

Components produced by Axial Forming:
Bevel gear shaft



04-2983F

Workpiece:

Material: 16MnCrS

Previous technique:

rolling

Manufacturing requirement:

Forming of a high-precision spline on a solid bevel gear shaft

Spline data:

- Spline type: diametral pitch
- Number of teeth: 27
- Module: 1.058
- Pressure angle: 30°
- Minor diameter: \varnothing 26.804 mm min
- Major diameter: \varnothing 30.400 +0.200 / -0 mm
- Dimension over pins: \varnothing 31.488 +0.064 / -0 mm
- Helix: 0° 10' -3' (LH)

Advantages at a glance:

- Cycle time approx. 13-14 s
- Highest process reliability
- High constant spline quality
 - Especially profile and total helix deviation
 - Minimum pitch variation
- Dimension over pins adjustable by ± 0.03 mm with the same tool
- Continuous grain structure
- Excellent surface

Production rate:

Cycle time: approx. 13-14 sec. (incl. handling)

Machine:

Model: Aximus V02
Press force: 700 kN static
400 kN recursive

Reference: BMW

Required floor space with integrated cabin: (L x W x H)
approx. 4,200 x 1,400 x 3,600 mm

Final customer: BMW

Weight: approx. 8,500 kg

Required power: approx. 55 kW

