

POLISHING

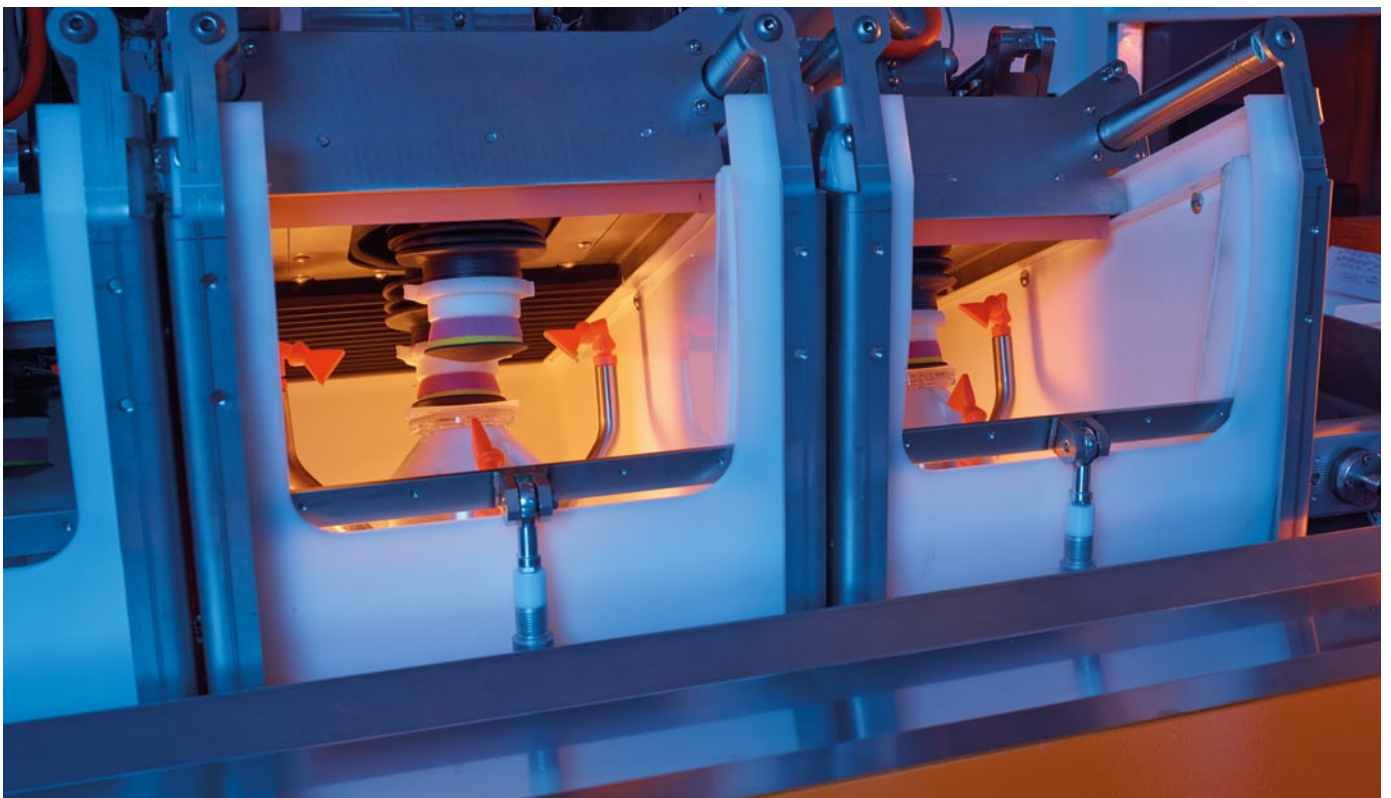
SUPERIOR FORM ACCURACY & HIGH QUALITY SURFACES

