

ER Coolant Options

Metallic Sealed Collets (DM/ER)

Coolant Flush Disk System (KS/ER)

Coolant Disk System (DS/ER)

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Swiss
Precision
Tools



REGO-FIX

ER | DM Metallic Sealed

patented # US 5,904,451

Designed and patented by REGO-FIX, our metallic sealed collets will seal the tool to the collet and the collet to the toolholder. A perfect fit good for 2000 psi coolant pressure through the tool. These collets also feature industry best TIR of 0.0002" (Ultra Precision quality standard). Why settle for copies when you can have the original?

Inch ER 11 - ER 40

Ø [Inch]	Clamping Capacity [Inch] [mm]		ER 11 DM Part No.	ER 16 DM Part No.	ER 20 DM Part No.	ER 25 DM Part No.	ER 32 DM Part No.	ER 40 DM Part No.
1/8	0.1250	3.18	1211.03182*	1216.03182*	1220.03182*			
5/32	0.1562	3.97		1216.03972*	1220.03972*			
3/16	0.1875	4.76	1211.04762*	1216.04762*	1220.04762*			
7/32	0.2187	5.55	1211.05562	1216.05562	1220.05562*	1225.05562*		
1/4	0.2500	6.35	1211.06352	1216.06352	1220.06352*	1225.06352*	1232.06352*	1240.06352*
9/32	0.2812	7.14		1216.07142	1220.07142	1225.07142	1232.07142*	
5/16	0.3125	7.94		1216.07942	1220.07942	1225.07942	1232.07942	
11/32	0.3437	8.73		1216.08732	1220.08732	1225.08732	1232.08732	
3/8	0.3750	9.53		1216.09532	1220.09532	1225.09532	1232.09532	1240.09532
13/32	0.4062	10.32		1216.10322	1220.10322	1225.10322	1232.10322	
7/16	0.4375	11.11			1220.11112	1225.11112	1232.11112	1240.11112
15/32	0.4687	11.91			1220.11912	1225.11912	1232.11912	
1/2	0.5000	12.70			1220.12702	1225.12702	1232.12702	1240.12702
17/32	0.5312	13.49				1225.13492	1232.13492	
9/16	0.5625	14.29				1225.14292	1232.14292	1240.14292
19/32	0.5937	15.08				1225.15082	1232.15082	
5/8	0.6250	15.88				1225.15882	1232.15882	1240.15882
21/32	0.6532	16.67					1232.16672	
11/16	0.6875	17.46					1232.17462	1240.17462
23/32	0.7187	18.26					1232.18262	
3/4	0.7500	19.05					1232.19052	1240.19052
13/16	0.8125	20.64						1240.20642
7/8	0.8750	22.23						1240.22232
1	1.0000	25.40						1240.25402
Metallic Sealed Collet Sets				1216.00002	1220.00002	1225.00002	1232.00002	1240.00002

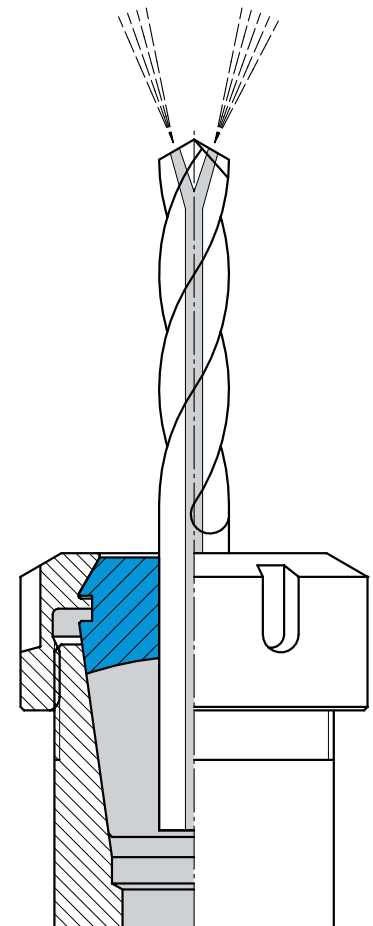
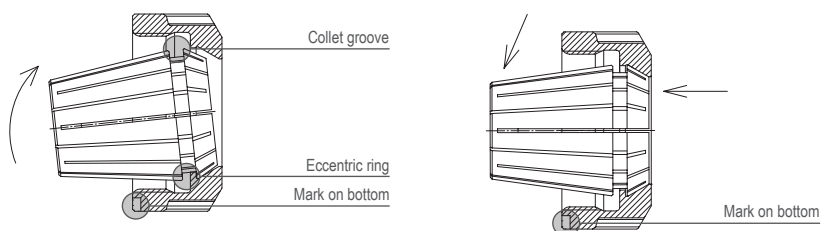
*Collets are nominal diameter only. Normal collet range for DM collets is 0.5mm (0.020")

