

Optimax Capabilities

For High Performance Optics

**MANUFACTURING
THE FUTURE**



OPTIMAX[®]

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Capabilities

Aspheres



Attribute	Minimum	Maximum
Diameter (mm)	3	500
Radius (mm)	-8 (concave)	∞^1

¹For concave surfaces the maximum may be smaller, limited by tool clearance. Short radii have lower maximums.

Cylinders



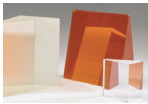
Length Width (mm)	3	500
Radius (mm)	10	∞

Freeforms



Diameter (mm)	20	500
Characteristics	Mild (interferometrically testable) Wild (deviation less than size of part) Extreme (deviation on order of size of part)	

Prisms



Diameter (mm)	3	500
Thickness (mm)	1	150

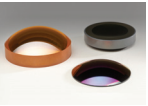
Spheres / Flats



Diameter (mm)	3	500 ¹
Radius (mm)	1	∞^2

¹Limited by machine envelope. ²Metrology dependent.

Coatings



Technologies

Advanced Plasma Source (APS)
 E-beam and thermal evaporation
 Ion Beam Sputtering (IBS)
 Plasma Ion Assisted Deposition (PIAD)

Coating Types

Antireflection (AR)
 Beamsplitters
 Dielectric Mirrors (HR 99.999%)
 Filters
 Gradient Reflectivity Mirror (GRM)
 Metal Mirrors
 Thin Film Polarizers

Optimax manufactures custom optics behind break-through technologies which allows us to deliver highly complex optics with the speed and performance your programs require.

We manufacture optical components, including:

Aspheres	Optical Domes
Cylinders	Prisms
Freeforms	Spheres / Flats

Our facility has diverse capabilities for making a variety of optical components up to 500 mm in diameter. We offer a wide range of optical materials for specialized applications from the deep ultraviolet (DUV) to the infrared, including:

- All optical glasses and fused silica
- Optical crystals — CaF₂, MgF₂, ZnS, ZnSe, Ge, Si, Sapphire
- Optical ceramics — Spinel, AlON, Clearceram, Zerodur

By incorporating a broad range of manufacturing technologies, we will choose the best process for your requirements. Fabrication capabilities range from conventional processing to highly deterministic CNC machining, including:

- CNC subaperture polishing
- Magnetorheological Finishing (MRF)
- Optimax patented VIBE polishing
- Ion Beam Figuring (IBF)
- Custom-built metrology solutions
- Robotic polishing solutions

Larger sizes available upon request.

Manufacturing Groups

You can rely on our distinct manufacturing groups to deliver highly complex optics and world-class coatings that are both consistent and economical. Each group is purpose-built to deliver unique value to your program.

Prototype Optics

Small Volume
High Quality
Quick Delivery

Production Optics

Cost Effective
Reliable
Low Risk

Laser Grade Optics

Large Diameter
High Precision
Highly Engineered

Optical Coatings

Deep Ultraviolet (DUV)
High Energy Lasers
Filters

Bring us your **most**
challenging projects.

For more information visit
www.optimaxsi.com/capabilities

Industries We Serve

Aerospace

We supply NASA with high quality imaging lenses, like those on the Mars Rover, designed for position sensing, landform mapping, and optical analysis.



Defense

Our advanced optics complete challenging defense projects in directed energy, reconnaissance, and hypersonic applications.



Semiconductor

Our optics are behind some of today's most breakthrough technologies including lithography, inspection and advanced packaging.



Optimax Difference

We specialize in Asphere, Cylinder, Freeform, Plano and Sphere/Flat optics in sizes up to 500 mm. All parts are manufactured to customer-supplied specifications and include final inspection data.

Facility: 120,000 sq. ft.

Employees: 400+

CEO: Rick Plympton

Founded: 1991

Compliance:

ITAR (International Traffic & Arms Regulations)

EAR (Export Administration Regulations)

Dodd-Frank Act (conflict minerals)

RoHS (Restriction of Hazardous Substances)

REACH (Registration, Evaluation, Authorization and Restriction of Chemical Substances)

MIL-I-45208A Quality System

Small Business

Registered: ISO 9001:2015 certified

US Dept of State: Registered with Directorate of Defense Trade Controls

Encryption: PGP[®] Desktop Email

D&B #78-706-4120 (Dunn & Bradstreet)

Partners in Manufacturing

At Optimax, you'll receive a team of engineers and account managers to ensure on-time delivery, efficient communication and outstanding quality.

For more information visit

www.optimaxsi.com/capabilities