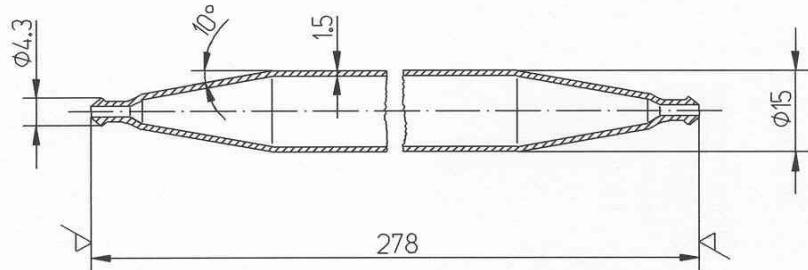


Components produced by Precision Rotary Swaging:
Steam Tube



95-1665/L

Workpiece:

Material: Al 99.5 F10-13
DIN 1746

Blank: dia. 15 x 1.5 x 257 mm

Manufacturing requirement:

Complete manufacture in two machine passes

Previous technique:

Welding of 3 components

Operation sequence:

1. Feed swaging right-hand side of workpiece with 10° angle at change of diameter
2. Recess swaging right-hand side of workpiece to dia. 3.6 mm over mandrel
3. Turn outside diameter 2.2 mm
4. Return workpiece to magazine, position for forming other end.

Repeat sequence of operations 1 to 3 for left-hand side.

Advantages:

- Good dimensional accuracy
- Excellent surface finish
- Saving in material
- Minimum chip production- no costs for chip removal
- Favourable grain structure
- Work hardening of material
- Complete forming on one transfer line

Machine description:

Automatic transfer line consisting of:

- 2 Rotary Swaging stations
- 1 turning station

Production rate:

6 -7 operation sequences per minute, i.e. 3.5 workpieces formed at both ends per minute

Machine:

Model: HA 16-3 VUE

Required floor space without sound enclosure: (L x W x H) approx. 2600 x 1800 x 1700 mm

Weight: approx. 3,000 kg

Required power: approx. 12 kW