

MANUFACTURING CAPABILITIES FOR

# SPECIAL PARTS

## Turning

- ✦ Diameter: 1-30 mm
- ✦ Length: 3-150 mm

## Grinding

- ✦ Centreless grinding
- ✦ Surface grinding
- ✦ Slide grinding

## Tolerances

- ✦ Diameter: starting from 0,005 mm
- ✦ Length: starting from 0,1 mm
- ✦ Surface quality grinding: Rz < 2

## Materials

- ✦ Heat treatable steel
- ✦ Case hardened steel
- ✦ Machining steel
- ✦ Stainless steel

## Precision/Fine cleaning

- ✦ Precision/Fine cleaning according to VDA volume 19, ISO 16232 and customer specifications

## Heat treatments

- ✦ Hardening
- ✦ Tempering
- ✦ Case-hardening
- ✦ Induction-hardening
- ✦ Bath-nitriding adapted from Tenifer
- ✦ Gas-nitriding

## Surface treatments

- ✦ Burnishing
- ✦ Phosphating
- ✦ Galvanizing
- ✦ Nickel plating
- ✦ Zinc-Nickeling
- ✦ Zinc-Iron
- ✦ Hard chromium plating
- ✦ chemical nickel plating, Delta Seal, Delta Tone, etc.

## Testing

- ✦ hardness-testing adapted from HRC and HB, HV starting with 1, case-hardening-testing
- ✦ roughness and crack testing
- ✦ 100% length- and diameter-testing
- ✦ initial sampling adapted from VDA and PPAP