Metric (ER 11 - ER 40)

Clamping Capacity [mm]	Clamping Capacity [Inch]	ER 11 DM Part No.	ER 16 DM Part No.	ER 20 DM Part No.	ER 25 DM Part No.	ER 32 DM Part No.	ER 40 DM Part No.
3.00	0.1181	1211.03000*	1216.03000*	1220.03000*			
4.00	0.1575	1211.04000*	1216.04000*	1220.04000*			
5.00	0.1969	1211.05000	1216.05000	1220.05000*			
6.00	0.2362	1211.06000	1216.06000	1220.06000*	1225.06000*	1232.06000*	1240.06000*
7.00	0.2756	1211.07000	1216.07000	1220.07000	1225.07000	1232.07000	
8.00	0.3150		1216.08000	1220.08000	1225.08000	1232.08000	1240.08000*
9.00	0.3543		1216.09000	1220.09000	1225.09000	1232.09000	
10.00	0.3937		1216.10000	1220.10000	1225.10000	1232.10000	1240.10000
11.00	0.4331			1220.11000	1225.11000	1232.11000	1240.11000
12.00	0.4724			1220.12000	1225.12000	1232.12000	1240.12000
13.00	0.5118			1220.13000	1225.13000	1232.13000	1240.13000
14.00	0.5512				1225.14000	1232.14000	1240.14000
15.00	0.5905				1225.15000	1232.15000	1240.15000
16.00	0.6300				1225.16000	1232.16000	1240.16000
17.00	0.6692					1232.17000	1240.17000
18.00	0.7087					1232.18000	1240.18000
19.00	0.7480					1232.19000	1240.19000
20.00	0.7874					1232.20000	1240.20000
21.00	0.8268						1240.21000
22.00	0.8661						1240.22000
23.00	0.9055						1240.23000
24.00	0.9449						1240.24000
25.00	0.9843						1240.25000
26.00	1.0236						1240.26000
Metallic Sealed Collet Sets			1216.00000	1220.00000	1225.00000	1232.00000	1240.00000

*Collets are nominal diameter only. Normal collet range for DM collets is 0.5mm (0.020")

Assembly Instructions



KS | ER Coolant Flush Disk

patented # US 2009/0047079 A1

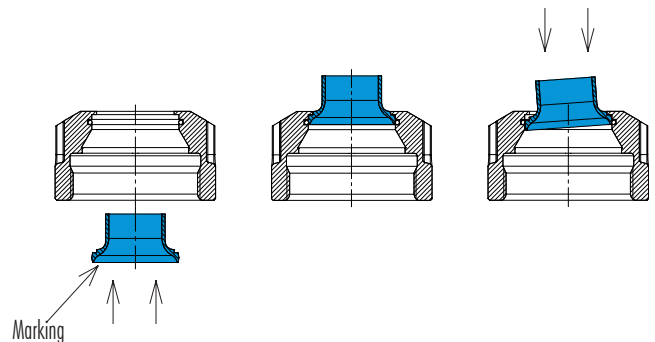


The New ER Coolant Flush Disk directs coolant down the shaft of a non-coolant through tool. The disk is designed with a slight gap between the endmill and the disk nose allowing the coolant to pass through. The disk nose acts like a directional spray nozzle, providing more coolant to the cutting tip of an endmill than just flooding coolant through the collet slots.

These disks will work with all REGO-FIX coolant nuts.

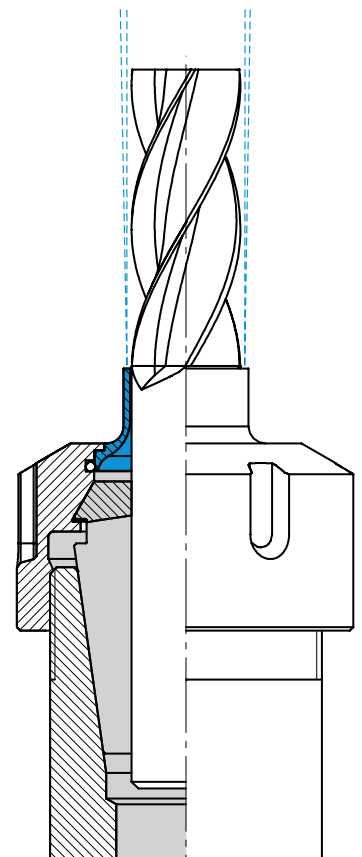
Extend tool life and get better performance from your endmills!

