



REGO-FIX 
Swiss Machine Catalog



Solutions for Swiss machining from the inventor of the ER collet

REGO-FIX manufactures the most accurate and widest selection of collets and cylindrical holders in the world. As the demand for more accuracy in many Swiss machine applications has grown, our offerings and precision have expanded to meet these needs.

Options include:

- // Cylindrical shanks
- // Cylindrical shanks with flats
- // Doubled ended
- // SwissQuick adapters
- // reCool (see pages 20-21 for more info)
- // Microbore collets
- // Floating and mini-floating holders

All of these cylindrical holders and adapters come with our Hi-Q mini-nut design to provide ample clearance. Additionally, all mini-threaded holders can be fitted with the intrLox anti-slip nut for additional safety.



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Cylindrical collets

**Floating
chucks**

**Collet
reductions**

CYL/
ER



page 4

CYL/
ERM(X)
CYLF/
ERM(X)



page 8

CYL/
ER NC



page 13

CYDF/
ERM
CYDF/
ERM(X)



page 14

PH/ER
PHC/ER
PHC-C/ER



page 18

MPH/
ERM(X)



page 22

ER(M)/
ERM
ER(MX)/
ERM(X)



page 26



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	•	•	•	–

Cylindrical shank toolholders CYL

CYL/CYLF/CYDF

Features and benefits

Runout TIR $\leq 3 \mu\text{m}$ for CYL/ERM and CYL/ERMX

Measured from inner taper to outer shank.

Runout TIR $\leq 5 \mu\text{m}$ for CYLF/ERM and CYLF/ERMX

Measured from inner taper to outer shank.

Runout TIR $\leq 5 \mu\text{m}$ 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

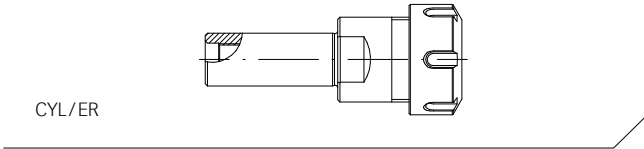
We recommend tightening the clamping nuts with our torque wrench.

For tightening torque recommendations, please refer to page 96.

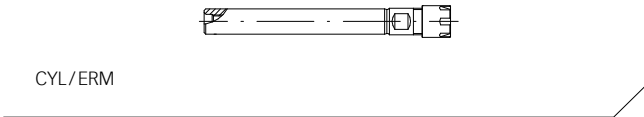


Available CYL toolholders and their key characteristics

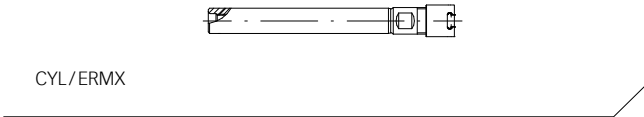
Cylindrical REGO-FIX toolholders are designed for automatic turning machines and can also be utilized as extensions. We offer many different product types to fit your machining needs.



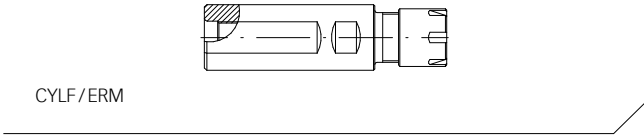
CYL/ER The short versions are particularly used on turret lathes, where a short overhang is often required.



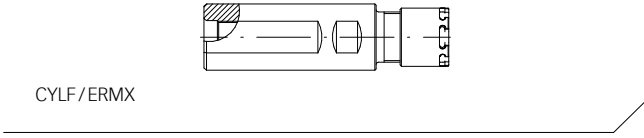
CYL/ERM This type is suited for Swiss automatic machines, machining centers and conventional machines. Can be used as extension.



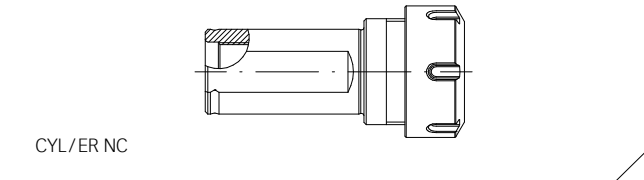
CYL/ERMx This type is suited for Swiss automatic machines, machining centers and conventional machines. The slip-off proof mini clamping nut intRlox® prevents injuries caused by slipping off while tightening the nut. Can be used as extension.



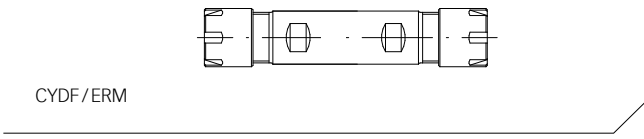
CYLF/ERM The line of cylindrical toolholders with clamping flat is particularly designed for Swiss automatic CNC machines, e.g., Citizen, Manurhin, Star or Tornos. Cannot be used as extension.



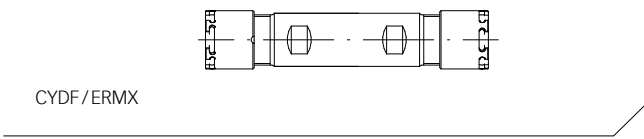
CYLF/ERMx The line of cylindrical toolholders with clamping flat is particularly designed for Swiss automatic CNC machines, e.g., Citizen, Manurhin, Star or Tornos. The slip-off proof mini clamping nut intRlox® prevents injuries caused by slipping off while tightening the nut. Cannot be used as extension.



CYL/ER NC These toolholders are particularly suitable on Swiss automatic CNC turning machines, but can also be used on other turning machines.



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.



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.

CYL/ER toolholder

Type	Part no.	Dimensions [mm]				Accessories		Wrench
		D	D1 h6	L	L1	G1	G2	
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

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

CYL/ER toolholder

Type	Part no.	Dimensions [mm]						Accessory	
		D	D1 h6	L	L1	G1	G2	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 30 [mm]									
CYL 30 x 050/ER 25	2630.12520	42	30	50	42	M 18 x 1.5	-	E 25	

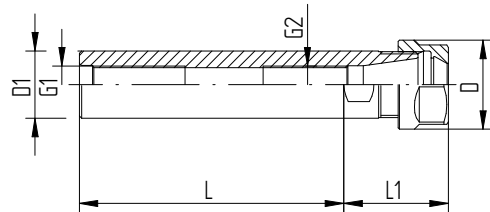
Included in delivery: toolholders come with Hi-Q®/ER clamping nut and back-up screw



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 intrRlox® (slip-off proof mini clamping nut)

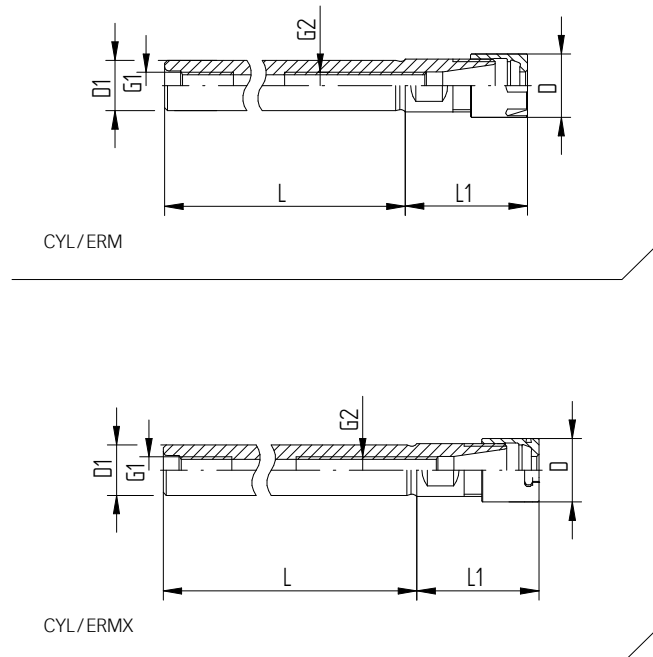
Type	Part no.	Dimensions [mm]				G1	G2	Slip-off proof	Accessory Wrench
		D	D1 h6	L	L1				
CYL 6 [mm]									
CYL 6 x 045/ERM 11	2606.21120	16	6	45	26.5	–	–	–	E 11 M
CYL 6 x 045/ERMX 11	4606.21120	16	6	45	26.5	–	–	•	E 11 MX
CYL 7 [mm]									
CYL 7 x 045/ERM 11	2607.21120	16	7	45	26.5	–	–	–	E 11 M
CYL 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 intrRlox® (slip-off proof mini clamping nut)

Type	Part no.	Dimensions [mm]				G1	G2	Slip-off proof	Accessory Wrench
		D	D1 h6	L	L1				
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



CYLF/ERM toolholders (mini clamping nut)

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

Type	Part no.	Dimensions [mm]				G1	G2	Slip-off proof	Accessory Wrench
		D	D1 h6	L	L1				
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
CYLF 16 x 140/ERM 11	2616.21192	16	16	140	19.5	M 8 x 1	M 8 x 1	–	E 11 M
CYLF 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

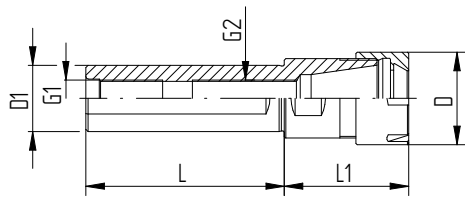
Included in delivery: toolholders come with Hi-Q®/ERM or Hi-Q®/ERMX clamping nut and back-up screw

CYLF/ERM toolholders (mini clamping nut)

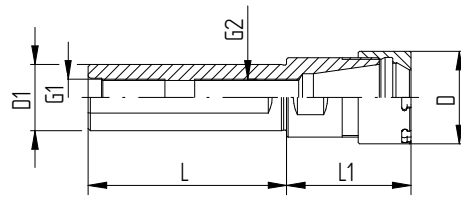
CYLF/ERMX toolholders with intrRlox® (slip-off proof mini clamping nut)

Type	Part no.	Dimensions [mm]				G1	G2	Slip-off proof	Accessory Wrench
		D	D1 h6	L	L1				
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



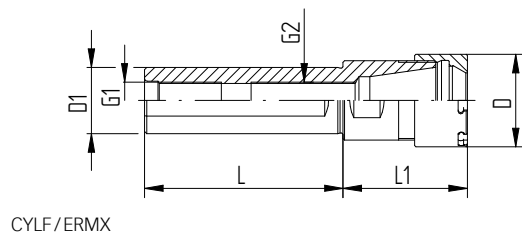
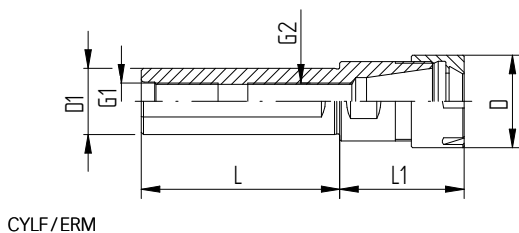
CYLF/ERMX

CYLF/ERM toolholders (mini clamping nut)

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

Type	Part no.	Dimensions [mm]					G1	G2	Slip-off proof	Accessory Wrench
		D	D1 h6	L	L1					
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

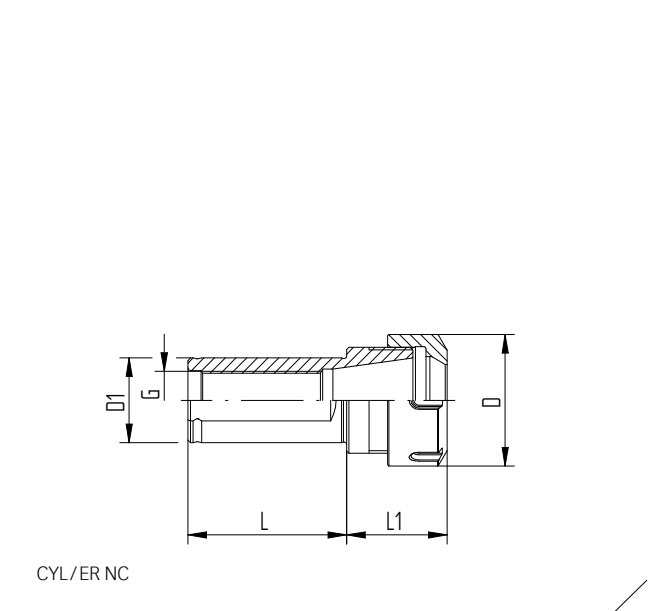


CYL/ER NC toolholders

Type	Part no.	Dimensions [mm]				Accessory	
		D	D1 h6	L	L1	G	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 32 [mm]							
CYL 32 x 060/ER NC 25	2632.12532	42	32	60	32	M 18 x 1.5	E 25

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

*USA only



CYDF/ERM toolholders (mini clamping nut)

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

Type	Part no.	Dimensions [mm]					Slip-off proof	Accessory Wrench
		D	D1 h6	L	L1	G		
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

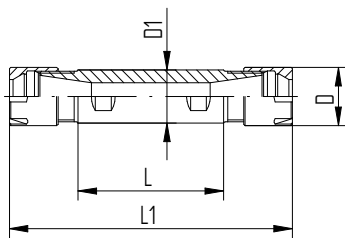
Included in delivery: toolholders come with two Hi-Q®/ERM or Hi-Q®/ERMX clamping nuts and back-up screw

CYDF/ERM toolholders (mini clamping nut)

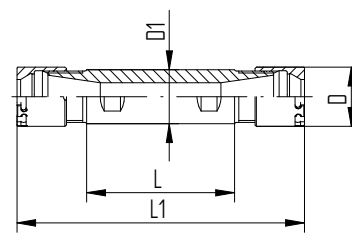
CYDF/ERMX toolholders with intrRlox® (slip-off proof mini clamping nut)

Type	Part no.	Dimensions [mm]					Slip-off proof	Accessory Wrench
		D	D1 h6	L	L1	G		
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

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.

PH/PHC/PHC-C/MPH

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.

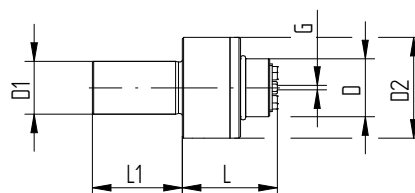
MPHC/ERMXC for tight spaces with internal cooling

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]						Accessory
		D	D1 h6	D2	L	L1	G	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]					Accessory	
		D	D1 h6	D2	L	L1	G	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 20 [mm]								
PHC 20/ER 20	2620.92003	33	20	56	53.5	38	1	E 20 AX
PHC 22 [mm]								
PHC 22/ER 20	2622.92003	33	22	56	53.5	38	1	E 20 AX
PHC 25 [mm]								
PHC 25/ER 20	2625.92003	33	25	56	53.5	38	1	E 20 AX
PHC 1 [inch]								
PHC 1" /ER 20	2625.92004	33	25.4	56	53.5	38	1	E 20 AX

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

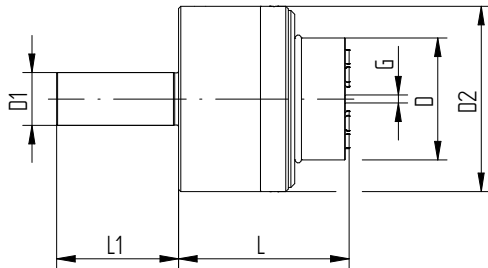
Expert advice

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

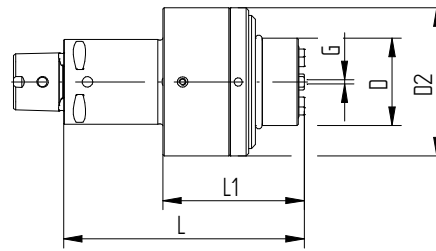
PHC floating chucks for coolant through tools with REGO-FIX CAPTO interface

Type	Part no.	Dimensions [mm]					Accessory
		D	D2	L	L1	G	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

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



PHC/ER



PHC-C/ER

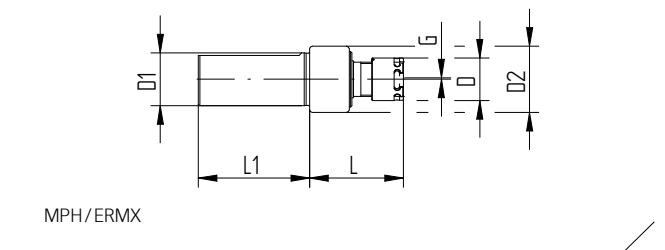
Certified REGO-FIX CAPTO – licensed by Sandvik Coromant – is manufactured at REGO-FIX Switzerland under license according to CAPTO specifications.

MPH mini floating chucks with intrRlox®

(slip-off proof mini clamping nut)

Type	Part no.	Dimensions [mm]						Accessory	
		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

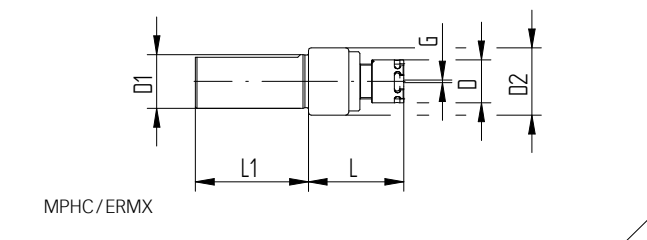


MPHC mini floating chucks with intrRlox®

(slip-off proof mini clamping nut)

Type	Part no.	Dimensions [mm]						Accessory
		D	D1 h6	D2	L	L1	G	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



Maintenance instructions for floating chucks

There are two main versions of floating chucks

MPHC

MPH



With 2 screws on the side of the flange.



