35	160
44463A25	63	ER25	42	75
44463A25L	63	ER25	42	100
44463A25L160	63	ER25	42	160
44463A32	63	ER32	50	75
44463A32L	63	ER32	50	100
44463A32L160	63	ER32	50	160
44463A40	63	ER40	63	80
44463A40L	63	ER40	63	120
44463A40L160	63	ER40	63	160

ART.	HSK/A	Pinza Collet	D mm	H mm
444100A16L	100	ER16	32	100
444100A16L160	100	ER16	32	160
444100A20	100	ER20	35	70
444100A20L	100	ER20	35	100
444100A20L160	100	ER20	35	160
444100A25	100	ER25	42	75
444100A25L	100	ER25	42	100
444100A25L160	100	ER25	42	160
444100A32	100	ER32	50	80
444100A32L	100	ER32	50	100
444100A32L160	100	ER32	50	160
444100A40	100	ER40	63	90
444100A40L160	100	ER40	63	160

Bilanciati G.6,3 a 20.000 R.P.M
Balanced to 20,000 R.P.M at G.6,3
Bilanciati a G.2,5 a 20.000 R.P.M a richiesta
Balanced to 20,000 R.P.M at G.2,5 on request

MANDRINI PORTA PINZE ER DIN 6499/B - ATTACCO DIN 69893
COLLET CHUCKS ER DIN 6499/B - DIN 69893 SHANK





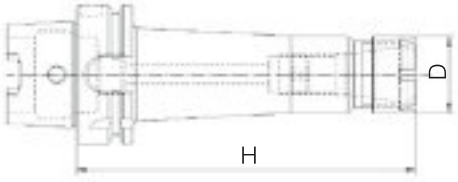
ART.	HSK/E	Pinza Collet	D mm	H mm
44463E16L	63	ER16	32	100
44463E25L	63	ER25	42	100

Bilanciati G.6,3 a 20.000 R.P.M
Balanced to 20,000 R.P.M at G.6,3

ART.	HSK/E	Pinza Collet	D mm	H mm
44463E32L	63	ER32	50	100
44463E40L	63	ER40	63	100

Bilanciati G.2,5 a 20.000 R.P.M a richiesta
Balanced to 20,000 R.P.M at G.2,5 on request

MANDRINI PORTA PINZE ER DIN 6499/B GHIERA MINI - ATTACCO DIN 69893
SHRINK FIT COLLET CHUCKS ER DIN 6499/B - DIN 69893 SHANK





ART.	HSK/A	Pinza Collet	D mm	H mm
44463A11ML	63	ER11	16	100
44463A16ML	63	ER16	22	100
44463A20ML	63	ER20	28	100
44463A25ML	63	ER25	35	100

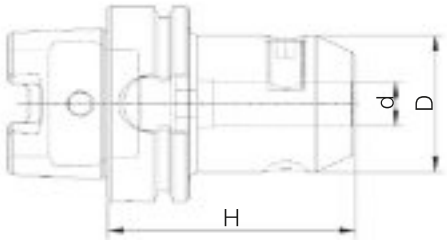
Bilanciati G.6,3 a 20.000 R.P.M
Balanced to 20,000 R.P.M at G.6,3
Bilanciati G.2,5 a 20.000 R.P.M a richiesta
Balanced to 20,000 R.P.M at G.2,5 on request

ART.	HSK/A	Pinza Collet	D mm	H mm
444100A16ML	100	ER16	22	100
444100A16ML160	100	ER16	22	160
444100A20ML	100	ER20	28	100
444100A20ML160	100	ER20	28	160
444100A25ML	100	ER25	35	100
444100A25ML160	100	ER25	35	160

BF SERVICE

MANDRINI HSK DIN 69893
CHUCKS HSK DIN 69893

MANDRINI PORTA FRESE TIPO WELDON - ATTACCO DIN 69893
WELDON MILLING CHUCKS - DIN 69893 SHANK



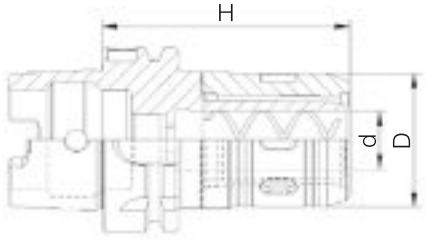


ART.	HSK/A	d mm	D mm	H mm
44450AW06	50	6	25	65
44450AW08	50	8	28	65
44450AW10	50	10	35	65
44450AW12	50	12	42	80
44450AW14	50	14	44	80
44450AW16	50	16	48	80
44450AW18	50	18	50	80
44450AW20	50	20	52	80
44450AW25	50	25	65	105
44450AW32	50	32	72	120
44463AW06	63	6	25	65
44463AW06L160	63	6	25	160
44463AW08	63	8	28	65
44463AW08L160	63	8	28	160
44463AW10	63	10	35	65
44463AW10L160	63	10	35	160
44463AW12	63	12	42	80
44463AW12L160	63	12	42	160
44463AW14	63	14	44	80
44463AW14L160	63	14	44	160
44463AW16	63	16	48	80
44463AW16L160	63	16	48	160
44463AW18	63	18	50	80
44463AW18L160	63	18	50	160
44463AW20	63	20	52	80
44463AW20L160	63	20	52	160
44463AW25	63	25	65	110
44463AW25L160	63	25	65	160
44463AW32	63	32	72	110
44463AW32L160	63	32	72	160

ART.	HSK/A	d mm	D mm	H mm
444100AW06	100	6	25	80
444100AW06L160	100	6	25	160
444100AW08	100	8	28	80
444100AW08L160	100	8	28	160
444100AW10	100	10	35	80
444100AW10L160	100	10	35	160
444100AW12	100	12	42	80
444100AW12L160	100	12	42	160
444100AW14	100	14	44	80
444100AW14L160	100	14	44	160
444100AW16	100	16	48	100
444100AW16L160	100	16	48	160
444100AW18	100	18	50	100
444100AW18L160	100	18	50	160
444100AW20	100	20	52	100
444100AW20L160	100	20	52	160
444100AW25	100	25	65	100
444100AW25L160	100	25	65	160
444100AW32	100	32	72	100
444100AW32L160	100	32	72	160
444100AW40	100	40	80	105
444100AW40L160	100	40	80	160

Bilanciati G.6,3 a 20.000 R.P.M
Balanced to 20,000 R.P.M at G.6,3
Bilanciati G.2,5 a 20.000 R.P.M a richiesta
Balanced to 20,000 R.P.M at G.2,5 on request

MANDRINI A FORTE SERRAGGIO - ATTACCO DIN 69893
POWER MILLING CHUCKS - DIN 69893 SHANK





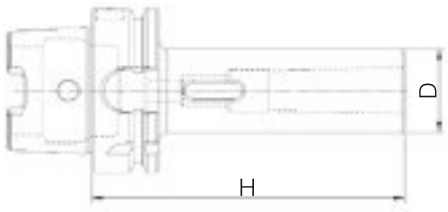
ART.	HSK/A	d mm	D mm	H mm
44463A20FS	63	20	46	85
44463A32FS	63	32	62	110
444100A32FS	100	32	62	115

Bilanciati G.6,3 a 12.000 R.P.M – Balanced to 12,000 R.P.M at G.6,3

BF SERVICE

MANDRINI HSK DIN 69893
CHUCKS HSK DIN 69893

MANDRINI RIDUZIONE CONO MORSE PER PUNTE - ATTACCO DIN 69893
MORSE TAPER ADAPTERS FOR DRILL BITS - DIN 69893 SHANK



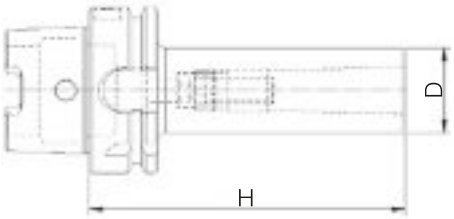


ART.	HSK/A	CM MT	D mm	H mm
44450ACM1P	50	1	25	100
44450ACM2P	50	2	32	120
44450ACM3P	50	3	40	140
44463ACM1P	63	1	25	100
44463ACM2P	63	2	32	120
44463ACM3P	63	3	40	140
44463ACM4P	63	4	48	160

ART.	HSK/A	CM MT	D mm	H mm
444100ACM2P	100	2	32	120
444100ACM3P	100	3	40	150
444100ACM4P	100	4	48	170
444100ACM5P	100	5	63	200

Bilanciati G.6,3 a 20.000 R.P.M – Bilanciati G.2,5 a 20.000 R.P.M a richiesta
Balanced to 20,000 R.P.M at G.6,3 – Balanced to 20,000 R.P.M at G.2,5 on request

MANDRINI RIDUZIONE CONO MORSE PER FRESE COMPLETI DI VITE - ATTACCO DIN 69893
MORSE TAPER ADAPTERS FOR END MILLS WITH SCREW - DIN 69893 SHANK



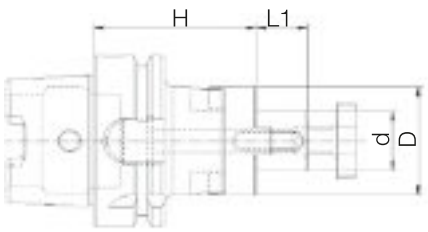


ART.	HSK/A	CM MT	D mm	H mm
44450ACM1F	50	1	25	100
44450ACM2F	50	2	32	120
44450ACM3F	50	3	40	140
44463ACM1F	63	1	25	100
44463ACM2F	63	2	32	120
44463ACM3F	63	3	40	140
44463ACM4F	63	4	48	160

ART.	HSK/A	CM MT	D mm	H mm
444100ACM2F	100	2	32	120
444100ACM3F	100	3	40	150
444100ACM4F	100	4	48	170
444100ACM5F	100	5	63	200

Bilanciati G.6,3 a 20.000 R.P.M – Bilanciati G.2,5 a 20.000 R.P.M a richiesta
Balanced to 20,000 R.P.M at G.6,3 – Balanced to 20,000 R.P.M at G.2,5 on request

MANDRINI PORTA FRESE CON TRASCINATORE FRONTALE - ATTACCO DIN 69893
FACE MILL TOOL HOLDERS WITH DRIVE DOG - DIN 69893 SHANK





ART.	HSK/A	d mm	D mm	H mm	L1 mm
44450A16U	50	16	32	50	17
44450A22U	50	22	40	50	19
44450A27U	50	27	48	65	21
44463A16U	63	16	32	60	17
44463A22U	63	22	40	60	19
44463A27U	63	27	48	60	21
44463A32U	63	32	58	60	24

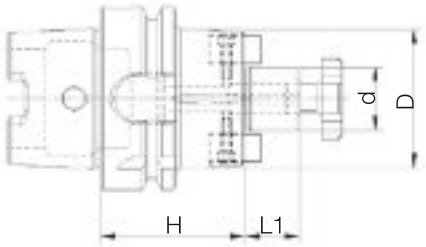
ART.	HSK/A	d mm	D mm	H mm	L1 mm
444100A16U	100	16	32	60	17
444100A22U	100	22	40	60	19
444100A27U	100	27	48	60	21
444100A32U	100	32	58	60	24

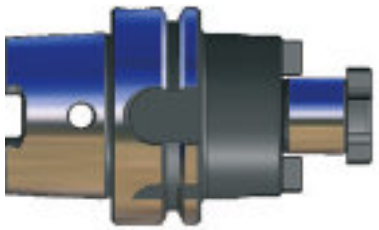
Bilanciati G.6,3 a 20.000 R.P.M – Bilanciati G.2,5 a 20.000 R.P.M a richiesta
Balanced to 20,000 R.P.M at G.6,3 – Balanced to 20,000 R.P.M at G.2,5 on request

BF SERVICE

MANDRINI HSK DIN 69893
CHUCKS HSK DIN 69893

MANDRINI PORTA FRESE CON TRASCINATORE FISSO - ATTACCO DIN 69893
FACE MILL TOOL HOLDERS WITH FIXED DRIVE DOG - DIN 69893 SHANK



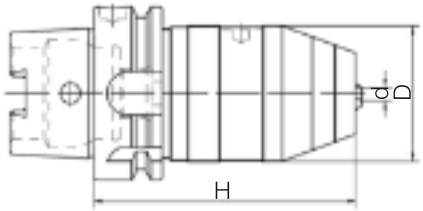


ART.	HSK/A	d mm	D mm	H mm	L1 mm
44450A16TF	50	16	38	50	17
44450A22TF	50	22	48	60	19
44450A27TF	50	27	58	60	21
44463A16TF	63	16	38	50	17
44463A16TFL	63	16	38	100	17
44463A22TF	63	22	48	50	19
44463A22TFL	63	22	48	100	19
44463A27TF	63	27	58	60	21
44463A27TFL	63	27	58	100	21
44463A32TF	63	32	66	60	24
44463A32TFL	63	32	66	100	24
44463A40TF	63	40	80	60	27
44463A40TFL	63	40	80	100	27

ART.	HSK/A	d mm	D mm	H mm	L1 mm
444100A16TF	100	16	38	50	17
444100A16TFL	100	16	38	100	17
444100A22TF	100	22	48	50	19
444100A22TFL	100	22	48	100	19
444100A27TF	100	27	58	50	21
444100A27TFL	100	27	58	100	21
444100A32TF	100	32	66	50	24
444100A32TFL	100	32	66	100	24
444100A40TF	100	40	80	60	27
444100A40TFL	100	40	80	100	27

Bilanciati G.6,3 a 20.000 R.P.M – Bilanciati G.2,5 a 20.000 R.P.M a richiesta
Balanced to 20,000 R.P.M at G.6,3 – Balanced to 20,000 R.P.M at G.2,5 on request

MANDRINI PORTA PUNTE INTEGRALI CON CHIAVE ESAGONALE - ATTACCO DIN 69893
INTEGRAL DRILL CHUCKS WITH HEX KEY - DIN 69893 SHANK

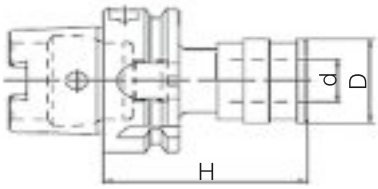




ART.	HSK/A	d mm	D mm	H mm
44463APC13I	63	1-13	50	111
44463APC16I	63	3-16	57	111

ART.	HSK/A	d mm	D mm	H mm
444100APC13I	100	1-13	50	111
444100APC16I	100	3-16	57	111

MANDRINI PORTA MASCHI A CAMBIO RAPIDO CON DOPPIA COMPENSAZIONE ATTACCO DIN 69893
QUICK-CHANGE TAP HOLDERS WITH DOUBLE COMPENSATION - DIN 69893 SHANK





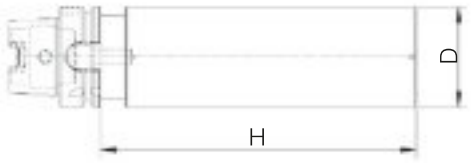
ART.	HSK/A	Tipo Type	d mm	D mm	H mm
44450AM312	50	gr.1	19	38	72
44450AM820	50	gr.2	31	54	110
44463AM312	63	gr.1	19	38	72
44463AM820	63	gr.2	31	54	110

ART.	HSK/A	Tipo Type	d mm	D mm	H mm
444100AM820	100	gr.2	31	48	80
444100AM1433	100	gr.3	31	60	100

BF SERVICE

MANDRINI HSK DIN 69893
CHUCKS HSK DIN 69893

MANDRINI CON STELO TENERO LAVORABILE - ATTACCO DIN 69893
BORING BAR BLANKS WITH SOFT BODY - DIN 69893 SHANK

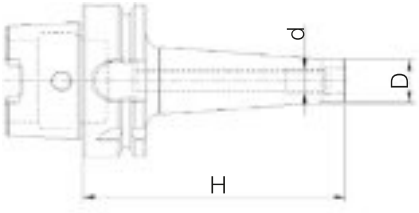




ART.	HSK/A	D mm	H mm
44463A63STL	63	63	250

ART.	HSK/A	D mm	H mm
444100A90STL	100	97	315

MANDRINI PER FRESE CON ATTACCO FILETTATO - ATTACCO DIN 69893
MILLING CHUCKS WITH THREADED SHANK - DIN 69893 SHANK





ART.	HSK/A	d	D mm	H mm
44450AM08L59	50	M8	13	59
44450AM08L84	50	M8	13	84
44450AM08L109	50	M8	13	109
44450AM08L134	50	M8	13	134
44450AM10L59	50	M10	18	59
44450AM10L84	50	M10	18	84
44450AM10L109	50	M10	18	109
44450AM10L134	50	M10	18	134
44450AM12L59	50	M12	21	59
44450AM12L84	50	M12	21	84
44450AM12L109	50	M12	21	109
44450AM12L134	50	M12	21	134

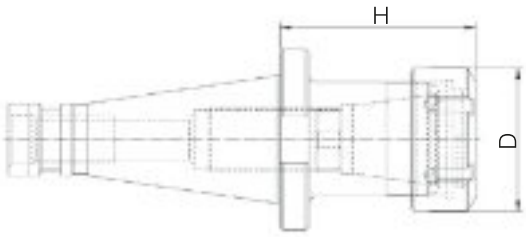
ART.	HSK/A	d	D mm	H mm
44463AM08L59	63	M8	13	59
44463AM08L84	63	M8	13	84
44463AM08L109	63	M8	13	109
44463AM08L134	63	M8	13	134
44463AM10L59	63	M10	18	59
44463AM10L84	63	M10	18	84
44463AM10L109	63	M10	18	109
44463AM10L134	63	M10	18	134
44463AM10L159	63	M10	18	159
44463AM12L59	63	M12	21	59
44463AM12L84	63	M12	21	84
44463AM12L109	63	M12	21	109
44463AM12L134	63	M12	21	134
44463AM12L159	63	M12	21	159
44463AM12L184	63	M12	21	184
44463AM12L209	63	M12	21	209
44463AM16L59	63	M16	29	59
44463AM16L84	63	M16	29	84
44463AM16L109	63	M16	29	109
44463AM16L134	63	M16	29	134
44463AM16L159	63	M16	29	159
44463AM16L184	63	M16	29	184
44463AM16L209	63	M16	29	209
444100AM12L87	100	M12	21	87
444100AM12L137	100	M12	21	137
444100AM12L187	100	M12	21	187
444100AM16L87	100	M16	29	87
444100AM16L137	100	M16	29	137
444100AM16L187	100	M16	29	187
444100AM16L237	100	M16	29	237

Bilanciati G.2,5 a 20.000 R.P.M / Balanced to 20,000 R.P.M at G.2,5

BF SERVICE

MANDRINI DIN 2080
CHUCKS DIN 2080

MANDRINI PORTA PINZE ER DIN 6499/B - ATTACCO DIN 2080
COLLET CHUCKS ER DIN 6499/B - DIN 2080 SHANK



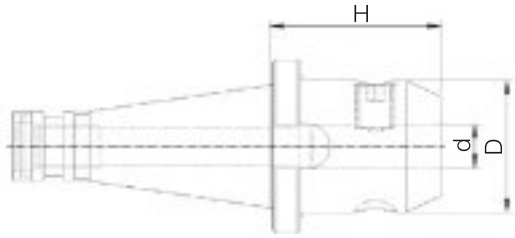


ART.	ISO	Pinza Collet	D mm	H mm
0004016	40	ER16	32	70
0004016L	40	ER16	32	100
0004016L130	40	ER16	32	130
0004020	40	ER20	35	70
0004020L	40	ER20	35	100
0004020L130	40	ER20	35	130
0004025	40	ER25	42	70
0004025L	40	ER25	42	100
0004025L130	40	ER25	42	130
0004032	40	ER32	50	70
0004032L	40	ER32	50	100
0004032L130	40	ER32	50	130
0004040	40	ER40	63	80
0004040L130	40	ER40	63	130

ART.	ISO	Pinza Collet	D mm	H mm
0005016	50	ER16	32	80
0005016L	50	ER16	32	100
0005020	50	ER20	35	80
0005020L	50	ER20	35	100
0005025	50	ER25	42	80
0005025L	50	ER25	42	100
0005025L130	50	ER25	42	130
0005032	50	ER32	50	80
0005032L	50	ER32	50	100
0005032L130	50	ER32	50	130
0005040	50	ER40	63	80
0005040L130	50	ER40	63	130

A richiesta sono fornibili mandrini cono ISO 30
ISO 30 taper chucks are available on request

MANDRINI PORTA FRESE TIPO WELDON - ATTACCO DIN 2080
WELDON MILLING CHUCKS - DIN 2080 SHANK





ART.	ISO	d mm	D mm	H mm
00040W06	40	6	25	50
00040W06L	40	6	25	100
00040W08	40	8	28	50
00040W08L	40	8	28	100
00040W10	40	10	35	50
00040W10L	40	10	35	100
00040W12	40	12	42	50
00040W12L	40	12	42	100
00040W14	40	14	44	50
00040W14L	40	14	44	100
00040W16	40	16	48	63
00040W16L	40	16	48	100
00040W18	40	18	50	63
00040W18L	40	18	50	100
00040W20	40	20	52	63
00040W20L	40	20	52	100
00040W25	40	25	65	90
00040W25L	40	25	65	100
00040W32	40	32	72	90
00040W32L	40	32	72	100
00040W40	40	40	78	90

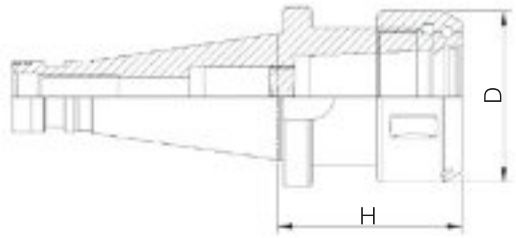
ART.	ISO	d mm	D mm	H mm
00050W06	50	6	25	50
00050W06L	50	6	25	100
00050W08	50	8	28	50
00050W08L	50	8	28	100
00050W10	50	10	35	63
00050W10L	50	10	35	100
00050W12	50	12	42	63
00050W12L	50	12	42	100
00050W14	50	14	44	63
00050W14L	50	14	44	100
00050W16	50	16	48	63
00050W16L	50	16	48	100
00050W18	50	18	50	63
00050W18L	50	18	50	100
00050W20	50	20	52	63
00050W20L	50	20	52	100
00050W25	50	25	65	80
00050W25L	50	25	65	100
00050W32	50	32	72	85
00050W32L	50	32	72	100
00050W40	50	40	78	95

A richiesta sono fornibili mandrini cono ISO 30 / ISO 30 taper chucks are available on request

BF SERVICE

MANDRINI DIN 2080
CHUCKS DIN 2080

MANDRINI PORTA PINZE EOP DIN 6388/B - ATTACCO DIN 2080
COLLET CHUCKS EOP DIN 6388/B - DIN 2080 SHANK



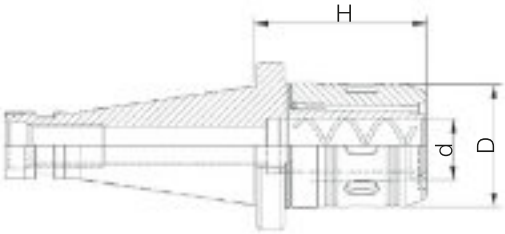


ART.	ISO	Pinza Collet	D mm	H mm
00040EOP16	40	EOP16	43	70
00040EOP25	40	EOP25	60	70
00040EOP32	40	EOP32	72	85

ART.	ISO	Pinza Collet	D mm	H mm
00050EOP16	50	EOP16	43	70
00050EOP25	50	EOP25	60	70
00050EOP32	50	EOP32	72	85

A richiesta sono fornibili mandrini cono ISO 30 / ISO 30 taper chucks are available on request

MANDRINI A FORTE SERRAGGIO - ATTACCO DIN 2080
POWER MILLING CHUCKS - DIN 2080 SHANK

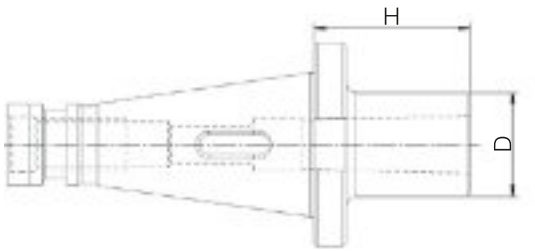




ART.	ISO	d mm	D mm	H mm
0004020FS	40	20	46	60
0004032FS	40	32	62	80
0005032FS	50	32	62	80

A richiesta sono fornibili mandrini cono ISO 30 / ISO 30 taper chucks are available on request

MANDRINI RIDUZIONE CONO MORSE PER PUNTE - ATTACCO DIN 2080
MORSE TAPER ADAPTERS FOR DRILL BITS - DIN 2080 SHANK





ART.	ISO	CM MT	D mm	H mm
00040CM1P	40	1	25	50
00040CM1PL	40	1	25	92
00040CM2P	40	2	32	50
00040CM2PL	40	2	32	109
00040CM3P	40	3	40	65
00040CM3PL	40	3	40	129
00040CM4P	40	4	48	95
00040CM4PL	40	4	48	152

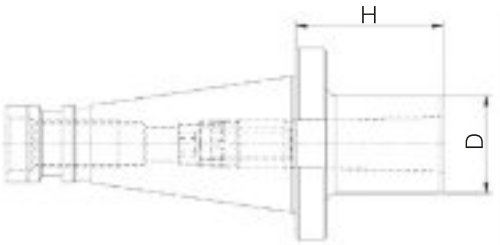
ART.	ISO	CM MT	D mm	H mm
00050CM1P	50	1	25	45
00050CM1PL	50	1	25	96
00050CM2P	50	2	32	60
00050CM2PL	50	2	32	113
00050CM3P	50	3	40	65
00050CM3PL	50	3	40	133
00050CM4P	50	4	48	70
00050CM4PL	50	4	48	163
00050CM5P	50	5	63	100
00050CM5PL	50	5	63	193

A richiesta sono fornibili mandrini cono ISO 30
ISO 30 taper chucks are available on request

BF SERVICE

MANDRINI DIN 2080
CHUCKS DIN 2080

MANDRINI RIDUZIONE CONO MORSE PER FRESE COMPLETI DI VITE - ATTACCO DIN 2080
MORSE TAPER ADAPTERS FOR END MILLS WITH SCREW - DIN 2080 SHANK



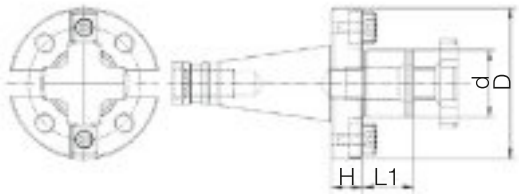


ART.	ISO	CM MT	D mm	H mm
00040CM1F	40	1	25	50
00040CM1FL	40	1	25	115
00040CM2F	40	2	32	50
00040CM2FL	40	2	32	115
00040CM3F	40	3	40	65
00040CM3FL	40	3	40	115
00040CM4F	40	4	48	95
00040CM4FL	40	4	48	165

ART.	ISO	CM MT	D mm	H mm
00050CM1F	50	1	25	45
00050CM1FL	50	1	25	115
00050CM2F	50	2	32	60
00050CM2FL	50	2	32	115
00050CM3F	50	3	40	65
00050CM3FL	50	3	40	115
00050CM4F	50	4	48	65
00050CM4FL	50	4	48	165
00050CM5F	50	5	63	120

A richiesta sono fornibili mandrini cono ISO 30 / ISO 30 taper chucks are available on request

MANDRINI PORTA FRESE AD INSERTI - ATTACCO DIN 2080
FACE MILL HOLDERS- DIN 2080 SHANK



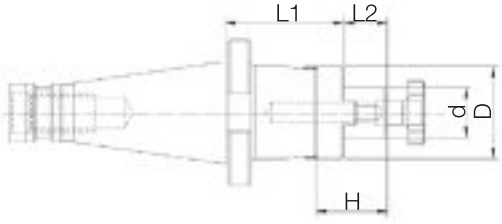


ART.	ISO	d mm	D mm	H mm	L1 mm
0004040FI	40	40	89	20	30

ART.	ISO	d mm	D mm	H mm	L1 mm
0005040FI	50	40	89	30	30
0005060FI	50	60	129	30	40

A richiesta sono fornibili mandrini cono ISO 30 / ISO 30 taper chucks are available on request

MANDRINI PORTAFRESE CON TRASCINATORE FRONTALE - ATTACCO DIN 2080
FACE MILL TOOL HOLDERS WITH DRIVE DOG - DIN 2080 SHANK





ART.	ISO	d mm	D mm	H mm	L1 mm	L2 mm
0004016U	40	16	32	27	52	17
0004016UL	40	16	32	27	100	17
0004022U	40	22	40	31	52	19
0004022UL	40	22	40	31	100	19
0004027U	40	27	48	33	52	21
0004027UL	40	27	48	33	100	21
0004032U	40	32	58	38	52	24
0004032UL	40	32	58	38	100	24
0004040U	40	40	70	41	52	27
0004040UL	40	40	70	41	100	27

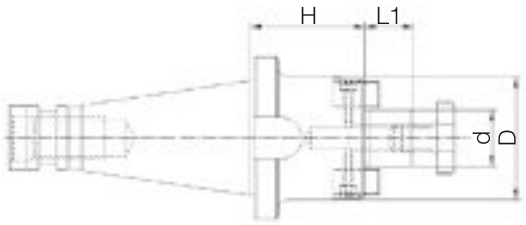
ART.	ISO	d mm	D mm	H mm	L1 mm	L2 mm
0005016U	50	16	32	27	55	17
0005016UL	50	16	32	27	100	17
0005022U	50	22	40	31	55	19
0005022UL	50	22	40	31	100	19
0005027U	50	27	48	33	55	21
0005027UL	50	27	48	33	100	21
0005032U	50	32	58	38	55	24
0005032UL	50	32	58	38	100	24
0005040U	50	40	70	41	55	27
0005040UL	50	40	70	41	100	27

A richiesta sono fornibili mandrini cono ISO 30 / ISO 30 taper chucks are available on request

BF SERVICE

MANDRINI DIN 2080
CHUCKS DIN 2080

MANDRINI PORTA FRESE CON TRASCINATORE FISSO - ATTACCO DIN 2080
FACE MILL TOOL HOLDERS WITH FIXED DRIVE DOG - DIN 2080 SHANK



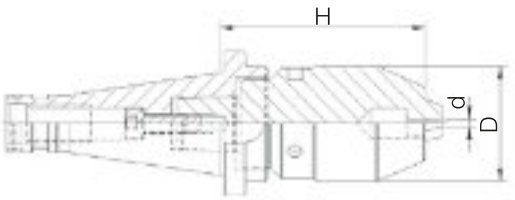


ART.	ISO	d mm	D mm	H mm	L1 mm
0004016TF	40	16	38	45	17
0004016TFL	40	16	38	100	17
0004022TF	40	22	48	45	19
0004022TFL	40	22	48	100	19
0004027TF	40	27	58	45	21
0004027TFL	40	27	58	100	21
0004032TF	40	32	78	50	24
0004032TFL	40	32	66	100	24
0004040TF	40	40	88	55	27
0004040TFL	40	40	80	100	27

ART.	ISO	d mm	D mm	H mm	L1 mm
0005016TF	50	16	38	45	17
0005016TFL	50	16	38	100	17
0005022TF	50	22	48	45	19
0005022TFL	50	22	48	100	19
0005027TF	50	27	58	45	21
0005027TFL	50	27	58	100	21
0005032TF	50	32	78	50	24
0005032TFL	50	32	66	100	24
0005040TF	50	40	88	50	27
0005040TFL	50	40	80	100	27

A richiesta sono fornibili mandrini cono ISO 30 / ISO 30 taper chucks are available on request

MANDRINI PORTA PUNTE INTEGRALI - ATTACCO DIN 2080
INTEGRAL KEYLESS DRILL CHUCKS - DIN 2080 SHANK



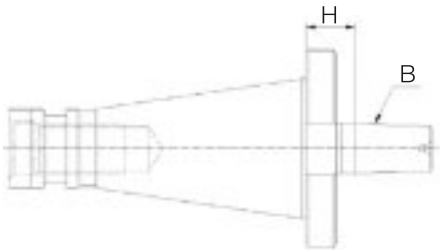


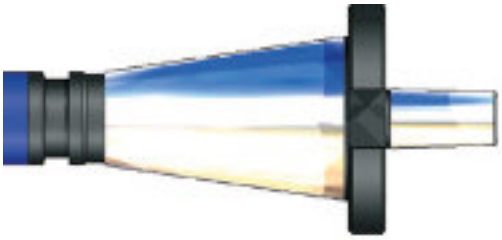
ART.	ISO	d mm	D mm	H mm
00040PC13	40	1-13	50	88
00040PC16	40	3-16	57	100

ART.	ISO	d mm	D mm	H mm
00050PC13	50	1-13	50	85
00050PC16	50	3-16	57	90

A richiesta sono fornibili mandrini cono ISO 30 / ISO 30 taper chucks are available on request

ATTACCHI PER MANDRINI PORTA PUNTE CILINDRICHE - ATTACCO DIN 2080
DRILL CHUCK ADAPTERS - DIN 2080 SHANK





ART.	ISO	B	H mm
00040B12	40	B12	18
00040B16	40	B16	18
00040B18	40	B18	18

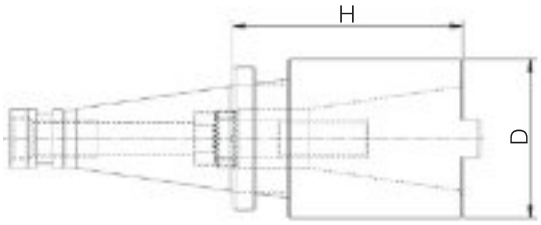
ART.	ISO	B	H mm
00050B12	50	B12	20
00050B16	50	B16	20
00050B18	50	B18	20

A richiesta sono fornibili mandrini cono ISO 30 / ISO 30 taper chucks are available on request

BF SERVICE

MANDRINI DIN 2080
CHUCKS DIN 2080

MANDRINI RIDUZIONE - ATTACCO DIN 2080
CHUCK ADAPTERS - DIN 2080 SHANK



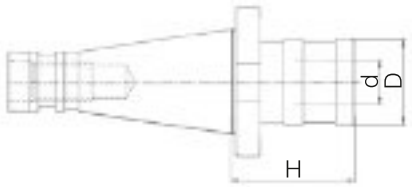


ART.	ISO	ISO interno Internal	D mm	H mm
00040300	40	30	50	50

ART.	ISO	ISO interno Internal	D mm	H mm
00050400	50	40	78	63

A richiesta sono fornibili mandrini cono ISO 30 / ISO 30 taper chucks are available on request

MANDRINI PORTA MASCHI A CAMBIO RAPIDO CON DOPPIA COMPENSAZIONE ATTACCO DIN 2080
QUICK-CHANGE TAP HOLDERS WITH DOUBLE COMPENSATION - DIN 2080 SHANK



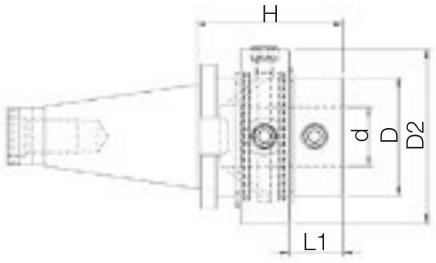


ART.	ISO	Tipo Type	d mm	D mm	H mm
00040M312	40	gr.1	19	36	52
00040M820	40	gr.2	31	53	77

ART.	ISO	Tipo Type	d mm	D mm	H mm
00050M820	50	gr.2	31	53	79

A richiesta sono fornibili mandrini cono ISO 30 / ISO 30 taper chucks are available on request

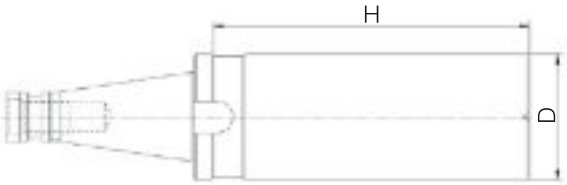
DISTRIBUTORI ROTANTI DI REFRIGERANTE - ATTACCO DIN 2080
COOLANT INDUCERS - DIN 2080 SHANK





ART.	ISO	d mm	D mm	D2 mm	H mm	L2 mm
00040W40DRAM	40	40	80	118	100	35
00050W40DRAM	50	40	80	118	100	36

MANDRINI CON STELO TENERO LAVORABILE - ATTACCO DIN 2080
BORING BAR BLANKS WITH SOFT BODY - DIN 2080 SHANK





ART.	ISO	D mm	H mm
0004063STL	40	63	250

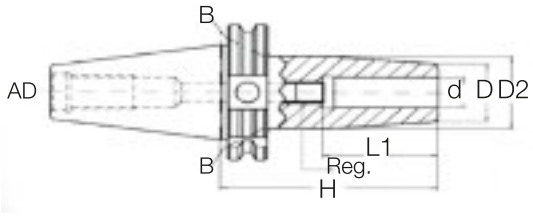
ART.	ISO	D mm	H mm
0005095STL	50	97	315

A richiesta sono fornibili mandrini cono ISO 30 / ISO 30 taper chucks are available on request

BF SERVICE

MANDRINI A CALETTAMENTO A CALDO
SHRINK FIT CHUCKS

MANDRINI A CALETTAMENTO A CALDO - ATTACCO DIN 69871 AD/B
SHRINK FIT CHUCKS - DIN 69871 AD/B SHANK



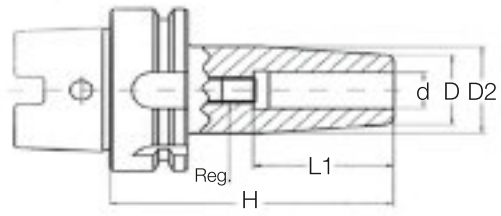


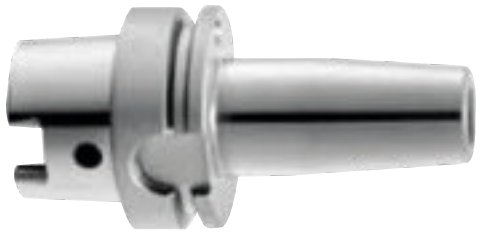
ART.	Cono esterno	d mm	D mm	D2 mm	H mm	L1 mm
9994006MC	40	6	21	27	80	36
9994006MCL120	40	6	21	27	120	36
9994006MCL160	40	6	21	27	160	36
9994008MC	40	8	21	27	80	36
9994008MCL120	40	8	21	27	120	36
9994008MCL160	40	8	21	27	160	36
9994010MC	40	10	24	32	80	42
9994010MCL120	40	10	24	32	120	42
9994010MCL160	40	10	24	32	160	42
9994012MC	40	12	24	32	80	47
9994012MCL120	40	12	24	32	120	47
9994012MCL160	40	12	24	32	160	47
9994016MC	40	16	27	35	80	50
9994016MCL120	40	16	27	35	120	50
9994016MCL160	40	16	27	35	160	50
9994020MC	40	20	33	42	80	52
9994020MCL120	40	20	33	42	120	52
9994020MCL160	40	20	33	42	160	52

ART.	Cono esterno	d mm	D mm	D2 mm	H mm	L1 mm
9995006MC	50	6	21	27	80	36
9995006MCL120	50	6	21	27	120	36
9995006MCL160	50	6	21	27	160	36
9995008MC	50	8	21	27	80	36
9995008MCL120	50	8	21	27	120	36
9995008MCL160	50	8	21	27	160	36
9995010MC	50	10	24	32	80	42
9995010MCL160	50	10	24	32	160	42
9995012MC	50	12	24	32	80	42
9995012MCL160	50	12	24	32	160	42
9995016MC	50	16	27	34	80	50
9995016MCL160	50	16	27	34	160	50
9995020MC	50	20	33	42	80	52
9995020MCL160	50	20	33	42	160	52
9995025MC	50	25	44	53	100	58
9995025MCL160	50	25	44	53	160	58
9995032MC	50	32	44	53	100	62
9995032MCL160	50	32	44	53	160	62

Bilanciati G.2,5 a 20.000 R.P.M
Balanced to 20,000 R.P.M at G.2,5

MANDRINI A CALETTAMENTO A CALDO - ATTACCO HSK63/A DIN 69893
SHRINK FIT CHUCKS - HSK63/A DIN 69893 SHANK





ART.	HSK/A	d mm	D mm	D2 mm	H mm	L1 mm
44463A06MC	63	6	21	27	80	36
44463A06MCL120	63	6	21	27	120	36
44463A06MCL160	63	6	21	27	160	36
44463A08MC	63	8	21	27	80	36
44463A08MCL120	63	8	21	27	120	36
44463A08MCL160	63	8	21	27	160	36
44463A10MC	63	10	24	32	85	42
44463A10MCL120	63	10	24	32	130	42
44463A10MCL160	63	10	24	32	160	42

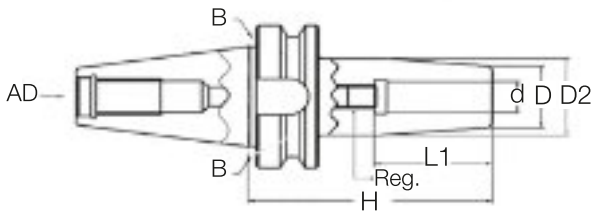
ART.	HSK/A	d mm	D mm	D2 mm	H mm	L1 mm
44463A12MC	63	12	24	32	90	47
44463A12MCL120	63	12	24	32	120	47
44463A12MCL160	63	12	24	32	160	47
44463A16MC	63	16	27	35	95	50
44463A16MCL120	63	16	27	35	120	50
44463A16MCL160	63	16	27	35	160	50
44463A20MC	63	20	33	42	100	52
44463A20MCL120	63	20	33	42	120	52
44463A20MCL160	63	20	33	42	160	52

Bilanciati G.2,5 a 20.000 R.P.M
Balanced to 20,000 R.P.M at G.2,5

BF SERVICE

MANDRINI A CALETTAMENTO A CALDO
SHRINK FIT CHUCKS

MANDRINI A CALETTAMENTO A CALDO - ATTACCO MAS BT/B
SHRINK FIT CHUCKS - MAS BT/B SHANK





ART.	Cono esterno	d mm	D mm	D2 mm	H mm	L1 mm
6664006MC	40	6	21	27	90	36
6664006MCL120	40	6	21	27	120	36
6664006MCL160	40	6	21	27	160	36
6664008MC	40	8	21	27	90	36
6664008MCL120	40	8	21	27	120	36
6664008MCL160	40	8	21	27	160	36
6664010MC	40	10	24	32	90	42
6664010MCL120	40	10	24	32	120	42
6664010MCL160	40	10	24	32	160	42
6664012MC	40	12	24	32	90	47
6664012MCL120	40	12	24	32	120	47
6664012MCL160	40	12	24	32	160	47
6664016MC	40	16	27	35	90	50
6664016MCL120	40	16	27	35	120	50
6664016MCL160	40	16	27	35	160	50
6664020MC	40	20	33	42	90	52
6664020MCL120	40	20	33	42	120	52
6664020MCL160	40	20	33	42	160	52
6665006MC	50	6	21	27	100	36
6665006MCL120	50	6	21	27	120	36
6665006MCL160	50	6	21	27	160	36
6665008MC	50	8	21	27	100	36
6665008MCL120	50	8	21	27	120	36
6665008MCL160	50	8	21	27	160	36
6665010MC	50	10	24	32	100	42
6665010MCL160	50	10	24	32	160	42
6665012MC	50	12	24	32	100	42
6665012MCL160	50	12	24	32	160	42
6665016MC	50	16	27	35	100	50
6665016MCL160	50	16	27	35	160	50
6665020MC	50	20	33	42	100	52
6665020MCL160	50	20	33	42	160	52
6665025MC	50	25	44	53	100	58
6665025MCL160	50	25	44	53	160	58
6665032MC	50	32	44	53	100	62
6665032MCL160	50	32	44	53	160	62

Bilanciati G.2,5 a 20.000 R.P.M
Balanced to 20,000 R.P.M at G.2,5

BF SERVICE

UNITÀ DI CALETTAMENTO
SHRINK UNIT

UNITÀ MOBILE DI CALETTAMENTO A INDUZIONE
COMPACT STARTER SHRINK UNIT

Processo di calettamento ad induzione brevettato.
Il calettamento avviene semplicemente premendo un pulsante ed il processo si arresta rilasciando il medesimo pulsante.
Ottima protezione tra la bobina ed il gambo dell'utensile tramite dischetti in ferrite a cambio rapido.
Massima lunghezza dalla linea flangia 290 mm.
Adatta a tutti gli attacchi standard tramite un semplice cambio di supporto del portautensile.
Sistemi di raffreddamento ad acqua o aria sono disponibili come optional per raffreddare i mandrini velocemente.

ACCESSORI IN DOTAZIONE:
· supporto porta mandrino
· dischetto per utensili da Ø 3-16 mm
· 1 paio di guanti termici

Patented induction shrinking process.
The shrinking process is possible by switching on and off the button.
The TSF discs provide optimal shielding of the magnetic field between coil and tool shank. This guarantees safe and reliable shrinking of the TSF adaptors.
It is suitable for all major tool spindles with a maximum tool length of 290 mm from taper gauge line.
The ThermoGrip® measuring adaptor works on all standard length presetting units.
The liquid cooler is a separate unit for cooling chucks which have been heated up during the shrinking process.

SUPPLIED ACCESSORIES
• chuck holder
• clamping range Ø: 3 mm - 16 mm
• 1 pair of thermic gloves



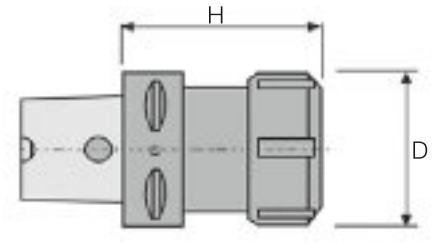
ART.		ESM100065
Campo di serraggio HM Clamping range HM	mm	Ø 3-16
Campo di serraggio HSS Clamping range HSS	mm	Ø 12-16
Bobina		Fissa Fixed
Max lunghezza utensile Max length	mm	290 (HSK-A63)
Accessori per il raffreddamento Cooling accessories		opzionali optional
Tempo di raffreddamento Cooling time	s	300
Massima interfaccia macchina Maximum machine interface		HSK-A 100, SK50
Potenza motore Power input	kW	6,5
Alimentazione Mains voltage		400V 16A 50Hz
Temperatura di utilizzo Operating temperature		~ 450°
Dimensioni Dimensions	mm	390x310x640
Peso Weight	kg	17

ART.	ACCESSORI
ESM1000HSK32	Supporto porta mandrino HSK32 Chuck holder HSK32
ESM1000HSK40	Supporto porta mandrino HSK40 Chuck holder HSK40
ESM1000HSK50	Supporto porta mandrino HSK50 Chuck holder HSK50
ESM1000HSK63	Supporto porta mandrino HSK63 Chuck holder HSK63
ESM1000HSK80	Supporto porta mandrino HSK80 Chuck holder HSK80
ESM1000HSK100	Supporto porta mandrino HSK100 Chuck holder HSK100
ESM1000SK30	Supporto porta mandrino SK30 Chuck holder SK30
ESM1000SK40	Supporto porta mandrino SK40 Chuck holder SK40
ESM1000SK50	Supporto porta mandrino SK50 Chuck holder HSK50
ESM1000316	Dischetto per utensili da Ø 3 a 16 mm Clamping range from Ø 3 to 16 mm

BF SERVICE

MANDRINI POLIGONALI
POLYGONAL CHUCKS

MANDRINI PORTA PINZE PSC ISO 26623-1
COLLECT CHUCKS PSC ISO 26623-1



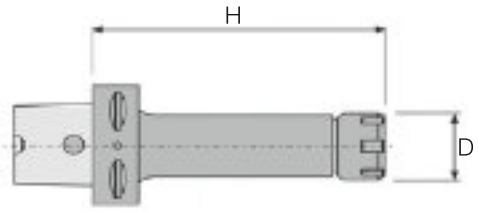


ART.	PSC	Pinza	D mm	H mm
PSC6316L60	63	ER16	28	60
PSC6325L60	63	ER25	42	60
PSC6332L60	63	ER32	50	60
PSC6340L70	63	ER40	63	70
PSC6316L100	63	ER16	28	100
PSC6325L100	63	ER25	42	100

ART.	PSC	Pinza	D mm	H mm
PSC6332L100	63	ER32	50	100
PSC6340L100	63	ER40	63	100
PSC6316L160	63	ER16	28	160
PSC6325L160	63	ER25	42	160
PSC6332L160	63	ER32	50	160

Altre misure a richiesta / Other sizes are available on request

MANDRINI PORTA PINZE PSC ISO 26623-1 GHIERA MINI
COLLECT CHUCKS PSC ISO 26623-1 MINI RING



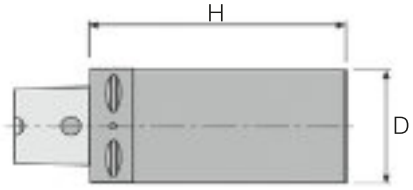


ART.	PSC	Pinza	D mm	H mm
PSC6316ML60	63	ER16	22	60
PSC6320ML60	63	ER20	28	60

ART.	PSC	Pinza	D mm	H mm
PSC6316ML100	63	ER16	22	100
PSC6320ML100	63	ER20	28	100

Altre misure a richiesta / Other sizes are available on request

MANDRINI POLIGONALI CON STELO TENERO PSC ISO 26623-1
BORING BAR BLANKS WITH SOFT BODY PSC ISO 26623-1





ART.	PSC	D mm	H mm
PSC63110STL85	63	110	85
PSC63130STL95	63	130	95
PSC6363STL180	63	63	180

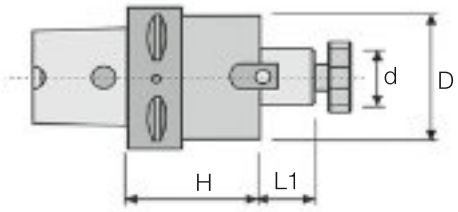
ART.	PSC	D mm	H mm
PSC63120STL180	63	120	180
PSC6375STL195	63	75	95

Altre misure a richiesta / Other sizes are available on request

BF SERVICE

MANDRINI POLIGONALI
POLYGONAL CHUCKS

MANDRINI PORTA FRESE CON TRASCINATORE FISSO PSC ISO 26623-1
FACE MILL TOOL HOLDERS WITH FIXED DRIVE DOG PSC-ISO 26623-1



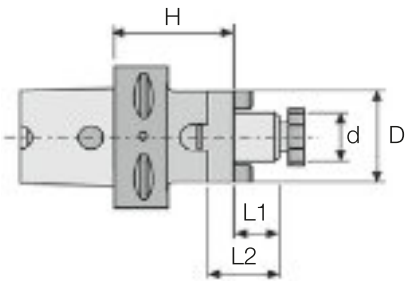


ART.	PSC	d mm	D mm	H mm	L1 mm
PSC6316TFL35	63	16	32	35	17
PSC6316TFL63	63	16	37	63	17
PSC6322TFL35	63	22	55	35	19

ART.	PSC	d mm	D mm	H mm	L1 mm
PSC6327TFL40	63	27	63	40	21
PSC6332TFL40	63	32	63	40	24
PSC6340TFL45	63	40	89	45	27

Altre misure a richiesta / Other sizes are available on request

MANDRINI PORTA FRESE CON TRASCINATORE FRONTALE PSC ISO 26623-1
FACE MILL TOOL HOLDERS WITH DRIVE DOG PSC-ISO 26623-1



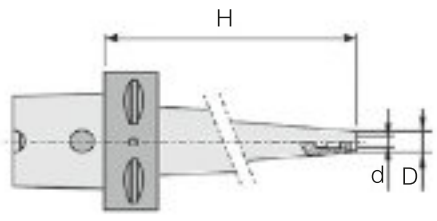


ART.	PSC	d mm	D mm	H mm	L1 mm	L2 mm
PSC6316UL90	63	16	32	90	17	27
PSC6322UL90	63	22	40	90	19	31
PSC6327UL90	63	27	48	90	21	33

ART.	PSC	d mm	D mm	H mm	L1 mm	L2 mm
PSC6332UL90	63	32	58	90	24	38
PSC6340UL90	63	40	70	90	27	41

Altre misure a richiesta / Other sizes are available on request

MANDRINI PORTA FRESE CON ATTACCO FILETTATO PSC ISO 26623-1
CHUCKS FOR END MILLS WITH THREADED SHANK PSC-ISO 26623-1





ART.	PSC	d	D mm	H mm
PSC63M08L70	63	M8	13	70
PSC63M10L90	63	M10	18	90

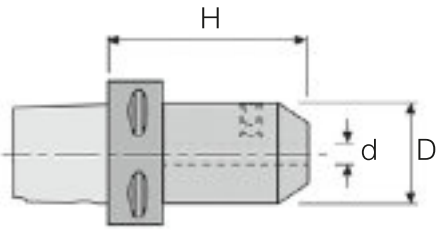
ART.	PSC	d	D mm	H mm
PSC63M12L100	63	M12	21	100
PSC63M16L100	63	M16	29	100

Altre misure a richiesta / Other sizes are available on request

BF SERVICE

MANDRINI POLIGONALI
POLYGONAL CHUCKS

MANDRINI PORTA FRESE TIPO WELDON PSC ISO 26623-1
WELDON MILLING CHUCKS PSC-ISO 26623-1



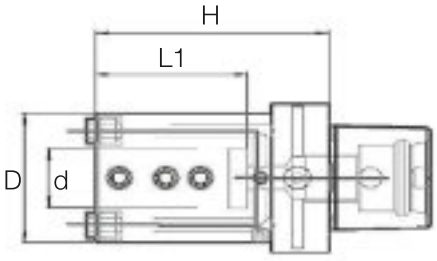


ART.	PSC	d mm	D mm	H mm
PSC63W06L55	63	6	25	55
PSC63W08L55	63	8	28	55
PSC63W10L60	63	10	35	60
PSC63W12L60	63	12	42	60
PSC63W14L65	63	14	42	60
PSC63W16L65	63	16	48	65

ART.	PSC	d mm	D mm	H mm
PSC63W18L65	63	18	48	65
PSC63W20L65	63	20	52	65
PSC63W25L80	63	25	65	80
PSC63W32L90	63	32	72	90
PSC63W40L100	63	40	80	100

Altre misure a richiesta / Other sizes are available on request

MANDRINI PORTA BARENI ASSIALI PSC ISO 26623-1
AXIAL BORING BAR HOLDER CHUCKS PSC-ISO 26623-1



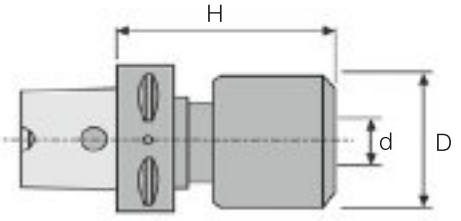


ART.	PSC	d mm	D mm	H mm	L1 mm
PSC63BR16L80	63	16	45	80	50
PSC63BR20L80	63	20	50	80	50
PSC63BR25L85	63	25	55	85	57

ART.	PSC	d mm	D mm	H mm	L1 mm
PSC63BR32L95	63	32	72	95	59
PSC63BR40L105	63	40	80	105	72

Altre misure a richiesta / Other sizes are available on request

MANDRINI POLIGONALI A FORTE SERRAGGIO PSC ISO 26623-1
POWER MILLING CHUCKS PSC-ISO 26623-1





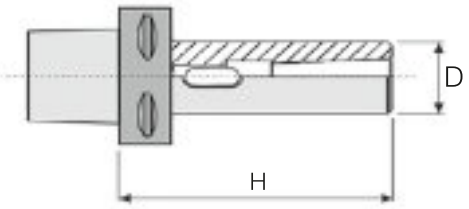
ART.	PSC	d mm	D mm	H mm
PSC6320FSL80	63	20	50	80
PSC6332FSL100	63	32	63	100

Altre misure a richiesta / Other sizes are available on request

BF SERVICE

MANDRINI POLIGONALI
POLYGONAL CHUCKS

MANDRINI RIDUZIONE CONO MORSE PER PUNTE PSC ISO 26623-1
MORSE TAPER ADAPTER FOR DRILL BITS PSC-ISO 26623-1

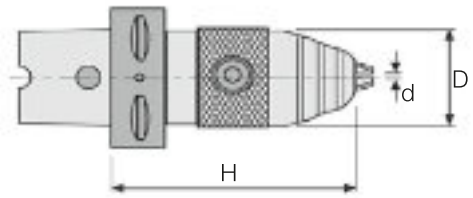




ART.	PSC	CM	D mm	H mm
PSC63CM2PL110	63	2	32	110
PSC63CM3PL130	63	3	40	130
PSC63CM4PL155	63	4	52	155

Altre misure a richiesta / Other sizes are available on request

MANDRINI PORTA PUNTE INTEGRALI PSC ISO 26623-1
INTEGRAL DRILL CHUCKS PSC-ISO 26623-1

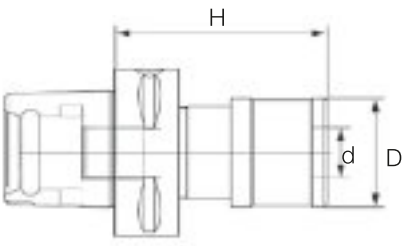




ART.	PSC	d mm	D mm	H mm
PSC63PC13IL112	63	0,5-13	50	112
PSC63PC16IL112	63	3-16	57	112

Altre misure a richiesta / Other sizes are available on request

MANDRINI PORTA MASCHI A CAMBIO RAPIDO PSC ISO 26623-1
QUICK- CHANGE TAP HOLDERS PSC-ISO 26623-1





ART.	PSC	Tipo	d mm	D mm	H mm
PSC63M312L73	63	Gr.1	19	38	73
PSC63M820L97	63	Gr.2	31	55	97

Altre misure a richiesta / Other sizes are available on request

BF SERVICE

MANDRINI CILINDRICI E CONO MORSE
STRAIGHT SHANK AND MORSE TAPER CHUCKS

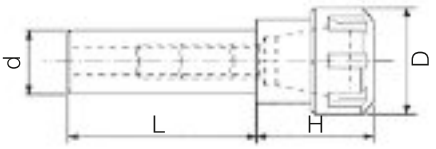
MANDRINI CILINDRICI PORTA PINZE DIN 6499/B
STRAIGHT SHANK COLLET CHUCKS DIN 6499/B



ART.	d mm	Pinza Collet	L mm	H mm	D mm	Immagine Image
7771008ML	10	ER8	100	25	12	
7771208ML130	12	ER8	130	19	12	
7771011ML	10	ER11	100	26	16	
7771211ML130	12	ER11	130	26	16	
7771611ML	16	ER11	100	19	16	
7771611ML130	16	ER11	130	19	16	
7771616M	16	ER16	80	38	22	1
7771616ML130	16	ER16	130	38	22	
7771620ML	16	ER20	100	42	28	
7772016M	20	ER16	100	31	22	
7772016ML130	20	ER16	130	31	22	
7772016ML160	20	ER16	160	31	22	
7772025L	20	ER25	100	47	42	
7772032L	20	ER32	100	50	50	
7772525L	25	ER25	100	33	42	
7772532L	25	ER32	100	53	50	2
7773232L	32	ER32	100	53	50	
7773240L	32	ER40	100	60	63	
7774040L	40	ER40	100	60	63	

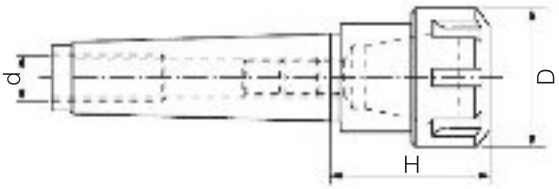


Img 1



Img 2

MANDRINI PORTA PINZE DIN 6499/B CONO MORSE DIN 228/A
COLLET CHUCKS DIN 6499/B MORSE TAPER DIN 228/A





ART.	CM MT	Pinza Collet	d	D mm	H mm
5550216	2	ER16	M10	28	42
5550220	2	ER20	M10	34	50
5550225	2	ER25	M10	42	54
5550232	2	ER32	M10	50	70
5550325	3	ER25	M12	42	53
5550332	3	ER32	M12	50	70

ART.	CM MT	Pinza Collet	d	D mm	H mm
5550340	3	ER40	M12	63	80
5550425	4	ER25	M16	42	56
5550432	4	ER32	M16	50	60
5550440	4	ER40	M16	63	96
5550532	5	ER32	M20	50	50
5550540	5	ER40	M20	82	63

ASSORTIMENTI MANDRINI PORTA PINZE DIN 6499/B CONO MORSE DIN 228/A
COLLET CHUCK SETS DIN 6499/B MORSE TAPER DIN 228/A

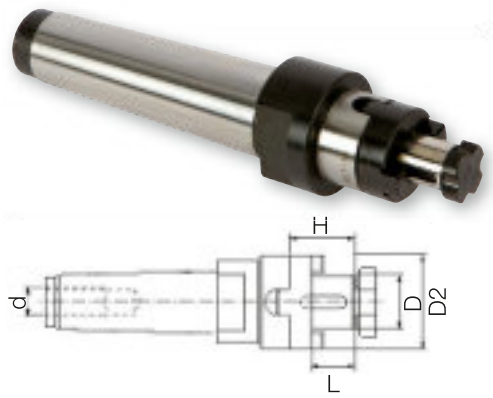


ART.	CM MT	Pinza Collet	N° Pinze Collet	Misura pinze Size collet mm
MS2ER2510	2	ER25	10	3÷16
MS3ER3212	3	ER32	12	3÷20
MS4ER3212	4	ER32	12	3÷20

BF SERVICE

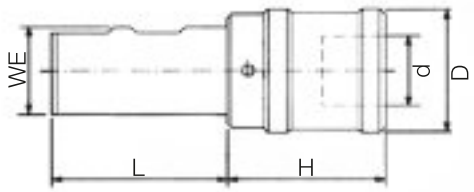
MANDRINI CILINDRICI E CONO MORSE
STRAIGHT SHANK AND MORSE TAPER CHUCKS

MANDRINI CONO MORSE DIN 228/A PORTA FRESE UNIVERSALE
UNIVERSAL MORSE TAPER MILLING CHUCKS DIN 228/A



ART.	CM MT	d	D mm	D2 mm	H mm	L mm
5550216U	2	M10	16	36	27	17
5550222U	2	M10	22	34	31	19
5550316U	3	M12	16	38	27	17
5550322U	3	M12	22	36	31	19
5550327U	3	M12	27	36	33	21
5550416U	4	M16	16	44,5	27	17
5550422U	4	M16	22	42,5	31	19
5550427U	4	M16	27	42,5	33	21
5550432U	4	M16	32	40,5	38	24

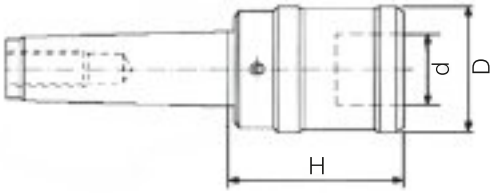
MASCHIATORI GAMBO CILINDRICO ATTACCO WELDON E WHISTLE NOTCH
WELDON AND WHISTLE NOTCH STRAIGHT SHANK TAPPING CHUCK





ART.	Campo filettatura Threading range	d mm	D mm	H mm	WE	L mm
8032001WE	M3-M12	19	36	46	20	50
8032501WE	M3-M12	19	36	46	25	56
8032502WE	M8-M20	31	53	70	25	56
8033202WE	M8-M20	31	53	70	32	61

MASCHIATORI CONO MORSE DIN 228/A CON DOPPIA COMPENSAZIONE
MORSE TAPER TAPPING CHUCKS 228/A WITH DOUBLE COMPENSATION

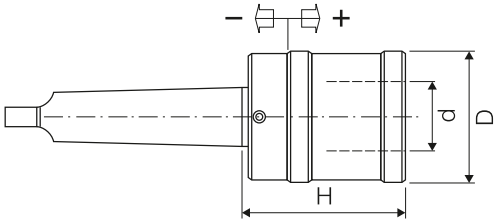




ART.	Campo filettatura Threading range	Cono esterno External taper	d mm	D mm	H mm
8030201	M3-M12	CM/MT 2	19	36	46
8030301	M3-M12	CM/MT 3	19	36	46
8030302	M8-M20	CM/MT 3	31	53	70
8030402	M8-M20	CM/MT 4	31	53	44

MASCHIATORI CONO MORSE DIN 228/B CON TENONE E DOPPIA COMPENSAZIONE
MORSE TAPER TAPPING CHUCKS 228/B WITH TENON AND DOUBLE COMPENSATION

NOVITÀ





ART.	Campo filettatura Threading range	Cono esterno External taper	d mm	D mm	H mm	Pressione Pressure	Trazione Tension
8040201	M3-M12	CM/MT 2	19	36	46	7,5	7,5
8040301	M3-M12	CM/MT 3	19	36	46	7,5	7,5
8040302	M8-M20	CM/MT 3	31	53	70	12,5	12,5
8040402	M8-M20	CM/MT 4	31	53	44	12,5	12,5

BF SERVICE

MANDRINI CILINDRICI E CONO MORSE
STRAIGHT SHANK AND MORSE TAPER CHUCKS

ATTACCHI CONICI PER MANDRINI / MORSE TAPER CHUCK ADAPTERS

ART.	Cono esterno External taper	Attacco/ Shank DIN
02.0301001	1	B10
02.0301201	1	B12
02.0301601	1	B16
02.0301002	2	B10
02.0301202	2	B12
02.0301602	2	B16
02.0301802	2	B18
02.0301603	3	B16
02.0301803	3	B18
02.0301604	4	B16
02.0301804	4	B18

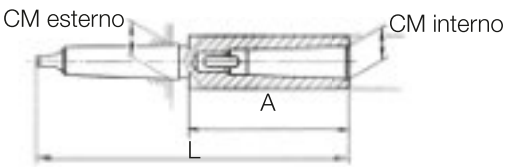


BUSSOLE DI RIDUZIONE CONO MORSE / MORSE TAPER REDUCTION SLEEVES

ART.	Cono esterno External taper	Cono interno Internal taper
02.0400201	2	1
02.0400301	3	1
02.0400302	3	2
02.0400401	4	1
02.0400402	4	2
02.0400403	4	3
02.0400502	5	2
02.0400503	5	3
02.0400504	5	4



BUSSOLE DI RIDUZIONE TIPO LUNGO / LONG SHANK REDUCTION SLEEVES



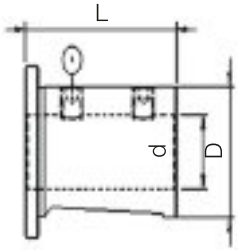


ART.	Cono esterno External taper	Cono interno Internal taper	L mm	A mm
02.0500201	2	1	160	85
02.0500202	2	2	175	100
02.0500203	2	3	196	121
02.0500301	3	1	175	81
02.0500302	3	2	194	100
02.0500303	3	3	215	121
02.0500304	3	4	240	146

ART.	Cono esterno External taper	Cono interno Internal taper	L mm	A mm
02.0500402	4	2	215	97,5
02.0500403	4	3	240	122,5
02.0500404	4	4	265	148
02.0500405	4	5	300	182
02.0500503	5	3	268	119
02.0500504	5	4	300	151
02.0500505	5	5	335	186

BUSSOLE DI RIDUZIONE PER DISTRIBUTORI ROTANTI
REDUCTION SLEEVES FOR COOLANT INDUCERS

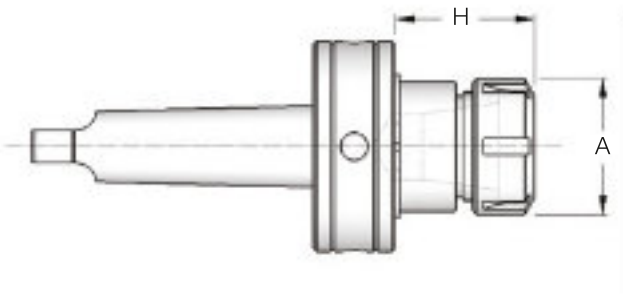
ART.	Ø mm	Foro Hole mm	d mm	D mm	L mm
BUS3216DRA	32	16	16	32	55
BUS3220DRA	32	20	20	32	55
BUS3225DRA	32	25	25	32	55
BUS4016DRA	40	16	16	40	55
BUS4020DRA	40	20	20	40	55
BUS4025DRA	40	25	25	40	60
BUS4032DRA	40	32	32	40	65





BF SERVICE

MANDRINO PORTAPINZE ER32 CON GHIERA PER SERRMAC/FAMUP E BIMAK
COLLET CHUCK ER32 WITH NUT SUITABLE FOR SERRMAC/FAMUP E BIMAK





ART.	Cono Taper	Passo filetto contro ghiera Thread pitch	H mm	A mm	Misura pinze Collet size
5550432SER	CM4	M60 x 2,5	52	50	3-20
5550432BIM	CM4	M60 x 3,0	52	50	3-20

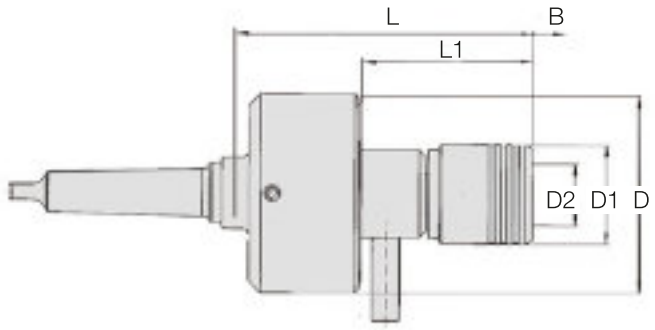
CASSETTE CON MANDRINO PORTA PINZE CON GHIERA PER SERRMAC/FAMUP E BIMAK
CASES WITH COLLET CHUCK WITH NUT SUITABLE FOR SERRMAC/FAMUP E BIMAK



ART.	Composizione / Includes		
	N°	Descrizione / Description	ART.
5550432001SER	1	Mandrino porta pinze CM4 Collet chuck CM4	5550432SER
	7	Pinze / Collets ER32	EPR32
	1	Chiave per ghiera Nut wrench	EPR32180CH
5550432001BIM	1	Mandrino porta pinze CM4 Collet chuck CM4	5550432BIM
	7	Pinze / Collets ER32	EPR32
	1	Chiave per ghiera Nut wrench	EPR32180CH

BF SERVICE

MANDRINO AD INVERSIONE PER MASCHIARE
REVERSING TAPPING CHUCK





ART.	Cono Taper	Filettatura Bussole Sleeves Threading GR1FE/NE	n. giri max (RPM)	B mm	L mm	L1 mm	D mm	D1 mm	D2 mm
8030201INV	CM2	M3 ÷ M12	1200	6	140	60	80	32	19

ASSORTIMENTO BUSSOLE CON MANDRINO AD INVERSIONE PER MASCHIARE
SLEEVE SET WITH REVERSING TAPPING CHUCK



ART.	Composizione / Includes		
	N°	Descrizione / Description	ART.
8030201001INV	1	Mandrino per maschiare ad inversione Reversing tapping attachment	8030201INV
	6	Bussole Sleeves	GR1FE

GAMMA DI BUSSOLE CHE COMPONGONO IL KIT:
SLEEVES INCLUDED IN THE KIT:

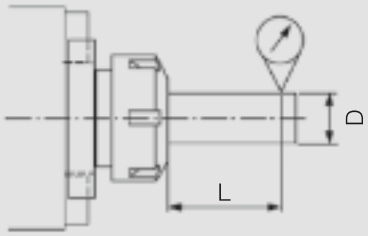
ART.	Filetto Thread	d mm	D mm	D2 mm	L1 mm	L2 mm	L3 mm
GR1FE3527	M3	3,5	32	19	21,5	25	17
GR1FE4534	M4	4,5	32	19	21,5	25	17
GR1FE0649	M5-M6	6	32	19	21,5	25	17
GR1FE0862	M8	8	32	19	21,5	25	17
GR1FE0907	M12	9	32	19	21,5	25	17
GR1FE1008	M10	10	32	19	21,5	25	17

BF SERVICE

PINZE E GHIERE
COLLETS AND NUTS

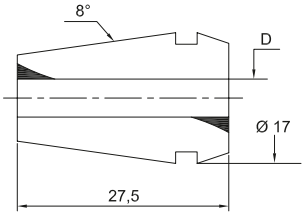
TABELLA PRECISIONE PINZE ER / ER COLLET ACCURACY TABLE

L mm	D mm	DIN 6343 STANDARD	Ultra precise Ultra precision mm
6	1-1,4	0,02	< 0,010
10	1,5-2,9	0,02	< 0,010
16	3-5,9	0,02	< 0,010
25	6-9,9	0,02	< 0,010
40	10-17,9	0,02	< 0,010
50	18-26,9	0,02	< 0,015
60	27-34	0,02	< 0,015



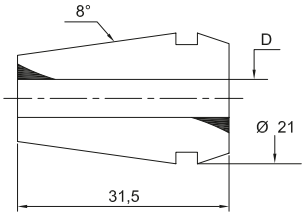
PINZE TENUTA STAGNA ER DIN 6499/B
WATERTIGHT ER COLLETS DIN 6499/B





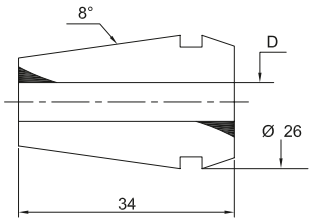
ER16

ART.	D mm
EPR16030TS	3
EPR16040TS	4
EPR16050TS	5
EPR16060TS	6
EPR16070TS	7
EPR16080TS	8
EPR16090TS	9
EPR16100TS	10



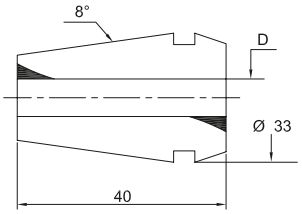
ER20

ART.	D mm
EPR20030TS	3
EPR20040TS	4
EPR20050TS	5
EPR20060TS	6
EPR20070TS	7
EPR20080TS	8
EPR20090TS	9
EPR20100TS	10
EPR20110TS	11
EPR20120TS	12
EPR20130TS	13



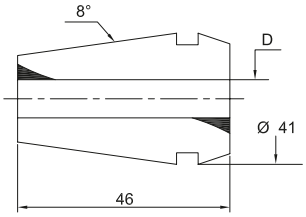
ER25

ART.	D mm
EPR25030TS	3
EPR25040TS	4
EPR25050TS	5
EPR25060TS	6
EPR25070TS	7
EPR25080TS	8
EPR25090TS	9
EPR25100TS	10
EPR25110TS	11
EPR25120TS	12
EPR25130TS	13
EPR25140TS	14
EPR25150TS	15
EPR25160TS	16



ER32

ART.	D mm
EPR32030TS	3
EPR32040TS	4
EPR32050TS	5
EPR32060TS	6
EPR32070TS	7
EPR32080TS	8
EPR32090TS	9
EPR32100TS	10
EPR32110TS	11
EPR32120TS	12
EPR32130TS	13
EPR32140TS	14
EPR32150TS	15
EPR32160TS	16
EPR32170TS	17
EPR32180TS	18
EPR32190TS	19
EPR32200TS	20



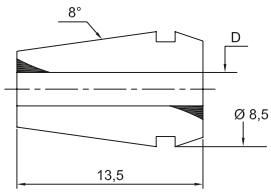
ER40

ART.	D mm
EPR40040TS	4
EPR40050TS	5
EPR40060TS	6
EPR40070TS	7
EPR40080TS	8
EPR40090TS	9
EPR40100TS	10
EPR40110TS	11
EPR40120TS	12
EPR40130TS	13
EPR40140TS	14
EPR40150TS	15
EPR40160TS	16
EPR40170TS	17
EPR40180TS	18
EPR40190TS	19
EPR40200TS	20
EPR40210TS	21
EPR40220TS	22
EPR40230TS	23
EPR40240TS	24
EPR40250TS	25
EPR40260TS	26

BF SERVICE

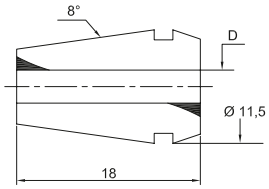
PINZE ER DIN 6499/B
ER COLLETS DIN 6499/B





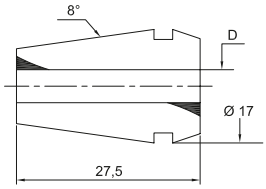
ER08

ART.	D mm
EPR08010	1
EPR08015	1,5
EPR08020	2
EPR08025	2,5
EPR08030	3
EPR08035	3,5
EPR08040	4
EPR08045	4,5
EPR08050	5



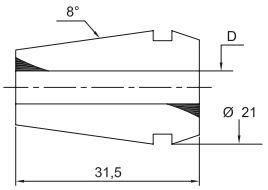
ER11

ART.	D mm
EPR11010	1
EPR11015	1,5
EPR11020	2
EPR11025	2,5
EPR11030	3
EPR11035	3,5
EPR11040	4
EPR11045	4,5
EPR11050	5
EPR11055	5,5
EPR11060	6
EPR11065	6,5
EPR11070	7



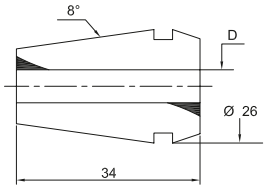
ER16

ART.	D mm
EPR16010	1
EPR16015	1,5
EPR16020	2
EPR16025	2,5
EPR16030	3
EPR16040	4
EPR16050	5
EPR16060	6
EPR16070	7
EPR16080	8
EPR16090	9
EPR16100	10



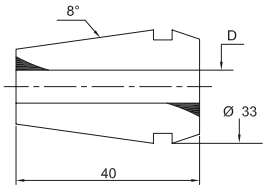
ER20

ART.	D mm
EPR20010	1
EPR20015	1,5
EPR20020	2
EPR20025	2,5
EPR20030	3
EPR20040	4
EPR20050	5
EPR20060	6
EPR20070	7
EPR20080	8
EPR20090	9
EPR20100	10
EPR20110	11
EPR20120	12
EPR20130	13



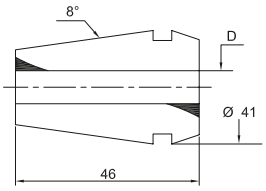
ER25

ART.	D mm
EPR25010	1
EPR25015	1,5
EPR25020	2
EPR25025	2,5
EPR25030	3
EPR25040	4
EPR25050	5
EPR25060	6
EPR25070	7
EPR25080	8
EPR25090	9
EPR25100	10
EPR25110	11
EPR25120	12
EPR25130	13
EPR25140	14
EPR25150	15
EPR25160	16



ER32

ART.	D mm
EPR32020	2
EPR32025	2,5
EPR32030	3
EPR32040	4
EPR32050	5
EPR32060	6
EPR32070	7
EPR32080	8
EPR32090	9
EPR32100	10
EPR32110	11
EPR32120	12
EPR32130	13
EPR32140	14
EPR32150	15
EPR32160	16
EPR32170	17
EPR32180	18
EPR32190	19
EPR32200	20



ER40

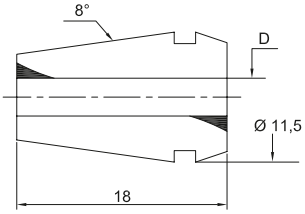
ART.	D mm
EPR40030	3
EPR40040	4
EPR40050	5
EPR40060	6
EPR40070	7
EPR40080	8
EPR40090	9
EPR40100	10
EPR40110	11
EPR40120	12
EPR40130	13
EPR40140	14
EPR40150	15
EPR40160	16

ART.	D mm
EPR40170	17
EPR40180	18
EPR40190	19
EPR40200	20
EPR40210	21
EPR40220	22
EPR40230	23
EPR40240	24
EPR40250	25
EPR40260	26
EPR40270	27
EPR40280	28
EPR40290	29
EPR40300	30

BF SERVICE

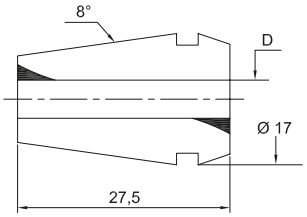
PINZE ULTRA PRECISE ER DIN 6499/B
ULTRA PRECISION ER COLLETS DIN 6499/B





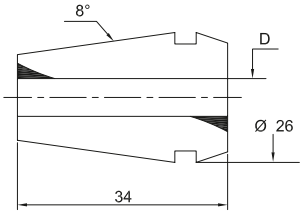
ER11

ART.	D mm
EPR11030UP	3
EPR11035UP	3,5
EPR11040UP	4
EPR11045UP	4,5
EPR11050UP	5
EPR11055UP	5,5
EPR11060UP	6
EPR11065UP	6,5
EPR11070UP	7



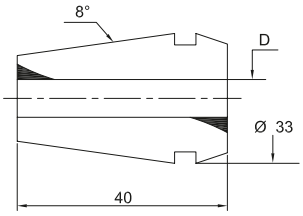
ER16

ART.	D mm
EPR16030UP	3
EPR16040UP	4
EPR16050UP	5
EPR16060UP	6
EPR16070UP	7
EPR16080UP	8
EPR16090UP	9
EPR16100UP	10



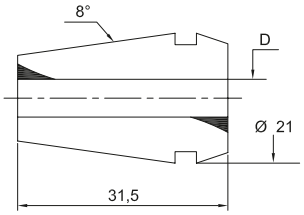
ER25

ART.	D mm
EPR25030UP	3
EPR25040UP	4
EPR25050UP	5
EPR25060UP	6
EPR25070UP	7
EPR25080UP	8
EPR25090UP	9
EPR25100UP	10
EPR25110UP	11
EPR25120UP	12
EPR25130UP	13
EPR25140UP	14
EPR25150UP	15
EPR25160UP	16



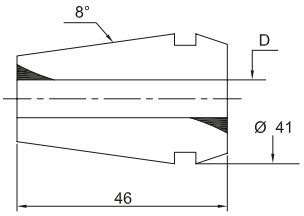
ER32

ART.	D mm
EPR32030UP	3
EPR32040UP	4
EPR32050UP	5
EPR32060UP	6
EPR32070UP	7
EPR32080UP	8
EPR32090UP	9
EPR32100UP	10
EPR32110UP	11
EPR32120UP	12
EPR32130UP	13
EPR32140UP	14
EPR32150UP	15
EPR32160UP	16
EPR32170UP	17
EPR32180UP	18
EPR32190UP	19
EPR32200UP	20



ER20

ART.	D mm
EPR20030UP	3
EPR20040UP	4
EPR20050UP	5
EPR20060UP	6
EPR20070UP	7
EPR20080UP	8
EPR20090UP	9
EPR20100UP	10
EPR20110UP	11
EPR20120UP	12
EPR20130UP	13



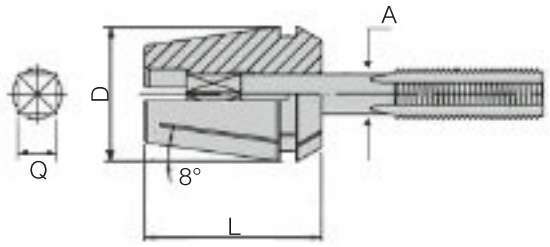
ER40

ART.	D mm
EPR40030UP	3
EPR40040UP	4
EPR40050UP	5
EPR40060UP	6
EPR40070UP	7
EPR40080UP	8
EPR40090UP	9
EPR40100UP	10
EPR40110UP	11
EPR40120UP	12
EPR40130UP	13
EPR40140UP	14
EPR40150UP	15
EPR40160UP	16
EPR40170UP	17
EPR40180UP	18
EPR40190UP	19
EPR40200UP	20
EPR40210UP	21
EPR40220UP	22
EPR40230UP	23
EPR40240UP	24
EPR40250UP	25

BF SERVICE

PINZE E GHIERE
COLLETS AND NUTS

PINZE ER PORTA MASCHI PER MASCHIATURA RIGIDA
RIGID TAPPING COLLETS

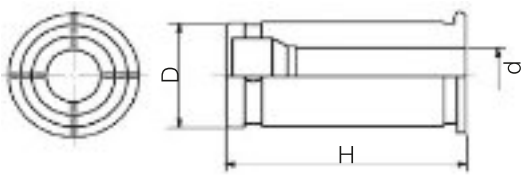




ART.	A mm	Q mm	D mm	L mm
EPR16035MR	3,5	2,7	17	27,5
EPR16040MR	4	3	17	27,5
EPR16045MR	4,5	3,4	17	27,5
EPR16050MR	5	4	17	27,5
EPR16055MR	5,5	4,3	17	27,5
EPR16060MR	6	4,9	17	27,5
EPR16070MR	7	5,5	17	27,5
EPR20035MR	3,5	2,7	21	31,5
EPR20040MR	4	3	21	31,5
EPR20045MR	4,5	3,4	21	31,5
EPR20050MR	5	4	21	31,5
EPR20055MR	5,5	4,3	21	31,5
EPR20060MR	6	4,9	21	31,5
EPR20070MR	7	5,5	21	31,5
EPR20080MR	8	6,2	21	31,5
EPR20090MR	9	7	21	31,5
EPR20100MR	10	8	21	31,5
EPR25035MR	3,5	2,7	26	34
EPR25040MR	4	3	26	34
EPR25045MR	4,5	3,4	26	34
EPR25050MR	5	4	26	34
EPR25055MR	5,5	4,3	26	34
EPR25060MR	6	4,9	26	34
EPR25070MR	7	5,5	26	34
EPR25080MR	8	6,2	26	34
EPR25090MR	9	7	26	34
EPR25100MR	10	8	26	34

ART.	A mm	Q mm	D mm	L mm
EPR25110MR	11	9	26	34
EPR25120MR	12	9	26	34
EPR32035MR	3,5	2,7	33	40
EPR32040MR	4	3	33	40
EPR32045MR	4,5	3,4	33	40
EPR32050MR	5	4	33	40
EPR32055MR	5,5	4,3	33	40
EPR32060MR	6	4,9	33	40
EPR32070MR	7	5,5	33	40
EPR32080MR	8	6,2	33	40
EPR32090MR	9	7	33	40
EPR32100MR	10	8	33	40
EPR32110MR	11	9	33	40
EPR32120MR	12	9	33	40
EPR32140MR	14	11	33	40
EPR32160MR	16	12	33	40
EPR40060MR	6	4,9	41	46
EPR40070MR	7	5,5	41	46
EPR40080MR	8	6,2	41	46
EPR40090MR	9	7	41	46
EPR40100MR	10	8	41	46
EPR40110MR	11	9	41	46
EPR40120MR	12	9	41	46
EPR40140MR	14	11	41	46
EPR40160MR	16	12	41	46
EPR40180MR	18	14,5	41	46
EPR40200MR	20	16	41	46

PINZE CILINDRICHE PER MANDRINI A FORTE SERRAGGIO
STRAIGHT SHANK COLLETS FOR HIGH TIGHTENING CHUCKS





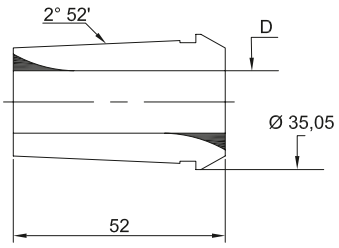
ART.	d mm	D mm	H mm
EPR2004FS	4	20	54
EPR2006FS	6	20	54
EPR2008FS	8	20	54
EPR2010FS	10	20	54
EPR2012FS	12	20	54
EPR2014FS	14	20	54
EPR2016FS	16	20	54
EPR3206FS	6	32	60

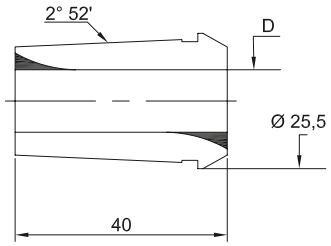
ART.	d mm	D mm	H mm
EPR3208FS	8	32	60
EPR3210FS	10	32	60
EPR3212FS	12	32	60
EPR3214FS	14	32	60
EPR3216FS	16	32	60
EPR3218FS	18	32	60
EPR3220FS	20	32	60
EPR3225FS	25	32	60

BF SERVICE

PINZE EOP DIN 6388/B
EOP COLLETS DIN 6388/B







EOP16

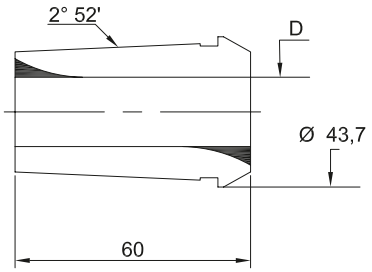
ART.	D mm
EOP16020	2
EOP16025	2,5
EOP16030	3
EOP16035	3,5
EOP16040	4
EOP16045	4,5
EOP16050	5
EOP16055	5,5
EOP16060	6
EOP16065	6,5
EOP16070	7
EOP16075	7,5
EOP16080	8
EOP16085	8,5
EOP16090	9

ART.	D mm
EOP16095	9,5
EOP16100	10
EOP16105	10,5
EOP16110	11
EOP16115	11,5
EOP16120	12
EOP16125	12,5
EOP16130	13
EOP16135	13,5
EOP16140	14
EOP16145	14,5
EOP16150	15
EOP16155	15,5
EOP16160	16

EOP25

ART.	D mm
EOP25020	2
EOP25025	2,5
EOP25030	3
EOP25035	3,5
EOP25040	4
EOP25045	4,5
EOP25050	5
EOP25055	5,5
EOP25060	6
EOP25065	6,5
EOP25070	7
EOP25075	7,5
EOP25080	8
EOP25085	8,5
EOP25090	9
EOP25095	9,5
EOP25100	10
EOP25105	10,5
EOP25110	11
EOP25115	11,5
EOP25120	12
EOP25125	12,5
EOP25130	13
EOP25135	13,5

ART.	D mm
EOP25140	14
EOP25145	14,5
EOP25150	15
EOP25155	15,5
EOP25160	16
EOP25165	16,5
EOP25170	17
EOP25175	17,5
EOP25180	18
EOP25185	18,5
EOP25190	19
EOP25195	19,5
EOP25200	20
EOP25205	20,5
EOP25210	21
EOP25215	21,5
EOP25220	22
EOP25225	22,5
EOP25230	23
EOP25235	23,5
EOP25240	24
EOP25245	24,5
EOP25250	25



EOP32

ART.	D mm
EOP32030	3
EOP32035	3,5
EOP32040	4
EOP32045	4,5
EOP32050	5
EOP32055	5,5
EOP32060	6
EOP32065	6,5
EOP32070	7
EOP32075	7,5
EOP32080	8
EOP32085	8,5
EOP32090	9
EOP32095	9,5
EOP32100	10

ART.	D mm
EOP32105	10,5
EOP32110	11
EOP32115	11,5
EOP32120	12
EOP32125	12,5
EOP32130	13
EOP32135	13,5
EOP32140	14
EOP32145	14,5
EOP32150	15
EOP32155	15,5
EOP32160	16
EOP32165	16,5
EOP32170	17
EOP32175	17,5

ART.	D mm
EOP32180	18
EOP32185	18,5
EOP32190	19
EOP32195	19,5
EOP32200	20
EOP32205	20,5
EOP32210	21
EOP32215	21,5
EOP32220	22
EOP32225	22,5
EOP32230	23
EOP32235	23,5
EOP32240	24
EOP32245	24,5
EOP32250	25

ART.	D mm
EOP32255	25,5
EOP32260	26
EOP32265	26,5
EOP32270	27
EOP32275	27,5
EOP32280	28
EOP32285	28,5
EOP32290	29
EOP32295	29,5
EOP32300	30
EOP32305	30,5
EOP32310	31
EOP32315	31,5
EOP32320	32

BF SERVICE

PINZE E GHIERE
COLLETS AND NUTS

SERIE PINZE ER SU ZOCCOLO / ER COLLETS ON BASE

ART.	Pinza Collet	Misura pinze Collet size mm	Quantità pezzi Pieces
SER08001	ER08	1÷5 x 0,5	9
SER11001	ER11	1÷7 x 0,5	13
SER16001	ER16	1÷10 x 1,0	10
SER20001	ER20	2÷13 x 1,0	12
SER25001	ER25	2÷16 x 1,0	15
SER32001	ER32	3÷20 x 1,0	18
SER40001	ER40	4÷26 x 1,0	23



SERIE PINZE ER IN VALIGETTA METALLO / ER COLLETS IN METAL CASE

ART.	Pinza Collet	Misura pinze Collet size mm	Quantità pezzi Pieces
SER08001VA	ER08	1÷5 x 0,5	9
SER11001VA	ER11	1÷7 x 0,5	13
SER16001VA	ER16	1÷10 x 1,0	10
SER20001VA	ER20	2÷13 x 1,0	12
SER25001VA	ER25	2÷16 x 1,0	15
SER32001VA	ER32	3÷20 x 1,0	18
SER40001VA	ER40	4÷26 x 1,0	23



CASSETTE CON MANDRINO PORTA PINZE A FORTE SERRAGGIO
CASES WITH HIGH TIGHTENING COLLET CHUCKS

ART.	Composizione / Includes		
	N°	Descrizione / Description	ART.
6664020001FS	1	Mandrino porta pinze comprensivo di chiave per ghiera Collet chuck with nut wrench	1114020FS
	6	Pinze / Collets ER20FS 4-6-8-10-12-16 mm	EPR20FS
6664032001FS	1	Mandrino porta pinze comprensivo di chiave per ghiera Collet chuck with nut wrench	1114032FS
	7	Pinze / Collets ER32FS 6-8-10-12-16-20-25 mm	EPR32FS
6665032001FS	1	Mandrino porta pinze comprensivo di chiave per ghiera Collet chuck with nut wrench	1115032FS
	7	Pinze / Collets ER32FS 6-8-10-12-16-20-25 mm	EPR32FS
9994020001FS	1	Mandrino porta pinze comprensivo di chiave per ghiera Collet chuck with nut wrench	3334020FS
	6	Pinze / Collets ER20FS 4-6-8-10-12-16 mm	EPR20FS
9994032001FS	1	Mandrino porta pinze comprensivo di chiave per ghiera Collet chuck with nut wrench	3334032FS
	7	Pinze / Collets ER32FS 6-8-10-12-16-20-25 mm	EPR32FS
9995032001FS	1	Mandrino porta pinze comprensivo di chiave per ghiera Collet chuck with nut wrench	3335032FS
	7	Pinze / Collets ER32FS 6-8-10-12-16-20-25 mm	EPR32FS



BF SERVICE

CASSETTE CON MANDRINO PORTA PINZE
CASES WITH COLLET CHUCK



ART.	Composizione / Includes		
	N°	Descrizione / Description	ART.
6664032001	1	Mandrino porta pinze / Collet chuck	6664032
	18	Pinze / Collets ER32 3 ÷ 20 mm	EPR32
	1	Chiave per ghiera / Nut wrench	EPR32180CH
6664040001	1	Mandrino porta pinze / Collet chuck	6664040
	23	Pinze / Collets ER40 4 ÷ 26 mm	EPR40
	1	Chiave per ghiera / Nut wrench	EPR40180CH
6665032001	1	Mandrino porta pinze / Collet chuck	6665032
	18	Pinze / Collets ER32 3 ÷ 20 mm	EPR32
	1	Chiave per ghiera / Nut wrench	EPR32180CH
6665040001	1	Mandrino porta pinze / Collet chuck	6665040
	23	Pinze / Collets ER40 4 ÷ 26 mm	EPR40
	1	Chiave per ghiera / Nut wrench	EPR40180CH
9994032001	1	Mandrino porta pinze / Collet chuck	9994032
	18	Pinze / Collets ER32 3 ÷ 20 mm	EPR32
	1	Chiave per ghiera / Nut wrench	EPR32180CH

ART.	Composizione / Includes		
	N°	Descrizione / Description	ART.
9994040001	1	Mandrino porta pinze / Collet chuck	9994040
	23	Pinze / Collets ER40 4 ÷ 26 mm	EPR40
	1	Chiave per ghiera / Nut wrench	EPR40180CH
9995032001	1	Mandrino porta pinze / Collet chuck	9995032
	18	Pinze / Collets ER32 3 ÷ 20 mm	EPR32
	1	Chiave per ghiera / Nut wrench	EPR32180CH
9995040001	1	Mandrino porta pinze / Collet chuck	9995040
	23	Pinze / Collets ER40 4 ÷ 26 mm	EPR40
	1	Chiave per ghiera / Nut wrench	EPR40180CH
0004032001	1	Mandrino porta pinze / Collet chuck	0004032
	18	Pinze / Collets ER32 3 ÷ 20 mm	EPR32
	1	Chiave per ghiera / Nut wrench	EPR32180CH

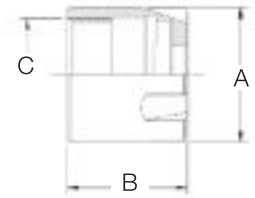
BF SERVICE

PINZE E GHIERE
COLLETS AND NUTS

GHIERE MINI / MINI COLLET NUTS

ART.	Pinza Collet	A mm	B mm	C
EPR08100M	ER08	12	12	M10x0,75
EPR11100M	ER11	16	12	M13x0,75
EPR16100M	ER16	22	18	M19x1
EPR20100M	ER20	28	19	M24x1
EPR25100M	ER25	35	20	M30x1
EPR11100MSX	ER11	16	12	M13x0,75
EPR16100MSX	ER16	22	18	M19x1
EPR20100MSX	ER20	28	19	M24x1
EPR25100MSX	ER25	35	20	M30x1

Tipo SX = sinistre / Type SX = left



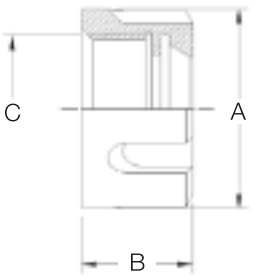


GHIERE PER PINZE DIN 6499 / COLLET NUTS DIN 6499

Tipo G con estrazione eccentrica pre bilanciata
G type with pre-balanced eccentric extraction

ART.	Pinza Collet	A mm	B mm	C
EPR16120G	ER16	32	17	M22x1,5
EPR20120G	ER20	35	19	M25x1,5
EPR25120G	ER25	42	20	M32x1,5
EPR32120G	ER32	50	22,5	M40x1,5
EPR32130G*	ER32	50	26	M40x1,5
EPR40120G	ER40	63	25,5	M50x1,5
EPR40130G*	ER40	63	29	M50x1,5

* Con sfere / With ball bearings



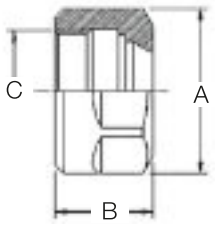


Tipo GC con estrazione concentrica
GC type with concentric extraction

ART.	Pinza Collet	A mm	B mm	C
EPR16120GC	ER16	32	17	M22x1,5
EPR25120GC	ER25	42	20	M32x1,5
EPR32120GC	ER32	50	22,5	M40x1,5
EPR40120GC	ER40	63	25,5	M50x1,5

GHIERE PER PINZE DIN 6499 FORMA ESAGONALE
HEX COLLET NUTS DIN 6499

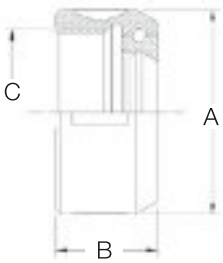
ART.	Pinza Collet	A mm	B mm	C
EPR11120ES	ER11	19	11,3	M14x0,75
EPR16120ES	ER16	28	17,5	M22x1,5
EPR20120ES	ER20	34	19	M25x1,5

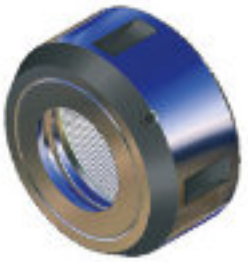




GHIERE CON SFERE PER PINZE DIN 6388
COLLET NUTS WITH BALL BEARINGS DIN 6388

ART.	Pinza Collet	A mm	B mm	C
EOP16130G	EOP16	43	24	M33x1,5
EOP25130G	EOP25	60	30	M48x2
EOP32130G	EOP32	72	33,5	M60x2,5



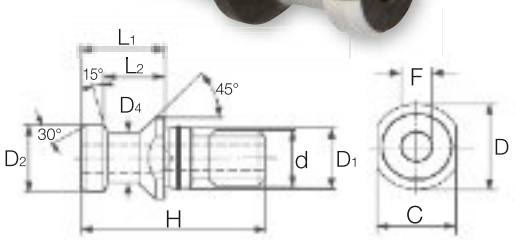


BF SERVICE

TIRANTI FORATI E NON FORATI DIN 69872A
PULL STUDS WITH OR WITHOUT HOLES DIN 69872A



ART.	ISO	d	D mm	D1 mm	D2 mm	D4 mm	H mm	L1 mm	L2 mm	C mm	F mm
DIN4015	40	M16	23	17	19	14	54	26	20	19	7
DIN4015NF	40	M16	23	17	19	14	54	26	20	19	7
DIN5015	50	M24	36	25	28	21	74	34	25	30	11,5
DIN5015NF	50	M24	36	25	28	21	74	34	25	30	11,5

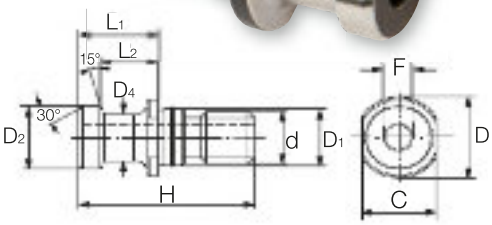


Tipo NF = non forati / Type NF = without holes

TIRANTI FORATI E NON FORATI ISO/DIN 7388/2 A
PULL STUDS WITH OR WITHOUT HOLES ISO/DIN 7388/2 A



ART.	ISO	d	D mm	D1 mm	D2 mm	D4 mm	H mm	L1 mm	L2 mm	C mm	F mm
TC4015	40	M16	23	17	19	14	54	26	20	19	7
TC4015NF	40	M16	23	17	19	14	54	26	20	19	7
TC5015	50	M24	36	25	28	21	74	34	25	30	11,5
TC5015NF	50	M24	36	25	28	21	74	34	25	30	11,5



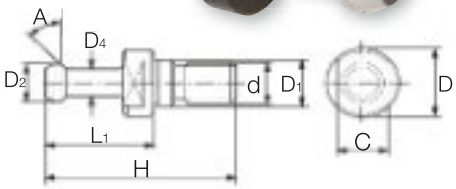
Tipo NF = non forati / Type NF = without holes

TIRANTI FORATI E NON FORATI MAS 403/BT
PULL STUDS WITH OR WITHOUT HOLES MAS 403/BT

ART.	ISO	A	d	D mm	D1 mm	D2 mm	D4 mm	H mm	L1 mm	C mm
BT4030	40	30°	M16	23	17	15	10	60	35	19
BT4045	40	45°	M16	23	17	15	10	60	35	19
BT4090	40	90°	M16	23	17	15	10	60	35	19
BT4030NF	40	30°	M16	23	17	15	10	60	35	19
BT4045NF	40	45°	M16	23	17	15	10	60	35	19
BT4090NF	40	90°	M16	23	17	15	10	60	35	19
BT5030	50	30°	M24	38	25	23	17	85	45	30
BT5045	50	45°	M24	38	25	23	17	85	45	30
BT5090	50	90°	M24	38	25	23	17	85	45	30
BT5030NF	50	30°	M24	38	25	23	17	85	45	30
BT5045NF	50	45°	M24	38	25	23	17	85	45	30
BT5090NF	50	90°	M24	38	25	23	17	85	45	30

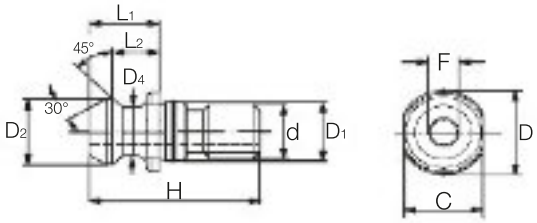

BT5030


BT5090NF



Tipo NF = non forati / Type NF = without holes

TIRANTI FORATI E NON FORATI ISO/DIN 7388/2
PULL STUDS WITH OR WITHOUT HOLES ISO/DIN 7388/2




CAT5045

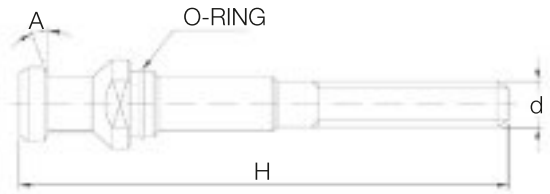

CAT5045NF

ART.	ISO	d	D mm	D1 mm	D2 mm	D4 mm	H mm	L1 mm	L2 mm	C mm	F mm
CAT4045	40	M16	22,5	17	18,9	12,9	44,5	16,5	11,2	18	7,3
CAT4045NF	40	M16	22,5	17	18,9	12,9	44,5	16,5	11,2	18	7,3
CAT5045	50	M24	37	25	29,1	19,6	65,5	25,5	17,9	30	11,5
CAT5045NF	50	M24	37	25	29,1	19,6	65,5	25,5	17,9	30	11,5

Tipo NF = non forati / Type NF = without holes

BF SERVICE

TIRANTI PROLUNGATI PER MANDRINI COMBINATI P/F
LONG PULL STUDS FOR MORSE TAPER P/F

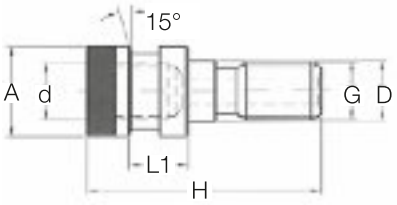




ART.	ISO	CM MT	d	H mm	A mm
DIN4015M10	40	2	M10	110	-
DIN4015M12	40	3	M12	110	-
DIN4015M16	40	4	M16	120	-
TC4015M10	40	2	M10	110	-
TC4015M12	40	3	M12	110	-
TC4015M16	40	4	M16	120	-
CAT4045M10	40	2	M10	100	-
CAT4045M12	40	3	M12	105	-
CAT4045M16	40	4	M16	110	-

ART.	ISO	CM MT	d	H mm	A mm
BT4030M10	40	2	M10	120	30°
BT4030M12	40	3	M12	120	30°
BT4030M16	40	4	M16	125	30°
BT4045M10	40	2	M10	120	45°
BT4045M12	40	3	M12	120	45°
BT4045M16	40	4	M16	125	45°
BT4090M10	40	2	M10	120	90°
BT4090M12	40	3	M12	120	90°
BT4090M16	40	4	M16	125	90°

TIRANTI OTT / OTT PULL STUDS





ART.	ISO	d	H mm	A mm	L1 mm	G	D mm
OTT40DIN	40	M16	53	25	14,52	M16	17
OTT40BT	40	M16	56	25	17,54	M16	17
OTT50	50	M24	65	39,6	14	M24	25

CHIAVI PER GHIERA / NUT WRENCHES



ART.	Ghiera Nut
EPR08160M	EPR08100M
EPR11160M	EPR11100M
EPR16160M	EPR16100M
EPR20160M	EPR20100M
EPR25160M	EPR25100M



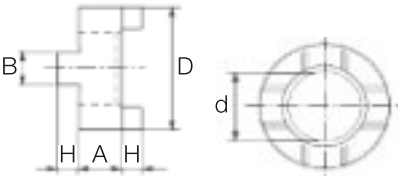
ART.	Ghiera Nut
EPR16180CH	EPR16120G
EPR20180CH	EPR20120G
EPR25180CH	EPR25120G
EPR32180CH	EPR32120G
EPR40180CH	EPR40120G



ART.	Ghiera Nut
EOP16180CHS	EOP16130G
EOP25180CHS	EOP25130G
EOP32180CHS	EOP32130G

ANELLI DI TRASCINAMENTO / DRIVE RINGS

ART.	d mm	D mm	A mm	B mm	H mm
ANTRA16	16	32	10	8	5
ANTRA22	22	40	12	10	5,6
ANTRA27	27	48	12	12	6,3
ANTRA32	32	58	14	14	7
ANTRA40	40	70	14	16	8





BF SERVICE

ACCESSORI E PARTI DI RICAMBIO
ACCESSORIES AND SPARE PARTS

VITI A CROCE
ARBOR SCREWS

ART.	Filettatura Thread
VICROM08	M8
VICROM10	M10
VICROM12	M12
VICROM16	M16
VICROM20	M20



VITI PER CONO MORSE
MOUNTING SCREWS

ART.	Filettatura Thread
VITICM1F	M6
VITICM2F	M10
VITICM3F	M12
VITICM4F	M16
VITICM5F	M20



TASSELLI DI TRASCINAMENTO
DRIVE KEYS

ART.	Tipo Type
TASSRI16TF	16TF
TASSRI22TF	22TF
TASSRI27TF	27TF
TASSRI32TF	32TF
TASSRI40TF	40TF



GHIERE TENUTA VITI
BACK UP SCREWS

ART.	CM MT
GHIERASXCM1	1
GHIERASXCM2	2
GHIERASXCM3	3
GHIERASXCM4	4
GHIERASXCM5	5



GRANI FISSAGGIO FRESE
WELDON END MILL SCREWS

ART.	Weldon	DxL
GRANIM0610	6	M6x10
GRANIM0810	8	M8x10
GRANIM1012	10	M10x12
GRANIM1216	12/14	M12x16
GRANIM1416	16/18	M14x16
GRANIM1616	20	M16x16
GRANIM1820	25	M18x2x20
GRANIM2020	32/40	M20x2x20



RACCORDI PER REFRIGERANTE
COOLANT CONNECTOR

ART.	Foro Hole mm	Filettatura Thread
ADUHSK50A	6,5	M16x1
ADUHSK63A	8	M18x1
ADUHSK100A	12	M24x1,5



MANDRINI AUTOSERRANTI / KEYLESS CHUCKS

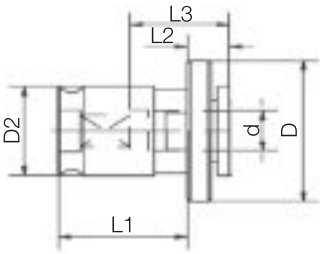
ART.	DIN	Per punte Drill bits ø mm
02.0101012	B12	1-10
02.0101316	B16	1-13
3050626	B16	0-16



BF SERVICE

BUSSOLE PORTA MASCHIO SENZA FRIZIONE
TAPPING COLLETS WITHOUT CLUTCH

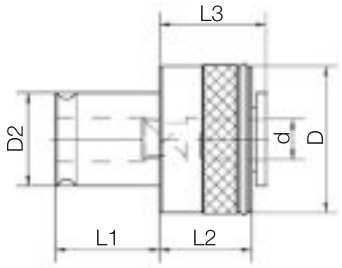




ART.	Filetto Thread	d mm	D mm	D2 mm	L1 mm	L2 mm	L3 mm
GR1NE2821	M2-M2,5	2,8	30	19	21,5	7	17
GR1NE3527	M3	3,5	30	19	21,5	7	17
GR1NE0403	M3,5	4	30	19	21,5	7	17
GR1NE4534	M4	4,5	30	19	21,5	7	17
GR1NE0540	M5	5	30	19	21,5	7	17
GR1NE0649	M6	6	30	19	21,5	7	17
GR1NE0755	M10	7	30	19	21,5	7	17
GR1NE0862	M8	8	30	19	21,5	7	17
GR1NE0907	M12	9	30	19	21,5	7	17
GR1NE1008	M10	10	30	19	21,5	7	17
GR1NE1109	M14	11	30	19	21,5	7	17
GR2NE0649	M5-M6	6	48	31	35	11	30
GR2NE0755	M10	7	48	31	35	11	30
GR2NE0862	M8	8	48	31	35	11	30
GR2NE0907	M12	9	48	31	35	11	30
GR2NE1008	M10	10	48	31	35	11	30
GR2NE1109	M14	11	48	31	35	11	30
GR2NE1209	M16	12	48	31	35	11	30
GR2NE1411	M18	14	48	31	35	11	30
GR2NE1612	M20	16	48	31	35	11	30
GR2NE18145	M22	18	48	31	35	11	30

BUSSOLE PORTA MASCHIO CON FRIZIONE
TAPPING ADAPTERS WITH CLUTCH





ART.	Filetto Thread	d mm	D mm	D2 mm	L1 mm	L2 mm	L3 mm
GR1FE3527	M3	3,5	32	19	21,5	25	17
GR1FE4534	M4	4,5	32	19	21,5	25	17
GR1FE5543	M5	5,5	32	19	21,5	25	17
GR1FE0649	M5-M6	6	32	19	21,5	25	17
GR1FE0755	M10	7	32	19	21,5	25	17
GR1FE0862	M8	8	32	19	21,5	25	17
GR1FE0907	M12	9	32	19	21,5	25	17
GR1FE1008	M10	10	32	19	21,5	25	17
GR1FE1109	M14	11	32	19	21,5	25	17
GR2FE0649	M5-M6	6	50	31	35	34	30
GR2FE0755	M10	7	50	31	35	34	30
GR2FE0862	M8	8	50	31	35	34	30
GR2FE0907	M12	9	50	31	35	34	30
GR2FE1008	M10	10	50	31	35	34	30
GR2FE1109	M14	11	50	31	35	34	30
GR2FE1209	M16	12	50	31	35	34	30
GR2FE1411	M18	14	50	31	35	34	30
GR2FE1612	M20	16	50	31	35	34	30
GR2FE18145	M22-M24	18	50	31	35	34	30

BF SERVICE

CENTRATORI TASTATORI
EDGE FINDERS

CENTRATORE TRIDIMENSIONALE / 3D TASTER

ART.	Descrizione / Description
FH3DUNIV	Centratore tridimensionale ad orologio precisione 0,01 mm 3D edge finder with precision clock 0,01 mm
FH3DPUNTA4C	Puntalino ricambio per 3D ø 3 mm tipo corto (27 mm) Short spare probe for 3D 3 mm (27 mm)
FH3DPUNTA8L	Puntalino ricambio per 3D ø 6 mm tipo lungo (62 mm) Long spare probe for 3D 6 mm (62 mm)



CERCACENTRO ANALOGICO “AXIS OFFSET”
“AXIS OFFSET“ CENTRING INDICATOR

Centratore utilizzabile in qualsiasi angolazione, verticale ed orizzontale. Il comparatore è sempre in posizione frontale, per una facile lettura dell’operatore.
Confezione: astuccio legno.

This device can be used at any angle, vertical and horizontal.
The indicator always faces the operator for an easy reading.
Wooden case.



ACCESSORI IN DOTAZIONE / SUPPLIED ACCESORIES
N° 3 tastatori diritti lunghezza 50-100-150 mm (Ø sfera tastatori 3 mm) N. 3 straight probes 50-100-150 mm (Ø contact point 3 mm)
N° 3 tastatori ricurvi lunghezza 50-100-150 mm (Ø sfera tastatori 3 mm) N. 3 curved probes 50-100-150 mm (Ø contact point 3 mm)
N° 1 tastatore snodato a cuspide rientrante N. 1 spring-loaded center point probe
N° 1 asta di stazionamento Ø 4x170 mm N. 1 restraining rod Ø 4x170 mm

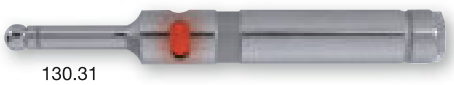
ART.	Campo di misura Measuring range mm	Unità di formato Graduation mm	Lettura quadrante Dial reading mm	Ø quadrante Dial Ø mm	Max velocità di rotazione Max rotating speed giri/min	Codulo di attacco Shank mm
130.00	5	0,01	1	40	800	Ø10x22

CENTRATORI CON SEGNALE LUMINOSO
ELECTRONIC EDGE FINDERS WITH LED INDICATOR

CE

Sfera di contatto temperata e rettificata. Per trapani e fresatrici, per il centraggio interno ed esterno montato su mandrini rotanti o stazionari.

Hardened and ground contact point. For drilling and milling machines, for inner and outer centring mounted on rotating or stationary chucks.


130.31


130.30

ART.	Codulo di attacco Shank Ø mm	Sfera Contact point Ø mm	Lunghezza totale Length mm	Tolleranza Tolerance mm	Batterie alimentazione Batteries
130.30	20	10	100	0,01	SR44-2x1,5V
130.31	20	10	157	0,01	SR44-2x1,5V

CENTRATORE TASTATORE CON SEGNALE LUMINOSO E SONORO
ELECTRONIC EDGE FINDER WITH LED AND AUDIBLE INDICATOR

CE



ART.	Codulo di attacco Shank Ø mm	Sfera Contact point Ø mm	Lunghezza totale Length mm	Tolleranza Tolerance mm	Batterie alimentazione Batteries
130.33	20	10	160	0,01	R1P-2x1,5V

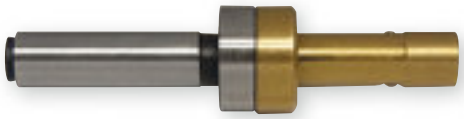
BF SERVICE

CENTRATORI TASTATORI E AZZERATORI
EDGE FINDERS AND ZERO SETTERS

CENTRATORE TASTATORE MECCANICO AMAGNETICO
NON-MAGNETIC MECHANICAL EDGE FINDER

Tutte le parti sono temprate e rettificate. Il centraggio dei pezzi da lavorare avviene accostando il tastatore amagnetico alla superficie del pezzo in lavorazione.

All parts are hardened and ground. Centring of work pieces takes place putting the probe close to the surface of the piece.

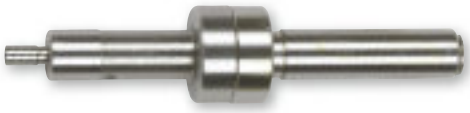


ART.	Codulo di attacco Shank Ø mm	Contatto Contact point Ø mm	Lunghezza totale Length mm	Tolleranza Tolerance mm	Max velocità di rotazione Max rotating speed giri/min.
130.A10	10	10	80	0,01	600

TASTATORI CENTRATORI MECCANICI
MECHANICAL EDGE FINDERS

Tutte le parti sono temprate e rettificate. Il centraggio dei pezzi da lavorare avviene accostando il tastatore alla superficie del pezzo in lavorazione.

All parts are hardened and ground. Centring of work pieces takes place putting the probe close to the surface of the piece.



ART.	Codulo di attacco Shank Ø mm	Tastatore Probe Ø mm	Lunghezza totale Length mm	Tolleranza Tolerance mm	Velocità di rotazione Rotating speed giri/min.
130.10	10	10	89	0,01	450 ÷ 600
130.20	10	4	89	0,01	450 ÷ 600

AZZERATORI CON MAGNETE INCORPORATO
ZERO SETTERS WITH BUILT-IN MAGNET

ART.	Descrizione / Description
ZDI50	Azzeratore con magnete con comparatore incorporato h50 mm precisione ± 0,005 mm Zero setter with built-in magnet and indicator h50 mm accuracy ± 0,005 mm
ZDI100	Azzeratore con magnete con comparatore incorporato h100 mm precisione ± 0,005 mm Zero setter with built-in magnet and indicator h100 mm accuracy ± 0,005 mm



ZDI50 ZDI100

SMONTACONI A RUOTA LIBERA
TOOL SETTING STANDS

ART.	HSK
HSK40SMRL	40
HSK50SMRL	50
HSK63SMRL	63
HSK100SMRL	100



SMONTACONI ORIENTABILI
ADJUSTABLE TOOL SETTING STANDS

ART.	ISO
ISO30SM	30
ISO40SM	40
ISO50SM	50



BF SERVICE

UTENSILI DA TAGLIO A FILETTARE
THREAD CUTTING TOOLS

GIRAMASCHI REGOLABILI DIN 1814
ADJUSTABLE TAP WRENCHES DIN 1814

- Corpo pressofuso in zinco
- Ganasce temprate
- Per utensili con condolo quadro
- Un'impugnatura può essere rimossa

- Made of zinc pressure casting
- Hardened chuck jaws
- For tools with square shanks
- Once handle can be unscrewed

DIN 1814



4300

ART.	Grandezza Size	M - MF	G	L mm Totale Overall	mm Quadro Square
4300 15 00000	0	M 1 - 8	-	130	2,1 - 4,9
4300 15 00010	1	M 1 - 10	-	180	2,4 - 5,5
4300 15 00015	1.1/2	M 1 - 12	1/8"	180	2,4 - 7,0
4300 15 00020	2	M 4 -12	1/8" - 3/8"	280	3,4 - 8,0
4300 15 00030	3	M 5 - 20	1/8" - 1/2"	380	4,9 - 12,0
4300 15 00040	4	M 11 - 27	1/8" - 3/4"	500	5,5 - 16,0
4300 15 00050	5	M 13 - 32	1/4" - 1"	700	9,0 - 20,0
4300 15 00060	6	M 18 - 42	1/2" - 1.1/4"	1000	12,0 - 24,0
4300 15 00070	7	M 27 - 52	3/4" - 1.3/4"	1250	16,0 - 32,0



Confezioni
Packing-unit

ART.	Grandezza Size	M - MF	G	L mm Totale Overall	mm Quadro Square
4300 07 00000	0	M 1 - 8	-	130	2,1 - 4,9
4300 07 00010	1	M 1 - 10	-	180	2,4 - 5,5
4300 07 00015	1.1/2	M 1 - 12	1/8"	180	2,4 - 7,0



Confezioni
Packing-unit

PORTA FILIERE DIN 225
DIE STOCKS DIN 225

- Corpo pressofuso in zinco
- Per serraggio diretto di filiere tonde

- Made of zinc pressure casting
- For direct holding of circular dies

DIN 225



4400

ART.	Grandezza Size	mm Misure Measure	M - MF	G	L mm Totale Overall
4400 15 01605	0	16 x 5	M 1 - 2,6	-	160
4400 15 02005	1	20 x 5	M 3 - 4	-	200
4400 15 02007	2	20 x 7	M 4,5 - 6	-	200
4400 15 02509	3	25 x 9	M 7 - 9	-	224
4400 15 03011	4	30 x 11	M 10 - 11	1/8"	280
4400 15 03810	5	38 x 10	MF 12 - 14	1/4"	315
4400 15 03814	5B	38 x 14	M 12 - 14	-	315
4400 15 04514	6	45 x 14	MF 16 - 20	3/8" - 1/2"	450
4400 15 04518	6B	45 x 18	M 16 - 20	-	450
4400 15 05516	7	55 x 16	MF 22 - 24	5/8" - 3/4"	560
4400 15 05522	7B	55 x 22	M 22 - 24	-	560
4400 15 06518	8	65 x 18	MF 27 - 36	7/8" - 1"	630
4400 15 06525	8B	65 x 25	M 27 - 36	-	630
4400 15 07520	9	75 x 20	MF 38 - 42	1.1/8" - 1.1/4"	800
4400 15 07530	9B	75 x 30	M 39 - 42	-	800
4400 15 09036	10B	90 x 36	M 45 - 52	-	900



Confezioni
Packing-unit

ART.	Grandezza Size	mm Misure Measure	M - MF	G	L mm Totale Overall
4400 07 02005	1	20 x 5	M 3 - 4	-	200
4400 07 02007	2	20 x 7	M 4,5 - 6	-	200
4400 07 02509	3	25 x 9	M 7 - 9	-	224
4400 07 03011	4	30 x 11	M 10 -11	1/8"	280
4400 07 03814	5B	38 x 14	M 12 - 14	-	315



Confezioni
Packing-unit

BF SERVICE

UTENSILI DA TAGLIO A FILETTARE
THREAD CUTTING TOOLS

GIRAMASCHI A CRICCHETTO
TAP WRENCHES WITH RATCHET

- Per uso destro e sinistro
- Impugnatura scorrevole
- Con pinza a 2 griffe temprate
- Per filettare in aree di difficile accesso

- Adjustable for left and right hand use
- Sliding cross handle
- With two jack chuck for holding square shanks
- Ideal for operations at difficult accessible places



Serie corta / Short version



Serie lunga / Long version

4302

ART.	Grandezza Size	Versione Version	M - MF	L mm Totale Overall
4302 15 00001	1	corta / short	M 3 - M 10	85
4302 15 00002	2	corta / short	M 5 - M 12	100
4302 15 00010	10	lunga / long	M 3 - M 10	250
4302 15 00020	20	lunga / long	M 5 - M 12	300



Confezioni
Packing-unit

ART.	Grandezza Size	M - MF	G	L mm Totale Overall
4302 07 00001	1	corta / short	M 3 - M 10	85
4302 07 00002	2	corta / short	M 5 - M 12	100



Confezioni
Packing-unit

BUSSOLE DI ESTENSIONE DIN 377
EXTENSION SLEEVES DIN 377

- Rettificate e temprate
- Per attacchi quadri secondo DIN 10
- Quadro interno ed esterno hanno la stessa grandezza

- Ground and hardened version
- For squares according DIN 10
- Inside and outside square with same size

DIN 377



4500

ART.	Grandezza Size	M - MF	L mm Totale Overall
4500 15 00270	2,7	M 3	80
4500 15 00340	3,4	M 4	95
4500 15 00490	4,9	M 5 - M 8	110
4500 15 00550	5,5	M 9 - M 10	115
4500 15 00700	7,0	M 12	125
4500 15 00900	9,0	M 14 - M 16	135
4500 15 01100	11,0	M 18	150
4500 15 01200	12,0	M 20	155
4500 15 01450	14,5	M 22 - M 24	174

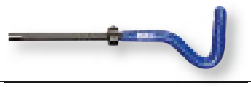


Confezioni
Packing-unit

BF SERVICE

FILETTI PER RIPARAZIONI
THREAD REPAIR

QUALITÀ PER USO PROFESSIONALE / SUPERIOR INDUSTRIAL QUALITY

ART.		Filetto Thread	Tipo Type	Descrizione Description	Pagina Page
	Filetti per riparazioni / Thread Repair				
4600 - 4604		M		Inserti filettati / Thread inserts	86
4610 - 4614		MF		Inserti filettati / Thread inserts	86
4615		MF		Inserti filettati per candele Thread inserts for Spark Plug Thread	87
4601 - 4611 4615		M - MF		Kit riparazione filetto Thread repair sets	87 - 89
4700		M - MF - UNC UNF - BSW		Utensili di montaggio Fitting Tools	90
4701		M - MF - UNC UNF - BSW		Pin Estrattore Pin Breaker	90
4800 - 4801		M - MF		Maschio a mano singola STI STI Single Hand Taps	91
4802		MF		Maschio a mano combinato STI STI combined Thread tap	91
	Punte elicoidali / Twist Drills				
1121 1121 RED			N	Punte elicoidali completamente rettificate, diritte + ridotte Twist drills Fully Ground, straight + reduced	92

BF SERVICE

QUALITÀ PER USO PROFESSIONALE / SUPERIOR INDUSTRIAL QUALITY

INSERTI FILETTATI
THREAD INSERTS

- Filetto continuo in acciaio inossidabile
- Filetto rinforzato per materiali, con bassa resistenza al taglio, ad es. alluminio, leghe di magnesio e per la ripazione di filetti usurati o danneggiati.

- Free running made of stainless steel
- Thread reinforcement for materials with low shearing strength, e.g. aluminium and magnesium alloys as well as to repair enables worn and damaged threads.



4600 - 4614

M

ART.					M Filetto Thread	mm Passo Pitch	Ø mm Pre-foro Core Hole
1,0 x D	1,5 x D	2,0 x D	2,5 x D	3,0 x D			
4600 15 00300	4601 15 00300	4602 15 00300	4603 15 00300	4604 15 00300	M 3	0,50	3,20
4600 15 00400	4601 15 00400	4602 15 00400	4603 15 00400	4604 15 00400	M 4	0,70	4,20
4600 15 00500	4601 15 00500	4602 15 00500	4603 15 00500	4604 15 00500	M 5	0,80	5,20
4600 15 00600	4601 15 00600	4602 15 00600	4603 15 00600	4604 15 00600	M 6	1,00	6,30
4600 15 00800	4601 15 00800	4602 15 00800	4603 15 00800	4604 15 00800	M 8	1,25	8,30
4600 15 01000	4601 15 01000	4602 15 01000	4603 15 01000	4604 15 01000	M 10	1,50	10,40
4600 15 01200	4601 15 01200	4602 15 01200	4603 15 01200	4604 15 01200	M 12	1,75	12,40
4600 15 01400	4601 15 01400	4602 15 01400	4603 15 01400	4604 15 01400	M 14	2,00	14,50
4600 15 01600	4601 15 01600	4602 15 01600	4603 15 01600	4604 15 01600	M 16	2,00	16,50
4600 15 01800	4601 15 01800	4602 15 01800	4603 15 01800	4604 15 01800	M 18	2,50	18,60
4600 15 02000	4601 15 02000	4602 15 02000	4603 15 02000	4604 15 02000	M 20	2,50	20,60
4600 15 02200	4601 15 02200	4602 15 02200	4603 15 02200	4604 15 02200	M 22	2,50	22,60
4600 15 02400	4601 15 02400	4602 15 02400	4603 15 02400	4604 15 02400	M 24	3,00	24,75

MF

ART.					MF Filetto Thread	mm Passo Pitch	Ø mm Pre-foro Core Hole
1,0 x D	1,5 x D	2,0 x D	2,5 x D	3,0 x D			
4610 15 00810	4611 15 00810	4612 15 00810	4613 15 00810	4614 15 00810	MF 8	1,0	8,30
4610 15 01010	4611 15 01010	4612 15 01010	4613 15 01010	4614 15 01010	MF 10	1,0	10,30
4610 15 01012	4611 15 01012	4612 15 01012	4613 15 01012	4614 15 01012	MF 10	1,25	10,30
4610 15 01210	4611 15 01210	4612 15 01210	4613 15 01210	4614 15 01210	MF 12	1,00	12,30
4610 15 01212	4611 15 01212	4612 15 01212	4613 15 01212	4614 15 01212	MF 12	1,25	12,30
4610 15 01215	4611 15 01215	4612 15 01215	4613 15 01215	4614 15 01215	MF 12	1,50	12,40
4610 15 01410	4611 15 01410	4612 15 01410	4613 15 01410	4614 15 01410	MF 14	1,00	14,30
4610 15 01412	4611 15 01412	4612 15 01412	4613 15 01412	4614 15 01412	MF 14	1,25	14,40
4610 15 01415	4611 15 01415	4612 15 01415	4613 15 01415	4614 15 01415	MF 14	1,50	14,40
4610 15 01615	4611 15 01615	4612 15 01615	4613 15 01615	4614 15 01615	MF 16	1,50	16,40
4610 15 01815	4611 15 01815	4612 15 01815	4613 15 01815	4614 15 01815	MF 18	1,50	18,50
4610 15 01820	4611 15 01820	4612 15 01820	4613 15 01820	4614 15 01820	MF 18	2,00	18,50
4610 15 02015	4611 15 02015	4612 15 02015	4613 15 02015	4614 15 02015	MF 20	1,50	20,50
4610 15 02020	4611 15 02020	4612 15 02020	4613 15 02020	4614 15 02020	MF 20	2,00	20,50
4610 15 02215	4611 15 02215	4612 15 02215	4613 15 02215	4614 15 02215	MF 22	1,50	22,50
4610 15 02220	4611 15 02220	4612 15 02220	4613 15 02220	4614 15 02220	MF 22	2,00	22,50
4610 15 02415	4611 15 02415	4612 15 02415	4613 15 02415	4614 15 02415	MF 24	1,50	24,50
4610 15 02420	4611 15 02420	4612 15 02420	4613 15 02420	4614 15 02420	MF 24	2,00	24,50

BF SERVICE

FILETTI PER RIPARAZIONI
THREAD REPAIR

PROFI PLUS by BOHRCRAFT

QUALITÀ PER USO PROFESSIONALE / SUPERIOR INDUSTRIAL QUALITY

INSERTI FILETTATI PER CANDELE
THREAD INSERTS FOR SPARK PLUG THREAD

- Filetto continuo in acciaio inossidabile
- Filetto rinforzato per materiali, con bassa resistenza al taglio, ad es. alluminio, leghe di magnesio e per la ripazione di filetti usurati o danneggiati.

- Free running made of stainless steel
- Thread reinforcement for materials with low shearing strength, e.g. aluminium and magnesium alloys as well as to repair enables worn and damaged threads.



4615

MF

ART.			MF Filetto Thread	mm Passo Pitch	Ø mm Pre-foro Core Hole
8,4 x D	**12,4 x D**	**16,4 x D**			
4615 15 14084	**4615 15 14124**	**4615 15 14164**	MF 14	1,25	14,40



Indicato per filetto candele.
Especially for spark plug thread.

SET DI RIPARAZIONE FILETTI
THREAD REPAIR SETS

Contenuto:
- Inserti filettati
- Punta elicoidale DIN 338 (codice BC 1121) fino a M 12
- Maschio STI
- Utensile di montaggio
- Pin estrattore fino a M 12

Content:
- Thread inserts
- Twist Drill DIN 338 (BC-Code 1121) up to M 12
- STI Tap
- Fitting Tool
- Pin Breaker up to M 12



M **HSS** G

ART.	Descrizione Description	M Filetto Thread	mm Passo Pitch	Ø mm Foro Drill	L mm Maschio STI STI Tap	Utensile di montaggio Fitting Tool	Pin Estrattore Pin Breaker
1,5 x D							
4601 13 30300	GR - M 3	M 3	0,50	3,20	M 3 x 0,50	No. 4	No. 4
4601 13 30400	GR - M 4	M 4	0,70	4,20	M 4 x 0,70	No. 6	No. 6
4601 13 30500	GR - M 5	M 5	0,80	5,20	M 5 x 0,80	No. 8	No. 8
4601 13 30600	GR - M 6	M 6	1,00	6,30	M 6 x 1,00	No. 9	No. 9
4601 13 30800	GR - M 8	M 8	1,25	8,30	M 8 x 1,25	No. 11	No. 11
4601 13 31000	GR - M 10	M 10	1,50	10,40	M 10 x 1,50	No. 13	No. 13
4601 13 31200	GR - M12	M 12	1,75	12,40	M 12 x 1,75	No. 15	No. 15
4601 13 31400	GR - M 14	M 14	2,00	-	M 14 x 2,00	No. 16	-
4601 13 31600	GR - M 16	M 16	2,00	-	M 16 x 2,00	No. 18	-
4601 13 31800	GR - M 18	M 18	2,50	-	M 18 x 2,50	No. 20	-
4601 13 32000	GR - M 20	M 20	2,50	-	M 20 x 2,50	No. 21	-
4601 13 32200	GR - M 22	M 22	2,50	-	M 22 x 2,50	No. 22	-
4601 13 32400	GR - M 24	M 24	3,00	-	M 24 x 3,00	No. 23	-



GR - M 3
GR - M 12



GR - M 14
GR - M 24

BF SERVICE

QUALITÀ PER USO PROFESSIONALE / SUPERIOR INDUSTRIAL QUALITY

SET DI RIPARAZIONE FILETTI
THREAD REPAIR SETS

Contenuto:
- Inserti filettati
- Punta elicoidale DIN 338 (codice BC 1121) fino a MF 12
- Maschio STI
- Utensile di montaggio
- Pin estrattore fino a MF 12

Content:
- Thread inserts
- Twist Drill DIN 338 (BC-Code 1121) up to MF 12
- STI Tap
- Fitting Tool
- Pin Breaker up to MF 12



MF HSS G

ART.	Descrizione Description	MF Filetto Thread	mm Passo Pitch	Ø mm Foro Drill	L mm Maschio STI STI Tap	Utensile di montaggio Fitting Tool	Pin Estrattore Pin Breaker
1,5 x D							
4611 13 30810	GR - MF 810	MF 8	1,00	8,30	M 8 x 1,00	No. 11	No. 11
4611 13 31010	GR - MF 1010	MF 10	1,00	10,30	M 10 x 1,00	No. 13	No. 13
4611 13 31012	GR - MF 1012	MF 10	1,25	10,30	M 10 x 1,25	No. 13	No. 13
4611 13 31210	GR - MF 1210	MF 12	1,00	12,30	M 12 x 1,00	No. 15	No. 15
4611 13 31212	GR - MF 1212	MF 12	1,25	12,30	M 12 x 1,25	No. 15	No. 15
4611 13 31215	GR - MF 1215	MF 12	1,50	12,40	M 12 x 1,50	No. 15	No. 15
4611 13 31410	GR - MF 1410	MF 14	1,00	-	M 14 x 1,00	No. 16	-
4611 13 31412	GR - MF 1412	MF 14	1,25	-	M 14 x 1,25	No. 16	-
4611 13 31415	GR - M F1415	MF 14	1,50	-	M 14 x 1,50	No. 16	-
4611 13 31615	GR - MF 1615	MF 16	1,50	-	M 16 x 1,50	No. 18	-
4611 13 31815	GR - MF 1815	MF 18	1,50	-	M 18 x 1,50	No. 20	-
4611 13 31820	GR - MF 1820	MF 18	2,00	-	M 18 x 2,00	No. 20	-
4611 13 32015	GR - MF 2015	MF 20	1,50	-	M 20 x 1,50	No. 21	-
4611 13 32020	GR - MF 2020	MF 20	2,00	-	M 20 x 2,00	No. 21	-
4611 13 32215	GR - MF 2215	MF 22	1,50	-	M 22 x 1,50	No. 22	-
4611 13 32220	GR - MF 2220	MF 22	2,00	-	M 22 x 2,00	No. 22	-
4611 13 32415	GR - MF 2415	MF 24	1,50	-	M 24 x 1,50	No. 23	-
4611 13 32420	GR - MF 2420	MF 24	2,00	-	M 24 x 2,00	No. 23	-

GR - MF 810
GR - MF 1215



GR - MF 1410
GR - MF 2420



BF SERVICE

FILETTI PER RIPARAZIONI
THREAD REPAIR

QUALITÀ PER USO PROFESSIONALE / SUPERIOR INDUSTRIAL QUALITY

SET DI RIPARAZIONE FILETTI
THREAD REPAIR SETS

Contenuto:
- Inserti filettati
- Punta elicoidale DIN 338 (codice BC 1121) fino a M 12
- Maschio STI
- Utensile di montaggio
- Pin estrattore fino a M 12

Content:
- Thread inserts
- Twist Drill DIN 338 (BC-Code 1121) up to M 12
- STI Tap
- Fitting Tool
- Pin Breaker up to M 12



M HSS G

ART.	Descrizione Description	M Filetto Thread	mm Passo Pitch	Ø mm Foro Drill	L mm Maschio STI STI Tap	Utensile di montaggio Fitting Tool	Pin Estrattore Pin Breaker
1,5 x D							
4601 13 30512	GR - M 512 130 pz / pcs	M 5	0,80	5,20	M 5 x 0,80	No. 8	No. 8
		M 6	1,00	6,30	M 6 x 1,00	No. 9	No. 9
		M 8	1,25	8,30	M 8 x 1,25	No. 11	No. 11
		M 10	1,50	10,40	M 10 x 1,50	No. 13	No. 13
		M 12	1,75	12,40	M 12 x 1,75	No. 15	No. 15
4601 13 30614	GR - M 614 113 pz / pcs	M 5	1,00	6,30	M 6 x 1,00	No. 9	No. 9
		M 8	1,25	8,30	M 8 x 1,25	No. 11	No. 11
		M 10	1,50	10,40	M 10 x 1,50	No. 13	No. 13
		M 12	1,75	12,40	M 12 x 1,75	No. 15	No. 15
		MF 14	1,25	12,40	MF 14 x 1,25	No. 16	-
1,0 / 1,5 / 2,5 x D							
4601 13 30312	GR - M 312 113 pz / pcs	M 3	0,50	3,20	M 3 x 0,50	No. 4	No. 4
		M 4	0,70	4,20	M 4 x 0,70	No. 6	No. 6
		M 5	0,80	5,20	M 5 x 0,80	No. 8	No. 8
		M 6	1,00	6,30	M 6 x 1,00	No. 9	No. 9
		M 8	1,25	8,30	M 8 x 1,25	No. 11	No. 11
		M 10	1,50	10,40	M 10 x 1,50	No. 13	No. 13
		M 12	1,75	12,40	M 12 x 1,75	No. 15	No. 15



GR - M 512



GR - M 614



GR - M 312

SET DI RIPARAZIONE PER CANDELE
THREAD REPAIR SETS FOR SPARK PLUG

Contenuto:
- Inserti filettati
- Maschio STI
- Utensile di montaggio

Content:
- Thread inserts
- STI Combined thread tap
- Fitting Tool

MF HSS G

ART.	Descrizione Description	MF Filetto Thread	mm Passo Pitch	L mm Maschio STI STI Tap	Utensile di montaggio Fitting Tool
8,4 / 12,4 / 16,4 mm					
4615 13 31412	GRZK-14	MF 14	1,25	MF 14 x 1,25	No. 16

Indicato per filetto candele. / Especially for spark plug thread.



GR - ZK14

BF SERVICE

UTENSILI DI MONTAGGIO
FITTING TOOLS

Per avvitare gli inserti filettati.

To screw in the thread inserts.

M MF UNC UNF BSW



4700

ART.	Dimensione Size	M /MF Filetto Thread	UNC Filetto Thread	UNF Filetto Thread	BSW Filetto Thread
4700 15 00004	4	M 3 x 0,5	Nr. 4 x 40 Nr. 5 x 40	Nr. 4 x 48	1/8" x 40
4700 15 00006	6	M 4 x 0,7	Nr. 8 x 32	Nr. 8 x 36	-
4700 15 00008	8	M 5 x 0,8	Nr. 12 x 24	Nr. 10 x 32	-
4700 15 00009	9	M 6 x 1,0	1/4" x 20	1/4" x 28	1/4" x 20
4700 15 00011	11	M 8 x 1,25 M 8 x 1,0	-	5/16" x 24	-
4700 15 00013	13	M 10 x 1,0 M 10 x 1,25 M 10 x 1,5	-	3/4" x 24	-
4700 15 00015	15	M 12 x 1,0 M 12 x 1,25 M 12 x 1,5 M 12 x 1,75	1/2" x 13	1/2" x 20	1/2" x 12
4700 15 00016	16	M 14 x 1,0 M 14 x 1,25 M 14 x 1,5 M 14 x 2,0	9/16" x 12	9/16" x 18	9/16" x 12
4700 15 00018	18	M 16 x 1,5 M 16 x 2,0	5/8" x 11	5/8" x 18	5/8" x 11
4700 15 00020	20	M 18 x 1,5 M 18 x 2,0 M 18 x 2,5	3/4" x 10	-	3/4" x 10
4700 15 00021	21	M 20 x 1,5 M 20 x 2,0 M 20 x 2,5	-	3/4" x 16	-
4700 15 00022	22	M 22 x 1,5 M 22 x 2,0 M 22 x 2,5	7/8" x 9	7/8" x 14	7/8" x 9
4700 15 00023	23	M 24 x 1,5 M 24 x 2,0 M 24 x 2,5	1" x 8	1" x 12	1" x 8

i

Dalla misura M 14 rimuovere il troncone con una pinza o un altro utensile.
From size M 14 please remove the drive stub with a pliers or another object.

PIN ESTRATTORE
PIN BREAKER

Per rimuovere il piolo dall'inserto filettato.

To remove the drive stub of the thread insert.

M MF UNC UNF BSW



4701

ART.	Dimensione Size	M /MF Filetto Thread	UNC Filetto Thread	UNF Filetto Thread	BSW Filetto Thread
4701 15 00004	4	M 3 x 0,5	Nr. 4 x 40 Nr. 5 x 40	Nr. 4 x 48	1/8" x 40
4701 15 00006	6	M 4 x 0,7	Nr. 8 x 32	Nr. 8 x 36	-
4701 15 00008	8	M 5 x 0,8	Nr. 12 x 24	Nr. 10 x 32	-
4701 15 00009	9	M 6 x 1,0	1/4" x 20	1/4" x 28	1/4" x 20
4701 15 00011	11	M 8 x 1,25 M 8 x 1,0	-	5/16" x 24	-
4701 15 00013	13	M 10 x 1,0 M 10 x 1,25 M 10 x 1,5	-	3/4" x 24	-
4701 15 00015	15	M 12 x 1,0 M 12 x 1,25 M 12 x 1,5 M 12 x 1,75	1/2" x 13	1/2" x 20	1/2" x 12

BF SERVICE UTENSILERIA MECANICA

QUALITÀ PER USO PROFESSIONALE / SUPERIOR INDUSTRIAL QUALITY

MASCHI A MANO STI SINGOLI HSS-G
STI SINGLE HAND TAPS HSS-G

- Taglio di filettature interne per inserti filettati secondo ISO 2 (6H)
- Per uso manuale e a macchina
- Imbocco a 4 - 5 spire

- For cutting internal threads for thread inserts according to ISO 2 (6H)
- For manual and machine use
- 4 - 5 pitch chamfer

M | MF | HSS G | FORM D | ISO1 4H | 60° | 800 N/mm²



4800 - 4801

ART.	M Filetto Thread	mm Passo Pitch	Ø mm Pre-foro Core Hole	L mm Totale Overall	L mm Filetto Thread	mm Quadro Square
4800 11 00300	M 3	0,50	3,20	53	13	3,15
4800 11 00400	M 4	0,70	4,20	58	16	4,00
4800 11 00500	M 5	0,80	5,20	66	19	5,00
4800 11 00600	M 6	1,00	6,30	72	22	6,30
4800 11 00800	M 8	1,25	8,30	80	24	8,00
4800 11 01000	M 10	1,50	10,40	89	29	7,10
4800 11 01200	M 12	1,75	12,40	95	30	9,00
4800 11 01400	M 14	2,00	14,50	102	32	10,00
4800 11 01600	M 16	2,00	16,50	112	37	11,20
4800 11 01800	M 18	2,50	18,60	118	38	12,50
4800 11 02000	M 20	2,50	20,60	118	38	12,50
4800 11 02200	M 22	2,50	22,60	130	45	14,00
4800 11 02400	M 24	3,0	24,75	138	48	16,00



Confezioni
Packing-unit

ART.	MF Filetto Thread	mm Passo Pitch	Ø mm Pre-foro Core Hole	L mm Totale Overall	L mm Filetto Thread	mm Quadro Square
4801 11 00810	MF 8	1,00	8,30	80	24	8,00
4801 11 01010	MF 10	1,00	10,30	85	25	6,30
4801 11 01012	MF 10	1,25	10,30	85	25	6,30
4801 11 01210	MF 12	1,00	12,30	95	30	9,00
4801 11 01212	MF 12	1,25	12,30	95	30	9,00
4801 11 01215	MF 12	1,50	12,40	95	30	9,00
4801 11 01410	MF 14	1,00	14,30	102	32	10,00
4801 11 01412	MF 14	1,25	14,40	102	32	10,00
4801 11 01415	MF 14	1,50	14,40	102	32	10,00
4801 11 01615	MF 16	1,50	16,40	104	29	11,20
4801 11 01815	MF 18	1,50	18,50	104	29	11,20
4801 11 01820	MF 18	2,00	18,50	104	29	11,20
4801 11 02015	MF 20	1,50	20,50	113	33	12,50
4801 11 02020	MF 20	2,00	20,50	113	33	12,50
4801 11 02215	MF 22	1,50	22,50	120	35	14,00
4801 11 02220	MF 22	2,00	22,50	120	35	14,00
4801 11 02415	MF 24	1,50	24,50	120	35	14,00
4801 11 02420	MF 24	2,00	24,50	127	37	16,00

MASCHIO STI COMBINATO HSS-G, SPECIALE PER CANDELE
STI COMBINED-THREAD TAP HSS-G, ESPECIALLY FOR SPARK PLUGS

- Indicato per la riparazione delle filettature delle candele
- Per uso manuale e a macchina
- Con la punta pilota
- Non è necessario praticare un pre-foro

- Especially for repair of spark plug threads
- For manual and machine use
- With pilot-nose
- No need to drill a core hole

MF | HSS G | ISO1 4H | 60° | 800 N/mm²



4802



Confezioni
Packing-unit

ART.	MF Filetto Thread	mm Passo Pitch	Ø mm Punto Point	Ø mm Mezzo Middle	Ø mm Codolo Shank	L1 mm Punto Point	L2 mm	L3 mm Totale Overall	mm Quadro Square
4802 11 01412	MF 14	1,25	14	15,6	12	10	45	90	9,2

Indicato per filetto candele. / Especially for spark plug thread.

BF SERVICE

QUALITÀ PER USO PROFESSIONALE / SUPERIOR INDUSTRIAL QUALITY

PUNTE ELICOIDALI DIN 338 HSS-G TIPO N, SPLIT POINT
TWIST DRILLS DIN 338 HSS_G TYPE N, SPLIT POINT

Per acciaio legato e non legato, ghisa, ghisa malleabile, grafite duttile, pressofusione, leghe di alluminio a truciolo corto, ottone e bronzo.

For steel and cast steel alloyed and unalloyed, cast iron, annealed cast iron, ductile graphite iron, diecast, short-chipping aluminium-alloy, brass and bronze.

DIN 338 | HSS G | Typ N | 118° | SPLIT POINT DIN 1412 C | 800 N/mm² | 5xD



1121



1121-red.



Confezione: imballo singolo
Individual packaging

ART.	Ø mm	Filetto Thread	L mm Totale Overall	L mm Spirale Flute	mm Quadro Shank
1121 01 00320	3,20	M 3 x 0,50	65	6	cilindrico/cyl.
1121 01 00420	4,20	M 4 x 0,70	75	43	cilindrico/cyl.
1121 01 00520	5,20	M 5 x 0,870	86	52	cilindrico/cyl.
1121 01 00630	6,30	M 6 x 1,00	101	63	cilindrico/cyl.
1121 01 00830	8,30	M 8 x 1,00 / M 8 x 1,25	117	75	cilindrico/cyl.
1121 01 01030	10,30	M 10 x 1,00 / M 10 x 1,25	133	87	cilindrico/cyl.
1121 01 01040	10,40	M 10 x 1,50	133	87	cilindrico/cyl.
1121 01 01230	12,30	M 12 x 1,00 / M 12 x 1,25	151	101	cilindrico/cyl.
1121 01 01240	12,40	M 12 x 1,75 / M 12 x 1,50	151	101	cilindrico/cyl.
1121 01 11430	14,30	M 14 x 1,00	169	114	13 x 30
1121 01 11440	14,40	M 14 x 1,25 / M 14 x 1,50	169	114	13 x 30
1121 01 11450	14,50	M 14 x 2,00	169	114	13 x 30
1121 01 11640	16,40	M 16 x 1,50	184	125	13 x 35
1121 01 11650	16,50	M 16 x 2,00	184	125	13 x 35
1121 01 11850	18,50	M 18 x 1,50 / M 18 x 2,00	198	135	13 x 35
1121 01 11860	18,60	M 18 x 2,50	198	135	13 x 35
1121 01 12050	20,50	M 20 x 1,50 M 20 x 2,00	225	145	13 x 40
1121 01 12060	20,60	M 20 x 2,50	225	145	13 x 40
1121 01 12250	22,50	M 22 x 1,50 M 22 x 2,00	230	155	13 x 40
1121 01 12260	22,60	M 22 x 2,50	230	155	13 x 40
1121 01 12450	24,50	M 24 x 1,50 M 24 x 2,00	250	160	13 x 40
1121 01 12475	24,75	M 24 x 3,00	250	160	13 x 40

BF SERVICE

QUALITÀ PER USO PROFESSIONALE / SUPERIOR INDUSTRIAL QUALITY

TABELLA DI APPLICAZIONE DEI RIPARA FILETTI
TABLE OF APPLICATION THREAD REPAIR

M	mm Min. profondità pre-foro Min. drilling depth core hole					mm Lunghezza maschiatura (incl. scanalature) Tapping length (incl. Chamfer)					mm Lunghezza inserto filettato (dopo l'installazione) Length of thread insert (installed condition)				
	1,0xD	1,5xD	2,0xD	2,5xD	3,0xD	1,0xD	1,5xD	2,0xD	2,5xD	3,0xD	1,0xD	1,5xD	2,0xD	2,5xD	3,0xD
M 2 x 0,40	3,80	4,80	5,80	6,80	7,80	3.40	4,40	5,40	6,40	7,40	2,00	3,00	4,00	5,00	6,00
M 2,5 x 0,45	4,52	5,77	7,02	8,27	9,52	4,07	5,32	6,57	7,82	9,07	2,50	3,75	5,00	6,25	7,50
M 3 x 0,50	5,25	6,75	8,25	9,75	11,25	4,75	6,25	7,75	9,25	10,75	3,00	4,50	6,00	7,50	9,00
M 3,5 x 0,60	6,20	7,95	9,70	11,45	13,20	5,60	7,35	9,10	10,85	12,60	3,50	5,25	7,00	8,75	10,50
M 4 x 0,70	7,15	9,15	11,15	13,15	15,15	6,45	8,45	10,45	12,45	14,45	4,00	6,00	8,00	10,00	12,00
M 5 x 0,80	8,60	11,10	13,60	16,10	18,60	780	10,30	12,80	15,30	17,80	5,00	7,50	10,00	12,50	15,00
M 6 x 1,00	10,50	13,50	16,50	19,50	22,50	9,50	12,50	15,50	18,50	21,50	6,00	9,00	12,00	15,00	18,00
M 7 x 1,00	11,50	15,00	18,50	22,00	25,50	10,50	14,00	17,50	21,00	24,50	7,00	10,50	14,00	17,50	21,00
M 8 x 1,00	12,50	16,50	20,50	24,50	28,50	11,50	15,50	19,50	23,50	27,50	8,00	12,00	16,00	20,00	24,00
M 8 x 1,25	13,62	17,62	21,62	25,62	29,62	12,37	16.37	20,37	24,37	28,37	8,00	12,00	16,00	20,00	24,00
M 9 x 1,25	14,62	19,12	23,62	28,13	32,62	13,37	17,87	22,37	26,87	31,37	9,00	13,50	18,00	22,50	27,00
M 10 x 1,00	14,50	19,50	24,50	29,50	34,50	13,50	18,50	23,50	28,50	33,50	10,00	15,00	20,00	25,00	30,00
M 10 x 1,25	15,62	20,62	25,62	30,62	35,62	14,37	19,37	24,37	29,37	34,37	10,00	15,00	20,00	25,00	30,00
M 10 X 1,50	16,75	21,75	26,75	31,75	36,75	15,25	20,25	25,25	30,25	35,25	10,00	15,00	20,00	25,00	30,00
M 11 x 1,50	17,75	23,25	28,75	34,25	39,75	16,25	21,75	27,25	32,75	38,25	11,00	16,50	22,00	27,50	33,00
M 12 x 1,25	17,62	23,62	29,62	35,62	41,62	16,37	22,37	27,37	34,37	40,37	12,00	18,00	24,00	30,00	36,00
M 12 x 1,50	18,75	24,75	30,75	36,75	42,75	17,25	23,25	29,25	35,25	41,25	12,00	18,00	24,00	30,00	36,00
M 12 x 1,75	19,87	25,87	31,87	37,87	43,87	18,12	24,12	30,12	36,12	42,12	12,00	18,00	24,00	30,00	36,00
M 14 x 1,25	19,62	26,62	33,62	40,62	47,62	18,37	25,37	32,37	39,37	46,37	14,00	21,00	28,00	35,00	42,00
M 14 x 1,50	20,75	27,75	34,75	41,75	48,75	19,25	26,25	33,25	40,25	47,25	14,00	21,00	28,00	35,00	42,00
M 14 x 2,00	23,00	30,00	37,00	44,00	51,00	21,00	28,00	35,00	42,00	49,00	14,00	21,00	28,00	35,00	42,00
M 16 x 1,50	22,75	30,75	38,75	46,75	54,75	21,25	29,25	37,25	45,25	53,25	16,00	24,00	32,00	40,00	48,00
M 16 x 2,00	25,00	33,00	41,00	49,00	57,00	23,00	31,00	39,00	47,00	55,00	16,00	24,00	32,00	40,00	48,00
M 18 x 2,00	27,00	36,00	45,00	54,00	63,00	25,00	34,00	43,00	52,00	61,00	18,00	27,00	36,00	45,00	54,00
M 18 x 2,50	29,25	38,25	47,25	56,25	65,25	26,75	35,75	44,75	53,75	62,75	18,00	27,00	36,00	45,00	54,00
M 20 x 1,50	26,75	36,75	46,75	56,75	66,75	25,25	35,25	45,25	55,25	65,25	20,00	30,00	40,00	50,00	60,00
M 20 x 2,00	29,00	39,00	49,00	59,00	69,00	27,00	37,00	47,00	57,00	67,00	20,00	30,00	40,00	50,00	60,00
M 20 x 2,50	31,25	41,25	51,25	61,25	71,25	28,75	38,75	48,75	58,75	68,75	20,00	33,00	40,00	50,00	60,00
M 22 x 1,50	28,75	39,75	50,75	61,75	72,75	27,25	38,25	49,25	60,25	71,25	22,00	33,00	44,00	55,00	66,00
M 22 x 2,00	31,00	42,00	53,00	64,00	75,00	29,00	40,00	51,00	62,00	73,00	22,00	33,00	44,00	55,00	66,00
M 22 x 2,50	33,25	44,25	55,25	66,25	77,25	30,75	41,75	52,75	63,75	74,75	22,00	33,00	44,00	55,00	66,00
M 24 x 2,00	33,00	45,00	57,00	69,00	81,00	31,00	43,00	55,00	67,00	79,00	24,00	36,00	48,00	60,00	72,00
M 24 x 3,00	37,50	49,50	61,50	73,50	85,50	34,50	46,50	58,50	70,50	82,50	24,00	36,00	48,00	60,00	72,00

BF SERVICE

SVASATORI DIN 335 FORMA C 90° HSS
COUNTERSINKS DIN 335 TYPE C 90° HSS

Per svasare senza sbavature. Per prolungare la durata dell'utensile e per migliori prestazioni è consigliata una bassa velocità e una corretta lubrificazione.

For countersinking free of chattering and burring. Low cutting-speed and sufficient cooling-liquid will increase lifetime of tool and improve working results.

DIN 335C | HSS G | 90° | CBN | TiN | TiAlN


1700


1701


1702



Confezione: imballo singolo
Individual packaging

	< 800 N/mm²	< 1100 N/mm²	< 1400 N/mm²	INOX	Ti	GUSS	Al	CU	MS	K
1700	●						●	●	○	●
1701	●	○		○	○			○		●
1702	●	●	●	●	○	○	○	●	●	●

	TiN	TiAlN						
ART.	ART.	ART.	Ø mm	Ø mm Punta Point	Ø mm Codolo Shank	L mm Totale Overall	DIN 74 AF	DIN 74 BF
1700 03 04390	1701 03 04390	1702 03 04390	4,3	1,3	4	40		
1700 03 05090	1701 03 05090	1702 03 05090	5,0	1,5	4	40	M 2,5	
1700 03 06090	1701 03 06090	1702 03 06090	6,0	1,5	5	45	M3	
1700 03 06390	1701 03 06390	1702 03 06390	6,3	1,5	5	45		M 3
1700 03 07090	1701 03 07090	1702 03 07090	7,0	1,8	6	50	M 3,5	
1700 03 07390	1701 03 07390	1702 03 07390	7,3	1,8	6	50		
1700 03 08090	1701 03 08090	1702 03 08090	8,0	2,0	6	50	M 4	
1700 03 08390	1701 03 08390	1702 03 08390	8,3	2,0	6	50		M 4
1700 03 09490	1701 03 09490	1702 03 09490	9,4	2,2	6	50		
1700 03 10090	1701 03 10090	1702 03 10090	10,0	2,5	6	50	M 5	
1700 03 10490	1701 03 10490	1702 03 10490	10,4	2,5	6	50		M 5
1700 03 11590	1701 03 11590	1702 03 11590	11,5	2,8	8	56	M 6	
1700 03 12090	1701 03 12090	1702 03 12090	12,0	2,8	8	56		
1700 03 12490	1701 03 12490	1702 03 12490	12,4	2,8	8	56		M 6
1700 03 15090	1701 03 15090	1702 03 15090	15,0	3,2	10	60	M 8	
1700 03 16590	1701 03 16590	1702 03 16590	16,5	3,2	10	60		M 8
1700 03 19090	1701 03 19090	1702 03 19090	19,0	3,5	10	63	M 10	
1700 03 20590	1701 03 20590	1702 03 20590	20,5	3,5	10	63		M 10
1700 03 23090	1701 03 23090	1702 03 23090	23,0	3,8	10	67	M 12	
1700 03 25090	1701 03 25090	1702 03 25090	25,0	3,8	10	67		M 12
1700 03 28090	1701 03 28090	1702 03 28090	28,0	4,0	12	71		M 14
1700 03 31090	1701 03 31090	1702 03 31090	31,0	4,2	12	71		M 16
1700 03 40090	-	-	40,0	4,2	13	80		
1700 03 50090	-	-	50,0	4,5	13	92		

Continua nella pagina successiva.
Continued on the next page.

BF SERVICE

SVASATORI
COUNTERSINKS



1700


1701



1702





Cassette in ABS / ABS Boxes

ART.	Tipo Type		Contenuto Content
1700 13 30005	KS 5-K	5 pz / pcs	6,3 / 10,4 / 16,5 / 20,5 / 25,0 mm
1700 13 30006	KS 6-K	6 pz / pcs	6,3 / 8,3 / 10,4 / 12,4 / 16,5 / 20,5 mm
1701 13 30006	KS 5-K TiN	6 pz / pcs	6,3 / 8,3 / 10,4 / 12,4 / 16,5 / 20,5 mm
1702 13 30006	KS 5-K TiAlN	6 pz / pcs	6,3 / 8,3 / 10,4 / 12,4 / 16,5 / 20,5 mm





Cassette in metallo / Metal Boxes

ART.	Tipo Type		Contenuto Content
1700 14 10006	KS 6	6 pz / pcs	6,3 / 8,3 / 10,4 / 12,4 / 16,5 / 20,5 mm
1701 14 10006	KS 6 TiN	6 pz / pcs	6,3 / 8,3 / 10,4 / 12,4 / 16,5 / 20,5 mm
1702 14 10006	KS 5-K TiAlN	6 pz / pcs	6,3 / 8,3 / 10,4 / 12,4 / 16,5 / 20,5 mm

BF SERVICE

SVASATORI DIN 335 FORMA C 90° HSS-E (Co5)
COUNTERSINKS DIN 335 FORM C 90° HSS-E (Co5)

Per svasare senza sbavature. Per prolungare la durata dell'utensile e per migliori prestazioni è consigliata una bassa velocità e una corretta lubrificazione. Per acciaio inox.

For countersinking free of chattering and burring. Low cutting-speed and sufficient cooling-liquid will increase lifetime of tool and improve working results. For VA materials and stainless steeel

DIN 335C | HSS-E Co5 | 90° | INOX



1710

< 800 N/mm²	< 1100 N/mm²	< 1400 N/mm²	INOX	Ti	GUSS	Al	CU	MS	K
●	●		●	●		●	●	●	●



Confezione: imballo singolo/
Individual packaging

ART.	Ø mm	Ø mm Punta Point	Ø mm Codolo Shank	L mm Totale Overall	DIN 74 BF
1710 03 06390	6,3	1,5	5	45	M 3
1710 03 08390	8,3	2,0	6	50	M 4
1710 03 10490	10,4	2,5	6	50	M 5
1710 03 12490	12,4	2,8	8	56	M 6
1710 03 16590	16,5	3,2	10	60	M 8
1710 03 20590	20,5	3,5	10	63	M 10
1710 03 25090	25,0	3,8	10	67	M 12
1710 03 31090	31,0	4,2	12	71	M 16

Cassette in ABS / ABS Boxes

ART.	Tipo Type		Contenuto Content
1710 13 30005	KS 5-K CO	5 pz / pcs	6,3 / 10,4 / 16,5 / 20,5 / 25,0 mm
1710 13 30006	KS 6-K CO	6 pz / pcs	6,3 / 8,3 / 10,4 / 12,4 / 16,5 / 20,5 mm



Cassette in metallo / Metal Box

ART.	Tipo Type		Contenuto Content
1710 14 10006	KS 6 CO	6 pz / pcs	6,3 / 8,3 / 10,4 / 12,4 / 16,5 / 20,5 mm



SVASATURE SECONDO DIN 74 PER VITI A TESTA SVASATA
COUNTERSINKINGS AS PER DIN 74 FOR COUNTERSUNK SCREWS

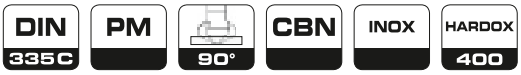
Form AF	Form BF
DIN 963 / DIN 964	DIN 7991 (ISO 10642)
DIN 965 / DIN 966	
DIN 7513 F. u. G.	
DIN 7516 D. u. E.	

BF SERVICE

SVASATORI DIN 335 FORMA C 90° RICAVATI DA POLVERI SINTERIZZATE
COUNTERSINKS DIN 335 FORM C 90° POWDER METAL (PM)

Per svasare senza sbavature. Per prolungare la durata dell'utensile e per migliori prestazioni è consigliata una bassa velocità e una corretta lubrificazione. Per acciaio inox, titanio, leghe di titanio e Hardox 400.

For countersinking free of chattering and burring. Low cutting-speed and sufficient cooling-liquid will increase lifetime of tool and improve working results. For mateials like VA, titan and hardox 400.





1714

< 800 N/mm²	< 1100 N/mm²	< 1400 N/mm²	INOX	Ti	GUSS	Al	CU	MS	K
●	●	●	●	●	●	●	●	●	●



Confezione: imballo singolo
Individual packaging

ART.	Ø mm	Ø mm Punta Point	Ø mm Codolo Shank	L mm Totale Overall	DIN 74 BF
1714 03 06390	6,3	1,5	5	45	M 3
1714 03 08390	8,3	2,0	6	50	M 4
1714 03 10490	10,4	2,5	6	50	M 5
1714 03 12490	12,4	2,8	8	56	M 6
1714 03 16590	16,5	3,2	10	60	M 8
1714 03 20590	20,5	3,5	10	63	M 10
1714 03 25090	25,0	3,8	10	67	M 12
1714 03 31090	31,0	4,2	12	71	M 16

Cassetta in ABS / ABS Box

ART.	Tipo Type		Contenuto Content
1714 13 30006	KS 6-K PM	6 pz / pcs	6,3 / 8,3 / 10,4 / 12,4 / 16,5 / 20,5 mm



BF SERVICE

SVASATORI
COUNTERSINKS

SVASATORI 90° HSS-G CON ATTACCO 1/4 ESAGONALE
COUNTERSINKS-BITS 90° HSS-G 1/4 HEX SHANK

Per svasare senza sbavature.

For countersinking free of chattering and burring.



1705

< 800 N/mm²	< 1100 N/mm²	< 1400 N/mm²	INOX	Ti	GUSS	Al	CU	MS	K
●						●	●	○	●

ART.	Ø mm	Ø mm Punta Point	Ø mm Codolo Shank	L mm Totale Overall
1705 03 06390	6,3	1,5	1/4"	31
1705 03 08390	8,3	2,0	1/4"	31
1705 03 10490	10,4	2,5	1/4"	34
1705 03 12490	12,4	2,8	1/4"	35
1705 03 16590	16,5	3,2	1/4"	40
1705 03 20590	20,5	3,5	1/4"	41

Cassetta in ABS / ABS Box

ART.	Tipo Type		Contenuto Content
1705 13 30006	KSB 6-K	8 pz / pcs	6,3 / 8,3 / 10,4 / 12,4 / 16,5 / 20,5 mm + Portainserti ed impugnatura / Bitholder and Handle

Cassetta in metallo / Metal Box

ART.	Tipo Type		Contenuto Content
1705 14 10006	KSB 6	6 pz / pcs	6,3 / 8,3 / 10,4 / 12,4 / 16,5 / 20,5 mm



SBAVATORI A MANO 90° HSS-G
HAND DEBURRING TOOLS 90° HSS-G

Per svasare e sbavare a mano.

For countersinking and deburring by hand.





1820



Confezione: imballo singolo
Individual packaging

ART.	Ø mm	Ø mm Punta Point	Ø mm Codolo Shank
1820 03 10490	10,4	2,5	M 5
1820 03 12490	12,4	2,8	M 6
1820 03 16590	16,5	3,2	M 8
1820 03 20590	20,5	3,5	M 10

IMPUGNATURA PER SBAVATORI A MANO CON ATTACCO 1/4"
HANDLE FOR COUNTERSINKS WITH 1/4" BIT-SHANK

Per svasare e sbavare a mano.

For countersinking and deburring by hand.



6300



1820-H

ART.	Tipo Type
1820 03 00001	Impugnatura / Handle
6300 15 01060	Portainserti / Bitholder 60 mm

BF SERVICE

SVASATORI
COUNTERSINKS

SVASATORI TIPO DIN 335 FORMA C 90° HSS-G - SERIE LUNGA ED EXTRA LUNGA
COUNTERSINKS SIMILAR TO DIN 335 TYPE C 90° HSS-G - LONG AND EXTRA LONG VERSION

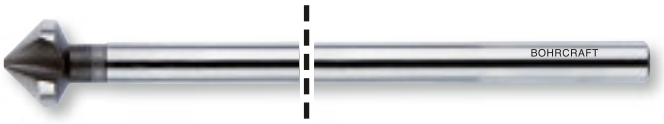
Per svasare senza sbavature. Per prolungare la durata dell'utensile e per migliori prestazioni è consigliata una bassa velocità e una corretta lubrificazione.

For countersinking free of chattering and burring. Low cutting-speed and sufficient cooling-liquid will increase lifetime of tool and improve working results.

BOC NORM | HSS G | 90° | CBN | LONG Version | EXTRA LONG Version



1703-L - Serie lunga / Long version



1703-EL - Serie extra lunga / Extra long version

< 800 N/mm²	< 1100 N/mm²	< 1400 N/mm²	INOX	Ti	GUSS	Al	CU	MS	K
●						●	●	○	●



Confezione: imballo singolo
Individual packaging

ART.	Ø mm	Ø mm Punta Point	Ø mm Codolo Shank	L mm Totale Overall	DIN 74 BF
	Serie lunga / Long version				
1703 03 06390	6,3	1,5	5	85	M 3
1703 03 08390	8,3	2,0	6	85	M 4
1703 03 10490	10,4	2,5	6	88	M 5
1703 03 12490	12,4	2,8	8	108	M 6
1703 03 16590	16,5	3,2	10	112	M 8
1703 03 20590	20,5	3,5	10	115	M 10
	Serie extra lunga / Extra long version				
1703 03 06391	6,3	1,5	5	154	M 3
1703 03 08391	8,3	2,0	6	155	M 4
1703 03 10491	10,4	2,5	6	157	M 5
1703 03 12491	12,4	2,8	8	158	M 6
1703 03 16591	16,5	3,2	10	161	M 8
1703 03 20591	20,5	3,5	10	164	M 10

BF SERVICE

SVASATORI
COUNTERSINKS

SVASATORI DIN 335 FORMA D 90° HSS-G, CON ATTACCO CONICO
COUNTERSINKS DIN 335 TYPE D 90° HSS-G, WITH TAPER SHANK

DIN 335D | HSS G | 90° | CBN



1704

< 800 N/mm²	< 1100 N/mm²	< 1400 N/mm²	INOX	Ti	GUSS	Al	CU	MS	K
●						●	●	○	●

ART.	Ø mm	Ø mm Punta Point	Conico Taper	L mm Totale Overall	DIN 74 AF	DIN 74 BF
1704 03 15090	15,0	3,2	MK 1	85	M 8	
1704 03 16590	16,5	3,2	MK 1	85		M 8
1704 03 19090	19,0	3,5	MK 2	100	M 10	
1704 03 20590	20,5	3,5	MK 2	100		M 10
1704 03 23090	23,0	3,8	MK 2	106	M 12	
1704 03 25090	25,0	3,8	MK 2	106		M 12
1704 03 26090	26,0	3,8	MK 2	106	M 14	
1704 03 28090	28,0	4,0	MK 2	112		M 14
1704 03 30090	30,0	4,2	MK 2	112	M 16	
1704 03 31090	31,0	4,2	MK 2	112		M 16
1704 03 34090	34,0	4,5	MK 2	118	M 18	M 18
1704 03 37090	37,0	4,8	MK 2	118	M 20	M 20
1704 03 40090	40,0	10,0	MK 3	140		
1704 03 50090	50,0	14,0	MK 3	150		
1704 03 63090	63,0	16,0	MK 4	180		
1704 03 80090	80,0	22,0	MK 4	190		



Confezione: imballo singolo
Individual packaging

SVASATORI DIN 334 FORMA C 60° HSS-G
COUNTERSINKS DIN 334 TYPE C 60° HSS-G

Per svasare senza sbavature. Per prolungare la durata dell'utensile e per migliori prestazioni è consigliata una bassa velocità e una corretta lubrificazione.

For countersinking free of chattering and burring. Low cutting-speed and sufficient cooling-liquid will increase lifetime of tool and improve working results.

DIN 334C | HSS G | 90° | CBN



1700-60

< 800 N/mm²	< 1100 N/mm²	< 1400 N/mm²	INOX	Ti	GUSS	Al	CU	MS	K
●						●	●	○	●

ART.	Ø mm	Ø mm Punta Point	Ø mm Codolo Shank	L mm Totale Overall
1700 03 06360	6,3	1,6	5	45
1700 03 08060	8,0	2,0	6	50
1700 03 10060	10,0	2,5	6	50
1700 03 12560	12,5	3,2	8	56
1700 03 16060	16,0	4,0	10	63
1700 03 20060	20,0	5,0	10	67
1700 03 25060	25,0	6,3	10	71
1700 03 30060	30,0	7,1	12	71



Confezione: imballo singolo
Individual packaging

BF SERVICE

SVASATORI
COUNTERSINKS

SVASATORI FORMA C 75° HSS
COUNTERSINKS TYPE C 75° HSS





1700-75

< 800 N/mm²	< 1100 N/mm²	< 1400 N/mm²	INOX	Ti	GUSS	Al	CU	MS	K
●						●	●	○	●

ART.	Ø mm	Ø mm Punta Point	Ø mm Codolo Shank	L mm Totale Overall
1700 03 06375	6,3	1,6	5	45
1700 03 08375	8,3	2,0	6	50
1700 03 10475	10,4	2,5	6	50
1700 03 12475	12,4	3,2	8	56
1700 03 16575	16,5	4,0	10	63
1700 03 20575	20,5	5,0	10	67
1700 03 25075	25,0	6,3	10	71

SVASATORI FORMA C 120° HSS
COUNTERSINKS TYPE C 120° HSS





1700-120

ART.	Ø mm	Ø mm Punta Point	Ø mm Codolo Shank	L mm Totale Overall
1700 03 06312	6,3	1,6	5	45
1700 03 08312	8,3	2,0	6	50
1700 03 10412	10,4	2,5	6	50
1700 03 12412	12,4	3,0	8	56
1700 03 16512	16,5	3,5	10	63
1700 03 20512	20,5	4,0	10	67
1700 03 25012	25,0	5,0	10	71

BF SERVICE

SVASATORI
COUNTERSINKSS

SBAVATORI HSS CON FORO TRASVERSALE
COUNTERSINKS HSS WITH CROSS HOLE

Per svasare senza sbavature. Per prolungare la durata dell'utensile e per migliori prestazioni è consigliata una bassa velocità e una corretta lubrificazione.

For countersinking free of chattering and burring. Low cutting-speed and sufficient cooling-liquid will increase lifetime of tool and improve working results.

BOC NORM | HSS G | 90° | CBN | TiN



1720



1721

	< 800 N/mm²	< 1100 N/mm²	< 1400 N/mm²	INOX	Ti	GUSS	Al	CU	MS	K
1720	●						●	●	◐	●
1721	●	◐		◐	◐			◐		●

	TiN					
ART.	**ART.**	Grandezza Size	mm Foro Range	Ø mm Codolo Shank	L mm Totale Overall
1720 03 00001	**1721 03 00001**	1	2 - 5	6	45
1720 03 00002	**1721 03 00002**	2	5 - 10	8	48
1720 03 00003	**1721 03 00003**	3	10 - 15	10	65
1720 03 00004	**1721 03 00004**	4	15 - 20	12	85
1720 03 00005	**1721 03 00005**	5	20 - 25	12	102
1720 03 00006	**-**	6	25 - 30	15	115



Confezione: imballo singolo
Individual packaging

Cassetta in ABS / ABS Box

ART.	Tipo Type		Contenuto Content
1720 13 30004	QS 4-K	4 pz / pcs	Grandezza / Size: 1 / 2 / 3 / 4 Foro / Range: 2-5 / 5-10 / 10-15 / 15-20 mm



Cassetta in metallo / Metal Box

ART.	Tipo Type		Contenuto Content
1720 14 10004	QS 4	4 pz / pcs	Grandezza / Size: 1 / 2 / 3 / 4 Foro / Range: 2-5 / 5-10 / 10-15 / 15-20 mm

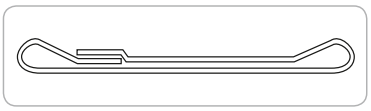


BF SERVICE

EAD

Brache di sollevamento aperte, piatte, doppio strato con anelli
EN 1492 : 1 / S.F. 7 : 1





ART.	Colore	Larghezza mm	CMU / WLL / SWL kg			
			x 1	x 0,8	x 2	x 1,4 (x=0°+45°)
EAD						
EAD 1000		30	1.000	800	2.000	1.400
EAD 1500		50	1.500	1.200	3.000	2.100
EAD 2000		60	2.000	1.600	4.000	2.800
EAD 3000		90	3.000	2.400	6.000	4.200
EAD 4000		120	4.000	3.200	8.000	5.600
EAD 5000		150	5.000	4.000	10.000	7.000
EAD 6000		180	6.000	4.800	12.000	8.400
EAD 8000		240	8.000	6.400	16.000	11.200
EAD 10000		300	10.000	8.000	20.000	14.000

Lunghezza m	1	1,5	2	2,5	3	4	5	6	8	10
ART. EAD1000										
COD.	**3010**	**3015***	**3020**	**3025***	**3030**	**3040**	**3050***	**3060***	**3080***	**30100***
ART. EAD1500										
COD.	**5010***	**5015***	**5020**	**5025***	**5030**	**5040**	**5050**	**5060***	**5080***	**50100***
ART. EAD2000										
COD.	**6010***	**6015***	**6020**	**6025***	**6030**	**6040**	**6050**	**6060**	**6080***	**60100***
ART. EAD3000										
COD.	**9010***	**9015***	**9020***	**9025***	**9030**	**9040**	**9050**	**9060**	**9080**	**90100***
ART. EAD4000										
COD.			**12020***		**12030***	**12040***	**12050***	**12060***	**12080***	**120100***
ART. EAD5000										
COD.			**15020***		**15030***	**15040**	**15050***	**15060**	**15080***	**150100***
ART. EAD6000										
COD.			**18020***		**18030***	**18040***	**18050***	**18060***	**18080***	**180100***
ART. EAD8000										
COD.			**24020***		**24030***	**24040***	**24050***	**24060***	**24080***	**240100***
ART. EAD10000										
COD.			**30020***		**30030***	**30040***	**30050***	**30060***	**30080***	**300100***

* Misure disponibili su richiesta. Consegna entro 15 gg.

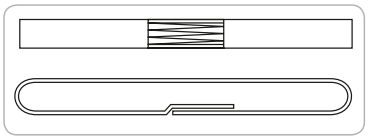
BF SERVICE

SOLLEVAMENTO

EC1V

Brache di sollevamento chiuse, piatte, ad anello
EN 1492 : 1 / S.F. 7 : 1





ART.	Colore	Larghezza mm	CMU / WLL / SWL kg			
			x 1	x 0,8	x 2	x 1,4 (x=0°÷45°)
EC1V						
EC1V 1000		30	1.000	800	2.000	1.400
EC1V 2000		60	2.000	1.600	4.000	2.800
EC1V 3000		90	3.000	2.400	6.000	4.200
EC1V 4000		120	4.000	3.200	8.000	5.600
EC1V 5000		150	5.000	4.000	10.000	7.000
EC1V 6000		180	6.000	4.800	12.000	8.400
EC1V 8000		240	8.000	6.400	16.000	11.200
EC1V 10000		300	10.000	8.000	20.000	14.000

Lunghezza m	1	2	3	4	5	6	8
ART. EC1V1000							
COD.	**3010**	**3020**	**3030**	**3040**	**3050**	**3060**	**3080**
ART. EC1V2000							
COD.	**6010**	**6020**	**6030**	**6040**	**6050**	**6060**	**6080**
ART. EC1V3000							
COD.	**9010**	**9020**	**9030**	**9040**	**9050**	**9060**	**9080**
ART. EC1V4000							
COD.	**12010**	**12020**	**12030**	**12040**	**12050**	**12060**	**12080**
ART. EC1V5000							
COD.	**15010**	**15020**	**15030**	**15040**	**15050**	**15060**	**15080**
ART. EC1V6000							
COD.	**18010**	**18020**	**18030**	**18040**	**18050**	**18060**	**18080**
ART. EC1V8000							
COD.		**24020**	**24030**	**24040**	**24050**	**24060**	**24080**
ART. EC1V10000							
COD.		**30020**	**30030**	**30040**	**30050**	**30060**	**30080**

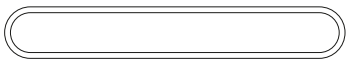
Tutte le misure disponibili su richiesta. Consegna entro 15 gg.

BF SERVICE

TUB ZC

Brache di sollevamento tubolari chiuse ad anello
EN 1492 : 2 / S.F. 7 : 1





ART.	Colore	Larghezza mm	Ø mm	CMU / WLL / SWL kg			
				x 1	x 0,8	x 2	x 1,4 (x=0°+45°)
TUB ZC							
ZC 1000		45	30	1.000	800	2.000	1.400
ZC 2000		50	34	2.000	1.600	4.000	2.800
ZC 3000		60	35	3.000	2.400	6.000	4.200
ZC 4000		70	46	4.500	3.200	8.000	5.600
ZC 5000		75	50	5.000	4.000	10.000	7.000
ZC 6000		85	55	6.000	4.800	12.000	8.400
ZC 8000		95	60	8.000	6.400	16.000	11.200
ZC 10000		110	66	10.000	8.000	20.000	14.000

Lunghezza m	1	1,5	2	3	4	5	6	8	10
ART. ZC1000									
COD.	**423010**	**423015**	**423020**	**423030***	**423040***	**423050***	**423060***	**423080***	**4230100***
ART. ZC2000									
COD.	**503410***	**503415**	**503420**	**503430**	**503440**	**503450***	**503460***	**503480***	**5034100***
ART. ZC3000									
COD.	**523510***	**523515***	**523520**	**523530**	**523540**	**523550**	**523560***	**523580***	**5235100***
ART. ZC4000									
COD.	**794610***	**794615***	**794620***	**794630***	**794640***	**794650***	**794660***	**794680***	**7946100***
ART. ZC5000									
COD.	**755010***	**755015***	**755020***	**755030**	**755040**	**755050**	**755060**	**755080**	**7550100***
ART. ZC6000									
COD.			**825520***	**825530***	**825540***	**825550***	**825560***	**825580***	**8255100***
ART. ZC8000									
COD.			**956020***	**956030***	**956040***	**956050***	**956060***	**956080***	**9560100***
ART. ZC10000									
COD.			**1026620***	**1026630***	**1026640***	**1026650***	**1026660***	**1026680***	**10266100***

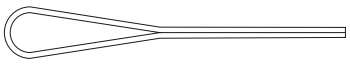
* Misure disponibili su richiesta. Consegna entro 15 gg.

BF SERVICE

TUB ZA

Brache di sollevamento tubolari con anelli
EN 1492 : 2 / S.F. 7 : 1





ART.	Colore	Larghezza mm	Ø mm	CMU / WLL / SWL kg			
				x 1	x 0,8	x 2	x 1,4 (x=0°+45°)
TUB ZA							
ZA 1000		45	50	1.000	800	2.000	1.400
ZA 2000		50	65	2.000	1.600	4.000	2.800
ZA 3000		60	70	3.000	2.400	6.000	4.200
ZA 4000		70	90	4.000	3.200	8.000	5.600
ZA 5000		75	95	5.000	4.000	10.000	7.000
ZA 6000		85	104	6.000	4.800	12.000	8.400
ZA 8000		95	115	8.000	6.400	16.000	11.200
ZA 10000		110	125	10.000	8.000	20.000	14.000

Lunghezza m	1	2	3	4	5	6	8
ART. ZA1000							
COD.	**423010**	**423020**	**423030**	**423040**	**423050**	**423060**	**423080**
ART. ZA2000							
COD.	**503410**	**503420**	**503430**	**503440**	**503450**	**503460**	**503480**
ART. ZA3000							
COD.	**523510**	**523520**	**523530**	**523540**	**523550**	**523560**	**523580**
ART. ZA4000							
COD.	**704610**	**704620**	**704630**	**704640**	**704650**	**704660**	**704680**
ART. ZA5000							
COD.	**755010**	**755020**	**755030**	**755040**	**755050**	**755060**	**755080**
ART. ZA6000							
COD.	**825510**	**825520**	**825530**	**825540**	**825550**	**825560**	**825580**
ART. ZA8000							
COD.		**956020**	**956030**	**956040**	**956050**	**956060**	**956080**
ART. ZA10000							
COD.		**1026620**	**1026630**	**1026640**	**1026650**	**1026660**	**1026680**

Tutte le misure disponibili su richiesta. Consegna entro 15 gg.

BF SERVICE

SOLLEVAMENTO

EAM

Brache piatte aperte con estremità ad anelli metallici uguali
EN 1492 : 1 / EN 1677 / S.F. 5 : 1



ART.	Colore	Lunghezza m	Larghezza mm	CMU / WLL / SWL kg			
				x 1	x 0,8	x 2	x 1,4 (x=0°+45°)
EAM 2000-2		2	60	2.000	1.600	4.000	2.800
EAM 2000-4		4					
EAM 3000-4		4	90	3.000	2.400	6.000	4.200
EAM 3000-6		6					
EAM 5000-4		4	150	5.000	4.000	10.000	7.000
EAM 5000-6		6					
EAM 6000-6		6	180	6.000	4.800	12.000	8.400
EAM 6000-8		8					
EAM 8000-6		6	240	8.000	6.400	16.000	11.200
EAM 8000-8		8					

EAR

Brache piatte aperte con estremità ad anelli metallici di cui uno passante
EN 1492 : 1 / EN 1677 / S.F. 5 : 1



ART.	Colore	Lunghezza m	Larghezza mm	CMU / WLL / SWL kg			
				x 1	x 0,8	x 2	x 1,4 (x=0°+45°)
EAR 2000-2		2	60	2.000	1.600	4.000	2.800
EAR 2000-4		4					
EAR 3000-4		4	90	3.000	2.400	6.000	4.200
EAR 3000-6		6					
EAR 5000-4		4	150	5.000	4.000	10.000	7.000
EAR 5000-6		6					

EPS

Fasce con gancio speciale per tubi di cemento
EN 1492 : 1 / EN 1677 / S.F. 5 : 1



ART.	Colore	Lunghezza m	Larghezza mm	CMU / WLL / SWL kg			
				x 1	x 0,8	x 2	x 1,4 (x=0°+45°)
EPS 1600-4		4	60	2.000	1.600	4.000	2.800
EPS 1600-6		6					

BF SERVICE

SOLLEVAMENTO

CL GL

Sistemi di sollevamento per gru
EN 1492 : 1 / EN 1677 / S.F. 5 : 1



CL GL

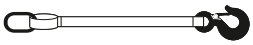


CL GLA

	ART.	Colore	Lunghezza m	CMU / WLL / SWL kg x 1
	CLE-GL1.1		1	1.000
	CLE-GL2.1		1	2.000
	CLE-GL3.1		1	3.000
	CLE-GL5.1		1	5.000
NOVITÀ	CLE-GLA2.1		1	2.000
NOVITÀ	CLE-GLA3.1		1	3.000



GL
gancio con linguetta e occhiello rinforzato



GL+A
gancio con linguetta e anello

VANTAGGI Riducono il rischio di scariche elettrostatiche.
Facilitano lo spostamento dei carichi. ganci con linguetta (GL) o con chiusura di sicurezza (GS).

CL GS

Sistemi di sollevamento per gru
EN 1492 : 1 / EN 1677 / S.F. 5 : 1

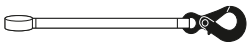


CL GS

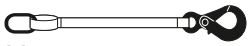


CL GSA

	ART.	Colore	Lunghezza m	CMU / WLL / SWL kg x 1
	CLE-GS1.1		1	1.000
	CLE-GS2.1		1	2.000
	CLE-GS3.1		1	3.000
	CLE-GS5.1		1	5.000
NOVITÀ	CLE-GSA2.1		1	2.000
NOVITÀ	CLE-GSA3.1		1	3.000



GS
gancio di sicurezza e occhiello rinforzato

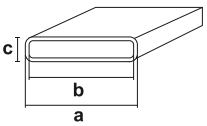


GS+A
gancio di sicurezza e anello

G2 - C

Protezioni in Poliuretano anti-taglio





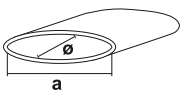
ART.	Dimensioni mm a	b	c	Spessore mm	Adatto per
G2C40	50	40	10	5	EAD 30
G2C70	80	70	12	5	EAD 60
G2C100	110	100	12	5	EAD 90
G2C135	145	135	12	5	EAD 120
G2C160	170	160	12	5	EAD 150
G2C190	200	190	12	5	EAD 180
G2C280	290	280	15	8	EAD 240
G2C320	330	320	15	8	EAD 300

Minimo acquistabile 1 m.

MAN

Protezioni tubolari in PVC





	ART.	Dimensioni mm a	Ø	Spessore mm	Adatto per
	MAN025	39	25	2,5	EAD 30
	MAN050	63	40	2,5	EAD 50 - ZA 50 - ZC 30 / 34
NOVITÀ	MAN065	102	65	2,5	EAD 60 - ZA 65 / 70 / 90 ZC 35 / 46 / 50
	MAN080	125	80	2,5	EAD 90 - ZA 95 / 104 / 115 ZC 55 / 60
NOVITÀ	MAN110	170	110	2,5	EAD 120 - ZA 125 - ZC 66
	MAN120	196	125	2,5	EAD 150 / 180
NOVITÀ	MAN200	314	200	2,5	EAD 240 / 300

Minimo acquistabile 1 m.

CAN R 50

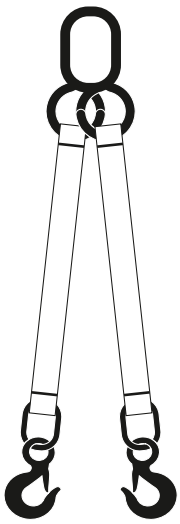
Protezione angolare rigida per brache fino a 100 mm di larghezza



BF SERVICE

PULPO 2R

Sistemi di sollevamento a 2 bracci
EN 1492 : 2 / EN 1677 / S.F. 5 : 1



	ART. 2R GL gancio con linguetta	ART. 2R GS gancio di sicurezza	Colore	Lunghezza m	CMU / WLL / SWL kg 0°-45°	CMU / WLL / SWL kg 46°-60°
					0-45°	46-60°
	2R10/GL-1	2R10/GS-1		1	1.400	1.000
	2R10/GL-2	2R10/GS-2		2		
	2R10/GL-3	2R10/GS-3		3		
	2R20/GL-1	2R20/GS-1		1	2.800	2.000
	2R20/GL-2	2R20/GS-2		2		
	2R20/GL-3	2R20/GS-3		3		
	2R30/GL-1	2R30/GS-1		1	4.2000	3.000
	2R30/GL-2	2R30/GS-2		2		
	2R30/GL-3	2R30/GS-3		3		
NOVITÀ	2R40/GL-1	2R40/GS-1		1	5.600	4.000
NOVITÀ	2R40/GL-2	2R40/GS-2		2		
NOVITÀ	2R40/GL-3	2R40/GS-3		3		
	2R50/GL-1	2R50/GS-1		1	7.000	5.000
	2R50/GL-2	2R50/GS-2		2		
	2R50/GL-3	2R50/GS-3		3		
NOVITÀ	2R60/GL-1	2R60/GS-1		1	8.400	6.000
NOVITÀ	2R60/GL-2	2R60/GS-2		2		
NOVITÀ	2R60/GL-3	2R60/GS-3		3		
NOVITÀ	2R80/GL-1	2R80/GS-1		1	11.200	8.000
NOVITÀ	2R80/GL-2	2R80/GS-2		2		
NOVITÀ	2R80/GL-3	2R80/GS-3		3		
NOVITÀ	2R100/GL-1	2R100/GS-1		1	14.000	10.000
NOVITÀ	2R100/GL-2	2R100/GS-2		2		
NOVITÀ	2R100/GL-3	2R100/GS-3		3		


Anello principale semplice


Anello di collegamento

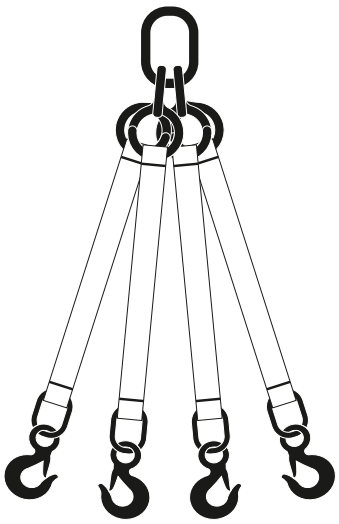

GL Gancio con linguetta


GS Gancio di sicurezza

BF SERVICE

PULPO 4R

Sistemi di sollevamento a 4 bracci
EN 1492 : 2 / EN 1677 / S.F. 5 : 1



ART. 4R GL gancio con linguetta	ART. 4R GS gancio di sicurezza	Colore	Lunghezza m	CMU / WLL / SWL kg 0°-45°	CMU / WLL / SWL kg 46°-60°
				0-45°	46-60°
4R15/GL-1	4R15/GS-1		1	2.100	1.500
4R15/GL-2	4R15/GS-2		2		
4R15/GL-3	4R15/GS-3		3		
4R30/GL-1	4R30/GS-1		1	4.200	3.000
4R30/GL-2	4R30/GS-2		2		
4R30/GL-3	4R30/GS-3		3		
4R45/GL-1	4R45/GS-1		1	6.300	4.500
4R45/GL-2	4R45/GS-2		2		
4R45/GL-3	4R45/GS-3		3		
NOVITÀ 4R60/GL-1	4R60/GS-1		1	8.400	6.000
4R60/GL-2	4R60/GS-2		2		
4R60/GL-3	4R60/GS-3		3		
4R75/GL-1	4R75/GS-1		1	10.500	7.500
4R75/GL-2	4R75/GS-2		2		
4R75/GL-3	4R75/GS-3		3		
NOVITÀ 4R90/GL-1	4R90/GS-1		1	12.600	9.000
4R90/GL-2	4R90/GS-2		2		
4R90/GL-3	4R90/GS-3		3		
NOVITÀ 4R120/GL-1	4R120/GS-1		1	16.800	12.000
4R120/GL-2	4R120/GS-2		2		
4R120/GL-3	4R120/GS-3		3		
NOVITÀ 4R150/GL-1	4R150/GS-1		1	21.000	15.000
4R150/GL-2	4R150/GS-2		2		
4R150/GL-3	4R150/GS-3		3		


Anello principale triplo


Anello di collegamento


GL Gancio con linguetta


GS Gancio di sicurezza

BF SERVICE

SOLLEVAMENTO

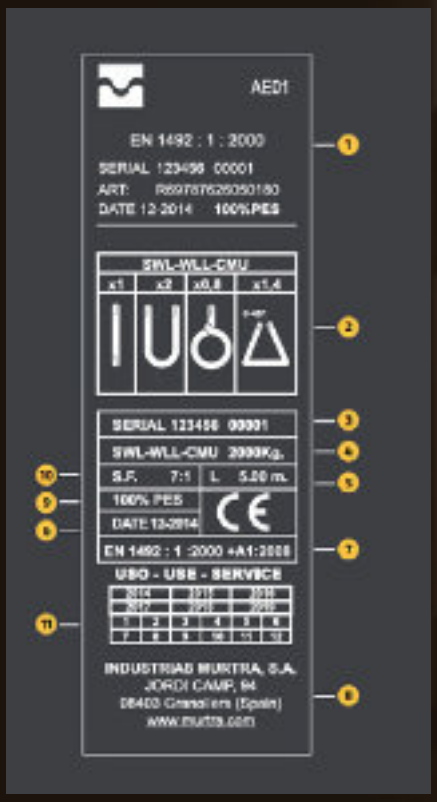
Regolamento europeo EN 1492, parte 1 per brache piatte, parte 2 per imbracature tubolari.
Le norme europee EN 1492-1 e 2 specificano i campi di applicazione e le caratteristiche tecniche delle imbragature piatte e tubolari, nonché i metodi di prova e omologazione. Questo regolamento è conforme ai requisiti essenziali della direttiva macchine 2006/42 / CE e ai suoi allegati e consente ai prodotti inclusi di portare il marchio di conformità “CE”.

CMU-WLL-SWL Definizione della capacità di carico: definisce il carico massimo di utilizzo in trazione verticale. I pittogrammi identificano i diversi sistemi di utilizzo ed i relativi coefficienti di portata. Il coefficiente di sicurezza obbligatorio deve essere almeno 7 per le imbracature tessili al 100%, 5 per le imbracature con terminali metallici. La marcatura (sull’etichetta cucita) di ciascuna imbracatura deve comprendere un codice di rintracciabilità individuale che consenta almeno l’identificazione del materiale, degli accessori, del lotto di fabbricazione e dei controlli effettuati.
Nastro tessile: il materiale da utilizzare sarà poliestere, polipropilene o poliammide.

Il colore del nastro identifica la capacità di carico nella trazione verticale (in base alla tabella dei colori di identificazione inclusi nei regolamenti).
Il colore arancione viene sempre utilizzato dopo 10 tonnellate di capacità.

Etichetta del prodotto

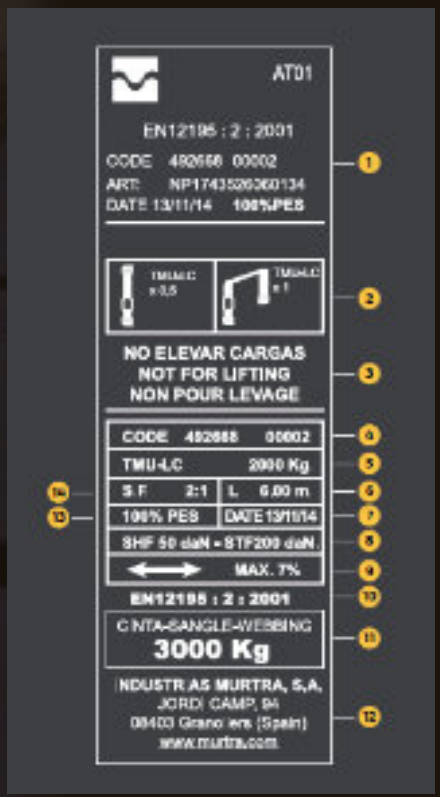
1. Dati del produttore. Codice articolo
2. Pittogrammi con posizioni di lavoro e dei relativi coefficienti di portata
3. Numero di serie (individuale per ogni unità, codice di tracciabilità).
4. Carico massimo di utilizzo in posizione verticale.
5. Lunghezza
6. Data di produzione.
7. Norma europea di riferimento
8. Nome o logo del produttore
9. Materiale (nastro). NOTA: il colore dell’etichetta identifica anche il materiale: blu / poliestere - verde / poliammide - marrone / polipropilene.
10. Coefficiente di sicurezza.
11. Tabella con data (anno / mese) di primo utilizzo (da compilare dall’utente per eseguire le revisioni periodiche).



ANCORAGGIO

Regolamento europeo EN 12195-2
La norma europea EN 12195-2 determina le caratteristiche di tutti i componenti di qualsiasi sistema di ancoraggio, nonché le modalità di test e di utilizzo.
Definizione carico TMU / LC: definisce la massima tensione operativa o la capacità di ancoraggio. È definito in trazione diretta o in posizione di ancoraggio, essendo aiutato con pittogrammi del modo di utilizzo.
Parti metalliche: i tenditori e i ganci devono avere una resistenza alla rottura minima del doppio della capacità del sistema, definita nella trazione diretta.
Nastro tessile: prima dell'operazione di cucitura, deve avere una forza di rottura minima di tre volte la capacità di ancoraggio del sistema, definita in trazione diretta. L'allungamento non dovrebbe mai superare il 7% quando viene applicato un carico pari alla capacità del sistema.
A differenza delle imbracature di sollevamento, la norma EN 12195-2 non definisce un codice colore per l'identificazione della capacità di carico.

Etichetta del prodotto
1. Dati del produttore. Codice articolo
2. Pittogrammi con posizioni di lavoro e dei relativi coefficienti di portata
3. Avvisi e limiti di utilizzo
4. Numero di serie (individuale per ogni unità, codice di tracciabilità).
5. Tensione massima di utilizzo.
6. Lunghezza
7. Data di produzione.
8. SHF: forza massima applicabile manualmente (valore fisso di 50daN specificato nelle normative). STF: Forza residua all'apertura della leva del tenditore del sistema (valore pari al 10% della capacità di carico del sistema).
9. Allungamento massimo della cinghia con carico in trazione diretta
10. Norma europea di riferimento
11. Resistenza alla trazione del nastro.
12. Nome o logo del produttore
13. Materiale (nastro). NOTA: il colore dell'etichetta identifica anche il materiale: blu / poliestere - verde / poliammide - marrone / polipropilene.
14. Coefficiente di sicurezza.



PRO-PLUS 75

Sistemi di ancoraggio
EN 12195 / 2



NP 10.000 / 00



NP 10.000 / 01



NP 10.000 / 02

	ART.	COD.	Lunghezza m	CMU / WLL / SWL kg		
	NASTRO GIALLO PES - 15.000 kg - 75 mm					
NOVITÀ	NP10000/	00-08	8	-	-	10.000
		00-09	9			
		00-10	10			
		00-12	12			
	NP10000/	01-08	8	10.000	5.000	-
		01-09	9			
		01-10	10			
		01-12	12			
	NP10000/	02-08	8	10.000	5.000	-
		02-09	9			
		02-10	10			
		02-12	12			

PRO-PLUS 50

Sistemi di ancoraggio
EN 12195 / 2



508550 / 62



508550 / 63



508550 / 64

	ART.	COD.	Lunghezza m	CMU / WLL / SWL kg		
	NASTRO ARANCIO PES - 7.500 kg - 50 mm					
NOVITÀ	508550/	62-08	8	-	-	5.000
		62-09	9			
		62-10	10			
		62-12	12			
	508550/	63-08	8	5.000	2.500	-
		63-09	9			
		63-10	10			
		63-12	12			
	508550/	64-08	8	5.000	2.500	-
		64-09	9			
		64-10	10			
		64-12	12			

BF SERVICE

ANCORAGGIO

STANDARD 50

Sistemi di ancoraggio
EN 12195 / 2


408050 / 62


408050 / 63


408050 / 64

	ART.	COD.	Lunghezza m	CMU / WLL / SWL kg		
	NASTRO BLU PES - 6.000 kg - 50 mm					
NOVITÀ	408050/	62-08	8	-	-	4.000
		62-09	9			
		62-10	10			
		62-12	12			
	408050/	63-08	8	4.000	2.000	-
		63-09	9			
		63-10	10			
		63-12	12			
	408050/	64-08	8	4.000	2.000	-
		64-09	9			
		64-10	10			
		64-12	12			

BASIC 50

Sistemi di ancoraggio
EN 12195 / 2


508H50


358050 / 63


358050 / 64

ART.	COD.	Lunghezza m	CARICO MAX kg		
NASTRO BLU PES - 5.250 kg - 50 mm					
508H50-	09	9	-	-	3.500
358050/	63-08	8	3.500	1.750	-
	63-09	9			
	63-10	10			
	63-12	12			
358050/	64-08	8	3.500	1.750	-
	64-09	9			
	64-10	10			
	64-12	12			

BF SERVICE

PRO 5000 ERGO

NOVITÀ

Sistema di ancoraggio con tirante a doppia azione
EN 12195 / 2



NP 5000 / 00



NP 5000 / 63



NP 5000 / 64

ART.	COD.	Lunghezza m	CMU / WLL / SWL kg		
			↓	↔	⬭→
NASTRO ARANCIO PES - 7.500 kg - 50 mm					
NP5000/	00-09	9	-	-	5.000
NP5000/	63-09	9	5.000	2.500	-
	63-10	10			
NP5000/	64-09	9	5.000	2.500	-
	64-10	10			

MINI-PRO 2000

Sistemi di ancoraggio
EN 12195 / 2



206H35



206035 / 57



206035 / 56

ART.	COD.	Lunghezza m	CMU / WLL / SWL kg		
			↓	↔	⬭→
NASTRO ARANCIO PES - 3.000 kg - 35 mm					
206H35-	04	4	-	-	2.000
	05	5			
	06	6			
	08	8			
206035/	57-05	5	2.000	1.000	-
	57-06	6			
	57-08	8			
	57-10	10			
206035/	56-05	5	2.000	1.000	-
	56-06	6			
	56-08	8			
	56-10	10			

BF SERVICE

ANCORAGGIO

MINI-PRO 1000

Sistema di ancoraggio
EN 12195 / 2



104725



H05025

ART.	COD.	Lunghezza m	CMU / WLL / SWL kg		
NASTRO ARANCIO PES - 1.200 kg - 25 mm					
104725/	**55-05BL**	5	800	400	-
H05025-05BL		5	-	-	800

HOBBY 1500

NOVITÀ

Sistemi di ancoraggio per carichi leggeri e per l'hobbistica
EN 12195 / 2



H01500

ART.	Lunghezza m	CMU / WLL / SWL kg		
NASTRO VERDE PES - 2.200 kg - 50 mm				
H01500-05	5	-	-	800

BRICO-HOBBY 1000

Sistemi di ancoraggio per carichi leggeri e per l'hobbistica
EN 12195 / 2



005025



105025 / 55



105025 / 53

ART.	Lunghezza m	CMU / WLL / SWL kg		
NASTRO BLU PES - 1.200 kg - 25 mm				
005025-05BL	5	-	-	800
105025/55-05BL	5	800	400	-
105025/53-05BL	5	800	400	-

BL = blister

Misure diverse a richiesta.

BF SERVICE

ANCORAGGIO

HOBBY 200

Sistemi di ancoraggio per carichi leggeri e per l'hobbistica
EN 12195 / 2



002S25



005S25

ART.	Lunghezza m	CMU / WLL / SWL kg		
		↓	↔	⇢
NASTRO MULTICOLOR PES - 300 kg - 25 mm				
002S25-25BL	2 pz x 2,5	-	-	200
005S25-05BL	5	-	-	200

BRICO-HOBBY 200

Sistemi di ancoraggio per carichi leggeri e per l'hobbistica
EN 12195 / 2



105S25



136S25

ART.	Lunghezza m	CMU / WLL / SWL kg		
		↓	↔	⇢
NASTRO MULTICOLOR PES - 300 kg - 25 mm				
105S25/53-05BL	5	200	100	-
136S25/55-36BL	5	200	100	-

BRICO-HOBBY SHOW 500

Sistemi di ancoraggio per carichi leggeri e per l'hobbistica
EN 12195 / 2



HS500



BS500

ART.	Lunghezza m	CMU / WLL / SWL kg		
		↓	↔	⇢
NASTRO NERO PES - 800 kg - 25 mm				
HS500-34VR (Hobby)	4 pz x 3	-	-	250
BS500-32VR (Brico)	4 pz x 3	250	125	-

BL = blister
VR = sacchetto plastica

Misure diverse a richiesta.

BF SERVICE

ANCORAGGIO

HOBBY 400

Sistemi di ancoraggio per carichi leggeri e per l'hobbistica
EN 12195 / 2



002525

ART.	Lunghezza m	CMU / WLL / SWL kg		
NASTRO BLU PES - 800 kg - 25 mm				
002525-25BL	2 pz x 2,5	-	-	250

HOBBY 500

Sistemi di ancoraggio per carichi leggeri e per l'hobbistica
EN 12195 / 2



H03025

ART.	Lunghezza m	CMU / WLL / SWL kg		
NASTRO GIALLO PES - 800 kg - 25 mm				
H03025-03BL	2 pz x 3	-	-	250

HOBBY 900

Sistemi di ancoraggio per carichi leggeri e per l'hobbistica
EN 12195 / 2



H04035

ART.	Lunghezza m	CMU / WLL / SWL kg		
NASTRO ROSSO PES - 1.350 kg - 35 mm				
H04035-04BL	4	-	-	450

CAR 1500

Ancoraggio per interni camion
EN 12195 / 2



155050

ART.	COD.	Lunghezza m	CMU / WLL / SWL kg		
NASTRO NERO PES - 2.500 kg - 50 mm					
155050/	**65-5**	2 pz x 5	-	1.500	-

CAR 4000

NOVITÀ

Sistema di trasporto auto con
3 GANCI GIREVOLI
EN 12195 / 2



402050

ART.	COD.	Lunghezza m	CMU / WLL / SWL kg		
NASTRO BLU PES - 6.000 kg - 50 mm					
402050/	**67-2,5**	2,5	4.000	2.000	-
	67-03	3			
	67-05	5			

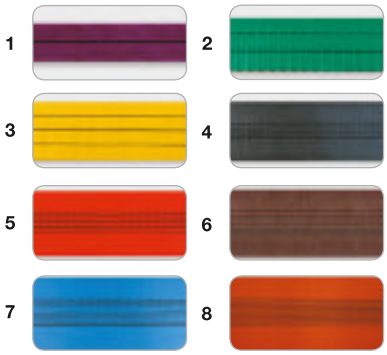
BL = blister

Misure diverse a richiesta.

