

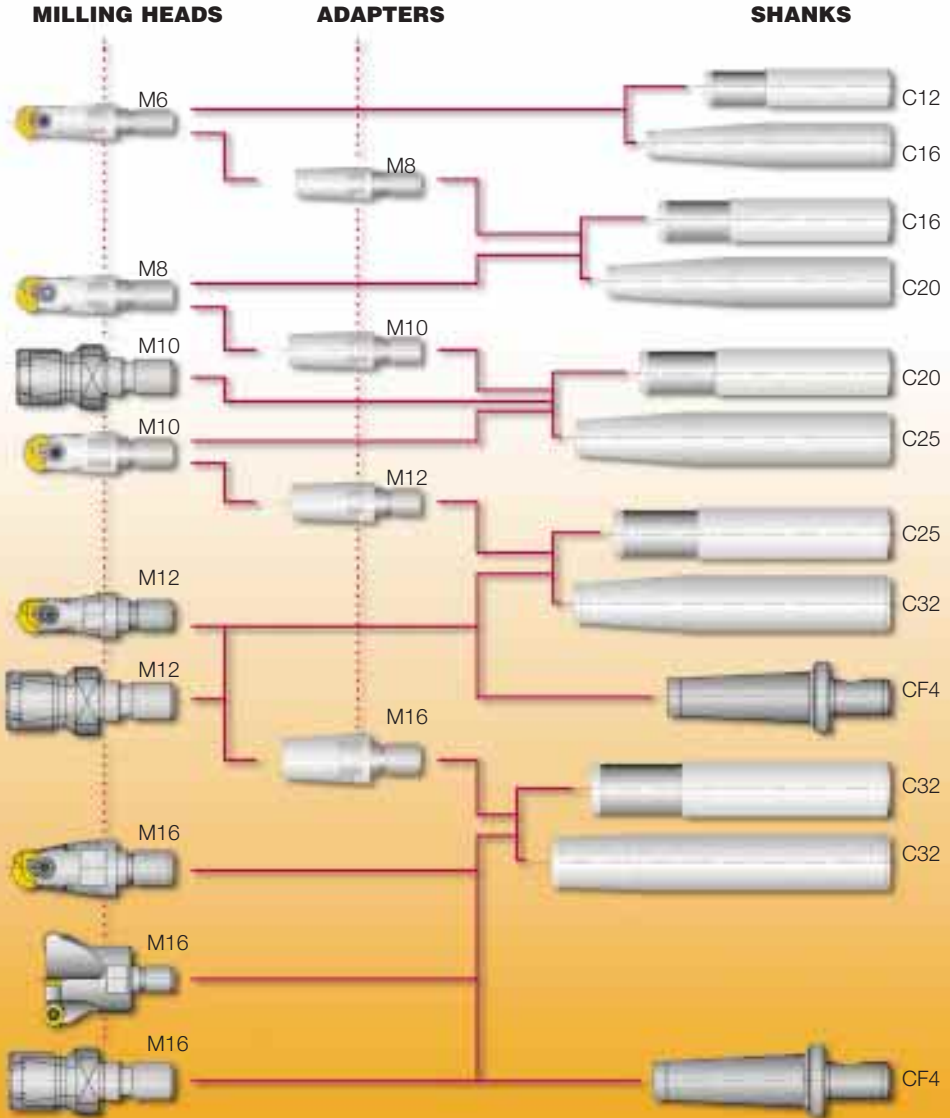
HELIBALL with FLEXFIT

FLEXFIT expands applications possible with HELIBALL for the mold and die industry. FLEXFIT uses the regular HELIBALL inserts CR and CRF. This covers the range of 8 to 25mm for CR inserts and the range of 12 to 25 mm for CRF inserts.