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



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



1 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.



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



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



3 Put the second screw back.



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

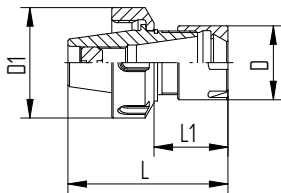
We recommend tightening the clamping nuts with our torque wrench.

For tightening torque recommendations, please refer to page 96.

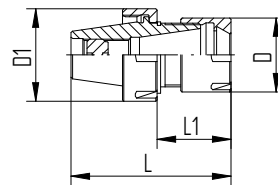
Collet reductions

Type	Part no.	Dimensions [mm]				Accessory
		D	D1	L	L1	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



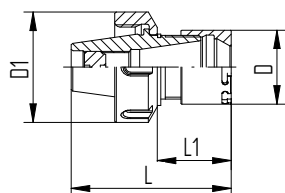
ERM/ERM

Collet reductions with intRlox®

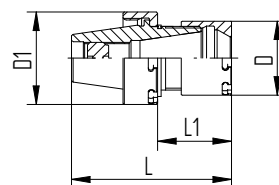
(slip-off proof mini clamping nut)

Type	Part no.	Dimensions [mm]				Accessory
		D	D1	L	L1	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



Micro-machining		Standard and ultraprecision		Metallic sealed	Collets for tapping	
ER-MB		ER-Standard/ ER-UP		ER-DM	ER-GB	PCM ET1
						
page 30		page 31		page 36	page 40	page 44



Swiss quality ER collets



MB

Std.

UP

DM

GB

PCM ET1

microbore

standard

ultra-precision

metallic sealed

tapping collet

tapping collet

Main machining use	micro-machining	all	high precision	internal cooling	rigid tapping	rigid tapping with length compensation
DIN ISO 15488: form ...	A	B	B	B	A	A
ER size	8–16	8–50	8–50	11–40	11–50	11–40
Shaft diameter range	0.2–0.9	1.0–36.0	1.0–36.0	3.0–26.0	2.5–32.0	1.4–17.0
Clamping range (mm) or tolerance	h7	1	1	0.5	h9	h9
Runout (max)*	6 µm	10 µm	5 µm	6 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 91

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]	[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 99

Expert advice

Microbore collets have a runout of $\leq 6\mu\text{m}$. They have been developed by REGO-FIX especially for smallest tool shank diameters.

For tool shanks with nominal diameter h7 tolerance only.



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.		Clamping range		Ø [inch]	Included in set
	ER standard	ER-UP	[mm]	[decimal inch]		
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 99

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

Type	Part no.		Clamping range		Ø [inch]	Included in set
	ER standard	ER-UP	[mm]	[decimal inch]		
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

Type	Part no.		Clamping range		Ø [inch]	Included in set
	ER standard	ER-UP	[mm]	[decimal inch]		
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 99

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.		Clamping range		Ø [inch]	Included in set
	ER standard	ER-UP	[mm]	[decimal inch]		
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

Type	Part no.		Clamping range		Ø [inch]	Included in set
	ER standard	ER-UP	[mm]	[decimal inch]		
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"	•

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 99

Metallic sealed collets ER-DM

Type	Part no.	Clamping range		Ø [inch]	Included in set
		[mm]	[decimal inch]		
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 99



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		Ø [inch]	Included in set
		[mm]	[decimal inch]		
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		Ø [inch]	Included in set
		[mm]	[decimal inch]		
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"	•

For further technical information, please refer to page 99



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

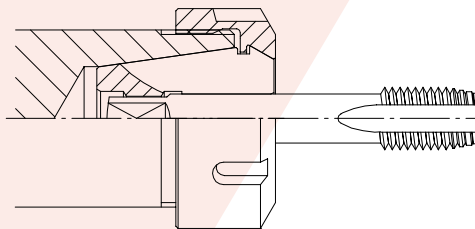
The compatibility of the entire system results in maximum precision, balance and tool life.

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. For additional technical information and dimensions of taps on ER-GB, please refer to pages 100.



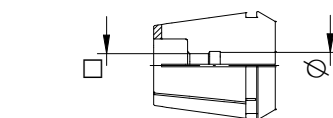
ER-GB



ER-GB

ER tapping collets

ER-GB [mm]

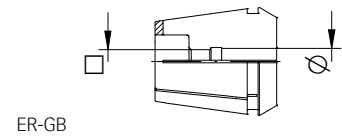


ER-GB

Dimensions [mm]		ER-GB				Standard
Ø	□	11	16	20	25	
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	ISO/JIS
4.5	3.4	1411.04500	1416.04500	1420.04500	1425.04500	DIN
5.0	4.0	1411.05002	1416.05002	1420.05002	1425.05002	ISO/JIS
5.5	4.3	-	1416.05500	1420.05500	1425.05500	DIN
5.5	4.5	-	1416.05501	1420.05501	1425.05501	JIS
6.0	4.5	-	1416.06001	1420.06001	1425.06001	JIS
6.0	4.9	1411.06000	1416.06000	1420.06000	1425.06000	DIN
6.2	5.0	-	1416.06201	1420.06201	1425.06201	JIS
6.3	5.0	-	1416.06302	1420.06302	1425.06302	ISO
7.0	5.5	-	1416.07000	1420.07000	1425.07000	DIN/JIS
7.1	5.6	-	1416.07102	1420.07102	1425.07102	ISO
8.0	6.2/6.3	-	1416.08000	1420.08000	1425.08000	DIN/ISO
8.5	6.5	-	1416.08501	1420.08501	1425.08501	JIS
9.0	7.0/7.1	-	1416.09000	1420.09000	1425.09000	DIN/ISO
10.0	8.0	-	-	1420.10000	1425.10000	DIN/ISO
10.5	8.0	-	-	1420.10501	1425.10501	JIS
11.0	9.0	-	-	1420.11000	1425.11000	DIN
11.2	9.0	-	-	1420.11202	1425.11202	ISO
12.0	9.0	-	-	1420.12000	1425.12000	DIN
12.5	10.0	-	-	-	1425.12502	ISO/JIS
14.0	11.0/11.2	-	-	-	1425.14000	DIN/ISO/JIS
15.0	12.0	-	-	-	1425.15001	JIS
16.0	12.0/12.5	-	-	-	1425.16000	DIN/ISO
17.0	13.0	-	-	-	-	JIS
18.0	14.0/14.5	-	-	-	-	DIN/ISO
20.0	16.0	-	-	-	-	DIN/ISO
22.0	18.0	-	-	-	-	DIN
25.0	20.0	-	-	-	-	DIN
28.0	22.0	-	-	-	-	DIN
32.0	24.0	-	-	-	-	DIN

ER tapping collets

ER-GB [inch]



Dimensions [decimal inch]

Ø	□	11	16	20	25	Standard
0.141"	0.11"	1411.03585	1416.03585	–	–	ANSI
0.168"	0.131"	1411.04275	1416.04275	1420.04275	1425.04275	ANSI
0.194"	0.152"	1411.04935	1416.04935	1420.04935	1425.04935	ANSI
0.22"	0.165"	–	1416.05595	1420.05595	1425.05595	ANSI
0.255"	0.191"	–	1416.06485	1420.06485	1425.06485	ANSI
0.318"	0.238"	–	1416.08085	1420.08085	1425.08085	ANSI
0.323"	0.242"	–	–	1420.08215	1425.08215	ANSI
0.367"	0.275"	–	–	1420.09325	1425.09325	ANSI
0.381"	0.286"	–	–	1420.09685	1425.09685	ANSI
0.429"	0.322"	–	–	–	1425.10905	ANSI
0.437"	0.328"	–	–	–	1425.11104	ANSI/NPT
0.48"	0.36"	–	–	–	1425.12195	ANSI
0.542"	0.406"	–	–	–	–	ANSI
0.562"	0.421"	–	–	–	–	ANSI/NPT
0.59"	0.442"	–	–	–	1425.14995	ANSI
0.652"	0.489"	–	–	–	–	ANSI
0.687"	0.515"	–	–	–	–	ANSI/NPT
0.697"	0.523"	–	–	–	–	ANSI
0.7"	0.531"	–	–	–	–	ANSI/NPT
0.76"	0.57"	–	–	–	–	ANSI
0.800"	0.600"	–	–	–	–	ANSI
0.896"	0.672"	–	–	–	–	ANSI
1.021"	0.766"	–	–	–	–	ANSI
1.108"	0.831"	–	–	–	–	ANSI
1.233"	0.925"	–	–	–	–	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

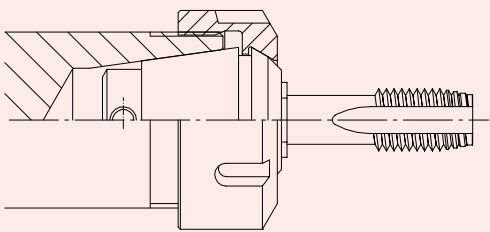
Very robust design with smallest space requirement.

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.

For additional technical information and dimensions of taps on PCM ET1, please refer to pages 101.



PCM ET1



PCM ET1

Expert advice

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

ER tapping collets

PCM ET1 [mm]

Shank Ø [mm]	PCM ET1				Standard
	12	16	20	25	
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	DIN / JIS
5.0	–	1516.05000	1520.05000	1525.05000	ISO
5.5	–	1516.05500	1520.05500	1525.05500	DIN / ISO
5.6	–	1516.05600	1520.05600	1525.05600	JIS
6.0	–	1516.06000	1520.06000	1525.06000	DIN / ISO
6.2	–	1516.06200	1520.06200	1525.06200	DIN / ISO
6.3	–	1516.06300	1520.06300	1525.06300	JIS
7.0	–	–	1520.07000	1525.07000	DIN
7.1	–	–	–	1525.07100	ISO
8.0	–	–	–	1525.08000	DIN
8.5	–	–	–	1525.08500	ISO / JIS
9.0	–	–	–	1525.09000	DIN / ISO / JIS
10.0	–	–	–	1525.10000	JIS
10.5	–	–	–	–	DIN / ISO
11.0	–	–	–	–	JIS
11.2	–	–	–	–	DIN / ISO
12.0	–	–	–	–	DIN / ISO
12.5	–	–	–	–	DIN
14.0	–	–	–	–	DIN
15.0	–	–	–	–	DIN
16.0	–	–	–	–	DIN
17.0	–	–	–	–	JIS

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

ER tapping collets

PCM ET1 [inch]

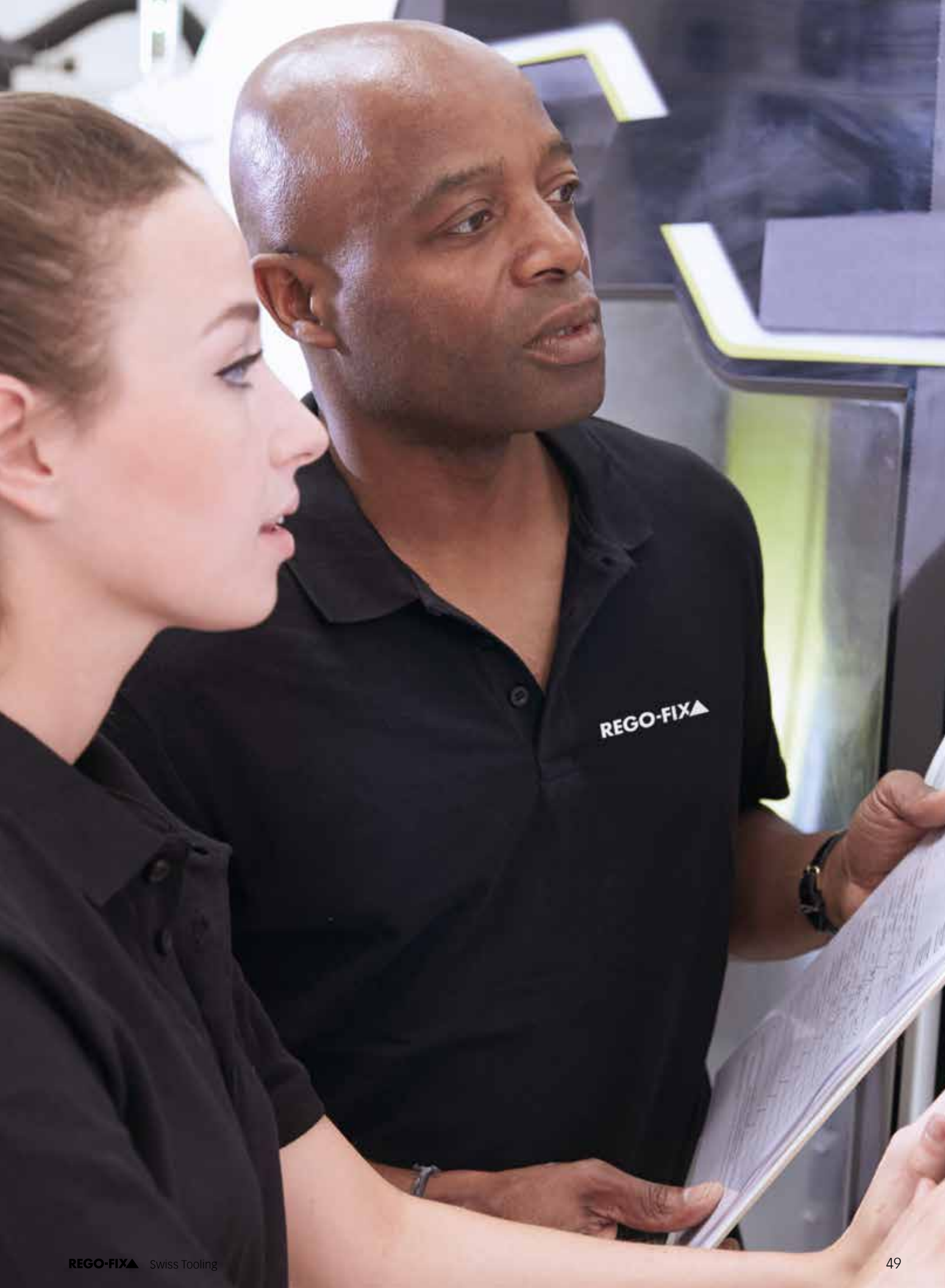
Shank Ø		PCM ET1			
[inch]	[mm]	12	16	20	25
0.141	3.580	1512.03581	1516.03581	1520.03581	1525.03581
0.168	4.270	–	1516.04271	1520.04271	1525.04271
0.194	4.930	–	1516.04931	1520.04931	1525.04931
0.220	5.590	–	1516.05591	1520.05591	1525.05591
0.255	6.480	–	–	1520.06481	1525.06481
0.318	8.080	–	–	–	1525.08081
0.323	8.205	–	–	–	1525.08211
0.367	9.320	–	–	–	1525.09321
0.381	9.680	–	–	–	1525.09681
0.429	10.900	–	–	–	–
0.437	11.113	–	–	–	–
0.480	12.192	–	–	–	–
0.542	13.770	–	–	–	–
0.562	14.290	–	–	–	–
0.590	14.990	–	–	–	–
0.652	16.560	–	–	–	–
0.697	17.700	–	–	–	–

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











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®/ERMx intRlox®	ER MS	Hi-Q®/ERAX	Hi-Q®/ERAXC	reCool®	DS/ER	KS/ER
page 52	page 54	page 56	page 56	page 58	page 58	page 60	page 60	page 62	page 64	page 64	page 66	page 76	page 80

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®/ERM C	Hi-Q®/ERMx C intRlox®	Hi-Q®/ERAX C
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*	•	•	•	•	•

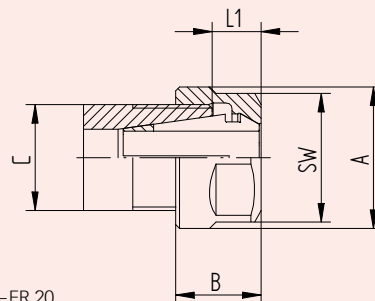
A: external thread B: bearing C: cooling M: mini thread X: slip-off proof

Expert advice

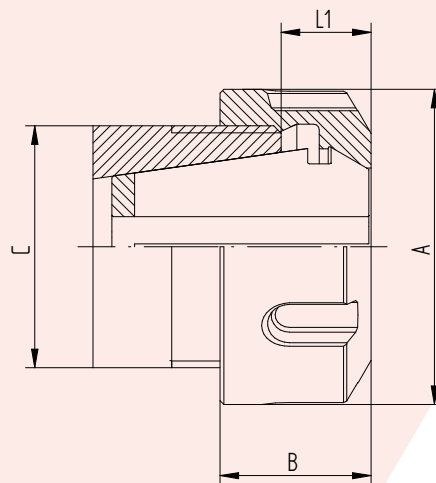
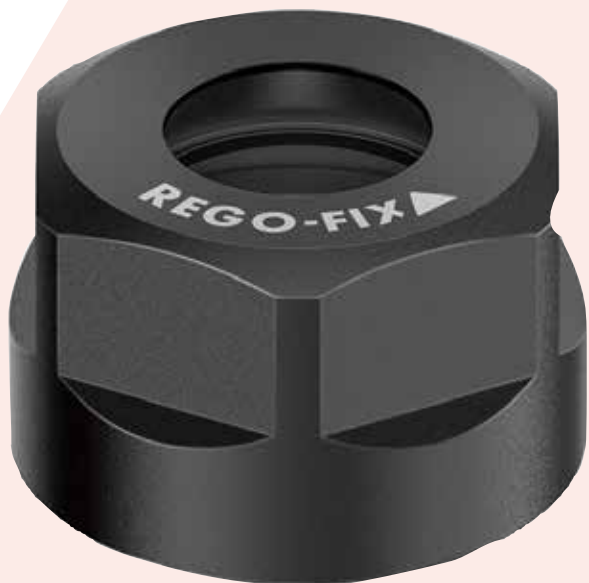
We recommend tightening the clamping nuts with our TORCO-BLOCK or torque wrench.
For tightening torque recommendations, please refer to page 96.

