

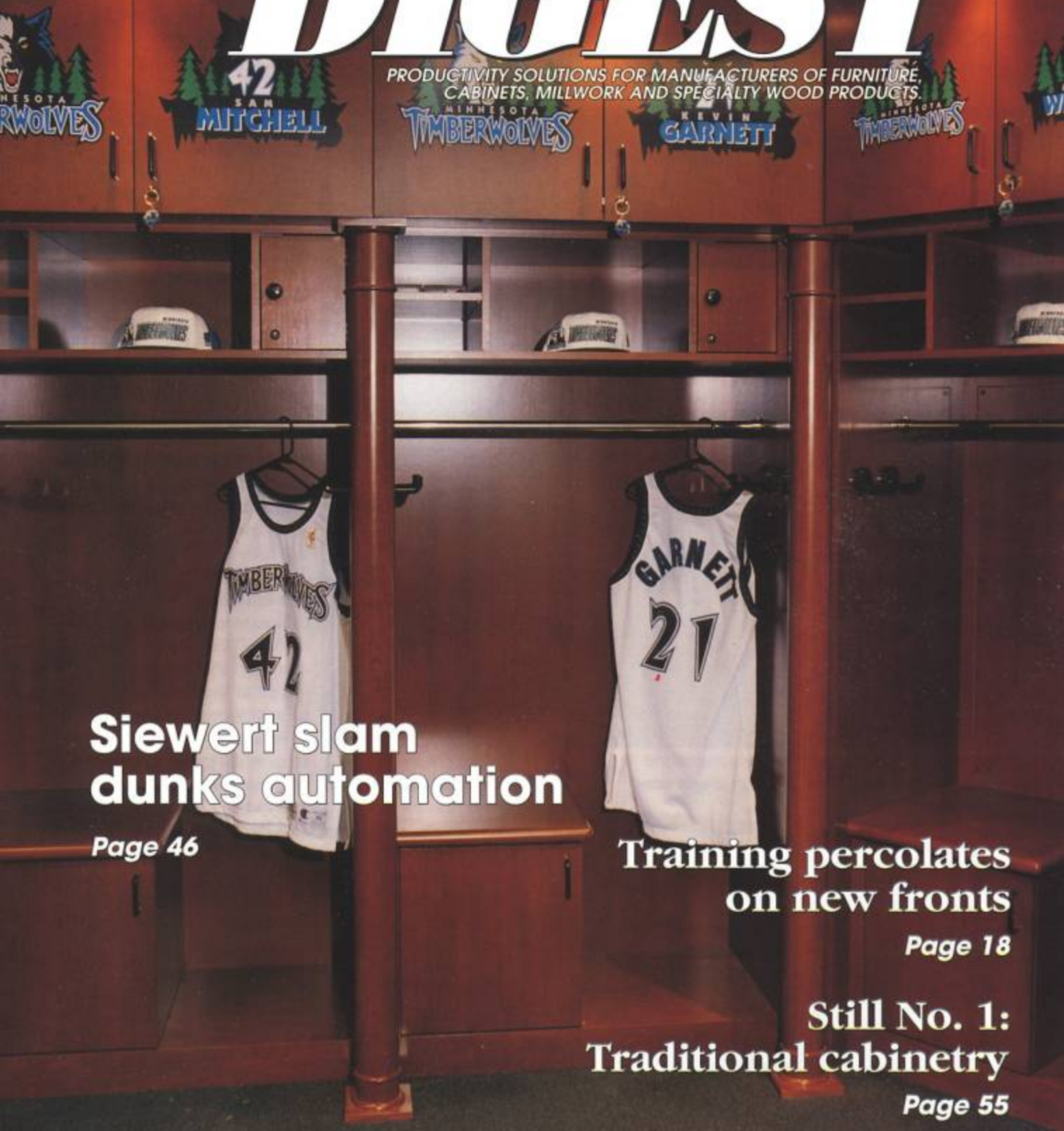
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# WOOD

# DIGEST

PRODUCTIVITY SOLUTIONS FOR MANUFACTURERS OF FURNITURE,  
CABINETS, MILLWORK AND SPECIALTY WOOD PRODUCTS.



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## Siewert is poised for future growth

*A leading-edge cabinet shop, Siewert is riding the growing wave of automation by investing in "Factory of the Future" manufacturing technology*

By Greg Udelhofen

When Wayne Siewert started building residential cabinets in his garage back in the early '60s, he probably never thought his business would evolve into the highly sophisticated commercial cabinet shop that defines Siewert Cabinet & Fixture Manufacturing today.

But that was then and this is now, and Siewert's son, Rick, is at the helm of a high-tech cabinet shop that is poised for a prosperous future.