Features:

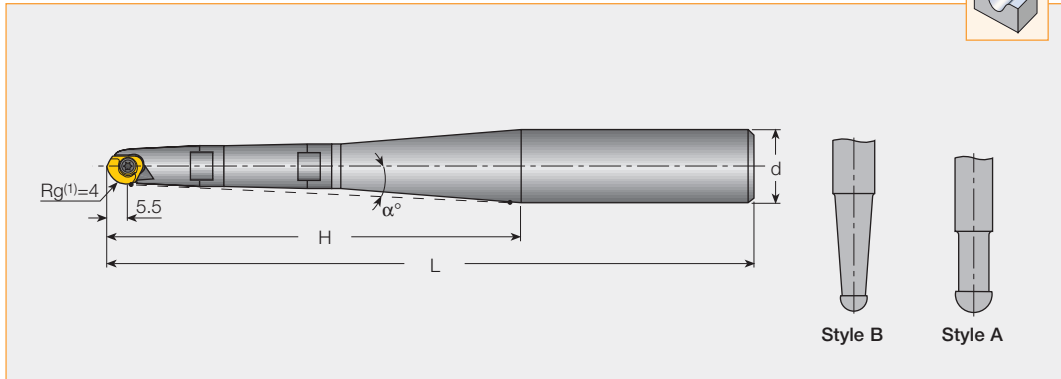
1. Enables machining with larger overhang.
2. The same CDP head can be mounted on the metric and inch combinations.
3. It is possible to mount both metric and inch inserts on the same head.
4. The modular system reduces stock cost by using the same head with different shank options.

Interchangeable Milling Heads and Collet Chucks for Modular Shanks and Adapters




HELIBALL • FLEXFIT

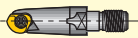
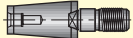
Ball Nose End Mills



CM D08 Integral

Integral	H	L	α°	d	Style	 Kg
CM D08-A-W12	25	80	0	W12	A	0.85
CM D08-B-C12	45	120	3	C12	B	1.25

Parts for Assembly

Milling Head	Adaptor	Shank	H	L	α°	d	Style
 CDP D08/.31-M6		S M6-L105-C12	83	128	2.8	C12	B
		S M6-L125-C16	83	148	2.8	C16	B
	CAB M6 M8	S M08-L128-C16	133	181	3.2	C16	B
		S M08-L170-C20	119	223	3.2	C20	B

(1) Radius generated on workpiece.
 Inserts: CR D080...



Milling Head

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Adaptor

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Inserts

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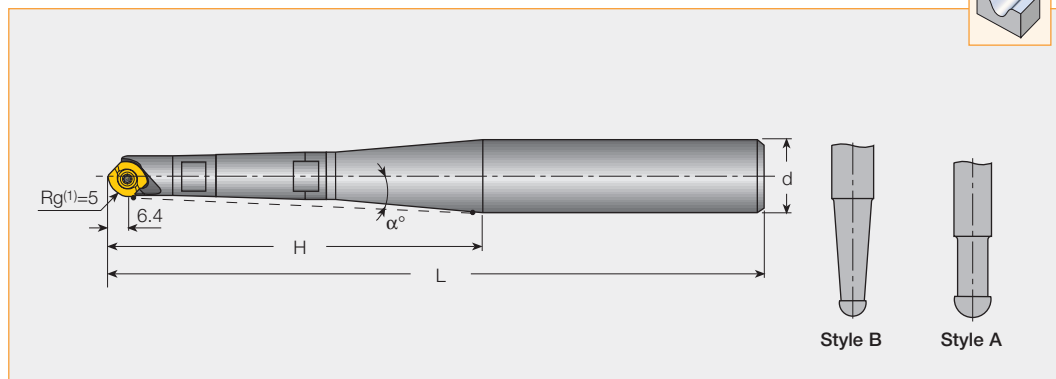


Shanks


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HELIBALL • FLEXFIT

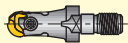
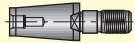
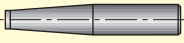
Ball Nose End Mills



CM D10 Integral

Integral	D	H	L	α°	d	Style	 Kg
CM D10-A-W12	10	25	90	0	W12	A	0.07
CM D10-B-C16	10	50	150	3	C16	B	0.20

Parts for Assembly

Milling Head	Adaptor	Shank						
			D	H	L	α°	d	Style
CDP D10/.38-M8	—	S M6-L105-C12	10	110	158	4.3	C12	B
		S M6-L125-C16	10	96	200	4.3	C16	B
	CAB M8 M10	S M08-L128-C16	10	150	200	4.3	C16	B
		S M08-L170-C20	10	127	270	4.3	C20	B

(1) Radius generated on workpiece.
Inserts: CR D100...



