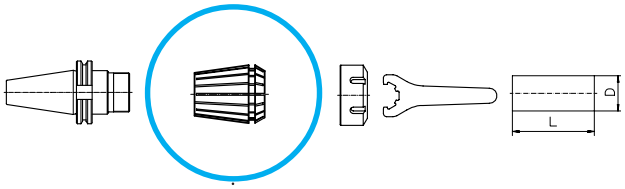
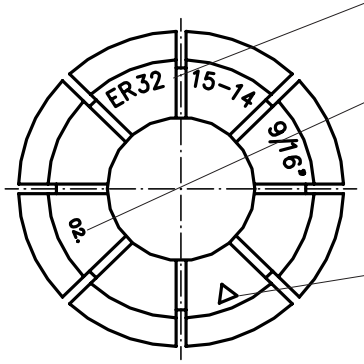
COLLETS



2

ER
ER-UP

FEATURES AND BENEFITS



Marking: Type and size markings easy to read
➪ *Reduced collet selection errors*

Product Traceability: Lot number marked on collets
➪ *Quality control and accountability*

Origin: **REGO-FIX®** invented the ER collet system
➪ *Many years of experience, proven system and reliability*

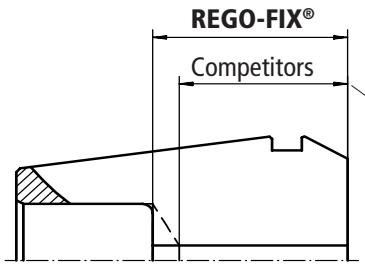
△ : Only original **REGO-FIX®** products have this special symbol
➪ *Guarantees highest quality*

Quality: Swiss made to ISO 9001; DIN 6499
➪ *Product consistency and worldwide acceptance*

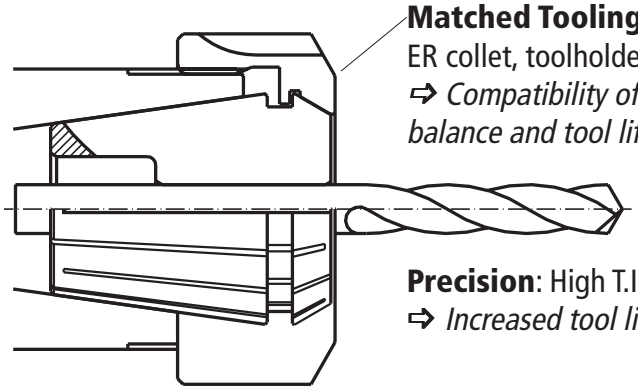
Material: Special spring steel
➪ *Durability and increased collet life*

Wide Clamping Range: Due to 16 slot design
➪ *Less collet inventory necessary*

Wide Product Range: Types ER 8 to ER 50. Clamping Ø 0.2 - 34 mm
➪ *Versatility for a variety of applications*



Clamping Length: 20% greater shank contact on small diameters than other brands
➪ *Higher clamping power and improved T.I.R.*



Matched Tooling System for Best Fit:
ER collet, toolholder, clamping nut and spanner all from **REGO-FIX®**
➪ *Compatibility of the whole system results in the maximum precision, balance and tool life*

Precision: High T.I.R. accuracy over the entire clamping range
➪ *Increased tool life and part quality*

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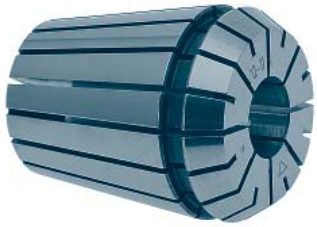
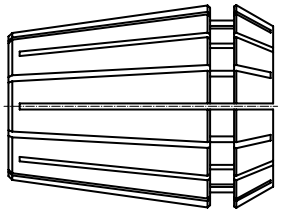


ER
ER-UP

ER STANDARD COLLETS PER DIN STD 6499 FORM B



The **REGO-FIX®** Standard ER collet is the most widely used clamping system in the world. Originally created and patented in 1973 by **REGO-FIX®**, it is ideal for a variety of machining applications including boring, milling, reaming, tapping and grinding. Compared to the Form A nominal diameter collets, Form B collets have a wide clamping range. With a short design profile and greater elasticity, the ER Form B collet offers tighter precision than competitors' collets when used with the **REGO-FIX®** system.

The **REGO-FIX®** Standard ER collet (to DIN 6499) is available in a variety of sizes including ER 8, 11, 16, 20, 25, 32, 40, 50. This wide selection of ER collets can accurately clamp tool shanks ranging from 0.5 mm (0.0197") up to 34.0 mm (1.3386"). Look for the △ on the top of your collet to be assured that you have a quality, Swiss Precision **REGO-FIX®** product.

ER-UP COLLETS ULTRA-PRECISION PER DIN STD 6499 FORM B

The **REGO-FIX®** Ultra-Precision (UP) ER collet is similar to the ER Standard collet except that it combines the advantages of the DIN 6499 Form A + B into one collet. Like the ER Standard collet, it is ideal for a variety of machining applications including boring, milling, reaming, tapping and grinding.

With a multiple clamping range and high concentricity (to DIN 6499 Form A), the **REGO-FIX®** ER-UP collets are primarily used on high-speed spindles or in other high-speed machining applications where low T.I.R. (Total Indicated Runout) is required. Low T.I.R. improves tool life and results in greater machining precision (see chart on page 2-3).

REGO-FIX® ER-UP collets are available in a variety of sizes including ER 8, 11, 16, 20, 25, 32, 40, 50. Clamping capacity is the same as for standard precision collets which ranges from 0.5 mm (0.0197") up to 34.0 mm (1.3386").

