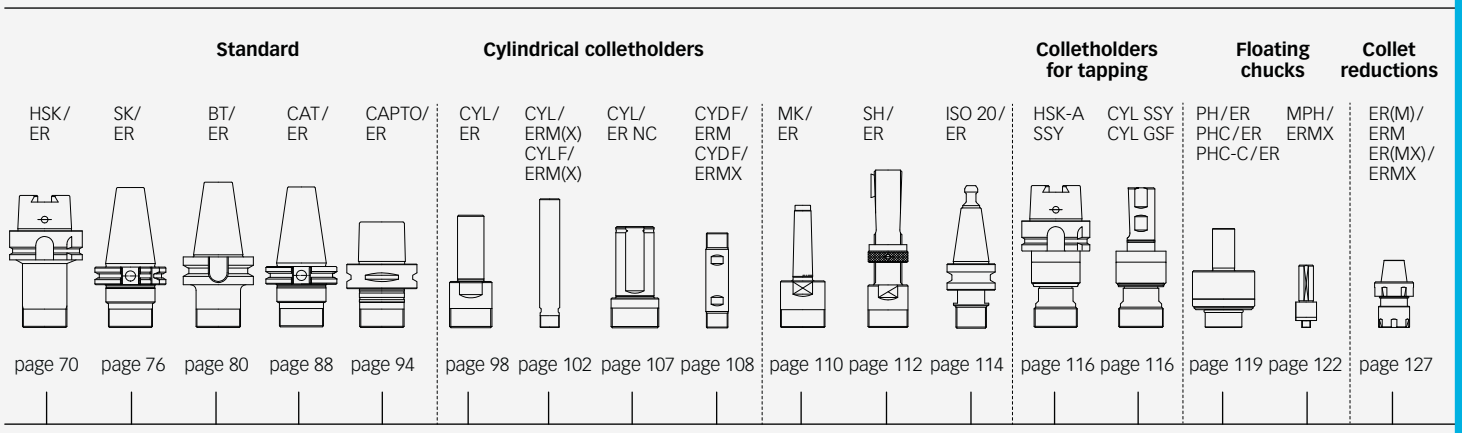
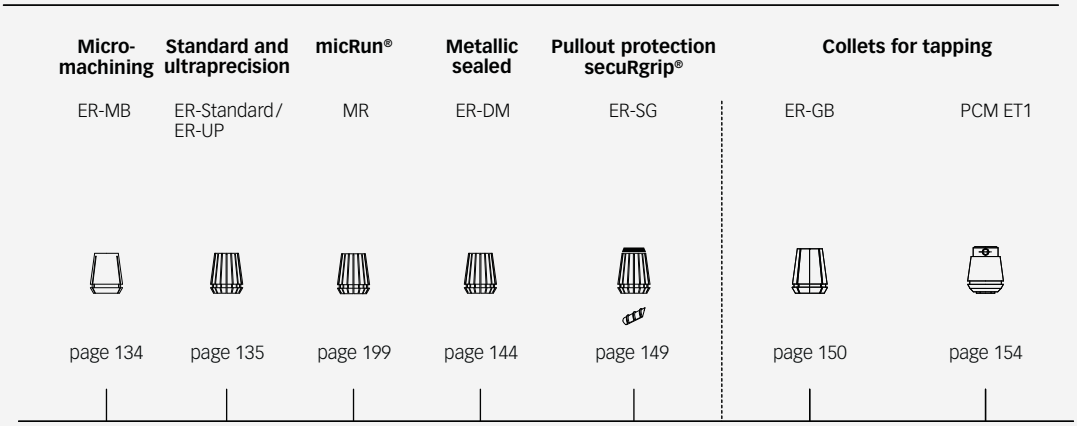
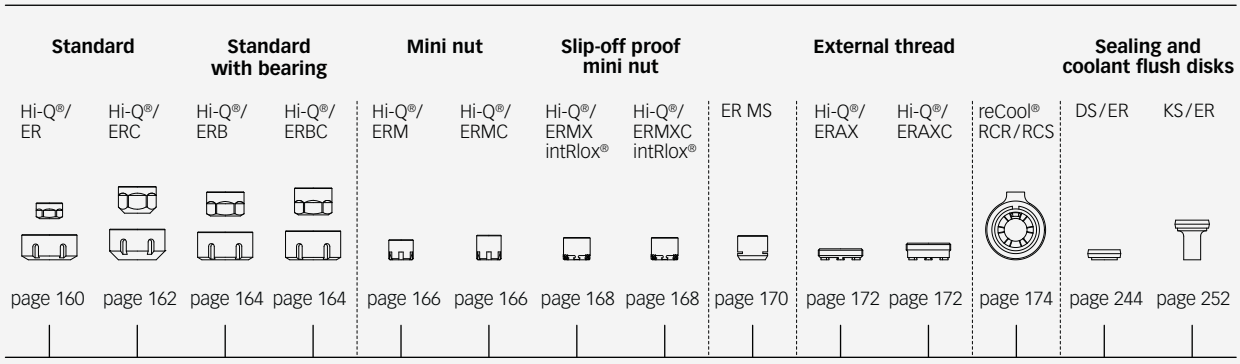
REGO-FIX

Experience the widest ER range







B: bearing C: cooling M: mini thread X: slip-off proof A: external thread

DS: sealing disk KS: coolant flush disk

Standard

HSK/ ER — page 70
SK/ ER — page 76
BT/ ER — page 80
CAT/ ER — page 88
CAPTO/ ER — page 94
MK/ ER — page 110
SH/ ER — page 112
ISO 20/ ER — page 114

Colletholders for tapping

HSK-A SSY — page 116
CYL SSY CYL GSF — page 116

Floating chucks

PH/ER PHC/ER PHC-C/ER — page 119
MPH/ ERMX — page 122

Collet reductions

ER(M)/ ERM ER(MX)/ ERMX — page 127

Swiss quality ER toolholders

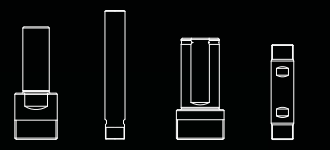
	HSK/ER	SK/ER	BT/ER	BT+/ER	CAT/ER	CAT+/ER	CAPTO/ER
Norm	DIN 69893	DIN 69871	MAS 403 JIS B 6339	–	ASME B5.50	–	–
ISO	ISO 12164	ISO 7388-1	ISO 7388-2	–	–	–	ISO 26623
Balancing	G 2.5 @ 25,000 min^{-1}	G 2.5 @ 25,000 min^{-1}	G 2.5 @ 25,000 min^{-1}	G 2.5 @ 25,000 min^{-1}	G 2.5 @ 25,000 min^{-1}	G 2.5 @ 25,000 min^{-1}	G 2.5 @ 25,000 min^{-1}
Chip hole	HSK-A	•	–	–	–	–	–
Runout TIR (outer taper to inner cone)	≤0.003 mm	≤0.003 mm	≤0.003 mm	≤0.003 mm	≤0.003 mm	≤0.003 mm	≤0.003 mm
Taper tolerance	DIN ISO	AT3	AT3	AT1	AT3	AT1	ISO 26623
MFD*	–	–	–	–	–	–	–
Form A + AD	–	•	•	•	•	•	–
Form AD + B	–	•	•	–	•	–	–

**micro friction dampening technology*

	HSK-A/ER XL	SK/ER XL	BT/ER XL	CAT/ER XL	CAPTO/ER XL
Norm	DIN 69893	DIN 69871	MAS 403 JIS B 6339	ASME B5.50	–
ISO	ISO 12164	ISO 7388-1	ISO 7388-2	–	ISO 26623
Balancing	G 2.5 @ 5,000 min^{-1}	G 2.5 @ 5,000 min^{-1}	G 2.5 @ 5,000 min^{-1}	G 2.5 @ 5,000 min^{-1}	G 2.5 @ 5,000 min^{-1}
Chip hole	HSK-A	•	–	–	–
Runout TIR (outer taper to inner cone)	≤0.01 mm	≤0.01 mm	≤0.01 mm	≤0.01 mm	≤0.01 mm
Taper tolerance	DIN ISO	AT3	AT3	AT3	ISO 26623
MFD*	•	•	•	•	•
Form A + AD	–	•	•	•	–
Form AD + B	–	–	–	–	–

**micro friction dampening technology*

Cylindrical colletholders



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Swiss quality ER toolholders




	CYL/ER	CYL/ERM	CYL/ERMX	CYLF/ERM
Shank tolerance	h6	h6	h6	h6
Runout TIR (shank to cone)	≤0.003 mm	≤0.003 mm	≤0.003 mm	≤0.005 mm
Rotary applications	•	•	•	–
Clamping flat	–	–	–	•
Double ER	–	–	–	–
Slip-off proof	–	–	•	–
Minimal outer diameter	–	•	•	•




	CYLF/ERMX	CYDF/ERM	CYDF/ERMX	CYL/ERNC
Shank tolerance	h6	h6	h6	h6
Runout TIR (shank to cone)	≤0.005 mm	≤0.005 mm	≤0.005 mm	≤0.005 mm
Rotary applications	–	–	–	–
Clamping flat	•	•	•	•
Double ER	–	•	•	–
Slip-off proof	•	–	•	–
Minimal outer diameter	•	•	•	–

HSK toolholders

Designed for rotating applications, all our HSK toolholders are suited for high-speed applications where consistent performance is key.

DIN 69893 / ISO 12164

Features and benefits

Runout TIR ≤ 3 µm

Measured from inner taper to outer taper.

Surface finish max. Ra 0.25

Achieve high clamping force and high transferable torque.

Balancing

100 % balanced to G 2.5 @ 25,000 rpm/<1gmm.

XL toolholders

100 % balanced to G 2.5 @ 5,000 rpm.
TIR from inner to outer taper <10 µm.

Hi-Q® balancing system

Ready to accept Hi-Q® balancing rings which allow for the offset of the imbalance introduced by the cutting tool up to 80,000 rpm depending on the balancing rings used. All toolholders with the additional type information "H" in the article name are designed for balancing rings.

Hi-Q® / ER clamping nut included in delivery

Guarantees highest clamping force and best balancing.

Vibration dampening

Our holders offer a good vibration dampening to sustain a high surface finish and can prevent cutting force alterations.

Special applications

When extra high clamping force is needed, e.g., when tapping with ER-GB, we recommend to use our friction-bearing clamping nuts Hi-Q® / ERB and Hi-Q® / ERBC.

ID chip hole (only HSK form A)

In accordance with DIN 69873 for 10 mm diameter. Available on request.

Accessories are not included in delivery. HSK-A 125 available on request
Other XL sizes available on request

Balancing specifications

HSK 25	balanced to 90,000 min^{-1}
HSK 32	balanced to 60,000 min^{-1}
HSK 40	balanced to 45,000 min^{-1}
HSK 50	balanced to 36,000 min^{-1}
HSK 63	G 2.5 @ 25,000 min^{-1}
HSK 80	G 2.5 @ 25,000 min^{-1}
HSK 100	G 2.5 @ 25,000 min^{-1}
HSK 125	G 2.5 @ 25,000 min^{-1}

Expert advice

For all HSK-A and HSK-E form toolholders a range of coolant tubes (KSR) is available.
For KSR part numbers please refer to page 265.

HSK-A toolholders

HSK-A
DIN 69893
ISO 12164

		Dimensions [mm]				Accessories	
Type	**Part no.**	**D**	**D1**	**L**	**L1**	**FWR***	**Wrench**
HSK-A 32							
HSK-A 32/ER 11 x 050	2532.11110	19	–	50	–	–	E 11 P
HSK-A 32/ER 16 x 060	2532.11620	28	–	60	–	–	E 16 P
HSK-A 32/ER 20 x 060	2532.12020	34	–	60	–	–	E 20 P
HSK-A 32/ER 25 x 065	2532.12520	42	–	65	–	–	E 25
HSK-A 40							
HSK-A 40/ER 16 x 080 H	4540.11640	28	–	80	–	225	E 16 P
HSK-A 40/ER 25 x 080 H	4540.12540	42	–	80	–	325	E 25
HSK-A 50							
HSK-A 50/ER 16 x 100 H	4550.11650	28	–	100	–	325	E 16 P
HSK-A 50/ER 25 x 080 H	4550.12540	42	–	80	–	325	E 25
HSK-A 50/ER 25 x 100 H	4550.12550	42	–	100	–	325	E 25
HSK-A 50/ER 32 x 100 H	4550.13250	50	–	100	–	405	E 32
HSK-A 63							
HSK-A 63/ER 11 x 100 H	4563.11150	19	–	100	–	325	E 11 P
HSK-A 63/ER 16 x 080 H	4563.11640	28	–	80	–	325	E 16 P
HSK-A 63/ER 16 x 100 H	4563.11650	28	–	100	–	325	E 16 P
HSK-A 63/ER 16 x 160 H	4563.11680	28	–	160	–	325/225	E 16 P
HSK-A 63/ER 16 x 240 XL	8865.13070	28	46	240	140	–	E 16 P
HSK-A 63/ER 16 x 260 XL	8865.13090	28	46	260	140	–	E 16 P
HSK-A 63/ER 16 x 300 XL	8865.13130	28	46	300	140	–	E 16 P
HSK-A 63/ER 16 x 340 XL	8865.13170	28	46	340	240	–	E 16 P
HSK-A 63/ER 16 x 360 XL	8865.13190	28	46	360	240	–	E 16 P
HSK-A 63/ER 16 x 400 XL	8865.13230	28	46	400	240	–	E 16 P
HSK-A 63/ER 20 x 075	2563.12030	34	–	75	–	–	E 20 P
HSK-A 63/ER 25 x 080 H	4563.12540	42	–	80	–	325	E 25
HSK-A 63/ER 25 x 100 H	4563.12550	42	–	100	–	325	E 25
HSK-A 63/ER 25 x 160 H	4563.12580	42	–	160	–	325	E 25
HSK-A 63/ER 25 x 200 H	4563.12590	42	–	200	–	405/325	E 25
HSK-A 63/ER 32 x 080 H	4563.13240	50	–	80	–	405	E 32
HSK-A 63/ER 32 x 100 H	4563.13250	50	–	100	–	405	E 32
HSK-A 63/ER 32 x 160 H	4563.13280	50	–	160	–	405	E 32
HSK-A 63/ER 32 x 200 H	4563.13290	50	–	200	–	405/405	E 32
HSK-A 63/ER 32 x 240 XL	8865.16070	50	55	240	140	–	E 32
HSK-A 63/ER 32 x 260 XL	8865.16090	50	55	260	140	–	E 32
HSK-A 63/ER 32 x 340 XL	8865.16170	50	55	340	240	–	E 32
HSK-A 63/ER 32 x 360 XL	8865.16190	50	55	360	240	–	E 32

**Balancing rings H: Ready to accept balancing rings*

Included in delivery: Toolholders with Hi-Q®/ER clamping nut and back-up screw

HSK-A toolholders

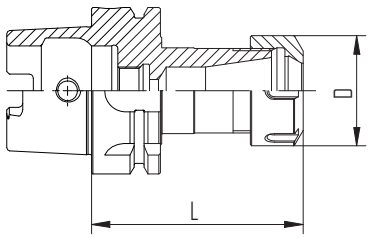
HSK-A
DIN 69893
ISO 12164

		Dimensions [mm]				Accessories	
Type	**Part no.**	**D**	**D1**	**L**	**L1**	**FWR***	**Wrench**
HSK-A 63/ER 40 x 080	2563.14040	63	–	80	–	–	E 40
HSK-A 63/ER 40 x 120 H	4563.14060	63	–	120	–	505	E 40
HSK-A 63/ER 40 x 160 H	4563.14080	63	–	160	–	505	E 40
HSK-A 80							
HSK-A 80/ER 16 x 100 H	4580.11650	28	–	100	–	325	E 16 P
HSK-A 80/ER 16 x 160 H	4580.11680	28	–	160	–	325/225	E 16 P
HSK-A 80/ER 32 x 100 H	4580.13250	50	–	100	–	405	E 32
HSK-A 80/ER 40 x 120 H	4580.14060	63	–	120	–	505	E 40
HSK-A 100							
HSK-A 100/ER 16 x 100 H	4500.11650	28	–	100	–	405	E 16 P
HSK-A 100/ER 16 x 160 H	4500.11680	28	–	160	–	405/225	E 16 P
HSK-A 100/ER 16 x 200 H	4500.11690	28	–	200	–	405/225	E 16 P
HSK-A 100/ER 16 x 240 XL	8885.13070	28	46	240	140	–	E 16 P
HSK-A 100/ER 16 x 300 XL	8885.13130	28	46	300	140	–	E 16 P
HSK-A 100/ER 16 x 340 XL	8885.13170	28	46	340	240	–	E 16 P
HSK-A 100/ER 16 x 400 XL	8885.13230	28	46	400	240	–	E 16 P
HSK-A 100/ER 25 x 100 H	4500.12550	42	–	100	–	405	E 25
HSK-A 100/ER 25 x 160 H	4500.12580	42	–	160	–	405/325	E 25
HSK-A 100/ER 25 x 200 H	4500.12590	42	–	200	–	405/325	E 25
HSK-A 100/ER 32 x 100 H	4500.13250	50	–	100	–	405	E 32
HSK-A 100/ER 32 x 160 H	4500.13280	50	–	160	–	405	E 32
HSK-A 100/ER 32 x 246 XL	8885.16070	50	55	246	140	–	E 32
HSK-A 100/ER 32 x 346 XL	8885.16170	50	55	346	240	–	E 32
HSK-A 100/ER 40 x 120 H	4500.14060	63	–	120	–	505	E 40
HSK-A 100/ER 40 x 200 H	4500.14090	63	–	200	–	505/505	E 40

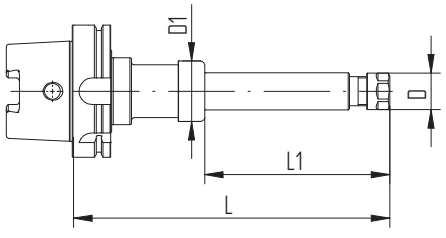
**Balancing rings H: Ready to accept balancing rings*

Included in delivery: Toolholders with Hi-Q®/ER clamping nut and back-up screw

HSK-A: Hole for data carrier DIN STD 69873 in the flange



HSK-A/ER



HSK-A/ER XL

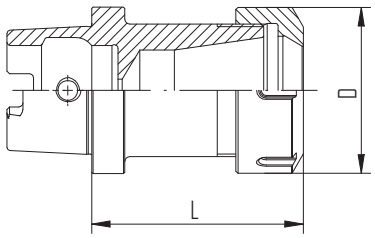
HSK-C toolholders

HSK-C
DIN 69893
ISO 12164

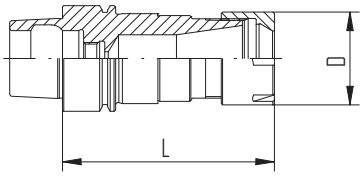
Type	Part no.	Dimensions [mm] D	D1	L	L1	Accessories FWR*	Wrench
HSK-C 32							
HSK-C 32/ER 16 x 060	2532.11622	28	–	60	–	–	E 16 P
HSK-C 32/ER 20 x 060	2532.12022	34	–	60	–	–	E 20 P
HSK-C 32/ER 25 x 070	2532.12532	42	–	70	–	–	E 25
HSK-C 40							
HSK-C 40/ER 20 x 060	2540.12022	34	–	60	–	–	E 20 P
HSK-C 40/ER 25 x 070	2540.12532	42	–	70	–	–	E 25
HSK-C 40/ER 32 x 075	2540.13232	50	–	75	–	–	E 32
HSK-C 50							
HSK-C 50/ER 25 x 070	2550.12532	42	–	70	–	–	E 25
HSK-C 50/ER 32 x 075	2550.13232	50	–	75	–	–	E 32
HSK-C 50/ER 40 x 080	2550.14042	63	–	80	–	–	E 40
HSK-C 63							
HSK-C 63/ER 32 x 075	2563.13232	50	–	75	–	–	E 32
HSK-C 63/ER 40 x 080	2563.14042	63	–	80	–	–	E 40

**Balancing rings H: Ready to accept balancing rings*

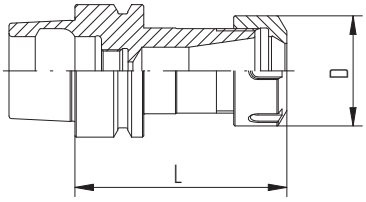
Included in delivery: Toolholders with Hi-Q®/ER clamping nut and back-up screw



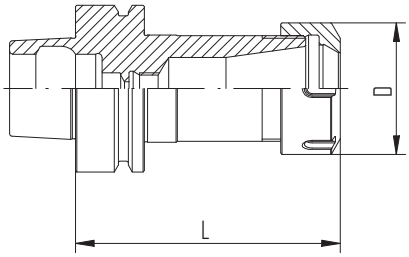
HSK-C/ER



HSK-E/ER M



HSK-E/ER



HSK-F/ER

HSK-E toolholders
HSK-F toolholders

HSK-E	HSK-F
DIN 69893	DIN 69893
ISO 12164	ISO 12164

		Dimensions [mm]				Accessories	
Type	**Part no.**	**D**	**D1**	**L**	**L1**	**FWR***	**Wrench**
HSK-E 25							
HSK-E 25/ERM 16 x 048	2525.11618	22	–	48	–	–	E 16 M
HSK-E 32							
HSK-E 32/ERM 16 x 060	2532.11628	22	–	60	–	–	E 16 M
HSK-E 32/ERM 20 x 060	2532.12028	28	–	60	–	–	E 20 M
HSK-E 40							
HSK-E 40/ER 11 x 060 H	4540.11124	19	–	60	–	225	E 11 P
HSK-E 40/ER 16 x 060 H	4540.11624	28	–	60	–	225	E 16 P
HSK-E 40/ER 16 x 080 H	4540.11644	28	–	80	–	225	E 16 P
HSK-E 40/ERM 20 x 075 H	4540.12038	28	–	75	–	285	E 20 M
HSK-E 40/ERM 25 x 080 H	4540.12548	35	–	80	–	325	E 25 M
HSK-E 50							
HSK-E 50/ER 16 x 060	2550.11624	28	–	60	–	–	E 16 P
HSK-E 50/ER 16 x 100 H	4550.11654	28	–	100	–	325	E 16 P
HSK-E 50/ER 16 x 160 H	4550.11684	28	–	160	–	325/225	E 16 P
HSK-E 50/ER 20 x 070 H	4550.12034	34	–	70	–	325	E 20 P
HSK-E 50/ER 25 x 080 H	4550.12544	42	–	80	–	325	E 25
HSK-E 50/ER 25 x 100 H	4550.12554	42	–	100	–	325	E 25
HSK-E 50/ER 32 x 100 H	4550.13254	50	–	100	–	405	E 32
HSK-E 50/ER 32 x 160 H	4550.13284	50	–	160	–	405	E 32
HSK-E 63							
HSK-E 63/ER 32 x 090 H	4563.13244	50	–	90	–	405	E 32
HSK-E 63/ER 40 x 080	2563.14044	63	–	80	–	–	E 40
HSK-E 63/ER 40 x 120 H	4563.14064	63	–	120	–	505	E 40
HSK-F 63							
HSK-F 63/ER 16 x 100 H	4563.11655	28	–	100	–	325	E 16 P
HSK-F 63/ER 25 x 100 H	4563.12555	42	–	100	–	325	E 25
HSK-F 63/ER 32 x 100 H	4563.13255	50	–	100	–	405	E 32
HSK-F 63/ER 40 x 120 H	4563.14065	63	–	120	–	505	E 40
HSK-FP**							
HSK-FP 80/ER 16 X 3" H	8020.13400	25	–	76.2	–	285	E 16 P
HSK-FP 80/ER 32 X 3" H	8020.13300	50	–	76.2	–	405	E 32

**Balancing rings H: Ready to accept balancing rings*

Included in delivery: Toolholders with Hi-Q®/ER clamping nut and back-up screw

***USA only*

Steep taper toolholders SK

Universally suitable for different machining applications.

DIN 69871 / DIN ISO 7388-1

Features and benefits

Runout TIR ≤ 3 µm

Measured from inner taper to outer taper.

Taper accuracy AT3

Better spindle-to-holder fit and accuracy.

Surface finish max. Ra 0.25

Achieve high clamping force and high transferable torque.

Balancing

100 % balanced to G 2.5 @ 25,000 rpm / <1gmm.

XL toolholders

100 % balanced to G 2.5 @ 5,000 rpm.
TIR from inner to outer taper <10 µm.

Hi-Q® balancing system

Ready to accept Hi-Q® balancing rings which allow for the offset of the imbalance introduced by the cutting tool up to 80,000 rpm depending on the balancing rings used. All toolholders with the additional type information “H” in the article name are designed for balancing rings.

Hi-Q® / ER clamping nut included in delivery

Guarantees highest clamping force and best balancing.

Vibration dampening

Our holders offer good vibration dampening to sustain a high surface finish and can help prevent chatter.

ID chip hole

In accordance with DIN 69873 for 10 mm diameter.

Accessories are not included in delivery. Other XL sizes available on request

Balancing specifications	
SK 30	balanced to 30,000 min^{-1}
SK 40	G 2.5 @ 25,000 min^{-1}
SK 50	G 2.5 @ 25,000 min^{-1}

SK toolholders
ERA-Zero-Z® toolholders

SK
DIN 69871
DIN ISO 7388-1

		Dimensions [mm]				Accessories	
Type	**Part no.**	**D**	**D1**	**L**	**L1**	**FWR***	**Wrench**
SK 30							
SK 30/ER 16 x 070 H	4230.11630	28	–	70	–	285	E 16 P
SK 30/ER 16 x 100 H	4230.11650	28	–	100	–	285	E 16 P
SK 30/ER 25 x 060 H	4230.12520	42	–	60	–	325	E 25
SK 30/ER 32 x 065	2230.13220	50	–	65	–	–	E 32
SK 40							
SK 40/ER 11 x 100 H	4240.11150	19	–	100	–	325	E 11 P
SK 40/ER 11 x 160 H	4240.11180	19	–	160	–	325	E 11 P
SK 40/ER 16 x 070 H	4240.11630	28	–	70	–	405	E 16 P
SK 40/ER 16 x 100 H	4240.11650	28	–	100	–	405	E 16 P
SK 40/ER 16 x 160 H	4240.11680	28	–	160	–	405/225	E 16 P
SK 40/ER 16 x 200 H	4240.11690	28	–	200	–	405/225	E 16 P
SK 40/ER 16 x 260 XL	8842.13090	28	46	260	140	–	E 16 P
SK 40/ER 16 x 300 XL	8842.13130	28	46	300	140	–	E 16 P
SK 40/ER 16 x 320 XL	8842.13150	28	46	320	240	–	E 16 P
SK 40/ER 16 x 360 XL	8842.13190	28	46	360	240	–	E 16 P
SK 40/ER 16 x 400 XL	8842.13230	28	46	400	240	–	E 16 P
SK 40/ER 20 x 070 H	4240.12030	34	–	70	–	325	E 20 P
SK 40/ER 20 x 100 H	4240.12050	34	–	100	–	325	E 20 P
SK 40/ER 25 x 070 H	4240.12530	42	–	70	–	405	E 25
SK 40/ER 25 x 100 H	4240.12550	42	–	100	–	405	E 25
SK 40/ER 25 x 160 H	4240.12580	42	–	160	–	405/325	E 25
SK 40/ER 25 x 200 H	4240.12590	42	–	200	–	405/325	E 25
SK 40/ERA 32 x 019	2240.13207	–	–	19	–	–	E 32 AX
SK 40/ER 32 x 070 H	4240.13230	50	–	70	–	405	E 32
SK 40/ER 32 x 100 H	4240.13250	50	–	100	–	405	E 32
SK 40/ER 32 x 160 H	4240.13280	50	–	160	–	405/405	E 32
SK 40/ER 32 x 200 H	4240.13290	50	–	200	–	405/405	E 32
SK 40/ER 32 x 320 XL	8842.16150	50	55	320	240	–	E 32
SK 40/ER 40 x 080	2240.14040	63	–	80	–	–	E 40
SK 40/ER 40 x 100 H	4240.14050	63	–	100	–	405	E 40
SK 40/ER 40 x 160 H	4240.14080	63	–	160	–	505/505	E 40

**Balancing rings H: Ready to accept balancing rings*

Included in delivery: ER toolholders come with Hi-Q®/ER clamping nut. ERA toolholders come with Hi-Q®/ERAX clamping nuts

SK-B toolholders

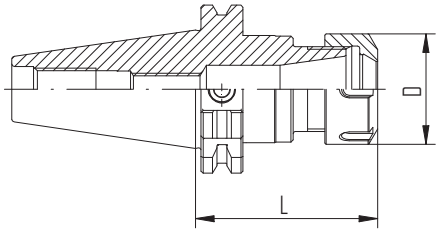
SK-B
DIN 69871
DIN ISO 7388-1

		Dimensions [mm]				Accessories	
Type	**Part no.**	**D**	**D1**	**L**	**L1**	**FWR***	**Wrench**
SK-B 40							
SK-B 40/ER 11 x 100 H	4240.11153	19	–	100	–	325	E 11 P
SK-B 40/ER 11 x 160 H	4240.11183	19	–	160	–	325	E 11 P
SK-B 40/ER 16 x 070 H	4240.11633	28	–	70	–	405	E 16 P
SK-B 40/ER 16 x 100 H	4240.11653	28	–	100	–	405	E 16 P
SK-B 40/ER 16 x 160 H	4240.11683	28	–	160	–	405/225	E 16 P
SK-B 40/ER 16 x 200 H	4240.11693	28	–	200	–	405/225	E 16 P
SK-B 40/ER 20 x 070 H	4240.12033	34	–	70	–	325	E 20 P
SK-B 40/ER 20 x 100 H	4240.12053	34	–	100	–	325	E 20 P
SK-B 40/ER 25 x 070 H	4240.12533	42	–	70	–	405	E 25
SK-B 40/ER 25 x 100 H	4240.12553	42	–	100	–	405	E 25
SK-B 40/ER 25 x 160 H	4240.12583	42	–	160	–	405/325	E 25
SK-B 40/ER 25 x 200 H	4240.12593	42	–	200	–	405/325	E 25
SK-B 40/ER 32 x 070 H	4240.13233	50	–	70	–	405	E 32
SK-B 40/ER 32 x 100 H	4240.13253	50	–	100	–	405	E 32
SK-B 40/ER 32 x 160 H	4240.13283	50	–	160	–	405/405	E 32
SK-B 40/ER 32 x 200 H	4240.13293	50	–	200	–	405/405	E 32
SK-B 40/ER 40 x 080	2240.14043	63	–	80	–	–	E 40
SK-B 40/ER 40 x 100 H	4240.14053	63	–	100	–	505	E 40
SK-B 40/ER 40 x 160 H	4240.14083	63	–	160	–	505/505	E 40

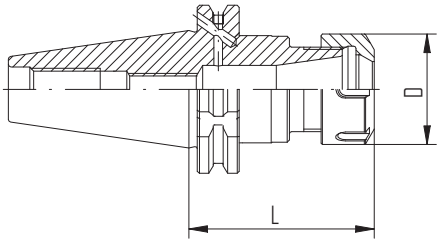
**Balancing rings*

Included in delivery: ER toolholders come with Hi-Q®/ER clamping nut. ERA toolholders come with Hi-Q®/ERAX clamping nuts

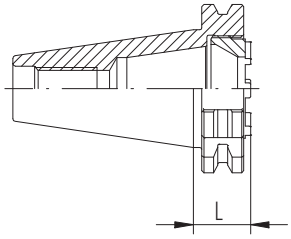
H: Ready to accept balancing rings



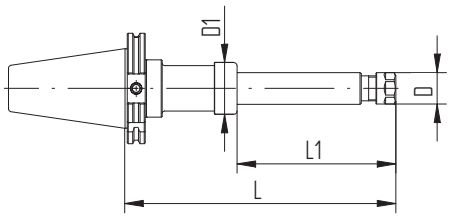
SK/ER (form A+AD)



SK-B/ER (form AD+B)



SK/ERA



SK/ER XL (form A+AD)

SK toolholders
SK-B toolholders

SK	SK-B
DIN 69871	DIN 69871
DIN ISO 7388-1	DIN ISO 7388-1

		Dimensions [mm]				Accessories	
Type	Part no.	D	D1	L	L1	FWR*	Wrench
SK 50							
SK 50/ER 16 x 100 H	4250.11650	0.25	–	100	–	505	E 16 P
SK 50/ER 16 x 160 H	4250.11680	28	–	160	–	505/225	E 16 P
SK 50/ER 16 x 200 H	4250.11690	28	–	200	–	505/225	E 16 P
SK 50/ER 16 x 240 XL	8852.13070	28	46	240	140	–	E 16 P
SK 50/ER 16 x 300 XL	8852.13130	28	46	300	140	–	E 16 P
SK 50/ER 16 x 340 XL	8852.13170	28	46	340	240	–	E 16 P
SK 50/ER 16 x 400 XL	8852.13230	28	46	400	240	–	E 16 P
SK 50/ER 20 x 070 H	4250.12030	34	–	70	–	325	E 20 P
SK 50/ER 20 x 100 H	4250.12050	34	–	100	–	325	E 20 P
SK 50/ER 25 x 070 H	4250.12530	42	–	70	–	405	E 25
SK 50/ER 25 x 100 H	4250.12550	42	–	100	–	405	E 25
SK 50/ER 25 x 160 H	4250.12580	42	–	160	–	405/325	E 25
SK 50/ER 25 x 200 H	4250.12590	42	–	200	–	405/325	E 25
SK 50/ER 32 x 100 H	4250.13250	50	–	100	–	505	E 32
SK 50/ER 32 x 160 H	4250.13280	50	–	160	–	505/405	E 32
SK 50/ER 32 x 200 H	4250.13290	50	–	200	–	505/405	E 32
SK 50/ER 32 x 320 XL	8852.16150	50	55	320	240	–	E 32
SK 50/ER 40 x 100 H	4250.14050	63	–	100	–	505	E 40
SK 50/ER 40 x 160 H	4250.14080	63	–	160	–	505/505	E 40
SK 50/ER 40 x 200 H	4250.14090	63	–	200	–	505/505	E 40
SK 50/ER 50 x 100	2250.15050	78	–	100	–	–	E 50
SK-B 50							
SK-B 50/ER 16 x 100 H	4250.11653	28	–	100	–	505	E 16 P
SK-B 50/ER 16 x 160 H	4250.11683	28	–	160	–	505/225	E 16 P
SK-B 50/ER 16 x 200 H	4250.11693	28	–	200	–	505/225	E 16 P
SK-B 50/ER 20 x 070 H	4250.12033	34	–	70	–	325	E 20 P
SK-B 50/ER 20 x 100 H	4250.12053	34	–	100	–	325	E 20 P
SK-B 50/ER 25 x 070 H	4250.12533	42	–	70	–	405	E 25
SK-B 50/ER 25 x 100 H	4250.12553	42	–	100	–	405	E 25
SK-B 50/ER 25 x 160 H	4250.12583	42	–	160	–	405/325	E 25
SK-B 50/ER 25 x 200 H	4250.12593	42	–	200	–	405/325	E 25
SK-B 50/ER 32 x 100 H	4250.13253	50	–	100	–	505	E 32
SK-B 50/ER 32 x 160 H	4250.13283	50	–	160	–	505/405	E 32
SK-B 50/ER 32 x 200 H	4250.13293	50	–	200	–	505/405	E 32
SK-B 50/ER 40 x 100 H	4250.14053	63	–	100	–	505	E 40
SK-B 50/ER 40 x 160 H	4250.14083	63	–	160	–	505/505	E 40
SK-B 50/ER 40 x 200 H	4250.14093	63	–	200	–	505/505	E 40

**Balancing rings*

Included in delivery: ER toolholders come with Hi-Q®/ER clamping nut. ERA toolholders come with Hi-Q®/ERAX clamping nuts

H: Ready to accept balancing rings

Steep taper toolholders BT

Universally suitable for different machining applications,
the BT interface toolholders cater for different machining needs.

