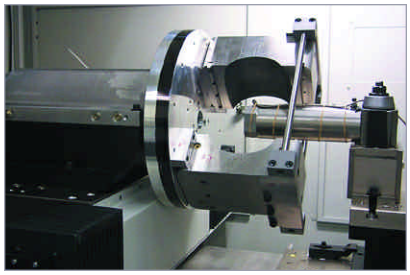
Nanoform® 700



Configured with heavy duty spindle for the single point diamond turning of a large lens mold.

High performance, large capacity, two-axis, aspheric contouring machine designed for diamond turning, grinding, linear grooving and precision machining.

Specifications

System / Control	Description
Configuration	Two-axis contouring machine, elevated "T" configuration
Control System	Precitech Ultrapath™ DSP based machine control system
Base	Natural granite machine base supported in a fabricated steel frame
Vibration Isolation	Active leveling air isolation mounts
Machine Slides	**X and Z Axes**
Type	Fully constrained, hydrostatic box ways to maximize stiffness and accuracy
Travel	X axis 350mm, Z axis 250mm
Speed	0.001-1500mm/min w/1.4 nm scales
Drive System	Linear AC synchronous motor
Workholding Spindle	**Heavy Duty Spindle**
Type	Preloaded air bearing design with front positioned thrust bearing and athermalized mount
Speed Range	10-3,000RPM
Load Capacity	125Kg (275lbs) 150 PSI air supply
Swing Capacity	700mm (28") diameter
Drive	Thermally isolated DC motor
Machine Requirements	
Power	230VAC±10%/3.0KVA, 1 phase 50/60 Hz
Air	8 SCFM@100PSIG, 3.8l/s @ 7 bar
Floor Space	2930mm x 3807mm x 2043mm (115.3" x 149.9" x 80.4")

Features & Benefits

- Capable of diamond turning optical quality form and finish in a wide range of non-ferrous metals, crystals and polymers.
- Optional heavy duty grinding system for grinding and edging of lens molds in non-diamond machinable materials such as tool metal, glass and ceramics.
- Natural granite base utilizing active leveling air isolation mounts.
- Fully constrained, hydrostatic box ways arranged in an elevated "T" configuration.
- Slideways provide 350mm (X-axis) and 250mm (Z-Axis) of travel with 700mm of swing capacity.
- 8.6nm resolution linear glass scales for positioning feedback.
- Linear motor activated oil hydrostatic precision slideways.
- Utilizes Precitech's Ultrapath™ Digital Signal Processor (DSP) based machine control system providing a one nanometer programming resolution, sub-count feedback signal interpolation, and industry standard M and G code programming format.
- Available with optional rotational and linear axes.

Options & Accessories

- Choice of two spindles
- General Purpose Vacuum Chucks
- Precision Grinding Attachments
- Optical and LVDT Tool Setting Systems
- On-Machine Form Measurement and Error Comp.
- Rotary "B" Axis
- 150mm "Y" Axis (in place of spindle)
- Adjustable Tool Holders
- Aspheric Programming Software
- Tool/Air Lube System
- Air Temperature Control System
- On-Machine Gage Head & Amplifier

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