BF SERVICE

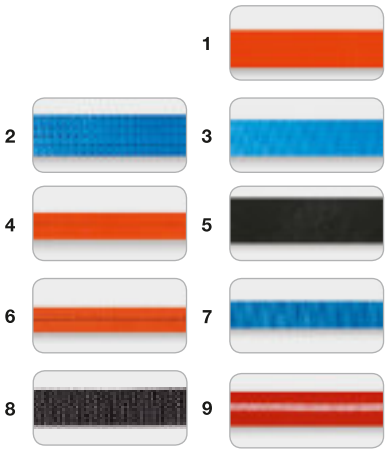
TEX

Nastri
ISO 9001 : 2015



NASTRI PER BRACHE DI SOLLEVAMENTO				
100% PES alta tenacità				
	ART.	Larghezza mm	Resistenza kg	Rotolo m
1	8803030	30	4.500	75
2	8803060	60	9.000	75
3	8803090	90	13.000	75
4	8803120	120	17.500	75
5	8803150	150	22.500	50
6	8803180	180	27.000	50
7	8803240	240	36.500	50
8	8803300	300	54.000	50

Vendita solo a rotoli interi, disponibili su richiesta. Consegna entro 15 gg.



NASTRI PER SISTEMI DI ANCORAGGIO					
100% PES o PP alta tenacità					
	ART.	Larghezza mm	Materiale	Resistenza kg	Rotolo m
1	8763049	50	PES	7.500	100
2	8748049	50	PES	6.000	100
3	8834049	50	PES	5.250	100
4	7435035	35	PES	3.000	100
5	8649047	47	PES	2.500	200
6	6779025	25	PES	1.100	100
7	6411025	25	PP	700	150
8	5525025	25	PP	250	100
9	5280035	35	PP	500	100

Vendita solo a rotoli interi, disponibili su richiesta. Consegna entro 15 gg.

PP = polipropilene

PES = poliestere

BF SERVICE

METAL

Accessori metallici
EN 12195 / 2
EN 1677

ART.	Descrizione
PER – **ART. 508550** – PAG. 14	
PC508550/63	Tenditore + 50 cm nastro + gancio
PC508550/64	Tenditore + 50 cm nastro + gancio
PL508550/63-8,5	Nastro lungo 8,5 m + gancio sponda
PL508550/64-8,5	Nastro lungo 8,5 m + gancio chiuso
PER – **ART. 358050** – PAG. 15	
PC358050/63	Tenditore + 40 cm nastro + gancio
PC358050/64	Tenditore + 40 cm nastro + gancio
PL358050/63-8,6	Nastro lungo 8,6 m + gancio sponda
PL358050/64-8,6	Nastro lungo 8,6 m + gancio chiuso
PER – **ART. 206035** – PAG. 16	
PC206035/57	Tenditore + 30 cm nastro + gancio
PC206035/56	Tenditore + 30 cm nastro + gancio
PL206035/57-5,7	Nastro lungo 5,7 m + gancio sponda
PL206035/56-5,7	Nastro lungo 5,7 m + gancio chiuso













ART.	Descrizione	Resistenza kg
T16R2000K	Tenditore per nastro 35 mm – L 130 mm	2.000
T04R5000K	Tenditore per nastro 50 mm – L 230 mm	5.000
TE63R5000K	Gancio sponda 50 mm – Ø 12 mm	5.000
TE64R5000K	Gancio chiuso 50 mm – Ø 12 mm	5.000
TE57R3000K	Gancio sponda 35 mm – Ø 10 mm	3.000
TE56R3000K	Gancio chiuso 35 mm – Ø 10 mm	3.000

Disponibili su richiesta. Consegna entro 15 gg.

BF SERVICE

SEC

Kit di protezione anticaduta
Imbracature ed accessori



SUPER PRO

ART.	Descrizione
SUPER PRO	
73480219	Imbracatura di sicurezza anticaduta con cintura di posizionamento, 4 anelli di ancoraggio e posizionamento a “D” in acciaio forgiato (1 dorsale, 1 ventrale e 2 laterali). Cosciali e bretelle regolabili in tessuto di poliestere doppia altezza per un maggior comfort. Cintura di posizionamento imbottita. Conforme alla norma UNI-EN 361.



KIT BACK

ART.	Descrizione
KIT BACK	
73480220	Imbracatura di sicurezza anticaduta ad 1 punto, attacco dorsale. Elementi di ancoraggio 1 m, EN 354. 2 moschettoni di sicurezza 2.000 daN-EN 362. Conforme alla norma UNI-EN 361.



KIT FRONT

ART.	Descrizione
KIT FRONT	
73480237	Imbracatura di sicurezza anticaduta ad 1 punto, attacco sternale. Elemento di ancoraggio 1 m, EN 354. 2 moschettoni di sicurezza 2.000 daN-EN 362. Conforme alla norma UNI-EN 361.



KIT INTEGRALE

ART.	Descrizione
KIT INTEGRALE	
73480251	Imbracatura di sicurezza anticaduta integrale a 2 punti, con cintura di posizionamento. Attacco sternale e dorsale. Elemento di ancoraggio regolabile 1,8 m, EN 358. Elemento di ancoraggio con assorbitore di energia moschettone a vite e gancio. 4 moschettoni di sicurezza 2.000 daN-EN 362. Conforme alla norma UNI-EN 361.

BF SERVICE

SEC

Kit di protezione anticaduta
Imbracature ed accessori



KIT BELT

ART.	Descrizione
KIT BELT	
73480244	Cintura di posizionamento con due anelli a “D” in acciaio inossidabile. Elemento di ancoraggio regolabile 1,8 m, EN 358. 2 moschettoni di sicurezza 2.000 daN-EN 362. Conforme alla norma UNI-EN 358.

ELEMENTI DI ANCORAGGIO



SEC-AM100



SEC-AM180

ART.	Descrizione
ELEMENTI DI ANCORAGGIO	
SEC-AM100	Elemento di ancoraggio 1 m, EN354
SEC-AM180	Elemento di ancoraggio regolabile 1,8 m, EN358



SEC-LVH

ART.	Descrizione
SEC-LVH	
73480268	Linea di vita orizzontale lunghezza 20 m con tirante, EN795



SEC-S200

ART.	Descrizione
SEC-S200	
73480275	Elemento di ancoraggio 2 m con assorbitore di energia, EN355

BF SERVICE

KIT

V070000PK001



ART.	Descrizione
SOLLEVAMENTO	
V070000PK001	1 fune ad anello tubolare da 2m, 1t 1 fune ad anello tubolare da 3m, 2t 1 fune ad anello tubolare da 3m, 3t 1 set 2 nastri da 2,5m, 400kg

NP9X3PK007



ART.	Descrizione
MOTORBIKE	
NP9X3PK007	3 ancoraggi con tenditore e ganci a “S” 25mm x 5m, 800kg

NP37435PK003

NOVITÀ



ART.	Descrizione
PROFESSIONAL	
NP37435PK003	2 ancoraggi “2T” 35mm x 6m, 2000kg 2 nastri con fibbia 25mm x 2,5m, 250kg

P98-P29PK004

NOVITÀ



ART.	Descrizione
BASIC	
P98-P29PK004	2 nastri con tenditore 25mm x 5m, 800kg 2 nastri con fibbia 35mm x 4m, 450kg

P989929PK010



ART.	Descrizione
FREETIME	
P989929PK010	1 nastro con fibbia 35mm x 4m, 450kg 2 nastri con fibbia 25mm x 3m, 250kg 1 nastro con tenditore 25mm x 5m, 800kg 2 elastici rotondi ø 8mm x 1m

BF SERVICE

ANCORAGGI A STRAPPO

DOM 40

NOVITÀ

Sistemi di ancoraggio per uso domestico



DOM40

ART.	COD.	Lunghezza m	CMU / WLL / SWL kg
NASTRO NERO PP - 350 kg - 35 mm			
DOM40/	**00-03**	3	40

DOM 30

NOVITÀ

Sistemi di ancoraggio per uso domestico



DOM30

ART.	COD.	Lunghezza m	CMU / WLL / SWL kg
NASTRO NERO PP - 250 kg - 25 mm			
DOM30/	**00-02**	2 pz x 2	30

P98A18

NOVITÀ

Sistemi di ancoraggio per carichi leggeri e per l'hobbistica
EN 12195 / 2



P98A18

ART.	COD.	Lunghezza m	CMU / WLL / SWL kg
NASTRO NERO PP - 350 kg - 35 mm			
P98A18/	**40101531B**	1,5	40

TAP 2212

NOVITÀ

2 nastri bianchi con sistema di chiusura TAPCRO®



TAP2212

ART.	COD	Lunghezza m	Larghezza mm
TAP2212/	**00001324**	1	20





BF SERVICE

ANCORAGGI A STRAPPO

TAP 1139

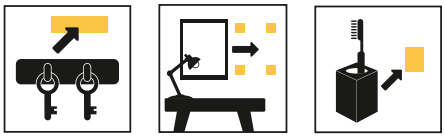
NOVITÀ

2 nastri autoadesivi con sistema di chiusura TAPCRO®
Temperatura di utilizzo: 0°C - 80°C



TAP1139

ART.	COD	Dimensioni mm	Colore
TAP1139/	00001324	20 x 750	Bianco
TAP1139/	00001544	20 x 750	Nero



TAP 2256

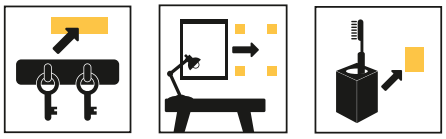
NOVITÀ

2 fogli autoadesivi antiscivolo con sistema di chiusura TAPCRO®
Temperatura di utilizzo: 0°C - 80°C



TAP2256

ART.	COD	Dimensioni mm	Colore
TAP2256/	00001324	100 x 200	Bianco
TAP2256/	00001544	100 x 200	Nero



TAP 2250
TAP 1250

NOVITÀ

Nastro nero/giallo con fibbia e sistema TAPCRO®



TAP2250 / TAP1250

ART.	COD	Dimensioni mm	Quantità pz
TAP2250/	00001AN4	25 x 400	2
TAP2250/	00002AN4	25 x 700	2
TAP1250/	00001AN4	50 x 1000	1
TAP1250/	00002AN4	50 x 1800	1



BF SERVICE

ANCORAGGI A STRAPPO

TAP 1ETP
TAP 1ETN

NOVITÀ

Nastro biadesivo autosigillante con sistema TAPCRO®



TAP1ETP

ART.	COD	Dimensioni mm	Colore	Tipo
TAP1ETP/	00001424	10 x 2000	Verde	giardino
TAP1ETN/	00001544	10 x 2000	Nero	resistente



TAP 9138
TAP 2ET4

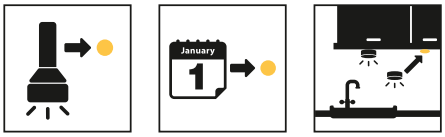
NOVITÀ

Stickers autoadesivi antiscivolo rotondi TAPCRO®
Temperatura di utilizzo: 0°C - 80°C



TAP9138 / TAP2ET4

ART.	COD	Ø mm	Colore	Quantità pz
TAP9138/	00002324	20	Bianco	8 + 8
TAP9138/	00002544	20	Nero	8 + 8
TAP2ET4/	00001544	35 resistente	Nero	2 + 2



TAP 9138

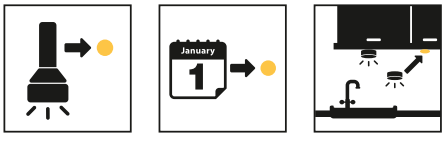
NOVITÀ

Stickers autoadesivi antiscivolo quadrati TAPCRO®
Temperatura di utilizzo: 0°C - 80°C



TAP 9138

ART.	COD	Dimensioni mm	Colore	Quantità pz
TAP9138/	00001324	20 x 20	Bianco	8 + 8
TAP9138/	00001544	20 x 20	Nero	8 + 8



BF SERVICE

Togo Kit

- 1 Case
- 2 Handles
- 6 Adapters
- 6 Bits(25mm)
- 6 Bits(50mm)



TSD-10



TSD-01

Smart Kit

- 1 Case
- 1Handle
- 6 Adapters
- 6 Bits(25mm)

Multi Kit

- 1 Case
- 1Handle
- 6 Adapters
- 6 Bits(25mm)



TSD-05



TSD-08

Dual Kit

- 1 Case
- 1Handle
- 6 Adapters
- 12 Bits(25mm)

Expert Kit

- 1 Case
- 6 Handles
- 6 Bits(25mm)



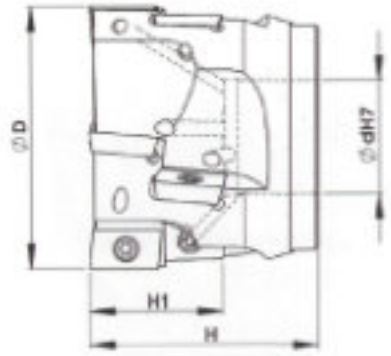
TSD-12

S.LOKY

BF SERVICE
UTENSILERIA MECCANICA

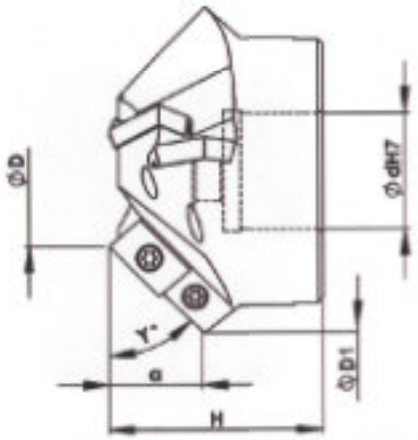






ATTACCO A MANICOTTO - Shell Shank							INSERTO Insert	VITE Screw	TORX Key
CODICE / Code	Ø D	H1	H	Ø dH7	Z	Nr. INSERTI Inserts			
V90RAP16050MW0408	50	30	55	27	4	8	AP..1604	VM4010	T15
V90RAP16050MW0309	50	44	70	27	3	9	AP..1604	VM4010	T15
V90RAP16063MW0408	63	30	55	27	4	8	AP..1604	VM4010	T15
V90RAP16063MW0412	63	44	60	27	4	12	AP..1604	VM4010	T15
V90RAP16063MW0510	63	30	55	27	5	10	AP..1604	VM4010	T15
V90RAP16080MW0408	80	30	55	32	4	8	AP..1604	VM4010	T15
V90RAP16080MW0515	80	44	60	32	5	15	AP..1604	VM4010	T15
V90RAP16100MW0530	100	80	100	40	5	30	AP..1604	VM4010	T15

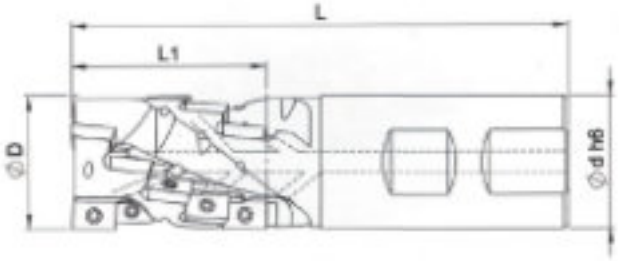




ATTACCO A MANICOTTO - Shell Shank								INSERTO Insert	VITE Screw	TORX Key
CODICE / Code	Ø D	Ø D1	a	H	Ø dH7	Y°	Z			
V15AP16035MZ3+3R	35	95,5	7,5	50	27	15	3+3	AP..1604	VM4010	T15
V30AP16035MZ3+3R	35	88	15	50	27	30	3+3	AP..1604	VM4010	T15
V45AP16035MZ3+3R	35	78	21	50	27	45	3+3	AP..1604	VM4010	T15
V60AP16035MZ3+3R	35	65	25,5	50	27	60	3+3	AP..1604	VM4010	T15
V75AP16035MZ3+3R	35	50,5	29	60	22	75	3+3	AP..1604	VM4010	T15

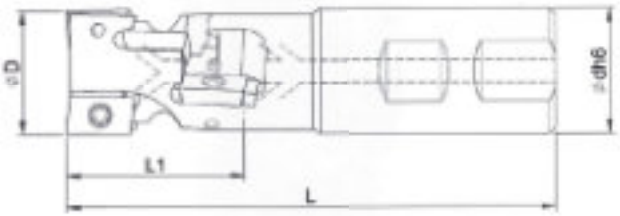
BF SERVICE





ATTACCO WELDON - Weldon Shank							INSERTO Insert	VITE Screw	TORX Key
CODICE / Code	Ø D	L1	L	Ø dh6	Nr. INSERTI *Inserts*	Z			
V90RAP10025WW0208	25	36	100	25	8	2	AP..1003	VM2506	T08
V90RAP10032WW0315	32	45	120	32	15	3	AP..1003	VM2506	T08





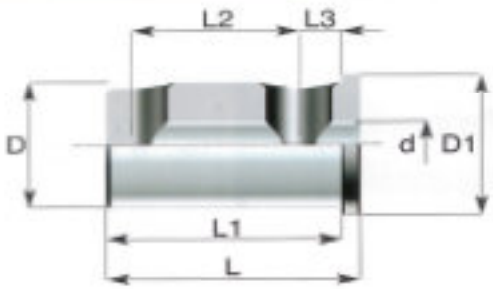
ATTACCO WELDON - Weldon Shank							INSERTO Insert	VITE Screw	TORX Key
CODICE / Code	Ø D	L1	L	Ø dh6	Nr. INSERTI *Inserts*	Z			
V90RAP16032WW0206	32	45	125	32	6	2	AP..1604	VM4010	T15
V90RAP16040WW0210	40	70	160	40	10	2	AP..1604	VM4010	T15
V90RAP16040WW0309	40	44	140	40	9	3	AP..1604	VM4010	T15

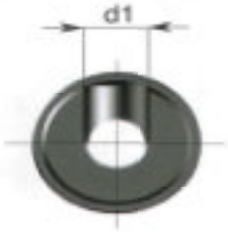
BF SERVICE

Bussole di riduzione
Reduction sleeves
Reduzierhulsen
Douilles de réduction



ART: 235



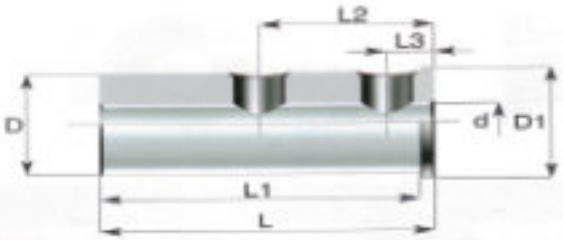


Codice di ord. Code	D h6	d H6	D1	L	L1	L2	L3	d1
235.32.0080	32	8	36	54	50	35	9	14
235.32.0100	32	10	36	54	50	35	9	14
235.32.0120	32	12	36	54	50	35	9	14
235.32.0160	32	16	36	54	50	35	9	14
235.32.0200	32	20	36	54	50	35	9	14
235.32.0250	32	25	36	54	50	35	9	14
235.40.0080	40	8	44	54	50	35	9	14
235.40.0100	40	10	44	54	50	35	9	14
235.40.0120	40	12	44	54	50	35	9	14
235.40.0160	40	16	44	54	50	35	9	14
235.40.0200	40	20	44	54	50	35	9	14
235.40.0250	40	25	44	54	50	35	9	14
235.40.0320	40	32	44	54	50	35	9	14

Bussole di riduzione
Reduction sleeves
Reduzierhulsen
Douilles de réduction



ART: 236





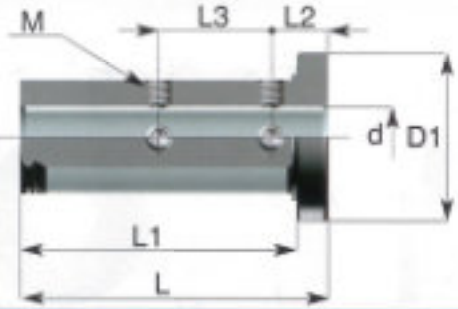
Codice di ord. Code	D h6	d H6	D1	L	L1	L2	L3	d1
236.32.0080	32	8	36	54	50	44	9	14
236.32.0100	32	10	36	54	50	44	9	14
236.32.0120	32	12	36	54	50	44	9	14
236.32.0160	32	16	36	54	50	44	9	14
236.32.0200	32	20	36	54	50	44	9	14
236.32.0250	32	25	36	54	50	44	9	14
236.40.0080	40	8	44	54	50	44	9	14
236.40.0100	40	10	44	54	50	44	9	14
236.40.0120	40	12	44	54	50	44	9	14
236.40.0160	40	16	44	54	50	44	9	14
236.40.0200	40	20	44	54	50	44	9	14
236.40.0250	40	25	44	54	50	44	9	14
236.40.0320	40	32	44	54	50	44	9	14
236.50.0080	50	8	54	111	107	45	9	14
236.50.0100	50	10	54	111	107	45	9	14
236.50.0120	50	12	54	111	107	45	9	14
236.50.0160	50	16	54	111	107	45	9	14
236.50.0200	50	20	54	111	107	45	9	14
236.50.0250	50	25	54	111	107	45	9	14
236.50.0320	50	32	54	111	107	45	9	14
236.50.0400	50	40	54	111	107	45	9	14

BF SERVICE

Bussole di riduzione
Reduction sleeves
Reduzierhulsen
Douilles de réduction



ART: 237.25



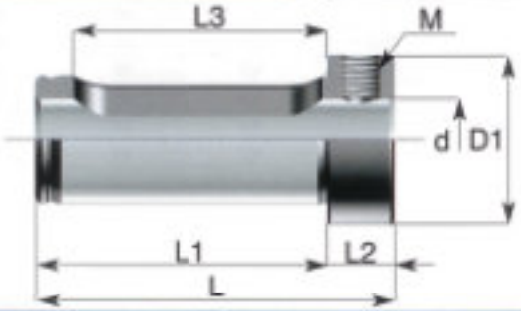


Codice di ord. Code	D h6	d H6	D1	L	L1	L2	L3	M	H
237.25.0060	25	6	33	60	57	11	22	M5	22
237.25.0080	25	8	33	60	57	11	22	M5	22
237.25.0100	25	10	33	60	57	11	22	M5	22
237.25.0120	25	12	33	60	57	11	22	M5	22

Bussole di riduzione
Reduction sleeves
Reduzierhulsen
Douilles de réduction



ART: 237.25





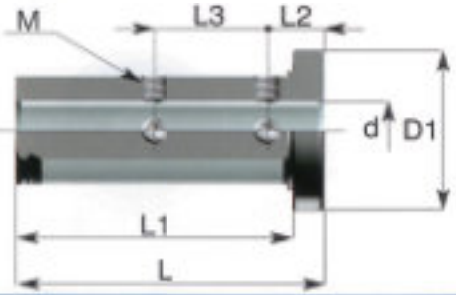
Codice di ord. Code	D h6	d H6	D1	L	L1	L2	L3	M	H
237.25.0140	25	14	33	70	57	13	48.5	M8	13
237.25.0160	25	16	33	70	57	13	48.5	M8	13
237.25.0180	25	18	33	70	57	13	48.5	M8	13
237.25.0200	25	20	33	70	57	13	48.5	M8	13

BF SERVICE

Bussole di riduzione
Reduction sleeves
Reduzierhulsen
Douilles de réduction



ART: 237.32



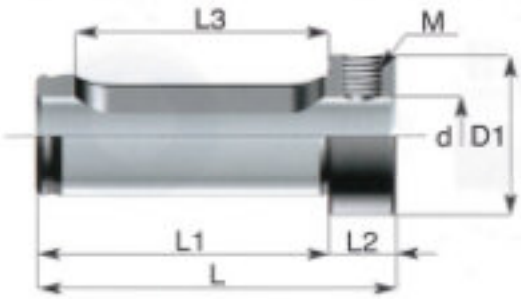


Codice di ord *Code*	D h6	d H6	D1	L	L1	L2	L3	M	H
237.32.0060	32	6	39	60	54	11	22	M6	29.5
237.32.0080	32	8	39	70	62	15	32	M6	29.5
237.32.0100	32	10	39	70	62	15	32	M6	29.5
237.32.0120	32	12	39	70	62	15	32	M6	29.5
237.32.0140	32	14	39	70	62	15	32	M6	29.5
237.32.0160	32	16	39	70	62	15	32	M6	29.5
237.32.0180	32	18	39	70	62	15	32	M6	29.5
237.32.0200	32	20	39	70	62	15	32	M6	29.5



Bussole di riduzione
Reduction sleeves
Reduzierhulsen
Douilles de réduction

ART:237.32





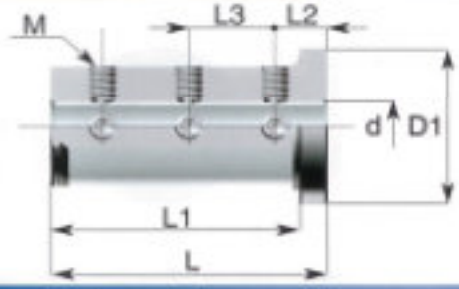
Codice di ord *Code*	D h6	d H6	D1	L	L1	L2	L3	M	H
237.32.0250	32	25	39	80	65	15	58	M6	13

BF SERVICE

Bussole di riduzione
Reduction sleeves
Reduzierhulsen
Douilles de réduction



ART: 237.40



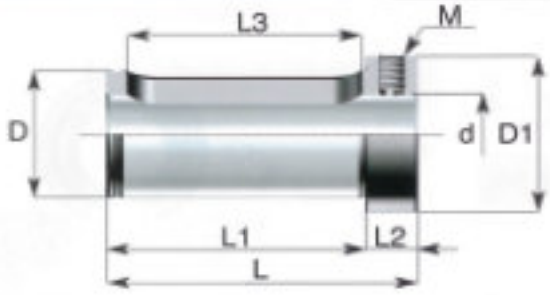


Codice di ord *Code*	D h6	d H6	D1	L	L1	L2	L3	M	H
237.40.0060	40	6	49	60	54	11	22	M5	37.5
237.40.0080	40	8	49	80	72	15	25	M8	37.5
237.40.0100	40	10	49	80	72	15	25	M8	37.5
237.40.0120	40	12	49	80	72	15	25	M8	37.5
237.40.0140	40	14	49	80	72	15	25	M8	37.5
237.40.0160	40	16	49	80	72	15	25	M8	37.5
237.40.0180	40	18	49	80	72	15	25	M8	37.5
237.40.0200	40	20	49	80	72	15	25	M8	35.7
237.40.0250	40	25	49	80	72	15	25	M8	37.5

Bussole di riduzione
Reduction sleeves
Reduzierhulsen
Douilles de réduction



ART: 237.40 S



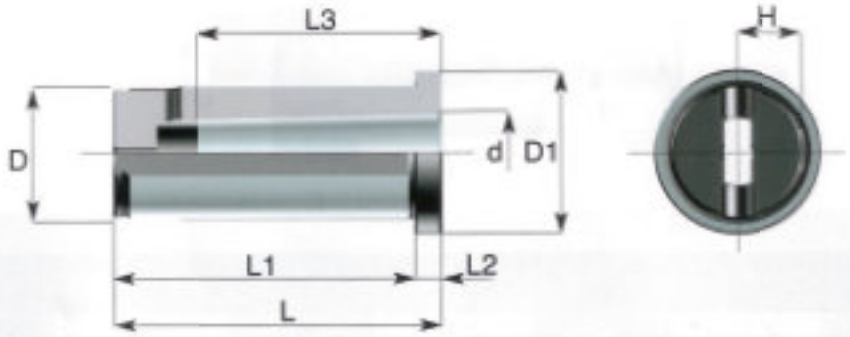


Codice di ord *Code*	D h6	d H6	D1	L	L1	L2	L3	M	H
237.40.0320	40	32	49	90	79	15	68	M8	16.5



Bussole di riduzione a cono Morse interno DIN 2185
Reduction sleeves to Morse cone DIN 2185
Reduzierhulsen mit Morsekegel DIN 2185
Douilles de réduction à cône Morse DIN 2185

ART: 238



Codice di ord. *Code*	D h6	CM	d	D1	L	L1	L2	L3	H
238.25.0100	25	Morse 1	12.065	33	65	59	6	47	11
238.25.0200	25	Morse 2	17.780	33	78	70	8	58	11
238.32.0100	32	Morse 1	12.065	39	65	59	6	47	14.75
238.32.0200	32	Morse 2	17.780	39	78	70	8	58	14.75
238.32.0300	32	Morse 3	23.825	39	97	89	8	72	14.75
238.40.0100	40	Morse 1	12.065	49	65	59	6	47	18.75
238.40.0200	40	Morse 2	17.780	49	78	70	8	58	18.75
238.40.0300	40	Morse 3	23.825	49	97	89	8	72	18.75
238.40.0400	40	Morse 4	31.267	49	120	112	8	92	18.75

BF SERVICE



BF SERVICE
UTENSILERIA MECCANICA

PUNTE MD ALTA VELOCITA' A 4 PATTINI DI GUIDA
DISPONIBILE 3D 5D 5D WELDON

Punta in metallo duro integrale per velocità di avanzamento elevate

New **Programma ampliato: ora anche in 3xD e con superficie Weldon**

- Per la lavorazione di acciaio e materiali fusi
- Il design a 4 pattini di guida stabilizza la punta a velocità di avanzamento elevate
- Un design speciale dell'elica consente una velocità di rimozione del truciolo notevolmente maggiore
- Rivestimento PVD multistrato con ridotta tendenza alla fessurazione e maggiore stabilità termica
- Produttività fino a 2,5 volte superiore grazie ad elevate velocità di avanzamento a basse velocità di taglio
- Gamma di diametri 3.0–20.0 mm (5xD)



Sezione tagliente diritta

Nuovo grado KDG304:

- Substrato in metallo duro rivestito PVD per lavorazione di acciaio e materiali fusi
- Tenacità ottimizzata per velocità di avanzamento elevate

Calcolo per avanzamento

$$\frac{\text{AVANZAMENTO AL GIRO : DIAM. PUNTA X 3}}{100}$$

Gruppo ISO	Materiale	Velocità di taglio v_c (m/min)	Fattore per l'avanzamento F_n
P	Acciaio debolmente legato	130	0,04
	Acciaio altamente legato	100	0,03
K	Ghisa	100	0,04
	Acciaio fuso	130	0,03

Formula: Avanzamento per giro (F_n) $D \times F_m$

Esempio: Diametro punta (D) 10 mm

Materiale acciaio inossidabile

$$F_n = 10\text{ mm} \times 0{,}03 = 0{,}3\text{ mm/g}$$

Punte in metallo duro integrale Serie GD

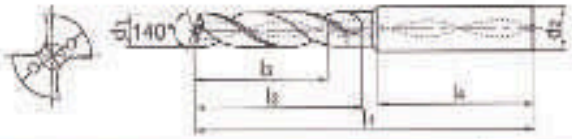
Punta GD 3 D — Acciaio, ghise

1534GD03C

- Versione del codolo DIN 6535HA
- Uscita refrigerante assiale



Raffreddamento interno



Articolo	✲	Dimensioni [mm]						Grado
		d_1 (m7)	d_2 (h6)	l_1	l_2	l_3	l_4	KDG304
1534GD03C-0300	✲	3	6	62	20	14	36	•
1534GD03C-0310	✲	3,1	6	62	20	14	36	•
1534GD03C-0320	✲	3,2	6	62	20	14	36	•
1534GD03C-0330	✲	3,3	6	62	20	14	36	•
1534GD03C-0340	✲	3,4	6	62	20	14	36	•
1534GD03C-0350	✲	3,5	6	62	20	14	36	•
1534GD03C-0360	✲	3,6	6	62	20	14	36	•
1534GD03C-0370	✲	3,7	6	62	20	14	36	•
1534GD03C-0380	✲	3,8	6	66	24	17	36	•
1534GD03C-0390	✲	3,9	6	66	24	17	36	•
1534GD03C-0400	✲	4	6	66	24	17	36	•
1534GD03C-0410	✲	4,1	6	66	24	17	36	•
1534GD03C-0420	✲	4,2	6	66	24	17	36	•
1534GD03C-0430	✲	4,3	6	66	24	17	36	•
1534GD03C-0440	✲	4,4	6	66	24	17	36	•
1534GD03C-0450	✲	4,5	6	66	24	17	36	•
1534GD03C-0460	✲	4,6	6	66	24	17	36	•
1534GD03C-0465	✲	4,65	6	66	24	17	36	•
1534GD03C-0470	✲	4,7	6	66	24	17	36	•
1534GD03C-0480	✲	4,8	6	66	28	20	36	•
1534GD03C-0490	✲	4,9	6	66	28	20	36	•
1534GD03C-0500	✲	5	6	66	28	20	36	•
1534GD03C-0510	✲	5,1	6	66	28	20	36	•
1534GD03C-0520	✲	5,2	6	66	28	20	36	•
1534GD03C-0530	✲	5,3	6	66	28	20	36	•
1534GD03C-0540	✲	5,4	6	66	28	20	36	•
1534GD03C-0550	✲	5,5	6	66	28	20	36	•
1534GD03C-0560	✲	5,6	6	66	28	20	36	•
1534GD03C-0570	✲	5,7	6	66	28	20	36	•
1534GD03C-0580	✲	5,8	6	66	28	20	36	•
1534GD03C-0590	✲	5,9	6	66	28	20	36	•
1534GD03C-0600	✲	6	6	66	28	20	36	•
1534GD03C-0610	✲	6,1	8	79	34	24	36	•
1534GD03C-0620	✲	6,2	8	79	34	24	36	•
1534GD03C-0630	✲	6,3	8	79	34	24	36	•

• In magazzino ○ Su richiesta

✲ Con raffreddamento interno

Campo di applicazione

Versione	P	M	K	N	S	H
1534GD*	✔		✔			

✔ Molto adatto

✔ Adatto

Punte in metallo duro integrale Serie GD

Punta GD 3 D — Acciaio, ghise

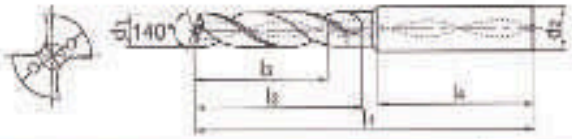
1534GD03C



- Versione del codolo DIN 6535HA
- Uscita refrigerante assiale



Raffreddamento interno



Articolo	✲	Dimensioni [mm]						Grado
		d_1 (m7)	d_2 (h6)	l_1	l_2	l_3	l_4	KDG304
1534GD03C-0300	✲	3	6	62	20	14	36	•
1534GD03C-0310	✲	3,1	6	62	20	14	36	•
1534GD03C-0320	✲	3,2	6	62	20	14	36	•
1534GD03C-0330	✲	3,3	6	62	20	14	36	•
1534GD03C-0340	✲	3,4	6	62	20	14	36	•
1534GD03C-0350	✲	3,5	6	62	20	14	36	•
1534GD03C-0360	✲	3,6	6	62	20	14	36	•
1534GD03C-0370	✲	3,7	6	62	20	14	36	•
1534GD03C-0380	✲	3,8	6	66	24	17	36	•
1534GD03C-0390	✲	3,9	6	66	24	17	36	•
1534GD03C-0400	✲	4	6	66	24	17	36	•
1534GD03C-0410	✲	4,1	6	66	24	17	36	•
1534GD03C-0420	✲	4,2	6	66	24	17	36	•
1534GD03C-0430	✲	4,3	6	66	24	17	36	•
1534GD03C-0440	✲	4,4	6	66	24	17	36	•
1534GD03C-0450	✲	4,5	6	66	24	17	36	•
1534GD03C-0460	✲	4,6	6	66	24	17	36	•
1534GD03C-0465	✲	4,65	6	66	24	17	36	•
1534GD03C-0470	✲	4,7	6	66	24	17	36	•
1534GD03C-0480	✲	4,8	6	66	28	20	36	•
1534GD03C-0490	✲	4,9	6	66	28	20	36	•
1534GD03C-0500	✲	5	6	66	28	20	36	•
1534GD03C-0510	✲	5,1	6	66	28	20	36	•
1534GD03C-0520	✲	5,2	6	66	28	20	36	•
1534GD03C-0530	✲	5,3	6	66	28	20	36	•
1534GD03C-0540	✲	5,4	6	66	28	20	36	•
1534GD03C-0550	✲	5,5	6	66	28	20	36	•
1534GD03C-0560	✲	5,6	6	66	28	20	36	•
1534GD03C-0570	✲	5,7	6	66	28	20	36	•
1534GD03C-0580	✲	5,8	6	66	28	20	36	•
1534GD03C-0590	✲	5,9	6	66	28	20	36	•
1534GD03C-0600	✲	6	6	66	28	20	36	•
1534GD03C-0610	✲	6,1	8	79	34	24	36	•
1534GD03C-0620	✲	6,2	8	79	34	24	36	•
1534GD03C-0630	✲	6,3	8	79	34	24	36	•

• In magazzino ○ Su richiesta

✲ Con raffreddamento interno

Campo di applicazione

Versione	P	M	K	N	S	H
1534GD*	✔		✔			

✔ Molto adatto

✔ Adatto

Punte in metallo duro integrale Serie GD

Punta GD **3 D** — Acciaio, ghise

Campo di applicazione						
Versione	P	M	K	N	S	H
1534GD*	✔		✔			

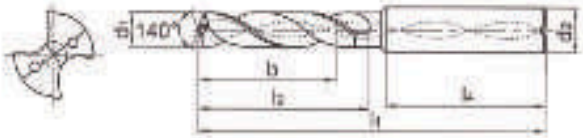
✔ Molto adatto
✔ Adatto

1534GD03C

- Versione del codolo DIN 6535HA
- Uscita refrigerante assiale



Raffreddamento interno



Articolo	✲	Dimensioni [mm]						Grado
		d_1 (m7)	d_2 (h6)	l_1	l_2	l_3	l_4	KDG304
1534GD03C-0990	✲	9,9	10	89	47	35	40	•
1534GD03C-1000	✲	10	10	89	47	35	40	•
1534GD03C-1020	✲	10,2	12	102	55	40	45	•
1534GD03C-1050	✲	10,5	12	102	55	40	45	•
1534GD03C-1100	✲	11	12	102	55	40	45	•
1534GD03C-1140	✲	11,4	12	102	55	40	45	•
1534GD03C-1150	✲	11,5	12	102	55	40	45	•
1534GD03C-1200	✲	12	12	102	55	40	45	•
1534GD03C-1250	✲	12,5	14	107	60	43	45	•
1534GD03C-1300	✲	13	14	107	60	43	45	•
1534GD03C-1350	✲	13,5	14	107	60	43	45	•
1534GD03C-1400	✲	14	14	107	60	43	45	•
1534GD03C-1450	✲	14,5	16	115	65	45	48	•
1534GD03C-1500	✲	15	16	115	65	45	48	•
1534GD03C-1550	✲	15,5	16	115	65	45	48	•
1534GD03C-1600	✲	16	16	115	65	45	48	•
1534GD03C-1650	✲	16,5	18	123	73	51	48	•
1534GD03C-1700	✲	17	18	123	73	51	48	•
1534GD03C-1750	✲	17,5	18	123	73	51	48	•
1534GD03C-1800	✲	18	18	123	73	51	48	•
1534GD03C-1850	✲	18,5	20	131	79	55	50	•
1534GD03C-1900	✲	19	20	131	79	55	50	•
1534GD03C-1950	✲	19,5	20	131	79	55	50	•
1534GD03C-2000	✲	20	20	131	79	55	50	•

• In magazzino ◦ Su richiesta

✲ Con raffreddamento interno

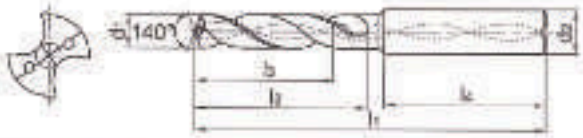
Punta GD 5xD — Acciaio, ghise

1536GD05C

- Versione del codolo DIN 6535HA
- Uscita refrigerante assiale



Raffreddamento interno



Articolo	✲	Dimensioni [mm]						Grado
		d_1 (m7)	d_3 (h6)	l_1	l_2	l_3	l_4	KDG304
1536GD05C-0300	✲	3	6	66	28	23	36	•
1536GD05C-0310	✲	3,1	6	66	28	23	36	•
1536GD05C-0320	✲	3,2	6	66	28	23	36	•
1536GD05C-0330	✲	3,3	6	66	28	23	36	•
1536GD05C-0340	✲	3,4	6	66	28	23	36	•
1536GD05C-0350	✲	3,5	6	66	28	23	36	•
1536GD05C-0360	✲	3,6	6	66	28	23	36	•
1536GD05C-0370	✲	3,7	6	66	28	23	36	•
1536GD05C-0380	✲	3,8	6	74	36	29	36	•
1536GD05C-0390	✲	3,9	6	74	36	29	36	•
1536GD05C-0400	✲	4	6	74	36	29	36	•
1536GD05C-0410	✲	4,1	6	74	36	29	36	•
1536GD05C-0420	✲	4,2	6	74	36	29	36	•
1536GD05C-0430	✲	4,3	6	74	36	29	36	•
1536GD05C-0440	✲	4,4	6	74	36	29	36	•
1536GD05C-0450	✲	4,5	6	74	36	29	36	•
1536GD05C-0460	✲	4,6	6	74	36	29	36	•
1536GD05C-0465	✲	4,65	6	74	36	29	36	•
1536GD05C-0470	✲	4,7	6	74	36	29	36	•
1536GD05C-0480	✲	4,8	6	82	44	35	36	•
1536GD05C-0490	✲	4,9	6	82	44	35	36	•
1536GD05C-0500	✲	5	6	82	44	35	36	•
1536GD05C-0510	✲	5,1	6	82	44	35	36	•
1536GD05C-0520	✲	5,2	6	82	44	35	36	•
1536GD05C-0530	✲	5,3	6	82	44	35	36	•
1536GD05C-0540	✲	5,4	6	82	44	35	36	•
1536GD05C-0550	✲	5,5	6	82	44	35	36	•
1536GD05C-0560	✲	5,6	6	82	44	35	36	•
1536GD05C-0570	✲	5,7	6	82	44	35	36	•
1536GD05C-0580	✲	5,8	6	82	44	35	36	•
1536GD05C-0590	✲	5,9	6	82	44	35	36	•
1536GD05C-0600	✲	6	6	82	44	35	36	•
1536GD05C-0610	✲	6,1	8	91	53	43	36	•
1536GD05C-0620	✲	6,2	8	91	53	43	36	•
1536GD05C-0630	✲	6,3	8	91	53	43	36	•

• In magazzino ○ Su richiesta

✲ Con raffreddamento interno

Campo di applicazione

Versione	P	M	K	N	S	H
1536GD*	✔		✔			

✔ Molto adatto
✔ Adatto

Punte in metallo duro integrale Serie GD

Punta GD 5xD — Acciaio, ghise

1536GD05C

- Versione del codolo DIN 6535HA
- Uscita refrigerante assiale



Raffreddamento interno



Articolo	✲	Dimensioni (mm)						Grado
		d_1 (m7)	d_2 (h6)	l_1	l_2	l_3	l_4	KDG304
1536GD05C-0640	✲	6,4	8	91	53	43	36	•
1536GD05C-0650	✲	6,5	8	91	53	43	36	•
1536GD05C-0660	✲	6,6	8	91	53	43	36	•
1536GD05C-0670	✲	6,7	8	91	53	43	36	•
1536GD05C-0680	✲	6,8	8	91	53	43	36	•
1536GD05C-0690	✲	6,9	8	91	53	43	36	•
1536GD05C-0700	✲	7	8	91	53	43	36	•
1536GD05C-0710	✲	7,1	8	91	53	43	36	•
1536GD05C-0720	✲	7,2	8	91	53	43	36	•
1536GD05C-0730	✲	7,3	8	91	53	43	36	•
1536GD05C-0740	✲	7,4	8	91	53	43	36	•
1536GD05C-0750	✲	7,5	8	91	53	43	36	•
1536GD05C-0760	✲	7,6	8	91	53	43	36	•
1536GD05C-0770	✲	7,7	8	91	53	43	36	•
1536GD05C-0780	✲	7,8	8	91	53	43	36	•
1536GD05C-0790	✲	7,9	8	91	53	43	36	•
1536GD05C-0800	✲	8	8	91	53	43	36	•
1536GD05C-0810	✲	8,1	10	103	61	49	40	•
1536GD05C-0820	✲	8,2	10	103	61	49	40	•
1536GD05C-0830	✲	8,3	10	103	61	49	40	•
1536GD05C-0840	✲	8,4	10	103	61	49	40	•
1536GD05C-0850	✲	8,5	10	103	61	49	40	•
1536GD05C-0860	✲	8,6	10	103	61	49	40	•
1536GD05C-0870	✲	8,7	10	103	61	49	40	•
1536GD05C-0880	✲	8,8	10	103	61	49	40	•
1536GD05C-0890	✲	8,9	10	103	61	49	40	•
1536GD05C-0900	✲	9	10	103	61	49	40	•
1536GD05C-0910	✲	9,1	10	103	61	49	40	•
1536GD05C-0920	✲	9,2	10	103	61	49	40	•
1536GD05C-0930	✲	9,3	10	103	61	49	40	•
1536GD05C-0940	✲	9,4	10	103	61	49	40	•
1536GD05C-0950	✲	9,5	10	103	61	49	40	•
1536GD05C-0960	✲	9,6	10	103	61	49	40	•
1536GD05C-0970	✲	9,7	10	103	61	49	40	•
1536GD05C-0980	✲	9,8	10	103	61	49	40	•

• In magazzino ○ Su richiesta

✲ Con raffreddamento interno

Campo di applicazione

Versione	P	M	K	N	S	H
1536GD*	✔		✔			

✔ Molto adatto

✔ Adatto

Punta GD 5xD

Acciaio, ghise

1536GD05C



- Versione del codolo DIN 6535HA
- Uscita refrigerante assiale

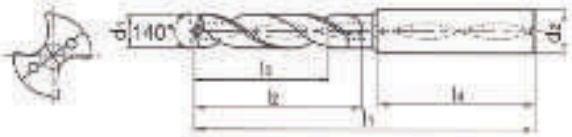


Raffreddamento interno

Campo di applicazione

Versione	P	M	K	N	S	H
1536GD*	✔		✔			

✔ Molto adatto
✔ Adatto



Articolo	✲	Dimensioni [mm]						Grado
		d_1 (m7)	d_2 (h6)	l_1	l_2	l_3	l_4	KDX5304
1536GD05C-0990	✲	9,9	10	103	61	49	40	•
1536GD05C-1000	✲	10	10	103	61	49	40	•
1536GD05C-1010	✲	10,1	12	118	71	56	45	•
1536GD05C-1020	✲	10,2	12	118	71	56	45	•
1536GD05C-1030	✲	10,3	12	118	71	56	45	•
1536GD05C-1040	✲	10,4	12	118	71	56	45	•
1536GD05C-1050	✲	10,5	12	118	71	56	45	•
1536GD05C-1060	✲	10,6	12	118	71	56	45	•
1536GD05C-1070	✲	10,7	12	118	71	56	45	•
1536GD05C-1080	✲	10,8	12	118	71	56	45	•
1536GD05C-1090	✲	10,9	12	118	71	56	45	•
1536GD05C-1100	✲	11	12	118	71	56	45	•
1536GD05C-1140	✲	11,4	12	118	71	56	45	•
1536GD05C-1150	✲	11,5	12	118	71	56	45	•
1536GD05C-1200	✲	12	12	118	71	56	45	•
1536GD05C-1250	✲	12,5	14	124	77	60	45	•
1536GD05C-1300	✲	13	14	124	77	60	45	•
1536GD05C-1350	✲	13,5	14	124	77	60	45	•
1536GD05C-1400	✲	14	14	124	77	60	45	•
1536GD05C-1450	✲	14,5	16	133	83	63	48	•
1536GD05C-1500	✲	15	16	133	83	63	48	•
1536GD05C-1510	✲	15,1	16	133	83	63	48	•
1536GD05C-1550	✲	15,5	16	133	83	63	48	•
1536GD05C-1600	✲	16	16	133	83	63	48	•
1536GD05C-1650	✲	16,5	18	143	93	71	48	•
1536GD05C-1700	✲	17	18	143	93	71	48	•
1536GD05C-1750	✲	17,5	18	143	93	71	48	•
1536GD05C-1800	✲	18	18	143	93	71	48	•
1536GD05C-1850	✲	18,5	20	153	101	77	50	•
1536GD05C-1900	✲	19	20	153	101	77	50	•
1536GD05C-1950	✲	19,5	20	153	101	77	50	•
1536GD05C-2000	✲	20	20	153	101	77	50	•

• In magazzino ○ Su richiesta

✲ Con raffreddamento interno

Punte in metallo duro integrale Serie GD

Punta GD 5xD | **Acciaio, ghise** | **New** | **ATTACCO WELDON**

1636GD05C

- Versione del codolo DIN 6535HA
- Uscita refrigerante assiale



Raffreddamento interno



Articolo	✲	Dimensioni [mm]						Grado
		d_1 (m7)	d_2 (h6)	l_1	l_2	l_3	l_4	KDG304
1636GD05C-0500	✲	5	6	82	44	35	36	•
1636GD05C-0550	✲	5,5	6	82	44	35	36	•
1636GD05C-0600	✲	6	6	82	44	35	36	•
1636GD05C-0650	✲	6,5	8	91	53	43	36	•
1636GD05C-0680	✲	6,8	8	91	53	43	36	•
1636GD05C-0700	✲	7	8	91	53	43	36	•
1636GD05C-0740	✲	7,4	8	91	53	43	36	•
1636GD05C-0750	✲	7,5	8	91	53	43	36	•
1636GD05C-0780	✲	7,8	8	91	53	43	36	•
1636GD05C-0800	✲	8	8	91	53	43	36	•
1636GD05C-0850	✲	8,5	10	103	61	49	40	•
1636GD05C-0880	✲	8,8	10	103	61	49	40	•
1636GD05C-0900	✲	9	10	103	61	49	40	•
1636GD05C-0930	✲	9,3	10	103	61	49	40	•
1636GD05C-0950	✲	9,5	10	103	61	49	40	•
1636GD05C-0980	✲	9,8	10	103	61	49	40	•
1636GD05C-1000	✲	10	10	103	61	49	40	•
1636GD05C-1020	✲	10,2	12	118	71	56	45	•
1636GD05C-1050	✲	10,5	12	118	71	56	45	•
1636GD05C-1080	✲	10,8	12	118	71	56	45	•
1636GD05C-1100	✲	11	12	118	71	56	45	•
1636GD05C-1150	✲	11,5	12	118	71	56	45	•
1636GD05C-1180	✲	11,8	12	118	71	56	45	•
1636GD05C-1200	✲	12	12	118	71	56	45	•
1636GD05C-1250	✲	12,5	14	124	77	60	45	•
1636GD05C-1280	✲	12,8	14	124	77	60	45	•
1636GD05C-1300	✲	13	14	124	77	60	45	•
1636GD05C-1350	✲	13,5	14	124	77	60	45	•
1636GD05C-1380	✲	13,8	14	124	77	60	45	•
1636GD05C-1400	✲	14	14	124	77	60	45	•
1636GD05C-1450	✲	14,5	16	133	83	63	48	•
1636GD05C-1480	✲	14,8	16	133	83	63	48	•
1636GD05C-1500	✲	15	16	133	83	63	48	•
1636GD05C-1550	✲	15,5	16	133	83	63	48	•
1636GD05C-1580	✲	15,8	16	133	83	63	48	•

• In magazzino ○ Su richiesta

✲ Con raffreddamento interno

Campo di applicazione

Versione	P	M	K	N	S	H
1636GD*	✔		✔			

✔ Molto adatto

✔ Adatto

Punta GD 5xD

Acciaio, ghise

New

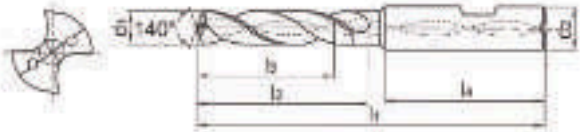
ATTACCO WELDON

1636GD05C

- Versione del codolo DIN 6535HA
- Uscita refrigerante assiale



Raffreddamento interno



Articolo	✲	Dimensioni [mm]						Grado
		d_1 (m7)	d_2 (h6)	l_1	l_2	l_4	l_6	KDG304
1636GD05C-1600	✲	16	16	133	83	63	48	•
1636GD05C-1650	✲	16,5	18	143	93	71	48	•
1636GD05C-1680	✲	16,8	18	143	93	71	48	•
1636GD05C-1700	✲	17	18	143	93	71	48	•
1636GD05C-1750	✲	17,5	18	143	93	71	48	•
1636GD05C-1780	✲	17,8	18	143	93	71	48	•
1636GD05C-1800	✲	18	18	143	93	71	48	•
1636GD05C-1850	✲	18,5	20	153	101	77	50	•
1636GD05C-1880	✲	18,8	20	153	101	77	50	•
1636GD05C-1900	✲	19	20	153	101	77	50	•
1636GD05C-1950	✲	19,5	20	153	101	77	50	•
1636GD05C-1980	✲	19,8	20	153	101	77	50	•
1636GD05C-2000	✲	20	20	153	101	77	50	•

• In magazzino ○ Su richiesta

✲ Con raffreddamento interno

Campo di applicazione

Versione	P	M	K	N	S	H
1636GD*	✔		✔			

✔ Molto adatto

✔ Adatto

POLY-V

KAYIŞ KASNAK KANAL AÇMA UÇLARI VE TAKIMLARI

POLY-V BELT PULLEY GROOVING INSERTS AND TOOLHOLDERS

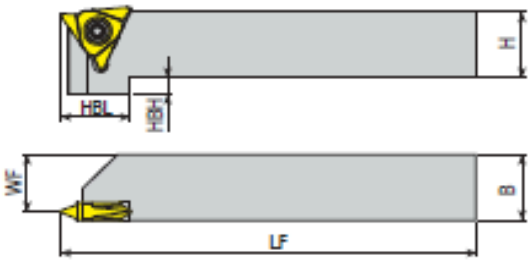
WENDESCHNEIDPLATTEN UND WERKZEUGE FÜR POLY-V RIEMENSCHEIBEN









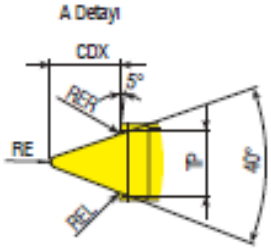


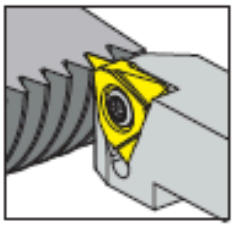
Takım Kodu / Ordering Code / Bestell-Bezeichnung	Stok / Stock / Lager		Takım Ölçüleri (mm) / Dimension (mm) / Abmessung (mm)						Kesici Uç / Insert / Wendeschneidplatte	Yedek Parçaları / Spare Parts / Ersatzteile: Sıkma Vidası / Screw / Schraube	Yedek Parçaları / Spare Parts / Ersatzteile: Tork Anahtar / Torx Key / Torx-Schlüssel
	R	L	H	B	WF	LF	HBL	HBH			
ADKT-T12P-R/L-1616-T5	●	●	16	16	13.50	125	21	5	T12...	1020-M5x14	80-T20
ADKT-T12P-R/L-2020-T5	●	●	20	20	17.50	125	21	5			
ADKT-T12P-R/L-2525-T5	●	●	25	25	22.50	150	-	-			
ADKT-T12P-R/L-3232-T5	●	●	32	32	29.50	170	-	-			











Uç Kodu / Insert Code / Wendeplatten-Bezeichnung	Stok / Stock / Lager		Uç Ölçüleri (mm) / Insert Dimension (mm) / Abmessung (mm)							Kalite / Grade / Sorte
	R	L	DIN/ISO KODU	TP	S	RE	RER / REL	LSCS	CDX	
T12.10.0234.PJ.R/L	●	●	PJ	2.34	5.20	0.36	0.24	2.60	2.08	VK20F01
T12.10.0356.PK.R/L	●	●	PK	3.56	5.20	0.44	0.35	2.60	3.40	VK20F01
T12.10.0470.PL.R/L	●	●	PL	4.70	5.20	0.36	0.45	2.60	4.90	VK20F01

R: Sağ / Right / Rechts L: Sol / Left / Links
• Stokta / In Stock / Auf Lager ○ Stokta Yok / Non Stock Item / Kein Lagerartikel, Lieferzeit auf Anfrage

Sipariş Örneği/Ordering Example/Bestellbeispiel
1 ad./pcs./stück ADKT-T12P-R-1616-T5

ADKT-T12P..Tipi katerler ile kullanınız. / Use with ADKT-T12P.. Type toolholder. / Einsatz mit ADKT-T12P...-Werkzeughalter
İndekslendiğinde boy ±0,02mm / Indexability length ±0,02mm / Wiederholgenauigkeit Länge ± 0,02 mm
Diğer ölçü taleplerinız için müşteri temsilcinız ile irtibata geçiniz. / For other dimension request, contact with customer representative. / Für weitere Abmessungen kontaktieren Sie bitte den Vertrieb.

POLY-V ÖZEL ÇÖZÜMLER
POLY-V SPECIAL SOLUTIONS
POLY-V SPEZIELLE LÖSUNGEN



PM Kasnak Çözümleri
PM Pulley Solutions PM Reimenscheiben Lösungen





PH Kasnak Çözümleri
PH Pulley Solutions PH Reimenscheiben Lösungen



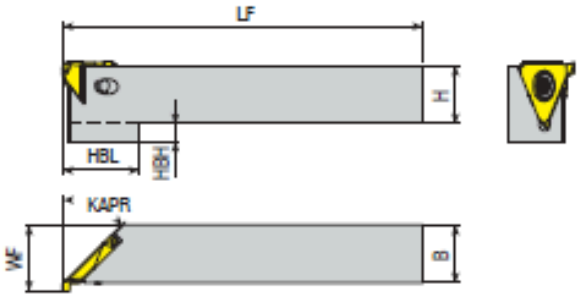
PK Kasnak Çözümleri
PK Pulley Solutions
PK Reimenscheiben Lösungen




AKKO
AKKO
www.akko.com.tr

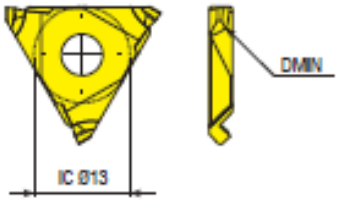

KANAL AÇMA / GROOVING / STECHHALTER
KANAL AÇMA, KÖŞE BOŞALTMA UÇLARI ve TAKIMLARI
FOR GROOVING AND CORNER RELIEFS
WENDESCHNEIDPLATTEN UND WERKZEUGE FÜR AXIAL FREISTICHE
AKKO
AKKO
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www.akko.com.tr

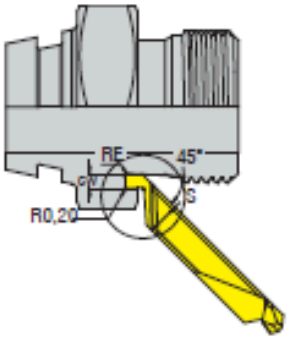




Takım Kodu / Ordering Code / Bestell-Bezeichnung	Stok / Stock / Lager		Takım Ölçüleri (mm) / Dimension (mm) / Abmessung (mm)							Kesici Uç / Insert / Wendeschneidplatte	Yedek Parçaları / Spare Parts / Ersatzteile: Sıkma Vidası / Screw / Schraube	Yedek Parçaları / Spare Parts / Ersatzteile: Tork Anahtar / Torx Key / Torx-Schlüssel
	R	L	H	B	WF	LF	HBL	HBH	KAPR			
AAUT-T20-R/L-1616-45	●	●	16	16	18.3	125	21	5	45°	T20...	1020-M5x7.5	80-T20
AAUT-T20-R/L-2020-45	●	●	20	20	22.3	125	21	5	45°			
AAUT-T20-R/L-2525-45	●	●	25	25	27.3	150	-	-	45°			









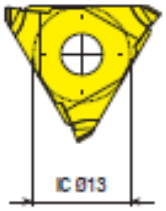
Sağ versiyon gösterilmiştir
Right hand version shown
Abbildung zeigt rechte Ausführung

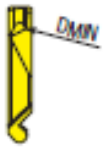
Uç Kodu / Insert Code / Wendeplatten-Bezeichnung	Stok / Stock / Lager		Uç Ölçüleri (mm) / Insert Dimension (mm) / Abmessung (mm)					Kalite / Grade / Sorte	Minimum Çap Ø / Minimum Diameter Ø / Kleinster Durchmesser ø	Kanal Derinliği / Depth of Groove Up to / Stechtiefe bis zu	Kanal Genişliği / Width of Groove / Stechbreite
	R	L	CW	S	RE	CDX	DMIN				
T20.00.0815.45.04R/L	●	●	1.5	3.25	0.4	1.6	8	VK20F01	8	1.6	1.5
T20.00.1220.45.05R/L	●	●	2.0	3.25	0.5	1.8	12	VK20F01	12	1.8	2.0
T20.00.2024.45.06R/L	●	●	2.4	3.25	0.6	2.0	20	VK20F01	20	2.0	2.4

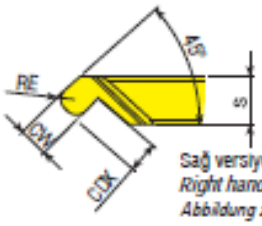
AAUT.. Tipi katerlerle kullanınız. / Use with AAUT type toolholder. / Einsatz mit AAUT-Werkzeughalter
Kullanım öncesinde dip boşluk işlenmiş olmalıdır. / The undercut must be placed before axial machining. / Der Freistich muss vor der Axialbearbeitung gefertigt werden
İndeksiendiğinde boy ±0.02mm / Indexability length ±0.02mm / Wiederholgenauigkeit Länge ± 0,02 mm

Sipariş Örneği/Ordering Example/Bestellbeispiel
1 ad./pcs./stück AAUT-T20-R/L-1616-45

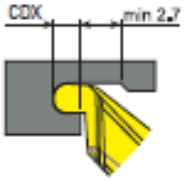








Sağ versiyon gösterilmiştir
Right hand version shown
Abbildung zeigt rechte Ausführung

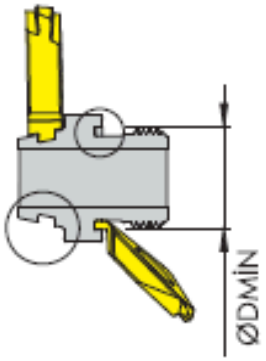


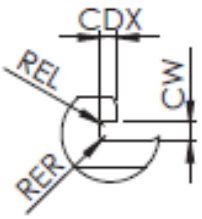
Uç Kodu / Insert Code / Wendeplatten-Bezeichnung	Stok / Stock / Lager		Uç Ölçüleri (mm) / Insert Dimension (mm) / Abmessung (mm)					Kalite / Grade / Sorte	Minimum Çap Ø / Minimum Diameter Ø / Kleinster Durchmesser ø	Kanal Derinliği / Depth of Groove Up to / Stechtiefe bis zu	Kanal Genişliği / Width of Groove / Stechbreite
	R	L	CW	S	RE	CDX	DMIN				
T20.00.1220.45.10R/L	●	●	2.0	3.25	1.0	1.8	12	VK20F01	12	1.8	2

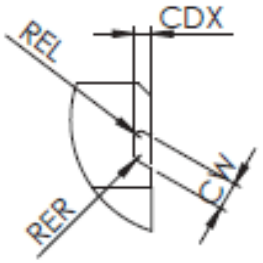
AAUT.. Tipi katerlerle kullanınız. / Use with AAUT type toolholder. / Einsatz mit AAUT-Werkzeughalter
Kullanım öncesinde dip boşluk işlenmiş olmalıdır. / The undercut must be placed before axial machining. / Der Freistich muss vor der Axialbearbeitung gefertigt werden
İndekslendiğinde boy ±0.02mm / Indexability length ±0.02mm / Wiederholgenauigkeit Länge ± 0,02 mm

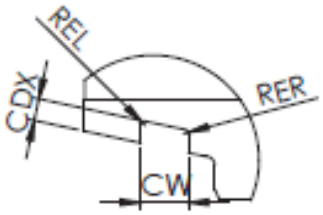
R: Sağ / Right / Rechts L: Sol / Left / Links
+ Stokta / In Stock / *Auf Lager* ⊖ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*

Sipariş Örneği/Ordering Example/Bestellbeispiel
1 ad./pcs./stück T20.00.1220.45.10R/L









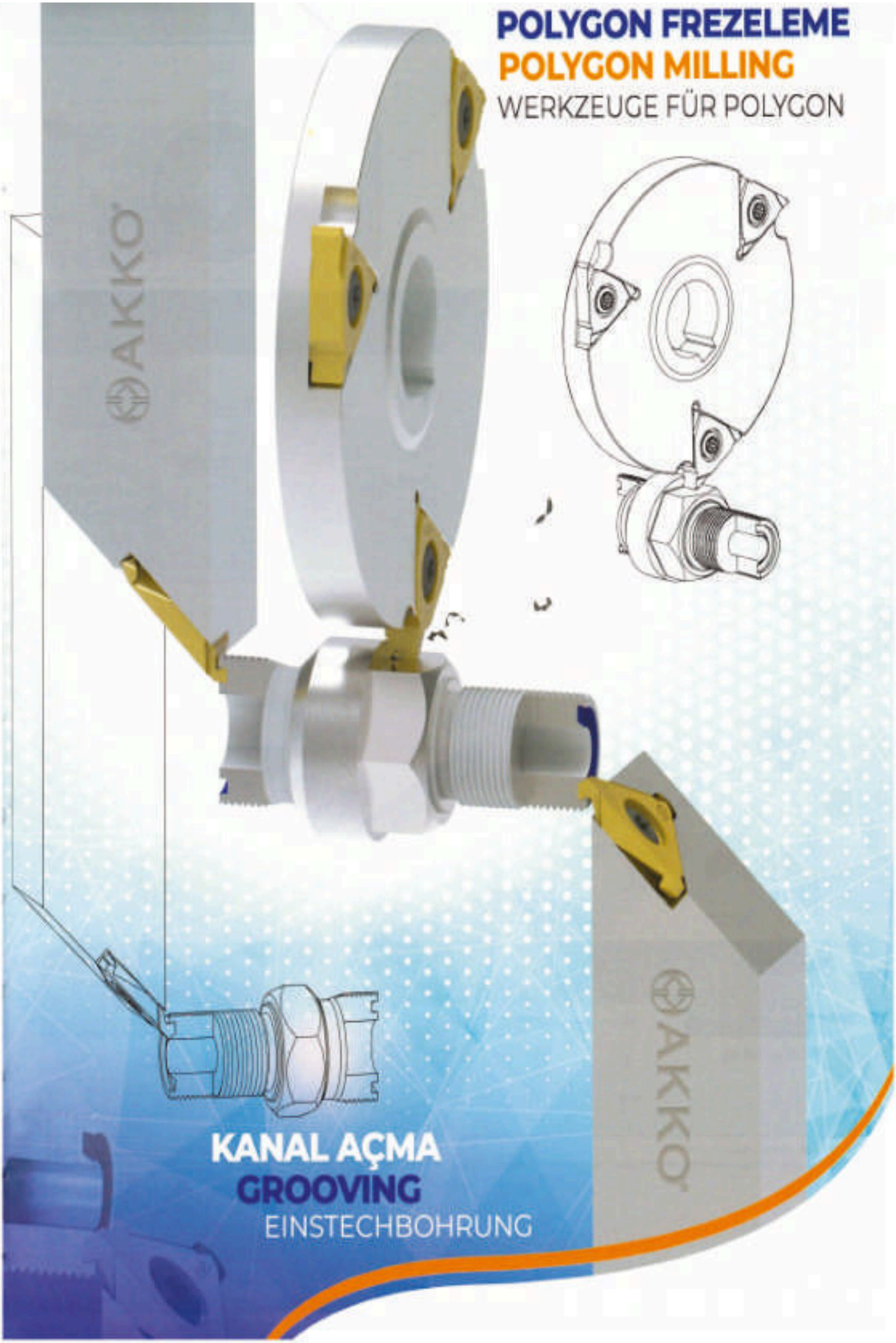
ÖZEL KANAL UCU BİLGİ ALMA FORMU
INFORMATION FORM FOR SPECIAL GROOVING INSERTS
INFORMATIONSFORM FÜR SONDER WENDESCHNEIDPLATTEN

CW	CDX	RER	REL	DMİN	İŞPARÇASI MALZEMESİ / WORKPIECE MATERIAL / WERKSTOCKMATERIAL

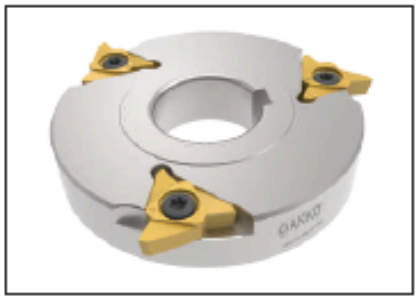
Farklı özel profilleri için lütfen irtibata geçiniz. / Please contact for different special profiles. / *Bitte kontaktieren Sie uns für Sonderwendeschneidplatten*

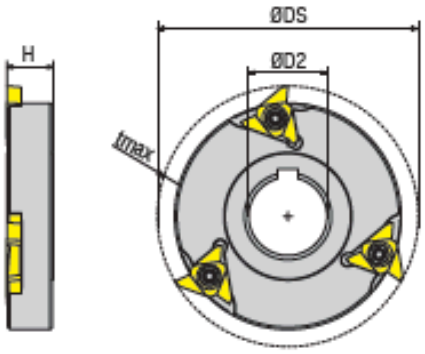
vav@vavkesici.com.tr adresine teknik resim göndermeniz halinde iş parçanıza özel tasarımlar yapılabilmektedir. / If you send a technical drawing to vav@vavkesici.com.tr special designs can be made for your workpiece. / Bei Einreichung von der technischne Zeichnung an vav@vavkesici.com.tr können auch Werkzeug spezifische Entwürfe hergestellt werden.

POLYGON FREZELEME
POLYGON MILLING
WERKZEUGE FÜR POLYGON



KANAL AÇMA
GROOVING
EINSTECHBOHRUNG

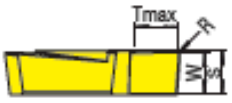




Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile* Sıkma Vidası *Screw* *Schraube*	Tork Anahtar *Torx Key* *Torx-Schlüssel*
	R	L	ØDS	ØD2	ZEFP	H	Tmax			
APTR/L-T12-D90-D27-Z02	○	○	90	27	2	16.20	5	T12..	1020.M5X11	80-T20
APTR/L-T12-D90-D27-Z03	○	○	90	27	3	16.20	5			





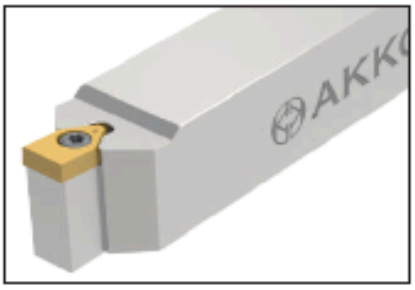


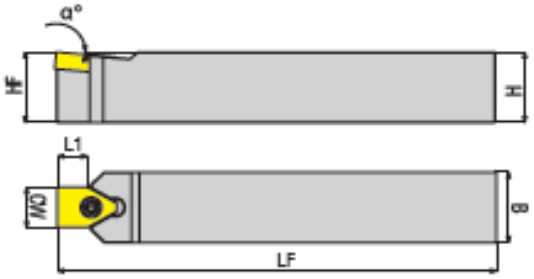


Uç Kodu *Insert Code* *Wendeplatten-Bezeichnung*	Stok *Stock* *Lager*	Uç Ölçüleri (mm) *Insert Dimension (mm)* *Abmessung (mm)*						Kalite *Grade* *Sorte*
		W	Tmax	R	K	S	ZEFP	
T12.15.0500.05.020 R/L	○	5	5	0.2	5°	5.2	3	VK20F01

R: Sağ / Right / *Rechts* L: Sol / Left / *Links*
● Stokta / In Stock / *Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück APTR-T12-D90-D27-Z02



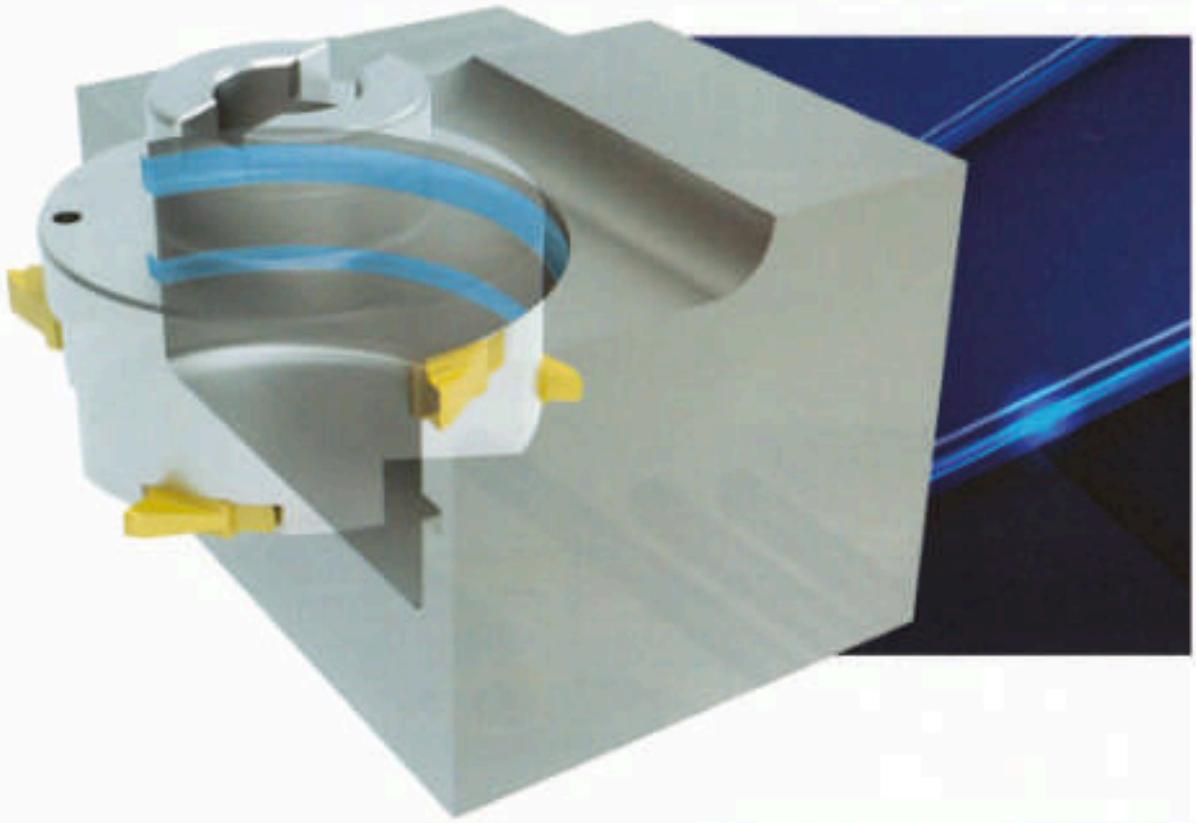


Takım Kodu Ordering Code Bestell-Bezeichnung	Stok Stock Lager	Takım Ölçüleri (mm) Dimension (mm) Abmessung (mm)							Yedek Parçaları / Spare Parts / Ersatzteile	
		H	B	LF	HF	L1	α	CW	Kesici Uç Insert Wendeschneidplatte	Sıkma Vidası Screw Schraube
ADKT-B41-1616-L125	○	16	16	125	16	8	5°	10	B41.00.0400	4015-M4x11
ADKT-B41-2020-L125	○	20	20	125	20	8	5°	10		
ADKT-B41-2525-L150	○	25	25	150	25	8	5°	10		
ADKT-B42-1616-L125	○	16	16	125	16	10	5°	14.30	B42.00.0600	1020-M5x14
ADKT-B42-2020-L125	○	20	20	125	20	10	5°	14.30		
ADKT-B42-2525-L150	○	25	25	150	25	10	5°	14.30		

Sipariş Örneği/Ordering Example/Bestellbeispiel/
1 ad./pcs./stück ADKT-B41-1616-L125



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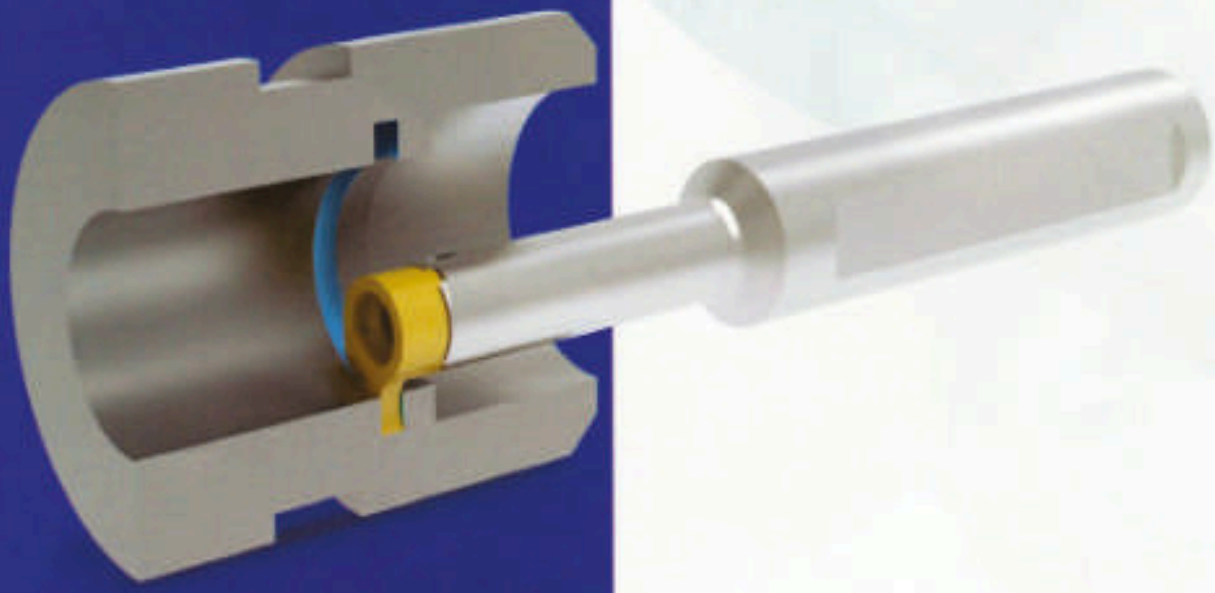
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MİCO CUT UÇLARI ve TAKIMLAR

MICO CUT INSERTS and TOOLS
MICO CUT WENDESCHEIDPLATTEN WERKZEUGE







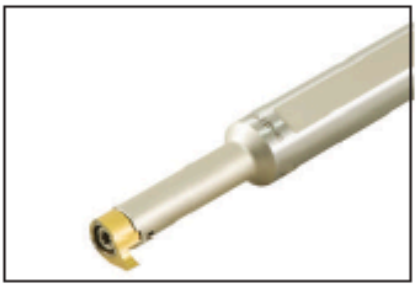
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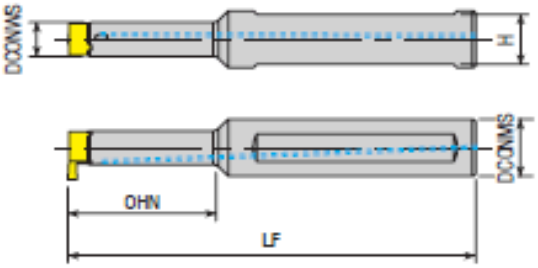
2025'te Stoklarda

It will be available at our stocks in 2025

Es wird im Jahr 2025 im Lager verfügbar sein

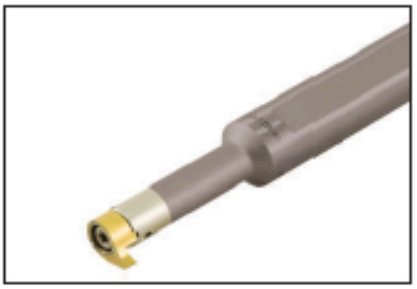
ÇELİK ŞAFT
STEEL SHAFT
STAHLSCHÄFTE

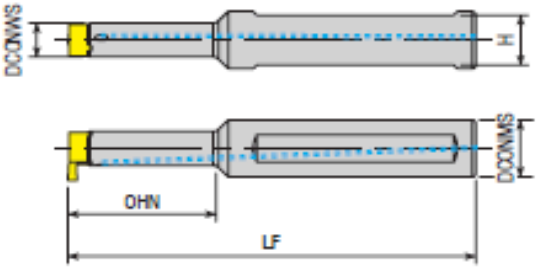




Takım Kodu / Ordering Code / Bestell-Bezeichnung	Stok / Stock / Lager	Takım Ölçüleri (mm) / Dimension (mm) / Abmessung (mm)						Kesici Uç / Insert / Wendeschneidplatte	Yedek Parçaları / Spare Parts / Ersatzteile: Sıkma Vidası / Screw / Klemmschraube	Yedek Parçaları / Spare Parts / Ersatzteile: Tork Anahtar / Torx Key / Torx Innensechskantschlüssel
		DCONMS	DCONWS	LF	OHN	H	Dm			
A12G-MC08-015	○	12	8	90	15	11	13.4	MC08	4015xM4X11	80-T15
A12G-MC08-022	○	12	8	90	22	11	13.4			
A12G-MC11-019	○	12	11	90	19	15	20.4	MC11	1020-M5X14	80-T20
A16H-MC11-028	○	16	11	100	28	15	20.4			
A16J-MC11-040	○	16	11	110	40	15	20.4			

KARBÜR ŞAFT
CARBIDE SHAFT
HARTMETALLSCHAFT



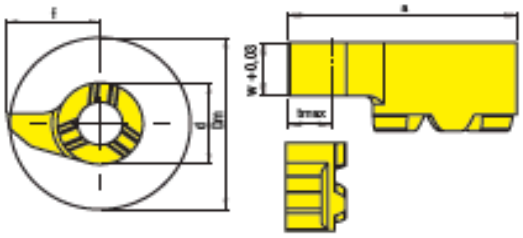


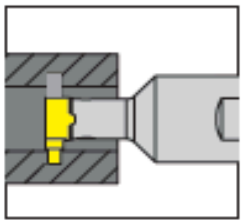
Takım Kodu / Ordering Code / Bestell-Bezeichnung	Stok / Stock / Lager	Takım Ölçüleri (mm) / Dimension (mm) / Abmessung (mm)						Kesici Uç / Insert / Wendeschneidplatte	Yedek Parçaları / Spare Parts / Ersatzteile: Sıkma Vidası / Screw / Klemmschraube	Yedek Parçaları / Spare Parts / Ersatzteile: Tork Anahtar / Torx Key / Torx Innensechskantschlüssel
		DCONMS	DCONWS	LF	OHN	H	Dm			
E12J-MC08-042	○	12	8	110	42	11	13.4	MC08	4015xM4X11	80-T15
E12K-MC08-056	○	12	8	120	56	11	13.4			
E12J-MC11-040	○	12	11	130	40	15	20.4	MC11	1020-M5X14	80-T20
E16K-MC11-056	○	16	11	130	56	15	20.4			
E16K-MC11-080	○	16	11	150	80	15	20.4			

• Stokta / In Stock / Auf Lager ○ Stokta Yok / Non Stock Item / Kein Lagerartikel, Lieferzeit auf Anfrage

Sipariş Örneği/Ordering Example/Bestellbeispiel/
1 ad./pcs./stück A12G-MC08-015







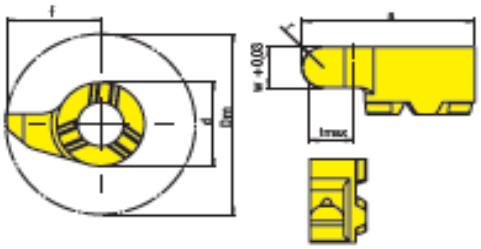
Uç Kodu *Insert Code* Wendeplatten-Bezeichnung	Stok Stock Lager	Uç Ölçüleri (mm) *Insert Dimension (mm)* Abmessung (mm) W	R	a	d	f	tmax	Dm	UYUMLU TAKIM / COMPATIBLE TOOLHOLDER / KOMPATIBELES WERKZEUG	Kalite Grade Sorte
MC08.G.0100.010.01340	○	1.0	0.10	10.7	8.0	6.7	2.3	13.4	..-MC08-...	VP3001
MC08.G.0150.015.01340	○	1.5	0.15	10.7	8.0	6.7	2.3	13.4		VP3001
MC08.G.0200.020.01340	○	2.0	0.20	10.7	8.0	6.7	2.3	13.4		VP3001
MC08.G.0250.025.01340	○	2.5	0.25	10.7	8.0	6.7	2.3	13.4		VP3001
MC08.G.0300.030.01340	○	3.0	0.30	10.7	8.0	6.7	2.3	13.4		VP3001

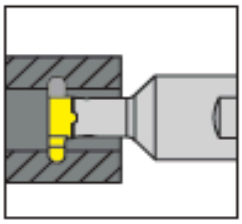
DİĞER PROFİL ÇEŞİTLERİ / *THE OTHER PROFILE TYPES* / ANDERE PROFIL-TYPEN



*Diğer profil uçlar özel taleplere göre üretilmektedir. / *Profiled inserts are manufactured according to customer special requirements. / *Die Profil-Wendeschneidplatten werden nach Kundenwunsch gefertigt.*





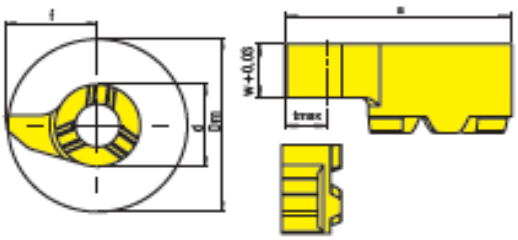


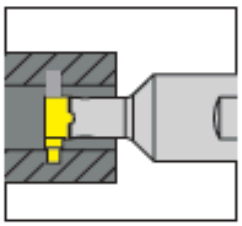
Uç Kodu *Insert Code* Wendeplatten-Bezeichnung	Stok Stock Lager	Uç Ölçüleri (mm) *Insert Dimension (mm)* Abmessung (mm) W	R	a	d	f	tmax	Dm	UYUMLU TAKIM / COMPATIBLE TOOLHOLDER / KOMPATIBELES WERKZEUG	Kalite Grade Sorte
MC08.GR.0080.040.01340	○	0.8	0.4	10.7	8	6.7	2.3	13.4	....-MC08-...	VP3001
MC08.GR.0120.060.01340	○	1.2	0.6	10.7	8	6.7	2.3	13.4		VP3001
MC08.GR.0180.090.01340	○	1.8	0.9	10.7	8	6.7	2.3	13.4		VP3001
MC08.GR.0200.100.01340	○	2.0	1.0	10.7	8	6.7	2.3	13.4		VP3001
MC08.GR.0300.150.01340	○	3.0	1.5	10.7	8	6.7	2.3	13.4		VP3001

● Stokta / In Stock / *Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagervorrat, Lieferzeit auf Anfrage*

AKKO

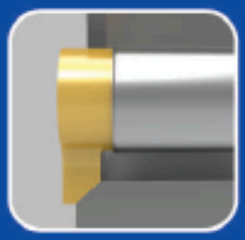


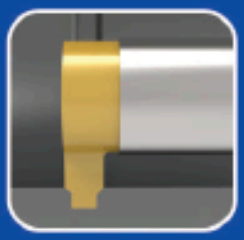




Uç Kodu / Insert Code / Wendeplatten-Bezeichnung	Stok / Stock / Lager	Uç Ölçüleri (mm) / Insert Dimension (mm) / Abmessung (mm)								Kalite / Grade / Sorte
		W	R	a	d	f	tmax	Dm	UYUMLU TAKIM / COMPATIBLE TOOLHOLDER / KOMPATIBELES WERKZEUG	
MC11.G.0100.010.02040	○	1.0	0.1	15.7	11	10.2	4.3	20.4	....-MC11-...	VP3001
MC11.G.0150.015.02040	○	1.5	0.15	15.7	11	10.2	4.3	20.4		VP3001
MC11.G.0200.020.02040	○	2.0	0.2	15.7	11	10.2	4.3	20.4		VP3001
MC11.G.0250.025.02040	○	2.5	0.25	15.7	11	10.2	4.3	20.4		VP3001
MC11.G.0300.030.02040	○	3.0	0.3	15.7	11	10.2	4.3	20.4		VP3001
MC11.G.0350.035.02040	○	3.5	0.35	15.7	11	10.2	4.3	20.4		VP3001
MC11.G.0400.040.02040	○	4.0	0.40	15.7	11	10.2	4.3	20.4		VP3001

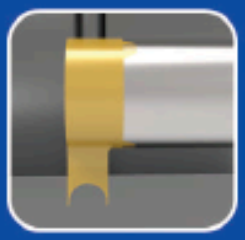
DİĞER PROFİL ÇEŞİTLERİ / *THE OTHER PROFILE TYPES* / ANDERE PROFIL-TYPEN


CHAMFER PROFILE


CIRCLIP PROFILE

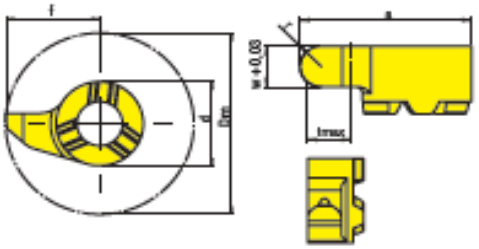

THREAD PROFILE

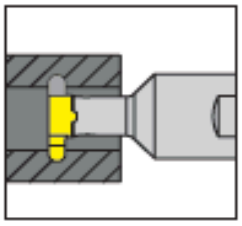

RADIUS GROVE PROFILE


SPECIAL PROFILE

*Diğer profil uçlar özel taleplere göre üretilmektedir. / *Profiled inserts are manufactured according to customer special requirements. / Die Profil-Wendeschneidplatten werden nach Kundenwunsch gefertigt.*







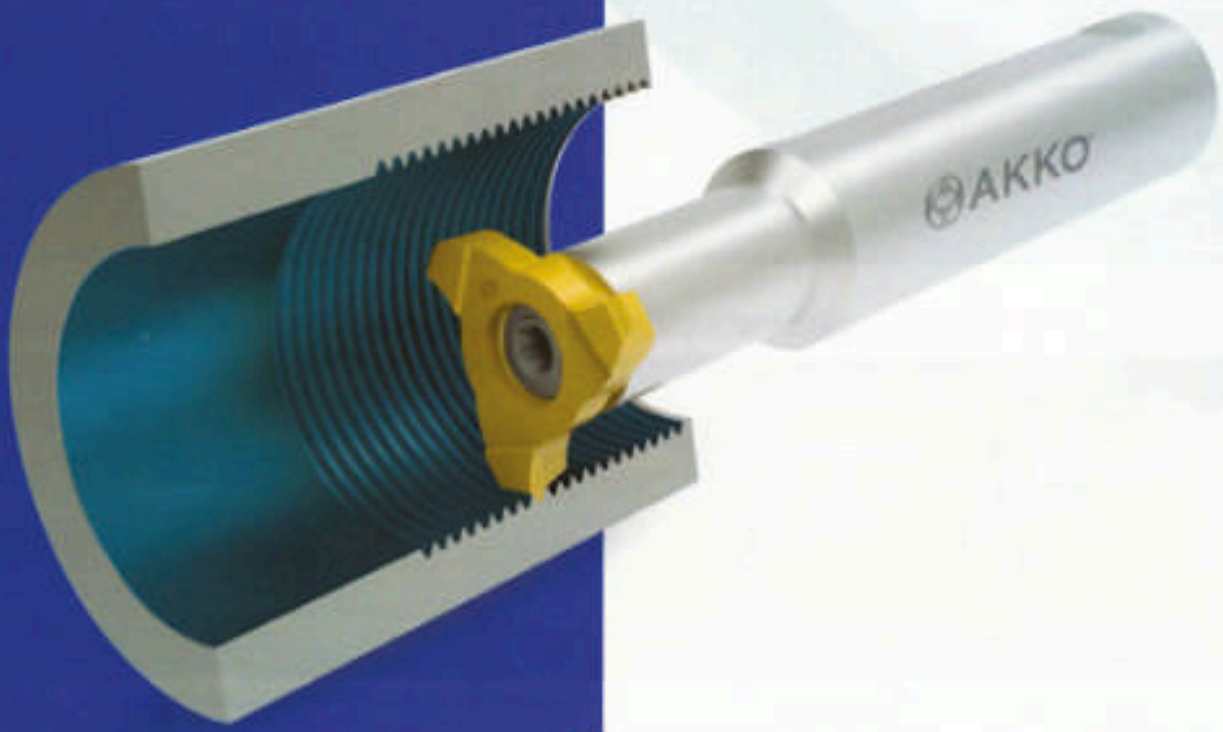
Uç Kodu / Insert Code / Wendeplatten-Bezeichnung	Stok / Stock / Lager	Uç Ölçüleri (mm) / Insert Dimension (mm) / Abmessung (mm)								Kalite / Grade / Sorte
		W	R	a	d	f	tmax	Dm	UYUMLU TAKIM / COMPATIBLE TOOLHOLDER / KOMPATIBELES WERKZEUG	
MC11.GR.0180.090.02040	○	1.8	0.9	15.7	11.0	10.2	4.3	20.4	....-MC11-...	VP3001
MC11.GR.0220.110.02040	○	2.2	1.1	15.7	11.0	10.2	4.3	20.4		VP3001
MC11.GR.0300.150.02040	○	3.0	1.5	15.7	11.0	10.2	4.3	20.4		VP3001
MC11.GR.0400.200.02040	○	4.0	2.0	15.7	11.0	10.2	4.3	20.4		VP3001

● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*

Sipariş Örneği/Ordering Example/*Bestellbeispiel*/
1 ad./pcs./stück MC11.G.0100.010.02040

MİMİLL UÇLARI ve TAKIMLARI

MIMILL INSERTS and TOOLS
MIMILL WENDESCHEIDPLATTEN WERKZEUGE

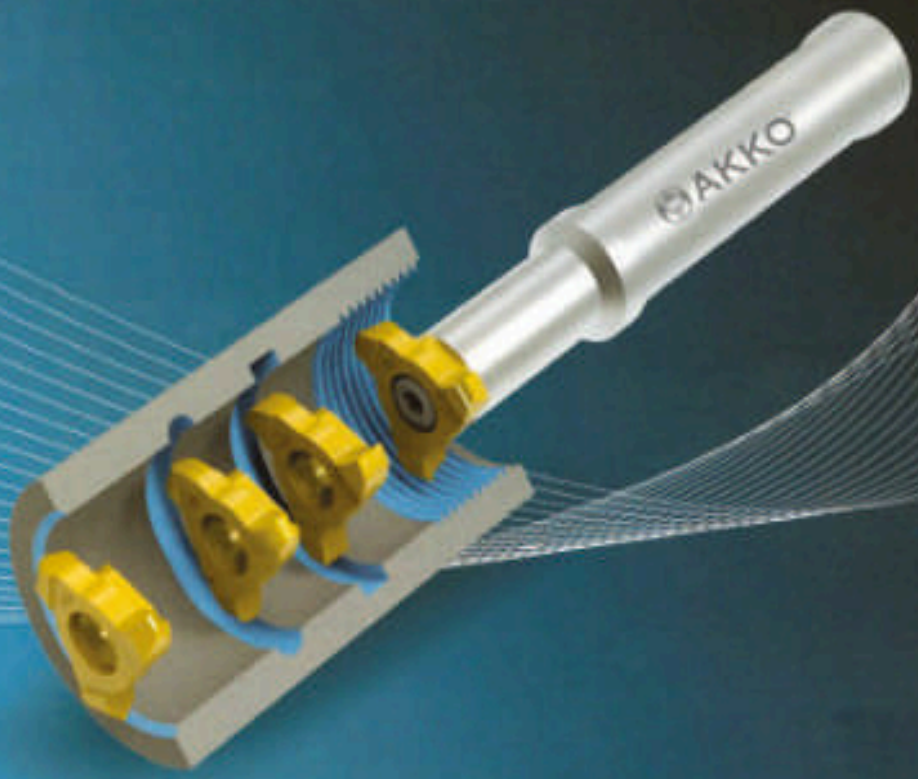




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2025'te Stoklarda
It will be available at our stocks in 2025
Es wird im Jahr 2025 im Lager verfügbar sein

MİMİLL UÇLARI ve TAKIMLARI
MIMILL INSERTS and TOOLS
MIMILL WENDESCHEIDPLATTEN WERKZEUGE



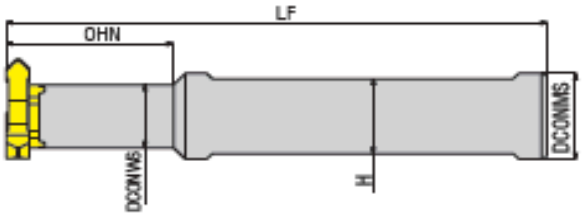


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Ø Ds 17.7

ÇELİK ŞAFT
STEEL SHAFT
STAHL SCHAFT





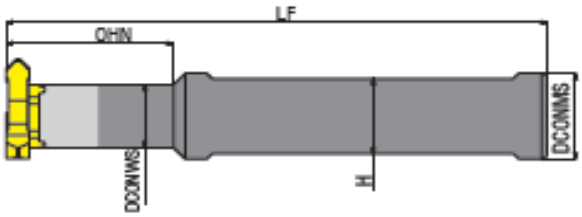


Takım Kodu / Ordering Code / Bestell-Bezeichnung	Stok / Stock / Lager	Takım Ölçüleri (mm) / Dimension (mm) / Abmessung (mm)					Kesici Uç / Insert / Wendeschneidplatte	Yedek Parçaları / Spare Parts / Ersatzteile: Sıkma Vidası / Screw / Klemmschraube	Yedek Parçaları / Spare Parts / Ersatzteile: Torx Anahtar / Torx Key / Torx Innensechskantschlüssel
		DCONMS	DCONWS	LF	OHN	H			
AMM-MM1803-W12-L070-S	○	12	9	70	18	11	MM1803...	4015-M4x12	80-T15
AMM-MM1803-W16-L080-S	○	16	9	80	26	15			

Ø Ds 17.7

KARBÜR ŞAFT
CARBIDE SHAFT
HARTMETALLSCHAFT







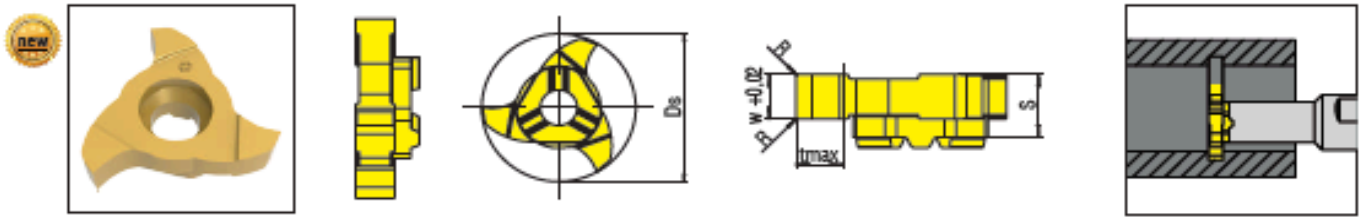
Takım Kodu / Ordering Code / Bestell-Bezeichnung	Stok / Stock / Lager	Takım Ölçüleri (mm) / Dimension (mm) / Abmessung (mm)					Kesici Uç / Insert / Wendeschneidplatte	Yedek Parçaları / Spare Parts / Ersatzteile: Sıkma Vidası / Screw / Klemmschraube	Yedek Parçaları / Spare Parts / Ersatzteile: Torx Anahtar / Torx Key / Torx Innensechskantschlüssel
		DCONMS	DCONWS	LF	OHN	H			
AMM-MM1803-W12-L100-C	○	12	9	100	45		MM1803...	4015-M4x12	80-T15
AMM-MM1803-W12-L110-C	○	12	9	110	64	-			
AMM-MM1803-W16-L100-C	○	16	9	100	32				
AMM-MM1803-W16-L110-C	○	16	9	110	45	-			
AMM-MM1803-W16-L125-C	○	16	9	125	64				

• Stokta / In Stock / Auf Lager ○ Stokta Yok / Non Stock Item / Kein Lagerartikel, Lieferzeit auf Anfrage

Sipariş Örneği/Ordering Example/Bestellbeispiel
1 ad./pcs./stück AMM-MM1803-W12-L70-S

AKKO

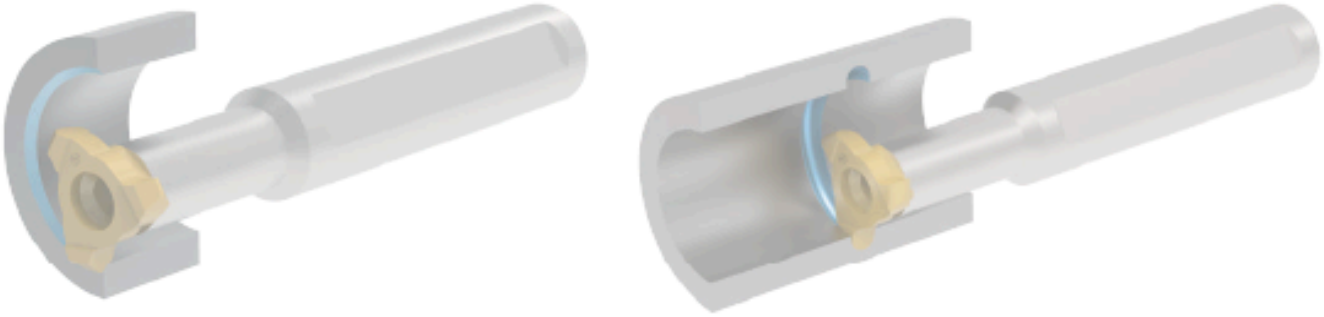
Ø Ds 17.7



Uç Kodu *Insert Code* *Wendeplatten-Bezeichnung*	Stok *Stock* *Lager*	Uç Ölçüleri (mm) *Insert Dimension (mm)* *Abmessung (mm)* Ds	W	R	tmax	S	Z	UYUMLU TAKIM / COMPATIBLE TOOLHOLDER / KOMPATIBELES WERKZEUG	Kalite *Grade* *Sorte*
MM1803.G.0150.010.0177	○	17.7	1.5	0.1	3.5	5.7	3	....-MM1803-...	VP3001
MM1803.G.0200.020.0177	○	17.7	2.0	0.2	3.5	5.7	3		VP3001
MM1803.G.0250.020.0177	○	17.7	2.5	0.2	3.5	5.7	3		VP3001
MM1803.G.0300.020.0177	○	17.7	3	0.2	3.5	5.7	3		VP3001

• Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./ MM1803.G.0150.010.0177



DİĞER PROFİL ÇEŞİTLERİ / *THE OTHER PROFILE TYPES* / ANDERE PROFIL-TYPEN



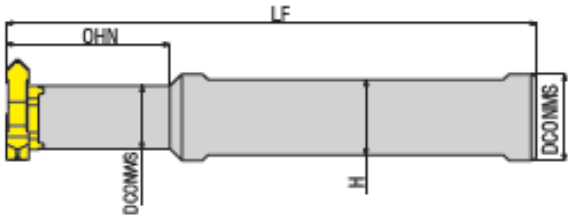
*Diğer profil uçlar özel taleplere göre üretilmektedir. / *Profiled inserts are manufactured according to customer special requirements. / *Die Profil-Wendeschneidplatten werden nach Kundenwunsch gefertigt.*

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück MM1803.G.0150.010.0177

ø Ds 21.7

ÇELİK ŞAFT
STEEL SHAFT
STAHL SCHAFT





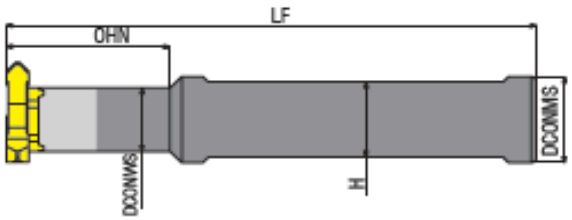


Takım Kodu / Ordering Code / Bestell-Bezeichnung	Stok / Stock / Lager	Takım Ölçüleri (mm) / Dimension (mm) / Abmessung (mm)					Kesici Uç / Insert / Wendeschneidplatte	Yedek Parçaları / Spare Parts / Ersatzteile: Sıkma Vidası / Screw / Klemmschraube	Yedek Parçaları / Spare Parts / Ersatzteile: Tork Anahtar / Torx Key / Torx Innensechskantschlüssel
		DCONMS	DCONWS	LF	OHN	H			
AMM-MM2203-W12-L070-S	○	12	12	70	18	11	MM2203...	1020-M5x14	80-T20
AMM-MM2203-W16-L080-S	○	16	12	80	26	15			

ø Ds 21.7

KARBÜR ŞAFT
CARBIDE SHAFT
HARTMETALLSCHAFT







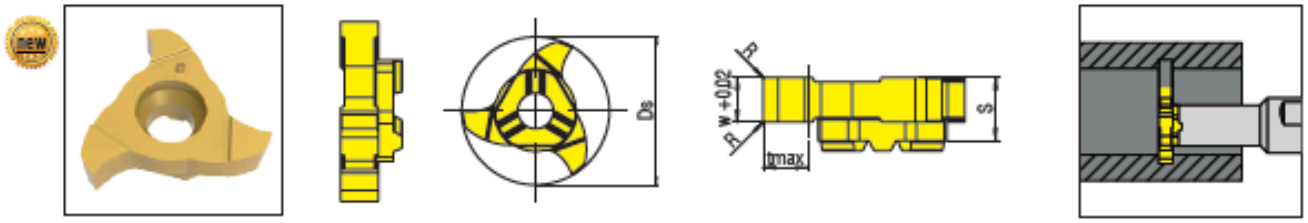
Takım Kodu / Ordering Code / Bestell-Bezeichnung	Stok / Stock / Lager	Takım Ölçüleri (mm) / Dimension (mm) / Abmessung (mm)					Kesici Uç / Insert / Wendeschneidplatte	Yedek Parçaları / Spare Parts / Ersatzteile: Sıkma Vidası / Screw / Klemmschraube	Yedek Parçaları / Spare Parts / Ersatzteile: Tork Anahtar / Torx Key / Torx Innensechskantschlüssel
		DCONMS	DCONWS	LF	OHN	H			
AMM-MM2203-W16-L100-C	○	16	12	100	42	-	MM2203...	1020-M5x14	80-T20
AMM-MM2203-W16-L125-C	○	16	12	125	60				
AMM-MM2203-W16-L160-C	○	16	12	160	85	-			

● Stokta / In Stock / *Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück AMM-MM2203-W12-L70-S

AKKO

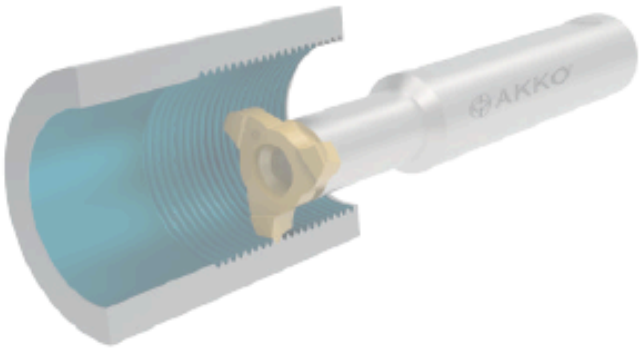
ø Ds 21.7

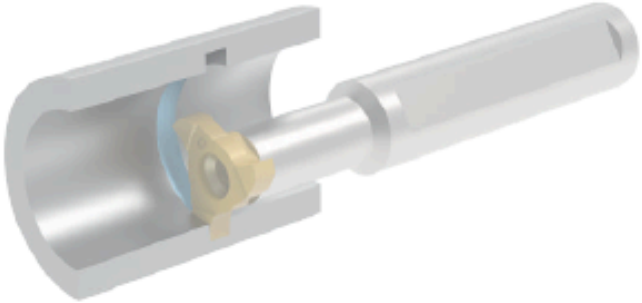


Uç Kodu / Insert Code / Wendeplatten-Bezeichnung	Stok / Stock / Lager	Uç Ölçüleri (mm) / Insert Dimension (mm) / Abmessung (mm)							Kalite / Grade / Sorte
		Ds	W	R	tmax	S	Z	UYUMLU TAKIM / COMPATIBLE TOOLHOLDER / KOMPATIBELES WERKZEUG	
MM2203.G.0150.010.2177	○	21.7	1.5	0.1	4.5	5.7	3	....-MM2203-...	VP3001
MM2203.G.0200.020.2177	○	21.7	2.00	0.2	4.5	5.7	3		VP3001
MM2203.G.0250.020.2177	○	21.7	2.5	0.2	4.5	5.7	3		VP3001
MM2203.G.0300.020.2177	○	21.7	3	0.2	4.5	5.7	3		VP3001
MM2203.G.0350.020.2177	○	21.7	3.5	0.2	4.5	5.7	3		
MM2203.G.0400.020.2177	○	21.7	4	0.2	4.5	5.7	3		

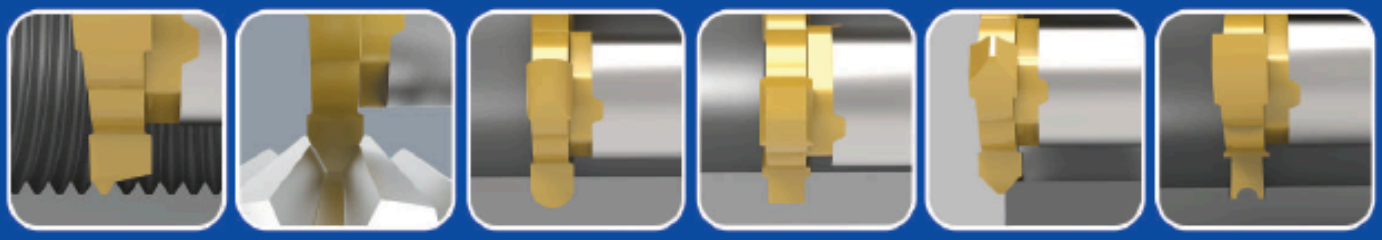
● Stokta / In Stock / *Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pos./stück MM2203.G.0150.010.2177





DİĞER PROFİL ÇEŞİTLERİ / *THE OTHER PROFILE TYPES* / ANDERE PROFIL-TYPEN



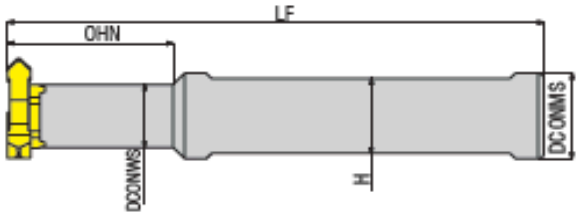
THREAD PROFILE | GEAR PROFILE | RADIUS GROVE PROFILE | CIRCLIP PROFILE | CHAMFER PROFILE | SPECIAL PROFILE

*Diğer profil uçlar özel taleplere göre üretilmektedir. / *Profiled inserts are manufactured according to customer special requirements. / Die Profil-Wendeschneidplatten werden nach Kundenwunsch gefertigt.*

ø Ds 27.7

ÇELİK ŞAFT
STEEL SHAFT
STAHL SCHAFT





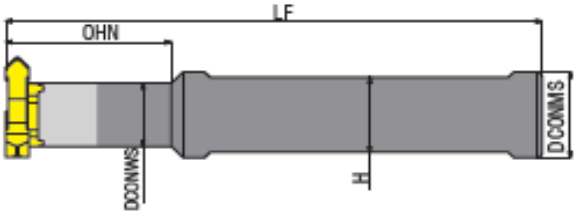


Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölgüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile* Sıkma Vidası *Screw* *Klemmschraube*	 Tork Anahtar *Torx Key* *Torx Innensechskantschlüssel*
		DCONMS	DCONWS	LF	OHN	H			
AMM-MM2806-W12-L070-S	○	12	14.5	70	20	11	MM2806	1020-M5x14	80-T20
AMM-MM2806-W16-L090-S	○	16	14.5	90	36	15			
AMM-MM2806-W20-L100-S	○	20	14.5	100	36	18			

ø Ds 27.7

KARBÜR ŞAFT
CARBIDE SHAFT
HARTMETALLSCHAFT







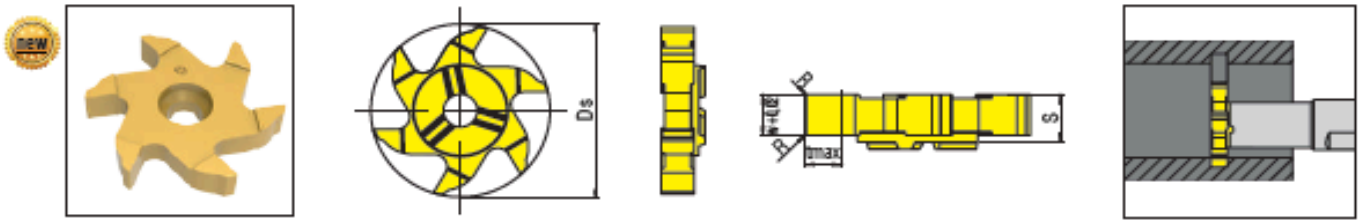
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölgüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile* Sıkma Vidası *Screw* *Klemmschraube*	 Tork Anahtar *Torx Key* *Torx Innensechskantschlüssel*
		DCONMS	DCONWS	LF	OHN	H			
AMM-MM2806-W16-L100-C	○	16	14.5	100	42	-	MM2806...	1020-M5x14	80-T20
AMM-MM2806-W16-L125-C	○	16	14.5	125	60				
AMM-MM2806-W20-L125-C	○	20	14.5	125	60	-			
AMM-MM2806-W20-L160-C	○	20	14.5	160	85				

● Stokta / In Stock / *Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück AMM-MM2806-W12-L70-S

AKKO

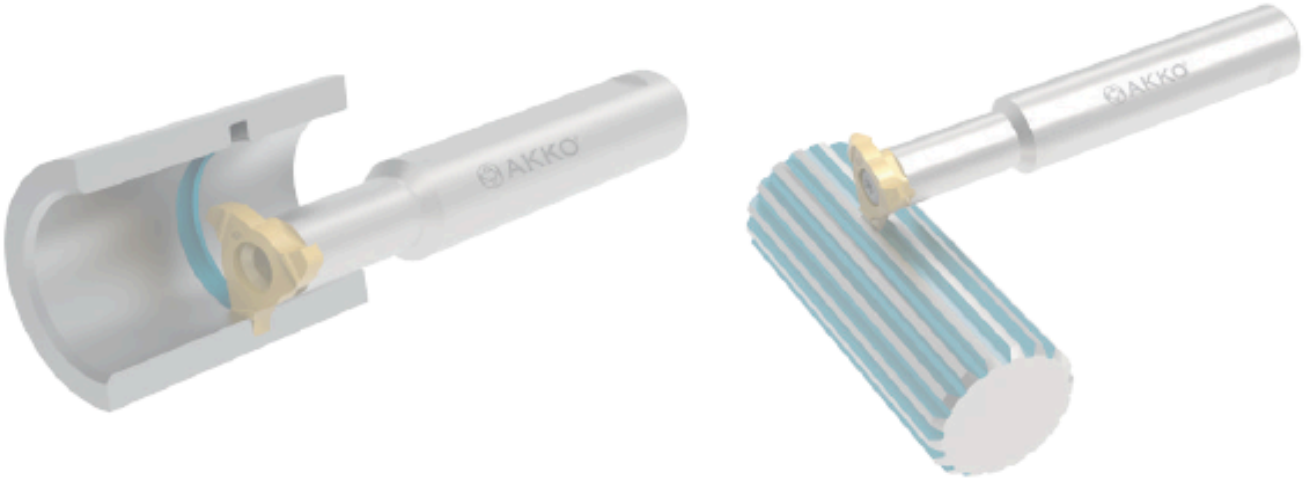
ø Ds 27.7



Uç Kodu / *Insert Code* / *Wendeplatten-Bezeichnung*	Stok / *Stock* / *Lager*	Uç Ölçüleri (mm) / *Insert Dimension (mm)* / *Abmessung (mm)*							Kalite / *Grade* / *Sorte*
		Ds	W	R	tmax	S	Z	UYUMLU TAKIM / COMPATIBLE TOOLHOLDER / KOMPATIBELES WERKZEUG	
MM2806.G.0250.020.2770	○	27.7	2.5	0.2	6.5	5.9	6	....-MM2806-...	VP3001
MM2806.G.0300.020.2770	○	27.7	3.00	0.2	6.5	5.9	6		VP3001
MM2806.G.0350.020.2770	○	27.7	3.5	0.2	6.5	5.9	6		VP3001
MM2806.G.0400.020.2770	○	27.7	4.00	0.2	6.5	5.9	6		VP3001
MM2806.G.0450.020.2770	○	27.7	4.5	0.2	6.5	5.9	6		VP3001
MM2806.G.0500.020.2770	○	27.7	5.00	0.2	6.5	5.9	6		VP3001

● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück MM2806.G.0250.020.2770



DİĞER PROFİL ÇEŞİTLERİ / *THE OTHER PROFILE TYPES* / ANDERE PROFIL-TYPEN

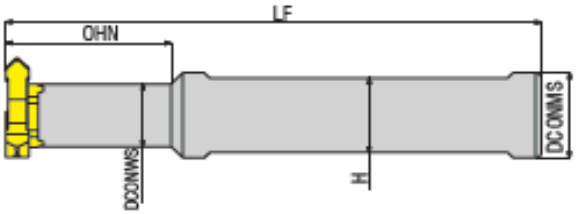


THREAD PROFILE | GEAR PROFILE | RADIUS GROVE PROFILE | CIRCLIP PROFILE | CHAMFER PROFILE | SPECIAL PROFILE

*Diğer profil uçlar özel taleplere göre üretilmektedir. / *Profiled inserts are manufactured according to customer special requirements. / *Die Profil-Wendeschneidplatten werden nach Kundenwunsch gefertigt.*

ø Ds 31.7
ÇELİK ŞAFT
STEEL SHAFT
STAHL SCHAFT



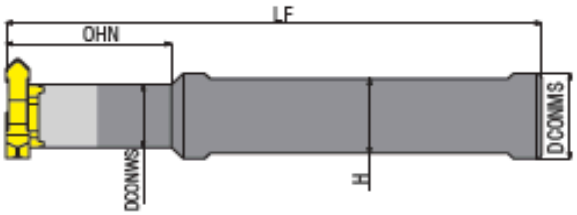




Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölgüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile* Sıkma Vidası *Screw* *Klemmschraube*	 Tork Anahtar *Torx Key* *Torx Innensechskantschlüssel*
		DCONMS	DCONWS	LF	OHN	H			
AMM-MM3306-W16-L090-S	○	16	14.5	90	36	15	MM3306...	1020-M5x14	80-T20
AMM-MM3306-W20-L100-S	○	20	14.5	100	36	18			

ø Ds 31.7
KARBÜR ŞAFT
CARBIDE SHAFT
HARTMETALLSCHAFT







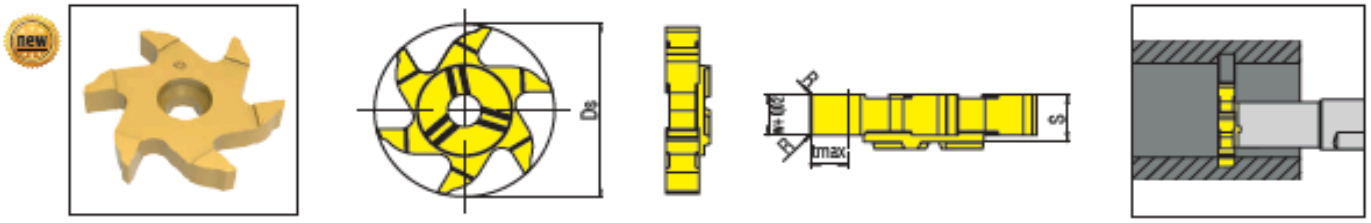
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölgüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile* Sıkma Vidası *Screw* *Klemmschraube*	 Tork Anahtar *Torx Key* *Torx Innensechskantschlüssel*
		DCONMS	DCONWS	LF	OHN	H			
AMM-MM3306-W16-L100-C	○	16	14.5	100	42		MM3306...	1020-M5x14	80-T20
AMM-MM3306-W16-L125-C	○	16	14.5	125	60	-			
AMM-MM3306-W20-L100-C	○	20	14.5	100	42				
AMM-MM3306-W20-L125-C	○	20	14.5	125	60	-			
AMM-MM3306-W20-L160-C	○	20	14.5	160	85				

● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück AMM-MM3306-W16-L90-S

AKKO

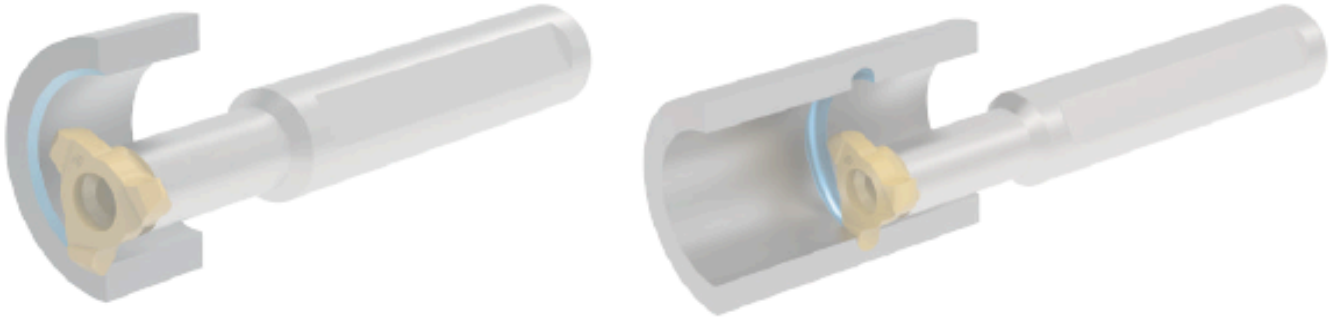
ø Ds 31.7



Uç Kodu *Insert Code* *Wendeplatten-Bezeichnung*	Stok *Stock* *Lager*	Uç Ölçüleri (mm) *Insert Dimension (mm)* *Abmessung (mm)* Ds	W	R	tmax	S	Z	UYUMLU TAKIM / COMPATIBLE TOOLHOLDER / KOMPATIBELES WERKZEUG	Kalite *Grade* *Sorte*
MM3306.G.0200.020.3170	○	31.7	2.0	0.2	8.3	5.9	6	....-MM3306-...	VP3001
MM3306.G.0250.020.3170	○	31.7	2.5	0.2	8.3	5.9	6		VP3001
MM3306.G.0300.020.3170	○	31.7	3.0	0.2	8.3	5.9	6		VP3001
MM3306.G.0400.020.3170	○	31.7	4.0	0.2	8.3	5.9	6		VP3001

● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pos./stück MM3306.G.0200.020.3170



DİĞER PROFİL ÇEŞİTLERİ / *THE OTHER PROFILE TYPES* / ANDERE PROFIL-TYPEN



*Diğer profil uçlar özel taleplere göre üretilmektedir. / *Profiled inserts are manufactured according to customer special requirements. /*
Die Profil-Wendeschneidplatten werden nach Kundenwunsch gefertigt.

AKKO®

konuşulan
the spoken kalite...
quality...

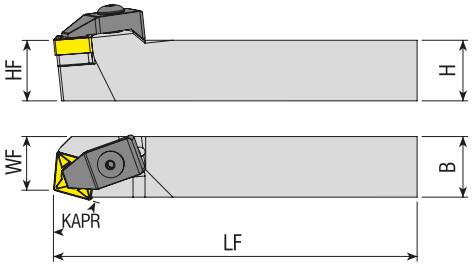
T-SİSTEM

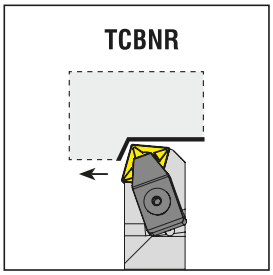
T-SİSTEM DIŞ TORNA KATERLERİ
T-SYSTEM EXTERNAL TURNING TOOLHOLDERS
T-SYSTEM AUSSEN - DREHHALTER



BF SERVICE

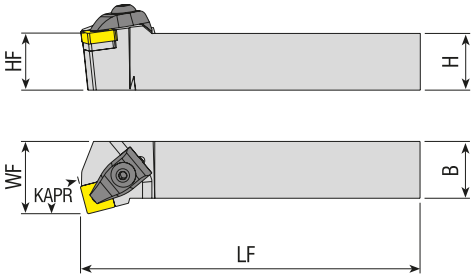


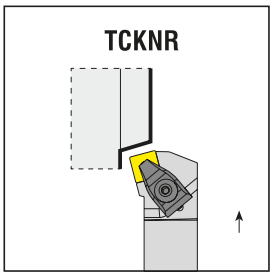




Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*				Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*						
								Baskı Pabucu *Wedge Clamp* *Spannpratze*	Pabuç Vidası *Clamp Screw* *Klemmschraube*	Altlık *Shim* *Unterlage*	Altlık Vidası *Shim Screw* *Schraube für Unterlage*	Sekman *Ring* *Feder*	Pul *Stamp* *Ring*	Anahtar *Allen Key* *Innensechskantschlüssel*
	R	L	HF=H	B	LF	WF								
TCBNR/L 2525 M16	●	●	25	25	150	22	**CNM. 1606..**	ATK-04	AKV-19-M7x25	AACN-3-0002	AAV-05-M6x15	-	ABPL-02	AAL-05-4







Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*				Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*						
								Baskı Pabucu *Wedge Clamp* *Spannpratze*	Pabuç Vidası *Clamp Screw* *Klemmschraube*	Altlık *Shim* *Unterlage*	Altlık Vidası *Shim Screw* *Schraube für Unterlage*	Sekman *Ring* *Feder*	Pul *Stamp* *Ring*	Anahtar *Allen Key* *Innensechskantschlüssel*
	R	L	HF=H	B	LF	WF								
TCKNR/L 2020 K12	●	●	20	20	125	25								
2525 M12	●	●	25	25	150	32	**CNM. 1204..**	ATK-02	AKV-30-M6x22	AACN-3-0001	AAV-02-M5x12	AS-01	ABPL-01	AAL-03-3
3232 P12	●	●	32	32	170	40								
2525 M16	●	●	25	25	150	32	**CNM. 1606..**	ATK-04	AKV-19-M7x25	AACN-3-0002	AAV-05-M6x15	-	ABPL-02	AAL-05-4
3232 P16	●	●	32	32	170	40								

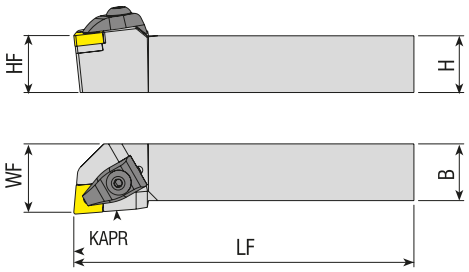
R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück TCBNR 2525 M16

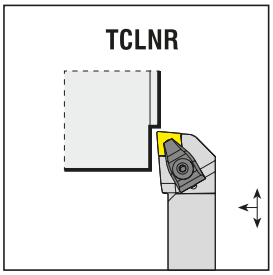
BF SERVICE

KAPR=95°





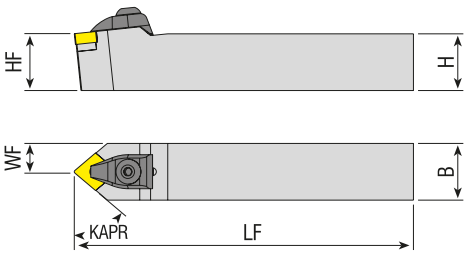
TCLNR



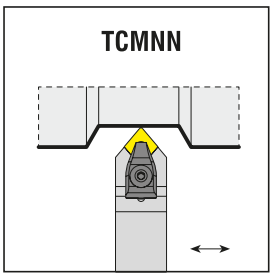
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*				Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*						
								Baskı Pabucu *Wedge Clamp* *Spannpratze*	Pabuç Vidası *Clamp Screw* *Klemmschraube*	Altlık *Shim* *Unterlage*	Altlık Vidası *Shim Screw* *Schraube für Unterlage*	Sekman *Ring* *Feder*	Pul *Stamp* *Ring*	Anahtar *Allen Key* *Innensechskantschlüssel*
	R	L	HF=H	B	LF	WF								
TCLNR/L 2020 K12	●	●	20	20	125	25								
2525 M12	●	●	25	25	150	32								
3232 P12	●	●	32	32	170	40	**CNM. 1204..**	ATK-02	AKV-30-M6x22	AACN-3-0001	AAV-02-M5x12	AS-01	ABPL-01	AAL-03-3
4040 S12	●	●	40	40	250	50								
5050 S12	●	●	50	50	250	63								
2525 M16	●	●	25	25	150	32	**CNM. 1606..**	ATK-04	AKV-19-M7x25	AACN-3-0002	AAV-05-M6x15	-	ABPL-02	AAL-05-4
3232 P16	●	●	32	32	170	40								

KAPR=50°





TCMNN



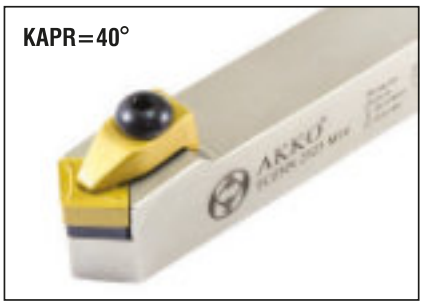
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*				Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*						
							Baskı Pabucu *Wedge Clamp* *Spannpratze*	Pabuç Vidası *Clamp Screw* *Klemmschraube*	Altlık *Shim* *Unterlage*	Altlık Vidası *Shim Screw* *Schraube für Unterlage*	Sekman *Ring* *Feder*	Pul *Stamp* *Ring*	Anahtar *Allen Key* *Innensechskantschlüssel*
		HF=H	B	LF	WF								
TCMNN 1616 H12	●	16	16	100	8								
2020 K12	●	20	20	125	10								
2525 M12	●	25	25	150	12.5	**CNM. 1204..**	ATK-02	AKV-30-M6x22	AACN-3-0001	AAV-02-M5x12	AS-01	ABPL-01	AAL-03-3
3232 P12	●	32	32	170	16								
2525 M16	●	25	25	150	12.5								
3232 P16	●	32	32	170	16	**CNM. 1606..**	ATK-04	AKV-19-M7x25	AACN-3-0002	AAV-05-M6x15	-	ABPL-02	AAL-05-4
4040 S16	○	40	40	250	20								

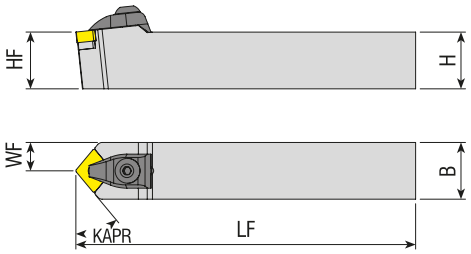
R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück TCLNR 2020 K12

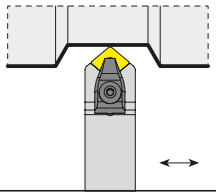
BF SERVICE

KAPR=40°





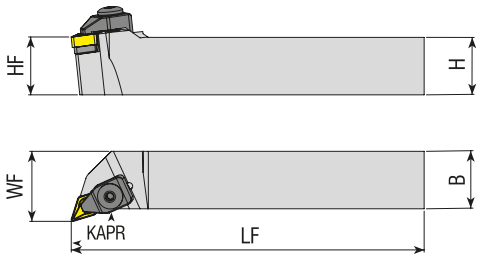
TCZNN



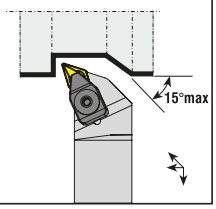
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*				Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*						
		HF=H	B	LF	WF		Baskı Pabucu *Wedge Clamp* *Spannpratze*	Pabuç Vidası *Clamp Screw* *Klemmschraube*	Altlık *Shim* *Unterlage*	Altlık Vidası *Shim Screw* *Schraube für Unterlage*	Sekman *Ring* *Feder*	Pul *Stamp* *Ring*	Anahtar *Allen Key* *Innensechskantschlüssel*
													
TCZNN 2020 K12	●	20	20	125	10	**CNM. 1204..**	ATK-02	AKV-30-M6x22	AACN-3-0001	AAV-02-M5x12	AS-01	ABPL-01	AAL-03-3
2525 M12	●	25	25	150	12.5								
3232 P12	●	32	32	170	16								
2525 M16	●	25	25	150	12.5	**CNM. 1606..**	ATK-04	AKV-19-M7x25	AACN-3-0002	AAV-05-M6x15	-	ABPL-02	AAL-05-4
3232 P16	●	32	32	170	16								

KAPR=107.5°





TDHNR



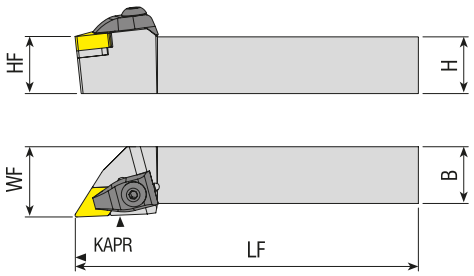
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*				Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*						
	R	L	HF=H	B	LF	WF		Baskı Pabucu *Wedge Clamp* *Spannpratze*	Pabuç Vidası *Clamp Screw* *Klemmschraube*	Altlık *Shim* *Unterlage*	Altlık Vidası *Shim Screw* *Schraube für Unterlage*	Sekman *Ring* *Feder*	Pul *Stamp* *Ring*	Anahtar *Allen Key* *Innensechskantschlüssel*
														
TDHNR/L 2525 M11	○	●	25	25	150	31	**DNM. 1104..**	ATK-01	AKV-01-M5x22	AADN-2-001	AAV-04-M5x12	-		
2020 K15	●	●	20	20	125	25								
2525 M15	●	●	25	25	150	32	**DNM. 1506..**	ATK-02	AKV-30-M6x22	AADN-3-0001	AAV-02-M5x12	AS-01	ABPL-01	AAL-03-3
3232 P15	●	●	32	32	170	40								

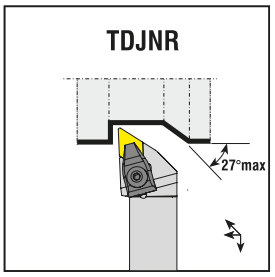
R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück TCZNN 2020 K12

BF SERVICE

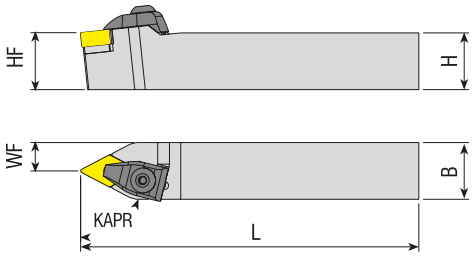


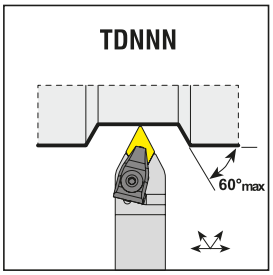




Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager* R	L	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)* HF=H	B	LF	WF	Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile* Baskı Pabucu *Wedge Clamp* *Spannpratze*	Pabuç Vidası *Clamp Screw* *Klemmschraube*	Altlık *Shim* *Unterlage*	Altlık Vidası *Shim Screw* *Schraube für Unterlage*	Sekman *Ring* *Feder*	Pul *Stamp* *Ring*	Anahtar *Allen Key* *Innensechskantschlüssel*
TDJNR/L 1616 H11	●	●	16	16	100	20	DNM. 1104..	ATK-01	AKV-01-M5x22	AADN-2-0001	AAV-04-M5x12	-	ABPL-01	AAL-03-3
2020 K11	●	●	20	20	125	25								
2525 M11	●	●	25	25	150	32								
2020 K15	●	●	20	20	125	25	DNM. 1506..	ATK-02	AKV-30-M6x22	AADN-3-0001	AAV-02-M5x12	AS-01		
2525 M15	●	●	25	25	150	32								
3232 P15	●	●	32	32	170	40								
4040 S15	●	●	40	40	250	50								
5050 S15	○	○	50	50	250	63								
2020 K1504	●	●	20	20	125	25	DNM. 1504..	ATK-02	AKV-30-M6x22	AADN-2-0003	AAV-02-M5x12	AS-01		
2525 M1504	●	●	25	25	150	32								
3232 P1504	●	●	32	32	170	40								
4040 S1504	●	●	40	40	250	50								







Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)* HF=H	B	LF	WF	Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile* Baskı Pabucu *Wedge Clamp* *Spannpratze*	Pabuç Vidası *Clamp Screw* *Klemmschraube*	Altlık *Shim* *Unterlage*	Altlık Vidası *Shim Screw* *Schraube für Unterlage*	Sekman *Ring* *Feder*	Pul *Stamp* *Ring*	Anahtar *Allen Key* *Innensechskantschlüssel*
TDNNN 1616 H11	●	16	16	100	8	DNM. 1104..	ATK-01	AKV-01-M5x22	AADN-2-0001	AAV-04-M5x12	-	ABPL-01	AAL-03-3
2020 K11	●	20	20	125	10								
2525 M11	●	25	25	150	12.5								
2020 K15	●	20	20	125	10	DNM. 1506..	ATK-02	AKV-30-M6x22	AADN-3-0001	AAV-02-M5x12	AS-01		
2525 M15	●	25	25	150	12.5								
3232 P15	●	32	32	170	16								
4040 S15	○	40	40	250	20								
5050 S15	○	50	50	250	25								

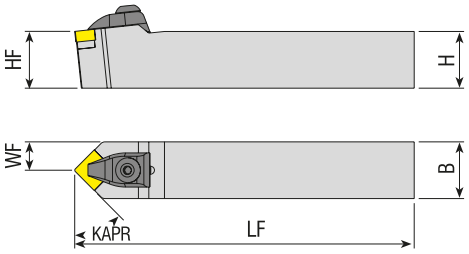
R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*

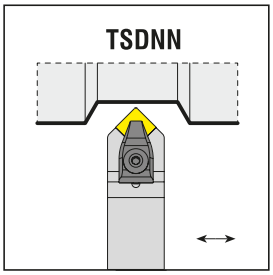
Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück TDJNR 1616 H11

BF SERVICE

KAPR=45°



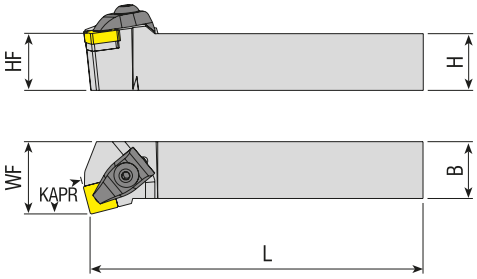


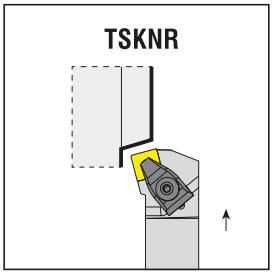


Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*				Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*						
		HF=H	B	LF	WF		Baskı Pabucu *Wedge Clamp* *Spannpratze*	Pabuç Vidası *Clamp Screw* *Klemmschraube*	Altlık *Shim* *Unterlage*	Altlık Vidası *Shim Screw* *Schraube für Unterlage*	Sekman *Ring* *Feder*	Pul *Stamp* *Ring*	Anahtar *Allen Key* *Innensechskantschlüssel*
TSDNN 1616 H12	●	16	16	100	8	**SNM. 1204..**	ATK-02	AKV-30-M6x22	AASN-3-0004	AAV-02-M5x12	AS-01	ABPL-01	AAL-03-3
2020 K12	●	20	20	125	10								
2525 M12	●	25	25	150	12.5								
3232 P12	●	32	32	170	16								
2525 M15	○	25	25	150	12.5	**SNM. 1506..**	ATK-04	AKV-19-M7x25	AASN-3-0023	AAV-05-M6x15	-	ABPL-02	AAL-05-4
3232 P15	●	32	32	170	16								
4040 S15	○	40	40	250	20								

KAPR=75°







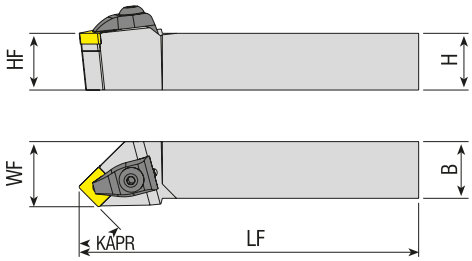
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*				Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*						
	R	L	HF=H	B	LF	WF		Baskı Pabucu *Wedge Clamp* *Spannpratze*	Pabuç Vidası *Clamp Screw* *Klemmschraube*	Altlık *Shim* *Unterlage*	Altlık Vidası *Shim Screw* *Schraube für Unterlage*	Sekman *Ring* *Feder*	Pul *Stamp* *Ring*	Anahtar *Allen Key* *Innensechskantschlüssel*
TSKNR/L 2020 K12	●	●	20	20	125	25	**SNM. 1204..**	ATK-02	AKV-30-M6x22	AASN-3-0004	AAV-02-M5x12	AS-01	ABPL-01	AAL-03-3
2525 M12	●	●	25	25	150	32								
3232 P12	●	●	32	32	170	40								
3232 P15	●	●	32	32	170	40	**SNM. 1506..**	ATK-04	AKV-19-M7x25	AASN-3-0023	AAV-05-M6x15	-	ABPL-02	AAL-05-4

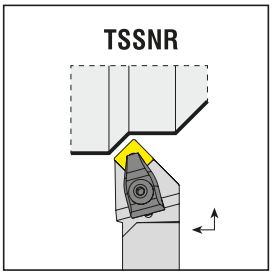
R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück TSDNN 1616 H12

BF SERVICE

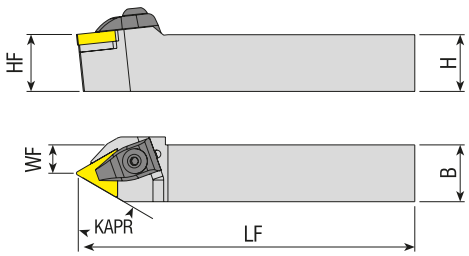


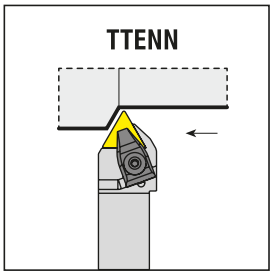




Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*				Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*						
								Baskı Pabucu *Wedge Clamp* *Spannpratze*	Pabuç Vidası *Clamp Screw* *Klemmschraube*	Altlık *Shim* *Unterlage*	Altlık Vidası *Shim Screw* *Schraube für Unterlage*	Sekman *Ring* *Feder*	Pul *Stamp* *Ring*	Anahtar *Allen Key* *Innensechskantschlüssel*
	R	L	HF=H	B	LF	WF								
TSSNR/L 2020 K12	●	●	20	20	125	25	**SNM. 1204..**	ATK-02	AKV-30-M6x22	AASN-3-0004	AAV-02-M5x12	AS-01	ABPL-01	AAL-03-3
2525 M12	●	●	25	25	150	32								
3232 P12	●	●	32	32	170	40								
2525 M15	●	●	25	25	150	32	**SNM. 1506..**	ATK-04	AKV-19-M7x25	AASN-3-0023	AAV-05-M6x15	-	ABPL-02	AAL-05-4
3232 P15	●	●	32	32	170	40								







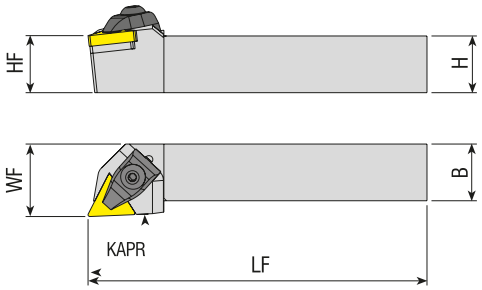
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*				Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*						
							Baskı Pabucu *Wedge Clamp* *Spannpratze*	Pabuç Vidası *Clamp Screw* *Klemmschraube*	Altlık *Shim* *Unterlage*	Altlık Vidası *Shim Screw* *Schraube für Unterlage*	Sekman *Ring* *Feder*	Pul *Stamp* *Ring*	Anahtar *Allen Key* *Innensechskantschlüssel*
		HF=H	B	LF	WF								
TTENN 2020 K16	●	20	20	125	10	**TNM. 1604..**	ATK-01	AKV-01-M5x22	AATN-2-0002	AAV-03-M5x12	-	ABPL-01	AAL-03-3
2525 M16	●	25	25	150	12.5								
3232 P16	●	32	32	170	16								
2525 M22	●	25	25	150	12.5	**TNM. 2204..**	ATK-02	AKV-30-M6x22	AATN-3-0015	AAV-02-M5x12	AS-01		
3232 P22	●	32	32	170	16								
4040 S22	○	40	40	250	20								

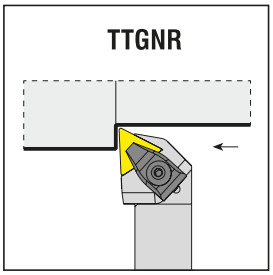
R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück TSSNR 2020 K12

BF SERVICE

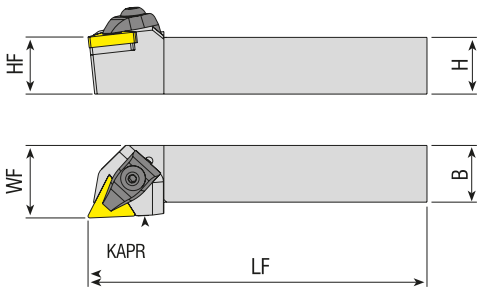


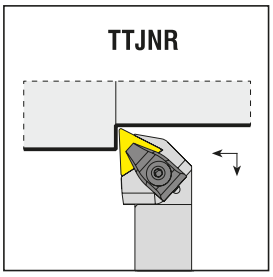




Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*				Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*						
								Baskı Pabucu *Wedge Clamp* *Spannpratze*	Pabuç Vidası *Clamp Screw* *Klemmschraube*	Altlık *Shim* *Unterlage*	Altlık Vidası *Shim Screw* *Schraube für Unterlage*	Sekman *Ring* *Feder*	Pul *Stamp* *Ring*	Anahtar *Allen Key* *Innensechskantschlüssel*
	R	L	HF=H	B	LF	WF								
TTGNR/L 2020 K16	●	●	20	20	125	25								
2525 M16	●	●	25	25	150	32	**TNM. 1604..**	ATK-01	AKV-01-M5x22	AATN-2-0002	AAV-03-M5x12	-		
3232 P16	●	●	32	32	170	40							ABPL-01	AAL-03-3
2525 M22	●	●	25	25	150	32								
3232 P22	●	●	32	32	170	40	**TNM. 2204..**	ATK-02	AKV-30-M6x22	AATN-3-0015	AAV-02-M5x12	AS-01		
4040 S22	●	○	40	40	250	50								







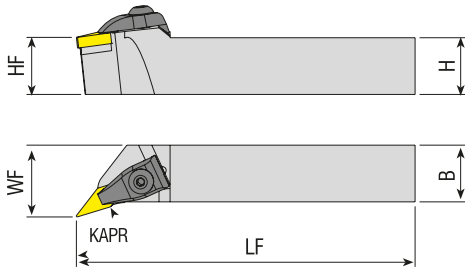
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*				Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*						
								Baskı Pabucu *Wedge Clamp* *Spannpratze*	Pabuç Vidası *Clamp Screw* *Klemmschraube*	Altlık *Shim* *Unterlage*	Altlık Vidası *Shim Screw* *Schraube für Unterlage*	Sekman *Ring* *Feder*	Pul *Stamp* *Ring*	Anahtar *Allen Key* *Innensechskantschlüssel*
	R	L	HF=H	B	LF	WF								
TTJNR/L 2020 K16	●	●	20	20	125	25								
2525 M16	●	●	25	25	150	32	**TNM. 1604..**	ATK-01	AKV-01-M5x22	AATN-2-0002	AAV-03-M5x12	-		
3232 P16	●	●	32	32	170	40							ABPL-01	AAL-03-3
2525 M22	●	●	25	25	150	32								
3232 P22	●	●	32	32	170	40	**TNM. 2204..**	ATK-02	AKV-30-M6x22	AATN-3-0015	AAV-02-M5x12	AS-01		
4040 S22	○	○	40	40	250	50								

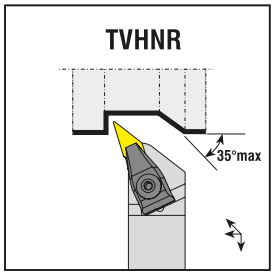
R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück TTGNR 2020 K16

BF SERVICE

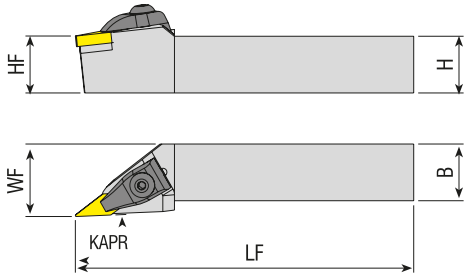


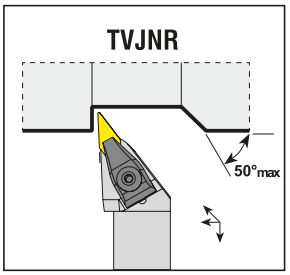




Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*				Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*						
								Baskı Pabucu *Wedge Clamp* *Spannpratze*	Pabuç Vidası *Clamp Screw* *Klemmschraube*	Altlık *Shim* *Unterlage*	Altlık Vidası *Shim Screw* *Schraube für Unterlage*	Sekman *Ring* *Feder*	Pul *Stamp* *Ring*	Anahtar *Allen Key* *Innensechskantschlüssel*
	R	L	HF=H	B	LF	WF								
TVHNR/L 2020 K16	●	●	20	20	125	25	**VNM. 1604..**	ATK-03	AKV-30-M6x22	AAVN -2-0002	AAV-04-M5x12	AS-01	ABPL-01	AAL-03-3
2525 M16	●	●	25	25	150	32								
3232 P16	●	●	32	32	170	40								







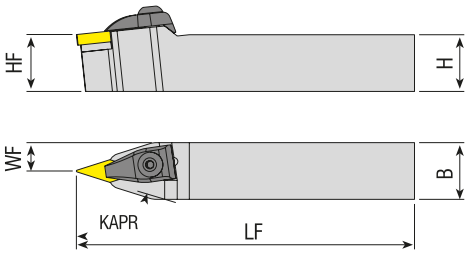
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*				Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*						
								Baskı Pabucu *Wedge Clamp* *Spannpratze*	Pabuç Vidası *Clamp Screw* *Klemmschraube*	Altlık *Shim* *Unterlage*	Altlık Vidası *Shim Screw* *Schraube für Unterlage*	Sekman *Ring* *Feder*	Pul *Stamp* *Ring*	Anahtar *Allen Key* *Innensechskantschlüssel*
	R	L	HF=H	B	LF	WF								
TVJNR/L 2020 K16	●	●	20	20	125	25	**VNM. 1604..**	ATK-03	AKV-30-M6x22	AAVN-2-0002	AAV-04-M5x12	AS-01	ABPL-01	AAL-03-3
2525 M16	●	●	25	25	150	32								
3232 P16	●	●	32	32	170	40								

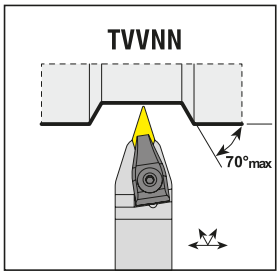
R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück TVHNR 2020 K16

BF SERVICE

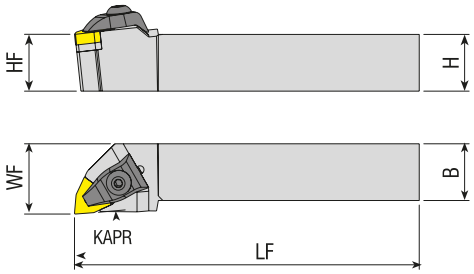


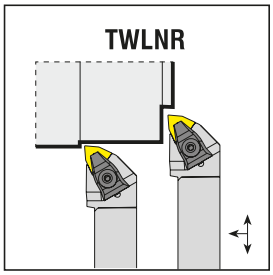




Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*				Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*						
		HF=H	B	LF	WF		Baskı Pabucu *Wedge Clamp* *Spannpratze*	Pabuç Vidası *Clamp Screw* *Klemmschraube*	Altlık *Shim* *Unterlage*	Altlık Vidası *Shim Screw* *Schraube für Unterlage*	Sekman *Ring* *Feder*	Pul *Stamp* *Ring*	Anahtar *Allen Key* *Innensechskantschlüssel*
TVVNN 2020 K16	●	20	20	125	10	**VNM. 1604..**	ATK-03	AKV-30-M6x22	AAVN-2-0002	AAV-04-M5x12	AS-01	ABPL-01	AAL-03-3
2525 M16	●	25	25	150	12.5								
3232 P16	●	32	32	170	16								







Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*				Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*						
	R	L	HF=H	B	LF	WF		Baskı Pabucu *Wedge Clamp* *Spannpratze*	Pabuç Vidası *Clamp Screw* *Klemmschraube*	Altlık *Shim* *Unterlage*	Altlık Vidası *Shim Screw* *Schraube für Unterlage*	Sekman *Ring* *Feder*	Pul *Stamp* *Ring*	Anahtar *Allen Key* *Innensechskantschlüssel*
TWLNR/L 1616 H06	●	●	16	16	100	20	**WNM. 0604..**	ATK-01	AKV-01-M5x22	AAWN-SW317	AAV-01-M3x10	-	ABPL-01	AAL-03-3
2020 K06	●	●	20	20	125	25								
2525 M06	●	●	25	25	150	32								
2020 K08	●	●	20	20	125	25	**WNM. 0804..**	ATK-02	AKV-30-M6x22	AAWN-3-0001	AAV-02-M5x12	AS-01		
2525 M08	●	●	25	25	150	32								
3232 P08	●	●	32	32	170	40								
4040 S08	●	●	40	40	250	50								
5050 S08	○	○	50	50	250	63								

R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück TVVNN 2020 K16

BF SERVICE

AKKO®

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quality...

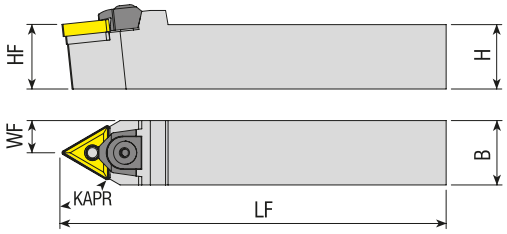
M-SİSTEM

M-SİSTEM DIŞ TORNA KATERLERİ
M-SYSTEM EXTERNAL TURNING TOOLHOLDERS
M-SYSTEM AUSSEN - DREHHALTER

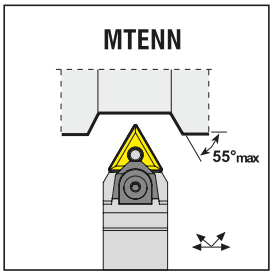


KAPR=60°





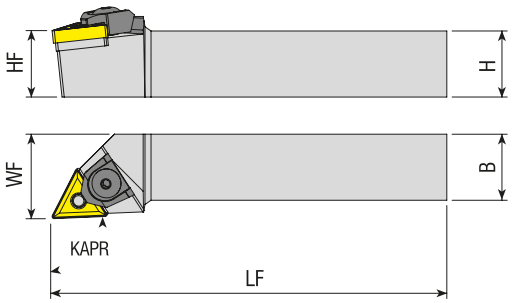
MTENN



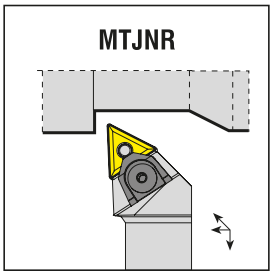
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*				Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*						
		HF=H	B	LF	WF		Baskı Pabucu *Wedge Clamp* *Spannpratze*	Pabuç Vidası *Clamp Screw* *Klemmschraube*	Altlık *Shim* *Unterlage*	Pim *Pin* *Stift*	Sekman *Ring* *Feder*	Pul *Stamp* *Ring*	Anahtar *Allen Key* *Innensechskantschlüssel*
MTENN 2020 K16	●	20	20	125	10								
2525 M16	●	25	25	150	12.5	**TNM. 1604..**			AATN-2-0002	APM-01			
3232 P16	●	32	32	170	16		AMK-04	AKV-30-M6x22			AS-01	ABPL-01	AAL-03-3
2525 M22	●	25	25	150	12.5								
3232 P22	●	32	32	170	16	**TNM. 2204..**			AATN-3-0015	APM-02			
4040 S22	●	40	40	250	20								

KAPR=93°





MTJNR



Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*				Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*						
	R	L	HF=H	B	LF	WF		Baskı Pabucu *Wedge Clamp* *Spannpratze*	Pabuç Vidası *Clamp Screw* *Klemmschraube*	Altlık *Shim* *Unterlage*	Pim *Pin* *Stift*	Sekman *Ring* *Feder*	Pul *Stamp* *Ring*	Anahtar *Allen Key* *Innensechskantschlüssel*
MTJNR/L 2020 K16	●	●	20	20	125	25								
2525 M16	●	●	25	25	150	32	**TNM. 1604..**			AATN-2-0002	APM-01			
3232 P16	●	●	32	32	170	40		AMK-04	AKV-30-M6x22			AS-01	ABPL-01	AAL-03-3
2525 M22	●	●	25	25	150	32								
3232 P22	●	●	32	32	170	40	**TNM. 2204..**			AATN-3-0015	APM-02			
4040 S22	●	●	40	40	250	50								

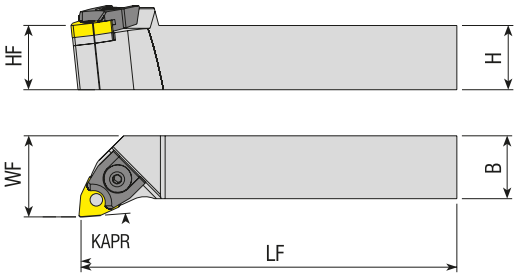
R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück MTENN 2020 K16

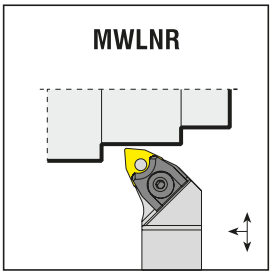
BF SERVICE

KAPR=95°





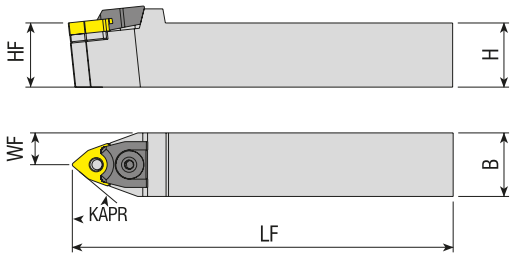
MWLNR



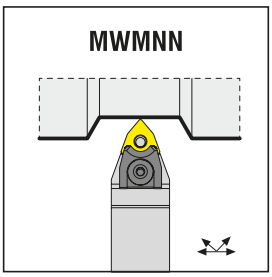
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*				Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*						
								Baskı Pabucu *Wedge Clamp* *Spannpratze*	Pabuç Vidası *Clamp Screw* *Klemmschraube*	Altlık *Shim* *Unterlage*	Pim *Pin* *Stift*	Sekman *Ring* *Feder*	Pul *Stamp* *Ring*	Anahtar *Allen Key* *Innensechskantschlüssel*
	R	L	HF=H	B	LF	WF								
MWLNR/L 1616 H06	●	●	16	16	100	20								
2020 K06	●	●	20	20	125	25	**WNM. 0604..**	AMK-01	AKV-04-M5x17	-	APM-08	-	-	
2525 M06	●	●	25	25	150	32								AAL-03-3
2020 K08	●	●	20	20	125	25								
2525 M08	●	●	25	25	150	32	**WNM. 0804..**	AMK-05	AKV-03-M6x22	AAWN-3-0001	APM-02	AS-01	ABPL-01	
3232 P08	●	●	32	32	170	40								

KAPR=50°





MWMNN



Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*				Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*						
							Baskı Pabucu *Wedge Clamp* *Spannpratze*	Pabuç Vidası *Clamp Screw* *Klemmschraube*	Altlık *Shim* *Unterlage*	Pim *Pin* *Stift*	Sekman *Ring* *Feder*	Pul *Stamp* *Ring*	Anahtar *Allen Key* *Innensechskantschlüssel*
		HF=H	B	LF	WF								
MWMNN 1616 H06	●	16	16	100	8								
2020 K06	●	20	20	125	10	**WNM. 0604..**	AMK-01	AKV-04-M5x17	-	APM-08	-	-	
2525 M06	●	25	25	150	12.5								AAL-03-3
2020 K08	●	20	20	125	10								
2525 M08	●	25	25	150	12.5	**WNM. 0804..**	AMK-05	AKV-03-M6x22	AAWN-3-0001	APM-02	AS-01	ABPL-01	
3232 P08	●	32	32	170	16								

R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück MWLNR 1616 H06

BF SERVICE

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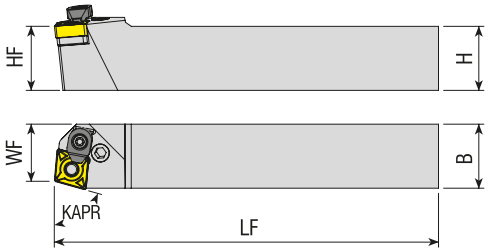
P-SİSTEM

P-SİSTEM DIŞ TORNA KATERLERİ
P-SYSTEM EXTERNAL TURNING TOOLHOLDERS
P-SYSTEM AUSSEN - DREHHALTER

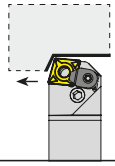


KAPR=75°





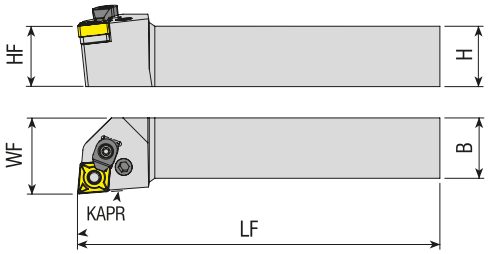
PCBNR



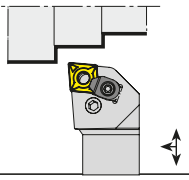
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*				Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*						
								Levye *Lever* *Kniehebel*	Levye Vidası *Lever Screw* *Kniehebelschraube*	Altlık *Shim* *Unterlage*	Altlık Yayı *Shim Spring* *Feder für Unterlage*	Baskı Parçası *Wedge Clamp* *Spannpratze*	Baskı Vidası *Clamp Screw* *Klemmschraube*	Anahtar *Allen Key* *Innensechskantschlüssel*
	R	L	HF=H	B	LF	WF								
PCBNR/L 2020 K12C	●	●	20	20	125	17.5	**CNM. 1204..**	APL-02	ALV-03-M8x19	AACN-3-0001	AAY-02	ACK-05	4015-M4x11	AAL-03-3
2525 M12C	●	●	25	25	150	22.5								
3232 P12C	●	●	32	32	170	29.5								
2525 M16C	●	●	25	25	150	22	**CNM. 1606..**	APL-04	ALV-04-M8x22	AACN-3-0002	AAY-03			
3232 P16C	●	●	32	32	170	27								
3232 P19C	●	●	32	32	170	27	**CNM. 1906..**	APL-05	ALV-05-M10x27	AACN-3-0003	AAY-04	ACK-09	AAV-05-M6x15	AAL-05-4
4040 S19C	●	●	40	40	250	37								
4040 S25C	●	●	40	40	250	37	**CNM. 2509..**	APL-06	ALV-06-M12x36	AACN-3-0008	AAY-05	ACK-04	AKV-16-M6x16	AAL-07-5
5050 S25C	○	○	50	50	250	47								

KAPR=95°





PCLNR



Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*				Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*						
								Levye *Lever* *Kniehebel*	Levye Vidası *Lever Screw* *Kniehebelschraube*	Altlık *Shim* *Unterlage*	Altlık Yayı *Shim Spring* *Feder für Unterlage*	Baskı Parçası *Wedge Clamp* *Spannpratze*	Baskı Vidası *Clamp Screw* *Klemmschraube*	Anahtar *Allen Key* *Innensechskantschlüssel*
	R	L	HF=H	B	LF	WF								
PCLNR/L 1616 H09	●	●	16	16	100	20	**CNM. 0903..**	APL-01	ALV-02-M6x17	AACN-2-0002	AAY-01	-	-	AAL-02-2.5
2020 K09	●	●	20	20	125	25								
2525 M09	●	●	25	25	150	32								
1616 H12	●	●	16	16	100	20	**CNM. 1204..**	APL-02	ALV-03-M8x19	AACN-3-0001	AAY-02	-	-	AAL-03-3
2020 K12C	●	●	20	20	125	25						ACK-05	4015-M4x11	
2525 M12C	●	●	25	25	150	32								
3232 P12C	●	●	32	32	170	40								
2525 M16C	●	●	25	25	150	32	**CNM. 1606..**	APL-04	ALV-04-M8x22	AACN-3-0002	AAY-03			
3232 P16C	●	●	32	32	170	40								
2525 M19C	●	●	25	25	150	32	**CNM. 1906..**	APL-05	ALV-05-M10x27	AACN-3-0003	AAY-04	ACK-09	AAV-05-M6x15	AAL-05-4
3232 P19C	●	●	32	32	170	40								
4040 S19C	●	●	40	40	250	50								
4040 S25C	●	●	40	40	250	50	**CNM. 2509..**	APL-06	ALV-06-M12x36	AACN-3-0008	AAY-05	ACK-04	AKV-16-M6x16	AAL-07-5
5050 S25C	●	●	50	50	250	60								

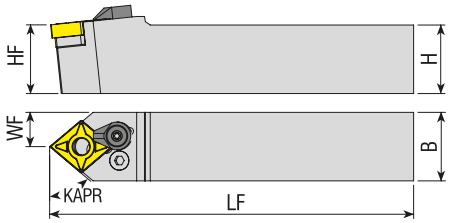
R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück PCBNR 2020 K12C

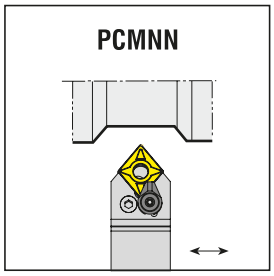
BF SERVICE

KAPR=50°





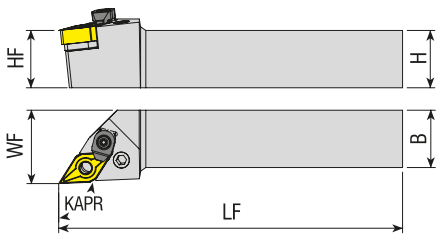
PCMNN



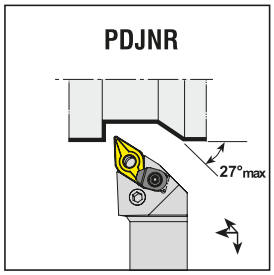
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*				Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*						
		HF=H	B	LF	WF		Levye *Lever* *Kniehebel*	Levye Vidası *Lever Screw* *Kniehebelschraube*	Altlık *Shim* *Unterlage*	Altlık Yayı *Shim Spring* *Feder für Unterlage*	Baskı Parçası *Wedge Clamp* *Spannpratze*	Baskı Vidası *Clamp Screw* *Klemmschraube*	Anahtar *Allen Key* *Innensechskantschlüssel*
PCMNN 2020 K12C	●	20	20	125	10	**CNM. 1204..**	APL-02	ALV-03-M8x19	AACN-3-0001	AAY-02	ACK-05	4015-M4x11	AAL-03-3
2525 M12C	●	25	25	150	12.5								
3232 P12C	○	32	32	170	16								
2525 M16C	○	25	25	150	12.5	**CNM. 1606..**	APL-04	ALV-04-M8x22	AACN-3-0002	AAY-03			
3232 P16C	○	32	32	170	16								
3232 P19C	●	32	32	170	16	**CNM. 1906..**	APL-05	ALV-05-M10x27	AACN-3-0003	AAY-04	ACK-09	AAV-05-M6x15	AAL-05-4
4040 S19C	●	40	40	250	20								
5050 S19C	○	50	50	250	25								
4040 S25C	●	40	40	250	20	**CNM. 2509..**	APL-06	ALV-06-M12x36	AACN-3-0008	AAY-05	ACK-04	AKV-16-M6x16	AAL-07-5

KAPR=93°





PDJNR



Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*				Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*						
	R	L	HF=H	B	LF	WF		Levye *Lever* *Kniehebel*	Levye Vidası *Lever Screw* *Kniehebelschraube*	Altlık *Shim* *Unterlage*	Altlık Yayı *Shim Spring* *Feder für Unterlage*	Baskı Parçası *Wedge Clamp* *Spannpratze*	Baskı Vidası *Clamp Screw* *Klemmschraube*	Anahtar *Allen Key* *Innensechskantschlüssel*
PDJNR/L 1616 H11	●	●	16	16	100	20	**DNM. 1104..**	APL-01	ALV-02-M6x17	AADN-SD317	AAY-01	-	-	AAL-02-2.5
2020 K11	●	●	20	20	125	25								
2525 M11	●	●	25	25	150	32								
2020 K15C	●	●	20	20	125	25	**DNM. 1506..**	APL-03	ALV-03-M8x19	AADN-3-0001	AAY-02	ACK-05	4015-M4x11	AAL-03-3
2525 M15C	●	●	25	25	150	32								
3232 P15C	●	●	32	32	170	40								
4040 S15C	●	●	40	40	250	50								

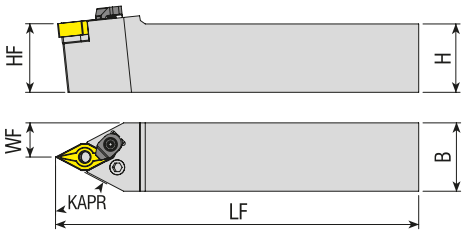
R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück PCMNN 2020 K12C

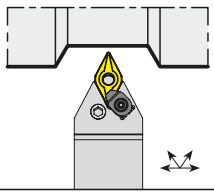
BF SERVICE

KAPR=62.5°





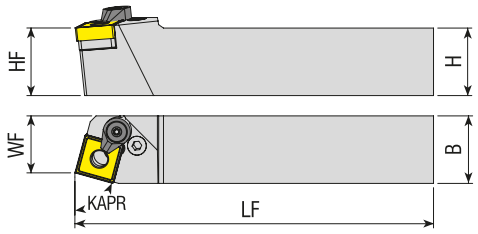
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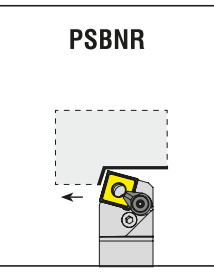
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*				Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*						
		HF=H	B	LF	WF		Levye *Lever* *Kniehebel*	Levye Vidası *Lever Screw* *Kniehebelschraube*	Altlık *Shim* *Unterlage*	Altlık Yayı *Shim Spring* *Feder für Unterlage*	Baskı Parçası *Wedge Clamp* *Spannpratze*	Baskı Vidası *Clamp Screw* *Klemmschraube*	Anahtar *Allen Key* *Innensechskantschlüssel*
PDNNN 1616 H11	●	16	16	100	8	**DNM. 1104..**	APL-01	ALV-02-M6x17	AADN-SD317	AAY-01	-	-	AAL-02-2.5
2020 K11	●	20	20	125	10								
2525 M11	●	25	25	150	12.5								
2020 K15C	●	20	20	125	10	**DNM. 1506..**	APL-03	ALV-03-M8x19	AADN-3-0001	AAY-02	ACK-05	4015-M4x11	AAL-03-3
2525 M15C	●	25	25	150	12.5								
3232 P15C	●	32	32	170	16								

KAPR=75°





PSBNR



Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*				Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*						
	R	L	HF=H	B	LF	WF		Levye *Lever* *Kniehebel*	Levye Vidası *Lever Screw* *Kniehebelschraube*	Altlık *Shim* *Unterlage*	Altlık Yayı *Shim Spring* *Feder für Unterlage*	Baskı Parçası *Wedge Clamp* *Spannpratze*	Baskı Vidası *Clamp Screw* *Klemmschraube*	Anahtar *Allen Key* *Innensechskantschlüssel*
PSBNR/L 1616 H09	●	●	16	16	100	13	**SNM. 0903..**	APL-01	ALV-02-M6x17	AASN-2-0002	AAY-01	-	-	AAL-02-2.5
2020 K09	○	○	20	20	125	17								
2020 K12	●	●	20	20	125	17	**SNM. 1204..**	APL-02	ALV-03-M8x19	AASN-3-0004	AAY-02	-	-	AAL-03-3
2525 M12C	●	●	25	25	150	22						ACK-05	4015-M4x11	
3232 P12C	●	●	32	32	170	27								
2525 M15	●	●	25	25	150	22	**SNM. 1506..**	APL-04	ALV-04-M8x22	AASN-3-0023	AAY-03	-	-	
3232 P15C	●	●	32	32	170	27								
3232 P19C	●	●	32	32	170	27	**SNM. 1906..**	APL-05	ALV-05-M10x27	AASN-3-0005	AAY-04	ACK-09	AAV-05-M6x15	AAL-05-4
4040 S19C	●	●	40	40	250	35								
4040 S25C	●	●	40	40	250	35	**SNM. 2509..**	APL-06	ALV-06-M12x36	AASN-3-0020	AAY-05	ACK-04	AKV-16-M6x16	AAL-07-5
5050 S25C	●	○	50	50	250	43								

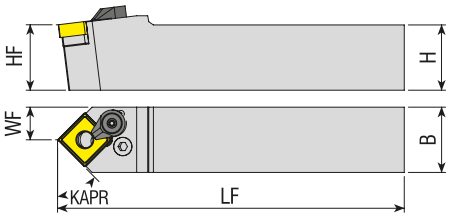
R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück PDNNN 1616 H11

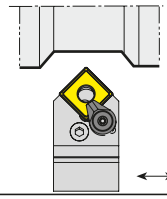
BF SERVICE

KAPR=45°





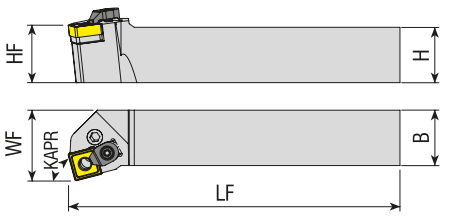
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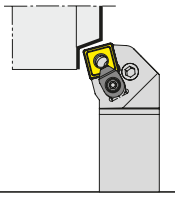
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*				Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*						
							Levye *Lever* *Kniehebel*	Levye Vidası *Lever Screw* *Kniehebelschraube*	Altlık *Shim* *Unterlage*	Altlık Yayı *Shim Spring* *Feder für Unterlage*	Baskı Parçası *Wedge Clamp* *Spannpratze*	Baskı Vidası *Clamp Screw* *Klemmschraube*	Anahtar *Allen Key* *Innensechskantschlüssel*
		HF=H	B	LF	WF								
PSDNN 1616 H09	●	16	16	100	8	**SNM. 0903..**	APL-01	ALV-02-M6x17	AASN-2-0002	AAY-01	-	-	AAL-02-2.5
2020 K12C	●	20	20	125	10								
2525 M12C	●	25	25	150	12.5	**SNM. 1204..**	APL-02	ALV-03-M8x19	AASN-3-0004	AAY-02	ACK-05	4015-M4x11	AAL-03-3
3232 P12C	●	32	32	170	16								
2020 K15C	○	20	20	125	10	**SNM. 1506..**	APL-04	ALV-04-M8x22	AASN-3-0023	AAY-03			
2525 M15C	●	25	25	150	12.5								
3232 P19C	●	32	32	170	16								
4040 S19C	○	40	40	250	20	**SNM. 1906..**	APL-05	ALV-05-M10x27	AASN-3-0005	AAY-04	ACK-09	AAV-05-M6x15	AAL-05-4
5050 S19C	○	50	50	250	25								
4040 S25C	●	40	40	250	20	**SNM. 2509..**	APL-06	ALV-06-M12x36	AASN-3-0020	AAY-05	ACK-04	AKV-16-M6x16	AAL-07-5
5050 S25C	○	50	50	250	25								

KAPR=75°





PSKNR



Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*				Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*						
								Levye *Lever* *Kniehebel*	Levye Vidası *Lever Screw* *Kniehebelschraube*	Altlık *Shim* *Unterlage*	Altlık Yayı *Shim Spring* *Feder für Unterlage*	Baskı Parçası *Wedge Clamp* *Spannpratze*	Baskı Vidası *Clamp Screw* *Klemmschraube*	Anahtar *Allen Key* *Innensechskantschlüssel*
	R	L	HF=H	B	LF	WF								
PSKNR/L 2020 K09	●	○	20	20	125	25	**SNM. 0903..**	APL-01	ALV-02-M6x17	AASN-2-0002	AAY-01	-	-	AAL-02-2.5
2020 K12C	●	●	20	20	125	25								
2525 M12C	●	●	25	25	150	32	**SNM. 1204..**	APL-02	ALV-03-M8x19	AASN-3-0004	AAY-02	ACK-05	4015-M4x11	AAL-03-3
3232 P12C	●	●	32	32	170	40								
2525 M15C	●	●	25	25	150	32	**SNM. 1506..**	APL-04	ALV-04-M8x22	AASN-3-0023	AAY-03			
3232 P15C	●	●	32	32	170	40								
3232 P19C	●	●	32	32	170	40								
4040 S19C	●	●	40	40	250	50	**SNM. 1906..**	APL-05	ALV-05-M10x27	AASN-3-0005	AAY-04	ACK-09	AAV-05-M6x15	AAL-05-4
4040 S25C	●	●	40	40	250	50								
5050 S25C	●	○	50	50	250	60	**SNM. 2509..**	APL-06	ALV-06-M12x36	AASN-3-0020	AAY-05	ACK-04	AKV-16-M6x16	AAL-07-5

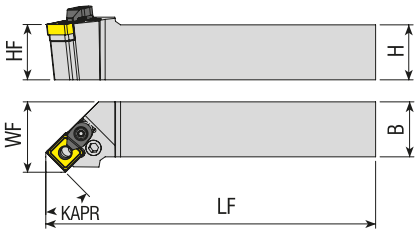
R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*

Siparış Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück PSDNN 1616 H09

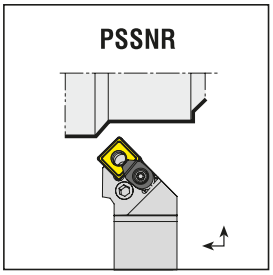
BF SERVICE

KAPR=45°





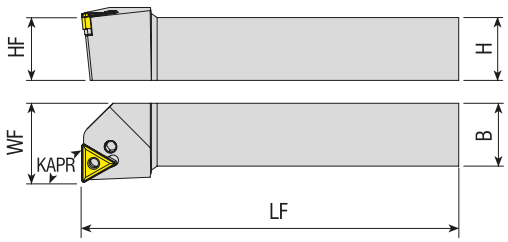
PSSNR



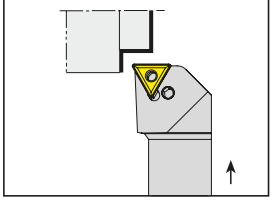
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								Levye *Lever* *Kniehebel*	Levye Vidası *Lever Screw* *Kniehebelschraube*	Altlık *Shim* *Unterlage*	Altlık Yayı *Shim Spring* *Feder für Unterlage*	Baskı Parçası *Wedge Clamp* *Spannpratze*	Baskı Vidası *Clamp Screw* *Klemmschraube*	Anahtar *Allen Key* *Innensechskantschlüssel*
	R	L	HF=H	B	LF	WF								
PSSNR/L 1616 H09	●	●	16	16	100	20	**SNM. 0903..**	APL-01	ALV-02-M6x17	AASN-2-0002	AAY-01	-	-	AAL-02-2.5
2020 K09	●	○	20	20	125	25								
2020 K12C	●	●	20	20	125	25	**SNM. 1204..**	APL-02	ALV-03-M8x19	AASN-3-0004	AAY-02	ACK-05	4015-M4x11	AAL-03-3
2525 M12C	●	●	25	25	150	32								
3232 P12C	●	●	32	32	170	40								
3232 P15C	●	○	32	32	170	40	**SNM. 1506..**	APL-04	ALV-04-M8x22	AASN-3-0023	AAY-03			
3232 P19C	●	●	32	32	170	40	**SNM. 1906..**	APL-05	ALV-05-M10x27	AASN-3-0005	AAY-04	ACK-09	AAV-05-M6x15	AAL-05-4
4040 S19C	●	●	40	40	250	50								
4040 S25C	●	●	40	40	250	50	**SNM. 2509..**	APL-06	ALV-06-M12x36	AASN-3-0020	AAY-05	ACK-04	AKV-16-M6x16	AAL-07-5

KAPR=90°





PTFNR



Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*				Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*						
								Levye *Lever* *Kniehebel*	Levye Vidası *Lever Screw* *Kniehebelschraube*	Altlık *Shim* *Unterlage*	Altlık Yayı *Shim Spring* *Feder für Unterlage*	Baskı Parçası *Wedge Clamp* *Spannpratze*	Baskı Vidası *Clamp Screw* *Klemmschraube*	Anahtar *Allen Key* *Innensechskantschlüssel*
	R	L	HF=H	B	LF	WF								
PTFNR/L 1616 H16	●	●	16	16	100	20	**TNM. 1604..**	APL-01	ALV-02-M6x17	AATN-3-0025	AAY-01	-	-	AAL-02-2.5
2020 K16	●	●	20	20	125	25								
2525 M16	●	●	25	25	150	32								
3232 P16	●	●	32	32	170	40								
2525 M22C	●	●	25	25	150	32	**TNM. 2204..**	APL-02	ALV-03-M8x19	AATN-3-0015	AAY-02	ACK-05	4015-M4x11	AAL-03-3
3232 P22C	●	●	32	32	170	40								
4040 S27	○	○	40	40	250	50	**TNM. 2706.**	07042709	07042710	07042701	07042711	-	-	AAL-05-4

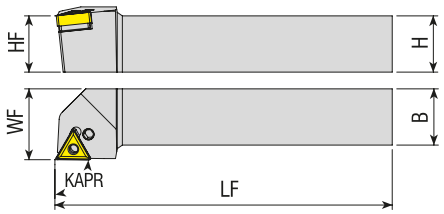
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● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück PSSNR 1616 H09

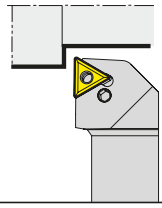
BF SERVICE

KAPR=90°





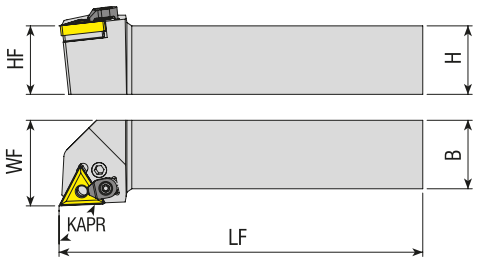
PTGNR



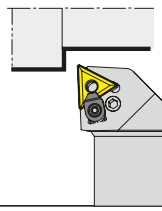
Takım Kodu / Ordering Code / Bestell-Bezeichnung	Stok / Stock / Lager		Takım Ölçüleri (mm) / Dimension (mm) / Abmessung (mm)				Kesici Uç / Insert / Wendeschneidplatte	Yedek Parçaları / Spare Parts / Ersatzteile						
								Levye / Lever / Kniehebel	Levye Vidası / Lever Screw / Kniehebelschraube	Altlık / Shim / Unterlage	Altlık Yayı / Shim Spring / Feder für Unterlage	Baskı Parçası / Wedge Clamp / Spannpratze	Baskı Vidası / Clamp Screw / Klemmschraube	Anahtar / Allen Key / Innensechskantschlüssel
	R	L	HF=H	B	LF	WF								
PTGNR/L 1010 E11	○	○	10	10	70	12								
1212 F11	○	○	12	12	80	16	**TNM. 1103..**	07041109	07041110	-	-	-	-	
1616 H11	○	○	16	16	100	20								AAL-02-2.5
1616 H16	●	●	16	16	100	20								
2020 K16	●	●	20	20	125	25	**TNM. 1604..**	APL-01	ALV-02-M6x17	AATN-3-0025	AAY-01	-	-	
2525 M16	●	●	25	25	150	32								
3232 P16	○	○	32	32	170	40								
2525 M22C	●	●	25	25	150	32	**TNM. 2204..**	APL-02	ALV-03-M8x19	AATN-3-0015	AAY-02	ACK-05	4015-M4x11	AAL-03-3
3232 P22C	●	●	32	32	170	40								
4040 S27	○	○	40	40	250	50	**TNM. 2706..**	07042709	07042710	07042701	07042711	-	-	AAL-05-4

KAPR=93°





PTJNR



Takım Kodu / Ordering Code / Bestell-Bezeichnung	Stok / Stock / Lager		Takım Ölçüleri (mm) / Dimension (mm) / Abmessung (mm)				Kesici Uç / Insert / Wendeschneidplatte	Yedek Parçaları / Spare Parts / Ersatzteile						
								Levye / Lever / Kniehebel	Levye Vidası / Lever Screw / Kniehebelschraube	Altlık / Shim / Unterlage	Altlık Yayı / Shim Spring / Feder für Unterlage	Baskı Parçası / Wedge Clamp / Spannpratze	Baskı Vidası / Clamp Screw / Klemmschraube	Anahtar / Allen Key / Innensechskantschlüssel
	R	L	HF=H	B	LF	WF								
PTJNR/L 1010 E11	○	○	10	10	70	12								
1212 F11	○	○	12	12	80	16	**TNM. 1103..**	07041109	07041110	-	-	-	-	
1616 H11	○	○	16	16	100	20								AAL-02-2.5
1616 H16	●	●	16	16	100	20								
2020 K16	●	●	20	20	125	25	**TNM. 1604..**	APL-01	ALV-02-M6x17	AATN-3-0025	AAY-01	-	-	
2525 M16	●	●	25	25	150	32								
3232 P16	●	●	32	32	170	40								
2525 M22C	●	●	25	25	150	32	**TNM. 2204..**	APL-02	ALV-03-M8x19	AATN-3-0015	AAY-02	ACK-05	4015-M4x11	AAL-03-3
3232 P22C	●	●	32	32	170	40								
4040 S27	●	○	40	40	250	50	**TNM. 2706..**	APL-05	ALV-05-M10x27	07042701	AAY-04	ACK-09	AAV-05-M6x15	AAL-05-4

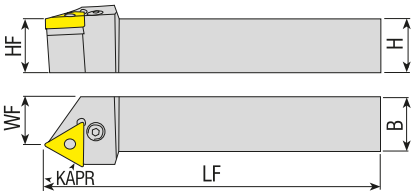
R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück PTGNR 1010 E11

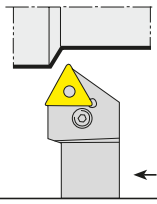
BF SERVICE

KAPR=60°





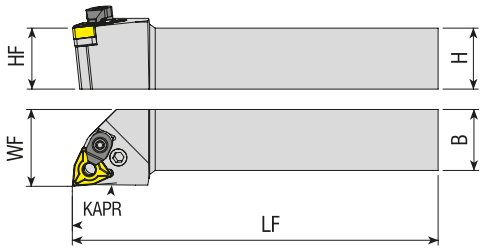
PTTNR



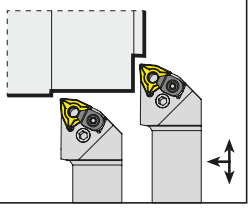
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*				Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*						
								Levye *Lever* *Kniehebel*	Levye Vidası *Lever Screw* *Kniehebelschraube*	Altlık *Shim* *Unterlage*	Altlık Yayı *Shim Spring* *Feder für Unterlage*	Baskı Parçası *Wedge Clamp* *Spannpratze*	Baskı Vidası *Clamp Screw* *Klemmschraube*	Anahtar *Allen Key* *Innensechskantschlüssel*
	R	L	HF=H	B	LF	WF								
PTTNR/L 1616 H16	●	●	16	16	100	13	**TNM. 1604..**	APL-01	ALV-02-M6x17	AATN-3-0025	AAY-01	-	-	AAL-02-2.5
2020 K16	●	●	20	20	125	17								
2525 M16	●	●	25	25	150	21.5								
3232 P16	●	●	32	32	170	31								
2525 M22C	●	●	25	25	150	20.5	**TNM. 2204..**	APL-02	ALV-03-M8x19	AATN-3-0015	AAY-02	ACK-05	4015-M4x11	AAL-03-3
3232 P22C	●	●	32	32	170	29								

KAPR=95°





PWLNR



Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*				Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*						
								Levye *Lever* *Kniehebel*	Levye Vidası *Lever Screw* *Kniehebelschraube*	Altlık *Shim* *Unterlage*	Altlık Yayı *Shim Spring* *Feder für Unterlage*	Baskı Parçası *Wedge Clamp* *Spannpratze*	Baskı Vidası *Clamp Screw* *Klemmschraube*	Anahtar *Allen Key* *Innensechskantschlüssel*
	R	L	HF=H	B	LF	WF								
PWLNR/L 1616 H06	●	●	16	16	100	20	**WNM. 0604..**	APL-01	ALV-02-M6x17	AAWN-SW317	AAY-01	-	-	AAL-02-2.5
2020 K06	●	●	20	20	125	25								
2525 M06	●	●	25	25	150	32								
3232 P06	○	○	32	32	170	40								
1616 H08	●	●	16	16	100	20	**WNM. 0804..**	APL-02	ALV-03-M8x19	AAWN-3-0001	AAY-02	ACK-05	4015-M4x11	AAL-03-3
2020 K08C	●	●	20	20	125	25								
2525 M08C	●	●	25	25	150	32								
3232 P08C	●	●	32	32	170	40								

R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück PTTNR 1616 H16

BF SERVICE

AKKO®

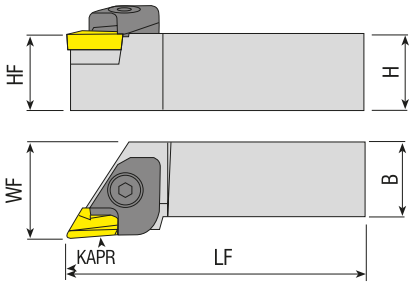
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the spoken kalite...
quality...

