





## Collets Reduction Sleeves

# 2

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### Reduction Sleeves

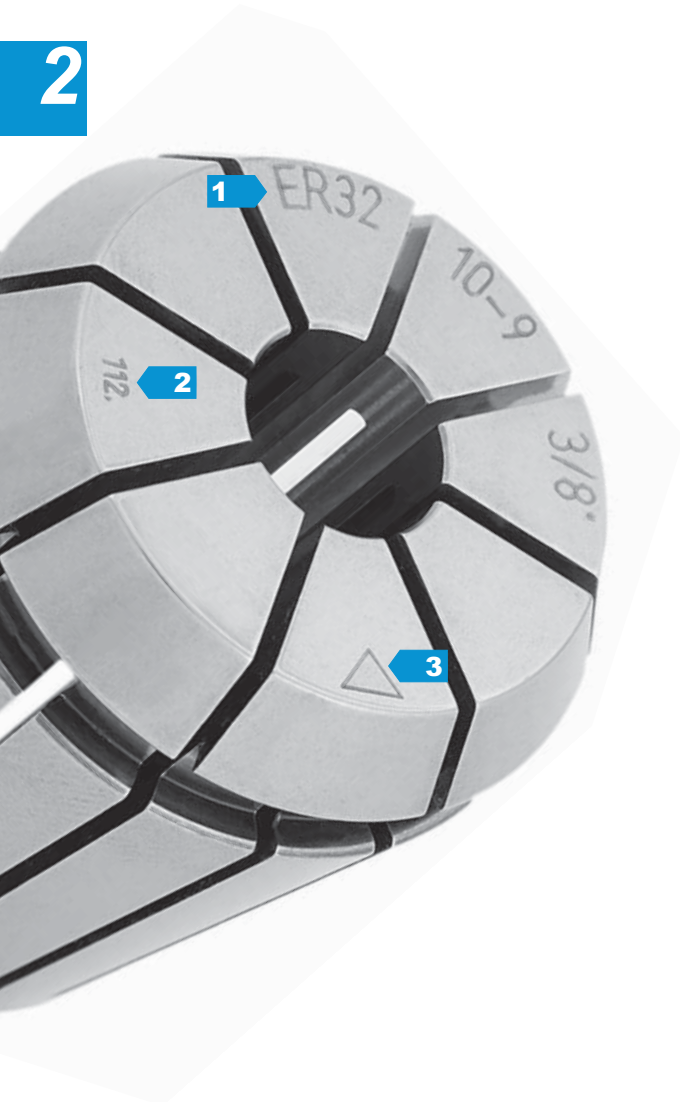
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# ER Collets

## Features | Benefits



### Swiss Quality

Made in Switzerland to ISO 9001/ISO 14001.

#### 1 Marking

Type and size (reduced collet selection errors).

#### 2 Traceability

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

#### 3 Original REGO-FIX®

REGO-FIX® is the inventor of the worldwide standardized ER collet system. Our extensive experience results in a well-engineered system. When buying ER collets please note the REGO-FIX® quality seal  $\triangle$  on the front of the collet.

### Wide Clamping Range

The 16-slot design allows a wide clamping range with a continued best T.I.R. (Total Indicated Runout)

### Broad Range of Products

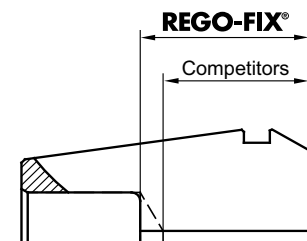
Sizes from ER 8 up to ER 50 for diameters from 0.2 mm up to 36 mm.

### Worldwide Availability

With the global REGO-FIX® distribution network.

### Up to 20% more Clamping Length

For small diameters, up to 20% more clamping length than the competition, which results in better run-out.

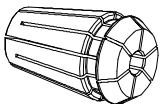


### Matched Tooling System

All REGO-FIX® components such as collets, toolholders, clamping nuts and spanners are from one source. The compatibility of the whole system results in the maximum precision, balance and tool life.

! When buying ER collets please note the REGO-FIX® quality seal  $\triangle$  on the front of the collet!

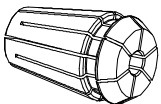
### REGO-FIX® ER Collets



#### ER Standard Collets

REGO-FIX® collets made to DIN 6499 Form B are used for drilling, milling, reaming, tapping and also for grinding.

- T.I.R.  $\leq 10 \mu\text{m}$  over the entire clamping range
- Clamping range from diameter 0.2 mm up to 36 mm
- Clamping range to DIN 6499/ISO 15488 Form B
- Combining the smallest design with the highest precision

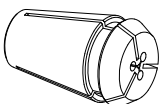


#### ER-UP Ultra Precision Collets

REGO-FIX® high precision collets combine the advantages of DIN 6499/ISO 15488 A + B.

These collets are primarily used for high-speed cutting applications, where best T.I.R. is required. Best T.I.R. improves tool life.

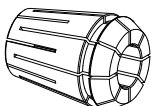
- T.I.R.  $\leq 5 \mu\text{m}$  over the entire clamping range
- Clamping range from diameter 0.2 mm up to 36 mm
- Clamping range equal to the standard collets



#### ER-MB Microbore Collets

Microbore Collets have been developed by REGO-FIX® especially for smallest tool shank diameters.

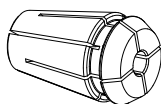
- T.I.R.  $\leq 6 \mu\text{m}$
- Clamping range from diameter 0.2 mm up to 0.9 mm
- For tool shanks with nominal diameter h7 tolerance only



#### ER-DM Metallic Sealed Collets (pat. pend.)

REGO-FIX® metallic sealed collets made to DIN 6499/ISO 15488 are used for drilling, milling, reaming, tapping and also for grinding.

- T.I.R.  $\leq 6 \mu\text{m}$  over the entire clamping range
- Clamping range from diameter 2.75 mm up to 26 mm
- Metallic sealed up to 300 bar coolant pressure
- Clamping range smaller to the standard collets



#### ER-ND High Precision Collets

Collets for high speed machining were developed from REGO-FIX® especially for the high precision toolholders for micromachining.

Usage with high precision toolholder for micromachining see page 7.13/7.14

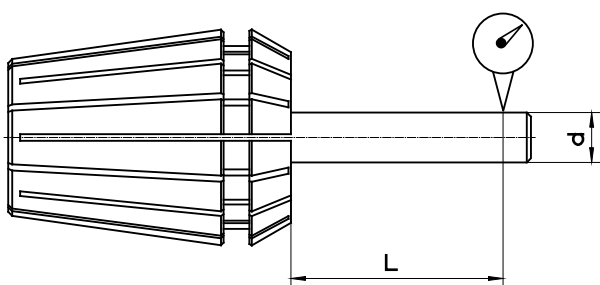
- T.I.R.  $\leq 3 \mu\text{m}$
- Clamping range from diameter 3 mm up to 6 mm
- For tool shanks with nominal diameter h9 tolerance only

# Concentricity T.I.R.

DIN 6499/ISO 15488

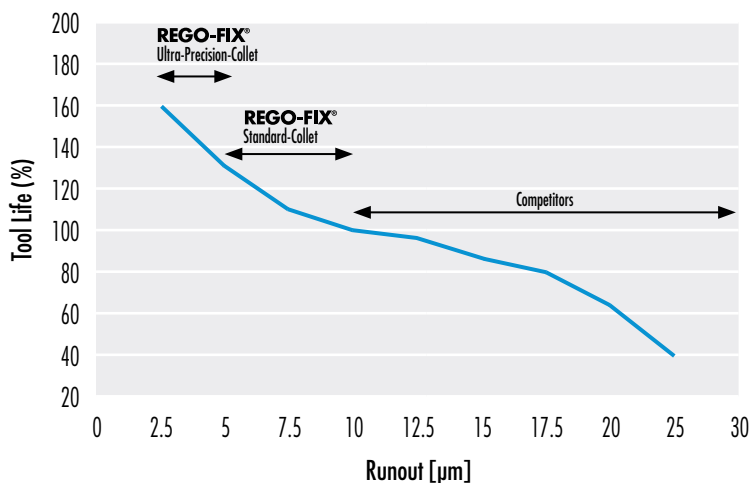
## ER (Standard) and ER-UP (Ultra-Precision)

2



Clamping diameter d [mm]			T.I.R. max. [mm]		
>	≤	L	DIN 6499/ ISO 15488 Form B	△ ER	△ ER-UP
1.0	1.6	6.0	0.015	0.010	0.005
1.6	3.0	10.0			
3.0	6.0	16.0			
6.0	10.0	25.0			
10.0	18.0	40.0	0.020	0.010	0.005
18.0	26.0	50.0			
26.0	36.0	60.0	0.025	0.010	0.015

## Influence of Tool Runout (T.I.R.) on Tool Life



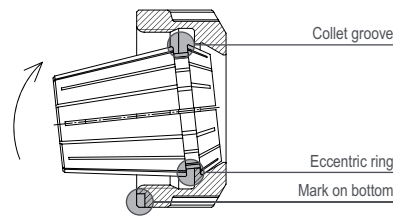
Precision is a function of the whole system of toolholder, collet and clamping nut. For best results we recommend that you use REGO-FIX® toolholders, REGO-FIX® collets and REGO-FIX® clamping nuts.

## Collets Type ER and ER-UP

### Assembling Instructions

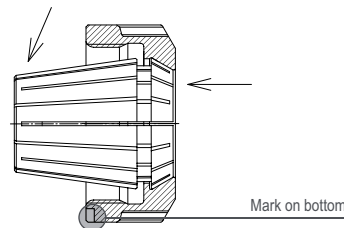
Insert groove of collet into eccentric ring of the clamping nut at the mark on the bottom of the nut. Push collet in the direction of the arrow until it clicks in place. Screw nut with collet onto toolholder. We recommend to tighten the nut with a torque wrench.

For recommended tightening torque please refer to list on page 13.3/13.4.



### Disassembly Instructions

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.

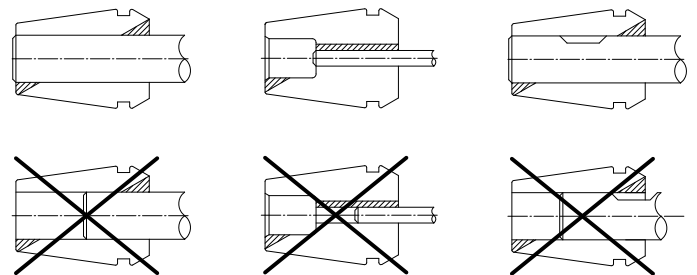
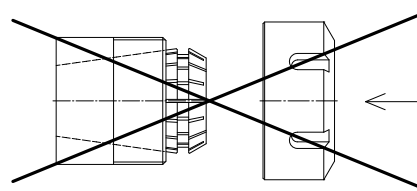


Improper assembly can permanently damage the concentricity of the collet and may result in the destruction of the clamping nut.

Only mount clamping nuts with correctly assembled collets!

Never clamp oversized tool shanks!  
E.g. never use a  $\varnothing$  12–11 mm collet to clamp a  $\varnothing$  12.2 mm shank. Rather use the next bigger collet (here  $\varnothing$  12.5–11.5 mm or 13–12 mm collet).

Insert tool to the full length of the collet for best results if possible. However never insert the tool less than  $\frac{2}{3}$  of the collet bore length. Improper tool insertion can permanently deform the collet and will result in poor runout.





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# ER

## Collets

# Matching Products

## Clamping Nuts | Spanner

Clamping Nut	Part No.	Page	Standard	With Friction Bearing	Balanced	For Coolant Through Tools	Collet Locking System	Mini-Nut	Nut with External Thread	Spanner	Part No.	Page
Hi-Q / ERM 8	3508.00000	4.12			■			■		E 8 M	7113.08000	12.1
ER 8 MS	3208.50000	4.16			■			■		E 8 MS	7114.08000	12.2

## Collet Set

### ER 8 Standard/ER 8-UP Ultra Precision

Part Description	Part No.	Clamping Capacity [mm]
SET ER 8 Ø 1.00 - 5.00 mm	1108.00000	0.50 - 5.00
SET ER 8-UP Ø 1.00 - 5.00 mm	1108.00001	0.50 - 5.00

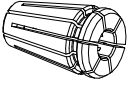
Supplied with: 9 Collets, 1 Tray ZWT/8.

## Tray

### ER 8

Part Description	Part No.	Page
ZWT / 8	7121.08000	12.5

2

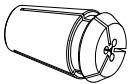


### ER 8 Standard ER 8-UP Ultra Precision

Clamping Capacity		Ø [Inch]	ER 8 Part No.	ER 8-UP Part No.
[mm]	[Inch]			
1.00 - 0.50 *	0.0394 - 0.0197	1/32"	1108.01000	1108.01001
1.50 - 1.00 *	0.0591 - 0.0394	-	1108.01500	1108.01501
2.00 - 1.50 *	0.0787 - 0.0591	1/16"	1108.02000	1108.02001
2.50 - 2.00 *	0.0984 - 0.0787	3/32"	1108.02500	1108.02501
3.00 - 2.50 *	0.1181 - 0.0984	-	1108.03000	1108.03001
3.50 - 3.00 *	0.1378 - 0.1181	1/8"	1108.03500	1108.03501
4.00 - 3.50 *	0.1575 - 0.1378	5/32"	1108.04000	1108.04001
4.50 - 4.00 *	0.1772 - 0.1575	-	1108.04500	1108.04501
5.00 - 4.50 *	0.1969 - 0.1772	3/16"	1108.05000	1108.05001

\*Included in collet set.

