

Nanotech 450UPL^{v2} Objective

To characterize XZB wheel normal machine performance when grinding Tungsten Carbide in terms of both surface finish and form accuracy

Process

XZB Wheel Normal Grinding

Application Summary

Part Configuration

Material: Tungsten Carbide (Wc)
 Diameter: 30 mm
 Radius: 25 mm
 Surface Type: CX Sphere

Tool Configuration

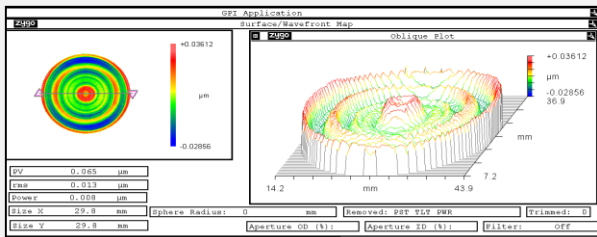
Wheel: Resin Bonded Diamond
 Diamond Type: Natural
 Grit: 3,000
 Wheel Diameter: 20mm

Machining Parameters

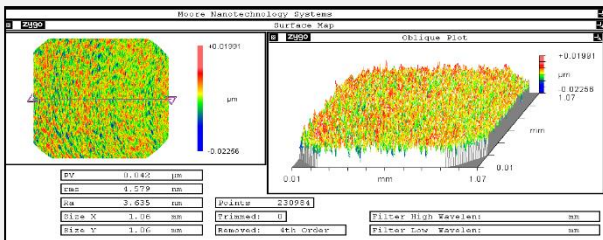
Work Spindle RPM: 128
 Grind Spindle RPM: 45,000
 Finish Depth of Cut: 1 μ m
 Coolant: OMS



Metrology Results



Form Accuracy: PV = 0.065 μ m



Surface Finish: Ra = 3.635 μ m