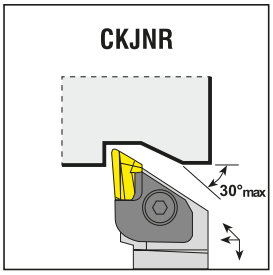
C-SİSTEM

C-SİSTEM DIŞ TORNA KATERLERİ
C-SYSTEM EXTERNAL TURNING TOOLHOLDERS
C-SYSTEM AUSSEN - DREHHALTER









Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*				Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*						
								Baskı Pabucu *Wedge Clamp* *Spannpratze*	Pabuç Vidası *Clamp Screw* *Klemmschraube*	Altlık *Shim* *Unterlage*	Altlık Vidası *Shim Screw* *Schraube für Unterlage*	Yay *Spring* *Feder*	Pul *Stamp* *Ring*	Anahtar *Allen Key* *Innensechskantschlüssel*
	R	L	HF=H	B	LF	WF								
CKJNR/L 2020 K16	●	●	20	20	125	27.5	**KNUX 1604..**	ACK-01-R ACK-02-L	AKV-06-M6x20	AKS-16-R AKS-16-L	AAV-01-M3x10	AKY-02	ABPL-01	AAL-05-4
2525 M16	●	●	25	25	150	31.5								
3232 P16	●	●	32	32	170	40								
4040 S16	●	●	40	40	250	50								

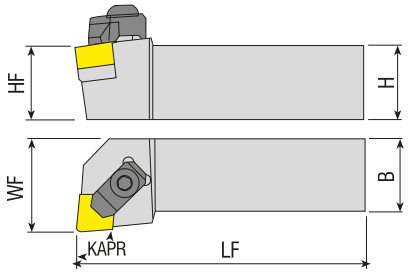
R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock / *Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück CKJNR 2020 K16

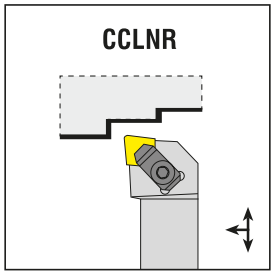


KAPR=95°





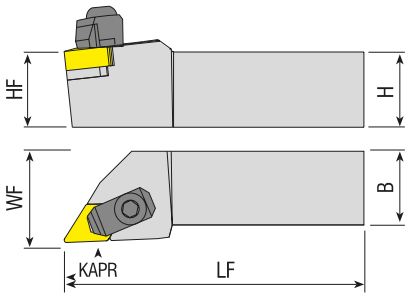
CCLNR



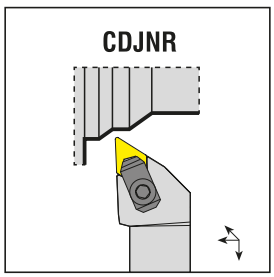
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*				Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*					
								Baskı Pabucu *Wedge Clamp* *Spannpratze*	Pabuç Vidası *Clamp Screw* *Klemmschraube*	Altlık *Shim* *Unterlage*	Altlık Vidası *Shim Screw* *Schraube für Unterlage*	Sekman *Ring* *Feder*	Anahtar *Allen Key* *Innensechskantschlüssel*
	R	L	HF=H	B	LF	WF							
CCLNR/L 2525 M1207C	●	●	25	25	150	32	**CN.N 1207..**	ACK-13	AKV-11-M8x29	AACN-3-0001	AAV-02-M5x12	ACS-01	AAL-05-4
3232 P1207C	●	●	32	32	170	40							
2525 M1607C	●	●	25	25	150	32	**CN.N 1607..**	ACK-13	AKV-11-M8x29	AACN-3-0002	AAV-05-M6x15	ACS-01	AAL-05-4

KAPR=93°





CDJNR



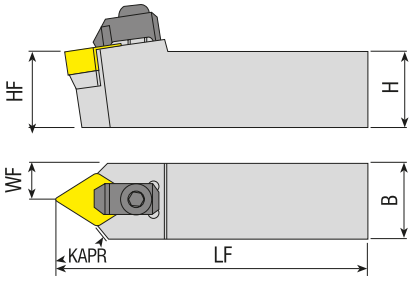
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*				Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*					
								Baskı Pabucu *Wedge Clamp* *Spannpratze*	Pabuç Vidası *Clamp Screw* *Klemmschraube*	Altlık *Shim* *Unterlage*	Altlık Vidası *Shim Screw* *Schraube für Unterlage*	Sekman *Ring* *Feder*	Anahtar *Allen Key* *Innensechskantschlüssel*
	R	L	HF=H	B	LF	WF							
CDJNR/L 2525 M1107C	●	●	25	25	150	32	**DN.N 1107..**	ACK-22	AKV-11-M8x29	AADN-2-0001	AAV-04-M5x12	ACS-01	AAL-05-4
2525 M1507C	●	●	25	25	150	32	**DN.N 1507..**	ACK-13	AKV-11-M8x29	AADN-3-0001	AAV-02-M5x12	ACS-01	AAL-05-4
3232 P1507C	●	●	32	32	170	40							

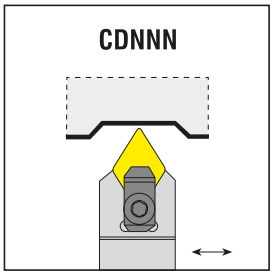
R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück CCLNR 2525 M1207C

BF SERVICE

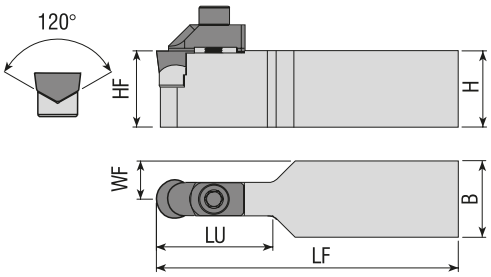


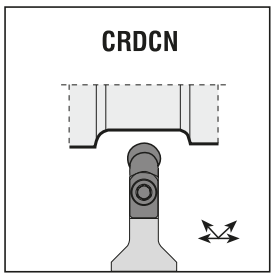




Takım Kodu / Ordering Code / Bestell-Bezeichnung	Stok / Stock / Lager	Takım Ölçüleri (mm) / Dimension (mm) / Abmessung (mm) HF=H	B	LF	WF	Kesici Uç / Insert / Wendeschneidplatte	Yedek Parçaları / Spare Parts / Ersatzteile: Baskı Pabucu / Wedge Clamp / Spannpratze	Pabuç Vidası / Clamp Screw / Klemmschraube	Altlık / Shim / Unterlage	Altlık Vidası / Shim Screw / Schraube für Unterlage	Sekman / Ring / Feder	Anahtar / Allen Key / Innensechskantschlüssel
												
CDNNN 2525 M1107C	●	25	25	150	12.5	DN.N 1107..	ACK-22	AKV-11-M8x29	AADN-2-0001	AAV-04-M5x12	ACS-01	AAL-05-4







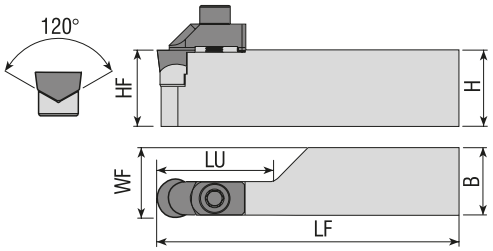
Takım Kodu / Ordering Code / Bestell-Bezeichnung	Stok / Stock / Lager	Takım Ölçüleri (mm) / Dimension (mm) / Abmessung (mm) HF=H	B	LF	LU	WF	Kesici Uç / Insert / Wendeschneidplatte	Yedek Parçaları / Spare Parts / Ersatzteile: Baskı Pabucu / Wedge Clamp / Spannpratze	Pabuç Vidası / Clamp Screw / Klemmschraube	Altlık / Shim / Unterlage	Altlık Vidası / Shim Screw / Schraube für Unterlage	Anahtar / Allen Key / Innensechskantschlüssel
											
CRDCN 2525 M06CV	●	25	25	150	19	12.5						
3225 P06CV	●	32	25	170	19	12.5	RCGX 060600	ACK-27	2525-M3X14	AARC-3-0001	3007-M2.2X5	AAL-02-2.5
4040 S06CV	●	40	40	250	19	20						
2525 M09CV	●	25	25	150	29	12.5						
3225 P09CV	●	32	25	170	29	12.5	RCGX 090700	ACK-28	2504-M5X16	AARC-3-0002	3008-M2.5x6	AAL-05-4
4040 S09CV	●	40	40	250	29	20						
2525 M12CV	●	25	25	150	38	12.5						
3225 P12CV	●	32	25	170	38	12.5	RCGX 120700	ACK-29	2505-M6X20	AARC-3-0003	3008-M2.5x6	AAL-07-5
4040 S12CV	●	40	40	250	38	20						

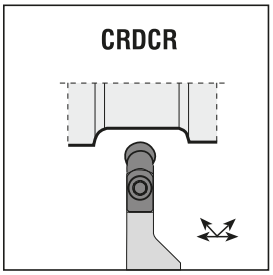
R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück CDNNN 2525 M1107C

BF SERVICE

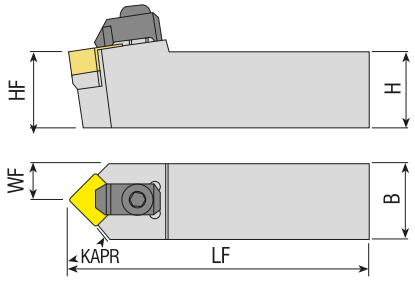


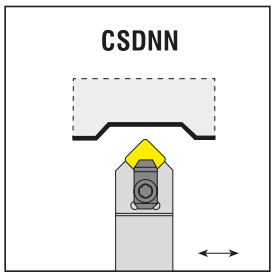




Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*				
									Baskı Pabucu *Wedge Clamp* *Spannpratze*	Pabuç Vidası *Clamp Screw* *Klemmschraube*	Altlık *Shim* *Unterlage*	Altlık Vidası *Shim Screw* *Schraube für Unterlage*	Anahtar *Allen Key* *Innensechskantschlüssel*
	R	L	HF=H	B	LF	LU	WF						
CRDCR/L 3225 P06CV	●	●	32	25	170	19.4	25.6	**RCGX 060600**	ACK-27	2525-M3X14	AARC-3-0001	3007-M2.2X5	AAL-02-2.5
3225 P09CV	●	●	32	25	170	29	25.8	**RCGX 090700**	ACK-28	2504-M5X16	AARC-3-0002	3008-M2.5x6	AAL-05-4
3225 P12CV	●	●	32	25	170	38.5	25.9	**RCGX 120700**	ACK-29	2505-M6X20	AARC-3-0003	3008-M2.5x6	AAL-07-5







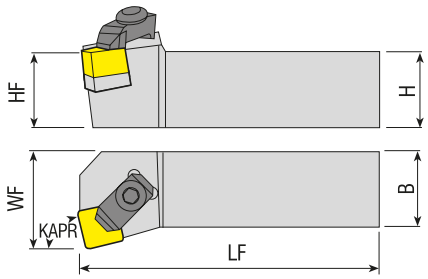
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*				Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*						
							Baskı Pabucu *Wedge Clamp* *Spannpratze*	Pabuç Vidası *Clamp Screw* *Klemmschraube*	Altlık *Shim* *Unterlage*	Altlık Vidası *Shim Screw* *Schraube für Unterlage*	Sekman *Ring* *Feder*	Anahtar *Allen Key* *Innensechskantschlüssel*
		HF=H	B	LF	WF							
CSDNN 2525 M1207C	●	25	25	150	12.5	**SN.N 1207..**	ACK-13	AKV-11-M8x29	AASN-3-0004	AAV-02-M5x12	ACS-01	AAL-05-4
3232 P1207C	●	32	32	170	16							

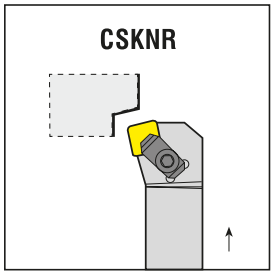
R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück CRDCR 3225 P06CV

BF SERVICE

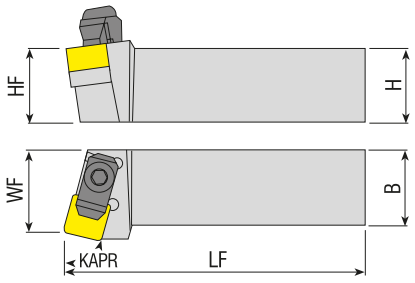


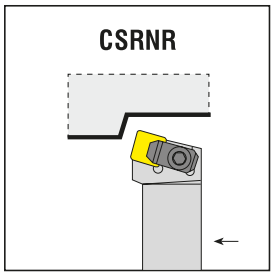




Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*				Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*					
								Baskı Pabucu *Wedge Clamp* *Spannpratze*	Pabuç Vidası *Clamp Screw* *Klemmschraube*	Altlık *Shim* *Unterlage*	Altlık Vidası *Shim Screw* *Schraube für Unterlage*	Sekman *Ring* *Feder*	Anahtar *Allen Key* *Innensechskantschlüssel*
	R	L	HF=H	B	LF	WF							
CSKNR/L 2525 M1207C	●	●	25	25	150	32	**SN.N 1207..**	ACK-13	AKV-11-M8x29	AASN-3-0004	AAV-02-M5x12	ACS-01	AAL-05-4
3232 P1207C	●	●	32	32	170	40							







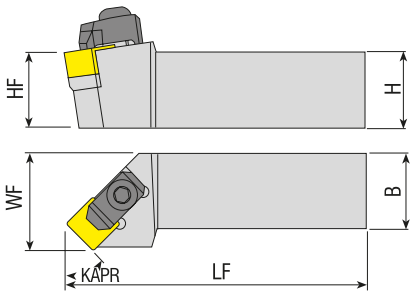
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*				Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*					
								Baskı Pabucu *Wedge Clamp* *Spannpratze*	Pabuç Vidası *Clamp Screw* *Klemmschraube*	Altlık *Shim* *Unterlage*	Altlık Vidası *Shim Screw* *Schraube für Unterlage*	Sekman *Ring* *Feder*	Anahtar *Allen Key* *Innensechskantschlüssel*
	R	L	HF=H	B	LF	WF							
CSRNR/L 2525 M1207C	●	●	25	25	150	32	**SN.N 1207..**	ACK-13	AKV-11-M8x29	AASN-3-0004	AAV-02-M5x12	ACS-01	AAL-05-4
3232 P1207C	●	●	32	32	170	40							

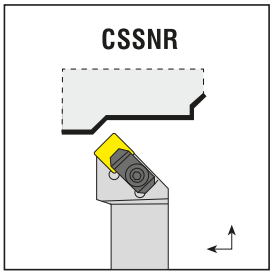
R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück CSKNR 2525 M1207C

BF SERVICE

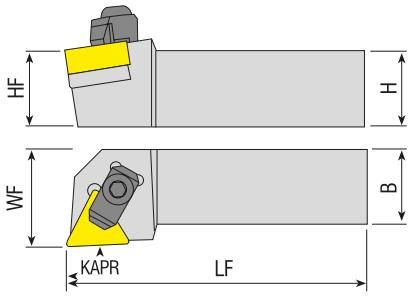


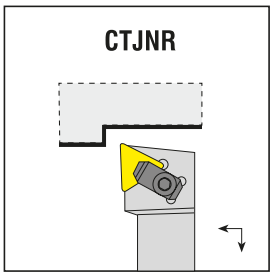




Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*				Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*					
								Baskı Pabucu *Wedge Clamp* *Spannpratze*	Pabuç Vidası *Clamp Screw* *Klemmschraube*	Altlık *Shim* *Unterlage*	Altlık Vidası *Shim Screw* *Schraube für Unterlage*	Sekman *Ring* *Feder*	Anahtar *Allen Key* *Innensechskantschlüssel*
	R	L	HF=H	B	LF	WF							
CSSNR/L 2525 M1207C	●	●	25	25	150	32	**SN.N 1207..**	ACK-13	AKV-11-M8x29	AASN-3-0004	AAV-02-M5x12	ACS-01	AAL-05-4
3232 P1207C	●	●	32	32	170	40							







Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*				Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*					
								Baskı Pabucu *Wedge Clamp* *Spannpratze*	Pabuç Vidası *Clamp Screw* *Klemmschraube*	Altlık *Shim* *Unterlage*	Altlık Vidası *Shim Screw* *Schraube für Unterlage*	Sekman *Ring* *Feder*	Anahtar *Allen Key* *Innensechskantschlüssel*
	R	L	HF=H	B	LF	WF							
CTJNR/L 2525 M1607C	●	●	25	25	150	32	**TN.N 1607..**	ACK-14	AKV-11-M8x29	AATN-2-0002	AAV-03-M5x12	ACS-01	AAL-05-4
3232 P1607C	○	○	32	32	170	40							

R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück CSSNR 2525 M1207C

BF SERVICE

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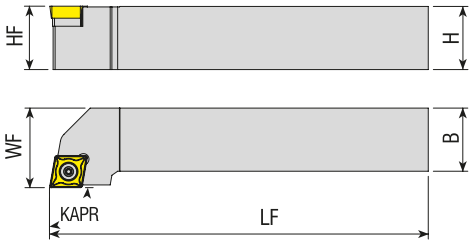
S-SİSTEM

S-SİSTEM DIŞ TORNA KATERLERİ
S-SYSTEM EXTERNAL TURNING TOOLHOLDERS
S-SYSTEM AUSSEN - DREHHALTER

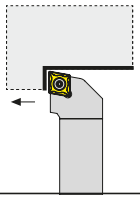


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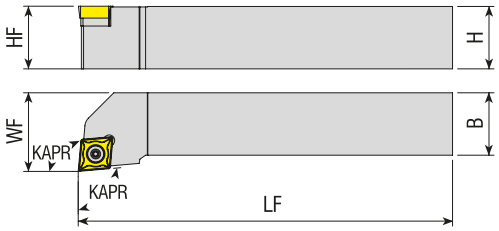
SCACR



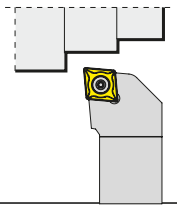
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*				Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*			
								Sıkma Vidası *Screw* *Schraube*	Altlık *Shim* *Unterlage*	Altlık Vidası *Shim Screw* *Schraube für Unterlage*	Tork Anahtar *Torx Key* *Torx-Schlüssel*
	R	L	HF=H	B	LF	WF					
SCACR/L 0808 E06	●	●	08	08	70	10	**CCM. 0602..**	4008-M2.5x6	-	-	80-T08
1010 E06	●	●	10	10	70	12					
1212 F09	●	●	12	12	80	16	**CCM. 09T3..**	4015-M3.5x11	-	-	80-T15
1616 H09	●	●	16	16	100	20		4015-M3.5x14	AACN-2-0001	AAV-06-M3.5x11	
2020 K09	●	●	20	20	125	25					
2020 K12	●	●	20	20	125	25	**CCM. 1204..**	1020-M4.5x16	AACN-2-0003	AAV-07-M4.5x13	80-T20
2525 M12	●	●	25	25	150	32					

KAPR=95°





SCLCR



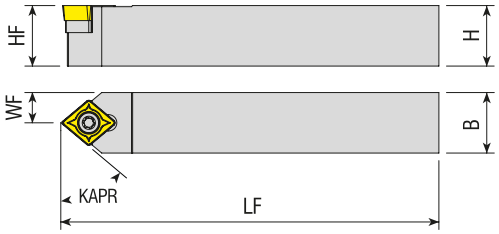
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*				Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*			
								Sıkma Vidası *Screw* *Schraube*	Altlık *Shim* *Unterlage*	Altlık Vidası *Shim Screw* *Schraube für Unterlage*	Tork Anahtar *Torx Key* *Torx-Schlüssel*
	R	L	HF=H	B	LF	WF					
SCLCR/L 0808 E06	●	●	08	08	70	10	**CCM. 0602..**	4008-M2.5x6	-	-	80-T08
1010 E06	●	○	10	10	70	12					
1010 E09	●	●	10	10	70	12	**CCM. 09T3..**	4015-M3x9	-	-	80-T15
1212 F09	●	●	12	12	80	16		4015-M3.5x11	-	-	
1616 H09	●	●	16	16	100	20		4015-M3.5x14	AACN-2-0001	AAV-06-M3.5x11	
2020 K09	●	●	20	20	125	25					
2525 M09	●	●	25	25	150	32					
1616 H12	●	○	16	16	100	20	**CCM. 1204..**	1020-M5x11	-	-	80-T20
2020 K12	●	●	20	20	125	25		1020-M4.5x16	AACN-2-0003	AAV-07-M4.5x13	
2525 M12	●	●	25	25	150	32					

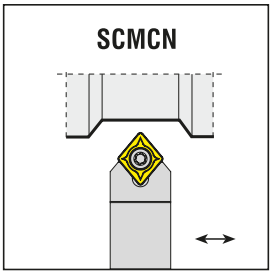
R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück SCACR 0808 E06

BF SERVICE

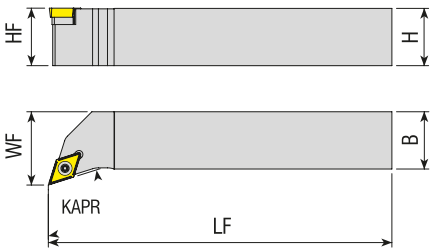


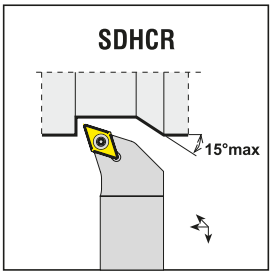




Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*				Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*			
		HF=H	B	LF	WF		Sıkma Vidası *Screw* *Schraube*	Altlık *Shim* *Unterlage*	Altlık Vidası *Shim Screw* *Schraube für Unterlage*	Tork Anahtar *Torx Key* *Torx-Schlüssel*
SCMCN 0808 E06	●	08	08	70	04	**CCM. 0602..**	4008-M2.5x6	-	-	80-T08
1010 E06	●	10	10	70	05					
1212 F06	●	12	12	80	06					
1212 F09	●	12	12	80	06	**CCM. 09T3..**	4015-M3.5x11	-	-	80-T15
1616 H09	●	16	16	100	08		4015-M3.5x14	AACN-2-0001	AAV-06-M3.5x11	
2020 K12	●	20	20	125	10	**CCM. 1204..**	1020-M4.5x16	AACN-2-0003	AAV-07-M4.5x13	80-T20
2525 M12	●	25	25	150	12.5					







Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*				Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*			
	R	L	HF=H	B	LF	WF		Sıkma Vidası *Screw* *Schraube*	Altlık *Shim* *Unterlage*	Altlık Vidası *Shim Screw* *Schraube für Unterlage*	Tork Anahtar *Torx Key* *Torx-Schlüssel*
SDHCR/L 0808 E07	●	●	08	08	70	11	**DCM. 0702..**	4008-M2.5x6	-	-	80-T08
1010 E07	●	●	10	10	70	12					
1212 F07	●	●	12	12	80	16					
1616 H07	●	●	16	16	100	20					
1616 H11	●	●	16	16	100	20	**DCM. 11T3..**	4015-M3.5x14	AADN-2-0001	AAV-06-M3.5x11	80-T15
2020 K11	●	●	20	20	125	25					
2525 M11	●	●	25	25	150	32					
3232 P11	●	●	32	32	170	40					

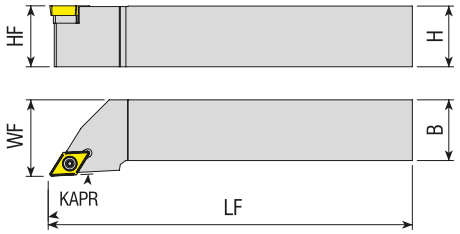
R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*

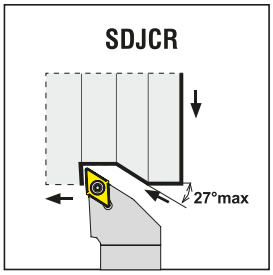
Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück SCMCN 0808 E06

BF SERVICE

KAPR=93°



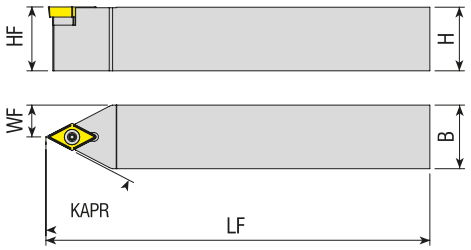


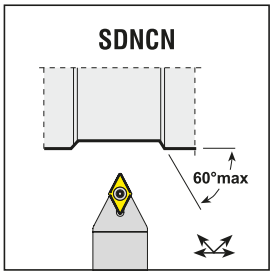


Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*				Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile* Sıkma Vidası *Screw* *Schraube*	Altlık *Shim* *Unterlage*	Altlık Vidası *Shim Screw* *Schraube für Unterlage*	Tork Anahtar *Torx Key* *Torx-Schlüssel*
	R	L	HF=H	B	LF	WF					
SDJCR/L 0808 E07	●	●	08	08	70	10	**DCM. 0702..**	4008-M2.5x6	-	-	80-T08
1010 E07	●	●	10	10	70	12					
1212 F07	●	●	12	12	80	16					
1616 H07	●	●	16	16	100	20					
1616 H11	●	●	16	16	100	20	**DCM. 11T3..**	4015-M3.5x14	AADN-2-0001	AAV-06-M3.5x11	80-T15
2020 K11	●	●	20	20	125	25					
2525 M11	●	●	25	25	150	32					
3232 P11	●	●	32	32	170	40					

KAPR=62.5°







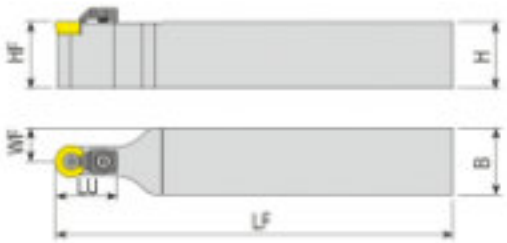
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*				Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile* Sıkma Vidası *Screw* *Schraube*	Altlık *Shim* *Unterlage*	Altlık Vidası *Shim Screw* *Schraube für Unterlage*	Tork Anahtar *Torx Key* *Torx-Schlüssel*
		HF=H	B	LF	WF					
SDNCN 0808 E07	●	08	08	70	4	**DCM. 0702..**	4008-M2.5x6	-	-	80-T08
1010 E07	●	10	10	70	5					
1212 F07	●	12	12	80	6					
1616 H07	●	16	16	100	8					
1616 H11	●	16	16	100	8	**DCM. 11T3..**	4015-M3.5x14	AADN-2-0001	AAV-06-M3.5x11	80-T15
2020 K11	●	20	20	125	10					
2525 M11	●	25	25	150	12.5					
3232 P11	●	32	32	170	16					

R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück SDJCR 0808 E07

BF SERVICE







Takım Kodu Ordering Code Bestell-Bezeichnung	Stok Stock Lager	Takım Ölçüleri (mm) Dimensions (mm) Abmessung (mm)					Kesici Uç Insert Wendeschneidplatte	Yedek Parçaları / Spare Parts / Ersatzteile					
		HF=H	B	LF	LU	WF		Sıkma Vidası Screw Schraube	Altlık Shim Unterlage	Altlık Vidası Shim Screw Unterlagschraube	Baskı Parçası Wedge Clamp Spannpratze	Baskı Vidası Clamp Screw Klemmschraube	Torx Anahtar Torx Key Torx-Schlüssel
													
SRDCN 1616 H06	●	16	16	100	15	8	RC.T 0602..	3008-M2.5x6	-	-	-	-	80-T08
2020 K06	●	20	20	125	17	10							
2525 M06	●	25	25	150	17	12.5							
1616 H08C	●	16	16	100	15	8	RC.T 0803..	3008-M3x8	-	-	ACK-15	4015-M3.5x11	
2020 K08C	●	20	20	125	20	10							
2525 M08C	●	25	25	150	20	12.5							
1616 H10C	●	16	16	100	20	8	RC.T 10T3..	4015-M3.5x11	-	-			80-T15
2020 K10C	●	20	20	125	20	10							
2525 M10C	●	25	25	150	20	12.5							
3232 P10C	●	32	32	170	20	16							
2020 K12C	●	20	20	125	22	10	RC.T 1204..	4015-M3.5x11	-	-	ACK-05	4015-M4x11	
2525 M12C	●	25	25	150	22	12.5							
3232 P12C	●	32	32	170	22	16							
2525 M16C	●	25	25	150	32	12.5	RC.T 1605..	1020-M5x11	-	-			80-T20
3232 P16C	●	32	32	170	35	16							
2525 M20C	●	25	25	150	32	12.5	RC.T 2006..	1420-M6x16	-	-	ACK-09	AAV-05-M6x15	
3232 P20C	●	32	32	170	40	16							
3232 P25C	●	32	32	170	40	16	RC.T 2507..	1520-M6x16					
3232 P32C	●	32	32	170	45	16	RC.T 3209..	1904-M8x1x20					AAL-05-4

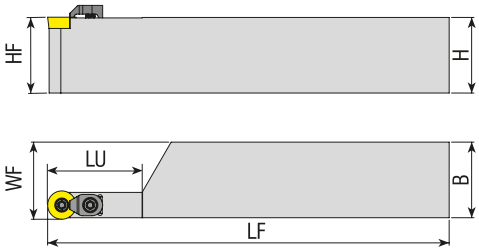
R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*

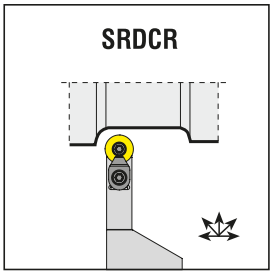
Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./*stück* SRDCN 1616 H06



BF SERVICE

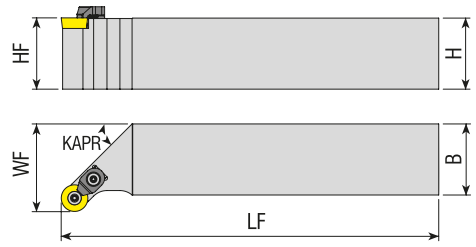


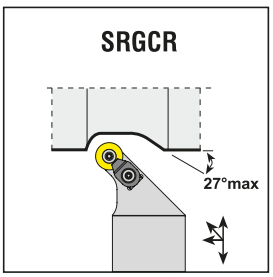




Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*					
									Sıkma Vidası *Screw* *Schraube*	Altlık *Shim* *Unterlage*	Altlık Vidası *Shim Screw* *Schraube für Unterlage*	Baskı Parçası *Wedge Clamp* *Spannpratze*	Baskı Vidası *Clamp Screw* *Klemmschraube*	Tork Anahtar *Torx Key* *Torx-Schlüssel*
	R	L	HF=H	B	LF	LU	WF							
SRDCR/L 3232 T06	●	●	32	32	300	20	32.35	**RC.T 0602..**	3008-M2.5x6	-	-	-	-	80-T08
3232 P12C	●	●	32	32	170	40	32.65	**RC.T 1204..**	4015-M3.5x11			ACK-05	4015-M4x11	80-T15







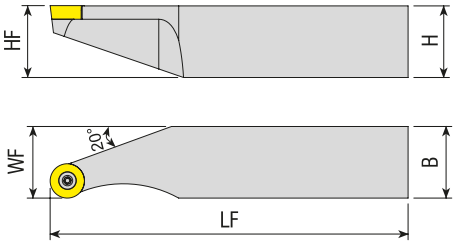
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*				Kesici Uç *Insert* *Wendeschneidplatte*	Sıkma Vidası *Screw* *Schraube*	Altlık *Shim* *Unterlage*	Altlık Vidası *Shim Screw* *Schraube für Unterlage*	Baskı Parçası *Wedge Clamp* *Spannpratze*	Baskı Vidası *Clamp Screw* *Klemmschraube*	Tork Anahtar *Torx Key* *Torx-Schlüssel*
	R	L	HF=H	B	LF	WF							
SRGCR/L 1616 H06	●	●	16	16	100	20	**RC.T 0602..**	3008-M2.5x6	-	-	-	-	80-T08
2020 K06	●	●	20	20	125	25							
1616 H08C	●	●	16	16	100	20	**RC.T 0803..**	3008-M3x8	-	-	ACK-15	4015-M3.5x11	
2020 K08C	●	●	20	20	125	25							
2525 M08C	●	●	25	25	150	32							
1616 H10C	●	●	16	16	100	20	**RC.T 10T3..**	4015-M3.5x11	-	-			80-T15
2020 K10C	●	●	20	20	125	25							
2525 M10C	●	●	25	25	150	32							
3232 P10C	●	●	32	32	170	40							
2020 K12C	●	●	20	20	125	25	**RC.T 1204..**	4015-M3.5x11	-	-	ACK-05	4015-M4x11	
2525 M12C	●	●	25	25	150	32							
3232 P12C	●	●	32	32	170	40							

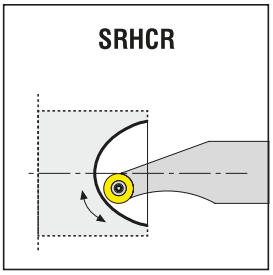
R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück SRDCR 3232 T06

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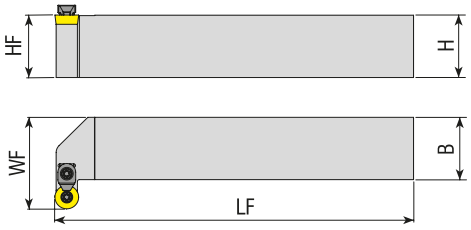


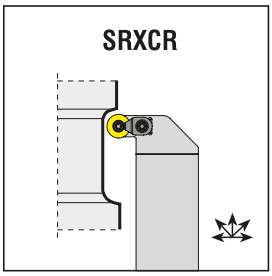




Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*			
									Sıkma Vidası *Screw* *Schraube*	Altlık *Shim* *Unterlage*	Altlık Vidası *Shim Screw* *Schraube für Unterlage*	Tork Anahtar *Torx Key* *Torx-Schlüssel*
	R	L	HF=H	B	LF	WF	MIN R					
SRHCR/L 2525 K06	●	○	25	25	125	25	32.5	**RCM. 0602..**	3008-M2.5x6	-	-	80-T08
2525 K08	●	●	25	25	125	25	32.5	**RCM. 0803..**	3008-M3x8	-	-	
2525 K10	●	●	25	25	125	25	36	**RCM. 10T3..**	4015-M3.5x11	-	-	80-T15
2525 K12	●	●	25	25	125	25	40	**RCM. 1204..**				
2525 K16	●	●	25	25	125	25	47.5	**RCM. 1606..**	1020-M5x11	-	-	80-T20







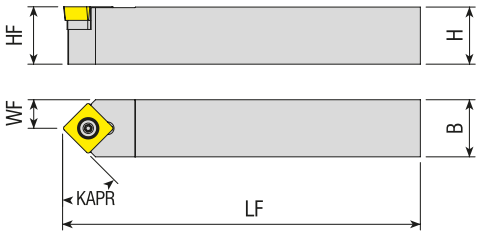
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*				Kesici Uç *Insert* *Wendeschneidplatte*	Sıkma Vidası *Screw* *Schraube*	Altlık *Shim* *Unterlage*	Altlık Vidası *Shim Screw* *Schraube für Unterlage*	Baskı Parçası *Wedge Clamp* *Spannpratze*	Baskı Vidası *Clamp Screw* *Klemmschraube*	Tork Anahtar *Torx Key* *Torx-Schlüssel*
	R	L	HF=H	B	LF	WF							
SRXCR/L 3232 X08C	●	●	32	32	220	47	**RC.T 0803..**	3008-M3x8	-	-	ACK-15	4015-M3.5x11	80-T08
3232 X10C	●	●	32	32	220	47	**RC.T 10T3..**	4015-M3.5x11					80-T15
3232 X12C	●	●	32	32	220	47	**RC.T 1204..**				ACK-05	4015-M4x11	

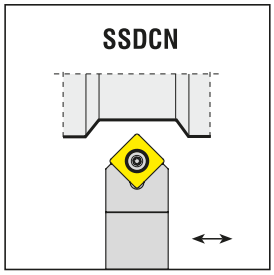
R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück SRHCR 2525 K16

BF SERVICE

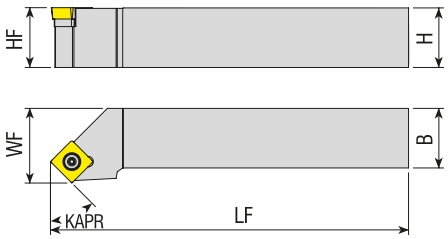


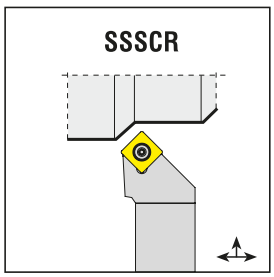




Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*				Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*			
							Sıkma Vidası *Screw* *Schraube*	Altlık *Shim* *Unterlage*	Altlık Vidası *Shim Screw* *Schraube für Unterlage*	Tork Anahtar *Torx Key* *Torx-Schlüssel*
		HF=H	B	LF	WF					
SSDCN 1212 F09	●	12	12	80	6	**SC.T 09T3..**	4015-M3.5x11	-	-	80-T15
1616 H09	●	16	16	100	8		4015-M3.5x14	AASN-2-0001	AAV-06-M3.5x11	
2020 K09	●	20	20	125	10					
1616 H12	●	16	16	100	8	**SC.T 1204..**	4020-M4.5x12	AASN-2-0004	AAV-10-M4.5x8	80-T20
2020 K12	●	20	20	125	10		1020-M4.5x16		AAV-07-M4.5x13	
2525 M12	●	25	25	150	12.5					







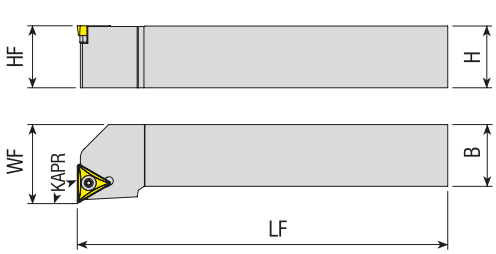
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*				Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*			
								Sıkma Vidası *Screw* *Schraube*	Altlık *Shim* *Unterlage*	Altlık Vidası *Shim Screw* *Schraube für Unterlage*	Tork Anahtar *Torx Key* *Torx-Schlüssel*
	R	L	HF=H	B	LF	WF					
SSSCR/L 1212 F09	●	●	12	12	80	16	**SC.T 09T3..**	4015-M3.5x11	-	-	80-T15
1616 H09	●	●	16	16	100	20		4015-M3.5x14	AASN-2-0001	AAV-06-M3.5x11	
2020 K09	●	●	20	20	125	25					
1616 H12	●	●	16	16	100	20	**SC.T 1204..**	4020-M4.5x12	AASN-2-0004	AAV-10-M4.5x8	80-T20
2020 K12	●	●	20	20	125	25		1020-M4.5x16		AAV-07-M4.5x13	
2525 M12	●	●	25	25	150	32					

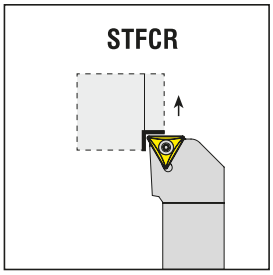
R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock / *Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück SSDCN 1212 F09

BF SERVICE

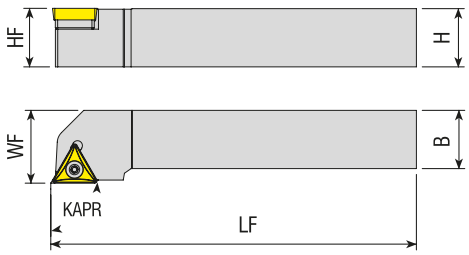


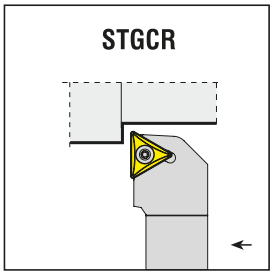




Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager* R	L	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)* HF=H	B	LF	WF	Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile* Sıkma Vidası *Screw* *Schraube*	Altlık *Shim* *Unterlage*	Altlık Vidası *Shim Screw* *Schraube für Unterlage*	Tork Anahtar *Torx Key* *Torx-Schlüssel*
STFCR/L 0808 E09	○	○	08	08	70	10	**TC.T 0902..**	3007-M2.2x5	-	-	80-T07
1010 E09	●	●	10	10	70	12					
1212 F11	●	●	12	12	80	16	**TC.T 1102..**	4008-M2.5x6			80-T08
1616 H11	●	●	16	16	100	20					
1616 H16	●	●	16	16	100	20	**TC.T 16T3..**	4015-M3.5x14	AATN-2-0001	AAV-06-M3.5x11	80-T15
2020 K16	●	●	20	20	125	25					
2525 M16	●	●	25	25	150	32					
3232 P16	●	●	32	32	170	40					







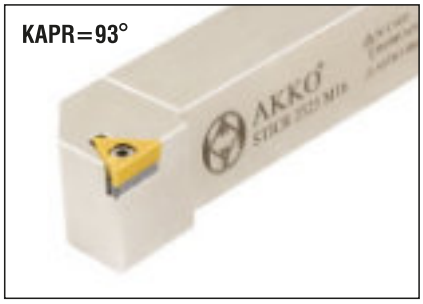
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager* R	L	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)* HF=H	B	LF	WF	Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile* Sıkma Vidası *Screw* *Schraube*	Altlık *Shim* *Unterlage*	Altlık Vidası *Shim Screw* *Schraube für Unterlage*	Tork Anahtar *Torx Key* *Torx-Schlüssel*
STGCR/L 0808 E09	●	●	08	08	70	10	**TC.T 0902..**	3007-M2.2x5	-	-	80-T07
1010 E09	●	●	10	10	70	12					
1212 F11	●	●	12	12	80	16	**TC.T 1102..**	4008-M2.5x6			80-T08
1616 H11	●	●	16	16	100	20					
1616 H16	●	●	16	16	100	20	**TC.T 16T3..**	4015-M3.5x14	AATN-2-0001	AAV-06-M3.5x11	80-T15
2020 K16	●	●	20	20	125	25					
2525 M16	●	●	25	25	150	32					
3232 P16	●	●	32	32	170	40					

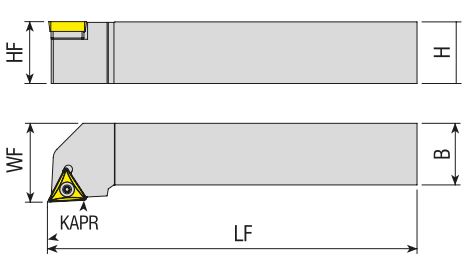
R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück STFCR 0808 E09

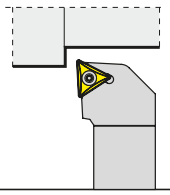
BF SERVICE

KAPR=93°





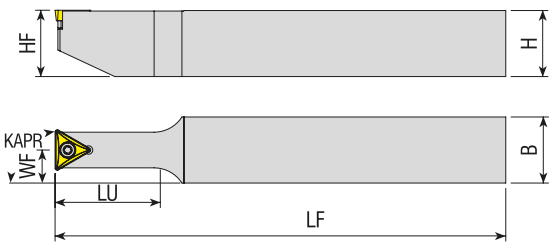
STJCR



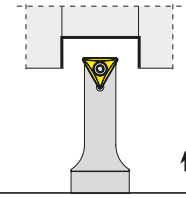
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*				Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile* Sıkma Vidası *Screw* *Schraube*	Altlık *Shim* *Unterlage*	Altlık Vidası *Shim Screw* *Schraube für Unterlage*	Tork Anahtar *Torx Key* *Torx-Schlüssel*
	R	L	HF=H	B	LF	WF					
STJCR/L 0808 E09	●	●	08	08	70	10	**TC.T 0902..**	3007-M2.2x5	-	-	80-T07
1010 E09	●	●	10	10	70	12					
1212 F11	●	●	12	12	80	16	**TC.T 1102..**	4008-M2.5x6			80-T08
1616 H11	●	●	16	16	100	20					
1616 H16	●	●	16	16	100	20	**TC.T 16T3..**	4015-M3.5x14	AATN-2-0001	AAV-06-M3.5x11	80-T15
2020 K16	●	●	20	20	125	25					
2525 M16	●	●	25	25	150	32					
3232 P16	●	●	32	32	170	40					

KAPR=90°





STCCN



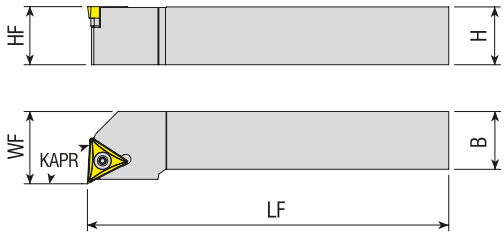
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile* Sıkma Vidası *Screw* *Schraube*	Altlık *Shim* *Unterlage*	Altlık Vidası *Shim Screw* *Schraube für Unterlage*	Tork Anahtar *Torx Key* *Torx-Schlüssel*
		HF=H	B	LF	WF	LU					
STCCN 2020 L11	●	20	20	140	10	50	**TC.T 1102..**	4008-M2.5x6	-	-	80-T08
1616 K16	●	16	16	125	8	24	**TC.T 16T3..**	4015-M3.5x14	AATN-2-0001	AAV-06-M3.5x11	80-T15
2020 M16	●	20	20	150	10	30					
2525 P16	●	25	25	170	12.5	37.5					
3232 R16	●	32	32	200	16	48					
2525 P22	●	25	25	170	12.5	80	**TC.T 2204..**	4020-M4.5x12	-	-	80-T20

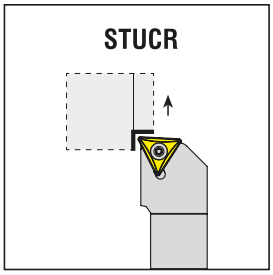
R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück STJCR 0808 E09

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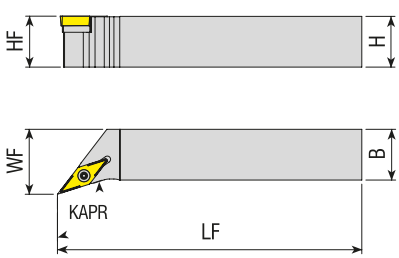


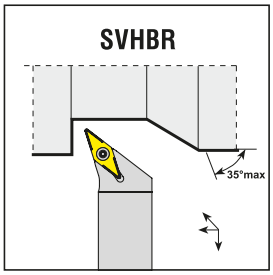


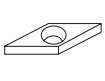


Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*				Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*			
								Sıkma Vidası *Screw* *Schraube*	Altlık *Shim* *Unterlage*	Altlık Vidası *Shim Screw* *Schraube für Unterlage*	Tork Anahtar *Torx Key* *Torx-Schlüssel*
	R	L	HF=H	B	LF	WF					
STUCR/L 0808 E09	●	●	08	08	70	10	**TC.T 0902..**	3007-M2.2x5	-	-	80-T07
1010 E09	●	●	10	10	70	12					
1212 F11	●	●	12	12	80	16	**TC.T 1102..**	4008-M2.5x6			80-T08
1616 H11	●	●	16	16	100	20					
1616 H16	○	○	16	16	100	20	**TC.T 16T3..**	4015-M3.5x14	AATN-2-0001	AAV-06-M3.5x11	80-T15
2020 K16	●	●	20	20	125	25					
2525 M16	●	●	25	25	150	32					
3232 P16	●	●	32	32	170	40					







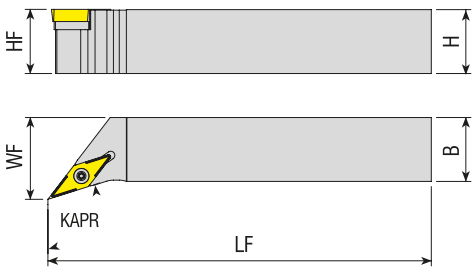
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*				Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*			
								Sıkma Vidası *Screw* *Schraube*	Altlık *Shim* *Unterlage*	Altlık Vidası *Shim Screw* *Schraube für Unterlage*	Tork Anahtar *Torx Key* *Torx-Schlüssel*
	R	L	HF=H	B	LF	WF					
SVHBR/L 1212 F11	●	●	12	12	80	16	**VBM. 1103..**	4008-M2.5x6	-	-	80-T08
1616 H11	●	●	16	16	100	20					
2020 K11	●	●	20	20	125	25					
2020 K16	●	●	20	20	125	25	**VBM. 1604..**	4015-M3.5x14	AAVN-2-0002	AAV-06-M3.5x11	80-T15
2525 M16	●	●	25	25	150	32					
3232 P16	●	●	32	32	170	40					

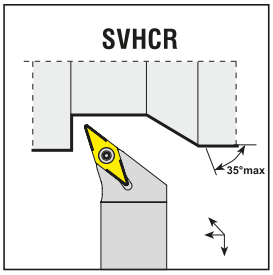
R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*

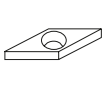
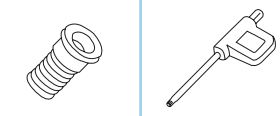
Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück STUCR 0808 E09

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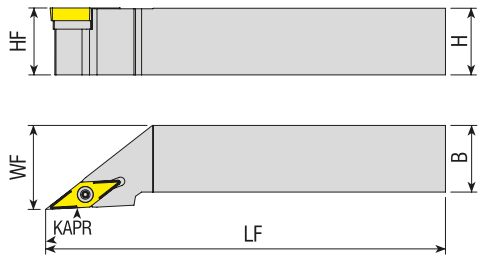


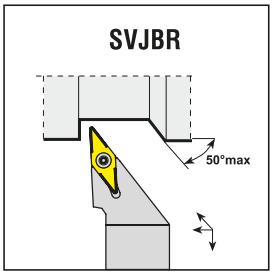


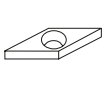
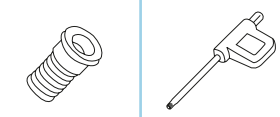


Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*				Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*			
								Sıkma Vidası *Screw* *Schraube*	Altlık *Shim* *Unterlage*	Altlık Vidası *Shim Screw* *Schraube für Unterlage*	Tork Anahtar *Torx Key* *Torx-Schlüssel*
	R	L	HF=H	B	LF	WF					
SVHCR/L 1212 F11	●	●	12	12	80	16					
1616 H11	●	●	16	16	100	20	**VC.T 1103..**	4008-M2.5x6	-	-	80-T08
2020 K11	●	●	20	20	125	25					
2020 K16	●	●	20	20	125	25					
2525 M16	●	●	25	25	150	32	**VC.T 1604..**	4015-M3.5x14	AAVN-2-0002	AAV-06-M3.5x11	80-T15
3232 P16	●	●	32	32	170	40					







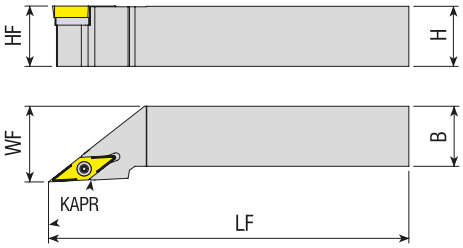
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*				Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*			
								Sıkma Vidası *Screw* *Schraube*	Altlık *Shim* *Unterlage*	Altlık Vidası *Shim Screw* *Schraube für Unterlage*	Tork Anahtar *Torx Key* *Torx-Schlüssel*
	R	L	HF=H	B	LF	WF					
SVJBR/L 1212 F11	●	●	12	12	80	16					
1616 H11	●	●	16	16	100	20	**VBM. 1103..**	4008-M2.5x6	-	-	80-T08
2020 K11	●	●	20	20	125	25					
1616 H16	●	●	16	16	100	20					
2020 K16	●	●	20	20	125	25	**VBM. 1604..**	4015-M3.5x14	AAVN-2-0002	AAV-06-M3.5x11	80-T15
2525 M16	●	●	25	25	150	32					
3232 P16	●	●	32	32	170	40					

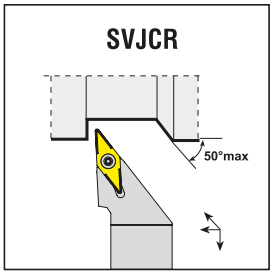
R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück SVHCR 1212 F11

BF SERVICE

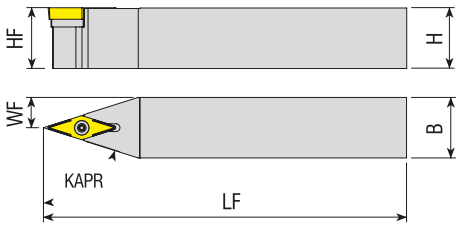


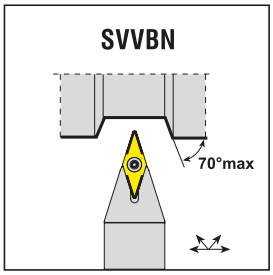




Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*				Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*			
								Sıkma Vidası *Screw* *Schraube*	Altlık *Shim* *Unterlage*	Altlık Vidası *Shim Screw* *Schraube für Unterlage*	Tork Anahtar *Torx Key* *Torx-Schlüssel*
	R	L	HF=H	B	LF	WF					
SVJCR/L 1212 F11	●	●	12	12	80	16	**VC.T 1103..**	4008-M2.5x6	-	-	80-T08
1616 H11	●	●	16	16	100	20					
2020 K11	●	●	20	20	125	25					
2525 M11	●	●	25	25	150	32					
1212 F16	●	●	12	12	80	16	**VC.T 1604..**	4015-M3.5x11	AAVN-2-0002	AAV-06-M3.5x11	80-T15
2020 K16	●	●	20	20	125	25		4015-M3.5x14			
2525 M16	●	●	25	25	150	32					
3232 P16	●	●	32	32	170	40					







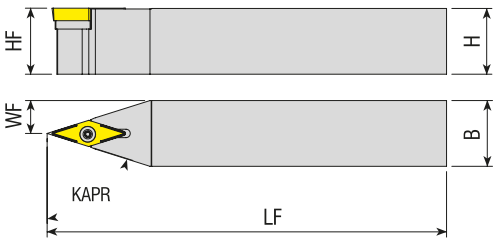
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*				Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*			
							Sıkma Vidası *Screw* *Schraube*	Altlık *Shim* *Unterlage*	Altlık Vidası *Shim Screw* *Schraube für Unterlage*	Tork Anahtar *Torx Key* *Torx-Schlüssel*
		HF=H	B	LF	WF					
SVVBN 1212 F11	●	12	12	80	06	**VBM. 1103..**	4008-M2.5x6	-	-	80-T08
1616 H11	●	16	16	100	08					
2020 K11	●	20	20	125	10					
2020 K16	●	20	20	125	10	**VBM. 1604..**	4015-M3.5x14	AAVN-2-0002	AAV-06-M3.5x11	80-T15
2525 M16	●	25	25	150	12.5					
3232 P16	●	32	32	170	16					

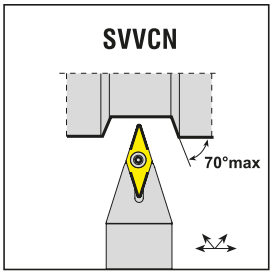
R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück SVJCR 1212 F11

BF SERVICE

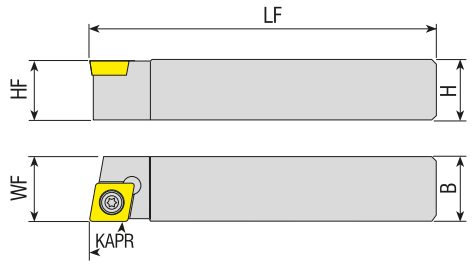


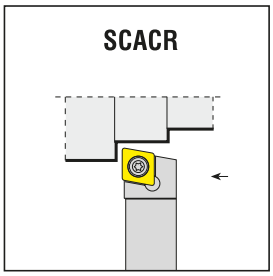




Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*				Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*			
		HF=H	B	LF	WF		Sıkma Vidası *Screw* *Schraube*	Altlık *Shim* *Unterlage*	Altlık Vidası *Shim Screw* *Schraube für Unterlage*	Tork Anahtar *Torx Key* *Torx-Schlüssel*
SVVCN 1212 F11	●	12	12	80	06	**VC.T 1103..**	4008-M2.5x6	-	-	80-T08
1616 H11	●	16	16	100	08					
2020 K11	●	20	20	125	10					
2020 K16	●	20	20	125	10	**VC.T 1604..**	4015-M3.5x14	AAVN-2-0002	AAV-06-M3.5x11	80-T15
2525 M16	●	25	25	150	12.5					
3232 P16	●	32	32	170	16					







Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*				Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*			
	R	L	HF=H	B	LF	WF		Sıkma Vidası *Screw* *Schraube*	Altlık *Shim* *Unterlage*	Altlık Vidası *Shim Screw* *Schraube für Unterlage*	Tork Anahtar *Torx Key* *Torx-Schlüssel*
SCACR/L 0808 X06-S	●	●	08	08	115	08	**CCM. 0602..**	4008-M2.5x6	-	-	80-T08
1010 K06-S	●	○	10	10	125	10					
1212 G06-S	●	○	12	12	90	12					
1212 K06-S	●	○	12	12	125	12					
1616 F06-S	○	○	16	16	75	16					
1616 K06-S	○	○	16	16	125	16					
1212 G09-S	○	○	12	12	90	12	**CCM. 09T3..**	4015-M3.5x11	-	-	80-T15
1212 K09-S	●	●	12	12	125	12					
1616 F09-S	○	○	16	16	75	16					
1616 K09-S	●	●	16	16	125	16					
2020 K09-S	●	●	20	20	125	20					

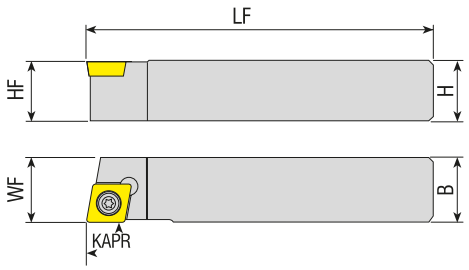
R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück SVVCN 1212 F11

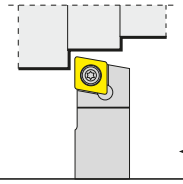
BF SERVICE

KAPR=95°





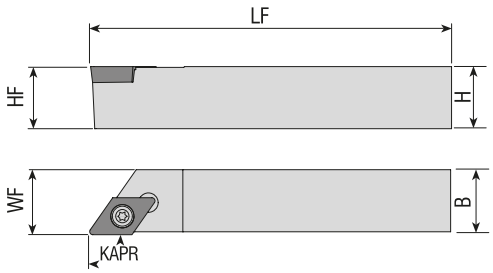
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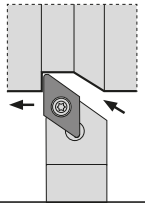
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*				Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*			
								Sıkma Vidası *Screw* *Schraube*	Altlık *Shim* *Unterlage*	Altlık Vidası *Shim Screw* *Schraube für Unterlage*	Tork Anahtar *Torx Key* *Torx-Schlüssel*
	R	L	HF=H	B	LF	WF					
SCLCR/L 0808 X06-S	●	●	08	08	115	08					
1010 X06-S	●	○	10	10	115	10					
1212 G06-S	●	●	12	12	90	12					
1212 X06-S	●	○	12	12	130	12	**CCM. 0602..**	4008-M2.5x6	-	-	80-T08
1212 K06-S	○	●	12	12	125	12					
1616 F06-S	●	○	16	16	75	16					
1616 X06-S	●	○	16	16	130	16					
1212 G09-S	●	●	12	12	90	12					
1212 X09-S	●	○	12	12	130	12					
1616 F09-S	●	○	16	16	75	16	**CCM. 09T3..**	4015-M3.5x11	-	-	80-T15
1616 G09-S	●	○	16	16	90	16					
1616 X09-S	●	○	16	16	115	16					
2020 X09-S	●	○	20	20	120	20					

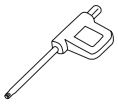
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SDACR



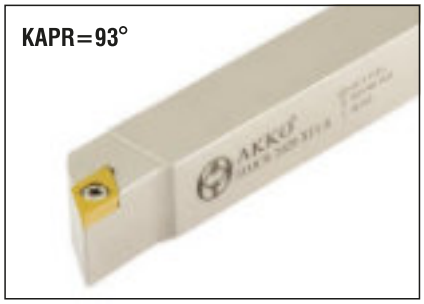
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*				Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*			
								Sıkma Vidası *Screw* *Schraube*	Altlık *Shim* *Unterlage*	Altlık Vidası *Shim Screw* *Schraube für Unterlage*	Tork Anahtar *Torx Key* *Torx-Schlüssel*
	R	L	HF=H	B	LF	WF					
SDACR/L 0808 X07-S	●	●	08	08	115	08					
1010 K07-S	●	●	10	10	125	10					
1212 G07-S	○	○	12	12	90	12	**DC.T 0702..**	4008-M2.5x6	-	-	80-T08
1212 K07-S	●	●	12	12	125	12					
1616 F07-S	●	○	16	16	75	16					
1616 K07-S	●	●	16	16	125	16					
1212 G11-S	○	○	12	12	90	12					
1212 K11-S	●	●	12	12	125	12					
1616 F11-S	●	●	16	16	75	16	**DC.T 11T3..**	4015-M3.5x11	-	-	80-T15
1616 K11-S	●	●	16	16	125	16					
2020 K11-S	●	●	20	20	125	20					

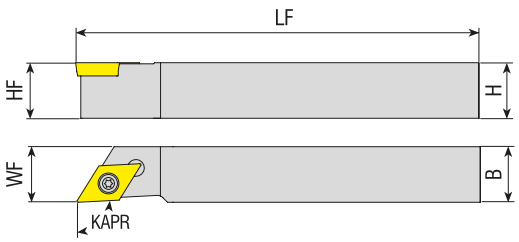
R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück SCLCR 0808 X06-S

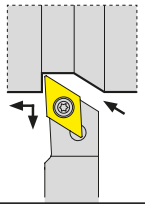
BF SERVICE

KAPR=93°





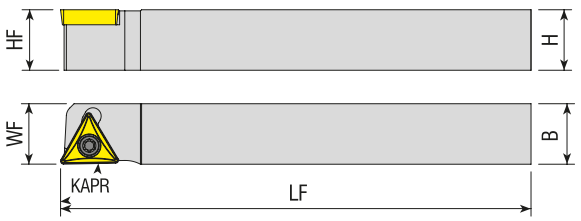
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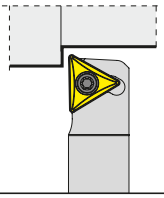
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*				Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*			
								Sıkma Vidası *Screw* *Schraube*	Altlık *Shim* *Unterlage*	Altlık Vidası *Shim Screw* *Schraube für Unterlage*	Tork Anahtar *Torx Key* *Torx-Schlüssel*
	R	L	HF=H	B	LF	WF					
SDJCR/L 0808 X07-S	●	○	08	08	115	08					
1010 X07-S	●	●	10	10	115	10					
1212 G07-S	●	○	12	12	90	12					
1212 X07-S	●	●	12	12	130	12	**DC.T 0702..**	4008-M2.5x6	-	-	80-T08
1616 F07-S	●	○	16	16	75	16					
1616 X07-S	●	○	16	16	130	16					
2020 X07-S	●	○	20	20	120	20					
1212 G11-S	●	○	12	12	90	12					
1212 X11-S	●	●	12	12	130	12					
1212 K11-S	●	●	12	12	125	12					
1616 F11-S	●	○	16	16	75	16	**DC.T 11T3..**	4015-M3.5x11	-	-	80-T15
1616 X11-S	●	●	16	16	130	16					
1616 K11-S	●	●	16	16	125	16					
2020 X11-S	●	○	20	20	120	20					

KAPR=91°





STGCR



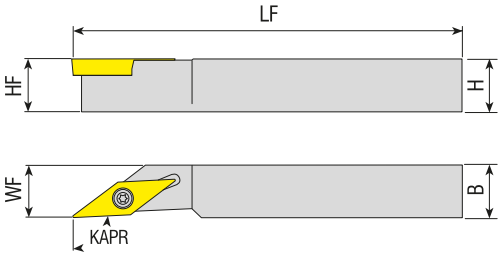
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*				Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*			
								Sıkma Vidası *Screw* *Schraube*	Altlık *Shim* *Unterlage*	Altlık Vidası *Shim Screw* *Schraube für Unterlage*	Tork Anahtar *Torx Key* *Torx-Schlüssel*
	R	L	HF=H	B	LF	WF					
STGCR/L 1216 K11-S	●	○	12	16	125	16	**TC.T 1102..**	4008-M2.5x6	-	-	80-T08
1616 K11-S	●	○	16	16	125	16					
1216 K16-S	●	○	12	16	125	16	**TC.T 16T3..**	4015-M3.5x11	-	-	80-T15
1616 K16-S	●	○	16	16	125	16					

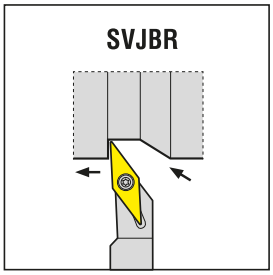
R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*

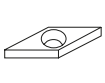
Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück SDJCR 0808 X07-S

BF SERVICE

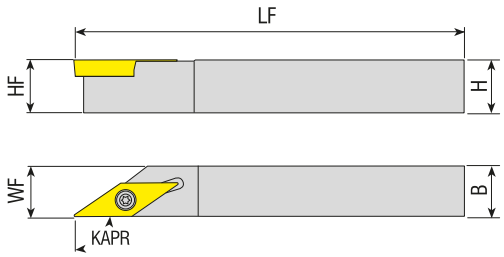


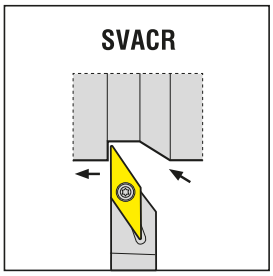


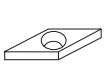


Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*				Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*			
								Sıkma Vidası *Screw* *Schraube*	Altlık *Shim* *Unterlage*	Altlık Vidası *Shim Screw* *Schraube für Unterlage*	Tork Anahtar *Torx Key* *Torx-Schlüssel*
	R	L	HF=H	B	LF	WF					
SVJBR/L 1616 K11-S	●	●	16	16	125	16	**VBM. 1103..**	4008-M2.5x6	-	-	80-T08







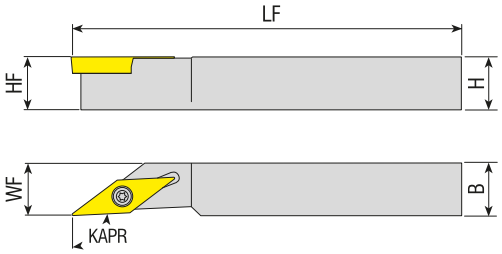
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*				Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*			
								Sıkma Vidası *Screw* *Schraube*	Altlık *Shim* *Unterlage*	Altlık Vidası *Shim Screw* *Schraube für Unterlage*	Tork Anahtar *Torx Key* *Torx-Schlüssel*
	R	L	HF=H	B	LF	WF					
SVACR/L 0808 X11-S	○	○	08	08	115	08	**VC.T 1103..**	4008-M2.5x6	-	-	80-T08
1010 K11-S	●	○	10	10	125	10					
1212 G11-S	○	○	12	12	90	12					
1212 K11-S	●	●	12	12	125	12					
1616 F11-S	○	○	16	16	75	16					
1616 K11-S	●	●	16	16	125	16					
2020 K11-S	●	●	20	20	125	20					
1212 K16-S	●	●	12	12	125	12	**VC.T 1604..**	4015-M3.5x11			80-T15
1616 K16-S	●	●	16	16	125	16					

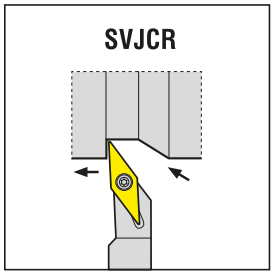
R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*

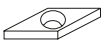
Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück SVJBR 1616 K11-S

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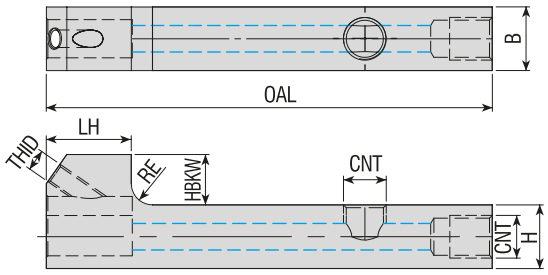


Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*				Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile* Sıkma Vidası *Screw* *Schraube*	Altlık *Shim* *Unterlage*	Altlık Vidası *Shim Screw* *Schraube für Unterlage*	Tork Anahtar *Torx Key* *Torx-Schlüssel*
	R	L	HF=H	B	LF	WF					
SVJCR/L 0808 X11-S	●	○	08	08	115	08	**VC.T 1103..**	4008-M2.5x6	-	-	80-T08
1010 K11-S	●	○	10	10	125	10					
1212 G11-S	○	○	12	12	90	12					
1212 K11-S	●	●	12	12	125	12					
1616 F11-S	○	○	16	16	75	16					
1616 K11-S	●	○	16	16	125	16					
2020 K11-S	○	○	20	20	125	20					

SEC TOOLS







Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*								Yedek Parçaları / *Spare Parts* / *Ersatzteile* Montaj Vidası *Mounting Screw* *Befestigungsschraube*	Anahtar *Allen Key* *Innensechskantschlüssel*
		H	B	RE	HBKW	LH	OAL	CNT	THID		
ASTB-1212-L84-H	●	12	12	4	9.5	16	84	M8x1	M4x0.7	2503-M4x12	AAL-03-3
ASTB-1616-L90-H	●	16	16	1	5.5	16	90	M8x1	M4x0.7		

R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*

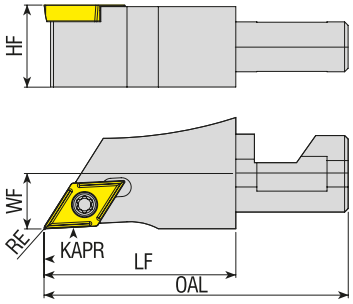
Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück SVJCR 0808 X11-S

BF SERVICE

new

KAPR=93°



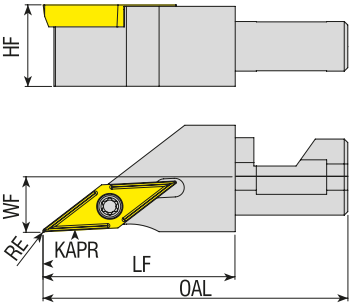


Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile* Sıkma Vidası *Screw* *Schraube*	Tork Anahtar *Torx Key* *Torx-Schlüssel*
	R	L	HF	WF	RE	LF	OAL			
SDJCR/L-12X43.3-07	●	●	11.8	8	0.2	27.3	43.3	**DC.T 070202**	4008-M2.5x6	80-T08
SDJCR/L-16X43.3-07	●	○	15.8	8	0.2	27.3	43.3			
SDJCR/L-12X43.3-11	●	●	11.8	8	0.2	27.3	43.3	**DC.T 11T302**	4015-M3.5x11	80-T15
SDJCR/L-16X43.3-11	●	○	15.8	8	0.2	27.3	43.3			

new

KAPR=93°



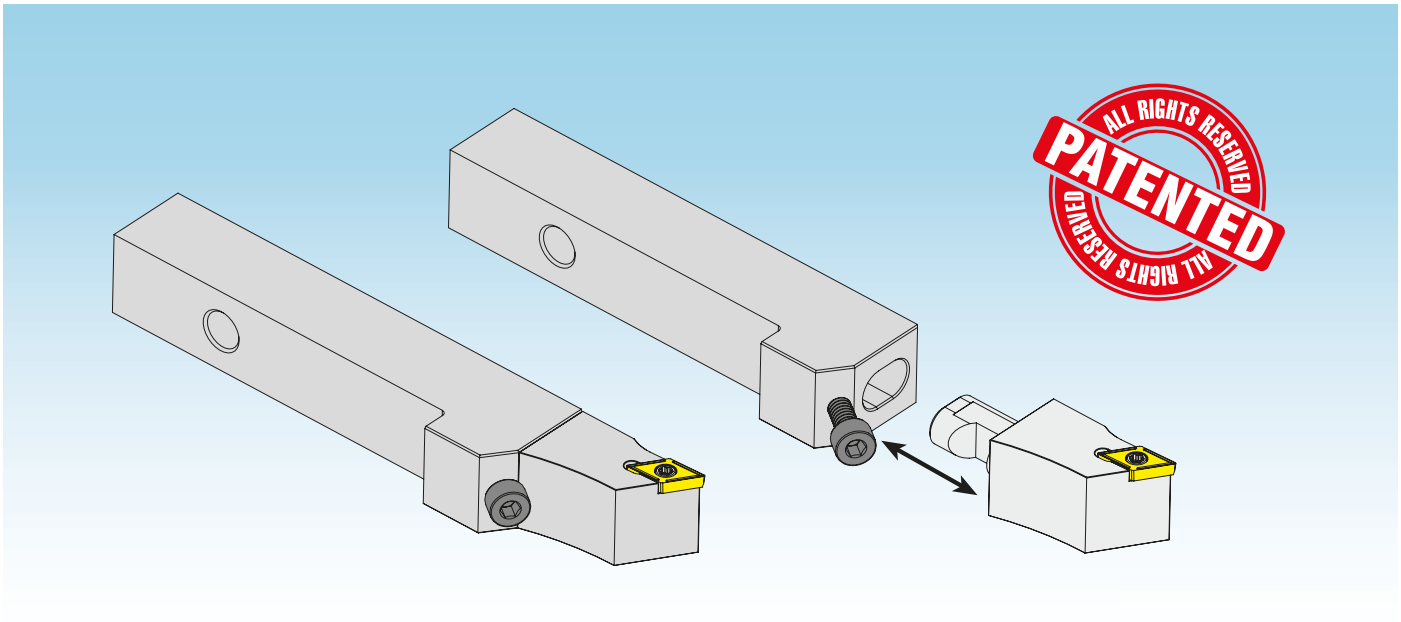


Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile* Sıkma Vidası *Screw* *Schraube*	Tork Anahtar *Torx Key* *Torx-Schlüssel*
	R	L	HF	WF	RE	LF	OAL			
SVJCR/L-12-43.3-11	●	●	11.8	8	0.2	27.3	43.3	**VC.T 110202**	4008-M2.5x6	80-T08
SVJCR/L-16-43.3-11	●	●	15.8	8	0.2	27.3	43.3			

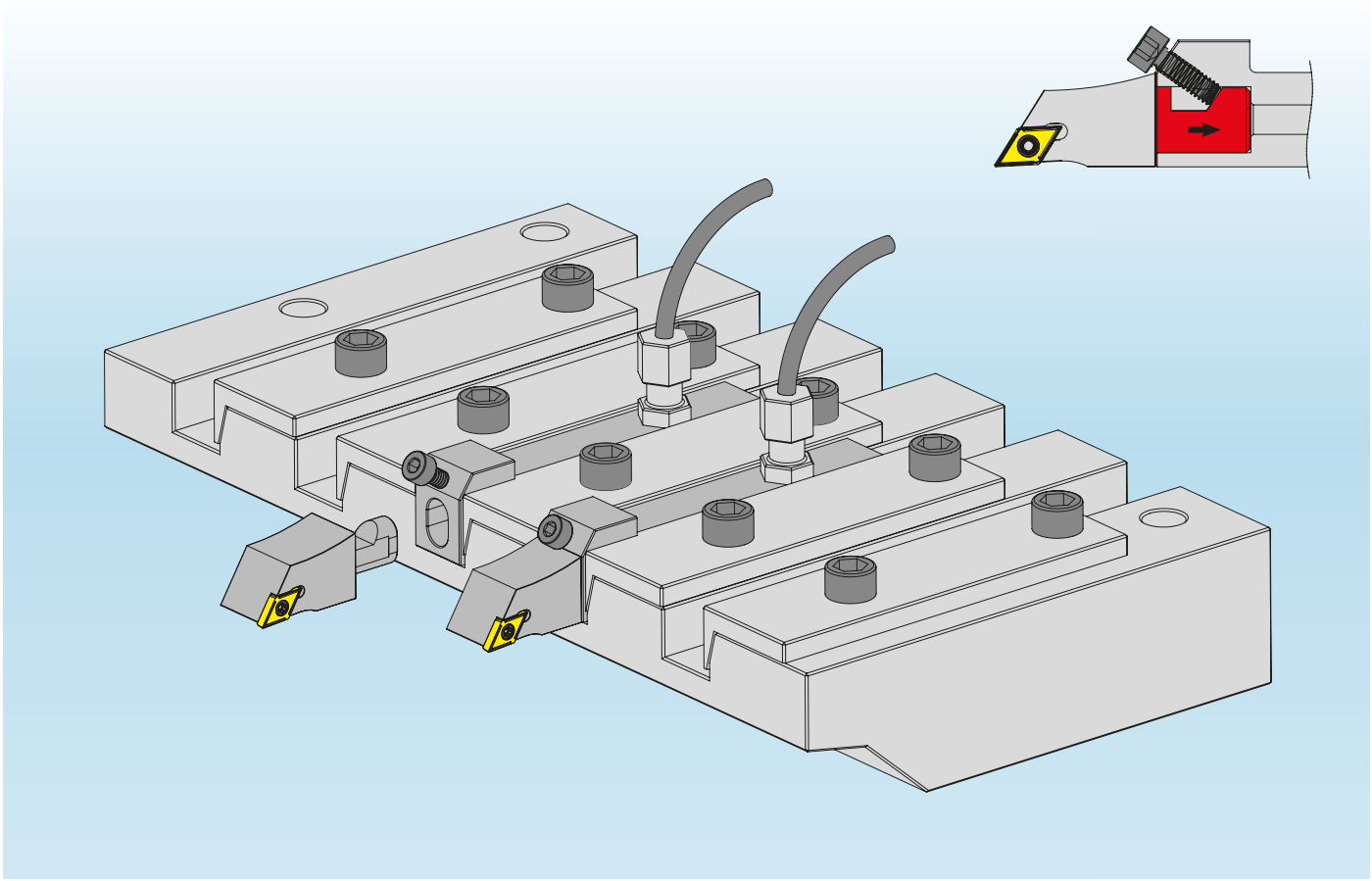
R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück SDJCR-12X43.3 07

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Takım tutucuyu, bağlama ünitesinden sökme zorunluğu kalmadan hızlıca değiştirin!	Quick change, without having to remove the tool-holder from the gang !	Es ist nicht nötig, den Grundhalter vom Werkzeugträger zu entfernen schnelle wechsel möglich!
Makina dışında ön ayar yapmak mümkün.	Presetting is possible outside of the machine.	Voreinstellung ausserhalb der Maschine ist möglich.
Çok hassas montaj.	Ultra precise fitting.	Ultra-präziser Montage.
Rijit sabitleme.	Rigid fixation.	Starre Befestigung.
Takım tutucu bölümü: 12x12 ve 16x16 mm.	Tool-holder section : 12x12 and 16x16 mm.	Grundhalter: 12x12 und 16x16mm.
Sağ ve sol uçlar kullanılır.	Left and right inserts available.	Links und Rechts WSP verwendbar.



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DELİK TORNA TAKIMLARI

INTERNAL TURNING TOOLHOLDERS

DREHWERKZEUGE FÜR DIE INNENBEARBEITUNG



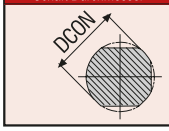
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S	25	S	P	C	L	N	R	12	C
1	2	3	4	5	6	7	8	9	10

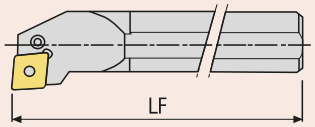
1 Takım Malzemesi / *Type of Boring Bar* / *Art der Bohrstange*

"A" Yekpare çelik gövde soğutma suyu kanallı / *"A" Solid steel with coolant hole*
"A" Vollstahlausführung mit innere Kühlmittelzufuhr
"E" Çelik başlıkla sert matal gövde ve soğutma suyu kanallı / *"E" Carbide bar with fixed steel head and coolant hole*
"E" Hartmetallschaft mit Kopf aus Stahl und innere Kühlmittelzufuhr
"C" Karbür Şaft / *"C" Carbide shank* / *"C" Hartmetallschaft mit Kopf aus Stahl ohne innere Kühlmittelzufuhr*
"S" Çelik Şaft / *"S" Steel shank* / *"S" Vollstahlausführung ohne innere Kühlmittelzufuhr*

2 Şaft Çapı / *Shank Diameter* / *Schaft Durchmesser*



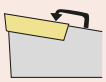
3 Şaft Boyu / *Shank Length* / *Schaft Länge*



(mm)

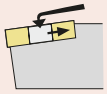
A - 32	H - 100	Q - 180	x-special
B - 40	J - 110	R - 200	
C - 50	K - 125	S - 250	
D - 60	L - 140	T - 300	
E - 70	M - 150	U - 350	
F - 80	N - 160	V - 400	
G - 90	P - 170	W - 450	

4 Sıkma Tipi / *Method of Mounting of Insert* / *Art der Schneideplattenbefestigung*



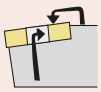
Deliksiz Üstten Sıkma
Top Clamping Without Hole
Pratzenklemmung

C



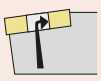
Üstten Delikle Sıkma
Top and Hole Clamping
Keilspannpratzensystem

T



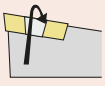
Üstten ve Delikten Sıkma
Top and Hole Clamping
Keilspannpratzensystem

M



Delikten Levye ile Sıkma
Hole Clamping (Lever Lock)
Kniehebel-Spannsystem

P



Vida ile Sıkma
Screw on
Schrauben-Spannsystem

S

5 Uç Tipi / *Type of Insert* / *Plattenform*



C



D



E



V



R



S



W

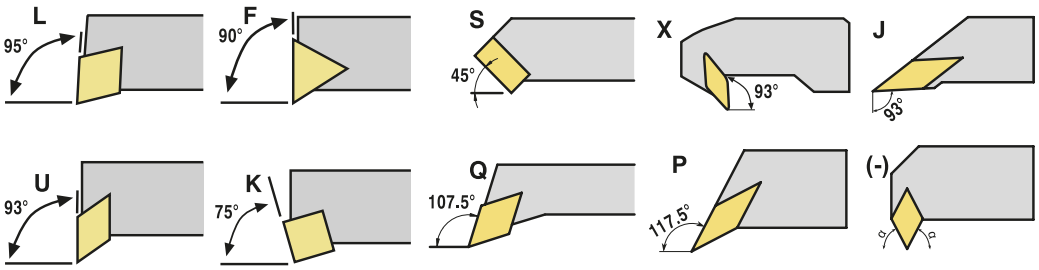


K

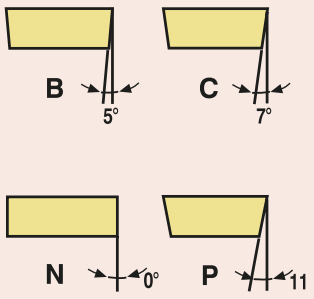


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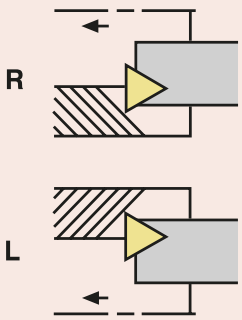
6 Yanaşma Açısı / *Tool Holder Shape Bar Geometry* / *Anstellwinkel*



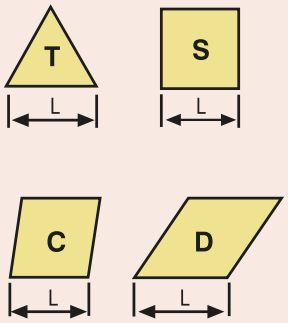
7 Serbest Uç Açısı / *Insert Clearance Ange* / *Freiwinkel*



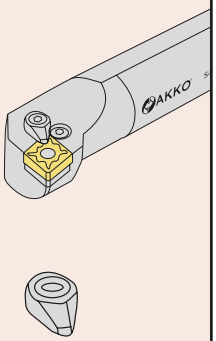
8 Kesme Yönü / *Cutting Direction* / *Halterausführung*



9 Kesme Kenar Uzunluğu / *Cutting Edge Length* / *Schneidkantenlänge*



10 Baskı Pabucu / *Wedge Clamp* / *Spannpratze*



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konuşulan
the spoken kalite...
quality...

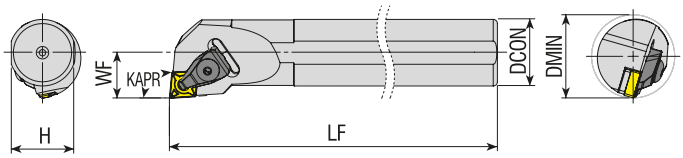
T&C-SİSTEM

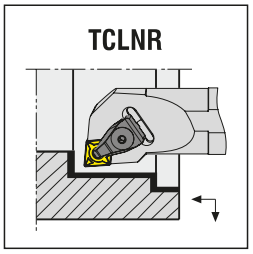
T&C SİSTEM DELİK TORNA KATERLERİ
T&C SYSTEM BORING BARS
T&C SYSTEM BOHRSTANGE



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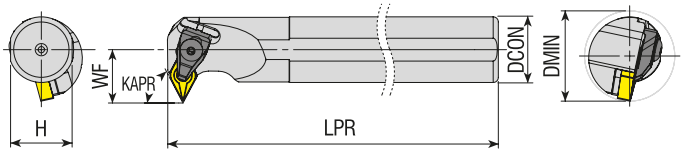


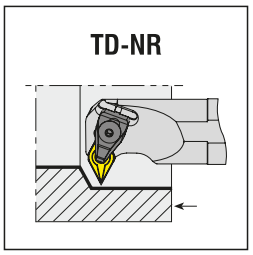




Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*							
	R	L	DCON	H	LF	WF	DMIN		Baskı Pabucu *Wedge Clamp* *Spannpratze*	Pabuç Vidası *Clamp Screw* *Klemmschraube*	Altlık *Shim* *Unterlage*	Altlık Vidası *Shim Screw* *Schraube für Unterlage*	Sekman *Ring* *Feder*	Pul *Stamp* *Ring*	Anahtar *Allen Key* *Innensechskantschlüssel*
S25S TCLNR/L 09	●	●	25	23	250	17	≥32	**CNM. 0903..**	ATK-01	AKV-01-M5x22	AACN -2-0001	AAV-09-M5x9	-		
S25S TCLNR/L 12	●	●	25	23	250	17	≥32					AAV-13-M5x8			
S32T TCLNR/L 12	●	●	32	30	300	22	≥40	**CNM. 1204..**	ATK-02	AKV-30-M6x22	AACN -3-0001	AAV-02-M5x12	AS-01	ABPL-01	AAL-03-3
S40U TCLNR/L 12	●	●	40	37.5	350	27	≥50								
S50V TCLNR/L 12	●	●	50	47	400	35	≥63								
S32T TCLNR/L 16	●	●	32	30	300	22	≥40								
S40U TCLNR/L 16	●	●	40	37.5	350	27	≥50	**CNM. 1606..**	ATK-04	AKV-19-M7x25	AACN -3-0002	AAV-05-M6x15	-	ABPL-02	AAL-05-4
S50V TCLNR/L 16	●	●	50	47	400	35	≥63								







Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*							
	R	L	DCON	H	LPR	WF	DMIN		Baskı Pabucu *Wedge Clamp* *Spannpratze*	Pabuç Vidası *Clamp Screw* *Klemmschraube*	Altlık *Shim* *Unterlage*	Altlık Vidası *Shim Screw* *Schraube für Unterlage*	Sekman *Ring* *Feder*	Pul *Stamp* *Ring*	Anahtar *Allen Key* *Innensechskantschlüssel*
S32T TD-NR/L 15	●	●	32	30	300	26	≥44								
S40U TD-NR/L 15	●	●	40	37.5	350	29	≥52	**DNM. 1506..**	ATK-02	AKV-30-M6x22	AADN-3-0001	AAV-02-M5x12	AS-01	ABPL-01	AAL-03-3
S50V TD-NR/L 15	●	●	50	47	400	35	≥63								

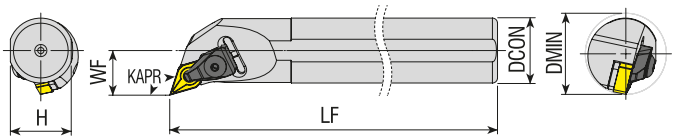
R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück S25S TCLNR 09

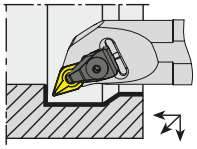
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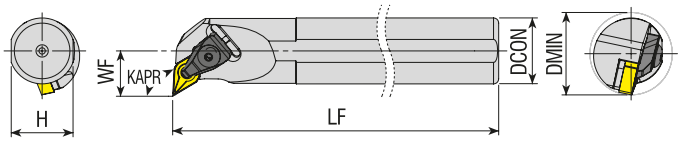
TDQNR



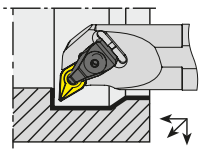
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*						
	R	L	DCON	H	LF	WF	DMIN		Baskı Pabucu *Wedge Clamp* *Spannpratze*	Pabuç Vidası *Clamp Screw* *Klemmschraube*	Altlık *Shim* *Unterlage*	Altlık Vidası *Shim Screw* *Schraube für Unterlage*	Sekman *Ring* *Feder*	Pul *Stamp* *Ring*	Anahtar *Allen Key* *Innensechskantschlüssel*
S25S TDQNR/L 11	●	●	25	23	250	17	≥32	**DNM. 1104..**	ATK-01	AKV-01-M5x22	AADN -2-0001	AAV-09-M5x9	-	ABPL-01	AAL-03-3
S32T TDQNR/L 11	●	●	32	30	300	22	≥40					AAV-04-M5x12			
S25S TDQNR/L 15	●	●	25	23	250	17	≥32	**DNM. 1506..**	ATK-02	AKV-30-M6X22	AADN-3-0001	AAV-13-M5X8	AS-01		
S32T TDQNR/L 15	●	●	32	30	300	22	≥40					AAV-02-M5x12			
S40U TDQNR/L 15	●	●	40	37.5	350	27	≥50								
S50V TDQNR/L 15	●	●	50	47	400	35	≥63								

KAPR=93°





TDUNR



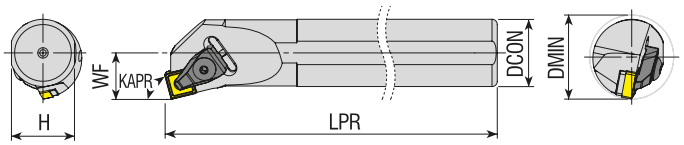
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*						
	R	L	DCON	H	LF	WF	DMIN		Baskı Pabucu *Wedge Clamp* *Spannpratze*	Pabuç Vidası *Clamp Screw* *Klemmschraube*	Altlık *Shim* *Unterlage*	Altlık Vidası *Shim Screw* *Schraube für Unterlage*	Sekman *Ring* *Feder*	Pul *Stamp* *Ring*	Anahtar *Allen Key* *Innensechskantschlüssel*
S25S TDUNR/L 11	●	●	25	23	250	17	≥32	**DNM. 1104..**	ATK-01	AKV-01-M5x22	AADN -2-0001	AAV-09-M5x9	-	ABPL-01	AAL-03-3
S32T TDUNR/L 11	●	●	32	30	300	22	≥40					AAV-04-M5x12			
S25S TDUNR/L 15	●	●	25	23	250	17	≥34	**DNM. 1506..**	ATK-02	AKV-30-M6x22	AADN -3-0001	AAV-13-M5x8	AS-01		
S32T TDUNR/L 15	●	●	32	30	300	22	≥40					AAV-02-M5x12			
S40U TDUNR/L 15	●	●	40	37.5	350	27	≥50								
S50V TDUNR/L 15	●	●	50	47	400	35	≥63								

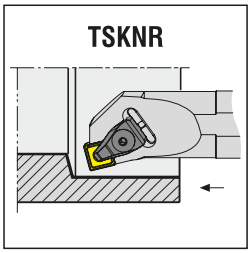
R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück S25S TDQNR 11

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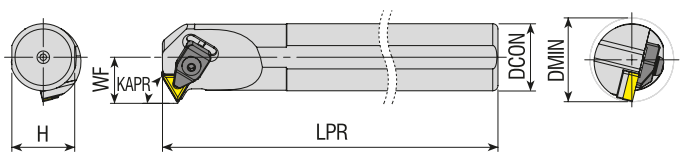


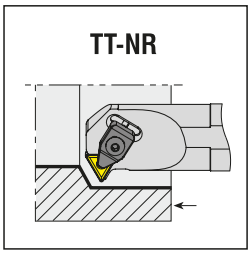




Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*						
									Baskı Pabucu *Wedge Clamp* *Spannpratze*	Pabuç Vidası *Clamp Screw* *Klemmschraube*	Altlık *Shim* *Unterlage*	Altlık Vidası *Shim Screw* *Schraube für Unterlage*	Sekman *Ring* *Feder*	Pul *Stamp* *Ring*	Anahtar *Allen Key* *Innensechskantschlüssel*
	R	L	DCON	H	LPR	WF	DMIN								
S25S TSKNR/L 12	●	●	25	23	250	17	≥32	**SNM. 1204..**	ATK-02	AKV-30-M6x22	AASN -3-0004	AAV-13-M5x8 AAV-02-M5x12	AS-01	ABPL-01	AAL-03-3
S32T TSKNR/L 12	●	●	32	30	300	22	≥40								
S40U TSKNR/L 12	●	●	40	37.5	350	27	≥50								





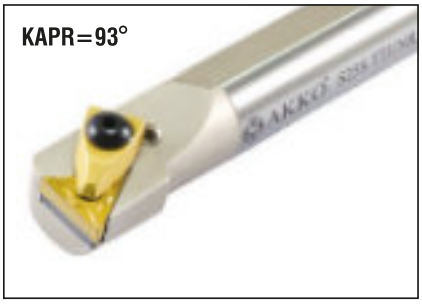


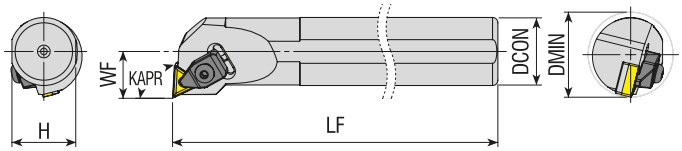
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*							
									Baskı Pabucu *Wedge Clamp* *Spannpratze*	Pabuç Vidası *Clamp Screw* *Klemmschraube*	Altlık *Shim* *Unterlage*	Altlık Vidası *Shim Screw* *Schraube für Unterlage*	Yay *Spring* *Feder*	Pul *Stamp* *Ring*	Anahtar *Allen Key* *Innensechskantschlüssel*
	R	L	DCON	H	LPR	WF	DMIN								
S25S TT-NR/L 16	●	●	25	23	250	17	≥32	**TNM. 1604..**	ATK-01	AKV-01-M5x22	AATN-2-0002	AAV-03-M5x12	-	ABPL-01	AAL-03-3
S32T TT-NR/L 16	●	●	32	30	300	22	≥40								

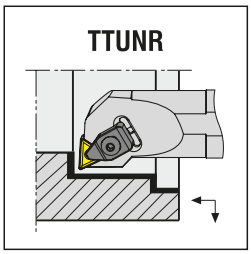
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● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück S25S TSKNR 12

BF SERVICE

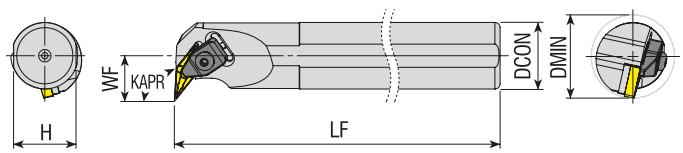


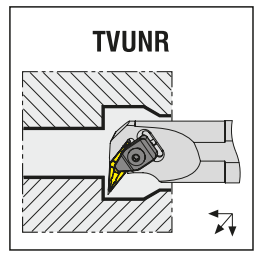




Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*							
									Baskı Pabucu *Wedge Clamp* *Spannpratze*	Pabuç Vidası *Clamp Screw* *Klemmschraube*	Altlık *Shim* *Unterlage*	Altlık Vidası *Shim Screw* *Schraube für Unterlage*	Sekman *Ring* *Feder*	Pul *Stamp* *Ring*	Anahtar *Allen Key* *Innensechskantschlüssel*
	R	L	DCON	H	LF	WF	DMIN								
S25S TTUNR/L 16	●	●	25	23	250	17	≥32	**TNM. 1604..**	ATK-01	AKV-01-M5x22	AATN -2-0002	AAV-03-M5x12	-	ABPL-01	AAL-03-3
S32T TTUNR/L 16	●	●	32	30	300	22	≥40								
S25S TTUNR/L 22	●	●	25	23	250	17	≥32	**TNM. 2204..**	ATK-02	AKV-30-M6x22	AATN -3-0015	AAV-02-M5x12	AS-01		
S32T TTUNR/L 22	●	●	32	30	300	22	≥40								
S40U TTUNR/L 22	●	●	40	37.5	350	27	≥50								
S50V TTUNR/L 22	●	●	50	47	400	35	≥63								







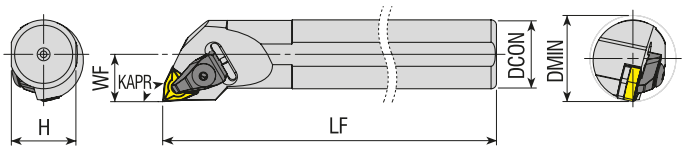
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									Baskı Pabucu *Wedge Clamp* *Spannpratze*	Pabuç Vidası *Clamp Screw* *Klemmschraube*	Altlık *Shim* *Unterlage*	Altlık Vidası *Shim Screw* *Schraube für Unterlage*	Yay *Spring* *Feder*	Pul *Stamp* *Ring*	Anahtar *Allen Key* *Innensechskantschlüssel*
	R	L	DCON	H	LF	WF	DMIN								
S25S TVUNR/L 16	●	●	25	23	250	20	≥36	**VNM. 1604..**	ATK-01	AKV-01-M5x22	AAVN -2-0002	AAV-04-M5x12	-	ABPL-01	AAL-03-3
S32T TVUNR/L 16	●	●	32	30	300	22	≥40								
S40U TVUNR/L 16	●	●	40	37.5	350	27	≥50								

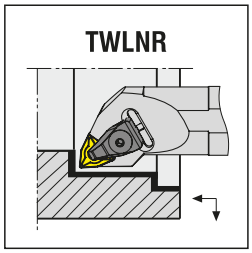
R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück S25S TTUNR 16

BF SERVICE



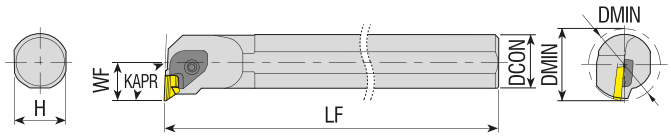


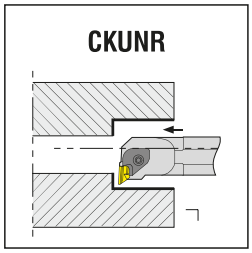


Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*							
	R	L	DCON	H	LF	WF	DMIN		Baskı Pabucu *Wedge Clamp* *Spannpratze*	Pabuç Vidası *Clamp Screw* *Klemmschraube*	Altlık *Shim* *Unterlage*	Altlık Vidası *Shim Screw* *Schraube für Unterlage*	Sekman *Ring* *Feder*	Pul *Stamp* *Ring*	Anahtar *Allen Key* *Innensechskantschlüssel*
S25S TWLNR/L 06	●	●	25	23	250	17	≥32	**WNM. 0604..**	ATK-01	AKV-01-M5x22	AAWN -SW317	AAV-01-M3x10	-		
S32T TWLNR/L 06	●	●	32	30	300	22	≥40								
S25S TWLNR/L 08	●	●	25	23	250	17	≥32	**WNM. 0804..**	ATK-02	AKV-30-M6x22	AAWN -3-0001	AAV-13-M5x8	AS-01	ABPL-01	AAL-03-3
S32T TWLNR/L 08	●	●	32	30	300	22	≥40					AAV-02-M5x12			
S40U TWLNR/L 08	●	●	40	37.5	350	27	≥50								
S50V TWLNR/L 08	●	●	50	47	400	35	≥63								
A40T TWLNR/L 08	●	○	40	37.5	300	27	≥50								
A50U TWLNR/L 08	●	○	50	47	350	35	≥63								

C-SİSTEM DELİK TORNA KATERLERİ
C-SYSTEM BORING BARS
C-SYSTEM BOHRSTANGE







Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*							
	R	L	DCON	H	LF	WF	DMIN		Baskı Pabucu *Wedge Clamp* *Spannpratze*	Pabuç Vidası *Clamp Screw* *Klemmschraube*	Altlık *Shim* *Unterlage*	Altlık Vidası *Shim Screw* *Schraube für Unterlage*	Yay *Spring* *Feder*	Pul *Stamp* *Ring*	Anahtar *Allen Key* *Innensechskantschlüssel*
S25S CKUNR/L 16	●	●	25	23	250	19	≥38	**KNUX 1604..**	ACK-01-R ACK-02-L	AKV-06-M6x20	AKS-16-R AKS-16-L	AAV-01-M3x10	AKY-02	ABPL-01	AAL-05-4
S32T CKUNR/L 16	●	●	32	30	300	22	≥40								
S40U CKUNR/L 16	●	●	40	37.5	350	27	≥50								
S50V CKUNR/L 16	●	●	50	47	400	35	≥63								

R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück S25S TWLNR 06

BF SERVICE

AKKO®

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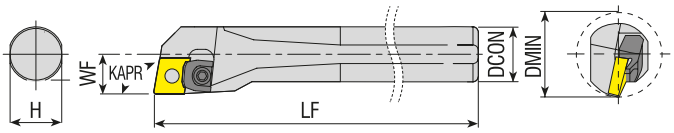
M-SİSTEM

M-SİSTEM DELİK TORNA KATERLERİ
M-SYSTEM BORING BARS
M-SYSTEM BOHRSTANGE

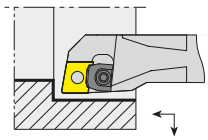


KAPR=95°





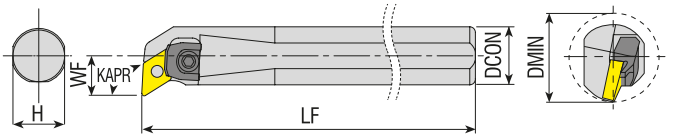
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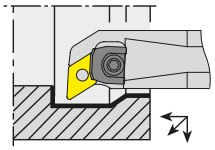
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*					
									Baskı Pabucu *Wedge Clamp* *Spannpratze*	Pabuç Vidası *Clamp Screw* *Klemmschraube*	Altlık *Shim* *Unterlage*	Pim *Pin* *Passstift*	Pul *Stamp* *Ring*	Anahtar *Allen Key* *Innensechskantschlüssel*
	R	L	DCON	H	LF	WF	DMIN							
S20R MCLNR/L 12	●	●	20	18.3	200	13	≥25	**CNM. 1204..**	AMK-07		-	APM-12		
S25S MCLNR/L 12	●	●	25	23	250	17	≥32		AMK-03	AKV-04-M5x17	AACN-3-0001	APM-13	-	AAL-03-3
S32T MCLNR/L 12	●	●	32	30	300	22	≥40					APM-04		

KAPR=93°





MDUNR



Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*							
									Baskı Pabucu *Wedge Clamp* *Spannpratze*	Pabuç Vidası *Clamp Screw* *Klemmschraube*	Altlık *Shim* *Unterlage*	Pim *Pin* *Passstift*	Sekman *Ring* *Feder*	Pul *Stamp* *Ring*	Anahtar *Allen Key* *Innensechskantschlüssel*
	R	L	DCON	H	LF	WF	DMIN								
S20R MDUNR/L 11	●	●	20	18.3	200	13	≥25	**DNM. 1104..**	AMK-03	AKV-17-M5x15	-	APM-03	-	-	AAL-03-3
S25S MDUNR/L 11	●	●	25	23	250	17	≥32			AKV-04-M5x17					
S32T MDUNR/L 11	○	○	32	30	300	22	≥40								
S25S MDUNR/L 15	●	●	25	23	250	17	≥32	**DNM. 1506..**	AMK-04	AKV-20-M6x19	AADN-3-0001	APM-04	-	ABPL-01	
S32T MDUNR/L 15	●	●	32	30	300	22	≥40			AKV-30-M6x22			AS-01		
S40U MDUNR/L 15	●	●	40	37.5	350	27	≥50								
S50V MDUNR/L 15	●	●	50	47	400	35	≥63								

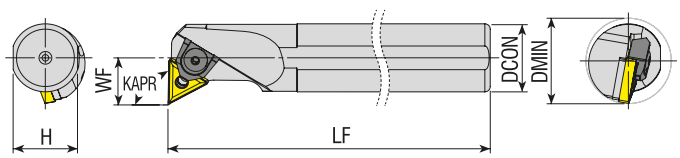
R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück S20R MCLNR 12

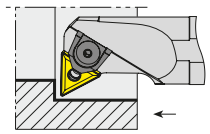
BF SERVICE

KAPR=90°





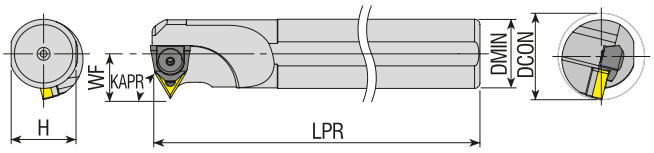
MTFNR



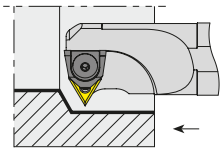
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*						
	R	L	DCON	H	LF	WF	DMIN		Baskı Pabucu *Wedge Clamp* *Spannpratze*	Pabuç Vidası *Clamp Screw* *Klemmschraube*	Altlık *Shim* *Unterlage*	Pim *Pin* *Passstift*	Sekman *Ring* *Feder*	Pul *Stamp* *Ring*	Anahtar *Allen Key* *Innensechskantschlüssel*
S20R MTFNR/L 16	●	●	20	18.3	200	14	≥25	**TNM. 1604..**	AMK-02	AKV-17-M5x15	-	APM-03	-	-	
S25S MTFNR/L 16	●	●	25	23	250	17	≥32					APM-14			
S32T MTFNR/L 16	●	●	32	30	300	22	≥40				AATN-2-0002				
S40U MTFNR/L 16	●	●	40	37.5	350	27	≥50		AMK-04	AKV-30-M6x22		APM-01	AS-01	ABPL-01	AAL-03-3
S32T MTFNR/L 22	●	●	32	30	300	22	≥40								
S40U MTFNR/L 22	●	●	40	37.5	350	27	≥50	**TNM. 2204..**			AATN-3-0015	APM-02			
S50V MTFNR/L 22	●	○	50	47	400	35	≥63								

KAPR=60°





MT-NR



Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*						
	R	L	DCON	H	LPR	WF	DMIN		Baskı Pabucu *Wedge Clamp* *Spannpratze*	Pabuç Vidası *Clamp Screw* *Klemmschraube*	Altlık *Shim* *Unterlage*	Pim *Pin* *Passstift*	Sekman *Ring* *Feder*	Pul *Stamp* *Ring*	Anahtar *Allen Key* *Innensechskantschlüssel*
S20R MT-NR/L 16	●	●	20	18.3	200	16	≥26	**TNM. 1604..**	AMK-02	AKV-04-M5x17	-	APM-03	-	-	
S25S MT-NR/L 16	●	●	25	23	250	17	≥32					APM-14			
S32T MT-NR/L 16	●	●	32	30	300	22	≥40				AATN-2-0002	APM-01	AS-01	ABPL-01	AAL-03-3
S40U MT-NR/L 16	●	●	40	37.5	350	27	≥50								
S32T MT-NR/L 22	●	●	32	30	300	24	≥40								
S40U MT-NR/L 22	●	●	40	37.5	350	27	≥50	**TNM. 2204..**	AMK-04	AKV-30-M6x22	AATN-3-0015	APM-02			
S50U MT-NR/L 22	●	●	50	47	350	35	≥63								

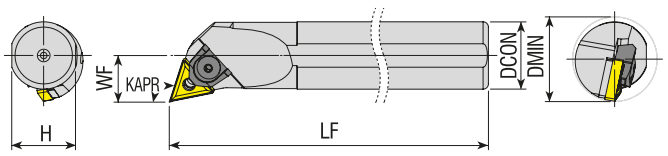
R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock / *Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück S20R MTFNR 16

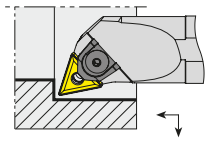
BF SERVICE

KAPR=107.5°





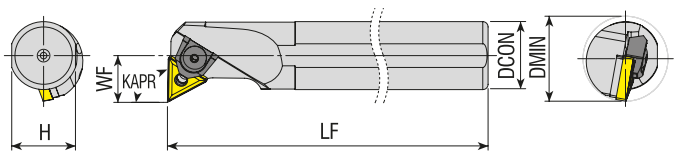
MTQNR



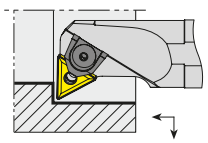
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*						
									Baskı Pabucu *Wedge Clamp* *Spannpratze*	Pabuç Vidası *Clamp Screw* *Klemmschraube*	Altlık *Shim* *Unterlage*	Pim *Pin* *Passstift*	Sekman *Ring* *Feder*	Pul *Stamp* *Ring*	Anahtar *Allen Key* *Innensechskantschlüssel*
	R	L	DCON	H	LF	WF	DMIN								
S20R MTQNR/L 16	●	●	20	18.3	200	13	≥25	**TNM. 1604..**	AMK-02	AKV-17-M5x15	-	APM-11	-	-	AAL-03-3
S25S MTQNR/L 16	●	●	25	23	250	17	≥32		AMK-04	AKV-30-M6x22	AATN-2-0002	APM-14	AS-01	ABPL-01	
S32T MTQNR/L 16	●	●	32	30	300	22	≥40								
S40U MTQNR/L 16	●	●	40	37.5	350	27	≥50					APM-01			
S32T MTQNR/L 22	●	●	32	30	300	22	≥40	**TNM. 2204..**			AATN-3-0015	APM-02			
S40U MTQNR/L 22	●	●	40	37.5	350	27	≥50								
S50V MTQNR/L 22	●	●	50	47	400	35	≥63								

KAPR=93°





MTUNR



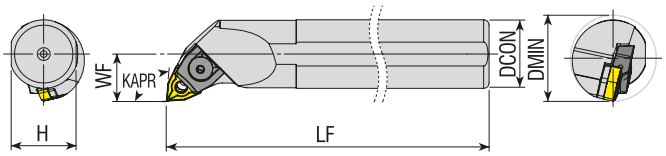
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									Baskı Pabucu *Wedge Clamp* *Spannpratze*	Pabuç Vidası *Clamp Screw* *Klemmschraube*	Altlık *Shim* *Unterlage*	Pim *Pin* *Passstift*	Sekman *Ring* *Feder*	Pul *Stamp* *Ring*	Anahtar *Allen Key* *Innensechskantschlüssel*
	R	L	DCON	H	LF	WF	DMIN								
S20R MTUNR/L 16	●	●	20	18.3	200	13	≥25	**TNM. 1604..**	AMK-02	AKV-17-M5x15	-	APM-03	-	-	AAL-03-3
S25S MTUNR/L 16	●	●	25	23	250	17	≥32		AMK-04	AKV-30-M6x22	AATN-2-0002	APM-14	AS-01	ABPL-01	
S32T MTUNR/L 16	●	●	32	30	300	22	≥40								
S40U MTUNR/L 16	●	●	40	37.5	350	27	≥50					APM-01			
S50V MTUNR/L 16	●	●	50	47	400	35	≥63								
S32T MTUNR/L 22	●	●	32	30	300	22	≥40	**TNM. 2204..**			AATN-3-0015	APM-02			
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S50V MTUNR/L 22	●	●	50	47	400	35	≥63								

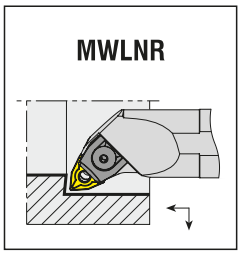
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● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück S20R MTQNR 16

BF SERVICE







Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*						
									Baskı Pabucu *Wedge Clamp* *Spannpratze*	Pabuç Vidası *Clamp Screw* *Klemmschraube*	Altlık *Shim* *Unterlage*	Pim *Pin* *Passstift*	Sekman *Ring* *Feder*	Pul *Stamp* *Ring*	Anahtar *Allen Key* *Innensechskantschlüssel*
	R	L	DCON	H	LF	WF	DMIN								
S16P MWLNR/L 06	●	●	16	14.8	170	11	≥20			AKV-17-M5x15		APM-09			
S20R MWLNR/L 06	●	●	20	18.3	200	13	≥25	**WNM. 0604..**	AMK-01	AKV-04-M5x17	-	APM-10	-	-	
S25S MWLNR/L 06	●	●	25	23	250	17	≥32					APM-08			AAL-03-3
S25S MWLNR/L 08	●	●	25	23	250	17	≥32			AKV-27-M6x20		APM-04			
S32T MWLNR/L 08	●	●	32	30	300	22	≥40	**WNM. 0804..**	AMK-05	AKV-03-M6x22	AAWN-3-0001	APM-02	AS-01	ABPL-01	
S40U MWLNR/L 08	●	●	40	37.5	350	27	≥50								

R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück S16P MWLNR 06



BF SERVICE

AKKO®

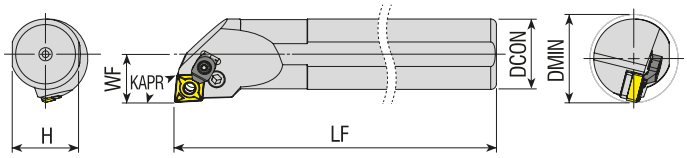
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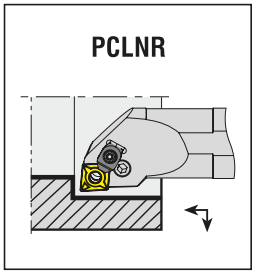
P-SİSTEM

P-SİSTEM DELİK TORNA KATERLERİ
P-SYSTEM BORING BARS
P- SYSTEM BOHRSTANGE









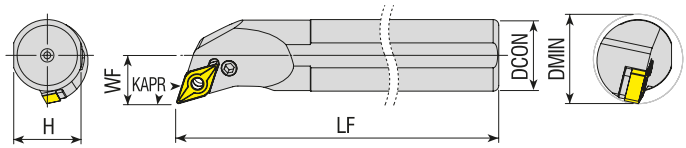
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*						
									Levye *Lever* *Kniehebel*	Levye Vidası *Lever Screw* *Kniehebelschraube*	Altlık *Shim* *Unterlage*	Altlık Yayı *Shim Spring* *Feder für Unterlage*	Baskı Pabucu *Wedge Clamp* *Spannpratze*	Pabuç Vidası *Clamp Screw* *Klemmschraube*	Anahtar *Allen Key* *Innensechskantschlüssel*
	R	L	DCON	H	LF	WF	DMIN								
S16P PCLNR/L 09	●	●	16	14.8	170	11	≥20	**CNM. 0903..**	APL-07	ALV-07-M6x13	-	AAY-07	-	-	AAL-02-2.5
S20R PCLNR/L 09	●	●	20	18.3	200	13	≥25		APL-01	ALV-02-M6x17	AACN-2-0002	AAY-01			
S25S PCLNR/L 09	●	○	25	23	250	17	≥32								
S25S PCLNR/L 12C	●	●	25	23	250	17	≥32	**CNM. 1204..**	APL-02	ALV-08-M8x16	AACN-3-0001	AAY-02	ACK-05	4015-M4x11	AAL-03-3
S32T PCLNR/L 12C	●	●	32	30	300	22	≥40			ALV-03-M8x19					
S40U PCLNR/L 12C	●	●	40	37.5	350	27	≥50								
S50V PCLNR/L 12C	●	●	50	47	400	35	≥63								
S32T PCLNR/L 16C	●	●	32	30	300	22	≥40	**CNM. 1606..**	APL-04	ALV-04-M8x22	AACN-3-0002	AAY-03	ACK-09	AAV-05-M6x15	
S40U PCLNR/L 16C	●	●	40	37.5	350	27	≥50								
S50V PCLNR/L 16C	●	●	50	47	400	35	≥63								
S40U PCLNR/L 19C	●	●	40	37.5	350	27	≥50	**CNM. 1906..**	APL-05	ALV-05-M10x27	AACN-3-0003	AAY-04	ACK-09	AAV-05-M6x15	AAL-05-4
S50V PCLNR/L 19C	●	●	50	47	400	35	≥63								
A25R PCLNR/L 12C	●	●	25	23	200	17	≥32	**CNM. 1204..**	APL-02	ALV-08-M8x16	AACN-3-0001	AAY-02	ACK-05	4015-M4x11	AAL-03-3
A32S PCLNR/L 12C	●	●	32	30	250	22	≥40			ALV-03-M8x19					
A40T PCLNR/L 12C	●	●	40	37.5	300	27	≥50								
A50U PCLNR/L 12C	●	●	50	47	350	35	≥63								
A32S PCLNR/L 16C	●	●	32	30	250	22	≥40	**CNM. 1606..**	APL-04	ALV-04-M8x22	AACN-3-0002	AAY-03	ACK-09	AAV-05-M6x15	
A40T PCLNR/L 16C	●	●	40	37.5	300	27	≥50								
A50U PCLNR/L 16C	●	●	50	47	350	35	≥63								
A40T PCLNR/L 19C	●	●	40	37.5	300	27	≥50	**CNM. 1906..**	APL-05	ALV-05-M10x27	AACN-3-0003	AAY-04	ACK-09	AAV-05-M6x15	AAL-05-4
A50U PCLNR/L 19C	●	●	50	47	350	35	≥63								

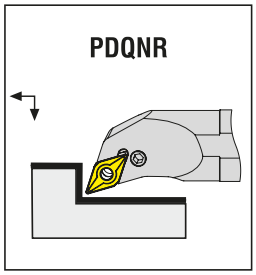
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● Stokta / In Stock / *Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück S16P PCLNR 09

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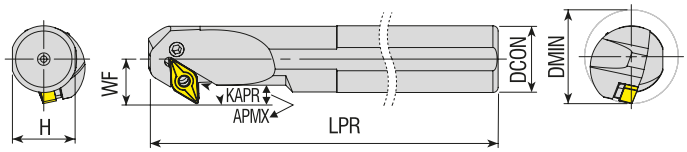


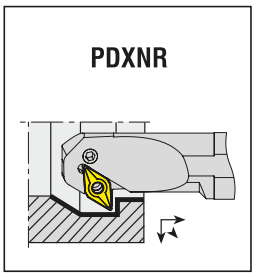




Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*						
									Levye *Lever* *Kniehebel*	Levye Vidası *Lever Screw* *Kniehebelschraube*	Altlık *Shim* *Unterlage*	Altlık Yayı *Shim Spring* *Feder für Unterlage*	Baskı Pabucu *Wedge Clamp* *Spannpratze*	Pabuç Vidası *Clamp Screw* *Klemmschraube*	Anahtar *Allen Key* *Innensechskantschlüssel*
	R	L	DCON	H	LF	WF	DMIN								
S20R PDQNR/L 11	●	○	20	18.3	200	13	≥25	**DNM. 1104..**	APL-01	ALV-01-M6x14 ALV-02-M6x17	AADN-SD317	AAY-01	-	-	AAL-02-2.5
S25S PDQNR/L 11	●	●	25	23	250	17	≥32								
S32T PDQNR/L 15	●	●	32	30	300	22	≥40	**DNM. 1506..**	APL-03	ALV-03-M8x19	AADN-3-0001	AAY-02			AAL-03-3
S40U PDQNR/L 15	●	●	40	37.5	350	27	≥50								
S50V PDQNR/L 15	●	●	50	47	400	35	≥63								
S32T PDQNR/L 1504	●	●	32	30	300	22	≥40	**DNM. 1504..**	APL-03	ALV-03-M8x19	AADN-2-0003	AAY-02	-	-	AAL-03-3
S40U PDQNR/L 1504	●	●	40	37.5	350	27	≥50								
S50V PDQNR/L 1504	●	●	50	47	400	35	≥63								
A20P PDQNR/L 11	●	●	20	18.3	170	13	≥25	**DNM. 1104..**	APL-01	ALV-01-M6x14 ALV-02-M6x17	AADN-SD317	AAY-01	-	-	AAL-02-2.5
A25R PDQNR/L 11	●	●	25	23	200	17	≥32								
A32S PDQNR/L 15	●	●	32	30	250	22	≥40	**DNM. 1506..**	APL-03	ALV-03-M8x19	AADN-3-0001	AAY-02	-	-	AAL-03-3
A40T PDQNR/L 15	●	●	40	37.5	300	27	≥50								
A50U PDQNR/L 15	●	●	50	47	350	35	≥63								
A32S PDQNR/L 1504	●	●	32	30	250	22	≥40	**DNM. 1504..**	APL-03	ALV-03-M8x19	AADN-2-0003	AAY-02	-	-	AAL-03-3
A40T PDQNR/L 1504	●	●	40	37.5	300	27	≥50								







Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*						Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*						
										Levye *Lever* *Kniehebel*	Levye Vidası *Lever Screw* *Kniehebelschraube*	Altlık *Shim* *Unterlage*	Altlık Yayı *Shim Spring* *Feder für Unterlage*	Baskı Pabucu *Wedge Clamp* *Spannpratze*	Pabuç Vidası *Clamp Screw* *Klemmschraube*	Anahtar *Allen Key* *Innensechskantschlüssel*
	R	L	DCON	H	LPR	WF	APMX	DMIN								
S32T PDXNR/L 15	●	●	32	30	300	22	12	≥45	**DNM. 1506..**	APL-03	ALV-08-M8x16 ALV-03-M8x19	AADN-3-0001	AAY-02	-	-	AAL-03-3
S40U PDXNR/L 15	●	●	40	37.5	350	27	14	≥50								
S50V PDXNR/L 15	●	●	50	47	400	35	19	≥63								

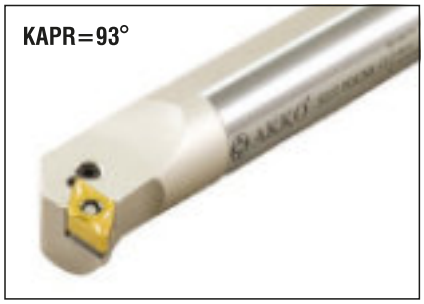
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● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*

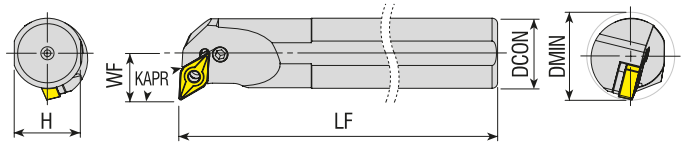
Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück S20R PDQNR 11

Not: "APMX" ölçüleri R0.8'e göre verilmiştir.
Note: Dimensions of "AMPX" are given according to R.08.
Hinweis: Maß "APMX" gilt für Eckenradius 0,4 mm

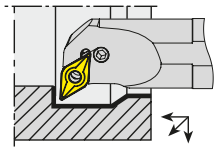
BF SERVICE

KAPR=93°





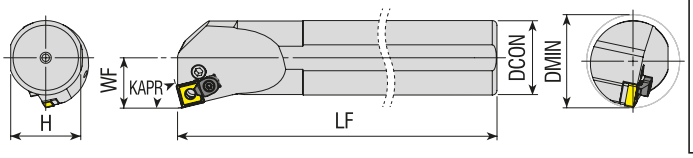
PDUNR



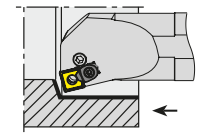
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*						
									Levye *Lever* *Kniehebel*	Levye Vidası *Lever Screw* *Kniehebelschraube*	Altlık *Shim* *Unterlage*	Altlık Yayı *Shim Spring* *Feder für Unterlage*	Baskı Pabucu *Wedge Clamp* *Spannpratze*	Pabuç Vidası *Clamp Screw* *Klemmschraube*	Anahtar *Allen Key* *Innensechskantschlüssel*
	R	L	DCON	H	LF	WF	DMIN								
S20R PDUNR/L 11	●	●	20	18.3	200	13	≥25	**DNM. 1104..**	APL-01	ALV-01-M6x14 ALV-02-M6x17	AADN-SD317	AAY-01	-	-	AAL-02-2.5
S25S PDUNR/L 11	●	●	25	23	250	17	≥32								
S25S PDUNR/L 15	●	●	25	23	250	19	≥32	**DNM. 1506..**	APL-03	ALV-08-M8x16 ALV-03-M8x19	AADN-3-0001	AAY-02	-	-	AAL-03-3
S32T PDUNR/L 15	●	●	32	30	300	22	≥40								
S40U PDUNR/L 15	●	●	40	37.5	350	27	≥50								
S50V PDUNR/L 15	●	●	50	47	400	35	≥63								
A20P PDUNR/L 11	●	●	20	18.3	170	13	≥25	**DNM. 1104..**	APL-01	ALV-01-M6x14 ALV-02-M6x17	AADN-SD317	AAY-01	-	-	AAL-02-2.5
A25R PDUNR/L 11	●	●	25	23	200	17	≥32								
A32S PDUNR/L 11	●	●	32	30	250	22	≥40								
A32S PDUNR/L 15	●	●	32	30	250	22	≥40	**DNM. 1506..**	APL-03	ALV-03-M8x19	AADN-3-0001	AAY-02	-	-	AAL-03-3
A40T PDUNR/L 15	●	●	40	37.5	300	27	≥50								
A50U PDUNR/L 15	●	●	50	47	350	35	≥63								

KAPR=75°





PSKNR



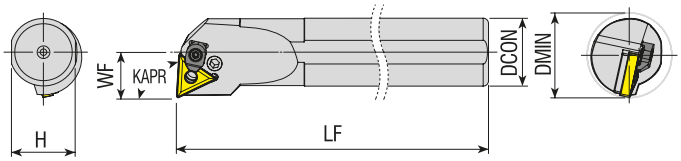
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*						
									Levye *Lever* *Kniehebel*	Levye Vidası *Lever Screw* *Kniehebelschraube*	Altlık *Shim* *Unterlage*	Altlık Yayı *Shim Spring* *Feder für Unterlage*	Baskı Pabucu *Wedge Clamp* *Spannpratze*	Pabuç Vidası *Clamp Screw* *Klemmschraube*	Anahtar *Allen Key* *Innensechskantschlüssel*
	R	L	DCON	H	LF	WF	DMIN								
S25S PSKNR/L 12C	●	●	25	23	250	17	≥32	**SNM. 1204..**	APL-02	ALV-08-M8x16 ALV-03-M8x19	AASN-3-0004	AAY-02	ACK-05	4015-M4x11	AAL-03-3
S32T PSKNR/L 12C	●	●	32	30	300	22	≥40								
S40U PSKNR/L 12C	●	●	40	37.5	350	27	≥50								
S50V PSKNR/L 12C	●	●	50	47	400	35	≥63								
S32T PSKNR/L 15	○	○	32	30	300	22	≥40	**SNM. 1506..**	APL-04	ALV-04-M8x22	AASN-3-0023	AAY-03	-	-	
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S50V PSKNR/L 15	○	○	50	47	400	35	≥63								

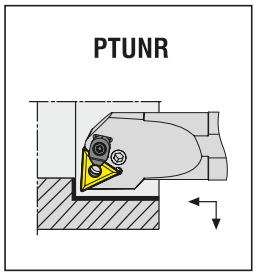
R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück S20R PDUNR 11

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Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*						
									Levye *Lever* *Kniehebel*	Levye Vidası *Lever Screw* *Kniehebelschraube*	Altlık *Shim* *Unterlage*	Altlık Yayı *Shim Spring* *Feder für Unterlage*	Baskı Pabucu *Wedge Clamp* *Spannpratze*	Pabuç Vidası *Clamp Screw* *Klemmschraube*	Anahtar *Allen Key* *Innensechskantschlüssel*
	R	L	DCON	H	LF	WF	DMIN								
S16P PTUNR/L 16	●	●	16	14.8	170	11	≥20		APL-08	ALV-07-M6x13	-	AAY-07	-	-	
S20R PTUNR/L 16	●	●	20	18.3	200	13	≥25			ALV-01-M6x14					
S25S PTUNR/L 16C	●	●	25	23	250	17	≥32	**TNM. 1604..**	APL-01	ALV-02-M6x17	AATN-3-0025	AAY-01			AAL-02-2.5
S32T PTUNR/L 16C	●	●	32	30	300	22	≥40								
S40U PTUNR/L 16C	●	●	40	37.5	350	27	≥50								
S32T PTUNR/L 22C	●	●	32	30	300	22	≥40								
S40U PTUNR/L 22C	●	●	40	37.5	350	27	≥50	**TNM. 2204..**	APL-02	ALV-03-M8x19	AATN-3-0015	AAY-02	ACK-05	4015-M4x11	AAL-03-3
S50V PTUNR/L 22C	●	●	50	47	400	35	≥63								

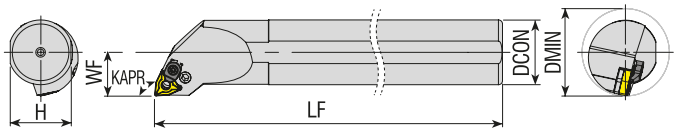
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● Stokta / In Stock /*Auf Lager* ○Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*

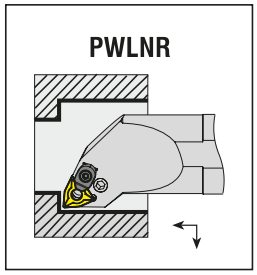
Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück S16P PTUNR 16



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Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*						
									Levye *Lever* *Kniehebel*	Levye Vidası *Lever Screw* *Kniehebelschraube*	Altlık *Shim* *Unterlage*	Altlık Yayı *Shim Spring* *Feder für Unterlage*	Baskı Pabucu *Wedge Clamp* *Spannpratze*	Pabuç Vidası *Clamp Screw* *Klemmschraube*	Anahtar *Allen Key* *Innensechskantschlüssel*
	R	L	DCON	H	LF	WF	DMIN								
S20R PWLNR/L 06	●	●	20	18.3	200	13	≥25			ALV-01-M6x14					
S25S PWLNR/L 06	●	●	25	23	250	17	≥32	**WNM. 0604..**	APL-01	ALV-02-M6x17	AAWN-SW317	AAY-01	-	-	AAL-02-2.5
S32T PWLNR/L 06	●	●	32	30	300	22	≥40								
S25S PWLNR/L 08C	●	●	25	23	250	17	≥32								
S32T PWLNR/L 08C	●	●	32	30	300	22	≥40	**WNM. 0804..**	APL-02	ALV-03-M8x19	AAWN-3-0001	AAY-02	ACK-05	4015-M4x11	AAL-03-3
S40U PWLNR/L 08C	●	●	40	37.5	350	27	≥50								
S50V PWLNR/L 08C	●	●	50	47	400	35	≥63								
A20P PWLNR/L 06	●	●	20	18.3	170	13	≥25			ALV-01-M6x14					
A25R PWLNR/L 06	●	●	25	23	200	17	≥32	**WNM. 0604..**	APL-01	ALV-02-M6x17	AAWN-SW317	AAY-01	-	-	AAL-02-2.5
A32S PWLNR/L 06	●	●	32	30	250	22	≥40								
A25R PWLNR/L 08C	●	●	25	23	200	17	≥32								
A32S PWLNR/L 08C	●	●	32	30	250	22	≥40	**WNM. 0804..**	APL-02	ALV-03-M8x19	AAWN-3-0001	AAY-02	ACK-05	4015-M4x11	AAL-03-3
A40T PWLNR/L 08C	●	●	40	37.5	300	27	≥50								
A50U PWLNR/L 08C	●	●	50	47	350	35	≥63								

R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück S20R PWLNR 06



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AKKO®

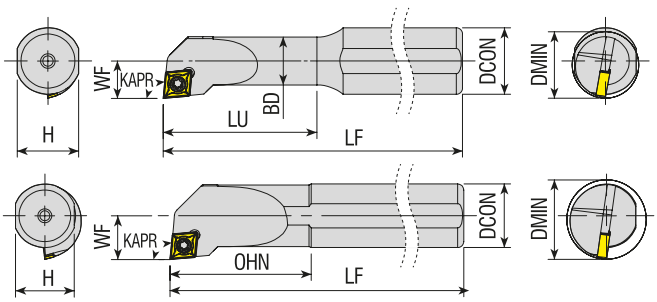
konuşulan
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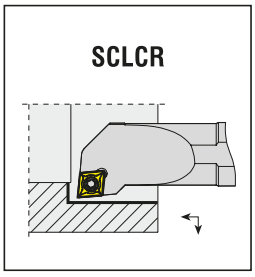
S-SİSTEM

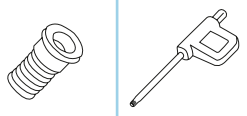
S-SİSTEM DELİK TORNA KATERLERİ
S-SYSTEM BORING BARS
S- SYSTEM BOHRSTANGE









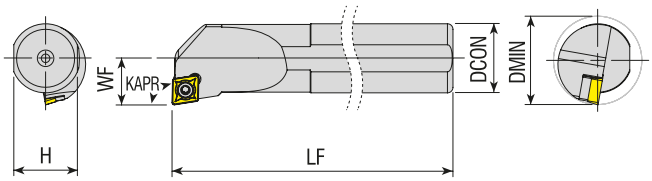
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											Sıkma Vidası *Screw* *Schraube*	Altlık *Shim* *Unterlage*	Altlık Vidası *Shim Screw* *Schraube für Unterlage*	Tork Anahtar *Torx Key* *Torx-Schlüssel*
	R	L	DCON	BD	H	LU=OHN	LF	WF	DMIN					
S0608H SCLCR/L 03	●	○	08	5	7.3	18	100	3	≥6	**CC.T 030102**	4006-M1.6x3.2			80-T06
S0608H SCLCR/L 06	●	●	08	6	7.3	25	100	4.5	≥8		4008-M2.5x4.5			
S08H SCLCR/L 06	●	●	08	8	7.3	20	100	06	≥11					
S10K SCLCR/L 06	●	●	10	10	09	25	125	07	≥13	**CC.T 0602..**	4008-M2.5x6	-	-	80-T08
S12K SCLCR/L 06	●	●	12	12	11	25	125	09	≥16					
S1216P SCLCR/L 06	●	●	16	11.5	14.8	37	170	09	≥16					
S16P SCLCR/L 06	●	●	16	16	14.8	35	170	11	≥20					
S12K SCLCR/L 09	●	●	12	12	11	30	125	09	≥16		4015-M3.5x8			
S1416P SCLCR/L 09	●	●	16	14	14.8	45	170	9.5	≥17					
S16P SCLCR/L 09	●	●	16	16	14.8	35	170	11	≥20					
S1620R SCLCR/L 09	●	●	20	16	18.3	50	200	11	≥20	**CC.T 09T3..**	4015-M3.5x9	-	-	80-T15
S20R SCLCR/L 09	●	●	20	20	18.3	40	200	13	≥25					
S25S SCLCR/L 09	●	●	25	25	23	50	250	17	≥32		4015-M3.5x12	AACN-2-0001	AAV-08-M3.5x8	
S32T SCLCR/L 09	●	●	32	32	30	60	300	22	≥40					
S25S SCLCR/L 12	●	●	25	25	23	50	250	17	≥32					
S32T SCLCR/L 12	●	●	32	32	30	60	300	22	≥40	**CC.T 1204..**	4020-M4.5x12	AACN-2-0003	AAV-10-M4.5x8	80-T20
S40U SCLCR/L 12	●	●	40	40	37.5	70	350	27	≥50		1020-M4.5x16		AAV-07-M4.5x13	
A08H SCLCR/L 06	●	●	08	8	7.3	20	100	06	≥11					
A10H SCLCR/L 06	●	●	10	10	09	25	100	07	≥13	**CC.T 0602..**	4008-M2.5x6	-	-	80-T08
A12H SCLCR/L 06	●	●	12	12	11	25	100	09	≥16					
A16M SCLCR/L 09	●	●	16	16	14.8	35	150	11	≥20					
A20P SCLCR/L 09	●	●	20	20	18.3	40	170	13	≥25		4015-M3.5x9	-	-	
A25R SCLCR/L 09	●	●	25	25	23	50	200	17	≥32	**CC.T 09T3..**				80-T15
A32S SCLCR/L 09	●	●	32	32	30	60	250	22	≥40		4015-M3.5x12	AACN-2-0001	AAV-08-M3.5x8	
A25R SCLCR/L 12	●	●	25	25	23	50	200	17	≥32	**CC.T 1204..**	4020-M4.5x12	AACN-2-0003	AAV-10-M4.5x8	80-T20

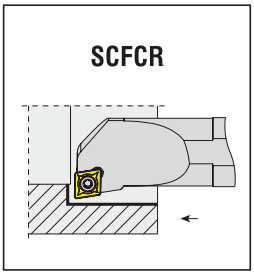
R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück S0608H SCLCR 03

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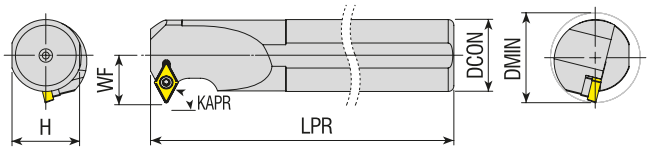


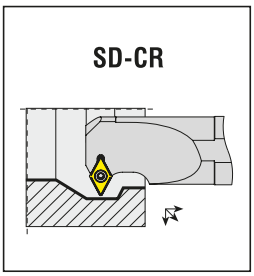




Takım Kodu / Ordering Code / Bestell-Bezeichnung	Stok / Stock / Lager		Takım Ölçüleri (mm) / Dimension (mm) / Abmessung (mm)					Kesici Uç / Insert / Wendeschneidplatte	Yedek Parçaları / Spare Parts / Ersatzteile: Sıkma Vidası / Screw / Schraube	Altlık / Shim / Unterlage	Altlık Vidası / Shim Screw / Schraube für Unterlage	Tork Anahtar / Torx Key / Torx-Schlüssel
	R	L	DCON	H	LF	WF	DMIN					
S08H SCFCR/L 06	●	●	08	7.3	100	06	≥11	CC.T 0602..	4008-M2.5x6	-	-	80-T08
S10K SCFCR/L 06	●	●	10	09	125	07	≥13					
S12K SCFCR/L 06	●	●	12	11	125	09	≥16					
S12K SCFCR/L 09	●	●	12	11	125	09	≥16	CC.T 09T3..	4015-M3.5x8	-	-	80-T15
S16P SCFCR/L 09	●	●	16	14.8	170	11	≥20		4015-M3.5x9			
S20R SCFCR/L 09	●	●	20	18.3	200	13	≥25					
S25S SCFCR/L 09	●	●	25	23	250	17	≥32		4015-M3.5x12	AACN-2-0001	AAV-08-M3.5x8	
S25S SCFCR/L 12	●	○	25	23	250	17	≥32	CC.T 1204..	4020-M4.5x12	AACN-2-0003	AAV-10-M4.5x8	80-T20
S32T SCFCR/L 12	○	○	32	30	300	22	≥40					
S40U SCFCR/L 12	○	○	40	37.5	350	27	≥50		1020-M4.5x16		AAV-07-M4.5x13	







Takım Kodu / Ordering Code / Bestell-Bezeichnung	Stok / Stock / Lager		Takım Ölçüleri (mm) / Dimension (mm) / Abmessung (mm)					Kesici Uç / Insert / Wendeschneidplatte	Yedek Parçaları / Spare Parts / Ersatzteile: Sıkma Vidası / Screw / Schraube	Altlık / Shim / Unterlage	Altlık Vidası / Shim Screw / Schraube für Unterlage	Tork Anahtar / Torx Key / Torx-Schlüssel
	R	L	DCON	H	LPR	WF	DMIN					
S10K SD-CR/L 07	●	●	10	9	125	07	≥14	DC.T 0702..	4008-M2.5x6	-	-	80-T08
S12K SD-CR/L 07	●	●	12	11	125	09	≥16					
S16P SD-CR/L 07	●	●	16	14.8	170	11	≥20					
S20R SD-CR/L 07	●	○	20	18.3	200	13	≥25					
S16P SD-CR/L 11	●	●	16	14.8	170	14	≥22	DC.T 11T3..	4015-M3.5x11	-	-	80-T15
S20R SD-CR/L 11	●	●	20	18.3	200	15	≥25					
S25S SD-CR/L 11	●	●	25	23	250	18	≥32		4015-M3.5x14	AADN-2-0001	AAV-06-M3.5x11	
S32T SD-CR/L 11	●	●	32	30	300	22	≥40					
S40U SD-CR/L 11	●	●	40	37.5	350	27	≥50					

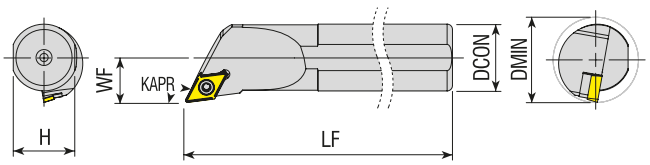
R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock / *Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück S08H SCFCR 06

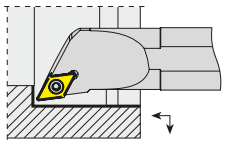
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KAPR=117.5°





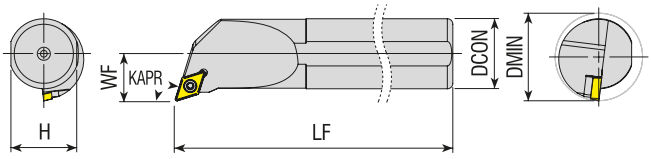
SDPCR



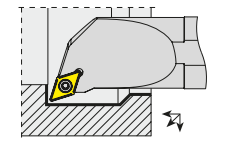
Takım Kodu / Ordering Code / Bestell-Bezeichnung	Stok / Stock / Lager		Takım Ölçüleri (mm) / Dimension (mm) / Abmessung (mm)					Kesici Uç / Insert / Wendeschneidplatte	Yedek Parçaları / Spare Parts / Ersatzteile			
	R	L	DCON	H	LF	WF	DMIN		Sıkma Vidası / Screw / Schraube	Altlık / Shim / Unterlage	Altlık Vidası / Shim Screw / Schraube für Unterlage	Tork Anahtar / Torx Key / Torx-Schlüssel
S10K SDPCR/L 07	●	●	10	09	125	07	≥13	DC.T 0702..	4008-M2.5x6	-	-	80-T08
S12K SDPCR/L 07	●	●	12	11	125	09	≥16					
S16P SDPCR/L 11	●	●	16	14.8	170	11	≥20	DC.T 11T3..	4015-M3.5x9	-	-	80-T15
S20R SDPCR/L 11	●	●	20	18.3	200	13	≥25		4015-M3.5x11			
S25S SDPCR/L 11	●	●	25	23	250	17	≥32		4015-M3.5x12	AADN-2-0001	AAV-08-M3.5x8	

KAPR=107.5°





SDQCR



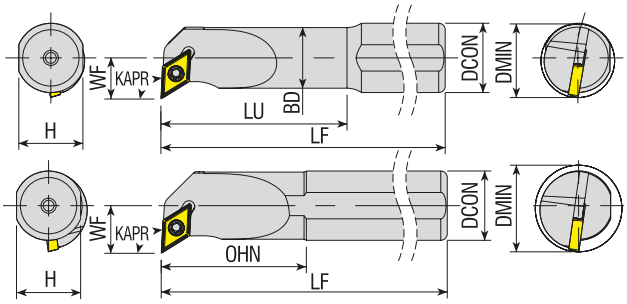
Takım Kodu / Ordering Code / Bestell-Bezeichnung	Stok / Stock / Lager		Takım Ölçüleri (mm) / Dimension (mm) / Abmessung (mm)					Kesici Uç / Insert / Wendeschneidplatte	Yedek Parçaları / Spare Parts / Ersatzteile			
	R	L	DCON	H	LF	WF	DMIN		Sıkma Vidası / Screw / Schraube	Altlık / Shim / Unterlage	Altlık Vidası / Shim Screw / Schraube für Unterlage	Tork Anahtar / Torx Key / Torx-Schlüssel
S10K SDQCR/L 07	●	●	10	09	125	07	≥13	DC.T 0702..	4008-M2.5x6	-	-	80-T08
S12K SDQCR/L 07	●	●	12	11	125	09	≥16					
S16P SDQCR/L 07	●	●	16	14.8	170	11	≥20					
S20R SDQCR/L 07	●	●	20	18.3	200	13	≥25					
S16P SDQCR/L 11	●	●	16	14.8	170	11	≥20	DC.T 11T3..	4015-M3.5x9	-	-	80-T15
S20R SDQCR/L 11	●	●	20	18.3	200	13	≥25		4015-M3.5x11			
S25S SDQCR/L 11	●	●	25	23	250	17	≥32		4015-M3.5x12	AADN-2-0001	AAV-08-M3.5x8	
S32T SDQCR/L 11	●	●	32	30	300	22	≥40		4015-M3.5x14		AAV-06-M3.5x11	
S40U SDQCR/L 11	●	●	40	37.5	350	27	≥50					
A10H SDQCR/L 07	●	●	10	09	100	07	≥13	DC.T 0702..	4008-M2.5x6	-	-	80-T08
A12H SDQCR/L 07	●	●	12	11	100	09	≥16					
A16M SDQCR/L 07	●	●	16	14.8	150	11	≥20					
A20P SDQCR/L 07	●	●	20	18.3	170	13	≥25					
A16M SDQCR/L 11	●	●	16	14.8	150	11	≥20	DC.T 11T3..	4015-M3.5x9	-	-	80-T15
A20P SDQCR/L 11	●	●	20	18.3	170	13	≥25		4015-M3.5x11			
A25R SDQCR/L 11	●	●	25	23	200	17	≥32		4015-M3.5x12	AADN-2-0001	AAV-08-M3.5x8	
A32S SDQCR/L 11	●	●	32	30	250	22	≥40		4015-M3.5x14		AAV-06-M3.5x11	

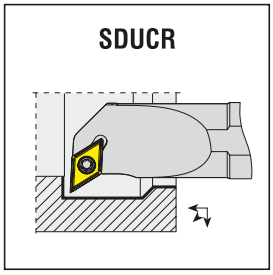
R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*

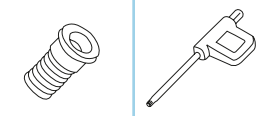
Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück S10K SDPCR 07

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Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*							Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*			
											Sıkma Vidası *Screw* *Schraube*	Altlık *Shim* *Unterlage*	Altlık Vidası *Shim Screw* *Schraube für Unterlage*	Tork Anahtar *Torx Key* *Torx-Schlüssel*
	R	L	DCON	BD	H	LU=OHN	LF	WF	DMIN					
S0810K SDUCR/L 07	●	●	10	8	09	30	125	08	≥13	DC.T 0702..	4008-M2.5x6	-	-	80-T08
S10K SDUCR/L 07	●	●	10	10	09	25	125	08	≥13					
S12K SDUCR/L 07	●	●	12	12	11	25	125	09	≥16					
S1216P SDUCR/L 07	●	●	16	11.5	14.8	37	170	09	≥16					
S1416P SDUCR/L 07	●	●	16	14	14.8	45	170	9.5	≥17					
S16P SDUCR/L 07	●	●	16	16	14.8	35	170	11	≥20					
S20R SDUCR/L 07	●	●	20	20	18.3	40	200	13	≥25					
S1416P SDUCR/L 11	●	●	16	14	14.8	45	170	11	≥18	DC.T 11T3..	4015-M3.5x9	-	-	80-T15
S16P SDUCR/L 11	●	●	16	16	14.8	35	170	11	≥20					
S1620R SDUCR/L 11	●	●	20	16	18.3	50	200	11	≥20					
S20R SDUCR/L 11	●	●	20	20	18.3	40	200	13	≥25		4015-M3.5x11			
S25S SDUCR/L 11	●	●	25	25	23	50	250	17	≥32		4015-M3.5x12		AAV-08-M3.5x8	
S32T SDUCR/L 11	●	●	32	32	30	60	300	22	≥40					
S40U SDUCR/L 11	●	●	40	40	37.5	70	350	27	≥50		4015-M3.5x14	AADN-2-0001	AAV-06-M3.5x11	
S50V SDUCR/L 11	●	●	50	50	47	80	400	35	≥63					
A0810H SDUCR/L 07	●	●	10	8	09	30	100	08	≥13	DC.T 0702..	4008-M2.5x6	-	-	80-T08
A10H SDUCR/L 07	●	●	10	10	09	25	100	08	≥13					
A12H SDUCR/L 07	●	●	12	12	11	25	100	09	≥16					
A16M SDUCR/L 07	●	●	16	16	14.8	35	150	11	≥20					
A20P SDUCR/L 07	●	●	20	20	18.3	40	170	13	≥25					
A16M SDUCR/L 11	●	●	16	16	14.8	35	150	11	≥20	DC.T 11T3..	4015-M3.5x9	-	-	80-T15
A20P SDUCR/L 11	●	●	20	20	18.3	40	170	13	≥25		4015-M3.5x11			
A25R SDUCR/L 11	●	●	25	25	23	50	200	17	≥32		4015-M3.5x12	AADN-2-0001	AAV-08-M3.5x8	
A32S SDUCR/L 11	●	●	32	32	30	60	250	22	≥40		4015-M3.5x14		AAV-06-M3.5x11	

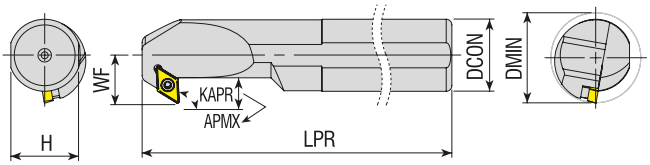
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● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*

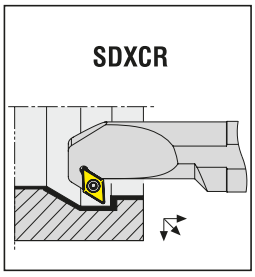
Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück S0810K SDUCR 07

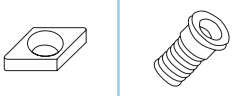
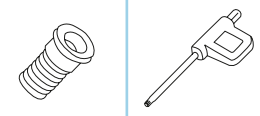


BF SERVICE



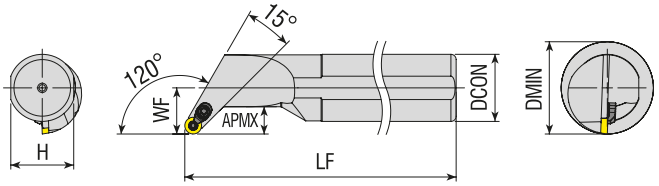


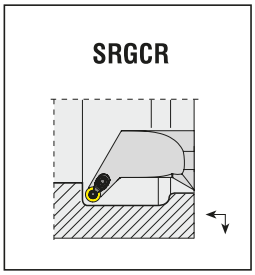


Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*						Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*			
										Sıkma Vidası *Screw* *Schraube*	Altlık *Shim* *Unterlage*	Altlık Vidası *Shim Screw* *Schraube für Unterlage*	Tork Anahtar *Torx Key* *Torx-Schlüssel*
	R	L	DCON	H	LPR	WF	APMX	DMIN					
S12K SDXCR/L 07	●	●	12	11	125	09	4.5	≥16	**DC.T 0702..**	4008-M2.5x6	-	-	80-T08
S16P SDXCR/L 07	●	●	16	14.8	170	11	6.5	≥20					
S20R SDXCR/L 07	●	●	20	18.3	200	13	6.5	≥25					
S16P SDXCR/L 11	●	●	16	14.8	170	11	7.5	≥20	**DC.T 11T3..**	4015-M3.5x11	-	-	80-T15
S20R SDXCR/L 11	●	●	20	18.3	200	14	7.5	≥25					
S25S SDXCR/L 11	●	●	25	23	250	17	9	≥32		4015-M3.5x14	AADN-2-0001	AAV-08-M3.5x8	
S32T SDXCR/L 11	●	●	32	30	300	22	12.5	≥40				AAV-06-M3.5x11	
S40U SDXCR/L 11	●	●	40	37.5	350	27	14.5	≥50					

Not: "APMX" ölçüleri R0.4'e göre verilmiştir.
Note: Dimensions of "APMX" are given according to R.04.
Hinweis: Das Maß "APMX" bezieht sich auf R 0,4







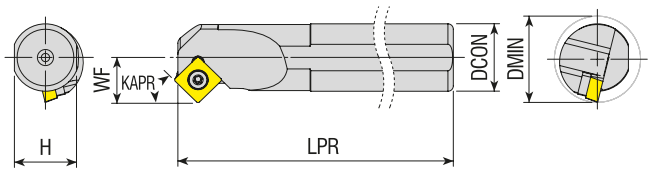
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*						Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*					
										Sıkma Vidası *Screw* *Schraube*	Altlık *Shim* *Unterlage*	Altlık Vidası *Shim Screw* *Schraube für Unterlage*	Baskı Pabucu *Shim Screw* *Spann Pratze*	Pabuç Vidası *Shim Screw* *Klemmschraube*	Anahtar *Allen Key* *Innensechskantschlüssel*
	R	L	DCON	H	LF	WF	APMX	DMIN							
S16P SRGCR/L 08	●	○	16	14.8	170	11	7	≥22	**RCM. 0803..**	3008-M3x8	-	-	-	-	80-T08
S20R SRGCR/L 08	●	●	20	18.3	200	13	7	≥26							
S25S SRGCR/L 08C	●	●	25	23	250	17	9.5	≥34					ACK-15	4015-M3.5x11	
S32T SRGCR/L 08C	●	○	32	30	300	22	13	≥44							
S40U SRGCR/L 08C	●	○	40	37.5	350	27	15	≥54							

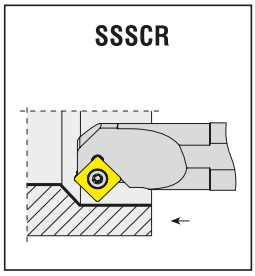
R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück S12K SDXCR 07

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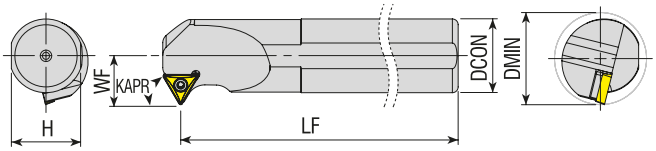


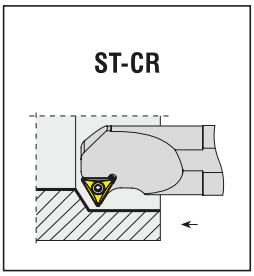




Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*			
									Sıkma Vidası *Screw* *Schraube*	Altlık *Shim* *Unterlage*	Altlık Vidası *Shim Screw* *Schraube für Unterlage*	Tork Anahtar *Torx Key* *Torx-Schlüssel*
	R	L	DCON	H	LPR	WF	DMIN					
S16P SSSCR/L 09	●	●	16	14.8	170	11	≥20	**SC.T 09T3..**	4015-M3.5x9	-	-	80-T15
S20R SSSCR/L 09	●	●	20	18.3	200	13	≥25		4015-M3.5x11			
S25S SSSCR/L 09	●	●	25	23	250	17	≥32		4015-M3.5x12	AASN-2-0001	AAV-08-M3.5x8	
S25S SSSCR/L 12	●	●	25	23	250	17	≥32	**SC.T 1204..**	4020-M4.5x12	AASN-2-0004	AAV-10-M4.5x8	80-T20
S32T SSSCR/L 12	●	○	32	30	300	22	≥40		1020-M4.5x16		AAV-07-M4.5x13	
S40U SSSCR/L 12	●	○	40	37.5	350	27	≥50					







Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*			
									Sıkma Vidası *Screw* *Schraube*	Altlık *Shim* *Unterlage*	Altlık Vidası *Shim Screw* *Schraube für Unterlage*	Tork Anahtar *Torx Key* *Torx-Schlüssel*
	R	L	DCON	H	LF	WF	DMIN					
S16P SSSCR/L 09	●	●	16	14.8	170	11	≥20	**TC.T 1102..**	4008-M2.5x6	-	-	80-T08
S20R SSSCR/L 09	●	●	20	18.3	200	13	≥25					
S25S SSSCR/L 09	●	●	25	23	250	17	≥32					
S25S SSSCR/L 12	●	●	25	23	250	17	≥32	**TC.T 16T3..**	4015-M3.5x9	-	-	80-T15
S32T SSSCR/L 12	●	○	32	30	300	22	≥40		4015-M3.5x11			
S40U SSSCR/L 12	●	○	40	37.5	350	27	≥50		4015-M3.5x14	AATN-2-0001	AAV-08-M3.5x8 AAV-06-M3.5x11	

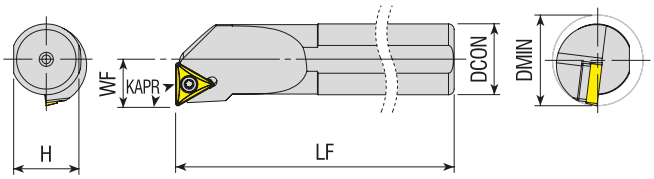
R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück S16P SSSCR 09

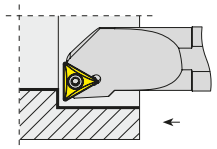
BF SERVICE

KAPR=90°





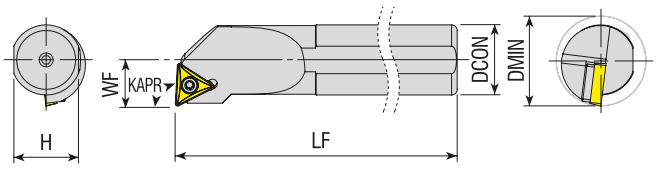
STFCR



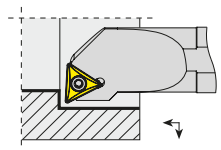
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*			
									Sıkma Vidası *Screw* *Schraube*	Altlık *Shim* *Unterlage*	Altlık Vidası *Shim Screw* *Schraube für Unterlage*	Tork Anahtar *Torx Key* *Torx-Schlüssel*
	R	L	DCON	H	LF	WF	DMIN					
S0610F STFCR/L 06	●	●	10	09	80	4.5	≥08	**TC.T 06T1..**	3006-M2x4	-	-	80-T06
S08H STFCR/L 06	●	●	08	7.3	100	06	≥11					
S10K STFCR/L 09	●	●	10	09	125	07	≥13	**TC.T 0902..**	3007-M2.2x5			80-T07
S12K STFCR/L 09	●	●	12	11	125	09	≥17					
S12K STFCR/L 11	●	●	12	11	125	09	≥17	**TC.T 1102..**	4008-M2.5x6			80-T08
S16P STFCR/L 11	●	●	16	14.8	170	11	≥20					
S20R STFCR/L 11	●	●	20	18.3	200	13	≥25					
S16P STFCR/L 16	●	●	16	14.8	170	11	≥20	**TC.T 16T3..**	4015-M3.5x9	-	-	80-T15
S20R STFCR/L 16	●	●	20	18.3	200	13	≥25		4015-M3.5x11			
S25S STFCR/L 16	●	●	25	23	250	17	≥32				AAV-08-M3.5x8	
S32T STFCR/L 16	●	●	32	30	300	22	≥40		4015-M3.5x14	AATN-2-0001	AAV-06-M3.5x11	
S40U STFCR/L 16	●	○	40	37.5	350	27	≥50					

KAPR=93°





STUCR



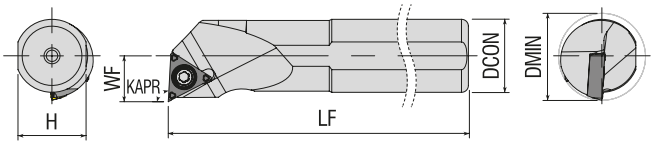
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									Sıkma Vidası *Screw* *Schraube*	Altlık *Shim* *Unterlage*	Altlık Vidası *Shim Screw* *Schraube für Unterlage*	Tork Anahtar *Torx Key* *Torx-Schlüssel*
	R	L	DCON	H	LF	WF	DMIN					
S10K STUCR/L 09	●	●	10	09	125	07	≥13	**TC.T 0902..**	3007-M2.2x5	-	-	80-T07
S12K STUCR/L 09	●	●	12	11	125	09	≥16					
S12K STUCR/L 11	●	●	12	11	125	09	≥17	**TC.T 1102..**	4008-M2.5x6			80-T08
S16P STUCR/L 11	●	●	16	14.8	170	11	≥20					
S20R STUCR/L 11	●	●	20	18.3	200	13	≥25					
S16P STUCR/L 16	●	●	16	14.8	170	11	≥20	**TC.T 16T3..**	4015-M3.5x9	-	-	80-T15
S20R STUCR/L 16	●	●	20	18.3	200	13	≥25		4015-M3.5x11			
S25S STUCR/L 16	●	●	25	23	250	17	≥32				AAV-08-M3.5x8	
S32T STUCR/L 16	●	●	32	30	300	22	≥40		4015-M3.5x14	AATN-2-0001	AAV-06-M3.5x11	
S40U STUCR/L 16	●	●	40	37.5	350	27	≥50					

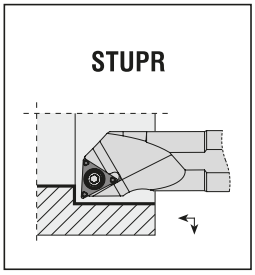
R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück S0610F STFCR 06

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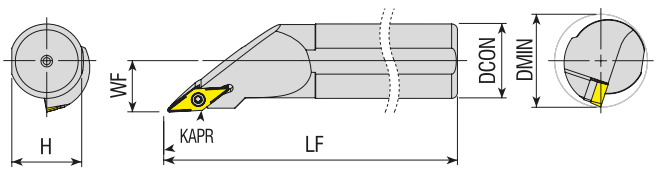


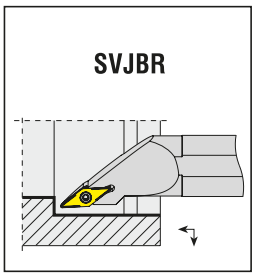




Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*			
									Sıkma Vidası *Screw* *Schraube*	Altlık *Shim* *Unterlage*	Altlık Vidası *Shim Screw* *Schraube für Unterlage*	Tork Anahtar *Torx Key* *Torx-Schlüssel*
	R	L	DCON	H	LF	WF	DMIN					
S08H STUPR/L 0802	●	○	08	7.3	100	05	≥10	**TP. 0802..**	3006-M2x4			80-T06
S10K STUPR/L 1103	●	○	10	09	125	06	≥12					
S12K STUPR/L 1103	●	●	12	11	125	09	≥16					
S12M STUPR/L 1103	●	●	12	11	150	08	≥16	**TP. 1103..**	4010-M3x6	-	-	80-T10
S16P STUPR/L 1103	●	●	16	14.8	170	10	≥20		4010-M3x8			
S16R STUPR/L 1103	●	●	16	14.8	200	10	≥20					







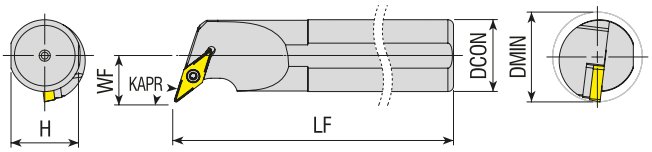
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*			
									Sıkma Vidası *Screw* *Schraube*	Altlık *Shim* *Unterlage*	Altlık Vidası *Shim Screw* *Schraube für Unterlage*	Tork Anahtar *Torx Key* *Torx-Schlüssel*
	R	L	DCON	H	LF	WF	DMIN					
S25S SVJBR/L 16	●	●	25	23	250	17	≥32	**VBM. 1604..**	4015-M3.5x12	AAVN-2-0002	AAV-08-M3.5x8	80-T15
S32T SVJBR/L 16	●	●	32	30	300	22	≥40					
S40U SVJBR/L 16	●	●	40	37.5	350	27	≥50		4015-M3.5x14		AAV-06-M3.5x11	

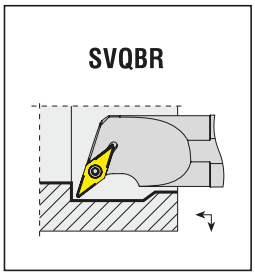
R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück S08H STUPR 0802

BF SERVICE

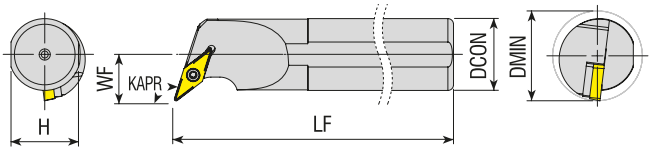


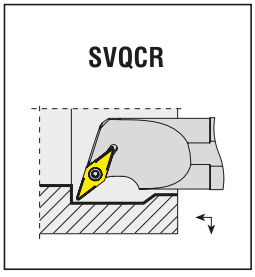




Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*			
									Sıkma Vidası *Screw* *Schraube*	Altlık *Shim* *Unterlage*	Altlık Vidası *Shim Screw* *Schraube für Unterlage*	Tork Anahtar *Torx Key* *Torx-Schlüssel*
	R	L	DCON	H	LF	WF	DMIN					
S16P SVQBR/L 11	●	●	16	14.8	170	11	≥20	**VBM. 1103..**	4008-M2.5x6	-	-	80-T08
S20R SVQBR/L 11	●	●	20	18.3	200	13	≥25					
S25S SVQBR/L 16	●	●	25	23	250	17	≥32	**VBM. 1604..**	4015-M3.5x14	AAVN-2-0002	AAV-08-M3.5x8 AAV-06-M3.5x11	80-T15
S32T SVQBR/L 16	●	●	32	30	300	22	≥40					
S40U SVQBR/L 16	●	●	40	37.5	350	27	≥50					
A20Q SVQBR/L 11	●	●	20	18.5	180	13	≥25	**VBM. 1103..**	4008-M2.5x6	-	-	80-T08
A20Q SVQBR/L 16	●	●	20	18.5	180	20	≥30	**VBM. 1604..**	4015-M3.5x11	-	-	80-T15
A25S SVQBR/L 16	●	●	25	23	250	17	≥32		4015-M3.5x14	AAVN-2-0002	AAV-06-M3.5x11	
A32S SVQBR/L 16	●	●	32	30	250	22	≥40					







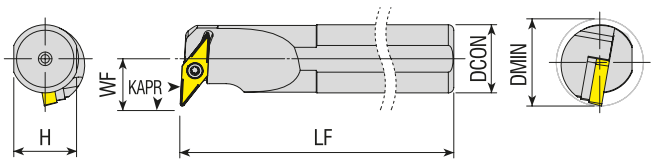
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*			
									Sıkma Vidası *Screw* *Schraube*	Altlık *Shim* *Unterlage*	Altlık Vidası *Shim Screw* *Schraube für Unterlage*	Tork Anahtar *Torx Key* *Torx-Schlüssel*
	R	L	DCON	H	LF	WF	DMIN					
S16P SVQCR/L 11	●	●	16	14.8	170	11	≥20	**VC.T 1103..**	4008-M2.5x6	-	-	80-T08
S20R SVQCR/L 11	●	●	20	18.3	200	13	≥25					
S25S SVQCR/L 16	●	●	25	23	250	17	≥32	**VC.T 1604..**	4015-M3.5x14	AAVN-2-0002	AAV-08-M3.5x8 AAV-06-M3.5x11	80-T15
S32T SVQCR/L 16	●	●	32	30	300	22	≥40					
S40U SVQCR/L 16	●	●	40	37.5	350	27	≥50					

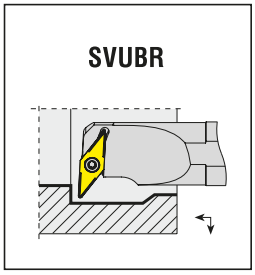
R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück S16P SVQBR 11

BF SERVICE

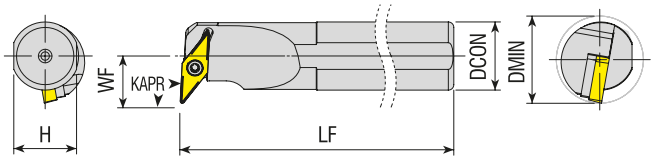


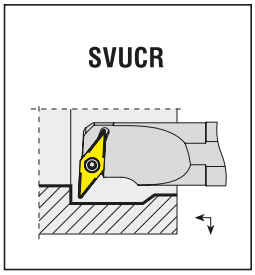




Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*			
									Sıkma Vidası *Screw* *Schraube*	Altlık *Shim* *Unterlage*	Altlık Vidası *Shim Screw* *Schraube für Unterlage*	Tork Anahtar *Torx Key* *Torx-Schlüssel*
	R	L	DCON	H	LF	WF	DMIN					
S16P SVUBR/L 11	●	●	16	14.8	170	12.5	≥20	**VBM. 1103..**	4008-M2.5x6	-	-	80-T08
S20R SVUBR/L 11	●	●	20	18.3	200	13	≥25					
S25S SVUBR/L 16	●	●	25	23	250	19	≥32	**VBM. 1604..**	4015-M3.5x14	AAVN-2-0002	AAV-06-M3.5x11	80-T15
S32T SVUBR/L 16	●	●	32	30	300	22	≥40					
S40U SVUBR/L 16	●	●	40	37.5	350	27	≥50					
A20Q SVUBR/L 16	●	○	20	18.3	180	20	≥30		4015-M3.5x11	-	-	
A32S SVUBR/L 16	●	●	32	30	250	22	≥40		4015-M3.5x14	AAVN-2-0002	AAV-06-M3.5x11	







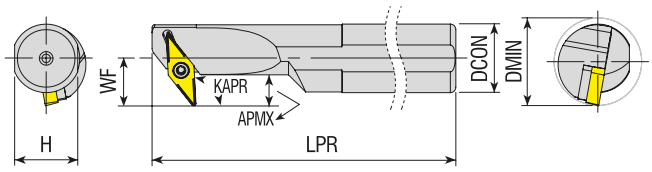
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*			
									Sıkma Vidası *Screw* *Schraube*	Altlık *Shim* *Unterlage*	Altlık Vidası *Shim Screw* *Schraube für Unterlage*	Tork Anahtar *Torx Key* *Torx-Schlüssel*
	R	L	DCON	H	LF	WF	DMIN					
S16P SVUCR/L 11	●	●	16	14.8	170	12.5	≥20	**VC.T 1103..**	4008-M2.5x6	-	-	80-T08
S20R SVUCR/L 11	●	●	20	18.3	200	13	≥25					
S25S SVUCR/L 16	●	●	25	23	250	19	≥32	**VC.T 1604..**	4015-M3.5x14	AAVN-2-0002	AAV-06-M3.5x11	80-T15
S32T SVUCR/L 16	●	●	32	30	300	22	≥40					
S40U SVUCR/L 16	●	●	40	37.5	350	27	≥50					
A12K SVUCR/L 07	●	●	12	11	125	9	≥16	**VC.T 0702..**	3006-M2x4	-	-	80-T06
A20Q SVUCR/L 11	●	○	20	18.3	180	13	≥25	**VC.T 1103..**	4008-M2.5x6	-	-	80-T08
A25R SVUCR/L 16	●	●	25	23	200	19	≥32	**VC.T 1604..**	4015-M3.5x14	AAVN-2-0002	AAV-06-M3.5x11	80-T15

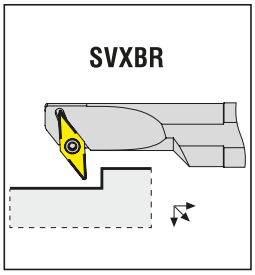
R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück S16P SVUBR 11

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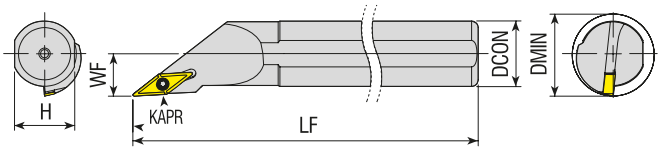


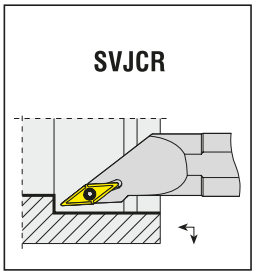


Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*						Yedek Parçaları / *Spare Parts* / *Ersatzteile*				
	R	L	DCON	H	LPR	WF	APMX	DMIN					
S16P SVXBR/L 1102	●	○	16	14.8	170	12.5	7.2	≥20	**VBM. 1102..**	4008-M2.5x6	-	-	80-T08
S20R SVXBR/L 1102	●	●	20	18.3	200	13	5.7	≥25					
S16P SVXBR/L 11	●	●	16	14.8	170	12.5	7.2	≥20	**VBM. 1103..**				
S20R SVXBR/L 11	●	●	20	18.3	200	13	5.7	≥25					
S25S SVXBR/L 16	●	●	25	23	250	19	10.2	≥32	**VBM. 1604..**	4015-M3.5x14	AAVN-2-0002	AAV-06-M3.5x11	80-T15
S32T SVXBR/L 16	●	●	32	30	300	22	11.7	≥40					
S40U SVXBR/L 16	●	●	40	37.5	350	27	14.3	≥50					

Not: "APMX" ölçüleri R0.4'e göre verilmiştir.
Note: Dimensions of "APMX" are given according to R.04.
Hinweis: Das Maß "APMX" bezieht sich auf R 0,4







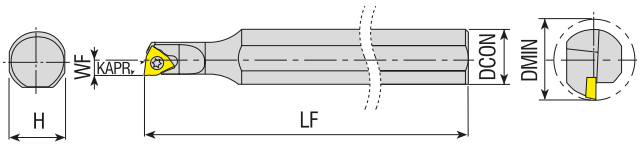
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*			
									Sıkma Vidası *Screw* *Schraube*	Altlık *Shim* *Unterlage*	Altlık Vidası *Shim Screw* *Schraube für Unterlage*	Tork Anahtar *Torx Key* *Torx-Schlüssel*
	R	L	DCON	H	LF	WF	DMIN					
S12K SVJCR/L 11	●	●	12	11	125	7	13	**VC.T 1103..**	4008-M2.5x6	-	-	80-T08
S16P SVJCR/L 11	●	●	16	14.8	170	11	20					
S20R SVJCR/L 11	●	●	20	18.3	200	13	25					

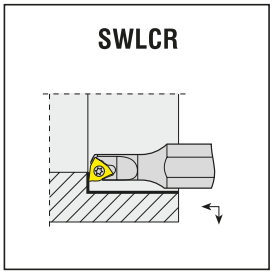
R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück S16P SVXBR 1102

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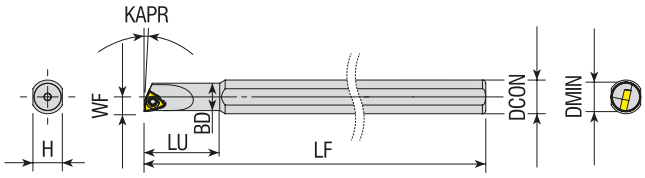


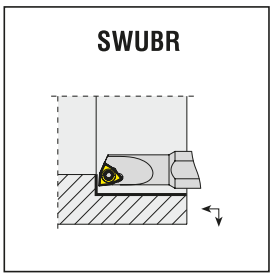




Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*			
		DCON	H	LF	WF	DMIN		Sıkma Vidası *Screw* *Schraube* 	Altlık *Shim* *Unterlage* 	Altlık Vidası *Shim Screw* *Schraube für Unterlage* 	Tork Anahtar *Torx Key* *Torx-Schlüssel* 
S0608H SWLCR 03	●	08	7.3	100	04	≥08	**WC.. 0302..**	4008-M2.5x4	-	-	80-T08
S0810K SWLCR 03	●	10	09	125	06	≥10		4008-M2.5x4.5			







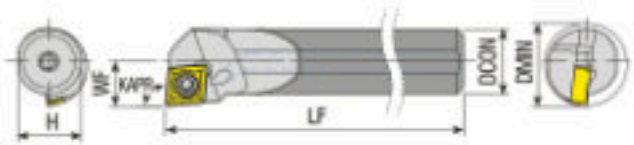
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*							Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*			
		DCON	BD	H	LU	LF	DMIN	WF		Sıkma Vidası *Screw* *Schraube* 	Altlık *Shim* *Unterlage* 	Altlık Vidası *Shim Screw* *Schraube für Unterlage* 	Tork Anahtar *Torx Key* *Torx-Schlüssel* 
S0610H SWUBR 06	●	10	5	7.3	18	100	≥6	3	**WBGT 060102-L**	3006-M2x3.3	-	-	80-T06
S08H SWUBR 06-5.5	●	08	5	7.3	18	100	≥5.7	2.75					
S08H SWUBR 06-7	●	08	6.5	7.3	18	100	≥7	3.5		3006-M2x4			

R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
KYCR-ISCR Ucuna Uygundur. / Compatiple with KYCR-ISCR Insert. / *Kompatibel mit KYCR-ISCR Wendeplatten.*

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück S0608H SWLCR 03

BF SERVICE

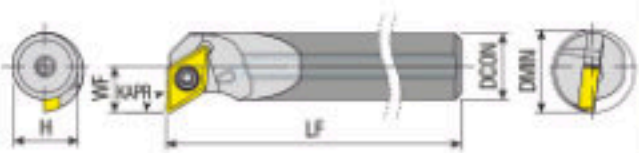


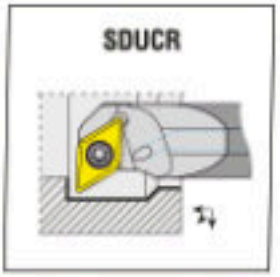




Takım Kodu / Ordering Code / Bestell-Bezeichnung	Stok / Stock / Lager		Takım Ölçüleri (mm) / Dimension (mm) / Abmessung (mm)					Kesici Uç / Insert / Wendeschneidplatte	Yedek Parçaları / Spare Parts / Ersatzteile: Sıkma Vidası / Screw / Schraube	Altlık / Shim / Unterlage	Altlık Vidası / Shim Screw / Stahlschraube	Torx Anahtar / Torx Key / Torx-Schlüssel
	R	L	DCON	H	LF	WF	DMIN					
E08K SCLCR/L 06	●	●	8	7.5	125	6	≥11	CC.T 0602..	4008-M2.5x6	-	-	80-T08
E10M SCLCR/L 06	●	●	10	9.5	150	7	≥13					
E12Q SCLCR/L 06	●	●	12	11	180	9	≥16					
E16R SCLCR/L 09	●	●	16	15	200	11	≥20	CC.T 09T3..	4015-M3.5x9			80-T15
E20S SCLCR/L 09	●	●	20	19	250	13	≥24					







Takım Kodu / Ordering Code / Bestell-Bezeichnung	Stok / Stock / Lager		Takım Ölçüleri (mm) / Dimension (mm) / Abmessung (mm)					Kesici Uç / Insert / Wendeschneidplatte	Yedek Parçaları / Spare Parts / Ersatzteile: Sıkma Vidası / Screw / Schraube	Altlık / Shim / Unterlage	Altlık Vidası / Shim Screw / Stahlschraube	Torx Anahtar / Torx Key / Torx-Schlüssel
	R	L	DCON	H	LF	WF	DMIN					
E10M SDUCR/L 07	●	●	10	9.5	150	8	≥13	DC.T 0702..	4008-M2.5x6	-	-	80-T08
E12Q SDUCR/L 07	●	●	12	11	180	9	≥16					
E16R SDUCR/L 11	●	●	16	15	200	11	≥20	DC.T 11T3..	4015-M3.5x9	-	-	80-T15
E20S SDUCR/L 11	●	●	20	18.3	250	12	≥23					

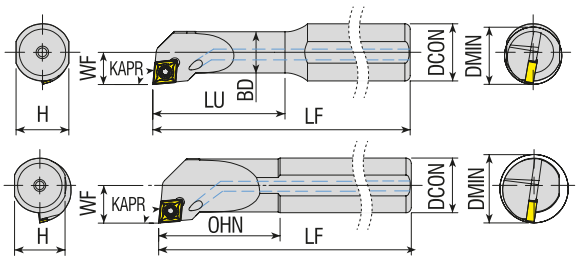
R: Sağ / Right / Rechts L: Sol/Left/Links
● Stokta / In Stock / Auf Lager ○ Stokta Yok / Non Stock Item / Kein Lagerartikel, Lieferzeit auf Anfrage

Sipariş Örneği/Ordering Example/Bestellbeispiel
1 ad./pcs./stück E08K SCLCR 06

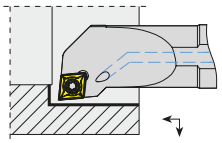
BF SERVICE

SET-A/SCLCR/L





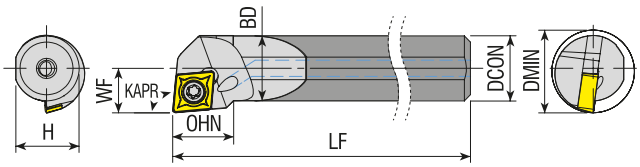
SCLCR



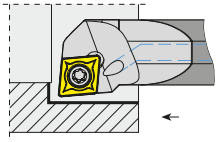
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*							Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*			
											Sıkma Vidası *Screw* *Schraube*	Altlık *Shim* *Unterlage*	Altlık Vidası *Shim Screw* *Schraube für Unterlage*	Tork Anahtar *Torx Key* *Torx-Schlüssel*
	R	L	DCON	BD	H	LU=OHN	LF	WF	DMIN					
A08H SCLCR/L 06	●	●	8	8	7.3	20	100	6	≥11					
A10H SCLCR/L 06	●	●	10	10	9	25	100	7	≥13	**CC.T 0602..**	4008-M2.5x6	-	-	80-T08
A12H SCLCR/L 06	●	●	12	12	11	25	100	9	≥16					
A16M SCLCR/L 09	●	●	16	16	14.8	35	150	11	≥20	**CC.T 09T3..**	4015-M3.5x9			80-T15

SET-E/SCLCR/L





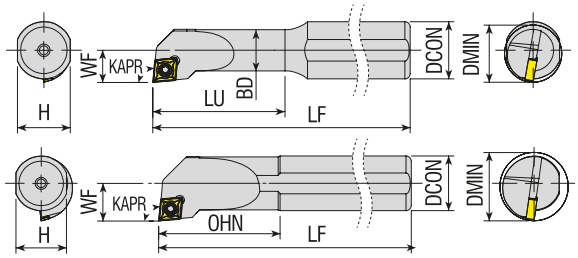
SCLCR



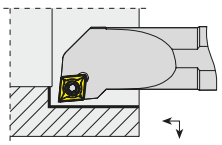
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*							Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*			
											Sıkma Vidası *Screw* *Schraube*	Altlık *Shim* *Unterlage*	Altlık Vidası *Shim Screw* *Schraube für Unterlage*	Tork Anahtar *Torx Key* *Torx-Schlüssel*
	R	L	DCON	BD	H	OHN	LF	WF	DMIN					
E08K SCLCR/L 06	●	○	8	8	7.5	10	125	6	≥11					
E10M SCLCR/L 06	●	○	10	10	9.5	10	150	7	≥13	**CC.T 0602..**	4008-M2.5x6	-	-	80-T08
E12Q SCLCR/L 06	●	○	12	12	11	12	180	9	≥16					
E16R SCLCR/L 09	●	○	16	16	15	15	200	11	≥20	**CC.T 09T3..**	4015-M3.5x9			80-T15

SET-S/SCLCR/L





SCLCR



Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*							Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*			
											Sıkma Vidası *Screw* *Schraube*	Altlık *Shim* *Unterlage*	Altlık Vidası *Shim Screw* *Schraube für Unterlage*	Tork Anahtar *Torx Key* *Torx-Schlüssel*
	R	L	DCON	BD	H	LU=OHN	LF	WF	DMIN					
S08H SCLCR/L 06	●	●	8	8	7.3	20	100	6	≥11					
S10K SCLCR/L 06	●	●	10	10	9	25	125	7	≥13	**CC.T 0602..**	4008-M2.5x6	-	-	80-T08
S12K SCLCR/L 06	●	●	12	12	11	25	125	9	≥16					
S16P SCLCR/L 09	●	●	16	16	14.8	35	170	11	≥20	**CC.T 09T3..**	4015-M3.5x9			80-T15

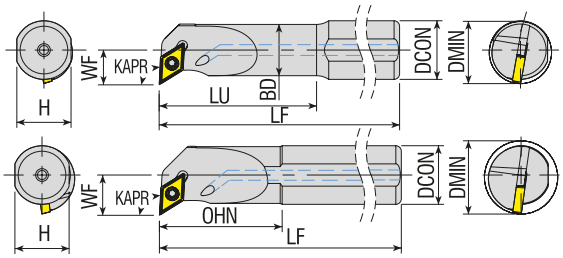
R: Sağ / Right / *Rechts* L: Sol/Left/*Links* ● Stokta / In Stock / *Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*

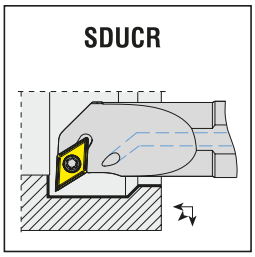
Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück SET-A/SCLCR

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SET-A/SDUCR/L



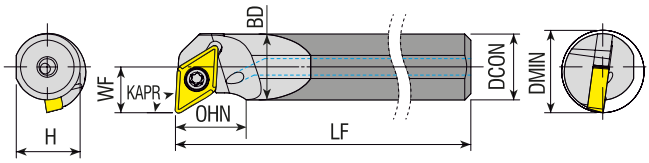


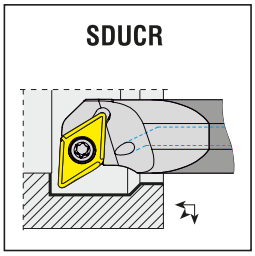


Takım Kodu / Ordering Code / Bestell-Bezeichnung	Stok / Stock / Lager		Takım Ölçüleri (mm) / Dimension (mm) / Abmessung (mm)							Kesici Uç / Insert / Wendeschneidplatte	Yedek Parçaları / Spare Parts / Ersatzteile: Sıkma Vidası / Screw / Schraube	Altlık / Shim / Unterlage	Altlık Vidası / Shim Screw / Schraube für Unterlage	Tork Anahtar / Torx Key / Torx-Schlüssel
	R	L	DCON	BD	H	LU=OHN	LF	WF	DMIN					
A10H SDUCR/L 07	●	●	10	10	09	25	100	08	≥13	DC.T 0702..	4008-M2.5x6	-	-	80-T08
A12H SDUCR/L 07	●	●	12	12	11	25	100	09	≥16					
A16M SDUCR/L 11	●	●	16	16	14.8	35	150	11	≥20	DC.T 11T3..	4015-M3.5x9			80-T15

SET-E/SDUCR/L



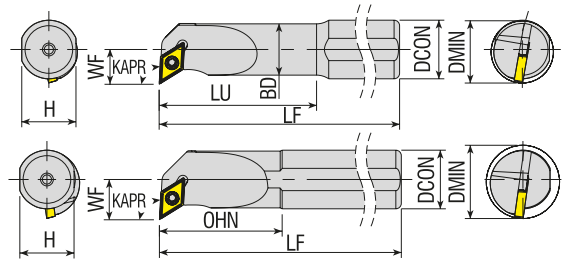


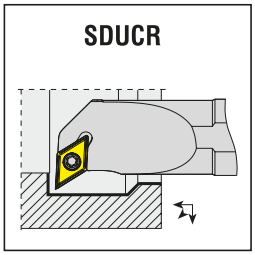


Takım Kodu / Ordering Code / Bestell-Bezeichnung	Stok / Stock / Lager		Takım Ölçüleri (mm) / Dimension (mm) / Abmessung (mm)							Kesici Uç / Insert / Wendeschneidplatte	Yedek Parçaları / Spare Parts / Ersatzteile: Sıkma Vidası / Screw / Schraube	Altlık / Shim / Unterlage	Altlık Vidası / Shim Screw / Schraube für Unterlage	Tork Anahtar / Torx Key / Torx-Schlüssel
	R	L	DCON	BD	H	OHN	LF	WF	DMIN					
E10M SDUCR/L 07	●	○	10	10	9.5	09	150	8	≥13	DC.T 0702..	4008-M2.5x6	-	-	80-T08
E12Q SDUCR/L 07	●	○	12	12	11	10	180	9	≥16					
E16R SDUCR/L 11	●	○	16	16	15	12	200	11	≥20	DC.T 11T3..	4015-M3.5x9			80-T15

SET-S/SDUCR/L







Takım Kodu / Ordering Code / Bestell-Bezeichnung	Stok / Stock / Lager		Takım Ölçüleri (mm) / Dimension (mm) / Abmessung (mm)							Kesici Uç / Insert / Wendeschneidplatte	Yedek Parçaları / Spare Parts / Ersatzteile: Sıkma Vidası / Screw / Schraube	Altlık / Shim / Unterlage	Altlık Vidası / Shim Screw / Schraube für Unterlage	Tork Anahtar / Torx Key / Torx-Schlüssel
	R	L	DCON	BD	H	LU=OHN	LF	WF	DMIN					
S10K SDUCR/L 07	●	●	10	10	9	25	125	8	≥13	DC.T 0702..	4008-M2.5x6	-	-	80-T08
S12K SDUCR/L 07	●	●	12	12	11	25	125	9	≥16					
S16P SDUCR/L 11	●	●	16	16	14.8	35	170	11	≥20	DC.T 11T3..	4015-M3.5x9			80-T15

R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück SET-A/SDUCR

BF SERVICE

AKKO®

konuşulan
the spoken kalite...
quality...

KARTUŞLAR

KARTUŞLAR
CARTRIDGE
KURZDREHHALTER



BF SERVICE

S	T	F	C	R	12	C	A	16
1	2	3	4	5	6	7	8	9

1 Sıkma Tipi / *Method of Mounting of Insert* / *Klemmsystem*

Deliksiz Üstten Sıkma *Top Clamping Without Hole* *Pratzenkeilklemmung*	Delikten Levye ile Sıkma *Hole Clamping (Lever Lock)* *Kniehebel-Spannsystem*	Vida ile Sıkma *Screw on* *Schrauben-Spannsystem*
C	P	S

2 Uç Tipi / *Type of Insert* / *Plattenform*

C	S	T

3 Yanaşma Açısı / *Tool Holder Shape Bar Geometry* / *Anstellwinkel*

95° 95°	45°	90°
L	S	F
75°	75°	90°
R	K	G
60°	60°	
W	T	

4 Serbest Uç Açısı / *Insert Clearance Ange* / *Freiwinkel*

7°	11°	0°
C	P	N

5 Kesme Yönü / *Cutting Direction* / *Halterausführung*

R	L

6 Kesme Kenar Yüksekliği / *Cutting Edge Height* / *Drehhalterhöhe*

h

7 Kartuş Kodu / *Cartridge Code* / *Kurzdrehhalter Bezeichnung*

C
(Kartuş / *Cartridge Code* / *Kurzdrehhalter Bezeichnung*)

8 Kartuş Tipi / *Cartridge Type* / *Art der Kurzdrehhalter*

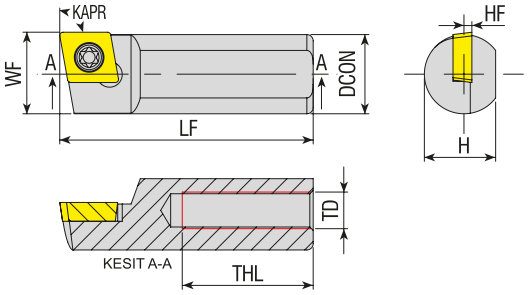
A
(ISO 5611)

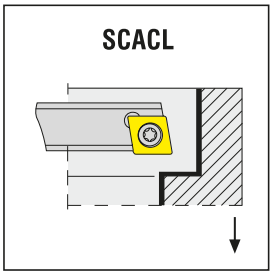
9 Kesme Kenar Uzunluğu / *Cutting Edge Length* / *Halterausführung*

L L L

BF SERVICE







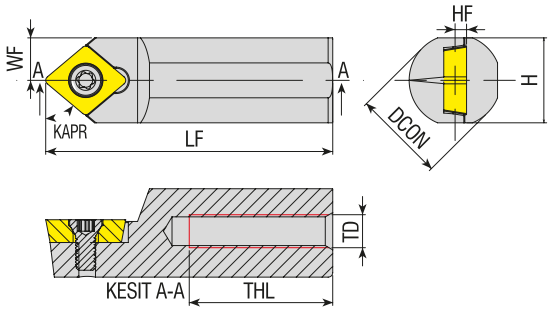
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*							Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile* Sıkma Vidası *Screw* *Schraube*	Tork Anahtar *Torx Key* *Torx-Schlüssel*
	R	L	DCON	H	LF	THL	HF	WF	TD			
S10X SCACR/L 06	●	●	10	9	25	10	1	10.3	M5x0.8			
S10A SCACR/L 06	●	●	10	9	32	15	1	10.3	M5x0.8			
S1018 SCACR/L 06	○	●	10	9	18	8	1	9.8	M5x0.8			
S1065 SCACR/L 06	○	●	10	9	65	5	1	10.3	M5x0.8	**CC.. 0602..**	4008-M2.5x6	80-T08
S10C SCACR/L 06	●	●	10	9	50	25	1	10.3	M5x0.8			
S12B SCACR/L 06	●	●	12	11	40	25	1	12.3	M5x0.8			
S12D SCACR/L 06	●	●	12	11	60	25	1	12.3	M5x0.8			
S12D SCACR/L 09	●	●	12	11	60	25	2	12.2	M5x0.8			
S1265 SCACR/L 09	○	●	12	11	65	25	2	12.3	M5x0.8			
S12H SCACR/L 09	●	●	12	11	100	25	2	12.2	M5x0.8			
S15C SCACR/L 09	●	●	15	14	50	25	2	15.3	M8x1.25			
S1554 SCACR/L 09	○	●	15	14	54	25	2	15.3	M8x1.25			
S15E SCACR/L 09	○	●	15	14	70	45	2	15.3	M8x1.25			
S15D SCACR/L 09	○	●	15	14	60	30	2	15.3	M8x1.25			
S16A SCACR/L 09	●	●	16	15	32	15	2	16.5	M6x1			
S16B SCACR/L 09	●	●	16	15	40	20	2	16.5	M6x1			
S16C SCACR/L 09	○	●	16	15	50	25	2	16.5	M6x1			
S16D SCACR/L 09	●	●	16	15	60	30	2	16.5	M6x1	**CC.. 09T3..**	4015-M3.5x8	80-T15
S16E SCACR/L 09	○	●	16	15	70	30	2	16.5	M6x1			
S16G SCACR/L 09	●	●	16	15	90	30	2	16.5	M6x1			
S16H SCACR/L 09	○	●	16	15	100	35	4	16.5	M6x1			
S1868 SCACR/L 09	○	●	18	17	68	30	2	18.5	M8x1.25			
S18E SCACR/L 09	●	●	18	17	70	30	2	18.5	M8x1.25			
S1888 SCACR/L 09	○	●	18	17	88	30	2	18.5	M8x1.25			
S18105 SCACR/L 09	○	●	18	17	105	30	2	18.5	M8x1.25			
S18175 SCACR/L 09	○	●	18	17	175	30	2	18.5	M8x1.25			
S20E SCACR/L 09	●	●	20	18.3	70	30	2	20.5	M6x1			
S20E SCACR/L 12	●	●	20	18.3	70	30	2	20.5	M6x1	**CC.. 1204..**	1020-M5x11	80-T20
S20H SCACR/L 12	●	●	20	18.3	100	30	2	20.5	M6x1			

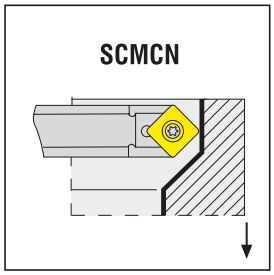
R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück S10X SCACR 06

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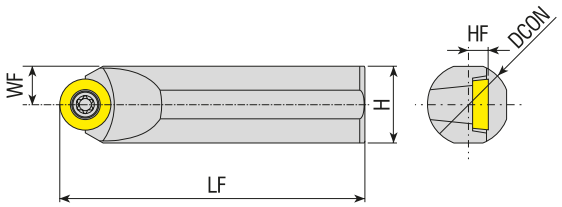


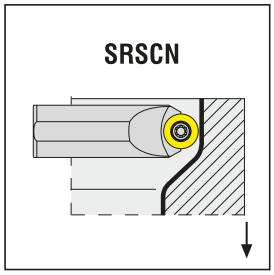




Takım Kodu / Ordering Code / Bestell-Bezeichnung	Stok / Stock / Lager	Takım Ölçüleri (mm) / Dimension (mm) / Abmessung (mm)							Kesici Uç / Insert / Wendeschneidplatte	Yedek Parçaları / Spare Parts / Ersatzteile: Sıkma Vidası / Screw / Schraube	Tork Anahtar / Torx Key / Torx-Schlüssel
		DCON	H	LF	THL	HF	WF	TD			
S10X SCMCN 06	●	10	9	25	10	1	5	M5x0.8	CC.. 0602..	4008-M2.5x6	80-T08
S12D SCMCN 06	●	12	11	60	25	1	6	M5x0.8			
S16C SCMCN 09	●	16	15	50	25	2	8	M6x1	CC.. 09T3..	4015-M3.5x11	80-T15
S16D SCMCN 09	●	16	15	60	25	4	8	M6x1			







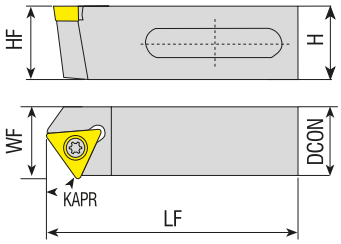
Takım Kodu / Ordering Code / Bestell-Bezeichnung	Stok / Stock / Lager	Takım Ölçüleri (mm) / Dimension (mm) / Abmessung (mm)					Kesici Uç / Insert / Wendeschneidplatte	Yedek Parçaları / Spare Parts / Ersatzteile: Sıkma Vidası / Screw / Schraube	Tork Anahtar / Torx Key / Torx-Schlüssel
		DCON	H	WF	HF	LF			
S12D SRSCN 10	●	12	11	6	3.9	60	RC. 10T3	4015-M3.5x9	80-T15
S14D SRSCN 10	●	14	13	7	3.9	60		4015-M3.5x11	
S16D SRSCN 10	●	16	15	8	3.9	60			

R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück S10X SCMCN 06

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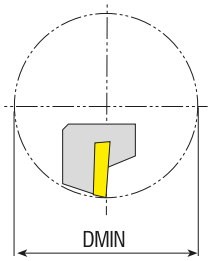


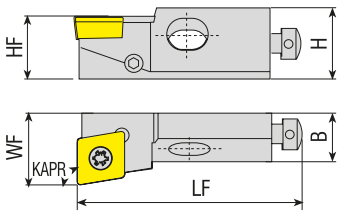


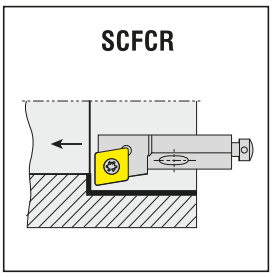
Takım Kodu / *Ordering Code* / *Bestell-Bezeichnung*	Stok / *Stock* / *Lager* R	L	Takım Ölçüleri (mm) / *Dimension (mm)* / *Abmessung (mm)* DCON	H	HF	LF	WF	Kesici Uç / *Insert* / *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile* — Sıkma Vidası / *Screw* / *Schraube*	Tork Anahtar / *Torx Key* / *Torx-Schlüssel*
STXCR/L 2020 B16	○	●	20	20	20	45	20	**TC.. 16T3..**	4015-M3.5x11	80-T15
STXCR/L 2020 E16	○	●	20	20	20	70	20			
STXCR/L 2020 B16-SA	○	●	20	10	20	45	20			
STXCR/L 2020 E16-SA	○	●	20	10	20	70	20			
STXCR/L 2020 B16-PL	○	●	20	10	20	45	20			
STXCR/L 2020 E16-PL	○	●	20	10	20	70	20			
STXCR/L 2020 H16-PL	○	●	20	10	20	100	20			

S-SİSTEM KARTUŞLAR
S-SYSTEM CARTRIDGE
S-SYSTEM KURZDREHHALTER









Takım Kodu / *Ordering Code* / *Bestell-Bezeichnung*	Stok / *Stock* / *Lager* R	L	Takım Ölçüleri (mm) / *Dimension (mm)* / *Abmessung (mm)* HF	H	B	LF	WF	DMIN	Kesici Uç / *Insert* / *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile* — Altlık / *Shim* / *Unterlage*	Altlık Vidası / *Shim Screw* / *Schraube für Unterlage*	Sıkma Vidası / *Screw* / *Schraube*	Tork Anahtar / *Torx Key* / *Torx-Schlüssel*
SCFCR/L 06CA 06	●	●	6	8.5	6	25	8	≥20	**CC.T 060204**	-	-	4008-M2.5x6	80-T08
SCFCR/L 08CA 06	●	●	8	11	8	32	10	≥25					
SCFCR/L 10CA 09	●	●	10	15	11	50	14	≥40	**CC.T 09T308**	-	-	4015-M3.5x11	80-T15
SCFCR/L 12CA 12	●	○	12	20	15	55	20	≥50	**CC.T 120408**	-	-	1020-M5x11	80-T20
SCFCR/L 16CA 12	●	●	16	21	20	63	25	≥60		AACN-2-0003	AAV-10-M4.5x8	4020-M4.5x12	

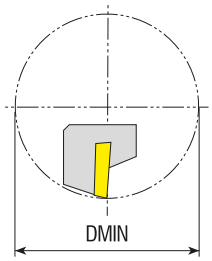
R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*

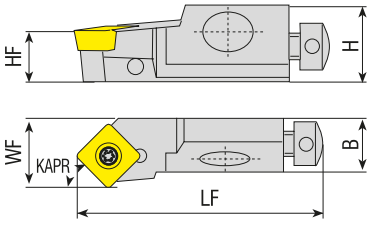
Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück STXCR 2020 B16

BF SERVICE

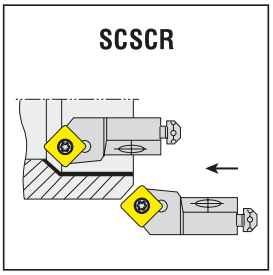
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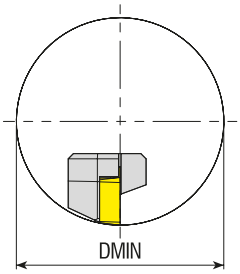
SCSCR

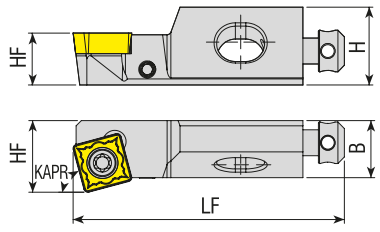


Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*						Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*			
										Altlık *Shim* *Unterlage*	Altlık Vidası *Shim Screw* *Schraube für Unterlage*	Sıkma Vidası *Screw* *Schraube*	Tork Anahtar *Torx Key* *Torx-Schlüssel*
	R	L	HF	H	B	LF	WF	DMIN					
SCSCR/L 06CA 06	●	○	6	8	6	30	8	≥20	**CC.T 060204**	-	-	4008-M2.5x6	80-T08
SCSCR/L 10CA 09	●	○	10	15	11	50	14	≥40	**CC.T 09T308**	-	-	4015-M3.5x14	80-T15
SCSCR/L 12CA 12	○	○	12	20	15	55	20	≥50	**CC.T 120408**	-	-	1020-M5x11	80-T20

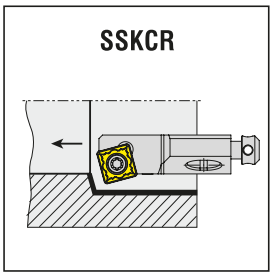
KAPR=75°







SSKCR



Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*						Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*			
										Altlık *Shim* *Unterlage*	Altlık Vidası *Shim Screw* *Schraube für Unterlage*	Sıkma Vidası *Screw* *Schraube*	Tork Anahtar *Torx Key* *Torx-Schlüssel*
	R	L	HF	H	B	LF	WF	DMIN					
SSKCR/L 10CA 09	●	○	10	15	11	50	14	≥40	**SC.T 09T308**	-	-	4015-M3.5x11	80-T15
SSKCR/L 12CA 12	●	○	12	20	15	55	20	≥50	**SC.T 120408**	-	-	1020-M5x11	80-T20

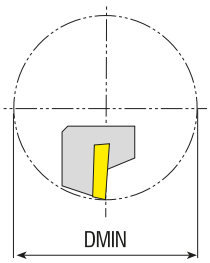
R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*

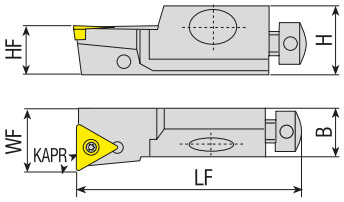
Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück SCSCR 06CA 06

BF SERVICE

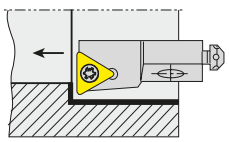
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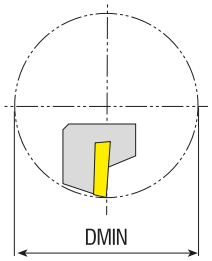
STFCR

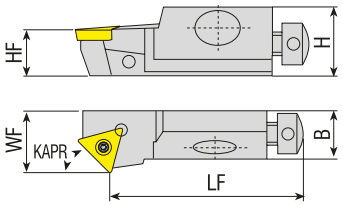


Takım Kodu / Ordering Code / Bestell-Bezeichnung	Stok / Stock / Lager		Takım Ölçüleri (mm) / Dimension (mm) / Abmessung (mm)						Kesici Uç / Insert / Wendeschneidplatte	Yedek Parçaları / Spare Parts / Ersatzteile: Altlık / Shim / Unterlage	Altlık Vidası / Shim Screw / Schraube für Unterlage	Sıkma Vidası / Screw / Schraube	Tork Anahtar / Torx Key / Torx-Schlüssel
	R	L	HF	H	B	LF	WF	DMIN					
STFCR/L 08CA 09	●	●	8	11	8	32	10	≥25	**TC.T 090204**	-	-	3007-M2.2x5	80-T07
STFCR/L 10CA 11	●	●	10	15	11	50	14	≥40	**TC.T 110204**	-	-	4008-M2.5x6	80-T08
STFCR/L 12CA 16	●	○	12	20	15	55	20	≥50	**TC.T 16T308**	-	-	4015-M3.5x11	80-T15
STFCR/L 16CA 16	●	●	16	21	20	63	25	≥60		AATN-2-0001	AAV-06-M3.5x11	4015-M3.5x14	

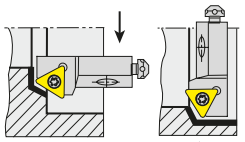
KAPR=45°







STSCR



Takım Kodu / Ordering Code / Bestell-Bezeichnung	Stok / Stock / Lager		Takım Ölçüleri (mm) / Dimension (mm) / Abmessung (mm)						Kesici Uç / Insert / Wendeschneidplatte	Yedek Parçaları / Spare Parts / Ersatzteile: Altlık / Shim / Unterlage	Altlık Vidası / Shim Screw / Schraube für Unterlage	Sıkma Vidası / Screw / Schraube	Tork Anahtar / Torx Key / Torx-Schlüssel
	R	L	HF	H	B	LF	WF	DMIN					
STSCR/L 08CA 09	●	○	8	11	8	28	10	≥25	**TC.T 090204**	-	-	3007-M2.2x5	80-T07
STSCR/L 10CA 11	●	●	10	15	11	44	14	≥40	**TC.T 110204**	-	-	4008-M2.5x6	80-T08
STSCR/L 12CA 16	●	○	12	20	15	47	20	≥50	**TC.T 16T308**	-	-	4015-M3.5x11	80-T15

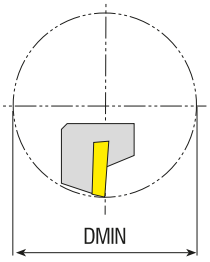
R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*

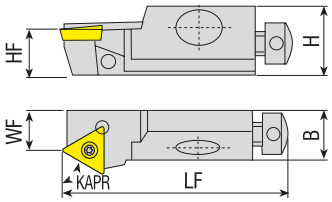
Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück STFCR 08CA 09

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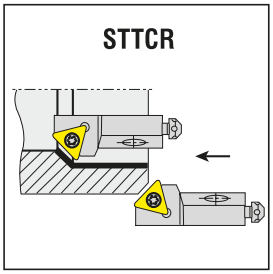
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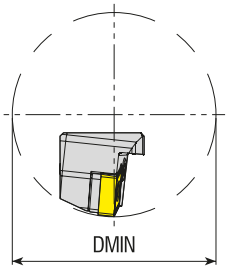
STTCR

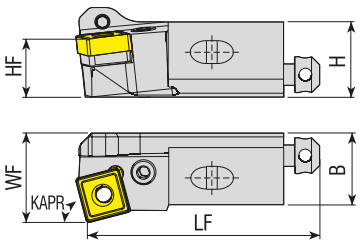


Takım Kodu / Ordering Code / Bestell-Bezeichnung	Stok / Stock / Lager		Takım Ölçüleri (mm) / Dimension (mm) / Abmessung (mm)						Kesici Uç / Insert / Wendeschneidplatte	Yedek Parçaları / Spare Parts / Ersatzteile: Altlık / Shim / Unterlage	Altlık Vidası / Shim Screw / Schraube für Unterlage	Sıkma Vidası / Screw / Schraube	Tork Anahtar / Torx Key / Torx-Schlüssel
	R	L	HF	H	B	LF	WF	DMIN					
STTCR/L 08CA 09	●	●	8	11	8	32	6	≥25	TC.T 090204	-	-	3007-M2.2x5	80-T07
STTCR/L 10CA 11	●	●	10	15	11	50	9	≥40	TC.T 110204	-	-	4008-M2.5x6	80-T08

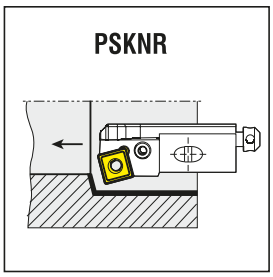
KAPR=75°







PSKNR



Takım Kodu / Ordering Code / Bestell-Bezeichnung	Stok / Stock / Lager		Takım Ölçüleri (mm) / Dimension (mm) / Abmessung (mm)						Kesici Uç / Insert / Wendeschneidplatte	Yedek Parçaları / Spare Parts / Ersatzteile: Levye / Lever / Kniehebel	Levye Vidası / Lever Screw / Kniehebelschraube	Altlık / Shim / Unterlage	Altlık Yayı / Shim Spring / Feder für Unterlage	Anahtar / Allen Key / Innensechskantschlüssel
	R	L	HF	H	B	LF	WF	DMIN						
PSKNR/L 16CA 12	●	●	16	21	20	63	25	≥60	SNM.120408	APL-02	ALV-08-M8x16	AASN-3-0004	AAY-02	AAL-02-2.5

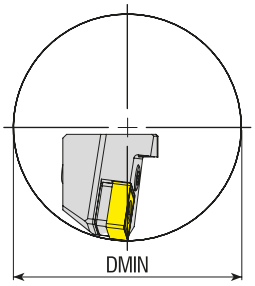
R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock / *Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*

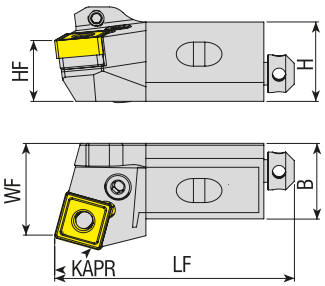
Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück STTCR 08CA 09

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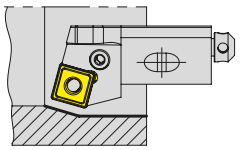
KAPR=75°







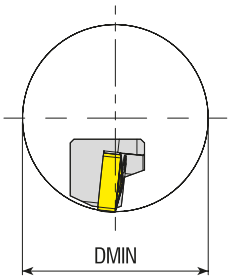
PSRNR

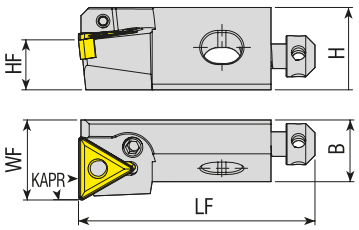


Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*						Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*				
										Levye *Lever* *Kniehebel*	Levye Vidası *Lever Screw* *Kniehebelschraube*	Altlık *Shim* *Unterlage*	Altlık Yayı *Shim Spring* *Feder für Unterlage*	Anahtar *Allen Key* *Innensechskantschlüssel*
	R	L	HF	H	B	LF	WF	DMIN						
PSRNR/L 16CA 12	○	●	16	21	20	55	25	≥60	**SNM.120408**	APL-02	ALV-03-M8x19	AASN-3-0004	AAY-02	AAL-03-3

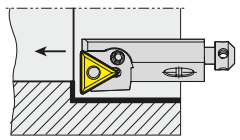
KAPR=90°







PTFNR



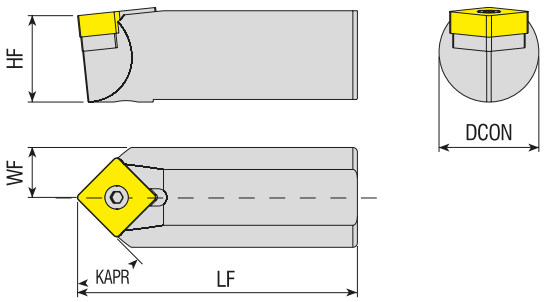
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*						Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*				
										Levye *Lever* *Kniehebel*	Levye Vidası *Lever Screw* *Kniehebelschraube*	Altlık *Shim* *Unterlage*	Altlık Yayı *Shim Spring* *Feder für Unterlage*	Anahtar *Allen Key* *Innensechskantschlüssel*
	R	L	HF	H	B	LF	WF	DMIN						
PTFNR/L 12CA 16	●	●	12	20	15	47	20	≥50	**TNM.160408**	APL-08	ALV-07-M6x13	-	AAY-07	AAL-02-2.5
PTFNR/L 16CA 16	●	○	16	21	20	55	25	≥60		APL-01	ALV-01-M6x14	AATN-3-0025	AAY-01	

R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück PSRNR 16CA 12

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Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*				Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*				
		DCON	HF	LF	WF		Altlık *Shim* *Unterlage*	Sıkma Vidası *Screw* *Schraube*	Baskı Parçası *Wedge Clamp* *Spannpratze*	Baskı Vidası *Clamp Screw* *Klemmschraube*	Tork Anahtar *Torx Key* *Torx-Schlüssel*
S22D PSDNN 12C	●	22	19.5	65	11	**SNM. 1204..**	AASN-20020	AEV-01-M6x16	ACK-05	4015-M4x11	AAL-02-2.5

R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*

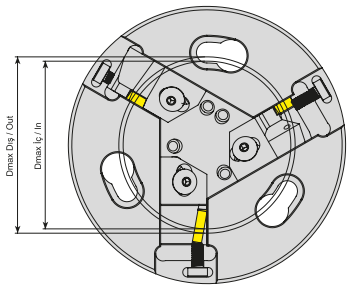
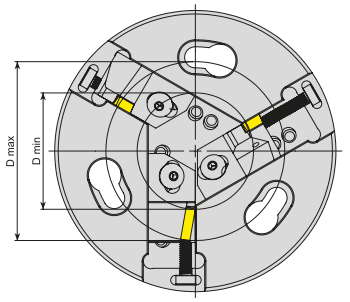
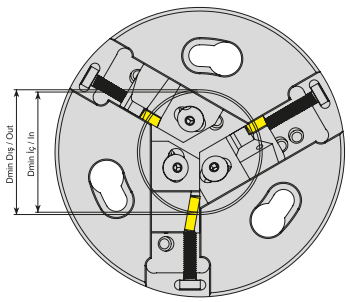
Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./*stück* S22D PSDNN 12C

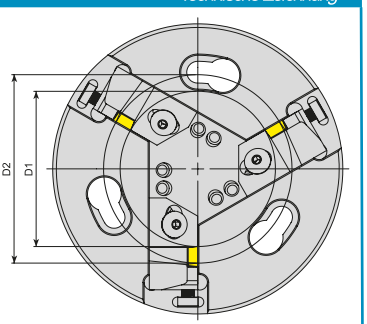
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*		Yedek Parçaları / *Spare Parts* / *Ersatzteile*				
		Eksenel Ayar Vida *Axial Adj. Screw* *Axial-Einstellschraube*	Radyal Ayar Vida *Radial Adj. Screw* *Radial-Einstellschraube*	Radyal Ayar Vida Anahtarı *Radial Adj. Screw Allen Key* *Innensechskantschlüssel für Radial-Einstellschraube*	Montaj Vida *Mounting Screw* *Befestigungsschraube*	Montaj Vida Anahtarı *Mounting Screw Allen Key* *Innensechskantschlüssel für Befestigungsschraube*
SCFCR/L	06CA 06	2600-M4x9.5	2715-M3x5	AAL-09-1.5	AKV-23-M4x10	AAL-03-3
SCSCR/L	08CA 06	2600-M4x9.5	2715-M3x5	AAL-09-1.5	AKV-23-M4x10	AAL-03-3
SSKCR/L	10CA 09	2600-M5x13	2702-M4x10	AAL-01-2	2505-M6x16	AAL-03-3
	12CA 12	2600-M5x13	2702-M4x10	AAL-01-2	2505-M6x16	AAL-03-3
	16CA 12	2600-M6x18	2725-M5x12	AAL-02-2.5	2005-M8x25	AAL-07-5
STSCR/L	08CA 09	2600-M4x9.5	2715-M3x5	AAL-09-1.5	AKV-23-M4x10	AAL-03-3
STTCR/L	10CA 11	2600-M5x13	2702-M4x10	AAL-01-2	2505-M6x16	AAL-03-3
STFCR/L	12CA 16	2600-M5x13	2702-M4x10	AAL-01-2	2505-M6x16	AAL-03-3
	16CA 16	2600-M6x18	2725-M5x12	AAL-02-2.5	2005-M8x25	AAL-07-5
PTFNR/L	12CA 16	2600-M5x13	2702-M4x4	AAL-01-2	2505-M6x16	AAL-03-3
PSKNR/L	16CA 16	2600-M6x18	2725-M5x6	AAL-02-2.5	2005-M8x25	AAL-07-5
PSRNR/L	16CA 12	2600-M6x18	2725-M5x6	AAL-02-2.5	2005-M8x25	AAL-07-5

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Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Ölçü Aralığı (mm) *Boring Range (mm)* *Bohrbereich (mm)*					Kartuşlar *Cardridge* *Kurzdrehhalter*	Gövde Takım Kodu *Body Tool Code* *Grundkörper-Bezeichnung*	Teknik Çizim *Tecnical Draw* *Technische Zeichnung*
		D max		D min		Max (D dış-D iç) (D out-D in)			
		D iç *D in*	D dış *D out*	D iç *D in*	D dış *D out*				
ACPBT-1	●	27-52	52	18-36	36	27	ÖTG-TC16-2DL ÖTG-TC11-4IR ÖTG-TC16-1AR	ÖTG-K-120-20	
ACPBT-2	●	27-49	52	25-36	36	27	ÖTG-TC16-2DL ÖTG-TC16-3IR ÖTG-TC16-1AR		
ACPBT-3	●	48-75	75	41	42	27	ÖTG-TC16-2DL ÖTG-TC11-4IL ÖTG-TC16-1AL		
ACPBT-4	●	51-75	75	51	52	27	ÖTG-TC16-2DL ÖTG-TC16-3IL ÖTG-TC16-1AL		
ACPBT-5	●	22-35	35	22	23	27	ÖTG-TC16-2DR ÖTG-TC16-3IR ÖTG-TC16-1AR		
ACPBT-6	●	15-35	35	15	16	27	ÖTG-TC16-2DR ÖTG-TC11-4IR ÖTG-TC16-1AR		
ACPBT-7	●	49-53	75	32-36	36	27	ÖTG-TC16-2DL ÖTG-TC11-4IR ÖTG-TC16-1AL		
ACPBT-8	●	49	75	33-37	37	27	ÖTG-TC16-2DL ÖTG-TC16-3IR ÖTG-TC16-1AL		

Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Ölçü Aralığı (mm) *Boring Range (mm)* *Bohrbereich (mm)*					Kartuşlar *Cardridge* *Kurzdrehhalter*	Gövde Takım Kodu *Body Tool Code* *Grundkörper-Bezeichnung*	Teknik Çizim *Tecnical Draw* *Technische Zeichnung*
		D1		D2		Max (D dış-D iç) (D out-D in)			
		D max	D min	D max	D min				
ACPBT-9	●	38	24	15	1	-	ÖTG-TC16-2DR ÖTG-TC16-2DR ÖTG-TC16-2DR	ÖTG-K-120-20	
ACPBT-10	●	78	64	43	29	-	ÖTG-TC16-2DL ÖTG-TC16-2DL ÖTG-TC16-2DL		

R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück ACPBT-1

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AKKO®

konuşulan
the spoken kalite...
quality...

