



# NEO-ORBIT & NEO-FLEX

BLOCKLESS SURFACING

## NEO Blockless Surfacing

# TRANSFORM YOUR SURFACING LAB

*Blocking has traditionally been a critical process step in Rx production with the block creating the reference point for the lens position while holding and supporting it, which eliminates lens flexing during surfacing. Plus, tape or an ART glue pad protect the lens front surface. But what if you could accomplish all of these functions without blocking while achieving the same surface quality, throughput and lens compatibility?*

Introducing **NEO-orbit** and **NEO-flex**, Satisloh's first industrial blockless surfacing line, built on proven Satisloh technologies (ART, VFT-orbit-2i and Multi-FLEX-2) and engineered for mid to high-volume labs. Through process step elimination and consolidation, it reduces machine requirements from seven machines down to two, with a total processing time of just 7 minutes per pair of lenses.

The modular approach, two separate machines for generating and polishing, avoids the single-point-of-failure risk of all-in-one systems and provides superior line balancing that allows for optimization of the number of generators vs. polishers based on material mix, industrial grade scalability and high

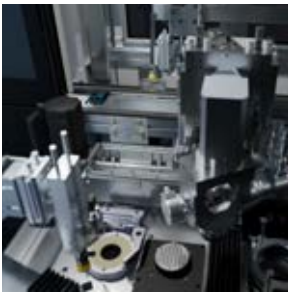
throughput. And it's fully compatible with line and loop configurations to fit every lab's layout.

NEO Surfacing Line machines & process steps:

- **NEO-orbit:** Imaging, front curve mapping, positioning, cribbing, milling, turning and engraving.
- **NEO-flex:** Positioning, polishing, cleaning and drying.



*Blockless NEO Surfacing simplifies production and reduces cost, space and waste without sacrificing precision, reliability, throughput, lens compatibility or quality.*



*Integrated front-side mapping for back-curve calculation and precise lens power.*



*Innovative Pin Vacuum Reception, conforms to lens front surface and holds and supports the lenses during generating process.*

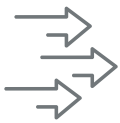


*Two engraving options: integrated laser or mechanical.*



*Proven Satisloh generating and polishing processes.*

## WHAT IMPLEMENTING BLOCKLESS NEO SURFACING MEANS FOR YOUR LAB



**Streamlined Workflow:** Eliminates all non-value added process steps, i.e. blocking, taping, cooling, deblocking and detaping, reducing the number of machines in the surfacing line from seven to two.



**High Throughput:** The NEO surfacing system processes up to 80 lenses per hour, maintaining industrial capacity output.



**Fast Processing Time:** Only 7 minutes per pair of lenses (tray-in to tray-out).



**Consumables Savings:** Eliminates costly consumables including **tape, alloy, wax, glue and block pieces**, significantly reducing expenses.



**Lower Operational Costs:** Fewer machines and conveyors mean **lower labor and maintenance costs** with fewer calibrations and micro-stops.



**Drastically reduced footprint:** Requires just **56 m<sup>2</sup> (600 sqft)** for 80 lenses per hour, **60% less lab space** than traditional alloy-based lines, freeing up room for more production capacity.



**Unmatched lens compatibility:** Equipped with the patent pending pin vacuum reception, blockless NEO Surfacing processes over **99% of lenses** (lens styles, powers and materials). There is virtually no need to route or outsource jobs to on-the-block production lines.



**High precision & reliability:** Built on robust **VFT-orbit-2i, Multi-FLEX-2, and ART** technologies, ensuring industrial-grade reliability, consistent quality and reliable performance. The proven surfacing process delivers superior surface quality and precision.



**Real-time quality control & auto-calibration:** Integrated blank front side mapping, back curve recalculation and tool auto-calibration, delivers exceptional accuracy, minimizes errors, and ensures consistent lens quality.



**Improved Sustainability:** By utilizing fewer machines and processes, blockless NEO Surfacing line reduces energy consumption and **eliminates waste** and disposal costs associated with alloy, glue, wax or tape, contributing to a **more environmentally-friendly lens production** process.

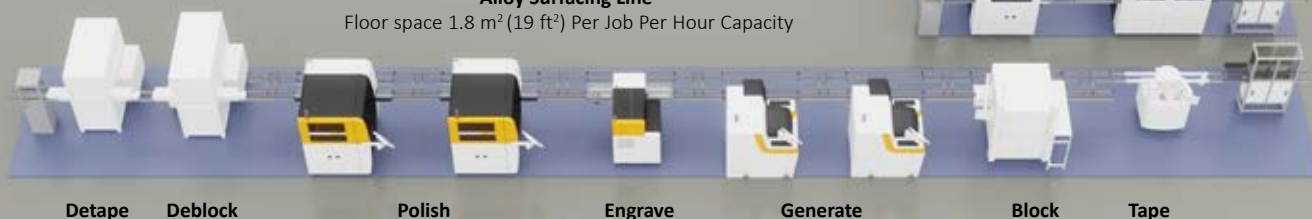


**Engraving Options:** Choose between an integrated **fiber laser** engraving system for maximum engraving speed and quality or, **mechanical engraving**.

**NEO Surfacing Line**  
Floor space 0.7 m<sup>2</sup> (7.5 ft<sup>2</sup>) Per Job Per Hour Capacity

**Space Savings** 50%- 60% savings  
**Automation Savings** 2 machines NOT 7 or more to connect

**Alloy Surfacing Line**  
Floor space 1.8 m<sup>2</sup> (19 ft<sup>2</sup>) Per Job Per Hour Capacity



NEO Blockless Surfacing Line compared to a traditional alloy surfacing line

## FEATURES + OPTIONS

	NEO-orbit		NEO-flex
Fast tool	x	All Satisloh Processes & Tools	x
2nd Fast tool	x	Polish Cart	x
Smart B axis	x	Tool Wear Monitoring	o
Full Auto-calibration including lens depot	x	MES-360 Lite	x
Mechanical Engraving	o	MES-360 Machine Monitoring	o
Laser Engraving	o		
MES-360 Lite	x		
MES-360 Machine Monitoring	o		

x Standard o Optional

## TECHNICAL SPECIFICATIONS

### NEO-orbit & NEO-flex - Blockless Surfacing line

Productivity	Up to 80 lenses / hour
Front curve	Up to 15 D, rotationally and non-rotationally symmetric front surfaces → Spheric and aspheric single vision, bifocals, trifocals, front side & back side progressive lenses
Back curve	Up to 18 D
Prism	Up to 10°
Diameter	50 mm - 80 mm / full support
Materials	All organic materials
Dimensions (w x d x h)	<b>NEO-orbit</b> 2,340 x 2,122 x 2,256 mm   92 x 83 x 88 inches <b>NEO-flex</b> 1,810 x 2,231 x 2,078 mm   60 x 85 x 82 inches incl. conveyor and signal lamp
Weight	<b>NEO-orbit</b> 4,000 kg   8,818 pounds without cooling unit, extractor and empty tank <b>NEO-flex</b> ~1,400 kg   ~3,087 pounds

All technical data subject to change without notice. Verify details with Satisloh

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