

As fabrication technology evolves, keeping on top of the latest advancements often becomes increasingly difficult. This month *Canadian Industrial Machinery* asked Nigel King, product manager – metal forming for manufacturing equipment distributor Elliott-Matsuura, about the latest in his company's press brake machinery.

Q: How are today's fabricators driving changes in the technology?

More and more customers are processing smaller batch quantities, so speed and flexibility are important. Precision-ground, quick-change, self-seating tooling is also important.

Q: How has recent business activity affected your customers' choices?

There seems to be two types of buyers: The larger companies that want the technology because they can see the advantages are the ones that invest in a quality press brake with multi-axis backgauges, power clamping, crowning, and offline programming. But secondly, we increasingly see that customers are buying cheap offshore equipment because of price.

Q: What role does shop safety play?

In Canada customers want the machine to be fully guarded to comply with the CSA Z142-02 code. In Ontario the Pre-start Health and Safety Review (PHSR) is required, so buyers are insisting that the machine complies. Visiting most shops we see most equipment doesn't comply unless it's new.

Q: Besides the press brake itself, what are buyers looking for?

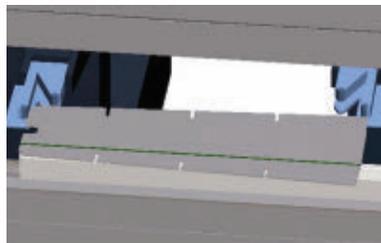
Customers are looking for more advanced software that includes part simulation and tooling selections. Offline programming is also becoming more popular as it is hard to find good, skilled operators. Traditionally, customers have installed safety light curtains, but the laser guarding, although more expensive, is becoming more popular. However, in some cases this can slow down the forming operation.

Q: What has Cincinnati Incorporated delivered to the marketplace re-

Press Brake Q&A

cently that is meeting these needs?

Besides 3-D graphics, simulation, and offline programming, which have been available for some time, Cincinnati



has found that its six-axis, linear-motor backgauge has been popular. With this it has introduced new taper gauging. The six-axis gauge design provides multiple gauge points/stops and integral two-point corners to automate three-point gauging for taper bends. This eliminates the trial-and-error physical positioning of stops to achieve the three-point gauging needed to maintain the correct location of a taper bend line.

Q: How important is automation in today's bending operations?

Some large manufacturers have introduced automation to bending, but this hasn't been popular as large production runs have gone offshore. In North America we are doing more small-batch runs, so flexibility to change from one job to another is important.

Q: How important is training?

Most manufacturers just provide operator training on-site, but Cincinnati

believes that training is extremely important. Cincinnati provides on-site operator training, factory programming, and maintenance training, and classes are held on a monthly basis. Training can be provided regardless of the age of the press brake. New owners of Cincinnati press brakes can apply what they have learned to other press brakes in their shops. The factory training teaches the customer both forming and tooling technology.

Q: Is having 3-D simulation in bend simulation software necessary?

This is very important today as it is hard to find good operators. With a multi-sequence part, the operator can see the shape of the part and know by the graphics which way to load the part for the next bend. This helps eliminate scrap.

Q: When do you recommend adding backgauges to the brake?

With complex parts, multi-axis backgauging is very important. For example, the Cincinnati Maxform comes stan-



dard with a five-axis backgauge with an optional six-axis LT (linear-motor) backgauge. The company offers seven different backgauges for customers to choose from, including a heavy-duty plate gauge. ■

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