



Segment clamping mandrel

Special solutions ABSIS



ABSIS Segment clamping mandrel - nominal 38.43 mm

APPLICATION

Cutting, Turning

ABSIS clamping mandrel for clamping on a tothing machine. The centering is done by the segment clamping sleeve; the clamping by the pendulum bell. Clamping mandrel with quick change system on the basic take-up.

CUSTOMER BENEFITS

- ⊕ Stable clamping using axial pull
- ⊕ Concentricity of 0.01 mm
- ⊕ A lot of freedom of the tool (milling coating)
- ⊕ Designed for wet machining



ABSIS Segment clamping mandrel - nominal 60.5 mm

APPLICATION

Turning

ABSIS clamping mandrel for clamping on a lathe. Clamping mandrel with quick change system on the basic take-up. Fixed workpiece stop with air sensing. Clamping screw sunk in the segment clamping sleeve to ensure the freedom of the tool. Different clamping mandrel sizes of clamping diameters 25 mm to diameter 105 mm (ABSIS size 00 to size 04).

CUSTOMER BENEFITS

- ⊕ Stable clamping using axial pull
- ⊕ Concentricity of 0.01 mm
- ⊕ Simple changing of the workpiece stop as well as the clamping sleeves
- ⊕ A lot of freedom of the tool



Segment clamping mandrel

Special solutions ABSIS



ABSIS Segment clamping mandrel TK-Ø 88 mm

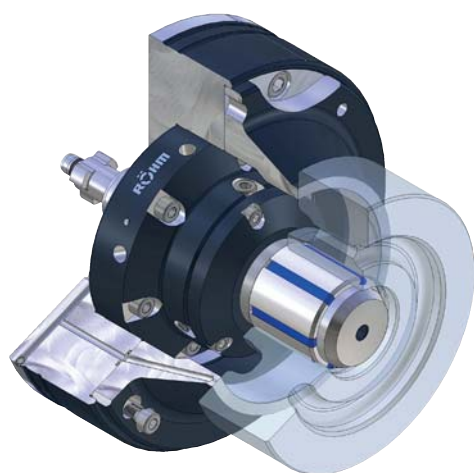
APPLICATION

Turning

ABSIS clamping mandrel for clamp in the tothing. The toothed segment clamping sleeve clamps the workpiece exactly in the tooth flanks. The centering disc helps during loading of the workpiece. Workpiece stop can be pulled back using draw bar with air sensing.

CUSTOMER BENEFITS

- ⊕ Freedom of tool by stop that can be pulled back
- ⊕ Concentricity of 0.01 mm



ABSIS Segment clamping mandrel Ø 55.33 mm

APPLICATION

Turning of a gear wheel blank

Force-actuated ABSIS standard clamping mandrel with quick change system. The stop diameter is far beyond the clamping diameter. Workpiece stop with air sensing attached on the intermediate flange.

CUSTOMER BENEFITS

- ⊕ Stable clamping using axial pull
- ⊕ Concentricity of 0.01 mm
- ⊕ Low-cost thanks to standard components



Cartridge Mandrel

Special solutions KFS



Cartridge mandrel KFS clamping-Ø 22.65 mm

APPLICATION

Turning

Clamping mandrel in special version due to required freedom of the tool. The clamping is done in the root circle of the toothing using a diagonally slotted clamping sleeve. Tilting in the toothing is prevented by the angled slotting.

CUSTOMER BENEFITS

- ⌚ Optimal clamping of the toothed workpiece
- ⌚ High concentricity and run-out precision of 0.02 mm



Cartridge mandrel KFS clamping-Ø SW 27.8 mm

APPLICATION

Turning

The clamping is done using a hexagonal clamping sleeve with axial pull via the draw bar against a fixed stop. The workpiece stop is designed of a two-sided loading of the workpiece.

CUSTOMER BENEFITS

- ⌚ Clamping of special contours is possible
- ⌚ Concentricity of 0.05 mm



Cartridge mandrel KFS clamping-Ø 34.3 mm

APPLICATION

Turning / Cutting

Cartridge mandrel force-actuated with axial pull and fixed stop. Clamping sleeve profiled for cutting off of the workpieces.

