Our expertise includes ultra-precision machining of regular forms, complex surfaces, micro/nano functional structures, and corresponding ultra-precision measurement of the surface profiles, forms, textures and roughness, along with precise process monitoring and control.

Applications
Ultra-precision machining and measurement are significant for the development of high-end products such as imaging systems, LED illumination, 3D display, turbine blades, high precision moulding, bio implants, high power laser system, etc.

Capability and service
We aim at bridging the state-of-the-art ultra-precision machining and measurement technologies to industrial implementation, especially providing overall technical solutions, including equipment/process customization, to achieve efficient but accurate manufacturing of complex surfaces and functional structures down to micro/nano scale in mass production.
Ultra-precision machining

- Spherical surfaces
- Aspheric surfaces
- Off-axis surfaces
- Freeform surfaces
- Micro/nano functional structures and its arrays
- Complex surfaces for moulds

Ultra-precision measurement and inspection

- Customization of ultra-precision measuring system
- Customization of online measuring system
- Online detection of cutting tools profile by microscope imaging
- Detecting of micro vibration of spindle
- High resolution digital imaging by optical microscope

- 3D measurement on surface profile, form, texture, roughness
- High resolution surface inspection
- Properties analysis by XPS
- Inspection on microstructures by TEM
- Nano scale surface measurement by AFM

Contact us

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