FAHRION PRÄZISION

AND ALL RUNS SMOOTHLY – 111 YEARS – EXPERIENCE

CENTRO|P premium

CLAMPING SYSTEMS FROM FAHRION

HORN

CENTRO|P
Tangible Benefits of the System

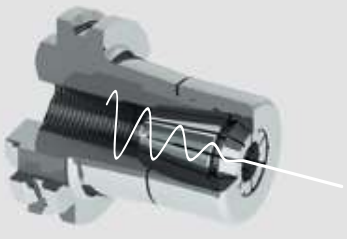
CENTRO|P is a high-precision system of collets, clamping nuts and chucks far superior to conventional collet chucks in all respects. The technological performance of CENTRO|P can be compared with systems such as hydraulic expansion technology, shrink-fit technology, or the power chuck. CENTRO|P offers the full range of these technologies all in one system.

Precision clamping system consisting of:
- Precision Chuck CENTRO|P
- GERC-HP Precision Collet
- HPC Clamping Nut

Clamping is applied mechanically via a cone fit, which means:
- A high concentricity of < 3 µm due to special tuning of the cone tolerances
- System-based damping through the slots of the collet
- A constant clamping force, regardless of the tolerance position from bore to shaft, as the cone balances axially
- A maintenance-free solution, as neither media nor temperature are used for generating clamping force
- A long-lasting system, as neither leaks nor material changes take place

Concentricity of < 3 µm

System-based damping



Constant clamping force

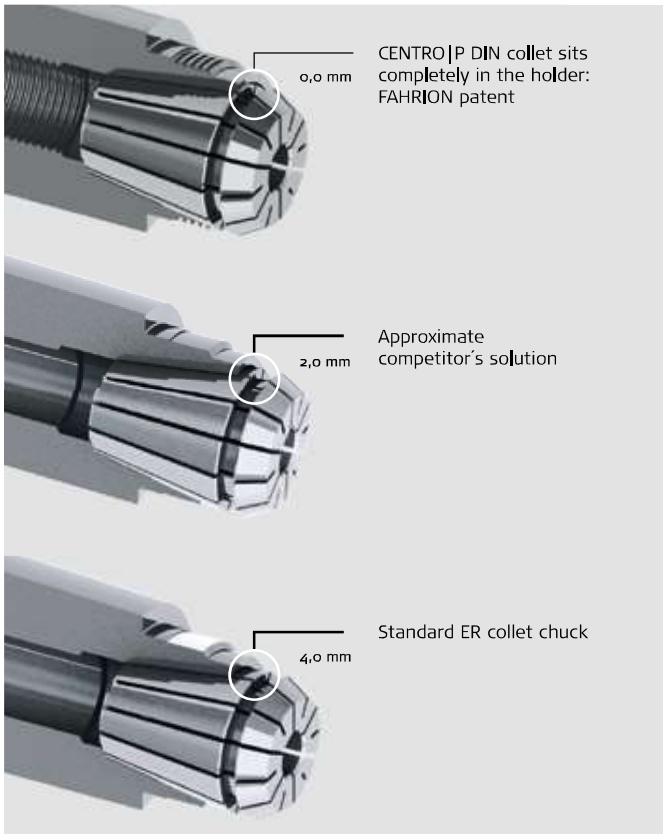
CENTRO|P

Proven Technology for your Benefit

The patented precision clamping system CENTRO|P offers a variety of advantages and, thanks to its highly reliable precision and quality, makes a considerable contribution to more efficient processing while also reducing production costs.