MAS 403 / JIS B 6339 / DIN ISO 7388-2

Features and benefits

Runout TIR ≤ 3 µm

Measured from inner taper to outer taper.

Taper accuracy AT3

Better spindle-to-holder fit and accuracy.

Surface finish max. Ra 0.25

Achieve high clamping force and high transferable torque.

Balancing

100 % balanced to G 2.5 @ 25,000 rpm/<1gmm.

XL toolholders

100 % balanced to G 2.5 @ 5,000 rpm.
TIR from inner to outer taper <10 µm.

Hi-Q® balancing system

Ready to accept Hi-Q® balancing rings which allow for the offset of the imbalance introduced by the cutting tool up to 80,000 rpm depending on the balancing rings used. All toolholders with the additional type information “H” in the article name are designed for balancing rings.

Hi-Q® / ER clamping nut included in delivery

Guarantees highest clamping force and best balancing.

Vibration dampening

Our holders offer good vibration dampening to sustain a high surface finish and can help prevent chatter.

Accessories are not included in delivery. HSK-A 125 available on request
Other XL sizes available on request

Balancing specifications	
BT 30	balanced to 30 000 min^{-1}
BT 40	G 2.5 @ 25 000 min^{-1}
BT 50	G 2.5 @ 25 000 min^{-1}

BT toolholders
ERA Zero-Z® toolholders

BT
MAS 403
JIS B 6339
DIN ISO 7388-2

		Dimensions [mm]				Accessories	
Type	**Part no.**	**D**	**D1**	**L**	**L1**	**FWR***	**Wrench**
BT 30							
BT 30/ER 11 x 050	2130.11110	19	–	50	–	–	E 11 P
BT 30/ER 11 x 100 H	4130.11150	19	–	100	–	225	E 11 P
BT 30/ER 16 x 050	2130.11610	28	–	50	–	–	E 16 P
BT 30/ER 16 x 080 H	4130.11640	28	–	80	–	285	E 16 P
BT 30/ER 16 x 100 H	4130.11650	28	–	100	–	285	E 16 P
BT 30/ERA 20 x 022	2130.12007	–	–	22	–	–	E 20 AX
BT 30/ER 20 x 050	2130.12010	34	–	50	–	–	E 20 P
BT 30/ER 20 x 070 H	4130.12030	34	–	70	–	325	E 20 P
BT 30/ER 20 x 100 H	4130.12050	34	–	100	–	325	E 20 P
BT 30/ER 25 x 060 H	4130.12520	42	–	60	–	325	E 25
BT 30/ER 25 x 100 H	4130.12550	42	–	100	–	325	E 25
BT 30/ER 32 x 060	2130.13220	50	–	60	–	–	E 32
BT 30/ER 32 x 100 H	4130.13250	50	–	100	–	405	E 32
BT 30 ERM**							
BT 30/ERM 8 x 100	2130.10855	12	–	100	–	–	E 8 M
BT 30/ERM 11 x 100 H	4130.11155	16	–	100	–	225	E 11 M

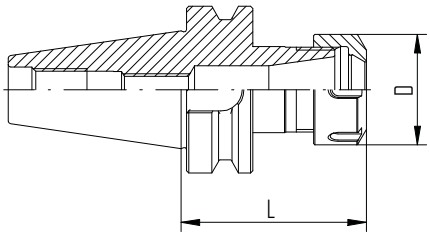
**Balancing rings*

Included in delivery: ER toolholders come with Hi-Q®/ER clamping nut. ERA toolholders come with Hi-Q®/ERAX clamping nuts

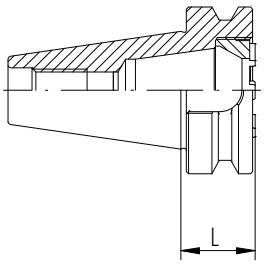
H: Ready to accept balancing rings

***USA only*

BT/ER



BT/ER (form A+AD)



BT/ERA

BT toolholders
ERA Zero-Z® toolholders

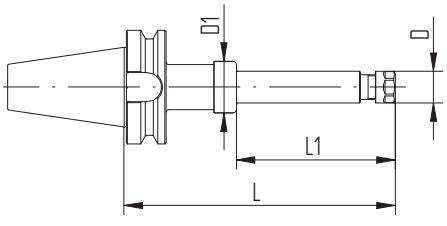
BT
MAS 403
JIS B 6339
DIN ISO 7388-2

		Dimensions [mm]				Accessories	
Type	**Part no.**	**D**	**D1**	**L**	**L1**	**FWR***	**Wrench**
BT 40							
BT 40/ER 11 x 100 H	4140.11150	19	–	100	–	285	E 11 P
BT 40/ER 11 x 160 H	4140.11180	19	–	160	–	285	E 11 P
BT 40/ER 16 x 070 H	4140.11630	28	–	70	–	285	E 16 P
BT 40/ER 16 x 100 H	4140.11650	28	–	100	–	285	E 16 P
BT 40/ER 16 x 160 H	4140.11680	28	–	160	–	285/225	E 16 P
BT 40/ER 16 x 220 XL	8841.13050	28	46	220	140	–	E 16 P
BT 40/ER 16 x 260 XL	8841.13090	28	46	260	140	–	E 16 P
BT 40/ER 16 x 300 XL	8841.13130	28	46	300	140	–	E 16 P
BT 40/ER 16 x 320 XL	8841.13150	28	46	320	240	–	E 16 P
BT 40/ER 16 x 360 XL	8841.13190	28	46	360	240	–	E 16 P
BT 40/ER 16 x 400 XL	8841.13230	28	46	400	240	–	E 16 P
BT 40/ER 20 x 070 H	4140.12030	34	–	70	–	325	E 20 P
BT 40/ER 20 x 100 H	4140.12050	34	–	100	–	285	E 20 P
BT 40/ER 20 x 160 H	4140.12080	34	–	160	–	405/285	E 20 P
BT 40/ER 25 x 070 H	4140.12530	42	–	70	–	325	E 25
BT 40/ER 25 x 100 H	4140.12550	42	–	100	–	405	E 25
BT 40/ER 25 x 160 H	4140.12580	42	–	160	–	405/325	E 25
BT 40/ERA 32 x 027	2140.13207	–	–	27	–	–	E 32 AX
BT 40/ER 32 x 070 H	4140.13230	50	–	70	–	405	E 32
BT 40/ER 32 x 100 H	4140.13250	50	–	100	–	405	E 32
BT 40/ER 32 x 160 H	4140.13280	50	–	160	–	405/405	E 32
BT 40/ER 32 x 226 XL	8841.16050	50	55	226	140	–	E 32
BT 40/ER 32 x 326 XL	8841.16150	50	55	326	240	–	E 32
BT 40/ER 40 x 080	2140.14040	63	–	80	–	–	E 40
BT 40/ER 40 x 100 H	4140.14050	63	–	100	–	505	E 40
BT 40/ER 40 x 160 H	4140.14080	63	–	160	–	505/505	E 40

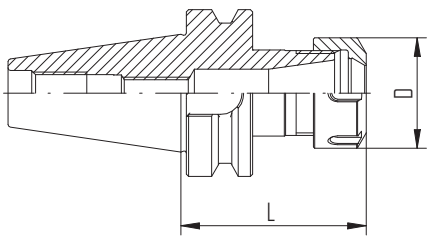
**Balancing rings*

Included in delivery: ER toolholders come with Hi-Q®/ER clamping nut. ERA toolholders come with Hi-Q®/ERAX clamping nuts

H: Ready to accept balancing rings



BT/ER XL



BT/ER (form A+AD)

BT / BT-B toolholders

BT | **BT-B**

MAS 403

JIS B 6339

DIN ISO 7388-2

		Dimensions [mm]				Accessories	
Type	**Part no.**	**D**	**D1**	**L**	**L1**	**FWR***	**Wrench**
BT-B 40							
BT-B 40 / ER 16 x 070 H	4140.11633	28	–	70	–	285	E 16 P
BT-B 40 / ER 16 x 100 H	4140.11653	28	–	100	–	285	E 16 P
BT-B 40 / ER 16 x 160 H	4140.11683	28	–	160	–	285 / 225	E 16 P
BT-B 40 / ER 20 x 070 H	4140.12033	34	–	70	–	325	E 20 P
BT-B 40 / ER 20 x 100 H	4140.12053	34	–	100	–	285	E 20 P
BT-B 40 / ER 20 x 160 H	4140.12083	34	–	160	–	405 / 285	E 20 P
BT-B 40 / ER 25 x 070 H	4140.12533	42	–	70	–	325	E 25
BT-B 40 / ER 25 x 100 H	4140.12553	42	–	100	–	405	E 25
BT-B 40 / ER 25 x 160 H	4140.12583	42	–	160	–	405 / 325	E 25
BT-B 40 / ER 32 x 070 H	4140.13233	50	–	70	–	405	E 32
BT-B 40 / ER 32 x 100 H	4140.13253	50	–	100	–	405	E 32
BT-B 40 / ER 32 x 160 H	4140.13283	50	–	160	–	405 / 405	E 32
BT-B 40 / ER 40 x 080	2140.14043	63	–	80	–	–	E 40
BT-B 40 / ER 40 x 100 H	4140.14053	63	–	100	–	505	E 40
BT-B 40 / ER 40 x 160 H	4140.14083	63	–	160	–	505 / 505	E 40
BT 50							
BT 50 / ER 16 x 100 H	4150.11650	28	–	100	–	505	E 16 P
BT 50 / ER 16 x 160 H	4150.11680	28	–	160	–	505 / 225	E 16 P
BT 50 / ER 16 x 240 XL	8851.13070	28	46	240	140	–	E 16 P
BT 50 / ER 16 x 260 XL	8851.13090	28	46	260	140	–	E 16 P
BT 50 / ER 16 x 300 XL	8851.13130	28	46	300	140	–	E 16 P
BT 50 / ER 16 x 340 XL	8851.13170	28	46	340	240	–	E 16 P
BT 50 / ER 16 x 360 XL	8851.13190	28	46	360	240	–	E 16 P
BT 50 / ER 16 x 400 XL	8851.13230	28	46	400	240	–	E 16 P
BT 50 / ER 20 x 070	2150.12030	34	–	70	–	–	E 20 P
BT 50 / ER 20 x 100 H	4150.12050	34	–	100	–	325	E 20 P
BT 50 / ER 25 x 070	2150.12530	42	–	70	–	–	E 25
BT 50 / ER 25 x 100 H	4150.12550	42	–	100	–	405	E 25
BT 50 / ER 25 x 160 H	4150.12580	42	–	160	–	405 / 325	E 25
BT 50 / ER 32 x 100 H	4150.13250	50	–	100	–	505	E 32
BT 50 / ER 32 x 160 H	4150.13280	50	–	160	–	505 / 405	E 32
BT 50 / ER 32 x 200 H	4150.13290	50	–	200	–	505 / 405	E 32
BT 50 / ER 32 x 240 XL	8851.16070	50	55	240	140	–	E 32
BT 50 / ER 32 x 340 XL	8851.16170	50	55	340	240	–	E 32
BT 50 / ER 40 x 100 H	4150.14050	63	–	100	–	505	E 40
BT 50 / ER 40 x 160 H	4150.14080	63	–	160	–	505 / 505	E 40
BT 50 / ER 50 x 100	2150.15050	78	–	100	–	–	E 50

**Balancing rings*

Included in delivery: ER toolholders come with Hi-Q® / ER clamping nut. ERA toolholders come with Hi-Q® / ERAX clamping nuts

H: Ready to accept balancing rings

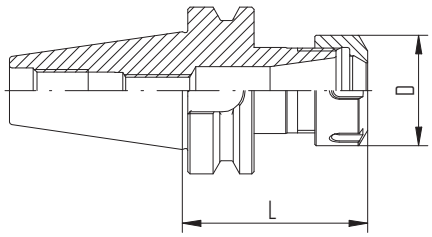
BT-B toolholders

		Dimensions [mm]				Accessories	
Type	**Part no.**	**D**	**D1**	**L**	**L1**	**FWR***	**Wrench**
BT-B 50							
BT-B 50/ER 16 x 100 H	4150.11653	28	–	100	–	505	E 16 P
BT-B 50/ER 16 x 160 H	4150.11683	28	–	160	–	505/225	E 16 P
BT-B 50/ER 20 x 070	2150.12033	34	–	70	–	–	E 20 P
BT-B 50/ER 20 x 100 H	4150.12053	34	–	100	–	325	E 20 P
BT-B 50/ER 25 x 070	2150.12533	42	–	70	–	–	E 25
BT-B 50/ER 25 x 100 H	4150.12553	42	–	100	–	405	E 25
BT-B 50/ER 25 x 160 H	4150.12583	42	–	160	–	405/325	E 25
BT-B 50/ER 32 x 100 H	4150.13253	50	–	100	–	505	E 32
BT-B 50/ER 32 x 160 H	4150.13283	50	–	160	–	505/405	E 32
BT-B 50/ER 40 x 100 H	4150.14053	63	–	100	–	505	E 40
BT-B 50/ER 40 x 160 H	4150.14083	63	–	160	–	505/505	E 40

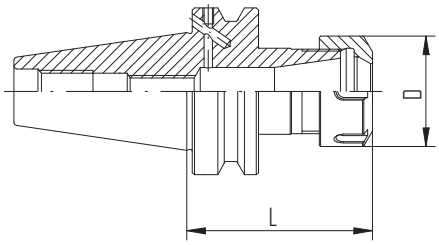
**Balancing rings*

Included in delivery: ER toolholders come with Hi-Q®/ER clamping nut. ERA toolholders come with Hi-Q®/ERAX clamping nuts

H: Ready to accept balancing rings



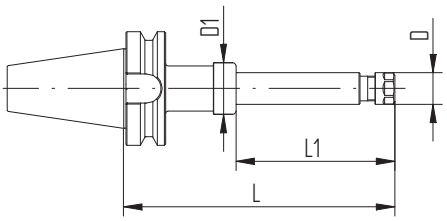
BT/ER (form A+AD)



BT-B/ER (form AD+B)

Expert advice

What is the difference between form A+AD and AD+B?
Form A+AD: coolant supply through the taper
Form AD+B: coolant supply through the flange



BT/ER XL

BT-OM toolholders
ERA Zero-Z® toolholder

Information

BT-OM / ER toolholders without drive slots

Applications

This special toolholder without drive slots is designed for use on HAAS and HURCO CNC-machining centers.

Special applications

When extra high clamping force is needed, e.g., when tapping with ER-GB, we recommend to use our friction-bearing clamping nuts Hi-Q® / ERB* and Hi-Q® / ERBC*.

**Not for use with ERA toolholders.*

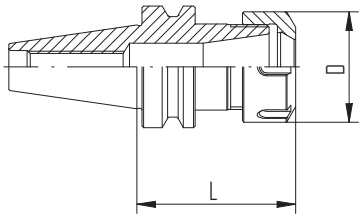
Balancing

REGO-FIX BT-OM / ER(A) toolholders are balanced to G 2.5 @ 25,000 rpm/<1gmm. Type H toolholders are compatible with Hi-Q® balancing rings which allow precision balancing of the entire system including cutting tool up to 80,000 rpm depending on the balancing rings used.

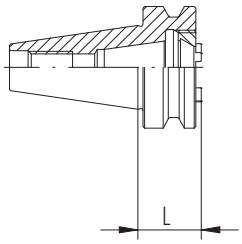
Matched tooling system for best fit

For highest precision and best results the entire machining system counts. Therefore REGO-FIX components are carefully matched for optimum fit and accuracy. This guarantees the best runout and balance.

For the influence of runout on tool life, please refer to page 270.



BT-OM / ER



BT-OM / ERA

Accessories are not included in delivery.

		Dimensions [mm]				Accessories	
Type	**Part no.**	**D**	**D1**	**L**	**L1**	**FWR***	**Wrench**
BT-OM							
BT-OM 30 / ER 16 x 080 H	4130.11648	28	–	80	–	285	E 16 P
BT-OM 30 / ER 25 x 060 H	4130.12528	42	–	60	–	325	E 25
BT-OM 30 / ER 32 x 060	2130.13228	50	–	60	–	–	E 32
BT-OM 30 / ERA 20 x 022	2130.12008	–	–	22	–	–	E 20 AX

**Balancing rings*

Included in delivery: ER toolholders come with Hi-Q® / ER clamping nut. ERA toolholders come with Hi-Q® / ERAX clamping nuts

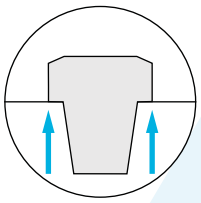
H: Ready to accept balancing rings

REGO-PLUS doublecontact

REGO-FIX BT+ toolholders

Certified The BIG PLUS SYSTEM – licensed by BIG Daishowa – is manufactured at REGO-FIX in Switzerland under license according to BIG PLUS specifications.

Key advantages



Higher toolholder stiffness due to taper (AT1) and face contact.

MAS 403 / JIS B 6339 / DIN ISO 7388-2

Features and benefits

Runout TIR ≤ 3 µm

Measured from inner taper to outer taper.

Surface finish max. Ra 0.25

Better spindle-to-holder fit and accuracy.

Balancing

100 % balanced to G 2.5 @ 25,000 rpm/<1gmm.

Hi-Q® balancing system

Ready to accept Hi-Q® balancing rings which allow for the offset of the imbalance introduced by the cutting tool up to 80,000 rpm depending on the balancing rings used. All toolholders with the additional type information “H” in the article name are designed for balancing rings.

Hi-Q® / ER clamping nut included in delivery

Guarantees highest clamping force and best balancing.

Vibration dampening

Our holders offer good vibration dampening to sustain a high surface finish and can help prevent chatter.

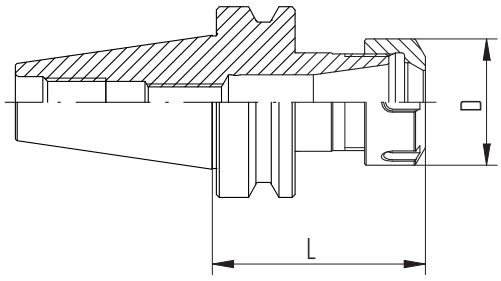
Accessories are not included in delivery. Form B available on request

REGO-FIX BT+ toolholders

Type	Part no.	Dimensions [mm] D	D1	L	L1	Accessories FWR*	Wrench
BT+ 30							
BT+ 30/ER 11 x 100 H	4130.11156	19	–	100	–	225	E 11 P
BT+ 30/ER 16 x 050	2130.11616	28	–	50	–	–	E 16 P
BT+ 30/ER 16 x 080 H	4130.11646	28	–	80	–	285	E 16 P
BT+ 30/ER 20 x 050	2130.12016	34	–	50	–	–	E 20 P
BT+ 30/ER 20 x 070 H	4130.12036	34	–	70	–	325	E 20 P
BT+ 30/ER 25 x 060 H	4130.12526	42	–	60	–	325	E 25
BT+ 30/ER 32 x 060	2130.13226	50	–	60	–	–	E 32
BT+ 40							
BT+ 40/ER 16 x 070 H	4140.11636	28	–	70	–	285	E 16 P
BT+ 40/ER 16 x 100 H	4140.11656	28	–	100	–	285	E 16 P
BT+ 40/ER 20 x 070 H	4140.12036	34	–	70	–	325	E 20 P
BT+ 40/ER 25 x 070 H	4140.12536	42	–	70	–	325	E 25
BT+ 40/ER 32 x 070 H	4140.13236	50	–	70	–	405	E 32
BT+ 40/ER 32 x 100 H	4140.13256	50	–	100	–	405	E 32
BT+ 40/ER 32 x 160 H	4140.13286	50	–	160	–	405/405	E 32
BT+ 50							
BT+ 50/ER 32 x 100 H	4150.13256	50	–	100	–	505	E 32
BT+ 50/ER 32 x 160 H	4150.13286	50	–	160	–	505/405	E 32

**Balancing rings H: Ready to accept balancing rings*

Included in delivery: toolholders come with Hi-Q®/ER clamping nut



BT+/ER (A+AD)

Steep taper toolholders CAT

Universally suitable for different machining applications.

ASME B5.50

Features and benefits

Runout ≤ 3 µm

Measured from inner taper to outer taper.

Taper accuracy AT3

Better spindle-to-holder fit and accuracy.

Surface finish max. Ra 0.25

Achieve high clamping force and high transferable torque.

Balancing

100 % balanced to G 2.5 @ 25,000 rpm.

Balancing in XL toolholders

100 % balanced to G 2.5 @ 5,000 rpm.

Hi-Q® balancing system

Ready to accept Hi-Q® balancing rings which allow for the offset of the imbalance introduced by the cutting tool up to 80,000 rpm depending on the balancing rings used. All toolholders with the additional type information "H" in the article name are designed for balancing rings.

Hi-Q® / ER clamping nut included in delivery

Guarantees highest clamping force and best balancing.

Vibration dampening

Our holders offer good vibration dampening to sustain a high surface finish and can help prevent chatter.

Accessories are not included in delivery. Form B available on request

CAT toolholders
ERA Zero-Z® toolholder

CAT

ASME B5.50

		Dimensions				Accessories	
Type	**Part no.**	**D [mm]**	**D1 [mm]**	**L [inch]**	**L1 [inch]**	**FWR***	**Wrench**
CAT 40							
CAT 40/ER 11 x 3" H	4340.11131	19	–	3	–	325	7112.11010
CAT 40/ER 11 x 6" H	4340.11171	19	–	6	–	325	7112.11010
CAT 40/ER 16 x 3" H	4340.11631	28	–	3	–	325	7112.16010
CAT 40/ER 16 x 4" H	4340.11651	28	–	4	–	285	7112.16010
CAT 40/ER 16 x 6" H	4340.11671	28	–	6	–	325/225	7112.16010
CAT 40/ER 16 x 8" XL	8843.13031	28	42	8	4	–	7112.16010
CAT 40/ER 16 x 10" XL	8843.13101	28	42	10	4	–	7112.16010
CAT 40/ER 16 x 12" XL	8843.13131	28	42	12	8	–	7112.16010
CAT 40/ER 16 x 14" XL	8843.13181	28	42	14	8	–	7112.16010
CAT 40/ER 20 x 3" H	4340.12031	34	–	3	–	285	7112.20010
CAT 40/ER 20 x 4" H	4340.12051	34	–	4	–	325	7112.20010
CAT 40/ER 20 x 6" H	4340.12071	34	–	6	–	405/285	7112.20010
CAT 40/ER 25 x 4" H	4340.12551	42	–	4	–	325	7111.25000
CAT 40/ER 25 x 6" H	4340.12571	42	–	6	–	405/325	7111.25000
CAT 40/ERA 32 x 019 mm	2340.13200	35	–	19 mm	–	–	7111.32000
CAT 40/ER 32 x 3" H	4340.13231	50	–	3	–	405	7111.32000
CAT 40/ER 32 x 4" H	4340.13251	50	–	4	–	405	7111.32000
CAT 40/ER 32 x 5" H	4340.13261	50	–	5	–	405	7111.32000
CAT 40/ER 32 x 6" H	4340.13271	50	–	6	–	405/405	7111.32000
CAT 40/ER 32 x 10" XL	8843.16081	50	52	10	4	–	7111.32000
CAT 40/ER 32 x 14" XL	8843.16141	50	52	14	8	–	7111.32000
CAT 40/ER 40 x 3.5" H	4340.14041	63	–	3.5	–	505	7111.40000
CAT 40/ER 40 x 6" H	4340.14071	63	–	6	–	505/505	7111.40000

**Balancing rings*

Included in delivery: ER toolholders come with Hi-Q®/ER clamping nut. ERA toolholders come with Hi-Q®/ERA clamping nuts

H: Ready to accept balancing rings

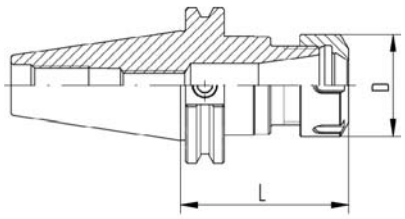
CAT-B toolholders

		Dimensions				Accessories	
Type	**Part no.**	**D [mm]**	**D1 [mm]**	**L [inch]**	**L1 [inch]**	**FWR***	**Wrench**
CAT-B 40							
CAT-B 40/ER 11 x 3" H	4340.11134	19	–	3	–	325	7112.11010
CAT-B 40/ER 11 x 6" H	4340.11174	19	–	6	–	325	7112.11010
CAT-B 40/ER 16 x 3" H	4340.11634	28	–	3	–	325	7112.16010
CAT-B 40/ER 16 x 4" H	4340.11654	28	–	4	–	285	7112.16010
CAT-B 40/ER 16 x 6" H	4340.11674	28	–	6	–	325/225	7112.16010
CAT-B 40/ER 20 x 3" H	4340.12034	34	–	3	–	285	7112.20010
CAT-B 40/ER 20 x 4" H	4340.12054	34	–	4	–	325	7112.20010
CAT-B 40/ER 20 x 6" H	4340.12074	34	–	6	–	405/285	7112.20010
CAT-B 40/ER 25 x 4" H	4340.12554	42	–	4	–	325	7111.25000
CAT-B 40/ER 25 x 6" H	4340.12574	42	–	6	–	405/325	7111.25000
CAT-B 40/ER 32 x 3" H	4340.13234	50	–	3	–	405	7111.32000
CAT-B 40/ER 32 x 4" H	4340.13254	50	–	4	–	405	7111.32000
CAT-B 40/ER 32 x 5" H	4340.13264	50	–	5	–	405	7111.32000
CAT-B 40/ER 32 x 6" H	4340.13274	50	–	6	–	405/405	7111.32000
CAT-B 40/ER 40 x 3.5" H	4340.14044	63	–	3.5	–	505	7111.40000
CAT-B 40/ER 40 x 6" H	4340.14074	63	–	6	–	505/505	7111.40000

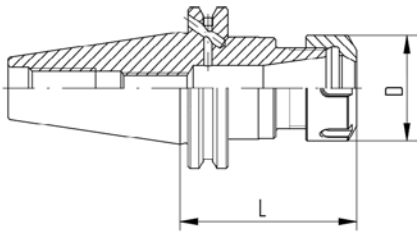
**Balancing rings*

Included in delivery: ER toolholders come with Hi-Q®/ER clamping nut. ERA toolholders come with Hi-Q®/ERA clamping nuts

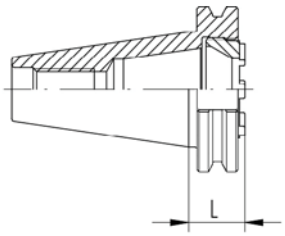
H: Ready to accept balancing rings



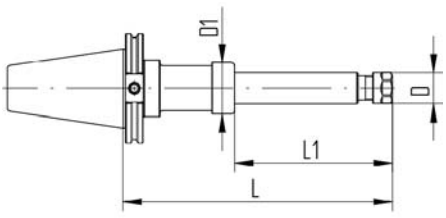
CAT/ER (Form A+AD)



CAT-B/ER (Form AD+B)



CAT/ERA



CAT/ER XL (Form A+AD)

CAT toolholders
CAT-B toolholders

CAT | CAT-B

		Dimensions				Accessories	
Type	Part no.	D [mm]	D1 [mm]	L [inch]	L1 [inch]	FWR*	Wrench
CAT 50							
CAT 50/ER 16 x 4" H	4350.11651	28		4		505	7112.16010
CAT 50/ER 16 x 6" H	4350.11671	28		6		505/225	7112.16010
CAT 50/ER 16 x 8" XL	8853.13031	28	42	8	4		7112.16010
CAT 50/ER 16 x 10" XL	8853.13081	28	42	10	4		7112.16010
CAT 50/ER 16 x 12" XL	8853.13131	28	42	12	8		7112.16010
CAT 50/ER 16 x 14" XL	8853.13181	28	42	14	8		7112.16010
CAT 50/ER 20 x 4" H	4350.12051	34		4		505	7112.20010
CAT 50/ER 20 x 6" H	4350.12071	34		6		505/285	7112.20010
CAT 50/ER 25 x 4" H	4350.12551	42		4		505	7111.25000
CAT 50/ER 25 x 6" H	4350.12571	42		6		505/325	7111.25000
CAT 50/ER 32 x 4" H	4350.13251	50		4		505	7111.32000
CAT 50/ER 32 x 6" H	4350.13271	50		6		505/405	7111.32000
CAT 50/ER 32 x 10" XL	8853.16081	50	52	10	4		7111.32000
CAT 50/ER 32 x 14" XL	8853.16181	50	52	14	8		7111.32000
CAT 50/ERA 40 x 019 mm	2350.14007	44		19 mm			7117.40000
CAT 50/ER 40 x 4" H	4350.14051	63		4		505	7111.40000
CAT 50/ER 40 x 6" H	4350.14071	63		6		505/505	7111.40000
CAT-B 50							
CAT-B 50/ER 16 x 4" H	4350.11654	28		4		505	7112.16010
CAT-B 50/ER 16 x 6" H	4350.11674	28		6		505/225	7112.16010
CAT-B 50/ER 20 x 4" H	4350.12054	34		4		505	7112.20010
CAT-B 50/ER 20 x 6" H	4350.12074	34		6		505/285	7112.20010
CAT-B 50/ER 25 x 4" H	4350.12554	42		4		505	7111.25000
CAT-B 50/ER 25 x 6" H	4350.12574	42		6		505/325	7111.25000
CAT-B 50/ER 32 x 4" H	4350.13254	50		4		505	7111.32000
CAT-B 50/ER 32 x 6" H	4350.13274	50		6		505/405	7111.32000
CAT-B 50/ER 40 x 4" H	4350.14054	63		4		505	7111.40000
CAT-B 50/ER 40 x 6" H	4350.14074	63		6		505/505	7111.40000

**Balancing rings*

Included in delivery: ER toolholders come with Hi-Q®/ER clamping nut. ERA toolholders come with Hi-Q®/ERA clamping nuts

H: Ready to accept balancing rings

Expert advice

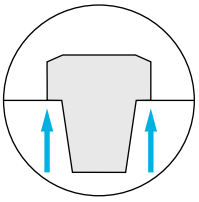
For additional technical drawings and details,
see the REGO-FIX website at www.rego-fix.com.

REGO-PLUS doublecontact

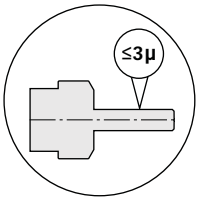
REGO-FIX CAT+ toolholders

Certified The BIG PLUS SYSTEM – licensed by BIG Daishowa – is manufactured at REGO-FIX in Switzerland under license according to BIG PLUS specifications.

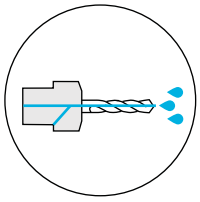
Key advantages



Higher toolholder stiffness due to taper (AT1) and face contact



Improved machining accuracy and better surface finish



Form AD+B as standard configuration

		Dimensions				Accessories	
Type	**Part no. AD+B**	**D [mm]**	**D1**	**L [inch]**	**L1**	**FWR***	**Wrench**
CAT+ 40**							
CAT+ 40/ER 11 x 3" H	4340.11136	19	–	3	–	285	7112.11010
CAT+ 40/ER 16 x 3" H	4340.11636	28	–	3	–	325	7112.16010
CAT+ 40/ER 16 x 6" H	4340.11676	28	–	6	–	325/225	7112.16010
CAT+ 40/ER 20 x 3" H	4340.12036	34	–	3	–	285	7112.20010
CAT+ 40/ER 20 x 6" H	4340.12076	34	–	6	–	405/285	7112.20010
CAT+ 40/ER 25 x 4" H	4340.12556	42	–	4	–	325	7111.25000
CAT+ 40/ER 25 x 6" H	4340.12576	42	–	6	–	405/325	7111.25000
CAT+ 40/ER 32 x 3" H	4340.13236	50	–	3	–	405	7111.32000
CAT+ 40/ER 32 x 6" H	4340.13276	50	–	6	–	405/405	7111.32000
CAT+ 50**							
CAT+ 50/ER 16 x 4" H	4350.11656	28	–	4	–	505	7112.16010
CAT+ 50/ER 16 x 6" H	4350.11676	28	–	6	–	505/225	7112.16010
CAT+ 50/ER 20 x 4" H	4350.12056	34	–	4	–	505	7112.20010
CAT+ 50/ER 25 x 4" H	4350.12556	42	–	4	–	505	7111.25000
CAT+ 50/ER 32 x 4" H	4350.13256	50	–	4	–	505	7111.32000
CAT+ 50/ER 32 x 6" H	4350.13276	50	–	6	–	505/405	7111.32000
CAT+ 50/ER 40 x 4" H	4350.14056	63	–	4	–	505	7111.40000

**Balancing rings*

***USA only*

Included in delivery: ER toolholders come with Hi-Q®/ER clamping nut. ERA toolholders come with Hi-Q®/ERA clamping nuts

H: Ready to accept balancing rings

REGO-FIX CAPTO toolholders

These self-centering and balanced toolholders enable high-torque transmission and show a high-bending strength.

