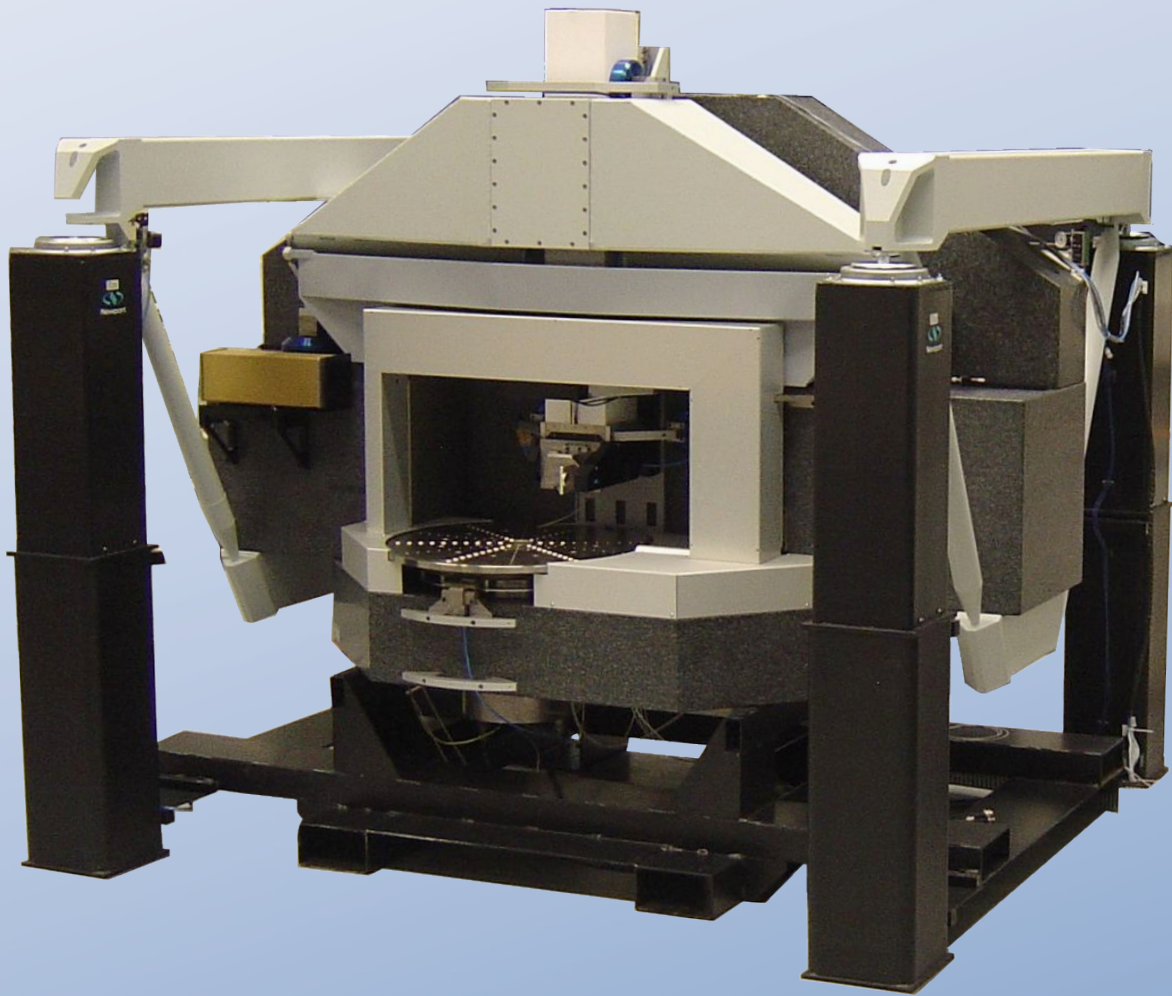


ZEEKO^{Ltd}

METROLOGY SOLUTIONS COMPATIBLE WITH CORRECTIVE POLISHING MACHINES



NANOMEFOS



IN CONJUNCTION WITH ZEEKO

NANOMEFOS

As a result of a collaboration between Zeeko and TNO, the much admired NANOMEFOS precision measuring machine technology is being implemented in a new metrology product, which is the most accurate of its kind.

NANOMEFOS - Nanometre Accuracy Non-contact Measurement of Freeform Optical Surfaces - measures a surface where the measurement probe is kept normal to the surface. This overcomes errors due to varying probe-orientation experienced with competing instruments in the marketplace.

Its innovative design combines nanometre accuracy with high speed of measurement. The same innovative software as used by Zeeko for its corrective polishing analysis is incorporated in this development. This software is based on Zeeko's Metrology Toolkit – highly regarded in the industry as the software-of-choice to support a wide variety of metrology functions as required for effective use of CNC polishing machines.

- **NON-CONTACT MEASUREMENT ELIMINATES PART DAMAGE**

Many types of surfaces can be measured including spheres, aspheres, freeforms and off-axis parts, made from ceramics, soft metals or other softer or compliant materials. Uses innovative technology to perform high-speed measurements on 'standard' and specialist discontinuous surfaces.

- **SUITABLE FOR COATED OR UNCOATED OPTICAL OR MECHANICAL SURFACES**

Custom metrology probe performs measurements with 1 nm resolution whilst maintaining 'ride-height' above the surface.

- **INTEGRATED HIGH-TECH METROLOGY FRAME DELIVERS A MEASUREMENT UNCERTAINTY AS LOW AS 30 NM**

Real-time interferometric and capacitive monitoring of the machine's axes allows a precise determination of the probe's position relative to the optic, and thus a low measurement uncertainty.

- **POWERFUL COMPUTER CONTROL**

Allows a high point density to be recorded in a short time ensuring excellent surface sampling.

SPECIFICATIONS

- Measures flat, spherical, free-form and off-axis parts, size up to 500 mm Ø by 100 mm thick
- Granite base with active vibration isolation
- 5-axis servo driven system positions custom probe over surface under test
- Air bearings for 4 main motion axes
- Uncertainty 30 – 90 nm (2σ), dependent upon part to be measured
- Non-contact optical probe:
 - o 5 mm axial range
 - o ±5° angular range
 - o 1 nm resolution
 - o Sample rate >3kHz
- Interferometric and capacitive monitoring on motion axes
- High speed measurement (estimated 15 min for 500 mm Ø part)
- State of the art CNC control of all axes and measurements
- Control and analysis software based around the Zeeko Metrology Toolkit
- Dimensions (W x D x H):
2100 mm x 1800 mm x 1800 mm