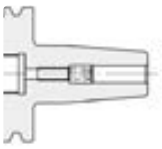
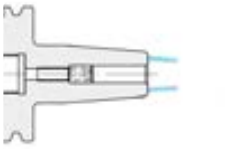
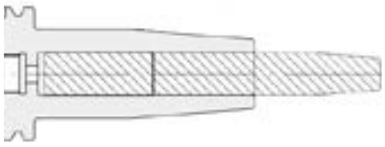
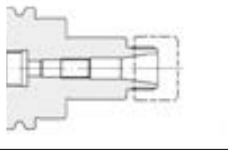
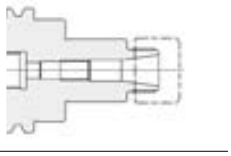
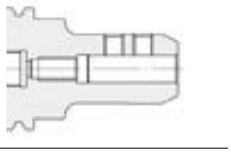
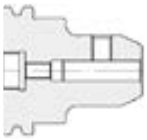
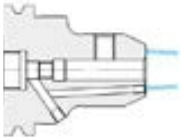
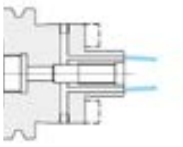
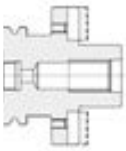
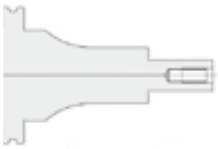
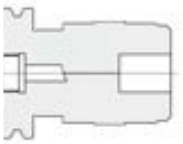
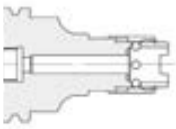
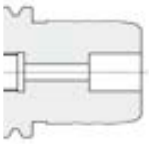
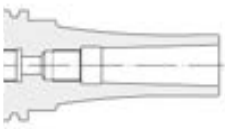
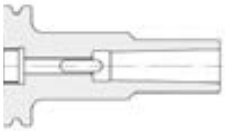
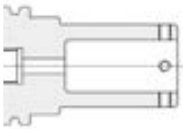
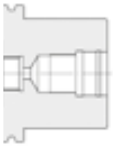
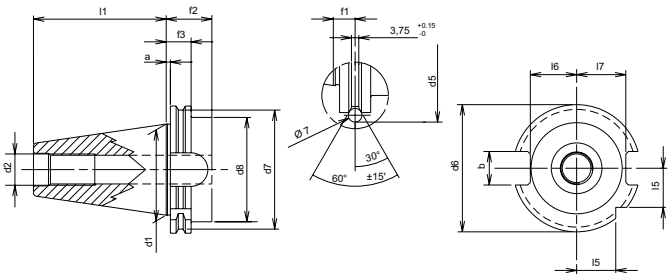
Mandrini
Toolholders

SK
tool holders DIN 69871

CTO 4,5° Standard **(similar to DIN 69882-8)**	Mandrino per calettamento termico Shrink fit chuck Porte-outils de frettage Schrumpfutter	p. 104	
CTW 4,5° Standard **(Cooling Plus)**	Mandrino per calettamento termico con canali di lubrificazione Shrink fit chuck with coolant bores Porte-outils de frettage avec conduits d'arrosage Schrumpfutter mit Kühlmittellbohrung	p. 106	
CTP 4,5° **(without back up screw)**	Mandrino per calettamento termico estensibile,adatto per prolunghe Extensible shrink fit-chuck suitable for extensions Porte outils de frettage prolongeable approprié pour rallonges Verlägerbares schrumpfutter geeignet fur verlangerungs	p. 107	
CTF 4,5° **(Slim)**	Mandrino per calettamento termico di finitura Finishing shrink fit chuck Porte outils de frettage pour finissage Schrumpfutter zum schlichten	p. 108	
ERO **(Standard)**	Portapinze ER DIN 6499 Collet chuck ER DIN 6499 Porte pinces ER DIN 6499 Spannzangenfutter ER DIN 6499	p. 109	
ERH **(High Performance)**	Portapinze di precisione ER DIN 6499 Precision collet chuck ER DIN 6499 Porte pinces de precision ER DIN 6499 Prazisions spannzangenfutter ER DIN 6499	p. 110	
PU **(DIN 6535 HB - HE)**	Mandrino portapunte Adapter for drilling tools Porte-foret Aufnahme für Vollbohrer	p. 113	
WEC Weldon **(DIN 1835-8)**	Portafrese Weldon corto End-mill holder Weldon type short execution Mandrin porte-fraise Weldon type court Weldon-kegelaufnahme Kurze Ausführung	p. 114	
WEH **(DIN 1835-B / 6535 HB)**	Mandrini per attacchi Weldon - WN Weldon - WN toolholders Porte outils Weldon - WN Weldon-WN aufnahme	p. 116	
WEW **(Cooling Plus)** **(DIN 1835-B / 6535 HB)**	Mandrini per attacchi Weldon – WN con canali di lubrificazione Weldon – WN toolholders with coolant bores Porte outils Weldon – WN avec conduits d'arrosage Weldon-WN aufnahme mit kühlmittellbohrung	p. 117	
MDO	Portafrese con filetto interno, per frese con attacco filettato Cutter-Holder with modular threaded connection Mandrin Porte-Fraise avec attachement modulaire filetè Fraseraufnahme mit modular-gewinde aufnahme	p. 118	

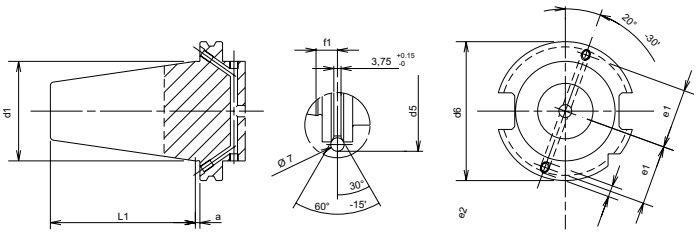
FSW **(Cooling Plus)** **(DIN 6357 B)**	Portafrese a spianare con trascinatore fisso - con canali di lubrificazione Face mill arbor with coolant bores Porte-fraises à surfacer avec conduits d'arrosage Messerkopf- aufnahme mit Kühlmittelbohrun	p. 119	
FC **(DIN 6358)**	Portafrese combinato con trascinatore mobile Kmbi-shell mill arbor Porte-fraise a double usage Kombi-aufsteckfräsdorne	p. 120	
FF **(DIN 6357-A / DIN 2079)**	Portafrese flangiati per frese a spianare Face mill holder for face milling cutters Porte-fraise pour fraises a surfacer Aufsteckfräserdorne für messerköpfe	p. 121	
FD **(DIN 6358)**	Mandrino portafrese per frese a disco Face mill holder for disc milling cutters	p. 121	
MC	Maschiatore a cambio rapido con compensazione assiale senza passaggio lubrificante Quick change tapping chuck with axial compensation without coolant flow Appareil à thrauder avec changement rapid avec compensation axiale Gewindeschneidfutter mit doppel längenausgleich	p. 122	
MR	Maschiatore a cambio rapido senza compensazione assiale con passaggio lubrificante Quick change tapping chuck without axial compensation with coolant flow Appareil à thrauder avec changement rapid sans compensation axiale Gewindeschneidfutter ohne längenausgleich	p. 123	
MS **SINKRO**	Maschiatore sincronizzato (per bussole ABM-ER) con passaggio lubrificante Sinkro tapping chucks (for Sinkro's tap adapter ABM-ER) with coolant flow Sinkro-Gewindeschneidfutter (fur schnellwechseleinsatze SinKro ABM.ER) Sinkro-appareil a taruder (pour douilles porte-taraud Sinkro ABM.ER)	p. 124	
RF **(DIN 228-1 Form A)**	Riduzione Cono Morse per frese Morse adapter for milling cutter Porte-fraise avec raccord CM Morse-kegel-aufnahme mit Anzuggewinde	p. 126	
RP **(DIN 228-1 Form B)**	Riduzione Cono Morse per punte Morse-adapter for drilling tools Porte-foret avec raccord CM Morse-kegel-aufnahme	p. 127	
DP	Sistema modulare DP Modular system DP	p. 128	
VAR	Sistema modulare VAR Modular system VAR	p. 128	
CC	Spina di controllo Control pin Barre de contrôle Prüfdorn	p. 129	

DIN 69871 - SK AD form



	030	040	050
a	3,2	3,2	3,2
b	16,1	16,1	25,7
d1	31,750	44,450	69,850
d2	M12	M16	M24
d5	59,3	59,3	107,25
d6	50	63,55	97,5
d7	44,3	56,25	91,25
d8	45	50	80
f1	11,1	11,1	11,1
f2	35	35	35
f3	19,1	19,1	19,1
l1	47,8	68,4	101,75
l5	15	18,5	30
l6	16,4	22,8	35,5
l7	19	25	37,7

DIN 69871 - SK B form



	030	040	050
a	3,2	3,2	3,2
d1	31,750	44,450	69,850
d5	59,3	72,3	107,25
d6	50	63,55	97,5
e1	21	27	42
e2	5	5	7
f1	11,1	11,1	11,1
l1	47,8	68,4	101,75

Mandrini a fissaggio meccanico

- Temprati e cementati con durezza 60 - 2 HRC
- Resistenza alla trazione 950 N/mm2
- Attacco con qualità tolleranza cono AT3

Mandrini per il calettamento a caldo

- Acciaio speciale per lavorazioni a caldo resistente alle alte temperature
- Temprato 54 - 2 HRC

Note

SKB = Forma AD + B:
- alimentazione interna del lubrorefrigerante a scelta attraverso foro centrale (forma AD) oppure attraverso il giunto (forma B)

SKA = Forma AD:
- alimentazione interna del lubrorefrigerante attraverso foro centrale

Tool holders:

- Case-hardened 60 - 2 HRC
- Tensile streght in the core at least 950 N/mm2
- Taper in tolerance quality AT3

Shrink fit chuck:

- Heat resistant hot-working steel
- Hardened 54 - 2 HRC

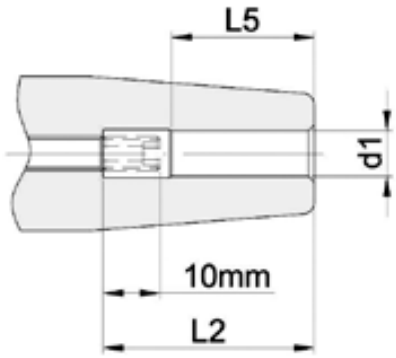
Note

SKB = Forma AD + B:
- central coolant supply and coolant channels through the flange which can be sealed again

SKA = Forma AD:
- central coolant supply

Shrink fit chuck

grip-plus
shrink fit technology



	L2		L5 minimum grip
Ø 6	37	M5 x 0,8	22
Ø 8	37	M6 x 1	26
Ø 10	42	M8 x 1	31
Ø 12	47	M10 x 1	36
Ø 14	47	M10 x 1	36
Ø 16	50	M12 x 1	39
Ø 18	50	M12 x 1	39
Ø 20	52	M16 x 1	41
Ø 25	58	M16 x 1	47
Ø 32	62	M16 x 1	51

