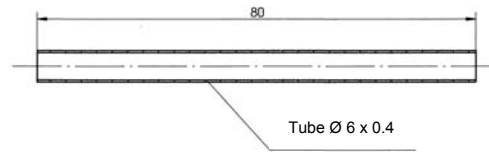
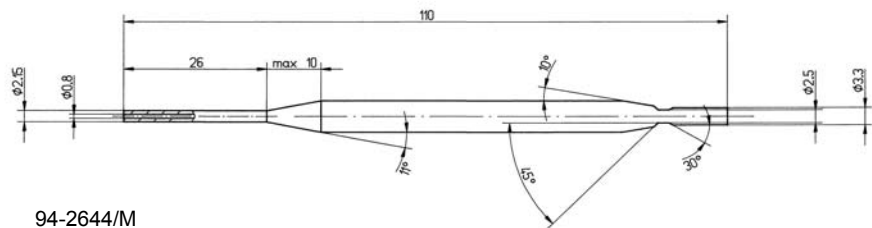


Components produced by Prec  
Rotary Swaging:  
**Thermal Sensor**

Blank



Finished part



94-2644/M

**Workpiece:**

Material: VA tube 1.4301

Blank: tube O.D. 6 mm and  
wall thickness 0.4 mm

**Manufacturing requirement:**

Complete manufacture of work-  
piece in one machine pass

**Previous technique:**

Reducing at both ends and at-  
taching filling stub by soldering

**Operation sequence:**

1. Reducing right-hand end of  
workpiece over mandrel dia.  
2.5/1.05 mm in one operation  
by recess swaging
2. Pre-reducing left-hand end of  
workpiece over mandrel dia.  
2.0 mm by feed swaging
3. Finishing reduction of left-  
hand end of workpiece with-  
out mandrel by feed swaging

**Advantages:**

- Good dimensional accuracy
- One operation, namely solder-  
ing, eliminated, thus saving  
costs
- No chips produced / no chip  
removal
- Additional filling stubs elimi-  
nated
- Complete manufacture of part  
in only one machine pass

**Machine description:**

Automatic transfer line  
consisting of:

3 swaging stations

**Production rate:**

Cycle time: 7 pieces/min.

**Machine:**

Model: HA 16-3 VUE

Required floor space without  
sound enclosure: (L x W x H)  
approx. 3000 x 2800 x 2400 mm

Weight: approx. 3,200 kg

Required power: approx. 10 kW