



SPHERA 2 PLUS - XL



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The Sphera2PlusXL provides a superior competitive advantage for edging plano lenses and masks from any plastic material due to excellent edge quality, high throughput, minimal maintenance costs, ease of operation, and overall reliability.

As a result of our vast experience in the optical industry, automation, and industrial machine design; the Sphera2PlusXL is unmatched in the industry. This edging system has met and exceeded the demands of major eyewear manufacturers in Italy and throughout the world due to continuous design and development improvements through careful analysis of market demands and customer needs.



CHARACTERISTICS

Flexible

This machine will cut plano lenses and masks with any kind of edge type (bevel, nylon, drilling, and any special finishing) in one working process.

Cost-Effective

The full range of edging capability means you no longer have to sort jobs before edging, resulting high productivity for any production mix. The throughput can be further increased with additional automation.

Precise

The precision of the Sphera2PlusXL ensures optimal assembly (first time fit) without any manual finishing or defective lenses.

Durable

This robust, industrially designed machine, and the continual software updates, provides a great investment that will ensure its relevance in the future.

Compatible

The Sphera2PlusXL is compatible with most common vector file formats, including DXF.

User friendly

Minimal setup is required on the loading chain to accommodate different lenses or masks, as well as blank size and shape. The programming system, specifically designed for this machine, utilizes MEI's vast experience to create an easy to use interface.

Economical

Minimal costs are associated with maintenance, downtime and service visits, thanks to the machine's industrial design and simple troubleshooting processes.



ACCESSORIES

End mill preset caliper:

to measure the length of the cutting tools, minimizing machine setup adjustment.

Tool changer:

3 available positions to automate cutting tool changes

Laser Marker Unit:

3 axes machine integrated with the Sphera2PlusXL. The engraving process is done at the same time other lenses or masks are being edged, so the total cycle time is unaffected.

Automatic chain loader:

Allows the machine to work in automatic mode with blanks stacked from of 1 to 10 pieces. This chain can be loaded without stopping the machine. The chain loader can be adjusted for polycarbonate lenses with a positive pin, CR39 lenses with negative pin, and any kind of mask. In order to ensure the correct optical center location and lens polarization axis, a device automatically adjusts the blanks loading position.

SPECIFICATIONS

Lens styles

Spherical and toric with or without hydrophobic coating

Lens materials

Any organic material (CR39, Polycarbonate, High Index, Trivex)

Lens sizes

- Lens blank dimensions: Ø 60 to Ø 90 mm tile lenses
- Mask: up to 230 mm
- Minimum finished lens size:
 - Standard equipment: Ø 26 mm
 - Special equipment: Ø 21 mm
- Maximum finished lens size: Ø 90 mm

Edge types

- U or V bevels
- Nylon (groove)
- Drilling (radial)
- Special finishing

Lens base curve

Up to 16 for all edge types

Lens locking system

Interchangeable lens-retainer and base

Lens/mask loading system

Automatically (Chain loading device)

Lens/mask unloading system

Automatically (Placed onto a conveyor)

Lens holding system

Vacuum

Data importation

DXF file format

Electro spindle

from 6,000 to 28,000 RPM, depending on process, liquid cooled

Dimension

Sphera2PlusXL:

2,550x1,600x2,400 (h) mm (100.4x63x94.5 inches)

Sphera2PlusXL with Chainloader (detachable):

2,550x2,630x2,400 (h) mm (100.4x103.5x94.5 inches)

Sphera2PlusXL with Chainloader + Engraver:

4,000x2,630x2,400 (h) mm (157.5x103.5x94.5 inches)

Weight

Sphera2PlusXL: 1,330 Kg

Sphera2PlusXL with Chainloader (detachable): 1,490 Kg

Sphera2PlusXL with Chainloader + Engraver: 1,990 Kg

EXTERNAL SUPPLIES

Electrical:

400 V, 3 phase, 50/60 Hz
208 V, 3 phase, 50/60 Hz

Pneumatics:

6 bars (87-101 psi), min capacity 900 l/min

Connection pipe:

Ø 12 mm Internal (minimum)
Ø 15 mm External (recommended)

Scrap collecti

Air flow 25 m/sec, Min capacity of 2,500 m³/hour
Connection pipe Ø 200 mm (7.87 inches)

See it in action
on youtube channel



www.youtube.com/MeiSrl

Mei Srl

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