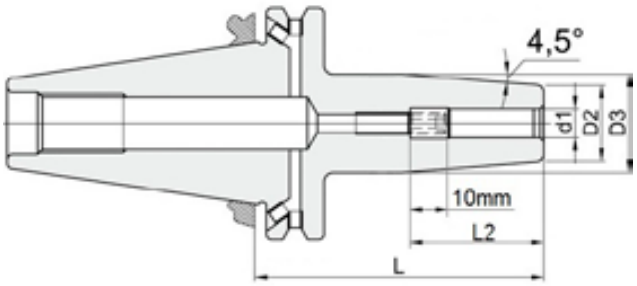
SK
DIN 69871

CTO 4,5° Standard
(similar to DIN 69882-8)

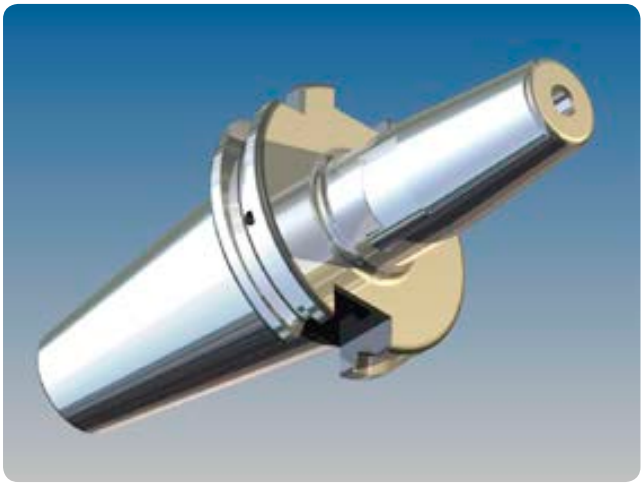
Mandrino per calettamento termico
Shrink fit chuck
Porte-outils de frettage
Schrumpfutter

G 2,5 25.000 RPM or U<1 gmm | ≤3 µm | 4,5° | ON REQUEST | HSS h6 | HM h6 | HSC | HPC | CHIP

grip-plus
shrink fit technology



d1 = 3-4-5 **VEDI** - SEARCH "CTF"



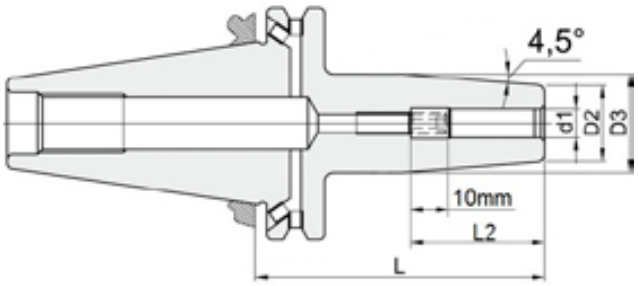
codice - code	dati tecnici - technical data					
	Ø d1	L	Ø D2	Ø D3	-	-
SKB 040 (AD+B) form						
SKB.040.CT006.080	6	80	21	27		
SKB.040.CT008.080	8	80	21	27		
SKB.040.CT010.080	10	80	24	32		
SKB.040.CT012.080	12	80	24	32		
SKB.040.CT014.080	14	80	27	34		
SKB.040.CT016.080	16	80	27	34		
SKB.040.CT018.080	18	80	33	42		
SKB.040.CT020.080	20	80	33	42		
SKB.040.CT025.100	25	100	44	51		
SKB.040.CT006.130	6	130	21	27		
SKB.040.CT008.130	8	130	21	27		
SKB.040.CT010.130	10	130	24	32		
SKB.040.CT012.130	12	130	24	32		
SKB.040.CT014.130	14	130	27	34		
SKB.040.CT016.130	16	130	27	34		
SKB.040.CT018.130	18	130	33	42		
SKB.040.CT020.130	20	130	33	42		
SKB.040.CT006.160	6	160	21	27		
SKB.040.CT008.160	8	160	21	27		
SKB.040.CT010.160	10	160	24	32		
SKB.040.CT012.160	12	160	24	32		
SKB.040.CT014.160	14	160	27	34		
SKB.040.CT016.160	16	160	27	34		
SKB.040.CT018.160	18	160	33	42		
SKB.040.CT020.160	20	160	33	42		
SKB.040.CT025.160	25	160	44	51		

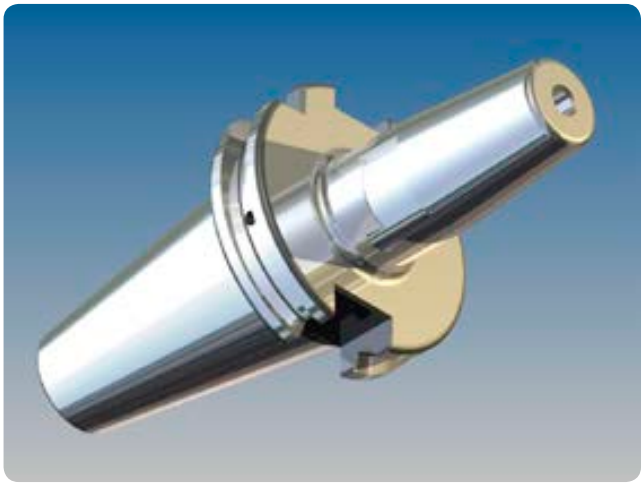
SK
DIN 69871

CTO 4,5° Standard
(similar to DIN 69882-8)

Mandrino per calettamento termico
Shrink fit chuck
Porte-outils de frettage
Schrumpfutter

grip-plus
shrink fit technology





codice - code	dati tecnici - technical data					
	Ø d1	L	Ø D2	Ø D3	-	-
SKB 050 (AD+B) form						
SKB.050.CT006.080	6	80	21	27		
SKB.050.CT008.080	8	80	21	27		
SKB.050.CT010.080	10	80	24	32		
SKB.050.CT012.080	12	80	24	32		
SKB.050.CT014.080	14	80	27	34		
SKB.050.CT016.080	16	80	27	34		
SKB.050.CT018.080	18	80	33	42		
SKB.050.CT020.080	20	80	33	42		
SKB.050.CT025.100	25	100	44	53		
SKB.050.CT032.100	32	100	44	53		
SKB.050.CT006.130	6	130	21	27		
SKB.050.CT008.130	8	130	21	27		
SKB.050.CT010.130	10	130	24	32		
SKB.050.CT012.130	12	130	24	32		
SKB.050.CT014.130	14	130	27	34		
SKB.050.CT016.130	16	130	27	34		
SKB.050.CT018.130	18	130	33	42		
SKB.050.CT020.130	20	130	33	42		
L.130 d1 = 25 / 32 VEDI - SEARCH "CTP"						
SKB.050.CT006.160	6	160	21	27		
SKB.050.CT008.160	8	160	21	27		
SKB.050.CT010.160	10	160	24	32		
SKB.050.CT012.160	12	160	24	32		
SKB.050.CT014.160	14	160	27	34		
SKB.050.CT016.160	16	160	27	34		
SKB.050.CT018.160	18	160	33	42		
SKB.050.CT020.160	20	160	33	42		
SKB.050.CT025.160	25	160	44	53		
SKB.050.CT032.160	32	160	44	53		

Accessori | Accessories

PULL STUDS

p. 130

Ricambi | Spare parts

RVR CT

p. 186

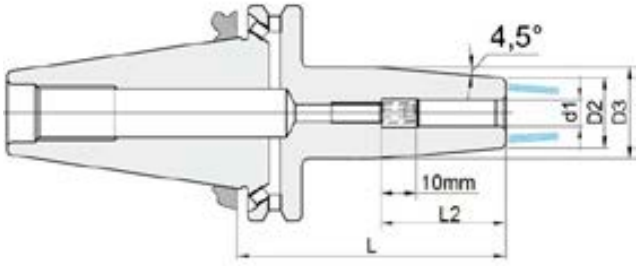
SK
DIN 69871

CTW 4,5°
(Cooling Plus)

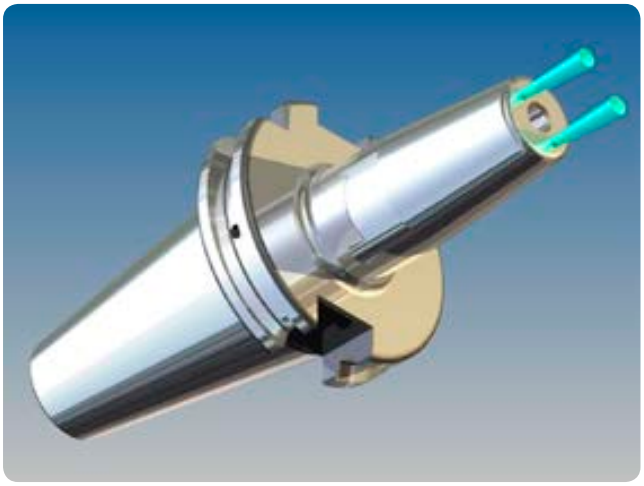
Mandrino per calettamento termico con canali di lubrificazione
Shrink fit chuck with coolant bores
Porte-outils de frettage avec conduits d'arrosage
Schrumpfutter mit Kühlmittellbohrung

G 2,5 25.000 RPM or U<1 gmm | ≤3 µm | 4,5° | HSS h6 | HM h6 | HSC | HPC | CHIP

grip-plus
shrink fit technology



codice - code	dati tecnici - technical data					
	Ø d1	L	Ø D2	Ø D3	-	-
SKB 040 (AD+B) form						
SKB.040.CTW06.080	6	80	21	27		
SKB.040.CTW08.080	8	80	21	27		
SKB.040.CTW10.080	10	80	24	32		
SKB.040.CTW12.080	12	80	24	32		
SKB.040.CTW14.080	14	80	27	34		
SKB.040.CTW16.080	18	80	27	34		
SKB.040.CTW18.080	18	80	33	42		
SKB.040.CTW20.080	20	80	33	42		
SKB.040.CTW25.100	25	100	44	51		



Accessori | Accessories

PULL STUDS

p. 130

Ricambi | Spare parts

RVR CTW

p. 186

SK
DIN 69871

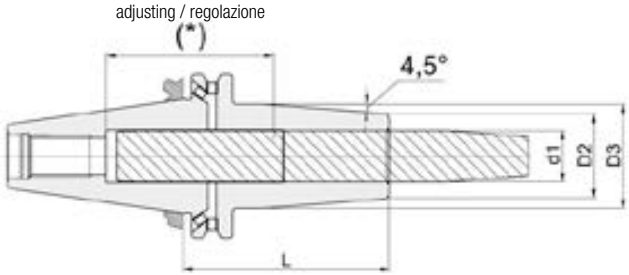
CTP 4,5°
(without back up screw)