Additional technical information on page 13.2.



### ER 8-MB with Microbore

Clamping Capacity h7		ER 8-MB Part No.
[mm]	[Inch]	
0.2	0.0079	1308.00200
0.3	0.0118	1308.00300
0.4	0.0157	1308.00400
0.5	0.0197	1308.00500
0.6	0.0236	1308.00600
0.7	0.0276	1308.00700
0.8	0.0315	1308.00800
0.9	0.0354	1308.00900

Additional technical information on page 13.6.

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.

# Matching Products

## Clamping Nuts | Spanner

Clamping Nut	Part No.	Page	Standard	With Friction Bearing	Balanced	For Coolant Through Tools	Collet Locking System	Mini-Nut	Nut with External Thread	Spanner	Part No.	Page
Hi-Q/ER 11	3411.00000	4.4	■		■		■			E 11 P	7112.11010	12.1
Hi-Q/ERC 11	3411.20300 - 3411.20700	4.8			■	■	■			E 11 P	7112.11010	12.1
Hi-Q/ERM 11	3511.00000	4.12			■		■	■		E 11 M	7113.11000	12.1
Hi-Q/ERMC 11	3511.20300 - 3511.20700	4.14			■	■	■	■		E 11 M	7113.11000	12.1
Hi-Q/ER 11 MS	3211.50000	4.16			■			■		E 11 MS	7114.11000	12.2
Hi-Q/ERAX 11	3311.60000	4.18			■		■		■	E 11 AX	7117.11000	12.2

## Collet Set

### ER 11 Standard/ER 11-UP Ultra Precision

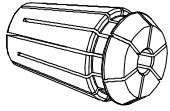
Part Description	Part No.	Clamping Capacity [mm]
SET ER 11 Ø 1.00 - 7.00 mm	1111.00000	0.50 - 7.00
SET ER 11-UP Ø 1.00 - 7.00 mm	1111.00001	0.50 - 7.00

Supplied with: 13 Collets, 1 Tray ZWT/11.

## Tray

### ER 11

Part Description	Part No.	Page
ZWT / 11	7121.11000	12.5



# ER 11 | ER 11-UP | ER 11-MB | ER 11-ND

## ER 11 Standard ER 11-UP Ultra Precision

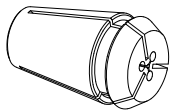
Clamping Capacity		Ø [Inch]	ER 11 Part No.	ER 11-UP Part No.
[mm]	[Inch]			
1.00 - 0.50 *	0.0394 - 0.0197	1/32"	1111.01000	1111.01001
1.50 - 1.00 *	0.0591 - 0.0394	-	1111.01500	1111.01501
2.00 - 1.50 *	0.0787 - 0.0591	1/16"	1111.02000	1111.02001
2.50 - 2.00 *	0.0984 - 0.0787	3/32"	1111.02500	1111.02501
3.00 - 2.50 *	0.1181 - 0.0984	-	1111.03000	1111.03001
3.50 - 3.00 *	0.1378 - 0.1181	1/8"	1111.03500	1111.03501
4.00 - 3.50 *	0.1575 - 0.1378	5/32"	1111.04000	1111.04001

Clamping Capacity		Ø [Inch]	ER 11 Part No.	ER 11-UP Part No.
[mm]	[Inch]			
4.50 - 4.00 *	0.1772 - 0.1575	-	1111.04500	1111.04501
5.00 - 4.50 *	0.1969 - 0.1772	3/16"	1111.05000	1111.05001
5.50 - 5.00 *	0.2165 - 0.1969	-	1111.05500	1111.05501
6.00 - 5.50 *	0.2362 - 0.2165	7/32"	1111.06000	1111.06001
6.50 - 6.00 *	0.2559 - 0.2362	1/4"	1111.06500	1111.06501
7.00 - 6.50 *	0.2756 - 0.2559	-	1111.07000	1111.07001

\*Included in collet set.

Additional technical information on page 13.2.

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## ER 11-MB with Microbore

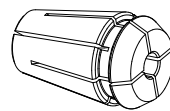
Clamping Capacity h7		ER 11-MB Part No.
[mm]	[Inch]	
0.2	0.0079	1311.00200
0.3	0.0118	1311.00300
0.4	0.0157	1311.00400
0.5	0.0197	1311.00500
0.6	0.0236	1311.00600
0.7	0.0276	1311.00700
0.8	0.0315	1311.00800
0.9	0.0354	1311.00900

Additional technical information on page 13.6.

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 11-ND High Precision Collets

Clamping Diameter h9 [mm]	ER 11-ND Part No.
3.0	1111.03005
3.175	1111.03185
4.0	1111.04005
6.0	1111.06005

Usage with high precision toolholder for micromachining see page 7.13/7.14.

Collets for high speed machining have a runout of  $3 \mu\text{m}$  and were developed from REGO-FIX® especially for the high precision toolholders for micromachining.



For tool shanks with nominal diameter h9 tolerance only.

# Matching Products

## Clamping Nuts | Spanner

Clamping Nut	Part No.	Page	Standard	With Friction Bearing	Balanced	For Coolant Through Tools	Collet Locking System	Mini-Nut	Nut with External Thread	Spanner	Part No.	Page
Hi-Q / ER 16	3416.00000	4.4	■		■		■			E 16 P	7112.16010	12.1
Hi-Q / ERC 16	3416.20000	4.6			■	■	■			E 16 P	7112.16010	12.1
Hi-Q / ERB 16	3416.30000	4.10		■	■		■			E 16 P	7112.16010	12.1
Hi-Q / ERBC 16	3416.40000	4.10		■	■	■	■			E 16 P	7112.16010	12.1
Hi-Q / ERM 16	3516.00000	4.12			■		■	■		E 16 M	7113.16000	12.1
Hi-Q / ERMC 16	3516.20000	4.12			■	■	■	■		E 16 M	7113.16000	12.1
ER 16 MS	3216.50000	4.16			■			■		E 16 MS	7114.16000	12.2
Hi-Q / ERAX 16	3316.60000	4.18			■		■		■	E 16 AX	7117.16000	12.2
Hi-Q / ERAXC 16	3316.70000	4.18			■	■	■		■	E 16 AX	7117.16000	12.2

## Collet Set

### ER 16 Standard/ER 16-UP Ultra Precision

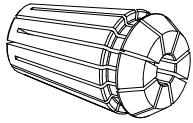
Part Description	Part No.	Clamping Capacity [mm]
SET ER 16 Ø 1.00 - 10.00 mm	1116.00000	0.50 - 10.00
SET ER 16-UP Ø 1.00 - 10.00 mm	1116.00001	0.50 - 10.00

Supplied with: 10 Collets, 1 Tray ZWT/16.

## Tray

### ER 16

Part Description	Part No.	Page
ZWT / 16	7121.16000	12.5



## ER 16 | ER 16-UP | ER 16-MB

DIN 6499 / ISO 15488

### ER 16 Standard ER 16-UP Ultra Precision

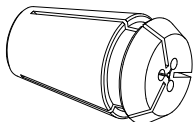
Clamping Capacity		Ø [Inch]	ER 16 Part No.	ER 16-UP Part No.
[mm]	[Inch]			
1.00 - 0.50 *	0.0394 - 0.0197	1/32"	1116.01000	1116.01001
1.50 - 1.00	0.0591 - 0.0394	-	1116.01500	1116.01501
2.00 - 1.00 *	0.0787 - 0.0394	1/16"	1116.02000	1116.02001
2.50 - 1.50	0.0984 - 0.0591	3/32"	1116.02500	1116.02501
3.00 - 2.00 *	0.1181 - 0.0787	-	1116.03000	1116.03001
3.50 - 2.50	0.1378 - 0.0984	1/8"	1116.03500	1116.03501
4.00 - 3.00 *	0.1575 - 0.1181	5/32"	1116.04000	1116.04001
4.50 - 3.50	0.1772 - 0.1378	-	1116.04500	1116.04501
5.00 - 4.00 *	0.1969 - 0.1575	3/16"	1116.05000	1116.05001
5.50 - 4.50	0.2165 - 0.1772	-	1116.05500	1116.05501

Clamping Capacity		Ø [Inch]	ER 16 Part No.	ER 16-UP Part No.
[mm]	[Inch]			
6.00 - 5.00 *	0.2362 - 0.1969	7/32"	1116.06000	1116.06001
6.50 - 5.50	0.2559 - 0.2165	1/4"	1116.06500	1116.06501
7.00 - 6.00 *	0.2756 - 0.2362	-	1116.07000	1116.07001
7.50 - 6.50	0.2953 - 0.2559	9/32"	1116.07500	1116.07501
8.00 - 7.00 *	0.3150 - 0.2756	5/16"	1116.08000	1116.08001
8.50 - 7.50	0.3347 - 0.2953	-	1116.08500	1116.08501
9.00 - 8.00 *	0.3543 - 0.3150	11/32"	1116.09000	1116.09001
9.50 - 8.50	0.3740 - 0.3347	-	1116.09500	1116.09501
10.00 - 9.00 *	0.3937 - 0.3543	3/8"	1116.10000	1116.10001

\*Included in collet set.

Additional technical information on page 13.2.

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### ER 16-MB with Microbore

Clamping Capacity h7		ER 16-MB Part No.
[mm]	[Inch]	
0.2	0.0079	1316.00200
0.3	0.0118	1316.00300
0.4	0.0157	1316.00400
0.5	0.0197	1316.00500
0.6	0.0236	1316.00600
0.7	0.0276	1316.00700
0.8	0.0315	1316.00800
0.9	0.0354	1316.00900

Additional technical information on page 13.6.

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.

# Matching Products

## Clamping Nuts | Spanner

Clamping Nut	Part No.	Page	Standard	With Friction Bearing	Balanced	For Coolant Through Tools	Collet Locking System	Mini-Nut	Nut with External Thread	Spanner	Part No.	Page
Hi-Q / ER 20	3420.00000	4.4	■		■		■			E 20 P	7112.20010	12.1
Hi-Q / ERC 20	3420.20000	4.6			■	■	■			E 20 P	7112.20010	12.1
Hi-Q / ERB 20	3420.30000	4.10		■	■		■			E 20 P	7112.20010	12.1
Hi-Q / ERBC 20	3420.40000	4.10		■	■	■	■			E 20 P	7112.20010	12.1
Hi-Q / ERM 20	3520.00000	4.12			■		■	■		E 20 M	7113.20000	12.1
Hi-Q / ERM C 20	3520.20000	4.12			■	■	■	■		E 20 M	7113.20000	12.1
ER 20 MS	3220.50000	4.16			■			■		E 20 MS	7114.20000	12.2
Hi-Q / ERAX 20	3320.60000	4.18			■		■		■	E 20 AX	7117.20000	12.2
Hi-Q / ERAX C 20	3320.70000	4.18			■	■	■		■	E 20 AX	7117.20000	12.2

## Collet Set

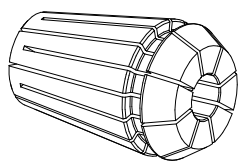
### ER 20 Standard/ER 20-UP Ultra Precision

Part Description	Part No.	Clamping Capacity [mm]
SET ER 20 Ø 2.00 - 13.00 mm	1120.00000	1.00 - 13.00
SET ER 20-UP Ø 2.00 - 13.00 mm	1120.00001	1.00 - 13.00

Supplied with: 12 Collets, 1 Tray ZWT/20.