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.

Type	Part no.	Dimensions [mm]				Accessory	
		A	B	L1	SW	C	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

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.

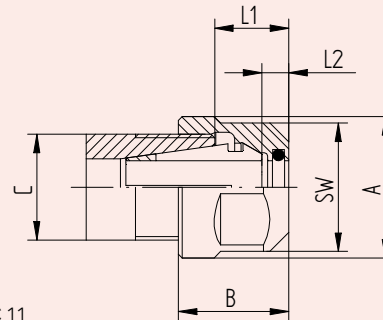
- // Up to 150 bar / 2100 PSI coolant pressure
- // Prevents dirt and chips from entering the collet

For peripheral cooling of non coolant through tools we recommend the coolant flush disks KS/ER. Please refer to page 82. Accessories are not included in delivery.

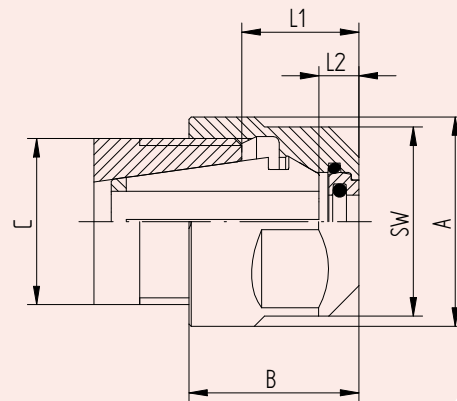
Hi-Q®/ERC 11 This clamping nut is recommended for use where minimal external diameters are important. The Hi-Q®/ERC 11 clamping nut for coolant through tools is the internal cooling version of the Hi-Q®/ER 11 clamping nut

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

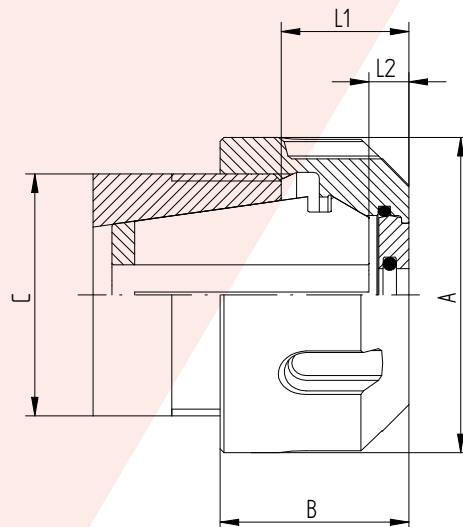
- // Up to 150 bar / 2100 PSI coolant pressure
- // Prevents dirt and chips from entering the collet



Hi-Q®/ERC 11



Hi-Q®/ERC 16 – ERC 20



Hi-Q®/ERC 25 – ERC 50



Type	Part no.	Dimensions [mm]						Bore-Ø		Accessory
		A	B	L1	L2	SW	C	[mm]	[inch]	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

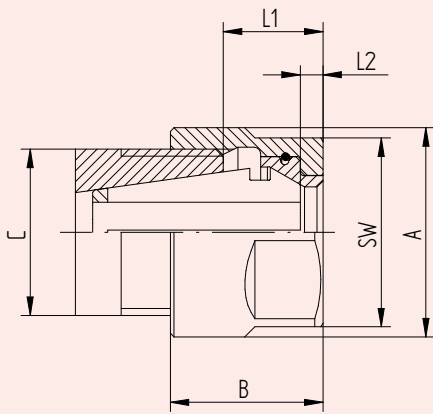
Hi-Q®/ERB friction-bearing Hi-Q®/ERBC for coolant through tools

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.

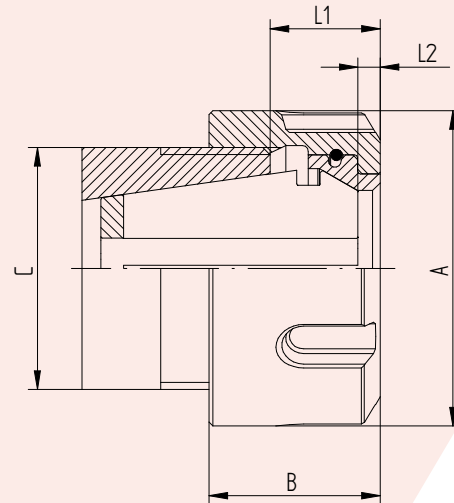
Application with sealing disk/coolant flush disk The Hi-Q®/ERBC clamping nut is intended for use with the sealing disk system DS/ER and the cool flush system KS/ER. The disk system allows the use of all standard ER collets, ultraprecision collets and tapping collets for coolant through tools.

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

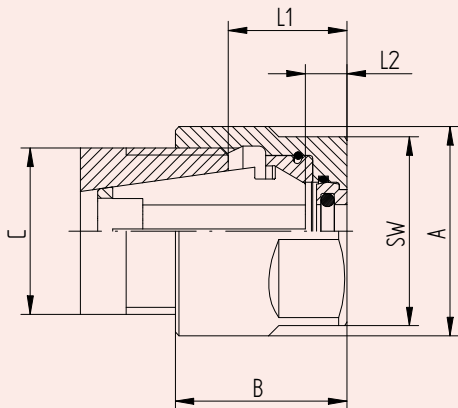
For peripheral cooling of non coolant through tools we recommend the coolant flush disks KS/ER. Please refer to page 82. Accessories are not included in delivery.



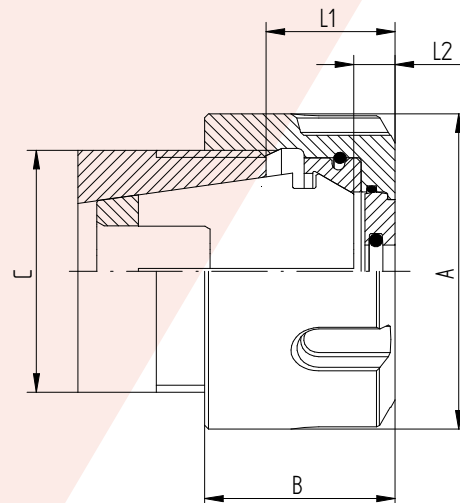
Hi-Q®/ERB 16 – ERB 20



Hi-Q®/ERB 25 – ERB 50



Hi-Q®/ERBC 16 – ERBC 20



Hi-Q®/ERBC 25 – ERBC 40

Hi-Q®/ERB Hi-Q®/ERBC

Type	Part no.	Dimensions [mm]					C	Accessory
		A	B	L1	L2	SW		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

Type	Part no.	Dimensions [mm]					C	Accessory
		A	B	L1	L2	SW		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®/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.

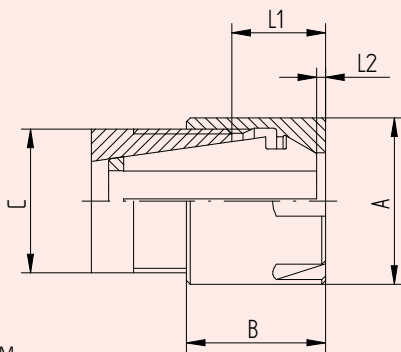
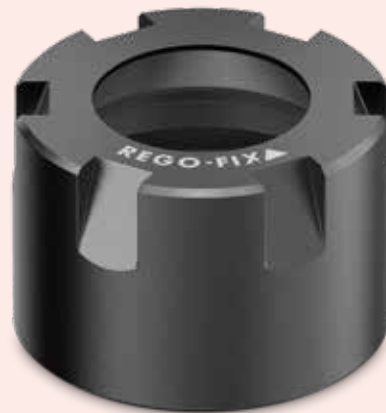
- // Up to 150 bar / 2100 PSI coolant pressure
- // Prevents dirt and chips from entering the collet

For peripheral cooling of non coolant through tools we recommend the coolant flush disks KS/ER. Please refer to page 82. Accessories are not included in delivery.

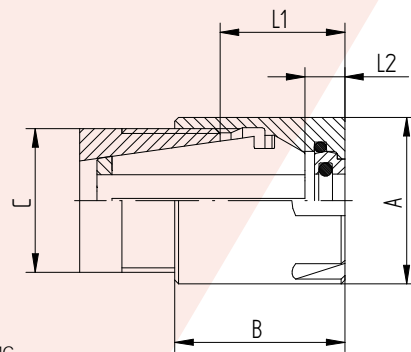
Hi-Q®/ERMC 11 This clamping nut is recommended for use where minimal external diameters are important. It is the coolant through tools version of the Hi-Q®/ERM 11 clamping nut.

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

Type	Part no.	Dimensions [mm]					C	Bore Ø		Accessory
		A	B	L1	L2	[inch]		[mm]	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]					C	Bore Ø		Accessory
		A	B	L1	L2	[mm]		[inch]	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

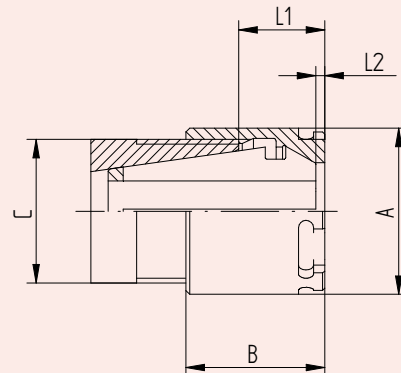
Application with sealing disk/coolant flush disk The Hi-Q®/ERMXC clamping nut is intended for use with the sealing disk system DS/ER and the coolant flush system KS/ER. The disk system allows the use of all standard ER collets, ultraprecision collets and tapping collets for coolant through tools.

- // 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 82. Accessories are not included in delivery.



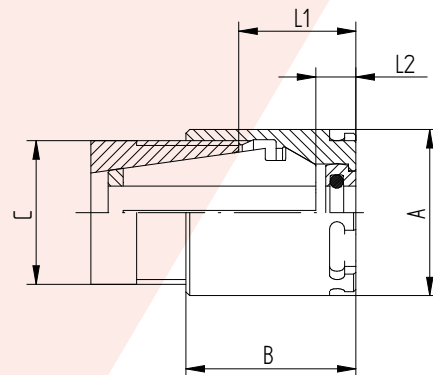
Hi-Q®/ERMX



Hi-Q®/ERMX



Hi-Q®/ERMXC



Hi-Q®/ERMXC

Type	Part no.	Dimensions [mm]					C	Accessory
		A	B	L1	L2	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]					C	Accessory
		A	B	L1	L2	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	

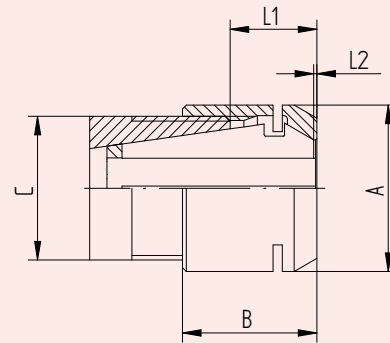
ER MS clamping nuts for highest RPM

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]				C	Accessory
		A	B	L1	L2		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.

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

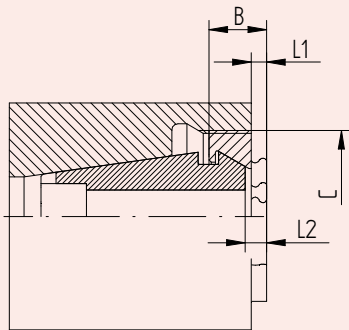
For peripheral cooling of non coolant through tools we recommend the coolant flush disks KS/ER. Please refer to page 82.



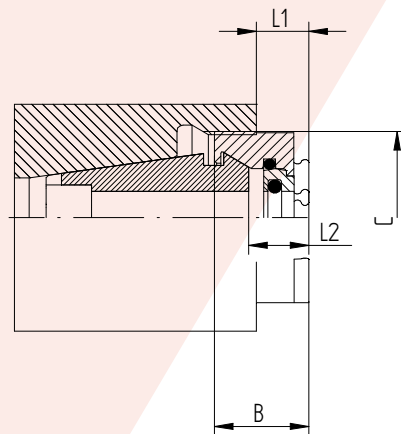
Hi-Q®/ERAX



Hi-Q®/ERAXC



Hi-Q®/ERAX



Hi-Q®/ERAXC

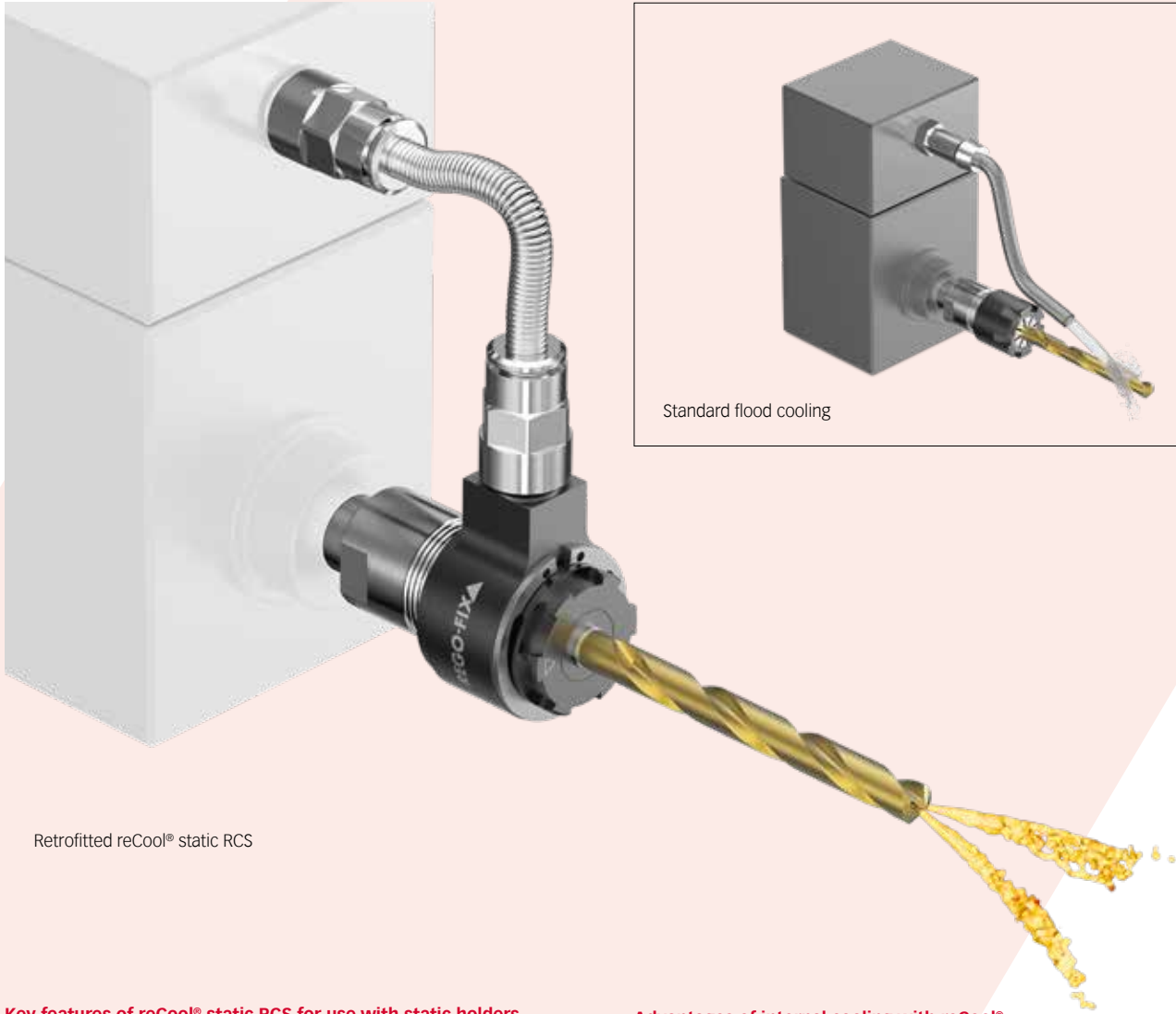
Hi-Q®/ERAX

Hi-Q®/ERAXC

Type	Part no.	Dimensions [mm]			C	Accessory
		B	L1	L2		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

Typ	Part no.	Dimensions [mm]			C	Accessory
		B	L1	L2		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

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

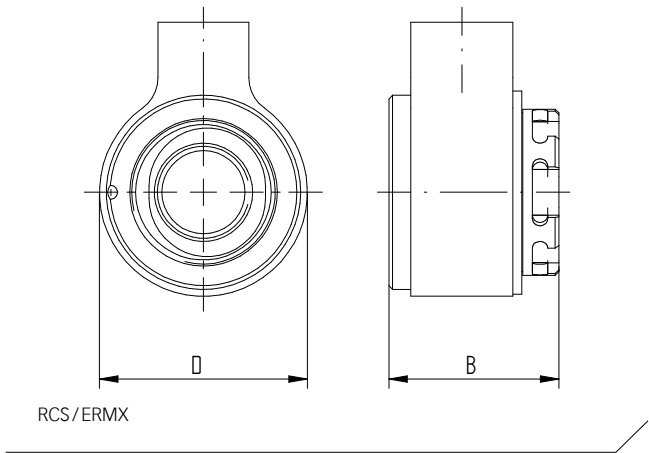
* With high-pressure hoses RHS-HP. 100 bar / 1400 PSI with standard hose
Accessories are not included in delivery.

