Automating a cabinet shop to meet demand

Problem:

General contractor needs more control of cabinet production, delivery and margins to serve demanding commercial customers.

Solution:

Convert to a fully automated in-house cabinet manufacturing

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demanding retail and commercial clients requires meeting tight deadlines and controlling costs. For Desco Professional Builders Inc., a general contractor in Ellington, Conn., that prides itself for on-time deliveries and high quality, that meant bringing cabinet production in house back in 1996. But today's market is even more demanding, and the company's cabinet production has become a profit center of its own. That's why the company recently took the next step to fully automate the cabinet shop. Robert Anderson, president, says, "Our retail customers require quick turnaround and short lead times. Our first cabinet shop was three guys with table saws and a 35-year-old edgebander. Today, we couldn't compete without automating."

Setting up shop

Art Foote, who is in charge of the in-house manufacturing operation, says the company chose Delmac Machinery Group as its primary automation vendor because it offered a versatile system to fit the needs of custom work. That system includes a Busellato Jet 400 RT CNC router and an Omal HBD boring and doweling machine. A Schmalz vacuum



Desco Professional Builders, a general contractor, upgraded its in-house cabinet shop to a fully automated operation with a Busellato CNC router, Schmalz panel lifter, Omal doweling machine, and Holz-Her edgebander.



Shop foreman Shane Bruscoe runs a part through the Omal boring and doweling machine.

lift allows one man to easily process heavy panels. A Holz-Her Sprint 1310 edgebander rounds out the production.

Microvellum software drives the front end of the process with shop foreman and engineer Shane Bruscoe at the controls. Both he and Foote came from

bigger shops and are excited to apply high-tech automation in a smaller setting with eight workers in the shop.

The Desco cabinet and millwork operation is divided between two shops and two buildings. The automated section is in a 5,000-square-foot shop, while



Art Foote has spearheaded the development of the automated cabinet shop at Desco. He lauds the full support he's received from Desco's owners Robert Anderson and John Ridzon.



Shane Bruscoe uses Microvellum software for all the design and engineering work.

conventional equipment and assembly occupy a 10,000-square-foot area.

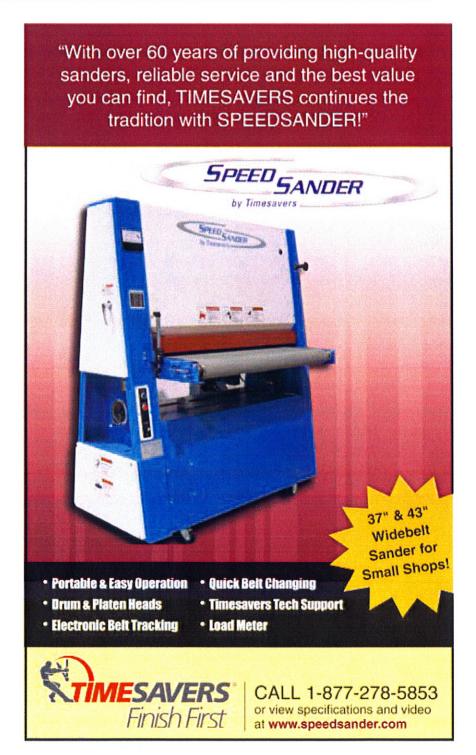
Equipment in the conventional area includes a Uhling case clamp and a Striebig vertical panel saw, as well as a planer and jointer for handling solid wood processing. They use Jowat Quick Set glue for short cure times in assembly.

In order, on time

One of the big competitive advantages Desco has is its reputation for meeting and beating deadlines, says John Ridzon, vice president. They take special care through-



out the manufacturing and installation process to make sure each step makes the next step more efficient. For example, in the shop, Foote points out that they use a sweeper on the CNC router, so finished parts are swept off the work table on completion. That frees the work table to be loaded with another sheet immediately.



+ AUTOMATING



All parts are barcoded and stacked on carts for moving between stations in the shop. Special efforts are made to keep parts together in convenient assembly order throughout the process.



After doweling, parts needing edgebanding are processed on the Holz-Her Sprint 1310-E edgebander.

Parts are barcoded and set on carts. "Everything stands up upright, so it's easier to flip through," says Foote. "The left end is stacked with the right end, the top with the bottom, and the nailer and toe kicks separate, so everything is in

the order the assembler needs."

That carries on to how things are sent to a job site. Ridzon describes how on a school project, they load the truck by classroom in the order the installers needed. Foote says on one school project involving two schools

and thousands of cabinets, that system allowed them to finish two weeks early. "The more organized you are, the less stressful it is," says Ridzon. "We try to eliminate the headaches. We're focused and we want to make it profitable."





In addition to many high-profile commercial clients serviced by Desco, such as Hot Topic, Talbot's, and Rockport, the company also does work such as this public library in New Britain, Conn.

Foote says automation has made it easier to do that. "We're taking the thinking out of the shop," he says. "It's all up front in the office."

Changing the outlook

When Desco first started building its own cabinets, the goal was simply to avoid waiting on outsourced products or subcontractors. But soon the cabinet shop was doing work beyond what Desco's general contracting required. Before automation, that meant about 80 percent of the output was for Desco's needs and 20 percent was outside. The shop is currently producing only about 20 percent of its output for the GC and 80 percent is going outside.

Automating the cabinet shop has allowed the company to expand beyond its primary retail and commercial work into institutional projects such as schools and libraries.

"If we had not automated when we did," says Anderson, "we would not have had the ability to compete against guys doing that work. This has opened new doors that we hadn't played in." <



Colonial Saw, Striebig vertical panel saw 781.585.4364 www.csaw.com

Delmac Machinery Group, CNC router, boring and doweling machine 336.854.1211 www.delmac.com

Holz-Her, edgebander 704.587.3400 www.holzher.com

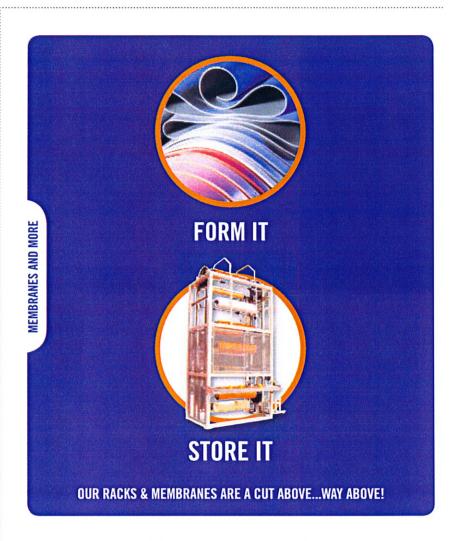
Jowat, Quick Set glue 336.434.9000 www.jowat.com

Stiles Machinery Inc., Schmalz panel lift 616.698.7500 www.stilesmachinery.com

J.C. Uhling, case clamp

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