

TOOL SOLUTIONS 2/2023

**HIGHEST
CUTTING DATA**

**WANT TO BET
THAT...**

... our Centro | P is better than
your Weldon chuck? Here is your
trial price valid until 30/04/2023

FAHRION®

FAR BEYOND PRECISION

CENTRO | P



FAHRION CENTRO|P

The CENTRO|P is a high-precision system consisting of a collet, chuck and clamping nut. This high-performance clamping system combines the advantages of well-known clamping technologies in a single system. It is very versatile, highly accurate and extremely powerful.



DEGREE OF DAMPING

→ significantly higher than with rigid holders due to the damping behaviour of the collet and clamping nut

STIFFNESS

→ variable projection of the tool through the largest possible tool passage

THE TENSION IS CREATED MECHANICALLY VIA A TAPER FIT, WHICH MEANS:

- high concentricity of $< 3 \mu\text{m}$ through special coordination of the taper tolerances
- system-related damping through the slots of the collet
- constant clamping force for tool shanks with shank tolerances h10
- maintenance-free
- long service life, since neither leaks nor material changes can occur

PRECISION CLAMPING SYSTEM, CONSISTING OF:

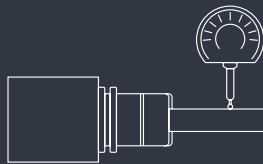
- Precision clamping nut CENTRO|P for all interfaces
- GERC collets in different accuracy classes
- precisely matched CENTRO|P clamping nuts

ADVANTAGES AT A GLANCE

The patented precision clamping system shines through with the multitude of its advantages and, with its reliably high precision and quality, significantly contributes to more efficient processing and reduced production costs.

TRUE RUNNING

ACCURACY 3 μm



DEGREE OF DAMPING

- Significantly higher than with rigid holders due to the damping behaviour of the collet and clamping nut

HOLDING TORQUE

- Usually more than twice as high as standard collet holders of the same size

STIFFNESS

- Variable projection of the tool through the largest possible tool passage

VERSATILITY

- Many different versions, adapted to the respective tasks and problems when milling, drilling, tapping, etc.

FLEXIBILITY

- By simply changing the collet, many diameters and different accuracies up to form fit (square, wedge) can be achieved

HANDLING

- Simple, quick and safe with a closed roller key compared to an open hook key

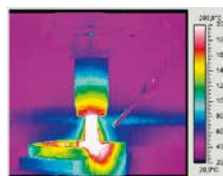
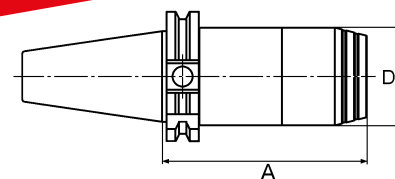
DESIGN FEATURES

- Collet sits completely in the cone
- Precisely ground double guide for the clamping nut
- Stable trapezoidal thread for transmission of the clamping force
- Chuck body with continuous maximum diameter



FAHRION® CENTRO|P precision ER collet chuck

- **30° trapezoidal thread**
- With ground, extra-long double guide compared to 60° V-thread in conventional collet chucks
- Coated clamping nut reduces friction when tightening the nut
- Exact nut centring to minimise imbalance
- **Up to 100% higher holding forces** compared with conventional collet chucks
- **Pre-balanced to G 2.5 / 25,000 rpm**
- Entirely suitable for dry processes and hard milling
- Insensitive to temperature fluctuations up to 200 °C
- Leak-proof up to 80 bar, cooling possible along the cutting edge
- **Extremely high system concentricity and precision of 3 µm achieved with a 2 µm GERC-HP collet.**
- **Supplied without clamping nuts or a chuck key, please order separately!**
- slim and conical versions available on request

True-running accuracy 1 µm

DIN 69893 Form A (HSK-A)

- Internal coolant supply
- When machining with internal coolant supply, a coolant transfer pipe art.no. 431011... should be used