## Tray ER 20

Part Description	Part No.	Page
ZWT / 20	7121.20000	12.5



## ER 20 Standard ER 20-UP Ultra Precision

Clamping Capacity		Ø [Inch]	ER 20 Part No.	ER 20-UP Part No.
[mm]	[Inch]			
1.00 - 0.50	0.0394 - 0.0197	1/32"	1120.01000	1120.01001
1.50 - 1.00	0.0591 - 0.0394	-	1120.01500	1120.01501
2.00 - 1.00 *	0.0787 - 0.0394	1/16"	1120.02000	1120.02001
2.50 - 1.50	0.0984 - 0.0591	3/32"	1120.02500	1120.02501
3.00 - 2.00 *	0.1181 - 0.0787	-	1120.03000	1120.03001
3.50 - 2.50	0.1378 - 0.0984	1/8"	1120.03500	1120.03501
4.00 - 3.00 *	0.1575 - 0.1181	5/32"	1120.04000	1120.04001
4.50 - 3.50	0.1772 - 0.1378	-	1120.04500	1120.04501
5.00 - 4.00 *	0.1969 - 0.1575	3/16"	1120.05000	1120.05001
5.50 - 4.50	0.2165 - 0.1772	-	1120.05500	1120.05501
6.00 - 5.00 *	0.2362 - 0.1969	7/32"	1120.06000	1120.06001
6.50 - 5.50	0.2559 - 0.2165	1/4"	1120.06500	1120.06501
7.00 - 6.00 *	0.2756 - 0.2362	-	1120.07000	1120.07001
7.50 - 6.50	0.2953 - 0.2559	9/32"	1120.07500	1120.07501
8.00 - 7.00 *	0.3150 - 0.2756	5/16"	1120.08000	1120.08001
8.50 - 7.50	0.3347 - 0.2953	-	1120.08500	1120.08501
9.00 - 8.00 *	0.3543 - 0.3150	11/32"	1120.09000	1120.09001
9.50 - 8.50	0.3740 - 0.3347	-	1120.09500	1120.09501
10.00 - 9.00 *	0.3937 - 0.3543	3/8"	1120.10000	1120.10001
10.50 - 9.50	0.4134 - 0.3740	13/32"	1120.10500	1120.10501
11.00 - 10.00 *	0.4330 - 0.3937	-	1120.11000	1120.11001
11.50 - 10.50	0.4528 - 0.4134	7/16"	1120.11500	1120.11501
12.00 - 11.00 *	0.4724 - 0.4375	15/32"	1120.12000	1120.12001
12.50 - 11.50	0.4921 - 0.4528	-	1120.12500	1120.12501
13.00 - 12.00 *	0.5118 - 0.4724	1/2"	1120.13000	1120.13001

\*Included in collet set.

Additional technical information on page 13.2.



Swiss  
Precision  
Tools

# ER

## Collets

# Matching Products

## Clamping Nuts | Spanner

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Clamping Nut	Part No.	Page	Standard	With Friction Bearing	Balanced	For Coolant Through Tools	Collet Locking System	Mini-Nut	Nut with External Thread	Spanner	Part No.	Page
Hi-Q / ER 25	3425.00000	4.4	■		■		■			E 25	7111.25000	12.1
Hi-Q / ERC 25	3425.20000	4.6			■	■	■			E 25	7111.25000	12.1
Hi-Q / ERB 25	3425.30000	4.10		■	■		■			E 25	7111.25000	12.1
Hi-Q / ERBC 25	3425.40000	4.10		■	■	■	■			E 25	7111.25000	12.1
Hi-Q / ERM 25	3525.00000	4.12			■		■	■		E 25 M	7113.25000	12.1
Hi-Q / ERM C 25	3525.20000	4.12			■	■	■	■		E 25 M	7113.25000	12.1
Hi-Q / ERAX 25	3325.60000	4.18			■		■		■	E 25 AX	7117.25000	12.2
Hi-Q / ERAX C 25	3325.70000	4.18			■	■	■		■	E 25 AX	7117.25000	12.2

## Collet Set

### ER 25 Standard/ER 25-UP Ultra Precision

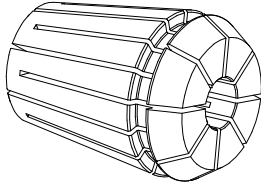
Part Description	Part No.	Clamping Capacity [mm]
SET ER 25 Ø 2.00 - 16.00 mm	1125.00000	1.00 - 16.00
SET ER 25-UP Ø 2.00 - 16.00 mm	1125.00001	1.00 - 16.00

Supplied with: 15 Collets, 1 Tray ZWT/25.

## Tray

### ER 25

Part Description	Part No.	Page
ZWT / 25	7121.25000	12.5



### ER 25 Standard ER 25-UP Ultra Precision

Clamping Capacity		Ø [Inch]	ER 25 Part No.	ER 25-UP Part No.	Clamping Capacity		Ø [Inch]	ER 25 Part No.	ER 25-UP Part No.
[mm]	[Inch]				[mm]	[Inch]			
1.00 - 0.50	0.0394 - 0.0197	1/32"	1125.01000	1125.01001	9.00 - 8.00 *	0.3543 - 0.3150	11/32"	1125.09000	1125.09001
1.50 - 1.00	0.0591 - 0.0394	-	1125.01500	1125.01501	9.50 - 8.50	0.3740 - 0.3347	-	1125.09500	1125.09501
2.00 - 1.00 *	0.0787 - 0.0394	1/16"	1125.02000	1125.02001	10.00 - 9.00 *	0.3937 - 0.3543	3/8"	1125.10000	1125.10001
2.50 - 1.50	0.0984 - 0.0591	3/32"	1125.02500	1125.02501	10.50 - 9.50	0.4134 - 0.3740	13/32"	1125.10500	1125.10501
3.00 - 2.00 *	0.1181 - 0.0787	-	1125.03000	1125.03001	11.00 - 10.00 *	0.4330 - 0.3937	-	1125.11000	1125.11001
3.50 - 2.50	0.1378 - 0.0984	1/8"	1125.03500	1125.03501	11.50 - 10.50	0.4528 - 0.4134	7/16"	1125.11500	1125.11501
4.00 - 3.00 *	0.1575 - 0.1181	5/32"	1125.04000	1125.04001	12.00 - 11.00 *	0.4724 - 0.4375	15/32"	1125.12000	1125.12001
4.50 - 3.50	0.1772 - 0.1378	-	1125.04500	1125.04501	12.50 - 11.50	0.4921 - 0.4528	-	1125.12500	1125.12501
5.00 - 4.00 *	0.1969 - 0.1575	3/16"	1125.05000	1125.05001	13.00 - 12.00 *	0.5118 - 0.4724	1/2"	1125.13000	1125.13001
5.50 - 4.50	0.2165 - 0.1772	-	1125.05500	1125.05501	13.50 - 12.50	0.5315 - 0.4921	17/32"	1125.13500	1125.13501
6.00 - 5.00 *	0.2362 - 0.1969	7/32"	1125.06000	1125.06001	14.00 - 13.00 *	0.5512 - 0.5118	-	1125.14000	1125.14001
6.50 - 5.50	0.2559 - 0.2165	1/4"	1125.06500	1125.06501	14.50 - 13.50	0.5709 - 0.5315	9/16"	1125.14500	1125.14501
7.00 - 6.00 *	0.2756 - 0.2362	-	1125.07000	1125.07001	15.00 - 14.00 *	0.5905 - 0.5512	-	1125.15000	1125.15001
7.50 - 6.50	0.2953 - 0.2559	9/32"	1125.07500	1125.07501	15.50 - 14.50	0.6102 - 0.5709	19/32"	1125.15500	1125.15501
8.00 - 7.00 *	0.3150 - 0.2756	5/16"	1125.08000	1125.08001	16.00 - 15.00 *	0.6300 - 0.5905	5/8"	1125.16000	1125.16001
8.50 - 7.50	0.3347 - 0.2953	-	1125.08500	1125.08501	17.00 - 16.00	0.6692 - 0.6300	21/32"	1125.17000	1125.17001

\*Included in collet set.

Additional technical information on page 13.2.

# Matching Products

## Clamping Nuts | Spanner

Clamping Nut	Part No.	Page	Standard	With Friction Bearing	Balanced	For Coolant Through Tools	Collet Locking System	Mini-Nut	Nut with External Thread	Spanner	Part No.	Page
Hi-Q / ER 32	3432.00000	4.4	■		■		■			E 32	7111.32000	12.1
Hi-Q / ERC 32	3432.20000	4.6			■	■	■			E 32	7111.32000	12.1
Hi-Q / ERB 32	3432.30000	4.10		■	■		■			E 32	7111.32000	12.1
Hi-Q / ERBC 32	3432.40000	4.10		■	■	■	■			E 32	7111.32000	12.1
Hi-Q / ERAX 32	3332.60000	4.18			■		■		■	E 32 AX	7117.32000	12.2
Hi-Q / ERAXC 32	3332.70000	4.18			■	■	■		■	E 32 AX	7117.32000	12.2

## Collet Set

### ER 32 Standard/ER 32-UP Ultra Precision

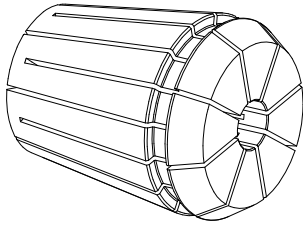
Part Description	Part No.	Clamping Capacity [mm]
SET ER 32 Ø 3.00 - 20.00 mm	1132.00000	2.00 - 20.00
SET ER 32-UP Ø 3.00 - 20.00 mm	1132.00001	2.00 - 20.00

Supplied with: 18 Collets, 1 Tray ZWT/32.

## Tray

### ER 32

Part Description	Part No.	Page
ZWT / 32	7121.32000	12.5



## ER 32 | ER 32-UP

DIN 6499/ ISO 15488

### ER 32 Standard ER 32-UP Ultra Precision

Clamping Capacity		Ø [Inch]	ER 32 Part No.	ER 32-UP Part No.
[mm]	[Inch]			
2.00 - 1.00	0.0787 - 0.0394	1/16"	1132.02000	1132.02001
2.50 - 1.50	0.0984 - 0.0591	3/32"	1132.02500	1132.02501
3.00 - 2.00 *	0.1181 - 0.0787	-	1132.03000	1132.03001
3.50 - 2.50	0.1378 - 0.0984	1/8"	1132.03500	1132.03501
4.00 - 3.00 *	0.1575 - 0.1181	5/32"	1132.04000	1132.04001
4.50 - 3.50	0.1772 - 0.1378	-	1132.04500	1132.04501
5.00 - 4.00 *	0.1969 - 0.1575	3/16"	1132.05000	1132.05001
5.50 - 4.50	0.2165 - 0.1772	-	1132.05500	1132.05501
6.00 - 5.00 *	0.2362 - 0.1969	7/32"	1132.06000	1132.06001
6.50 - 5.50	0.2559 - 0.2165	1/4"	1132.06500	1132.06501
7.00 - 6.00 *	0.2756 - 0.2362	-	1132.07000	1132.07001
7.50 - 6.50	0.2953 - 0.2559	9/32"	1132.07500	1132.07501
8.00 - 7.00 *	0.3150 - 0.2756	5/16"	1132.08000	1132.08001
8.50 - 7.50	0.3347 - 0.2953	-	1132.08500	1132.08501
9.00 - 8.00 *	0.3543 - 0.3150	11/32"	1132.09000	1132.09001
9.50 - 8.50	0.3740 - 0.3347	-	1132.09500	1132.09501
10.00 - 9.00 *	0.3937 - 0.3543	3/8"	1132.10000	1132.10001
10.50 - 9.50	0.4134 - 0.3740	13/32"	1132.10500	1132.10501
11.00 - 10.00 *	0.4330 - 0.3937	-	1132.11000	1132.11001
11.50 - 10.50	0.4528 - 0.4134	7/16"	1132.11500	1132.11501

Clamping Capacity		Ø [Inch]	ER 32 Part No.	ER 32-UP Part No.
[mm]	[Inch]			
12.00 - 11.00 *	0.4724 - 0.4375	15/32"	1132.12000	1132.12001
12.50 - 11.50	0.4921 - 0.4528	-	1132.12500	1132.12501
13.00 - 12.00 *	0.5118 - 0.4724	1/2"	1132.13000	1132.13001
13.50 - 12.50	0.5315 - 0.4921	17/32"	1132.13500	1132.13501
14.00 - 13.00 *	0.5512 - 0.5118	-	1132.14000	1132.14001
14.50 - 13.50	0.5709 - 0.5315	9/16"	1132.14500	1132.14501
15.00 - 14.00 *	0.5905 - 0.5512	-	1132.15000	1132.15001
15.50 - 14.50	0.6102 - 0.5315	19/32"	1132.15500	1132.15501
16.00 - 15.00 *	0.6300 - 0.5905	5/8"	1132.16000	1132.16001
16.50 - 15.50	0.6496 - 0.6102	-	1132.16500	1132.16501
17.00 - 16.00 *	0.6693 - 0.6300	21/32"	1132.17000	1132.17001
17.50 - 16.50	0.6890 - 0.6496	11/16"	1132.17500	1132.17501
18.00 - 17.00 *	0.7087 - 0.6693	-	1132.18000	1132.18001
18.50 - 17.50	0.7284 - 0.6890	23/32"	1132.18500	1132.18501
19.00 - 18.00 *	0.7480 - 0.7078	-	1132.19000	1132.19001
19.50 - 18.50	0.7677 - 0.7284	3/4"	1132.19500	1132.19501
20.00 - 19.00 *	0.7874 - 0.7480	25/32"	1132.20000	1132.20001
21.00 - 20.00	0.8267 - 0.7874	13/16"	1132.21000	1132.21001
22.00 - 21.00	0.8661 - 0.8267	-	1132.22000	1132.22001

\*Included in collet set.

Additional technical information on page 13.2.

