



Optical Dome Molding



Glass Fusing Retort Furnace



Large Workpiece Diamond Grinding

Services & Capabilities

Rayotek Scientific, Inc. is an international leader in the engineering and manufacturing of glass, sapphire fused silica and materials sealing technology. Rayotek Sight Windows is the evolution of business and technologies that began at the parent company, Rayotek. Together both enterprises provide a comprehensive suite of products and services, including an in-house team of technical experts.

Rayotek's mission is to provide its customers with a one-stop, full service experience. Our goal is to create solutions for customer needs by leading projects from the conceptual stage through engineering and design to in-house manufacture to final fabrication.

High Pressure Products

- Sight Glasses & Windows
- Optical Glass Camera Domes
- Sapphire Window
- Oil Well Vision Systems
- Lighting Windows
- Optical Diffusers

Services

- Engineering & Design
- Custom Manufacturing
- Dome Molding & Slumping
- Sealing Of Transparent Materials To Metals/Ceramics
- Ultra-High Pressure Testing (up to 60 KPSI) & Helium Leak Testing
- Polishing, Grinding & Cutting
- FEA/FEM Simulation

Features & Benefits

On-site Technical Team - engineers, staff physicist & master optician

Experience - 24 years of expertise in glass, sapphire, & sealing

Equipment - state-of-the-art for manufacturing & measurement

Material Combinations - multiple, including: NACE compliant & super alloy metals with borosilicate, sapphire, fused quartz & soda lime

Engineered & Manufactured In-House - 100% at Rayotek's San Diego, USA facility

AS9100D Certified & ITAR Registered

Specialty Equipment

MACHINERY / SOFTWARE	DESCRIPTION
High Temp Retort Furnaces	An array of controlled atmosphere annealing & forming furnaces for molding & fusing
Waterjet Cutter & Laser Scriber	Glass specific diamond cutting of ultra-hard materials. Precision cuts to 0.002" (0.05 mm)
3-Axis Surface Grinder	Precision curved surface diamond grinding for generation of simple & complex curved surfaces
5-Axis CNC	CAD/CAM large workpiece diamond grinder & CMM 4.15 x 5 x 1.4 m work envelope
Massive Polishers	For large sight window & large optics polishing. Work envelope of 3 m (120")
High-Pressure & Leak Testers	Pressure, vacuum & proof pressure testing from 10 ⁻⁸ TORR vacuum to over 60,000 PSI
Materials Sealing Lab	For sealing materials designed for thermal, chemical & pressure environments
Chemical Processing Equipment	For etching, bonding, fusing & chemical cleaning of products & processing equipment
Cleanroom	Certified class 1000 cleanroom for processing, testing & packaging of sensitive products

INDUSTRIES SERVED: AEROSPACE, PULP & PAPER, MINING, CHEMICAL, OIL & GAS, SUBSEA EXPLORATION AND MORE!