

Sirio-4

Ultra-Precision Lathe
CONTACT LENSES & IOLs



Optical machines
and equipments



Features

Monoblock in natural granite isolated from the steel frame by passive anti-vibration system to grant the best thermal stability and damping of disturbing frequencies.

Only 2 Cutting tools for roughing & finish operations (lens curve and diameter reducing) to realize IOL, Contact Lenses (Soft, RGP & PMMA) and Tooling in non-ferrous materials.

Friction free Linear Motions of X & Y axes by ultraprecision pneumostatic slides - Iron Less Motor cogging free Axis resolution < 0.02 μm – feed up to 6000 mm./min.

Thermally stabilized own Brushless Air Bearing Spindle (0 to 12000 RPM – non water cooled) for the best accuracy in position control and no friction rotation. Angular Precision < 0,005°.

Chuck Clamping System: pneumatic integrated in the same spindle.

Touch Device My-Con for the automatic and easiest blank thickness detection / 0 machine setting.

Faster and easier tools setting by micrometric high precision own devices.

Own COMES Machine Control Technology based on direct access to O.S. Kernel grants the Axes Control Position Clock < 20 micro-seconds for the best geometric accuracy of the final form.

Last generation Industrial PC with Userfriendly dedicated Interface based on Windows 7 OS with LCD Screen, cordless mouse/keyboard.

Lens results: Ready to use (no polishing required (1)).

INCLUDED SOFTWARE: C-TECH for IOL & Contact Lenses to generate rotationally symmetrical surfaces: Spherical, Aspherical, Multispherical (2,3,4,5,6 curves), Multifocal/Progressive.
Working Jobs Storage DataBase integrated.

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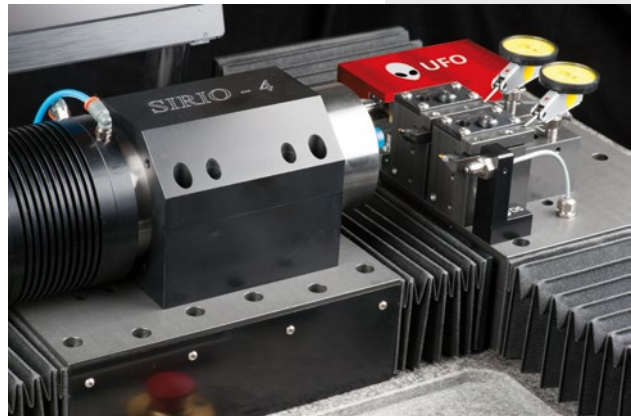
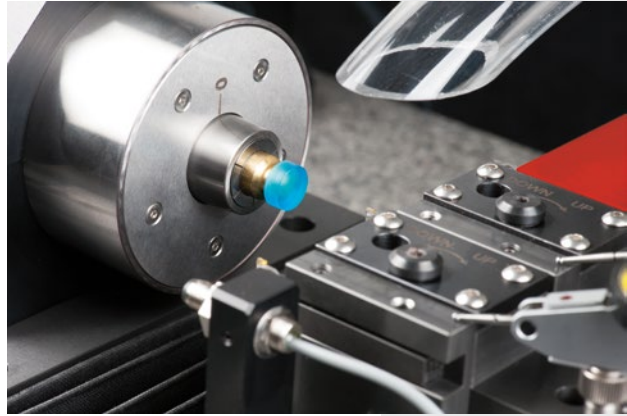
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Optionals

- COMES UFO Integrated Device (Ultra-Fast Oscillator) to realize each FreeForm Surfaces (Toric, Cylindric, Prismatic CC & CX) even any non-revolution form. Oscillating Speed > 250 Hz. / Interpolated with lens rotating over 7.000 RPM and PPS System (2) for the best cosmetic & geometric results.
- Marker Device Integrated into machine.
- Touch screen monitor.
- UBIQUITY Kit (modem, software & cordless camara) offers remot full machine diagnostic assistance by COMES RA Departments.
- SOFTWARE Z-Contact (to use only with UFO Device) to generate Toric, Cylindric, Prismatic, Progressive-Multifocal CC & CX surfaces. It Permits to import DXF files by LAB / USB connection.

Technical data

Dimensions:	mm. 800 x 600 x 1100 - WxDxH.
Weight:	350 Kg.
Noise:	50 db.
Electric Power:	Single phase 230 VAC - 10A.
Electric Consump.:	<1 Kw./h. (in cycle).
Compressed Air:	6 BAR 100 lt./min.
Operat. Environment:	Temp. 22°C ± 10% Humidity 70% rh Max.



1) Suitable shapes and materials.

2) PPS (Precision Position System) is a damping real time auto-compensating software to eliminate the effects of induced and external noises into machines movements control. Thanks to unique predictive algorithms and real-time sensors feedback, PPS can correct and eliminate just-in-time possible negative influences deriving from vibrations induced by the cutting of the material, coming from the external environment (floor) or electro-magnetic resonances.



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