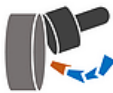




(540) 586-8526



Optical Fabrication



Thin Film Coating



Laser Optics



Optical Fabrication

We are a supplier of both custom, made-to-order and standard laser optics and optical polishing components. We offer low-volume custom research and development manufacturing laser optic solutions as well as high volume production of nearly every type of optical material, shape and size.

All substrates are measured and certified by Blue Ridge Optics' quality engineers. Depending on customer specific requirements, we offer a full range of testing to ensure compliance with the most demanding optical requirements and specifications.

Standard Materials

- BK7
- CaF2
- Infrasil
- Fused Silica
- Magnesium Fluoride (MgF2)
- Sapphire
- Suprasil
- Hybrid & Custom Materials

Infrared Materials

- CaF2 (IR)
- Cleartran
- IG Glass
- Germanium
- Silicon

Fabrication Technology

- CNC Blanking, Shaping & Polishing
- MRF Finishing, Super Polish
- Continuous Lappers (12-72")
- Double Sided Lappers

Note: [ISO 9001 Registered](#). ITAR/EAR Compliant

Crystals & Gain Materials

- Alexandrite
- BBO / LBO Crystal
- KTA / KTP Crystal
- Phosphate Glass
- Lithium Niobate (KNbO3)
- RBBF
- Ti:Sapphire
- Vanadate (YVO4)
- YLF
- YAG (Doped: Er, Nd, Yb)
- ZnSe (Standard & Doped: Fe, Cr)
- Hybrid & Custom Crystals

Achievable Specifications

- Dimensions: 0.1 - 457mm (Cross Sections)
- Surface Quality: < 10-5
- Flatness: 1/40 Wave @ 632.8nm (RWE)
- TWE: 1/40 Wave @ 632.8nm (TWE)
- RMS: <1 Angstrom RMS



All Products



Thin Film Coating

Blue Ridge Optics thin film coatings have been used in the worlds most advanced and powerful laser systems. Coatings are available on Blue Ridge Optics or customer furnished materials. With an emphasis on research & development and continuous improvements, our capabilities are ever evolving to meet our customer’s thin film coating needs.

Thin Film Coating Technology

Blue Ridge Optics thin film coating deposition chambers are equipped with the industries latest and most advanced vacuum and monitoring technology. The thin film deposition process is monitored using both optical and crystal monitoring techniques to ensure consistent and repeatable measurements throughout the deposition process. Deposition technology includes:

- Advanced Plasma
- Electron Beam
- Ion Assist
- Thermal Resistance

Capabilities & Parameters

- Wavelengths: 190-15,000nm (UV-MWIR)
- Dimensions: 0.1-450mm
- Production Capacity: 10,000 Parts Per Month

Standard Coatings

- Antireflection
- Beamsplitters
- Conductive / Indium Tin Oxide (ITO)
- Dichroics
- Dielectrics
- Filters
- High Reflection
- High-Power/Ultra Durable
- Metal/Protective
- Output Couplers
- Polarizers
- Specialty and Custom Designed

Note: ISO 9001 Registered, ITAR/EAR Compliant



All Products

Laser Optics

From low volume research & development to high volume production, our laser optics shop can offer built to print or off the shelf* turn-key laser optics. Send your requirements to a sales engineer or contact us for our latest inventory. Quotations are typically turned around in <24 hours.

Standard Optical Components

- Beamsplitters
- Beam Steering, Beam Dumps
- Conductive / ITO Coated Optics
- Filters
- Infrared Optics
- Laser Rods
- Laser Gain & Crystals
- Lenses
- Mirrors
- Prisms
- Q-Switches
- Waveplates
- Windows

Note: ISO 9001 Registered, ITAR/EAR Compliant



All Products

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