ISO 12164

Features and benefits

Runout TIR ≤ 3 µm

Measured from inner taper to outer taper.

Surface finish max. Ra 0.25

Achieve high clamping force and high transferable torque.

Balancing

100 % balanced to G 2.5 @ 25,000 rpm/<1gmm.

XL toolholders

100 % balanced to G 2.5 @ 5,000 rpm.
TIR from inner to outer taper <10 µm.

Hi-Q® balancing system

Ready to accept Hi-Q® balancing rings which allow for the offset of the imbalance introduced by the cutting tool up to 80,000 rpm depending on the balancing rings used. All toolholders with the additional type information "H" in the article name are designed for balancing rings.

Hi-Q® / ER clamping nut included in delivery

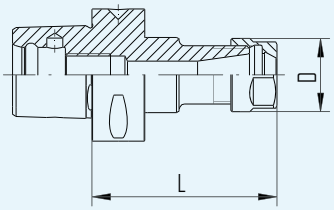
Guarantees highest clamping force and best balancing.

Vibration dampening

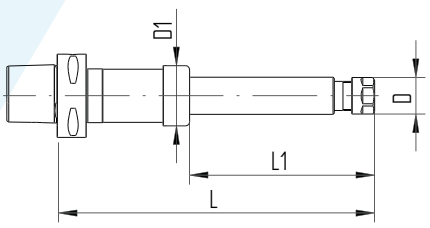
Our holders offer good vibration dampening to sustain a high surface finish and can help prevent chatter.

Accessories are not included in delivery. Other XL sizes available on request
All REGO-FIX CAPTO toolholders are available with chip hole on request

Certified REGO-FIX CAPTO – licensed by Sandvik Coromant – is manufactured at REGO-FIX Switzerland under license according to CAPTO specifications.



C / ER



C / ER XL

REGO-FIX CAPTO toolholders licensed by Sandvik Coromant

C3–C8
ISO 26623

		Dimensions [mm]				Accessories	
Type	**Part no.**	**D**	**D1**	**L**	**L1**	**FWR***	**Wrench**
C3							
C3/ER 16 x 045	2803.11610	28	–	45	–	–	E 16 P
C3/ER 20 x 045	2803.12010	34	–	45	–	–	E 20 P
C4							
C4/ER 16 x 070	2804.11630	28	–	70	–	–	E 16 P
C4/ER 20 x 052	2804.12010	34	–	52	–	–	E 20 P
C4/ER 25 x 052	2804.12510	42	–	52	–	–	E 25
C4/ER 32 x 054	2804.13210	50	–	54	–	–	E 32
C5							
C5/ER 16 x 070 H	4805.11630	28	–	70	–	285	E 16 P
C5/ER 16 x 100 H	4805.11650	28	–	100	–	285	E 16 P
C5/ER 20 x 055	2805.12010	34	–	55	–	–	E 20 P
C5/ER 20 x 100 H	4805.12050	34	–	100	–	325	E 20 P
C5/ER 25 x 055	2805.12510	42	–	55	–	–	E 25
C5/ER 25 x 100 H	4805.12550	42	–	100	–	405	E 25
C5/ER 32 x 057	2805.13210	50	–	57	–	–	E 32
C5/ER 32 x 070 H	4805.13230	50	–	70	–	405	E 32
C5/ER 32 x 100H	4805.13250	50	–	100	–	405	E 32
C6							
C6/ER 11 x 150 H	4806.11170	19	–	150	–	325	E 11 P
C6/ER 16 x 070 H	4806.11630	28	–	70	–	325	E 16 P
C6/ER 16 x 100 H	4806.11650	28	–	100	–	325	E 16 P
C6/ER 16 x 150 H	4806.11670	28	–	150	–	325	E 16 P
C6/ER 16 x 225 XL	8886.13050	28	46	225	140	–	E 16 P
C6/ER 16 x 240 XL	8886.13070	28	46	240	140	–	E 16 P
C6/ER 16 x 260 XL	8886.13090	28	46	260	140	–	E 16 P
C6/ER 16 x 300 XL	8886.13130	28	46	300	140	–	E 16 P
C6/ER 16 x 325 XL	8886.13150	28	46	325	240	–	E 16 P
C6/ER 16 x 340 XL	8886.13170	28	46	340	240	–	E 16 P
C6/ER 16 x 360 XL	8886.13190	28	46	360	240	–	E 16 P
C6/ER 16 x 400 XL	8886.13230	28	46	400	240	–	E 16 P
C6/ER 20 x 060	2806.12020	34	–	60	–	–	E 20 P

**Balancing rings H: Ready to accept balancing rings*

Included in delivery: toolholders come with Hi-Q®/ER clamping nut

All REGO-FIX CAPTO toolholders are available with chip hole on request.

REGO-FIX CAPTO toolholders licensed by Sandvik Coromant

C3–C8
ISO 26623

		Dimensions [mm]				Accessories	
Type	**Part no.**	**D**	**D1**	**L**	**L1**	**FWR***	**Wrench**
C6 continued							
C6/ER 25 x 060	2806.12520	42	–	60	–	–	E 25
C6/ER 25 x 100 H	4806.12550	42	–	100	–	405	E 25
C6/ER 25 x 130 H	4806.12560	42	–	130	–	405	E 25
C6/ER 32 x 060	2806.13220	50	–	60	–	–	E 32
C6/ER 32 x 070 H	4806.13230	50	–	70	–	405	E 32
C6/ER 32 x 100 H	4806.13250	50	–	100	–	505	E 32
C6/ER 32 x 230 XL	8886.16060	50	55	230	140	–	E 32
C6/ER 32 x 330 XL	8886.16160	50	55	330	240	–	E 32
C6/ER 40 x 065	2806.14020	63	–	65	–	–	E 40
C8							
C8/ER 16 x 232 XL	8888.13060	28	46	232	140	–	E 16 P
C8/ER 16 x 332 XL	8888.13160	28	46	332	240	–	E 16 P
C8/ER 25 x 070	2808.12530	42	–	70	–	–	E 25
C8/ER 32 x 070	2808.13230	50	–	70	–	–	E 32
C8/ER 32 x 230 XL	8888.16060	50	55	230	140	–	E 32
C8/ER 32 x 330 XL	8888.16160	50	55	330	240	–	E 32
C8/ER 40 x 070	2808.14030	63	–	70	–	–	E 40
C8/ER 50 x 080	2808.15040	78	–	80	–	–	E 50

**Balancing rings H: Ready to accept balancing rings*

Included in delivery: toolholders come with Hi-Q®/ER clamping nut

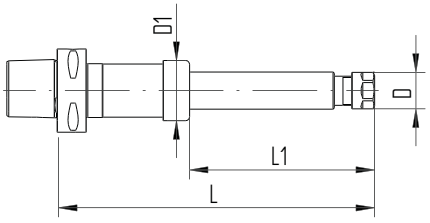
All REGO-FIX CAPTO toolholders are available with chip hole on request

C/ER

Expert advice

We recommend tightening the clamping nuts with our TORCO-BLOCK or torque wrench. Get the best accuracy by respecting the suitable tightening forces.

For more information on TORCO-BLOCK, see page 262.
For tightening torque recommendations, please refer to page 293.



C/ER XL

ER

Cylindrical shank toolholders CYL

CYL / CYLF / CYDF

Features and benefits

Runout TIR ≤ 3 µm for CYL / ERM and CYL / ERMX

Measured from inner taper to outer shank.

Runout TIR ≤ 5 µm for CYLF / ERM and CYLF / ERMX

Measured from inner taper to outer shank.

Runout TIR ≤ 5 µm for CYDF / ERM and CYDF / ERMX

Measured from inner taper to outer shank.

Surface finish max. Ra 0.25

Achieve high clamping force and high transferable torque.

Sizes

ER 8 – ER 40
h6 tolerance on shanks.

Types

// With or without clamping flat
// Double ER holders

Accessories are not included in delivery

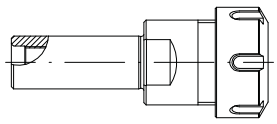
Expert advice

We recommend tightening the clamping nuts with our torque wrench.

For tightening torque recommendations, please refer to page 293.

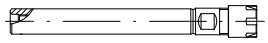
Available CYL toolholders and their key characteristics

Cylindrical REGO-FIX toolholders are designed for automatic turning machines and can also be utilized as extensions.
We offer many different product types to fit your machining needs.



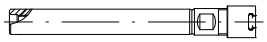
CYL/ER

CYL/ER The short versions are particularly used on turret lathes, where a short overhang is often required.
For technical dimensions, please refer to page 100.



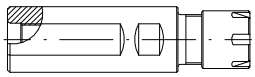
CYL/ERM

CYL/ERM This type is suited for Swiss automatic machines, machining centers and conventional machines. Can be used as extension.
For technical dimensions, please refer to page 102.



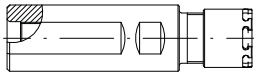
CYL/ERMX

CYL/ERMX This type is suited for Swiss automatic machines, machining centers and conventional machines. The slip-off proof mini clamping nut intRlox® prevents injuries caused by slipping off while tightening the nut. Can be used as extension.
For technical dimensions, please refer to page 102.



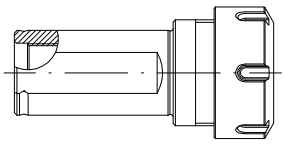
CYLF/ERM

CYLF/ERM The line of cylindrical toolholders with clamping flat is particularly designed for Swiss automatic CNC machines, e.g., Citizen, Manurhin, Star or Tornos. Cannot be used as extension.
For technical dimensions, please refer to page 104.



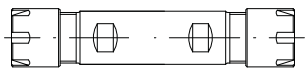
CYLF/ERMX

CYLF/ERMX The line of cylindrical toolholders with clamping flat is particularly designed for Swiss automatic CNC machines, e.g., Citizen, Manurhin, Star or Tornos. The slip-off proof mini clamping nut intRlox® prevents insuries caused by slipping off while tightening the nut. Cannot be used as extension.
For technical dimensions, please refer to page 104.



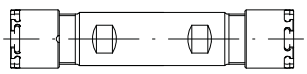
CYL/ER NC

CYL/ER NC These toolholders are particularly suitable on Swiss automatic CNC turning machines, but can also be used on other turning machines.
For technical dimensions, please refer to page 107.



CYDF/ERM

CYDF/ERM The line of double toolholders with clamping flat has been designed for Swiss automatic CNC machines, e.g., Citizen, Manurhin, Star or Tornos and offers the possibility to hold two cutting tools on the same toolholder.
For technical dimensions, please refer to page 108.



CYDF/ERMX

CYDF/ERMX The line of double toolholders with clamping flat has been designed for Swiss Automatic CNC machines, e.g., Citizen, Manurhin, Star or Tornos, and offers the possibility to hold two cutting tools on the same toolholder. The slip-off proof mini clamping nut intRlox® prevents injuries caused by slipping off while tightening the nut.
For technical dimensions, please refer to page 108.

CYL / ER toolholder

		Dimensions [mm]						Accessory
Type	Part no.	D	D1 h6	L	L1	G1	G2	Wrench
CYL 1/2 [inch]								
CYL 1/2" x 070 / ER 11	2613.11141	19	12.7	70	28.5	M 6	M 6	E 11 P
CYL 1/2" x 100 / ER 16	2613.11661	28	12.7	100	36	M 6	M 6	E 16 P
CYL 1/2" x 100 / ER 20	2613.12061	34	12.7	100	44.5	M 6	M 6	E 20 P
CYL 14 [mm]								
CYL 14 x 060 / ER 16	2614.11630	28	14	60	36.5	M 6	M 6	E 16 P
CYL 16 [mm]								
CYL 16 x 060 / ER 16	2616.11630	28	16	60	36.5	M 8 x 1	–	E 16 P
CYL 5/8 [inch]								
CYL 5/8" x 060 / ER 16	2616.11631	28	15.875	60	36.5	M 8 x 1	–	E 16 P
CYL 5/8" x 100 / ER 20	2616.12061	34	15.875	100	44.5	M 8 x 1	M 8 x 1	E 20 P
CYL 3/4 [inch]								
CYL 3/4" x 050 / ER 16	2619.11621	28	19.05	50	30.5	M 12 x 1	–	E 16 P
CYL 3/4" x 100 / ER 16	2619.11661	28	19.05	100	30.5	M 12 x 1	M 11 x 1	E 16 P
CYL 3/4" x 060 / ER 20	2619.12031	34	19.05	60	36.5	M 12 x 1	–	E 20 P
CYL 3/4" x 050 / ER 25	2619.12521	42	19.05	50	47	M 12 x 1	–	E 25
CYL 20 [mm]								
CYL 20 x 050 / ER 16	2620.11620	28	20	50	30.5	M 12 x 1	–	E 16 P
CYL 20 x 100 / ER 16	2620.11660	28	20	100	30.5	M 12 x 1	M 11 x 1	E 16 P
CYL 20 x 030 / ER 20	2620.12010	34	20	30	36.5	M 12 x 1	–	E 20 P
CYL 20 x 060 / ER 20	2620.12030	34	20	60	36.5	M 12 x 1	–	E 20 P
CYL 20 x 050 / ER 25	2620.12520	42	20	50	47	M 12 x 1	–	E 25
CYL 20 x 100 / ER 25	2620.12560	42	20	100	47	M 12 x 1	M 12 x 1	E 25
CYL 20 x 050 / ER 32	2620.13220	50	20	50	54	M 12 x 1	–	E 32
CYL 20 x 100 / ER 32	2620.13260	50	20	100	54	M 12 x 1	M 12 x 1	E 32
CYL 25 [mm]								
CYL 25 x 050 / ER 25	2625.12520	42	25	50	47	M 18 x 1.5	–	E 25
CYL 25 x 100 / ER 25	2625.12560	42	25	100	47	M 18 x 1.5	M 18 x 1.5	E 25
CYL 25 x 050 / ER 32	2625.13220	50	25	50	54	M 18 x 1.5	–	E 32
CYL 25 x 050 / ER 40	2625.14020	63	25	50	60	M 18 x 1.5	–	E 40

Included in delivery: toolholders come with Hi-Q® / ER clamping nut and back-up screw

CYL/ER toolholder

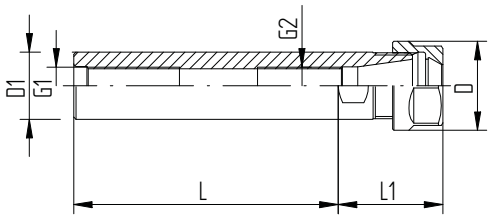
Type	Part no.	Dimensions [mm] D	D1 h6	L	L1	G1	G2	Accessory Wrench
CYL 1 [inch]								
CYL 1" x 100/ER 20	2625.12061	34	25.4	100	39.5	M 14 x 1	M 14 x 1	E 20 P
CYL 1" x 050/ER 25	2625.12521	42	25.4	50	47	M 18 x 1.5	–	E 25
CYL 1" x 100/ER 25	2625.12561	42	25.4	100	47	M 18 x 1.5	M 18 x 1.5	E 25
CYL 1" x 050/ER 32	2625.13221	50	25.4	50	53	M 18 x 1.5	–	E 32
CYL 1" x 050/ER 40	2625.14021	63	25.4	50	60	M 18 x 1.5	–	E 40
CYL 30 [mm]								
CYL 30 x 050/ER 25	2630.12520	42	30	50	42	M 18 x 1.5	–	E 25
CYL 1 1/4 [inch]								
CYL 1 1/4" x 060/ER 32	2632.13231	50	31.75	60	53	M 22 x 1.5	–	E 32

Included in delivery: toolholders come with Hi-Q®/ER clamping nut and back-up screw

CYL/ER

Coolant adapters*	
CGA M 12 x 1/1/8" NPT	7239.12181
CGA M 14 x 1/1/4" NPT	7239.14141
CGA M 18 x 1.5/1/4" NPT	7239.18141
CGA M 22 x 1.5/1/4" NPT	7239.22141

Converts back-up screw threads to coolant port for through coolant applications
**USA only*



CYL/ER

CYL / ERM toolholders (mini clamping nut)

CYL / ERMX toolholders with intRlox® (slip-off proof mini clamping nut)

Type	Part no.	Dimensions [mm] D	D1 h6	L	L1	G1	G2	Slip-off proof	Accessory Wrench
CYL 6 [mm]									
CYL 6 x 045 / ERM 11	2606.21120	16	6	45	26.5	–	–	–	E 11 M
CYL 6 x 045 / ERMX 11	4606.21120	16	6	45	26.5	–	–	•	E 11 MX
CYL 7 [mm]									
CYL 7 x 045 / ERM 11	2607.21120	16	7	45	26.5	–	–	–	E 11 M
CYL 7 x 045 / ERMX 11	4607.21120	16	7	45	26.5	–	–	•	E 11 MX
CYL 8 [mm]									
CYL 8 x 080 / ERM 8	2608.20850	12	8	80	26	M 5	–	–	E 8 M
CYL 8 x 080 / ERMX 8	4608.20850	12	8	80	26	M 5	–	•	E 8 MX
CYL 8 x 056 / ERM 11	2608.21130	16	8	56	26.5	M 5	–	–	E 11 M
CYL 8 x 056 / ERMX 11	4608.21130	16	8	56	26.5	M 5	–	–	E 11 MX
CYL 3/8 [inch]									
CYL 3/8" x 070 / ERM 8	2609.20841	12	9.525	70	23	M 5	M 5	–	E 8 M
CYL 3/8" x 070 / ERMX 8	4609.20841	12	9.525	70	23	M 5	M 5	•	E 8 MX
CYL 10 [mm]									
CYL 10 x 060 / ERM 16	2610.21630	22	10	60	38.5	M 5	–	–	E 16 M
CYL 10 x 060 / ERMX 16	4610.21630	22	10	60	38.5	M 5	–	•	E 16 MX
CYL 12 [mm]									
CYL 12 x 080 / ERM 8	2612.20850	12	12	80	17	M 5	–	–	E 8 M
CYL 12 x 080 / ERMX 8	4612.20850	12	12	80	17	M 5	–	•	E 8 MX
CYL 12 x 080 / ERM 16	2612.21650	22	12	80	38.5	M 5	–	–	E 16 M
CYL 12 x 080 / ERMX 16	4612.21650	22	12	80	38.5	M 5	–	•	E 16 MX
CYL 1/2 [inch]									
CYL 1/2" x 140 / ERM 11	2613.21191	16	12.7	140	29.5	M 6	M 6	–	E 11 M
CYL 1/2" x 140 / ERMX 11	4613.21191	16	12.7	140	29.5	M 6	M 6	•	E 11 MX
CYL 1/2" x 140 / ERM 16	2613.21691	22	12.7	140	37	M 6	M 6	–	E 16 M
CYL 1/2" x 140 / ERMX 16	4613.21691	22	12.7	140	37	M 6	M 6	•	E 16 MX
CYL 16 [mm]									
CYL 16 x 150 / ERM 11	2616.21190	16	16	150	21	M 8 x 1	M 8 x 1	–	E 11 M
CYL 16 x 150 / ERMX 11	4616.21190	16	16	150	21	M 8 x 1	M 8 x 1	•	E 11 MX
CYL 16 x 100 / ERM 20	2616.22060	28	16	100	42.5	M 8 x 1	–	–	E 20 M
CYL 16 x 100 / ERMX 20	4616.22060	28	16	100	42.5	M 8 x 1	–	•	E 20 MX

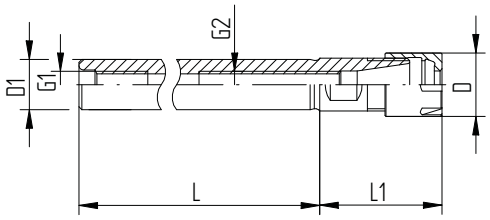
CYL / ERM toolholders (mini clamping nut)

CYL / ERMX toolholders with intRlox® (slip-off proof mini clamping nut)

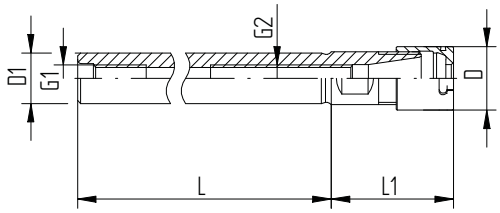
Type	Part no.	Dimensions [mm] D	D1 h6	L	L1	G1	G2	Slip-off proof	Accessory Wrench
CYL 5/8 [inch]									
CYL 5/8" x 150 / ERM 11	2616.21191	16	15.875	150	19.5	M 8 x 1	M 8 x 1	–	E 11 M
CYL 5/8" x 150 / ERMX 11	4616.21191	16	15.875	150	19.5	M 8 x 1	M 8 x 1	•	E 11 MX
CYL 3/4 [inch]									
CYL 3/4" x 155 / ERM 16	2619.21691	22	19.05	155	26.5	M 12 x 1	–	–	E 16 M
CYL 3/4" x 155 / ERMX 16	4619.21691	22	19.05	155	26.5	M 12 x 1	–	•	E 16 MX
CYL 3/4" x 100 / ERM 25	2619.22561	35	19.05	100	47	M 12 x 1	M 12 x 1	–	E 25 M
CYL 3/4" x 100 / ERMX 25	4619.22561	35	19.05	100	47	M 12 x 1	M 12 x 1	•	E 25 MX
CYL 20 [mm]									
CYL 20 x 155 / ERM 16	2620.21690	22	20	155	25.5	M 12 x 1	M 11 x 1	–	E 16 M
CYL 20 x 155 / ERMX 16	4620.21690	22	20	155	25.5	M 12 x 1	M 11 x 1	•	E 16 MX
CYL 25 [mm]									
CYL 25 x 155 / ERM 20	2625.22090	28	25	155	27	M 14 x 1	M 14 x 1	–	E 20 M
CYL 25 x 155 / ERMX 20	4625.22090	28	25	155	27	M 14 x 1	M 14 x 1	•	E 20 MX
CYL 1 [inch]									
CYL 1" x 155 / ERM 20	2625.22091	28	25.4	155	27	M 14 x 1	M 14 x 1	–	E 20 M
CYL 1" x 155 / ERMX 20	4625.22091	28	25.4	155	27	M 14 x 1	M 14 x 1	•	E 20 MX

Included in delivery: toolholders come with Hi-Q®/ERM or Hi-Q®/ERMX clamping nut and back-up screw

CYL / ERMX



CYL / ERM



CYL / ERMX

CYLF / ERM toolholders (mini clamping nut)

CYLF / ERMX toolholders with intRlox® (slip-off proof mini clamping nut)

Type	Part no.	Dimensions [mm] D	D1 h6	L	L1	G1	G2	Slip-off proof	Accessory Wrench
CYLF 12 [mm]									
CYLF 12 x 043 / ERM 8	2612.20822	12	12	43	17	M 5	–	–	E 8 M
CYLF 12 x 043 / ERMX 8	4612.20822	12	12	43	17	M 5	–	•	E 8 MX
CYLF 5/8 [inch]									
CYLF 5/8" x 043 / ERM 8	2616.20811	12	15.875	43	15.5	M 5	M 5	–	E 8 M
CYLF 5/8" x 043 / ERMX 8	4616.20811	12	15.875	43	15.5	M 5	M 5	•	E 8 MX
CYLF 16 [mm]									
CYLF 16 x 038 / ERM 11	2616.21112	16	16	38	19.5	M 8 x 1	–	–	E 11 M
CYLF 16 x 038 / ERMX 11	4616.21112	16	16	50	16	M 8 x 1	–	•	E 11 MX
CYLF 16 x 050 / ERM 11	2616.21122	16	16	50	16	M 8 x 1	–	–	E 11 M
CYLF 16 x 050 / ERMX 11	4616.21122	16	16	50	16	M 8 x 1	–	•	E 11 MX
CYFL 16 x 140 / ERM 11	2616.21192	16	16	140	19.5	M 8 x 1	M 8 x 1	–	E 11 M
CYFL 16 x 140 / ERMX 11	4616.21192	16	16	140	19.5	M 8 x 1	M 8 x 1	•	E 11 MX
CYLF 16 x 035 / ERM 16	2616.21612	22	16	35	36	M 8 x 1	–	–	E 16 M
CYLF 16 x 035 / ERMX 16	4616.21612	22	16	35	36	M 8 x 1	–	•	E 16 MX
CYLF 3/4 [inch]									
CYLF 3/4" x 115 / ERM 11	2619.21173	16	19.05	115	19.5	M 8 x 1	M 8 x 1	–	E 11 M
CYLF 3/4" x 115 / ERMX 11	4619.21173	16	19.05	115	19.5	M 8 x 1	M 8 x 1	•	E 11 MX
CYLF 3/4" x 038 / ERM 16	2619.21613	22	19.05	38	27.5	M 12 x 1	–	–	E 16 M
CYLF 3/4" x 038 / ERMX 16	4619.21613	22	19.05	38	27.5	M 12 x 1	–	•	E 16 MX
CYLF 3/4" x 050 / ERM 16	2619.21623	22	19.05	50	25	M 12 x 1	–	–	E 16 M
CYLF 3/4" x 050 / ERMX 16	4619.21623	22	19.05	50	25	M 12 x 1	–	•	E 16 MX
CYLF 3/4" x 070 / ERM 16	2619.21643	22	19.05	70	29.5	M 12 x 1	–	–	E 16 M
CYLF 3/4" x 070 / ERMX 16	4619.21643	22	19.05	70	29.5	M 12 x 1	–	•	E 16 MX
CYLF 3/4" x 120 / ERM 16	2619.21683	22	19.05	120	27.5	M 12 x 1	M 11 x 1	–	E 16 M
CYLF 3/4" x 120 / ERMX 16	4619.21683	22	19.05	120	27.5	M 12 x 1	M 11 x 1	•	E 16 MX
CYLF 3/4" x 140 / ERM 16	2619.21693	22	19.05	140	27.5	M 12 x 1	M 11 x 1	–	E 16 M
CYLF 3/4" x 140 / ERMX 16	4619.21693	22	19.05	140	27.5	M 12 x 1	M 11 x 1	•	E 16 MX

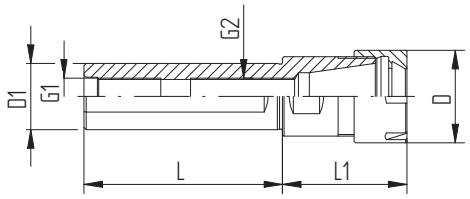
Included in delivery: toolholders come with Hi-Q® / ERM or Hi-Q® / ERMX clamping nut and back-up screw

CYLF / ERM toolholders (mini clamping nut)

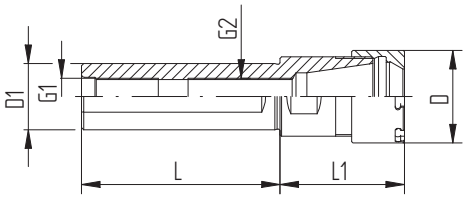
CYLF / ERMX toolholders with intRlox® (slip-off proof mini clamping nut)

Type	Part no.	Dimensions [mm] D	D1 h6	L	L1	G1	G2	Slip-off proof	Accessory Wrench
CYLF 20 [mm]									
CYLF 20 x 060 / ERM 11	2620.21132	16	20	60	19.5	M 8 x 1	–	–	E 11 M
CYLF 20 x 060 / ERMX 11	4620.21132	16	20	60	19.5	M 8 x 1	–	•	E 11 MX
CYLF 20 x 038 / ERM 16	2620.21612	22	20	38	26.5	M 12 x 1	–	–	E 16 M
CYLF 20 x 038 / ERMX 16	4620.21612	22	20	38	26.5	M 12 x 1	–	•	E 16 MX
CYLF 20 x 050 / ERM 16	2620.21622	22	20	50	27.5	M 12 x 1	–	–	E 16 M
CYLF 20 x 050 / ERMX 16	4620.21622	22	20	50	27.5	M 12 x 1	–	•	E 16 MX
CYLF 20 x 070 / ERM 16	2620.21642	22	20	70	27.5	M 12 x 1	–	–	E 16 M
CYLF 20 x 070 / ERMX 16	4620.21642	22	20	70	27.5	M 12 x 1	–	•	E 16 MX
CYLF 20 x 120 / ERM 16	2620.21682	22	20	120	27.5	M 12 x 1	M 11 x 1	–	E 16 M
CYLF 20 x 120 / ERMX 16	4620.21682	22	20	120	27.5	M 12 x 1	M 11 x 1	•	E 16 MX
CYLF 20 x 140 / ERM 16	2620.21692	22	20	140	27.5	M 12 x 1	M 11 x 1	–	E 16 M
CYLF 20 x 140 / ERMX 16	4620.21692	22	20	140	27.5	M 12 x 1	M 11 x 1	•	E 16 MX
CYLF 22 [mm]									
CYLF 22 x 038 / ERM 16	2622.21612	22	22	38	27.5	M 12 x 1	–	–	E 16 M
CYLF 22 x 038 / ERMX 16	4622.21612	22	22	38	27.5	M 12 x 1	–	–	E 16 MX
CYLF 22 x 070 / ERM 16	2622.21642	22	22	70	27.5	M 12 x 1	–	–	E 16 M
CYLF 22 x 070 / ERMX 16	4622.21642	22	22	70	27.5	M 12 x 1	–	–	E 16 MX
CYLF 22 x 100 / ERM 16	2622.21662	22	22	100	27.5	M 12 x 1	M 11 x 1	–	E 16 M
CYLF 22 x 100 / ERMX 16	4622.21662	22	22	100	27.5	M 12 x 1	M 11 x 1	•	E 16 MX
CYLF 22 x 080 / ERM 20	2622.22052	28	22	80	39	M 12 x 1	M 12 x 1	–	E 20 M
CYLF 22 x 080 / ERMX 20	4622.22052	28	22	80	39	M 12 x 1	M 12 x 1	•	E 20 MX
CYLF 22 x 070 / ERM 25	2622.22542	35	22	70	47	M 12 x 1	M 12 x 1	–	E 25 M

Included in delivery: toolholders come with Hi-Q® / ERM or Hi-Q® / ERMX clamping nut and sealing back-up screw



CYLF / ERM



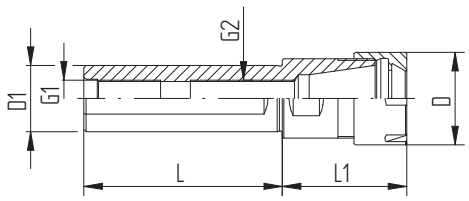
CYLF / ERMX

CYLF / ERM toolholders (mini clamping nut)

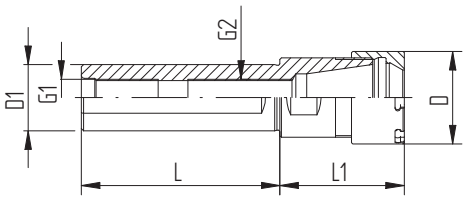
CYLF / ERMX toolholders with intRlox® (slip-off proof mini clamping nut)

Type	Part no.	Dimensions [mm] D	D1 h6	L	L1	G1	G2	Slip-off proof	Accessory Wrench
CYLF 25 [mm]									
CYLF 25 x 065 / ERM 16	2625.21642	22	25	65	27.5	M 12 x 1	–	–	E 16 M
CYLF 25 x 065 / ERMX 16	4625.21642	22	25	65	27.5	M 12 x 1	–	•	E 16 MX
CYLF 25 x 100 / ERM 20	2625.22062	28	25	100	28	M 14 x 1	M 14 x 1	–	E 20 M
CYLF 25 x 100 / ERMX 20	4625.22062	28	25	100	28	M 14 x 1	M 14 x 1	•	E 20 MX
CYLF 25 x 154 / ERM 20	2625.22002	28	25	154	28	M 14 x 1	M 14 x 1	–	E 20 M
CYLF 25 x 154 / ERMX 20	4625.22002	28	25	154	28	M 14 x 1	M 14 x 1	•	E 20 MX
CYLF 25 x 075 / ERM 25	2625.22552	35	25	75	47	M 14 x 1	M 14 x 1	–	E 25 M
CYLF 25 x 075 / ERMX 25	4625.22552	35	25	75	47	M 14 x 1	M 14 x 1	•	E 25 MX
CYLF 25 x 145 / ERM 25	2625.22592	35	25	145	36	M 14 x 1	M 14 x 1	–	E 25 M
CYLF 25 x 145 / ERMX 25	4625.22592	35	25	145	36	M 14 x 1	M 14 x 1	•	E 25 MX
CYLF 1 [inch]									
CYLF 1" x 033 / ERM 16	2625.21613	22	25.4	33	28	M 12 x 1	–	–	E 16 M
CYLF 1" x 033 / ERMX 16	4625.21613	22	25.4	33	28	M 12 x 1	–	•	E 16 MX
CYLF 1" x 065 / ERM 16	2625.21643	22	25.4	65	27.5	M 12 x 1	–	–	E 16 M
CYLF 1" x 065 / ERMX 16	4625.21643	22	25.4	65	27.5	M 12 x 1	–	•	E 16 MX
CYLF 1" x 075 / ERM 16	2625.21653	22	25.4	75	27.5	M 12 x 1	–	–	E 16 M
CYLF 1" x 075 / ERMX 16	4625.21653	22	25.4	75	27.5	M 12 x 1	–	•	E 16 MX
CYLF 1" x 100 / ERM 16	2625.21663	22	25.4	100	27.5	M 12 x 1	M 11 x 1	–	E 16 M
CYLF 1" x 100 / ERMX 16	4625.21663	22	25.4	100	27.5	M 12 x 1	M 11 x 1	•	E 16 MX
CYLF 1" x 100 / ERM 20	2625.22063	28	25.4	100	27.5	M 14 x 1	M 14 x 1	–	E 20 M
CYLF 1" x 100 / ERMX 20	4625.22063	28	25.4	100	27.5	M 14 x 1	M 14 x 1	•	E 20 MX
CYLF 1" x 140 / ERM 20	2625.22093	28	25.4	140	27.5	M 14 x 1	M 14 x 1	–	E 20 M
CYLF 1" x 140 / ERMX 20	4625.22093	28	25.4	140	27.5	M 14 x 1	M 14 x 1	•	E 20 MX
CYLF 32 [mm]									
CYLF 32 x 070 / ERM 25	2632.22542	35	32	70	30	M 18 x 1.5	–	–	E 25 M
CYLF 32 x 070 / ERMX 25	4632.22542	35	32	70	30	M 18 x 1.5	–	•	E 25 MX

Included in delivery: toolholders come with Hi-Q® / ERM or Hi-Q® / ERMX clamping nut and back-up screw



