

REGO-FIX®



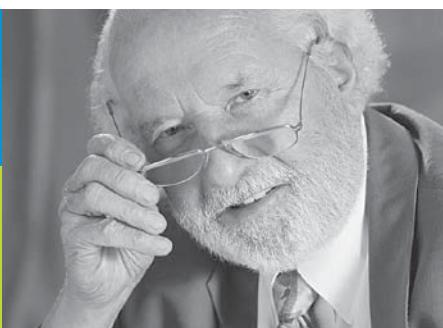
Made in
Switzerland



Swiss
Precision
Tools

Total Tooling Systems 2011





Company founder Fritz Weber

Made in
Switzerland



Company History since 1950

The REGO-FIX company history has been strongly influenced by its founder, Fritz Weber. His innovative spirit and persistence was instrumental in making his invention, the ER collet system, a world-wide industry standard. The DIN standardization of the ER collet system was the final confirmation that Fritz Weber was on the right track with his invention. Not only is REGO-FIX AG one of the leading manufacturers of tool holding systems in the world, it also has a reputation of being one of the best.

Today

The innovative design of the patented powRgrip® colletholder system is another milestone in the history of REGO-FIX AG. Continuous investments in employees, high-tech manufacturing facilities and product developments have made REGO-FIX AG a leader in high-precision toolholding systems.

Location

The Jura region in North Western Switzerland has long been famous for its watch making industry and its production of precision mechanical products. It's here, in the village of Tenniken, where REGO-FIX® products are manufactured and distributed worldwide.

International

Company sales organizations in the US, China and Germany along with a world wide network of manufacturer representatives complete the REGO-FIX® global distribution system.

Behind every Product Stand Experienced People

An innovative spirit within REGO-FIX AG encourages continuous improvement of existing products and the development of new ones. World-wide approximately 190 motivated, well-trained employees with years of experience, represent «Swiss Quality». Their knowledge, experience and skills are put to use in the new and modern REGO-FIX® manufacturing facility.



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The products described in this catalog are specified to the best of our knowledge. The data given herein are dependent on the conditions under which they are measured and are derived from tests carried out under defined lab conditions at REGO-FIX AG. The performance of these tools depends on the conditions under which they are used and may vary from case to case. The information given in this catalog is believed to be correct. REGO-FIX® however assumes no responsibility or liability for any errors, inaccuracies or omissions that may appear in this catalog.

Information in this catalog is subject to change without notice and should not be construed as a commitment by REGO-FIX® or its subsidiaries. This is especially valid for adaptions to new or changed international standards or improvements to the products performance or production processes.

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Softsynchro® is a registered trademark of EMUGE-Werk Richard Gimpel GmbH & Co. KG.

Viton® is a brand of synthetic rubber and fluoropolymer elastomer of DuPont Performance Elastomers.

Capto® is a registered trademark of Sandvik AB.

ER SYSTEM

powRgrip SYSTEM

Other Systems

Directory

REGO-FIX® Systems



1

Collets and Reduction Sleeves



2

Tapping Collets



3

Clamping Nuts, Sealing Disks, Coolant Flush Disks



4

TC Steep Taper Toolholders DIN 69871



5

BT Steep Taper Toolholders MAS 403



6

HSK Toolholders DIN 69893



7

REGO-FIX CAPTO Toolholders ISO 26623



8

Cylindrical Shank Toolholders



9

Other Toolholders



10

Floating Chucks



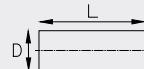
11

Accessories



12

Technical Information



13



**1.1 Features and Benefits
of REGO-FIX® Products**

**1.2 Overview
Toolholder Program**

ER *SYSTEM*

1.3 Features and Benefits

1.4 Program Overview

powRgrip *SYSTEM*

1.5 Features and Benefits

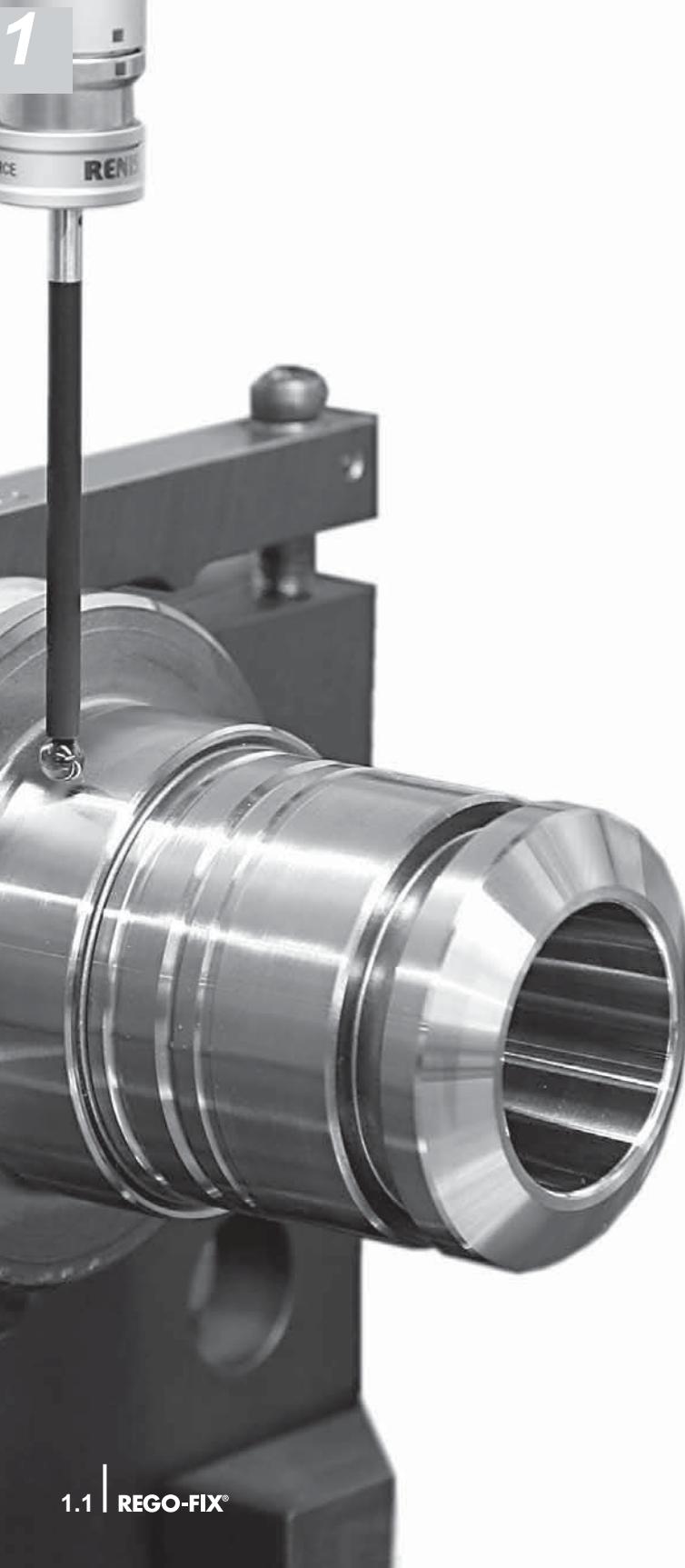
1.6 Program Overview



Swiss
Precision
Tools

Program Overview

Features | Benefits



Swiss Quality

Made in Switzerland to ISO 9001/ISO 14001.
High-grade, specially formulated case hardened
spring steel guarantees durability and increased
tool life.

Original REGO-FIX®

Look for the special REGO-FIX® quality seal △.

100% Quality Assurance

Every REGO-FIX® product is quality checked.

Product Traceability

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

Quality Assurance Lab

3D-, CMM-technology and microscopic analysis,
length-, angle-, roundness-, run-out-, balancing-,
torque and hardness measuring equipment.

Calibration

Traceability to external calibration service and to the
Federal Office of Metrology (METAS).

Testing Laboratory

For failure analysis, life-tests and applications
engineering.

Matched Tooling System

All REGO-FIX® components are matched for best fit.
The compatibility of the whole system results in the
maximum precision, balance and tool life.

Toolholder Program

TC DIN 69871	5	ER				
	5	PG				
	5	WD				
	5	KBF				
	5	MK				
BT MAS 403	5	KFD				
	6	ER				
	6	PG				
	6	WD				
	6	KBF				
HSK DIN 69893	6	MK				
	6	KFD				
	7	ER				
	7	PG				
	7	WD				
CAPTO	7	KBF				
	7	MK				
	7	KFD				
CYL	8	ER				
	8	PG				
	8	MA				
	9	ER				
	9	PG				

1



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ER SYSTEM

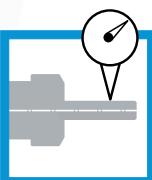
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Features | Benefits



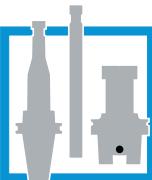
The Original – from the inventor
of the ER System – only genuine
with the \triangle seal



Best T.I.R. on the ER market
with $\leq 5 \mu\text{m}$ accuracy of the collet
over its entire clamping range



Clamps all type of toolshanks
and materials



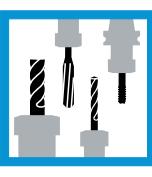
The broadest ER System program
in the world



High vibration dampening results
in longer tool life and best surface
finish



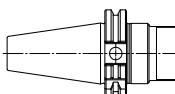
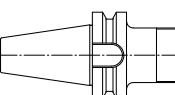
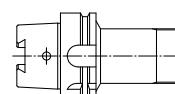
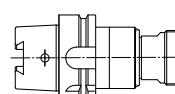
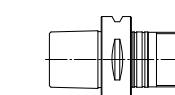
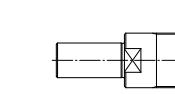
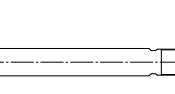
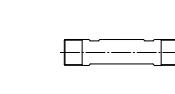
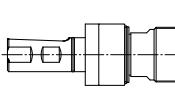
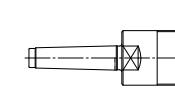
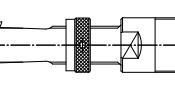
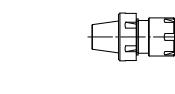
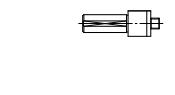
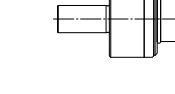
Wide clamping range for
all diameters from 0.2 - 36 mm

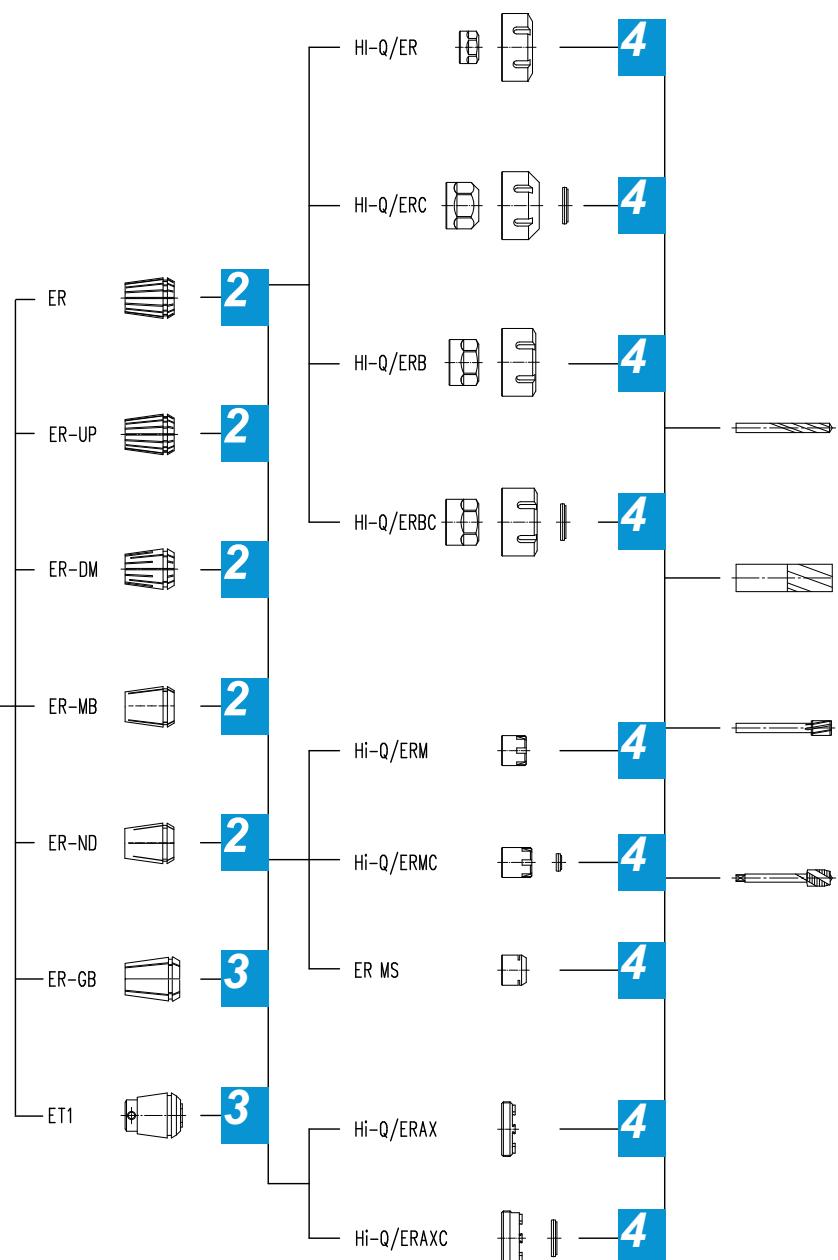


Flexibility for use with
all tool types

ER SYSTEM

1

TC/ER DIN 69871		5
BT/ER MAS 403		6
HSK/ER DIN 69893		7
HSK SSY/ERC DIN 69893		7
CAPTO/ER Certified by SANDVIK		8
CYL/ER Cyl/ER NC		9
CYL/ER M Cyl/ER MF		9
CYD/ER MF		9
CYL SSY/ERC Cyl GSF/ERC		9
MK/ER DIN 228-C		10
SH/ER DIN 6327-C		10
ER(M)/ERM		10
MPH/ERM		11
PH/ER PHC/ER PHC/ER CAPTO		11





Swiss
Precision
Tools

PG powRgrip® SYSTEM

1

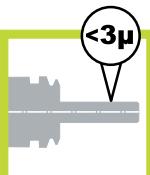


Features | Benefits

Clamping with clamping operation in less than 10 sec.



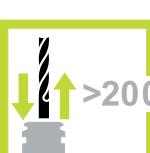
T.I.R. of <3 microns



High vibration dampening due to optimum rigidity and to interfacing surfaces toolholder-collet, collet-tool



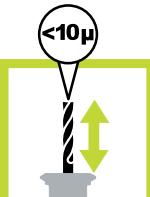
Highest transferable torque and superior T.I.R., even after 20 000 tool changes



Clamps all types of toolshanks and materials in h6 tolerance from Ø 0.2 – 25.4 mm (for PG-TAP collets taps and cold forming tools in h9 tolerance)



Precise length adjustment repeatability <10 microns

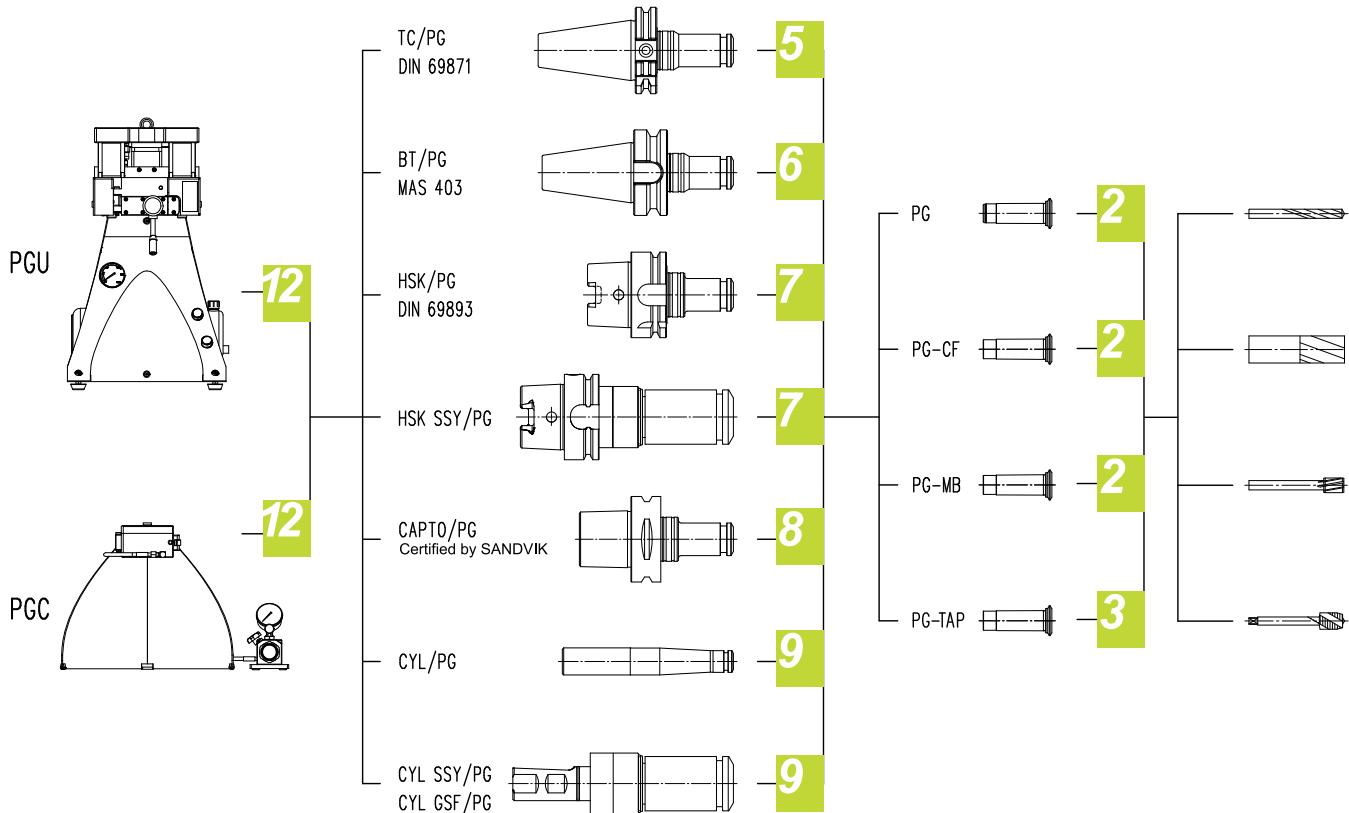


Developed for highest productivity such as HSC/HPC

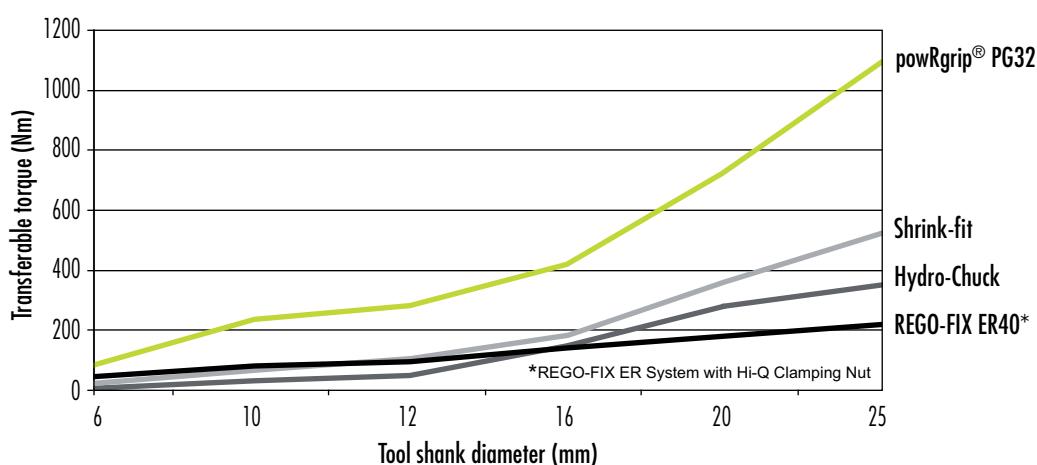


powRgrip SYSTEM

1



Transferable Torque of the powRgrip® System



Application example see

video.powRario.ch



A high-contrast, close-up photograph of a precision collet, showing its metallic texture and geometric shapes. It features a central hexagonal hole and several rectangular grooves along its sides.

Collets Reduction Sleeves

2

ER SYSTEM

- 2.1 Features | Benefits**
- 2.2 Information**
- 2.3 Concentricity**
- 2.4 Mounting Instructions**
- 2.6 ER 8 | ER 8-UP | ER 8-MB**
- 2.8 ER 11 | ER 11-UP | ER 11-MB | ER 11-ND**
- 2.10 ER 16 | ER 16-UP | ER 16-MB**
- 2.12 ER 20 | ER 20-UP**
- 2.14 ER 25 | ER 25-UP**
- 2.16 ER 32 | ER 32-UP**
- 2.18 ER 40 | ER 40-UP**
- 2.20 ER 50 | ER 50-UP**
- 2.22 ER 11-DM**
- 2.24 ER 16-DM**
- 2.26 ER 20-DM**
- 2.28 ER 25-DM**
- 2.30 ER 32-DM**
- 2.32 ER 40-DM**

powRgrip SYSTEM

- 2.33 Features | Benefits**
- 2.34 Information**
- 2.36 PG 10 | PG 10-CF | PG 10-MB**
- 2.38 PG 15 | PG 15-CF**
- 2.40 PG 25 | PG 25-CF**
- 2.42 PG 32 | PG 32-CF**

Reduction Sleeves

- 2.43 Features | Benefits**
- 2.44 Information**
- 2.45 HS 12-MB | HS 12-CF | HS 20-CF**
- 2.45 Chip Cover | Extractor**
- 2.46 HS 12 | HS 20 | HS 25 | HS 32**



Swiss
Precision
Tools

ER
Collets

Features | Benefits



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

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 △ 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

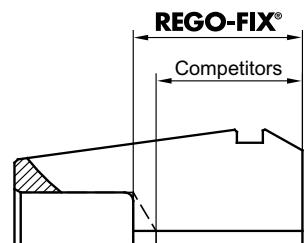
Sizes from ER 8 up to ER 50 for diameters from 0.2 mm up to 36 mm.

Worldwide Availability

With the global REGO-FIX® distribution network.

Up to 20% more Clamping Length

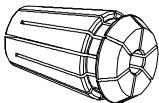
For small diameters, up to 20% more clamping length than the competition, which results in better run-out.



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.

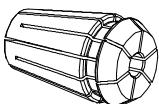
REGO-FIX® ER Collets



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

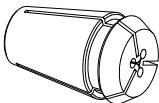


ER-UP Ultra Precision Collets

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

- 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

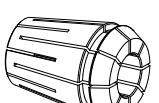
These collets are primarily used for high-speed cutting applications, where best T.I.R. is required. Best T.I.R. improves tool life.



ER-MB Microbore Collets

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

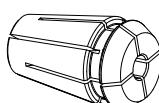
- T.I.R. $\leq 6 \mu\text{m}$
- Clamping range from diameter 0.2 mm up to 0.9 mm
- For tool shanks with nominal diameter h7 tolerance only



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

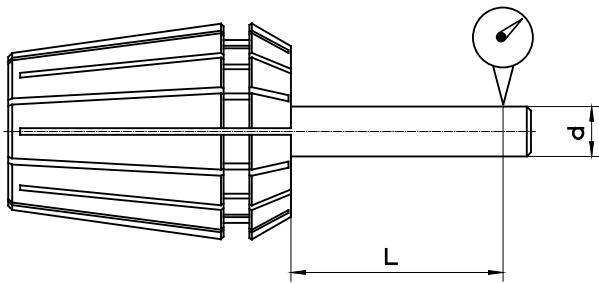
- T.I.R. $\leq 3 \mu\text{m}$
- Clamping range from diameter 3 mm up to 6 mm
- For tool shanks with nominal diameter h9 tolerance only



Concentricity T.I.R.

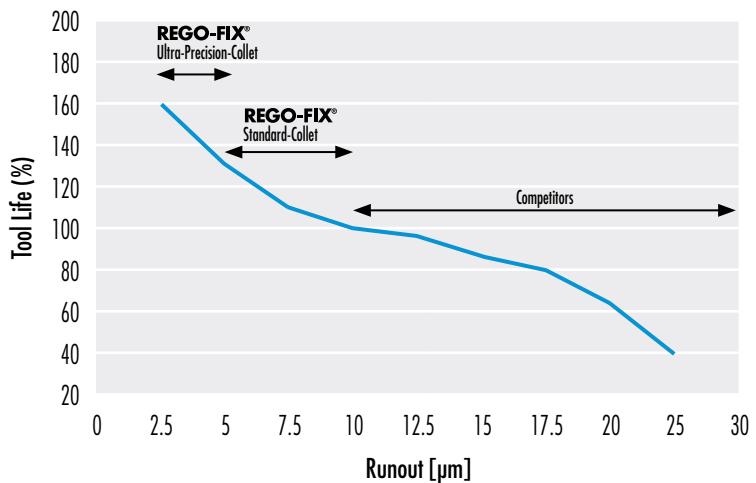
DIN 6499/ISO 15488

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

2

Clamping diameter d [mm]			T.I.R. max. [mm]		
>	\leq	L	DIN 6499/ ISO 15488 Form B	\triangle ER	\triangle ER-UP
1.0	1.6	6.0			
1.6	3.0	10.0			
3.0	6.0	16.0	0.015	0.010	0.005
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.

Mounting Instructions

DIN 6499/ISO 15488

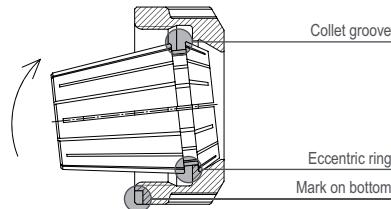
Collets Type ER and ER-UP

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.

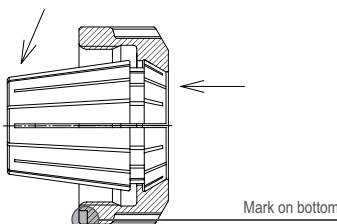
For recommended tightening torque please refer to list on page 13.3/13.4.

2

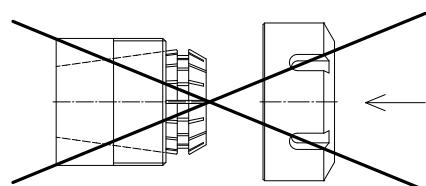


Disassembly Instructions

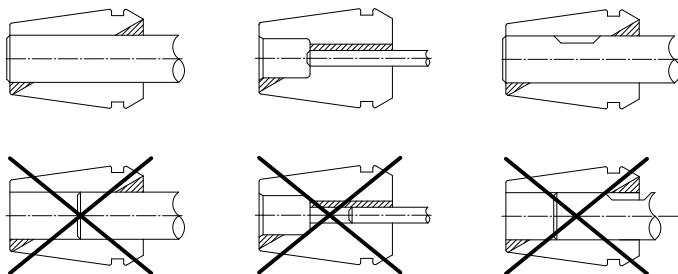
After the nut is unscrewed from the toolholder, press on the face of the collet while simultaneously pushing sideways on the back of the collet opposite the mark until it disengages from the clamping nut.



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 Ø 12–11 mm collet to clamp a Ø 12.2 mm shank. Rather use the next bigger collet (here Ø 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 2/3 of the collet bore length. Improper tool insertion can permanently deform the collet and will result in poor runout.



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 / 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

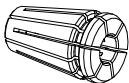
Supplied with: 9 Collets, 1 Tray ZWT/8.

Tray ER 8

Part Description	Part No.	Page
ZWT / 8	7121.08000	12.5

ER 8 | ER 8-UP | ER 8-MB

DIN 6499/ ISO 15488



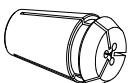
ER 8 Standard **ER 8-UP Ultra Precision**

2

Clamping Capacity [mm]	Clamping Capacity [Inch]	\varnothing [Inch]	ER 8 Part No.	ER 8-UP Part No.
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 [mm]	Clamping Capacity h7 [Inch]	ER 8-MB Part No.
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

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.

Additional technical information on page 13.6.



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/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

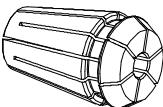
ER 11 Standard/ER 11-UP Ultra Precision

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

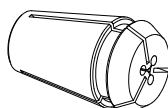
Clamping Capacity [mm]	[Inch]	\emptyset [Inch]	ER 11 Part No.	ER 11-UP Part No.
1.00 - 0.50 *	0.0394 - 0.0197	1/32"	1111.01000	1111.01001
1.50 - 1.00 *	0.0591 - 0.0394	-	1111.01500	1111.01501
2.00 - 1.50 *	0.0787 - 0.0591	1/16"	1111.02000	1111.02001
2.50 - 2.00 *	0.0984 - 0.0787	3/32"	1111.02500	1111.02501
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 [mm]	[Inch]	\emptyset [Inch]	ER 11 Part No.	ER 11-UP Part No.
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.

2



ER 11-MB with Microbore

Clamping Capacity h7 [mm]	[Inch]	ER 11-MB Part No.
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

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 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

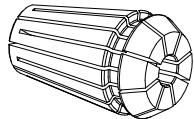
ER 16 Standard/ER 16-UP Ultra Precision

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

2

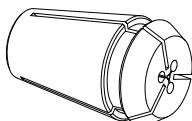
ER 16 Standard
ER 16-UP Ultra Precision

Clamping Capacity [mm]	Clamping Capacity [Inch]	\varnothing [Inch]	ER 16 Part No.	ER 16-UP Part No.
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 [mm]	Clamping Capacity [Inch]	\varnothing [Inch]	ER 16 Part No.	ER 16-UP Part No.
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.



ER 16-MB with Microbore

Clamping Capacity h7 [mm]	Clamping Capacity h7 [Inch]	ER 16-MB Part No.
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

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 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 / ERMC 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 / ERAXC 20	3320.70000	4.18		■	■	■		■	■	E 20 AX	7117.20000	12.2

Collet Set

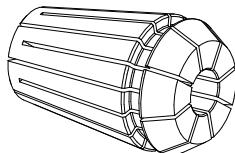
ER 20 Standard/ER 20-UP Ultra Precision

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 | ER 20-UP
DIN 6499/ISO 15488

ER 20 Standard
ER 20-UP Ultra Precision

Clamping Capacity [mm]	Clamping Capacity [Inch]	\emptyset [Inch]	ER 20 Part No.	ER 20-UP Part No.
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.

2



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 / 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 / ERMC 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 / ERAXC 25	3325.70000	4.18		■	■	■		■	■	E 25 AX	7117.25000	12.2

Collet Set

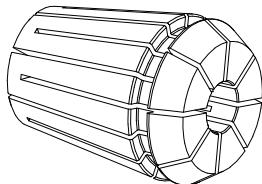
ER 25 Standard/ER 25-UP Ultra Precision

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 | ER 25-UP

DIN 6499/ ISO 15488

ER 25 Standard
ER 25-UP Ultra Precision

2

Clamping Capacity [mm]	Clamping Capacity [Inch]	Ø [Inch]	ER 25 Part No.	ER 25-UP Part No.	Clamping Capacity [mm]	Clamping Capacity [Inch]	Ø [Inch]	ER 25 Part No.	ER 25-UP Part No.
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 - 0.5315	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

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 / 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

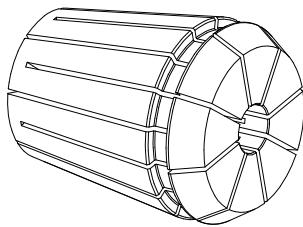
ER 32 Standard/ER 32-UP Ultra Precision

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 [mm]	Clamping Capacity [Inch]	\emptyset [Inch]	ER 32 Part No.	ER 32-UP Part No.
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 [mm]	Clamping Capacity [Inch]	\emptyset [Inch]	ER 32 Part No.	ER 32-UP Part No.
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.



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 / 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

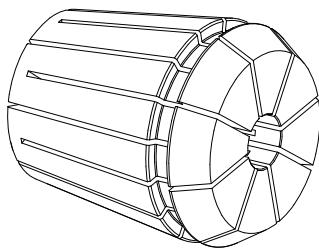
ER 40 Standard/ER 8-UP Ultra Precision

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 | ER 40-UP
DIN 6499/ ISO 15488

ER 40 Standard
ER 40-UP Ultra Precision

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

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

*Included in collet set.

Additional technical information on page 132.



Swiss
Precision
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 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

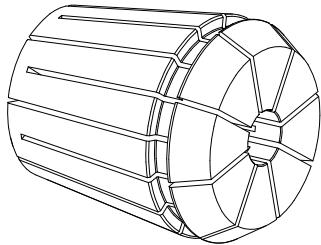
ER 50 Standard/ER 50-UP Ultra Precision

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



ER 50 | ER 50-UP
DIN 6499/ ISO 15488

ER 50 Standard
ER 50-UP Ultra Precision

Clamping Capacity [mm]	[Inch]	\emptyset [Inch]	ER 50 Part No.	ER 50-UP Part No.
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.

2

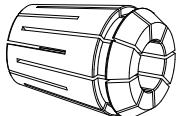


Matching Products

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	

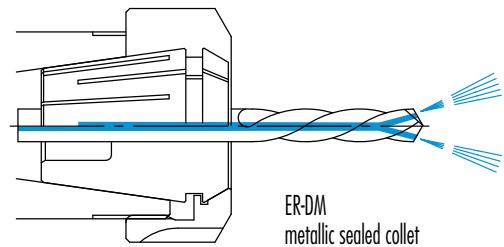


ER 11-DM
DIN 6499 / ISO 15488

ER 11-DM Metallic Sealed Type DM

Clamping Capacity [mm]	Clamping Capacity [Inch]	\varnothing [Inch]	Part No.
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.



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

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 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	

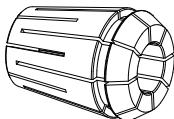
Collet Set ER 16-DM

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



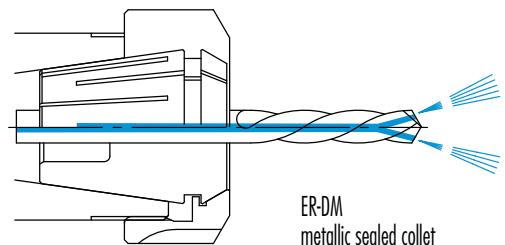
ER 16-DM
DIN 6499 / ISO 15488

ER 16-DM Metallic Sealed Type DM

Clamping Capacity [mm]	Clamping Capacity [Inch]	\emptyset [Inch]	Part No.
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.



ER-DM
metallic sealed collet

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

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 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	

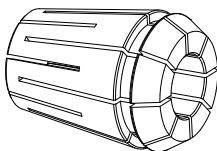
Collet Set ER 20-DM

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



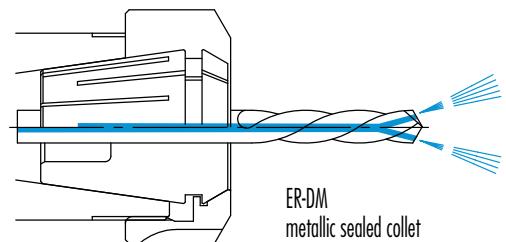
ER 20-DM
DIN 6499 / ISO 15488

ER 20-DM Metallic Sealed Type DM

Clamping Capacity [mm]	Clamping Capacity [Inch]	\emptyset [Inch]	Part No.
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.



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

2

Clamping Nut	Part No.	Page	Standard	With Friction Bearing	Bolted	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	

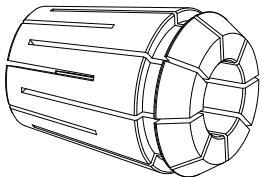
Collet Set ER 25-DM

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



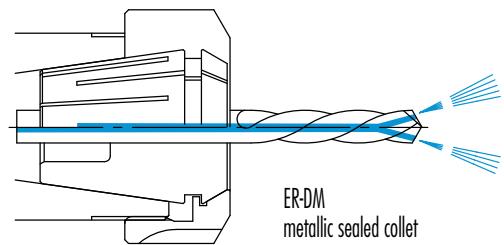
ER 25-DM
DIN 6499 / ISO 15488

ER 25-DM Metallic Sealed Type DM

Clamping Capacity [mm]	[Inch]	\emptyset [Inch]	Part No.
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.



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

2

Clamping Nut	Part No.	Page	Standard	With Friction Bearing	Bolted	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

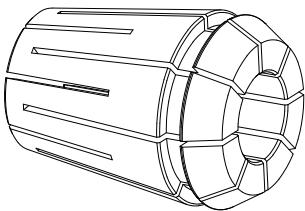
Collet Set ER 32-DM

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



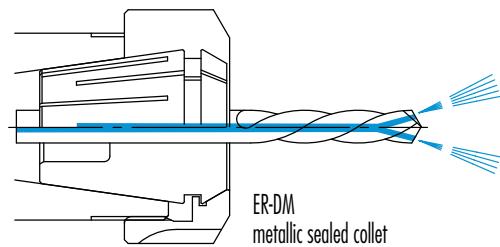
ER 32-DM
DIN 6499 / ISO 15488

ER 32-DM Metallic Sealed Type DM

Clamping Capacity [mm]	Clamping Capacity [Inch]	\emptyset [Inch]	Part No.
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

*Included in collet set.

Additional technical information on page 13.2.



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

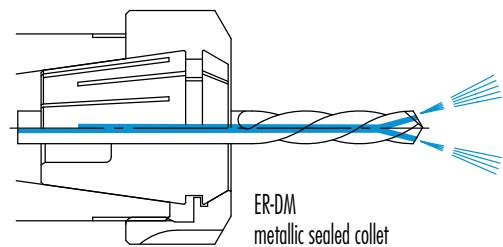
Clamping Nuts | Spanner

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 [mm]	[Inch]	Ø [Inch]	Part No.
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



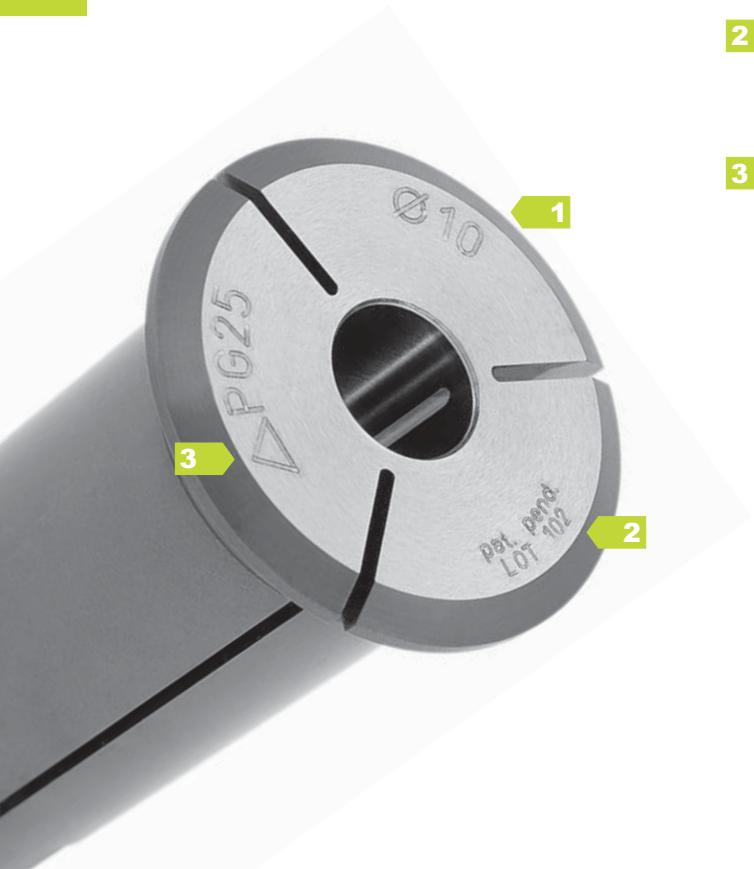
! The tool must be inserted at least concisely or more deeply into the collet. A minimum clamping length of 2/3 as for standard collets is not possible, otherwise the sealing function will not work.

Additional technical information on page 13.2.



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) $<3 \mu\text{m}$.

Accurate Length Adjustment $<10 \mu\text{m}$

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.

Information

2

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.

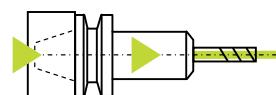
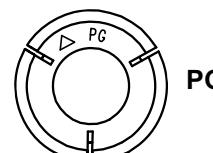
This system meets all requirements for an efficient manufacturing process.

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.

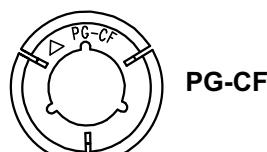
MQL-compatible collets upon request.

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

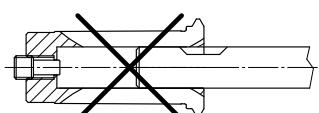
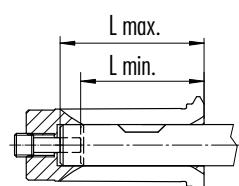
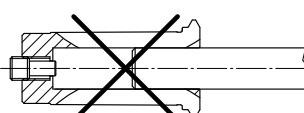
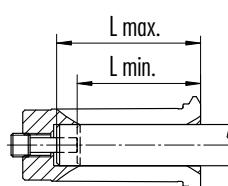


With coolant channels for peripheral cooling

! 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

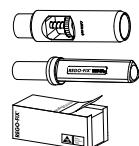
PG powRgrip® Collets

Matching Products

Accessories

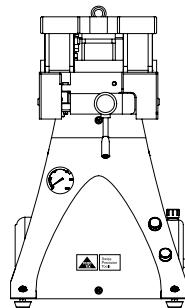
2

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



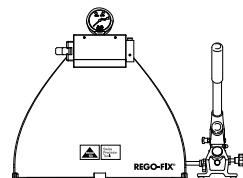
PGU 9000 Automatic Clamping Unit

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

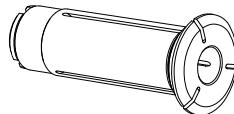


PG 10 | PG 10-CF | PG 10-MB

PG 10 Standard

PG 10-CF Coolant Flush with Coolant Channels

\varnothing [mm]	\varnothing [Inch]	\varnothing [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

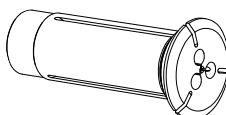


2

Additional technical information on page 13.7.

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

\varnothing [mm]	\varnothing [Inch]	\varnothing [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.

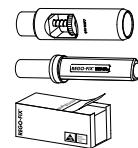


Matching Products

Accessories

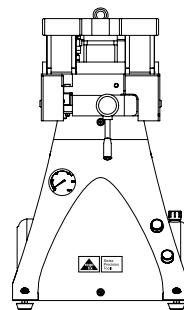
2

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



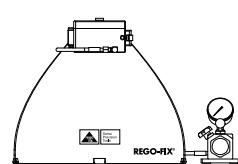
PGU 9000 Automatic Clamping Unit

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



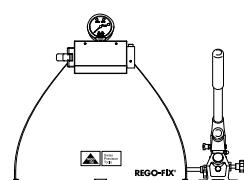
PGC 1500 Manual Clamping Unit

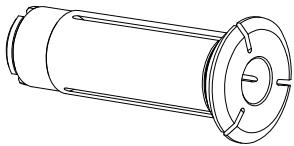
Type	Description	Part No.	Page
PGC 1500	Manual clamping unit PG 15, taper cleaner included	7621.15000	12.8
PGS 1	powRgrip® Compact stand no. 1	7625.00100	12.8
PGP 300 M	powRgrip® Hand pump, 300 bar	7629.00300	12.8



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

\varnothing [mm]	\varnothing [Inch]	\varnothing [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.

2

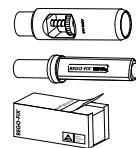


Matching Products

Accessories

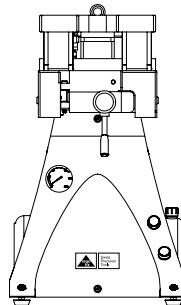
2

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



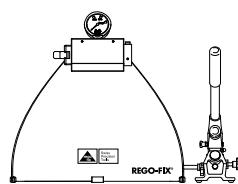
PGU 9000 Automatic Clamping Unit

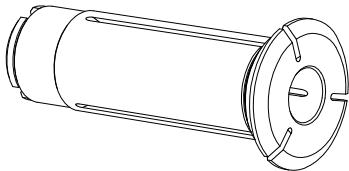
Type	Description	Part No.	Page
PGU 9000 E	powRgrip® Automatic clamping unit 230 V	7610.90000	12.8
PGU 9000 A	powRgrip® Automatic clamping unit 110 V	7610.90100	12.8
PGU 9000 J	powRgrip® Automatic clamping unit 100 V	7610.90200	12.8
APG 925	PG 25 clamping insert for PGU 9000, taper cleaner included	7611.25900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

2

PG 25 Standard

PG 25-CF Coolant Flush with Coolant Channels

\varnothing [mm]	\varnothing [Inch]	\varnothing [Inch]	PG 25 Part No.	PG 25-CF Part No.
3.000	0.1181	-	1725.03000	1725.03002
3.175	0.1250	1/8"	1725.03181	1725.03183
3.500	0.1378		1725.03500	-
4.000	0.1575	-	1725.04000	1725.04002
4.500	0.1969		1725.04500	-
4.763	0.1875	3/16"	1725.04761	1725.04763
5.000	0.1969	-	1725.05000	1725.05002
5.500	0.2165		1725.05500	-
6.000	0.2362	-	1725.06000	1725.06002
6.350	0.2500	1/4"	1725.06351	1725.06353
7.000	0.2756	-	1725.07000	1725.07002
7.938	0.3125	5/16"	1725.07941	1725.07943
8.000	0.3150	-	1725.08000	1725.08002
9.000	0.3543	-	1725.09000	1725.09002
9.525	0.3750	3/8"	1725.09521	1725.09523

\varnothing [mm]	\varnothing [Inch]	\varnothing [Inch]	PG 25 Part No.	PG 25-CF Part No.
10.000	0.3937	-	1725.10000	1725.10002
11.000	0.4331	-	1725.11000	1725.11002
11.113	0.4375	7/16"	1725.11111	1725.11113
12.000	0.4724	-	1725.12000	1725.12002
12.700	0.5000	1/2"	1725.12701	1725.12703
13.000	0.5112	-	1725.13000	1725.13002
14.000	0.5512	-	1725.14000	1725.14002
14.288	0.5625	9/16"	1725.14291	1725.14293
15.000	0.5906	-	1725.15000	1725.15002
15.875	0.6250	5/8"	1725.15881	1725.15883
16.000	0.6300	-	1725.16000	1725.16002
18.000	0.7087	-	1725.18000	1725.18002
19.050	0.7500	3/4"	1725.19051	1725.19053
20.000	0.7874	-	1725.20000	1725.20002

Additional technical information on page 13.7.



Swiss
Precision
Tools

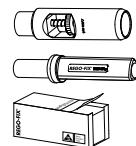
PG powRgrip® Collets

Matching Products

Accessories

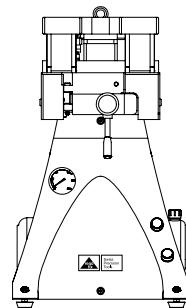
2

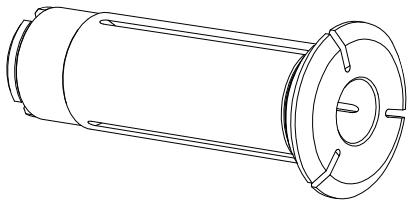
Type	Description	Part No.	Page
VEW 32	Presetting tool for PG 32 toolholder	7619.32000	12.7
TKCP 32	Taper cleaner for PG 32 toolholders (incl. CPS 32)	7657.32000	12.7
CPS 32	Cleaning paper set for TKCP 32 / pack contains 250 sheets	7658.32000	12.7



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

\varnothing [mm]	\varnothing [Inch]	\varnothing [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

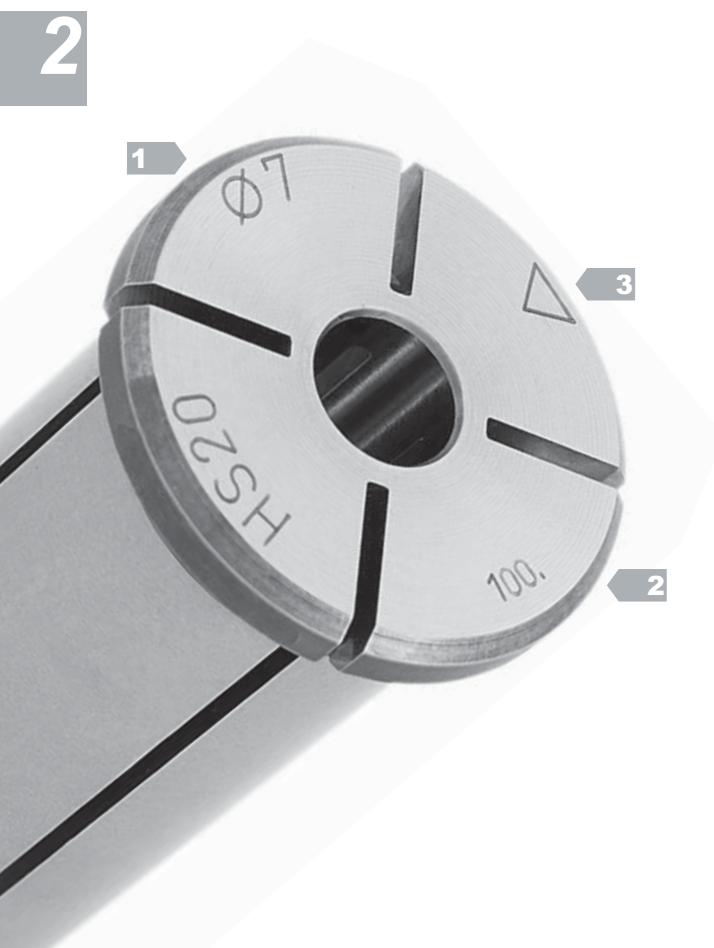


Swiss
Precision
Tools

HS

Reduction Sleeves

Features | Benefits



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

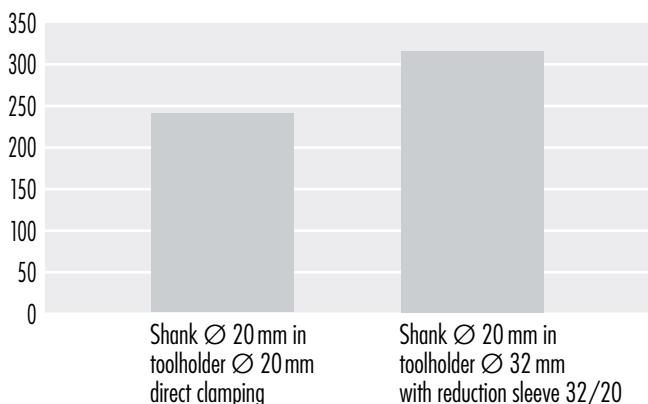
Coolant Through Tools

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

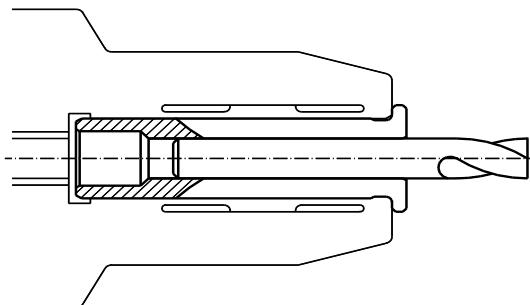
Reduction Sleeves for Hydro-Chucks

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.

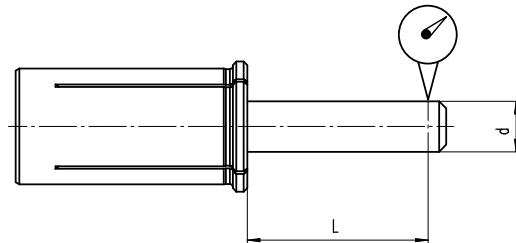
The special design of REGO-FIX® reduction sleeves allows an efficient use of coolant through cutting tools. This self-sealing system works with the most common hydraulic expansion chucks.

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

Clamping Diameter Above d [mm]	Up to d [mm]	L [mm]	T.I.R. max. [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



2

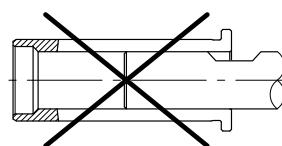
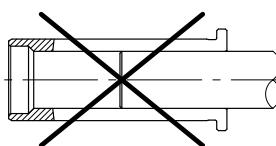
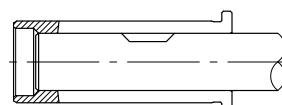
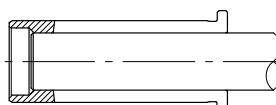


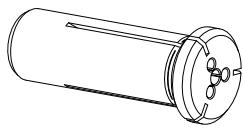
! Improper assembly can damage the concentricity of the reduction sleeve.

Insert tools the full length of the reduction sleeve.

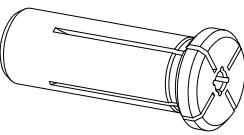
Only clamp h6 tool shanks.

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





HS 12 | MB



HS 12 | CF
HS 20 | CF

HS-MB Reduction Sleeves with Microbore

2

Ø Bore [mm]		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 [mm]		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

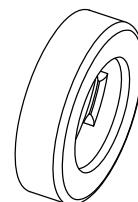
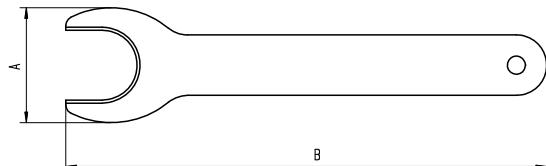
The extractor helps to remove the reduction sleeve from the hydro-chuck.

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

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	-



HS 12 | HS 20 | HS 25 | HS 32

Reduction Sleeves

\varnothing Bore [mm]	\varnothing Bore [Inch]	\varnothing [Inch]	HS 12 Part No.	HS 20 Part No.	HS 25 Part No.	HS 32 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.

2

Additional technical information on page 13.9/13.10.



A large, high-contrast black and white photograph occupies the left third of the page. It shows a close-up, low-angle view of a precision-ground metal collet. The collet has a polished, reflective surface with visible concentric circular grooves. A small, rectangular slot or keyway is visible near the top edge. The lighting highlights the metallic texture and the central bore.

Tapping Collets

3

ER *SYSTEM*

- 3.1 ER-GB Features | Benefits**
- 3.2 Information on ER-GB Collets without Axial Compensation**
- 3.4 ER-GB**
- 3.5 ET1 Features | Benefits**
- 3.6 Information on ET1 Collets with Axial Compensation**
- 3.8 ET1**

powRgrip *SYSTEM*

- 3.9 Features | Benefits**
- 3.10 Information on PG-TAP without Axial Compensation**
- 3.12 PG 15-TAP | PG 25-TAP**

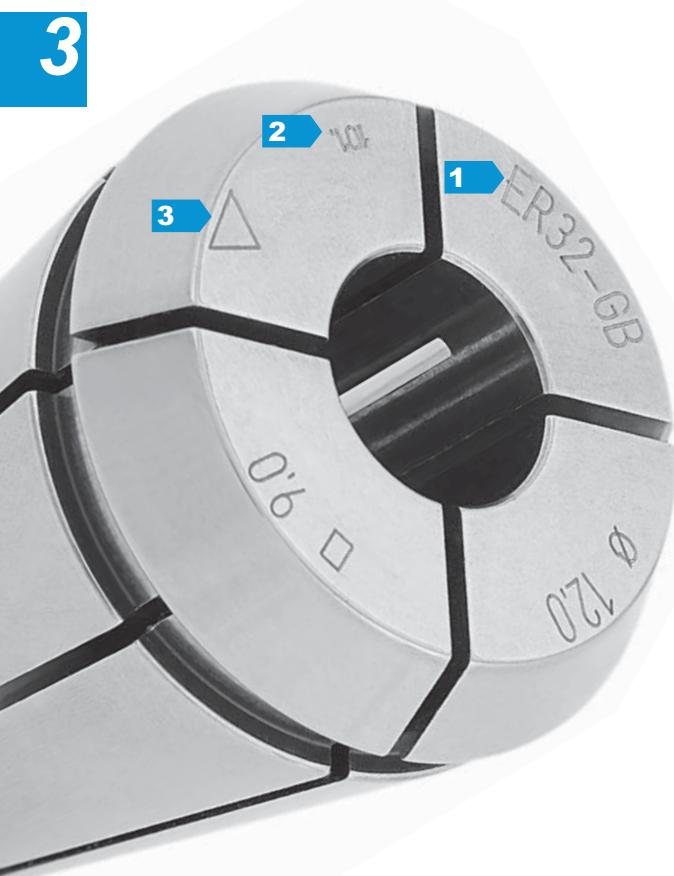


Swiss
Precision
Tools

ER

Tapping 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 △ on the front of the collet.

Interchangeable

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

Wide Product Range

Sizes: ER-GB 11 to 50

Standards: DIN, ISO, JIS, (ANSI on request)

Strength: Square for tight grip of tap
Eliminates tap slippage in collets.

Matched Tooling System

All REGO-FIX® components such as tapping 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.

Information

ER-GB Tapping Collets without Axial Compensation

These rigid tapping collets are compatible with taps per DIN, ISO, JIS and ANSI standards.

The REGO-FIX® ER-GB tapping collets are manufactured with an internal square. They are intended for use on CNC machines that have synchronized machine spindle speed and feed rate. Machines that have such «rigid» tapping capabilities require only minimal compensation.

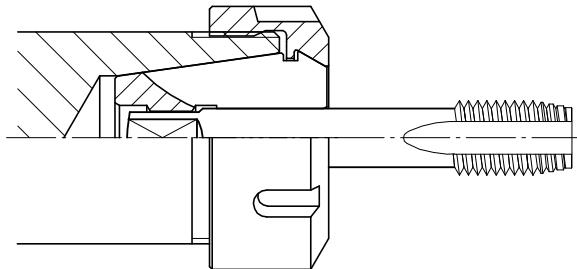
We recommend the use of our SSY Softsynchro® tapping holders. They compensate minimal synchronizing differences of CNC machines.