DİŞ AÇMA

DİŞ AÇMA TAKIMLARI
THREADING TOOLHOLDERS
GEWINDE DREHHALTER



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S	E	R	25 25	M	16	C
1	2	3	4-5	6	7	8

1 Sıkma Tipi / *Method of Mounting of Insert* *Klemmsystem*

S: Vida Sıkmalı
S: *Screw Clamping* / *S Schrauben-Spannsystem*
T: Vida Sıkmalı Helis Açılı
T: *Screw Clamping with Helix Angle*
T: Schraubenklemmung für unterschiedliche Einstellwinkel

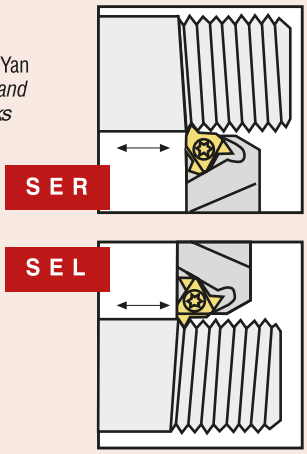
2 İşlem Tipi / *Application* *Anwendung*

E: Dış / External
Außen
I: İç/Internal / *Internal*
Innen

3 Kesme Yönü *Cutting Direction* *Halterausführung*

R: Sağ Yan
Right-Hand
R: Rechts

L: Sol Yan
Left-Hand
L: Links



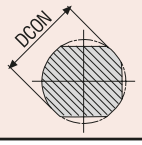
4 Takım Malzemesi / *Type of Boring* / *Art der Bohrstange*

"A" Yekpare çelik gövde soğutma suyu kanallı / *"A" Solid steel with coolant hole*
'A" Stahlschaft mit Kühlbohrung SEITE 123
"E" Çelik başlıkla sert matal gövde ve soğutma suyu kanallı / *"E" Carbide bar with fixed steel head and coolant hole*
"E" Hartmetallstange mit festem Stahlkopf und Kühlmittelbohrung
"C" Karbür Şaft / *"C" Carbide shank* / *"C" Hartmetallschaft*
"S" Çelik Şaft / *"S" Steel shank* / *"S" Stahlschaft*

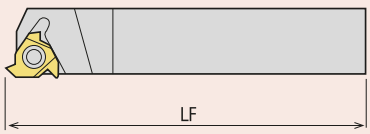
4-5 Dış Çap Şaft Ölçüleri *External Shank Siz* *Äußere Schaftgröße*

Şaft / Shank / *Schaftausführung*: hxb
2525 - 25 x 25 mm

5 Şaft Çapı / *Shank Diameter* *Schaft-Durchmesser*



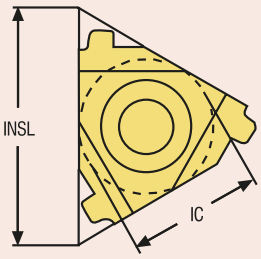
6 Şaft Boyu / *Shank Length* / *Schaftlänge*



(mm)

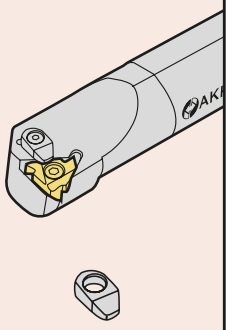
A-32	H-100	Q-180	x-special
B-40	J-110	R-200	
C-50	K-125	S-250	
D-60	L-140	T-300	
E-70	M-150	U-350	
F-80	N-160	V-400	
G-90	P-170	W-450	

7 Elmas Ölçüsü / *Insert Size* *Wendeplattengröße*



l (mm)	d
06	5/32″
08	3/16″
11	1/4″
16	3/8″
22	1/2″
27	5/8″

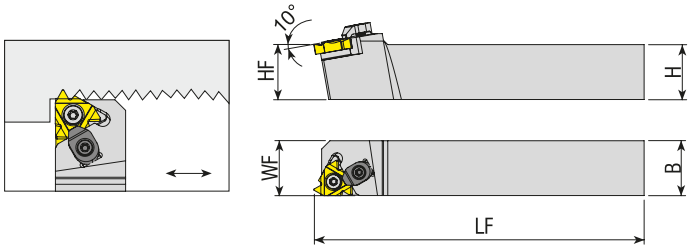
8 Baskı Pabucu *Wedge Clamp* *Spannpratze*



S	I	R	S	25	R	16	C
1	2	3	4	5	6	7	8

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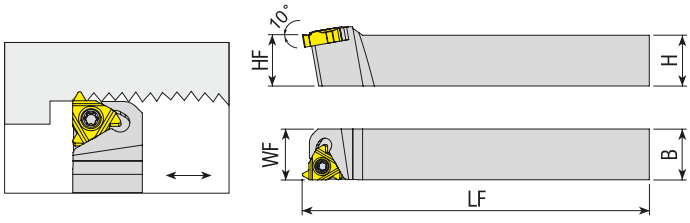




Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager* R	L	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)* HF=H	B	LF	WF	Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile* Sıkma Vidası *Screw* *Schraube*	Altlık *Shim* *Unterlage*	Altlık Vidası *Shim Screw* *Schraube für Unterlage*	Baskı Parçası *Wedge Clamp* *Spannpratze*	Baskı Vidası *Clamp Screw* *Klemmschraube*	Tork Anahtar *Torx Key* *Torx-Schlüssel*
													
SER/L 0808 E11	●	●	08	08	70	11	**11 ER/EL**	4008-M2.5x6	-	-	-	-	80-T08
SER/L 1010 E11	●	●	10	10	70	11							
SER/L 1212 F11	●	●	12	12	80	12							
SER/L 1616 H11	●	●	16	16	100	16							
SER/L 1616 H16C	●	●	16	16	100	16	**16 ER/EL (0.35 - 3) ISO METRIC**	4015-M3.5x14	AATN-2-0020	AAV-06-M3.5x11	ACK-05	4015 M4x11	80-T15
SER/L 2020 K16C	●	●	20	20	125	20							
SER/L 2525 M16C	●	●	25	25	150	25							
SER/L 3232 P16C	●	●	32	32	170	32							
SER/L 2525 M22C	●	●	25	25	150	25	**22 ER/EL (3.5 - 4.5) ISO METRIC**	1020-M4.5x16	AATN-2-0004	AAV-07-M4.5x13			80-T20
SER/L 3232 P22C	●	●	32	32	170	32							
SER/L 4040 S22C	●	●	40	40	250	40							
SER/L 2525 M16C-T	●	●	25	25	150	25	**16 ER/L (1.5-3 TR)**	4015-M3.5x14	-	-			80-T15
SER/L 2525 M22C-T	●	●	25	25	150	25	**22 ER/L (4-6 TR)**	1020-M4.5x16	-	-			80-T20
SER/L 2020 K16C-S	●	●	20	20	125	25	**SNDVK 166 ER/L16**	4015-M3.5x14	AATN-2-0020	AAV-06-M3.5x11			80-T15
SER/L 2525 M16C-S	●	●	25	25	150	31							
SER/L 3232 P16C-S	●	●	32	32	170	38.5							

DIŞ ÇAP DİŞ AÇMA İSVİÇRE TİPİ KAYAR OTOMAT MAKİNA KATERLERİ
EXTERNAL THREADING TOOLHOLDERS FOR SWISS TYPE SLIDING AUTOMATIC LATHES
AUSSEN-GEWINDEDREH-HALTER FÜR LANGDREHAUTOMATEN





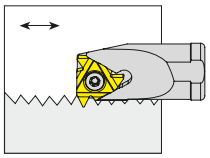
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager* R	L	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)* HF=H	B	LF	WF	Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile* Sıkma Vidası *Screw* *Schraube*	Altlık *Shim* *Unterlage*	Altlık Vidası *Shim Screw* *Schraube für Unterlage*	Baskı Parçası *Wedge Clamp* *Spannpratze*	Baskı Vidası *Clamp Screw* *Klemmschraube*	Tork Anahtar *Torx Key* *Torx-Schlüssel*
													
SER/L 1010 K11-S	●	●	10	10	125	10	**11 ER/EL**	4008-M2.5x6	-	-	-	-	80-T08
SER/L 1212 K11-S	●	●	12	12	125	12							

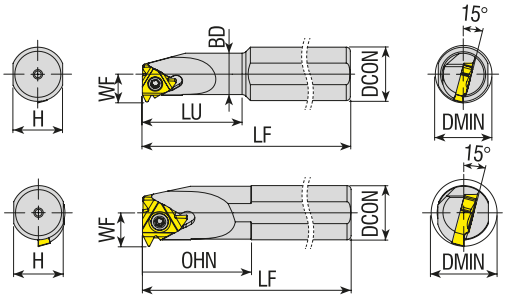
R: Sağ / Right / *Rechts* L: Sol/Left/ *Links* ● Stokta / In Stock / *Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
Takımlar standart 1.5° helis açılı olarak üretilir. / *The tools have a built in 1.5° helix angle.* / *GEWINDE-DREHHALTER werden mit Einstellwinkel 1.5° hergestellt*
UYARI / ***WARNING*** / *ACHTUNG*: Sayfa 130'deki B ve D figürleri uygulanamaz. / *The operation for B and D on page 130 can not be applied.* / *S.130: für Abbildung B und D: nicht verwenden*

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück SER 0808 E11

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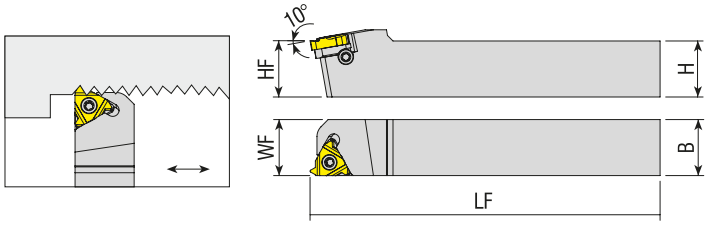
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*						Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*					
										Sıkma Vidası *Screw* *Schraube*	Altlık *Shim* *Unterlage*	Altlık Vidası *Shim Screw* *Schraube für Unterlage*	Baskı Parçası *Wedge Clamp* *Spannpratze*	Baskı Vidası *Clamp Screw* *Klemmschraube*	Tork Anahtar *Torx Key* *Torx-Schlüssel*
	R	L	DCON	BD	LF	LU=OHN	WF	DMIN						
SIR/L S12X05H 06	●	○	12	05	100	15	4.3	6.4	**06 IR/L**	3006-M2x4	-	-	-	-	80-T06
SIR/L S16X07M 08	●	●	16	07	150	18	5.3	7.8	**08 IR/L**	3007-M2.2x5	-	-	-	-	80-T07
SIR/L S10H 11	●	●	10	10	100	-	7.4	12							
SIR/L S12K 11	●	●	12	12	125	-	8.4	16							
SIR/L S16X10M 11	●	●	16	10	150	25	7.4	12	**11 IR/L**	4008-M2.5x6	-	-	-	-	80-T08
SIR/L S16X13M 11	●	●	16	13	150	32	8.9	15							
SIR/L S16M 11	●	●	16	16	150	-	11.7	19							
SIR/L S16X13M 16	●	●	16	13	150	32	10.2	16		4015-M3.5x9					
SIR/L S16M 16	●	●	16	16	150	-	11.7	19							
SIR/L S20X16P 16	●	●	20	16	170	40	11.7	19		4015-M3.5x11	-	-	-	-	
SIR/L S20P 16	●	●	20	20	170	-	13.7	24	**16 IR/L**						
SIR/L S25R 16C	●	●	25	25	200	-	16.2	29	**(0.35 - 3)**	4015-M3.5x14		AAV-08-M3.5x8			80-T15
SIR/L S32S 16C	●	●	32	32	250	-	19.7	36	**ISO METRIC**						
SIR/L S40T 16C	●	●	40	40	300	-	23.7	44		4015-M3.5x14	AATN-2-0020	AAV-06-M3.5x11	ACK-05	4015-M4x11	
SIR/L S50U 16C	●	●	50	50	350	-	28.7	54							
SIR/L S20P 22	●	●	20	20	170	-	15.7	24		4020-M4.5x12	-	-	-	-	
SIR/L S25R 22C	●	●	25	25	200	-	18.1	29	**22 IR/L**			AAV-10-M4.5x8			
SIR/L S32S 22C	●	●	32	32	250	-	21.6	38	**(3.5 - 4.5)**						80-T20
SIR/L S40T 22C	●	●	40	40	300	-	25.6	46	**ISO METRIC**	1020-M4.5x16	AATN-2-0004	AAV-07-M4.5x13	ACK-05	4015-M4x11	
SIR/L S50U 22C	●	●	50	50	350	-	30.6	58							
SIR/L S25R 16C-T	●	●	25	25	200	-	16.2	29	**16 IR/L (1.5-3 TR)**	4015-M3.5x14	-	-			80-T15
SIR/L S32S 16C-T	●	●	32	32	250	-	19.7	36							
SIR/L S25R 22C-T	●	●	25	25	200	-	18.1	29	**22 IR/L (4-6 TR)**	1020-M4.5x16	-	-			80-T20
SIR/L S32S 22C-T	●	●	32	32	250	-	21.6	38							

R: Sağ / Right / *Rechts* L: Sol/Left/*Links* ● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
Takımlar standart 1.5° helis açılı olarak üretilir. / *The tools have a built in 1.5° helix angle.* / *GEWINDE-DREHHALTER werden mit Einstellwinkel 1.5° hergestellt*
UYARI / ***WARNING*** / *ACHTUNG*: Sayfa 131'deki B ve D figürleri uygulanamaz. / *The operation for B and D on page 131 can not be applied.* / *S.131: für Abbildung B und D: nicht verwenden*

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück SIR S12X05H 06

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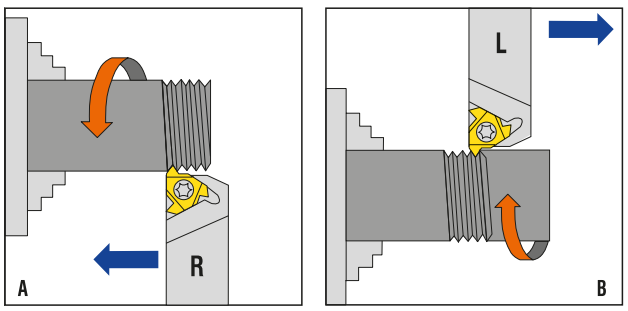


Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*				Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*					
								Sıkma Vidası *Screw* *Schraube*	Sağ Altlık *Right Shim* *U-Platte für WSP rechts*	Sol Altlık *Left Shim* *U-Platte für WSP links*	Altlık Vidası *Shim Screw* *Schraube für Unterlage*	Altlık Vidası Pulu *Shim Screw Ring* *Schraube Für Unterlagering*	Tork Anahtar *Torx Key* *Torx-Schlüssel*
	R	L	HF=H	B	LF	WF							
TER/L 1616 H16	●	●	16	16	100	16	**16 ER/EL**	1710-U5-40x12.2	ATS-16E	ATS-16I	AAV-11-U5-40x4.5	ABPL-03	80-T10
TER/L 2020 K16	●	●	20	20	125	20							
TER/L 2525 M16	●	●	25	25	150	25							
TER/L 3232 P16	●	●	32	32	170	32							
TER/L 2525 M22	●	●	25	25	150	25	**22 ER/EL**	1720-U8-32x15	ATS-22E	ATS-22I	AAV-12-U8-32x5.5	ABPL-04	80-T20
TER/L 3232 P22	●	●	32	32	170	32							
TER/L 4040 S22	●	●	40	40	250	40							
TER/L 2525 M27	●	●	25	25	150	25	**27 ER/EL**	1620-M5x22	ATS-27E	ATS-27I	AAV-15-M5x5.7	ABPL-05	80-T20
TER/L 4040 S27	●	●	40	40	250	40							

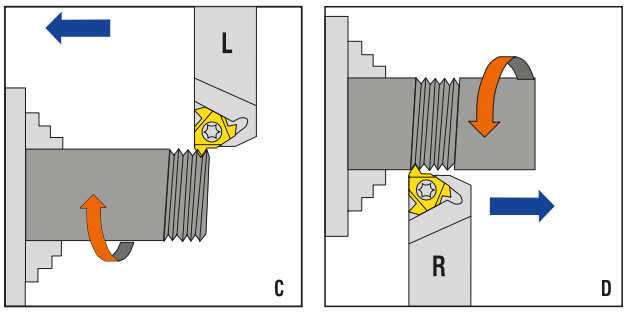
R: Sağ / Right / *Rechts* L: Sol/Left/*Links* ● Stokta / In Stock / *Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
Takımlar standart 1.5° helis açılı olarak üretilir. / *The tools have a built in 1.5° helix angle.* / *GEWINDE-DREHHALTER werden mit Einstellwinkel 1.5° hergestellt*

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück TER 1616 H16

DIŞ ÇAP SAĞ YÖNDE VİDA AÇMA
EXTERNAL RIGHT HAND THREADING OPERATION
HERSTELLUNG VON AUßEN-RECHTSGEWINDE



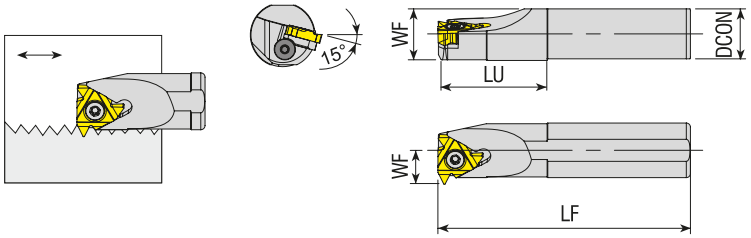
DIŞ ÇAP SOL YÖNDE VİDA AÇMA
EXTERNAL LEFT HAND THREADING OPERATION
HERSTELLUNG VON AUßEN-LINKSGEWINDE



UYARI / ***WARNING*** / ***ACHTUNG***
Figür B ve D için; negatif açılı altlık kullanılmalıdır. / *For figure B and D; negative shim must be used.* / *Für Abbildung B und D; negative Unterlage verwenden.*
Altlıksız katerlerde B ve D figürü uygulanamaz. / *B and D figures can not be applied on tools without shim.* / *Für Abbildung B und D; kann nicht mit Werkzeugen ohne Unterlegplatte erfolgen.*

BF SERVICE



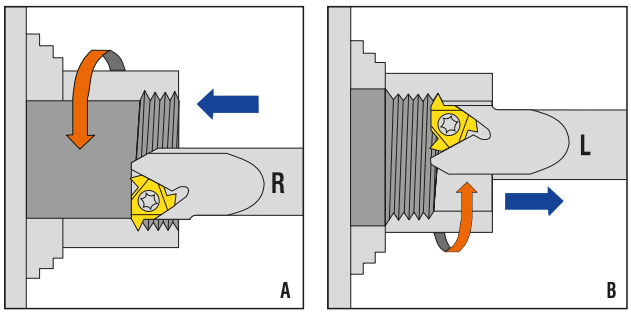


Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*						Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*					
										Sıkma Vidası *Screw* *Schraube*	Sol Altlık *Left Shim* *U-Platte für WSP links*	Sağ Altlık *Right Shim* *U-Platte für WSP rechts*	Altlık Vidası *Shim Screw* *Schraube für Unterlage*	Altlık Vidası Pulu *Shim Screw Ring* *Schraube Für Unterlagering*	Tork Anahtar *Torx Key* *Torx-Schlüssel*
	R	L	DCON	WF	LF	LU	WF	DMIN						
TIR/L S25R 16	●	●	25	25	200	-	16.2	29	**16 IR/L**	1710-U5-40x12.2	ATS-16E	ATS-16I	AAV-11-U5-40x4.5	ABPL-03	80-T10
TIR/L S32S 16	●	●	32	32	250	-	19.7	36							
TIR/L S40T 16	●	●	40	40	300	-	23.7	44							
TIR/L S50U 16	●	●	50	50	350	-	28.7	54							
TIR/L S25R 22	●	●	25	25	200	-	18.1	29	**22 IR/L**	1720-U8-32x15	ATS-22E	ATS-22I	AAV-12-U8-32x5.5	ABPL-04	80-T20
TIR/L S32S 22	●	●	32	32	250	-	21.6	38							
TIR/L S40T 22	●	●	40	40	300	-	25.6	46							
TIR/L S50U 22	●	●	50	50	350	-	30.6	58							
TIR/L S32S 27	●	●	32	32	250	-	22.6	40	**27 IR/L**	1620-M5x18	ATS-27E	ATS-27I	AAV-15-M5x5.7	ABPL-05	80-T20
TIR/L S40T 27	●	●	40	40	300	-	26.6	48		1620-M5x22					
TIR/L S50U 27	●	●	50	50	350	-	31.6	58							

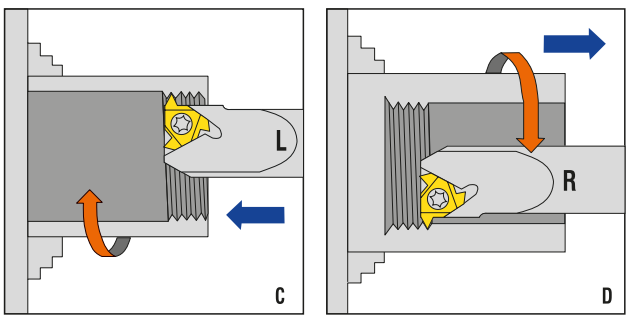
R: Sağ / Right / *Rechts* L: Sol/Left/*Links* ● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
Takımlar standart 1.5° helis açılı olarak üretilir. / *The tools have a built in 1.5° helix angle.* / *GEWINDE-DREHHALTER werden mit Einstellwinkel 1.5° hergestellt*

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück TIR S25R 16

DELİK İÇİ SAĞ YÖNDE VİDA AÇMA
INTERNAL RIGHT HAND THREADING OPERATION
HERSTELLUNG VON INNEN-RECHTSGEWINDE



DELİK İÇİ SOL YÖNDE VİDA AÇMA
INTERNAL LEFT HAND THREADING OPERATION
HERSTELLUNG VON INNEN-LINKSGEWINDE

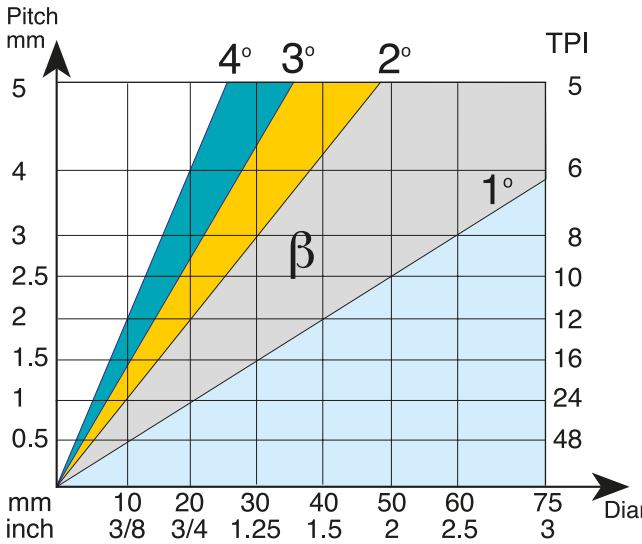


UYARI / *WARNING* / *ACHTUNG*

Figür B ve D için; negatif açılı altlık kullanılmalıdır. / *For figure B and D; negative shim must be used.* / *Für Abbildung B und D; negative Unterlage verwenden.*
Altlıksız katerlerde B ve D figürü uygulanamaz. / *B and D figures can not be applied on tools without shim.* / *Für Abbildung B und D; kann nicht mit Werkzeugen ohne Unterlegplatte erfolgen.*

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Diş Helis Açısı
Thread Helix Angle
Steigungswinkel



$$\tan\beta = \frac{P}{\pi \times D}$$

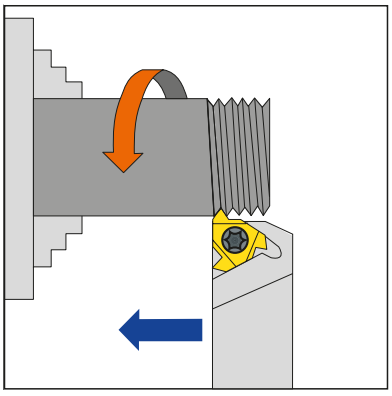
Basitleştirilmiş formül
Simplified formula
Vereinfachte Formel

$\beta = 20\ P/D$

Örnek / *Example* / *Beispiel :*

D = 25 mm (0.98")
P = 1.5 mm (16 TPI)

$$\beta = \frac{25 \times 1.5}{40} = 1.25°$$

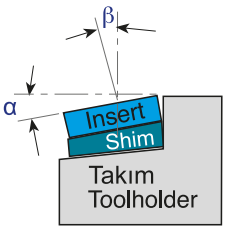


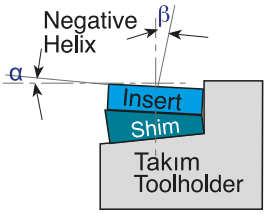
Standart ve Eğik Altlıklar
Standard and Slanted Shim
Standard und Schräge Unterlegplatte

Akko diş açma takımlarının, uç yuvaları 1.5° helis açılı olarak üretilir. Farklı helis açılı diş açmak isteyenler altlığı değiştirerek istedikleri dereceyi elde edebilirler.
Negatif helis genellikle sol katerde sağ diş çekmek için kullanılır ya da sağ katerde sol diş çekmek için kullanılır.

Akko Toolholders Pockets have a built in 1.5° helix angle. This angle may be adjusted to better match the thread helix angle by simply changing the shim.
Negative helix is usually used when threading RH thread with LH Holder or LH thread with RH Holder.

Die Akko-Gewindedrehhalter werden mit 1,5°-Steigungswinkel produziert. Durch Wechseln der Unterlage kann dieser Winkel dem optimalen Steigungswinkel angepasst werden. Die Unterlagen mit negativem Winkel werden eingesetzt, wenn ein Rechtsgewinde mit einem linken Halter oder ein Linksgewinde mit einem rechten Halter gefertigt werden soll.





L	IC	Takım Tipi *Tool Type* *Werkzeugtyp*	Uç Yuvasının Açısı (α) / *Pocket's Angle (α)* / *Winkel Wendeplattensitz (α)*						
			4.5°	3.5°	2.5°	1.5°	0.5°	-0.5°	-1.5°
16	3/8	EX-RH or IN-LH	ATS-16E+4.5	ATS-16E+3.5	ATS-16E+2.5	ATS-16E	ATS-16E+0.5	ATS-16E-0.5	ATS-16E-1.5
16	3/8	EX-LH or IN-RH	ATS-16I+4.5	ATS-16I+3.5	ATS-16I+2.5	ATS-16I	ATS-16I+0.5	ATS-16I-0.5	ATS-16I-1.5
22	1/2	EX-RH or IN-LH	ATS-22E+4.5	ATS-22E+3.5	ATS-22E+2.5	ATS-22E	ATS-22E+0.5	ATS-22E-0.5	ATS-22E-1.5
22	1/2	EX-LH or IN-RH	ATS-22I+4.5	ATS-22I+3.5	ATS-22I+2.5	ATS-22I	ATS-22I+0.5	ATS-22I-0.5	ATS-22I-1.5
27	5/8	EX-RH or IN-LH	ATS-27E+4.5	ATS-27E+3.5	ATS-27E+2.5	ATS-27E	ATS-27E+0.5	ATS-27E-0.5	ATS-27E-1.5
27	5/8	EX-LH or IN-RH	ATS-27I+4.5	ATS-27I+3.5	ATS-27I+2.5	ATS-27I	ATS-27I+0.5	ATS-27I-0.5	ATS-27I-1.5

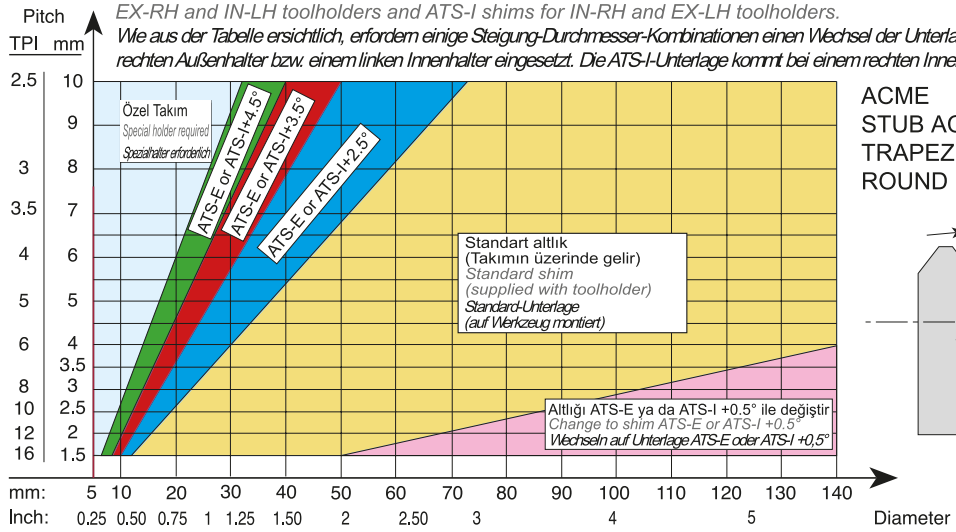
BF SERVICE

Altlık Değiştirme Öneri Tablosu / *Shim Change Recommendation*
Empfehlungen zum Wechseln der Unterlage

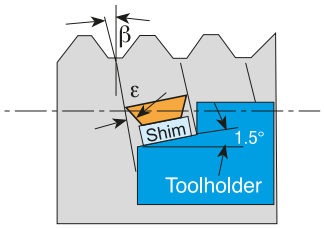
Tabloda da görüldüğü gibi bazı diş hatvelerinin çaplara göre kombinasyonları altlık değişimini gerektirir. Eğer değişim gerekli ise EX-RH ve IN-LH katerleri için ATS-E altlıklarını, IN-RH ve EX-LH katerleri için ATS-I altlıklarını kullanın.

As can be seen from the chart, some Pitch to Diameter combinations require a shim change. If change is required, use ATS-E shim for EX-RH and IN-LH toolholders and ATS-I shims for IN-RH and EX-LH toolholders.

Wie aus der Tabelle ersichtlich, erfordern einige Steigung-Durchmesser-Kombinationen einen Wechsel der Unterlage. In diesem Fall wird eine ATS-E-Unterlage auf einem rechten Außenhalter bzw. einem linken Innenhalter eingesetzt. Die ATS-I-Unterlage kommt bei einem rechten Innenhalter bzw. einem linken Außenhalter zum Einsatz.



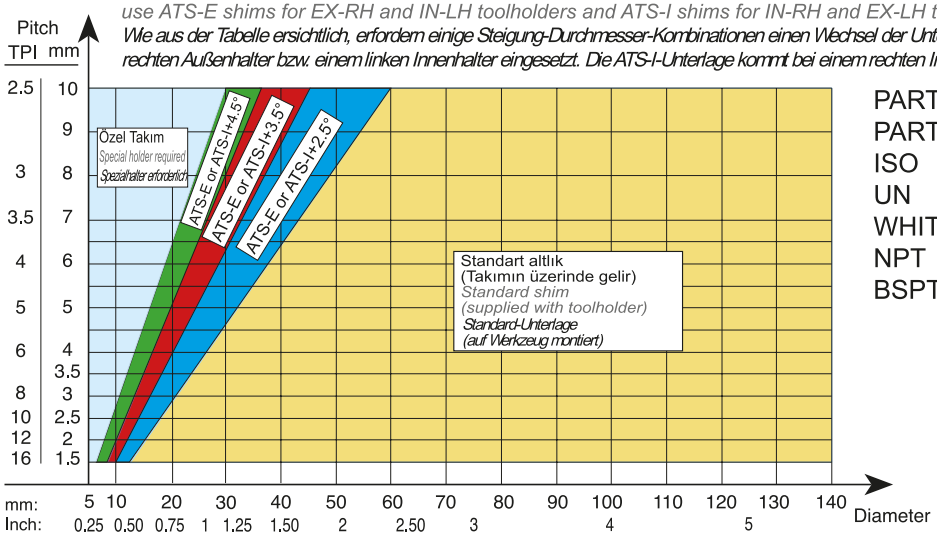
ACME
STUB ACME
TRAPEZ (DIN 103)
ROUND (DIN 405)



Tabloda da görüldüğü gibi çoğu ugulamalar altlık değişimine ihtiyaç duymaz. Eğer değişime ihtiyaç duyulursa EX-RH ve IN-LH katerleri için ATS-E altlıklarını, IN-RH ve EX-RH katerleri için ATS-I altlıklarını kullanın.

As can be seen from the chart, most applications do not require a shim change. If change is required, use ATS-E shims for EX-RH and IN-LH toolholders and ATS-I shims for IN-RH and EX-LH toolholders.

Wie aus der Tabelle ersichtlich, erfordern einige Steigung-Durchmesser-Kombinationen einen Wechsel der Unterlage. In diesem Fall wird eine ATS-E-Unterlage auf einem rechten Außenhalter bzw. einem linken Innenhalter eingesetzt. Die ATS-I-Unterlage kommt bei einem rechten Innenhalter bzw. einem linken Außenhalter zum Einsatz.

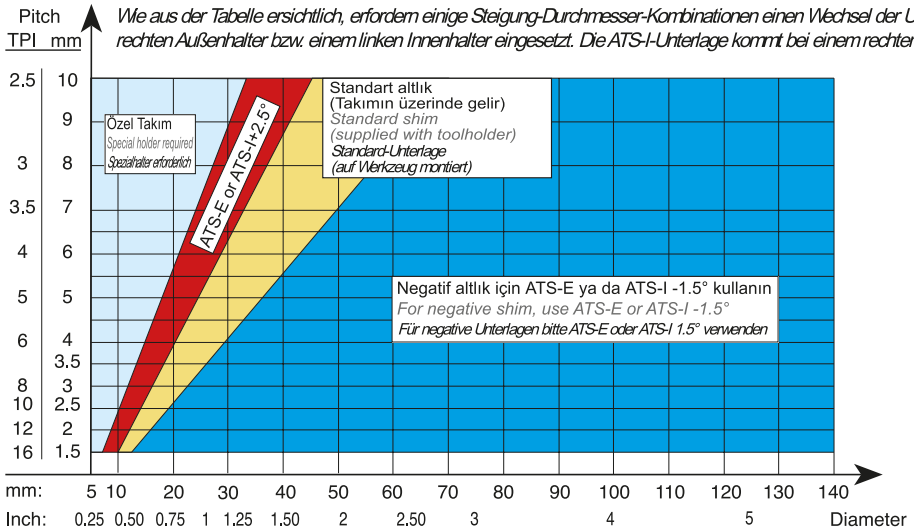


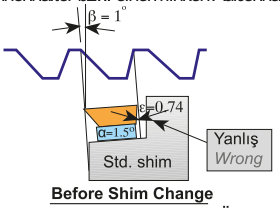
PARTIAL PROFILES 60°
PARTIAL PROFILES 55°
ISO
UN
WHIT.
NPT
BSPT

Tabloda da görüldüğü gibi çoğu ugulamalar altlık değişimine ihtiyaç duyar. Çoğu durumda negatif bir altlığa ihtiyaç duyulur. EX-RH ve IN-LH takımlar için ATS-E altlıklarını kullanın. IN-RH ve EX-LH takımlar için ATS-I altlıkları kullanın.

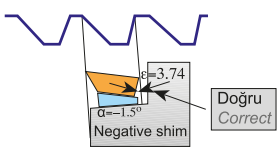
As can be seen from the chart, most applications require a shim change. In most cases a negative shim is required, use ATS-E shims for EX-RH and IN-LH toolholders. ATS-I shims for IN-RH and EX-LH toolholders.

Wie aus der Tabelle ersichtlich, erfordern einige Steigung-Durchmesser-Kombinationen einen Wechsel der Unterlage. In diesem Fall wird eine ATS-E-Unterlage auf einem rechten Außenhalter bzw. einem linken Innenhalter eingesetzt. Die ATS-I-Unterlage kommt bei einem rechten Innenhalter bzw. einem linken Außenhalter zum Einsatz.





Before Shim Change
Altlığı Değiştirmeden Önce
vor dem Wechsel der Unterlegplatte



After Shim Change
Altlığı Değiştirdikten Sonra
Nach dem Wechsel der Unterlegplatte

AMERICAN BUTTRESS SAGENGEWINDE (DIN 513)

Standart altlığın negatif bir altlıkla değiştirilmesi, kenar sürtmesini engeleyecektir.

Replacing the standard shim with a shim has negative angle, will elimimate side rubbing

Das Ersetzen der Standard-Unterlegplatte durch eine Unterlegplatte mit negativem Winkel verhindert seitliche Reibung.

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AKKO®

konuşulan
the spoken kalite...
quality...

KANAL AÇMA

KANAL AÇMA TAKIMLARI
GROOVING TOOLHOLDERS
STECHHALTER





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AKKO										
A	AKT	-	K	-	R	-	2525			
1	2		3		4		5			
100	-	150	-	4	-	T22				
6				7		8				

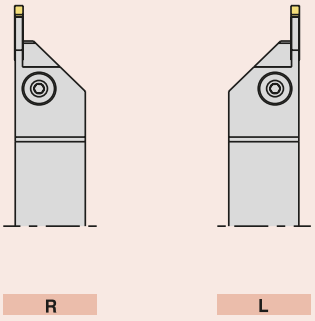
2 Kesici Stili / *Cutter Style* / *Cutter-Stil*

DKT: Dış Çap Kanal Açma Takımı / *External Grooving Toolholders*
Außen-Stechhalter
IKT: Delik İçi Kanal Açma Takımı / *Internal Grooving Toolholders*
Innen-Stechhalter
AKT: Dış Çap Alın Kanal Takımları / *Face Grooving Toolholders*
Axial-Stechhalter
LKT: L Tip Alın Kanal Açma Takımı / *L Type Face Grooving Toolholders*
Axial-Stechhalter L-Type

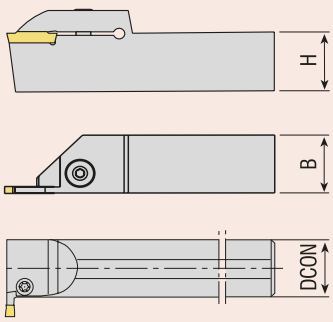
3 Uç Tipi / *Insert Type* / *Plattenform*

KRLY / *MGM.*	TGTC / TD.
HRN / *S312, S229, S224, S223*	
ISCR / *DGN, GI, GTN*	
SNDVK / *123, 151, 154.91*	
ZCC	
KM / *A4.*	
ARN / *LOMR.*	

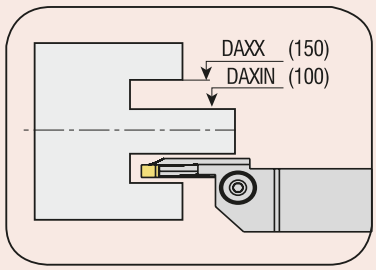
4 Kesme Yönü / *Cutting Direction* *Halterausführung*



5 Kesme Kenar Yüksekliği ve Şaft Genişliği *Cutting Edge Height and Shank Width* *Schafthöhe und Schaftbreite*



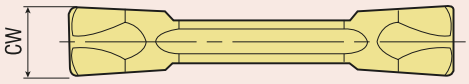
6 Kesme Aralığı *Cutting Diametter* *Durchmesser für Axialeinstechen*



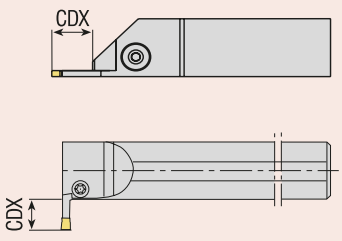
7 Kesme Kenar Genişliği / *Cutting Width Edge* *Plattenbreite*

ÖR/E.G :

2 = 2.0 mm
3 = 3.0 mm
4 = 4.0 mm
5 = 5.0 mm
6 = 6.0 mm
8 = 8.0 mm

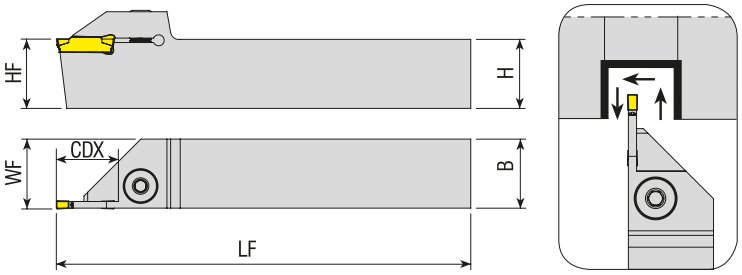


8 Kesme Derinliği / *Cutting Depth* / *Maximale Schnitttiefe*



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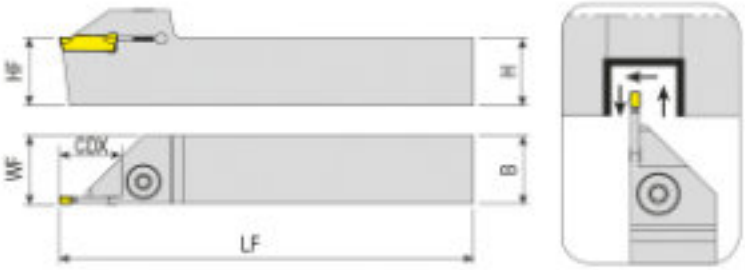
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*		
									Sıkma Vidası *Screw* *Schraube*	Pul *Stamp* *Ring*	Anahtar *Allen Key* *Innensechskantschlüssel*
	R	L	HF=H	B	LF	WF	CDX				
ADKT-K-R/L-1212-1.5-T15	●	●	12	12	100	12.2	15	MGM. - 1.5	AKV-02-M6x22	ABPL-01	AAL-03-3
ADKT-K-R/L-2020-1.5-T15	●	●	20	20	125	20.2	15				
ADKT-K-R/L-1212-2-T15	●	●	12	12	100	16.3	15				
ADKT-K-R/L-1616-2-T15	●	●	16	16	125	16.3	15				
ADKT-K-R/L-2020-2-T15	●	●	20	20	125	20.3	15	MGM. - 2			
ADKT-K-R/L-2525-2-T15	●	●	25	25	150	25.3	15				
ADKT-K-R/L-3232-2-T15	●	●	32	32	170	32.3	15				
ADKT-K-R/L-1212-3-T15	●	●	12	12	100	16.3	15				
ADKT-K-R/L-1616-3-T15	●	●	16	16	125	16.4	15				
ADKT-K-R/L-2020-3-T20	●	●	20	20	125	20.4	20				
ADKT-K-R/L-2020-3-R28	●	●	20	20	125	20.3	28	MGM. - 3			
ADKT-K-R/L-2525-3-R15	●	●	25	25	150	25.4	15				
ADKT-K-R/L-2525-3-T22	●	●	25	25	150	25.4	22				
ADKT-K-R/L-3232-3-T22	●	●	32	32	170	32.4	22				
ADKT-K-R/L-2020-4-T20	●	●	20	20	125	20.4	20		2004-M8x1x20	-	AAL-05-4
ADKT-K-R/L-2020-4-R25	●	○	20	20	125	20.4	25				
ADKT-K-R/L-2525-4-T18	●	●	25	25	150	25.4	18	MGM. - 4			
ADKT-K-R/L-2525-4-T22	●	●	25	25	150	25.4	22				
ADKT-K-R/L-3232-4-T22	●	●	32	32	170	32.4	22				
ADKT-K-R/L-2020-5-T20	●	●	20	20	125	20.5	20				
ADKT-K-R/L-2525-5-T18	●	●	25	25	150	25.5	18	MGM. - 5			
ADKT-K-R/L-2525-5-T25	●	●	25	25	150	25.5	25				
ADKT-K-R/L-3232-5-T25	●	●	32	32	170	32.5	25				
ADKT-K-R/L-2525-6-T25	●	●	25	25	150	25.6	25	MGM. - 6			
ADKT-K-R/L-3232-6-T25	●	●	32	32	170	32.6	25				
ADKT-K-R/L-3232-8-T32	●	●	32	32	170	32.8	32	MGM. - 8			

R: Sağ / Right / *Rechts* L: Sol/Left/ *Links*
● Stokta / In Stock / *Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
KRLY - JD Ucuna Uygundur. / Compatiple with KRLY - JD Insert. / Kompatibel mit KRLY - JD Wendeplatten

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück ADKT-K-R-1212-2-T15

BF SERVICE

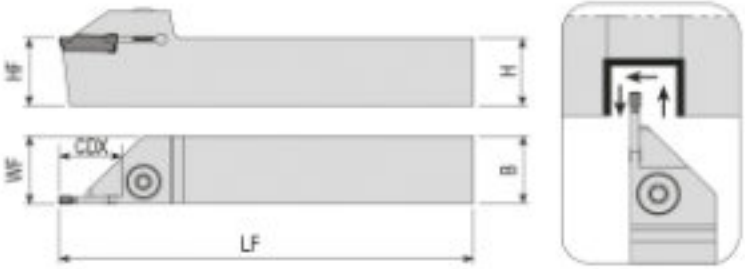




Takım Kodu / Ordering Code / Bestell-Bezeichnung	Stok / Stock / Lager		Takım Ölçüleri (mm) / Dimension (mm) / Abmessung (mm)					Kesici Uç / Insert / Wendeschneidplatte	Yedek Parçaları / Spare Parts / Ersatzteile: Sıkma Vidası / Screw / Schraube	Pul / Stamp / Ring	Anahtar / Allen Key / Innensechskant
	R	L	HF=H	B	LF	WF	CDX				
ADKT-KG-R/L-2020-2-T15	●	●	20	20	125	20.2	15	KG.. - 2	AKV-02-M6x22	ABPL-01	AAL-03-3
ADKT-KG-R/L-2525-2-T15	●	○	25	25	150	25.2	15				
ADKT-KG-R/L-2525-2-T17	●	○	25	25	150	25.2	17				
ADKT-KG-R/L-1616-3-T20	●	●	16	16	125	16.3	20	KG.. - 3	2004-M8x1x20	-	AAL-05-4
ADKT-KG-R/L-2020-3-T20	●	●	20	20	125	20.3	20				
ADKT-KG-R/L-2525-3-T22	●	●	25	25	150	25.3	22				
ADKT-KG-R/L-2020-4-T20	●	●	20	20	125	20.4	20	KG.. - 4			
ADKT-KG-R/L-2525-4-T16	●	○	25	25	150	25.4	16				
ADKT-KG-R/L-2525-4-T22	●	○	25	25	150	25.4	22				
ADKT-KG-R/L-2525-5-T25	●	○	25	25	150	25.5	25	KG.. - 5			
ADKT-KG-R/L-2525-6-T25	○	○	25	25	150	25.6	25	KG.. - 6			

KRLY Ucuna Uygundur. / Compatiple with KRLY Insert. / Kompatibel mit KRLY Wendeplatten





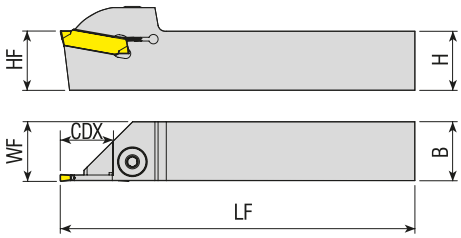
Takım Kodu / Ordering Code / Bestell-Bezeichnung	Stok / Stock / Lager		Takım Ölçüleri (mm) / Dimension (mm) / Abmessung (mm)					Kesici Uç / Insert / Wendeschneidplatte	Yedek Parçaları / Spare Parts / Ersatzteile: Sıkma Vidası / Screw / Schraube	Pul / Stamp / Ring	Anahtar / Allen Key / Innensechskant
	R	L	HF=H	B	LF	WF	CDX				
ADKT-SGC-R/L-1212-2-R15	●	●	12	12	100	16.2	15	GCM N20	AKV-02-M6x22	ABPL-01	AAL-03-3
ADKT-SGC-R/L-1616-2-R15	●	●	16	16	125	16.2	15				
ADKT-SGC-R/L-2020-2-R20	●	●	20	20	125	20.2	20				
ADKT-SGC-R/L-2525-2-R20	●	●	25	25	150	25.2	20				
ADKT-SGC-R/L-1212-3-R15	●	●	12	12	100	16.3	15	GCM N30	2004-M8x1x20	-	AAL-05-4
ADKT-SGC-R/L-1616-3-R15	●	●	16	16	125	16.3	15				
ADKT-SGC-R/L-2020-3-R22	●	●	20	20	125	20.3	22				
ADKT-SGC-R/L-2525-3-R15	●	○	25	25	150	25.3	15				
ADKT-SGC-R/L-2525-3-R22	●	●	25	25	150	25.3	22				
ADKT-SGC-R/L-2525-4-R25	●	○	25	25	150	25.4	25	GCM N40			

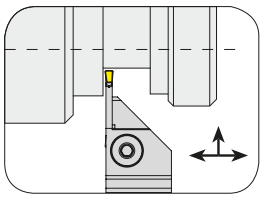
R: Sağ / Right / Rechts L: Sol/Left/Links
● Stokta / In Stock /Auf Lager ○ Stokta Yok / Non Stock Item / Kein Lagerartikel, Lieferzeit auf Anfrage
SMTM Ucuna Uygundur. / Compatiple with SMTM Insert. / Kompatibel mit SMTM Wendeplatten

Sipariş Örneği/Ordering Example/Bestellbeispiel
1 ad./pcs./stück ADKT-KG-R-2020-2-T15

BF SERVICE



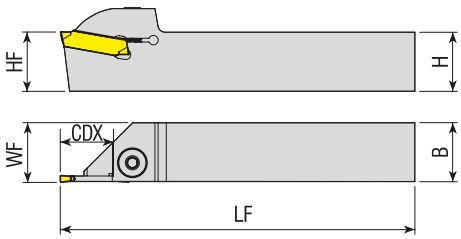


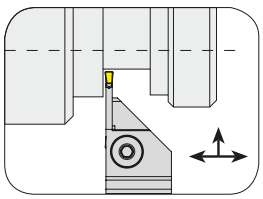


Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*		
									Sıkma Vidası *Screw* *Schraube*	Pul *Stamp* *Ring*	Anahtar *Allen Key* *Innensechskantschlüssel*
	R	L	HF=H	B	LF	WF	CDX				
ADKT-H-R/L-2020-3-T20	●	●	20	20	125	20.5	20	S229 - 3	2004-M8x1x20	-	AAL-05-4
ADKT-H-R/L-2525-3-T22	●	●	25	25	150	25.5	22				
ADKT-H-R/L-2525-3-T26	●	●	25	25	150	25.5	26				
ADKT-H-R/L-2020-4-T20	●	●	20	20	125	20.5	20	S229 - 4			
ADKT-H-R/L-2525-4-T22	●	●	25	25	150	25.5	22				
ADKT-H-R/L-3232-4-T22	●	●	32	32	170	32.5	22				
ADKT-H-R/L-2020-5-T20	●	●	20	20	125	20.5	20	S229 - 5			
ADKT-H-R/L-2525-5-T25	●	●	25	25	150	25.5	25				
ADKT-H-R/L-2525-6-T25	●	●	25	25	150	25.6	25	S229 - 6			

HRN Ucuna Uygundur. / Compatiple with HRN Insert. / Kompatibel mit HRN Wendeplatten.







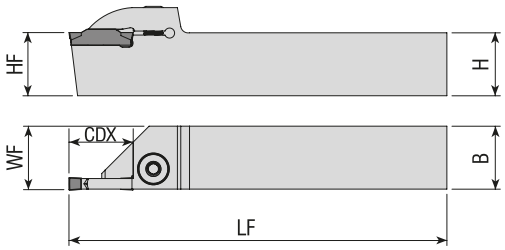
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*		
									Sıkma Vidası *Screw* *Schraube*	Pul *Stamp* *Ring*	Anahtar *Allen Key* *Innensechskantschlüssel*
	R	L	HF=H	B	LF	WF	CDX				
ADKT-HK-R/L-1616-2-T15	●	●	16	16	125	16.3	15	S224 - 2	AKV-02-M6x22	ABPL-01	AAL-03-3
ADKT-HK-R/L-2020-2-T15	●	●	20	20	125	20.3	15				
ADKT-HK-R/L-2525-2-T15	●	●	25	25	150	25.3	15				
ADKT-HK-R/L-1616-3-T15	○	○	16	16	125	16.3	15	S224 - 3	2004-M8x1x20	-	AAL-05-4
ADKT-HK-R/L-2020-3-T20	●	●	20	20	125	20.4	20				
ADKT-HK-R/L-2525-3-T22	●	●	25	25	150	25.4	22				
ADKT-HK-R/L-2020-4-T20	●	●	20	20	125	20.4	20	S224 - 4			
ADKT-HK-R/L-2525-4-T22	●	●	25	25	150	25.4	22				
ADKT-HS223-R/L-2020-2-T15	●	○	20	20	125	20.4	15	S223 - 2	AKV-02-M6x22	ABPL-01	AAL-03-3
ADKT-HS223-R/L-2020-3-T17	●	○	20	20	125	20.3	17	S223 - 3	2004-M8x1x20	-	AAL-05-4

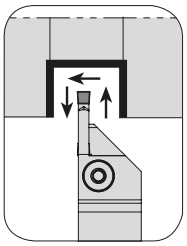
R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
HRN Ucuna Uygundur. / Compatiple with HRN Insert. / Kompatibel mit HRN Wendeplatten.

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück ADKT-H-R-2020-3-T20

BF SERVICE







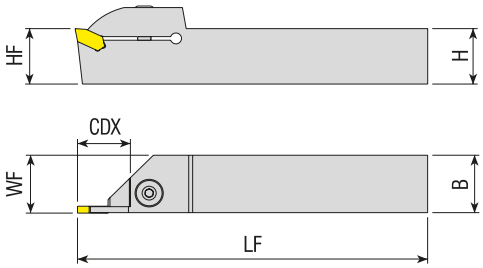
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*		
									Sıkma Vidası *Screw* *Schraube*	Pul *Stamp* *Ring*	Anahtar *Allen Key* *Innensechskantschlüssel*
	R	L	HF=H	B	LF	WF	CDX				
ADKT-ZCC2-R/L-1616-2-T15	●	●	16	16	125	16.3	15				
ADKT-ZCC2-R/L-2020-2-T15	●	●	20	20	125	20.3	15	**Z.BD - 2**	AKV-02-M6x22	ABPL-01	AAL-03-3
ADKT-ZCC2-R/L-2525-2-T15	●	●	25	25	150	25.3	15				
ADKT-ZCC2-R/L-1616-2.5-T15	●	●	16	16	125	16.3	15				
ADKT-ZCC2-R/L-2020-2.5-T17	●	●	20	20	125	20.3	17	**Z.ED - 2.5**			
ADKT-ZCC2-R/L-2525-2.5-T15	●	●	25	25	150	25.3	15				
ADKT-ZCC2-R/L-1616-3-T15	●	●	16	16	125	16.3	15				
ADKT-ZCC2-R/L-1616-3-T17	●	○	16	16	125	16.3	17				
ADKT-ZCC2-R/L-1616-3-T20	●	○	16	16	125	16.3	20				
ADKT-ZCC2-R/L-2020-3-T12	●	●	20	20	125	20.3	12				
ADKT-ZCC2-R/L-2020-3-T20	●	●	20	20	125	20.3	20	**Z.FD - 3**			
ADKT-ZCC2-R/L-2020-3-R21	●	○	20	20	125	20.3	21				
ADKT-ZCC2-R/L-2020-3-R25	●	●	20	20	125	20.3	25				
ADKT-ZCC2-R/L-2525-3-T12	●	○	25	25	150	25.3	12				
ADKT-ZCC2-R/L-2525-3-T22	●	●	25	25	150	25.3	22				
ADKT-ZCC2-R/L-2525-3-R30	●	●	25	25	150	25.3	30		2004-M8x1x20	-	AAL-05-4
ADKT-ZCC2-R/L-2020-4-T12	●	○	20	20	125	20.5	12				
ADKT-ZCC2-R/L-2020-4-T20	●	●	20	20	125	20.5	20	**Z.GD - 4**			
ADKT-ZCC2-R/L-2525-4-T12	●	●	25	25	150	25.5	12				
ADKT-ZCC2-R/L-2525-4-T22	●	●	25	25	150	25.5	22				
ADKT-ZCC2-R/L-2020-5-T12	●	○	20	20	125	20.5	12				
ADKT-ZCC2-R/L-2020-5-T20	●	●	20	20	125	20.5	20				
ADKT-ZCC2-R/L-2525-5-T12	●	○	25	25	150	25.5	12	**Z.HD - 5**			
ADKT-ZCC2-R/L-2525-5-T25	●	●	25	25	150	25.5	25				
ADKT-ZCC2-R/L-3232-5-T25	●	●	32	32	170	32.4	25				
ADKT-ZCC2-R/L-2020-6-T20	●	●	20	20	125	20.6	20				
ADKT-ZCC2-R/L-2525-6-T25	●	●	25	25	150	25.6	25	**Z.KD - 6**			
ADKT-ZCC2-R/L-3232-6-T25	●	●	32	32	170	32.6	25				
ADKT-ZCC2-R/L-3232-6-T30	●	●	32	32	170	32.6	30				

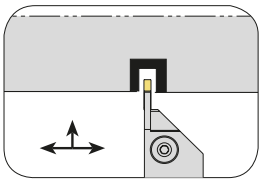
R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock / *Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
ZCC Ucuna Uygundur. / Compatiple with ZCC Insert. / Kompatibel mit ZCC Wendeplatten.

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück ADKT-ZCC2-R-1616-2-T15

BF SERVICE



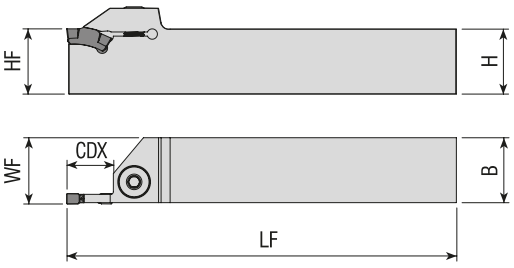


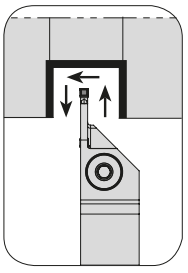


Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*		
									Sıkma Vidası *Screw* *Schraube*	Pul *Stamp* *Ring*	Anahtar *Allen Key* *Innensechskantschlüssel*
	R	L	HF=H	B	LF	WF	CDX				
ADKT-ZCC1-R/L-2020-3-T20	●	○	20	20	125	20.3	20	ZQMX - 3	2004-M8x1x20	-	AAL-05-4
ADKT-ZCC1-R/L-2525-3-T22	●	○	25	25	150	25.3	22				
ADKT-ZCC1-R/L-2020-4-T20	●	○	20	20	125	20.4	20	ZQMX - 4			
ADKT-ZCC1-R/L-2525-4-T22	●	○	25	25	150	25.4	22				

ZCC Ucuna Uygundur. / Compatiple with ZCC Insert. / Kompatibel mit ZCC Wendeplatten.







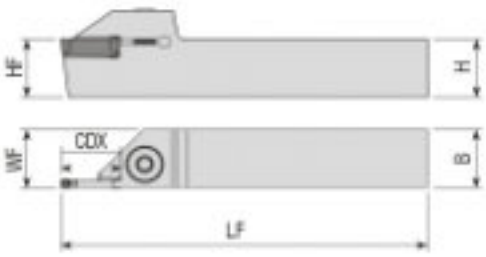
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*		
									Sıkma Vidası *Screw* *Schraube*	Pul *Stamp* *Ring*	Anahtar *Allen Key* *Innensechskantschlüssel*
	R	L	HF=H	B	LF	WF	CDX				
ADKT-ITG-R/L-2020-3-T8	●	●	20	20	125	20.3	8	TGM. - 3	2004-M8x1x20	-	AAL-05-4
ADKT-ITG-R/L-2525-3-T8	●	●	25	25	150	25.3	8				
ADKT-ITG-R/L-3232-3-T8	●	○	32	32	170	32.3	8				
ADKT-ITG-R/L-2020-4-T9	●	●	20	20	125	20.4	9	TGM. - 4			
ADKT-ITG-R/L-2525-4-T17	●	●	25	25	150	25.4	17				
ADKT-ITG-R/L-3232-4-T17	●	●	32	32	170	32.4	17				
ADKT-ITG-R/L-3232-5-T25	●	○	32	32	170	32.5	25	TGM. - 5			

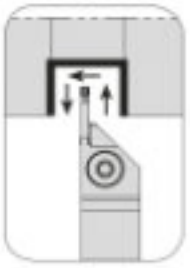
R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
ISCR Ucuna Uygundur. / Compatiple with ISCR Insert. / Kompatibel mit ISCR Wendeplatten.

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück ADKT-ZCC1-R-2020-3-T20

BF SERVICE







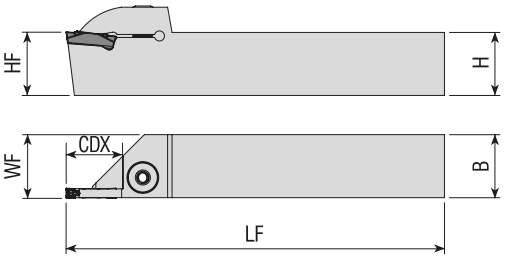
Takım Kodu / Ordering Code / Bestell-Bezeichnung	Stok / Stock / Lager		Takım Ölçüleri (mm) / Dimension (mm) / Abmessung (mm)					Kesici Uç / Insert / Wendeschneidplatte	Yedek Parçaları / Spare Parts / Ersatzteile: Sıkma Vidası / Screw / Schraube	Pul / Stamp / Ring	Anahtar / Allen Key / Innensechskant
	R	L	HF=H	B	LF	WF	CDX				
ADKT-I-R/L-1212-2-T15	●	●	12	12	125	16.3	15	DGN - 2	AKV-02-M6x22	ABPL-01	AAL-03-3
ADKT-I-R/L-1616-2-T15	●	●	16	16	100	16.3	15				
ADKT-I-R/L-2020-2-T15	●	●	20	20	125	20.3	15				
ADKT-I-R/L-2525-2-T15	●	●	25	25	150	25.3	15				
ADKT-I-R/L-3232-2-T15	●	●	32	32	170	32.3	15				
ADKT-I-R/L-1212-3-T15	●	●	12	12	100	16.3	15	DGN - 3	2004-M8x1x20	-	AAL-05-4
ADKT-I-R/L-1616-3-T15	●	●	16	16	125	16.4	15				
ADKT-I-R/L-2020-3-T20	●	●	20	20	125	20.4	20				
ADKT-I-R/L-2525-3-T22	●	●	25	25	150	25.4	22				
ADKT-I-R/L-3232-3-T22	●	●	32	32	170	32.4	22				
ADKT-I-R/L-2020-4-T20	●	●	20	20	125	20.4	20	DGN / GRP - 4			
ADKT-I-R/L-2525-4-T22	●	●	25	25	150	25.4	22				
ADKT-I-R/L-3232-4-T25	●	●	32	32	170	32.4	25				
ADKT-I-R/L-2020-5-T20	●	●	20	20	125	20.5	20	DGN / GRP - 5			
ADKT-I-R/L-2525-5-T25	●	●	25	25	150	25.5	25				
ADKT-IG-R/L-1616-3-T18	●	○	16	16	125	16.3	18	GRP - 3			
ADKT-IG-R/L-2020-3-R20	●	●	20	20	125	20.4	20				
ADKT-IG-R/L-2525-3-T22	●	●	25	25	150	25.4	22				
ADKT-IGI-R/L-2020-2-T15	●	●	20	20	125	20.3	15	GIM / GIP - 2	AKV-02-M6x22	ABPL-01	AAL-03-3
ADKT-IGI-R/L-2525-2-T15	●	●	25	25	150	25.4	15				
ADKT-IGI-R/L-1616-3-T15	●	●	16	16	125	16.4	15	GIM / GIP - 3	2004-M8x1x20	-	AAL-05-4
ADKT-IGI-R/L-2020-3-T20	●	●	20	20	125	20.4	20				
ADKT-IGI-R/L-2525-3-T22	●	●	25	25	150	25.4	22				
ADKT-IGI-R/L-2525-4-T22	●	●	25	25	150	25.5	22	GIM / GIP - 4			
ADKT-IGI-R/L-2525-5-T25	●	●	25	25	150	25.6	25	GIM / GIP - 5			
ADKT-IGI-R/L-2525-8-T30	●	○	25	25	150	25.8	30	GIM / GIP - 8			
ADKT-IGTN-R/L-2525-5-T25	●	●	25	25	150	25.6	25	GTN - 5			
ADKT-IDC-R/L-2525-3-T21	●	○	25	25	150	25.4	21	DCE - 3			

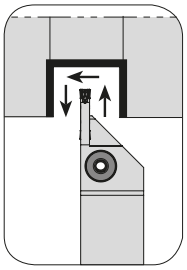
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● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
ISCR Ucuna Uygundur. / Compatiple with ISCR Insert. / Kompatibel mit ISCR Wendeplatten.

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück ADKT-I-R-1212-2-T15

BF SERVICE



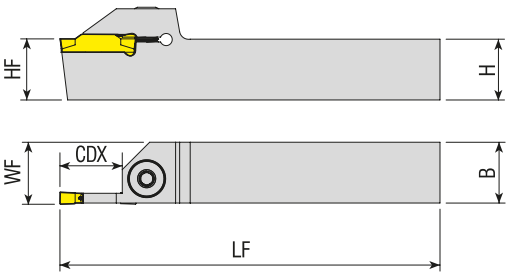


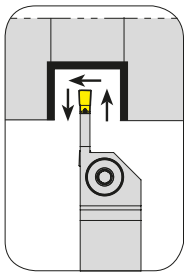


Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*		
									Sıkma Vidası *Screw* *Schraube*	Pul *Stamp* *Ring*	Anahtar *Allen Key* *Innensechskantschlüssel*
	R	L	HF=H	B	LF	WF	CDX				
ADKT-KM-R/L-2020-2-T15	●	●	20	20	125	20.3	15	A4. - 2	AKV-02-M6x22	ABPL-01	AAL-03-3
ADKT-KM-R/L-2525-2-T15	●	●	25	25	150	25.3	15				
ADKT-KM-R/L-2020-3-T20	●	●	20	20	125	20.4	20	A4. - 3	2004-M8x1x20	-	AAL-05-4
ADKT-KM-R/L-2525-3-T22	●	●	25	25	150	25.4	22				
ADKT-KM-R/L-2525-4-T22	●	●	25	25	150	25.5	22	A4. - 4			

KNMTL Ucuna Uygundur. / Compatiple with KNMTL Insert. / Kompatibel mit KNMTL Wendeplatten.







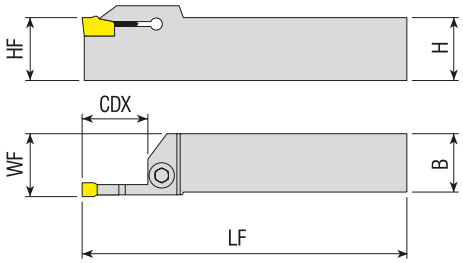
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*		
									Sıkma Vidası *Screw* *Schraube*	Pul *Stamp* *Ring*	Anahtar *Allen Key* *Innensechskantschlüssel*
	R	L	HF=H	B	LF	WF	CDX				
ADKT-123-R/L-1212-1.5-R15	●	●	12	12	100	16.2	15	123 - 1.5	AKV-02-M6x22	ABPL-01	AAL-03-3
ADKT-123-R/L-1616-1.5-R15	●	●	16	16	125	16.3	15				
ADKT-123-R/L-1616-2-T15	●	●	16	16	125	16.3	15	123 - 2			
ADKT-123-R/L-2020-2-T8	●	○	20	20	125	20.2	8				
ADKT-123-R/L-2020-2-T15	●	●	20	20	125	20.3	15				
ADKT-123-R/L-2525-2-T15	●	●	25	25	150	25.3	15				
ADKT-123-R/L-3232-2-T15	●	●	32	32	170	32.3	15				
ADKT-123-R/L-1616-3-T15	●	●	16	16	125	16.4	15	123 - 3	2004-M8x1x20	-	AAL-05-4
ADKT-123-R/L-2020-3-T20	●	●	20	20	125	20.4	20				
ADKT-123-R/L-2525-3-T22	●	●	25	25	150	25.4	22				
ADKT-123-R/L-2020-4-T20	●	●	20	20	125	20.4	20	123 - 4			
ADKT-123-R/L-2525-4-T22	●	●	25	25	150	25.4	22				
ADKT-123-R/L-3232-4-T25	●	●	32	32	170	32.4	25				
ADKT-123-R/L-2020-5-T20	●	●	20	20	125	20.5	20	123 - 5			
ADKT-123-R/L-2525-5-T25	●	●	25	25	150	25.5	25				
ADKT-123-R/L-3232-6-T15	●	○	32	32	170	32.5	15	123 - 6			

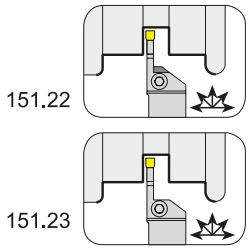
R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
SNDVK Ucuna Uygundur. / Compatiple with SNDVK Insert. / Kompatibel mit SNDVK Wendeplatten.

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück ADKT-KM-R-2020-2-T15

BF SERVICE







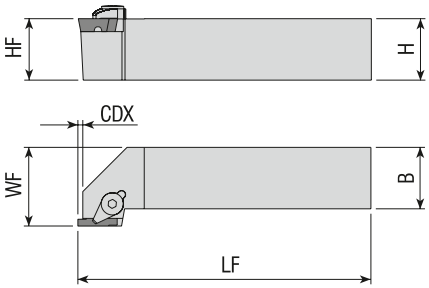
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*		
									Sıkma Vidası *Screw* *Schraube*	Pul *Stamp* *Ring*	Anahtar *Allen Key* *Innensechskantschlüssel*
	R	L	HF=H	B	LF	WF	CDX				
ADKT-151.22-R/L-1616-2-T15	●	●	16	16	125	16.3	15				
ADKT-151.22-R/L-2020-2-T15	●	●	20	20	125	20.3	15	**151.2 - 2**	AKV-02-M6x22	ABPL-01	AAL-03-3
ADKT-151.22-R/L-2525-2-T15	●	●	25	25	150	25.3	15				
ADKT-151.22-R/L-1616-3-T15	●	●	16	16	125	16.4	15				
ADKT-151.22-R/L-2020-3-T20	●	●	20	20	125	20.4	20	**151.2 - 3**			
ADKT-151.22-R/L-2525-3-T22	●	●	25	25	150	25.4	22				
ADKT-151.22-R/L-1616-4-T15	●	●	16	16	125	16.4	15		2004-M8x1x20	-	AAL-05-4
ADKT-151.22-R/L-2020-4-T20	●	●	20	20	125	20.4	20	**151.2 - 4**			
ADKT-151.22-R/L-2525-4-T22	●	●	25	25	150	25.4	22				
ADKT-151.22-R/L-2020-5-T20	●	●	20	20	125	20.5	20	**151.2 - 5**			
ADKT-151.22-R/L-2525-5-T25	●	●	25	25	150	25.5	25				
ADKT-151.23-R/L-1616-2-T15	●	●	16	16	125	16.3	15				
ADKT-151.23-R/L-2020-2-T15	●	●	20	20	125	20.3	15	**151.2 - 2**	AKV-02-M6x22	ABPL-01	AAL-03-3
ADKT-151.23-R/L-2525-2-T15	●	●	25	25	150	25.3	15				
ADKT-151.23-R/L-1616-2.5-T15	●	●	16	16	125	16.3	15				
ADKT-151.23-R/L-2020-2.5-T15	●	●	20	20	125	20.3	15	**151.2 - 2.5**			
ADKT-151.23-R/L-2525-2.5-T15	●	●	25	25	150	25.3	15				
ADKT-151.23-R/L-1212-3-T15	●	●	12	12	100	16.4	15				
ADKT-151.23-R/L-1616-3-T15	●	●	16	16	125	16.4	15				
ADKT-151.23-R/L-2020-3-T20	●	●	20	20	125	20.4	20	**151.2 - 3**	2004-M8x1x20	-	AAL-05-4
ADKT-151.23-R/L-2525-3-T20	●	●	25	25	150	25.4	20				
ADKT-151.23-R/L-2525-3-T22	●	●	25	25	150	25.4	22				
ADKT-151.23-R/L-1616-4-T15	●	●	16	16	125	16.4	15				
ADKT-151.23-R/L-2020-4-T20	●	●	20	20	125	20.4	20	**151.2 - 4**			
ADKT-151.23-R/L-2525-4-T22	●	●	25	25	150	25.4	22				
ADKT-151.23-R/L-2020-5-T20	●	●	20	20	125	20.5	20	**151.2 - 5**			
ADKT-151.23-R/L-2525-5-T25	●	●	25	25	150	25.5	25				

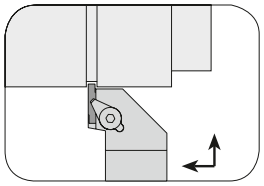
R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
SNDVK Ucuna Uygundur. / Compatiple with SNDVK Insert. / Kompatibel mit SNDVK Wendeplatten.

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück ADKT-151.22-R-1616-2-T15

BF SERVICE



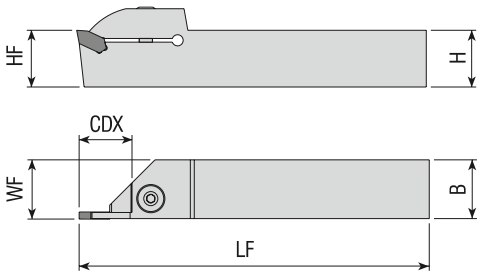


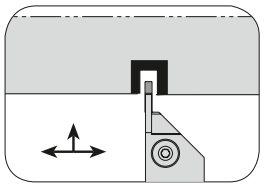


Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*			
									Baskı Parçası *Wedge Clamp* *Spannspratze*	Sıkma Vidası *Screw* *Schraube*	Pul *Stamp* *Ring*	Anahtar *Allen Key* *Innensechskantschlüssel*
	R	L	HF=H	B	LF	WF	CDX					
ADKT-154.91-R/L-2020-3-T4	●	●	20	20	125	25	4	**154.91 - 3**	ACK-03	AKV-07-M6x22	APM-06	AAL-03-3
ADKT-154.91-R/L 2525-3-T4	●	●	25	25	150	30.5	4					
ADKT-154.91-R/L 2020-5-T5	●	●	20	20	125	25	5	**154.91 - 5**				
ADKT-154.91-R/L 2525-5-T5	●	●	25	25	150	30.5	5					

SNDVK Ucuna Uygundur. / Compatiple with SNDVK Insert. / Kompatibel mit SNDVK Wendeplatten.







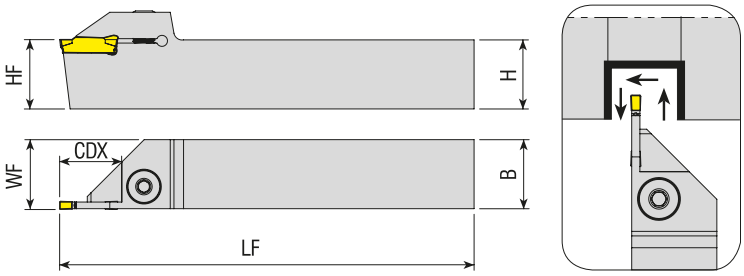
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*		
									Sıkma Vidası *Screw* *Schraube*	Pul *Stamp* *Ring*	Anahtar *Allen Key* *Innensechskantschlüssel*
	R	L	HF=H	B	LF	WF	CDX				
ADKT-ARN-R/L-2020-2-T15	●	●	20	20	125	20.3	15	**LOMR. - 2**	AKV-02-M6x22	ABPL-01	AAL-03-3
ADKT-ARN-R/L-2525-2-T15	●	●	25	25	150	25.3	15				
ADKT-ARN-R/L-2020-3-T20	●	●	20	20	125	20.4	20	**LOMR. - 3**	2004-M8x1x20	-	AAL-05-4
ADKT-ARN-R/L-2525-3-T22	●	●	25	25	150	25.4	22				

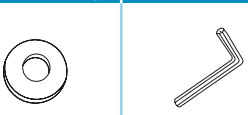
R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
ARN Ucuna Uygundur. / Compatiple with ARN Insert. / Kompatibel mit ARN Wendeplatten.

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück ADKT-154.91-R-2020-3-T4

BF SERVICE

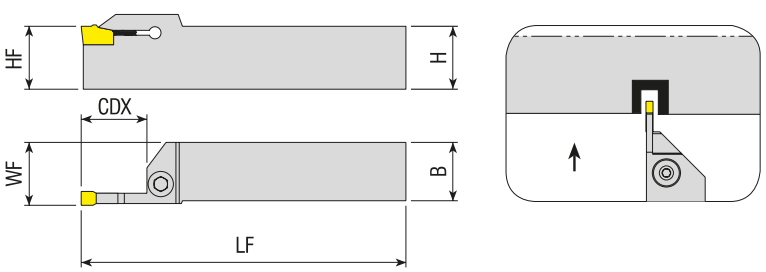




Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager* R	L	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)* HF=H	B	LF	WF	CDX	Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile* Sıkma Vidası *Screw* *Schraube*	Pul *Stamp* *Ring*	Anahtar *Allen Key* *Innensechskantschlüssel*
											
ADKT-TD-R/L-1212-2-T15	●	●	12	12	100	12.3	15				
ADKT-TD-R/L-1616-2-T15	●	●	16	16	125	16.3	15				
ADKT-TD-R/L-2020-2-T9	●	○	20	20	125	20.3	9	**TD. - 2**	AKV-02-M6x22	ABPL-01	AAL-03-3
ADKT-TD-R/L-2020-2-T15	●	●	20	20	125	20.3	15				
ADKT-TD-R/L-2020-2-T20	●	○	20	20	125	20.3	20				
ADKT-TD-R/L-2525-2-T17	●	●	25	25	150	25.3	17				
ADKT-TD-R/L-1212-3-T15	●	●	12	12	100	12.4	15				
ADKT-TD-R/L-1616-3-T15	●	●	16	16	125	16.4	15				
ADKT-TD-R/L-2020-3-T20	●	●	20	20	125	20.4	20				
ADKT-TD-R/L-2020-3-T25	●	○	20	20	125	20.4	25				
ADKT-TD-R/L-2020-3-T30	●	●	20	20	125	20.4	30				
ADKT-TD-R/L-2525-3-T9	●	●	25	25	150	25.4	9	**TD. - 3**	2004-M8x1x20	-	AAL-05-4
ADKT-TD-R/L-2525-3-T22	●	●	25	25	150	25.4	22				
ADKT-TD-R/L-2525-3-T25	●	●	25	25	150	25.4	25				
ADKT-TD-R/L-2525-3-T30	●	○	25	25	150	25.4	30				
ADKT-TD-R/L-3232-3-T25	●	○	32	32	170	32.4	25				
ADKT-TD-R/L-2525-4-T22	●	●	25	25	150	25.5	22	**TD. - 4**			
ADKT-TD-R/L-2525-4-T30	●	○	25	25	150	25.5	30				
ADKT-TD-R/L-2525-5-T25	●	●	25	25	150	25.5	25	**TD. - 5**			

TGTC Ucuna Uygundur. / Compatiple with TGTC Insert. / Kompatibel mit TGTC Wendeplatten.





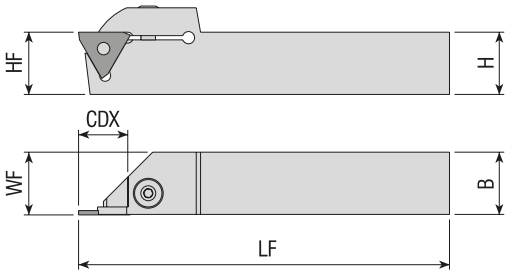
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager* R	L	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)* HF=H	B	LF	WF	CDX	Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile* Sıkma Vidası *Screw* *Schraube*	Pul *Stamp* *Ring*	Anahtar *Allen Key* *Innensechskantschlüssel*
											
ADKT-SWC-R/L-2020-2-T25	●	○	20	20	125	20.3	25	**WCF. - 2**	AKV-02-M6x22	ABPL-01	AAL-03-3
ADKT-SWC-R/L-2020-3-T25	●	○	20	20	125	20.4	25	**WCF. - 3**	2004-M8x1x20	-	AAL-05-4

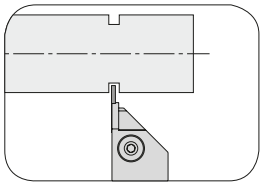
R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
SMTM Ucuna Uygundur. / Compatiple with SMTM Insert. / Kompatibel mit SMTM Wendeplatten.

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück ADKT-TD-R-1212-2-T15

BF SERVICE



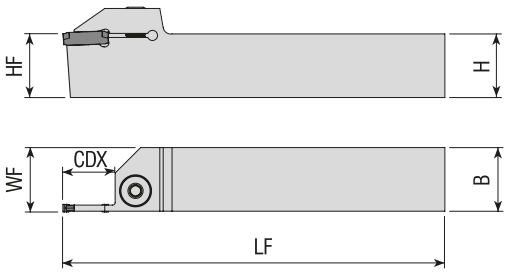


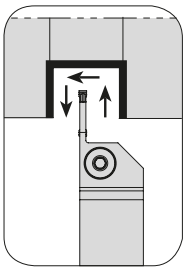


Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile* Sıkma Vidası *Screw* *Schraube*	Baskı Pabucu *Wedge Clamp* *Spannpratze*	Sekman *Ring* *Feder*	Anahtar *Allen Key* *Innensechskantschlüssel*
	R	L	HF=H	B	LF	WF	CDX					
ADKT-H22-R/L-1616-(0.5-2)-T4	●	●	16	16	125	16.2	4					
ADKT-H22-R/L-2020-(0.5-2)-T4	●	●	20	20	125	20.2	4	S312 - (0.5-2)	AKV-29-M6x29	AKK-04	AS-01	AAL-03-3
ADKT-H22-R/L-2525-(0.5-2)-T4	●	●	25	25	150	25.2	4					

HRN Ucuna Uygundur. / Compatiple with HRN Insert. / Kompatibel mit HRN Wendeplatten.







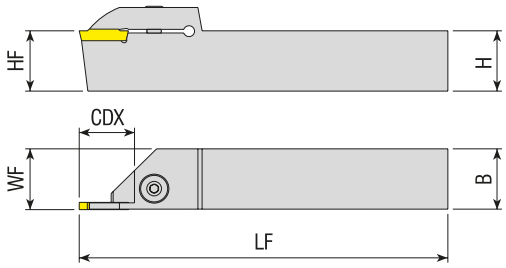
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile* Sıkma Vidası *Screw* *Schraube*	Pul *Stamp* *Ring*	Anahtar *Allen Key* *Innensechskantschlüssel*
	R	L	HF=H	B	LF	WF	CDX				
ADKT-LGC-R/L-1616-2-D40	●	●	16	16	125	16.2	20				
ADKT-LGC-R/L-2020-2-D40	●	●	20	20	125	20.2	20	GCTX - 2	AKV-02-M6x22	ABPL-01	AAL-03-3
ADKT-LGC-R/L-2525-2-D40	●	●	25	25	150	25.2	20				
ADKT-LGC-R/L-1616-3-T20	●	●	16	16	125	16.3	20				
ADKT-LGC-R/L-2020-3-T20	●	●	20	20	125	20.3	20	GCTX - 3	2004-M8x1x20	-	AAL-05-4
ADKT-LGC-R/L-2525-3-T20	●	●	25	25	150	25.3	20				

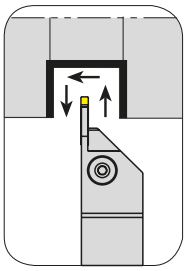
R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock / *Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
LMN Ucuna Uygundur. / Compatiple with LMN Insert. / Kompatibel mit LMN Wendeplatten.

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück ADKT-H22-R-1616-(0.5-2)T16

BF SERVICE



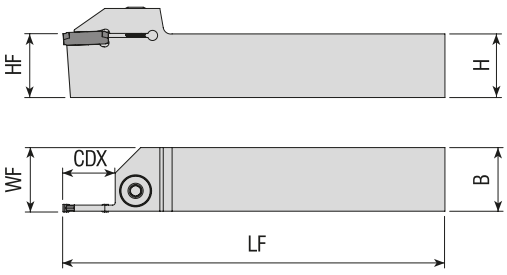


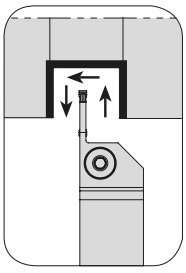


Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*		
									Sıkma Vidası *Screw* *Schraube*	Pul *Stamp* *Ring*	Anahtar *Allen Key* *Innensechskantschlüssel*
	R	L	HF=H	B	LF	WF	CDX				
ADKT-WGX16-R/L-2020-2-R16	●	○	20	20	125	20.3	16	GX16. - 2	AKV-02-M6x22	ABPL-01	AAL-03-3
ADKT-WGX16-R/L-2525-2-R16	●	○	25	25	150	20.3	16				
ADKT-WGX24-R/L-2020-3-T20	●	●	20	20	125	20.3	20	GX24. - 3	2004-M8x1x20	-	AAL-05-4
ADKT-WGX24-R/L-2525-3-T22	●	●	25	25	150	25.3	22				
ADKT-WGX24-R/L-3232-3-T22	●	○	32	32	170	32.3	22				
ADKT-WGX24-R/L-2525-4-T22	●	●	25	25	150	25.4	22	GX24. - 4			
ADKT-WGX24-R/L-2525-5-T25	●	●	25	25	150	25.5	25	GX24. - 5			
ADKT-WGX24-R/L-3232-5-T25	●	●	32	32	170	32.5	25				

WLTR Ucuna Uygundur. / Compatiple with WLTR Insert. / Kompatibel mit WLTR Wendeplatten.







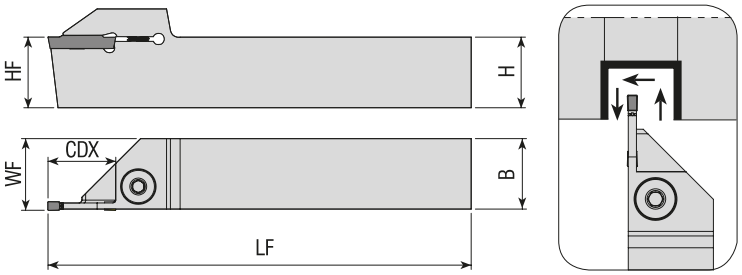
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*		
									Sıkma Vidası *Screw* *Schraube*	Pul *Stamp* *Ring*	Anahtar *Allen Key* *Innensechskantschlüssel*
	R	L	HF=H	B	LF	WF	CDX				
ADKT-GP-R/L-2020-2-T15	●	●	20	20	125	20.2	15	GP - 2	AKV-02-M6x22	ABPL-01	AAL-03-3
ADKT-GP-R/L-2525-2-T15	●	●	25	25	150	25.2	15				
ADKT-GP-R/L-2020-3-T20	●	●	20	20	125	20.3	20	GP - 3	2004-M8x1x20	-	AAL-05-4
ADKT-GP-R/L-2525-3-T22	●	●	25	25	150	25.3	22				
ADKT-GP-R/L-2525-4-T22	●	●	25	25	150	25.4	22	GP - 4			
ADKT-GP-R/L-2525-5-T25	●	●	25	25	150	25.5	25	GP - 5			

R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock / *Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
PLBT Ucuna Uygundur. / Compatiple with PLBT Insert. / Kompatibel mit PLBT Wendeplatten.

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück ADKT-WGX24-R-2525-3-T22

BF SERVICE



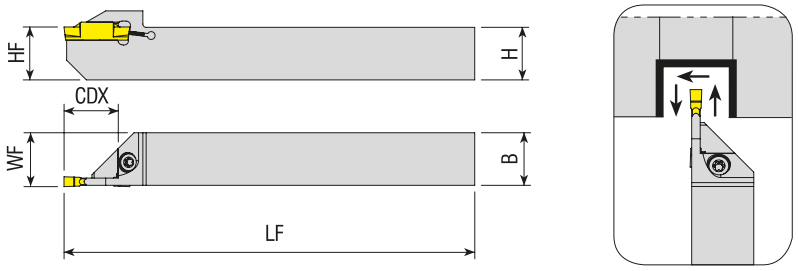


Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*		
									Sıkma Vidası *Screw* *Schraube*	Pul *Stamp* *Ring*	Anahtar *Allen Key* *Imbusschlüssel*
	R	L	HF=H	B	LF	WF	CDX				
ADKT-CD-R/L-2020-3-R20	●	○	20	20	125	20.3	20	**GX24 0300**	2004-M8x1x20	-	AAL-05-4
ADKT-CD-R/L-2525-3-R23	●	○	25	25	150	25.3	23				

CRTZT Ucuna Uygundur. / Compatiple with CRTZT Insert. / Kompatibel mit CRTZT Wendeplatten.

DIŞ ÇAP KANAL AÇMA İSVİÇRE TİPİ KAYAR OTOMAT MAKİNA TAKIMLARI
EXTERNAL GROOVING TOOLHOLDERS FOR SWISS TYPE SLIDING AUTOMATIC LATHES
WERKZEUGE ZUR STECHBEARBEITUNG AUF LANGDREHAUTOMATEN





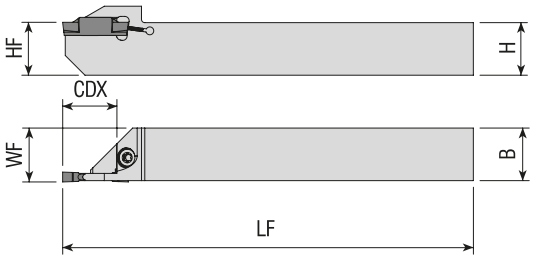
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*		
									Sıkma Vidası *Screw* *Schraube*	Pul *Stamp* *Ring*	Anahtar *Allen Key* *Imbusschlüssel*
	R	L	HF=H	B	LF	WF	CDX				
ADKT-TD-R/L-1212-2-T12-K-S	●	●	12	12	125	12.2	12	**TD. - 2**	4015-M4x11	-	80-T15
ADKT-TD-R/L-1616-2-T16-K-S	●	●	16	16	125	16.2	16				
ADKT-TD-R/L-1212-3-T12-K-S	●	●	12	12	125	12.3	12	**TD. - 3**			
ADKT-TD-R/L-1616-3-T16-K-S	●	●	16	16	125	16.3	16				

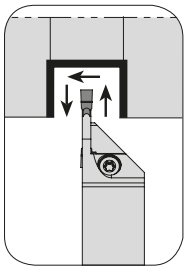
R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock / *Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
TGTC Ucuna Uygundur. / Compatiple with TGTC Insert. / Kompatibel mit TGTC Wendeplatten.

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück ADKT-CD-R-2020-3-R20

BF SERVICE

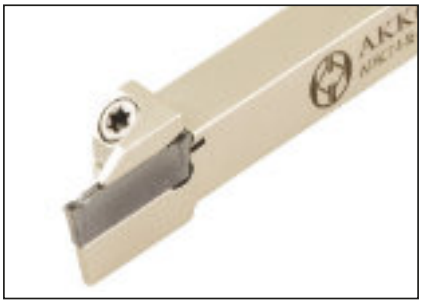


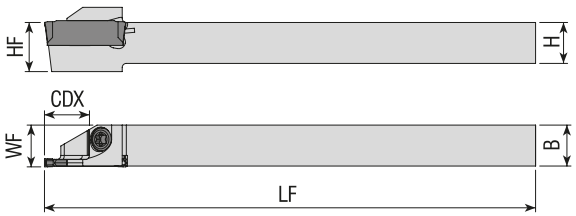


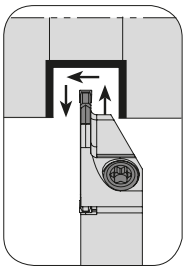


Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*		
									Sıkma Vidası *Screw* *Schraube*	Pul *Stamp* *Ring*	Anahtar *Allen Key* *Innensechskantschlüssel*
	R	L	HF=H	B	LF	WF	CDX				
ADKT-ZCC2-R/L-1010-2-T12-K-S	●	●	10	10	125	10.2	12				
ADKT-ZCC2-R/L-1212-2-T12-K-S	●	●	12	12	125	12.2	12	**Z.BD - 2**	4015-M4x11	-	80-T15
ADKT-ZCC2-R/L-1616-2-R16-K-S	●	●	16	16	125	16.2	16				
ADKT-ZCC2-R/L-1212-3-T12-K-S	●	●	12	12	125	12.3	12	**Z.FD - 3**			

ZCC Ucuna Uygundur. / Compatiple with ZCC Insert. / Kompatibel mit ZCC Wendeplatten.







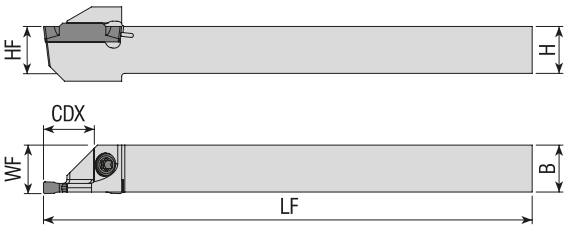
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*		
									Sıkma Vidası *Screw* *Schraube*	Pul *Stamp* *Ring*	Anahtar *Allen Key* *Innensechskantschlüssel*
	R	L	HF=H	B	LF	WF	CDX				
ADKT-I-R/L-0808-2-R10-S	●	●	08	08	100	8.2	10				
ADKT-I-R/L-1010-2-R10-K-S	●	●	10	10	120	10.2	10	**DGN - 2**	4015-M4x11	-	80-T15
ADKT-I-R/L-1212-2-R12-K-S	●	●	12	12	125	12.2	12				
ADKT-I-R/L-1616-3-R16-K-S	●	●	16	16	120	16.3	16	**DGN - 3**			

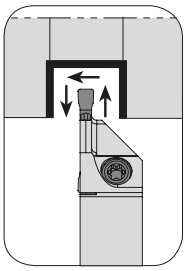
R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock / *Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
ISCR Ucuna Uygundur. / Compatiple with ISCR Insert. / Kompatibel mit ISCR Wendeplatten.

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück ADKT-ZCC2-R-1010-2-T12-K-S

BF SERVICE





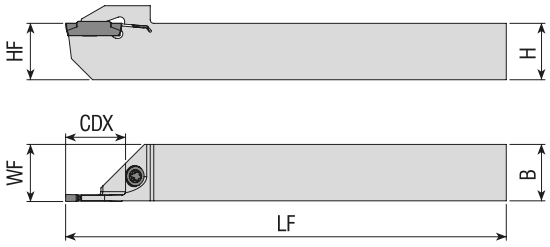


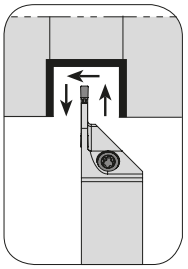
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*		
									Sıkma Vidası *Screw* *Schraube*	Pul *Stamp* *Ring*	Anahtar *Allen Key* *Innensechskantschlüssel*
	R	L	HF=H	B	LF	WF	CDX				
ADKT-KG-R/L-1212-2-R12-K-S	●	●	12	12	125	12.2	12	KG. - 2	4015-M4x11	-	80-T15
ADKT-KG-R/L-1616-2-R16-K-S	●	●	16	16	125	16.2	16				
ADKT-KG-R/L-1212-3-R12-K-S	●	●	12	12	125	12.3	12	KG. - 3			
ADKT-KG-R/L-1616-3-R16-K-S	●	●	16	16	125	16.3	16				

KRLY Ucuna Uygundur. / Compatiple with KRLY Insert. / Kompatibel mit KRLY Wendeplatten.









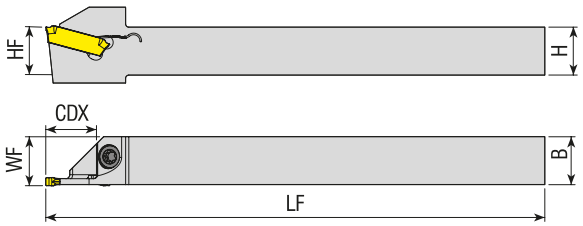
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*		
									Sıkma Vidası *Screw* *Schraube*	Pul *Stamp* *Ring*	Anahtar *Allen Key* *Innensechskantschlüssel*
	R	L	HF=H	B	LF	WF	CDX				
ADKT-K-R/L-1212-2-R12-K-S	●	●	12	12	125	12.20	12	MGM. - 2	4015-M4x11	-	80-T15
ADKT-K-R/L-1616-2-R16-K-S	●	●	16	16	125	16.20	16				
ADKT-K-R/L-1212-3-R12-K-S	●	●	12	12	125	12.30	12	MGM. - 3			
ADKT-K-R/L-1616-3-R16-K-S	●	●	16	16	125	16.30	16				

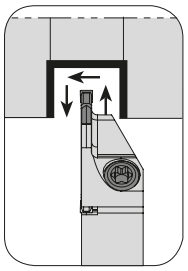
R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
KRLY Ucuna Uygundur. / Compatiple with KRLY Insert. / Kompatibel mit KRLY Wendeplatten.

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück ADKT-KG-R-1212-2-R12-K-S

BF SERVICE



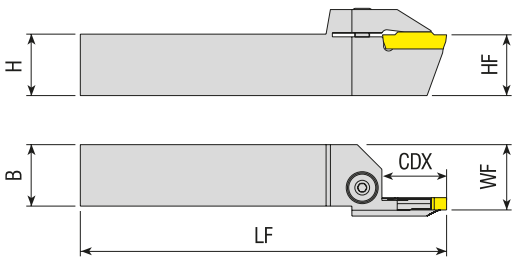


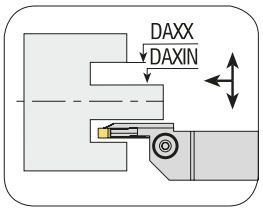


Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*		
									Sıkma Vidası *Screw* *Schraube*	Pul *Stamp* *Ring*	Anahtar *Allen Key* *Innensechskantschlüssel*
	R	L	HF=H	B	LF	WF	CDX				
ADKT-WGX16-R/L-1212-2-R12-K-S	●	●	12	12	125	12.2	16	GX16 - 2	4015-M4x11	-	80-T15
ADKT-WGX16-R/L-1616-2-R16-K-S	●	○	16	16	125	16.2	16				
ADKT-WGX24-R/L-1616-3-R16-K-S	●	○	16	16	125	16.3	16	GX24 - 3			

WLTR Ucuna Uygundur. / Compatiple with WLTR Insert. / Kompatibel mit WLTR Wendeplatten.







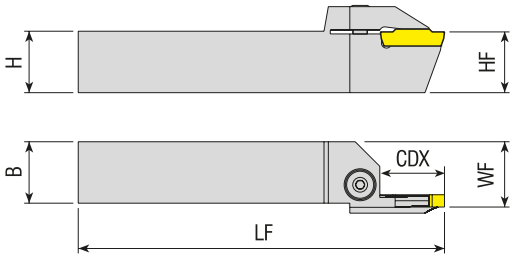
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*							Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*		
											Sıkma Vidası *Screw* *Schraube*	Pul *Stamp* *Ring*	Anahtar *Allen Key* *Innensechskantschlüssel*
	R	L	HF=H	B	LF	WF	CDX	DAXIN	DAXX				
AAKT-KG-R/L-2525-44-70-4-T22	○	○	25	25	150	26.5	22	44	70	KG.. - 4	2004-M8x1x20	-	AAL-05-4
AAKT-KG-R/L-2525-60-120-4-T22	○	○	25	25	150	26.5	22	60	120				
AAKT-KG-R/L-2525-112-200-4-T22	○	○	25	25	150	26.5	22	112	200				

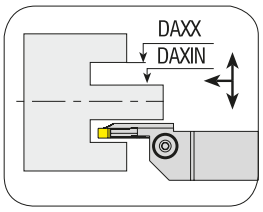
R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
KRLY Ucuna Uygundur. / Compatiple with KRLY Insert. / Kompatibel mit KRLY Wendeplatten.

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück ADKT-WGX16-R-1212-2-R12-K-S

BF SERVICE







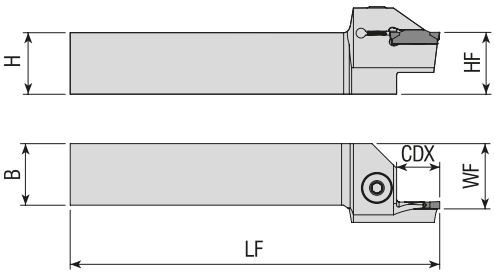
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*							Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*		
											Sıkma Vidası *Screw* *Schraube*	Pul *Stamp* *Ring*	Anahtar *Allen Key* *Innensechskantschlüssel*
	R	L	HF=H	B	LF	WF	CDX	DAXIN	DAXX				
AAKT-K-R/L-2525-34-45-3-T17	●	●	25	25	150	26.5	17	34	45	MGM. - 3	2004-M8x1x20	-	AAL-05-4
AAKT-K-R/L-2525-39-55-3-T17	●	●	25	25	150	26.5	17	39	55				
AAKT-K-R/L-2525-49-80-3-T17	●	●	25	25	150	26.5	17	49	80				
AAKT-K-R/L-2525-70-110-3-T17	●	●	25	25	150	26.5	17	70	110				
AAKT-K-R/L-2525-100-150-3-T17	●	●	25	25	150	26.5	17	100	150				
AAKT-K-R/L-2525-80-180-3-T32	●	●	25	25	150	26.5	32	80	180				
AAKT-K-R/L-2525-175-215-3-T22	●	●	25	25	150	26.5	22	175	215				
AAKT-K-R/L-2525-700-800-3-T17	●	●	25	25	150	26.5	17	700	800				
AAKT-K-R/L-2525-50-85-4-T22	●	●	25	25	150	26.5	22	50	85	MGM. - 4			
AAKT-K-R/L-2525-70-110-4-T22	●	●	25	25	150	26.5	22	70	110				
AAKT-K-R/L-2525-100-150-4-T22	●	●	25	25	150	26.5	22	100	150				
AAKT-K-R/L-2525-80-180-4-T32	●	●	25	25	150	26.5	32	80	180				
AAKT-K-R/L-2525-180-800-4-T32	●	●	25	25	150	26.5	32	180	800				
AAKT-K-R/L-2525-70-110-5-T25	●	●	25	25	150	26.5	25	70	110	MGM. - 5			
AAKT-K-R/L-2525-100-150-5-T25	●	●	25	25	150	26.5	25	100	150				
AAKT-K-R/L-2525-80-180-5-T32	●	●	25	25	150	26.5	32	80	180				
AAKT-K-R/L-2525-140-200-5-T25	●	●	25	25	150	26.5	25	140	200				
AAKT-K-R/L-2525-180-800-5-T32	●	●	25	25	150	26.5	32	180	800				
AAKT-K-R/L-2525-60-100-6-T25	●	●	25	25	150	26.5	25	60	100	MGM. - 6			
AAKT-K-R/L-2525-60-100-6-T35	●	○	25	25	150	26.5	35	60	100				
AAKT-K-R/L-2525-100-200-6-T25	●	○	25	25	150	26.5	25	100	200				
AAKT-K-R/L-2525-100-200-6-T35	●	○	25	25	150	26.5	35	100	200				
AAKT-K-R/L-2525-100-200-6-T45	●	○	25	25	150	26.5	45	100	200				
AAKT-K-R/L-2525-140-300-6-T35	●	●	25	25	150	26.5	35	140	300				
AAKT-K-R/L-2525-140-300-8-T35	●	○	25	25	150	26.5	35	140	300	MGM. - 8			
AAKT-K-R/L-3232-140-350-8-T35	●	○	32	32	150	33.5	35	140	350				

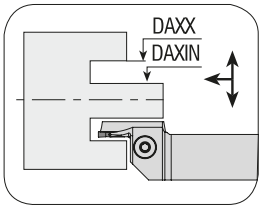
R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
KRLY Ucuna Uygundur. / Compatiple with KRLY Insert. / Kompatibel mit KRLY Wendeplatten.

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück AAKT-K-R-2525-34-45-3-T17

BF SERVICE







Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*									Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*		
											Sıkma Vidası *Screw* *Schraube*	Pul *Stamp* *Ring*	Anahtar *Allen Key* *Innensechskantschlüssel*
	R	L	HF=H	B	LF	WF	CDX	DAXIN	DAXX				
AAKT-ZCC2-R/L-2525-140-180-2-T4	●	○	25	25	150	26.5	4	140	180	Z.BD - 2			
AAKT-ZCC2-R/L-2525-35-45-3-T17	●	●	25	25	150	26.5	17	35	45				
AAKT-ZCC2-R/L-2525-39-55-3-T17	●	○	25	25	150	26.5	17	39	55				
AAKT-ZCC2-R/L-2525-49-80-3-T17	●	●	25	25	150	26.5	17	49	80	Z.FD - 3			
AAKT-ZCC2-R/L-2525-70-110-3-T17	●	●	25	25	150	26.5	17	70	110				
AAKT-ZCC2-R/L-2525-100-150-3-T17	●	●	25	25	150	26.5	17	100	150				
AAKT-ZCC2-R/L-2525-40-60-4-T22	●	○	25	25	150	26.5	22	40	60				
AAKT-ZCC2-R/L-2525-52-80-4-T22	●	●	25	25	150	26.5	22	52	80				
AAKT-ZCC2-R/L-2525-72-110-4-T22	●	●	25	25	150	26.5	22	72	110	Z.GD - 4	2004-M8x1x20	-	AAL-05-4
AAKT-ZCC2-R/L-2525-100-150-4-T22	●	●	25	25	150	26.5	22	100	150				
AAKT-ZCC2-R/L-2525-140-200-4-T22	●	●	25	25	150	26.5	22	140	200				
AAKT-ZCC2-R/L-2525-55-95-5-T25	●	○	25	25	150	26.5	25	55	95				
AAKT-ZCC2-R/L-2525-85-140-5-T25	●	●	25	25	150	26.5	25	85	140				
AAKT-ZCC2-R/L-2525-130-200-5-T25	●	○	25	25	150	26.5	25	130	200	Z.HD - 5			
AAKT-ZCC2-R/L-2525-190-400-5-T25	●	●	25	25	150	26.5	25	190	400				
AAKT-ZCC2-R/L-2525-190-400-5-T35	●	○	25	25	150	26.5	35	190	400				
AAKT-ZCC2-R/L-2525-200-500-5-T17	●	●	25	25	150	26.5	25	200	500				
AAKT-ZCC2-R/L-2525-60-110-6-T15	●	○	25	25	150	26.5	15	60	110	Z.KD - 6			

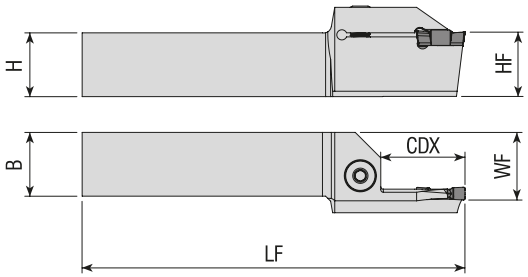
R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock / *Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
ZCC Ucuna Uygundur. / Compatiple with ZCC Insert. / Kompatibel mit ZCC Wendeplatten.

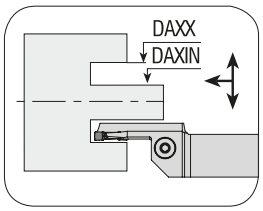
Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück AAKT-ZCC2-R-2525-140-180-2-T4



BF SERVICE







Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*							Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*		
											Sıkma Vidası *Screw* *Schraube*	Pul *Stamp* *Ring*	Anahtar *Allen Key* *Innensechskantschlüssel*
	R	L	HF=H	B	LF	WF	CDX	DAXIN	DAXX				
AAKT-IG-R/L-2525-40-60-4-T25	●	●	25	25	150	26.5	25	40	60	DGN / GRP - 4	2004-M8x1x20	-	AAL-05-4
AAKT-IG-R/L-2525-52-80-4-T25	●	●	25	25	150	26.5	25	52	80				
AAKT-IG-R/L-2525-70-110-4-T28	●	●	25	25	150	26.5	28	70	110				
AAKT-IG-R/L-2525-72-110-4-T25	○	○	25	25	150	26.5	25	72	110				
AAKT-IG-R/L-2525-100-150-4-T25	●	○	25	25	150	26.5	25	100	150				
AAKT-IG-R/L-2525-110-200-4-T28	●	○	25	25	150	26.5	28	110	200				
AAKT-IG-R/L-2525-110-200-4-T32	●	●	25	25	150	26.5	32	110	200				
AAKT-IG-R/L-2525-140-200-4-T25	○	○	25	25	150	26.5	25	140	200				
AAKT-IG-R/L-2525-180-800-4-T28	●	●	25	25	150	26.5	28	180	800				
AAKT-IG-R/L-2525-200-800-4-T25	○	○	25	25	150	26.5	25	200	800				
AAKT-IG-R/L-2525-70-110-5-T32	●	●	25	25	150	26.5	32	70	110	DGN / GRP - 5			
AAKT-IG-R/L-2525-110-200-5-T9	●	○	25	25	150	26.5	9	110	200				
AAKT-IG-R/L-2525-110-200-5-T32	●	●	25	25	150	26.5	32	110	200				
AAKT-IG-R/L-2525-180-800-5-T32	●	●	25	25	150	26.5	32	180	800				
AAKT-IG-R/L-2525-58-100-6-T32	●	○	25	25	150	26.5	32	58	100	DGN / GRP - 6			
AAKT-IG-R/L-2525-88-180-6-T32	●	○	25	25	150	26.5	32	88	180				

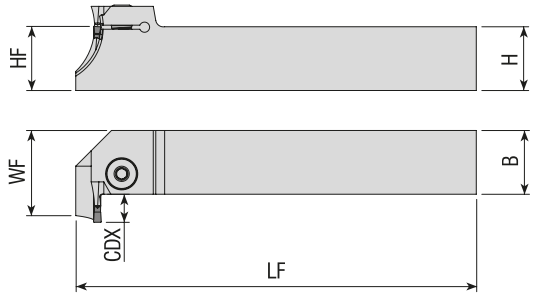
R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock / *Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
ISCR Ucuna Uygundur. / Compatiple with ISCR Insert. / Kompatibel mit ISCR Wendeplatten.

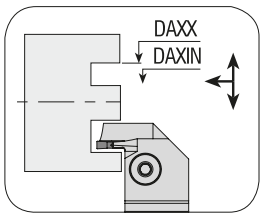
Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück AAKT-IG-R-2525-40-60-4-T25



BF SERVICE



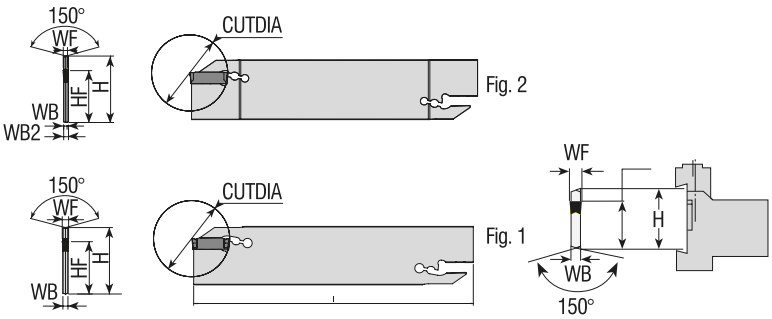


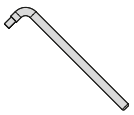


Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*							Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile* Sıkma Vidası *Screw* *Schraube*	Pul *Stamp* *Ring*	Anahtar *Allen Key* *Innensechskantschlüssel*
	R	L	HF=H	B	LF	WF	CDX	DAXIN	DAXX				
ALKT-ZCC2-R/L-2525-35-45-3-T10	●	●	25	25	150	36	10	35	45	Z.FD - 3	2004-M8x1x20	-	AAL-05-4
ALKT-ZCC2-R/L-2525-39-55-3-T10	●	●	25	25	150	36	10	39	55				
ALKT-ZCC2-R/L-2525-35-∞-3-T4	●	●	25	25	150	30	4	35	∞				
ALKT-ZCC2-R/L-2525-40-60-4-T14	●	●	25	25	150	40	14	40	60	Z.GD - 4			
ALKT-ZCC2-R/L-2525-52-80-4-T14	●	○	25	25	150	40	14	52	80				
ALKT-ZCC2-R/L-2525-72-110-4-T14	●	○	25	25	150	40	14	72	110				
ALKT-ZCC2-R/L-2525-100-230-4-T14	●	○	25	25	150	40	14	100	230				
ALKT-ZCC2-R/L-2525-40-∞-4-T4	●	●	25	25	150	30	4	40	∞				

ZCC Ucuna Uygundur. / Compatiple with ZCC Insert. / Kompatibel mit ZCC Wendeplatten.





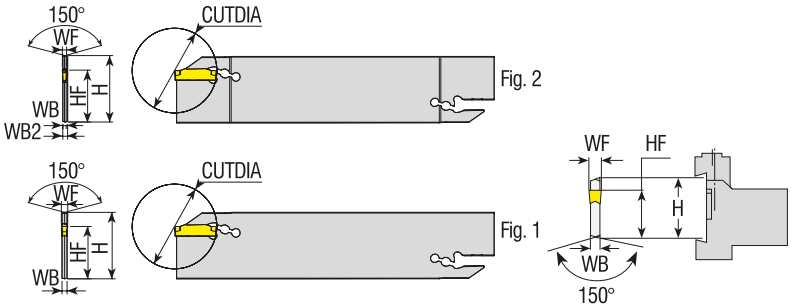
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*								Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* *Ersatzteile* Anahtar *Allen Key* *Innensechskantschlüssel*
		H	WF	WB2	WB	I	HF	CUTDIA	Fig.		
AKL-SGC-26-3	●	26	3	2.40	-	110	21.4	39	2	GCM N30	ALA-01
AKL-SGC-32-3	●	32	3	2.40	-	150	25	39	1		

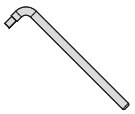
R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
SMTM Ucuna Uygundur. / Compatiple with SMTM Insert. / Kompatibel mit SMTM Wendeplatten.

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück ALKT-ZCC2-R-2525-35-45-3-T10

BF SERVICE

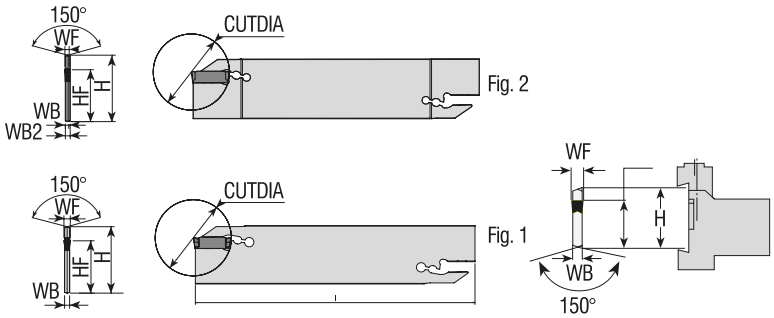


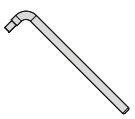


Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*								Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* *Ersatzteile* Anahtar *Allen Key* *Innensechskantschlüssel*
		H	WF	WB2	WB	I	HF	CUTDIA	Fig.		
AKL-TD-32-2	●	32	2	2.4	1.6	150	25	39	2	**TD. - 2**	ALA-01
AKL-TD-32-3	●	32	3	2.4	-	150	25	39	1	**TD. - 3**	

TGTC Ucuna Uygundur. / Compatiple with TGTC Insert. / Kompatibel mit TGTC Wendeplatten.





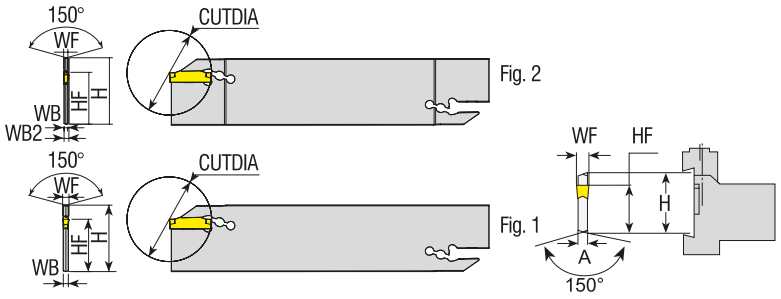
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*								Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* *Ersatzteile* Anahtar *Allen Key* *Innensechskantschlüssel*
		H	WF	WB2	WB	I	HF	CUTDIA	Fig.		
AKL-I-26-2	●	26	1.9-2.5	1.6	-	110	21.4	39	1	**DGN - 2**	ALA-01
AKL-I-32-2	●	32	1.9-2.5	1.8	2.4	150	25	39	2		
AKL-I-26-3	●	26	3-3.18	2.4	-	110	21.4	39	1	**DGN - 3**	
AKL-I-32-3	●	32	3-3.18	2.4	-	150	25	39	1		
AKL-I-26-4	●	26	4	3.2	-	110	21.4	80	1	**DGN / GRP - 4**	
AKL-I-32-4	●	32	4	3.2	-	150	25	100	1		

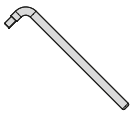
R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
ISCR Ucuna Uygundur. / Compatiple with ISCR Insert. / Kompatibel mit ISCR Wendeplatten.

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück AKL-TD-32-2

BF SERVICE

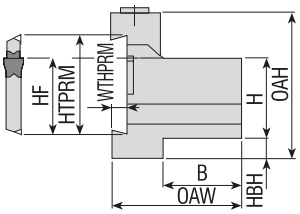


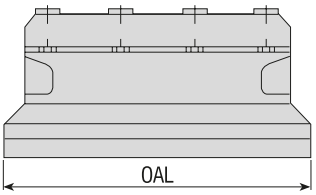


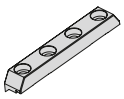
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*								Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* *Ersatzteile* Anahtar *Allen Key* *Innensechskantschlüssel*
		H	WF	WB2	WB	l	HF	CUTDIA	Fig.		
AKL-123-32-2	●	32	2	2.4	1.6	150	25	39	2	**123 - 2**	ALA-01
AKL-123-32-3	●	32	3	2.4	-	150	25	39	1	**123 - 3**	
AKL-123-32-4	●	32	4	3.2	-	150	25	39	1	**123 - 4**	

SNDVK Ucuna Uygundur. / Compatiple with SNDVK Insert. / Kompatibel mit SNDVK Wendeplatten.







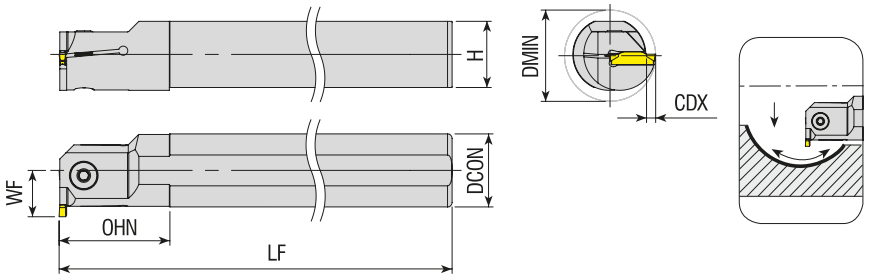
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*									Yedek Parçaları / *Spare Parts* / *Ersatzteile* Pabuç *Clamp* *Spannspratze*	Pabuç Vidası *Clamp Screw* *Klemmschraube*	Anahtar *Allen Key* *Innensechskantschlüssel*
		HTPRM	HF	H	HBH	OAH	WTHPRM	OAL	B	OAW			
ALBU-20-26	●	26	21.4	20	9	43	4	86	19	38	ABK-01	2505-M6x25	AAL-07-5
ALBU-25-26	●	26	21.4	25	5	45	4	110	23	42	ABK-02	2505-M6x30	
ALBU-20-32	●	32	25	20	13	50	5.3	100	19	38	ABK-03		
ALBU-25-32	●	32	25	25	8	50	5.3	110	23	42	ABK-04		
ALBU-32-32	●	32	25	32	5	54	5.3	110	29	48			

R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück AKL-123-32-3

BF SERVICE





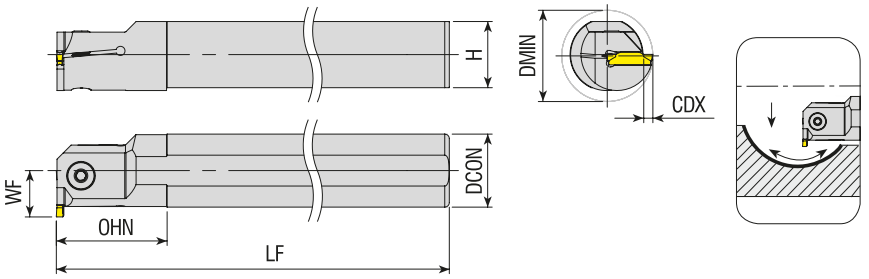
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*							Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile* Sıkma Vidası *Screw* *Schraube*	Anahtar *Allen Key* *Innensechskantschlüssel*
	R	L	DCON	DMIN	LF	OHN	CDX	H	WF			
AIKT-K-R/L-16-2-T4	●	●	16	21	150	28	4	14.8	12	MGM. - 2	2503-M4x10	AAL-03-3
AIKT-K-R/L-20-2-T4	●	●	20	25	170	30	4	18.3	14		2503-M4x12	
AIKT-K-R/L-25-2-T6	●	●	25	32	200	40	6	23	18.5		2504-M5x12	
AIKT-K-R/L-20-3-T6	●	●	20	27	170	30	6	18.3	16	MGM. - 3	2504-M5x12	
AIKT-K-R/L-20-3-T7	●	●	20	25	170	38	7	18.3	13			
AIKT-K-R/L-25-3-T6	●	●	25	32	200	40	6	23	18.5		2504-M5x16	
AIKT-K-R/L-25-3-T10	●	●	25	32	200	48	10	23	17			
AIKT-K-R/L-32-3-T6	●	●	32	39	250	50	6	30	22		2004-M8x1x20	
AIKT-K-R/L-32-3-T12	●	●	32	39	250	53	12	30	22			
AIKT-K-R/L-40-3-T6	●	●	40	47	300	55	6	37.5	26			
AIKT-K-R/L-40-3-T12	●	○	40	48	300	63	12	37.5	27			
AIKT-K-R/L-20-4-T6	●	●	20	27	170	30	6	18.3	16	MGM. - 4	2504-M5x12	AAL-05-4
AIKT-K-R/L-20-4-T7	●	○	20	25	170	38	7	18.3	13			
AIKT-K-R/L-25-4-T6	●	●	25	32	200	40	6	23	18.5		2504-M5x16	
AIKT-K-R/L-25-4-T10	●	●	25	32	200	49	10	23	17			
AIKT-K-R/L-32-4-T6	●	●	32	39	250	50	6	30	22		2004-M8x1x20	
AIKT-K-R/L-32-4-T12	●	●	32	39	250	53	12	30	22			
AIKT-K-R/L-40-4-T6	●	●	40	47	300	55	6	37.5	26			
AIKT-K-R/L-40-4-T12	●	●	40	48	300	63	12	37.5	27			
AIKT-K-R/L-25-5-T7	●	●	25	33	200	40	7	23	19.5	MGM. - 5	2504-M5x16	
AIKT-K-R/L-32-5-T7	●	●	32	40	250	50	7	30	23		2004-M8x1x20	
AIKT-K-R/L-40-5-T7	●	●	40	48	300	55	7	37.5	27			
AIKT-K-R/L-40-5-T12	●	○	40	48	300	63	12	37.5	27			

R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
KRLY Ucuna Uygundur. / Compatiple with KRLY Insert. / Kompatibel mit KRLY Wendeplatten.

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück AIKT-K-R-16-2-T4

BF SERVICE

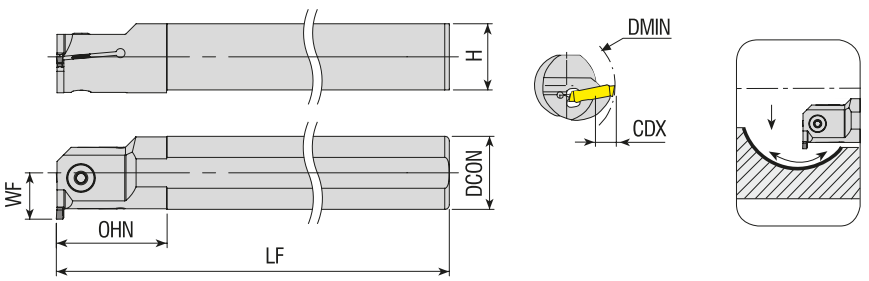




Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*							Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile* Sıkma Vidası *Screw* *Schraube*	Anahtar *Allen Key* *Innensechskantschlüssel*
	R	L	DCON	DMIN	LF	OHN	CDX	H	WF			
AIKT-KG-R/L-25-2-T7	●	●	25	33	200	40	7	23	19.5	**KG.. - 2**	2504-M5x12	AAL-05-4
AIKT-KG-R/L-20-3-T6.5-H	●	○	20	27.5	170	30	6.5	18.3	16.5	**KG.. - 3**	2504-M5x16	
AIKT-KG-R/L-25-3-T7	○	○	25	33	200	40	7	23	19.5			
AIKT-KG-R/L-40-3-T8	●	○	40	50	300	55	8	37.5	28		2004-M8x1x20	
AIKT-KG-R/L-25-4-T8	●	●	25	34	200	40	8	23	20.5	**KG.. - 4**	2504-M5x16	

KRLY Ucuna Uygundur. / Compatiple with KRLY Insert. / Kompatibel mit KRLY Wendeplatten.





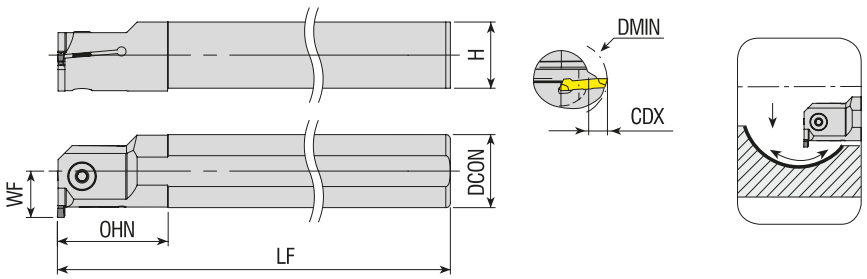
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*							Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile* Sıkma Vidası *Screw* *Schraube*	Anahtar *Allen Key* *Innensechskantschlüssel*
	R	L	DCON	DMIN	LF	OHN	CDX	H	WF			
AIKT-H-R/L-25-3-T8	●	●	25	34	200	40	8	23	20.5	**S229 - 3**	2504-M5x16	AAL-05-4
AIKT-H-R/L-32-3-T7	●	●	32	40	250	50	7	30	23		2004-M8x1x20	
AIKT-H-R/L-40-3-T7	●	●	40	48	300	55	7	37.5	27			
AIKT-H-R/L-25-4-T8	●	●	25	34	200	40	8	23	20.5	**S229 - 4**	2504-M5x16	
AIKT-H-R/L-32-4-T7	●	●	32	40	250	50	7	30	23		2004-M8x1x20	
AIKT-H-R/L-40-4-T7	●	●	40	48	300	55	7	37.5	27			
AIKT-H-R/L-25-5-T8	●	●	25	34	200	40	8	23	20.5	**S229 - 5**	2504-M5x16	
AIKT-H-R/L-32-5-T7	●	○	32	40	250	50	7	30	23		2004-M8x1x20	
AIKT-H-R/L-40-5-T7	●	○	40	48	300	55	7	37.5	27			

R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
HRN Ucuna Uygundur. / Compatiple with HRN Insert. / Kompatibel mit HRN Wendeplatten.

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück AIKT-KG-R-25-2-T7

BF SERVICE

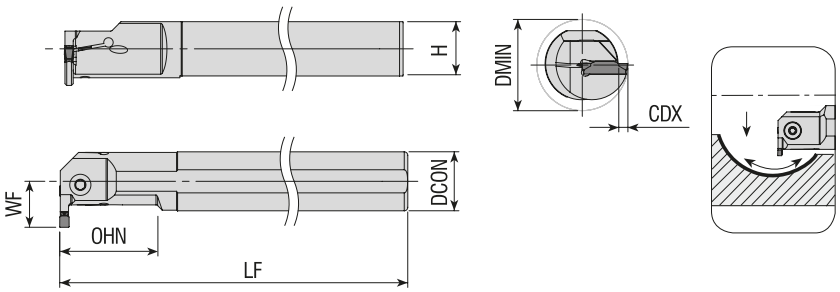




Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*							Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile* Sıkma Vidası *Screw* *Schraube*	Anahtar *Allen Key* *Innensechskantschlüssel*
	R	L	DCON	DMIN	LF	OHN	CDX	H	WF			
AIKT-HK-R/L-20-2-T6	●	●	20	26	170	30	6	18.3	16	S224 - 2	2503-M4x12	AAL-03-3
AIKT-HK-R/L-25-2-T6	●	○	25	32	200	40	6	23	18.5		2504-M5x16	
AIKT-HK-R/L-20-3-T6	●	○	20	27	170	30	6	18.3	16	S224 - 3	2504-M5x12	
AIKT-HK-R/L-25-3-T6	●	●	25	32	200	40	6	23	18.5		2504-M5x16	
AIKT-HK-R/L-32-3-T6	●	●	32	39	250	50	6	30	22		2004-M8x1x20	AAL-05-4
AIKT-HK-R/L-20-4-T6	●	○	20	27	170	30	6	18.3	16	S224 - 4	2504-M5x12	
AIKT-HK-R/L-25-4-T6	●	○	25	32	200	40	6	23	18.5		2504-M5x16	
AIKT-HK-R/L-32-4-T6	●	○	32	39	250	50	6	30	22		2004-M8x1x20	
AIKT-HS223-R/L-20-2-T5	●	○	20	26	170	33	5	18.3	15	S223 - 2	2503-M4x12	AAL-03-3
AIKT-HS223-R/L-25-2-T5	●	○	25	31	200	40	5	23	17.5		2504-M5x16	
AIKT-HS223-R/L-20-3-T6	●	○	20	27	170	33	6	18.3	16	S223 - 3	2504-M5x12	AAL-05-4
AIKT-HS223-R/L-25-3-T6	●	○	25	32	200	40	6	23	18.5		2504-M5x16	

HRN Ucuna Uygundur. / Compatiple with HRN Insert. / Kompatibel mit HRN Wendeplatten.





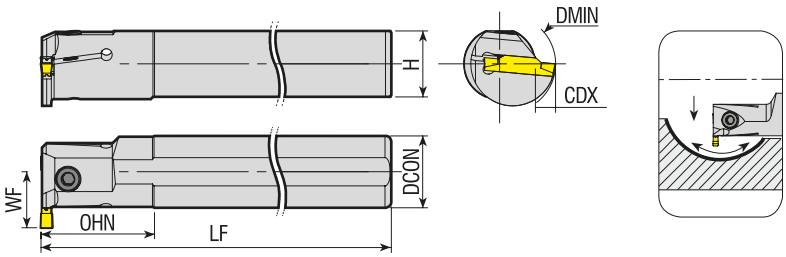
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*							Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile* Sıkma Vidası *Screw* *Schraube*	Anahtar *Allen Key* *Innensechskantschlüssel*
	R	L	DCON	DMIN	LF	OHN	CDX	H	WF			
AIKT-KM-R/L-20-2-T7	●	●	20	25	170	40	7	18.3	13	A4. - 2	2503-M4x12	AAL-03-3
AIKT-KM-R/L-20-3-T7	●	○	20	25	170	40	7	18.3	13		2504-M5x12	AAL-05-4
AIKT-KM-R/L-25-3-T10	●	●	25	32	200	50	10	23	17	A4. - 3	2505-M6x16	AAL-07-5
AIKT-KM-R/L-32-3-T12	●	●	32	40	250	64	12	30	22			
AIKT-KM-R/L-40-3-T12	●	●	40	48	300	80	12	37.5	27		2505-M6x20	
AIKT-KM-R/L-20-4-T7	●	○	20	25	170	40	7	18.3	13	A4. - 4	2504-M5x12	AAL-05-4
AIKT-KM-R/L-32-4-T12.2-H	●	○	32	40	190	104	12.2	31	22		2504-M5x14	

R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
KNMTL Ucuna Uygundur. / Compatiple with KNMTL Insert. / Kompatibel mit KNMTL Wendeplatten.

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück AIKT-HK-R-20-2-T6

BF SERVICE

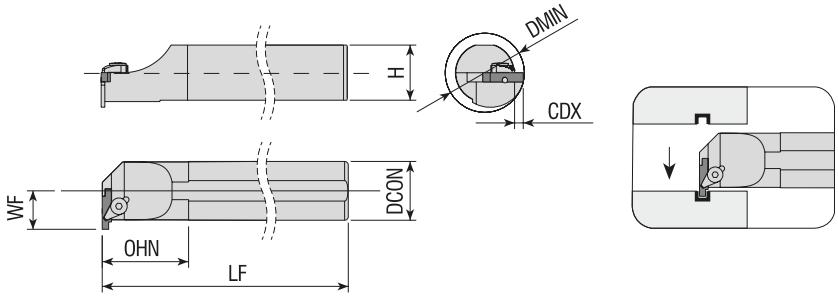


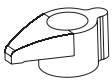


Takım Kodu *Ordering Code* Bestell-Bezeichnung	Stok *Stock* Lager		Takım Ölçüleri (mm) *Dimension (mm)* Abmessung (mm)							Kesici Uç *Insert* Wendeschneidplatte	Yedek Parçaları / *Spare Parts* / *Ersatzteile* Sıkma Vidası *Screw* Schraube	Anahtar *Allen Key* Innensechskantschlüssel
	R	L	DCON	DMIN	LF	OHN	CDX	H	WF			
AIKT-123-R/L-20-2-T6	●	○	20	32	170	30	6	18.3	16	**123 - 2**	2503-M4x12	AAL-03-3
AIKT-123-R/L-25-2-T6	●	○	25	32	200	40	6	18.3	18.5		2504-M5x12	AAL-05-4
AIKT-123-R/L-32-2-T7	●	○	32	41	250	45	7	30	23		2004-M8x1x20	
AIKT-123-R/L-20-3-T6	●	○	20	32	170	30	6	18.3	16	**123 - 3**	2504-M5x16	
AIKT-123-R/L-25-3-T7	●	○	25	32	200	40	7	23	19.5			
AIKT-123-R/L-32-3-T9	●	○	32	41	250	50	9	30	25		2004-M8x1x20	
AIKT-123-R/L-20-4-T8	●	○	20	29	170	30	8	18.3	18	**123 - 4**	2504-M5x16	
AIKT-123-R/L-25-4-T7	●	○	25	32	200	40	7	23	19.5			
AIKT-123-R/L-32-4-T7	●	●	32	41	250	45	7	30	23		2004-M8x1x20	
AIKT-123-R/L-32-4-T10	●	○	32	43	250	50	10	30	26			
AIKT-123-R/L-25-5-T8	●	○	25	34	200	40	8	23	20.5	**123 - 5**	2504-M5x16	
AIKT-123-R/L-32-5-T11	●	●	32	43	250	50	11	30	27		2004-M8x1x20	

SNDVK Ucuna Uygundur. / Compatiple with SNDVK Insert. / Kompatibel mit SNDVK Wendeplatten.





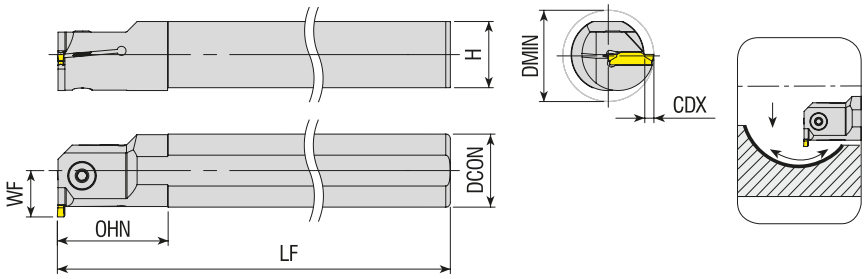
Takım Kodu *Ordering Code* Bestell-Bezeichnung	Stok *Stock* Lager		Takım Ölçüleri (mm) *Dimension (mm)* Abmessung (mm)							Kesici Uç *Insert* Wendeschneidplatte	Yedek Parçaları / *Spare Parts* / *Ersatzteile* Baskı Parçası *Wedge Clamp* Spannpratze	Sıkma Vidası *Screw* Schraube	Pim *Pin* Stift	Anahtar *Allen Key* Innensechskantschlüssel
	R	L	DCON	DMIN	LF	OHN	CDX	H	WF					
AIKT-154.91-R/L-16-3-T3	●	●	16	20	150	35	3	14.8	11	**154.91 - 3**	ACK-06	AKV-10-M6x14	APM-06	AAL-05-4
AIKT-154.91-R/L-20-3-T4	●	●	20	25	170	38	4	18.3	14					
AIKT-154.91-R/L-25-3-T4	●	●	25	31	200	40	4	23	16.5		ACK-03	AKV-21-M6x18		AAL-03-3
AIKT-154.91-R/L-25-5-T5	●	●	25	31	200	45	5	23	17.5	**154.91 - 5**				
AIKT-154.91-R/L-32-5-T5	●	●	32	38	250	50	5	30	21			AKV-07-M6x22		

R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
SNDVK Ucuna Uygundur. / Compatiple with SNDVK Insert. / Kompatibel mit SNDVK Wendeplatten.

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück AIKT-123-R-20-2-T6

BF SERVICE

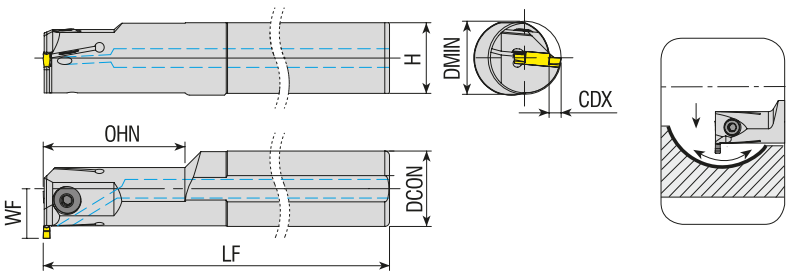




Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*							Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile* Sıkma Vidası *Screw* *Schraube*	Anahtar *Allen Key* *Innensechskantschlüssel*
	R	L	DCON	DMIN	LF	OHN	CDX	H	WF			
AIKT-ZCC2-R/L-16-2-T4	●	○	16	21	150	28	4	14.8	12	Z.BD - 2	2503-M4x10	AAL-03-3
AIKT-ZCC2-R/L-20-3-T5	●	●	20	27	170	30	5	18.3	15	Z.FD - 3	2504-M5x12	AAL-05-4
AIKT-ZCC2-R/L-20-3-T8	●	○	20	29	170	30	8	18.3	18			
AIKT-ZCC2-R/L-25-3-T5	●	○	25	31	200	40	5	23	17.5		2504-M5x16	
AIKT-ZCC2-R/L-25-3-T10	●	○	25	36	200	40	10	23	22.5		2004-M8x1x20	
AIKT-ZCC2-R/L-32-3-T6	●	○	32	39	250	50	6	30	22			
AIKT-ZCC2-R/L-32-3-T8	●	○	32	41	250	50	8	30	24			
AIKT-ZCC2-R/L-32-3-T13	●	○	32	46	250	50	13	30	29		2504-M5x12	
AIKT-ZCC2-R/L-40-3-T12	●	○	40	53	300	55	12	37.5	32			
AIKT-ZCC2-R/L-25-4-T6	●	○	25	32	200	40	6	23	18.5	Z.GD - 4	2504-M5x16	
AIKT-ZCC2-R/L-32-4-T7	●	○	32	40	250	50	7	30	23			
AIKT-ZCC2-R/L-32-4-T8	●	○	32	41	250	50	8	30	24			
AIKT-ZCC2-R/L-32-4-T10	●	○	32	43	250	50	10	30	26		2004-M8x1x20	
AIKT-ZCC2-R/L-32-5-T7	●	○	32	40	250	50	7	30	23	Z.HD - 5		
AIKT-ZCC2-R/L-32-5-T8	●	○	32	41	250	50	8	30	24			
AIKT-ZCC2-R/L-40-5-T8	●	○	40	49	300	55	8	37.5	28			
AIKT-ZCC2-R/L-40-5-T10	●	○	40	51	300	55	10	37.5	30			

ZCC Ucuna Uygundur. / Compatiple with ZCC Insert. / Kompatibel mit ZCC Wendeplatten.





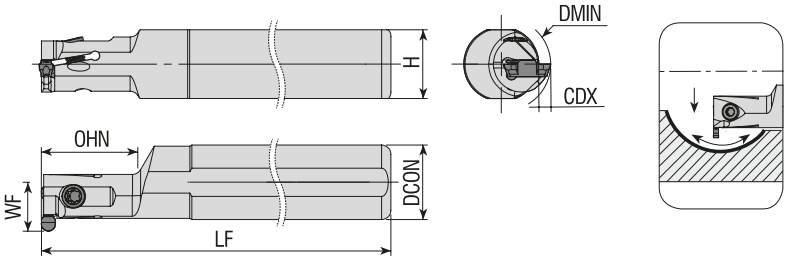
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*							Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile* Sıkma Vidası *Screw* *Schraube*	Anahtar *Allen Key* *Innensechskantschlüssel*
	R	L	DCON	DMIN	LF	OHN	CDX	H	WF			
AIKT-TD-R-16-2-T8.5-H	●	○	16	25	150	28	8.5	14.8	16.5	TD.-2	2503-M4x10	AAL-03-3
AIKT-TD-R-20-3-T6-H	●	○	20	25	170	40	6	18.3	16	TD.-3	2504-M5x12	AAL-05-4
AIKT-TD-R-25-3-T6-H	●	○	25	25	200	40	6	23	18.5			
AIKT-TD-R-32-3-T5-H	●	○	32	31	250	60	5	30	21		2004-M8x1x20	

R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
TGTC Ucuna Uygundur. / Compatiple with TGTC Insert. / Kompatibel mit TGTC Wendeplatten.

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück AIKT-ZCC-R-20-3-T5

BF SERVICE

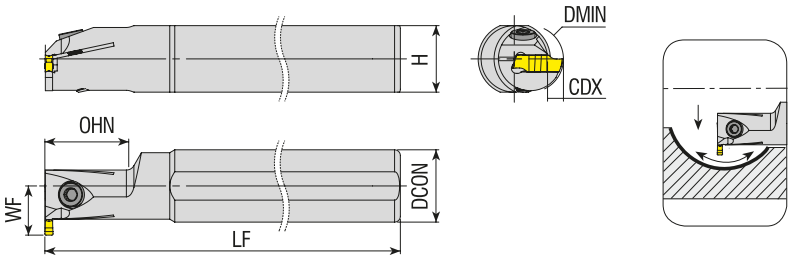




Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*							Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile* Sıkma Vidası *Screw* *Schraube*	Anahtar *Allen Key* *Innensechskantschlüssel*
	R	L	DCON	DMIN	LF	OHN	CDX	H	WF			
AIKT-IGE-R/L-10-2-T3-H	●	○	10	11.5	125	25	3	9	8.3	GEPI - 2	3008-M3x8	80-T08
AIKT-IGE-R/L-16-2-T3-D11.5	●	○	16	11.5	125	20	3	14.8	11.1			
AIKT-IGE-R/L-16-2-T2.5-H	●	●	16	13	125	20	2.5	14.8	10.5			
AIKT-IGE-R/L-16-3-T2.5-H	●	○	16	13	125	20	2.5	14.8	10.5	GEPI - 3	1315-M4x11	80-T15
AIKT-IGE-R/L-16-3-T2.5-D20	●	○	16	20	125	28	2.5	14.8	10.5			

ISCR Ucuna Uygundur. / Compatiple with ISCR Insert. / Kompatibel mit ISCR Wendeplatten.





Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*							Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile* Sıkma Vidası *Screw* *Schraube*	Anahtar *Allen Key* *Innensechskantschlüssel*
	R	L	DCON	DMIN	LF	OHN	CDX	H	WF			
AIKT-IGI-R/L-20-3-T4	●	●	20	20	170	25	4	18.3	14.5	GIMIY / GIPI - 3	1020-M5x14	80-T20
AIKT-IGI-R/L-25-3-T5	●	●	25	23	200	30	5	23	17		2504-M5x16	AAL-05-4
AIKT-IGI-R/L-32-3-T5	●	●	32	31	250	30	5	30	21		2004-M8x1x20	
AIKT-IGI-R/L-40-3-T5	●	○	40	50	300	50	5	37.5	25			
AIKT-IGI-R/L-20-4-T4	●	●	20	20	170	25	4	18.3	14.5	GIMIY / GIPI - 4	1020-M5x14	80-T20
AIKT-IGI-R/L-25-5-T10	●	○	25	32	200	25	10	23	22.5	GIMIY / GIPI - 5	2504-M5x16	AAL-05-4
AIKT-IGI-R/L-25-5-T15	●	○	25	37	200	25	15	23	27.5			

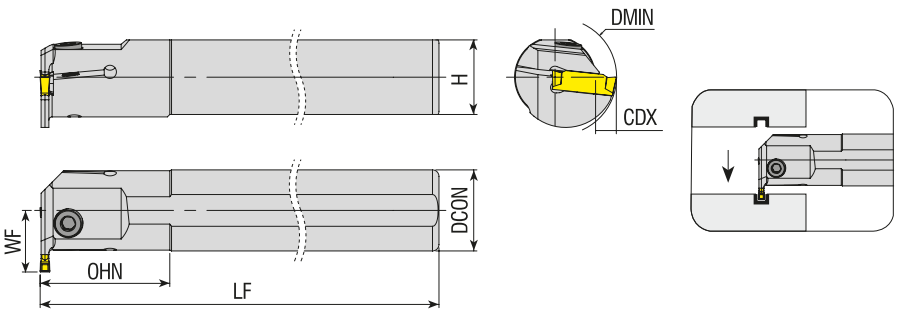
R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock / *Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
ISCR Ucuna Uygundur. / Compatiple with ISCR Insert. / Kompatibel mit ISCR Wendeplatten.

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück AIKT-IGE-R-10-2-T3-H

Not: "OHN" boyları D min çapa göre verilmiştir.
Note: Lenghts of "OHN" are given according to D min diameter.
Hinweis: Maß "OHN" soll identisch mit Dmin sein

BF SERVICE

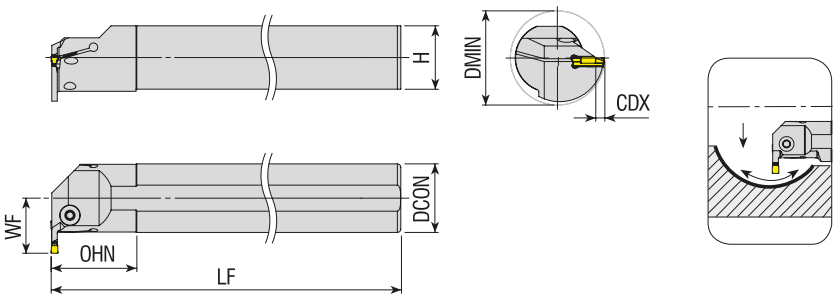




Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*							Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile* Sıkma Vidası *Screw* *Schraube*	Anahtar *Allen Key* *Innensechskantschlüssel*
	R	L	DCON	DMIN	LF	OHN	CDX	H	WF			
AIKT-I-R/L-20-3-T5	●	●	20	26	170	25	5	18.3	15.5	**DGN - 3**	2504-M5x12	AAL-05-4
AIKT-I-R/L-25-3-T6	●	●	25	32	200	40	6	23	19		2504-M5x16	

ISCR Ucuna Uygundur. / Compatiple with ISCR Insert. / Kompatibel mit ISCR Wendeplatten.





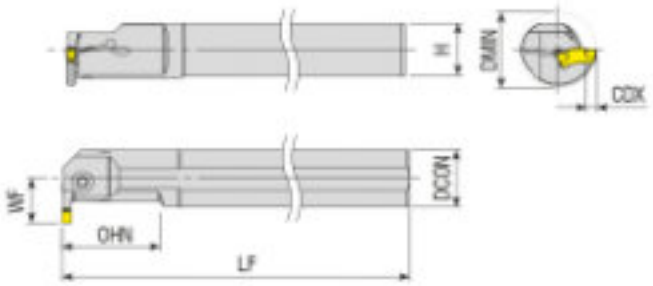
	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*							Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile* Sıkma Vidası *Screw* *Schraube*	Anahtar *Allen Key* *Innensechskantschlüssel*
	R	L	DCON	DMIN	LF	OHN	CDX	H	WF			
AIKT-IG-R/L-25-4-T10-H	●	●	25	36	200	40	10	23	22.7	**DGN / GRP - 4**	2504-M5X16	AAL-05-4
AIKT-IG-R/L-32-4-T10-H	●	●	32	43	250	45	10	30	26.2		2004-M8x1x20	
AIKT-IG-R/L-40-4-T12-H	●	●	40	53	300	50	12	37.5	32.2			
AIKT-IG-R/L-25-5-T10-H	●	○	25	36	200	40	10	23	22.7	**DGN / GRP - 5**	2504-M5X16	
AIKT-IG-R/L-32-5-T10-H	●	○	32	43	250	45	10	30	26.2		2004-M8x1x20	
AIKT-IG-R/L-40-5-T12-H	●	○	40	53	300	50	12	37.5	32.2			
AIKT-IG-R/L-50-5-T12-H	●	○	50	63	300	60	12	47	37.2			

R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
ISCR Ucuna Uygundur. / Compatiple with ISCR Insert. / Kompatibel mit ISCR Wendeplatten.

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück AIKT-I-R-20-3-T5

BF SERVICE

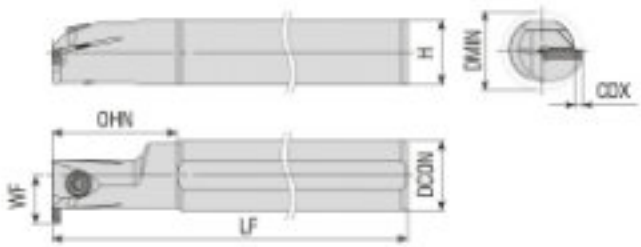




Takım Kodu / Ordering Code / Bestell-Bezeichnung	Stok / Stock / Lager		Takım Ölçüleri (mm) / Dimension (mm) / Abmessung (mm)							Kesici Uç / Insert / Wendeschneidplatte	Yedek Parçaları / Spare Parts / Ersatzteile: Sıkma Vidası / Screw / Schraube	Anahtar / Allen Key / Innensechskant
	R	L	DCON	DMIN	LF	OHN	CDX	H	WF			
AIKT-ITG-R/L-16-3-T6-H	●	●	16	20	150	25	6	14.8	12	TGM. - 3	1020-M4.5X14	80-T20
AIKT-ITG-R/L-20-3-T6-H	●	●	20	25	170	32	6	18.3	14.2		1020-M4.5X16	
AIKT-ITG-R/L-25-3-T8-H	●	●	25	32	200	40	8	23	18.8		2504-M5X16	AAL-05-4
AIKT-ITG-R/L-32-3-T8-H	●	●	32	38	250	49	8	30	22		2004-M8x1x20	
AIKT-ITG-R/L-20-4-T6-H	●	●	20	25	170	33	6	18.3	14.2	TGM. - 4	1020-M4.5X16	80-T20
AIKT-ITG-R/L-25-4-T7-H	●	●	25	31	200	41	7	23	17.5		2504-M5X16	AAL-05-4
AIKT-ITG-R/L-25-4-T9-H	●	●	25	32.5	200	41	9	23	19.5			
AIKT-ITG-R/L-32-4-T11-H	●	●	32	42	250	50	11	30	25.5			
AIKT-ITG-R/L-40-4-T11-H	●	●	40	53	300	50	11	37.5	32		2004-M8x1x20	
AIKT-ITG-R/L-32-6.35-T17.5-H	●	●	32	57	250	50	17.5	30	29	TGM. - 6.35		

ISCR Ucuna Uygundur. / Compatible with ISCR Insert. / Kompatibel mit ISCR Wendeplatten





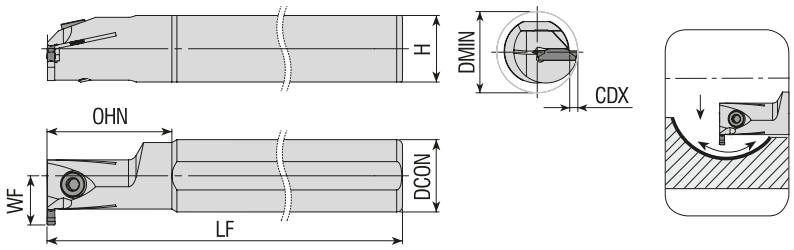
Takım Kodu / Ordering Code / Bestell-Bezeichnung	Stok / Stock / Lager		Takım Ölçüleri (mm) / Dimension (mm) / Abmessung (mm)							Kesici Uç / Insert / Wendeschneidplatte	Yedek Parçaları / Spare Parts / Ersatzteile: Sıkma Vidası / Screw / Schraube	Anahtar / Allen Key / Innensechskant
	R	L	DCON	DMIN	LF	OHN	CDX	H	WF			
AIKT-GP-R/L-20-2-T4	●	○	20	25	170	30	4	18.3	14.5	GP - 2	2503-M4x12	AAL-03-3
AIKT-GP-R/L-25-2-T6	●	○	25	32	200	40	6	23	18.5		2504-M5x16	AAL-05-4
AIKT-GP-R/L-20-3-T6	●	○	20	27	170	30	6	18.3	16	GP - 3		
AIKT-GP-R/L-25-3-T6	●	○	25	32	200	40	6	23	18.5			
AIKT-GP-R/L-32-3-T6	●	○	32	39	250	50	6	30	22		2004-M8x1x20	
AIKT-GP-R/L-20-4-T6	●	○	20	27	170	30	6	18.3	16	GP - 4	2504-M5x16	
AIKT-GP-R/L-25-4-T6	●	○	25	32	200	40	6	23	18.5		2004-M8x1x20	
AIKT-GP-R/L-32-4-T6	●	○	32	39	250	50	6	30	22			

R: Sağ / Right / Rechts L: Sol/Left/Links
● Stokta / In Stock /Auf Lager ○ Stokta Yok / Non Stock Item / Kein Lagerartikel, Lieferzeit auf Anfrage
PLBT Ucuna Uygundur. / Compatible with PLBT Insert. / Kompatibel mit PLBT Wendeplatten

Sipariş Örneği/Ordering Example/Bestellbeispiel
1 ad./pcs./stück AIKT-ITG-R-16-3-T6-H

BF SERVICE

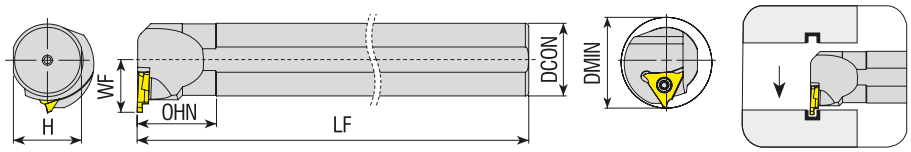




Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*							Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile* Sıkma Vidası *Screw* *Schraube*	Anahtar *Allen Key* *Innensechskantschlüssel*
	R	L	DCON	DMIN	LF	OHN	CDX	H	WF			
AIKT-SGC-R/L-25-3-T6	●	○	25	32	200	40	6	23	18.5	GCM N30	2504-M5x16	AAL-05-4
AIKT-SGC-R/L-32-3-T6	●	○	32	39	250	50	6	30	22		2004-M8x1x20	
AIKT-SGC-R/L-40-3-T6	●	○	40	47	300	55	6	37.5	26			

SMTM Ucuna Uygundur. / Compatiple with SMTM Insert. / Kompatibel mit SMTM Wendeplatten.





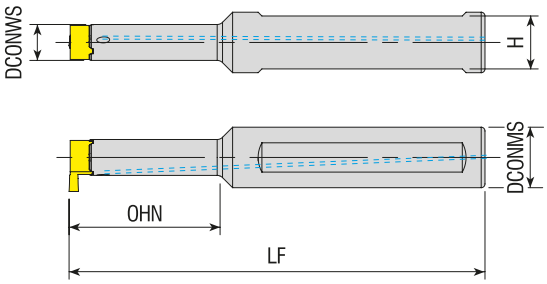
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*							Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile* Sıkma Vidası *Screw* *Schraube*	Anahtar *Allen Key* *Innensechskantschlüssel*
	R	L	DCON	DMIN	LF	OHN	CDX	H	WF			
AIKT-QC11-R/L-20-(0.5-1.8)	●	○	20	16	150	40	-	18.3	12	QC11R/L (0.50-1.80)	3008 M2.5x6	80-T08
AIKT-QC16-R/L-20-(0.5-1.8)	○	○	20	25	150	35	-	18.3	13.5	QC16R/L (0.50-1.80)	4015-M3.5x10	80-T15
AIKT-QC16-R/L-20-(0.5-2.5)	●	○	20	25	150	35	-	18.3	13.5	QC16R/L (0.50-2.50)		
AIKT-QC22-R/L-25-(1-2.3)	○	○	25	35	150	35	-	23	18.2	QC22R/L (1.00-2.30)	1120 M5x20	80-T20
AIKT-QC22-R/L-25-(2.5-3.3)	●	○	25	35	150	35	-	23	18.2	QC22R/L (2.50-3.30)		
AIKT-QC22-R/L-25-(3.3-4.8)	●	○	25	35	150	35	-	23	18.2	QC22R/L (3.30-4.80)		
AIKT-QC22-R/L-32-(1-2.3)	○	○	32	45	150	35	-	30	23.2	QC22R/L (1.00-2.30)		

R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
ZCC Ucuna Uygundur. / Compatiple with ZCC Insert. / Kompatibel mit ZCC Wendeplatten.

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück AIKT-SGC-R-25-3-T6

BF SERVICE





Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*	
		DCONMS	DCONWS	LF	OHN	H		Sıkma Vidası *Screw* *Schraube* 	Anahtar *Allen Key* *Imbusschlüssel* 
AIKT-MB07-A16-090-15	●	16	7.4	90	15	14	**MB - 07**	4008-M3x8	80-T08
AIKT-MB07-A16-090-22	●	16	7.4	90	22	14			
AIKT-MB09-A16-090-19	●	16	9.5	90	19	14	**MB - 09**	4015-M4x11	80-T15
AIKT-MB09-A16-095-28	●	16	9.5	95	28	14			
AIKT-MB09-A16-110-40	●	16	9.5	110	40	14			

R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
SNDVK Ucuna Uygundur. / Compatiple with SNDVK Insert. / Kompatibel mit SNDVK Wendeplatten.

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück AIKT-MB07-A16-090-15



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VOLLBOHRER



BF SERVICE

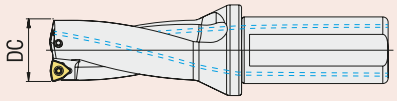
AKKO A	TUM	16	x	D3
1	2	3		4

S	P	G	T	06	02	04
5	6	7	8	9	10	11

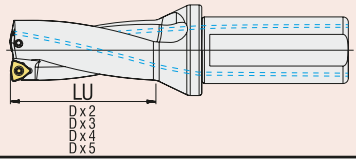
2 Kesici Stili / *Cutter Style* *Werkzeugtyp*

TUM: Takma Uçlu Matkap
U-Drill
Vollbohrer

3 Takım Çapı / *Tool Diameter* *Werkzeugdurchmesser*



4 Delme Derinliği / *Drilling Depth* *Bohrtiefe*



5 Uç Şekli / *Insert Form* *Plattenform*



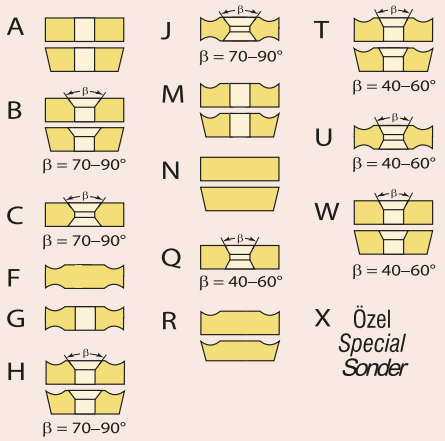
W	S

6 Serbest Uç Açısı / *Clearance angle of Insert* *Freiwinkel der Wendeschneidplatte*

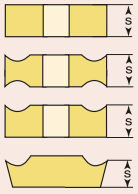


C	P

8 Uç Tipi / *Insert Type* *Plattentyp*

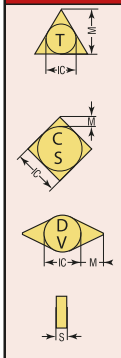


10 Kalınlık / *Thickness* *Dicke*



01	s = 1.59
T1	s = 1.98
02	s = 2.38
T2	s = 2.78
03	s = 3.18
T3	s = 3.97
04	s = 4.76
05	s = 5.56
06	s = 6.35
07	s = 7.94
09	s = 9.52

7 Toleranslar / *Tolerance Classes* *Toleranzen*



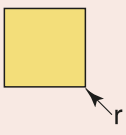
	IC	M	S
A	± 0.025	± 0.005	± 0.025
C	± 0.025	± 0.013	± 0.025
E	± 0.025	± 0.025	± 0.025
F	± 0.013	± 0.005	± 0.025
G	± 0.025	± 0.025	± 0.130
H	± 0.013	± 0.013	± 0.025
J	± 0.05–0.1 5	± 0.005	± 0.025
K	± 0.05–0.1 5	± 0.013	± 0.025
L	± 0.05–0.1 5	± 0.025	± 0.025
M	± 0.05–0.1 5	± 0.08–0.20	± 0.130
N	± 0.05–0.1 5	± 0.08–0.20	± 0.025
U	± 0.08–0.2 5	± 0.13 –0.38	± 0.130

IC : Daire Ölçüsü / Inscribed Circle / *Kreisgröße*
M : Şekle Göre / Refer to Figure / *Siehe Abbildung*
S : Kalınlık / Thickness / Dicke

9 Kesme Kenar Uzunluğu / *Cutting Edge Length* *Schneidkantenlänge*



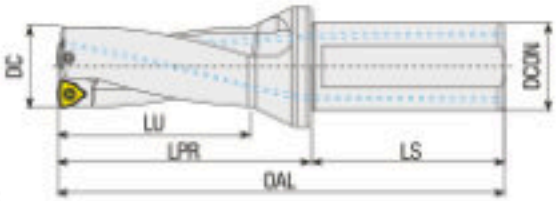
11 Köşe Konfigürasyonu / *Corner Radius* *Eckenradius*



01	r = 0. 1
02	r = 0. 2
04	r = 0. 4
08	r = 0. 8
12	r = 1. 2
16	r = 1. 6
24	r = 2. 4

BF SERVICE







Delme Derinliği = 2xÇap
Drilling Depth = 2xDiameter
Bohrtiefe = 2xDurchmesser

Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*							Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*	
		DC	DCON	DCSFMS	OAL	LU	LPR	LS		Sıkma Vidası *Screw* *Schraube* 	Torx Anahtar *Torx Key* *Torx-Schlüssel* 
ATUM 16XD2 WCM. 030208	•	16	25	34	110	32	54	56			
ATUM 16.5XD2 WCM. 030208	•	16.5	25	34	110	32	54	56			
ATUM 17XD2 WCM. 030208	•	17	25	34	112	34	56	56			
ATUM 17.5XD2 WCM 030208	•	17.5	25	34	112	34	56	56			
ATUM 18XD2 WCM. 030208	•	18	25	34	114	36	58	56	WCM. 030208		
ATUM 18.5XD2 WCM. 030208	•	18.5	25	34	114	36	58	56			
ATUM 19XD2 WCM. 030208	•	19	25	34	116	38	60	56			
ATUM 19.5XD2 WCM. 030208	•	19.5	25	34	116	38	60	56		3008-M2.5x6	80-T08
ATUM 20XD2 WCM. 040208	•	20	25	34	118	40	62	56			
ATUM 20.5XD2 WCM. 040208	•	20.5	25	34	118	40	62	56			
ATUM 21XD2 WCM. 040208	•	21	25	34	120	42	64	56			
ATUM 21.5XD2 WCM. 040208	•	21.5	25	34	120	42	64	56	WCM. 040208		
ATUM 22XD2 WCM. 040208	•	22	25	34	122	44	66	56			
ATUM 22.5XD2 WCM. 040208	•	22.5	25	34	122	44	66	56			
ATUM 23XD2 WCM. 040208	•	23	25	34	124	46	68	56			
ATUM 23.5XD2 WCM. 040208	•	23.5	25	34	124	46	68	56			
ATUM 24XD2 WCM. 050308	•	24	25	34	126	48	70	56			
ATUM 24.5XD2 WCM. 050308	•	24.5	25	34	126	48	70	56			
ATUM 25XD2 WCM. 050308	•	25	25	34	128	50	72	56			
ATUM 25.5XD2 WCM. 050308	•	25.5	25	34	128	50	72	56			
ATUM 26XD2 WCM. 050308	•	26	25	34	130	52	74	56			
ATUM 26.5XD2 WCM. 050308	•	26.5	25	34	130	52	74	56			
ATUM 27XD2 WCM. 050308	•	27	25	34	132	54	76	56	WCM. 050308	3008-M3x8	
ATUM 27.5XD2 WCM. 050308	•	27.5	25	34	132	54	76	56			
ATUM 28XD2 WCM. 050308	•	28	25	34	134	56	78	56			
ATUM 28.5XD2 WCM. 050308	•	28.5	25	34	134	56	78	56			
ATUM 29XD2 WCM. 050308	•	29	25	34	136	58	80	56			
ATUM 29.5XD2 WCM. 050308	•	29.5	25	34	136	58	80	56			

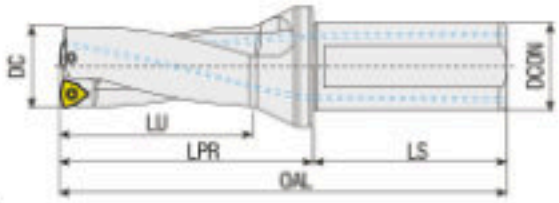
R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
• Stokta / In Stock / *Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
ISO Ucuna Uygundur. / Compatible with ISO Insert. / Kompatibel mit ISO Wendeplatten.

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück ATUM 16xD2 WCM. 030208
Takma Uçlu Matkap Kullanım Kılavuzu : S 329 / *User's Guide For U-Drills : P 329*
S.330 / Bedienungsanleitung für Vollbohrer

VEDERE INSERTI A PAG 72

BF SERVICE







Delme Derinliği = 2xÇap
Drilling Depth = *2xDiameter*
Bohrtiefe = *2x Durchmesser*

Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*							Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*	
		DC	DCON	DCSFMS	OAL	LU	LPR	LS		Sıkma Vidası *Screw* *Schraube* 	Torx Anahtar *Torx Key* *Torx-Schlüssel* 
ATUM 30XD2 WCM. 06T308	●	30	32	44	147	60	87	60			
ATUM 31XD2 WCM. 06T308	●	31	32	44	149	62	89	60			
ATUM 32XD2 WCM. 06T308	●	32	32	44	151	64	91	60			
ATUM 33XD2 WCM. 06T308	●	33	32	44	153	66	93	60			
ATUM 34XD2 WCM. 06T308	●	34	32	44	155	68	95	60			
ATUM 35XD2 WCM. 06T308	●	35	32	44	157	70	97	60			
ATUM 36XD2 WCM. 06T308	●	36	32	44	159	72	99	60			
ATUM 37XD2 WCM. 06T308	●	37	32	44	161	74	101	60			
ATUM 38XD2 WCM. 06T308	●	38	32	44	163	76	103	60	**WCM. 06T308**	3010-M3.5x9	80-T10
ATUM 39XD2 WCM. 06T308	●	39	32	44	165	78	105	60			
ATUM 40XD2 WCM. 06T308	●	40	32	44	167	80	107	60			
ATUM 41XD2 WCM. 06T308	●	41	32	44	169	82	109	60			
ATUM 42XD2 WCM. 06T308	●	42	32	44	171	84	111	60			
ATUM 43XD2 WCM. 06T308	●	43	32	44	173	86	113	60			
ATUM 44XD2 WCM. 06T308	●	44	32	44	175	88	115	60			
ATUM 45XD2 WCM. 080412	●	45	40	54	192	90	122	70			
ATUM 46XD2 WCM. 080412	●	46	40	54	194	92	124	70			
ATUM 47XD2 WCM. 080412	●	47	40	54	196	94	126	70			
ATUM 48XD2 WCM. 080412	●	48	40	54	198	96	128	70			
ATUM 49XD2 WCM. 080412	●	49	40	54	200	98	130	70			
ATUM 50XD2 WCM. 080412	●	50	40	54	202	100	132	70			
ATUM 51XD2 WCM. 080412	●	51	40	54	204	102	134	70			
ATUM 52XD2 WCM. 080412	●	52	40	54	206	104	136	70			
ATUM 53XD2 WCM. 080412	●	53	40	54	208	106	138	70	**WCM. 080412**	4015-M4x11	80-T15
ATUM 54XD2 WCM. 080412	●	54	40	54	210	108	140	70			
ATUM 55XD2 WCM. 080412	●	55	40	54	212	110	142	70			
ATUM 56XD2 WCM. 080412	●	56	40	64	214	112	144	70			
ATUM 57XD2 WCM. 080412	●	57	40	64	216	114	146	70			
ATUM 58XD2 WCM. 080412	●	58	40	64	218	116	148	70			
ATUM 59XD2 WCM. 080412	●	59	40	64	220	118	150	70			
ATUM 60XD2 WCM. 080412	●	60	40	64	222	120	152	70			

R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
ISO Uyumlu Uygundur. / Compatible with ISO Insert. / Kompatibel mit ISO Wendeplatten.

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück ATUM 30xD2 WCM. 06T308

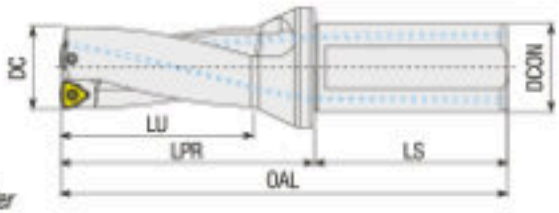
Takma Uçlu Matkap Kullanım Kılavuzu : S 329 / *User's Guide For U-Drills : P 329* / *S.330 / Bedienungsanleitung für Vollbohrer*

BF SERVICE

VEDERE INSERTI A PAG 72



Delme Derinliği = 3xÇap
Drilling Depth = 3xDiameter
Bohrtiefe = 3xDurchmesser





Takım Kodu Ordering Code Bestell-Bezeichnung	Stok Stock Lager	Takım Ölçüleri (mm) Dimension (mm) Abmessung (mm)							Kesici Uç Insert Wendeschneidplatte	Yedek Parçaları / Spare Parts / Ersatzteile Sıkma Vidası Screw Schraube	 Torx Anahtar Torx Key Torx-Schlüssel
		DC	DCON	DCSFMS	OAL	LU	LPR	LS			
ATUM 16XD3 WCM. 030208	●	16	25	34	126	48	70	56			
ATUM 16.5XD3 WCM. 030208	●	16.5	25	34	126	48	70	56			
ATUM 17XD3 WCM. 030208	●	17	25	34	129	51	73	56			
ATUM 17.5XD3 WCM. 030208	●	17.5	25	34	129	51	73	56			
ATUM 18XD3 WCM. 030208	●	18	25	34	132	54	76	56	WCM. 030208		
ATUM 18.5XD3 WCM. 030208	●	18.5	25	34	132	54	76	56			
ATUM 19XD3 WCM. 030208	●	19	25	34	135	57	79	56			
ATUM 19.5XD3 WCM. 030208	●	19.5	25	34	135	57	79	56		3008-M2.5x6	80-T08
ATUM 20XD3 WCM. 040208	●	20	25	34	138	60	82	56			
ATUM 20.5XD3 WCM. 040208	●	20.5	25	34	138	60	82	56			
ATUM 21XD3 WCM. 040208	●	21	25	34	141	63	85	56			
ATUM 21.5XD3 WCM. 040208	●	21.5	25	34	141	63	85	56	WCM. 040208		
ATUM 22XD3 WCM. 040208	●	22	25	34	144	66	88	56			
ATUM 22.5XD3 WCM. 040208	●	22.5	25	34	144	66	88	56			
ATUM 23XD3 WCM. 040208	●	23	25	34	147	69	91	56			
ATUM 23.5XD3 WCM. 040208	●	23.5	25	34	147	69	91	56			
ATUM 24XD3 WCM. 050308	●	24	25	34	150	72	94	56			
ATUM 24.5XD3 WCM. 050308	●	24.5	25	34	150	72	94	56			
ATUM 25XD3 WCM. 050308	●	25	25	34	153	75	97	56			
ATUM 25.5XD3 WCM. 050308	●	25.5	25	34	153	75	97	56			
ATUM 26XD3 WCM. 050308	●	26	25	34	156	78	100	56			
ATUM 26.5XD3 WCM. 050308	●	26.5	25	34	156	78	100	56			
ATUM 27XD3 WCM. 050308	●	27	25	34	159	81	103	56	WCM. 050308	3008-M3x8	
ATUM 27.5XD3 WCM. 050308	●	27.5	25	34	159	81	103	56			
ATUM 28XD3 WCM. 050308	●	28	25	34	162	84	106	56			
ATUM 28.5XD3 WCM. 050308	●	28.5	25	34	162	84	106	56			
ATUM 29XD3 WCM. 050308	●	29	25	34	165	87	109	56			
ATUM 29.5XD3 WCM. 050308	●	29.5	25	34	165	87	109	56			
ATUM 30XD3 WCM. 06T308	●	30	32	44	177	90	117	60			
ATUM 30.5XD3 WCM. 06T308	●	30.5	32	44	177	90	117	60			
ATUM 31XD3 WCM. 06T308	●	31	32	44	180	93	120	60			
ATUM 31.5XD3 WCM. 06T308	●	31.5	32	44	180	93	120	60			
ATUM 32XD3 WCM. 06T308	●	32	32	44	183	96	123	60			
ATUM 32.5XD3 WCM. 06T308	●	32.5	32	44	183	96	123	60	WCM. 06T308	3010-M3.5x9	80-T10
ATUM 33XD3 WCM. 06T308	●	33	32	44	186	99	126	60			
ATUM 33.5XD3 WCM. 06T308	●	33.5	32	44	186	99	126	60			
ATUM 34XD3 WCM. 06T308	●	34	32	44	189	102	129	60			
ATUM 34.5XD3 WCM. 06T308	●	34.5	32	44	189	102	129	60			

R: Sağ / Right / Rechts L: Sol/Left/Links
● Stokta / In Stock / Auf Lager ○ Stokta Yok / Non Stock Item / Kein Lagerartikel, Lieferzeit auf Anfrage
ISO Ucuna Uygundur. / Compatiple with ISO Insert. / Kompatibel mit ISO Wendeplatten.

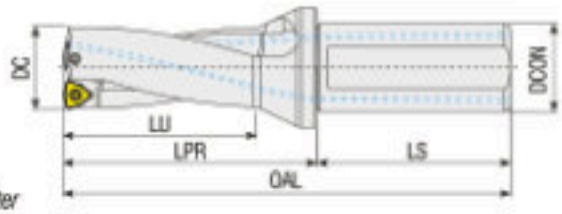
Sipariş Örneği/Ordering Example/Bestellbeispiel
1 ad./pcs./stück ATUM 16xD3 WCM. 030208

Takma Uçlu Matkap Kullanım Kılavuzu : S 329 / User's Guide For U-Drills : P 329
S.330 / Bedienungsanleitung für Vollbohrer

VEDERE INSERTI A PAG 72

BF SERVICE







Delme Derinliği = 3xÇap
Drilling Depth = 3xDiameter
Bohrtiefe = 3x Durchmesser

Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*							Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*	
		DC	DCON	DCSFMS	OAL	LU	LPR	LS		Sıkma Vidası *Screw* *Schraube* 	Torx Anahtar *Torx Key* *Torx-Schlüssel* 
ATUM 35XD3 WCM. 06T308	●	35	32	44	192	105	132	60			
ATUM 35.5XD3 WCM. 06T308	●	35.5	32	44	192	105	132	60			
ATUM 36XD3 WCM. 06T308	●	36	32	44	195	108	135	60			
ATUM 36.5XD3 WCM. 06T308	●	36.5	32	44	195	108	135	60			
ATUM 37XD3 WCM. 06T308	●	37	32	44	198	111	138	60			
ATUM 37.5XD3 WCM. 06T308	●	37.5	32	44	198	111	138	60			
ATUM 38XD3 WCM. 06T308	●	38	32	44	201	114	141	60			
ATUM 38.5XD3 WCM. 06T308	●	38.5	32	44	201	114	141	60			
ATUM 39XD3 WCM. 06T308	●	39	32	44	204	117	144	60			
ATUM 39.5XD3 WCM. 06T308	●	39.5	32	44	204	117	144	60	**WCM. 06T308**	3010-M3.5x9	80-T10
ATUM 40XD3 WCM. 06T308	●	40	32	44	207	120	147	60			
ATUM 40.5XD3 WCM. 06T308	●	40.5	32	44	207	120	147	60			
ATUM 41XD3 WCM. 06T308	●	41	32	44	210	123	150	60			
ATUM 41.5XD3 WCM. 06T308	●	41.5	32	44	210	123	150	60			
ATUM 42XD3 WCM. 06T308	●	42	32	44	213	126	153	60			
ATUM 42.5XD3 WCM. 06T308	●	42.5	32	44	213	126	153	60			
ATUM 43XD3 WCM. 06T308	●	43	32	44	216	129	156	60			
ATUM 43.5XD3 WCM. 06T308	●	43.5	32	44	216	129	156	60			
ATUM 44XD3 WCM. 06T308	●	44	32	44	219	132	159	60			
ATUM 44.5XD3 WCM. 06T308	●	44.5	32	44	219	132	159	60			
ATUM 45XD3 WCM. 080412	●	45	40	54	237	135	167	70			
ATUM 45.5XD3 WCM. 080412	●	45.5	40	54	237	135	167	70			
ATUM 46XD3 WCM. 080412	●	46	40	54	240	138	170	70			
ATUM 47XD3 WCM. 080412	●	47	40	54	243	141	173	70			
ATUM 48XD3 WCM. 080412	●	48	40	54	246	144	176	70			
ATUM 49XD3 WCM. 080412	●	49	40	54	249	147	179	70			
ATUM 50XD3 WCM. 080412	●	50	40	54	252	150	182	70			
ATUM 51XD3 WCM. 080412	●	51	40	54	255	153	185	70			
ATUM 52XD3 WCM. 080412	●	52	40	54	258	156	188	70	**WCM. 080412**	4015-M4x11	80-T15
ATUM 53XD3 WCM. 080412	●	53	40	54	261	159	191	70			
ATUM 54XD3 WCM. 080412	●	54	40	54	264	162	194	70			
ATUM 55XD3 WCM. 080412	●	55	40	54	267	165	197	70			
ATUM 56XD3 WCM. 080412	●	56	40	64	270	168	200	70			
ATUM 57XD3 WCM. 080412	●	57	40	64	273	171	203	70			
ATUM 58XD3 WCM. 080412	●	58	40	64	276	174	206	70			
ATUM 59XD3 WCM. 080412	●	59	40	64	279	177	209	70			
ATUM 60XD3 WCM. 080412	●	60	40	64	282	180	212	70			

R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock / *Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
ISO Uyumlu Uygundur. / Compatible with ISO Insert. / Kompatibel mit ISO Wendeplatten.

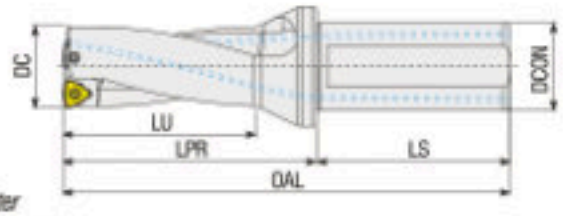
Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück ATUM 35xD3 WCM. 06T308

Takma Uçlu Matkap Kullanım Kılavuzu : S 329 / *User's Guide For U-Drills : P 329*
S.330 / Bedienungsanleitung für Vollbohrer

BF SERVICE

VEDERE INSERTI A PAG 72







Delme Derinliği = 4xÇap
Drilling Depth = *4xDiameter*
Bohrtiefe = *4x Durchmesser*

Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*							Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*	
		DC	DCON	DCSFMS	OAL	LU	LPR	LS		Sıkma Vidası *Screw* *Schraube* 	Torx Anahtar *Torx Key* *Torx-Schlüssel* 
ATUM 16XD4 WCM. 030208	●	16	25	34	142	64	86	56	WCM. 030208		
ATUM 16.5XD4 WCM. 030208	○	16.5	25	34	142	64	86	56			
ATUM 17XD4 WCM. 030208	●	17	25	34	146	68	90	56			
ATUM 17.5XD4 WCM. 030208	●	17.5	25	34	146	68	90	56			
ATUM 18XD4 WCM. 030208	●	18	25	34	150	72	94	56			
ATUM 18.5XD4 WCM. 030208	○	18.5	25	34	150	72	94	56			
ATUM 19XD4 WCM. 030208	●	19	25	34	154	76	98	56			
ATUM 19.5XD4 WCM. 030208	○	19.5	25	34	154	76	98	56			
ATUM 20XD4 WCM. 040208	●	20	25	34	158	80	102	56			
ATUM 20.5XD4 WCM. 040208	○	20.5	25	34	158	80	102	56			
ATUM 21XD4 WCM. 040208	●	21	25	34	162	84	106	56			
ATUM 21.5XD4 WCM. 040208	○	21.5	25	34	162	84	106	56	WCM. 040208	3008-M2.5x6	80-T08
ATUM 22XD4 WCM. 040208	●	22	25	34	166	88	110	56			
ATUM 22.5XD4 WCM. 040208	●	22.5	25	34	166	88	110	56			
ATUM 23XD4 WCM. 040208	●	23	25	34	170	92	114	56			
ATUM 23.5XD4 WCM. 040208	○	23.5	25	34	170	92	114	56			
ATUM 24XD4 WCM. 050308	●	24	25	34	174	96	118	56			
ATUM 24.5XD4 WCM. 050308	○	24.5	25	34	174	96	118	56			
ATUM 25XD4 WCM. 050308	●	25	25	34	178	100	122	56			
ATUM 25.5XD4 WCM. 050308	○	25.5	25	34	178	100	122	56			
ATUM 26XD4 WCM. 050308	●	26	25	34	182	104	126	56			
ATUM 26.5XD4 WCM. 050308	●	26.5	25	34	182	104	126	56			
ATUM 27XD4 WCM. 050308	●	27	25	34	186	108	130	56	WCM. 050308	3008-M3x8	
ATUM 27.5XD4 WCM. 050308	○	27.5	25	34	186	108	130	56			
ATUM 28XD4 WCM. 050308	●	28	25	34	190	112	134	56			
ATUM 28.5XD4 WCM. 050308	●	28.5	25	34	190	112	134	56			
ATUM 29XD4 WCM. 050308	●	29	25	34	194	116	138	56			
ATUM 29.5XD4 WCM. 050308	○	29.5	25	34	194	116	138	56			

R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock / *Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
ISO Ucuna Uygundur. / Compatible with ISO Insert. / Kompatibel mit ISO Wendeplatten.

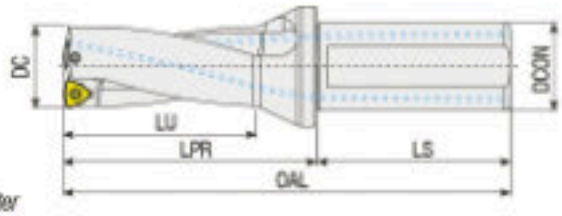
Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück ATUM 16xD4 WCM. 030208

Takma Uçlu Matkap Kullanım Kılavuzu : S 329 / *User's Guide For U-Drills : P 329*
S.330 / Bedienungsanleitung für Vollbohrer

VEDERE INSERTI A PAG 72

BF SERVICE







Delme Derinliği = 4xÇap
Drilling Depth = *4xDiameter*
Bohrtiefe = *4x Durchmesser*

Takım Kodu / Ordering Code / Bestell-Bezeichnung	Stok / Stock / Lager	Takım Ölçüleri (mm) / Dimension (mm) / Abmessung (mm)							Kesici Uç / Insert / Wendeschneidplatte	Yedek Parçaların / Spare Parts / Ersatzteile: Sıkma Vidası / Screw / Schraube	Yedek Parçaların / Spare Parts / Ersatzteile: Torx Anahtar / Torx Key / Torx-Schlüssel
		DC	DCON	DCSFMS	OAL	LU	LPR	LS			
ATUM 30XD4 WCM. 06T308	●	30	32	44	207	120	147	60	WCM. 06T308	3010-M3.5x9	80-T10
ATUM 31XD4 WCM. 06T308	●	31	32	44	211	124	151	60			
ATUM 32XD4 WCM. 06T308	●	32	32	44	215	128	155	60			
ATUM 33XD4 WCM. 06T308	●	33	32	44	219	132	159	60			
ATUM 33.5XD4 WCM. 06T308	●	33.5	32	44	219	132	159	60			
ATUM 34XD4 WCM. 06T308	●	34	32	44	223	136	163	60			
ATUM 35XD4 WCM. 06T308	●	35	32	44	227	140	167	60			
ATUM 36XD4 WCM. 06T308	●	36	32	44	231	144	171	60			
ATUM 37XD4 WCM. 06T308	●	37	32	44	235	148	175	60			
ATUM 38XD4 WCM. 06T308	●	38	32	44	239	152	179	60			
ATUM 38.5XD4 WCM. 06T308	●	38.5	32	44	239	152	179	60			
ATUM 39XD4 WCM. 06T308	●	39	32	44	243	156	183	60			
ATUM 40XD4 WCM. 06T308	●	40	32	44	247	160	187	60			
ATUM 41XD4 WCM. 06T308	●	41	32	44	251	164	191	60			
ATUM 42XD4 WCM. 06T308	●	42	32	44	255	168	195	60			
ATUM 43XD4 WCM. 06T308	●	43	32	44	259	172	199	60			
ATUM 44XD4 WCM. 06T308	●	44	32	44	263	176	203	60			
ATUM 45XD4 WCM. 080412	●	45	40	54	282	180	212	70	WCM. 080412	4015-M4x11	80-T15
ATUM 46XD4 WCM. 080412	●	46	40	54	286	184	216	70			
ATUM 47XD4 WCM. 080412	●	47	40	54	290	188	220	70			
ATUM 48XD4 WCM. 080412	●	48	40	54	294	192	224	70			
ATUM 49XD4 WCM. 080412	●	49	40	54	298	196	228	70			
ATUM 50XD4 WCM. 080412	●	50	40	54	302	200	232	70			

R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
ISO Uyumlu Uygundur. / Compatiple with ISO Insert. / Kompatibel mit ISO Wendeplatten.

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück ATUM 30xD4 WCM. 06T308
Takma Uçlu Matkap Kullanım Kılavuzu : S 329 / *User's Guide For U-Drills : P 329*
S.330 / Bedienungsanleitung für Vollbohrer

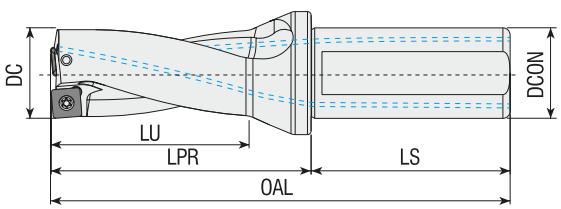
VEDERE INSERTI A PAG 72

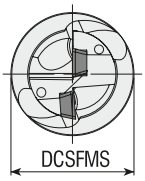


BF SERVICE



Delme Derinliği = 2xÇap
Drilling Depth = *2xDiameter*
Bohrtiefe = *2xDurchmesser*





Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*							Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile* Sıkma Vidası *Screw* *Schraube*	Tork Anahtar *Torx Key* *Torx-Schlüssel*
		DC	DCON	DCSFMS	OAL	LU	LPR	LS			
ATUM 12.5XD2 SP.. 050204	●	12.5	20	25	96	24	46	50			
ATUM 13XD2 SP.. 050204	●	13	20	25	98	26	48	50			
ATUM 13.5XD2 SP.. 050204	●	13.5	20	25	98	26	48	50			
ATUM 14XD2 SP.. 050204	●	14	20	25	100	28	50	50	**SP.. 050204**	3006-M2x4	80-T06
ATUM 14.5XD2 SP.. 050204	●	14.5	20	25	100	28	50	50			
ATUM 15XD2 SP.. 050204	●	15	20	25	102	30	52	50			
ATUM 15.5XD2 SP.. 060204	●	15.5	20	25	102	30	52	50			
ATUM 16XD2 SP.. 060204	●	16	25	34	110	32	54	56			
ATUM 16.5XD2 SP.. 060204	●	16.5	25	34	110	32	54	56			
ATUM 17XD2 SP.. 060204	●	17	25	34	112	34	56	56			
ATUM 17.5XD2 SP.. 060204	●	17.5	25	34	112	34	56	56			
ATUM 18XD2 SP.. 060204	●	18	25	34	114	36	58	56			
ATUM 18.5XD2 SP.. 060204	●	18.5	25	34	114	36	58	56			
ATUM 19XD2 SP.. 060204	●	19	25	34	116	38	60	56	**SP.. 060204**	3007-M2.2x5	80-T07
ATUM 19.5XD2 SP.. 060204	●	19.5	25	34	116	38	60	56			
ATUM 20XD2 SP.. 060204	●	20	25	34	118	40	62	56			
ATUM 20.5XD2 SP.. 060204	●	20.5	25	34	118	40	62	56			
ATUM 21XD2 SP.. 060204	●	21	25	34	120	42	64	56			
ATUM 21.5XD2 SP.. 060204	●	21.5	25	34	120	42	64	56			
ATUM 22XD2 SP.. 07T308	●	22	25	34	122	44	66	56			
ATUM 22.5XD2 SP.. 07T308	●	22.5	25	34	122	44	66	56			
ATUM 23XD2 SP.. 07T308	●	23	25	34	124	46	68	56			
ATUM 23.5XD2 SP.. 07T308	●	23.5	25	34	124	46	68	56			
ATUM 24XD2 SP.. 07T308	●	24	25	34	126	48	70	56			
ATUM 24.5XD2 SP.. 07T308	●	24.5	25	34	126	48	70	56			
ATUM 25XD2 SP.. 07T308	●	25	25	34	128	50	72	56			
ATUM 25.5XD2 SP.. 07T308	●	25.5	25	34	128	50	72	56	**SP.. 07T308**	3008-M2.5x6	80-T08
ATUM 26XD2 SP.. 07T308	●	26	25	34	130	52	74	56			
ATUM 26.5XD2 SP.. 07T308	●	26.5	25	34	130	52	74	56			
ATUM 27XD2 SP.. 07T308	●	27	25	34	132	54	76	56			
ATUM 27.5XD2 SP.. 07T308	●	27.5	25	34	132	54	76	56			

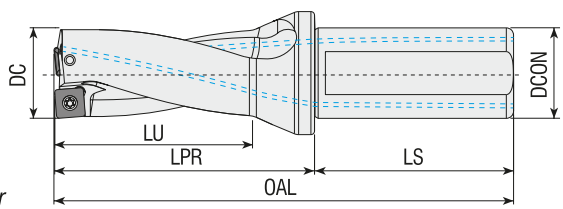
R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock / *Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
TGTC Ucuna Uygundur. / Compatiple with TGTC Insert. / Kompatibel mit TGTC Wendeplatten.

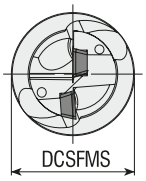
Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück ATUM 12.5xD2 SP. 050204
Takma Uçlu Matkap Kullanım Kılavuzu : S 329 / *User's Guide For U-Drills : P 329*
S.330 / Bedienungsanleitung für Vollbohrer

BF SERVICE



Delme Derinliği = 2xÇap
Drilling Depth = *2xDiameter*
Bohrtiefe = *2x Durchmesser*





Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*							Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*	
		DC	DCON	DCSFMS	OAL	LU	LPR	LS		Sıkma Vidası *Screw* *Schraube* 	Tork Anahtar *Torx Key* *Torx-Schlüssel* 
ATUM 28XD2 SP.. 090408	●	28	25	34	134	56	78	56			
ATUM 28.5XD2 SP.. 090408	●	28.5	25	34	134	56	78	56			
ATUM 29XD2 SP.. 090408	●	29	25	34	136	58	80	56			
ATUM 29.5XD2 SP.. 090408	●	29.5	25	34	136	58	80	56	**SP.. 090408**	4015-M3.5x9	80-T15
ATUM 30XD2 SP.. 090408	●	30	32	44	147	60	87	60			
ATUM 31XD2 SP.. 090408	●	31	32	44	149	62	89	60			
ATUM 32XD2 SP.. 090408	●	32	32	44	151	64	91	60			
ATUM 33XD2 SP.. 090408	●	33	32	44	153	66	93	60			
ATUM 34XD2 SP.. 110408	●	34	32	44	155	68	95	60			
ATUM 35XD2 SP.. 110408	●	35	32	44	157	70	97	60			
ATUM 36XD2 SP.. 110408	●	36	32	44	159	72	99	60			
ATUM 37XD2 SP.. 110408	●	37	32	44	161	74	101	60	**SP.. 110408**	4015-M4x11	80-T15
ATUM 38XD2 SP.. 110408	●	38	32	44	163	76	103	60			
ATUM 39XD2 SP.. 110408	●	39	32	44	165	78	105	60			
ATUM 40XD2 SP.. 110408	●	40	32	44	167	80	107	60			
ATUM 41XD2 SP.. 110408	●	41	32	44	169	82	109	60			
ATUM 42XD2 SP.. 140512	●	42	32	44	171	84	111	60			
ATUM 43XD2 SP.. 140512	●	43	32	44	173	86	113	60			
ATUM 44XD2 SP.. 140512	●	44	32	44	175	88	115	60			
ATUM 45XD2 SP.. 140512	●	45	40	54	192	90	122	70			
ATUM 46XD2 SP.. 140512	●	46	40	54	194	92	124	70	**SP.. 140512**	1020-M5x11	80-T20
ATUM 47XD2 SP.. 140512	●	47	40	54	196	94	126	70			
ATUM 48XD2 SP.. 140512	●	48	40	54	198	96	128	70			
ATUM 49XD2 SP.. 140512	●	49	40	54	200	98	130	70			
ATUM 50XD2 SP.. 140512	●	50	40	54	202	100	132	70			

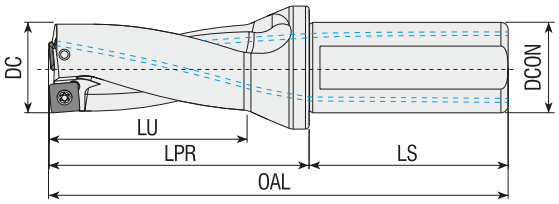
R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock / *Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
TGTC Ucuna Uygundur. / Compatiple with TGTC Insert. / Kompatibel mit TGTC Wendeplatten.

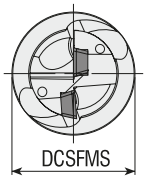
Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück ATUM 28xD2 SP. 090408
Takma Uçlu Matkap Kullanım Kılavuzu : S 329 / *User's Guide For U-Drills : P 329*
S.330 / Bedienungsanleitung für Vollbohrer

BF SERVICE



Delme Derinliği = 3xÇap
Drilling Depth = 3xDiameter
Bohrtiefe = 3x Durchmesser





Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*							Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile* Sıkma Vidası *Screw* *Schraube*	Tork Anahtar *Torx Key* *Torx-Schlüssel*
		DC	DCON	DCSFMS	OAL	LU	LPR	LS			
ATUM 12.5XD3 SP.. 050204	●	12.5	20	25	108	36	58	50	SP.. 050204	3006-M2x4	80-T06
ATUM 13XD3 SP.. 050204	●	13	20	25	111	39	61	50			
ATUM 13.5XD3 SP.. 050204	●	13.5	20	25	111	39	61	50			
ATUM 14XD3 SP.. 050204	●	14	20	25	114	42	64	50			
ATUM 14.5XD3 SP.. 050204	●	14.5	20	25	114	42	64	50			
ATUM 15XD3 SP.. 050204	●	15	20	25	117	45	67	50			
ATUM 15.5XD3 SP.. 060204	●	15.5	20	25	117	45	67	50	SP.. 060204	3007-M2.2x5	80-T07
ATUM 16XD3 SP.. 060204	●	16	25	34	126	48	70	56			
ATUM 16.5XD3 SP.. 060204	●	16.5	25	34	126	48	70	56			
ATUM 17XD3 SP.. 060204	●	17	25	34	129	51	73	56			
ATUM 17.5XD3 SP.. 060204	●	17.5	25	34	129	51	73	56			
ATUM 18XD3 SP.. 060204	●	18	25	34	132	54	76	56			
ATUM 18.5XD3 SP.. 060204	●	18.5	25	34	132	54	76	56			
ATUM 19xD3 SP.. 060204	●	19	25	34	135	57	79	56			
ATUM 19.5XD3 SP.. 060204	●	19.5	25	34	135	57	79	56			
ATUM 20XD3 SP.. 060204	●	20	25	34	138	60	82	56			
ATUM 20.5XD3 SP.. 060204	●	20.5	25	34	138	60	82	56			
ATUM 21XD3 SP.. 060204	●	21	25	34	141	63	85	56			
ATUM 21.5XD3 SP.. 060204	●	21.5	25	34	141	63	85	56			
ATUM 22XD3 SP.. 07T308	●	22	25	34	144	66	88	56	SP.. 07T308	3008-M2.5x6	80-T08
ATUM 22.5XD3 SP.. 07T308	●	22.5	25	34	144	66	88	56			
ATUM 23XD3 SP.. 07T308	●	23	25	34	147	69	91	56			
ATUM 23.5XD3 SP.. 07T308	●	23.5	25	34	147	69	91	56			
ATUM 24XD3 SP.. 07T308	●	24	25	34	150	72	94	56			
ATUM 24.5XD3 SP.. 07T308	●	24.5	25	34	150	72	94	56			
ATUM 25XD3 SP.. 07T308	●	25	25	34	153	75	97	56			
ATUM 25.5XD3 SP.. 07T308	●	25.5	25	34	153	75	97	56			
ATUM 26XD3 SP.. 07T308	●	26	25	34	156	78	100	56			
ATUM 26.5XD3 SP.. 07T308	●	26.5	25	34	156	78	100	56			
ATUM 27XD3 SP.. 07T308	●	27	25	34	159	81	103	56			
ATUM 27.5XD3 SP.. 07T308	●	27.5	25	34	159	81	103	56			
ATUM 28XD3 SP.. 090408	●	28	25	34	162	84	106	56	SP.. 090408	4015-M3.5x9	80-T15
ATUM 28.5XD3 SP.. 090408	●	28.5	25	34	162	84	106	56			
ATUM 29XD3 SP.. 090408	●	29	25	34	165	87	109	56			
ATUM 29.5XD3 SP.. 090408	●	29.5	25	34	165	87	109	56			
ATUM 30XD3 SP.. 090408	●	30	32	44	177	90	117	60			
ATUM 30.5XD3 SP.. 090408	●	30.5	32	44	177	90	117	60			
ATUM 31XD3 SP.. 090408	●	31	32	44	180	93	120	60			
ATUM 31.5XD3 SP.. 090408	●	31.5	32	44	180	93	120	60			
ATUM 32XD3 SP.. 090408	●	32	32	44	183	96	123	60			
ATUM 32.5XD3 SP.. 090408	●	32.5	32	44	183	96	123	60			
ATUM 33XD3 SP.. 090408	●	33	32	44	186	99	126	60			
ATUM 33.5XD3 SP.. 090408	●	33.5	32	44	186	99	126	60			

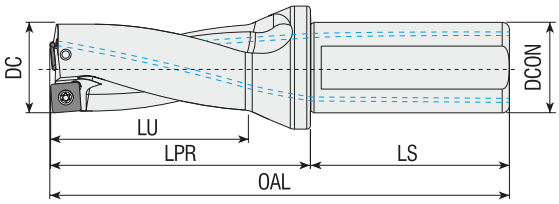
R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
TGTC Ucuna Uygundur. / Compatiple with TGTC Insert. / Kompatibel mit TGTC Wendeplatten.

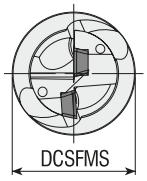
Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück ATUM 12.5xD3 SP.. 050204

Takma Uçlu Matkap Kullanım Kılavuzu : S 329 / *User's Guide For U-Drills : P 329*
S.330 / Bedienungsanleitung für Vollbohrer

BF SERVICE







Delme Derinliği = 3xÇap
Drilling Depth = 3xDiameter
Bohrtiefe = 3x Durchmesser

Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*							Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*	
		DC	DCON	DCSFMS	OAL	LU	LPR	LS		Sıkma Vidası *Screw* *Schraube* 	Tork Anahtar *Torx Key* *Torx-Schlüssel* 
ATUM 34XD3 SP.. 110408	●	34	32	44	189	102	129	60	SP.. 110408	4015-M4x11	80-T15
ATUM 34.5XD3 SP.. 110408	●	34.5	32	44	189	102	129	60			
ATUM 35XD3 SP.. 110408	●	35	32	44	192	105	132	60			
ATUM 35.5XD3 SP.. 110408	●	35.5	32	44	192	105	132	60			
ATUM 36XD3 SP.. 110408	●	36	32	44	195	108	135	60			
ATUM 36.5XD3 SP.. 110408	●	36.5	32	44	195	108	135	60			
ATUM 37XD3 SP.. 110408	●	37	32	44	198	111	138	60			
ATUM 37.5XD3 SP.. 110408	●	37.5	32	44	198	111	138	60			
ATUM 38XD3 SP.. 110408	●	38	32	44	201	114	141	60			
ATUM 38.5XD3 SP.. 110408	●	38.5	32	44	201	114	141	60			
ATUM 39XD3 SP.. 110408	●	39	32	44	204	117	144	60			
ATUM 39.5XD3 SP.. 110408	●	39.5	32	44	204	117	144	60			
ATUM 40XD3 SP.. 110408	●	40	32	44	207	120	147	60			
ATUM 40.5XD3 SP.. 110408	●	40.5	32	44	207	120	147	60			
ATUM 41XD3 SP.. 110408	●	41	32	44	210	123	150	60			
ATUM 41.5XD3 SP.. 110408	●	41.5	32	44	210	123	150	60			
ATUM 42XD3 SP.. 140512	●	42	32	44	213	126	153	60	SP.. 140512	1020-M5x11	80-T20
ATUM 42.5XD3 SP.. 140512	●	42.5	32	44	213	126	153	60			
ATUM 43XD3 SP.. 140512	●	43	32	44	216	129	156	60			
ATUM 43.5XD3 SP.. 140512	●	43.5	32	44	216	129	156	60			
ATUM 44XD3 SP.. 140512	●	44	32	44	219	132	159	60			
ATUM 44.5XD3 SP.. 140512	●	44.5	32	44	219	132	159	60			
ATUM 45XD3 SP.. 140512	●	45	40	54	237	135	167	70			
ATUM 45.5XD3 SP.. 140512	●	45.5	40	54	237	135	167	70			
ATUM 46XD3 SP.. 140512	●	46	40	54	240	138	170	70			
ATUM 47XD3 SP.. 140512	●	47	40	54	243	141	173	70			
ATUM 48XD3 SP.. 140512	●	48	40	54	246	144	176	70			
ATUM 49XD3 SP.. 140512	●	49	40	54	249	147	179	70			
ATUM 50XD3 SP.. 140512	●	50	40	54	252	150	182	70			
ATUM 51XD3 SP.. 140512	●	51	40	54	255	153	185	70			
ATUM 52XD3 SP.. 140512	●	52	40	54	258	156	188	70			

R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock / *Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
TGTC Ucuna Uygundur. / Compatiple with TGTC Insert. / Kompatibel mit TGTC Wendeplatten.

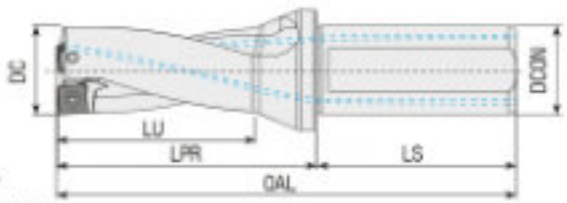
Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück ATUM 34xD3 SP.. 110408

Takma Uçlu Matkap Kullanım Kılavuzu : S 329 / *User's Guide For U-Drills : P 329*
S.330 / Bedienungsanleitung für Vollbohrer

BF SERVICE



Delme Derinliği = 4xÇap
Drilling Depth = 4xDiameter
Bohrtiefe = 4xDurchmesser





Takım Kodu / Ordering Code / Bestell-Bezeichnung	Stok / Stock / Lager	Takım Ölçüleri (mm) / Dimension (mm) / Abmessung (mm)							Kesici Uç / Insert / Wendeschneidplatte	Yedek Parçaları / Spare Parts / Ersatzteile: Sıkma Vidası / Screw / Schraube	Yedek Parçaları / Spare Parts / Ersatzteile: Tork Anahtar / Torx Key / Torx-Schlüssel
		DC	DCON	DCSFMS	OAL	LU	LPR	LS			
ATUM 13XD4 SP.. 050204	●	13	20	25	124	52	74	50	SP.. 050204	3006-M2x4	80-T06
ATUM 14XD4 SP.. 050204	●	14	20	25	128	56	78	50			
ATUM 15XD4 SP.. 050204	●	15	20	25	132	60	82	50			
ATUM 16XD4 SP.. 060204	●	16	25	34	142	64	86	56	SP.. 060204	3007-M2.2x5	80-T07
ATUM 17XD4 SP.. 060204	●	17	25	34	146	68	90	56			
ATUM 17.5XD4 SP.. 060204	●	17	25	34	146	68	90	56			
ATUM 18XD4 SP.. 060204	●	18	25	34	150	72	94	56			
ATUM 19XD4 SP.. 060204	●	19	25	34	154	76	98	56			
ATUM 19.5XD4 SP.. 060204	●	19.5	25	34	154	76	98	56			
ATUM 20XD4 SP.. 060204	●	20	25	34	158	80	102	56			
ATUM 21XD4 SP.. 060204	●	21	25	34	162	84	106	56			
ATUM 22XD4 SP.. 07T308	●	22	25	34	166	88	110	56	SP.. 07T308	3008-M2.5x6	80-T08
ATUM 23XD4 SP.. 07T308	●	23	25	34	170	92	114	56			
ATUM 23.5XD4 SP.. 07T308	●	23.5	25	34	170	92	114	56			
ATUM 24XD4 SP.. 07T308	●	24	25	34	174	96	118	56			
ATUM 25XD4 SP.. 07T308	●	25	25	34	178	100	122	56			
ATUM 26XD4 SP.. 07T308	●	26	25	34	182	104	126	56			
ATUM 27XD4 SP.. 07T308	●	27	25	34	186	108	130	56			
ATUM 27.5XD4 SP.. 07T308	●	27.5	25	34	186	108	130	56			
ATUM 28XD4 SP.. 090408	●	28	25	34	190	112	134	56	SP.. 090408	4015-M3.5x9	80-T15
ATUM 29XD4 SP.. 090408	●	29	25	34	194	116	138	56			
ATUM 30XD4 SP.. 090408	●	30	32	44	207	120	147	60			
ATUM 31XD4 SP.. 090408	●	31	32	44	211	124	151	60			
ATUM 32XD4 SP.. 090408	●	32	32	44	215	128	155	60			
ATUM 33XD4 SP.. 090408	●	33	32	44	219	132	159	60			
ATUM 33.5XD4 SP.. 090408	●	33.5	32	44	219	132	159	60			
ATUM 34XD4 SP.. 110408	●	34	32	44	223	136	163	60	SP.. 110408	4015-M4x11	80-T15
ATUM 35XD4 SP.. 110408	●	35	32	44	227	140	167	60			
ATUM 36XD4 SP.. 110408	●	36	32	44	231	144	171	60			
ATUM 37XD4 SP.. 110408	●	37	32	44	235	148	175	60			
ATUM 38XD4 SP.. 110408	●	38	32	44	239	152	179	60			
ATUM 39XD4 SP.. 110408	●	39	32	44	243	156	183	60			
ATUM 40XD4 SP.. 110408	●	40	32	44	247	160	187	60			
ATUM 41XD4 SP.. 110408	●	41	32	44	251	164	191	60			
ATUM 42XD4 SP.. 140512	●	42	32	44	255	168	195	60	SP.. 140512	1020-M5x11	80-T20
ATUM 43XD4 SP.. 140512	●	43	32	44	259	172	199	60			
ATUM 44XD4 SP.. 140512	●	44	32	44	263	176	203	60			

R: Sağ / Right / Rechts L: Sol/Left/Links
● Stokta / In Stock /Auf Lager ○ Stokta Yok / Non Stock Item / Kein Lagerartikel. Lieferzeit auf Anfrage
TGTC Ucuna Uygundur. / Compatible with TGTC Insert. / Kompatibel mit TGTC Wendeplatten

Sipariş Örneği/Ordering Example/Bestellbeispiel
1 ad./pcs./stück ATUM 13xD4 SP.. 050204

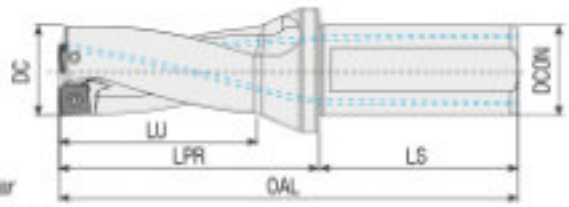
Takma Uçlu Matkap Kullanım Kılavuzu : S 329 / User's Guide For U-Drills : P 329
S 330 / Bedienungsanleitung für Vollbohrer

BF SERVICE



Delme Derinliği
Drilling Depth
Bohrtiefe

= 2xÇap
= 2xDiameter
= 2xDurchmesser





Takım Kodu Ordering Code Bestell-Bezeichnung	Stok Stock Lager	Takım Ölçüleri (mm) Dimension (mm) Abmessung (mm)							Kesici Uç Insert Wendeschneidplatte	Yedek Parçaları / Spare Parts / Ersatzteile Sıkma Vidası Screw Schraube	 Torx Anahtar Torx Key Torx-Schlüssel
		DC	DCON	DCSFMS	OAL	LU	LPR	LS			
ATUM 12.5XD2 SPGT 050204	●	12.5	20	25	96	24	46	50	SPGT 050204	3006-M2x4	80-T06
ATUM 13XD2 SPGT 050204	●	13	20	25	98	26	48	50			
ATUM 13.5XD2 SPGT 050204	●	13.5	20	25	98	26	48	50			
ATUM 14XD2 SPGT 050204	●	14	20	25	100	28	50	50			
ATUM 15XD2 SPGT 050204	●	15	20	25	102	30	52	50			
ATUM 16XD2 SPGT 060204	●	16	25	34	110	32	54	56	SPGT 060204	3007-M2.2x5	80-T07
ATUM 16.5XD2 SPGT 060204	●	16.5	25	34	110	32	54	56			
ATUM 17XD2 SPGT 060204	●	17	25	34	112	34	56	56			
ATUM 17.5XD2 SPGT 060204	●	17.5	25	34	112	34	56	56			
ATUM 18XD2 SPGT 060204	●	18	25	34	114	36	58	56			
ATUM 19XD2 SPGT 060204	●	19	25	34	116	38	60	56			
ATUM 20XD2 SPGT 060204	●	20	25	34	118	40	62	56			
ATUM 22XD2 SPGT 07T308	●	22	25	34	122	44	66	56	SPGT 07T308	3008-M2.5x6	80-T08
ATUM 22.5XD2 SPGT 07T308	●	22.5	25	34	122	44	66	56			
ATUM 23XD2 SPGT 07T308	●	23	25	34	124	46	68	56			
ATUM 24XD2 SPGT 07T308	●	24	25	34	126	48	70	56			
ATUM 25XD2 SPGT 07T308	●	25	25	34	128	50	72	56			
ATUM 26XD2 SPGT 07T308	●	26	25	34	130	52	74	56			
ATUM 28XD2 SPGT 090408	●	28	25	34	134	56	78	56	SPGT 090408	4015-M3.5x9	80-T15
ATUM 29XD2 SPGT 090408	●	29	25	34	136	58	80	56			
ATUM 30XD2 SPGT 090408	●	30	32	44	147	60	87	60			
ATUM 32XD2 SPGT 090408	●	32	32	44	151	64	91	60			
ATUM 35XD2 SPGT 110408	●	35	32	44	157	70	97	60	SPGT 110408	4015-M4x11	80-T15
ATUM 36XD2 SPGT 110408	●	36	32	44	159	72	99	60			
ATUM 40XD2 SPGT 110408	●	40	32	44	167	80	107	60			

R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
ZCC Ucuna Uygundur. / Compatiple with ZCC Insert. / Kompatibel mit ZCC Wendeplatten.