CYLF / ERM



CYLF / ERMX

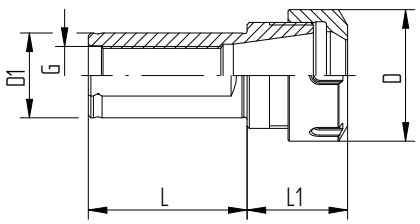
CYL / ER NC toolholders

Type	Part no.	Dimensions [mm] D	D1 h6	L	L1	G	Accessory Wrench
CYL 1 1/4 [inch]*							
CYL 1 1/4" x 060 / ER NC 25	2632.12533	42	31.75	60	32	M 18 x 1.5	E 25
CYL 1 1/4" x 060 / ER NC 32	2632.13233	50	31.75	60	38	M 22 x 1.5	E 32
CYL 32 [mm]							
CYL 32 x 060 / ER NC 25	2632.12532	42	32	60	32	M 18 x 1.5	E 25
CYL 32 x 060 / ER NC 32	2632.13232	50	32	60	38	M 22 x 1.5	E 32
CYL 1 1/2 [inch]*							
CYL 1 1/2" x 080 / ER NC 32	2638.13253	50	38.1	80	33	M 22 x 1.5	E 32
CYL 1 1/2" x 075 / ER NC 40	2638.14053	63	38.1	75	55	M 22 x 1.5	E 40
CYL 40 [mm]							
CYL 40 x 080 / ER NC 32	2640.13252	50	40	80	39	M 22 x 1.5	E 32
CYL 40 x 075 / ER NC 40	2640.14052	63	40	75	55	M 22 x 1.5	E 40

Included in delivery: toolholders come with Hi-Q®/ER clamping nut and back-up screw

**USA only*

CYL / ER NC



CYL / ER NC

CYDF / ERM toolholders (mini clamping nut)

CYDF / ERMX toolholders with intRlox® (slip-off proof mini clamping nut)

Type	Part no.	Dimensions [mm] D	D1 h6	L	L1	G	Slip-off proof	Accessory Wrench
CYDF 12 [mm]								
CYDF 12 x 015 / ERM 8	2612.20804	12	12	15	46	–	–	E 8 M
CYDF 12 x 015 / ERMX 8	4612.20804	12	12	15	46	–	•	E 8 MX
CYDF 12 x 025 / ERM 8	2612.20814	12	12	25	56	–	–	E 8 M
CYDF 12 x 025 / ERMX 8	4612.20814	12	12	25	56	–	•	E 8 MX
CYDF 5/8 [inch]								
CYDF 5/8" x 015 / ERM 8	2616.20805	12	15.875	15	46	–	–	E 8 M
CYDF 5/8" x 025 / ERM 8	2616.20895	12	15.875	25	56	–	–	E 8 M
CYDF 5/8" x 025 / ERMX 8	4616.20895	12	15.875	25	56	–	•	E 8 MX
CYDF 16 [mm]								
CYDF 16 x 040 / ERM 11	2616.21114	16	16	40	79	–	–	E 11 M
CYDF 16 x 040 / ERMX 11	4616.21114	16	16	40	79	–	•	E 11 MX
CYDF 16 x 050 / ERM 11	2616.21124	16	16	50	89	–	–	E 11 M
CYDF 16 x 050 / ERMX 11	4616.21124	16	16	50	89	–	•	E 11 MX
CYDF 3/4 [inch]								
CYDF 3/4" x 040 / ERM 11	2619.21125	16	19.05	40	79	–	–	E 11 M
CYDF 3/4" x 040 / ERMX 11	4619.21125	16	19.05	40	79	–	•	E 11 MX
CYDF 3/4" x 070 / ERM 11	2619.21145	16	19.05	70	109	–	–	E 11 M
CYDF 3/4" x 070 / ERMX 11	4619.21145	16	19.05	70	109	–	•	E 11 MX
CYDF 3/4" x 090 / ERM 11	2619.21165	16	19.05	90	129	–	–	E 11 M
CYDF 3/4" x 090 / ERMX 11	4619.21165	16	19.05	90	129	–	•	E 11 MX
CYDF 3/4" x 055 / ERM 16	2619.21635	22	19.05	55	107	–	–	E 16 M
CYDF 3/4" x 055 / ERMX 16	4619.21635	22	19.05	55	107	–	•	E 16 MX
CYDF 20 [mm]								
CYDF 20 x 030 / ERM 11	2620.21114	16	20	30	69	–	–	E 11 M
CYDF 20 x 030 / ERMX 11	4620.21114	16	20	30	69	–	•	E 11 MX
CYDF 20 x 050 / ERM 11	2620.21124	16	20	50	89	–	–	E 11 M
CYDF 20 x 050 / ERMX 11	4620.21124	16	20	50	89	–	•	E 11 MX
CYDF 20 x 055 / ERM 16	2620.21634	22	20	55	107	–	–	E 16 M
CYDF 20 x 055 / ERMX 16	4620.21634	22	20	55	107	–	•	E 16 MX

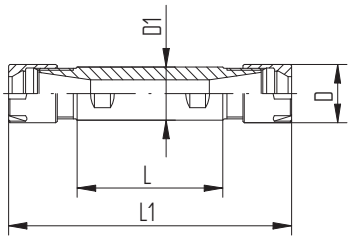
Included in delivery: toolholders come with two Hi-Q® / ERM or Hi-Q® / ERMX clamping nuts and back-up screw

CYDF / ERM toolholders (mini clamping nut)

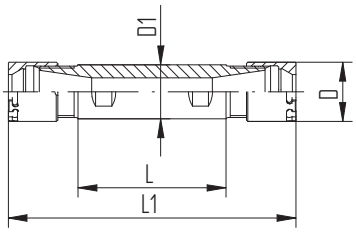
CYDF / ERMX toolholders with intRlox® (slip-off proof mini clamping nut)

Type	Part no.	Dimensions [mm] D	D1 h6	L	L1	G	Slip-off proof	Accessory Wrench
CYDF 22 [mm]								
CYDF 22 x 150 / ERM 11	2622.21194	16	22	150	189	–	–	E 11 M
CYDF 22 x 040 / ERM 16	2622.21624	22	22	40	80	–	–	E 16 M
CYDF 22 x 055 / ERM 16	2622.21634	22	22	55	110	–	–	E 16 M
CYDF 22 x 055 / ERMX 16	4622.21634	22	22	55	110	–	•	E 16 MX
CYDF 22 x 075 / ERM 16	2622.21654	22	22	75	130	–	–	E 16 M
CYDF 22 x 075 / ERMX 16	4622.21654	22	22	75	130	–	•	E 16 MX
CYDF 25 [mm]								
CYDF 25 x 062 / ERM 16	2625.21634	22	25	62	117	–	–	E 16 M
CYDF 25 x 062 / ERMX 16	4625.21634	22	25	62	117	–	•	E 16 MX
CYDF 1 [inch]								
CYDF 1" x 030 / ERM 16	2625.21615	22	25.4	30	86	–	–	E 16 M
CYDF 1" x 030 / ERMX 16	4625.21615	22	25.4	30	86	–	•	E 16 MX
CYDF 1" x 062 / ERM 16	2625.21635	22	25.4	62	117	–	–	E 16 M
CYDF 1" x 062 / ERMX 16	4625.21635	22	25.4	62	117	–	•	E 16 MX
CYDF 32 [mm]								
CYDF 32 x 055 / ERM 20	2632.22034	28	32	55	110	–	–	E 20 M
CYDF 32 x 055 / ERMX 20	4632.22034	28	32	55	110	–	•	E 20 MX
CYDF 32 x 075 / ERM 20	2632.22054	28	32	75	130	–	–	E 20 M
CYDF 32 x 075 / ERMX 20	4632.22054	28	32	75	130	–	•	E 20 MX

Included in delivery: toolholders come with two Hi-Q® / ERM or Hi-Q® / ERMX clamping nuts and back-up screw



CYDF / ERM



CYDF / ERMX

Morse taper toolholders MK

Applications Morse taper toolholders are designed for drawbar thread application. They can be used on milling or combined drilling-milling machines as well as on boring machines. For drilling machines we supply the corresponding tangs (ATL) on request.

Special applications When extra high clamping force is needed, e.g., when tapping with ER-GB, we recommend the use of our friction-bearing clamping nuts Hi-Q®/ERB and Hi-Q®/ERBC.

Matched tooling system for best fit For highest precision and best results the whole system counts. Therefore REGO-FIX components are carefully matched for optimum fit and accuracy. This guarantees the best runout and balance.

For the influence of runout on tool life see the graph page 270.

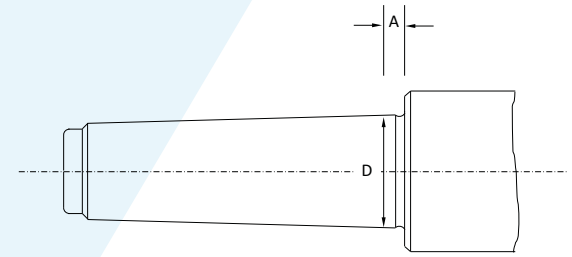
Accessories are not included in delivery.

Expert advice

We recommend tightening the clamping nuts with our torque wrench.

For tightening torque recommendations, please refer to page 293.

	Dimensions [mm]	
Type	**D**	**A**
MK		
MK 1	12.06	3.5
MK 2	17.78	5.0
MK 3	23.82	5.0
MK 4	31.26	6.5
MK 5	44.39	6.5

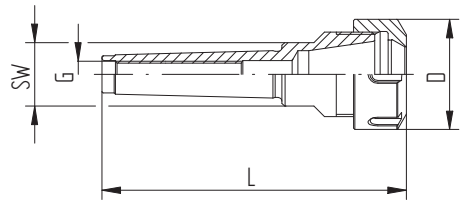


MK 1 – 5

Morse taper toolholders MK
Tangs ATL

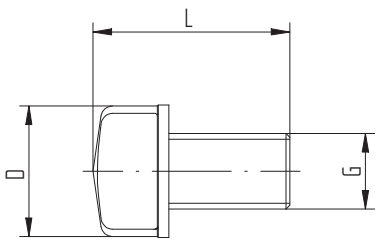
Type	Part no.	Dimensions [mm] D	L	G	SW	Accessory Wrench
MK 1						
MK 1/ER 16 x 041	2701.11600	28	93.5	M 6	17	E 16 P
MK 2						
MK 2/ER 20 x 049	2702.12000	34	111.5	M 10	22	E 20 P
MK 2/ER 25 x 052	2702.12500	42	115	M 10	27	E 25
MK 2/ER 32 x 060	2702.13200	50	123	M 10	32	E 32
MK 3						
MK 3/ER 25 x 052	2703.12500	42	132	M 12	27	E 25
MK 3/ER 32 x 070	2703.13200	50	150	M 12	32	E 32
MK 4						
MK 4/ER 32 x 060	2704.13200	50	161.5	M 16	32	E 32
MK 4/ER 40 x 082	2704.14000	63	183	M 16	41	E 40
MK 5						
MK 5/ER 40 x 064	2705.14000	63	192	M 20	41	E 40
MK 5/ER 50 x 086	2705.15900	78	214	M 20	50	E 50

Included in delivery: toolholders come with Hi-Q®/ER clamping nut and back-up screw



MK/ER

Type	Part no.	G	Dimensions [mm] D	L
Tangs ATL				
ATL 6/MK 1	7221.01000	M 6	8.5	21.5
ATL 10/MK 2	7221.02000	M 10	13.5	30.5
ATL 12/MK 3	7221.03000	M 12	18.5	35
ATL 16/MK 4	7221.04000	M 16	24.5	41
ATL 20/MK 5	7221.05000	M 20	35	52



ATL/MK

Automotive shank toolholders SH

Applications Automotive shank toolholders with trapezoidal thread are supplied with a setting nut. With this type of toolholder, ER, ER-GB and PCM ET1 collets can be used.

Special applications A quick-change setting nut according to system BILZ is available as an option. This option must be ordered separately. When extra high clamping force is needed, e.g., when tapping with ER-GB , we recommend the use of our friction-bearing clamping nuts Hi-Q® / ERB and Hi-Q® / ERBC.

Matched tooling system for best fit For highest precision and best results the whole system counts. Therefore REGO-FIX components are carefully matched for optimum fit and accuracy. This guarantees the best runout and balance.

For the influence of runout on tool life see the graph on page 270.

Accessories are not included in delivery.

Expert advice

We recommend tightening the clamping nuts with our torque wrench.

For tightening torque recommendations, please refer to page 293.

Automotive shank toolholders SH

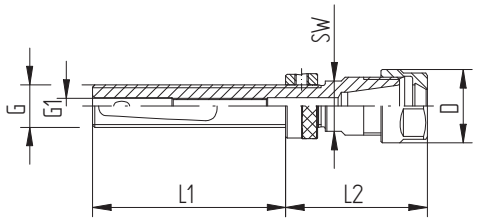
SH
DIN 6327-C

Type	Part no.	Dimensions [mm] D	L1	L2	G	G1	SW	Accessory Wrench
SH 12								
SH 12 x 050 / ER 11	2612.11104	19	50	46.6	Tr 12 x 1.5	M 5	12	E 11 P
SH 16								
SH 16 x 073 / ER 16	2616.11604	28	73	53.5	Tr 16 x 1.5	M 6	19	E 16 P
SH 20								
SH 20 x 076 / ER 20	2620.12004	34	76	59.5	Tr 20 x 2	M 8	22	E 20 P
SH 28								
SH 28 x 083 / ER 25	2628.12504	42	83	57	Tr 28 x 2	M 18 x 2	28	E 25

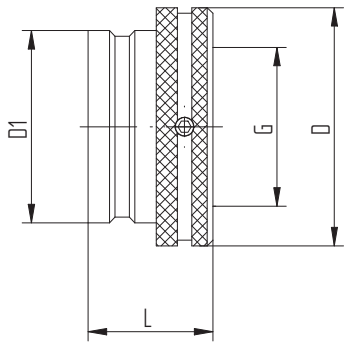
Included in delivery: toolholders come with Hi-Q®/ER clamping nut, back-up screw, setting nut and Woodruff-key

Save time with our quick-change setting nut.

Type	Part no.	Dimensions [mm] D	D1	L	G
Quick-change setting nut (System BILZ)					
SSM 12	7238.12000	22	16.4	18	Tr 12 x 1.5
SSM 16	7238.16000	26	19.9	18.5	Tr 16 x 1.5
SSM 20	7238.20000	33	25.4	20	Tr 20 x 2
SSM 28	7238.28000	42	33.9	22	Tr 28 x 2



SH / ER



SSM

ISO 20 toolholders

Applications The REGO-FIX ISO 20 toolholders are designed to work with the HAAS Office Mill. To utilize the full potential of your machine, use the REGO-FIX brand of holders and collets to see the difference quality can achieve in your machining operations.

Balancing

// 100 % balanced to 50,000 rpm.

Matched tooling system for best fit For highest precision and best results the whole system counts. Therefore REGO-FIX components are carefully matched for optimum fit and accuracy. This guarantees the best runout and balance.

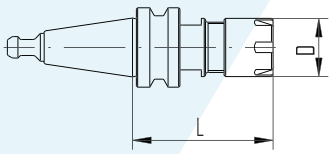
For the influence of runout on tool life see the graph on page 270.

Accessories are not included in delivery.

Expert advice

We recommend tightening the clamping nuts with our torque wrench.

For tightening torque recommendations, please refer to page 293.



ISO / ERM HAAS

Type	Part no.	Dimensions [mm] D	L	Accessory Wrench
ISO 20				
ISO 20 / ERM 11 x 048 HAAS	2420.11116	16	48	E 11 M
ISO 20 / ERM 16 x 053 HAAS	2420.11616	22	53	E 16 M
ISO 20 / ERM 20 x 055 HAAS	2420.12016	28	55	E 20 M

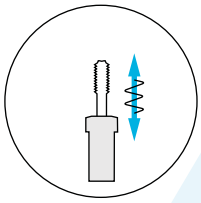
Included in delivery: ISO toolholder comes with Hi-Q® / ERM mini clamping nut and integral pull stud

ER

ER thread-cutting solutions

CYL SSY / HSK-A SSY Softsynchro® tapping holder

// With **minimum length compensation**
// Eliminates small synchronization errors of machines (Rigid Tapping)

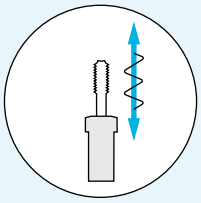


Applications

// Machines for direct thread cutting
// For all tapping tools with h9 shanks
// The turning movement of the spindles can be offset with the feed axis and thus synchronized
// Synchronization errors are created by the dynamics of the spindle and linear drives. The tapping holder is equipped with the minimum length compensation and compensates the synchronization errors
// Guides coolant with up to 50 bar of pressure to the tap, without compromising length compensation
// Depending on the application, the service life for the customer can be increased by up to 150 %

CYL GSF tapping holder

// With **length compensation**
// For machines without a tapping option

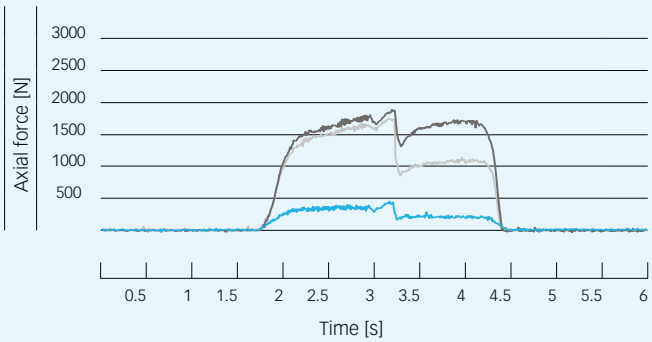


Applications

// Used on machines in which the feed movement is not synchronized with the thread pitch during processing
// Ensures the compensation of differences between the thread pitch and spindle feed
// Features a pressure-point mechanism
// Safe tap cutting
// Uniform, reproducible thread depths
// Guides coolant with up to 50 bar of pressure to the tap, without compromising length compensation
// Universal use thanks to its compact design and low gauge length

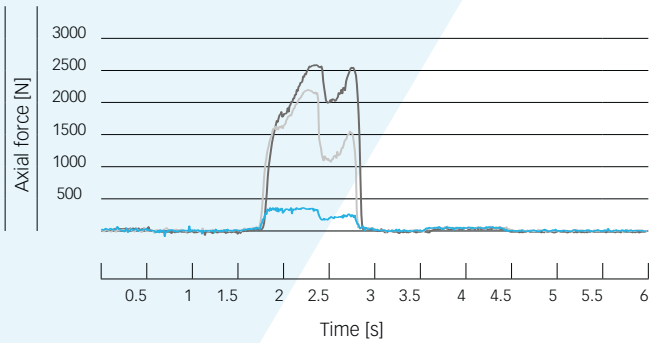
Comparative axial force testing

Occurring axial forces with thread forms M10 in St37. Speed 500 rpm
Source: In-house testing



Comparative axial force testing

Occurring axial forces with thread forms M10 in St37. Speed 2.000 rpm
Source: In-house testing



REGO-FIX Softsynchro® tapping holders
Competitor synchronous toolholder
Rigid synchronous toolholder

Summary The axial forces increase with increasing speed. With a rigid toolholder, the forces occurring when forming threads are considerably higher than with the Softsynchro® tapping holder. This allows for the optimum use of the synchronous spindle with the best possible service life and thread surface quality.

ER tapping holders

HSK-A SSY	CYL SSY	CYL GSF
69893-A	DIN 1835 B+E	DIN 1835 B+E
ISO 12164		

Type	Part no.	Dimensions [mm] D	L	Compression [mm]	Tension [mm]	SW	Accessory Wrench
HSK-A 63 SSY							
HSK-A 63 SSY / ERC 20	2563.62000	34	95.5	0.5	0.5	19	E 20 P
HSK-A 63 SSY / ERC 32	2563.63200	50	108.8	0.5	0.5	32	E 32

Included in delivery: Tapping holder comes with Hi-Q® / ERC clamping nut

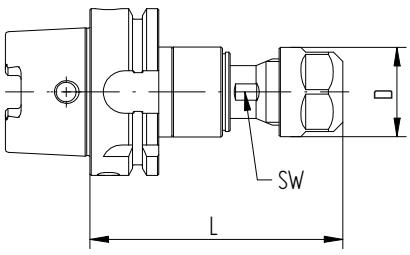
Type	Part no.	Dimensions [mm] D	D1	L	L1	Compression [mm]	Tension [mm]	SW	Accessory Wrench
CYL 25 SSY									
CYL 25 SSY / ERC 20	2625.62000	34	25	73	57	0.5	0.5	19	E 20 P
CYL 25 SSY / ERC 32	2625.63200	50	25	87.5	57	0.5	0.5	32	E 32

Included in delivery: Tapping holder comes with Hi-Q® / ERC clamping nut

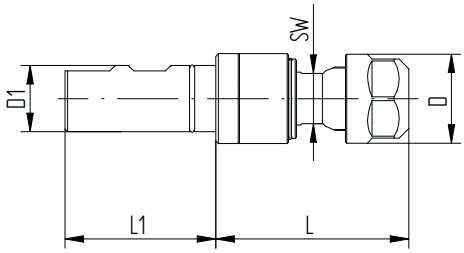
Type	Part no.	Dimensions [mm] D	D1	L	L1	Compression [mm]	Tension [mm]	SW	Accessory Wrench
CYL 25 GSF									
CYL 25 GSF / ERMC 20	2625.62001	28	25	85	57	5	7.5	28	E 20 M
CYL 25 GSF / ERC 32	2625.63201	50	25	115	57	7	10	34	E 32

Included in delivery: Tapping holder comes with Hi-Q® / ERC or Hi-Q® / ERMC clamping nut

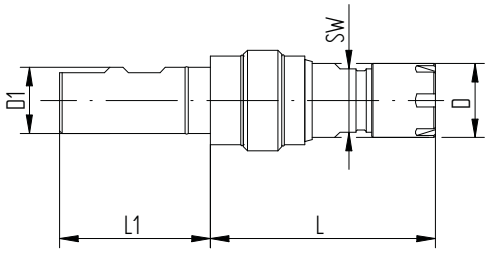
HSK-A SSY / CYL SSY / CYL GSF



HSK-A 63 SSY / ERC



CYL 25 SSY / ERC



CYL 25 GSF

ER floating chucks

When using reamers on lathes it is often necessary to compensate for axis error between the chuck and the bore to be machined. This error can be corrected by using a self-centering floating chuck.

Features and benefits

Adjustable floating resistance

Continuously adjustable between auto-centering and free-floating. No restriction of the floating movement.

Adjustment for tool weight

Optimal setup by adjustment of floating resistance is possible.

Vertical and horizontal application

Adjustable self-centering keeps the tool at the center of the floating chuck, even in the horizontal position. Prevents chatter marks and extends tool life.

Combined ball- and friction-bearing

Combined ball and friction-bearing for easy floating:
// Ball bearing for smooth reaming at low load applications
// Friction-bearing to withstand high pressures at high load applications

Double sealing against dirt

Prevents coolant and chips from entering the floating chuck.

Excellent bore quality

Only parallel floatation of tool possible.

Floating chuck PH / ER

Features REGO-FIX floating chucks are excellent tools for reaming and tapping:
// They are specially designed so the tool is self-centering in a vertical and horizontal position
// The self-centering feature allows very precise positioning of the reaming or tapping tool. This is especially important in horizontal applications, where on ordinary floating chucks the weight of the tool tends to dislocate the tool from the rotational axis
// The float is always parallel to the rotational axis and the rotation is both clockwise and counter clockwise

Floating chuck PHC / ER for coolant through tools

Features Floating chucks PHC / ER for coolant through tools are especially designed for internal cooling and have the same advantages as the PH / ER floating chucks.

Floating chuck PHC-C / ER REGO-FIX CAPTO

Features These REGO-FIX CAPTO floating chucks are manufactured with polygon interface – licensed by Sandvik Coromant.

Floating chuck MPH / ERMX for tight spaces

Application REGO-FIX MPH / ERMX floating chucks are an efficient solution for tight space applications.

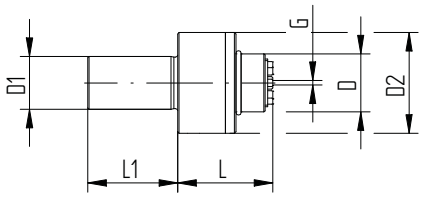
MPHC / ERMXC for tight spaces with internal cooling

Application The MPHC floating chuck is the mini version with internal cooling, common with modern reaming applications.

PH floating chucks for non coolant through tools

Type	Part no.	Dimensions [mm] D	D1 h6	D2	L	L1	G	Accessory Wrench
PH 5/8 [inch]								
PH 5/8" / ER 11	2616.91102	22	15.88	38	36	34	0.8	E 11 AX
PH 16 [mm]								
PH 16 / ER 11	2616.91100	22	16	38	36	34	0.8	E 11 AX
PH 3/4 [inch]								
PH 3/4" / ER 11	2619.91102	22	19.05	38	36	34	0.8	E 11 AX
PH 20 [mm]								
PH 20 / ER 11	2620.91100	22	20	38	36	34	0.8	E 11 AX
PH 22 [mm]								
PH 22 / ER 11	2622.91100	22	22	38	36	34	0.8	E 11 AX

Included in delivery: Floating holder comes with Hi-Q®/ER clamping nut and wrench



PH / ER

PHC floating chucks for coolant through tools

Type	Part no.	Dimensions [mm] D	D1 h6	D2	L	L1	G	Accessory Wrench
PHC 5/8 [inch]								
PHC 5/8" / ER 20	2616.92004	33	15.88	56	53.5	38	1	E 20 AX
PHC 16								
PHC 16 / ER 20	2616.92003	33	16	56	53.5	38	1	E 20 AX
PHC 3/4 [inch]								
PHC 3/4" / ER 20	2619.92004	33	19.05	56	53.5	38	1	E 20 AX
PHC 3/4" / ER 32	2619.93204	46	19.05	70	64.5	46	1.5	E 32 AX
PHC 20 [mm]								
PHC 20 / ER 20	2620.92003	33	20	56	53.5	38	1	E 20 AX
PHC 20 / ER 32	2620.93203	46	20	70	64.5	46	1.5	E 32 AX
PHC 22 [mm]								
PHC 22 / ER 20	2622.92003	33	22	56	53.5	38	1	E 20 AX
PHC 22 / ER 32	2622.93203	46	22	70	64.5	46	1.5	E 32 AX
PHC 25 [mm]								
PHC 25 / ER 20	2625.92003	33	25	56	53.5	38	1	E 20 AX
PHC 25 / ER 32	2625.93203	46	25	70	64.5	46	1.5	E 32 AX
PHC 1 [inch]								
PHC 1" / ER 20	2625.92004	33	25.4	56	53.5	38	1	E 20 AX
PHC 1" / ER 32	2625.93204	46	25.4	70	64.5	46	1.5	E 32 AX
PHC 1 1/4 [inch]								
PHC 1 1/4" / ER 32	2632.93204	46	31.75	70	64.5	46	1.5	E 32 AX
PHC 32 [mm]								
PHC 32 / ER 32	2632.93203	46	32	70	64.5	46	1.5	E 32 AX
PHC 1 3/4 [inch]								
PHC 1 3/4" / ER 32	2644.93204	46	44.45	70	64.5	46	1.5	E 32 AX

Included in delivery: Floating holder comes with Hi-Q®/ERAX clamping nut, wrench and adjusting key

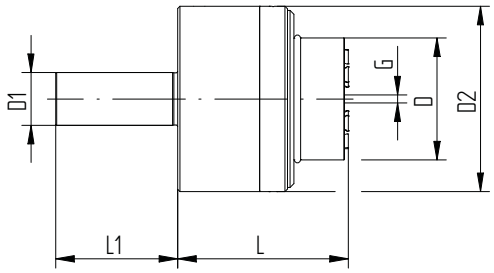
Expert advice

When using coolant through tools please order Hi-Q®/ERAXC clamping nuts and the corresponding sealing disks.

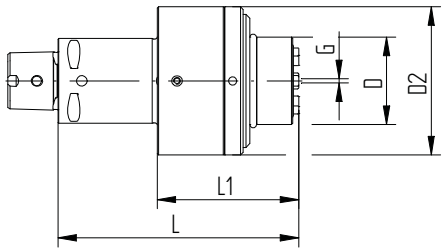
PHC floating chucks for coolant through tools with REGO-FIX CAPTO interface

Type	Part no.	Dimensions [mm] D	D2	L	L1	G	Accessory Wrench
PHC-C3							
PHC-C3 / ER 20	2803.92003	33	56	91	53.5	0.8	E 20 AX
PHC-C4							
PHC-C4 / ER 20	2804.92003	33	56	91	56.5	0.8	E 20 AX
PHC-C4 / ER 32	2804.93203	46	70	100	64	0.8	E 32 AX

Included in delivery: Floating holder comes with Hi-Q®/ERAX clamping nut and wrench



PHC / ER



PHC-C / ER

Certified REGO-FIX CAPTO – licensed by Sandvik Coromant – is manufactured at REGO-FIX Switzerland under license according to CAPTO specifications.

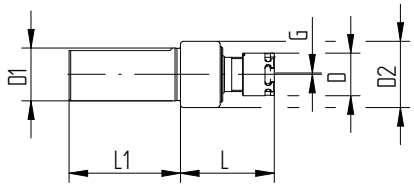
MPH mini floating chucks with intRlox®

(slip-off proof mini clamping nut)

		Dimensions [mm]						Accessory
Type	**Part no.**	**D**	**D1 h6**	**D2**	**L**	**L1**	**G**	**Wrench**
MPH 8 [mm]								
MPH 8 / ERMX 11	4608.91107	16	8	25	35.5	42	0.5	E 11 MX
MPH 10 [mm]								
MPH 10 / ERMX 11	4610.91107	16	10	25	35.5	42	0.5	E 11 MX
MPH 16 [mm]								
MPH 16 / ERMX 11	4616.91107	16	16	25	35.5	42	0.5	E 11 MX
MPH 3/4 [inch]								
MPH 3/4" / ERMX 11	4619.91108	16	19.05	25	35.5	70	0.5	E 11 MX
MPH 20 [mm]								
MPH 20 / ERMX 11	4620.91107	16	20	25	35.5	42	0.5	E 11 MX
MPH 22 [mm]								
MPH 22 / ERMX 11	4622.91107	16	22	25	35.5	42	0.5	E 11 MX
MPH 25 [mm]								
MPH 25 / ERMX 11	4625.91107	16	25	25	35.5	42	0.5	E 11 MX
MPH 1 [inch]								
MPH 1" / ERMX 11	4625.91108	16	25.4	25	35.5	42	0.5	E 11 MX

Included in delivery: Floating holder comes with Hi-Q®/ERMX clamping nut and wrench

MPH / ERMX



MPH / ERMX

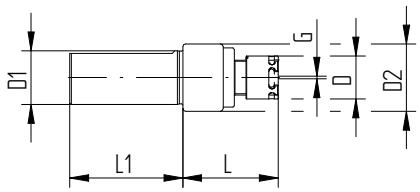
MPHC mini floating chucks with intRlox®

(slip-off proof mini clamping nut)

Type	Part no.	Dimensions [mm] D	D1 h6	D2	L	L1	G	Accessory Wrench
MPHC 8 [mm]								
MPHC 8/ERMX 11	4608.91105	16	8	25	35.5	42	0.5	E 11 MX
MPHC 10 [mm]								
MPHC 10/ERMX 11	4610.91105	16	10	25	35.5	42	0.5	E 11 MX
MPHC 10/ERMX 16	4610.91605	22	10	31	47	42	0.5	E 16 MX
MPHC 16 [mm]								
MPHC 16/ERMX 16	4616.91605	22	16	31	47	42	0.5	E 16 MX
MPHC 3/4 [inch]								
MPHC 3/4"/ERMX 11	4619.91106	16	19.05	25	35.5	42	0.5	E 11 MX
MPHC 3/4"/ERMX 16	4619.91606	22	19.05	31	47	42	0.5	E 16 MX
MPHC 20 [mm]								
MPHC 20/ERMX 11	4620.91105	16	20	25	35.5	42	0.5	E 11 MX
MPHC 20/ERMX 16	4620.91605	22	20	31	47	42	0.5	E 16 MX
MPHC 22 [mm]								
MPHC 22/ERMX 16	4622.91605	22	22	31	47	42	0.5	E 16 MX
MPHC 25 [mm]								
MPHC 25/ERMX 16	4625.91605	22	25	31	47	42	0.5	E 16 MX
MPHC 1 [inch]								
MPH 1"/ERMX 16	4625.91606	22	25.4	31	47	42	0.5	E 16 MX

Included in delivery: Floating holder comes with Hi-Q®/ERMX clamping nut and wrench

MPHC



MPHC/ERMX

Maintenance instructions for floating chucks

There are two main versions of floating chucks

MPHC

With 2 screws on the side of the flange.

Take both screws out with a fitting screwdriver (PH0). Blow out with dry pressurised air.

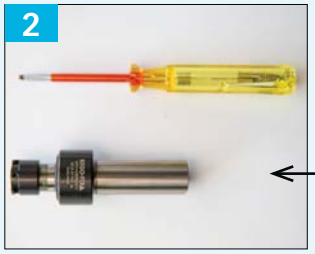
Put one screw back. Fill with 10 drops of thin oil.

Put the second screw back.

MPH

With one screw in the cylindrical shaft on the back of the floating chuck.

Take the screw in the cylinder out with a fitting screwdriver (flat-head1). Blow out with dry pressurised air. Fill with 10 drops of thin oil.



Put the screw back in the back (do not forget the spring). Re-adjust the spring tension in the cylinder shaft.

ER

Collet reductions

ER / ERM ERM / ERM ER / ERMX ERMX / ERMX

Features and benefits

Surface finish max. Ra 0.25

Higher clamping force and higher transferable torque.

Applications

The collet reductions are mainly used on Swiss machines with live tooling.

Quick change system

Best suited for quick tool change as the cutting tools can be preinstalled

Length presetting

Tools can be preset outside of the machine.

Minimal external dimensions

Achieve minimal external dimensions by using Hi-Q® / ERM or Hi-Q® / ERMX clamping nuts.

Accessories are not included in delivery

Expert advice

We recommend tightening the clamping nuts with our torque wrench.

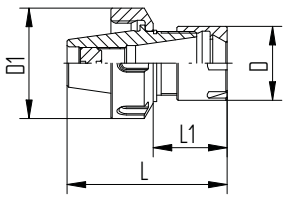
For tightening torque recommendations, please refer to page 293.