See chapter 7 (HSK Softsynchro® tapping toolholders), page 7.16 and chapter 9 (cylindrical Softsynchro® tapping toolholders), page 9.14.

For machines without tapping option we recommend the use of our axial compensating GSF tapping holders.

See chapter 9 (cylindrical tapping toolholders), page 9.16.

For additional technical information and dimensions of taps on ER-GB see page 13.5 and 13.13.





Matching Products

Clamping Nuts | Spanner

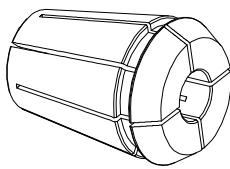
3

Clamping Nut and Spanner	ER 11	ER 16	ER 20	ER 25	ER 32	ER 40	ER 50	Page	Standard	With Friction Bearing	Balanced	For Coolant Through Tools	Collet Locking System*	Mini-Nut	Nut with External Thread	Spanner
Hi-Q/ER	3411.00000	3416.00000	3420.00000	3425.00000	3432.00000	3440.00000	3450.00000	4.4	■		■	■	■			
Hi-Q/ERC	3411.20300 - 3411.20700	3416.20000	3420.20000	3425.20000	3432.20000	3440.20000	-	4.6		■	■	■				
Hi-Q/ERB	-	3416.30000	3420.30000	3425.30000	3432.30000	3440.30000	3450.30000	4.10	■	■	■					
Hi-Q/ERBC	-	3416.40000	3420.40000	3425.40000	3432.40000	3440.40000	-	4.10	■	■	■	■				
EP	7112.11010	7112.16010	7112.20010	-	-	-	-	12.1								■
E	-	-	-	7111.25000	7111.32000	7111.40000	7111.50000	12.1								■

Hi-Q/ERM	3511.00000	3516.00000	3520.00000	3525.00000	-	-	-	4.12			■	■	■			
Hi-Q/ERMC	3511.20300 - 3511.20700	3516.20000	3520.20000	3525.20000	-	-	-	4.12			■	■	■	■		
EM	7113.11000	7113.16000	7113.20000	7113.25000	-	-	-	12.1								■

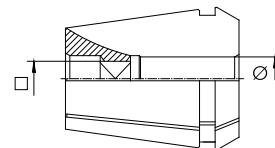
Hi-Q/ERAX	3311.60000	3316.60000	3320.60000	3325.60000	3332.60000	3340.60000	-	4.18		■	■	■				
EAX	7117.11000	7117.16000	7117.20000	7117.25000	7117.32000	7117.40000	-	12.2								■
Hi-Q/ERAXC	-	3316.70000	3320.70000	3325.70000	3332.70000	3340.70000	-	4.18	■	■	■	■				
EAX	7117.11000	7117.16000	7117.20000	7117.25000	7117.32000	7117.40000	-	12.2								■

*Does not apply with use of ER11-GB collets.



ER-GB

Tapping Collets without Axial Compensation



3

Ø [mm]	□ [mm]	Standard	ER 11-GB Part No.	ER 16-GB Part No.	ER 20-GB Part No.	ER 25-GB Part No.	ER 32-GB Part No.	ER 40-GB Part No.	ER 50-GB Part No.
2.5	2.1/2.0	DIN/ISO	1411.02500	-	-	-	-	-	-
2.8	2.1	DIN	1411.02800	-	-	-	-	-	-
3.5	2.7	DIN	1411.03500	-	-	-	-	-	-
4.0	3.0	DIN	1411.04000	-	-	-	-	-	-
4.0	3.15/3.2	ISO, JIS	1411.04002	1416.04002	1420.04002	1425.04002	1432.04002	-	-
4.5	3.4	DIN	1411.04500	1416.04500	1420.04500	1425.04500	1432.04500	-	-
5.0	4.0	ISO, JIS	1411.05002	1416.05002	1420.05002	1425.05002	1432.05002	-	-
5.5	4.3	DIN	-	1416.05500	1420.05500	1425.05500	1432.05500	-	-
5.5	4.5	JIS	-	1416.05501	1420.05501	1425.05501	1432.05501	-	-
6.0	4.5	JIS	-	1416.06001	1420.06001	1425.06001	1432.06001	1440.06001	-
6.0	4.9	DIN	1411.06000	1416.06000	1420.06000	1425.06000	1432.06000	1440.06000	-
6.2	5.0	JIS	-	1416.06201	1420.06201	1425.06201	1432.06201	1440.06201	-
6.3	5.0	ISO	-	1416.06302	1420.06302	1425.06302	1432.06302	1440.06302	-
7.0	5.5	DIN, JIS	-	1416.07000	1420.07000	1425.07000	1432.07000	1440.07000	-
7.1	5.6	ISO	-	1416.07102	1420.07102	1425.07102	1432.07102	1440.07102	-
8.0	6.2/6.3	DIN, ISO	-	1416.08000	1420.08000	1425.08000	1432.08000	1440.08000	-
8.5	6.5	JIS	-	1416.08501	1420.08501	1425.08501	1432.08501	1440.08501	-
9.0	7.0/7.1	DIN, ISO	-	1416.09000	1420.09000	1425.09000	1432.09000	1440.09000	-
10.0	8.0	DIN, ISO	-	-	1420.10000	1425.10000	1432.10000	1440.10000	-
10.5	8.0	JIS	-	-	1420.10501	1425.10501	1432.10501	1440.10501	-
11.0	9.0	DIN	-	-	1420.11000	1425.11000	1432.11000	1440.11000	-
11.2	9.0	ISO	-	-	1420.11202	1425.11202	1432.11202	1440.11202	-
12.0	9.0	DIN	-	-	1420.12000	1425.12000	1432.12000	1440.12000	-
12.5	10.0	ISO, JIS	-	-	-	1425.12502	1432.12502	1440.12502	-
14.0	11.0/11.2	DIN, ISO, JIS	-	-	-	1425.14000	1432.14000	1440.14000	-
15.0	12.0	JIS	-	-	-	1425.15001	1432.15001	1440.15001	-
16.0	12.0/12.5	DIN, ISO	-	-	-	1425.16000	1432.16000	1440.16000	-
17.0	13.0	JIS	-	-	-	-	1432.17001	1440.17001	-
18.0	14.0/14.5	DIN, ISO	-	-	-	-	1432.18000	1440.18000	-
20.0	16.0	DIN, ISO	-	-	-	-	1432.20000	1440.20000	-
22.0	18.0	DIN	-	-	-	-	-	1440.22000	1450.22000
25.0	20.0	DIN	-	-	-	-	-	-	1450.25000
28.0	22.0	DIN	-	-	-	-	-	-	1450.28000
32.0	24.0	DIN	-	-	-	-	-	-	1450.32000

Additional technical information on page 13.5.

See page 7.16 for HSK Softsynchro® tapping toolholders and pages 9.14/9.16 for cylindrical Softsynchro® tapping toolholders.



Swiss
Precision
Tools

ET1

Tapping Collets

Features | Benefits

Swiss Quality

Made in Switzerland to ISO 9001/ISO 14001.

Interchangeable

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

Compatible

ET1-12 is compatible with ER11 colletholders.

Cost Saving

No expensive tapping tools necessary.

Spring Tension

Adapted to tap size.

Compact

Very robust design with smallest space requirement.

3



Information

ET1 Tapping Collets with Axial Compensation

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

Directions for Use

The following tapping process is recommended for tapping collets PCM ET1:

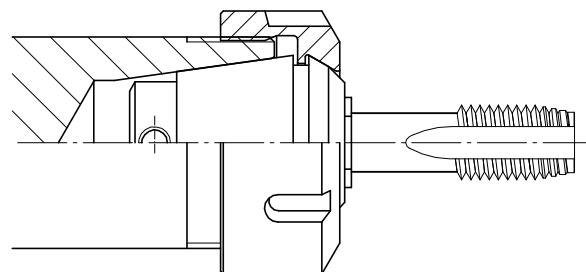
Fast approach, then tapping feed with approximately 95% of the pitch value, which uses 20-30% of the compensation stroke when the spindle rotation and the feed movement are simultaneously reversed.

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

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

Table with current dimensions of taps on page 13.13.

Additional technical information on page 13.6.



3

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



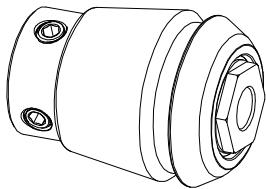
Matching Products

Clamping Nuts | Spanner

3

Clamping Nut and Spanner	ET1-12	ET1-16	ET1-20	ET1-25	ET1-32	ET1-40	Page	Standard	With Friction Bearing	Balanced	For Coolant Through Tools	Collet Locking System*	Mini-Nut	Nut with External Thread	Spanner
Hi-Q/ER	3411.00000	3416.00000	3420.00000	3425.00000	3432.00000	3440.00000	4.4	■		■	■	■			
Hi-Q/ERB	-	3416.30000	3420.30000	3425.30000	3432.30000	3440.30000	4.10		■	■	■	■			
EP	7112.11010	7112.16010	7112.20010	-	-	-	12.1							■	
E	-	-	-	7111.25000	7111.32000	7111.40000	12.1							■	
Hi-Q/ERM	3511.00000	3516.00000	3520.00000	3525.00000	-	-	4.12		■	■	■				
EM	7113.11000	7113.16000	7113.20000	7113.25000	-	-	12.1							■	
Hi-Q/ERAX	3311.60000	3316.60000	3320.60000	3325.60000	3332.60000	3340.60000	4.18		■	■	■				
EAX	7117.11000	7117.16000	7117.20000	7117.25000	7117.32000	7117.40000	12.2							■	

*Does not apply with use of ET1 collets.



ET1

PCM Tapping Collets with Axial Compensation

Shank Ø [mm]	Standard	ET1-12 Part No.	ET1-16 Part No.	ET1-20 Part No.	ET1-25 Part No.	ET1-32 Part No.	ET1-40 Part No.
1.40	DIN	1512.01400	1516.01400	-	-	-	-
1.60	DIN	1512.01600	1516.01600	-	-	-	-
1.80	DIN	1512.01800	1516.01800	-	-	-	-
2.00	ISO	1512.02000	1516.02000	-	-	-	-
2.20	DIN	1512.02200	1516.02200	1520.02200	-	-	-
2.24	ISO	1512.02240	1516.02240	1520.02240	-	-	-
2.50	DIN, ISO	1512.02500	1516.02500	1520.02500	1525.02500	-	-
2.80	DIN, ISO	1512.02800	1516.02800	1520.02800	1525.02800	-	-
3.00	JIS	1512.03000	1516.03000	1520.03000	1525.03000	-	-
3.15	ISO	1512.03150	1516.03150	1520.03150	1525.03150	-	-
3.50	DIN	1512.03500	1516.03500	1520.03500	1525.03500	-	-
3.55	ISO	1512.03550	1516.03550	1520.03550	1525.03550	-	-
4.00	DIN, ISO, JIS	-	1516.04000	1520.04000	1525.04000	-	-
4.50	DIN, ISO	-	1516.04500	1520.04500	1525.04500	1532.04500	-
5.00	ISO, JIS	-	1516.05000	1520.05000	1525.05000	1532.05000	-
5.50	DIN, ISO	-	1516.05500	1520.05500	1525.05500	1532.05500	-
5.60	ISO	-	1516.05600	1520.05600	1525.05600	1532.05600	-
6.00	DIN, JIS	-	1516.06000	1520.06000	1525.06000	1532.06000	1540.06000
6.20	JIS	-	1516.06200	1520.06200	1525.06200	1532.06200	1540.06200
6.30	ISO	-	1516.06300	1520.06300	1525.06300	1532.06300	1540.06300
7.00	DIN, JIS	-	-	1520.07000	1525.07000	1532.07000	1540.07000
7.10	ISO	-	-	-	1525.07100	1532.07100	1540.07100
8.00	DIN, ISO, JIS	-	-	-	1525.08000	1532.08000	1540.08000
8.50	JIS	-	-	-	1525.08500	1532.08500	1540.08500
9.00	DIN, ISO	-	-	-	1525.09000	1532.09000	1540.09000
10.00	DIN, ISO	-	-	-	1525.10000	1532.10000	1540.10000
10.50	JIS	-	-	-	-	1532.10500	1540.10500
11.00	DIN	-	-	-	-	1532.11000	1540.11000
11.20	ISO	-	-	-	-	1532.11200	1540.11200
12.00	DIN	-	-	-	-	1532.12000	1540.12000
12.50	ISO, JIS	-	-	-	-	1532.12500	1540.12500
14.00	JIS	-	-	-	-	-	1540.14000
15.00	JIS	-	-	-	-	-	1540.15000
16.00	DIN, ISO	-	-	-	-	-	1540.16000
17.00	JIS	-	-	-	-	-	1540.17000

Additional technical information on page 13.6.

See page 7.16 for HSK Softsynchro® tapping toolholders and pages 9.14/9.16 for cylindrical Softsynchro® tapping toolholders.



Swiss
Precision
Tools

PG

powRgrip® Tapping Collets

Features | Benefits

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 Δ on the front of the collet.

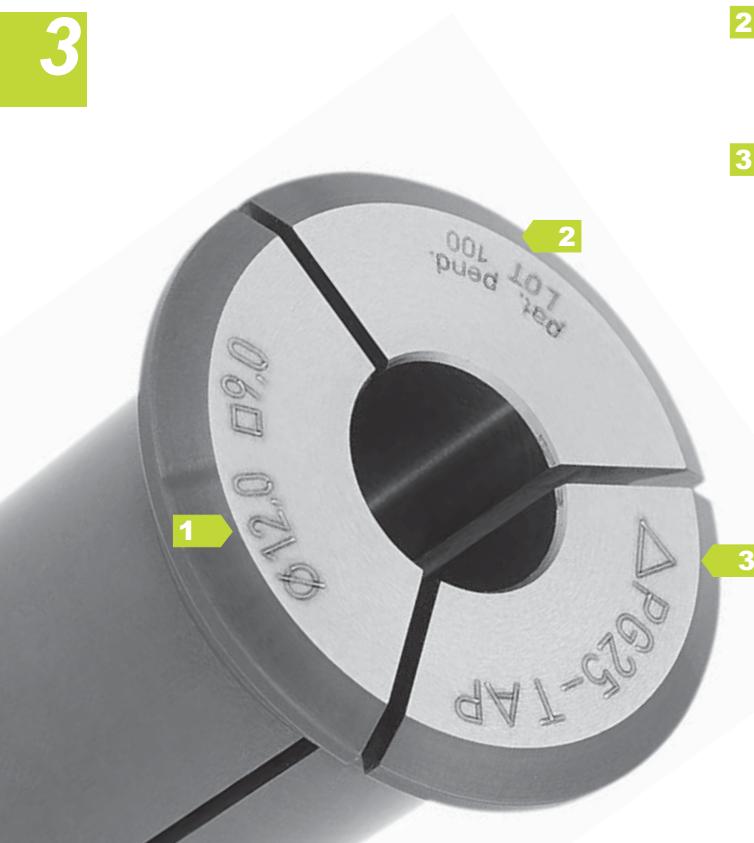
Coolant Through Tools

Metallic-sealed for coolant through tools.

Internal Square for Tap Shanks and Length Adjustment

Internal square for tight grip, integrated length adjustment screw, accepts h9 tool shanks.

3



Informationen

PG-TAP Tapping Collets without Axial Compensation

The PG-TAP tapping collets are compatible with DIN standard taps.

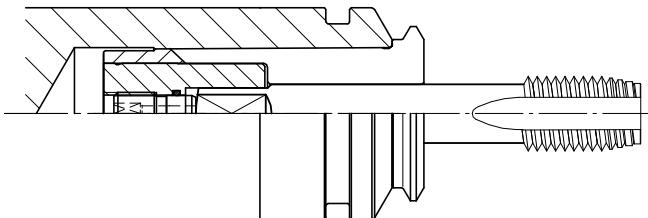
The REGO-FIX® powRgrip® tapping collets are manufactured with an internal square. They are intended for use on CNC machines that have synchronized machine spindle speed and feed rate. Machines that have such «rigid» tapping capabilities require only minimal compensation.

We recommend the use of our SSY Softsynchro® tapping holders. They compensate minimal synchronizing differences of CNC machines.

See chapter 7 (HSK Softsynchro® tapping toolholders), page 7.24 and chapter 9 (cylindrical Softsynchro® tapping toolholders), page 9.22.

For machines without tapping option we recommend the use of our axial compensating GSF tapping holders.

See chapter 9 (cylindrical tapping toolholders), page 9.24.



3



Clamp h9-tolerance tool shanks only!

Never clamp tapping collet without tool.

Collet will be damaged!

When buying PG tapping collets please note the REGO-FIX® quality seal △ on the front of the tapping collet.

Presetting Range of PG-TAP Collets on page 13.8.

Table with current dimensions of taps on page 13.13.



Matching Products

Accessories

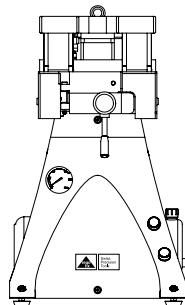
Type	Description	Part No.	Page
VEW 15	Presetting tool for PG 15 toolholder	7619.15000	12.7
VEW 25	Presetting tool for PG 25 toolholder	7619.25000	12.7
TKCP 15	Taper cleaner for PG 15 toolholders	7657.15000	12.7
TKCP 25	Taper cleaner for PG 25 toolholders	7657.25000	12.7
CPS 15	Cleaning paper set for TKCP 15 / pack contains 250 sheets	7658.15000	12.7
CPS 25	Cleaning paper set for TKCP 25 / pack contains 250 sheets	7658.25000	12.7



3

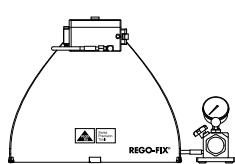
PGU 9000 Automatic Clamping Unit

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
APG 925	PG 25 Clamping insert for PGU 9000, taper cleaner included	7611.25900	12.8



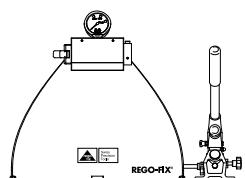
PGC Manual Clamping Unit PGC 1500

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
PPG 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
APC 25	PG 25 Inserts for PGC 2510 for clamping unit	7622.25000	12.8





PG 15-TAP | PG 25-TAP

PG 15-TAP Tapping Collets

\varnothing [mm]	\square [mm]	Standard DIN	PG 15-TAP Part No.
3.500	2.700	371/376	1715.03505
4.500	3.400	371/376	1715.04505
6.000	4.900	371/376	1715.06005
7.000	5.500	371/376	1715.07005
8.000	6.200	371/376	1715.08005
9.000	7.000	371/376	1715.09005
10.000	8.000	371	1715.10005

3

PG 25-TAP Tapping Collets

\varnothing [mm]	\square [mm]	Standard DIN	PG 25-TAP Part No.
6.000	4.900	371/376	1725.06005
8.000	6.200	371/376	1725.08005
9.000	7.000	371/376	1725.09005
10.000	8.000	371	1725.10005
11.000	9.000	371/376	1725.11005
12.000	9.000	371/376	1725.12005
14.000	11.000	371/376	1725.14005
16.000	12.000	371/376	1725.16005

See on page 7.24 for HSK Softsynchro® tapping toolholders and
on pages 9.22/9.24 for cylindrical Softsynchro® tapping toolholders.

See page 9.24 for cylindrical tapping toolholders with length compensation.

LUGO-FIX® SWISS

425/426
425/426

HI-Q/ER32

4

Clamping Nuts Sealing Disks Coolant Flush Disks

ER SYSTEM

Clamping Nuts

- 4.1 Features | Benefits
- 4.2 Mounting Instructions
- 4.4 Hi-Q® | ER
- 4.6 Hi-Q® | ERC
- 4.8 Hi-Q® | ERC 11
- 4.10 Hi-Q® | ERB | ERBC
- 4.12 Hi-Q® | ERM | ERMC
- 4.14 Hi-Q | ERMC 11
- 4.16 ER MS
- 4.18 Hi-Q® | ERAx | ERAxC

Sealing Disks

- 4.19 Features | Benefits
- 4.20 Mounting Instructions
- 4.22 DS/ER 16 | DS/ER 20
- 4.24 DS/ER 25 | DS/ER 32
- 4.26 DS/ER 40

Coolant Flush Disks

- 4.27 Features | Benefits
- 4.28 Mounting Instructions
- 4.28 KS/ER 16 | KS/ER 20 | KS/ER 25 | KS/ER 32

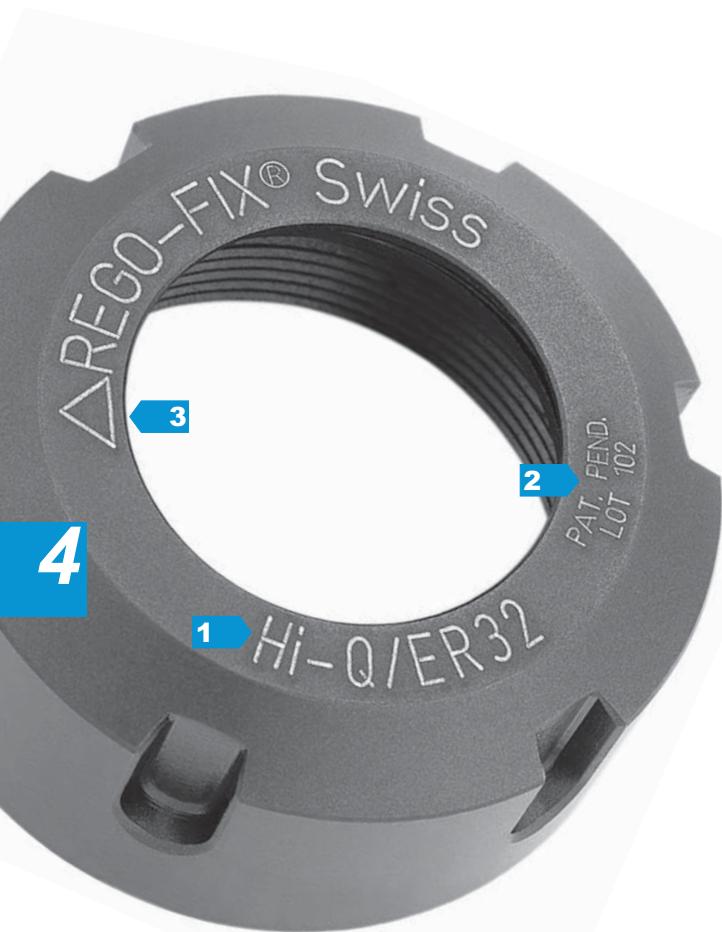


Swiss
Precision
Tools

ER

Clamping Nuts

Features | Benefits



Swiss Quality

Made in Switzerland to ISO9001/ISO14001.

1 Marking

With type and size (reduced selection error).

2 Product Traceability

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

3 Original REGO-FIX®

Our extensive experience results in a well-engineered system. When buying ER clamping nuts please note the REGO-FIX® quality seal \triangle on the front of the clamping nut.

Collet Locking-System (pat. pend.)

Retains collet in nut for easier assembly.

Q+® Balancing

Ideal for high-speed applications.

Higher Transferable Torque

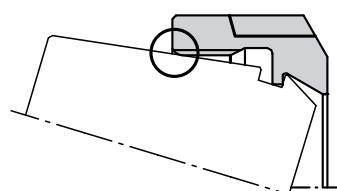
Lower frictional forces resulting in up to 80% higher gripping force over standard non-treated clamping nuts.

Protection Against Corrosion

With a special treatment of the surface for longer life.

Optimal contour

Rounded thread start prevents damaging of collets on tool changes.



Great Selection of Specific Products for Virtually any Application

- with friction bearing for higher clamping force
- with sealing disk for coolant through tools
- Mini nut with minimal external diameter
- High speed clamping nut (for high rpm)
- Externally threaded clamping nut for floating chucks, ERA Zero-Z® toolholder and live tooling

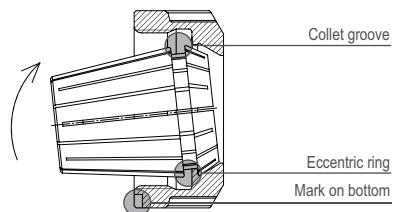
Mounting Instructions

DIN 6499/ISO 15488

Hi-Q® Clamping Nuts (pat. pend.)

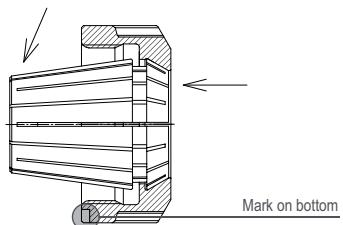
Assembling Collet

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



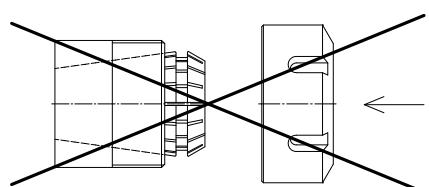
Removing Collet

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.

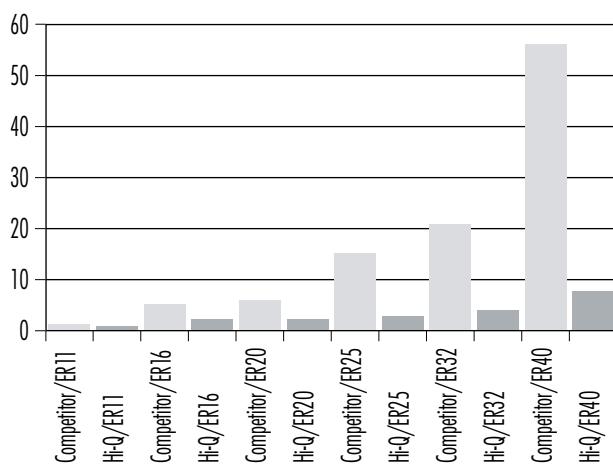


Improper assembly can permanently damage the concentricity of the collet and may result in the destruction of the clamping nut.

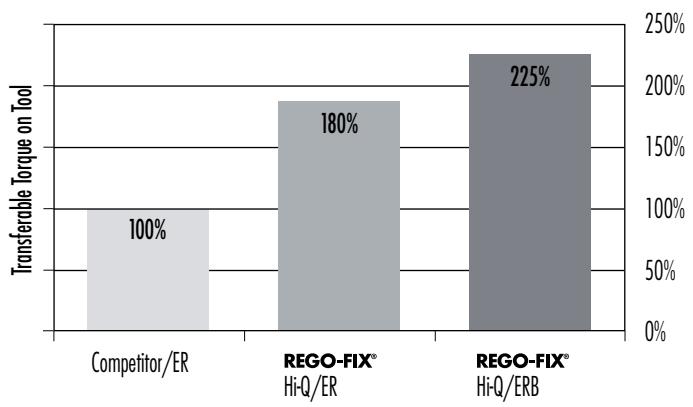
Only mount nuts with correctly inserted collets! Never place the collet into the holder without first assembling into the nut.



Balancing Quality [gmm]

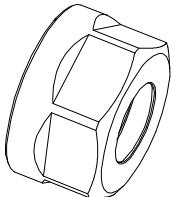


Torque Comparison of Clamping Nuts



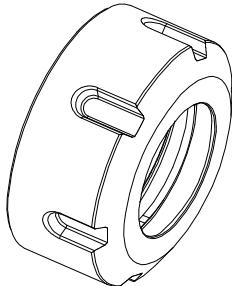


Features | Benefits

1 Hi-Q®/ER 11 – ER 20**Standard**

Hi-Q®/ER Clamping Nuts with corrosion resistant surface are standard on all REGO-FIX® ER toolholders.

- Clamping nuts with left-hand thread upon request.

4**2 Hi-Q®/ER 25 – ER 50****Matching Products**

Size	Sealing Disks	Page	Coolant Flush Disks	Page	Collets	Page	Metallic Sealed Collets	Page	Microbore Collets	Page	Tapping Collets without Axial Compensation	Page	Tapping Collets with Axial Compensation	Page	Spanner	Page
ER 11	-	-	-	-	ER 11	2.8	ER 11-DM	2.22	ER 11-MB	2.8	ER 11-GB	3.4	ET1-12	3.8	E 11 P	12.1
ER 16	-	-	-	-	ER 16	2.10	ER 16-DM	2.24	ER 16-MB	2.10	ER 16-GB	3.4	ET1-16	3.8	E 16 P	12.1
ER 20	-	-	-	-	ER 20	2.12	ER 20-DM	2.26	-	-	ER 20-GB	3.4	ET1-20	3.8	E 20 P	12.1
ER 25	-	-	-	-	ER 25	2.14	ER 25-DM	2.28	-	-	ER 25-GB	3.4	ET1-25	3.8	E 25	12.1
ER 32	-	-	-	-	ER 32	2.16	ER 32-DM	2.30	-	-	ER 32-GB	3.4	ET1-32	3.8	E 32	12.1
ER 40	-	-	-	-	ER 40	2.18	ER 40-DM	2.32	-	-	ER 40-GB	3.4	ET1-40	3.8	E 40	12.1
ER 50	-	-	-	-	ER 50	2.20	-	-	-	-	ER 50-GB	3.4	-	-	E 50	12.1

Hi-Q®/ER Standard

Type	Part No.	Standard	With Friction Bearing	Balanced	For Coolant Through Tools	Collet Locking System	Mini-Nut	Nut with External Thread	A [mm]	B [mm]	C	L1 [mm]	SW	Drawing
Hi-Q / ER 11	3411.00000	■	■	■	■	■			19	11.3	M 14 x 0.75	4.9 - 6.6	17	1
Hi-Q / ER 16	3416.00000	■	■	■	■	■			28	17.5	M 22 x 1.50	7.0 - 10.5	25	1
Hi-Q / ER 20	3420.00000	■	■	■	■	■			34	19.0	M 25 x 1.50	8.0 - 11.5	30	1

Hi-Q / ER 25	3425.00000	■	■	■	■	■			42	20.0	M 32 x 1.50	8.5 - 12.0	-	2
Hi-Q / ER 32	3432.00000	■	■	■	■	■			50	22.5	M 40 x 1.50	9.5 - 13.0	-	2
Hi-Q / ER 40	3440.00000	■	■	■	■	■			63	25.5	M 50 x 1.50	11.5 - 15.0	-	2
Hi-Q / ER 50	3450.00000	■	■	■	■	■			78	35.3	M 64 x 2.00	14.0 - 21.0	-	2

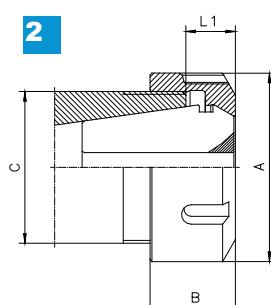
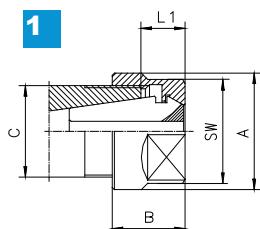


The maximum torque shall not be more than 25% above the recommended tightening torque.

Recommended tightening torque on page 13.3/13.4.



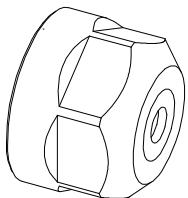
Higher clamping force of the clamping nut at the same time means higher stress on the toolholder. We recommend the use of REGO-FIX® torque wrench. REGO-FIX® will not be responsible for damages to toolholders or spindles of other manufacturers.





Features | Benefits

1 Hi-Q®/ERC 11–ERC 20

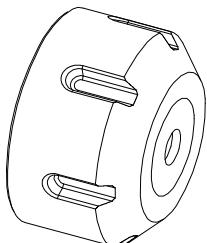


Application with Sealing Disk / Coolant Flush Disk

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

4

2 Hi-Q®/ERC 25–ERC 40



For Peripheral Cooling of Non Coolant Through Tools we recommend the coolant flush disks KS/ER.
See page 4.27/4.28.

- Up to 150 bar (2000 psi) coolant pressure
- Prevents dirt and chips from entering the collet

Matching Products

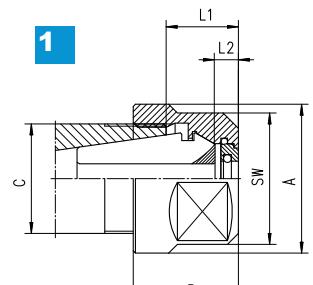
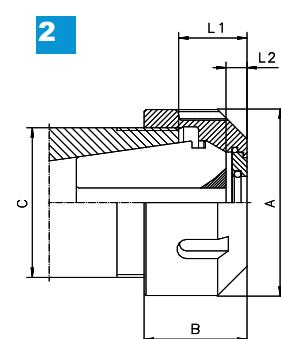
Size	Sealing Disks	Page	Coolant Flush Disks	Page	Collets	Page	Metallic Sealed Collets	Page	Microbore Collets	Page	Tapping Collets without Axial Compensation	Page	Tapping Collets with Axial Compensation*	Page	Spanner	Page
ER 11	-	-	-	-	ER 11	2.8	-	-	ER 11-MB	2.8	ER 11-GB	3.4	-	-	E 11 P	12.1
ER 16	DS / ER 16	4.22	KS / ER 16	4.28	ER 16	2.10	-	-	ER 16-MB	2.10	ER 16-GB	3.4	-	-	E 16 P	12.1
ER 20	DS / ER 20	4.22	KS / ER 20	4.28	ER 20	2.12	-	-	-	-	ER 20-GB	3.4	-	-	E 20 P	12.1
ER 25	DS / ER 25	4.24	KS / ER 25	4.28	ER 25	2.14	-	-	-	-	ER 25-GB	3.4	-	-	E 25	12.1
ER 32	DS / ER 32	4.24	KS / ER 32	4.28	ER 32	2.16	-	-	-	-	ER 32-GB	3.4	-	-	E 32	12.1
ER 40	DS / ER 40	4.26	-	-	ER 40	2.18	-	-	-	-	ER 40-GB	3.4	-	-	E 40	12.1
ER 50	-	-	-	-	ER 50	2.20	-	-	-	-	ER 50-GB	3.4	-	-	E 50	12.1

*Not for coolant through tools.

Hi-Q® ERC Clamping Nuts for Coolant Through Tools

Type	Part No.	Standard	With Friction Bearing	Balanced	For Coolant Through Tools	Collet Locking System	Mini nut	Nut with External Thread	A [mm]	B [mm]	C	L1 [mm]	L2 [mm]	SW	Drawing
Hi-Q / ERC 16	3416.20000		■ ■ ■						28	22.5	M 22 x 1.50	12.0 - 15.5	5.0	25	1
Hi-Q / ERC 20	3420.20000		■ ■ ■						34	24.0	M 25 x 1.50	13.0 - 16.5	5.0	30	1
Hi-Q / ERC 25	3425.20000		■ ■ ■						42	25.0	M 32 x 1.50	13.5 - 17.0	5.0		2
Hi-Q / ERC 32	3432.20000		■ ■ ■						50	27.5	M 40 x 1.50	14.5 - 18.0	5.0		2
Hi-Q / ERC 40	3440.20000		■ ■ ■						63	30.5	M 50 x 1.50	16.5 - 20.0	5.0		2

HiQ/ERC 11 see page 4.8.


4


The maximum torque shall not be more than 25% above the recommended tightening torque.

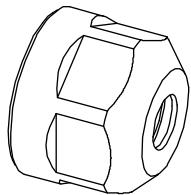
Recommended tightening torque on page 13.3/13.4.



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



Features | Benefits



Application

The Hi-Q®/ERC 11 clamping nut for coolant through tools is the internal cooling version of the Hi-Q®/ER 11 clamping nut.

Does not Require Sealing Disks

The sealing system is built into the clamping nut.

- Up to 150 bar (2000 psi) coolant pressure
- Prevents dirt and chips from entering the collet

4

Matching Products

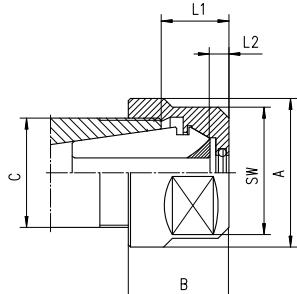
Size	Sealing Disks	Page	Coolant Flush Disks	Page	Collets	Page	Metallic Sealed Collets	Page	Microbore Collets	Page	Tapping Collets without Axial Compensation	Page	Tapping Collets with Axial Compensation*	Page	Spanner	Page
ER 11	-	-	-	-	ER 11	2.8	-	-	ER 11-MB	2.8	ER 11-GB	3.4	-	-	E 11 P	12.1

*Not for coolant through tools.

Clamping Nuts with Built-In Sealing System

Type	Part No.	Standard	With Friction Bearing	Balanced	For Coolant Through Tools	Collet Locking System	Mini-Nut	Nut with External Thread	Sealing Capacity [mm]	Sealing Capacity [Inch]	\varnothing [Inch]
Hi-Q / ERC 11 3,0 mm	3411.20300			■	■ ■ ■				3.00 - 2.50	0.1181 - 0.0984	3/32"
Hi-Q / ERC 11 3,5 mm	3411.20350			■	■ ■ ■				3.50 - 3.00	0.1378 - 0.1181	1/8"
Hi-Q / ERC 11 4,0 mm	3411.20400			■	■ ■ ■				4.00 - 3.50	0.1575 - 0.1378	5/32"
Hi-Q / ERC 11 4,5 mm	3411.20450			■	■ ■ ■				4.50 - 4.00	0.1772 - 0.1575	-
Hi-Q / ERC 11 5,0 mm	3411.20500			■	■ ■ ■				5.00 - 4.50	0.1969 - 0.1772	3/16"
Hi-Q / ERC 11 5,5 mm	3411.20550			■	■ ■ ■				5.50 - 5.00	0.2165 - 0.1969	7/32"
Hi-Q / ERC 11 6,0 mm	3411.20600			■	■ ■ ■				6.00 - 5.50	0.2362 - 0.2165	-
Hi-Q / ERC 11 6,5 mm	3411.20650			■	■ ■ ■				6.50 - 6.00	0.2559 - 0.2362	1/4"
Hi-Q / ERC 11 7,0 mm	3411.20700			■	■ ■ ■				7.00 - 6.50	0.2756 - 0.2559	-

Type	A [mm]	B [mm]	C	L1 [mm]	L2 [mm]	SW
Hi-Q/ERC 11	19	14.6	M 14 x 0.75	8.10 - 9.80	3.5	17



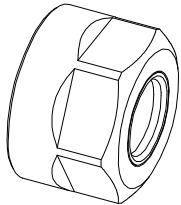
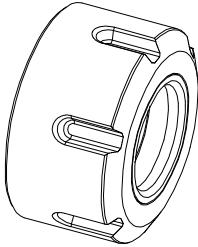
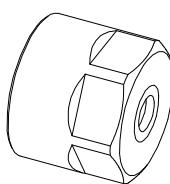
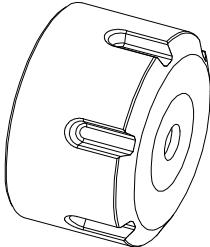
! The maximum torque shall not be more than 25% above the recommended tightening torque.

Recommended tightening torque on page 13.3/13.4.

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



Features | Benefits

1 Hi-Q®/ERB 16 – ERB 20**2 Hi-Q®/ERB 25 – ERB 50****4****3 Hi-Q®/ERBC 16 – ERBC 20****4 Hi-Q®/ERBC 25 – ERBC 40****Application**

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

Application with Sealing Disk / Coolant Flush Disk

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

For Peripheral Cooling of Non Coolant Through Tools we recommend the coolant flush disks KS/ER.
See page 4.27/4.28.

- Up to 150 bar (2000 psi) coolant pressure
- Prevents dirt and chips from entering the collet

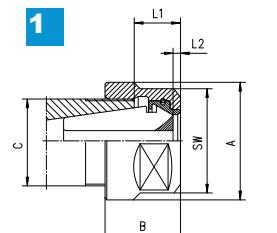
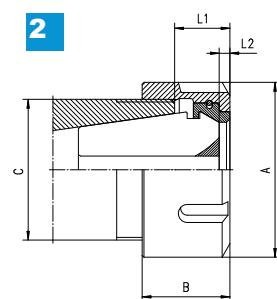
Matching Products

Size	Sealing Disks**	Page	Coolant Flush Disks**	Page	Collets	Page	Metallic Sealed Collets	Page	Microbore Collets	Page	Tapping Collets without Axial Compensation	Page	Tapping Collets with Axial Compensation*	Page	Spanner	Page
ER 16	DS / ER 16	4.22	KS / ER 16	4.28	ER 16	2.10	ER 16-DM	2.24	ER 16-MB	2.10	ER 16-GB	3.4	ET1-16	3.8	E 16 P	12.1
ER 20	DS / ER 20	4.22	KS / ER 20	4.28	ER 20	2.12	ER 20-DM	2.26	–	–	ER 20-GB	3.4	ET1-20	3.8	E 20 P	12.1
ER 25	DS / ER 25	4.24	KS / ER 25	4.28	ER 25	2.14	ER 25-DM	2.28	–	–	ER 25-GB	3.4	ET1-25	3.8	E 25	12.1
ER 32	DS / ER 32	4.24	KS / ER 32	4.28	ER 32	2.16	ER 32-DM	2.30	–	–	ER 32-GB	3.4	ET1-32	3.8	E 32	12.1
ER 40	DS / ER 40	4.26	–	–	ER 40	2.18	ER 40-DM	2.32	–	–	ER 40-GB	3.4	ET1-40	3.8	E 40	12.1
ER 50	–	–	–	–	ER 50	2.20	–	–	–	–	ER 50-GB	3.4	–	–	E 50	12.1

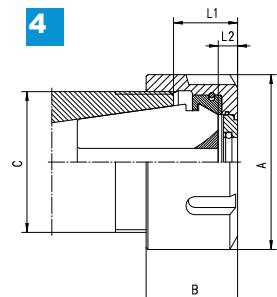
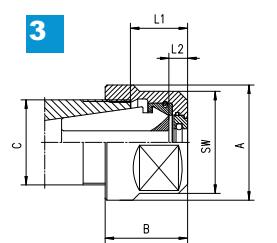
*Not for coolant through tools – use with Hi-Q/ERB clamping nut only. ** Use only with Hi-Q/ERBC.

Hi-Q® ERB Friction Bearing
Hi-Q® ERBC Friction Bearing for Coolant Through Tools

Type	Part No.	Standard	With Friction Bearing	Balanced	For Coolant Through Tools	Collet Locking System	Mini-Nut	Nut with External Thread	A [mm]	B [mm]	C	L1 [mm]	L2 [mm]	SW	Drawing
Hi-Q / ERB 16	3416.30000		■	■	■				28	20.2	M 22 x 1.50	10.0 - 13.6	3.0	25	1
Hi-Q / ERB 20	3420.30000		■	■	■				34	21.7	M 25 x 1.50	11.0 - 14.5	3.0	30	1
Hi-Q / ERB 25	3425.30000		■	■	■				42	22.6	M 32 x 1.50	11.5 - 15.0	3.0	-	2
Hi-Q / ERB 32	3432.30000		■	■	■				50	25.0	M 40 x 1.50	12.5 - 16.0	3.0	-	2
Hi-Q / ERB 40	3440.30000		■	■	■				63	28.2	M 50 x 1.50	14.5 - 18.0	3.0	-	2
Hi-Q / ERB 50	3450.30000		■	■	■				78	38.1	M 64 x 2.00	17.0 - 24.0	3.0	-	2


4


Hi-Q / ERBC 16	3416.40000	■	■	■	■				28	22.7	M 22 x 1.50	12.5 - 16.0	5.5	25	3
Hi-Q / ERBC 20	3420.40000	■	■	■	■				34	24.2	M 25 x 1.50	13.5 - 17.0	5.5	30	3
Hi-Q / ERBC 25	3425.40000	■	■	■	■				42	25.2	M 32 x 1.50	14.0 - 17.5	5.5	-	4
Hi-Q / ERBC 32	3432.40000	■	■	■	■				50	27.4	M 40 x 1.50	15.0 - 18.5	5.5	-	4
Hi-Q / ERBC 40	3440.40000	■	■	■	■				63	30.7	M 50 x 1.50	17.0 - 20.5	5.5	-	4



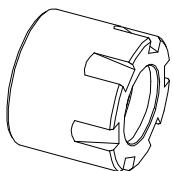
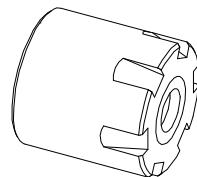
! The maximum torque shall not be more than 25% above the recommended tightening torque.

Recommended tightening torque on page 13.3/13.4.

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



Features | Benefits

1 Hi-Q®/ERM**2 Hi-Q®/ERMC****4 Application**

This mini clamping nut is recommended for use where minimal external diameters are important. For example, it is ideal for multi-spindle drilling heads and collet holder extensions. The corresponding spanners have the same external dimensions as the clamping nuts.

- Clamping nuts with left-hand thread upon request.

Application with Sealing Disk / Coolant Flush Disk

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

For Peripheral Cooling of Non Coolant Through Tools we recommend the coolant flush disks KS/ER. See page 4.27/4.28.

- Up to 150 bar (2000 psi) coolant pressure
- Prevents dirt and chips from entering the collet

Matching Products

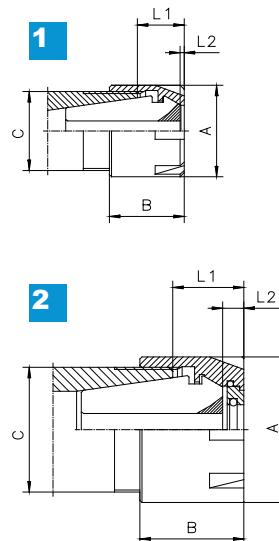
Size	Sealing Disks**	Page	Coolant Flush Disks**	Page	Collets	Page	Metallic Sealed Collets	Page	Microbore Collets	Page	Tapping Collets without Axial Compensation	Page	Tapping Collets with Axial Compensation*	Page	Spanner	Page
ER 8	-	-	-	-	ER 8	2.8	-	-	ER 8-MB	2.6	-	3.4	-	3.8	E 8 M	12.1
ER 11	-	-	-	-	ER 11	2.8	ER 11-DM	2.22	ER 11-MB	2.8	ER 11-GB	3.4	ET1-12	3.8	E 11 M	12.1
ER 16	DS / ER 16	4.22	KS / ER 16	4.28	ER 16	2.10	ER 16-DM	2.24	ER 16-MB	2.10	ER 16-GB	3.4	ET1-16	3.8	E 16 M	12.1
ER 20	DS / ER 20	4.22	KS / ER 20	4.28	ER 20	2.12	ER 20-DM	2.26	-	-	ER 20-GB	3.4	ET1-20	3.8	E 20 M	12.1
ER 25	DS / ER 25	4.24	KS / ER 25	4.28	ER 25	2.14	ER 25-DM	2.28	-	-	ER 25-GB	3.4	ET1-25	3.8	E 25 M	12.1

*Not for coolant through tools – use with Hi-Q/ERM clamping nut only. **Use only with Hi-Q/ERMC.

Hi-Q®/ERM Clamping Nuts with Minimal External Diameter
**Hi-Q®/ERMC Clamping Nuts with Minimal External Diameter
for internal Cooling**

Type	Part No.	Standard	With Friction Bearing	Balanced	For Coolant Through Tools	Collet Locking System	Mini-Nut	Nut with External Thread	A [mm]	B [mm]	C	L1 [mm]	L2 [mm]	Drawing
Hi-Q / ERM 8	3508.00000		■			■			12	10.8	M 10 x 0.75	4.3 - 6.1	1.5	1
Hi-Q / ERM 11	3511.00000		■		■	■			16	12.0	M 13 x 0.75	5.7 - 7.5	0.9	1
Hi-Q / ERM 16	3516.00000		■		■	■			22	18.4	M 19 x 1.00	8.0 - 11.5	0.9	1
Hi-Q / ERM 20	3520.00000		■		■	■			28	19.0	M 24 x 1.00	8.0 - 11.5	-	1
Hi-Q / ERM 25	3525.00000		■		■	■			35	20.0	M 30 x 1.00	8.5 - 12.0	-	1
Hi-Q / ERMC 16	3516.20000		■	■	■	■			22	22.0	M 19 x 1.00	11.5 - 15.0	4.5	2
Hi-Q / ERMC 20	3520.20000		■	■	■	■			28	24.0	M 24 x 1.00	13.0 - 16.5	5.0	2
Hi-Q / ERMC 25	3525.20000		■	■	■	■			35	25.0	M 30 x 1.00	13.5 - 17.0	5.0	2

Hi-Q/ERMC 11 see page 4.14.



The maximum torque shall not be more than 25% above the recommended tightening torque.

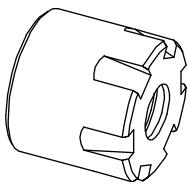
Recommended tightening torque on page 13.3/13.4.



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



Features | Benefits



Application

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

Does not Require Sealing Disks

The sealing system is built into the clamping nut.

- Up to 150 bar (2000 psi) coolant pressure
- Prevents dirt and chips from entering the collet

Matching Products

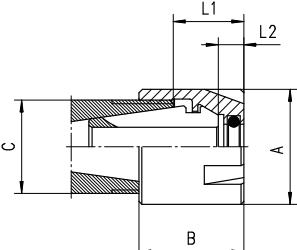
Size	Sealing Disks	Page	Coolant Flush Disks	Page	Collets	Page	Metallic Sealed Collets	Page	Microbore Collets	Page	Tapping Collets without Axial Compensation	Page	Tapping Collets with Axial Compensation	Page	Spanner	Page
ER 11	-	-	-	-	ER 11	2.8	-	-	ER 11-MB	2.8	ER 11-GB	3.4	-	-	E 11 M	12.1

Hi-Q®/ERMC 11 Clamping Nuts with Build-In Sealing System

Type	Part No.	Standard	With Friction Bearing	Balanced	For Coolant Through Tools	Collet Locking System*	Mini-Nut	Nut with External Thread	Sealing Capacity [mm]	Sealing Capacity [Inch]	Ø [Inch]
Hi-Q / ERMC 11 3,0 mm	3511.20300			■	■	■	■	■	3.00 - 2.50	0.1181 - 0.0984	3/32"
Hi-Q / ERMC 11 3,5 mm	3511.20350			■	■	■	■	■	3.50 - 3.00	0.1378 - 0.1181	1/8"
Hi-Q / ERMC 11 4,0 mm	3511.20400			■	■	■	■	■	4.00 - 3.50	0.1575 - 0.1378	5/32"
Hi-Q / ERMC 11 4,5 mm	3511.20450			■	■	■	■	■	4.50 - 4.00	0.1772 - 0.1575	-
Hi-Q / ERMC 11 5,0 mm	3511.20500			■	■	■	■	■	5.00 - 4.50	0.1969 - 0.1772	3/16"
Hi-Q / ERMC 11 5,5 mm	3511.20550			■	■	■	■	■	5.50 - 5.00	0.2165 - 0.1969	7/32"
Hi-Q / ERMC 11 6,0 mm	3511.20600			■	■	■	■	■	6.00 - 5.50	0.2362 - 0.2165	-
Hi-Q / ERMC 11 6,5 mm	3511.20650			■	■	■	■	■	6.50 - 6.00	0.2559 - 0.2362	1/4"
Hi-Q / ERMC 11 7,0 mm	3511.20700			■	■	■	■	■	7.00 - 6.50	0.2756 - 0.2559	-

*Not applicable for tapping collets ER 11-GB.

Type	A [mm]	B [mm]	C	L1 [mm]	L2 [mm]
Hi-Q/ERMC 11	16	14.6	M 13 x 0.75	8.10 - 9.80	3.5



! The maximum torque shall not be more than 25% above the recommended tightening torque.

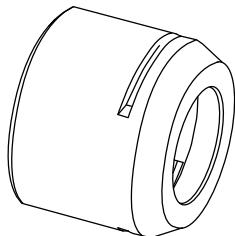
Recommended tightening torque on page 13.3/13.4.

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



Features | Benefits

Application



The ER MS clamping nut for highest RPM with minimal external diameter does not have the extractor ring and all the contours are ground. This provides best balancing for critical high-speed machining applications. The collet is released with the special E MS spanner. ER MS nuts are also interchangeable with the Hi-Q®/ERM and Hi®-Q/ERMC nuts.

With the ER MS clamping nuts we recommend using ER-UP (ultra-precision) collets to achieve the highest concentricity.

- Precision-machined contours on all sides
- Minimal residual unbalance
- For high rpm up to 80'000 min⁻¹

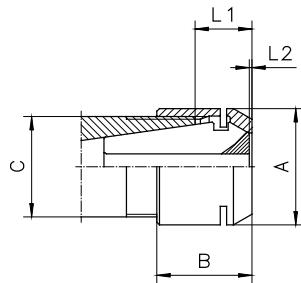
Matching Products

Size	Sealing Disks	Page	Coolant Flush Disks	Page	Collets	Page	Metallic Sealed Collets	Page	Microbore Collets	Page	Tapping Collets without Axial Compensation	Page	Tapping Collets with Axial Compensation	Page	Spanner	Page
ER 8	-	-	-	-	ER 8	2.8	-	-	ER 8-MB	2.6	-	3.4	-	3.8	E 8 MS	12.1
ER 11	-	-	-	-	ER 11	2.8	ER 11-DM	2.22	ER 11-MB	2.8	ER 11-GB	3.4	ET1-12	3.8	E 11 MS	12.1
ER 16	-	-	-	-	ER 16	2.10	ER 16-DM	2.24	ER 16-MB	2.10	ER 16-GB	3.4	ET1-16	3.8	E 16 MS	12.1
ER 20	-	-	-	-	ER 20	2.12	ER 20-DM	2.26	-	-	ER 20-GB	3.4	ET1-20	3.8	E 20 MS	12.1

ER MS

ER MS Clamping Nuts for Highest RPM

Type	Part No.	Standard	With Friction Bearing	Balanced	For Coolant Through Tools	Collet Locking System	Mini-Nut	Nut with External Thread	A [mm]	B [mm]	C	L1 [mm]	L2 [mm]
ER 8 MS	3208.50000		■		■			■	12	10.8	M 10 x 0.75	4.3 - 6.1	1.5
ER 11 MS	3211.50000		■		■			■	16	11.5	M 13 x 0.75	4.6 - 6.8	0.4
ER 16 MS	3216.50000		■		■			■	22	17.8	M 19 x 1.00	6.1 - 10.5	0.3
ER 20 MS	3220.50000		■		■			■	28	19.0	M 24 x 1.00	7.1 - 11.5	0.3



4

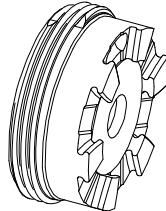
! The maximum torque shall not be more than 25% above the recommended tightening torque.

Recommended tightening torque on page 13.3/13.4.

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



Features | Benefits

1 Hi-Q®/ERAX (pat. pend.)**2 Hi-Q®/ERAXC** (pat. pend.)**4****Application**

For REGO-FIX® floating chucks and other ER toolholders with internal thread (such as ERA Zero-Z® colletholders, see page 5.4/6.4).

- Space Saving Design
- S-Profile Spanner is self centering on the nut and prevents slipping off

Application with Sealing Disk / Coolant Flush Disk

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

For Peripheral Cooling of Non Coolant Through Tools we recommend the coolant flush disks KS/ER. See page 4.27/4.28.

- Up to 150 bar (2000 psi) coolant pressure
- Prevents dirt and chips from entering the collet

Matching Products

Size	Sealing Disks	Page	Coolant Flush Disks	Page	Collets	Page	Metallic Sealed Collets	Page	Microbore Collets	Page	Tapping Collets without Axial Compensation	Page	Tapping Collets with Axial Compensation*	Page	Spanner	Page
ER 11	-	-	-	-	ER11	2.8	ER 11-DM	2.22	ER 11-MB	2.8	ER 11-GB	3.4	ET1-12	3.8	E 11 AX	12.1
ER 16	DS / ER 16	4.22	KS / ER 16	4.28	ER 16	2.10	ER 16-DM	2.24	ER 16-MB	2.10	ER 16-GB	3.4	ET1-16	3.8	E 16 AX	12.1
ER 20	DS / ER 20	4.22	KS / ER 20	4.28	ER 20	2.12	ER 20-DM	2.26	-	-	ER 20-GB	3.4	ET1-20	3.8	E 20 AX	12.1
ER 25	DS / ER 25	4.24	KS / ER 25	4.28	ER 25	2.14	ER 25-DM	2.28	-	-	ER 25-GB	3.4	ET1-25	3.8	E 25 AX	12.1
ER 32	DS / ER 32	4.24	KS / ER 32	4.28	ER 32	2.16	ER 32-DM	2.30	-	-	ER 32-GB	3.4	ET1-32	3.8	E 32 AX	12.1
ER 40	DS / ER 40	4.26	-	-	ER 40	2.18	ER 40-DM	2.32	-	-	ER 40-GB	3.4	ET1-40	3.8	E 40 AX	12.1

*Not for coolant through tools, use with Hi-Q®/ERAX clamping nut only.

