



Digital First Manufacturer since 2001.

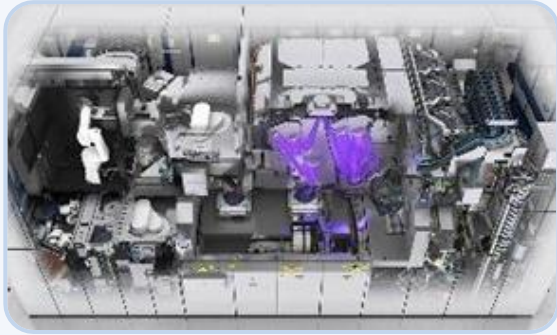
Transforming light into opportunity.
Empowering innovators to shape
tomorrow's technologies.



Everything from a Single Source

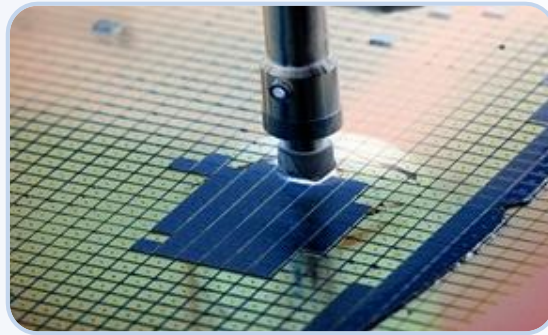


asphericon Markets: Semiconductor Solutions



Microchip Manufacturing

- ✓ Systems for Beam Delivering in Wafer Stepper Systems
- ✓ Systems for Mask Manufacturing



Wafer Inspection

- ✓ Optics for High-Performance Camera Systems
- ✓ Freeforms & Aspheres for Sharp Images
- ✓ UV-VIS Lenses for Effective Quality Assurance



Wafer Cutting

- ✓ Aspheric cylinders with minimal surface roughness for effective and clean laser guidance
- ✓ High-quality coatings from the UV to the near-IR range

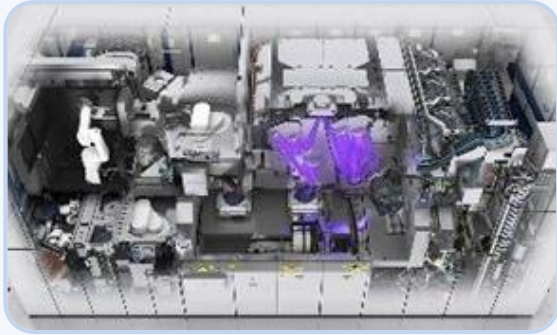


Optical Lithography

- ✓ Low-roughness optics for minimal scattering and perfect imaging
- ✓ Durable coatings
- ✓ Mirrors with outstanding reflectivity

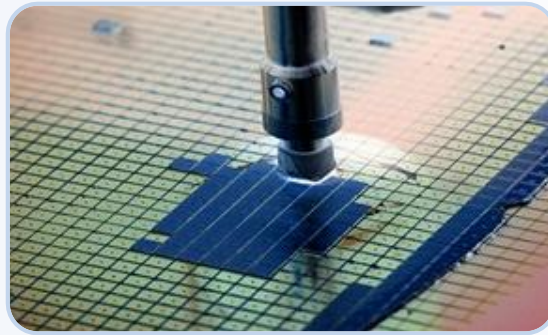


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asphericon Markets: Life Science Solutions



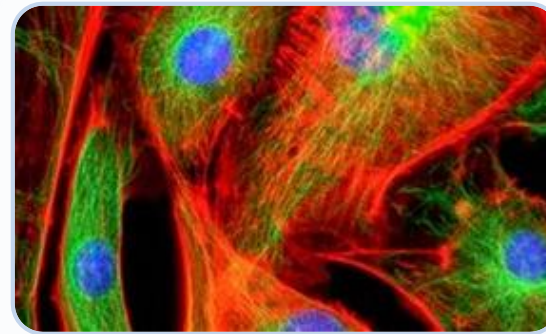
Medical Applications

- ✓ Safety coatings for a broad wavelength spectrum
- ✓ Lenses for Cancer Detection



Microscopic Applications

- ✓ High-end finishing processes for high quality surfaces
- ✓ High-resolution objectives for viewing smallest objects