Shank	Clamping range mm	for collets	A mm	D mm	Art.no.	€
HSK 63	1 - 10	GER16-HP/-HPD/-HPDD	100	30	431232 1030	109.-
HSK 63	1 - 10	GER16-HP/-HPD/-HPDD	160	30	431232 1630	159.-
HSK 63	2 - 16	GER25-HP/-HPD/-HPDD	100	40	431232 1040	109.-
HSK 63	2 - 20	GER32-HP/-HPD/-HPDD	70	50	431232 0750	109.-
HSK 63	2 - 20	GER32-HP/-HPD/-HPDD	100	50	431232 1050	109.-
HSK 63	2 - 20	GER32-HP/-HPD/-HPDD	160	50	431232 1650	162.-

DIN ISO 7388-1 / DIN 69871 AD/AF

- Internal coolant supply

Shank	Clamping range mm	for collets	A mm	D mm	Art.no.	€
SK 40	1 - 10	GER16-HP/-HPD/-HPDD	70	30	431230 0730	84.-
SK 40	1 - 10	GER16-HP/-HPD/-HPDD	100	30	431230 1030	94.-
SK 40	1 - 10	GER16-HP/-HPD/-HPDD	160	30	431230 1630	150.-
SK 40	2 - 16	GER25-HP/-HPD/-HPDD	45	40	431230 0440	101.-
SK 40	2 - 16	GER25-HP/-HPD/-HPDD	70	40	431230 0740	84.-
SK 40	2 - 16	GER25-HP/-HPD/-HPDD	100	40	431230 1040	94.-
SK 40	2 - 16	GER25-HP/-HPD/-HPDD	160	40	431230 1640	152.-
SK 40	2 - 20	GER32-HP/-HPD/-HPDD	50	50	431230 0550	89.-
SK 40	2 - 20	GER32-HP/-HPD/-HPDD	70	50	431230 0750	84.-
SK 40	2 - 20	GER32-HP/-HPD/-HPDD	100	50	431230 1050	94.-
SK 40	2 - 20	GER32-HP/-HPD/-HPDD	160	50	431230 1650	152.-

Clamping nuts (nuts for HPC...-DI sealing washers)

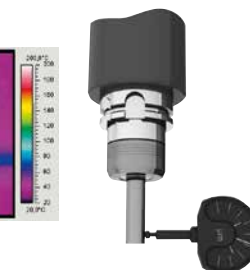
for collets	D mm	Designation	Art.no.	€
GER16-HP/-HPD/-HPDD	30	HPC-16	431237 0016	26.50
GER16-HP/-HPD/-HPDD	30	HPC-16-DI	431237 0116	33.10
GER25-HP/-HPD/-HPDD	40	HPC-25	431237 0025	29.50
GER25-HP/-HPD/-HPDD	40	HPC-25-DI	431237 0125	36.20
GER32-HP/-HPD/-HPDD	50	HPC-32	431237 0032	31.20
GER32-HP/-HPD/-HPDD	50	HPC-32-DI	431237 0132	37.90

Roller chuck key

Designation	for clamping nut	Art.no.	€
RO 30	HPC16 / HPC16-DI	431240 3016	56.-
RO 40	HPC25 / HPC25-DI	431240 3030	56.-
RO 50	HPC32 / HPC32-DI	431240 5032	56.-

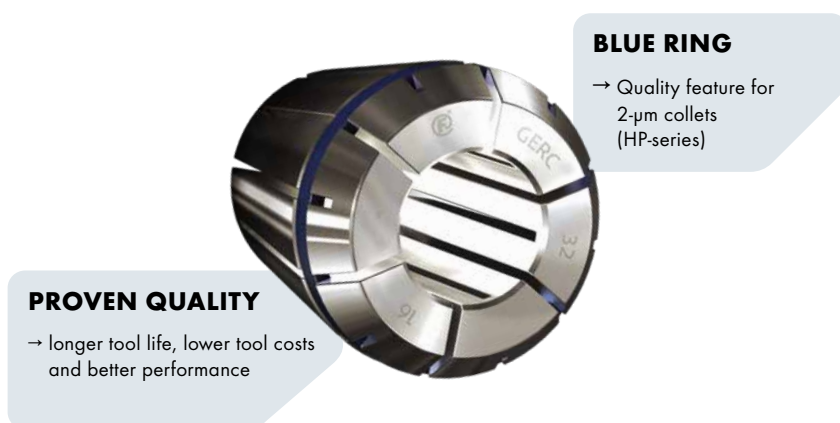
Torque roller chuck key attachment

Designation	for clamping nut	for type	Art.no.	€
DRO 30	HPC16 / HPC16-DI	7026030002	431242 3016	56.-
DRO 40	HPC25 / HPC25-DI	7026030003	431242 4025	56.-
DRO 50	HPC32 / HPC32-DI	7026030003	431242 5032	56.-



FAHRION COLLETS

FAHRION produces a large selection of collet designs according to DIN ISO 15488 (ER/ESX) for different purposes at the Kaisersbach site.