Milling Head

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Adaptor

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Inserts

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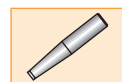
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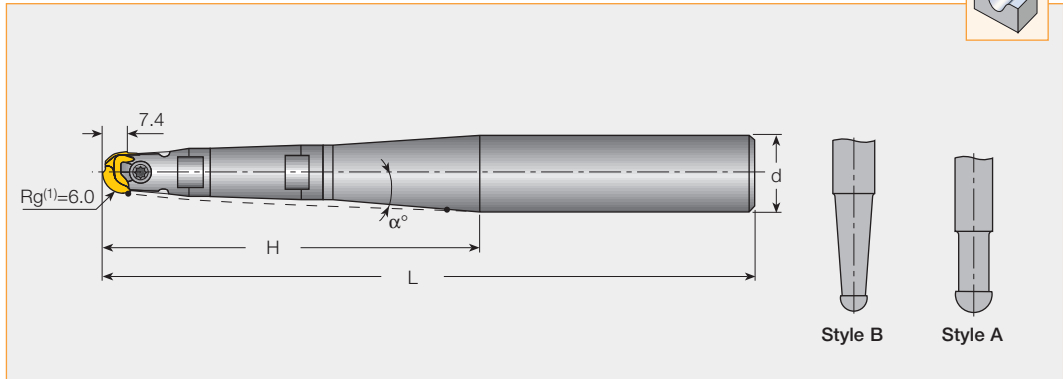


Shanks


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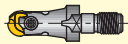
Ball Nose End Mills



CM D12 Integral

Integral	D	H	L	α°	d	Style	 Kg
CM D12-A-W12	12	30	120	0	W12	A	0.10
CM D12-B-C16	12	60	160	3	C16	B	0.22

Parts for Assembly

Milling Head	Adaptor	Shank	D	H	L	α°	d	Style
 CDP D12/.50-M8	—	S M8-L128-C16	12	110	158	4.3	C16	B
		S M8-L170-C20	12	96	200	4.3	C20	B
	CAB M8 M10	S M10-L130-C20	12	150	200	4.3	C20	B
		S M10-L200-C25	12	127	270	3.8	C25	B

(1) Radius generated on workpiece.
 Inserts: CR D120...



Milling Head

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Inserts

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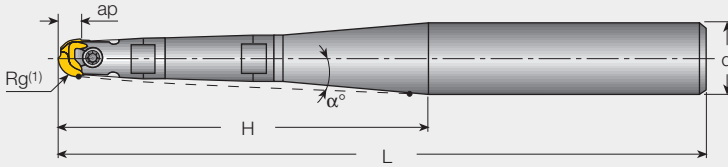


Shanks

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HELIBALL • FLEXFIT

Ball Nose End Mills




Style B

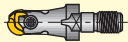
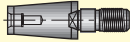



Style A

CM D16/D18 Integral

Integral	ap	Rg ⁽¹⁾	D	H	L	α°	d	Style	 Kg
CM D16-A-C16	9.4	8	16	36	130	0	C16	A	0.18
CM D16-B-C20	9.4	8	16	65	160	3	C20	B	0.33
CM D18-A-W20	12.8	9	18	40	140	0	W20	A	0.30
CM D18-B-C25	12.8	9	18	70	180	3	C25	B	0.56

Parts for Assembly

Milling Head	Adaptor	Shank	D	H	L	α°	d	Style
								
CDP D16/.62-M10	—	S M10-L130-C20	16	125	175	2.6	C20	B
		S M10-L200-C25	16	102	245	2.7	C25	B
	CAB M10 M12	S M12-L86-C25	16	120	176	2.6	C25	B
		S M12-L200-C32	16	168	290	2.9	C32	B

⁽¹⁾ Radius generated on workpiece.

Inserts: CR D160...

CR D180...