Assembly Instructions



Coolant Flush Disk (ER 16 - ER 32)

Nominal Size [mm]	Ø [Inch]	KS/ER 16 Part No.	KS/ER 20 Part No.	KS/ER 25 Part No.	KS/ER 32 Part No.
3.000	—	3916.20300	3920.20300	3925.20300	3932.20300
3.175	1/8"	3916.30318	3920.30318	3925.30318	3932.30318
4.000	—	3916.20400	3920.20400	3925.20400	3932.20400
4.763	3/16"	3916.30476	3920.30476	3925.30476	3932.30476
5.000	—	3916.20500	3920.20500	3925.20500	3932.20500
6.000	—	3916.20600	3920.20600	3925.20600	3932.20600
6.350	1/4"	3916.30635	3920.30635	3925.30635	3932.30635
7.000	—	3916.20700	3920.20700	3925.20700	3932.20700
7.938	5/16"	3916.30794	3920.30794	3925.30794	3932.30794
8.000	—	3916.20800	3920.20800	3925.20800	3932.20800
9.000	—	3916.20900	3920.20900	3925.20900	3932.20900
9.525	3/8"	3916.30953	3920.30953	3925.30953	3932.30953
10.000	—	3916.21000	3920.21000	3925.21000	3932.21000
11.113	7/16"	—	3920.31111	3925.31111	3932.31111
12.000	—	—	3920.21200	3925.21200	3932.21200
12.700	1/2"	—	3920.31270	3925.31270	3932.31270
14.000	—	—	—	3925.21400	3932.21400
14.288	9/16"	—	—	3925.31429	3932.31429
15.875	5/8"	—	—	3925.31588	3932.31588
16.000	—	—	—	3925.21600	3932.21600
18.000	—	—	—	—	3932.21800
19.050	3/4"	—	—	—	3932.31905
20.000	—	—	—	—	3932.22000



DS ER Coolant Disk

patented # US 7,140,616 B1



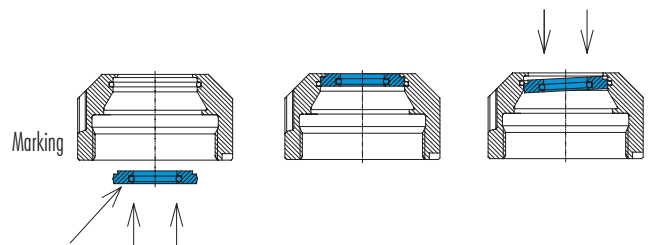
The ER Coolant Disk seals to the cutting tool and the clamping nut, forming a two (2) o-ring seal good for over 2000 psi. This seal forces all of your coolant to be directed through your tool where you need it and at the pressure you want.

The disk also acts as a shield keeping all cutting chips and debris from plugging up your collet slots, saving you time between tool changes.

These disks will work with all REGO-FIX coolant nuts.

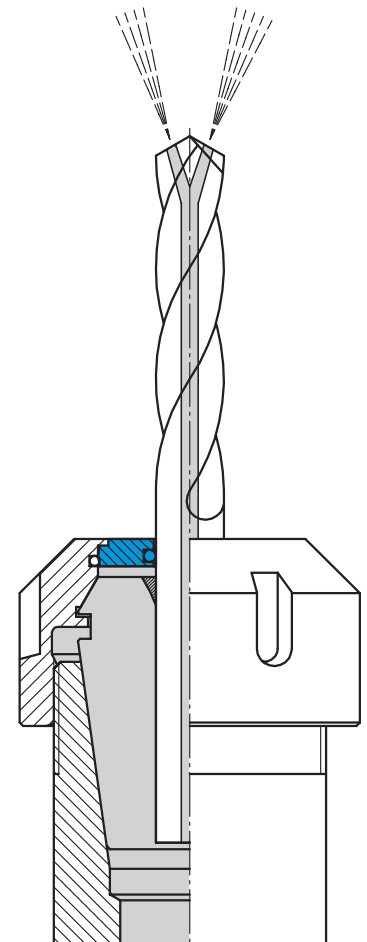
Extend tool life and get better performance from your cutting tools!