Hi-Q®/ERAX Clamping Nuts with External Thread
Hi-Q®/ERAXC Clamping Nuts with External Thread
for internal Cooling

Type	Part No.	Standard	With Friction Bearing	Balanced	For Coolant Through Tools	Collet Locking System*	Mini-Nut	Nut with External Thread	B [mm]	C	L1 [mm]	L2 [mm]	Drawing
Hi-Q / ERAX 11	3311.60000		<input checked="" type="checkbox"/>	7.5	M 18 x 1.00	1.0 - 3.2	3.9	1					
Hi-Q / ERAX 16	3316.60000		<input checked="" type="checkbox"/>	7.6	M 24 x 1.00	0.0 - 2.6	2.3	1					
Hi-Q / ERAX 20	3320.60000		<input checked="" type="checkbox"/>	8.5	M 28 x 1.50	0.0 - 2.5	2.3	1					
Hi-Q / ERAX 25	3325.60000		<input checked="" type="checkbox"/>	8.8	M 32 x 1.50	0.0 - 1.9	2.3	1					
Hi-Q / ERAX 32	3332.60000		<input checked="" type="checkbox"/>	9.8	M 40 x 1.50	0.0 - 1.1	2.5	1					
Hi-Q / ERAX 40	3340.60000		<input checked="" type="checkbox"/>	11.7	M 50 x 1.50	0.0 - 1.0	2.4	1					

Hi-Q / ERAXC 16	3316.70000	<input checked="" type="checkbox"/>	12.5	M 24 x 1.00	3.1 - 7.5	7.2	2						
Hi-Q / ERAXC 20	3320.70000	<input checked="" type="checkbox"/>	13.5	M 28 x 1.50	3.1 - 7.5	7.3	2						
Hi-Q / ERAXC 25	3325.70000	<input checked="" type="checkbox"/>	13.8	M 32 x 1.50	2.5 - 6.9	7.3	2						
Hi-Q / ERAXC 32	3332.70000	<input checked="" type="checkbox"/>	14.9	M 40 x 1.50	1.8 - 6.2	7.6	2						
Hi-Q / ERAXC 40	3340.70000	<input checked="" type="checkbox"/>	16.6	M 50 x 1.50	1.5 - 5.9	7.3	2						

*Not applicable for tapping collets ER11-GB. Additional technical information see page 13.5/13.6.

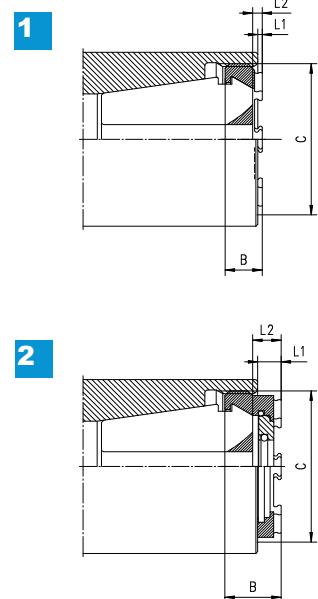
!

The maximum torque shall not be more than 25% above the recommended tightening torque.

Recommended tightening torque on page 13.3/13.4.

!

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





Swiss
Precision
Tools

ER

Sealing Disks

Features | Benefits



Swiss Quality

Made in Switzerland to ISO 9001/ISO 14001.

1 Marking

Type and size (reduced sealing disk selection errors).

2 Traceability

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

3 Original REGO-FIX®

Our extensive experience results in a well-engineered system. When buying ER sealing disks please note the REGO-FIX® quality seal △ on the sealing disk. Guarantee for best Quality.

Sealing Range

0.5 mm per disk.

High Pressure

For applications up to 150 bar (2000 psi).

Protection

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

Matched Tooling System for Best Fit

ER collet, toolholder, clamping nut, sealing disk and spanner all from REGO-FIX®.

Coolant Resistant

O-Ring for aggressive coolant (VITON®-quality).

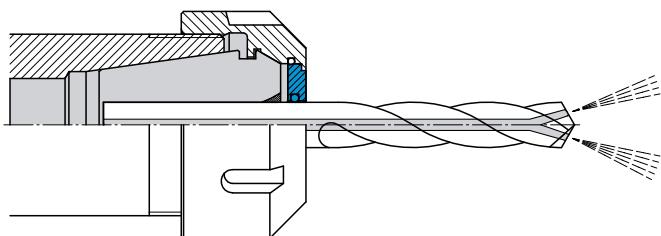
Interchangeable

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

Coolant Through

For better cooling and lubrication.

Extends tool life and supports chip removal.



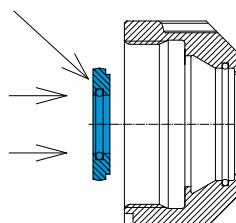
Mounting Instructions

Sealing Disks DS/ER (pat. pend.)

Assembling

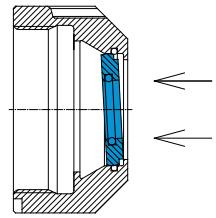
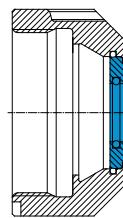
Insert the small diameter of the disk into the center of the coolant nut and apply even pressure until the disk is properly seated into the nut.

Marking



4

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

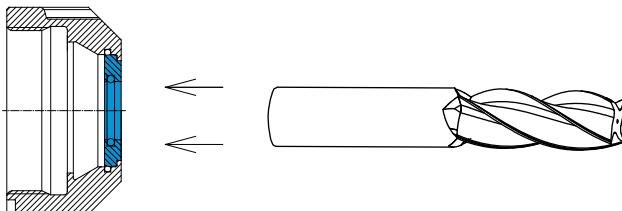


Removing

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



Insert tool from the front. O-ring might be destroyed if cutting tool is inserted from the back.





Matching Products

Clamping Nuts | Spanners

4

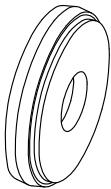
	Clamping Nut	Part No.	Page	Standard	With Friction Bearing	Balanced	For Coolant Through Tools	Collet Locking System	Mini-Nut	Nut with External Thread	Spanner	Part No.	Page
1	Hi-Q / ERC 16	3416.20000	4.6		■	■	■				E 16 P	7112.16010	12.1
	Hi-Q / ERBC 16	3416.40000	4.10		■	■	■	■			E 16 P	7112.16010	12.1
	Hi-Q / ERMC 16	3516.20000	4.12		■	■	■	■	■		E 16 M	7113.16000	12.1
	Hi-Q / ERAXC 16	3316.70000	4.18		■	■	■			■	E 16 AX	7117.16000	12.2
2	Hi-Q / ERC 20	3420.20000	4.6		■	■	■				E 20 P	7112.20010	12.1
	Hi-Q / ERBC 20	3420.40000	4.10		■	■	■	■			E 20 P	7112.20010	12.1
	Hi-Q / ERMC 20	3520.20000	4.12		■	■	■	■	■		E 20 M	7113.20000	12.1
	Hi-Q / ERAXC 20	3320.70000	4.18		■	■	■			■	E 20 AX	7117.20000	12.2

Sealing Disk Sets DS/ER 16 and DS/ER 20

Part Description	Part No.	Sealing Capacity [mm]	Supplied with
Set DS / ER 16	3916.00000	3.50 – 10.00	14 sealing disks, 1 tray DSR/16
Set DS / ER 20	3920.00000	3.50 – 13.00	20 sealing disks, 1 tray DSR/20

Tray DS/ER 16 and DS/ER 20

Part Description	Part No.	Page
DSR / 16	7122.16000	12.6
DSR / 20	7122.20000	12.6



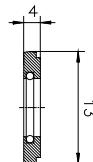
DS/ER 16 | DS/ER 20

Sealing Disks DS/ER 16 and DS/ER 20

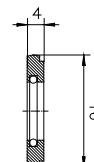
Sealing Capacity [mm]	Sealing Capacity [Inch]	\varnothing [Inch]	DS/ER 16 Part No.	DS/ER 20 Part No.
3.00 - 2.50	0.1181 - 0.0984	3/32"	3916.00300	3920.00300
3.50 - 3.00	0.1378 - 0.1181	1/8"	3916.00350*	3920.00350*
4.00 - 3.50	0.1575 - 0.1378	5/32"	3916.00400*	3920.00400*
4.50 - 4.00	0.1772 - 0.1575		3916.00450*	3920.00450*
5.00 - 4.50	0.1969 - 0.1772	3/16"	3916.00500*	3920.00500*
5.50 - 5.00	0.2165 - 0.1969	7/32"	3916.00550*	3920.00550*
6.00 - 5.50	0.2362 - 0.2165		3916.00600*	3920.00600*
6.50 - 6.00	0.2559 - 0.2362	1/4"	3916.00650*	3920.00650*
7.00 - 6.50	0.2756 - 0.2559		3916.00700*	3920.00700*
7.50 - 7.00	0.2953 - 0.2756	9/32"	3916.00750*	3920.00750*
8.00 - 7.50	0.3150 - 0.2953	5/16"	3916.00800*	3920.00800*
8.50 - 8.00	0.3347 - 0.3150		3916.00850*	3920.00850*
9.00 - 8.50	0.3543 - 0.3347	11/32"	3916.00900*	3920.00900*
9.50 - 9.00	0.3740 - 0.3543	3/8"	3916.00950*	3920.00950*
10.00 - 9.50	0.3937 - 0.3740		3916.01000*	3920.01000*
10.50 - 10.00	0.4134 - 0.3937	13/32"		3920.01050*
11.00 - 10.50	0.4330 - 0.4134			3920.01100*
11.50 - 11.00	0.4528 - 0.4330	7/16"		3920.01150*
12.00 - 11.50	0.4724 - 0.4528	15/32"		3920.01200*
12.50 - 12.00	0.4921 - 0.4724			3920.01250*
13.00 - 12.50	0.5118 - 0.4921	1/2"		3920.01300*

*Included in sealing disk set.

1 DS/ER 16



2 DS/ER 20





Matching Products

Clamping Nuts | Spanners

4

1

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 / ERC 25	3425.20000	4.6		■	■	■				E 25	7111.25000	12.1
Hi-Q / ERBC 25	3425.40000	4.10		■	■	■	■			E 25	7111.25000	12.1
Hi-Q / ERMC 25	3525.20000	4.12		■	■	■	■	■		E 25 M	7113.25000	12.1
Hi-Q / ERAXC 25	3325.70000	4.18		■	■	■			■	E 25 AX	7117.25000	12.2

2

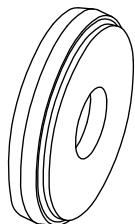
Hi-Q / ERC 32	3432.20000	4.6		■	■	■				E 32	7111.32000	12.1
Hi-Q / ERBC 32	3432.40000	4.10		■	■	■	■			E 32	7111.32000	12.1
Hi-Q / ERAXC 32	3332.70000	4.18		■	■	■			■	E 32 AX	7117.32000	12.2

Sealing Disk Sets DS/ER 25 and DS/ER 32

Part Description	Part No.	Sealing Capacity [mm]	Supplied with
Set DS / ER 25	3925.00000	3.50 – 16.00	26 sealing disks, 1 tray DSR/25
Set DS / ER 32	3932.00000	3.50 – 20.00	34 sealing disks, 1 tray DSR/32

Tray DS/ER 25 and DS/ER 32

Part Description	Part No.	Page
DSR / 25	7122.25000	12.6
DSR / 32	7122.32000	12.6



DS/ER 25 | DS/ER 32

4

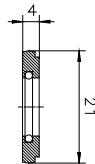
Sealing Disks DS/ER 25 and DS/ER 32

Sealing Capacity [mm]	Sealing Capacity [Inch]	\varnothing [Inch]	DS/ER 25 Part No.	DS/ER 32 Part No.
3.00 - 2.50	0.1181 - 0.0984	3/32"	3925.00300	3932.00300
3.50 - 3.00	0.1378 - 0.1181	1/8"	3925.00350*	3932.00350*
4.00 - 3.50	0.1575 - 0.1378	5/32"	3925.00400*	3932.00400*
4.50 - 4.00	0.1772 - 0.1575		3925.00450*	3932.00450*
5.00 - 4.50	0.1969 - 0.1772	3/16"	3925.00500*	3932.00500*
5.50 - 5.00	0.2165 - 0.1969	7/32"	3925.00550*	3932.00550*
6.00 - 5.50	0.2362 - 0.2165		3925.00600*	3932.00600*
6.50 - 6.00	0.2559 - 0.2362	1/4"	3925.00650*	3932.00650*
7.00 - 6.50	0.2756 - 0.2559		3925.00700*	3932.00700*
7.50 - 7.00	0.2953 - 0.2756	9/32"	3925.00750*	3932.00750*
8.00 - 7.50	0.3150 - 0.2953	5/16"	3925.00800*	3932.00800*
8.50 - 8.00	0.3347 - 0.3150		3925.00850*	3932.00850*
9.00 - 8.50	0.3543 - 0.3347	11/32"	3925.00900*	3932.00900*
9.50 - 9.00	0.3740 - 0.3543	3/8"	3925.00950*	3932.00950*
10.00 - 9.50	0.3937 - 0.3740		3925.01000*	3932.01000*
10.50 - 10.00	0.4134 - 0.3937	13/32"	3925.01050*	3932.01050*
11.00 - 10.50	0.4330 - 0.4134		3925.01100*	3932.01100*
11.50 - 11.00	0.4528 - 0.4330	7/16"	3925.01150*	3932.01150*
12.00-11.50	0.4724-0.4528	15/32"	3925.01200*	3932.01200*
12.50 - 12.00	0.4921 - 0.4724		3925.01250*	3932.01250*
13.00 - 12.50	0.5118 - 0.4921	1/2"	3925.01300*	3932.01300*

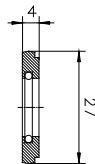
Sealing Capacity [mm]	Sealing Capacity [Inch]	\varnothing [Inch]	DS/ER 25 Part No.	DS/ER 32 Part No.
13.50 - 13.00	0.5315 - 0.5118	17/32"	3925.01350*	3932.01350*
14.00 - 13.50	0.5512 - 0.5315		3925.01400*	3932.01400*
14.50 - 14.00	0.5709 - 0.5512	9/16"	3925.01450*	3932.01450*
15.00 - 14.50	0.5905 - 0.5709		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*

*Included in sealing disk set.

1 DS/ER 25



2 DS/ER 32





Matching Products

Clamping Nuts | Spanners

4

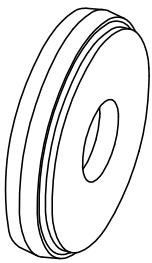
Clamping Nut	Part No.	Page	Standard	With Friction Bearing	Balanced	For Coolant Through Tools	Collet Locking System	Mini-Nut	Nut with External Thread	Spanner	Part No.	Page
Hi-Q / ERC 40	3440.20000	4.6		■	■	■				E 40	7111.40000	12.1
Hi-Q / ERBC 40	3440.40000	4.10		■	■	■	■			E 40	7111.40000	12.1
Hi-Q /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

Sealing Disk Sets DS/ER 40

Part Description	Part No.	Sealing Capacity [mm]	Supplied with
Set DS / ER 40	3940.00000	3.50 – 26.00	46 sealing disks, 1 tray DSR/40

Tray DS/ER 40

Part Description	Part No.	Page
DSR / 40	7122.40000	12.6



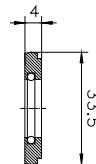
DS/ER 40

Sealing Disks DS/ER 40

Sealing Capacity [mm]	Sealing Capacity [Inch]	\varnothing [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]	\varnothing [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 - 0.7874	27/32"	3940.02150*
22.00 - 21.50	0.8661 - 0.8465		3940.02200*
22.50 - 21.00	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.





Swiss
Precision
Tools

ER

Coolant Flush Disk

Features | Benefits



Swiss Quality

Made in Switzerland to ISO 9001/ISO 14001.

1 Marking

Type and size (reduced disk selection errors).

2 Traceability

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

3 Original REGO-FIX®

Our extensive experience results in a well-engineered system. When buying ER coolant flush disks please note the REGO-FIX® quality seal △ on the coolant flush disk. Guarantee for best quality.

Universal Use

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

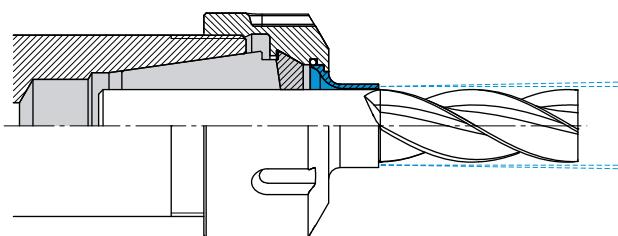
Interchangeable

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

Peripheral Cooling

For better cooling and lubrication.

Extends tool life and supports chip removal.



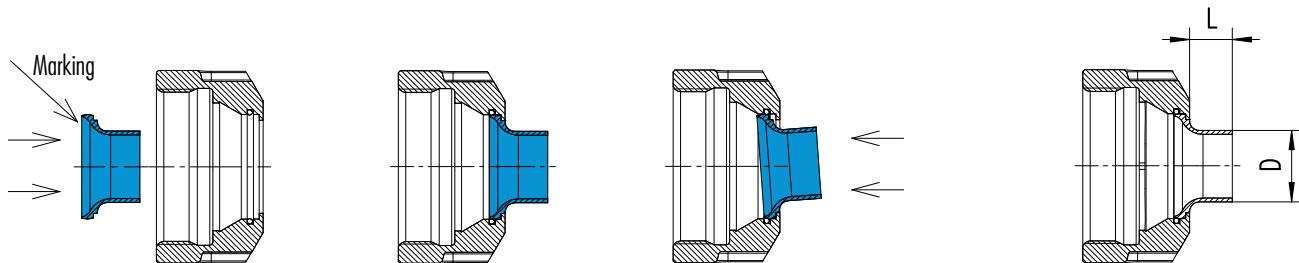
Drawings with detailed dimensions see.

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Mounting Instructions

Coolant Flush Disks KS/ER (pat. pend.)

Assembly/Disassembly Identical to sealing disks. See page 4.20.



Nominal Size [mm]	Ø [Inch]	KS/ER 16 Part No.	L [mm]	D [mm]	KS/ER 20 Part No.	L [mm]	D [mm]	KS/ER 25 Part No.	L [mm]	D [mm]	KS/ER 32 Part No.	L [mm]	D [mm]
3.000	-	3916.20300	11.0	6.4	3920.20300	11.0	6.4	3925.20300	11.0	6.4	3932.20300	11.0	6.4
3.175	1/8"	3916.30318	11.0	6.6	3920.30318	11.0	6.6	3925.30318	11.0	6.6	3932.30318	11.0	6.6
4.000	-	3916.20400	11.0	7.4	3920.20400	11.0	7.4	3925.20400	11.0	7.4	3932.20400	11.0	7.4
4.763	3/16"	3916.30476	11.0	8.2	3920.30476	11.0	8.2	3925.30476	11.0	8.2	3932.30476	11.0	8.2
5.000	-	3916.20500	11.0	8.4	3920.20500	11.0	8.4	3925.20500	11.0	8.4	3932.20500	11.0	8.4
6.000	-	3916.20600	11.0	9.4	3920.20600	11.0	9.4	3925.20600	11.0	9.4	3932.20600	11.0	9.4
6.350	1/4"	3916.30635	11.0	9.7	3920.30635	11.0	9.7	3925.30635	11.0	9.7	3932.30635	11.0	9.7
7.000	-	3916.20700	11.0	12.0	3920.20700	11.0	10.4	3925.20700	11.0	10.4	3932.20700	11.0	10.4
7.938	5/16"	3916.30794	11.0	11.0	3920.30794	11.0	11.3	3925.30794	11.0	11.3	3932.30794	11.0	11.3
8.000	-	3916.20800	11.0	11.0	3920.20800	11.0	11.4	3925.20800	11.0	11.3	3932.20800	11.0	11.4
9.000	-	3916.20900	3.0	11.0	3920.20900	11.0	12.4	3925.20900	11.0	12.4	3932.20900	11.0	12.4
9.525	3/8"	3916.30953	3.0	11.0	3920.30953	11.0	14.0	3925.30953	11.0	12.9	3932.30953	11.0	12.9
10.000	-	3916.21000	3.0	11.0	3920.21000	11.0	14.0	3925.21000	11.0	13.4	3932.21000	11.0	13.4
11.113	7/16"	-	-	-	3920.31111	11.0	14.0	3925.31111	11.0	14.5	3932.31111	11.0	14.5
12.000	-	-	-	-	3920.21200	3.0	14.0	3925.21200	11.0	15.4	3932.21200	11.0	15.4
12.700	1/2"	-	-	-	3920.31270	3.0	14.0	3925.31270	11.0	16.1	3932.31270	11.0	16.1
14.000	-	-	-	-	-	-	-	3925.21400	11.0	17.4	3932.21400	11.0	17.4
14.288	9/16"	-	-	-	-	-	-	3925.31429	11.0	17.7	3932.31429	11.0	17.7
15.875	5/8"	-	-	-	-	-	-	3925.31588	11.0	19.0	3932.31588	11.0	19.3
16.000	-	-	-	-	-	-	-	3925.21600	11.0	19.0	3932.21600	11.0	19.4
18.000	-	-	-	-	-	-	-	-	-	-	3932.21800	11.0	19.4
19.050	3/4"	-	-	-	-	-	-	-	-	-	3932.31905	11.0	24.0
20.000	-	-	-	-	-	-	-	-	-	-	3932.22000	11.0	24.0

Coolant Flush Disk Blanks

Coolant Flush Disk Blanks without bore for making special diameters. Material 42CrMoS4 (1.7227).

Blanks	3916.29999	11.0	11.0	3920.29999	11.0	14.0	3925.29999	11.0	19.0	3932.29999	11.0	24.0
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REGO-FIX® H-Q
SWISS Line
part. pend.
G25x080 H
4240.72540.02



TC Steep Taper Toolholders

5

DIN 69871

ER *SYSTEM*

- 5.1 Features | Benefits
- 5.2 Information
- 5.4 TC | ER | ERA
- 5.6 TC | ER

powRgrip *SYSTEM*

- 5.7 Features | Benefits
- 5.8 Information
- 5.10 TC | PG

Other Toolholders

- 5.11 TC | WD End Mill Holders WELDON
- 5.12 TC | KFD Universal Shell Mill / Face Mill Holders
- 5.13 TC | KBF Drill Chucks
- 5.14 TC | MK Morse Taper Holders

Tapping holders for use with appropriate Weldon toolholders
see page 9.14/9.16 for ER and 9.22/9.24 for powRgrip®.



Swiss
Precision
Tools

ER
Toolholders

Features | Benefits

Swiss Quality

Made in Switzerland to ISO 9001/ISO 14001.

1 Marking

Type and part number.

2 Traceability

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

3 Original REGO-FIX®

Our extensive experience results in a well-engineered system. Original only with the REGO-FIX® quality seal △.

T.I.R. <3 µm

Inner diameter to outer diameter.

Taper Accuracy AT3

Better spindle-to-holder fit and accuracy.

Surface Finish max. Ra 0.25

Higher clamping force and higher transferable torque.

Q+® Balancing

100% balanced to G 2.5 @ 22'000 min⁻¹.

Hi-Q® Balancing System

Ready to accept Hi-Q® balancing rings which allow to offset the imbalance introduced by the cutting tool up to 80'000 min⁻¹.

Hi-Q® Clamping Nut Included

Guarantees highest clamping force and best balancing.

Vibration Dampening

For best machining results.

ID Chip Hole

Per DIN 69873 with 10 mm diameter.

5



TC/ER Toolholder

Applications

These colletholders are designed for use on CNC-machining centers with automatic tool changer. They are universally suitable for drilling, machining, reaming, tapping and grinding. The vibration dampening of these systems reduce spindle wear and extend tool life.

Balancing

REGO-FIX® Q+® System TC/ER colletholders are balanced to G 2.5 @ 22'000 min⁻¹. Type H colletholders are ready to accept Hi-Q® balancing rings which allow precision balancing of the system including cutting tool up to 80'000 min⁻¹ depending on the balancing rings used.

Special Applications

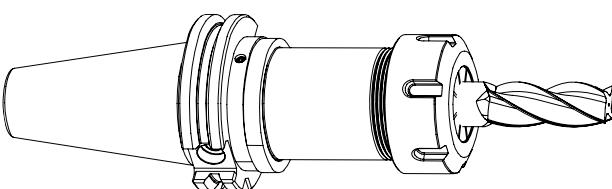
When extra high clamping force is needed, e.g. when tapping with ER-GB or ET1*, we recommend to use of our friction bearing clamping nuts Hi-Q®/ERB and Hi-Q®/ERBC.

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

Matched Tooling System for Best Fit

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

For the influence of run-out on tool life see the graph page 2.3.



TC/ERA Toolholder

Applications

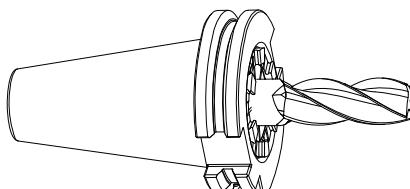
These colletholders are specially designed for mill-turning machines, multitasking machines and small vertical machining centers. They have the well known REGO-FIX surface finish, precision and thanks to their shortness a superior stiffness. ERA Zero-Z® toolholders have the shortest possible projection to increase the Z-axis travel of the machine and to allow larger work-pieces to be machined.

Balancing

REGO-FIX® Q+® System TC/ERA colletholders are balanced to G 2.5 @ 22'000 min⁻¹.

Special Features

Thanks to the built in Hi-Q®/ERAX clamping nut the transferable torque is extremely high. This clamping nut has been specially designed for applications were space is at a premium. Slippage off of the wrench is prevented by a patented design.



We recommend tightening the clamping nuts with a torque wrench. The maximum torque shall not be more than 25% above the recommended tightening torque.

Recommended tightening torque see page 13.3/13.4.



Matching Products

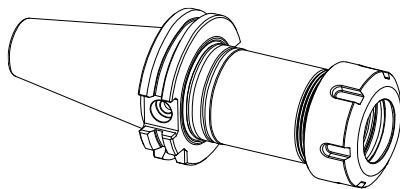
Clamping Nuts | Collets | Spanners

Clamping Nut and Spanner	ER 11	ER 16	ER 20	ER 25	ER 32	ER 40	ER 50	Page	Standard	With Friction Bearing	Balanced	For Coolant Through Tools	Collet Locking System	Mini-Nut	Nut with External Thread	Spanner
Hi-Q/ER	3411.00000	3416.00000	3420.00000	3425.00000	3432.00000	3440.00000	-	4.4	■	■	■	■	■			
Hi-Q/ERC	3411.20300 - 3411.20700	3416.20000	3420.20000	3425.20000	3432.20000	3440.20000	-	4.6		■	■	■	■			
Hi-Q/ERB	-	3416.30000	3420.30000	3425.30000	3432.30000	3440.30000	-	4.10	■	■	■	■				
Hi-Q/ERBC	-	3416.40000	3420.40000	3425.40000	3432.40000	3440.40000	-	4.10	■	■	■	■				
EP	7112.11010	7112.16010	7112.20010	-	-	-	-	12.1							■	
E	-	-	-	7111.25000	7111.32000	7111.40000	-	12.1							■	
Hi-Q/ERAX	-	-	3320.60000	-	3332.60000	-	-	4.18	■	■	■	■				
Hi-Q/ERAXC	-	-	3320.70000	-	3332.70000	-	-	4.18	■	■	■	■				
EAX	-	-	7117.20000	-	7117.32000	-	-	12.2							■	

Recommended tightening torque on page 13.3/13.4.

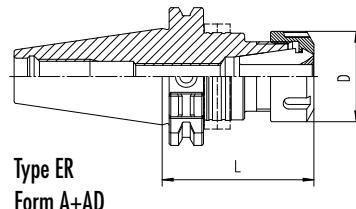
Collet	ER 11/ET1-12		ER 16/ET1-16		ER 20/ET1-20		ER 25/ET1-25		ER 32/ET1-32		ER 40/ET1-40		ER 50	
	Clamping Range [mm]	Page												
ER	0.5 – 7.0	2.8	0.5 – 10.0	2.10	0.5 – 13.0	2.12	0.5 – 16.0	2.14	1.0 – 20.0	2.16	2.0 – 30.0	2.18	-	-
ER-UP	0.5 – 7.0	2.8	0.5 – 10.0	2.10	0.5 – 13.0	2.12	0.5 – 16.0	2.14	1.0 – 20.0	2.16	2.0 – 30.0	2.18	-	-
ER-DM	2.75 – 7.0	2.22	3.0 – 10.0	2.24	3.0 – 10.0	2.26	6.0 – 16.0	2.28	6.0 – 20.0	2.30	6.0 – 26.0	2.32	-	-
ER-MB	0.2 – 0.9	2.8	0.2 – 0.9	2.10	-	-	-	-	-	-	-	-	-	-
ER-GB	2.8 – 6.0	3.4	4.0 – 9.0	3.4	4.0 – 11.2	3.4	4.0 – 16.0	3.4	4.0 – 20.0	3.4	6.0 – 22.0	3.4	-	-
ET 1*	1.4 – 3.55	3.8	1.4 – 6.3	3.8	2.2 – 7.0	3.8	2.5 – 10.0	3.8	4.5 – 12.5	3.8	6.0 – 17.0	3.8	-	-

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



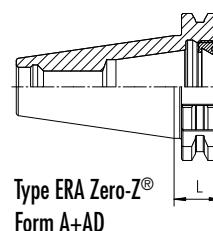
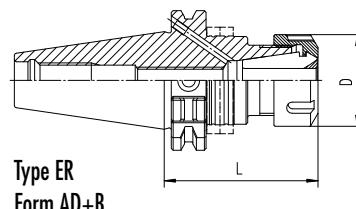
ER Colletholders | ERA Zero-Z® Colletholders | Balancing Rings

Type	Form A+AD Part No.	Form AD+B Part No.	D [mm]	L [mm]	Balancing Rings
TC 30 / ER 16 x 070 H	4230.11630	4230.11633	28	70	FWR 285
TC 30 / ER 16 x 100 H	4230.11650	4230.11653	28	100	FWR 285
TC 30 / ER 25 x 060 H	4230.12520	4230.12523	42	60	FWR 325
TC 30 / ER 32 x 065*	2230.13220	2230.13223	50	65	-



TC 40 / ER 11 x 100 H	4240.11150	4240.11153	19	100	FWR 325
TC 40 / ER 11 x 160 H	4240.11180	4240.11183	19	160	FWR 325
TC 40 / ER 16 x 070 H	4240.11630	4240.11633	28	70	FWR 405
TC 40 / ER 16 x 100 H	4240.11650	4240.11653	28	100	FWR 405
TC 40 / ER 16 x 160 H	4240.11680	4240.11683	28	160	FWR 405/225
TC 40 / ER 16 x 200 H	4240.11690	4240.11693	28	200	FWR 405/225
TC 40 / ER 20 x 070 H	4240.12030	4240.12033	34	70	FWR 325
TC 40 / ER 20 x 100 H	4240.12050	4240.12053	34	100	FWR 325
TC 40 / ER 25 x 070 H	4240.12530	4240.12533	42	70	FWR 405
TC 40 / ER 25 x 100 H	4240.12550	4240.12553	42	100	FWR 405
TC 40 / ER 25 x 160 H	4240.12580	4240.12583	42	160	FWR 405/325
TC 40 / ER 25 x 200 H	4240.12590	4240.12593	42	200	FWR 405/325
TC 40 / ERA 32 x 019*	2240.13207	-	-	19	-
TC 40 / ER 32 x 070 H	4240.13230	4240.13233	50	70	FWR 405
TC 40 / ER 32 x 100 H	4240.13250	4240.13253	50	100	FWR 405
TC 40 / ER 32 x 160 H	4240.13280	4240.13283	50	160	FWR 405/405
TC 40 / ER 32 x 200 H	4240.13290	4240.13293	50	200	FWR 405/405
TC 40 / ER 40 x 080*	2240.14040	2240.14043	63	80	-
TC 40 / ER 40 x 100 H	4240.14050	4240.14053	63	100	FWR 505
TC 40 / ER 40 x 160 H	4240.14080	4240.14083	63	160	FWR 505/505

ERA



Supplied with: ER colletholder with Hi-Q® clamping nut, ERA colletholder with Hi-Q® AX clamping nut.
*Not for use with balancing rings.

Hi-Q® Balancing Rings	Part No.	Page
Set FWR 225	7490.22500	12.9
Set FWR 285	7490.28500	12.9
Set FWR 325	7490.32500	12.9
Set FWR 405	7490.40500	12.9
Set FWR 505	7490.50500	12.9
Torque screwdriver (TSD)	7159.09000	12.9

Maximum rpm for Hi-Q balancing rings see page 12.9.

Drawings with detailed dimensions see

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Matching Products

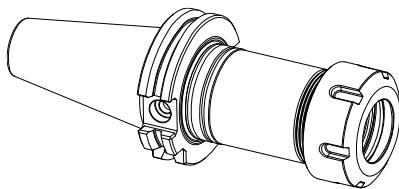
Clamping Nuts | Collets | Spanners

Clamping Nut and Spanner	ER 11	ER 16	ER 20	ER 25	ER 32	ER 40	ER 50	Page	Standard	With Friction Bearing	Balanced	For Coolant Through Tools	Collet Locking System	Mini-Nut	Nut with External Thread	Spanner
Hi-Q/ER	-	3416.00000	3420.00000	3425.00000	3432.00000	3440.00000	3450.00000	4.4	■	■	■	■	■			
Hi-Q/ERC	-	3416.20000	3420.20000	3425.20000	3432.20000	3440.20000	-	4.8		■	■	■	■			
Hi-Q/ERB	-	3416.30000	3420.30000	3425.30000	3432.30000	3440.30000	3450.30000	4.10	■	■	■	■				
Hi-Q/ERBC	-	3416.40000	3420.40000	3425.40000	3432.40000	3440.40000	-	4.10	■	■	■	■	■			
EP	-	7112.16010	7112.20010	-	-	-	-	12.1							■	
E	-	-	-	7111.25000	7111.32000	7111.40000	7111.50000	12.1							■	

Recommended tightening torque on page 13.3/13.4.

Collet	ER 11/ET1-12		ER 16/ET1-16		ER 20/ET1-20		ER 25/ET1-25		ER 32/ET1-32		ER 40/ET1-40		ER 50	
	Clamping Range [mm]	Page												
ER	-	-	0.5 – 10.0	2.10	0.5 – 13.0	2.12	0.5 – 16.0	2.14	1.0 – 20.0	2.16	2.0 – 30.0	2.18	4.0 – 34.0	2.18
ER-UP	-	-	0.5 – 10.0	2.10	0.5 – 13.0	2.12	0.5 – 16.0	2.14	1.0 – 20.0	2.16	2.0 – 30.0	2.18	4.0 – 34.0	2.18
ER-DM	-	-	3.0 – 10.0	2.24	3.0 – 10.0	2.26	6.0 – 16.0	2.28	6.0 – 20.0	2.30	6.0 – 26.0	2.32	-	-
ER-MB	-	-	0.2 – 0.9	2.10	-	-	-	-	-	-	-	-	-	-
ER-GB	-	-	4.0 – 9.0	3.4	4.0 – 11.2	3.4	4.0 – 16.0	3.4	4.0 – 20.0	3.4	6.0 – 22.0	3.4	22.0 – 32.0	3.4
ET 1*	-	-	1.4 – 6.3	3.8	2.2 – 7.0	3.8	2.5 – 10.0	3.8	4.5 – 12.5	3.8	6.0 – 17.0	3.8	-	-

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

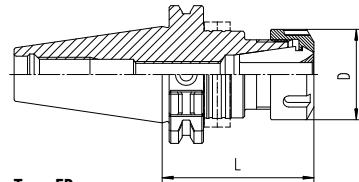


ER Colletholders | ERA Zero-Z® Colletholders | Balancing Rings

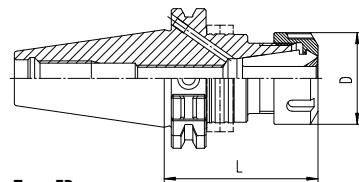
Type	Form A+AD Part No.	Form AD+B Part No.	D [mm]	L [mm]	Balancing Rings
TC 50 / ER 16 x 100 H	4250.11650	4250.11653	28	100	FWR 505
TC 50 / ER 16 x 160 H	4250.11680	4250.11683	28	160	FWR 505/225
TC 50 / ER 16 x 200 H	4250.11690	4250.11693	28	200	FWR 505/225
TC 50 / ER 20 x 070 H	4250.12030	4250.12033	34	70	FWR 325
TC 50 / ER 20 x 100 H	4250.12050	4250.12053	34	100	FWR 325
TC 50 / ER 25 x 070 H	4250.12530	4250.12533	42	70	FWR 405
TC 50 / ER 25 x 100 H	4250.12550	4250.12553	42	100	FWR 405
TC 50 / ER 25 x 160 H	4250.12580	4250.12583	42	160	FWR 405/325
TC 50 / ER 25 x 200 H	4250.12590	4250.12593	42	200	FWR 405/325
TC 50 / ER 32 x 100 H	4250.13250	4250.13253	50	100	FWR 505
TC 50 / ER 32 x 160 H	4250.13280	4250.13283	50	160	FWR 505/405
TC 50 / ER 32 x 200 H	4250.13290	4250.13293	50	200	FWR 505/405
TC 50 / ER 40 x 100 H	4250.14050	4250.14053	63	100	FWR 505
TC 50 / ER 40 x 160 H	4250.14080	4250.14083	63	160	FWR 505/505
TC 50 / ER 40 x 200 H	4250.14090	4250.14093	63	200	FWR 505/505
TC 50 / ER 50 x 100*	2250.15050	-	78	100	-

Supplied with: ER colletholder with Hi-Q® clamping nut, ERA colletholder with Hi-Q® AX clamping nut.

*Not for use with balancing rings.



Type ER
Form A+AD



Type ER
Form AD+B

Hi-Q® Balancing Rings	Part No.	Page
Set FWR 225	7490.22500	12.9
Set FWR 285	7490.28500	12.9
Set FWR 325	7490.32500	12.9
Set FWR 405	7490.40500	12.9
Set FWR 505	7490.50500	12.9
Torque screwdriver (TSD)	7159.09000	12.9

Maximum rpm for Hi-Q balancing rings see page 12.9.

Drawings with detailed dimensions see

search.rego-fix.ch



Features | Benefits

Swiss Quality

Made in Switzerland to ISO 9001/ISO 14001.

1 Marking

Type and part number.

2 Traceability

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

3 Original REGO-FIX®

Original only with the REGO-Fix® quality seal \triangle . Guarantee for best quality.

T.I.R. of the Whole System $<3 \mu\text{m}$

Highest clamping force and best runout in one.

Taper Accuracy AT3

Better spindle-to-holder fit and accuracy.

Surface Finish max. Ra 0.25

Higher clamping force and higher transferable torque.

Q+® Balancing

100% balanced to G 2.5 @ 22'000 min⁻¹. Ideal for High Speed Cutting (HSC) and High Performance Cutting (HPC).

Hi-Q® Balancing System

Ready to accept Hi-Q® balancing rings which allow to offset the imbalance introduced by the cutting tool up to 80'000 min⁻¹.

Minimal Outside Dimensions

Slim design provides more processing flexibility.

Fast

Tool clamping with hydraulic press in less than 10 seconds.

Excellent at Small Diameters

Clamping of small diameter tools from Ø 0.2 mm.

Presetable Tooling System

Repeatability $<10 \mu\text{m}$

ID Chip Hole

Per DIN 69873 with 10 mm diameter.

5



TC/PG Toolholder

Applications

These colletholders are designed for use on CNC-machining centers with automatic tool changers. They are especially suited for HSC and HPC operations where processing reaches the machine limits. The vibration dampening of TC/PG colletholders reduce spindle wear and extend tool life.

Balancing

REGO-FIX® Q+® System TC/PG colletholders are balanced to G 2.5 @ 22'000 min⁻¹. Type H colletholders are ready to accept Hi-Q® balancing rings which allow precision balancing of the system including cutting tool up to 80'000 min⁻¹ depending on the balancing rings used.

Coolant Through

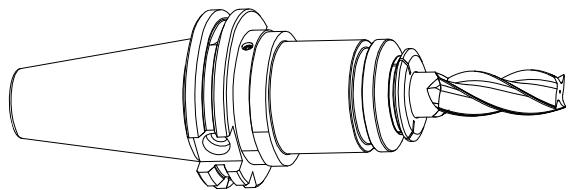
For use with coolant through tools.

Peripheral Cooling

PG-CF collets for peripheral cooling with non-coolant through tools.

Matched Tooling System for Best Fit

For highest precision and best results the whole system counts. Therefore REGO-FIX® components are carefully matched to fit together. This guarantees best run-out and balancing.





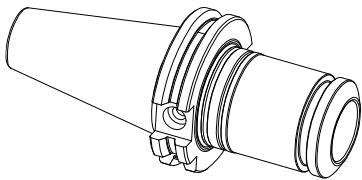
Matching Products

powRgrip® Collets

0.200 - 1.5875 mm powRgrip® collets with microbore (PG 10-MB) see page 2.36.

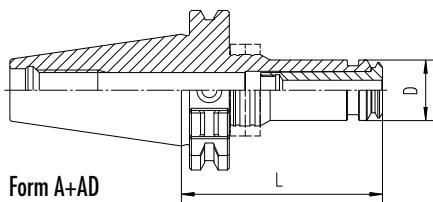
Ø [mm]	Ø [Inch]	Ø [Inch]	PG 10 Part No.	PG 10-CF Part No.	PG 15 Part No.	PG 15-CF Part No.	PG 25 Part No.	PG 25-CF Part No.	PG 32 Part No.	PG 32-CF Part No.
2.000	0.0787	-	1710.02000	-	-	-	-	-	-	-
2.500	0.0984	-	1710.02500	-	-	-	-	-	-	-
3.000	0.1181	-	1710.03000	1710.03002	1715.03000	1715.03002	1725.03000	1725.03002	-	-
3.175	0.1250	1/8"	1710.03181	1710.03183	1715.03181	1715.03183	1725.03181	1725.03183	-	-
3.500	0.1378	-	1710.03500	-	1715.03500	-	1725.03500	-	-	-
4.000	0.1575	-	1710.04000	1710.04002	1715.04000	1715.04002	1725.04000	1725.04002	-	-
4.500	0.1969	-	1710.04500	-	1715.04500	-	1725.04500	-	-	-
4.763	0.1875	3/16"	1710.04761	1710.04763	1715.04761	1715.04763	1725.04761	1725.04763	-	-
5.000	0.1969	-	1710.05000	1710.05002	1715.05000	1715.05002	1725.05000	1725.05002	-	-
5.500	0.2165	-	1710.05500	-	1715.05500	-	1725.05500	-	-	-
6.000	0.2362	-	1710.06000	1710.06002	1715.06000	1715.06002	1725.06000	1725.06002	1732.06000	1732.06002
6.350	0.2500	1/4"	1710.06351	1710.06353	1715.06351	1715.06353	1725.06351	1725.06353	1732.06351	1732.06353
7.000	0.2756	-	-	-	1715.07000	1715.07002	1725.07000	1725.07002	1732.07000	1732.07002
7.938	0.3125	5/16"	-	-	1715.07941	1715.07943	1725.07941	1725.07943	1732.07941	1732.07943
8.000	0.3150	-	-	-	1715.08000	1715.08002	1725.08000	1725.08002	1732.08000	1732.08002
9.000	0.3543	-	-	-	1715.09000	1715.09002	1725.09000	1725.09002	1732.09000	1732.09002
9.525	0.3750	3/8"	-	-	1715.09521	1715.09523	1725.09521	1725.09523	1732.09521	1732.09523
10.000	0.3937	-	-	-	1715.10000	1715.10002	1725.10000	1725.10002	1732.10000	1732.10002
11.000	0.4331	-	-	-	-	-	1725.11000	1725.11002	1732.11000	1732.11002
11.113	0.4375	7/16"	-	-	-	-	1725.11111	1725.11113	1732.11111	1732.11113
12.000	0.4724	-	-	-	-	-	1725.12000	1725.12002	1732.12000	1732.12002
12.700	0.5000	1/2"	-	-	-	-	1725.12701	1725.12703	1732.12701	1732.12703
13.000	0.5112	-	-	-	-	-	1725.13000	1725.13002	-	-
14.000	0.5512	-	-	-	-	-	1725.14000	1725.14002	1732.14000	1732.14002
14.288	0.5625	9/16"	-	-	-	-	1725.14291	1725.14293	1732.14291	1732.14293
15.000	0.5906	-	-	-	-	-	1725.15000	1725.15002	-	-
15.875	0.6250	5/8"	-	-	-	-	1725.15881	1725.15883	1732.15881	1732.15883
16.000	0.6300	-	-	-	-	-	1725.16000	1725.16002	1732.16000	1732.16002
18.000	0.7087	-	-	-	-	-	1725.18000	1725.18002	1732.18000	1732.18002
19.050	0.7500	3/4"	-	-	-	-	1725.19051	1725.19053	1732.19051	1732.19053
20.000	0.7874	-	-	-	-	-	1725.20000	1725.20002	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

powRgrip® clamping units and further powRgrip® accessories see page 12.7/12.8.

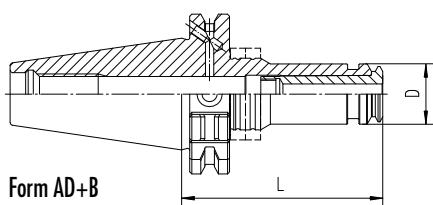


powRgrip® Colletholders | Balancing Rings

Type	Form A+AD Part No.	Form AD+B Part No.	D [mm]	L [mm]	Balancing Rings
TC 30 / PG 10 x 060*	2230.71020	-	16	60	-
TC 30 / PG 10 x 073 H	4230.71030	-	16	73	FWR 285
TC 30 / PG 15 x 060*	2230.71520	-	24	60	-
TC 30 / PG 15 x 080 H	4230.71540	-	24	80	FWR 285
TC 30 / PG 15 x 120 H	4230.71560	-	24	120	FWR 285
TC 30 / PG 25 x 080*	2230.72540	-	40	80	-
TC 30 / PG 25 x 160 H	4230.72580	-	40	160	FWR 405



TC 40 / PG 10 x 080 H	4240.71040	4240.71043	16	80	FWR 285
TC 40 / PG 10 x 120 H	4240.71060	4240.71063	16	120	FWR 285
TC 40 / PG 10 x 160 H	4240.71080	4240.71083	16	160	FWR 325
TC 40 / PG 15 x 072*	2240.71530	2240.71533	24	72	-
TC 40 / PG 15 x 080 H	4240.71540	4240.71543	24	80	FWR 285
TC 40 / PG 15 x 120 H	4240.71560	4240.71563	24	120	FWR 325
TC 40 / PG 15 x 160 H	4240.71580	4240.71583	24	160	FWR 325/285
TC 40 / PG 25 x 072*	2240.72530	2240.72533	40	72	-
TC 40 / PG 25 x 080 H	4240.72540	4240.72543	40	80	FWR 405
TC 40 / PG 25 x 120 H	4240.72560	4240.72563	40	120	FWR 405
TC 40 / PG 25 x 160 H	4240.72580	4240.72583	40	160	FWR 405/405
TC 40 / PG 32 x 080*	2240.73240	2240.73243	50	80	-



TC 50 / PG 25 x 081*	2250.72540	2250.72543	40	81	-
TC 50 / PG 25 x 100 H	4250.72550	4250.72553	40	100	FWR 505
TC 50 / PG 25 x 160 H	4250.72580	4250.72583	40	160	FWR 505/405
TC 50 / PG 25 x 200 H	4250.72590	4250.72593	40	200	FWR 505/405
TC 50 / PG 32 x 080*	2250.73240	2250.73243	50	80	-

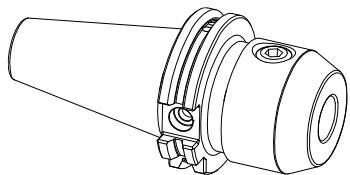
Hi-Q® Balancing Rings	Part No.	Page
Set FWR 225	7490.22500	12.9
Set FWR 285	7490.28500	12.9
Set FWR 325	7490.32500	12.9
Set FWR 405	7490.40500	12.9
Set FWR 505	7490.50500	12.9
Torque screwdriver (TSD)	7159.09000	12.9

Maximum rpm for Hi-Q balancing rings see page 12.9.

Drawings with detailed dimensions see

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*Not for use with balancing rings.



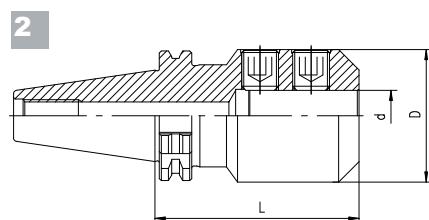
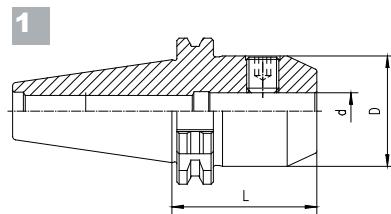
TC | WD
DIN 69871

End Mill Holders (WELDON)

Type	Form A+AD Part No.	d [mm]	D [mm]	L [mm]	Drawing
TC 40 / WD 6 x 050	2240.30620	6	25	50	1
TC 40 / WD 8 x 050	2240.30820	8	28	50	1
TC 40 / WD 10 x 050	2240.31020	10	35	50	1
TC 40 / WD 12 x 050	2240.31220	12	42	50	1
TC 40 / WD 14 x 050	2240.31420	14	44	50	1
TC 40 / WD 16 x 063	2240.31630	16	48	63	1
TC 40 / WD 18 x 063	2240.31830	18	50	63	1
TC 40 / WD 20 x 063	2240.32030	20	52	63	1
TC 40 / WD 25 x 100	2240.32560	25	65	100	2
TC 40 / WD 32 x 100	2240.33260	32	72	100	2

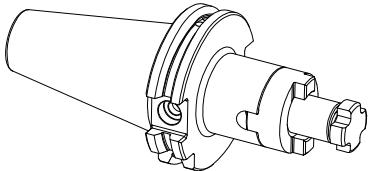
TC 50 / WD 6 x 063	2250.30630	6	25	63	1
TC 50 / WD 8 x 063	2250.30830	8	28	63	1
TC 50 / WD 10 x 063	2250.31030	10	35	63	1
TC 50 / WD 12 x 063	2250.31230	12	42	63	1
TC 50 / WD 14 x 063	2250.31430	14	44	63	1
TC 50 / WD 16 x 063	2250.31630	16	48	63	1
TC 50 / WD 18 x 063	2250.31830	18	50	63	1
TC 50 / WD 20 x 063	2250.32030	20	52	63	1
TC 50 / WD 25 x 080	2250.32550	25	65	80	2
TC 50 / WD 32 x 100	2250.33260	32	72	100	2
TC 50 / WD 40 x 100	2250.34060	40	80	100	2

Supplied with: End mill holder and lock screw.



Drawings with detailed dimensions see

search.rego-fix.ch

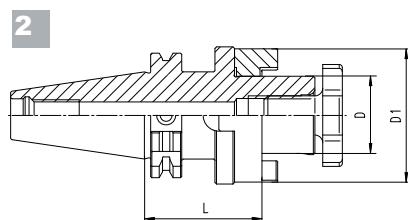
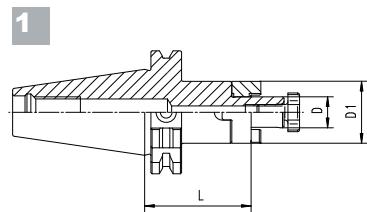


Universal Shell Mill | Face Mill Holders | Matching Spanners

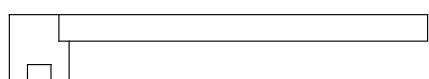
Type	Form A Part No.	D [mm]	D1 [mm]	L [mm]	Drawing
TC 40 / KFD 16 x 055	2240.41630	16	32	55	1
TC 40 / KFD 22 x 055	2240.42230	22	40	55	1
TC 40 / KFD 27 x 055	2240.42730	27	48	55	1
TC 40 / KFD 32 x 060	2240.43240	32	58	60	2
TC 40 / KFD 40 x 060	2240.44040	40	70	60	2

TC 50 / KFD 16 x 055	2250.41630	16	32	55	1
TC 50 / KFD 22 x 055	2250.42230	22	40	55	1
TC 50 / KFD 27 x 055	2250.42730	27	48	55	1
TC 50 / KFD 32 x 055	2250.43230	32	58	55	1
TC 50 / KFD 40 x 055	2250.44030	40	70	55	1
TC 50 / KFD 50 x 070	2250.45050	50	90	70	2

Supplied with:
Universal shell mill/face mill holder, lock screw, feather key and drive ring.



5



Matching Spanners Type	Part No.
FDS 16	7711.16000
FDS 22	7711.22000
FDS 27	7711.27000
FDS 32	7711.32000
FDS 40	7711.40000
FDS 50	7711.50000

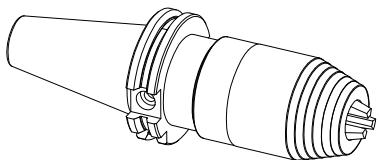
Drawings with detailed dimensions see

search.rego-fix.ch



Swiss
Precision
Tools

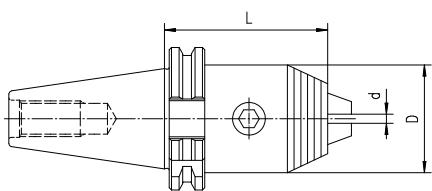
KBF
Toolholders



TC | KBF
DIN 69871

Drill Chucks

Type	Form A Part No.	Form AD+B Part No.	d [mm]	D [mm]	L [mm]
TC 30 / KBF 1-13 mm	2230.50100	-	1-13	50	111
TC 40 / KBF 1-13 mm	-	2240.50103	1-13	50	90
TC 50 / KBF 1-13 mm	-	2250.50103	1-13	50	106



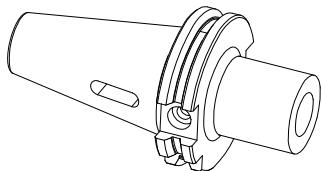
Supplied with: Drill chuck and allen-key.

Clamping range	1-13 mm
Maximum runout difference	0.03 mm
Maximum tightening torque	20 Nm
Clamping force (@ 20 Nm tightening torque)	80 Nm
Maximum rpm	up to 35'000 min ⁻¹

Drawings with detailed dimensions see

search.rego-fix.ch

5

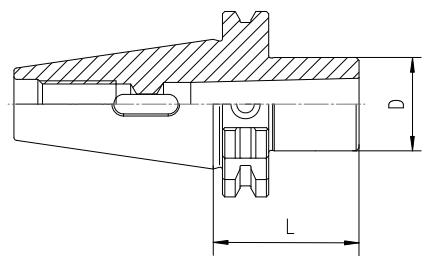


TC | MK
DIN 69871

Morse Taper Holder

Type	Form A+AD Part No.	D [mm]	L [mm]
TC 40 / MK 1 x 050	2240.80110	25	50
TC 40 / MK 2 x 050	2240.80210	32	50
TC 40 / MK 3 x 070	2240.80320	40	70
TC 40 / MK 4 x 095	2240.80430	48	95

Supplied with: Morse taper holder.



5

Drawings with detailed dimensions see

search.rego-fix.ch





BT Steep Taper Toolholder

6

MAS 403/JIS B 6339

ER *SYSTEM*

- 6.1 Features | Benefits
- 6.2 Information
- 6.4 BT | ER | ERA
- 6.8 BT-OM | ER | ERA
- 6.8 BT-OM | ER | ERA
- 6.9 Features | Benefits REGO PLUS
- 6.9 BT+ | ER REGO PLUS

powRgrip *SYSTEM*

- 6.11 Features | Benefits
- 6.12 Information
- 6.14 BT | PG
- 6.16 BT-OM | PG
- 6.17 Features | Benefits REGO PLUS
- 6.18 BT+ | PG REGO PLUS

Other Toolholders

- 6.19 BT | WD End Mill Holders WELDON
- 6.20 BT | KFD
Universal Shell Mill / Face Mill Holders
- 6.21 BT | KBF Drill Chucks
- 6.22 BT | MK Morse Taper Holders

Tapping holders for use with appropriate Weldon toolholders
see page 9.14/9.16 for ER and 9.22/9.24 for powRgrip®.



Swiss
Precision
Tools

ER
Toolholders

Features | Benefits

Swiss Quality

Made in Switzerland to ISO 9001/ISO 14001.

1 Marking

Type and part number.

2 Traceability

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

3 Original REGO-FIX®

Our extensive experience results in a well-engineered system. Original only with the REGO-FIX® quality seal \triangle . Guarantee for best quality.

T.I.R. $<3 \mu\text{m}$

Inner diameter to outer diameter.

Taper Accuracy AT3

Better spindle-to-holder fit and accuracy.

Surface Finish max. Ra 0.25

Higher clamping force and higher transferable torque.

Q+® Balancing

100% balanced to G 2.5 @ 22'000 min⁻¹.

Hi-Q® Balancing System

Ready to accept Hi-Q® balancing rings which allow to offset the imbalance introduced by the cutting tool up to 80'000 min⁻¹.

Hi-Q® Clamping Nut Included

Guarantees highest clamping force and best balancing.

Vibration Dampening

For best machining results.

6



Information

MAS 403/JIS B 6339

BT/ER Toolholder

Applications

These colletholders are designed for use on CNC-machining centers with automatic tool changer. They are universally suitable for drilling, machining, reaming, tapping and grinding. The vibration dampening of this system reduces spindle wear and extend tool life.

Balancing

REGO-FIX® Q+® System BT/ER colletholders are balanced to G 2.5 @ 22'000 min⁻¹. Type H colletholders are ready to accept Hi-Q® balancing rings which allow precision balancing of the system including cutting tool up to 80'000 min⁻¹ depending on the balancing rings used.

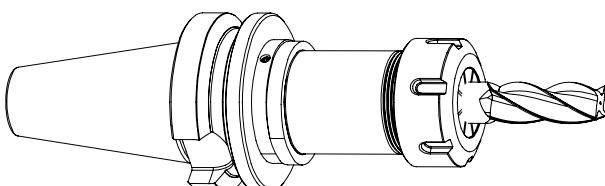
Special Applications

When extra high clamping force is needed, e.g. when tapping with ER-GB or ET1*, we recommend to use our friction bearing clamping nuts Hi-Q®/ERB and Hi-Q®/ERBC.

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

Matched Tooling System for Best Fit

For highest precision and best results the whole system counts. Therefore REGO-FIX® components are carefully matched to fit together. This guarantees best run-out and balancing.



BT/ERA Toolholder

Applications

These colletholders are specially designed for mill-turning machines, multitasking machines and small vertical machining centers. They have the well known REGO-FIX® surface finish, precision and thanks to their shortness a superior stiffness. ERA Zero-Z® toolholders have the shortest possible projection to increase the Z-axis travel of the machine and to allow larger work-pieces to be machined.

