Mazak Connected Factory Leads Digital Manufacturing Innovation

While global manufacturer Mazak Corporation entered the North American market in 1968, it is anything but old fashioned. In fact, this long-standing Kentucky-based company is leading digital manufacturing innovation and technology in the U.S.

Mazak is creating connected factories with its advanced machine solutions for Multi-Tasking, 5-axis, milling, turning, CNC controls and automation. The Mazak machines capture real-time sensor data and analytics from across the factory floor. With new levels of insights, their machines are transforming production and creating worry-free manufacturing with less downtime. Continuous investment in manufacturing technology allows the Mazak iSMART Factory to be one of the most advanced and efficient in the industry.

“We’re enabling our customers to implement continuous improvement throughout their manufacturing facilities by extracting and analyzing meaningful information related to the production process,” said Dan Janka, CEO at Mazak.

Mazak partnered with Cisco to develop its SmartBox solution, which connects machines and devices. The Smart Box incorporates the Cisco IE4000 switch to extract large volumes of performance data, providing enhanced monitoring and analytical capabilities including advanced cyber security protection.

Real-time analytics allow Mazak to unlock insights from data on the factory floor. This keeps equipment running smoothly and identifies machine issues before they turn into downtime. Leveraging Cisco, Mazak is using the solution in its own manufacturing facilities (‘Mazak machines are making Mazak machines’) and can now track if preventive maintenance is needed to keep factory equipment running smoothly.

“We’ve experienced a 17-20% improvement in productivity throughout our operation,” said Janka. Mazak has also seen increased utilization of assets, optimized processes, improved productivity and increased profits.

With the Cisco Connected Machines solution, Mazak’s SmartBox captures real-time manufacturing data and analytics from Mazak machines, which improves operating equipment efficiency (OEE) for their manufacturing customers. Digitizing the factory floor delivers greater uptime for Mazak customers by using Cisco IoT and analytics, bringing the first full fog-computing model to manufacturing.

“Connected Machines are an integral part of the next revolution in manufacturing,” said Janka. “It’s not enough to just have the best machines in the world. They must be part of an integrated, secure, digital factory. Cisco’s partnership has made this possible.”

Mazak North America:
Headquarters: Florence, KY
Industry: Manufacturing
Global Production Facilities: 10
Technology Centers: 39

With Cisco, Mazak Digital Manufacturing Provides:
• Connected value
• Real-time awareness
• Intelligent decision making
• Optimized assets, systems and processes

Mazak Corporation
Manufacturing