Mandrino per calettamento termico estensibile, adatto per prolunghe
Extensible shrink fit-chuck suitable for extensions
Porte outils de frettage prolongeable approprié pour rallonges
Verlägerbares schrumpfutter geeignet fur verlangerungs

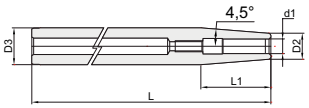
G 2,5 25.000 RPM or U<1 gmm | ≤3 µm | 4,5° | EXTENSIBLE | HSS h6 | HM h6 | HSC | HPC | CHIP

grip-plus
shrink fit technology

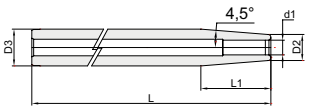
adjusting / regolazione



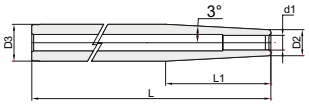
codice - code	dati tecnici - technical data					
	Ø d1	L	Ø D2	Ø D3	(*)	-
SKB 040 (AD+B) form						
SKB.040.CTP12.080	12	80	24	32	73	
SKB.040.CTP16.080	16	80	27	34	67	
SKB.040.CTP20.080	20	80	33	42	65	
SKB.040.CTP25.090	25	90	44	50	49	
SKB 050 (AD+B) form						
SKB.050.CTP16.130	16	130	27	34	138	
SKB.050.CTP20.130	20	130	33	42	136	
SKB.050.CTP25.130	25	130	44	53	109	
SKB.050.CTP32.130	32	130	44	53	105	
SKB.050.CTP25.250	25	250	44	67	109	



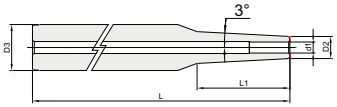
CIL CTO



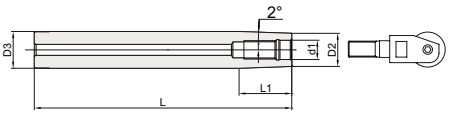
CIL CTP



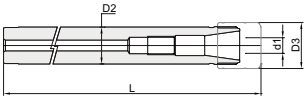
CIL CTF



CIL CTR



CIL MD



CIL ERM

Accessori | Accessories

PULL STUDS

p. 130

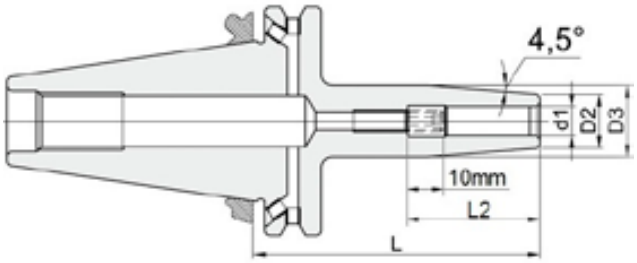
SK
DIN 69871

CTF 4,5°
(Slim)

Mandrino per calettamento termico di finitura
Finishing shrink fit chuck
Porte outils de frettage pour finissage
Schrumpfutter zum schlichten

G 2,5 25.000 RPM or U<1 gmm | ≤3 µm | 4,5° | Ø 3 - 4 - 5 | HM h6 | HSC | CHIP

grip-plus
shrink fit technology



codice - code	dati tecnici - technical data					
	Ø d1	L	Ø D2	Ø D3	-	-
SKB 040 (AD+B) form						
SKB.040.CTF03.080- 4,5°	3	80	9	19	No RVR	
SKB.040.CTF04.080- 4,5°	4	80	10	19	No RVR	
SKB.040.CTF05.080- 4,5°	5	80	11	19	No RVR	
SKB.040.CTF06.080- 4,5°	6	80	15	20		
SKB.040.CTF08.080- 4,5°	8	80	15	20		
SKB.040.CTF10.080- 4,5°	10	80	18	25		
SKB.040.CTF12.080- 4,5°	12	80	18	25		

Accessori | Accessories

PULL STUDS

p. 130

Ricambi | Spare parts

RVR CT

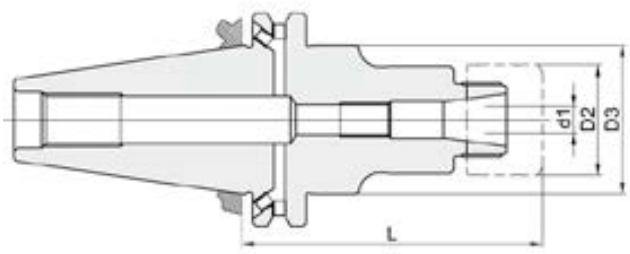
p. 186

SK
DIN 69871

ERO
(Standard)

Portapinze ER DIN 6499
Collet chuck ER DIN 6499
Porte pinces ER DIN 6499
Spannzangenfutter ER DIN 6499

≤5 µm



codice - code	dati tecnici - technical data					
	Ø d1	L	Ø D2	Ø D3	NUTS	-
SKA 030 (AD) form						
SKA.030.ER016.100.	0,5-10	100	32		RGS	
SKA 040 (AD) form - SKB 040 (AD+B) form						
SKA.040.ERM11.160 (MINI)	0,5-7	160	16	26	RGM mini	
SKA.040.ERM16.160 (MINI)	0,5-10	160	22	30	RGM mini	
SKB.040.ER016.070	0,5-10	70	32	44,5	RGS	
SKB.040.ER016.090	0,5-10	90	32	44.5	RGS	
SKB.040.ER016.120	0,5-10	120	32	44,5	RGS	
SKB.040.ER016.160	0,5-10	160	32	44.5	RGS	
SKB.040.ER020.070	1-13	70	35	44,5	RGS	
SKB.040.ER020.090.	1-13	90	35	44,5	RGS	
SKB.040.ER020.120	1-13	120	35	44,5	RGS	
SKB.040.ER020.160	1-13	160	35	44,5	RGS	
SKB.040.ER025.070	1,5-16	70	42		RGS	
SKB.040.ER025.090	1,5-16	90	42	44.5	RGS	
SKB.040.ER025.120	1,5-16	120	42	44.5	RGS	
SKB.040.ER025.160	1,5-16	160	42	44.5	RGS	
SKB.040.ER032.070	2,5-20	70	50		RGS	
SKB.040.ER032.100	2,5-20	100	50		RGS	
SKB.040.ER032.130	2,5-20	130	50		RGS	
SKB.040.ER032.160	2,5-20	160	50		RGS	
SKB.040.ER032.200.	2,5-20	200	50		RGS	
SKB.040.ER040.070	3-26	70	63		RGS	
SKB 050 (AD+B) form						
SKB.050.ER025.100	1,5-16	100	42	70	RGS	
SKB.050.ER025.160	1,5-16	160	42	70	RGS	
SKB.050.ER032.100	2,5-20	100	50	70	RGS	
SKB.050.ER032.160	2,5-20	160	50	70	RGS	
SKB.050.ER032.200	2,5-20	200	50	70	RGS	
SKB.050.ER040.100	3-26	100	63	70	RGS	
SKB.050.ER040.160	3-26	160	63	70	RGS	

Accessori | Accessories

PULL STUDS  p. 130

PER  p. 173

ACH GS  p. 179

ACH GM  p. 178

Ricambi | Spare parts

RGS  p. 179

RGM  p. 178

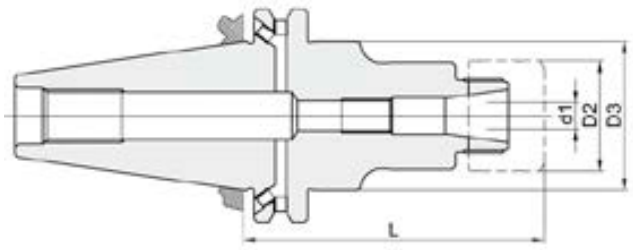
RVR ER  p. 186

SK
DIN 69871

ERH
(High Performance)

Portapinze di precisione ER DIN 6499
Precision collet chuck ER DIN 6499
Porte pinces de precision ER DIN 6499
Prazisions spannzangenfutter ER DIN 6499

G 2,5 25.000 RPM or U<1 gmm | ≤3 µm | HSC | CHIP

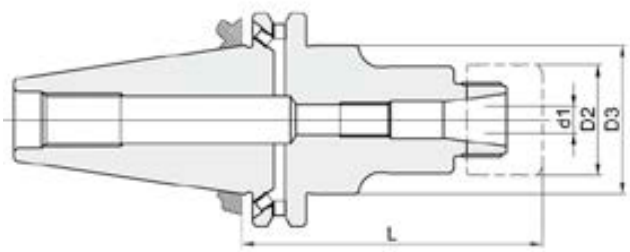


codice - code	dati tecnici - technical data					
	Ø d1	L	Ø D2	Ø D3	NUTS	-
SKA 040 (AD) form - SKB 040 (AD+B) form						
SKA.040.ERH11.090.	0,5-7	90	25	44,5	RGX	
SKA.040.ERH11.120.	0,5-7	120	25	44,5	RGX	
SKB.040.ERH16.070	0,5-10	70	32	44,5	RGE	
SKB.040.ERH16.090	0,5-10	90	32	44.5	RGE	
SKB.040.ERH16.120	0,5-10	120	32	44,5	RGE	
SKB.040.ERH16.160	0,5-10	160	32	44.5	RGE	
SKB.040.ERH20.070	1-13	70	35	44,5	RGE	
SKB.040.ERH20.120	1-13	120	35	44,5	RGE	
SKB.040.ERH20.160	1-13	160	35	44,5	RGE	
SKB.040.ERH25.070	1,5-16	70	42		RGE	
SKB.040.ERH25.090	1,5-16	90	42	44.5	RGE	
SKB.040.ERH25.120	1,5-16	120	42	44,5	RGE	
SKB.040.ERH25.160	1,5-16	160	42	44.5	RGE	
SKB.040.ERH32.070	2,5-20	70	50		RGE	
SKB.040.ERH32.100	2,5-20	100	50		RGE	
SKB.040.ERH32.130	2,5-20	130	50		RGE	
SKB.040.ERH32.160	2,5-20	160	50		RGE	
SKB.040.ERH40.070	3-26	70	63		RGE	

SK
DIN 69871

ERH
(High Performance)