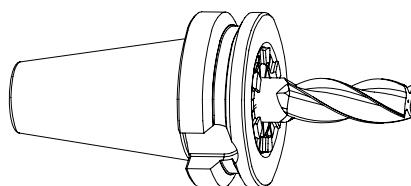
Balancing

REGO-FIX® Q+® System BT/ERA colletholders are balanced to G 2.5 @ 22'000 min⁻¹.

Special Features

Thanks to the built in Hi-Q®/ERAX clamping nut the transferable torque is extremely high. This clamping nut has been specially designed for applications were space is at a premium. Slipping off of the wrench is prevented by a patented design.

6



For the influence of run-out on tool life see the graph page 2.3.



We recommend tightening the clamping nuts with a torque wrench. The maximum torque shall not be more than 25% above the recommended tightening torque.

Recommended tightening torque see page 13.3/13.4.



Matching Products

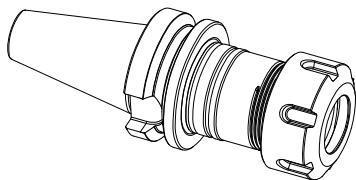
Clamping nuts | Collets | Spanners

Clamping Nut and Spanner	ER 11	ER 16	ER 20	ER 25	ER 32	ER 40	ER 50	Page	Standard	With Friction Bearing	Balanced	For Coolant Through Tools	Collet Locking System	Mini-Nut	Nut with External Thread	Spanner
Hi-Q/ER	3411.00000	3416.00000	3420.00000	3425.00000	3432.00000	3440.00000	3450.00000	4.4	■		■	■	■			
Hi-Q/ERC	3411.20300 - 3411.20700	3416.20000	3420.20000	3425.20000	3432.20000	3440.20000	-	4.8		■	■	■				
Hi-Q/ERB	-	3416.30000	3420.30000	3425.30000	3432.30000	3440.30000	3450.30000	4.10	■	■	■					
Hi-Q/ERBC	-	3416.40000	3420.40000	3425.40000	3432.40000	3440.40000	-	4.10	■	■	■	■				
EP	7112.11010	7112.16010	7112.20010	-	-	-	-	12.1								■
E	-	-	-	7111.25000	7111.32000	7111.40000	7111.50000	12.1								■
Hi-Q/ERAX	-	-	3320.60000	-	3332.60000	-	-	4.18		■	■	■				■
Hi-Q/ERAXC	-	-	3320.70000	-	3332.70000	-	-	4.18		■	■	■				■
EAX	-	-	7117.20000	-	7117.32000	-	-	12.2								■

Recommended tightening torque on page 13.3/13.4.

Collet	ER 11/ET1-12		ER 16/ET1-16		ER 20/ET1-20		ER 25/ET1-25		ER 32/ET1-32		ER 40/ET1-40		ER 50	
	Clamping Range [mm]	Page												
ER	0.5 – 7.0	2.8	0.5 – 10.0	2.10	0.5 – 13.0	2.12	0.5 – 16.0	2.14	1.0 – 20.0	2.16	2.0 – 30.0	2.18	4.0 – 34.0	2.18
ER-UP	0.5 – 7.0	2.8	0.5 – 10.0	2.10	0.5 – 13.0	2.12	0.5 – 16.0	2.14	1.0 – 20.0	2.16	2.0 – 30.0	2.18	4.0 – 34.0	2.18
ER-DM	2.75 – 7.0	2.22	3.0 – 10.0	2.24	3.0 – 10.0	2.26	6.0 – 16.0	2.28	6.0 – 20.0	2.30	6.0 – 26.0	2.32	–	–
ER-MB	0.2 – 0.9	2.8	0.2 – 0.9	2.10	–	–	–	–	–	–	–	–	–	–
ER-GB	2.8 – 6.0	3.4	4.0 – 9.0	3.4	4.0 – 11.2	3.4	4.0 – 16.0	3.4	4.0 – 20.0	3.4	6.0 – 22.0	3.4	22.0 – 32.0	3.4
ET 1*	1.4 – 3.55	3.8	1.4 – 6.3	3.8	2.2 – 7.0	3.8	2.5 – 10.0	3.8	4.5 – 12.5	3.8	6.0 – 17.0	3.8	–	–

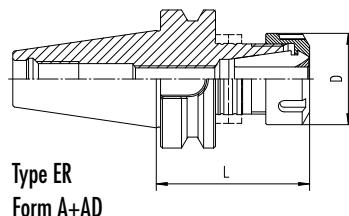
*Not for coolant through tools and not for applications with sealing disks.



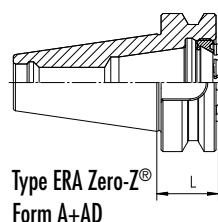
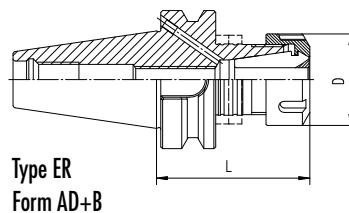
ER Colletholders | ERA Zero-Z® Colletholders | Balancing Rings

Type	Form A+AD Part No.	Form AD+B Part No.	D [mm]	L [mm]	Balancing Rings
BT 30 / ER 11 x 050*	2130.11110	-	19	50	-
BT 30 / ER 11 x 100 H	4130.11150	-	19	100	FWR 225
BT 30 / ER 16 x 050*	2130.111610	-	28	50	-
BT 30 / ER 16 x 080 H	4130.111640	-	28	80	FWR 285
BT 30 / ER 16 x 100 H	4130.111650	-	28	100	FWR 285
BT 30 / ERA 20 x 022*	2130.12007	-	-	22	-
BT 30 / ER 20 x 050*	2130.12010	-	34	50	-
BT 30 / ER 20 x 070 H	4130.12030	-	34	70	FWR 325
BT 30 / ER 20 x 100 H	4130.12050	-	34	100	FWR 325
BT 30 / ER 25 x 060 H	4130.12520	-	42	62.5	FWR 325
BT 30 / ER 25 x 100 H	4130.12550	-	42	100	FWR 325
BT 30 / ER 32 x 060*	2130.13220	-	50	60	-
BT 30 / ER 32 x 100 H	4130.13250	-	50	100	FWR 405

ERA



6



BT 40 / ER 11 x 100 H	4140.11150	-	19	100	FWR 285
BT 40 / ER 11 x 160 H	4140.11180	-	19	160	FWR 285
BT 40 / ER 16 x 070 H	4140.11630	4140.11633	28	70	FWR 285
BT 40 / ER 16 x 100 H	4140.11650	4140.11653	28	100	FWR 285
BT 40 / ER 16 x 160 H	4140.11680	4140.11683	28	160	FWR 285/225
BT 40 / ER 20 x 070 H	4140.12030	4140.12033	34	70	FWR 325
BT 40 / ER 20 x 100 H	4140.12050	4140.12053	34	100	FWR 285
BT 40 / ER 20 x 160 H	4140.12080	4140.12083	34	160	FWR 405/285
BT 40 / ER 25 x 070 H	4140.12530	4140.12533	42	70	FWR 405
BT 40 / ER 25 x 100 H	4140.12550	4140.12553	42	100	FWR 405
BT 40 / ER 25 x 160 H	4140.12580	4140.12583	42	160	FWR 405/325
BT 40 / ERA 32 x 027*	2140.13207	-	-	27	-
BT 40 / ER 32 x 070 H	4140.13230	4140.13233	50	70	FWR 405
BT 40 / ER 32 x 100 H	4140.13250	4140.13253	50	100	FWR 405
BT 40 / ER 32 x 160 H	4140.13280	4140.13283	50	160	FWR 405/325
BT 40 / ER 40 x 080*	2140.14040	2140.14043	63	80	-
BT 40 / ER 40 x 100 H	4140.14050	4140.14053	63	100	FWR 505
BT 40 / ER 40 x 160 H	4140.14080	4140.14083	63	160	FWR 505/505

ERA

Hi-Q® Balancing Rings	Part No.	Page
Set FWR 225	7490.22500	12.9
Set FWR 285	7490.28500	12.9
Set FWR 325	7490.32500	12.9
Set FWR 405	7490.40500	12.9
Set FWR 505	7490.50500	12.9
Torque screwdriver (TSD)	7159.09000	12.9

Maximum rpm for Hi-Q balancing rings see page 12.9.

Drawings with detailed dimensions see.

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Matching Products

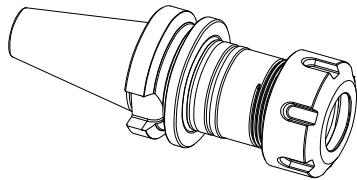
Clamping nuts | Collets | Spanners

Clamping Nut and Spanner	ER 11	ER 16	ER 20	ER 25	ER 32	ER 40	ER 50	Page	Standard	With Friction Bearing	Bolted	For Coolant Through Tools	Collet Locking System	Mini-Nut	Nut with External Thread	Spanner
Hi-Q/ER	3411.00000	3416.00000	3420.00000	3425.00000	3432.00000	3440.00000	3450.00000	4.4	■		■	■	■			
Hi-Q/ERC	3411.20300 - 3411.20700	3416.20000	3420.20000	3425.20000	3432.20000	3440.20000	-	4.8			■	■	■			
Hi-Q/ERB	-	3416.30000	3420.30000	3425.30000	3432.30000	3440.30000	3450.30000	4.10	■	■	■	■				
Hi-Q/ERBC	-	3416.40000	3420.40000	3425.40000	3432.40000	3440.40000	-	4.10	■	■	■	■				
EP	7112.11010	7112.16010	7112.20010	-	-	-	-	12.1								■
E	-	-	-	7111.25000	7111.32000	7111.40000	7111.50000	12.1								■
Hi-Q/ERAX	-	-	3320.60000	-	3332.60000	-	-	4.18	■	■	■	■				
Hi-Q/ERAXC	-	-	3320.70000	-	3332.70000	-	-	4.18	■	■	■	■				
EAX	-	-	7117.20000	-	7117.32000	-	-	12.2								■

Recommended tightening torque on page 13.3/13.4.

Collet	ER 11/ET1-12		ER 16/ET1-16		ER 20/ET1-20		ER 25/ET1-25		ER 32/ET1-32		ER 40/ET1-40		ER 50	
	Clamping Range [mm]	Page												
ER	0.5 – 7.0	2.8	0.5 – 10.0	2.10	0.5 – 13.0	2.12	0.5 – 16.0	2.14	1.0 – 20.0	2.16	2.0 – 30.0	2.18	4.0 – 34.0	2.18
ER-UP	0.5 – 7.0	2.8	0.5 – 10.0	2.10	0.5 – 13.0	2.12	0.5 – 16.0	2.14	1.0 – 20.0	2.16	2.0 – 30.0	2.18	4.0 – 34.0	2.18
ER-DM	2.75 – 7.0	2.22	3.0 – 10.0	2.24	3.0 – 10.0	2.26	6.0 – 16.0	2.28	6.0 – 20.0	2.30	6.0 – 26.0	2.32	–	–
ER-MB	0.2 – 0.9	2.8	0.2 – 0.9	2.10	–	–	–	–	–	–	–	–	–	–
ER-GB	2.8 – 6.0	3.4	4.0 – 9.0	3.4	4.0 – 11.2	3.4	4.0 – 16.0	3.4	4.0 – 20.0	3.4	6.0 – 22.0	3.4	22.0 – 32.0	3.4
ET 1*	1.4 – 3.55	3.8	1.4 – 6.3	3.8	2.2 – 7.0	3.8	2.5 – 10.0	3.8	4.5 – 12.5	3.8	6.0 – 17.0	3.8	–	–

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

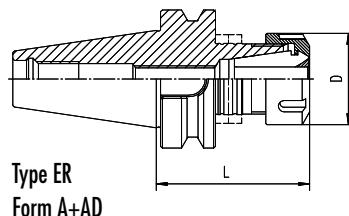


ER Colletholders | Balancing Rings

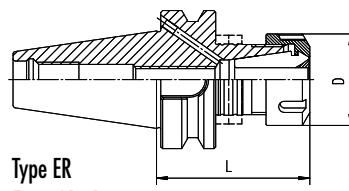
Type	Form A+AD Part No.	Form AD+B Part No.	D [mm]	L [mm]	Balancing Rings
BT 50 / ER 16 x 100 H	4150.11650	4150.11653	28	100	FWR 505
BT 50 / ER 16 x 160 H	4150.11680	4150.11683	28	160	FWR 505/225
BT 50 / ER 20 x 070*	2150.12030	2150.12033	34	70	-
BT 50 / ER 20 x 100 H	4150.12050	4150.12053	34	100	FWR 325
BT 50 / ER 25 x 070*	2150.12530	-	42	70	-
BT 50 / ER 25 x 100 H	4150.12550	4150.12553	42	100	FWR 405
BT 50 / ER 25 x 160 H	4150.12580	4150.12583	42	160	FWR 405/325
BT 50 / ER 32 x 100 H	4150.13250	4150.13253	50	100	FWR 505
BT 50 / ER 32 x 160 H	4150.13280	4150.13283	50	160	FWR 505/225
BT 50 / ER 40 x 100 H	4150.14050	4150.14053	63	100	FWR 505
BT 50 / ER 40 x 160 H	4150.14080	4150.14083	63	160	FWR 505
BT 50 / ER 50 x 100*	2150.15050	-	78	100	-

Supplied with: ER colletholder with Hi-Q® clamping nut.

*Not for use with balancing rings.



Type ER
Form A+AD



Type ER
Form AD+B

Hi-Q® Balancing Rings	Part No.	Page
Set FWR 225	7490.22500	12.9
Set FWR 285	7490.28500	12.9
Set FWR 325	7490.32500	12.9
Set FWR 405	7490.40500	12.9
Set FWR 505	7490.50500	12.9
Torque screwdriver (TSD)	7159.09000	12.9

Maximum rpm for Hi-Q® balancing rings see page 12.9.

Drawings with detailed dimensions see.

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Matching Products

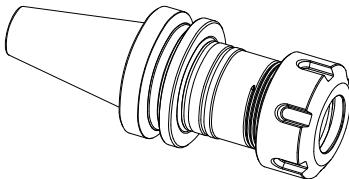
Clamping nuts | Collets | Spanners

Clamping Nut and Spanner	ER 11	ER 16	ER 20	ER 25	ER 32	ER 40	ER 50	Page	Standard	With Friction Bearing	Bolted	For Coolant Through Tools	Collet Locking System	Mini-Nut	Nut with External Thread	Spanner
Hi-Q/ER	3411.00000	3416.00000	3420.00000	3425.00000	3432.00000	3440.00000	3450.00000	4.4	■		■	■	■			
Hi-Q/ERC	3411.20300 - 3411.20700	3416.20000	3420.20000	3425.20000	3432.20000	3440.20000	-	4.8		■	■	■				
Hi-Q/ERB	-	3416.30000	3420.30000	3425.30000	3432.30000	3440.30000	3450.30000	4.10	■	■	■	■				
Hi-Q/ERBC	-	3416.40000	3420.40000	3425.40000	3432.40000	3440.40000	-	4.10	■	■	■	■				
EP	7112.11010	7112.16010	7112.20010	-	-	-	-	12.1								■
E	-	-	-	7111.25000	7111.32000	7111.40000	7111.50000	12.1								■
Hi-Q/ERAX	-	-	3320.60000	-	3332.60000	-	-	4.18	■	■	■	■				
Hi-Q/ERAXC	-	-	3320.70000	-	3332.70000	-	-	4.18	■	■	■	■				
EAX	-	-	7117.20000	-	7117.32000	-	-	12.2								■

Recommended tightening torque on page 13.3/13.4.

Collet	ER 11/ET1-12		ER 16/ET1-16		ER 20/ET1-20		ER 25/ET1-25		ER 32/ET1-32		ER 40/ET1-40		ER 50	
	Clamping Range [mm]	Page												
ER	0.5 – 7.0	2.8	0.5 – 10.0	2.10	0.5 – 13.0	2.12	0.5 – 16.0	2.14	1.0 – 20.0	2.16	2.0 – 30.0	2.18	4.0 – 34.0	2.18
ER-UP	0.5 – 7.0	2.8	0.5 – 10.0	2.10	0.5 – 13.0	2.12	0.5 – 16.0	2.14	1.0 – 20.0	2.16	2.0 – 30.0	2.18	4.0 – 34.0	2.18
ER-DM	2.75 – 7.0	2.22	3.0 – 10.0	2.24	3.0 – 10.0	2.26	6.0 – 16.0	2.28	6.0 – 20.0	2.30	6.0 – 26.0	2.32	–	–
ER-MB	0.2 – 0.9	2.8	0.2 – 0.9	2.10	–	–	–	–	–	–	–	–	–	–
ER-GB	2.8 – 6.0	3.4	4.0 – 9.0	3.4	4.0 – 11.2	3.4	4.0 – 16.0	3.4	4.0 – 20.0	3.4	6.0 – 22.0	3.4	22.0 – 32.0	3.4
ET 1*	1.4 – 3.55	3.8	1.4 – 6.3	3.8	2.2 – 7.0	3.8	2.5 – 10.0	3.8	4.5 – 12.5	3.8	6.0 – 17.0	3.8	–	–

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

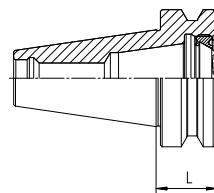
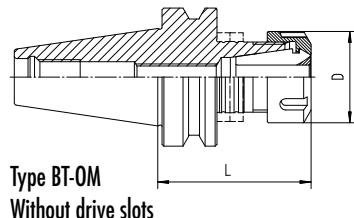


ER Colletholders Type OM | ERA Zero-Z® Colletholders Type OM | Balancing Rings

Type	Form A+AD Part No.	D [mm]	L [mm]	Balancing Rings
BT-OM 30 / ER 16 x 080 H	4130.11648	28	80	FWR 285
BT-OM 30 / ERA 20 x 022*	2130.12008	34	22	-
BT-OM 30 / ER 25 x 060 H	4130.12528	42	62.5	FWR 325
BT-OM 30 / ER 32 x 060*	2130.13228	50	62.5	-

Supplied with: Colletholder with Hi-Q® clamping nut.

*Not for use with balancing rings.



Applications

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

Balancing

REGO-FIX® Q+® System BT-OM/ER(A) colletholders are balanced to G 2.5 @ 22'000 min⁻¹. Type H colletholders are ready to accept Hi-Q® balancing rings which allow precision balancing of the system including cutting tool up to 80'000 min⁻¹ depending on the balancing rings used.

Special Applications

When extra high clamping force is needed, e.g. when tapping with ER-GB or ET1*, we recommend to use our friction bearing clamping nuts Hi-Q®/ERB** and Hi-Q®/ERBC**.

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

**Not for use with ERA colletholders.

Matched Tooling System for Best Fit

For highest precision and best results the whole system counts. Therefore REGO-FIX® components are carefully matched to fit together. This guarantees best run-out and balancing.

For the influence of run-out on tool life see the graph page 2.3.

Hi-Q® Balancing Rings	Part No.	Page
Set FWR 225	7490.22500	12.9
Set FWR 285	7490.28500	12.9
Set FWR 325	7490.32500	12.9
Set FWR 405	7490.40500	12.9
Set FWR 505	7490.50500	12.9
Torque screwdriver (TSD)	7159.09000	12.9

Maximum rpm for Hi-Q® balancing rings see page 12.9.

Drawings with detailed dimensions see.

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Swiss
Precision
Tools

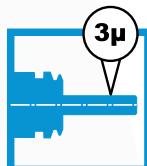
ER
Toolholders

Features | Benefits

BIG PLUS SYSTEM - Licensed by BIG Daishowa
Manufactured in Switzerland under License
according to BIG-PLUS specifications.



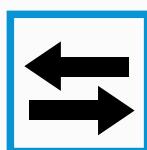
Higher toolholder stiffness
due to taper (AT1)
and face contact



Improved machining
accuracy and
better surface finish



Form AD+B coolant
supplied as standard



Compatible with BIG-PLUS
spindles and
standard spindles

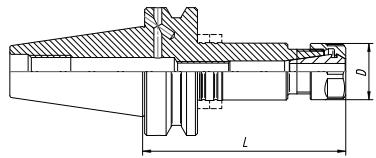
1 ➤ Taper (AT1) and face contact

2 ➤ Coolant supply through the flange
(form B)

3 ➤ Coolant supply through the taper (form AD)

BT+ REGO PLUS Dual Contact Toolholders BIG PLUS SYSTEM - Licensed by BIG Daishowa

Type	Form AD+B Part No.	D [mm]	L [mm]	Balancing Rings
BT+ 30 / ER 11 x 100 H	4130.111156	19	100	FWR 285
BT+ 30 / ER 16 x 050*	2130.116116	28	50	-
BT+ 30 / ER 16 x 080 H	4130.11646	28	80	FWR 285
BT+ 30 / ER 20 x 050*	2130.12016	34	50	-
BT+ 30 / ER 20 x 070 H	4130.12036	34	70	FWR 285
BT+ 30 / ER 25 x 060 H	4130.12526	42	60	FWR 325
BT+ 30 / ER 32 x 060*	2130.13226	50	60	-



BT+ 40 / ER 16 x 070 H	4140.11636	28	70	FWR 285
BT+ 40 / ER 16 x 100 H	4140.11656	28	100	FWR 285
BT+ 40 / ER 20 x 070 H	4140.12036	34	70	FWR 325
BT+ 40 / ER 25 x 070 H	4140.12536	42	70	FWR 325
BT+ 40 / ER 32 x 070 H	4140.13236	50	70	FWR 405
BT+ 40 / ER 32 x 100 H	4140.13256	50	100	FWR 405
BT+ 40 / ER 32 x 160 H	4140.13286	50	160	FWR 405/405

BT+ 50 / ER 32 x 100 H	4150.13256	50	100	FWR 505
BT+ 50 / ER 32 x 160 H	4150.13286	50	160	FWR 505/405

*Not for use with balancing rings.

Hi-Q® Balancing Rings	Part No.	Page
Set FWR 225	7490.22500	12.9
Set FWR 285	7490.28500	12.9
Set FWR 325	7490.32500	12.9
Set FWR 405	7490.40500	12.9
Set FWR 505	7490.50500	12.9
Torque screwdriver (TSD)	7159.09000	12.9

Maximum rpm for Hi-Q® balancing rings see page 12.9.

Drawings with detailed dimensions see.

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Features | Benefits



Swiss Quality

Made in Switzerland to ISO 9001/ISO 14001.

1 Marking

Type and part number.

2 Traceability

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

3 Original REGO-FIX®

Original only with the REGO-FIX® quality seal \triangle . Guarantee for best quality.

T.I.R. of the Whole System $<3 \mu\text{m}$

Highest clamping force and best runout in one.

Taper Accuracy AT3

Better spindle-to-holder fit and accuracy.

Surface Finish max. Ra 0.25

Higher clamping force and higher transferable torque.

Q+® Balancing

100% balanced to G 2.5 @ 22'000 min⁻¹. Ideal for High Speed Cutting (HSC) and High Performance Cutting (HPC).

Hi-Q® Balancing System

Ready to accept Hi-Q® balancing rings which allow to offset the imbalance introduced by the cutting tool up to 80'000 min⁻¹.

Minimal Outside Dimensions

Slim design provides more processing flexibility.

Fast

Tool clamping with hydraulic press in less than 10 seconds.

Excellent at Small Diameters

Clamping of small diameter tools from Ø 0.2 mm.

Presetable Tooling System

Repeatability $<10 \mu\text{m}$

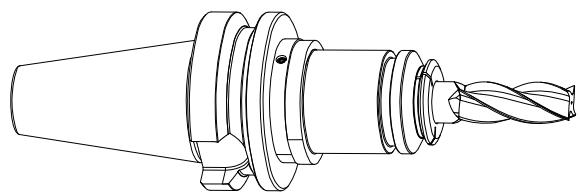
Information

MAS 403/JIS B 6339

BT/PG Toolholders

Applications

These colletholders are designed for use on CNC-machining centers with automatic tool changers. They are especially suited for HSC and HPC operations where processing reaches the machine limits. The vibration dampening of BT/PG colletholders reduce spindle wear and extend tool life.



Balancing

REGO-FIX® Q+® System BT/PG colletholders are balanced to G 2.5 @ 22'000 min⁻¹. Type H colletholders are ready to accept Hi-Q® balancing rings which allow precision balancing of the system including cutting tool up to 80'000 min⁻¹ depending on the balancing rings used.

Coolant Through

For use with coolant through tools.

6

Peripheral Cooling

PG-CF collets for peripheral cooling with non-coolant through tools.

Matched Tooling System for Best Fit

For highest precision and best results the whole system counts. Therefore REGO-FIX® components are carefully matched to fit together. This guarantees best run-out and balancing.



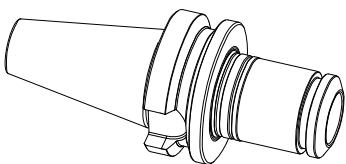
Matching Products

powRgrip® Collets

0.200 – 1.5875 mm powRgrip® microbore collets (PG 10-MB) see page 2.36.

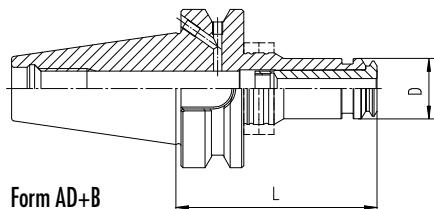
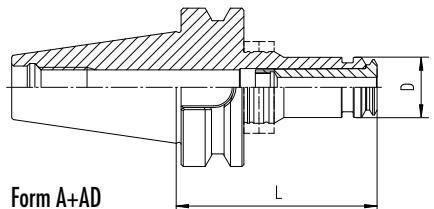
Ø [mm]	Ø [Inch]	Ø [Inch]	PG 10 Part No.	PG 10-CF Part No.	PG 15 Part No.	PG 15-CF Part No.	PG 25 Part No.	PG 25-CF Part No.	PG 32 Part No.	PG 32-CF Part No.
2.000	0.0787	-	1710.02000	-	-	-	-	-	-	-
2.500	0.0984	-	1710.02500	-	-	-	-	-	-	-
3.000	0.1181	-	1710.03000	1710.03002	1715.03000	1715.03002	1725.03000	1725.03002	-	-
3.175	0.1250	1/8"	1710.03181	1710.03183	1715.03181	1715.03183	1725.03181	1725.03183	-	-
3.500	0.1378	-	1710.03500	-	1715.03500	-	1725.03500	-	-	-
4.000	0.1575	-	1710.04000	1710.04002	1715.04000	1715.04002	1725.04000	1725.04002	-	-
4.500	0.1969	-	1710.04500	-	1715.04500	-	1725.04500	-	-	-
4.763	0.1875	3/16"	1710.04761	1710.04763	1715.04761	1715.04763	1725.04761	1725.04763	-	-
5.000	0.1969	-	1710.05000	1710.05002	1715.05000	1715.05002	1725.05000	1725.05002	-	-
5.500	0.2165	-	1710.05500	-	1715.05500	-	1725.05500	-	-	-
6.000	0.2362	-	1710.06000	1710.06002	1715.06000	1715.06002	1725.06000	1725.06002	1732.06000	1732.06002
6.350	0.2500	1/4"	1710.06351	1710.06353	1715.06351	1715.06353	1725.06351	1725.06353	1732.06351	1732.06353
7.000	0.2756	-	-	-	1715.07000	1715.07002	1725.07000	1725.07002	1732.07000	1732.07002
7.938	0.3125	5/16"	-	-	1715.07941	1715.07943	1725.07941	1725.07943	1732.07941	1732.07943
8.000	0.3150	-	-	-	1715.08000	1715.08002	1725.08000	1725.08002	1732.08000	1732.08002
9.000	0.3543	-	-	-	1715.09000	1715.09002	1725.09000	1725.09002	1732.09000	1732.09002
9.525	0.3750	3/8"	-	-	1715.09521	1715.09523	1725.09521	1725.09523	1732.09521	1732.09523
10.000	0.3937	-	-	-	1715.10000	1715.10002	1725.10000	1725.10002	1732.10000	1732.10002
11.000	0.4331	-	-	-	-	-	1725.11000	1725.11002	1732.11000	1732.11002
11.113	0.4375	7/16"	-	-	-	-	1725.11111	1725.11113	1732.11111	1732.11113
12.000	0.4724	-	-	-	-	-	1725.12000	1725.12002	1732.12000	1732.12002
12.700	0.5000	1/2"	-	-	-	-	1725.12701	1725.12703	1732.12701	1732.12703
13.000	0.5112	-	-	-	-	-	1725.13000	1725.13002	-	-
14.000	0.5512	-	-	-	-	-	1725.14000	1725.14002	1732.14000	1732.14002
14.288	0.5625	9/16"	-	-	-	-	1725.14291	1725.14293	1732.14291	1732.14293
15.000	0.5906	-	-	-	-	-	1725.15000	1725.15002	-	-
15.875	0.6250	5/8"	-	-	-	-	1725.15881	1725.15883	1732.15881	1732.15883
16.000	0.6300	-	-	-	-	-	1725.16000	1725.16002	1732.16000	1732.16002
18.000	0.7087	-	-	-	-	-	1725.18000	1725.18002	1732.18000	1732.18002
19.050	0.7500	3/4"	-	-	-	-	1725.19051	1725.19053	1732.19051	1732.19053
20.000	0.7874	-	-	-	-	-	1725.20000	1725.20002	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

powRgrip® clamping units and further powRgrip® accessories see page 12.7/12.8.



powRgrip® Colletholder | Balancing Rings

Type	Form A+AD Part No.	Form AD+B Part No.	D [mm]	L [mm]	Balancing Rings
BT 30 / PG 10 x 062*	2130.71020	-	16	62	-
BT 30 / PG 10 x 080 H	4130.71040	-	16	80	FWR 285
BT 30 / PG 10 x 120 H	4130.71060	-	16	120	FWR 285
BT 30 / PG 10 x 160 H	4130.71080	-	16	160	FWR 285
BT 30 / PG 15 x 070 H	4130.71530	-	24	70	FWR 285
BT 30 / PG 15 x 120 H	4130.71560	-	24	120	FWR 285
BT 30 / PG 25 x 080 H	4130.72540	-	40	80	FWR 405
BT 30 / PG 25 x 120 H	4130.72560	-	40	120	FWR 405
BT 30 / PG 25 x 160 H	4130.72580	-	40	160	FWR 405/405



BT 40 / PG 10 x 080 H	4140.71040	4140.71043	16	80	FWR 285
BT 40 / PG 10 x 120 H	4140.71060	4140.71063	16	120	FWR 325
BT 40 / PG 10 x 160 H	4140.71080	4140.71083	16	160	FWR 325
BT 40 / PG 15 x 080 H	4140.71540	4140.71543	24	80	FWR 285
BT 40 / PG 15 x 120 H	4140.71560	4140.71563	24	120	FWR 325
BT 40 / PG 15 x 160 H	4140.71580	4140.71583	24	160	FWR 325/285
BT 40 / PG 25 x 080 H	4140.72540	4140.72543	40	80	FWR 405
BT 40 / PG 25 x 120 H	4140.72560	4140.72563	40	120	FWR 405
BT 40 / PG 25 x 160 H	4140.72580	4140.72583	40	160	FWR 405/405
BT 40 / PG 32 x 086*	2140.73240	2140.73243	50	86	-

Hi-Q® Balancing Rings	Part No.	Page
Set FWR 225	7490.22500	12.9
Set FWR 285	7490.28500	12.9
Set FWR 325	7490.32500	12.9
Set FWR 405	7490.40500	12.9
Set FWR 505	7490.50500	12.9
Torque screwdriver (TSD)	7159.09000	12.9

Maximum rpm for Hi-Q® balancing rings see page 12.9.

Drawings with detailed dimensions see:

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*Not for use with balancing rings.



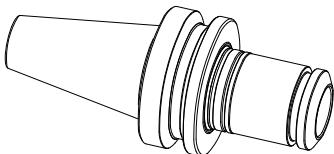
Matching Products

powRgrip® Collets

0.200 – 1.5875 mm powRgrip® microbore collets (PG 10-MB) see page 2.36.

\varnothing [mm]	\varnothing [Inch]	\varnothing [Inch]	PG 10 Part No.	PG 10-CF Part No.	PG 15 Part No.	PG 15-CF Part No.	PG 25 Part No.	PG 25-CF Part No.
2.000	0.0787	-	1710.02000	-	-	-	-	-
2.500	0.0984	-	1710.02500	-	-	-	-	-
3.000	0.1181	-	1710.03000	1710.03002	1715.03000	1715.03002	1725.03000	1725.03002
3.175	0.1250	1/8"	1710.03181	1710.03183	1715.03181	1715.03183	1725.03181	1725.03183
3.500	0.1378	-	1710.03500	-	1715.03500	-	1725.03500	-
4.000	0.1575	-	1710.04000	1710.04002	1715.04000	1715.04002	1725.04000	1725.04002
4.500	0.1969	-	1710.04500	-	1715.04500	-	1725.04500	-
4.763	0.1875	3/16"	1710.04761	1710.04763	1715.04761	1715.04763	1725.04761	1725.04763
5.000	0.1969	-	1710.05000	1710.05002	1715.05000	1715.05002	1725.05000	1725.05002
5.500	0.2165	-	1710.05500	-	1715.05500	-	1725.05500	-
6.000	0.2362	-	1710.06000	1710.06002	1715.06000	1715.06002	1725.06000	1725.06002
6.350	0.2500	1/4"	1710.06351	1710.06353	1715.06351	1715.06353	1725.06351	1725.06353
7.000	0.2756	-	-	-	1715.07000	1715.07002	1725.07000	1725.07002
7.938	0.3125	5/16"	-	-	1715.07941	1715.07943	1725.07941	1725.07943
8.000	0.3150	-	-	-	1715.08000	1715.08002	1725.08000	1725.08002
9.000	0.3543	-	-	-	1715.09000	1715.09002	1725.09000	1725.09002
9.525	0.3750	3/8"	-	-	1715.09521	1715.09523	1725.09521	1725.09523
10.000	0.3937	-	-	-	1715.10000	1715.10002	1725.10000	1725.10002
11.000	0.4331	-	-	-	-	-	1725.11000	1725.11002
11.113	0.4375	7/16"	-	-	-	-	1725.11111	1725.11113
12.000	0.4724	-	-	-	-	-	1725.12000	1725.12002
12.700	0.5000	1/2"	-	-	-	-	1725.12701	1725.12703
13.000	0.5112	-	-	-	-	-	1725.13000	1725.13002
14.000	0.5512	-	-	-	-	-	1725.14000	1725.14002
14.288	0.5625	9/16"	-	-	-	-	1725.14291	1725.14293
15.000	0.5906	-	-	-	-	-	1725.15000	1725.15002
15.875	0.6250	5/8"	-	-	-	-	1725.15881	1725.15883
16.000	0.6300	-	-	-	-	-	1725.16000	1725.16002
18.000	0.7087	-	-	-	-	-	1725.18000	1725.18002
19.050	0.7500	3/4"	-	-	-	-	1725.19051	1725.19053
20.000	0.7874	-	-	-	-	-	1725.20000	1725.20002
22.000	0.8661	-	-	-	-	-	-	-
22.225	0.8750	7/8"	-	-	-	-	-	-
25.000	0.9843	-	-	-	-	-	-	-
25.400	1.0000	1"	-	-	-	-	-	-

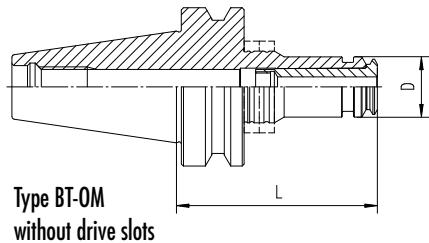
powRgrip® clamping units and further powRgrip® accessories see page 12.7/12.8 .



powRgrip® Colletholders Type OM without Drive Slots | Balancing Rings

Type	Form A+AD Part No.	D [mm]	L [mm]	Balancing Rings
BT-OM 30 / PG 10 x 062*	2130.71028	16	62	-
BT-OM 30 / PG 15 x 070 H	4130.71538	24	70	FWR 285
BT-OM 30 / PG 25 x 080 H	4130.72548	40	80	FWR405

*Not for use with balancing rings.



Applications

This special colletholder without drive slots is designed for use on HAAS and HURCO CNC-machining centers for High Speed Cutting (HSC) and High Performance Cutting (HPC). Employment up to the max. power limit of the processing machine. The anti-vibration characteristics of the BT-OM/PG toolholder reduce the wear of spindle and tool.

Balancing

REGO-FIX® Q+® System BT-OM/PG colletholders are balanced to G 2.5 @ 22'000 min⁻¹. Type H colletholders are ready to accept Hi-Q® balancing rings which allow precision balancing of the system including cutting tool up to 80'000 min⁻¹ depending on the balancing rings used.

Coolant Through

For use with coolant through tools.

Peripheral Cooling

PG-CF collets for peripheral cooling with non-coolant through tools.

Matched Tooling System for Best Fit

For highest precision and best results the whole system counts. Therefore REGO-FIX® components are carefully matched to fit together. This guarantees best run-out and balancing.

Hi-Q® Balancing Rings	Part No.	Page
Set FWR 225	7490.22500	12.9
Set FWR 285	7490.28500	12.9
Set FWR 325	7490.32500	12.9
Set FWR 405	7490.40500	12.9
Set FWR 505	7490.50500	12.9
Torque screwdriver (TSD)	7159.09000	12.9

Maximum rpm for Hi-Q® balancing rings see page 12.9.

Drawings with detailed dimensions see.

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Swiss
Precision
Tools

PG

powRgrip® Toolholders

Features | Benefits

BIG PLUS SYSTEM - Licensed by BIG Daishowa
Manufactured in Switzerland under License
according to BIG-PLUS specifications.



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



Improved machining
accuracy and
better surface finish



Form AD+B coolant
supplied as standard



Compatible with BIG-PLUS
spindles and standard spindles

1 Taper (AT1) and face contact

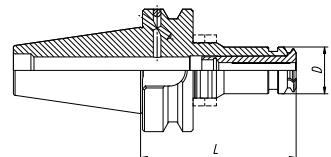
2 Coolant supply through the flange
(form B)

3 Coolant supply through the taper (form AD)

BT+ REGO PLUS Dual Contact Toolholders
BIG PLUS SYSTEM - Licensed by BIG Daishowa

Type	Form AD+B Part No.	D [mm]	L [mm]	Balancing Rings
BT+ 30 / PG 10 x 080 H	4130.71046	16	80	FWR 285
BT+ 30 / PG 15 x 070 H	4130.71536	24	70	FWR 285
BT+ 30 / PG 25 x 080 H	4130.72546	40	80	FWR 405
BT+ 30 / PG 25 x 160 H	4130.72586	40	160	FWR 405/405

BT+ 40 / PG 10 x 080 H	4140.71046	16	80	FWR 285
BT+ 40 / PG 10 x 120 H	4140.71066	16	120	FWR 325
BT+ 40 / PG 15 x 080 H	4140.71546	24	80	FWR 285
BT+ 40 / PG 15 x 120 H	4140.71566	24	120	FWR 325
BT+ 40 / PG 25 x 080 H	4140.72546	40	80	FWR 405
BT+ 40 / PG 25 x 120 H	4140.72566	40	120	FWR 405
BT+ 40 / PG 25 x 160 H	4140.72586	40	160	FWR 405/405
BT+ 50 / PG 25 x 120 H	4150.72566	40	120	FWR 505
BT+ 50 / PG 25 x 160 H	4150.72586	40	160	FWR 505/405

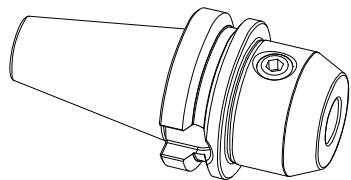


Hi-Q® Balancing Rings	Part No.	Page
Set FWR 225	7490.22500	12.9
Set FWR 285	7490.28500	12.9
Set FWR 325	7490.32500	12.9
Set FWR 405	7490.40500	12.9
Set FWR 505	7490.50500	12.9
Torque screwdriver (TSD)	7159.09000	12.9

Maximum rpm for Hi-Q® balancing rings see page 12.9.

Drawings with detailed dimensions see.

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BT | WD

MAS 403/JIS B 6339

End Mill Holders (WELDON)

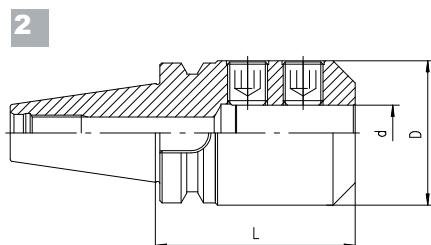
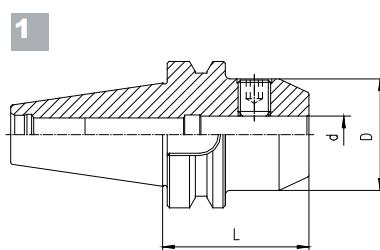
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Type	Form Part No.	d [mm]	D1 [mm]	L [mm]	Drawing
BT 30 / WD 6 x 050	2130.30620	6	25	50	1
BT 30 / WD 8 x 050	2130.30820	8	28	50	1
BT 30 / WD 10 x 050	2130.31020	10	35	50	1
BT 30 / WD 12 x 050	2130.31220	12	42	50	1
BT 30 / WD 14 x 050	2130.31420	14	44	50	1
BT 30 / WD 16 x 063	2130.31630	16	48	63	1
BT 30 / WD 18 x 063	2130.31830	18	50	63	1
BT 30 / WD 20 x 063	2130.32030	20	52	63	1

BT 40 / WD 6 x 050	2140.30620	6	25	50	1
BT 40 / WD 8 x 050	2140.30820	8	28	50	1
BT 40 / WD 10 x 063	2140.31030	10	35	63	1
BT 40 / WD 12 x 063	2140.31230	12	42	63	1
BT 40 / WD 14 x 063	2140.31430	14	44	63	1
BT 40 / WD 16 x 063	2140.31630	16	48	63	1
BT 40 / WD 18 x 063	2140.31830	18	50	63	1
BT 40 / WD 20 x 063	2140.32030	20	52	63	1
BT 40 / WD 25 x 090	2140.32550	25	65	90	2
BT 40 / WD 32 x 100	2140.33260	32	72	100	2

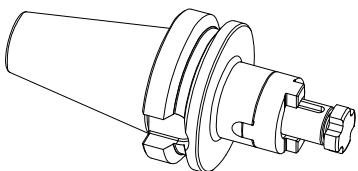
Type	Form Part No.	d [mm]	D1 [mm]	L [mm]	Drawing
BT 50 / WD 6 x 063	2150.30630	6	25	63	1
BT 50 / WD 8 x 063	2150.30830	8	28	63	1
BT 50 / WD 10 x 063	2150.31030	10	35	63	1
BT 50 / WD 12 x 080	2150.31250	12	42	80	1
BT 50 / WD 14 x 080	2150.31450	14	44	80	1
BT 50 / WD 16 x 080	2150.31650	16	48	80	1
BT 50 / WD 18 x 080	2150.31850	18	50	80	1
BT 50 / WD 20 x 080	2150.32050	20	52	80	1
BT 50 / WD 25 x 100	2150.32560	25	65	100	2
BT 50 / WD 32 x 105	2150.33260	32	72	105	2
BT 50 / WD 40 x 110	2150.34060	40	90	110	2

Supplied with: End mill holder and lock screw.



Drawings with detailed dimensions see.

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BT | KFD
MAS 403/JIS B 6339

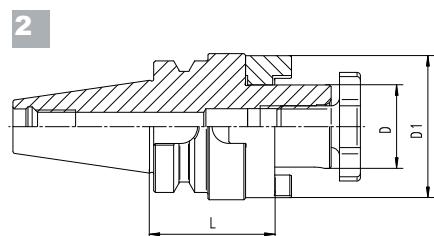
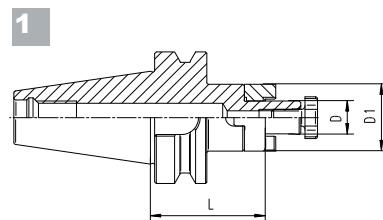
Universal Shell Mill | Face Mill Holders | Matching Spanners

Type	Form A Part No.	D [mm]	D1 [mm]	L [mm]	Drawing
BT 30 / KFD 16 x 045	2130.41620	16	32	45	1
BT 30 / KFD 22 x 047	2130.42220	22	40	47	1
BT 30 / KFD 27 x 049	2130.42720	27	48	49	2
BT 30 / KFD 32 x 053	2130.43230	32	58	53	2

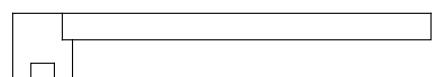
BT 40 / KFD 16 x 055	2140.41630	16	32	55	1
BT 40 / KFD 22 x 055	2140.42230	22	40	55	1
BT 40 / KFD 27 x 055	2140.42730	27	48	55	1
BT 40 / KFD 32 x 060	2140.43240	32	58	60	1
BT 40 / KFD 40 x 060	2140.44040	40	70	60	2

BT 50 / KFD 16 x 070	2150.41630	16	32	70	1
BT 50 / KFD 22 x 070	2150.42230	22	40	70	1
BT 50 / KFD 27 x 070	2150.42750	27	48	70	1
BT 50 / KFD 32 x 070	2150.43250	32	58	70	1
BT 50 / KFD 40 x 070	2150.44050	40	70	70	1
BT 50 / KFD 50 x 070	2150.45050	50	90	70	1

Supplied with: Universal shell mill/face mill holder, lock screw, feather key and drive ring.



6



Matching Spanners Type	Part No.
FDS 16	7711.16000
FDS 22	7711.22000
FDS 27	7711.27000
FDS 32	7711.32000
FDS 40	7711.40000
FDS 50	7711.50000

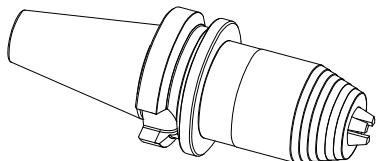
Drawings with detailed dimensions see.

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Swiss
Precision
Tools

KBF
Toolholders

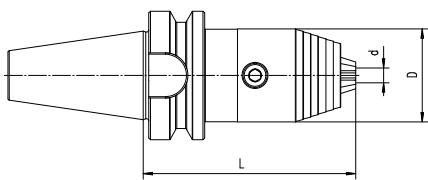


BT | KBF
MAS 403/JIS B 6339

Drill Chucks

Type	Form A Part No.	Form AD+B Part No.	d [mm]	D [mm]	L [mm]
BT 30 / KBF 1-13 mm	2130.50100	-	1-13	50	95
BT 40 / KBF 1-13 mm	-	2140.50103	1-13	50	98
BT 50 / KBF 1-13 mm	-	2150.50103	1-13	50	100

Supplied with: Drill chuck and allen-key.

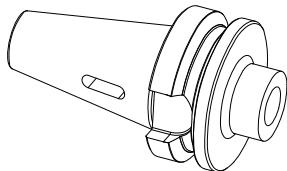


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Clamping range	1-13 mm
Maximum runout difference	0.03 mm
Maximum tightening torque	20 Nm
Clamping force (@ 20 Nm tightening torque)	80 Nm
Maximum rpm	up to 35'000 min ⁻¹

Drawings with detailed dimensions see.

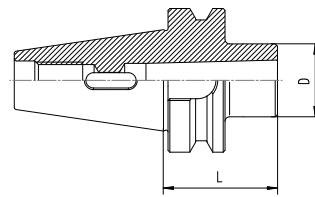
search.rego-fix.ch



BT | MK
MAS 403/JIS B 6339

Morse Taper Holder

Type	Form A+AD Part No.	D [mm]	L [mm]
BT 40 / MK 1 x 050	2140.80110	25	50
BT 40 / MK 2 x 050	2140.80210	32	50
BT 40 / MK 3 x 070	2140.80320	40	70
BT 40 / MK 4 x 095	2140.80430	48	95



Supplied with: Morse taper holder.

6

Drawings with detailed dimensions see.

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HSK Toolholders

7

DIN 69893/ISO12164

7.1 Forms | Characteristics

ER SYSTEM

- 7.3 Features | Benefits
- 7.4 Information
- 7.6 HSK-A | ER
- 7.10 HSK-C | ER
- 7.12 HSK-E | HSK-F | ER
- 7.13 Toolholder for Micromachining
- 7.14 HSK-E | ER MS
- 7.14 Softsynchro® Tapping Holders
- 7.16 HSK-A SSY | ERC

powRgrip SYSTEM

- 7.17 Features | Benefits
- 7.18 Information
- 7.20 HSK-A | PG
- 7.22 HSK-E | HSK-F | PG
- 7.23 Softsynchro® Tapping Holders
- 7.24 HSK-A SSY | PG

Other Toolholders

- 7.25 HSK-A | HSK-E | WD
- 7.26 HSK-A | HSK-E | KFD
- 7.27 HSK-A | KBF
- 7.28 HSK-A | MK

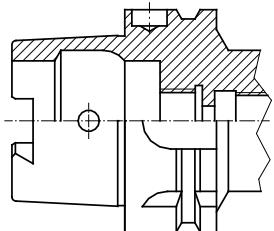


Swiss
Precision
Tools

HSK

Toolholder

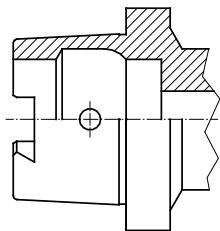
Forms | Characteristics



FORM A*

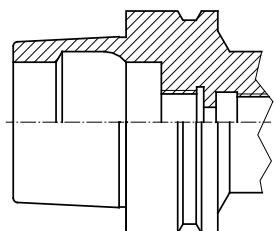
- Standard type for machining centers and milling machines
- For automatic tool change
- Coolant supply through center via coolant tube
- Drive keys at the end of HSK taper
- Hole for data carrier DIN STD 69873 in the flange

*also usable in Form C applications with side hole for manual tool change



FORM C

- For transfer lines, special machines and modular tooling systems
- For manual tool change
- Drive keys at the end of HSK taper

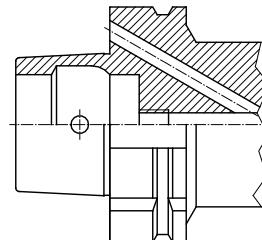


FORM E

- For high-speed applications
- For automatic tool change
- Without any drive keys for absolute symmetry

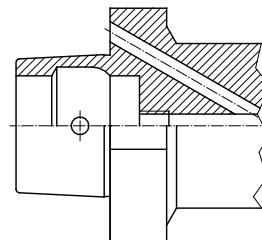
FORM B

- For machining centers, milling and turning machines
- With enlarged flange size for higher radial rigidity
- For automatic tool change
- Coolant supply through the flange
- Drive keys at the flange
- Hole for data carrier DIN STD 69873 at the flange



FORM D

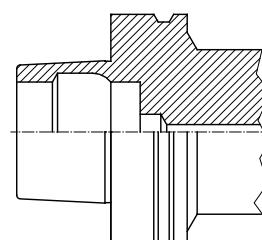
- For special machines
- With enlarged flange size for higher radial rigidity
- For manual tool change
- Coolant supply through the flange
- Drive keys at the flange



7

FORM F

- For high-speed applications
- With enlarged flange size for higher radial rigidity
- For automatic tool change
- Without any drive keys for absolute symmetry





Swiss
Precision
Tools

ER
Toolholders

Features | Benefits



Swiss Quality

Made in Switzerland to ISO 9001/ISO 14001.

1 Marking

Type and part number.

2 Traceability

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

3 Original REGO-FIX®

Our extensive experience results in a well-engineered system. Original only with the REGO-FIX® quality seal \triangle . Guarantee for best quality.

T.I.R. $<3 \mu\text{m}$

Inner diameter to outer diameter.

Surface Finish max. Ra 0.25

Higher clamping force and higher transferable torque.

Q+® Balancing

100% balanced to G 2.5 @ 25'000 min⁻¹.

Hi-Q® Balancing System

Ready to accept Hi-Q® balancing rings which allow to offset the imbalance introduced by the cutting tool up to 80'000 min⁻¹.

Hi-Q® Clamping Nut Included

Guarantees highest clamping force and best balancing.

Vibration Dampening

For best machining results.

ID Chip Hole (only HSK Form A+B)

Per DIN 69873 with 10 mm diameter.

HSK/ER Toolholder

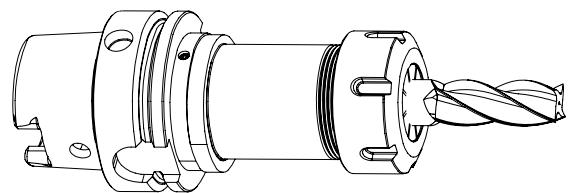
Applications

CNC-milling machines of the latest generation.

Coolant

For coolant through tools these colletholders can be equipped with a coolant tube (KSR) that leads the coolant directly to the cutting tool, hereby avoiding coolant to enter and soil the HSK taper area.

Matching coolant tubes (KSR) see page 12.10.



Balancing

REGO-FIX® Q+® System HSK/ER colletholders are balanced to G 2.5 @ 25'000 min⁻¹. Type H colletholders are ready to accept Hi-Q® balancing rings which allow precision balancing of the system including cutting tool up to 80'000 min⁻¹ depending on the balancing rings used.

Special Applications

When extra high clamping force is needed, e.g. when tapping with ER-GB or ET1*, we recommend to use of our friction bearing clamping nuts Hi-Q®/ERB and Hi-Q®/ERBC.

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

Matched Tooling System for Best Fit

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

For the influence of run-out on tool life see the graph page 2.3.



We recommend tightening the clamping nuts with a torque wrench. The maximum torque shall not be more than 25% above the recommended tightening torque.

Recommended tightening torque see page 13.3/13.4.



Matching Products

Clamping Nuts | Collets | Spanners

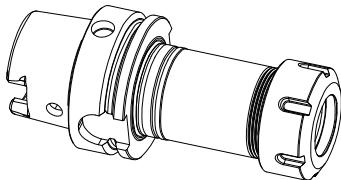
Clamping Nut and Spanner	ER 11	ER 16	ER 20	ER 25	ER 32	ER 40	ER 50	Page	Standard	With Friction Bearing	Bolted	For Coolant Through Tools	Collet Locking System	Mini-Nut	Nut with External Thread	Spanner
Hi-Q/ER	3411.00000	3416.00000	3420.00000	3425.00000	3432.00000	3440.00000	3450.00000	4.4	■	■	■	■	■			
Hi-Q/ERC	3411.20300 - 3411.20700	3416.20000	3420.20000	3425.20000	3432.20000	3440.20000	-	4.6 4.8		■	■	■				
Hi-Q/ERB	-	3416.30000	3420.30000	3425.30000	3432.30000	3440.30000	3450.30000	4.10	■	■	■	■				
Hi-Q/ERBC	-	3416.40000	3420.40000	3425.40000	3432.40000	3440.40000	-	4.10	■	■	■	■				
EP	7112.11010	7112.16010	7112.20010	-	-	-	-	12.1							■	
E	-	-	-	-	7111.25000	7111.32000	7111.40000	7111.50000	12.1							■

7

Recommended tightening torque on page 13.3/13.4.

Collet	ER 11/ET1-12		ER 16/ET1-16		ER 20/ET1-20		ER 25/ET1-25		ER 32/ET1-32		ER 40/ET1-40		ER 50	
	Clamping Range [mm]	Page												
ER	0.5 – 7.0	2.8	0.5 – 10.0	2.10	0.5 – 13.0	2.12	0.5 – 16.0	2.14	1.0 – 20.0	2.16	2.0 – 30.0	2.18	4.0 – 34.0	2.18
ER-UP	0.5 – 7.0	2.8	0.5 – 10.0	2.10	0.5 – 13.0	2.12	0.5 – 16.0	2.14	1.0 – 20.0	2.16	2.0 – 30.0	2.18	4.0 – 34.0	2.18
ER-DM	2.75 – 7.0	2.22	3.0 – 10.0	2.24	3.0 – 10.0	2.26	6.0 – 16.0	2.28	6.0 – 20.0	2.30	6.0 – 26.0	2.32	–	–
ER-MB	0.2 – 0.9	2.8	0.2 – 0.9	2.10	–	–	–	–	–	–	–	–	–	–
ER-GB	2.8 – 6.0	3.4	4.0 – 9.0	3.4	4.0 – 11.2	3.4	4.0 – 16.0	3.4	4.0 – 20.0	3.4	6.0 – 22.0	3.4	22.0 – 32.0	3.4
ET 1*	1.4 – 3.55	3.8	1.4 – 6.3	3.8	2.2 – 7.0	3.8	2.5 – 10.0	3.8	4.5 – 12.5	3.8	6.0 – 17.0	3.8	–	–

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



HSK-A | ER
DIN 69893/ISO12164

ER Colletholders | Balancing Rings

Type	Part No.	D [mm]	L [mm]	Balancing Rings
HSK-A 32 / ER 11 x 050*	2532.11110	19	50	-
HSK-A 32 / ER 16 x 060*	2532.11620	28	60	-
HSK-A 32 / ER 20 x 060*	2532.12020	34	60	-
HSK-A 32 / ER 25 x 065*	2532.12520	42	65	-
HSK-A 40 / ER 16 x 080 H	4540.11640	28	80	FWR 225
HSK-A 40 / ER 25 x 080 H	4540.12540	42	80	FWR 325

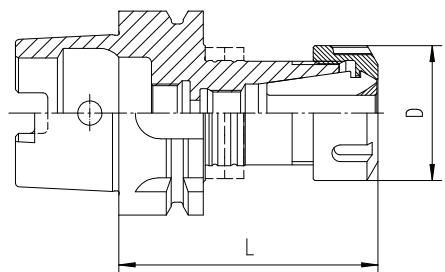
HSK-A 50 / ER 16 x 100 H	4550.11650	28	100	FWR 325
HSK-A 50 / ER 25 x 080 H	4550.12540	42	80	FWR 325
HSK-A 50 / ER 25 x 100 H	4550.12550	42	100	FWR 325
HSK-A 50 / ER 32 x 100 H	4550.13250	50	100	FWR 405

HSK-A 63 / ER 11 x 100 H	4563.11150	19	100	FWR 325
HSK-A 63 / ER 16 x 080 H	4563.11640	28	80	FWR 325
HSK-A 63 / ER 16 x 100 H	4563.11650	28	100	FWR 325
HSK-A 63 / ER 16 x 160 H	4563.11680	28	160	FWR 325/225
HSK-A 63 / ER 20 x 075*	2563.12030	34	75	-
HSK-A 63 / ER 25 x 080 H	4563.12540	42	80	FWR 325
HSK-A 63 / ER 25 x 100 H	4563.12550	42	100	FWR 325
HSK-A 63 / ER 25 x 160 H	4563.12580	42	160	FWR 325
HSK-A 63 / ER 25 x 200 H	4563.12590	42	200	FWR 325/325
HSK-A 63 / ER 32 x 080 H	4563.13240	50	80	FWR 405
HSK-A 63 / ER 32 x 160 H	4563.13280	50	160	FWR 405
HSK-A 63 / ER 32 x 100 H	4563.13250	50	100	FWR 405
HSK-A 63 / ER 32 x 200 H	4563.13290	50	200	FWR 405/405
HSK-A 63 / ER 40 x 080*	2563.14040	63	80	-
HSK-A 63 / ER 40 x 120 H	4563.14060	63	120	FWR 405
HSK-A 63 / ER 40 x 160 H	4563.14080	63	160	FWR 505

Supplied with: Colletholder with Hi-Q® clamping nut and back-up screw.

