

Nanotech 650FG^{v2} Objective

To characterize micro-milling an aspheric lens array in brass in terms of both surface finish and form accuracy

Process

3-Axis Tool Normal Diamond Turning (XZB)

Optional Accessory Item

60K RPM 2.25 Micro-Milling Spindle

Application Summary

Part Configuration

Material: Brass
Lenslet Dia: 0.65 mm
Surface Type: CC Aspheric

Tool Configuration

Diamond Ball Mill
Single Flute
Radius: 0.2mm

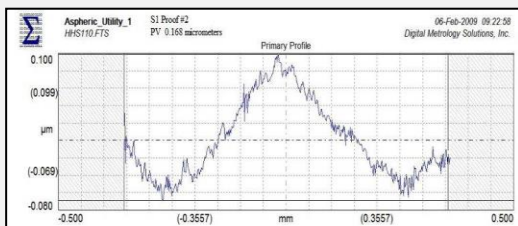
Machining Parameters

Milling Spindle RPM: 40,000
Finish Feedrate: 100 mm/min
Depth of Cut: 150 μ m
Coolant: Odorless Mineral Spirits
Cycle Time per Lenslet: 2 min

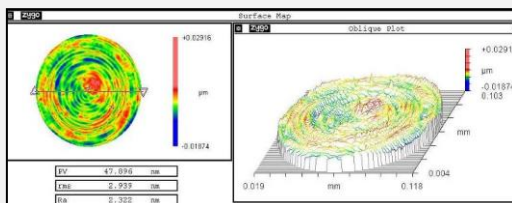
(Note: each lenslet is produced in 1 pass)



Metrology Results



Form Accuracy: PV = 0.168 μ m



Surface Finish: Ra = 2.32 nm

