

Machinery Trends

Beth Pollak

Fabricators looking for greater efficiency and productivity will appreciate the latest offerings from the major equipment suppliers. Today's new fabrication machinery focuses on offering user-friendly operation, multi-task productivity, and high-speed output. Computerization and consolidation has made sophisticated tools and machines more accessible to smaller shops and more cost-effective for larger shops.

COST BENEFITS FOR SMALLER SHOPS

Ocean Machinery, based in Fort Lauderdale, FL, focuses on small and medium fabricators.

"The top end of the market has been very well-catered to," said Ocean Machinery Vice President Danny Steyn. "The small and medium fabricators have been ignored. We're chasing design solutions that allow them to achieve some of the cost-benefits that the larger ones can go after, but with different usages and capacities."

Ocean's FICEP 1001D drill, FICEP P803A plate punch, and FICEP A152 angle line feature computer numerical control (CNC) systems that can help smaller fabricators speed production, eliminate errors and streamline operations, Steyn said. "Fabricators that produce less than 400 tons of steel a month now have automated solutions that are half the price and half the floor space—and that make stepping up to a larger machine much simpler," he said.

Steyn also says that CNC machines can increase profits for small fabricators. "Small fabricators depend on their working capital on hand. CNC machines speed jobs. The time to be paid is dramatically reduced, and fabricators can chase sequential large jobs that they couldn't have initially because of cash limits."

Large equipment suppliers, like Peddinghaus, also are seizing upon new technologies to target small fabricators.

"We're specifically targeting smaller fabricators," said Lyle Menke,

Sophisticated tools and machines are more accessible and affordable to shops of all sizes than ever before.

vice president of marketing for Peddinghaus. "That's the future for structural steel fabrication. Because of computers, the days of 500 guys in a fabrication shop have passed us by. Now the norm is small, with as few as 10 guys working in shop."

Peddinghaus' new drilling machines are designed to meet the budget and labor needs of smaller fabricators. The PDL 24 and the BDL 1000 drill holes in beams automatically through a laser-alignment system, reducing drilling time to as little as three minutes.

"Instead of having to lay out a beam with a soapstone, position the beam manually, and use a tape measure, the new drills allow you to input information and x-y coordinates, and drill a hole automatically," Menke said. "The laser holds the alignment, and the drill is locked in place, so you don't need to stop and start for holes down the line."

HIGH-SPEED PRODUCTION

But large fabricators are not being ignored. Super-fast tools and machines are being developed for shops of all sizes.

Peddinghaus' FDB 1500/3 multi-purpose plate-drilling machine can drill, countersink, cap and burn plate—all in one location, Menke said. The machine can process plate up to 2 in. thick and 96 in. wide, and features a cutting-head signal-script milling cutter, where operators can input information for later painting and galvanizing.

Menke says the machine makes material handling safer and more efficient. "With other machines, when you have a large plate, you need four operators, and you have to move five

times," he said. "This way you offload the plates right into a seat conveyer—and have a finished part out the other end. You only need one operator."

Daito's CSD1050 high-speed carbide drill cuts drilling time to about three seconds to help move steel at 200 ft per minute, said Daito sales and marketing director David Louvar. Once it exits the drill, steel can be transferred to Daito's GT7010 hand-saw. The saw calculates beam size and sets blade speed and speed pressure automatically, Louvar said. "It works 30-40 percent faster than the traditional band saw. You never need to tell it what pitch band saw you're using."

EUROPEAN CONSOLIDATION

Kaltenbach, Inc. made news on September 12 when it purchased Automated Production Systems in the Netherlands. The APS factory, now Kaltenbach B.V., will continue to make medium-size drills, while Kaltenbach's home factory in Germany will make large ones, said Kaltenbach, Inc. President Dave McCorry.

"The purchase was strategic, so that in the long-term, everything is coming out of one hand," McCorry said. "In Europe we target a range of customers, but in the United States we focus on big fabricators with custom-made machinery."

Kaltenbach's new HDM 1411 can saw a 36 in., 256 lb beam in under three minutes, McCorry said. "They combined a straight-cutting simple technology of the low-end tech model with high-end software, to create a hybrid circular saw that can cut up to a 48 in. beam," he said. Kaltenbach's new KC 1200 robotic-head coping machine also cuts operation time by utilizing a single-torch programmable robot for coping.

As companies like Kaltenbach work to target different sectors of the market—from large fabricators to small shops—computerized operations for speedy output is driving the newest developments in tools and machinery; and so far, there's no sign they're slowing down.