Matching coolant tubes (KSR) see page 12.10.

*Not for use with balancing rings.



Hi-Q® Balancing Rings	Part No.	Page
Set FWR 225	7490.22500	12.9
Set FWR 285	7490.28500	12.9
Set FWR 325	7490.32500	12.9
Set FWR 405	7490.40500	12.9
Set FWR 505	7490.50500	12.9
Torque screwdriver (TSD)	7159.09000	12.9

Maximum rpm for Hi-Q® balancing rings see page 12.9.

Drawings with detailed dimensions see

search.rego-fix.ch



Matching Products

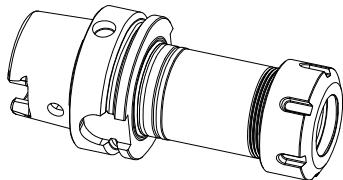
Clamping Nuts | Collets | Spanners

Clamping Nut and Spanner	ER 11	ER 16	ER 20	ER 25	ER 32	ER 40	ER 50	Page	Standard	With Friction Bearing	Balanced	For Coolant Through Tools	Collet Locking System	Mini-Nut	Nut with External Thread	Spanner
Hi-Q/ER	3411.00000	3416.00000	3420.00000	3425.00000	3432.00000	3440.00000	3450.00000	4.4	■	■	■	■	■			
Hi-Q/ERC	3411.20300 - 3411.20700	3416.20000	3420.20000	3425.20000	3432.20000	3440.20000	-	4.6		■	■	■	■			
Hi-Q/ERB	-	3416.30000	3420.30000	3425.30000	3432.30000	3440.30000	3450.30000	4.10	■	■	■	■	■			
Hi-Q/ERBC	-	3416.40000	3420.40000	3425.40000	3432.40000	3440.40000	-	4.10	■	■	■	■	■			
EP	7112.11010	7112.16010	7112.20010	-	-	-	-	12.1							■	
E	-	-	-	7111.25000	7111.32000	7111.40000	7111.50000	12.1							■	

Recommended tightening torque on page 13.3/13.4.

Collet	ER 11/ET1-12		ER 16/ET1-16		ER 20/ET1-20		ER 25/ET1-25		ER 32/ET1-32		ER 40/ET1-40		ER 50	
	Clamping Range [mm]	Page												
ER	0.5 – 7.0	2.8	0.5 – 10.0	2.10	0.5 – 13.0	2.12	0.5 – 16.0	2.14	1.0 – 20.0	2.16	2.0 – 30.0	2.18	4.0 – 34.0	2.18
ER-UP	0.5 – 7.0	2.8	0.5 – 10.0	2.10	0.5 – 13.0	2.12	0.5 – 16.0	2.14	1.0 – 20.0	2.16	2.0 – 30.0	2.18	4.0 – 34.0	2.18
ER-DM	2.75 – 7.0	2.22	3.0 – 10.0	2.24	3.0 – 10.0	2.26	6.0 – 16.0	2.28	6.0 – 20.0	2.30	6.0 – 26.0	2.32	–	–
ER-MB	0.2 – 0.9	2.8	0.2 – 0.9	2.10	–	–	–	–	–	–	–	–	–	–
ER-GB	2.8 – 6.0	3.4	4.0 – 9.0	3.4	4.0 – 11.2	3.4	4.0 – 16.0	3.4	4.0 – 20.0	3.4	6.0 – 22.0	3.4	22.0 – 32.0	3.4
ET 1*	1.4 – 3.55	3.8	1.4 – 6.3	3.8	2.2 – 7.0	3.8	2.5 – 10.0	3.8	4.5 – 12.5	3.8	6.0 – 17.0	3.8	–	–

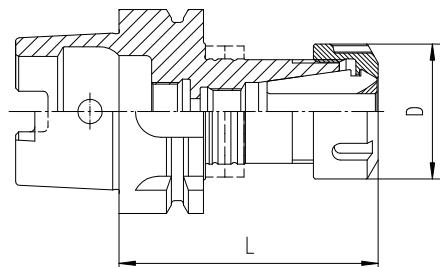
*Not for coolant through tools and not for applications with sealing disks.



HSK-A | ER
DIN 69893/ISO12164

ER Colletholders | Balancing Rings

Type	Part No.	D [mm]	L [mm]	Balancing Rings
HSK-A 80 / ER 16 x 100 H	4580.11650	28	100	FWR 325
HSK-A 80 / ER 16 x 160 H	4580.11680	28	160	FWR 325/225
HSK-A 80 / ER 32 x 100 H	4580.13250	50	100	FWR 405
HSK-A 80 / ER 40 x 120 H	4580.14060	63	120	FWR 505



HSK-A 100 / ER 16 x 100 H	4500.11650	28	100	FWR 405
HSK-A 100 / ER 16 x 160 H	4500.11680	28	160	FWR 405/225
HSK-A 100 / ER 16 x 200 H	4500.11690	28	200	FWR 405/225
HSK-A 100 / ER 25 x 100 H	4500.12550	42	100	FWR 405
HSK-A 100 / ER 25 x 160 H	4500.12580	42	160	FWR 405/325
HSK-A 100 / ER 25 x 200 H	4500.12590	42	200	FWR 405/225
HSK-A 100 / ER 32 x 100 H	4500.13250	50	100	FWR 405
HSK-A 100 / ER 32 x 160 H	4500.13280	50	160	FWR 405
HSK-A 100 / ER 40 x 120 H	4500.14060	63	120	FWR 505
HSK-A 100 / ER 40 x 200 H	4500.14090	63	200	FWR 505/505

HSK-A 125 On demand: sales@regofix.ch

Supplied with: Colletholder with Hi-Q® clamping nut and back-up screw.

Matching coolant tubes (KSR) see page 12.10.

*Not for use with balancing rings.

Hi-Q® Balancing Rings	Part No.	Page
Set FWR 225	7490.22500	12.9
Set FWR 285	7490.28500	12.9
Set FWR 325	7490.32500	12.9
Set FWR 405	7490.40500	12.9
Set FWR 505	7490.50500	12.9
Torque screwdriver (TSD)	7159.09000	12.9

Maximum rpm for Hi-Q® balancing rings see page 12.9.

Drawings with detailed dimensions see

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Matching Products

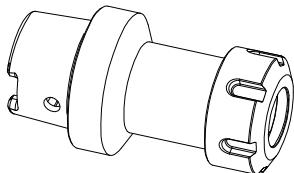
Clamping Nuts | Collets | Spanners

Clamping Nut and Spanner	ER 11	ER 16	ER 20	ER 25	ER 32	ER 40	ER 50	Page	Standard	With Friction Bearing	Balanced	For Coolant Through Tools	Collet Locking System	Mini-Nut	Nut with External Thread	Spanner
Hi-Q/ER	3411.00000	3416.00000	3420.00000	3425.00000	3432.00000	3440.00000	3450.00000	4.4	■	■	■	■	■			
Hi-Q/ERC	3411.20300 - 3411.20700	3416.20000	3420.20000	3425.20000	3432.20000	3440.20000	-	4.6 4.8		■	■	■	■			
Hi-Q/ERB	-	3416.30000	3420.30000	3425.30000	3432.30000	3440.30000	3450.30000	4.10	■	■	■	■	■			
Hi-Q/ERBC	-	3416.40000	3420.40000	3425.40000	3432.40000	3440.40000	-	4.10	■	■	■	■	■			
EP	7112.11010	7112.16010	7112.20010	-	-	-	-	12.1							■	
E	-	-	-	7111.25000	7111.32000	7111.40000	7111.50000	12.1							■	

Recommended tightening torque on page 13.3/13.4.

Collet	ER 11/ET1-12		ER 16/ET1-16		ER 20/ET1-20		ER 25/ET1-25		ER 32/ET1-32		ER 40/ET1-40		ER 50	
	Clamping Range [mm]	Page												
ER	0.5 – 7.0	2.8	0.5 – 10.0	2.10	0.5 – 13.0	2.12	0.5 – 16.0	2.14	1.0 – 20.0	2.16	2.0 – 30.0	2.18	4.0 – 34.0	2.18
ER-UP	0.5 – 7.0	2.8	0.5 – 10.0	2.10	0.5 – 13.0	2.12	0.5 – 16.0	2.14	1.0 – 20.0	2.16	2.0 – 30.0	2.18	4.0 – 34.0	2.18
ER-DM	2.75 – 7.0	2.22	3.0 – 10.0	2.24	3.0 – 10.0	2.26	6.0 – 16.0	2.28	6.0 – 20.0	2.30	6.0 – 26.0	2.32	–	–
ER-MB	0.2 – 0.9	2.8	0.2 – 0.9	2.10	–	–	–	–	–	–	–	–	–	–
ER-GB	2.8 – 6.0	3.4	4.0 – 9.0	3.4	4.0 – 11.2	3.4	4.0 – 16.0	3.4	4.0 – 20.0	3.4	6.0 – 22.0	3.4	22.0 – 32.0	3.4
ET 1*	1.4 – 3.55	3.8	1.4 – 6.3	3.8	2.2 – 7.0	3.8	2.5 – 10.0	3.8	4.5 – 12.5	3.8	6.0 – 17.0	3.8	–	–

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



HSK-C | ER
DIN 69893 / ISO 12164

ER Colletholders

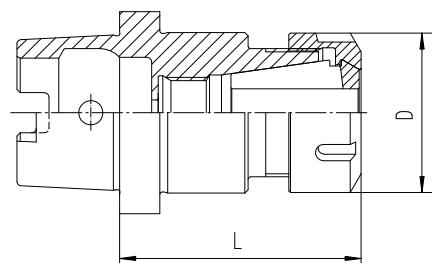
Type	Part No.	D [mm]	L [mm]
HSK-C 32 / ER 16 x 060	2532.11622	28	60
HSK-C 32 / ER 20 x 060	2532.12022	34	65
HSK-C 32 / ER 25 x 070	2532.12532	42	70

HSK-C 40 / ER 20 x 060	2540.12022	34	60
HSK-C 40 / ER 25 x 070	2540.12532	42	70
HSK-C 40 / ER 32 x 075	2540.13232	50	75

HSK-C 50 / ER 25 x 070	2550.12532	42	70
HSK-C 50 / ER 32 x 075	2550.13232	50	75
HSK-C 50 / ER 40 x 080	2550.14042	63	80

HSK-C 63 / ER 32 x 075	2563.13232	50	75
HSK-C 63 / ER 40 x 080	2563.14042	63	80

HSK-C 80	On demand: sales@rego-fix.ch
HSK-C 100	On demand: sales@rego-fix.ch
HSK-C 125	On demand: sales@rego-fix.ch



7

Drawings with detailed dimensions see

search.rego-fix.ch

Supplied with:

Colletholder with Hi-Q® clamping nut and back-up screw.



Matching Products

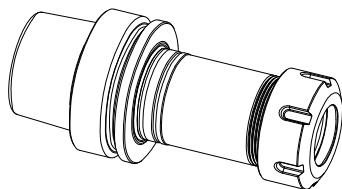
Clamping Nuts | Collets | Spanners

Clamping Nut for Mini- Thread and Spanner	ER 8	ER 11	ER 16	ER 20	ER 25	Page	Standard	With Friction Bearing	Balanced	For Coolant Through Tools	Collet Locking System	Mini-Nut	Nut with External Thread	Spanner
Hi-Q / ERM	–	3511.00000	3516.00000	3520.00000	3525.00000	4.12		■	■ ■ ■					
Hi-Q / ERMC	–	3511.20300 3511.20700	3516.20000	3520.20000	3525.20000	4.12		■ ■ ■ ■						
EM	–	7113.11000	7113.16000	7113.20000	7113.25000	12.1								■
ER MS	–	3211.50000	3216.50000	3220.50000	–	4.16	■	■						
EMS	–	7114.11000	7114.16000	7114.20000	–	12.2								■
Clamping Nut for Standard- Thread and Spanner	ER 11	ER 16	ER 20	ER 25	ER 32	ER 40	ER 50							
Hi-Q / ER	3411.00000	3416.00000	3420.00000	3425.00000	3432.00000	3440.00000	–	4.4	■	■	■			
Hi-Q / ERC	3411.20300 – 3411.20700	3416.20000	3420.20000	3425.20000	3432.20000	3440.20000	–	4.8	■ ■ ■					
Hi-Q / ERB	–	3416.30000	3420.30000	3425.30000	3432.30000	3440.30000	–	4.10	■ ■	■				
Hi-Q / ERBC	–	3416.40000	3420.40000	3425.40000	3432.40000	3440.40000	–	4.10	■ ■ ■ ■					
EP	7112.11010	7112.16010	7112.20010	–	–	–	–	12.1						■
E	–	–	–	7111.25000	7111.32000	7111.40000	–	12.1						■

Recommended tightening torque on page 13.3/13.4.

Collet	ER 11/ET1-12 Clamping Range [mm]	ER 11/ET1-12 Page	ER 16/ET1-16 Clamping Range [mm]	ER 16/ET1-16 Page	ER 20/ET1-20 Clamping Range [mm]	ER 20/ET1-20 Page	ER 25/ET1-25 Clamping Range [mm]	ER 25/ET1-25 Page	ER 32/ET1-32 Clamping Range [mm]	ER 32/ET1-32 Page	ER 40/ET1-40 Clamping Range [mm]	ER 40/ET1-40 Page	ER 50 Clamping Range [mm]	ER 50 Page
ER	0.5 – 7.0	2.8	0.5 – 10.0	2.10	0.5 – 13.0	2.12	0.5 – 16.0	2.14	1.0 – 20.0	2.16	2.0 – 30.0	2.18	4.0 – 34.0	2.18
ER-UP	0.5 – 7.0	2.8	0.5 – 10.0	2.10	0.5 – 13.0	2.12	0.5 – 16.0	2.14	1.0 – 20.0	2.16	2.0 – 30.0	2.18	4.0 – 34.0	2.18
ER-DM	2.75 – 7.0	2.22	3.0 – 10.0	2.24	3.0 – 10.0	2.26	6.0 – 16.0	2.28	6.0 – 20.0	2.30	6.0 – 26.0	2.32	–	–
ER-MB	0.2 – 0.9	2.8	0.2 – 0.9	2.10	–	–	–	–	–	–	–	–	–	–
ER-GB	2.8 – 6.0	3.4	4.0 – 9.0	3.4	4.0 – 11.2	3.4	4.0 – 16.0	3.4	4.0 – 20.0	3.4	6.0 – 22.0	3.4	22.0 – 32.0	3.4
ET 1*	1.4 – 3.55	3.8	1.4 – 6.3	3.8	2.2 – 7.0	3.8	2.5 – 10.0	3.8	4.5 – 12.5	3.8	6.0 – 17.0	3.8	–	–

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

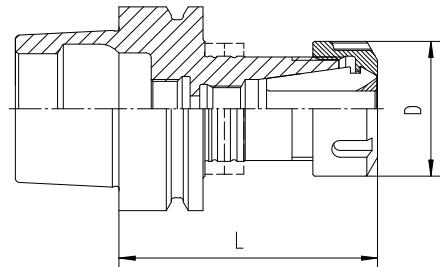


HSK-E | HSK-F | ER
DIN 69893 / ISO 12164

ER Colletholders | Balancing Rings

Type	Part No.	D [mm]	L [mm]	Balancing Rings	
HSK-E 25 / ER 16 M x 048*	2525.11618	22	48	-	with mini-nut

HSK-E 32 / ER 16 M x 060*	2532.11628	22	60	-	with mini-nut
HSK-E 32 / ER 20 M x 060*	2532.12028	28	60	-	with mini-nut



HSK-E 40 / ER 11 x 060 H	4540.11124	19	60	FWR 225	
HSK-E 40 / ER 16 x 060 H	4540.11624	28	60	FWR 225	
HSK-E 40 / ER 16 x 080 H	4540.11644	28	80	FWR 225	
HSK-E 40 / ER 20 M x 075 H	4540.12038	28	75	FWR 285	with mini-nut
HSK-E 40 / ER 25 M x 080 H	4540.12548	35	80	FWR 325	with mini-nut

HSK-E 50 / ER 16 x 060*	2550.11624	28	60	-	
HSK-E 50 / ER 16 x 100 H	4550.11654	28	100	FWR 325	
HSK-E 50 / ER 16 x 160 H	4550.11684	28	160	FWR 325/225	
HSK-E 50 / ER 20 x 070 H	4550.12034	34	70	FWR 325	
HSK-E 50 / ER 25 x 080 H	4550.12544	42	80	FWR 325	
HSK-E 50 / ER 25 x 100 H	4550.12554	42	100	FWR 325	
HSK-E 50 / ER 32 x 100 H	4550.13254	50	100	FWR 405	
HSK-E 50 / ER 32 x 160 H	4550.13284	50	160	FWR 405	

HSK-E 63 / ER 32 x 090 H	4563.13244	50	90	FWR 405	
HSK-E 63 / ER 40 x 080*	2563.14044	63	80	-	
HSK-E 63 / ER 40 x 120 H	4563.14064	63	120	FWR 505	

HSKF 63 / ER 16 x 100 H	4563.11655	28	100	FWR 325	
HSKF 63 / ER 32 x 100 H	4563.13255	50	100	FWR 405	

Supplied with: Colletholder with Hi-Q® clamping nut and back-up screw.

Matching coolant tubes (KSR) see page 12.10.

*Not for use with balancing rings.

Hi-Q® Balancing Rings	Part No.	Page
Set FWR 225	7490.22500	12.9
Set FWR 285	7490.28500	12.9
Set FWR 325	7490.32500	12.9
Set FWR 405	7490.40500	12.9
Set FWR 505	7490.50500	12.9
Torque screwdriver (TSD)	7159.09000	12.9

Maximum rpm for Hi-Q® balancing rings see page 12.9.

Drawings with detailed dimensions see.

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Swiss
Precision
Tools

ER
Toolholders

Features | Benefits

Swiss Quality

Made in Switzerland to ISO 9001/ISO 14001.

1 Marking

Type and part number.

2 Traceability

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

3 Original REGO-FIX®

Our extensive experience results in a well-engineered system. Original only with the REGO-FIX® quality seal \triangle . Guarantee for best quality.

T.I.R. 3 μm

High T.I.R of the whole Microsystem

Surface Finish max. Ra 0.25

Higher clamping force and higher transferable torque.

Q+® Balancing

100% balanced to G 2.5 @ 25'000 min⁻¹.
Max. RPM 80'000 min⁻¹.

ER MS Clamping Nut Included

Designed especially for highest RPM.

Vibration Dampening

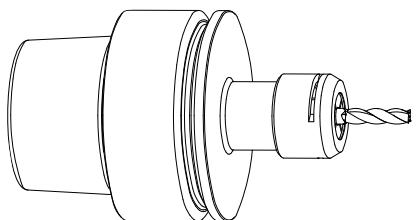
For best machining results.



Matching Products

Clamping Diameter h9 [mm]	ER 11-ND Part No.	Page	Spanner	Page
3.0 mm	1111.03005	2.08	7114.11000	12.2
1/8"	1111.03185	2.08	7114.11000	12.2
4.0 mm	1111.04005	2.08	7114.11000	12.2
6.0 mm	1111.06005	2.08	7114.11000	12.2

HSK/ER MS Toolholder for Micromachining



Applications

For micromachining with highest RPM on CNC-milling machines of the latest generation.

Max. RPM 80'000 min⁻¹.

Coolant

For coolant through tools these colleholders can be equipped with a coolant tube (KSR) that duct the coolant directly to the cutting tool, hereby avoiding coolant to enter and soil the HSK taper area.

Matching coolant tubes (KSR) see page 12.10.

Balancing

REGO-FIX® Q+® System HSK/ER colleholders are balanced to G 2.5 @ 25'000 min⁻¹.

Special Applications

The ER MS clamping nut is especially designed for highest RPM. It has minimal external diameter and does not have the extractor ring and all the contours are ground.

Matched Tooling System for Best Fit

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

7

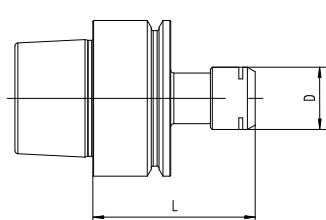
! We recommend tightening the clamping nuts with a torque wrench. The maximum torque shall not be more than 25% above the recommended tightening torque.

Recommended tightening torque see page 13.4.

HSK-E/ER Toolholders for Micromachining

Type	Part No.	D [mm]	L [mm]	
HSK-E 25/ER 11 MS x 035	2525.111109	16	35	with MS clamping nut
HSK-E 32/ER 11 MS x 038	2532.111109	16	38	with MS clamping nut
HSK-E 40/ER 11 MS x 040	2540.111119	16	40	with MS clamping nut

Supplied: Toolholder with ER MS clamping nut.





Swiss
Precision
Tools

ER
Toolholders

Features | Benefits



7

Quality

Made to ISO 9001/ISO 14001 standards.

1 Marking

Type and part number.

2 Traceability

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

3 Quality Seal

The REGO-FIX® seal \triangle marked on the products guarantees for best quality.

T.I.R.

Best concentricity values – equal to rigid toolholders.

Absorbing Link

Acts as absorbing link between the synchronous spindle and the tap/cold forming tap and compensates pitch differences between threading tool and synchronous spindle.

Minimal Length Adjustment

In push- and pull direction.

Tool Shanks

All taps / cold forming taps with tool shanks in h9 tolerance can be clamped.

Secure Clamping

Secure clamping of the tap/cold forming tap by ER-GB tapping collets with internal square.

For Coolant Through Tools

Up to 50 bar coolant pressure.

Process Reliability

Increases process reliability of synchronous thread manufacturing.

HSK-A SSY/ERC Softsynchro® Tapping Holder

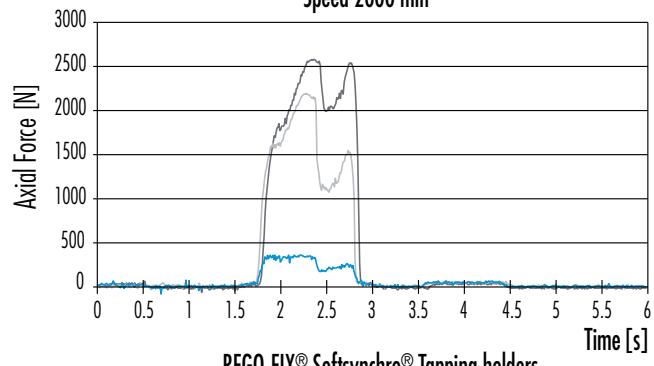
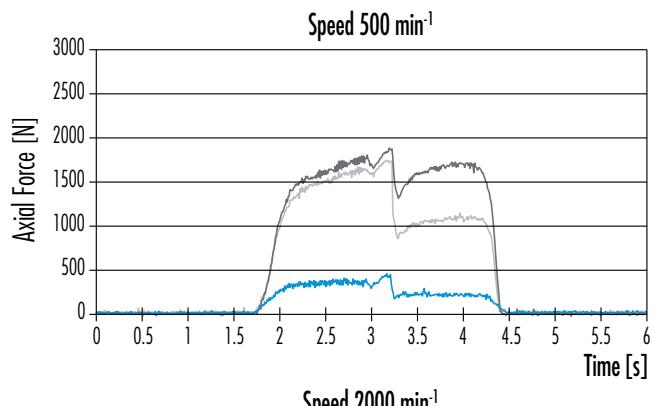
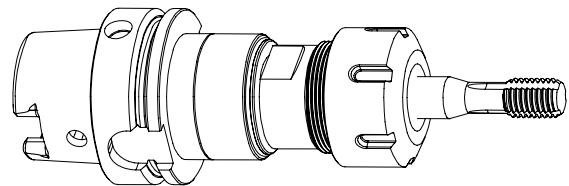
Applications

REGO-FIX® Softsynchro® tapping holders are used on machines that are designed for direct tapping. Many of the newer CNC machines feature synchronization between spindle turning and feed rate. This allows to use rigid tapping holders. However due to the dynamics of spindle and linear motors, synchronization errors occur. To compensate for these synchronization errors Softsynchro® tapping holders with minimal length adjustment are necessary. Depending on the application Softsynchro® tapping holders increase tool life up to 150%.

Comparison Tests

The two diagrams show the axial forces when cold-forming M10 threads in St37 steel.

Conclusion: Axial forces increase with increasing rpm. With REGO-FIX® Softsynchro® tapping holders the forces are considerably lower than when using rigid tapping toolholders. Therefore the surface quality and tool life are optimized when using Softsynchro® tapping holders on a synchronized machine spindle.



REGO-FIX® Softsynchro®-Tapping holders
Competitor synchronous collet holder
Rigid synchronous collet holder

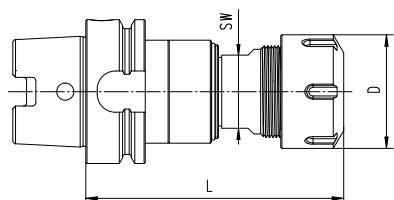
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HSK-A SSY/ERC Softsynchro® Tapping Holder

Type	Part No.	D [mm]	L [mm]	Com- pression [mm]	Tension [mm]	SW [mm]
HSK-A 63 SSY / ERC 20	2563.62000	34	95.5	0.5	0.5	19
HSK-A 63 SSY / ERC 32	2563.63200	50	108.8	0.5	0.5	32

Supplied with: Tapping holder with Hi-Q®/ERC clamping nut.

Matching tapping collets see page 3.4.



! Please order the sealing disks separately.
See page 4.22/4.24.



Features | Benefits



7

Swiss Quality

Made in Switzerland to ISO 9001/ISO 14001.

1 Marking

Type and part number.

2 Traceability

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

3 Original REGO-FIX®

Original only with the REGO-FIX® quality seal \triangle . Guarantee for best quality.

T.I.R. of the Whole System $<3 \mu\text{m}$

Highest clamping force and best runout in one.

Surface Finish max. Ra 0.25

Higher clamping force and higher transferable torque.

Q+® Balancing

100% balanced to G 2.5 @ 25'000 min⁻¹.

Ideal for High Speed Cutting (HSC) and High Performance Cutting (HPC).

Hi-Q® Balancing System

Ready to accept Hi-Q® balancing rings which allow to offset the imbalance introduced by the cutting tool up to 80'000 min⁻¹.

Minimal Outside Dimensions

Slim design provides more processing flexibility.

Fast

Tool clamping with hydraulic press in less than 10 seconds.

Excellent at Small Diameters

Clamping of small diameter tools from Ø 0.2 mm.

Presetable Tooling System

Repeatability $<10 \mu\text{m}$

ID Chip Hole

Per DIN 69873 with 10 mm diameter.

HSK/PG Toolholders

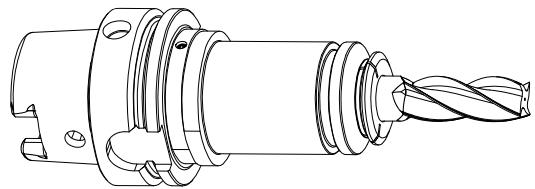
Applications

CNC-milling machines of the latest generation.

Coolant

For coolant through tools these colletholders can be equipped with a coolant tube (KSR) that duct the coolant directly to the cutting tool, hereby avoiding coolant to enter and soil the HSK taper area.

Matching coolant tubes (KSR) see page 12.10.



Balancing

REGO-FIX® Q+® System HSK/PG colletholders are balanced to G 2.5 @ 25'000 min⁻¹. Type H colletholders are ready to accept Hi-Q® balancing rings which allow precision balancing of the system including cutting tool up to 80'000 min⁻¹ depending on the balancing rings used.

Coolant Through

For use with coolant through tools.

Peripheral Cooling

PG-CF collets for peripheral cooling with non-coolant through tools.

Matched Tooling System for Best Fit

For highest precision and best results the whole system counts. Therefore REGO-FIX® components are carefully matched to fit together. This guarantees best run-out and balancing.



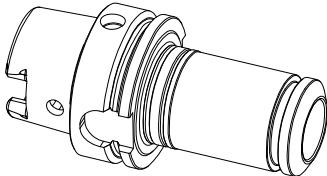
Matching Products

powRgrip® Collets

0.200 - 1.5875 mm powRgrip® collets with microbore (PG 10-MB) see page 2.36.

\varnothing [mm]	\varnothing [Inch]	\varnothing [Inch]	PG 10 Part No.	PG 10-CF Part No.	PG 15 Part No.	PG 15-CF Part No.	PG 25 Part No.	PG 25-CF Part No.	PG 32 Part No.	PG 32-CF Part No.
2.000	0.0787	-	1710.02000	-	-	-	-	-	-	-
2.500	0.0984	-	1710.02500	-	-	-	-	-	-	-
3.000	0.1181	-	1710.03000	1710.03002	1715.03000	1715.03002	1725.03000	1725.03002	-	-
3.175	0.1250	1/8"	1710.03181	1710.03183	1715.03181	1715.03183	1725.03181	1725.03183	-	-
3.500	0.1378	-	1710.03500	-	1715.03500	-	1725.03500	-	-	-
4.000	0.1575	-	1710.04000	1710.04002	1715.04000	1715.04002	1725.04000	1725.04002	-	-
4.500	0.1969	-	1710.04500	-	1715.04500	-	1725.04500	-	-	-
4.763	0.1875	3/16"	1710.04761	1710.04763	1715.04761	1715.04763	1725.04761	1725.04763	-	-
5.000	0.1969	-	1710.05000	1710.05002	1715.05000	1715.05002	1725.05000	1725.05002	-	-
5.500	0.2165	-	1710.05500	-	1715.05500	-	1725.05500	-	-	-
6.000	0.2362	-	1710.06000	1710.06002	1715.06000	1715.06002	1725.06000	1725.06002	1732.06000	1732.06002
6.350	0.2500	1/4"	1710.06351	1710.06353	1715.06351	1715.06353	1725.06351	1725.06353	1732.06351	1732.06353
7.000	0.2756	-	-	-	1715.07000	1715.07002	1725.07000	1725.07002	1732.07000	1732.07002
7.938	0.3125	5/16"	-	-	1715.07941	1715.07943	1725.07941	1725.07943	1732.07941	1732.07943
8.000	0.3150	-	-	-	1715.08000	1715.08002	1725.08000	1725.08002	1732.08000	1732.08002
9.000	0.3543	-	-	-	1715.09000	1715.09002	1725.09000	1725.09002	1732.09000	1732.09002
9.525	0.3750	3/8"	-	-	1715.09521	1715.09523	1725.09521	1725.09523	1732.09521	1732.09523
10.000	0.3937	-	-	-	1715.10000	1715.10002	1725.10000	1725.10002	1732.10000	1732.10002
11.000	0.4331	-	-	-	-	-	1725.11000	1725.11002	1732.11000	1732.11002
11.113	0.4375	7/16"	-	-	-	-	1725.11111	1725.11113	1732.11111	1732.11113
12.000	0.4724	-	-	-	-	-	1725.12000	1725.12002	1732.12000	1732.12002
12.700	0.5000	1/2"	-	-	-	-	1725.12701	1725.12703	1732.12701	1732.12703
13.000	0.5112	-	-	-	-	-	1725.13000	1725.13002	-	-
14.000	0.5512	-	-	-	-	-	1725.14000	1725.14002	1732.14000	1732.14002
14.288	0.5625	9/16"	-	-	-	-	1725.14291	1725.14293	1732.14291	1732.14293
15.000	0.5906	-	-	-	-	-	1725.15000	1725.15002	-	-
15.875	0.6250	5/8"	-	-	-	-	1725.15881	1725.15883	1732.15881	1732.15883
16.000	0.6300	-	-	-	-	-	1725.16000	1725.16002	1732.16000	1732.16002
18.000	0.7087	-	-	-	-	-	1725.18000	1725.18002	1732.18000	1732.18002
19.050	0.7500	3/4"	-	-	-	-	1725.19051	1725.19053	1732.19051	1732.19053
20.000	0.7874	-	-	-	-	-	1725.20000	1725.20002	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

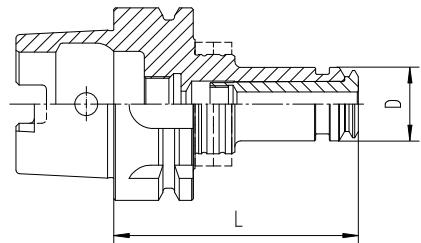
powRgrip® clamping units and powRgrip® accessories see page 12.7/12.8.



HSK-A | PG
DIN 69893 / ISO 12164

powRgrip® Colletholders | Balancing Rings

Type	Part No.	D [mm]	L [mm]	Balancing Rings
HSK-A 32 / PG 10 x 060*	2532.71020	16	60	-
HSK-A 32 / PG 15 x 075*	2532.71530	24	75	-
HSK-A 40 / PG 10 x 062*	2540.71020	16	62	-
HSK-A 40 / PG 15 x 080 H	4540.71540	24	80	FWR 285
HSK-A 40 / PG 25 x 100 H	4540.72550	40	100	FWR 405
HSK-A 50 / PG 10 x 080 H	4550.71040	16	80	FWR 285
HSK-A 50 / PG 15 x 080 H	4550.71540	24	80	FWR 285
HSK-A 50 / PG 25 x 100 H	4550.72550	40	100	FWR 405
HSK-A 63 / PG 10 x 080 H	4563.71040	16	80	FWR 325
HSK-A 63 / PG 10 x 120 H	4563.71060	16	120	FWR 325
HSK-A 63 / PG 10 x 160 H	4563.71080	16	160	FWR 325
HSK-A 63 / PG 10 x 200 H	4563.71090	16	200	FWR 325
HSK-A 63 / PG 15 x 080 H	4563.71540	24	80	FWR 325
HSK-A 63 / PG 15 x 120 H	4563.71560	24	120	FWR 325
HSK-A 63 / PG 15 x 160 H	4563.71580	24	160	FWR 325/285
HSK-A 63 / PG 25 x 100 H	4563.72550	40	100	FWR 405
HSK-A 63 / PG 25 x 120 H	4563.72560	40	120	FWR 405
HSK-A 63 / PG 25 x 160 H	4563.72580	40	160	FWR 405/405
HSK-A 63 / PG 25 x 200 H	4563.72590	40	200	FWR 405/405
HSK-A 63 / PG 32 x 100*	2563.73250	50	100	-
HSK-A 63 / PG 32 x 120 H	4563.73260	50	120	FWR 505
HSK-A 80 / PG 15 x 085 H	4580.71540	24	85	FWR 325
HSK-A 80 / PG 25 x 100 H	4580.72550	40	100	FWR 505
HSK-A 80 / PG 32 x 105 H	4580.73250	50	105	FWR 505



Type	Part No.	D [mm]	L [mm]	Balancing Rings
HSK-A 100 / PG 10 x 085 H	4500.71040	16	85	FWR 405
HSK-A 100 / PG 10 x 160 H	4500.71080	16	160	FWR 405
HSK-A 100 / PG 15 x 085 H	4500.71540	24	85	FWR 405
HSK-A 100 / PG 15 x 160 H	4500.71580	24	160	FWR 405/285
HSK-A 100 / PG 25 x 100 H	4500.72550	40	100	FWR 505
HSK-A 100 / PG 25 x 160 H	4500.72580	40	160	FWR 505/405
HSK-A 100 / PG 25 x 200 H	4500.72590	40	200	FWR 505/405
HSK-A 100 / PG 32 x 106 H	4500.73250	50	106	FWR 505
HSK-A 100 / PG 32 x 160 H	4500.73280	50	160	FWR 505
HSK-A 100 / PG 32 x 200 H	4500.73290	50	200	FWR 505/505

HSK-A 125 On demand: sales@rego-fix.ch

*Not for use with balancing rings.

Matching coolant tubes (KSR) see page 12.10.

Hi-Q® Balancing Rings	Part No.	Page
Set FWR 225	7490.22500	12.9
Set FWR 285	7490.28500	12.9
Set FWR 325	7490.32500	12.9
Set FWR 405	7490.40500	12.9
Set FWR 505	7490.50500	12.9
Torque screwdriver (TSD)	7159.09000	12.9

Maximum rpm for Hi-Q balancing rings see page 12.9.

Drawings with detailed dimensions see

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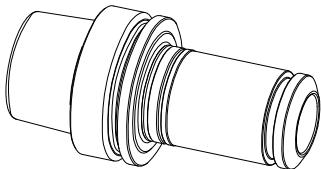
Matching Products

powRgrip® Collets

0.200 - 1.5875 mm powRgrip® collets with microbore (PG 10-MB) see page 2.36.

Ø [mm]	Ø [Inch]	Ø [Inch]	PG 10 Part No.	PG 10-CF Part No.	PG 15 Part No.	PG 15-CF Part No.	PG 25 Part No.	PG 25-CF Part No.	PG 32 Part No.	PG 32-CF Part No.
2.000	0.0787	-	1710.02000	-	-	-	-	-	-	-
2.500	0.0984	-	1710.02500	-	-	-	-	-	-	-
3.000	0.1181	-	1710.03000	1710.03002	1715.03000	1715.03002	1725.03000	1725.03002	-	-
3.175	0.1250	1/8"	1710.03181	1710.03183	1715.03181	1715.03183	1725.03181	1725.03183	-	-
3.500	0.1378	-	1710.03500	-	1715.03500	-	1725.03500	-	-	-
4.000	0.1575	-	1710.04000	1710.04002	1715.04000	1715.04002	1725.04000	1725.04002	-	-
4.500	0.1969	-	1710.04500	-	1715.04500	-	1725.04500	-	-	-
4.763	0.1875	3/16"	1710.04761	1710.04763	1715.04761	1715.04763	1725.04761	1725.04763	-	-
5.000	0.1969	-	1710.05000	1710.05002	1715.05000	1715.05002	1725.05000	1725.05002	-	-
5.500	0.2165	-	1710.05500	-	1715.05500	-	1725.05500	-	-	-
6.000	0.2362	-	1710.06000	1710.06002	1715.06000	1715.06002	1725.06000	1725.06002	1732.06000	1732.06002
6.350	0.2500	1/4"	1710.06351	1710.06353	1715.06351	1715.06353	1725.06351	1725.06353	1732.06351	1732.06353
7.000	0.2756	-	-	-	1715.07000	1715.07002	1725.07000	1725.07002	1732.07000	1732.07002
7.938	0.3125	5/16"	-	-	1715.07941	1715.07943	1725.07941	1725.07943	1732.07941	1732.07943
8.000	0.3150	-	-	-	1715.08000	1715.08002	1725.08000	1725.08002	1732.08000	1732.08002
9.000	0.3543	-	-	-	1715.09000	1715.09002	1725.09000	1725.09002	1732.09000	1732.09002
9.525	0.3750	3/8"	-	-	1715.09521	1715.09523	1725.09521	1725.09523	1732.09521	1732.09523
10.000	0.3937	-	-	-	1715.10000	1715.10002	1725.10000	1725.10002	1732.10000	1732.10002
11.000	0.4331	-	-	-	-	-	1725.11000	1725.11002	1732.11000	1732.11002
11.113	0.4375	7/16"	-	-	-	-	1725.11111	1725.11113	1732.11111	1732.11113
12.000	0.4724	-	-	-	-	-	1725.12000	1725.12002	1732.12000	1732.12002
12.700	0.5000	1/2"	-	-	-	-	1725.12701	1725.12703	1732.12701	1732.12703
13.000	0.5112	-	-	-	-	-	1725.13000	1725.13002	-	-
14.000	0.5512	-	-	-	-	-	1725.14000	1725.14002	1732.14000	1732.14002
14.288	0.5625	9/16"	-	-	-	-	1725.14291	1725.14293	1732.14291	1732.14293
15.000	0.5906	-	-	-	-	-	1725.15000	1725.15002	-	-
15.875	0.6250	5/8"	-	-	-	-	1725.15881	1725.15883	1732.15881	1732.15883
16.000	0.6300	-	-	-	-	-	1725.16000	1725.16002	1732.16000	1732.16002
18.000	0.7087	-	-	-	-	-	1725.18000	1725.18002	1732.18000	1732.18002
19.050	0.7500	3/4"	-	-	-	-	1725.19051	1725.19053	1732.19051	1732.19053
20.000	0.7874	-	-	-	-	-	1725.20000	1725.20002	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

powRgrip® clamping units and powRgrip® accessories see page 12.7/12.8.



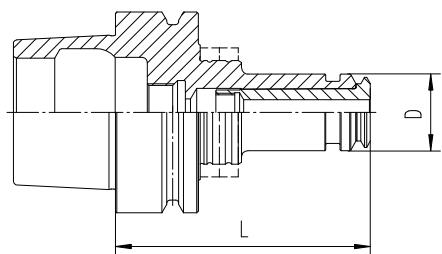
HSK-E | HSK-F | PG
DIN 69893/ISO 12164

powRgrip® Colletholders | Balancing Rings

Type	Part No.	D [mm]	L [mm]	Balancing Rings
HSK-E 25 / PG 10 x 055*	2525.71014	16	55	–
HSK-E 32 / PG 10 x 060*	2532.71024	16	60	–
HSK-E 32 / PG 10 x 080 H	4532.71044	16	80	FWR 225
HSK-E 32 / PG 15 x 075*	2532.71534	24	75	–
HSK-E 40 / PG 10 x 062*	2540.71024	16	62	–
HSK-E 40 / PG 10 x 080 H	4540.71044	16	80	FWR 225
HSK-E 40 / PG 10 x 120 H	4540.71064	16	120	FWR 225
HSK-E 40 / PG 10 x 160 H	4540.71084	16	160	FWR 285
HSK-F 40 / PG 15 x 080 H	4540.71544	24	80	FWR 285
HSK-E 40 / PG 15 x 120 H	4540.71564	24	120	FWR 285
HSK-E 40 / PG 25 x 090*	2540.72544	40	90	–
HSK-E 40 / PG 25 x 100 H	4540.72554	40	100	FWR 405
HSK-E 50 / PG 10 x 080 H	4550.71044	16	80	FWR 285
HSK-E 50 / PG 10 x 120 H	4550.71064	16	120	FWR 285
HSK-E 50 / PG 10 x 160 H	4550.71084	16	160	FWR 285
HSK-E 50 / PG 15 x 080 H	4550.71544	24	80	FWR 285
HSK-E 50 / PG 15 x 120 H	4550.71564	24	120	FWR 285
HSK-E 50 / PG 25 x 100 H	4550.72554	40	100	FWR 405
HSK-E 63 / PG 15 x 080 H	4563.71544	24	80	FWR 325
HSK-E 63 / PG 25 x 100 H	4563.72554	40	100	FWR 405
HSK-F 63 / PG 10 x 080 H	4563.71045	16	80	FWR 325
HSK-F 63 / PG 15 x 080 H	4563.71545	24	80	FWR 325
HSK-F 63 / PG 25 x 100 H	4563.72555	40	100	FWR 405
HSK-F 63 / PG 25 x 160 H	4563.72585	40	160	FWR 405/405
HSK-F 63 / PG 32 x 100*	2563.73255	50	100	–

*Not for use with balancing rings.

Matching coolant tubes (KSR) see page 12.10.



Hi-Q® Balancing Rings	Part No.	Page
Set FWR 225	7490.22500	12.9
Set FWR 285	7490.28500	12.9
Set FWR 325	7490.32500	12.9
Set FWR 405	7490.40500	12.9
Set FWR 505	7490.50500	12.9
Torque screwdriver (TSD)	7159.09000	12.9

Maximum rpm for Hi-Q® balancing rings see page 12.9.

Drawings with detailed dimensions see

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Features | Benefits



Quality

Made to ISO 9001/ISO 14001 standards.

1 Marking

Type and part number.

2 Traceability

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

3 Quality Seal

The REGO-FIX® seal \triangle marked on the products guarantees for best quality.

T.I.R.

Best concentricity values – equal to rigid toolholders.

Absorbing Link

Acts as absorbing link between the synchronous spindle and the tap/cold forming tap and compensates pitch differences between threading tool and synchronous spindle.

Minimal Length Adjustment

In push- and pull direction.

Tool Shanks

All taps / cold forming taps with tool shanks in h9 tolerance can be clamped.

Secure Clamping

Secure clamping of the tap/cold forming tap by PG-TAP tapping collets with internal square.

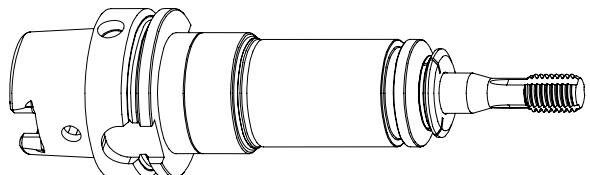
For Coolant Through Tools

Up to 50 bar coolant pressure.

Process Reliability

Increases process reliability of synchronous thread manufacturing.

HSK-A SSY/PG Softsynchro® Tapping Holder



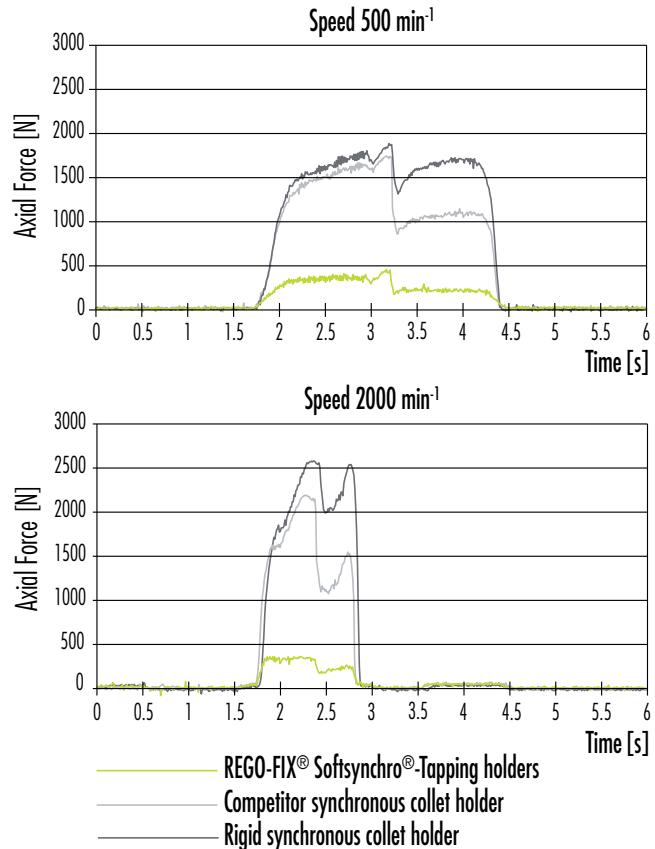
Applications

REGO-FIX® Softsynchro® tapping holders are used on machines that are designed for direct tapping. Many of the newer CNC machines feature synchronization between spindle turning and feed rate. This allows to use rigid tapping holders. However due to the dynamics of spindle and linear motors, synchronization errors occur. To compensate for these synchronization errors Softsynchro® tapping holders with minimal length adjustment are necessary. Depending on the application Softsynchro® tapping holders increase tool life up to 150%.

Comparison Tests

The two diagrams show the axial forces when cold-forming M10 threads in St37 steel.

Conclusion: Axial forces increase with increasing rpm. With REGO-FIX® Softsynchro® tapping holders the forces are considerably lower than when using rigid tapping toolholders. Therefore the surface quality and tool life are optimized when using Softsynchro® tapping holders on a synchronized machine spindle.

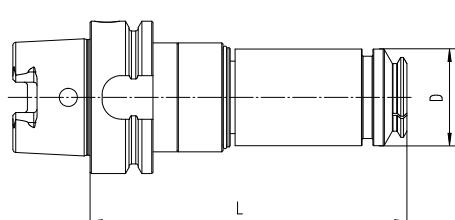


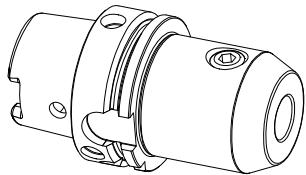
7

HSK-A SSY/PG Softsynchro® Tapping Holders

Type	Part No.	D [mm]	L [mm]	Com- pression [mm]	Tension [mm]
HSK-A 63 SSY / PG 15	2563.61507	24	114.5	0.5	0.5
HSK-A 63 SSY / PG 25	2563.62507	40	131	0.5	0.5

Matching powRgrip® tapping collets see page 3.12.





HSK-A | HSK-E | WD
DIN 69893 / ISO12164

End Mill Holders (WELDON)

Type	Part No.	D [mm]	L [mm]	Drawing
HSK-A 32 / WD 6 x 055*	2532.30620	25	55	1
HSK-A 32 / WD 8 x 055*	2532.30820	28	55	1
HSK-A 32 / WD 10 x 060*	2532.31030	35	60	1
HSK-A 32 / WD 12 x 065*	2532.31230	42	65	1

HSK-A 40 / WD 6 x 060	2540.30630	25	60	1
HSK-A 40 / WD 8 x 060	2540.30830	28	60	1
HSK-A 40 / WD 10 x 060	2540.31030	35	60	1
HSK-A 40 / WD 12 x 070	2540.31240	42	70	1
HSK-A 40 / WD 14 x 075	2540.31440	44	75	1
HSK-A 40 / WD 16 x 075	2540.31640	48	75	1

HSK-A 50 / WD 6 x 065	2550.30630	25	65	1
HSK-A 50 / WD 8 x 065	2550.30830	28	65	1
HSK-A 50 / WD 10 x 065	2550.31030	35	65	1
HSK-A 50 / WD 12 x 080	2550.31250	42	80	1
HSK-A 50 / WD 14 x 080	2550.31450	44	80	1
HSK-A 50 / WD 16 x 080	2550.31650	48	80	1
HSK-A 50 / WD 18 x 080	2550.31850	50	80	1
HSK-A 50 / WD 20 x 080	2550.32050	52	80	1

HSK-A 63 / WD 6 x 065	2563.30630	25	65	1
HSK-A 63 / WD 8 x 065	2563.30830	28	65	1
HSK-A 63 / WD 10 x 065	2563.31030	35	65	1
HSK-A 63 / WD 12 x 080	2563.31250	42	80	1
HSK-A 63 / WD 14 x 080	2563.31450	44	80	1
HSK-A 63 / WD 16 x 080	2563.31650	48	80	1
HSK-A 63 / WD 18 x 080	2563.31850	50	80	1
HSK-A 63 / WD 20 x 080	2563.32050	52	80	1
HSK-A 63 / WD 25 x 110	2563.32560	65	110	2
HSK-A 63 / WD 32 x 110	2563.33260	72	110	2

Type	Part No.	D [mm]	L [mm]	Drawing
HSK-A 100 / WD 6 x 080	2500.30650	25	80	1
HSK-A 100 / WD 8 x 080	2500.30850	28	80	1
HSK-A 100 / WD 10 x 080	2500.31050	35	80	1
HSK-A 100 / WD 12 x 080	2500.31250	42	80	1
HSK-A 100 / WD 14 x 080	2500.31450	44	80	1
HSK-A 100 / WD 16 x 100	2500.31660	48	100	1
HSK-A 100 / WD 18 x 100	2500.31860	50	100	1
HSK-A 100 / WD 20 x 100	2500.32060	52	100	1
HSK-A 100 / WD 25 x 100	2500.32560	65	100	2
HSK-A 100 / WD 32 x 100	2500.33260	72	100	2
HSK-A 100 / WD 40 x 110	2500.34060	90	110	2

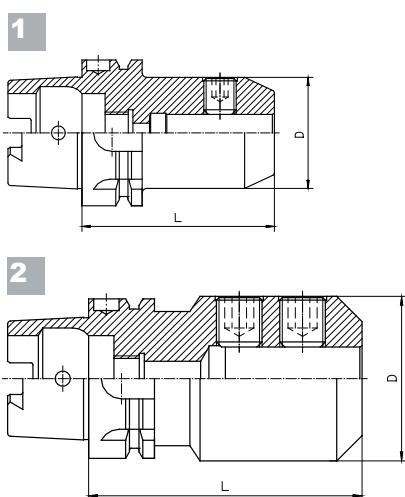
HSK-E 40 / WD 6 x 060**	2540.30634	25	60	1
HSK-E 40 / WD 8 x 060**	2540.30834	28	60	1
HSK-E 40 / WD 10 x 060**	2540.31034	35	60	1
HSK-E 40 / WD 12 x 070**	2540.31244	42	70	1
HSK-E 40 / WD 16 x 070**	2540.31644	48	70	1

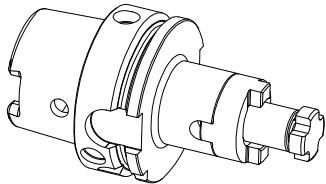
*Without side hole in in HSK taper.

**Without side hole and without drive keys in HSK taper.

Supplied with: End mill holder and lock screw.

Matching coolant tubes (KSR) see page 12.10.





HSK-A | HSK-E | KFD
DIN 69893 / ISO12164

Universal Shell Mill | Face Mill Holders | Matching Spanners

Type	Part No.	D [mm]	D1 [mm]	L [mm]	Drawing
HSK-A 32 / KFD 16 x 045	2532.41620	16	32	45	1
HSK-A 32 / KFD 22 x 050	2532.42230	22	40	40	1

HSK-A 40 / KFD 16 x 030	2540.41600	16	32	30	1
HSK-A 40 / KFD 22 x 050	2540.42230	22	40	50	1

HSK-A 50 / KFD 16 x 050	2550.41630	16	32	50	1
HSK-A 50 / KFD 22 x 050	2550.42230	22	40	50	1
HSK-A 50 / KFD 27 x 065	2550.42740	27	48	65	2
HSK-A 50 / KFD 32 x 065	2550.43240	32	58	65	2

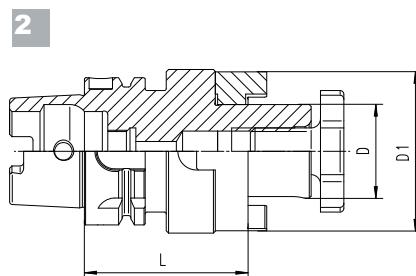
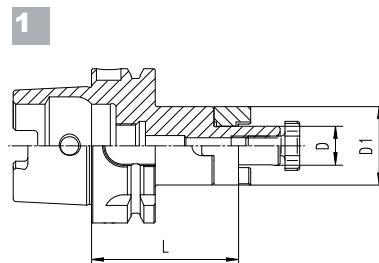
HSK-A 63 / KFD 16 x 060	2563.41640	16	32	60	1
HSK-A 63 / KFD 22 x 060	2563.42240	22	40	60	1
HSK-A 63 / KFD 27 x 060	2563.42740	27	48	60	1
HSK-A 63 / KFD 32 x 060	2563.43240	32	58	60	1
HSK-A 63 / KFD 40 x 070	2563.44050	40	70	70	2

HSK-A 100 / KFD 16 x 060	2500.41640	16	32	60	1
HSK-A 100 / KFD 22 x 060	2500.42240	22	40	60	1
HSK-A 100 / KFD 27 x 060	2500.42740	27	48	60	1
HSK-A 100 / KFD 32 x 060	2500.43240	32	58	60	1
HSK-A 100 / KFD 40 x 070	2500.44050	40	70	70	1
HSK-A 100 / KFD 50 x 080	2500.45060	50	90	80	2

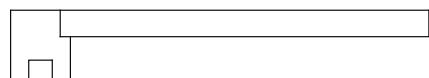
HSK-E 40 / KFD 16 x 045*	2540.41624	16	32	45	1
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*Without side hole and without drive keys in HSK taper.

Supplied with: Universal shell mill/face mill holder, lock screw, feather key and drive ring.



7



Matching Spanners Type	Part No.
FDS 16	7711.16000
FDS 22	7711.22000
FDS 27	7711.27000
FDS 32	7711.32000
FDS 40	7711.40000
FDS 50	7711.50000

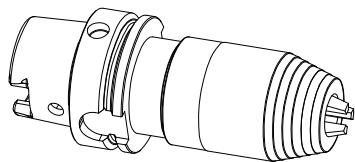
Drawings with detailed dimensions see

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Swiss
Precision
Tools

KBF
Toolholders

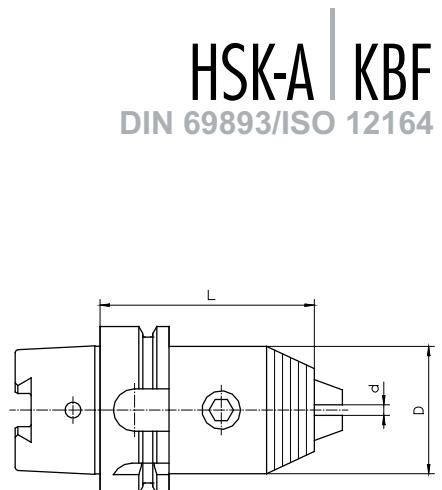


Drill Chucks

Type	Part No.	d [mm]	D [mm]	L [mm]
HSKA 63 / KBF 1-13 mm	2563.50100	1-13	50	104

Supplied with: Drill chuck and allen-key.

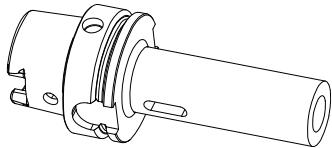
Matching coolant tubes (KSR) see page 12.10.