Assembly Instructions



Sealing Disks DS/ER 16 - DS/ER 32

Sealing Capacity [mm]	Sealing Capacity [Inch]	Ø [Inch]	DS/ER 16 Part No.	DS/ER 20 Part No.	DS/ER 25 Part No.	DS/ER 32 Part No.
3.00 – 2.50	0.1181 – 0.0984	3/32"	3916.00300	3920.00300	3925.00300	3932.00300
3.50 – 3.00	0.1378 – 0.1181	1/8"	3916.00350*	3920.00350*	3925.00350*	3932.00350*
4.00 – 3.50	0.1575 – 0.1378	5/32"	3916.00400*	3920.00400*	3925.00400*	3932.00400*
4.50 – 4.00	0.1772 – 0.1575		3916.00450*	3920.00450*	3925.00450*	3932.00450*
5.00 – 4.50	0.1969 – 0.1772	3/16"	3916.00500*	3920.00500*	3925.00500*	3932.00500*
5.50 – 5.00	0.2165 – 0.1969	7/32"	3916.00550*	3920.00550*	3925.00550*	3932.00550*
6.00 – 5.50	0.2362 – 0.2165		3916.00600*	3920.00600*	3925.00600*	3932.00600*
6.50 – 6.00	0.2559 – 0.2362	1/4"	3916.00650*	3920.00650*	3925.00650*	3932.00650*
7.00 – 6.50	0.2756 – 0.2559		3916.00700*	3920.00700*	3925.00700*	3932.00700*
7.50 – 7.00	0.2953 – 0.2756	9/32"	3916.00750*	3920.00750*	3925.00750*	3932.00750*
8.00 – 7.50	0.3150 – 0.2953	5/16"	3916.00800*	3920.00800*	3925.00800*	3932.00800*
8.50 – 8.00	0.3347 – 0.3150		3916.00850*	3920.00850*	3925.00850*	3932.00850*
9.00 – 8.50	0.3543 – 0.3347	11/32"	3916.00900*	3920.00900*	3925.00900*	3932.00900*
9.50 – 9.00	0.3740 – 0.3543	3/8"	3916.00950*	3920.00950*	3925.00950*	3932.00950*
10.00 – 9.50	0.3937 – 0.3740		3916.01000*	3920.01000*	3925.01000*	3932.01000*
10.50 – 10.00	0.4134 – 0.3937	13/32"	–	3920.01050*	3925.01050*	3932.01050*
11.00 – 10.50	0.4330 – 0.4134		–	3920.01100*	3925.01100*	3932.01100*
11.50 – 11.00	0.4528 – 0.4330	7/16"	–	3920.01150*	3925.01150*	3932.01150*
12.00 – 11.50	0.4724 – 0.4528	15/32"	–	3920.01200*	3925.01200*	3932.01200*
12.50 – 12.00	0.4921 – 0.4724		–	3920.01250*	3925.01250*	3932.01250*
13.00 – 12.50	0.5118 – 0.4921	1/2"	–	3920.01300*	3925.01300*	3932.01300*
13.50 – 13.00	0.5315 – 0.5118	17/32"			3925.01350*	3932.01350*
14.00 – 13.50	0.5512 – 0.5315				3925.01400*	3932.01400*
14.50 – 14.00	0.5709 – 0.5512	9/16"			3925.01450*	3932.01450*
15.00 – 14.50	0.5905 – 0.5709				3925.01500*	3932.01500*
15.50 – 15.00	0.6102 – 0.5905	19/32"			3925.01550*	3932.01550*
16.00 – 15.50	0.6300 – 0.6102	5/8"			3925.01600*	3932.01600*
16.50 – 16.00	0.6496 – 0.6300				–	3932.01650*
17.00 – 16.50	0.6693 – 0.6496	21/32"			–	3932.01700*
17.50 – 17.00	0.6890 – 0.6693	11/16"			–	3932.01750*
18.00 – 17.50	0.7087 – 0.6890				–	3932.01800*
18.50 – 18.00	0.7284 – 0.7087	23/32"			–	3932.01850*
19.00 – 18.50	0.7480 – 0.7284	3/4"			–	3932.01900*
19.50 – 19.00	0.7677 – 0.7480				–	3932.01950*
20.00 – 19.50	0.7874 – 0.7677	25/32"			–	3932.02000*



