THE INDUSTRY LEADER IN DIAMOND TURNING

- Flycutting of fold mirrors, galvo mirrors, cylinders, polygons, and faceted optics
- Precision machining of housings and lens mounts
- Two-axis turning / Four-axis turning (700mm diameter capacity)
- Fast Tool Servo and Slow Tool Servo for freeform and non-rotationally symmetric geometries
- B-Axis tool normal machining for domes and steep diffractive optics
- Micro-milling and micro-grinding for lens arrays and structured surfaces
- Advanced metrology capabilities including interferometry, profilometry, and high-power laser testing
- Supported by II-VI INFRARED materials, thin-film coating, design, and assembly capabilities

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World’s Largest & Most Advanced DIAMOND TURNING Capability

II-VI Diamond Turning is an industry leader providing diamond-turned and ultra-precision machined components for commercial, medical, military, and aerospace industries. Our facility is recognized as one of the largest and most advanced in the world, offering a wide range of capabilities.

PRODUCTS AND APPLICATIONS

- Mold Inserts
- Beam Shaping Optics
- Freeform Optics
- Lens Arrays
- Laser Diode Array Optics
- Precision Machining
- Polygons & Laser Scanning Systems
- Thermal Imaging
- Variable Radius Mirrors
- 1 Micron Laser Optics

METROLOGY

- Interferometry
- Profilometry
- Coordinate Measuring Machines
- Scanning Electron Microscope

METROLOGY EQUIPMENT

- LuphoScan 260
- Talysurf PGI 1240
- Talysurf Dimension
- Zeiss Micura XTR CMM
- Zeiss Eclipse 550 ST Coordinate Measuring System
- Zygo Interferometer Model Mark IV w/6.0” aperture
- Zygo New View 100 and 5000 3-D Imaging Surface Structure Analyzer
- Zygo Interferometer Model GPI XP w/4.0” aperture
- Zygo 10.6μm IR interferometer
- Zygo and HP distance measuring interferometers
- Heidenhain Rod 800 Rotary Table
- Ultra Dex Indexing Table
- Precitech Ultracomp Metrology
- Range of spectrometers for reflectivity and transmission tests (UV to IR)
- Tunable CO2 lasers for precision reflectivity and transmission testing
- CO2 laser calorimetry
- Environmental chambers
- Other mechanical and optical instruments

VERTICAL INTEGRATION

- Optical Materials Growth
- Optical Fabrication
- Thin-Film Coating
- Assembly
- Optical and Mechanical Design

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