



Microfinishing of Spherical Workpieces

SpheroStar



Microfinish Task

Flexible superfinishing of geometries and surfaces of spherical parts

Microfinish Advantages

Minimisation of surface roughness and improved roundness, better seat, e.g. for ball joints, as well as a reduction in friction and wear and tear

Special Machine Features

- Highest quality, dimensional stability and accuracy with minimum tool wear
- Up to two parallel machining processes
- Cycle time-neutral loading and unloading as well as positioning of the centre of the ball
- Easy setup thanks to perfect accessibility from all sides



Minimum cycle time and/or maximum output by rotary transfer machine

Unrivalled accessibility to all components thanks to vertical machine construction



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SpheroStar

- Minimal footprint in the production hall
- Manual or automated loading and unloading
- Machining angle of 0 – 90°, freely programmable via NC axes
- In-process measuring system can be implemented on both processing stations



TECHNICAL DATA

Machining diameter: up to 75 mm depending on tool

Workpiece spindle: 0 – 2,000 rpm

Tool spindle: 1,500 – 15,000 rpm

Tool changer: up to 10 tools

TYPICAL RESULTS

Parts	Roundness	Roughness
Axial piston	2.5 µm	Ra ≤ 0.08 µm
Sliding shoe	2.5 µm	Ra ≤ 0.08 µm
Ball joint (for wheel suspension and steering)	3 – 6 µm	Ra ≤ 0.03 µm

THIELEHAUS

TECHNOLOGIES



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