DS | ER Coolant Disk

patented # US 7,140,616 B1

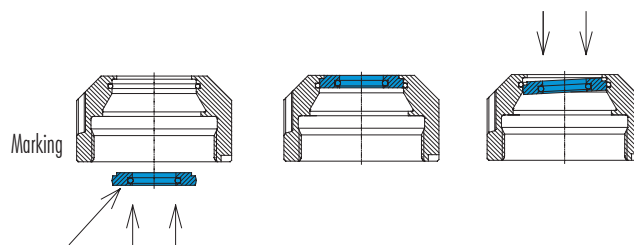
Sealing Disks DS/ER 40

Sealing Capacity [mm]	Sealing Capacity [Inch]	Ø [Inch]	DS/ER 40 Part No.
3.00 – 2.50	0.1181 – 0.0984	3/32"	3940.00300
3.50 – 3.00	0.1378 – 0.1181	1/8"	3940.00350*
4.00 – 3.50	0.1575 – 0.1378	5/32"	3940.00400*
4.50 – 4.00	0.1772 – 0.1575		3940.00450*
5.00 – 4.50	0.1969 – 0.1772	3/16"	3940.00500*
5.50 – 5.00	0.2165 – 0.1969	7/32"	3940.00550*
6.00 – 5.50	0.2362 – 0.2165		3940.00600*
6.50 – 6.00	0.2559 – 0.2362	1/4"	3940.00650*
7.00 – 6.50	0.2756 – 0.2559		3940.00700*
7.50 – 7.00	0.2953 – 0.2756	9/32"	3940.00750*
8.00 – 7.50	0.3150 – 0.2953	5/16"	3940.00800*
8.50 – 8.00	0.3347 – 0.3150		3940.00850*
9.00 – 8.50	0.3543 – 0.3347	11/32"	3940.00900*
9.50 – 9.00	0.3740 – 0.3543	3/8"	3940.00950*
10.00 – 9.50	0.3937 – 0.3740		3940.01000*
10.50 – 10.00	0.4134 – 0.3937	13/32"	3940.01050*
11.00 – 10.50	0.4330 – 0.4134		3940.01100*
11.50 – 11.00	0.4528 – 0.4330	7/16"	3940.01150*
12.00 – 11.50	0.4724 – 0.4528	15/32"	3940.01200*
12.50 – 12.00	0.4921 – 0.4724		3940.01250*
13.00 – 12.50	0.5118 – 0.4921	1/2"	3940.01300*
13.50 – 13.00	0.5315 – 0.5118	17/32"	3940.01350*
14.00 – 13.50	0.5512 – 0.5315		3940.01400*
14.50 – 14.00	0.5709 – 0.5512	9/16"	3940.01450*

Sealing Capacity [mm]	Sealing Capacity [Inch]	Ø [Inch]	DS/ER 40 Part No.
15.00 – 14.50	0.5905 – 0.5709		3940.01500*
15.50 – 15.00	0.6102 – 0.5905	19/32"	3940.01550*
16.00 – 15.50	0.6300 – 0.6102	5/8"	3940.01600*
16.50 – 16.00	0.6496 – 0.6300		3940.01650*
17.00 – 16.50	0.6693 – 0.6496	21/32"	3940.01700*
17.50 – 17.00	0.6890 – 0.6693	11/16"	3940.01750*
18.00 – 17.50	0.7087 – 0.6890		3940.01800*
18.50 – 18.00	0.7283 – 0.7087	23/32"	3940.01850*
19.00 – 18.50	0.7480 – 0.7283	3/4"	3940.01900*
19.50 – 19.00	0.7677 – 0.7480		3940.01950*
20.00 – 19.50	0.7874 – 0.7677	25/32"	3940.02000*
20.50 – 20.00	0.8071 – 0.7874		3940.02050*
21.00 – 20.50	0.8268 – 0.8071	13/16"	3940.02100*
21.50 – 21.00	0.8465 – 0.8268	27/32"	3940.02150*
22.00 – 21.50	0.8661 – 0.8465		3940.02200*
22.50 – 22.00	0.8858 – 0.8661	7/8"	3940.02250*
23.00 – 22.50	0.9055 – 0.8858	29/32"	3940.02300*
23.50 – 23.00	0.9252 – 0.9055		3940.02350*
24.00 – 23.50	0.9449 – 0.9252	15/16"	3940.02400*
24.50 – 24.00	0.9646 – 0.9449		3940.02450*
25.00 – 24.50	0.9843 – 0.9646	31/32"	3940.02500*
25.50 – 25.00	1.0039 – 0.9843	1"	3940.02550*
26.00 – 25.50	1.0236 – 1.0039		3940.02600*

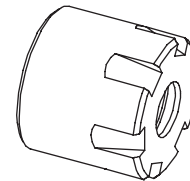
*Included in sealing disk set.