Advantages of internal cooling with reCool®

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

reCool® static coolant supply system RCS

Type	Part no.	Dimensions [mm]		Thread	Accessory	Included in set RCR	
		B	D			Type	Qty.
Set RCS (for emulsion- and oil-based coolants)						RCS/ERMX 16/20	1
SET RCS/ERMX 16	3716.50000	22.5	27.5	M 19 x 1	E 16 MX	SET RHS-100	1
SET RCS/ERMX 20	3720.50000	24	34.5	M 24 x 1	E 20 MX	SET RVG-100 1/8" - 0°	2
RCS/ERMX nut (for emulsion- and oil-based coolants)						SET RVA-100 1/8" - 90°	2
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		



reCool® sets overview

reCool® RCS and reCool® RCR sets



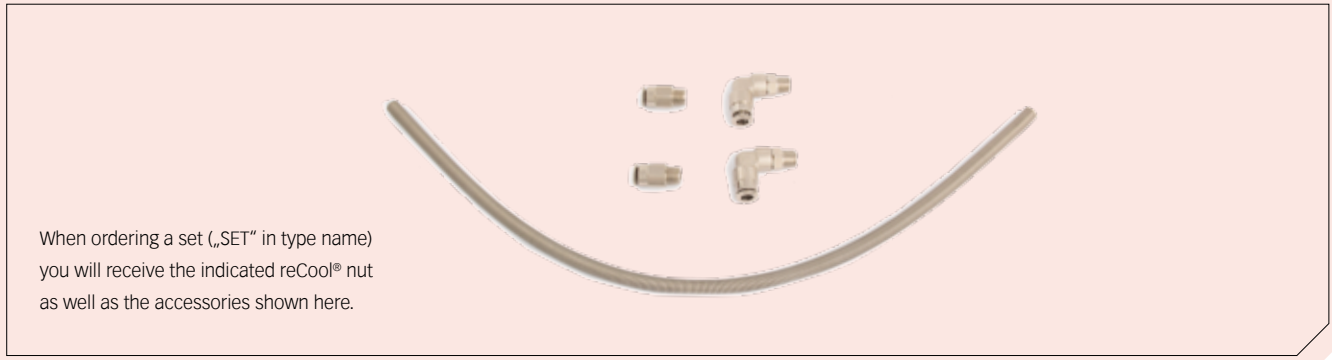
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Low-cost retrofitting to internal cooling



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

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.

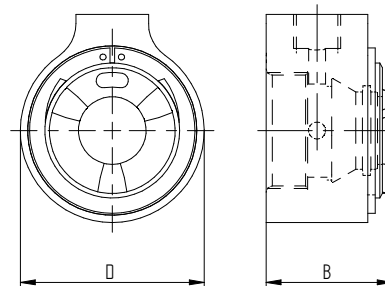
Advantages of internal cooling with reCool®

- // 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]			Thread	Accessory	Included in set RCR/ER	
		B	D	Wrench		Type	Qty.	
Set RCR/ER (for emulsion- and oil-based coolants)							RCR/ER 11-40	1
SET RCR/ER 11	3711.10000	16.6	21.75	M 14 x 0.75	E 11 AX	SET RHS-100	1	
SET RCR/ER 16	3716.10000	24.5	34	M 22 x 1.5	E 16 AX	SET RVG-100 1/8"-0°	2	
SET RCR/ER 20	3720.10000	26	40	M 25 x 1.5	E 20 AX	SET RVA-100 1/8"-90°	2	
SET RCR/ER 25	3725.10000	27	50	M 32 x 1.5	E 25 AX			

Type	Part no.	Dimensions [mm]			Thread	Accessory
		B	D	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	



Type	Part no.	Dimensions [mm]			Thread	Accessory	Included in set RCR/ERM	
		B	D	Wrench		Type	Qty.	
Set RCR/ERM (for emulsion- and oil-based coolants)							RCR/ERM 11-25	1
SET RCR/ERM 11	3711.30000	16.6	21.75	M 13 x 0.75	E 11 AX	SET RHS-100	1	
SET RCR/ERM 16	3716.30000	24.5	31	M 19 x 1	E 16 AX	SET RVG-100 1/8"-0°	2	
SET RCR/ERM 20	3720.30000	26	38	M 24 x 1	E 20 AX	SET RVA-100 1/8"-90°	2	
SET RCR/ERM 25	3725.30000	27	46	M 30 x 1	E 25 AX			

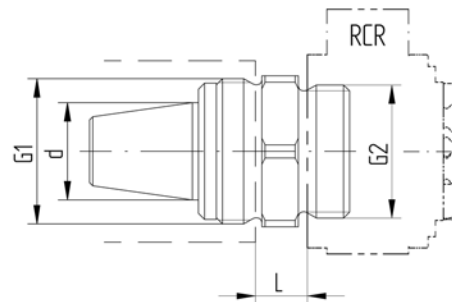
Type	Part no.	Dimensions [mm]			Thread	Accessory
		B	D	Wrench		
RCR/ERM nut (for emulsion- and oil-based coolants)						
RCR/ERM 11	3711.39000	16.6	21.75	M 13 x 0.75	E 11 AX	
RCR/ERM 16	3716.39000	24.5	31	M 19 x 1	E 16 AX	
RCR/ERM 20	3720.39000	26	38	M 24 x 1	E 20 AX	
RCR/ERM 25	3725.39000	27	46	M 30 x 1	E 25 AX	

Matching accessories for your reCool®

Type	Part no.	Dimensions [mm]		Thread G1	Thread G2	Accessory
		d	L			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

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 78 for sealing disks and to page 82 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

Standard hose set (≤ 100 bar) incl. steel spiral

SET RHS-100	3799.95000	400*
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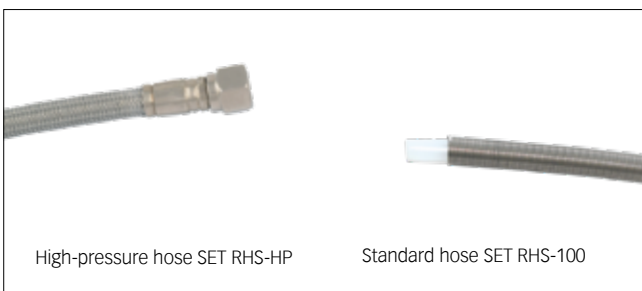
*The length can be shortened individually between 50 - 400 mm

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	-

Thread adapter

RGA 1/8" BSP - 1/8" NPT	3799.98180	-
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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	-

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	-

Expert advice

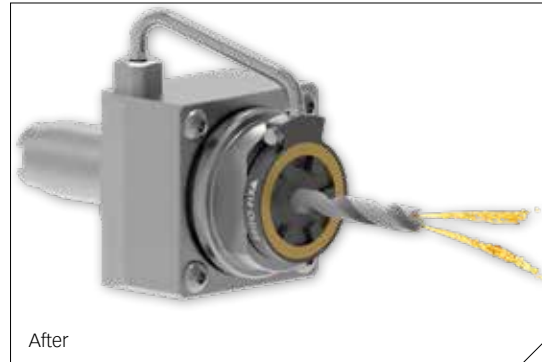
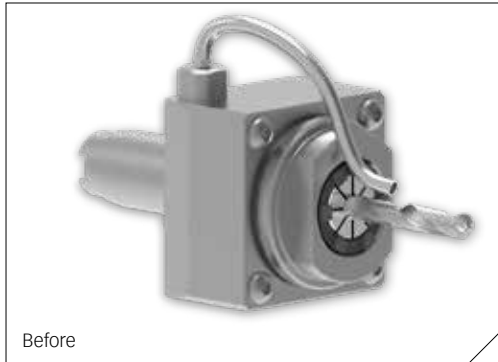
The ball adapter **RBA** is used when the driven tool has a ball connection. The fitting can then be used on the hose.

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

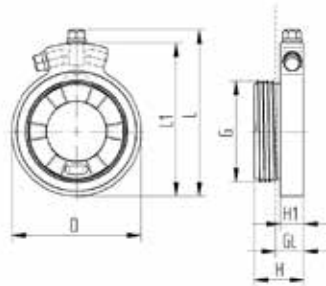


reCool® ERAX

Retrofit driven tools and turning machines to internal cooling with reCool®



- // For driven tools with inner thread
- // Short design: optimising machining range
- // Maximum pressure: 100 bar
- // Maximum RPM: 12 000 min-1
- // Copper-like coating for reduced friction
- // Tools shank diameter 3 – 20 mm
- // Suited for emulsion and oil
- // To be used with KS/DS disks



Type	Part no.	d [mm]	L [mm]	L1 [mm]	H [mm]	H1 [mm]	GL [mm]	G
Coolant supply system with outer thread, rotational								
RCR/ERAX 16	3716.29000	34.0	46.0	41.5	14.5	7.6	9.0	M24 x 1.0
RCR/ERAX 20	3720.29000	37.5	49.5	45.0	15.5	7.6	9.0	M28 x 1.5
RCR/ERAX 25	3725.29000	41.0	53.0	48.5	15.8	7.6	9.0	M32 x 1.5
RCR/ERAX 32	3732.29000	49.0	61.0	56.5	16.9	7.6	9.0	M40 x 1.5



RCR/ERAX

Type	Part no.	Length	Included
Steelflex hose for RCR/ERAX			
SET RHS-AX L080	3799.99080	80 mm	Hollow bolt SET HS6100RF6
SET RHS-AX L100	3799.99100	100 mm	Hollow bolt SET HS6100RF6
SET RHS-AX L120	3799.99120	120 mm	Hollow bolt SET HS6100RF6
SET RHS-AX L140	3799.99140	140 mm	Hollow bolt SET HS6100RF6
SET RHS-AX L160	3799.99160	160 mm	Hollow bolt SET HS6100RF6
SET RHS-AX L180	3799.99180	180 mm	Hollow bolt SET HS6100RF6



Steelflex hose

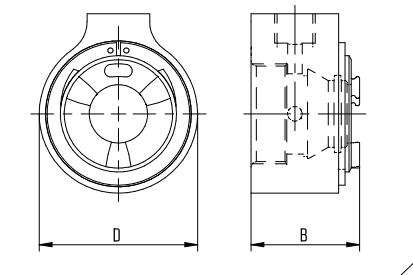
Type	Part no.	Description
Hollow bolt for RCR/ERAX		
SET HS8100RF8	3799.90808	Hollow bolt M8x1.00 mm and ringfitting Ø 8.00 mm
SET HS8125RF8	3799.90818	Hollow bolt M8x1.25 mm and ringfitting Ø 8.00 mm
SET HS6100RF6	3799.90606	Hollow bolt M6x1.00 mm and ringfitting Ø 6.00 mm
SET HS10100RF10	3799.91010	Hollow bolt M10x1.00 mm and ringfitting Ø 10.00 mm
SET HS18RF10	3799.91810	Hollow bolt ¾" and ringfitting Ø 10.00 mm



Hollow bolt set

reCool® Hi-S / ER

Upgrade high-speed & high-frequency spindles to internal cooling with reCool®



- // For high speed / high frequency spindles
- // ER 11 & 16 available
- // Maximum pressure: 100 bar
- // Maximum RPM: 40,000 min⁻¹
- // Emulsion & oil
- // Ceramic coating for reduced friction
- // To be used with DS & KS disks

Type	Part no.	Dimensions [mm]		Thread	Accessory Wrench	Included in set RCR Hi-S/ER & ERM	
		B	D			Type	Qty.
Set RCR Hi-S/ER (for emulsion- and oil-based coolants)						RCR Hi-S 11-16	1
SET RCR Hi-S/ER 11	3711.60000	16.5	21.75	M 14 x 0.75	E 11 AX	SET RHS-100	1
SET RCR Hi-S/ER 16	3716.60000	24.5	34	M 22 x 1.5	E 16 AX	SET RVG-100/8" -0°	2
						SET RVA-100/8" -90°	2
RCR Hi-S/ER nut (for emulsion- and oil-based coolants)							
RCR Hi-S/ER 11	3711.69000	16.5	21.75	M 14 x 0.75	E 11 AX		
RCR Hi-S/ER 16	3716.69000	24.5	34	M 22 x 1.5	E 16 AX		
Set RCR Hi-S/ERM (for emulsion- and oil-based coolants)							
SET RCR Hi-S/ERM 11	3711.70000	16.5	21.75	M 13 x 0.75	E 11 AX		
SET RCR Hi-S/ERM 16	3716.70000	24.5	31	M 19 x 1	E 16 AX		
RCR Hi-S/ERM nut (for emulsion- and oil-based coolants)							
RCR Hi-S/ERM 11	3711.79000	16.5	21.75	M 13 x 0.75	E 11 AX		
RCR Hi-S/ERM 16	3716.79000	24.5	31	M 19 x 1	E 16 AX		

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

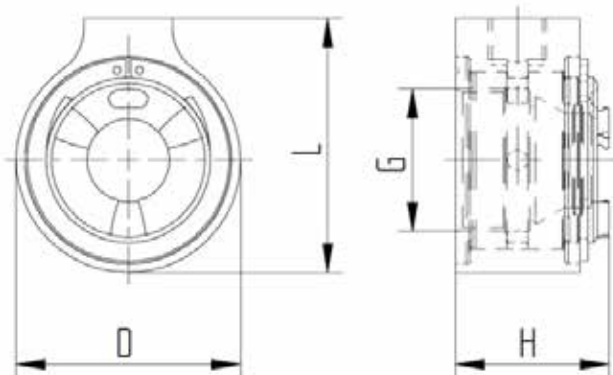
Cooling medium: Emulsion or oil up to viscosity ≤ ISO VG 46 (46 mm²/s 40°C) and filtered 20 µm

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

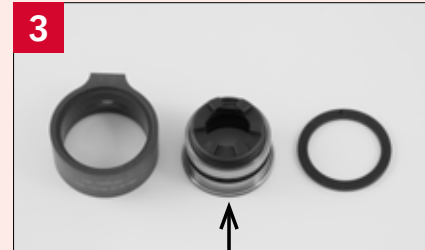
reCool® is designed with a wear resistant coating, eliminating the need for extensive maintenance. The only time cleaning is needed is when the RCR system no longer rotates lightly by hand.



Mark the position of the inner part to outer ring.



Remove the retaining ring with pliers.



Now slide out inner part.



Remove the disk.



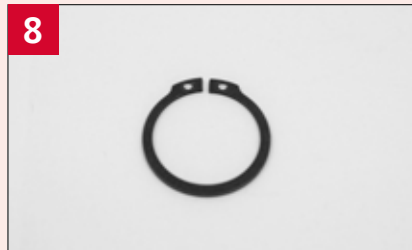
Clean all parts intensively with a standard industrial cleaning agent.



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.

Effective solution for internal cooling

Our sealing disks allow you to use your regular collet for internal cooling, saving the need for new collets.

Key advantages

Swiss quality product

Sealing range

0.5 mm

ER 11 has no sealing range and can only be used nominally. Assembling with mounting tool MWZ.

High pressure

For applications up to 150 bar / 2100 PSI.

Protection

Protects against all kind of dirt and chips entering the slots of the collet.

Matched tooling system for best fit

Our long-lasting machining experience results in a well-engineered system. All components are fitted together to one system to maximize your machining potential.

Coolant resistant

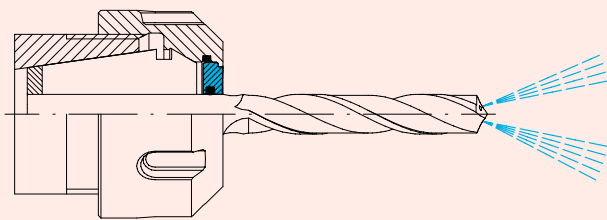
O-ring for aggressive coolant (MITON®-quality).

Interchangeable

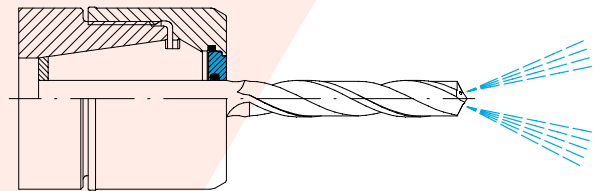
Quick change of sealing disks according to required tool shank diameter.

Coolant through

For better cooling and lubrication. Extends tool life and supports chip removal.

