



OptoTech

SM 80 CNC-TC

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



The **OptoTech** precision grinding machine **SM 80 CNC-TC** is perfectly suited for flexible and universal production of spherical and aspherical optical components. The **SM 80 CNC-TC** is the perfect complement to our **SPK 80 CNC** polishing machine, delivering a balanced cycle time for grinding and polishing.



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Technical Data

	SM 80 CNC-TC
Application	Generator for Pre- and Fine Grinding of Spherical and Aspherical Lenses
Working Range Diameter	15 mm - 80 mm
Working Range Radius	± 10 mm to plano
Travel B	-90 ° - 90 °
Travel X	0 mm - 265 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 Spindle	Speed: 5000 - 19000 rpm; Drive: Direct Spindle, roller bearings; Interface: HD 25
Workpiece Spindle	Speed: 0 - 2000 rpm; Drive: AC servo; Interface: Flange; Clamping System: Vacuum, Collet Chuck or HD
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 with cup grinding tools, as well as edge and face grinding with form wheels
- 3 spindles (1x workpiece spindle, 2x tool spindles)
- All tool spindles using direct driven spindles
- Coolant control
- Preparation for filter exhausting device
- Siemens Sinumerik One controller with OptoTech user interface

Performance Characteristics

Technologies:

- AST (Advanced Setup Technology / Touch Setting)
- Radius Processing
- 3D-Grinding for optimal utilization of the grinding tool
- Edge processing: Diameter processing using different kinematics; chamfering using different kinematics

Options

Machine Options:

- C-Axis
- Automation (SR 80 or RPL 80)
- Processing of complex edge geometries using OptoEdge
- Processing aspheres
- Remote control
- Upper measuring probe for center thickness and diameter
- Lower measuring probe

Additional Accessories (available as an option)

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