

Industries We Serve

Medical Devices

Optimax provides OEM optics for a femto-second laser in an innovative 3D surgical platform.



Aerospace

Optimax has supplied NASA with high quality imaging lenses, for projects like Mars Rovers, designed for position sensing, mapping landforms, and optical analysis.



Semiconductor

Optimax produces optics behind some of today's most breakthrough technologies — including semiconductor/solid-state lighting and displays.



Optimax Difference

Aspheres

Optimax makes aspheres for UV, Visible and IR applications using proprietary "grind & shine" techniques to produce low scatter surfaces.

Freeforms

Optimax can manufacture freeform optics that are designed for systems that require fewer elements, lighter weight and increased flexibility, which increases overall performance of systems.

Coatings

Optimax provides coatings to reduce risk and production time on finished, complex optics. Our clean environment, thin film coating lab has the capability to coat from UV through IR wavelengths.



Dedicated to supporting projects that require:
Small volume · **High quality** · **Quick delivery**

For more information visit
www.optimaxsi.com/capabilities

Optimax regularly manufactures custom:

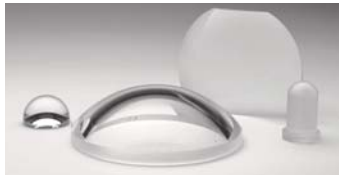
Aspheres



Attribute	Minimum	Maximum
Diameter (mm)	3	500
Radius (mm)	-8 (concave)	∞^1
Sag (mm)	0	50 ¹
Departure (mm)	0.01	20
Included Angle	0	120

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

Spheres

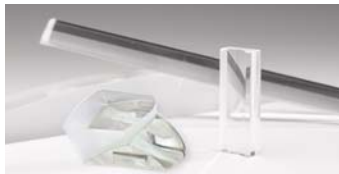


Attribute	Minimum	Maximum
Diameter (mm)	3	500 ¹
Radius (mm)	± 1	∞^2
Aspect Ratio ⁴	1:1	30 ³
Included Angle (°)	0	210 ²

¹Limited by machine envelope. ²Metrology dependent. ³Depends on metrology and finish options.

⁴Diameter divided by center thickness

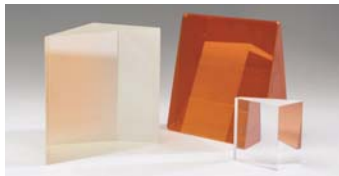
Cylinders / Freeforms



Attribute	Minimum	Maximum
Length (mm)	3	500
Width (mm)	2	300
Cylinder Radius (mm)	10	∞
Concave sag to flat (mm)	0.100 ¹	=Radius

¹Flat surfaces lead to scratching problems & polisher contact issues. For both practical & economic reasons consider plano here.

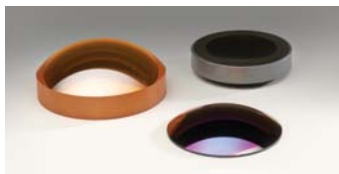
Prisms / Flat Optics



Attribute	Minimum	Maximum
Diameter (mm)	3	500
Thickness	1	150
Aspect Ratio ¹	1	50 ²

¹Diameter divided by thickness. ²Material dependent.

Coatings



Technologies

Ion Beam Sputtering
Plasma Ion Assisted Deposition
Reactive Evaporation
Thermal Evaporation

Coating Types

Antireflection
Beam Splitters
Polarizers
Metal Mirrors
Dielectric Mirrors
Filters

Optimax Capabilities

Optimax manufactures the optics behind breakthrough technologies in aerospace, defense, semiconductor and medical devices. Our advanced manufacturing system allows us to test and deliver highly complex optics with the speed and performance your programs require.

We manufacture optical components, including:

Aspheres	Optical Domes
Spheres	Prisms and Flats
Cylinders	Freeforms

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 far infrared (FIR), including:

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

Optimax incorporates a broad range of manufacturing technologies from which we can choose the best process for your requirements. Fabrication capabilities range from conventional machinery to highly deterministic CNC machining, including:

- CNC subaperture polishing for aspherical and toroidal surfaces
- Magneto Rheological Finishing (MRF)
- Optimax patented VIBE polishing

For more information visit
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Larger sizes available upon request.