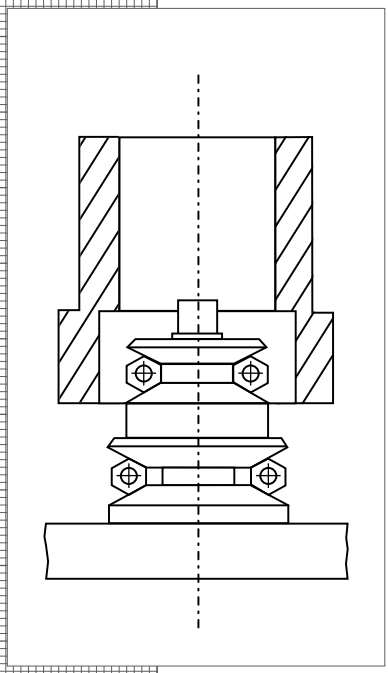
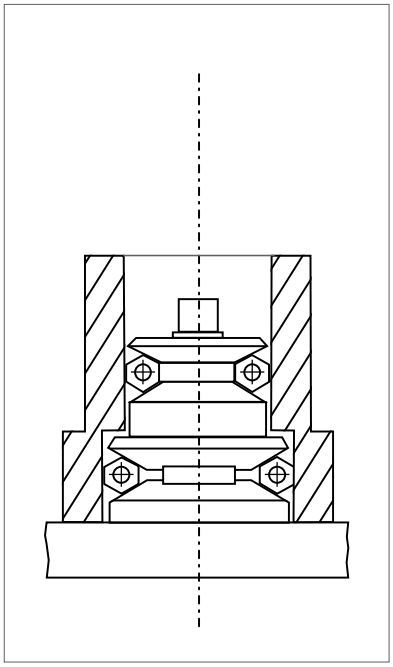
Two-level centering clamp





Task:
All-around machining of an aluminum cube that needs to be clamped from the inside.

Solution:
The two-level centering clamp is designed to easily compensate for the difference in diameter. In other words, the small bore hole can be on the bottom and the large one on the top, or vice versa. The two-level centering clamp can clamp the two different bore hole diameters with the same clamping force as long as the diameter difference falls within a certain range.

Procedure:
The aluminum cube is placed over the two-level centering clamp and manipulated manually from above using a socket screw. A floating tapered ring is used to expand the clamping segments.

Summary:
Despite its offset internal bore hole, the component is securely and evenly clamped across its entire length with a single clamping.