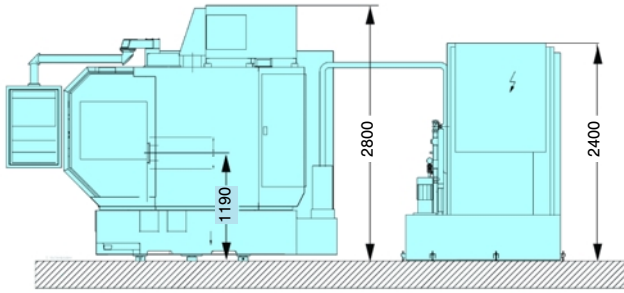
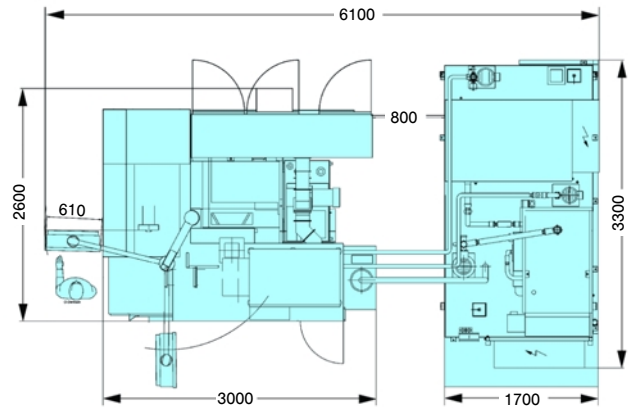


Machine dimensions.

Technical data.



Dimensions in mm.



Capacity	Metric	English	
Extreme ratio	10:1		
Maximum full depth	20 mm	.775 in.	
Maximum face width	58 mm	2.3 in.	
Maximum gear pitch diameter	275 mm	11 in.	
Minimum/maximum wheel size	69/230 mm	2.7 / 9 in.	
Range of tooth numbers	5 – 200 inclusive		
Machine specifications	Travel		Speed
	Metric	English	
X – Horizontal (work slide)	25 – 350 mm	1 – 14 in.	10 m/min
Y – Vertical travel	± 175 mm	± 7 in.	10 m/min
Z – Wheel slide travel	125 – 600 mm	5 – 23 in.	10 m/min
B – Root angle	– 5 to + 90°		40°/sec
Electrical equipment (motors)		Speed	Continuous torque power
X – Horizontal	Digital Servo Drive	2,000 rpm	12 Nm
Y – Vertical	Digital Servo Drive	2,000 rpm	22 Nm
Z – Wheel slide	Digital Servo Drive	2,000 rpm	12 Nm
B – Root angle	Digital Servo Drive	2,000 rpm	12 Nm
A – Work spindle	Digital Direct Drive	900 rpm	
C – Wheel spindle*	Digital Direct Drive	6,000 rpm	
D – Dresser spindle	Digital Servo Drive	8,000 rpm	
W – Eccentric spindle	Digital Servo Drive	2,240 rpm	
Coolant – Scavenger pump	AC Induction		3.0 kW
Hydraulic	AC Induction		3.0 kW
Floor space	Metric	English	
Length x width (without filter)	3,430 mm x 2,335 mm	135 in. x 92 in.	
Height (without crane)	2,390 mm	94 in.	
Weight	9,000 kg	20,000 lbs.	

PHOENIX is a registered trademark of The Gleason Works.

* Higher spindle speeds on request.
Information subject to change without notice.

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The Gleason Works

Bevel Gear Grinding Machine PHOENIX® II 275G



Gleason Bevel Gear Grinding Machine PHOENIX® II 275G puts superior performance in a compact, economical package.

Gleason's latest addition to the PHOENIX® II product line is an advanced Bevel Gear Grinding Machine that utilizes the revolutionary monolithic column design. This concept reduces floor space.

The 275G features direct-drive spindle motors. Direct drive spindles eliminate gears and other mechanical elements as well as provide higher acceleration and deceleration rates and significantly reduce cycle time.

The 275G is available with either Siemens 840D or Fanuc 160i Model B CNC controls.

The PHOENIX® II 275G accommodates gears with up to a 275 mm pitch diameter, but with a machine footprint that measures just 2.3 x 3.4 meters (excluding the filtration unit). This compact design includes a self-contained electrical enclosure and hydraulic unit, helping make installation fast and simple.

The eccentric grinding wheel spindle feature allows fast grinding cycles, high accuracies, maximum efficiency and low grinding costs. The CNC controlled dresser provides accurate and repeatable results with maximum flexibility. The automatic stock dividing system further assures accurate and rapid grinding cycles.



1

2

Machine features.

Standard features

- Siemens 840D or Fanuc 160i CNC controls.
- Machine mounted electrical enclosure and hydraulic unit.
- Powered work chamber doors.
- Gleason #39 taper work spindle.
- Hydraulic workpiece chucking.
- Cycle fault monitor.
- Air conditioned electrical cabinet.
- Work chamber light.
- Stack light.
- Eccentric grind spindle.

Optional equipment

- HG version for automotive quality grinding.
- PG version for aircraft quality grinding.
- Electrical enclosure lighting.
- Oil mist collector.
- Manual or electronic stock dividing system.
- Work seating safety & bore/shank inspection.
- Foot switch for chucking workpiece.
- Machine mounted crane.
- Coolant filtration and chiller system.
- Automatic coolant header positioning.
- Voltage matching transformers.

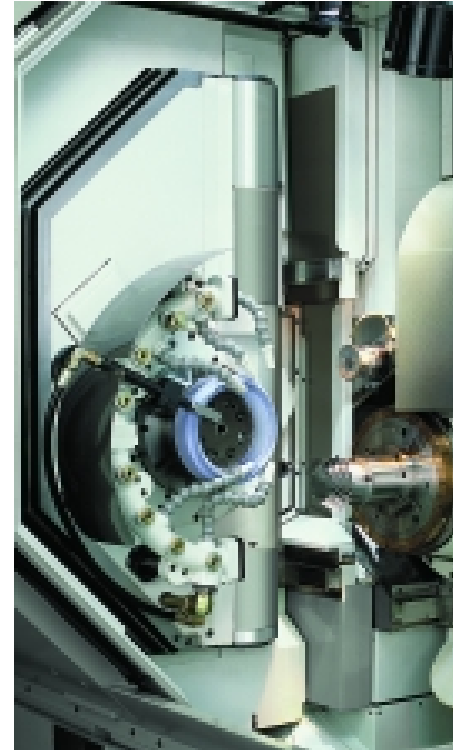
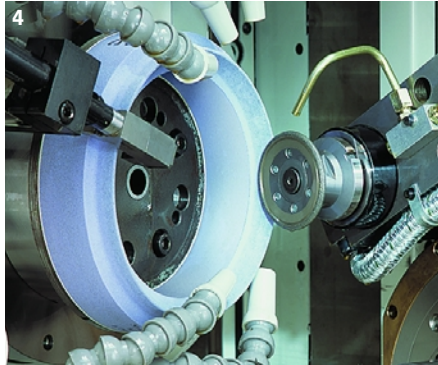


Fig. 1
Operator's view PHOENIX® II 275G.

Fig. 2
Stock dividing.

Fig. 3
Work area PHOENIX® II 275G.

Fig. 4
Dressing of grinding wheel.

Fig. 5
Rear side PHOENIX® II 275G
with coolant system.