

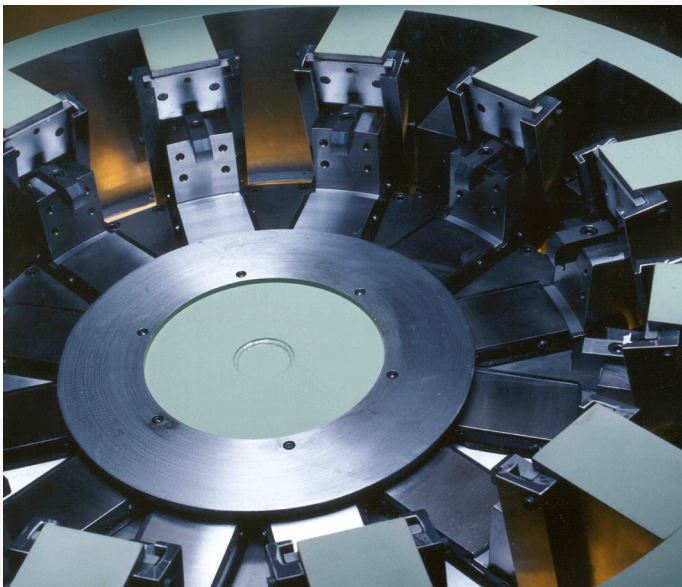


SHRINKERS

SHRINK TO SIZE OR SHAPE

Grotnes Shrinkers are used primarily to size parts requiring outside diameter accuracy. The shrinking process is exactly the opposite of expanding. The part is positioned in the shrinker with outside diameter facing the shrinker tooling. The segmented dies are forced inward and press the metal part beyond its yield point and form its desired shape and size.

Grotnes Shrinkers are used in many applications such as pipe couplings, jet engine components, valve seat rings, motor frames, conveyor pulleys, bearing races and similar parts.



SHRINKER FEATURES

- Wide range of sizes and configurations
- Position control system
- Gauge mode
- User friendly touch screen interface
- Automatic lubrication system
- Quick tool change
- Auto load / unload
- Combination with Expander



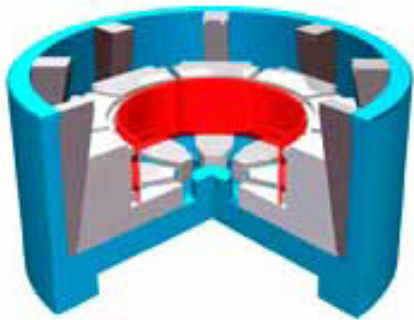


SHRINKING

PRINCIPLE OF A SHRINKER

The part to be sized or formed is positioned in the shrinker

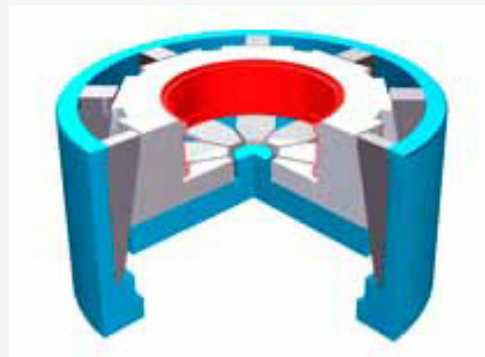
When activated the power system draws the pressure ring downward. As it moves, the inclined planes on the internal wedges and shrinker jaws mate. The complementary inclined surfaces force the jaws and dies inward.



When the part reaches the desired shape and dimensions the pressure ring retracts, the shrinker jaws and dies return to the original position, and the formed part is removed from the machine.



When the dies meet the wall of the part, they exert sufficient force to form the part in a new size and shape as dictated by the dies.



RANGE OF SPECIFICATIONS

- Tonnage: Less than 10ton to over 1,100ton
- Diameter: 25mm to over 2m
- Height: 6mm to over 460mm
- Wall Thickness: 1.5mm to 80mm
- Materials: Steel, Aluminum, Nickel-based Aerospace Alloys, Stainless Steel, etc.