The most important design features are:

- The collet sits completely inside the cone
- A precisely ground double guide for the clamping nut
- A stable trapezoidal thread for transferring of the clamping force
- A chuck body with continuous maximum diameter



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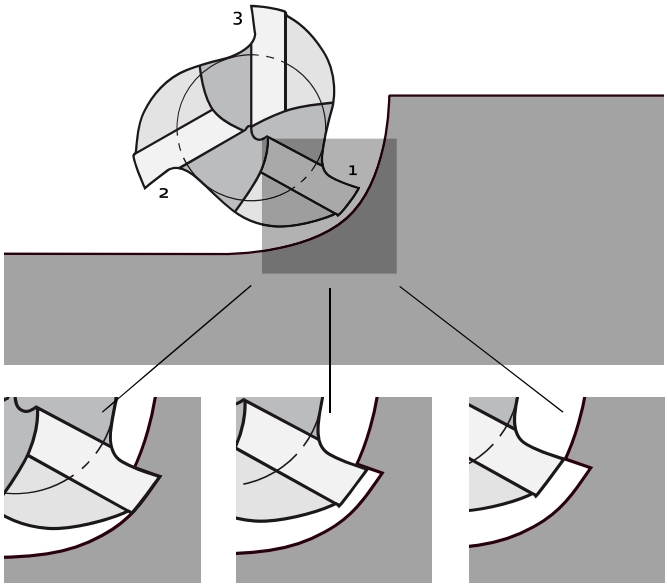
A Good Tool that Saves You Money

Effect of runout on the cutting edges

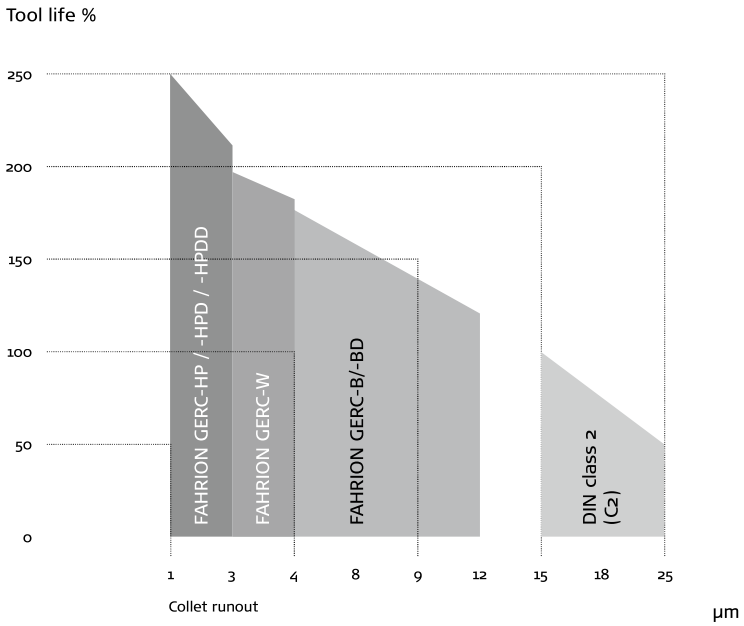


Cutting edge 1
Large chip volume

Cutting edge 2
Minimal chip volume

Cutting edge 3
No chip volume

Influence of collet accuracy on the life of carbide cutting tools



The problem
The higher the concentricity error, the greater the irregular load on the cutting edge. The consequences are increased tool wear and poorer surface finishes. For a good result, the feed must now be reduced.

Cost example for a carbide drill Ø 12 mm with collet DIN ISO 15488 - form B, type 470 E

Example 1: system concentricity ≤ 10 µm

Cost of a carbide drill	approx. 105.00 €
Cost FAHRION GERC32-B collet with concentricity 5 µm	approx. 21.30 €
Cost on basis of tool life of approx. 150 %	approx 126.30 €

Example 2: system concentricity ≤ 25 µm

Cost of a carbide drill	approx. 105.00 €
Cost CER32-K2 collet DIN class 2 with concentricity 20 µm	approx. 12.60 €
Cost on basis of tool life of approx. 55 %	approx 117.60 €
Cost for similar tool life of appprox. 150 %	approx 299.00 €

More than two carbide drills necessary!

Result: Cheap collets almost triple the cost!