

## Calibrated Cylinders

### ELECTRIC MOTOR AND GENERATOR HOUSINGS

The production process to make housings for electric motors, alternators and generators often requires machining to bring the inside diameter and roundness to such a tolerance that the internals of the electric equipment will fit properly. Manufacturers use Grotnes Expanders to calibrate electric motor housings over the complete length to the required tolerances, thereby eliminating additional machining operations.



### APPLICATIONS



Grotnes Expanders are used for calibrating different sizes of generator housings. The pre-shape is a rolled and welded steel cylinder that requires calibration to make assembly possible.

### BENEFITS

- Expansion is a highly accurate and repeatable forming process with a shorter cycle time than comparable forming techniques.
- Grotnes Expanders make it possible to size and form profiles in a wide range of materials.
- By using a Grotnes Expander 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.

### FEATURES

- Wide range of sizes and configurations
- Position Control System
- Gauge Mode
- User Friendly touch screen interface
- Automatic Lubrication System
- Optional Collapsible outer dies
- Optional heated dies and water-cooled jaws
- Automatic Loading and Unloading





## Electric Motor and Generator Housings



8-HE-60-8

A 60 ton push type hydraulic Expander. This type of Expander



7-HE-35-9

A 35 ton push type hydraulic Expander. This Expander sizes parts for defense applications. The tilted position of the Expander provides easy loading and un-loading of the parts.

### RANGE OF EXPANDING SPECIFICATIONS

- Tonnage: Less than 2 ton to over 4,000ton
- Diameters: 25mm to over 8M
- Height: 6mm to over 5M
- Wall Thickness: 1.5mm to over 305mm
- Materials: Steel, Aluminum, Nickel-based Aerospace Alloys, Titanium, Stainless Steel, etc.
- Hot or Cold Forming