Portapinze di precisione ER DIN 6499
Precision collet chuck ER DIN 6499
Porte pinces de precision ER DIN 6499
Prazisions spannzangenfutter ER DIN 6499



codice - code	dati tecnici - technical data					
	Ø d1	L	Ø D2	Ø D3	NUTS	-
SKB 050 (AD+B) form						
SKB.050.ERH25.100	1,5-16	100	42	70	RGE	
SKB.050.ERH25.160	1,5-16	160	42	70	RGE	
SKB.050.ERH32.100	2,5-20	100	50	70	RGE	
SKB.050.ERH32.160	2,5-20	160	50	70	RGE	
SKB.050.ERH32.200	2,5-20	200	50	70	RGE	
SKB.050.ERH40.100	3-26	100	63	70	RGE	
SKB.050.ERH40.160	3-26	160	63	70	RGE	

Optional

RGE - HSC (DIN 6499) Fine Balanced - Coated

Accessori | Accessories

PULL STUDS p. 130
PER p. 173
ACH GS p. 179
ACH GX p. 178

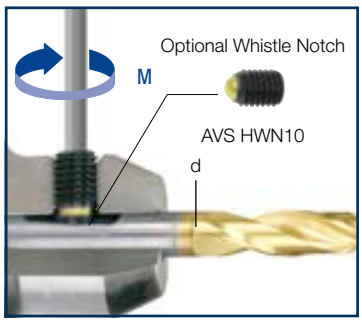
Ricambi | Spare parts

RGX p. 178
RGE p. 180
RVR ER p. 186

PU

Foratura MICKROS plus con utensili con gambo di diametro ≥ 14 mm
MICKROS plus punching with diameter stem tools ≥ 14 mm

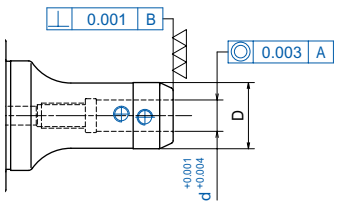
Particolare attenzione ha prestato la MICKROS plus a questa operazione, progettando e realizzando il prodotto “PU” che presenta i seguenti vantaggi rispetto ai tradizionali portautensili con attacco Whistle Notch (DIN 1835-E):



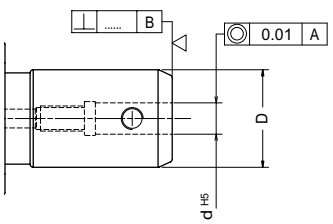
- Minore ingombro come illustrato in tabella
- Maggiore precisione di concentricità
- Maggiore precisione di coassialità
- Minore peso e maggiore bilanciabilità
- Maggiore resistenza alla torsione grazie alla posizione disassata dei grani di serraggio utensile.
- Possibilità di utilizzo di punte ad inserto con gambo diam. 40 anche su attacchi HSK 63
- Maggiore rigidità soprattutto nell’utilizzo di punte ad inserto con battuta
- Possibilità di utilizzare utensili di precisione con battuta (ottima applicazione con utensili speciali)
- Possibilità di usare grano con semisfera basculante **AVS HWN** 10 dal diam. 14 ÷ 25 per attacchi Whistle Notch.

d	Ø D - DIN 1835-E Whistle Notch	Ø D - MICKROS plus PU
14	48	36
16	48	38
18	52	40
20	52	42
25	63	48
32	71	58
40	-	64

PU - MICKROS plus



Whistle Notch - DIN 1835 E



MICKROS plus lent particular attention to this operation, designing and building the product “PU” that offers the following advantages in respect to the traditional toolbox with Whistle Notch fastening (DIN 1835-E):

- Fewer obstacles as shown in table
- Greater concentricity precision
- Greater axial precision
- Less weight and better balance
- Greater resistance to torsion thanks to offset position of tool tightening grains
- Possible to use insertion tips with stem diameter 40 also on HSK 63
- Greater rigidity above all in the use of tips to insert with abutting end
- Possible to use precision tools with abutting end (excellent application with special tools).

MICKROS plus a prêté une attention particulière à cette opération en concevant et en réalisant le produit “PU” qui présente les avantages suivants par rapport aux porte-outils traditionnels avec attache Whistle Notch (DIN 1835-E):

- Encombrement mineur comme illustré dans le tableau
- Plus grande précision de concentricité
- Plus grande précision de coaxialité
- Poids plus petit et plus grand équilibrage
- Plus grande résistance à la torsion grâce à la position désaxée des grains de serrage de l’outil
- Possibilité d’utilisation de forets à insertion avec tige de diamètre 40 même sur attaches HSK 63
- Plus grande rigidité surtout dans l’utilisation de forets à insertion avec butée
- Possibilité d’utiliser des outils de précision avec butée (application optimale avec des outils spéciaux)
- Possibility to use screw with horizontally pivoted halfsphere AVS HWN 10 from Ø 14 to Ø 25 for Whistle Notch type.

MICKROS plus hat besondere Aufmerksamkeit auf diese Bearbeitungsform verwendet und das Produkt “PU” entwickelt und realisiert, das im Vergleich zu den traditionellen Werkzeugträgern mit Aufnahme Whistle Notch (DIN 1835-E) folgende Vorteile aufweist:

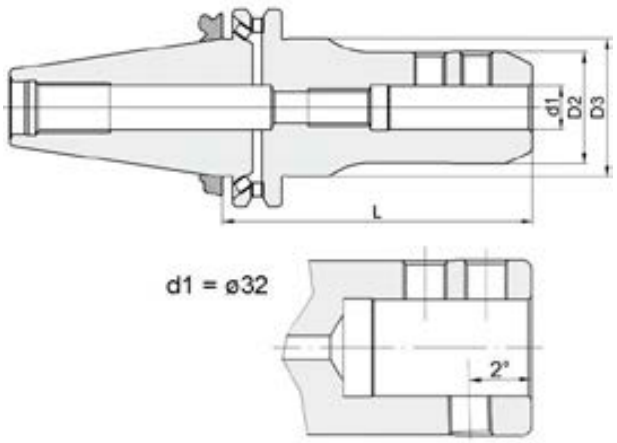
- Geringere Abmessungen wie in der Tabelle dargestellt
- Größere Genauigkeit der Konzentrizität
- Größere Präzision der Koaxialität
- Geringeres Gewicht und größere Auswuchtfähigkeit
- Größere Torsionsbeständigkeit dank der außerachsigen Position der Werkzeugspannstifte
- Möglichkeit zur Nutzung von Spitzeneinsätzen mit Schaftdurchmesser 40 auch an Aufnahmen HSK 63
- Größere Festigkeit vor allem bei Verwendung von Spitzeneinsätzen mit Anschlag
- Möglichkeit zur Verwendung von Präzisionswerkzeugen mit Anschlag (optimale Anwendung mit Spezialwerkzeugen).

SK
DIN 69871

PU
(DIN 6535 HB - HE)

Mandrino portapunte
Adapter for drilling tools
Porte-foret
Aufnahme für Vollbohrer

≤3 µm | HPC | CHIP



codice - code	dati tecnici - technical data					
	Ø d1	L	Ø D2	Ø D3	-	-
SKB 040 (AD+B) form						
SKB.040.PUH14.100.	14	100	36	44.5		
SKB.040.PUH16.100.	16	100	38	44.5		
SKB.040.PUH18.100.	18	100	40	44.5		
SKB.040.PUH20.100	20	100	42	44.5		
SKB.040.PUH25.100	25	100	48			
SKB.040.PUH32.080	32	80	58		No RVR	
SKB 050 (AD+B) form						
SKB.050.PUH20.080	20	80	42	70		
SKB.050.PUH25.080	25	80	48	70		
SKB.050.PUH32.080	32	80	58	70	No RVR	
SKB.050.PUH40.090	40	90	68		No RVR	
SKB.050.PUH14.140.	14	140	36	70		
SKB.050.PUH16.140.	16	140	38	70		
SKB.050.PUH18.140.	18	140	40	70		
SKB.050.PUH20.140.	20	140	42	70		
SKB.050.PUH25.140.	25	140	48	70		
SKB.050.PUH32.140.	32	80	58	70	No RVR	
SKB.050.PUH40.140.	40	140	68		No RVR	
SKB.050.PUH14.200.	14	200	36	70		
SKB.050.PUH16.200.	16	200	38	70		
SKB.050.PUH18.200.	18	200	40	70		

Accessori | Accessories

PULL STUDS  p. 130

ABR  p. 185

AVS  p. 185

Ricambi | Spare parts

RVU 5923  p. 187

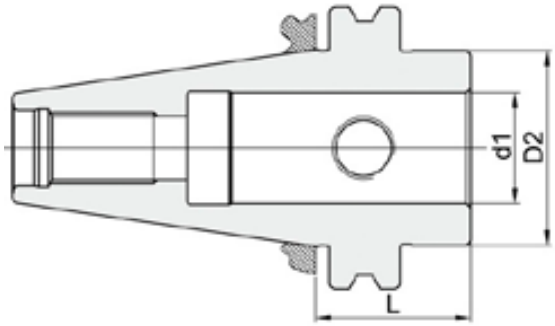
RVR WN  p. 187

SK DIN 69871

WEC Weldon (DIN 1835-B)

Portafrese Weldon corto
End-mill holder Weldon type short execution
Mandrin porte-fraise Weldon type court
Weldon-kegelaufnahme Kurze Ausführung

≤3 µm | HPC | CHIP



codice - code	dati tecnici - technical data					
	Ø d1	L	Ø D2	-	-	-
SKA 040 (AD) form - SKB 040 (AD+B) form						
SKA.040.WEC16.035	16	35	35			
SKA.040.WEC20.035	20	35	35			
SKA.040.WEC25.035	25	35	44			
SKA.040.WEC32.075	32	75	72			
SKB.040.WEC20.035	20	35	35			
SKB.040.WEC25.035	25	35	44			
SKB.040.WEC32.075	32	75	72			
SKA 050 (AD) form - SKB 050 (AD+B) form						
SKA.050.WEC20.040	20	40	35			
SKA.050.WEC25.040	25	40	50			
SKA.050.WEC32.044	32	44	70			
SKA.050.WEC40.052	40	52	74			
SKB.050.WEC25.040	25	40	50			
SKB.050.WEC32.044	32	44	70			
SKB.050.WEC40.052	40	52	74			

Accessori | Accessories

PULL STUDS

p. 130

Ricambi | Spare parts

RVD 1835

p. 187

WEH-WEW

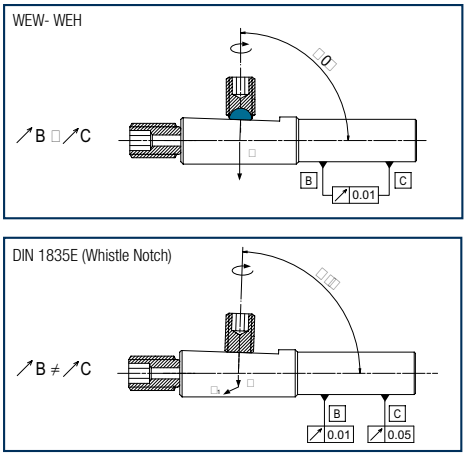
Foratura MICKROS plus con utensili con gambo di diametro ≤ 12 mm
MICKROS plus punching with diameter stem tools ≤ 12 mm

