

Nanotech 250UPL^{v2} Objective

To characterize absolute machine performance on zinc selenide in terms of both surface finish and form accuracy

Process

2-Axis Single Point Diamond Turning



Application Summary

Part Configuration

Material: ZnSe
 Diameter: 50 mm
 Radius: 267 mm
 Surface Type: CX Sphere

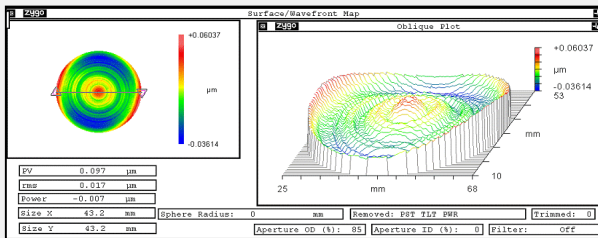
Tool Configuration

Radius: 0.635mm
 Top Rake: -25 Degree

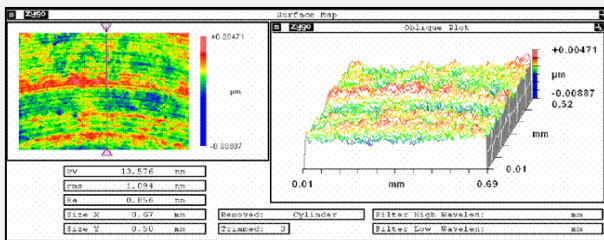
Machining Parameters

Spindle RPM: 2500
 Finish Feedrate: 2 mm/min
 Finish Depth of Cut: 4 μm
 Coolant: Odorless Mineral Spirits

Metrology Results



Form Accuracy: PV = 0.097 μm



Surface Finish: Ra = 0.856 μm