Collet reductions

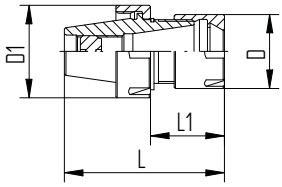
ER / ERM | ERM / ERM

Type	Part no.	Dimensions [mm] D	D1	L	L1	Accessory Wrench
ER 11						
ER 11 / ERM 8	7162.11080	12	19	33	16.5	E 11 P / E 8 M
ER 16						
ER 16 / ERM 11	7162.16110	16	28	42.5	18.5	E 16 P / E 11 M
ER 20						
ER 20 / ERM 11*	7162.20110	16	34	42	16.5	E 20 P / E 11 M
ER 20 / ERM 16	7162.20160	22	34	55.5	28	E 20 P / E 16 M
ER 25						
ER 25 / ERM 11*	7162.25110	16	42	54.4	16.5	E 25 / E 11 M
ER 25 / ERM 16	7162.25160	22	42	60.5	28	E 25 / E 16 M
ER 25 / ERM 20	7162.25200	28	42	60.5	28	E 25 / E 20 M
ERM 11						
ERM 11 / ERM 8	7161.11080	12	16	33	16.5	E 11 M / E 8 M
ERM 16						
ERM 16 / ERM 11	7161.16110	16	23	42.5	18.5	E 16 M / E 11 M
ERM 20						
ERM 20 / ERM 16	7161.20160	22	28	55.5	28	E 20 M / E 16 M
ERM 25						
ERM 25 / ERM 11*	7161.25110	16	35	54.5	22	E 25 M / E 11 M
ERM 25 / ERM 16	7161.25160	22	35	60.5	28	E 25 M / E 16 M
ERM 25 / ERM 20	7161.25200	28	35	60.5	28	E 25 M / E 20 M
ER 32*						
ER 32 / ER 16	7160.32160	28	50	56	29.5	E 32 / E 16 P
ER 32 / ER 20	7160.32200	34	50	69.5	32.5	E 32 / E 20 P

**USA only*



ER / ERM



ERM / ERM

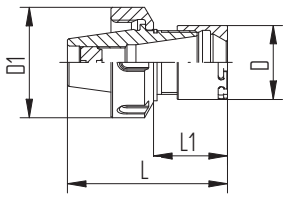
Collet reductions with intRlox®

ER / ERMX | ERMX / ERMX

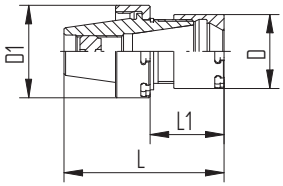
(slip-off proof mini clamping nut)

Type	Part no.	Dimensions [mm] D	D1	L	L1	Accessory Wrench
ER 11						
ER 11 / ERMX 8	7165.11080	12	19	33	16.5	E 11 P / E 8 MX
ER 16						
ER 16 / ERMX 11	7165.16110	16	28	42.5	18.5	E 16 P / E 11 MX
ER 20						
ER 20 / ERMX 11*	7165.20110	16	34	42	16.5	E 20 P / E 11 MX
ER 20 / ERMX 16	7165.20160	22	34	55.5	28	E 20 P / E 16 MX
ER 25						
ER 25 / ERMX 11*	7165.25110	16	42	54.4	16.5	E 25 / E 11 MX
ER 25 / ERMX 16	7165.25160	22	42	60.5	28	E 25 / E 16 MX
ER 25 / ERMX 20	7165.25200	28	42	60.5	28	E 25 / E 20 MX
ERMX 11						
ERMX 11 / ERMX 8	7164.11080	12	16	33	16.5	E 11 MX / E 8 MX
ERMX 16						
ERMX 16 / ERMX 11	7164.16110	16	23	42.5	18.5	E 16 MX / E 11 MX
ERMX 20						
ERMX 20 / ERMX 16	7164.20160	22	28	55.5	28	E 20 MX / E 16 MX
ERMX 25						
ERMX 25 / ERMX 11*	7164.25110	16	35	54.5	22	E 25 MX / E 11 MX
ERMX 25 / ERMX 16	7164.25160	22	35	60.5	28	E 25 MX / E 16 MX

**USA only*



ER / ERMX



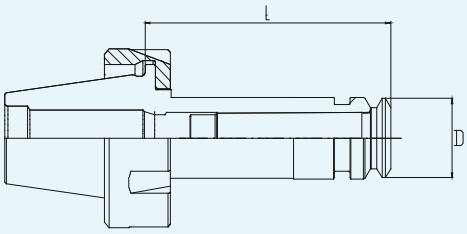
ERMX / ERMX

ER

swissQuick powRgrip® adapter

What is it? The swissQuick ER-to-PG adapter is a short "mini-holder" with a solid ER body profile on the back, with a powRgrip collet cavity on the front. This unique design allows for quick tool changes with an ER fixture while still receiving the benefits of the powRgrip system.

Locking ring The swissQuick is configured with a special locking ring to ensure that the collet body is removed with the nut.



ER-to-PG swissQuick

		Dimensions [mm]		
Type	**Part no.**	**D**	**L**	**ER nut thread**
ER / PG*				
ER 20 / PG 10 swissQuick	7660.20100	16	35.5	M 25 x 1.5
ER 25 / PG 15 swissQuick	7660.25150	24	36	M 32 x 1.5
ERM / PG*				
ERM 20 / PG 10 swissQuick	7661.20100	16	35.5	M 24 x 1
ERM 25 / PG 15 swissQuick	7661.25150	24	36	M 30 x 1

**USA only*

Micro-machining	Standard and ultraprecision	micRun®	Metallic sealed	Pullout protection secuRgrip®	Collets for tapping	
ER-MB	ER-Standard/ ER-UP	MR	ER-DM	ER-SG	ER-GB	PCM ET1
page 134	page 135	page 199	page 144	page 149	page 150	page 154

Swiss quality ER collets

	 MB	 Std.	 UP	 MR	 DM	 SG	 GB	 PCM ET1
	microbore	**standard**	**ultra-precision**	**micRun®**	**metallic sealed**	**secuRgrip®**	**tapping collet**	**tapping collet**
Main machining use	micro-machining	all	high precision	high precision	internal cooling	heavy machining	rigid tapping	rigid tapping with length compensation
DIN ISO 15488: form ...	A	B	B	B	B	B	A	A
ER size	8–16	8–50	8–50	11–32	11–40	32–40	11–50	11–40
Shaft diameter range	0.2–0.9	1.0–36.0	1.0–36.0	1.0–20.9	3.0–26.0	10.0–25.4	2.5–32.0	1.4–17.0
Clamping range (mm) or tolerance	h7	1	1	h11	0.5	h6	h9	h9
Runout (max)*	6 µm	10 µm	5 µm	2 µm	6 µm	5 µm	10 µm	10 µm
Anti-corrosion coating	–	available on request	available on request	–	available on request	–	available on request	–
Metallic sealed	–	–	–	–	•	–	–	–
Internal square	–	–	–	–	–	–	•	•
Length compensation	–	–	–	–	–	–	–	•
secuRgrip® thread to prevent tool pullout	–	–	–	–	–	•	–	–
Collet-locking system	–	•	•	•	•	•	•	–

**For information about our measuring values, please refer to page 271*

Expert advice

Please note that DM collets are not compatible with Weldon or Whistle notch shafts.
To achieve internal cooling with Weldon or Whistle notch shafts, use the REGO-FIX sealing disks ER/DS with your REGO-FIX ER collet.

Microbore collets ER-MB

Type	Part no.	Clamping capacity h7 [mm]	Clamping capacity h7 [decimal inch]
ER 8-MB			
Ø 0.2 mm	1308.00200	0.2	0.0079
Ø 0.3 mm	1308.00300	0.3	0.0118
Ø 0.4 mm	1308.00400	0.4	0.0157
Ø 0.5 mm	1308.00500	0.5	0.0197
Ø 0.6 mm	1308.00600	0.6	0.0236
Ø 0.7 mm	1308.00700	0.7	0.0276
Ø 0.8 mm	1308.00800	0.8	0.0315
Ø 0.9 mm	1308.00900	0.9	0.0354
ER 11-MB			
Ø 0.2 mm	1311.00200	0.2	0.0079
Ø 0.3 mm	1311.00300	0.3	0.0118
Ø 0.4 mm	1311.00400	0.4	0.0157
Ø 0.5 mm	1311.00500	0.5	0.0197
Ø 0.6 mm	1311.00600	0.6	0.0236
Ø 0.7 mm	1311.00700	0.7	0.0276
Ø 0.8 mm	1311.00800	0.8	0.0315
Ø 0.9 mm	1311.00900	0.9	0.0354
ER 16-MB			
Ø 0.2 mm	1316.00200	0.2	0.0079
Ø 0.3 mm	1316.00300	0.3	0.0118
Ø 0.4 mm	1316.00400	0.4	0.0157
Ø 0.5 mm	1316.00500	0.5	0.0197
Ø 0.6 mm	1316.00600	0.6	0.0236
Ø 0.7 mm	1316.00700	0.7	0.0276
Ø 0.8 mm	1316.00800	0.8	0.0315
Ø 0.9 mm	1316.00900	0.9	0.0354

For further technical information, please refer to page 300

Expert advice

Microbore collets have a runout of ≤6µm. They have been developed by REGO-FIX especially for smallest tool shank diameters.

For tool shanks with nominal diameter h7 tolerance only.

ER 16-MB

ER standard collets and ultraprecision collets ER-UP

ER std.	ER-UP
DIN 6499-B	DIN 6499-B
ISO 15488	ISO 15488

	Part no.		Clamping range			
Type	ER standard	ER-UP	[mm]	[decimal inch]	Ø [inch]	Included in set
ER 8 [mm]						
SET ER 8	1108.00000	1108.00001	0.5–5.0	0.0197–0.1969	–	–
Ø 1.0 mm	1108.01000	1108.01001	1.0–0.5	0.0394–0.0197	1/32"	•
Ø 1.5 mm	1108.01500	1108.01501	1.5–1.0	0.0591–0.0394	–	•
Ø 2.0 mm	1108.02000	1108.02001	2.0–1.5	0.0787–0.0591	1/16"*	•
Ø 2.5 mm	1108.02500	1108.02501	2.5–2.0	0.0984–0.0787	3/32"	•
Ø 3.0 mm	1108.03000	1108.03001	3.0–2.5	0.1181–0.0984	–	•
Ø 3.5 mm	1108.03500	1108.03501	3.5–3.0	0.1378–0.1181	1/8"*	•
Ø 4.0 mm	1108.04000	1108.04001	4.0–3.5	0.1575–0.1378	5/32"	•
Ø 4.5 mm	1108.04500	1108.04501	4.5–4.0	0.1772–0.1575	–	•
Ø 5.0 mm	1108.05000	1108.05001	5.0–4.5	0.1969–0.1772	3/16"*	•
ER 8 [inch]						
INCH SET ER 8	1108.00002	1108.00003	1.09–4.76	0.0429–0.1875		–
Ø 1/16"	1108.01592	1108.01593	1.59–1.09	0.0625–0.0429		•
Ø 1/8"	1108.03182	1108.03183	3.18–2.68	0.125–0.1055		•
Ø 3/16"	1108.04762	1108.04763	4.76–4.25	0.1875–0.1675		•
ER 11 [mm]						
SET ER 11	1111.00000	1111.00001	0.5–7.0	0.0197–0.2756	–	–
Ø 1.0 mm	1111.01000	1111.01001	1.0–0.5	0.0394–0.0197	1/32"	•
Ø 1.5 mm	1111.01500	1111.01501	1.5–1.0	0.0591–0.0394	–	•
Ø 2.0 mm	1111.02000	1111.02001	2.0–1.5	0.0787–0.0591	1/16"*	•
Ø 2.5 mm	1111.02500	1111.02501	2.5–2.0	0.0984–0.0787	3/32"*	•
Ø 3.0 mm	1111.03000	1111.03001	3.0–2.5	0.1181–0.0984	–	•
Ø 3.5 mm	1111.03500	1111.03501	3.5–3.0	0.1378–0.1181	1/8"*	•
Ø 4.0 mm	1111.04000	1111.04001	4.0–3.5	0.1575–0.1378	5/32"*	•
Ø 4.5 mm	1111.04500	1111.04501	4.5–4.0	0.1772–0.1575	–	•
Ø 5.0 mm	1111.05000	1111.05001	5.0–4.5	0.1969–0.1772	3/16"*	•
Ø 5.5 mm	1111.05500	1111.05501	5.5–5.0	0.2165–0.1969	–	•
Ø 6.0 mm	1111.06000	1111.06001	6.0–5.5	0.2362–0.2165	7/32"*	•
Ø 6.5 mm	1111.06500	1111.06501	6.5–6.0	0.2559–0.2362	1/4"*	•
Ø 7.0 mm	1111.07000	1111.07001	7.0–6.5	0.2756–0.2559	–	•

Included in the ER sets are all marked collets within that size and the matching collet tray ZWT

**Approx. inch sizing*

For further technical information, please refer to page 295

Expert advice

Various ER collets are available on request with an anti-corrosion coating for improved collet lifetime.

ER standard collets and ultraprecision collets ER-UP

ER std.	ER-UP
DIN 6499-B	DIN 6499-B
ISO 15488	ISO 15488

	Part no.		Clamping range			
Type	ER standard	ER-UP	[mm]	[decimal inch]	Ø [inch]	Included in set
ER 11 [inch]						
INCH SET ER 11	1111.00002	1111.00003	1.09–6.35	0.0429–0.25	–	–
Ø 1/16"	1111.01592	1111.01593	1.59–1.09	0.0625–0.0429	1/16"	•
Ø 3/32"	1111.02382	1111.02383	2.38–1.87	0.0938–0.0738	3/32"	•
Ø 1/8"	1111.03182	1111.03183	3.18–2.67	0.125–0.105	1/8"	•
Ø 5/32"	1111.03972	1111.03973	3.97–3.46	0.1563–0.1363	5/32"	•
Ø 3/16"	1111.04762	1111.04763	4.76–4.25	0.1875–0.1675	3/16"	•
Ø 7/32"	1111.05562	1111.05563	5.56–5.04	0.2188–0.1988	7/32"	•
Ø 1/4"	1111.06352	1111.06353	6.35–5.84	0.25–0.23	1/4"	•
ER 16 [mm]						
SET ER 16	1116.00000	1116.00001	0.5–10.0	0.0197–0.3937	–	–
Ø 1.0 mm	1116.01000	1116.01001	1.0–0.5	0.0394–0.0197	1/32"	•
Ø 1.5 mm	1116.01500	1116.01501	1.5–1.0	0.0591–0.0394	–	–
Ø 2.0 mm	1116.02000	1116.02001	2.0–1.0	0.0787–0.0394	1/16"*	•
Ø 2.5 mm	1116.02500	1116.02501	2.5–1.5	0.0984–0.0591	3/32"*	–
Ø 3.0 mm	1116.03000	1116.03001	3.0–2.0	0.1181–0.0787	–	•
Ø 3.5 mm	1116.03500	1116.03501	3.5–2.5	0.1378–0.0984	1/8"*	–
Ø 4.0 mm	1116.04000	1116.04001	4.0–3.0	0.1575–0.1181	5/32"*	•
Ø 4.5 mm	1116.04500	1116.04501	4.5–3.5	0.1772–0.1378	–	–
Ø 5.0 mm	1116.05000	1116.05001	5.0–4.0	0.1969–0.1575	3/16"*	•
Ø 5.5 mm	1116.05500	1116.05501	5.5–4.5	0.2165–0.1772	–	–
Ø 6.0 mm	1116.06000	1116.06001	6.0–5.0	0.2362–0.1969	7/32"*	•
Ø 6.5 mm	1116.06500	1116.06501	6.5–5.5	0.2559–0.2165	1/4"*	–
Ø 7.0 mm	1116.07000	1116.07001	7.0–6.0	0.2756–0.2362	–	•
Ø 7.5 mm	1116.07500	1116.07501	7.5–6.5	0.2953–0.2559	9/32"*	–
Ø 8.0 mm	1116.08000	1116.08001	8.0–7.0	0.315–0.2756	5/16"*	•
Ø 8.5 mm	1116.08500	1116.08501	8.5–7.5	0.3346–0.2953	–	–
Ø 9.0 mm	1116.09000	1116.09001	9.0–8.0	0.3543–0.315	11/32"*	•
Ø 9.5 mm	1116.09500	1116.09501	9.5–8.5	0.374–0.3346	–	–
Ø 10.0 mm	1116.10000	1116.10001	10.0–9.0	0.3937–0.3543	3/8"*	•
ER 16 [inch]						
INCH SET ER 16	1116.00002	1116.00003	1.09–10.32	0.0429–0.4063	–	–
Ø 1/16"	1116.01592	1116.01593	1.59–1.09	0.0625–0.0429	1/16"	•
Ø 3/32"	1116.02382	1116.02383	2.38–1.87	0.0938–0.0738	3/32"	•
Ø 1/8"	1116.03182	1116.03183	3.18–2.16	0.125–0.085	1/8"	•
Ø 5/32"	1116.03972	1116.03973	3.97–2.95	0.1563–0.1163	5/32"	•
Ø 3/16"	1116.04762	1116.04763	4.76–3.75	0.1875–0.1475	3/16"	•

Included in the ER sets are all marked collets within that size and the matching collet tray ZWT

**Approx. inch sizing*

ER standard collets and ultraprecision collets ER-UP

ER std.	ER-UP
DIN 6499-B	DIN 6499-B
ISO 15488	ISO 15488

	Part no.		Clamping range			
Type	ER standard	ER-UP	[mm]	[decimal inch]	Ø [inch]	Included in set
Ø 7/32"	1116.05562	1116.05563	5.56–4.54	0.2188–0.1788	7/32"	•
Ø 1/4"	1116.06352	1116.06353	6.35–5.33	0.25–0.21	1/4"	•
Ø 9/32"	1116.07142	1116.07143	7.15–6.13	0.2813–0.2413	9/32"	•
Ø 5/16"	1116.07942	1116.07943	7.94–6.92	0.3125–0.2725	5/16"	•
Ø 11/32"	1116.08732	1116.08733	8.73–7.72	0.3438–0.3038	11/32"	•
Ø 3/8"	1116.09532	1116.09533	9.53–8.51	0.375–0.335	3/8"	•
Ø 13/32"	1116.10322	1116.10323	10.32–9.3	0.4063–0.3663	13/32"	•
ER 20 [mm]						
SET ER 20	1120.00000	1120.00001	1.0–13.0	0.0394–0.5118	–	–
Ø 1.0 mm	1120.01000	1120.01001	1.0–0.5	0.0394–0.0197	1/32"	–
Ø 1.5 mm	1120.01500	1120.01501	1.5–1.0	0.0591–0.0394	–	–
Ø 2.0 mm	1120.02000	1120.02001	2.0–1.0	0.0787–0.0394	1/16"	•
Ø 2.5 mm	1120.02500	1120.02501	2.5–1.5	0.0984–0.0591	3/32"	–
Ø 3.0 mm	1120.03000	1120.03001	3.0–2.0	0.1181–0.0787	–	•
Ø 3.5 mm	1120.03500	1120.03501	3.5–2.5	0.1378–0.0984	1/8"	–
Ø 4.0 mm	1120.04000	1120.04001	4.0–3.0	0.1575–0.1181	5/32"	•
Ø 4.5 mm	1120.04500	1120.04501	4.5–3.5	0.1772–0.1378	–	–
Ø 5.0 mm	1120.05000	1120.05001	5.0–4.0	0.1969–0.1575	3/16"	•
Ø 5.5 mm	1120.05500	1120.05501	5.5–4.5	0.2165–0.1772	–	–
Ø 6.0 mm	1120.06000	1120.06001	6.0–5.0	0.2362–0.1969	7/32"	•
Ø 6.5 mm	1120.06500	1120.06501	6.5–5.5	0.2559–0.2165	1/4"	–
Ø 7.0 mm	1120.07000	1120.07001	7.0–6.0	0.2756–0.2362	–	•
Ø 7.5 mm	1120.07500	1120.07501	7.5–6.5	0.2953–0.2559	9/32"	–
Ø 8.0 mm	1120.08000	1120.08001	8.0–7.0	0.315–0.2756	5/16"	•
Ø 8.5 mm	1120.08500	1120.08501	8.5–7.5	0.3346–0.2953	–	–
Ø 9.0 mm	1120.09000	1120.09001	9.0–8.0	0.3543–0.315	11/32"	•
Ø 9.5 mm	1120.09500	1120.09501	9.5–8.5	0.374–0.3346	–	–
Ø 10.0 mm	1120.10000	1120.10001	10.0–9.0	0.3937–0.3543	3/8"	•
Ø 10.5 mm	1120.10500	1120.10501	10.5–9.5	0.4134–0.374	13/32"	–
Ø 11.0 mm	1120.11000	1120.11001	11.0–10.0	0.4331–0.3937	–	•
Ø 11.5 mm	1120.11500	1120.11501	11.5–10.5	0.4528–0.4134	7/16"	–
Ø 12.0 mm	1120.12000	1120.12001	12.0–11.0	0.4724–0.433	15/32"	•
Ø 12.5 mm	1120.12500	1120.12501	12.5–11.5	0.4921–0.4528	–	–
Ø 13.0 mm	1120.13000	1120.13001	13.0–12.0	0.5118–0.4724	1/2"	•

Included in the ER sets are all marked collets within that size and the matching collet tray ZWT

**Approx. inch sizing*

For further technical information, please refer to page 295

ER standard collets and ultraprecision collets ER-UP

ER std.	ER-UP
DIN 6499-B	DIN 6499-B
ISO 15488	ISO 15488

	Part no.		Clamping range			
Type	ER standard	ER-UP	[mm]	[decimal inch]	Ø [inch]	Included in set
ER 20 [inch]						
INCH SET ER 20	1120.00002	1120.00003	2.16–12.7	0.085–0.5	–	–
Ø 1/8"	1120.03182	1120.03183	3.18–2.18	0.125–0.085	1/8"	•
Ø 3/16"	1120.04762	1120.04763	4.76–3.76	0.1875–0.1475	3/16"	•
Ø 1/4"	1120.06352	1120.06353	6.35–5.35	0.25–0.21	1/4"	•
Ø 5/16"	1120.07942	1120.07943	7.94–6.94	0.3125–0.2725	5/16"	•
Ø 3/8"	1120.09532	1120.09533	9.53–8.53	0.375–0.335	3/8"	•
Ø 7/16"	1120.11112	1120.11113	11.11–10.11	0.4375–0.3975	7/16"	•
Ø 1/2"	1120.12702	1120.12703	12.7–11.7	0.5–0.46	1/2"	•
ER 25 [mm]						
SET ER 25	1125.00000	1125.00001	2.0 –16.0	0.0787–0.6299	–	–
Ø 1.0 mm	1125.01000	1125.01001	1.0–0.5	0.0394–0.0197	1/32"	–
Ø 1.5 mm	1125.01500	1125.01501	1.5–1.0	0.0591–0.0394	–	–
Ø 2.0 mm	1125.02000	1125.02001	2.0–1.0	0.0787–0.0394	1/16"	•
Ø 2.5 mm	1125.02500	1125.02501	2.5–1.5	0.0984–0.0591	3/32"	–
Ø 3.0 mm	1125.03000	1125.03001	3.0–2.0	0.1181–0.0787	–	•
Ø 3.5 mm	1125.03500	1125.03501	3.5–2.5	0.1378–0.0984	1/8"*	–
Ø 4.0 mm	1125.04000	1125.04001	4.0–3.0	0.1575–0.1181	5/32"	•
Ø 4.5 mm	1125.04500	1125.04501	4.5–3.5	0.1772–0.1378	–	–
Ø 5.0 mm	1125.05000	1125.05001	5.0–4.0	0.1969–0.1575	3/16"*	•
Ø 5.5 mm	1125.05500	1125.05501	5.5–4.5	0.2165–0.1772	–	–
Ø 6.0 mm	1125.06000	1125.06001	6.0–5.0	0.2362–0.1969	7/32"	•
Ø 6.5 mm	1125.06500	1125.06501	6.5–5.5	0.2559–0.2165	1/4"*	–
Ø 7.0 mm	1125.07000	1125.07001	7.0–6.0	0.2756–0.2362	–	•
Ø 7.5 mm	1125.07500	1125.07501	7.5–6.5	0.2953–0.2559	9/32"	–
Ø 8.0 mm	1125.08000	1125.08001	8.0–7.0	0.315–0.2756	5/16"*	•
Ø 8.5 mm	1125.08500	1125.08501	8.5–7.5	0.3346–0.2953	–	–
Ø 9.0 mm	1125.09000	1125.09001	9.0–8.0	0.3543–0.315	11/32"	•
Ø 9.5 mm	1125.09500	1125.09501	9.5–8.5	0.374–0.3346	–	–
Ø 10.0 mm	1125.10000	1125.10001	10.0–9.0	0.3937–0.3543	3/8"*	•
Ø 10.5 mm	1125.10500	1125.10501	10.5–9.5	0.4134–0.374	13/32"	–
Ø 11.0 mm	1125.11000	1125.11001	11.0–10.0	0.4331–0.3937	–	•
Ø 11.5 mm	1125.11500	1125.11501	11.5–10.5	0.4528–0.4134	7/16"*	–
Ø 12.0 mm	1125.12000	1125.12001	12.0–11.0	0.4724–0.4331	15/32"	•
Ø 12.5 mm	1125.12500	1125.12501	12.5–11.5	0.4921–0.4528	–	–
Ø 13.0 mm	1125.13000	1125.13001	13.0–12.0	0.5118–0.4724	1/2"*	•
Ø 13.5 mm	1125.13500	1125.13501	13.5–12.5	0.5315–0.4921	17/32"	–
Ø 14.0 mm	1125.14000	1125.14001	14.0–13.0	0.5512–0.5118	–	•

Included in the ER sets are all marked collets within that size and the matching collet tray ZWT

**Approx. inch sizing*

ER standard collets and ultraprecision collets ER-UP

ER std.	ER-UP
DIN 6499-B	DIN 6499-B
ISO 15488	ISO 15488

	Part no.		Clamping range			
Type	ER standard	ER-UP	[mm]	[decimal inch]	Ø [inch]	Included in set
Ø 14.5 mm	1125.14500	1125.14501	14.5–13.5	0.5709–0.5315	9/16"*	–
Ø 15.0 mm	1125.15000	1125.15001	15.0–14.0	0.5906–0.5512	–	•
Ø 15.5 mm	1125.15500	1125.15501	15.5–14.5	0.6102–0.5709	19/32"	–
Ø 16.0 mm	1125.16000	1125.16001	16.0–15.0	0.6299–0.5905	5/8"*	•
Ø 17.0 mm	1125.17000	1125.17001	17.0–16.0	0.6693–0.6299	21/32"	–
ER 25 [inch]						
INCH SET ER 25	1125.00002	1125.00003	2.16–15.88	0.085–0.625	–	–
Ø 1/8"	1125.03182	1125.03183	3.18–2.16	0.125–0.085	1/8"	•
Ø 3/16"	1125.04762	1125.04763	4.76–3.75	0.1875–0.1475	3/16"	•
Ø 1/4"	1125.06352	1125.06353	6.35–5.33	0.25–0.21	1/4"	•
Ø 5/16"	1125.07942	1125.07943	7.94–6.92	0.3125–0.2725	5/16"	•
Ø 3/8"	1125.09532	1125.09533	9.53–8.51	0.375–0.335	3/8"	•
Ø 7/16"	1125.11112	1125.11113	11.11–10.11	0.4375–0.3975	7/16"	•
Ø 1/2"	1125.12702	1125.12703	12.70–11.68	0.5–0.46	1/2"	•
Ø 9/16"	1125.14292	1125.14293	14.29–13.27	0.5625–0.5225	9/16"	•
Ø 5/8"	1125.15882	1125.15883	15.88–14.78	0.625–0.582	5/8"	•
ER 32 [mm]						
SET ER 32	1132.00000	1132.00001	2.0–20.0	0.0787–0.7874	–	–
Ø 2.0 mm	1132.02000	1132.02001	2.0–1.0	0.0787–0.0394	1/16"	–
Ø 2.5 mm	1132.02500	1132.02501	2.5–1.5	0.0984–0.0591	3/32"	–
Ø 3.0 mm	1132.03000	1132.03001	3.0–2.0	0.1181–0.0787	–	•
Ø 3.5 mm	1132.03500	1132.03501	3.5–2.5	0.1378–0.0984	1/8"*	–
Ø 4.0 mm	1132.04000	1132.04001	4.0–3.0	0.1575–0.1181	5/32"	•
Ø 4.5 mm	1132.04500	1132.04501	4.5–3.5	0.1772–0.1378	–	–
Ø 5.0 mm	1132.05000	1132.05001	5.0–4.0	0.1969–0.1575	3/16"*	•
Ø 5.5 mm	1132.05500	1132.05501	5.5–4.5	0.2165–0.1772	–	–
Ø 6.0 mm	1132.06000	1132.06001	6.0–5.0	0.2362–0.1969	7/32"	•
Ø 6.5 mm	1132.06500	1132.06501	6.5–5.5	0.2559–0.2165	1/4"*	–
Ø 7.0 mm	1132.07000	1132.07001	7.0–6.0	0.2756–0.2362	–	•
Ø 7.5 mm	1132.07500	1132.07501	7.5–6.5	0.2953–0.2559	9/32"	–
Ø 8.0 mm	1132.08000	1132.08001	8.0–7.0	0.315–0.2756	5/16"*	•
Ø 8.5 mm	1132.08500	1132.08501	8.5–7.5	0.3346–0.2953	–	–
Ø 9.0 mm	1132.09000	1132.09001	9.0–8.0	0.3543–0.315	11/32"	•
Ø 9.5 mm	1132.09500	1132.09501	9.5–8.5	0.374–0.3346	–	–
Ø 10.0 mm	1132.10000	1132.10001	10.0–9.0	0.3937–0.3543	3/8"*	•
Ø 10.5 mm	1132.10500	1132.10501	10.5–9.5	0.4134–0.374	13/32"	–
Ø 11.0 mm	1132.11000	1132.11001	11.0–10.0	0.4331–0.3937	–	•

Included in the ER sets are all marked collets within that size and the matching collet tray ZWT

**Approx. inch sizing*

For further technical information, please refer to page 295

ER standard collets and ultraprecision collets ER-UP

ER std.	ER-UP
DIN 6499-B	DIN 6499-B
ISO 15488	ISO 15488

	Part no.		Clamping range			
Type	ER standard	ER-UP	[mm]	[decimal inch]	Ø [inch]	Included in set
ER 32 [mm] continued						
Ø 11.5 mm	1132.11500	1132.11501	11.5–10.5	0.4528–0.4134	7/16"*	–
Ø 12.0 mm	1132.12000	1132.12001	12.0–11.0	0.4724–0.4331	15/32"	•
Ø 12.5 mm	1132.12500	1132.12501	12.5–11.5	0.4921–0.4528	–	–
Ø 13.0 mm	1132.13000	1132.13001	13.0–12.0	0.5118–0.4724	1/2"*	•
Ø 13.5 mm	1132.13500	1132.13501	13.5–12.5	0.5315–0.4921	17/32"	–
Ø 14.0 mm	1132.14000	1132.14001	14.0–13.0	0.5512–0.5118	–	•
Ø 14.5 mm	1132.14500	1132.14501	14.5–13.5	0.5709–0.5315	9/16"*	–
Ø 15.0 mm	1132.15000	1132.15001	15.0–14.0	0.5906–0.5512	–	•
Ø 15.5 mm	1132.15500	1132.15501	15.5–14.5	0.6102–0.5709	19/32"	–
Ø 16.0 mm	1132.16000	1132.16001	16.0–15.0	0.63299–0.5906	5/8"*	•
Ø 16.5 mm	1132.16500	1132.16501	16.5–15.5	0.6496–0.6102	–	–
Ø 17.0 mm	1132.17000	1132.17001	17.0–16.0	0.6693–0.6299	21/32"	•
Ø 17.5 mm	1132.17500	1132.17501	17.5–16.5	0.689–0.6496	11/16"*	–
Ø 18.0 mm	1132.18000	1132.18001	18.0–17.0	0.7087–0.6693	–	•
Ø 18.5 mm	1132.18500	1132.18501	18.5–17.5	0.7283–0.689	23/32"	–
Ø 19.0 mm	1132.19000	1132.19001	19.0–18.0	0.748–0.7078	–	•
Ø 19.5 mm	1132.19500	1132.19501	19.5–18.5	0.7677–0.7284	3/4"*	–
Ø 20.0 mm	1132.20000	1132.20001	20.0–19.0	0.7874–0.748	25/32"	•
Ø 21.0 mm	1132.21000	1132.21001	21.0–20.0	0.8268–0.7874	13/16"*	–
Ø 22.0 mm	1132.22000	1132.22001	22.0–21.0	0.8661–0.8268	–	–
ER 32 [inch]						
INCH SET ER 32	1132.00002	1132.00003	2.16–20.64	0.085–0.8125	–	–
Ø 1/8"	1132.03182	1132.03183	3.18–2.16	0.125–0.085	1/8"	•
Ø 3/16"	1132.04762	1132.04763	4.76–3.75	0.1875–0.1475	3/16"	•
Ø 1/4"	1132.06352	1132.06353	6.35–5.33	0.25–0.21	1/4"	•
Ø 5/16"	1132.07942	1132.07943	7.94–6.92	0.3125–0.2725	5/16"	•
Ø 3/8"	1132.09532	1132.09533	9.53–8.51	0.375–0.335	3/8"	•
Ø 7/16"	1132.11112	1132.11113	11.11–10.1	0.4375–0.3975	7/16"	•
Ø 1/2"	1132.12702	1132.12703	12.7–11.68	0.5–0.46	1/2"	•
Ø 9/16"	1132.14292	1132.14293	14.29–13.27	0.5625–0.5225	9/16"	•
Ø 5/8"	1132.15882	1132.15883	15.88–14.86	0.625–0.585	5/8"	•
Ø 11/16"	1132.17462	1132.17463	17.46–16.45	0.6875–0.6475	11/16"	•
Ø 3/4"	1132.19052	1132.19053	19.05–18.03	0.75–0.71	3/4"	•
Ø 13/16"	1132.20642	1132.20643	20.64–19.62	0.8125–0.7725	13/16"	•

Included in the ER sets are all marked collets within that size and the matching collet tray ZWT