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# Matching Products

## Clamping Nuts | Spanner

Clamping Nut	Part No.	Page	Standard	With Friction Bearing	Balanced	For Coolant Through Tools	Collet Locking System	Mini-Nut	Nut with External Thread	Spanner	Part No.	Page
Hi-Q / ER 40	3440.00000	4.4	■		■		■			E 40	7111.40000	12.1
Hi-Q / ERC 40	3440.20000	4.6			■	■	■			E 40	7111.40000	12.1
Hi-Q / ERB 40	3440.30000	4.10		■	■		■			E 40	7111.40000	12.1
Hi-Q / ERBC 40	3440.40000	4.10		■	■	■	■			E 40	7111.40000	12.1
Hi-Q / ERAX 40	3340.60000	4.18			■		■		■	E 40 AX	7117.40000	12.2
Hi-Q / ERAXC 40	3340.70000	4.18			■	■	■		■	E 40 AX	7117.40000	12.2

## Collet Set

### ER 40 Standard/ER 8-UP Ultra Precision

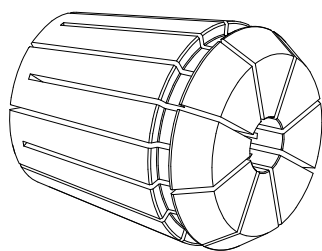
Part Description	Part No.	Clamping Capacity [mm]
SET ER 40 Ø 4.00 - 26.00 mm	1140.00000	3.00 - 26.00
SET ER 40-UP Ø 4.00 - 26.00 mm	1140.00001	3.00 - 26.00

Supplied with: 23 Collets, 1 Tray ZWT/40.

## Tray

### ER 40

Part Description	Part No.	Page
ZWT / 40	7121.40000	12.5



### ER 40 Standard ER 40-UP Ultra Precision

Clamping Capacity [mm]	Clamping Capacity [Inch]	Ø [Inch]	ER 40 Part No.	ER 40-UP Part No.
3.00 - 2.00	0.1181 - 0.0787	3/32"	1140.03000	1140.03001
3.50 - 2.50	0.1378 - 0.0984	1/8"	1140.03500	1140.03501
4.00 - 3.00 *	0.1575 - 0.1181	5/32"	1140.04000	1140.04001
4.50 - 3.50	0.1772 - 0.1378	-	1140.04500	1140.04501
5.00 - 4.00 *	0.1969 - 0.1575	3/16"	1140.05000	1140.05001
5.50 - 4.50	0.2165 - 0.1772	-	1140.05500	1140.05501
6.00 - 5.00 *	0.2362 - 0.1969	7/32"	1140.06000	1140.06001
6.50 - 5.50	0.2559 - 0.2165	1/4"	1140.06500	1140.06501
7.00 - 6.00 *	0.2756 - 0.2362	-	1140.07000	1140.07001
7.50 - 6.50	0.2953 - 0.2559	9/32"	1140.07500	1140.07501
8.00 - 7.00 *	0.3150 - 0.2756	5/16"	1140.08000	1140.08001
8.50 - 7.50	0.3347 - 0.2953	-	1140.08500	1140.08501
9.00 - 8.00 *	0.3543 - 0.3150	11/32"	1140.09000	1140.09001
9.50 - 8.50	0.3740 - 0.3347	-	1140.09500	1140.09501
10.00 - 9.00 *	0.3937 - 0.3543	3/8"	1140.10000	1140.10001
10.50 - 9.50	0.4134 - 0.3740	13/32"	1140.10500	1140.10501
11.00 - 10.00 *	0.4330 - 0.3937	-	1140.11000	1140.11001
11.50 - 10.50	0.4528 - 0.4134	7/16"	1140.11500	1140.11501
12.00 - 11.00 *	0.4724 - 0.4375	15/32"	1140.12000	1140.12001
12.50 - 11.50	0.4921 - 0.4528	-	1140.12500	1140.12501
13.00 - 12.00 *	0.5118 - 0.4724	1/2"	1140.13000	1140.13001
13.50 - 12.50	0.5315 - 0.4921	17/32"	1140.13500	1140.13501
14.00 - 13.00 *	0.5512 - 0.5118	-	1140.14000	1140.14001
14.50 - 13.50	0.5709 - 0.5315	9/16"	1140.14500	1140.14501
15.00 - 14.00 *	0.5905 - 0.5512	-	1140.15000	1140.15001
15.50 - 14.50	0.6102 - 0.5315	19/32"	1140.15500	1140.15501

Clamping Capacity [mm]	Clamping Capacity [Inch]	Ø [Inch]	ER 40 Part No.	ER 40-UP Part No.
16.00 - 15.00 *	0.6300 - 0.5905	5/8"	1140.16000	1140.16001
16.50 - 15.50	0.6496 - 0.6102	-	1140.16500	1140.16501
17.00 - 16.00 *	0.6693 - 0.6300	21/32"	1140.17000	1140.17001
17.50 - 16.50	0.6890 - 0.6496	11/16"	1140.17500	1140.17501
18.00 - 17.00 *	0.7087 - 0.6693	-	1140.18000	1140.18001
18.50 - 17.50	0.7284 - 0.6890	23/32"	1140.18500	1140.18501
19.00 - 18.00 *	0.7480 - 0.7078	-	1140.19000	1140.19001
19.50 - 18.50	0.7677 - 0.7284	3/4"	1140.19500	1140.19501
20.00 - 19.00 *	0.7874 - 0.7480	25/32"	1140.20000	1140.20001
20.50 - 19.50	0.8071 - 0.7677	-	1140.20500	1140.20501
21.00 - 20.00 *	0.8268 - 0.7874	13/16"	1140.21000	1140.21001
21.50 - 20.50	0.8465 - 0.8071	27/32"	1140.21500	1140.21501
22.00 - 21.00 *	0.8661 - 0.8268	-	1140.22000	1140.22001
22.50 - 21.50	0.8858 - 0.8465	7/8"	1140.22500	1140.22501
23.00 - 22.00 *	0.9055 - 0.8661	-	1140.23000	1140.23001
23.50 - 22.50	0.9252 - 0.8858	29/32"	1140.23500	1140.23501
24.00 - 23.00 *	0.9449 - 0.9055	15/16"	1140.24000	1140.24001
24.50 - 23.50	0.9646 - 0.9252	-	1140.24500	1140.24501
25.00 - 24.00 *	0.9843 - 0.9449	31/32"	1140.25000	1140.25001
25.50 - 24.50	1.0039 - 0.9646	1"	1140.25500	1140.25501
26.00 - 25.00 *	1.0236 - 0.9843	-	1140.26000	1140.26001
27.00 - 26.00	1.0630 - 1.0236	1-1/16"	1140.27000	1140.27001
28.00 - 27.00	1.1024 - 1.0630	1-3/32"	1140.28000	1140.28001
29.00 - 28.00	1.1417 - 1.1024	1-1/8"	1140.29000	1140.29001
30.00 - 29.00	1.1811 - 1.1417	1-5/32"	1140.30000	1140.30001

\*Included in collet set.

Additional technical information on page 13.2.



Swiss  
Precision  
Tools

# ER

## Collets

## Matching Products

### Clamping Nuts | Spanner

Clamping Nut	Part No.	Page	Standard	With Friction Bearing	Balanced	For Coolant Through Tools	Collet Locking System	Mini-Nut	Nut with External Thread	Spanner	Part No.	Page
Hi-Q / ER 50	3450.00000	4.4	■		■		■			E 50	7111.50000	12.1
Hi-Q / ERB 50	3450.30000	4.10		■	■		■			E 50	7111.50000	12.1

### Collet Set

#### ER 50 Standard/ER 50-UP Ultra Precision

Part Description	Part No.	Clamping Capacity [mm]
SET ER 50 Ø 12.00 - 34.00 mm	1150.00000	10.00 - 34.00
SET ER 50-UP Ø 12.00 - 34.00 mm	1150.00001	10.00 - 34.00

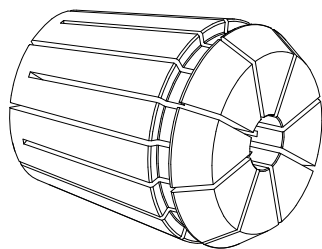
Supplied with: 12 Collets, 1 Tray ZWT/50.

### Tray

#### ER 50

Part Description	Part No.	Page
ZWT / 50	7121.50000	12.5

2



### ER 50 Standard ER 50-UP Ultra Precision

Clamping Capacity		Ø [Inch]	ER 50 Part No.	ER 50-UP Part No.
[mm]	[Inch]			
6.00 - 4.00	0.2362 - 0.1575	3/16"	1150.06000	1150.06001
8.00 - 6.00	0.3150 - 0.2362	1/4"	1150.08000	1150.08001
10.00 - 8.00	0.3937 - 0.3150	3/8"	1150.10000	1150.10001
12.00 - 10.00 *	0.4724 - 0.3937	7/16"	1150.12000	1150.12001
14.00 - 12.00 *	0.5512 - 0.4724	1/2"	1150.14000	1150.14001
16.00 - 14.00 *	0.6300 - 0.5512	5/8"	1150.16000	1150.16001
18.00 - 16.00 *	0.7087 - 0.6300	11/16"	1150.18000	1150.18001
20.00 - 18.00 *	0.7874 - 0.7087	3/4"	1150.20000	1150.20001
22.00 - 20.00 *	0.8661 - 0.7874	13/16"	1150.22000	1150.22001
24.00 - 22.00 *	0.9449 - 0.8661	7/8"	1150.24000	1150.24001
25.00 - 23.00	0.9843 - 0.9055	31/32"	1150.25000	1150.25001
26.00 - 24.00 *	1.0236 - 0.9449	1"	1150.26000	1150.26001
28.00 - 26.00 *	1.1024 - 1.0236	1-1/16"	1150.28000	1150.28001
30.00 - 28.00 *	1.1811 - 1.1024	1-1/8"	1150.30000	1150.30001
32.00 - 30.00 *	1.2598 - 1.1811	1-1/4"	1150.32000	1150.32001
34.00 - 32.00 *	1.3386 - 1.2598	1-5/16"	1150.34000	1150.34001
36.00 - 34.00	1.4173 - 1.3386	1-3/8"	1150.36000	1150.36001

\*Included in collet set.

Additional technical information on page 13.2.



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Tools

# ER

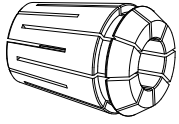
## Collets

# Matching Products

## Clamping Nuts | Spanner

2

Clamping Nut	Part No.	Page	Standard	With Friction Bearing	Balanced	For Coolant Through Tools	Collet Locking System	Mini-Nut	Nut with External Thread	Spanner	Part No.	Page
Hi-Q / ER 11	3411.00000	4.4	■		■		■			E 11 P	7112.11010	12.1
Hi-Q / ERM 11	3511.00000	4.12			■		■	■		E 11 M	7113.11000	12.1
ER 11 MS	3211.50000	4.16			■			■		E 11 MS	7114.11000	12.2
Hi-Q / ERAX 11	3311.60000	4.18			■		■	■		E 11 AX	7117.11000	12.2



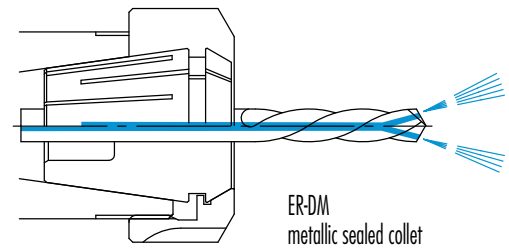
# ER 11-DM

DIN 6499 / ISO 15488

## ER 11-DM Metallic Sealed Type DM

Clamping Capacity		Ø [Inch]	Part No.
[mm]	[Inch]		
3.00 - 2.75	0.1181 - 0.1083	-	1211.03000
3.18 - 2.93	0.1250 - 0.1154	1/8"	1211.03182
4.00 - 3.75	0.1575 - 0.1476	-	1211.04000
4.76 - 4.51	0.1875 - 0.1776	3/16"	1211.04762
5.00 - 4.75	0.1969 - 0.1870	-	1211.05000
5.56 - 5.31	0.2188 - 0.2091	7/32"	1211.05562
6.00 - 5.75	0.2362 - 0.2264	-	1211.06000
6.35 - 6.10	0.2500 - 0.2402	1/4"	1211.06352
7.00 - 6.75	0.2756 - 0.2658	-	1211.07000

Additional technical information on page 13.2.



**!** The tool must be inserted at least concisely or more deeply into the collet. A minimum clamping length of 2/3 as for standard collets is not possible, otherwise the sealing function will not work.

# Matching Products

## Clamping Nuts | Spanner

Clamping Nut	Part No.	Page	Standard	With Friction Bearing	Balanced	For Coolant Through Tools	Collet Locking System	Mini-Nut	Nut with External Thread	Spanner	Part No.	Page
Hi-Q / ER 16	3416.00000	4.4	■		■		■			E 16 P	7112.16010	12.1
Hi-Q / ERB 16	3416.30000	4.10		■	■		■			E 16 P	7112.16010	12.1
Hi-Q / ERM 16	3516.00000	4.12			■		■	■		E 16 M	7113.16000	12.1
ER 16 MS	3216.50000	4.16			■			■		E 16 MS	7114.16000	12.2
Hi-Q / ERAX 16	3316.60000	4.18			■		■		■	E 16 AX	7117.16000	12.2

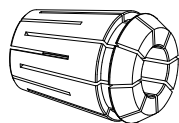
## Collet Set ER 16-DM

Part Description	Part No.
SET ER 16-DM Ø 3.00 - 10.00 mm	1216.00000

Supplied with: 8 Collets, 1 Tray ZWT/16.