ADVANTAGES OF THE FAHRION COLLETS DIN ISO 15488 - GERC-B AND GERC-HP (ER/ESX)

- Precise concentricity and repetition precision
- Stability thanks to 12 slots and therefore less entanglement when clamping and more stability in high-performance milling
- Consistently high concentricity due to deburred and rounded longitudinal edges
- The FAHRION|Protect superfinish version provides higher corrosion resistance.
- Significantly increased holding forces through coordinated surface accuracy of the clamping bore to the lateral surface

WEDGE COLLET GERC-W TECHNOLOGY

- No more extraction or micro-creeping of the tool thanks to the integrated wedge that rests on the WELDON surface
- No costly damage to the workpiece
- Higher holding forces, easy handling, optimal damping and longer service life

GERC-W wedge collets are available in the SARTORIUS catalogue on page 1149 or at www.saratools.com.

THE ABSOLUTE TOP CLASS

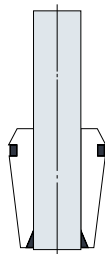
GERC-HP



Radial and
Repetition precision

Insert

Standard



2 μ m
2 μ m

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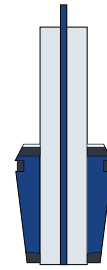
GERC-HPD



Radial and
Repetition precision

Insert

Sealed



2 μ m
2 μ m

CENTRO | P

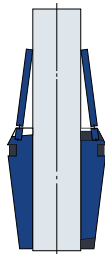
GERC-HPDD



Radial and
Repetition precision

Insert

Sealed
with cooling nozzles



2 μ m
2 μ m

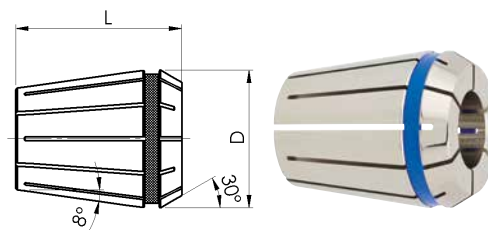
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FAHRION® GERC-HP precision collets 2 µm

Fahrion Protect corrosion protection



- GERC-HP, HPD and HPDD collets, 2 µm
- For ATORN precision ER collet chuck and FAHRION CENTRO|P
- Higher contact area ratio
- Increased rigidity and holding forces
- Greater system concentricity
- Optimum concentricity at nominal Ø
- Collapse h10



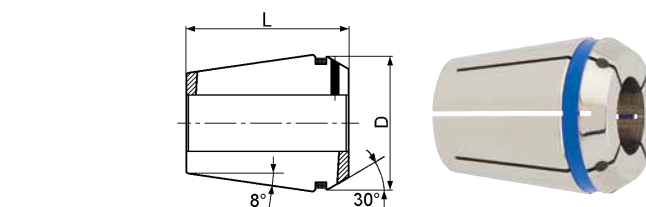
Standard version / type GERC-HP

Clamp Ø mm	GERC16 / 426E D = 17 mm L = 27.5 mm		GERC25 / 430E D = 26 mm L = 34 mm		GERC32 / 470E D = 33 mm L = 40 mm	
	Art.no.	€	Art.no.	€	Art.no.	€
1	433121 0010	55.50				
2	433121 0020	41.90	433122 0020	43.-	433123 0020	44.-
3	433121 0030	35.50	433122 0030	36.50	433123 0030	37.-
4	433121 0040	35.50	433122 0040	36.50	433123 0040	37.-
5	433121 0050	35.50	433122 0050	36.50	433123 0050	37.-
6	433121 0060	35.50	433122 0060	36.50	433123 0060	37.-
7	433121 0070	35.50	433122 0070	36.50	433123 0070	37.-
8	433121 0080	35.50	433122 0080	36.50	433123 0080	37.-
9	433121 0090	35.50	433122 0090	36.50	433123 0090	37.-
10	433121 0100	35.50	433122 0100	36.50	433123 0100	37.-