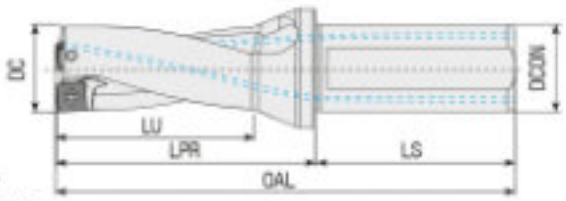
Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück. ATUM 12.5XD2 SPGT 050204
Takma Uçlu Matkap Kullanım Kılavuzu : S 329 / *User's Guide For U-Drills : P 329*
S 330 / Bedienungsanleitung für Vollbohrer



BF SERVICE



Delme Derinliği = 3xÇap
Drilling Depth = 3xDiameter
Bohrtiefe = 3xDurchmesser





Takım Kodu / Ordering Code / Bestell-Bezeichnung	Stok / Stock / Lager	Takım Ölçüleri (mm) / Dimension (mm) / Abmessung (mm)							Kesici Uç / Insert / Wendeschneidplatte	Yedek Parçaları / Spare Parts / Ersatzteile: Sıkma Vidası / Screw / Schraube	Yedek Parçaları / Spare Parts / Ersatzteile: Torx Anahtar / Torx Key / Torx-Schlüssel
		DC	DCON	DCSFMS	OAL	LU	LPR	LS			
ATUM 12.5XD3 SPGT 050204	●	12.5	20	25	108	36	58	50	SPGT 050204	3006-M2x4	80-T06
ATUM 13XD3 SPGT 050204	●	13	20	25	111	39	61	50			
ATUM 13.5XD3 SPGT 050204	●	13.5	20	25	111	39	61	50			
ATUM 14XD3 SPGT 050204	●	14	20	25	114	42	64	50			
ATUM 14.5XD3 SPGT 050204	●	14.5	20	25	114	42	64	50			
ATUM 15XD3 SPGT 050204	●	15	20	25	117	45	67	50			
ATUM 15.5XD3 SPGT 060204	●	15.5	20	25	117	45	67	50	SPGT 060204	3007-M2.2x5	80-T07
ATUM 16XD3 SPGT 060204	●	16	25	34	126	48	70	56			
ATUM 16.5XD3 SPGT 060204	●	16.5	25	34	126	48	70	56			
ATUM 17XD3 SPGT 060204	●	17	25	34	129	51	73	56			
ATUM 17.5XD3 SPGT 060204	●	17.5	25	34	129	51	73	56			
ATUM 18XD3 SPGT 060204	●	18	25	34	132	54	76	56			
ATUM 18.5XD3 SPGT 060204	●	18.5	25	34	132	54	76	56			
ATUM 19XD3 SPGT 060204	●	19	25	34	135	57	79	56			
ATUM 19.5XD3 SPGT 060204	●	19.5	25	34	135	57	79	56			
ATUM 20XD3 SPGT 060204	●	20	25	34	138	60	82	56			
ATUM 20.5XD3 SPGT 060204	●	20.5	25	34	138	60	82	56			
ATUM 21XD3 SPGT 060204	●	21	25	34	141	63	85	56			
ATUM 21.5XD3 SPGT 060204	●	21.5	25	34	141	63	85	56			
ATUM 22XD3 SPGT 07T308	●	22	25	34	144	66	88	56	SPGT 07T308	3008-M2.5x6	80-T08
ATUM 22.5XD3 SPGT 07T308	●	22.5	25	34	144	66	88	56			
ATUM 23XD3 SPGT 07T308	●	23	25	34	147	69	91	56			
ATUM 23.5XD3 SPGT 07T308	●	23.5	25	34	147	69	91	56			
ATUM 24XD3 SPGT 07T308	●	24	25	34	150	72	94	56			
ATUM 24.5XD3 SPGT 07T308	●	24.5	25	34	150	72	94	56			
ATUM 25XD3 SPGT 07T308	●	25	25	34	153	75	97	56			
ATUM 25.5XD3 SPGT 07T308	●	25.5	25	34	153	75	97	56			
ATUM 26XD3 SPGT 07T308	●	26	25	34	156	78	100	56			
ATUM 26.5XD3 SPGT 07T308	●	26.5	25	34	156	78	100	56			
ATUM 27XD3 SPGT 07T308	●	27	25	34	159	81	103	56			
ATUM 27.5XD3 SPGT 07T308	●	27.5	25	34	159	81	103	56			
ATUM 28XD3 SPGT 090408	●	28	25	34	162	84	106	56	SPGT 090408	4015-M3.5x9	80-T15
ATUM 28.5XD3 SPGT 090408	●	28.5	25	34	162	84	106	56			
ATUM 29XD3 SPGT 090408	●	29	25	34	165	87	109	56			
ATUM 29.5XD3 SPGT 090408	●	29.5	25	34	165	87	109	56			
ATUM 30XD3 SPGT 090408	●	30	32	44	177	90	117	60			
ATUM 31XD3 SPGT 090408	●	31	32	44	180	93	120	60			
ATUM 32XD3 SPGT 090408	●	32	32	44	183	96	123	60			
ATUM 33XD3 SPGT 090408	●	33	32	44	186	99	126	60			

R: Sağ / Right / Rechts L: Sol / Left / Links
● Stokta / In Stock / Auf Lager ○ Stokta Yok / Non Stock Item / Kein Lagerartikel. Lieferzeit auf Anfrage
ZCC Ucuna Uygundur. / Compatiple with ZCC Insert. / Kompatibel mit ZCC Wendeplatten.

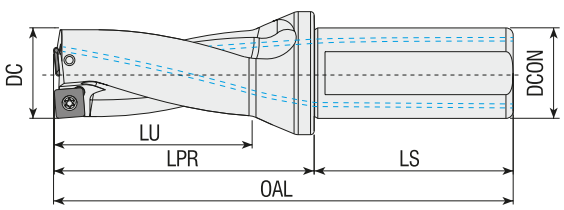
Sipariş Örneği/Ordering Example/Bestellbeispiel
1 ad./pcs./stück ATUM 12.5XD3 SPGT 050204

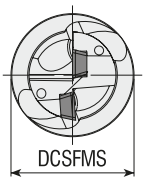
Takma Uçlu Matkap Kullanım Kılavuzu : S 329 / User's Guide For U-Drills : P 329
S.330 / Bedienungsanleitung für Vollbohrer

BF SERVICE



Delme Derinliği = 3xÇap
Drilling Depth = 3xDiameter
Bohrtiefe = 3x Durchmesser





Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*							Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*	
		DC	DCON	DCSFMS	OAL	LU	LPR	LS		Sıkma Vidası *Screw* *Schraube* 	Tork Anahtar *Torx Key* *Torx-Schlüssel* 
ATUM 34XD3 SPGT 110408	●	34	32	44	189	102	129	60	**SPGT 110408**	4015-M4x11	80-T15
ATUM 35XD3 SPGT 110408	●	35	32	44	192	105	132	60			
ATUM 37XD3 SPGT 110408	●	37	32	44	198	111	138	60			
ATUM 38XD3 SPGT 110408	●	38	32	44	201	114	141	60			
ATUM 39XD3 SPGT 110408	●	39	32	44	204	117	144	60			
ATUM 40XD3 SPGT 110408	●	40	32	44	207	120	147	60			
ATUM 42XD3 SPGT 140512	●	42	32	44	213	126	153	60	**SPGT 140512**	1020-M5x11	80-T20
ATUM 43XD3 SPGT 140512	●	43	32	44	216	129	156	60			
ATUM 44XD3 SPGT 140512	●	44	32	44	219	132	159	60			
ATUM 49XD3 SPGT 140512	●	49	40	54	249	147	179	70			
ATUM 50XD3 SPGT 140512	●	50	40	54	252	150	182	70			

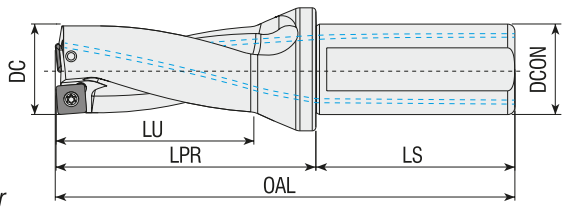
R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
ZCC Ucuna Uygundur. / Compatiple with ZCC Insert. / Kompatibel mit ZCC Wendeplatten.

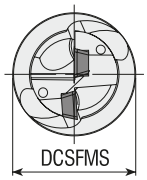
Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück ATUM 34XD3 SPGT 110408
Takma Uçlu Matkap Kullanım Kılavuzu : S 329 / *User's Guide For U-Drills : P 329*
S.330 / Bedienungsanleitung für Vollbohrer



BF SERVICE







Delme Derinliği = 4xÇap
Drilling Depth = *4xDiameter*
Bohrtiefe = *4xDurchmesser*

Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*							Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*	
		DC	DCON	DCSFMS	OAL	LU	LPR	LS		Sıkma Vidası *Screw* *Schraube* 	Tork Anahtar *Torx Key* *Torx-Schlüssel* 
ATUM 13XD4 SPGT 050204	●	13	20	25	124	52	74	50	SPGT 050204	3006-M2x4	80-T06
ATUM 14XD4 SPGT 050204	●	14	20	25	128	56	78	50			
ATUM 15XD4 SPGT 050204	●	15	20	25	132	60	82	50			
ATUM 16XD4 SPGT 060204	●	16	25	34	142	64	86	56	SPGT 060204	3007-M2.2x5	80-T07
ATUM 17XD4 SPGT 060204	●	17	25	34	146	68	90	56			
ATUM 17.5XD4 SPGT 060204	●	17.5	25	34	146	68	90	56			
ATUM 18XD4 SPGT 060204	●	18	25	34	150	72	94	56			
ATUM 19XD4 SPGT 060204	●	19	25	34	154	76	98	56			
ATUM 19.5XD4 SPGT 060204	●	19.5	25	34	154	76	98	56			
ATUM 20XD4 SPGT 060204	●	20	25	34	158	80	102	56			
ATUM 21XD4 SPGT 060204	●	21	25	34	162	84	106	56			
ATUM 22XD4 SPGT 07T308	●	22	25	34	166	88	110	56	SPGT 07T308	3008-M2.5x6	80-T08
ATUM 23XD4 SPGT 07T308	●	23	25	34	170	92	114	56			
ATUM 23.5XD4 SPGT 07T308	●	23.5	25	34	170	92	114	56			
ATUM 24XD4 SPGT 07T308	●	24	25	34	174	96	118	56			
ATUM 25XD4 SPGT 07T308	●	25	25	34	178	100	122	56			
ATUM 26XD4 SPGT 07T308	●	26	25	34	182	104	126	56			
ATUM 27.5XD4 SPGT 07T308	●	27.5	25	34	186	108	130	56			
ATUM 28XD4 SPGT 090408	●	28	25	34	190	112	134	56	SPGT 090408	4015-M3.5x9	80-T15
ATUM 29XD4 SPGT 090408	●	29	25	34	194	116	138	56			
ATUM 30XD4 SPGT 090408	●	30	32	44	207	120	147	60			
ATUM 33.5XD4 SPGT 090408	●	33.5	32	44	219	132	159	60			
ATUM 38XD4 SPGT 110408	●	38	32	44	239	152	179	60	SPGT 110408	4015-M4x11	80-T15

R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock / *Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
ZCC Ucuna Uygundur. / Compatiple with ZCC Insert. / Kompatibel mit ZCC Wendeplatten.

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück ATUM 13XD4 SPGT 050204

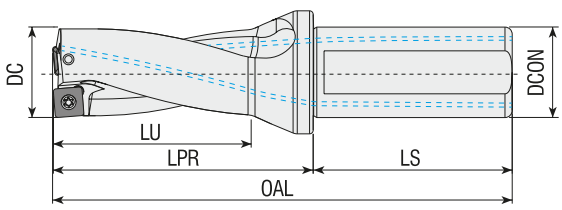
Takma Uçlu Matkap Kullanım Kılavuzu : S 329 / *User's Guide For U-Drills : P 329*
S.330 / Bedienungsanleitung für Vollbohrer



BF SERVICE



Delme Derinliği = 3xÇap
Drilling Depth = *3xDiameter*
Bohrtiefe = *3x Durchmesser*





Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*							Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile* Sıkma Vidası *Screw* *Schraube*	Tork Anahtar *Torx Key* *Torx-Schlüssel*
		DC	DCON	DCSFMS	OAL	LU	LPR	LS			
ATUM 14XD3 SO.. 050204	●	14	20	25	114	42	64	50			
ATUM 15XD3 SO.. 050204	●	15	20	25	117	45	67	50			
ATUM 16XD3 SO.. 050204	●	16	25	34	126	48	70	56	**SO.. 050204**	3006-M2x4	80-T06
ATUM 16.5XD3 SO.. 050204	●	16.5	25	34	126	48	70	56			
ATUM 17XD3 SO.. 050204	●	17	25	34	129	51	73	56			
ATUM 17.5XD3 SO.. 050204	●	17.5	25	34	129	51	73	56			
ATUM 18XD3 SO.. 060304	●	18	25	34	132	54	76	56			
ATUM 19XD3 SO.. 060204	●	19	25	34	135	57	79	56	**SO.. 060304**	3007-M2.2x5	80-T07
ATUM 20XD3 SO.. 060304	●	20	25	34	138	60	82	56			
ATUM 22XD3 SO.. 070305	●	22	25	34	144	66	88	56			
ATUM 22.5XD3 SO.. 070305	●	22.5	25	34	144	66	88	56	**SO.. 070305**	3008-M2.5x6	80-T08
ATUM 23XD3 SO.. 070305	●	23	25	34	147	69	91	56			
ATUM 24XD3 SO.. 070305	●	24	25	34	150	72	94	56			
ATUM 25XD3 SO.. 09T306	●	25	25	34	153	75	97	56			
ATUM 26XD3 SO.. 09T306	●	26	25	34	156	78	100	56			
ATUM 27XD3 SO.. 09T306	●	27	25	34	159	81	103	56			
ATUM 29XD3 SO.. 09T306	●	29	25	34	174	87	114	56	**SO.. 09T306**	4010-M3x8	80-T10
ATUM 30XD3 SO.. 09T306	●	30	32	44	177	90	117	60			
ATUM 31XD3 SO.. 09T306	●	31	32	44	200	93	120	60			
ATUM 33XD3 SO.. 09T306	●	33	32	44	186	99	126	60			
ATUM 35XD3 SO.. 120408	●	35	32	44	192	105	132	60			
ATUM 36XD3 SO.. 120408	●	36	32	44	195	108	135	60			
ATUM 37XD3 SO.. 120408	●	37	32	44	198	111	138	60			
ATUM 38XD3 SO.. 120408	●	38	32	44	201	114	141	60	**SO..120408**	4015-M4X11	80-T15
ATUM 39XD3 SO.. 120408	●	39	32	44	204	117	144	60			
ATUM 40XD3 SO.. 120408	●	40	32	44	207	120	147	60			
ATUM 43XD3 SO.. 120408	●	43	32	44	216	129	156	60			

R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock / *Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
ISCR Ucuna Uygundur. / Compatiple with ISCR Insert. / Kompatibel mit ISCR Wendeplatten.

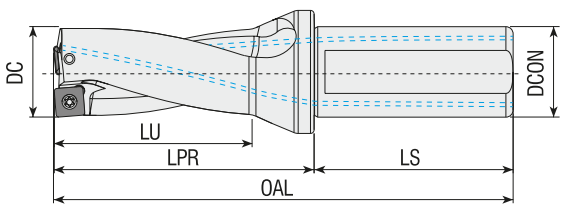
Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück ATUM 14XD3 SO.. 050204

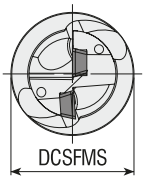
Takma Uçlu Matkap Kullanım Kılavuzu : S 329 / *User's Guide For U-Drills : P 329*
S.330 / Bedienungsanleitung für Vollbohrer

BF SERVICE



Delme Derinliği = 4xÇap
Drilling Depth = 4xDiameter
Bohrtiefe = 4xDurchmesser





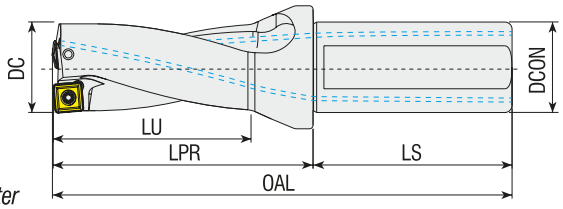
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*							Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile* Sıkma Vidası *Screw* *Schraube*	Tork Anahtar *Torx Key* *Torx-Schlüssel*
		DC	DCON	DCSFMS	OAL	LU	LPR	LS			
ATUM 14XD4 SO.. 050204	●	14	20	25	128	56	78	50			
ATUM 14.5XD4 SO.. 050204	●	14.5	20	25	128	56	78	50			
ATUM 15XD4 SO.. 050204	●	15	20	25	132	60	62	50	**SO.. 050204**	3006-M2x4	80-T06
ATUM 15.5XD4 SO.. 050204	●	15.5	20	25	132	60	82	50			
ATUM 17XD4 SO.. 050204	●	17	25	34	146	68	90	56			
ATUM 19XD4 SO.. 060304	●	19	25	34	154	76	98	56			
ATUM 19.5XD4 SO.. 060304	●	19.5	25	34	154	76	98	56	**SO.. 060304**	3007-M2.2x5	80-T07
ATUM 20XD4 SO.. 060304	●	20	25	34	158	80	102	56			
ATUM 21XD4 SO.. 070305	●	21	25	34	162	84	106	56			
ATUM 22XD4 SO.. 070305	●	22	25	34	166	88	110	56			
ATUM 22.5XD4 SO.. 070305	●	22.5	25	34	166	88	110	56	**SO.. 070305**	3008-M2.5x6	80-T08
ATUM 23XD4 SO.. 070305	●	23	25	34	170	92	114	56			
ATUM 24XD4 SO.. 070305	●	24	25	34	174	96	118	56			
ATUM 25XD4 SO.. 09T306	●	25	25	34	178	100	122	56			
ATUM 27XD4 SO.. 09T306	●	27	25	34	186	108	130	56			
ATUM 28XD4 SO.. 09T306	●	28	25	34	190	112	134	56			
ATUM 29XD4 SO.. 09T306	●	29	25	34	194	116	138	56			
ATUM 30XD4 SO.. 09T306	●	30	32	44	207	120	147	60	**SO.. 09T306**	4010-M3x8	80-T10
ATUM 31XD4 SO.. 09T306	●	31	32	44	211	124	151	60			
ATUM 33XD4 SO.. 09T306	●	33	32	44	219	132	159	60			
ATUM 34XD4 SO.. 09T306	●	34	32	44	223	136	163	60			
ATUM 35XD4 SO.. 120408	●	35	32	44	227	140	167	60	**SO..120408**	4015-M4X11	80-T15

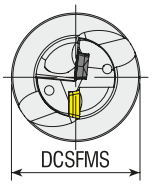
R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
ISCR Ucuna Uygundur. / Compatiple with ISCR Insert. / Kompatibel mit ISCR Wendeplatten.

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück ATUM 14XD4 SO.. 050204
Takma Uçlu Matkap Kullanım Kılavuzu : S 329 / *User's Guide For U-Drills : P 329*
S.330 / Bedienungsanleitung für Vollbohrer

BF SERVICE





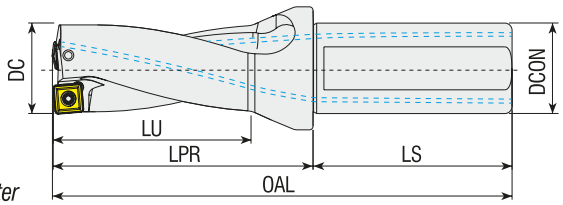


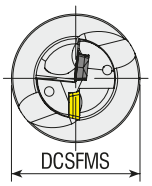
Delme Derinliği = 2xÇap
Drilling Depth = 2xDiameter
Bohrtiefe = 2xDurchmesser

Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*							Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*	
		DC	DCON	DCSFMS	OAL	LU	LPR	LS		Sıkma Vidası *Screw* *Schraube*	Tork Anahtar *Torx Key* *Torx-Schlüssel*
ATUM 14XD2 KDR 0502..	●	14	20	25	100	28	50	50	SPMT 050204-XOMT 050204	3006-M2x4	80-T06
ATUM 18XD2 KDR 0602..	●	18	25	34	114	36	58	56	SPMT 060205-XOMT 060204	3007-M2.2x5	80-T07
ATUM 20XD2 KDR 07T2..	●	20	25	34	118	40	62	56	SPMT 07T208 XOMT 07T205	3008-M2.5x6	80-T08
ATUM 22XD2 KDR 07T2..	●	22	25	34	122	44	66	56			
ATUM 24XD2 KDR 0903..	●	24	25	34	126	48	70	56	SPMT 090308 XOMT 090305	3008-M3x7	
ATUM 25XD2 KDR 0903..	●	25	25	34	128	50	72	56			
ATUM 26XD2 KDR 0903..	●	26	25	34	130	52	74	56			
ATUM 28XD2 KDR 0903..	●	28	25	34	134	56	78	56			
ATUM 30XD2 KDR 11T3..	●	30	25	34	147	60	87	60	SPMT 11T308 XOMT 11T306	4015-M3.5x9	80-T15
ATUM 32XD2 KDR 11T3..	●	32	32	44	151	64	91	60			
ATUM 34XD2 KDR 11T3..	●	34	32	44	155	68	95	60			
ATUM 37XD2 KDR 1304..	●	37	32	44	161	74	101	60	SPMT 130410 - XOMT 130406	4015-M4x11	

KRLY Ucuna Uygundur. / Compatiple with KRLY Insert. / Kompatibel mit KRLY Wendeplatten.







Delme Derinliği = 4xÇap
Drilling Depth = 4xDiameter
Bohrtiefe = 4xDurchmesser

Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*							Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*	
		DC	DCON	DCSFMS	OAL	LU	LPR	LS		Sıkma Vidası *Screw* *Schraube*	Tork Anahtar *Torx Key* *Torx-Schlüssel*
ATUM 14XD4 KDR 0502..	●	14	20	25	128	56	78	50	SPMT 050204 XOMT 050204	3006-M2x4	80-T06
ATUM 14.5XD4 KDR 0502..	●	14.5	20	25	128	56	78	50			
ATUM 15XD4 KDR 0502..	●	15	20	25	132	60	82	50			
ATUM 15.5XD4 KDR 0502..	●	15.5	20	25	132	60	82	50			
ATUM 16XD4 KDR 0502..	●	16	25	34	142	64	86	56			
ATUM 17XD4 KDR 0602..	●	17	25	34	146	68	90	56	SPMT 060205 XOMT 060204	3007-M2.2x5	80-T07
ATUM 17.5XD4 KDR 0602..	●	17.5	25	34	146	68	90	56			
ATUM 18XD4 KDR 0602..	●	18	25	34	150	72	94	56			
ATUM 18.5XD4 KDR 0602..	●	18.5	25	34	150	72	94	56			
ATUM 19XD4 KDR 0602..	●	19	25	34	154	76	98	56			
ATUM 20XD4 KDR 07T2..	●	20	25	34	158	80	102	56	SPMT 07T208 XOMT 07T205	3008-M2.5x6	80-T08
ATUM 21XD4 KDR 07T2..	●	21	25	34	162	84	106	56			
ATUM 22XD4 KDR 07T2..	●	22	25	34	166	88	110	56			
ATUM 24XD4 KDR 0903..	●	24	25	34	174	96	118	56	SPMT 090308 XOMT 090305	3008-M3x7	
ATUM 25XD4 KDR 0903..	●	25	25	34	178	100	122	56			

R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock / *Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
KRLY Ucuna Uygundur. / Compatiple with KRLY Insert. / Kompatibel mit KRLY Wendeplatten.

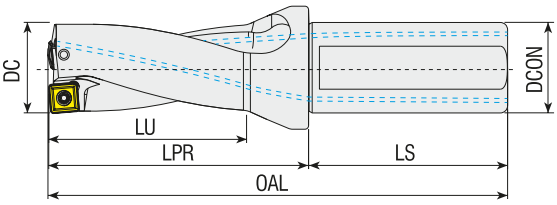
Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück ATUM 14XD2 KDR 0502..

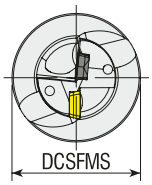
Takma Uçlu Matkap Kullanım Kılavuzu : S 329 / *User's Guide For U-Drills : P 329 / S.330 / Bedienungsanleitung für Vollbohrer*

BF SERVICE



Delme Derinliği = 3xÇap
Drilling Depth = 3xDiameter
Bohrtiefe = 3x Durchmesser





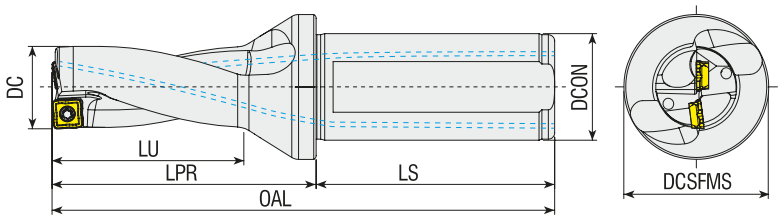
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*							Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*	
		DC	DCON	DCSFMS	OAL	LU	LPR	LS		Sıkma Vidası *Screw* *Schraube* 	Tork Anahtar *Torx Key* *Torx-Schlüssel* 
ATUM 12.5XD3 KDR 0402..	●	12.5	20	25	108	36	58	50	SPMT 040204 XOMT 040204	3006-M2x4	80-T06
ATUM 13XD3 KDR 0402..	●	13	20	25	111	39	61	50			
ATUM 14XD3 KDR 0502..	●	14	20	25	114	42	64	50	SPMT 050204 XOMT 050204		
ATUM 14.5XD3 KDR 0502..	●	14.5	20	25	114	42	64	50			
ATUM 15XD3 KDR 0502..	●	15	20	25	117	45	67	50			
ATUM 15.5XD3 KDR 0502..	●	15.5	20	25	117	45	67	50			
ATUM 16XD3 KDR 0502..	●	16	25	34	126	48	70	56			
ATUM 16.5XD3 KDR 0602..	●	16.5	25	34	126	48	70	56	SPMT 060205 XOMT 060204	3007-M2.2x5	80-T07
ATUM 17XD3 KDR 0602..	●	17	25	34	129	51	73	56			
ATUM 17.5XD3 KDR 0602..	●	17.5	25	34	129	51	73	56			
ATUM 18XD3 KDR 0602..	●	18	25	34	132	54	76	56			
ATUM 18.5XD3 KDR 0602..	●	18.5	25	34	132	54	76	56			
ATUM 19XD3 KDR 0602..	●	19	25	34	135	57	79	56			
ATUM 19.5XD3 KDR 0602..	●	19.5	25	34	135	57	79	56			
ATUM 20XD3 KDR 07T2..	●	20	25	34	138	60	82	56	SPMT 07T208 XOMT 07T205	3008-M2.5x6	80-T08
ATUM 20.5XD3 KDR 07T2..	●	20.5	25	34	138	60	82	56			
ATUM 21XD3 KDR 07T2..	●	21	25	34	141	63	85	56			
ATUM 22XD3 KDR 07T2..	●	22	25	34	144	66	88	56			
ATUM 23XD3 KDR 07T2..	●	23	25	34	147	69	91	56			
ATUM 23.5XD3 KDR 07T2..	●	23.5	25	34	147	69	91	56			
ATUM 24XD3 KDR 0903..	●	24	25	34	150	72	94	56	SPMT 090308 XOMT 090305	3008-M3x7	
ATUM 24.5XD3 KDR 0903..	●	24.5	25	34	150	72	94	56			
ATUM 25XD3 KDR 0903..	●	25	25	34	153	75	97	56			
ATUM 26XD3 KDR 0903..	●	26	25	34	156	78	100	56			
ATUM 27XD3 KDR 0903..	●	27	25	34	159	81	103	56			
ATUM 28XD3 KDR 0903..	●	28	25	34	162	84	106	56			
ATUM 29XD3 KDR 0903..	●	29	25	34	165	87	109	56			
ATUM 30XD3 KDR 11T3..	●	30	32	44	177	90	117	60	SPMT 11T308 XOMT 11T306	4015-M3.5x9	80-T15
ATUM 32XD3 KDR 11T3..	●	32	32	44	183	96	123	60			
ATUM 33XD3 KDR 11T3..	●	33	32	44	186	99	126	60			
ATUM 34XD3 KDR 11T3..	●	34	32	44	189	102	129	60			
ATUM 35XD3 KDR 11T3..	●	35	32	44	192	105	132	60			
ATUM 37XD3 KDR 1304..	●	37	32	44	198	111	138	60	SPMT 130410 XOMT 130406	4015-M4x11	
ATUM 38XD3 KDR 1304..	●	38	32	44	201	114	141	60			
ATUM 39XD3 KDR 1304..	●	39	32	44	204	117	144	60			
ATUM 40XD3 KDR 1304..	●	40	32	44	207	120	147	60			

R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
KRLY Ucuna Uygundur. / Compatiple with KRLY Insert. / Kompatibel mit KRLY Wendeplatten.

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück ATUM 12.5XD3 KDR 0402..
Takma Uçlu Matkap Kullanım Kılavuzu : S 329 / *User's Guide For U-Drills : P 329*
S.330 / Bedienungsanleitung für Vollbohrer

BF SERVICE





Delme Derinliği = 2xÇap
Drilling Depth = *2xDiameter*
Bohrtiefe = *2xDurchmesser*

Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*							Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*	
		DC	DCON	DCSFMS	OAL	LU	LPR	LS		Sıkma Vidası *Screw* *Schraube* 	Tork Anahtar *Torx Key* *Torx-Schlüssel* 
ATUM 14XD2 SOMT 050204	●	14	20	25	100	28	50	50	SOMT 050204	3006-M2x4	80-T06
ATUM 16XD2 SOMT 050204	●	16	25	34	110	32	54	56			
ATUM 17XD2 SOMT 060204	●	17	25	34	112	34	56	56	SOMT 060204	3007-M2.2x5	80-T07
ATUM 18XD2 SOMT 060204	●	18	25	34	114	36	58	56			
ATUM 20XD2 SOMT 070306	●	20	25	34	118	40	62	56	SOMT 070306		
ATUM 22XD2 SOMT 070306	●	22	25	34	122	44	66	56			
ATUM 24XD2 SOMT 08T306	●	24	25	34	126	48	70	56	SOMT 08T306	3008-M2.5x6	80-T08
ATUM 25XD2 SOMT 08T306	●	25	25	34	128	50	72	56			
ATUM 26XD2 SOMT 08T306	●	26	25	34	130	52	74	56			
ATUM 27XD2 SOMT 09T308	●	27	25	34	132	54	76	56	SOMT 09T308	4015-M3.5x9	80-T15
ATUM 28XD2 SOMT 09T308	●	28	25	34	134	56	78	56			
ATUM 30XD2 SOMT 09T308	●	30	32	44	147	60	87	60			
ATUM 32XD2 SOMT 11T308	●	32	32	44	151	64	91	60	SOMT 11T308		
ATUM 33XD2 SOMT 11T308	●	33	32	44	153	66	93	60			
ATUM 34XD2 SOMT 11T308	●	34	32	44	155	68	95	60			
ATUM 35XD2 SOMT 11T308	●	35	32	44	157	70	97	60			
ATUM 37XD2 SOMT 130408	●	37	32	44	161	74	101	60	SOMT 130408	4015-M4x11	
ATUM 38XD2 SOMT 130408	●	38	32	44	163	76	103	60			
ATUM 40XD2 SOMT 130408	●	40	32	44	167	80	107	60			
ATUM 45XD2 SOMT 150510	●	45	40	54	192	90	122	70	SOMT 150510	1020-M5x11	80-T20

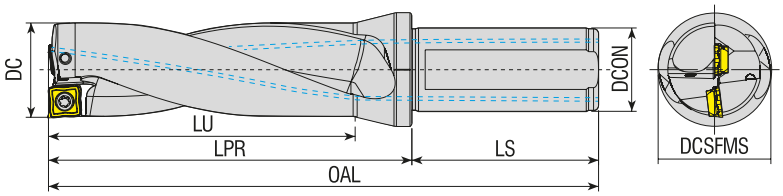
R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock / *Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
TGTC Ucuna Uygundur. / Compatiple with TGTC Insert. / Kompatibel mit TGTC Wendeplatten.

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück ATUM 14XD2 SOMT 050204

Takma Uçlu Matkap Kullanım Kılavuzu : S 329 / *User's Guide For U-Drills : P 329*
S.330 / Bedienungsanleitung für Vollbohrer

BF SERVICE





Delme Derinliği = 3xÇap
Drilling Depth = *3xDiameter*
Bohrtiefe = *3x Durchmesser*

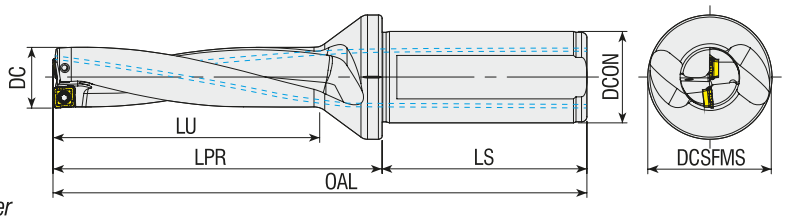
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*							Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*	
		DC	DCON	DCSFMS	OAL	LU	LPR	LS		Sıkma Vidası *Screw* *Schraube* 	Tork Anahtar *Torx Key* *Torx-Schlüssel* 
ATUM 14XD3 SOMT 050204	●	14	20	25	114	42	64	50	SOMT 050204	3006-M2x4	80-T06
ATUM 14.5XD3 SOMT 050204	●	14.5	20	25	114	42	64	50			
ATUM 15XD3 SOMT 050204	●	15	20	25	117	45	67	50			
ATUM 15.5XD3 SOMT 050204	●	15.5	20	25	117	45	67	50			
ATUM 16XD3 SOMT 050204	●	16	25	34	126	48	70	56			
ATUM 16.5XD3 SOMT 060204	●	16.5	25	34	126	48	70	56	SOMT 060204	3007-M2.2x5	80-T07
ATUM 17XD3 SOMT 060204	●	17	25	34	129	51	73	56			
ATUM 17.5XD3 SOMT 060204	●	17.5	25	34	129	51	73	56			
ATUM 18XD3 SOMT 060204	●	18	25	34	132	54	76	56			
ATUM 18.5XD3 SOMT 060204	●	18.5	25	34	132	54	76	56			
ATUM 19XD3 SOMT 060204	●	19	25	34	135	57	79	56			
ATUM 19.5XD3 SOMT 070306	●	19.5	25	34	135	57	79	56	SOMT 070306		
ATUM 20XD3 SOMT 070306	●	20	25	34	138	60	82	56			
ATUM 20.5XD3 SOMT 070306	●	20.5	25	34	138	60	82	56			
ATUM 21XD3 SOMT 070306	●	21	25	34	141	63	85	56			
ATUM 22XD3 SOMT 070306	●	22	25	34	144	66	88	56			
ATUM 22.5XD3 SOMT 08T306	●	22.5	25	34	144	66	88	56	SOMT 08T306	3008-M2.5x6	80-T08
ATUM 23XD3 SOMT 08T306	●	23	25	34	147	69	91	56			
ATUM 23.5XD3 SOMT 08T306	●	23.5	25	34	147	69	91	56			
ATUM 24XD3 SOMT 08T306	●	24	25	34	150	72	94	56			
ATUM 24.5XD3 SOMT 08T306	●	24.5	25	34	150	72	94	56			
ATUM 25XD3 SOMT 08T306	●	25	25	34	153	75	97	56			
ATUM 26XD3 SOMT 08T306	●	26	25	34	156	78	100	56			
ATUM 27XD3 SOMT 09T308	●	27	25	34	159	81	103	56	SOMT 09T308	4015-M3.5x9	80-T15
ATUM 27.5XD3 SOMT 09T308	●	27.5	25	34	159	81	103	56			
ATUM 28XD3 SOMT 09T308	●	28	25	34	162	84	106	56			
ATUM 29XD3 SOMT 09T308	●	29	25	34	165	87	109	56			
ATUM 30XD3 SOMT 09T308	●	30	32	44	177	90	117	60			
ATUM 32XD3 SOMT 11T308	●	32	32	44	183	96	123	60	SOMT 11T308		
ATUM 33XD3 SOMT 11T308	●	33	32	44	186	99	126	60			
ATUM 34XD3 SOMT 11T308	●	34	32	44	189	102	129	60			
ATUM 35XD3 SOMT 11T308	●	35	32	44	192	105	132	60			
ATUM 36XD3 SOMT 11T308	●	36	32	44	195	108	135	60			
ATUM 37XD3 SOMT 130408	●	37	32	44	198	111	138	60	SOMT 130408	4015-M4x11	
ATUM 38XD3 SOMT 130408	●	38	32	44	201	114	141	60			
ATUM 39XD3 SOMT 130408	●	39	32	44	204	117	144	60			
ATUM 40XD3 SOMT 130408	●	40	32	44	207	120	147	60			
ATUM 45XD3 SOMT 150510	●	45	40	54	237	135	167	70	SOMT 150510	1020-M5x11	80-T20
ATUM 49XD3 SOMT 150510	●	49	40	54	249	147	179	70			
ATUM 50XD3 SOMT 150510	●	50	40	54	252	150	182	70			

R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
TGTC Ucuna Uygundur. / Compatiple with TGTC Insert. / Kompatibel mit TGTC Wendeplatten.

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück ATUM 14XD3 SOMT 050204
Takma Uçlu Matkap Kullanım Kılavuzu : S 329 / *User's Guide For U-Drills : P 329*
S.330 / Bedienungsanleitung für Vollbohrer

BF SERVICE





Delme Derinliği = 4xÇap
Drilling Depth = 4xDiameter
Bohrtiefe = 4x Durchmesser

Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*							Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*	
		DC	DCON	DCSFMS	OAL	LU	LPR	LS		Sıkma Vidası *Screw* *Schraube* 	Tork Anahtar *Torx Key* *Torx-Schlüssel* 
ATUM 14XD4 SOMT 050204	●	14	20	25	128	56	78	50	**SOMT 050204**	3006-M2x4	80-T06
ATUM 14.5XD4 SOMT 050204	●	14.5	20	25	128	56	78	50			
ATUM 16XD4 SOMT 050204	●	16	25	34	142	64	86	56			
ATUM 17XD4 SOMT 060204	●	17	25	34	146	68	90	56	**SOMT 060204**	3007-M2.2x5	80-T07
ATUM 17.5XD4 SOMT 060204	●	17.5	25	34	146	68	90	56			
ATUM 18XD4 SOMT 060204	●	18	25	34	150	72	94	56			
ATUM 19XD4 SOMT 060204	●	19	25	34	154	76	98	56			
ATUM 20XD4 SOMT 070306	●	20	25	34	158	80	102	56	**SOMT 070306**		
ATUM 21XD4 SOMT 070306	●	21	25	34	162	84	106	56			
ATUM 22XD4 SOMT 070306	●	22	25	34	166	88	110	56			
ATUM 24XD4 SOMT 08T306	●	24	25	34	174	96	118	56	**SOMT 08T306**	3008-M2.5x6	80-T08
ATUM 25XD4 SOMT 08T306	●	25	25	34	178	100	122	56			

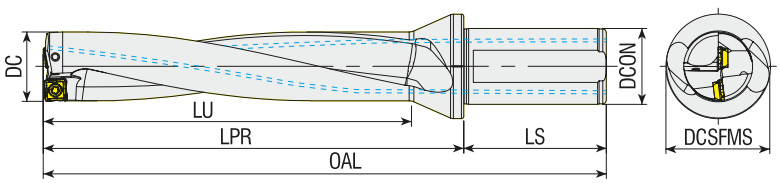
R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock / *Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
TGTC Ucuna Uygundur. / Compatiple with TGTC Insert. / Kompatibel mit TGTC Wendeplatten.

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück ATUM ATUM 14XD4 SOMT 050204
Takma Uçlu Matkap Kullanım Kılavuzu : S 329 / *User's Guide For U-Drills : P 329*
S.330 / Bedienungsanleitung für Vollbohrer



BF SERVICE





Delme Derinliği = 5xÇap
Drilling Depth = 5xDiameter
Bohrtiefe = 5x Durchmesser

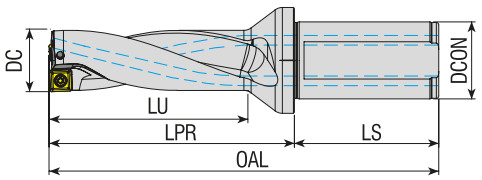
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*							Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile* Sıkma Vidası *Screw* *Schraube*	Tork Anahtar *Torx Key* *Torx-Schlüssel*
		DC	DCON	DCSFMS	OAL	LU	LPR	LS			
ATUM 14XD5 SOMT 050204	●	14	20	25	142	70	92	50	SOMT 050204	3006-M2x4	80-T06
ATUM 15XD5 SOMT 050204	●	15	20	25	147	75	97	50			
ATUM 15.5XD5 SOMT 050204	●	15.5	20	25	147	75	97	50			
ATUM 16XD5 SOMT 050204	●	16	25	34	158	80	102	56			
ATUM 17.5XD5 SOMT 060204	●	17	25	34	163	85	107	56	SOMT 060204	3007-M2.2x5	80-T07
ATUM 18XD5 SOMT 060204	●	18	25	34	168	90	112	56			
ATUM 19XD5 SOMT 060204	●	19	25	34	173	95	117	56			
ATUM 19.5XD5 SOMT 070306	●	19	25	34	173	95	117	56	SOMT 070306		
ATUM 20XD5 SOMT 070306	●	20	25	34	178	100	122	56			
ATUM 21XD5 SOMT 070306	●	21	25	34	183	105	127	56			
ATUM 22XD5 SOMT 070306	●	22	25	34	188	110	132	56			
ATUM 23XD5 SOMT 08T306	●	23	25	34	193	115	137	56	SOMT 08T306	3008-M2.5x6	80-T08
ATUM 24XD5 SOMT 08T306	●	24	25	34	198	120	142	56			
ATUM 25XD5 SOMT 08T306	●	25	25	34	203	125	147	56			
ATUM 26XD5 SOMT 08T306	●	26	25	34	208	130	152	56			
ATUM 27XD5 SOMT 09T308	●	27	25	34	213	135	157	56	SOMT 09T308	4015-M3.5x9	80-T15
ATUM 28XD5 SOMT 09T308	●	28	25	34	218	140	162	56			
ATUM 29XD5 SOMT 09T308	●	29	25	34	223	145	167	56			
ATUM 30XD5 SOMT 09T308	●	30	32	44	237	150	177	60			
ATUM 33XD5 SOMT 11T308	●	33	32	44	252	165	192	60	SOMT 11T308		
ATUM 34XD5 SOMT 11T308	●	34	32	44	257	170	197	60			
ATUM 35XD5 SOMT 11T308	●	35	32	44	262	175	202	60			
ATUM 36XD5 SOMT 11T308	●	36	32	44	267	180	207	60			

R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
TGTC Ucuna Uygundur. / Compatiple with TGTC Insert. / Kompatibel mit TGTC Wendeplatten.

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück ATUM 13XD5 SOMT 050204
Takma Uçlu Matkap Kullanım Kılavuzu : S 329 / *User's Guide For U-Drills : P 329*
S.330 / Bedienungsanleitung für Vollbohrer

BF SERVICE





Delme Derinliği = 3xÇap
Drilling Depth = 3xDiameter
Bohrtiefe = 3x Durchmesser

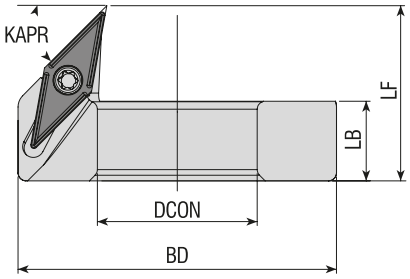
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*							Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*	
		DC	DCON	DCSFMS	OAL	LU	LPR	LS		Sıkma Vidası *Screw* *Schraube*	Tork Anahtar *Torx Key* *Torx-Schlüssel*
ATUM 14XD3 880-0202..	●	14	20	25	108	45	58	50	**880-02…C / P**	3006-M2x4	80-T06
ATUM 14.5XD3 880-0202..	●	14.5	20	25	110	46	60	50			
ATUM 15XD3 880-0202..	●	15	20	25	112	48	62	50			
ATUM 15.5XD3 880-0202..	●	15.5	20	25	114	50	64	50			
ATUM 16XD3 880-0202..	●	16	20	25	116	51	66	50			
ATUM 16.5XD3 880-0303..	●	16.5	20	25	118	53	68	50	**880-03…C / P**	3007-M2.2x5	80-T07
ATUM 17XD3 880-0303..	●	17	20	25	119	54	69	50			
ATUM 17.5XD3 880-0303..	●	17.5	25	32	128	56	72	56			
ATUM 18XD3 880-0303..	●	18	25	32	129	57	73	56			
ATUM 18.5XD3 880-0303..	●	18.5	25	32	131	59	75	56			
ATUM 19XD3 880-0303..	●	19	25	32	132	60	76	56			
ATUM 19.5XD3 880-0303..	●	19.5	25	32	135	62	79	56			
ATUM 20XD3 880-0403..	●	20	25	32	137	64	81	56	**880-04…C / P**	3008-M2.5x6	80-T08
ATUM 20.5XD3 880-0403..	●	20.5	25	32	138	65	82	56			
ATUM 21XD3 880-0403..	●	21	25	32	140	66	84	56			
ATUM 21.5XD3 880-0403..	●	21.5	25	32	142	68	86	56			
ATUM 22XD3 880-0403..	●	22	25	32	143	69	87	56			
ATUM 22.5XD3 880-0403..	●	22.5	25	32	146	71	90	56			
ATUM 23XD3 880-0403..	●	23	25	32	147	72	91	56			
ATUM 24XD3 880-0503..	●	24	25	32	151	76	95	56	**880-05…C / P**	4010-M3x8	
ATUM 25XD3 880-0503..	●	25	25	32	155	79	99	56			
ATUM 26XD3 880-0503..	●	26	32	44	162	81	102	60			
ATUM 27XD3 880-0503..	●	27	32	44	165	84	105	60			
ATUM 28XD3 880-0503..	●	28	32	44	169	87	109	60			
ATUM 29XD3 880-0503..	●	29	32	44	172	90	112	60			
ATUM 30XD3 880-0604..	●	30	32	44	177	94	117	60	**880-06…C / P**	3010-M3.5x9	80-T10
ATUM 31XD3 880-0604..	●	31	40	54	191	97	121	70			
ATUM 32XD3 880-0604..	●	32	40	54	194	100	124	70			
ATUM 33XD3 880-0604..	●	33	40	54	198	103	128	70			
ATUM 34XD3 880-0604..	●	34	40	54	201	106	131	70			
ATUM 35XD3 880-0604..	●	35	40	54	205	109	135	70			
ATUM 36XD3 880-0704..	●	36	40	54	209	112	139	70	**880-07…C / P**	3010-M3.5x9	
ATUM 38XD3 880-0704..	●	38	40	54	216	118	146	70			
ATUM 39XD3 880-0704..	●	39	40	54	219	121	149	70			
ATUM 40XD3 880-0704..	●	40	40	54	223	124	153	70			
ATUM 41XD3 880-0704..	●	41	40	54	227	127	157	70			
ATUM 42XD3 880-0704..	●	42	40	54	230	130	160	70			
ATUM 45XD3 880-0805..	●	45	40	54	242	140	172	70	**880-08…C / P**	4015-M4x11	80-T15
ATUM 46XD3 880-0805..	●	46	40	54	246	143	176	70			
ATUM 48XD3 880-0805..	●	48	40	54	253	149	183	70			
ATUM 50XD3 880-0805..	●	50	40	54	260	155	190	70			

R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
SNDVK Ucuna Uygundur. / Compatiple with SNDVK Insert. / Kompatibel mit SNDVK Wendeplatten.

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück ATUM 14XD3 880-0202..
Takma Uçlu Matkap Kullanım Kılavuzu : S 329 / *User's Guide For U-Drills : P 329*
S.330 / Bedienungsanleitung für Vollbohrer

BF SERVICE





Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*				Kullanılacak ATUM Ölçüsü *Compatiple ATUM Diameter* *Verwendeter Vollbohrer*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*				
							Kesici Uç *Insert* *Wendeschneidplatte*	Sıkma Vidası *Screw* *Schraube*	Tork Anahtar *Torx Key* *Torx-Schlüssel*	Montaj Vidası *Mounting Screw* *Befestigungsschraube*	Montaj Vida Anahtarı *Mounting Screw Key* *Innensechskantschlüssel für Befestigungsschraube*
		DB	DCON	LB	LF	ATUM Ø					
ADCR-120-VB1103	●	32	12	10	22	12.5					
ADCR-125-VB1103	●	32.5	12.5	10	22	13					
ADCR-130-VB1103	●	33	13	10	22	13.5					
ADCR-135-VB1103	●	33.5	13.5	10	22	14					
ADCR-140-VB1103	●	34	14	10	22	14.5					
ADCR-145-VB1103	●	34.5	14.5	10	22	15					
ADCR-150-VB1103	●	35	15	10	22	15.5 -16					
ADCR-155-VB1103	●	35.5	15.5	10	22	16.5					
ADCR-160-VB1103	●	36	16	10	22	17					
ADCR-165-VB1103	●	36.5	16.5	10	22	17.5					
ADCR-170-VB1103	●	37	17	10	22	18					
ADCR-175-VB1103	●	37.5	17.5	10	22	18.5					
ADCR-180-VB1103	●	38	18	10	22	19					
ADCR-185-VB1103	●	38.5	18.5	10	22	19.5					
ADCR-190-VB1103	●	39	19	10	22	20					
ADCR-195-VB1103	●	39.5	19.5	10	22	20.5					
ADCR-200-VB1103	●	40	20	10	22	21					
ADCR-205-VB1103	●	40.5	20.5	10	22	21.5					
ADCR-210-VB1103	●	41	21	10	22	22	**VBM. 1103..**	4008-M2.5x6	80-T08	AAV-14-M5x14	AAL-03-3
ADCR-215-VB1103	●	41.5	21.5	10	22	22.5					
ADCR-220-VB1103	●	42	22	10	22	23					
ADCR-225-VB1103	●	42.5	22.5	10	22	23.5					
ADCR-230-VB1103	●	43	23	10	22	24					
ADCR-235-VB1103	●	43.5	23.5	10	22	24.5					
ADCR-240-VB1103	●	44	24	10	22	25					
ADCR-245-VB1103	●	44.5	24.5	10	22	25.5					
ADCR-250-VB1103	●	45	25	10	22	26					
ADCR-255-VB1103	●	45.5	25.5	10	22	26.5					
ADCR-260-VB1103	●	46	26	10	22	27					
ADCR-265-VB1103	●	46.5	26.5	10	22	27.5					
ADCR-270-VB1103	●	47	27	10	22	28					
ADCR-275-VB1103	●	47.5	27.5	10	22	28.5					
ADCR-280-VB1103	●	48	28	10	22	29					
ADCR-285-VB1103	●	48.5	28.5	10	22	29.5					
ADCR-290-VB1103	●	49	29	10	22	30					
ADCR-295-VB1103	●	49.5	29.5	10	22	30.5					
ADCR-300-VB1103	●	50	30	10	22	31					

R: Sağ / Right / *Rechts* L: Sol/Left/*Links*

● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*

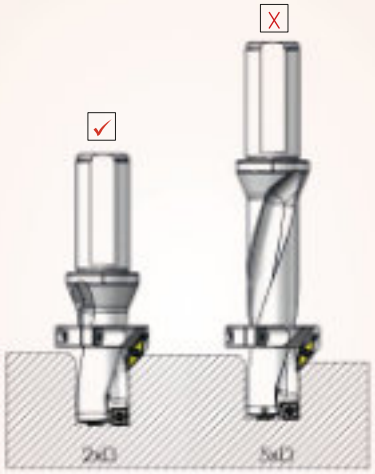
Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück ADCR-120-VB1103

Takma Uçlu Matkap Kullanım Kılavuzu : S 329 / *User's Guide For U-Drills : P 329*
S.330 / Bedienungsanleitung für Vollbohrer

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Tavsiye Edilen / *Recommended / Empfehlung*

A



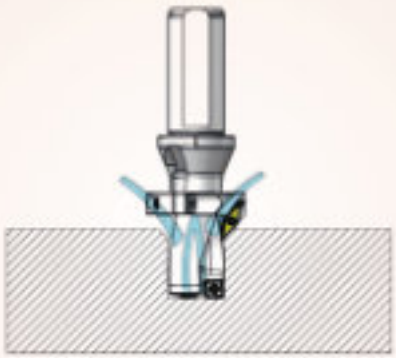
Mümkünse, her zaman kısa bir delme takımı kullanın. Değilse, titreşimi en aza indirmek için kesme hızını azaltın.
If possible, use it always short drilling tools. Otherwise, reduce your speeds to minimize vibration.
Bitte möglichst kurze Bohrwerkzeuge verwenden. Sollte dies nicht möglich sein, reduzieren Sie bitte die Geschwindigkeit, um Vibrationen zu vermeiden.

B



Mümkün olduğunca pah kırma halkasını şaft kısmına yakın montaj yap.
Get close to the mounting shaft of the chamfering ring as possible.
Befestigen Sie den Fasing möglichst nah am Schaft.

C



Daha iyi uç ömrü için harici soğutucu ve matkap ucu iç soğutucu uygulamak.
Apply external cooling and internal coolant drill for a better life for inserts.
Setzen Sie innere und äußere Kühlung ein, um die Standzeit der Wendeplatten zu erhöhen.

Montaj Şekli / *Mounting System / Montage-Hinweise*

1



Matkap gövdesi üzerine pah kırma halkasını takın.
Put the chamfering ring to drill body.
Schieben Sie den Fasring auf den Bohrkörper.

2



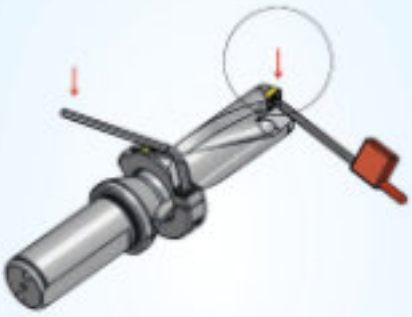
İstenilen konuma pah kırma halkasını kaydırın.
Please slide chamfering ring to the desired position.
Befestigen Sie den Fasring an der gewünschten Position.

3



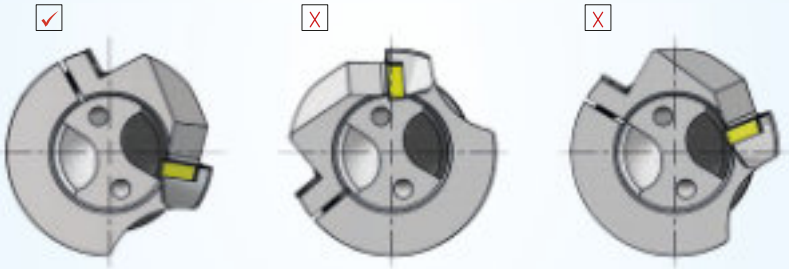
Pah kırma halkasını talaş akışına mani olmayacak şekilde helis başlangıcına denk getirin.
Please keep chamfering ring position which will not resist to fluiding chips and try to be equal to the helix start points.
Positionieren Sie den Fasring bündig mit der Bohrerspirale um einen problemlosen Spänetransport zu gewährleisten.

4



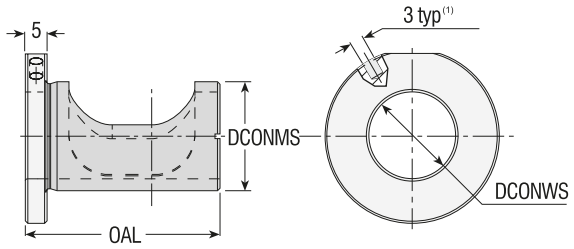
Pah kırma halkasını sıkın ve matkabın uçlarını takın.
Tightening the chamfering ring and put the drill insert.
Den Fasring festziehen und die Bohr-Wendeplatten einbauen.

Pah kırma halkasının doğru montaj şekli.
Proper installation of chamferring rings.
Korrekte Montage des Fasrings.



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Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)* DCON	BD	LF
AET-2025	●	20	25	44
AET-2532	●	25	32	46
AET-3240	●	32	40	55

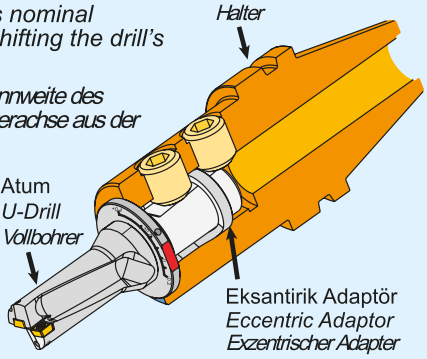
■ (1) Delik ince bir metal yardımıyla adaptörün radyal olarak ayarlanmasını kolaylaştırmak için kullanılır. / Holes for inserting a pin, used to facilitate radial adjustment of the sleeve (pin not supplied).
Bohrung zum Einsetzen eines Stiftes mit dem der Adapter radial eingestellt werden kann (Stift ist nicht im Lieferumfang enthalten).

Frezeleme tezgahında takma uçlu matkabın nominal çapı, matkabın ekseninin, spindle eksenine göre ötelenmesiyle değiştirilebilir.

On a milling machine the drill's nominal diameter can be changed by shifting the drill's axis out of the tool spindle.

Auf einer Fräsmaschine kann die Nennweite des Bohrers durch Verschieben der Bohrerachse aus der Spindelachse verändert werden.

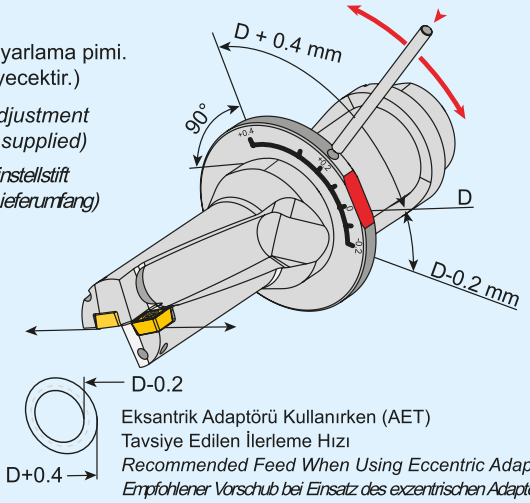




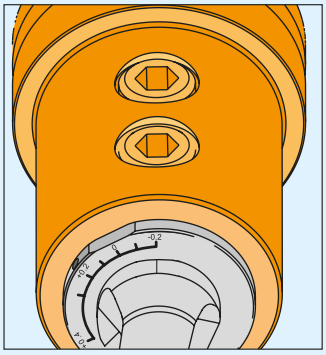
Radyal ayarlama pimi. (Verilmeyecektir.)

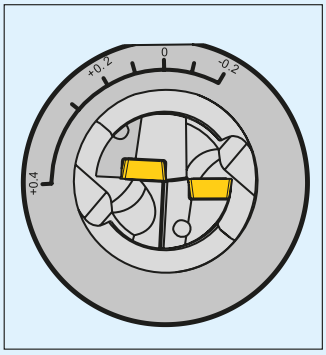
Radial adjustment pin. (not supplied)

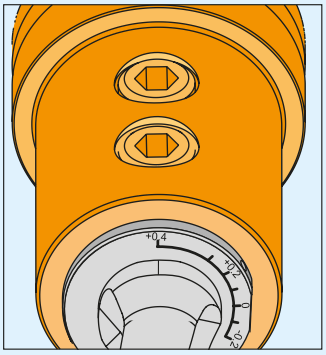
Radial - Einstellstift (nicht im Lieferumfang)

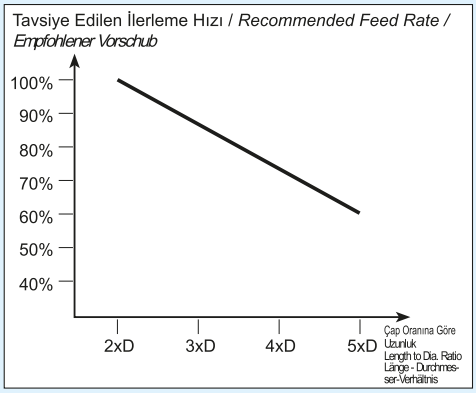


Eksantrik Adaptörü Kullanırken (AET) Tavsiye Edilen İlerleme Hızı
Recommended Feed When Using Eccentric Adaptor
Empfohlener Vorschub bei Einsatz des exzentrischen Adapters

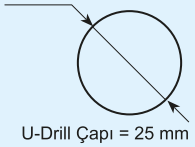






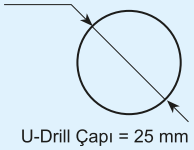


Delik Çapı
24.8 mm
Hole Diameter
Lochdurchmesser



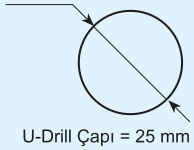
U-Drill Çapı = 25 mm
Drill Diameter = 25 mm
Vollbohrer Durchmesser = 25mm

Delik Çapı
25 mm
Hole Diameter
Lochdurchmesser



U-Drill Çapı = 25 mm
Drill Diameter = 25 mm
Vollbohrer Durchmesser = 25mm

Delik Çapı
25.4 mm
Hole Diameter
Lochdurchmesser



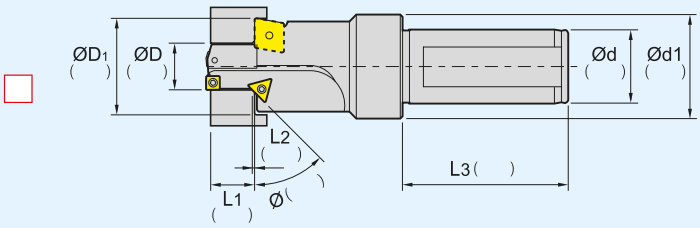
U-Drill Çapı = 25 mm
Drill Diameter = 25 mm
Vollbohrer Durchmesser = 25mm

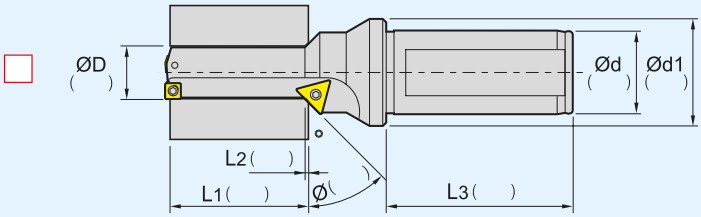
ATUM'un üzerindeki düz çizgi adaptörün sıfır rakamının üzerine konulmalıdır. AET'nin (eksantrik adaptörün) çevrilmesini kolaylaştırmak için AET'nin üzerindeki deliğe, metal bir çubuk ya da vida anahtarı yerleştirilebilir. AET'yi ayarlamadan önce tutucunun vidasını hafifçe çözün.

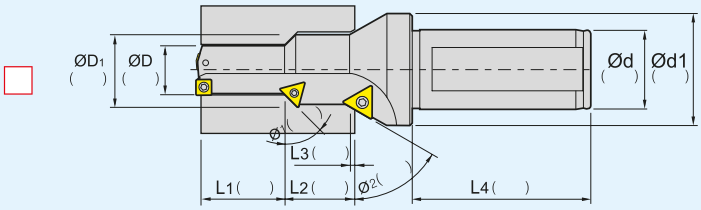
The adjustment markings should be located perpendicular to the flat on the circumference of the U-DRILL flange.
To facilitate the rotation of the adaptor, a metal rod or a screw key may be inserted into a hole on the excentric adaptor flange. Unlock adapter screw before adjusting adaptor.

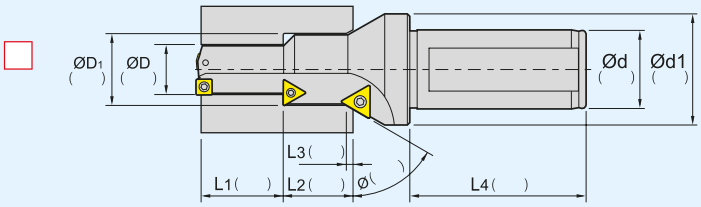
Die Einstellmarkierung sollte senkrecht zur Fläche des Bohrerschaftes stehen. Zum Drehen des Adapters sollte ein Stift in die Bohrung am Adapterflansch eingesetzt werden. Lösen Sie die Adapter-Schraube vor dem Einstellen des Adapters.

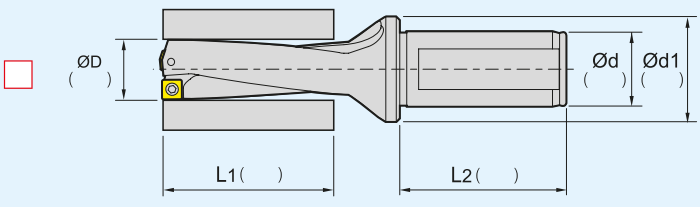
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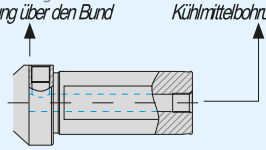




• Soğutma Tipi / *Coolant type / Kühlmittelanschluss*

☐ **Yağ Deliği Dalma Kısmında**
Oil Hole On the Plunge Part
Kühlmittelzuführung über den Bund

☐ **Yağ Deliği Şaft Kısmında**
"Oil hole On the Shank"
Kühlmittelbohrung durch den Schaft



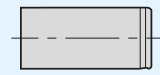
• Delik Tipi / *Hole Type / Bohrungstyp*

☐ **Kapalı Delik**
Blind Hole
Grundbohrung

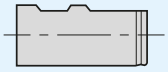
☐ **Açık Delik**
Thru Hole
Durchgangsbohrung

• Şaft Tipleri / *Types of Shank / Schaftausführung*

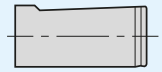
☐ **Düz Tip**
Flat Type
Bohrungstyp



☐ **Weldon Tip**
Weldon Type
Weldon-Schaft

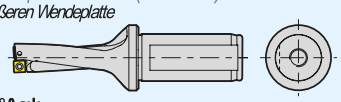


☐ **Eğimli Yargı Tipi**
Whistle Notch Type
Whistle-Notch-Schaft

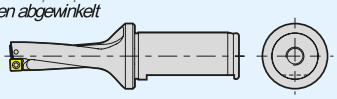


• Yargı Bağlama Yeri / *Location of Side Lock / Position der Spannfläche*

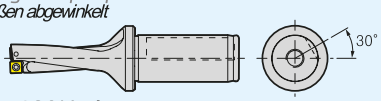
☐ **Dış Uca Parelel (Standart)**
Parallel to Peripheral Insert (Standard)
Parallel zur äußeren Wendeplatte



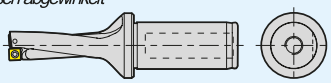
☐ **Dış Uca 90°Açılı**
90°angle to peripheral insert
90° außen abgewinkelt



☐ **Dış Uca 150°Açılı**
150°angle to peripheral insert
150° außen abgewinkelt



☐ **Dış Uca 180°Açılı**
180° angle to peripheral insert
180° außen abgewinkelt



• Not / *Note / Hinweis :*

- **Şu Anki Kullanılan Takım** / *Currently Using Tool*
- *Aktuell verwendetes Werkzeug*
- **Şu Anki Kesme Durumu** / *Current Cutting Condition*
- *Aktuelle Schnittbedingungen*
  - **RPM ya da vc(m/min)** / *- RPM or vc(m/min)*
  - *- Umdrehungen pro Minute oder vc (m/min.)*
  - **vf(mm/min) ya da fn(mm/rev)**
  - *- vf(mm/min) or fn(mm/rev)* **vf (mm/min.) oder fn (mm/Umdr.)**
  - **Kesme Derinliği** / *Depth of Cut(mm)*
  - *- Schnitttiefe (mm)*
- **Ölçülen Standart Takım Ömrü** / *Standard of Measuring Tool Life*
- *Standzeit des Werkzeugs*
- **Şu Anki Kullanılan Makinalar** / *Currently Using Machine*
- *Aktuell eingesetzte Maschine*
  - **İşleme Merkezi** / *Machining Center*
  - *- Bearbeitungszentrum*
  - **Genel Torna** / *General Lathe*
  - *- Drehmaschine*
  - **CNC Torna** / *CNC Lathe*
  - *- CNC-Drehmaschine*

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konuşulan
the spoken kalite...
quality...

EKONOMİK KESİCİLER

EKONOMİK KESİCİLER
ECONOMIC CUTTING TOOLS
MULTIFUNKTIONALES DREH- UND BOHRWERKZEUG



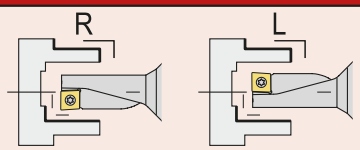
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AKKO												
A	EK	R	-	D2.25	x	20						
1	2	3		4		5						
X	C	.	.	10	T3	04						
6	7	8	9	10	11	12						

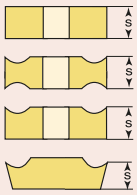
2 Kesiş Stili / *Cutter Style* / *Werkzeugtyp*

EK : Ekonomik Kesici / *Economic Cutting*
Multifunktionales Dreh- und Bohrwerkzeug

3 Kesme Yönü / *Cutting Direction* / *Halterausführung*

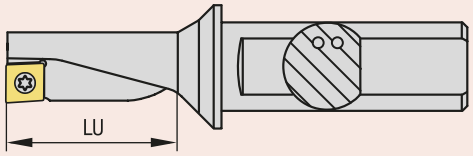


11 Kalınlık / *Thickness* / *Dicke*

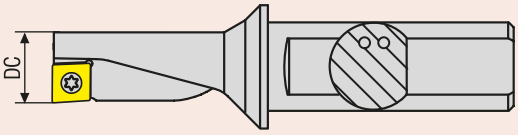


01	s = 1.59
T1	s = 1.98
02	s = 2.38
T2	s = 2.78
03	s = 3.18
T3	s = 3.97
04	s = 4.76
05	s = 5.56
06	s = 6.35
07	s = 7.94
09	s = 9.52

4 Delme Derinliği / *Drilling* Depth / *Bohrtiefe*



5 Takım Çapı / *Tool Diameter* / *Werkzeugdurchmesser*

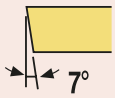


6 Uç Şekli / *Insert Form* / *Plattenform*



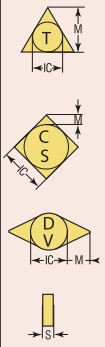
X	Q

7 Serbest Uç Açısı / *Clearance Angle of Insert* / *Freiwinkel der Wendeschneidplatte*



C

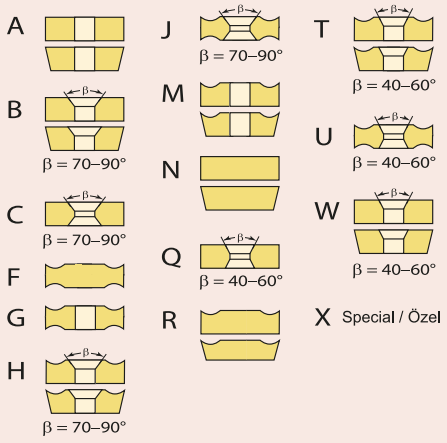
8 Toleranslar / *Tolerance Classes* / *Toleranzen*



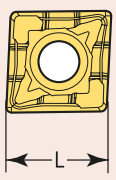
	IC	M	S
A	± 0.025	± 0.005	± 0.025
C	± 0.025	± 0.013	± 0.025
E	± 0.025	± 0.025	± 0.025
F	± 0.013	± 0.005	± 0.025
G	± 0.025	± 0.025	± 0.130
H	± 0.013	± 0.013	± 0.025
J	± 0.05–0.15	± 0.005	± 0.025
K	± 0.05–0.15	± 0.013	± 0.025
L	± 0.05–0.15	± 0.025	± 0.025
M	± 0.05–0.15	± 0.08–0.20	± 0.130
N	± 0.05–0.15	± 0.08–0.20	± 0.025
U	± 0.08–0.25	± 0.13 –0.38	± 0.130

IC : Daire Ölçüsü / *Inscribed Circle*
M : Şekle Göre / *Refer to Figure*
S : Kalınlık / *Thickness*

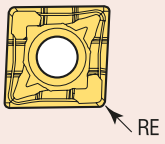
9 Uç Tipi / *Type of Insert* / *Plattenform*



10 Kesme Kenar Uzunluğu / *Cutting Edge Length* / *Schneidkantenlänge*



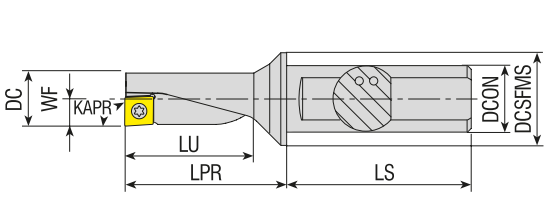
12 Köşe Konfigürasyonu / *Corner Radius* / *Eckenradius*

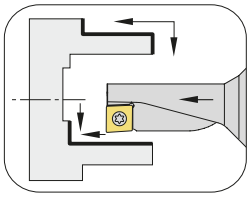


01	RE=0.1	12	RE=1.2
02	RE=0.2	16	RE=1.6
04	RE=0.4	24	RE=2.4
08	RE=0.8		

BF SERVICE







Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*							Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile* Sıkma Vidası *Screw* *Schraube*	Tork Anahtar *Torx Key* *Torx-Schlüssel*
	R	L	DC	DCON	DCSFMS	LU	LPR	LS	WF			
AEKR/L-D2.25X8 XC.. 040104	●	●	8	10	12	18	22	38	4	XC.. 040104	3006-M1.8x4	80-T06
AEKR/L-D2.25X10 XC.. 050204	●	●	10	12	16	22.5	27.5	42	5	XC.. 050204	3006-M2x4	
AEKR/L-D2.25X12 XC.. 060204	●	●	12	16	20	27	33	45	6	XC.. 060204	3007-M2.2x5	80-T07
AEKR/L-D2.25X14 XC.. 070304	●	●	14	16	20	31.5	38	45	7	XC.. 070304	3008-M2.5x6	80-T08
AEKR/L-D2.25X16 XC.. 080304	●	●	16	20	25	36	44	50	8	XC.. 080304	3008-M3x6	
AEKR/L-D2.25X18 XC.. 09T304	●	●	18	25	32	40.5	53.5	56	9	XC.. 09T304		
AEKR/L-D2.25X20 XC.. 10T304	●	●	20	25	32	45	55	56	10	XC.. 10T304	4015-M3.5x9	80-T15
AEKR/L-D2.25X25 XC.. 130404	●	●	25	32	40	56.5	69	60	12.5	XC.. 130404	4020-M4.5x10	80-T20
AEKR/L-D2.25X32 XC.. 170504	●	●	32	32	50	72	88	60	16	XC.. 170504	4020-M4.5x12	

R: Sağ / Right / *Rechts* L: Sol/Left/*Links*

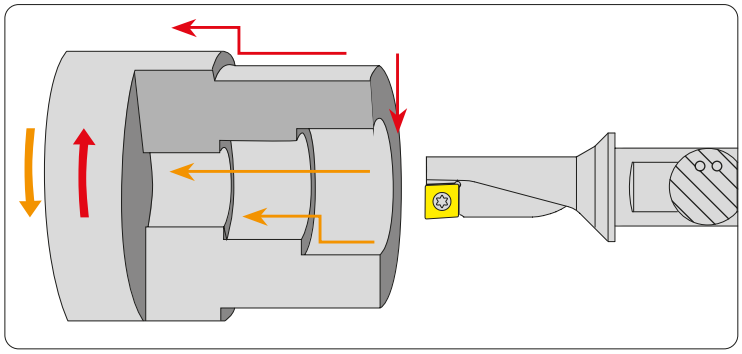
● Stokta / In Stock / *Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*

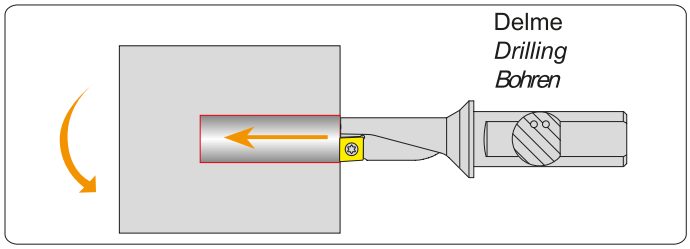
CRTZT-ISCR-TGTC-KRLY Ucuna Uygundur. / Compatiple with CRTZT-ISCR-TGTC-KRLY Insert.

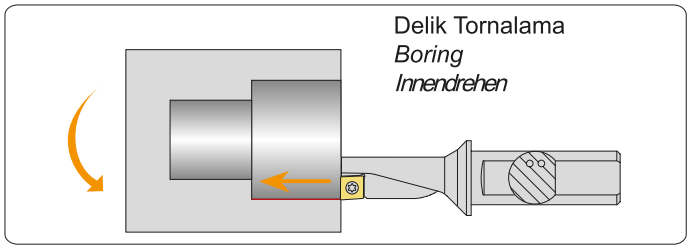
Kompatibel mit CRTZT-ISCR-TGTC-KRLY Wendeplatten.

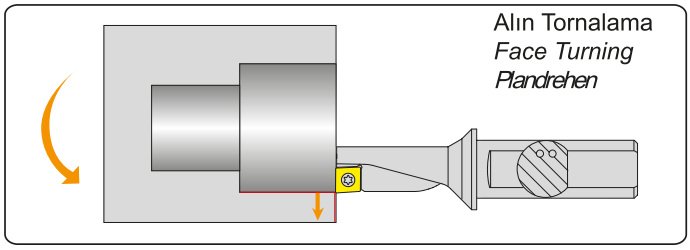
Sipariş Örneği/Ordering Example/*Bestellbeispiel*

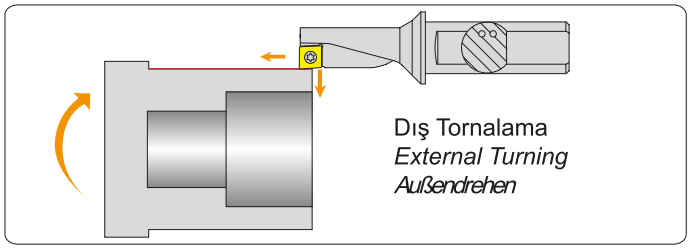
1 ad./pcs./stück AEKR-D2.25X8 XC.. 040104











BF SERVICE

AKKO®

konuşulan
the spoken kalite...
quality...

BARALAR

AYARLI DELİK İŞLEME BARALARI
ADJUSTABLE BORING HEADS
EINSTELLBARE SPINDELKÖPFE







BE SERVICE

AKKO	1	2	3	-	4
A	BH	R		-	D18x22

5	-	6	-	7
W16	-	L90	-	CC06

2 Kesiş Stili / *Cutter Style* / *Werkzeugtyp*

BH : Delik İşleme / *Boring Head*
Spindelkopf

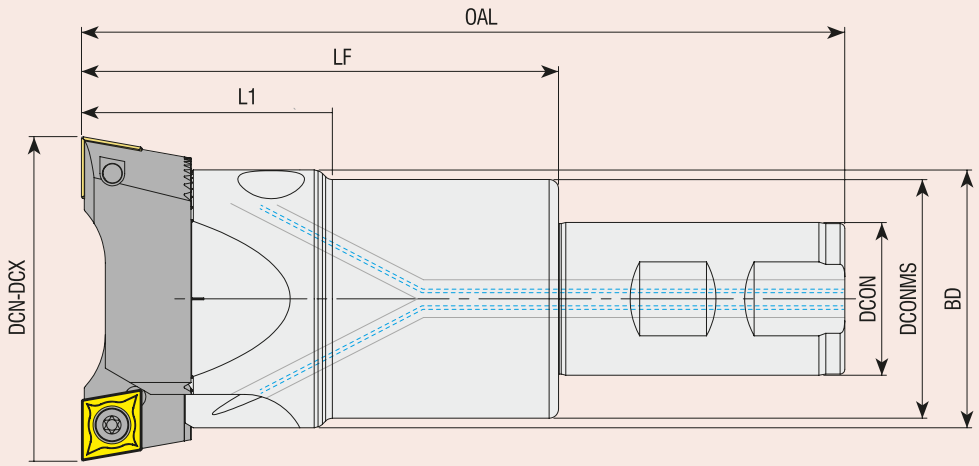
3 İşlem Tipi / *Cutter Type* / *Einsatzgebiet*

R : Kaba Baralama / *Rough Boring*
Schruppbearbeitung
F : Hassas Baralama / *Fine Boring*
Schlichtbearbeitung

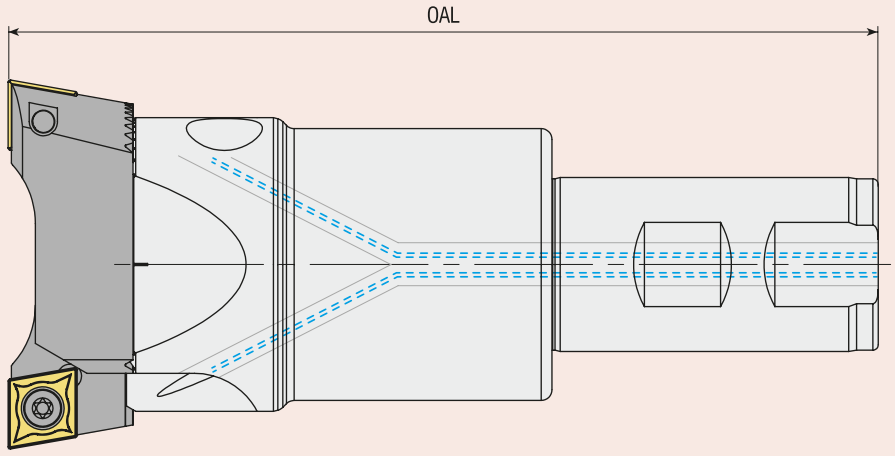
5 Montaj Formu / *Asembly Form* / *Schaftform*

W : Weldon

4 Ölçü Aralığı / *Boring Range* / *Bohrbereich*



6 Takım Boyu / *Tool Length* / *Werkzeuglänge*

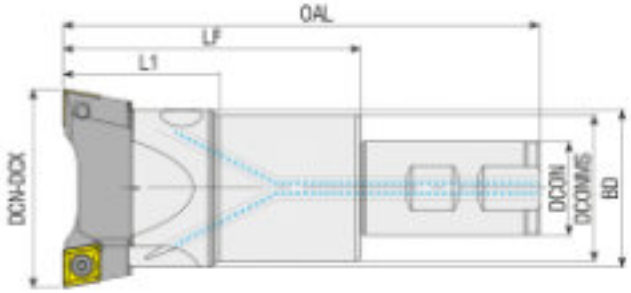


7 Kesici Uç / *Insert* / *Wendeschneidplatte*

CC06 : CC.. 0602..
CC09 : CC.. 09T3..
CC12 : CC.. 1204..

BF SERVICE





DIN 1835



Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*							Kartuş *Cartridge* *Kassetten*	Bara Gövde Takım Kodu *Boring Head Body Code* *Trägerwerkzeug-Bezeichnung*
		Ölçü Aralığı *Boring Range* *Bohrbereich* DCN-DCX	DCON	DCONMS	BD	OAL	LF	L1		
ABHR-D18x22-W16-L90-CC06	●	18-22	16	-	-	90	42	-	AK.. 18-22	ABHRS-D16x42-W16-L90
ABHR-D18x22-W16-L150-CC06	●	18-22	16	-	-	150	102	-		ABHRS-D16x102-W16-L150
ABHR-D18x22-W16-L200-CC06	●	18-22	16	-	-	200	152	-		ABHRS-D16x152-W16-L200
ABHR-D22x28-W20-L100-CC06	●	22-28	20	-	-	100	50	-	AK.. 22-28	ABHRS-D20x50-W20-L100
ABHR-D22x28-W20-L150-CC06	●	22-28	20	-	-	150	100	-		ABHRS-D20x100-W20-L150
ABHR-D22x28-W20-L200-CC06	●	22-28	20	-	-	200	150	-		ABHRS-D20x150-W20-L200
ABHR-D28x38-W20-L110-CC06	●	28-38	20	25	-	110	60	-	AK.. 28-38	ABHRS-D25x60-W20-L110
ABHR-D28x38-W20-L160-CC06	●	28-38	20	25	-	160	110	-		ABHRS-D25x110-W20-L160
ABHR-D28x38-W20-L230-CC06	●	28-38	20	25	-	230	180	-		ABHRS-D25x180-W20-L230
ABHR-D36x50-W25-L120-CC06	●	36-50	25	32	-	120	64	-	AK.. 36-50	ABHRS-D32X64-W25-L120
ABHR-D36x50-W25-L170-CC06	●	36-50	25	32	-	170	114	-		ABHRS-D32X114-W25-L170
ABHR-D36x50-W25-L250-CC06	●	36-50	25	32	-	250	194	-		ABHRS-D32X194-W25-L250
ABHR-D36x50-W25-L120-CC09	●	36-50	25	32	-	120	64	-	AK.. 36-50-09	ABHRS-D32X64-W25-L120
ABHR-D36x50-W25-L170-CC09	●	36-50	25	32	-	170	114	-		ABHRS-D32X114-W25-L170
ABHR-D36x50-W25-L250-CC09	●	36-50	25	32	-	250	194	-		ABHRS-D32X194-W25-L250
ABHR-D50x68-W32-L140-CC09	●	50-68	32	40	-	140	80	-	AK.. 50-68	ABHRS-D40x80-W32-L140
ABHR-D50x68-W32-L200-CC09	●	50-68	32	40	-	200	140	-		ABHRS-D40x140-W32-L200
ABHR-D50x68-W32-L280-CC09	●	50-68	32	40	-	280	220	-		ABHRS-D40x220-W32-L280
ABHR-D50x68-W32-L140-CC12	●	50-68	32	40	-	140	80	-	AK.. 50-68-12	ABHRS-D40x80-W32-L140
ABHR-D50x68-W32-L200-CC12	●	50-68	32	40	-	200	140	-		ABHRS-D40x140-W32-L200
ABHR-D50x68-W32-L280-CC12	●	50-68	32	40	-	280	220	-		ABHRS-D40x220-W32-L280
ABHR-D68x90-W32-L160-CC12	●	68-90	32	50	54	160	100	50	AK.. 68-90	ABHRS-D50x100-W32-L160
ABHR-D68x90-W32-L210-CC12	●	68-90	32	50	54	210	150	50		ABHRS-D50x150-W32-L210
ABHR-D68x90-W32-L280-CC12	●	68-90	32	50	54	280	220	50		ABHRS-D50x220-W32-L280
ABHR-D90x120-W32-L140-CC12	●	90-120	32	63	72	140	80	63	AK.. 90-120	ABHRS-D63x80-W32-L140
ABHR-D90x120-W40-L200-CC12	●	90-120	40	63	72	200	130	63		ABHRS-D63x130-W40-L200
ABHR-D90x120-W40-L300-CC12	●	90-120	40	63	72	300	230	63		ABHRS-D63x230-W40-L300
ABHR-D120x160-W40-L210-CC12	●	120-160	40	80	95	210	140	75	AK.. 120-160	ABHRS-D80x140-W40-L210
ABHR-D120x160-W40-L300-CC12	●	120-160	40	80	95	300	230	75		ABHRS-D80x230-W40-L300
ABHR-D160x200-W40-L210-B-CC12	●	160-200	40	80	95	210	140	75	AK.. 160-800	ABHRS-D80x140-W40-L210
ABHR-D160x200-W40-L300-B-CC12	●	160-200	40	80	95	300	230	75		ABHRS-D80x230-W40-L300

R: Sağ / Right / *Rechts* L: Sol/Left/*Links*

● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*

Siparişte, gövde ve kartuş set olarak verilecektir. / *When ordered, body and cartridge will be sent as set.*

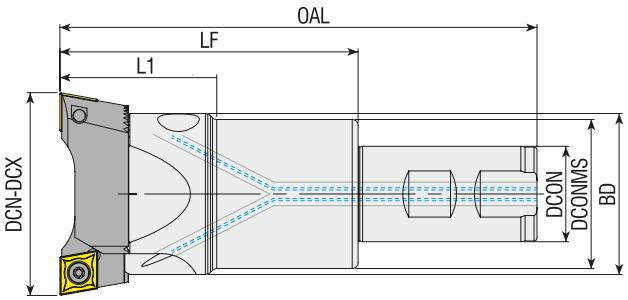
Bei Bestellung werden Körper und Kassetten als Set geliefert.

Sipariş Örneği/Ordering Example/*Bestellbeispiel*

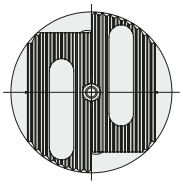
1 ad./pcs./stück ABHR-D18x22-W16-L90-CC06

BF SERVICE





DIN 1835



Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*							Yedek Parçaları / *Spare Parts* / *Ersatzteile*				
		Ölçü Aralığı *Boring Range* *Bohrbereic* DCN-DCX	DCON	DCONMS	BD	OAL	LF	L1	Montaj Vidası *Mounting Screw* *Befestigungsschraube*	Montaj Vida Anahtarı *Mounting Screw Key*	Pabuç *Clamp* *Spannspratze*	Ayar Vidası *Adjusting Screw* *Einstellschraube*	Ayar Vida Anahtarı *Allen Key* *Innensechskant-Schlüssel*
ABHRS-D16x42-W16-L90	●	18-22	16	-	-	90	42	-	2525-M3x14	AAL-02-2.5	ABKS-D16	2715-M3x4	AAL-09-1.5
ABHRS-D16x102-W16-L150	●	18-22	16	-	-	150	102	-					
ABHRS-D16x152-W16-L200	●	18-22	16	-	-	200	152	-					
ABHRS-D20x50-W20-L100	●	22-28	20	-	-	100	50	-	2503-M4x15	AAL-03-3	ABKS-D20	2715-M3x5	
ABHRS-D20x100-W20-L150	●	22-28	20	-	-	150	100	-					
ABHRS-D20x150-W20-L200	●	22-28	20	-	-	200	150	-					
ABHRS-D25x60-W20-L110	●	28-38	20	25	-	110	60	-	2503-M4x20	AAL-03-3	ABKS-D25	2715-M3x8	
ABHRS-D25x110-W20-L160	●	28-38	20	25	-	160	110	-					
ABHRS-D25x180-W20-L230	●	28-38	20	25	-	230	180	-					
ABHRS-D32X64-W25-L120	●	36-50	25	32	-	120	64	-	2504-M5x25	AAL-05-4	ABKS-D32	2702-M4x12	AAL-01-2
ABHRS-D32X114-W25-L170	●	36-50	25	32	-	170	114	-					
ABHRS-D32X194-W25-L250	●	36-50	25	32	-	250	194	-					
ABHRS-D40x80-W32-L140	●	50-68	32	40	-	140	80	-	2505-M6x30	AAL-07-5	ABKS-D40	2725-M5x16	AAL-02-2.5
ABHRS-D40x140-W32-L200	●	50-68	32	40	-	200	140	-					
ABHRS-D40x220-W32-L280	●	50-68	32	40	-	280	220	-					
ABHRS-D50x100-W32-L160	●	68-90	32	50	54	160	100	50	2506-M8x35	AAL-08-6	ABKS-D50	2725-M5x12	
ABHRS-D50x150-W32-L210	●	68-90	32	50	54	210	150	50					
ABHRS-D50x220-W32-L280	●	68-90	32	50	54	280	220	50					
ABHRS-D63x80-W32-L140	●	90-120	32	63	72	140	80	63	2508-M10x40	AAL-11-8	ABKS-D63	2703-M6x16	AAL-03-3
ABHRS-D63x130-W40-L200	●	90-120	40	63	72	200	130	63					
ABHRS-D63x230-W40-L300	●	90-120	40	63	72	300	230	63					
ABHRS-D80x140-W40-L210	●	120-160	40	80	95	210	140	75	2510-M12x40	AAL-12-10	ABKS-D80	2704-M8x25	AAL-05-4
ABHRS-D80x230-W40-L300	●	120-160	40	80	95	300	230	75					
ABHRS-D80x140-W40-L210	●	160-200	40	80	95	210	140	75	2510-M12x40				
ABHRS-D80x230-W40-L300	●	160-200	40	80	95	300	230	75					

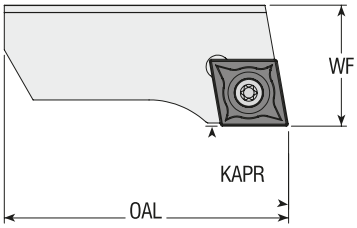
R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück ABHRS-D16x42-W16-L90

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KAPR=90°

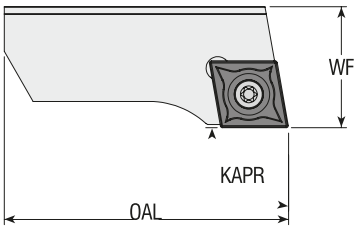




Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*			Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*	
		Ölçü Aralığı *Boring Range*	WF	OAL		Sıkma Vidası *Screw* *Schraube* 	Tork Anahtar *Torx Key* *Torx-Schlüssel* 
AKSR 18-22	●	18-22	9	15	**CC.. 0602..**	4008-M2.5x6	80-T08
AKSR 22-28	●	22-28	10	19			
AKSR 28-38	●	28-38	13	23			
AKSR 36-50	●	36-50	16	32			
AKSR 36-50-09	●	36-50	16	32	**CC.. 09T3..**	4015-M3.5x8	80-T15
AKSR 50-68	●	50-68	20	40			
AKSR 50-68-12	●	50-68	20	40	**CC.. 1204..**	1020-M5x11	80-T20
AKSR 68-90	●	68-90	23	54			
AKSR 90-120	●	90-120	28	70			
AKSR 120-160	●	120-160	32	95			
AKSR 160-800	●	160-800	32	120			

KAPR=90°





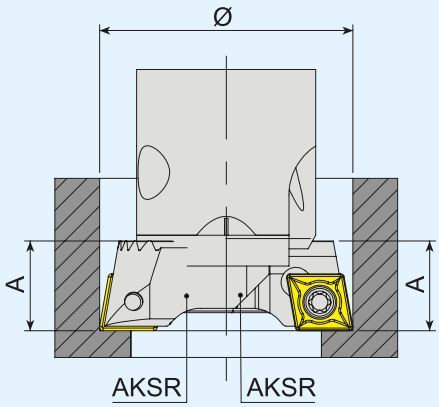
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*			Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*	
		Ölçü Aralığı *Boring Range*	WF	OAL		Sıkma Vidası *Screw* *Schraube* 	Tork Anahtar *Torx Key* *Torx-Schlüssel* 
AKCR 28-38	●	28-38	12.8	23	**CC.. 0602..**	4008-M2.5x6	80-T08
AKCR 36-50	●	36-50	15.8	32			
AKCR 36-50-09	●	36-50	15.8	32	**CC.. 09T3..**	4015-M3.5x8	80-T15
AKCR 50-68	●	50-68	19.7	40			
AKCR 50-68-12	●	50-68	19.7	40	**CC.. 1204..**	1020-M5x11	80-T20
AKCR 68-90	●	68-90	22.7	54			
AKCR 90-120	●	90-120	27.7	70			
AKCR 120-160	●	120-160	31.7	95			
AKCR 160-800	●	160-800	31.7	120			

R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
ISO Ucuna Uygundur. / Compatiple with ISO Insert. Kompatibel mit ISO Wendeplatten.

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück AKSR 18-22

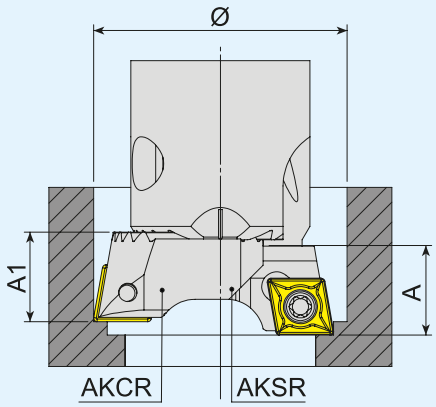
BF SERVICE

Şekil:A



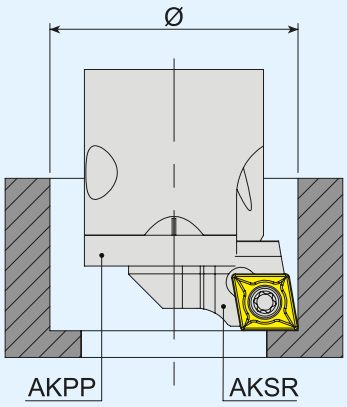
Yüksek ilerleme ile
kaba baralama
Schruppen mit hoher Vorschubgeschwindigkeit

Şekil:B



Yüksek kesme derinligi ile
kaba baralama
für tiefe Schruppbearbeitung

Şekil:C



Hafif kaba baralama veya
yarı hassas uygalamalar
Spindelbearbeitung mit geringem Außmaß

1. Kesici kenarların radyal ayarı, takım ölçme ekipmanıyla yapılmalıdır.
2. İki uçlu baralama takımı, ağır talaş kaldırma işlemini içeren kaba baralama işlemleri içindir.
   Çift uçlu baralama takımı ile:

• Yüksek ilerleme oranında kaba baralama işlemeleri için, aynı düzlemdeki iki AKSR kartuşu, aynı radyal mesafeye ayarlanır. (Şekil A)
• Aynı düzlemde olmayan bir AKCR kartuşu ve bir AKSR kartuşu yüksek derinlikte kaba baralama işlemleri için kullanılır. (Şekil B)

i. Kaba baralama işleminde, alınacak paso miktarı tam olarak ikiye bölünüp, düzgün bir kesim sağlanmış olur, ancak bu durumda tur başına ilerleme tek ağız olarak hesaplanmalıdır. (f=f1)
ii. Hassas baralama işleminde, alınacak paso miktarı AKSR kartuş için ara kaba olarak ve AKCR kartuş için hassas bara olarak çaplar ayarlanır ve bu sayede bazı ara kaba işlemine ihtiyaç kalmaz.

3. Tek kartuşlu baralama takımları, normal talaş kaldırma işlemini içeren kaba ve hassas baralama işlemleri içindir. Dişleri koruma plakası, AKPP daima kullanılmalıdır. (Şekil C)

1. Radial setting of the cutting edges should be carried out with tool presetting equipment.
2. Boring bars fitted with two insert pockets are for roughing operations invloving heavy chip removal.
   The double-insert boring bars include:

• Two AKSR cartridges on the same plane with two cutting edges set at identical radial distance for high feed rate roughing operations. (fig. A)
• An AKCR cartridge and an AKSR cartridge not on the same plane for high-debth roughing operations. (fig. B)

i. With the rough boring operation, this allows double the cutting width, using only a single feed rate. (f=f1)
ii. With the finish boring operation, the cutting width is divided so that some of the intermediate machining can be omitted.

3. Boring bars fitted with a single cartridge are for roughing and finishing operations involving normal chip removal. The serrated surface protection plate AKPP should always be used (fig. C)

1. Die radiale Einstellung der Schneiden sollte auf einem Voreinstellgerät durchgeführt werden.
2. Spindelköpfe, die mit 2 Kassetten bestückt sind, werden für die Schruppbearbeitung eingesetzt.
Doppelte Kassetten beinhalten:

• Für die Schruppbearbeitung mit hoher Vorschubgeschwindigkeit sind zwei AKSR-Kassetten in derselben Höhe auf denselben radialen Abstand einzustellen (Abbildung A)
• Eine AKCR-Kassette und eine AKSR-Kassette, die nicht in derselben Ebene liegen, werden für tiefe Schruppbearbeitungen eingesetzt.
i. Bei einer Schruppbearbeitung kann die Schnitttiefe verdoppelt werden. Bitte nur eine Schneide zur Vorschubberechnung verwenden (f=f1).
ii. Bei der Schlichtbearbeitung wird die Schnitttiefe halbiert. Weitere zusätzliche Bearbeitungsdurchgänge werden überflüssig.
3. Bohrköpfe mit einer einzelnen Kassette können sowohl für Schlicht- als auch für Schrupp-Operationen eingesetzt werden. Voraussetzung hierfür ist eine gute Spanabfuhr. Zum Schutz der verzahnten Oberfläche des Bohrkörpers sollte immer die Abdeckung AKPP verwendet werden (siehe Abb.C).



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AKKO®

konuşulan
the spoken kalite...
quality...

FREZELEME TAKIMLARI
MILLING TOOLS
FRÄSWERKZEUGE



BF SERVICE

AKKO							
A	EM	90	L	-	A	P	10
1	2	3	4		5	6	7

D12	-	W16	-	L100	-	Z01	-	H			
8		9		10		11		12			

2 Kesiş Stili / *Cutter Style* / *Fräswerkzeug-Typ*

FM: Yüzey Frezeleme Takımları / Face Milling Tools / *Eck-und Planfräsköpfe*
EM: Alın ve Yüzey Parmak Frezeleri / End Face Milling Tools / *Schaftfräser*
CM: Pah Kırma Parmak Frezeleri / Chamfering End Milling Tools / *Fasfräser*
HM: Helis Parmak Frezeleri / Helix End Milling Tools / *Schaftfräser Helix*
TSM: T Kanal Frezeleri / T Slot Milling Tools / *T-Nutenfräser*
HFM: Yüksek İlerleme Frezeleme Takımları / High Feed Milling Tools / *Fräser für hohe Vorschübe*
PMR: Küresel Uçlu Parmak Frezeleri / Ball Nose End Milling Tools / *Kugel und Kopierfräser*
SDM: Disk Frezeler / Slot Disc Milling / *Scheibenfräser*
CBM: Silindrik Alyan Başlı Vida Havşalarını Açma Frezeleri / Countersink Milling Tool for Cylindrical Allen Head Screws
Fräswerkzeug für zylindrische Inbusschrauben

3 Freze Yanaşma Açısı / *Lead Angle* / *Anstellwinkel*

90° - 75° - 60° - 45°
20° - 15° - 11° - 5° - 0°

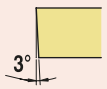
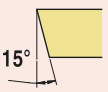
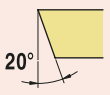
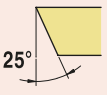
4 Freze Yanaşma Açısı / *Lead Angle* / *Ausführung*

L: Sol - *Left* / *Links*
C: Baskı Pabucu - *Clamp* / *Spannpratze*
S: Altlık - *Shim* / *Unterlage*
CL: Baskı Pabuçlu Sol Yön - *Left Way with Clamp*
Spannspratze links
CS: Baskı Pabuçlu Altlıklı - *Clamp with Shim*
Spannspratze mit Unterlage
CSL: Baskı Pabuçlu Altlıklı Sol Yön - *Left Way Clamp with Shim*
Spannspratze mit Unterlage Links

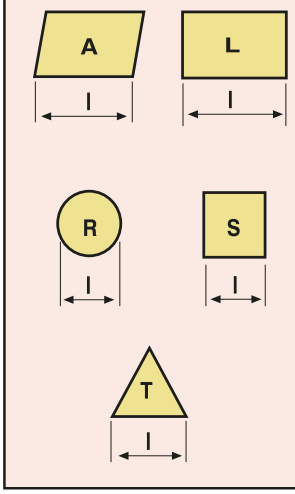
5 Uç Tipi / *Type of Insert* / *Plattenform*

			
C	D	E	K
			
L	R	S	T
			
V	W	A	B
			
H	M	O	P

6 Serbest Uç Açısı / *Clearange angle of Insert* *Freiwinkel der Wendeschneidplatte*

		
A	B	C
		
D	E	F
		
G	N	P

7 Kesme Kenar Uzunluğu *Cutting Edge Length* *Länge der Schneidkante*



8 Takım Çapı / *Tool Diameter* / *Werkzeug-ø*

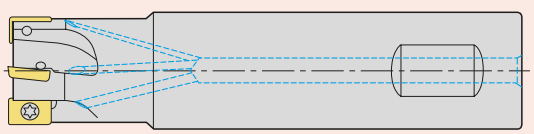
9 Montaj Formu ve Çapı / *Asembly Form and Diameter* / *Schaft-ø und Form*

A,B,C,D: ISO'ya göre montaj formu / *Asembly Form and Diameter* / *Art der Montage und Durchmesser*
C: Silinrdik Şaft / *Cylindrical Shank* / *Zylindrischer Schaft*
W: Weldon

10 Takım Boyu / *Tool Length* / *Werkzeug Länge*

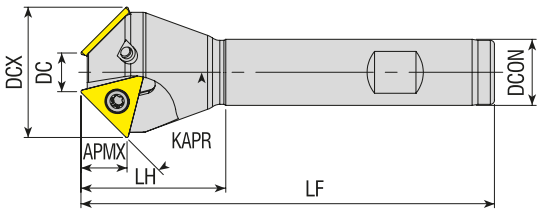
11 Etkili Diş Adedi / *Number of Effective Tooth* / *Effektive Zähnezahl*

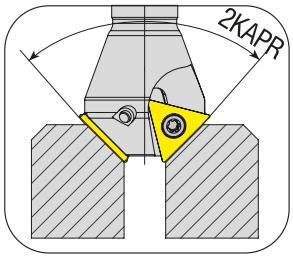
12 İçten Soğutmalı / *With Coolant Hole* / *Innenkühlung*



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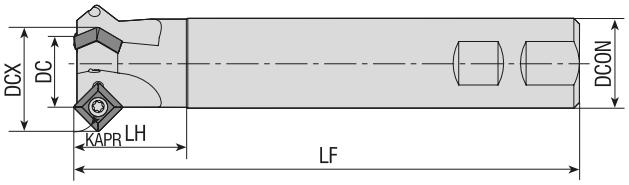
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*								Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*	
		KAPR	DC	DCX	DCON	LF	LH	ZEFP	APMX		Sıkma Vidası *Screw* *Schraube* 	Tork Anahtar *Torx Key* *Torx-Schlüssel* 
ACM10-TC16-D17X22-W16-L90-Z01	●	10°	17	22	16	90	30	1	15.2			
ACM15-TC16-D17X24-W16-L90-Z01	●	15°	17	24	16	90	30	1	14.9			
ACM15-TC16-D22X29-W16-L100-Z01	●	15°	22	29	16	100	30	1	14.9			
ACM15-TC16-D30X37-W20-L100-Z02	●	15°	30	37	20	100	35	2	14.9	**TC.T 16T304**		
ACM15-TC16-D35X42-W20-L100-Z03	●	15°	35	42	20	100	38	3	14.9			
ACM15-TC16-D52X59-W25-L110-Z03	●	15°	52	59	25	110	40	3	14.9			
ACM17.5-TC16-D17X25-W16-L90-Z01	●	17.5°	17	25	16	90	30	1	14.7			
ACM18.5-TC16-D21.3X30-W20-L100-Z02	●	18.5°	21.3	30	20	100	30	2	13.5	**TC.T 16T308**		
ACM20-TC16-D12X22-W16-L100-Z01	●	20°	12	22	16	100	30	1	14.4			
ACM20-TC16-D17X27-W16-L100-Z01	●	20°	17	27	16	100	30	1	14.4			
ACM20-TC16-D23X33-W20-L100-Z02	●	20°	23	33	20	100	30	2	14.4			
ACM20-TC16-D28X38-W20-L100-Z02	●	20°	28	38	20	100	35	2	14.4			
ACM20-TC16-D35X45-W20-L100-Z03	●	20°	35	45	20	100	40	3	14.4	**TC.T 16T304**	4015-M3.5x9	80-T15
ACM20-TC16-D39X49-W20-L100-Z03	●	20°	39	49	20	100	40	3	14.4			
ACM20-TC16-D45X55-W25-L110-Z03	●	20°	45	55	25	110	40	3	14.4			
ACM20-TC16-D51X61-W25-L110-Z03	●	20°	51	61	25	110	40	3	14.4			
ACM22.5-TC16-D17X28-W16-L100-Z01	●	22.5°	17	28	16	100	30	1	14.2			
ACM25-TC16-D17X29-W16-L100-Z01	●	25°	17	29	16	100	30	1	13.9			
ACM30-TC16-D6X20-W16-L100-Z01	●	30°	6	20	16	100	30	1	13.3			
ACM30-TC16-D15X30-W16-L100-Z01	●	30°	15	30	16	100	30	1	13.3			
ACM30-TC16-D17.5X32.5-W20-L100-Z02	●	30°	17.5	32.5	20	100	30	2	13.3			
ACM30-TC16-D20X35-W16-L100-Z02	●	30°	20	35	16	100	35	2	13.3			
ACM30-TC16-D30X45-W20-L100-Z02	●	30°	30	45	20	100	40	2	13.3			
ACM30-TC16-D35X50-W20-L100-Z03	●	30°	35	50	20	100	40	3	13.3			
ACM30-TC16-D45X60-W25-L110-Z03	●	30°	45	60	25	110	40	3	13.3			
ACM45-TC09-D7X18-W16-L100-Z02	●	45°	7	18	16	100	25	2	5.9	**TC.T 090204**	3007-M2.2x5	80-T07
ACM45-TC11-D11X24-W16-L100-Z02	●	45°	11	24	16	100	25	2	6.9	**TC.T 110204**	3008-M2.5x6	80-T08
ACM45-TC16-D5X26-W16-L100-Z01	●	45°	5	26	16	100	30	1	10.8			
ACM45-TC16-D10X31-W16-L100-Z02	●	45°	10	31	16	100	35	2	10.8			
ACM45-TC16-D10X31-W20-L100-Z02	●	45°	10	31	20	100	35	2	10.8			
ACM45-TC16-D18X39-W16-L100-Z02	●	45°	18	39	16	100	40	2	10.8			
ACM45-TC16-D18X39-W20-L100-Z02	●	45°	18	39	20	100	40	2	10.8			
ACM45-TC16-D20X41-W20-L100-Z02	●	45°	20	41	20	100	40	2	10.8	**TC.T 16T304**	4015-M3.5x9	80-T15
ACM45-TC16-D30X51-W20-L100-Z02	●	45°	30	51	20	100	40	2	10.8			
ACM55-TC16-D16X40-W20-L100-Z03	●	55°	16	40	20	100	40	3	8.7			
ACM62-TC16-D14X40-W20-L100-Z03	●	62°	14	40	20	100	40	3	7.1			
ACM72-TC16-D14X42-W20-L100-Z03	●	72°	14	42	20	100	40	3	4.6			

R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
ISO Ucuna Uygundur. / Compatiple with ISO Insert. Kompatibel mit ISO Wendeplatten.

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück ACM10-TC16-D17X22-W16-L90-Z01
Kesme Hesabı : S 331 / *Cutting Calculation : P 331* / *Schnittberechnung : 331*

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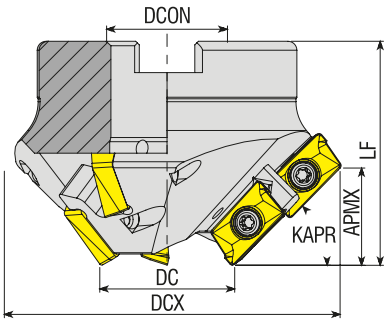


Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*								Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile* Sıkma Vidası *Screw* *Schraube*	Tork Anahtar *Torx Key* *Torx-Schlüssel*
		KAPR	DC	DCX	DCON	LF	LH	ZEFP	a			
ACM45-SP1104-D12x26-W20-L150-Z01	●	45°	12	26	20	150	30	1	-	**SPGT 110408**	4015-M4x9	80-T15
ACM45-SP1104-D25x39-W25-L150-Z02	●	45°	25	39	25	150	35	2	-			
ACM45-SP1104-D32x46-W32-L150-Z03	●	45°	32	46	32	150	40	3	-			

ZCC Ucuna Uygundur. / Compatiple with ZCC Insert. Kompatibel mit ZCC Wendeplatten.

HELİS PAH FREZELEME TAKIMLARI
HELIX CHAMFER MILLING TOOLS
HELIX-FASFRÄSER





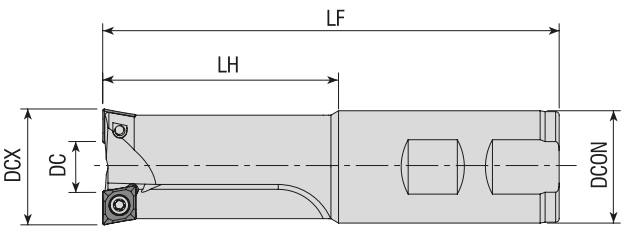
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*									Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile* Sıkma Vidası *Screw* *Schraube*	Tork Anahtar *Torx Key* *Torx-Schlüssel*
		ZEFP Toplam *Total* *Gesamt*	ZEFP Etkili *Effective* *Effektiv*	KAPR	DC	DCX	DCON	APMX	LF				
AHM15-AP16-D35x93-A27-Z0306-H	●	6	3	15	35	93	27	8	50				
AHM30-AP16-D35x87-A27-Z0306-H	●	6	3	30	35	87	27	15	50				
AHM45-AP16-D35x77-A27-Z0306-H	●	6	3	45	35	77	27	21.5	50		**AP.. 1604..**	4015-M4x11	80-T15
AHM60-AP16-D35x65-A22-Z0306-H	●	6	3	60	35	65	22	26.5	50				
AHM75-AP16-D35x50-A22-Z0306-H	●	6	3	75	35	50	22	29.5	50				

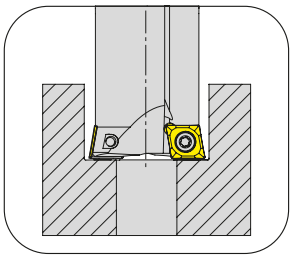
R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
ISO Ucuna Uygundur. / Compatiple with ISO Insert. Kompatibel mit ISO Wendeplatten.

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück ACM45-SP1104-D12x26-W20-L150-Z01
Kesme Hesabı : S 331 / *Cutting Calculation : P 331* / *Schnittberechnung : 331*

BF SERVICE





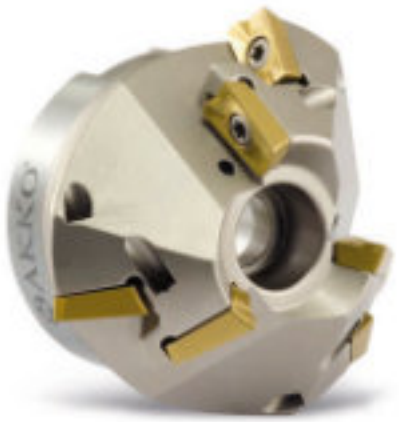


Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*						Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*	
		DC	DCX	DCON	LH	LF	Kullanılan Vidalar *For Screws* *Für Schraube*		Sıkma Vidası *Screw* *Schraube* 	Tork Anahtar *Torx Key* *Torx-Schlüssel* 
ACBM-CC06-D17X6-W16-L150-Z02	●	6	17	16	30	150	-	**CC.. 060204**	3008-M2.5x6	80-T08
ACBM-CC06-D18X7-W16-L100-Z02-H	●	7	18	16	32	100	M10			
ACBM-CC06-D18X7-W16-L160-Z02-H	●	7	18	16	32	160	M10			
ACBM-CC06-D20X9-W20-L100-Z02-H	●	9	20	20	40	100	M12			
ACBM-CC06-D20X9-W20-L160-Z02-H	●	9	20	20	38	160	M12			
ACBM-CC09-D26X8.5-W25-L130-Z02-H	●	8.5	26	25	50	130	M16	**CC.. 09T304**	4015-M3.5x9	80-T15
ACBM-CC09-D26X8.5-W25-L200-Z02-H	●	8.5	26	25	50	200	M16			
ACBM-CC09-D33X15.5-W32-L130-Z02-H	●	15.5	33	32	65	130	M20			
ACBM-CC09-D33X15.5-W32-L200-Z02-H	●	15.5	33	32	65	200	M20			
ACBM-SP06-D15X4-W16-L160-Z02-H	●	4	15	16	80	160	M8	**SP.. 060204**	3007-M2.2x5	80-T07

R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
ISO Ucuna Uygundur. / Compatiple with ISO Insert. Kompatibel mit ISO Wendeplatten.

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück ACBM-CC06-D17X6-W16-L150-Z02
Kesme Hesabı : S 331 / *Cutting Calculation : P 331* / *Schnittberechnung : 331*

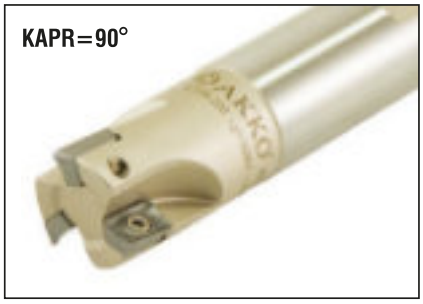


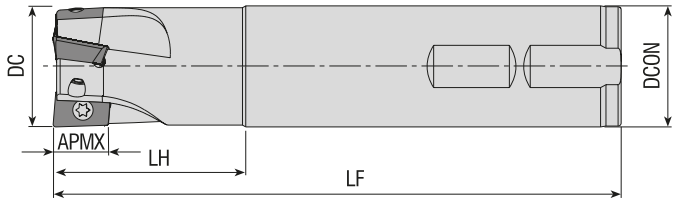






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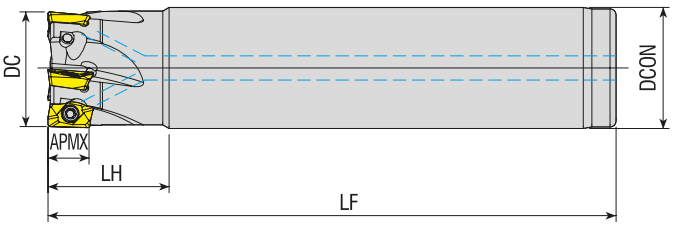




Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*						Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*	
		DC	ZEFP	DCON	LF	LH	APMX		Sıkma Vidası *Screw* *Schraube* 	Tork Anahtar *Torx Key* *Torx-Schlüssel* 
AEM90-AD1505-D25-W25-L150-Z02	●	25	2	25	150	50	15	**AD.. 1505..**	4015-M4x9	80-T15
AEM90-AD1505-D30-W25-L150-Z03	●	30	3	25	150	40	15			
AEM90-AD1505-D32-W32-L150-Z03	●	32	3	32	150	50	15			

ISCR Ucuna Uygundur. / Compatiple with ISCR Insert. Kompatibel mit ISCR Wendeplatten.





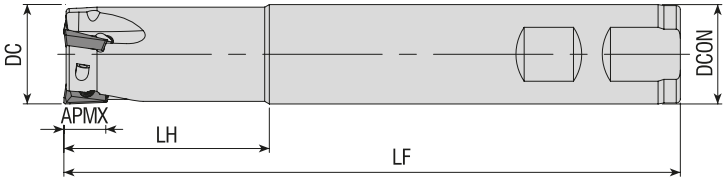
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*						Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*	
		DC	ZEFP	DCON	LF	LH	APMX		Sıkma Vidası *Screw* *Schraube* 	Tork Anahtar *Torx Key* *Torx-Schlüssel* 
AEM90-AD07-D10-C08-L90-Z02-H	●	10	2	8	90	16	6	**ADMX 0702..**	3006-M2x3.3	80-T06
AEM90-AD07-D10-C10-L80-Z02-H	●	10	2	10	80	16	6		3006-M2x3.1	
AEM90-AD07-D12-C10-L80-Z03-H	●	12	3	10	80	18	6			
AEM90-AD07-D12-C12-L90-Z03-H	●	12	3	12	90	18	6		3006-M2x3.3	
AEM90-AD07-D16-C16-L110-Z04-H	●	16	4	16	110	19	6		3006-M2x3.6	
AEM90-AD07-D20-C20-L125-Z05-H	●	20	5	20	125	20	6			
AEM90-AD07-D25-C25-L140-Z06-H	●	25	6	25	140	24	6		3006-M2x4	
AEM90-AD11-D16-C16-L135-Z02-H	●	16	2	16	135	24	9	**ADMX 11T30..**	3008-M2.5x5.5	80-T08
AEM90-AD11-D18-C16-L135-Z02-H	●	18	2	16	135	15	9			
AEM90-AD11-D18-C16-L160-Z02-H	●	18	2	16	160	15	9			
AEM90-AD11-D20-C20-L150-Z02-H	●	20	2	20	150	50	9			
AEM90-AD11-D20-C20-L150-Z03-H	●	20	3	20	150	50	9			
AEM90-AD11-D22-C20-L150-Z03-H	●	22	3	20	150	15	9			
AEM90-AD11-D22-C20-L200-Z03-H	●	22	3	20	200	15	9			
AEM90-AD11-D25-C25-L170-Z03-H	●	25	3	25	170	50	9			
AEM90-AD11-D25-C25-L170-Z04-H	●	25	4	25	170	50	9			
AEM90-AD11-D28-C25-L165-Z04-H	●	28	4	25	165	17	9		3008-M2.5x6	
AEM90-AD11-D28-C25-L200-Z04-H	●	28	4	25	200	17	9			
AEM90-AD11-D30-C25-L165-Z04-H	●	30	4	25	165	19	9			
AEM90-AD11-D30-C25-L200-Z04-H	●	30	4	25	200	19	9			
AEM90-AD11-D32-C32-L195-Z05-H	●	32	5	32	195	50	9			

R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
PRMT Ucuna Uygundur. / Compatiple with PRMT Insert. Kompatibel mit PRMT Wendeplatten.

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück AEM90-AD1505-D25-W25-L150-Z02
Kesme Hesabı : S 331 / *Cutting Calculation : P 331* / *Schnittberechnung : 331*

BF SERVICE





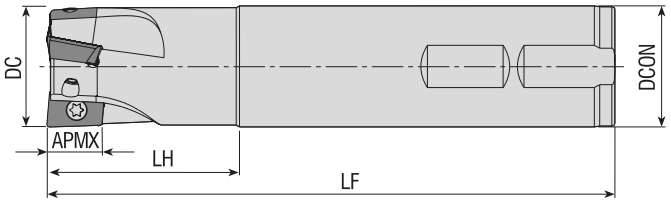
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*						Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile* Sıkma Vidası *Screw* *Schraube*	Tork Anahtar *Torx Key* *Torx-Schlüssel*
		DC	ZEFP	DCON	LF	LH	APMX			
AEM90-AD0803-D16-W16-L150-Z02	●	16	2	16	150	30	8			
AEM90-AD0803-D17-W16-L150-Z02	●	17	2	16	150	30	8			
AEM90-AD0803-D17-W16-L200-Z02	●	17	2	16	200	30	8	**ADMT 0803..**	3008-M2.5x5	
AEM90-AD0803-D20-W20-L150-Z03	●	20	3	20	150	30	8			
AEM90-AD0803-D21-W20-L200-Z03	●	21	3	20	200	30	8			
AEM90-AD10T3-D16-W16-L100-Z02-H	●	16	2	16	100	30	10			
AEM90-AD10T3-D16-W16-L150-Z02	●	16	2	16	150	40	10			
AEM90-AD10T3-D16-C16-L200-Z02	●	16	2	16	200	50	10		3008-M2.5x5	
AEM90-AD10T3-D17-W16-L150-Z02	●	17	2	16	150	30	10			
AEM90-AD10T3-D17-W16-L200-Z02	●	17	2	16	200	30	10			
AEM90-AD10T3-D20-W20-L70-Z03	●	20	3	20	70	30	10			
AEM90-AD10T3-D20-W20-L100-Z03-H	●	20	3	20	100	30	10	**ADMT 10T3..**	3008-M2.5x6	80-T08
AEM90-AD10T3-D20-W20-L150-Z03	●	20	3	20	150	40	10			
AEM90-AD10T3-D20-C20-L150-Z03	●	20	3	20	150	40	10			
AEM90-AD10T3-D20-C20-L200-Z03	●	20	3	20	200	50	10			
AEM90-AD10T3-D25-W25-L100-Z03-H	●	25	3	25	100	30	10			
AEM90-AD10T3-D25-W25-L100-Z04-H	●	25	4	25	100	30	10			
AEM90-AD10T3-D25-W25-L150-Z03	●	25	3	25	150	50	10			
AEM90-AD1204-D20-W20-L150-Z02	●	20	2	20	150	50	12			
AEM90-AD1204-D21-C20-L150-Z02	●	21	2	20	150	30	12			
AEM90-AD1204-D22-C20-L150-Z02	●	22	2	20	150	30	12	**ADMT 1204..**	4010-M3x6	80-T10
AEM90-AD1204-D25-W25-L150-Z03	●	25	3	25	150	50	12			
AEM90-AD1204-D26-W25-L180-Z03	●	26	3	25	180	30	12			
AEM90-AD1204-D32-W32-L150-Z04	●	32	4	32	150	50	12			
AEM90-AD1606-D25-W25-L150-Z02	●	25	2	25	150	50	15	**ADMT 1606..**	4015-M4x9	80-T15
AEM90-AD1606-D32-W32-L150-Z03	●	32	3	32	150	50	15			

R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
WLTR Ucuna Uygundur. / Compatiple with WLTR Insert. Kompatibel mit WLTR Wendeplatten.

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück AEM90-AD0803-D16-W16-L150-Z02
Kesme Hesabı : S 331 / *Cutting Calculation : P 331* / *Schnittberechnung : 331*

BF SERVICE

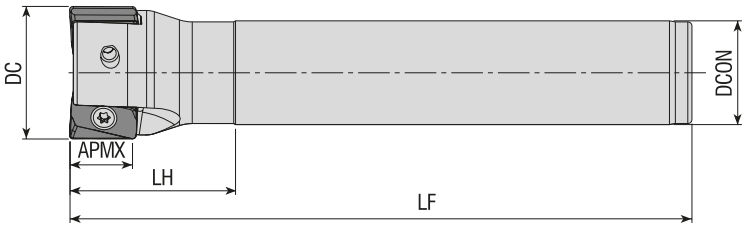




Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*						Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile* Sıkma Vidası *Screw* *Schraube*	Tork Anahtar *Torx Key* *Torx-Schlüssel*
		DC	ZEFP	DCON	LF	LH	APMX			
AEM90-AD1003-D16-C16-L150-Z02	●	16	2	16	150	30	8	ADMT 1003..	3008-M2.5x5	80-T08
AEM90-AD1003-D17-C16-L150-Z02	●	17	2	16	150	25	8			
AEM90-AD1003-D20-C20-L200-Z03	●	20	3	20	200	50	8		3008-M2.5x6	
AEM90-AD1003-D21-C20-L150-Z03	●	21	3	20	150	25	8			
AEM90-AD1003-D21-C20-L200-Z03	●	21	3	20	200	25	8			
AEM90-AD1003-D25-C25-L200-Z03	●	25	3	25	200	50	8			
AEM90-AD1003-D26-C25-L150-Z03	●	26	3	25	150	30	8			
AEM90-AD1003-D26-C25-L200-Z03	●	26	3	25	200	30	8			
AEM90-AD1505D-D25-W25-L150-Z02	●	25	2	25	150	50	14.3	ADKT 150508	4015-M4x9	80-T15
AEM90-AD1505D-D32-W32-L150-Z03	●	32	3	32	150	50	14.3		4015-M4x11	

DJT Ucuna Uygundur. / Compatiple with DJT Insert. Kompatibel mit DJT Wendeplatten.





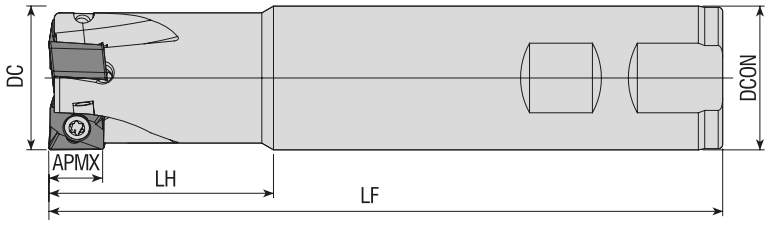
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*						Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile* Sıkma Vidası *Screw* *Schraube*	Tork Anahtar *Torx Key* *Torx-Schlüssel*
		DC	ZEFP	DCON	LF	LH	APMX			
AEM90-AN11-D22-W20-L150-Z02	●	22	2	20	150	30	11	ANGX 110508	4010-M3x8	80-T10
AEM90-AN11-D25-W25-L150-Z02	●	25	2	25	150	40	11			
AEM90-AN11-D25-C25-L200-Z02	●	25	2	25	200	40	11			
AEM90-AN11-D26-W25-L150-Z02	●	26	2	25	150	40	11			
AEM90-AN11-D28-W25-L150-Z02	●	28	2	25	150	25	11			
AEM90-AN11-D32-W32-L150-Z03	●	32	3	32	150	50	11			
AEM90-AN11-D32-C32-L200-Z03	●	32	3	32	200	50	11			
AEM90-AN11-D40-W32-L150-Z04	●	40	4	32	150	40	11			

R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
ZCC Ucuna Uygundur. / Compatiple with ZCC Insert. Kompatibel mit ZCC Wendeplatten.

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück AEM90-AD1003-D16-C16-L150-Z02
Kesme Hesabı : S 331 / *Cutting Calculation : P 331* / *Schnittberechnung : 331*

BF SERVICE

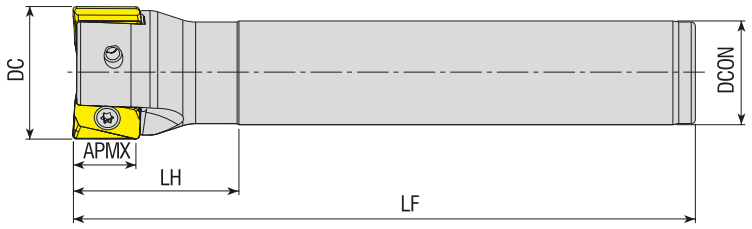




Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*						Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile* Sıkma Vidası *Screw* *Schraube*	Tork Anahtar *Torx Key* *Torx-Schlüssel*
		DC	ZEFP	DCON	LF	LH	APMX			
AEM90-AN1207-D25-W25-L150-Z02	●	25	2	25	150	40	10	**ANKX 1207..**	4015-M4x11	80-T15
AEM90-AN1207-D32-W32-L150-Z03	●	32	3	32	150	50	10			
AEM90-AN1207-D40-W32-L150-Z04	●	40	4	32	150	40	10			

XTC-GSC Ucuna Uygundur. / Compatiple with XTC-GSC Insert. Kompatibel mit XTC-GSC Wendeplatten.





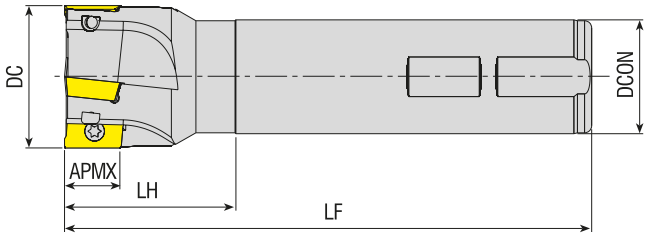
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*						Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile* Sıkma Vidası *Screw* *Schraube*	Tork Anahtar *Torx Key* *Torx-Schlüssel*
		DC	ZEFP	DCON	LF	LH	APMX			
AEM90-AN1607-D32-C25-L150-Z02	●	32	2	25	150	50	15	**AN.X 1607**	4015-M4x11	80-T15
AEM90-AN1607-D40-C32-L150-Z03	●	40	3	32	150	50	15			

R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
TGTC Ucuna Uygundur. / Compatiple with TGTC Insert. Kompatibel mit TGTC Wendeplatten.

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück AEM90-AN1207-D25-W25-L150-Z02
Kesme Hesabı : S 331 / *Cutting Calculation : P 331* / *Schnittberechnung : 331*

BF SERVICE





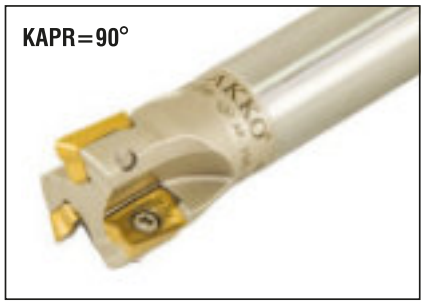
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*						Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile* Sıkma Vidası *Screw* *Schraube*	Tork Anahtar *Torx Key* *Torx-Schlüssel*
		DC	ZEFP	DCON	LF	LH	APMX			
AEM90-AP06-D10-C10-L120-Z02	●	10	2	10	120	20	5.6	**APMT 0602..** KRLY UCUNA UYGUNDUR. *FOR KRLY INSERT. Für KRLY*	3006-M1.8x4	80-T06
AEM90-AP06-D12-C12-L120-Z02	●	12	2	12	120	20	5.6			
AEM90-AP0903-D16-C16-L150-Z02	●	16	2	16	150	30	9	**APMT 0903..**	3008-M2.5x5	
AEM90-AP0903-D17-C16-L150-Z02	●	17	2	16	150	30	9			
AEM90-AP0903-D20-C20-L150-Z02	●	20	2	20	150	30	9	**KRLY UCUNA UYGUNDUR.** *FOR KRLY INSERT.* *Kompatibel mit Wendeschneidplatte KRLY*	3008-M2.5x6	
AEM90-AP0903-D21-C20-L150-Z02	●	21	2	20	150	30	9			
AEM90-AP0903-D25-C25-L150-Z03	●	25	3	25	150	30	9			
AEM90-AP09-D16-C16-L100-Z02-H	●	16	2	16	100	30	8.8		3008-M2.5x5	80-T08
AEM90-AP09-D16-C15-L150-Z02	●	16	2	15	150	25	8.8			
AEM90-AP09-D16-W16-L150-Z02-H	●	16	2	16	150	25	8.8			
AEM90-AP09-D16-C16-L200-Z02-H	●	16	2	16	200	100	8.8			
AEM90-AP09-D17-C16-L150-Z02	●	17	2	16	150	25	8.8	**APKT 09T3..**		
AEM90-AP09-D17-C16-L180-Z02-H	●	17	2	16	180	25	8.8	**TGTC UCUNA UYGUNDUR.** *FOR TGTC INSERT.* *Kompatibel mit Wendeschneidplatte TGTC*	3008-M2.5x6	
AEM90-AP09-D20-C20-L150-Z03-H	●	20	3	20	150	50	8.8			
AEM90-AP09-D20-C20-L200-Z03-H	●	20	3	20	200	100	8.8			
AEM90-AP09-D20-C20-L250-Z02-H	●	20	2	20	250	150	8.8			
AEM90-AP09-D21-C20-L150-Z03	●	21	3	20	150	25	8.8			
AEM90-AP09-D26-C25-L150-Z04	●	26	4	25	150	30	8.8			
AEM90-AP10-D12-W16-L100-Z01-H	●	12	1	16	100	30	10	**AP.. 1003..** **ISO UCUNA UYGUNDUR.** *FOR ISO INSERT.* *Kompatibel mit Wendeschneidplatte ISO*	3008-M2.5x5	
AEM90-AP10-D12-W16-L150-Z01	●	12	1	16	150	38	10			
AEM90-AP10-D14-W16-L100-Z01-H	●	14	1	16	100	30	10			

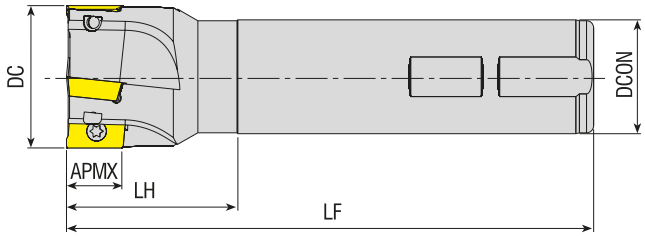
R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück AEM90-AP06-D10-C10-L120-Z02
Kesme Hesabı : S 331 / *Cutting Calculation : P 331* / *Schnittberechnung : 331*



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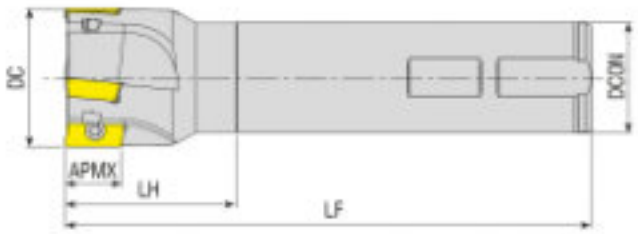
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*						Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile* Sıkma Vidası *Screw* *Schraube*	Tork Anahtar *Torx Key* *Torx-Schlüssel*
		DC	ZEFP	DCON	LF	LH	APMX			
AEM90-AP10-D14-W16-L150-Z01	●	14	1	16	150	38	10	**AP.. 1003..** **ISO UCUNA UYGUNDUR.** *FOR ISO INSERT.* *Kompatibel mit Wendeschneidplatte ISO*	3008-M2.5x5	
AEM90-AP10-D16-C16-L100-Z02-H	●	16	2	16	100	30	10			
AEM90-AP10-D16-W16-L100-Z02-H	●	16	2	16	100	30	10			
AEM90-AP10-D16-C16-L120-Z02-H	●	16	2	16	120	30	10			
AEM90-AP10-D16-C16-L150-Z02	●	16	2	16	150	50	10			
AEM90-AP10-D16-C16-L150-Z02-H	●	16	2	16	150	50	10			
AEM90-AP10-D16-W16-L150-Z02	●	16	2	16	150	50	10			
AEM90-AP10-D16-C16-L200-Z02	●	16	2	16	200	100	10			
AEM90-AP10-D16-C16-L200-Z02-H	●	16	2	16	200	100	10			
AEM90-AP10-D16-C16-L250-Z02	●	16	2	16	250	50	10			
AEM90-AP10-D18-W16-L100-Z02-H	●	18	2	16	100	30	10		3008-M2.5x6	80-T08
AEM90-AP10-D18-W16-L150-Z02	●	18	2	16	150	30	10			
AEM90-AP10-D20-C20-L100-Z03-H	●	20	3	20	100	30	10			
AEM90-AP10-D20-W20-L100-Z03-H	●	20	3	20	100	30	10			
AEM90-AP10-D20-C20-L120-Z03-H	●	20	3	20	120	30	10			
AEM90-AP10-D20-C20-L150-Z03	●	20	3	20	150	50	10			
AEM90-AP10-D20-C20-L150-Z03-H	●	20	3	20	150	50	10			
AEM90-AP10-D20-W20-L150-Z03	●	20	3	20	150	50	10			
AEM90-AP10-D20-C20-L200-Z02	●	20	2	20	200	100	10			
AEM90-AP10-D20-C20-L200-Z03-H	●	20	3	20	200	100	10			
AEM90-AP10-D20-C20-L250-Z02	●	20	2	20	250	150	10			
AEM90-AP10-D20-C20-L250-Z02-H	●	20	2	20	250	150	10			
AEM90-AP10-D21-W20-L150-Z03	●	21	3	20	150	30	10			
AEM90-AP10-D22-W20-L100-Z03-H	●	22	3	20	100	30	10			
AEM90-AP10-D22-W20-L150-Z03	●	22	3	20	150	30	10			
AEM90-AP10-D23-W20-L150-Z03	●	23	3	20	150	30	10			
AEM90-AP10-D24-W20-L150-Z03	●	24	3	20	150	30	10			
AEM90-AP10-D25-W25-L100-Z04-H	●	25	4	25	100	30	10			
AEM90-AP10-D25-C25-L100-Z03-H	●	25	3	25	100	30	10			
AEM90-AP10-D25-W25-L100-Z03-H	●	25	3	25	100	30	10			
AEM90-AP10-D25-C25-L120-Z03-H	●	25	3	25	120	30	10			
AEM90-AP10-D25-C25-L150-Z03	●	25	3	25	150	50	10			
AEM90-AP10-D25-W25-L150-Z03	●	25	3	25	150	50	10			
AEM90-AP10-D25-C25-L200-Z02	●	25	2	25	200	100	10			
AEM90-AP10-D25-C25-L200-Z03	●	25	3	25	200	100	10			
AEM90-AP10-D25-C25-L250-Z02	●	25	2	25	250	100	10			

R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück AEM90-AP10-D14-W16-L150-Z01
Kesme Hesabı : S 331 / *Cutting Calculation : P 331* / *Schnittberechnung : 331*

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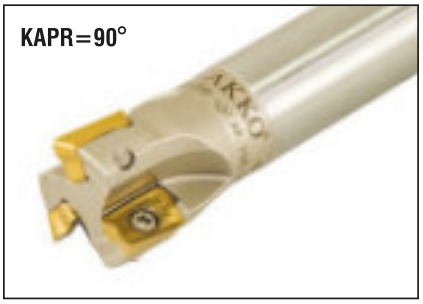
Takım Kodu / Ordering Code / Bestell-Bezeichnung	Stok / Stock / Lager	Takım Ölçüleri (mm) / Dimension (mm) / Abmessung (mm)						Kesici Uç / Insert / Wendeschneidplatte	Yedek Parçaları / Spare Parts / Ersatzteile: Sıkma Vidası / Screw / Schraube	Yedek Parçaları / Spare Parts / Ersatzteile: Torx Anahtar / Torx Key / Torx-Schlüssel
		DC	ZEFP	DCON	LF	LH	APMX			
AEM90-AP10-D30-C25-L100-Z04-H	●	30	4	25	100	30	10	AP.. 1003.. ISO UCUNA UYGUNDUR. FOR ISO INSERT. Kompatibel mit Wendeschneidplatte ISO	3008-M2.5x6	80-T08
AEM90-AP10-D30-C25-L120-Z04-H	●	30	4	25	120	30	10			
AEM90-AP10-D30-C25-L150-Z04	●	30	4	25	150	30	10			
AEM90-AP10-D32-C25-L100-Z04-H	●	32	4	25	100	35	10			
AEM90-AP10-D32-C25-L120-Z04-H	●	32	4	25	120	35	10			
AEM90-AP10-D32-C25-L150-Z04	●	32	4	25	150	35	10			
AEM90-AP10-D32-W25-L150-Z04	●	32	4	25	150	35	10			
AEM90-AP10-D32-C32-L130-Z05	●	32	5	32	130	30	10			
AEM90-AP10-D32-W32-L150-Z04	●	32	4	32	150	50	10			
AEM90-AP10-D40-W32-L150-Z05	●	40	5	32	150	40	10			
AEM90-AP10D-D16-W16-L150-Z02	●	16	2	16	150	50	10	AP.. 1003.. DAİ UCUNA UYGUNDUR. ROUND INSERT. For DAI		
AEM90-AP10D-D20-W20-L150-Z03	●	20	3	20	150	50	10			
AEM90-AP10D-D25-W20-L150-Z03	●	25	3	20	150	30	10			
AEM90-AP10O-D16-C15-L150-Z02	●	16	2	15	150	30	10	AP.. 1003.. B.OKE UCUNA UYGUNDUR. FOR B.OKE INSERT. Kompatibel mit Wendeschneidplatte B.OKE	3008-M2.5x5	
AEM90-AP10O-D21-C20-L150-Z03	●	21	3	20	150	30	10			
AEM90-AP10O-D26-C25-L150-Z04	●	26	4	25	150	35	10			
AEM90-AP10O-D33-C32-L200-Z05	●	33	5	32	200	50	10			
AEM90-AP10S-D16-W16-L150-Z02	●	16	2	16	150	26	10	AP.. 1003.. SMTM UCUNA UYGUNDUR. FOR SMTM INSERT. Kompatibel mit Wendeschneidplatte SMTM		
AEM90-AP10S-D20-W20-L150-Z02	●	20	2	20	150	26	10			
AEM90-AP10S-D25-W25-L150-Z03	●	25	3	25	150	26	10			
AEM90-AP11-D16-C16-L150-Z02	●	16	2	16	150	50	11	AP.. 11T3.. ZCC UCUNA UYGUNDUR. FOR ZCC INSERT. Kompatibel mit Wendeschneidplatte ZCC	3008-M2.5x6	
AEM90-AP11-D16-C16-L150-Z02-H	●	16	2	16	150	50	11			
AEM90-AP11-D16-W16-L150-Z02	●	16	2	16	150	50	11			
AEM90-AP11-D16-W16-L150-Z02-H	●	16	2	16	150	50	11			
AEM90-AP11-D16-C16-L200-Z02	●	16	2	16	200	100	11			
AEM90-AP11-D17-C16-L150-Z02	●	17	2	16	150	30	11			
AEM90-AP11-D17-C16-L200-Z02	●	17	2	16	200	30	11			
AEM90-AP11-D20-C20-L150-Z03	●	20	3	20	150	50	11			
AEM90-AP11-D20-W20-L150-Z03	●	20	3	20	150	50	11			
AEM90-AP11-D20-W20-L150-Z03-H	●	20	3	20	150	50	11			
AEM90-AP11-D20-C20-L200-Z03	●	20	3	20	200	100	11			
AEM90-AP11-D21-C20-L150-Z03	●	21	3	20	150	30	11			
AEM90-AP11-D21-W20-L150-Z03	●	21	3	20	150	30	11			
AEM90-AP11-D21-W20-L150-Z03-H	●	21	3	20	150	30	11			
AEM90-AP11-D21-C20-L200-Z03	●	21	3	20	200	30	11			
AEM90-AP11-D25-C25-L150-Z03	●	25	3	25	150	50	11			
AEM90-AP11-D25-W25-L150-Z03	●	25	3	25	150	50	11			
AEM90-AP11-D25-W25-L150-Z03-H	●	25	3	25	150	50	11			
AEM90-AP11-D26-C25-L150-Z03	●	26	3	25	150	35	11			
AEM90-AP11-D26-C24-L150-Z03	●	26	3	24	150	47	11			
AEM90-AP11-D32-W25-L150-Z04	●	32	4	25	150	35	11			
AEM90-AP11-D32-W32-L150-Z03-H	●	32	3	32	150	50	11			
AEM90-AP11-D32-W32-L150-Z04	●	32	4	32	150	50	11			

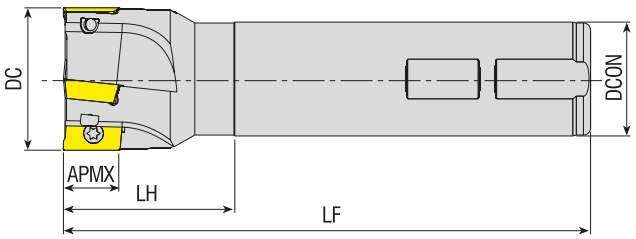
R: Sağ / Right / Rechte L: Sol/Left/Links / ● Stokta / In Stock / Auf Lager ○ Stokta Yok / Non Stock Item / Kein Lagerartikel, Lieferzeit auf Anfrage

Sipariş Örneği/Ordering Example/Bestellbeispiel
1 ad./pcs./stück AEM90-AP10-D30-C25-L100-Z04-H

Kesme Hesabı : S 331 / Cutting Calculation : P 331 / Schnittberechnung : 331

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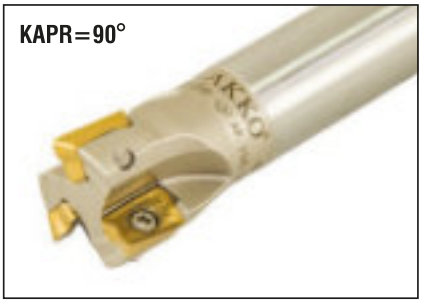


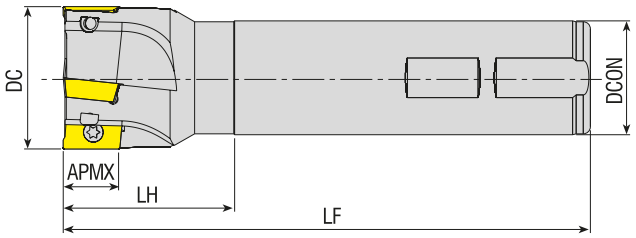
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*						Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*	
		DC	ZEFP	DCON	LF	LH	APMX		Sıkma Vidası *Screw* *Schraube* 	Tork Anahtar *Torx Key* *Torx-Schlüssel* 
AEM90-AP1135A-D14-C16-L150-Z01	●	14	1	16	150	40	9.5	**APMT 1135..** **ACHTK UCUNA UYGUNDUR.** *FOR ACHTK INSERT.* *Kompatibel mit Wendeschneidplatte ACHTK*	3008-M2.5x5	80-T08
AEM90-AP1135A-D16-C16-L150-Z02	●	16	2	16	150	40	9.5			
AEM90-AP1135A-D16-C16-L200-Z02	●	16	2	16	200	100	9.5			
AEM90-AP1135A-D16-C16-L250-Z02	●	16	2	16	250	150	9.5			
AEM90-AP1135A-D17-C16-L180-Z02	●	17	2	16	180	30	9.5			
AEM90-AP1135A-D20-C20-L150-Z03	●	20	3	20	150	50	9.5		3008-M2.5x6	
AEM90-AP1135A-D20-C20-L200-Z02	●	20	2	20	200	100	9.5			
AEM90-AP1135A-D21-C20-L180-Z02	●	21	2	20	180	30	9.5			
AEM90-AP1135A-D25-C25-L200-Z03	●	25	3	25	200	100	9.5			
AEM90-AP1135A-D26-C25-L250-Z02	●	26	2	25	250	35	9.5			
AEM90-AP1135A-D33-C32-L250-Z02	●	33	2	32	250	35	9.5			
AEM90-AP11O-D16-C15-L150-Z02	●	16	2	15	150	30	11	**AP.. 1135..** **B.OKE UCUNA UYGUNDUR.** *FOR B.OKE INSERT* *Kompatibel mit Wendeschneidplatte B.OKE*	3008-M2.5x5	
AEM90-AP11O-D21-C20-L150-Z03	●	21	3	20	150	30	11		3008-M2.5x6	
AEM90-AP11O-D26-C25-L150-Z04	●	26	4	25	150	35	11			
AEM90-AP11O-D33-C32-L200-Z05	●	33	5	32	200	50	11			
AEM90-APK11G-D16-W16-L150-Z02	●	16	2	16	150	26	11	**APKT 1135..** **XTC-GSC UCUNA UYGUNDUR.** *FOR XTC-GSC INSERT* *Kompatibel mit Wendeschneidplatte XTC-GSC*	3008-M3x5	
AEM90-APK11G-D20-W20-L150-Z03	●	20	3	20	150	26	11		3008-M3x6	
AEM90-APK11G-D25-W25-L150-Z03	●	25	3	25	150	26	11			
AEM90-AP1135-D16-W16-L110-Z02-H	●	16	2	16	110	30	9.5	**AP.. 1135..** **XTC-GSC UCUNA UYGUNDUR.** *FOR XTC-GSC INSERT.* *Kompatibel mit Wendeschneidplatte XTC-GSC*	3008-M2.5x6	
AEM90-AP1135-D16-W16-L150-Z02	●	16	2	16	150	50	9.5			
AEM90-AP1135-D20-W20-L125-Z03-H	●	20	3	20	125	30	9.5			
AEM90-AP1135-D20-W20-L150-Z03	●	20	3	20	150	50	9.5			
AEM90-AP1135-D25-W25-L125-Z04-H	●	25	4	25	125	30	9.5			
AEM90-AP1135-D25-W25-L200-Z04-H	●	25	4	25	200	100	9.5			
AEM90-AP1135-D32-W32-L125-Z05-H	●	32	5	32	125	30	9.5			
AEM90-AP1135-D32-W32-L200-Z04-H	●	32	4	32	200	100	9.5			
AEM90-AP1135Y-D16-W16-L150-Z02	●	16	2	16	150	50	9.5	**APMT 1135..** **YG UCUNA UYGUNDUR.** *FOR YG INSERT.* *Kompatibel mit Wendeschneidplatte YG*		
AEM90-AP1135Y-D20-W20-L150-Z03	●	20	3	20	150	50	9.5			
AEM90-AP1135Y-D25-W25-L150-Z03	●	25	3	25	150	50	9.5			
AEM90-AP1204-D20-C20-L150-Z02	●	20	2	20	150	30	12	**AP.. 1204..** **TGTC UCUNA UYGUNDUR.** *FOR TGTC INSERT.* *Kompatibel mit Wendeschneidplatte TGTC*	3010-M3.5x7	80-T10
AEM90-AP1204-D21-C20-L150-Z02	●	21	2	20	150	30	12			
AEM90-AP1204-D21-C20-L200-Z02	●	21	2	20	200	30	12		3010-M3.5x9	
AEM90-AP1204-D25-C25-L150-Z03	●	25	3	25	150	40	12			
AEM90-AP1204-D26-C25-L250-Z02	●	26	2	25	250	35	12			
AEM90-AP1204-D32-C25-L150-Z03	●	32	3	25	150	35	12			
AEM90-AP16-D25-C20-L100-Z02	●	25	2	20	100	35	16	**AP.. 1604..** **ISO UCUNA UYGUNDUR.** *FOR ISO INSERT.* *Kompatibel mit Wendeschneidplatte ISO*	4015-M4x9	80-T15
AEM90-AP16-D25-W25-L100-Z02-H	●	25	2	25	100	35	16			
AEM90-AP16-D25-W25-L150-Z02	●	25	2	25	150	50	16			
AEM90-AP16-D25-C25-L250-Z02	●	25	2	25	250	100	16			
AEM90-AP16-D28-W25-L100-Z03-H	●	28	3	25	100	40	16			

R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück AEM90-AP1135A-D14-C16-L150-Z01
Kesme Hesabı : S 331 / *Cutting Calculation : P 331* / *Schnittberechnung : 331*

BF SERVICE





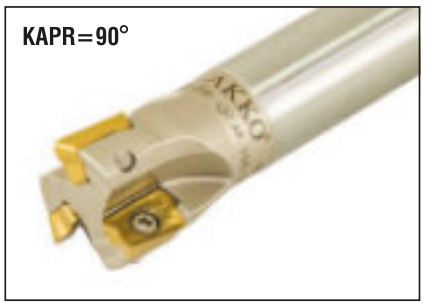
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*						Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*	
		DC	ZEFP	DCON	LF	LH	APMX		Sıkma Vidası *Screw* *Schraube* 	Tork Anahtar *Torx Key* *Torx-Schlüssel* 
AEM90-AP16-D28-W25-L150-Z03	●	28	3	25	150	40	16	**AP.. 1604..** **ISO UCUNA UYGUNDUR.** *FOR ISO INSERT* *Kompatibel mit Wendeschneidplatte ISO*	4015-M4x9	80-T15
AEM90-AP16-D30-W25-L110-Z03-H	●	30	3	25	110	40	16			
AEM90-AP16-D30-W25-L150-Z02	●	30	2	25	150	40	16			
AEM90-AP16-D30-W25-L150-Z03	●	30	3	25	150	40	16			
AEM90-AP16-D32-W32-L110-Z03-H	●	32	3	32	110	40	16			
AEM90-AP16-D32-C32-L150-Z03	●	32	3	32	150	50	16			
AEM90-AP16-D32-W25-L150-Z03	●	32	3	25	150	40	16			
AEM90-AP16-D32-W32-L150-Z03	●	32	3	32	150	50	16			
AEM90-AP16-D32-W32-L150-Z03-H	●	32	3	32	150	50	16			
AEM90-AP16-D32-C25-L200-Z03-H	●	32	3	25	200	40	16			
AEM90-AP16-D32-C32-L250-Z02	●	32	2	32	250	100	16			
AEM90-AP16-D32-C32-L250-Z03	●	32	3	32	250	100	16			
AEM90-AP16-D35-W32-L150-Z03	●	35	3	32	150	40	16			
AEM90-AP16-D36-W32-L110-Z03-H	●	36	3	32	110	40	16			
AEM90-AP16-D36-W32-L150-Z03	●	36	3	32	150	40	16			
AEM90-AP16-D40-W32-L110-Z04-H	●	40	4	32	110	40	16			
AEM90-AP16-D40-C32-L150-Z04	●	40	4	32	150	40	16			
AEM90-AP16-D40-W32-L150-Z04	●	40	4	32	150	40	16			
AEM90-AP16-D40-C32-L250-Z02	●	40	2	32	250	40	16			
AEM90-AP16-D40-C32-L250-Z04	●	40	4	32	250	40	16			
AEM90-AP16DJ-D25-W25-L150-Z02	●	25	2	25	150	50	16	**AP.. 1604..** **DJT UCUNA UYGUNDUR.** *FOR DJT INSERT.* *Kompatibel mit Wendeschneidplatte DJT*		
AEM90-AP16DJ-D25-C25-L200-Z02	●	25	2	25	200	50	16			
AEM90-AP16DJ-D32-W32-L150-Z03	●	32	3	32	150	50	16			
AEM90-AP16DJ-D32-C32-L180-Z03	●	32	3	32	180	50	16			
AEM90-AP16DJ-D32-C32-L200-Z03	●	32	3	32	200	50	16			
AEM90-AP16L-D25-C25-L120-Z02-H	●	25	2	25	120	45	16	**AP.. 1604..** **LMN UCUNA UYGUNDUR.** *FOR LMN INSERT.* *Kompatibel mit Wendeschneidplatte LMN*	4015-M4x9	
AEM90-AP16L-D25-C25-L150-Z02	●	25	2	25	150	55	16			
AEM90-AP16L-D25-C25-L200-Z02	●	25	2	25	200	55	16			
AEM90-AP16L-D25-C25-L250-Z02	●	25	2	25	250	100	16			
AEM90-AP16L-D32-C32-L120-Z03-H	●	32	3	32	120	45	16			
AEM90-AP16L-D32-C32-L150-Z03	●	32	3	32	150	55	16			
AEM90-AP16L-D32-C32-L200-Z03	●	32	3	32	200	55	16			
AEM90-AP16L-D32-C32-L250-Z03	●	32	3	32	250	100	16			
AEM90-AP16L-D40-C32-L120-Z04-H	●	40	4	32	120	40	16			
AEM90-AP16L-D40-C32-L150-Z04	●	40	4	32	150	40	16			
AEM90-AP16L-D40-C32-L200-Z04	●	40	4	32	200	40	16			
AEM90-AP16L-D40-C32-L250-Z04	●	40	4	32	250	40	16			

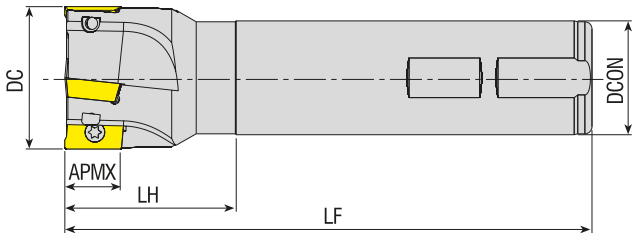
R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück AEM90-AP16-D28-W25-L150-Z03
Kesme Hesabı : S 331 / *Cutting Calculation : P 331* / *Schnittberechnung : 331*

BF SERVICE

KAPR=90°

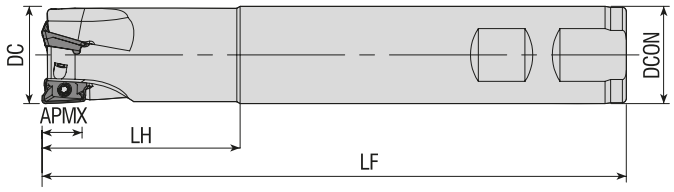




Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*						Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile* Sıkma Vidası *Screw* *Schraube*	Tork Anahtar *Torx Key* *Torx-Schlüssel*
		DC	ZEFP	DCON	LF	LH	APMX			
AEM90-AP16P-D25-W25-L100-Z02-H	●	25	2	25	100	35	16	**AP.. 1604..** **PLBT UCUNA UYGUNDUR.** *FOR PLBT INSERT.* *Kompatibel mit Wendeschneidplatte PLBT*	4015-M4x9	80-T15
AEM90-AP16P-D25-W25-L150-Z02	●	25	2	25	150	50	16			
AEM90-AP16P-D32-W32-L150-Z03	●	32	3	32	150	50	16			
AEM90-AP16P-D32-C32-L250-Z02	●	32	2	32	250	100	16			
AEM90-AP16P-D40-W32-L150-Z04	●	40	4	32	150	50	16			
AEM90-AP1705-D25-C25-L120-Z02	●	25	2	25	120	40	16	**AP.. 1705..** **TGTC-LMN UCUNA UYGUNDUR.** *FOR TGTC-LMN INSERT.* *Kompatibel mit Wendeschneidplatte TGTC-LMN*		
AEM90-AP1705-D26-C25-L200-Z02	●	26	2	25	200	40	16			
AEM90-AP1705-D26-C25-L250-Z02	●	26	2	25	250	40	16			
AEM90-AP1705-D26-C25-L300-Z02	○	26	2	25	300	40	16			
AEM90-AP1705-D28-W25-L075-Z02	●	28	2	25	75	20	16			
AEM90-AP1705-D32-C25-L150-Z03	●	32	3	25	150	40	16			
AEM90-AP1705-D33-C32-L250-Z03	●	33	3	32	250	40	16			
AEM90-AP1705-D33-C32-L300-Z02	●	33	2	32	300	40	16			

KAPR=90°





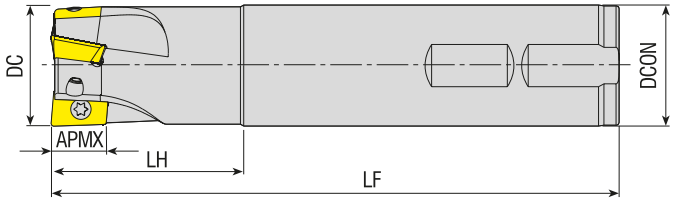
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*						Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile* Sıkma Vidası *Screw* *Schraube*	Tork Anahtar *Torx Key* *Torx-Schlüssel*
		DC	ZEFP	DCON	LF	LH	APMX			
AEM90-AO1236-D16-W16-L150-Z02	●	16	2	16	150	50	12	**AO..1236..**	3008-M2.5x6	80-T08
AEM90-AO1236-D20-C20-L100-Z02	○	20	2	20	100	30	12			
AEM90-AO1236-D25-C25-L115-Z02	○	25	2	25	150	50	12			
AEM90-AO1236-D25-W25-L150-Z03	●	25	3	25	150	50	12			
AEM90-AO1236-D32-W32-L150-Z04	●	32	4	32	150	50	12			

R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
MTSBH Ucuna Uygundur. / Compatiple with MTSBH Insert. Kompatibel mit MTSBH Wendeplatten.

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück AEM90-AP16-D25-W25-L100-Z02-H
Kesme Hesabı : S 331 / *Cutting Calculation : P 331* / *Schnittberechnung : 331*

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Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*						Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile* Sıkma Vidası *Screw* *Schraube*	Tork Anahtar *Torx Key* *Torx-Schlüssel*
		DC	ZEFP	DCON	LF	LH	APMX			
AEM90-AX0602-D10-C09-L120-Z02	●	10	2	9	120	20	5.7	**AX.. 0602**	3006-M1.8x4	80-T06
AEM90-AX0602-D10-C10-L080-Z02	●	10	2	10	80	20	5.7			
AEM90-AX0602-D10-C10-L120-Z02	●	10	2	10	120	20	5.7			
AEM90-AX0602-D12-C11-L120-Z02	●	12	2	11	120	20	5.7			
AEM90-AX0602-D12-C12-L080-Z02	●	12	2	12	80	20	5.7			
AEM90-AX0602-D12-C12-L120-Z02	●	12	2	12	120	20	5.7			
AEM90-AX0602-D14-C12-L120-Z03	●	14	3	12	120	20	5.7			
AEM90-AX0602-D16-W16-L120-Z04-H	●	16	4	16	120	20	5.7			
AEM90-AX0602-D16-W16-L150-Z04-H	●	16	4	16	150	20	5.7			
AEM90-AX0602-D20-W20-L120-Z05-H	●	20	5	20	120	25	5.7			
AEM90-AX0602-D20-W20-L150-Z05-H	●	20	5	20	150	25	5.7			
AEM90-AX0903-D16-C16-L120-Z02	●	16	2	16	120	30	8.8			
AEM90-AX0903-D16-C16-L180-Z02	●	16	2	16	180	30	8.8		3008-M2.5x5	
AEM90-AX0903-D17-C16-L120-Z02	●	17	2	16	120	25	8.8			
AEM90-AX0903-D17-C16-L180-Z02	●	17	2	16	180	25	8.8			
AEM90-AX0903-D20-C20-L120-Z03	●	20	3	20	120	30	8.8			
AEM90-AX0903-D20-C20-L200-Z02	●	20	2	20	200	30	8.8	**AX.. 0903**	3008-M2.5x6	80-T08
AEM90-AX0903-D21-C20-L120-Z03	●	21	3	20	120	25	8.8			
AEM90-AX0903-D21-C20-L200-Z02	●	21	2	20	200	25	8.8			
AEM90-AX0903-D25-C25-L150-Z03	●	25	3	25	150	30	8.8			
AEM90-AX0903-D25-C25-L250-Z02	●	25	2	25	250	40	8.8			
AEM90-AX0903-D26-C25-L150-Z03	●	26	3	25	150	30	8.8			

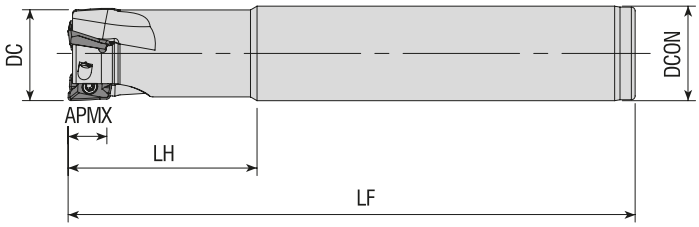
R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
TGTC Ucuna Uygundur. / Compatiple with TGTC Insert. Kompatibel mit TGTC Wendeplatten.

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück AX0602-D10-C09-L120-Z02
Kesme Hesabı : S 331 / *Cutting Calculation : P 331* / *Schnittberechnung : 331*



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Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*						Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile* Sıkma Vidası *Screw* *Schraube*	Tork Anahtar *Torx Key* *Torx-Schlüssel*
		DC	ZEFP	DCON	LF	LH	APMX			
AEM90-AX1235-D16-C14-L120-Z02-H	●	16	2	14	120	25	10	AX.T 1235..	3008-M3x6	80-T08
AEM90-AX1235-D16-C15-L145-Z02-H	●	16	2	15	145	30	10		3108-M3x6	
AEM90-AX1235-D16-C16-L100-Z02-H	●	16	2	16	100	30	10			
AEM90-AX1235-D16-C16-L140-Z02-H	●	16	2	16	140	30	10		3008-M3x6	
AEM90-AX1235-D16-C16-L145-Z02-H	●	16	2	16	145	30	10		3108-M3x6	
AEM90-AX1235-D16-C16-L150-Z02	●	16	2	16	150	30	10		3008-M3x6	
AEM90-AX1235-D20-C19-L150-Z02-H	●	20	2	19	150	40	10		3108-M3x6	
AEM90-AX1235-D20-C20-L110-Z03-H	●	20	3	20	110	40	10			
AEM90-AX1235-D20-C20-L150-Z02	●	20	2	20	150	40	10		3008-M3x6	
AEM90-AX1235-D20-C20-L150-Z02-H	●	20	2	20	150	40	10		3108-M3x6	
AEM90-AX1235-D20-C20-L150-Z03	●	20	3	20	150	40	10			
AEM90-AX1235-D25-C20-L120-Z04-H	●	25	4	20	120	30	10		3008-M3x6	
AEM90-AX1235-D25-C20-L150-Z04-H	●	25	4	20	150	30	10			
AEM90-AX1235-D25-C24-L170-Z02-H	●	25	2	24	170	50	10		3108-M3x6	
AEM90-AX1235-D25-C25-L120-Z04-H	●	25	4	25	120	40	10			
AEM90-AX1235-D25-C25-L150-Z03	●	25	3	25	150	50	10		3008-M3x6	
AEM90-AX1235-D25-C25-L170-Z02-H	●	25	2	25	170	50	10			
AEM90-AX1235-D25-W25-L100-Z04-H	●	25	4	25	100	30	10		3108-M3x6	
AEM90-AX1235-D32-C32-L130-Z05-H	●	32	5	32	130	40	10			
AEM90-AX1235-D32-C32-L180-Z02-H	●	32	2	32	180	50	10			
AEM90-AX1705-D25-C25-L150-Z02	●	25	2	25	150	50	14	AX.T 1705..	4015-M4x9	80-T15
AEM90-AX1705-D28-W25-L115-Z02-H	●	28	2	25	115	35	14			
AEM90-AX1705-D32-C32-L150-Z03	●	32	3	32	150	50	14			
AEM90-AX1705-D32-C32-L180-Z02-H	●	32	2	32	180	50	14			

R: Sağ / Right / *Rechts* L: Sol/Left/*Links*

● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*

SMTM Ucuna Uygundur. / Compatiple with SMTM Insert. Kompatibel mit SMTM Wendeplatten.

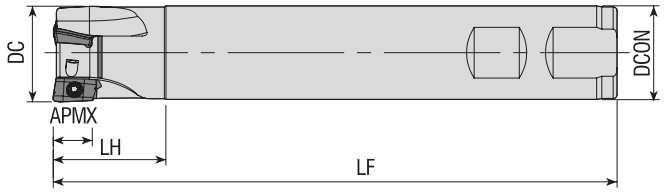
Sipariş Örneği/Ordering Example/*Bestellbeispiel*

1 ad./pcs./stück AX0235-D16-C14-L120-Z02-H

Kesme Hesabı : S 331 / *Cutting Calculation : P 331* / *Schnittberechnung : 331*

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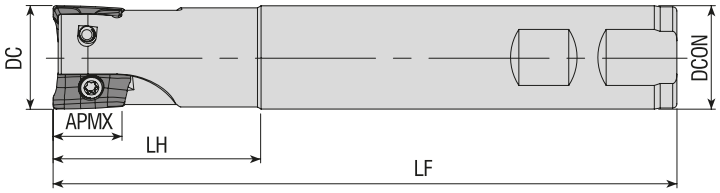
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*						Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*	
		DC	ZEFP	DCON	LF	LH	APMX		Sıkma Vidası *Screw* *Schraube* 	Tork Anahtar *Torx Key* *Torx-Schlüssel* 
AEM90-AZ11-D12-W16-L90-Z01	●	12	1	16	90	30	11			
AEM90-AZ11-D16-C16-L200-Z02	●	16	2	16	200	100	11			
AEM90-AZ11-D16-W15-L170-Z02	●	16	2	15	170	50	11			
AEM90-AZ11-D16-W16-L100-Z02	●	16	2	16	100	35	11		3008-M2.5X5	
AEM90-AZ11-D16-W16-L150-Z02	●	16	2	16	150	50	11			
AEM90-AZ11-D17-C16-L150-Z02	●	17	2	16	150	30	11			
AEM90-AZ11-D17-C16-L180-Z02	●	17	2	16	180	50	11			
AEM90-AZ11-D17-W16-L100-Z02	●	17	2	16	100	30	11			
AEM90-AZ11-D18-W16-L120-Z02	●	18	2	16	120	18	11			
AEM90-AZ11-D20-C20-L200-Z03	●	20	3	20	200	100	11	**AZGT 1135..**	3008-M2.5X6	80-T08
AEM90-AZ11-D20-W19-L170-Z03	●	20	3	19	170	50	11			
AEM90-AZ11-D20-W20-L110-Z02	●	20	2	20	110	35	11			
AEM90-AZ11-D21-C20-L150-Z03	●	21	3	20	150	30	11			
AEM90-AZ11-D21-C20-L180-Z03	●	21	3	20	180	50	11			
AEM90-AZ11-D21-W20-L110-Z03	●	21	3	20	110	35	11			
AEM90-AZ11-D22-C20-L150-Z02	●	22	2	20	150	30	11			
AEM90-AZ11-D25-C24-L180-Z04	●	25	4	24	180	50	11			
AEM90-AZ11-D25-W25-L110-Z04	●	25	4	25	110	40	11			
AEM90-AZ11-D26-C25-L250-Z02	●	26	2	25	250	50	11			
AEM90-AZ11-D26-W25-L120-Z03	●	26	3	25	120	30	11			
AEM90-AZ11-D26-W25-L120-Z04	●	26	4	25	120	40	11			
AEM90-AZ11-D28-C25-L180-Z03	●	28	3	25	180	50	11			
AEM90-AZ11-D28-C25-L250-Z02	●	28	2	25	250	50	11			
AEM90-AZ11-D33-W32-L130-Z04	●	33	4	32	130	50	11			

R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
ZCC Ucuna Uygundur. / Compatiple with ZCC Insert. Kompatibel mit ZCC Wendeplatten.

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück AEM90-AZ11-D12-W16-L90-Z01
Kesme Hesabı : S 331 / *Cutting Calculation : P 331* / *Schnittberechnung : 331*

BF SERVICE





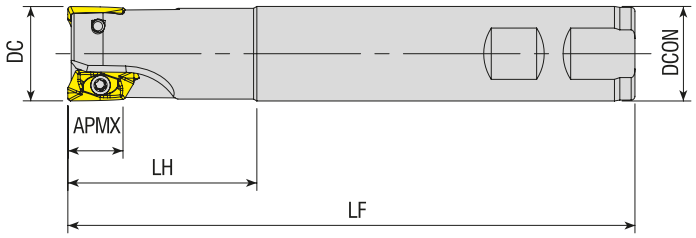
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*						Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*	
		DC	ZEFP	DCON	LF	LH	APMX		Sıkma Vidası *Screw* *Schraube* 	Tork Anahtar *Torx Key* *Torx-Schlüssel* 
AEM90-BD11T3-D16-C15-L180-Z02	●	16	2	15	180	50	10			
AEM90-BD11T3-D16-C16-L100-Z02-H	●	16	2	16	100	30	10			
AEM90-BD11T3-D16-W16-L100-Z02-H	●	16	2	16	100	30	10			
AEM90-BD11T3-D16-W16-L150-Z02	●	16	2	16	150	50	10			
AEM90-BD11T3-D17-W16-L150-Z02	●	17	2	16	150	25	10		3008-M2.5x5	
AEM90-BD11T3-D17-C16-L180-Z02	●	17	2	16	180	25	10			
AEM90-BD11T3-D18-W16-L100-Z02	●	18	2	16	100	25	10			
AEM90-BD11T3-D18-W16-L100-Z02-H	●	18	2	16	100	25	10			
AEM90-BD11T3-D20-W20-L100-Z02-H	●	20	2	20	100	30	10			
AEM90-BD11T3-D20-W20-L100-Z03-H	●	20	3	20	100	30	10			
AEM90-BD11T3-D20-C20-L110-Z03-H	●	20	3	30	110	30	10			
AEM90-BD11T3-D20-W20-L150-Z02	●	20	2	20	150	50	10			
AEM90-BD11T3-D20-W20-L150-Z03	●	20	3	20	150	50	10			
AEM90-BD11T3-D20-W20-L150-Z03-H	●	20	3	20	150	50	10			
AEM90-BD11T3-D21-W20-L150-Z03	●	21	3	20	150	25	10			
AEM90-BD11T3-D21-C20-L200-Z02	●	21	2	20	200	25	10	**BDMT 11T3..**	3008-M2.5x6	80-T08
AEM90-BD11T3-D22-W20-L090-Z02-H	●	22	2	20	90	25	10			
AEM90-BD11T3-D25-W25-L100-Z03-H	●	25	3	25	100	30	10			
AEM90-BD11T3-D25-C25-L120-Z03-H	●	25	3	25	120	30	10			
AEM90-BD11T3-D25-W25-L150-Z03	●	25	3	25	150	50	10			
AEM90-BD11T3-D26-W25-L150-Z03	●	26	3	25	150	35	10			
AEM90-BD11T3-D26-C25-L250-Z02	●	26	2	25	250	35	10			
AEM90-BD11T3-D32-W32-L110-Z04-H	●	32	4	32	110	40	10			
AEM90-BD11T3-D32-C32-L130-Z04-H	●	32	4	32	130	40	10			
AEM90-BD11T3-D32-W32-L150-Z04	●	32	4	32	150	50	10			
AEM90-BD11T3-D40-W32-L110-Z04-H	●	40	4	32	110	35	10			
AEM90-BD1704-D25-W25-L100-Z02-H	●	25	2	25	100	35	15.7			
AEM90-BD1704-D25-W25-L150-Z02	●	25	2	25	150	50	15.7			
AEM90-BD1704-D32-W32-L110-Z03-H	●	32	3	32	110	40	15.7			
AEM90-BD1704-D32-W32-L150-Z03	●	32	3	32	150	50	15.7	**BDMT 1704..**	4015-M4x8	80-T15
AEM90-BD1704-D40-W32-L110-Z04-H	●	40	4	32	110	40	15.7			
AEM90-BD1704-D40-W32-L150-Z04		40	4	32	150	40	15.7			

R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
KYCR Ucuna Uygundur. / Compatiple with KYCR Insert. Kompatibel mit KYCR Wendeplatten.

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück AEM90-BD11T3-D16-C15-L180-Z02
Kesme Hesabı : S 331 / *Cutting Calculation : P 331* / *Schnittberechnung : 331*

BF SERVICE

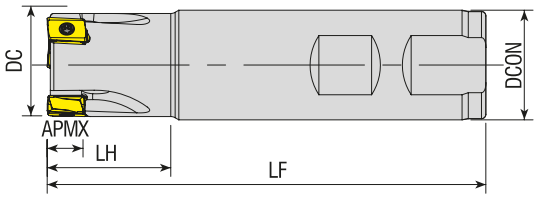




Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*						Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile* Sıkma Vidası *Screw* *Schraube*	Tork Anahtar *Torx Key* *Torx-Schlüssel*
		DC	ZEFP	DCON	LF	LH	APMX			
AEM90-ED10T3-D16-W16-L120-Z02	●	16	2	16	120	30	30	EDPT 10T3..	3008-M2.5x5	80-T08
AEM90-ED10T3-D20-W20-L120-Z02	●	20	2	20	120	30	30		3008-M2.5x6	
AEM90-ED1404-D20-W20-L150-Z02	●	20	2	20	150	50	14.5			
AEM90-ED1404-D25-W25-L150-Z02	●	25	2	25	150	50	14.5	EDPT 1404..	3008-M3x6	
AEM90-ED1404-D30-C25-L150-Z03	●	30	3	25	150	50	14.5			

KNMTL Ucuna Uygundur. / Compatiple with KNMTL Insert. Kompatibel mit KNMTL Wendeplatten.





Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*						Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile* Sıkma Vidası *Screw* *Schraube*	Tork Anahtar *Torx Key* *Torx-Schlüssel*
		DC	ZEFP	DCON	LF	LH	APMX			
AEM90-LN08-D16-W16-L100-Z02-H	●	16	2	16	100	28	8	LNMT 0804..	1707-U4-48x6	80-T07
AEM90-LN08-D16-W16-L150-Z02	●	16	2	16	150	40	8			
AEM90-LN08-D20-W20-L100-Z03-H	●	20	3	20	100	28	8		1707-U4-48x6.5	
AEM90-LN08-D25-W25-L100-Z03-H	●	25	3	25	100	30	8		1707-U4-48x8.2	
AEM90-LN08-D32-W32-L110-Z05-H	●	32	5	32	110	30	8			

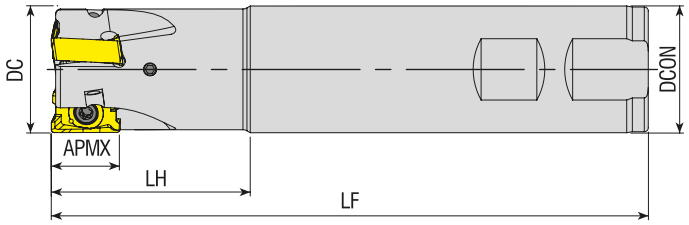
R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock / *Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
ISCR Ucuna Uygundur. / Compatiple with ISCR Insert. Kompatibel mit ISCR Wendeplatten.

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück AEM90-ED10T3-D16-W16-L120-Z02
Kesme Hesabı : S 331 / *Cutting Calculation : P 331* / *Schnittberechnung : 331*

BF SERVICE

KAPR=90°



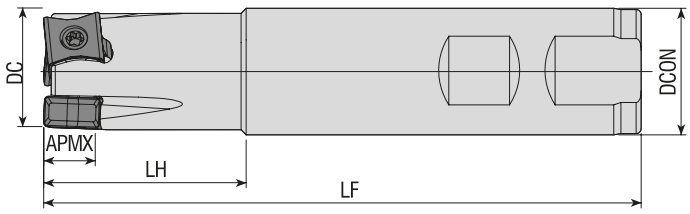


Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*						Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile* Sıkma Vidası *Screw* *Schraube*	Tork Anahtar *Torx Key* *Torx-Schlüssel*
		DC	ZEFP	DCON	LF	LH	APMX			
AEM90-LN15T6-D25-W25-L150-Z02-H	●	25	2	25	150	50	15.5	**LNGU 15T6..**	4015-M4x12	80-T15
AEM90-LN15T6-D32-W32-L150-Z03-H	●	32	3	32	150	50	15.5			
AEM90-LN15T6-D40-W32-L150-Z03-H	●	40	3	32	150	40	15.5			

KNMTL Ucuna Uygundur. / Compatiple with KNMTL Insert. Kompatibel mit KNMTL Wendeplatten.

KAPR=90°





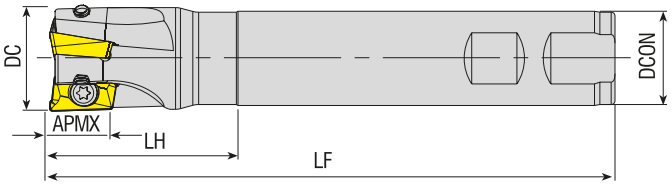
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*						Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile* Sıkma Vidası *Screw* *Schraube*	Tork Anahtar *Torx Key* *Torx-Schlüssel*
		DC	ZEFP	DCON	LF	LH	APMX			
AEM90-LN1106-D25-W25-L150-Z03	●	25	3	25	150	40	10	**LNMT 1106..**	4015-M3.5x11	80-T15
AEM90-LN1106-D32-W32-L150-Z04	●	32	4	32	150	40	10			
AEM90-LN1106-D40-W32-L150-Z05	●	40	5	32	150	40	10			

R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
ISCR-XTC-GSC Ucuna Uygundur. / Compatiple with ISCR-XTC-GSC Insert. Kompatibel mit ISCR-XTC-GSC Wendeplatten.

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück AEM90-LN15T6-D25-W25-L150-Z02-H
Kesme Hesabı : S 331 / *Cutting Calculation : P 331* / *Schnittberechnung : 331*

BF SERVICE





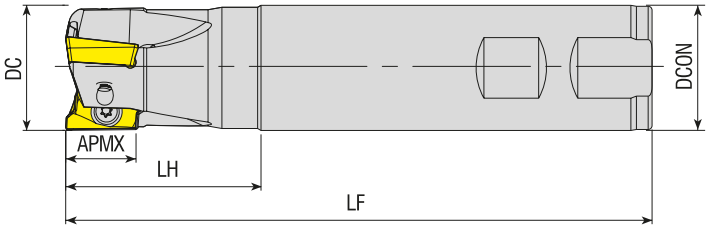
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*						Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*	
		DC	ZEFP	DCON	LF	LH	APMX		Sıkma Vidası *Screw* *Schraube* 	Tork Anahtar *Torx Key* *Torx-Schlüssel* 
AEM90-R390.11-D16-W16-L100-Z02-H	●	16	2	16	100	30	10			
AEM90-R390.11-D16-W16-L150-Z02	●	16	2	16	150	50	10		3008-M2.5x5	
AEM90-R390.11-D16-W16-L150-Z02-H	●	16	2	16	150	50	10			
AEM90-R390.11-D20-W20-L090-Z02-H	●	20	2	20	90	30	10			
AEM90-R390.11-D20-W20-L100-Z03-H	●	20	3	20	100	30	10			
AEM90-R390.11-D20-W20-L150-Z03	●	20	3	20	150	50	10			
AEM90-R390.11-D20-W20-L150-Z03-H	●	20	3	20	150	50	10			
AEM90-R390.11-D20-C20-L150-Z03	●	20	3	20	150	30	10	**R390-11T3..**	3008-M2.5x6	80-T08
AEM90-R390.11-D22-W20-L090-Z02-H	●	22	2	20	90	30	10			
AEM90-R390.11-D25-C20-L150-Z03	●	25	3	20	150	40	10			
AEM90-R390.11-D25-W25-L100-Z03-H	●	25	3	25	100	30	10			
AEM90-R390.11-D25-W25-L150-Z03	●	25	3	25	150	50	10			
AEM90-R390.11-D25-W25-L150-Z03-H	●	25	3	25	150	50	10			
AEM90-R390.11-D30-W25-L150-Z04-H	●	30	4	25	150	30	10			
AEM90-R390.11-D32-C25-L200-Z03	●	32	3	25	200	40	10			
AEM90-R390.11-D32-W32-L150-Z05-H	●	32	5	32	150	50	10			
AEM90-R390.17-D25-W25-L150-Z02	●	25	2	25	150	50	15.4		4015-M3.5x8	
AEM90-R390.17-D25-W25-L150-Z02-H	●	25	2	25	150	50	15.4			
AEM90-R390.17-D30-W25-L150-Z03	●	30	3	25	150	40	15.4	**R390-1704..**		
AEM90-R390.17-D30-W25-L150-Z03-H	●	30	3	25	150	40	15.4		4015-M3.5x9	80-T15
AEM90-R390.17-D32-W32-L150-Z03-H	●	32	3	32	150	40	15.4			
AEM90-R390.18-D32-C32-L150-Z03	●	32	3	32	150	45	15.4	**R390-1806..**	4015-M4x11	

R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
SNDVK Ucuna Uygundur. / Compatiple with SNDVK Insert. Kompatibel mit SNDVK Wendeplatten.

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück AEM90-R390.11-D16-W16-L100-Z02-H
Kesme Hesabı : S 331 / *Cutting Calculation : P 331* / *Schnittberechnung : 331*

BF SERVICE





Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*						Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile* Sıkma Vidası *Screw* *Schraube*	Tork Anahtar *Torx Key* *Torx-Schlüssel*
		DC	ZEFP	DCON	LF	LH	APMX			
AEM90-RT07-D10-W10-L120-Z02	●	10	2	10	120	30	7			
AEM90-RT07-D12-C12-L120-Z02	●	12	2	12	120	30	7	**RT 0702**	3006-M2x4	80-T06
AEM90-RT07-D12-W12-L120-Z02	●	12	2	12	120	30	7			
AEM90-RT07-D14-W12-L120-Z02	●	14	2	12	120	30	7			
AEM90-RT10-D16-C15-L160-Z02	●	16	2	15	160	30	10			
AEM90-RT10-D16-W16-L120-Z02-H	●	16	2	16	120	30	10			
AEM90-RT10-D16-W16-L150-Z02	●	16	2	16	150	50	10			
AEM90-RT10-D16-C16-L200-Z02	●	16	2	16	200	100	10			
AEM90-RT10-D17-W16-L160-Z02	●	17	2	16	160	30	10			
AEM90-RT10-D17-C16-L200-Z02	●	17	2	16	200	30	10			
AEM90-RT10-D18-W16-L120-Z02-H	●	18	2	16	120	30	10			
AEM90-RT10-D20-C19-L200-Z03	●	20	3	19	200	30	10			
AEM90-RT10-D20-C20-L110-Z03	●	20	3	20	110	30	10			
AEM90-RT10-D20-W20-L120-Z03-H	●	20	3	20	120	30	10			
AEM90-RT10-D20-W20-L150-Z03	●	20	3	20	150	50	10			
AEM90-RT10-D20-C20-L200-Z03	●	20	3	20	200	100	10	**RT 1003**	3008-M2.5x6	80-T08
AEM90-RT10-D21-W20-L200-Z03	●	21	3	20	200	30	10			
AEM90-RT10-D22-W20-L120-Z03-H	●	22	3	20	120	30	10			
AEM90-RT10-D22-C20-L150-Z03	●	22	3	20	150	30	10			
AEM90-RT10-D22-C20-L200-Z03	●	22	3	20	200	30	10			
AEM90-RT10-D25-W25-L120-Z04-H	●	25	4	25	120	40	10			
AEM90-RT10-D25-W25-L150-Z04	●	25	4	25	150	50	10			
AEM90-RT10-D25-C25-L200-Z04	●	25	4	25	200	100	10			
AEM90-RT10-D26-C25-L250-Z04	●	26	4	25	250	32	10			
AEM90-RT10-D32-W32-L120-Z05-H	●	32	5	32	120	50	10			
AEM90-RT10-D32-W32-L150-Z05	●	32	5	32	150	50	10			
AEM90-RT10-D32-C32-L200-Z05	●	32	5	32	200	100	10			
AEM90-RT10-D33-C32-L250-Z04	●	33	4	32	250	32	10			
AEM90-RT13-D32-C32-L250-Z04	●	32	4	32	250	50	13	**RT 1304**	3008-M3x8	
AEM90-RT16-D25-W25-L120-Z02-H	●	25	2	25	120	40	16			
AEM90-RT16-D25-W25-L150-Z02	●	25	2	25	150	50	16			
AEM90-RT16-D25-C25-L200-Z02	●	25	2	25	200	100	16			
AEM90-RT16-D32-W32-L120-Z03-H	●	32	3	32	120	50	16			
AEM90-RT16-D32-W32-L150-Z03	●	32	3	32	150	50	16			
AEM90-RT16-D32-C32-L200-Z03	●	32	3	32	200	100	16	**RT 1606**	4015-M4x9	80-T15
AEM90-RT16-D32-C32-L250-Z03	●	32	3	32	250	100	16			
AEM90-RT16-D32-C32-L270-Z03	●	32	3	32	270	100	16			
AEM90-RT16-D40-W32-L120-Z04-H	●	40	4	32	120	50	16			
AEM90-RT16-D40-W32-L150-Z04	●	40	4	32	150	50	16		4015-M4x11	
AEM90-RT16-D40-C32-L200-Z04	●	40	4	32	200	100	16			

R: Sağ / Right / *Rechts* L: Sol/Left/*Links*

● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*

SFTY Ucuna Uygundur. / Compatiple with SFTY Insert. Kompatibel mit SFTY Wendeplatten.

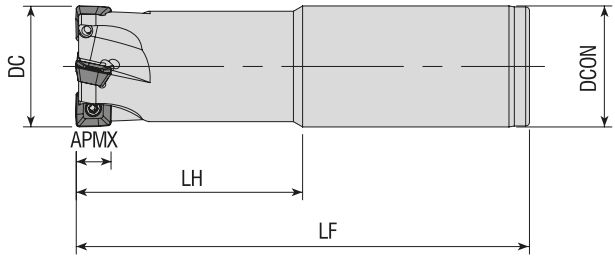
Sipariş Örneği/Ordering Example/*Bestellbeispiel*

1 ad./pcs./stück AEM90-RT07-D10-W10-L120-Z02

Kesme Hesabı : S 331 / *Cutting Calculation : P 331* / *Schnittberechnung : 331*

BF SERVICE

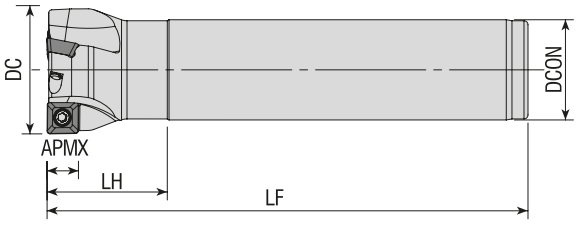




Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*						Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile* Sıkma Vidası *Screw* *Schraube*	Tork Anahtar *Torx Key* *Torx-Schlüssel*
		DC	ZEFP	DCON	LF	LH	APMX			
AEM90-SE09-D25-C25-L120-Z03-H	●	25	3	25	120	60	6.7	**SEET 09T3..**	3008-M3x8	80-T08
AEM90-SE09-D25-C25-L150-Z02	●	25	2	25	150	50	6.7			
AEM90-SE09-D32-C32-L120-Z04-H	●	32	4	32	120	60	6.7			
AEM90-SE09-D32-C32-L150-Z03	●	32	3	32	150	50	6.7			

ZCC Ucuna Uygundur. / Compatiple with ZCC Insert. Kompatibel mit ZCC Wendeplatten.





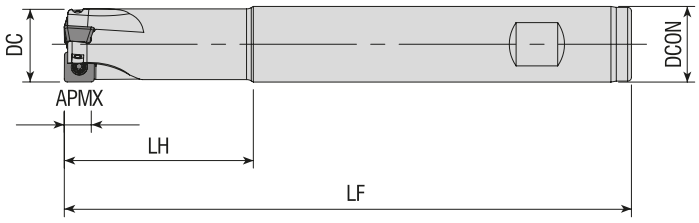
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*						Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile* Sıkma Vidası *Screw* *Schraube*	Tork Anahtar *Torx Key* *Torx-Schlüssel*
		DC	ZEFP	DCON	LF	LH	APMX			
AEM90-SO0803-D20-C16-L110-Z02-H	●	20	2	16	110	25	7	**SOMT 0803..**	3008-M3x7	80-T08
AEM90-SO0803-D25-C20-L110-Z02-H	●	25	2	20	110	25	7			
AEM90-SO0803-D32-C25-L120-Z03-H	●	32	3	25	120	30	7			

R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
SMTM Ucuna Uygundur. / Compatiple with SMTM Insert. Kompatibel mit SMTM Wendeplatten.

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück AEM90-SE09-D25-C25-L120-Z03-H
Kesme Hesabı : S 331 / *Cutting Calculation : P 331* / *Schnittberechnung : 331*

BF SERVICE

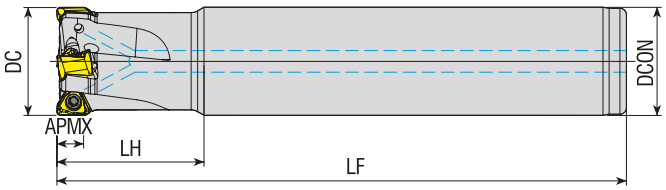




Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*						Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile* Sıkma Vidası *Screw* *Schraube*	Tork Anahtar *Torx Key* *Torx-Schlüssel*
		DC	ZEFP	DCON	LF	LH	APMX			
AEM90-SPGT0602-D16-W16-L150-Z02	●	16	2	16	150	50	5.5	**SPGT 060204**	3007-M2.2x5	80-T07
AEM90-SPGT07T3-D20-W20-L150-Z03	●	20	3	20	150	50	7	**SPGT 07T308**	3008-M2.5x6	80-T08
AEM90-SPGT07T3-D25-W25-L150-Z03	●	25	3	25	150	50	7			
AEM90-SPGT0904-D30-W32-L150-Z03	●	30	3	32	150	50	9	**SPGT 090408**	4015-M3.5x9	80-T15

ZCC Ucuna Uygundur. / Compatiple with ZCC Insert. Kompatibel mit ZCC Wendeplatten.





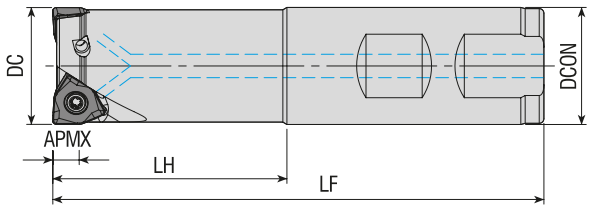
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*						Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile* Sıkma Vidası *Screw* *Schraube*	Tork Anahtar *Torx Key* *Torx-Schlüssel*
		DC	ZEFP	DCON	LF	LH	APMX			
AEM90-TNG10-D20-C20-L125-Z02-H	●	20	2	20	125	29	5			
AEM90-TNG10-D20-C20-L125-Z03-H	●	20	3	20	125	29	5			
AEM90-TNG10-D20-C20-L150-Z03-H	○	20	3	20	150	50	5			
AEM90-TNG10-D25-C25-L150-Z03-H	●	25	3	25	150	34	5	**TNGX 1004..**	3008-M2.5x6	80-T08
AEM90-TNG10-D25-C25-L150-Z04-H	●	25	4	25	150	34	5			
AEM90-TNG10-D25-C25-L170-Z04-H	○	25	4	25	170	50	5			
AEM90-TNG10-D32-C32-L170-Z04-H	●	32	4	32	170	37	5			
AEM90-TNG10-D32-C32-L170-Z05-H	○	32	5	32	170	37	5			

R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
PRMT Ucuna Uygundur. / Compatiple with PRMT Insert. Kompatibel mit PRMT Wendeplatten.

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück AEM90-SPGT0602-D16-W16-L150-Z02
Kesme Hesabı : S 331 / *Cutting Calculation : P 331* / *Schnittberechnung : 331*

BF SERVICE

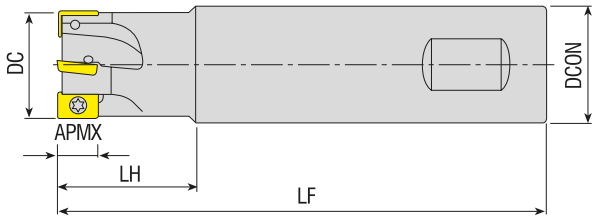




Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*						Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile* Sıkma Vidası *Screw* *Schraube*	Tork Anahtar *Torx Key* *Torx-Schlüssel*
		DC	ZEFP	DCON	LF	LH	APMX			
AEM90-WN0604Z-D25-W25-L150-Z02-H	●	25	2	25	150	50	5.7	**WNHU 0604..**	3008-M3x8	80-T08
AEM90-WN0604Z-D32-W32-L150-Z03-H	●	32	3	32	150	50	5.7			
AEM90-WN0604Z-D40-W32-L150-Z04-H	●	40	4	32	150	35	5.7			

ZCC Ucuna Uygundur. / Compatiple with ZCC Insert. Kompatibel mit ZCC Wendeplatten.





Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*						Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile* Sıkma Vidası *Screw* *Schraube*	Tork Anahtar *Torx Key* *Torx-Schlüssel*
		DC	ZEFP	DCON	LF	LH	APMX			
AEM90-XD11T3-D16-W16-L150-Z02	●	16	2	16	150	30	10	**XD.T 11T3..**	3008-M2.5x5	80-T08
AEM90-XD11T3-D17-C16-L150-Z02	●	17	2	16	150	30	10			
AEM90-XD11T3-D20-W20-L150-Z03	●	20	3	20	150	50	10		3008-M2.5x6	
AEM90-XD11T3-D21-C20-L080-Z03-H	●	21	3	20	80	25	10			
AEM90-XD11T3-D21-C20-L150-Z03	●	21	3	20	150	30	10			
AEM90-XD11T3-D25-W25-L150-Z04	●	25	4	25	150	50	10			
AEM90-XD11T3-D30-W25-L120-Z04	●	30	4	25	120	30	10			
AEM90-XD11T3-D32-W32-L150-Z04	●	32	4	32	150	50	10			
AEM90-XD11T3-D33-C20-L080-Z04-H	●	33	4	20	80	30	10			

R: Sağ / Right / *Rechts* L: Sol/Left/*Links*

● Stokta / In Stock / *Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*

CRTZT Ucuna Uygundur. / Compatiple with CRTZT Insert. Kompatibel mit CRTZT Wendeplatten.

Sipariş Örneği/Ordering Example/*Bestellbeispiel*

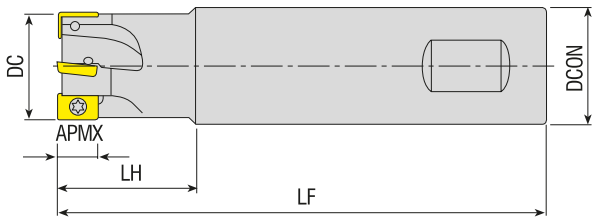
1 ad./pcs./stück AEM90-XD11T3-D16-W16-L150-Z02

Kesme Hesabı : S 331 / *Cutting Calculation : P 331* / *Schnittberechnung : 331*

BF SERVICE

KAPR=90°



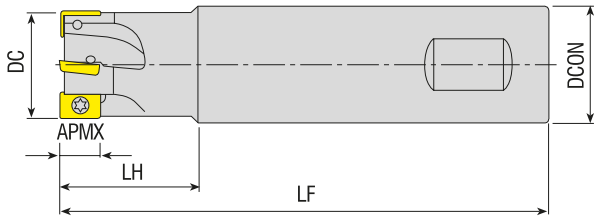


Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*						Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*	
		DC	ZEFP	DCON	LF	LH	APMX		Sıkma Vidası *Screw* *Schraube* 	Tork Anahtar *Torx Key* *Torx-Schlüssel* 
AEM90-XC13-D20-W20-L150-Z02	●	20	2	20	150	60	13	**XCKX 13T3..**	3008-M3x6	80-T08
AEM90-XC13-D25-W25-L150-Z03	●	25	3	25	150	60	13		3008-M3x8	
AEM90-XC13-D32-W32-L150-Z04	●	32	4	32	150	60	13			

SC Ucuna Uygundur. / Compatiple with SC Insert. Kompatibel mit SC Wendeplatten.

KAPR=90°





Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*						Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*	
		DC	ZEFP	DCON	LF	LH	APMX		Sıkma Vidası *Screw* *Schraube* 	Tork Anahtar *Torx Key* *Torx-Schlüssel* 
AEM90-XO06-D10-C12-L120-Z02	●	10	2	12	120	50	5	**XO.. 0602..**	3006-M1.8x4	80-T06
AEM90-XO06-D12-C12-L120-Z02	●	12	2	12	120	25	5			
AEM90-XO09-D16-W16-L150-Z02	●	16	2	16	150	50	8	**XO.. 0903..**	3008-M2.5x5	80-T08
AEM90-XO09-D20-W20-L150-Z03	●	20	3	20	150	50	8			
AEM90-XO12-D20-W20-L150-Z02	●	20	2	20	150	50	11	**XO.. 1204..**	3010-M3.5x7	80-T10
AEM90-XO12-D20-C20-L200-Z02	●	20	2	20	200	100	11			
AEM90-XO12-D22-W20-L150-Z02	●	22	2	20	150	30	11			
AEM90-XO12-D25-W25-L150-Z03	●	25	3	25	150	50	11			
AEM90-XO12-D25-C25-L200-Z03	●	25	3	25	200	100	11			
AEM90-XO12-D32-C25-L150-Z04	●	32	4	25	150	40	11			
AEM90-XO12-D32-W32-L150-Z04	●	32	4	32	150	50	11			
AEM90-XO12-D32-C32-L250-Z04	●	32	4	32	250	100	11			

R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock / *Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
SC Ucuna Uygundur. / Compatiple with SC Insert. Kompatibel mit SC Wendeplatten.

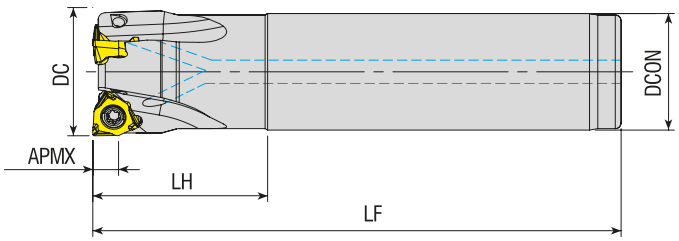
Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück AEM90-XC13-D20-W20-L150-Z02
Kesme Hesabı : S 331 / *Cutting Calculation : P 331* / *Schnittberechnung : 331*

BF SERVICE

new

KAPR=90°



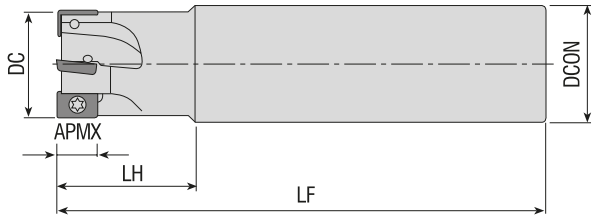


Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*						Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*	
		DC	ZEFP	DCON	LF	LH	APMX		Sıkma Vidası *Screw* *Schraube* 	Tork Anahtar *Torx Key* *Torx-Schlüssel* 
AEM90-XN0403-D16-C16-L100-Z01-H	●	16	1	16	100	30	4	**XNEX 0403..**	4008-M2.5x6	80-T08
AEM90-XN0403-D22-C20-L110-Z03-H	●	22	3	20	110	30	4			
AEM90-XN0806-D32-C32-L110-Z02-H	●	32	2	32	110	40	7.5	**XNEX 0806..**	4015-M4x11	80-T15

SC Ucuna Uygundur. / Compatiple with SC Insert. Kompatibel mit SC Wendeplatten.

KAPR=90°





Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*						Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*	
		DC	ZEFP	DCON	LF	LH	APMX		Sıkma Vidası *Screw* *Schraube* 	Tork Anahtar *Torx Key* *Torx-Schlüssel* 
AEM90-ZC1003-D16-C14-L150-Z02	●	16	2	14	150	25	9	**ZCMT 100308R**	3008-M2.5x6	80-T08
AEM90-ZC1003-D16-C14-L200-Z02	●	16	2	14	200	25	9			
AEM90-ZC1003-D16-C15-L150-Z02	●	16	2	15	150	25	9			
AEM90-ZC1003-D16-C16-L150-Z02	●	16	2	16	150	25	9			
AEM90-ZC1003-D17-C16-L150-Z02	●	17	2	16	150	25	9			
AEM90-ZC1003-D17-C16-L200-Z02	●	17	2	16	200	25	9			
AEM90-ZC1003-D20-C18-L150-Z03	●	20	3	18	150	25	9			
AEM90-ZC1003-D20-C18-L200-Z02	●	20	2	18	200	25	9			
AEM90-ZC1003-D20-C20-L150-Z03	●	20	3	20	150	40	9			
AEM90-ZC1003-D20-C18-L200-Z03	●	20	3	18	200	25	9			
AEM90-ZC1003-D21-C20-L150-Z02	●	21	2	20	150	30	9			
AEM90-ZC1003-D21-C20-L150-Z03	●	21	3	20	150	30	9			
AEM90-ZC1003-D21-C20-L200-Z03	●	21	3	20	200	30	9			
AEM90-ZC1003-D25-C20-L150-Z03	●	25	3	20	150	30	9			
AEM90-ZC1003-D25-C20-L200-Z03	●	25	3	20	200	30	9			
AEM90-ZC1003-D25-C25-L150-Z03	●	25	3	25	150	40	9			
AEM90-ZC1003-D26-C25-L170-Z03	●	26	3	25	170	25	9			
AEM90-ZC1003-D26-C25-L200-Z03	●	26	3	25	200	25	9			
AEM90-ZC1003-D32-C25-L180-Z04	●	32	4	25	180	30	9			
AEM90-ZC1003-D33-C32-L200-Z04	●	33	4	32	200	25	9			

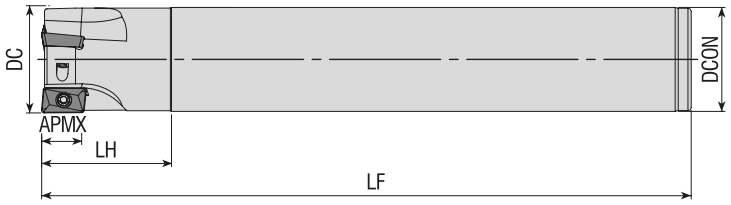
R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
DJT Ucuna Uygundur. / Compatiple with DJT Insert. Kompatibel mit DJT Wendeplatten.