## Tray ER 16-DM

Part Description	Part No.	Page
ZWT / 16	7121.16000	12.5



# ER 16-DM

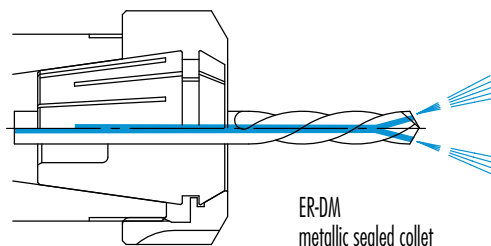
DIN 6499 / ISO 15488

## ER 16-DM Metallic Sealed Type DM

Clamping Capacity		Ø [Inch]	Part No.
[mm]	[Inch]		
3.00 h9 *	0.1181 h9	-	1216.03000
3.18 h9	0.1250 h9	1/8"	1216.03182
3.97 h9	0.1563 h9	5/32"	1216.03972
4.00 h9 *	0.1575 h9	-	1216.04000
4.76 h9	0.1875 h9	3/16"	1216.04762
5.00 - 4.50 *	0.1969 - 0.1772	-	1216.05000
5.56 - 5.06	0.2188 - 0.1991	7/32"	1216.05562
6.00 - 5.50 *	0.2362 - 0.2165	-	1216.06000
6.35 - 5.85	0.2500 - 0.2303	1/4"	1216.06352
7.00 - 6.50 *	0.2756 - 0.2559	-	1216.07000
7.14 - 6.64	0.2813 - 0.2616	9/32"	1216.07142
7.94 - 7.44	0.3125 - 0.2928	5/16"	1216.07942
8.00 - 7.50 *	0.3150 - 0.2953	-	1216.08000
8.73 - 8.23	0.3438 - 0.3241	11/32"	1216.08732
9.00 - 8.50 *	0.3543 - 0.3347	-	1216.09000
9.53 - 9.03	0.3750 - 0.3553	3/8"	1216.09532
10.00 - 9.50 *	0.3937 - 0.3740	-	1216.10000
10.32 - 9.82	0.4063 - 0.3866	13/32"	1216.10322

\*Included in collet set.

Additional technical information on page 13.2.



! The tool must be inserted at least concisely or more deeply into the collet. A minimum clamping length of 2/3 as for standard collets is not possible, otherwise the sealing function will not work.

# Matching Products

## Clamping Nuts | Spanner

Clamping Nut	Part No.	Page	Standard	With Friction Bearing	Balanced	For Coolant Through Tools	Collet Locking System	Mini-Nut	Nut with External Thread	Spanner	Part No.	Page
Hi-Q / ER 20	3420.00000	4.4	■		■		■			E 20 P	7112.20010	12.1
Hi-Q / ERB 20	3420.30000	4.10		■	■		■			E 20 P	7112.20010	12.1
Hi-Q / ERM 20	3520.00000	4.12			■		■	■		E 20 M	7113.20000	12.1
ER 20 MS	3220.50000	4.16			■			■		E 20 MS	7114.20000	12.2
Hi-Q / ERAX 20	3320.60000	4.18			■		■		■	E 20 AX	7117.20000	12.2

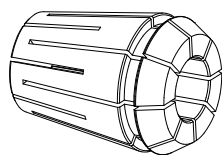
## Collet Set ER 20-DM

Part Description	Part No.
SET ER 20-DM Ø 3.00 - 13.00 mm	1220.00000

Supplied with: 11 Collets, 1 Tray ZWT/20.

## Tray ER 20-DM

Part Description	Part No.	Page
ZWT / 20	7121.20000	12.5



# ER 20-DM

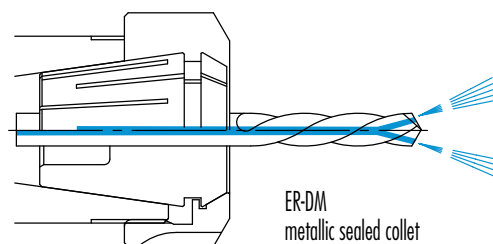
DIN 6499 / ISO 15488

## ER 20-DM Metallic Sealed Type DM

Clamping Capacity		Ø [Inch]	Part No.
[mm]	[Inch]		
3.00 h9 *	0.1181 h9	-	1220.03000
3.18 h9	0.1250 h9	1/8"	1220.03182
3.97 h9	0.1563 h9	5/32"	1220.03972
4.00 h9 *	0.1575 h9	-	1220.04000
4.76 h9	0.1875 h9	3/16"	1220.04762
5.00 h9 *	0.1969 h9	-	1220.05000
5.56 h9	0.2188 h9	7/32"	1220.05562
6.00 h9 *	0.2362 h9	-	1220.06000
6.35 h9	0.2500 h9	1/4"	1220.06352
7.00 - 6.50 *	0.2756 - 0.2559	-	1220.07000
7.14 - 6.64	0.2813 - 0.2616	9/32"	1220.07142
7.94 - 7.44	0.3125 - 0.2928	5/16"	1220.07942
8.00 - 7.50 *	0.3150 - 0.2953	-	1220.08000
8.73 - 8.23	0.3438 - 0.3241	11/32"	1220.08732
9.00 - 8.50 *	0.3543 - 0.3347	-	1220.09000
9.53 - 9.03	0.3750 - 0.3553	3/8"	1220.09532
10.00 - 9.50 *	0.3937 - 0.3740	-	1220.10000
10.32 - 9.82	0.4063 - 0.3866	13/32"	1220.10322
11.00 - 10.50 *	0.4331 - 0.4134	-	1220.11000
11.11 - 10.61	0.4375 - 0.4178	7/16"	1220.11112
11.91 - 11.41	0.4687 - 0.4491	15/32"	1220.11912
12.00 - 11.50 *	0.4724 - 0.4528	-	1220.12000
12.70 - 12.20	0.5000 - 0.4803	1/2"	1220.12702
13.00 - 12.50 *	0.5118 - 0.4921	-	1220.13000

\*Included in collet set.

Additional technical information on page 13.2.



! The tool must be inserted at least concisely or more deeply into the collet. A minimum clamping length of 2/3 as for standard collets is not possible, otherwise the sealing function will not work.



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Tools

# ER

## Collets

## Matching Products

### Clamping Nuts | Spanner

2

Clamping Nut	Part No.	Page	Standard	With Friction Bearing	Balanced	For Coolant Through Tools	Collet Locking System	Mini-Nut	Nut with External Thread	Spanner	Part No.	Page
Hi-Q / ER 25	3425.00000	4.4	■		■		■			E 25	7111.25000	12.1
Hi-Q / ERB 25	3425.30000	4.10		■	■		■			E 25	7111.25000	12.1
Hi-Q / ERM 25	3525.00000	4.12			■		■	■		E 25 M	7113.25000	12.1
Hi-Q / ERAX 25	3325.60000	4.18			■		■		■	E 25 AX	7117.25000	12.2

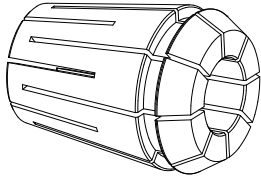
### Collet Set ER 25-DM

Part Description	Part No.
SET ER 25-DM Ø 6.00 - 16.00 mm	1225.00000

Supplied with: 6 Collets, 1 Tray ZWT/25.

### Tray ER 25-DM

Part Description	Part No.	Page
ZWT / 25	7121.25000	12.5



# ER 25-DM

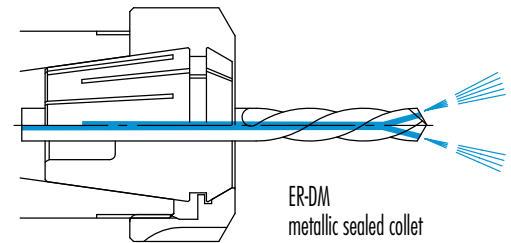
DIN 6499 / ISO 15488

## ER 25-DM Metallic Sealed Type DM

Clamping Capacity		Ø [Inch]	Part No.
[mm]	[Inch]		
5.56 h9	0.2188 h9	7/32"	1225.05562
6.00 h9 *	0.2362 h9	-	1225.06000
6.35 h9	0.2500 h9	1/4"	1225.06352
7.00 h9	0.2756 h9	-	1225.07000
7.14 h9	0.2813 h9	9/32"	1225.07142
7.94 - 7.44	0.3125 - 0.2928	5/16"	1225.07942
8.00 - 7.50 *	0.3150 - 0.2953	-	1225.08000
8.73 - 8.23	0.3438 - 0.3241	11/32"	1225.08732
9.00 - 8.50	0.3543 - 0.3347		1225.09000
9.53 - 9.03	0.3750 - 0.3553	3/8"	1225.09532
10.00 - 9.50 *	0.3937 - 0.3740	-	1225.10000
10.32 - 9.82	0.4063 - 0.3866	13/32"	1225.10322
11.00 - 10.50	0.4331 - 0.4134	-	1225.11000
11.11 - 10.61	0.4375 - 0.4178	7/16"	1225.11112
11.91 - 11.41	0.4687 - 0.4491	15/32"	1225.11912
12.00 - 11.50 *	0.4724 - 0.4528	-	1225.12000
12.70 - 12.20	0.5000 - 0.4803	1/2"	1225.12702
13.00 - 12.50	0.5118 - 0.4921	-	1225.13000
13.49 - 12.99	0.5313 - 0.5116	17/32"	1225.13492
14.00 - 13.50 *	0.5512 - 0.5315	-	1225.14000
14.29 - 13.79	0.5625 - 0.5428	9/16"	1225.14292
15.00 - 14.50	0.5905 - 0.5709	-	1225.15000
15.08 - 14.58	0.5934 - 0.5741	19/32"	1225.15082
15.88 - 15.38	0.6250 - 0.6055	5/8"	1225.15882
16.00 - 15.50 *	0.6299 - 0.6102	-	1225.16000

\*Included in collet set.

Additional technical information on page 13.2.



! The tool must be inserted at least concisely or more deeply into the collet. A minimum clamping length of 2/3 as for standard collets is not possible, otherwise the sealing function will not work.



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Tools

# ER

## Collets

# Matching Products

## Clamping Nuts | Spanner

2

Clamping Nut	Part No.	Page	Standard	With Friction Bearing	Balanced	For Coolant Through Tools	Collet Locking System	Mini-Nut	Nut with External Thread	Spanner	Part No.	Page
Hi-Q / ER 32	3432.00000	4.4	■		■		■			E 32	7111.32000	12.1
Hi-Q / ERB 32	3432.30000	4.10		■	■		■			E 32	7111.32000	12.1
Hi-Q / ERAX 32	3332.60000	4.18			■		■	■		E 32 AX	7117.32000	12.2

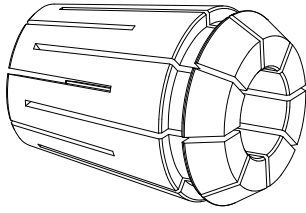
## Collet Set ER 32-DM

Part Description	Part No.
SET ER 32-DM Ø 3.00 - 10.00 mm	1232.00000

Supplied with: 8 Collets, 1 Tray ZWT/32.