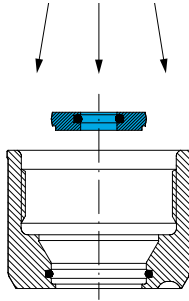


DS/ER



DS/MR

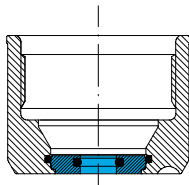
Sealing disks DS



Assembling

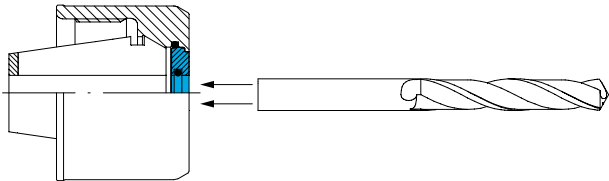
Assembling Insert the small diameter of the disk into the center of the coolant nut. Apply an even pressure until the disk is properly seated into the nut.

Removing To remove the disk, simply press on the outside of the disk evenly until it snaps out.

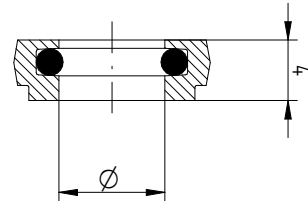


Inserted DS

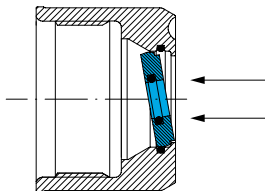
Expert advice
 Insert tool with the shank side first. O-ring might be damaged if cutting tool is inserted from the back with the cutting edge side.



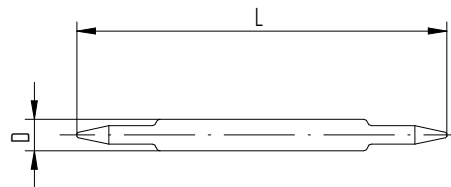
Insert tool



DS/ER



Disk removal



MWZ 11

Type	Part no.	D [mm]	L [mm]
MWZ 11 mounting tool for sealing disks			
MWZ 11	3911.88888	12	140

Sealing disks for ER/MR

Type	Part no.	Tool diameter			Incl. in set
		Ø [inch]	[mm]	[decimal inch]	
DS/ER 11					
Ø 3.0 mm	3911.00300	–	3.0	–	–
Ø 1/8"	3911.00318	1/8"	–	–	–
Ø 4.0 mm	3911.00400	5/32"	4.0	–	–
Ø 3/16"	3911.00476	3/16"	–	–	–
Ø 5.0 mm	3911.00500	–	5.0	–	–
Ø 6.0 mm	3911.00600	–	6.0	–	–
Ø 1/4"	3911.00635	1/4"	–	–	–
BLANK DS/ER 11	3911.09999	–	–	–	–

ER 11 has no sealing range and can only be used nominally. Assembling with mounting tool MWZ.

DS/ER 16					
DS/ER 16 SET (14 pcs.)	3916.00000	–	3.0–10.0	0.1378–0.3937	–
Ø 3.0 mm	3916.00300	3/32"	3.0–2.5	0.1181–0.0984	–
Ø 3.5 mm	3916.00350	1/8"	3.5–3.0	0.1378–0.1181	•
Ø 4.0 mm	3916.00400	5/32"	4.0–3.5	0.1575–0.1378	•
Ø 4.5 mm	3916.00450	–	4.5–4.0	0.1772–0.1575	•
Ø 5.0 mm	3916.00500	3/16"	5.0–4.5	0.1969–0.1772	•
Ø 5.5 mm	3916.00550	7/32"	5.5–5.0	0.2165–0.1969	•
Ø 6.0 mm	3916.00600	–	6.0–5.5	0.2362–0.2165	•
Ø 6.5 mm	3916.00650	1/4"	6.5–6.0	0.2559–0.2362	•
Ø 7.0 mm	3916.00700	–	7.0–6.5	0.2756–0.2559	•
Ø 7.5 mm	3916.00750	9/32"	7.5–7.0	0.2953–0.2756	•
Ø 8.0 mm	3916.00800	5/16"	8.0–7.5	0.315–0.2953	•
Ø 8.5 mm	3916.00850	–	8.5–8.0	0.3346–0.315	•
Ø 9.0 mm	3916.00900	11/32"	9.0–8.5	0.3543–0.3346	•
Ø 9.5 mm	3916.00950	3/8"	9.5–9.0	0.374–0.3543	•
Ø 10.0 mm	3916.01000	–	10.0–9.5	0.3937–0.374	•
BLANK DS/ER 16	3916.09999	–	–	–	–

Included in the DS/ER sets are all marked disks within that ER size and the matching disk try DSW

DS/ER 20					
SET DS/ER 20 (20 pcs.)	3920.00000	–	3.0–13.0	0.1378–0.5118	–
Ø 3.0 mm	3920.00300	3/32"	3.0–2.5	0.1181–0.0984	–
Ø 3.5 mm	3920.00350	1/8"	3.5–3.0	0.1378–0.1181	•
Ø 4.0 mm	3920.00400	5/32"	4.0–3.5	0.1575–0.1378	•
Ø 4.5 mm	3920.00450	–	4.5–4.0	0.2165–0.1969	•
Ø 5.0 mm	3920.00500	3/16"	5.0–4.5	0.1969–0.1772	•
Ø 5.5 mm	3920.00550	7/32"	5.5–5.0	0.1772–0.1575	•
Ø 6.0 mm	3920.00600	–	6.0–5.5	0.2362–0.2165	•
Ø 6.5 mm	3920.00650	1/4"	6.5–6.0	0.2559–0.2362	•
Ø 7.0 mm	3920.00700	–	7.0–6.5	0.2756–0.2559	•
Ø 7.5 mm	3920.00750	9/32"	7.5–7.0	0.2953–0.2756	•
Ø 8.0 mm	3920.00800	5/16"	8.0–7.5	0.315–0.2953	•

Sealing disks for ER/MR

Type	Part no.	Tool diameter			Incl. in set
		Ø [inch]	[mm]	[decimal inch]	
Ø 8.5 mm	3920.00850	–	8.5–8.0	0.3346–0.315	•
Ø 9.0 mm	3920.00900	11/32"	9.0–8.5	0.3543–0.3346	•
Ø 9.5 mm	3920.00950	3/8"	9.5–9.0	0.374–0.3543	•
Ø 10.0 mm	3920.01000	–	10.0–9.5	0.3937–0.374	•
Ø 10.5 mm	3920.01050	13/32"	10.5–10.0	0.4134–0.3937	•
Ø 11.0 mm	3920.01100	–	11.0–10.5	0.433–0.4134	•
Ø 11.5 mm	3920.01150	7/16"	11.5–11.0	0.4528–0.4331	•
Ø 12.0 mm	3920.01200	15/32"	12.0–11.5	0.4724–0.4528	•
Ø 12.5 mm	3920.01250	–	12.5–12.0	0.4921–0.4724	•
Ø 13.0 mm	3920.01300	1/2"	13.0–12.5	0.5118–0.4921	•
BLANK DS/ER 20	3920.09999	–	–	–	–

Included in the DS/ER sets are all marked disks within that ER size and the matching disk try DSR

DS/ER 25

SET DS/ER 25 (26 pcs.)	3925.00000	–	3.0–16.0	0.1181–0.6299	–
Ø 3.0 mm	3925.00300	3/32"	3.0–2.5	0.1181–0.0984	–
Ø 3.5 mm	3925.00350	1/8"	3.5–3.0	0.1378–0.1181	•
Ø 4.0 mm	3925.00400	5/32"	4.0–3.5	0.1575–0.1378	•
Ø 4.5 mm	3925.00450	–	4.5–4.0	0.1772–0.1575	•
Ø 5.0 mm	3925.00500	3/16"	5.0–4.5	0.1969–0.1772	•
Ø 5.5 mm	3925.00550	7/32"	5.5–5.0	0.2165–0.1969	•
Ø 6.0 mm	3925.00600	–	6.0–5.5	0.2362–0.2165	•
Ø 6.5 mm	3925.00650	1/4"	6.5–6.0	0.2559–0.2362	•
Ø 7.0 mm	3925.00700	–	7.0–6.5	0.2756–0.2559	•
Ø 7.5 mm	3925.00750	9/32"	7.5–7.0	0.2953–0.2756	•
Ø 8.0 mm	3925.00800	5/16"	8.0–7.5	0.315–0.2953	•
Ø 8.5 mm	3925.00850	–	8.5–8.0	0.3346–0.315	•
Ø 9.0 mm	3925.00900	11/32"	9.0–8.5	0.3543–0.3347	•
Ø 9.5 mm	3925.00950	3/8"	9.5–9.0	0.374–0.3543	•
Ø 10.0 mm	3925.01000	–	10.0–9.5	0.3937–0.374	•
Ø 10.5 mm	3925.01050	13/32"	10.5–10.0	0.4134–0.3937	•
Ø 11.0 mm	3925.01100	–	11.0–10.5	0.433–0.4134	•
Ø 11.5 mm	3925.01150	7/16"	11.5–11.0	0.4528–0.433	•
Ø 12.0 mm	3925.01200	15/32"	12.0–11.5	0.4724–0.4528	•
Ø 12.5 mm	3925.01250	–	12.5–12.0	0.4921–0.4724	•
Ø 13.0 mm	3925.01300	1/2"	13.0–12.5	0.5118–0.4921	•
Ø 13.5 mm	3925.01350	17/32"	13.5–13.0	0.5315–0.5118	•
Ø 14.0 mm	3925.01400	–	14.0–13.5	0.5512–0.5315	•
Ø 14.5 mm	3925.01450	9/16"	14.5–14.0	0.5709–0.5512	•
Ø 15.0 mm	3925.01500	–	15.0–14.5	0.5906–0.5709	•
Ø 15.5 mm	3925.01550	19/32"	15.5–15.0	0.6102–0.5906	•
Ø 16.0 mm	3925.01600	5/8"	16.0–15.5	0.6299–0.6102	•
BLANK DS/ER 25	3925.09999	–	–	–	–

Included in the DS/ER sets are all marked disks within that ER size and the matching disk try DSR

Our solution for peripheral cooling

The design of our coolant flush disks leads the coolant along the edge of the cutting tool, providing you with an easy way to achieve peripheral cooling.

Key advantages

Swiss quality product

Universal use

For all REGO-FIX collets and coolant nuts with interchangeable disk.

Interchangeable

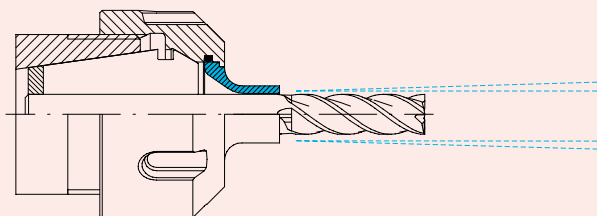
Quick change of coolant flush disks according to required tool shank diameter.

Peripheral cooling

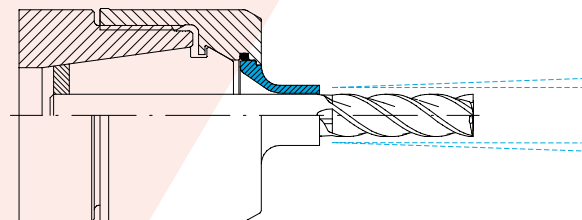
For better cooling and lubrication.
Extends tool life and supports chip removal.

Original REGO-FIX

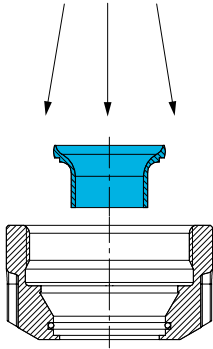
Our long-lasting machining experience results in a well-engineered system. When buying ER coolant flush disks please pay attention to the REGO-FIX quality seal on the coolant flush disk: The triangle is our seal for outstanding quality made in Switzerland.



KS/ER



KS/MR

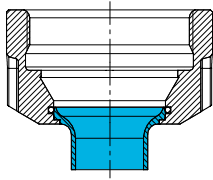


Assembling

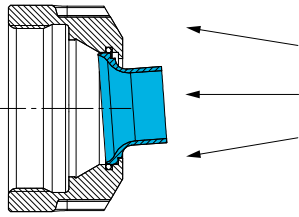
Assembling Insert the small diameter of the disk into the center of the coolant nut. Apply an even pressure until the disk is properly seated into the nut.

The disk must be flush with the outside of the nut and the marking on the disk must be visible inside of the nut.

Removing To remove the disk, simply press on the outside of the disk evenly until it snaps out.



Inserted KS/ER



Removing

Coolant flush disks for ER/MR

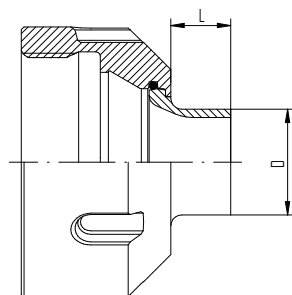
Type	Part no.	Dimensions [mm]			Ø	
		D	L	[mm]	[inch]	
KS/ER 11 [mm]/[inch]						
Ø 3.0 mm/1/8"	3911.30318	5.6	5.5	3		1/8"
Ø 4.0 mm	3911.20400	6.4	5.5	4		–
Ø 5.0 mm/3/16"	3911.20500	7.5	5.5	5		3/16"
Ø 6.0 mm/1/4"	3911.30635	7.5	5.5	6		1/4"
BLANK KS/ER 11 Ø 7.5 x 8	3911.29999	7.5	8	–		–
KS/ER 16 [mm]						
Ø 3.0 mm	3916.20300	6.4	11	3		–
Ø 4.0 mm	3916.20400	7.4	11	4		–
Ø 5.0 mm	3916.20500	8.4	11	5		–
Ø 6.0 mm	3916.20600	9.4	11	6		–
Ø 7.0 mm	3916.20700	11	11	7		–
Ø 8.0 mm	3916.20800	11	11	8		–
Ø 9.0 mm	3916.20900	11	2	9		–
Ø 10.0 mm	3916.21000	11	2	10		–
BLANK KS/ER 16 Ø 11 x 12*	3916.29999	11	12	–		–
KS/ER 16 [inch]						
Ø 1/8"	3916.30318	6.6	11	3.175		1/8"
Ø 3/16"	3916.30476	8.2	11	4.763		3/16"
Ø 1/4"	3916.30635	9.7	11	6.35		1/4"
Ø 5/16"	3916.30794	11	11	7.938		5/16"
Ø 3/8"	3916.30953	11	2	9.525		3/8"
KS/ER 20 [mm]						
Ø 3.0 mm	3920.20300	6.4	11	3		–
Ø 4.0 mm	3920.20400	7.4	11	4		–
Ø 5.0 mm	3920.20500	8.4	11	5		–
Ø 6.0 mm	3920.20600	9.4	11	6		–
Ø 7.0 mm	3920.20700	10.4	11	7		–
Ø 8.0 mm	3920.20800	11.4	11	8		–
Ø 9.0 mm	3920.20900	12.4	11	9		–
Ø 10.0 mm	3920.21000	14	11	10		–
Ø 12.0 mm	3920.21200	14	3	12		–
BLANK KS/ER 20 Ø 14 x 12*	3920.29999	14	12	–		–

*Work material: 42CrMoS4 (1.7227)

Coolant flush disks for ER/MR

Type	Part no.	Dimensions [mm]		Ø	
		D	L	[mm]	[inch]
KS/ER 20 [inch]					
Ø 1/8"	3920.30318	6.6	11	3.175	1/8"
Ø 3/16"	3920.30476	8.2	11	4.763	3/16"
Ø 1/4"	3920.30635	9.7	11	6.35	1/4"
Ø 5/16"	3920.30794	11.3	11	7.983	5/16"
Ø 3/8"	3920.30953	14	11	9.525	3/8"
Ø 7/16"	3920.31111	14	11	11.113	7/16"
Ø 1/2"	3920.31270	14	3	12.7	1/2"
KS/ER 25 [mm]					
Ø 3.0 mm	3925.20300	6.4	11	3	–
Ø 4.0 mm	3925.20400	7.4	11	4	–
Ø 5.0 mm	3925.20500	8.4	11	5	–
Ø 6.0 mm	3925.20600	9.4	11	6	–
Ø 7.0 mm	3925.20700	10.4	11	7	–
Ø 8.0 mm	3925.20800	11.4	11	8	–
Ø 9.0 mm	3925.20900	12.4	11	9	–
Ø 10.0 mm	3925.21000	13.4	11	10	–
Ø 12.0 mm	3925.21200	15.4	11	12	–
Ø 14.0 mm	3925.21400	17.4	11	14	–
Ø 16.0 mm	3925.21600	19	11	16	–
BLANK KS/ER 25 Ø 19 x 12*	3925.29999	19	12	–	–
KS/ER 25 [inch]					
Ø 1/8"	3925.30318	6.6	11	3.175	1/8"
Ø 3/16"	3925.30476	8.2	11	4.763	3/16"
Ø 1/4"	3925.30635	9.7	11	6.35	1/4"
Ø 5/16"	3925.30794	11.3	11	7.938	5/16"
Ø 3/8"	3925.30953	12.9	11	9.525	3/8"
Ø 7/16"	3925.31111	14.5	11	11.113	7/16"
Ø 1/2"	3925.31270	16.1	11	12.7	1/2"
Ø 9/16"	3925.31429	17.7	11	14.288	9/16"
Ø 5/8"	3925.31588	19	11	15.875	5/8"

