Thielenhaus Microfinish



Your Tasks

- Reduction of the high post-processing to reach target of leakage
- Reduction of unit costs
- Minimization of varying quality due to a not automated process

Your Microfinish Pros

- Higher leakage-tighness of the components by minimal shape deviation as well as a perfect surface-topography
- Time for post-processing no longer necessary
- Higher load-bearing capacity and durability of the components
- A reproducible and controlled process



Our Microfinish Solutions

Thielenhaus Sphero

The Sphero is the platform of Thielenhaus providing the best solutions for flexible microfinish of spherical parts. Using the Sphero you will achieve not only a perfect surface but also an ideal shape. It features an automatic tool changer for up to ten tools.



Thielenhaus MicroStar 312

The Thielenhaus MicroStar can be used both for the machining of spherical and plane surfaces. Compared to the Sphero, the MicroStar 312 is able to deal with bigger workpieces.





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Thielenhaus Microfinish 🛛 🗠 🛽

Microfinish At Its Best. Developed For the Tasks Of the Valve-Industry.

- Applying our machines, you do not only get an optimal surface but also a perfect shape
- The up to 90° tiltable workpiece-spindle of both the Sphero and the MicroStar 312, as well as the force-controlled tool-spindle ensure maximum reliability when machining balls, spheres and plane surfaces
- The microfinishing of ceramic or metallic parts, with or without hard-coating, minimizes surface-roughness and improves roundness at the same time. This ensures an optimal fit and the resulting tightness as well as a reduction in friction and wear.

MicroSens | Leading Microfinish-Technology by Thielenhaus



Before Microfinish RONt 18 µm









Force Control And Removal Measurement

THIELENHAUS

MICROFINISH

- A force-sensor automatically measures the machining force between tool and workpiece and transmits these data to the control
- The control regulates the feed speed as you can see on the graphic on the left. The result is a perfect process, featuring for minimal tool wear and highest workpiece quality.
- Clogging of the tool is reliably avoided
- The decribed force-controlled-process, safeguarded by many patents, can be visualised on a screen
- The machine is provided with an in-process dimensional control which, in addition the diameter-control, also detects the existing ball centerpoint of the pre-processing



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