## Tray ER 32-DM

Part Description	Part No.	Page
ZWT / 32	7121.32000	12.5

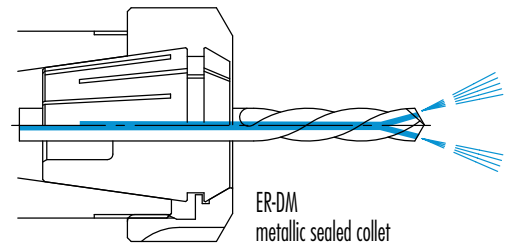


# ER 32-DM

DIN 6499 / ISO 15488

## ER 32-DM Metallic Sealed Type DM

Clamping Capacity		Ø [Inch]	Part No.
[mm]	[Inch]		
6.00 h9 *	0.2362 h9	-	1232.06000
6.35 h9	0.2500 h9	1/4"	1232.06352
7.00 h9	0.2756 h9	-	1232.07000
7.14 h9	0.2813 h9	9/32"	1232.07142
7.94 - 7.44	0.3125 - 0.2928	5/16"	1232.07942
8.00 - 7.50 *	0.3150 - 0.2953	-	1232.08000
8.73 - 8.23	0.3438 - 0.3241	11/32"	1232.08732
9.00 - 8.50	0.3543 - 0.3347	-	1232.09000
9.53 - 9.03	0.3750 - 0.3553	3/8"	1232.09532
10.00 - 9.50 *	0.3937 - 0.3740	-	1232.10000
10.32 - 9.82	0.4063 - 0.3866	13/32"	1232.10322
11.00 - 10.50	0.4331 - 0.4134	-	1232.11000
11.11 - 10.61	0.4375 - 0.4178	7/16"	1232.11112
11.91 - 11.41	0.4687 - 0.4491	15/32"	1232.11912
12.00 - 11.50 *	0.4724 - 0.4528	-	1232.12000
12.70 - 12.20	0.5000 - 0.4803	1/2"	1232.12702
13.00 - 12.50	0.5118 - 0.4921	-	1232.13000
13.49 - 12.99	0.5313 - 0.5116	17/32"	1232.13492
14.00 - 13.50 *	0.5512 - 0.5315	-	1232.14000
14.29 - 13.79	0.5625 - 0.5428	9/16"	1232.14292
15.00 - 14.50	0.5905 - 0.5709	-	1232.15000
15.08 - 14.58	0.5934 - 0.5741	19/32"	1232.15082
15.88 - 15.38	0.6250 - 0.6055	5/8"	1232.15882
16.00 - 15.50 *	0.6299 - 0.6102	-	1232.16000
16.67 - 16.17	0.6563 - 0.6366	21/32"	1232.16672
17.00 - 16.50	0.6693 - 0.6496	-	1232.17000
17.46 - 16.96	0.6875 - 0.6678	11/16"	1232.17462
18.00 - 17.50 *	0.7087 - 0.6890	-	1232.18000
18.26 - 17.76	0.7188 - 0.6991	23/32"	1232.18262
19.00 - 18.50	0.7480 - 0.7284	-	1232.19000
19.05 - 18.55	0.7500 - 0.7303	3/4"	1232.19052
20.00 - 19.50 *	0.7874 - 0.7677	-	1232.20000



! The tool must be inserted at least concisely or more deeply into the collet. A minimum clamping length of 2/3 as for standard collets is not possible, otherwise the sealing function will not work.

\*Included in collet set.

Additional technical information on page 13.2.



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Tools

# ER

## Collets

# Matching Products

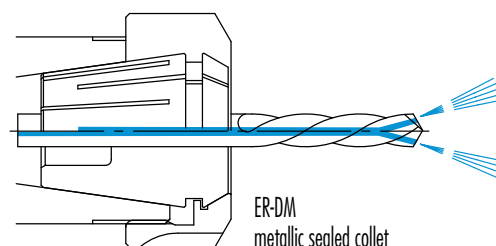
## Clamping Nuts | Spanner

2

Clamping Nut	Part No.	Page	Standard	With Friction Bearing	Balanced	For Coolant Through Tools	Collet Locking System	Mini-Nut	Nut with External Thread	Spanner	Part No.	Page
Hi-Q / ER 40	3440.00000	4.4	■		■		■			E 40	7111.40000	12.1
Hi-Q / ERB 40	3440.30000	4.10		■	■		■			E 40	7111.40000	12.1
Hi-Q / ERAX 40	3340.60000	4.18			■		■		■	E 40 AX	7117.40000	12.2

### ER 40-DM Metallic Sealed Type DM

Clamping Capacity		Ø [Inch]	Part No.
[mm]	[Inch]		
6.00 h9	0.2362 h9	-	1240.06000
6.35 h9	0.2500 h9	1/4"	1240.06352
7.94 h9	0.3125 h9	5/16"	1240.07942
8.00 h9	0.3150 h9	-	1240.08000
9.53 - 9.03	0.3750 - 0.3553	3/8"	1240.09532
10.00 - 9.50	0.3937 - 0.3740	-	1240.10000
11.00 - 10.50	0.4331 - 0.4134	-	1240.11000
11.11 - 10.61	0.4375 - 0.4178	7/16"	1240.11112
12.00 - 11.50	0.4724 - 0.4528	-	1240.12000
12.70 - 12.20	0.5000 - 0.4803	1/2"	1240.12702
13.00 - 12.50	0.5118 - 0.4921	-	1240.13000
14.00 - 13.50	0.5512 - 0.5315	-	1240.14000
14.29 - 13.79	0.5625 - 0.5428	9/16"	1240.14292
15.00 - 14.50	0.5905 - 0.5709	-	1240.15000
15.88 - 15.38	0.6250 - 0.6055	5/8"	1240.15882
16.00 - 15.50	0.6299 - 0.6102	-	1240.16000
17.00 - 16.50	0.6693 - 0.6496	-	1240.17000
17.46 - 16.96	0.6875 - 0.6678	11/16"	1240.17462
18.00 - 17.50	0.7087 - 0.6890	-	1240.18000
19.00 - 18.50	0.7480 - 0.7284	-	1240.19000
19.05 - 18.55	0.7500 - 0.7303	3/4"	1240.19052
20.00 - 19.50	0.7874 - 0.7677	-	1240.20000
20.64 - 20.14	0.8123 - 0.7928	13/16"	1240.20642
21.00 - 20.50	0.8268 - 0.8071	-	1240.21000
22.00 - 21.50	0.8661 - 0.8465	-	1240.22000
22.23 - 21.73	0.8750 - 0.8553	7/8"	1240.22232
23.00 - 22.50	0.9055 - 0.8858	-	1240.23000
24.00 - 23.50	0.9449 - 0.9252	-	1240.24000
25.00 - 24.50	0.9843 - 0.9646	-	1240.25000
25.40 - 24.90	1.0000 - 0.9803	1"	1240.25402
26.00 - 25.50	1.0236 - 1.0039	-	1240.26000



2

! The tool must be inserted at least concisely or more deeply into the collet. A minimum clamping length of 2/3 as for standard collets is not possible, otherwise the sealing function will not work.



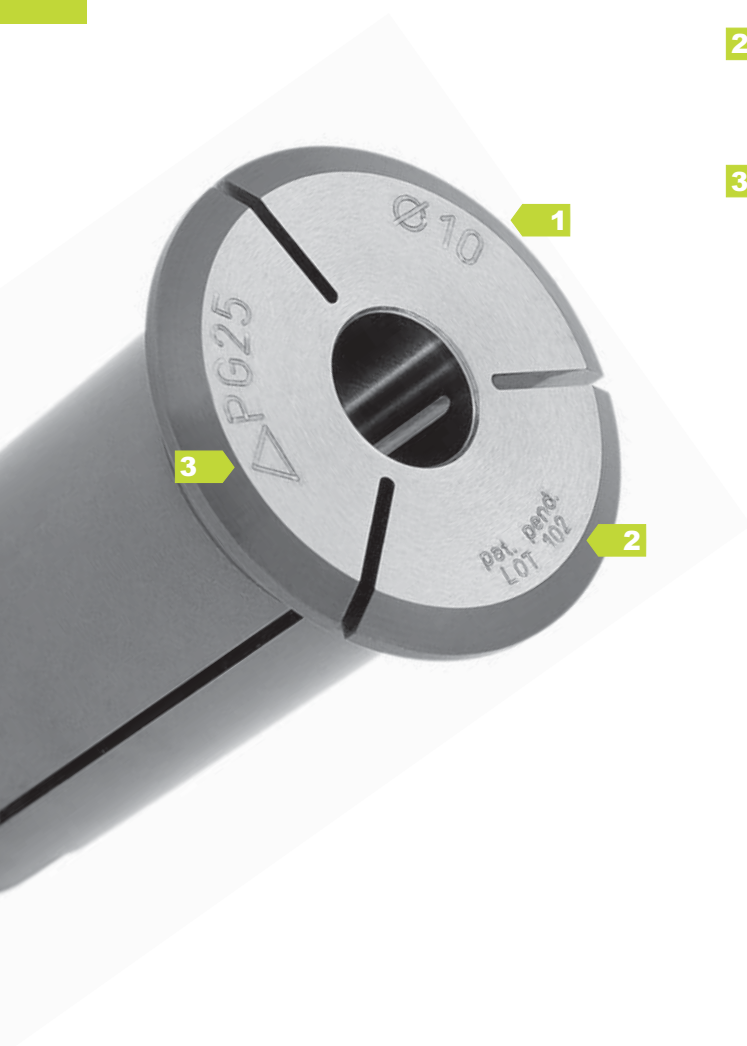
Swiss  
Precision  
Tools

# PG

## powRgrip® Collets

## Features | Benefits

2



### Swiss Quality

Made in Switzerland to ISO9001/ISO14001.

#### 1 Marking

With type and size (reduced collet selection error).

#### 2 Product Traceability

Lot number marked on collets, therefore traceable through entire manufacturing process.

#### 3 Original REGO-FIX®

When buying PG collets please note the REGO-FIX® quality seal  $\triangle$  on the front of the collet.

### Precision

Highest T.I.R. (Total Indicated Runout) <3  $\mu$ m.

### Accurate Length Adjustment <10 $\mu$ m

With integrated adjustment screw.

### Clamping of all h6 Tool Shanks

Cylindrical, WELDON, Whistle-Notch

### Clamping of all Shank Materials

Solid carbide and HSS tool shanks.

### Clamping Diameters

0.2 to 25.4 mm

### Fast

Clamping in less than 10 seconds.

### Simple Handling

Parameters are automatically set.

### High Vibration Dampening

High vibration dampening due to the interface surfaces between the toolholder to collet and the collet to tool shank.

### Highest Transferable Torque

The powRgrip® system yields the highest transferable torque of all comparable systems.

### Productivity and Tool Life

Specially designed to allow for maximum machining capability.

### PG Standard Collets

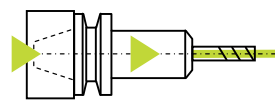
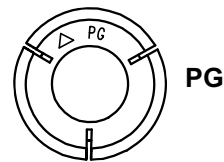
Modern processing strategies like High Speed Cutting (HSC) and High Performance Cutting (HPC) require better toolholding systems. The powRgrip® System offers a unique combination of the best runout, high clamping force and optimal vibration dampening. This system meets all requirements for an efficient manufacturing process.

The REGO-FIX® powRgrip® System clamps cutting tools safely and with high precision. The tool and collet are pressed into the toolholder with very high force by the powRgrip® hydraulic press. For unclamping the tool the compression cycle is simply reversed.

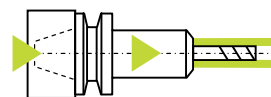
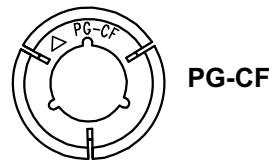
MQL-compatible collets upon request.

### PG-CF Coolant Flush Collets

Coolant flush collets allow «along the shank» peripheral cooling when working with tools without internal cooling channels.



Metallic sealed for coolant through tools



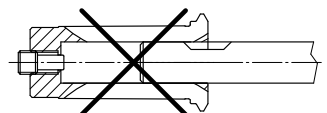
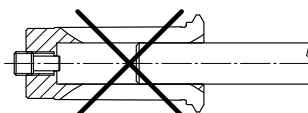
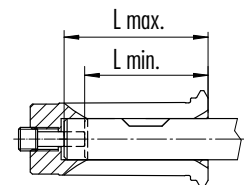
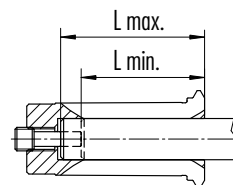
With coolant channels for peripheral cooling



Clamp h6-tolerance tool shanks only!

Never clamp collet without tool.  
powRgrip® collet will be damaged!

To insure maximum holding power and not to damage the powRgrip® collet, please make sure that you insert the cutting tool to the prescribed length.



For min./max. clamping dimensions please see table on page 13.7.



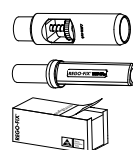
Swiss  
Precision  
Tools

## Matching Products

### Accessories

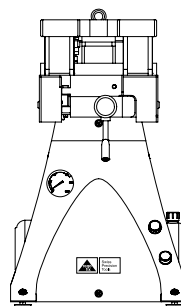
2

Type	Description	Part No.	Page
VEW 10	Presetting tool for PG 10 toolholder	7619.10000	12.7
TKCP 10	Taper cleaner for PG 10 toolholders (incl. CPS 10)	7657.10000	12.7
CPS 10	Cleaning paper set for TKCP 10 / pack contains 250 sheets	7658.10000	12.7



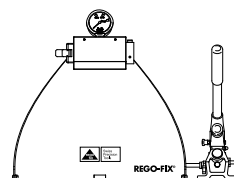
### PGU 9000 Automatic Clamping Unit

Type	Description	Part No.	Page
PGU 9000 E	powRgrip® Automatic clamping unit 230 V	7610.90000	12.8
PGU 9000 A	powRgrip® Automatic clamping unit 110 V	7610.90100	12.8
PGU 9000 J	powRgrip® Automatic clamping unit 100 V	7610.90200	12.8
APG 910	PG 10 Clamping insert for PGU 9000, taper cleaner included	7611.10900	12.8



### Set PGC 2510 Compact - Manual Clamping Unit

Type	Description	Part No.	Page
SET PGC 2510	powRgrip® Compact – manual clamping unit Supplied with: clamping unit, hand pump and stand.	7621.25109	12.8
APC 10	PG 10 Inserts for PGC 2510 for clamping unit	7622.10000	12.8

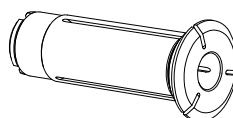


# PG 10 | PG 10-CF | PG 10-MB

## PG 10 Standard

### PG 10-CF Coolant Flush with Coolant Channels

Ø [mm]	Ø [Inch]	Ø [Inch]	PG 10 Part No.	PG 10-CF Part No.
2.000	0.0787	-	1710.02000	-
2.500	0.0984	-	1710.02500	-
3.000	0.1181	-	1710.03000	1710.03002
3.175	0.1250	1/8"	1710.03181	1710.03183
3.500	0.1378	-	1710.03500	-
4.000	0.1575	-	1710.04000	1710.04002
4.500	0.1969	-	1710.04500	-
4.763	0.1875	3/16"	1710.04761	1710.04763
5.000	0.1969	-	1710.05000	1710.05002
5.500	0.2165	-	1710.05500	-
6.000	0.2362	-	1710.06000	1710.06002
6.350	0.2500	1/4"	1710.06351	1710.06353

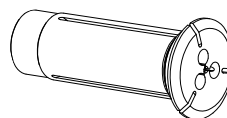


2

Additional technical information on page 13.7.

