

## Worm wheels made of bronze-steel compound

### Initial situation:

- Worm wheels are applied in many sectors, e.g. escalator drives, elevators and several industrial drive units
- Usually the power transmission is realized via form and force closure, where to the worm wheels are screwed on the shafts.
- Screw connections imply higher costs for material and processing



Electron beam welded worm wheel CuSn-St

### Solution:

#### Electron Beam welding of worm wheel and hub

#### Advantages of weld joints:

- material connection
- load-bearing power transmission
- low material usage
- lower machining costs
- low production time

#### Why electron beam:

- least distortion by minimum heat generation
- weld depths up to 50mm



bronze-steel-compound  
weld depth: 25mm