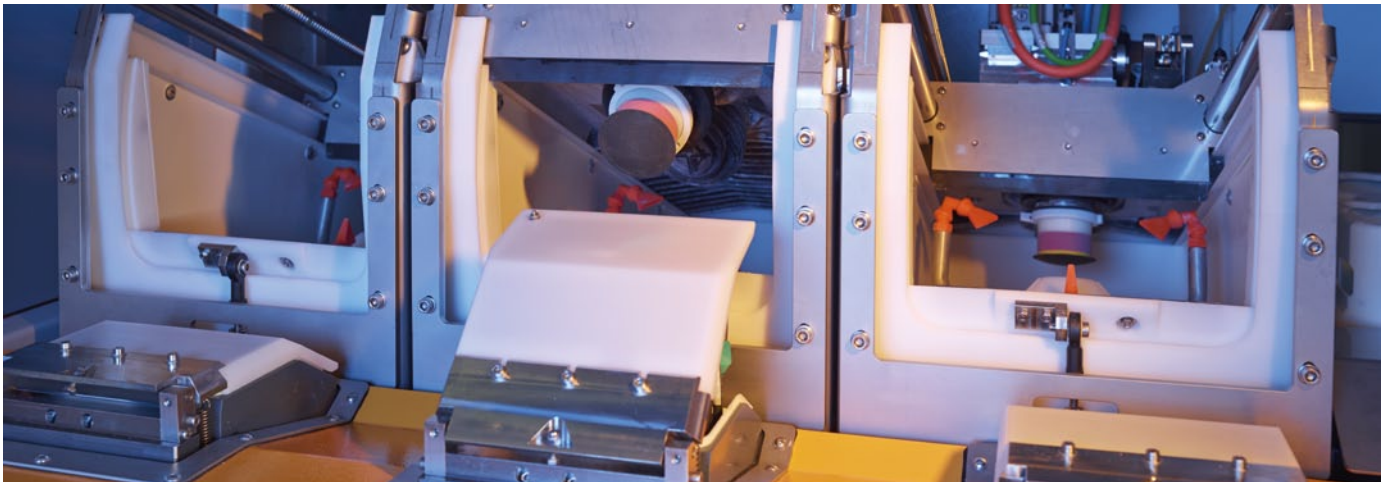
POLISHING

Quality polishing is more critical than ever with the advent of digital generators featuring extreme cutting accuracy and complex surface production.

After a lens is generated, the polisher must produce an optical quality surface that does not compromise the generated shape, Rx, and complex design. Surface smoothness is critical to preparing the lens for coating.

Satisloh FLEX polishers can process all surface geometries and all organic lens materials. Their various flexible polishing tools are optimized for individual machine and application types. The long-lasting tools assure highest form accuracy of the final lens, whether used on a manual or on an automated Satisloh polisher. Combining motor driven tool spindles and tangential polishing kinematics provides reliable and accurate stock removal.





MULTI-FLEX

Multi-FLEX, Satisloh's flagship polisher, is designed for high volume Rx lens manufacturing lines with varied production needs. It offers full automation, and with three independently controlled polishing chambers, can simultaneously process three lenses for highest throughput.

Features and Benefits

- Universal tool geometry processes all standard organic materials and the majority of current Rx working ranges, optimizing production flow with fewer tool changes while reducing polishing tool inventory and complexity
- Multi-FLEX is the only polisher with Dynamic Kinematics that are unique for every single Rx, geometry and diameter, delivering a new level of polishing accuracy and stability
- Two tool spindles in each chamber allow for:
 - a second process step without tool exchange
 - using different polishing tools to fit individual lab requirements
 - increased uptime when using both tool receptions for 1-step polishing
- A precise gantry loader handles lenses from above, so the automated process is always in clear view and chambers are easily accessible
- Smart loader alignment for easy setup
- Integrated automated lens washing and drying
- Full Remote STEP capability – web based troubleshooting with technical staff

Intelligent Tools

Every polishing cap has an embedded RFID tag and Multi-FLEX has an RFID reader. When tools are exchanged, the RFID tag is scanned and correct Dynamic Kinematics are loaded for the particular tool and process, eliminating operator errors. All relevant tool and process information that links lens quality to tool data is available to the machine locally, the MES-360 (Manufacturing Execution System), and the optional Tool Wear Monitoring System. This allows effective troubleshooting of polishing issues and enables proactive process control.

OPTION

Tool Wear Monitoring

The smart system monitors polishing tools and detects damage. This is especially important in a fully-automated environment reducing lens breakage and machine downtime while ensuring best polishing results. The system has two laser sensors in front of each working chamber, and can be fully customized to fit the needs of each lab.



