

# BEYOND MACHINES

**Matt Rhoades**, product manager for technology and processes at Messer Cutting Systems, discusses how to start down the path of digitization and its benefits

**Q ■ What does digitization mean to the CNC shape cutting and fabrication industry?**

**A:** As a provider of CNC cutting machines and software solutions, our mission has transformed from simply providing machinery to aiding our customers in their digital transformations and providing solutions that drive their digital strategies. Fabricators are beginning to recognize the advantages they can reap from digitizing their operations and look to us to provide innovative solutions that allow them to deliver more value to their customers. We continue to build the most robust thermal cutting machines but we also create solutions beyond machines, applying the expertise we collected from 120-plus years in the industry to anticipate and address customers' diverse needs.

**Q ■ Which benefits of digitization give fabricators an advantage in the marketplace?**

**A:** The benefits of digitization are highly visible in the products and services we use every day as consumers. While it took a traditional company like Walt Disney over 69 years to make its first billion dollars, the highly digitized Amazon did it in only five years and continues to see exponential growth. The same digital concepts that Amazon leverages to drive its rapid growth—cloud computing, analytics, digital workflows, paperless production, etc.—are now available for fabricators to take advantage of as well. When outdated processes and procedures are eliminated, employees spend less time working the system and more time performing tasks that create value.



MATT RHOADES

**Q ■ How does a fabricator start with digitization?**

**A:** The path to digitization starts with moving all production information assets and production processes into digital form: sales orders, work preparation instructions, production orders, production schedules, unloading information for parts, packaging instructions for deliveries, etc. When done effectively, digitization leads to virtually paperless production with full transparency. Everyone involved in the production process has access to the real-time information needed to execute up-to-date tasks and provide feedback into the system. Elimination of outdated and lost work instructions increases efficiency and flexibility, reduces waste, eliminates tribal knowledge, and transforms into financial rewards that increase competitiveness.

One key component of digitization is paperless production. Machine operators, nesting engineers and other staff running production tickets through the factory is wasteful and limits agility in production. Another equally important component is

the connected machine. Only when machines have the capability to cultivate and share relevant data and are a part of the digital environment, can the full benefits be leveraged. Digitization at the machine level starts with automatically transmitting the most up-to-date production orders to machines so operators always have the latest production plan. Moving further along the digital path offers real-time status of machines and the information about the progress of each and every production order. Furthermore, transparency of what happens on the shop floor provides the data necessary for continuous improvement of production processes and material flow. Key performance indicators (KPIs) are easily developed and tracked with access to appropriate data.

**Q ■ Describe some of the digitization solutions Messer Cutting Systems offers.**

**A:** Messer Cutting Systems and Messersoft provide machines and software solutions to support companies in their digitization journey. We offer a portfolio of software modules that can be configured and customized to individual production needs. Combined with Messer's Intelligent Cutting and automation solutions, production can be run nearly entirely with digital control.

As an example, customers report production efficiency increases of over 10 percent by using Machine Insight, our real-time production monitoring and reporting system. This module increases transparency in the production process and spotlights waste to aid in continuous improvement. Problems become much easier to solve when you have the relevant data to see the full picture of your production environment. ■

**Matt Rhoades**, product manager for technology and processes, has worked with Messer Cutting Systems ([us.messer-cutting.com](http://us.messer-cutting.com)) for 13 years. A Navy veteran, Rhoades serviced electromechanical systems on U.S. warships, studied robotics and computer science, and earned an MBA.