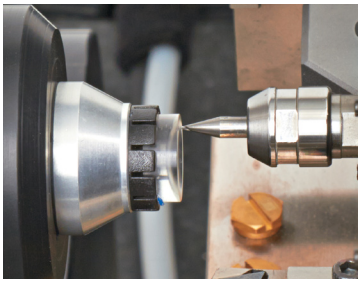
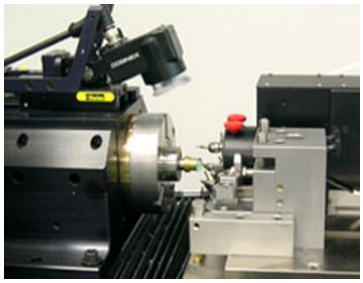
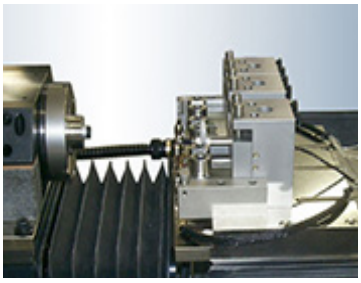
Sterling ULTRA PRECISION

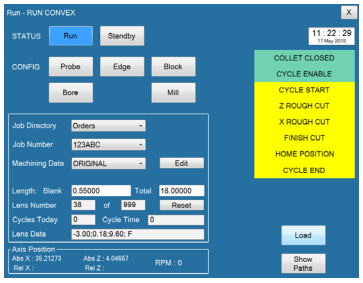
# SMALL FRAME OPHTHALMIC LATHE
# Optoform® 40

Low cost two-axis, computer controlled contouring lathe designed for high speed lathing of spherical, multi-curve, aspheric, and edge design contact lenses and intraocular lenses. It is the world's most competitively priced ultra-precision lathe precisely designed for contact lenses or intraocular lenses (IOLs). The machine control software is extremely flexible, accommodating all applications.











| System / Control | Description |
|---|---|
| Configuration | Two-axis contouring machine, "T" configuration |
| Control System | On-board computer, PMAC servo control of linear motors, nanometer position feedback, with ergonomic menu type interface on a flat panel high quality touch screen, MS Windows operating system |
| Base | Natural granite supported on a welded steel frame |
| Vibration Isolation | Passive mount vibration isolation system |
| | |
| **Machine Capability** | Spherical, Aspherical<br>Non-rotationally symmetric with FTS 5000 attachment |
| | |
| **Machine Slides** | **X and Z axis** |
| Type | Preloaded hydrostatic air bearing design |
| Travel | X axis: 200 mm (8 in.) \| Y axis 100 mm (4 in.) |
| Speed | 0.001 - 1500 mm/min (60 in./min) |
| Drive System | Linear AC synchronous motor |
| | |
| **Workholding Spindle** | **HS 75 High Speed Heavy Duty Spindle** |
| Type | Air bearing |
| Speed Range | 100 - 10000 RPM without optional chiller<br>100 - 15000 RPM with optional chiller |
| Stiffness | Axial: 105 N/µm \| Radial: 35 N/µm |
| Load Capacity | Air actuated collet mechanism |
| Acc / Dec Time | < 5 sec |
| | |
| **Machine Requirements** | |
| Power | 208 - 230 VAC, 1 phase 50/60 Hz, 3.0 kVA |
| Air | 10 SCFM @ 90 PSIG \| 5 l/s @ 6 bar |

- ***High speed lathing of spherical, multi-curve, aspherical, and non-rotationally symmetric contact lenses and intraocular lenses***
- ***Form accuracy of less than 0.15 µm and surface finish of 8-10 nm Ra***
- ***Built on a natural granite base, and utilizes a passive mount vibration isolation system***
- ***User defined edge configurations including asymmetric edge can be specified, incorporated into the lens design and directly machined***
- ***Air slides provide stiff 200 mm (X-axis) and 100 mm (Z-axis) of travel with linear motor technology***
- ***< 10 nm resolution linear laser scales for positioning feedback***
- ***Ergonomic intuitive controls accessed from high-quality color touch screen***
- ***Comes standard with separate dual tool holders, front surface probe, and can hold up to 6 diamond tools***
- ***Task light and vacuum chip extraction***

**AMETEK® Precitech, Inc.**
**Sterling Ultra Precision**
8600 Somerset Drive • Largo, FL 33773 USA • Phone: 727-538-6000 • Fax: 727-538-6121
**www.sterlingint.com • www.precitech.com**

AMETEK®
ULTRA PRECISION TECHNOLOGIES