Beam Shaping

- ✓ Components for optimizing illumination, e.g. in microscopic examinations



Laser Applications

- ✓ Solutions for Tattoo Removal and Aesthetics
- ✓ Anti-reflective, dielectric and filter coatings for wavelength separation



Ultra-Precise for Highest Demands



Magnetorheological Finishing Technology™

- ✓ Realization of shape deviations that exceed current international standards
- ✓ Processing of challenging aspheric optics in series production



asphericon Ångström-Polishing

- ✓ Extreme surface accuracy (up to 60 nm PV) and lowest roughness
- ✓ For demanding materials and elements with diameters up to 420 mm
- ✓ Large series with up to 1,000 pieces possible



Shaping Light with Precision Coatings

Coat the Wave

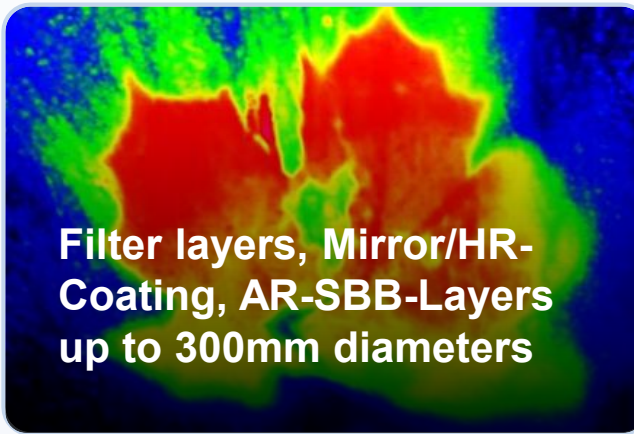
Ultra-hard coatings
for all wavelengths &
demanding materials
(Si, IG, Ge, ZnS & more)

Key facts

- ✓ UV-VIS-IR (up to 12 μ m)
- ✓ Inhouse Environmental Tests (DIN, ISO, MIL, DO)
- ✓ 24/48 hour service



Filter layers, Mirror/HR-Coating, AR-SBB-Layers up to 300mm diameters



Technologies

- ✓ Electron Beam Evaporation (EBE)
- ✓ Ion Assisted Deposition (IAD)
- ✓ Magnetron Sputtering (MS)

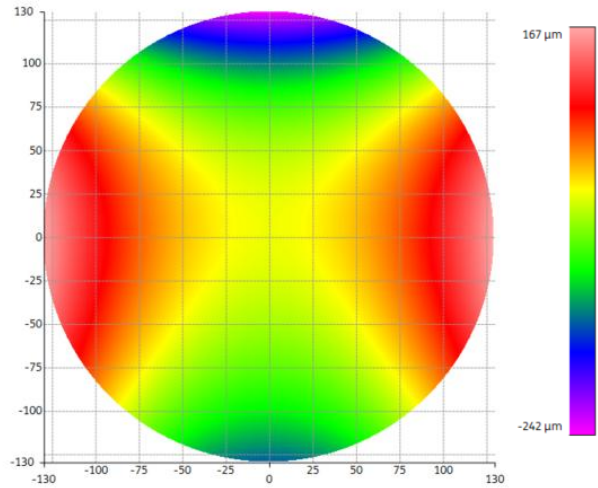


ITO-Coating

- ✓ Adjustable & protected conductive ITO-Coatings on substrates
- ✓ AR-enhanced conductive ITO-Coatings on substrates
- ✓ Sheet resistance adjustable around 10.5 Ohm/sq
- ✓ Transmission: 97.5% (450 nm - 750 nm)
- ✓ Reflectivity: < 0.5% (450 nm - 750 nm)



Lightweighted Freeform Mirrors



✓ Designed deviation
from best fit sphere

	Target	
Clear aperture	247.4 mm	✓
Radius deviation	0.1 %	✓
3/ Irregularity (low-pass 5 mm)	20 nm RMSi	✓
3/ Mid-spatial freq. (1.25 – 5 mm)	5 nm RMS	✓
Microroughness (0.0025 - 1.25 mm)	0.7 nm RMS	✓
4/ Centration	25 μm	✓
5/ Cleanliness	C6 x 0.25; L5 x 0.016	✓

