

Application Report

Germanium (Ge)



Moore Nanotech® 250UPL

Objective: To characterize absolute machine performance in terms of surface finish and form accuracy using Ge

Process:

- 2-Axis Single Point Diamond Turning

Part Configuration:

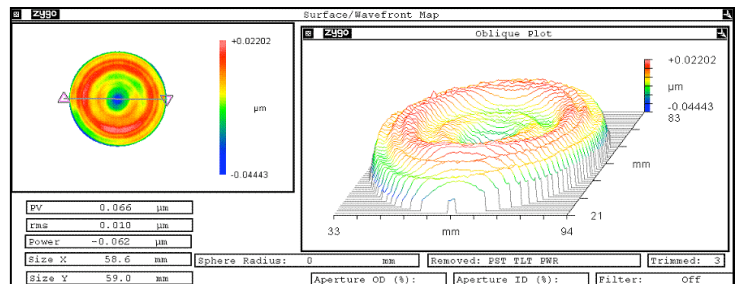
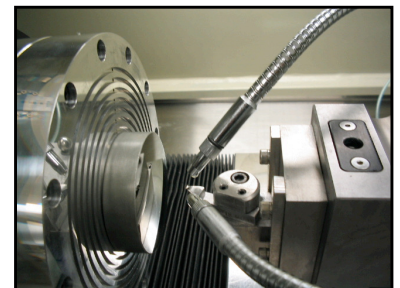
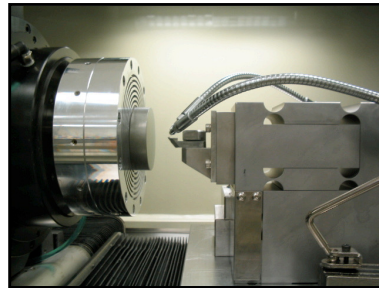
- **Material:** Ge
- **Diameter:** 60 mm
- **Radius:** 250 mm
- **Surface Type:** CX Sphere

Machining Parameters:

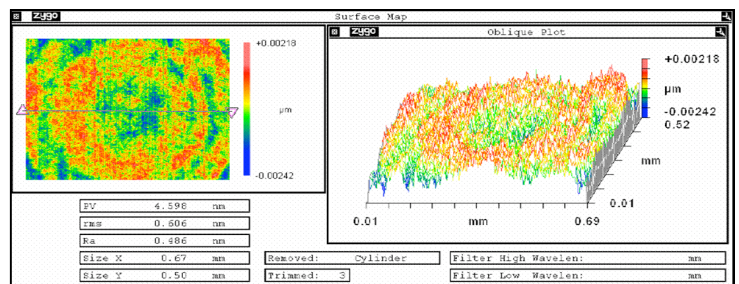
- **Spindle RPM:** 2500
- **Finish Feedrate:** 2 mm/min
- **Finish Depth of Cut:** 2 μm
- **Coolant:** Odorless Mineral Spirits

Tool Configuration:

- **Radius:** 0.635mm
- **Top Rake:** - 25 Degree



Form Accuracy: PV = 0.066 μm



Surface Finish: Ra = 0,486 nm