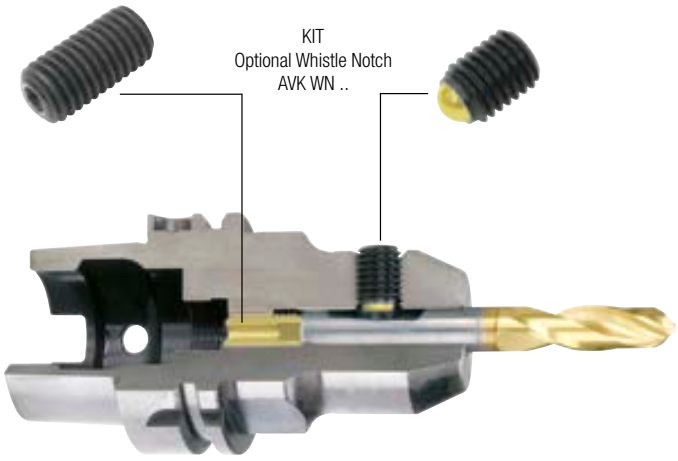
Tutti i mandrini WEW - WEH Mickros Plus dal diam. 6 al diam. 12 possono montare sia frese con gambo Weldon (DIN 1835-B) che punte con gambo Whistle Notch (DIN 1835-E) grazie al Kit optional “AVK WN…” composto da:
• Vite speciale con sfera oscillante per il serraggio di utensili con piano inclinato 2° “AVSH WN…”
• Grano di battuta per la regolazione assiale dell’utensile “RVR…”.

Vantaggi:
• Maggiore flessibilità: forare e fresare con un unico mandrino.
• Riduzione dei costi: nella maggioranza dei casi può sostituire i sistemi di serraggio idraulici.
• Maggiore precisione in foratura; la vite di serraggio con sfera spianata basculante blocca l’utensile agendo come un cuscinetto ed elimina l’attrito tra i piani (cosa che normalmente avviene con i sistemi DIN 1835E Whistle Notch a vite inclinata 2°) evitando la perdita di precisione in coassialità dovuta ad errori angolari (F; F1).

All of the spindles WEW - WEH Mickros Plus diameter from 6 to 12 can mount both cutters with Weldon stem (DIN 1835-B) and tips with Whistle Notch stem (DIN 1835-E) thanks to the Kit optional “AVK WN”. Made up of:
• Special screw with oscillating sphere for the tightening of tools with inclined layout 2” “AVSH WN”.
• Sprig striking beat for axial regulation of the “RVR” tool

Advantages:
• Greater flexibility: punch and mill with a single spindle.
• Lower costs: in most cases it can replace hydraulic tightening systems.
• Greater punching precision; the tightening screws with self-stabilizing levelled sphere blocks the tool while acting as a bearing and eliminating friction between the levels (which normally happens with DIN 1835 Whistle Notch systems with 2” inclined screw) and avoiding the loss of axial precision due to angular errors (F; F1).





Toutes les broches WEW - WEH Mickros Plus de diam. 6 au diam. 12 peuvent porter des fraises avec tige Weldon (DIN 1835-B) ainsi que des forets avec tige Whistle Notch (DIN 1835-E) grâce au jeu “AVK WN…” em option composé de:
• Vis spéciale avec bille oscillante pour le serrage des outils avec plan incliné 2° «AVSH WN…»
• Grain de butée pour la régulation axiale de l’outil “RVR…”.

Avantages:
• Plus grande flexibilité: percer et fraiser avec une unique broche.
• Réduction des coûts: dans la plupart des cas, elle peut remplacer les systèmes de serrages hydrauliques.
• Plus grande précision dans le perçage, la vis de serrage avec bille plate oscillante bloque l’outil en agissant comme un coussinet et élimine le frottement entre les plans (chose qui arrive normalement avec les systèmes DIN 1835E Whistle Notch à vis inclinée 2°) en évitant la perte de précision en coaxialité due à des erreurs angulaires (F;

Bei allen Werkzeugafnahmen WEW - WEH Mickros Plus von Durchmesser 6 bis Durchmesser 12 können sowohl Werkzeuge mit Schaft Weldon (DIN 1835-B) als auch Werkzeuge mit Schaft Whistle Notch (DIN 1835-E) montiert werden. Dazu ist optional das Kit “AVK WN…” erhältlich, das aus folgenden Elementen besteht:
• Spezialschraube mit Schwingkugel für das Einspannen von Werkzeugen mit 2° geneigter Ebene „AVSH WN…“
• Anschlagstift für die Axialregelung des Werkzeugs „RVR…“.

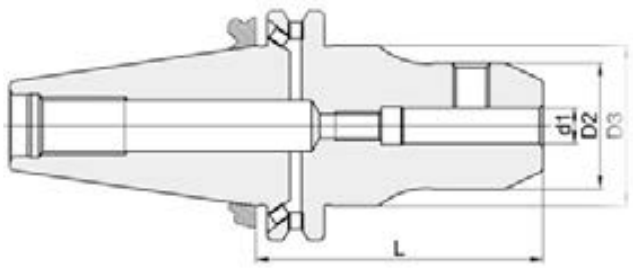
Vorteile:
• Größere Flexibilität: Bohren und Fräsen mit einer einzigen Werkzeugafnahme.
• Reduzierung der Kosten: Kann in den meisten Fällen die hydraulischen Einspannsysteme ersetzen.
• Größere Bohrpräzision: Die Spannschraube mit abgeflachter Schwingkugel blockiert das Werkzeug, indem es wie ein Lager wirkt, und vermeidet Reibung zwischen den Ebenen (die normalerweise mit den Systemen DIN 1835E Whistle Notch mit 2° geneigter Schraube eintritt), so dass ein Verlust der Koaxialitätspräzision durch Winkelfehler vermieden wird (F; F1).

SK
DIN 69871

WEH
(DIN 1835-B / 6535 HB)

Mandrini per attacchi Weldon - WN
Weldon - WN toolholders
Porte outils Weldon - WN
Weldon-WN aufnahme

≤3 µm | ON REQUEST | HPC | CHIP



codice - code	dati tecnici - technical data					
	Ø d1	L	Ø D2	Ø D3	-	-
SKB 040 (AD+B) form						
SKB.040.WEH06.060	6	60	25	44,5		
SKB.040.WEH08.060	8	60	28	44.5		
SKB.040.WEH10.065	10	65	35	44.5		
SKB.040.WEH12.065	12	65	42	44.5		
SKB.040.WEH14.065	14	65	44			
SKB.040.WEH16.070	23	70	48			
SKB.040.WEH18.070	18	70	50			
SKB.040.WEH20.070	20	70	52			
SKB.040.WEH25.100	25	100	65			
SKB.040.WEH32.100	32	100	72			
SKB.040.WEH08.100.	8	100	28	44.5		
SKB.040.WEH16.100.	16	100	48			
SKB.040.WEH08.130.	8	130	28	44.5		
SKB.040.WEH12.130.	12	130	42	44.5		
SKB.040.WEH16.130.	16	130	48			
SKB.040.WEH20.130.	20	100	52			
SKB 050 (AD+B) form						
SKB.050.WEH10.065	10	65	35	70		
SKB.050.WEH12.065	12	65	42	70		
SKB.050.WEH14.065	14	65	44	70		
SKB.050.WEH16.070	16	70	48	70		
SKB.050.WEH18.070	18	70	50	70		
SKB.050.WEH20.070	20	70	52	70		
SKB.050.WEH25.080	25	80	65			
SKB.050.WEH32.100	32	100	72			
SKB.050.WEH40.110	40	110	80			
SKB.050.WEH10.140.	10	140	35	70		
SKB.050.WEH06.200.	6	200	25	70		
SKB.050.WEH08.200.	8	200	28	70		
SKB.050.WEH10.200.	10	200	35	70		
SKB.050.WEH12.200.	12	200	42	70		
SKB.050.WEH16.200.	16	200	48	70		
SKB.050.WEH32.200.	32	200	72			

Accessori | Accessories

PULL STUDS

p. 130

AVK WN

p. 185

Ricambi | Spare parts

RVD 1835

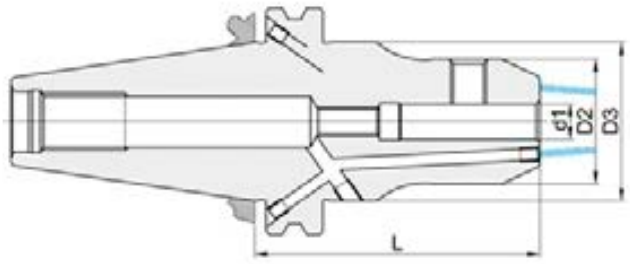
p. 187

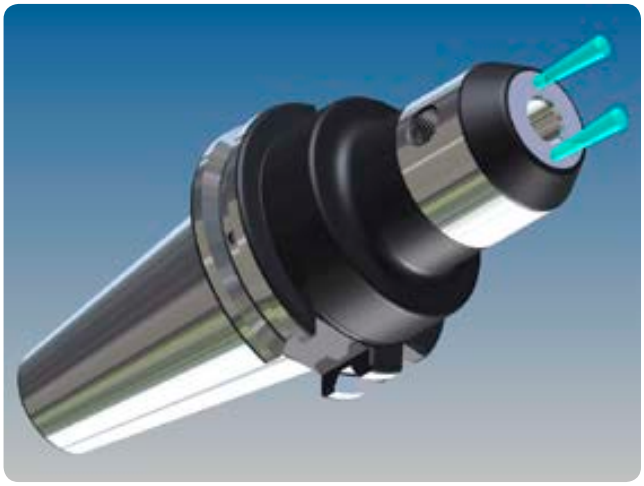
SK
DIN 69871

WEW Cooling Plus
(DIN 1835-B / 6535 HB)

Mandrini per attacchi Weldon – WN con canali di lubrificazione
Weldon – WN toolholders with coolant bores
Porte outils Weldon – WN avec conduits d'arrosage
Weldon-WN aufnahme mit kühlmittellbohrung