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück AEM90-XN0403-D16-C16-L110-Z01-H
Kesme Hesabı : S 331 / *Cutting Calculation : P 331* / *Schnittberechnung : 331*

BF SERVICE

KAPR=90°

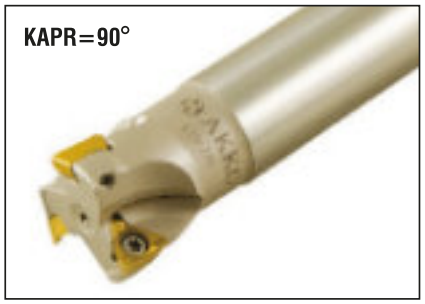


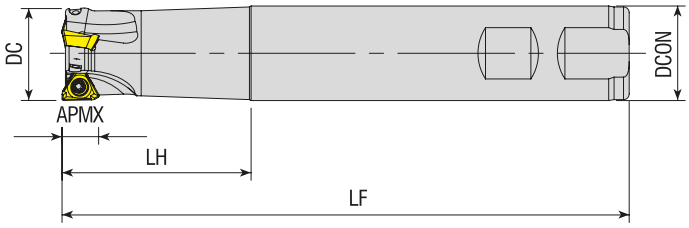


Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*						Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*	
		DC	ZEFP	DCON	LF	LH	APMX		Sıkma Vidası *Screw* *Schraube* 	Tork Anahtar *Torx Key* *Torx-Schlüssel* 
AEM90-ZP13T3-D26-C25-L200-Z02	●	26	2	25	200	35	13	**ZPMT 13T3..**	4010-M3x8	80-T10
AEM90-ZP13T3-D26-C25-L200-Z03	●	26	3	25	200	35	13			
AEM90-ZP13T3-D26-C25-L250-Z02	●	26	2	25	250	35	13			
AEM90-ZP13T3-D33-C32-L200-Z03	●	33	3	32	200	40	13			
AEM90-ZP13T3-D33-C32-L250-Z03	●	33	3	32	250	40	13			

DJT Ucuna Uygundur. / Compatiple with DJT Insert. Kompatibel mit DJT Wendeplatten.

KAPR=90°





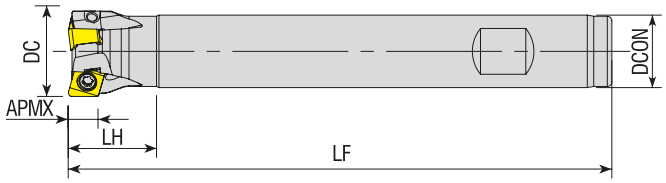
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*						Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*	
		DC	ZEFP	DCON	LF	LH	APMX		Sıkma Vidası *Screw* *Schraube* 	Tork Anahtar *Torx Key* *Torx-Schlüssel* 
AEM90-3P0603-D16-W16-L120-Z03-H	●	16	3	16	120	25	4.7	**3P.T 0603**	3006-M2x4	80-T06
AEM90-3P0603-D20-W20-L150-Z03-H	●	20	3	20	150	25	4.7			
AEM90-3P0603-D25-W25-L150-Z05-H	●	25	5	25	150	25	4.7			
AEM90-3P1004-D20-W20-L150-Z02	●	20	2	20	150	40	7	**3P.T 1004**	1108-M2.5x6	80-T08
AEM90-3P1004-D21-C20-L200-Z02	●	21	2	20	200	30	7			
AEM90-3P1004-D25-W25-L150-Z03	●	25	3	25	150	40	7			
AEM90-3P1505-D32-W32-L150-Z03	●	32	3	32	150	50	11	**3P.T 1505**	1115-M4x10	80-T15
AEM90-3P1505-D40-W32-L150-Z04	●	40	4	32	150	35	11			

R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
TGTC Ucuna Uygundur. / Compatiple with TGTC Insert. Kompatibel mit TGTC Wendeplatten.

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück AEM90-ZP13T3-D26-C25-L200-Z02
Kesme Hesabı : S 331 / *Cutting Calculation : P 331* / *Schnittberechnung : 331*

BF SERVICE



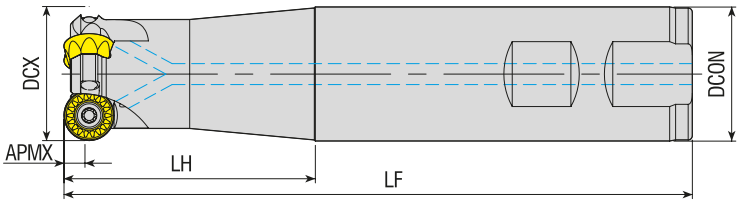


Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*						Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile* Sıkma Vidası *Screw* *Schraube*	Tork Anahtar *Torx Key* *Torx-Schlüssel*
		DC	ZEFP	DCON	LF	LH	APMX			
AEM90-4N06-D16-W16-L120-Z02-H	●	16	2	16	120	25	6	**4NKT 0603..**	1108-M3x6.8	80-T08
AEM90-4N06-D16-W16-L160-Z02	●	16	2	16	160	25	6			
AEM90-4N06-D20-W16-L120-Z03-H	●	20	3	16	120	20	6			
AEM90-4N06-D20-W16-L160-Z03	●	20	3	16	160	20	6			

TGTC Ucuna Uygundur. / Compatiple with TGTC Insert. Kompatibel mit TGTC Wendeplatten.

S-SİSTEM YÜZEY ve KOPYA PARMAK FREZELER
S-SYSTEM FACE and COPY END MILLS
S-SYSTEM KOPIER- UND SCHAFTFRÄSER





Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*						Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile* Sıkma Vidası *Screw* *Schraube*	Baskı Parçası *Wedge Clamp* *Spannpratze*	Baskı Vidası *Clamp Screw* *Klemmschraube*	Tork Anahtar *Torx Key* *Torx-Schlüssel*
		DCX	ZEFP	DCON	LF	LH	APMX					
AEMR-RP08T2M-D20-W20-L150-Z02-H	●	20	2	20	150	60	4	**RPMT 08T2..**	3008-M2.5x6	-	-	80-T08
AEMR-RP08T2M-D25-W25-L200-Z03-H	●	25	3	25	200	100	4					
AEMR-RP10T3M-D25-W25-L200-Z02-H	●	25	2	25	200	100	5	**RPMT 10T3..**	4015-M3.5x9	-	-	80-T15
AEMR-RP10T3M-D32-W32-L200-Z03-H	●	32	3	32	200	100	5					
AEMR-RP1204M-D32-W32-L150-Z03-H	●	32	3	32	150	60	6	**RPMT 1204..**	4015-M4x9	-	-	
AEMR-RP1204M-D32-W32-L200-Z03-H	●	32	3	32	200	100	6					
AEMR-RP1606M-D40-W32-L150-Z02-H	●	40	2	16	150	35	8	**RPMT 1606..**	1020-M5x11	-	-	80-T20
AEMR-RP1606M-D40-W32-L200-Z02-H	●	40	2	16	200	35	8					

R: Sağ / Right / *Rechts* L: Sol/Left/*Links*

● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*

MTSBSH Ucuna Uygundur. / Compatiple with MTSBSH Insert. Kompatibel mit MTSBSH Wendeplatten.

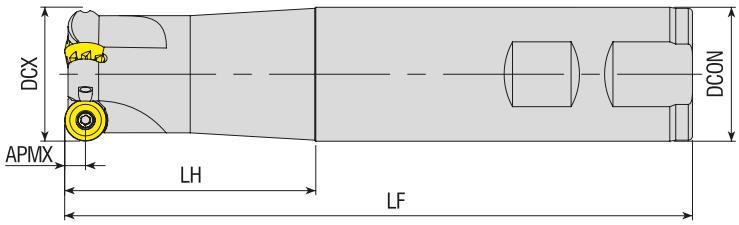
Sipariş Örneği/Ordering Example/*Bestellbeispiel*

1 ad./pcs./stück AEMR-4N06-D16-W16-L120-Z02-H

Kesme Hesabı : S 331 / *Cutting Calculation : P 331* / *Schnittberechnung : 331*

BF SERVICE

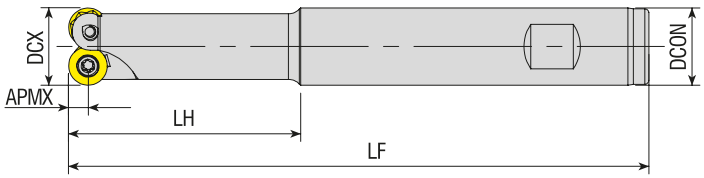




Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*						Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*			
		DCX	ZEFP	DCON	LF	LH	APMX		Sıkma Vidası *Screw* *Schraube*	Baskı Parçası *Wedge Clamp* *Spannpratze*	Baskı Vidası *Clamp Screw* *Klemmschraube*	Tork Anahtar *Torx Key* *Torx-Schlüssel*
AEMR-RP10T3-D25-W25-L125-Z02	●	25	2	25	125	60	5	**RPNX 10T3..**	4010-M3x8	-	-	80-T10
AEMR-RP10T3-D25-W25-L150-Z02	●	25	2	25	150	60	5					
AEMR-RP10T3-D32-W32-L150-Z03	●	32	3	32	150	60	5					

CRTZT Ucuna Uygundur. / Compatiple with CRTZT Insert. Kompatibel mit CRTZT Wendeplatten.





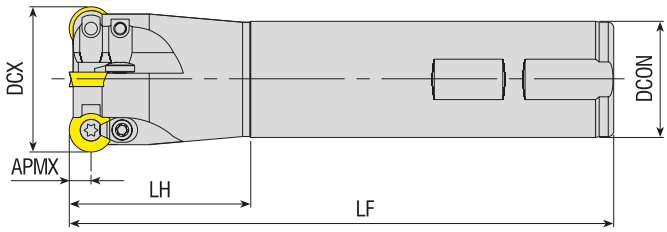
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*						Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*	
		DCX	ZEFP	DCON	LF	LH	APMX		Sıkma Vidası *Screw* *Schraube*	Tork Anahtar *Torx Key* *Torx-Schlüssel*
AEMR-RY08-D16-W16-L150-Z02	●	16	2	16	150	55	4	**RYMX 0803..**	4010-M3x6	80-T10
AEMR-RY10-D20-W20-L150-Z02	●	20	2	20	150	60	5	**RYMX 1004..**	4015-M3.5x8	80-T15
AEMR-RY10-D20-C20-L200-Z02	●	20	2	20	200	100	5			
AEMR-RY10-D21-W20-L200-Z02-H	●	21	2	20	200	30	5			
AEMR-RY10-D25-W25-L150-Z02	●	25	2	25	150	60	5			
AEMR-RY10-D25-W25-L150-Z03	●	25	3	25	150	60	5			
AEMR-RY10-D26-W25-L200-Z02-H	●	26	2	25	200	60	5			
AEMR-RY10-D32-W32-L160-Z04-H	●	32	4	32	160	60	5			
AEMR-RY12-D32-C25-L160-Z03	●	32	3	25	160	30	6	**RYMX 1205..**	4015-M4x11	

R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
TGTC Ucuna Uygundur. / Compatiple with TGTC Insert. Kompatibel mit TGTC Wendeplatten.

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück AEMR-RP10T3-D25-W25-L125-Z02
Kesme Hesabı : S 331 / *Cutting Calculation : P 331* / *Schnittberechnung : 331*

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Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*						Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*			
		DCX	ZEFP	DCON	LF	LH	APMX		Sıkma Vidası *Screw* *Schraube*	Baskı Parçası *Wedge Clamp* *Spannpratze*	Baskı Vidası *Clamp Screw* *Klemmschraube*	Tork Anahtar *Torx Key* *Torx-Schlüssel*
AEMR-RD0501-D08-W10-L100-Z01-H	●	8	1	10	100	20	2.5	RD.. 0501	3006-M2x3.6	-	-	80-T06
AEMR-RD0501-D10-W12-L100-Z02-H	●	10	2	12	100	20	2.5		3006-M2x4			
AEMR-RD0501-D12-W12-L120-Z02-H	●	12	2	12	120	20	2.5					
AEMR-RD0803-D16-W16-L150-Z02	●	16	2	16	150	60	4	RD.. 0803	3008-M3x6			80-T08
AEMR-RD0803-D16-C20-L200-Z02	●	16	2	20	200	60	4					
AEMR-RD0803-D20-W20-L150-Z03	●	20	3	20	150	60	4					
AEMR-RD08T2-D16-W16-L150-Z02	●	16	2	16	150	60	4	RD.. 08T2	3008-M2.5x6			
AEMR-RD08T2-D20-W20-L150-Z02	●	20	2	20	150	60	4					
AEMRC-RD1003-D20-W20-L150-Z02	●	20	2	20	150	60	5	RD.. 1003	4015-M3.5x9	ACK-15	4015-M3.5x11	80-T15
AEMRC-RD1003-D20-C20-L160-Z02	●	20	2	20	160	70	5					
AEMRC-RD1003-D20-C20-L250-Z02	●	20	2	20	250	150	5					
AEMRC-RD1003-D21-C20-L160-Z02	●	21	2	20	160	70	5					
AEMRC-RD1003-D25-W25-L150-Z02	●	25	2	25	150	60	5					
AEMRC-RD1003-D25-C25-L160-Z02	●	25	2	25	160	70	5					
AEMRC-RD1003-D25-W25-L200-Z02	●	25	2	25	200	100	5					
AEMRC-RD1003-D25-C25-L200-Z02	●	25	2	25	200	100	5					
AEMRC-RD1003-D25-C25-L250-Z02	●	25	2	25	250	150	5					
AEMRC-RD1003-D26-C25-L160-Z02	●	26	2	25	160	70	5					
AEMRC-RD1003-D32-W32-L150-Z03	●	32	3	32	150	60	5					
AEMRC-RD1003-D32-C32-L250-Z02	●	32	2	32	250	150	5					
AEMRC-RD1003-D33-C32-L160-Z03	●	33	3	32	160	70	5					
AEMRC-RD1003-D40-W32-L150-Z04	●	40	4	32	150	35	5					
AEMRC-RD1003-D40-C32-L250-Z02	●	40	2	32	250	50	5					
AEMRC-RD10T3-D20-C20-L150-Z02	●	20	2	20	150	60	5	RD.. 10T3				
AEMRC-RD10T3-D20-W20-L150-Z02	●	20	2	20	150	60	5					
AEMRC-RD10T3-D25-C25-L150-Z02	●	25	2	25	150	60	5					
AEMRC-RD10T3-D25-W25-L150-Z02	●	25	2	25	150	60	5					
AEMRC-RD10T3-D32-W32-L150-Z03	●	32	3	32	150	60	5					
AEMRC-RD12T3-D25-W25-L150-Z02	●	25	2	25	150	60	6	RD.. 12T3				
AEMRC-RD12T3-D25-W25-L200-Z02	●	25	2	25	200	100	6					
AEMRC-RD12T3-D25-C25-L250-Z02	●	25	2	25	250	150	6					
AEMRC-RD12T3-D25-C25-L300-Z02	●	25	2	25	300	200	6					
AEMRC-RD12T3-D32-W32-L150-Z03	●	32	3	32	150	60	6					
AEMRC-RD12T3-D32-C32-L250-Z02	●	32	2	32	250	150	6					
AEMRC-RD12T3-D40-W32-L150-Z04	●	40	4	32	150	50	6					
AEMRC-RD12T3-D40-C32-L250-Z02	●	40	2	32	250	50	6					
AEMRC-RD1204-D32-C32-L160-Z03	●	32	3	32	160	70	6	RD.. 1204				
AEMRC-RD1204-D32-W32-L160-Z03	●	32	3	32	160	50	6					
AEMRC-RD1204-D33-C32-L160-Z03	●	33	3	32	160	70	6					
AEMRC-RD1604-D40-W32-L150-Z02	●	40	2	32	150	35	8	RD.. 1604	4015-M4.5x11	ACK-05	4015-M4x11	

R: Sağ / Right / *Rechts* L: Sol/Left/*Links*

● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*

ISO Ucuna Uygundur. / Compatiple with ISO Insert. Kompatibel mit ISO Wendeplatten.

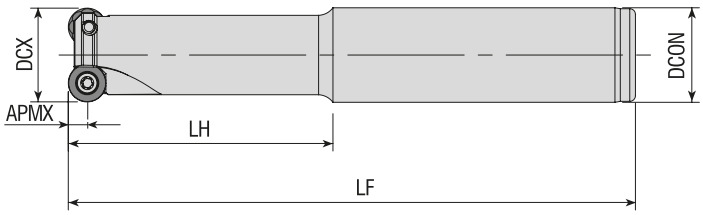
Sipariş Örneği/Ordering Example/*Bestellbeispiel*

1 ad./pcs./stück AEMR-RD0501-D08-W10-L100-Z01-H

Kesme Hesabı : S 331 / *Cutting Calculation : P 331* / *Schnittberechnung : 331*

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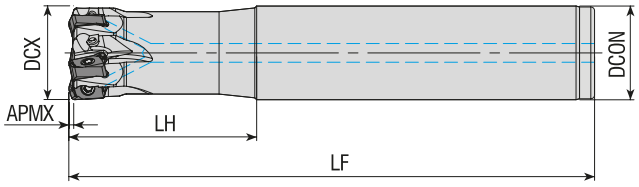


Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*						Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*			
		DCX	ZEFP	DCON	LF	LH	APMX		Sıkma Vidası *Screw* *Schraube*	Baskı Parçası *Wedge Clamp* *Spannpratze*	Baskı Vidası *Clamp Screw* *Klemmschraube*	Tork Anahtar *Torx Key* *Torx-Schlüssel*
AEMR-QP10T3-D20-C20-L150-Z01-H	●	20	1	20	150	70	5	**QP.. 10T3..**	4015-M3.5x9	-	-	80-T15
AEMR-QP10T3-D25-C25-L120-Z02-H	●	25	2	25	120	40	5					
AEMR-QP10T3-D25-C25-L150-Z02-H	●	25	2	25	150	70	5					
AEMR-QP10T3-D25-C25-L170-Z02	●	25	2	25	170	90	5					
AEMR-QP10T3-D32-C32-L150-Z03-H	●	32	3	32	150	70	5					
AEMR-QP10T3-D32-C32-L170-Z03	●	32	3	32	170	90	5					
AEMR-QP1204-D25-C25-L150-Z02-H	●	25	2	25	150	70	6	**QP.. 1204..**	4015-M4x9	-	-	

SMTM Ucuna Uygundur. / Compatiple with SMTM Insert. Kompatibel mit SMTM Wendeplatten.

S-SİSTEM HIZLI İLERLEMELİ PARMAK FREZELER
S-SYSTEM HIGHFEED END MILLS
S-SYSTEM HOCHVORSCHUB- SCHAFTFRÄSER





Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*						Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*	
		DCX	ZEFP	DCON	LF	LH	APMX		Sıkma Vidası *Screw* *Schraube*	Tork Anahtar *Torx Key* *Torx-Schlüssel*
AHFM-BN10T3-D16-C16-L100-Z02-H	●	16	2	16	100	30	1	**BNGX 10T3..**	3008-M2.5x6	80-T08
AHFM-BN10T3-D16-C16-L150-Z02-H	●	16	2	16	150	50	1			
AHFM-BN10T3-D20-C20-L130-Z03-H	●	20	3	20	130	40	1			
AHFM-BN10T3-D20-C20-L130-Z04-H	●	20	4	20	130	40	1			
AHFM-BN10T3-D20-C20-L160-Z03-H	●	20	3	20	160	80	1			
AHFM-BN10T3-D25-C25-L140-Z04-H	●	25	4	25	140	50	1			
AHFM-BN10T3-D25-W25-L140-Z04-H	●	25	4	25	140	50	1			
AHFM-BN10T3-D25-C25-L140-Z05-H	●	25	5	25	140	50	1			
AHFM-BN10T3-D25-C25-L180-Z04-H	●	25	4	25	180	100	1			
AHFM-BN10T3-D32-C32-L150-Z05-H	●	32	5	32	150	70	1			
AHFM-BN10T3-D32-C32-L150-Z06-H	●	32	6	32	150	70	1			
AHFM-BN10T3-D35-C32-L200-Z06-H	●	35	6	32	200	50	1			

R: Sağ / Right / *Rechts* L: Sol/Left/*Links*

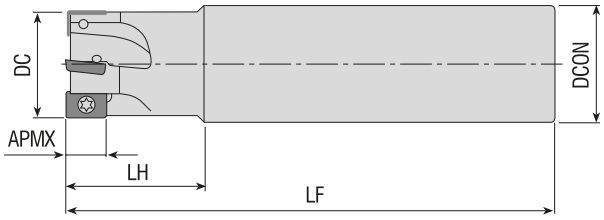
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*

PRMT Ucuna Uygundur. / Compatiple with PRMT Insert. Kompatibel mit PRMT Wendeplatten.

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück AHFM-QP10T3-D20-C20-L150-Z01-H
Kesme Hesabı : S 331 / *Cutting Calculation : P 331* / *Schnittberechnung : 331*

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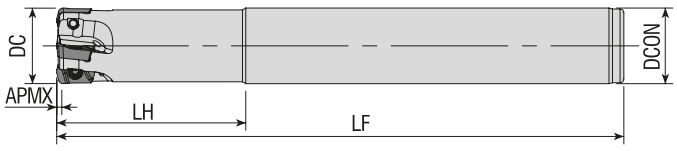




Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*						Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*	
		DC	ZEFP	DCON	LF	LH	APMX		Sıkma Vidası *Screw* *Schraube* 	Tork Anahtar *Torx Key* *Torx-Schlüssel* 
AHFM-EO0602-D10-C10-L080-Z02	●	10	2	10	80	20	-	**EO.. 0602..** **ZOMT 0602..**	3006-M1.8x4	80-T06
AHFM-EO0602-D10-C09-L120-Z02	●	10	2	9	120	15	-			
AHFM-EO0602-D10-C10-L120-Z02	●	10	2	10	120	60	-			
AHFM-EO0602-D12-C12-L080-Z02	●	12	2	12	80	20	-			
AHFM-EO0602-D12-C12-L080-Z03	●	12	3	12	80	20	-			
AHFM-EO0602-D12-C11-L120-Z02	●	12	2	11	120	15	-			
AHFM-EO0602-D12-C11-L120-Z03	●	12	3	11	120	15	-			
AHFM-EO0602-D12-C12-L120-Z02	●	12	2	12	120	60	-			
AHFM-EO0602-D12-C12-L120-Z03	●	12	3	12	120	60	-			
AHFM-EO0602-D16-C16-L150-Z04	●	16	4	16	150	60	-			

DJT Ucuna Uygundur. / Compatiple with DJT Insert. Kompatibel mit DJT Wendeplatten.





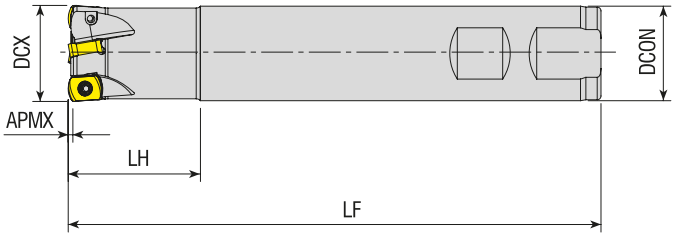
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*						Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*	
		DC	ZEFP	DCON	LF	LH	APMX		Sıkma Vidası *Screw* *Schraube* 	Tork Anahtar *Torx Key* *Torx-Schlüssel* 
AHFM-EP1003-D16-C16-L150-Z02-H	●	16	2	16	150	50	1	**EP.. 1003..** **ZPMT 1003..** **YPHW 1003..**	3008-M2.5x5	80-T08
AHFM-EP1003-D17-C16-L150-Z02-H	●	17	2	16	150	20	1			
AHFM-EP1003-D20-C20-L150-Z04-H	●	20	4	20	150	50	1			
AHFM-EP1003-D21-C20-L150-Z04-H	●	21	4	20	150	20	1			

R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
DJT Ucuna Uygundur. / Compatiple with DJT Insert. Kompatibel mit DJT Wendeplatten.

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück AHFM-EO0602-D10-C10-L080-Z02
Kesme Hesabı : S 331 / *Cutting Calculation : P 331* / *Schnittberechnung : 331*

BF SERVICE





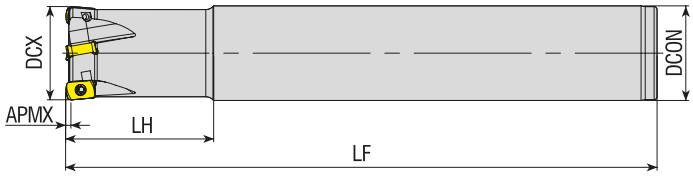
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*						Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile* Sıkma Vidası *Screw* *Schraube*	Tork Anahtar *Torx Key* *Torx-Schlüssel*
		DCX	ZEFP	DCON	LF	LH	APMX			
AHFM-BL0603-D16-C15-L150-Z02	●	16	2	15	150	20	1			
AHFM-BL0603-D16-C16-L100-Z02-H	●	16	2	16	100	30	1			
AHFM-BL0603-D16-C16-L150-Z02	●	16	2	16	150	50	1			
AHFM-BL0603-D17-C16-L150-Z02	●	17	2	16	170	20	1			
AHFM-BL0603-D17-W16-L170-Z02	●	17	2	16	170	20	1			
AHFM-BL0603-D17-W16-L170-Z02-H	●	17	2	16	170	20	1			
AHFM-BL0603-D17-C16-L200-Z02	●	17	2	16	200	30	1			
AHFM-BL0603-D18-C16-L150-Z02	●	18	2	16	150	20	1			
AHFM-BL0603-D18-W16-L150-Z02-H	●	18	2	16	150	20	1			
AHFM-BL0603-D20-C20-L130-Z03	●	20	3	20	130	50	1	**BLMP 0603..**	3008-M2.5x6	80-T08
AHFM-BL0603-D20-C20-L160-Z03	●	20	3	20	160	50	1			
AHFM-BL0603-D21-C20-L200-Z03	●	21	3	20	200	25	1			
AHFM-BL0603-D21-W20-L200-Z03	●	21	3	20	200	25	1			
AHFM-BL0603-D22-W20-L150-Z03	●	22	3	20	150	20	1			
AHFM-BL0603-D25-C25-L250-Z04	●	25	4	25	250	40	1			
AHFM-BL0603-D26-C25-L200-Z04	●	26	4	25	200	35	1			
AHFM-BL0603-D26-W25-L200-Z04	●	26	4	25	200	35	1			
AHFM-BL0603-D26-C25-L250-Z04	●	26	4	25	250	35	1			
AHFM-BL0603-D32-C32-L150-Z05	●	32	5	32	150	70	1			
AHFM-BL0603-D32-C32-L200-Z05	●	32	5	32	200	120	1			
AHFM-BL0603-D33-C32-L200-Z05	●	33	5	32	200	40	1			
AHFM-BL0603-D33-C32-L250-Z05	●	33	5	32	250	40	1			

R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
TGTC Ucuna Uygundur. / Compatiple with TGTC Insert. Kompatibel mit TGTC Wendeplatten.

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück AHFM-BL0603-D16-C15-L150-Z02
Kesme Hesabı : S 331 / *Cutting Calculation : P 331* / *Schnittberechnung : 331*

BF SERVICE





Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*						Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*	
		DCX	ZEFP	DCON	LF	LH	APMX		Sıkma Vidası *Screw* *Schraube* 	Tork Anahtar *Torx Key* *Torx-Schlüssel* 
AHFM-EN1004-D16-C15-L150-Z02	●	16	2	15	150	25	1	ENMU 1004..	3008-M2.5x5	80-T08
AHFM-EN1004-D16-C16-L150-Z02	●	16	2	16	150	25	1			
AHFM-EN1004-D17-C16-L150-Z02-H	●	17	2	16	150	25	1			
AHFM-EN1004-D17-C16-L150-Z02	●	17	2	16	150	25	1			
AHFM-EN1004-D17-C16-L200-Z02	●	17	2	16	200	25	1			
AHFM-EN1004-D18-C16-L150-Z02	●	18	2	16	150	25	1			
AHFM-EN1004-D20-C20-L150-Z03	●	20	3	20	150	40	1			
AHFM-EN1004-D21-C20-L150-Z02	●	21	2	20	150	30	1			
AHFM-EN1004-D21-C20-L150-Z03	●	21	3	20	150	30	1			
AHFM-EN1004-D21-C20-L200-Z03	●	21	3	20	200	30	1			
AHFM-EN1004-D22-C20-L150-Z03	●	22	3	20	150	30	1			
AHFM-EN1004-D25-C25-L150-Z03	●	25	3	25	150	40	1		3008-M2.5x6	
AHFM-EN1004-D25-C25-L150-Z04	●	25	4	25	150	40	1			
AHFM-EN1004-D26-C25-L150-Z03	●	26	3	25	150	30	1			
AHFM-EN1004-D26-C25-L150-Z04	●	26	4	25	150	30	1			
AHFM-EN1004-D26-C25-L200-Z03	●	26	3	25	150	30	1			
AHFM-EN1004-D26-C25-L200-Z03-H	●	26	3	25	200	30	1			
AHFM-EN1004-D26-C25-L250-Z03-H	●	26	3	25	250	30	1			
AHFM-EN1004-D28-C25-L200-Z04	●	28	4	25	200	30	1			
AHFM-EN1004-D32-C32-L200-Z04	●	32	4	32	200	50	1			
AHFM-EN1004-D33-C32-L200-Z04	●	33	4	32	200	30	1			

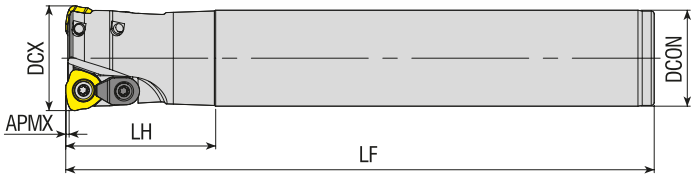
R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
DJT Ucuna Uygundur. / Compatiple with DJT Insert. Kompatibel mit DJT Wendeplatten.

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück AHFM-EN1004-D16-C15-L150-Z02
Kesme Hesabı : S 331 / *Cutting Calculation : P 331* / *Schnittberechnung : 331*



BF SERVICE

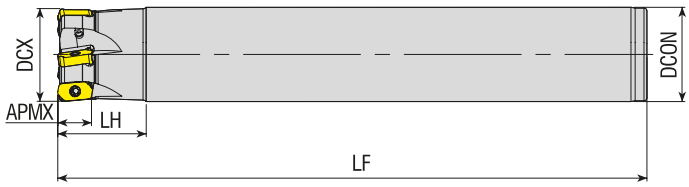




Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*						Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*			
		DCX	ZEFP	DCON	LF	LH	APMX		Sıkma Vidası *Screw* *Schraube* 	Baskı Parçası *Wedge Clamp* *Spannpratze* 	Baskı Vidası *Clamp Screw* *Klemmschraube* 	Tork Anahtar *Torx Key* *Torx-Schlüssel* 
AHFMC-JD1204-D32-C32-L150-Z02	●	32	2	32	150	50	1	**JDMW 1204..**	4615-M4x11	ACK-05	4015-M4x11	80-T15
AHFMC-JD1204-D32-C32-L200-Z02	●	32	2	32	200	50	1					
AHFMC-JD1204-D35-C32-L200-Z02	●	35	2	32	200	50	1					
AHFMC-JD1204-D35-C32-L250-Z02	●	35	2	32	250	50	1					

MTSBH Ucuna Uygundur. / Compatiple with MTSBHInsert. Kompatibel mit MTSBH Wendeplatten.





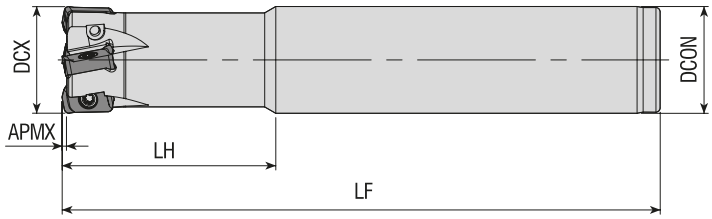
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*						Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*	
		DCX	ZEFP	DCON	LF	LH	APMX		Sıkma Vidası *Screw* *Schraube* 	Tork Anahtar *Torx Key* *Torx-Schlüssel* 
AHFM-LN12O-D16-C15-L150-Z02	●	16	2	15	150	30	12	**LNMX 1235..**	3008-M2.5x6	80-T08
AHFM-LN12O-D21-C20-L150-Z03	●	21	3	20	150	30	12			
AHFM-LN12O-D26-C25-L150-Z04	●	26	4	25	150	30	12			
AHFM-LN12O-D33-C32-L200-Z05	●	33	5	32	200	30	12			

R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
B.OKE Ucuna Uygundur. / Compatiple with B.OKE Insert. Kompatibel mit B.OKE Wendeplatten.

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück AHFM-JD1204-D32-C32-L150-Z02
Kesme Hesabı : S 331 / *Cutting Calculation : P 331* / *Schnittberechnung : 331*

BF SERVICE





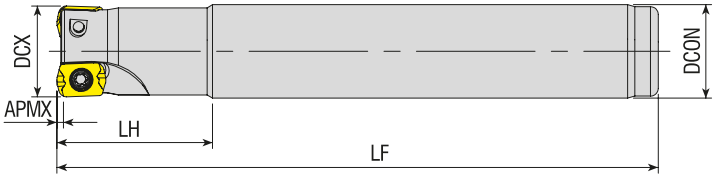
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*						Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile* Sıkma Vidası *Screw* *Schraube*	Tork Anahtar *Torx Key* *Torx-Schlüssel*
		DCX	ZEFP	DCON	LF	LH	APMX			
AHFM-L003-D16-C15-L160-Z02	●	16	2	15	160	30	1	**LOGU 0303..**	1108-M3x6.8	80-T08
AHFM-L003-D16-C16-L100-Z02-F	●	16	2	16	100	30	1			
AHFM-L003-D16-C16-L100-Z02	●	16	2	16	100	30	1			
AHFM-L003-D16-C16-L130-Z02-H	●	16	2	16	130	40	1			
AHFM-L003-D16-C16-L160-Z02	●	16	2	16	160	50	1			
AHFM-L003-D16-C16-L160-Z02-H	●	16	2	16	160	100	1			
AHFM-L003-D17-C16-L180-Z02	●	17	2	16	180	30	1			
AHFM-L003-D20-C20-L130-Z03	●	20	3	20	130	40	1			
AHFM-L003-D20-C20-L130-Z03-H	●	20	3	20	130	40	1			
AHFM-L003-D20-C20-L160-Z03	●	20	3	20	160	80	1			
AHFM-L003-D20-C20-L160-Z03-H	●	20	3	20	160	100	1			
AHFM-L003-D21-C20-L200-Z03	●	21	3	20	200	30	1			
AHFM-L003-D25-C25-L140-Z04-F	●	25	4	25	140	50	1			
AHFM-L003-D25-C25-L140-Z04	●	25	4	25	140	50	1			
AHFM-L003-D25-C25-L180-Z04	●	25	4	25	180	100	1			
AHFM-L003-D26-C25-L250-Z04	●	26	4	25	250	40	1			
AHFM-L003-D32-C32-L200-Z05	●	32	5	32	200	120	1			
AHFM-L003-D33-C32-L250-Z05	●	33	5	32	250	40	1			

R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
KYCR Ucuna Uygundur. / Compatiple with KYCR Insert. Kompatibel mit KYCR Wendeplatten.

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück AHFM-L003-D16-C15-L160-Z02
Kesme Hesabı : S 331 / *Cutting Calculation : P 331* / *Schnittberechnung : 331*

BF SERVICE

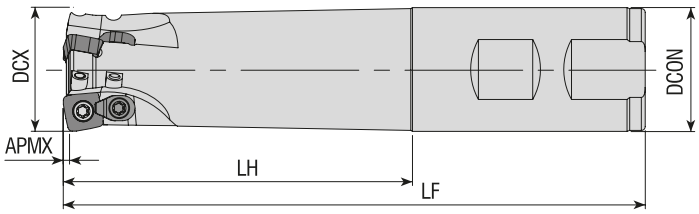




Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*						Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile* Sıkma Vidası *Screw* *Schraube*	Tork Anahtar *Torx Key* *Torx-Schlüssel*
		DCX	ZEFP	DCON	LF	LH	APMX			
AHFM-LP0102-D10-C09-L120-Z02	●	10	2	9	120	20	0.5	**LPGT 0102..**	3006-M1.8x4	80-T06
AHFM-LP0102-D10-C10-L120-Z02	●	10	2	10	120	20	0.5			
AHFM-LP0102-D12-C11-L120-Z02	●	12	2	11	120	20	0.5			
AHFM-LP0102-D12-C12-L120-Z02	●	12	2	12	120	20	0.5			

KYCR Ucuna Uygundur. / Compatiple with KYCR Insert. Kompatibel mit KYCR Wendeplatten.





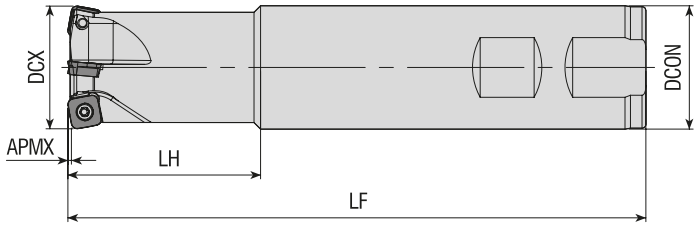
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*						Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile* Sıkma Vidası *Screw* *Schraube*	Baskı Parçası *Wedge Clamp* *Spannpratze*	Baskı Vidası *Clamp Screw* *Klemmschraube*	Tork Anahtar *Torx Key* *Torx-Schlüssel*
		DCX	ZEFP	DCON	LF	LH	APMX					
AHFM-SD06T2-D16-C16-L100-Z02-H	●	16	2	16	100	50	0.8	**SD.. 06T2..**	3007-M2.2x5	-	-	80-T07
AHFM-SD06T2-D16-C16-L150-Z02-H	●	16	2	16	150	50	0.8					
AHFM-SD06T2-D16-C16-L200-Z02	●	16	2	16	200	100	0.8					
AHFM-SD06T2-D17-C16-L150-Z02-H	●	17	2	16	150	50	0.8					
AHFM-SD06T2-D20-C20-L150-Z03-H	●	20	3	20	150	50	0.8					
AHFM-SD06T2-D20-C20-L200-Z03	●	20	3	20	200	100	0.8					
AHFM-SD06T2-D21-C20-L150-Z03-H	●	21	3	20	150	50	0.8					
AHFM-SD06T2-D25-C25-L150-Z04-H	●	25	4	25	150	60	0.8					
AHFM-SD06T2-D26-C25-L150-Z04-H	●	26	4	25	150	60	0.8					
AHFMC-SD09T3-D22-W20-L150-Z02	●	22	2	20	150	30	1.4	**SD.. 09T3..**	3010-M3.5x9	ACK-15	1510-M3.5x9	80-T10
AHFMC-SD09T3-D25-C25-L150-Z02	●	25	2	25	150	94	1.4					
AHFMC-SD09T3-D25-W25-L150-Z02	●	25	2	25	150	94	1.4					
AHFMC-SD09T3-D28-C25-L150-Z02	●	28	2	25	150	30	1.4					
AHFMC-SD09T3-D32-C32-L150-Z03	●	32	3	32	150	100	1.4					
AHFMC-SD09T3-D32-W32-L150-Z03	●	32	3	32	150	90	1.4					
AHFM-SD09T3-D25-C25-L150-Z03	●	25	3	25	150	60	1.4			-	-	
AHFM-SD09T3-D32-C32-L150-Z04	●	32	4	25	150	60	1.4					

R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
ZCC Ucuna Uygundur. / Compatiple with ZCC Insert. Kompatibel mit ZCC Wendeplatten.

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück AHFM-LP0102-D10-C09-L120-Z02
Kesme Hesabı : S 331 / *Cutting Calculation : P 331* / *Schnittberechnung : 331*

BF SERVICE

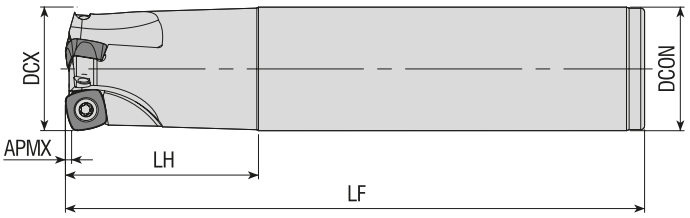




Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*						Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile* Sıkma Vidası *Screw* *Schraube*	Tork Anahtar *Torx Key* *Torx-Schlüssel*
		DCX	ZEFP	DCON	LF	LH	APMX			
AHFM-SO0803-D20-W20-L150-Z02	●	20	2	20	150	50	-	SOMW 0803..	4010-M3x8	80-T10
AHFM-SO0803-D25-W25-L150-Z03	●	25	3	25	150	50	-			
AHFM-SO0803-D32-W32-L150-Z04	●	32	4	32	150	50	-			

KPTK Ucuna Uygundur. / Compatiple with KPTK Insert. Kompatibel mit KPTK Wendeplatten.





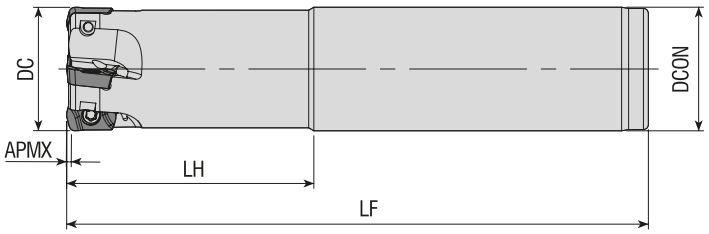
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*						Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile* Sıkma Vidası *Screw* *Schraube*	Tork Anahtar *Torx Key* *Torx-Schlüssel*
		DCX	ZEFP	DCON	LF	LH	APMX			
AHFM-SP1004-D25-C25-L150-Z02	●	25	2	25	150	50	1.5	SPNW 1004..	3015-M3.5x9	80-T15
AHFM-SP1004-D32-C32-L150-Z03	●	32	3	32	150	50	1.5			

R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
DJT Ucuna Uygundur. / Compatiple with DJT Insert. Kompatibel mit DJT Wendeplatten.

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück AHFM-SO0803-D20-W20-L150-Z02
Kesme Hesabı : S 331 / *Cutting Calculation : P 331* / *Schnittberechnung : 331*

BF SERVICE





Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*						Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile* Sıkma Vidası *Screw* *Schraube*	Tork Anahtar *Torx Key* *Torx-Schlüssel*
		DC	ZEFP	DCON	LF	LH	APMX			
AHFM-YP1003-D16-C15-L150-Z02-F	●	16	2	15	150	20	1			
AHFM-YP1003-D16-C15-L200-Z02-F	●	16	2	15	200	20	1			
AHFM-YP1003-D16-C16-L150-Z02-F	●	16	2	16	150	50	1			
AHFM-YP1003-D17-C16-L150-Z02-F	●	17	2	16	150	20	1			
AHFM-YP1003-D17-C16-L200-Z02-F	●	17	2	16	200	20	1			
AHFM-YP1003-D20-C18-L150-Z03-F	●	20	3	18	150	25	1			
AHFM-YP1003-D20-C18-L200-Z03-F	●	20	3	18	200	25	1			
AHFM-YP1003-D20-C20-L150-Z03-F	●	20	3	20	150	50	1			
AHFM-YP1003-D21-C20-L150-Z03-F	●	21	3	20	150	20	1	**EP.. 1003..**		
AHFM-YP1003-D21-C20-L150-Z03-H	●	21	3	20	150	20	1	**YPHW 1003..**	3008-M2.5x5	80-T08
AHFM-YP1003-D21-C20-L150-Z04-F	●	21	4	20	150	20	1	**ZPMT 1003..**		
AHFM-YP1003-D21-C20-L200-Z03	●	21	3	20	200	20	1			
AHFM-YP1003-D21-C20-L200-Z03-F	●	21	3	20	200	20	1			
AHFM-YP1003-D25-C20-L150-Z04-F	●	25	4	20	150	25	1			
AHFM-YP1003-D25-C20-L200-Z04-F	●	25	4	20	200	25	1			
AHFM-YP1003-D25-C25-L150-Z04-F	●	25	4	25	150	50	1			
AHFM-YP1003-D26-C25-L150-Z04	●	26	4	25	150	30	1			
AHFM-YP1003-D26-C25-L150-Z04-F	●	26	4	25	150	30	1			
AHFM-YP1003-D26-C25-L200-Z03-F	●	26	3	25	200	30	1			
AHFM-YP1003-D26-C25-L200-Z04-F	●	26	4	25	200	30	1			

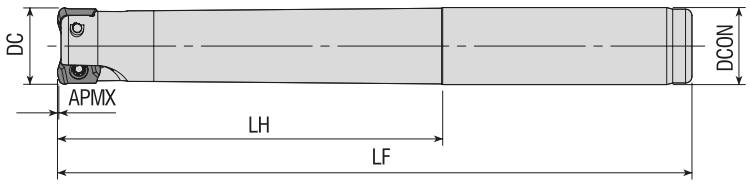
R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
DJT Ucuna Uygundur. / Compatiple with DJT Insert. Kompatibel mit DJT Wendeplatten.

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück AHFM-YP1003-D16-C15-L150-Z02-F
Kesme Hesabı : S 331 / *Cutting Calculation : P 331* / *Schnittberechnung : 331*



BF SERVICE

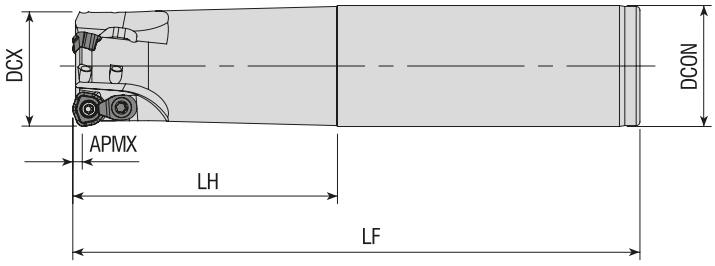




Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*						Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile* Sıkma Vidası *Screw* *Schraube*	Tork Anahtar *Torx Key* *Torx-Schlüssel*
		DC	ZEFP	DCON	LF	LH	APMX			
AHFM-YO0602-D10-C09-L120-Z02-F	●	10	2	9	120	15	0.3	**YOHW 0602..**	3006-M1.8X4	80-T06
AHFM-YO0602-D10-C10-L080-Z02-F	●	10	2	10	80	20	0.3			
AHFM-YO0602-D10-C10-L120-Z02-F	●	10	2	10	120	60	0.3			
AHFM-YO0602-D10-C10-L120-Z02-H-F	●	10	2	10	120	60	0.3			
AHFM-YO0602-D10-C10-L120-Z02-H	●	10	2	10	120	60	0.3			
AHFM-YO0602-D12-C11-L120-Z02-F	●	12	2	11	120	15	0.3			
AHFM-YO0602-D12-C11-L120-Z02-H-F	●	12	2	11	120	15	0.3			
AHFM-YO0602-D12-C11-L120-Z02-H	●	12	2	11	120	15	0.3			
AHFM-YO0602-D12-C11-L120-Z03-F	●	12	3	11	120	15	0.3			
AHFM-YO0602-D12-C12-L080-Z02-F	●	12	2	12	80	20	0.3			
AHFM-YO0602-D12-C12-L080-Z03-F	●	12	3	12	80	20	0.3			
AHFM-YO0602-D12-C12-L120-Z02-F	●	12	2	12	120	60	0.3			
AHFM-YO0602-D12-C12-L120-Z03-F	●	12	3	12	120	60	0.3			

DJT Ucuna Uygundur. / Compatiple with DJT Insert. Kompatibel mit DJT Wendeplatten.





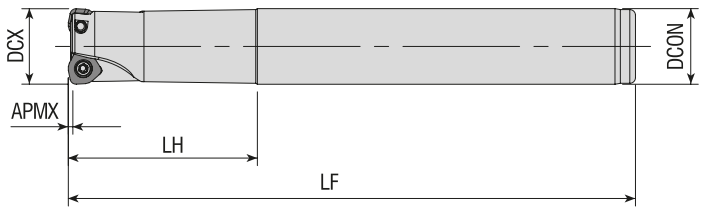
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*						Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile* Sıkma Vidası *Screw* *Schraube*	Baskı Parçası *Wedge Clamp* *Spannpratze*	Baskı Vidası *Clamp Screw* *Klemmschraube*	Tork Anahtar *Torx Key* *Torx-Schlüssel*
		DCX	ZEFP	DCON	LF	LH	APMX					
AHFM-WD0603-D16-C16-L150-Z02	●	16	2	16	150	70	2	**WDMT 0603..**	3008-M2.5x6	-	-	80-T08
AHFM-WD0603-D20-C20-L150-Z03	●	20	3	20	150	70	2					
AHFMC-WD0804-D25-C25-L150-Z02	●	25	2	25	150	70	1.5	**WDMT 0804..**	4010-M3X8	ACK-15	4010-M3x8	80-T10
AHFMC-WD0804-D32-C32-L150-Z03	●	32	3	32	150	70	1.5					
AHFMC-WD1205-D32-C32-L150-Z02	●	32	2	32	150	70	3	**WDMT 1205..**	1415-M4x11	ACK-05	4015-M4x11	80-T15

R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
SMTM Ucuna Uygundur. / Compatiple with SMTM Insert. Kompatibel mit SMTM Wendeplatten.

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück AHFM-YO0602-D10-C09-L120-Z02-F
Kesme Hesabı : S 331 / *Cutting Calculation : P 331* / *Schnittberechnung : 331*

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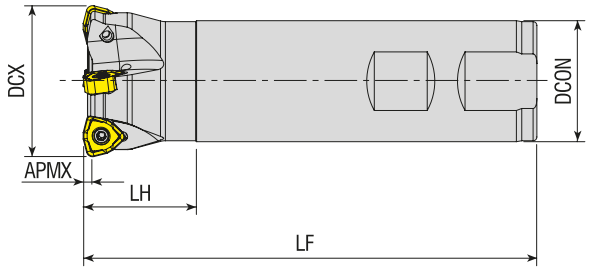




Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*						Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*			
		DCX	ZEFP	DCON	LF	LH	APMX		Sıkma Vidası *Screw* *Schraube*	Baskı Parçası *Wedge Clamp* *Spannpratze*	Baskı Vidası *Clamp Screw* *Klemmschraube*	Tork Anahtar *Torx Key* *Torx-Schlüssel*
AHFM-WD0503D-D20-C20-L150-Z02	●	20	2	20	150	50	1.25	**WD.W 0503..**	4010-M3x6	-	-	80-T10
AHFM-WD0503D-D21-C20-L150-Z02	●	21	2	20	150	30	1.25					
AHFMC-WD06T3D-D26-C25-L200-Z02	●	26	2	25	200	30	1.5	**WD.W 06T3..**	3015-M3.5x9	ACK-15	4015-M3.5x11	80-T15
AHFMC-WD06T3D-D33-C32-L200-Z03	●	33	3	32	200	32	1.5					

DJT Ucuna Uygundur. / Compatiple with DJT Insert. Kompatibel mit DJT Wendeplatten.





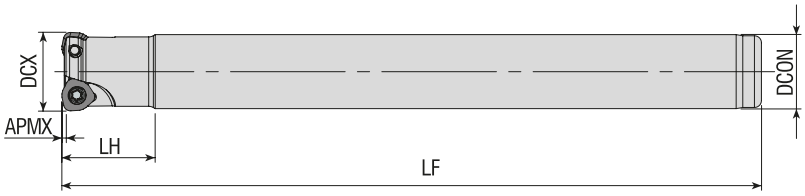
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*						Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*	
		DCX	ZEFP	DCON	LF	LH	APMX		Sıkma Vidası *Screw* *Schraube*	Tork Anahtar *Torx Key* *Torx-Schlüssel*
AHFM-WN0603-D16-C16-L110-Z02-H	●	16	2	16	110	30	1	**WNMX 0603..**	3008-M2.5x6	80-T08
AHFM-WN0603-D16-C16-L150-Z02-H	●	16	2	16	150	70	1			
AHFM-WN0603-D17-C16-L150-Z02-H	●	17	2	16	150	20	1			
AHFM-WN0603-D20-C20-L150-Z02-H	●	20	2	20	150	70	1			
AHFM-WN0603-D20-C20-L200-Z02-H	●	20	2	20	200	100	1			
AHFM-WN0603-D21-C20-L150-Z02-H	●	21	2	20	150	20	1			
AHFM-WN09T3-D25-W25-L120-Z02-H	●	25	2	25	120	40	1.5	**WNMX 09T3..**	4010-M3x8	80-T10
AHFML-WN09T3-D25-W25-L120-Z02-H	●	25	2	25	120	40	1.5			
AHFM-WN09T3-D25-C25-L200-Z02	●	25	2	25	200	120	1.5			
AHFM-WN09T3-D32-W32-L120-Z03-H	●	32	3	32	120	30	1.5			
AHFM-WN09T3-D32-W32-L200-Z03-H	○	32	3	32	200	100	1.5			
AHFM-WN09T3-D35-W32-L200-Z04-H	●	35	4	32	200	50	1.5			
AHFM-WN09T3-D40-W32-L120-Z04-H	●	40	4	32	120	30	1.5			
AHFM-WN09T3-D40-C32-L200-Z04	●	40	4	32	200	30	1.5			
AHFM-WN1305-D32-C32-L150-Z02-H	○	32	2	32	150	70	2	**WNMX 1305..**	4015-M4x11	80-T15
AHFM-WN1305-D32-C32-L200-Z02-H	●	32	2	32	200	120	2			
AHFM-WN1305-D40-C32-L200-Z03-H	●	40	3	32	200	30	2			

R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
KRLY Ucuna Uygundur. / Compatiple with KRLY Insert. Kompatibel mit KRLY Wendeplatten.

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück AHFM-WD0503D-D20-C20-L150-Z02
Kesme Hesabı : S 331 / *Cutting Calculation : P 331* / *Schnittberechnung : 331*

BF SERVICE



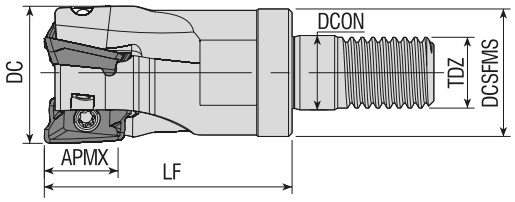


Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*						Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile* Sıkma Vidası *Screw* *Schraube*	Tork Anahtar *Torx Key* *Torx-Schlüssel*
		DCX	ZEFP	DCON	LF	LH	APMX			
AHFM-WO04T2D-D16-C16-L150-Z02	●	16	2	16	150	20	0.8	WOMW 04T2..	3008-M2.5x6	80-T08
AHFM-WO04T2D-D17-C16-L150-Z02	●	17	2	16	150	20	0.8			

DJT Ucuna Uygundur. / Compatiple with DJT Insert. Kompatibel mit DJT Wendeplatten.

S-SİSTEM MODÜLER PARMAK FREZELER
S-SYSTEM MODULAR END MILLS (SCREW TYPE TOOLS)
S-SYSTEM EINSCHRAUBFRASER





Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*							Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile* Sıkma Vidası *Screw* *Schraube*	Tork Anahtar *Torx Key* *Torx-Schlüssel*
		DC	Z	DCSFMS	TDZ	LF	DCON	APMX			
AEM90-AO1236-D16-M08-L30-Z02	●	16	2	14.8	M08	30	8.5	12	AO.. 1236..	3008-M2.5x6	80-T08
AEM90-AO1236-D20-M10-L35-Z03	●	20	3	18	M10	35	10.5	12			

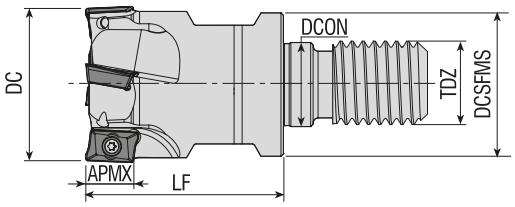
R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
MTSBH Ucuna Uygundur. / Compatiple with MTSBH Insert. Kompatibel mit MTSBH Wendeplatten.

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück AHFM-WO04T2D-D16-C16-L150-Z02
Kesme Hesabı : S 331 / *Cutting Calculation : P 331* / *Schnittberechnung : 331*
Sıkma Tork Değeri : S 330 / *Tightening Torque : P 330* / *Anzugsmoment : 330*

BF SERVICE

KAPR=90°



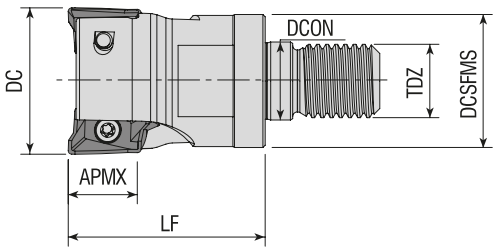


Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*							Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*	
		DC	ZEFP	DCSFMS	TDZ	LF	DCON	APMX		Sıkma Vidası *Screw* *Schraube* 	Tork Anahtar *Torx Key* *Torx-Schlüssel* 
AEM90-AD1505D-D25-M12-L43-Z02-H	●	25	2	21	M12	43	12.5	14.3	**ADKT 150508**	4015-M4x9	80-T15
AEM90-AD1505D-D32-M16-L43-Z03-H	●	32	3	29	M16	43	17	14.3		4015-M4x11	

DJT Ucuna Uygundur. / Compatiple with DJT Insert. Kompatibel mit DJT Wendeplatten.

KAPR=90°



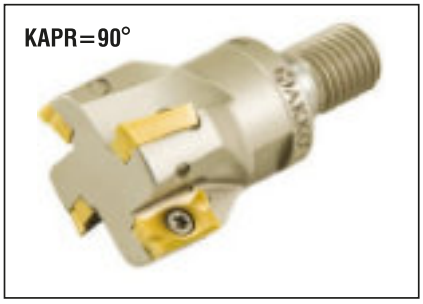


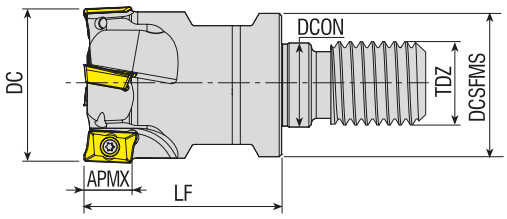
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*							Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*	
		DC	ZEFP	DCSFMS	TDZ	LF	DCON	APMX		Sıkma Vidası *Screw* *Schraube* 	Tork Anahtar *Torx Key* *Torx-Schlüssel* 
AEM90-AX1235-D16-M08-L30-Z02-H	●	16	2	14.75	M08	30	8.5	10			
AEM90-AX1235-D20-M10-L30-Z03-H	●	20	3	18	M10	30	10.5	10	**AX.T 1235..**	3008-M3x6	80-T08
AEM90-AX1235-D25-M12-L35-Z04-H	●	25	4	21	M12	35	12.5	10			
AEM90-AX1705-D25-M12-L43-Z02-H	●	25	2	21	M12	43	12.5	14	**AX.T 1705..**	4015-M4x9	80-T15
AEM90-AX1705-D32-M16-L43-Z02-H	●	32	2	29	M16	43	17	14			

R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
SMTM Ucuna Uygundur. / Compatiple with SMTM Insert. Kompatibel mit SMTM Wendeplatten.

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück AEM90-AD1505D-D25-M12-L43-Z02-H
Kesme Hesabı : S 331 / *Cutting Calculation : P 331* / *Schnittberechnung : 331*
Sıkma Tork Değeri : S 330 / *Tightening Torque : P 330* / *Anzugsmoment : 330*

BF SERVICE





Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*							Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*	
		DC	ZEFP	DCSFMS	TDZ	LF	DCON	APMX		Sıkma Vidası *Screw* *Schraube*	Tork Anahtar *Torx Key* *Torx-Schlüssel*
AEM90-AP10-D16-M08-L30-Z02-H	●	16	2	14.75	M08	30	8.5	10	**AP. 1003..** **ISO UCUNA UYGUNDUR.** *FOR ISO INSERT.* *Kompatibel mit Wendeschneidplatte ISO*	3008-M2.5x6	80-T08
AEM90-AP10-D20-M10-L30-Z03-H	●	20	3	18	M10	30	10.5	10			
AEM90-AP10-D25-M12-L35-Z03-H	●	25	3	21	M12	35	12.5	10			
AEM90-AP10-D32-M16-L35-Z04-H	●	32	4	29	M16	35	17	10			
AEM90-AP10-D40-M16-L43-Z05-H	●	40	5	29	M16	43	17	10			
AEM90-AP10-D42-M16-L43-Z05-H	●	42	5	29	M16	43	17	10			
AEM90-AP10D-D16-M08-L30-Z02-H	●	16	2	14.75	M08	30	8.5	10	**AP.. 1003..** **DJT UCUNA UYGUNDUR.** *FOR DJT INSERT.* *Kompatibel mit Wendeschneidplatte DJT*		
AEM90-AP10D-D20-M10-L30-Z03-H	●	20	3	18	M10	30	10.5	10			
AEM90-AP10D-D25-M12-L35-Z03-H	●	25	3	21	M12	35	12.5	10			
AEM90-AP11-D16-M08-L30-Z02-H	●	16	2	14.75	M08	30	8.5	11	**AP.. 11T3..** **ZCC UCUNA UYGUNDUR.** *FOR ZCC INSERT.* *Kompatibel mit Wendeschneidplatte ZCC*		
AEM90-AP11-D20-M10-L30-Z03-H	●	20	3	18	M10	30	10.5	11			
AEM90-AP11-D25-M12-L35-Z03-H	●	25	3	21	M12	35	12.5	11			
AEM90-AP11-D32-M16-L35-Z04-H	●	32	4	29	M16	35	17	11			
AEM90-AP11-D40-M16-L43-Z05-H	●	40	5	29	M16	43	17	11			
AEM90-AP16-D25-M12-L43-Z02-H	●	25	2	21	M12	43	12.5	16	**AP.. 1604..** **ISO UCUNA UYGUNDUR.** *FOR ISO INSERT.* *Kompatibel mit Wendeschneidplatte ISO*	4015-M4x9	80-T15
AEM90-AP16-D32-M16-L43-Z03-H	●	32	3	29	M16	43	17	16			
AEM90-AP16-D40-M16-L43-Z04-H	●	40	4	29	M16	43	17	16			
AEM90-AP16-D42-M16-L43-Z04-H	●	42	4	29	M16	43	17	16			
AEM90-AP16D-D25-M12-L43-Z02-H	●	25	2	21	M12	43	12.5	16	**AP.. 1604..** **DJT UCUNA UYGUNDUR.** *FOR DJT INSERT.* *Kompatibel mit Wendeschneidplatte DJT*		
AEM90-AP16D-D32-M16-L43-Z03-H	●	32	3	29	M16	43	17	16			
AEM90-AP16D-D40-M16-L43-Z04-H	●	40	4	29	M16	43	17	16			
AEM90-AP16L-D25-M12-L43-Z02-H	●	25	2	21	M12	43	12.5	16	**AP.. 1604..** **LMN UCUNA UYGUNDUR.** *FOR LMN INSERT.* *Kompatibel mit Wendeschneidplatte LMN*		
AEM90-AP16L-D32-M16-L43-Z03-H	●	32	3	29	M16	43	17	16			
AEM90-AP16L-D40-M16-L43-Z04-H	●	40	4	29	M16	43	17	16			

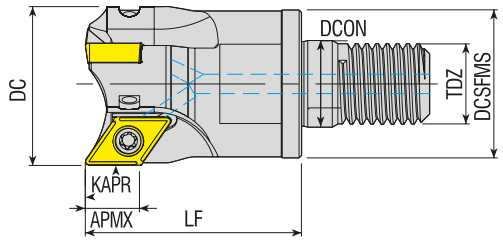
R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück AEM90-AP10-D16-M08-L30-Z02-H
Kesme Hesabı : S 331 / *Cutting Calculation : P 331* / *Schnittberechnung : 331*
Sıkma Tork Değeri : S 330 / *Tightening Torque : P 330* / *Anzugsmoment : 330*

BF SERVICE

KAPR=90°



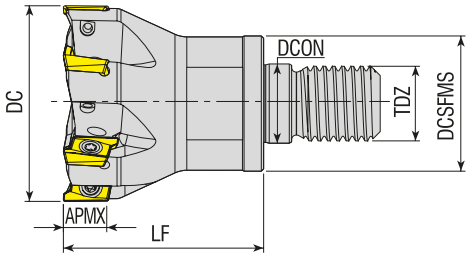


Takım Kodu / *Ordering Code* / *Bestell-Bezeichnung*	Stok / *Stock* / *Lager*	Takım Ölçüleri (mm) / *Dimension (mm)* / *Abmessung (mm)*							Kesici Uç / *Insert* / *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*	
		DC	ZEFP	DCSFMS	TDZ	LF	DCON	APMX		Sıkma Vidası / *Screw* / *Schraube* 	Tork Anahtar / *Torx Key* / *Torx-Schlüssel* 
AEM90-DC07-D20-M10-L30-Z02-H	●	20	2	18	M10	30	10.5	7	**DC.T 0702.**	3008-M2.5x6	80-T08
AEM90-DC07-D25-M12-L35-Z03-H	●	25	3	21	M12	35	12.5	7			
AEM90-DC07-D32-M16-L43-Z04-H	●	32	4	29	M16	43	17	7			
AEM90-DC07-D40-M16-L43-Z05-H	●	40	5	29	M16	43	17	7			
AEM90-DC11-D32-M16-L43-Z03-H-F	●	32	3	29	M16	43	17	11	**DC.T 11T3..**	4015-M3.5x9	80-T15
AEM90-DC11-D40-M16-L43-Z03-H-F	●	40	3	29	M16	43	17	11			

F: Çap toleransı +,- 0.02 mm içerisinde anlamına gelmektedir. */ F: Diameter tolerance is between +,- 0.02 mm. / F: Durchmessertoleranz zwischen +/- 0,02 mm*
ISO Ucuna Uygundur. / Compatiple with ISO Insert. Kompatibel mit ISO Wendeplatten.

KAPR=90°





Takım Kodu / *Ordering Code* / *Bestell-Bezeichnung*	Stok / *Stock* / *Lager*	Takım Ölçüleri (mm) / *Dimension (mm)* / *Abmessung (mm)*							Kesici Uç / *Insert* / *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*	
		DC	ZEFP	DCSFMS	TDZ	LF	DCON	APMX		Sıkma Vidası / *Screw* / *Schraube* 	Tork Anahtar / *Torx Key* / *Torx-Schlüssel* 
AEM90-RT10-D16-M08-L20-Z02-H	●	16	2	14.75	M08	20	8.5	10	**RT 1003..**	3008-M2.5x6	80-T08
AEM90-RT10-D20-M10-L25-Z03-H	●	20	3	18	M10	25	10.5	10			
AEM90-RT10-D25-M12-L30-Z04-H	●	25	4	21	M12	30	12.5	10			
AEM90-RT10-D32-M16-L43-Z05-H	●	32	5	29	M16	43	17	10			
AEM90-RT10-D42-M16-L43-Z06-H	●	42	6	29	M16	43	17	10			

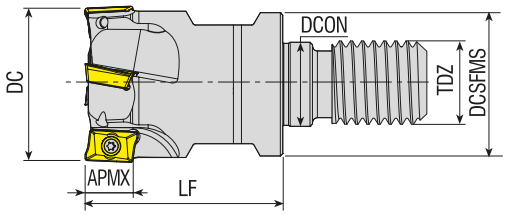
R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
SFTY Ucuna Uygundur. / Compatiple with SFTY Insert. Kompatibel mit SFTY Wendeplatten.

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück AEM90-DC07-D20-M10-L30-Z02-H
Kesme Hesabı : S 331 / *Cutting Calculation : P 331* / *Schnittberechnung : 331*
Sıkma Tork Değeri : S 330 / *Tightening Torque : P 330* / *Anzugsmoment : 330*

BF SERVICE

KAPR=90°



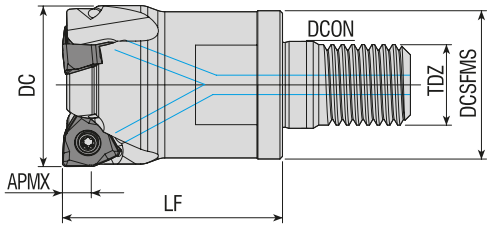


Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*							Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*	
		DC	ZEFP	DCSFMS	TDZ	LF	DCON	APMX		Sıkma Vidası *Screw* *Schraube* 	Tork Anahtar *Torx Key* *Torx-Schlüssel* 
AEM90-R390.11-D16-M08-L30-Z02-H	●	16	2	14.75	M08	30	8.5	10	R390-11T3..	3008-M2.5x5	80-T08
AEM90-R390.11-D20-M10-L30-Z03-H	●	20	3	18	M10	30	10.5	10		3008-M2.5x6	
AEM90-R390.11-D25-M12-L35-Z03-H	●	25	3	21	M12	35	12.5	10			
AEM90-R390.11-D32-M16-L43-Z04-H	●	32	4	29	M16	43	17	10			

SNDVK Ucuna Uygundur. / Compatiple with SNDVK Insert. Kompatibel mit SNDVK Wendeplatten.

KAPR=90°





Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*							Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*	
		DC	ZEFP	DCSFMS	TDZ	LF	DCON	APMX		Sıkma Vidası *Screw* *Schraube* 	Tork Anahtar *Torx Key* *Torx-Schlüssel* 
AEM90-WN0604Z-D25-M12-L35-Z02-H	●	25	2	21	M12	35	12.5	5.7	WNHU 0604..	3008-M3x8	80-T08
AEM90-WN0604Z-D32-M16-L43-Z03-H	●	32	3	29	M16	43	17	5.7			
AEM90-WN0604Z-D40-M16-L43-Z04-H	●	40	4	29	M16	43	17	5.7			

R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
ZCC Ucuna Uygundur. / Compatiple with ZCC Insert. Kompatibel mit ZCC Wendeplatten.

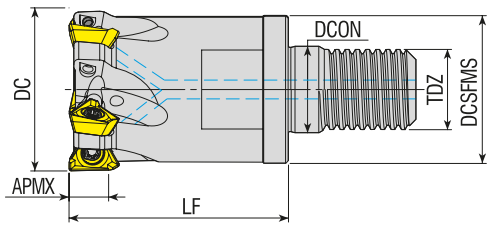
Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück AEM90-R390.11-D16-M08-L30-Z02-H
Kesme Hesabı : S 331 / *Cutting Calculation : P 331* / *Schnittberechnung : 331*
Sıkma Tork Değeri : S 330 / *Tightening Torque : P 330* / *Anzugsmoment : 330*

BF SERVICE

new

KAPR=90°



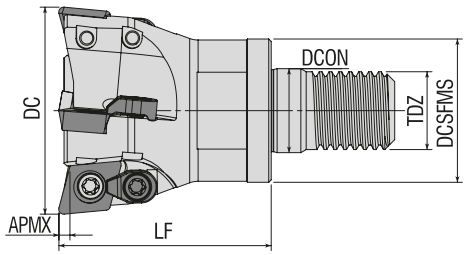


Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*							Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile* Sıkma Vidası *Screw* *Schraube*	Tork Anahtar *Torx Key* *Torx-Schlüssel*
		DC	ZEFP	DCSFMS	TDZ	LF	DCON	APMX			
AEM90-3P1004-D20-M10-L35-Z02	●	20	2	18	10	35	10.5	7	**3PT 1004**	1108-M2.5x6	80-T08
AEM90-3P1004-D32-M16-L43-Z05-H	●	32	5	29	16	43	17	7			

TGTC Ucuna Uygundur. / Compatiple with TGTC Insert. Kompatibel mit TGTC Wendeplatten.

KAPR=95°





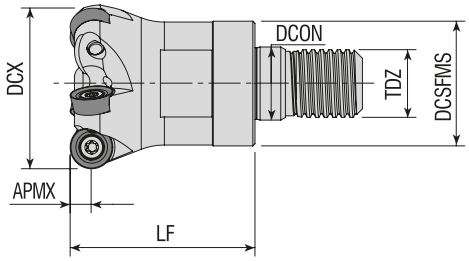
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*							Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile* Sıkma Vidası *Screw* *Schraube*	Baskı Parçası *Wedge Clamp* *Spannpratze*	Baskı Vidası *Clamp Screw* *Klemmschraube*	Tork Anahtar *Torx Key* *Torx-Schlüssel*
		DC	ZEFP	DCSFMS	TDZ	LF	DCON	APMX					
AEM95-XD0206-D16-M08-L23-Z02-H	●	16	2	14.75	M08	23	8.5	1	**XDHW 0206..**	3008-M2.5x5	-	-	80-T08
AEM95-XD0206-D16-M08-L23-Z02-H-F	●	16	2	14.75	M08	23	8.5	1					
AEM95-XD0206-D20-M10-L30-Z03-H	●	20	3	18	M10	30	10.5	1					
AEM95-XD0206-D20-M10-L30-Z03-H-F	●	20	3	18	M10	30	10.5	1					
AEM95-XD0206-D25-M12-L35-Z03-H	●	25	3	21	M12	35	12.5	1		3008-M2.5x6			
AEM95-XD0206-D25-M12-L35-Z03-H-F	●	25	3	21	M12	35	12.5	1					
AEM95C-XD0310-D35-M16-L43-Z03-H	●	35	3	29	M16	43	17	1.5	**XDHW 0310..**	3015-M3.5x9	ACK-15	4015-M3.5x11	80-T15
AEM95C-XD0310-D35-M16-L43-Z03-H-F	●	35	3	29	M16	43	17	1.5					
AEM95C-XD0310-D42-M16-L43-Z04-H	●	42	4	29	M16	43	17	1.5					
AEM95C-XD0310-D42-M16-L43-Z04-H-F	●	42	4	29	M16	43	17	1.5					

F: Çap toleransı +,- 0.02 mm içerisinde anlamına gelmektedir. / *F: Diameter tolerance is between +,- 0.02 mm.* / *F: Durchmessertoleranz zwischen +/- 0,02 mm*
R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
DJT Ucuna Uygundur. / Compatiple with DJT Insert. Kompatibel mit DJT Wendeplatten.

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück AEM90-3P1004-D20-M10-L35-Z02
Kesme Hesabı : S 331 / *Cutting Calculation : P 331* / *Schnittberechnung : 331*
Sıkma Tork Değeri : S 330 / *Tightening Torque : P 330* / *Anzugsmoment : 330*

BF SERVICE

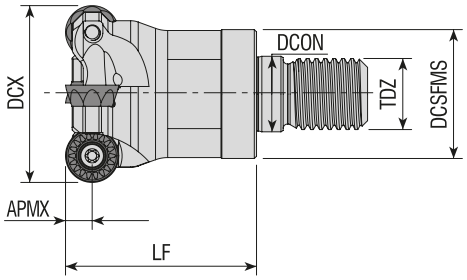




Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*							Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile* Sıkma Vidası *Screw* *Schraube*	Tork Anahtar *Torx Key* *Torx-Schlüssel*
		DCX	ZEFP	DCSFMS	TDZ	LF	DCON	APMX			
AEMR-RC10T3-D25-M12-L35-Z03-H	●	25	3	21	M12	35	12.5	5	**RC.. 10T3..**	4015-M4x9	80-T15
AEMR-RC10T3-D32-M16-L43-Z04-H	●	32	4	29	M16	43	17	5			
AEMR-RC10T3-D40-M16-L43-Z05-H	●	40	5	29	M16	43	17	5			

ZCC Ucuna Uygundur. / Compatiple with ZCC Insert. Kompatibel mit ZCC Wendeplatten.





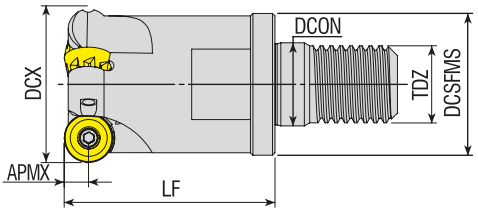
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*							Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile* Sıkma Vidası *Screw* *Schraube*	Tork Anahtar *Torx Key* *Torx-Schlüssel*
		DCX	ZEFP	DCSFMS	TDZ	LF	DCON	APMX			
AEMR-RP08T2M-D20-M10-L30-Z02-H	●	20	2	18	M10	30	10.5	4	**RPMT 08T2..**	3008-M2.5x6	80-T08
AEMR-RP10T3M-D25-M12-L35-Z02-H	●	25	2	21	M12	35	12.5	5	**RPMT 10T3..**	4015-M3.5x9	80-T15
AEMR-RP10T3M-D32-M16-L43-Z03-H	●	32	3	29	M16	43	17	5			
AEMR-RP1204M-D32-M16-L43-Z03-H	●	32	3	29	M16	43	17	6	**RPMT 1204..**	4015-M4x9	
AEMR-RP1204M-D40-M16-L43-Z04-H	●	40	4	29	M16	43	17	6			

R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock / *Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
MTSBSH Ucuna Uygundur. / Compatiple with MTSBSH Insert. Kompatibel mit MTSBSH Wendeplatten.

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück AEMR-RC10T3-D25-M12-L35-Z03-H
Kesme Hesabı : S 331 / *Cutting Calculation : P 331* / *Schnittberechnung : 331*
Sıkma Tork Değeri : S 330 / *Tightening Torque : P 330* / *Anzugsmoment : 330*

BF SERVICE

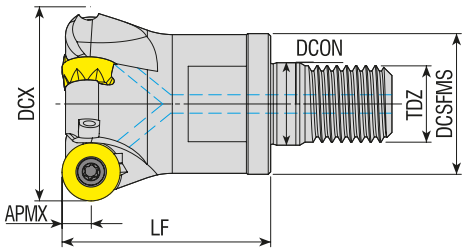




Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*							Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*	
		DCX	ZEFP	DCSFMS	TDZ	LF	DCON	APMX		Sıkma Vidası *Screw* *Schraube* 	Tork Anahtar *Torx Key* *Torx-Schlüssel* 
AEMR-RP10T3-D25-M12-L35-Z02-H	●	25	2	21	12	35	12.5	5	**RPNX 10T3..**	4010-M3x8	80-T10
AEMR-RP10T3-D32-M16-L43-Z03-H	●	32	3	29	16	43	17	5			
AEMR-RP1204-D32-M16-L43-Z03-H	●	32	3	29	16	43	17	6	**RPNX 1204..**	4015-M4x9	80-T15

CRTZT Ucuna Uygundur. / Compatiple with CRTZT Insert. Kompatibel mit CRTZT Wendeplatten.





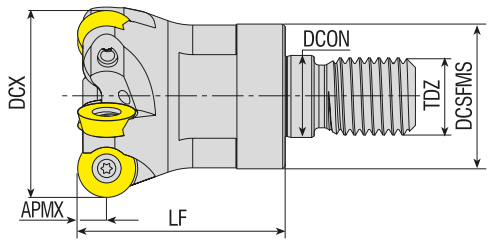
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*							Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*	
		DCX	ZEFP	DCSFMS	TDZ	LF	DCON	APMX		Sıkma Vidası *Screw* *Schraube* 	Tork Anahtar *Torx Key* *Torx-Schlüssel* 
AEMR-RY10-D32-M16-L43-Z04-H	●	32	4	29	M16	43	17	5	**RYMX 1004..**	4015-M3.5x9	80-T15
AEMR-RY10-D40-M16-L43-Z05-H	●	40	5	29	M16	43	17	5			
AEMR-RY12-D32-M16-L43-Z03-H	●	32	3	29	M16	43	17	6	**RYMX 1205..**	4015-M4x9	
AEMR-RY12-D40-M16-L43-Z03-H	●	40	3	29	M16	43	17	6			

R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
TGTC Ucuna Uygundur. / Compatiple with TGTC Insert. Kompatibel mit TGTC Wendeplatten.

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück AEMR-RP10T3-D25-M12-L35-Z02-H
Kesme Hesabı : S 331 / *Cutting Calculation : P 331* / *Schnittberechnung : 331*
Sıkma Tork Değeri : S 330 / *Tightening Torque : P 330* / *Anzugsmoment : 330*

BF SERVICE





Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*							Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile* Sıkma Vidası *Screw* *Schraube*	Tork Anahtar *Torx Key* *Torx-Schlüssel*
		DCX	ZEFP	DCSFMS	TDZ	LF	DCON	APMX			
AEMR-RD0702-D15-M08-L23-Z02-H	●	15	2	13	M08	23	8.5	3.5	RD.. 0702	3008-M2.5x6	80-T08
AEMR-RD0702-D16-M08-L23-Z02-H	●	16	2	13	M08	23	8.5	3.5			
AEMR-RD0702-D20-M10-L30-Z04-H	●	20	4	18	M10	30	10.5	3.5			
AEMR-RD0702-D25-M12-L35-Z05-H	●	25	5	21	M12	35	12.5	3.5			
AEMR-RD0702-D30-M16-L42-Z05-H	●	30	5	29	M16	42	17	3.5			
AEMR-RD0702-D32-M16-L43-Z05-H	●	32	5	29	M16	43	17	3.5			
AEMR-RD0702-D35-M16-L42-Z06-H	●	35	6	29	M16	42	17	3.5			
AEMR-RD0702-D42-M16-L43-Z05-H	●	42	5	29	M16	43	17	3.5			
AEMR-RD0702-D42-M16-L43-Z07-H	●	42	7	29	M16	43	17	3.5			
AEMR-RD08T2-D16-M08-L23-Z02-H	●	16	2	13	M08	23	8.5	4	RD.. 08T2	3008-M2.5x6	
AEMR-RD08T2-D16-M10-L23-Z02-H	●	16	2	13	M10	23	8.5	4			
AEMR-RD08T2-D20-M10-L30-Z03-H	●	20	3	18	M10	30	10.5	4			
AEMR-RD08T2-D25-M12-L35-Z04-H	●	25	4	21	M12	35	12.5	4			
AEMR-RD0802-D16-M08-L23-Z02-H	●	16	2	13	M08	23	8.5	4	RD.. 0802	3008-M3x6	
AEMR-RD0803-D16-M08-L23-Z02-H	●	16	2	13	M08	23	8.5	4	RD.. 0803	3008-M3x8	
AEMR-RD0803-D20-M10-L30-Z03-H	●	20	3	18	M10	30	10.5	4			
AEMR-RD0803-D25-M12-L35-Z04-H	●	25	4	21	M12	35	12.5	4			
AEMR-RD1003-D20-M10-L30-Z02-H	●	20	2	18	M10	30	10.5	5	RD.. 1003	4015-M3.5x9	80-T15
AEMR-RD1003-D25-M12-L35-Z02-H	●	25	2	21	M12	35	12.5	5			
AEMR-RD1003-D25-M12-L35-Z03-H	●	25	3	21	M12	35	12.5	5			
AEMR-RD1003-D30-M16-L43-Z04-H	●	30	4	29	M16	43	17	5			
AEMR-RD1003-D32-M16-L43-Z04-H	●	32	4	29	M16	43	17	5			
AEMR-RD1003-D35-M16-L43-Z04-H	●	35	4	29	M16	43	17	5			
AEMR-RD1003-D40-M16-L43-Z05-H	●	40	5	29	M16	43	17	5			
AEMR-RD1003-D42-M16-L43-Z05-H	●	42	5	29	M16	43	17	5			
AEMR-RD1004-D25-M12-L35-Z03-H	●	25	3	21	M12	35	12.5	5	RD.. 1004	4515-M4x8	
AEMR-RD1004-D32-M16-L43-Z04-H	●	32	4	29	M16	43	17	5			
AEMR-RD12T3-D24-M12-L35-Z02-H	●	24	2	21	M12	35	12.5	6	RD.. 12T3	4015-M3.5x9	
AEMR-RD12T3-D25-M12-L35-Z02-H	●	25	2	21	M12	35	12.5	6			
AEMR-RD12T3-D32-M16-L43-Z03-H	●	32	3	29	M16	43	17	6			
AEMR-RD12T3-D35-M16-L43-Z03-H	●	35	3	29	M16	43	17	6			
AEMR-RD12T3-D35-M16-L43-Z04-H	●	35	4	29	M16	43	17	6			
AEMR-RD12T3-D40-M16-L43-Z04-H	●	40	4	29	M16	43	17	6			
AEMR-RD12T3-D42-M16-L43-Z05-H	●	42	5	29	M16	43	17	6	RD.. 1204		
AEMR-RD1204-D32-M16-L43-Z03-H	●	32	3	29	M16	43	17	6			
AEMR-RD1204-D42-M16-L43-Z04-H	●	42	4	29	M16	43	17	6	RD.. 1604	4015-M4.5x11	
AEMR-RD1604-D32-M16-L43-Z02-H	●	32	2	29	M16	43	17	8			
AEMR-RD1604-D40-M16-L43-Z02-H	●	40	2	29	M16	43	17	8			
AEMR-RD1604-D42-M16-L43-Z03-H		42	3	29	M16	43	17	8			

R: Sağ / Right / *Rechts* L: Sol/Left/*Links*

● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*

ISO Ucuna Uygundur. / Compatiple with ISO Insert. Kompatibel mit ISO Wendeplatten.

Sipariş Örneği/Ordering Example/*Bestellbeispiel*

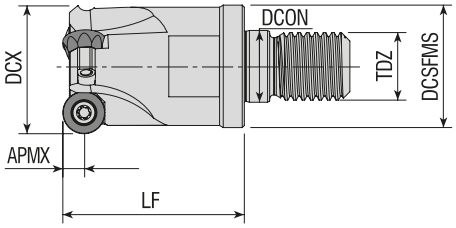
1 ad./pcs./stück AEMR-RD0702-D15-M08-L23-Z02-H

Kesme Hesabı : S 331 / *Cutting Calculation : P 331* / *Schnittberechnung : 331*

Sıkma Tork Değeri : S 330 / *Tightening Torque : P 330* / *Anzugsmoment : 330*

BF SERVICE

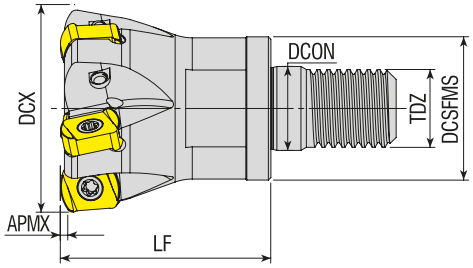




Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*							Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile* Sıkma Vidası *Screw* *Schraube*	Tork Anahtar *Torx Key* *Torx-Schlüssel*
		DCX	ZEFP	DCSFMS	TDZ	LF	DCON	APMX			
AEMR-QP10T3-D25-M12-L35-Z02-H	●	25	2	21	M12	35	12.5	5	**QP.. 10T3..**	4015-M3.5x9	80-T15
AEMR-QP10T3-D32-M16-L43-Z03-H	●	32	3	29	M16	43	17	5			

SMTM Ucuna Uygundur. / Compatiple with SMTM Insert. Kompatibel mit SMTM Wendeplatten.



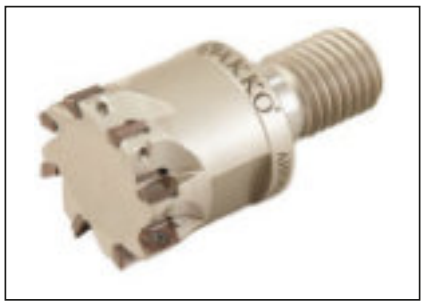


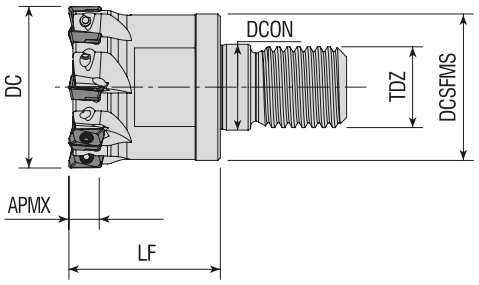
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*							Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile* Sıkma Vidası *Screw* *Schraube*	Tork Anahtar *Torx Key* *Torx-Schlüssel*
		DCX	ZEFP	DCSFMS	TDZ	LF	DCON	APMX			
AHFM-BL0603-D20-M10-L30-Z03-H	●	20	3	18	M10	30	10.5	1	**BLMP 0603..**	3008-M2.5x6	80-T08
AHFM-BL0603-D32-M16-L40-Z05-H	●	32	5	29	M16	40	17	1			
AHFM-BL0904-D32-M16-L40-Z04-H	●	32	4	29	M16	40	17	1.5	**BLMP 0904..**	3010-M3.5x9	80-T10
AHFM-BL0904-D42-M16-L43-Z05-H	●	42	5	29	M16	43	17	1.5			

R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
TGTC Ucuna Uygundur. / Compatiple with TGTC Insert. Kompatibel mit TGTC Wendeplatten.

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück AEMR-QP10T3-D25-M12-L35-Z02-H
Kesme Hesabı : S 331 / *Cutting Calculation : P 331* / *Schnittberechnung : 331*
Sıkma Tork Değeri : S 330 / *Tightening Torque : P 330* / *Anzugsmoment : 330*

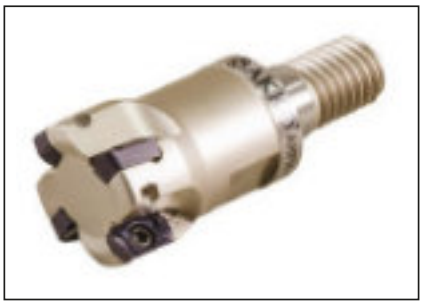
BF SERVICE

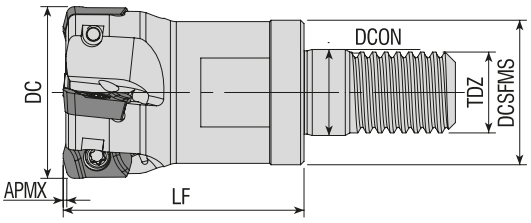




Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*							Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*	
		DC	ZEFP	DCSFMS	TDZ	LF	DCON	APMX		Sıkma Vidası *Screw* *Schraube* 	Tork Anahtar *Torx Key* *Torx-Schlüssel* 
AHFM-ED0702-D12-M06-L20-Z03	●	12	3	10	M06	20	6.5	6	**EDMT 0702** **JDMT 070204**	3006-M1.8x4	80-T06
AHFM-ED0702-D16-M08-L25-Z04-H	●	16	4	14.75	M08	25	8.5	6			
AHFM-ED0702-D20-M10-L30-Z05-H	●	20	5	18	M10	30	10.5	6			
AHFM-ED0702-D25-M12-L30-Z06-H	●	25	6	21	M12	30	12.5	6			
AHFM-ED0702-D32-M16-L30-Z08-H	●	32	8	29	M16	30	17	6			

HTCH Ucuna Uygundur. / Compatiple with HTCH Insert. Kompatibel mit HTCH Wendeplatten.





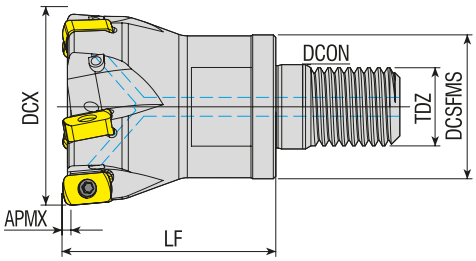
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*							Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*	
		DC	ZEFP	DCSFMS	TDZ	LF	DCON	APMX		Sıkma Vidası *Screw* *Schraube* 	Tork Anahtar *Torx Key* *Torx-Schlüssel* 
AHFM-EP1003-D16-M08-L23-Z02-H	●	16	2	14.75	M08	23	8.5	1	**EP.. 1003..** **ZPMT 1003..** **YPHW 1003..**	3008-M2.5x5	80-T08
AHFM-EP1003-D20-M10-L30-Z04-H	●	20	4	18	M10	30	10.5	1			
AHFM-EP1003-D25-M12-L35-Z04-H	●	25	4	21	M12	35	12.5	1		3008-M2.5x6	
AHFM-EP1003-D32-M16-L43-Z05-H	●	32	5	29	M16	43	17	1			
AHFM-EP1003-D35-M16-L43-Z05-H	●	35	5	29	M16	43	17	1			
AHFM-EP1003-D42-M16-L43-Z06-H	●	42	6	29	M16	43	17	1			

R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock / *Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
DJT Ucuna Uygundur. / Compatiple with DJT Insert. Kompatibel mit DJT Wendeplatten.

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück AHFM-ED0702-D12-M06-L20-Z03
Kesme Hesabı : S 331 / *Cutting Calculation : P 331* / *Schnittberechnung : 331*
Sıkma Tork Değeri : S 330 / *Tightening Torque : P 330* / *Anzugsmoment : 330*

BF SERVICE

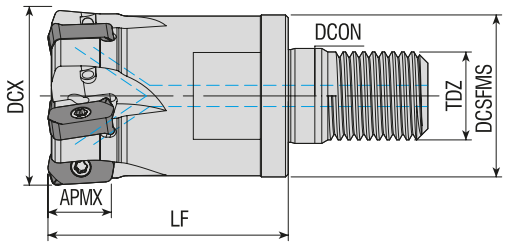




Takım Kodu / *Ordering Code* / *Bestell-Bezeichnung*	Stok / *Stock* / *Lager*	Takım Ölçüleri (mm) / *Dimension (mm)* / *Abmessung (mm)*							Kesici Uç / *Insert* / *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*			
		DCX	ZEFP	DCSFMS	TDZ	LF	DCON	APMX		Sıkma Vidası / *Screw* / *Schraube*	Baskı Parçası / *Wedge Clamp* / *Spannpratze*	Baskı Vidası / *Clamp Screw* / *Klemmschraube*	Tork Anahtar / *Torx Key* / *Torx-Schlüssel*
AHFM-EN1004-D16-M08-L23-Z02-H	●	16	2	14.75	M08	23	8.5	1	ENMU 1004..	3008-M2.5x5	-	-	80-T08
AHFM-EN1004-D20-M10-L30-Z03-H	●	20	3	18	M10	30	10.5	1					
AHFM-EN1004-D25-M12-L35-Z03-H	●	25	3	21	M12	35	12.5	1					
AHFM-EN1004-D25-M12-L35-Z04-H	●	25	4	21	M12	35	12.5	1		3008-M2.5x6			
AHFM-EN1004-D32-M16-L43-Z05-H	●	32	5	29	M16	43	17	1					
AHFM-EN1004-D35-M16-L43-Z05-H	●	35	5	29	M16	43	17	1					
AHFM-EN1004-D40-M16-L43-Z05-H	●	40	5	29	M16	43	17	1					
AHFM-EN1004-D42-M16-L43-Z05-H	●	42	5	29	M16	43	17	1					

DJT Ucuna Uygundur. / Compatiple with DJT Insert. Kompatibel mit DJT Wendeplatten.





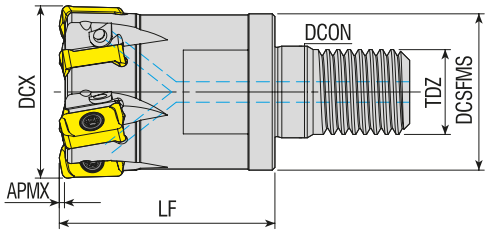
Takım Kodu / *Ordering Code* / *Bestell-Bezeichnung*	Stok / *Stock* / *Lager*	Takım Ölçüleri (mm) / *Dimension (mm)* / *Abmessung (mm)*							Kesici Uç / *Insert* / *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*			
		DCX	ZEFP	DCSFMS	TDZ	LF	DCON	APMX		Sıkma Vidası / *Screw* / *Schraube*	Baskı Parçası / *Wedge Clamp* / *Spannpratze*	Baskı Vidası / *Clamp Screw* / *Klemmschraube*	Tork Anahtar / *Torx Key* / *Torx-Schlüssel*
AHFM-LN12O-D25-M12-L35-Z04-H	●	25	4	21	M12	35	12.5	12	LNMX 1235..	3008-M2.5x6	-	-	80-T08
AHFM-LN12O-D32-M16-L43-Z05-H	●	32	5	29	M16	43	17	12					
AHFM-LN12O-D42-M16-L43-Z06-H	●	42	6	29	M16	43	17	12					

R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
B.OKE Ucuna Uygundur. / Compatiple with B.OKE Insert. Kompatibel mit B.OKE Wendeplatten.

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück AHFM-EN1004-D16-M08-L23-Z02-H
Kesme Hesabı : S 331 / *Cutting Calculation : P 331* / *Schnittberechnung : 331*
Sıkma Tork Değeri : S 330 / *Tightening Torque : P 330* / *Anzugsmoment : 330*

BF SERVICE



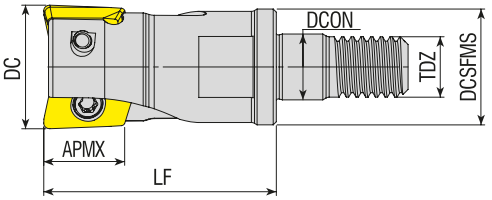


Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*							Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*			
		DCX	ZEFP	DCSFMS	TDZ	LF	DCON	APMX		Sıkma Vidası *Screw* *Schraube*	Baskı Parçası *Wedge Clamp* *Spannpratze*	Baskı Vidası *Clamp Screw* *Klemmschraube*	Tork Anahtar *Torx Key* *Torx-Schlüssel*
													
AHFM-L003-D20-M10-L30-Z04-H-F	●	20	4	18	M10	30	10.5	1					
AHFM-L003-D25-M12-L35-Z04-H-F	●	25	4	21	M12	35	12.5	1					
AHFM-L003-D25-M12-L35-Z04-H	●	25	4	21	M12	35	12.5	1					
AHFM-L003-D32-M16-L40-Z05-H-F	●	32	5	29	M16	40	17	1					
AHFM-L003-D32-M16-L40-Z05-H	●	32	5	29	M16	40	17	1	**LOGU 0303..**	1108-M3x6.8	-	-	80-T08
AHFM-L003-D32-M16-L40-Z06-H-F	●	32	6	29	M16	40	17	1					
AHFM-L003-D32-M16-L40-Z06-H	●	32	6	29	M16	40	17	1					
AHFM-L003-D35-M16-L40-Z06-H	●	35	6	29	M16	40	17	1					
AHFM-L003-D42-M16-L40-Z05-H	●	42	5	29	M16	40	17	1					
AHFM-L003-D42-M16-L40-Z06-H	●	42	6	29	M16	40	17	1					

F: Çap toleransı +,- 0.02 mm içerisinde anlamına gelmektedir. / *F: Diameter tolerance is between +,- 0.02 mm.* / *F: Durchmessertoleranz zwischen +/- 0,02 mm*
KYCR Ucuna Uygundur. / Compatiple with KYCR Insert. Kompatibel mit KYCR Wendeplatten.

new





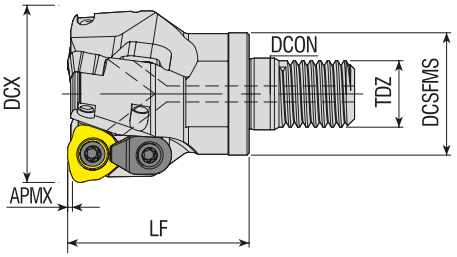
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*							Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*	
		DC	ZEFP	DCSFMS	TDZ	LF	DCON	APMX		Sıkma Vidası *Screw* *Schraube*	Tork Anahtar *Torx Key* *Torx-Schlüssel*
											
AHFM-JD1003-D16-M08-L30-Z02-H	●	16	2	14.75	M8	30	8.5	9	**JDMT 1003..**	3008-M2.5x6	80-T08
AHFM-JD1003-D20-M10-L30-Z03-H	●	20	3	18	M10	30	10.5	9			

R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
HTCH Ucuna Uygundur. / Compatiple with HTCH Insert. Kompatibel mit HTCH Wendeplatten.

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück AHFM-L003-D20-M10-L30-Z04-H-F
Kesme Hesabı : S 331 / *Cutting Calculation : P 331* / *Schnittberechnung : 331*
Sıkma Tork Değeri : S 330 / *Tightening Torque : P 330* / *Anzugsmoment : 330*

BF SERVICE

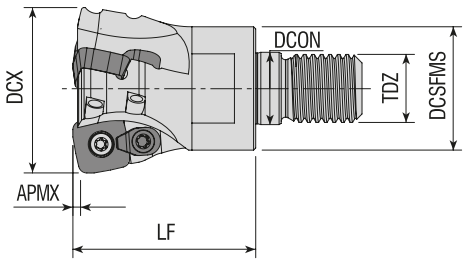




Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*							Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*			
		DCX	ZEFP	DCSFMS	TDZ	LF	DCON	APMX		Sıkma Vidası *Screw* *Schraube*	Baskı Parçası *Wedge Clamp* *Spannpratze*	Baskı Vidası *Clamp Screw* *Klemmschraube*	Tork Anahtar *Torx Key* *Torx-Schlüssel*
AHFMC-JD1204-D32-M16-L43-Z02-H	●	32	2	29	M16	43	17	1.5	**JDMW 1204..**	4615-M4x11	ACK-05	4015-M4x11	80-T15
AHFMC-JD1204-D42-M16-L43-Z03-H	●	42	3	29	M16	43	17	1.5					

MTSBSH Ucuna Uygundur. / Compatiple with MTSBSH Insert. Kompatibel mit MTSBSH Wendeplatten.





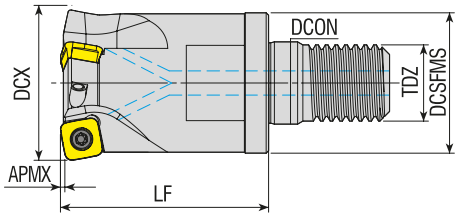
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*							Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*			
		DCX	ZEFP	DCSFMS	TDZ	LF	DCON	APMX		Sıkma Vidası *Screw* *Schraube*	Baskı Parçası *Wedge Clamp* *Spannpratze*	Baskı Vidası *Clamp Screw* *Klemmschraube*	Tork Anahtar *Torx Key* *Torx-Schlüssel*
AHFM-SD06T2-D16-M08-L23-Z02-H	●	16	2	14.75	M08	23	8.5	0.8					
AHFM-SD06T2-D20-M10-L30-Z03-H	●	20	3	18	M10	30	10.5	0.8	**SD.. 06T2..**	3007-M2.2x5	-	-	80-T07
AHFM-SD06T2-D25-M12-L35-Z04-H	●	25	4	21	M12	35	12.5	0.8					
AHFMC-SD09T3-D25-M12-L30-Z02-H	●	25	2	22	M12	30	12.5	1.4					
AHFMC-SD09T3-D32-M16-L43-Z03-H	●	32	3	29	M16	43	17	1.4	**SD.. 09T3..**	3010-M3.5x9	ACK-15	1510-M3.5x9	80-T10
AHFMC-SD09T3-D35-M16-L43-Z03-H	●	35	3	29	M16	43	17	1.4					
AHFMC-SD09T3-D40-M16-L43-Z04-H	●	40	4	29	M16	43	17	1.4					
AHFMC-SD1204-D32-M16-L43-Z02-H	●	32	2	29	M16	43	17	1.8	**SD.. 1204..**	4015-M4x9			80-T15
AHFMC-SD1204-D40-M16-L43-Z03-H	●	40	3	29	M16	43	17	1.8					

R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock / *Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
ZCC Ucuna Uygundur. / Compatiple with ZCC Insert. Kompatibel mit ZCC Wendeplatten.

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück AHFMC-JD1204-D32-M16-L43-Z02-H
Kesme Hesabı : S 331 / *Cutting Calculation : P 331* / *Schnittberechnung : 331*
Sıkma Tork Değeri : S 330 / *Tightening Torque : P 330* / *Anzugsmoment : 330*

BF SERVICE

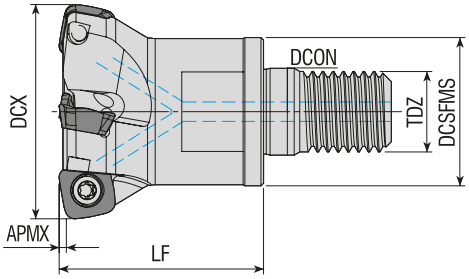




Takım Kodu / *Ordering Code* / *Bestell-Bezeichnung*	Stok / *Stock* / *Lager*	Takım Ölçüleri (mm) / *Dimension (mm)* / *Abmessung (mm)*							Kesici Uç / *Insert* / *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*			
		DCX	ZEFP	DCSFMS	TDZ	LF	DCON	APMX		Sıkma Vidası / *Screw* / *Schraube*	Baskı Parçası / *Wedge Clamp* / *Spannpratze*	Baskı Vidası / *Clamp Screw* / *Klemmschraube*	Tork Anahtar / *Torx Key* / *Torx-Schlüssel*
AHFM-SO0803-D20-M10-L30-Z02-H	●	20	2	18	M10	30	10.5	1	**SOMW 0803..**	4010-M3X8	-	-	80-T10
AHFM-SO0803-D25-M12-L35-Z03-H	●	25	3	22	M12	35	12.5	1					
AHFM-SO0803-D32-M16-L43-Z03-H	●	32	3	29	M16	43	17	1					
AHFM-SO0803-D32-M16-L43-Z04-H	●	32	4	29	M16	43	17	1					
AHFM-SO0803-D40-M16-L43-Z04-H	●	40	4	29	M16	43	17	1					

KPTK Ucuna Uygundur. / Compatiple with KPTK Insert. Kompatibel mit KPTK Wendeplatten.





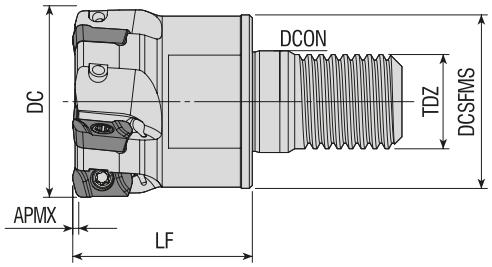
Takım Kodu / *Ordering Code* / *Bestell-Bezeichnung*	Stok / *Stock* / *Lager*	Takım Ölçüleri (mm) / *Dimension (mm)* / *Abmessung (mm)*							Kesici Uç / *Insert* / *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*			
		DCX	ZEFP	DCSFMS	TDZ	LF	DCON	APMX		Sıkma Vidası / *Screw* / *Schraube*	Baskı Parçası / *Wedge Clamp* / *Spannpratze*	Baskı Vidası / *Clamp Screw* / *Klemmschraube*	Tork Anahtar / *Torx Key* / *Torx-Schlüssel*
AHFM-SO1004-D32-M16-L40-Z03-H	●	32	3	29	M16	40	17	1.5	**SOMT 1004..**	4015-M4x9	-	-	80-T15
AHFM-SO1004-D40-M16-L40-Z04-H	●	40	4	29	M16	40	17	1.5					
AHFM-SO1004-D42-M16-L40-Z04-H	●	42	4	29	M16	40	17	1.5					

R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
KYCR Ucuna Uygundur. / Compatiple with KYCR Insert. Kompatibel mit KYCR Wendeplatten.

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück AHFM-SO0803-D20-M10-L30-Z02-H
Kesme Hesabı : S 331 / *Cutting Calculation : P 331* / *Schnittberechnung : 331*
Sıkma Tork Değeri : S 330 / *Tightening Torque : P 330* / *Anzugsmoment : 330*

BF SERVICE





Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*							Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*			
		DC	ZEFP	DCSFMS	TDZ	LF	DCON	APMX		Sıkma Vidası *Screw* *Schraube*	Baskı Parçası *Wedge Clamp* *Spannpratze*	Baskı Vidası *Clamp Screw* *Klemmschraube*	Tork Anahtar *Torx Key* *Torx-Schlüssel*
AHFM-YP1003-D16-M08-L23-Z02-F	●	16	2	14.75	M08	23	8.5	1	YPHW 1003..	3008-M2.5x5	-	-	80-T08
AHFM-YP1003-D16-M08-L23-Z02-H-F	●	16	2	14.75	M08	23	8.5	1					
AHFM-YP1003-D17-M08-L23-Z02-H	●	17	2	14.75	M08	23	8.5	1					
AHFM-YP1003-D17-M08-L23-Z02-H-F	●	17	2	14.75	M08	23	8.5	1					
AHFM-YP1003-D20-M10-L30-Z03-H	●	20	3	18	M10	30	10.5	1					
AHFM-YP1003-D20-M10-L30-Z03-H-F	●	20	3	18	M10	30	10.5	1					
AHFM-YP1003-D20-M10-L30-Z04-H	●	20	4	18	M10	30	10.5	1					
AHFM-YP1003-D20-M10-L30-Z04-F	●	20	4	18	M10	30	10.5	1					
AHFM-YP1003-D21-M10-L30-Z03-H	●	21	3	18	M10	30	10.5	1					
AHFM-YP1003-D21-M10-L30-Z03-H-F	●	21	3	18	M10	30	10.5	1					
AHFM-YP1003-D25-M12-L35-Z04-H	●	25	4	21	M12	35	12.5	1					
AHFM-YP1003-D25-M12-L35-Z04-F	●	25	4	21	M12	35	12.5	1					
AHFM-YP1003-D25-M12-L35-Z04-H-F	●	25	4	21	M12	35	12.5	1					
AHFM-YP1003-D26-M12-L35-Z04-H-F	●	26	4	21	M12	35	12.5	1					
AHFM-YP1003-D32-M16-L30-Z05-F	●	32	5	29	M16	30	17	1		3008-M2.5x6			
AHFM-YP1003-D32-M16-L43-Z05-H-F	●	32	5	29	M16	43	17	1					
AHFM-YP1003-D40-M16-L43-Z06-H-F	●	40	6	29	M16	43	17	1					
AHFM-YP1003-D42-M16-L43-Z06-H-F	●	42	6	29	M16	43	17	1					

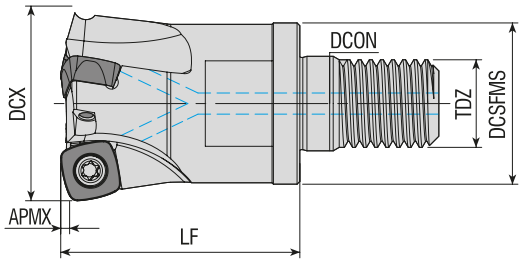
F: Çap toleransı +,- 0.02 mm içerisinde anlamına gelmektedir. / *F: Diameter tolerance is between +,- 0.02 mm.* / *F: Durchmessertoleranz zwischen +/- 0,02 mm*
R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
DJT Ucuna Uygundur. / Compatiple with DJT Insert. Kompatibel mit DJT Wendeplatten.

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück AHFM-YP1003-D16-M08-L23-Z02-H
Kesme Hesabı : S 331 / *Cutting Calculation : P 331* / *Schnittberechnung : 331*
Sıkma Tork Değeri : S 330 / *Tightening Torque : P 330* / *Anzugsmoment : 330*



BF SERVICE

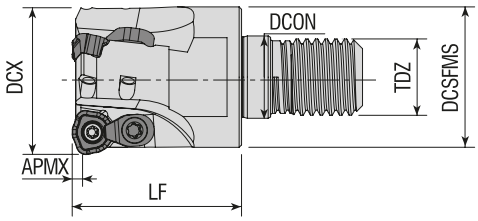




Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*							Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*			
		DCX	ZEFP	DCSFMS	TDZ	LF	DCON	APMX		Sıkma Vidası *Screw* *Schraube*	Baskı Parçası *Wedge Clamp* *Spannpratze*	Baskı Vidası *Clamp Screw* *Klemmschraube*	Tork Anahtar *Torx Key* *Torx-Schlüssel*
AHFM-SP1004-D32-M16-L43-Z03-H	●	32	3	29	M16	43	17	1.5	**SPNW 1004..**	3015-M3.5x9	-	-	80-T15
AHFM-SP1004-D35-M16-L43-Z03-H	●	35	3	29	M16	43	17	1.5					
AHFM-SP1004-D42-M16-L43-Z04-H	●	42	4	29	M16	43	17	1.5					

DJT Ucuna Uygundur. / Compatiple with DJT Insert. Kompatibel mit DJT Wendeplatten.





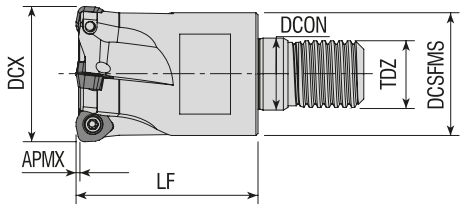
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*							Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*			
		DCX	ZEFP	DCSFMS	TDZ	LF	DCON	APMX		Sıkma Vidası *Screw* *Schraube*	Baskı Parçası *Wedge Clamp* *Spannpratze*	Baskı Vidası *Clamp Screw* *Klemmschraube*	Tork Anahtar *Torx Key* *Torx-Schlüssel*
AHFMC-WD0804-D25-M12-L35-Z02-H	●	25	2	21	M12	35	12.5	1.5	**WDMT 0804..**	4010-M3x8	ACK-15	4010-M3x8	80-T10
AHFMC-WD0804-D32-M16-L35-Z03-H	●	32	3	29	M16	35	17	1.5					

R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
SMTM Ucuna Uygundur. / Compatiple with SMTM Insert. Kompatibel mit SMTM Wendeplatten.

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück AHFM-SP1004-D32-M16-L43-Z03-H
Kesme Hesabı : S 331 / *Cutting Calculation : P 331* / *Schnittberechnung : 331*
Sıkma Tork Değeri : S 330 / *Tightening Torque : P 330* / *Anzugsmoment : 330*

BF SERVICE

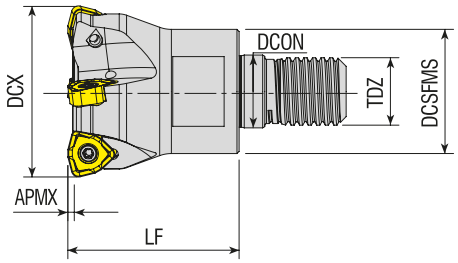




Takım Kodu / *Ordering Code* / *Bestell-Bezeichnung*	Stok / *Stock* / *Lager*	Takım Ölçüleri (mm) / *Dimension (mm)* / *Abmessung (mm)*							Kesici Uç / *Insert* / *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*			
		DCX	ZEFP	DCSFMS	TDZ	LF	DCON	APMX		Sıkma Vidası / *Screw* / *Schraube*	Baskı Parçası / *Wedge Clamp* / *Spannpratze*	Baskı Vidası / *Clamp Screw* / *Klemmschraube*	Tork Anahtar / *Torx Key* / *Torx-Schlüssel*
AHFM-WD0503D-D20-M10-L30-Z02-H	●	20	2	18	M10	30	10.5	1.25	**WDMT 0503..**	4010-M3x6	-	-	80-T10
AHFM-WD0503D-D25-M12-L35-Z03-H	●	25	3	21	M12	35	12.5	1.25		4010-M3x8			
AHFM-WD0503D-D32-M16-L43-Z04-H	●	32	4	29	M16	43	17	1.25					
AHFM-WD0503D-D40-M16-L43-Z05-H	●	40	5	29	M16	43	17	1.25					
AHFMC-WD06T3D-D35-M16-L43-Z03-H	●	35	3	29	M16	43	17	1.5	**WDHW 06T3..**	3015-M3.5x9	ACK-15	4015-M3.5x11	80-T15
AHFMC-WD0805D-D32-M16-L43-Z02-H	●	32	2	29	M16	43	17	2	**WDHW 0805..**	4020-M4.5x10	ACK-19	4020-M4.5x12	

DJT Ucuna Uygundur. / Compatiple with DJT Insert. Kompatibel mit DJT Wendeplatten.





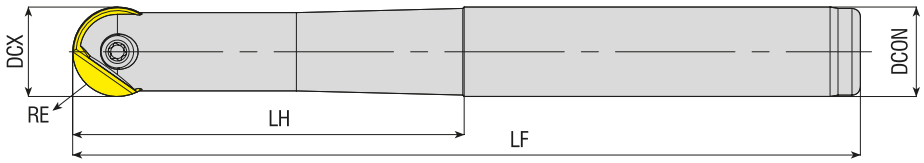
Takım Kodu / *Ordering Code* / *Bestell-Bezeichnung*	Stok / *Stock* / *Lager*	Takım Ölçüleri (mm) / *Dimension (mm)* / *Abmessung (mm)*							Kesici Uç / *Insert* / *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*	
		DCX	ZEFP	DCSFMS	TDZ	LF	DCON	APMX		Sıkma Vidası / *Screw* / *Schraube*	Tork Anahtar / *Torx Key* / *Torx-Schlüssel*
AHFM-WN09T3-D32-M16-L40-Z03-H	●	32	3	29	M16	40	17	1.5	**WNMX 09T3..**	4010-M3x8	80-T10
AHFM-WN09T3-D40-M16-L40-Z04-H	●	40	4	29	M16	40	17	1.5			

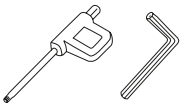
R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
KRLY Ucuna Uygundur. / Compatiple with KRLY Insert. Kompatibel mit KRLY Wendeplatten.

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück AHFM-WD0503D-D20-M10-L30-Z02-H
Kesme Hesabı : S 331 / *Cutting Calculation : P 331* / *Schnittberechnung : 331*
Sıkma Tork Değeri : S 330 / *Tightening Torque : P 330* / *Anzugsmoment : 330*

BF SERVICE

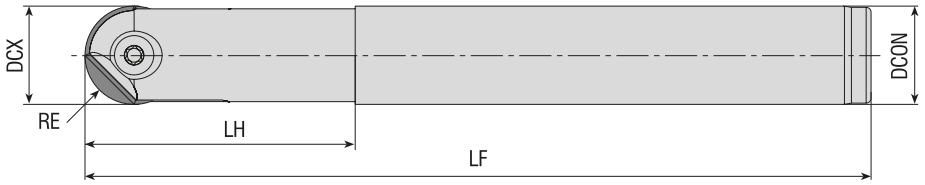




Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*	
		DCX	RE	DCON	LF	LH		Sıkma Vidası *Screw* *Schraube* 	Tork Anahtar *Torx Key* *Torx-Schlüssel* 
APMR-BNM12-D12-C12-L130	●	12	6	12	130	32	**BNM 120-S**	1210-M3.5x9.6	80-T10
APMR-BNM16-D16-C16-L175	●	16	8	16	175	70	**BNM 160-S**	1215-M4x13.5	80-T15

DJT Ucuna Uygundur. / Compatiple with DJT Insert. Kompatibel mit DJT Wendeplatten.





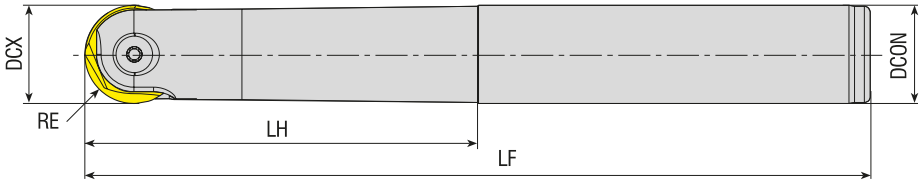
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*	
		DCX	RE	DCON	LF	LH		Sıkma Vidası *Screw* *Schraube* 	Tork Anahtar *Torx Key* *Torx-Schlüssel* 
APMR-RO12-D12-C12-L120	●	12	6	12	120	35	**ROHX 1203**	1215-M4x0.5x9	80-T15
APMR-RO12-D12-C16-L160	●	12	6	16	160	50			
APMR-RO16-D16-C16-L160	●	16	8	16	160	45	**ROHX 1604**	1220-M5x0.5x12	80-T20
APMR-RO16-D16-C16-L200	●	16	8	16	200	45			
APMR-RO16-D16-C20-L200	●	16	8	20	200	65			
APMR-RO20-D20-C20-L160	●	20	10	20	160	55	**ROHX 2005**	1220-M5x0.5x15	
APMR-RO20-D20-C20-L200	●	20	10	20	200	55			
APMR-RO20-D20-C25-L220	●	20	10	25	220	80			

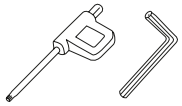
R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
ZCC Ucuna Uygundur. / Compatiple with ZCC Insert. Kompatibel mit ZCC Wendeplatten.

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück APMR-BNM12-D12-C12-L30
Kesme Hesabı : S 331 / *Cutting Calculation : P 331* / *Schnittberechnung : 331*

BF SERVICE

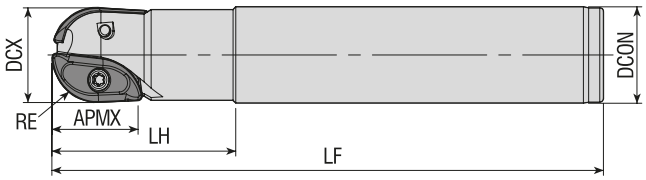




Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*	
		DCX	RE	DCON	LF	LH		Sıkma Vidası *Screw* *Schraube* 	Tork Anahtar *Torx Key* *Torx-Schlüssel* 
APMR-P3208-D08-C10-L110	●	8	4	10	110	25	**P3208**	1208-M3x7	80-T08
APMR-P3210-D10-C10-L130	●	10	5	10	130	30	**P3210**	1215-M4x0.5x9	80-T15
APMR-P3210-D10-C12-L130	●	10	5	12	130	30			
APMR-P3212-D12-C12-L130	●	12	6	12	130	32	**P3212**	1220-M5x0.5x9	80-T20
APMR-P3216-D16-C16-L175	●	16	8	16	175	60	**P3216**	1220-M5x0.5x12	
APMR-P3220-D20-C20-L200	●	20	10	20	200	100	**P3220**	1220-M5x0.5x15	
APMR-P3225-D25-C25-L200	●	25	12.5	25	200	100	**P3225**	1220-M6x0.75x20	
APMR-P3232-D32-C32-L200	●	32	16	32	200	100	**P3232**	1204-M8x0.75x26	AAL-05-4

WLTR Ucuna Uygundur. / Compatiple with WLTR Insert. Kompatibel mit WLTR Wendeplatten.





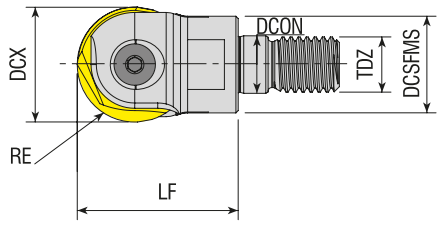
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*						Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*	
		DCX	RE	DCON	LF	LH	APMX		Sıkma Vidası *Screw* *Schraube* 	Tork Anahtar *Torx Key* *Torx-Schlüssel* 
APMR-XP16-D16-C16-L150	●	16	8	16	150	40	16	**XPHT 16R0803**	3008-M2.5x6	80-T08
APMR-XP20-D20-C20-L150	●	20	10	20	150	50	20	**XPHT 20R10T3**	3010-M3.5x9	80-T10
APMR-XP25-D25-C25-L150	●	25	12.5	25	150	50	25	**XPHT 25R1204**	4015-M4x9	80-T15

R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
ZCC Ucuna Uygundur. / Compatiple with ZCC Insert. Kompatibel mit ZCC Wendeplatten.

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück APMR-P3208-D08-C10-L110
Kesme Hesabı : S 331 / *Cutting Calculation : P 331* / *Schnittberechnung : 331*

BF SERVICE

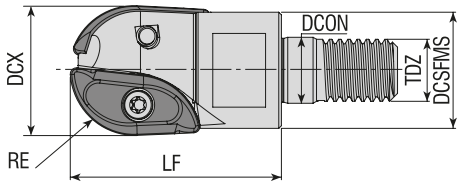




Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*						Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile* Sıkma Vidası *Screw* *Schraube*	Tork Anahtar *Torx Key* *Torx-Schlüssel*
		DCX	RE	DCSFMS	TDZ	LF	DCON			
APMR-P3216-D16-M08-L25	●	16	8	14	M08	25	8.5	P3216	1220-M5x0.5x12	80-T20
APMR-P3220-D20-M10-L30	●	20	10	18	M10	30	10.5	P3220	1220-M5x0.5x15	
APMR-P3225-D25-M12-L35	●	25	12.5	21	M12	35	12.5	P3225	1220-M6x0.75x20	
APMR-P3232-D32-M16-L43	●	32	16	30	M16	43	17	P3232	1204-M8x0.75x26	AAL-05-4

WLTR Ucuna Uygundur. / Compatiple with WLTR Insert. Kompatibel mit WLTR Wendeplatten.





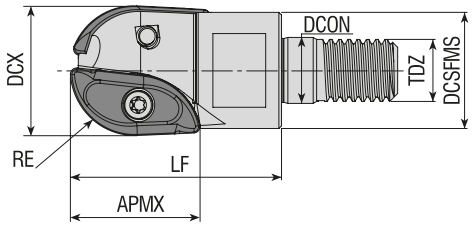
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*						Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile* Sıkma Vidası *Screw* *Schraube*	Tork Anahtar *Torx Key* *Torx-Schlüssel*
		DCX	RE	DCSFMS	TDZ	LF	DCON			
APMR-SWB225-D25-M12-L35	●	25	12.5	23.5	M12	35	12.5	SWB225HM-HS	4015-M4x9	80-T15
APMR-SWB230-D30-M16-L43	●	30	15	28	M16	43	17	SWB230HM-HS	1020-M5x11	80-T20
APMR-SWB232-D32-M16-L43	●	32	16	30	M16	43	17	SWB232HM-HS		

R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
DJT Ucuna Uygundur. / Compatiple with DJT Insert. Kompatibel mit DJT Wendeplatten.

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück APMR-P3216-D16-M08-L25
Kesme Hesabı : S 331 / *Cutting Calculation : P 331* / *Schnittberechnung : 331*
Sıkma Tork Değeri : S 330 / *Tightening Torque : P 330* / *Anzugsmoment : 330*

BF SERVICE

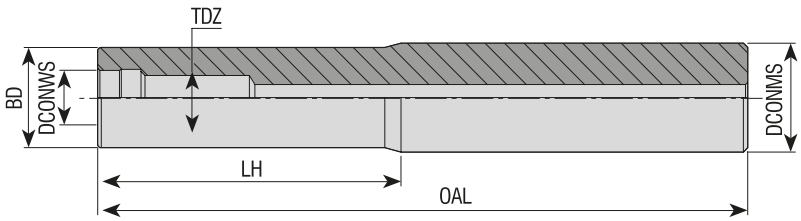




Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*							Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*	
		DCX	RE	DCSFMS	TDZ	LF	APMX	DCON		Sıkma Vidası *Screw* *Schraube* 	Tork Anahtar *Torx Key* *Torx-Schlüssel* 
APMR-XP16-D16-M08-L25	●	16	8	14.75	M08	25	16	8.5	**XPHT 16R0803**	3008-M2.5x6	80-T08
APMR-XP20-D20-M10-L30	●	20	10	18	M10	30	20	10.5	**XPHT 20R10T3**	3010-M3.5x9	80-T10
APMR-XP25-D25-M12-L40	●	25	12.5	22	M12	40	25	12.5	**XPHT 25R1204**	4015-M4x9	80-T15

ZCC Ucuna Uygundur. / Compatiple with ZCC Insert. Kompatibel mit ZCC Wendeplatten.





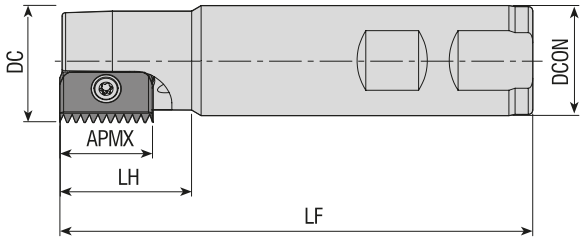
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					
		DCONMS	TDZ	DCONWS	BD	OAL	LH
AVTT-D13-C16-M08-L100-H	●	16	M08	8.5	13	100	40
AVTT-D15-C16-M08-L130-H	●	16	M08	8.5	15	130	70
AVTT-D18-C20-M10-L130-H	●	20	M10	10.5	18	130	70
AVTT-D18-C20-M10-L160-H	●	20	M10	10.5	18	160	80
AVTT-D23-C25-M12-L150-H	●	25	M12	12.5	23	150	70
AVTT-D23-C25-M12-L200-H	●	25	M12	12.5	23	200	100
AVTT-D23-C25-M12-L250-H	●	25	M12	12.5	23	250	150
AVTT-D30-C32-M16-L150-H	●	32	M16	17	30	150	70
AVTT-D30-C32-M16-L200-H	●	32	M16	17	30	200	100
AVTT-D30-C32-M16-L250-H	●	32	M16	17	30	250	150
AVTT-D30-C32-M16-L300-H	●	32	M16	17	30	300	200

R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück APMR-XP16-D16-M08-L25

BF SERVICE

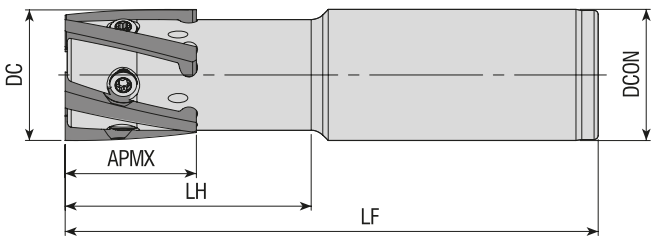




Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*						Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*	
		DC	ZEFP	DCON	LF	LH	APMX		Sıkma Vidası *Screw* *Schraube* 	Tork Anahtar *Torx Key* *Torx-Schlüssel* 
ATM-C14-D14-W20-L100-Z01-H	●	14	1	20	100	25	14	**C14**	3008-M2.5x6	80-T08
ATM-C21-D18-W20-L100-Z01-H	●	18	1	20	100	30	21		4015-M4x9	
ATM-C21-D21-W25-L125-Z01-H	●	21	1	25	125	40	21			
ATM-C21-D25-W20-L125-Z01-H	●	25	1	20	125	30	21			
ATM-C21-D28-W25-L90-Z01-H	●	28	1	25	90	30	21	**C21**	4015-M4x11	80-T15
ATM-C21-D38-W32-L90-Z03-H	●	38	3	32	90	30	21			
ATM-C21-D38-W32-L120-Z03-H	●	38	3	32	120	30	21			
ATM-C21-D43-W32-L90-Z03-H	●	43	3	32	90	30	21			
ATM-C30-D29-W25-L150-Z01-H	●	29	1	25	150	50	30	**C30**	1020-M5x14	80-T20

CPT Ucuna Uygundur. / Compatiple with CPT Insert. Kompatibel mit CPT Wendeplatten.





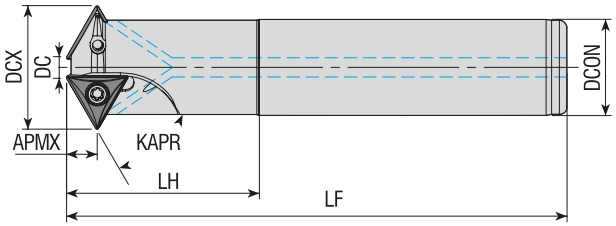
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*						Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*	
		DC	ZEFP	DCON	LF	LH	APMX		Sıkma Vidası *Screw* *Schraube* 	Tork Anahtar *Torx Key* *Torx-Schlüssel* 
ATM-H23-D23-C25-L100-Z02-H	●	23	2	25	100	30	27	**H23**	1015-M4x8	80-T15
ATM-H32-D32-C32-L130-Z05-H	●	32	5	32	130	35	32	**H32**	1720-U8-32x10	80-T20

R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
CPT Ucuna Uygundur. / Compatiple with CPT Insert. Kompatibel mit CPT Wendeplatten.

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück ATM-C14-D14-W20-L100-Z01-H
Kesme Hesabı : S 331 / *Cutting Calculation : P 331* / *Schnittberechnung : 331*

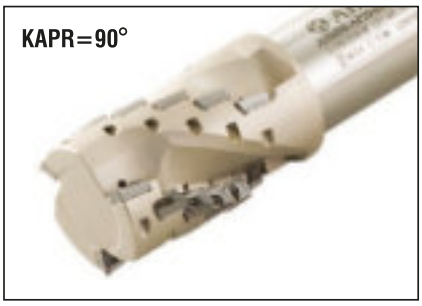
BF SERVICE

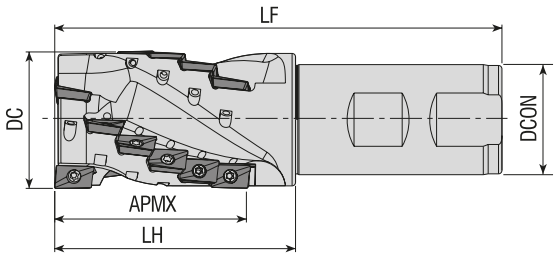




Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*								Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile* Sıkma Vidası *Screw* *Schraube*	Tork Anahtar *Torx Key* *Torx-Schlüssel*
		KAPR	DCX	DCON	DC	LF	LH	ZEFP	APMX			
ATM60-TB0601-D13-C10-L150-Z02-H	●	60	13	10	2.5	150	40	2	3.3	**TBGT 060102**	3006-M2x4	80-T06
ATM60-TC0902-D20.5-C16-L150-Z02-H	●	60	20.5	16	5.2	150	40	2	4.7	**TC.T 090202**	3007-M2.2x5	80-T07
ATM60-TC1102-D26-C20-L150-Z03-H	●	60	26	20	8.3	150	50	3	5.4	**TC.T 110202**	3008-M2.5x6	80-T08
ATM60-TC16T3-D32-C25-L150-Z02-H	●	60	32	25	6.4	150	50	2	8	**TC.T 16T304**	4015-M3.5x9	80-T15
ATM60-TC16T3-D40-C32-L250-Z03-H	●	60	40	32	13.7	250	50	3	8			

ISO Ucuna Uygundur. / Compatiple with ISO Insert. Kompatibel mit ISO Wendeplatten.





Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*							Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile* Sıkma Vidası *Screw* *Schraube*	Tork Anahtar *Torx Key* *Torx-Schlüssel*
		ZEFP Toplam *Total* *Gesamt*	ZEFP Etkili *Effective* *Effektiv*	DC	DCON	APMX	LH	LF			
AHM90-AP10-D20-W20-L087-Z0204	●	4	2	20	20	28	37	87	**AP.. 1003..**	3008-M2.5x6	80-T08
AHM90-AP10-D20-W20-L087-Z0206	●	6	2	20	20	28	37	87			
AHM90-AP10-D25-W25-L105-Z0208-H	●	8	2	25	25	37	50	105			
AHM90-AP10-D32-W32-L115-Z0315-H	●	15	3	32	32	46	55	115			
AHM90-AP10-D40-W32-L130-Z0318-H	●	18	3	40	32	55	70	130			

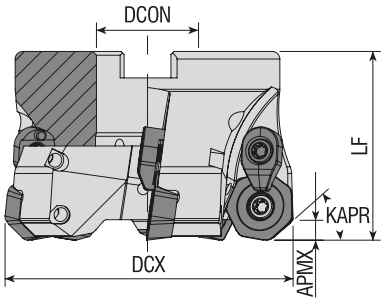
R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
ISO Ucuna Uygundur. / Compatiple with ISO Insert. Kompatibel mit ISO Wendeplatten.

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück ATM60-TB0601-D13-C10-L150-Z02-H
Kesme Hesabı : S 331 / *Cutting Calculation : P 331* / *Schnittberechnung : 331*

BF SERVICE

KAPR=42°



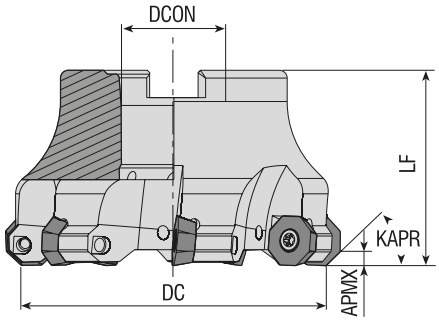


Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*				
		DCX	ZEFP	DCON	LF	APMX		Sıkma Vidası *Screw* *Schraube*	Baskı Parçası *Wedge Clamp* *Spannpratze*	Baskı Vidası *Clamp Screw* *Klemmschraube*	Tork Anahtar *Torx Key* *Torx-Schlüssel*	Montaj Vidası *Mounting Screw* *Befestigungsschraube*
AFM42C-XD0806-D063-A27-Z04-H	●	63	4	27	50	12	XDMW 0806..	4020-M4.5x12	ACK-24	4020-M4.5x12	80-T20	2510-M12x35
AFM42C-XD0806-D080-A27-Z05-H	●	80	5	27	50	12						
AFM42C-XD0806-D100-A32-Z06-H	●	100	6	32	63	12						2514-M16x35
AFM42C-XD0806-D125-B40-Z07	●	125	7	40	63	12						-
AFM42C-XD0806-D160-C40-Z08	●	160	8	40	63	12						
AFM42C-XD0806-D200-C60-Z09	●	200	9	60	63	12						

DJT Ucuna Uygundur. / Compatiple with DJT Insert. Kompatibel mit DJT Wendeplatten.

KAPR=43°





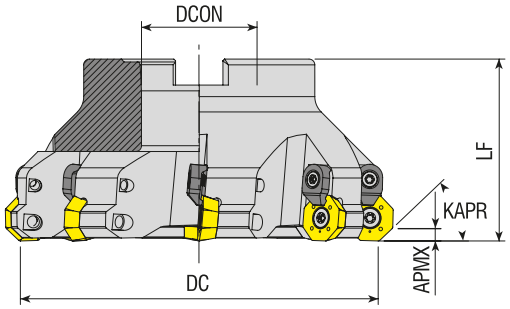
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*		
		DC	ZEFP	DCON	LF	APMX		Sıkma Vidası *Screw* *Schraube*	Tork Anahtar *Torx Key* *Torx-Schlüssel*	Montaj Vidası *Mounting Screw* *Befestigungsschraube*
AFM43-OD0504-D040-A16-Z04-H	●	40	4	16	40	3.5	OD.. 0504..	4015-M3.5x11	80-T15	2506-M8x30
AFM43-OD0504-D050-A22-Z05-H	●	50	5	22	40	3.5				2407-M10x30
AFM43-OD0504-D063-A22-Z06-H	●	63	6	22	40	3.5				
AFM43-OD0504-D080-A27-Z07-H	●	80	7	27	50	3.5				2510-M12x35
AFM43-OD0504-D100-A32-Z08-H	●	100	8	32	50	3.5				2514-M16x35

R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
WLTR Ucuna Uygundur. / Compatiple with WLTR Insert. Kompatibel mit WLTR Wendeplatten.

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück AFM42C-XD0806-D063-A27-Z04-H
Kesme Hesabı : S 331 / *Cutting Calculation : P 331* / *Schnittberechnung : 331*
Montaj Ölçüleri : S 328 / *Mounting Reference : P 328* / *Montagehinweis : 328*

BF SERVICE

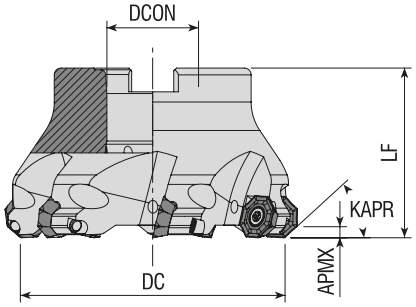




Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*				
		DC	ZEFP	DCON	LF	APMX		Sıkma Vidası *Screw* *Schraube*	Baskı Parçası *Wedge Clamp* *Spannpratze*	Baskı Vidası *Clamp Screw* *Klemmschraube*	Tork Anahtar *Torx Key* *Torx-Schlüssel*	Montaj Vidası *Mounting Screw* *Befestigungsschraube*
AFM43C-OD0605-D080-A27-Z06-H	●	80	6	27	50	4	OD.. 0605..	1020-M5x11	ACK-05	4015-M4x11	80-T20	2510-M12x35
AFM43C-OD0605-D100-A32-Z07-H	●	100	7	32	50	4						2514-M16x35
AFM43C-OD0605-D125-B40-Z08	●	125	8	40	63	4						-

WLTR-LMN Ucuna Uygundur. / Compatiple with WLTR-LMN Insert. Kompatibel mit WLTR-LMN Wendeplatten.





Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*		
		DC	ZEFP	DCON	LF	APMX		Sıkma Vidası *Screw* *Schraube*	Tork Anahtar *Torx Key* *Torx-Schlüssel*	Montaj Vidası *Mounting Screw* *Befestigungsschraube*
AFM43-OF05T3-D050-A22-Z05-H	●	50	5	22	40	3	OF.. 05T3..	4015-M4x9	80-T15	2407-M10x30
AFM43-OF05T3-D063-A22-Z06-H	●	63	6	22	40	3		4015-M4x11		
AFM43-OF05T3-D080-A27-Z07-H	●	80	7	27	50	3				2510-M12x35
AFM43-OF05T3-D125-B40-Z09	●	125	9	40	63	3				-

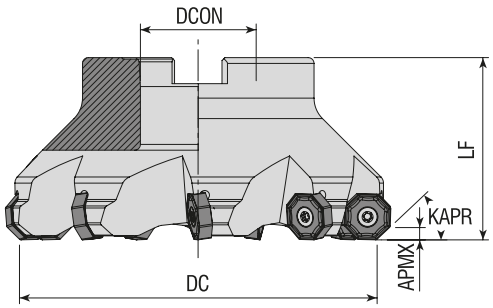
R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
ISO Ucuna Uygundur. / Compatiple with ISO Insert. Kompatibel mit ISO Wendeplatten.

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück AFM43C-OD0605-D080-A27-Z06-H
Kesme Hesabı : S 331 / *Cutting Calculation : P 331* / *Schnittberechnung : 331*
Montaj Ölçüleri : S 328 / *Mounting Reference : P 328* / *Montagehinweis : 328*

BF SERVICE

KAPR=43°



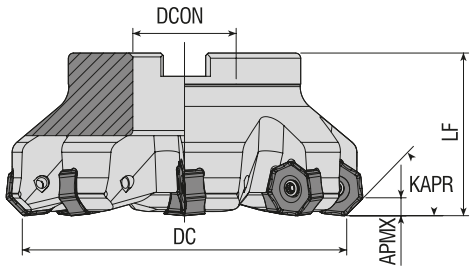


Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*		
		DC	ZEFP	DCON	LF	APMX		Sıkma Vidası *Screw* *Schraube* 	Tork Anahtar *Torx Key* *Torx-Schlüssel* 	Montaj Vidası *Mounting Screw* *Befestigungsschraube* 
AFM43-ON0604-D050-A22-Z05-H	●	50	5	22	40	4	**ON.. 0604..**	4015-M4x11	80-T15	2407-M10x30
AFM43-ON0604-D063-A22-Z06-H	●	63	6	22	40	4				
AFM43-ON0604-D080-A27-Z07-H	●	80	7	27	50	4				2510-M12x35
AFM43-ON0604-D100-A32-Z08-H	●	100	8	32	50	4				2514-M16x35
AFM43-ON0604-D125-B40-Z09	●	125	9	40	63	4				-

ZCC Ucuna Uygundur. / Compatiple with ZCC Insert. Kompatibel mit ZCC Wendeplatten.

KAPR=44°





Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*		
		DC	ZEFP	DCON	LF	APMX		Sıkma Vidası *Screw* *Schraube* 	Tork Anahtar *Torx Key* *Torx-Schlüssel* 	Montaj Vidası *Mounting Screw* *Befestigungsschraube* 
AFM44-ON0606-D063-A22-Z06-H	●	63	6	22	40	3.8	**ONHX 0606..**	4020-M4.5x12	80-T20	2407-M10x30
AFM44-ON0606-D080-A27-Z08-H	●	80	8	27	50	3.8				2510-M12x35
AFM44-ON0606-D100-A32-Z10-H	●	100	10	32	50	3.8				2514-M16x35

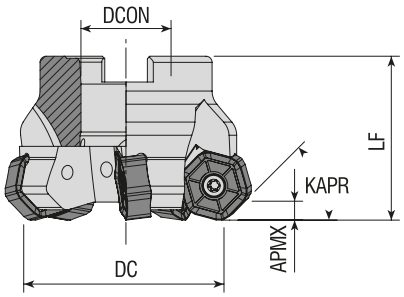
R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
KRLY Ucuna Uygundur. / Compatiple with KRLY Insert. Kompatibel mit KRLY Wendeplatten.

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück AFM43-ON0604-D050-A22-Z05-H
Kesme Hesabı : S 331 / *Cutting Calculation : P 331* / *Schnittberechnung : 331*
Montaj Ölçüleri : S 328 / *Mounting Reference : P 328* / *Montagehinweis : 328*

BF SERVICE

KAPR=45°

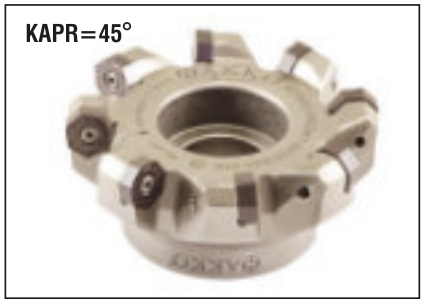


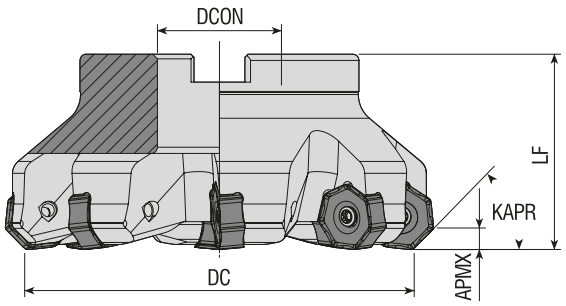


Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*		
		DC	ZEFP	DCON	LF	APMX		Sıkma Vidası *Screw* *Schraube* 	Tork Anahtar *Torx Key* *Torx-Schlüssel* 	Montaj Vidası *Mounting Screw* *Befestigungsschraube* 
AFM45-HN0905-D050-A22-Z05-H	●	50	5	22	40	4.5	**HN.. 0905..**	4015-M4x11	80-T15	2407-M10x30
AFM45-HN0905-D063-A22-Z06-H	●	63	6	22	40	4.5				
AFM45-HN0905-D080-A27-Z07-H	●	80	7	27	50	4.5				2510-M12x35
AFM45-HN0905-D125-B40-Z10	●	125	10	40	63	4.5				-
AFM45-HN0905-D160-C40-Z12	●	160	12	40	63	4.5				
AFM45L-HN0905-D160-C40-Z12	●	160	12	40	63	4.5				
AFM45-HN0905-D200-C60-Z16	●	200	16	60	63	4.5				
AFM45-HN0905-D200-C60-Z16	●	200	16	60	63	5.5				
AFM45L-HN0905-D200-C60-Z16	●	200	16	60	63	4.5				

WDA Ucuna Uygundur. / Compatiple with WDA Insert. Kompatibel mit WDA Wendeplatten.

KAPR=45°





Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*		
		DC	ZEFP	DCON	LF	APMX		Sıkma Vidası *Screw* *Schraube* 	Tork Anahtar *Torx Key* *Torx-Schlüssel* 	Montaj Vidası *Mounting Screw* *Befestigungsschraube* 
AFM45-NN2007-D100-A32-Z07-H	●	100	7	32	50	6	**NNMU 2007..**	1020-M5x14	80-T20	2514-M16x35
AFM45-NN2007-D125-B40-Z08	●	125	8	40	63	6				
AFM45-NN2007-D160-C40-Z10	●	160	10	40	63	6				

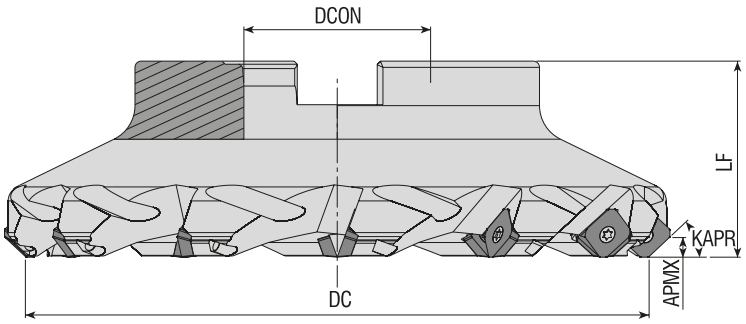
R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
MTSBSH Ucuna Uygundur. / Compatiple with MTSBSH Insert. Kompatibel mit MTSBSH Wendeplatten.

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück AFM45-HN0905-D063-A22-Z06-H
Kesme Hesabı : S 331 / *Cutting Calculation : P 331* / *Schnittberechnung : 331*
Montaj Ölçüleri : S 328 / *Mounting Reference : P 328* / *Montagehinweis : 328*

BF SERVICE

KAPR=45°



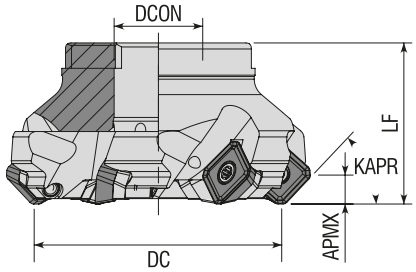


Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*		
		DC	ZEFP	DCON	LF	APMX		Sıkma Vidası *Screw* *Schraube*	Tork Anahtar *Torx Key* *Torx-Schlüssel*	Montaj Vidası *Mounting Screw* *Befestigungsschraube*
AFM45-SE12-D050-A22-Z04-H	●	50	4	22	40	6	SE.. 12T3.. R245-12T3..	4015-M3.5x11	80-T15	2407-M10x30
AFM45L-SE12-D050-A22-Z04-H	●	50	4	22	40	6				
AFM45-SE12-D063-A22-Z05-H	●	63	5	22	40	6				
AFM45L-SE12-D063-A22-Z05-H	●	63	5	22	40	6				
AFM45-SE12-D080-A27-Z06-H	●	80	6	27	50	6				2510-M12x35
AFM45L-SE12-D080-A27-Z06-H	●	80	6	27	50	6				
AFM45-SE12-D100-A32-Z07-H	●	100	7	32	50	6				2514-M16x35
AFM45-SE12-D125-B40-Z08	●	125	8	40	63	6				-
AFM45-SE12-D160-C40-Z10	●	160	10	40	63	6				
AFM45L-SE12-D160-C40-Z10	●	160	10	40	63	6				
AFM45-SE12-D200-C60-Z12	●	200	12	60	63	6				

ZCC-SNDVK Ucuna Uygundur. / Compatiple with ZCC-SNDVK Insert. Kompatibel mit ZCC-SNDVK Wendeplatten.

KAPR=45°





Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*				
		DC	ZEFP	DCON	LF	APMX		Altlık *Screw* *Unterlage*	Altlık Vidası *Wedge Clamp* *Schraube für Unterlage*	Sıkma Vidası *Screw* *Schraube*	Tork Anahtar *Torx Key* *Torx-Schlüssel*	Montaj Vidası *Mounting Screw* *Befestigungsschraube*
AFM45-SE13-D050-A22-Z04-H	●	50	4	22	40	6	SEMT 13T3..	-	-	4015-M3.5x11	80-T15	2407-M10x30
AFM45-SE13-D063-A22-Z05-H	●	63	5	22	40	6						
AFM45-SE13-D080-A27-Z06-H	●	80	6	27	50	6						2510-M12x35
AFM45S-SE13-D050-A22-Z05-H	●	50	5	22	40	6		AASE-3-0001	AAV-16-M3.5x8	4015-M3.5x12		2407-M10x30
AFM45S-SE13-D063-A22-Z06-H	●	63	6	22	40	6						
AFM45S-SE13-D080-A27-Z08-H	●	80	8	27	50	6						2510-M12x35
AFM45S-SE13-D100-A32-Z10-H	●	100	10	32	50	6						2514-M16x35
AFM45S-SE13-D125-B40-Z12	●	125	12	40	63	6						-

R: Sağ / Right / *Rechts* L: Sol/Left/*Links*

● Stokta / In Stock / *Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*

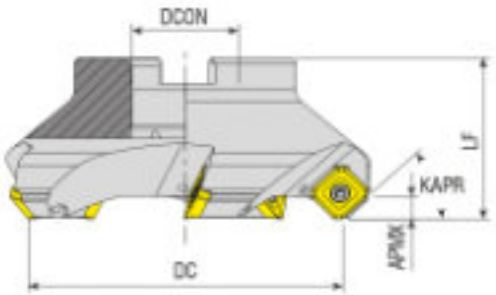
SMTM-DJT Ucuna Uygundur. / Compatiple with SMTM-DJT Insert. Kompatibel mit SMTM-DJT Wendeplatten.

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück AFM45-SE12-D050-A22-Z04-H

Kesme Hesabı : S 331 / *Cutting Calculation : P 331* / *Schnittberechnung : 331*
Montaj Ölçüleri : S 328 / *Mounting Reference : P 328* / *Montagehinweis : 328*

BF SERVICE

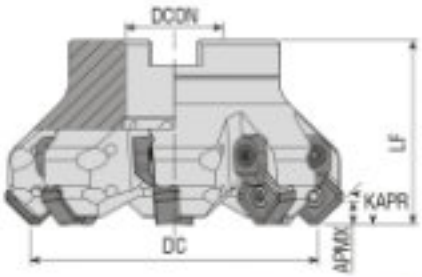




Takım Kodu / Ordering Code / Bestell-Bezeichnung	Stok / Stock / Lager	Takım Ölçüleri (mm) / Dimension (mm) / Abmessung (mm)					Kesici Uç / Insert / Wendeschneidplatte	Yedek Parçaları / Spare Parts / Ersatzteile: Sıkma Vidası / Screw / Schraube	Tork Anahtar / Torx Key / Torx-Schlüssel	Montaj Vidası / Mounting Screw / Befestigungsschraube
		DC	ZEFP	DCON	LF	APMX				
AFM45-SE14M4-D063-A22-Z04-H	●	63	4	22	40	7	SE.. 14M4..	4015-M3.5x11	80-T15	2407-M10x30
AFM45-SE14M4-D080-A27-Z05-H	●	80	5	27	50	7				2510-M12x35
AFM45-SE14M4-D100-A32-Z05-H	●	100	5	32	50	7				2514-M16x35
AFM45-SE14M4-D125-B40-Z06	●	125	6	40	63	7				-
AFM45-SE14M4-D160-C40-Z07	●	160	7	40	63	7				

KRLY Ucuna Uygundur. / Compatible with KRLY Insert. Kompatibel mit KRLY Wendeplatten.





Takım Kodu / Ordering Code / Bestell-Bezeichnung	Stok / Stock / Lager	Takım Ölçüleri (mm) / Dimension (mm) / Abmessung (mm)					Kesici Uç / Insert / Wendeschneidplatte	Yedek Parçaları / Spare Parts / Ersatzteile: Sıkma Vidası / Screw / Schraube	Baskı Parçası / Wedge Clamp / Spannpratze	Baskı Vidası / Clamp Screw / Klemmschraube	Tork Anahtar / Torx Key / Torx-Schlüssel	Montaj Vidası / Mounting Screw / Befestigungsschraube
		DC	ZEFP	DCON	LF	APMX						
AFM45C-SN12..-D050-A22-Z04-H	●	50	4	22	42	6	SN.. 12..	1015-M4x11	ACK-05	4015-M4x11	80-T15	
AFM45C-SN12..-D050-A22-Z05-H	●	50	5	22	42	6						
AFM45C-SN12..-D063-A22-Z06-H	●	63	6	22	42	6						2407-M10X30
AFM45C-SN12..-D063-A22-Z07-H	●	63	7	22	42	6						
AFM45CL-SN12..-D063-A22-Z07-H	●	63	7	22	42	6						
AFM45C-SN12..-D080-A27-Z07-H	●	80	7	27	52	6						
AFM45C-SN12..-D080-A27-Z08-H	●	80	8	27	52	6						2510-M12x35
AFM45CL-SN12..-D080-A27-Z08-H	●	80	8	27	52	6						
AFM45C-SN12..-D100-A32-Z08-H	●	100	8	32	52	6						
AFM45C-SN12..-D100-A32-Z10-H	●	100	10	32	52	6						2514-M16x35
AFM45CL-SN12..-D100-A32-Z10-H	●	100	10	32	52	6						
AFM45C-SN12..-D125-B40-Z11	●	125	11	40	65	6						
AFM45CL-SN12..-D125-B40-Z11	●	125	11	40	65	6						
AFM45C-SN12..-D160-C40-Z12	●	160	12	40	65	6						-
AFM45C-SN12..-D200-C60-Z14	●	200	14	60	65	6						
AFM45CL-SN12..-D200-C60-Z14	●	200	14	60	65	6						

R: Sağ / Right / Rechts L: Sol/Left/Links

● Stokta / In Stock / Auf Lager ○ Stokta Yok / Non Stock Item / Kein Lagerartikel, Lieferzeit auf Anfrage

WLTR-LMN-ADHTK Ucuna Uygundur. / Compatible with WLTR-LMN-ADHTK Insert. Kompatibel mit WLTR-LMN-ADHTK Wendeplatten.

Montaj Ölçüleri : S 328 / Mounting Reference : P 328 / Montagehinweis : 328

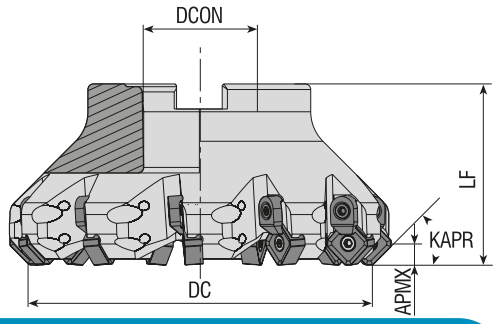
Sipariş Örneği/Ordering Example/Bestellbeispiel
1 ad./pcs./stück AFM45-SE14M4-D063-A22-Z04-H

Kesme Hesabı : S 331 / Cutting Calculation : P 331 / Schnittberechnung : 331

BF SERVICE

KAPR=45°



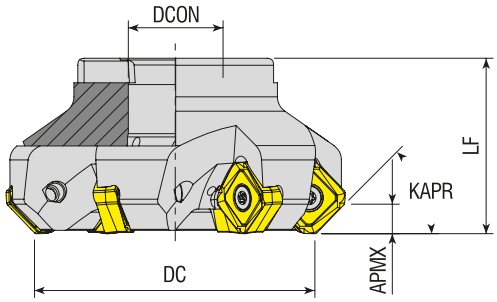


Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*				
		DC	ZEFP	DCON	LF	APMX		Sıkma Vidası *Screw* *Schraube*	Baskı Parçası *Wedge Clamp* *Spannpratze*	Baskı Vidası *Clamp Screw* *Klemmschraube*	Tork Anahtar *Torx Key* *Torx-Schlüssel*	Montaj Vidası *Mounting Screw* *Befestigungsschraube*
AFM45C-SN1206-D050-A22-Z04-H	●	50	4	22	42	6	**SN.. 1206..**	4015-M4x11	ACK-05	4015-M4x11	80-T15	
AFM45CL-SN1206-D050-A22-Z05-H	●	50	5	22	42	6						
AFM45C-SN1206-D050-A22-Z05-H	●	50	5	22	42	6						
AFM45C-SN1206-D063-A22-Z06-H	●	63	6	22	42	6						2407-M10x30
AFM45C-SN1206-D063-A22-Z07-H	●	63	7	22	42	6						
AFM45CL-SN1206-D063-A22-Z07-H	●	63	7	22	42	6						
AFM45C-SN1206-D080-A27-Z07-H	●	80	7	27	52	6						
AFM45C-SN1206-D080-A27-Z08-H	●	80	8	27	52	6						2510-M12x35
AFM45CL-SN1206-D080-A27-Z08-H	●	80	8	27	52	6						
AFM45C-SN1206-D100-A32-Z08-H	●	100	8	32	52	6						
AFM45C-SN1206-D100-A32-Z10-H	●	100	10	32	52	6						2514-M16x35
AFM45CL-SN1206-D100-A32-Z10-H	●	100	10	32	52	6						
AFM45C-SN1206-D125-B40-Z11	●	125	11	40	65	6						
AFM45CL-SN1206-D125-B40-Z11	●	125	11	40	65	6						
AFM45C-SN1206-D160-C40-Z12	●	160	12	40	65	6						-
AFM45C-SN1206-D200-C60-Z14	●	200	14	60	65	6						
AFM45CL-SN1206-D200-C60-Z14	●	200	14	60	65	6						

KRLY-PLBT-BHLR Ucuna Uygundur. / Compatiple with KRLY-PLBT-BHLR Insert. Kompatibel mit KRLY-PLBT-BHLR Wendeplatten.

KAPR=45°





Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*		
		DC	ZEFP	DCON	LF	APMX		Sıkma Vidası *Screw* *Schraube*	Tork Anahtar *Torx Key* *Torx-Schlüssel*	Montaj Vidası *Mounting Screw* *Befestigungsschraube*
AFM45-SA1706-D080-A27-Z06-H	●	80	6	27	50	8.4	**SAKU 1706..**	1020-M5x14	80-T20	2510-M12x35
AFM45-SA1706-D100-A32-Z07-H	●	100	7	32	50	8.4				2514-M16x35
AFM45-SA1706-D125-B40-Z09	●	125	9	40	63	8.4				-

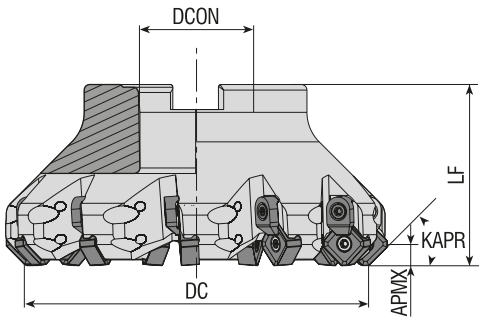
R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
CRTZT Ucuna Uygundur. / Compatiple with CRTZT Insert. Kompatibel mit CRTZT Wendeplatten.

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück AFM45C-SN1206-D050-A22-Z04-H
Kesme Hesabı : S 331 / *Cutting Calculation : P 331* / *Schnittberechnung : 331*
Montaj Ölçüleri : S 328 / *Mounting Reference : P 328* / *Montagehinweis : 328*

BF SERVICE

KAPR=45°



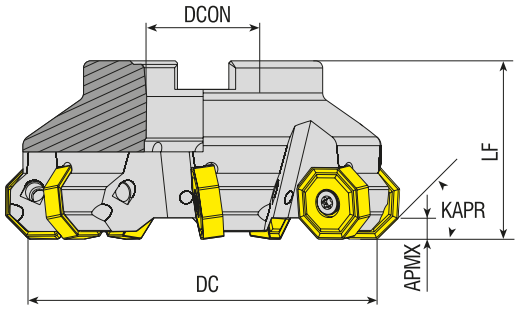


Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*				
		DC	ZEFP	DCON	LF	APMX		Sıkma Vidası *Screw* *Schraube*	Baskı Parçası *Wedge Clamp* *Spannpratze*	Baskı Vidası *Clamp Screw* *Klemmschraube*	Tork Anahtar *Torx Key* *Torx-Schlüssel*	Montaj Vidası *Mounting Screw* *Befestigungsschraube*
AFM45C-SN12Z-D050-A22-Z05-H	●	50	5	22	42	6	**SNEG 1205..**	4015-M4x11	ACK-05	4015-M4x11	80-T15	2407-M10X30
AFM45C-SN12Z-D063-A22-Z06-H	●	63	6	22	42	6						
AFM45C-SN12Z-D080-A27-Z07-H	●	80	7	27	52	6						2510-M12x35
AFM45C-SN12Z-D100-A32-Z09-H	●	100	9	32	52	6						2514-M16x35
AFM45C-SN12Z-D125-B40-Z11	●	125	11	40	65	6						
AFM45C-SN12Z-D160-C40-Z12	●	160	12	60	65	6						-
AFM45C-SN12Z-D200-C60-Z14	●	200	14	60	65	6						

ZCC Ucuna Uygundur. / Compatiple with ZCC Insert. Kompatibel mit ZCC Wendeplatten.

KAPR=45°





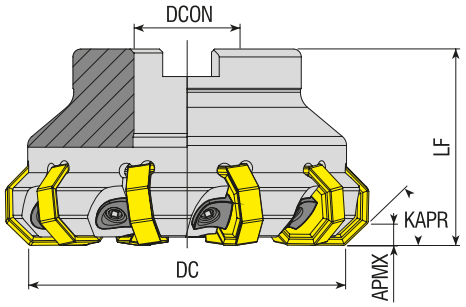
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*		
		DC	ZEFP	DCON	LF	APMX		Sıkma Vidası *Screw* *Schraube*	Tork Anahtar *Torx Key* *Torx-Schlüssel*	Montaj Vidası *Mounting Screw* *Befestigungsschraube*
AFM45-ON0806-D063-A22-Z05-H	●	63	5	22	40	5.5	**ON.. 0806..**	1020-M5x14	80-T20	2508-M10x30
AFM45-ON0806-D063-A22-Z06-H	●	63	6	22	40	5.5				
AFM45-ON0806-D080-A27-Z06-H	●	80	6	27	50	5.5				2510-M12x35
AFM45-ON0806-D080-A27-Z08-H	●	80	8	27	50	5.5				
AFM45-ON0806-D100-A32-Z07-H	●	100	7	32	50	5.5				2514-M16x35
AFM45-ON0806-D100-A32-Z10-H	●	100	10	32	50	5.5				
AFM45-ON0806-D125-B40-Z08	●	125	8	40	63	5.5				
AFM45-ON0806-D160-C40-Z10	●	160	10	40	63	5.5				-
AFM45-ON0806-D200-C60-Z12	●	200	12	60	63	5.5				
AFM45-ON0806-D315-D60-Z16	●	315	16	60	63	5.5				

R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
ISO Ucuna Uygundur. / Compatiple with ISO Insert. Kompatibel mit ISO Wendeplatten.

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück AFM45C-SN12Z-D050-A22-Z05-H
Kesme Hesabı : S 331 / *Cutting Calculation : P 331* / *Schnittberechnung : 331*
Montaj Ölçüleri : S 328 / *Mounting Reference : P 328* / *Montagehinweis : 328*

BF SERVICE

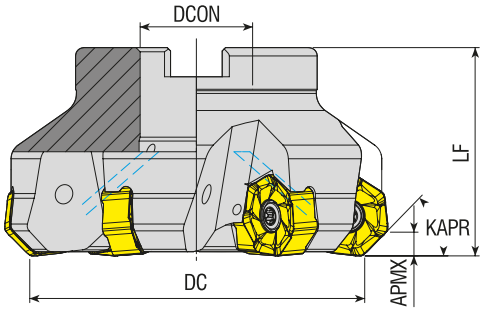




Takım Kodu / *Ordering Code* / *Bestell-Bezeichnung*	Stok / *Stock* / *Lager*	Takım Ölçüleri (mm) / *Dimension (mm)* / *Abmessung (mm)*					Kesici Uç / *Insert* / *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*			
		DC	ZEFP	DCON	LF	APMX		Baskı Parçası / *Wedge Clamp* / *Spannpratze*	Baskı Vidası / *Clamp Screw* / *Klemmschraube*	Anahtar / *Allen Key* / *Innensechskantschlüssel*	Montaj Vidası / *Mounting Screw* / *Befestigungsschraube*
AFM45C-ON0806-D080-A27-Z10	●	80	10	27	50	5.5	ON.. 0806..	ACK-26	AKV-26-M6x0.75x20	AAL-03-3	2510-M12x35
AFM45C-ON0806-D100-A32-Z14	●	100	14	32	50	5.5					2514-M16x35
AFM45C-ON0806-D125-B40-Z18	●	125	18	40	63	5.5					-
AFM45C-ON0806-D160-C40-Z22	●	160	22	40	63	5.5					

ISO Ucuna Uygundur. / Compatiple with ISO Insert. Kompatibel mit ISO Wendeplatten.





Takım Kodu / *Ordering Code* / *Bestell-Bezeichnung*	Stok / *Stock* / *Lager*	Takım Ölçüleri (mm) / *Dimension (mm)* / *Abmessung (mm)*					Kesici Uç / *Insert* / *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*				
		DC	ZEFP	DCON	LF	APMX		Sıkma Vidası / *Screw* / *Schraube*	Baskı Parçası / *Wedge Clamp* / *Spannpratze*	Baskı Vidası / *Clamp Screw* / *Klemmschraube*	Tork Anahtar / *Torx Key* / *Torx-Schlüssel*	Montaj Vidası / *Mounting Screw* / *Befestigungsschraube*
AFM45-XN0906-D063-A22-Z06-H	●	63	6	22	50	5	XNMU 0906..	1120-M5x13	-	-	80-T20	2407-M10x30
AFM45-XN0906-D080-A27-Z06-H	●	80	6	27	50	5						2510-M12x35
AFM45-XN0906-D100-A32-Z07-H	●	100	7	32	55	5						2514-M16x35
AFM45-XN0906-D125-B40-Z08	●	125	8	40	63	5						-

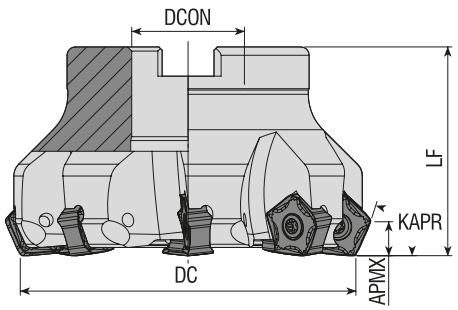
R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock / *Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
TGTC Ucuna Uygundur. / Compatiple with TGTC Insert. Kompatibel mit TGTC Wendeplatten.

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück AFM45C-ON0806-D080-A27-Z10
Kesme Hesabı : S 331 / *Cutting Calculation : P 331* / *Schnittberechnung : 331*
Montaj Ölçüleri : S 328 / *Mounting Reference : P 328* / *Montagehinweis : 328*

BF SERVICE

KAPR=66°



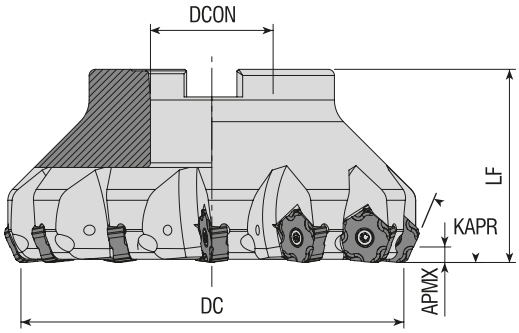


Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*		
		DC	ZEFP	DCON	LF	APMX		Sıkma Vidası *Screw* *Schraube* 	Tork Anahtar *Torx Key* *Torx-Schlüssel* 	Montaj Vidası *Mounting Screw* *Befestigungsschraube* 
AFM66-PN0905-D050-A22-Z05	●	50	5	22	40	8	**PNMU 0905..**	4015-M4x11	80-T15	2508-M10x30
AFM66-PN0905-D063-A22-Z06	●	63	6	22	40	8				
AFM66-PN0905-D080-A27-Z08	●	80	8	27	50	8				2510-M12x35
AFM66-PN0905-D100-A32-Z10	●	100	10	32	50	8				2514-M16x35
AFM66-PN0905-D125-B40-Z12	●	125	12	40	63	8				-

KYCR Ucuna Uygundur. / Compatiple with KYCR Insert. Kompatibel mit KYCR Wendeplatten.

KAPR=67°





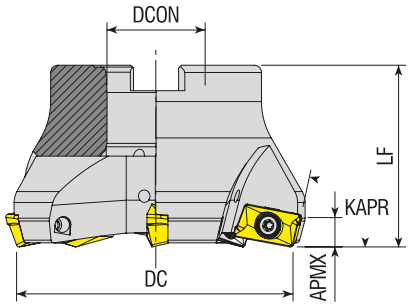
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*		
		DC	ZEFP	DCON	LF	APMX		Sıkma Vidası *Screw* *Schraube* 	Tork Anahtar *Torx Key* *Torx-Schlüssel* 	Montaj Vidası *Mounting Screw* *Befestigungsschraube* 
AFM67-PN1105-D050-A22-Z05	●	50	5	22	50	5	**PNEG 1105..**	4015-M4x11	80-T15	2508-M10x30
AFM67-PN1105-D063-A22-Z06	●	63	6	22	50	5				
AFM67-PN1105-D080-A27-Z08	●	80	8	27	50	5				2510-M12x35
AFM67-PN1105-D100-B32-Z10	●	100	10	32	50	5				
AFM67-PN1105-D125-B40-Z12	●	125	12	40	63	5				-
AFM67-PN1105-D160-C40-Z14	●	160	14	40	63	5				

R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
ZCC Ucuna Uygundur. / Compatiple with ZCC Insert. Kompatibel mit ZCC Wendeplatten.

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück AFM66-PN0905-D050-A22-Z05
Kesme Hesabı : S 331 / *Cutting Calculation : P 331* / *Schnittberechnung : 331*
Montaj Ölçüleri : S 328 / *Mounting Reference : P 328* / *Montagehinweis : 328*

BF SERVICE

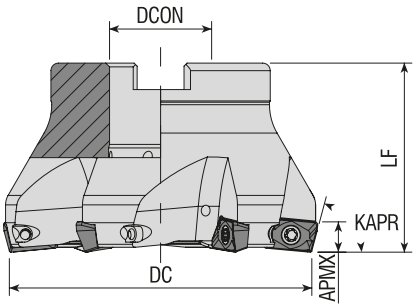




Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*		
		DC	ZEFP	DCON	LF	APMX		Sıkma Vidası *Screw* *Schraube* 	Tork Anahtar *Torx Key* *Torx-Schlüssel* 	Montaj Vidası *Mounting Screw* *Befestigungsschraube* 
AFM75-AP16-D063-A22-Z04-H	●	63	4	22	40	6	**AP. 1604..**	4015-M4x11	80-T15	2508-M10x30
AFM75-AP16-D080-A27-Z05-H	●	80	5	27	50	6				2510-M12x35
AFM75-AP16-D100-A32-Z06-H	●	100	6	32	50	6				2514-M16x35
AFM75-AP16-D125-B40-Z07	●	125	7	40	63	6				-

ISO Ucuna Uygundur. / Compatiple with ISO Insert. Kompatibel mit ISO Wendeplatten.





Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*		
		DC	ZEFP	DCON	LF	APMX		Sıkma Vidası *Screw* *Schraube* 	Tork Anahtar *Torx Key* *Torx-Schlüssel* 	Montaj Vidası *Mounting Screw* *Befestigungsschraube* 
AFM75-XO12-D050-A22-Z04-H	●	50	4	22	40	-	**XOMX 1204..**	3010-M3.5x9	80-T10	2508-M10x30
AFM75-XO12-D063-A22-Z05-H	●	63	5	22	40	-				
AFM75-XO12-D080-A27-Z06-H	●	80	6	27	50	-				2510-M12x35

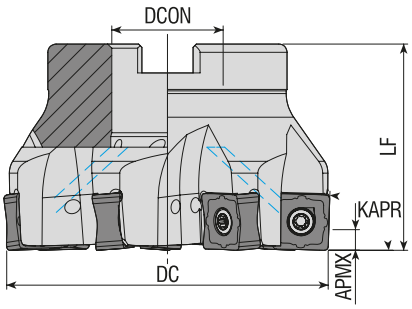
R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock / *Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
SC Ucuna Uygundur. / Compatiple with SC Insert. Kompatibel mit SC Wendeplatten.

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück AFM75-AP16-D063-A22-Z04-H
Kesme Hesabı : S 331 / *Cutting Calculation : P 331* / *Schnittberechnung : 331*
Montaj Ölçüleri : S 328 / *Mounting Reference : P 328* / *Montagehinweis : 328*

BF SERVICE

KAPR=88°



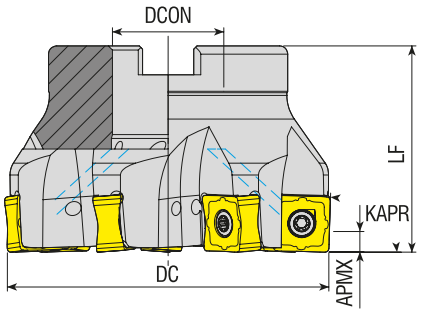


Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*		
		DC	ZEFP	DCON	LF	APMX		Sıkma Vidası *Screw* *Schraube* 	Tork Anahtar *Torx Key* *Torx-Schlüssel* 	Montaj Vidası *Mounting Screw* *Befestigungsschraube* 
AFM88-SN1305-D050-A22-Z04	●	50	4	22	40	5	**SNMU 1305..**	4015-M4x11	80-T15	2508-M10x30
AFM88-SN1305-D050-A22-Z05	●	50	5	22	40	5				
AFM88-SN1305-D063-A22-Z05	●	63	5	22	40	5				
AFM88-SN1305-D063-A22-Z07	●	63	7	22	40	5				
AFM88-SN1305-D080-A27-Z06	●	80	6	27	50	5				2510-M12x35
AFM88-SN1305-D080-A27-Z09	●	80	9	27	50	5				
AFM88-SN1305-D100-A32-Z07	●	100	7	32	50	5				2514-M16x35
AFM88-SN1305-D100-A32-Z11	●	100	11	32	50	5				
AFM88-SN1305-D125-B40-Z13	●	125	13	40	63	5				-

KYCR Ucuna Uygundur. / Compatiple with KYCR Insert. Kompatibel mit KYCR Wendeplatten.

KAPR=88°





Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*		
		DC	ZEFP	DCON	LF	APMX		Sıkma Vidası *Screw* *Schraube* 	Tork Anahtar *Torx Key* *Torx-Schlüssel* 	Montaj Vidası *Mounting Screw* *Befestigungsschraube* 
AFM88-SN1306-D050-A22-Z05-H	●	50	5	22	40	5	**SNGX 1306..**	1115-M4x10	80-T15	2508-M10x30
AFM88-SN1306-D063-A22-Z06-H	●	63	6	22	40	5				
AFM88-SN1306-D080-A27-Z07-H	●	80	7	27	50	5				2510-M12x35

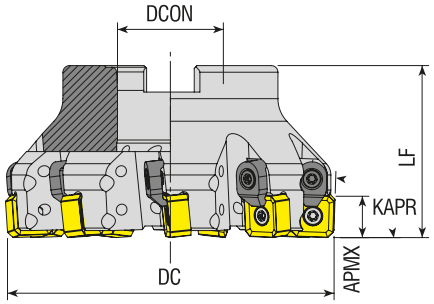
R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
TGTC Ucuna Uygundur. / Compatiple with TGTC Insert. Kompatibel mit TGTC Wendeplatten.

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück AFM88-SN1305-D050-A22-Z04
Kesme Hesabı : S 331 / *Cutting Calculation : P 331* / *Schnittberechnung : 331*
Montaj Ölçüleri : S 328 / *Mounting Reference : P 328* / *Montagehinweis : 328*

BF SERVICE

KAPR=88°



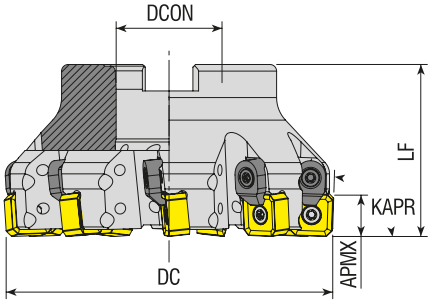


Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*				
		DC	ZEFP	DCON	LF	APMX		Sıkma Vidası *Screw* *Schraube* 	Baskı Parçası *Wedge Clamp* *Spannpratze* 	Baskı Vidası *Clamp Screw* *Klemmschraube* 	Tork Anahtar *Torx Key* *Torx-Schlüssel* 	Montaj Vidası *Mounting Screw* *Befestigungsschraube* 
AFM88C-SN1206-D063-A22-Z06-H	●	63	6	22	40	11.5						2508-M10x30
AFM88C-SN1206-D080-A27-Z07-H	●	80	7	27	50	11.5	**SN.. 1206..**	4615-M4x11	ACK-05	4015-M4x11	80-T15	2510-M12x35
AFM88C-SN1206-D100-A32-Z09-H	●	100	9	32	52	11.5						2514-M16x35

ISO Ucuna Uygundur. / Compatiple with ISO Insert. Kompatibel mit ISO Wendeplatten.

KAPR=88°





Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*				
		DC	ZEFP	DCON	LF	APMX		Sıkma Vidası *Screw* *Schraube* 	Baskı Parçası *Wedge Clamp* *Spannpratze* 	Baskı Vidası *Clamp Screw* *Klemmschraube* 	Tork Anahtar *Torx Key* *Torx-Schlüssel* 	Montaj Vidası *Mounting Screw* *Befestigungsschraube* 
AFM88C-SN12..-D063-A22-Z06-H	●	63	6	22	40	11.5						2508-M10x30
AFM88C-SN12..-D080-A27-Z07-H	●	80	7	27	50	11.5	**SN.. 12..**	1015-M4x11	ACK-05	4015-M4x11	80-T15	2510-M12x35
AFM88C-SN12..-D100-A32-Z09-H	●	100	9	32	52	11.5						2514-M16x35

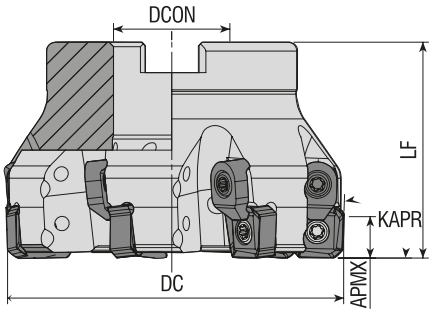
R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
ISO Ucuna Uygundur. / Compatiple with ISO Insert. Kompatibel mit ISO Wendeplatten.

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück AFM88C-SN1206-D063-A22-Z06-H
Kesme Hesabı : S 331 / *Cutting Calculation : P 331* / *Schnittberechnung : 331*
Montaj Ölçüleri : S 328 / *Mounting Reference : P 328* / *Montagehinweis : 328*

BF SERVICE

KAPR=88°



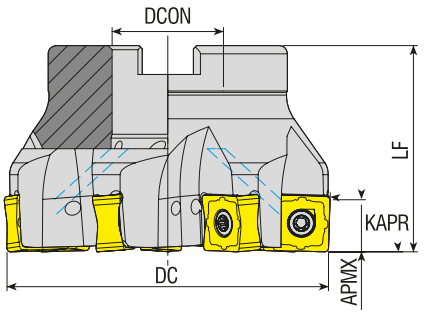


Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*				
		DC	ZEFP	DCON	LF	APMX		Sıkma Vidası *Screw* *Schraube*	Baskı Parçası *Wedge Clamp* *Spannpratze*	Baskı Vidası *Clamp Screw* *Klemmschraube*	Tork Anahtar *Torx Key* *Torx-Schlüssel*	Montaj Vidası *Mounting Screw* *Befestigungsschraube*
AFM88C-SN12Z-D063-A22-Z06-H	●	63	6	22	40	11.5	SNEG 1205..	4015-M4x11	ACK-05	4015-M4X11	80-T15	2508-M10x30
AFM88C-SN12Z-D080-A27-Z07-H	●	80	7	27	50	11.5						2510-M12x35

ZCC Ucuna Uygundur. / Compatiple with ZCC Insert. Kompatibel mit ZCC Wendeplatten.

KAPR=89°





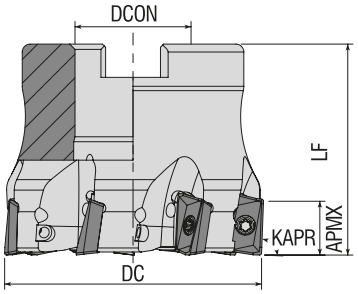
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*				
		DC	ZEFP	DCON	LF	APMX		Sıkma Vidası *Screw* *Schraube*	Baskı Parçası *Wedge Clamp* *Spannpratze*	Baskı Vidası *Clamp Screw* *Klemmschraube*	Tork Anahtar *Torx Key* *Torx-Schlüssel*	Montaj Vidası *Mounting Screw* *Befestigungsschraube*
AFM89-SN1305I-D040-A16-Z04-H	●	40	4	16	40	10	SNMU 1305..	1015 M4x11	-	-	80-T15	2306-M8x37
AFM89-SN1305I-D050-A22-Z05-H	●	50	5	22	40	10						
AFM89-SN1305I-D063-A22-Z06-H	●	63	6	22	40	10	SNMU 1305..					2508-M10x30
AFM89-SN1305I-D063-A22-Z07-H	●	63	7	22	40	10	OXMT 0507..					
AFM89-SN1305I-D080-A27-Z08-H	●	80	8	27	50	10						2510-M12x35
AFM89-SN1305I-D100-A32-Z10-H	●	100	10	32	50	10						2514-M16x35

R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
ISCR Ucuna Uygundur. / Compatiple with ISCR Insert. Kompatibel mit ISCR Wendeplatten.

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück AFM88C-SN12Z-D063-A22-Z06-H
Kesme Hesabı : S 331 / *Cutting Calculation : P 331* / *Schnittberechnung : 331*
Montaj Ölçüleri : S 328 / *Mounting Reference : P 328* / *Montagehinweis : 328*

BF SERVICE

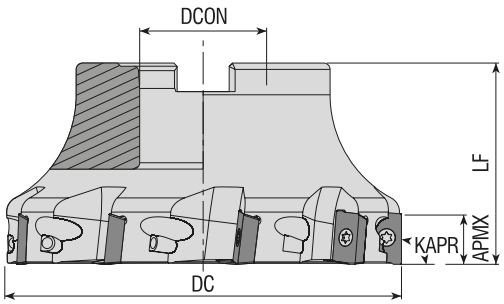




Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*		
		DC	ZEFP	DCON	LF	APMX		Sıkma Vidası *Screw* *Schraube*	Tork Anahtar *Torx Key* *Torx-Schlüssel*	Montaj Vidası *Mounting Screw* *Befestigungsschraube*
AFM90-AD10T3-D040-A16-Z06-H	●	40	6	16	40	10	ADMT 10T3..	3008-M2.5x6	80-T08	2506-M8x30
AFM90-AD10T3-D050-A22-Z07-H	●	50	7	22	40	10				2508-M10x30

WLTR Ucuna Uygundur. / Compatiple with WLTR Insert. Kompatibel mit WLTR Wendeplatten.





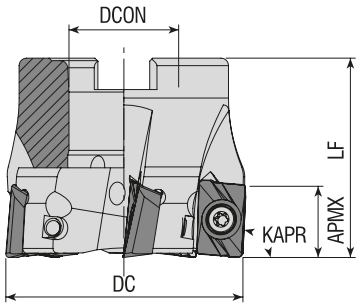
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*		
		DC	ZEFP	DCON	LF	APMX		Sıkma Vidası *Screw* *Schraube*	Tork Anahtar *Torx Key* *Torx-Schlüssel*	Montaj Vidası *Mounting Screw* *Befestigungsschraube*
AFM90-AD1505-D040-A16-Z04-H	●	40	4	16	40	15	AD.. 1505..	4015-M4x11	80-T15	2506-M8x30
AFM90-AD1505-D050-A22-Z05-H	●	50	5	22	40	15				2508-M10x30
AFM90-AD1505-D063-A22-Z06-H	●	63	6	22	40	15				
AFM90-AD1505-D080-A27-Z07-H	●	80	7	27	50	15				2510-M12x35
AFM90-AD1505-D100-A32-Z08-H	●	100	8	32	50	15				2514-M16x35
AFM90-AD1505-D125-B40-Z09	●	125	9	40	63	15				-

R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
ISCR Ucuna Uygundur. / Compatiple with ISCR Insert. Kompatibel mit ISCR Wendeplatten.

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück AFM90-AD10T3-D040-A16-Z06-H
Kesme Hesabı : S 331 / *Cutting Calculation : P 331* / *Schnittberechnung : 331*
Montaj Ölçüleri : S 328 / *Mounting Reference : P 328* / *Montagehinweis : 328*

BF SERVICE

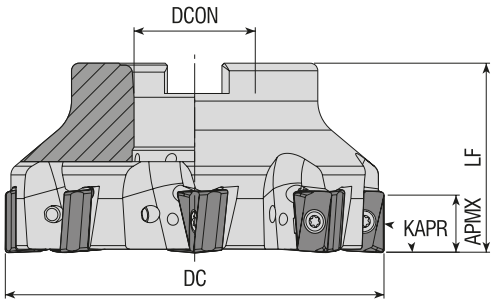




Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*		
		DC	ZEFP	DCON	LF	APMX		Sıkma Vidası *Screw* *Schraube* 	Tork Anahtar *Torx Key* *Torx-Schlüssel* 	Montaj Vidası *Mounting Screw* *Befestigungsschraube* 
AFM90-AD1505D-D050-A22-Z05-H	●	50	5	22	40	14.3	**ADKT 150508**	4015-M4x11	80-T15	2508-M10x30
AFM90-AD1505D-D063-A27-Z06-H	●	63	6	27	50	14.3				2510-M12x35
AFM90-AD1505D-D080-A27-Z08-H	●	80	8	27	50	14.3				
AFM90-AD1505D-D100-A32-Z08-H	●	100	8	32	50	14.3				2514-M16x35
AFM90-AD1505D-D125-B40-Z09	●	125	9	40	63	14.3				-

DJT Ucuna Uygundur. / Compatiple with DJT Insert. Kompatibel mit DJT Wendeplatten.





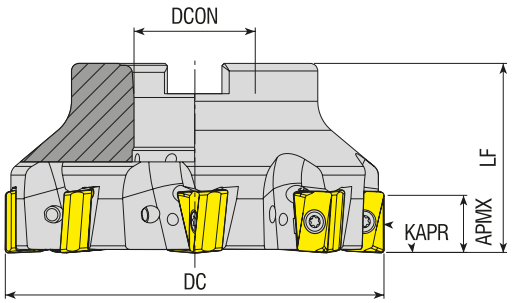
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*		
		DC	ZEFP	DCON	LF	APMX		Sıkma Vidası *Screw* *Schraube* 	Tork Anahtar *Torx Key* *Torx-Schlüssel* 	Montaj Vidası *Mounting Screw* *Befestigungsschraube* 
AFM90-AN11-D040-A16-Z04-H	●	40	4	16	40	11	**ANGX 1105..**	4010-M3x8	80-T10	2506-M8x30
AFM90-AN1506-D050-A22-Z04-H	●	50	4	22	40	14.5				2508-M10x30
AFM90-AN1506-D063-A22-Z05-H	●	63	5	22	40	14.5				
AFM90-AN1506-D080-A27-Z06-H	●	80	6	27	50	14.5	**ANGX 1506..**	4015-M4x12	80-T15	2510-M12x35
AFM90-AN1506-D100-A32-Z08-H	●	100	8	32	50	14.5				2514-M16x35
AFM90-AN1506-D125-B40-Z09	●	125	9	40	63	14.5				-
AFM90-AN1506-D160-C40-Z10	●	160	10	40	63	14.5				

R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
ZCC Ucuna Uygundur. / Compatiple with ZCC Insert. Kompatibel mit ZCC Wendeplatten.

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück AFM90-AD1505D-D050-A22-Z05-H
Kesme Hesabı : S 331 / *Cutting Calculation : P 331* / *Schnittberechnung : 331*
Montaj Ölçüleri : S 328 / *Mounting Reference : P 328* / *Montagehinweis : 328*

BF SERVICE

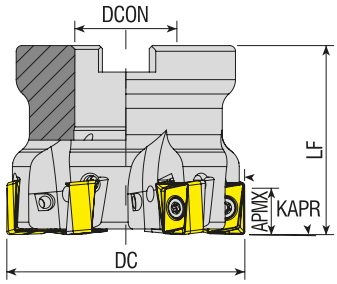




Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*		
		DC	ZEFP	DCON	LF	APMX		Sıkma Vidası *Screw* *Schraube*	Tork Anahtar *Torx Key* *Torx-Schlüssel*	Montaj Vidası *Mounting Screw* *Befestigungsschraube*
AFM90-AN1607-D050-A22-Z04-H	●	50	4	22	40	15	**AN.X 1607..**	4015-M4x11	80-T15	2508-M10x30
AFM90-AN1607-D063-A22-Z06-H	●	63	6	22	40	15				
AFM90-AN1607-D080-A27-Z07-H	●	80	7	27	50	15				2510-M12x35
AFM90-AN1607-D100-A32-Z08-H	●	100	8	32	50	15				2514-M16x35
AFM90-AN1607-D125-B40-Z10	●	125	9	40	63	15				-

TGTC Ucuna Uygundur. / Compatiple with TGTC Insert. Kompatibel mit TGTC Wendeplatten.





Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*		
		DC	ZEFP	DCON	LF	APMX		Sıkma Vidası *Screw* *Schraube*	Tork Anahtar *Torx Key* *Torx-Schlüssel*	Montaj Vidası *Mounting Screw* *Befestigungsschraube*
AFM90-AN12-D040-A16-Z04-H	●	40	4	16	40	12	**ANKX 1205..**	4015-M4x12	80-T15	2406-M8x30
AFM90-AN12-D050-A22-Z05-H	●	50	5	22	40	12				2508-M10x30
AFM90-AN12-D063-A27-Z06-H	●	63	6	27	50	12				2510-M12x35

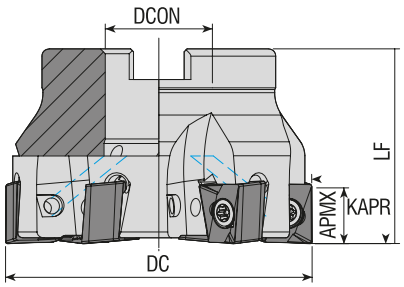
R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
ISCR Ucuna Uygundur. / Compatiple with ISCR Insert. Kompatibel mit ISCR Wendeplatten.

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück AFM90-AN1607-D050-A22-Z04-H
Kesme Hesabı : S 331 / *Cutting Calculation : P 331* / *Schnittberechnung : 331*
Montaj Ölçüleri : S 328 / *Mounting Reference : P 328* / *Montagehinweis : 328*

BF SERVICE

KAPR=90°



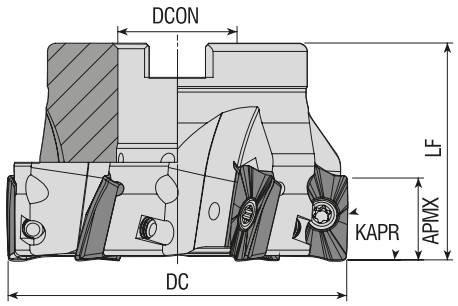


Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*		
		DC	ZEFP	DCON	LF	APMX		Sıkma Vidası *Screw* *Schraube* 	Tork Anahtar *Torx Key* *Torx-Schlüssel* 	Montaj Vidası *Mounting Screw* *Befestigungsschraube* 
AFM90-AN1207-D040-A16-Z04-H	●	40	4	16	40	10	**ANKX 1207..**	4015-M4x11	80-T15	2506-M8x30
AFM90-AN1207-D050-A22-Z05-H	●	50	5	22	40	10				2508-M10x30
AFM90-AN1207-D063-A22-Z06-H	●	63	6	22	40	10				
AFM90-AN1607X-D050-A22-Z04-H	●	50	4	22	40	15	**ANKX 1607..**			
AFM90-AN1607X-D063-A22-Z06-H	●	63	6	22	40	15				
AFM90-AN1607X-D080-A27-Z07-H	●	80	7	27	50	15				2510-M12x35

XTC-GSC Ucuna Uygundur. / Compatiple with XTC-GSC Insert. Kompatibel mit XTC-GSC Wendeplatten.

KAPR=90°





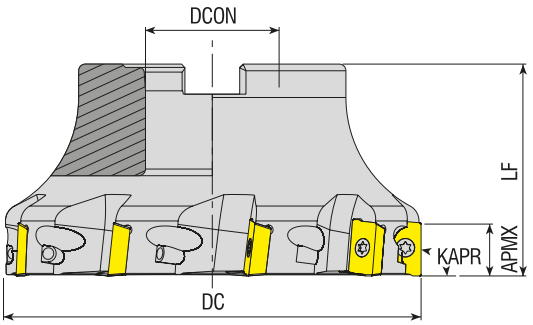
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*		
		DC	ZEFP	DCON	LF	APMX		Sıkma Vidası *Screw* *Schraube* 	Tork Anahtar *Torx Key* *Torx-Schlüssel* 	Montaj Vidası *Mounting Screw* *Befestigungsschraube* 
AFM90-AO1236-D050-A22-Z05-H	●	50	5	22	40	12	**AO.. 1236..**	3008-M2.5x6	80-T08	2508-M10x30
AFM90-AO1848-D050-A22-Z05-H	●	50	5	22	40	15	**AO.. 1848..**	4015-M4x11	80-T15	
AFM90-AO1848-D063-A22-Z06-H	●	63	6	22	40	15				

R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
MTSBH Ucuna Uygundur. / Compatiple with MTSBH Insert. Kompatibel mit MTSBH Wendeplatten.

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück AFM90-AN1207-D040-A16-Z04-H
Kesme Hesabı : S 331 / *Cutting Calculation : P 331* / *Schnittberechnung : 331*
Montaj Ölçüleri : S 328 / *Mounting Reference : P 328* / *Montagehinweis : 328*

BF SERVICE



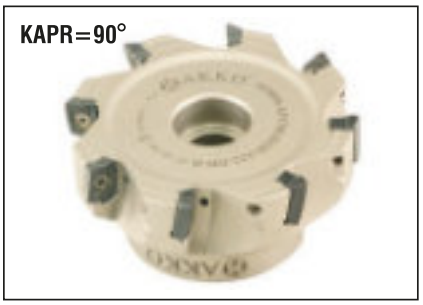


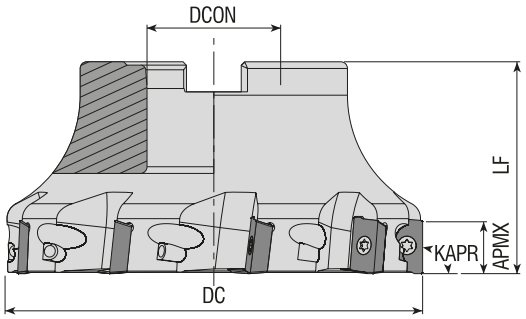
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*		
		DC	ZEFP	DCON	LF	APMX		Sıkma Vidası *Screw* *Schraube* 	Tork Anahtar *Torx Key* *Torx-Schlüssel* 	Montaj Vidası *Mounting Screw* *Befestigungsschraube* 
AFM90-AP10-D040-A16-Z05-H	●	40	5	16	40	10	**AP.. 1003..** **ISO UCUNA UYGUNDUR.** *FOR ISO INSERT.* *FÜR ISO-WENDEPLATTE*	3008-M2.5x6	80-T08	2506-M8x30
AFM90-AP10-D050-A22-Z06-H	●	50	6	22	40	10				2508-M10x30
AFM90-AP10-D063-A22-Z07-H	●	63	7	22	40	10				
AFM90-AP10-D080-A27-Z08-H	●	80	8	27	50	10				2510-M12x35
AFM90-AP10-D100-A32-Z09-H	●	100	9	32	50	10				2514-M16x35
AFM90-AP16-D040-A16-Z04-H	●	40	4	16	40	16	**AP.. 1604..** **ISO UCUNA UYGUNDUR.** *FOR ISO INSERT.* *FÜR ISO-WENDEPLATTE*	4015-M4x11	80-T15	2506-M8x30
AFM90-AP16-D050-A22-Z05-H	●	50	5	22	40	16				2508-M10x30
AFM90-AP16-D052-A22-Z05-H	●	52	5	22	40	16				
AFM90-AP16-D063-A22-Z06-H	●	63	6	22	40	16				
AFM90-AP16-D080-A27-Z07-H	●	80	7	27	50	16				2510-M12x35
AFM90-AP16-D100-A32-Z08-H	●	100	8	32	50	16				2514-M16x35
AFM90-AP16-D125-B40-Z09	●	125	9	40	63	16				-
AFM90-AP16-D160-C40-Z10	●	160	10	40	63	16				
AFM90-AP16-D200-C60-Z12	●	200	12	60	63	16				
AFM90-AP16DJ-D050-A22-Z05-H	●	50	5	22	40	16	**AP.. 1604..** **DJT UCUNA UYGUNDUR.** *FOR DJT INSERT.* *FÜR DJT-WENDEPLATTE*			2508-M10x30
AFM90-AP16DJ-D063-A22-Z06-H	●	63	6	22	40	16				
AFM90-AP16DJ-D080-A27-Z07-H	●	80	7	27	50	16				2510-M12x35
AFM90-AP16L-D050-A22-Z05-H	●	50	5	22	40	16	**AP.. 1604..** **LMN UCUNA UYGUNDUR.** *FOR LMN INSERT.* *FÜR LMN-WENDEPLATTE*			2508-M10x30
AFM90-AP16L-D063-A22-Z06-H	●	63	6	22	40	16				
AFM90-AP16L-D080-A27-Z07-H	●	80	7	27	50	16				2510-M12x35
AFM90-AP16P-D040-A16-Z04-H	●	40	4	16	40	16	**AP.. 1604..** **PLBT UCUNA UYGUNDUR.** *FOR PLBT INSERT.* *FÜR PLBT-WENDEPLATTE*			2506-M8x30
AFM90-AP16P-D050-A22-Z05-H	●	50	5	22	40	16				2508-M10x30
AFM90-AP16P-D063-A22-Z06-H	●	63	6	22	40	16				
AFM90-AP16P-D080-A27-Z07-H	●	80	7	27	50	16				2510-M12x35
AFM90-AP16P-D100-A32-Z08-H	●	100	8	32	50	16				2514-M16x35
AFM90-AP16A-D050-A22-Z05-H	●	50	5	22	40	15	**AP.. 1604..** **ACHTK UCUNA UYGUNDUR.** *FOR ACHTK INSERT.* *FÜR ACHTK-WENDEPLATTE*			2508-M10x30
AFM90-AP16A-D063-A22-Z06-H	●	63	6	22	40	15				
AFM90-AP16A-D080-A27-Z07-H	●	80	7	27	50	15				2510-M12x35
AFM90-AP16A-D100-A32-Z08-H	●	100	8	32	50	15				2514-M16x35
AFM90-AP16A-D125-B40-Z09	●	125	9	40	63	15				-

R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück AFM90-AP10-D040-A16-Z05-H
Kesme Hesabı : S 331 / *Cutting Calculation : P 331* / *Schnittberechnung : 331*
Montaj Ölçüleri : S 328 / *Mounting Reference : P 328* / *Montagehinweis : 328*

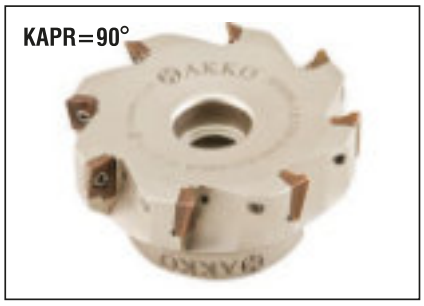
BF SERVICE

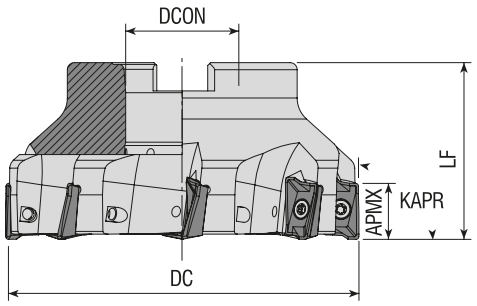




Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*		
		DC	ZEFP	DCON	LF	APMX		Sıkma Vidası *Screw* *Schraube*	Tork Anahtar *Torx Key* *Torx-Schlüssel*	Montaj Vidası *Mounting Screw* *Befestigungsschraube*
AFM90-AP1705-D050-A22-Z05-H	●	50	5	22	40	16	AP.. 1705..	4015-M4x11	80-T15	2508-M10x30
AFM90-AP1705-D063-A22-Z06-H	●	63	6	22	40	16				
AFM90-AP1705-D080-A27-Z07-H	●	80	7	27	50	16				2510-M12x35
AFM90-AP1705-D100-A32-Z08-H	●	100	8	32	50	16				2514-M16x35

TGTC Ucuna Uygundur. / Compatiple with TGTC Insert. Kompatibel mit TGTC Wendeplatten.





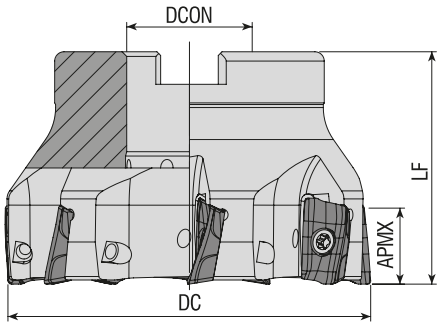
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*		
		DC	ZEFP	DCON	LF	APMX		Sıkma Vidası *Screw* *Schraube*	Tork Anahtar *Torx Key* *Torx-Schlüssel*	Montaj Vidası *Mounting Screw* *Befestigungsschraube*
AFM90-AX1235-D040-A16-Z06-H	●	40	6	16	40	10	AX.T 1235..	3108-M3x6	80-T08	2506-M8x30
AFM90-AX1235-D050-A22-Z07-H	●	50	7	22	40	10				2508-M10x30
AFM90-AX1235-D063-A22-Z08-H	●	63	8	22	40	10				
AFM90-AX1235-D080-A27-Z10-H	●	80	10	27	50	10				2510-M12x35
AFM90-AX1705-D040-A16-Z04-H	●	40	4	16	40	14	AX.T 1705..	4015-M4x11	80-T15	2506-M8x30
AFM90-AX1705-D050-A22-Z05-H	●	50	5	22	40	14				2508-M10x30
AFM90-AX1705-D063-A22-Z06-H	●	63	6	22	40	14				
AFM90-AX1705-D080-A27-Z07-H	●	80	7	27	50	14				2510-M12x35
AFM90-AX1705-D100-A32-Z08-H	●	100	8	32	50	14				2514-M16x35

R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
SMTM Ucuna Uygundur. / Compatiple with SMTM Insert. Kompatibel mit SMTM Wendeplatten.

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück AFM90-AP1705-D050-A22-Z05-H
Kesme Hesabı : S 331 / *Cutting Calculation : P 331* / *Schnittberechnung : 331*
Montaj Ölçüleri : S 328 / *Mounting Reference : P 328* / *Montagehinweis : 328*

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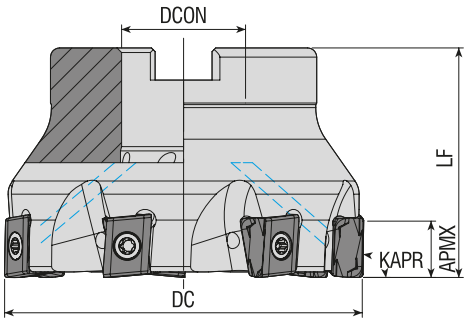




Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*		
		DC	ZEFP	DCON	LF	APMX		Sıkma Vidası *Screw* *Schraube*	Tork Anahtar *Torx Key* *Torx-Schlüssel*	Montaj Vidası *Mounting Screw* *Befestigungsschraube*
AFM90-BD11T3-D040-A16-Z04-H	●	40	4	16	40	10	BDMT 11T3..	3008-M2.5x6	80-T08	2506-M8x30
AFM90-BD11T3-D050-A22-Z05-H	●	50	5	22	40	10				2508-M10x30
AFM90-BD11T3-D063-A22-Z06-H	●	63	6	22	40	10				
AFM90-BD1704-D050-A22-Z05-H	●	50	5	22	40	15.7	BDMT 1704..	4015-M4x11	80-T15	
AFM90-BD1704-D063-A22-Z06-H	●	63	6	22	40	15.7				
AFM90-BD1704-D080-A27-Z07-H	●	80	7	27	50	15.7				2510-M12x35

KYCR Ucuna Uygundur. / Compatiple with KYCR Insert. Kompatibel mit KYCR Wendeplatten.





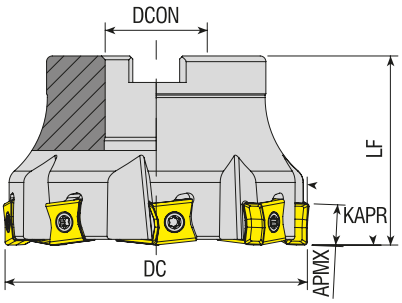
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*		
		DC	ZEFP	DCON	LF	APMX		Sıkma Vidası *Screw* *Schraube*	Tork Anahtar *Torx Key* *Torx-Schlüssel*	Montaj Vidası *Mounting Screw* *Befestigungsschraube*
AFM90-LN1506X-D063-A22-Z06	●	63	6	22	40	7	LNMT 1506..	3015-M4x11	80-T15	2508-M10x30
AFM90-LN1506X-D080-A27-Z07	●	80	7	27	50	7				2510-M12x35
AFM90-LN1506X-D100-A32-Z08	●	100	8	32	50	7				2514-M16x35

R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
XTC-GSC Ucuna Uygundur. / Compatiple with XTC-GSC Insert. Kompatibel mit XTC-GSC Wendeplatten.