Assembly Instructions



ER 11 | Coolant Nuts

ER 11 series coolant nuts with built-in o-ring seal for coolant through the tool applications

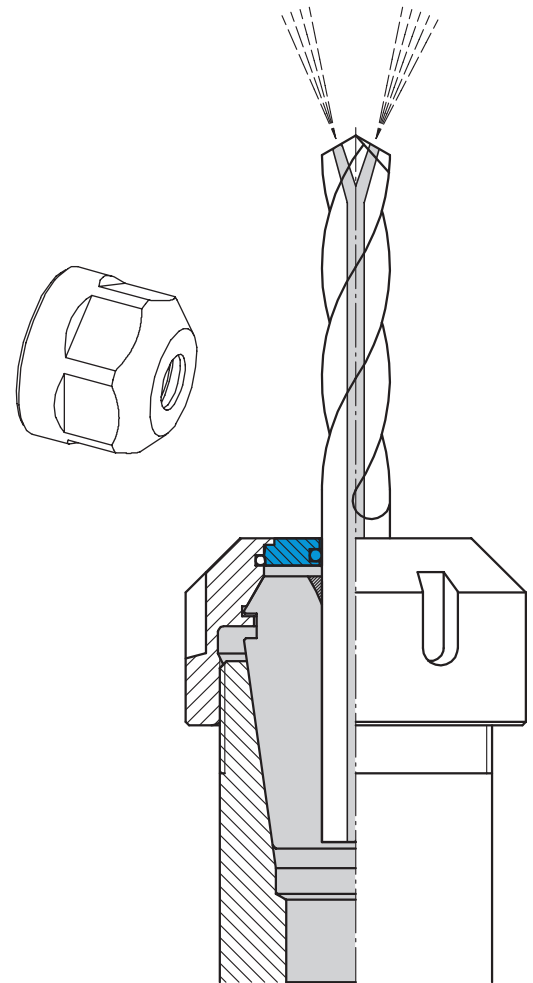


ER 11 Mini Coolant Sealing Nuts

Type	Part No.	Sealing Capacity [mm]	Sealing Capacity [Inch]	Ø [Inch]	Wrench
Hi-Q/ERMC 11 Ø 3.0 mm	3511.20300	3.00 – 2.50	0.1181 – 0.0984	3/32"	7113.11000
Hi-Q/ERMC 11 Ø 3.5 mm	3511.20350	3.50 – 3.00	0.1378 – 0.1181	1/8"	7113.11000
Hi-Q/ERMC 11 Ø 4.0 mm	3511.20400	4.00 – 3.50	0.1575 – 0.1378	5/32"	7113.11000
Hi-Q/ERMC 11 Ø 4.5 mm	3511.20450	4.50 – 4.00	0.1772 – 0.1575	–	7113.11000
Hi-Q/ERMC 11 Ø 5.0 mm	3511.20500	5.00 – 4.50	0.1969 – 0.1772	3/16"	7113.11000
Hi-Q/ERMC 11 Ø 5.5 mm	3511.20550	5.50 – 5.00	0.2165 – 0.1969	7/32"	7113.11000
Hi-Q/ERMC 11 Ø 6.0 mm	3511.20600	6.00 – 5.50	0.2362 – 0.2165	–	7113.11000
Hi-Q/ERMC 11 Ø 6.5 mm	3511.20650	6.50 – 6.00	0.2559 – 0.2362	1/4"	7113.11000
Hi-Q/ERMC 11 Ø 7.0 mm	3511.20700	7.00 – 6.50	0.2756 – 0.2559	–	7113.11000