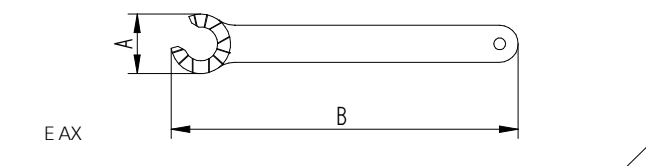
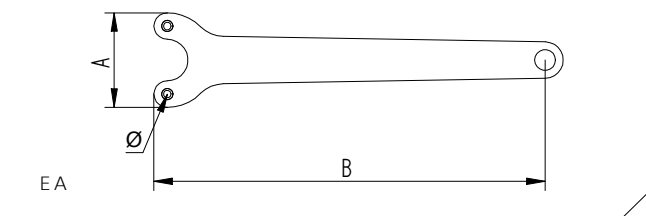
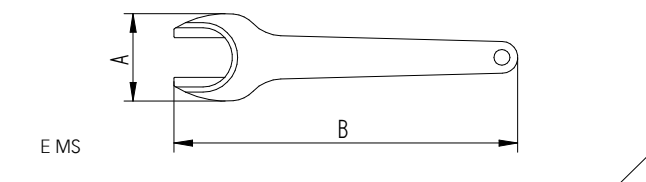
*Work material: 42CrMoS4 (1.7227)



KS/ER

Wrenches

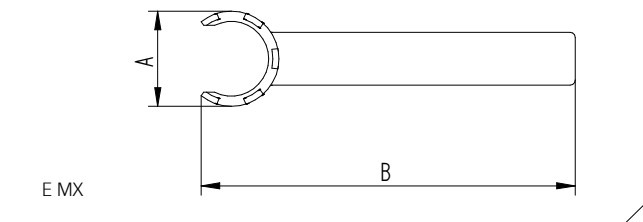
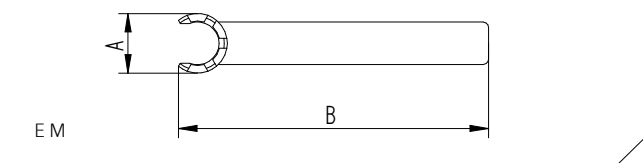
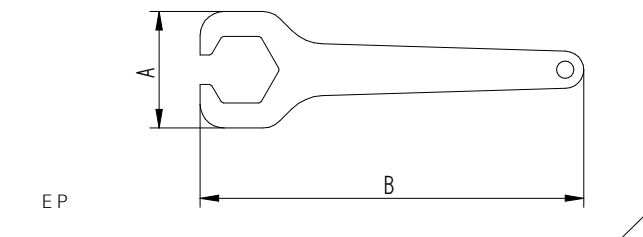
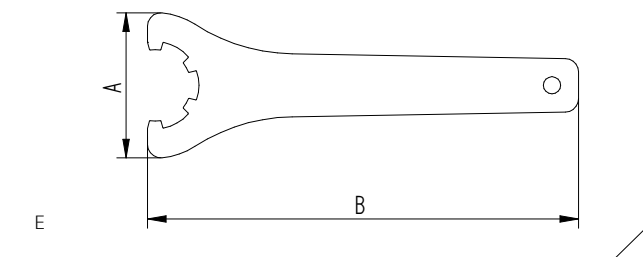
Type	Part no.	A [mm]	B [mm]	Suited wrench for Hi-Q®		
				ERMS	ERAX	ERAXC
E MS						
E 8 MS	7114.08000	19	76	•	–	–
E 11 MS	7114.11000	22	100	•	–	–
E 16 MS	7114.16000	33	130	•	–	–
E 20 MS	7114.20000	42	140	•	–	–
E AX						
E 11 AX	7117.11000	16	108	–	•	–
E 16 AX	7117.16000	22	131	–	•	•
E 20 AX	7117.20000	26	148	–	•	•
E 25 AX	7117.25000	30	165	–	•	•
E A						
E 11 A	7115.11000	18.6	96	–	–	–
E 16 A	7115.16000	25	108	–	–	–
E 20 A	7115.20000	28	123	–	–	–
E 25 A	7115.25000	30.5	139	–	–	–



Wrenches

- E
- E P
- E M
- E MX

Type	Part no.	A [mm]	B [mm]	SW [mm]	Suited wrench for Hi-Q®			
					ER	ERC	ERB	ERBC
E								
E 16	7111.16000	55	163		-	-	-	-
E 20	7111.20000	60	183		-	-	-	-
E 25	7111.25000	70	203		•	•	•	•
E P								
E 11 P	7112.11010	32	95	19	•	•	-	-
E 16 P	7112.16010	44	145	28	•	•	•	•
E 20 P	7112.20010	52	170	34	•	•	•	•
E M								
E 8 M	7113.08000	12	74		-	-	-	-
E 11 M	7113.11000	17	95		-	-	-	-
E 16 M	7113.16000	22	117		-	-	-	-
E 20 M	7113.20000	29	129		-	-	-	-
E 25 M	7113.25000	36	141		-	-	-	-
E MX								
E 8 MX	7118.08000	12	74		-	-	-	-
E 11 MX	7118.11000	17	95		-	-	-	-
E 16 MX	7118.16000	22.5	117		-	-	-	-
E 20 MX	7118.20000	29	129		-	-	-	-
E 25 MX	7118.25000	36	141		-	-	-	-



Wrench heads

A-E	A-E P	A-E M
A-E MX	A-E MS	A-E AX

Type	Part no.	A [mm]	B [mm]	SW [mm]
A-E				
A-E 16	7151.16000	55	62	
A-E 20	7151.20000	60	62	
A-E 25	7151.25000	70	72	

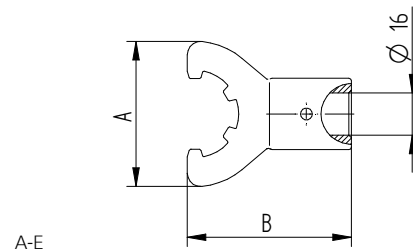
A-E P				
A-E 11 P	7152.11010	32	57	19
A-E 16 P	7152.16010	44	70	28
A-E 20 P	7152.20010	52	80	34

A-E M				
A-E 8 M	7153.08000	12	53	
A-E 11 M	7153.11000	17	54	
A-E 16 M	7153.16000	22	56	
A-E 20 M	7153.20000	29	68	
A-E 25 M	7153.25000	36	70	

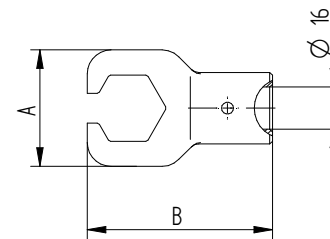
A-E MX				
A-E 8 MX	7158.08000	12	53	
A-E 11 MX	7158.11000	17	54	
A-E 16 MX	7158.16000	22	56	
A-E 20 MX	7158.20000	29	68	
A-E 25 MX	7158.25000	36	70	

A-E MS				
A-E 8 MS	7154.08000	19	51	
A-E 11 MS	7154.11000	22	57	
A-E 16 MS	7154.16000	33	60	
A-E 20 MS	7154.20000	42	73	

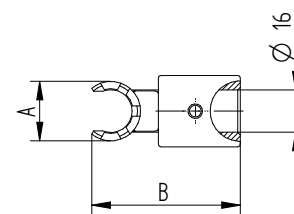
A-E AX				
A-E 11 AX	7157.11000	16	62	
A-E 16 AX	7157.16000	22	63	
A-E 20 AX	7157.20000	26	64	
A-E 25 AX	7157.25000	29	93	



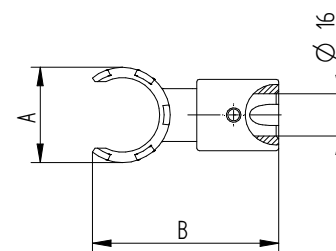
A-E



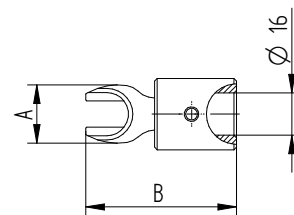
A-E P



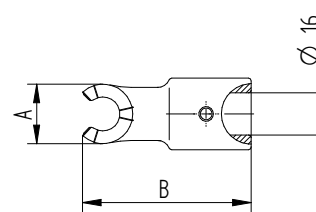
A-E M



A-E MX



A-E MS



A-E AX

Torque wrenches TORCO-FIX

Freewheel wrench heads A-FLS

Grip bar for wrench heads G-A

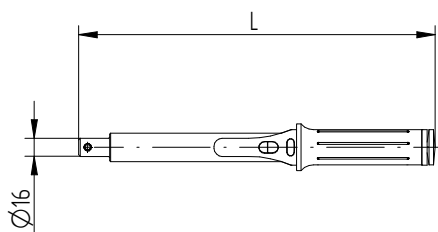
Type	Part no.	L1 [mm]	Range [Nm]	Range [ft-lbs]
TORCO-FIX				
TORCO-FIX 0	7150.02025	290	5–25	3.5–18
TORCO-FIX I	7150.05050	335	10–50	7.5–36.5
TORCO-FIX II	7150.20200	465	40–200	26.5–147
TORCO-FIX III	7150.60300	565	60–300	44.5–221

Type	Part no.	D [mm]	D1 [mm]
Grip bar for wrench heads G-A			
G-A	7655.99900	308	–
G-AS	7655.99500	120	–

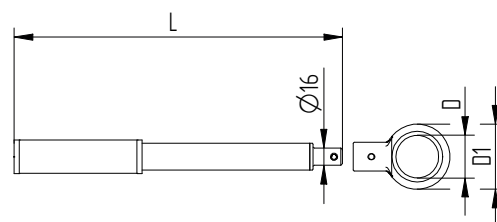
Expert advice

Grip bar short G-AS is specially designed to be used with:

- A-FLS \varnothing 16 / MR 11
- A-FLS \varnothing 24 / MRM 16
- A-FLS \varnothing 28 / MR 16



TORCO-FIX



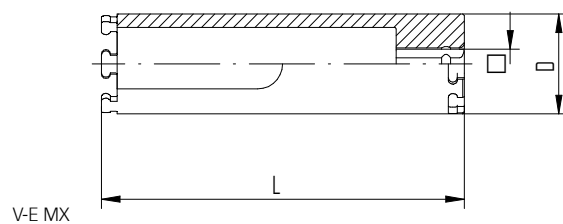
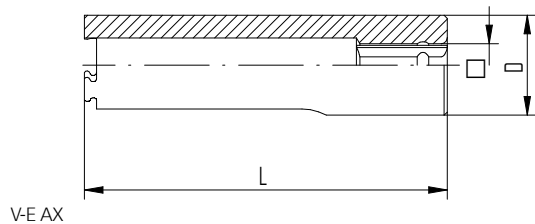
G-A / G-AS with A-FLS

Slip-off proof extension V-E AX for E AX and A-E AX

Slip-off proof extension V-E MX for E MX and A-E MX

Type	Part no.	D [mm]	L [mm]	Square □	
				[mm]	[inch]
V-E AX					
V-E 11 AX	7155.11000	16.5	60	6.35	1/4"
V-E 16 AX	7155.16000	22.5	80	6.35	1/4"
V-E 20 AX	7155.20000	26	95	9.525	3/8"
V-E 25 AX	7155.25000	29.5	105	12.7	1/2"

Type	Part no.	D [mm]	L [mm]	Square □	
				[mm]	[inch]
V-E MX					
V-E 8 MX	7159.08000	17	60	6.35	1/4"
V-E 11 MX	7159.11000	17	60	6.35	1/4"
V-E 16 MX	7159.16000	22.5	80	6.35	1/4"
V-E 20 MX	7159.20000	29	95	12.7	1/2"
V-E 25 MX	7159.25000	35	105	19.05	3/4"



ZWT

ZZT

DSR

CTPG

Trays for ER collet sets ZWT

Trays for ER collet sets ZZT [inch]

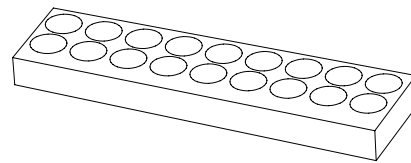
Trays for sealing disk sets DSR

Type	Part no.	fits ... items
Trays for ER collet sets ZWT		
ZWT 8	7121.08000	9
ZWT 11	7121.11000	13
ZWT 16	7121.16000	10
ZWT 20	7121.20000	12
ZWT 25	7121.25000	15

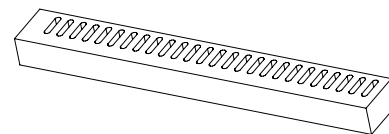
Trays for ER collet sets ZZT*		
ZZT 8	7121.08300	9
ZZT 11	7121.11300	13
ZZT 16	7121.16300	10
ZZT 20	7121.20300	12
ZZT 25	7121.25300	15

*USA only

Trays for sealing disk sets DSR		
DSR 16	7122.16000	14
DSR 20	7122.20000	20
DSR 25	7122.25000	26



ZWT / ZZT



DSR



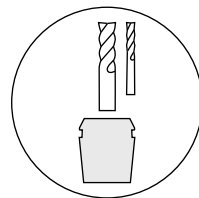
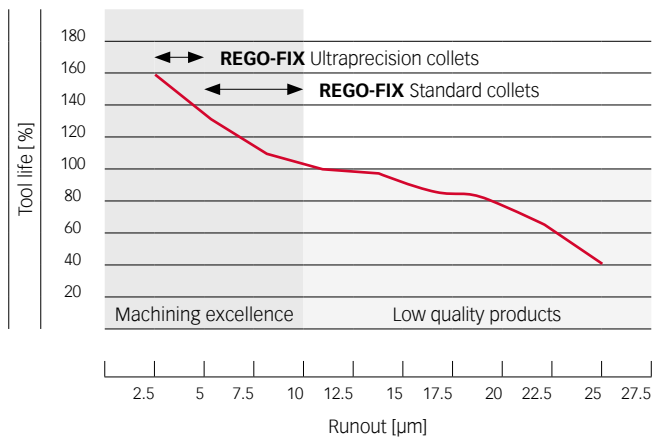
Defining toolholding standards

When REGO-FIX first introduced the ER System in 1972, it took the machining world by storm. With the DIN 6499 standardization twenty years later, the REGO-FIX ER collet became the industry standard. Today, the ER System is still the most used toolholding system worldwide.

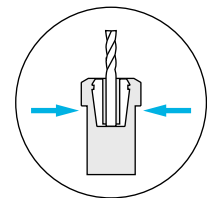
High quality matters An outstanding tool runout is one of the most positive influences on enhancing your tool life.

Extend tool life with the REGO-FIX ER range

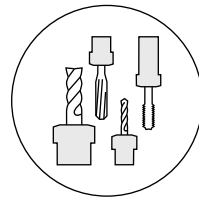
Influence of tool runout on tool life / Source: In-house testing



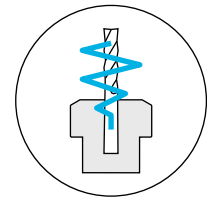
The widest ER product range: clamps all diameters from 0.2 mm–36 mm.



Safe and accurate toolholding of all shank types and materials.



Outstanding flexibility for use with all tool types.



High vibration-damping results in longer tool life and best surface finish.

Successful clamping since 1972

Combine our ER toolholders with our ER collets to ensure maximum precision and balance to maximize your tool life. All our products bear the REGO-FIX triangle – our seal for outstanding Swiss quality.

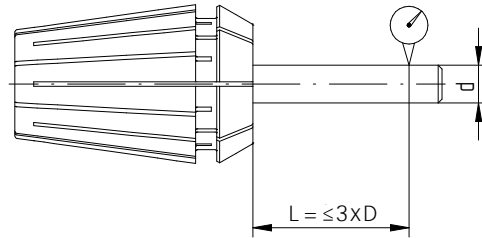
Meet highest requirements defined by Swiss standards Swiss people are known to be humble and conservative: All our measuring data are to be considered as maximum values. Many other manufacturers are showing the common

measured total internal runout (TIR average). With us, you get maximum guaranteed values – To your advantage most of the values are even considerably lower.

Runout TIR of ER standard, ER-UP and MR collets

Clamping diameter d [mm]			TIR max. [mm]			
>	≤	L	DIN 6499			
			ISO 15488 B	ΔER std.	ΔER-UP	ΔMR
1	1.6	6	0.015	0.01	0.005	0.002
1.6	3	10	0.015	0.01	0.005	0.002
3	6	16	0.015	0.01	0.005	0.002
6	10	25	0.015	0.01	0.005	0.002
10	18	40	0.02	0.01	0.005	0.002
18	26	50	0.02	0.01	0.005	0.002
26	36	60	0.025	0.01	0.005	0.002

$L = \leq 3 \times D$



Key advantages

Rely on the original

Wide clamping range

The slot design allows for a wide clamping range with best runout TIR along the entire clamping range.

Broad range of products

We offer sizes from ER 8 up to ER 50 and diameters from 0.2 mm up to 36 mm.

Up to 20% more clamping length

Improve your runout with up to 20% more clamping length in smaller diameters.