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück AFM90-BD11T3-D040-A16-Z04-H
Kesme Hesabı : S 331 / *Cutting Calculation : P 331* / *Schnittberechnung : 331*
Montaj Ölçüleri : S 328 / *Mounting Reference : P 328* / *Montagehinweis : 328*

BF SERVICE





Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*		
		DC	ZEFP	DCON	LF	APMX		Sıkma Vidası *Screw* *Schraube* 	Tork Anahtar *Torx Key* *Torx-Schlüssel* 	Montaj Vidası *Mounting Screw* *Befestigungsschraube* 
AFM90-LN1106-D050-A22-Z05	●	50	5	22	40	10	**LNMT 1106..**	4015-M3.5x11	80-T15	2508-M10x30
AFM90-LN1106-D063-A22-Z06	●	63	6	22	40	10				
AFM90-LN1106-D080-A27-Z08	●	80	8	27	50	10				2510-M12x35
AFM90L-LN1106-D080-A27-Z08	●	80	8	27	50	10				
AFM90-LN1106-D100-A32-Z09	●	100	9	32	50	10				2514-M16x35
AFM90L-LN1106-D100-A32-Z09	●	100	9	32	50	10				
AFM90-LN1106-D125-B40-Z10	●	125	10	40	63	10				-
AFM90-LN1306-D040-A16-Z04-H	●	40	4	16	40	12.5	**T490 LNMT 1306..**	4015-M4x11		2506-M8x30
AFM90-LN1306-D050-A22-Z05-H	●	50	5	22	40	12.5				2508-M10x30
AFM90-LN1306-D063-A22-Z06-H	●	63	6	22	40	12.5				
AFM90-LN1306-D080-A27-Z07-H	●	80	7	27	50	12.5				2510-M12x35
AFM90-LN1306-D100-A32-Z08-H	●	100	8	32	50	12.5				2514-M16x35
AFM90L-LN1506-D040-A16-Z04	●	40	4	16	40	14	**LNMT 1506..**	4015-M4x11		2506-M8x30
AFM90-LN1506-D040-A16-Z04	○	40	4	16	40	14				
AFM90-LN1506-D050-A22-Z05	○	50	5	22	40	14				2508-M10x30
AFM90-LN1506-D063-A22-Z06	○	63	6	22	40	14				
AFM90-LN1506-D080-A27-Z07	○	80	7	27	50	14				2510-M12x35
AFM90-LN1607-D050-A22-Z03-H	●	50	3	22	40	16	**T490 LNHT 1607..**	4420-M5x14	80-T20	2508-M10x30
AFM90-LN1607-D063-A22-Z04-H	○	63	4	22	40	16				
AFM90-LN1607-D080-A27-Z05-H	●	80	5	27	50	16				2510-M12x35
AFM90-LN1607-D100-A32-Z06-H	●	100	6	32	50	16				2514-M16x35

R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
ISCR Ucuna Uygundur. / Compatiple with ISCR Insert. Kompatibel mit ISCR Wendeplatten.

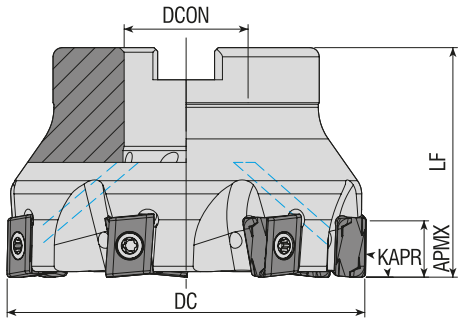
Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück AFM90-LN1106-D050-A22-Z05

Kesme Hesabı : S 331 / *Cutting Calculation : P 331* / *Schnittberechnung : 331*
Montaj Ölçüleri : S 328 / *Mounting Reference : P 328* / *Montagehinweis : 328*

BF SERVICE

KAPR=90°

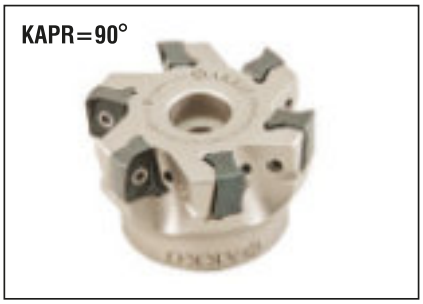


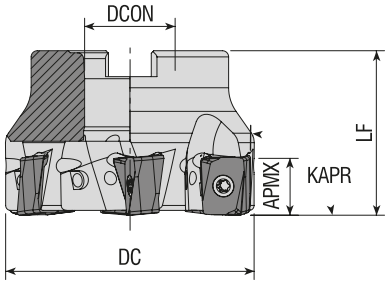


Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*		
		DC	ZEFP	DCON	LF	APMX		Sıkma Vidası *Screw* *Schraube* 	Tork Anahtar *Torx Key* *Torx-Schlüssel* 	Montaj Vidası *Mounting Screw* *Befestigungsschraube* 
AFM90-LN1306W-D050-A22-Z05-H	●	50	5	22	40	12	**LNHU 1306..**	4115-M4x12	80-T15	2508-M10x30
AFM90-LN1306W-D063-A22-Z06-H	●	63	6	22	40	12				
AFM90-LN1306W-D080-A27-Z07-H	●	80	7	27	50	12				2510-M12x35

WLTR Ucuna Uygundur. / Compatiple with WLTR Insert. Kompatibel mit WLTR Wendeplatten.

KAPR=90°





Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*		
		DC	ZEFP	DCON	LF	APMX		Sıkma Vidası *Screw* *Schraube* 	Tork Anahtar *Torx Key* *Torx-Schlüssel* 	Montaj Vidası *Mounting Screw* *Befestigungsschraube* 
AFM90-LN1307-D050-A22-Z04-H	●	50	4	22	40	13	**LNGX 1307..**	1315-M4x11	80-T15	2508-M10x30
AFM90-LN1307-D063-A22-Z06-H	●	63	6	22	40	13				
AFM90-LN1307-D080-A27-Z07-H	●	80	7	27	50	13				2510-M12x35
AFM90-LN1307-D100-A32-Z08-H	●	100	8	32	50	13				2514-M16x35

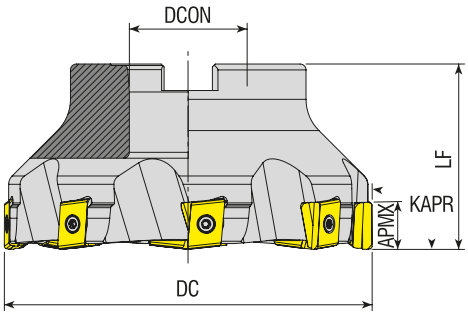
R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
WLTR Ucuna Uygundur. / Compatiple with WLTR Insert. Kompatibel mit WLTR Wendeplatten.

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück AFM90-LN1306W-D050-A22-Z05-H
Kesme Hesabı : S 331 / *Cutting Calculation : P 331* / *Schnittberechnung : 331*
Montaj Ölçüleri : S 328 / *Mounting Reference : P 328* / *Montagehinweis : 328*

BF SERVICE

KAPR=90°





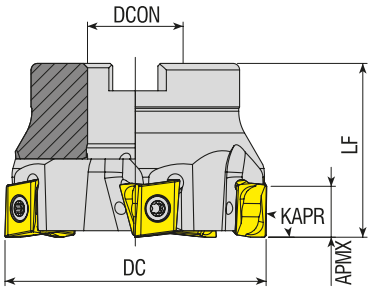
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*		
		DC	ZEFP	DCON	LF	APMX		Sıkma Vidası *Screw* *Schraube*	Tork Anahtar *Torx Key* *Torx-Schlüssel*	Montaj Vidası *Mounting Screw* *Befestigungsschraube*
AFM90-LN15Z-D050-A22-Z04	●	50	4	22	40	15	**LNKT 1506..**	4015-M4x11	80-T15	2508-M10x30
AFM90-LN15Z-D063-A22-Z05	●	63	5	22	40	15				
AFM90-LN15Z-D080-A27-Z06	●	80	6	27	50	15				2510-M12x35
AFM90-LN15Z-D100-A32-Z07	●	100	7	32	50	15				2514-M16x35
AFM90-LN15Z-D125-B40-Z08	●	125	8	40	63	15				-

ZCC Ucuna Uygundur. / Compatiple with ZCC Insert. Kompatibel mit ZCC Wendeplatten.

new

KAPR=90°





Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*		
		DC	ZEFP	DCON	LF	APMX		Sıkma Vidası *Screw* *Schraube*	Tork Anahtar *Torx Key* *Torx-Schlüssel*	Montaj Vidası *Mounting Screw* *Befestigungsschraube*
AFM90-LO1207-D040-A16-Z04-H	●	40	4	16	40	11	**LOGU 1207..**	3015-M4x11	80-T15	2506-M8x30
AFM90-LO1207-D050-A22-Z05-H	●	50	5	22	40	11				2508-M10x30
AFM90-LO1207-D063-A22-Z05-H	●	63	5	22	40	11				

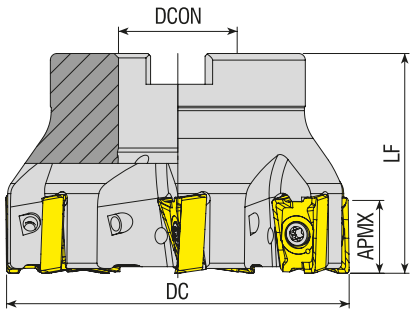
R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
MTSBSH Ucuna Uygundur. / Compatiple with MTSBSH Insert. Kompatibel mit MTSBSH Wendeplatten.

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück AFM90-LN15Z-D050-A22-Z04
Kesme Hesabı : S 331 / *Cutting Calculation : P 331* / *Schnittberechnung : 331*
Montaj Ölçüleri : S 328 / *Mounting Reference : P 328* / *Montagehinweis : 328*

BF SERVICE

KAPR=90°



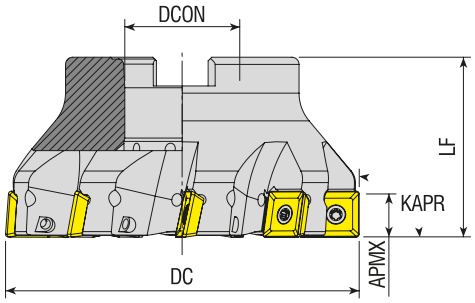


Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*		
		DC	ZEFP	DCON	LF	APMX		Sıkma Vidası *Screw* *Schraube* 	Tork Anahtar *Torx Key* *Torx-Schlüssel* 	Montaj Vidası *Mounting Screw* *Befestigungsschraube* 
AFM90-LN15T6-D050-A22-Z05-H	●	50	5	22	40	15.5	**LNGU 15T6..**	4015-M4x12	80-T15	2508-M10x30
AFM90-LN15T6-D063-A22-Z06-H	●	63	6	22	40	15.5				
AFM90-LN15T6-D080-A27-Z07-H	●	80	7	27	50	15.5				2510-M12x35

KNMTL Ucuna Uygundur. / Compatiple with KNMTL Insert. Kompatibel mit KNMTL Wendeplatten.

KAPR=90°





Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*		
		DC	ZEFP	DCON	LF	APMX		Sıkma Vidası *Screw* *Schraube* 	Tork Anahtar *Torx Key* *Torx-Schlüssel* 	Montaj Vidası *Mounting Screw* *Befestigungsschraube* 
AFM90-R290.12-D050-A22-Z04-H	●	50	4	22	40	10.7	**R290-12T3..**	4015-M3.5x11	80-T15	2508-M10x30
AFM90-R290.12-D063-A22-Z05-H	●	63	5	22	40	10.7				
AFM90-R290.12-D080-A27-Z07-H	●	80	7	27	50	10.7				2510-M12x35
AFM90-R290.12-D100-A32-Z09-H	●	100	9	32	50	10.7				2514-M16x35
AFM90-R290.12-D125-B40-Z11	●	125	11	40	63	10.7				-

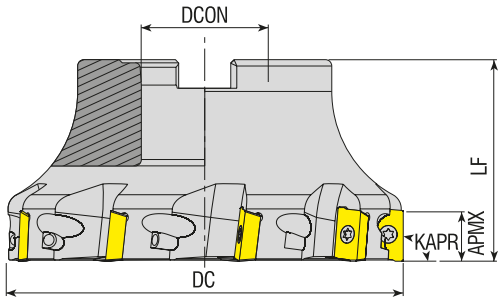
R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock / *Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
SNDVK Ucuna Uygundur. / Compatiple with SNDVK Insert. Kompatibel mit SNDVK Wendeplatten.

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück AFM90-LN15T6-D050-A22-Z05-H
Kesme Hesabı : S 331 / *Cutting Calculation : P 331* / *Schnittberechnung : 331*
Montaj Ölçüleri : S 328 / *Mounting Reference : P 328* / *Montagehinweis : 328*

BF SERVICE

KAPR=90°



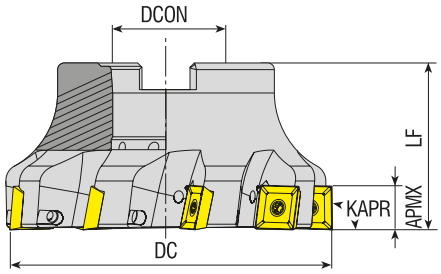


Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*		
		DC	ZEFP	DCON	LF	APMX		Sıkma Vidası *Screw* *Schraube* 	Tork Anahtar *Torx Key* *Torx-Schlüssel* 	Montaj Vidası *Mounting Screw* *Befestigungsschraube* 
AFM90-R390.11-D040-A16-Z05-H	●	40	5	16	40	10	**R390-11T3..**	3008-M2.5x6	80-T08	2506-M8x30
AFM90-R390.11-D050-A22-Z06-H	●	50	6	22	40	10				2508-M10x30
AFM90-R390.11-D063-A22-Z07-H	●	63	7	22	40	10				
AFM90-R390.11-D080-A27-Z09-H	●	80	9	27	50	10				2510-M12x35
AFM90-R390.17-D040-A16-Z04-H	●	40	4	16	40	15.4	**R390-1704..**	4015-M3.5x11	80-T15	2506-M8x30
AFM90-R390.17-D050-A22-Z05-H	●	50	5	22	40	15.4				2508-M10x30
AFM90-R390.17-D063-A22-Z06-H	●	63	6	22	40	15.4				
AFM90-R390.17-D080-A27-Z07-H	●	80	7	27	50	15.4				2510-M12x35
AFM90-R390.17-D100-A32-Z08-H	●	100	8	32	50	15.4				2514-M16x35
AFM90-R390.17-D125-B40-Z09	●	125	9	40	63	15.4				-
AFM90-R390.18-D050-A22-Z04-H	●	50	4	22	40	15.4	**R390-1806..**	4015-M4x11		2508-M10x30
AFM90-R390.18-D063-A22-Z05-H	●	63	5	22	40	15.4				
AFM90-R390.18-D080-A27-Z06-H	●	80	6	27	50	15.4				2510-M12x35
AFM90-R390.18-D100-A32-Z07-H	●	100	7	32	50	15.4				2514-M16x35
AFM90-R390.18-D125-B40-Z08	●	125	8	40	63	15.4				-

SNDVK Ucuna Uygundur. / Compatiple with SNDVK Insert. Kompatibel mit SNDVK Wendeplatten.

KAPR=90°





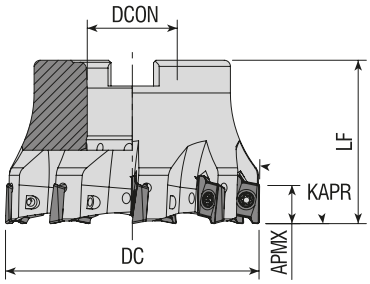
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*		
		DC	ZEFP	DCON	LF	APMX		Sıkma Vidası *Screw* *Schraube* 	Tork Anahtar *Torx Key* *Torx-Schlüssel* 	Montaj Vidası *Mounting Screw* *Befestigungsschraube* 
AFM90-490R14-D050-A22-Z04-H	●	50	4	22	40	10	**490R-1404..**	4015-M3.5x11	80-T15	2508-M10x30
AFM90-490R14-D063-A22-Z05-H	●	63	5	22	40	10				
AFM90-490R14-D080-A27-Z07-H	●	80	7	27	50	10				2510-M12x35

R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
SNDVK Ucuna Uygundur. / Compatiple with SNDVK Insert. Kompatibel mit SNDVK Wendeplatten.

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück AFM90-R390.11-D040-A16-Z05-H
Kesme Hesabı : S 331 / *Cutting Calculation : P 331* / *Schnittberechnung : 331*
Montaj Ölçüleri : S 328 / *Mounting Reference : P 328* / *Montagehinweis : 328*

BF SERVICE

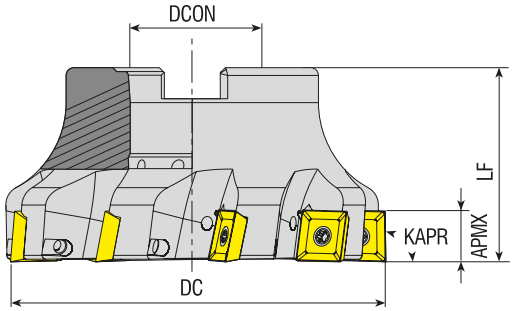




Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*		
		DC	ZEFP	DCON	LF	APMX		Sıkma Vidası *Screw* *Schraube* 	Tork Anahtar *Torx Key* *Torx-Schlüssel* 	Montaj Vidası *Mounting Screw* *Befestigungsschraube* 
AFM90-RT10-D040-A16-Z06-H	●	40	6	16	40	10	**RT 1003..**	3008-M2.5x6	80-T08	2506-M8x30
AFM90-RT10-D050-A22-Z07-H	●	50	7	22	40	10				2407-M10x30
AFM90-RT10-D063-A22-Z09-H	●	63	9	22	40	10				

SFTY Ucuna Uygundur. / Compatiple with SFTY Insert. Kompatibel mit SFTY Wendeplatten.





Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*		
		DC	ZEFP	DCON	LF	APMX		Sıkma Vidası *Screw* *Schraube* 	Tork Anahtar *Torx Key* *Torx-Schlüssel* 	Montaj Vidası *Mounting Screw* *Befestigungsschraube* 
AFM90-SD09M4-D040-A16-Z04-H	●	40	4	16	40	9	**SD.. 09M4..**	4015-M3.5x11	80-T15	2406-M8x30
AFM90-SD09M4-D050-A22-Z05-H	●	50	5	22	40	9				2508-M10x30
AFM90-SD09M4-D063-A22-Z06-H	●	63	6	22	40	9				
AFM90-SD09M4-D080-A27-Z07-H	●	80	7	27	50	9				2510-M12x35
AFM90-SD1305-D050-A22-Z04-H	●	50	4	22	40	13	**SD.. 1305..**	1020-M5x11	80-T20	2408-M10x30
AFM90-SD1305-D063-A22-Z05-H	●	63	5	22	40	13				2508-M10x30
AFM90-SD1305-D080-A27-Z06-H	●	80	6	27	50	13				2510-M12x35
AFM90-SD1305-D100-A32-Z07-H	●	100	7	32	50	13				2514-M16x35
AFM90-SD1305-D125-B40-Z08	●	125	8	40	63	13				-
AFM90-SD1305-D160-C40-Z10	●	160	10	40	63	13				

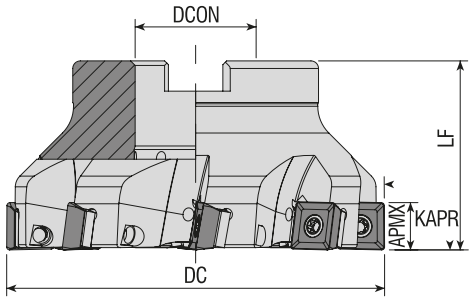
R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
KRLY Ucuna Uygundur. / Compatiple with KRLY Insert. Kompatibel mit KRLY Wendeplatten.

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück AFM90-RT10-D040-A16-Z06-H
Kesme Hesabı : S 331 / *Cutting Calculation : P 331* / *Schnittberechnung : 331*
Montaj Ölçüleri : S 328 / *Mounting Reference : P 328* / *Montagehinweis : 328*

BF SERVICE

KAPR=90°



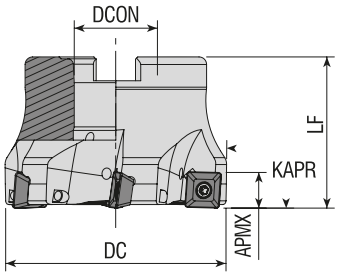


Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*				
		DC	ZEFP	DCON	LF	APMX		Altlık *Screw* *Unterlage*	Baskı Parçası *Wedge Clamp* *Spannpratze*	Sıkma Vidası *Screw* *Schraube*	Tork Anahtar *Torx Key* *Torx-Schlüssel*	Montaj Vidası *Mounting Screw* *Befestigungsschraube*
AFM90S-SD1204-D050-A22-Z04-H	●	50	4	22	40	11	SDMT 1204..	AASD-3-0001	AAV-08-M3.5x8	4015-M3.5x12	80-T15	2408-M10x30
AFM90S-SD1204-D063-A22-Z05-H	●	63	5	22	40	11			AAV-06-M3.5x11	4015-M3.5x14		2508-M10x30
AFM90S-SD1204-D080-A27-Z06-H	●	80	6	27	50	11						2510-M12x35
AFM90S-SD1204-D100-A32-Z08-H	●	100	8	32	50	11						2514-M16x35
AFM90S-SD1204-D125-B40-Z10	●	125	10	40	63	11						-
AFM90S-SD1204-D160-C40-Z12	●	160	12	40	63	11						

DJT Ucuna Uygundur. / Compatiple with DJT Insert. Kompatibel mit DJT Wendeplatten.

KAPR=90°





Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*		
		DC	ZEFP	DCON	LF	APMX		Sıkma Vidası *Screw* *Schraube*	Tork Anahtar *Torx Key* *Torx-Schlüssel*	Montaj Vidası *Mounting Screw* *Befestigungsschraube*
AFM90-SE09-D040-A16-Z04-H	●	40	4	16	40	6.7	SEET 09T3..	3008-M3x8	80-T08	2506-M8x30
AFM90-SE09-D050-A22-Z05-H	●	50	5	22	40	6.7				2508-M10x30
AFM90-SE09-D063-A22-Z06-H	●	63	6	22	40	6.7				

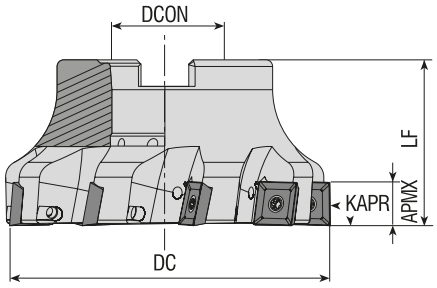
R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
ZCC Ucuna Uygundur. / Compatiple with ZCC Insert. Kompatibel mit ZCC Wendeplatten.

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück AFM90S-SD1204-D050-A22-Z04-H
Kesme Hesabı : S 331 / *Cutting Calculation : P 331* / *Schnittberechnung : 331*
Montaj Ölçüleri : S 328 / *Mounting Reference : P 328* / *Montagehinweis : 328*

BF SERVICE

KAPR=90°



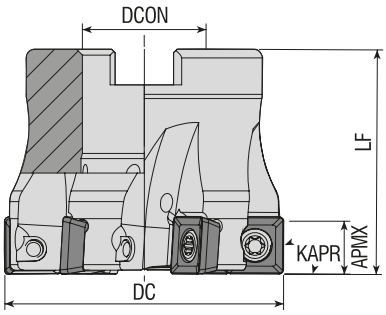


Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*		
		DC	ZEFP	DCON	LF	APMX		Sıkma Vidası *Screw* *Schraube* 	Tork Anahtar *Torx Key* *Torx-Schlüssel* 	Montaj Vidası *Mounting Screw* *Befestigungsschraube* 
AFM90-SE12-D050-A22-Z04-H	●	50	4	22	40	12	**SEET 1203..**	4015-M3.5x11	80-T15	2508-M10x30
AFM90-SE12-D063-A22-Z05-H	●	63	5	22	40	12				
AFM90-SE12-D080-A27-Z07-H	●	80	7	27	50	12				2510-M12x35
AFM90-SE12-D100-A32-Z09-H	●	100	9	32	50	12				2514-M16x35
AFM90-SE12-D125-B40-Z11	●	125	11	40	63	12				-

ZCC Ucuna Uygundur. / Compatiple with ZCC Insert. Kompatibel mit ZCC Wendeplatten.

KAPR=90°





Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*		
		DC	ZEFP	DCON	LF	APMX		Sıkma Vidası *Screw* *Schraube* 	Tork Anahtar *Torx Key* *Torx-Schlüssel* 	Montaj Vidası *Mounting Screw* *Befestigungsschraube* 
AFM90-SP1004-D040-A16-Z04-H	●	40	4	16	40	9.4		4015-M4x10	80-T15	2506-M8x30
AFM90-SP1004-D050-A22-Z04-H	●	50	4	22	40	9.4	**SPMT 1004..**			2508-M10x30
AFM90-SP1004-D050-A22-Z06-H	●	50	6	22	40	9.4	**XPMT 1004..**			
AFM90-SP1004-D063-A22-Z05-H	●	63	5	22	40	9.4	**QPMR 1004..**			
AFM90-SP1004-D080-A27-Z07-H	●	80	7	27	50	9.4	**QPMT 1004..**			2510-M12x35
AFM90-SP1004-D100-A32-Z08-H	●	100	8	32	50	9.4				2514-M16x35

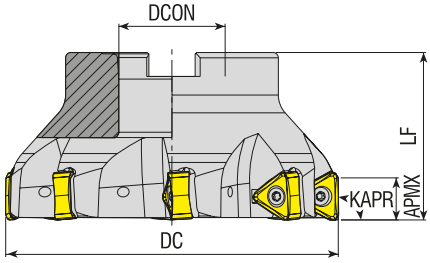
R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
ISCR Ucuna Uygundur. / Compatiple with ISCR Insert. Kompatibel mit ISCR Wendeplatten.

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück AFM90-SE12-D050-A22-Z04-H
Kesme Hesabı : S 331 / *Cutting Calculation : P 331* / *Schnittberechnung : 331*
Montaj Ölçüleri : S 328 / *Mounting Reference : P 328* / *Montagehinweis : 328*

BF SERVICE

KAPR=90°



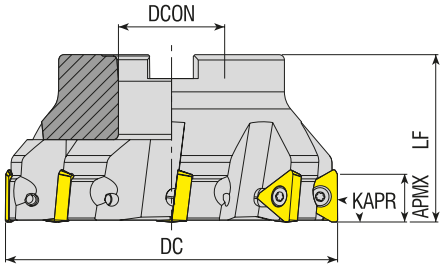


Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*		
		DC	ZEFP	DCON	LF	APMX		Sıkma Vidası *Screw* *Schraube* 	Tork Anahtar *Torx Key* *Torx-Schlüssel* 	Montaj Vidası *Mounting Screw* *Befestigungsschraube* 
AFM90-TN2207-D063-A22-Z04-H	●	63	4	22	40	15	**TN.X 2207..**	1120-M4.5x12	80-T20	2508-M10x30
AFM90-TN2207-D080-A27-Z05-H	●	80	5	27	50	15				2510-M12x35
AFM90-TN2207-D100-B32-Z06	●	100	6	32	50	15				-
AFM90-TN2207-D125-B40-Z08	●	125	8	40	63	15				

TGTC Ucuna Uygundur. / Compatiple with TGTC Insert. Kompatibel mit TGTC Wendeplatten.

KAPR=90°





Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*		
		DC	ZEFP	DCON	LF	APMX		Sıkma Vidası *Screw* *Schraube* 	Tork Anahtar *Torx Key* *Torx-Schlüssel* 	Montaj Vidası *Mounting Screw* *Befestigungsschraube* 
AFM90-TP2205-D063-A22-Z04	●	63	4	22	40	18	**TPKT 2205..**	1120-M4.5x12	80-T20	2508-M10x30
AFM90-TP2205-D080-A27-Z06	●	80	6	27	50	18				2510-M12x35
AFM90-TP2205-D100-A32-Z07	●	100	7	32	50	18				2514-M16X35
AFM90-TP2205-D125-B40-Z08	●	125	8	40	63	18				
AFM90-TP2205-D160-C40-Z09	●	160	9	40	63	18				-
AFM90-TP2205-D200-C60-Z12	●	200	12	60	63	18				

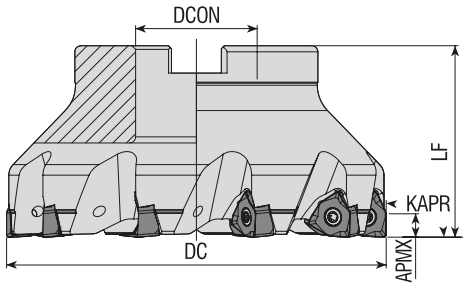
R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
TGTC Ucuna Uygundur. / Compatiple with TGTC Insert. Kompatibel mit TGTC Wendeplatten.

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück AFM90-TN2207-D063-A22-Z04-H
Kesme Hesabı : S 331 / *Cutting Calculation : P 331* / *Schnittberechnung : 331*
Montaj Ölçüleri : S 328 / *Mounting Reference : P 328* / *Montagehinweis : 328*

BF SERVICE

KAPR=90°

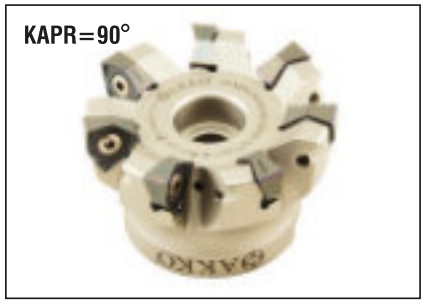


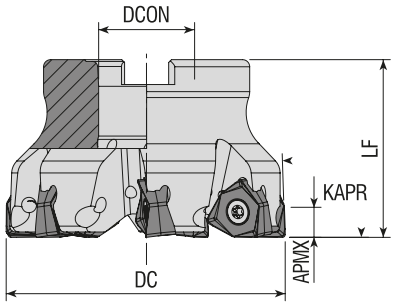


Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*		
		DC	ZEFP	DCON	LF	APMX		Sıkma Vidası *Screw* *Schraube* 	Tork Anahtar *Torx Key* *Torx-Schlüssel* 	Montaj Vidası *Mounting Screw* *Befestigungsschraube* 
AFM90-WN0604Z-D040-A16-Z04-H	●	40	4	16	16	5.7	**WNHU 0604..**	3008-M3x8	80-T08	2506-M8x30
AFM90-WN0604Z-D050-A22-Z05-H	●	50	5	22	22	5.7				2508-M10x30
AFM90-WN0604Z-D063-A22-Z06-H	●	63	6	22	22	5.7				
AFM90-WN0604Z-D080-A27-Z07-H	●	80	7	27	27	5.7				2510-M12x35
AFM90-WN0604Z-D100-A32-Z09-H	●	100	9	32	32	5.7				2514-M16x35
AFM90-WN0806Z-D050-A22-Z04-H	●	50	4	22	22	7.7	**WNHU 0806..**	4015-M4x11	80-T15	2508-M10x30
AFM90-WN0806Z-D063-A22-Z05-H	●	63	5	22	22	7.7				
AFM90-WN0806Z-D080-A27-Z06-H	●	80	6	27	27	7.7				2510-M12x35
AFM90-WN0806Z-D100-A32-Z08-H	●	100	8	32	32	7.7				2514-M16x35
AFM90-WN0806Z-D125-B40-Z10	●	125	10	40	40	7.7				-
AFM90-WN0806Z-D160-C40-Z12	●	160	12	40	40	7.7				

ZCC Ucuna Uygundur. / Compatiple with ZCC Insert. Kompatibel mit ZCC Wendeplatten.

KAPR=90°





Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*		
		DC	ZEFP	DCON	LF	APMX		Sıkma Vidası *Screw* *Schraube* 	Tork Anahtar *Torx Key* *Torx-Schlüssel* 	Montaj Vidası *Mounting Screw* *Befestigungsschraube* 
AFM90-WN0806-D050-A16-Z04-H	●	50	4	16	40	8	**WNMX 080608**	1615-M5x14	80-T15	2506-M8x30
AFM90-WN0806-D063-A22-Z05-H	●	63	5	22	40	8				2508-M10x30
AFM90-WN0806-D080-A27-Z07-H	●	80	7	27	50	8				2510-M12x35

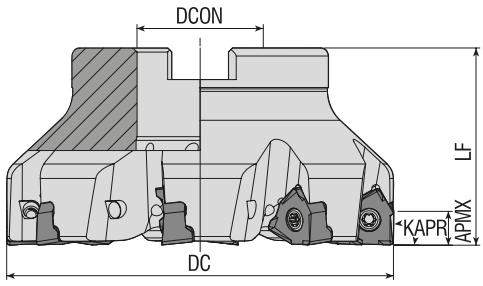
R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
KYCR-JD Ucuna Uygundur. / Compatiple with KYCR-JD Insert. Kompatibel mit KYCR-JD Wendeplatten.

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück AFM90-WN0604Z-D040-A16-Z04-H
Kesme Hesabı : S 331 / *Cutting Calculation : P 331* / *Schnittberechnung : 331*
Montaj Ölçüleri : S 328 / *Mounting Reference : P 328* / *Montagehinweis : 328*

BF SERVICE

KAPR=90°

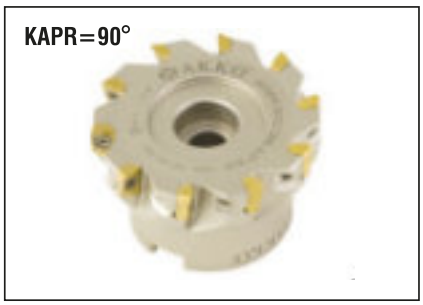


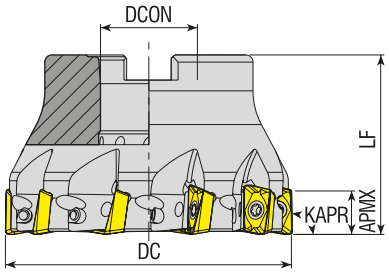


Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*		
		DC	ZEFP	DCON	LF	APMX		Sıkma Vidası *Screw* *Schraube* 	Tork Anahtar *Torx Key* *Torx-Schlüssel* 	Montaj Vidası *Mounting Screw* *Befestigungsschraube* 
AFM90-XN0403-D040-A16-Z05-H	●	40	5	16	40	4	**XNEX 0403..**	4008-M2.5x6	80-T08	2506-M8x30
AFM90-XN0806-D050-A22-Z04-H	●	50	4	22	40	7.5	**XNEX 0806..**	4015-M4x11	80-T15	2508-M10x30
AFM90-XN0806-D063-A22-Z05-H	●	63	5	22	40	7.5				
AFM90-XN0806-D080-A27-Z07-H	●	80	7	27	50	7.5				2510-M12x35
AFM90-XN0806-D100-A32-Z08-H	●	100	8	32	50	7.5				2514-M16x35

SC Ucuna Uygundur. / Compatiple with SC Insert. Kompatibel mit SC Wendeplatten.

KAPR=90°





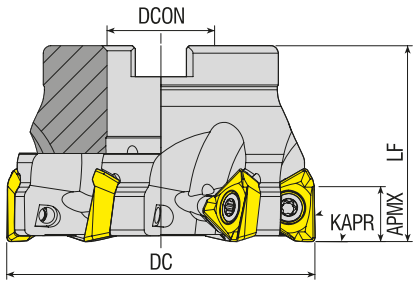
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*		
		DC	ZEFP	DCON	LF	APMX		Sıkma Vidası *Screw* *Schraube* 	Tork Anahtar *Torx Key* *Torx-Schlüssel* 	Montaj Vidası *Mounting Screw* *Befestigungsschraube* 
AFM90-XO12-D040-A16-Z05-H	●	40	5	16	40	11	**XO.. 1204..**	3010-M3.5x9	80-T10	2506-M8x30
AFM90-XO12-D050-A22-Z07-H	●	50	7	22	40	11				2508-M10x30
AFM90-XO12-D063-A22-Z08-H	●	63	8	22	40	11				
AFM90-XO12-D080-A27-Z10-H	●	80	10	27	50	11				2510-M12x35
AFM90-XO12-D100-A32-Z12-H	●	100	12	32	50	11				2514-M16x35

R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
SC Ucuna Uygundur. / Compatiple with SC Insert. Kompatibel mit SC Wendeplatten.

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück AFM90-XN0403-D040-A16-Z05-H
Kesme Hesabı : S 331 / *Cutting Calculation : P 331* / *Schnittberechnung : 331*
Montaj Ölçüleri : S 328 / *Mounting Reference : P 328* / *Montagehinweis : 328*

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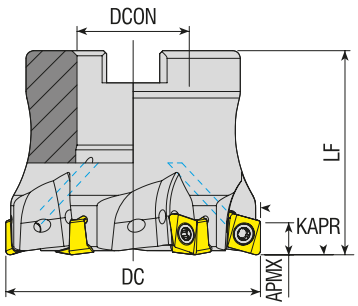




Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*		
		DC	ZEFP	DCON	LF	APMX		Sıkma Vidası *Screw* *Schraube* 	Tork Anahtar *Torx Key* *Torx-Schlüssel* 	Montaj Vidası *Mounting Screw* *Befestigungsschraube* 
AFM90-3P1004-D040-A16-Z05-H	●	40	5	16	40	7	**3PKT 1004..**	1108-M2.5x6	80-T08	2506-M8x30
AFM90-3P1004-D050-A22-Z06-H	●	50	6	22	40	7				
AFM90-3P1505-D050-A22-Z04-H	●	50	4	22	40	11	**3PKT 1505..**	1115-M4x10	80-T15	2508-M10x30
AFM90-3P1505-D050-A22-Z05-H	●	50	5	22	40	11				
AFM90-3P1505-D063-A22-Z04-H	●	63	4	22	40	11				
AFM90-3P1505-D063-A22-Z06-H	●	63	6	22	40	11				
AFM90-3P1505-D080-A27-Z07-H	●	80	7	27	50	11				2510-M12x35
AFM90-3P1505-D100-A32-Z08-H	●	100	8	32	50	11				2514-M16x35
AFM90-3P1505-D125-B40-Z10	●	125	10	40	63	11				-

TGTC Ucuna Uygundur. / Compatiple with TGTC Insert. Kompatibel mit TGTC Wendeplatten.





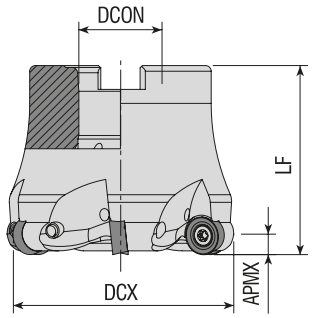
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*		
		DC	ZEFP	DCON	LF	APMX		Sıkma Vidası *Screw* *Schraube* 	Tork Anahtar *Torx Key* *Torx-Schlüssel* 	Montaj Vidası *Mounting Screw* *Befestigungsschraube* 
AFM90-4N06-D040-A16-Z05-H	●	40	5	16	40	6	**4NKT 0603..**	1108-M3x6.8	80-T08	2506-M8x30
AFM90-4N06-D050-A22-Z06-H	●	50	6	22	40	6				2508-M10x30

R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
TGTC Ucuna Uygundur. / Compatiple with TGTC Insert. Kompatibel mit TGTC Wendeplatten.

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück AFM90-3P1004-D040-A16-Z05-H
Kesme Hesabı : S 331 / *Cutting Calculation : P 331* / *Schnittberechnung : 331*
Montaj Ölçüleri : S 328 / *Mounting Reference : P 328* / *Montagehinweis : 328*

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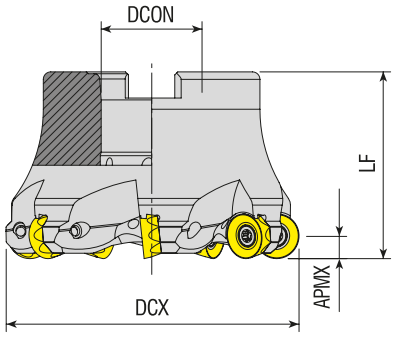




Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*		
		DCX	ZEFP	DCON	LF	APMX		Sıkma Vidası *Screw* *Schraube* 	Tork Anahtar *Torx Key* *Torx-Schlüssel* 	Montaj Vidası *Mounting Screw* *Befestigungsschraube* 
AFMR-RC10T3-D040-A16-Z04-H	●	40	4	16	40	5	**RC.. 10T3..**	4015-M4x11	80-T15	2406-M8x30
AFMR-RC10T3-D050-A22-Z05-H	●	50	5	22	50	5				2508-M10x30
AFMR-RC10T3-D063-A22-Z06-H	●	63	6	22	50	5				

ZCC Ucuna Uygundur. / Compatiple with ZCC Insert. Kompatibel mit ZCC Wendeplatten.





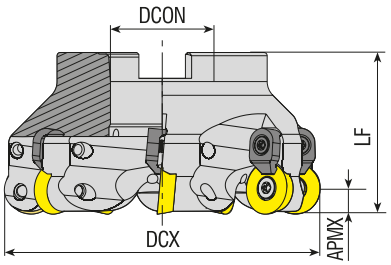
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*		
		DCX	ZEFP	DCON	LF	APMX		Sıkma Vidası *Screw* *Schraube* 	Tork Anahtar *Torx Key* *Torx-Schlüssel* 	Montaj Vidası *Mounting Screw* *Befestigungsschraube* 
AFMR-RC1204-D040-A16-Z04-H	●	40	4	16	40	6	**RC.. 1204..**	4015-M3.5x11	80-T15	2506-M8x30
AFMR-RC1204-D050-A22-Z05-H	●	50	5	22	50	6				2508-M10x30
AFMR-RC1204-D052-A22-Z05-H	●	52	5	22	50	6				
AFMR-RC1204-D063-A22-Z06-H	●	63	6	22	50	6				
AFMR-RC1204-D063-A27-Z06-H	●	80	7	27	50	6				2510-M12x35
AFMR-RC1204-D080-A27-Z07-H	●	80	7	27	50	6				

R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
SNDVK Ucuna Uygundur. / Compatiple with SNDVK Insert. Kompatibel mit SNDVK Wendeplatten.

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück AFMR-RC10T3-D040-A16-Z04-H
Kesme Hesabı : S 331 / *Cutting Calculation : P 331* / *Schnittberechnung : 331*
Montaj Ölçüleri : S 328 / *Mounting Reference : P 328* / *Montagehinweis : 328*

BF SERVICE





Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*				
		DCX	ZEFP	DCON	LF	APMX		Altlık *Screw* *Unterlage*	Baskı Parçası *Wedge Clamp* *Spannpratze*	Sıkma Vidası *Screw* *Schraube*	Tork Anahtar *Torx Key* *Torx-Schlüssel*	Montaj Vidası *Mounting Screw* *Befestigungsschraube*
AFMR-RD0702-D050-A22-Z06-H	●	50	6	22	40	3.5	RD.. 0702..	3008-M2.5x6	-	-	80-T08	2407-M10x30
AFMR-RD0803-D050-A22-Z05-H	●	50	5	22	40	4	RD.. 0803..	3008-M3x8				
AFMRC-RD1003-D040-A16-Z04-H	●	40	4	16	40	5						2406-M8x30
AFMRC-RD1003-D050-A22-Z05-H	●	50	5	22	50	5						
AFMRC-RD1003-D052-A22-Z05	●	52	5	22	50	5	RD.. 1003..					2508-M10x30
AFMRC-RD1003-D063-A22-Z06-H	●	63	6	22	50	5						
AFMRC-RD1003-D080-A27-Z07-H	●	80	7	27	50	5						2510-M12x35
AFMRC-RD1003-D100-A32-Z08-H	●	100	8	32	50	5						2514-M16x35
AFMRC-RD10T3-D050-A22-Z05-H	●	50	5	22	50	5	RD.. 10T3..					
AFMRC-RD10T3-D063-A22-Z06-H	●	63	6	22	50	5						2508-M10x30
AFMRC-RD12T3-D040-A16-Z04-H	●	40	4	16	40	6						2406-M8x30
AFMRC-RD12T3-D050-A22-Z05-H	●	50	5	22	50	6						
AFMRC-RD12T3-D052-A22-Z05-H	●	52	5	22	50	6	RD.. 12T3..	4015-M3.5x11	ACK-15	4015-M3.5x11	80-T15	2508-M10x30
AFMRC-RD12T3-D063-A22-Z06-H	●	63	6	22	50	6						
AFMRC-RD12T3-D080-A27-Z07-H	●	80	7	27	50	6						2510-M12x35
AFMRC-RD12T3-D100-A32-Z08-H	●	100	8	32	50	6						2514-M16x35
AFMRC-RD12T3-D125-B40-Z09	●	125	9	40	63	6						-
AFMRC-RD1204-D040-A16-Z04-H	●	40	4	16	40	6						2406-M8x30
AFMRC-RD1204-D050-A22-Z05-H	●	50	5	22	50	6						
AFMRC-RD1204-D052-A22-Z05-H	●	52	5	22	50	6	RD.. 1204..					2508-M10x30
AFMRC-RD1204-D063-A22-Z06-H	●	63	6	22	50	6						
AFMRC-RD1204-D080-A27-Z07-H	●	80	7	27	50	6						2510-M12x35
AFMRC-RD1204-D100-A32-Z07-H	●	100	7	32	50	6						
AFMRC-RD1204-D100-A32-Z08-H	●	100	8	32	50	6						2514-M16x35
AFMRC-RD1604-D050-A22-Z04-H	●	50	4	22	50	8						
AFMRC-RD1604-D052-A22-Z04-H	●	52	4	22	50	8						2408-M10x30
AFMRC-RD1604-D063-A22-Z05-H	●	63	5	22	50	8						
AFMRC-RD1604-D066-A22-Z05-H	●	66	5	22	50	8	RD.. 1604..	4015-M4.5x11	ACK-05	4015-M4x11		2508-M10x30
AFMRC-RD1604-D066-A27-Z05-H	●	66	5	27	50	8						
AFMRC-RD1604-D080-A27-Z06-H	●	80	6	27	50	8						2510-M12x35
AFMRC-RD1604-D100-A32-Z07-H	●	100	7	32	50	8						2514-M16x35
AFMRC-RD1604-D125-B40-Z07	●	125	7	40	63	8						-

R: Sağ / Right / *Rechts* L: Sol/Left/*Links*

● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*

ISO Ucuna Uygundur. / Compatiple with ISO Insert. Kompatibel mit ISO Wendeplatten.

Sipariş Örneği/Ordering Example/*Bestellbeispiel*

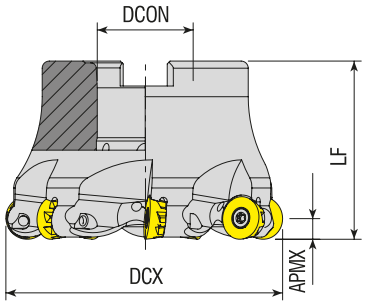
1 ad./pcs./stück AFMR-RD0702-D050-A22-Z06-H

Kesme Hesabı : S 331 / *Cutting Calculation : P 331* / *Schnittberechnung : 331*

Montaj Ölçüleri : S 328 / *Mounting Reference : P 328* / *Montagehinweis : 328*

BF SERVICE

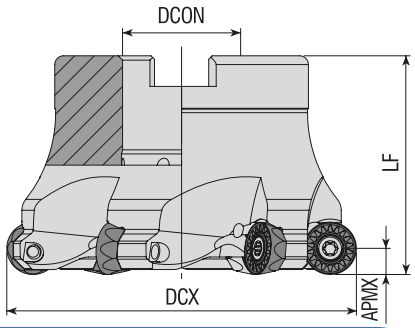




Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*		
		DCX	ZEFP	DCON	LF	APMX		Sıkma Vidası *Screw* *Schraube* 	Tork Anahtar *Torx Key* *Torx-Schlüssel* 	Montaj Vidası *Mounting Screw* *Befestigungsschraube* 
AFMR-RP10T3-D063-A22-Z06-H	●	63	6	22	40	5	**RPNX 10T3..**	4010-M3x8	80-T10	2508-M10x30
AFMR-RP10T3-D080-A27-Z07-H	●	80	7	27	50	5				2510-M12x35
AFMR-RP1204-D040-A16-Z04-H	●	40	4	16	40	6	**RPNX 1204..**	4015-M3.5x11	80-T15	2406-M8x30
AFMR-RP1204-D080-A27-Z07-H	●	80	7	27	50	6				2510-M12x35

CRTZT Ucuna Uygundur. / Compatiple with CRTZT Insert. Kompatibel mit CRTZT Wendeplatten.





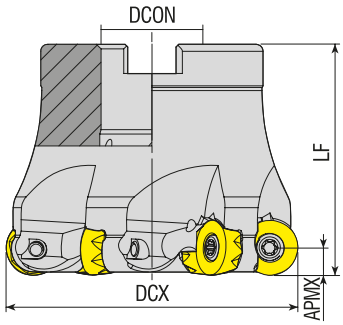
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*		
		DCX	ZEFP	DCON	LF	APMX		Sıkma Vidası *Screw* *Schraube* 	Tork Anahtar *Torx Key* *Torx-Schlüssel* 	Montaj Vidası *Mounting Screw* *Befestigungsschraube* 
AFMR-RP1204M-D050-A22-Z04-H	●	50	4	22	50	6	**RPMT 1204..**	4015-M4x11	80-T15	2508-M10x30
AFMR-RP1204M-D052-A22-Z05-H	●	52	5	22	50	6				
AFMR-RP1204M-D063-A22-Z05-H	●	63	5	22	50	6				
AFMR-RP1204M-D080-A27-Z06-H	●	80	6	27	50	6				2510-M12x35

R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
MTSBH Ucuna Uygundur. / Compatiple with MTSBH Insert. Kompatibel mit MTSBH Wendeplatten.

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück AFMR-RP10T3-D063-A22-Z06-H
Kesme Hesabı : S 331 / *Cutting Calculation : P 331* / *Schnittberechnung : 331*
Montaj Ölçüleri : S 328 / *Mounting Reference : P 328* / *Montagehinweis : 328*

BF SERVICE

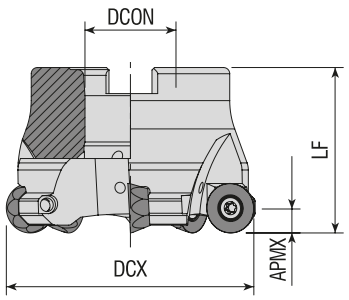




Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*		
		DCX	ZEFP	DCON	LF	APMX		Sıkma Vidası *Screw* *Schraube*	Tork Anahtar *Torx Key* *Torx-Schlüssel*	Montaj Vidası *Mounting Screw* *Befestigungsschraube*
AFMR-RY10-D040-A16-Z04-H	●	40	4	16	40	5	**RYMX 1004..**	4015-M3.5x11	80-T15	2406-M8x30
AFMR-RY10-D040-A16-Z05-H	●	40	5	16	40	5				2506-M8x30
AFMR-RY10-D050-A22-Z05-H	●	50	5	22	50	5				2508-M10x30
AFMR-RY10-D063-A22-Z06-H	●	63	6	22	50	5				
AFMR-RY12-D040-A16-Z04-H	●	40	4	16	40	6	**RYMX 1205..**	4015-M4x11		2406-M8x30
AFMR-RY12-D050-A22-Z05-H	●	50	5	22	50	6				2508-M10x30
AFMR-RY12-D052-A22-Z05-H	●	52	5	22	50	6				
AFMR-RY12-D063-A22-Z06-H	●	63	6	22	50	6				
AFMR-RY12-D080-A27-Z06-H	●	80	6	27	50	6				2510-M12x35
AFMR-RY12-D100-A32-Z07-H	●	100	7	32	50	6				2514-M16x35

TGTC Ucuna Uygundur. / Compatiple with TGTC Insert. Kompatibel mit TGTC Wendeplatten.





Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*		
		DCX	ZEFP	DCON	LF	APMX		Sıkma Vidası *Screw* *Schraube*	Tork Anahtar *Torx Key* *Torx-Schlüssel*	Montaj Vidası *Mounting Screw* *Befestigungsschraube*
AFMR-QP10T3-D040-A16-Z04-H	●	40	4	16	40	5	**QP.. 10T3..**	4015-M3.5x11	80-T15	2506-M8x30
AFMR-QP10T3-D050-A22-Z05-H	●	50	5	22	40	5				2407-M10x30
AFMR-QP10T3-D063-A22-Z06-H	●	63	6	22	40	5				
AFMR-QP1204-D050-A22-Z04-H	●	50	4	22	40	6	**QP.. 1204..**	4015-M4x11		
AFMR-QP1204-D063-A22-Z05-H	●	63	5	22	40	6				

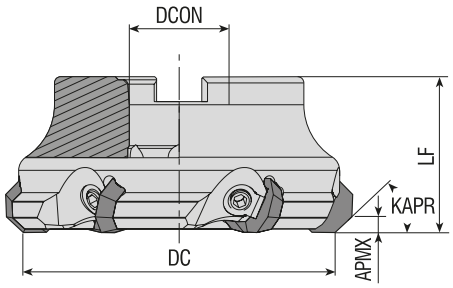
R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock / *Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
SMTM Ucuna Uygundur. / Compatiple with SMTM Insert. Kompatibel mit SMTM Wendeplatten.

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück AFMR-RY10-D040-A16-Z04-H
Kesme Hesabı : S 331 / *Cutting Calculation : P 331* / *Schnittberechnung : 331*
Montaj Ölçüleri : S 328 / *Mounting Reference : P 328* / *Montagehinweis : 328*

BF SERVICE

KAPR=43°



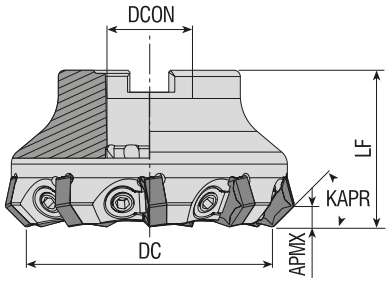


Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*			
		DC	ZEFP	DCON	LF	APMX		Baskı Parçası *Wedge Clamp* *Spannpratze* 	Baskı Vidası *Clamp Screw* *Klemmschraube* 	Anahtar *Allen Key* *Innensechskantschlüssel* 	Montaj Vidası *Mounting Screw* *Befestigungsschraube* 
AFM43C-OF07-D063-A22-Z04	●	63	4	22	45	5	**OF.. 0704..**	ACK-11	AKV-15-M8x1x20	AAL-05-4	2508-M10x30
AFM43C-OF07-D080-A27-Z05	●	80	5	27	50	5					2510-M12x35
AFM43C-OF07-D100-A32-Z06	●	100	6	32	50	5					2514-M16x35
AFM43C-OF07-D125-B40-Z08	●	125	8	40	63	5					-
AFM43C-OF07-D160-C40-Z09	●	160	9	40	63	5					

ISO Ucuna Uygundur. / Compatiple with ISO Insert. Kompatibel mit ISO Wendeplatten.

KAPR=45°





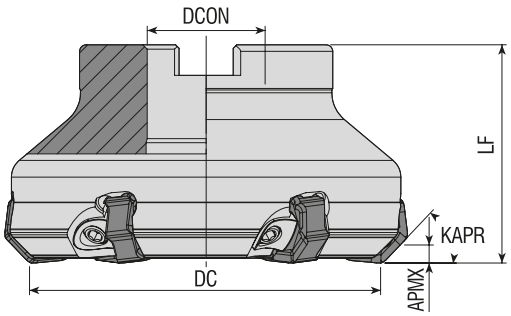
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*			
		DC	ZEFP	DCON	LF	APMX		Baskı Parçası *Wedge Clamp* *Spannpratze* 	Baskı Vidası *Clamp Screw* *Klemmschraube* 	Anahtar *Allen Key* *Innensechskantschlüssel* 	Montaj Vidası *Mounting Screw* *Befestigungsschraube* 
AFM45C-HN0905-D063-A22-Z07	●	63	7	22	40	4.5	**HN.. 0905..**	ACK-11	AKV-15-M8x1x20	AAL-05-4	2508-M10x30
AFM45C-HN0905-D080-A27-Z09	●	80	9	27	50	4.5					2510-M12x35
AFM45C-HN0905-D100-A32-Z11	●	100	11	32	50	4.5					2514-M16x35
AFM45C-HN0905-D125-B40-Z13	●	125	13	40	63	4.5					
AFM45CL-HN0905-D125-B40-Z10	●	125	10	40	63	4.5					-
AFM45C-HN0905-D160-C40-Z15	●	160	15	40	63	4.5					

R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
WDA-KNMTL Ucuna Uygundur. / Compatiple with WDA-KNMTL Insert. Kompatibel mit WDA-KNMTL Wendeplatten.

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück AFM43C-OF07-D063-A22-Z04
Kesme Hesabı : S 331 / *Cutting Calculation : P 331* / *Schnittberechnung : 331*
Montaj Ölçüleri : S 328 / *Mounting Reference : P 328* / *Montagehinweis : 328*

BF SERVICE

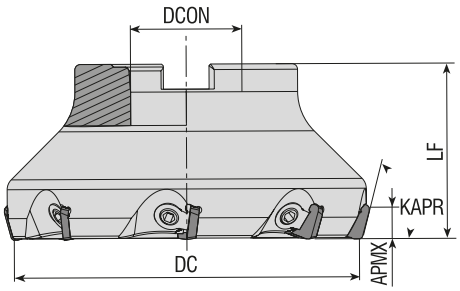




Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*			
		DC	ZEFP	DCON	LF	APMX		Baskı Parçası *Wedge Clamp* *Spannpratze* 	Baskı Vidası *Clamp Screw* *Klemmschraube* 	Anahtar *Allen Key* *Innensechskantschlüssel* 	Montaj Vidası *Mounting Screw* *Befestigungsschraube* 
AFM45C-XN0806-D063-A22-Z05	●	63	5	22	50	4.5	**XNMU 0806..**	ACK-26	AKV-26-M6x0.75x20	AAL-03-03	2508-M10x30
AFM45C-XN0806-D080-A27-Z06	●	80	6	27	50	4.5					2510-M12x35
AFM45C-XN0806-D100-A32-Z08	●	100	8	32	50	4.5					2514-M16x35
AFM45C-XN0806-D125-B40-Z08	●	125	8	40	63	4.5					
AFM45C-XN0806-D160-C40-Z10	●	160	10	40	63	4.5					-
AFM45C-XN0806-D200-C60-Z12	●	200	12	60	63	4.5					

DJT Ucuna Uygundur. / Compatiple with DJT Insert. Kompatibel mit DJT Wendeplatten.





Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*			
		DC	ZEFP	DCON	LF	APMX		Baskı Parçası *Wedge Clamp* *Spannpratze* 	Baskı Vidası *Clamp Screw* *Klemmschraube* 	Anahtar *Allen Key* *Innensechskantschlüssel* 	Montaj Vidası *Mounting Screw* *Befestigungsschraube* 
AFM75C-SP12-D050-A22-Z04	●	50	4	22	42	8	**SPKN 1203..**	ACK-10	AKV-22-M8x1x14	AAL-05-4	2508-M10x30
AFM75C-SP12-D063-A22-Z05	●	63	5	22	40	8			AKV-13-M8x1x16		
AFM75C-SP12-D080-A27-Z06	●	80	6	27	50	8					2510-M12x35
AFM75C-SP12-D100-A32-Z07	●	100	7	32	50	8					2514-M16x35
AFM75C-SP12-D125-B40-Z08	●	125	8	40	63	8					
AFM75C-SP12-D160-C40-Z09	●	160	9	40	63	8					-
AFM75C-SP12-D200-C60-Z12	●	200	12	60	63	8					

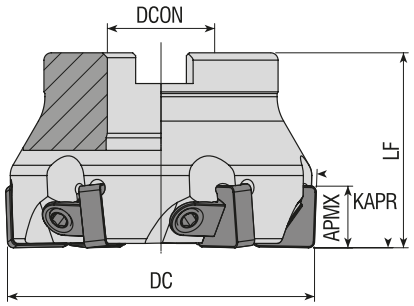
R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
ISO Ucuna Uygundur. / Compatiple with ISO Insert. Kompatibel mit ISO Wendeplatten.

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück AFM45C-XN0806-D063-A22-Z05
Kesme Hesabı : S 331 / *Cutting Calculation : P 331* / *Schnittberechnung : 331*
Montaj Ölçüleri : S 328 / *Mounting Reference : P 328* / *Montagehinweis : 328*

BF SERVICE

KAPR=88°



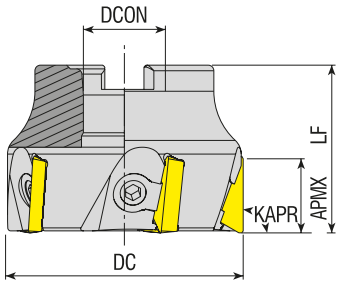


Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*			
		DC	ZEFP	DCON	LF	APMX		Baskı Parçası *Wedge Clamp* *Spannpratze* 	Baskı Vidası *Clamp Screw* *Klemmschraube* 	Anahtar *Allen Key* *Innensechskantschlüssel* 	Montaj Vidası *Mounting Screw* *Befestigungsschraube* 
AFM88C-SN1204-D050-A22-Z05	●	50	5	22	40	11	**SN.. 1204..**	ACK-21	AKV-24-M6x1x1	AAL-03-3	2408-M10x30
AFM88C-SN1204-D063-A22-Z06	●	63	6	22	40	11					2510-M12x35
AFM88C-SN1204-D080-A27-Z07	●	80	7	27	50	11					2514-M16x35
AFM88C-SN1204-D100-A32-Z08	●	100	8	32	50	11					-
AFM88C-SN1204-D125-B40-Z11	●	125	11	40	63	11					

UNIN-NT.-KYCR Ucuna Uygundur. / Compatiple with UNIN-NT.-KYCR Insert. Kompatibel mit UNIN-NT.-KYCR Wendeplatten.

KAPR=90°





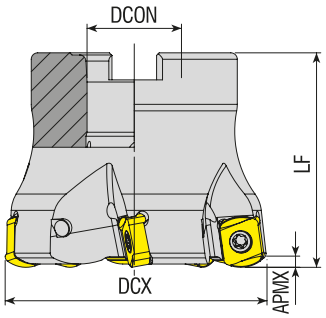
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*			
		DC	ZEFP	DCON	LF	APMX		Baskı Parçası *Wedge Clamp* *Spannpratze* 	Baskı Vidası *Clamp Screw* *Klemmschraube* 	Anahtar *Allen Key* *Innensechskantschlüssel* 	Montaj Vidası *Mounting Screw* *Befestigungsschraube* 
AFM90C-TP16-D050-A22-Z04	●	50	4	22	40	12	**TP.. 1603..**	ACK-10	AKV-22-M8x1x14	AAL-05-4	2407-M10x30
AFM90C-TP16-D063-A22-Z06	●	63	6	22	45	12			AKV-13-M8x1x16		2508-M10x30
AFM90C-TP16-D080-A27-Z07	●	80	7	27	50	12		ACK-11	AKV-14-M8x1x18		2510-M12x35
AFM90C-TP16-D100-A32-Z08	●	100	8	32	50	12					2514-M16x35
AFM90C-TP16-D125-B40-Z08	●	125	8	40	63	12					-
AFM90C-TP22-D063-A22-Z05	●	63	5	22	45	18	**TP.. 2204..**				2508-M10x30
AFM90C-TP22-D080-A27-Z06	●	80	6	27	50	18					2510-M12x35
AFM90C-TP22-D100-A32-Z07	●	100	7	32	50	18					2514-M16x35
AFM90C-TP22-D125-B40-Z08	●	125	8	40	63	18					-
AFM90C-TP22-D160-C40-Z09	●	160	9	40	63	18					
AFM90C-TP22-D200-C60-Z12	●	200	12	60	63	18					
AFM90C-TP22-D250-C60-Z15	●	250	15	60	63	18					
AFM90C-TP22-D315-D60-Z18	●	315	18	60	63	18					

R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
ISO Ucuna Uygundur. / Compatiple with ISO Insert. Kompatibel mit ISO Wendeplatten.

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück AFM88C-SN1204-D040-A16-Z04
Kesme Hesabı : S 331 / *Cutting Calculation : P 331* / *Schnittberechnung : 331*
Montaj Ölçüleri : S 328 / *Mounting Reference : P 328* / *Montagehinweis : 328*

BF SERVICE

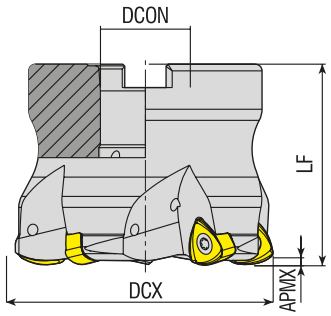




Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*		
		DCX	ZEFP	DCON	LF	APMX		Sıkma Vidası *Screw* *Schraube*	Tork Anahtar *Torx Key* *Torx-Schlüssel*	Montaj Vidası *Mounting Screw* *Befestigungsschraube*
AHFM-BL0603-D040-A16-Z06-H	●	40	6	16	40	1	**BLMP 0603..**	3008-M2.5x6	80-T08	2506-M8x30
AHFM-BL0603-D050-A22-Z07-H	●	50	7	22	40	1				
AHFM-BL0904-D040-A16-Z05-H	●	40	5	16	40	2	**BLMP 0904..**	3010-M3.5x9	80-T10	2508-M10x30
AHFM-BL0904-D050-A22-Z06-H	●	50	6	22	50	2				
AHFM-BL0904-D063-A22-Z05-H	●	63	5	22	50	2				
AHFM-BL0904-D063-A22-Z07-H	●	63	7	22	50	2				

TGTC Ucuna Uygundur. / Compatiple with TGTC Insert. Kompatibel mit TGTC Wendeplatten.





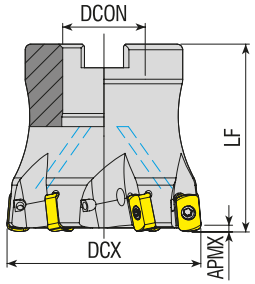
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*		
		DCX	ZEFP	DCON	LF	APMX		Sıkma Vidası *Screw* *Schraube*	Tork Anahtar *Torx Key* *Torx-Schlüssel*	Montaj Vidası *Mounting Screw* *Befestigungsschraube*
AHFM-BL1205-D050-A22-Z03-H	●	50	3	22	40	2	**BLMP 1205..**	4015-M4x11	80-T15	2508-M10x30
AHFM-BL1205-D063-A22-Z04-H	●	63	4	22	40	2				
AHFM-BL1205-D080-A27-Z05-H	●	80	5	27	50	2				2510-M12x35

R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
TGTC Ucuna Uygundur. / Compatiple with TGTC Insert. Kompatibel mit TGTC Wendeplatten.

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück AHFM-BL0603-D040-A16-Z06-H
Kesme Hesabı : S 331 / *Cutting Calculation : P 331* / *Schnittberechnung : 331*
Montaj Ölçüleri : S 328 / *Mounting Reference : P 328* / *Montagehinweis : 328*

BF SERVICE

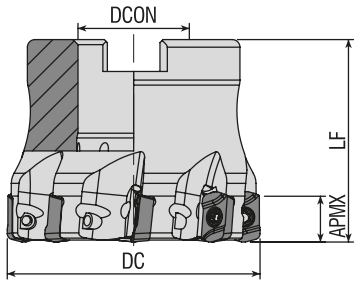




Takım Kodu / *Ordering Code* / *Bestell-Bezeichnung*	Stok / *Stock* / *Lager*	Takım Ölçüleri (mm) / *Dimension (mm)* / *Abmessung (mm)*					Kesici Uç / *Insert* / *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*		
		DCX	ZEFP	DCON	LF	APMX		Sıkma Vidası / *Screw* / *Schraube*	Tork Anahtar / *Torx Key* / *Torx-Schlüssel*	Montaj Vidası / *Mounting Screw* / *Befestigungsschraube*
AHFM-EN1004-D050-A22-Z05-H	●	50	5	22	50	1	**ENMU 1004..**	3008-M2.5X6	80-T08	2508-M10x30
AHFM-EN1004-D050-A22-Z06-H	●	50	6	22	50	1				
AHFM-EN1004-D052-A22-Z06-H	●	52	6	22	50	1				
AHFM-EN1004-D063-A22-Z06-H	●	63	6	22	50	1				

DJT Ucuna Uygundur. / Compatiple with DJT Insert. Kompatibel mit DJT Wendeplatten.





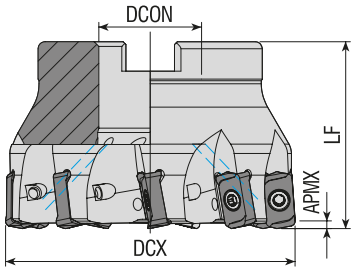
Takım Kodu / *Ordering Code* / *Bestell-Bezeichnung*	Stok / *Stock* / *Lager*	Takım Ölçüleri (mm) / *Dimension (mm)* / *Abmessung (mm)*					Kesici Uç / *Insert* / *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*		
		DC	ZEFP	DCON	LF	APMX		Sıkma Vidası / *Screw* / *Schraube*	Tork Anahtar / *Torx Key* / *Torx-Schlüssel*	Montaj Vidası / *Mounting Screw* / *Befestigungsschraube*
AHFM-EP1003-D050-A22-Z08-H	●	50	8	22	40	1	**EP.. 1003..** **ZPMT 1003..** **YPHW 1003..**	3008-M2.5X6	80-T08	2508-M10x30
AHFM-EP1003-D063-A22-Z08-H	●	63	8	22	40	1				

R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
DJT Ucuna Uygundur. / Compatiple with DJT Insert. Kompatibel mit DJT Wendeplatten.

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück AHFM-EN1004-D050-A22-Z05-H
Kesme Hesabı : S 331 / *Cutting Calculation : P 331* / *Schnittberechnung : 331*
Montaj Ölçüleri : S 328 / *Mounting Reference : P 328* / *Montagehinweis : 328*

BF SERVICE

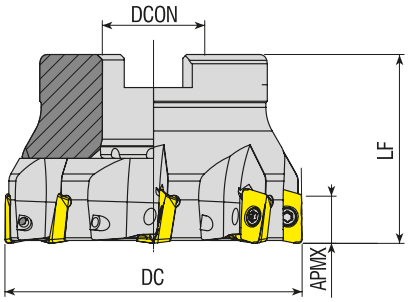




Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*		
		DCX	ZEFP	DCON	LF	APMX		Sıkma Vidası *Screw* *Schraube* 	Tork Anahtar *Torx Key* *Torx-Schlüssel* 	Montaj Vidası *Mounting Screw* *Befestigungsschraube* 
AHFM-LO03-D040-A16-Z06-H	●	40	6	16	40	1	**LOGU 0303..**	1108-M3x6.8	80-T08	2506-M8x30
AHFM-LO03-D050-A22-Z07-H	●	50	7	22	40	1				2508-M10x30
AHFM-LO03-D063-A22-Z09-H	●	63	9	22	40	1				

KYCR Ucuna Uygundur. / Compatiple with KYCR Insert. Kompatibel mit KYCR Wendeplatten.





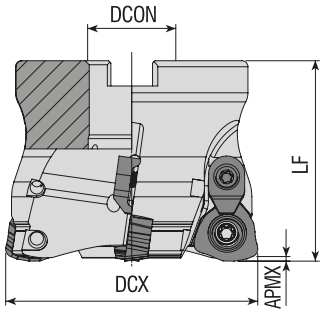
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*		
		DC	ZEFP	DCON	LF	APMX		Sıkma Vidası *Screw* *Schraube* 	Tork Anahtar *Torx Key* *Torx-Schlüssel* 	Montaj Vidası *Mounting Screw* *Befestigungsschraube* 
AHFM-JD1003-D040-A16-Z06-H	●	40	6	16	40	9	**JDMT 1003..**	3008-M2.5x6	80-T08	2506-M8x30
AHFM-JD1003-D063-A22-Z08-H	●	63	8	22	40	9				2508-M10x30

R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock / *Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
MTSBH Ucuna Uygundur. / Compatiple with MTSBH Insert. Kompatibel mit MTSBH Wendeplatten.

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück AHFM-LO03-D040-A16-Z06-H
Kesme Hesabı : S 331 / *Cutting Calculation : P 331* / *Schnittberechnung : 331*
Montaj Ölçüleri : S 328 / *Mounting Reference : P 328* / *Montagehinweis : 328*

BF SERVICE

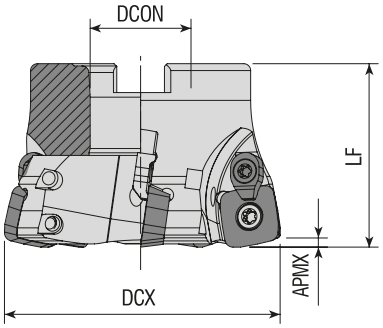




Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*				
		DCX	ZEFP	DCON	LF	APMX		Sıkma Vidası *Screw* *Schraube*	Baskı Pabucu *Wedge Clamp* *Spannpratze*	Baskı Vidası *Clamp Screw* *Klemmschraube*	Tork Anahtar *Torx Key* *Torx-Schlüssel*	Montaj Vidası *Mounting Screw* *Befestigungsschraube*
AHFMC-JD1204-D052-A22-Z03-H	●	52	3	22	50	1.5	**JDMW 1204..**	4615-M4x11	ACK-05	4015-M4x11	80-T15	2508-M10x30
AHFMC-JD1204-D052-A22-Z04-H	●	52	4	22	50	1.5						
AHFMC-JD1204-D063-A22-Z05-H	●	63	5	22	50	1.5						
AHFMC-JD1204-D080-A27-Z06-H	●	80	6	27	50	1.5						2510-M12x35
AHFMC-JD1204-D100-A32-Z07-H	●	100	7	32	50	1.5						2514-M16x35
AHFMC-JD1405-D052-A22-Z03-H	●	52	3	22	40	2	**JDMW 1405..**	1020-M5x11			80-T20	2408-M10x30
AHFMC-JD1405-D063-A22-Z04-H	●	63	4	22	40	2						2508-M10x30

MTSBH Ucuna Uygundur. / Compatiple with MTSBH Insert. Kompatibel mit MTSBH Wendeplatten.





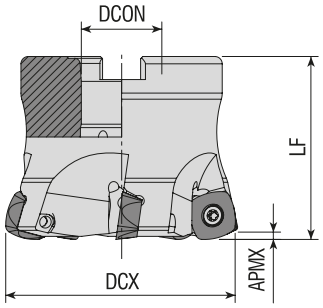
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*				
		DCX	ZEFP	DCON	LF	APMX		Sıkma Vidası *Screw* *Schraube*	Baskı Pabucu *Wedge Clamp* *Spannpratze*	Baskı Vidası *Clamp Screw* *Klemmschraube*	Tork Anahtar *Torx Key* *Torx-Schlüssel*	Montaj Vidası *Mounting Screw* *Befestigungsschraube*
AHFMC-SD1204-D050-A22-Z04-H	●	50	4	22	40	1.8	**SD.. 1204..**	4015-M4x11	ACK-15	4015-M3.5x11	80-T15	2508-M10x30
AHFMC-SD1204-D063-A22-Z05-H	●	63	5	22	40	1.8						
AHFMC-SD1204-D080-A27-Z06-H	●	80	6	27	50	1.8						2510-M12x35
AHFMC-SD1204-D100-A32-Z08-H	●	100	8	32	50	1.8						2514-M16x35

R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
ZCC Ucuna Uygundur. / Compatiple with ZCC Insert. Kompatibel mit ZCC Wendeplatten.

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück AHFMC-JD1204-D052-A22-Z03-H
Kesme Hesabı : S 331 / *Cutting Calculation : P 331* / *Schnittberechnung : 331*
Montaj Ölçüleri : S 328 / *Mounting Reference : P 328* / *Montagehinweis : 328*

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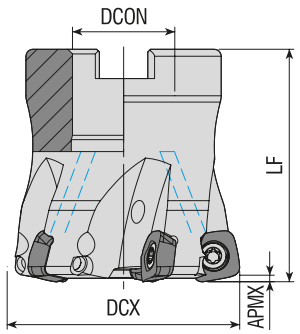




Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*		
		DCX	ZEFP	DCON	LF	APMX		Sıkma Vidası *Screw* *Schraube*	Tork Anahtar *Torx Key* *Torx-Schlüssel*	Montaj Vidası *Mounting Screw* *Befestigungsschraube*
AHFM-SD1205-D052-A22-Z04-H	●	52	4	22	50	2	SD.. 1205..	4015-M4x11	80-T15	2508-M10x30
AHFM-SD1205-D052-A22-Z05-H	●	52	5	22	50	2				
AHFM-SD1205-D066-A22-Z05-H	●	66	5	22	50	2				
AHFM-SD1205-D066-A22-Z06-H	●	66	6	22	50	2				
AHFM-SD1205-D080-A27-Z06-H	●	80	6	27	70	2				2510-M12x35

HTCH Ucuna Uygundur. / Compatiple with HTCH Insert. Kompatibel mit HTCH Wendeplatten.





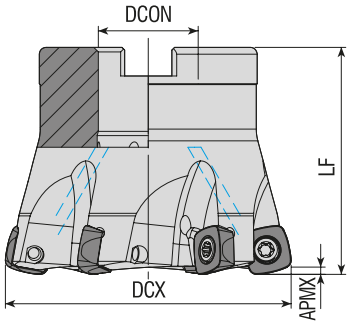
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*		
		DCX	ZEFP	DCON	LF	APMX		Sıkma Vidası *Screw* *Schraube*	Tork Anahtar *Torx Key* *Torx-Schlüssel*	Montaj Vidası *Mounting Screw* *Befestigungsschraube*
AHFM-SO1004-D050-A22-Z05-H	●	50	5	22	50	1.5	SOMT 1004..	4015-M4x11	80-T15	2508-M10x30
AHFM-SO1004-D063-A22-Z06-H	●	63	6	22	50	1.5				2510-M12x35
AHFM-SO1004-D080-A27-Z07-H	●	80	7	27	63	1.5				

R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
KYCR Ucuna Uygundur. / Compatiple with KYCR Insert. Kompatibel mit KYCR Wendeplatten.

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück AHFM-SD1205-D052-A22-Z04-H
Kesme Hesabı : S 331 / *Cutting Calculation : P 331* / *Schnittberechnung : 331*
Montaj Ölçüleri : S 328 / *Mounting Reference : P 328* / *Montagehinweis : 328*

BF SERVICE





Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*		
		DCX	ZEFP	DCON	LF	APMX		Sıkma Vidası *Screw* *Schraube* 	Tork Anahtar *Torx Key* *Torx-Schlüssel* 	Montaj Vidası *Mounting Screw* *Befestigungsschraube* 
AHFM-SP1004-D050-A22-Z05-H	●	50	5	22	50	1.5	**SPNW 1004..**	3015-M3.5x9	80-T15	2508-M10x30
AHFM-SP1004-D052-A22-Z05-H	●	52	5	22	50	1.5				
AHFM-SP1004-D063-A22-Z06-H	●	63	6	22	50	1.5				

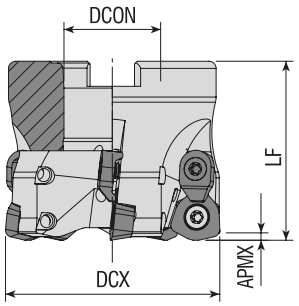
R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
DJT Ucuna Uygundur. / Compatiple with DJT Insert. Kompatibel mit DJT Wendeplatten.

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück AHFM-SP1004-D050-A22-Z05-H
Kesme Hesabı : S 331 / *Cutting Calculation : P 331* / *Schnittberechnung : 331*
Montaj Ölçüleri : S 328 / *Mounting Reference : P 328* / *Montagehinweis : 328*



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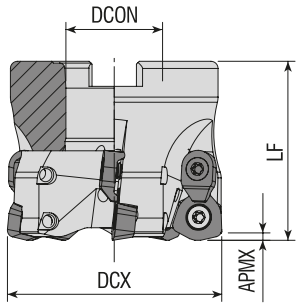




Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*				
		DCX	ZEFP	DCON	LF	APMX		Sıkma Vidası *Screw* *Schraube*	Baskı Pabucu *Wedge Clamp* *Spannpratze*	Baskı Vidası *Clamp Screw* *Klemmschraube*	Tork Anahtar *Torx Key* *Torx-Schlüssel*	Montaj Vidası *Mounting Screw* *Befestigungsschraube*
AHFMC-WD06T3D-D042-A16-Z04-H	●	42	4	16	45	1.5	WD.W 06T3..	3015-M3.5x9	ACK-15	4015-M3.5x11	80-T15	2506-M8x30
AHFMC-WD06T3D-D050-A22-Z05-H	●	50	5	22	50	1.5						
AHFMC-WD06T3D-D052-A22-Z05-H	●	52	5	22	50	1.5						2508-M10x30
AHFMC-WD0805D-D052-A22-Z04-H	●	52	4	22	50	2	WD.W 0805..	4020-M4.5x12	ACK-19	4020-M4.5x12	80-T20	
AHFMC-WD0805D-D063-A22-Z05-H	●	63	5	22	50	2						
AHFMC-WD0805D-D063-A27-Z05-H	●	63	5	27	50	2						2510-M12x35
AHFMC-WD0805D-D066-A27-Z05-H	●	66	5	27	50	2						
AHFMC-WD0805D-D080-A27-Z05	●	80	5	27	50	2						2514-M16x35
AHFMC-WD0805D-D100-A32-Z06	●	100	6	32	50	2						
AHFMC-WD10X6D-D125-B40-Z06	●	125	6	40	63	2.5	WD.W 10X6..					-
AHFMC-WD10X6D-D160-C40-Z07	●	160	7	40	63	2.5						

DJT Ucuna Uygundur. / Compatiple with DJT Insert. Kompatibel mit DJT Wendeplatten.





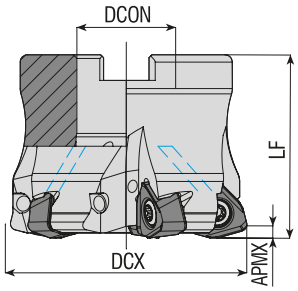
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*				
		DCX	ZEFP	DCON	LF	APMX		Sıkma Vidası *Screw* *Schraube*	Baskı Pabucu *Wedge Clamp* *Spannpratze*	Baskı Vidası *Clamp Screw* *Klemmschraube*	Tork Anahtar *Torx Key* *Torx-Schlüssel*	Montaj Vidası *Mounting Screw* *Befestigungsschraube*
AHFMC-WD0804-D040-A16-Z04-H	●	40	4	16	40	1.5	WDMT 0804..	4010-M3x8	ACK-15	4010-M3x8	80-T10	2506-M8x30
AHFMC-WD0804-D050-A22-Z04-H	●	50	4	22	50	1.5						
AHFMC-WD1205-D050-A22-Z04-H	●	50	4	22	50	3	WDMT 1205..	1415-M4x11	ACK-05	4015-M4x11	80-T15	2508-M10x30
AHFMC-WD1205-D052-A22-Z04-H	●	52	4	22	50	3						
AHFMC-WD1205-D063-A22-Z05-H	●	63	5	22	50	3						
AHFMC-WD1205-D080-A27-Z06-H	●	80	6	27	63	3						2510-M12x35

R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
SMTM Ucuna Uygundur. / Compatiple with SMTM Insert. Kompatibel mit SMTM Wendeplatten.

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück AHFMC-WD06T3D-D042-A16-Z04-H
Kesme Hesabı : S 331 / *Cutting Calculation : P 331* / *Schnittberechnung : 331*
Montaj Ölçüleri : S 328 / *Mounting Reference : P 328* / *Montagehinweis : 328*

BF SERVICE

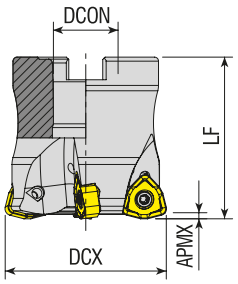




Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*		
		DCX	ZEFP	DCON	LF	APMX		Sıkma Vidası *Screw* *Schraube*	Tork Anahtar *Torx Key* *Torx-Schlüssel*	Montaj Vidası *Mounting Screw* *Befestigungsschraube*
AHFM-WN0907-D050-A22-Z04-H	●	50	4	22	50	3	**WNMU 0907..**	1020-M5x14	80-T20	2508-M10x30
AHFM-WN0907-D052-A22-Z04-H	●	52	4	22	50	3				
AHFM-WN0907-D063-A22-Z05-H	●	63	5	22	50	3				
AHFM-WN0907-D066-A27-Z05-H	●	66	5	27	50	3				2510-M12x35
AHFM-WN0907-D080-A27-Z06-H	●	80	6	27	50	3				
AHFM-WN0907-D100-A32-Z07-H	●	100	7	32	50	3				2514-M16x35

DJT Ucuna Uygundur. / Compatiple with DJT Insert. Kompatibel mit DJT Wendeplatten.





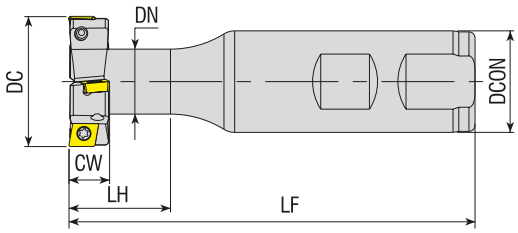
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*		
		DCX	ZEFP	DCON	LF	APMX		Sıkma Vidası *Screw* *Schraube*	Tork Anahtar *Torx Key* *Torx-Schlüssel*	Montaj Vidası *Mounting Screw* *Befestigungsschraube*
AHFM-WN09T3-D040-A16-Z04-H	●	40	4	16	40	1.5	**WNMX 09T3..**	4010-M3x8	80-T10	2506-M8x30
AHFML-WN09T3-D040-A16-Z04-H	●	40	4	16	40	1.5				
AHFM-WN09T3-D050-A22-Z05-H	●	50	5	22	40	1.5				2508-M10x30
AHFML-WN09T3-D050-A22-Z05-H	●	50	5	22	40	1.5				
AHFM-WN09T3-D063-A22-Z06-H	●	63	6	22	40	1.5				

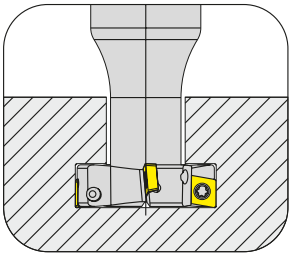
R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
KRLY Ucuna Uygundur. / Compatiple with KRLY Insert. Kompatibel mit KRLY Wendeplatten.

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück AHFM-WN0907-D050-A22-Z04-H
Kesme Hesabı : S 331 / *Cutting Calculation : P 331* / *Schnittberechnung : 331*
Montaj Ölçüleri : S 328 / *Mounting Reference : P 328* / *Montagehinweis : 328*

BF SERVICE







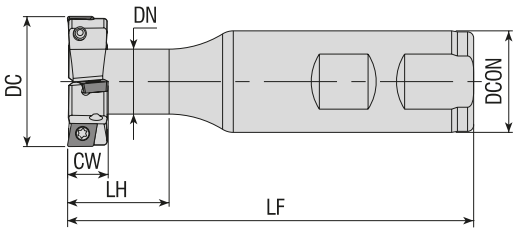
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	ZEFP Toplam *Total* *Gesamt*	ZEFP Etkili *Effective* *Effektiv*	DC	CW	DCON	LF	DN	LH	Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile* Tork Anahtar *Torx Key* *Torx-Schlüssel*	Montaj Vidası *Mounting Screw* *Befestigungsschraube*
				Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*								
ATSM90-CC06-D17X8-W16-L85-Z02	●	2	1	17	8	16	85	10	16	CC.. 0602..	3008-M2.5x6	80-T08
ATSM90-CC06-D32X8-W25-L100-Z04	●	4	2	32	8	25	100	16	23			
ATSM90-CC06-D28X8-W20-L66-Z04	●	4	2	28	8	20	66	14	15.5			
ATSM90-CC06-D45.5X8-W25-L100-Z06	●	6	3	45.5	8	25	100	12	30			
ATSM90-CC06-D63X8-W32-L125-Z08	●	8	4	63	8	32	125	31.5	30			
ATSM90-CC06-D18X9-W16-L90-Z02	●	2	1	18	9	16	90	10	16			
ATSM90-CC06-D20X9-W16-L85-Z04	●	4	2	20	9	16	85	10	16			
ATSM90-CC06-D23X10-W20-L90-Z04	●	4	2	23	10	20	90	12	25			
ATSM90-CC06-D32X10-W25-L100-Z04	●	4	2	32	10	25	100	16	25			
ATSM90-CC06-D45X10-W32-L120-Z06	●	6	3	45	10	32	120	20	25			
ATSM90-CC06-D25X11-W25-L100-Z04	●	4	2	25	11	25	100	13	20			
ATSM90-CC09-D30X12-W25-L100-Z04	●	4	2	30	12	25	100	16	25			
ATSM90-CC09-D32X12-W25-L100-Z02	●	2	1	32	12	25	100	16	25			
ATSM90-CC09-D32X12-W25-L100-Z04	●	4	2	32	12	25	100	16	25			
ATSM90-CC09-D32X14-W25-L100-Z04	●	4	2	32	14	25	100	16	25	CC.. 09T3..	4015-M3.5x9	80-T15
ATSM90-CC09-D37X16-W32-L120-Z04	●	4	2	37	16	32	120	17	30			
ATSM90-CC09-D42X17-W32-L120-Z04	●	4	2	42	17	32	120	19	30			
ATSM90-CC09-D40X17-W32-L120-Z04-H	●	4	2	40	17	32	120	19	30			
ATSM90-CC12-D47X20-W32-L120-Z04	●	4	2	47	20	32	120	25	45			
ATSM90-CC12-D52X21-W32-L120-Z04	●	4	2	52	21	32	120	25	45			
ATSM90-CC12-D50X22-W32-L120-Z04	●	4	2	50	22	32	120	25	45	CC.. 1204..	1020-M5x11	80-T20
ATSM90-CC12-D55X22-W32-L120-Z04	●	4	2	55	22	32	120	25	45			

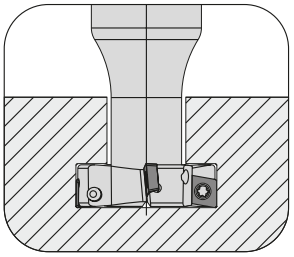
R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück ATSM90-CC06-D17X8-W16-L85-Z02
Kesme Hesabı : S 331 / *Cutting Calculation : P 331* / *Schnittberechnung : 331*



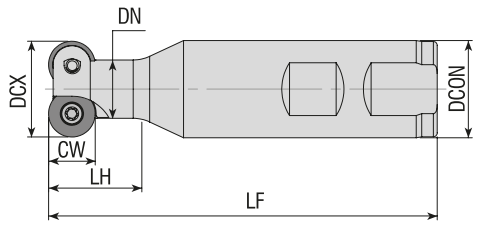


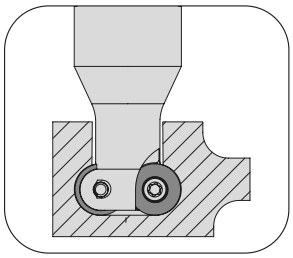




Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*								Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile* Tork Anahtar *Torx Key* *Torx-Schlüssel*	Montaj Vidası *Mounting Screw* *Befestigungsschraube*
		ZEFP										
		Toplam *Total* *Gesamt*	Etkili *Effective* *Effektiv*	DC	CW	DCON	LF	DN	LH			
ATSM90-SP..05-D22.5X5-W25-L100-Z04	●	4	2	22.5	5	25	100	12	25	**SPMG 050204** TGTC UCUNA UYGUNDUR. *FOR TGTC INSERT. Kompatibel mit TGTC Wendeplatten*	3006-M2x4	80-T06
ATSM90-SP..05-D30X5-W25-L100-Z04	●	4	2	30	5	25	100	10	25			
ATSM90-SPGT0502-D63X6-W32-L125-Z10	●	10	5	63	6	32	125	31	30	**SPGT 050204**		
ATSM90-SPGT0904-D32X14-W32-L120-Z04-H	●	4	2	32	14	32	120	17.5	30	**SPGT 090408** ZCC UCUNA UYGUNDUR. *FOR ZCC INSERT. Kompatibel mit ZCC Wendeplatten*	4015-M3.5x9	80-T15
ATSM90-SPGT0904-D37X16-W32-L120-Z04-H	●	4	2	37	16	32	120	21	40			
ATSM90-SPGT0904-D42X17-W32-L120-Z04-H	●	4	2	42	17	32	120	21	40			
ATSM90-SPGT1104-D47X20-W32-L120-Z04-H	●	4	2	47	20	32	120	24	45	**SPGT 110408**	4015-M4x11	
ATSM90-SP..06-D80X7-W32-L120-Z10	●	10	5	80	7	32	120	32	30	**SPMG 060204** TGTC UCUNA UYGUNDUR. *FOR TGTC INSERT. Kompatibel mit TGTC Wendeplatten*	3007-M2.2x5	80-T07







Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*							Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile* Tork Anahtar *Torx Key* *Torx-Schlüssel*	Montaj Vidası *Mounting Screw* *Befestigungsschraube*
		ZEFP	DCX	CW	DCON	LF	DN	LH			
ATSMR-RD0702-D17-W16-L90-Z02	●	2	17	7	16	90	10	12	**RD.. 0702**	3008-M2.5x6	80-T08
ATSMR-RD0702-D25-W16-L90-Z03	●	3	25	7	16	90	15	12			
ATSMR-RD0702-D35-W25-L100-Z05	●	5	35	7	25	100	20	20			
ATSMR-RD1003-D21-W25-L100-Z02	●	2	21	10	25	100	12	20	**RD.. 1003**	4015-M3.5x9	80-T15
ATSMR-RD1003-D80-W32-L165-Z06-H	●	6	80	10	32	165	30	31.5			
ATSMR-RD12T3-D25-W25-L100-Z02	●	2	25	12	25	100	15	24	**RD.. 12T3**		
ATSMR-RD12T3-D80-W32-L165-Z06-H	●	6	80	12	32	165	30	31.5			
ATSMR-RD1604-D34-W32-L110-Z02	●	2	34	16	32	110	20	30	**RD.. 1604**	4015-M4.5x11	

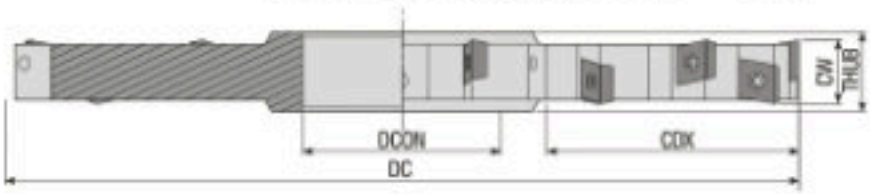
R: Sağ / Right / *Rechts* L: Sol/Left/*Links*
● Stokta / In Stock /*Auf Lager* ○ Stokta Yok / Non Stock Item / *Kein Lagerartikel, Lieferzeit auf Anfrage*
ISO Ucuna Uygundur. / Compatiple with ISO Insert. Kompatibel mit ISO Wendeplatten.

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück ATSM90-SP.05-D22.5X5-W25-L100-Z04
Kesme Hesabı : S 331 / *Cutting Calculation : P 331* / *Schnittberechnung : 331*

BF SERVICE



VEDI ANCHE PAG 321 - 322



Takım Kodu / Ordering Code / Bestell-Bezeichnung	Stok / Stock / Lager	Takım Ölçüleri (mm) / Dimensions (mm) / Abmessung (mm)							Kesici Uç / Insert / Wendeschneidplatte	Yedek Parçaları / Spare Parts / Ersatzteile: Torx Anahtar / Torx Key / Torx-Schlüssel	Yedek Parçaları / Spare Parts / Ersatzteile: Montaj Vidası / Mounting Screw / Befestigungsschraube
		ZEFP: Toplam / Total / Gesamt	ZEFP: Etkili / Effective / Effektiv	DC	CW	CDX	DCON	THUB			
ASDM-SPGT05-D80x6-d27-Z10	•	10	5	80	6	17	27	10	SPGT 050204 ZCC UCUNA UYGUNDUR. FOR ZCC INSERT. Kompatibel ZCC Wendeplatten	3006-M2x4	80-T06
ASDM-SPGT05-D100x6-d32-Z12	•	12	6	100	6	25	32	10			
ASDM-SPGT05-D125x6-d40-Z14	•	14	7	125	6	35	40	10			
ASDM-SPGT05-D160x6-d40-Z18	•	18	9	160	6	52	40	10			
ASDM-SPGT06-D80x7-d27-Z10	•	10	5	80	7	17	27	11	SPGT 060204 ZCC UCUNA UYGUNDUR. FOR ZCC INSERT. Kompatibel ZCC Wendeplatten	3007-M2.2x5	80-T07
ASDM-SPGT06-D100x7-d32-Z12	•	12	6	100	7	25	32	11			
ASDM-SPGT06-D125x7-d40-Z14	•	14	7	125	7	35	40	11			
ASDM-SPGT06-D160x7-d40-Z16	•	16	8	160	7	52	40	11			
ASDM-SPGT06-D200x7-d40-Z18	•	18	9	200	7	70	40	11			
ASDM-SPGT07-D100x10-d32-Z12	•	12	6	100	10	25	32	11	SPGT 07T308	3008-M2.5x6	80-T08

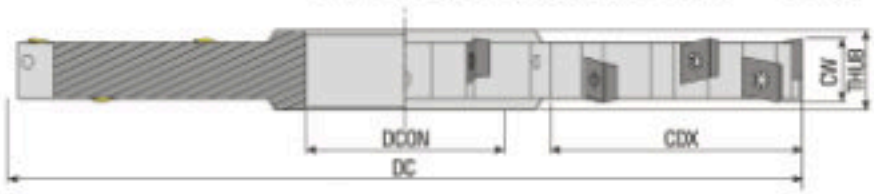
R: Sağ / Right / Rechts L: Sol/Left/Links
• Stokta / In Stock / Auf Lager ○ Stokta Yok / Non Stock Item / Kein Lagerartikel, Lieferzeit auf Anfrage

Siparış Örneği/Ordering Example/Bestellbeispiel
1 ad./pcs./stück ASDM-SPGT05-D80x6-d27-Z10
Kesme Hesabı : S 331 / Cutting Calculation : P 331 / Schnittberechnung : 331





VEDI ANCHE PAG 321 - 322



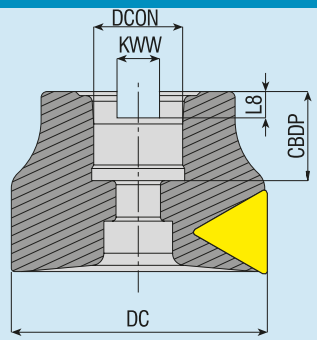
Takım Kodu / Ordering Code / Bestell-Bezeichnung	Stok / Stock / Lager	ZEFP Toplam / Total / Gesamt	ZEFP Etkili / Effective / Effektiv	DC	CW	CDX	DCON	THUB	Kesici Uç / Insert / Wendeschneidplatte	Yedek Parçaları / Spare Parts / Ersatzteile: Tork Anahtar / Torx Key / Torx-Schlüssel	Yedek Parçaları / Spare Parts / Ersatzteile: Montaj Vidası / Mounting Screw / Befestigungsschraube
ASDM-CC06-D80x8-d27-Z10	•	10	5	80	8	17	27	12	CC.. 0602.. ISO UCUNA UYGUNDUR. FOR ISO INSERT. Kompatibel ISO Wendeplatten	3008-M2.5x6	80-T08
ASDM-CC06-D100x8-d32-Z12	•	12	6	100	8	25	32	12			
ASDM-CC06-D125x8-d40-Z14	•	14	7	125	8	35	40	12			
ASDM-CC06-D160x8-d40-Z16	•	16	8	160	8	52	40	12			
ASDM-CC06-D200x8-d40-Z18	•	18	9	200	8	70	40	12			
ASDM-CC06-D80x10-d27-Z10	•	10	5	80	10	17	27	14			
ASDM-CC06-D100x10-d32-Z12	•	12	6	100	10	25	32	14			
ASDM-CC06-D125x10-d40-Z14	•	14	7	125	10	35	40	14			
ASDM-CC06-D160x10-d40-Z16	•	16	8	160	10	52	40	14			
ASDM-CC06-D200x10-d40-Z18	•	18	9	200	10	70	40	14			
ASDM-CC09-D80x12-d27-Z08	•	8	4	80	12	17	27	16	CC.. 09T3.. ISO UCUNA UYGUNDUR. FOR ISO INSERT. Kompatibel ISO Wendeplatten	4015-M3.5x11	80-T15
ASDM-CC09-D100x12-d32-Z10	•	10	5	100	12	25	32	16			
ASDM-CC09-D125x12-d40-Z12	•	12	6	125	12	35	40	16			
ASDM-CC09-D160x12-d40-Z14	•	14	7	160	12	52	40	16			
ASDM-CC09-D200x12-d40-Z16	•	16	8	200	12	70	40	16			
ASDM-CC09-D80x14-d27-Z08	•	8	4	80	14	17	27	18			
ASDM-CC09-D100x14-d32-Z10	•	10	5	100	14	25	32	18			
ASDM-CC09-D125x14-d40-Z12	•	12	6	125	14	35	40	18			
ASDM-CC09-D160x14-d40-Z14	•	14	7	160	14	52	40	18			
ASDM-CC09-D200x14-d40-Z16	•	16	8	200	14	70	40	18			
ASDM-CC12-D80x16-d27-Z06	•	6	3	80	16	17	27	20	CC.. 1204.. ISO UCUNA UYGUNDUR. FOR ISO INSERT. Kompatibel ISO Wendeplatten	1020-M5x11	80-T20
ASDM-CC12-D100x16-d32-Z08	•	8	4	100	16	25	32	20			
ASDM-CC12-D125x16-d40-Z10	•	10	5	125	16	35	40	20			
ASDM-CC12-D160x16-d40-Z12	•	12	6	160	16	52	40	20			
ASDM-CC12-D200x16-d40-Z14	•	14	7	200	16	70	40	20			
ASDM-CC12-D80x18-d27-Z06	•	6	3	80	18	17	27	22			
ASDM-CC12-D100x18-d32-Z08	•	8	4	100	18	25	32	22			
ASDM-CC12-D125x18-d40-Z10	•	10	5	125	18	35	40	22			
ASDM-CC12-D160x18-d40-Z12	•	12	6	160	18	52	40	22			
ASDM-CC12-D200x18-d40-Z14	•	14	7	200	18	70	40	22			
ASDM-CC12-D250x18-d40-Z16	•	16	8	250	18	90	40	22			
ASDM-CC12-D80x20-d27-Z06	•	6	3	80	20	17	27	24			
ASDM-CC12-D100x20-d32-Z08	•	8	4	100	20	25	32	24			
ASDM-CC12-D125x20-d40-Z10	•	10	5	125	20	35	40	24			
ASDM-CC12-D160x20-d40-Z12	•	12	6	160	20	52	40	24			
ASDM-CC12-D200x20-d40-Z14	•	14	7	200	20	70	40	24			
ASDM-CC12-D250x20-d40-Z16	•	16	8	250	20	90	40	24			

R: Sağ / Right / Rechts L: Sol/Left/Links
• Stokta / In Stock / Auf Lager ○ Stokta Yok / Non Stock Item / Kein Lagervorrätig, Lieferzeit auf Anfrage

Sipariş Örneği/Ordering Example/Bestellbeispiel
1 ad./pcs./stück ASDM-CC06-D80x8-d27-Z10
Kesme Hesabı : S 331 / Cutting Calculation : P 331 / Schnittberechnung : 331

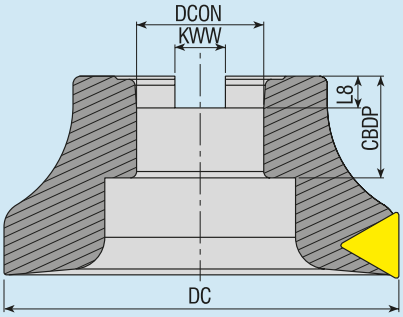
BF SERVICE

A TİP / *A TYPE / A-Typ*



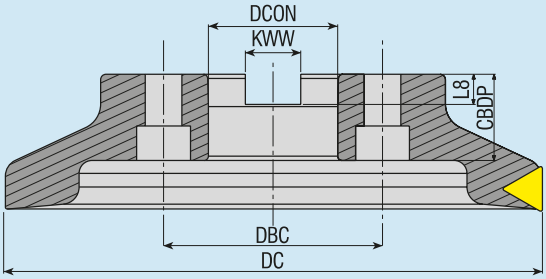
DC	DCON	DBC	KWW	L8	CBDP
40	16	-	8.4	5.6	20
50	22	-	10.4	6.3	22
63	22	-	10.4	6.3	22
80	27	-	12.4	7	25
100	32	-	14.4	8	26

B TİP / *B TYPE / B-Typ*



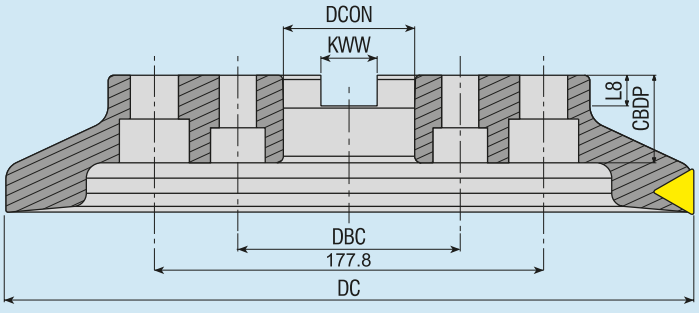
DC	DCON	DBC	KWW	L8	CBDP
125	40	-	16.4	9	32

C TİP / *C TYPE / C-Typ*



DC	DCON	DBC	KWW	L8	CBDP
160	40	66.7	16.4	9	32
200	60	101.6	25.7	14	40
250	60	101.6	25.7	14	40

D TİP / *D TYPE / D-Typ*



DC	DCON	DBC	KWW	L8	CBDP
315	60	101.6	25.7	14	40

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TAKMA UÇLU MATKAP (U-DRILL) KULLANMA KILAVUZU

Matkabınızı CNC torna tezgahına bağlamadan önce taretin merkezden kaçık olup olmadığını kontrol etmeniz gerekir. Şayet taretinizde kaçıklık varsa, takma uçlu matkabınızı kesinlikle kullanmayınız. Taretin düzeltilmesi için yapılması gereken işlemler ;

1. Taretin tutucusuna kullanacağınız takma uçlu matkabın çapında ve boyunda üzeri hassas olan silindirik bir parça bağlanır ve tazgahın X değeri sıfıra getirilir.

2. Tezgahın aynasına mıknatıslı komprotör saati yerleştirilir. Saatin uç kısmı tarete bağlamış olduğumuz parçanın üstüne temas ettirilir.

3. Aynanın üzerine bağlamış olduğumuz mıknatıslı komprotör ayna ile beraber 360 derece döndürülerek saatteki değişim oranına göre taretin sıfırlanması sağlanır.

TAKMA UÇLU MATKABINIZI CNC TORNANIZDA DAHA VERİMLİ KULLANMANIZ İÇİN GEREKLİ OLAN KESME HIZLARI ve DEVİRLERİ :

Grup No.	Malzemenin Cinsi	Malzemenin Öz.	Kesme Hızı Vc (m/dk)
1	Çok Yumuşak İş Çelikleri	C1010, Otomat vb.	220
2	İmalat Çelik ve Döküm Malz.	C1030 - 106 vb.	200
3	Takım ve İmalat Çeşitleri	CK-45, 4140, 7131 vb.	170
4	Sıcak İş ve Paslanmaz Çelikler	İmpaks vb.	150

Devir hesabı yapabilmek için önce malzemeyi seçiniz. Seçtiğiniz malzemenin kesme hızını (Vc) 1000 ile çarpıp 3.14'e bölmeliyiz. Çıkan değeri matkap çapına bölmeliyiz. **ÖRNEK** : Malzememiz takım ve imalat çeliği (3. grup), matkap çapı 25 mm kesme hızı 170 ise 170x1000=170000/3.14=54140, 54140/25=2166 devir çıkar (Tezgahın İş Mili Devri). Tezgahın ilerlemesi kullanacağınız uç ile de alakalı olup 0.05 ile 0.10 arasında değişim gösterir. Kullanıcı kesici ucun kesişine göre bunu ayarlar.

İŞLEME MERKEZLERİ İÇİN İLERLEME HESABI :

Yukarıdaki hesaplamalarla bulmuş olduğunuz 2166 iş mili devrini, kesici uç ilerlemesi (mm/devir) 0.05 ile 0.10 arasındaki ilerleme seçenekleri ile çarpılır. **ÖRNEK 1 :** 2166x0.05=108 **ÖRNEK 2 :** 2116x0.10=217 çıkan sonuçlar 108 ve 217 işleme merkezleri için ilerleme mm/dakika hesabıdır.

Not: D4 ve üzeri takma uçlu matkaplarda tezgahın içten su verme basıncının en az 6 bar olması gerekmektedir.

USER'S GUIDE FOR AKKO U-DRILLS

Before connecting your U-Drill to CNC lathe, you have to check if the turret is eccentric from the center or not. If there is any eccentricity in your turret, never use your U-Drill;

Processes that should be done to fix the turret :

1. A cylindirical part whose surface is precision and whose length and diameter is the same with the U-Drill that you will use, should be mounted to the holder of turret and X value of the lathe should be brought to zero (0).

2. Comparator should be mounted to chuck. The end of the comparator should be contacted (touched) to the surface of the part that we mounted on the turret.

3. The comparator that we mounted on the chuck should be turned 360-degree with the chuck and turret should be zeroed by that turning according to changing rate of comparator.

CUTTING SPEED AND REVOLUTION THAT ARE NEEDED FOR USING (RUNNING) YOUR U-DRILLS MORE PRODUCTIVELY

Grup No.	Material	Material Type	Cutting Speed Vc (m/m)
1	Non-alloy steel and free cutting steel	C1010. Automat etc.	220
2	Low alloy steel and cast steel	C1030 - 106 etc.	200
3	Alloy steel and tool steel	CK-45, 4140, 7131 etc.	170
4	Hot Work Steel and Stainless Steel	Impax etc.	150

P.S. : The cutting speed may be concerned with the type of the insert that you use.

Fistly, choose the material to make calculation of revolution. You should multiply the cutting speed (Vc) of the material that you chose by 1000 and divide by 3.14. You should divide the value that you found by the diameter of U-Drill. For Example : If our material is alloy steel and tool steel (3rd group), diameter of the U-Drill is 25 mm, cutting speed is 170, we should calculate as following; 170x1000=170000/3.14=54140, 54140/25=2166 rpm is the result that we found (Spindle Speed) Feed rate of the lathe is concerned with the U-Drill that you will use and changes between 0.05 and 0.10. The user sets it according to cut of cutting insert.

FEED CALCULATION FOR CENTRAL MACHINE :

2166 spindle speed, that we found as a result of above mentioned calculation, should be mutiplied by cutting insert feed (mm/r) between 0.05 and 0.10 feed choisses. Example 1 : 2166x0.05=108

Example 2 : 2116x0.10=217 The results 108 and 217 are the feed mm/m calculation for central machine.

Note: Cooling water pressure of lathe must be minimum 6 bar for our D4 u-drills and u-dirlls longer than D4.

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GEBRAUCHSANLEITUNG FÜR AKKO-VOLLBOHRER

Bevor Sie den Vollbohrer auf die Drehmaschine montieren, prüfen Sie bitte ob der Revolverkopf zentrisch sitzt. Sollte der Revolverkopf aus der Mitte stehen, benutzen Sie den Vollbohrer bitte nicht . Auf folgende Weise können Sie den Revolverkopf zentrieren:

1.Setzen Sie ein präzises Drehteil, das die gleiche Länge und den gleichen Durchmesser hat wie der eingesetzte Vollbohrer,in den Halter vom Revolverkopf und justieren Sie den X-Wert der Drehmaschine auf null.

2. Setzen Sie bitte einen Messtaster in das Spannfutter ein. Der Fühler des Messtasters sollte mit der Oberfläche des Präzisionsteils im Revolver Kontakt haben.

3. Drehen Sie nun das Spannfutter mit dem Messtaster um 360°. Die angezeigte Abweichung zwischen Futter und Revolver sollte null betragen.

SCHNITTGESCHWINDIGKEIT UND DREHZAHL UM DIE VOLLBOHRER WIRTSCHAFTLICH EINZUSETZEN

Hauptgruppe	Hauptgruppe	Materialbezeichnung	Schnittgeschwindigkeit vc (m/min.)
1	Nicht Legierter Stahl und Automatenstahl	C1010. Automatenstahl	220
2	Niedrig Legierter Stahl und Stahlguss	C1030 - 106 vb.	200
3	Legierter Stahl und Werkzeugstahl	CK-45, 4140, 7131 vb.	170
4	Warmarbeitsstahl und Rostfreier Stahl	Impax und weitere Chrom-Nickel-Stähle	150

P.S.: Die genaue Schnittgeschwindigkeit hängt von der verwendeten Wendeschneidplatte ab.
In Abhängigkeit vom Material wählen Sie die Schnittgeschwindigkeit vc. Diesen Wert multiplizieren Sie mit 1000 und teilen ihn durch 3,14 und den Durchmesser des Werkzeugs (in mm).

Beispiel: Rostfreier Stahl (Hauptgruppe 3), Werkzeugdurchmesser 25 mm, Schnittgeschwindigkeit vc=170 m/min. Die Berechnung sieht wie folgt aus: 170x1000=170000/3,14=54140/25=2166 U/min. (Spindeldrehzahl). Der Vorschub der Maschine hängt vom Vollbohrer und der verwendeten Wendeschneidplatte ab und variiert zwischen 0,05 mm und 0,1 mm / Umdrehung.

VORSCHRUBBERECHNUNG :

Die oben berechnete Spindeldrehzahl von 2166 wird mit dem Vorschub 0,05 mm und 0,1 mm multipliziert. 2166 Umdr./min. x 0,05 mm/Umdr.=108 mm/min. 2166 Umdr./min. x 0,1 mm/Umdr.=216 mm/min. D.h. der Vorschub liegt zwischen108 mm/min. und 216 mm/min.
Hinweis: Der Kühlmitteldruck muss mindestens 6 bar betragen für die Vollbohrer mit >= 4xD

SIKMA TORKU TAVSİYELERİ - RECOMMENDED TIGHTENING TORQUE
EMPFOHLENES ANZUGSMOMENT

- Takımı Sıkmadan Önce Aşağıdaki Bilgileri Okuyunuz.
  Read below information before tighting the tool.
  Bitte lesen Sie die nachfolgenden Informationen bevor Sie das Werkzeug spannen.
- Vidalı Takımın Vida Ölçüsü ile Tutucunun İç Vida Ölçüsünü Sıkmadan Önce Kontrol Ediniz.
  Check screw set's the screw size and together with mounting arbor inner dimension of screws.
  Prüfen Sie, ob das Gewinde vom Werkzeug mit dem Gewinde in der Verlängerung identisch ist.
- Takımı Tutucuya Sıkarken Tablodaki İlgili Değerlere Göre İşlem Yapınız.
  When tighting head to an arbor, follow the related tighting torque in the table.
  Wenn Sie den Einschraubfräser festziehen, beachten Sie bitte die angegebenen Anzugsmomente.

Vida *Screw* *Schraube*	Tork *Torque (N.m)* *Anzugsmoment (N.m)*
M6	8
M8	23
M10	46
M12	80
M16	90



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FREZELEME İŞLEMİNDE DEVİR ve İLERLEME HESABI

Vc.	S	D	F	Z	fz	FORMÜLLER
Kesme Hızı (Uç Kutusunun Arkasından Okuyunuz)	İş Mili Devir Sayısı	Tarama Kafası Çapı	İlerleme	Tarama Kafası Ağız Sayısı	Diş Başına Düşen İlerleme Miktarı (Uç Kutusunun Arkasından Okuyunuz)	Devir Hesabı : S=(Vc x 1000) / (3,14 x D) İlerleme Hesabı : F=S x Z x fz

Örnek : D=50 mm çapında, Z=5 ağızlı tarama kafası ile frezeleme yapacağız. Kesici uç kutusunun arkasında kesme hızı Vc=200m/dk. olarak verilmiş olsun. Tezgaha girilecek devri hesaplayalım: **Vc=200 m/dk. D=50 mm** S = Öncelikle Kesme Hızı 1000 ile çarpılır, çıkan sonuç 3,14 sayısına bölünür, buradan çıkan sonuç da tarama kafası çapına bölünür.
S=200x1000 = 200000 ⟶ 200000/3,14=63663 ⟶ 63663/50=1273 devir **S=1273 dev/dakika** deviri bulduktan sonra ilerlemeyi bulalım : **Z=5** ağızlı tarama kafası olsun **fz=0,12** olarak uç kutusunun arkasından okunmuş olsun F= yukarıda bulmuş olduğumuz devir sayısı ile ağız sayısı çarpılır, çıkan sonuç diş başına düşen ilerleme miktarı ile çarpılır.
F=1273x5 = 6365 ⟶ 6365x0,12 = 763 F=763 mm/dakika
Tezgaha girilecek olan devir = S 1273 Tezgaha girilecek olan ilerleme : **F 763 ortalama değerdir.**

Not: Vc ve fz değerlerinin uç kutusunun arkasında verilmiş olması gerekir. Eğer bu değerleruç kutusunun üzerinde yoksa, kesici ucun katoloğundan bulunuz. İşleyeceğiniz malzeme çelik ise P, paslanmaz çelik ise M, dökme demir ise K bölümünde yazılı olan Vc ve fz değerlerini okuyun.

CALCULATING SPINDLE SPEED and FEED RATE FOR MILLING PROCESS

Vc.	S	D	F	Z	fz	FORMULAS
Cutting Speed (Please read from the back-side of cutting insert box)	Spindle Revolution rpm	Milling Tool Diameter	Feed Rate	Number of Effective Tooth	Feed Per Tooth (Please Read From The Back Side of Cutting Insert Box)	Calculation of Revolution : S=(Vc x 1000) / (3,14 x D) Feed Rate Calculation : F=S x Z x fz

For Example : We will make milling with milling tool whose diamention is D 50 mm, whose theeth number is Z=5. The spindle revolution was written as Vc=200m/mn at the back side of cutting insert box. Let's calculate the revolution that should be entered to the milling machine : Vc=200 m/mn D=50 mm
S = Firstly Cutting Speed is multiplied with 1000, the result should be divided by 3.14 , the last result should be divided by diameter of milling tool.
S = 200 x1000 = 200000 ⟶ 200000/3,14 = 63663 ⟶ 63663/50 = 1273 rev S=1273 rev / mn
After finding spindle revolution, let's find feed rate : milling tool with Z=5 teeth and we read fz=0,12 from the back side of cutting insert box.
F = Tooth number should be multiplied with revolution, the result should be multiplied with feed per tooth.
F = 1273 x 5 = 6365 ⟶ 6365 x 0,12 = 763 F = 763 mm / mn
Revolution that should be entered to the milling machine = S 1273 Feed Rate that should be entered to the milling machine = F 763 average value.
P.S : The values Vc and fz has to be written at the back side of the cutting insert. If these values were not written on the cutting insert box, please find them from cutting insert catalogue. If the material that you will work is steel, please read Vc and fz values that were written on the part P, if it is stainless steel please read from the part M, if it is cast iron please read from the part K.

BERECHNUNG VON DREHZAHL UND VORSCHUB FÜR FRÄSWERKZEUGE

Vc.	S	D	F	Z	fz	Formeln
Schnittgeschwin-digkeit (finden Sie z.B. auf der Verpackung der Wendeschneid-platte	Spindel Drehzahl	Fräswerkzeug Durchmesser	Vorschubgeschwindigkeit	Anzahl der effektiven Zähne	Vorschub pro Zahn (finden Sie z.B. auf der Verpackung der Wendeschneidplatte)	Berechnung der Drehzahl: n= (vc x 1000) / (3,14xD) Vorschubberechnung: F=n x Z x fz

Beispiel: Fräswerkzeug mit D=50 mm und Z=5. Schnittgeschwindigkeit vc=200 m/min. (laut Wendeplattenverpackung).
Berechnung der Drehzahl: n=200 m/min. x 1000 = 200000 / 3,14=63694 / 50 mm = 1273 Umdr./min.
Berechnung des Vorschubs: Ermittlung von fz (finden Sie z.B. auf der Verpackung der Wendeschneidplatte), für das Berechnungsbeispiel fz=0,12 mm F = n x Z x fz = 1273 x 5 x 0,12 = 763 mm/min. D.h., Sie stellen an der Maschine folgende Werte ein: Drehzahl n = 1273 Umdr./min., Vorschub F = 763 mm/min.

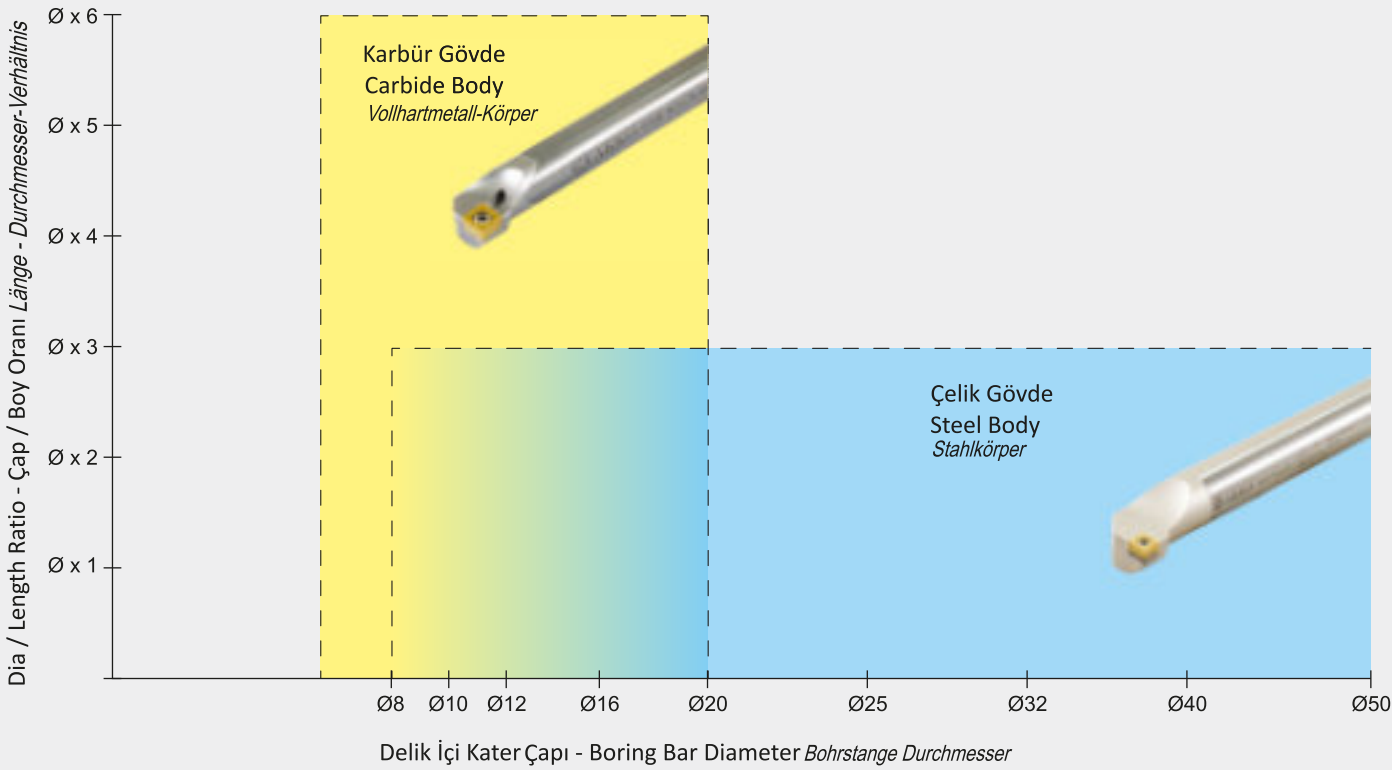
P.S.: Die Werte für vc und fz finden Sie auf der Rückseite der Wendeschneidplattenverpackung. Sollten diese Werte dort nicht stehen, können Sie diese auch im Wendeschneidplattenkatalog finden. Für Stahl wählen Sie für vc und fz bitte die Werte aus dem Bereich P, für rostfreien Stahl aus dem Bereich M und für Guss aus dem Bereich K.

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Gövde Malzemesine Göre Delik İçi Kater Uygulama Kılavuzu

Internal Boring Bars Application Guide, Related to Body Material

Anwendungshinweise für Bohrstangen, abhängig vom Bohrstangen-Material



T Kanal Freze Kullanım ve Ön Hazırlama Kılavuzu

Application Guide For T-Slot Milling

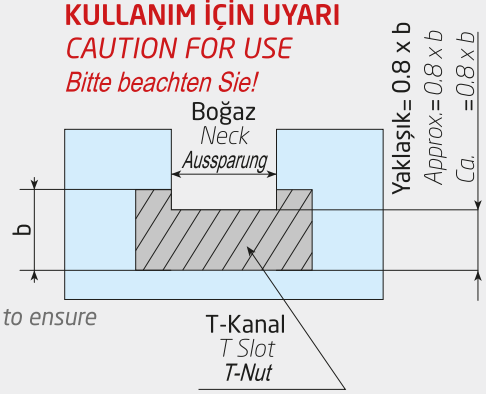
Anwendungshinweise für T-Nutenfräser

T kanal frezelemede talaşın rahat boşaltılması için iş parçası resimde gösterildiği şekilde işlenmelidir.

Örnek: ATSM90-CC06- D32X10-W25- L100-Z04 kodlu T freze ile kanal açmadan önce, takımın boğazının çalışacağı kısmın parmak freze ile işlenmesi gerekir. Bu durumda kanalın tamamen işlenmesi çok yanlıştır. Tabanda (0.8 x b = 0.8 x 10) 8mm işlenmeden bırakılmalıdır. Bu bölgeyi T frezenin işlemesi, takımın daha sağlıklı çalışması açısından gereklidir.

İşlenen kanallarda yumuşak kesim için talaşlar uzaklaştırılmış olmalıdır.

KULLANIM İÇİN UYARI
CAUTION FOR USE
Bitte beachten Sie!



When T slot machining steel, the workpiece must be machined as shown in the drawing to ensure smooth chip evacuation.
Example: Before slotting with the T - slot milling cutter - code ATSM90-CC06-D32X10-W25-L100-Z04,
The area of the neck of the tools to be worked and must be machined by End-Mill.
In this case, it is very wrong to machining the slot completely.
Bottom area (0.8 x b = 0.8 x 10) should be left 8 mm without machining.
This area's operation must be machined by the T- slot milling cutter which is also necessary for the healthier work of the tool holder.

Slots to be machined must be free from chips for smooth machining.

Beim Einsatz von T-Nutenfräsern muss das Werkstück so bearbeitet werden wie es in der Zeichnung dargestellt ist, um einen problemlosen Spänetransport zu gewährleisten.
Bespiel: Einsatz des T-Nutenfräsers ATSM90-CC06-D32X10-W25-L100-Z04
Die Aussparung für den Halsbereich des T-Nutenfräsers muss mit einem Schaftfräser vorgearbeitet werden. Bitte beachten Sie dabei, dass die Aussparung nicht komplett bis auf den Grund gefräst wird, sondern eine Bodenstärke von 0,8xb (im Beispiel 0,8x10 mm=8 mm) im Werkstück verbleibt.
Dieser Bereich soll mit dem T-Nutenfräser bearbeitet werden, da dies für die Stabilität und Standzeit des Werkzeugs besser ist.
In der zu bearbeitenden Nut sollten keine Späne mehr vorhanden sei.

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α = 5 Kat Dayanıklılık | α = 5 Times Long Life | α = 5-Fache Standzeit

Alfa Kaplamanın Avantajları
Alpha Coating Advantages
Vorteile der Alpha-Beschichtung

- **Yüksek aşınma direnci**
  High resistance to abrasion
  Hoher Verschleißschutz
- **Yüksek yüzey sertliği 750-800 Vickers**
  High surface hardness 750-800 Vickers
  Hohe Oberflächenhärte von 750-800 HV
- **Temperlemeye karşı yüksek direnç**
  High resistance to tempering
  Hoher Temperaturwiderstand
- **Yüksek yorulma mukavemeti**
  High fatigue strength
  Hohe Dauerfestigkeit
- **Yüksek çizik ve çentik direnci**
  High scratch and impact resistance
  Hoher Kratz-und Stoß-widerstand
- **Paslanmaz olmayan çelikler için daha yüksek korozyon direnci**
  Resistant to corrosion of non-stainless steel
  Korrosionsschutz



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longer tool life...

längere Werkzeug-Standzeit

α Çevre Dostudur. α is friend of environment.
α ist umweltfreundlich.

İnsan sağlığı açısından zararlı değildir. Is not harmful to human health.
Nicht gesundheitsschädlich.

Gaz ve diğer atıkları çevreyi kirletmez. Gas and other wastes will not pollute the environment.
Umweltverträgliches Beschichtungsverfahren.

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ALTLIKLAR / *SHIMS* / *UNTERLAGE*

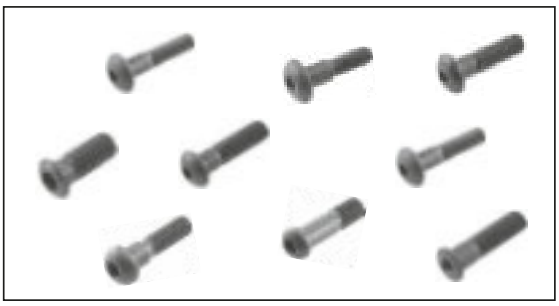
ÜRÜN RESMİ/*PICTURE* *BILD*	ÜRÜN KODU/*CODE* *BEZEICHNUNG*	ÜRÜN DETAYI / *PRODUCT DETAIL* *PRODUKTBESCHREİBUNG*	
	**AATN-2-0001**	S-SİSTEM için / *For S-SYSTEM* / *FÜR S-SYSTEM*	TCMT 16 ALTLIK / *SHIM* / *UNTERLAGE*
	AATN-2-0002	T-M SİSTEM için / *For T-M SYSTEM* / *FÜR T-M-SYSTEM*	TNMG 16 ALTLIK / *SHIM* / *UNTERLAGE*
		C-SİSTEM için / *For C-SYSTEM* / *FÜR C-SYSTEM*	TNGN 16 ALTLIK / *SHIM* / *UNTERLAGE*
	AATN-3-0025	P-SİSTEM için / *For P-SYSTEM* / *FÜR P-SYSTEM*	TNMG 16 ALTLIK / *SHIM* / *UNTERLAGE*
	AATN-3-0015	T-M-P SİSTEM için / *For T-M SYSTEM* / *FÜR T-M-P-SYSTEM*	TNMG 22 ALTLIK / *SHIM* / *UNTERLAGE*
	**AATN-2-0020**	DİŞ VİDA 16 ALTLIK / *For THREADING 16 SHIM* / *GEWINDE 16 UNTERLAGE*	
	AATN-2-0004	DİŞ VİDA 22 ALTLIK / *For THREADING 22 SHIM* / / *GEWINDE 22 UNTERLAGE*	
	**ATS-16E**	DİŞ VİDA 16, DIŞ ÇAP SAĞ - DELİK İÇİ SOL ALTLIK / *For THREADING SYSTEM 16 SHIM, EXTERNAL RIGHT-INTERNAL LEFT* / *FÜR 16 ER-GEWINDEPLATTE, EXTERN RECHTS - INTERN LINKS*	
	ATS-16I	DİŞ VİDA 16, DIŞ ÇAP SOL - DELİK İÇİ SAĞ ALTLIK / *For THREADING SYSTEM 16 SHIM, EXTERNAL LEFT-INTERNAL RIGHT* / *FÜR 16 ER-GEWINDEPLATTE, EXTERN LINKS - INTERN RECHTS*	
	**ATS-22E**	DİŞ VİDA 22, DIŞ ÇAP SAĞ - DELİK İÇİ SOL ALTLIK / *For THREADING SYSTEM 22 SHIM, EXTERNAL RIGHT-INTERNAL LEFT* / *FÜR 22 ER-GEWINDEPLATTE, EXTERN RECHTS - INTERN LINKS*	
	ATS-22I	DİŞ VİDA 22, DIŞ ÇAP SOL - DELİK İÇİ SAĞ ALTLIK / *For THREADING SYSTEM 22 SHIM, EXTERNAL LEFT-INTERNAL RIGHT* / *FÜR 22 ER-GEWINDEPLATTE, EXTERN LINKS - INTERN RECHTS*	
	ATS-27E	DİŞ VİDA 27, DIŞ ÇAP SAĞ - DELİK İÇİ SOL ALTLIK / *For THREADING SYSTEM 27 SHIM, EXTERNAL RIGHT-INTERNAL LEFT* / *FÜR 27 ER-GEWINDEPLATTE, EXTERN RECHTS - INTERN LINKS*	
	ATS-27I	DİŞ VİDA 27, DIŞ ÇAP SOL - DELİK İÇİ SAĞ ALTLIK / *For THREADING SYSTEM 27 SHIM, EXTERNAL LEFT-INTERNAL RIGHT* / *FÜR 27 ER-GEWINDEPLATTE, EXTERN LINKS - INTERN RECHTS*	
	**AACN-2-0001**	S-SİSTEM için / *For S-SYSTEM* / *FÜR S-SYSTEM*	CCMT 09 ALTLIK / *SHIM* / *UNTERLAGE*
		T-SİSTEM için / *For T-SYSTEM* / *FÜR T-T-SYSTEM*	CNMG 09 ALTLIK / *SHIM* / *UNTERLAGE*
	AACN-2-0002	P-SİSTEM için / *For P-SYSTEM* / *FÜR P-SYSTEM*	CNMG 09 ALTLIK / *SHIM* / *UNTERLAGE*
	**AACN-2-0003**	S-SİSTEM için / *For S-SYSTEM* / *FÜR S-SYSTEM*	CCMT 12 ALTLIK / *SHIM* / *UNTERLAGE*
	AACN-3-0001	T-M-P SİSTEM için / *For T-M-P SYSTEM* / *FÜR T-M-P-SYSTEM*	CNMG 12 ALTLIK / *SHIM* / *UNTERLAGE*
		C-SİSTEM için / *For C-SYSTEM* / *FÜR C-SYSTEM*	CNGN 12 ALTLIK / *SHIM* / *UNTERLAGE*
	**AACN-3-0002**	T-P SİSTEM için / *For T-P SYSTEM* / *FÜR T-P-SYSTEM*	CNMG 16 ALTLIK / *SHIM* / *UNTERLAGE*
	AACN-3-0003	T-P SİSTEM için / *For T-P SYSTEM* / *FÜR T-P-SYSTEM*	CNMG 19 ALTLIK / *SHIM* / *UNTERLAGE*
	AACN-3-0008	T-P SİSTEM için / *For T-P SYSTEM* / *FÜR T-P-SYSTEM*	CNMG 25 ALTLIK / *SHIM* / *UNTERLAGE*
	**AAWN-2-0003**	T-M-P SİSTEM için / *For T-M-P SYSTEM* / *FÜR T-M-P-SYSTEM*	WNMG 08 KALIN ALTLIK / *THICK SHIM* / *DICKE UNTERLAGE*
	AAWN-3-0001	T-M-P SİSTEM için / *For T-M-P SYSTEM* / *FÜR T-M-P-SYSTEM*	WNMG 08 ALTLIK / *SHIM* / *UNTERLAGE*
	AAWN-SW317	T-M-P SİSTEM için / *For T-M-P SYSTEM* / *FÜR T-M-P-SYSTEM*	WNMG 06 ALTLIK / *SHIM* / *UNTERLAGE*
	**AKS-16L**	C-SİSTEM için / *For C-SYSTEM* / *FÜR C-SYSTEM*	KNUX-L 16 ALTLIK / *SHIM* / *UNTERLAGE*
	AKS-16R	C-SİSTEM için / *For C-SYSTEM* / *FÜR C-SYSTEM*	KNUX-R 16 ALTLIK / *SHIM* / *UNTERLAGE*
	**AASD-3-0001**	S-SİSTEM FREZELEME için / *For S-SYSTEM MILLING* / *S-SYSTEM FÜR FRÄSER*	SDMT 12 ALTLIK / *SHIM* / *UNTERLAGE*
	AASE-3-0001	S-SİSTEM FREZELEME için / *For S-SYSTEM MILLING* / *S-SYSTEM FÜR FRÄSER*	SEMT 13 ALTLIK / *SHIM* / *UNTERLAGE*
	AASN-2-0001	S-SİSTEM için / *For S-SYSTEM* / *FÜR S-SYSTEM*	SCMT 09 ALTLIK / *SHIM* / *UNTERLAGE*
	AASN-2-0002	P-SİSTEM için / *For P-SYSTEM* / *FÜR P-SYSTEM*	SNMG 09 ALTLIK / *SHIM* / *UNTERLAGE*
	AASN-2-0004	S-SİSTEM için / *For S-SYSTEM* / *FÜR S-SYSTEM*	SCMT 12 ALTLIK / *SHIM* / *UNTERLAGE*
	AASN-3-0004	T-P SİSTEM için / *For T-P SYSTEM* / *FÜR T-P-SYSTEM*	SNMG 12 ALTLIK / *SHIM* / *UNTERLAGE*
		C-SİSTEM için / *For C-SYSTEM* / *FÜR C-SYSTEM*	SNGN 12 ALTLIK / *SHIM* / *UNTERLAGE*
	AASN-3-0023	T-P SİSTEM için / *For T-P SYSTEM* / *FÜR T-P-SYSTEM*	SNMG 15 ALTLIK / *SHIM* / *UNTERLAGE*
	AASN-3-0005	T-P SİSTEM için / *For T-P SYSTEM* / *FÜR T-P-SYSTEM*	SNMG 19 ALTLIK / *SHIM* / *UNTERLAGE*
	AASN-3-0020	T-P SİSTEM için / *For T-P SYSTEM* / *FÜR T-P-SYSTEM*	SNMG 25 ALTLIK / *SHIM* / *UNTERLAGE*
	AASN-20020	PSDNN KARTUŞ için / *For PSDNN CARTRIDGE* / *FÜR PSDNN-KURZDREHHALTER*	SNMG 12 ALTLIK / *SHIM* / *UNTERLAGE*
	**AADN-2-0001**	S-SİSTEM için / *For S-SYSTEM* / *FÜR S-SYSTEM*	DCMT 11 ALTLIK / *SHIM* / *UNTERLAGE*
		T-SİSTEM için / *For T-SYSTEM* / *FÜR T-SYSTEM*	DNMG 11 ALTLIK / *SHIM* / *UNTERLAGE*
	AADN-SD317	P-SİSTEM için / *For P-SYSTEM* / *FÜR P-SYSTEM*	DNMG 11 ALTLIK / *SHIM* / *UNTERLAGE*
	AADN-3-0001	T-M-P SİSTEM için / *For T-M-P SYSTEM* / *FÜR T-M-P-SYSTEM*	DNMG 15 ALTLIK / *SHIM* / *UNTERLAGE*
		C-SİSTEM için / *For C-SYSTEM* / *FÜR C-SYSTEM*	DNGN 15 ALTLIK / *SHIM* / *UNTERLAGE*
	AADN-2-0003	T-SİSTEM için / *For T-SYSTEM* / *FÜR T-SYSTEM*	*DNMG 15 KALIN ALTLIK* / *THICK SHIM* / *DICKE UNTERLAGE*
	**AAVN-2-0002**	S-SİSTEM için / *For S-SYSTEM* / *FÜR S-SYSTEM*	VBMT 16, VCMT 16 ALTLIK / *SHIM* / *UNTERLAGE*
		T-SİSTEM için / *For T-SYSTEM* / *FÜR T-SYSTEM*	VNMG 16 ALTLIK / *SHIM* / *UNTERLAGE*
	**AARC-3-0001**	C-SİSTEM için / *For C-SYSTEM* / *FÜR C-SYSTEM*	RCGX 06 ALTLIK / *SHIM* / *UNTERLAGE*
	AARC-3-0002	C-SİSTEM için / *For C-SYSTEM* / *FÜR C-SYSTEM*	RCGX 09 ALTLIK / *SHIM* / *UNTERLAGE*
	AARC-3-0003	C-SİSTEM için / *For C-SYSTEM* / *FÜR C-SYSTEM*	RCGX 12 ALTLIK / *SHIM* / *UNTERLAGE*

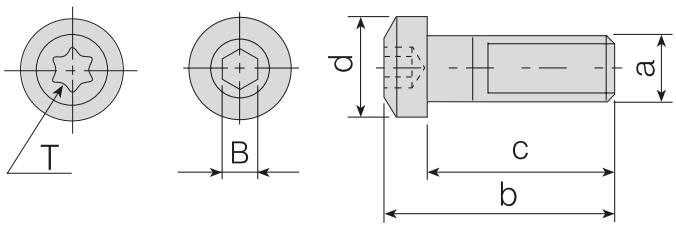
BF SERVICE

BASKI PABUÇLARI / *CLAMPS* / *SPANNSPRATZE*

ÜRÜN RESMİ/*PICTURE* *BILD*	ÜRÜN KODU/*CODE* *BEZEICHNUNG*	ÜRÜN DETAYI / *PRODUCT DETAIL* *PRODUKTBESCHREİBUNG*	
	**ATK-01**	T-SİSTEM için / *For T-SYSTEM* / *FÜR T-SYSTEM*	DNMG 11, WNMG 06, TNMG 16, CNMG 09 BASKI PABUCU / *CLAMP* / *PRATZE*
	**ATK-02**	T-SİSTEM için / *For T-SYSTEM* / *FÜR T-SYSTEM*	CNMG 12, WNMG 08, TNMG 22, DNMG 15, SNMG 12 BASKI PABUCU / *CLAMP* / *PRATZE*
	**ATK-03**	T-SİSTEM için / *For T-SYSTEM* / *FÜR T-SYSTEM*	VNMG 16 BASKI PABUCU / *CLAMP* / *PRATZE*
	**ATK-04**	T-SİSTEM için / *For T-SYSTEM* / *FÜR T-SYSTEM*	CNMG 16, SNMG 15 BASKI PABUCU / *CLAMP* / *PRATZE*
	**AMK-01**	M-SİSTEM için / *For M-SYSTEM* / *FÜR M-SYSTEM*	WNMG 06 BASKI PABUCU / *CLAMP* / *PRATZE*
	**AMK-02**	M-SİSTEM için / *For M-SYSTEM* / *FÜR M-SYSTEM*	DELİK İÇİ / *INTERN* / *INNEN* Ø20 TNMG 16, Ø25 MT-NR/L 16 BASKI PABUCU / *CLAMP* / *PRATZE*
	**AMK-03**	M-SİSTEM için / *For M-SYSTEM* / *FÜR M-SYSTEM*	DNMG 11, CNMG 12 BASKI PABUCU / *CLAMP* / *PRATZE*
	**AMK-04**	M-SİSTEM için / *For M-SYSTEM* / *FÜR M-SYSTEM*	DNMG 15, TNMG 16-22 BASKI PABUCU / *CLAMP* / *PRATZE*
	**AMK-05**	M-SİSTEM için / *For M-SYSTEM* / *FÜR M-SYSTEM*	WNMG 08 BASKI PABUCU / *CLAMP* / *PRATZE*
	**AMK-07**	M-SİSTEM için / *For M-SYSTEM* / *FÜR M-SYSTEM*	S20R MCLNR/L BASKI PABUCU / *CLAMP* / *PRATZE*
	**ACK-01-R**	C-SİSTEM için / *For C-SYSTEM* / *FÜR C-SYSTEM*	KNUX-R BASKI PABUCU / *CLAMP* / *PRATZE*
	**ACK-02-L**	C-SİSTEM için / *For C-SYSTEM* / *FÜR C-SYSTEM*	KNUX-L BASKI PABUCU / *CLAMP*/ *PRATZE*
	**ACK-03**	C-SİSTEM için / *For C-SYSTEM* / *FÜR C-SYSTEM*	154.91 DIŞ ÇAP ve DELİK İÇİ/EXTERNAL and INTERNAL/ AUßEN-DREHHALTER Ø25-Ø32 / PABUCU / CLAMP / *PRATZE*
	**ACK-04**	P-C-SİSTEM için / *For P-C-SYSTEM* / *FÜR P-C-SYSTEM*	CTFPR KARTUŞ BASKI PABUCU / *CARTRIDGE CLAMP* / *PRATZE FÜR KASSETTE*
	**ACK-05**	P-C-SİSTEM için / *For P-C-SYSTEM* / *FÜR P-C-SYSTEM*	FREZELEME ve DİŞ VİDA AÇMA TAKIMLARINA GÖRE İLAVE BASKI PABUCU *ADDITIONAL LITTLE CLAMP for MILLING and THREADING CLAMP* *KLEINE ZUSATZKLEMME FÜR FRÄSER UND GEWINDEWERKZEUGE*
	**ACK-06**	C-SİSTEM için / *For C-SYSTEM* / *FÜR C-SYSTEM*	154.91 DELİK İÇİ / *INTERNAL* / *INNEN* Ø16-Ø20 BASKI PABUCU / *CLAMP* / *PRATZE*
	**ACK-07**	C-SİSTEM için / *For C-SYSTEM* / *FÜR C-SYSTEM*	SERAMİK CNGN, SNGN, DNGN YEDEK TAKIMI *SPARE PART SET of CERAMIC CNGN,SNGN, DNGN* *ERSATZTEILSATZ FÜR KERAMIKCNGN,SNGN, DNGN*
	**ACK-08**	C-SİSTEM için / *For C-SYSTEM* / *FÜR C-SYSTEM*	SERAMİK TNGN, YEDEK TAKIMI *SPARE PART SET of CERAMIC TNGN* *ERSATZTEILSATZ FÜR KERAMIK TNGN*
	**ACK-09**	P-SİSTEM için / *For P-SYSTEM* / *FÜR P-SYSTEM*	CNMG 16-19, SNMG 15-19 İLAVE BÜYÜK BASKI PABUCU *ADDITIONAL BIG CLAMP* / *ZUSÄTZLICHE GROSSE KLEMME*
	**ACK-10**	C-SİSTEM FREZELEME için / *For C-SYSTEM MILLING* *C-SYSTEM FÜR FRÄSER*	SPKN 12, Ø50-Ø63 TPKN 16 BASKI PABUCU / *CLAMP* / *PRATZE* (M8x8)
	**ACK-11**	C-SİSTEM FREZELEME için / *For C-SYSTEM MILLING* *C-SYSTEM FÜR FRÄSER*	Ø80-Ø100 TPKN 16-TPKN 22, OFKR 07, HNMX 09 BASKI PABUCU / *CLAMP* / *PRATZE* (M8x10)
	**ACK-12**	C-SİSTEM için / *For C-SYSTEM* / *FÜR C-SYSTEM*	CTSPR KARTUŞ BASKI PABUCU / *CARTRIDGE CLAMP* *PRATZE FÜR KASSETTE*
	**ACK-15**	S-SİSTEM FREZELEME için / *For S-SYSTEM MILLING* *S-SYSTEM FÜR FRÄSER*	RD.. 10-12 BASKI PABUCU / *CLAMP* / *PRATZE*
	**ACK-19**	S-SİSTEM FREZELEME için / *For S-SYSTEM MILLING* *S-SYSTEM FÜR FRÄSER*	WD0805D BASKI PABUCU / *CLAMP* / *PRATZE*
	**ACK-21**	C-SİSTEM için / *For C-SYSTEM* / *FÜR C-SYSTEM*	SN.. 1204.. BASKI PABUCU / *CLAMP* / *PRATZE*
	**ACK-23**	C-SİSTEM için / *For C-SYSTEM* / *FÜR C-SYSTEM*	SERAMİK DNGN 11, YEDEK TAKIMI *SPARE PART SET of CERAMIC DNGN 11* *ERSATZTEILSATZ FÜR KERAMIK DNGN 11*
	**ACK-24**	S-SİSTEM FREZELEME için / *For S-SYSTEM MILLING* *S-SYSTEM FÜR FRÄSER*	XD0806D BASKI PABUCU / *CLAMP* / *PRATZE*
	**ACK-26**	C-SİSTEM için / *For C-SYSTEM* / *FÜR C-SYSTEM*	XNMU 0806.. BASKI PABUCU / *CLAMP* / *PRATZE*
	**ACK-27**	C-SİSTEM için / *For C-SYSTEM* / *FÜR C-SYSTEM*	RCGX 06 BASKI PABUCU / *CLAMP* / *PRATZE*
	**ACK-28**	C-SİSTEM için / *For C-SYSTEM* / *FÜR C-SYSTEM*	RCGX 09 BASKI PABUCU / *CLAMP* / *PRATZE*
	**ACK-29**	C-SİSTEM için / *For C-SYSTEM* / *FÜR C-SYSTEM*	RCGX 12 BASKI PABUCU / *CLAMP* / *PRATZE*

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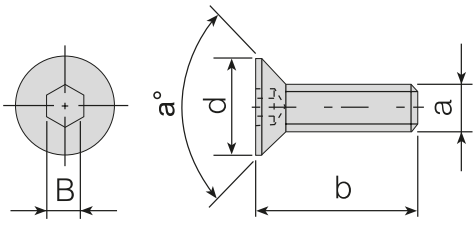




BASKI PABUÇ VİDALARI / *CLAMP SCREWS* / *SCHRAUBEN FÜR PRATZEN*

Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	a (M)	b	c	d	B(T)	Ürün Detayı / *Product Detail* / *Produkt-Details*	
AKV-01-M5X22	M5x0.8	25.1	22	11	3	T-SİSTEM için / For T- SYSTEM / *FÜR T-SYSTEM*	DNMG 11, WNMG 06, TNMG 16
						T-SİSTEM için / For T- SYSTEM / *FÜR T-SYSTEM*	CNMG 12, WNMG 08, TNMG 22, DNMG 15, SNMG 12, VNMG 16
AKV-02-M6X22	M6x1.0	25.3	22	11	3	M-SİSTEM için / For M- SYSTEM / *FÜR M-SYSTEM*	TNMG 16, TNMG 22
						KANAL KATERİ için / For EXTERNAL GROOVING *FÜR STECHWERKZEUGE*	2mm Dış Çap Kanal Kater Vidası / External Grooving Tools Screw 2 mm Schraube für Außen-Stechwerkzeuge
AKV-03-M6X22	M6x1.0	25.3	22	10	3	M-SİSTEM için / For M- SYSTEM / *FÜR M-SYSTEM*	WNMG 08
AKV-04-M5X17	M5x0.8	20	17	8.5	3	M-SİSTEM için / For M- SYSTEM / *FÜR M-SYSTEM*	S20R MT-NR/L 16, S20R-S25S MWLNR/L 06, S25S MDUNR/L 11-Dış Çap / External / AUßEN MWLNR 06
AKV-05-M6X25	M6x1.0	29.5	25	13.8	4	T-SİSTEM için / For T- SYSTEM / *FÜR T-SYSTEM*	Eski Ürün Vidası / Old Products Screws / Schraube für altes Produkt CNMG 16, SNMG 15
AKV-06-M6X20	M6x1.0	26.5	20	10.6	4	C-SİSTEM için / For C- SYSTEM / *FÜR C-SYSTEM*	KNUX 16
AKV-07-M6X22	M6x1.0	23.5	22	8.5	3	C-SİSTEM için / For C- SYSTEM / *FÜR C-SYSTEM*	ADKT-154.91, AIKT-154.91-R/L-32
AKV-10-M6X14	M6x1.0	16	14	8.8	4	C-SİSTEM için / For C- SYSTEM / *FÜR C-SYSTEM*	AIKT-154.91-R/L-16, AIKT-154.91-R/L-20, AIKT-154.91-R/L-25
AKV-11-M8X29	M8X1.25	33.6	29	11	4	C-SİSTEM için / For C- SYSTEM / *FÜR C-SYSTEM*	TNGN 16, CNGN 12, DNGN 15, SNGN 12
AKV-17-M5X15	M5X0.8	18	15	8.55	3	M-SİSTEM için / For M- SYSTEM / *FÜR M-SYSTEM*	S16P MWLNR/L 06
AKV-19-M7X25	M7X1.0	29.6	25	14	4	T-SİSTEM için / For T- SYSTEM / *FÜR T-SYSTEM*	Yeni / New / Neu CNMG 16, SNMG 15
AKV-20-M6X19	M6x1.0	22	19	11	3	M-SİSTEM için / For M- SYSTEM / *FÜR M-SYSTEM*	S25S MDUNR/L 15
AKV-21-M6X18	M6x1.0	20	18	8.5	3	C-SİSTEM için / For C- SYSTEM / *FÜR C-SYSTEM*	AIKT-154.91-R/L-25
AKV-23-M4X10	M4x0.7	12.2	10	7.4	15	KARTUŞ için / For CARTRIDGE/ *FÜR KASSETTE*	MONTAJ VİDASI / MOUNTING SCREW / BEFESTIGUNGSSCHRAUBE
AKV-27-M6X20	M6x1.0	23.3	20	10	3	M-SİSTEM için / For M- SYSTEM / *FÜR M-SYSTEM*	S25S MWLNR/L 08

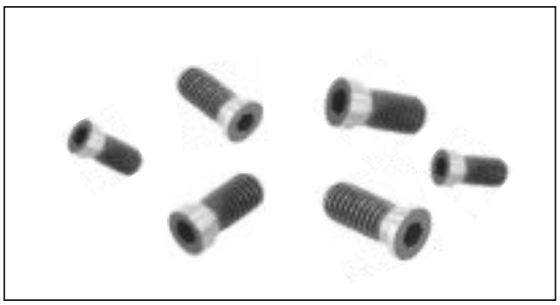


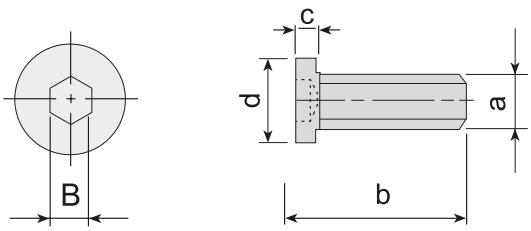


ALTLIK VİDALARI / *SHIM SCREWS* / *SCHRAUBE FÜR UNTERLAGE*

Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	a (M)	b	d	B	a°	Ürün Detayı / *Product Detail* / *Produkt-Details*	
AAV-01-M3x10	M3X0.5	10	5.9	2	90°	T-SİSTEM için / For T-SYSTEM / *FÜR T-SYSTEM*	WNMG 06, KNUX 16
AAV-02-M5X12	M5X0.8	12	7	3	56°	T-SİSTEM için / For T-SYSTEM / *FÜR T-SYSTEM*	CNMG 12, WNMG 08, TNMG 22, DNMG 15, SNMG 12
AAV-05-M6X15	M6X1.0	16	9	4	60°	T-SİSTEM için / For T-SYSTEM / *FÜR T-SYSTEM*	CNMG 16, SNMG 15
AKV-12-M5X12	M5X0.8	12	7.8	3	90°	C-SİSTEM için / For C-SYSTEM / *FÜR C-SYSTEM*	CTSPR Baskı Pabuç Vidası / Clamp Screw / Klemmschraube
AKV-16-M6X16	M6X1.0	16	10	4	76°	C-SİSTEM için / For C-SYSTEM / *FÜR C-SYSTEM*	CTFPR 13CS 16 Baskı Pabuç Vidası / Clamp Screw / Klemmschraube
AAV-13-M5X8	M5X0.8	8	7	3	56°	T-SİSTEM için / For T-SYSTEM / *FÜR T-SYSTEM*	S25S TSKNR/L 12, S25S TCLNR/L 12, S25S TWLNR/L 08, S25S TDUNR/L 15
AAV-14-M5X14	M5X0.8	14	8.8	3	45°	ADCR için / For ADCR / *FÜR ADCR*	ADCR Montaj Vidası / Mounting Screw / ADCR BEFESTIGUNGSSCHRAUBE

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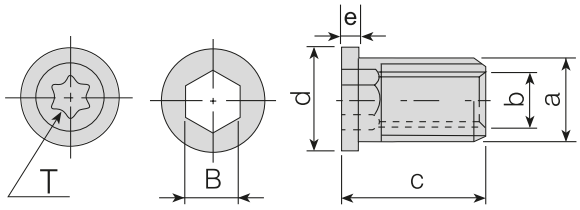




ALTLIK VİDALARI / *SHIM SCREWS* / *SCHRAUBE FÜR UNTERLAGE*

Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	a (M)	b	c	d	B	Ürün Detayı / *Product Detail* / *Produkt-Details*	
AAV-03-M5X12	M5X0.8	12	1.4	6	3	T-SİSTEM için / For T-SYSTEM / *FÜR T-SYSTEM*	TNMG 16
						C-SİSTEM için / For C-SYSTEM / *FÜR C-SYSTEM*	TNGN 16
AAV-04-M5X12	M5X0.8	12	1.2	6.5	3	T-SİSTEM için / For T-SYSTEM / *FÜR T-SYSTEM*	VNMG 16, DNMG 11, CNMG 09
AAV-09-M5X9	M5X0.8	9	1.4	6	3	T-SİSTEM için / For T-SYSTEM / *FÜR T-SYSTEM*	S25S TCLNR/L 09, S25S TDUNR/L 11, S25S TDQNR/L 11

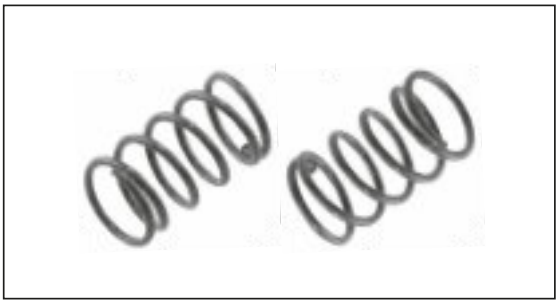


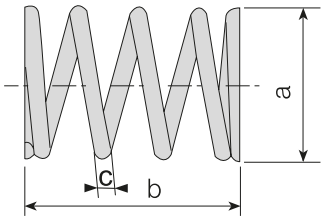


BUKSE VİDALAR / *BUKSE SCREWS* / *SCHRAUBE FÜR UNTERLAGE*

Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	a (M)	b	c	d	B(T)	e	Ürün Detayı / *Product Detail* / *Produkt-Details*	
AAV-06-M3.5X11	M5x0.5	M3.5x0.6	11.3	6	3.5	1.2	S-SİSTEM için / For S-SYSTEM / *FÜR S-SYSTEM*	CCMT 09, DCMT 11, VBMT 16, VCMT 16, TCMT 16, SCMT 09, 16 ER/L, 16 IR/L
AAV-07-M4.5X13	M6X0.75	M4.5X0.75	13	7.5	4.5	1.6	S-SİSTEM için / For S-SYSTEM / *FÜR S-SYSTEM*	CCMT 12, SCMT 12, 22 ER/L, 22 IR/L
AAV-08-M3.5X8	M5X0.5	M3.5x0.6	8	6	20	1.2	S-SİSTEM için / For S-SYSTEM / *FÜR S-SYSTEM*	Ø25 DCMT 11, Ø25-Ø32 CCMT 09, Ø25 TCMT 16, S25S-S32T SVJBR/L 16,
AAV-10-M4.5X8	M6X0.75	M4.5X0.75	8	7.5	4.5	1.05	S-SİSTEM için / For S-SYSTEM / *FÜR S-SYSTEM*	Ø25-Ø32 CCMT 12, Ø25-Ø32 SCMT 12, SSDCN 1616 H12, SSSCR/L 1616 H12, SIR/L S25R 22
AAV-16-M3.5X8	M5X0.5	M3.5x0.6	8	6	20	1.1	S-SİSTEM için / For S-SYSTEM / *FÜR S-SYSTEM*	SEMT 13

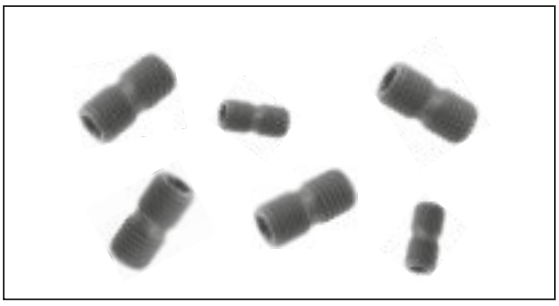
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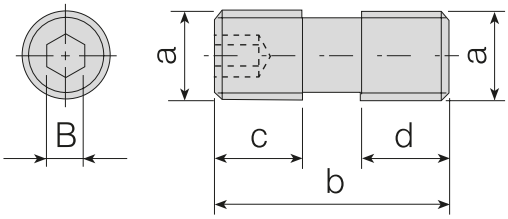




BASKI YAYI / *CLAMP SPRING* / *FEDER FÜR KLEMME*

Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	a	b	c	Ürün Detayı / *Product Detail* / *Produkt-Details*	
AKY-01	7.7	11.2	0.9	T-SİSTEM için / For T-SYSTEM / *FÜR T-SYSTEM*	CNMG 12, WNMG 08, TNMG 22, DNMG 15, SNMG 12, VNMG 16
AKY-02	8.5	13.5	0.7	C-SİSTEM için / For C-SYSTEM / *FÜR C-SYSTEM*	KNUX 16



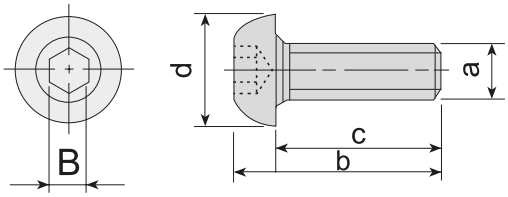


BASKI PABUÇ VİDALARI / *CLAMP SCREWS* / *SCHRAUBEN FÜR PRATZEN*

Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	a (M)	b	c	d	B	Ürün Detayı / *Product Detail* / *Produkt-Details*	
AKV-13-M8X1X16	M8x1.0	16	6.8	6.8	4	C-SİSTEM FREZELEME için / MILLING For C- SYSTEM / *C-SYSTEM FÜR FRÄSER*	SPKN 12, Ø63 TPKN 16
AKV-14-M8X1X18	M8x1.0	18	8	8	4	C-SİSTEM FREZELEME için / MILLING For C- SYSTEM / *C-SYSTEM FÜR FRÄSER*	Ø80-Ø100 TPKN 16, Ø63-Ø315 TPKN 22
AKV-15-M8X1X20	M8x1.0	20	8.5	8.5	4	C-SİSTEM FREZELEME için / MILLING For C- SYSTEM / *C-SYSTEM FÜR FRÄSER*	OFKR 07, HNMX 09
AKV-18-M5X14	M5X0.8	15	5	6.8	2.5	C-SİSTEM FREZELEME için / MILLING For C- SYSTEM / *C-SYSTEM FÜR FRÄSER*	SN19
AKV-22-M8X1X14	M8x1.0	14	6.8	4.8	4	C-SİSTEM FREZELEME için / MILLING For C- SYSTEM / *C-SYSTEM FÜR FRÄSER*	Ø50 TPKN 16
AKV-24-M6X1X18	M6x1.0	18	7.5	7.5	3	C-SİSTEM FREZELEME için / MILLING For C- SYSTEM / *C-SYSTEM FÜR FRÄSER*	SN.. 1204
AKV-26-M6X0.75X20	M6x0.75	20	8.5	8.5	3	C-SİSTEM FREZELEME için / MILLING For C- SYSTEM / *C-SYSTEM FÜR FRÄSER*	AFM45C-XN0806

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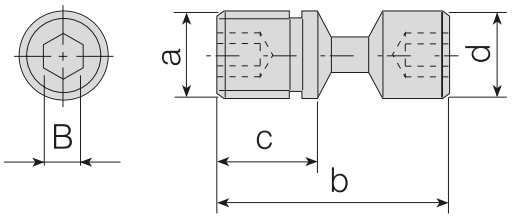
KANAL KATER ve MANTAR VİDALAR / *GROOVING TOOL and CLAMP SCREWS* / *KLEMMSCHRAUBEN*

Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	a (M)	b	c	d	B	Ürün Detayı / *Product Detail* / *Produkt-Details*	
1904-M8X1X20	M8X1.0	25.9	20	11.3	4	S-SİSTEM için / For S-SYSTEM / *FÜR S-SYSTEM*	RCMT 32 Sıkma Vidası / Clamp Screw / *Klemmschraube*
2004-M8X1X20	M8X1.0	25.9	20	11.4	4	KANAL KATERİ için / For EXTERNAL GROOVING / *FÜR TNMG-16, TNMG-22 BOHRSTANGE*	Kanal Kater Vidası / External Grooving Tools Screw / *SCHRAUBEN FÜR STECHHALTER*
2004-M8X20	M8X1.25	30	25	25	4	KANAL KATERİ için / For EXTERNAL GROOVING / *FÜR TNMG-16, TNMG-22 BOHRSTANGE*	Eski Kanal Kater Vidası / Old External Grooving Tools Screw Alte / *Schraube für Stechhalter*
AKV-08-M6X12	M6x1.0	17	12	14.3	4	C-SİSTEM FREZELEME için / MILLING For C- SYSTEM / *C SYSTEM FÜR FRÄSER*	Baskı ve Sıkma Vidası, Mantar Vida / Clamp Screw / *Klemmschraube*
AKV-09-M8X18	M8X1.0	24	18	17.2	5	C-SİSTEM FREZELEME için / MILLING For C- SYSTEM / *C SYSTEM FÜR FRÄSER*	Baskı ve Sıkma Vidası, Mantar Vida / Clamp Screw / *Klemmschraube*

LEVYELER / *LEVERS* / *KNIEHEBEL*

Ürün Resmi *Product Picture* *Produkt-Bild*	Ürün Kodu *Product Code* / *Code*	Ürün Detayı / *Product Detail* / *Produkt-Details*	
	**APL-01**	P-SİSTEM için / For P-SYSTEM / *FÜR P-SYSTEM*	CNMG 09, DNMG 11, SNMG 09, TNMG 16, WNMG 06 LEVYESİ / LEVER / *KNIEHEBEL*
	APL-02	P-SİSTEM için / For P-SYSTEM / *FÜR P-SYSTEM*	CNMG 12, SNMG 12, TNMG 22, WNMG 08 LEVYESİ / LEVER / *KNIEHEBEL*
	APL-03	P-SİSTEM için / For P-SYSTEM / *FÜR P-SYSTEM*	DNMG 15 LEVYESİ / LEVER / *KNIEHEBEL*
	APL-04	P-SİSTEM için / For P-SYSTEM / *FÜR P-SYSTEM*	CNMG 16, SNMG 15 LEVYESİ / LEVER / *KNIEHEBEL*
	APL-05	P-SİSTEM için / For P-SYSTEM / *FÜR P-SYSTEM*	CNMG 19, SNMG 19 LEVYESİ / LEVER / *KNIEHEBEL*
	APL-06	P-SİSTEM için / For P-SYSTEM / *FÜR P-SYSTEM*	CNMG 25, SNMG 25 LEVYESİ / LEVER / *KNIEHEBEL*
	APL-07	P-SİSTEM için / For P-SYSTEM / *FÜR P-SYSTEM*	S16P PCLNR/L 09 LEVYESİ / LEVER / *KNIEHEBEL*
	APL-08	P-SİSTEM için / For P-SYSTEM / *FÜR P-SYSTEM*	S16P PTUNR/L 16 LEVYESİ / LEVER / *KNIEHEBEL*

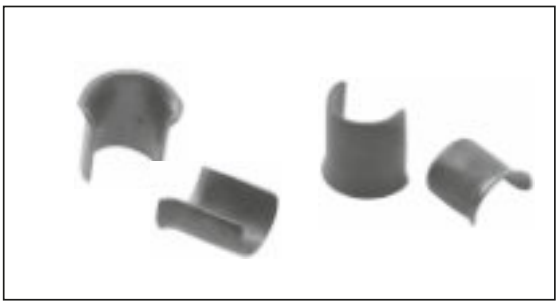


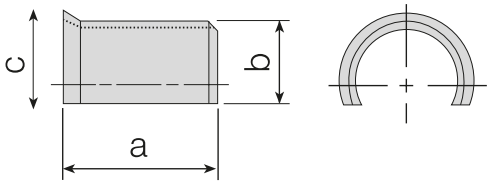


LEVYE VİDALARI / *LEVER SCREWS* / *SCHRAUBEN FÜR KNIEHEBEL*

Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	a (M)	b	c	d	B	Ürün Detayı / *Product Detail* / *Produkt-Details*	
ALV-01-M6X14	M6x1.0	14	10	5.85	2.5	P-SİSTEM için / For P-SYSTEM / *FÜR P-SYSTEM*	S20R PCLNR/L 09, S20R PDUNR/L 11, S20R PDQNR/L 11,S20R PWLNR/L 06, S20R PTUNR/L 16
ALV-02-M6X17	M6x1.0	17	10	5.85	2.5	P-SİSTEM için / For P-SYSTEM / *FÜR P-SYSTEM*	CNMG 09, DNMG 11,SNMG 09, TNMG 16, WNMG 06
ALV-03-M8X19	M8X1.0	19.8	11	7.9	3	P-SİSTEM için / For P-SYSTEM / *FÜR P-SYSTEM*	CNMG 12, SNMG 12, TNMG 22, WNMG 08, DNMG 15
ALV-04-M8X22	M8X1.0	21.5	13	7.75	3	P-SİSTEM için / For P-SYSTEM / *FÜR P-SYSTEM*	CNMG 16, SNMG 15
ALV-05-M10X27	M10X1.0	27.5	15	9.9	4	P-SİSTEM için / For P-SYSTEM / *FÜR P-SYSTEM*	CNMG 19, SNMG 19
ALV-06-M12X36	M12X1.0	36	20	12	5	P-SİSTEM için / For P-SYSTEM / *FÜR P-SYSTEM*	CNMG 25, SNMG 25
ALV-07-M6X13	M6X0.1	12.6	6.5	5.9	2.5	P-SİSTEM için / For P-SYSTEM / *FÜR P-SYSTEM*	S16P PCLNR/L 09, S16P PTUNR/L 16
ALV-08-M8X16	M8X1.0	16	10	7.9	3	P-SİSTEM için / For P-SYSTEM / *FÜR P-SYSTEM*	S25S PCLNR/L 12, S25S PDUNR/L 15, S25S PSKNR/L 12

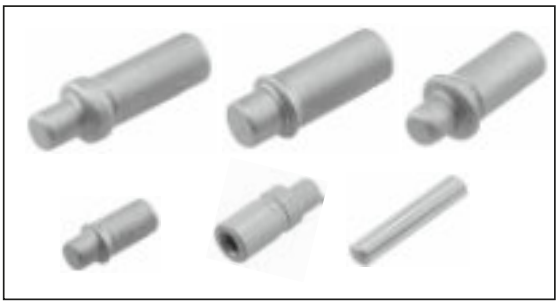
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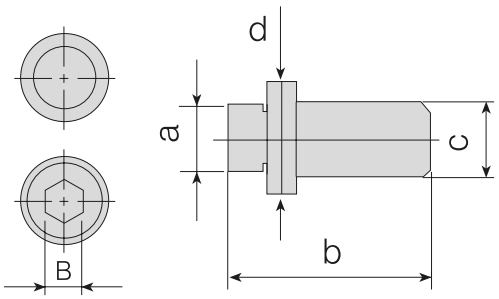




ALTLIK YAYLARI / *SHIM SPRINGS* / *BEFESTIGUNGSFEDER*

Takım Kodu *Ordering Code* Bestell-Bezeichnung	a	b	c	Ürün Detayı / *Product Detail* / *Produkt-Details*	
AAY-01	5.6	4.9	6	P-SİSTEM için / For P-SYSTEM / *FÜR P-SYSTEM*	CNMG 09 ,DNMG 11, SNMG 09, TNMG 16, WNMG 06
AAY-02	6	6.9	7.9	P-SİSTEM için / For P-SYSTEM / *FÜR P-SYSTEM*	CNMG 12, SNMG 12, TNMG 22, WNMG 08, DNMG 15
AAY-03	8.9	8	9.5	P-SİSTEM için / For P-SYSTEM / *FÜR P-SYSTEM*	CNMG 16, SNMG 15
AAY-04	11	9.8	10.7	P-SİSTEM için / For P-SYSTEM / *FÜR P-SYSTEM*	CNMG 19, SNMG 19
AAY-05	12	13	15	P-SİSTEM için / For P-SYSTEM / *FÜR P-SYSTEM*	CNMG 25, SNMG 25



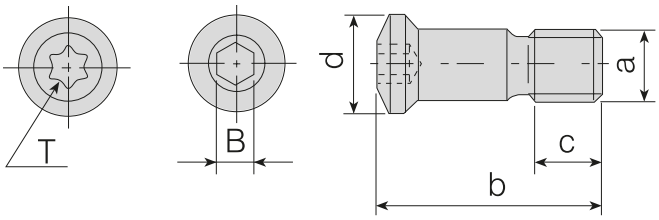


PİMLER / *PINS* / *STIFT*

Takım Kodu *Ordering Code* Bestell-Bezeichnung	a	b	c	d	B	Ürün Detayı / *Product Detail* / *Produkt-Details*	
APM-01	3.55	18	5	6	-	M-SİSTEM için / For M-SYSTEM / *FÜR T-SYSTEM*	Delik İçi / Internal / *Intern* Ø32-Ø40 TNMG 16 Dış Çap / External / *Externe* TNMG 16
APM-02	5	18	6	7.3	-	M-SİSTEM için / For M-SYSTEM / *FÜR T-SYSTEM*	TNMG 22, WNMG 08
APM-03	3.5	12	5	6.5	-	M-SİSTEM için / For M-SYSTEM / *FÜR T-SYSTEM*	S20R MTFNR/L 16, S20R MT-NR/L 16, S20R MTUNR/L 16, S20R MTQNR/L 16 ,S20R MDUNR/L 11
APM-04	5	15	6	7.3	-	M-SİSTEM için / For M-SYSTEM / *FÜR T-SYSTEM*	S32T MCLNR/L 12, DNMG 15, S25S MWLNR/L 08
APM-05	5	11.5	6.5	6.5	3	M-SİSTEM için / For M-SYSTEM / *FÜR T-SYSTEM*	MSYNR 11.5CS 12 Kartuş için / for Cartridge / *FÜR KASSETTE*
APM-06	3	15.7	-	-	-	C-SİSTEM için / For C-SYSTEM / *FÜR T-CYSTEM*	154.91
APM-07	3.5	11.5	6.5	6.5	3	M-SİSTEM için / For M-SYSTEM / *FÜR T-SYSTEM*	S20R ET-NR 16
APM-08	3.5	12	5	5.4	-	M-SİSTEM için / For M-SYSTEM / *FÜR T-SYSTEM*	S25S MWLNR/L 06, Dış Çap / External / *Externe*
APM-09	3.5	10	5	5.4	-	M-SİSTEM için / For M-SYSTEM / *FÜR T-SYSTEM*	S16P MWLNR/L 06
APM-10	3.5	11	5	5.4	-	M-SİSTEM için / For M-SYSTEM / *FÜR T-SYSTEM*	S20R MWLNR/L 06
APM-11	3.5	11	5	6.5	-	M-SİSTEM için / For M-SYSTEM / *FÜR T-SYSTEM*	S20R MTQNR/L 16
APM-12	5	12	6	7.3	-	M-SİSTEM için / For M-SYSTEM / *FÜR T-SYSTEM*	S20R MCLNR/L 12, S25S MCLNR/L 12-Z
APM-13	5	14	6	7.3	-	M-SİSTEM için / For M-SYSTEM / *FÜR T-SYSTEM*	S25S MCLNR/L 12
APM-14	3.55	15	5	6	-	M-SİSTEM için / For M-SYSTEM / *FÜR T-SYSTEM*	S25S MTFNR/L 16, S25S MT-NR/L 16, S25S MTUNR/L 16,S25S MTQNR/L 16
APM-15	4.40	16	6.40	6.40	3	M-SİSTEM için / For M-SYSTEM / *FÜR T-SYSTEM*	MSYNR 16CS 12 Kartuş için / for Cartridge / *FÜR KASSETTE*

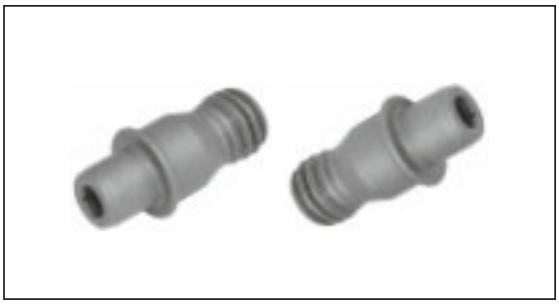
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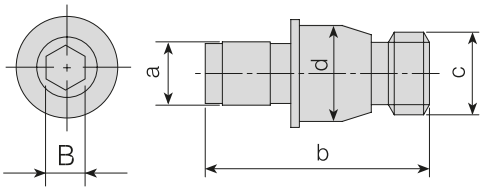




KÜRESEL FİNİŞ VİDALARI / *BALL NOSE SCREWS* / *SCHRAUBEN FÜR KUGELKOPFFRÄSER*

Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	a (M)	b	c	d	B(T)	Ürün Detayı / *Product Detail* / *Produkt-Details*	
1208-M3x7	M3x0.5	6.9	2.7	4.1	8	KÜRESEL FREZE VİDASI / BALL NOSE SCREW / *SCHRAUBE FÜR KUGELFRÄSER*	P3208
1215-M4X0.5X9	M4X0.5	8.6	3.2	5.75	15	KÜRESEL FREZE VİDASI / BALL NOSE SCREW / *SCHRAUBE FÜR KUGELFRÄSER*	P3210-ROHX 12
1220-M5X0.5X9	M5X0.5	9.6	3.4	6.8	20	KÜRESEL FREZE VİDASI / BALL NOSE SCREW / *SCHRAUBE FÜR KUGELFRÄSER*	P3212
1220-M5X0.5X12	M5X0.5	12.9	4.4	7.4	20	KÜRESEL FREZE VİDASI / BALL NOSE SCREW / *SCHRAUBE FÜR KUGELFRÄSER*	P3216-ROHX 16
1220-M5X0.5X15	M5X0.5	16.4	6	7.8	20	KÜRESEL FREZE VİDASI / BALL NOSE SCREW / *SCHRAUBE FÜR KUGELFRÄSER*	P3220-ROHX 20
1220-M6X0.75X20	M6X0.75	20	6	9.4	20	KÜRESEL FREZE VİDASI / BALL NOSE SCREW / *SCHRAUBE FÜR KUGELFRÄSER*	P3225
1204-M8X0.75X26	M8X0.75	26	7.5	12	4	KÜRESEL FREZE VİDASI / BALL NOSE SCREW / *SCHRAUBE FÜR KUGELFRÄSER*	P3232
1210-M3.5X9.6	M3.5X0.6	9.6	4	4.7	10	KÜRESEL FREZE VİDASI / BALL NOSE SCREW / *SCHRAUBE FÜR KUGELFRÄSER*	BNM 12
1215-M4X13.5	M4X0.7	13.5	5	5.8	15	KÜRESEL FREZE VİDASI / BALL NOSE SCREW / *SCHRAUBE FÜR KUGELFRÄSER*	BNM 16

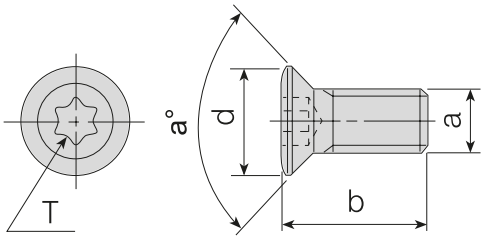




EKSANTRİK VİDA / *ECCENTRIC SCREW* / *EXZENTERSCHRAUBEN*

Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	a	b	c	d	B	Ürün Detayı / *Product Detail* / *Produkt-Details*	
AEV-01-M6x16	4.85	16	M6x1.0	6.5	2.5	Eksantrik Vida / Eccentric Screw / *EXZENTERSCHRAUBEN*	PSDNN Kartuş için / for Cartridge / *FÜR KASSETTE*



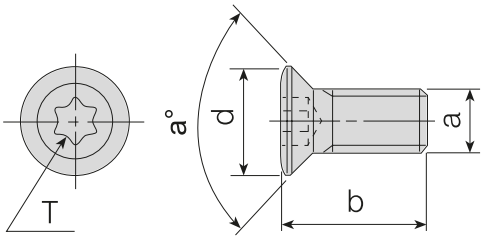


TORK VİDALARI / *TORX SCREWS* / *TORX-SCHRAUBEN*

Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	a (M)	b	T	d	a°	Ürün Detayı / *Product Detail* / *Produkt-Details*	
4006-M1.6x3.2	M1.6X0.35	3.2	6	2.50	60	S-SİSTEM için / For S-SYSTEM / *FÜR S-SYSTEM*	TORK VİDA / *TORX SCREW* / *TORX-SCHRAUBEN*
3006-M1.8x4	M1.8X0.35	4	6	2.45	60	S-SİSTEM için / For S-SYSTEM / *FÜR S-SYSTEM*	TORK VİDA / *TORX SCREW* / *TORX-SCHRAUBEN*
3006-M2x4	M2X0.4	4.3	6	2.7	60	S-SİSTEM için / For S-SYSTEM / *FÜR S-SYSTEM*	TORK VİDA / *TORX SCREW* / *TORX-SCHRAUBEN*
4006-M2x5	M2X0.4	5	6	3	55	S-SİSTEM için / For S-SYSTEM / *FÜR S-SYSTEM*	TORK VİDA / *TORX SCREW* / *TORX-SCHRAUBEN*
3007-M2.2x5	M2.2X0.45	5.2	7	3.15	60	S-SİSTEM için / For S-SYSTEM / *FÜR S-SYSTEM*	TORK VİDA / *TORX SCREW* / *TORX-SCHRAUBEN*
4006-M2.2x5	M2.2X0.45	5	6	2.8	55	S-SİSTEM için / For S-SYSTEM / *FÜR S-SYSTEM*	TORK VİDA / *TORX SCREW* / *TORX-SCHRAUBEN*
1008-M2.5x5	M2.5X0.45	5.5	8	3.5	45	S-SİSTEM için / For S-SYSTEM / *FÜR S-SYSTEM*	TORK VİDA / *TORX SCREW* / *TORX-SCHRAUBEN*
1008-M2.5x7	M2.5X0.45	7	8	3.6	45	S-SİSTEM için / For S-SYSTEM / *FÜR S-SYSTEM*	TORK VİDA / *TORX SCREW* / *TORX-SCHRAUBEN*
1108-M2.5x6	M2.5X0.45	6	8	3.9	R	S-SİSTEM için / For S-SYSTEM / *FÜR S-SYSTEM*	TORK VİDA / *TORX SCREW* / *TORX-SCHRAUBEN*
3008-M2.5x5	M2.5X0.45	5	8	3.5	60	S-SİSTEM için / For S-SYSTEM / *FÜR S-SYSTEM*	TORK VİDA / *TORX SCREW* / *TORX-SCHRAUBEN*
3008-M2.5x6	M2.5X0.45	6	8	3.5	60	S-SİSTEM için / For S-SYSTEM / *FÜR S-SYSTEM*	TORK VİDA / *TORX SCREW* / *TORX-SCHRAUBEN*
4008-M2.5x4	M2.5X0.45	4	8	3.5	45	S-SİSTEM için / For S-SYSTEM / *FÜR S-SYSTEM*	TORK VİDA / *TORX SCREW* / *TORX-SCHRAUBEN*
4008-M2.5x4.5	M2.5X0.45	4.5	8	3.5	45	S-SİSTEM için / For S-SYSTEM / *FÜR S-SYSTEM*	TORK VİDA / *TORX SCREW* / *TORX-SCHRAUBEN*
4008-M2.5x6	M2.5X0.45	5.8	8	3.5	45	S-SİSTEM için / For S-SYSTEM / *FÜR S-SYSTEM*	TORK VİDA / *TORX SCREW* / *TORX-SCHRAUBEN*
4008-M2.5x6.5	M2.5X0.45	6.5	8	4	60	S-SİSTEM için / For S-SYSTEM / *FÜR S-SYSTEM*	TORK VİDA / *TORX SCREW* / *TORX-SCHRAUBEN*
4108-M2.5x6.5	M2.5X0.45	6.5	8	3.5	50	S-SİSTEM için / For S-SYSTEM / *FÜR S-SYSTEM*	TORK VİDA / *TORX SCREW* / *TORX-SCHRAUBEN*
4108-M2.5x8	M2.5X0.45	8	8	3.5	50	S-SİSTEM için / For S-SYSTEM / *FÜR S-SYSTEM*	TORK VİDA / *TORX SCREW* / *TORX-SCHRAUBEN*
1008-M3x6	M3X0.5	6	8	4	60	S-SİSTEM için / For S-SYSTEM / *FÜR S-SYSTEM*	TORK VİDA / *TORX SCREW* / *TORX-SCHRAUBEN*
1008-M3x8	M3X0.5	8	8	3.9	60	S-SİSTEM için / For S-SYSTEM / *FÜR S-SYSTEM*	TORK VİDA / *TORX SCREW* / *TORX-SCHRAUBEN*
1108-M3x6.8	M3X0.5	6.8	8	4	60	S-SİSTEM için / For S-SYSTEM / *FÜR S-SYSTEM*	TORK VİDA / *TORX SCREW* / *TORX-SCHRAUBEN*
3008-M3x6	M3X0.5	6	8	4	45	S-SİSTEM için / For S-SYSTEM / *FÜR S-SYSTEM*	TORK VİDA / *TORX SCREW* / *TORX-SCHRAUBEN*
3008-M3x7	M3X0.5	7	8	4	55	S-SİSTEM için / For S-SYSTEM / *FÜR S-SYSTEM*	TORK VİDA / *TORX SCREW* / *TORX-SCHRAUBEN*
3008-M3x8	M3X0.5	8	8	4	45	S-SİSTEM için / For S-SYSTEM / *FÜR S-SYSTEM*	TORK VİDA / *TORX SCREW* / *TORX-SCHRAUBEN*
3108-M3x6	M3X0.5	6	8	3.8	60	S-SİSTEM için / For S-SYSTEM / *FÜR S-SYSTEM*	TORK VİDA / *TORX SCREW* / *TORX-SCHRAUBEN*
3108-M3x8	M3X0.5	8	8	3.8	60	S-SİSTEM için / For S-SYSTEM / *FÜR S-SYSTEM*	TORK VİDA / *TORX SCREW* / *TORX-SCHRAUBEN*
4008-M3x8	M3X0.5	8	8	4	60	S-SİSTEM için / For S-SYSTEM / *FÜR S-SYSTEM*	TORK VİDA / *TORX SCREW* / *TORX-SCHRAUBEN*
4010-M3x6	M3X0.5	6	10	4.2	45	S-SİSTEM için / For S-SYSTEM / *FÜR S-SYSTEM*	TORK VİDA / *TORX SCREW* / *TORX-SCHRAUBEN*
4010-M3x8	M3X0.5	8	10	4.2	45	S-SİSTEM için / For S-SYSTEM / *FÜR S-SYSTEM*	TORK VİDA / *TORX SCREW* / *TORX-SCHRAUBEN*
1015-M3.5x9	M3.5X0.6	9	15	5.3	60	S-SİSTEM için / For S-SYSTEM / *FÜR S-SYSTEM*	TORK VİDA / *TORX SCREW* / *TORX-SCHRAUBEN*
1015-M3.5x11	M3.5X0.6	11.1	15	5.3	60	S-SİSTEM için / For S-SYSTEM / *FÜR S-SYSTEM*	TORK VİDA / *TORX SCREW* / *TORX-SCHRAUBEN*
1015-M3.5x14	M3.5X0.6	14	15	5.3	66	S-SİSTEM için / For S-SYSTEM / *FÜR S-SYSTEM*	TORK VİDA / *TORX SCREW* / *TORX-SCHRAUBEN*
1015-M3.5x16	M3.5X0.6	16	15	5.3	55	S-SİSTEM için / For S-SYSTEM / *FÜR S-SYSTEM*	TORK VİDA / *TORX SCREW* / *TORX-SCHRAUBEN*
1315-M3.5x11	M3.5X0.6	10.6	15	7.9	-	S-SİSTEM için / For S-SYSTEM / *FÜR S-SYSTEM*	TORK VİDA / *TORX SCREW* / *TORX-SCHRAUBEN*
1510-M3.5x7	M3.5X0.6	7.1	10	5.1	55	S-SİSTEM için / For S-SYSTEM / *FÜR S-SYSTEM*	TORK VİDA / *TORX SCREW* / *TORX-SCHRAUBEN*
1510-M3.5x9	M3.5X0.6	9.1	10	5	55	S-SİSTEM için / For S-SYSTEM / *FÜR S-SYSTEM*	TORK VİDA / *TORX SCREW* / *TORX-SCHRAUBEN*
1615-M3.5x10	M3.5X0.6	10	15	5.8	60	S-SİSTEM için / For S-SYSTEM / *FÜR S-SYSTEM*	TORK VİDA / *TORX SCREW* / *TORX-SCHRAUBEN*
1615-M3.5x11	M3.5X0.6	11	15	5.8	60	S-SİSTEM için / For S-SYSTEM / *FÜR S-SYSTEM*	TORK VİDA / *TORX SCREW* / *TORX-SCHRAUBEN*
1615-M3.5x15	M3.5X0.6	15	15	5.8	60	S-SİSTEM için / For S-SYSTEM / *FÜR S-SYSTEM*	TORK VİDA / *TORX SCREW* / *TORX-SCHRAUBEN*
3010-M3.5x7	M3.5X0.6	7	10	5	55	S-SİSTEM için / For S-SYSTEM / *FÜR S-SYSTEM*	TORK VİDA / *TORX SCREW* / *TORX-SCHRAUBEN*
3010-M3.5x9	M3.5X0.6	9	10	5	55	S-SİSTEM için / For S-SYSTEM / *FÜR S-SYSTEM*	TORK VİDA / *TORX SCREW* / *TORX-SCHRAUBEN*
3015-M3.5x9	M3.5X0.6	8.8	15	5.4	60	S-SİSTEM için / For S-SYSTEM / *FÜR S-SYSTEM*	TORK VİDA / *TORX SCREW* / *TORX-SCHRAUBEN*
4015-M3.5x8	M3.5X0.6	7.9	15	5.3	55	S-SİSTEM için / For S-SYSTEM / *FÜR S-SYSTEM*	TORK VİDA / *TORX SCREW* / *TORX-SCHRAUBEN*
4015-M3.5x9	M3.5X0.6	8.7	15	5.3	60	S-SİSTEM için / For S-SYSTEM / *FÜR S-SYSTEM*	TORK VİDA / *TORX SCREW* / *TORX-SCHRAUBEN*
4015-M3.5x10	M3.5X0.6	9.8	15	5.3	60	S-SİSTEM için / For S-SYSTEM / *FÜR S-SYSTEM*	TORK VİDA / *TORX SCREW* / *TORX-SCHRAUBEN*
4015-M3.5x11	M3.5X0.6	10.7	15	5.3	60	S-SİSTEM için / For S-SYSTEM / *FÜR S-SYSTEM*	TORK VİDA / *TORX SCREW* / *TORX-SCHRAUBEN*

BF SERVICE



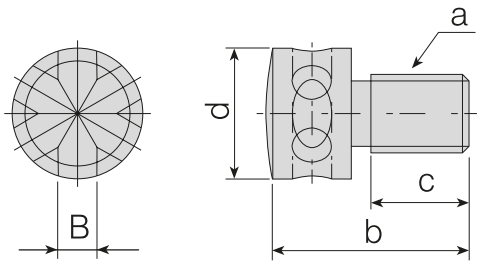


TORK VİDALARI / *TORX SCREWS* / *TORX-SCHRAUBEN*

Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	a (M)	b	T	d	a°	Ürün Detayı / *Product Detail* / *Produkt-Details*	
4015-M3.5x12	M3.5X0.6	12	15	5.3	60	S-SİSTEM için / For S-SYSTEM / *FÜR S-SYSTEM*	TORK VİDA / *TORX SCREW* / *TORX-SCHRAUBEN*
4015-M3.5x14	M3.5X0.6	13.7	15	5.3	60	S-SİSTEM için / For S-SYSTEM / *FÜR S-SYSTEM*	TORK VİDA / *TORX SCREW* / *TORX-SCHRAUBEN*
1015-M4x8	M4X0.7	8	15	6.8	R	S-SİSTEM için / For S-SYSTEM / *FÜR S-SYSTEM*	TORK VİDA / *TORX SCREW* / *TORX-SCHRAUBEN*
1015-M4x9	M4X0.7	9	15	6.8	R	S-SİSTEM için / For S-SYSTEM / *FÜR S-SYSTEM*	TORK VİDA / *TORX SCREW* / *TORX-SCHRAUBEN*
1515-M4x9	M4X0.7	9	15	5.7	50	S-SİSTEM için / For S-SYSTEM / *FÜR S-SYSTEM*	TORK VİDA / *TORX SCREW* / *TORX-SCHRAUBEN*
1015-M4x11	M4X0.7	10.8	15	6.8	R	S-SİSTEM için / For S-SYSTEM / *FÜR S-SYSTEM*	TORK VİDA / *TORX SCREW* / *TORX-SCHRAUBEN*
1115-M4x10	M4X0.7	10	15	5.9	R	S-SİSTEM için / For S-SYSTEM / *FÜR S-SYSTEM*	TORK VİDA / *TORX SCREW* / *TORX-SCHRAUBEN*
1315-M4x11	M4X0.7	11.1	15	5	45	S-SİSTEM için / For S-SYSTEM / *FÜR S-SYSTEM*	TORK VİDA / *TORX SCREW* / *TORX-SCHRAUBEN*
1415-M4x11	M4X0.7	11	15	5.6	50	S-SİSTEM için / For S-SYSTEM / *FÜR S-SYSTEM*	TORK VİDA / *TORX SCREW* / *TORX-SCHRAUBEN*
1515-M4x11	M4X0.7	11.1	15	5.6	50	S-SİSTEM için / For S-SYSTEM / *FÜR S-SYSTEM*	TORK VİDA / *TORX SCREW* / *TORX-SCHRAUBEN*
1615-M4x11	M4X0.7	11.1	15	6	50	S-SİSTEM için / For S-SYSTEM / *FÜR S-SYSTEM*	TORK VİDA / *TORX SCREW* / *TORX-SCHRAUBEN*
3015-M4x9	M4X0.7	9	15	5.6	50	S-SİSTEM için / For S-SYSTEM / *FÜR S-SYSTEM*	TORK VİDA / *TORX SCREW* / *TORX-SCHRAUBEN*
3015-M4x11	M4X0.7	11	15	5.6	50	S-SİSTEM için / For S-SYSTEM / *FÜR S-SYSTEM*	TORK VİDA / *TORX SCREW* / *TORX-SCHRAUBEN*
4015-M4x9	M4X0.7	9	15	5.6	50	S-SİSTEM için / For S-SYSTEM / *FÜR S-SYSTEM*	TORK VİDA / *TORX SCREW* / *TORX-SCHRAUBEN*
4015-M4x10	M4X0.7	10	15	5.6	50	S-SİSTEM için / For S-SYSTEM / *FÜR S-SYSTEM*	TORK VİDA / *TORX SCREW* / *TORX-SCHRAUBEN*
4015-M4x11	M4X0.7	11	15	5.6	50	S-SİSTEM için / For S-SYSTEM / *FÜR S-SYSTEM*	TORK VİDA / *TORX SCREW* / *TORX-SCHRAUBEN*
4015-M4x12	M4X0.7	12	15	5.7	50	S-SİSTEM için / For S-SYSTEM / *FÜR S-SYSTEM*	TORK VİDA / *TORX SCREW* / *TORX-SCHRAUBEN*
4115-M4x12	M4X0.7	12	15	5.6	55	S-SİSTEM için / For S-SYSTEM / *FÜR S-SYSTEM*	TORK VİDA / *TORX SCREW* / *TORX-SCHRAUBEN*
4515-M4x8	M4X0.7	8	15	5.1	50	S-SİSTEM için / For S-SYSTEM / *FÜR S-SYSTEM*	TORK VİDA / *TORX SCREW* / *TORX-SCHRAUBEN*
4515-M4x11	M4X0.7	11	15	5.1	50	S-SİSTEM için / For S-SYSTEM / *FÜR S-SYSTEM*	TORK VİDA / *TORX SCREW* / *TORX-SCHRAUBEN*
4615-M4x11	M4X0.7	11	15	6	50	S-SİSTEM için / For S-SYSTEM / *FÜR S-SYSTEM*	TORK VİDA / *TORX SCREW* / *TORX-SCHRAUBEN*
1015-M4.5x12	M4.5X0.75	12	15	6.6	50	S-SİSTEM için / For S-SYSTEM / *FÜR S-SYSTEM*	TORK VİDA / *TORX SCREW* / *TORX-SCHRAUBEN*
1020-M4.5x14	M4.5X0.75	14	20	6.5	45	S-SİSTEM için / For S-SYSTEM / *FÜR S-SYSTEM*	TORK VİDA / *TORX SCREW* / *TORX-SCHRAUBEN*
1020-M4.5x16	M4.5X0.75	16	20	6.5	45	S-SİSTEM için / For S-SYSTEM / *FÜR S-SYSTEM*	TORK VİDA / *TORX SCREW* / *TORX-SCHRAUBEN*
1120-M4.5x12	M4.5X0.75	12.1	20	7.9	R	S-SİSTEM için / For S-SYSTEM / *FÜR S-SYSTEM*	TORK VİDA / *TORX SCREW* / *TORX-SCHRAUBEN*
1515-M4.5x11	M4.5X0.75	11	15	6.4	45	S-SİSTEM için / For S-SYSTEM / *FÜR S-SYSTEM*	TORK VİDA / *TORX SCREW* / *TORX-SCHRAUBEN*
4015-M4.5x11	M4.5X0.75	11	15	6.4	45	S-SİSTEM için / For S-SYSTEM / *FÜR S-SYSTEM*	TORK VİDA / *TORX SCREW* / *TORX-SCHRAUBEN*
4020-M4.5x10	M4.5X0.75	10	20	6.5	55	S-SİSTEM için / For S-SYSTEM / *FÜR S-SYSTEM*	TORK VİDA / *TORX SCREW* / *TORX-SCHRAUBEN*
4020-M4.5x12	M4.5X0.75	12	20	6.5	55	S-SİSTEM için / For S-SYSTEM / *FÜR S-SYSTEM*	TORK VİDA / *TORX SCREW* / *TORX-SCHRAUBEN*
1020-M5x11	M5X0.8	11	20	6.6	50	S-SİSTEM için / For S-SYSTEM / *FÜR S-SYSTEM*	TORK VİDA / *TORX SCREW* / *TORX-SCHRAUBEN*
1020-M5x14	M5X0.8	14.1	20	6.8	50	S-SİSTEM için / For S-SYSTEM / *FÜR S-SYSTEM*	TORK VİDA / *TORX SCREW* / *TORX-SCHRAUBEN*
1120-M5x13	M5X0.8	13	20	7	R	S-SİSTEM için / For S-SYSTEM / *FÜR S-SYSTEM*	TORK VİDA / *TORX SCREW* / *TORX-SCHRAUBEN*
1615-M5x14	M5X0.8	14	15	7.3	50	S-SİSTEM için / For S-SYSTEM / *FÜR S-SYSTEM*	TORK VİDA / *TORX SCREW* / *TORX-SCHRAUBEN*
1620-M5x18	M5X0.8	18	20	8.15	50	S-SİSTEM için / For S-SYSTEM / *FÜR S-SYSTEM*	TORK VİDA / *TORX SCREW* / *TORX-SCHRAUBEN*
1620-M5x22	M5X0.8	22	20	8.15	50	S-SİSTEM için / For S-SYSTEM / *FÜR S-SYSTEM*	TORK VİDA / *TORX SCREW* / *TORX-SCHRAUBEN*
4420-M5x14	M5X0.8	14	20	6.60	60	S-SİSTEM için / For S-SYSTEM / *FÜR S-SYSTEM*	TORK VİDA / *TORX SCREW* / *TORX-SCHRAUBEN*
1020-M6x16	M6X1.0	16	20	8.5	50	S-SİSTEM için / For S-SYSTEM / *FÜR S-SYSTEM*	TORK VİDA / *TORX SCREW* / *TORX-SCHRAUBEN*
1420-M6x16	M6X1.0	16	20	7.6	50	S-SİSTEM için / For S-SYSTEM / *FÜR S-SYSTEM*	TORK VİDA / *TORX SCREW* / *TORX-SCHRAUBEN*
1520-M6x16	M6X1.0	16	20	8.2	50	S-SİSTEM için / For S-SYSTEM / *FÜR S-SYSTEM*	TORK VİDA / *TORX SCREW* / *TORX-SCHRAUBEN*
1710-U5-40x12.2	UNC 5-40	12.2	10	5.6	60	S-SİSTEM için / For S-SYSTEM / *FÜR S-SYSTEM*	TORK VİDA / *TORX SCREW* / *TORX-SCHRAUBEN*
1720-U8-32x10	UNC 8-32	10	20	7.5	60	S-SİSTEM için / For S-SYSTEM / *FÜR S-SYSTEM*	TORK VİDA / *TORX SCREW* / *TORX-SCHRAUBEN*
1720-U8-32x15	UNC 8-32	15	20	7.5	60	S-SİSTEM için / For S-SYSTEM / *FÜR S-SYSTEM*	TORK VİDA / *TORX SCREW* / *TORX-SCHRAUBEN*
1707-U4-48x6	UNF 4-48	6	7	3.27	60	S-SİSTEM için / For S-SYSTEM / *FÜR S-SYSTEM*	TORK VİDA / *TORX SCREW* / *TORX-SCHRAUBEN*
1707-U4-48x6.5	UNF 4-48	6.5	7	3.27	60	S-SİSTEM için / For S-SYSTEM / *FÜR S-SYSTEM*	TORK VİDA / *TORX SCREW* / *TORX-SCHRAUBEN*
1707-U4-48x8.2	UNF 4-48	8.2	7	3.27	60	S-SİSTEM için / For S-SYSTEM / *FÜR S-SYSTEM*	TORK VİDA / *TORX SCREW* / *TORX-SCHRAUBEN*

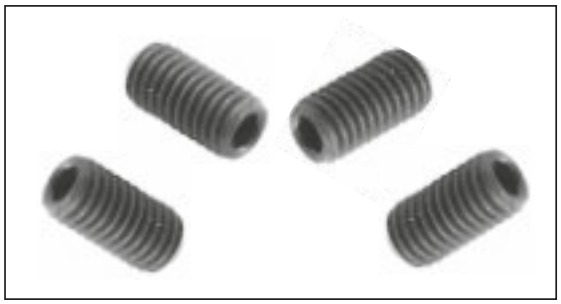
BF SERVICE

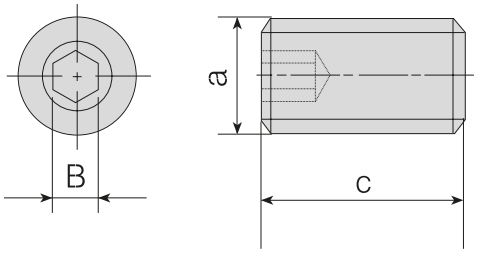




EKSENEL AYAR VİDALARI / *AXIAL ADJUSTING SCREWS* / *AXIAL-EINSTELLSCHRAUBE*

Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	a (M)	b	c	d	B	Ürün Detayı / *Product Detail* / *Produkt-Details*	
2600-M4x9.5	M4X0.5	5.5	4	4	1.5	Kartuş için / for Cartridge / *FÜR KASSETTE*	Eksenel Ayar Vida / *Axial Adjust Screw* / *Axial-Einstellschraube*
2600-M5x13	M5x0.5	12.8	7	8.7	2.5	Kartuş için / for Cartridge / *FÜR KASSETTE*	Eksenel Ayar Vida / *Axial Adjust Screw* / *Axial-Einstellschraube*
2600-M6x18	M6x1.0	18.2	9	10	3.5	Kartuş için / for Cartridge / *FÜR KASSETTE*	Eksenel Ayar Vida / *Axial Adjust Screw* / *Axial-Einstellschraube*



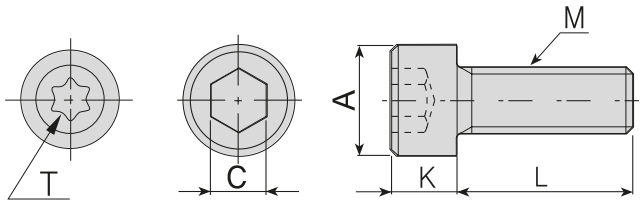


RADYAL AYAR VİDALARI / *RADIAL ADJUSTING SCREWS* / *AXIAL-EINSTELLSCHRAUBE*

Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	a (M)	c	B	Ürün Detayı / *Product Detail* / *Produkt-Details*	
2715-M3x4	M3x0.5	4	1.5	KABA BARA için / for ROUGH BORING HEADS *FÜR SCHRUPP-SPINDELKOPF*	KABA BARA KARTUŞU için / for ROUGH BORING HEADS CARTRIDGE *FÜR KASSETTEN DER SCHRUPP-SPINDELKÖPFE*
2715-M3x5	M3x0.5	5	1.5	KABA BARA için / for ROUGH BORING HEADS *FÜR SCHRUPP-SPINDELKOPF*	KABA BARA KARTUŞU için / for ROUGH BORING HEADS CARTRIDGE *FÜR KASSETTEN DER SCHRUPP-SPINDELKÖPFE*
2715-M3x8	M3x0.5	8	1.5	KABA BARA için / for ROUGH BORING HEADS *FÜR SCHRUPP-SPINDELKOPF*	KABA BARA KARTUŞU için / for ROUGH BORING HEADS CARTRIDGE *FÜR KASSETTEN DER SCHRUPP-SPINDELKÖPFE*
2702-M4x4	M4x0.7	4	2	KARTUŞ için / for CARTRIDGE / *FÜR KASSETTE*	KARTUŞ için / for CARTRIDGE / *FÜR KASSETTE*
2702-M4x10	M4x0.7	10	2	KARTUŞ için / for CARTRIDGE / *FÜR KASSETTE*	KARTUŞ için / for CARTRIDGE / *FÜR KASSETTE*
2702-M4x12	M4x0.7	12	2	KABA BARA için / for ROUGH BORING HEADS *FÜR SCHRUPP-SPINDELKOPF*	KABA BARA KARTUŞU için / for ROUGH BORING HEADS CARTRIDGE *FÜR KASSETTEN DER SCHRUPP-SPINDELKÖPFE*
2725-M5x6	M5x0.8	5	2.5	KARTUŞ için / for CARTRIDGE / *FÜR KASSETTE*	KARTUŞ için / for CARTRIDGE / *FÜR KASSETTE*
2725-M5x10	M5x0.8	10	2.5	KARTUŞ için / for CARTRIDGE / *FÜR KASSETTE*	KARTUŞ için / for CARTRIDGE / *FÜR KASSETTE*
2725-M5x12	M5x0.8	12	2.5	KABA BARA için / for ROUGH BORING HEADS *FÜR SCHRUPP-SPINDELKOPF*	KABA BARA KARTUŞU için / for ROUGH BORING HEADS CARTRIDGE *FÜR KASSETTEN DER SCHRUPP-SPINDELKÖPFE*
2725-M5x14	M5x0.8	14	2.5	KABA BARA için / for ROUGH BORING HEADS *FÜR SCHRUPP-SPINDELKOPF*	KABA BARA KARTUŞU için / for ROUGH BORING HEADS CARTRIDGE *FÜR KASSETTEN DER SCHRUPP-SPINDELKÖPFE*
2703-M6x16	M6x1	16	3	KABA BARA için / for ROUGH BORING HEADS *FÜR SCHRUPP-SPINDELKOPF*	KABA BARA KARTUŞU için / for ROUGH BORING HEADS CARTRIDGE *FÜR KASSETTEN DER SCHRUPP-SPINDELKÖPFE*
2704-M8x25	M8x1.25	25.9	4	KABA BARA için / for ROUGH BORING HEADS *FÜR SCHRUPP-SPINDELKOPF*	KABA BARA KARTUŞU için / for ROUGH BORING HEADS CARTRIDGE *FÜR KASSETTEN DER SCHRUPP-SPINDELKÖPFE*

BF SERVICE





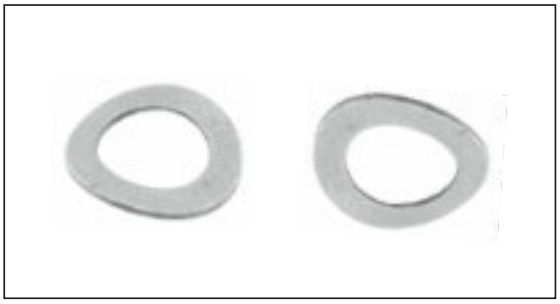
İNBUS CİVATALAR / *INBUS SCREWS* / *INNENSECHSKANT-SCHRAUBE*

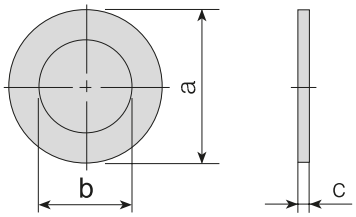
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	M	A	C	K	L	Ürün Detayı / *Product Detail* / *Produkt-Details*	
2503-M4x10	M4x0.7	6.85	3	4	10	KANAL KATER VİDASI / SOME GROOVING TOOLS SCREW	*SCHRAUBEN FÜR STECHHALTER*
2525-M3X14	M3X0.5	5.4	2.5	2.9	14	BARA KARTUŞU için SIKMA VİDASI / for BORING HEADS CARTRIDGE SCREW	*SCHRAUBE FÜR KASSETTE DER SCHRUPP-SPINDELKÖPFE*
2503-M4X20	M4x0.7	7	3	3.9	20	BARA KARTUŞU için SIKMA VİDASI / for BORING HEADS CARTRIDGE SCREW	*SCHRAUBE FÜR KASSETTE DER SCHRUPP-SPINDELKÖPFE*
2503-M4X12	M4x0.7	6.85	3	4	12	KANAL KATER VİDASI / SOME GROOVING TOOLS SCREW	*SCHRAUBEN FÜR STECHHALTER*
2503-M4X15	M4x0.7	6.85	3	4	15	BARA KARTUŞU için SIKMA VİDASI / for BORING HEADS CARTRIDGE SCREW	*SCHRAUBE FÜR KASSETTE DER SCHRUPP-SPINDELKÖPFE*
2504-M5X16	M5X0.8	8.5	4	5	16	KANAL KATER VİDASI / SOME GROOVING TOOLS SCREW	*SCHRAUBEN FÜR STECHHALTER*
2504-M5X12	M5X0.8	8.5	4	5	12	KANAL KATER VİDASI / SOME GROOVING TOOLS SCREW	*SCHRAUBEN FÜR STECHHALTER*
2504-M5X25	M5X0.8	8.5	4	5	25	BARA KARTUŞU için SIKMA VİDASI / for BORING HEADS CARTRIDGE SCREW	*SCHRAUBE FÜR KASSETTE DER SCHRUPP-SPINDELKÖPFE*
2505-M6X16	M6X1	9.9	5	6	16	KANAL KATER VİDASI / SOME GROOVING TOOLS SCREW	*SCHRAUBEN FÜR STECHHALTER*
2505-M6X20	M6X1	9.9	5	6	20	KANAL KATER VİDASI / SOME GROOVING TOOLS SCREW	*SCHRAUBEN FÜR STECHHALTER*
2505-M6X25	M6X1	9.9	5	6	25	BLOK BASKI PABUÇ VİDASI / for BLOCK CLAMP SCREW	*SCHRAUBE FÜR SPANNBLOCK*
2505-M6X30	M6X1	9.9	5	6	30	BARA KARTUŞU için SIKMA VİDASI / for BORING HEADS CARTRIDGE SCREW	*SCHRAUBE FÜR KASSETTE DER SCHRUPP-SPINDELKÖPFE*
2405-M8X30	M8X1.25	13	5	5	30	A16 MONTAJ VİDASI (KAFASI KÜÇÜK) / MOUNTING SCREW (SMALL HEAD)	*BEFESTIGUNGSSCHRAUBE (KLEINER KOPF)*
2506-M8X20	M8X1.25	13	6	7.9	20	KARTUŞ MONTAJ VİDASI / CARTRIDGE MOUNTING SCREW	*BEFESTIGUNGSSCHRAUBE FÜR KASSETTE*
2506-M8X30	M8X1.25	13	6	7.9	30	A16 MONTAJ VİDASI / MOUNTING SCREW	*BEFESTIGUNGSSCHRAUBE*
2506-M8X35	M8X1.25	13	6	7.9	35	BARA KARTUŞU için SIKMA VİDASI / for BORING HEADS CARTRIDGE SCREW	*SCHRAUBE FÜR KASSETTE DER SCHRUPP-SPINDELKÖPFE*
2406-M8X30	M8X1.25	12	6	7.9	30	A16 MONTAJ VİDASI / MOUNTING SCREW	*BEFESTIGUNGSSCHRAUBE*
2407-M10X30	M10X1.5	16	7	6	30	A16 MONTAJ VİDASI / MOUNTING SCREW	*BEFESTIGUNGSSCHRAUBE*
2408-M10X30	M10X1.5	13.90	8	10	30	A22 MONTAJ VİDASI / MOUNTING SCREW	*BEFESTIGUNGSSCHRAUBE*
2508-M10X30	M10X1.5	16	8	10	30	A22 MONTAJ VİDASI / MOUNTING SCREW	*BEFESTIGUNGSSCHRAUBE*
2508-M10X40	M10X1.5	16	8	10	40	BARA KARTUŞU için SIKMA VİDASI / for BORING HEADS CARTRIDGE SCREWS	*SCHRAUBE FÜR KASSETTE DER SCHRUPP-SPINDELKÖPFE*
2408-M12X35	M12X1.75	18	8	7	35	A27 MONTAJ VİDASI / MOUNTING SCREW	*BEFESTIGUNGSSCHRAUBE*
2510-M12X35	M12X1.75	18	10	12	35	A27 MONTAJ VİDASI / MOUNTING SCREW	*BEFESTIGUNGSSCHRAUBE*
2514-M16X35	M16X2.0	23.7	14	16	35	A32 MONTAJ VİDASI / MOUNTING SCREW	*BEFESTIGUNGSSCHRAUBE*
AAV-11-U5-40x4.5	UNC 5-40	5.4	T10	2.8	4.5	16 ER/L, 16 IR/L ALTLIK VİDASI / SHIM SCREW	*SCHRAUBE FÜR UNTERLAGE*
AAV-12-U8-32x5.5	UNC 8-32	6.7	T20	3.8	5.5	22 ER/L, 22 IR/L ALTLIK VİDASI / SHIM SCREW	*SCHRAUBE FÜR UNTERLAGE*
AAV-15-M5x5.7	M5X0.8	8.5	T20	3.15	5.7	27 ER/L, 27 IR/L ALTLIK VİDASI / SHIM SCREW	*SCHRAUBE FÜR UNTERLAGE*

SEKMAN / *RING* / *RING*

Ürün Resmi *Product Picture* *Produkt-Bild*	Ürün Kodu *Product Code* / *Code*	Ürün Detayı / *Product Detail* / *Produkt-Details*	
	**ACS-01**	C-SİSTEM için / For C-SYSTEM / *FÜR C-SYSTEM*	TNGN, CNGN, DNGN, SNGN SEKMANI / RING
	AS-01	T-M-SİSTEM için / For T-M-SYSTEM / *FÜR T-M-SYSTEM*	AKV-30-M6x20 SEKMANI / RING

BF SERVICE

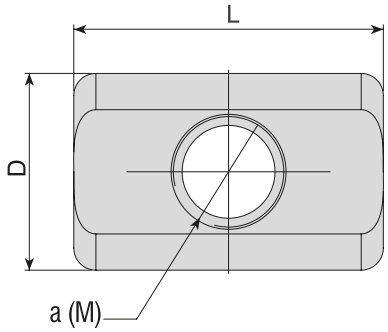




BASKI VE ALTLIK VİDASI PULU / *STAMP* / *UNTERLEGSCHEIBE*

Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	a	b	c	Ürün Detayı / *Product Detail* / *Produkt-Details*	
ABPL-01	11	6.5	0.5	PUL/STAMP/*RING*	BASKI PULU / STAMP / *RING*
ABPL-02	12.75	7.1	0.45	PUL/STAMP/*RING*	BASKI PULU / STAMP / *RING*
ABPL-03	5.3	3.2	0.5	PUL/STAMP/*RING*	TER - TIR 16 ER/EL - IR/IL ALTLIK VİDA PULU / SHIM SCREW RING / *SCHRAUBE FÜR UNTERLAGENRING*
ABPL-04	6.9	4.2	0.5	PUL/STAMP/*RING*	TER - TIR 22 ER/EL - IR/IL ALTLIK VİDA PULU / SHIM SCREW RING / *SCHRAUBE FÜR UNTERLAGENRING*
ABPL-05	8.5	5	0.5	PUL/STAMP/*RING*	TER - TIR 27 ER/EL - IR/IL ALTLIK VİDA PULU / SHIM SCREW RING / *SCHRAUBE FÜR UNTERLAGENRING*





BARA PABUÇLARI / *BORING HEADS CARTRIDGE* / *KASSETTE FÜR SPINDELKOPF*

Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	a (M)	D	L	Ürün Detayı / *Product Detail* / *Produkt-Details*	
ABKS-D16	M3x0.5	4.9	6	KABA BARA için / for ROUGH BORING HEADS / *FÜR SCHRUPP-SPINDELKOPF*	ABHR-D16x42-W16-L90
ABKS-D20	M4x0.7	5.9	9	KABA BARA için / for ROUGH BORING HEADS / *FÜR SCHRUPP-SPINDELKOPF*	ABHR-D20x50-W20-L100
ABKS-D25	M4x0.7	5.9	12	KABA BARA için / for ROUGH BORING HEADS / *FÜR SCHRUPP-SPINDELKOPF*	ABHR-D25x60-W20-L110
ABKS-D32	M5x0.8	8.9	14	KABA BARA için / for ROUGH BORING HEADS / *FÜR SCHRUPP-SPINDELKOPF*	ABHR-D32x64-W25-L120
ABKS-D40	M6x1	10.9	18	KABA BARA için / for ROUGH BORING HEADS / *FÜR SCHRUPP-SPINDELKOPF*	ABHR-D40x80-W32-L140
ABKS-D50	M8x1.25	13.9	28	KABA BARA için / for ROUGH BORING HEADS / *FÜR SCHRUPP-SPINDELKOPF*	ABHR-D50x100-W32-L160
ABKS-D63	M10x1.5	15.9	35	KABA BARA için / for ROUGH BORING HEADS / *FÜR SCHRUPP-SPINDELKOPF*	ABHR-D63x80-W32-L140, ABHR-D63x130-W40-L200
ABKS-D80	M12x1.75	17.9	45	KABA BARA için / for ROUGH BORING HEADS / *FÜR SCHRUPP-SPINDELKOPF*	ABHR-D80x140-W40-L210, ABHR-D80x140-W40-L210 -B

BF SERVICE

KESME ve KANAL LAMA AÇMA BLOK PABUÇLARI / *BLOCKS FOR PARTING AND DEEP GROOVING BLADES CLAMPS* *KLEMMLEISTE FÜR SCHWERT-SPANNBLOCK*

Ürün Resmi *Product Picture* *Produkt-Bild*



Ürün Kodu *Product Code / Code*	Ürün Detayı / *Product Detail* / *Produkt-Details*	
ABK-01	LAMA BLOĞU İçin / For BLADE BLOCK / *FÜR SCHWERT-SPANNBLOCK*	ALBU-20-26 BASKI PABUCU / CLAMP / *PRATZE*
ABK-02	LAMA BLOĞU İçin / For BLADE BLOCK / *FÜR SCHWERT-SPANNBLOCK*	ALBU-25-26 BASKI PABUCU / CLAMP / *PRATZE*
ABK-03	LAMA BLOĞU İçin / For BLADE BLOCK / *FÜR SCHWERT-SPANNBLOCK*	ALBU-20-32 BASKI PABUCU / CLAMP / *PRATZE*
ABK-04	LAMA BLOĞU İçin / For BLADE BLOCK / *FÜR SCHWERT-SPANNBLOCK*	ALBU-25-32, ALBU-32-32 BASKI PABUCU / CLAMP / *PRATZE*

LAMA ANAHTARI / BLADE KEY / *SCHWERT-SCHLÜSSEL*

Ürün Resmi *Product Picture* *Produkt-Bild*



Ürün Kodu *Product Code / Code*	Ürün Detayı / *Product Detail* / *Produkt-Details*
ALA-01	AKL LAMA ANAHTARI / for BLADE KEY / *SCHWERT-SCHLÜSSEL*

ALYAN ANAHTARLARI / *ALLEN KEYS* / *INNENSECHSKANT-SCHLÜSSEL*

Ürün Resmi *Product Picture* *Produkt-Bild*



Ürün Kodu *Product Code / Code*	Ürün Detayı / *Product Detail* / *Produkt-Details*	
AAL-01-2	2 mm	ALYAN ANAHTARI / ALLEN KEYS / *INNENSECHSKANT-SCHLÜSSEL*
AAL-02-2.5	2.5 mm	ALYAN ANAHTARI / ALLEN KEYS / *INNENSECHSKANT-SCHLÜSSEL*
AAL-03-3	3 mm	ALYAN ANAHTARI / ALLEN KEYS / *INNENSECHSKANT-SCHLÜSSEL*
AAL-05-4	4 mm	ALYAN ANAHTARI / ALLEN KEYS / *INNENSECHSKANT-SCHLÜSSEL*
AAL-07-5	5 mm	ALYAN ANAHTARI / ALLEN KEYS / *INNENSECHSKANT-SCHLÜSSEL*
AAL-08-6	6 mm	ALYAN ANAHTARI / ALLEN KEYS / *INNENSECHSKANT-SCHLÜSSEL*
AAL-09-1.5	1.5 mm	ALYAN ANAHTARI / ALLEN KEYS / *INNENSECHSKANT-SCHLÜSSEL*
AAL-11-8	8 mm	ALYAN ANAHTARI / ALLEN KEYS / *INNENSECHSKANT-SCHLÜSSEL*
AAL-12-10	10 mm	ALYAN ANAHTARI / ALLEN KEYS / *INNENSECHSKANT-SCHLÜSSEL*

TORK ANAHTARLARI / *TORX KEYS* / *TORX-SCHLÜSSEL*

Ürün Resmi *Product Picture* *Produkt-Bild*



Ürün Kodu *Product Code / Code*	Ürün Detayı / *Product Detail* / *Produkt-Details*
80-T06	T06 TORK ANAHTARI / *TORX KEY* / *TORX-SCHLÜSSEL*
80-T07	T07 TORK ANAHTARI / *TORX KEY* / *TORX-SCHLÜSSEL*
80-T08	T08 TORK ANAHTARI / *TORX KEY* / *TORX-SCHLÜSSEL*
80-T10	T10 TORK ANAHTARI / *TORX KEY* / *TORX-SCHLÜSSEL*
80-T15	T15 TORK ANAHTARI / *TORX KEY* / *TORX-SCHLÜSSEL*
80-T20	T20 TORK ANAHTARI / *TORX KEY* / *TORX-SCHLÜSSEL*
81-T15	T15 T-TİP TORK ANAHTARI / *T-TYPE TORX KEY* / *T-TYP-TORX-SCHLÜSSEL*
81-T20	T20 T-TİP TORK ANAHTARI / *T-TYPE TORX KEY* / *T-TYP-TORX-SCHLÜSSEL*

BF SERVICE

60° | 90° P M K N H

frese per sbavatura

per applicazioni di sbavatura sia in fronte che in tiro





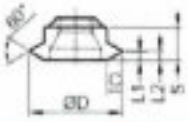


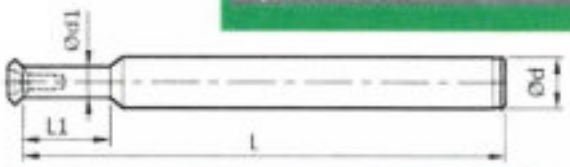
- *6 eliche , avanzamenti più alti e tempo ciclo ridotto*
- *minimo diametro di lavorazione da 4.2mm a 10mm*

BF SERVICE
UTENSILERIA MECCANICA

Set Singolo a 60°

- Per sbavatura anteriore e posteriore.
- anche per applicazioni di filettatura.