**Approx. inch sizing*

ER standard collets and ultraprecision collets ER-UP

ER std.	ER-UP
DIN 6499-B	DIN 6499-B
ISO 15488	ISO 15488

	Part no.		Clamping range			
Type	ER standard	ER-UP	[mm]	[decimal inch]	Ø [inch]	Included in set
ER 40 [mm]						
SET ER 40	1140.00000	1140.00001	3.0–26.0	0.1181–1.0236	–	–
Ø 3.0 mm	1140.03000	1140.03001	3.0–2.0	0.1181–0.0787	3/32"	–
Ø 3.5 mm	1140.03500	1140.03501	3.5–2.5	0.1378–0.0984	1/8"*	–
Ø 4.0 mm	1140.04000	1140.04001	4.0–3.0	0.1575–0.1181	5/32"	•
Ø 4.5 mm	1140.04500	1140.04501	4.5–3.5	0.1772–0.1378	–	–
Ø 5.0 mm	1140.05000	1140.05001	5.0–4.0	0.1969–0.1575	3/16"*	•
Ø 5.5 mm	1140.05500	1140.05501	5.5–4.5	0.2165–0.1772	–	–
Ø 6.0 mm	1140.06000	1140.06001	6.0–5.0	0.2362–0.1969	7/32"	•
Ø 6.5 mm	1140.06500	1140.06501	6.5–5.5	0.2559–0.2165	1/4"*	–
Ø 7.0 mm	1140.07000	1140.07001	7.0–6.0	0.2756–0.2362	–	•
Ø 7.5 mm	1140.07500	1140.07501	7.5–6.5	0.2953–0.2559	9/32"	–
Ø 8.0 mm	1140.08000	1140.08001	8.0–7.0	0.315–0.2756	5/16"*	•
Ø 8.5 mm	1140.08500	1140.08501	8.5–7.5	0.3346–0.2953	–	–
Ø 9.0 mm	1140.09000	1140.09001	9.0–8.0	0.3543–0.315	–	•
Ø 9.5 mm	1140.09500	1140.09501	9.5–8.5	0.374–0.3346	11/32"	–
Ø 10.0 mm	1140.10000	1140.10001	10.0–9.0	0.3937–0.3543	3/8"*	•
Ø 10.5 mm	1140.10500	1140.10501	10.5–9.5	0.4134–0.374	13/32"	–
Ø 11.0 mm	1140.11000	1140.11001	11.0–10.0	0.4331–0.3937	–	•
Ø 11.5 mm	1140.11500	1140.11501	11.5–10.5	0.4528–0.4134	7/16"*	–
Ø 12.0 mm	1140.12000	1140.12001	12.0–11.0	0.4724–0.4331	15/32"	•
Ø 12.5 mm	1140.12500	1140.12501	12.5–11.5	0.4921–0.4528	–	–
Ø 13.0 mm	1140.13000	1140.13001	13.0–12.0	0.5118–0.4724	1/2"*	•
Ø 13.5 mm	1140.13500	1140.13501	13.5–12.5	0.5315–0.4921	17/32"	–
Ø 14.0 mm	1140.14000	1140.14001	14.0–13.0	0.5512–0.5118	–	•
Ø 14.5 mm	1140.14500	1140.14501	14.5–13.5	0.5709–0.5315	9/16"*	–
Ø 15.0 mm	1140.15000	1140.15001	15.0–14.0	0.5906–0.5512	–	•
Ø 15.5 mm	1140.15500	1140.15501	15.5–14.5	0.6102–0.5709	19/32"	–
Ø 16.0 mm	1140.16000	1140.16001	16.0–15.0	0.6299–0.5906	5/8"*	•
Ø 16.5 mm	1140.16500	1140.16501	16.5–15.5	0.6496–0.6102	–	–
Ø 17.0 mm	1140.17000	1140.17001	17.0–16.0	0.6693–0.6299	21/32"	•
Ø 17.5 mm	1140.17500	1140.17501	17.5–16.5	0.689–0.6496	11/16"*	–
Ø 18.0 mm	1140.18000	1140.18001	18.0–17.0	0.7078–0.6693	–	•
Ø 18.5 mm	1140.18500	1140.18501	18.5–17.5	0.7283–0.689	23/32"	–
Ø 19.0 mm	1140.19000	1140.19001	19.0–18.0	0.748–0.7078	–	•
Ø 19.5 mm	1140.19500	1140.19501	19.5–18.5	0.7677–0.7283	3/4"*	–
Ø 20.0 mm	1140.20000	1140.20001	20.0–19.0	0.7874–0.748	25/32"	•
Ø 20.5 mm	1140.20500	1140.20501	20.5–19.5	0.8071–0.7677	–	–
Ø 21.0 mm	1140.21000	1140.21001	21.0–20.0	0.8268–0.7874	13/16"*	•

Included in the ER sets are all marked collets within that size and the matching collet tray ZWT

**Approx. inch sizing*

For further technical information, please refer to page 295

ER standard collets and ultraprecision collets ER-UP

ER std.	ER-UP
DIN 6499-B	DIN 6499-B
ISO 15488	ISO 15488

Type	Part no. ER standard	Part no. ER-UP	Clamping range [mm]	Clamping range [decimal inch]	Ø [inch]	Included in set
ER 40 [mm] continued						
Ø 21.5 mm	1140.21500	1140.21501	21.5–20.5	0.8465–0.8071	27/32"	–
Ø 22.0 mm	1140.22000	1140.22001	22.0–21.0	0.8661–0.8268	–	•
Ø 22.5 mm	1140.22500	1140.22501	22.5–21.5	0.8858–0.8465	7/8"*	–
Ø 23.0 mm	1140.23000	1140.23001	23.0–22.0	0.9055–0.8661	–	•
Ø 23.5 mm	1140.23500	1140.23501	23.5–22.5	0.9252–0.8858	29/32"	–
Ø 24.0 mm	1140.24000	1140.24001	24.0–23.0	0.9449–0.9055	15/16"	•
Ø 24.5 mm	1140.24500	1140.24501	24.5–23.5	0.9646–0.9252	–	–
Ø 25.0 mm	1140.25000	1140.25001	25.0–24.0	0.9843–0.9449	31/32"	•
Ø 25.5 mm	1140.25500	1140.25501	25.5–24.5	1.0039–0.9646	1"*	–
Ø 26.0 mm	1140.26000	1140.26001	26.0–25.0	1.0236–0.9843	–	•
Ø 27.0 mm	1140.27000	1140.27001	27.0–26.0	1.063–1.0236	1/$^{1}/_{16}$"	–
Ø 28.0 mm	1140.28000	1140.28001	28.0–27.0	1.1024–1.063	1/$^{3}/_{32}$"	–
Ø 29.0 mm	1140.29000	1140.29001	29.0–28.0	1.1417–1.1024	1/$^{1}/_{8}$"	–
Ø 30.0 mm	1140.30000	1140.30001	30.0–29.0	1.1811–1.1417	1/$^{5}/_{32}$"	–
ER 40 [inch]						
INCH SET ER 40	1140.00002	1140.00003	2.16–25.4	0.085–1.0	–	–
Ø 1/8"	1140.03182	1140.03183	3.18–2.16	0.125–0.085	1/8"	•
Ø 3/16"	1140.04762	1140.04763	4.76–3.75	0.1875–0.1475	3/16"	•
Ø 1/4"	1140.06352	1140.06353	6.35–5.33	0.25–0.21	1/4"	•
Ø 5/16"	1140.07942	1140.07943	7.94–6.92	0.3125–0.2725	5/16"	•
Ø 3/8"	1140.09532	1140.09533	9.53–8.51	0.375–0.335	3/8"	•
Ø 7/16"	1140.11112	1140.11113	11.11–10.1	0.4375–0.3975	7/16"	•
Ø 1/2"	1140.12702	1140.12703	12.70–11.68	0.5–0.46	1/2"	•
Ø 9/16"	1140.14292	1140.14293	14.29–13.27	0.5625–0.5225	9/16"	•
Ø 5/8"	1140.15882	1140.15883	15.88–14.86	0.625–0.585	5/8"	•
Ø 11/16"	1140.17462	1140.17463	17.46–16.45	0.6875–0.6475	11/16"	•
Ø 3/4"	1140.19052	1140.19053	19.05–18.03	0.75–0.71	3/4"	•
Ø 13/16"	1140.20642	1140.20643	20.64–19.62	0.8125–0.7725	13/16"	•
Ø 7/8"	1140.22232	1140.22233	22.23–21.21	0.875–0.835	7/8"	•
Ø 1"	1140.25402	1140.25403	25.40–24.38	1.0–0.96	1"	•

Included in the ER sets are all marked collets within that size and the matching collet tray ZWT

**Approx. inch sizing*

ER standard collets and ultraprecision collets ER-UP

ER std.	ER-UP
DIN 6499-B	DIN 6499-B
ISO 15488	ISO 15488

	Part no.		Clamping range			
Type	ER standard	ER-UP	[mm]	[decimal inch]	Ø [inch]	Included in set
ER 50 [mm]						
SET ER 50	1150.00000	1150.00001	10.0–34.0	0.2362–1.3386	–	–
Ø 6.0 mm	1150.06000	1150.06001	6.0–4.0	0.2362–0.1575	3/16"	–
Ø 8.0 mm	1150.08000	1150.08001	8.0–6.0	0.315–0.2362	1/4"	–
Ø 10.0 mm	1150.10000	1150.10001	10.0–8.0	0.3937–0.315	3/8"	–
Ø 12.0 mm	1150.12000	1150.12001	12.0–10.0	0.4724–0.3937	7/16"	•
Ø 14.0 mm	1150.14000	1150.14001	14.0–12.0	0.5512–0.4724	1/2"	•
Ø 16.0 mm	1150.16000	1150.16001	16.0–14.0	0.63–0.5512	5/8"	•
Ø 18.0 mm	1150.18000	1150.18001	18.0–16.0	0.7087–0.6299	11/16"	•
Ø 20.0 mm	1150.20000	1150.20001	20.0–18.0	0.7874–0.7087	3/4"	•
Ø 22.0 mm	1150.22000	1150.22001	22.0–20.0	0.8661–0.7874	13/16"	•
Ø 24.0 mm	1150.24000	1150.24001	24.0–22.0	0.9449–0.8661	7/8"	•
Ø 25.0 mm	1150.25000	1150.25001	25.0–23.0	0.9843–0.9055	31/32"	–
Ø 26.0 mm	1150.26000	1150.26001	26.0–24.0	1.0236–0.9449	1"	•
Ø 28.0 mm	1150.28000	1150.28001	28.0–26.0	1.1024–1.0236	1 1/16"	•
Ø 30.0 mm	1150.30000	1150.30001	30.0–28.0	1.1811–1.1024	1 1/8"	•
Ø 32.0 mm	1150.32000	1150.32001	32.0–30.0	1.2598–1.1811	1 1/4"	•
Ø 34.0 mm	1150.34000	1150.34001	34.0–32.0	1.3386–1.2598	1 5/16"	•
Ø 36.0 mm	1150.36000	1150.36001	36.0–34.0	1.4173–1.3386	1 3/18"	–

Included in the ER sets are all marked collets within that size and the matching collet tray ZWT

**Approx. inch sizing*

For further technical information, please refer to page 295

ER standard and ER-UP

Metallic sealed collets ER-DM

Type	Part no.	Clamping range [mm]	Clamping range [decimal inch]	Ø [inch]	Included in set
ER 11-DM [mm]					
Ø 3.0 mm	1211.03000	3.0–2.75	0.1181–0.1083	–	–
Ø 4.0 mm	1211.04000	4.0–3.75	0.1575–0.1476	–	–
Ø 5.0 mm	1211.05000	5.0–4.75	0.1969–0.187	–	–
Ø 6.0 mm	1211.06000	6.0–5.75	0.2362–0.2264	–	–
Ø 7.0 mm	1211.07000	7.0–6.75	0.2756–0.2657	–	–
ER 11-DM [inch]					
Ø 1/8"	1211.03182	3.18–2.93	0.125–0.1154	1/8"	–
Ø 3/16"	1211.04762	4.76–4.51	0.1875–0.1776	3/16"	–
Ø 7/32"	1211.05562	5.56–5.31	0.2188–0.2091	7/32"	–
Ø 1/4"	1211.06352	6.35–6.1	0.25–0.2402	1/4"	–
ER 16-DM [mm]					
SET ER 16-DM	1216.00000	3.0–10.0	0.1181–0.3937	–	–
Ø 3.0 mm	1216.03000	3.0 h9	0.1181 h9	–	•
Ø 4.0 mm	1216.04000	4.0 h9	0.1575 h9	–	•
Ø 5.0 mm	1216.05000	5.0–4.5	0.1969–0.1772	–	•
Ø 6.0 mm	1216.06000	6.0–5.5	0.2362–0.2165	–	•
Ø 7.0 mm	1216.07000	7.0–6.5	0.2756–0.2559	–	•
Ø 8.0 mm	1216.08000	8.0–7.5	0.315–0.2953	–	•
Ø 9.0 mm	1216.09000	9.0–8.5	0.3543–0.3346	–	•
Ø 10.0 mm	1216.10000	10.0–9.5	0.3937–0.374	–	•

For further technical information, please refer to page 295

ER-DM

Expert advice

Please note that the ER-DM collets are not suitable for use with reCool®.

Metallic sealed collets ER-DM

Type	Part no.	Clamping range [mm]	Clamping range [decimal inch]	Ø [inch]	Included in set
ER 16-DM [inch]					
INCH SET ER 16-DM	1216.00002	3.18–10.32	0.125–0.4063	–	–
Ø 1/8"	1216.03182	3.18 h9	0.125 h9	1/8"	•
Ø 5/32"	1216.03972	3.97 h9	0.1563 h9	5/32"	–
Ø 3/16"	1216.04762	4.76 h9	0.1875 h9	3/16"	•
Ø 7/32"	1216.05562	5.56–5.06	0.2188–0.1991	7/32"	–
Ø 1/4"	1216.06352	6.35–5.85	0.25–0.2303	1/4"	•
Ø 9/32"	1216.07142	7.14–6.64	0.2813–0.2616	9/32"	–
Ø 5/16"	1216.07942	7.94–7.44	0.3125–0.2928	5/16"	•
Ø 11/32"	1216.08732	8.73–8.23	0.3438–0.3241	11/32"	–
Ø 3/8"	1216.09532	9.53–9.02	0.375–0.3553	3/8"	•
Ø 13/32"	1216.10322	10.32–9.82	0.4063–0.3866	13/32"	–
ER 20-DM [mm]					
SET ER 20-DM	1220.00000	3.0–13.0	0.1181–0.5118	–	–
Ø 3.0 mm	1220.03000	3.0 h9	0.1181 h9	–	•
Ø 4.0 mm	1220.04000	4.0 h9	0.1575 h9	–	•
Ø 5.0 mm	1220.05000	5.0 h9	0.1969 h9	–	•
Ø 6.0 mm	1220.06000	6.0 h9	0.2362 h9	–	•
Ø 7.0 mm	1220.07000	7.0–6.5	0.2756–0.2559	–	•
Ø 8.0 mm	1220.08000	8.0–7.5	0.315–0.2953	–	•
Ø 9.0 mm	1220.09000	9.0–8.5	0.3543–0.3346	–	•
Ø 10.0 mm	1220.10000	10.0–9.5	0.3937–0.374	–	•
Ø 11.0 mm	1220.11000	11.0–10.5	0.4331–0.4134	–	•
Ø 12.0 mm	1220.12000	12.0–11.5	0.4724–0.4528	–	•
Ø 13.0 mm	1220.13000	13.0–12.5	0.5118–0.4921	–	•
ER 20-DM [inch]					
INCH SET ER 20-DM	1220.00002	3.18–12.7	0.125–0.5	–	–
Ø 1/8"	1220.03182	3.18 h9	0.125 h9	1/8"	•
Ø 5/32"	1220.03972	3.97 h9	0.1563 h9	5/32"	–
Ø 3/16"	1220.04762	4.76 h9	0.1875 h9	3/16"	•
Ø 7/32"	1220.05562	5.56 h9	0.2188 h9	7/32"	–
Ø 1/4"	1220.06352	6.35 h9	0.25 h9	1/4"	•
Ø 9/32"	1220.07142	7.14–6.64	0.2813–0.2616	9/32"	–
Ø 5/16"	1220.07942	7.94–7.44	0.3125–0.2928	5/16"	•
Ø 11/32"	1220.08732	8.73–8.23	0.3438–0.3241	11/32"	–
Ø 3/8"	1220.09532	9.53–9.02	0.375–0.3553	3/8"	•
Ø 13/32"	1220.10322	10.32–9.82	0.4063–0.3866	13/32"	–
Ø 7/16"	1220.11112	11.11–10.61	0.4375–0.4178	7/16"	•
Ø 15/32"	1220.11912	11.91–11.41	0.4687–0.4491	15/32"	–
Ø 1/2"	1220.12702	12.7–12.2	0.5–0.4803	1/2"	•

Metallic sealed collets ER-DM

Type	Part no.	Clamping range [mm]	Clamping range [decimal inch]	Ø [inch]	Included in set
ER 25-DM [mm]					
SET ER 25-DM	1225.00000	6.0–16.0	0.2362–0.6299	–	–
Ø 6.0 mm	1225.06000	6.0 h9	0.2362 h9	–	•
Ø 7.0 mm	1225.07000	7.0 h9	0.2756 h9	–	–
Ø 8.0 mm	1225.08000	8.0–7.5	0.315–0.2953	–	•
Ø 9.0 mm	1225.09000	9.0–8.5	0.3543–0.3347	–	–
Ø 10.0 mm	1225.10000	10.0–9.5	0.3937–0.374	–	•
Ø 11.0 mm	1225.11000	11.0–10.5	0.4331–0.4134	–	–
Ø 12.0 mm	1225.12000	12.0–11.5	0.4724–0.4528	–	•
Ø 13.0 mm	1225.13000	13.0–12.5	0.5118–0.4921	–	–
Ø 14.0 mm	1225.14000	14.0–13.5	0.5512–0.5315	–	•
Ø 15.0 mm	1225.15000	15.0–14.5	0.5906–0.5709	–	–
Ø 16.0 mm	1225.16000	16.0–15.5	0.6299–0.6102	–	•
ER 25-DM [inch]					
INCH SET ER 25-DM	1225.00002	6.35–15.88	0.25–0.625	–	–
Ø 7/32"	1225.05562	5.56 h9	0.2188 h9	7/32"	–
Ø 1/4"	1225.06352	6.35 h9	0.2500 h9	1/4"	•
Ø 9/32"	1225.07142	7.14 h9	0.2813 h9	9/32"	–
Ø 5/16"	1225.07942	7.94–7.44	0.3125–0.2928	5/16"	•
Ø 11/32"	1225.08732	8.73–8.23	0.3438–0.3241	11/32"	–
Ø 3/8"	1225.09532	9.53–9.02	0.375–0.3553	3/8"	•
Ø 13/32"	1225.10322	10.32–9.82	0.4063–0.3866	13/32"	–
Ø 7/16"	1225.11112	11.11–10.61	0.4375–0.4178	7/16"	•
Ø 15/32"	1225.11912	11.91–11.41	0.4687–0.4491	15/32"	–
Ø 1/2"	1225.12702	12.7–12.2	0.5–0.4803	1/2"	•
Ø 17/32"	1225.13492	13.49–12.99	0.5313–0.5116	17/32"	–
Ø 9/16"	1225.14292	14.29–13.79	0.5625–0.5428	9/16"	•
Ø 19/32"	1225.15082	15.08–14.58	0.5934–0.5741	19/32"	–
Ø 5/8"	1225.15882	15.88–15.38	0.625–0.6055	5/8"	•
ER 32-DM [mm]					
SET ER 32-DM	1232.00000	6.0–20.0	0.2362–0.7874	–	–
Ø 6.0 mm	1232.06000	6.0 h9	0.2362 h9	–	•
Ø 7.0 mm	1232.07000	7.0 h9	0.2756 h9	–	–
Ø 8.0 mm	1232.08000	8.0–7.5	0.315–0.2953	–	•
Ø 9.0 mm	1232.09000	9.0–8.5	0.3543–0.3346	–	–
Ø 10.0 mm	1232.10000	10.0–9.5	0.3937–0.374	–	•
Ø 11.0 mm	1232.11000	11.0–10.5	0.4331–0.4134	–	–

Metallic sealed collets ER-DM

Type	Part no.	Clamping range [mm]	Clamping range [decimal inch]	Ø [inch]	Included in set
Ø 12.0 mm	1232.12000	12.0–11.5	0.4724–0.4528	–	•
Ø 13.0 mm	1232.13000	13.0–12.5	0.5118–0.4921	–	–
Ø 14.0 mm	1232.14000	14.0–13.5	0.5512–0.5315	–	•
Ø 15.0 mm	1232.15000	15.0–14.5	0.5906–0.5709	–	–
Ø 16.0 mm	1232.16000	16.0–15.5	0.6299–0.6102	–	•
Ø 17.0 mm	1232.17000	17.0–16.5	0.6693–0.6496	–	–
Ø 18.0 mm	1232.18000	18.0–17.5	0.7087–0.689	–	•
Ø 19.0 mm	1232.19000	19.0–18.5	0.748–0.7283	–	–
Ø 20.0 mm	1232.20000	20.0–19.5	0.7874–0.7677	–	•
ER 32-DM [inch]					
INCH SET ER 32-DM	1232.00002	6.35–19.05	0.25–0.75	–	–
Ø 1/4"	1232.06352	6.35 h9	0.25 h9	1/4"	•
Ø 9/32"	1232.07142	7.15 h9	0.2813 h9	9/32"	–
Ø 5/16"	1232.07942	7.94–7.44	0.3125–0.2928	5/16"	•
Ø 11/32"	1232.08732	8.73–8.23	0.3438–0.3241	11/32"	–
Ø 3/8"	1232.09532	9.53–9.02	0.375–0.3553	3/8"	•
Ø 13/32"	1232.10322	10.32–9.82	0.4063–0.3866	13/32"	–
Ø 7/16"	1232.11112	11.11–10.61	0.4375–0.4178	7/16"	•
Ø 15/32"	1232.11912	11.91–11.41	0.4687–0.4491	15/32"	–
Ø 1/2"	1232.12702	12.7–12.2	0.5–0.4803	1/2"	•
Ø 17/32"	1232.13492	13.5–12.99	0.5313–0.5116	17/32"	–
Ø 9/16"	1232.14292	14.29–13.79	0.5625–0.5428	9/16"	•
Ø 19/32"	1232.15082	15.07–14.58	0.5934–0.5741	19/32"	–
Ø 5/8"	1232.15882	15.88–15.38	0.625–0.6055	5/8"	•
Ø 21/32"	1232.16672	16.67–16.17	0.6563–0.6366	21/32"	–
Ø 11/16"	1232.17462	17.46–16.96	0.6875–0.6678	11/16"	•
Ø 23/32"	1232.18262	18.26–17.76	0.7188–0.6991	23/32"	–
Ø 3/4"	1232.19052	19.05–18.55	0.75–0.7303	3/4"	•
ER 40-DM [mm]					
Ø 6.0 mm	1240.06000	6.0 h9	0.2362 h9	–	–
Ø 8.0 mm	1240.08000	8.0 h9	0.3150 h9	–	–
Ø 10.0 mm	1240.10000	10.0–9.5	0.3937–0.374	–	–
Ø 11.0 mm	1240.11000	11.0–10.5	0.4331–0.4134	–	–
Ø 12.0 mm	1240.12000	12.0–11.5	0.4724–0.4528	–	–
Ø 13.0 mm	1240.13000	13.0–12.5	0.5118–0.4921	–	–
Ø 14.0 mm	1240.14000	14.0–13.5	0.5512–0.5315	–	–
Ø 15.0 mm	1240.15000	15.0–14.5	0.5906–0.5709	–	–

For further technical information, please refer to page 295

Metallic sealed collets ER-DM

Type	Part no.	Clamping range [mm]	Clamping range [decimal inch]	Ø [inch]	Included in set
ER 40-DM [mm] continued					
Ø 16.0 mm	1240.16000	16.0–15.5	0.6299–0.6102	–	–
Ø 17.0 mm	1240.17000	17.0–16.5	0.6693–0.6496	–	–
Ø 18.0 mm	1240.18000	18.0–17.5	0.7087–0.689	–	–
Ø 19.0 mm	1240.19000	19.0–18.5	0.748–0.7283	–	–
Ø 20.0 mm	1240.20000	20.0–19.5	0.7874–0.7677	–	–
Ø 21.0 mm	1240.21000	21.0–20.5	0.8268–0.8071	–	–
Ø 22.0 mm	1240.22000	22.0–21.5	0.8661–0.8465	–	–
Ø 23.0 mm	1240.23000	23.0–22.5	0.9055–0.8858	–	–
Ø 24.0 mm	1240.24000	24.0–23.5	0.9449–0.9252	–	–
Ø 25.0 mm	1240.25000	25.0–24.5	0.9843–0.9646	–	–
Ø 26.0 mm	1240.26000	26.0–25.5	1.0236–1.0039	–	–
ER 40-DM [inch]					
Ø 1/4"	1240.06352	6.35 h9	0.25 h9	1/4"	–
Ø 5/16"	1240.07942	7.94 h9	0.3125 h9	5/16"	–
Ø 3/8"	1240.09532	9.53–9.02	0.375–0.3553	3/8"	–
Ø 7/16"	1240.11112	11.11–10.61	0.4375–0.4178	7/16"	–
Ø 1/2"	1240.12702	12.7–12.2	0.5–0.4803	1/2"	–
Ø 9/16"	1240.14292	14.29–13.79	0.5625–0.5428	9/16"	–
Ø 5/8"	1240.15882	15.88–15.38	0.62–0.6055	5/8"	–
Ø 11/16"	1240.17462	17.46–16.96	0.6875–0.6678	11/16"	–
Ø 3/4"	1240.19052	19.05–18.55	0.75–0.7303	3/4"	–
Ø 13/16"	1240.20642	20.64–20.14	0.8123–0.7928	13/16"	–
Ø 7/8"	1240.22232	22.23–21.72	0.875–0.8553	7/8"	–
Ø 1"	1240.25402	25.4–24.9	1.0–0.9803	1"	–

For further technical information, please refer to page 295.

Expert advice

Please note that DM collets are not compatible with Weldon or Whistle notch shafts.
To achieve internal cooling with Weldon or Whistle notch shafts, use the REGO-FIX sealing disks ER/DS with your REGO-FIX ER collet.

secuRgrip® collets ER-SG

ER-SG
DIN 6499
ISO 15488

Type	Part no.	Ø [mm]	Ø [inch]
ER 32-SG [mm]			
Ø 10.0 mm	1332.10004	10	–
Ø 12.0 mm	1332.12004	12	–
Ø 16.0 mm	1332.16004	16	–
ER 32-SG [inch]			
Ø 1/2"	1332.12704	12.7	1/2"
Ø 5/8"	1332.15884	15.88	5/8"
ER 40-SG [mm]			
Ø 16.0 mm	1340.16004	16	–
Ø 20.0 mm	1340.20004	20	–
Ø 25.0 mm	1340.25004	25	–
ER 40-SG [inch]			
Ø 5/8"	1340.15884	15.88	5/8"
Ø 3/4"	1340.19054	19.05	3/4"
Ø 1"	1340.25404	25.4	1"

Threaded insert SGI [mm]	
Ø 10.0 mm	7694.10000
Ø 12.0 mm	7694.12000
Ø 14.0 mm	7694.14000
Ø 16.0 mm	7694.16000
Ø 18.0 mm	7694.18000
Ø 20.0 mm	7694.20000
Ø 25.0 mm	7694.25000

Threaded insert SGI [inch]	
Ø 1/2"	7694.12700
Ø 5/8"	7694.15880
Ø 3/4"	7694.19050
Ø 1"	7694.25404

ER-SG

Threaded insert SGI

Learn more

For further information on secuRgrip®, please refer to page 277.

ER tapping collets ER-GB

Manufactured with a form-fitting internal square,
the ER-GB collets successfully prevent the tap from slipping.

Tapping collets without axial compensation

Swiss quality

Made in Switzerland to ISO 9001 / ISO 14001.

Marking

Type and size (reduced collet selection errors).

Traceability

Lot number marking on all products for traceability through the entire manufacturing process.

Original REGO-FIX

Our long-lasting machining experience results in a well-engineered system. When buying REGO-FIX products pay attention to our quality seal: The triangle is our seal for outstanding quality made in Switzerland.

Interchangeable

With standard ER collet DIN 6499 / ISO 15488.
No additional toolholders and clamping nuts necessary.

Wide product range

Sizes: ER-GB 11 to 50.
Standards: DIN, ISO, JIS, ANSI.

Strength: Square for tight grip of tap

Eliminates tap slippage in collets.

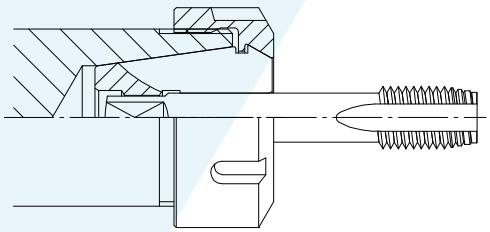
Matched tooling system for best fit

The compatibility of the entire system results in maximum precision, balance and tool life.

Tapping collets ER-GB These rigid tapping collets are compatible with taps per DIN, ISO, JIS and ANSI standards. The REGO-FIX ER-GB tapping collets are manufactured with an internal square. They are intended for use on CNC machines that have synchronized machine spindle speed and feed rate. Machines that have such rigid tapping capabilities require only minimal compensation. We recommend the use of our SSY Softsynchro® tapping holders. They compensate minimal synchronizing differences of CNC machines.

For machines without tapping option we recommend the use of our axial compensating GSF tapping holders. Please refer to page 116 *for more information. For additional technical information and dimensions of taps on ER-GB, please refer to pages* 299 and 336.

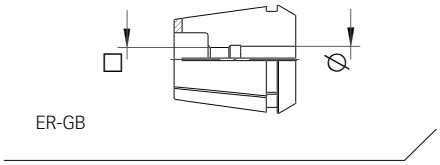
ER-GB



ER-GB

ER tapping collets

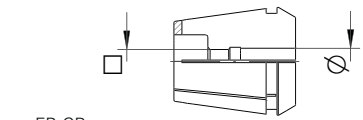
ER-GB [mm]



Dimensions [mm]		ER-GB							
Ø	□	11	16	20	25	32	40	50	Standard
2.5	2.1/2.0	1411.02500	–	–	–	–	–	–	DIN/ISO
2.8	2.1	1411.02800	1416.02800	–	–	–	–	–	DIN
3.5	2.7	1411.03500	1416.03500	1420.03500	–	–	–	–	DIN
4.0	3.0	1411.04000	–	–	–	–	–	–	DIN
4.0	3.15/3.2	1411.04002	1416.04002	1420.04002	1425.04002	1432.04002	–	–	ISO/JIS
4.5	3.4	1411.04500	1416.04500	1420.04500	1425.04500	1432.04500	–	–	DIN
5.0	4.0	1411.05002	1416.05002	1420.05002	1425.05002	1432.05002	–	–	ISO/JIS
5.5	4.3	–	1416.05500	1420.05500	1425.05500	1432.05500	–	–	DIN
5.5	4.5	–	1416.05501	1420.05501	1425.05501	1432.05501	–	–	JIS
6.0	4.5	–	1416.06001	1420.06001	1425.06001	1432.06001	1440.06001	–	JIS
6.0	4.9	1411.06000	1416.06000	1420.06000	1425.06000	1432.06000	1440.06000	–	DIN
6.2	5.0	–	1416.06201	1420.06201	1425.06201	1432.06201	1440.06201	–	JIS
6.3	5.0	–	1416.06302	1420.06302	1425.06302	1432.06302	1440.06302	–	ISO
7.0	5.5	–	1416.07000	1420.07000	1425.07000	1432.07000	1440.07000	–	DIN/JIS
7.1	5.6	–	1416.07102	1420.07102	1425.07102	1432.07102	1440.07102	–	ISO
8.0	6.2/6.3	–	1416.08000	1420.08000	1425.08000	1432.08000	1440.08000	–	DIN/ISO
8.5	6.5	–	1416.08501	1420.08501	1425.08501	1432.08501	1440.08501	–	JIS
9.0	7.0/7.1	–	1416.09000	1420.09000	1425.09000	1432.09000	1440.09000	–	DIN/ISO
10.0	8.0	–	–	1420.10000	1425.10000	1432.10000	1440.10000	–	DIN/ISO
10.5	8.0	–	–	1420.10501	1425.10501	1432.10501	1440.10501	–	JIS
11.0	9.0	–	–	1420.11000	1425.11000	1432.11000	1440.11000	–	DIN
11.2	9.0	–	–	1420.11202	1425.11202	1432.11202	1440.11202	–	ISO
12.0	9.0	–	–	1420.12000	1425.12000	1432.12000	1440.12000	–	DIN
12.5	10.0	–	–	–	1425.12502	1432.12502	1440.12502	–	ISO/JIS
14.0	11.0/11.2	–	–	–	1425.14000	1432.14000	1440.14000	–	DIN/ISO/JIS
15.0	12.0	–	–	–	1425.15001	1432.15001	1440.15001	–	JIS
16.0	12.0/12.5	–	–	–	1425.16000	1432.16000	1440.16000	–	DIN/ISO
17.0	13.0	–	–	–	–	1432.17001	1440.17001	–	JIS
18.0	14.0/14.5	–	–	–	–	1432.18000	1440.18000	–	DIN/ISO
20.0	16.0	–	–	–	–	1432.20000	1440.20000	–	DIN/ISO
22.0	18.0	–	–	–	–	–	1440.22000	1450.22000	DIN
25.0	20.0	–	–	–	–	–	–	1450.25000	DIN
28.0	22.0	–	–	–	–	–	–	1450.28000	DIN
32.0	24.0	–	–	–	–	–	–	1450.32000	DIN

ER tapping collets

ER-GB [inch]



ER-GB

Dimensions [decimal inch]		ER-GB							
Ø	□	11	16	20	25	32	40	50	Standard
0.141"	0.11"	1411.03585	1416.03585	–	–	–	–		ANSI
0.168"	0.131"	1411.04275	1416.04275	1420.04275	1425.04275	1432.04275	–		ANSI
0.194"	0.152"	1411.04935	1416.04935	1420.04935	1425.04935	1432.04935	–		ANSI
0.22"	0.165"	–	1416.05595	1420.05595	1425.05595	1432.05595	–		ANSI
0.255"	0.191"	–	1416.06485	1420.06485	1425.06485	1432.06485	1440.06485		ANSI
0.318"	0.238"	–	1416.08085	1420.08085	1425.08085	1432.08085	1440.08085		ANSI
0.323"	0.242"	–	–	1420.08215	1425.08215	1432.08215	1440.08215		ANSI
0.367"	0.275"	–	–	1420.09325	1425.09325	1432.09325	1440.09325		ANSI
0.381"	0.286"	–	–	1420.09685	1425.09685	1432.09685	1440.09685		ANSI
0.429"	0.322"	–	–	–	1425.10905	1432.10905	1440.10905		ANSI
0.437"	0.328"	–	–	–	1425.11104	1432.11104	1440.11104		ANSI/NPT
0.48"	0.36"	–	–	–	1425.12195	1432.12195	1440.12195		ANSI
0.542"	0.406"	–	–	–	–	1432.13775	1440.13775		ANSI
0.562"	0.421"	–	–	–	–	1432.14274	1440.14274		ANSI/NPT
0.59"	0.442"	–	–	–	1425.14995	1432.14995	1440.14995		ANSI
0.652"	0.489"	–	–	–	–	1432.16565	1440.16565		ANSI
0.687"	0.515"	–	–	–	–	–	1440.17454		ANSI/NPT
0.697"	0.523"	–	–	–	–	–	1440.17705		ANSI
0.7"	0.531"	–	–	–	–	–	1440.17784		ANSI/NPT
0.76"	0.57"	–	–	–	–	–	1440.19305		ANSI
0.800"	0.600"	–	–	–	–	–	1440.20325	1450.20325	ANSI
0.896"	0.672"	–	–	–	–	–	–	1450.22765	ANSI
1.021"	0.766"	–	–	–	–	–	–	1450.25935	ANSI
1.108"	0.831"	–	–	–	–	–	–	1450.28145	ANSI
1.233"	0.925"	–	–	–	–	–	–	1450.31325	ANSI

Thread	Ø [inch]	□
No 0 – 6	0.141	0.110
1/16	0.141	0.110
3/32	0.141	0.110
1/8	0.141	0.110
5/32	0.168	0.131
No 8	0.168	0.131
3/16	0.194	0.152
No 9	0.194	0.152

Thread	Ø [inch]	□
No 10	0.194	0.152
1/4	0.255	0.191
5/16	0.318	0.238
3/8	0.381	0.286
7/16	0.323	0.242
1/2	0.367	0.275
9/16	0.429	0.322

Thread	Ø [inch]	□
5/8	0.480	0.360
11/16	0.542	0.406
3/4	0.590	0.442
13/16	0.652	0.489
7/8	0.697	0.523
15/16	0.760	0.570
1	0.800	0.600

ER tapping collets PCM ET1

PCM ET1 tapping collets with axial compensation offer a smart and cost-effective toolholding option for machines which need axial compensation for tapping.