Milling Head

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Adaptor

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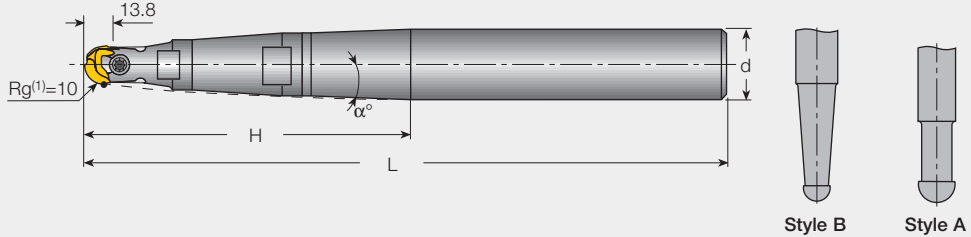


Shanks


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HELIBALL • FLEXFIT

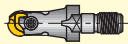
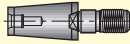

Ball Nose End Mills



CM D20 Integral

Integral	D	H	L	α°	d	Style	 Kg
CM D20-A-W20	20	60	150	0	W20	A	0.34
CM D20-B-C25	20	85	200	2	C25	B	0.80
CM D20-A-C20	20	50	150	0°	C20	A	0.32

Parts for Assembly

Milling Head	Adaptor	Shank	D	H	L	α°	d	Style
 CDP D20/.75-M20	 CAB M12 M16	 S M12-L086-C25	20	85	141	1.9	C25	B
		S M12-L200-C32	20	132	255	2.8	C32	B
		S M16-L095-C32	20	140	200	2.9	C32	B
		S M16-L230-C32	20	155	335	2.9	C32	B

(1) Radius generated on workpiece.
 Inserts: CR D200...



Milling Head

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Adaptor

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Inserts

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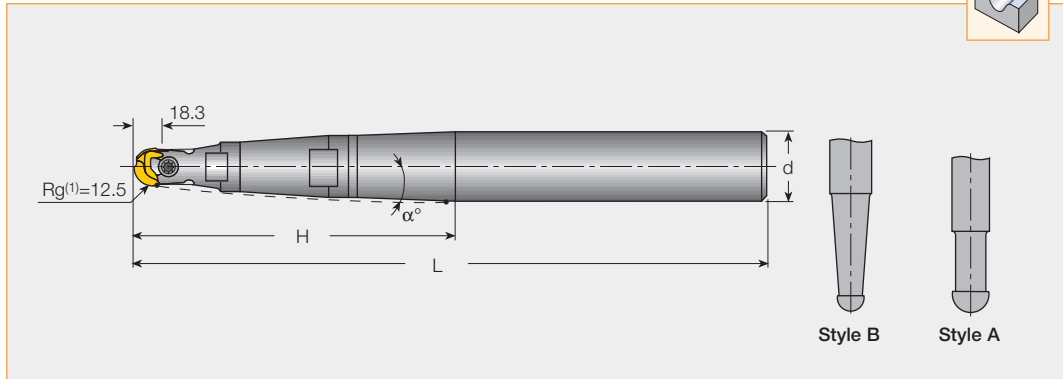


Shanks

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HELIBALL • FLEXFIT

Ball Nose End Mills



CM D25 Integral

Integral	D	H	L	α°	d	Style	Kg
CM D25-A-W25	25	70	170	0	W25	A	0.55
CM D25-B-C32	25	125	250	1.7	C32	B	1.50
CM D25-B-W32	25	125	250	1.7	W32	B	1.50

Parts for Assembly

Milling Head	Adaptor	Shank	D	H	L	α°	d	Style
CDP D25/1.0-M12	CAB M12 M16	S M12-L086-C25	25	89	146	0	C25	A
		S M12-L200-C32	25	137	260	1.6	C32	B
		S M16-L095-C32	25	144	205	1.5	C32	B
		S M16-L230-C32	25	159	340	1.4	C32	B
CDP D25/1.0-M16	—	S M16-L095-C32	25	95	155	2.8	C32	B
		S M16-L230-C32	25	110	290	2.2	C32	B

⁽¹⁾ Radius generated on workpiece.
Inserts: CR D250...