Matched tooling system for best fit

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

The unbeatable advantages from the inventor of the ER collet

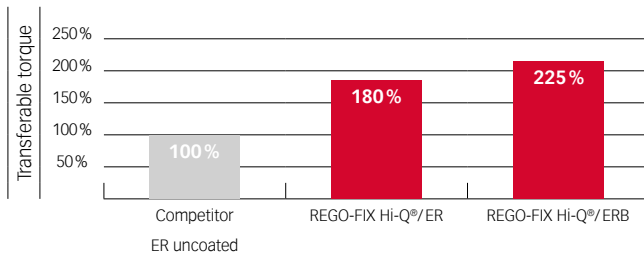
Wide selection available

- // Includes friction-bearing for higher clamping force
- // Available with sealing disk for coolant through tools
- // Mini nut with minimal external diameter
- // Clamping nut for high rpm
- // Externally threaded clamping nut for floating chucks, ERA Zero-Z[®] toolholder and live tooling
- // Slip-off proof mini clamping nut intRlox[®] for safe assembling

Torque comparison of different clamping nuts

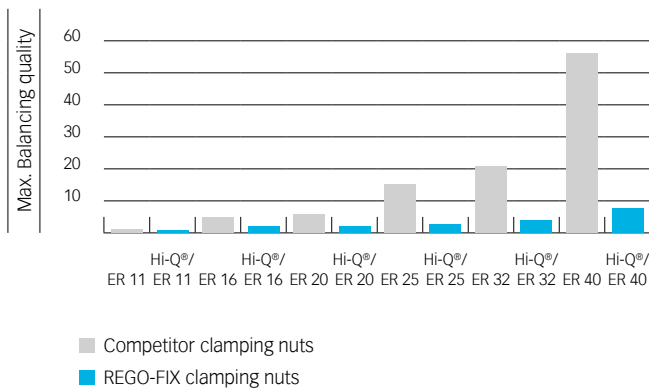
REGO-FIX Hi-Q[®]/ER and Hi-Q[®]/ERB vs. competitor nuts

Source: In-house testing



Balancing quality overview

REGO-FIX clamping nuts vs. competitor nuts / Source: In-house testing



Key advantages

ER System

Collet locking system

Retains collet in nut for easier assembly.

Balancing

Ideal for high-speed applications.

Higher transferable torque

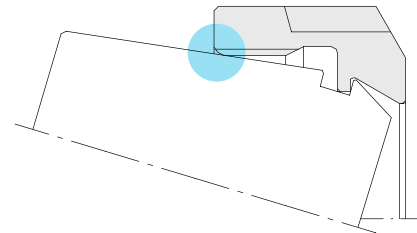
Lower frictional forces resulting in up to 80% higher gripping force over standard non-treated clamping nuts. With friction bearing nut up to 125%.

Protection against corrosion

With a special surface treatment for longer life.

Optimal contour

Rounded thread start prevents damaging of collets on tool changes.



Swiss quality standard

Our products marked Swiss made are manufactured at our headquarters in Tenniken, Switzerland.

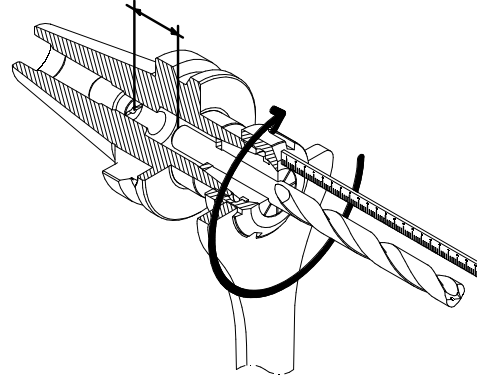
Instructions for correct clamping of tool shanks

Note

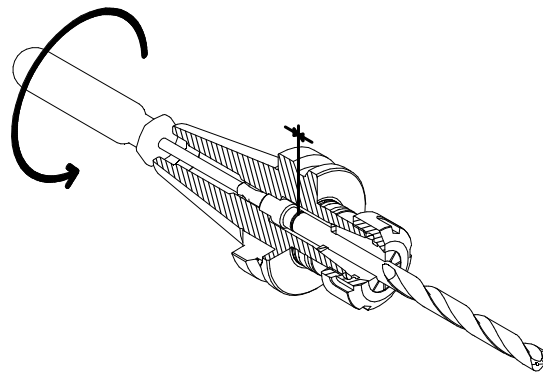
- // ER collet chucks – Exception: Toolholders with cylindrical shanks – are supplied without stop screws
- // Stop screws are supplied upon request
- // If ordering stop screw, specifying part no. (XXXX.XXXXX) and LOT no. (YYY). YYY of the toolholder is mandatory

Advice

- // Stop screws are used to secure tool shanks against axial displacement and may not be used as length adjustment screws
- // For trouble-free operation of the ER collet system, clamp tool shank first, then set stop screw
- // Incorrect handling of the stop screw may reduce runout accuracy and clamping force of the collet system
- // The use of stop screws may increase imbalance of the collet system



Set tool length with clearance to the stop screw, then clamp tool.

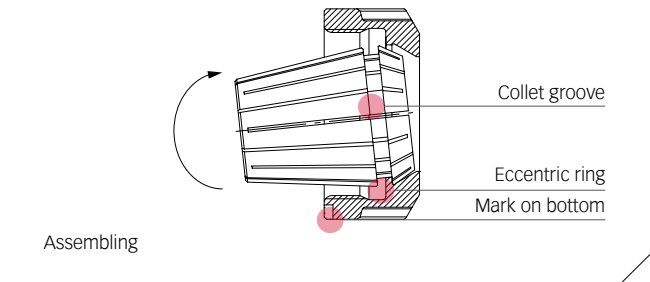


Apply stop screw to tool shank.

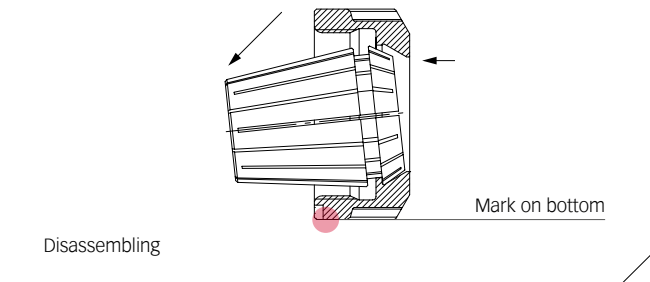
Assembly instructions for ER and MR collets

Collets ER 11–ER 50 and MR 11–MR 32 (with collet locking system)

Assembling Insert groove of the collet into eccentric ring of the clamping nut at the mark on the bottom of the nut. Push collet in the direction of the arrow until it clicks in. Insert tool. Screw nut with collet onto toolholder.



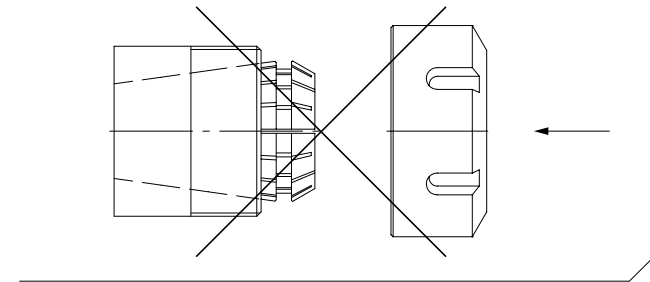
Disassembling After the nut is unscrewed from the toolholder, press on the face of the collet while simultaneously pushing sideways on the back of the collet opposite the mark until it disengages from the clamping nut.



Important Improper assembly can permanently damage the runout TIR of the collet and may result in the destruction of the clamping nut. Only mount nuts with correctly inserted collets. Never place the collet into the holder without first assembling into the nut.

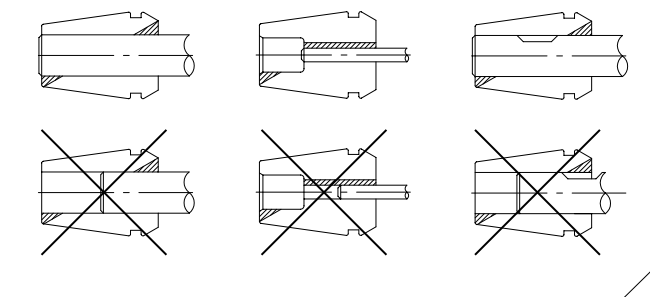
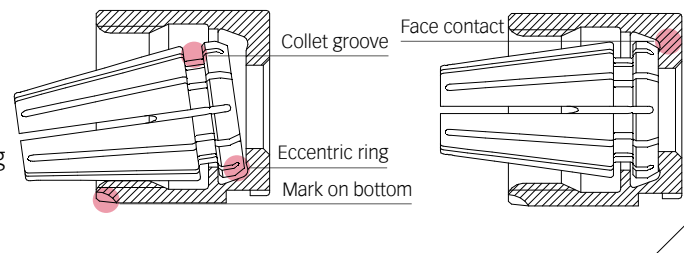
Collets ER 8 (without collet locking system)

Assembling Insert groove of the collet into eccentric ring of the clamping nut at the mark on the bottom of the nut. Insert tool. Hold nut with collet in horizontal position and screw onto toolholder.



Important The face of the ER 8 collet chuck must fit cleanly against the inner surface of the clamping nut. (ER 8 collets do not feature a 30° cone.)

Disassembling After unscrewing the clamping nut from the tool holder, the collet can easily be removed from the clamping nut.



Expert advice

Never insert the tool less than $\frac{2}{3}$ of the collet length. We recommend tightening the clamping nuts with our TORCO-BLOCK or torque wrench.

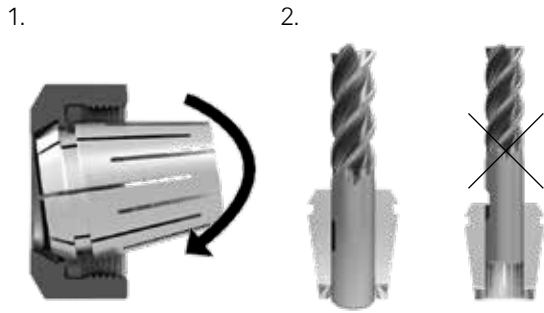
For tightening torque recommendations, please refer to page 96.

Increase collet and tool life

Optimize your surface finishes and extend tool life by minimizing occurring vibrations during machining.

Always assemble correctly

First, clip the collet in the nut. Second, insert the tool shank more than $\frac{1}{4}$ into the collet.



Listen to the click

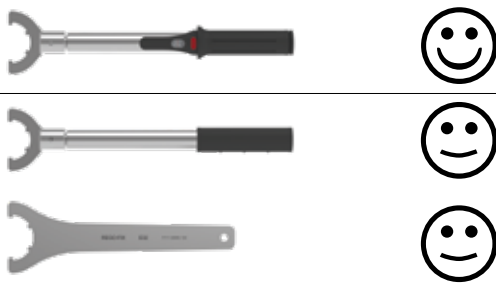
Do not tighten the torque wrench further after the first click is heard.



Get your TORCO-FIX. Check page <?> for order details.

Only use REGO-FIX wrenches

To mount the collet in the toolholder please use one of these special wrenches- preferably the torque wrench, since it displays the amount of applied force.



Regular wrenches can also be used. Be aware that only the torque wrench will display the exact amount of applied force, making it the most exact tool to mount toolholders professionally.

Never use any extensions or hammers



Recommended tightening torque for ER and MR clamping nuts

Maximum torques for retention knobs (ft-lbs)

		Hi-Q®/ER clamping nuts												
		ER/ERC		ERB/ERBC		ERM/ERMC		ERMX/ERMXC		ERAX/ERAXC		ER MS		
		Collets [ft-lbs]										Collets [ft-lbs]		
Collet size	Ø [mm]	Ø [decimal inch]	ER*	ER-GB	ER*	ER-GB	ER*	ER-GB	ER*	ER-GB	ER*	ER-GB	ER*	TORCO-FIX*
ER 8 MB	0.2–0.9	0.0078–0.035	–	–	–	–	4	–	4	–	–	–	4	Micro
ER 8	1.0–5.0	0.039–0.196	–	–	–	–	4	–	4	–	–	–	4	Micro
ER 11 MB	0.2–0.9	0.0078–0.035	6	–	–	–	6	–	6	–	6	–	6	Micro, S
ER 11	1.0–2.9	0.039–0.098	6	6	–	–	6	6	6	6	6	6	7	Micro, S
	3.0–7.0	0.118–0.256	24	16	–	–	16	13	16	13	24	21	7	Micro, S
ER 16 MB	0.2–0.9	0.0078–0.035	6	–	–	–	6	–	6	–	6	–	9	Micro, S
ER 16	1.0	0.039	6	–	5	–	6	–	6	–	6	–	9	Micro, S
	1.5–3.5	0.059–0.138	15	–	12	–	15	–	15	–	15	–	15	Micro, S
	4.0–4.5	0.157–0.177	30	30	25	25	18	–	18	–	30	30	15	S, M
	5.0–10.0	0.197–0.394	46	32	40	21	18	–	18	–	30	30	–	M
ER 20	1.0	0.039	12	–	10	–	12	–	12	–	12	–	9	Micro, S
	1.5–6.5	0.059–0.256	25	25	20	20	21	21	21	21	40	25	14	S, M
	7.0–13.0	0.276–0.512	60	60	60	60	21	21	21	21	40	25	14	S, M
ER 25	1.0–3.5	0.059–0.138	18	–	15	–	18	–	18	–	18	–	–	S, M
	4.0–4.5	0.157–0.177	40	40	35	35	24	24	24	24	40	40	–	S, M
	5.0–7.5	0.196–0.295	60	60	55	55	24	24	24	24	60	60	–	M, L
	8.0–17.0	0.315–0.669	80	60	80	60	24	24	24	24	60	60	–	M, L
ER 32	2.0–2.5	0.078–0.098	18	18	15	–	–	–	–	–	20	–	–	S, M
	3.0–7.5	0.118–0.291	100	100	95	65	–	–	–	–	80	65	–	M, L
	8.0–22.0	0.315–0.787	100	100	100	65	–	–	–	–	80	65	–	M, L
ER 40	3.0–26.0	0.118–1.023	130	130	130	130	–	–	–	–	95	95	–	M, L
ER 50	6.0–36.0	0.236–1.417	180	220	180	220	–	–	–	–	–	–	–	L

*Includes ER standard and ER-UP

		micRun® clamping nuts							
		MR/MRC		MRM/MRMC					
		micRun® collets							
Collet size	Ø [mm]	Ø [decimal inch]	MR	MRC	MRM	MRMC	Steep taper	maximum tightening torque	
MR 11	1.0–2.9	0.039–0.098	6	6	–	–	SK, BT, CAT 30	18 ft-lbs	
	3.0–7.0	0.118–0.256	12	12	–	–	SK, BT, CAT 40	36-ft-lbs	
MR 16	1.0	0.039	6	6	6	6	SK, BT, CAT 50	72 ft-lbs	
	1.5–3.5	0.059–0.138	15	15	15	15			
	4.0–4.5	0.157–0.177	30	30	18	18			
	5.0–10.0	0.197–0.394	41	41	18	18			
MR 20	1.0	0.039	12	12	–	–			
	1.5–6.5	0.059–0.256	24	24	–	–			
	7.0–13.0	0.276–0.512	60	60	–	–			
MR 25	1.0–3.5	0.059–0.138	18	18	–	–			
	4.0–4.5	0.157–0.177	42	42	–	–			
	5.0–7.5	0.196–0.295	60	60	–	–			
	8.0–17.0	0.315–0.669	78	78	–	–			
MR 32	2.0–2.5	0.078–0.098	18	18	–	–			
	3.0–22.0	0.118–0.2917	100	100	–	–			

Higher tightening torques can lead to deformation of the steep taper and therefore to bad runout!