Clamping range	1-13 mm
Maximum runout difference	0.03 mm
Maximum tightening torque	20 Nm
Clamping force (@ 20 Nm tightening torque)	80 Nm
Maximum rpm	up to 35'000 min ⁻¹

Drawings with detailed dimensions see

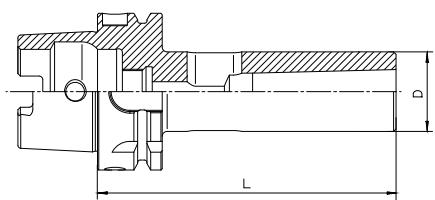
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HSK-A | MK
DIN 69893 / ISO 12164

Morse Taper Holder

Type	Part No.	D [mm]	L [mm]
HSK-A 63 / MK 1 x 100 mm	2563.80140	25	100
HSK-A 63 / MK 2 x 120 mm	2563.80250	32	120
HSK-A 63 / MK 3 x 140 mm	2563.80360	40	140
HSK-A 63 / MK 4 x 160 mm	2563.80470	48	160



Drawings with detailed dimensions see

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Toolholders REGO-FIX CAPTO

Certified by SANDVIK

ISO 26623

ER *SYSTEM*

- 8.1 Features | Benefits
- 8.2 Information
- 8.4 REGO-FIX CAPTO | ER

powRgrip *SYSTEM*

- 8.7 Features | Benefits
- 8.8 Information
- 8.10 REGO-FIX CAPTO | PG

Other Toolholders

- 8.11 REGO-FIX CAPTO | End Mill Holders
WELDON
- 8.12 REGO-FIX CAPTO | Shell Mill Arbors

REGO-FIX CAPTO Floating Chucks see page 11.4.



Certified by Sandvik



Swiss
Precision
Tools

ER
Toolholders

Features | Benefits



8

Swiss Quality

Made in Switzerland to ISO 9001/ISO 14001.

1 Marking

Type and part number.

2 Traceability

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

3 Original REGO-FIX®

Our extensive experience results in a well-engineered system. Original only with the REGO-FIX® quality seal \triangle . Guarantee for best quality.

T.I.R. <3 μ m

Inner diameter to outer diameter.

Surface Finish max. Ra 0.25

Higher clamping force and higher transferable torque.

Q+® Balancing

100% balanced to G 2.5 @ 25'000 min⁻¹.

Hi-Q® Balancing System

Ready to accept Hi-Q® balancing rings which allow to offset the imbalance introduced by the cutting tool up to 80'000 min⁻¹.

Hi-Q® Clamping Nut Included

Guarantees highest clamping force and best balancing.

Vibration Dampening

For best machining results.

ID Chip Hole

Per DIN 69873 with 10 mm diameter.



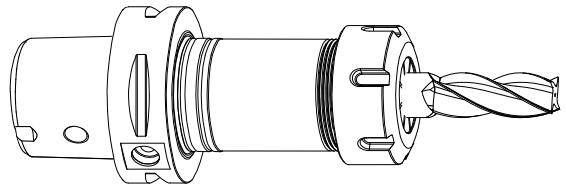
Certified by Sandvik

Information
ISO 26623

REGO-FIX® CAPTO/ER Toolholder

Applications

These colletholders are designed for use on CNC-machining centers with automatic tool changer. Thanks to their precision and positive locking in the machine spindle CAPTO/ER colletholders are suitable for highest requirements.



Balancing

REGO-FIX® Q+® System CAPTO/ER colletholders are balanced by design to G 2.5 @ 25'000 min⁻¹. Type H colletholders are ready to accept Hi-Q® balancing rings which allow precision balancing of the system including cutting tool up to 80'000 min⁻¹ depending on the balancing rings used.

Special Applications

When extra high clamping force is needed, e.g. when tapping with ER-GB or ET1*, we recommend to use our friction bearing clamping nuts Hi-Q®/ERB and Hi-Q®/ERBC.

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

8

Matched Tooling System for Best Fit

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

For the influence of run-out on tool life see the graph page 2.3.



We recommend tightening the clamping nuts with a torque wrench. The maximum torque shall not be more than 25% above the recommended tightening torque.

Recommended tightening torque see page 13.3/13.4.



Matching Products

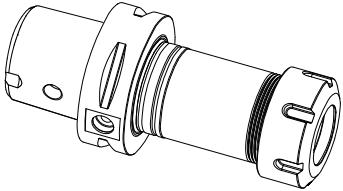
Clamping Nuts | Collets | Spanners

Clamping Nut and Spanner	ER 11	ER 16	ER 20	ER 25	ER 32	ER 40	ER 50	Page	Standard	With Friction Bearing	Balanced	For Coolant Through Tools	Collet Locking System	Mini-Nut	Nut with External Thread	Spanner
ER	-	3416.00000	3420.00000	3425.00000	3432.00000	-	-	4.4	■		■	■	■			
ERC	-	3416.20000	3420.20000	3425.20000	3432.20000	-	-	4.6		■	■	■				
4.8																
ERB	-	3416.30000	3420.30000	3425.30000	3432.30000	-	-	4.10	■	■	■	■				
ERBC	-	3416.40000	3420.40000	3425.40000	3432.40000	-	-	4.10	■	■	■	■				
EP	-	7112.16010	7112.20010	-	-	-	-	12.1								■
E	-	-	-	-	7111.25000	7111.32000	-	12.1								■

Recommended tightening torque on page 13.3/13.4.

Collet	ER 11/ET1-12		ER 16/ET1-16		ER 20/ET1-20		ER 25/ET1-25		ER 32/ET1-32		ER 40/ET1-40		ER 50	
	Clamping Range [mm]	Page												
ER	-	-	0.5 – 10.0	2.10	0.5 – 13.0	2.12	0.5 – 16.0	2.14	1.0 – 20.0	2.16	-	-	-	-
ER-UP	-	-	0.5 – 10.0	2.10	0.5 – 13.0	2.12	0.5 – 16.0	2.14	1.0 – 20.0	2.16	-	-	-	-
ER-DM	-	-	3.0 – 10.0	-	3.0 – 10.0	2.24	6.0 – 16.0	2.26	6.0 – 20.0	2.28	-	-	-	-
ER-MB	-	-	0.2 – 0.9	2.10	-	-	-	-	-	-	-	-	-	-
ER-GB	-	-	4.0 – 9.0	3.4	4.0 – 11.2	3.4	4.0 – 16.0	3.4	4.0 – 20.0	3.4	-	-	-	-
ET 1*	-	-	1.4 – 6.3	3.8	2.2 – 7.0	3.8	2.5 – 10.0	3.8	4.5 – 12.5	3.8	-	-	-	-

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



REGO-FIX CAPTO | ER
ISO 26623

ER Colletholders | Balancing Rings

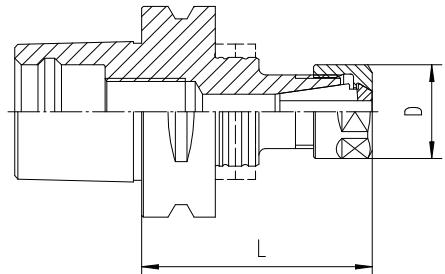
Type	Part No.	D [mm]	L [mm]	Balancing Rings
C3 / ER 16 x 045*	2803.11610	28	45	-
C3 / ER 20 x 045*	2803.12010	34	45	-

C4 / ER 16 x 070*	2804.11630	28	70	-
C4 / ER 20 x 052*	2804.12010	34	52	-
C4 / ER 25 x 052*	2804.12510	42	52	-
C4 / ER 32 x 054*	2804.13210	50	54	-

C5 / ER 16 x 070 H	4805.11630	28	70	FWR 285
C5 / ER 16 x 100 H	4805.11650	28	100	FWR 285
C5 / ER 20 x 055*	2805.12010	34	55	-
C5 / ER 20 x 100 H	4805.12050	34	100	FWR 325
C5 / ER 25 x 055*	2805.12510	42	55	-
C5 / ER 25 x 100 H	4805.12550	42	100	FWR 405
C5 / ER 32 x 057*	2805.13210	50	57	-
C5 / ER 32 x 070 H	4805.13230	50	70	FWR 405
C5 / ER 32 x 100 H	4805.13250	50	100	FWR 405
C6 / ER 11 x 150 H	4806.11170	19	150	FWR 325

Supplied with: ER colletholder with Hi-Q® clamping nut.

*Not for use with balancing rings.



Hi-Q® Balancing Rings	Part No.	Page
Set FWR 225	7490.22500	12.9
Set FWR 285	7490.28500	12.9
Set FWR 325	7490.32500	12.9
Set FWR 405	7490.40500	12.9
Set FWR 505	7490.50500	12.9
Torque screwdriver (TSD)	7159.09000	12.9

Maximum rpm for Hi-Q balancing rings see page 12.9.

Drawings with detailed dimensions see.

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Matching Products

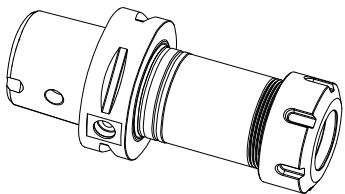
Clamping Nuts | Collets | Spanners

Clamping Nut and Spanner	ER 11	ER 16	ER 20	ER 25	ER 32	ER 40	ER 50	Page	Standard	With Friction Bearing	Balanced	For Coolant Through Tools	Collet Locking System	Mini-Nut	Nut with External Thread	Spanner
Hi-Q/ER	3411.00000	3416.00000	3420.00000	3425.00000	3432.00000	3440.00000	3450.00000	4.4	■		■	■	■			
Hi-Q/ERC	3411.20300 - 3411.20700	3416.20000	3420.20000	3425.20000	3432.20000	3440.20000	-	4.6 4.8		■	■	■				
Hi-Q/ERB	-	3416.30000	3420.30000	3425.30000	3432.30000	3440.30000	3450.30000	4.10	■	■	■					
Hi-Q/ERBC	-	3416.40000	3420.40000	3425.40000	3432.40000	3440.40000	-	4.10	■	■	■	■				
EP	7112.11010	7112.16010	7112.20010	-	-	-	-	12.1								■
E	-	-	-	7111.25000	7111.32000	7111.40000	7111.50000	12.1								■

Recommended tightening torque on page 13.3/13.4.

Collet	ER 11/ET1-12		ER 16/ET1-16		ER 20/ET1-20		ER 25/ET1-25		ER 32/ET1-32		ER 40/ET1-40		ER 50	
	Clamping Range [mm]	Page												
ER	0.5 – 7.0	2.8	0.5 – 10.0	2.10	0.5 – 13.0	2.12	0.5 – 16.0	2.14	1.0 – 20.0	2.16	2.0 – 30.0	2.18	4.0 – 34.0	2.18
ER-UP	0.5 – 7.0	2.8	0.5 – 10.0	2.10	0.5 – 13.0	2.12	0.5 – 16.0	2.14	1.0 – 20.0	2.16	2.0 – 30.0	2.18	4.0 – 34.0	2.18
ER-DM	-	-	3.0 – 10.0	-	3.0 – 10.0	2.24	6.0 – 16.0	2.26	6.0 – 20.0	2.28	-	-	-	-
ER-MB	0.2 – 0.9	2.8	0.2 – 0.9	2.10	-	-	-	-	-	-	-	-	-	-
ER-GB	2.8 – 6.0	3.4	4.0 – 9.0	3.4	4.0 – 11.2	3.4	4.0 – 16.0	3.4	4.0 – 20.0	3.4	6.0 – 22.0	3.4	22.0 – 32.0	3.4
ET 1*	1.4 – 3.55	3.8	1.4 – 6.3	3.8	2.2 – 7.0	3.8	2.5 – 10.0	3.8	4.5 – 12.5	3.8	6.0 – 17.0	3.8	-	-

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

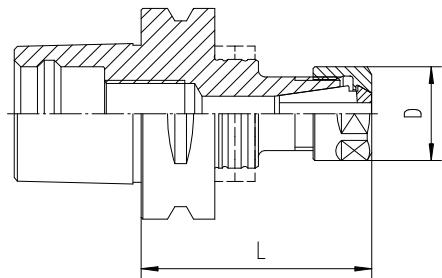


REGO-FIX CAPTO | ER

ISO 26623

ER Colletholders | Balancing Rings

Type	Part No.	D [mm]	L [mm]	Balancing Rings
C6 / ER 16 x 070 H	4806.11630	28	70	FWR 325
C6 / ER 16 x 100 H	4806.11650	28	100	FWR 325
C6 / ER 16 x 150 H	4806.11670	28	150	FWR 325
C6 / ER 20 x 060*	2806.12020	34	60	-
C6 / ER 25 x 060*	2806.12520	42	60	-
C6 / ER 25 x 100 H	4806.12550	42	100	FWR 405
C6 / ER 25 x 130 H	4806.12560	42	130	FWR 405
C6 / ER 32 x 060*	2806.13220	50	60	-
C6 / ER 32 x 070 H	4806.13230	50	70	FWR 405
C6 / ER 32 x 100 H	4806.13250	50	100	FWR 505
C6 / ER 40 x 065*	2806.14020	63	65	-



C8 / ER 25 x 070*	2808.12530	42	70	-
C8 / ER 32 x 070*	2808.13230	50	70	-
C8 / ER 40 x 070*	2808.14030	63	70	-
C8 / ER 50 x 080*	2808.15040	78	80	-

Supplied: Colletholder with Hi-Q® clamping nut.

*Not for use with balancing rings.

Hi-Q® Balancing Rings	Part No.	Page
Set FWR 225	7490.22500	12.9
Set FWR 285	7490.28500	12.9
Set FWR 325	7490.32500	12.9
Set FWR 405	7490.40500	12.9
Set FWR 505	7490.50500	12.9
Torque screwdriver (TSD)	7159.09000	12.9

Maximum rpm for Hi-Q® balancing rings see page 12.9.

Drawings with detailed dimensions see.

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Features | Benefits



Swiss Quality

Made in Switzerland to ISO 9001/ISO 14001.

1 Marking

Type and part number.

2 Traceability

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

3 Original REGO-FIX®

Original only with the REGO-FIX® quality seal △. Guarantee for best quality.

T.I.R. of the Whole System <3 µm

Highest clamping force and best runout in one.

Surface Finish max. Ra 0.25

Higher clamping force and higher transferable torque.

Q+® Balancing

100% balanced to G 2.5 @ 25'000 min⁻¹. Ideal for High Speed Cutting (HSC) and High Performance Cutting (HPC).

Hi-Q® Balancing System

Ready to accept Hi-Q® balancing rings which allow to offset the imbalance introduced by the cutting tool up to 80'000 min⁻¹.

Minimal Outside Dimensions

Slim design provides more processing flexibility.

Fast

Tool clamping with hydraulic press in less than 10 seconds.

Excellent at Small Diameters

Clamping of small diameter tools from Ø 0.2 mm.

Presetable Tooling System

Repeatability <10 µm

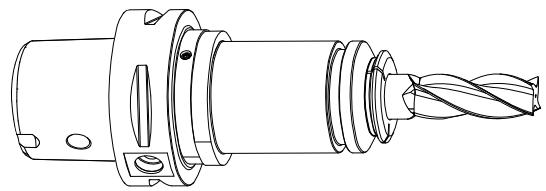
ID Chip Hole

Per DIN 69873 with 10 mm diameter.



Certified by Sandvik

Information
ISO 26623



REGO-FIX CAPTO/PG Toolholder

Applications

These colletholders are designed for use on newest CNC-machining centers for High Performance Cutting (HPC) and High Speed Cutting (HSC). Thanks to their precision and positive locking in the machine spindle CAPTO/PG colletholders are suitable for highest requirements. The vibration dampening of CAPTO/PG colletholders reduce spindle wear and extend tool life.

Balancing

REGO-FIX® Q+® System CAPTO/PG colletholders are balanced to G 2.5 @ 25'000 min⁻¹. Type H colletholders are ready to accept Hi-Q® balancing rings which allow precision balancing of the system including cutting tool up to 80'000 min⁻¹ depending on the balancing rings used.

Coolant Through

For use with coolant through tools.

Peripheral Cooling

PG-CF collets for peripheral cooling with non-coolant through tools.

Matched Tooling System for Best Fit

For highest precision and best results the whole system counts. Therefore REGO-FIX® components are carefully matched to fit together. This guarantees best run-out and balancing.



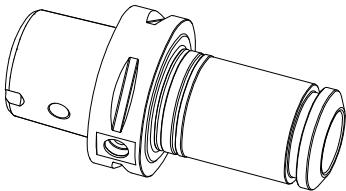
Matching Products

powRgrip® Collets

0.200 – 1.5875 mm powRgrip® microbore collets (PG 10-MB) see page 2.36.

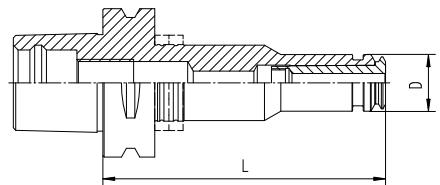
Ø [mm]	Ø [Inch]	Ø [Inch]	PG 10 Part No.	PG 10-CF Part No.	PG 15 Part No.	PG 15-CF Part No.	PG 25 Part No.	PG 25-CF Part No.	PG 32 Part No.	PG 32-CF Part No.
2.000	0.0787	-	1710.02000	-	-	-	-	-	-	-
2.500	0.0984	-	1710.02500	-	-	-	-	-	-	-
3.000	0.1181	-	1710.03000	1710.03002	1715.03000	1715.03002	1725.03000	1725.03002	-	-
3.175	0.1250	1/8"	1710.03181	1710.03183	1715.03181	1715.03183	1725.03181	1725.03183	-	-
3.500	0.1378	-	1710.03500	-	1715.03500	-	1725.03500	-	-	-
4.000	0.1575	-	1710.04000	1710.04002	1715.04000	1715.04002	1725.04000	1725.04002	-	-
4.500	0.1969	-	1710.04500	-	1715.04500	-	1725.04500	-	-	-
4.763	0.1875	3/16"	1710.04761	1710.04763	1715.04761	1715.04763	1725.04761	1725.04763	-	-
5.000	0.1969	-	1710.05000	1710.05002	1715.05000	1715.05002	1725.05000	1725.05002	-	-
5.500	0.2165	-	1710.05500	-	1715.05500	-	1725.05500	-	-	-
6.000	0.2362	-	1710.06000	1710.06002	1715.06000	1715.06002	1725.06000	1725.06002	1732.06000	1732.06002
6.350	0.2500	1/4"	1710.06351	1710.06353	1715.06351	1715.06353	1725.06351	1725.06353	1732.06351	1732.06353
7.000	0.2756	-	-	-	1715.07000	1715.07002	1725.07000	1725.07002	1732.07000	1732.07002
7.938	0.3125	5/16"	-	-	1715.07941	1715.07943	1725.07941	1725.07943	1732.07941	1732.07943
8.000	0.3150	-	-	-	1715.08000	1715.08002	1725.08000	1725.08002	1732.08000	1732.08002
9.000	0.3543	-	-	-	1715.09000	1715.09002	1725.09000	1725.09002	1732.09000	1732.09002
9.525	0.3750	3/8"	-	-	1715.09521	1715.09523	1725.09521	1725.09523	1732.09521	1732.09523
10.000	0.3937	-	-	-	1715.10000	1715.10002	1725.10000	1725.10002	1732.10000	1732.10002
11.000	0.4331	-	-	-	-	-	1725.11000	1725.11002	1732.11000	1732.11002
11.113	0.4375	7/16"	-	-	-	-	1725.11111	1725.11113	1732.11111	1732.11113
12.000	0.4724	-	-	-	-	-	1725.12000	1725.12002	1732.12000	1732.12002
12.700	0.5000	1/2"	-	-	-	-	1725.12701	1725.12703	1732.12701	1732.12703
13.000	0.5112	-	-	-	-	-	1725.13000	1725.13002	-	-
14.000	0.5512	-	-	-	-	-	1725.14000	1725.14002	1732.14000	1732.14002
14.288	0.5625	9/16"	-	-	-	-	1725.14291	1725.14293	1732.14291	1732.14293
15.000	0.5906	-	-	-	-	-	1725.15000	1725.15002	-	-
15.875	0.6250	5/8"	-	-	-	-	1725.15881	1725.15883	1732.15881	1732.15883
16.000	0.6300	-	-	-	-	-	1725.16000	1725.16002	1732.16000	1732.16002
18.000	0.7087	-	-	-	-	-	1725.18000	1725.18002	1732.18000	1732.18002
19.050	0.7500	3/4"	-	-	-	-	1725.19051	1725.19053	1732.19051	1732.19053
20.000	0.7874	-	-	-	-	-	1725.20000	1725.20002	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

powRgrip® clamping units and further powRgrip® accessories see page 12.7/12.8.



powRgrip® Colletholders | Balancing Rings

Type	Part No.	D [mm]	L [mm]	Balancing Rings
C3 / PG 10 x 055*	2803.71010	16	55	-
C3 / PG 15 x 067*	2803.71520	24	67	-



C4 / PG 10 x 060*	2804.71020	16	60	-
C4 / PG 10 x 080 H	4804.71040	16	80	FWR 225
C4 / PG 15 x 062*	2804.71520	24	62	-
C4 / PG 15 x 080 H	4804.71540	24	80	FWR 285

C5 / PG 10 x 060*	2805.71020	16	60	-
C5 / PG 10 x 080 H	4805.71040	16	80	FWR 285
C5 / PG 10 x 120 H	4805.71060	16	120	FWR 285
C5 / PG 15 x 065*	2805.71520	24	65	-
C5 / PG 15 x 080 H	4805.71540	24	80	FWR 285
C5 / PG 15 x 120 H	4805.71560	24	120	FWR 325
C5 / PG 25 x 080*	2805.72540	40	80	-
C5 / PG 25 x 100 H	4805.72550	40	100	FWR 405

C6 / PG 10 x 080 H	4806.71040	16	80	FWR 325
C6 / PG 10 x 120 H	4806.71060	16	120	FWR 325
C6 / PG 10 x 160 H	4806.71080	16	160	FWR 325
C6 / PG 15 x 080 H	4806.71540	24	80	FWR 325
C6 / PG 15 x 120 H	4806.71560	24	120	FWR 325
C6 / PG 15 x 160 H	4806.71580	24	160	FWR 325
C6 / PG 25 x 085*	2806.72540	40	85	-
C6 / PG 25 x 100 H	4806.72550	40	100	FWR 405
C6 / PG 25 x 120 H	4806.72560	40	120	FWR 405
C6 / PG 25 x 160 H	4806.72580	40	160	FWR 405
C6 / PG 32 x 090*	2806.73240	50	90	-

C8 / PG 25 x 092*	2808.72540	40	92	-
C8 / PG 32 x 090*	2808.73240	50	90	-

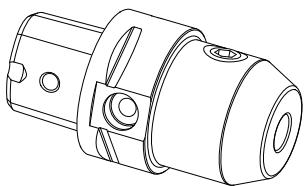
Hi-Q® Balancing Rings	Part No.	Page
Set FWR 225	7490.22500	12.9
Set FWR 285	7490.28500	12.9
Set FWR 325	7490.32500	12.9
Set FWR 405	7490.40500	12.9
Set FWR 505	7490.50500	12.9
Torque screwdriver (TSD)	7159.09000	12.9

Maximum rpm for Hi-Q® balancing rings see page 12.9.

Drawings with detailed dimensions see.

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*Not for use with balancing rings.



REGO-FIX CAPTO | WD

ISO 26623

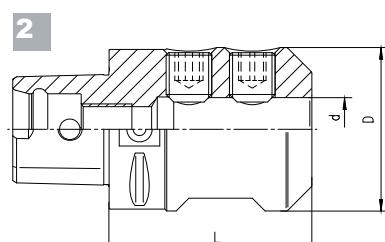
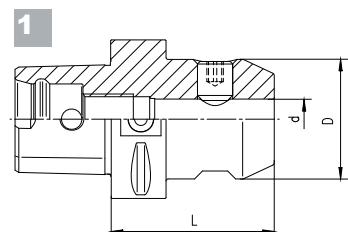
End Mill Holders (WELDON)

8

Type	Form Part No.	d [mm]	D1 [mm]	L [mm]	Drawing
C3 / WD 06 x 045	2803.30610	6	25	45	1
C3 / WD 08 x 045	2803.30810	8	28	45	1
C3 / WD 10 x 050	2803.31020	10	35	50	1
C3 / WD 12 x 055	2803.31220	12	42	55	1
C4 / WD 06 x 050	2804.30620	6	25	50	1
C4 / WD 08 x 050	2804.30820	8	28	50	1
C4 / WD 10 x 050	2804.31020	10	35	50	1
C4 / WD 12 x 055	2804.31220	12	42	55	1
C4 / WD 14 x 055	2804.31420	14	44	55	1
C4 / WD 16 x 055	2804.31620	16	48	55	1
C5 / WD 06 x 050	2805.30620	6	25	50	1
C5 / WD 08 x 050	2805.30820	8	28	50	1
C5 / WD 10 x 055	2805.31020	10	35	55	1
C5 / WD 12 x 060	2805.31230	12	42	60	1
C5 / WD 14 x 060	2805.31430	14	44	60	1
C5 / WD 16 x 060	2805.31630	16	48	60	1
C5 / WD 18 x 060	2805.31830	18	50	60	1
C5 / WD 20 x 060	2805.32030	20	52	60	1
C5 / WD 25 x 080	2805.32550	25	65	80	2
C6 / WD 06 x 055	2806.30620	6	25	55	1
C6 / WD 08 x 055	2806.30820	8	28	55	1
C6 / WD 10 x 060	2806.31030	10	35	60	1
C6 / WD 12 x 060	2806.31230	12	42	60	1
C6 / WD 14 x 060	2806.31430	14	44	60	1
C6 / WD 16 x 065	2806.31630	16	48	65	1
C6 / WD 18 x 065	2806.31830	18	50	65	1
C6 / WD 20 x 065	2806.32030	20	52	65	1
C6 / WD 25 x 080	2806.32550	25	65	80	2
C6 / WD 32 x 090	2806.33250	32	72	90	2
C6 / WD 40 x 100	2806.34060	40	90	100	2

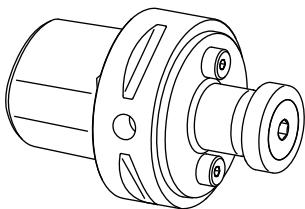
Type	Form Part No.	d [mm]	D1 [mm]	L [mm]	Drawing
C8 / WD 06 x 070	2808.30640	6	25	70	1
C8 / WD 08 x 070	2808.30840	8	28	70	1
C8 / WD 10 x 070	2808.31040	10	35	70	1
C8 / WD 12 x 070	2808.31240	12	42	70	1
C8 / WD 14 x 070	2808.31440	14	44	70	1
C8 / WD 16 x 070	2808.31640	16	48	70	1
C8 / WD 18 x 070	2808.31840	18	50	70	1
C8 / WD 20 x 070	2808.32040	20	52	70	1
C8 / WD 25 x 080	2808.32550	25	65	80	2
C8 / WD 32 x 080	2808.33250	32	72	80	2
C8 / WD 40 x 110	2808.34060	40	90	110	2

Supplied with: End mill holder and lock screw.



Drawings with detailed dimensions see.

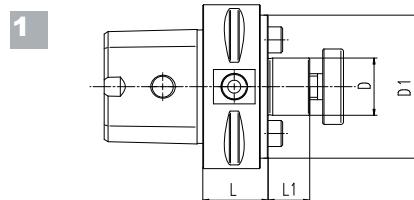
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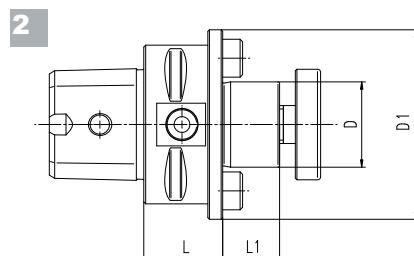
REGO-FIX CAPTO MA
ISO 26623

Shell Mill Arbors

Type	Part No.	D [mm]	D1 [mm]	L [mm]	L1 [mm]	Drawing
C3 / MA 16 x 030	2803.01610	16	36	30	11	2



C4 / MA 16 x 032	2804.01610	16	36	32	11	1
C4 / MA 16 x 055	2804.01620	16	36	55	11	1
C4 / MA 22 x 025	2804.02210	22	48	25	16	2
C4 / MA 22 x 055	2804.02220	22	48	55	16	2



C5 / MA 16 x 035	2805.01610	16	36	35	11	1
C5 / MA 16 x 070	2805.01640	16	36	70	11	1
C5 / MA 22 x 025	2805.02210	22	50	25	16	1
C5 / MA 22 x 070	2805.02240	22	48	70	16	1
C5 / MA 27 x 025	2805.02710	27	56	25	18	2
C5 / MA 32 x 040	2805.03210	32	65	40	20	2

C6 / MA 16 x 040	2806.01610	16	36	40	11	1
C6 / MA 22 x 025	2806.02210	22	55	25	16	1
C6 / MA 27 x 025	2806.02710	27	63	25	18	1
C6 / MA 32 x 025	2806.03210	32	65	25	20	2
C6 / MA 40 x 040	2806.04010	40	80	40	23	2

C8 / MA 16 x 050	2808.01620	16	36	50	11	1
C8 / MA 22 x 030	2808.02210	22	55	30	16	1
C8 / MA 27 x 030	2808.02710	27	65	30	18	1
C8 / MA 32 x 030	2808.03210	32	80	30	20	1
C8 / MA 40 x 030	2808.04010	40	80	30	23	1

Supplied with: Milling arbor with fixation screw.

Drawings with detailed dimensions see:

search.rego-fix.ch





Cylindrical Shank Toolholders

9

ER SYSTEM

- 9.1 Features | Benefits
- 9.2 Information
- 9.4 CYL | ER
- 9.6 CYL | ER M for Mini-Nuts
- 9.8 CYL | ER MF
with Clamping Flat for Mini-Nuts
- 9.10 CYD | ER MF Double-End
with Clamping Flat for Mini-Nuts
- 9.12 CYL | ER NC with Clamping Flat
- 9.14 CYL SSY | ERC
Softsynchro® Tapping Holders
- 9.16 CYL GSF | ERC
Tapping Holders with Length Compensation

powRgrip SYSTEM

- 9.17 Features | Benefits
- 9.18 Information
- 9.20 CYL | PG
- 9.22 CYL SSY | PG
Softsynchro® Tapping Holders
- 9.24 CYL GSF | PG
Tapping Holders with Length Compensation



Swiss
Precision
Tools

ER
Toolholders

Features | Benefits

Swiss Quality

Made in Switzerland to ISO 9001/ISO 14001.

1 Marking

Type and part number.

2 Traceability

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

3 Original REGO-FIX®

Our extensive experience results in a well-engineered system. Original only with the REGO-FIX® quality seal △. Guarantee for best quality.

Sizes

ER 8 – ER 40

Types

With flat or double ended colletholders.

T.I.R. <3 µm

Inner diameter to outer diameter.

Surface Finish max. Ra 0.25

Higher clamping force and higher transferable torque.

9

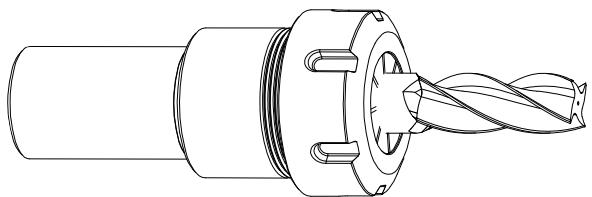


Information

CYL/ER Toolholders

Applications

Cylindrical REGO-FIX® colletholders are designed for automatic turning machines and can be utilized as extensions. They are available in different types.



CYL/ER

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

Detailed information see page 9.4.

CYL/ER M

This type is suited for Swiss screw machines, machining centers and conventional machines. The shank diameter is in accordance with type F collets but is adjustable in length.

With the CYL/ER M different length cutting tools can be adjusted to the same length. These toolholders accept collets of ER, ER-UP, ER-GB and ET1 type.

Detailed information see page 9.6.

CYL/ER MF

The program of cylindrical colletholders with clamping flat is particularly designed for CNC-machines such as Citizen, Manurhin, Star and Tornos, etc.

Detailed information see page 9.8.

CYD/ER MF

The program of double colletholders with clamping flat has been designed for CNC-machines such as Citizen, Manurhin, Star and Tornos and offers the possibility to hold two cutting tools on the same colletholder.

Detailed information see page 9.10.

CYL/ER NC

These colletholders are particularly suitable on CNC-turning machines, but can be used on conventional turning machines as well.

Detailed information see page 9.12.

CYL SSY/ERC

Softsynchro® tapping holders are designed to compensate pitch differences between synchronous spindles and tapping tools.

Detailed information see page 9.14.

9

CYL GSF/ERC

Tapping holders with length compensation in compression and tension directions are used on machines without synchronization of spindle feed and the pitch of the thread.

Detailed information see page 9.16.



We recommend tightening the clamping nuts with a torque wrench. The maximum torque shall not be more than 25% above the recommended tightening torque.

Recommended tightening torque see page 13.3/13.4.



Matching Products

Clamping Nuts | Collets | Spanners

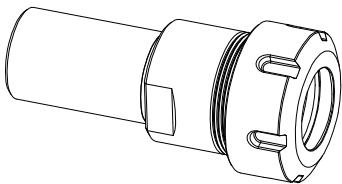
Clamping Nut and Spanner	ER 11	ER 16	ER 20	ER 25	ER 32	ER 40	Page	Standard	With Friction Bearing	Balanced	For Coolant Through Tools	Collet Locking System	Mini-Nut	Nut with External Thread	Spanner
Hi-Q/ER	3411.00000	3416.00000	3420.00000	3425.00000	3432.00000	3440.00000	3450.00000	4.4	■		■		■		
Hi-Q/ERC	3411.20300 - 3411.20700	3416.20000	3420.20000	3425.20000	3432.20000	3440.20000	-	4.6 4.8		■	■	■			
Hi-Q/ERB	-	3416.30000	3420.30000	3425.30000	3432.30000	3440.30000	3450.30000	4.10	■	■		■			
Hi-Q/ERBC	-	3416.40000	3420.40000	3425.40000	3432.40000	3440.40000	-	4.10	■	■	■	■			
EP	7112.11010	7112.16010	7112.20010	-	-	-	-	12.1							■
E	-	-	-	-	7111.25000	7111.32000	7111.40000	7111.50000	12.1						■

Recommended tightening torque on page 13.3/13.4.

9

Collet	ER 11/ET1-12		ER 16/ET1-16		ER 20/ET1-20		ER 25/ET1-25		ER 32/ET1-32		ER 40/ET1-40	
	Clamping Range [mm]	Page										
ER	0.5 – 7.0	2.8	0.5 – 10.0	2.10	0.5 – 13.0	2.12	0.5 – 16.0	2.14	1.0 – 20.0	2.16	2.0 – 30.0	2.18
ER-UP	0.5 – 7.0	2.8	0.5 – 10.0	2.10	0.5 – 13.0	2.12	0.5 – 16.0	2.14	1.0 – 20.0	2.16	2.0 – 30.0	2.18
ER-DM	2.75 – 7.00	2.22	3.0 – 10.0	2.24	3.0 – 10.0	2.26	6.0 – 16.0	2.28	6.0 – 20.0	2.30	6.0 – 26.0	2.32
ER-MB	0.2 – 0.9	2.8	0.2 – 0.9	2.10	–	–	–	–	–	–	–	–
ER-GB	2.8 – 6.0	3.4	4.0 – 9.0	3.4	4.0 – 11.2	3.4	4.0 – 16.0	3.4	4.0 – 20.0	3.4	6.0 – 22.0	3.4
ET 1*	1.4 – 3.55	3.8	1.4 – 6.3	3.8	2.2 – 7.0	3.8	2.5 – 10.0	3.8	4.5 – 12.5	3.8	6.0 – 17.0	3.8

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

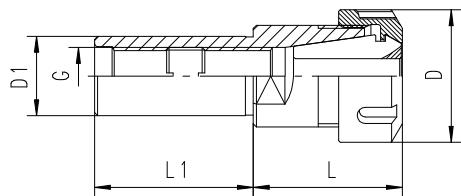


CYL | ER

Colletholders

Type	Part No.	D [mm]	D1 h6 [mm]	L [mm]	L1 [mm]	G [mm]
CYL 1/2" x 070 / ER 11	2613.11141	19	12.7	28.5	70	M6
CYL 1/2" x 100 / ER 16	2613.11661	28	12.7	36.0	100	M6
CYL 1/2" x 100 / ER 20	2613.12061	34	12.7	44.5	100	M6
CYL 14 x 060 / ER 16	2614.11630	28	14	36.5	60	M6
CYL 16 x 060 / ER 16	2616.11630	28	16	36.5	60	M 8x1
CYL 5/8" x 060 / ER 16	2616.11631	28	15.875	36.5	60	M 8x1
CYL 5/8" x 100 / ER 20	2616.12061	34	15.875	44.5	100	M 8x1
CYL 3/4" x 050 / ER 16	2619.11621	28	19.05	30.5	50	M 12x1
CYL 3/4" x 100 / ER 16	2619.11661	28	19.05	30.5	100	M 12x1
CYL 3/4" x 060 / ER 20	2619.12031	34	19.05	36.5	60	M 12x1
CYL 3/4" x 050 / ER 25	2619.12521	42	19.05	47.0	50	M 12x1
CYL 20 x 050 / ER 16	2620.11620	28	20	30.5	50	M 12x1
CYL 20 x 100 / ER 16	2620.11660	28	20	30.5	100	M 12x1
CYL 20 x 030 / ER 20	2620.12010	34	20	36.5	30	M 12x1
CYL 20 x 060 / ER 20	2620.12030	34	20	36.5	60	M 12x1
CYL 20 x 050 / ER 25	2620.12520	42	20	47.0	50	M 12x1
CYL 20 x 100 / ER 25	2620.12560	42	20	47.0	100	M 12x1
CYL 20 x 050 / ER 32	2620.13220	50	20	54.0	50	M 12x1
CYL 20 x 100 / ER 32	2620.13260	50	20	54.0	100	M 12x1
CYL 1" x 100 / ER 20	2625.12061	34	25.40	39.5	100	M 12x1
CYL 1" x 050 / ER 25	2625.12521	42	25.40	47.0	50	M 18x1.5
CYL 1" x 100 / ER 25	2625.12561	42	25.40	47.0	100	M 18x1.5
CYL 1" x 050 / ER 32	2625.13221	50	25.40	53.0	50	M 18x1.5
CYL 1" x 050 / ER 40	2625.14021	63	25.40	60.0	50	M 18x1.5
CYL 25 x 050 / ER 25	2625.12520	42	25	47.0	50	M 18x1.5
CYL 25 x 100 / ER 25	2625.12560	42	25	47.0	100	M 18x1.5
CYL 25 x 050 / ER 32	2625.13220	50	25	54.0	50	M 18x1.5
CYL 25 x 050 / ER 40	2625.14020	63	25	60.0	50	M 18x1.5
CYL 30 x 050 / ER 25	2630.12520	42	30	42.0	50	M 18x1.5
CYL 30 x 050 / ER 32	2630.13220	50	30	53.0	50	M 22x1.5
CYL 1 1/4" x 060 / ER 32	2632.13231	50	31.75	53.0	60	M 22x1.5

Supplied with: Colletholder, clamping nut and back-up screw.



9

Drawings with detailed dimensions see

search.rego-fix.ch



Matching Products

Clamping Nuts | Collets | Spanners

Clamping Nut and Spanner	ER 8	ER 11	ER 16	ER 20	ER 25	Page	Standard	With Friction Bearing	Balanced	For Coolant Through Tools	Collet Locking System*	Mini-Nut	Nut with External Thread	Spanner
Hi-Q/ERM	3508.00000	3511.00000	3516.00000	3520.00000	3525.00000	4.12		■		■ ■ ■				
Hi-Q/ERMC	-	3511.20300 3511.20700	-	3516.20000	3520.20000	3525.20000 4.12 4.14		■	■ ■ ■ ■					
EM	7113.08000	7113.11000	7113.16000	7113.20000	7113.25000	12.1					■			
ER MS	3208.50000	3211.50000	3216.50000	3220.50000	3225.50000	4.16	■			■				
E MS	7114.08000	7114.11000	7114.16000	7114.20000	7114.25000	12.2					■			

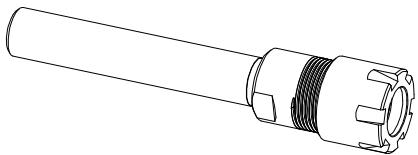
*Collet Locking System gilt nicht für Hi-Q®/ERM 8.

Recommended tightening torque on page 13.3/13.4.

9

Collet	ER 8		ER 11/ET1-12		ER 16/ET1-16		ER 20/ET1-20		ER 25/ET1-25	
	Clamping Range [mm]	Page	Spannbereich [mm]	Seite						
ER	0.5 – 0.5	2.6	0.5 – 0.5	2.6	0.5 – 7.0	2.8	0.5 – 10.0	2.10	0.5 – 13.0	2.12
ER-UP	0.5 – 0.5	2.6	0.5 – 0.5	2.6	0.5 – 7.0	2.8	0.5 – 10.0	2.10	0.5 – 13.0	2.12
ER-DM	-	-	-	-	2.75 – 7.00	2.22	3.0 – 10.0	2.24	3.0 – 10.0	2.26
ER-MB	0.2 – 0.9	2.6	0.2 – 0.9	2.6	0.2 – 0.9	2.8	0.2 – 0.9	2.10	-	-
ER-GB	-	-	-	-	2.8 – 6.0	3.4	4.0 – 9.0	3.4	4.0 – 11.2	3.4
ET 1**	-	-	-	-	1.4 – 3.55	3.8	1.4 – 6.3	3.8	2.2 – 7.0	3.8

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



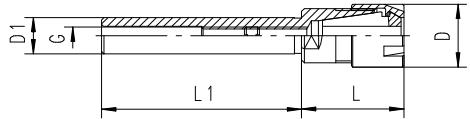
CYL | ER M

Colletholders

Type	Part No.	D [mm]	D1 h6 [mm]	L [mm]	L1 [mm]	G [mm]	For Manurhin For Tornos
CYL 06 x 045 / ER 11 M	2606.21120	16	6	26.5	45	-	
CYL 07 x 045 / ER 11 M	2607.21120	16	7	26.5	45	-	
CYL 08 x 080 / ER 8 M	2608.20850	12	8	26.0	80	-	
CYL 08 x 056 / ER 11 M	2608.21130	16	8	26.5	56	-	■
CYL 3/8" x 070 / ER 8 M	2609.20841	12	9.52	23.0	70	M 5	
CYL 10 x 060 / ER 16 M	2610.21630	22	10	38.5	60	-	
CYL 12 x 080 / ER 8 M	2612.20850	12	12	17.0	80	-	
CYL 12 x 080 / ER 16 M	2612.21650	22	12	38.5	80	-	
CYL 1/2" x 140 / ER 11 M	2613.21191	16	12.7	29.5	140	M 6	
CYL 1/2" x 140 / ER 16 M	2613.21691	22	12.7	37.0	140	M 6	
CYL 15 x 100 / ER 20 M	2615.22060	28	15	42.5	100	-	
CYL 16 x 150 / ER 11 M	2616.21190	16	16	21.0	150	M 8x1	
CYL 16 x 100 / ER 20 M	2616.22060	28	16	42.5	100	-	
CYL 5/8" x 150 / ER 11 M	2616.21191	16	15.87	22.5	150	M 8x1	
CYL 3/4" x 155 / ER 16 M	2619.21691	22	19.05	26.5	155	M 12x1	
CYL 3/4" x 100 / ER 25 M	2619.22561	35	19.05	47.0	100	M 12x1	
CYL 20 x 155 / ER 16 M	2620.21690	22	20	26.5	155	M 12x1	■
CYL 25 x 155 / ER 20 M	2625.22090	28	25	26.5	155	M 14x1	■
CYL 1" x 155 / ER 20 M	2625.22091	28	25.5	26.5	155	M 14x1	■

Supplied: Colletholder, clamping nut.

For back-up screw details see search.rego-fix.ch.



Drawings with detailed dimensions see

search.rego-fix.ch



Matching Products

Clamping Nuts | Collets | Spanners

Clamping Nut and Spanner	ER 8	ER 11	ER 16	ER 20	ER 25	Page	Standard	With Friction Bearing	Balanced	For Coolant Through Tools	Collet Locking System	Mini-Nut	Nut with External Thread	Spanner
Hi-Q/ERM	3508.00000	3511.00000	3516.00000	3520.00000	3525.00000	4.12		■		■	■			
Hi-Q/ERMC	-	3511.20300 3511.20700	-	3516.20000	3520.20000	3525.20000 4.12 4.14		■	■	■	■			
EM	7113.08000	7113.11000	7113.16000	7113.20000	7113.25000	12.1					■			
ER MS	3208.50000	3211.50000	3216.50000	3220.50000	3225.50000	4.16		■		■				
E MS	7114.08000	7114.11000	7114.16000	7114.20000	7114.25000	12.2					■			

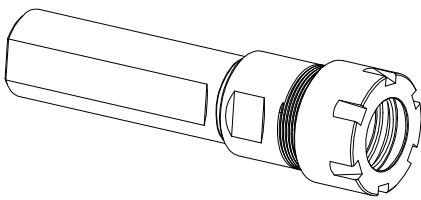
*Collet Locking System not for Hi-Q®/ERM 8.

Recommended tightening torque on page 13.3/13.4.

9

Collets	ER 8/ET1-8 Clamping Range [mm]		ER 11/ET1-12 Clamping Range [mm]		ER 16/ET1-16 Clamping Range [mm]		ER 20/ET1-20 Clamping Range [mm]		ER 25/ET1-25 Clamping Range [mm]	
	Page	Page	Page	Page	Page	Page	Page	Page	Page	Page
ER	0.5 – 0.5	2.6	0.5 – 7.0	2.8	0.5 – 10.0	2.10	0.5 – 13.0	2.12	0.5 – 16.0	2.14
ER-UP	0.5 – 0.5	2.6	0.5 – 7.0	2.8	0.5 – 10.0	2.10	0.5 – 13.0	2.12	0.5 – 16.0	2.14
ER-DM	-	-	2.75 – 7.00	2.22	3.0 – 10.0	2.24	3.0 – 10.0	2.26	6.0 – 16.0	2.26
ER-MB	0.2 – 0.9	2.6	0.2 – 0.9	2.8	0.2 – 0.9	2.10	-	-	-	-
ER-GB	-	-	2.8 – 6.0	3.4	4.0 – 9.0	3.4	4.0 – 11.2	3.4	4.0 – 16.0	3.4
ET 1**	-	-	1.4 – 3.55	3.8	1.4 – 6.3	3.8	2.2 – 7.0	3.8	2.5 – 10.0	3.8

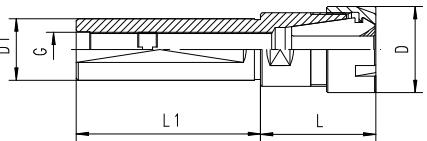
**Not for coolant through tools and not for applications with sealing disks.



CYL | ER MF

Colletholders

Type	Part No.	D [mm]	D1 h6 [mm]	L [mm]	L1 [mm]	G [mm]	For Citizen	For Manuhin	For Schütte	For Star	For Tornos
CYL 5/8" x 043 / ER 8 MF	2616.20811	12	15.875	15	43	M5	■				
CYL 16 x 038 / ER 11 MF	2616.21112	16	16	20	38	M 8x1			■		
CYL 16 x 140 / ER 11 MF	2616.21192	16	16	60	140	M 8x1					
CYL 16 x 035 / ER 16 MF	2616.21612	22	16	38	35	M 8x1			■		
CYL 3/4" x 115 / ER 11 MF	2619.21173	16	19.05	20	115	M 8x1	■				
CYL 3/4" x 038 / ER 16 MF	2619.21613	22	19.05	28	38	M 12x1	■				
CYL 3/4" x 050 / ER 16 MF	2619.21623	22	19.05	28	50	M 12x1	■				
CYL 3/4" x 070 / ER 16 MF	2619.21643	22	19.05	28	70	M 12x1	■				
CYL 3/4" x 120 / ER 16 MF	2619.21683	22	19.05	28	120	M 12x1	■				
CYL 3/4" x 140 / ER 16 MF	2619.21693	22	19.05	28	140	M 12x1	■				
CYL 20 x 050 / ER 16 MF	2620.21622	22	20	28	50	M 12x1	■ ■				
CYL 20 x 070 / ER 16 MF	2620.21642	22	20	28	70	M 12x1	■				
CYL 20 x 060 / ER 11 MF	2620.21132	16	20	20	60		■				
CYL 20 x 120 / ER 16 MF	2620.21682	22	20	28	120	M 12x1	■				
CYL 20 x 140 / ER 16 MF	2620.21692	22	20	8	140	M 12x1	■ ■				
CYL 22 x 038 / ER 16 MF	2622.21612	22	22	28	38	M 12x1			■		
CYL 22 x 070 / ER 16 MF	2622.21642	22	22	28	70	M 12x1			■		
CYL 22 x 100 / ER 16 MF	2622.21662	22	22	28	100	M 12x1			■		
CYL 22 x 080 / ER 20 MF	2622.22052	28	22	39	80	M 12x1			■		
CYL 22 x 070 / ER 25 MF	2622.22542	35	22	47	70	M 12x1			■		
CYL 25 x 065 / ER 16 MF	2625.21642	22	25	28	65	M 12x1					
CYL 25 x 100 / ER 20 MF	2625.22062	28	25	28	100	M 14x1			■		
CYL 25 x 154 / ER 20 MF	2625.22002	28	25	28	154	M 14x1			■		
CYL 25 x 075 / ER 25 MF	2625.22552	35	25	47	75	M 14x1	■				
CYL 25 x 145 / ER 25 MF	2625.22592	35	25	36	145	M 14x1	■		■		
CYL 1" x 033 / ER 16 MF	2625.21613	22	25.4	28	33	M 12x1					
CYL 1" x 065 / ER 16 MF	2625.21643	22	25.4	28	65	M 12x1	■				
CYL 1" x 075 / ER 16 MF	2625.21653	22	25.4	28	75	M 12x1	■				
CYL 1" x 100 / ER 16 MF	2625.21663	22	25.4	28	100	M 12x1	■				
CYL 1" x 100 / ER 20 MF	2625.22063	28	25.4	28	100	M 14x1	■ ■				
CYL 1" x 140 / ER 20 MF	2625.22093	28	25.4	28	140	M 14x1	■				
CYL 32 x 070 / ER 25 MF	2632.22542	35	32	30	70	M 18x1.5			■		



Drawings with detailed dimensions see

search.rego-fix.ch



Matching Products

Clamping Nuts | Collets | Spanners

Clamping Nut and Spanner	ER 8	ER 11	ER 16	ER 20	Page	Standard	With Friction Bearing	Balanced	For Coolant Through Tools	Collet Locking System*	Mini-Nut	Nut with External Thread	Spanner
Hi-Q/ERM	3508.00000	3511.00000	3516.00000	3520.00000	4.12		■		■	■	■		
Hi-Q/ERMC	-	3511.20300 3511.20700	- 3516.20000	3520.20000	4.12 4.14		■	■	■	■	■		
EM	7113.08000	7113.11000	7113.16000	7113.20000	12.1						■		
ER MS	3208.50000	3211.50000	3216.50000	3220.50000	4.16		■		■				
E MS	7114.08000	7114.11000	7114.16000	7114.20000	12.2						■		

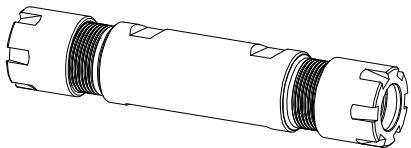
*Collet Locking System not for Hi-Q®/ERM 8.

Recommended tightening torque on page 13.3/13.4.

9

Collet	ER 8		ER 11/ET1-12		ER 16/ET1-16		ER 20/ET1-20	
	Clamping Range [mm]	Page						
ER	0.5 – 0.5	2.6	0.5 – 0.5	2.6	0.5 – 7.0	2.8	0.5 – 10.0	2.10
ER-UP	0.5 – 0.5	2.6	0.5 – 0.5	2.6	0.5 – 7.0	2.8	0.5 – 10.0	2.10
ER-DM	-	-	-	-	2.75 – 7.00	2.22	3.0 – 10.0	2.24
ER-MB	0.2 – 0.9	2.6	0.2 – 0.9	2.6	0.2 – 0.9	2.8	0.2 – 0.9	2.10
ER-GB	-	-	-	-	2.8 – 6.0	3.4	4.0 – 9.0	3.4
ET 1**	-	-	-	-	1.4 – 3.55	3.8	1.4 – 6.3	3.8

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

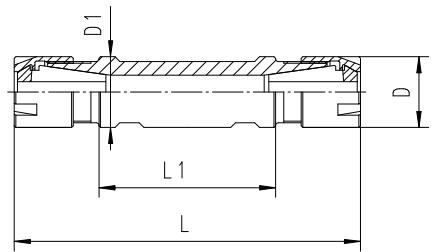


CYD | ER MF

Colletholders

Type	Part No.	D [mm]	D1 h6 [mm]	L [mm]	L1 [mm]	For Citizen	For Manurhin	For Star
CYD 5/8" x 015 / ER 8 MF	2616.20805	12	15.875	45	15	■		
CYD 5/8" x 025 / ER 8 MF	2616.20895	12	15.875	55	25	■		
CYD 16 x 040 / ER 11 MF	2616.21114	16	16	79	40		■	
CYD 16 x 050 / ER 11 MF	2616.21124	16	16	90	50		■	
CYD 3/4" x 040 / ER 11 MF	2619.21125	16	19.05	80	40	■		
CYD 3/4" x 070 / ER 11 MF	2619.21145	16	19.05	110	70	■		
CYD 3/4" x 090 / ER 11 MF	2619.21165	16	19.05	130	90	■		
CYD 3/4" x 055 / ER 16 MF	2619.21635	22	19.05	107	55	■		
CYD 20 x 030 / ER 11 MF	2620.21114	16	20	70	30	■		
CYD 20 x 050 / ER 11 MF	2620.21124	16	20	90	50	■		
CYD 20 x 055 / ER 16 MF	2620.21634	22	20	107	55	■		
CYD 22 x 055 / ER 16 MF	2622.21634	22	22	111	55		■	
CYD 22 x 075 / ER 16 MF	2622.21654	22	22	131	75		■	
CYD 25 x 062 / ER 16 MF	2625.21634	22	25	117	62		■	
CYD 1" x 030 / ER 16 MF	2625.21615	22	25.4	85	30	■		
CYD 1" x 062 / ER 16 MF	2625.21635	22	25.4	118	62	■		
CYD 32 x 055 / ER 20 MF	2632.22034	28	32	111	55		■	
CYD 32 x 075 / ER 20 MF	2632.22054	28	32	131	75		■	

Supplied: Colletholder and two clamping nuts.



Drawings with detailed dimensions see

search.rego-fix.ch



Matching Products

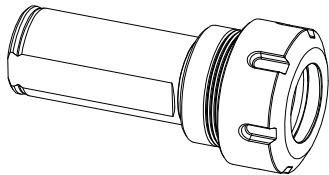
Clamping Nuts | Collets | Spanners

Clamping Nut and Spanner	ER 25	ER 32	ER 40	Page	Standard	With Friction Bearing	Balanced	For Coolant Through Tools	Collet Locking System	Mini-Nut	Nut with External Thread	Spanner
Hi-Q/ER	3425.00000	3432.00000	3440.00000	4.4	■		■		■			
Hi-Q/ERC	3425.20000	3432.20000	3440.20000	4.6			■	■	■	■		
Hi-Q/ERB	3425.30000	3432.30000	3440.30000	4.10	■	■		■				
Hi-Q/ERBC	3425.40000	3432.40000	3440.40000	4.10	■	■	■	■				
E	7111.25000	7111.32000	7111.40000	12.1							■	

Recommended tightening torque on page 13.3/13.4.

Collet	ER 25/ET1-25		ER 32/ET1-32		ER 40/ET1-40	
	Clamping Range [mm]	Page	Clamping Range [mm]	Page	Clamping Range [mm]	Page
ER	0.5 – 16.0	2.14	1.0 – 20.0	2.16	2.0 – 30.0	2.18
ER-UP	0.5 – 16.0	2.14	1.0 – 20.0	2.16	2.0 – 30.0	2.18
ER-DM	6.0 – 16.0	2.26	6.0 – 20.0	2.28	–	–
ER-MB	–	–	–	–	–	–
ER-GB	4.0 – 16.0	3.04	4.0 – 20.0	3.04	6.0 – 22.0	3.04
ET 1*	2.5 – 10.0	3.08	4.5 – 12.5	3.08	6.0 – 17.0	3.08

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

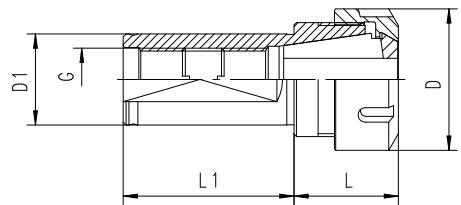


CYL | ER NC

Colletholders

Type	Part No.	D [mm]	D1 h6 [mm]	L [mm]	L1 [mm]	G [mm]
CYL 32 x 060 / ER 25 NC	2632.12532	42	32	32	60	M 18x1.5
CYL 32 x 060 / ER 32 NC	2632.13232	50	32	38	60	M 22x1.5
CYL 40 x 080 / ER 32 NC	2640.13252	50	40	33	80	M 22x1.5
CYL 40 x 075 / ER 40 NC	2640.14052	63	40	55	75	M 22x1.5

Supplied: Colletholder, clamping nut and back-up screw.



Drawings with detailed dimensions see

search.rego-fix.ch



Features | Benefits



Quality

Made to ISO 9001/ISO 14001 standards.

1 ▶ Marking

Type and part number.

2 ▶ Traceability

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

3 ▶ Quality Seal

The REGO-FIX® seal \triangle marked on the products guarantees for best quality.

T.I.R.

