

TECHNICAL DATASHEET

CNC-Bevel Gear Grinder

Make	GLEASON
Type	Phoenix 400HG
Control	FANUC Series 150M
Built	1995



The GLEASON Phoenix 400HG is a high-precision CNC bevel gear grinding machine designed for the grinding of spiral, hypoid, and Zerol bevel gears in various operations.

The machine is based on a 6-axis design with an additional dressing axis (D-axis) and enables fully interpolated movements between the tool and the workpiece. This allows for both generating and formate processes.

The CNC control system synchronizes all movements, resulting in very high profile accuracy, repeatability, and flexibility.

Working Area

Max. workpiece diameter	Ø 406,4	mm
Max. full depth	25,4	mm
Max. face width	66	mm
Maximum tooth ratio	10:1	
Number of teeth	5 - 200	
Grinding wheel diameter, max.	Ø 20,4	inch

Machine specifications

X-axis (horizontal workpiece slide)	-114 / +178	mm	
Y-axis (vertical travel)	-178 / +190	mm	
Z-axis (workpiece slide)	-13 / +500	mm	
B-axis (tilting axis, taper angle)	- 3 / +90	°	
Machine center to workpiece spindle face	165	mm	fixed
Workpiece spindle diameter	5 3/64	Inch	Gleason No. 50
Grinding spindle speed range	900 – 6.000	U/min	
Max. dressing spindle speed	8.000	U/min	

Dimensions and weight

Footprint for the machine, including the cooling system and control cabinet. L x W approx.	5,5 x 4,6	m
Machine height approx.	2,54	m
Machine weight approx.	10.000	kg

Connection Data

Total connected load approx.	61.6	kW
Fuse	96	A
Operating voltage	380	V
Operating frequency	50	Hz
Control voltage	24	V DC

Equipment and Accessories

- GLEASON PHOENIX 400HG CNC machine with FANUC 150M control system
- Gleason HMI – user interface for easy entry of gear parameters and correction values
- Automatic dressing unit with dressing spindle
- Fully CNC-controlled machine design optimized for the shortest setup and changeover times as well as the highest gear accuracy and grinding performance
- All axes and spindles equipped with FANUC drive technology
- Central lubrication system
- RENISHAW electronic centering device for precise rotational positioning of the workpiece
- Coolant system with recirculation, oil tank approx. 1,000 L
- Prepared for oil mist extraction

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FLECKENSTEIN

Werkzeugmaschinen

- Full enclosure of the work area
- Hydraulic power unit
- Machine light
- Manuals

