

# Hydra-Brush-4

FULLY AUTOMATED SOFT BRUSH LENS  
CLEANING SYSTEM

## Hydra-Brush-4

# LENS CLEANING AT ITS BEST

*Pre-inspection cleaning of ophthalmic lenses is a crucial step in ensuring quality and optical performance between surfacing and coating. Manual cleaning, although still a common method to remove debris from the surfacing process, has several disadvantages that can affect lens quality, such as ineffectiveness, inconsistency, or the risk of scratches. Additionally, it is time-consuming and takes up personnel capacities.*

Satisloh® Hydra-Brush-4 is an innovative, fully automated and compact soft brush cleaning system for cleaning the front and back side of ophthalmic lenses. It effectively removes polish residue, ink, tape, glue, and fingerprints, leaving lenses perfectly clean and dry, ready for inspection.

### **Advanced lens cleaning without cross-contamination**

The Hydra-Brush-4 cleaning process ensures thorough cleaning of lenses, removing any production-related contamination. The process involves four stages:

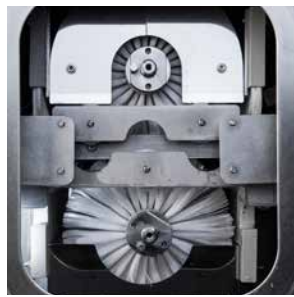
1. *Brush cleaning with a rotating soft brush and detergent*
2. *Rinsing with city water*
3. *Rinsing with DI water*
4. *Effective drying*

Hydra-Brush-4 utilizes a unique chainless lens transfer system to prevent cross-contamination between cleaning stages. This approach improves cleaning quality compared to conventional chain systems, which can transport residue from one chamber to the next. The unit includes six lens holders and a vibration mechanism to ensure precise lens alignment and gentle handling throughout the cleaning cycle.





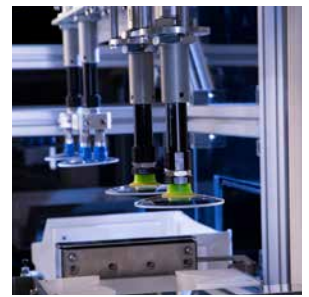
*Chainless lens transfer system prevents chamber cross-contamination*



*Rotating soft brush for thorough yet gentle lens cleaning*



*Tray and ticket-transfer system maintains lenses perfectly clean and makes manual ticket transfer redundant*



*Precise and safe lens handling*

## FEATURES + BENEFITS

### Cost-efficient and sustainable

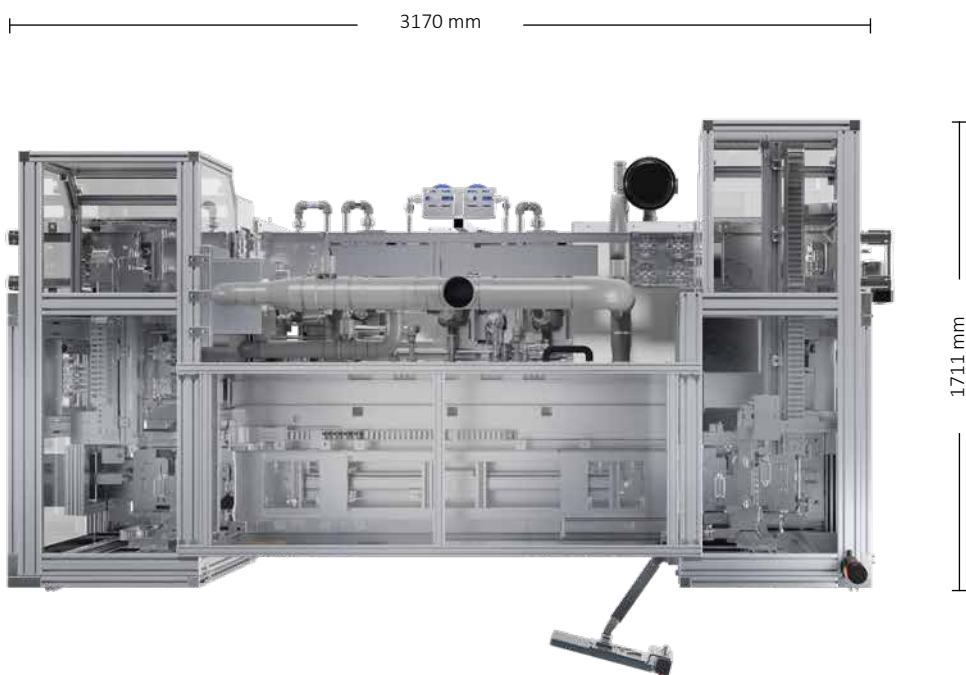
The Hydra-Brush-4 comes with various features that make the cleaning process particularly efficient, cost-effective, and effortless. The integrated refill pump ensures a reliable automatic supply of detergent, as well as tap and DI water that are also automatically refilled. Additionally, the integrated deionization device guarantees a constant supply of DI water and the recycling function enables an extended use. Thanks to an industry-wide uniquely low consumption of only 2 liters of DI water per shift, cost savings of up to 90% can be achieved.

### Maximum efficiency at minimal footprint

The Satisloh® Hydra-Brush-4 allows labs to clean more lenses per square meter with a high throughput of up to 270 lenses/hour, while only requiring a small footprint of 5 m<sup>2</sup>.

Its innovative tray and ticket transfer system maintains perfect cleanliness transferring the lenses in a new, clean edging tray post cleaning to prevent contamination. Edging trays are loaded directly by the machine. Job tickets are automatically transferred and assigned to the correct tray, preventing job mix-ups. The equipment includes an automatic loading and unloading system that fits standard conveyor heights. The machine design allows for easy brush exchange in seconds, resulting in extremely low maintenance effort.

The Satisloh® Hydra-Brush-4 easily handles capacity of a surfacing line with 2x ART-Blocker-A, 2x VFT-orbit-2i, 2x Multi-FLEX-2, and 1x ART-Deblocker-2, and even more, for maximum efficiency.





Low maintenance effort: brush exchange within seconds, only short downtime for lens holder replacement



The machine fits standard conveyor heights

## CONFIGURATION

### Satisloh® Hydra-Brush-4 standard configuration includes:

- DI-water recovery
- Manual and automatic DI-water supply
- UV light for DI-water recovery
- Tray turner
- Adjustable brushes
- Durable materials (stainless steel working chamber, polypropylene pipes, etc.)

### Options:

- Barcode reader
- Air exhaust with condenser
- Tray and ticket exchange system
- Process control kit (recommended for > 2 shifts):
  - Automatic detergent refilling
  - Refilling and re-circulation flowmeters
  - Ultrasonic flowmeter on detergent circuit
- Satisloh MES-360

## TECHNICAL SPECIFICATIONS

<b>Capacity</b>	up to 270 lenses/hour (depending on process)
<b>Power supply</b>	400V 3 Ph + N + Gnd – 16 kW
<b>Compressed air</b>	6 bars, 500 liters/min
<b>Lens materials</b>	All organic materials
<b>Working Range</b>	Maximum total thickness: up to 18 mm Edge thickness: 0.1 mm (knife edge) up to 18 mm Lens diameter: 45 – 80 mm
<b>Lens Types</b>	Concave, PAL, toric, spherical, back side progressive lenses, bi-focal, tri-focal, lenticular, executive
<b>Dimensions (wxdxh)</b>	3170 x 1711 x 2299 mm / 125 x 68 x 91 inches
<b>Weight</b>	1260 kg / 2778 lbs

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

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