

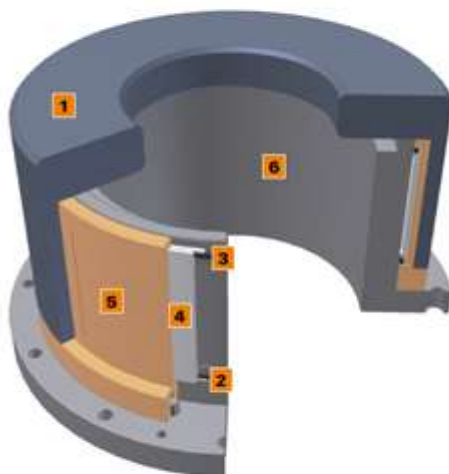
Expanding Sleeves

KOSTYRKA® expanding sleeves and table clamps Expanding sleeves are based on the inverse of the clamping sleeves operating principle. The expanding sleeves slitted jacket is expanded by oil pressure. As a result, the surrounding table is, for example, securely and tightly clamped from the inside.

KOSTYRKA® expanding sleeves and table clamps are individually designed and manufactured according to the required load capacity and the application conditions of the customer.



Expanding Sleeves - the principle



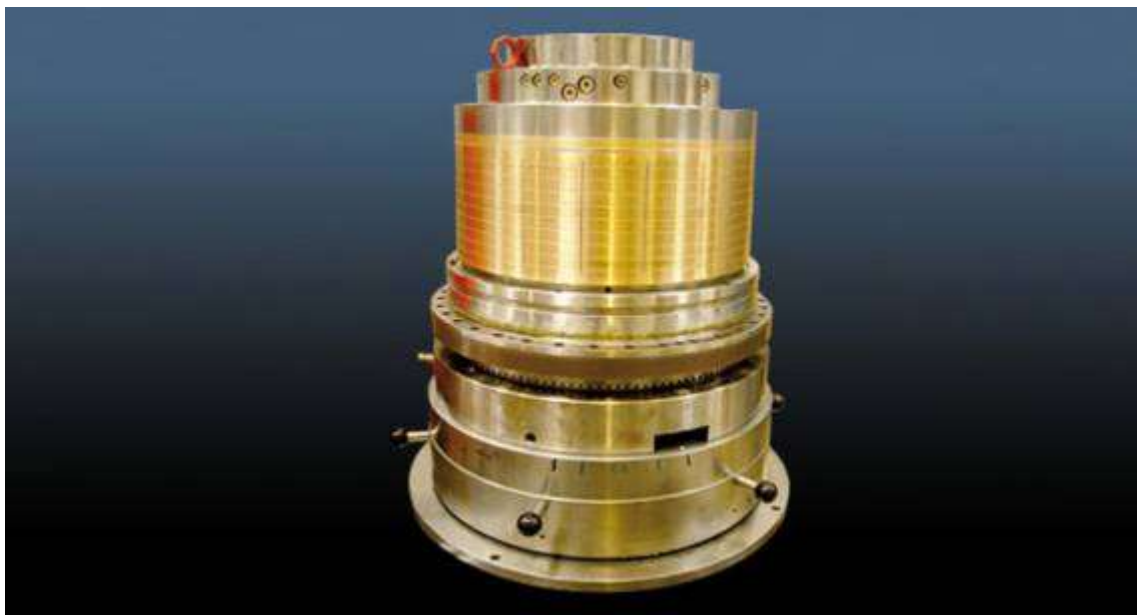
- 1 Part to be clamped
- 2 Seal
- 3 Oil feed
- 4 Plastic jacket
- 5 Slitted metal cylinder
- 6 Housing

Expanding Sleeves - References



Many KOSTYRKA® clamping sleeves of different sizes are in use for each of the Heller machining centres very little installation space is available.

Expanding Sleeves - References



Dörries Scharmann

In vertical machining centres from Dörries Scharmann, the rotating axis (C-axis) can be clamped in any desired axis position with an expanding sleeve. Holding torques of approx. 30,000 Nm are applied.