Recommended tightening torque for ER and MR clamping nuts

Maximum torques for retention knobs (Nm)

			Hi-Q®/ER clamping nuts											
			ER/ERC		ERB/ERBC		ERM/ERMC		ERMx/ERMxC		ERAX/ERAXC		ER MS	
			Collets [Nm]										Collets [Nm]	
Collet size	Ø [mm]	Ø [decimal inch]	ER*	ER-GB	ER*	ER-GB	ER*	ER-GB	ER*	ER-GB	ER*	ER-GB	ER*	TORCO-FIX
ER 8 MB	0.2–0.9	0.0078–0.035	–	–	–	–	6	–	6	–	–	–	6	0
ER 8	1.0–5.0	0.039–0.196	–	–	–	–	6	–	6	–	–	–	6	0
ER 11 MB	0.2–0.9	0.0078–0.035	8	–	–	–	8	–	8	–	8	–	8	0, I
ER 11	1.0–2.9	0.039–0.098	8	8	–	–	8	8	8	8	8	8	10	0, I
	3.0–7.0	0.118–0.256	24	16	–	–	16	13	16	13	24	21	10	0, I
ER 16 MB	0.2–0.9	0.0078–0.035	8	–	–	–	8	–	8	–	8	–	12	0, I
ER 16	1.0	0.039	8	–	6.4	–	8	–	8	–	8	–	12	0, I
	1.5–3.5	0.059–0.138	20	–	16	–	20	–	20	–	20	–	20	0, I
	4.0–4.5	0.157–0.177	40	40	32	32	24	–	24	–	40	40	20	I, II
	5.0–10.0	0.197–0.394	56	44	56	44	24	–	24	–	40	40	20	II
ER 20	1.0	0.039	16	–	12	–	16	–	16	–	16	–	12	0, I
	1.5–6.5	0.059–0.256	32	32	24	24	28	28	28	28	52	35	20	I, II
	7.0–13.0	0.276–0.512	80	35	80	24	28	28	28	28	52	35	20	I, II
ER 25	1.0–3.5	0.059–0.138	24	–	20	–	24	–	24	–	24	–	–	I, II
	4.0–4.5	0.157–0.177	56	56	48	48	32	32	32	32	56	56	–	I, II
	5.0–7.5	0.196–0.295	80	80	72	72	32	32	32	32	80	80	–	II, III
	8.0–17.0	0.315–0.669	104	80	104	79	32	32	32	32	80	80	–	II, III
ER 32	2.0–2.5	0.078–0.098	24	24	20	–	–	–	–	–	24	–	–	I, II
	3.0–7.5	0.118–0.291	136	136	128	90	–	–	–	–	104	90	–	II, III
	8.0–22.0	0.315–0.787	136	136	136	90	–	–	–	–	104	90	–	II, III
ER 40	3.0–26.0	0.118–1.023	176	176	176	176	–	–	–	–	128	128	–	II, III
ER 50	6.0–36.0	0.236–1.417	240	300	240	300	–	–	–	–	–	–	–	III

*Includes ER standard and ER-UP

			micRun® clamping nuts					
			MR/MRC		MRM/MRMC			
			micRun® collets [Nm]					
Collet size	Ø [mm]	Ø [decimal inch]	MR	MRC	MRM	MRMC	Steep taper	maximum tightening torque
MR 11	1.0–2.9	0.039–0.098	8	8	–	–	SK, BT, CAT 30	25 Nm
	3.0–7.0	0.118–0.256	16	16	–	–	SK, BT, CAT 40	50 Nm
MR 16	1.0	0.039	8	8	8	8	SK, BT, CAT 50	100 Nm
	1.5–3.5	0.059–0.138	20	20	20	20		
	4.0–4.5	0.157–0.177	40	40	24	24		
	5.0–10.0	0.197–0.394	56	56	24	24		
MR 25	1.0–3.5	0.059–0.138	24	24	–	–		
	4.0–4.5	0.157–0.177	56	56	–	–		
	5.0–7.5	0.196–0.295	80	80	–	–		
	8.0–17.0	0.315–0.669	104	80	–	–		
MR 32	2.0–2.5	0.078–0.098	24	24	–	–		
	3.0–22.0	0.118–0.2917	136	136	–	–		

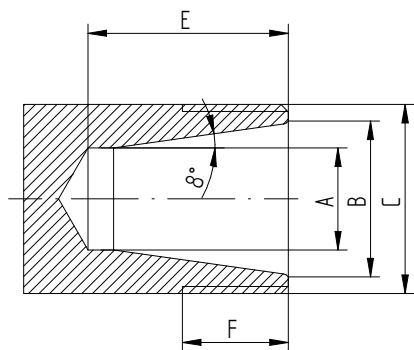
Higher tightening torques can lead to deformation of the steep taper!

Expert advice

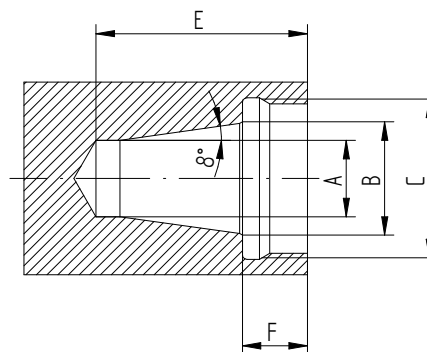
We recommend tightening the clamping nuts with our TORCO-BLOCK or torque wrench.

Dimensions for ER collet cavities in machine spindles and matching clamping nuts

ER size	Diameter range [mm]	Hi-Q®										Measurements [mm]				
		ER	ERC	ERB	ERBC	ERM	ERMC	ERMx	ERMxC	AX	AXC	A	B	C	E	F
11	0.5–7.0	•	•	–	–	–	–	–	–	–	–	7.5	11	M 14 x 0.75	17	10
16	0.5–10.0	•	•	•	•	–	–	–	–	–	–	10.5	16	M 22 x 1.5	22	13
20	0.5–13.0	•	•	•	•	–	–	–	–	–	–	13.5	20	M 25 x 1.5	26.5	13.5
25	0.5–17.0	•	•	•	•	–	–	–	–	–	–	18.0	25	M 32 x 1.5	29	14
32	1.0–22.0	•	•	•	•	–	–	–	–	–	–	23.5	32	M 40 x 1.5	34	16
40	2.0–30.0	•	•	•	•	–	–	–	–	–	–	30.5	40	M 50 x 1.5	38	17
50	4.0–36.0	•	•	•	•	–	–	–	–	–	–	38	50	M 64 x 2	48	24
8	0.5–5.0	–	–	–	–	•	–	•	–	–	–	5.2	8	M 10 x 0.75	13	8
11	0.5–7.0	–	–	–	–	•	•	•	•	–	–	7.5	11	M 13 x 0.75	17	8.5
16	0.5–10.0	–	–	–	–	•	•	•	•	–	–	10.5	16	M 19 x 1	22	13
20	0.5–13.0	–	–	–	–	•	•	•	•	–	–	13.5	20	M 24 x 1	26.5	13.5
25	0.5–17.0	–	–	–	–	•	•	•	•	–	–	18	25	M 30 x 1	29	14
11	0.5–7.0	–	–	–	–	–	–	–	–	•	–	7.5	11	M 18 x 1	23	7
16	0.5–10.0	–	–	–	–	–	–	–	–	•	•	10.5	16	M 24 x 1	32	10
20	0.5–13.0	–	–	–	–	–	–	–	–	•	•	13.5	20	M 28 x 1.5	37.5	11
25	0.5–17.0	–	–	–	–	–	–	–	–	•	•	18	25	M 32 x 1.5	41	12
32	1.0–22.0	–	–	–	–	–	–	–	–	•	•	23.5	32	M 40 x 1.5	48	12
40	2.0–30.0	–	–	–	–	–	–	–	–	•	•	30.5	40	M 50 x 1.5	54	16



All other standard ER cavities



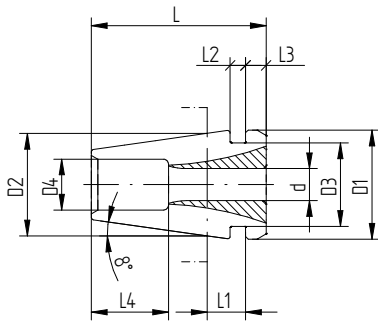
ER AX and ER AXc cavities

ER collets dimensions

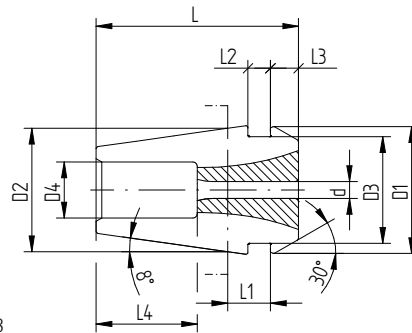
Size [mm]	Measurements [mm]										Drawing
D2	d	D1	D2	D3	D4	L	L1**	L2	L3	L4	
ER 8	1.0-2.5	8.5	8	6.5	4	13.6	2.98	1.2	1.5	6	1
ER 8	3.0-5.0	8.5	8	6.5	-	13.6	2.98	1.2	1.5	-	2
ER 11	1.0-2.5	11.5	11	9.5	5	18	3.8	2	2.5	9	3
ER 11	3.0-7.0	11.5	11	9.5	-	18	3.8	2	2.5	-	4
ER 16	1.0-1.59	17	16	13.8	7.5	27.5	6.26	2.7	4	13	3
ER 16	2.0-4.76	17	16	13.8	7.5	27.5	6.26	2.7	4	10	3
ER 16	5.0-10.0	17	16	13.8	-	27.5	6.26	2.7	4	-	4
ER 16	9.5-10.0	17	16	13.8	-	26*	6.26	2.7	4	-	4
ER 20	1.0-1.59	21	20	17.4	9	31.5	6.36	2.8	4.8	16	3
ER 20	2.0-6.50	21	20	17.4	9	31.5	6.36	2.8	4.8	13	3
ER 20	7.0-13.0	21	20	17.4	-	31.5	6.36	2.8	4.8	-	4
ER 25	1.0-1.59	26	25	22	12	34	6.66	3.1	5	18	3
ER 25	2.0-7.50	26	25	22	12	34	6.66	3.1	5	15	3
ER 25	8.0-17.0	26	25	22	-	34	6.66	3.1	5	-	4
ER 32	2.0-4.76	33	32	29.2	15	40	7.16	3.6	5.5	20	3
ER 32	5.0-7.5	33	32	29.2	15	40	7.16	3.6	5.5	15	3
ER 32	8.0-22.0	33	32	29.2	-	40	7.16	3.6	5.5	-	4
ER 40	3.0-4.76	41	40	36.2	20	46	7.66	4.1	7	24	3
ER 40	5.0-8.5	41	40	36.2	20	46	7.66	4.1	7	18	3
ER 40	9.0-30.0	41	40	36.2	-	46	7.66	4.1	7	-	4
ER 50	6.0-10.0	52	50	46	20	60	12.6	5.5	8.5	32	3
ER 50	12.0-36.0	52	50	46	-	60	12.6	5.5	8.5	-	4

*Up to 27.5 available, depending on production

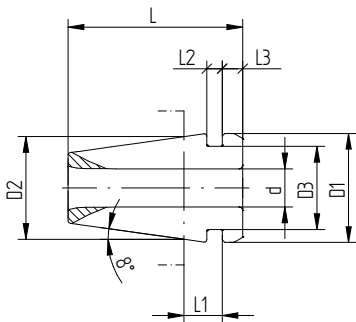
**L1 references to the top length of the ER collet in the toolholder.



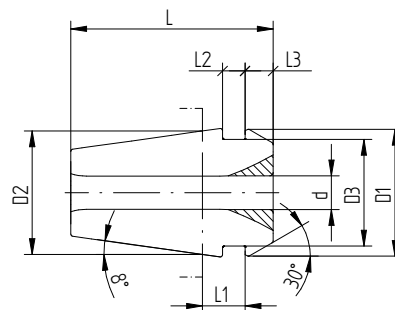
Drawing 1



Drawing 3



Drawing 2



Drawing 4

Technical information for tapping collets ER-GB

		ER 11-GB	ER 16-GB	ER 20-GB	ER 25-GB	ER 32-GB	ER 40-GB	ER 50-GB								
		L = 18.0 L1 = 2.0 D1 = 11.3 D2 = 11.0	L = 27.5 L1 = 2.7 D1 = 16.8 D2 = 16.0	L = 31.5 L1 = 2.8 D1 = 20.8 D2 = 20.0	L = 34.0 L1 = 3.1 D1 = 25.8 D2 = 25.0	L = 40.0 L1 = 3.6 D1 = 32.8 D2 = 32.0	L = 46.0 L1 = 4.1 D1 = 40.8 D2 = 40.0	L = 60.0 L1 = 8.75 D1 = 51.8 D2 = 51.0								
<i>x: not available</i>		L2	L3	D3	L3	D3	L3	D3	L3	D3	L3	D3	L3	D3	L3	D3
d	SW	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]
[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]
2.5	2.1	12	2.8	4.0	x	x	x	x	x	x	x	x	x	x	x	x
2.8	2.1	12	2.8	4.0	x	x	x	x	x	x	x	x	x	x	x	x
3.5	2.7	14	1.8	4.5	x	x	x	x	x	x	x	x	x	x	x	x
4	3	14	-	-	x	x	x	x	x	x	x	x	x	x	x	x
4	3.15/ 3.2	ER 11=14 ER 16-32=15	-	-	4.8	7.5	9.8	9	11.8	12	17.8	15	x	x	x	x
4.5	3.4	ER 11=14 ER 16-32=15	-	-	4.8	7.5	9.8	9	11.8	12	17.8	15	x	x	x	x
5	4	ER 11=14 ER 16-32=18	-	-	4.8	7.5	9.8	9	11.8	12	17.8	15	x	x	x	x
5.5	4.3	18	-	-	4.8	7.5	9.8	9	11.8	12	17.8	15	x	x	x	x
5.5	4.5	18	-	-	4.8	7.5	9.8	9	11.8	12	17.8	15	x	x	x	x
6	4.5	18	-	-	4.8	7.5	8.8	9	10.8	12	16.8	15	22.8	20	x	x
6	4.9	ER 11=14 ER 16-40=18	-	-	4.8	7.5	8.8	9	10.8	12	16.8	15	22.8	20	x	x
6.2	5	18	x	x	4.8	7.5	8.8	9	10.8	12	16.8	15	22.8	20	x	x
6.3	5	18	x	x	4.8	7.5	8.8	9	10.8	12	16.8	15	22.8	20	x	x
7	5.5	18	x	x	3.8	8.0	7.8	9	9.8	12	15.8	15	21.8	20	x	x
7.1	5.6	18	x	x	3.8	8.0	7.8	9	9.8	12	15.8	15	21.8	20	x	x
8	6.2/ 6.3	22	x	x	-	-	2.8	10	4.8	12	10.8	15	16.8	20	x	x
8.5	6.5	22	x	x	-	-	2.8	10	4.8	12	10.8	15	16.8	20	x	x
9	7/ 7.1	22	x	x	-	-	2.8	10	3.8	12	9.8	15	15.8	20	x	x
10	8	25	x	x	x	x	-	-	-	-	6.8	15	12.8	20	x	x
10.5	8	25	x	x	x	x	-	-	-	-	6.8	15	12.8	20	x	x
11	9	25	x	x	x	x	-	-	-	-	5.8	15	11.8	20	x	x
11.2	9	25	x	x	x	x	-	-	-	-	5.8	15	11.8	20	x	x
12	9	25	x	x	x	x	-	-	-	-	5.8	15	11.8	20	x	x
12.5	10	25	x	x	x	x	x	x	-	-	4.8	15	10.8	20	x	x
14	11/ 11.2	25	x	x	x	x	x	x	-	-	3.8	17	9.8	20	x	x
15	12	25	x	x	x	x	x	x	-	-	3.8	17	9.8	20	x	x
16	12/ 12.5	25	x	x	x	x	x	x	-	-	2.8	18	8.8	20	x	x
17	13	25	x	x	x	x	x	x	x	x	2.8	19.5	8.8	20	x	x
18	14.5	25	x	x	x	x	x	x	x	x	2.8	21	7.8	21	x	x
20	16	28	x	x	x	x	x	x	x	x	2.8	21.5	3.8	22	x	x
22	18	ER 40 = 28 ER 50 = 41	x	x	x	x	x	x	x	x	-	-	3.8	24	x	x
25	20	41	x	x	x	x	x	x	x	x	x	x	-	-	-	-
28	22	41	x	x	x	x	x	x	x	x	x	x	x	x	-	-
32	24	41	x	x	x	x	x	x	x	x	x	x	x	x	-	-

Type	Measurements [mm]							
	d	D1	D2	L	L1	L2	L3	L4
PCM ET1-12	3.55	7	11.5	18	16.5	2.5	5	5.5
PCM ET1-16	6.3	11	17	22	20	2.8	7	7
PCM ET1-20	7.1	14	21	24	23	2.8	8	7
PCM ET1-25	10	19	26	26	24	3	10	8
PCM ET1-32	12.5	23	33	33	32	3	1	10
PCM ET1-40	17	28	41	42	42	3	12	13

Expert advice

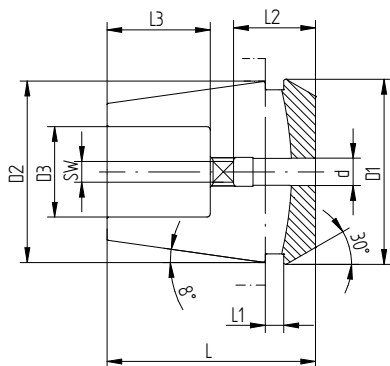
Do not use for coolant through tools and for applications with sealing disks.

Technical information for microbore collets

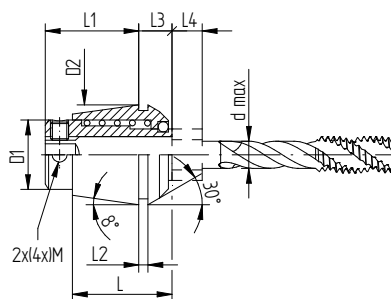
Type	Measurements [mm]									
	d	D1	D2	D3	D4	L	L1	L2	L3	L4
ER 8-MB	0.2-0.9	8.5	8	6.5	4	13.5	1.2	1.2	1.5	6
ER 11-MB	0.2-0.9	11.5	11	9.5	5	18	2	2	2.5	9
ER 16-MB	0.2-0.9	17	16	13.8	7.5	27.5	6.3	2.7	4	13

Expert advice

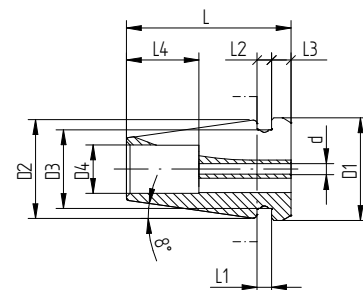
ER-MB collets have no clamping range. Only nominal diameters h7 can be clamped.



ER-GB, page 42




PCM ET1



ER-MB

REGO-FIX▲

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