Tapping collets with axial compensation

Interchangeable

With REGO-FIX standard ER collet DIN 6499 / ISO 15488.

Compatibility

PCM ET1-12 is compatible with ER11 toolholders.

Cost saving

No expensive tapping tools necessary.

Spring tension

Adapted to tap size.

Compact

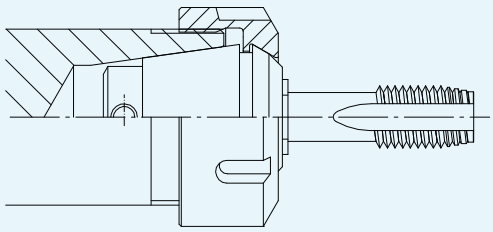
Very robust design with smallest space requirement.

Directions for use The following tapping process is recommended for tapping collets PCM ET1:
Fast approach, then tapping feed with approximately 95 % of the pitch value, which uses 20 to 30 % of the compensation stroke when the spindle rotation and the feed movement are simultaneously reversed.

Return feed must be made with 100 % of the pitch, which maintains the sleeve of the tapping collet in the compensation stroke up to the tap disengagement; quick return can then be programmed with usual stroke security. The relatively long axial compensation assists easy programming.

When tapping with very high speed, an appropriate programming compensation may be necessary to balance the differences of inertia between the spindle and the feed movement on reverse. In order to not disturb the axial compensation, use external coolant supply only.

Please refer to page 116 for additional information on REGO-FIX tapping holders. For additional technical information and dimensions of taps on PCM ET1, please refer to pages 300.



PCM ET1

PCM ET1

Expert advice

Not for coolant through tools and not for applications with sealing disks.

Expert advice

Further information about shaft diameters can be found on page 336.

ER tapping collets

PCM ET1

PCM ET1 [mm]

Shank Ø	PCM ET1						
[mm]	12	16	20	25	32	40	Standard
1.4	1512.01400	1516.01400	–	–	–	–	DIN / ISO
1.6	1512.01600	1516.01600	–	–	–	–	DIN
1.8	1512.01800	1516.01800	–	–	–	–	DIN
2.0	1512.02000	1516.02000	–	–	–	–	DIN
2.2	1512.02200	1516.02200	1520.02200	–	–	–	ISO / JIS
2.24	1512.02240	1516.02240	1520.02240	–	–	–	DIN
2.5	1512.02500	1516.02500	1520.02500	1525.02500	–	–	ISO / JIS
2.8	1512.02800	1516.02800	1520.02800	1525.02800	–	–	DIN
3.0	1512.03000	1516.03000	1520.03000	1525.03000	–	–	JIS
3.15	1512.03150	1516.03150	1520.03150	1525.03150	–	–	JIS
3.5	1512.03500	1516.03500	1520.03500	1525.03500	–	–	DIN
3.55	1512.03550	1516.03550	1520.03550	1525.03550	–	–	JIS
4.0	–	1516.04000	1520.04000	1525.04000	–	–	ISO
4.5	–	1516.04500	1520.04500	1525.04500	1532.04500	–	DIN / JIS
5.0	–	1516.05000	1520.05000	1525.05000	1532.05000	–	ISO
5.5	–	1516.05500	1520.05500	1525.05500	1532.05500	–	DIN / ISO
5.6	–	1516.05600	1520.05600	1525.05600	1532.05600	–	JIS
6.0	–	1516.06000	1520.06000	1525.06000	1532.06000	1540.06000	DIN / ISO
6.2	–	1516.06200	1520.06200	1525.06200	1532.06200	1540.06200	DIN / ISO
6.3	–	1516.06300	1520.06300	1525.06300	1532.06300	1540.06300	JIS
7.0	–	–	1520.07000	1525.07000	1532.07000	1540.07000	DIN
7.1	–	–	–	1525.07100	1532.07100	1540.07100	ISO
8.0	–	–	–	1525.08000	1532.08000	1540.08000	DIN
8.5	–	–	–	1525.08500	1532.08500	1540.08500	ISO / JIS
9.0	–	–	–	1525.09000	1532.09000	1540.09000	DIN / ISO / JIS
10.0	–	–	–	1525.10000	1532.10000	1540.10000	JIS
10.5	–	–	–	–	1532.10500	1540.10500	DIN / ISO
11.0	–	–	–	–	1532.11000	1540.11000	JIS
11.2	–	–	–	–	1532.11200	1540.11200	DIN / ISO
12.0	–	–	–	–	1532.12000	1540.12000	DIN / ISO
12.5	–	–	–	–	1532.12500	1540.12500	DIN
14.0	–	–	–	–	–	1540.14000	DIN
15.0	–	–	–	–	–	1540.15000	DIN
16.0	–	–	–	–	–	1540.16000	DIN
17.0	–	–	–	–	–	1540.17000	JIS

PCM ET1-ER 12 is technically identical to ER 11 and fits all ER11 toolholders

ER tapping collets

PCM ET1 [inch]

Shank Ø		PCM ET1					
[inch]	[mm]	12	16	20	25	32	40
0.141	3.580	1512.03581	1516.03581	1520.03581	1525.03581	–	–
0.168	4.270	–	1516.04271	1520.04271	1525.04271	1532.04721	–
0.194	4.930	–	1516.04931	1520.04931	1525.04931	1532.04931	–
0.220	5.590	–	1516.05591	1520.05591	1525.05591	1532.05591	–
0.255	6.480	–	–	1520.06481	1525.06481	1532.06481	1540.06481
0.318	8.080	–	–	–	1525.08081	1532.08081	1540.08081
0.323	8.205	–	–	–	1525.08211	1532.08211	1540.08211
0.367	9.320	–	–	–	1525.09321	1532.09321	1540.09321
0.381	9.680	–	–	–	1525.09681	1532.09681	1540.09681
0.429	10.900	–	–	–	–	1532.10901	1540.10901
0.437	11.113	–	–	–	–	1532.11111	1540.11111
0.480	12.192	–	–	–	–	1532.12191	1540.12191
0.542	13.770	–	–	–	–	–	1540.13771
0.562	14.290	–	–	–	–	–	1540.14291
0.590	14.990	–	–	–	–	–	1540.14991
0.652	16.560	–	–	–	–	–	1540.16561
0.697	17.700	–	–	–	–	–	1540.17701

PCM ET1-ER 12 is technically identical to ER 11 and fits all ER11 toolholders

Thread	Ø [inch]	□
No 0 – 6	0.141	0.110
1/16	0.141	0.110
3/32	0.141	0.110
1/8	0.141	0.110
5/32	0.168	0.131
No 8	0.168	0.131
3/16	0.194	0.152
No 9	0.194	0.152

Thread	Ø [inch]	□
No 10	0.194	0.152
1/4	0.255	0.191
5/16	0.318	0.238
3/8	0.381	0.286
7/16	0.323	0.242
1/2	0.367	0.275
9/16	0.429	0.322

Thread	Ø [inch]	□
5/8	0.480	0.360
11/16	0.542	0.406
3/4	0.590	0.442
13/16	0.652	0.489
7/8	0.697	0.523
15/16	0.760	0.570
1	0.800	0.600


REGO-FIX

Standard		Standard with bearing		Mini nut		Slip-off proof mini nut			External Thread			Sealing and coolant flush disks	
Hi-Q®/ ER	Hi-Q®/ ERC	Hi-Q®/ ERB	Hi-Q®/ ERBC	Hi-Q®/ ERM	Hi-Q®/ ERMC	Hi-Q®/ ERMX intRlox®	Hi-Q®/ ERMXC intRlox®	ER MS	Hi-Q®/ ERAX	Hi-Q®/ ERAXC	reCool® RCR/RCS	DS/ER	KS/ER
page 160	page 162	page 164	page 164	page 166	page 166	page 168	page 168	page 170	page 172	page 172	page 174	page 244	page 252

B: bearing C: cooling M: mini thread X: slip-off proof

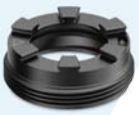
DS: sealing disk KS: coolant flush disk

Swiss quality ER clamping nuts

ER nuts						
	Hi-Q®/ER	**Hi-Q®/ERB**	**Hi-Q®/ERM**	**Hi-Q®/ERMX intRlox®**	**Hi-Q®/ERAX**	**ER MS**
Main feature	standard nut	with friction-bearing for higher clamping force	mini clamping nut	slip-off proof mini clamping nut	external thread and slip-off proof	up to 80,000 rpm
Sizes	ER 11–ER 50	ER 16–ER 50	ER 8–ER 25	ER 8–ER 25	ER 11–ER 40	ER 8–ER 20
Compatibility	compatible with all REGO-FIX ER collets					
Minimal outer diameter	–	–	•	•	–	•
Slip-off proof	–	–	–	•	•	–
Surface protection	•	•	•	•	•	–
Suitable wrench	A-E, E P, E, A-E P	A-E, E P, E, A-E P	A-E M, E M	A-E MX, E MX	A-E AX, E AX	A-E MS, E MS
Collet Locking System*	•	•	•	•	•	–

A: external thread B: bearing M: mini thread X: slip-off proof

**Collet Locking System is not available for size 8*

ER nuts Type C for coolant through					
	Hi-Q®/ERC	**Hi-Q®/ERBC**	**Hi-Q®/ERMC**	**Hi-Q®/ERMXC intRlox®**	**Hi-Q®/ERAXC**
Main feature	standard nut	with friction-bearing for higher clamping force	mini clamping nut	slip-off proof mini clamping nut	external thread and slip-off proof
Cooling option	internal cooling with DS disks and peripheral cooling with KS disks to 150 bar / 2100 PSI				
Sizes	ER 11–ER 50	ER 16–ER 50	ER 11–ER 25	ER 11–ER 25	ER 11–ER 40
Compatibility	compatible with all REGO-FIX ER collets, except PCM ET1 collets				
Minimal outer diameter	–	–	•	•	–
Slip-off proof	–	–	–	•	•
Surface protection	•	•	•	•	•
Suitable wrench	A-E, E P, E, A-E P	A-E, E P, E, A-EP	A-E M, E M	A-E MX, E MX	A-E AX, E AX
Collet Locking System*	•	•	•	•	•

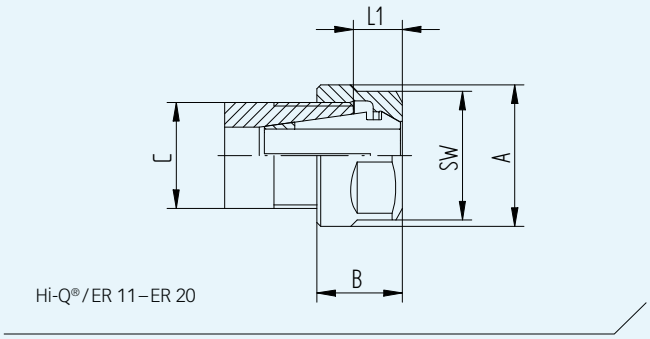
A: external thread B: bearing C: cooling M: mini thread X: slip-off proof

Expert advice

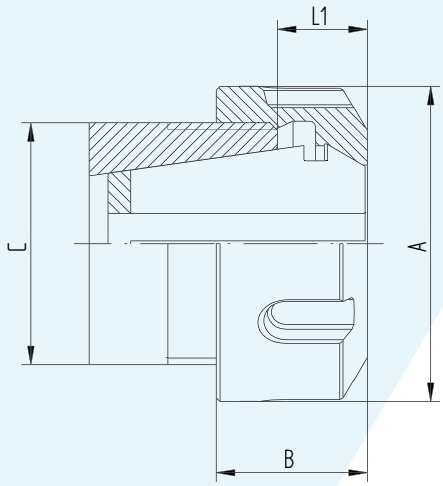
We recommend tightening the clamping nuts with our TORCO-BLOCK or torque wrench.
For more information on TORCO-BLOCK, see page 262. For tightening torque recommendations, please refer to page 293.

Hi-Q®/ER standard clamping nuts

Standard Hi-Q®/ER clamping nuts with corrosion-resistant surface are the standard nuts on all REGO-FIX ER toolholders.



Hi-Q®/ER 11 – ER 20



Hi-Q®/ER 25 – ER 50

Expert advice

Higher clamping force of the clamping nut at the same time means higher stress on the toolholder.
We recommend the use of REGO-FIX torque wrench. REGO-FIX will not be responsible for damages to toolholders or spindles of other manufacturers.

Hi-Q®/ER

Type	Part no.	Dimensions [mm] A	B	L1	SW	C	Accessory Wrench
Hi-Q®/ER 11							
Hi-Q®/ER 11	3411.00000	19	11.3	4.9–6.6	17	M 14 x 0.75	E 11 P
Hi-Q®/ER 11 L	3411.02000	19	11.3	4.9–6.6	17	M 14 x 0.75-LH	E 11 P
Hi-Q®/ER 16							
Hi-Q®/ER 16	3416.00000	28	17.5	7.0–10.5	25	M 22 x 1.5	E 16 P
Hi-Q®/ER 16 L	3416.02000	28	17.5	7.0–10.5	25	M 22 x 1.5-LH	E 16 P
Hi-Q®/ER 20							
Hi-Q®/ER 20	3420.00000	34	19	8.0–11.5	30	M 25 x 1.5	E 20 P
Hi-Q®/ER 20 L	3420.02000	34	19	8.0–11.5	30	M 25 x 1.5-LH	E 20 P
Hi-Q®/ER 25							
Hi-Q®/ER 25	3425.00000	42	20	8.5–12.0	–	M 32 x 1.5	E 25
Hi-Q®/ER 25 L	3425.02000	42	20	8.5–12.0	–	M 32 x 1.5-LH	E 25
Hi-Q®/ER 32							
Hi-Q®/ER 32	3432.00000	50	22.5	9.5–13.0	–	M 40 x 1.5	E 32
Hi-Q®/ER 32 L	3432.02000	50	22.5	9.5–13.0	–	M 40 x 1.5-LH	E 32
Hi-Q®/ER 40							
Hi-Q®/ER 40	3440.00000	63	25.5	11.5–15.0	–	M 50 x 1.5	E 40
Hi-Q®/ER 40 L	3440.02000	63	25.5	11.5–15.0	–	M 50 x 1.5-LH	E 40
Hi-Q®/ER 50							
Hi-Q®/ER 50	3450.00000	78	35.3	14.0–21.0	–	M 64 x 2	E 50

L = left-threaded nuts

Hi-Q®/ERC for coolant through tools

Application with sealing disk / coolant flush disk The Hi-Q®/ERC clamping nut is intended for use with the sealing disk system DS/ER and the cool flush system KS/ER. The disk system allows the use of all standard ER collets, ultraprecision collets and tapping collets for coolant through tools.

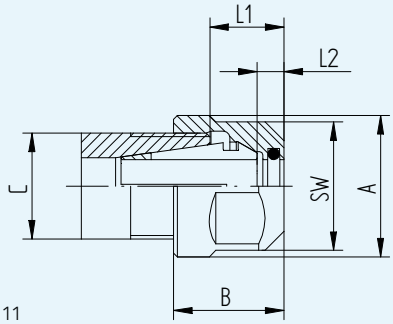
// Up to 150 bar / 2100 PSI coolant pressure
// Prevents dirt and chips from entering the collet

For peripheral cooling of non coolant through tools we recommend the coolant flush disks KS/ER. Please refer to page 252.
Accessories are not included in delivery.

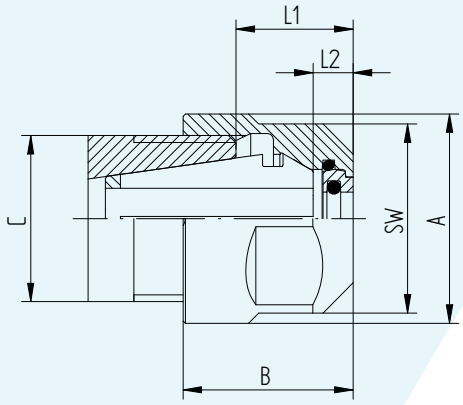
Hi-Q®/ERC 11 This clamping nut is recommended for use where minimal external diameters are important. The Hi-Q®/ERC 11 clamping nut for coolant through tools is the internal cooling version of the Hi-Q®/ER 11 clamping nut

Hi-Q®/ERC 11 does not require sealing disks The sealing system is built into the clamping nut.

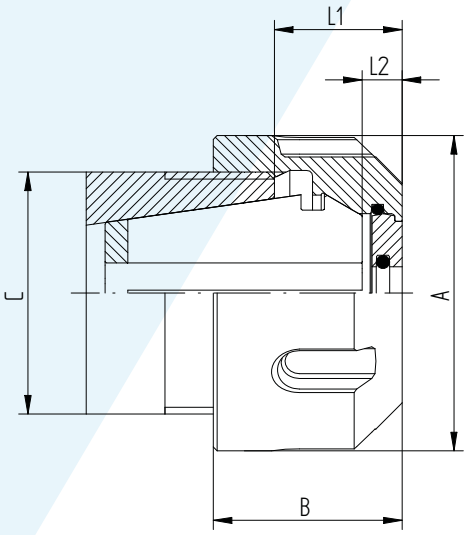
// Up to 150 bar / 2100 PSI coolant pressure
// Prevents dirt and chips from entering the collet



Hi-Q®/ERC 11



Hi-Q®/ERC 16 – ERC 20



Hi-Q®/ERC 25 – ERC 50

Hi-Q®/ERC

Type	Part no.	Dimensions [mm] A	B	L1	L2	SW	C	Bore-Ø [mm]	[inch]	Accessory Wrench
Hi-Q®/ERC 11										
Hi-Q®/ERC 11, Ø 3.0 mm	3411.20300	19	14.6	8.1–9.8	3.5	17	M 14 x 0.75	3.0–2.5	3/32"	E 11 P
Hi-Q®/ERC 11, Ø 3.5 mm	3411.20350	19	14.6	8.1–9.8	3.5	17	M 14 x 0.75	3.5–3.0	1/8"	E 11 P
Hi-Q®/ERC 11, Ø 4.0 mm	3411.20400	19	14.6	8.1–9.8	3.5	17	M 14 x 0.75	4.0–3.5	5/32"	E 11 P
Hi-Q®/ERC 11, Ø 4.5 mm	3411.20450	19	14.6	8.1–9.8	3.5	17	M 14 x 0.75	4.5–4.0	–	E 11 P
Hi-Q®/ERC 11, Ø 5.0 mm	3411.20500	19	14.6	8.1–9.8	3.5	17	M 14 x 0.75	5.0–4.5	3/16"	E 11 P
Hi-Q®/ERC 11, Ø 5.5 mm	3411.20550	19	14.6	8.1–9.8	3.5	17	M 14 x 0.75	5.5–5.0	7/32"	E 11 P
Hi-Q®/ERC 11, Ø 6.0 mm	3411.20600	19	14.6	8.1–9.8	3.5	17	M 14 x 0.75	6.0–5.5	–	E 11 P
Hi-Q®/ERC 11, Ø 6.5 mm	3411.20650	19	14.6	8.1–9.8	3.5	17	M 14 x 0.75	6.5–6.0	1/4"	E 11 P
Hi-Q®/ERC 11, Ø 7.0 mm	3411.20700	19	14.6	8.1–9.8	3.5	17	M 14 x 0.75	7.0–6.5	–	E 11 P
Hi-Q®/ERC 11										
Hi-Q®/ERC 11	3411.20000	19	14.6	8.1–9.8	3.5	17	M 14 x 0.75	3.0–6.0	–	E 11 P
Hi-Q®/ERC 16										
Hi-Q®/ERC 16	3416.20000	25	22.5	12.0–15.5	5	25	M 22 x 1.5	22.5	–	E 16 P
Hi-Q®/ERC 20										
Hi-Q®/ERC 20	3420.20000	34	24	13.0–16.5	5	30	M 25 x 1.5	24	–	E 20 P
Hi-Q®/ERC 25										
Hi-Q®/ERC 25	3425.20000	42	25	13.5–17.0	5	–	M 32 x 1.5	25	–	E 25
Hi-Q®/ERC 32										
Hi-Q®/ERC 32	3432.20000	50	27.5	14.5–18.0	5	–	M 40 x 1.5	27.5	–	E 32
Hi-Q®/ERC 40										
Hi-Q®/ERC 40	3440.20000	63	30.5	16.5–20.0	5	–	M 50 x 1.5	30.5	–	E 40
Hi-Q®/ERC 50										
Hi-Q®/ERC 50	3450.20000	78	42.5	19.0–26.0	5	–	M 64 x 2	40.3	–	E 50

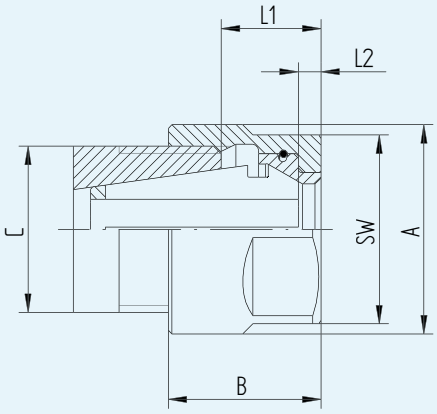
Hi-Q®/ERB friction-bearing
Hi-Q®/ERBC for coolant through tools

Application The Hi-Q®/ERB is a friction-bearing nut that offers the highest clamping force available. It is interchangeable with all other nuts per DIN 6499.

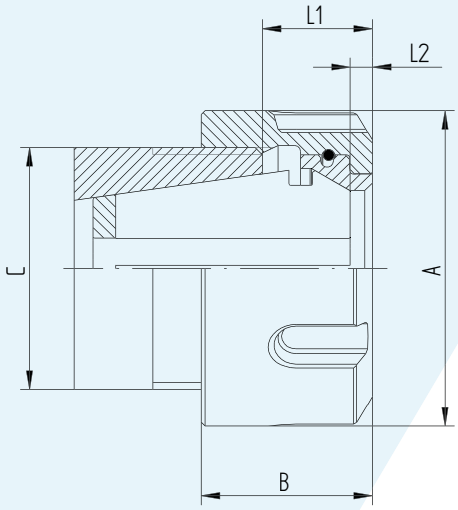
Application with sealing disk/coolant flush disk The Hi-Q®/ERBC clamping nut is intended for use with the sealing disk system DS/ER and the cool flush system KS/ER. The disk system allows the use of all standard ER collets, ultraprecision collets and tapping collets for coolant through tools.

// Up to 150 bar/2100 PSI coolant pressure
// Prevents dirt and chips from entering the collet

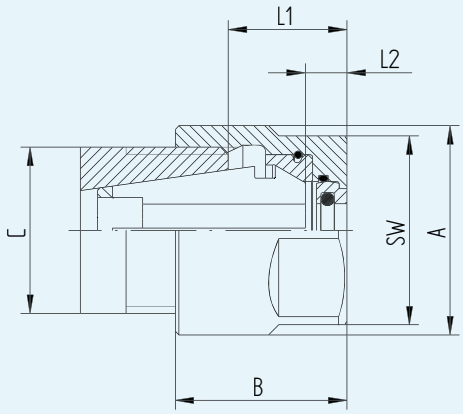
For peripheral cooling of non coolant through tools we recommend the coolant flush disks KS/ER. Please refer to page 252.
Accessories are not included in delivery.



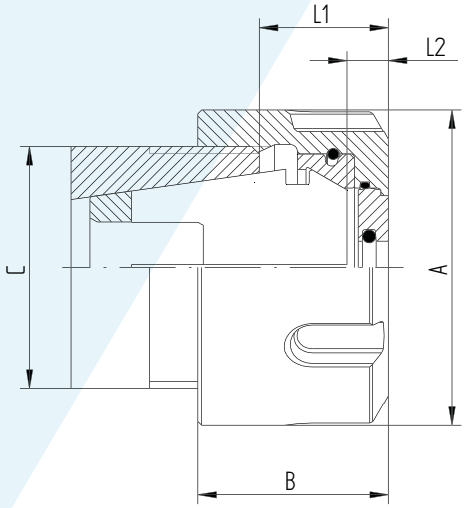
Hi-Q®/ERB 16 – ERB 20



Hi-Q®/ERB 25 – ERB 50



Hi-Q®/ERBC 16 – ERBC 20



Hi-Q®/ERBC 25 – ERBC 40

Hi-Q®/ERB
Hi-Q®/ERBC

ERB ERBC

Type	Part no.	Dimensions [mm] A	B	L1	L2	SW	C	Accessory Wrench
Hi-Q®/ERB 16								
Hi-Q®/ERB 16	3416.30000	28	20.2	10.0–13.6	3	25	M 22 x 1.5	E 16 P
Hi-Q®/ERB 20								
Hi-Q®/ERB 20	3420.30000	34	21.7	11.0–14.5	3	30	M 25 x 1.5	E 20 P
Hi-Q®/ERB 25								
Hi-Q®/ERB 25	3425.30000	42	22.6	11.5–15.0	3	–	M 32 x 1.5	E 25
Hi-Q®/ERB 32								
Hi-Q®/ERB 32	3432.30000	50	25	12.5–16.0	3	–	M 40 x 1.5	E 32
Hi-Q®/ERB 40								
Hi-Q®/ERB 40	3440.30000	63	28.2	14.5–18.0	3	–	M 50 x 1.5	E 40
Hi-Q®/ERB 50								
Hi-Q®/ERB 50	3450.30000	78	38.1	17.0–24.0	3	–	M 64 x 2	E 50

Type	Part no.	Dimensions [mm] A	B	L1	L2	SW	C	Accessory Wrench
Hi-Q®/ERBC 16								
Hi-Q®/ERBC 16	3416.40000	28	22.7	12.5–16.0	5.5	25	M 22 x 1.5	E 16 P
Hi-Q®/ERBC 20								
Hi-Q®/ERBC 20	3420.40000	34	24.2	13.5–17.0	5.5	30	M 25 x 1.5	E 20 P
Hi-Q®/ERBC 25								
Hi-Q®/ERBC 25	3425.40000	42	25.2	14.0–17.5	5.5	–	M 32 x 1.5	E 25
Hi-Q®/ERBC 32								
Hi-Q®/ERBC 32	3432.40000	50	27.4	15.0–18.5	5.5	–	M 40 x 1.5	E 32
Hi-Q®/ERBC 40								
Hi-Q®/ERBC 40	3440.40000	63	30.7	17.0–20.5	5.5	–	M 50 x 1.5	E 40

Hi-Q®/ERM minimal external diameter Hi-Q®/ERMC for coolant through tools

Application The mini clamping nut Hi-Q®/ERM is recommended for use where minimal external diameters are essential (e.g., machining space is very limited). Thus, it is ideally suitable for multispindle drilling heads and toolholder extensions. The corresponding wrenches have the same external dimensions as the clamping nuts.

Application with sealing disk / coolant flush disk The Hi-Q®/ERMC clamping nut is intended for use with the sealing disk system DS/ER and the coolant flush system KS/ER. The disk system allows the use of all standard ER collets, ultraprecision collets and tapping collets for coolant through tools.

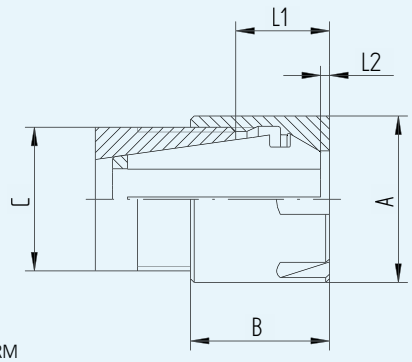
// Up to 150 bar / 2100 PSI coolant pressure
// Prevents dirt and chips from entering the collet

For peripheral cooling of non coolant through tools we recommend the coolant flush disks KS/ER. Please refer to page 252.
Accessories are not included in delivery.

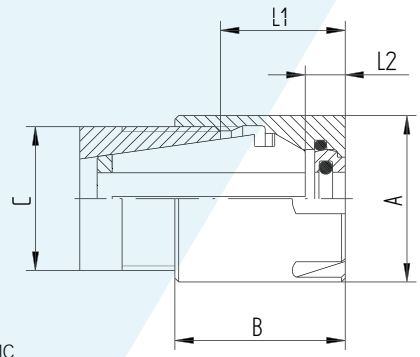
Hi-Q®/ERMC 11 This clamping nut is recommended for use where minimal external diameters are important.
It is the coolant through tools version of the Hi-Q®/ERM 11 clamping nut.

Hi-Q®/ERMC 11 does not require sealing disks The sealing system is built into the clamping nut.

// Up to 150 bar / 2100 PSI coolant pressure
// Prevents dirt and chips from entering the collet
// Not interchangeable with nuts according to DIN 6499 / ISO 15488



Hi-Q®/ERM



Hi-Q®/ERMC

Hi-Q®/ERM
Hi-Q®/ERMC

ERM ERMC

Type	Part no.	Dimensions [mm] A	B	L1	L2	C	Bore Ø [inch]	[mm]	Accessory Wrench
Hi-Q®/ERM 8									
Hi-Q®/ERM 8	3508.00000	12	10.8	4.3–6.1	1.5	M 10 x 0.75	–	–	E 8 M
Hi-Q®/ERM 8 L	3508.02000	12	10.8	4.3–6.1	1.5	M 10 x 0.75-LH	–	–	E 8 M
Hi-Q®/ERM 11									
Hi-Q®/ERM 11	3511.00000	16	12	5.7–7.5	0.4	M 13 x 0.75	–	–	E 11 M
Hi-Q®/ERM 11 L	3511.02000	16	12	5.7–7.5	0.4	M 13 x 0.75-LH	–	–	E 11 M
Hi-Q®/ERM 16									
Hi-Q®/ERM 16	3516.00000	22	18.4	8.0–11.5	0.9	M 19 x 1	–	–	E 16 M
Hi-Q®/ERM 16 L	3516.02000	22	18.4	8.0–11.5	0.9	M 19 x 1-LH	–	–	E 16 M
Hi-Q®/ERM 20									
Hi-Q®/ERM 20	3520.00000	28	19	8.0–11.5	–	M 24 x 1	–	–	E 20 M
Hi-Q®/ERM 20 L	3520.02000	28	19	8.0–11.5	–	M 24 x 1-LH	–	–	E 20 M
Hi-Q®/ERM 25									
Hi-Q®/ERM 25	3525.00000	35	20	8.5–12.0	–	M 30 x 1	–	–	E 25 M
Hi-Q®/ERM 25 L	3525.02000	35	20	8.5–12.0	–	M 30 x 1-LH	–	–	E 25 M

L = left-threaded nuts

Type	Part no.	Dimensions [mm] A	B	L1	L2	C	Bore Ø [mm]	[inch]	Accessory Wrench
Hi-Q®/ERMC 11									
Hi-Q®/ERMC 11, Ø 3.0 mm	3511.20300	16	14.6	8.1–9.8	3.5	M 13 x 0.75	3.0–2.5	3/32"	E 11 M
Hi-Q®/ERMC 11, Ø 3.5 mm	3511.20350	16	14.6	8.1–9.8	3.5	M 13 x 0.75	3.5–3.0	1/8"	E 11 M
Hi-Q®/ERMC 11, Ø 4.0 mm	3511.20400	16	14.6	8.1–9.8	3.5	M 13 x 0.75	4.0–3.5	5/32"	E 11 M
Hi-Q®/ERMC 11, Ø 4.5 mm	3511.20450	16	14.6	8.1–9.8	3.5	M 13 x 0.75	4.5–4.0	–	E 11 M
Hi-Q®/ERMC 11, Ø 5.0 mm	3511.20500	16	14.6	8.1–9.8	3.5	M 13 x 0.75	5.0–4.5	3/16"	E 11 M
Hi-Q®/ERMC 11, Ø 5.5 mm	3511.20550	16	14.6	8.1–9.8	3.5	M 13 x 0.75	5.5–5.0	7/32"	E 11 M
Hi-Q®/ERMC 11, Ø 6.0 mm	3511.20600	16	14.6	8.1–9.8	3.5	M 13 x 0.75	6.0–5.5	–	E 11 M
Hi-Q®/ERMC 11, Ø 6.5 mm	3511.20650	16	14.6	8.1–9.8	3.5	M 13 x 0.75	6.5–6.0	1/4"	E 11 M
Hi-Q®/ERMC 11, Ø 7.0 mm	3511.20700	16	14.6	8.1–9.8	3.5	M 13 x 0.75	7.0–6.5	–	E 11 M
Hi-Q®/ERMC 16									
Hi-Q®/ERMC 16	3516.20000	22	22	11.5–15.0	4.5	M 19 x 1	–	–	E 16 M
Hi-Q®/ERMC 20									
Hi-Q®/ERMC 20	3520.20000	28	24	13–16.5	5	M 24 x 1	–	–	E 20 M
Hi-Q®/ERMC 25									
Hi-Q®/ERMC 25	3525.20000	35	25	13.5–17.0	5	M 30 x 1	–	–	E 25 M

Hi-Q®/ERMX und Hi-Q®/ERMXC intRlox® Slip-off proof mini clamping nuts

Application For REGO-FIX ER toolholders with mini thread and cylindrical holders.

