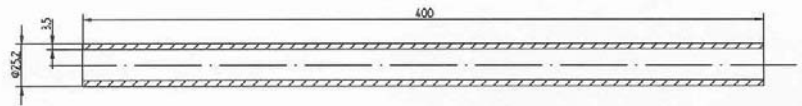
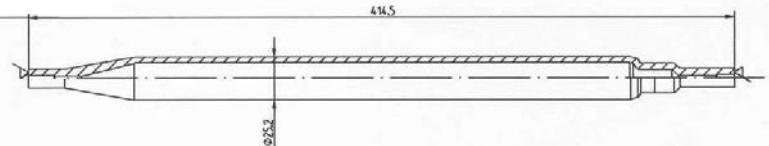


Components produced by Precision Rotary Swaging:
Tubular Piston Rod for Shock Absorber

Blank



Finished part



91 1512/M



Workpiece:

Material: steel St 52 K

Blank: tube O.D. 25.2 mm and wall thickness 3.5 mm

Manufacturing requirement:

Complete manufacture of tubular piston rod for shock absorber in several machine passes on single station swaging machine

Previous technique:

Turning from solid blanks

Operation sequence:

Each end of the tube is reduced in two machine passes (two feed swaging operations, two recess swaging operations).

Simultaneous calibration of inside dia. over mandrel

Advantages:

- Good dimensional accuracy
- Excellent surface finish
- Minimal chip production/ reduced costs for chip removal
- Favourable grain structure
- Work hardening of material
- Complete manufacture of part in only one machine pass

Machine description:

Automatic swaging machine consisting of:

- 1 stacking magazine
- 1 swaging station

Production rate:

Cycle time: approx. 12 sec
 (= 5 pieces/min.)

Machine:

Model: HA 40-1 VUE

Required floor space without sound enclosure: (L x W x H)
 approx. 3700 x 2600 x 2100 mm

Weight: approx. 5,700 kg

Required power: approx. 18 kW