

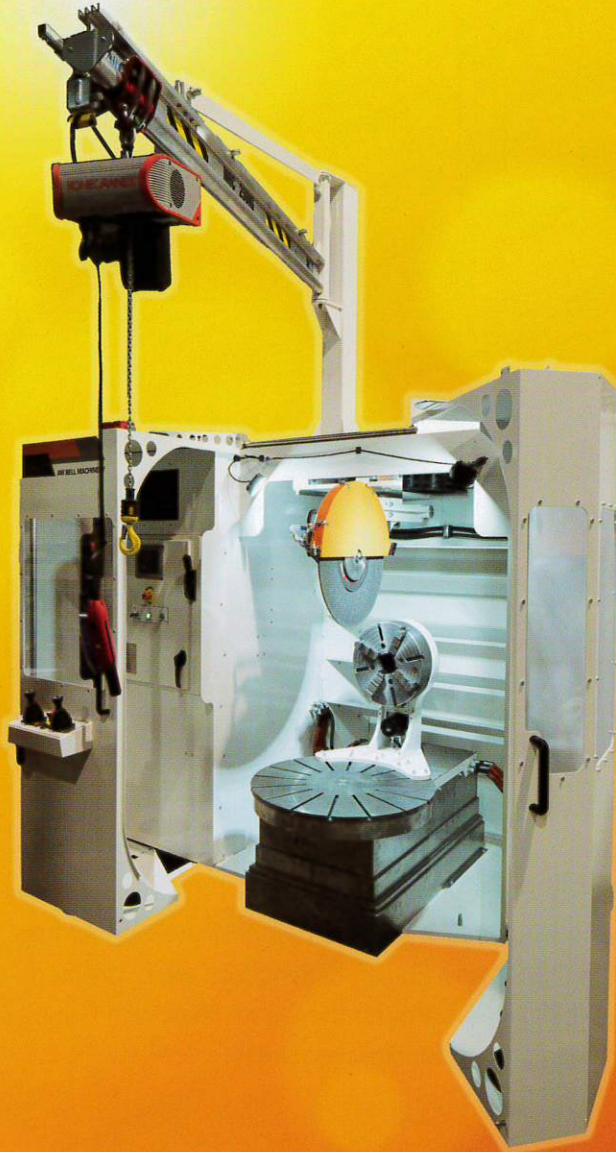


Automation Improving Safety and Efficiency

JUNE 2017

Volume XXX

Number 6



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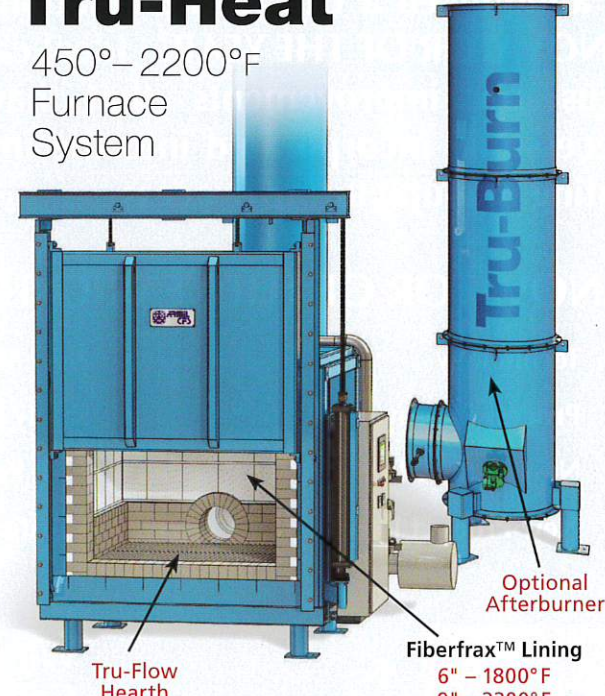
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Automation Improving Safety and Efficiency: *The Driving Force Behind New Products from A W Bell Machinery*

Demand for a higher level of automation has driven the design team at A W Bell Machinery to develop the next generation of cut-off and grinding equipment. "For over 25 years we have been manufacturing automatic aftercast equipment and promoting the benefits in safety and efficiencies that automation can bring. It is exciting to see that more customers are now embracing these benefits and demanding this technology from us," said Stephen Murtagh, Engineering Manager for AW Bell Machinery. "This shift has allowed us to further enhance and develop our automatic equipment to the next level."