### PG 10-MB with Microbore (pat. pend.)

Ø [mm]	Ø [Inch]	Ø [Inch]	PG 10-MB Part No.
0.200	0.0079	-	1710.00209
0.300	0.0118	-	1710.00309
0.400	0.0157	-	1710.00409
0.500	0.0197	-	1710.00509
0.600	0.0236	-	1710.00609
0.700	0.0276	-	1710.00709
0.800	0.0315	-	1710.00809
0.900	0.0354	-	1710.00909
1.000	0.0394	-	1710.01009
1.500	0.0591	-	1710.01509
1.5875	0.0625	1/16"	1710.01589



Additional technical information on page 13.7.



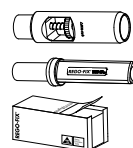
Swiss  
Precision  
Tools

## Matching Products

### Accessories

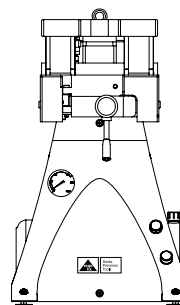
2

Type	Description	Part No.	Page
VEW 15	Presetting tool for PG 15 toolholder	7619.15000	12.7
TKCP 15	Taper cleaner for PG 15 toolholders (incl. CPS 15)	7657.15000	12.7
CPS 15	Cleaning paper set for TKCP 15 / pack contains 250 sheets	7658.15000	12.7



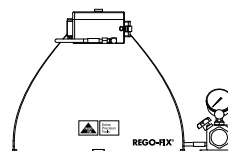
### PGU 9000 Automatic Clamping Unit

Type	Description	Part No.	Page
PGU 9000 E	powRgrip® Automatic clamping unit 230 V	7610.90000	12.8
PGU 9000 A	powRgrip® Automatic clamping unit 110 V	7610.90100	12.8
PGU 9000 J	powRgrip® Automatic clamping unit 100 V	7610.90200	12.8
APG 915	PG 15 Clamping insert for PGU 9000, taper cleaner included	7611.15900	12.8



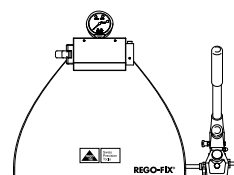
### PGC 1500 Manual Clamping Unit

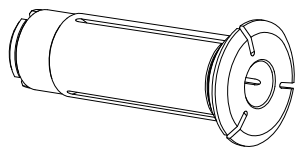
Type	Description	Part No.	Page
PGC 1500	Manual clamping unit PG 15, taper cleaner included	7621.15000	12.8
PGS 1	powRgrip® Compact stand no. 1	7625.00100	12.8
PGP 300 M	powRgrip® Hand pump, 300 bar	7629.00300	12.8



### Set PGC 2510 Compact - Manual Clamping Unit

Type	Description	Part No.	Page
SET PGC 2510	powRgrip® Compact – manual clamping unit Supplied with: clamping unit, hand pump and stand.	7621.25109	12.8
APC 15	PG 15 Inserts for PGC 2510 for clamping unit	7622.15000	12.8





## PG 15 | PG 15-CF

### PG 15 Standard PG 15-CF Coolant Flush with Coolant Channels

2

Ø [mm]	Ø [Inch]	Ø [Inch]	PG 15 Part No.	PG 15-CF Part No.
3.000	0.1181	-	1715.03000	1715.03002
3.175	0.1250	1/8"	1715.03181	1715.03183
3.500	0.1378		1715.03500	-
4.000	0.1575	-	1715.04000	1715.04002
4.500	0.1969		1715.04500	-
4.763	0.1875	3/16"	1715.04761	1715.04763
5.000	0.1969	-	1715.05000	1715.05002
5.500	0.2165		1715.05500	-
6.000	0.2362	-	1715.06000	1715.06002
6.350	0.2500	1/4"	1715.06351	1715.06353
7.000	0.2756	-	1715.07000	1715.07002
7.938	0.3125	5/16"	1715.07941	1715.07943
8.000	0.3150	-	1715.08000	1715.08002
9.000	0.3543	-	1715.09000	1715.09002
9.525	0.3750	3/8"	1715.09521	1715.09523
10.000	0.3937	-	1715.10000	1715.10002

Additional technical information on page 13.7.



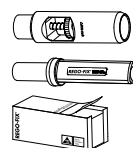
Swiss  
Precision  
Tools

## Matching Products

### Accessories

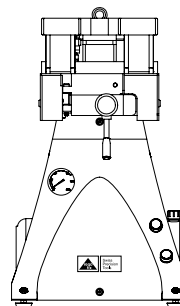
2

Type	Description	Part No.	Page
VEW 25	Presetting tool for PG 25 toolholder	7619.25000	12.7
TKCP 25	Taper cleaner for PG 25 toolholders (incl. CPS 25)	7657.25000	12.7
CPS 25	Cleaning paper set for TKCP 25 / pack contains 250 sheets	7658.25000	12.7



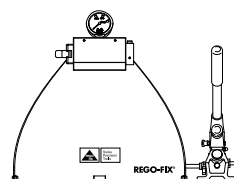
### PGU 9000 Automatic Clamping Unit

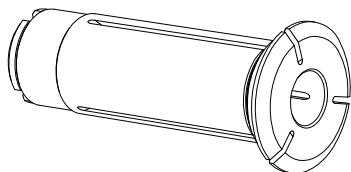
Type	Description	Part No.	Page
PGU 9000 E	powRgrip® Automatic clamping unit 230 V	7610.90000	12.8
PGU 9000 A	powRgrip® Automatic clamping unit 110 V	7610.90100	12.8
PGU 9000 J	powRgrip® Automatic clamping unit 100 V	7610.90200	12.8
APG 925	PG 25 clamping insert for PGU 9000, taper cleaner included	7611.25900	12.8



### Set PGC 2510 Compact - Manual Clamping Unit

Type	Description	Part No.	Page
SET PGC 2510	powRgrip® Compact – manual clamping unit Supplied with: clamping unit, hand pump and stand.	7621.25109	12.8
APC 25	PG 25 Inserts for PGC 2510 for clamping unit	7622.25000	12.8





## PG 25 | PG 25-CF

### PG 25 Standard PG 25-CF Coolant Flush with Coolant Channels

Ø [mm]	Ø [Inch]	Ø [Inch]	PG 25 Part No.	PG 25-CF Part No.	Ø [mm]	Ø [Inch]	Ø [Inch]	PG 25 Part No.	PG 25-CF Part No.
3.000	0.1181	-	1725.03000	1725.03002	10.000	0.3937	-	1725.10000	1725.10002
3.175	0.1250	1/8"	1725.03181	1725.03183	11.000	0.4331	-	1725.11000	1725.11002
3.500	0.1378		1725.03500	-	11.113	0.4375	7/16"	1725.11111	1725.11113
4.000	0.1575	-	1725.04000	1725.04002	12.000	0.4724	-	1725.12000	1725.12002
4.500	0.1969		1725.04500	-	12.700	0.5000	1/2"	1725.12701	1725.12703
4.763	0.1875	3/16"	1725.04761	1725.04763	13.000	0.5112	-	1725.13000	1725.13002
5.000	0.1969	-	1725.05000	1725.05002	14.000	0.5512	-	1725.14000	1725.14002
5.500	0.2165		1725.05500	-	14.288	0.5625	9/16"	1725.14291	1725.14293
6.000	0.2362	-	1725.06000	1725.06002	15.000	0.5906	-	1725.15000	1725.15002
6.350	0.2500	1/4"	1725.06351	1725.06353	15.875	0.6250	5/8"	1725.15881	1725.15883
7.000	0.2756	-	1725.07000	1725.07002	16.000	0.6300	-	1725.16000	1725.16002
7.938	0.3125	5/16"	1725.07941	1725.07943	18.000	0.7087	-	1725.18000	1725.18002
8.000	0.3150	-	1725.08000	1725.08002	19.050	0.7500	3/4"	1725.19051	1725.19053
9.000	0.3543	-	1725.09000	1725.09002	20.000	0.7874	-	1725.20000	1725.20002
9.525	0.3750	3/8"	1725.09521	1725.09523					

Additional technical information on page 13.7.

2



Swiss  
Precision  
Tools

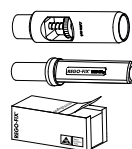
**PG**  
powRgrip® Collets

## Matching Products

### Accessories

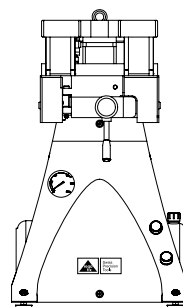
2

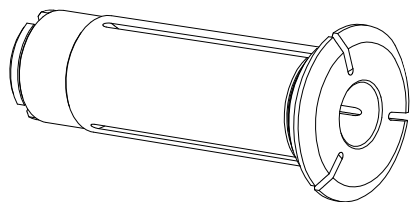
Type	Description	Part No.	Page
VEW 32	Presetting tool for PG 32 toolholder	7619.32000	12.7
TKCP 32	Taper cleaner for PG 32 toolholders (incl. CPS 32)	7657.32000	12.7
CPS 32	Cleaning paper set for TKCP 32 / pack contains 250 sheets	7658.32000	12.7



### PGU 9000 Automatic Clamping Unit

Type	Description	Part No.	Page
PGU 9000 E	powRgrip® Automatic clamping unit 230 V	7610.90000	12.8
PGU 9000 A	powRgrip® Automatic clamping unit 110 V	7610.90100	12.8
PGU 9000 J	powRgrip® Automatic clamping unit 100 V	7610.90200	12.8
APG 932	PG 32 Clamping insert for PGU 9000, taper cleaner included	7611.32900	12.8





PG 32 | PG 32-CF

**PG 32 Standard**  
**PG 32-CF Coolant Flush with Coolant Channels**

Ø [mm]	Ø [Inch]	Ø [Inch]	PG 32 Part No.	PG 32-CF Part No.
6.000	0.2362	-	1732.06000	1732.06002
6.350	0.2500	1/4"	1732.06351	1732.06353
7.000	0.2756	-	1732.07000	1732.07002
7.938	0.3125	5/16"	1732.07941	1732.07943
8.000	0.3150	-	1732.08000	1732.08002
9.000	0.3543	-	1732.09000	1732.09002
9.525	0.3750	3/8"	1732.09521	1732.09523
10.000	0.3937	-	1732.10000	1732.10002
11.000	0.4331	-	1732.11000	1732.11002
11.113	0.4375	7/16"	1732.11111	1732.11113
12.000	0.4724	-	1732.12000	1732.12002
12.700	0.5000	1/2"	1732.12701	1732.12703
14.000	0.5512	-	1732.14000	1732.14002
14.288	0.5625	9/16"	1732.14291	1732.14293
15.875	0.6250	5/8"	1732.15881	1732.15883
16.000	0.6300	-	1732.16000	1732.16002
18.000	0.7087	-	1732.18000	1732.18002
19.050	0.7500	3/4"	1732.19051	1732.19053
20.000	0.7874	-	1732.20000	1732.20002
22.000	0.8661	-	1732.22000	1732.22002
22.225	0.8750	7/8"	1732.22231	1732.22233
25.000	0.9843	-	1732.25000	1732.25002
25.400	1.0000	1"	1732.25401	1732.25403

Additional technical information on page 13.7.

