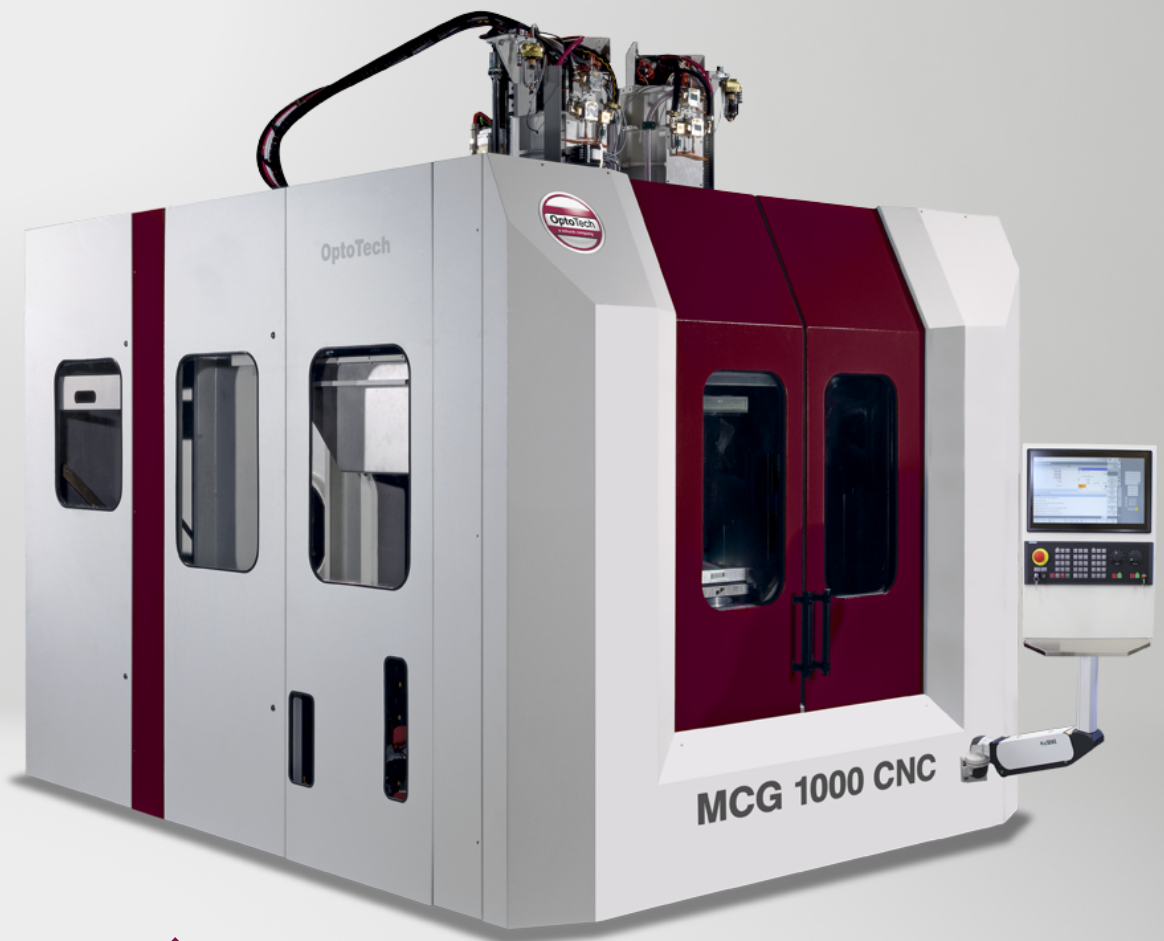




OptoTech

# MCG 1000 CNC

5-Axis Optical Machine Center



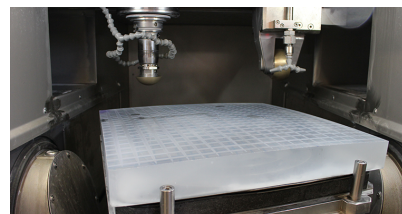
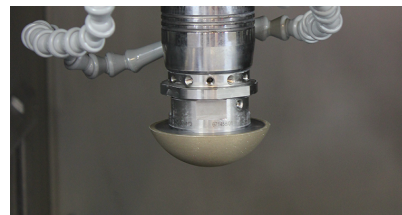
The OptoTech optical processing center MCG 1000 CNC provides you with grinding technology for all optical materials in highest precision and flexibility. Whatever you want to produce, whether aspheres, spheres, edging, prisms, cylinders. 3D-optics or drilling holes, the MCG 1000 CNC is the perfect machine for these tasks. Up to 5 CNC axes and an innovative tool concept grant the requested flexibility.



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## Technical Data

	MCG 1000 CNC
Application	Optical Processing Center for Universal Purposes
Working Range Diameter	0 mm - 1050 mm
Travel A	-30 ° - 30 °
Amount of Axes	5 (X, Z, Y, A, C)
Control	Siemens Sinumerik 840 D solution line
Tool Spindle	Speed: 0 - 10000 rpm; Interface: HSK 100 A
Workpiece Spindle	Speed: 0 - 360 rpm (with ZPCS 0 - 150 rpm) or in C-Axis mode; Interface: Flange
Vacuum	-0.7 bar
Air Pressure Requirement	8 bar
Power Requirement (others on request)	120 kW
Dimensions	Width: 2800 mm, Height: 3700 mm, Depth: 4200 mm
Weight (approx.)	20000 kg
Disclaimer	All data are subject to change without notice. Please verify details with OptoTech.





## Highlights

- 5-Axis machine center for generating plano surfaces, spherical surfaces (lenses), aspheres, optical freeform surfaces and centering functions
- Highly dynamic AC servo drives for X-, Y- and Z-Axis. Positioning via high resolution linear scales.
- A-Axis driven by high precision racks and pinions via AC servo drives
- Interfaces to Taylor Hobson Form Talysurf, Mahr MarSurf, Mitutoyo Measuring System, OptoTech Workshop Interferometers of the OWI HP Series (Others available upon request)
- Full online-connection of the whole working system (MCG Series with MCP Series and Metrology). Even freeform surfaces can be fine corrected by correction dataset.
- Microsoft Windows operating system with OptoTech user interface

## System Advantages

- Grinding technology for all optical materials in highest precision and flexibility
- Modular assembly and a variety of expansion levels guarantee maximum variability

## Performance Characteristics

Standard Cycles:

- Spherical grinding with cup wheels
- Edging of cylindrical shapes with peripheral wheels
- Chamfering on cylindrical shapes with peripheral wheels with chamfer form
- Opto Edge: Edging of non-rotationally symmetric workpieces
- Grinding of aspheres (option)
- Possible by manual CNC-DIN-Programming or Sinumerik ShopMill; Prism processing; Sawing; Drilling cycles

## Options

- Zero Point Clamping System (ZPCS)
- Exhaust filter system for mist collection
- Grinding Aspheres