



OptoTech

SM 40 CNC-TC

CNC-Controlled Generator for Pre- and Fine Grinding of Spheres and Aspheres

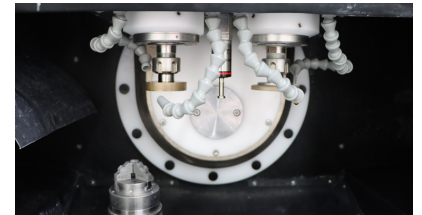
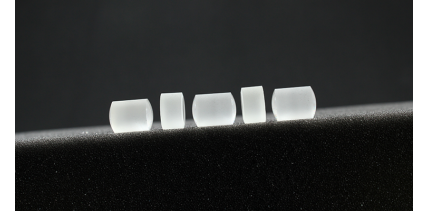


The OptoTech precision grinding machine SM 40 CNC-TC is perfectly suited for flexible and universal production of spherical micro optical components. The machine is the perfect complement to our SPK 40 CNC polishing machine, delivering a balanced cycle time for grinding and polishing.



Technical Data

	SM 40 CNC-TC
Application	Generator for Pre- and Fine Grinding of Spherical Lenses
Working Range Diameter	10 mm - 40 mm
Working Range Radius	± 5mm to plano
Travel B	-90 ° - 90 °
Travel X	0 mm - 230 mm
Travel Y	-2.5 mm - 2.5 mm
Travel Z	0 mm - 110 mm
Amount of Axes	4 (X, Y, Z, B)
Control	Siemens Sinumerik One
Tool Spindles	Speed: 5,000 - 30,000 rpm; Drive: Direct Spindle, Roller Bearings; Interface: HD 12
Workpiece Spindle	Speed: 0 - 2,000 rpm; Drive: AC servo; Interface: Flange; Clamping System: Vacuum, Collet Chuck or Hydro Expansion Chuck
Vacuum	-0.7 bar
Air Pressure Requirement	5 bar
Power Requirement (others on request)	14 kVA / 400 V / 50 Hz
Dimensions	Width: 1500 mm, Height: 2020 mm, Depth: 1350 mm
Weight (approx.)	2000 kg
Disclaimer	All data are subject to change without notice. Please verify details with OptoTech.





Highlights

- Grinding machine for pre-grinding and fine grinding of spherical lenses with cup grinding tools, as well as edge grinding and chamfering with form wheels
- 3 Spindles (Workpiece spindle, pre-grinding spindle and fine grinding spindle)
- All tool spindles using direct drives
- 3 CNC-Axes (X, Z, B)
- Machining parameters are entered via a 3-axis Siemens Sinumerik One CNC controller with touchscreen display
- OptoTech user interface

Performance Characteristics

Technologies:

- Grinding of spheres with standard cup wheels
- Pre-, fine grinding and edging possible
- Grinding of a protection chamfer (radii chamfer) with the cup wheels

Options

Machine Options:

- Automation via RPL 80
- Processing of complex edge geometries using OptoEdge
- Remote diagnostics
- Upper measuring pin for center thickness and diameter

Additional Accessories (available as an option)

- Coolant tanks (with or without centrifuge)
- Chiller with coolant tank
- Filter exhausting device with coolant recirculation
- Vacuum device