Milling Head

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Adaptor

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Inserts

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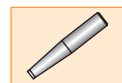
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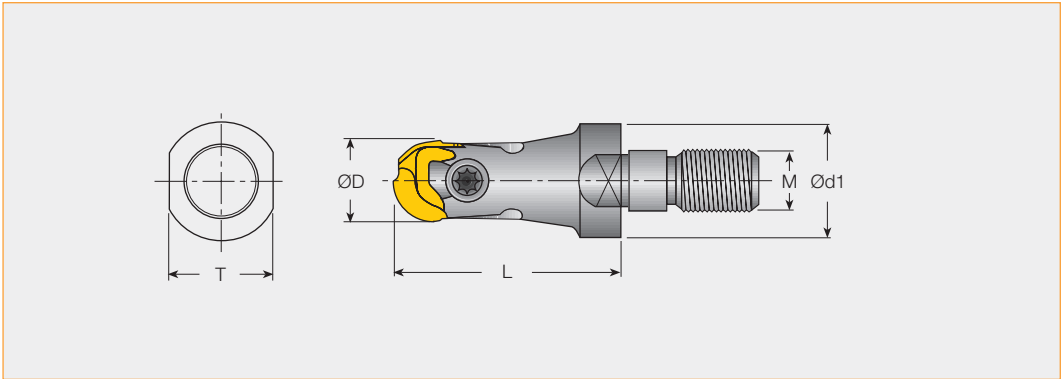


Shanks


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HELIBALL • FLEXFIT

Ball Nose



CDP D-M

Designation	D	d ₁	L	M	T	 Kg
CDP D08/.31-M6	8	9.7	23	6	8	0.02
CDP D10/.38-M8	10	13	30	8	10	0.02
CDP D12/.50-M8	12	13	30	8	10	0.02
CDP D16/.62-M10	16	18	45	10	15	0.15
CDP D20/.75-M12	20	21	55	12	17	0.19
CDP D25/1.0-M12	25	21	60	12	17	0.24
CDP D25/1.0-M16	25	29	60	16	25	0.30



Inserts

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Spare Parts

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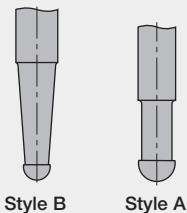
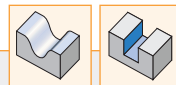


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HELIBALL

BALL NOSE END MILLS DIAMETER RANGE 30-50 mm



CM

Designation	D	Rg ⁽¹⁾	Z	ap	Zeff	C	H	L	α°	d	Style	 Kg
CM D30-A-W32	30	15	3	15	2	—	65	160	0	W32	A	0.78
CM D32-A-C32	32	16	3	16	2	—	65	160	0	C32	A	0.88
CM D32-A-W32	32	16	3	16	2	—	65	160	0	W32	A	0.87
CM D32-B-W40	32	16	3	16	2	80	125	250	2	W40	B	2.00
CM D40-A-W32	40	20	4	20	2	—	88	160	0	W32	A	1.10
CM D40-B-W40	40	20	4	20	2	—	125	250	0	W40	B	2.21
CM D50-A-W32	50	25	6	—	2	—	80	140	0	W32	A	1.20
CM D50-A-W50	50	25	6	25	2	—	100	200	0	W50	A	2.60

Inserts: CR D..

⁽¹⁾ Radius generated on workpiece



Inserts

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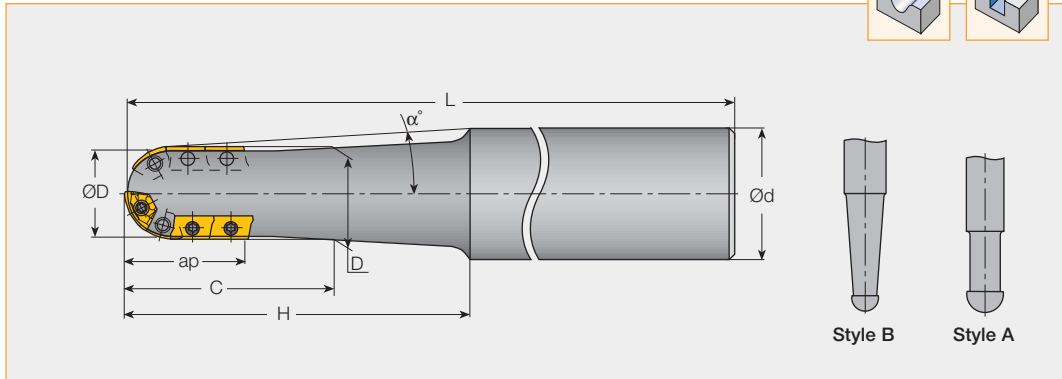
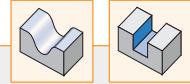


