## Mortensen Woodwork: In the Seat of Success

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Mortensen Woodwork utilizes high-tech production and handcraftsmanship for a winning combination.



Hospitality, corporate and judicial are the three top markets for Mortensen Woodwork. Pictured here is the lobby area of The Renaissance Marriott in Montgomery, AL

Mortensen Woodwork Inc. is a company of contrasts. In the approximately 130,000-square-foot facility, the Union City, GA-based architectural millwork firm provides a full-service operation, offering material procurement, design, machining, finishing, assembly and installation. A state-of-the-art operation, it uses just-in-time manufacturing to process the large number of jobs running through the plant at any one time.

Just a few miles away, Mortensen also pays homage to its roots as a furniture maker. In the 5,000-square-foot building once used by Fred Mortensen Sr., who established the company back in 1946, a small staff of craftsmen hand create the furniture and turnings used in conjunction with some of the larger architectural projects.

This combination of high-tech production and handcraftsmanship has proven to be very successful. According to Greg Kasten, company president, Mortensen Woodwork is on track to achieve \$22 million in sales for 2008. And although the outlook for 2009 is a little uncertain due to the economy, "We do feel we are positioned to sustain the downturn better than our competitors," Kasten says.

Much of that is due to the company's diversity. "We market to a number of different disciplines: religious, healthcare, corporate, judicial and hospitality," Kasten says. "We're open to any market. We're always able to switch gears and still maintain our high level of production and quality," he adds.

Because it is a turnkey operation, the company not only will build the doors, jambs, paneling and ceilings, but also the stairs, furniture and laminate casework, as well as solid surface fabrication.

Job sizes typically range from \$10,000 to \$10 million, with 95 percent of the company's business slated for the commercial sector, says CEO Fred Mortensen Jr. With the company's high reputation for quality and service, much of the business has been from repeat customers or by word-of-mouth.

Also helping to garner business is Mortensen Woodwork's sustainable woodworking initiative. According to Mortensen, the company was one of the early frontrunners in the green building movement.

"We are also an FSC-certified fabricator," says Kasten. He notes that the number of LEED certified projects awarded to the company has risen, "and is heading toward 50 percent."

In addition to its manufacturing efforts, the company works to educate others on the benefits of green manufacturing and has partnered with certifier Smartwood for a class to educate architects and designers.



Mortensen Woodwork specializes in architectural millwork for corporate offices, such as the one pictured above for the Colonial Bank headquarters in Montgomery, Al

## **Strength in Numbers**

Education is also very important to Mortensen Woodwork's estimated 200 employees, which includes installers. "We have continued to try to improve the employee base," says Mortensen. "We have high standards, which we recruit by, and we really try to educate our employees and push quality."

In addition to holding Kaizen events, the company conducts mandatory training seminars. "We do these every six to eight weeks," Kasten says. "The more educated each employee is, the better they are."

Attendance is mandatory and tests are conducted at the conclusion of each session. Topics for these sessions run the gamut, and may include blueprint reading, tool sharpening or veneering; the latter two topics would also fall within the company's cross-training efforts.

## **JIT Manufacturing**

Because Mortensen Woodwork is vertically integrated, it is able to produce almost 100 percent of its products in-house. "We outsourced a lot of our product for years, before we decided to do it here. It started when we began cross training employees in case it got slow, and led into them doing everything," Mortensen says.

The average turnaround for new jobs is four to six weeks, which includes pre-production, though Mortensen is quick to add, "We can turn some jobs [i.e., mouldings and cabinets] in a week."

"This place is built for speed," Kasten adds, referencing the company's cell and flow layouts and use of duplicate machines. The flow layout is utilized in the panel processing area while a cell layout is used in the solid wood/moulding, veneer processing and solid surface fabricating sectors. Future plans call for the building of an 80,000-square-foot addition, which would enable all of the company's production areas to be under one roof.

Still, Mortensen Woodwork continues to be one of the largest architectural woodworking firms in the Southeast. Integral to the company's success has been its continuous investment in technology. According to Mortensen, this past year alone the company purchased a variety of machinery including: a Star V-groover, Omga double-miter saw, Stiles/Ligmatech clamp, Black Bros. Panel Express roll laminator and SawStop equipment. Other recent machinery acquisitions include Delmac/Busellato five-axis and four-axis CNC machining centers, an additional Stiles/Homag single-sided edgebander and Biesse/Selco panel saws.



The Busellato five-axis CNC machining center has pods for horizontal and edge machining of panels

Veneer and solid wood constitute 80 percent of Mortensen Woodwork's projects. In the solid wood area, Mortensen Woodwork runs its own mouldings and other solid wood components using Weinig moulders in conjunction with a Northtech gang ripsaw and SCM sanders. A Weinig Rondamat grinder enables the company to grind its carbide and high-speed steel knives for the machines.

"A lot of companies say they do everything — but we do do everything," Kasten says.

That includes all veneer work. Mortensen uses Kuper stitchers, Josting single- and double-knife clippers and Casati machines to process the veneer, which is then pressed on an Italpresse hot oil shuttle press.

In the panel production area is a contingent of Selco panel saws, Busellato and SCM CNC machining centers, Homag edgebanders, and Ligmatech and Italpresse case clamps. Employees are crosstrained on all the machines, which helps eliminate downtime or bottlenecks in any one sector while improving the overall productivity. Each department is responsible for quality control, throughout the entire production process as well as in the finishing area.

Currently for the finishing process, the company uses HVLP guns in spray booths, though it has plans to add a Rhodes towcart line in the near future. "We've already switched from solvent to low VOC materials and are below the threshold [for permittable VOC levels]. We'll soon be switching to all waterborne," Mortensen said.

With just-in-time production, quick turnaround is important. Scheduling and tracking software, used in conjunction with bar coding, helps track the volume of jobs running through the plant at any one time.

"We bar code at the panel saw, through shipping," Kasten says. In addition to using Planit, Microvellum, EnRoute and 20-20/Pattern Systems CAD/CAM software, Mortensen also relies on a

proprietary ERP program to track the work-in-process, including operation time required, which provides valuable information when bidding on future projects.

Despite the economy, the future looks bright for Mortensen Woodwork. "We are at 60 percent capacity already for 2009," Kasten say. While there has been some competition from foreign manufacturers, Kasten says he does not see it as being a major threat to the company's business. "Where it is, is in the large hospitality projects, more so in the bedroom furniture," he says.