ER 11 Standard Coolant Sealing Nuts

Type	Part No.	Sealing Capacity [mm]	Sealing Capacity [Inch]	Ø [Inch]	Wrench
Hi-Q/ERC 11 Ø 3.0 mm	3411.20300	3.00 – 2.50	0.1181 – 0.0984	3/32"	7112.11010
Hi-Q/ERC 11 Ø 3.5 mm	3411.20350	3.50 – 3.00	0.1378 – 0.1181	1/8"	7112.11010
Hi-Q/ERC 11 Ø 4.0 mm	3411.20400	4.00 – 3.50	0.1575 – 0.1378	5/32"	7112.11010
Hi-Q/ERC 11 Ø 4.5 mm	3411.20450	4.50 – 4.00	0.1772 – 0.1575	–	7112.11010
Hi-Q/ERC 11 Ø 5.0 mm	3411.20500	5.00 – 4.50	0.1969 – 0.1772	3/16"	7112.11010
Hi-Q/ERC 11 Ø 5.5 mm	3411.20550	5.50 – 5.00	0.2165 – 0.1969	7/32"	7112.11010
Hi-Q/ERC 11 Ø 6.0 mm	3411.20600	6.00 – 5.50	0.2362 – 0.2165	–	7112.11010
Hi-Q/ERC 11 Ø 6.5 mm	3411.20650	6.50 – 6.00	0.2559 – 0.2362	1/4"	7112.11010
Hi-Q/ERC 11 Ø 7.0 mm	3411.20700	7.00 – 6.50	0.2756 – 0.2559	–	7112.11010



ER | Coolant Nuts



The Hi-Q®/ER coolant clamping nuts are intended for use with the sealing disk system DS/ER and the coolant flush system KS/ER. These systems allow the use of all standard ER collets, ultra precision collets and tapping collets to be used in coolant applications.

Up to 2000 psi Coolant Pressure

Features

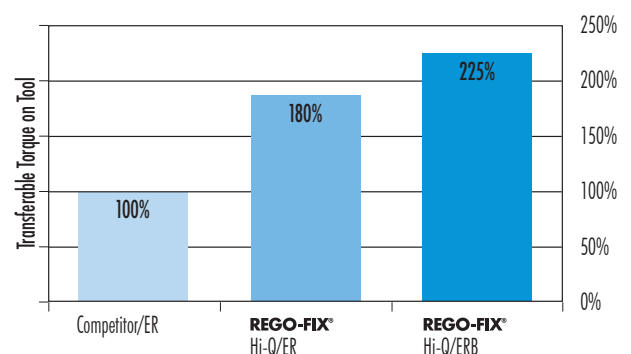
- Collet locking feature to keep the collet from coming out during assembly.
- Balanced by design for high speed machining.
- Special corrosion resistant treatment to reduce the friction between the collet and nut which increases clamping force by up to 120%.



Improper assembly can permanently damage the concentricity of the collet and may result in damage to the clamping nut.

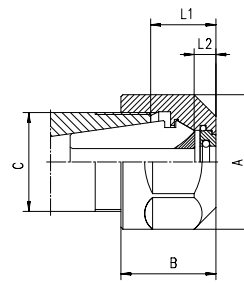
Only assemble nuts with correctly inserted collets! Never place the collet into the holder without first assembling into the nut.

Torque Comparison of Clamping Nuts

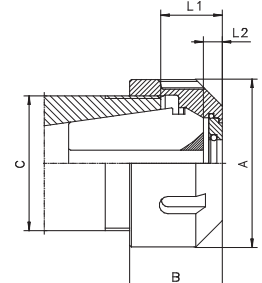


Standard Coolant Nuts ER 16 - ER 40

Type	Part No.	A [mm]	B [mm]	C	L1 [mm]	L2 [mm]	Drawing	Wrench
Hi-Q/ERC 11	See page 8							7112.11010
Hi-Q/ERC 16	3416.20000	28	22.5	M 22 x 1.50	12.0 – 15.5	5.0	1	7112.16010
Hi-Q/ERC 20	3420.20000	34	24.0	M 25 x 1.50	13.0 – 16.5	5.0	1	7112.20010
Hi-Q/ERC 25	3425.20000	42	25.0	M 32 x 1.50	13.5 – 17.0	5.0	2	7111.25000
Hi-Q/ERC 32	3432.20000	50	27.5	M 40 x 1.50	14.5 – 18.0	5.0	2	7111.32000
Hi-Q/ERC 40	3440.20000	63	30.5	M 50 x 1.50	16.5 – 20.0	5.0	2	7111.40000