Spare Parts


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HELIBALL

BALL NOSE END MILLS DIAMETER RANGE 30-50 mm



CMK

Designation	D	ap	Z _{eff}	C	Z ₁	Z ₂	H	L	α°	d	Style	 Kg
CMKD30-A-C32	30	41	2	—	3	4	60	160	—	C32	A	0.80
CMKD32-A-W32	32	41	2	—	3	4	60	125	—	W32	A	0.62
CMKD32-B-W40	32	41	2	80	3	4	125	200	2	W40	B	1.40
CMKD40-A-W32	40	44	2	—	4	4	88	160	—	W32	A	1.05
CMKD40-B-W40	40	44	2	—	4	4	125	200	—	W40	B	1.70
CMKD50-A-W32	50	50	2	—	6	4	80	140	—	W32	A	1.13
CMKD50-B-W50	50	50	2	—	6	4	150	250	—	W50	B	1.80

Inserts: C RD., ANKT 14.
Z₁=no. of CR inserts
Z₂=no. of ANKT inserts



Inserts

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Inserts

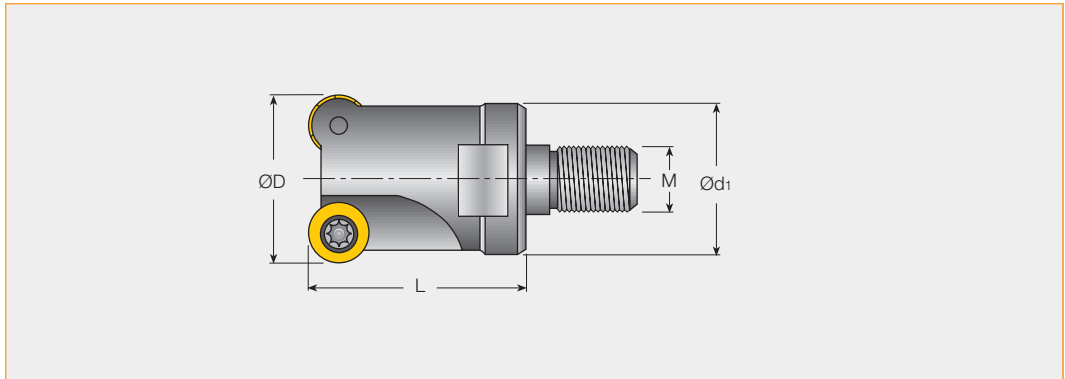
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Spare Parts

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MILLING HEAD



ERCM-M

Designation	D	d ₁	L	M
ERCM D32-M16-12	32	29	43	16
ERCM D40-M16-12	40	29	43	16



Inserts

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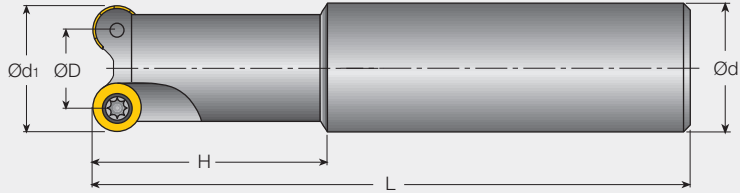


Spare Parts

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ISCARMILL

PROFILING END MILLS



ER

Designation	D	d_1	z	H	ød	L
ER D10A20-2-C20-10	10	20	2	60	C20	160
ER D15A25-2-C25-10	15	25	2	60	C25	160
ER D22A32-4-C25-10	22	32	4	40	C25	160



Screw

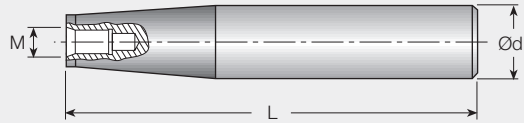
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Inserts

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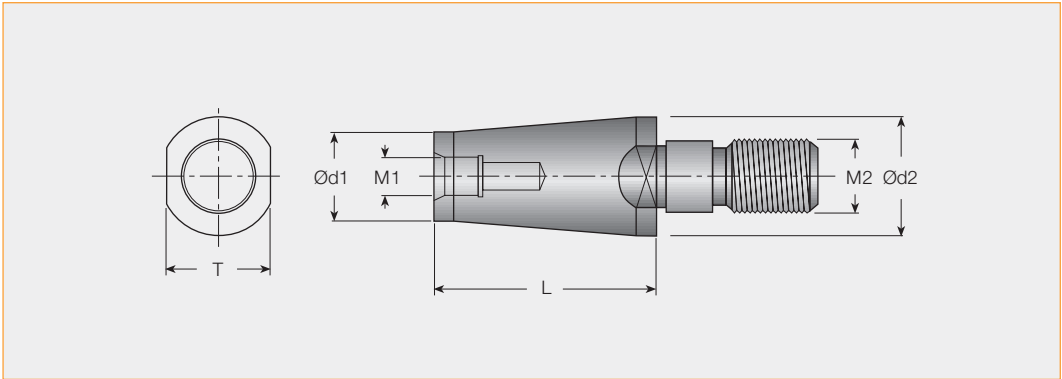
Shanks