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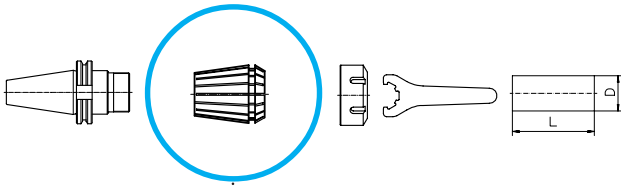
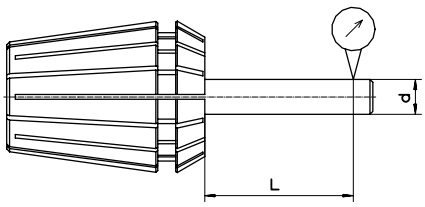


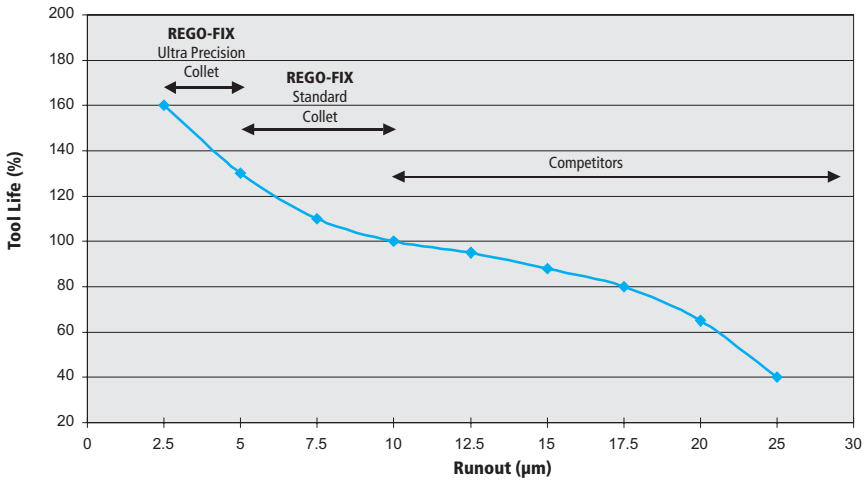
CONCENTRICITY

CONCENTRICITY (T.I.R.) OF COLLETS (DIN 6499 FORM B), TYPE ER (STANDARD) AND ER-UP (ULTRA-PRECISION)



Clamping Range[mm]			T.I.R. [mm]		
From d	**To d**	**L**	**DIN**	**ER** (Standard)	**ER-UP** (Ultra-Precision)
1.0 1.6 3.0 6.0	1.6 3.0 6.0 10.0	6.0 10.0 16.0 25.0	0.015	**0.010**	**0.005**
10.0 18.0	18.0 26.0	40.0 50.0	0.020	**0.010**	**0.005**
26.0	34.0	60.0	0.025	**0.015**	**0.010**

INFLUENCE OF TOOL RUNOUT (T.I.R.) ON TOOL LIFE



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

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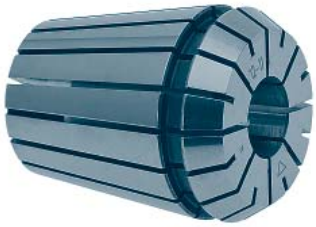
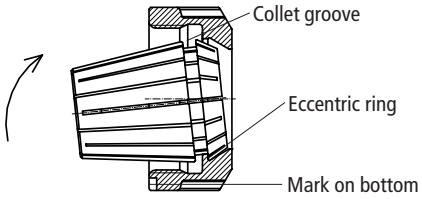


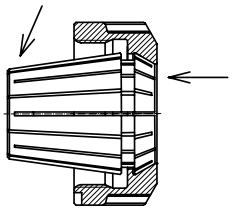
MOUNTING INSTRUCTIONS

MOUNTING INSTRUCTIONS FOR ER-COLLETS PER DIN STD 6499-B

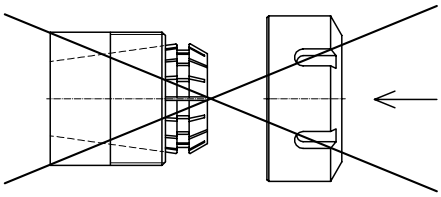
Assembling Collet:
Insert groove of the collet into eccentric ring of the clamping nut at the mark on the bottom of the nut. Push collet in the direction of the arrow until it clicks in. Insert tool. Screw nut with collet onto tool holder.



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 until it disengages from the clamping nut.



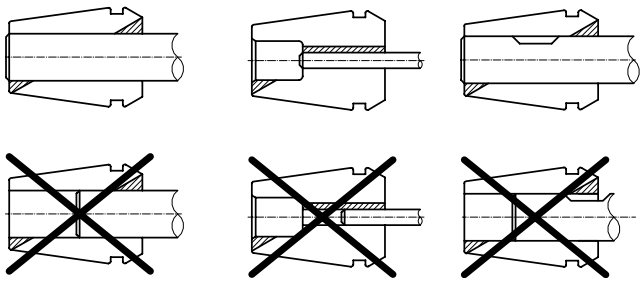
Improper assembly can permanently destroy the concentricity of the collet and may result in a damaged clamping nut.



NOTE:

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

- Never clamp oversize tool shanks !!
e.g. never use a Ø 12-11mm collet to clamp a Ø 12.2 mm shank. Rather use the next bigger collet (here Ø 12.5-11.5mm or Ø 13-12mm collet).



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

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