PRODUCT STORY

FELSS

No. 069-802/3/4 E

Components produced by Precision Rotary Swaging:

Force Transmission Rod

97-1747/M

Workpiece:

Material: 1.4541
X6 CrNiTi 1810

Blank: tube section
Ø 15 mm x 1.5 mm

Manufacturing requirement:

Manufacture of complete part in one pass and additional measurement of length

Previous technique:

Turning of solid blanks

Operation sequence:

1. Feed swaging over mandrel (mandrel held on swaging head side in the swaging shaft)
2. End facing and chamfering, then turning of workpiece by 180°
3. Expansion and pre-forming on a press station
4. Recess swaging of large ball, then turning of workpiece by 180°
5. Recess swaging of the middle zone
6. Recess swaging over mandrel as pre-form for small ball
7. Facing and chamfering
8. Recess swaging of small ball

Advantages:

- Good dimensional accuracy
- Advantageous work hardening
- Excellent surface finish
- Significant material and weight savings
- Minimum chip production
- Favourable grain structure
- Complete manufacture on a single transfer line
- Long die life

Machine description:

Automatic transfer line consisting of:

1 infeed magazine with blank monitoring
5 Rotary Swaging stations
2 turning stations
1 press station with tool change device

Production rate:

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

Machine:

Model: HA 32-8 VUE

Required floor space including sound enclosure: (L x W x H)
approx. 9,500 x 5,100 x 3,300 mm

Weight: approx. 25,000 kg

Required power: approx. 85 kW

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