S-M

Designation	L	d	M
S M6 L105 C12	105	12	6
S M6 L125 C16	125	16	6
S M8 L128 C16	128	16	8
S M8 L170 C20	170	20	8
S M10 L130 C20	130	20	10
S M10 L200 C25	200	25	10
S M12 L086 C25	086	25	12
S M12 L200 C32	200	32	12
S M16 L095 C32	095	32	16
S M16 L230 C32	230	32	16

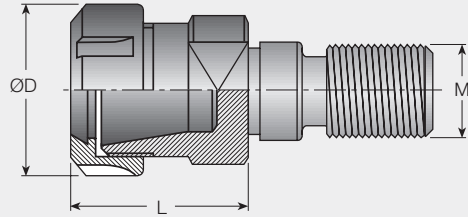
Adapters



CAB-M

Designation	L	d ₁	M ₁	d ₂	M ₂	T
CAB M6M8	30	9.7	M6	13	M8	10
CAB M8M10	40	13	M8	18	M10	15
CAB M10M12	45	18	M10	21	M12	17
CAB M12M16	50	21	M12	29	M16	25

ER11 to ER25



CDP-ER

Designation	L	D	M
CDP ER11 M10 Mini	20.5	16	M10
CDP ER11 M12 Mini	20.5	16	M12
CDP ER16 M10 Mini	27.5	22	M10
CDP ER16 M12 Mini	26.5	22	M12
CDP ER16 M16	26.0	28	M16
CDP ER20 M16	34.0	34	M16
CDP ER25 M16	32.5	42	M16

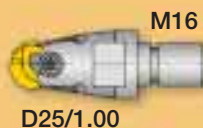
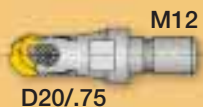
For ER spring collets, see ISCAR ITS catalog.

FLEXFIT • CLICKFIT

FLEXFIT

CLICKFIT

MILLING HEADS



EXTENSIONS

M12...CF4

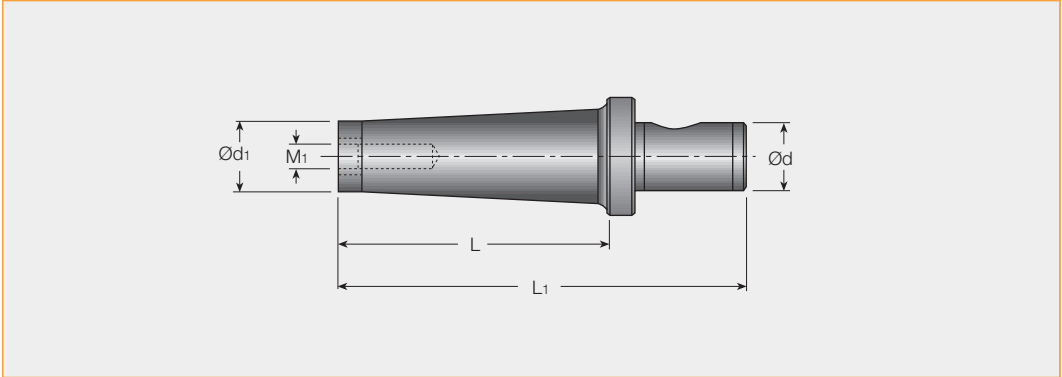
M16...CF4

ADAPTER



FLEXFIT • CLICKFIT

EXTENSIONS



S-M-CF4

Designation	L	L ₁	d ₁	M ₁	ød
S M12-L140-CF4	140	190	21	12	CF4
S M12-L85-CF4	85	135	21	12	CF4
S M16 L130-CF4	130	180	29	16	CF4
S M16-L170-CF4	170	220	29	16	CF4