2



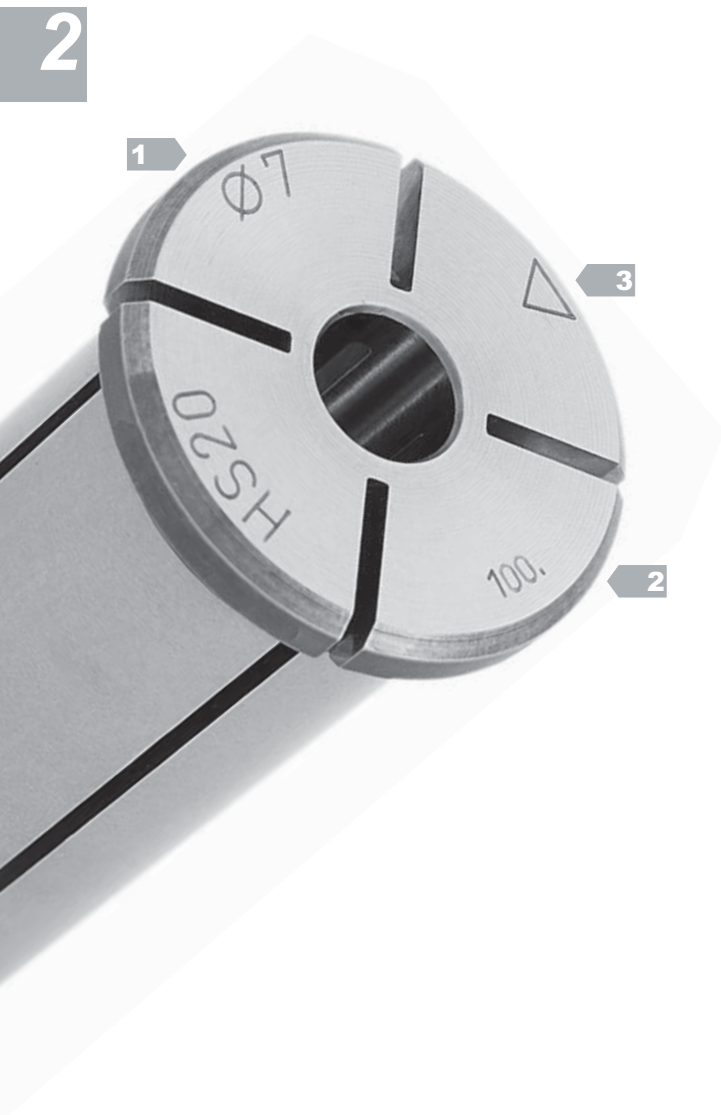
Swiss  
Precision  
Tools

# HS

## Reduction Sleeves

## Features | Benefits

2



### Swiss Quality

Made in Switzerland to ISO9001/ISO14001.

#### 1 Marking

With type and size (reduced collet selection error).

#### 2 Product Traceability

Lot number marked on collets, therefore traceable through entire manufacturing process.

#### 3 Original REGO-FIX®

When buying PG collets please note the REGO-FIX® quality seal  $\triangle$  on the front of the collet.

### Precision

Highest T.I.R. (Total Indicated Runout)  $<3 \mu\text{m}$ .

### Flexibility

Clamping of different tool shank diameters in hydro-chucks.

4 standard sizes: 12, 20, 25, and 32 mm

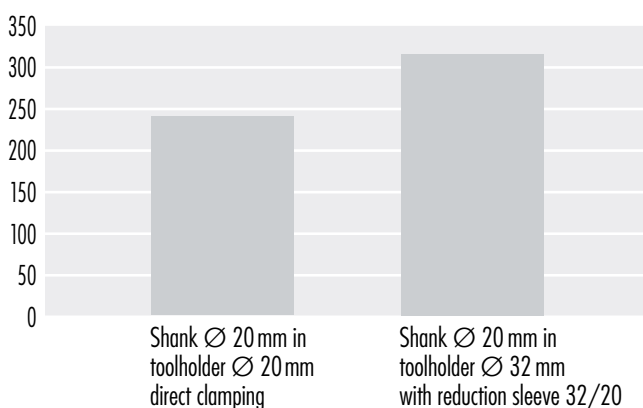
### Coolant Through Tools

Metal-to-metal seal for cutting tools with internal coolant channels.

### Increased Clamping Force

When using REGO-FIX® reduction sleeves the transferable torque is increased.

### Comparison of Transferable Torque at $\varnothing 20 \text{ mm}$

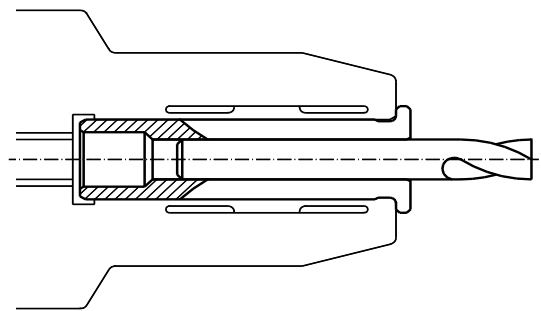


## Information

### Reduction Sleeves for Hydro-Chucks

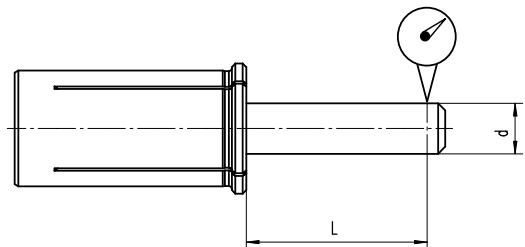
REGO-FIX® reduction sleeves are designed to fit hydro-chucks of different manufacturers. They are specially suited for high precision clamping of cylindrical tool shanks per DIN 6335 form HA, HB and HE, as well as tool shanks per DIN 1835 form B, C, D and E.

The special design of REGO-FIX® reduction sleeves allows an efficient use of coolant through cutting tools. This self-sealing system works with the most common hydraulic expansion chucks.



### Concentricity (T.I.R.) of REGO-FIX® HS Type Reduction Sleeves

Clamping Diameter			T.I.R. max. [mm]
Above d [mm]	Up to d [mm]	L [mm]	
3.0	6.0	16.0	0.003
6.0	10.0	25.0	0.003
10.0	18.0	40.0	0.003
18.0	26.0	50.0	0.003

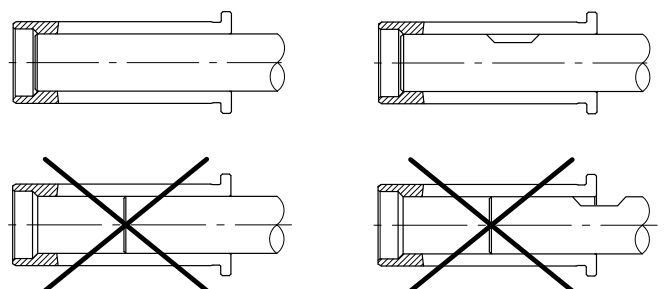


Improper assembly can damage the concentricity of the reduction sleeve.

Insert tools the full length of the reduction sleeve.

Only clamp h6 tool shanks.

Do not clamp reduction sleeve without a tool. Reduction Sleeve will be damaged.

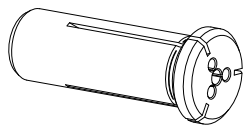




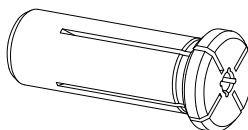
Swiss  
Precision  
Tools

# HS

## Reduction Sleeves



HS 12 | MB



HS 12 | CF  
HS 20 | CF

### HS-MB Reduction Sleeves with Microbore

Ø Bore	HS 12-MB Part No.	
	[mm]	[Inch]
1.000	0.0394	1912.01009
1.500	0.0591	1912.01509
2.000	0.0787	1912.02009
2.500	0.0984	1912.02509

Additional technical information on page 13.9.

### HS-CF Reduction Sleeves Coolant Flush with Coolant Channels

Ø Bore	HS 12-CF Part No.		HS 20-CF Part No.	
	[mm]	[Inch]		
3.000	0.1181	1912.03002	1920.03002	
4.000	0.1575	1912.04002	1920.04002	
5.000	0.1969	1912.05002	1920.05002	
6.000	0.2362	1912.06002	1920.06002	
8.000	0.3150	1912.08002	1920.08002	
10.000	0.3937	-	1920.10002	
12.000	0.4724	-	1920.12002	
14.000	0.5512	-	1920.14002	
16.000	0.6299	-	1920.16002	

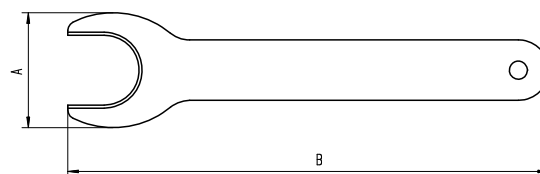
Additional technical information on page 13.9.

### Extractor

The extractor helps to remove the reduction sleeve from the hydro-chuck.

Extractor	Part No.	For Sizes	A [mm]	B [mm]
EHS 12 - 1/2"	7321.12000	HS 12	24.6	100
EHS 20 - 3/4"	7321.20000	HS 20	38.0	160
EHS 25 - 1"	7321.25000	HS 25	51.0	180
EHS 32 - 1 1/4"	7321.32000	HS 32	63.0	200

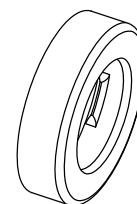
### Matching Products



### Chip Cover for Reduction Sleeves (HS 12, HS 20)

For optimal chip removal. Chip cover to click-in at the head of the REGO-FIX reduction sleeves.

Type	Part No.	Matching for REGO-FIX Reduction Sleeve Size	REGO-FIX Reduction Sleeve-Ø [mm]	REGO-FIX Reduction Sleeve-Ø [Inch]
CC-HS 12	7331.04200	HS 12, HS 1/2"	3 - 4 mm	1/8"
CC-HS 12	7331.06600	HS 12, HS 1/2"	5 - 6 mm	3/16" - 1/4"
CC-HS 12	7331.10200	HS 12, HS 1/2"	7 - 10 mm	5/16" - 3/8"
CC-HS 20	7333.04200	HS 20, HS 3/4"	3 - 4 mm	1/8"
CC-HS 20	7333.06600	HS 20, HS 3/4"	5 - 6 mm	3/16" - 1/4"
CC-HS 20	7333.10200	HS 20, HS 3/4"	7 - 10 mm	5/16" - 3/8"
CC-HS 20	7333.14200	HS 20, HS 3/4"	11 - 14 mm	7/16" - 1/2"
CC-HS 20	7333.16200	HS 20, HS 3/4"	15 - 16 mm	9/16" - 5/8"
CC-HS 20	7333.18200	HS 20, HS 3/4"	18 mm	-



### Reduction Sleeves

Ø Bore [mm]	Ø Bore [Inch]	Ø [Inch]	HS 12	HS 20	HS 25	HS 32
			Part No.	Part No.	Part No.	Part No.
3.000	0.1181	-	1912.03000	1920.03000	1925.03000	-
3.175	0.1250	1/8"	1912.03181	1920.03181	1925.03181	-
4.000	0.1545	-	1912.04000	1920.04000	1925.04000	-
4.763	0.1875	3/16"	1912.04761	1920.04761	1925.04761	1932.04761
5.000	0.1969	-	1912.05000	1920.05000	1925.05000	1932.05000
6.000	0.2362	-	1912.06000	1920.06000	1925.06000	1932.06000
6.350	0.2500	1/4"	1912.06351	1920.06351	1925.06351	1932.06351
7.000	0.2756	-	1912.07000	1920.07000	1925.07000	1932.07000
7.938	0.3125	5/16"	1912.07941	1920.07941	1925.07941	1932.07941
8.000	0.3150	-	1912.08000	1920.08000	1925.08000	1932.08000
9.000	0.3430	-	1912.09000	1920.09000	1925.09000	1932.09000
9.525	0.3750	3/8"	1912.09521	1920.09521	1925.09521	1932.09521
10.000	0.3937	-	1912.10000	1920.10000	1925.10000	1932.10000
11.000	0.4331	-	-	1920.11000	-	1932.11000
11.112	0.4375	7/16"	-	1920.11111	1925.11111	1932.11111
12.000	0.4724	-	-	1920.12000	1925.12000	1932.12000
12.700	0.5000	1/2"	-	1920.12701	1925.12701	1932.12701
13.000	0.5118	-	-	1920.13000	-	1932.13000
14.000	0.5512	-	-	1920.14000	1925.14000	1932.14000
14.288	0.5625	9/16"	-	1920.14291	1925.14291	1932.14291
15.000	0.5906	-	-	1920.15000	-	1932.15000
15.875	0.6250	5/8"	-	1920.15881	1925.15881	1932.15881
16.000	0.6300	-	-	1920.16000	1925.16000	1932.16000
17.000	0.6693	-	-	-	-	1932.17000
17.461	0.6875	11/16"	-	-	1925.17461	1932.17461
18.000	0.7087	-	-	-	1925.18000	1932.18000
19.000	0.7480	-	-	-	-	1932.19000
19.050	0.7500	3/4"	-	-	1925.19051	1932.19051
20.000	0.7480	-	-	-	1925.20000	1932.20000
20.638	0.8125	13/16"	-	-	1925.20631	1932.20631
22.000	0.8661	-	-	-	-	1932.22000
22.225	0.8750	7/8"	-	-	-	1932.22221
23.813	0.9375	15/16"	-	-	-	1932.23811
25.000	0.9842	-	-	-	-	1932.25000
25.400	1.0000	1"	-	-	-	1932.25401

Outer-Ø of reduction sleeve corresponds to the type.

HS12 = Ø 12 mm

HS20 = Ø 20 mm

HS25 = Ø 25 mm

HS32 = Ø 32 mm



Outer-Ø in inches upon request.