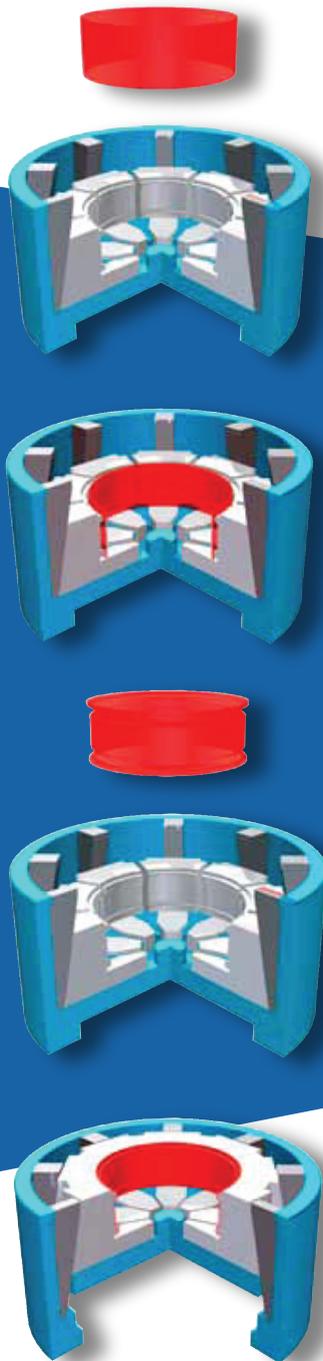




SHRINKERS

PROCESS



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 down, the inclined planes on the internal wedges and shrinker jaws mate, and the ring continues down, the complementary inclined surfaces force the jaws and dies inward. When the dies meet the walls of the part, they exert sufficient force to form the part in a new size and shape as dictated by the tooling.

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

Range of Specifications Shrinking

- Tonnage: Less than 10 ton to over 1100 ton
- Diameter: 25 mm to over 2 m
- Height: 6 mm to over 460 mm
- Wall Thickness: 1.5 mm to over 80 mm
- Materials: Steel, Aluminum, Nickel-based Aerospace Alloys, Stainless Steel, etc
- Custom Ranges Available



Automotive Parts

To achieve tighter tolerances on the outside of the parts, automotive parts can be shrunk to obtain high accuracy. A Circumpress is a variation of the standard Shrinker, designed for continuous throughput. Circumpresses are open on both ends, this permits incremental shrinking of long parts and simplifies handling of parts.

Applications

Circumpresses are used to size and form truck and trailer axle housings. Heavy truck axle housings are shrunk at the ends to increase the wall thickness for leaf spring and shock absorber mounting.

Several automotive parts are sized and formed, including shock absorbers, brake shoes, truck trailer landing gear components, steering components and sprag type clutch rings. Metal rings are shrunk around rubber sleeves for assembly in shock absorbers.



Benefits

Less machining allowance is needed as a Shrinker brings the outer diameter of the ring much closer to the final dimension while creating a perfect circle.

Shrinking is a highly accurate and repeatable forming process with a shorter cycle time than comparable forming techniques.

By using a Shrinker less material is needed and the machining time is dramatically reduced, also there is virtually no limit to the materials that can be formed or sized.

Shrinking on a Circumpress provides higher production rates, closer tolerances on a repetitive basis, longer tool life and lower overall operating costs than the hot swaging operation that it replaced.

