



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 | 51 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 Ø66 R4 for mineral lenses and PCD Tool ø66mm 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