

Description of Operating:

The hydraulic fluid (hydraulic oil) is pressurized by a piston. The sleeve can be expanded to max. 0,3% of its diameter.

The workpiece can be chucked either directly with expanding sleeve or indirectly, using a cylindrical intermediate sleeve with slots on both sides. For transmitting high torques the intermediate sleeves are provided with a positive driver. Sets of interchangeable intermediate sleeves are available for adaptation to different hole sizes.

Properties of HYKS expanding mandrels

The steel membrane permits accurate cylindrical and round expansion to within 0.005 mm over the full chucking range.

The snug fit of the expanding sleeve in the hole of the workpiece results in optimum damping during machining. It also minimizes noise and substantially increases tool life.

The expanding mandrels may be used for rotating or stationary work and can be operated by means of hydraulic or air cylinders, directly by the hydraulic system of the machine or even manually by means of a screw.

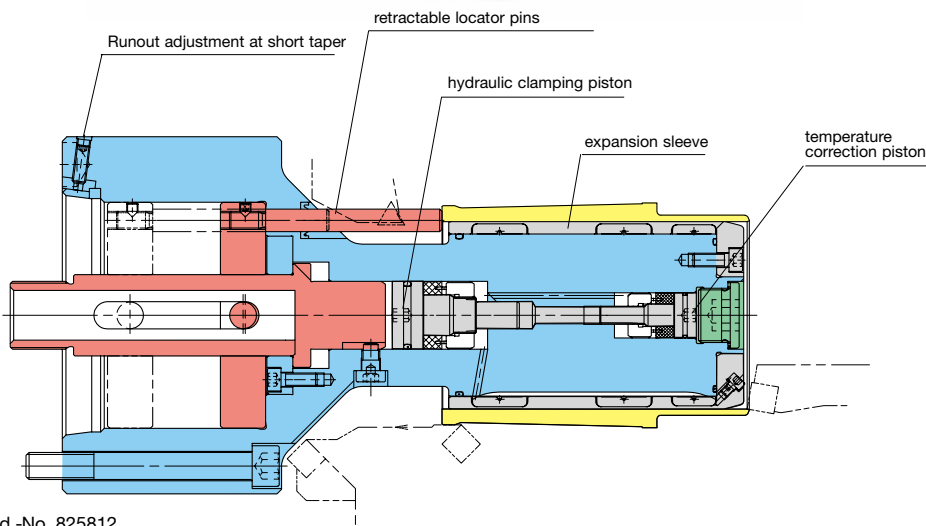
Applications

Röhm HYKS expanding mandrels with diameters of 20 mm or more are available in virtually any length and for any type of mounting and chucking diameter. Expanding mandrels of this type are mainly used for thin-walled cylindrical parts, such as cylinder liners in the automotive industry, light metal cylinders for a variety of applications and tubes requiring a high-true-running accuracy on the outside diameter.

Other applications include jigs and fixtures as well as gauging and inspection equipments.



Special design



Hydraulic expanded mandrel with three different expansion chambers, metal sleeve, expansion 0,2 mm in diameter, retractable workpiece stop, clamping diameter 82,956 mm, internal temperature compensation piston, runout accuracy 0,003 mm (checked with masterpiece), spindle nose A2-A6 DIN 55026 with radial adjustment, **for clamping of cylinder sleeves during finish turning.**

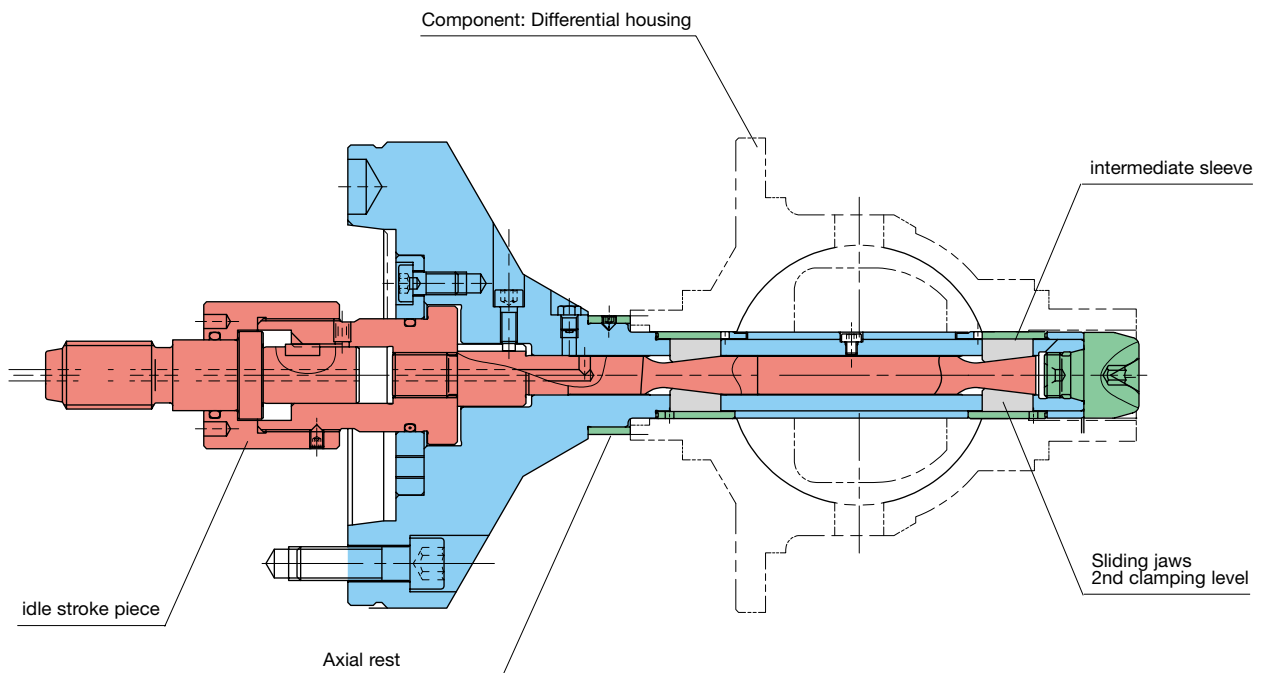
Advantage: equal clamping forces at stepped clamping diameters.