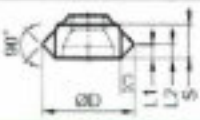




codice	inserto incluso						utensile incluso				
	Tipo	ØD ±0.025	L1	L2	C	S ±0.025	Stelo	Ød	Ød1	L1	L
00-99626-R106-2103	R06005-05010-32	5.0	0.35	0.45	0.4	2.00	00-99626-CR05-06-051	6	3.5	16	51
00-99626-R306-2301	R06007-06810-32	6.8	0.40	0.50	0.5	2.35	00-99626-CR07-06-057	6	5.0	22	57
00-99626-R606-2601	R06010-08510-32	8.5	0.49	0.59	0.65	3.60	00-99626-CR10-08-069	8	6.8	27	69
00-99626-R606-2603	R06010-10010-32	10.0	0.90	1.00	1.20	3.60	00-99626-CR10-08-069	8	6.8	27	69

Set Singolo a 90°

- Per sbavatura anteriore e posteriore.



codice	inserto incluso						utensile incluso				
	Tipo	ØD ±0.025	L1	L2	C	S ±0.025	Stelo	Ød	Ød1	L1	L
00-99626-R106-4101	R09005-05060-32	5.0	0.60	1.20	0.4	2.00	00-99626-CR05-06-051	6	3.5	16	51
00-99626-R306-4301	R09007-07020-32	7.0	1.00	1.20	0.7	2.35	00-99626-CR07-06-057	6	5.0	22	57
00-99626-R606-4601	R09010-10010-32	10.0	1.45	1.55	1.2	3.60	00-99626-CR10-08-069	8	6.8	27	69

BF SERVICE UTENSILERIA MECCANICA

AKKO®

POLİGONAL ŞAFTLI YEKPARE TAKIMLAR
MONOBLOCK TOOLS WITH POLYGONAL SHANK
MONOBLOCKHALTER MIT POLGYGONSCHAFT

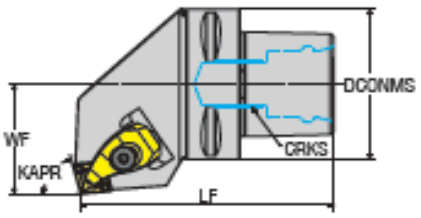


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versiyon · version · auflage ► 0100/0226

KAPR=93°

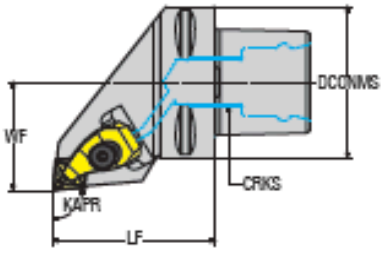




Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager* R	Stok *Stock* *Lager* L	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)* DCONMS	LF	WF	CRKS	Kesici Uç *Insert*	Yedek Parçaları / *Spare Parts* / *Ersatzteile* Baskı Pabucu *Wedge Clamp* *Spannpratze*	Pabuç Vidası *Clamp Screw* *Klemmschraube*	Altlık *Shim* *Unterlage*	Altlık Vidası *Shim Screw* *Schraube für Unterlage*	Yay *Spring* *Feder*	Oring *Ring* *Feder*	Anahtar *Allen Key* *Innensechskantschlüssel*
AC4 TCKNR/L 27050 12 H	●	●	40	50	27	M14x1.5	CN.. 120408	ATKH-01-R ATKH-02-L	AKV-S3-M6X22	AACN-3-0001	AAV-02-M5X10	AKY-01	AXR-01	AAL-03-3
AC5 TCKNR/L 35060 12 H	●	●	50	60	35	M16x1.5								
AC6 TCKNR/L 45065 12 H	●	●	63	65	45	M20x2								
AC4 TCKNR/L 27050 16 H	●	●	40	50	27	M14x1.5	CN.. 160612	ATKH-07-R ATKH-08-L	AKV-S9-M7X21	AACN-3-0002	AAV-05-M6X10			AAL-05-4
AC5 TCKNR/L 35060 16 H	●	●	50	60	35	M16x1.5								
AC6 TCKNR/L 45065 16 H	●	●	63	65	45	M20x2								
AC6 TCKNR/L 45065 19 H	●	●	63	65	45	M20x2	CN.. 190612	ATKH-09-R ATKH-10-L		AACN-3-0003	AAV-05-M6X16			
AC8 TCKNR/L 55080 19 H	●	●	80	80	55	M20x2								

KAPR=95°





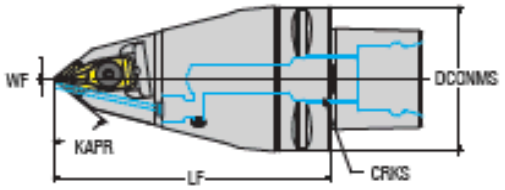
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager* R	Stok *Stock* *Lager* L	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)* DCONMS	LF	WF	CRKS	Kesici Uç *Insert*	Yedek Parçaları / *Spare Parts* / *Ersatzteile* Baskı Pabucu *Wedge Clamp* *Spannpratze*	Pabuç Vidası *Clamp Screw* *Klemmschraube*	Altlık *Shim* *Unterlage*	Altlık Vidası *Shim Screw* *Schraube für Unterlage*	Yay *Spring* *Feder*	Oring *Ring* *Feder*	Pul *Stamp* *Ring*	Anahtar *Allen Key* *Innensechskantschlüssel*
NEW AC3 TCLNR/L 22040 09 H	●	●	32	40	22	M12x1.5	CN.. 090308	ATK-01	AKV-01-M5x22	AACN-2-0001	AAV-09-M5x9	-	-	ABPL-01	AAL-03-3
NEW AC4 TCLNR/L 27050 09 H	●	●	40	50	27	M14x1.5									
NEW AC3 TCLNR/L 22045 12 H	●	●	32	45	22	M12x1.5	CN.. 120408	ATKH-01-R	AKV-S3-M5x22	AACN-3-0001	AAV-13-M5x8	AKY-01	AXR-01	-	
AC4 TCLNR/L 27060 12 H	●	●	40	60	27	M14x1.5		ATKH-01-R ATKH-02-L							
AC5 TCLNR/L 35060 12 H	●	●	50	60	35	M16x1.5									
AC6 TCLNR/L 45065 12 H	●	●	63	65	45	M20x2									
AC8 TCLNR/L 55080 12 H	●	●	80	80	55	M20x2									
NEW AC4 TCLNR/L 27055 16 H	●	●	40	55	27	M14x1.5	CN.. 160612	ATKH-07-R	AKV-S9-M7X21	AACN-3-0002	AAV-05-M6X10				AAL-05-4
NEW AC5 TCLNR/L 35060 16 H	●	●	50	60	35	M16x1.5									
NEW AC6 TCLNR/L 45065 16 H	●	●	63	65	45	M20x2									
NEW AC8 TCLNR/L 55080 16 H	●	●	80	80	55	M20x2									
NEW AC5 TCLNR/L 35060 19 H	●	●	50	60	35	M16x1.5	CN.. 190612	ATKH-09-R ATKH-10-L	AKV-S9-M7X21	AACN-3-0003	AAV-17-M8x14	AKY-02			
NEW AC6 TCLNR/L 45065 19 H	●	●	63	65	45	M20x2									
NEW AC8 TCLNR/L 55080 19 H	●	●	80	80	55	M20x2									

● *Stokta / In Stock / Auf Lager* ○ *Stokta Yok / Non Stock Item / Kein Lagerartikel, Lieferzeit auf Anfrage*

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück AC4 TCKNR 27050 12 H

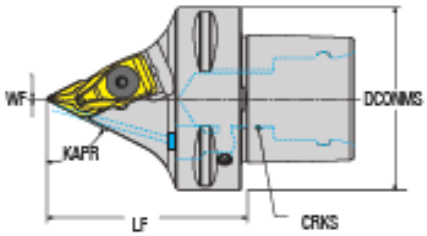
BF SERVICE





Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*				Kesici Uç *Insert*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*							
							Baskı Pabuç *Wedge Clamp* *Spannpratze*	Pabuç Vidası *Clamp Screw* *Klemmschraube*	Altlık *Shim* *Unterlage*	Altlık Vidası *Shim Screw* *Schraube für Unterlage*	Oring *Ring* *Feder*	Pul *Stamp* *Ring*	Nozul *Nozzle* *Nozzle Düze*	Anahtar *Allen Key* *Innensechskantschlüssel*
		DCONMS	LF	WF	CRKS									
AC6 TCMNN 00115 12	●	63	115	0	M20x2	CN.. 120408	ATK-02	AKV-30-M6x22	AACN-3-0001	AAV-13-M5x6	AS-01	ABPL-01	ACN-M12-12.5	AAL-03-3
AC8 TCMNN 00150 16	●	80	150	0	M20x2	CN.. 160608	ATK-04	AKV-19-M7x25	AACN-3-0002	AAV-05-M6x15	AS-02	ABPL-02	ACN-M12-12.5	AAL-05-4





Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*				Kesici Uç *Insert*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*							
							Baskı Pabuç *Wedge Clamp* *Spannpratze*	Pabuç Vidası *Clamp Screw* *Klemmschraube*	Altlık *Shim* *Unterlage*	Altlık Vidası *Shim Screw* *Schraube für Unterlage*	Oring *Ring* *Feder*	Pul *Stamp* *Ring*	Nozul *Nozzle* *Nozzle Düze*	Anahtar *Allen Key* *Innensechskantschlüssel*
		DCONMS	LF	WF	CRKS									
AC4 TDNNN 00050 11	●	40	50	0	M14x1.5	DN.. 110408	ATK-01	AKV-01-M5x22	AADN-2-0001	AAV-04-M5x12	-	ABPL-01	ACN-M8-8.5	AAL-03-3
AC4 TDNNN 00055 15	●	40	55	0	M14x1.5	DN.. 150608	ATK-02	AKV-30-M6x22	AADN-3-0001	AAV-02-M5x12	AS-01		ACN-M10-10.5	
AC5 TDNNN 00060 15	●	50	60	0	M16x1.5									
AC6 TDNNN 00065 15	●	63	65	0	M20x2								ACN-M12-12.5	
AC8 TDNNN 00080 15	●	80	80	0	M20x2									

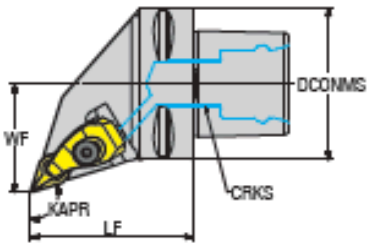
● *Stokta / In Stock / Auf Lager* ○ *Stokta Yok / Non Stock Item / Kein Lagerartikel, Lieferzeit auf Anfrage*

Sipariş Örneği/Ordering Example/*Beste*lbeispiel
1 ad./pcs./stück AC6 TCMNN 00115 12

BF SERVICE

KAPR=107.5°

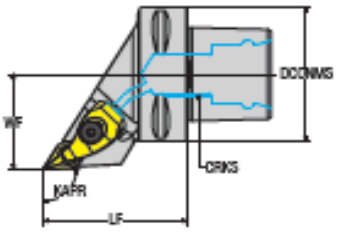




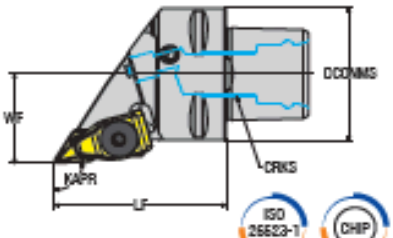
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*				Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*						
								Baskı Pabucu *Wedge Clamp* *Spannpratze*	Pabuç Vidası *Clamp Screw* *Klemmschraube*	Altlık *Shim* *Unterlage*	Altlık Vidası *Shim Screw* *Schraube für Unterlage*	Yay *Spring* *Feder*	Oring *Ring* *Feder*	Anahtar *Allen Key* *Innensechskantschlüssel*
	R	L	DCONMS	LF	WF	CRKS								
AC4 TDHNR/L 27055 15 H	●	●	40	55	27	M14x1.5	DN.. 150608	ATKH-01-R ATKH-02-L	AKV-SS-M6X22	AADN-3-0001	AAV-13-M5X8	AKY-01	AXR-01	AAL-03-3
AC5 TDHNR/L 35060 15 H	●	●	50	60	35	M16x1.5								
AC6 TDHNR/L 45065 15 H	●	●	63	65	45	M20x2								
AC8 TDHNR/L 55080 15 H	●	●	80	80	55	M20x2								

KAPR=93°





(figure.1)



(figure.2)

Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*							
									Baskı Pabucu *Wedge Clamp* *Spannpratze*	Pabuç Vidası *Clamp Screw* *Klemmschraube*	Altlık *Shim* *Unterlage*	Altlık Vidası *Shim Screw* *Schraube für Unterlage*	Yay *Spring* *Feder*	Oring *Ring* *Feder*	Nozul *Nozzle* *Nozzle Düse*	Anahtar *Allen Key* *Innensechskantschlüssel*
	R	L	DCONMS	LF	WF	CRKS	Rg.									
NEW AC3 TDJNR/L 22045 11	●	●	32	45	22	M12x1.5	2	DN.. 110408	ATK-01	AKV-01-M5x22	AADN-2-0001	AAV-04-M5x12	-	-	ADN-M8-0.5	AAL-03-3
NEW AC4 TDJNR/L 27050 11	●	●	40	50	27	M14x1.5	2									
NEW AC5 TDJNR/L 35060 11 H	●	●	50	60	35	M16x1.5	1		ATKH-05-R ATKH-06-L				AKY-01	AXR-01	-	
NEW AC6 TDJNR/L 45065 11 H	●	●	63	65	45	M20x2	1									
AC4 TDJNR/L 27060 15 H	●	●	40	60	27	M14x1.5	1	DN.. 150608	ATKH-01-R ATKH-02-L	AKV-SS-M6x22	AADN-3-0001	AAV-13-M5x8				
AC5 TDJNR/L 35060 15 H	●	●	50	60	35	M16x1.5	1									
AC6 TDJNR/L 45065 15 H	●	●	63	65	45	M20x2	1									
AC8 TDJNR/L 55080 15 H	●	●	80	80	55	M20x2	1									

● *Stokta / In Stock / Auf Lager* ▫ *Stokta Yok / Non Stock Item / Kein Lagerartikel, Lieferzeit auf Anfrage*

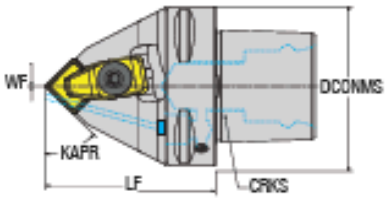
Sağ takımlarda sol baskı pabucu, sol takımlarda sağ baskı pabucu kullanılmalıdır.
The left wedge clamp should be used on right-hand tools, and the right wedge clamp should be used on left-hand tools.
Die linke Spannpratze für rechte Werkzeuge und die rechte Spannpratze für linke Werkzeuge verwendet werden.

Sipariş Örneği/Ordering Example/*Beste*lbeispiel
1 ad./pcs./stück AC4 TDHNR 27055 15 H

BF SERVICE

KAPR=50°

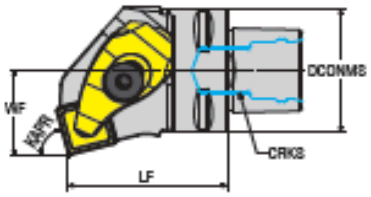




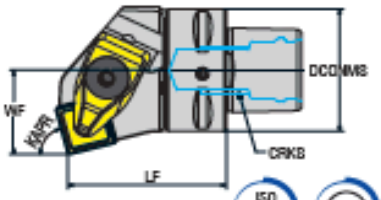
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*				Kesici Uç *Insert*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*							
		DCONMS	LF	WF	CRKS		Baskı Pabucu *Wedge Clamp* *Spannpratze*	Pabuç Vidası *Clamp Screw* *Klemmschraube*	Altlık *Shim* *Unterlage*	Altlık Vidası *Shim Screw* *Schraube für Unterlage*	Oring *Ring* *Feder*	Pul *Stamp* *Ring*	Nozul *Nozzle* *Nozzle Düse*	Anahtar *Allen Key* *Innensechskantschlüssel*
AC3 TSDNN 00048 12	●	32	48	0	M12x1.5	SN.. 120408	ATK-02	AKV-S0-M6x22	AASN-3-0004	AAV-02-M5x12	AS-01	ABPL-01	-	AAL-05-3
AC4 TSDNN 00050 12	●	40	50	0	M14x1.5								ACN-M8-8.5	
AC5 TSDNN 00060 12	●	50	60	0	M16x1.5								ACN-M10-10.5	
AC6 TSDNN 00065 12	●	63	65	0	M20x2								ACN-M12-12.5	
AC5 TSDNN 00060 15	●	50	60	0	M16x1.5	SN.. 150608		AKV-19-M7x25	AASN-3-0023	AAV-05-M6x15	AS-02	ABPL-02	ACN-M10-10.5	AAL-05-4
AC6 TSDNN 00065 15	●	63	65	0	M20x2								ACN-M12-12.5	
AC5 TSDNN 00065 19	●	50	65	0	M16x1.5	SN.. 190608	ATK-04		AASN-3-0005	AAV-17-M6x14			ACN-M10-10.5	
AC6 TSDNN 00070 19	●	63	70	0	M20x2								ACN-M12-12.5	

KAPR=75°





(figure.1)



(figure.2)

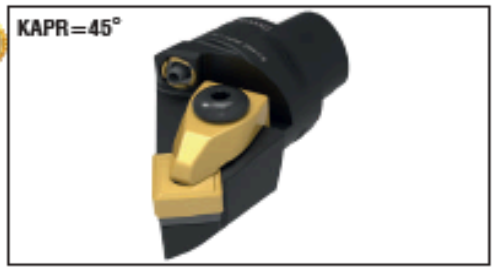
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*								
	R	L	DCONMS	LF	WF	CRKS	Fig.		Baskı Pabucu *Wedge Clamp* *Spannpratze*	Pabuç Vidası *Clamp Screw* *Klemmschraube*	Altlık *Shim* *Unterlage*	Altlık Vidası *Shim Screw* *Schraube für Unterlage*	Yay *Spring* *Feder*	Pul *Stamp* *Ring*	Oring *Ring* *Feder*	Nozul *Nozzle* *Nozzle Düse*	Anahtar *Allen Key* *Innensechskantschlüssel*
AC3 TSKNR/L 22040 12	●	●	32	40	22	M12x1.5	2	SN.. 120408	ATKH-01-R ATKH-02-L	AKV-S0-M5X22	AASN-3-0004	AAV-02-M5x12	-	ABPL-01	AS-01	ACN-M8-8.5	AAL-05-3
AC4 TSKNR/L 27050 12 H	●	●	40	50	27	M14x1.5	1										
AC5 TSKNR/L 35060 12 H	●	●	50	60	35	M16x1.5	1			AKV-S3-M5X22							
AC6 TSKNR/L 45065 12 H	●	●	63	65	45	M20x2	1										
AC5 TSKNR/L 35060 15 H	●	●	50	60	35	M16x1.5	1	SN.. 150612	ATKH-07-R ATKH-08-L	AKV-S9-M7X21	AASN-3-0023	AAV-05-M6x10	AKY-01	-	AKR-01	-	AAL-05-4
AC6 TSKNR/L 45065 15 H	●	●	60	65	45	M20x2	1										
AC5 TSKNR/L 35060 19 H	●	●	50	60	35	M16x1.5	1	SN.. 190612	ATKH-09-R ATKH-10-L			AAV-17-M6x14					
AC6 TSKNR/L 45065 19 H	●	●	63	65	45	M20x2	1										
AC8 TSKNR/L 55080 19 H	●	●	80	80	55	M20x2	1										

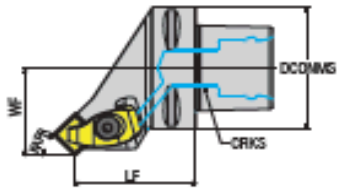
● *Stokta / In Stock / Auf Lager* ● *Stokta Yok / Non Stock Item / Kein Lagerartikel, Lieferzeit auf Anfrage*

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück AC3 TSDNN 00048 12

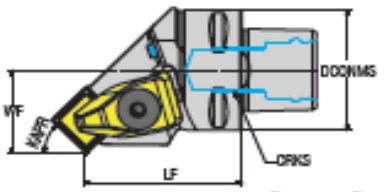
BF SERVICE

KAPR=45°





(figure.1)

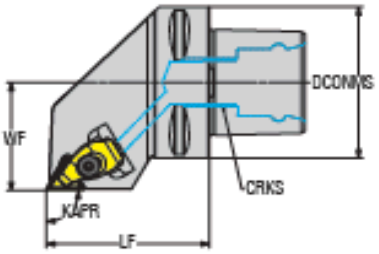


(figure.2)

Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*								
									Basic Pabucu *Wedge Clamp* *Spannpratze*	Pabuç Vidası *Clamp Screw* *Klemmschraube*	Altlık *Shim* *Unterlage*	Altlık Vidası *Shim Screw* *Schraube für Unterlage*	Oring *Ring* *Feder*	Pul *Shimp* *Ring*	Yay *Spring* *Feder*	Nozul *Nozzle* *Nozze Düse*	Anahtar *Allen Key* *Innensechskantschlüssel*
	R	L	DCONMS	LF	WF	CRKS	Fig.										
AC3 TSSNR/L 22040 12	●	●	32	40	22	M12x1.5	2	SN.. 120408	ATK-02	AKV-10-M5x22	AASN-S-0004	AAV-02-M5x12	AS-01	ABPL-01	-	ACN-M8-8.5	AAL-03-3
AC4 TSSNR/L 27042 12	●	●	40	42	27	M14x1.5	2										
AC5 TSSNR/L 35052 12 H	●	●	50	52	35	M16x1.5	1		ATKH-02-L ATKH-01-R				AXR-01		AKY-01	-	
AC6 TSSNR/L 45056 12 H	●	●	63	56	45	M20x2	1			AKV-33-M5x22							
AC4 TSSNR/L 27045 15	●	●	40	45	27	M14x1.5	2	SN.. 150612	ATK-04	AKV-19-M7x25	AASN-S-0023	AAV-05-M6x15	AS-02	-	-	ACN-M8-8.5	AAL-05-4
AC5 TSSNR/L 35050 15 H	●	●	50	50	35	M16x1.5	1		ATKH-03-L ATKH-07-R	AKV-39-M7x21			AXR-01		AKY-01	-	
AC6 TSSNR/L 45054 15 H	●	●	63	54	45	M20x2	1										
AC5 TSSNR/L 35048 19 H	●	●	50	48	35	M16x1.5	1	SN.. 190612	ATKH-10-L ATKH-09-R		AASN-S-0005	AAV-17-M6x14					
AC6 TSSNR/L 45052 19 H	●	●	63	52	45	M20x2	1										

KAPR=90°





Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*				Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*							
								Basic Pabucu *Wedge Clamp* *Spannpratze*	Pabuç Vidası *Clamp Screw* *Klemmschraube*	Altlık *Shim* *Unterlage*	Altlık Vidası *Shim Screw* *Schraube für Unterlage*	Yay *Spring* *Feder*	Oring *Ring* *Feder*	Anahtar *Allen Key* *Innensechskantschlüssel*
	R	L	DCONMS	LF	WF	CRKS								
AC6 TTGNR/L 45065 16 H	○	○	63	65	45	M20X2	TNM. 160408	ATKH-03-R ATKH-04-L	AKV-37-M5x18	AATN-2-0002	AAV-03 M5x12	AKY-02	AXR-02	AAL-02-2.5
AC4 TTGNR/L 27050 22 H	○	○	40	50	27	M14x1.5	TNM. 220408	ATKH-01-R ATKH-02-L	AKV-33-M5x22	AATN-3-0015	AAV-02-M5x12	AKY-01	AXR-01	AAL-03-3
AC5 TTGNR/L 35060 22 H	○	○	50	60	35	M16x1.5								
AC6 TTGNR/L 45065 22 H	●	●	63	65	45	M20X2								

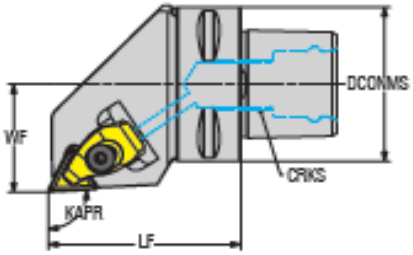
● *Stokta / In Stock / Auf Lager* ○ *Stokta Yok / Non Stock Item / Kein Lagerartikel, Lieferzeit auf Anfrage*

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück AC3 TSSNR 22040 12

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KAPR=93°

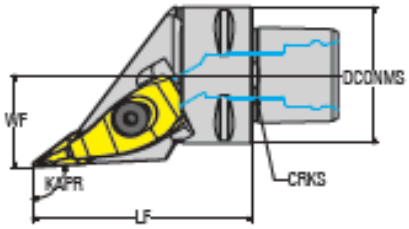




Takım Kodu *Ordering Code* Bestell-Bezeichnung	Stok *Stock* Lager		Takım Ölçüleri (mm) *Dimension (mm)* Abmessung (mm)				Kesici Uç *Insert* Wendeschneidplatte	Yedek Parçaları / *Spare Parts* / Ersatzteile							
								Baskı Pabucu *Wedge Clamp* Spannpratze	Pabuç Vidası *Clamp Screw* Klemmschraube	Altlık *Shim* Unterlage	Altlık Vidası *Shim Screw* Schraube für Unterlage	Yay *Spring* Feder	Pul *Stamp Ring*	Nozul *Nozzle* Nozzle-Düse	Anahtar *Allen Key* Innensechskantschlüssel
	R	L	DCONMS	LF	WF	CRKS									
AC5 TTJNR/L 35060 16 H	●	●	50	60	35	M16x1.5	TN.. 160408	ATKH-03-R ATKH-04-L	AKV-37-M5x18	AATN-2-0002	AAV-3-M5x12	AKY-03	AXR-02	2725-M5x5	AAL-03-3

KAPR=93°

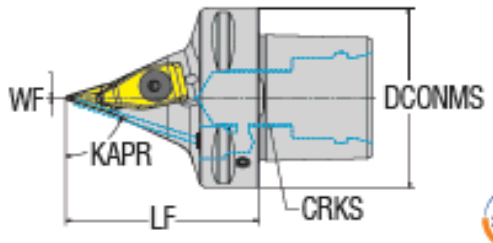




Takım Kodu *Ordering Code* Bestell-Bezeichnung	Stok *Stock* Lager		Takım Ölçüleri (mm) *Dimension (mm)* Abmessung (mm)				Kesici Uç *Insert* Wendeschneidplatte	Yedek Parçaları / *Spare Parts* / Ersatzteile							
								Baskı Pabucu *Wedge Clamp* Spannpratze	Pabuç Vidası *Clamp Screw* Klemmschraube	Altlık *Shim* Unterlage	Altlık Vidası *Shim Screw* Schraube für Unterlage	Yay *Spring* Feder	Oring *Ring* Feder	Anahtar *Allen Key* Innensechskantschlüssel
	R	L	DCONMS	LF	WF	CRKS								
AC4 TVJNR/L 27062 16 H	●	●	40	62	27	M14x1.5	VN.. 160408	ATKH-05-R ATKH-08-L	AKV-33-M8x22	AAVN-2-0002	AAV-04-M5x12	AKY-01	AXR-01	AAL-03-3
AC5 TVJNR/L 35065 16 H	●	●	50	65	35	M16x1.5								
AC6 TVJNR/L 45065 16 H	●	●	63	65	45	M20x2								
AC8 TVJNR/L 55080 16 H	●	●	80	80	55	M20x2								

KAPR=50°



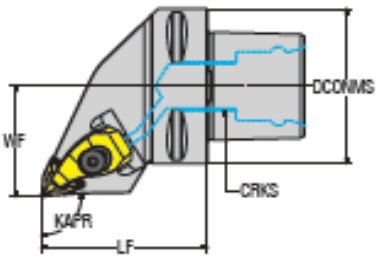


Takım Kodu *Ordering Code* Bestell-Bezeichnung	Stok *Stock* Lager	Takım Ölçüleri (mm) *Dimension (mm)* Abmessung (mm)				Kesici Uç *Insert* Wendeschneidplatte	Yedek Parçaları / *Spare Parts* / Ersatzteile							
							Baskı Pabucu *Wedge Clamp* Spannpratze	Pabuç Vidası *Clamp Screw* Klemmschraube	Altlık *Shim* Unterlage	Altlık Vidası *Shim Screw* Schraube für Unterlage	Oring *Ring* Feder	Pul *Stamp Ring*	Nozul *Nozzle* Nozzle-Düse	Anahtar *Allen Key* Innensechskantschlüssel
		DCONMS	LF	WF	CRKS									
AC4 TVVNN 00062 16	●	40	62	0	M14x1.5	VN.. 160408	ATK-03	AKV-30-M8x22	AAVN-2-0002	AAV-04-M5x12	AS-01	ABPL-01	ACN-M8-8.5	AAL-03-3
AC5 TVVNN 00065 16	●	50	65	0	M16x1.5								ACN-M10-10.5	
AC6 TVVNN 00065 16	●	63	65	0	M20x2								ACN-M12-12.5	
AC8 TVVNN 00080 16	●	80	80	0	M20x2									

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KAPR=95°

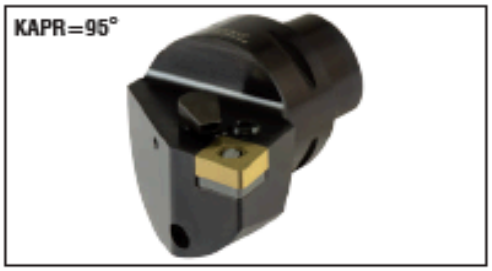


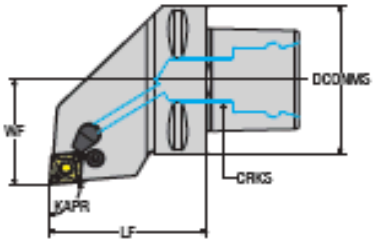


ISO 26623-1 CHIP

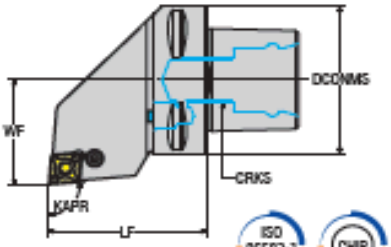
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager* R	L	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)* DCONMS	LF	WF	CRKS	Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile* Basla Pabucu *Wedge Clamp* *Spannpratze*	Pabuç Vidası *Clamp Screw* *Klemmschraube*	Altlık *Shim* *Unterlage*	Altlık Vidası *Shim Screw* *Schraube für Unterlage*	Yay *Spring* *Feder*	Oring *Ring* *Feder*	Anahtar *Allen Key* *Innensechskantschlüssel*
AC3 TWLNR/L 22040 06 H	●	●	32	40	22	M12x1.5	WN.. 060408	ATKH-03-R ATKH-04-L	AKV-S7-M5X18	AAWN-SW317	AAV-01-M3x10	AKY-03	AXR-02	AAL-02-2.5
new AC4 TWLNR/L 27050 06 H	●	●	40	50	27	M14x1.5								
new AC5 TWLNR/L 35060 06 H	●	●	50	60	35	M16x1.5								
new AC6 TWLNR/L 45065 06 H	●	●	63	65	45	M20x2								
new AC4 TWLNR/L 27060 08 H	●	●	40	60	27	M14x1.5	WN.. 080408	ATKH-01-R ATKH-02-L	AKV-S3-M6X22	AAWN-S-0001	AAV-13-M5x8	AKY-01	AXR-01	AAL-03-3
AC5 TWLNR/L 35060 08 H	●	●	50	60	35	M16x1.5								
AC6 TWLNR/L 45065 08 H	●	●	63	65	45	M20x2								
AC8 TWLNR/L 55080 08 H	●	●	80	80	55	M20x2								

KAPR=95°





(figure.1)



(figure.2)

ISO 26623-1 CHIP

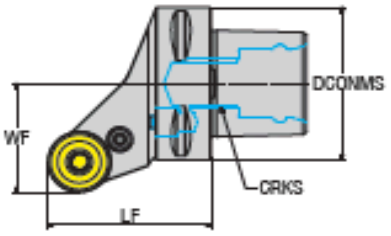
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager* R	L	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)* DCONMS	LF	WF	CRKS	Fig.	Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile* Basla Pabucu *Wedge Clamp* *Spannpratze*	Pabuç Vidası *Clamp Screw* *Klemmschraube*	Leyye *Lever* *Hebelstift*	Leyye Vidası *Lever Screw* *Hebelstiftschraube*	Altlık *Shim* *Unterlage*	Altlık Yay *Shim Spring* *Feder für Unterlage*	Oring *Ring* *Feder*	Nozul *Nozzle* *Nozzle-Düse*	Nozul Vidası *Nozzle Screw* *Düse Schraube*	Anahtar *Allen Key* *Innensechskantschlüssel*
new AC3 PCLNR/L 22040 12 H	●	●	32	40	22	M12x1.5	1	CN.. 120408	-	-	APL-02	ACH-03-M8X19	AACN-S-0001	AAV-02	AXR-01 AGR-01	AN-01	2715-M3x5	AAL-03-3
AC4 PCLNR/L 27050 12 H	●	●	40	50	27	M14x1.5	1											
AC5 PCLNR/L 35060 12 H	●	●	50	60	35	M16x1.5	1											
new AC6 PCLNR/L 45065 12 H	●	●	63	65	45	M20x2	1											
AC8 PCLNR/L 55080 12 H	●	●	80	80	55	M20x2	1											
new AC4 PCLNR/L 27050 16 H	●	●	40	50	27	M14x1.5	1	CN.. 160612			APL-04	ACH-04-M8X22	AACN-S-0002	AAV-03				
new AC5 PCLNR/L 35060 16 H	●	●	50	60	35	M16x1.5	1											
new AC6 PCLNR/L 45065 16 H	●	●	63	65	45	M20x2	1											
new AC8 PCLNR/L 55080 16 H	●	●	80	80	55	M20x2	1											
new AC5 PCLNR/L 35060 19 H	●	●	50	60	35	M16x1.5	1	CN.. 190612			APL-05	ACH-05-M10x27	AACN-S-0003	AAV-04				AAL-05-4
new AC6 PCLNR/L 45065 19 H	●	●	63	65	45	M20x2	1											
new AC8 PCLNR/L 55080 19 H	●	●	80	80	55	M20x2	1											
new AC8 PCLNR/L 55080 25C	●	●	80	80	55	M20X2	2	CN.. 250924	ACH-04	AKV-16-M6x16	APL-06	ACH-06-M12x36	AACN-S-0008	AAV-05	-	ACN-M12-12.5	2715-M5x11	AAL-07-5

● *Stokta / In Stock / Auf Lager* ○ *Stokta Yok / Non Stock Item / Kein Lagerartikel, Lieferzeit auf Anfrage*

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück AC3 PCLNR 22040 12 H

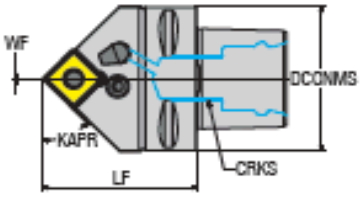
BF SERVICE



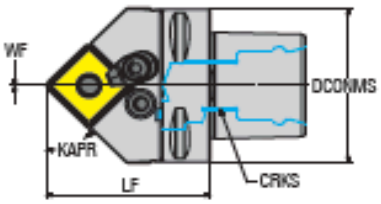


Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*				Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*							
								Levye *Lever* *Hebelstift*	Levye Vidası *Lever Screw* *Hebelschraube*	Altlık *Shim* *Unterlage*	Altlık Yayı *Shim Spring* *Feder für Unterlage*	Oring *Ring* *Feder*	Nozul *Nozzle* *Düse*	Nozul Vidası *Nozzle Screw* *Düse Schraube*	Anahtar *Allen Key* *Innensechskantschlüssel*
	R	L	DCONMS	LF	WF	CRKS									
AC6 PRSCR/L 45065 25	●	●	63	65	45	M20x2	RC.. 250700	APL-12	ALV-05-M10x27	AARN-1-0002	AAY-04	-	ADH-N12-12.5	-	AAL-05-4
AC8 PRSCR/L 55080 25	●	●	80	80	55	M20x2									
AC8 PRSCR/L 55080 32	●	●	80	80	55	M20x2	RC.. 32090	APL-13	ALV-08-M12X38	AARN-1-0001	AAY-05				AAL-07-5





(figure.1)



(figure.2)

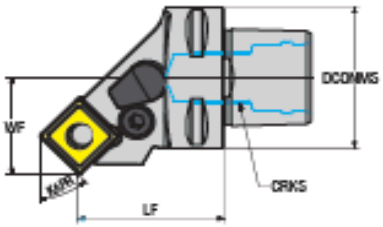
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*							
									Levye *Lever* *Hebelstift*	Levye Vidası *Lever Screw* *Hebelschraube*	Altlık *Shim* *Unterlage*	Altlık Yayı *Shim Spring* *Feder für Unterlage*	Oring *Ring* *Feder*	Nozul *Nozzle* *Düse*	Nozul Vidası *Nozzle Screw* *Düse Schraube*	Anahtar *Allen Key* *Innensechskantschlüssel*
	R	L	DCONMS	LF	WF	CRKS	Fig.									
AC4 PSDNN 00050 12 H	●	●	40	50	0	M14x1.5	1	SN.. 120408	APL-02	ALV-03-M8X19	AASN-3-0004	AAY-02	AXR-01 AOR-01	AN-01	2715-M3x8	AAL-03-3
AC5 PSDNN 00060 12 H	●	●	50	60	0	M16x1.5	1									
AC6 PSDNN 00065 12 H	●	●	63	65	0	M20x2	1									
AC4 PSDNN 00050 15 H	●	●	40	50	0	M14x1.5	1	SN.. 150612	APL-04	ALV-04-M8X22	AASN-3-0003	AAY-03				
AC5 PSDNN 00060 15 H	●	●	50	60	0	M16x1.5	1									
AC6 PSDNN 00065 15 H	●	●	63	65	0	M20x2	1									
AC5 PSDNN 00060 19 H	●	●	50	60	0	M16x1.5	1	SN.. 190612	APL-05	ALV-05-M10X27	AASN-3-0005	AAY-04				AAL-05-4
AC6 PSDNN 00065 19 H	●	●	63	65	0	M20x2	1									
AC6 PSDNN 00065 25C	●	●	63	65	0	M20x2	2	SN.. 250924	APL-06	ALV-06-M12X36	AASN-3-0030	AAY-05	-	ADH-N12-12.5	-	AAL-07-5
AC8 PSDNN 00080 25C	●	●	80	80	0	M20x2	2									

● *Stokta / In Stock / Auf Lager* ● *Stokta Yok / Non Stock Item / Kein Lagerartikel, Lieferzeit auf Anfrage*

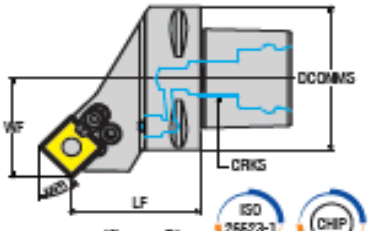
Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück AC4 PSDNN 00050 12 H

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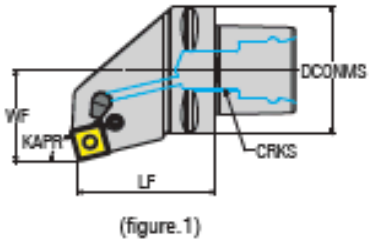
(figure.1)



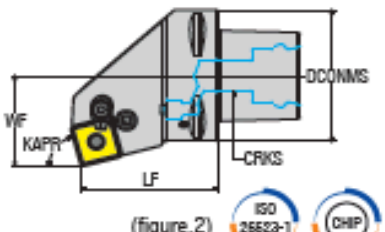
(figure.2)

Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*									
									Levye *Lever* *Klemmhebel*	Levye Vidası *Lever Screw* *Klemmhebelschraube*	Aldık *Shim* *Unterlage*	Aldık Yayı *Shim Spring* *Unterlagefeder*	Basık Pabuç *Wedge Clamp* *Spannprofile*	Pabuç Vidası *Clamp Screw* *Klemmschraube*	Oring *Ring* *Feder*	Nozul *Nozzle* *Düse*	Nozul Vidası *Nozzle Screw* *Düse Schraube*	Anahtar *Allen Key* *Innensechskantschlüssel*
	R	L	DCONMS	LF	WF	CRKS	Fig.											
AC3 PSSNR/L 22032 12 H	●	●	32	32	22	M12x1.5	1	SN.. 120408	APL-02	ALV-03-M8X19	AASN-S-0004	AAY-02	-	-	AXR-01 ADR-01	AN-01	2715-M3x4	AAL-03-3
AC4 PSSNR/L 27042 12 H	●	●	40	42	27	M14x1.5	1											
AC5 PSSNR/L 35052 12 H	●	●	50	52	35	M16x1.5	1											
AC6 PSSNR/L 45056 12 H	●	●	63	56	48	M20x2	1											
AC6 PSSNR/L 45054 15 H	●	●	63	54	45	M20x2	1	SN.. 150612	APL-04	ALV-04-M8X19	AASN-S-0003	AAY-03					2715-M3x5	
AC6 PSSNR/L 45052 19 H	●	●	63	52	45	M20x2	1	SN.. 190612	APL-05	ALV-05-M10X27	AASN-S-0005	AAY-04					2715-M3x4	
AC8 PSSNR/L 55070 25C	●	●	80	70	55	M20x2	2	SN.. 250924	APL-06	ALV-06-M12X36	AASN-S-0020	AAY-05	ACK-04	AKX-16-MEX16	-	ADH-M12-12.5	-	





(figure.1)



(figure.2)

Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*								
									Levye *Lever* *Klemmhebel*	Levye Vidası *Lever Screw* *Klemmhebelschraube*	Aldık *Shim* *Unterlage*	Aldık Yayı *Shim Spring* *Feder für Unterlage*	Oring *Ring* *Feder*	Nozul *Nozzle* *Düse*	Nozul Vidası *Nozzle Screw* *Düse Schraube*	Anahtar *Allen Key* *Innensechskantschlüssel*
	R	L	DCONMS	LF	WF	CRKS	Fig.									
AC4 PSKNR/L 27050 12 H	●	●	40	50	27	M14x1.5	1	SN.. 120408	APL-02	ALV-03-M8X19	AASN-S-0004	AAY-02	AXR-01 ADR-01	AN-01	2715-M3x4	AAL-03-3
AC5 PSKNR/L 35060 12 H	●	●	50	60	35	M16x1.5	1									
AC6 PSKNR/L 45065 12 H	●	●	63	65	45	M20x2	1								2715-M3x8	
AC5 PSKNR/L 35060 15 H	●	●	50	60	35	M16x1.5	1	SN.. 150612	APL-04	ALV-04-M8X22	AASN-S-0003	AAY-03				
AC6 PSKNR/L 45065 15 H	●	●	63	65	45	M20x2	1									
AC5 PSKNR/L 35060 19 H	●	●	50	60	35	M16x1.5	1	SN.. 190612	APL-05	ALV-05-M10X27	AASN-S-0005	AAY-04				AAL-05-4
AC6 PSKNR/L 45065 19 H	●	●	63	65	45	M20x2	1									
AC8 PSKNR/L 55080 19 H	●	●	80	80	55	M20x2	1									
AC8 PSKNR/L 55080 25C	●	●	80	80	55	M20x2	2	SN.. 250924	APL-06	ALV-06-M12X36	AASN-S-0020	AAY-05	-	ADH-M12-12.5	-	AAL-07-5

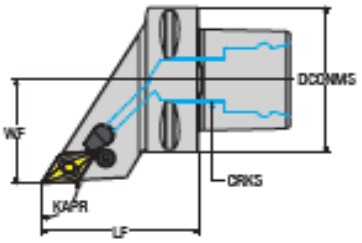
● *Stokta / In Stock / Auf Lager* ○ *Stokta Yok / Non Stock Item / Kein Lagerartikel, Lieferzeit auf Anfrage*

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück AC4 PSKNR 27050 12 H

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KAPR=93°

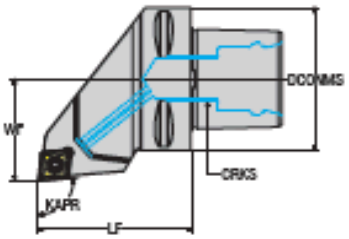




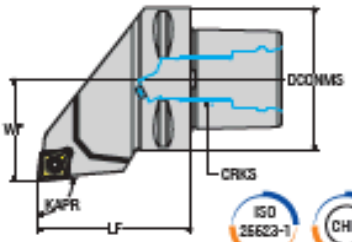
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*				Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçalar / *Spare Parts* / *Ersatzteile*						
								Levye *Lever* *Hebelstift*	Levye Vidası *Lever Screw* *Klemmschraube*	Altlık *Shim* *Unterlage*	Altlık Yayı *Shim Spring* *Feder für Unterlage*	Oring *Ring* *Feder*	Nozul *Nozzle* *Nozzle Düse*	Nozul Vidası *Nozzle Screw* *Düse Schraube*	Anahtar *Allen Key* *Innensechskantschlüssel*
	R	L	DCONMS	LF	WF	CRKS									
new AC5 PDJNR/L 35060 11 H	●	●	50	60	35	M16x1.5	DN.. 110408	APL-01	ALV-02-M8x17	AADN-2-0001	AAY-01				AAL-02-2.5
AC4 PDJNR/L 27060 15 H	●	●	40	60	27	M14x1.5									
AC5 PDJNR/L 35060 15 H	●	●	50	60	35	M16x1.5									
AC6 PDJNR/L 45065 15 H	●	●	63	65	45	M20x2	DN.. 150608	APL-03	ALV-03-M8X19	AADN-3-0001	AAY-02	AXR-01 AOR-01	AN-01	2715-M3x5	AAL-03-3
AC6 PDJNR/L 45165 15 H	●	●	63	165	45	M20x2									
AC8 PDJNR/L 55080 15 H	●	●	80	80	55	M20x2									

KAPR=95°





(figure.1)



(figure.2)

Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*					Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçalar / *Spare Parts* / *Ersatzteile*				
									Sıkma Vidası *Screw* *Klemmschraube*	Altlık *Shim* *Unterlage*	Altlık Vidası *Shim Screw* *Schraube für Unterlage*	Nozul *Nozzle* *Nozzle Düse*	Tork Anahtar *Torx Key* *Torx-Schlüssel*
	R	L	DCONMS	LF	WF	CRKS	Fig.						
new AC3 SCLCR/L 22040 09	●	●	32	40	22	M12x1.5	2	CC.. 09T308	4015-M3.5x14	AACN-2-0001	AAV-08-M3.5x11	ACN-M8-8.5	80-T15
new AC4 SCLCR/L 27050 09	●	●	40	50	27	M14x1.5	1					-	
new AC5 SCLCR/L 35060 09	●	●	50	60	35	M16x1.5	1						
new AC6 SCLCR/L 45065 09	●	●	63	65	45	M20x2	1						
new AC3 SCLCR/L 22040 12	●	●	32	40	22	M12x1.5	2	CC.. 120408	1020-M4.5x16	AACN-2-0003	AAV-10-M4.5x8	ACN-M8-8.5	80-T20
AC4 SCLCR/L 27050 12 H	●	●	40	50	27	M14x1.5	1					-	
AC5 SCLCR/L 35060 12 H	●	●	50	60	35	M16x1.5	1						
AC6 SCLCR/L 45065 12 H	●	●	63	65	45	M20x2	1						

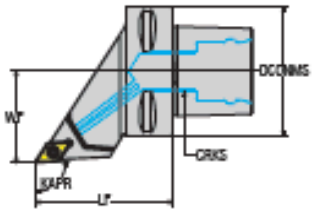
● *Stokta / In Stock / Auf Lager* ○ *Stokta Yok / Non Stock Item / Kein Lagerartikel, Lieferzeit auf Anfrage*

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück AC3 SCLCR 22040 09

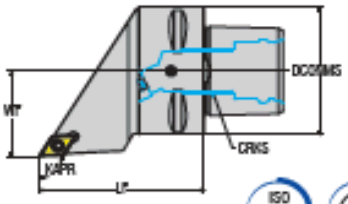
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KAPR=93°





(figure.1)

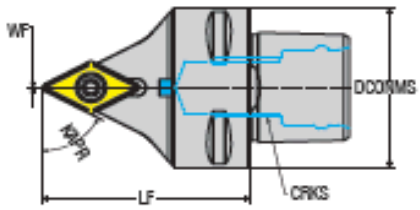


(figure.2)

Takım Kodu / *Ordering Code* / *Bestell-Bezeichnung*	Stok / *Stock* / *Lager*		Takım Ölçüleri (mm) / *Dimension (mm)* / *Abmessung (mm)*					Kesici Uç / *Insert*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*				
									Sıkma Vidası / *Screw* / *Klemmschraube*	Altlık / *Shim* / *Unterlage*	Altlık Vidası / *Shim Screw* / *Schraube für Unterlage*	Nozul / *Nozzle* / *Nozzle Düse*	Tork Anahtar / *Torx Key* / *Torx-Schlüssel*
	R	L	DCONMS	LF	WF	CRKS	Fig.						
new AC3 SDJCR/L 22040 07	●	●	32	40	22	M12x1.5	2	DC.. 070204	4008-M2.5x8	-	-	ACN-M8-8.5	82-T08
new AC4 SDJCR/L 27050 07	●	●	40	50	27	M14x1.5	2						
new AC3 SDJCR/L 22040 11	●	●	32	40	22	M12x1.5	2	DC.. 11T308	4015-M3.5x11	AADN-2-0001	AAV-08-M3.5X8		
new AC4 SDJCR/L 27050 11 H	●	●	40	50	27	M14x1.5	1					-	80-T15
AC5 SDJCR/L 35060 11 H	●	●	50	60	35	M16x1.5	1				AAV-08-M3.5X11		
AC6 SDJCR/L 45065 11 H	●	●	63	65	45	M20x2	1						

KAPR=62.5°

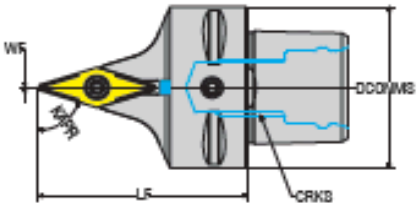




Takım Kodu / *Ordering Code* / *Bestell-Bezeichnung*	Stok / *Stock* / *Lager*	Takım Ölçüleri (mm) / *Dimension (mm)* / *Abmessung (mm)*				Kesici Uç / *Insert*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*				
							Sıkma Vidası / *Screw* / *Klemmschraube*	Altlık / *Shim* / *Unterlage*	Altlık Vidası / *Shim Screw* / *Schraube für Unterlage*	Nozul / *Nozzle* / *Nozzle Düse*	Tork Anahtar / *Torx Key* / *Torx-Schlüssel*
		DCONMS	LF	WF	CRKS						
AC3 SDNCN 00040 11	●	32	40	0	M12x1.5	DC.. 11T308	4015-M3.5x14	AADN-2-0001	AAV-06-M3.5X11	ACN-M8-8.5	80-T15
AC4 SDNCN 00050 11	●	40	50	0	M14x1.5						
AC5 SDNCN 00060 11	●	50	60	0	M16x1.5					ACN-M10-10.5	

KAPR=72.5°



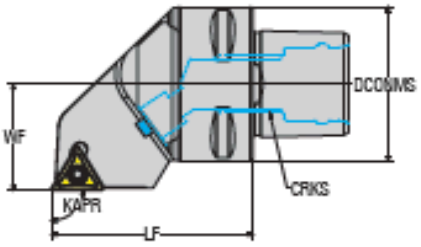


Takım Kodu / *Ordering Code* / *Bestell-Bezeichnung*	Stok / *Stock* / *Lager*	Takım Ölçüleri (mm) / *Dimension (mm)* / *Abmessung (mm)*				Kesici Uç / *Insert*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*				
							Sıkma Vidası / *Screw* / *Klemmschraube*	Altlık / *Shim* / *Unterlage*	Altlık Vidası / *Shim Screw* / *Schraube für Unterlage*	Nozul / *Nozzle* / *Nozzle Düse*	Tork Anahtar / *Torx Key* / *Torx-Schlüssel*
		DCONMS	LF	WF	CRKS						
AC4 SVVBN 00050 16	●	40	50	0	M14x1.5	VB.. 160408	4015-M3.5x14	AAVN-2-0002	AAV-06-M3.5X11	ACN-M8-8.5	80-T15
AC5 SVVBN 00060 16	●	50	60	0	M16x1.5					ACN-M10-10.5	
AC6 SVVBN 00065 16	●	63	65	0	M20x2					ACN-M12-12.5	82-T15

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KAPR=90°

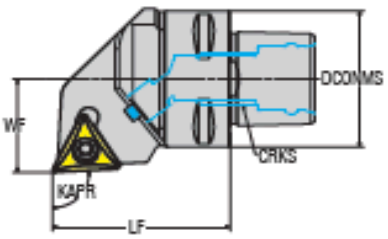




Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager* R	Stok *Stock* *Lager* L	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)* DCONMS	LF	WF	CRKS	Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçalar / *Spare Parts* / *Ersatzteile* Sıkma Vidası *Screw* *Klemmschraube*	Altlık *Shim* *Unterlage*	Altlık Vidası *Shim Screw* *Schraube für Unterlage*	Nozul *Nozzle* *Düse*	Tork Anahtar *Torx Key* *Torx-Schlüssel*
AC3 STGCR/L 22040 11	●	●	32	40	22	M12x1.5	TC.. 110204	4008-M2.5x8	-	-	ACN-M8-8.5	82-T08
AC4 STGCR/L 27050 11	●	●	40	50	27	M14x1.5						
AC3 STGCR/L 22040 16	●	●	32	40	22	M12x1.5	TC.. 16T308	4015-M3.5x14	AATN-2-0001	AAV-06-M3.5x11		80-T15
AC4 STGCR/L 27050 16	●	●	40	50	27	M14x1.5						
AC5 STGCR/L 35060 16	●	●	50	60	35	M16x1.5					ACN-M10-10.5	
AC6 STGCR/L 45065 16	●	●	63	65	45	M20x2					ACN-M12-12.5	

KAPR=93°





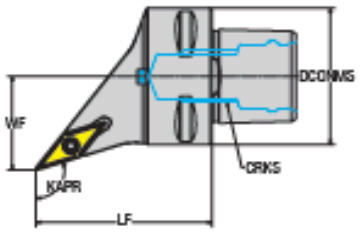
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager* R	Stok *Stock* *Lager* L	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)* DCONMS	LF	WF	CRKS	Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçalar / *Spare Parts* / *Ersatzteile* Sıkma Vidası *Screw* *Klemmschraube*	Altlık *Shim* *Unterlage*	Altlık Vidası *Shim Screw* *Schraube für Unterlage*	Nozul *Nozzle* *Düse*	Tork Anahtar *Torx Key* *Torx-Schlüssel*
AC3 STJCR/L 22040 11	○	○	32	40	22	M12x1.5	TC.. 110204	4008-M2.5x8	-	-	ACN-M8-8.5	82-T08
AC4 STJCR/L 27050 11	●	●	40	50	27	M14x1.5						
AC3 STJCR/L 22040 16	○	○	32	40	22	M12x1.5	TC.. 16T308	4015-M3.5x14	AATN-2-0001	AAV-06-M3.5x11		80-T15
AC4 STJCR/L 27050 16	○	○	40	50	27	M14x1.5						
AC5 STJCR/L 35060 16	○	○	50	60	35	M16x1.5						

● *Stokta / In Stock / Auf Lager* ○ *Stokta Yok / Non Stock Item / Kein Lagerartikel, Lieferzeit auf Anfrage*

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück AC3 STGCR 22040 11

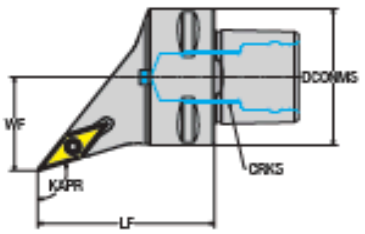
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Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*				Kesici Uç *Insert*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*				
								Sıkma Vidası *Screw* *Klemmschraube*	Altlık *Shim* *Unterlage*	Altlık Vidası *Shim Screw* *Schraube für Unterlage*	Nozul *Nozzle* *Nozzle Düse*	Tork Anahtar *Torx Key* *Torx-Schlüssel*
	R	L	DCONMS	LF	WF	CRKS						
AC4 SVHBR/L 27050 16	○	○	40	50	27	M14x1.5	VB.. 160408	4015-M3.5x14	AAVN-02-0002	AAV-06-M3.5x11	ACN-M8-8.5	80-T15
AC5 SVHBR/L 35060 16	○	○	50	60	35	M16x1.5					ACN-M10-10.5	
AC6 SVHBR/L 45065 16	○	○	63	65	45	M20x2					ACN-M12-12.5	





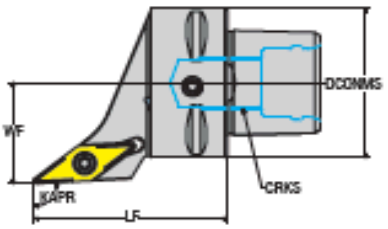
Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*				Kesici Uç *Insert*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*				
								Sıkma Vidası *Screw* *Klemmschraube*	Altlık *Shim* *Unterlage*	Altlık Vidası *Shim Screw* *Schraube für Unterlage*	Nozul *Nozzle* *Nozzle Düse*	Tork Anahtar *Torx Key* *Torx-Schlüssel*
	R	L	DCONMS	LF	WF	CRKS						
AC3 SVHCR/L 22040 11	●	○	32	40	22	M12x1.5	VC.. 110304	4008-M2.5x6	-	-	ACN-M8-8.5	82-T08
AC4 SVHCR/L 27050 11	○	○	40	50	27	M14x1.5						
AC5 SVHCR/L 35060 11	○	○	50	60	35	M16x1.5					ACN-M10-10.5	
AC4 SVHCR/L 27050 16	○	○	40	50	27	M14x1.5	VC.. 160408	4015-M3.5x14	AAVN-2-0002	AAV-06-M3.5x11	ACN-M8-8.5	80-T15
AC5 SVHCR/L 35060 16	○	○	50	60	35	M16x1.5					ACN-M10-10.5	
AC6 SVHCR/L 45065 16	●	○	63	65	45	M20X2					ACN-M12-12.5	

● *Stokta / In Stock / Auf Lager* ○ *Stokta Yok / Non Stock Item / Kein Lagerartikel, Lieferzeit auf Anfrage*

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück AC4 SVHBR 27050 16

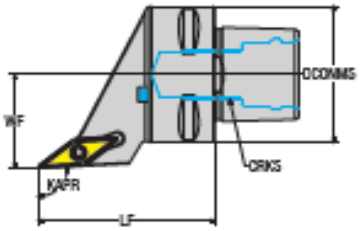
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Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*				Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*				
								Sıkma Vidası *Screw* *Klemmschraube*	Altlık *Shim* *Unterlage*	Altlık Vidası *Shim Screw* *Schraube für Unterlage*	Nozul *Nozzle* *Nozzle Düze*	Tork Anahtar *Torx Key* *Torx-Schlüssel*
	R	L	DCONMS	LF	WF	CRKS						
AC4 SVJBR/L 27050 16	●	●	40	50	27	M14x1.5	VB.. 160408	4015-M3.5x14	AAVN-02-0002	AAV-08-M3.5x11	ACN-M8-8.5	80-T15
AC5 SVJBR/L 35060 16	●	●	50	60	35	M16x1.5					ACN-M10-10.5	
AC6 SVJBR/L 45065 16	●	●	50	65	45	M20x2					ACN-M12-12.5	





Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*				Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*				
								Sıkma Vidası *Screw* *Klemmschraube*	Altlık *Shim* *Unterlage*	Altlık Vidası *Shim Screw* *Schraube für Unterlage*	Nozul *Nozzle* *Nozzle Düze*	Tork Anahtar *Torx Key* *Torx-Schlüssel*
	R	L	DCONMS	LF	WF	CRKS						
AC3 SVJCR/L 22040 11	●	●	32	40	22	M12x1.5	VC.. 110304	4008-M2.5x6	-	-	ACN-M8-8.5	82-T08
AC4 SVJCR/L 27050 11	●	●	40	50	27	M14x1.5						
AC5 SVJCR/L 35060 11	●	●	50	60	35	M16x1.5			AAVN-02-0002	AAV-08-M3.5x11	ACN-M10-10.5	
AC4 SVJCR/L 27050 16	●	●	40	50	27	M14x1.5	VC.. 160408	4015-M3.5x14			ACN-M8-8.5	80-T15
AC5 SVJCR/L 35060 16	●	●	50	60	35	M16x1.5					ACN-M10-10.5	
AC6 SVJCR/L 45065 16	●	●	63	63	45	M20x2					ACN-M12-12.5	82-T15

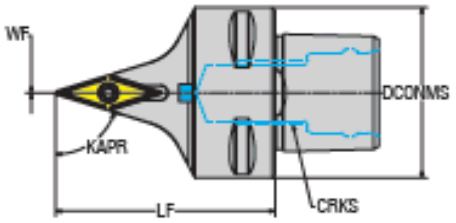
● *Stokta / In Stock / Auf Lager* ○ *Stokta Yok / Non Stock Item / Kein Lagerartikel, Lieferzeit auf Anfrage*

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück AC4 SVJBR 27050 16

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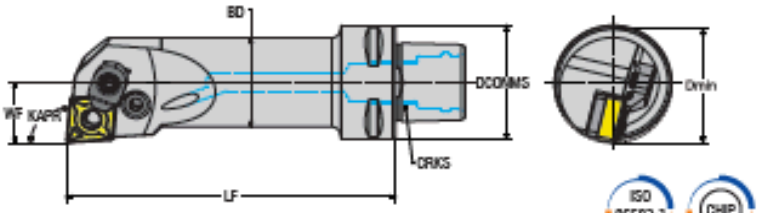


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Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*				Kesici Uç *Insert*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*				
							Sıkma Vidası *Screw*	Altlık *Shim*	Altlık Vidası *Shim Screw*	Nozul *Nozzle*	Torx Anahtar *Torx Key*
		DCONMS	LF	WF	CRKS						
AC3 SVVCN 00040 11	○	32	40	0	M12x1.5	VC.. 110304	4008-M2.5x6	-	-	ACN-M6-8.5	82-T08
AC4 SVVCN 00050 11	○	40	50	0	M14x1.5						
AC4 SVVCN 00050 16	○	40	50	0	M14x1.5	VC.. 160408	4015-M3.5x14	AAVN-2-0002	AAV-08-M3.5x11	ACN-M10-10.5	80-T15
AC5 SVVCN 00060 16	○	50	60	0	M16x1.5						
AC6 SVVCN 00065 16	○	63	65	0	M20x2					ACN-M12-12.5	

KAPR=95°





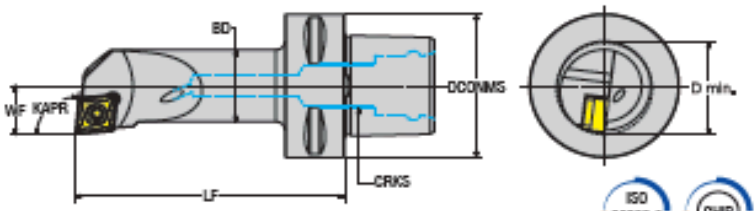
ISO 26623-1 CHIP

Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*						Kesici Uç *Insert*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*						
										Levye *Lever*	Levye Vidası *Lever Screw*	Altlık *Shim*	Altlık Yayı *Shim Spring*	Baskı Pabucu *Wedge Clamp*	Pabuç Vidası *Clamp Screw*	Anahtar *Allen Key*
	R	L	DCONMS	LF	WF	BD	D min.	CRKS								
AC4 PCLNR/L 13080 09 H	●	●	40	80	13	20	25	M14x1.5	CN.. 090308	APL-01	ALV-01-M6x14	AACN-2-0002	AAY-01	-	-	AAL-02-2.5
AC5 PCLNR/L 13080 09 H	●	●	50	80	13	20	25	M16x1.5								
AC3 PCLNR/L 22096 12 H	●	○	32	96	22	32	40	M12x1.5	CN..120408	APL-02	ALV-03-M8x19	AACN-3-0001	AAY-02	ACK-05	4015-M4x11	AAL-03-3
AC3 PCLNR/L 17090 12 HC	●	●	32	90	17	25	32	M12x1.5								
AC3 PCLNR/L 22064 12 HC	●	●	32	64	22	32	40	M12x1.5								
AC4 PCLNR/L 17090 12 HC	●	●	40	90	17	25	32	M14x1.5								
AC4 PCLNR/L 22110 12 HC	●	●	40	110	22	32	40	M14x1.5								
AC4 PCLNR/L 27080 12 HC	●	●	40	80	27	40	50	M14x1.5								
AC4 PCLNR/L 27120 12 HC	●	●	40	120	27	40	50	M14x1.5			ALV-08-M6x16					
AC5 PCLNR/L 17090 12 HC	●	●	50	90	17	25	32	M16x1.5								
AC5 PCLNR/L 22110 12 HC	●	●	50	110	22	32	40	M16x1.5								
AC5 PCLNR/L 27140 12 HC	●	●	50	140	27	40	50	M16x1.5								
AC5 PCLNR/L 35100 12 HC	●	●	50	100	35	50	63	M16x1.5								
AC6 PCLNR/L 17100 12 HC	●	●	63	100	17	25	32	M20x2								
AC6 PCLNR/L 22110 12 HC	●	●	63	110	22	32	40	M20x2								
AC5 PCLNR/L 35150 16 HC	●	●	50	150	35	50	63	M16x1.5	CN.. 160612	APL-04	ALV-04-M6x22	AACN-3-0002	AAY-03	ACK-09	AAV-05-M6x15	
AC6 PCLNR/L 27140 16 HC	●	●	63	140	27	40	50	M20x2								
AC6 PCLNR/L 35175 16 HC	●	●	63	175	35	50	63	M20x2								

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KAPR=95°





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Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager* R	Stok *Stock* *Lager* L	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)* DCONMS	LF	WF	BD	D min.	CRKS	Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile* Sıkma Vidası *Screw* *Klemmschraube*	Altlık *Shim* *Unterlage*	Altlık Vidası *Shim Screw* *Schraube für Unterlage*	Tork Anahtar *Torx Key* *Torx-Schlüssel*
													
new AC3 SCLCR/L 11065 09 H	●	●	32	65	11	16	20	M12x1.5	CC.. 09T308	4015-M3.5x9	-	-	80-T15
new AC3 SCLCR/L 13075 09 H	●	●	32	75	13	20	25	M12x1.5					
new AC3 SCLCR/L 17090 09 H	●	●	32	90	17	25	32	M12x1.5		4015-M3.5x12	AACN-2-0001	AAV-08-M3.5x8	
new AC4 SCLCR/L 11070 09 H	●	●	40	70	11	16	20	M14x1.5		4015-M3.5x9	-	-	
new AC4 SCLCR/L 13080 09 H	●	●	40	80	13	20	25	M14x1.5					
new AC4 SCLCR/L 17090 09 H	●	●	40	90	17	25	32	M14x1.5		4015-M3.5x12	AACN-2-0001	AAV-08-M3.5x8	
new AC4 SCLCR/L 27080 09 H	●	●	40	80	27	40	50	M14x1.5					
new AC5 SCLCR/L 11070 09 H	●	●	50	70	11	16	20	M16x1.5		4015-M3.5x9	-	-	
new AC5 SCLCR/L 13080 09 H	●	●	50	80	13	20	25	M16x1.5					
new AC5 SCLCR/L 17090 09 H	●	●	50	90	17	25	32	M16x1.5		4015-M3.5x12	AACN-2-0001	AAV-08-M3.5x8	
new AC5 SCLCR/L 35100 09 H	●	●	50	100	35	50	63	M16x1.5					
new AC3 SCLCR/L 17090 12 H	●	●	32	90	17	25	32	M12x1.5	CC.. 120408	4020-M4.5x12	AACN-2-0003	AAV-10-M4.5x8	80-T20
new AC3 SCLCR/L 22064 12 H	●	●	32	64	22	32	40	M12x1.5					
new AC3 SCLCR/L 22096 12 H	●	●	32	96	22	32	40	M12x1.5					
AC4 SCLCR/L 17090 12 H	●	●	40	90	17	25	32	M14x1.5					
new AC4 SCLCR/L 22110 12 H	●	●	40	110	22	32	40	M14x1.5					
new AC4 SCLCR/L 27080 12 H	●	●	40	80	27	40	50	M14x1.5		1020-M4.5x16			
AC5 SCLCR/L 17090 12 H	●	●	50	90	17	25	32	M16x1.5		4020-M4.5x12			
new AC5 SCLCR/L 22110 12 H	●	●	50	110	22	32	40	M16x1.5					
new AC5 SCLCR/L 27140 12 H	●	●	50	140	27	40	50	M16x1.5		1020-M4.5x16			
new AC5 SCLCR/L 35100 12 H	●	●	50	100	35	50	63	M16x1.5					

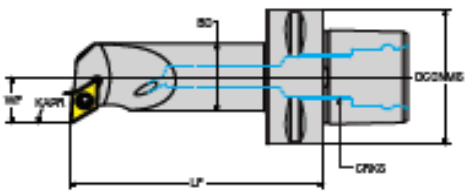
● *Stokta / In Stock / Auf Lager* ● *Stokta Yok / Non Stock Item / Kein Lagerartikel, Lieferzeit auf Anfrage*

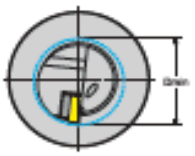
Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück AC3 SCLCR 11065 09 H

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KAPR=93°



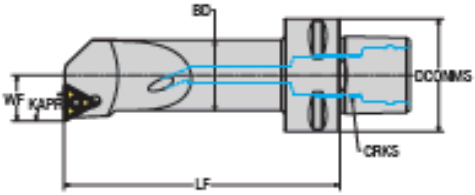


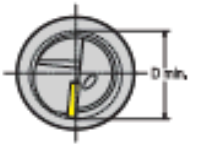


Takım Kodu / Ordering Code / Bestell-Bezeichnung	Stok / Stock / Lager R	Stok / Stock / Lager L	DCONMS	LF	WF	BD	D min.	CRKS	Kesici Uç / Insert / Wendeschneidplatte	Sıkma Vidası / Screw / Klemmschraube	Altlık / Shim / Unterlage	Altlık Vidası / Shim Screw / Schraube für Unterlage	Tork Anahtar / Torx Key / Torx-Schlüssel
new AC3 SDUCR/L 11065 07 H	●	●	32	65	11	16	20	M12x1.5	DC.. 070204	4008-M2.5x6	-	-	82-T08
new AC4 SDUCR/L 11070 07 H	●	●	40	70	11	16	20	M14x1.5					
new AC5 SDUCR/L 11070 07 H	●	●	50	70	11	16	20	M16x1.5					
new AC3 SDUCR/L 13075 11 H	●	●	32	75	13	20	25	M12x1.5	DC.. 11T308	4015-M3.5x11	AADN-2-0001	AAV-08-M3.5X8	80-T15
new AC3 SDUCR/L 17090 11 H	●	●	32	90	17	25	32	M12x1.5					
new AC3 SDUCR/L 22064 11 H	●	●	32	64	22	32	40	M12x1.5					
new AC3 SDUCR/L 22096 11 H	●	●	32	96	22	32	40	M12x1.5					
AC4 SDUCR/L 13080 11 H	●	●	40	80	13	20	25	M14x1.5					
AC4 SDUCR/L 17090 11 H	●	●	40	90	17	25	32	M14x1.5					
new AC4 SDUCR/L 22110 11 H	●	●	40	110	22	32	40	M14x1.5					
new AC4 SDUCR/L 27080 11 H	●	●	40	80	27	40	50	M14x1.5					
AC5 SDUCR/L 13080 11 H	●	●	50	80	13	20	25	M16x1.5					
AC5 SDUCR/L 17090 11 H	●	●	50	90	17	25	32	M16x1.5		4015-M3.5x14		AAV-06-M3.5x11	
new AC5 SDUCR/L 35100 11 H	●	●	50	100	35	50	63	M16x1.5					

KAPR=90°



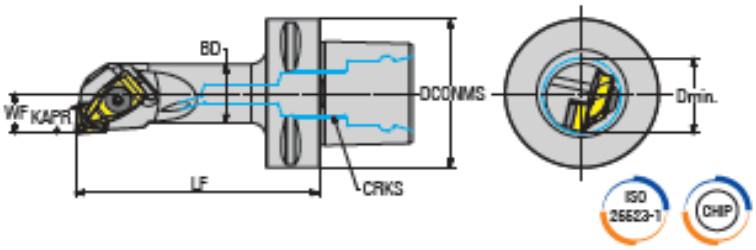




Takım Kodu / Ordering Code / Bestell-Bezeichnung	Stok / Stock / Lager R	Stok / Stock / Lager L	DCONMS	LF	WF	BD	D min.	CRKS	Kesici Uç / Insert / Wendeschneidplatte	Sıkma Vidası / Screw / Klemmschraube	Altlık / Shim / Unterlage	Altlık Vidası / Shim Screw / Schraube für Unterlage	Tork Anahtar / Torx Key / Torx-Schlüssel
AC3 STFCR/L 11065 11 H	○	○	32	65	11	16	20	M12x1.5	TC.. 110204	4008-M2.5x6	-	-	82-T08
AC3 STFCR/L 13075 11 H	○	○	32	75	13	20	25	M12x1.5					
AC4 STFCR/L 11070 11 H	○	○	40	70	11	16	20	M14x1.5					
AC4 STFCR/L 13080 11 H	○	○	40	80	13	20	25	M14x1.5					
AC5 STFCR/L 11070 11 H	○	○	50	70	11	16	20	M16x1.5					
AC5 STFCR/L 13080 11 H	○	○	50	80	13	20	25	M16x1.5					
AC3 STFCR/L 17090 16 H	○	○	32	90	17	25	32	M12x1.5	TC.. 16T308	4015-M3.5x14	AATN-2-0001	AAV-08-M3.5x8	80-T15
AC4 STFCR/L 17090 16 H	○	○	40	90	17	25	32	M14x1.5					
AC4 STFCR/L 22110 16 H	○	○	40	110	22	32	40	M14x1.5				AAV-06-M3.5x11	
AC5 STFCR/L 17090 16 H	○	○	50	90	17	25	32	M16x1.5				AAV-08-M3.5x8	
AC5 STFCR/L 22110 16 H	●	●	50	110	22	32	40	M16x1.5				AAV-06-M3.5x11	

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Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager*		Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)*						Kesici Uç *Insert* *Wendeschneidplatte*	Yedek Parçaları / *Spare Parts* / *Ersatzteile*						
										Besle Pabucu *Wedge Clamp* *Spannpratze*	Pabuç Vidası *Clamp Screw* *Klemmschraube*	Altlık *Shim* *Unterlage*	Altlık Vidası *Shim Screw* *Schraube für Unterlage*	Oring *Ring* *Feder*	Pul *Stamp* *Ring*	Torx Anahtarı *Torx Key* *Torx-Schlüssel*
	R	L	OCONMS	LF	WF	BD	Dmin.	CRKS								
AC4 TCLNR/L 13080 09 H	●	●	40	80	13	20	28	M14x1.5	CN..090304	ATK-01	AKV-01-M5x22	AACN-2-0001	AAV-09-M5x9	-	ABPL-01	AAL-03-3
AC5 TCLNR/L 13080 09 H	●	●	50	80	13	20	28	M16x1.5								
AC4 TCLNR/L 17090 12 H	●	●	40	90	17	25	32	M14x1.5	CN..120408	ATK-02	AKV-30-M6x22	AACN-3-0001	AAV-13-M5x8	AS-01		
AC5 TCLNR/L 17090 12 H	●	●	50	90	17	25	32	M16x1.5								
AC6 TCLNR/L 17100 12 H	●	●	63	100	17	25	32	M20x2								

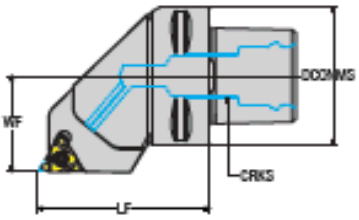


● *Stokta / In Stock / Auf Lager* ● *Stokta Yok / Non Stock Item / Kein Lagerartikel, Lieferzeit auf Anfrage*

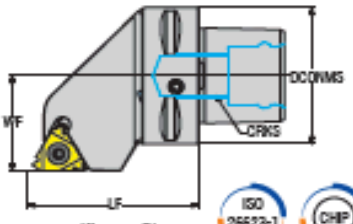
Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück AC4 TCLNR 13080 09 H

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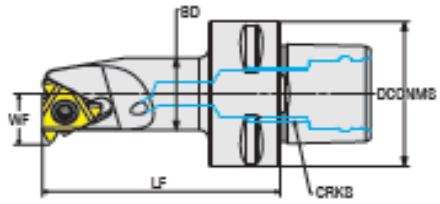
(figure.1)



(figure.2)

Takım Kodu / Ordering Code / Bestell-Bezeichnung	Stok / Stock / Lager		Takım Ölçüleri (mm) / Dimension (mm) / Abmessung (mm)					Kesici Uç / Insert	Yedek Parçaları / Spare Parts / Ersatzteile						
									Sıkma Vidası / Screw / Klemmschraube	Sağ Altlık / Right Shim	Sol Altlık / Left Shim	Altlık Vidası / Shim Screw	Altlık Vidası Pulu / Shim Screw Ring	Nozul / Nozzle	Tork Anahtar / Torx Key
	R	L	DCONMS	LF	WF	CRKS	Rg.								
AC3 TER/L 22040 16	●	●	32	40	22	M12x1.5	2	16 ER/EL	1710-U5-40x12.2	ATS-16E	ATS-16I	AAV-11-U5-40x4.5	ABPL-03	ACN-MB-8.5	82-T10
NEW AC4 TER/L 27050 16 H	●	●	40	50	27	M14x1.5	1							-	
AC5 TER/L 35060 16 H	●	●	50	60	35	M16x1.5	1								
AC6 TER/L 45065 16 H	●	●	63	65	45	M20x2	1								
NEW AC3 TER/L 22040 22	●	●	32	40	22	M12x1.5	2	22 ER/EL	1720-U8-32x15	ATS-22E	ATS-22I	AAV-12-U8-32x5.5	ABPL-04	ACN-MB-8.5	82-T20
NEW AC4 TER/L 27050 22	●	●	40	50	27	M14x1.5	2								
NEW AC5 TER/L 35060 22	●	●	50	60	35	M16x1.5	2							ACN-M10-10.5	
NEW AC6 TER/L 45065 22	●	●	63	65	45	M20x2	2								
NEW AC8 TER/L 55080 22	●	●	80	80	55	M20X2	2							ACN-M12-12.5	







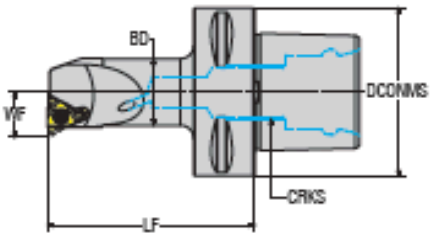
Takım Kodu / Ordering Code / Bestell-Bezeichnung	Stok / Stock / Lager		Takım Ölçüleri (mm) / Dimension (mm) / Abmessung (mm)						Kesici Uç / Insert	Yedek Parçaları / Spare Parts / Ersatzteile				
										Sıkma Vidası / Screw / Klemmschraube	Altlık / Shim / Unterlage	Altlık Vidası / Shim Screw	Altlık Vidası Pulu / Shim Screw Ring	Tork Anahtar / Torx Key
	R	L	DCONMS	LF	WF	BD	Dmin.	CRKS						
AC3 SIR/L 12050 16 H	●	●	32	50	12	16	20	M12x1.5	16 IR/L	4015-M3.5x10	-	-	-	80-T15
AC4 SIR/L 12060 16 H	●	●	40	60	12	16	20	M14x1.5						
AC5 SIR/L 12060 16 H	●	●	50	60	12	16	20	M16x1.5						
AC4 SIR/L 15065 22 H	●	●	40	65	15	20	25	M16x1.5	22 IR/L	4020-M4.5x12				80-T20
AC5 SIR/L 15065 22 H	●	●	50	65	15	20	25	M16x1.5						

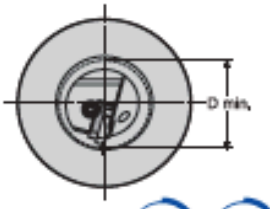
● *Stokta / In Stock / Auf Lager* ○ *Stokta Yok / Non Stock Item / Kein Lagerartikel, Lieferzeit auf Anfrage*

Sipariş Örneği/Ordering Example/Bestellbeispiel
1 ad./pcs./stück AC3 TER 22040 16

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ISO 26623-1 CHIP

	Takım Kodu *Ordering Code* *Bestell-Bezeichnung*	Stok *Stock* *Lager* R	L	Takım Ölçüleri (mm) *Dimension (mm)* *Abmessung (mm)* DCONMS	LF	WF	BD	D min.	CRKS	Kesici Uç *Insert*	Yedek Parçaları / *Spare Parts* / *Ersatzteile* Sıkma Vidası *Screw*	Sağ Altlık *Right Shim*	Sol Altlık *Left Shim*	Altlık Vidası *Shim Screw* *Schraube für Unterlage*	Altlık Vidası Pulu *Shim Screw Ring*	Torx Anahtar *Torx Key* *Torx-Schlüssel*
																
new	AC3 TIR/L 14060 16 H	●	●	32	60	14	20	25	M12x1.5	16 IR/IL	1710-U5-40x12.2	ATS-16E	ATS-16I	AAV-11-U5-40x4.5	ABPL-03	82-T10
new	AC3 TIR/L 22085 16 H	●	●	32	85	22	32	40	M12x1.5							
	AC4 TIR/L 14060 16 H	●	●	40	60	14	20	25	M14x1.5							
	AC4 TIR/L 17070 16 H	●	●	40	70	17	25	32	M14x1.5							
	AC4 TIR/L 22090 16 H	●	●	40	90	22	32	40	M14x1.5							
new	AC4 TIR/L 27080 16 H	●	●	40	80	27	32	50	M14x1.5							
new	AC5 TIR/L 14060 16 H	●	●	50	60	14	20	25	M16x1.5							
	AC5 TIR/L 17070 16 H	●	●	50	70	17	25	32	M16x1.5							
	AC5 TIR/L 22090 16 H	●	●	50	90	22	32	40	M16x1.5							
	AC5 TIR/L 27105 16 H	●	●	50	105	27	40	50	M16x1.5							
new	AC6 TIR/L 14070 16 H	●	●	63	70	14	20	25	M20x2							
	AC6 TIR/L 17075 16 H	●	●	63	75	17	25	32	M20x2							
	AC6 TIR/L 22090 16 H	●	●	63	90	22	32	40	M20x2							
	AC6 TIR/L 27105 16 H	●	●	63	105	27	40	50	M20x2							
new	AC4 TIR/L 19070 22 H	●	●	40	70	19	32	32	M14x1.5	22 IR/IL	1720-U8-32x15	ATS-22E	ATS-22I	AAV-12-U8-32x5.5	ABPL-04	80-T20
new	AC4 TIR/L 22090 22 H	●	●	40	90	22	32	40	M14x1.5							
new	AC4 TIR/L 27080 22 H	●	●	40	80	27	32	50	M14x1.5							
new	AC5 TIR/L 19070 22 H	●	●	50	70	19	25	32	M16x1.5							
new	AC5 TIR/L 22090 22 H	●	●	50	90	22	32	40	M16x1.5							
new	AC5 TIR/L 27105 22 H	●	●	50	105	27	40	50	M16x1.5							
new	AC6 TIR/L 19075 22 H	●	●	63	75	19	25	32	M20x2							
new	AC6 TIR/L 22090 22 H	●	●	63	90	22	32	40	M20x2							
new	AC6 TIR/L 27105 22 H	●	●	63	105	27	40	50	M20x2							

● *Stokta / In Stock / Auf Lager* ○ *Stokta Yok / Non Stock Item / Kein Lagerartikel, Lieferzeit auf Anfrage*

Sipariş Örneği/Ordering Example/*Bestellbeispiel*
1 ad./pcs./stück AC3 TIR 14060 16 H

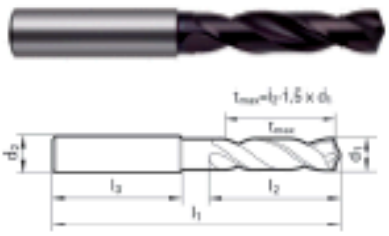
BF SERVICE

MD-Drills, Punte integrali in metallo duro ad alto rendimento

	Refr. int.	Forma codolo	Mat. tagliente e trattamento	DIN/Norma	Diametri da ... a mm	Nr. Articolo	pag.
 MD-Drills, 3 x D		HA	MD TiAlN	6537K	3,00 - 20,00	**13880**	996
 MD-Drills, 3 x D		HE	MD TiAlN	6537K	3,00 - 20,00	**13881**	997
 MD-Drills, 3 x D	■	HA	MD TiAlN	6537K	3,00 - 20,00	**13882**	998
 MD-Drills, 3 x D	■	HE	MD TiAlN	6537K	3,00 - 20,00	**13883**	999
 MD-Drills, 5 x D		HA	MD TiAlN	6537L	3,00 - 20,00	**13884**	1000
 MD-Drills, 5 x D		HE	MD TiAlN	6537L	3,00 - 20,00	**13885**	1001
 MD-Drills, 5 x D	■	HA	MD TiAlN	6537L	3,00 - 20,00	**13886**	1002
 MD-Drills, 5 x D	■	HE	MD TiAlN	6537L	3,00 - 20,00	**13887**	1003
 MD-Drills, 7 x D	■	HA	MD TiAlN	Norma di fabbrica	3,00 - 20,00	**13888**	1004
 MD-Drills, 7 x D	■	HE	MD TiAlN	Norma di fabbrica	3,00 - 20,00	**13889**	1005
 MD-Drills, 12 x D	■	HA	MD TiAlN	Norma di fabbrica	4,00 - 20,00	**13890**	1006
 Punte elicoidali in MD		DZ	MD ○	6539	0,80 - 16,00	**13891**	1006
 Punte elicoidali in MD		DZ	MD ○	Norma di fabbrica	1,00 - 12,00	**13892**	1007

BF SERVICE UTENSILERIA MECCANICA

13880



Prod. SCU

Campo di impiego:
Punte elicoidali ad alto rendimento per la lavorazione di materiali a truciolo lungo e corto come acciai da costruzione e da cementazione, ghisa acciaiosa, acciai da bonifica ed acciai legati con carico di rottura fino a ca. 1200 N/mm2, nonché per acciai al carbonio, ghisa e leghe di AlSi con elevato contenuto di Si.

Vantaggi:
Utilizzo dei massimi valori di taglio. Fori con allineamento preciso, strette tolleranze sui diametri e buone finiture di superficie. Buona autocentratura, trucioli corti per la geometria concava dei taglienti unita all'affilatura speciale ed all'assottigliamento del nocciolo.

Presupposti e consigli per l'impiego:
Macchine a grande rendimento. Mandrini con poco gioco. Attacchi utensili con allineamento preciso. Errore di coassialità dell'utensile serrato max. 0,02 mm. Avanzamenti definiti senza vibrazioni.
Per l'utilizzo in mandrini idraulici ad espansione, forniamo gli utensili con codolo liscio senza piano di serraggio.

Caratteristiche costruttive:
Affilatura dei taglienti: spoglia sul cono tagliente con spoglia inferiore secondaria
Angolo di affilatura: 140°
Assottigliamento del nocciolo: speciale
Tolleranza sul Ø: m7
Codolo: a DIN 6535, tolleranza h6
Materiale tagliente: integrale in metallo duro (K/P)
Altre caratteristiche costruttive a DIN 6537K

Per 3 x D - Forma codolo HA - Senza refrigerante interno - Ricopertura TIALN - Rotazione destra

Diametro nominale d1	mm	3,00	3,10	3,17	3,20	3,25	3,30	3,40	3,50	3,57	3,60	3,70	3,80	3,90	3,97	4,00	4,10
Diametro codolo d2	mm	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00
Lunghezza totale l1	mm	62,00	62,00	62,00	62,00	62,00	62,00	62,00	62,00	62,00	62,00	62,00	66,00	66,00	66,00	66,00	66,00
Lunghezza elica l2	mm	20,00	20,00	20,00	20,00	20,00	20,00	20,00	20,00	20,00	20,00	20,00	24,00	24,00	24,00	24,00	24,00
Lunghezza codolo l3	mm	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00
13880	Cad.																

Diametro nominale d1	mm	4,20	4,30	4,37	4,40	4,50	4,60	4,65	4,76	4,80	4,90	5,00	5,10	5,16	5,20	5,30	5,40
Diametro codolo d2	mm	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00
Lunghezza totale l1	mm	66,00	66,00	66,00	66,00	66,00	66,00	66,00	66,00	66,00	66,00	66,00	66,00	66,00	66,00	66,00	66,00
Lunghezza elica l2	mm	24,00	24,00	24,00	24,00	24,00	24,00	24,00	28,00	28,00	28,00	28,00	28,00	28,00	28,00	28,00	28,00
Lunghezza codolo l3	mm	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00
13880	Cad.																

Diametro nominale d1	mm	5,50	5,55	5,56	5,60	5,70	5,80	5,90	5,95	6,00	6,10	6,20	6,30	6,35	6,40	6,50	6,60
Diametro codolo d2	mm	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	8,00	8,00	8,00	8,00	8,00	8,00	8,00
Lunghezza totale l1	mm	66,00	66,00	66,00	66,00	66,00	66,00	66,00	66,00	66,00	79,00	79,00	79,00	79,00	79,00	79,00	79,00
Lunghezza elica l2	mm	28,00	28,00	28,00	28,00	28,00	28,00	28,00	28,00	28,00	34,00	34,00	34,00	34,00	34,00	34,00	34,00
Lunghezza codolo l3	mm	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00
13880	Cad.																

Diametro nominale d1	mm	6,70	6,75	6,80	6,90	7,00	7,14	7,30	7,40	7,50	7,54	7,60	7,80	7,94	8,00	8,10	8,20
Diametro codolo d2	mm	8,00	8,00	8,00	8,00	8,00	8,00	8,00	8,00	8,00	8,00	8,00	8,00	8,00	8,00	10,00	10,00
Lunghezza totale l1	mm	79,00	79,00	79,00	79,00	79,00	79,00	79,00	79,00	79,00	79,00	79,00	79,00	79,00	79,00	89,00	89,00
Lunghezza elica l2	mm	34,00	34,00	34,00	34,00	34,00	41,00	41,00	41,00	41,00	41,00	41,00	41,00	41,00	41,00	47,00	47,00
Lunghezza codolo l3	mm	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	40,00	40,00
13880	Cad.																

Diametro nominale d1	mm	8,30	8,33	8,50	8,60	8,70	8,73	8,80	8,90	9,00	9,13	9,20	9,25	9,30	9,40	9,50	9,52
Diametro codolo d2	mm	10,00	10,00	10,00	10,00	10,00	10,00	10,00	10,00	10,00	10,00	10,00	10,00	10,00	10,00	10,00	10,00
Lunghezza totale l1	mm	89,00	89,00	89,00	89,00	89,00	89,00	89,00	89,00	89,00	89,00	89,00	89,00	89,00	89,00	89,00	89,00
Lunghezza elica l2	mm	47,00	47,00	47,00	47,00	47,00	47,00	47,00	47,00	47,00	47,00	47,00	47,00	47,00	47,00	47,00	47,00
Lunghezza codolo l3	mm	40,00	40,00	40,00	40,00	40,00	40,00	40,00	40,00	40,00	40,00	40,00	40,00	40,00	40,00	40,00	40,00
13880	Cad.																

Diametro nominale d1	mm	9,80	9,92	10,00	10,10	10,20	10,30	10,40	10,50	10,70	10,80	10,90	11,00	11,20	11,40	11,50	11,60
Diametro codolo d2	mm	10,00	10,00	10,00	12,00	12,00	12,00	12,00	12,00	12,00	12,00	12,00	12,00	12,00	12,00	12,00	12,00
Lunghezza totale l1	mm	89,00	89,00	89,00	102,00	102,00	102,00	102,00	102,00	102,00	102,00	102,00	102,00	102,00	102,00	102,00	102,00
Lunghezza elica l2	mm	47,00	47,00	47,00	55,00	55,00	55,00	55,00	55,00	55,00	55,00	55,00	55,00	55,00	55,00	55,00	55,00
Lunghezza codolo l3	mm	40,00	40,00	40,00	45,00	45,00	45,00	45,00	45,00	45,00	45,00	45,00	45,00	45,00	45,00	45,00	45,00
13880	Cad.																

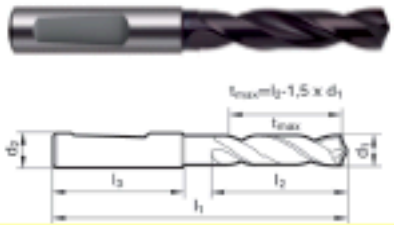
Diametro nominale d1	mm	11,70	11,80	12,00	12,10	12,20	12,30	12,50	13,00	13,10	13,50	14,00	14,10	14,20	14,50	14,70	15,00
Diametro codolo d2	mm	12,00	12,00	12,00	14,00	14,00	14,00	14,00	14,00	14,00	14,00	14,00	16,00	16,00	16,00	16,00	16,00
Lunghezza totale l1	mm	102,00	102,00	102,00	107,00	107,00	107,00	107,00	107,00	107,00	107,00	107,00	115,00	115,00	115,00	115,00	115,00
Lunghezza elica l2	mm	55,00	55,00	55,00	60,00	60,00	60,00	60,00	60,00	60,00	60,00	60,00	65,00	65,00	65,00	65,00	65,00
Lunghezza codolo l3	mm	45,00	45,00	45,00	45,00	45,00	45,00	45,00	45,00	45,00	45,00	45,00	48,00	48,00	48,00	48,00	48,00
13880	Cad.																

Diametro nominale d1	mm	15,10	15,50	15,70	15,80	16,00	16,50	17,00	17,50	18,00	18,50	19,00	19,50	20,00
Diametro codolo d2	mm	16,00	16,00	16,00	16,00	16,00	18,00	18,00	18,00	18,00	20,00	20,00	20,00	20,00
Lunghezza totale l1	mm	115,00	115,00	115,00	115,00	115,00	123,00	123,00	123,00	123,00	131,00	131,00	131,00	131,00
Lunghezza elica l2	mm	65,00	65,00	65,00	65,00	65,00	73,00	73,00	73,00	73,00	79,00	79,00	79,00	79,00
Lunghezza codolo l3	mm	48,00	48,00	48,00	48,00	48,00	48,00	48,00	48,00	48,00	50,00	50,00	50,00	50,00
13880	Cad.													

BF SERVICE
UTENSILERIA MECCANICA

Descrizione di riferimento vedi Art. 13890
Per 3 x D - Forma codolo HE - Senza refrigerante interno -
Ricopertura TiALN - Rotazione destra

13881



Diametro nominale d1	mm	**3,00**	**3,10**	**3,17**	**3,20**	**3,25**	**3,30**	**3,40**	**3,50**	**3,57**	**3,60**	**3,70**	**3,80**	**3,90**	**3,97**	**4,00**	**4,10**
Diametro codolo d2	mm	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00
Lunghezza totale l1	mm	62,00	62,00	62,00	62,00	62,00	62,00	62,00	62,00	62,00	62,00	62,00	66,00	66,00	66,00	66,00	66,00
Lunghezza elica l2	mm	20,00	20,00	20,00	20,00	20,00	20,00	20,00	20,00	20,00	20,00	20,00	24,00	24,00	24,00	24,00	24,00
Lunghezza codolo l3	mm	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00
13881	Cad.																

Diametro nominale d1	mm	**4,20**	**4,30**	**4,37**	**4,40**	**4,50**	**4,60**	**4,76**	**4,80**	**4,90**	**5,00**	**5,10**	**5,16**	**5,20**	**5,40**	**5,50**	**5,55**
Diametro codolo d2	mm	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00
Lunghezza totale l1	mm	66,00	66,00	66,00	66,00	66,00	66,00	66,00	66,00	66,00	66,00	66,00	66,00	66,00	66,00	66,00	66,00
Lunghezza elica l2	mm	24,00	24,00	24,00	24,00	24,00	24,00	28,00	28,00	28,00	28,00	28,00	28,00	28,00	28,00	28,00	28,00
Lunghezza codolo l3	mm	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00
13881	Cad.																

Diametro nominale d1	mm	**5,56**	**5,60**	**5,70**	**5,80**	**5,90**	**5,95**	**6,00**	**6,10**	**6,20**	**6,30**	**6,35**	**6,40**	**6,50**	**6,70**	**6,75**	**6,80**
Diametro codolo d2	mm	6,00	6,00	6,00	6,00	6,00	6,00	6,00	8,00	8,00	8,00	8,00	8,00	8,00	8,00	8,00	8,00
Lunghezza totale l1	mm	66,00	66,00	66,00	66,00	66,00	66,00	66,00	79,00	79,00	79,00	79,00	79,00	79,00	79,00	79,00	79,00
Lunghezza elica l2	mm	28,00	28,00	28,00	28,00	28,00	28,00	28,00	34,00	34,00	34,00	34,00	34,00	34,00	34,00	34,00	34,00
Lunghezza codolo l3	mm	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00
13881	Cad.																

Diametro nominale d1	mm	**6,90**	**7,00**	**7,10**	**7,14**	**7,20**	**7,30**	**7,40**	**7,50**	**7,54**	**7,60**	**7,70**	**7,80**	**7,90**	**7,94**	**8,00**	**8,10**
Diametro codolo d2	mm	8,00	8,00	8,00	8,00	8,00	8,00	8,00	8,00	8,00	8,00	8,00	8,00	8,00	8,00	8,00	10,00
Lunghezza totale l1	mm	79,00	79,00	79,00	79,00	79,00	79,00	79,00	79,00	79,00	79,00	79,00	79,00	79,00	79,00	79,00	89,00
Lunghezza elica l2	mm	34,00	34,00	41,00	41,00	41,00	41,00	41,00	41,00	41,00	41,00	41,00	41,00	41,00	41,00	41,00	47,00
Lunghezza codolo l3	mm	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	40,00
13881	Cad.																

Diametro nominale d1	mm	**8,20**	**8,33**	**8,50**	**8,60**	**8,70**	**8,73**	**8,80**	**8,90**	**9,00**	**9,10**	**9,13**	**9,20**	**9,25**	**9,30**	**9,40**	**9,50**
Diametro codolo d2	mm	10,00	10,00	10,00	10,00	10,00	10,00	10,00	10,00	10,00	10,00	10,00	10,00	10,00	10,00	10,00	10,00
Lunghezza totale l1	mm	89,00	89,00	89,00	89,00	89,00	89,00	89,00	89,00	89,00	89,00	89,00	89,00	89,00	89,00	89,00	89,00
Lunghezza elica l2	mm	47,00	47,00	47,00	47,00	47,00	47,00	47,00	47,00	47,00	47,00	47,00	47,00	47,00	47,00	47,00	47,00
Lunghezza codolo l3	mm	40,00	40,00	40,00	40,00	40,00	40,00	40,00	40,00	40,00	40,00	40,00	40,00	40,00	40,00	40,00	40,00
13881	Cad.																

Diametro nominale d1	mm	**9,52**	**9,60**	**9,70**	**9,80**	**9,90**	**9,92**	**10,00**	**10,10**	**10,20**	**10,30**	**10,32**	**10,40**	**10,50**	**10,60**	**10,70**	**10,80**
Diametro codolo d2	mm	10,00	10,00	10,00	10,00	10,00	10,00	10,00	12,00	12,00	12,00	12,00	12,00	12,00	12,00	12,00	12,00
Lunghezza totale l1	mm	89,00	89,00	89,00	89,00	89,00	89,00	89,00	102,00	102,00	102,00	102,00	102,00	102,00	102,00	102,00	102,00
Lunghezza elica l2	mm	47,00	47,00	47,00	47,00	47,00	47,00	47,00	55,00	55,00	55,00	55,00	55,00	55,00	55,00	55,00	55,00
Lunghezza codolo l3	mm	40,00	40,00	40,00	40,00	40,00	40,00	40,00	45,00	45,00	45,00	45,00	45,00	45,00	45,00	45,00	45,00
13881	Cad.																

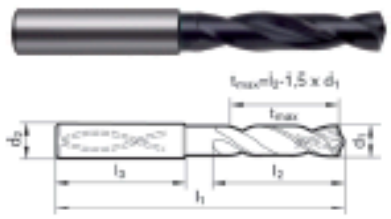
Diametro nominale d1	mm	**10,90**	**11,00**	**11,10**	**11,11**	**11,20**	**11,30**	**11,40**	**11,50**	**11,60**	**11,70**	**11,80**	**11,90**	**11,91**	**12,00**	**12,20**	**12,50**
Diametro codolo d2	mm	12,00	12,00	12,00	12,00	12,00	12,00	12,00	12,00	12,00	12,00	12,00	12,00	12,00	12,00	14,00	14,00
Lunghezza totale l1	mm	102,00	102,00	102,00	102,00	102,00	102,00	102,00	102,00	102,00	102,00	102,00	102,00	102,00	102,00	107,00	107,00
Lunghezza elica l2	mm	55,00	55,00	55,00	55,00	55,00	55,00	55,00	55,00	55,00	55,00	55,00	55,00	55,00	55,00	60,00	60,00
Lunghezza codolo l3	mm	45,00	45,00	45,00	45,00	45,00	45,00	45,00	45,00	45,00	45,00	45,00	45,00	45,00	45,00	45,00	45,00
13881	Cad.																

Diametro nominale d1	mm	**12,70**	**13,00**	**13,30**	**13,50**	**13,80**	**14,00**	**14,20**	**14,29**	**14,50**	**14,70**	**15,00**	**15,20**	**15,50**	**15,70**	**16,00**	**16,50**
Diametro codolo d2	mm	14,00	14,00	14,00	14,00	14,00	14,00	16,00	16,00	16,00	16,00	16,00	16,00	16,00	16,00	16,00	18,00
Lunghezza totale l1	mm	107,00	107,00	107,00	107,00	107,00	107,00	115,00	115,00	115,00	115,00	115,00	115,00	115,00	115,00	115,00	123,00
Lunghezza elica l2	mm	60,00	60,00	60,00	60,00	60,00	60,00	65,00	65,00	65,00	65,00	65,00	65,00	65,00	65,00	65,00	73,00
Lunghezza codolo l3	mm	45,00	45,00	45,00	45,00	45,00	45,00	48,00	48,00	48,00	48,00	48,00	48,00	48,00	48,00	48,00	48,00
13881	Cad.																

Diametro nominale d1	mm	**17,00**	**17,50**	**18,00**	**18,50**	**19,00**	**19,50**	**20,00**
Diametro codolo d2	mm	18,00	18,00	18,00	20,00	20,00	20,00	20,00
Lunghezza totale l1	mm	123,00	123,00	123,00	131,00	131,00	131,00	131,00
Lunghezza elica l2	mm	73,00	73,00	73,00	79,00	79,00	79,00	79,00
Lunghezza codolo l3	mm	48,00	48,00	48,00	50,00	50,00	50,00	50,00
13881	Cad.							

BF SERVICE

13882



Campo di impiego:
Punte elicoidali ad alto rendimento per la lavorazione di materiali a truciolo lungo e corto come acciai da costruzione e da cementazione, ghisa acciaiosa, acciai da bonifica ed acciai legati con carico di rottura fino a ca. 1200 N/mm2, nonché per acciai al carbonio, ghisa e leghe di AlSi con elevato contenuto di Si.

Vantaggi:
Utilizzo dei massimi valori di taglio. Fori con allineamento preciso, strette tolleranze sui diametri e buone finiture di superficie. Buona autocentratura, trucioli corti per la geometria concava dei taglienti unita all'affilatura speciale ed all'assottigliamento del nocciolo.

Presupposti e consigli per l'impiego:
Macchine a grande rendimento. Mandrini con poco gioco. Attacchi utensili con allineamento preciso. Errore di coassialità dell'utensile serrato max. 0,02 mm. Avanzamenti definiti senza vibrazioni.
Per l'utilizzo in mandrini idraulici ad espansione, forniamo gli utensili con codolo liscio senza piano di serraggio.

Caratteristiche costruttive:
Affilatura dei taglienti: spoglia sul cono tagliente con spoglia inferiore secondaria
Angolo di affilatura: 140°
Assottigliamento del nocciolo: speciale
Tolleranza sul Ø: m7
Codolo: a DIN 6535, tolleranza h6
Alimentazione del refrigerante: elicoidale dalla fascia
Materiale tagliente: integrale in metallo duro (K/P)
Altre caratteristiche costruttive a DIN 6537K

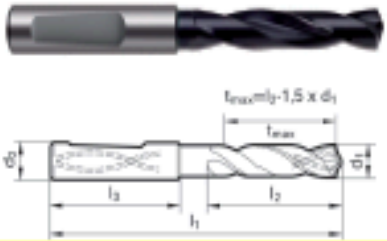
Per 3 x D - Forma codolo HA - Con refrigerante interno - Ricopertura TIALN - Rotazione destra

Diametro nominale d1	mm	**3,00**	**3,10**	**3,17**	**3,20**	**3,25**	**3,30**	**3,40**	**3,50**	**3,57**	**3,60**	**3,70**	**3,80**	**3,90**	**3,97**	**4,00**	**4,10**
Diametro codolo d2	mm	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00
Lunghezza totale l1	mm	62,00	62,00	62,00	62,00	62,00	62,00	62,00	62,00	62,00	62,00	62,00	66,00	66,00	66,00	66,00	66,00
Lunghezza elica l2	mm	20,00	20,00	20,00	20,00	20,00	20,00	20,00	20,00	20,00	20,00	20,00	24,00	24,00	24,00	24,00	24,00
Lunghezza codolo l3	mm	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00
13882	**Cad.**																
Diametro nominale d1	mm	**4,20**	**4,37**	**4,40**	**4,50**	**4,60**	**4,65**	**4,70**	**4,76**	**4,80**	**4,90**	**5,00**	**5,10**	**5,16**	**5,20**	**5,30**	**5,50**
Diametro codolo d2	mm	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00
Lunghezza totale l1	mm	66,00	66,00	66,00	66,00	66,00	66,00	66,00	66,00	66,00	66,00	66,00	66,00	66,00	66,00	66,00	66,00
Lunghezza elica l2	mm	24,00	24,00	24,00	24,00	24,00	24,00	24,00	28,00	28,00	28,00	28,00	28,00	28,00	28,00	28,00	28,00
Lunghezza codolo l3	mm	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00
13882	**Cad.**																
Diametro nominale d1	mm	**5,55**	**5,56**	**5,60**	**5,70**	**5,80**	**5,95**	**6,00**	**6,10**	**6,20**	**6,35**	**6,50**	**6,70**	**6,75**	**6,80**	**6,90**	**7,00**
Diametro codolo d2	mm	6,00	6,00	6,00	6,00	6,00	6,00	6,00	8,00	8,00	8,00	8,00	8,00	8,00	8,00	8,00	8,00
Lunghezza totale l1	mm	66,00	66,00	66,00	66,00	66,00	66,00	66,00	79,00	79,00	79,00	79,00	79,00	79,00	79,00	79,00	79,00
Lunghezza elica l2	mm	28,00	28,00	28,00	28,00	28,00	28,00	28,00	34,00	34,00	34,00	34,00	34,00	34,00	34,00	34,00	34,00
Lunghezza codolo l3	mm	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00
13882	**Cad.**																
Diametro nominale d1	mm	**7,14**	**7,40**	**7,50**	**7,54**	**7,70**	**7,80**	**7,94**	**8,00**	**8,10**	**8,20**	**8,30**	**8,33**	**8,50**	**8,60**	**8,70**	**8,73**
Diametro codolo d2	mm	8,00	8,00	8,00	8,00	8,00	8,00	8,00	8,00	10,00	10,00	10,00	10,00	10,00	10,00	10,00	10,00
Lunghezza totale l1	mm	79,00	79,00	79,00	79,00	79,00	79,00	79,00	79,00	89,00	89,00	89,00	89,00	89,00	89,00	89,00	89,00
Lunghezza elica l2	mm	41,00	41,00	41,00	41,00	41,00	41,00	41,00	41,00	47,00	47,00	47,00	47,00	47,00	47,00	47,00	47,00
Lunghezza codolo l3	mm	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	40,00	40,00	40,00	40,00	40,00	40,00	40,00	40,00
13882	**Cad.**																
Diametro nominale d1	mm	**8,80**	**9,00**	**9,13**	**9,25**	**9,30**	**9,40**	**9,50**	**9,52**	**9,60**	**9,80**	**9,90**	**9,92**	**10,00**	**10,10**	**10,20**	**10,30**
Diametro codolo d2	mm	10,00	10,00	10,00	10,00	10,00	10,00	10,00	10,00	10,00	10,00	10,00	10,00	10,00	12,00	12,00	12,00
Lunghezza totale l1	mm	89,00	89,00	89,00	89,00	89,00	89,00	89,00	89,00	89,00	89,00	89,00	89,00	89,00	102,00	102,00	102,00
Lunghezza elica l2	mm	47,00	47,00	47,00	47,00	47,00	47,00	47,00	47,00	47,00	47,00	47,00	47,00	47,00	55,00	55,00	55,00
Lunghezza codolo l3	mm	40,00	40,00	40,00	40,00	40,00	40,00	40,00	40,00	40,00	40,00	40,00	40,00	40,00	45,00	45,00	45,00
13882	**Cad.**																
Diametro nominale d1	mm	**10,32**	**10,50**	**10,60**	**10,70**	**10,80**	**11,00**	**11,10**	**11,11**	**11,20**	**11,30**	**11,50**	**11,60**	**11,70**	**11,80**	**11,91**	**12,00**
Diametro codolo d2	mm	12,00	12,00	12,00	12,00	12,00	12,00	12,00	12,00	12,00	12,00	12,00	12,00	12,00	12,00	12,00	12,00
Lunghezza totale l1	mm	102,00	102,00	102,00	102,00	102,00	102,00	102,00	102,00	102,00	102,00	102,00	102,00	102,00	102,00	102,00	102,00
Lunghezza elica l2	mm	55,00	55,00	55,00	55,00	55,00	55,00	55,00	55,00	55,00	55,00	55,00	55,00	55,00	55,00	55,00	55,00
Lunghezza codolo l3	mm	45,00	45,00	45,00	45,00	45,00	45,00	45,00	45,00	45,00	45,00	45,00	45,00	45,00	45,00	45,00	45,00
13882	**Cad.**																
Diametro nominale d1	mm	**12,10**	**12,20**	**12,30**	**12,50**	**12,70**	**13,00**	**13,10**	**13,20**	**13,30**	**13,50**	**13,70**	**14,00**	**14,29**	**14,40**	**14,50**	**14,60**
Diametro codolo d2	mm	14,00	14,00	14,00	14,00	14,00	14,00	14,00	14,00	14,00	14,00	14,00	14,00	16,00	16,00	16,00	16,00
Lunghezza totale l1	mm	107,00	107,00	107,00	107,00	107,00	107,00	107,00	107,00	107,00	107,00	107,00	107,00	115,00	115,00	115,00	115,00
Lunghezza elica l2	mm	60,00	60,00	60,00	60,00	60,00	60,00	60,00	60,00	60,00	60,00	60,00	60,00	65,00	65,00	65,00	65,00
Lunghezza codolo l3	mm	45,00	45,00	45,00	45,00	45,00	45,00	45,00	45,00	45,00	45,00	45,00	45,00	48,00	48,00	48,00	48,00
13882	**Cad.**																
Diametro nominale d1	mm	**14,70**	**15,00**	**15,20**	**15,50**	**15,70**	**16,00**	**16,10**	**16,50**	**16,90**	**17,00**	**17,30**	**17,50**	**17,70**	**18,00**	**18,50**	**18,90**
Diametro codolo d2	mm	16,00	16,00	16,00	16,00	16,00	16,00	18,00	18,00	18,00	18,00	18,00	18,00	18,00	18,00	20,00	20,00
Lunghezza totale l1	mm	115,00	115,00	115,00	115,00	115,00	115,00	123,00	123,00	123,00	123,00	123,00	123,00	123,00	123,00	131,00	131,00
Lunghezza elica l2	mm	65,00	65,00	65,00	65,00	65,00	65,00	73,00	73,00	73,00	73,00	73,00	73,00	73,00	73,00	79,00	79,00
Lunghezza codolo l3	mm	48,00	48,00	48,00	48,00	48,00	48,00	48,00	48,00	48,00	48,00	48,00	48,00	48,00	48,00	50,00	50,00
13882	**Cad.**																
Diametro nominale d1	mm	**19,00**	**19,50**	**20,00**													
Diametro codolo d2	mm	20,00	20,00	20,00													
Lunghezza totale l1	mm	131,00	131,00	131,00													
Lunghezza elica l2	mm	79,00	79,00	79,00													
Lunghezza codolo l3	mm	50,00	50,00	50,00													
13882	**Cad.**																

BF SERVICE
UTENSILERIA MECCANICA

Descrizione di riferimento vedi Art. 13882
Per 3 x D - Forma codolo HE - Con refrigerante interno -
Ricopertura TIALN - Rotazione destra

13883



Diametro nominale d1	mm	3,00	3,10	3,17	3,20	3,25	3,30	3,40	3,50	3,57	3,60	3,70	3,80	3,90	3,97	4,00	4,10
Diametro codolo d2	mm	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00
Lunghezza totale l1	mm	62,00	62,00	62,00	62,00	62,00	62,00	62,00	62,00	62,00	62,00	62,00	66,00	66,00	66,00	66,00	66,00
Lunghezza elica l2	mm	20,00	20,00	20,00	20,00	20,00	20,00	20,00	20,00	20,00	20,00	20,00	24,00	24,00	24,00	24,00	24,00
Lunghezza codolo l3	mm	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00
13883	Cad.																

Diametro nominale d1	mm	4,20	4,30	4,37	4,40	4,50	4,60	4,65	4,70	4,76	4,80	4,90	5,00	5,10	5,16	5,20	5,30
Diametro codolo d2	mm	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00
Lunghezza totale l1	mm	66,00	66,00	66,00	66,00	66,00	66,00	66,00	66,00	66,00	66,00	66,00	66,00	66,00	66,00	66,00	66,00
Lunghezza elica l2	mm	24,00	24,00	24,00	24,00	24,00	24,00	24,00	24,00	28,00	28,00	28,00	28,00	28,00	28,00	28,00	28,00
Lunghezza codolo l3	mm	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00
13883	Cad.																

Diametro nominale d1	mm	5,40	5,50	5,55	5,56	5,60	5,70	5,80	5,90	5,95	6,00	6,10	6,20	6,30	6,35	6,40	6,50
Diametro codolo d2	mm	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	8,00	8,00	8,00	8,00	8,00	8,00
Lunghezza totale l1	mm	66,00	66,00	66,00	66,00	66,00	66,00	66,00	66,00	66,00	66,00	79,00	79,00	79,00	79,00	79,00	79,00
Lunghezza elica l2	mm	28,00	28,00	28,00	28,00	28,00	28,00	28,00	28,00	28,00	28,00	34,00	34,00	34,00	34,00	34,00	34,00
Lunghezza codolo l3	mm	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00
13883	Cad.																

Diametro nominale d1	mm	6,60	6,70	6,75	6,80	6,90	7,00	7,10	7,14	7,20	7,30	7,40	7,50	7,54	7,60	7,70	7,80
Diametro codolo d2	mm	8,00	8,00	8,00	8,00	8,00	8,00	8,00	8,00	8,00	8,00	8,00	8,00	8,00	8,00	8,00	8,00
Lunghezza totale l1	mm	79,00	79,00	79,00	79,00	79,00	79,00	79,00	79,00	79,00	79,00	79,00	79,00	79,00	79,00	79,00	79,00
Lunghezza elica l2	mm	34,00	34,00	34,00	34,00	34,00	34,00	41,00	41,00	41,00	41,00	41,00	41,00	41,00	41,00	41,00	41,00
Lunghezza codolo l3	mm	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00
13883	Cad.																

Diametro nominale d1	mm	7,90	7,94	8,00	8,10	8,20	8,30	8,33	8,40	8,50	8,60	8,70	8,73	8,80	8,90	9,00	9,10
Diametro codolo d2	mm	8,00	8,00	8,00	10,00	10,00	10,00	10,00	10,00	10,00	10,00	10,00	10,00	10,00	10,00	10,00	10,00
Lunghezza totale l1	mm	79,00	79,00	79,00	89,00	89,00	89,00	89,00	89,00	89,00	89,00	89,00	89,00	89,00	89,00	89,00	89,00
Lunghezza elica l2	mm	41,00	41,00	41,00	47,00	47,00	47,00	47,00	47,00	47,00	47,00	47,00	47,00	47,00	47,00	47,00	47,00
Lunghezza codolo l3	mm	36,00	36,00	36,00	40,00	40,00	40,00	40,00	40,00	40,00	40,00	40,00	40,00	40,00	40,00	40,00	40,00
13883	Cad.																

Diametro nominale d1	mm	9,13	9,20	9,25	9,30	9,40	9,50	9,52	9,60	9,70	9,80	9,90	9,92	10,00	10,10	10,20	10,30
Diametro codolo d2	mm	10,00	10,00	10,00	10,00	10,00	10,00	10,00	10,00	10,00	10,00	10,00	10,00	10,00	12,00	12,00	12,00
Lunghezza totale l1	mm	89,00	89,00	89,00	89,00	89,00	89,00	89,00	89,00	89,00	89,00	89,00	89,00	89,00	102,00	102,00	102,00
Lunghezza elica l2	mm	47,00	47,00	47,00	47,00	47,00	47,00	47,00	47,00	47,00	47,00	47,00	47,00	47,00	55,00	55,00	55,00
Lunghezza codolo l3	mm	40,00	40,00	40,00	40,00	40,00	40,00	40,00	40,00	40,00	40,00	40,00	40,00	40,00	45,00	45,00	45,00
13883	Cad.																

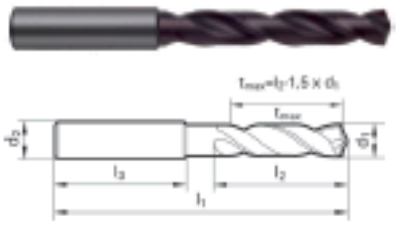
Diametro nominale d1	mm	10,32	10,40	10,50	10,60	10,70	10,80	10,90	11,00	11,10	11,11	11,20	11,30	11,40	11,50	11,60	11,70
Diametro codolo d2	mm	12,00	12,00	12,00	12,00	12,00	12,00	12,00	12,00	12,00	12,00	12,00	12,00	12,00	12,00	12,00	12,00
Lunghezza totale l1	mm	102,00	102,00	102,00	102,00	102,00	102,00	102,00	102,00	102,00	102,00	102,00	102,00	102,00	102,00	102,00	102,00
Lunghezza elica l2	mm	55,00	55,00	55,00	55,00	55,00	55,00	55,00	55,00	55,00	55,00	55,00	55,00	55,00	55,00	55,00	55,00
Lunghezza codolo l3	mm	45,00	45,00	45,00	45,00	45,00	45,00	45,00	45,00	45,00	45,00	45,00	45,00	45,00	45,00	45,00	45,00
13883	Cad.																

Diametro nominale d1	mm	11,80	11,90	11,91	12,00	12,10	12,20	12,50	12,70	13,00	13,50	13,70	14,00	14,20	14,29	14,50	14,70
Diametro codolo d2	mm	12,00	12,00	12,00	12,00	14,00	14,00	14,00	14,00	14,00	14,00	14,00	14,00	16,00	16,00	16,00	16,00
Lunghezza totale l1	mm	102,00	102,00	102,00	102,00	107,00	107,00	107,00	107,00	107,00	107,00	107,00	107,00	115,00	115,00	115,00	115,00
Lunghezza elica l2	mm	55,00	55,00	55,00	55,00	60,00	60,00	60,00	60,00	60,00	60,00	60,00	60,00	65,00	65,00	65,00	65,00
Lunghezza codolo l3	mm	45,00	45,00	45,00	45,00	45,00	45,00	45,00	45,00	45,00	45,00	45,00	45,00	48,00	48,00	48,00	48,00
13883	Cad.																

Diametro nominale d1	mm	15,00	15,20	15,50	15,70	16,00	16,50	17,00	17,50	18,00	18,50	19,00	19,50	20,00
Diametro codolo d2	mm	16,00	16,00	16,00	16,00	16,00	18,00	18,00	18,00	18,00	20,00	20,00	20,00	20,00
Lunghezza totale l1	mm	115,00	115,00	115,00	115,00	115,00	123,00	123,00	123,00	123,00	131,00	131,00	131,00	131,00
Lunghezza elica l2	mm	65,00	65,00	65,00	65,00	65,00	73,00	73,00	73,00	73,00	79,00	79,00	79,00	79,00
Lunghezza codolo l3	mm	48,00	48,00	48,00	48,00	48,00	48,00	48,00	48,00	48,00	50,00	50,00	50,00	50,00
13883	Cad.													

BF SERVICE

13884



Campo di impiego:
Punte elicoidali ad alto rendimento per la lavorazione di materiali a truciolo lungo e corto come acciai da costruzione e da cementazione, ghisa acciaiosa, acciai da bonifica ed acciai legati con carico di rottura fino a ca. 1200 N/mm2, nonché per acciai al carbonio, ghisa e leghe di AlSi con elevato contenuto di Si.

Vantaggi:
Utilizzo dei massimi valori di taglio. Fori con allineamento preciso, strette tolleranze sui diametri e buone finiture di superficie. Buona autocentratura, trucioli corti per la geometria concava dei taglienti unita all'affilatura speciale ed all'assottigliamento del nocciolo.

Presupposti e consigli per l'impiego:
Macchine a grande rendimento. Mandrini con poco gioco. Attacchi utensili con allineamento preciso. Errore di coassialità dell'utensile serrato max. 0,02 mm.
Avanzamenti definiti senza vibrazioni. Per l'utilizzo in mandrini idraulici ad espansione, forniamo gli utensili con codolo liscio, senza piano di serraggio.

Caratteristiche costruttive:
Affilatura dei taglienti: spoglia sul cono tagliente con spoglia inferiore secondaria
Angolo di affilatura: 140°
Assottigliamento del nocciolo: speciale
Tolleranza sul Ø: m7
Codolo: a DIN 6535, tolleranza h6
Materiale tagliente: integrale in metallo duro (K/P)
Altre caratteristiche costruttive a DIN 6537L

Per 5 x D - Forma codolo HA - Senza refrigerante interno - Ricopertura TIALN - Rotazione destra

Diametro nominale d1	mm	3,00	3,10	3,17	3,25	3,30	3,40	3,50	3,57	3,60	3,70	3,80	3,90	3,97	4,00	4,20	4,30
Diametro codolo d2	mm	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00
Lunghezza totale l1	mm	66,00	66,00	66,00	66,00	66,00	66,00	66,00	66,00	66,00	66,00	74,00	74,00	74,00	74,00	74,00	74,00
Lunghezza elica l2	mm	28,00	28,00	28,00	28,00	28,00	28,00	28,00	28,00	28,00	28,00	36,00	36,00	36,00	36,00	36,00	36,00
Lunghezza codolo l3	mm	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00
13884	Cad.																

Diametro nominale d1	mm	4,37	4,50	4,60	4,65	4,76	4,80	5,00	5,10	5,16	5,20	5,30	5,40	5,50	5,55	5,56	5,60
Diametro codolo d2	mm	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00
Lunghezza totale l1	mm	74,00	74,00	74,00	74,00	82,00	82,00	82,00	82,00	82,00	82,00	82,00	82,00	82,00	82,00	82,00	82,00
Lunghezza elica l2	mm	36,00	36,00	36,00	36,00	44,00	44,00	44,00	44,00	44,00	44,00	44,00	44,00	44,00	44,00	44,00	44,00
Lunghezza codolo l3	mm	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00
13884	Cad.																

Diametro nominale d1	mm	5,80	5,90	5,95	6,00	6,10	6,20	6,35	6,50	6,60	6,75	6,80	6,90	7,00	7,14	7,40	7,50
Diametro codolo d2	mm	6,00	6,00	6,00	6,00	8,00	8,00	8,00	8,00	8,00	8,00	8,00	8,00	8,00	8,00	8,00	8,00
Lunghezza totale l1	mm	82,00	82,00	82,00	82,00	91,00	91,00	91,00	91,00	91,00	91,00	91,00	91,00	91,00	91,00	91,00	91,00
Lunghezza elica l2	mm	44,00	44,00	44,00	44,00	53,00	53,00	53,00	53,00	53,00	53,00	53,00	53,00	53,00	53,00	53,00	53,00
Lunghezza codolo l3	mm	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00
13884	Cad.																

Diametro nominale d1	mm	7,54	7,80	7,94	8,00	8,10	8,20	8,33	8,40	8,50	8,60	8,70	8,73	8,80	9,00	9,13	9,25
Diametro codolo d2	mm	8,00	8,00	8,00	8,00	10,00	10,00	10,00	10,00	10,00	10,00	10,00	10,00	10,00	10,00	10,00	10,00
Lunghezza totale l1	mm	91,00	91,00	91,00	91,00	103,00	103,00	103,00	103,00	103,00	103,00	103,00	103,00	103,00	103,00	103,00	103,00
Lunghezza elica l2	mm	53,00	53,00	53,00	53,00	61,00	61,00	61,00	61,00	61,00	61,00	61,00	61,00	61,00	61,00	61,00	61,00
Lunghezza codolo l3	mm	36,00	36,00	36,00	36,00	40,00	40,00	40,00	40,00	40,00	40,00	40,00	40,00	40,00	40,00	40,00	40,00
13884	Cad.																

Diametro nominale d1	mm	9,30	9,50	9,52	9,60	9,80	9,92	10,00	10,10	10,20	10,30	10,50	10,70	10,80	11,00	11,20	11,30
Diametro codolo d2	mm	10,00	10,00	10,00	10,00	10,00	10,00	10,00	12,00	12,00	12,00	12,00	12,00	12,00	12,00	12,00	12,00
Lunghezza totale l1	mm	103,00	103,00	103,00	103,00	103,00	103,00	103,00	118,00	118,00	118,00	118,00	118,00	118,00	118,00	118,00	118,00
Lunghezza elica l2	mm	61,00	61,00	61,00	61,00	61,00	61,00	61,00	71,00	71,00	71,00	71,00	71,00	71,00	71,00	71,00	71,00
Lunghezza codolo l3	mm	40,00	40,00	40,00	40,00	40,00	40,00	40,00	45,00	45,00	45,00	45,00	45,00	45,00	45,00	45,00	45,00
13884	Cad.																

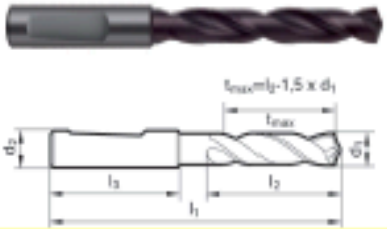
Diametro nominale d1	mm	11,50	11,60	11,80	11,91	12,00	12,10	12,50	13,00	13,10	13,50	13,70	13,80	14,00	14,50	14,70	15,00
Diametro codolo d2	mm	12,00	12,00	12,00	12,00	12,00	14,00	14,00	14,00	14,00	14,00	14,00	14,00	14,00	16,00	16,00	16,00
Lunghezza totale l1	mm	118,00	118,00	118,00	118,00	118,00	124,00	124,00	124,00	124,00	124,00	124,00	124,00	124,00	133,00	133,00	133,00
Lunghezza elica l2	mm	71,00	71,00	71,00	71,00	71,00	77,00	77,00	77,00	77,00	77,00	77,00	77,00	77,00	83,00	83,00	83,00
Lunghezza codolo l3	mm	45,00	45,00	45,00	45,00	45,00	45,00	45,00	45,00	45,00	45,00	45,00	45,00	45,00	48,00	48,00	48,00
13884	Cad.																

Diametro nominale d1	mm	15,10	15,50	15,70	16,00	16,50	17,00	17,50	18,00	18,50	19,00	19,50	20,00
Diametro codolo d2	mm	16,00	16,00	16,00	16,00	18,00	18,00	18,00	18,00	20,00	20,00	20,00	20,00
Lunghezza totale l1	mm	133,00	133,00	133,00	133,00	143,00	143,00	143,00	143,00	153,00	153,00	153,00	153,00
Lunghezza elica l2	mm	83,00	83,00	83,00	83,00	93,00	93,00	93,00	93,00	101,00	101,00	101,00	101,00
Lunghezza codolo l3	mm	48,00	48,00	48,00	48,00	48,00	48,00	48,00	48,00	50,00	50,00	50,00	50,00
13884	Cad.												

BF SERVICE
UTENSILERIA MECCANICA

Descrizione di riferimento vedi Art. 13884
Per 5 x D - Forma codolo HE - Senza refrigerante interno -
Ricopertura TiALN - Rotazione destra

13885



Diametro nominale d1	mm	3,00	3,10	3,17	3,20	3,25	3,30	3,50	3,57	3,60	3,70	3,80	3,90	3,97	4,00	4,10	4,20
Diametro codolo d2	mm	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00
Lunghezza totale l1	mm	66,00	66,00	66,00	66,00	66,00	66,00	66,00	66,00	66,00	66,00	74,00	74,00	74,00	74,00	74,00	74,00
Lunghezza elica l2	mm	28,00	28,00	28,00	28,00	28,00	28,00	28,00	28,00	28,00	28,00	36,00	36,00	36,00	36,00	36,00	36,00
Lunghezza codolo l3	mm	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00
13885	Cad.																

Diametro nominale d1	mm	4,37	4,40	4,50	4,60	4,65	4,70	4,76	4,80	4,90	5,00	5,16	5,20	5,30	5,40	5,50	5,55
Diametro codolo d2	mm	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00
Lunghezza totale l1	mm	74,00	74,00	74,00	74,00	74,00	74,00	82,00	82,00	82,00	82,00	82,00	82,00	82,00	82,00	82,00	82,00
Lunghezza elica l2	mm	36,00	36,00	36,00	36,00	36,00	36,00	44,00	44,00	44,00	44,00	44,00	44,00	44,00	44,00	44,00	44,00
Lunghezza codolo l3	mm	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00
13885	Cad.																

Diametro nominale d1	mm	5,56	5,60	5,80	5,90	5,95	6,00	6,10	6,20	6,30	6,35	6,40	6,50	6,60	6,70	6,75	6,80
Diametro codolo d2	mm	6,00	6,00	6,00	6,00	6,00	6,00	8,00	8,00	8,00	8,00	8,00	8,00	8,00	8,00	8,00	8,00
Lunghezza totale l1	mm	82,00	82,00	82,00	82,00	82,00	82,00	91,00	91,00	91,00	91,00	91,00	91,00	91,00	91,00	91,00	91,00
Lunghezza elica l2	mm	44,00	44,00	44,00	44,00	44,00	44,00	53,00	53,00	53,00	53,00	53,00	53,00	53,00	53,00	53,00	53,00
Lunghezza codolo l3	mm	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00
13885	Cad.																

Diametro nominale d1	mm	7,00	7,10	7,14	7,20	7,30	7,40	7,50	7,54	7,60	7,70	7,80	7,90	7,94	8,00	8,10	8,20
Diametro codolo d2	mm	8,00	8,00	8,00	8,00	8,00	8,00	8,00	8,00	8,00	8,00	8,00	8,00	8,00	8,00	10,00	10,00
Lunghezza totale l1	mm	91,00	91,00	91,00	91,00	91,00	91,00	91,00	91,00	91,00	91,00	91,00	91,00	91,00	91,00	103,00	103,00
Lunghezza elica l2	mm	53,00	53,00	53,00	53,00	53,00	53,00	53,00	53,00	53,00	53,00	53,00	53,00	53,00	53,00	61,00	61,00
Lunghezza codolo l3	mm	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	40,00	40,00
13885	Cad.																

Diametro nominale d1	mm	8,30	8,33	8,40	8,50	8,70	8,73	8,80	8,90	9,00	9,10	9,13	9,20	9,25	9,30	9,40	9,50
Diametro codolo d2	mm	10,00	10,00	10,00	10,00	10,00	10,00	10,00	10,00	10,00	10,00	10,00	10,00	10,00	10,00	10,00	10,00
Lunghezza totale l1	mm	103,00	103,00	103,00	103,00	103,00	103,00	103,00	103,00	103,00	103,00	103,00	103,00	103,00	103,00	103,00	103,00
Lunghezza elica l2	mm	61,00	61,00	61,00	61,00	61,00	61,00	61,00	61,00	61,00	61,00	61,00	61,00	61,00	61,00	61,00	61,00
Lunghezza codolo l3	mm	40,00	40,00	40,00	40,00	40,00	40,00	40,00	40,00	40,00	40,00	40,00	40,00	40,00	40,00	40,00	40,00
13885	Cad.																

Diametro nominale d1	mm	9,52	9,60	9,70	9,80	9,90	9,92	10,00	10,10	10,20	10,32	10,40	10,50	10,60	10,70	10,80	10,90
Diametro codolo d2	mm	10,00	10,00	10,00	10,00	10,00	10,00	10,00	12,00	12,00	12,00	12,00	12,00	12,00	12,00	12,00	12,00
Lunghezza totale l1	mm	103,00	103,00	103,00	103,00	103,00	103,00	103,00	118,00	118,00	118,00	118,00	118,00	118,00	118,00	118,00	118,00
Lunghezza elica l2	mm	61,00	61,00	61,00	61,00	61,00	61,00	61,00	71,00	71,00	71,00	71,00	71,00	71,00	71,00	71,00	71,00
Lunghezza codolo l3	mm	40,00	40,00	40,00	40,00	40,00	40,00	40,00	45,00	45,00	45,00	45,00	45,00	45,00	45,00	45,00	45,00
13885	Cad.																

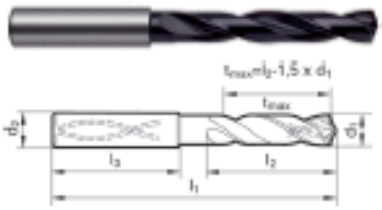
Diametro nominale d1	mm	11,00	11,10	11,11	11,30	11,40	11,50	11,60	11,70	11,80	11,90	11,91	12,00	12,20	12,50	12,70	13,00
Diametro codolo d2	mm	12,00	12,00	12,00	12,00	12,00	12,00	12,00	12,00	12,00	12,00	12,00	12,00	14,00	14,00	14,00	14,00
Lunghezza totale l1	mm	118,00	118,00	118,00	118,00	118,00	118,00	118,00	118,00	118,00	118,00	118,00	118,00	124,00	124,00	124,00	124,00
Lunghezza elica l2	mm	71,00	71,00	71,00	71,00	71,00	71,00	71,00	71,00	71,00	71,00	71,00	71,00	77,00	77,00	77,00	77,00
Lunghezza codolo l3	mm	45,00	45,00	45,00	45,00	45,00	45,00	45,00	45,00	45,00	45,00	45,00	45,00	45,00	45,00	45,00	45,00
13885	Cad.																

Diametro nominale d1	mm	13,50	13,70	14,00	14,20	14,29	14,50	14,70	15,00	15,20	15,50	15,70	16,00	16,50	17,00	17,50	18,00
Diametro codolo d2	mm	14,00	14,00	14,00	16,00	16,00	16,00	16,00	16,00	16,00	16,00	16,00	16,00	18,00	18,00	18,00	18,00
Lunghezza totale l1	mm	124,00	124,00	124,00	133,00	133,00	133,00	133,00	133,00	133,00	133,00	133,00	133,00	143,00	143,00	143,00	143,00
Lunghezza elica l2	mm	77,00	77,00	77,00	83,00	83,00	83,00	83,00	83,00	83,00	83,00	83,00	83,00	93,00	93,00	93,00	93,00
Lunghezza codolo l3	mm	45,00	45,00	45,00	48,00	48,00	48,00	48,00	48,00	48,00	48,00	48,00	48,00	48,00	48,00	48,00	48,00
13885	Cad.																

Diametro nominale d1	mm	18,50	19,00	19,50	20,00
Diametro codolo d2	mm	20,00	20,00	20,00	20,00
Lunghezza totale l1	mm	153,00	153,00	153,00	153,00
Lunghezza elica l2	mm	101,00	101,00	101,00	101,00
Lunghezza codolo l3	mm	50,00	50,00	50,00	50,00
13885	Cad.				

BF SERVICE

13886



Campo di impiego:
Punte elicoidali ad alto rendimento per la lavorazione di materiali a truciolo lungo e corto come acciai da costruzione e da cementazione, ghisa acciaiosa, acciai da bonifica ed acciai legati con carico di rottura fino a ca. 1200 N/mm2, nonché per acciai al carbonio, ghisa e leghe di AISI con elevato contenuto di Si.

Vantaggi:
Utilizzo dei massimi valori di taglio. Fori con allineamento preciso, strette tolleranze sui diametri e buone finiture di superficie. Buona autocentratura, trucioli corti per la geometria concava dei taglienti unita all'affilatura speciale ed all'assottigliamento del nocciolo.

Presupposti e consigli per l'impiego:
Macchine a grande rendimento. Mandrini con poco gioco. Attacchi utensili con allineamento preciso. Errore di coassialità dell'utensile serrato max. 0,02 mm.
Avanzamenti definiti senza vibrazioni. Per l'utilizzo in mandrini idraulici ad espansione, forniamo gli utensili con codolo liscio, senza piano di serraggio.

Caratteristiche costruttive:
Affilatura dei taglienti: spoglia sul cono tagliente con spoglia inferiore secondaria
Angolo di affilatura: 140°
Assottigliamento del nocciolo: speciale
Tolleranza sul Ø: m7
Codolo: a DIN 6535, tolleranza h6
Alimentazione del refrigerante: elicoidale dalla fascia
Materiale tagliente: integrale in metallo duro (K/P)
Altre caratteristiche costruttive a DIN 6537L

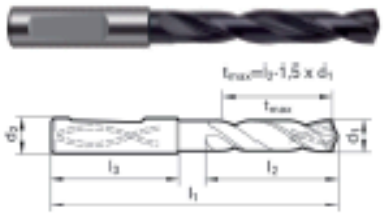
Per 5 x D - Forma codolo HA - Con refrigerante interno - Ricopertura TIALN - Rotazione destra

Diametro nominale d1	mm	3,00	3,10	3,17	3,20	3,25	3,30	3,40	3,50	3,57	3,60	3,70	3,80	3,90	3,97	4,00	4,10
Diametro codolo d2	mm	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00
Lunghezza totale l1	mm	66,00	66,00	66,00	66,00	66,00	66,00	66,00	66,00	66,00	66,00	66,00	74,00	74,00	74,00	74,00	74,00
Lunghezza elica l2	mm	28,00	28,00	28,00	28,00	28,00	28,00	28,00	28,00	28,00	28,00	28,00	36,00	36,00	36,00	36,00	36,00
Lunghezza codolo l3	mm	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00
13886	Cad.																
Diametro nominale d1	mm	4,20	4,30	4,37	4,40	4,50	4,60	4,65	4,70	4,76	4,80	4,90	5,00	5,10	5,16	5,20	5,30
Diametro codolo d2	mm	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00
Lunghezza totale l1	mm	74,00	74,00	74,00	74,00	74,00	74,00	74,00	74,00	82,00	82,00	82,00	82,00	82,00	82,00	82,00	82,00
Lunghezza elica l2	mm	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	44,00	44,00	44,00	44,00	44,00	44,00	44,00	44,00
Lunghezza codolo l3	mm	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00
13886	Cad.																
Diametro nominale d1	mm	5,40	5,50	5,55	5,56	5,60	5,70	5,80	5,90	5,95	6,00	6,10	6,20	6,30	6,35	6,40	6,50
Diametro codolo d2	mm	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	8,00	8,00	8,00	8,00	8,00	8,00
Lunghezza totale l1	mm	82,00	82,00	82,00	82,00	82,00	82,00	82,00	82,00	82,00	82,00	91,00	91,00	91,00	91,00	91,00	91,00
Lunghezza elica l2	mm	44,00	44,00	44,00	44,00	44,00	44,00	44,00	44,00	44,00	44,00	53,00	53,00	53,00	53,00	53,00	53,00
Lunghezza codolo l3	mm	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00
13886	Cad.																
Diametro nominale d1	mm	6,60	6,70	6,75	6,80	6,90	7,00	7,10	7,14	7,20	7,30	7,40	7,50	7,54	7,60	7,70	7,80
Diametro codolo d2	mm	8,00	8,00	8,00	8,00	8,00	8,00	8,00	8,00	8,00	8,00	8,00	8,00	8,00	8,00	8,00	8,00
Lunghezza totale l1	mm	91,00	91,00	91,00	91,00	91,00	91,00	91,00	91,00	91,00	91,00	91,00	91,00	91,00	91,00	91,00	91,00
Lunghezza elica l2	mm	53,00	53,00	53,00	53,00	53,00	53,00	53,00	53,00	53,00	53,00	53,00	53,00	53,00	53,00	53,00	53,00
Lunghezza codolo l3	mm	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00
13886	Cad.																
Diametro nominale d1	mm	7,90	7,94	8,00	8,10	8,20	8,30	8,33	8,40	8,50	8,60	8,70	8,73	8,80	8,90	9,00	9,10
Diametro codolo d2	mm	8,00	8,00	8,00	10,00	10,00	10,00	10,00	10,00	10,00	10,00	10,00	10,00	10,00	10,00	10,00	10,00
Lunghezza totale l1	mm	91,00	91,00	91,00	103,00	103,00	103,00	103,00	103,00	103,00	103,00	103,00	103,00	103,00	103,00	103,00	103,00
Lunghezza elica l2	mm	53,00	53,00	53,00	61,00	61,00	61,00	61,00	61,00	61,00	61,00	61,00	61,00	61,00	61,00	61,00	61,00
Lunghezza codolo l3	mm	36,00	36,00	36,00	40,00	40,00	40,00	40,00	40,00	40,00	40,00	40,00	40,00	40,00	40,00	40,00	40,00
13886	Cad.																
Diametro nominale d1	mm	9,13	9,20	9,25	9,30	9,40	9,50	9,52	9,60	9,80	9,90	9,92	10,00	10,10	10,20	10,30	10,32
Diametro codolo d2	mm	10,00	10,00	10,00	10,00	10,00	10,00	10,00	10,00	10,00	10,00	10,00	10,00	12,00	12,00	12,00	12,00
Lunghezza totale l1	mm	103,00	103,00	103,00	103,00	103,00	103,00	103,00	103,00	103,00	103,00	103,00	103,00	118,00	118,00	118,00	118,00
Lunghezza elica l2	mm	61,00	61,00	61,00	61,00	61,00	61,00	61,00	61,00	61,00	61,00	61,00	61,00	71,00	71,00	71,00	71,00
Lunghezza codolo l3	mm	40,00	40,00	40,00	40,00	40,00	40,00	40,00	40,00	40,00	40,00	40,00	40,00	45,00	45,00	45,00	45,00
13886	Cad.																
Diametro nominale d1	mm	10,40	10,50	10,60	10,70	10,80	11,00	11,10	11,11	11,20	11,30	11,50	11,60	11,70	11,80	11,90	11,91
Diametro codolo d2	mm	12,00	12,00	12,00	12,00	12,00	12,00	12,00	12,00	12,00	12,00	12,00	12,00	12,00	12,00	12,00	12,00
Lunghezza totale l1	mm	118,00	118,00	118,00	118,00	118,00	118,00	118,00	118,00	118,00	118,00	118,00	118,00	118,00	118,00	118,00	118,00
Lunghezza elica l2	mm	71,00	71,00	71,00	71,00	71,00	71,00	71,00	71,00	71,00	71,00	71,00	71,00	71,00	71,00	71,00	71,00
Lunghezza codolo l3	mm	45,00	45,00	45,00	45,00	45,00	45,00	45,00	45,00	45,00	45,00	45,00	45,00	45,00	45,00	45,00	45,00
13886	Cad.																
Diametro nominale d1	mm	12,00	12,10	12,20	12,30	12,40	12,50	12,60	12,70	12,80	13,00	13,10	13,30	13,50	13,70	14,00	14,20
Diametro codolo d2	mm	12,00	14,00	14,00	14,00	14,00	14,00	14,00	14,00	14,00	14,00	14,00	14,00	14,00	14,00	14,00	16,00
Lunghezza totale l1	mm	118,00	124,00	124,00	124,00	124,00	124,00	124,00	124,00	124,00	124,00	124,00	124,00	124,00	124,00	124,00	133,00
Lunghezza elica l2	mm	71,00	77,00	77,00	77,00	77,00	77,00	77,00	77,00	77,00	77,00	77,00	77,00	77,00	77,00	77,00	83,00
Lunghezza codolo l3	mm	45,00	45,00	45,00	45,00	45,00	45,00	45,00	45,00	45,00	45,00	45,00	45,00	45,00	45,00	45,00	48,00
13886	Cad.																
Diametro nominale d1	mm	14,29	14,50	14,60	14,70	14,80	15,00	15,10	15,20	15,30	15,50	15,70	15,80	16,00	16,50	16,90	17,00
Diametro codolo d2	mm	16,00	16,00	16,00	16,00	16,00	16,00	16,00	16,00	16,00	16,00	16,00	16,00	16,00	18,00	18,00	18,00
Lunghezza totale l1	mm	133,00	133,00	133,00	133,00	133,00	133,00	133,00	133,00	133,00	133,00	133,00	133,00	133,00	143,00	143,00	143,00
Lunghezza elica l2	mm	83,00	83,00	83,00	83,00	83,00	83,00	83,00	83,00	83,00	83,00	83,00	83,00	83,00	93,00	93,00	93,00
Lunghezza codolo l3	mm	48,00	48,00	48,00	48,00	48,00	48,00	48,00	48,00	48,00	48,00	48,00	48,00	48,00	48,00	48,00	48,00
13886	Cad.																
Diametro nominale d1	mm	17,50	18,00	18,50	18,90	19,00	19,50	20,00									
Diametro codolo d2	mm	18,00	18,00	20,00	20,00	20,00	20,00	20,00									
Lunghezza totale l1	mm	143,00	143,00	153,00	153,00	153,00	153,00	153,00									
Lunghezza elica l2	mm	93,00	93,00	101,00	101,00	101,00	101,00	101,00									
Lunghezza codolo l3	mm	48,00	48,00	50,00	50,00	50,00	50,00	50,00									
13886	Cad.																

BF SERVICE
UTENSILERIA MECCANICA

Descrizione di riferimento vedi Art. 13896
Per 5 x D - Forma codolo HE - Con refrigerante interno -
Ricopertura TiALN - Rotazione destra

13887



Diametro nominale d1	mm	3,00	3,10	3,17	3,20	3,25	3,30	3,40	3,50	3,57	3,60	3,70	3,80	3,90	3,97	4,00	4,10
Diametro codolo d2	mm	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00
Lunghezza totale l1	mm	66,00	66,00	66,00	66,00	66,00	66,00	66,00	66,00	66,00	66,00	66,00	74,00	74,00	74,00	74,00	74,00
Lunghezza elica l2	mm	28,00	28,00	28,00	28,00	28,00	28,00	28,00	28,00	28,00	28,00	28,00	36,00	36,00	36,00	36,00	36,00
Lunghezza codolo l3	mm	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00
13887	Cad.																

Diametro nominale d1	mm	4,20	4,30	4,37	4,40	4,50	4,60	4,65	4,70	4,76	4,80	4,90	5,00	5,10	5,16	5,20	5,30
Diametro codolo d2	mm	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00
Lunghezza totale l1	mm	74,00	74,00	74,00	74,00	74,00	74,00	74,00	74,00	82,00	82,00	82,00	82,00	82,00	82,00	82,00	82,00
Lunghezza elica l2	mm	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	44,00	44,00	44,00	44,00	44,00	44,00	44,00	44,00
Lunghezza codolo l3	mm	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00
13887	Cad.																

Diametro nominale d1	mm	5,50	5,55	5,56	5,80	5,90	5,95	6,00	6,10	6,20	6,30	6,35	6,40	6,50	6,60	6,75	6,80
Diametro codolo d2	mm	6,00	6,00	6,00	6,00	6,00	6,00	6,00	8,00	8,00	8,00	8,00	8,00	8,00	8,00	8,00	8,00
Lunghezza totale l1	mm	82,00	82,00	82,00	82,00	82,00	82,00	82,00	91,00	91,00	91,00	91,00	91,00	91,00	91,00	91,00	91,00
Lunghezza elica l2	mm	44,00	44,00	44,00	44,00	44,00	44,00	44,00	53,00	53,00	53,00	53,00	53,00	53,00	53,00	53,00	53,00
Lunghezza codolo l3	mm	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00
13887	Cad.																

Diametro nominale d1	mm	6,90	7,00	7,10	7,14	7,40	7,50	7,54	7,80	7,90	7,94	8,00	8,10	8,20	8,33	8,50	8,60
Diametro codolo d2	mm	8,00	8,00	8,00	8,00	8,00	8,00	8,00	8,00	8,00	8,00	8,00	10,00	10,00	10,00	10,00	10,00
Lunghezza totale l1	mm	91,00	91,00	91,00	91,00	91,00	91,00	91,00	91,00	91,00	91,00	91,00	103,00	103,00	103,00	103,00	103,00
Lunghezza elica l2	mm	53,00	53,00	53,00	53,00	53,00	53,00	53,00	53,00	53,00	53,00	53,00	61,00	61,00	61,00	61,00	61,00
Lunghezza codolo l3	mm	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	40,00	40,00	40,00	40,00	40,00
13887	Cad.																

Diametro nominale d1	mm	8,70	8,73	8,80	8,90	9,00	9,13	9,20	9,25	9,30	9,50	9,52	9,70	9,80	9,92	10,00	10,10
Diametro codolo d2	mm	10,00	10,00	10,00	10,00	10,00	10,00	10,00	10,00	10,00	10,00	10,00	10,00	10,00	10,00	10,00	12,00
Lunghezza totale l1	mm	103,00	103,00	103,00	103,00	103,00	103,00	103,00	103,00	103,00	103,00	103,00	103,00	103,00	103,00	103,00	118,00
Lunghezza elica l2	mm	61,00	61,00	61,00	61,00	61,00	61,00	61,00	61,00	61,00	61,00	61,00	61,00	61,00	61,00	61,00	71,00
Lunghezza codolo l3	mm	40,00	40,00	40,00	40,00	40,00	40,00	40,00	40,00	40,00	40,00	40,00	40,00	40,00	40,00	40,00	45,00
13887	Cad.																

Diametro nominale d1	mm	10,20	10,30	10,32	10,40	10,50	10,70	10,80	10,90	11,00	11,10	11,11	11,20	11,30	11,40	11,50	11,60
Diametro codolo d2	mm	12,00	12,00	12,00	12,00	12,00	12,00	12,00	12,00	12,00	12,00	12,00	12,00	12,00	12,00	12,00	12,00
Lunghezza totale l1	mm	118,00	118,00	118,00	118,00	118,00	118,00	118,00	118,00	118,00	118,00	118,00	118,00	118,00	118,00	118,00	118,00
Lunghezza elica l2	mm	71,00	71,00	71,00	71,00	71,00	71,00	71,00	71,00	71,00	71,00	71,00	71,00	71,00	71,00	71,00	71,00
Lunghezza codolo l3	mm	45,00	45,00	45,00	45,00	45,00	45,00	45,00	45,00	45,00	45,00	45,00	45,00	45,00	45,00	45,00	45,00
13887	Cad.																

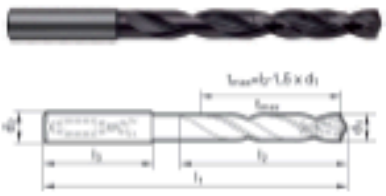
Diametro nominale d1	mm	11,70	11,80	11,90	11,91	12,00	12,10	12,20	12,50	12,70	13,00	13,50	13,70	13,80	14,00	14,10	14,20
Diametro codolo d2	mm	12,00	12,00	12,00	12,00	12,00	14,00	14,00	14,00	14,00	14,00	14,00	14,00	14,00	14,00	16,00	16,00
Lunghezza totale l1	mm	118,00	118,00	118,00	118,00	118,00	124,00	124,00	124,00	124,00	124,00	124,00	124,00	124,00	124,00	133,00	133,00
Lunghezza elica l2	mm	71,00	71,00	71,00	71,00	71,00	77,00	77,00	77,00	77,00	77,00	77,00	77,00	77,00	77,00	83,00	83,00
Lunghezza codolo l3	mm	45,00	45,00	45,00	45,00	45,00	45,00	45,00	45,00	45,00	45,00	45,00	45,00	45,00	45,00	48,00	48,00
13887	Cad.																

Diametro nominale d1	mm	14,29	14,50	14,70	15,00	15,20	15,50	15,70	15,80	16,00	16,50	17,00	17,50	18,00	18,50	19,00	19,05
Diametro codolo d2	mm	16,00	16,00	16,00	16,00	16,00	16,00	16,00	16,00	16,00	18,00	18,00	18,00	18,00	20,00	20,00	20,00
Lunghezza totale l1	mm	133,00	133,00	133,00	133,00	133,00	133,00	133,00	133,00	133,00	143,00	143,00	143,00	143,00	153,00	153,00	153,00
Lunghezza elica l2	mm	83,00	83,00	83,00	83,00	83,00	83,00	83,00	83,00	83,00	93,00	93,00	93,00	93,00	101,00	101,00	101,00
Lunghezza codolo l3	mm	48,00	48,00	48,00	48,00	48,00	48,00	48,00	48,00	48,00	48,00	48,00	48,00	48,00	50,00	50,00	50,00
13887	Cad.																

Diametro nominale d1	mm	19,50	20,00
Diametro codolo d2	mm	20,00	20,00
Lunghezza totale l1	mm	153,00	153,00
Lunghezza elica l2	mm	101,00	101,00
Lunghezza codolo l3	mm	50,00	50,00
13887	Cad.		

BF SERVICE UTENSILERIA MECCANICA

13888



Campo di impiego:
Punte elicoidali ad alto rendimento per la lavorazione di materiali a truciolo lungo e corto come acciai da costruzione e da cementazione, ghisa acciaiosa, acciai da bonifica ed acciai legati con carico di rottura fino a ca. 1200 N/mm2, nonché per acciai al carbonio, ghisa e leghe di AlSi con elevato contenuto di Si.

Vantaggi:
Utilizzo dei massimi valori di taglio. Fori con allineamento preciso, strette tolleranze sui diametri e buone finiture di superficie. Buona autocentratura, trucioli corti per la geometria concava dei taglienti unita all'affilatura speciale ed all'assottigliamento del nocciolo.

Presupposti e consigli per l'impiego:
Macchine a grande rendimento. Mandrini con poco gioco. Attacchi utensili con allineamento preciso. Errore di coassialità dell'utensile serrato max. 0,02 mm.
Avanzamenti definiti senza vibrazioni.
Per l'utilizzo in mandrini idraulici ad espansione, forniamo gli utensili con codolo liscio, senza piano di serraggio.

Caratteristiche costruttive:
Affilatura dei taglienti: spoglia sul cono tagliente con spoglia inferiore secondaria
Angolo di affilatura: 140°
Assottigliamento del nocciolo: speciale
Tolleranza sul Ø: m7
Codolo: a DIN 6535, tolleranza h6
Alimentazione del refrigerante: elicoidale dalla fascia
Materiale tagliente: integrale in metallo duro (K/P)
Altre caratteristiche costruttive a norma di fabbrica

Per 7 x D - Forma codolo HA - Con refrigerante interno - Ricopertura TiALN - Rotazione destra

Diametro nominale d1	mm	**3,00**	**3,10**	**3,17**	**3,20**	**3,25**	**3,30**	**3,40**	**3,50**	**3,57**	**3,60**	**3,70**	**3,80**	**3,90**	**3,97**	**4,00**	**4,20**
Diametro codolo d2	mm	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00
Lunghezza totale l1	mm	70,00	70,00	70,00	70,00	70,00	70,00	75,00	75,00	75,00	75,00	75,00	75,00	75,00	75,00	75,00	75,00
Lunghezza elica l2	mm	30,00	30,00	30,00	30,00	30,00	30,00	35,50	35,50	35,50	35,50	35,50	37,50	37,50	37,50	37,50	37,50
Lunghezza codolo l3	mm	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00
13888	Cad.																

Diametro nominale d1	mm	**4,30**	**4,37**	**4,40**	**4,50**	**4,60**	**4,65**	**4,70**	**4,76**	**4,80**	**4,90**	**5,00**	**5,10**	**5,20**	**5,40**	**5,50**	**5,80**
Diametro codolo d2	mm	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00
Lunghezza totale l1	mm	85,00	85,00	85,00	85,00	85,00	85,00	85,00	90,00	90,00	90,00	90,00	90,00	90,00	97,00	97,00	97,00
Lunghezza elica l2	mm	45,00	45,00	45,00	45,00	45,00	45,00	45,00	50,00	50,00	50,00	50,00	50,00	50,00	57,00	57,00	57,00
Lunghezza codolo l3	mm	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00
13888	Cad.																

Diametro nominale d1	mm	**5,90**	**5,95**	**6,00**	**6,30**	**6,35**	**6,50**	**6,60**	**6,70**	**6,80**	**7,00**	**7,10**	**7,20**	**7,50**	**7,80**	**8,00**	**8,20**
Diametro codolo d2	mm	6,00	6,00	6,00	8,00	8,00	8,00	8,00	8,00	8,00	8,00	8,00	8,00	8,00	8,00	8,00	10,00
Lunghezza totale l1	mm	97,00	97,00	97,00	106,00	106,00	106,00	106,00	106,00	106,00	116,00	116,00	116,00	116,00	116,00	116,00	131,00
Lunghezza elica l2	mm	57,00	57,00	57,00	66,00	66,00	66,00	66,00	66,00	66,00	76,00	76,00	76,00	76,00	76,00	76,00	87,00
Lunghezza codolo l3	mm	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	40,00
13888	Cad.																

Diametro nominale d1	mm	**8,40**	**8,50**	**8,60**	**8,70**	**8,80**	**9,00**	**9,25**	**9,50**	**9,52**	**9,90**	**10,00**	**10,20**	**10,30**	**10,50**	**10,80**	**11,00**
Diametro codolo d2	mm	10,00	10,00	10,00	10,00	10,00	10,00	10,00	10,00	10,00	10,00	10,00	12,00	12,00	12,00	12,00	12,00
Lunghezza totale l1	mm	131,00	131,00	131,00	131,00	131,00	131,00	131,00	139,00	139,00	139,00	139,00	155,00	155,00	155,00	155,00	155,00
Lunghezza elica l2	mm	87,00	87,00	87,00	87,00	87,00	87,00	87,00	95,00	95,00	95,00	95,00	106,00	106,00	106,00	106,00	106,00
Lunghezza codolo l3	mm	40,00	40,00	40,00	40,00	40,00	40,00	40,00	40,00	40,00	40,00	40,00	45,00	45,00	45,00	45,00	45,00
13888	Cad.																

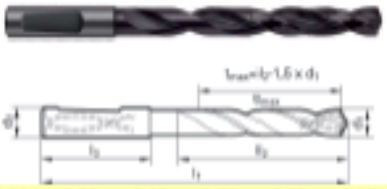
Diametro nominale d1	mm	**11,20**	**11,50**	**11,80**	**12,00**	**12,20**	**12,50**	**12,70**	**13,00**	**13,10**	**13,50**	**14,00**	**14,20**	**14,50**	**15,00**	**15,10**	**15,50**
Diametro codolo d2	mm	12,00	12,00	12,00	12,00	14,00	14,00	14,00	14,00	14,00	14,00	14,00	16,00	16,00	16,00	16,00	16,00
Lunghezza totale l1	mm	163,00	163,00	163,00	163,00	182,00	182,00	182,00	182,00	182,00	182,00	182,00	204,00	204,00	204,00	204,00	204,00
Lunghezza elica l2	mm	114,00	114,00	114,00	114,00	133,00	133,00	133,00	133,00	133,00	133,00	133,00	152,00	152,00	152,00	152,00	152,00
Lunghezza codolo l3	mm	45,00	45,00	45,00	45,00	45,00	45,00	45,00	45,00	45,00	45,00	45,00	48,00	48,00	48,00	48,00	48,00
13888	Cad.																

Diametro nominale d1	mm	**16,00**	**16,50**	**16,90**	**17,00**	**17,50**	**18,00**	**18,50**	**18,90**	**19,00**	**19,05**	**19,50**	**20,00**
Diametro codolo d2	mm	16,00	18,00	18,00	18,00	18,00	18,00	20,00	20,00	20,00	20,00	20,00	20,00
Lunghezza totale l1	mm	204,00	223,00	223,00	223,00	223,00	223,00	244,00	244,00	244,00	244,00	244,00	244,00
Lunghezza elica l2	mm	152,00	171,00	171,00	171,00	171,00	171,00	190,00	190,00	190,00	190,00	190,00	190,00
Lunghezza codolo l3	mm	48,00	48,00	48,00	48,00	48,00	48,00	50,00	50,00	50,00	50,00	50,00	50,00
13888	Cad.												

BF SERVICE
UTENSILERIA MECCANICA

Descrizione di riferimento vedi Art. 13888
Per 7 x D - Forma codolo HE - Con refrigerante interno -
Ricopertura TiALN - Rotazione destra

13889



Diametro nominale d1	mm	3,00	3,10	3,17	3,20	3,25	3,30	3,40	3,50	3,57	3,60	3,70	3,80	3,90	3,97	4,00	4,10
Diametro codolo d2	mm	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00
Lunghezza totale l1	mm	70,00	70,00	70,00	70,00	70,00	70,00	75,00	75,00	75,00	75,00	75,00	75,00	75,00	75,00	75,00	75,00
Lunghezza elica l2	mm	30,00	30,00	30,00	30,00	30,00	30,00	35,50	35,50	35,50	35,50	35,50	37,50	37,50	37,50	37,50	37,50
Lunghezza codolo l3	mm	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00
13889	Cad.																

Diametro nominale d1	mm	4,20	4,30	4,37	4,40	4,50	4,60	4,65	4,70	4,76	4,80	4,90	5,00	5,10	5,16	5,20	5,30
Diametro codolo d2	mm	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00	6,00
Lunghezza totale l1	mm	75,00	85,00	85,00	85,00	85,00	85,00	85,00	85,00	90,00	90,00	90,00	90,00	90,00	90,00	90,00	90,00
Lunghezza elica l2	mm	37,50	45,00	45,00	45,00	45,00	45,00	45,00	45,00	50,00	50,00	50,00	50,00	50,00	50,00	50,00	50,00
Lunghezza codolo l3	mm	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00
13889	Cad.																

Diametro nominale d1	mm	5,40	5,50	5,70	5,80	5,90	6,00	6,20	6,30	6,35	6,50	6,60	6,70	6,80	6,90	7,00	7,10
Diametro codolo d2	mm	6,00	6,00	6,00	6,00	6,00	6,00	8,00	8,00	8,00	8,00	8,00	8,00	8,00	8,00	8,00	8,00
Lunghezza totale l1	mm	97,00	97,00	97,00	97,00	97,00	97,00	106,00	106,00	106,00	106,00	106,00	106,00	106,00	116,00	116,00	116,00
Lunghezza elica l2	mm	57,00	57,00	57,00	57,00	57,00	57,00	66,00	66,00	66,00	66,00	66,00	66,00	66,00	76,00	76,00	76,00
Lunghezza codolo l3	mm	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00
13889	Cad.																

Diametro nominale d1	mm	7,20	7,50	7,60	7,70	7,80	8,00	8,10	8,20	8,40	8,50	8,60	8,70	9,00	9,10	9,20	9,30
Diametro codolo d2	mm	8,00	8,00	8,00	8,00	8,00	8,00	10,00	10,00	10,00	10,00	10,00	10,00	10,00	10,00	10,00	10,00
Lunghezza totale l1	mm	116,00	116,00	116,00	116,00	116,00	116,00	131,00	131,00	131,00	131,00	131,00	131,00	131,00	139,00	139,00	139,00
Lunghezza elica l2	mm	76,00	76,00	76,00	76,00	76,00	76,00	87,00	87,00	87,00	87,00	87,00	87,00	87,00	95,00	95,00	95,00
Lunghezza codolo l3	mm	36,00	36,00	36,00	36,00	36,00	36,00	40,00	40,00	40,00	40,00	40,00	40,00	40,00	40,00	40,00	40,00
13889	Cad.																

Diametro nominale d1	mm	9,40	9,50	9,52	9,70	9,80	9,90	10,00	10,20	10,50	11,00	11,20	11,50	11,80	12,00	12,10	12,20
Diametro codolo d2	mm	10,00	10,00	10,00	10,00	10,00	10,00	10,00	12,00	12,00	12,00	12,00	12,00	12,00	12,00	14,00	14,00
Lunghezza totale l1	mm	139,00	139,00	139,00	139,00	139,00	139,00	139,00	155,00	155,00	155,00	163,00	163,00	163,00	163,00	182,00	182,00
Lunghezza elica l2	mm	95,00	95,00	95,00	95,00	95,00	95,00	95,00	106,00	106,00	106,00	114,00	114,00	114,00	114,00	133,00	133,00
Lunghezza codolo l3	mm	40,00	40,00	40,00	40,00	40,00	40,00	40,00	45,00	45,00	45,00	45,00	45,00	45,00	45,00	45,00	45,00
13889	Cad.																

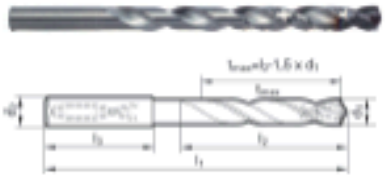
Diametro nominale d1	mm	12,50	12,70	13,00	13,50	14,00	14,20	14,50	15,00	15,50	16,00	16,50	17,00	17,50	18,00	18,50	19,00
Diametro codolo d2	mm	14,00	14,00	14,00	14,00	14,00	16,00	16,00	16,00	16,00	16,00	18,00	18,00	18,00	18,00	20,00	20,00
Lunghezza totale l1	mm	182,00	182,00	182,00	182,00	182,00	204,00	204,00	204,00	204,00	204,00	223,00	223,00	223,00	223,00	244,00	244,00
Lunghezza elica l2	mm	133,00	133,00	133,00	133,00	133,00	152,00	152,00	152,00	152,00	152,00	171,00	171,00	171,00	171,00	190,00	190,00
Lunghezza codolo l3	mm	45,00	45,00	45,00	45,00	45,00	48,00	48,00	48,00	48,00	48,00	48,00	48,00	48,00	48,00	50,00	50,00
13889	Cad.																

Diametro nominale d1	mm	19,05	19,50	20,00
Diametro codolo d2	mm	20,00	20,00	20,00
Lunghezza totale l1	mm	244,00	244,00	244,00
Lunghezza elica l2	mm	190,00	190,00	190,00
Lunghezza codolo l3	mm	50,00	50,00	50,00
13889	Cad.			

BF SERVICE

13890

Campo di impiego:
Punta integrale in metallo duro per l'efficace realizzazione di fori profondi in acciaio, ghisa e metalli non ferrosi.



Vantaggi:
Buona autocentratura dovuta alla speciale affilatura. Fornisce flusso di truciolo costante anche con materiali tenaci ed a truciolo lungo e corto, grazie al profilo adattato della punta e all'ampio spazio della scanalatura. Doppia fase per un ottimo allineamento dei fori, buone finiture di superficie, ottimale sostegno dell'utensile durante l'uscita.

Presupposti e consigli per l'impiego:
Macchine a grande rendimento. Mandrini con poco gioco. Attacchi utensili con allineamento preciso. Errore di coassialità dell'utensile serrato max. 0,02 mm.
Avanzamenti definiti senza vibrazioni.
Per utilizzo in mandrini idraulici ad espansione, forniamo gli utensili con codolo liscio, senza piano di serraggio.

Caratteristiche costruttive:
Affilatura dei taglienti: spoglia sul cono tagliente con spoglia inferiore secondaria
Angolo di affilatura: 140°
Assottigliamento del nocciolo: speciale
Tolleranza sul Ø: m7
Codolo: a DIN 6535, forma HA, tolleranza h6
Alimentazione del refrigerante: elicoidale dalla fascia
Materiale tagliente: integrale in metallo duro (K/P)
Altre caratteristiche costruttive a norma di fabbrica

Per 12 x D - Forma codolo HA - Con refrigerante interno - Ricopertura TIALN - Rotazione destra

Diametro nominale d1	mm	4,00	4,20	4,30	4,50	5,00	5,50	6,00	6,35	6,50	6,80	7,00	7,50	8,00	8,50	9,00	9,50
Diametro codolo d2	mm	6,00	6,00	6,00	6,00	6,00	6,00	6,00	8,00	8,00	8,00	8,00	8,00	8,00	10,00	10,00	10,00
Lunghezza totale l1	mm	102,00	102,00	102,00	102,00	116,00	116,00	116,00	146,00	146,00	146,00	146,00	146,00	146,00	162,00	162,00	162,00
Lunghezza elica l2	mm	64,00	64,00	64,00	64,00	78,00	78,00	78,00	108,00	108,00	108,00	108,00	108,00	108,00	120,00	120,00	120,00
Lunghezza codolo l3	mm	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	36,00	40,00	40,00	40,00
13890	Cad.																

Diametro nominale d1	mm	9,52	10,00	10,20	10,50	11,00	11,50	12,00	12,50	12,70	13,00	13,50	14,00	14,50	15,00	16,00	16,50
Diametro codolo d2	mm	10,00	10,00	12,00	12,00	12,00	12,00	12,00	14,00	14,00	14,00	14,00	14,00	16,00	16,00	16,00	18,00
Lunghezza totale l1	mm	162,00	162,00	204,00	204,00	204,00	204,00	204,00	230,00	230,00	230,00	230,00	230,00	260,00	260,00	260,00	285,00
Lunghezza elica l2	mm	120,00	120,00	156,00	156,00	156,00	156,00	156,00	182,00	182,00	182,00	182,00	182,00	208,00	208,00	208,00	234,00
Lunghezza codolo l3	mm	40,00	40,00	45,00	45,00	45,00	45,00	45,00	45,00	45,00	45,00	45,00	45,00	48,00	48,00	48,00	48,00
13890	Cad.																

Diametro nominale d1	mm	17,00	18,00	19,00	19,05	20,00
Diametro codolo d2	mm	18,00	18,00	20,00	20,00	20,00
Lunghezza totale l1	mm	285,00	285,00	310,00	310,00	310,00
Lunghezza elica l2	mm	234,00	234,00	258,00	258,00	258,00
Lunghezza codolo l3	mm	48,00	48,00	50,00	50,00	50,00
13890	Cad.					

INTEGRALE IN MD

13891



Prod. SCU
Campo di impiego:
Integrale in MD Punte elicoidali molto stabili per torni automatici ed a revolver.
Particolarmente adatte per forare ghisa acciaiosa, ghisa grigia, ghisa in conchiglia, acciai duri al manganese, bronzi, metalli leggeri e metalli non ferrosi.
Adatte inoltre per la lavorazione razionale di materiali abrasivi (leghe di AlSi), materie sintetiche a fibre rinforzate ed altre materie plastiche termo-indurenti, che esercitano un'azione abrasiva sui taglienti e sulle fasi della punta.

Caratteristiche costruttive:
Affilatura dei taglienti: a piani
Angolo di affilatura: 118°
Assottigliamento del nocciolo: con assottigliamento ≤ Ø 2,00 mm
Tolleranza sul Ø: h7
Tipo N - Dimensioni a DIN 6539 - Lucide - Rotazione destra

Diametro nominale d1	mm	0,80	0,90	1,00	1,10	1,20	1,30	1,40	1,50	1,60	1,80	1,90	2,00	2,10	2,20	2,30	2,40
Lunghezza totale l1	mm	24,00	25,00	26,00	28,00	30,00	30,00	32,00	32,00	34,00	36,00	36,00	38,00	38,00	40,00	40,00	43,00
Lunghezza elica l2	mm	5,00	5,50	6,00	7,00	8,00	8,00	9,00	9,00	10,00	11,00	11,00	12,00	12,00	13,00	13,00	14,00
13891	Cad.																

Diametro nominale d1	mm	2,50	2,60	2,70	2,78	2,80	2,90	3,00	3,10	3,17	3,20	3,30	3,40	3,50	3,60	3,70	3,80
Lunghezza totale l1	mm	43,00	43,00	46,00	46,00	46,00	46,00	46,00	49,00	49,00	49,00	49,00	52,00	52,00	52,00	52,00	55,00
Lunghezza elica l2	mm	14,00	14,00	16,00	16,00	16,00	16,00	16,00	18,00	18,00	18,00	18,00	20,00	20,00	20,00	20,00	22,00
13891	Cad.																

Diametro nominale d1	mm	3,90	4,00	4,10	4,20	4,30	4,40	4,50	4,60	4,70	4,80	4,90	5,00	5,10	5,20	5,30	5,40
Lunghezza totale l1	mm	55,00	55,00	55,00	55,00	58,00	58,00	58,00	58,00	58,00	62,00	62,00	62,00	62,00	62,00	62,00	66,00
Lunghezza elica l2	mm	22,00	22,00	22,00	22,00	24,00	24,00	24,00	24,00	24,00	26,00	26,00	26,00	26,00	26,00	26,00	28,00
13891	Cad.																

Diametro nominale d1	mm	5,50	5,60	5,70	5,80	6,00	6,10	6,20	6,30	6,40	6,50	6,60	6,70	6,80	6,90	7,00	7,10
Lunghezza totale l1	mm	66,00	66,00	66,00	66,00	66,00	70,00	70,00	70,00	70,00	70,00	70,00	70,00	74,00	74,00	74,00	74,00
Lunghezza elica l2	mm	28,00	28,00	28,00	28,00	28,00	31,00	31,00	31,00	31,00	31,00	31,00	31,00	34,00	34,00	34,00	34,00
13891	Cad.																

SEGUE >>>

BF SERVICE UTENSILERIA MECCANICA

Diametro nominale d1	mm	7,20	7,30	7,40	7,50	7,80	8,00	8,50	8,60	8,70	8,80	8,90	9,00	9,10	9,30	9,50	9,60
Lunghezza totale l1	mm	74,00	74,00	74,00	74,00	79,00	79,00	79,00	84,00	84,00	84,00	84,00	84,00	84,00	84,00	84,00	89,00
Lunghezza elica l2	mm	34,00	34,00	34,00	34,00	37,00	37,00	37,00	40,00	40,00	40,00	40,00	40,00	40,00	40,00	40,00	43,00
13891	Cad.																

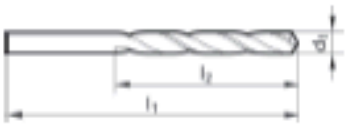
Diametro nominale d1	mm	9,90	10,00	10,20	10,50	11,00	11,11	11,50	12,00	12,30	13,00	14,00	15,00	16,00
Lunghezza totale l1	mm	89,00	89,00	89,00	89,00	95,00	95,00	95,00	102,00	102,00	102,00	107,00	111,00	115,00
Lunghezza elica l2	mm	43,00	43,00	43,00	43,00	47,00	47,00	47,00	51,00	51,00	51,00	54,00	56,00	58,00
13891	Cad.													

Campo di impiego:

13892

Punte standard per forare ghisa acciaiosa, ghisa grigia, ghisa in conchiglia, acciaio duro al manganese, bronzi, metalli leggeri e metalli non ferrosi.
Adatte inoltre per la lavorazione razionale di materiali abrasivi (leghe di AISI), materie sintetiche rinforzate con fibre ed altre materie plastiche termoindurenti, che esercitano un'azione abrasiva sui taglienti e sulle fasi della punta.





Caratteristiche costruttive:
Affilatura dei taglienti: a piani
Angolo di affilatura: 118°
Assottigliamento del nocciolo: con assottigliamento ≤ Ø 2,00 mm
Tolleranza sul Ø: h7
Altre caratteristiche costruttive a norma di fabbrica
Tipo N - Lucide - Rotazione destra

Diametro nominale d1	mm	1,00	1,10	1,20	1,30	1,50	1,60	1,70	1,80	1,90	2,00	2,10	2,20	2,30	2,38	2,40	2,50
Lunghezza totale l1	mm	34,00	36,00	38,00	38,00	40,00	43,00	43,00	46,00	46,00	49,00	49,00	53,00	53,00	57,00	57,00	57,00
Lunghezza elica l2	mm	12,00	14,00	16,00	16,00	18,00	20,00	20,00	22,00	22,00	24,00	24,00	27,00	27,00	30,00	30,00	30,00
13892	Cad.																

Diametro nominale d1	mm	2,60	2,70	2,78	2,80	2,90	3,00	3,10	3,17	3,20	3,30	3,40	3,50	3,57	3,60	3,70	3,80
Lunghezza totale l1	mm	57,00	61,00	61,00	61,00	61,00	61,00	65,00	65,00	65,00	65,00	70,00	70,00	70,00	70,00	70,00	75,00
Lunghezza elica l2	mm	30,00	33,00	33,00	33,00	33,00	33,00	36,00	36,00	36,00	36,00	39,00	39,00	39,00	39,00	39,00	43,00
13892	Cad.																

Diametro nominale d1	mm	3,90	3,97	4,00	4,10	4,20	4,30	4,40	4,50	4,60	4,70	4,80	4,90	5,00	5,10	5,16	5,20
Lunghezza totale l1	mm	75,00	75,00	75,00	75,00	75,00	80,00	80,00	80,00	80,00	80,00	86,00	86,00	86,00	86,00	86,00	86,00
Lunghezza elica l2	mm	43,00	43,00	43,00	43,00	43,00	47,00	47,00	47,00	47,00	47,00	52,00	52,00	52,00	52,00	52,00	52,00
13892	Cad.																

Diametro nominale d1	mm	5,30	5,50	5,60	5,70	5,80	5,90	6,00	6,10	6,20	6,50	6,80	6,90	7,00	7,10	7,20	7,30
Lunghezza totale l1	mm	86,00	93,00	93,00	93,00	93,00	93,00	93,00	101,00	101,00	101,00	109,00	109,00	109,00	109,00	109,00	109,00
Lunghezza elica l2	mm	52,00	57,00	57,00	57,00	57,00	57,00	57,00	63,00	63,00	63,00	69,00	69,00	69,00	69,00	69,00	69,00
13892	Cad.																

Diametro nominale d1	mm	7,40	7,50	7,60	7,70	7,80	8,00	8,20	8,30	8,40	8,50	8,80	9,00	9,20	9,30	9,40	9,50
Lunghezza totale l1	mm	109,00	109,00	117,00	117,00	117,00	117,00	117,00	117,00	117,00	117,00	125,00	125,00	125,00	125,00	125,00	125,00
Lunghezza elica l2	mm	69,00	69,00	75,00	75,00	75,00	75,00	75,00	75,00	75,00	75,00	81,00	81,00	81,00	81,00	81,00	81,00
13892	Cad.																

Diametro nominale d1	mm	9,70	9,80	9,90	10,00	10,20	10,30	10,50	11,00	11,50	12,00
Lunghezza totale l1	mm	133,00	133,00	133,00	133,00	133,00	133,00	133,00	142,00	142,00	151,00
Lunghezza elica l2	mm	87,00	87,00	87,00	87,00	87,00	87,00	87,00	94,00	94,00	101,00
13892	Cad.										

BF SERVICE UTENSILERIA MECCANICA

I numeri in **grassetto** della colonna avanzamento indicano gli utensili da preferire.

- R destra
- L sinistra
- lucida
- trattata a vapore
- fasi nitrurate
- ricopertura TiAlN
- ricopertura TiN

* Impiegare solo punte lucide o rispettivamente con scanalature lucide

** Tagliente principale corretto a ca. 10°

Per Profondità del foro superiori a 7 x D è necessario un foro pilota:

1. Il foro pilota può essere prodotto con una punta corta, rigida, il cui diametro sia di 0,01-0,02 mm superiore al diametro della punta Ratio. Profondità del foro pilota > 1 x D.
2. In alternativa, la stessa punta Ratio può produrre il foro pilota. In questo caso bisogna ridurre del 30%-40% sia velocità di taglio che avanzamento.
3. La pressione minima del refrigerante consigliata è di 40 bar.

Enormemente importante è che, per motivi di sicurezza, nessuna punta possa girare libera, senza sostegno, con numero di giri superiore a n = 6.000 giri/min.

In caso contrario, le forze centrifughe potrebbero causare la rottura del lungo utensile prima ancora che esso entri in contatto con la superficie da lavorare.

Ø punta mm	Numero colonna avanzamento								
	1	2	3	4	5	6	7	8	9
	f (mm/giro)								
0,50	0,004	0,006	0,007	0,008	0,010	0,012	0,014	0,016	0,019
1,00	0,006	0,008	0,012	0,014	0,016	0,018	0,020	0,023	0,025
2,00	0,020	0,025	0,032	0,040	0,050	0,063	0,080	0,100	0,125
2,50	0,025	0,032	0,040	0,050	0,063	0,080	0,100	0,125	0,160
3,15	0,032	0,040	0,050	0,063	0,080	0,100	0,125	0,160	0,160
4,00	0,040	0,050	0,063	0,080	0,100	0,125	0,160	0,200	0,200
5,00	0,040	0,050	0,063	0,080	0,100	0,125	0,160	0,200	0,250
6,30	0,050	0,063	0,080	0,100	0,125	0,160	0,200	0,250	0,315
8,00	0,063	0,080	0,100	0,125	0,160	0,200	0,250	0,315	0,315
10,00	0,080	0,100	0,125	0,160	0,200	0,250	0,315	0,400	0,400
12,50	0,080	0,100	0,125	0,160	0,200	0,250	0,315	0,400	0,500
16,00	0,100	0,125	0,160	0,200	0,250	0,315	0,400	0,500	0,630
20,00	0,125	0,160	0,200	0,250	0,315	0,400	0,500	0,630	0,630
25,00	0,160	0,200	0,250	0,315	0,400	0,500	0,630	0,800	0,800
31,50	0,160	0,200	0,250	0,315	0,400	0,500	0,630	0,800	1,000
40,00	0,200	0,250	0,315	0,400	0,500	0,630	0,800	1,000	1,250
50,00	0,250	0,315	0,400	0,500	0,630	0,800	1,000	1,250	1,250
63,00	0,315	0,400	0,500	0,630	0,800	1,000	1,250	1,600	1,600
80,00	0,400	0,500	0,630	0,800	1,000	1,250	1,600	1,600	2,000

Al

prevalentemente per la lavorazione di alluminio

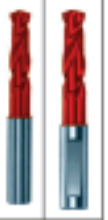
Refrigerante
- Emulsione
- Olio
- Aria

Materiali	Esempi di materiali, nuove designazioni (tra parentesi quelle precedenti) numeri in grassetto = nr. materiale e DIN 10 027	Resistenza Durezza MPa (N/mm²)	Refrigerante
Acciai da costruzione	1.0035 S185(St33), 1.0486 P275NH(HI285), 1.0345 P235GH(H-II), 1.0425 P265GH(H-II)	<500	
	1.0050 E295 (St50-2), 1.0070 E360 (St70-2), 1.8937 P500NH (W St500)	>500-850	
Acciai automatici	1.0718 11SMnPb30 (9SMnPb28), 1.0736 11SMn37 (9SMn36)	<850	
	1.0727 46S20 (455M20), 1.0728 (60S20), 1.0757 46SPb20 (450Pb20)	850-1000	
Acciai da bonifica non legati	1.0402 C22, 1.1178 C30E (Ck30)	< 700	
	1.0503 C45, 1.1191 C45E (Ck45)	700-850	
	1.0601 C60, 1.1221 C60E (Ck60)	850-1000	
Acciai da bonifica legati	1.5131 50MnSi4, 1.7003 38Cr2, 1.7030 28Cr4	850-<1000	
	1.5710 36NiCr6, 1.7035 41Cr4, 1.7225 42CrMo4	1000-1200	
Acciai da cementazione non legati	1.0301 (C10), 1.1121 C10E (Ck10)	<750	
Acciai da cementazione legati	1.7043 38Cr4	850-<1000	
	1.5752 15NiCr13 (15NiCr13), 1.7131 16MnCr5, 1.7264 20CrMo5	1000-1200	
Acciai nitrurati	1.8504 34CrAl6	≥850-<1000	
	1.8519 31CrMoV9, 1.8550 34CrAlNi7	>1000-1200	
Acciai utensili	1.1750 C75W, 1.2067 100Cr6, 1.2307 29CrMoV9	<850	
	1.2080 X210Cr12, 1.2083 X42Cr13, 1.2419 105WCr6, 1.2767 X45NiCrMo4	>850-1000	
Acciai super rapidi	1.3243 S 6-5-2-5, 1.3343 S 6-5-2, 1.3344 S 6-5-3	≥650-1000	
Acciai per molle	1.5026 55Si7, 1.7176 55Cr3, 1.8159 51CrV4 (51CrV4)	<330 HB	
Acciai inossidabili, allo zolfo	1.4005 X12CrS13, 1.4104 X14CrMoS17, 1.4105 X6CrMoS17, 1.4305 X8CrNiS18-9	<850	
austenitici	1.4301 X5CrNi18-10 (V2A), 1.4541 X6CrNiTi18-10, 1.4571 X6CrNiMoTi17-12-2 (V4A)	<850	
martensitici	1.4057 X20CrNi 17 2 (X17CrNi16-2), 1.4122 X39CrMo17-1, 1.4521 X2CrMoTi18-2	<850	
Acciai temprati	--	<40-48 HRC	
		>48-60 HRC	
Leghe speciali	Nimonic, Inconel, Monel, Hastelloy	<1200	
Ghise	0.6010 EN-GJL-100(GG10), 0.6020 EN-GJL-200(GG20)	<240 HB	
	0.6025 EN-GJL-250(GG25), 0.6035 EN-GJL-350(GG35)	<300 HB	
Nuove ghise GGV	EN-GJV250 (GGV25) , EN-GJV350 (GGV35)	<220 HB	
	EN-GJV400 (GGV40), EN-GJV500 (GGV50), SiMo 6	<300 HB	
Nuove ghise ADI	EN-GJS-800-8 (ADI800), EN-GJS-1000-5 (ADI1000)	800-1000	
	EN-GJS-1200-2 (ADI1200), EN-GJS-1400-1 (ADI1400)	1200-1400	
Ghise sferoidali, ghise temperate	0.7050 EN-GJS-500-7(GGG50), 0.8035 EN-GJMW-350-4(GTW35)	<240 HB	
	0.7070 EN-GJS-700-2(GGG70), 0.8170 EN-GJMB-700-2(GTS70)	<300 HB	
Ghisa in conchiglia	--	<350 HB	
Titanio e leghe di titanio	3.7024 Ti99,5, 3.7114 TiAl5Sn2,5, 3.7126 TiCu2	<850	
	3.7154 TiAl6Zr5, 3.7165 TiAl6V4, 3.7184 TiAl4Mo4Sn2,5, - TiAl6MoTi1	>850-1200	
Alluminio e leghe di alu	3.0255 Al99,5, 3.2315 AlMgSi1, 3.3515 AlMg1	<400	
Leghe di alu per iniezione plastiche	3.0615 AlMgSiPb, 3.1325 AlCuMg1, 3.3245 AlMg3Si, 3.4365 AlZnMgCu1,5	<450	
Leghe di alu-ghisa < 10 % Si	3.2131 G-AlSi5Cu1, 3.2153 G-AlSi7Cu3, 3.2573 G-AlSi9	<500	
> 10 % Si	3.2581 G-AlSi12, 3.2583 G-AlSi12Cu, - G-AlSi12CuNiMg	<500	
Leghe di magnesio	3.5200 MgMn2, 3.5812.05 G-MgAl8Zn1, 3.5612.05 G-MgAl6Zn1	<450	
Rame legato in bassa %	2.0070 SE-Cu, 2.1020 CuSn6, 2.1096 G-CuSn5ZnPb	<400	
Ottone, a truciolo corto	2.0380 CuZn39Pb2, 2.0401 CuZn36Pb3, 2.0410 CuZn43Pb2	<500	
a truciolo lungo	2.0250 CuZn20, 2.0280 CuZn33, 2.0332 CuZn37Pb0,5	<500	
Bronzi a truciolo corto	2.1090 CuSn7ZnPb, 2.1170 CuPb5Sn5, 2.1176 CuPb10Sn	<600	
	2.0790 CuNi18Zn19Pb	>600-850	
Bronzi a truciolo lungo	2.0916 CuAl5, 2.0960 CuAl9Mn, 2.1050 CuSn10	<850	
	2.0980 CuAl11Ni, 2.1247 CuBe2	>850-1000	

≤ 3 xD

Mat. taglienti	Int. in MD	Int. in MD
Tipo di MD	K/P	K/P
Tipo	MD TIALN	MD TIALN
Tratt. di superficie		
Fori di refrig.	senza	con
DIN 6537 HA R	13880	13882
DIN 6537 HE R	13881	13883
DIN 6538 HE R		
DIN 8589 DZ R		
pagina	2	4

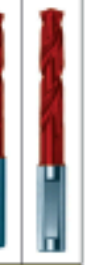
v_c m/min	Numero colonna avanzamento		v_c m/min	Numero colonna avanzamento	
130	7	7	145	7	7
110	6	6	120	6	6
145	8	8	170	8	8
110	7	7	145	8	8
120	7	7	130	8	8
110	7	7	125	7	7
105	7	7	120	7	7
105	7	7	120	7	7
100	6	6	105	7	7
130	8	8	145	8	8
120	7	7	120	7	7
85	5	5	85	5	5
100	6	6	110	7	7
80	5	5	105	5	5
65	6	6	80	6	6
55	5	5	65	5	5
55			60		
45	3	3	60	3	3
55	4	4	60	5	5
45	4	4	55	5	5
45	3	3	45	5	5
45	3	3	55	3	3
25	2	2	35	2	2
25	4	4	35	4	4
210	8	8	195	9	9
155	8	8	160	9	9
155	7	7	140	9	9
125	7	7	130	8	8
35	3	3	40	3	3
40	4	4	45	4	4
35	3	3	40	3	3
260	9	9	310	9	9
260	9	9	310	9	9
220	9	9	260	9	9
180	8	8	220	9	9
260	8	8	280	8	8
105	7	7	125	7	7
270	8	8	325	8	8
180	7	7	220	7	7
105	6	6	125	7	7
85	6	6	105	6	6
80	5	5	90	6	6
80	5	5	80	6	6



≤ 5 xD

Mat. taglienti	Int. in MD	Int. in MD
Tipo di MD	K/P	K/P
Tipo	MD TIALN	MD TIALN
Tratt. di superficie		
Fori di refrig.	senza	con
DIN 6537 HA R	13884	13886
DIN 6537 HE R	13885	13887
DIN 6538 HE R		
N.d.f. DZ R		
N.d.f. HA R		
pagina	6	8

v_c m/min	Numero colonna avanzamento		v_c m/min	Numero colonna avanzamento	
130	7	7	145	7	7
110	6	6	120	6	6
145	8	8	170	8	8
110	7	7	145	8	8
120	7	7	130	8	8
110	7	7	125	7	7
105	7	7	120	7	7
105	6	6	120	7	7
100	6	6	105	7	7
130	8	8	145	8	8
120	7	7	120	7	7
85	5	5	85	5	5
100	6	6	110	7	7
80	5	5	105	5	5
65	6	6	80	6	6
55	5	5	65	5	5
55			60		
45	3	3	60	3	3
55	4	4	60	5	5
45	4	4	55	5	5
45	3	3	45	5	5
45	3	3	55	3	3
25	2	2	35	2	2
25	4	4	35	4	4
195	8	8	210	9	9
155	8	8	160	9	9
145	7	7	140	9	9
125	7	7	130	8	8
35	3	3	40	3	3
40	4	4	45	4	4
35	3	3	40	3	3
260	9	9	310	9	9
260	9	9	310	9	9
220	8	8	260	9	9
170	8	8	220	9	9
260	8	8	280	8	8
165	7	7	125	7	7
270	8	8	325	8	8
160	7	7	220	7	7
165	6	6	125	7	7
85	6	6	105	6	6
80	5	5	90	6	6
80	5	5	80	6	6



≤ 7 xD

Mat. taglienti	Int. in MD
Tipo di MD	K/P
Tipo	MD TIALN
Tratt. di superficie	
Fori di refrig.	con
DIN 6537 HA R	
DIN 6539 DZ R	
N.d.f. HA R	13888
N.d.f. HE R	13889
pagina	10

v_c m/min	Numero colonna avanzamento
145	6
120	5
170	7
145	7
130	7
125	6
120	6
120	6
105	6
145	7
120	6
85	4
110	6
105	4
80	5
65	4
60	4
60	2
60	4
55	4
45	4
55	2
35	1
35	3
210	8
160	8
160	8
130	7
40	2
40	3
40	2
310	8
310	8
260	8
220	8
280	7
125	6
325	7
220	6
125	6
105	5
90	5
80	5



≤ 12×D

Mat. taglienti	Int. in MD
Tipo di MD	K
Tipo	MD TIALN
Tratt. di superficie	○
Fori di refrig.	con
DIN 6539 DZ R	
N.d.f. HA R	13890
N.d.f. HE R	
pagina	12

v_c m/min	Numero avanzamento
110	8
110	8
120	8
120	8
110	6
110	8
100	7
110	6
110	8
110	7
110	6
100	5
80	5
100	6
80	5
50	5
50	5
100	5
60	3
100	5
50	4
30	2
140	8
100	8
100	6
100	6
90	8
140	8
100	8
120	1
120	8



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RIVENDITORE
AUTORIZZATO

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