CUSTOMER BENEFITS

- ⌚ Low-cost production of small parts
- ⌚ Concentricity of 0.01 mm



Cartridge Mandrel

Special solutions KFR / MFR



Cartridge mandrel KFR clamping-Ø 45 mm

APPLICATION

Turning of a pressed part

Force-actuated cartridge mandrel actuated via draw bar. Clamping mandrel is designed for different workpieces. Fixed stop with damping ring, air sensing and ejector.

CUSTOMER BENEFITS

- ⌚ Can be easily reconfigured to other clamping diameters by changing of clamping sleeve and/or stop
- ⌚ Concentricity of 0.01 mm



Cartridge mandrel KFR clamping-Ø TK-Ø 90 mm

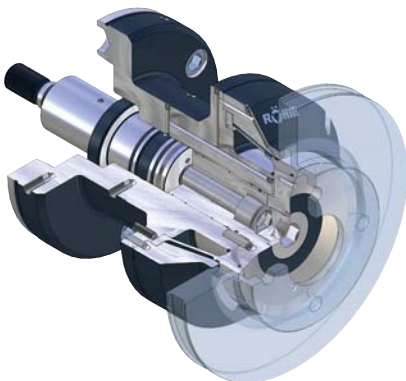
APPLICATION

Turning

Force-actuated cartridge mandrel with toothed clamping sleeve for clamping in the tooth flanks. Vulcanized collet sleeve with quick change system.

CUSTOMER BENEFITS

- ⌚ Concentricity for tothing
- ⌚ Concentricity of 0.03 mm



Cartridge mandrel KFR clamping-Ø 136 mm

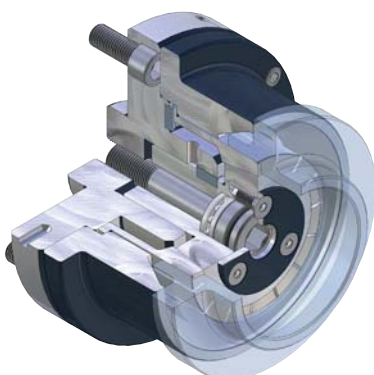
APPLICATION

Turning of brake discs

Force-actuated cartridge mandrel actuated via draw bar. Sealed against penetration of chips. Fixed stop with air sensing.

CUSTOMER BENEFITS

- ⌚ Stable version of the clamping mandrel
- ⌚ Concentricity of 0.02 mm



Cartridge mandrel MFR clamping-Ø 88 mm

APPLICATION

Milling / drilling for stationary use on clamping devices

Cartridge mandrel in special version with manual actuation. The actuation is done via the hexagon socket.

CUSTOMER BENEFITS

- ⌚ Simple actuation by light roller bearing
- ⌚ Concentricity of 0.015 mm



Cartridge Mandrel

Special solutions KFB



Cartridge mandrel KFB clamping-Ø 42 mm

APPLICATION

Turning

Clamping of the workpiece with axial tension against the stop. Clamping mandrel is hermetically sealed against penetration by dirt and cooling water. The stop and clamping sleeve can be replaced together using the quick change system.

CUSTOMER BENEFITS

- ⌚ Fast adjustment to different workpieces thanks to the quick change system
- ⌚ Concentricity of 0.015 mm



Cartridge mandrel KFB clamping-Ø 114 mm

APPLICATION

Turning

Clamping is done via draw bar with axial tension against the fixed stop. Idle stroke enables simpler stroke control in the clamping cylinder. The workpiece stop can be replaced quickly using the bayonet system.

CUSTOMER BENEFITS

- ⌚ Simple handling
- ⌚ Stable clamping using axial pull
- ⌚ Concentricity of 0.01 mm



Special solutions clamping mandrel

Special solutions KFG

**Sliding clamping mandrel KFG clamping-Ø 30 mm****APPLICATION**

Turning of a differential housing

Clamping of a differential housing in two clamping planes. Diameter difference between the clamping planes are compensated. The workpiece stop is equipped with an air sensing. The entire clamping mandrel is sealed with purge air.

CUSTOMER BENEFITS

- ⌚ Two compensating clamping planes
- ⌚ Concentricity of 0.02 mm

**Sliding clamping mandrel KFG clamping-Ø 155 mm / clamping-Ø 161 mm****APPLICATION**

Drilling of two workpieces with different diameters

Clamping of two clamping planes that are very close together. Clamping of both clamping planes is done using springs. Pneumatic unclamping via a cylinder in the basic take-up. Compact, space-saving construction. Drain boreholes for coolant.