≤3 µm | HPC | CHIP





codice - code	dati tecnici - technical data					
	Ø d1	L	Ø D2	Ø D3	-	-
SKB 040 (AD+B) form						
SKB.040.WEW06.060	6	60	25	44.5		
SKB.040.WEW08.060	8	60	28	44.5		
SKB.040.WEW10.065	10	65	35	44.5		
SKB.040.WEW12.065	12	65	42	44.5		
SKB.040.WEW14.065	14	65	44			
SKB.040.WEW16.070	16	70	48			
SKB.040.WEW18.070	18	70	50			
SKB.040.WEW20.070	20	70	52			
SKB.040.WEW25.100	25	100	65			
SKB.040.WEW32.100	32	100	72			
SKB.040.WEW08.100.	8	100	28	44.5		
SKB.040.WEW10.100.	10	100	35	44.5		
SKB.040.WEW12.100.	12	100	42	44.5		
SKB.040.WEW16.100.	16	100	48			
SKB.040.WEW20.100.	20	100	52			
SKB.040.WEW06.130.	6	130	25	44.5		
SKB.040.WEW08.130.	8	130	28	44.5		
SKB.040.WEW10.130.	10	130	35	44.5		
SKB.040.WEW12.130.	12	130	42	44.5		
SKB.040.WEW16.130.	16	130	48			
SKB.040.WEW20.130.	20	130	52			

Accessori | Accessories

PULL STUDS

p. 130

AVK WN

p. 185

Ricambi | Spare parts

RVD 1835

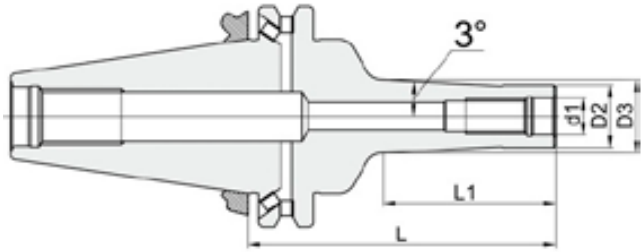
p. 187

SK
DIN 69871

MD0

Portafrese con filetto interno, per frese con attacco filettato
Cutter-Holder with modular threaded connection
Mandrin Porte-Fraise avec attachement modulaire filetè
Fraseraufnahme mit modular-gewinde aufnahme

G 2,5 25.000 RPM or U<1 gmm | ≤3 µm | 3° | 3° | HSC | CHIP



codice - code	dati tecnici - technical data					
	Ø d1	L	Ø D2	Ø D3	L1	-
SKB 040 (AD+B) form						
SKB.040.MD008.015	8,5-M8	50	13.5	13.5	15	
SKB.040.MD008.030	8,5-M8	70	13.5	14.5	30	
SKB.040.MD008.050	8,5-M8	90	13.5	16.5	50	
SKB.040.MD008.070	8,5-M8	110	13.5	19	70	
SKB.040.MD010.015	10,5-M10	50	18	18	15	
SKB.040.MD010.030	10,5-M10	70	18	19	30	
SKB.040.MD010.050	10,5-M10	90	18	21	50	
SKB.040.MD010.070	10,5-M10	110	18	23.5	70	
SKB.040.MD012.015	12,5-M12	50	21	21	15	
SKB.040.MD012.030	12,5-M12	70	21	22	30	
SKB.040.MD012.050	12,5-M12	90	21	24	50	
SKB.040.MD012.070	12,5-M12	110	21	26.5	70	
SKB.040.MD012.090	12,5-M12	130	21	28.5	90	
SKB.040.MD016.015	17-M16	50	29	29	15	
SKB.040.MD016.030	17-M16	70	29	29	30	
SKB.040.MD016.050	17-M16	90	29	32	50	
SKB.040.MD016.070	17-M16	110	29	34	70	
SKB.040.MD016.090	17-M16	130	29	36.5	90	

Accessori | Accessories

PULL STUDS

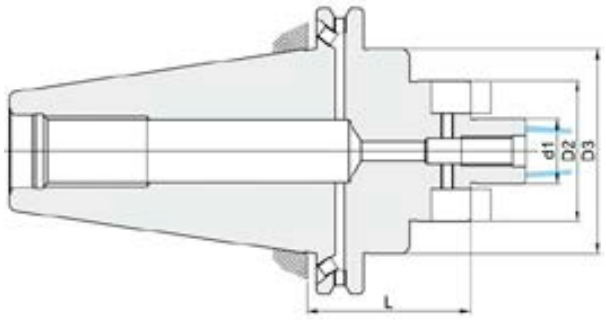
p. 130

SK
DIN 69871

FSW Cooling Plus
(DIN 6357-B)

Portafrese a spianare con trascinatore fisso - con canali di lubrificazione
Face mill arbor with coolant bores
Porte-fraises à surfacer avec conduits d'arrosage
Messerkopf- aufnahme mit Kühlmittelbohrun

≤3 µm | HPC | CHIP



codice - code	dati tecnici - technical data					
	Ø d1	L	Ø D2	Ø D3	-	-
SKA 040 (AD) form - SKB 040 (AD+B) form						
SKB.040.FSW16.050 - D2=32	16	50	32			
SKB.040.FSW16.050 - D2=38	16	50	38			
SKB.040.FSW22.052 - D2=48	22	52	48			
SKB.040.FSW27.055 - D2=58	27	55	58			
SKB.040.FSW32.060 - D2=70	32	60	70			
SKB.040.FSW32.060 - D2=78	32	60	78			
SKB.040.FSW40.060 - D2=83	40	60	83			
SKB.040.FSW40.060 - D2=87	40	87	87			
SKB.040.FSW16.090 - D2=38	16	90	38			
SKB.040.FSW22.090 - D2=48	22	90	48			
SKB.040.FSW27.090 - D2=58	27	90	58			
SKB.040.FSW32.090 - D2=70	32	90	70			
SKB.040.FSW32.090 - D2=78	32	90	78			
SKA.040.FS032.060.	32	60	70			
SKA.040.FS040.054.	40	54	83			
SKA.040.FS016.090.	16	90	32*	38		
SKA.040.FS022.090.	22	90	48			
SKA.040.FS027.090.	27	90	58			
SKA 050 (AD) form - SKB 050 (AD+B) form						
SKB.050.FSW22.056 - D2=48	22	56	48			
SKB.050.FSW27.056 - D2=58	27	56	58	70		
SKB.050.FSW32.056 - D2=78	32	56	78			
SKB.050.FSW40.060 - D2=83	40	60	83			
SKB.050.FSW40.060 - D2=87	40	60	87			
SKB.050.FSW22.100 - D2=48	22	100	48	62		
SKB.050.FSW22.112 - D2=48	22	112	48	62		
SKB.050.FSW27.100 - D2=58	27	100	58	70		
SKB.050.FSW32.100 - D2=78	32	100	78			
SKB.050.FSW40.100 - D2=87	40	100	87			
SKB.050.FSW22.160 - D2=48	22	160	48	62		
SKB.050.FSW27.160 - D2=58	27	160	58	70		
SKB.050.FSW32.160 - D2=78	32	160	78			
SKA.050.FS027.112	27	112	58	70		
SKA.050.FS032.112	32	112	70			
SKA.050.FS027.160.	27	160	58	70		
SKA.050.FS040.160.	40	160	83			
SKA.050.FS032.200.	32	200	70			
SKA.050.FS040.200.	40	200	83			

FS: senza canali di lubrificazione - without coolant bores

Ricambi | Spare parts

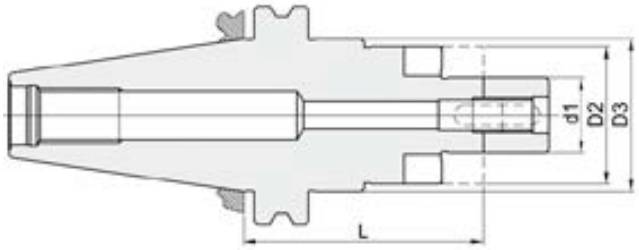
RVU 5931 p. 189
RCT FM/DP p. 189
RVU 5933 p. 189
RRS FM p. 190

SK
DIN 69871

FC
(DIN 6358)

Portafrese combinato con trascinatore mobile
Kmbi-shell mill arbor
Porte-fraise a double usage
Kombi-aufsteckfräsdorne

≤3 µm | HPC | CHIP



codice - code	dati tecnici - technical data					
	Ø d1	L	Ø D2	Ø D3	-	-
SKA 040 (AD) form						
SKA.040.FC016.055	16	55	32			
SKA.040.FC022.055	22	55	40			
SKA.040.FC027.055	27	55	48			
SKA.040.FC032.060	32	60	58			
SKA.040.FC040.060	40	60	70			
SKA.040.FC032.100.	32	100	58			
SKA 050 (AD) form						
SKA.050.FC022.055	22	55	40			
SKA.050.FC027.055	27	55	48			
SKA.050.FC032.055	32	55	58			
SKA.050.FC040.055	40	55	70			
SKA.050.FC032.125.	32	125	58	70		

Accessori | Accessories

PULL STUDS

p. 130

Ricambi | Spare parts

RVU 5933

p. 189

RRS FM

p. 190

RTD 6366

p. 190

RLU 6604

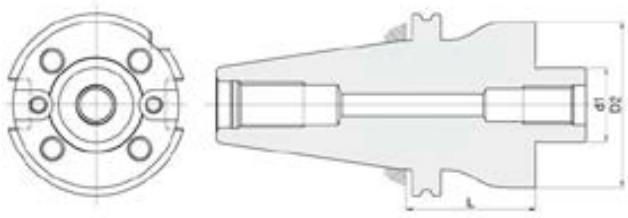
p. 190

SK DIN 69871

FF (DIN 6357-A / DIN 2079)

Portafrese flangiati per frese a spianare
Face mill holder for face milling cutters
Porte-fraise pour fraises a surfacer
Aufsteckfräserdorne für messerköpfe

≤3 µm | HPC | CHIP



codice - code	dati tecnici - technical data					
	Ø d1	L	Ø D2	-	-	-
SKA 050 (AD) form						
SKA.050.FF040.070	40	70	89			
SKA.050.FF060.070	60	70	128			

Ricambi | Spare parts

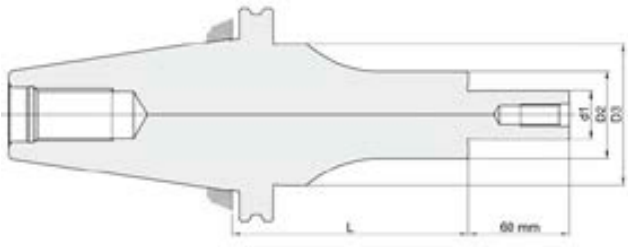
RVU 5931	RCT FM/DP	RVU 5933	RRS FM
			
p. 189	p. 189	p. 189	p. 190

SK DIN 69871

FD (DIN 6358)

Mandrino portafrese per frese a disco
Face mill holder for disc milling cutters

≤3 µm | HPC | CHIP



codice - code	dati tecnici - technical data					
	Ø d1	L	Ø D2	Ø D3	-	-
SKA 050 (AD) form						
SKC.050.FD027.160.	27	160	43	80		
SKC.050.FD032.160.	32	160	50	80		
SKC.050.FD040.160.	40	160	60	80		
SKC.050.FD050.160.	50	160	70	80		

