

Toro-FLEX

Manual dual action soft tool polishing system
for all organic materials and lens formats

High form accuracy and long life time of soft tools.
Outstanding throughput and price/performance ratio.
Integrated tool storage area and lens washing basin.

satisloh[®]

Toro-FLEX uses only 7 types of flexible polishing tools covering the full working range in free-form, toric and spherical Rx production while eliminating thousands of hard lap tools and associated labor cost.



Toro-FLEX soft tool polishing system for All-Format lens surfaces

Toro-FLEX is a manually operated, dual lens, CNC controlled polishing system providing outstanding price/performance ratio in terms of surface quality, form accuracy, process stability, throughput and economics.

The Toro-FLEX was especially designed for easy operation in today's lens production. Two lenses are loaded simultaneously into the lens polishing spindles as well as two flexible polishing tools. The new tangential polishing kinematic ensures optimized process and lens quality by improved tool/lens adaptation as well as equally distributed polishing slurry at all times. The polished lenses can be pre-cleaned and dried using the water-spray as well as air gun and basin before putting back into job tray. The long-life, multi-use soft polishing tools consist of a hard base cap with soft layers made of sophisticated foam as well as an industry proven polishing pad.

The tool storage area comprises 2x7 encoded positions for up to 14 flexible polishing tools. Green lights indicate which tool to use; red lights alert user that the tool should be changed.

The inclined large working chamber supports all cleaning actions as well as drainage of polishing slurry right into the slurry tank.

The optional 30 l polishing cart, containing slurry tank and chiller, can be situated right underneath the Toro-FLEX machine.

All current lens formats and organic materials can be processed covering the full working range of today's and tomorrow's lens production. The polishing process is based on Satisloh's soft tool technology.

Features

- Polishes concave, spherical, toric, free-form-surfaces, all presently known organic materials
- Manually operated CNC controlled polishing-system utilizing Satisloh's long life "curvature-optimized" soft tools
- Lens washing basin, water spray and air gun prevent polishing slurry from drying on lenses
- Tool management software selects appropriate polishing tool according to lens curvature
- Macro controlled polishing process depending on lens data and curvature information
- Small footprint of only 695x1344 mm / 27x53 inches

Benefits

- Outstanding price/performance ratio for free-form, toric and spherical polishing
- Tangential polishing kinematic ensuring stable process and optimized lens quality
- High process security through encoded tool interface system, ensures proper tool selection and application
- Fast return on investment by process simplification & elimination of hard lap tools as well as associated labor cost
- Mixed operation: allows for automatic selection of different process macros, each optimized for different lens types: toric/ spherical as well as back side progressive and free-form surfaces
- The perfect complement to Satisloh's VFT generators



Tool storage area with lifetime and selection indicators



Ergonomic bar code scanner with variable holder



Fully equipped with all accessories



Tangential polishing process with flexible tools



Easy to operate control system

Technical Information:

Dimensions (wxdxh):
695 x 1344 x 1843 mm /
27 x 53 x 73 inches;
incl. lens washing basin

Weight:
Approx. 300 kg / 661 lb

Energy Requirements:
200-240 V, 50/60 Hz, one phase
(resp. 2 phases in 115 V supply),
grounded shield, 4 kVA, 16 A breaker

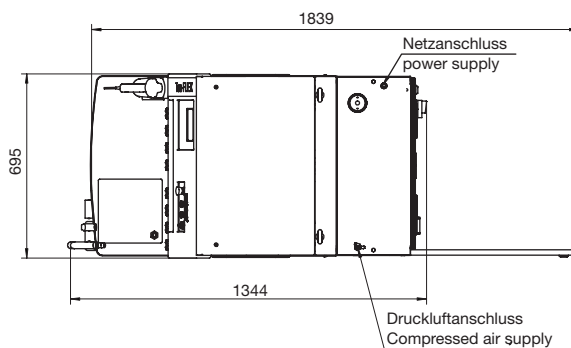
Compressed Air:
~ 20 NL/min average,
100 NL/min peak
min. 6 bar (max. 10 bar),
dried and oil-free

Tool Concept:
Multi-use hard base caps with soft
sandwich layers

Tool Reception:
Proprietary interface for fast and
secure tool exchange

**Working Range for
Standard Process (n=1.523):**
Base 0-14 dpt.; cyl. 0-4 dpt.
(max. 14 dpt. in strongest meridian)
Lens diameter: 48-85 mm
Lens reception:
Satisloh blocking chuck

Interfaces:
VCA protocol, TCP/IP with Satisloh
data communication standard



Options & Accessories:

- 30 l cart containing slurry tank and chiller, Pmatic-16 slurry system, SlimChill
- Enhanced polishing processes
- Axis alignment and service kits
- i-FLEX-Server software for data administration
- STEP program and extended warranty
- Consumables package

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