CUSTOMER BENEFITS

- ⌚ Overall height less than 200 mm
- ⌚ Concentricity of 0.03 mm

**Sliding clamping mandrel KFG clamping range from 98-113 mm****APPLICATION**

Turning of clamping cylinder liners, raw part

Left clamping plane force-actuated by draw bar. Right clamping plane spring-actuated to compensate for workpiece tolerances. Stop can be pulled back. Different workpiece diameters can be clamped by changing the top jaws.

CUSTOMER BENEFITS

- ⌚ Large clamping range elongation of 7 mm
- ⌚ Large torque transmission from corrugation of the top jaws



Special solutions clamping mandrel

Special solutions KFG



Sliding clamping mandrel KFG with intermediate sleeves Ø 104-120 mm

APPLICATION

Turning of clamping cylinder liners, final machining

Left clamping plane force-actuated by draw bar. Right clamping plane force-actuated by tailstock. Stop can be pulled by with air sensing. Different workpiece diameters can be clamped by changing the intermediate sleeve.

CUSTOMER BENEFITS

- Intermediate sleeve can be changed
- High concentricity of 0.015 mm



Sliding clamping mandrel KFG clamping-Ø 39 mm / clamping-Ø 40 mm

APPLICATION

Turning

The clamping in clamping zone 1 is done by the draw bar with serrated jaws for high torque transmission. Clamping zone 2 is actuated by springs and is equipped with an intermediate sleeve.

CUSTOMER BENEFITS

- Intermediate sleeve protects the workpiece surface
- Concentricity of 0.01 mm



Special solutions clamping mandrel

Special solution HYKS



Hydraulically actuated clamping mandrel for internal and external clamping

APPLICATION

Grinding, turning, milling, measuring

The hydraulic medium is put under pressure by a piston or by system pressure. The elongation can be up to 0.3 % (up to 1 % for special materials) of the diameter of the extension sleeve. Clamping directly by extension sleeve or indirectly by a slotted intermediate sleeve.

CUSTOMER BENEFITS

- ⌚ Cylindrical and round elongation over the entire clamping range for a maximum concentricity tolerance of 0.003 mm
- ⌚ Very high clamping force in the clamping zone
- ⌚ Optimum damping, extremely quiet machining and significantly higher service life of the tool due to precisely fitted clamping sleeve

TECHNICAL FEATURES

Force-actuated or manual actuation. Wear-resistant surface. The clamping systems can be put under pressure by hydraulic or pneumatic cylinders, by the machine hydraulics directly or even manually by using a screw. Different stops (optional): fixed, withdrawable, external, oscillating, etc.



Special solutions clamping mandrel

Special solutions



Special mandrels

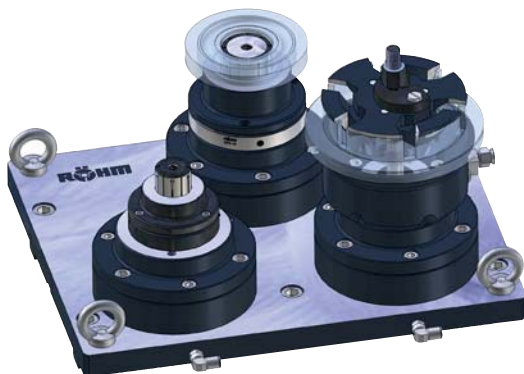
APPLICATION

Grinding, milling

Basic take-up with different replaceable head for clamping of pistons. Face clamping using internal draw piece. Position orientation using centering forks. An insertion securing device prevents incorrect loading. The actuation is done using OVS70 RÖHM clamping cylinders. The entire external contour can be machined.

CUSTOMER BENEFITS

- ⊕ Clamping head with quick change system
- ⊕ Concentricity of 0.005 mm



Clamping fixture

APPLICATION

Milling, drilling

Clamping device with three basic units. Pneumatically release; Clamping via spring force. Two basic units equipped with KFR clamping mandrels. A basic unit equipped with a power chuck.

CUSTOMER BENEFITS

- ⊕ Basic units can be equipped with different clamping systems