

EXPERTISE IN HARD MACHINING



The core competence of FCT Hartbearbeitungs GmbH, a member of the FCT Group, is the precision machining of hard and ultrahard materials. Our level of expertise is founded in long years of experience, gathered from offering this service to external customers for almost 30 years. All necessary machinery and equipment is at our disposal.

Machining of ultrahard materials at the highest level of precision

The processing of components made of ultrahard materials is best done by experienced specialists. Dimension tolerances, quality of surface finish, and damage to the processed surfaces are critically linked and play a crucial role in the performance of the component under the conditions of application. These factors have an immediate impact on the suitability for use as well as on the efficiency and economy of the product. The knowledge how to produce and process the blank is, therefore, essential for the success of a product.

FCT Hartbearbeitungs GmbH benefits of its long term experience in the area of processing precision ceramic components composed of:

- silicon carbide, boron carbide
- silicon nitride, aluminum nitride
- zirconium oxide, aluminum oxide
- hard metals
- composite materials

In addition to providing precision machining by contract order, we produce prototypes, special parts, and small series of, in particular, silicon carbide and zirconium oxide made to customer specifications.





Thanks to our extensive pool of processing machinery and equipment, we are able to offer a wide selection of complex and high-precision machining processes:

- Sawing, separating
- Grinding outer and inner cylindrical diameter
- Flat surface grinding
- Profile grinding
- Centerless grinding
- Honing
- Lapping and polishing
- Ultrasonic drilling
- Laser cutting

Possible components dimensions in connection with the individual processing technologies:

	Diameter range	max. Length	max. Breadth	max. Hight
Grinding outer diameter	1,0 - 1.200 mm	3.000 mm		
Grinding inner diameter	1,0 - 800 mm	300 mm		
Flat surface grinding		1.500 mm	600 mm	450 mm
Honing	1,5 - 160 mm	200 mm		
Centerless grinding	1,5 - 35 mm	150 mm		

We would be glad to process your material test specimen as specified by DIN-ISO.

The cooperation with our customers is based on reliability, partnership, and trust. It is our challenge to always find the solution that meets your requirements best and to process your orders in the most economically efficient way.

Certified according to DIN EN ISO 9001:2000

Experience and competence in high-tech ceramics
Challenge us – we find solutions