Key advantages

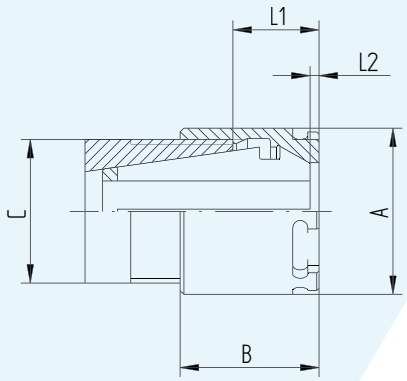
// Design is ideally suited for lathes and Swiss turning machines
// Very slim sizing proofs suitable for machines where space is limited
// Safe handling thanks to the patented intRlox® profile
// Slip-off proof design with all advantages of the regular mini clamping nuts
// Easy and safe clamping with the MX wrench

Application with sealing disk / coolant flush disk The Hi-Q®/ERMXC clamping nut is intended for use with the sealing disk system DS / ER and the coolant flush system KS / ER.
The disk system allows the use of all standard ER collets, ultraprecision collets and tapping collets for coolant through tools.

// Up to 150 bar / 2100 PSI coolant pressure
// Prevents dirt and chips from entering the collet

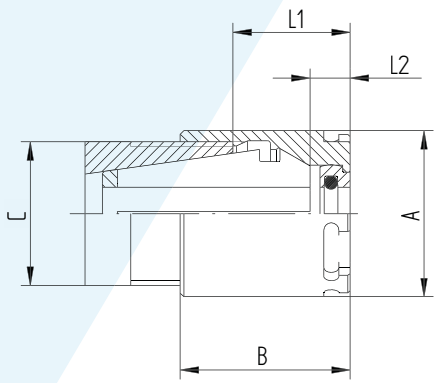
For peripheral cooling of non coolant through tools we recommend the coolant flush disks KS / ER. Please refer to page 252. Accessories are not included in delivery.

Hi-Q® / ERMX



Hi-Q® / ERMX

Hi-Q® / ERMXC



Hi-Q® / ERMXC

Hi-Q®/ERMX intRlox®
Hi-Q®/ERMXC intRlox®

ERMX ERMXC

Type	Part no.	Dimensions [mm] A	B	L1	L2	C	Accessory Wrench
Hi-Q®/ERMX 8							
Hi-Q®/ERMX 8	3508.60000	12	11	4.3–6.1	0.4	M 10 x 0.75	E 8 MX
Hi-Q®/ERMX 11							
Hi-Q®/ERMX 11	3511.60000	16	12	5.7–7.5	0.4	M 13 x 0.75	E 11 MX
Hi-Q®/ERMX 16							
Hi-Q®/ERMX 16	3516.60000	22	18.4	8.0–11.5	0.9	M 19 x 1	E 16 MX
Hi-Q®/ERMX 20							
Hi-Q®/ERMX 20	3520.60000	28	19	8.0–11.5	0.0	M 24 x 1	E 20 MX
Hi-Q®/ERMX 25							
Hi-Q®/ERMX 25	3525.60000	35	20	8.5–12.0	0.0	M 30 x 1	E 25 MX

Type	Part no.	Dimensions [mm] A	B	L1	L2	C	Accessory Wrench
Hi-Q®/ERMXC 11							
Hi-Q®/ERMXC 11	3511.70000	16	14.6	7.5–9.3	3.5	M 13 x 0.75	E 11 MX
Hi-Q®/ERMXC 16							
Hi-Q®/ERMXC 16	3516.70000	22	22.5	11.5–15.0	4.5	M 19 x 1	E 16 MX
Hi-Q®/ERMXC 20							
Hi-Q®/ERMXC 20	3520.70000	28	24	13.0–16.5	5	M 24 x 1	E 20 MX
Hi-Q®/ERMXC 25							
Hi-Q®/ERMXC 25	3525.70000	35	25	13.0–17.0	5	M 30 x 1	E 25 MX

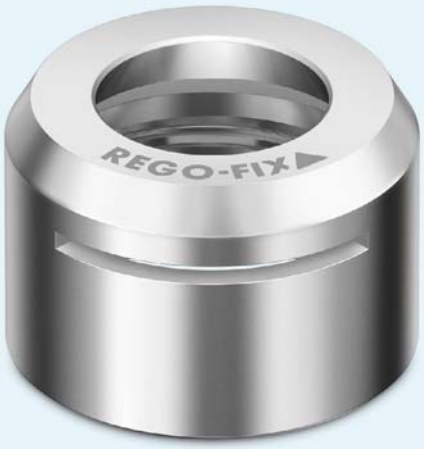
ER MS clamping nuts for highest RPM

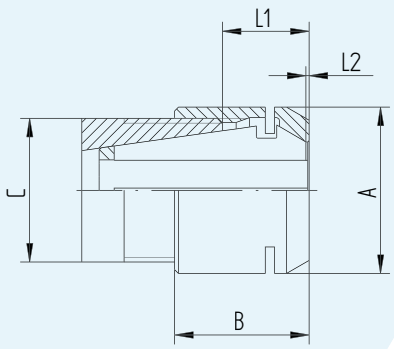
Application The ER MS clamping nut for highest RPM with minimal external diameter does not have the collet-locking system and all the contours are ground. This provides best balancing for critical high-speed machining applications.

The collet is released with the corresponding E MS wrench. ER MS nuts are also interchangeable with the Hi-Q® / ERM and Hi-Q® / ERMC nuts. With the ER MS clamping nuts we recommend using ER-UP (ultra-precision) collets to achieve the highest runout TIR.

Key advantages

// Precision-machined contours on all sides
// Minimal residual unbalance
// For high rpm up to 80,000





ER MS

ER MS

Type	Part no.	Dimensions [mm] A	B	L1	L2	C	Accessory Wrench
ER 8 MS							
ER 8 MS	3208.50000	12	10.8	4.3–6.1	1.5	M 10 x 0.75	E 8 MS
ER 11 MS							
ER 11 MS	3211.50000	16	11.5	4.6–6.8	0.4	M 13 x 0.75	E 11 MS
ER 16 MS							
ER 16 MS	3216.50000	22	17.8	6.1–10.5	0.3	M 19 x 1	E 16 MS
ER 20 MS							
ER 20 MS	3220.50000	28	19	7.1–11.5	0.6	M 24 x 1	E 20 MS

Hi-Q®/ERAX with external thread
Hi-Q®/ERAXC for coolant through tools

Application For REGO-FIX floating chucks and other ER toolholders with internal thread, e.g., ERA holders. These nuts can also be used on driven tools with internal threads.
Please refer to page 77 for the SK/ERA Zero-Z® toolholder.
Please refer to page 81 for BT/ERA Zero-Z® toolholder.

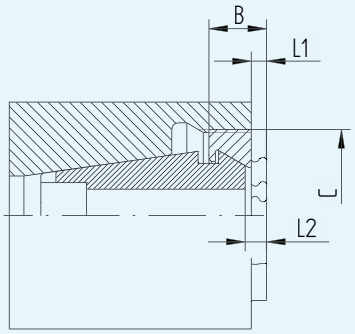
Key advantages
// Space-saving design for ideal use on long-turning machines
// S-profile wrench is self-centering on the nut and prevents slipping off while tightening the nut

Application with sealing disk / coolant flush disk The Hi-Q®/ERAXC clamping nut is intended for use with the sealing disk system DS/ER and the coolant flush system KS/ER.
The disk system allows the use of all standard ER collets, ultraprecision collets and tapping collets for coolant through tools.
// Up to 150 bar / 2100 PSI coolant pressure
// Prevents dirt and chips from entering the collet

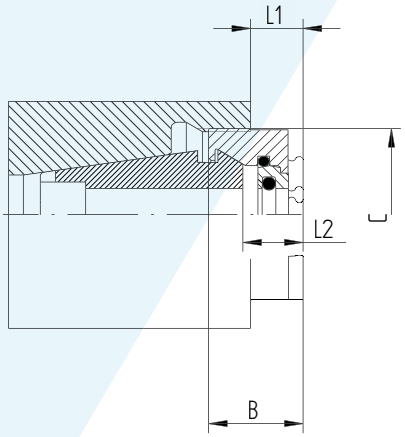
For peripheral cooling of non coolant through tools we recommend the coolant flush disks KS/ER. Please refer to page 252.

Hi-Q® / ERAX

Hi-Q® / ERAXC



Hi-Q® / ERAX



Hi-Q® / ERAXC

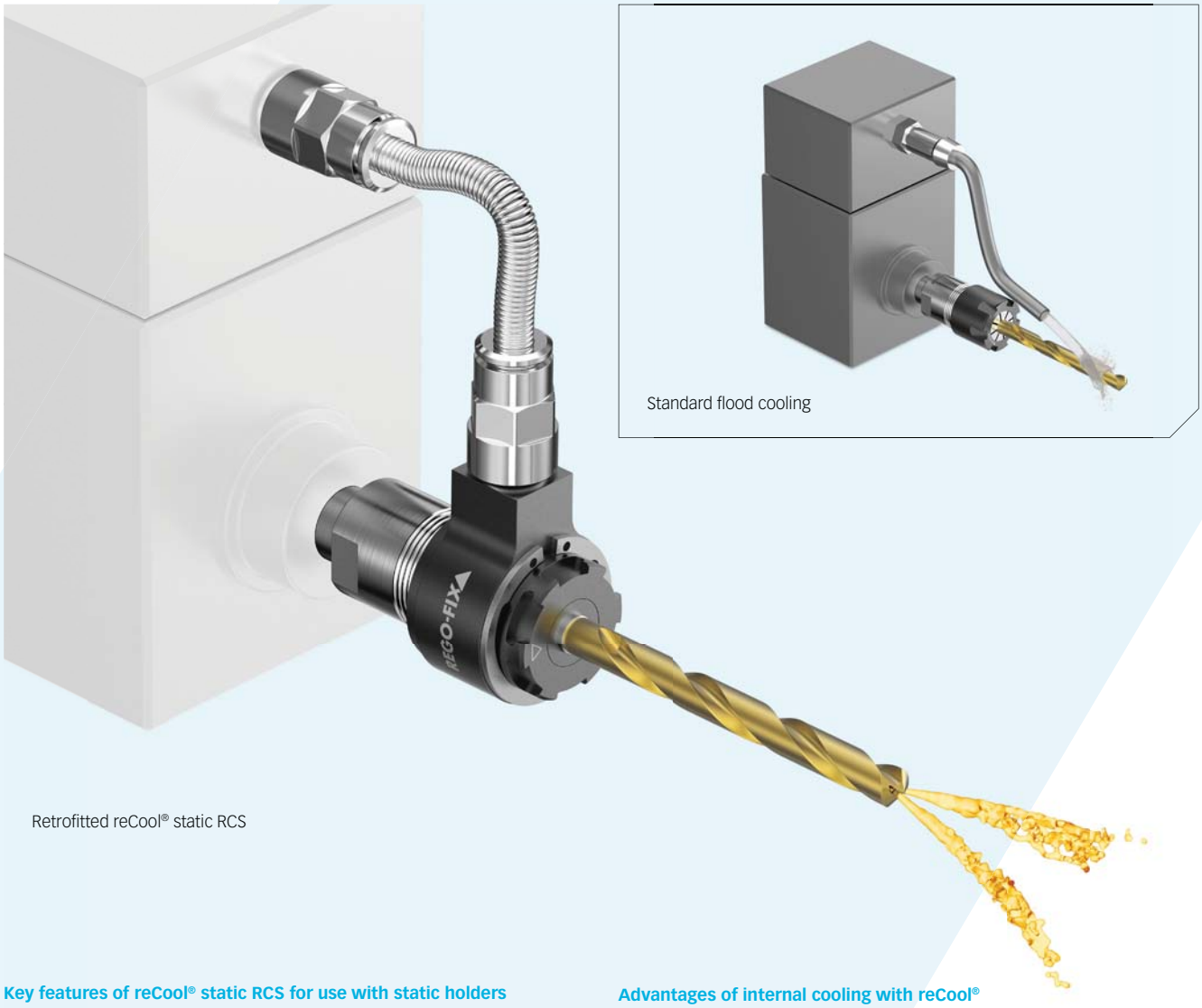
Hi-Q®/ERAX
Hi-Q®/ERAXC

ERAX ERAXC

Type	Part no.	Dimensions [mm] B	L1	L2	C	Accessory Wrench
Hi-Q®/ERAX 11						
Hi-Q®/ERAX 11	3311.60000	7.5	1.0–3.2	3.9	M 18 x 1	E 11 AX
Hi-Q®/ERAX 16						
Hi-Q®/ERAX 16	3316.60000	7.6	0–2.6	2.3	M 24 x 1	E 16 AX
Hi-Q®/ERAX 20						
Hi-Q®/ERAX 20	3320.60000	8.5	0–2.5	2.3	M 28 x 1.5	E 20 AX
Hi-Q®/ERAX 25						
Hi-Q®/ERAX 25	3325.60000	8.8	0–1.9	2.3	M 32 x 1.5	E 25 AX
Hi-Q®/ERAX 32						
Hi-Q®/ERAX 32	3332.60000	9.8	0–1.1	2.5	M 40 x 1.5	E 32 AX
Hi-Q®/ERAX 40						
Hi-Q®/ERAX 40	3340.60000	11.7	0–1.0	2.4	M 50 x 1.5	E 40 AX

Typ	Part no.	Dimensions [mm] B	L1	L2	C	Accessory Wrench
Hi-Q®/ERAXC 11						
Hi-Q®/ERAXC 11	3311.70000	9.2	2.7–4.9	6.1	M 18 x 1	E 11 AX
Hi-Q®/ERAXC 16						
Hi-Q®/ERAXC 16	3316.70000	12.5	3.1–7.5	7.2	M 24 x 1	E 16 AX
Hi-Q®/ERAXC 20						
Hi-Q®/ERAXC 20	3320.70000	13.5	3.1–7.5	7.3	M 28 x 1.5	E 20 AX
Hi-Q®/ERAXC 25						
Hi-Q®/ERAXC 25	3325.70000	13.8	2.5–6.9	7.3	M 32 x 1.5	E 25 AX
Hi-Q®/ERAXC 32						
Hi-Q®/ERAXC 32	3332.70000	14.9	1.8–6.2	7.6	M 40 x 1.5	E 32 AX
Hi-Q®/ERAXC 40						
Hi-Q®/ERAXC 40	3340.70000	16.6	1.5–5.9	7.3	M 50 x 1.5	E 40 AX

Fast and easy retrofitting: From external flood cooling to internal cooling



Retrofitted reCool® static RCS

Standard flood cooling

Key features of reCool® static RCS for use with static holders

// Cost-friendly conversion of existing static tooling systems to through coolant in only two minutes
// For ER collets (DIN 6499 / ISO 15488) in stationary toolholders with external fine threads
// Coolant pressures of up to 150 bar / 2100 PSI*
// RCS / ERMX for emulsion and oil coolants
// Low-maintenance design
// For coolant through tools (with sealing disks DS) and for peripheral cooling (with coolant flush disks KS)
// Not for use with sealed collets DM

* *With high-pressure hoses RHS-HP. 100 bar / 1400 PSI with standard hose Accessories are not included in delivery.*

Advantages of internal cooling with reCool®

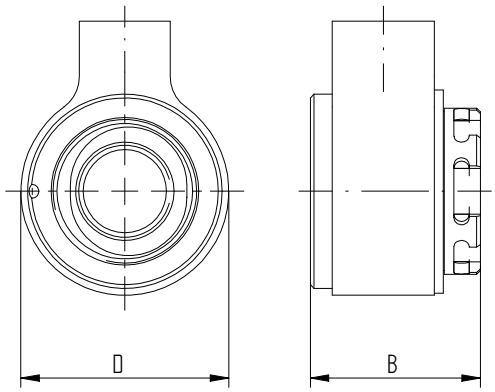
// Optimized coolant supply to the cutting edge: increases tool life and reduces cycletime
// Best chip removal
// No scattering or spray losses

reCool® static coolant supply system RCS

Type	Part no.	Dimensions [mm] B	D	Thread	Accessory Wrench
Set RCS (for emulsion- and oil-based coolants)					
SET RCS/ERMX 16	3716.50000	22.5	27.5	M 19 x 1	E 16 MX
SET RCS/ERMX 20	3720.50000	24	34.5	M 24 x 1	E 20 MX
RCS/ERMX nut (for emulsion- and oil-based coolants)					
RCS/ERMX 16	3716.59000	22.5	27.5	M 19 x 1	E 16 MX
RCS/ERMX 20	3720.59000	24	34.5	M 24 x 1	E 20 MX

Included in set RCR Type	Qty.
RCS/ERMX 16/20	1
SET RHS-100	1
SET RVG-100 1/8" – 0°	2
SET RVA-100 1/8" – 90°	2

SET RCS/ERMX



RCS/ERMX

reCool® sets overview

reCool® RCS and reCool® RCR sets

RCS/ERMX

RCR/ER

RCR/ERM

When ordering a set („SET" in type name) you will receive the indicated reCool® nut as well as the accessories shown here.

Low-cost retrofitting to internal cooling

Retrofitted with reCool® rotary RCR/ER, RCR/ERM

Standard flood cooling

Key features of reCool® rotary RCR for use with spindles

// Cost-friendly conversion of existing driven tooling systems to through coolant in only two minutes
// For ER and ERM thread in driven tools and turning machines and for ER collets to DIN 6499/ISO 15488
// Speeds up to 12.000 rpm*
// Coolant pressures up to 150 bar with high-pressure hose, standard hose max. 100 bar/1400 PSI
// Low-maintenance coolant lubricated bearings
// For coolant through tools (with sealing disks DS/ER) and for peripheral cooling (with coolant flush disks KS/ER)
// RCR/ER(M) for emulsion and oil coolants
// Not for use with sealed collets DM

* *6.000 rpm with RCR/ER 40.*
Accessories are not included in delivery.

Advantages of internal cooling with reCool®

// Optimized coolant supply to the cutting edge: increases tool life and reduces cycle time
// Best chip removal
// No scattering or spray losses

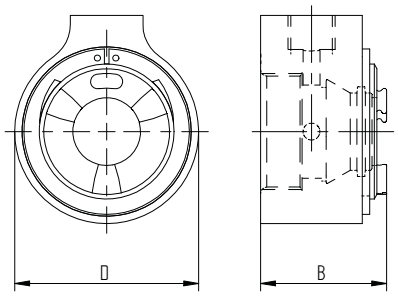
reCool® rotary coolant supply system RCS

Type	Part no.	Dimensions [mm] B	D	Thread	Accessory Wrench
Set RCR/ER (for emulsion- and oil-based coolants)					
SET RCR/ER 11	3711.10000	16.6	21.75	M 14 x 0.75	E 11 AX
SET RCR/ER 16	3716.10000	24.5	34	M 22 x 1.5	E 16 AX
SET RCR/ER 20	3720.10000	26	40	M 25 x 1.5	E 20 AX
SET RCR/ER 25	3725.10000	27	50	M 32 x 1.5	E 25 AX
SET RCR/ER 32	3732.10000	29.5	62.5	M 40 x 1.5	E 32 AX
SET RCR/ER 40	3740.10000	32.5	72.5	M 50 x 1.5	E 40 AX

Included in set RCR/ER Type	Qty.
RCR/ER 11–40	1
SET RHS-100	1
SET RVG-100 1/8"–0°	2
SET RVA-100 1/8"–90°	2

Type	Part no.	Dimensions [mm] B	D	Thread	Accessory Wrench
RCR/ER nut (for emulsion- and oil-based coolants)					
RCR/ER 11	3711.19000	16.6	21.75	M 14 x 0.75	E 11 AX
RCR/ER 16	3716.19000	24.5	34	M 22 x 1.5	E 16 AX
RCR/ER 20	3720.19000	26	40	M 25 x 1.5	E 20 AX
RCR/ER 25	3725.19000	27	50	M 32 x 1.5	E 25 AX
RCR/ER 32	3732.19000	29.5	62.5	M 40 x 1.5	E 32 AX
RCR/ER 40	3740.19000	32.5	72.5	M 50 x 1.5	E 40 AX

SET RCR/ER, SET RCR/ERM



RCR/ER, RCR/ERM

Type	Part no.	Dimensions [mm] B	D	Thread	Accessory Wrench
Set RCR/ERM (for emulsion- and oil-based coolants)					
SET RCR/ERM 11	3711.30000	16.6	21.75	M 13 x 0.75	E 11 AX
SET RCR/ERM 16	3716.30000	24.5	31	M 19 x 1	E 16 AX
SET RCR/ERM 20	3720.30000	26	38	M 24 x 1	E 20 AX
SET RCR/ERM 25	3725.30000	27	46	M 30 x 1	E 25 AX

Included in set RCR/ERM Type	Qty.
RCR/ERM 11–25	1
SET RHS-100	1
SET RVG-100 1/8"–0°	2
SET RVA-100 1/8"–90°	2

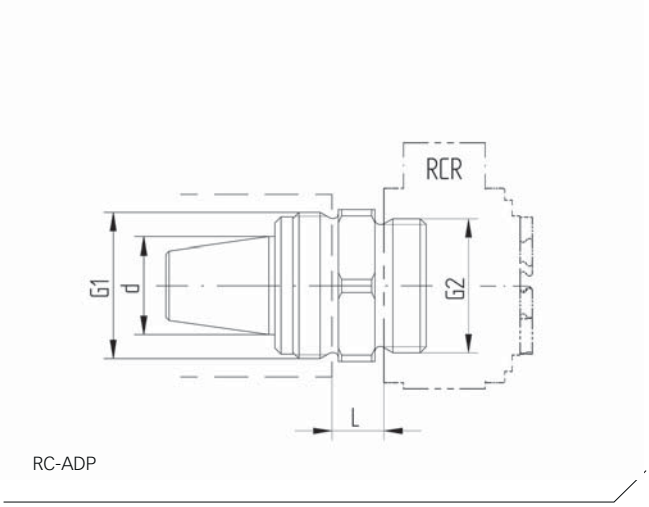
RCR/ER nut (for emulsion- and oil-based coolants)					
RCR/ERM 11	3711.39000	16.6	21.75	M 13 x 0.75	E 11 AX
RCR/ERM 16	3716.39000	24.5	31	M 19 x 1	E 16 AX
RCR/ERM 20	3720.39000	26	38	M 24 x 1	E 20 AX
RCR/ERM 25	3725.39000	27	46	M 30 x 1	E 25 AX

Matching accessories for your reCool®

Type	Part no.	Dimensions [mm] d	L	Thread G1	Thread G2	Accessory Wrench
reCool® adapter						
RC-ADP 16	3799.81600	16	8.7	M 24 x 1	M 22 x 1.5	E 16 P
RC-ADP 20	3799.82000	20	8.2	M 28 x 1.5	M 25 x 1.5	E 20 P
RC-ADP 25	3799.82500	25	7.9	M 32 x 1.5	M 32 x 1.5	E 25
RC-ADP 32	3799.83200	32	8.7	M 40 x 1.5	M 40 x 1.5	E 32
RC-ADP 40	3799.84000	40	9.6	M 50 x 1.5	M 50 x 1.5	E 40

reCool® adapter The reCool® adapter RC-ADP easily converts inner-threaded driven tools to outer-threaded ones which enables the use of the reCool® rotary coolant supply system RCR with different types of driven tooling.

How to use? Just screw the adapter with advised tightening torque into the driven tool, use the correctly installed reCool® rotary coolant supply system RCR and clamp the tool.



RC-ADP

Expert advice

reCool® is only applicable with the use of our sealing DS / ER and Coolant flush disks KS / ER. Please note, that neither DS / ER nor KS / ER are included in the reCool® sets.

Please refer to page 244 for sealing disks and to page 252 for coolant flush disks.

reCool® accessories

Type	Part no.	Length [mm]
High-pressure hoses (≤150 bar) with threaded 1/8" ends		
SET RHS-HP L100	3799.97100	100
SET RHS-HP L200	3799.97200	200
SET RHS-HP L300	3799.97300	300
SET RHS-HP L400	3799.97400	400
SET RHS-HP L500	3799.97500	500
SET RHS-HP L600	3799.97600	600
SET RHS-HP L700	3799.97700	700

Type	Part no.	Length [mm]
Standard hose set (≤100 bar) incl. steel spiral		
SET RHS-100	3799.95000	400*

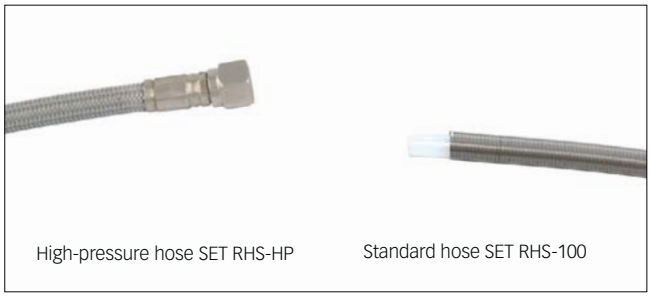
*The length can be shortened individually between 50 - 400 mm

Type	Part no.	Length [mm]
Fitting sets (2 pieces each)		
SET RVG-100 1/8" – 0°	3799.96180	–
SET RVA-100 1/8" – 90°	3799.96189	–
SET RVG-100 M8 x 1 -0°	3799.96810	–

Type	Part no.	Length [mm]
Thread adapter		
RGA 1/8" BSP – 1/8" NPT	3799.98180	–

Type	Part no.	Ø [mm]	Length [mm]
Ball adapters RBA (1/8" BSP)			
RBA 10	3799.93100	10	–
RBA 11	3799.93110	11	–
RBA 12	3799.93120	12	–
RBA 13	3799.93130	13	–
RBA 14	3799.93140	14	–
RBA 15	3799.93150	15	–
RBA 16	3799.93160	16	–

Type	Part no.	Ø [mm]	Length [mm]
Aluminum ring adapters RRA (1/8" BSP)			
RRA 10	3799.94100	10	–
RRA 11	3799.94110	11	–
RRA 12	3799.94120	12	–
RRA 13	3799.94130	13	–
RRA 14	3799.94140	14	–
RRA 15	3799.94150	15	–
RRA 16	3799.94160	16	–



High-pressure hose SET RHS-HP

Standard hose SET RHS-100

Expert advice

The ball adapter **RBA** is used when the driven tool has a ball connection. The fitting can then be used on the hose.

The aluminum ring adapter **RRA** can be used when the driven tool cooling connection uses the "press-in" principle.

Straight fitting RVG-100 1/8" / RVG-100 M8

Ball adapter RBA

Elbow fitting RVA-100 90°

Aluminum ring adapter RRA

Use conditions RCR reCool®

reCool® is used exclusively for clamping tools with ER collets (DIN 6499 / ISO 15488). Only original collets, sealing and cooling disks REGO-FIX® are recommended to be used.

Technical data

The following parameters apply to reCool® rotation:

Max. Rotation speed: 12,000 rpm (6000 rpm with ER40)

Max. coolant pressure: 150 bar / 2175 PSI* (with high pressure hose)

Min. coolant pressure: depending on the rotational speed (see table)

	≤ 3,000 min^{-1}	≤ 6,000 min^{-1}	≤ 9,000 min^{-1}	≤ 12,000 min^{-1}
RCR / ER 11	5 bar / 73 PSI	7.5 bar / 109 PSI	10 bar / 145 PSI	15 bar / 218 PSI
RCR / ER 16	5 bar / 73 PSI	7.5 bar / 109 PSI	10 bar / 145 PSI	15 bar / 218 PSI
RCR / ER 20	5 bar / 73 PSI	7.5 bar / 109 PSI	10 bar / 145 PSI	15 bar / 218 PSI
RCR / ER 25	5 bar / 73 PSI	7.5 bar / 109 PSI	10 bar / 145 PSI	15 bar / 218 PSI
RCR / ER 32	5 bar / 73 PSI	7.5 bar / 109 PSI	10 bar / 145 PSI	15 bar / 218 PSI
RCR / ER 40	5 bar / 73 PSI	7.5 bar / 109 PSI	–	–
RCR / ERM 11	5 bar / 73 PSI	7.5 bar / 109 PSI	10 bar / 145 PSI	15 bar / 218 PSI
RCR / ERM 16	5 bar / 73 PSI	7.5 bar / 109 PSI	10 bar / 145 PSI	15 bar / 218 PSI
RCR / ERM 20	5 bar / 73 PSI	7.5 bar / 109 PSI	10 bar / 145 PSI	15 bar / 218 PSI
RCR / ERM 25	5 bar / 73 PSI	7.5 bar / 109 PSI	10 bar / 145 PSI	15 bar / 218 PSI

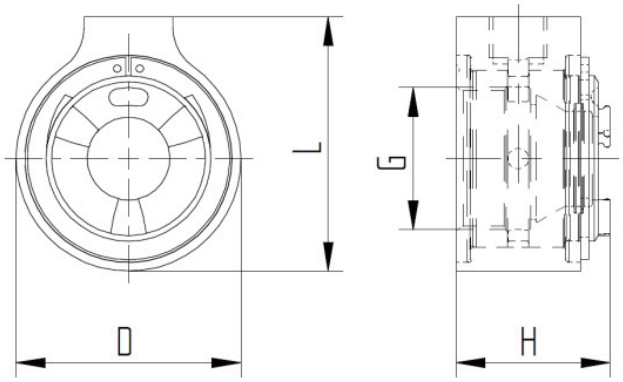
Cooling medium: Emulsion or oil up to viscosity ≤ ISO VG 46 (46 mm2/s 40°C) and filtered 20 µm

Working temperature: 10° C to 60° C

***The supplied hose and fittings are designed and tested for maximum coolant pressure of 100 bar / 1450 PSI. For higher coolant pressures the High-pressure hose is mandatory.**

Dimensions

Type	Clamping range [mm]	D [mm]	L [mm]	H [mm]	G
RCR / ER 11	3.00 – 6.00	21.75	29.50	16.50	M14 x 0.75
RCR / ER 16	3.00 – 10.00	34.00	39.50	24.50	M22 x 1.5
RCR / ER 20	3.00 – 13.00	40.00	44.50	26.00	M25 x 1.5
RCR / ER 25	3.00 – 16.00	50.00	53.50	27.00	M32 x 1.5
RCR / ER 32	3.00 – 20.00	62.50	64.75	29.50	M40 x 1.5
RCR / ER 40	3.00 – 26.00	72.50	74.75	32.50	M50 x 1.5
RCR / ERM 11	3.00 – 6.00	21.75	29.50	16.50	M13 x 0.75
RCR / ERM 16	3.00 – 10.00	31.00	36.50	24.50	M19 x 1
RCR / ERM 20	3.00 – 13.00	38.00	43.00	26.00	M24 x 1
RCR / ERM 25	3.00 – 17.00	46.00	50.50	27.00	M30 x 1

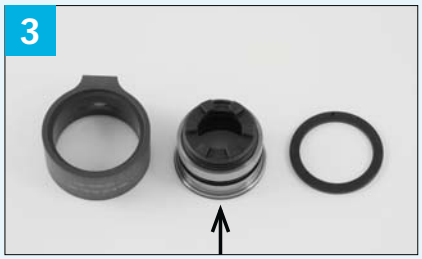


Cleaning instructions

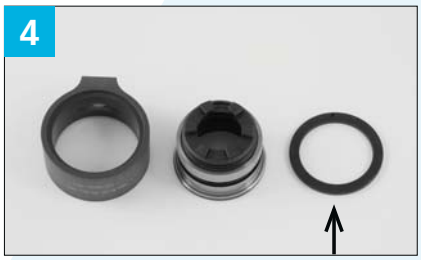
reCool® is designed with a wear resistant coating, eliminating the need for extensive maintenance. The only time cleaning is needed is when the RCR system no longer rotates lightly by hand.

Mark the position of the inner part to outer ring.

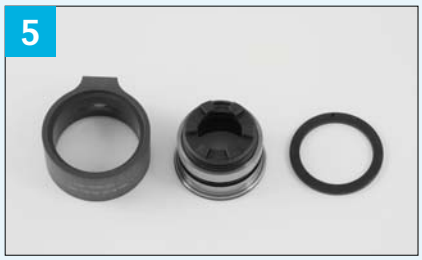
Remove the retaining ring with pliers.



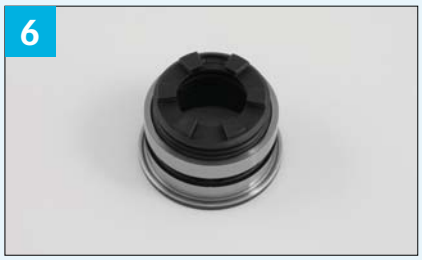
Now slide out inner part.



Remove the disk.



Clean all parts intensively with a standard industrial cleaning agent.



Lightly oil the bearing surfaces with thin lubricating oil.

Put the parts in the correct position together.

Mount this retaining ring.

Pay attention that it snaps into place.

reCool® parts may not be swapped out. Original configuration must be maintained.
Never let the reCool® system run dry.
When starting the machine, make sure that coolant flows out of the tool or the coolant flush disk before rotating the reCool® System.
A coolant pressure below minimum may lead to inadequate cooling / lubrication and therefore could damage the reCool® bearings.
Inadequate coolant pressure results in considerable impairment in cooling the tool and chip removal.
Stop screws with coolant through bores must be replaced!
If the stop screw is not sealed nor replaced, there is danger that the coolant may get inside the gears which may result in damages of the driven tool.
For best cooling do not exploit the clamping range of the collet. E.g. clamp a Ø 6mm tool shank in Ø 6.0 – 5.0 mm collet.
Do not use metallic sealed ER-DM collets with reCool, because the coolant cannot reach the tool.