Rapid Grinding System
RGS 360

Fully Enclosed Large Parts Belt Grinder

AW Bell pty ltd MACHINERY

Automation solutions for the modern foundry

www.bellmachinery.com

OVERVIEW

The RGS360 machine provides a safe, flexible, automated grinding machine suitable for larger and more complex parts. Designed as a fully automated system, the RGS360 combines a rotating table with reciprocating motion to selectively linish at pre-programmed positions within the work area. Multi axis servo control, belt tracking and the ability to change contact wheel size allow for accurate profile grinding and access to hard to reach gates at differing heights on the linishing plane. Simplified programming and teach functions coupled with ergonomically designed control panel, streamline initial part setup, whilst maintaining a high accuracy results.

MACHINE BENEFITS

- **Safety**
  Safety relays monitor doors and emergency stop devices to reliably shut the machine down at the first sign of a safety breach. Loading doors and guards are designed such that they inhibit operator ingress during a cycle, yet provide fast and easy access for part loading, cleaning and belt change.

- **Profile grinding**
  Removing gates from curved surfaces manually is now a thing of the past. Servo axis control gives the RGS360 the added flexibility of autonomously grinding profiled shapes for more complex parts.

- **HMI Programming**
  User friendly, step by step HMI programming allows the operator to individually program each part cycle and store it for future use. Subroutines allow easy navigation through complex program cycles.

- **Operator access**
  The two-piece front loading door allows for maximum access to the loading zone. Key features are clear floor access right up to the loading zone and overhead access to the centre of the work table.

- **Large viewing windows**
  Large viewing windows allow clear viewing of the grinding operation.

- **Interchangeable contact wheels**
  A variety of wheel diameter and widths can be fitted to allow for the needs of diverse part geometries

- **Hydraulic drive**
  Hydraulic belt drive delivers high power in a small package, enabling the entire belt assembly to move in two axes. Fast starting and stopping of this drive means the belt is stationary during loading and unloading operations

- **Compact Design**
  The RGS360 machine is built on a compact footprint and requires only three-phase power for operation. This allows trouble free installation and easy re-location should your layout need to change

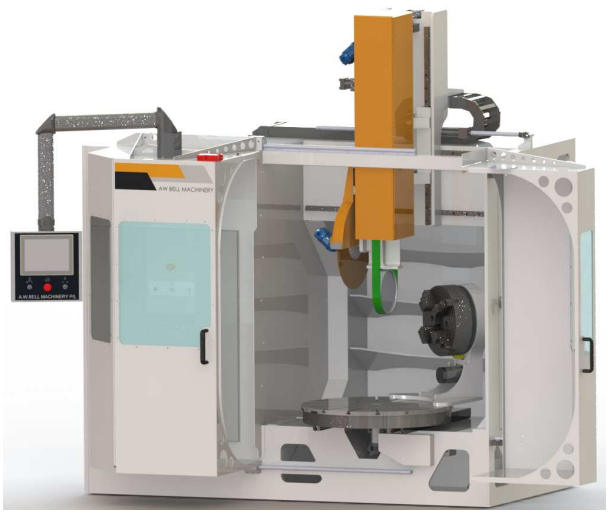
SPECIFICATIONS

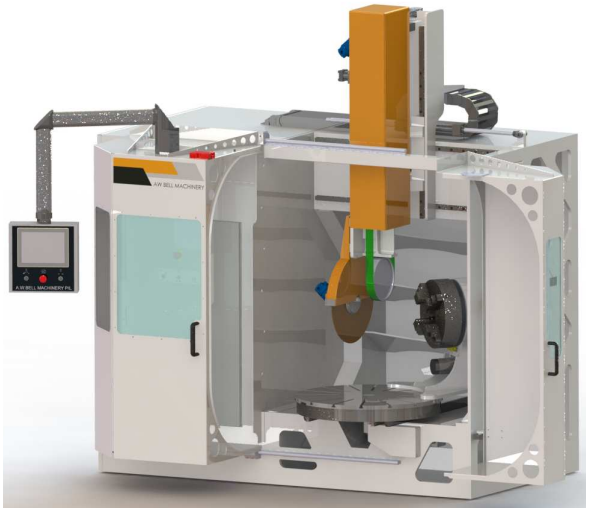
		RGS360	
		US	Metric
A	Drive Motor	60 HP	45 kW
B	Belt width (Maximum)	8 in	200 mm
C	Up/Down Movement	26 in	660.4 mm
D	Left/Right Movement	20 in	508 mm
E	Fore/Aft Movement	20 in	508 mm
F	Table rotation	360°	360°
G	Table diameter	32 in	800 mm
H	Maximum part height	28 in	710 mm
I	Base Width	81 in	2050 mm
J	Base Depth	67 in	1700 mm
K	Base Height	118 in	3000 mm
L	Electrical Requirement	480V,3ph	380- 415V,3ph
M	Machine Weight (Approx.)	11000 lbs	5000 kg

OPTIONS

Custom fifth axis design
A fifth axis can be custom designed to fit onto the rotary table. This is particularly suited to parts with curved surfaces. Hydraulic or manual 4 jaw clamping or custom designed part fixtures with fixture sub-plates can also be integrated into the fifth axis as required.

Integrated Cut off Capability
Cut and grind your parts all in a single set up with an additional cut off head attachment. This feature can be autonomously interchanged any number of times during a single programmed cycle, minimizing fixturing of parts between operations. Cut off head attachment available in 20” cut of wheel diameter.

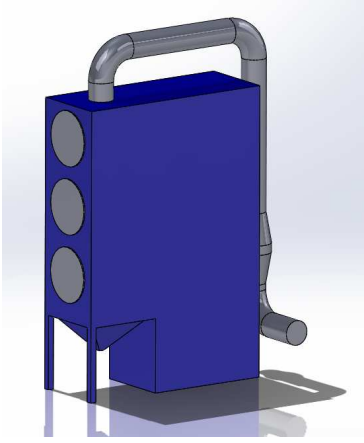




Laser Part Measurement
Adjust grind and cut height based on belt/wheel wear or part datum surfaces. Program machine to measure part prior to grinding/cutting to ensure correct grind/cut depth is achieved. This is particulary suited to large parts with higher dimensional variability.

Custom part Envelope
Larger parts? A W Bell Machinery can design based on your requirements.

ACCESSORIES



Crane & Hoist
An integrated jib crane with 2000mm reach (approx 1000mm from work table centre) enables easy loading of the work piece. The jib is mounted to the top of the machine, allowing reduced jib length and preventing a floor mounted crane from interfering with machine access.

Dust Collector
Stand alone dust collector units with spark arrester can be supplied with all necessary ducting. These units can also be integrated into the control system of the machine to ensure operation while grinding and provide feedback on error codes.

LAYOUT & FLOOR PLAN