

## **INNOVATION MANDATE**

### **AUTOMATION AND CUSTOMIZATION DRIVE CUTTING-EDGE TOOL MACHINERY, SAYS GREG HOESLY, PRESIDENT OF BOSCHERT USA, BUTLER, WISCONSIN**

#### **Q: How is the machine tool industry adapting to innovation?**

**Greg Hoesly:** More than ever, the machine tool industry is under tremendous pressure. Fabricators have more intricate and sophisticated design demands. We are working with exotic materials that require greater force. And we are trying to do it all faster and cheaper—and always with 100 percent spec accuracy. As a result, we are expected to deliver fully automated machines that are more flexible and specialized. Customization has become one of our key drivers.

Our range of Boschert machines are already incredibly flexible with more than 20 different tooling arrangements and up to five distinct functions on a given machine. But even with that kind of adaptability, more than 50 percent of our flat sheet punching machine projects this year needed some special design due to unique customer requirements.

#### **Q: What is driving this leading-edge modification?**

**Hoesly:** Automation continues to be critical to deliver customers' expectations for meeting very tight specs and eliminating opportunities for error. At the same time, automation helps to drive both time and manpower efficiency. The move toward greater customization is driven in large part by the increased sophistication of parts. As parts are refined to meet new production expectations, satisfy regulatory or environmental demands, or meet incremental demands for cost efficiency, machine design specs have become more tailored.

#### **Q: Are there specific industries demanding these specialized machines and tooling?**

**Hoesly:** It runs the gamut. We are responding to inquiries from the petroleum, food processing and manufacturing, transportation, electrical, computer and telecom industries. We recently had a customer who needed extreme punching force for making forms up to 0.750-in. high along with a powerful fiber laser. They had been told by two of the largest global machine builders they could not get such a machine. Boschert had machines that could do one or the other function at the desired extremes but not a single machine. Working with our machine design team in Germany and with the customer, we stretched our capabilities a bit and delivered a solution uniquely adapted to this demand.

#### **Q: How is the industry responding to these needs?**

**Hoesly:** Some of the bigger machine tool builders aren't as nimble in meeting these kinds of specialized specs. They can't as easily adapt their building protocols to produce only one beyond-the-standard machine. But niche or smaller builders can respond to innovative machine demand more easily. They have the flexibility to create innovative machines without the expectation to mass produce. They also can collaborate with fabricators who are struggling to get a job done that just doesn't fit a standard mold.

At Boschert, we start with basic designs that are already very flexible. And then we work with our customers to determine what can be adapted. It becomes more difficult to maintain full automation to meet narrow specs and minimize cost, time and handling with multiple layers of extreme specialization in a single machine.

In the earlier case, we started with Boschert's CombiLaser, which punches, forms, marks and laser cuts. Then, our German engineering team increased the punching force capacity from 35 to 50 tons and doubled the laser power from 2kW to 4kW. The result was a completely unique automatic machine that could handle all of the procedures the customer asked for.

**Q: What do companies need to consider when specifying their tooling requirements?**

**Hoesly:** It is first important to have a clear understanding of customers' spec expectations and how their parts fit within the larger framework of their project. Then we apply our understanding of standard tooling capabilities.

If companies have extreme requests, they are going to need to work with machine tool builders who are willing to go to extreme measures to modify their standard offerings. Working with machine tool builders who have strong relationships with the tooling manufacturers to innovate those components is also critical. Recently, Boschert requested a tool from a supplier who said it could not be done. Unfazed, our own team created a prototype, and now that tool company is producing them for us. My best recommendation is to seek out machine tool manufacturers willing and able to go beyond their own basic approach to meet innovative customer demand.

As a niche machine tool company, it is incredibly important for us to deliver creative approaches to machine tool development, which is ultimately driving overall industry innovation.

*Greg Hoesly, president of Boschert USA, is a third-generation expert in identifying and customizing machine tools to fit specialized fabricator needs. Headquartered in Butler, Wisconsin, Boschert USA is the exclusive North American distributor for Boschert sheet metal fabrication machines. Boschert USA also represents Stierli-Bieger horizontal benders, PBT profile benders, AMB Picot plate rolls, and Boschert-Gizelis press brakes and shears.*