Special design



Power operated sliding jaw mandrel with rigid workstop, clamping in two clamping levels with clamping diameter 30,73 mm, accuracy 0,005 mm (checked with masterpiece), spindle nose A2-A6" DIN 55026, **for clamping of differential housings during finish turning.**

Advantage: high stabilization of an instable workpiece.



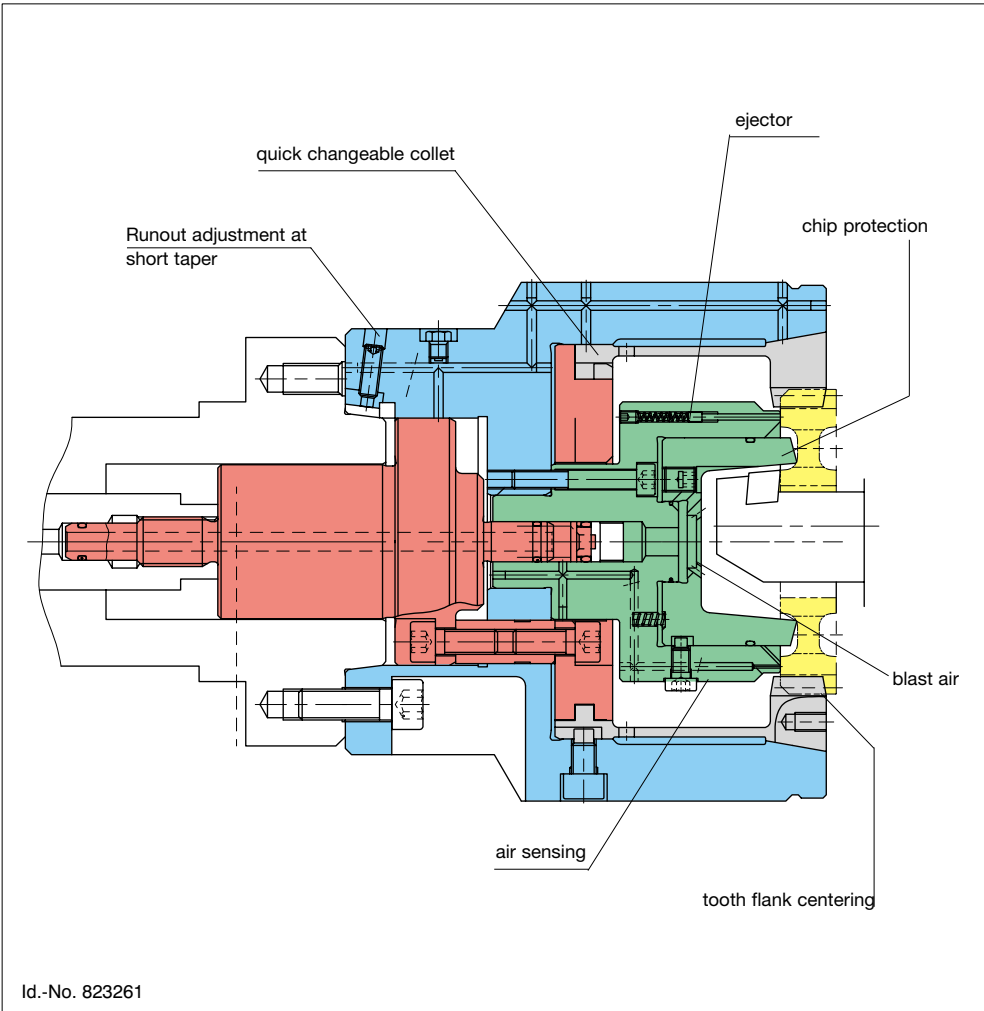
Special design



Power-operated collet chuck with helical gearing, internal workstop with air sensing, ejector and air blast connection via pressure presetting, clamping diameter 94,1 mm (in pitch diameter), collet changeable with bajonett, runout accuracy 0,003 mm (checked with masterpiece), protection against chip intrusion by spring loaded protection sleeve, spindle nose A2-A5" DIN 55026, with radial adjustment, **for clamping of helical gear wheel during hard turning/grinding operation.**

Advantages:

1. Clamping in every tooth flank of the gear, extremely high centering accuracy.
2. High speeds up to 6000 revs/min.
3. Hard turning and grinding in one operation.



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