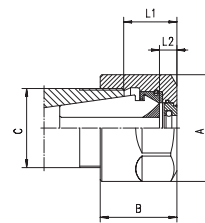
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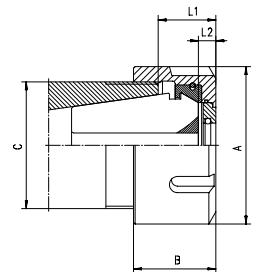
2

Friction Bearing Coolant Nuts ER 16 - ER 40

Type	Part No.	A [mm]	B [mm]	C	L1 [mm]	L2 [mm]	Drawing	Wrench
Hi-Q/ERBC 16	3416.40000	28	22.7	M 22 x 1.50	12.5 – 16.0	5.5	3	7112.16010
Hi-Q/ERBC 20	3420.40000	34	24.2	M 25 x 1.50	13.5 – 17.0	5.5	3	7112.20010
Hi-Q/ERBC 25	3425.40000	42	25.2	M 32 x 1.50	14.0 – 17.5	5.5	4	7111.25000
Hi-Q/ERBC 32	3432.40000	50	27.4	M 40 x 1.50	15.0 – 18.5	5.5	4	7111.32000
Hi-Q/ERBC 40	3440.40000	63	30.7	M 50 x 1.50	17.0 – 20.5	5.5	4	7111.40000



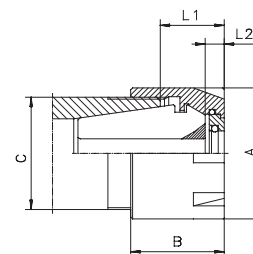
3



4

Mini-Coolant Nuts ER 16 - ER 25

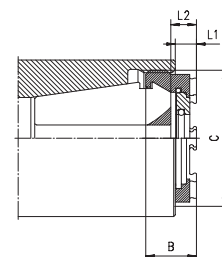
Type	Part No.	A [mm]	B [mm]	C	L1 [mm]	L2 [mm]	Drawing	Wrench
Hi-Q/ERMC 11	See page 8							7113.11000
Hi-Q/ERMC 16	3516.20000	22	22.0	M 19 x 1.00	11.5 – 15.0	4.5	5	7113.16000
Hi-Q/ERMC 20	3520.20000	28	24.0	M 24 x 1.00	13.0 – 16.5	5.0	5	7113.20000
Hi-Q/ERMC 25	3525.20000	35	25.0	M 30 x 1.00	13.5 – 17.0	5.0	5	7113.25000



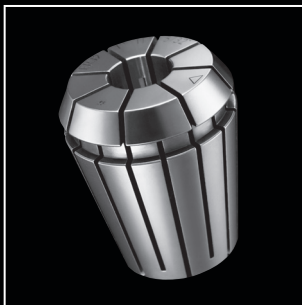
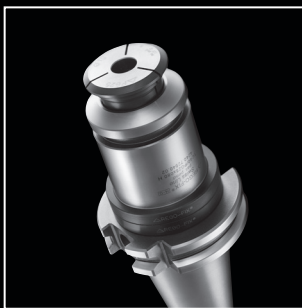
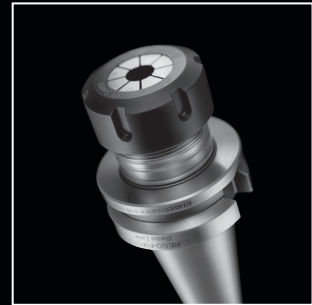
5

Externally Threaded Coolant Nuts ER 16 - ER 40

Type	Part No.	B [mm]	C	L1 [mm]	L2 [mm]	Drawing	Wrench
Hi-Q/ERAXC 16	3316.70000	12.5	M 24 x 1.00	3.1 – 7.5	7.2	6	7117.16000
Hi-Q/ERAXC 20	3320.70000	13.5	M 28 x 1.50	3.1 – 7.5	7.3	6	7117.20000
Hi-Q/ERAXC 25	3325.70000	13.8	M 32 x 1.50	2.5 – 6.9	7.3	6	7117.25000
Hi-Q/ERAXC 32	3332.70000	14.9	M 40 x 1.50	1.8 – 6.2	7.6	6	7117.32000
Hi-Q/ERAXC 40	3340.70000	16.6	M 50 x 1.50	1.5 – 5.9	7.3	6	7117.40000



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