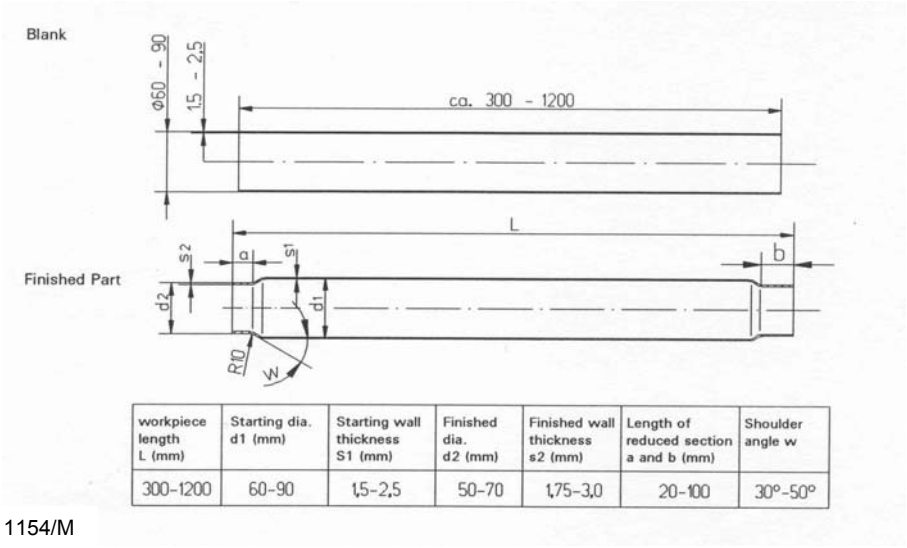
PRODUCT STORY

FELSS

No. 033-607 E

Components produced by Precision Rotary Swaging:

Propeller Shaft



workpiece length L (mm)	Starting dia. d1 (mm)	Starting wall thickness S1 (mm)	Finished dia. d2 (mm)	Finished wall thickness s2 (mm)	Length of reduced section a and b (mm)	Shoulder angle w
300-1200	60-90	1,5-2,5	50-70	1,75-3,0	20-100	30°-50°

93 1154/M

Workpiece:

Material: welded precision steel tube of special quality

Blank: tube section with thin wall thickness up to dia. 90 mm and length 1,200 mm (see table)

Manufacturing requirement:

Manufacture of workpiece in only one machine pass.

Operation sequence:

1. Retracting left end of the workpiece and sizing inside diameter

1a. Turning workpiece

2. Retracting right end of the workpiece and sizing inside diameter
3. Facing both workpiece ends

Advantages:

- Good dimensional accuracy
- Minimal chip production
- Favourable grain structure
- Work hardening of material
- Manufacture of part in only one machine pass
- Possibility of forming similar tubular parts (80)
- Fully automatic changeovers due to NC axis possible

Machine description:

Fully automatic Precision Press Transfer Line consisting of:

2 horizontal presses with tool changing device

2 turning stations with simultaneous facing of both workpiece ends

Production rate:

Cycle time: approx. 20 sec. (= 3 pieces/min.)

Machine:

Model: PA 40-3

Required floor space without sound enclosure: (L x W x H) approx. 7500 x 6400 x 3300 mm

Weight: approx. 20,000 kg

Required power: approx. 80 kW

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