Ricambi | Spare parts

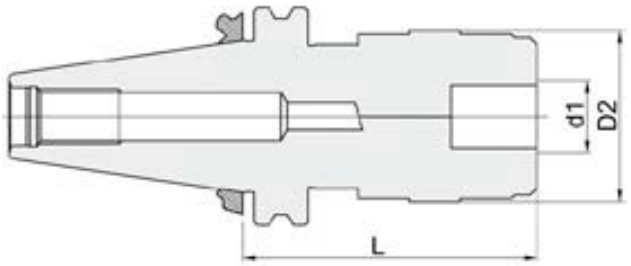
RVU 5933	RRS FM
	
p. 189	p. 190

SK
DIN 69871

MC

Maschiatore a cambio rapido con compensazione assiale senza passaggio lubrificante
Quick change tapping chuck with axial compensation without coolant flow
Appareil à thrauder avec changement rapid avec compensation axiale
Gewindeschneidfutter mit doppel längenausgleich

CHIP



codice - code	dati tecnici - technical data					
	Ø d1	L	Ø D2	Ø D3	-	-
SKA 040 (AD) form						
SKA.040.MC019.076 (...WEC20.035+CWE...MC019)	19	76	38	35	KOMBI	
SKA.040.MC031.098 (...WEC25.035+CWE...MC031)	31	98	55	44	KOMBI	
SKA.040.MC048.184 (...WEC32.075+CWE...MC048)	48	184	79	72	KOMBI	
SKA 050 (AD) form						
SKA.050.MC.019.081 (...WEC20.040+CWE...MC019)	19	81	38	35	KOMBI	
SKA.050.MC.031.103 (...WEC25.040+CWE...MC031)	31	103	55	50	KOMBI	
SKA.050.MC.048.153 (...WEC32.044+CWE...MC048)	48	153	79	72	KOMBI	

Accessori | Accessories

PULL STUDS

p. 130

ABM R/RW

p. 182

ABM F

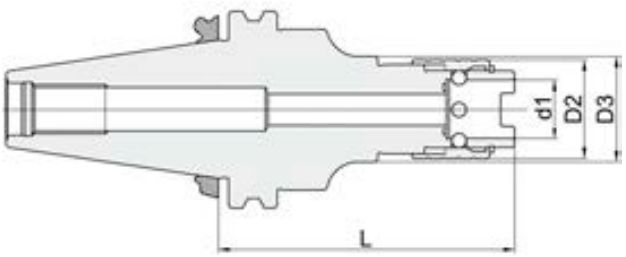
p. 183

SK
DIN 69871

MR

Maschiatore a cambio rapido senza compensazione assiale con passaggio lubrificante
Quick change tapping chuck without axial compensation with coolant flow
Appareil à thrauder avec changement rapid sans compensation axiale
Gewindeschneidfutter ohne längenausgleich

CHIP



codice - code	dati tecnici - technical data					
	Ø d1	L	Ø D2	Ø D3	-	-
SKA 040 (AD) form						
SKA.040.MR019.076 (...WEC20.035+CWE...MR019)	19	76	35	35	KOMBI	
SKA.040.MR031.098 (...WEC25.035+CWE...MR031)	31	98	50	44	KOMBI	
SKA.040.MR048.163 (...WEC32.075+CWE...MR048)	48	163	72	72	KOMBI	
SKA 050 (AD) form						
SKA.050.MR019.081 (...WEC20.040+CWE...MR019)	19	81	35	35	KOMBI	
SKA.050.MR031.103 (...WEC25.040+CWE...MR031)	31	103	50	50	KOMBI	
SKA.050.MR048.132 (...WEC32.044+CWE...MR048)	48	132	72	72	KOMBI	

Accessori | Accessories

PULL STUDS

p. 130

ABM R/RW

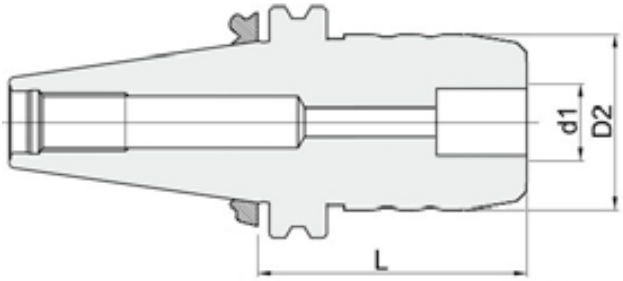
p. 182

ABM F

p. 183

Maschiatore sincronizzato (per bussole ABM-ER) con passaggio lubrificante
Sinkro tapping chucks (for Sinkro's tap adapter ABM-ER) with coolant flow
Sinkro-Gewindeschneidfutter (fur schnellwechseleinsatze SinKro ABM.ER)
Sinkro-appareil a taruder (pour douilles porte-taraud Sinkro ABM.ER)

CHIP



codice - code	dati tecnici - technical data					
	Ø d1	L	Ø D2	Ø D3	-	-
SKB 040 (AD+B) form						
SKB.040.MS020.053	20	53	43		ER16 M3÷12	INTEGRAL
SKB.040.MS032.090	32	90	60		ER25 M6÷20	INTEGRAL
SKB 050 (AD+B) form						
SKB.050.MS020.074 (...WEC25.040+CWE...MS020)	20	74	43		ER16 M3÷12	KOMBI
SKB.050.MS032.096 (...WEC25.040+CWE...MS032)	32	96	60		ER25 M6÷20	KOMBI

Accessori | Accessories

PULL STUDS

p. 130

ABM ER

p. 43

MS

Maschiatori per maschiatura sincronizzata “SINKRO”
Tapping chuck for syncronized tapping “SINKRO”

Sulle macchine con maschiatura rigida sincronizzata la compensazione assiale, anche se minima, è fondamentale per l’esecuzione di filetti in tolleranza, questa compensazione permette infatti di eliminare eventuali errori della macchina dovuti a difetti o giochi che inevitabilmente si vengono a creare.
Esiste una correlazione tra la durata del maschio per lavorazioni meccaniche e l’allineamento maschio-foro particolarmente evidente su maschi da M3 a M12.
Se il fissaggio del maschio nel maschiatore è tale da non garantire in punta al maschio un perfetto allineamento ed una perfetta assenza di gioco assiale, nell’esecuzione del filetto il maschio avrà un’usura rapida nelle prime spire dell’elica dovuta alle micro collisioni generate dallo scorretto imbocco con il foro da filettare.
Al contrario se il maschio è perfettamente allineato al foro ed anche perfettamente esente da giochi, quando inizia a filettare, la durata del maschio aumenta in modo evidente, fino a tre volte la durata solita.

Caratteristiche tecniche:
- Capacità di maschiatura: M3 - M12; M6 - M20; M14 - M33
- Perfetto allineamento maschio - foro
- Durata del maschio tripla rispetto ad un sistema di maschiatura tradizionale
- Cambio rapido del maschio e della bussola
- Adatto per maschiatura rigida sincronizzata con compensazione in sfilamento (1 mm) ed in rientro (0,2 mm) per serie **M3 - M12 e M6 - M20** e con compensazione in sfilamento (2 mm) ed in rientro (0,4 mm) per serie **M14 - M33**
- Predisposto per il passaggio della lubrificazione fino a 50 bar
- Ingombro ridotto

La filettatura rigida sincronizzata presuppone una macchina atta a sincronizzare la rotazione del mandrino principale ed il movimento di avanzamento. Oggi questa è generalmente una caratteristica standard dei centri di lavoro.
L’esperienza ha dimostrato che al momento dell’inversione di rotazione la sincronia non è sempre garantita al 100%. In tal caso si producono in parte sull’utensile forze assiali molto elevate.
I maschi per filettatura sincrona possono essere alloggiati sia nei comuni mandrini Weldon che nei portautensili a pinze. Entrambi gli elementi di serraggio presentano lo svantaggio, che le forze assiali prodotte non possono essere compensate nell’inversione.

On rigid tapping we need a minimum compensation to absorb eventual errors between feed rate and pitch of the thread. Analysis showed that there is a correlation between the alignment of the tap and hole especially on small taps from M3 to M12.
If the alignment isn’t perfect than the tap wears out easily because the tap touches the flanks of the hole because of a slight radial play. On the other hand we found that if there is no radial play involved the tool life can be increased drastically.

Technical features:
- Tap capacity: M3 - M12; M6 - M20; M14 - M33;
- Perfect line up tap-hole
- Triple life of tap in comparison to a traditional tapping system
- Quick change of the tap and the adapter
- Suitable for rigid tapping with a micro compensation in extension (1 mm) and (0,2 mm) in compression type **M3 - M12 and M6 - M20** and compensation in extension (2 mm) and (0,4 mm) in compression type **M14 - M33**
- Possible coolant flow till 50 bar
- Reduced dimensions.

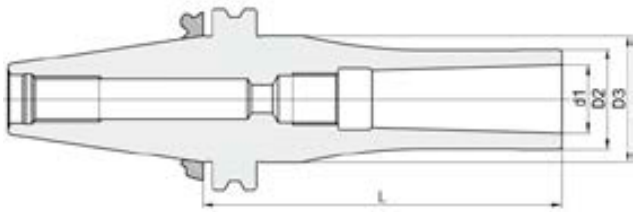
With rigid tapping we need a machining centre with a rigid tapping program. This has become a standard feature nowadays.
Our experience showed us at the very critical moment of inverting the sense of the machine the synchronisation is not always 100% granted. In that case there is a high pressure on the flanks of the tap.
Taps for synchronized tapping can be placed in Weldon tapping chucks or in collect chucks. In both cases axial forces can not be compensated during the inversion.

