



OptoTech

# ASM 300 CNC-Plus

CNC-Controlled TwinCut-Generator for Aspheres, Cylinder-Optics  
and Freeform Surfaces in High Precision Version

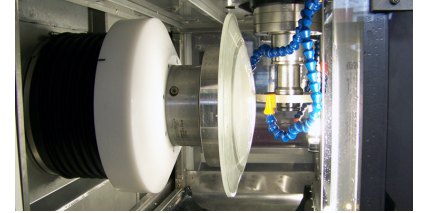


The 4-axis ASM 300 CNC-Plus is the world wide most precise pre- and fine grinding machine for aspheres and freeform surfaces. Hydrostatic bearings for all linear axes and a workpiece spindle combined with a high class asphere software guarantee surfaces in highest precision. The ASM 300 CNC-Plus offers high quality grinding due to 2 interpolating axes.



## Technical data

	ASM 300 CNC-Plus
Application	High Precision Generator for Aspheres and Freeform Surfaces
Working Range Diameter (aspheres)	10 mm - 300 mm
Working Range Radius cc	Depending on Tool Diameter
Working Range Radius cx	10 mm - ∞ (Best Fit)
Travel C	0 ° - 360 °
Travel X	0 mm - 450 mm
Travel Y	0 mm - 150 mm
Travel Z	0 mm - 100 mm
Amount of Axes	4 (X, Z, Y, C)
Control	Siemens Sinumerik 840 Digital Solution Line
Feed Rate - Axes	X: 0 - 3000 rpm; Y: 0 - 5000 rpm; Z: 0 - 3000 rpm; C: 0 - 550 rpm
Repeatability - Axes	X: ± 0.00025 mm; Y: ± 0.001 mm; Z: ± 0.00025 mm; C: ± 10"
Tool Spindles	Speed: 20000 rpm; Interface: HD 25 DIN
Workpiece Spindle	Speed: 0 - 550 rpm; Interface: Flange for HD 25 or HD 40
Vacuum	-0.6 bar
Air Pressure Requirement	6 bar
Power Requirement (others on request)	12 kW
Dimensions	Width: 2500 mm, Height: 2000 mm, Depth: 1350 mm
Weight (approx.)	4500 kg
Disclaimer	All data are subject to change without notice. Please verify details with OptoTech.





## Highlights

- ASM 300 CNC-Plus is characterized by its flexibility and ultra-precision surfacing
- 4-Axis CNC generating operations (X, Y, Z, C)
- Machine construction made of natural granite
- Processing is done with wheel tools using the spiral or raster tool path. This greatly improves the machine kinematics and gives highly reproducible results
- The machine can be operated using a spiral tool path or raster-technique, but always by using wheel tools with single point contact. This ensures that the tool wear can be integrated easily as a parameter in the controller
- Hydrostatic bearings of all axes and the workpiece spindle
- Interface to modern profile measuring systems (e.g. Taylor Hobson Talysurf)

## System advantages

- Almost midfrequency free processing technology
- Rigid and low torsion machine construction made of natural granite
- Due to the precise machine kinematics and the axis configuration, tool wear is not an issue
- Increased process stability

## Options

- Remote Diagnosis
- KombiTool or KombiTool+ [\[link\]](#)
- Coolant Supply Monitoring
- Diamond Turning on Second Spindle