Best concentricity values – equal to rigid toolholders.

Absorbing Link

Acts as absorbing link between the synchronous spindle and the tap/cold forming tap and compensates pitch differences between threading tool and synchronous spindle.

Minimal Length Adjustment

In push and pull direction.

Tool Shanks

For all tapping tools with h9 shanks.

Secure Clamping

Secure clamping of the tap/cold forming tap by ER-GB tapping collets with internal square.

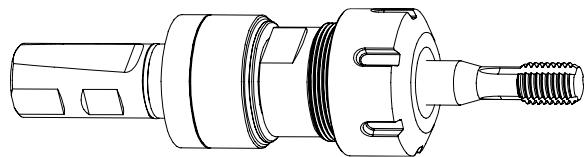
For Coolant Through Tools

Up to 50 bar coolant pressure.

Process Reliability

Increases process reliability of synchronous tap manufacturing.

CYL SSY/ERC Softsynchro® Tapping Holder



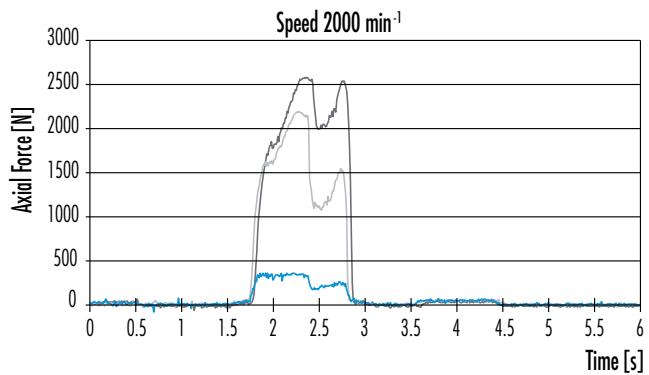
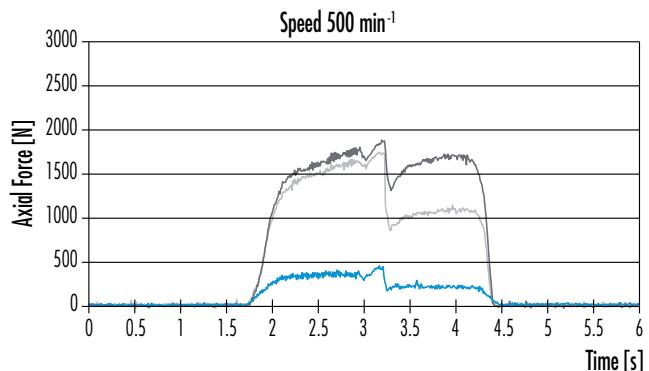
Applications

REGO-FIX® Softsynchro® tapping holders are used on machines that are designed for direct tapping. Many of the newer CNC machines feature synchronization between spindle feed and tap pitch. This allows to use rigid tapping holders. However due to the dynamics of spindle and linear motors synchronization errors occur. To compensate for these synchronization errors Softsynchro® tapping holders with minimal length adjustment are necessary. Depending on the application Softsynchro® tapping holders increase tool life up to 150%.

Comparison Tests

The two diagrams show the axial forces when cold-forming M10 threads in St37 steel.

Conclusion: Axial forces increase with increasing rpm. With REGO-FIX® Softsynchro® tapping holders the forces are considerably lower than when using rigid tapping toolholders. Therefore the surface quality and tool life is optimized when using Softsynchro® tapping holders on a synchronized machine spindle.



9

CYL SSY/ERC Softsynchro® Tapping Holders

Type	Part No.	D [mm]	D1 [mm]	L [mm]	L1 [mm]	Com- pression [mm]	Tension [mm]	SW [mm]
CYL 25 SSY / ERC 20	2625.62000	34	25	73	57	0.5	0.5	19
CYL 25 SSY / ERC 32	2625.63200	50	25	87.5	57	0.5	0.5	32

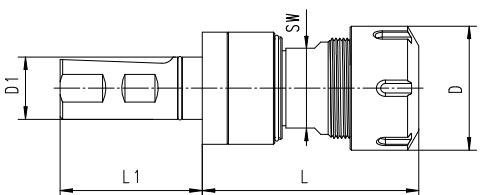
Supplied: Tapping holder with Hi-Q®/ERC clamping nut.

Matching tapping collets see page 3.4.

For adapting the tapping holders to different steep tapers, please use the appropriate WELDON toolholders.

TC/WD colletholders (DIN 69871) see page 5.11.

BT/WD colletholders (MAS 403) see page 6.19.



Please order the sealing disks separately.
See page 4.22/4.24.



Features | Benefits



Quality

Made to ISO 9001/ISO 14001 standards.

1 ▶ Marking

Type and part number.

2 ▶ Traceability

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

3 ▶ Quality Seal

The REGO-FIX® seal Δ marked on the products guarantees for best quality.

T.I.R.

Best concentricity values – equal to rigid toolholders.

Length Compensation

In compression and tension directions.

Pressure-point Mechanism

Guarantees proper start of thread cutting/forming.

Secure Clamping

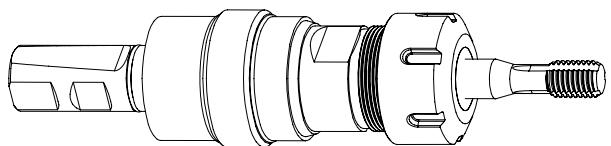
Secure clamping of the tap/cold forming tap by ER-GB collets with internal square.

For Coolant Through Tools

Up to 50 bar coolant pressure.

Process Reliability

Increases process reliability of non-synchronous thread manufacturing.

CYL GSF | ERC
DIN 1835 B+E**CYL GSF/ERC**
Tapping Holder
with Length Compensation**Applications**

REGO-FIX® tapping holders with length compensation are used on machines without synchronization of spindle feed and the pitch of the thread. These machines require tapping holders with compression and tension compensation to compensate for the difference in spindle feed and thread pitch.

REGO-FIX® tapping holders with length compensation feature a pressure-point mechanism. This guarantees the proper start of the thread cutting or forming and also allows to produce reproducible thread depth. A special design allows to feed coolant up to 50 bar to the tap without affecting the function of the length compensation. The compact design and the short extension allow a very flexible use of REGO-FIX® tapping holders.

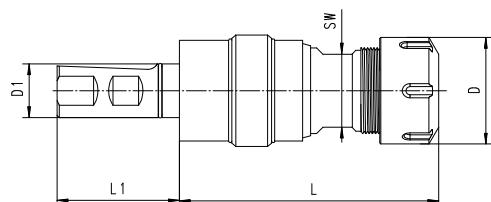
9

**CYL/ERC Tapping Holders
with Length Compensation**

Type	Part No.	D [mm]	D1 [mm]	L [mm]	L1 [mm]	Com- pression [mm]	Tension [mm]	SW [mm]
CYL 25 GSF / ERMC 20	2625.62001	28	25	85	57	5.0	7.5	24
CYL 25 GSF / ERC 32	2625.63201	50	25	115	57	7.0	10.0	34

Supplied: Tapping holder with Hi-Q®/ERC clamping nut.

Matching tapping collets see page 3.4.



For adapting the tapping holders to different steep tapers, please use the appropriate WELDON toolholders.

TC/WD colletholders (DIN 69871) see page 5.11.

BT/WD colletholders (MAS 403) see page 6.19.



Features | Benefits

Swiss Quality

Made in Switzerland to ISO 9001/ISO 14001.

1 Marking

Type and part number.

2 Traceability

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

3 Original REGO-FIX®

Original only with the REGO-FIX® quality seal \triangle . Guarantee for best quality.

T.I.R of the whole System $<3 \mu\text{m}$

Highest clamping force and best runout in one.

Surface Finish max. Ra 0.25

Higher clamping force and higher transferable torque.

Minimal Outside Dimensions

Slim design provides more processing flexibility.

Fast

Tool clamping with hydraulic press in less than 10 seconds.

Excellent at Small Diameters

Clamping of small diameter tools from Ø 0.2 mm.

Presetable Tooling System

Repeatability $<10 \mu\text{m}$

9

-
- 2 Swiss Made
 - 1 powRgrip® Part Number CYL20x120/P610
 - 3 REGO-FIX® Quality Seal

Information

CYL/PG Toolholders

Applications

Cylindrical PG colletholders are designed for light load extensions of the powRgrip® colletholders.



CYL SSY/PG Softsynchro® Tapping Holders

Softsynchro® tapping holders are designed to compensate pitch differences between synchronous spindles and thread pitch.

For more details see page 9.22.

CYL GSF/PG Tapping Holders

Tapping holders with length compensation in compression and tension directions are used on machines without synchronization of spindle feed and thread pitch.

For more details see page 9.24.

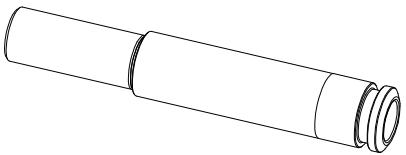


Matching Products

powRgrip® Collets

\varnothing [mm]	\varnothing [Inch]	\varnothing [Inch]	PG 10 Part No.	PG 10-CF Part No.	PG 15 Part No.	PG 15-CF Part No.
0.200 – 1.5875 mm powRgrip® microbore collets (PG 10-MB) see page 2.36.						
2.000	0.0787	–	1710.02000	–	–	–
2.500	0.0984	–	1710.02500	–	–	–
3.000	0.1181	–	1710.03000	1710.03002	1715.03000	1715.03002
3.175	0.1250	1/8"	1710.03181	1710.03183	1715.03181	1715.03183
3.500	0.1378	–	1710.03500	–	1715.03500	–
4.000	0.1575	–	1710.04000	1710.04002	1715.04000	1715.04002
4.500	0.1969	–	1710.04500	–	1715.04500	–
4.763	0.1875	3/16"	1710.04761	1710.04763	1715.04761	1715.04763
5.000	0.1969	–	1710.05000	1710.05002	1715.05000	1715.05002
5.500	0.2165	–	1710.05500	–	1715.05500	–
6.000	0.2362	–	1710.06000	1710.06002	1715.06000	1715.06002
6.350	0.2500	1/4"	1710.06351	1710.06353	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

powRgrip® clamping units and further powRgrip® accessories see page 12.7/12.8.

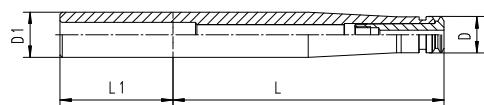


powRgrip® Colletholders

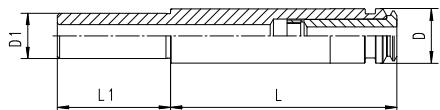
Type	Part No.	D [mm]	D1 h6 [mm]	L [mm]	L1 [mm]	Drawing
CYL 10 / PG 10 x 120	2610.71020	16	10	120	40	2

CYL 20 / PG 10 x 120	2620.71020	16	20	120	50	1
CYL 20 / PG 10 x 160	2620.71040	16	20	160	50	1
CYL 20 / PG 10 x 200	2620.71060	16	20	200	50	1
CYL 20 / PG 15 x 120	2620.71520	24	20	120	50	2

1



2



Drawings with detailed dimensions see

search.rego-fix.ch



Features | Benefits



Quality

Made to ISO 9001/ISO 14001 standards.

1 Marking

Type and part number.

2 Traceability

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

3 Quality Seal

The REGO-FIX® seal \triangle marked on the products guarantees for best quality.

T.I.R.

Best concentricity values – equal to rigid toolholders.

Absorbing Link

Acts as absorbing link between the synchronous spindle and the tap/cold forming tap and compensates pitch differences between threading tool and synchronous spindle.

Minimal Length Adjustment

In push- and pull direction.

Tool Shanks

All taps / cold forming taps with tool shanks in h9 tolerance can be clamped.

Secure Clamping

Secure clamping of the tap/cold forming tap by PG-TAP tapping collets with internal square.

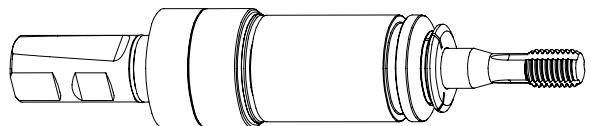
For Coolant Through Tools

Up to 50 bar coolant pressure.

Process Reliability

Increases process reliability of synchronous tap manufacturing.

CYL SSY/PG Softsynchro® Tapping Holder



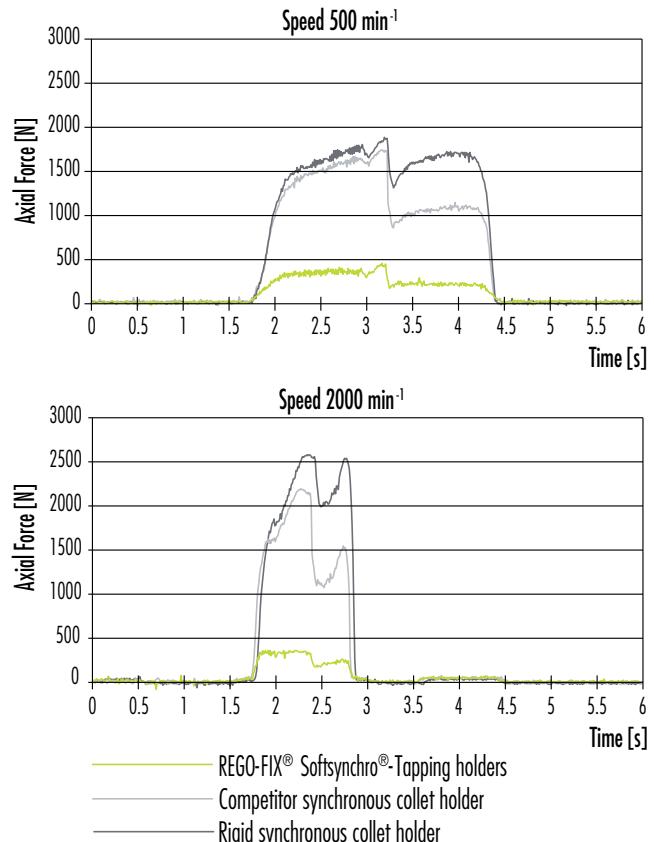
Applications

REGO-FIX® Softsynchro® tapping holders are used on machines that are designed for direct tapping. Many of the newer CNC machines feature synchronization between spindle feed and thread pitch. This allows to use rigid tapping holders. However due to the dynamics of spindle and linear motors synchronization errors occur. To compensate for these synchronization errors Softsynchro® tapping holders with minimal length adjustment are necessary. Depending on the application Softsynchro® tapping holders increase tool life up to 150%.

Comparison Tests

The two diagrams show the axial forces when cold-forming M10 threads in St37 steel.

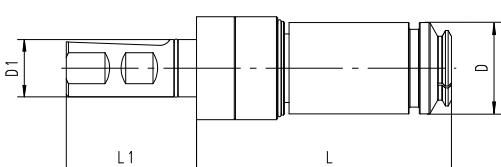
Conclusion: Axial forces increase with increasing rpm. With REGO-FIX® Softsynchro® tapping holders the forces are considerably lower than when using rigid tapping toolholders. Therefore the surface quality and tool life is optimized when using Softsynchro® tapping holders on a synchronized machine spindle.



CYL SSY/PG Softsynchro® Tapping Holders

Type	Part No.	D [mm]	D1 [mm]	L [mm]	L1 [mm]	Com- pression [mm]	Tension [mm]
CYL 25 SSY / PG 15	2625.61507	24	25	92	57	0.5	0.5
CYL 25 SSY / PG 25	2625.62507	40	25	109.5	57	0.5	0.5

Matching tapping collets see page 3.12.



For adapting the tapping holders to different steep tapers, please use the appropriate WELDON toolholders.
TC/WD colletholders (DIN 69871) see page 5.11.
BT/WD colletholders (MAS 403) see page 6.19.



Features | Benefits



Quality

Made to ISO 9001/ISO 14001 standards.

1 Marking

Type and part number.

2 Traceability

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

3 Quality Seal

The REGO-FIX® seal \triangle marked on the products guarantees for best quality.

T.I.R.

Best concentricity values – equal to rigid toolholders.

Length Compensation

In compression and tension directions.

Pressure-point Mechanism

Guarantees proper start of thread cutting/forming.

Tool Shanks

All taps / cold forming taps with tool shanks in h9 tolerance can be clamped.

Secure Clamping

Secure clamping of the tap/cold forming tap by PG-TAP tapping collets with internal square.

For Coolant Through Tools

Up to 50 bar coolant pressure.

Process Reliability

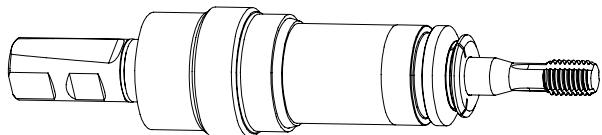
Increases process reliability of non-synchronous thread manufacturing.

CYL GSF/PG Tapping Holder with Length Compensation

Applications

REGO-FIX® tapping holders with length compensation are used on machines without synchronization of spindle feed and the pitch of the thread. These machines require tapping holders with compression and tension compensation to compensate for the difference in spindle feed and thread pitch.

REGO-FIX® tapping holders with length compensation feature a pressure-point mechanism. This guarantees the proper start of the thread cutting or forming and also allows to produce reproducible thread depth. A special design allows to feed coolant up to 50 bar to the tap without affecting the function of the length compensation. The compact design and the short extension allow a very flexible use of REGO-FIX® tapping holders.



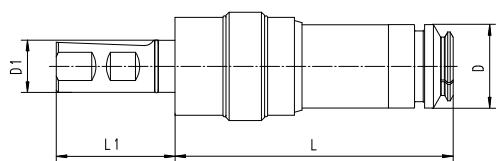
9

CYL GSF/PG Tapping Holders with Length Compensation

Type	Part No.	D [mm]	D1 [mm]	L [mm]	L1 [mm]	Com- pression [mm]	Tension [mm]
CYL 25 GSF / PG 15	2625.61508	24	25	99.5	57	5.0	7.5
CYL 25 GSF / PG 25	2625.62508	40	25	134	57	7.0	10.0

Matching tapping collets see page 3.12.

For adapting the tapping holders to different steep tapers, please use the appropriate WELDON toolholders.
TC/WD colletholders (DIN 69871) see page 5.11.
BT/WD colletholders (MAS 403) see page 6.19.





Other Toolholders

10

ER SYSTEM

- 10.1 Features | Benefits**
ERM/ERM | ER/ERM
- 10.2 ERM/ERM | ER/ERM**
Collet Reductions
- 10.3 MK/ER Features | Benefits**
Morse Taper Colletholders
DIN 228-A
- 10.4 SH/ER Features | Benefits**
Automotive Shank Colletholders
with Trapezoidal Thread
DIN 6327-C
- 10.6 MK/ER**
Morse Taper Colletholders DIN 228-A
- 10.8 SH/ER**
Automotive Shank Colletholders
with Trapezoidal Thread DIN 6327-C
- 10.9 Features | Benefits ISO/ERM HAAS**
- 10.10 ISO/ERM HAAS**

powRgrip SYSTEM

- 10.11 Features | Benefits ISO/PG HAAS**
- 10.12 ISO/PG HAAS**



Swiss
Precision
Tools

ER
Toolholders

Features | Benefits



Swiss Quality

Made in Switzerland to ISO 9001/ISO 14001.

1 Marking

Type and part number.

2 Traceability

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

3 Original REGO-FIX®

Our extensive experience results in a well-engineered system. Original only with the REGO-FIX® quality seal \triangle . Guarantee for best quality.

Surface Finish max. Ra 0.25

Higher clamping force and higher transferable torque.

Applications

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

Quick Change System

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

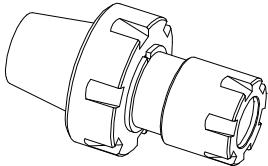
Length Presetting

Tools can be preset outside of the machine.

Minimal External Dimensions

By use of Hi-Q®/ERM clamping nuts minimal external dimensions can be achieved.

10

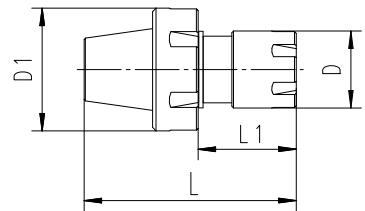


ER(M) | ERM

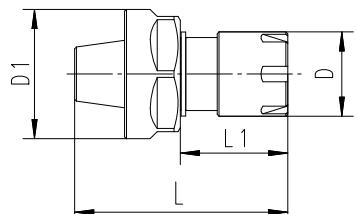
Collet Reductions

Type	Part No.	L [mm]	L1 [mm]	D1 [mm]	D [mm]	For Tornos
ER 11 M / ER 8 M	7161.11080	33	16.5	16	12	■
ER 16 M / ER 11 M	7161.16110	42.5	18.5	23	16	■
ER 20 M / ER 16 M	7161.20160	55.5	28	28	22	■
ER 25 M / ER 16 M	7161.25160	60.5	28	35	22	■
ER 25 M / ER 20 M	7161.25200	60.5	28	35	28	■
ER 11 / ER 8 M	7162.11080	33	16.5	19	12	■
ER 20 / ER 16 M	7162.20160	55.5	28	34	22	■
ER 25 / ER 16 M	7162.25160	60.5	28	42	22	■
ER 25 / ER 20 M	7162.25200	60.5	28	42	28	■

Type ERM/ERM
with Mini-Thread



Type ER/ERM
with Standard-Thread



Mini-Clamping Nuts | Spanners | Collets

Matching Products

Clamping Nut and Spanner	ER 8	ER 11	ER 16	ER 20	Page	Standard	With Friction Bearing	Balanced	For Coolant Through Tools	Collet Locking System*	Mini-Nut	Nut with External Thread	Spanner
Hi-Q / ERM	3508.00000	3511.00000	3516.00000	3520.00000	4.12		■		■ ■ ■				
Hi-Q / ERMC	-	3511.20300 – 3511.20700	3516.20000	3520.20000	4.12 4.14		■ ■ ■ ■	■ ■ ■ ■					
EM	7113.08000	7113.11000	7113.16000	7113.20000	12.1						■		
EP	-	7112.11010	7112.16010	7112.20010	12.1						■		

Recommended tightening torque on page 13.3/13.4. *Not for Hi-Q®/ERM8.

Collet	ER 8		ER 11/ET1-12		ER 16/ET1-16		ER 20/ET1-20	
	Clamping Range [mm]	Page						
ER	0.5 – 5.0	2.6	0.5 – 7.0	2.8	0.5 – 10.0	2.10	0.5 – 13.0	2.12
ER-UP	0.5 – 5.0	2.6	0.5 – 7.0	2.8	0.5 – 10.0	2.10	0.5 – 13.0	2.12
ER-DM	-	-	-	-	3.0 – 10.0	2.22	3.0 – 10.0	2.24
ER-MB	0.2 – 0.9	2.6	0.2 – 0.9	2.8	0.2 – 0.9	2.10	-	-
ER-GB	-	-	2.8 – 6.0	3.4	4.0 – 9.0	3.4	4.0 – 11.2	3.4
ET 1*	-	-	1.4 – 3.55	3.8	1.4 – 6.3	3.8	2.2 – 7.0	3.8

*Not for coolant through tools – use with Hi-Q®/ERM clamping nut only.



Swiss
Precision
Tools

ER
Toolholders

Features | Benefits

DIN 228-A

MK/ER Toolholder

Swiss Quality

Made in Switzerland to ISO 9001/ISO 14001.

1 Marking

Type and part number.

2 Traceability

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

3 Original REGO-FIX®

Our extensive experience results in a well-engineered system. Original only with the REGO-FIX® quality seal Δ . Guarantee for best quality.

Applications

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

Special Applications

When extra high clamping force is needed, e.g. when tapping with ER-GB or ET1*, we recommend the use of our friction bearing clamping nuts Hi-Q®/ERB and Hi-Q®/ERBC.

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

Matched Tooling System for Best Fit

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

For the influence of run-out on tool life see the graph page 2.3.



We recommend tightening the clamping nuts with a torque wrench. The maximum torque shall not be more than 25% above the recommended tightening torque.

Recommended tightening torque see page 13.3/13.4.

Features | Benefits

DIN 6327-C

SH/ER Toolholder

Swiss Quality

Made in Switzerland to ISO 9001/ISO 14001.

1 Marking

Type and part number.

2 Traceability

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

3 Original REGO-FIX®

Our extensive experience results in a well-engineered system. Original only with the REGO-FIX® quality seal \triangle . Guarantee for best quality.

Applications

Automotive shank colleholders with trapezoidal thread are supplied with a setting nut. With this type of colleholder, ER, ER-GB and ET1 REGO-FIX® collets can be used.

Special Applications

A quick-change setting nut according to system BILZ is available as an option. This option must be ordered separately and is supplied at extra charge. When extra high clamping force is needed, e.g. when tapping with ER-GB or ET1*, we recommend the use of our friction bearing clamping nuts Hi-Q®/ERB and Hi-Q®/ERBC.

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

10

Matched Tooling System for Best Fit

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

For the influence of run-out on tool life see the graph page 2.3.



We recommend tightening the clamping nuts with a torque wrench. The maximum torque shall not be more than 25% above the recommended tightening torque.

Recommended tightening torque see page 13.3/13.4.



Matching Products

Clamping Nuts | Collets | Spanners | Tangs

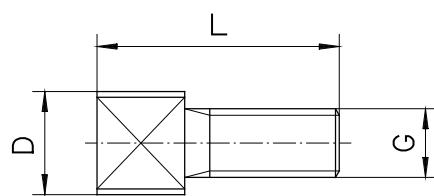
Collet and Spanner	ER 16	ER 20	ER 25	ER 32	ER 40	ER 50	Page	Standard	With Friction Bearing	Balanced	For Coolant Through Tools	Collet Locking System	Mini-Nut	Nut with External Thread	Spanner
Hi-Q / ER	3416.00000	3420.00000	3425.00000	3432.00000	3440.00000	3450.00000	4.4	■	■	■	■	■			
Hi-Q / ERC	3416.20000	3420.20000	3425.20000	3432.20000	3440.20000	—	4.6		■	■	■	■			
Hi-Q / ERB	3416.30000	3420.30000	3425.30000	3432.30000	3440.30000	3450.30000	4.10	■	■	■	■	■			
Hi-Q / ERBC	3416.40000	3420.40000	3425.40000	3432.40000	3440.40000	—	4.10	■	■	■	■	■			
EP	7112.16010	7112.20010	—	—	—	—	12.1							■	
E	—	—	7111.25000	7111.32000	7111.40000	7111.50000	12.1							■	

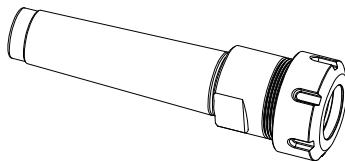
Recommended tightening torque on page 13.3.

Collet	ER 16/ET1-16		ER 20/ET1-20		ER 25/ET1-25		ER 32/ET1-32		ER 40/ET1-40		ER 50	
	Clamping Range [mm]	Page										
ER	0.5 – 10.0	2.10	0.5 – 13.0	2.12	0.5 – 16.0	2.14	1.0 – 20.0	2.16	2.0 – 30.0	2.18	4.0 – 34.0	2.20
ER-UP	0.5 – 10.0	2.10	0.5 – 13.0	2.12	0.5 – 16.0	2.14	1.0 – 20.0	2.16	2.0 – 30.0	2.18	4.0 – 34.0	2.20
ER-DM	3.0 – 10.0	2.24	3.0 – 10.0	2.26	6.0 – 16.0	2.28	6.0 – 20.0	2.30	6.0 – 26.0	2.32	—	—
ER-MB	0.2 – 0.9	2.10	—	—	—	—	—	—	—	—	—	—
ER-GB	4.0 – 9.0	3.4	4.0 – 11.2	3.4	4.0 – 16.0	3.4	4.0 – 20.0	3.4	6.0 – 22.0	3.4	22.0 – 32.0	3.4
ET 1*	1.4 – 6.3	3.8	2.2 – 7.0	3.8	2.5 – 10.0	3.8	4.5 – 12.5	3.8	6.0 – 17.0	3.8	—	—

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

Tangs Type	Part No.	G	L [mm]	D [mm]
ATL 6 / MK 1	7221.01000	M 6	21.5	8.5
ATL 10 / MK 2	7221.02000	M 10	30.5	13.5
ATL 12 / MK 3	7221.03000	M 12	35.0	18.5
ATL 16 / MK 4	7221.04000	M 16	41.0	24.5
ATL 20 / MK 5	7221.05000	M 20	52.0	35.0

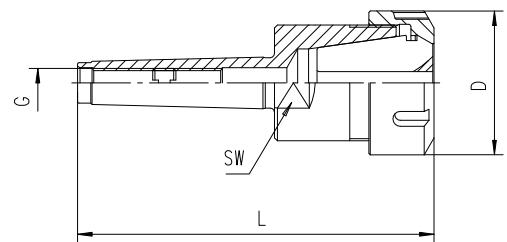




MK | ER
DIN 228-A

Morse Taper Colletholders

Type	Part No.	D [mm]	L [mm]	G	SW [mm]
MK 1 / ER 16 x 041	2701.11600	28	93.5	M6	17
MK 2 / ER 20 x 049	2702.12000	34	111.5	M10	22
MK 2 / ER 25 x 052	2702.12500	42	115	M10	24
MK 2 / ER 32 x 060	2702.13200	50	123	M10	36
MK 3 / ER 25 x 052	2703.12500	42	132	M12	24
MK 3 / ER 32 x 070	2703.13200	50	150	M12	24
MK 4 / ER 32 x 060	2704.13200	50	163	M16	32
MK 4 / ER 40 x 082	2704.14000	63	183	M16	32
MK 5 / ER 40 x 064	2705.14000	63	192	M20	45
MK 5 / ER 50 x 086	2705.15900	78	214	M20	45



Drawings with detailed dimensions see

search.rego-fix.ch

Supplied with: Colletholder, clamping nut and back-up screw.



Matching Products

Clamping Nuts | Collets | Spanners | Quick-Change Setting Nuts

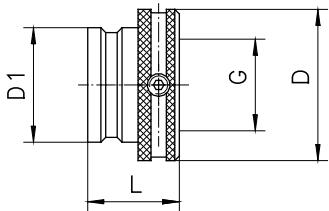
Clamping Nut and Spanner	ER 11	ER 16	ER 20	ER 25	Page	Standard	With Friction Bearing	Balanced	For Coolant Through Tools	Collet Locking System	Mini-Nut	Nut with External Thread	Spanner
Hi-Q / ER	3411.00000	3416.00000	3420.00000	3425.00000	4.4	■		■		■			
Hi-Q / ERC	3511.20300 – 3511.20700	3416.20000	3420.20000	3425.20000	4.6 4.8		■	■	■				
Hi-Q / ERB	–	3416.30000	3420.30000	3425.30000	4.10	■	■		■				
Hi-Q / ERBC	–	3416.40000	3420.40000	3425.40000	4.10	■	■	■	■				
EP	7112.11010	7112.16010	7112.20010	–	12.01							■	
E	–	–	–	7111.25000	12.01							■	

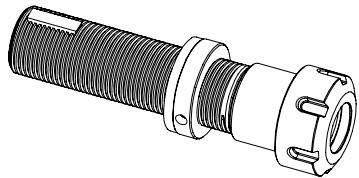
Recommended tightening torque on page 13.3.

Collet	ER 11/ET1-12		ER 16/ET1-16		ER 20/ET1-20		ER 25/ET1-25	
	Clamping Range [mm]	Page						
ER	0.5 – 7.0	2.8	0.5 – 10.0	2.10	0.5 – 13.0	2.12	0.5 – 16.0	2.14
ER-UP	0.5 – 7.0	2.8	0.5 – 10.0	2.10	0.5 – 13.0	2.12	0.5 – 16.0	2.14
ER-DM	2.75 – 7.00	2.22	3.0 – 10.0	2.24	3.0 – 10.0	2.26	6.0 – 16.0	2.28
ER-MB	0.2 – 0.9	2.8	0.2 – 0.9	2.10	–	–	–	–
ER-GB	2.8 – 6.0	3.4	4.0 – 9.0	3.4	4.0 – 11.2	3.4	4.0 – 16.0	3.4
ET 1*	1.4 – 3.55	3.8	1.4 – 6.3	3.8	2.2 – 7.0	3.8	2.5 – 10.0	3.8

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

Quick-Change Setting Nut (System Bilz) Type	Part No.	G	D	D1	L
		[mm]	[mm]	[mm]	[mm]
SSM 12	7238.12000	Tr 12 x 1.5	22	16.4	18.0
SSM 16	7238.16000	Tr 16 x 1.5	26	19.9	18.5
SSM 20	7238.20000	Tr 20 x 2.0	33	25.4	20.0
SSM 28	7238.28000	Tr 28 x 2.0	42	33.9	22.0

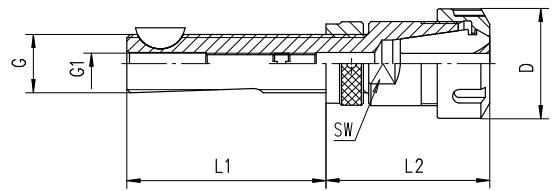




Automotive Colletholders

Type	Part No.	D [mm]	G	G1	L1 [mm]	L2 [mm]	SW [mm]
SH 12 x 050 / ER 11	2612.11104	19.0	Tr 12x1.5	M5	50.0	46.6	12
SH 16 x 073 / ER 16	2616.11604	28.0	Tr 16x1.5	M6	73.0	53.5	19
SH 20 x 076 / ER 20	2620.12004	34.0	Tr 20x2.0	M8	76.0	59.5	22
SH 28 x 083 / ER 25	2628.12504	42.0	Tr 28x2.0	M18x1.5	83.0	57.0	28

Supplied with: Colletholder, clamping nut, back-up screw, setting nut and Woodruff-key.



Drawings with detailed dimensions see

search.rego-fix.ch



Swiss
Precision
Tools

ER
Toolholders

Features | Benefits

ISO/ERM Toolholder

Swiss Quality

Made in Switzerland to ISO 9001/ISO 14001.

1 Marking

Type and part number.

2 Traceability

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

3 Original REGO-FIX®

Our extensive experience results in a well-engineered system. Original only with the REGO-FIX® quality seal \triangle . Guarantee for best quality.

Q+® Balancing

100% balanced to G 2.5 @ 40'000 min⁻¹.

Applications

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

Matched Tooling System for Best Fit

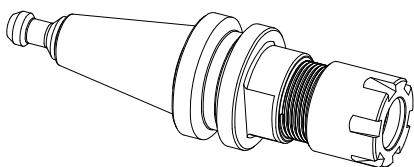
For highest precision and best results the whole system counts. Therefore REGO-FIX® components are carefully matched for optimum fit and accuracy. This guarantees the best run-out and balance.

For the influence of run-out on tool life see the graph page 2.3.



! We recommend tightening the clamping nuts with a torque wrench. The maximum torque shall not be more than 25% above the recommended tightening torque.

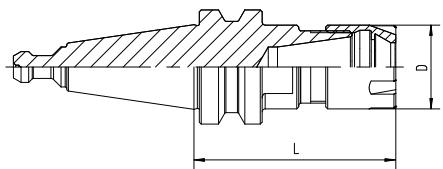
Recommended tightening torque see page 13.4.



ISO Colletholder

Type	Form A+AD Part No.	D [mm]	L [mm]
ISO 20 / ERM 11 x 048 HAAS	2420.11116	16	46
ISO 20 / ERM 16 x 053 HAAS	2420.11616	22	53
ISO 20 / ERM 20 x 055 HAAS	2420.12016	28	55

Supplied: ISO colletholder with ERM clamping nut and integral pull stud.



Clamping Nuts | Collets | Spanners

Matching Products

Clamping Nut and Spanner	ER 11	ER 16	ER 20	Page	Standard	With Friction Bearing	Balanced	For Coolant Through Tools	Collet Locking System	Mini-Nut	Nut with External Thread	Spanner
Hi-Q / ERM	3511.00000	3516.00000	3520.00000	4.12			■		■ ■			
Hi-Q / ERMC	3511.20300 – 3511.20700	3516.20000	3520.20000	4.12 4.14			■ ■ ■ ■					
EM	7113.08000	7113.11000	7113.16000	12.01						■		

Recommended tightening torque on page 13.4.

10

Collet	ER 11/ET1-12		ER 16/ET1-16		ER 20/ET1-20	
	Clamping Range [mm]	Page	Clamping Range [mm]	Page	Clamping Range [mm]	Page
ER	0.5 – 7.0	2.08	0.5 – 10.0	2.10	0.5 – 13.0	2.12
ER-UP	0.5 – 7.0	2.08	0.5 – 10.0	2.10	0.5 – 13.0	2.12
ER-DM	–	–	3.0 – 10.0	2.22	3.0 – 10.0	2.24
ER-MB	0.2 – 0.9	2.08	0.2 – 0.9	2.10	–	–
ER-GB	2.8 – 6.0	3.04	4.0 – 9.0	3.04	4.0 – 11.2	3.04
ET 1*	1.4 – 3.55	3.08	1.4 – 6.3	3.08	2.2 – 7.0	3.08

Drawings with detailed dimensions see

search.rego-fix.ch



Swiss
Precision
Tools

PG

powRgrip® Toolholders

Features | Benefits

ISO/PG Toolholder

Swiss Quality

Made in Switzerland to ISO 9001/ISO 14001.

1 Marking

Type and part number.

2 Traceability

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

3 Original REGO-FIX®

Our extensive experience results in a well-engineered system. Original only with the REGO-FIX® quality seal △. Guarantee for best quality.

Q+® Balancing

100% balanced to G 2.5 @ 40'000 min⁻¹.

Applications

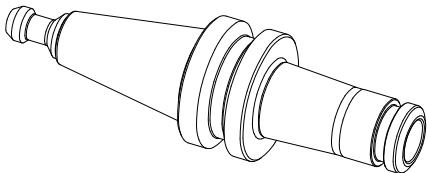
The REGO-FIX® ISO 20 Toolholders are designed to work with the HAAS Office Mill. To utilize your machine to it's full potential, use the REGO-FIX® brand of holders and collets to see the difference quality can make in your machining operations.

Matched Tooling System for Best Fit

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

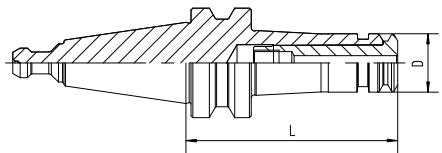


10



ISO Colletholder

Type	Form A+AD Part No.	D [mm]	L [mm]
ISO 20 / PG 10 x 058 HAAS	2420.71015	16	58



powRgrip® Collets

Matching Products

\varnothing [mm]	\varnothing [Inch]	\varnothing [Inch]	PG 10 Part No.	PG 10-CF Part No.
0.200 – 1.5875 mm powRgrip® microbore collets (PG 10-MB) see page 2.36.				
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

powRgrip® clamping units and further powRgrip® accessories see page 12.7/12.8.

Drawings with detailed dimensions see

search.rego-fix.ch

10

REGO-FIX®
SWISS Line
PHC25IER20
2625.92003.17



Floating Chucks

11

ER SYSTEM

- 11.1 Features | Benefits**
- 11.2 Information**
- 11.4 PH | ER**
- 11.6 PHC | ER (for Coolant Through Tools)**
- 11.6 PHC | ER REGO-FIX CAPTO**
- 11.8 MPH | ERM (Mini)**



Swiss
Precision
Tools

ER

Floating Chucks

Features | Benefits

Swiss Quality

Made in Switzerland to ISO 9001/ISO 14001.

1 Marking

Type and part number.

2 Traceability

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

3 Original REGO-FIX®

Our extensive experience results in a well-engineered system. Original only with the REGO-FIX® quality seal △. Guarantee for best quality.

Adjustable Floating Resistance

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

Adjustment for Tool Weight

Optimal setup by adjustment of floating resistance.

Vertical and Horizontal Application

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

Combined Ball and Friction Bearing

Low load applications:

Ball bearing for easy floating.

High load applications:

Friction bearing to withstand the high pressure.

Double Sealing Against Dirt

Prevents coolant and chips from entering the floating chuck.

Excellent Bore Quality

Only parallel floatation of tool possible.

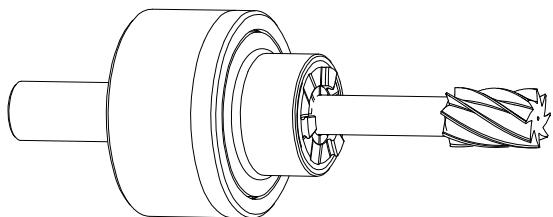


Information

Floating Chuck PH/ER Standard

Applications

REGO-FIX® floating chucks are excellent tools for reaming and tapping. Their design is such that the tool is self-centering in the vertical and horizontal position. The float is always parallel to the rotational axis and the rotation is both clockwise and counter clockwise. The self-centering feature allows very precise positioning of the reaming or tapping tool. This is especially important in horizontal applications, where on ordinary floating chucks the weight of the tool tends to dislocate the tool from the rotational axis. REGO-FIX® floating chucks are a very universal and economical solution to your reaming and tapping applications.



Floating Chuck PHC/ER

For Coolant Through Tools

REGO-FIX® Floating Chucks PHC/ER for coolant through tools are especially designed for internal cooling and have the same advantages as the PH/ER Floating Chucks.



When using coolant through tools please order AXC clamping nuts and the appropriate sealing disks.

Floating Chuck MPH/ER

For Tight Space Applications

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

Floating Chuck PHC/ER REGO-FIX CAPTO

Polygon Interface

These REGO-FIX CAPTO floating chucks are manufactured with polygon interface.



Certified by Sandvik



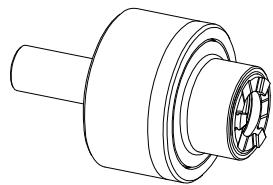
Matching Products

Clamping Nuts | Spanners | Collets

Clamping Nut and Spanner	ER 11	Page	Standard	With Friction Bearing	Balanced	For Coolant Through Tools	Collet Locking System	Mini-Nut	Nut with External Thread	Spanner
ER AX	3311.60000	4.18		■		■		■		
E AX	7117.11000	12.2						■		■

Collet	ER 11/ET1-12	Clamping Range [mm]	Page
ER	0.5 – 7.0	2.8	
ER-UP	0.5 – 7.0	2.8	
ER-DM	2.75 – 7.0	2.22	
ER-MB	0.2 – 0.9	2.8	
ER-GB	2.8 – 6.0	3.4	
ET 1*	1.4 – 3.55	3.8	

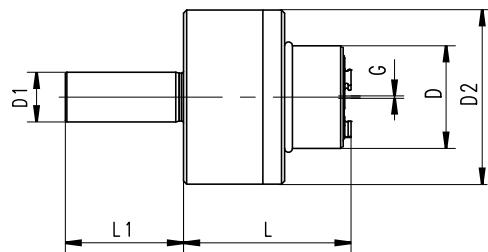
*Not for coolant through tools and not for applications with sealing disks.



Floating Chucks For Non Coolant Through Tools

Type	Part No.	D [mm]	D1 h6 [mm]	D2 [mm]	G float [mm]	L [mm]	L1 [mm]
PH 5/8" / ER 11	2616.91102	22	15.88	38	0.8	36	34
PH 16 / ER 11	2616.91100	22	16.00	38	0.8	36	34
PH 3/4" / ER 11	2619.91102	22	19.05	38	0.8	36	34
PH 20 / ER 11	2620.91100	22	20.00	38	0.8	36	34
PH 22 / ER 11	2622.91100	22	22.00	38	0.8	36	34

Supplied with: Floating holder, clamping nut and spanner.



Drawings with detailed dimensions see

search.rego-fix.ch



Matching Products

Clamping Nuts | Spanners | Collets

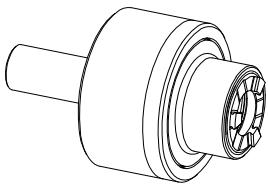
Clamping Nut and Spanner	ER 20	ER 32	Page	Standard	With Friction Bearing	Balanced	For Coolant Through Tools	Collet Locking System	Mini-Nut	Nut with External Thread	Spanner
ER AX	3320.60000	3332.60000	4.18		■		■		■	■	
ER AXC	3320.70000	3332.70000	4.18		■	■	■		■	■	
E AX	7117.20000	7117.32000	12.2							■	



When using coolant through tools please order AXC clamping nuts and the appropriate sealing disks.

Collet	ER 11/ET1-12		ER 16/ET1-16		ER 20/ET1-20		ER 25/ET1-25		ER 32/ET1-32		ER 40/ET1-40		ER 50	
	Clamping Range [mm]	Page												
ER	-	-	-	-	0.5 – 13.0	2.12	-	-	1.0 – 20.0	2.16	-	-	-	-
ER-UP	-	-	-	-	0.5 – 13.0	2.12	-	-	1.0 – 20.0	2.16	-	-	-	-
ER-DM	-	-	-	-	3.0 – 10.0	2.26	-	-	6.0 – 20.0	2.30	-	-	-	-
ER-MB	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ER-GB	-	-	-	-	4.0 – 11.2	3.4	-	-	4.0 – 20.0	3.4	-	-	-	-
ET 1*	-	-	-	-	2.2 – 7.0	3.8	-	-	4.5 – 12.5	3.8	-	-	-	-

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

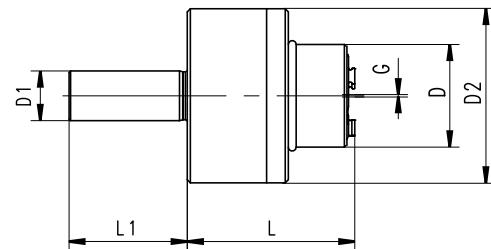


PHC | ER

Floating Chucks For Coolant Through Tools

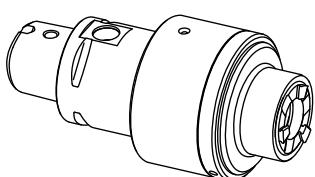
Type	Part No.	D [mm]	D1 h6 [mm]	D2 [mm]	G float [mm]	L [mm]	L1 [mm]
PHC 5/8" / ER 20	2616.92004	33	15.88	56	1.0	53.5	38
PHC 16 / ER 20	2616.92003	33	16.00	56	1.0	53.5	38
PHC 3/4" / ER 20	2619.92004	33	19.05	56	1.0	53.5	38
PHC 20 / ER 20	2620.92003	33	20.00	56	1.0	53.5	38
PHC 22 / ER 20	2622.92003	33	22.00	56	1.0	53.5	38
PHC 25 / ER 20	2625.92003	33	25.00	56	1.0	53.5	38
PHC 1" / ER 20	2625.92004	33	25.40	56	1.5	53.5	38
PHC 3/4" / ER 32	2619.93204	46	19.05	70	1.5	64.5	46
PHC 20 / ER 32	2620.93203	46	20.00	70	1.5	64.5	46
PHC 22 / ER 32	2622.93203	46	22.00	70	1.5	64.5	46
PHC 25 / ER 32	2625.93203	46	25.00	70	1.5	64.5	46
PHC 1" / ER 32	2625.93204	46	25.40	70	1.5	64.5	46
PHC 32 / ER 32	2632.93203	46	32.00	70	1.5	64.5	46
PHC 1.1/4" / ER 32	2632.93204	46	31.75	70	1.5	64.5	46
PHC 1.3/4" / ER 32	2644.93204	46	44.45	70	1.5	64.5	46

Supplied with: Floating holder, clamping nut, spanner and adjusting key.



Drawings with detailed dimensions see.

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Certified by Sandvik

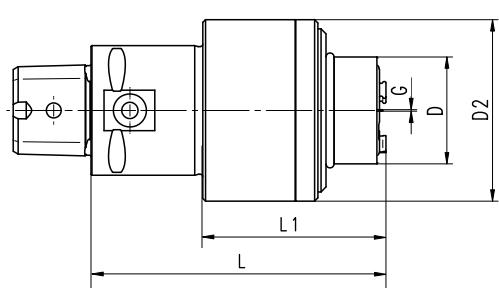
PHC | ER REGO-FIX CAPTO

11

Floating Chucks For Coolant Through Tools and with REGO-FIX CAPTO Interface

Type	Part No.	D [mm]	D2 [mm]	G float [mm]	L [mm]	L1 [mm]
PHC-C3 / ER 20	2803.92003	33	56	0.8	91	53.5
PHC-C4 / ER 20	2804.92003	33	56	0.8	91	56.5
PHC-C4 / ER 32	2804.93203	46	70	0.8	100	64.0

Supplied with: Floating holder, clamping nut, spanner.





Matching Products

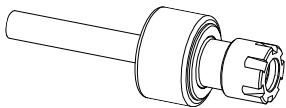
Clamping Nuts | Spanners | Collets

Clamping Nut and Spanner	ER 11	Page	Standard	With Friction Bearing	Balanced	For Coolant Through Tools	Collet Locking System	Mini-Nut	Nut with External Thread	Spanner
HiQ/ERM	3511.00000	4.12		■		■	■			
EM	7113.11000	12.1							■	

ER MS	3211.50000	4.16	■	■						
E MS	7114.11000	12.2						■		

Collet	ER 11/ET1-12	
	Clamping Range [mm]	Page
ER	0.5 – 7.0	2.8
ER-UP	0.5 – 7.0	2.8
ER-DM	2.75 – 7.0	2.22
ER-MB	0.2 – 0.9	2.8
ER-GB	2.8 – 6.0	3.4
ET 1*	1.4 – 3.55	3.8

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

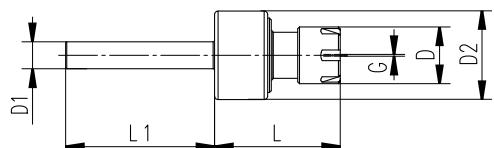


MPH | ERM

Mini-Floating Chucks

Type	Part No.	D [mm]	D1 h6 [mm]	D2 [mm]	G float [mm]	L [mm]	L1 [mm]
MPH 8 / ER 11 M	2608.91107	16	8.00	25	0.5	35	42
MPH 10 / ER 11 M	2610.91107	16	10.00	25	0.5	35	42
MPH 16 / ER 11 M	2616.91107	16	16.00	25	0.5	35	42
MPH 3/4" / ER 11 M	2619.91108	16	19.05	25	0.5	35	70
MPH 20 / ER 11 M	2620.91107	16	20.00	25	0.5	35	42
MPH 22 / ER 11 M	2622.91107	16	22.00	25	0.5	35	42
MPH 25 / ER 11 M	2625.91107	16	25.00	25	0.5	35	40
MPH 1" / ER 11 M	2625.91108	16	25.40	25	0.5	35	40

Supplied with: Floating holder, clamping nut, spanner.



Drawings with detailed dimensions see.

search.rego-fix.ch



RECYCLED



Accessories

12

ER *SYSTEM*

- 12.1 Spanners**
- 12.3 Wrench Heads**
- 12.4 Torque Wrenches**
- 12.5 ZWT Trays for Collet Sets**
- 12.6 DSR Trays for Sealing Disk Sets**

powRgrip *SYSTEM*

- 12.8 Clamping Units PGU/PGC**

Other Accessories

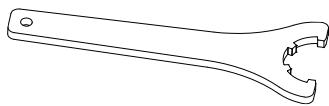
- 12.9 WMB Tool Holding Fixture**
- 12.9 FWR Balancing Rings**
- 12.10 KSR Coolant Tubes**



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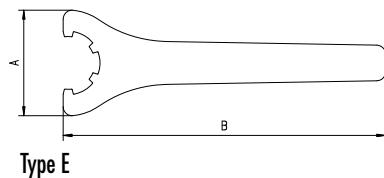
Spanners

Type E | Type E P | Type E M

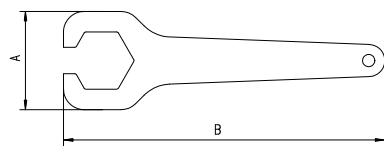
Type	Part No.	Size	A [mm]	B [mm]	For Hi-Q / ER	For Hi-Q / ERC	For Hi-Q / ERB	For Hi-Q / ERBC	For Hi-Q / ERM	For Hi-Q / ERMC	For ER MS	For ER AX	For ER AXC
E 16	7111.16000	ER 16	50	160									
E 20	7111.20000	ER 20	55	180									
E 25	7111.25000	ER 25	65	210	■	■	■	■					
E 32	7111.32000	ER 32	75	250	■	■	■	■					
E 40	7111.40000	ER 40	90	290	■	■	■	■					
E 50	7111.50000	ER 50	110	350	■			■					

E 11 P	7112.11010	ER 11	32	95	■	■							
E 16 P	7112.16010	ER 16	44	145	■	■	■	■					
E 20 P	7112.20010	ER 20	52	170	■	■	■	■					

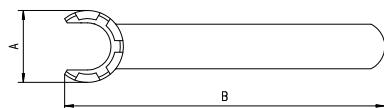
E 8 M	7113.08000	ER 8	12.4	74				■					
E 11 M	7113.11000	ER 11	16.8	95				■	■				
E 16 M	7113.16000	ER 16	22.5	117				■	■				
E 20 M	7113.20000	ER 20	29	129				■	■				
E 25 M	7113.25000	ER 25	36	141				■	■				



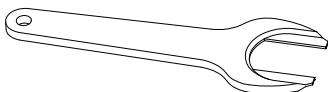
Type E



Type E P



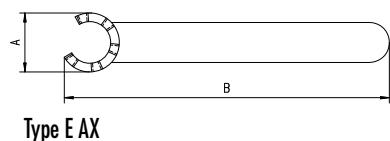
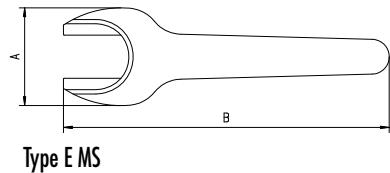
Type E M



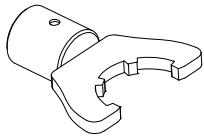
Spanners

Type E MS | Type E AX

Type	Part No.	Size	A [mm]	B [mm]	For Hi-Q / ER	For Hi-Q / ERC	For Hi-Q / ERB	For Hi-Q / ERBC	For Hi-Q / ERM	For Hi-Q / ERMC	For ER MS	For ER AX	For ER AXC
E 8 MS	7114.08000	ER 8	19.2	76					■				
E 11 MS	7114.11000	ER 11	22.0	100					■				
E 16 MS	7114.16000	ER 16	33.0	130					■				
E 20 MS	7114.20000	ER 20	42.0	140					■				



E 11 AX	7117.11000	ER 11	16.5	108				■					
E 16 AX	7117.16000	ER 16	22.5	131				■	■				
E 20 AX	7117.20000	ER 20	26.0	148				■	■				
E 25 AX	7117.25000	ER 25	29.5	162				■	■				
E 32 AX	7117.32000	ER 32	37.5	196				■	■				
E 40 AX	7117.40000	ER 40	47.5	220				■	■				



Wrench Heads

Type A-E | A-E P | A-E M | A-E MS | A-E AX

Type	Part No.	Size	A [mm]	B [mm]	For Hi-Q / ER	For Hi-Q / ERC	For Hi-Q / ERB	For Hi-Q / ERBC	For Hi-Q / ERM	For Hi-Q / ERMC	For ER MS	For ER AX	For ER AXC
A-E 16	7151.16000	ER 16	55	62									
A-E 20	7151.20000	ER 20	60	62									
A-E 25	7151.25000	ER 25	70	72	■	■	■	■					
A-E 32	7151.32000	ER 32	80	72	■	■	■	■	■				
A-E 40	7151.40000	ER 40	96	82	■	■	■	■	■				
A-E 50	7151.50000	ER 50	111	94	■		■	■	■				

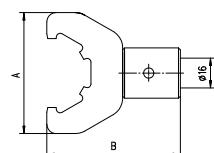
A-E 11 P	7152.11010	ER 11	32	61	■	■							
A-E 16 P	7152.16010	ER 16	44	71	■	■	■	■	■				
A-E 20 P	7152.20010	ER 20	52	81	■	■	■	■	■				

A-E 8 M	7153.08000	ER 8	12.4	53.1			■						
A-E 11 M	7153.11000	ER 11	16.8	54.4			■	■					
A-E 16 M	7153.16000	ER 16	22.5	56.2			■	■					
A-E 20 M	7153.20000	ER 20	29	68.2			■	■					
A-E 25 M	7153.25000	ER 25	36	70			■	■					

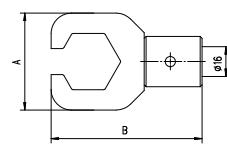
A-E 8 MS	7114.08000	ER 8	19.2	51				■					
A-E 11 MS	7114.11000	ER 11	22	57				■					
A-E 16 MS	7114.16000	ER 16	33	60				■					
A-E 20 MS	7114.20000	ER 20	42	73				■					

A-E 11 AX	7157.11000	ER 11	16.5	62.1				■					
A-E 16 AX	7157.16000	ER 16	22.5	63.5				■	■				
A-E 20 AX	7157.20000	ER 20	26	64.8				■	■				
A-E 25 AX	7157.25000	ER 25	29.5	93				■	■				
A-E 32 AX	7157.32000	ER 32	37.5	95.8				■	■				
A-E 40 AX	7157.40000	ER 40	47.5	99.4				■	■				

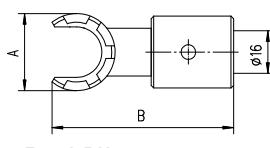
Recommended tightening torque on page 13.3/13.4.



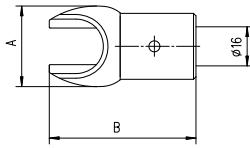
Type A-E



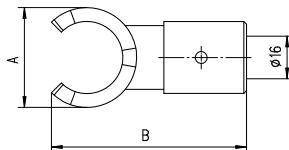
Type A-E P



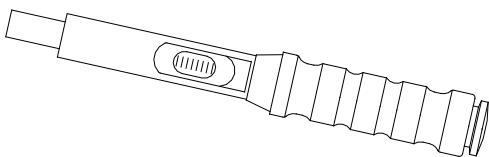
Type A-E M



Type A-E MS



Type A-E AX

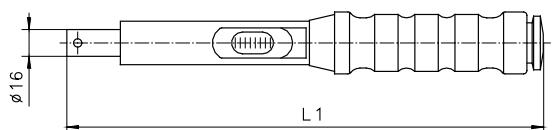


Torque Wrenches TORCO-FIX

Type	Part No.	Range [Nm]	L1 [mm]
TORCO-FIX 0	7150.02025	2 - 25	290
TORCO-FIX I	7150.05050	5 - 50	335
TORCO-FIX II	7150.20200	20 - 200	465
TORCO-FIX III	7150.60300	60 - 300	565

Recommended tightening torque on page 13.3/13.4.