SK
DIN 69871

RF
(DIN 228-1 Form A)

Riduzione Cono Morse per frese
Morse adapter for milling cutter
Porte-fraise avec raccord CM
Morse-kegel-aufnahme
mit Anzuggewinde

≤5 µm | HPC | CHIP



codice - code	dati tecnici - technical data					
	Ø d1	L	Ø D2	Ø D3	-	-
SKA 040 (AD) form						
SKA.040.RF001.050	MORSE 1	50	25	44.5		
SKA.040.RF002.060	MORSE 2	60	32	44.5		
SKA.040.RF003.090	MORSE 3	90	34	44.5		
SKA.040.RF002.100.	MORSE 2	100	28	44.5		
SKA.040.RF003.112.	MORSE 3	112	32	44.5		
SKA 050 (AD) form						
SKA.050.RF002.060	MORSE 2	60	32	70		
SKA.050.RF003.065	MORSE 3	65	40	70		
SKA.050.RF004.095	MORSE 4	95	48	70		
SKA.050.RF003.180.	MORSE 3	180	32	70		

Accessori | Accessories

PULL STUDS  p. 130

ACH RF  p. 188

Ricambi | Spare parts

RBF RF  p. 188

RVS RF  p. 188

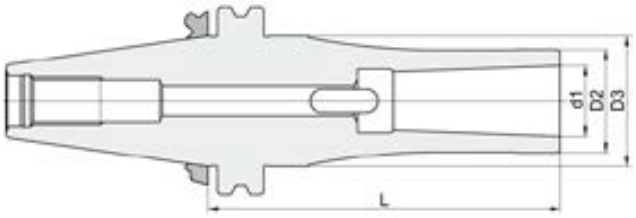
SK
DIN 69871

RP
(DIN 228-1 Form B)

Riduzione Cono Morse per punte
Morse-adapter for drilling tools
Porte-foret avec raccord CM
Morse-kegel-aufnahme

≤5 µm

CHIP



codice - code	dati tecnici - technical data					
	Ø d1	L	Ø D2	Ø D3	-	-
SKA 040 (AD) form						
SKA.040.RP001.050	MORSE 1	50	25	44,5		
SKA.040.RP002.050	MORSE 2	50	32	44.5		
SKA.040.RP003.070	MORSE 3	70	40	44.5		
SKA.040.RP004.095	MORSE 4	95	48			
SKA.040.RPF01.112.	MORSE 1	112	25	44,5		
SKA.040.RPF02.125.	MORSE 2	125	32			
SKA 050 (AD) form						
SKA.050.RP002.060	MORSE 2	60	32			
SKA.050.RP003.065	MORSE 3	65	40			
SKA.050.RP004.095	MORSE 4	95	48			

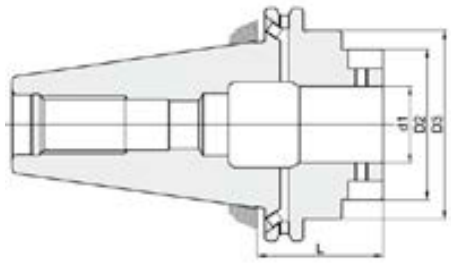
Accessori | Accessories

PULL STUDS

p. 130

SK DIN 69871 DP

Sistema modulare DP
Modular system DP



codice - code	dati tecnici - technical data					
	Ø d1	L	Ø D2	-	-	-
SKB 040 (AD+B) form						
SKB.040.DP063.050.	32	50	63			
SKA 050 (AD) form - SKB 050 (AD+B) form						
SKB.050.DP063.052	32	52	63			
SKB.050.DP080.052	40	52	78			
SKA.050.DP063.140.	32	140	63			

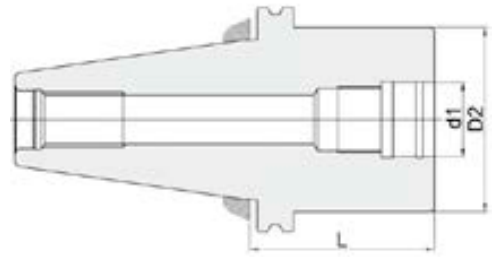
Accessori | Accessories

PULL STUDS

p. 130

SK DIN 69871 VAR

Sistema modulare VAR
Modular system VAR



codice - code	dati tecnici - technical data					
	Ø d1	L	Ø D2	-	-	-
SKA 040 (AD) form						
SKA.040.VAR63.050.	32	50	63			
SKA 050 (AD) form						
SKA.050.VAR50.027.	27	27	50			
SKA.050.VAR50.050.	27	50	50			
SKA.050.VAR63.027.	32	27	63			
SKA.050.VAR63.090.	32	90	63			

Ricambi | Spare parts

RBF VAR

p. 191

RVS VAR

p. 191

Spina di controllo
Control pin
Barre de contrôle
Prüfdorn

codice - code	dati tecnici - technical data					
	Ø d1	L	-	-	-	-
SKA 040 (AD) form						
SKA.040.CC040.315	40	315				

Accessori | Accessories

PULL STUDS

p. 130

Tiranti per DIN 69871
Pull studs for DIN 69871

CARATTERISTICHE TECNICHE:
- Costruiti in acciaio da cementazione legati al NiCrMo
- Cementati profondità 0,5-0,7 mm; temprati, rinvenuti, sabbiati e bruniti HRC60±2
- Rettificati su tutto il profilo di aggancio e sede mandrino

TECNICHAL FEATURES:
- Made of hardened NiCrMo steel alloy
- case hardened to 0,5-0,7 mm, hardened, tempered, sandblasted and polished HRC60 ± 2
- Ground on all the coupling profile and spindle seat

DIN 69872 - 75° p. 131

ISO 7388/2 A - 75° p. 131

ISO 7388/2 B - 45° p. 132

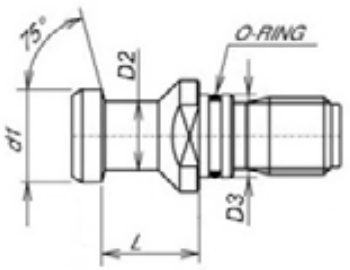
CAT METRIC - 45° p. 132

OTT / DIN 69871 p. 133

SK
DIN 69871

DIN 69872 - 75°

Tiranti per DIN 69871
Pull studs for DIN 69871
Tirettes pour DIN 69871
Anzugsbolzen für DIN 69871



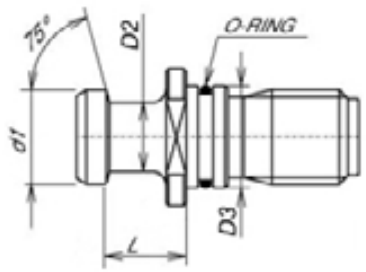
(D75) DIN 69872

codice - code	dati tecnici - technical data					
	Ø d1	L	Ø D2	Ø D3	HOLE	Tool Shank
DIN 69872 FORM-A - 75° WITH COOLANT BORE - FORATO						
T40.D75.01920.54A	19	20	14	17 M16	7	SK40
T50.D75.02825.74A	28	25	21	25 M24	11,5	SK50
T50.D75.02825.74A-F8	28	25	21	25 M24	8	SK50
DIN 69872 FORM-A - 75° WITH COOLANT BORE - FORATO DOUBLE O-RING						
T40.D75.01920.54D	19	20	14	17 M16	7	SK40
DIN 69872 FORM-B - 75° WITHOUT COOLANT BORE - SENZA FORO						
T30.D75.01319.44B	13	19	9	13 M12	-	SK30
T40.D75.01920.54B	19	20	14	17 M16	-	SK40
T50.D75.02825.74B	28	25	21	25 M24	-	SK50

SK
DIN 69871

ISO 7388/2 A-75°

Tiranti per DIN 69871
Pull studs for DIN 69871
Tirettes pour DIN 69871
Anzugsbolzen für DIN 69871



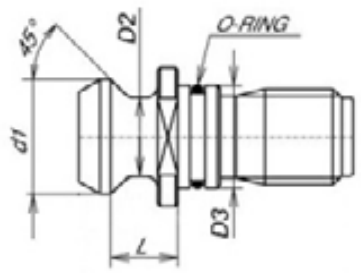
(I75) ISO 7388/2-A

codice - code	dati tecnici - technical data					
	Ø d1	L	Ø D2	Ø D3	HOLE	Tool Shank
ISO 7388/2 A - 75° WITH COOLANT BORE - FORATO						
T40.I75.01920.54A	19	20	14	17 M16	7	SK40
T50.I75.02825.74A	28	25	21	25 M24	11,5	SK50
ISO 7388/2 A - 75° WITHOUT COOLANT BORE - SENZA FORO						
T40.I75.01920.54B	19	20	14	17 M16	-	SK40
T50.I75.02825.74B	28	25	21	25 M24	-	SK50
T50.I75.02825.74C CHIP	28	25	21	25 M24	Chip 10x4,7	SK50
T50.I75.02825.74C CHIP	28	25	21	25 M24	Chip 12x8,4	SK50

SK
DIN 69871

ISO 7388/2 B - 45°

Tiranti per DIN 69871
Pull studs for DIN 69871
Tirettes pour DIN 69871
Anzugsbolzen für DIN 69871



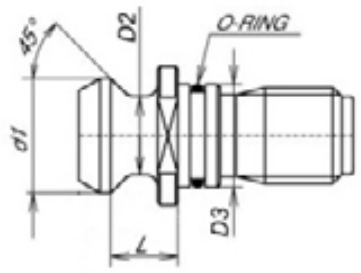
(I45) ISO 7388/2-B

codice - code	dati tecnici - technical data					
	Ø d1	L	Ø D2	Ø D3	HOLE	Tool Shank
ISO 7388/2 B - 45° WITH COOLANT BORE - FORATO						
T40.I45.01911.45A	18,95	11,15	12,95	17 M16	7	SK40
T50.I45.02918.66A	29,10	17,95	19,60	25 M24	11,5	SK50
ISO 7388/2 B - 45° WITHOUT COOLANT BORE - SENZA FORO						
T40.I45.01911.45B	18,95	11,15	12,95	17 M16	-	SK40
T50.I45.02918.66B	29,10	17,95	19,60	25 M24	-	SK50

SK
DIN 69871

CAT METRIC - 45°

Tiranti per DIN 69871
Pull studs for DIN 69871
Tirettes pour DIN 69871
Anzugsbolzen für DIN 69871

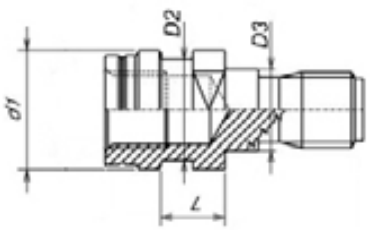


(C45) CAT - METRIC

codice - code	dati tecnici - technical data					
	Ø d1	L	Ø D2	Ø D3	HOLE	Tool Shank
CAT METRIC - 45° WITH COOLANT BORE - FORATO						
T40.C45.01911.41A	18,8	11,17	12,45	17 M16	7	SK40
T50.C45.02918.65A	28,95	17,78	20,83	25 M24	10	SK50
CAT METRIC - 45° WITHOUT COOLANT BORE - SENZA FORO						
T40.C45.01911.41B	18,8	11,17	12,45	17 M16	-	SK40

OTT/DIN 69871

Tiranti per DIN 69871
Pull studs for DIN 69871
Tirettes pour DIN 69871
Anzugsbolzen für DIN 69871



OTT-SYSTEM
(TAPER DIN 69871)

codice - code	dati tecnici - technical data					
	Ø d1	L	Ø D2	Ø D3	HOLE	Tool Shank
OTT / DIN 69871 WITH COOLANT BORE - FORATO						
T40.0TT.S2080.53A	25	14,52	21,1	17 M16		SK40
T50.0TT.S2080.65A	39,6	14	32	25 M24		SK50
OTT / DIN 69871 WITHOUT COOLANT BORE - SENZA FORO						
T40.0TT.S2080.53B	25	14,52	21,1	17 M16	-	SK40
T50.0TT.S2080.65B	39,6	14	32	25 M24	-	SK50