

Application Report

Tungsten Carbide (WC)



Moore Nanotech® 450UPL

Objective: To quantify surface finish and form results obtainable while grinding Tungsten Carbide using the Nanotech 450UPL with B-axis.

Process:

- XZB Grinding WC sphere

Part Configuration:

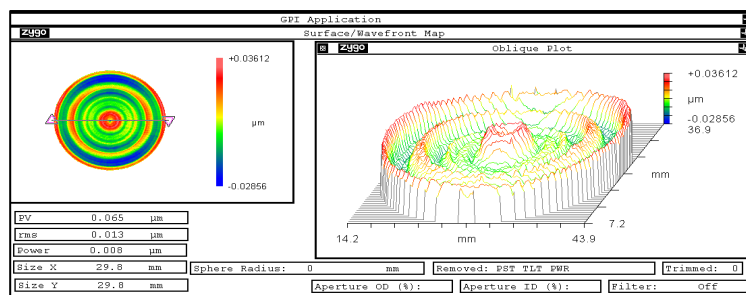
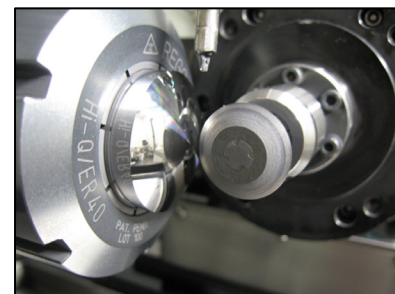
- **Material:** Tungsten Carbide (WC)
- **Diameter:** 30 mm
- **Radius:** 25 mm
- **Surface Type:** CX Spherical

Machining Parameters:

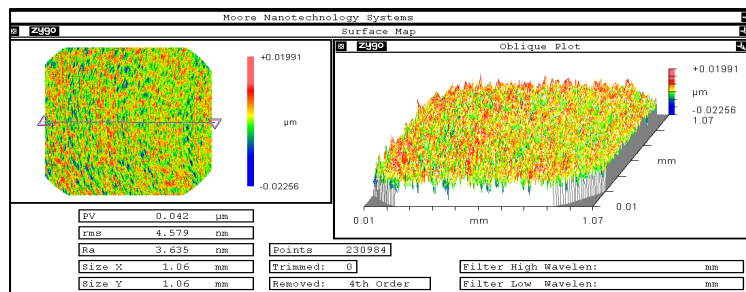
- **Work Spindle RPM:** 128
- **Grinding Spindle RPM:** 45,000
- **Finish Depth of Cut:** 1 μm
- **Coolant:** OMS

Tool Configuration:

- **Wheel:** Resin Bonded Diamond
- **Diamond Type:** Natural
- **Grit:** 3000
- **Wheel Diameter:** 20mm



Form Accuracy: PV = 0.065 μm



Surface Finish: Ra = 3.635 nm