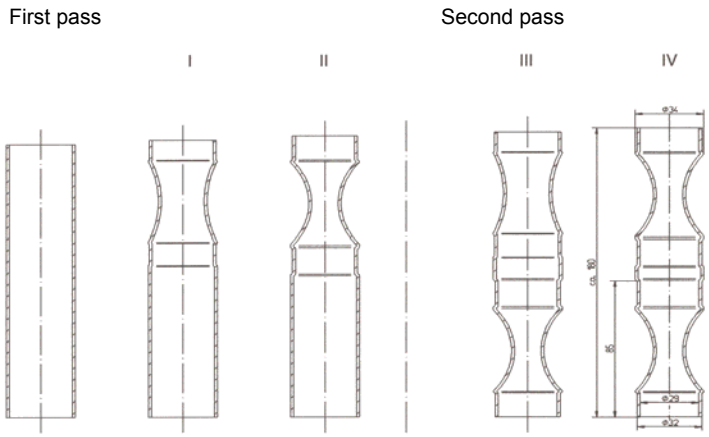
PRODUCT STORY

FELSS

No. 033-852 E

Components produced by Precision Rotary Swaging:

Bicycle Hub



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Workpiece:

Material: Welded tube St 35 alternatively aluminium

Blank: tube section O.D. 35 mm, wall thickness 1.5 mm and length approx. 140 mm or similar dimensions

Manufacturing requirement:

Forming of two workpieces joined by Precision Rotary Swaging out of a tube section

Previous technique:

Rolling and machining operation

Operation sequence:

2 passes through the machine

1st pass, side 1
I Swaging pre-form
II Swaging to finished shape

2nd pass, side 2
III Swaging pre-form
IV Swaging to finished shape

The 2 workpieces manufactured in this way are separated subsequently on a lathe.

Advantages:

- Good dimensional accuracy
- Excellent surface finish
- Considerable material and weight savings
- No chips produced / no chip removal
- Favourable grain structure
- Work hardening of material
- High level of economy in manufacture

Machine description:

Fully automatic Precision Rotary Swaging Transfer Line consisting of:

1 stacking magazine

2 recess swaging stations with rotating outer ring

Production rate:

Cycle time: approx. 15 sec. (= 4 pieces/min.)

Machine:

Model: HA 40-2 VUE

Required floor space without sound enclosure: (L x W x H) approx. 5500 x 4000 x 2200 mm

Weight: approx. 13,000 kg

Required power: approx. 43 kW

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