



OptoTech

# SWARFMASTER

OptoTech Pre-Grinding System for Standard Rx and Freeform Lenses



The Rx-lens production of the future will significantly change all operations and processes. As an entry-level concept for automatic Rx production 2.0, OptoTech developed the new SWARFMASTER for high-performance pre-grinding of mineral and organic lenses (toric and freeform). By separating the pre- and fine grinding processes, you optimize your production and ultimately increase the performance and quality of your surfacing machines for mineral lenses and glass molds as well as organic lenses.



## Technical data

	SWARFMASTER
Application	Pre-Grinding System for Standard Rx and Freeform Lenses
Lens Diameter	40 mm - 85 mm
Working Range Radius cc	Mineral: up to -16 dpt. (Index 1.523)
Working Range Radius cc	Organic: up to -15 dpt. (up to -22 dpt. with Ø45mm PCD tool)
Working Range Radius cx	+30 dpt.
Control	Beckhoff high resolution real-time continuous path control 15" touch screen with interactive user interface
Lens Material	All Material
Productivity	200 lenses/h - organic lenses (depending on production mix)
Productivity	60 lenses/h - mineral glass (depending on production mix)
Tools	Mineral: Diamond grinding wheel Ø66 R4; Organic: PCD Tools Ø66mm and Ø45mm R6 HSK
Workpiece Spindle	Drive: Direct driven async motor with ball bearings; Interface: Collet chuck ø43 mm DIN 58766
Air Pressure Requirement	6 bar
Power Requirement (others on request)	400 V / 50 Hz
Dimensions	Width: 1365 mm, Height: 2076 mm, Depth: 1865 mm
Weight (approx.)	1250 Kg
Disclaimer	All data are subject to change without notice. Please verify details with OptoTech.





## Highlights

- The SWARFMASTER is the ideal pre-cutter for all grinding and turning machines (mineral and organic lenses)
- Significant increase in grinding, turning and polishing capacity by adding the SWARFMASTER
- Can be used to replace old existing traditional mineral pre-grinding machines
- Usage of high-performance tools (diamond grinding wheel  $\varnothing 66$  R4 for mineral lenses and PCD Tool  $\varnothing 66$ mm R6 HSK with 15 cutters for organic lenses)
- Adaptive toolwear: Implementation of wear improvement. Machine calibrates itself from glass to glass
- Automatic tool clamping system for quick tool change. Fastest workpiece change system due to optimized automatic handling module.
- Modular setup of the most important service parts for fastest maintenance

## System advantages

- Overall optimization of production output
- Increased processing capacity
- Improving performance & quality of surfacing machines
- Improved chip management

## Performance characteristics

Application area: mineral lenses, glass molds and organic lenses. Backside progressives; Atorical; Individual; Front progressive; Standard toric; Blended lenses

- Mineral freeform milling of up to 60 lenses/h (depending on production mix)
- Organic freeform milling of up to 200 lenses/h (depending on production mix)

## Options

- Automatic and manual version with smallest footprint available
- Barcode hand scanner
- Remote diagnostic
- LAN connection