

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:

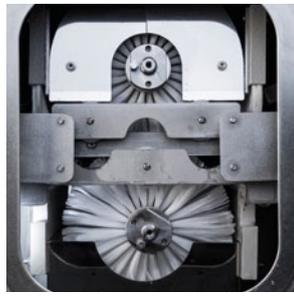
1. *Brush cleaning with a rotating soft brush and detergent*
2. *Rinsing with city water*
3. *Rinsing with DI water*
4. *Effective drying*

The system uses a unique chainless lens transfer system to prevent cross-contamination between cleaning stages. This is in contrast to conventional chain transportation systems in automated cleaning lines, which can carry residue from one cleaning chamber to the next, potentially resulting in unsatisfactory cleaning results. Hydra-Brush-4 has six lens holders and a vibration unit to align lenses precisely, prioritizing residue-free, gentle, and accurate lens handling throughout the cleaning process.





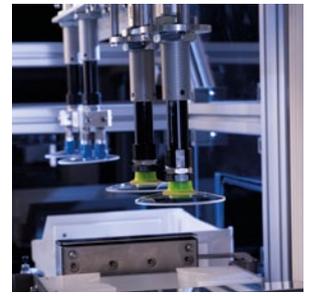
Chainless lens transfer system prevents chamber cross-contamination



Rotating soft brush for thorough yet gentle lens cleaning



Lenses are returned to their original tray – ticket transfers are redundant



Precise and safe lens handling

FEATURES + BENEFITS

Cost-efficient and sustainable

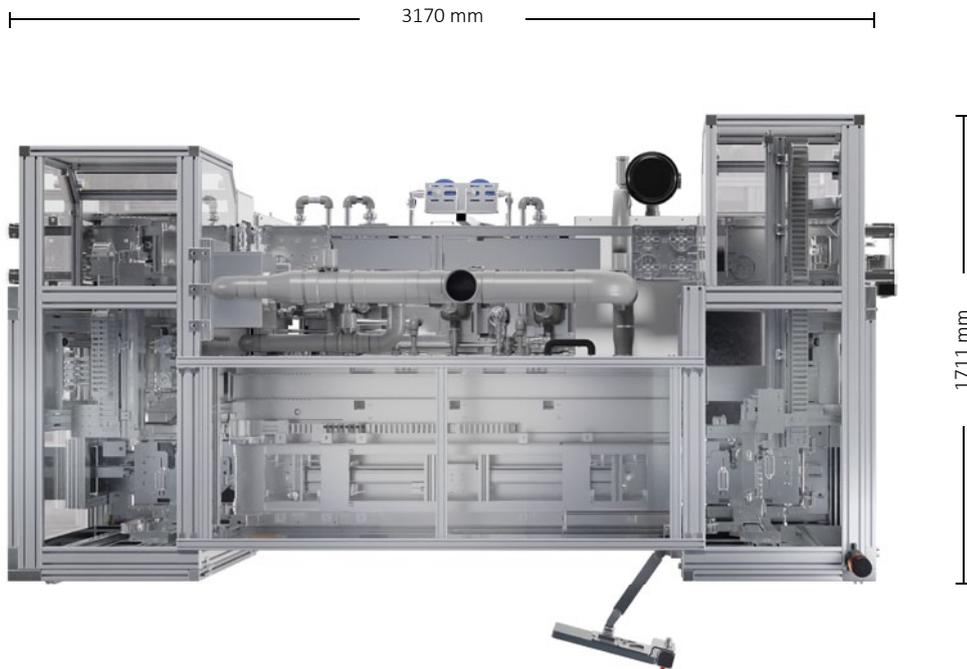
The Hydra-Brush-4 comes with various features that make the cleaning process particularly efficient, cost-effective, and effortless. The integrated refill pump ensures a reliable automatic supply of detergent, as well as tap and DI water that are also automatically refilled. Additionally, the integrated 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 >200 lenses/hour, while only requiring a small footprint of 5 m².

Its innovative tray transfer system ensures that each lens is returned to its original tray, eliminating the need for ticket transfers and reducing the risk of 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.

For maximum efficiency, the Satisloh® Hydra-Brush-4 is a perfect complement to a production line consisting of 2x ART-Blocker-A, 2x VFT-orbit-2i, 2x Multi-FLEX-2, and 1x ART-Deb blocker-2.





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:

- Automatic detergent refilling
- Tap water refilling supply for tap water tank (consumption 150 liters/hour)
- DI water refilling supply for DI water tank (consumption 2 liters/shift (8 hours))
- Air exhaust with vapour condenser
- PLC remote connection
- MES-360 Lite

Options:

- Bar code readers
- Spare lens holder
- Satisloh® MES-360

TECHNICAL SPECIFICATIONS

Capacity	>200 lenses/hour
Power supply	400V 3 Ph + N + Gnd – 16 kW
Compressed air	6 bars, 500 liters/min
Lens materials	All organic materials
Working Range	Maximum total thickness: up to 18 mm Edge thickness: 0.1 mm (knife edge) up to 18 mm Lens diameter: 45 – 80 mm
Lens Types	Concave, PAL, toric, spherical, back side progressive lenses, bi-focal, tri-focal, lenticular, executive
Dimensions (wxdxh)	3170 x 1711 x 2299 mm / 125 x 68 x 91 inches
Weight	1260 kg / 2778 lbs

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

CONTACT

Satisloh AG
Neuhofstrasse 12
CH- 6340 Baar
Switzerland
Phone: +41 (0) 41766 16 16
Email: info@satisloh.com

www.satisloh.com

North America

Europe

Asia

Central & South America

Sales
Phone: +1 262 255 6001
Email: info.usa@satisloh.com
Phone: +49 (0) 6441 912 0
Email: info.de@satisloh.com
Phone: +852 27 56 7711
Email: info.asia@satisloh.com
Phone: +55 11 2930 8600
Email: info.latam@satisloh.com

Service
Phone: +1 262 255 6001
Email: service.usa@satisloh.com
Phone: +49 (0) 6441 912 222
Email: service.de@satisloh.com
Phone: +852 27 56 7654
Email: service.asia@satisloh.com
Phone: +55 11 2930 8600 (pt)
Phone: +57 300 798 3374 (es)
Email: service.latam@satisloh.com

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