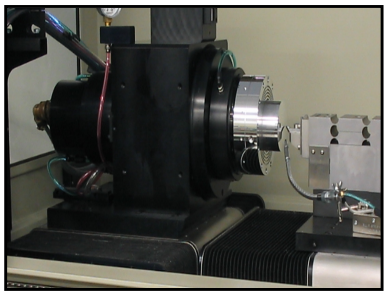
Nanotech®

Ultra-Precision Machining Systems for Single Point Diamond Turning, Micro-Grinding, Micro-Milling and Glass Press Molding

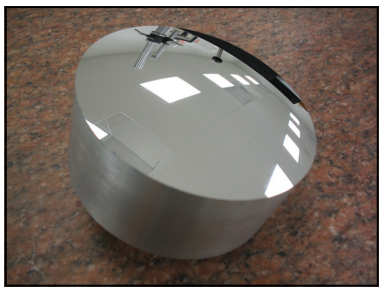
Application Report

Aluminum (Al)

Moore Nanotech® 250UPL



Objective: To quantify surface finish and form results obtainable on Aluminum using the Nanotech 250UPL.

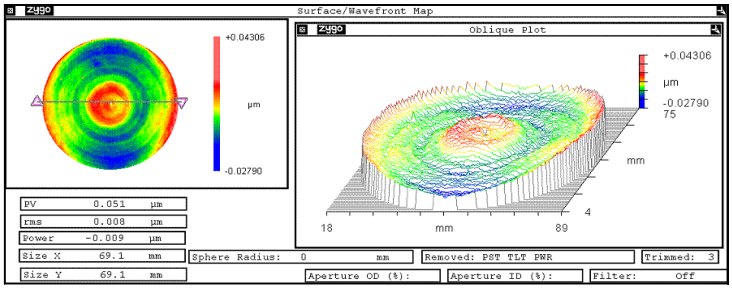


Process:

- 2-Axis Single Point Diamond Turning

Part Configuration:

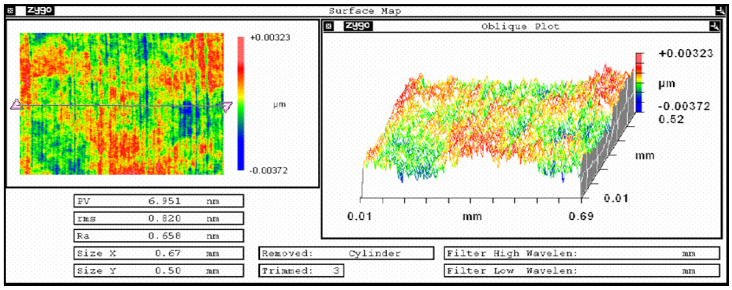
- **Material:** Aluminum
- **Diameter:** 75 mm
- **Radius:** 250 mm
- **Surface Type:** CX Spherical



Form Accuracy: PV = 0.051 µm

Machining Parameters:

- **Spindle RPM:** 2000
- **Finish Feedrate:** 7.5 mm/min
- **Finish Depth of Cut:** 2 µm
- **Coolant:** Odorless Mineral Spirits



Surface Finish: Ra = 0.658 nm

Tool Configuration:

- **Radius:** 0.75 mm
- **Top Rake:** 0 Degree

Moore Nanotechnology Systems, LLC 426A Winchester St., Keene, NH 03431-0605 USA Tel: (603) 352-3030 Fax: (603) 352-3363