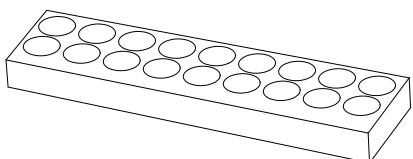
Torque Wrenches





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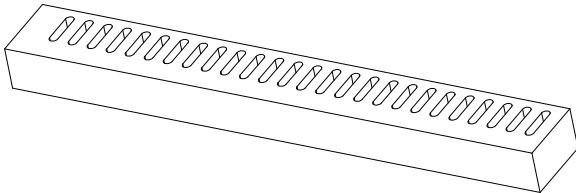


Trays for Collet Sets

Type	Part No.	For Number of Collets
ZWT / 8	7121.08000	9
ZWT / 11	7121.11000	13
ZWT / 16	7121.16000	10
ZWT / 20	7121.20000	12
ZWT / 25	7121.25000	15
ZWT / 32	7121.32000	18
ZWT / 40	7121.40000	23
ZWT / 50	7121.50000	12

Storage Overview ZWT/ER

The REGO-FIX® trays are of finest quality and very solid.
The collet bore diameters are marked on the tray.



DSR | ER

Trays for Sealing Disk Sets

Type	Part No.	For Number of Sealing Disks
DSR / 16	7122.16000	14
DSR / 20	7122.20000	20
DSR / 25	7122.25000	26
DSR / 32	7122.32000	34
DSR / 40	7122.40000	46

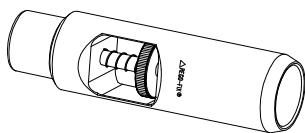
Storage Overview DSR/ER

The REGO-FIX® trays are of finest quality and very solid. The sealing disc bore diameters are marked on the tray.



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PG powRgrip® Accessories



Presetting Tool

Type	Part No.	Description
VEW 10	7619.10000	PG 10 Presetting tool for PG 10 colletholder
VEW 15	7619.15000	PG 15 Presetting tool for PG 15 colletholder
VEW 25	7619.25000	PG 25 Presetting tool for PG 25 colletholder
VEW 32	7619.32000	PG 32 Presetting tool for PG 32 colletholder

Matching Products

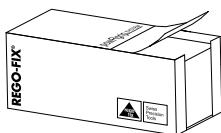
The powRgrip® presetting tool accepts the powRgrip® collets, and is inserted into the toolholder. The tool has a small thumb wheel for precise tool length adjustments, and allows maximum repeatability in the toolholder assembly.



Taper Cleaner

Type	Part No.	Description
TKCP 10	7657.10000	Taper cleaner for PG 10 colletholder
TKCP 15	7657.15000	Taper cleaner for PG 15 colletholder
TKCP 25	7657.25000	Taper cleaner for PG 25 colletholder
TKCP 32	7657.32000	Taper cleaner for PG 32 colletholder

Lieferumfang: Kegelreiniger inklusive 1 Set Reinigungspapiere CPS.



Cleaning Paper Set

Type	Part No.	Description
CPS 10	7658.10000	Cleaning paper set for TKCP 10 / 250 papers
CPS 15	7658.15000	Cleaning paper set for TKCP 15 / 250 papers
CPS 25	7658.25000	Cleaning paper set for TKCP 25 / 250 papers
CPS 32	7658.32000	Cleaning paper set for TKCP 32 / 250 papers

Provides a quick and easy method of cleaning the powRgrip® holder bore of oil and debris before insertion of the tool.

A soft, absorbant paper specially prepared for cleaning the powRgrip® holder bore. The paper is lint-free and chemically neutral. For one time use only! Each pack contains 250 papers.

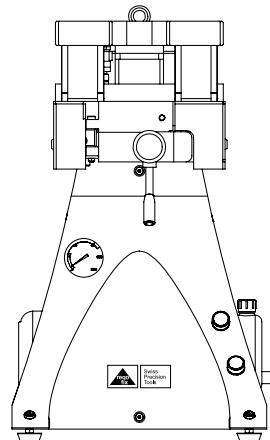
Demonstration of Application see:

video.powRgrip.ch

PGU | PGC

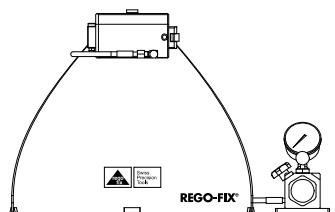
PGU 9000 Automatic Clamping Unit

Type	Part No.	Description	Measurement W x D x H	Weight	Incl. Taper Cleaner
PGU 9000 E	7610.90000	powRgrip® Automatic clamping unit, 230 V	465 x 555 x 739 mm	90 kg	
PGU 9000 A	7610.90100	powRgrip® Automatic clamping unit 110 V	465 x 555 x 739 mm	90 kg	
PGU 9000 J	7610.90200	powRgrip® Automatic clamping unit 100 V	465 x 555 x 739 mm	90 kg	
APG 910	7611.10900	Clamping insert for PGU 9000 / PG 10	100 x 095 x 080 mm	3 kg	■
APG 915	7611.15900	Clamping insert for PGU 9000 / PG 15	100 x 095 x 080 mm	3 kg	■
APG 925	7611.25900	Clamping insert for PGU 9000 / PG 25	100 x 095 x 080 mm	3 kg	■
APG 932	7611.32900	Clamping insert for PGU 9000 / PG 32	100 x 095 x 080 mm	3 kg	■



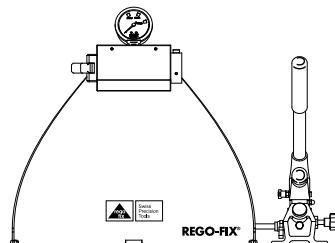
PGC 1500 Manual Clamping Unit

Type	Part No.	Description	Measurement W x D x H	Weight	Incl. Taper Cleaner
PGC 1500	7621.15000	Manual clamping unit for PG 15	226 x 270 x 093 mm	12 kg	■
PGS 1	7625.00100	powRgrip® Compact Stand No. 1	450 x 492 x 280 mm	4 kg	
PPG 300 M	7629.00300	powRgrip® Hand pump, 300 bar	109 x 496 x 184 mm	6 kg	



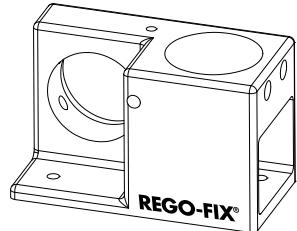
Set PGC 2510 Compact - Manual Clamping Unit

Type	Part No.	Description	Measurement B x T x H	Weight	Incl. Taper Cleaner
Set PGC 2510	7621.25109	powRgrip® Compact – manual clamping unit Supplied with: Unit, pump, stand.	578 x 420 x 438 mm	18.2 kg	■
APC 10	7622.10000	PG 10 Inserts for PGC 2510 for clamping unit	30 x 30 x 60 mm	0.85 kg	■
APC 15	7622.15000	PG 15 Inserts for PGC 2510 for clamping unit	30 x 30 x 60 mm	1.00 kg	■
APC 25	7622.25000	PG 25 Inserts for PGC 2510 for clamping unit	30 x 30 x 60 mm	1.10 kg	■





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Tool Holding Fixture BT | CAT | TC

Type Steeptaper	Part No.	Fits These Tapers
WMB / SK 30	7811.30100	BT / CAT / TC
WMB / SK 40	7811.40100	BT / CAT / TC
WMB / SK 50	7811.50100	BT / CAT / TC

Supplied with: Tool holding fixture with 2 clamping sets and spanner.

Other Accessories

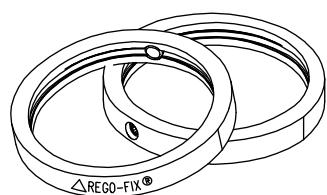
WMB

Tool Holding Fixture HSK | REGO-FIX CAPTO

Type HSK	Part No.	Fits These Tapers
WMB / HSK 25	7811.25800	HSK 25
WMB / HSK 32	7811.32800	HSK 32
WMB / HSK 40	7811.40800	HSK 40 / REGO-FIX CAPTO C4
WMB / HSK 50	7811.50800	HSK 50 / REGO-FIX CAPTO C5
WMB / HSK 63	7811.63800	HSK 63 / REGO-FIX CAPTO C6
WMB / HSK 80 A+C*	7811.80800	HSK-A 80 / HSK-C 80
WMB / HSK 100 A+C*	7811.00300	HSK-A 100 / HSK-C 100

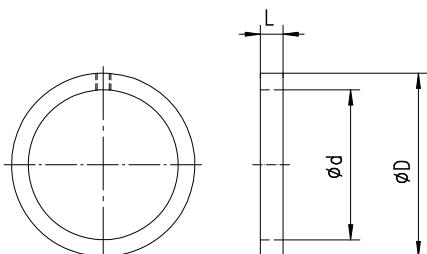
Supplied with: Tool holding fixture with 2 clamping sets and spanner.

*Supplied with: Tool holding fixture with 2 inserts and clamping unit.



Hi-Q® Balancing Rings | Torque Screwdriver

FWR



Highly secured Hi-Q® Balancing Rings (pat. pend.).

Type	Part No.	d [mm]	D [mm]	L [mm]	Balancing- capacity [gmm]	maximal rpm
Set FWR 225	7490.22500	22.5	30.5	6.0	16	80 000
Set FWR 285	7490.28500	28.5	36.5	6.0	22	70 000
Set FWR 325	7490.32500	32.5	40.5	6.0	28	60 000
Set FWR 405	7490.40500	40.5	48.5	6.0	40	50 000
Set FWR 505	7490.50500	50.5	60.5	7.0	85	42 000

Supplied: 1 Set with 2 Hi-Q® Balancing Rings.

Type	Part No.	Description
TSD 0.9 Nm	7159.09000	Torque screwdriver TORX 8 for balancing rings

The torque screwdriver is a special Torx style wrench that is preset to the recommended torque rating of 0.9 Nm for tightening the REGO-FIX Hi-Q® Balancing Rings.

12

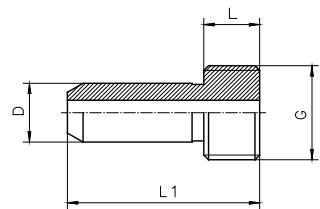
Other Accessories

KSR

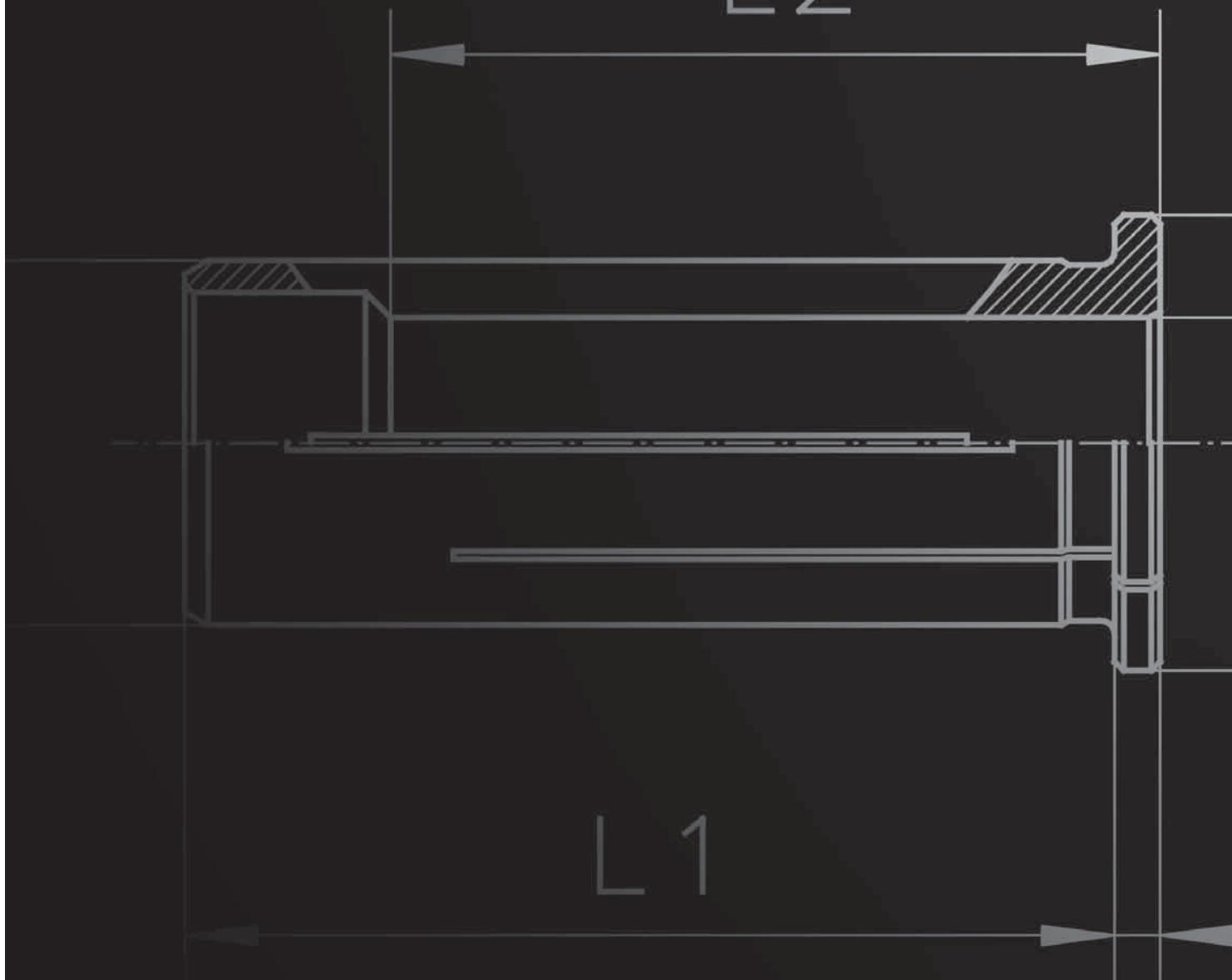
Coolant Tubes | Spanners

For all HSK form A and HSK form E colletholders following coolant tubes (KSR) can be used:

Type	Part No.	For HSK-Type	G	D [mm]	L [mm]	L1 [mm]	Spanner Type	Spanner Part No.
KSR 25	7211.25000	HSK 25	M 8 x 1.0	5.00	4.5	17.0	SKR 25	7212.25000
KSR 32	7211.32000	HSK 32	M 10 x 1.0	6.00	5.5	25.7	SKR 32	7212.32000
KSR 40	7211.40000	HSK 40	M 12 x 1.0	8.00	7.5	29.2	SKR 40	7212.40000
KSR 50	7211.50000	HSK 50	M 16 x 1.0	10.00	9.5	32.7	SKR 50	7212.50000
KSR 63	7211.63000	HSK 63	M 18 x 1.0	12.00	11.5	36.2	SKR 63	7212.63000
KSR 80	7211.80000	HSK 80	M 20 x 1.5	14.00	13.5	39.7	SKR 80	7212.80000
KSR 100	7211.00000	HSK 100	M 24 x 1.5	16.00	15.5	43.6	SKR 100	7212.00000



L2



L1

ER *SYSTEM*

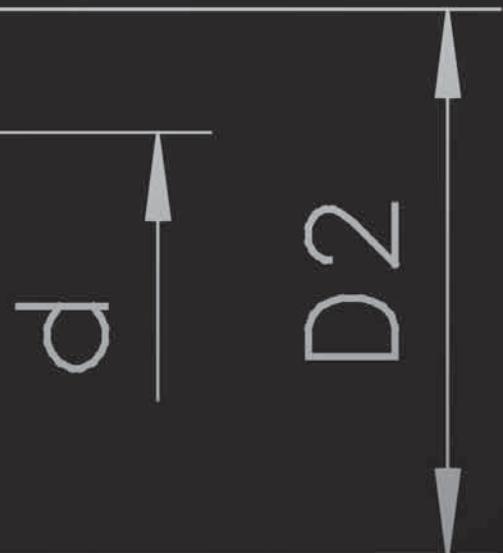
- 13.1 Collet Cavity Dimension
- 13.2 Dimensions of ER Collets
- 13.3 Clamping Nuts Tightening Torque
- 13.5 ER-GB Tapping Collets
- 13.6 ET1 Tapping Collets
- 13.6 ER-MB Microbore Collets

powRgrip *SYSTEM*

- 13.7 Presetting Range of Collets
- 13.8 Presetting Range of Tapping Collets

Other Information

- 13.9 Reduction Sleeves
- 13.11 Standards DIN, MAS, ISO
- 13.13 Tap Dimensions



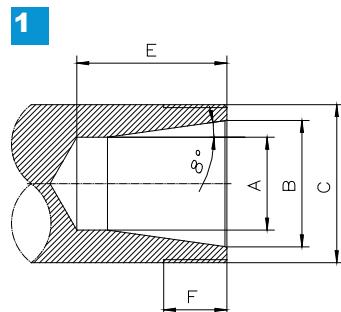
L3



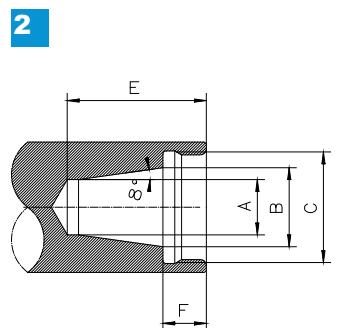
Collet Cavity Dimensions

Dimensions for ER Collet Cavities in Machine Spindles and Matching Clamping Nuts

Size	Clamping Range	Hi-Q/ER	Hi-Q/ERC	Hi-Q/ERB	Hi-Q/ERBC	Hi-Q/ERM	Hi-Q/ERMC	ER MS	ER AX	ER AXC	A [mm]	B [mm]	C [mm]	E [mm]	F [mm]	Drawing
ER 11	0.5 – 07.00	■ ■									7.5	11	M14 x 0.75	17.0	10.0	1
ER 16	0.5 – 10.00	■ ■ ■ ■									10.5	16	M22 x 1.50	22.0	13.0	1
ER 20	0.5 – 13.00	■ ■ ■ ■									13.5	20	M25 x 1.50	26.5	13.5	1
ER 25	0.5 – 17.00	■ ■ ■ ■									18.0	25	M32 x 1.50	29.0	14.0	1
ER 32	1.0 – 22.00	■ ■ ■ ■									23.5	32	M40 x 1.50	34.0	16.0	1
ER 40	2.0 – 30.00	■ ■ ■ ■									30.5	40	M50 x 1.50	38.0	17.0	1
ER 50	4.0 – 36.00	■ ■ ■ ■									38.0	50	M64 x 2.00	48.0	24.0	1



ER 8	0.5 – 05.00	■ ■	5.2	8	M10 x 0.75	13.0	8.0	1
ER 11	0.5 – 07.00	■ ■ ■	7.5	11	M13 x 0.75	17.0	8.5	1
ER 16	0.5 – 10.00	■ ■ ■	10.5	16	M19 x 1.00	22.0	13.0	1
ER 20	0.5 – 13.00	■ ■ ■	13.5	20	M24 x 1.00	26.5	13.5	1
ER 25	0.5 – 17.00	■ ■ ■	18.0	25	M30 x 1.00	29.0	14.0	1



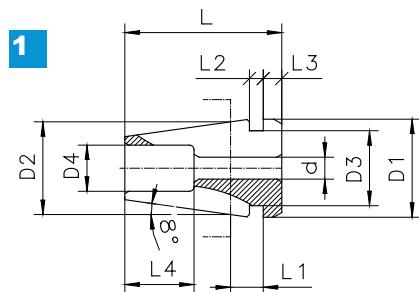
ER 11	0.5 – 07.00	■	7.5	11	M18 x 1.00	23.0	7.0	2
ER 16	0.5 – 10.00	■ ■	10.5	16	M24 x 1.00	32.0	10.0	2
ER 20	0.5 – 13.00	■ ■	13.5	20	M28 x 1.50	37.5	11.0	2
ER 25	0.5 – 17.00	■ ■	18.0	25	M32 x 1.50	41.0	12.0	2
ER 32	1.0 – 22.00	■ ■	23.5	32	M40 x 1.50	48.0	14.0	2
ER 40	2.0 – 30.00	■ ■	30.5	40	M50 x 1.50	54.0	16.0	2

Collets

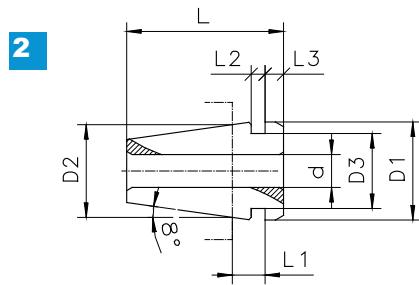
DIN 6499/ISO 15488

Dimensions of ER Collets

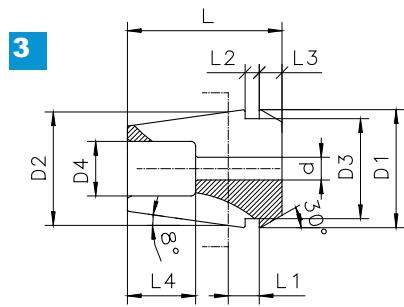
Size	d [mm]	D1 [mm]	D2 [mm]	D3 [mm]	D4 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	Drawing
ER 8	1.0 – 2.50	8.5	8.0	6.5	4.0	13.6	2.98	1.2	1.5	6.0	1
ER 8	3.0 – 5.00	8.5	8.0	6.5	–	13.6	2.98	1.2	1.5	–	2



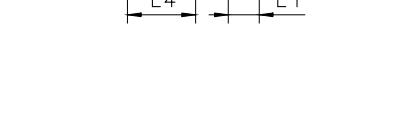
ER 11	1.0 – 2.50	11.5	11.0	9.5	5.0	18.0	3.80	2.0	2.5	9.0	3
ER 11	3.0 – 7.00	11.5	11.0	9.5	–	18.0	3.80	2.0	2.5	–	4



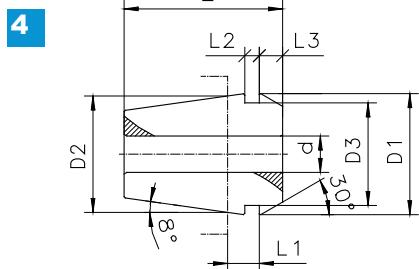
ER 20	1.0 – 1.59	21.0	20.0	17.4	9.0	31.5	6.36	2.8	4.8	16.0	3
ER 20	2.0 – 6.50	21.0	20.0	17.4	9.0	31.5	6.36	2.8	4.8	13.0	3
ER 20	7.0 – 13.00	21.0	20.0	17.4	–	31.5	6.36	2.8	4.8	–	4



ER 25	1.0 – 1.59	26.0	25.0	22.0	12.0	34.0	6.66	3.1	5.0	18.0	3
ER 25	2.0 – 7.50	26.0	25.0	22.0	12.0	34.0	6.66	3.1	5.0	15.0	3
ER 25	8.0 – 17.00	26.0	25.0	22.0	–	34.0	6.66	3.1	5.0	–	4



ER 32	2.0 – 4.76	33.0	32.0	29.2	15.0	40.0	7.16	3.6	5.5	20.0	3
ER 32	5.0 – 7.50	33.0	32.0	29.2	15.0	40.0	7.16	3.6	5.5	15.0	3
ER 32	8.0 – 22.00	33.0	32.0	29.2	–	40.0	7.16	3.6	5.5	–	4



ER 40	3.0 – 4.76	41.0	40.0	36.2	20.0	46.0	7.66	4.1	7.0	24.0	3
ER 40	5.0 – 8.50	41.0	40.0	36.2	20.0	46.0	7.66	4.1	7.0	18.0	3
ER 40	9.0 – 30.00	41.0	40.0	36.2	–	46.0	7.66	4.1	7.0	–	4

ER 50	6.0 – 10.00	52.0	50.0	46.0	20.0	60.0	12.60	5.5	8.5	32.0	3
ER 50	12.0 – 36.00	52.0	50.0	46.0	–	60.0	12.60	5.5	8.5	–	4



Clamping Nuts Tightening Torque

Recommended Tightening Torque

Clamping Nut Type	Collet Type	\varnothing [mm]	Recommended Torque [Nm]		
			ER	ER-GB	TORCO-FIX
Hi-Q/ER	ER 11 MB	0.2 – 0.9	8	–	0, I
		1.0 – 2.9	8	8	0, I
		3.0 – 7.0	24	16	0, I
	ER 16 MB	0.2 – 0.9	8	–	0, I
		1.0	8	–	0, I
		1.5 – 3.5	20	–	0, I
		4.0 – 4.5	40	40	I, II
		5.0 – 10.0	56	44	II
	ER 20	1.0	16	–	0, I
		1.5 – 6.5	32	32	I, II
		7.0 – 13.0	80	35	I, II
Hi-Q/ERC	ER 25	1.0 – 3.5	24	–	I
		4.0 – 4.5	56	56	I, II
		5.0 – 7.5	80	80	II, III
		8.0 – 17.0	104	104	II, III
	ER 32	2.0 – 2.5	24	–	0, I
		3.0 – 22.0	136	136	II, III
	ER 40	3.0 – 26.0	176	176	II, III
	ER 50	6.0 – 36.0	240	300	III

Clamping Nut Type	Collet Type	\varnothing [mm]	Recommended Torque [Nm]		
			ER	ER-GB	TORCO-FIX
Hi-Q/ERB	ER 16	1.0	6.4	–	0, I
		1.5 – 3.5	16	–	0, I
		4.0 – 4.5	32	32	I, II
		5.0 – 10.0	56	44	II
	ER 20	1.0	12	–	0, I
		1.5 – 6.5	24	24	0, I, II
		7.0 – 13.0	80	24	0, I, II
	ER 25	1.0 – 3.9	20	–	0, I, II
		4.0 – 4.5	48	48	I, II
		5.0 – 7.5	72	72	II, III
		8.0 – 16.0	104	79	II, III
Hi-Q/ERCBC	ER 32	2.0 – 2.5	20	–	0, I, II
		3.0 – 7.5	128	104	II, III
		8.0 – 20.0	136	114	II, III
	ER 40	3.0 – 26.0	176	176	II, III
	ER 50	6.0 – 34.0	240	300	III

! The maximum torque shall not be more than 25% above the recommended tightening torque. Higher tightening torque may result in the deformation of the toolholder.

Torque wrenches and matching products see page 12.3/12.4.

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

Clamping Nuts Tightening Torque

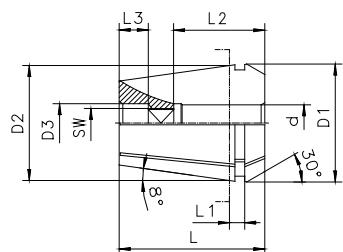
Recommended Tightening Torque

Clamping Nut Type	Collet Type	\varnothing [mm]	Recommended Torque [Nm]		
			ER	ER-GB	TORCO-FIX
Hi-Q/ERM Hi-Q/ERMC	ER 8 MB	0.2 – 0.9	6	–	0
	ER 8	1.0 – 5.0	6	–	0
	ER 11 MB	0.2 – 0.9	8	–	0, I
	ER 11	1.0 – 2.9	8	8	0, I
		3.0 – 7.0	16	13	0, I
	ER 16 MB	0.2 – 0.9	8	–	0, I
	ER 16	1.0	8	–	0, I
		1.5 – 3.5	20	–	0, I
		4.0 – 10.0	24	24	0, I, II
	ER 20	1.0	16	–	0, I
		1.5 – 13.0	28	28	I, II
	ER 25	1.0 – 3.5	24	–	0, I, II
		4.0 – 17.0	32	32	I, II
ER MS	ER 8 MB	0.2 – 0.9	6	–	0
	ER 8	1.0 – 5.0	6	–	0
	ER 11 MB	0.2 – 0.9	8	–	0, I
	ER 11	1.0 – 7.0	10	–	0, I
	ER 16 MB	0.2 – 0.9	12	–	0, I
	ER 16	1.0	12	–	0, I
		1.5 – 10.00	20	–	0, I
	ER 20	1.0	12	–	0, I
		1.5 – 13.0	18.4	–	0, I

Clamping Nut Type	Collet Type	\varnothing [mm]	Recommended Torque [Nm]		
			ER	ER-GB	TORCO-FIX
Hi-Q/ERAX Hi-Q/ERAXC	ER 11 MB	0.2 – 0.9	8	–	0, I
	ER 11	1.0 – 2.9	8	8	0, I
		3.0 – 7.0	24	21	0, I, II
		0.2 – 0.9	8	–	0, I
	ER 16	1.0	8	–	0, I
		1.5 – 3.5	20	–	0, I, II
		4.0 – 10.0	40	40	I, II
	ER 20	1.0	16	–	0, I
		1.5 – 13.0	52	35	I, II
	ER 25	1.0 – 3.5	24	–	0, I, II
		4.0 – 4.5	56	56	II
		5.0 – 17.0	80	80	II, III
	ER 32	2.0 – 2.5	24	–	0, I, II
		3.0 – 22.0	104	104	II, III
	ER 40	3.0 – 26.0	128	128	II, III

! The maximum torque shall not be more than 25% above the recommended tightening torque. Higher tightening torque may result in the deformation of the toolholder.

Torque wrenches and matching products see page 12.3/12.4.



Tapping Collets

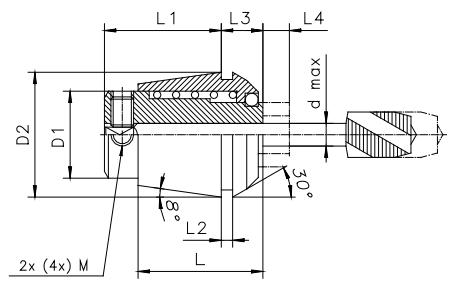
			ER 11-GB L = 18.0 L1 = 2.0 D1 = 11.3 D2 = 11.0	ER 16-GB L = 27.5 L1 = 2.7 D1 = 16.8 D2 = 16.0	ER 20-GB L = 31.5 L1 = 2.8 D1 = 20.8 D2 = 20.0	ER 25-GB L = 34.0 L1 = 3.1 D1 = 25.8 D2 = 25.0	ER 32-GB L = 40.0 L1 = 3.6 D1 = 32.8 D2 = 32.0	ER 40-GB L = 46.0 L1 = 4.1 D1 = 40.8 D2 = 40.0	ER 50-GB L = 60.0 L1 = 8.75 D1 = 51.8 D2 = 51.0					
d [mm]	SW [mm]	L2 [mm]	L3 [mm]	D3 [mm]	L3 [mm]	D3 [mm]	L3 [mm]	D3 [mm]	L3 [mm]	D3 [mm]	L3 [mm]	D3 [mm]	L3 [mm]	D3 [mm]
2.8	2.1	12	—	—	—	—	—	—	—	—	—	—	—	—
3.5	2.7	14	—	—	—	—	—	—	—	—	—	—	—	—
4	3	14	—	—	—	—	—	—	—	—	—	—	—	—
4	3.15 / 3.2	ER 11=14 ER 16-32=15	—	—	4.8	7.5	9.8	9	11.8	12	17.8	15	—	—
4.5	3.4	ER 11=14 ER 16-32=15	—	—	4.8	7.5	9.8	9	11.8	12	17.8	15	—	—
5	4	ER 11=14 ER 16-32=18	—	—	4.8	7.5	9.8	9	11.8	12	17.8	15	—	—
5.5	4.3	18	—	—	4.8	7.5	9.8	9	11.8	12	17.8	15	—	—
5.5	4.5	18	—	—	4.8	7.5	9.8	9	11.8	12	17.8	15	—	—
6	4.5	18	—	—	4.8	7.5	8.8	9	10.8	12	16.8	15	22.8	20
6	4.9	ER 11=14 ER 16-40=18	—	—	4.8	7.5	8.8	9	10.8	12	16.8	15	22.8	20
6.2	5	18	—	—	4.8	7.5	8.8	9	10.8	12	16.8	15	22.8	20
6.3	5	18	—	—	4.8	7.5	8.8	9	10.8	12	16.8	15	22.8	20
7	5.5	18	—	—	3.8	8	7.8	9	9.8	12	15.8	15	21.8	20
7.1	5.6	18	—	—	3.8	8	7.8	9	9.8	12	15.8	15	21.8	20
8	6.2 / 6.3	22	—	—	—	—	2.8	10	4.8	12	10.8	15	16.8	20
8.5	6.5	22	—	—	—	—	2.8	10	4.8	12	10.8	15	16.8	20
9	7/7.1	22	—	—	—	—	2.8	10	3.8	12	9.8	15	15.8	20
10	8	25	—	—	—	—	—	—	—	—	6.8	15	12.8	20
10.5	8	25	—	—	—	—	—	—	—	—	6.8	15	12.8	20
11	9	25	—	—	—	—	—	—	—	—	5.8	15	11.8	20
11.2	9	25	—	—	—	—	—	—	—	—	5.8	15	11.8	20
12	9	25	—	—	—	—	—	—	—	—	5.8	15	11.8	20
12.5	10	25	—	—	—	—	—	—	—	—	4.8	15	10.8	20
14	11/11.2	25	—	—	—	—	—	—	—	—	3.8	17	9.8	20
15	12	25	—	—	—	—	—	—	—	—	3.8	17	9.8	20
16	12/12.5	25	—	—	—	—	—	—	—	—	2.8	18	8.8	20
17	13	25	—	—	—	—	—	—	—	—	2.8	19.5	8.8	20
18	14.5	25	—	—	—	—	—	—	—	—	2.8	21	7.8	21
20	16	28	—	—	—	—	—	—	—	—	2.8	21.5	3.8	22
22	18	ER 40=28 ER 50=41	—	—	—	—	—	—	—	—	—	3.8	24	—
25	20	41	—	—	—	—	—	—	—	—	—	—	—	—
28	22	41	—	—	—	—	—	—	—	—	—	—	—	—
32	24	41	—	—	—	—	—	—	—	—	—	—	—	—

Overview tapping collets without axial compensation see page 3.4.

ET1

PCM Tapping Collets

Type	Range	d [mm]	D1 [mm]	D2 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	M [mm]
ET1-12	M 0.5 – M 4	3.55	7	11.5	18	16.5	2.5	5	5.5	2 x M 2.5
ET1-16	M 0.7 – M 6	6.3	11	17	22	20	2.8	7	7	2 x M 4 4 x M 4
ET1-20	M 1 – M 8 (M 10)	7.1	14	21	24	23	2.8	8	7	2 x M 4 4 x M 4 4 x M 5
ET1-25	M 1 – M 10 (M 12)	10	19	26	26	24	3	10	8	2 x M 5 4 x M 5 4 x M 6
ET1-32	M 4 – M 12 (M 16)	12.5	23	33	33	32	3	11	10	2 x M 5 4 x M 5 4 x M 6 4 x M 8
ET1-40	M 6 – M 16 (M 20)	17	28	41	42	42	3	12	13	4 x M 6 4 x M 6



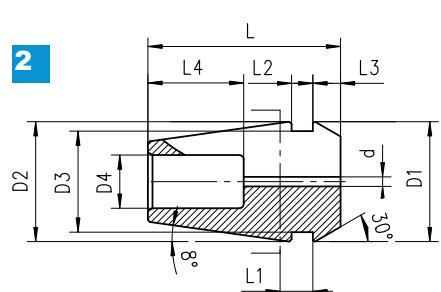
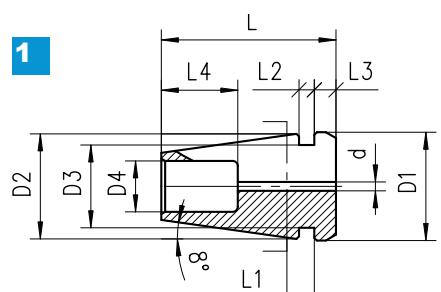
!

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

ER | MB
DIN 6499

Microbore Collets

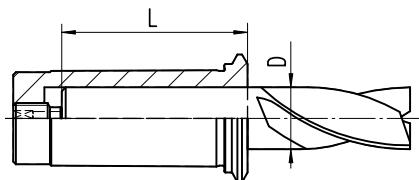
Size	d [mm]	D1 [mm]	D2 [mm]	D3 [mm]	D4 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	Drawing
ER 8-MB	0.2 – 0.9	8.5	8.0	6.5	4.0	13.5	1.2	1.2	1.5	6.0	1
ER 11-MB	0.2 – 0.9	11.5	11.0	9.5	5.0	18.0	2.0	2.0	2.5	9.0	2
ER 16-MB	0.2 – 0.9	17.0	16.0	13.8	7.5	27.5	6.3	2.7	4.0	13.0	2



!

The collets type ER-MB are only available in the above mentioned types. They have no multiple clamping capacity. Only nominal diameters h7 can be clamped!

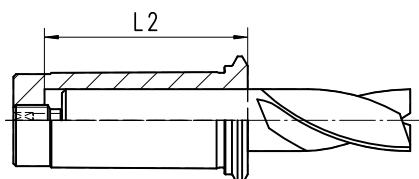
13



Presetting Range

Presetting Range of powRgrip® Collets

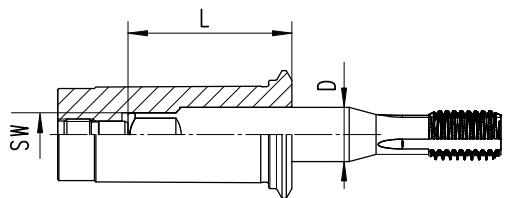
D [mm]	D [Inch]	DIN 1835-1/ DIN 6535	PG 10		PG 15		PG 25		PG 32	
			L min. [mm]	L max. [mm]						
0.20 – 1.00	–	–	20.0	24.0	–	–	–	–	–	–
1.50	1/16"	–	16.0	20.0	–	–	–	–	–	–
2.00 – 2.50	–	28.0	25.0	30.0	–	–	–	–	–	–
3.00 – 5.50	1/8", 3/16"	28.0	25.0	30.0	25.0	30.0	25.0	32.5	–	–
6.00	1/4"	36.0	30.0	35.0	33.0	38.0	33.0	40.5	33.5	40.9
7.00 – 9.00	5/16"	36.0	–	–	33.0	38.0	33.0	40.5	33.5	40.9
10.00	3/8"	40.0	–	–	37.0	40.5	37.0	44.5	35.5	44.9
11.00	7/16"	40.0	–	–	–	–	37.0	44.5	35.5	44.9
12.00 – 15.00	1/2", 9/16"	45.0	–	–	–	–	42.0	49.5	40.5	49.9
16.00 – 18.00	5/8", 11/16"	48.0	–	–	–	–	45.5	50.0	43.5	52.9
20.00	3/4"	50.0	–	–	–	–	47.5	50.0	45.5	54.9
22.00	7/8"	50.0	–	–	–	–	–	–	45.5	54.9
25.00	1"	56.0	–	–	–	–	–	–	49.5	58.0



Size	PG 10	PG 15	PG 25	PG 32
L2 max	–	40.5	50.0	58.0

! Never clamp a powRgrip® collet without a tool.
Collet may be damaged!

L2 = max. depth (without adjusting screw)



Presetting Range TAP

Presetting Range of powRgrip® Tapping Collets

D [mm]	SW [mm]	PG 15-TAP		PG 25-TAP	
		L min. [mm]	L max. [mm]	L min. [mm]	L max. [mm]
3.5	2.7	27.0	29.0	–	–
4.5	3.4	27.0	29.0	–	–
6.0	4.9	29.0	31.0	–	–
7.0	5.5	29.0	31.0	–	–
8.0	6.2	33.5	36.0	33.5	36.0
9.0	7.0	34.5	37.0	34.5	37.0
10.0	8.0	35.5	38.0	38.5	41.0
11.0	9.0	–	–	39.5	42.0
12.0	9.0	–	–	39.5	42.0
14.0	11.0	–	–	41.5	44.0
16.0	12.0	–	–	42.5	45.0

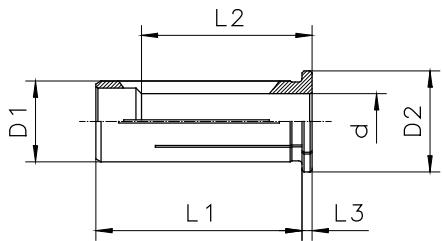
! Never clamp a powRgrip® collet without a tool.
Collet may be damaged!



Swiss
Precision
Tools

HS

Technical Information



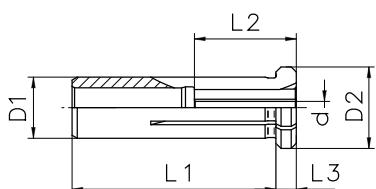
Reduction Sleeves HS 12 | HS 12-CF

Type	d [mm]	d [Inch]	D1 [mm]	D2 [mm]	L1 [mm]	L2 [mm]	L3 [mm]
HS 12 / Ø 3.00	3.000		12	16	40	29	4
HS 12 / Ø 1/8"	3.175	1/8"	12	16	40	29	4
HS 12 / Ø 4.00	4.000		12	16	40	29	4
HS 12 / Ø 3/16"	4.763	3/16"	12	16	40	29	4
HS 12 / Ø 5.00	5.000		12	16	40	29	4
HS 12 / Ø 6.00	6.000		12	16	40	36	4
HS 12 / Ø 1/4"	6.350	1/4"	12	16	40	36	4
HS 12 / Ø 7.00	7.000		12	16	40	37	4
HS 12 / Ø 5/16"	7.938	5/16"	12	16	40	37	4
HS 12 / Ø 8.00	8.000		12	16	40	37	4
HS 12 / Ø 9.00	9.000		12	16	40	37	4
HS 12 / Ø 3/8"	9.525	3/8"	12	16	40	40	4
HS 12 / Ø 10.00	10.000		12	16	40	40	4

HS 12(-CF) | HS 12-MB | HS 20(-CF)

Reduction Sleeves HS 20 | HS 20-CF

Type	d [mm]	d [Inch]	D1 [mm]	D2 [mm]	L1 [mm]	L2 [mm]	L3 [mm]
HS 20 / Ø 3.00	3.000		20	25	50	28	4
HS 20 / Ø 1/8"	3.175	1/8"	20	25	50	28	4
HS 20 / Ø 4.00	4.000		20	25	50	28	4
HS 20 / Ø 3/16"	4.763	3/16"	20	25	50	28	4
HS 20 / Ø 5.00	5.000		20	25	50	28	4
HS 20 / Ø 6.00	6.000		20	25	50	36	4
HS 20 / Ø 1/4"	6.350	1/4"	20	25	50	36	4
HS 20 / Ø 7.00	7.000		20	25	50	38	4
HS 20 / Ø 5/16"	7.938	5/16"	20	25	50	37	4
HS 20 / Ø 8.00	8.000		20	25	50	37	4
HS 20 / Ø 9.00	9.000		20	25	50	38	4
HS 20 / Ø 3/8"	9.525	3/8"	20	25	50	38	4
HS 20 / Ø 10.00	10.000		20	25	50	40	4
HS 20 / Ø 11.00	11.000		20	25	50	40	4
HS 20 / Ø 12.00	12.000		20	25	50	45	4
HS 20 / Ø 1/2"	12.700	1/2"	20	25	50	45	4
HS 20 / Ø 13.00	13.000		20	25	50	45	4
HS 20 / Ø 14.00	14.000		20	25	50	45	4
HS 20 / Ø 15.00	15.000		20	25	50	45	4
HS 20 / Ø 5/8"	15.875	5/8"	20	25	50	48	4
HS 20 / Ø 16.00	16.000		20	25	50	48	4

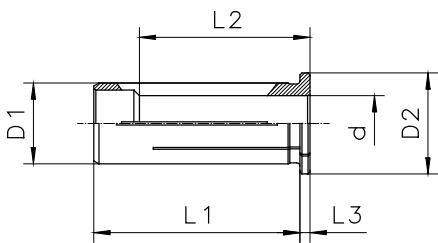


Reduction Sleeves Microbore HS 12-MB

Type	d [mm]	d [Inch]	D1 [mm]	D2 [mm]	L1 [mm]	L2 [mm]	L3 [mm]
HS 12-MB / Ø 1.00	1.000	-	12	16	40	20	4
HS 12-MB / Ø 1.50	1.500	-	12	16	40	20	4
HS 12-MB / Ø 2.00	2.000	-	12	16	40	20	4
HS 12-MB / Ø 2.50	2.500	-	12	16	40	20	4

! Never clamp a reduction sleeve without a tool.
Reduction sleeve may be damaged!

13



Reduction Sleeves HS 25

Type	d [mm]	d [Inch]	D1 [mm]	D2 [mm]	L1 [mm]	L2 [mm]	L3 [mm]
HS 25 / Ø 3.00	3.000		25	30	56	29	4
HS 25 / Ø 1/8"	3.175	1/8"	25	30	56	29	4
HS 25 / Ø 4.00	4.000		25	30	56	29	4
HS 25 / Ø 3/16"	4.763	3/16"	25	30	56	29	4
HS 25 / Ø 5.00	5.000		25	30	56	29	4
HS 25 / Ø 6.00	6.000		25	30	56	37	4
HS 25 / Ø 1/4"	6.350	1/4"	25	30	56	37	4
HS 25 / Ø 7.00	7.000		25	30	56	37	4
HS 25 / Ø 5/16"	7.938	5/16"	25	30	56	37	4
HS 25 / Ø 8.00	8.000		25	30	56	37	4
HS 25 / Ø 9.00	9.000		25	30	56	38	4
HS 25 / Ø 3/8"	9.525	3/8"	25	30	56	38	4
HS 25 / Ø 10.00	10.000		25	30	56	40	4
HS 25 / Ø 7/16"	11.112	7/16"	25	30	56	40	4
HS 25 / Ø 12.00	12.000		25	30	56	46	4
HS 25 / Ø 1/2"	12.700	1/2"	25	30	56	46	4
HS 25 / Ø 14.00	14.000		25	30	56	47	4
HS 25 / Ø 9/16"	14.288	9/16"	25	30	56	47	4
HS 25 / Ø 5/8"	15.875	5/8"	25	30	56	48	4
HS 25 / Ø 16.00	16.000		25	30	56	48	4
HS 25 / Ø 11/16"	17.461	11/16"	25	30	56	48	4
HS 25 / Ø 18.00	18.000		25	30	56	48	4
HS 25 / Ø 3/4"	19.050	3/4"	25	30	56	48	4
HS 25 / Ø 20.00	20.000		25	30	56	50	4
HS 25 / Ø 13/16"	20.638	13/16"	25	30	56	50	4

Reduction Sleeves HS 32

Type	d [mm]	d [Inch]	D1 [mm]	D2 [mm]	L1 [mm]	L2 [mm]	L3 [mm]
HS 32 / Ø 3/16"	4.763	3/16"	32	36	60	29	4
HS 32 / Ø 5.00	5.000		32	36	60	29	4
HS 32 / Ø 6.00	6.000		32	36	60	36	4
HS 32 / Ø 1/4"	6.350	1/4"	32	36	60	36	4
HS 32 / Ø 7.00	7.000		32	36	60	37	4
HS 32 / Ø 5/16"	7.938	5/16"	32	36	60	36	4
HS 32 / Ø 8.00	8.000		32	36	60	36	4
HS 32 / Ø 9.00	9.000		32	36	60	37	4
HS 32 / Ø 3/8"	9.525	3/8"	32	36	60	37	4
HS 32 / Ø 10.00	10.000		32	36	60	40	4
HS 32 / Ø 11.00	11.000		32	36	60	40	4
HS 32 / Ø 7/16"	11.112	7/16"	32	36	60	45	4
HS 32 / Ø 12.00	12.000		32	36	60	45	4
HS 32 / Ø 1/2"	12.700	1/2"	32	36	60	45	4
HS 32 / Ø 13.00	13.000		32	36	60	45	4
HS 32 / Ø 14.00	14.000		32	36	60	46	4
HS 32 / Ø 9/16"	14.288	9/16"	32	36	60	46	4
HS 32 / Ø 15.00	15.000		32	36	60	46	4
HS 32 / Ø 5/8"	15.875	5/8"	32	36	60	46	4
HS 32 / Ø 16.00	16.000		32	36	60	48	4
HS 32 / Ø 17.00	17.000		32	36	60	48	4
HS 32 / Ø 11/16"	17.461	11/16"	32	36	60	48	4
HS 32 / Ø 18.00	18.000		32	36	60	49	4
HS 32 / Ø 19.00	19.000		32	36	60	49	4
HS 32 / Ø 3/4"	19.050	3/4"	32	36	60	50	4
HS 32 / Ø 20.00	20.000		32	36	60	50	4
HS 32 / Ø 13/16"	20.638	13/16"	32	36	60	50	4
HS 32 / Ø 22.00	22.000		32	36	60	50	4
HS 32 / Ø 7/8"	22.225	7/8"	32	36	60	50	4
HS 32 / Ø 15/16"	23.813	15/16"	32	36	60	52	4
HS 32 / Ø 25.00	25.000		32	36	60	56	4
HS 32 / Ø 1"	25.400	1"	32	36	60	56	4



Never clamp a reduction sleeve without a tool.
Reduction sleeve may be damaged!

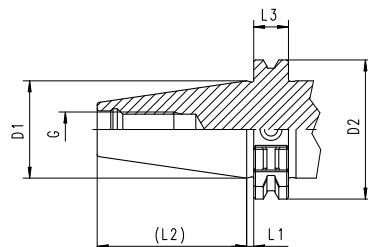


Technical Information

Standards

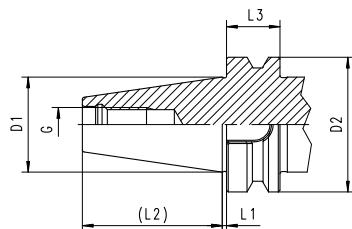
TC DIN 69871

Type	D1 [mm]	D2 [mm]	L1 [mm]	L2 [mm]	L3 [mm]	G
TC30	31.75	50.00	3.20	47.80	15.85	M12
TC40	44.45	63.55	3.20	68.40	15.85	M16
TC50	69.85	97.50	3.20	101.75	15.85	M24



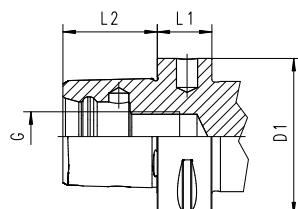
BT MAS 403

Type	D1 [mm]	D2 [mm]	L1 [mm]	L2 [mm]	L3 [mm]	G
BT30	31.75	46	2	48.40	20	M12
BT40	44.45	63	2	65.40	25	M16
BT50	69.85	100	3	101.80	35	M24



Polygon Shank ISO 26623

Type	D1 [mm]	L1 [mm]	L2 [mm]	G
Polygon Shank C3	32	15	19	M12 x 1.5
Polygon Shank C4	40	20	24	M14 x 1.5
Polygon Shank C5	50	20	30	M16 x 1.5
Polygon Shank C6	63	22	38	M20 x 2.0
Polygon Shank C8	80	30	48	M20 x 2.0



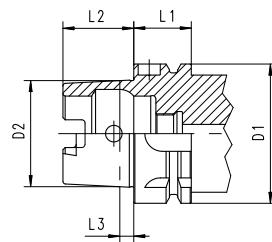
Technical Information

Standards

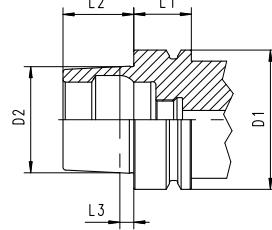
HSK DIN 69893

Type	D1 [mm]	D2 [mm]	L1 [mm]	L2 [mm]	L3 [mm]	Drawing
HSK-A 25	25	19	10	13	2.5	1
HSK-C 25	25	19	8	13	2.5	1
HSK-E 25	25	19	10	13	2.5	2
HSK-A 32	32	24	20	16	3.2	1
HSK-C 32	32	24	10	16	3.2	1
HSK-E 32	32	24	20	16	3.2	2
HSK-A 40	40	30	20	20	4	1
HSK-C 40	40	30	10	20	4	1
HSK-E 40	40	30	20	20	4	2
HSK-A 50	50	38	26	25	5	1
HSK-C 50	50	38	12.5	25	5	1
HSK-E 50	50	38	26	25	5	2
HSK-F 50	50	30	26	20	4	2
HSK-A 63	63	48	26	32	6.3	1
HSK-C 63	63	48	12.5	32	6.3	1
HSK-E 63	63	48	26	32	6.3	2
HSK-F 63	63	38	26	25	5	2
HSK-A 80	80	60	26	40	8	1
HSK-C 80	80	60	16	40	8	1
HSK-F 80	80	48	26	32	6.3	2
HSK-A 100	100	75	29	50	10	1
HSK-C 100	100	75	16	50	10	1
HSK-E 100	100	70	29	50	10	2

1



2





TAP Dimensions

Shank Diameter of Taps

Thread		ISO 529*		ISO 2283		DIN 371		DIN 357 DIN 376		DIN 352		JIS B 4430 1998		ASME B 94.9 1999	
[mm]	[Inch]	[Ø]	[□]	[Ø]	[□]	[Ø]	[□]	[Ø]	[□]	[Ø]	[□]	[Ø]	[□]	[Ø]	[□]
M 1.0		2.50	2.00	—	—	2.50	2.10	—	—	2.50	2.10	3.00	2.50	—	—
M 1.1		2.50	2.00	—	—	2.50	2.10	—	—	2.50	2.10	3.00	2.50	—	—
M 1.2		2.50	2.00	—	—	2.50	2.10	—	—	2.50	2.10	3.00	2.50	—	—
M 1.4		2.50	2.00	—	—	2.50	2.10	—	—	2.50	2.10	3.00	2.50	—	—
M 1.6	1/16	2.50	2.00	—	—	2.50	2.10	—	—	2.50	2.10	3.00	2.50	0.141	0.110
M 1.7		—	2.00	—	—	2.50	2.10	—	—	2.50	2.10	3.00	2.50	—	—
M 1.8		2.50	2.00	—	—	2.50	2.10	—	—	2.50	2.10	3.00	2.50	0.141	0.110
M 2.0		2.50	2.00	—	—	2.80	2.10	—	—	2.80	2.10	3.00	2.50	0.141	0.110
M 2.2		2.80	2.24	—	—	2.80	2.10	—	—	2.80	2.10	3.00	2.50	0.141	0.110
M 2.3		—	—	—	—	2.80	2.10	—	—	2.80	2.10	3.00	2.50	—	—
M 2.5	3/32	2.80	2.24	—	—	2.80	2.10	—	—	2.80	2.10	3.00	2.50	0.141	0.110
M 2.6		—	—	—	—	2.80	2.10	—	—	2.80	2.10	3.00	2.50	—	—
M 3.0	1/8	3.15	2.50	2.24	1.80	3.50	2.70	2.20	—	3.50	2.70	4.00	3.20	0.141	0.110
M 3.5		3.55	2.80	2.50	2.00	4.00	3.00	2.50	2.10	4.00	3.00	4.00	3.20	0.141	0.110
M 4.0	5/32	4.00	3.15	3.15	2.50	4.50	3.40	2.80	2.10	4.50	3.40	5.00	4.00	0.168	0.131
M 4.5	3/16	4.50	3.55	3.55	2.80	6.00	4.90	3.50	2.70	6.00	4.90	5.00	4.00	0.194	0.152
M 5.0		5.00	4.00	4.00	3.15	6.00	4.90	3.50	2.70	6.00	4.90	5.50	4.50	0.194	0.152
M 6.0	1/4	6.30	5.00	4.50	3.55	6.00	4.90	4.50	3.40	6.00	4.90	6.00	4.50	0.255	0.191
M 7.0	5/16	7.10	5.60	5.60	4.50	7.00	5.50	5.50	4.30	6.00	4.90	6.20	5.00	0.318	0.238
M 8.0		8.00	6.30	6.30	5.00	8.00	6.20	6.00	4.90	6.00	4.90	6.20	5.00	0.318	0.238
M 9.0		9.00	7.10	7.10	5.60	9.00	7.00	7.00	5.50	7.00	5.50	7.00	5.50	—	—
M 10.0	3/8	10.00	8.00	8.00	6.30	10.00	8.00	7.00	5.50	7.00	5.50	7.00	5.50	0.381	0.286
M 11.0		8.00	6.30	8.00	6.30	—	—	8.00	6.20	8.00	6.20	8.00	6.00	—	—
M 12.0	1/2	9.00	7.10	9.00	7.10	—	—	9.00	7.00	9.00	7.00	8.50	6.50	0.367	0.275
M 14.0	9/16	11.20	9.00	11.20	9.00	—	—	11.00	9.00	11.00	9.00	10.50	8.00	0.429	0.322
M 16.0	5/8	12.50	10.00	12.50	10.00	—	—	12.00	9.00	12.00	9.00	12.50	10.00	0.480	0.360
M 18.0	11/16	14.00	11.20	14.00	11.20	—	—	14.00	11.00	14.00	11.00	14.00	11.00	0.542	0.406
M 20.0	13/16	14.00	11.20	14.00	11.20	—	—	16.00	12.00	16.00	12.00	15.00	12.00	0.652	0.489
M 22.0	7/8	16.00	12.50	16.00	12.50	—	—	18.00	14.50	18.00	14.50	17.00	13.00	0.697	0.523
M 24.0	15/16	18.00	14.00	18.00	14.00	—	—	18.00	14.50	18.00	14.50	19.00	15.00	0.760	0.570
M 27.0	1/16	20.00	16.00	—	—	—	—	20.00	16.00	20.00	16.00	20.00	15.00	0.896	0.672
M 30.0	3/16	20.00	16.00	—	—	—	—	22.00	18.00	22.00	18.00	23.00	17.00	1.021	0.766

*M 3-M10 with reinforced shank.

All dimensions in mm (except US Standard ASME B 94.9 in Inch).



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