



Diamond Point Turning, Flycutting & MRF

Magnetorheological Finishing Infrared and Exotic Materials



Reynard Corporation offers in-house Diamond Turning capabilities to produce 6mm to 800mm diameter high-quality precision optics. Serving the aerospace, military, and commercial industries, our services meet the most demanding specifications.

Diamond Turning (DT): Utilizing 3 and 4 axis precision DT machines, we achieve sub-nanometer surface finishes and sub-micrometer form accuracies. We specialize in complex optical geometries that other companies cannot match.

Magnetorheological Finishing (MRF): Our MRF capabilities, combined with our Diamond Turning process, improve surface accuracy to $\leq \lambda/50$ RMS, with a roughness reduction to $< 10\text{\AA}$ RMS, and 1\AA for some materials.

Materials Processed: We work with a variety of materials including Ge, Si, ZnS, ZnSe, CaF₂, and metals. With deep expertise in IR & exotic materials, we deliver unparalleled precision.

Metrology: We use advance metrology solutions like Interferometers, CGH (Computer Generated Hologram), white light profilometry, and LuphoScan for precise non-contact measurements of spherical, aspherical, and freeform optics

Companies have put their trust in Reynard Corporation knowing that they will get their demanding specifications met. We offer our customers support, solution and top-quality products.

CAPABILITIES

- Aspheric
- Axicons
- Cylindrical
- Diffractive Aspheric
- Elliptical Surface
- Flat Optics
- Freeform
- Magnetorheological Finishing (MRF)
- Off-Axis Aspheric
- Parabolic Surface
- Prism
- Reverse Axicon 360° Windows
- Spherical
- Torics
- Windows
- Prototype to Volume Production

By customizing your thin-film coating needs, Reynard Corporation can realize the ideal optic for your application. All manufacturing is done in-house for improved quality, ease of communication and innovative customization.



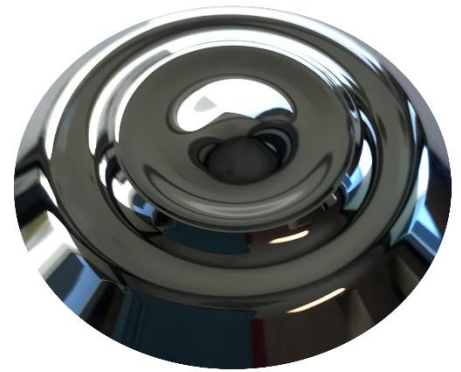
MATERIALS

III-V Crystals	GASIR series
Aluminum (Al)	Germanium (Ge)
AMTIR series	Infrared Crystals
Calcium Fluoride (CaF ₂)	Metals
Chalcogenide	Schott IRG26 (IG6)
Copper (Cu)	Silicon (Si)
El Nickel (Ni)	Zinc Selenide (ZnSe)
Exotic Materials	Zinc Sulfide (ZnS) / Cleartran

Contact us today to see how we can help YOUR system
achieve the highest level of performance!

APPLICATIONS

- Camera Systems
- Telescopes
- Video Projectors
- Lasers
- Missile Guidance Systems
- Airborne Optical Systems
- Thermal Imaging
- Detectors
- Medical Products
- Engineering Models



OPERATIONAL CAPABILITIES

- Axis Symmetric Grinding
- Polygon Flycutting
- Rotary B-Axis Grinding
- Spiral Milling

