

TECHNICAL DATASHEET

CNC- Bevel Gear Grinding Machine

Manufacturer	GLEASON
Type	Phoenix 600HG
Control	FANUC 160i-MB
Built	2006



With the GLEASON Phoenix® 600HG bevel gear grinding machine, manufacturers of medium-sized spiral and hypoid bevel gears can achieve faster grinding cycles and higher accuracies at lower grinding costs.

Designed as a monolithic cast iron column, there is no need for a separate machine bed compared to other machine manufacturers. This makes the machine much more compact and saves valuable floor space.

By eliminating the machine bed, the 600HG can be set up independently from a foundation. Only three positioning elements are required for installation. This reduces the installation time significantly.

Both the grinding wheel and the workpiece face the operator and are in close proximity to each other. This enables attractive working conditions and an ergonomic working method. Loading and unloading the workpiece and changing the grinding wheel are faster and reduce set-up time.

Directly driven spindle motors, combined with inherently shorter linear movements and faster acceleration/deceleration rates further reduce non-productive times considerably.

Technical datasheet,

CNC-Bevel Gear Grinding Machine,

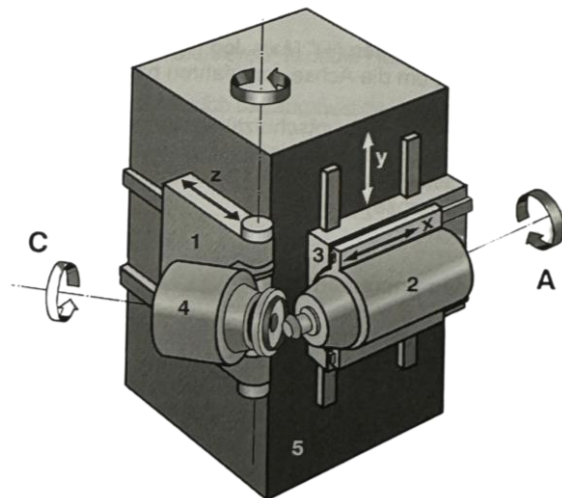
GLEASON Phoenix 600HG

Working range

Gear outside diameter, max.	Ø 600	mm
Max. module	15	mm
Full depth, max.	24,6	mm
Max. Face width	110	mm
Number of teeth	1 - 300	
Grinding wheel diameter, max.	Ø 20	"

Machine specifications

X-axis (horizontal work slide)	540	mm	
Y-axis (vertical slide)	295	mm	
Z-axis (grinding spindle infeed)	695	mm	
B-axis (swivel axis)	- 5 / 90	°	
Max. Grinding spindle speed	3.000	1/min	C-Axis
Max. Workpiece spindle speed	330	1/min	A-Axis



Dimensions and weight

Footprint machine L x B x H approx..	4,0 x 3,1 x 3,4	m
Machine weight approx.	27.000	kg

Connection data

Total connected load approx.	139	kVA
Back-up fuse	200	A
Operating voltage	400	V
Operating frequency	50	Hz
Control voltage	24	V DC

Equipment and accessories

- Basic machine GLEASON PHOENIX 600HG with control FANUC 160i series
- Gleason HMI user interface for easy input of gear values and correction values
- Fully CNC-controlled machine concept designed for the shortest set-up and changeover times as well as maximum gear accuracy and grinding performance
- PG Cycle - precision grinding
- Single grinding head with fully automatic grinding wheel threading device for precise determination of the tooth gap position at any workpiece position. No manual adjustment necessary in series operation
- System-independent grinding of almost all spiral bevel gears and hypoid gears produced in single-part and continuous processes
- Generating and plunge grinding processes
- Quad rotation - four grinding passes per cycle
- Gleason CNC dresser
- Waguri eccentric grinding spindle
- All axes and spindles with FANUC digital drive technology
- Central lubrication
- Electronic centering device for precise rotary positioning of the workpiece
- Cooling lubricant system with HOFFMANN brand, oil tank approx. 3,000 l
- Oil mist extraction
- Full enclosure of the work area
- Machine light
- Set-up aid for changing the grinding wheel
- Documentation
- "Coniflex grinding" option on request