



**YOUR-TOOL** GmbH

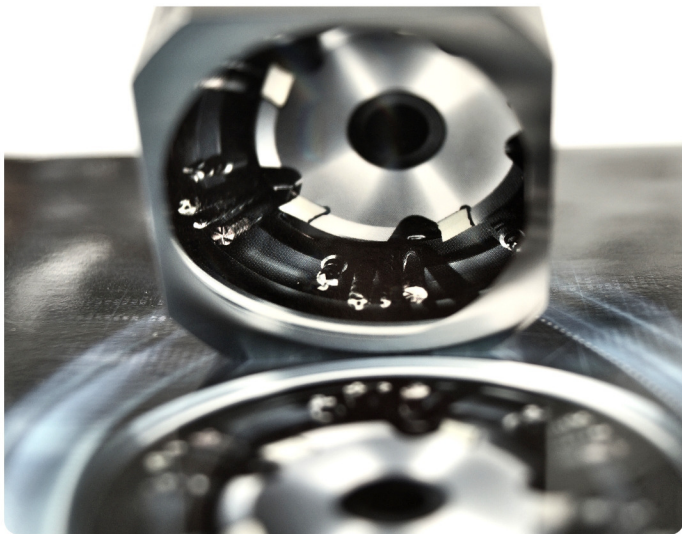
**3-5 AXES MIRROR-SURFACE**  
Production in highest precision

# MICRO-MIRROR SURFACE

We manufacture prototypes, series or fixtures for you, from construction until completion, completely according to your ideas.

We have pushed ahead with the miniaturization of conventional milling, we manufacture optical microparts with homogeneous surfaces in the area of micro-gloss milling, which resemble those of a mirror. Almost any imaginable 3D geometry can be realized directly without time-consuming post processing. All common materials such as carbide, hardened steel up to 71 HRC, steel, non-ferrous metals, tungsten, copper or ceramics can be processed. In order to realize even the most complex geometries according to your ideas, we use micro tools and achieve small tolerances of up to  $2,0\text{ }\mu\text{m}$  on the product with high-precision positioning and repetition accuracy.

Thanks to the latest CAD/CAM solutions and the experience of our employees in the field of micro-gloss milling, we achieve high removal rates in contrast to other methods such of machining, such as eroding, grinding or polishing.



## Technical Specifications

- Almost all common materials such as carbide, hardened steel up to 71 HRC, steel, Non-ferrous metals, tungsten, copper or ceramics can be processed
- 3-axis milling, repeatability  $\pm 0,3\text{ }\mu\text{m}$  and positioning accuracy  $\pm 0,5\text{ }\mu\text{m}$
- 5-axis milling, repeatability  $\pm 1,0\text{ }\mu\text{m}$  and positioning accuracy  $\pm 1,5\text{ }\mu\text{m}$
- Concentricity accuracy  $< 1\text{ }\mu\text{m}$
- Small product tolerances of up to  $2,0\text{ }\mu\text{m}$
- Maximum dimensions of the raw material -  $\varnothing 350\text{ mm}$
- Direct production of complex small parts without reworking
- Micro cutters from  $\varnothing 0,05$  or micro drills from  $\varnothing 0,03$
- Homogeneous surfaces similar to those of a mirror
- Average roughness values  $R_a < 0,05\text{ }\mu\text{m}$
- High removal rate in contrast to other processing types