Lab 4.0 ready

Productivity

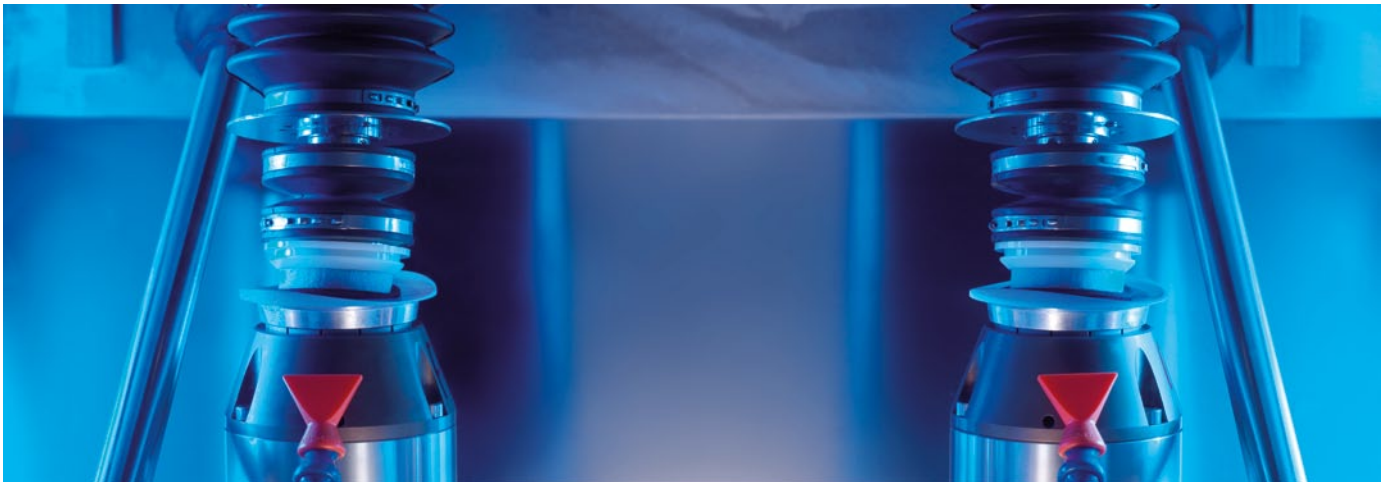
Up to 100 lenses/hour

Working Range:

Base curve concave: 0-14 dpt / extended up to 18 dpt
 Lens diameter: 60-85/ extended down to 48 mm
 Cylinder: 0-6 dpt

Dimensions (wxdxh)

1724 x 2108 x 1995 mm / 68 x 83 x 79 in



TORO-FLEX

Features and Benefits

- Robust, manual dual spindle soft tool polishing system
- Easy operation
- 7 types of flexible polishing tools cover the full working range of Rx production
- Integrated tool storage area with LED indicators for life-time and tool selection, ensuring appropriate tool selection for high process stability
- Lens washing basin, water spray and air gun for manual lens washing and drying



Productivity

Up to 50 lenses/hour

Working Range

Base curve concave: 0-14 dpt
Cylinder: 0-6 dpt
Lens diameter: 48-85 mm

Dimensions (wxdxh)

695 x 1344 x 1843 mm / 27 x 53 x 73 in

For detailed technical specifications, scan the QR code or go to: www.satisloh.com/techspecs





MULTI-FLEX PROCESS OPTIONS

With three independently-controlled polishing chambers, it can simultaneously process three lenses for highest throughput.

Process	Characteristics	Type	Throughput
STANDARD			
Premium	Covers full standard range of lenses	1-Step	≈ 85 lenses/hour
OPTIONAL SPECIAL			
Extended Range	Significant wider working range	1-Step	Depends on production mix
High Luster	For high luster polishing in 2 steps	2-Step	≈ 85 lenses/hour
Top Speed	Fastest available polishing process, unsurpassed speed	2-Step	≈ 100 lenses/hour
Hyper Index Booster	Unprecedented best-in-class mapping for hyper index	1-Step	Depends on production mix

- Included with Multi-FLEX machine
- Included with Satisloh Polishing tools

While the standard Premium process covers the same full range of lenses like Multi-FLEX's predecessor Duo-FLEX, labs can now pick from various specialty processes. Choose from processes for an even further extended range, high luster, unprecedented mapping accuracy for hyper index lenses, and a whole new level of speed.



Working Range	Materials	Tools	Ø	Process License
0-14 dpt (incl. up to cyl 6 dpt) 60-85 mm	CR39, all HI, PC, Trivex	Universal Premium FLEX XL	Ø 56mm	●
>14-18 dpt (incl. up to cyl 6 dpt) 48-60 mm	CR39, all HI, PC, Trivex	Universal Extended Range FLEX	Ø 48 mm	○
0-18 dpt (incl. up to cyl 6 dpt) 48-85 mm	CR39, all HI, PC, Trivex	1. Universal Premium FLEX or Universal Extended Range FLEX 2. Universal High Luster FLEX	Ø 56 mm Ø 48 mm Ø 56 mm	○
0-14 dpt (incl. up to cyl 6 dpt.) 60-85 mm	CR39, all HI, PC, Trivex	1. Universal Speed FLEX 2. Universal Premium FLEX XL	Ø 56 mm Ø 56 mm	○
0-14 dpt (incl. up to cyl 6 dpt.) 48-85 mm	All HI, but esp. 1.67, 1.71 and 1.74 index	Universal Extended Range FLEX	Ø 48 mm	○

CONTACT

Satisloh AG
 Neuhoferstrasse 12
 CH- 6340 Baar
 Switzerland
 Phone: +41 (0) 41766 16 16
 Fax: +41 (0) 41766 16 10
 Email: info@satisloh.com
 www.satisloh.com

North America
Europe
Asia
Latin 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 (24) 2233 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 (24) 2233 8686
Email: servicio.latam@satisloh.com

satisloh[®]