Clamp Ø mm	GERC16 / 426E D = 17 mm L = 27.5 mm		GERC25 / 430E D = 26 mm L = 34 mm		GERC32 / 470E D = 33 mm L = 40 mm	
	Art.no.	€	Art.no.	€	Art.no.	€
11			433122 0110	36.50	433123 0110	37.-
12			433122 0120	36.50	433123 0120	37.-
13			433122 0130	36.50	433123 0130	37.-
14			433122 0140	36.50	433123 0140	37.-
15			433122 0150	36.50	433123 0150	37.-
16			433122 0160	36.50	433123 0160	37.-
17					433123 0170	37.-
18					433123 0180	37.-
20					433123 0200	37.-

With seal for internal coolant supply / type GERC-HPD

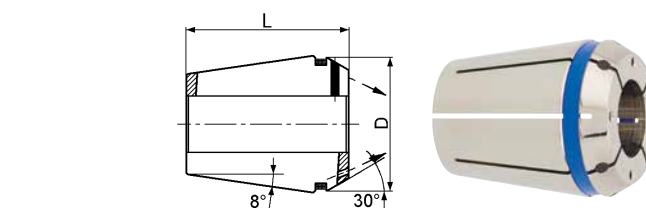
Clamp Ø mm	GERC16-HPD / 425E D = 17 mm L = 27.5 mm		GERC25-HPD / 429E D = 25.7 mm L = 34 mm		GERC32-HPD / 469E D = 32.7 mm L = 40 mm	
	Art.no.	€	Art.no.	€	Art.no.	€
3	433124 1603	48.-				
4	433124 1604	48.-	433126 2504	50.-	433127 3204	52.50
5	433124 1605	52.50	433126 2505	55.-	433127 3205	57.-
6	433124 1606	48.-	433126 2506	50.-	433127 3206	52.50
8	433124 1608	48.-	433126 2508	50.-	433127 3208	52.50
10	433124 1610	48.-	433126 2510	50.-	433127 3210	52.50



Clamp Ø mm	GERC16-HPD / 425E D = 17 mm L = 27.5 mm		GERC25-HPD / 429E D = 25.7 mm L = 34 mm		GERC32-HPD / 469E D = 32.7 mm L = 40 mm	
	Art.no.	€	Art.no.	€	Art.no.	€
12			433126 2512	50.-	433127 3212	52.50
14			433126 2514	50.-	433127 3214	52.50
16			433126 2516	50.-	433127 3216	52.50
18					433127 3218	52.50
20					433127 3220	52.50

With seals for internal coolant supply and coolant bore / type GERC-HPDD

Clamp Ø mm	GERC25-HPDD / 429E D = 25.7 mm L = 34 mm		GERC32-HPDD / 469E D = 32.7 mm L = 40 mm	
	Art.no.	€	Art.no.	€
4	433129 2504	75.-	433130 3204	77.50
6	433129 2506	75.-	433130 3206	77.50
8	433129 2508	75.-	433130 3208	77.50
10	433129 2510	75.-	433130 3210	77.50



Clamp Ø mm	GERC25-HPDD / 429E D = 25.7 mm L = 34 mm		GERC32-HPDD / 469E D = 32.7 mm L = 40 mm	
	Art.no.	€	Art.no.	€
12	433129 2512	75.-	433130 3212	77.50
14	433129 2514	75.-	433130 3214	77.50
16			433130 3216	77.50
18			433130 3218	77.50

Set in a wooden box, with seals for internal coolant supply / type GERC-HPD

Designation	Contents per set	Clamping range mm	Art.no.	€
GERC16-HPD / 425E	Ø3-4-5-6-8-10	3 - 10	433078 0000	306.-
GERC20-HPD / 427E	Ø3-4-5-6-8-10-12	3-12	433078 0001	369.-
GERC25-HPD / 429E	Ø4-6-8-10-12-14-16	4 - 16	433078 0002	373.-
GERC32-HPD / 469E	Ø4-6-8-10-12-14-16-20	4 - 20	433078 0003	439.-



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