Released in 2016, the ACS560 cut-off saw was developed to meet the needs of our clients who required the flexibility of our manual cut-off equipment but with the added safety of a fully enclosed system. "We developed two operating modes for this equipment, one being semi-automated using joy stick control, the other a fully automated programmable cycle, both of which all but eliminate safety concerns in the cut-off process," explains Stephen Murtagh.

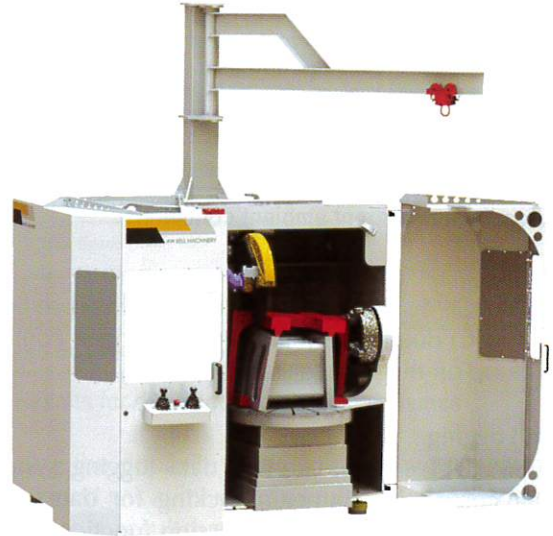
This year sees the release of the RGS360 automated grinding machine. More akin to a CNC machine than the traditional grinding machine, this model was developed for safe and efficient profile grinding of complex and large castings. Up to five axes of motion can be utilised within a fully automated cycle. A base program mode is used to manipulate work piece and grinding belt location before independent sub programs are called upon to perform interpolated grinding functions. This allows multiple gating surfaces to be independently processed within a single program cycle and an enclosed grinding cabinet.

Both the ACS560 and RGS360 machines are designed to be programmed on the shop floor via an easy to navigate touch screen interface. This allows fast adaptation to new fixtures and parts as well as flexibility for real time changes.

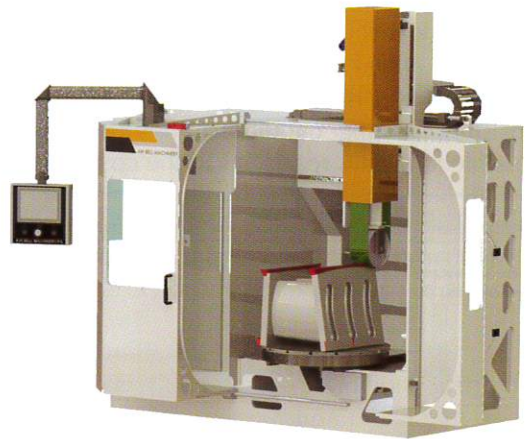
Hydraulic drive delivers the necessary power for efficient material removal rates with current abrasive cutting wheel and grinding belt technology, while features such as barcode reading of job routers, RFID fixture identification and laser part measurement combine to ensure overall process productivity and control.

As with all A W Bell Machinery equipment, safety is paramount. Dedicated safety controllers are used to monitor machine motion and door sensors to provide an integrated safety function that protects operators from danger yet does not inhibit correct machine operation.

Fixturing of parts remains one of the biggest hurdles for customers looking to implement automation in the foundry. A W Bell Machinery can also help in this regard and are currently manufacturing turnkey installations for several USA foundries. "The making of fixtures for every part is often a very



ACS560 Automated Cut-Off



RGS360 Automated Grinding Machine

daunting task for customers, however once we analyse the part geometries there are usually some consistent features that we can use to develop common or similar style fixtures. We prefer to focus on developing fixtures for the higher volume components. Once the customer sees the benefit gained on these parts and has a good understanding of the fixture requirements, additional fixtures can usually then be handled in-house" explains Stephen Murtagh.

For more information, please contact Stephen Murtagh of A W Bell Machinery s.murtagh@bellmachinery.com or A W Bell Machinery's USA representative, Buntrock Industries.