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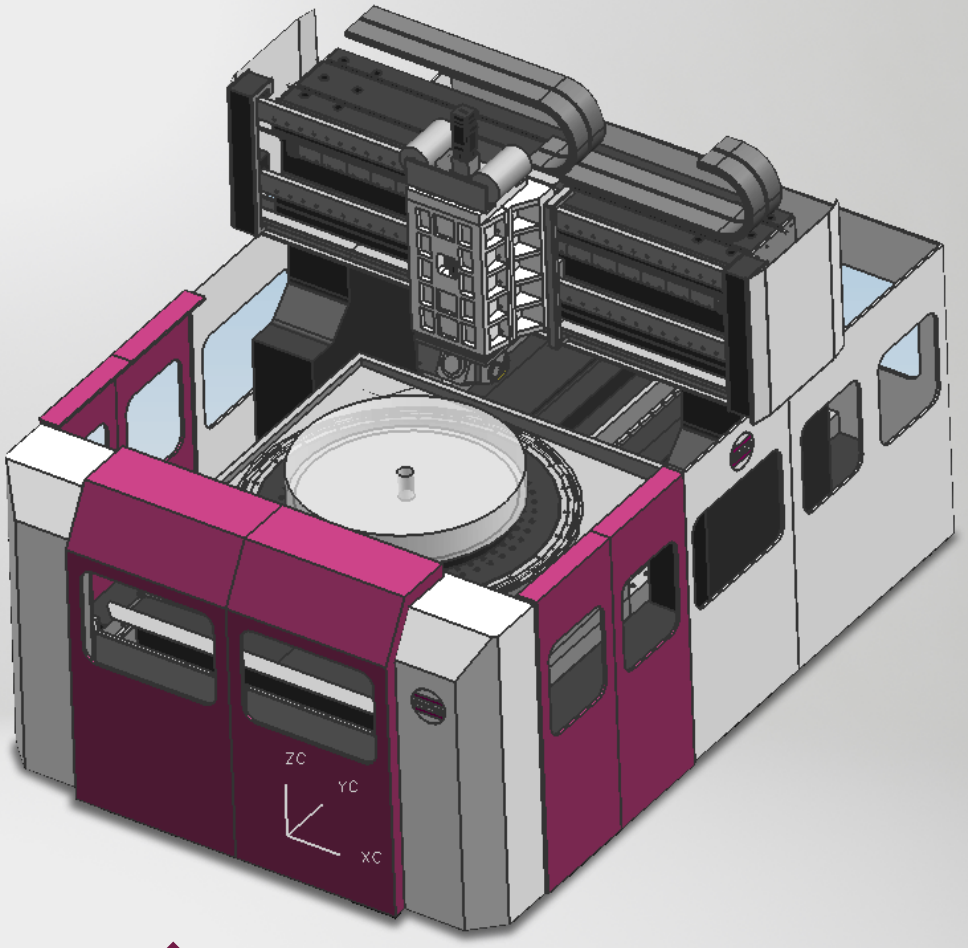
UPG 1500 CNC

4-Axis Ultra-Precision Grinding Center for Processing of Optics up to ø 1500 mm



The Ultra-Precision Grinding Machine UPG 1500 CNC was especially designed for processing of high-end ASTRO optics up to diameter 1500 mm. Whether spheres, aspheres, or freeform surfaces, the UPG 1500 CNC offers highest precision grinding (all axes mounted hydrostatically). Typical applications include astronomy and space research, aerospace, semiconductor, SiC processing and other high precision optics.

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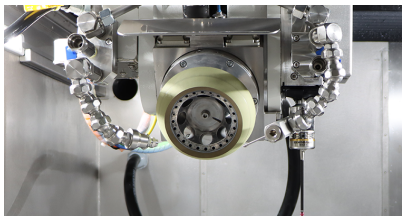
Technical Data

	UPG 1500 CNC
Application	4-Axis Ultra-Precision Grinding Center for Processing of Optics up to ø 1500 mm
Working Range Diameter	0 mm - 1500 mm
Workpiece Height	0 mm - 300 mm
Travel X	0 mm - 1700 mm
Travel Y	0 mm - 1900 mm
Travel Z	0 mm - 400 mm
Amount of Axes	4 (X, Y, Z, C)
Clamping System C-Axis	Vacuum
Control	Siemens Sinumerik 840 Digital Solution Line
Tool Spindle	Speed: 0 - 6000 rpm
Vacuum	-0.7 bar
Air Pressure Requirement	8 bar
Dimensions	Width: 5200 mm, Height: 4200 mm, Depth: 4800 mm
Weight (approx.)	85000 kg
Disclaimer	All data are subject to change without notice. Please verify details with OptoTech.



Highlights

- Ultra-Precision generating of spheres, aspheres and freeform surfaces
- Machine Base made of granite for highest rigidity
- This high efficient design allows an optimal production of all important future parts in area of ASTRO-Optics, high-end optics for the semiconductor industry, and space technology
- 4 CNC-Axes for maximum flexibility
- Hydrostatic guide ways
- Absolute Heidenhain linear scales
- 1 grinding spindle for ultra-precision grinding in spiral- or raster mode and 1 dressing spindle for dressing the grinding tools
- Integrated high-precision measuring technology

Options

- Grinding tools and clamping systems
- Coolant tanks
- Precision chilling system for cooling the axes and spindle drives and the hydraulic aggregate
- Hydraulic aggregate to supply the hydrostatic guide ways

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Valid: 10.11.2025, subject to change without notice

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