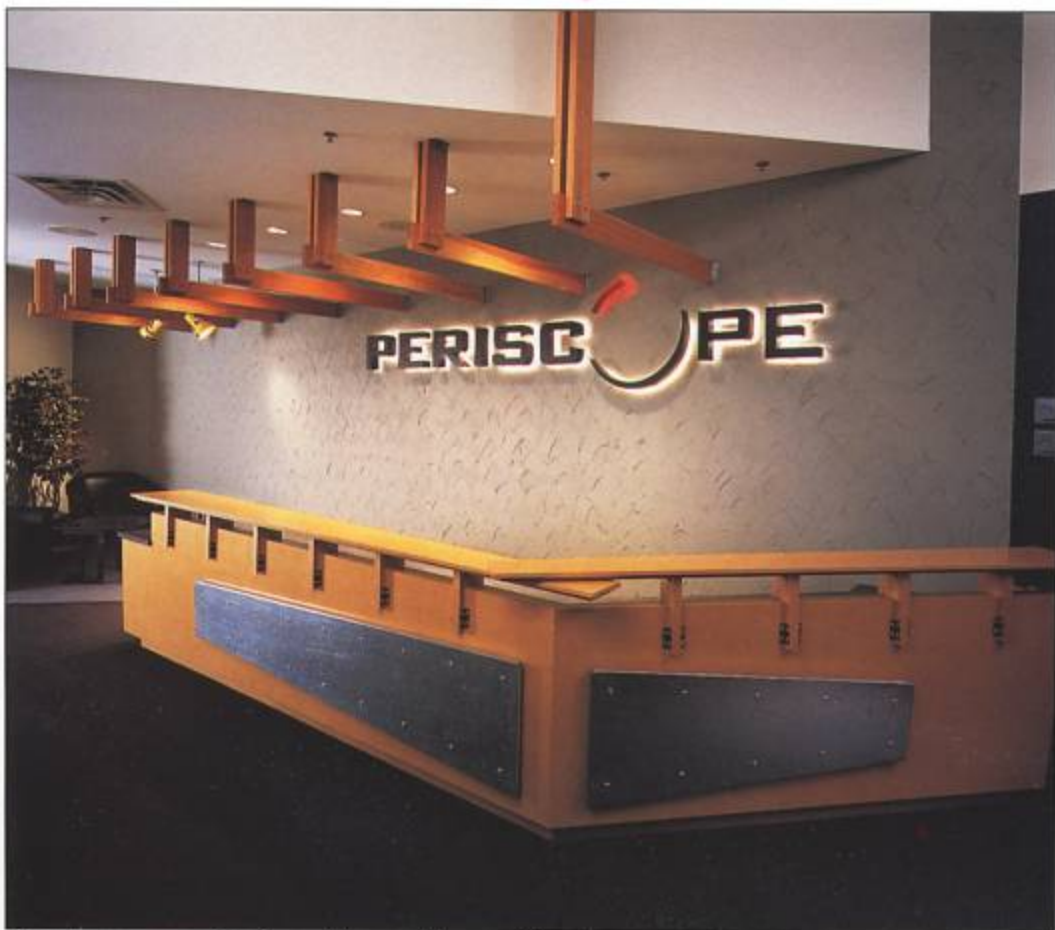
The senior Siewert didn't venture into the realm of commercial cabinetwork until the mid-'70s. By the late '70s, following the acquisition of a cabinet shop, Siewert turned its manufacturing attention to strictly commercial jobs.

Rick, who always worked in the shop while growing up, became

the impetus behind the company's accelerated growth after becoming a full-time associate in 1985. He held a variety of tasks, working in both the shop and the office — managing projects, estimating, fabricating projects and installing them. He moved the operation to a larger facility in 1989, continued to grow the business and eventually took over as president when his father decided to step away from the daily operations in 1995

### New facility

By 1996 Siewert realized he needed a larger facility, so he teamed up with another company to purchase land and build a 90,000-sq.-ft. building. Siewert Cabinet moved into its new location in early 1998. The company occupies



*It's not uncommon for Siewert to combine metal and wood to achieve the architectural design clients want.*

### SIEWERT CABINET & FIXTURE MANUFACTURING INC.

Location: Minneapolis, Minn.  
Established: 1965

Products: Store fixtures and other commercial  
cabinetry; architectural projects

Market: Primarily Upper Midwest

Capacity: 21,000-sq.-ft. shop, 9,000-sq.-ft. office

Associates: 26 full time (18 in the shop)

Sales: \$2.75 million



30,000 sq. ft. and has an additional 15,000 sq. ft. available for future expansion.

Siewert hoped to purchase the equipment he wanted at the time of the move, but that investment had to be postponed for six months in order to cover the financial obligations tied to the move. But that didn't dampen his desire to transform the shop into a high-tech operation.

"Through my involvement with the AWI (Architectural Woodwork Institute), I've had the opportunity to visit a lot of different shops and see how the type of work I was doing could be done," he says. "I also wanted to have the capability to do more in-

house and not have to sub out some of the projects we're fabricating."

One recent project is the locker room for the Minnesota Timberwolves NBA basketball team (see cover).

When Siewert spent \$100,000 on equipment six years ago, he thought he was making a quantum leap in the woodworking business. That was nothing compared to the more than \$300,000 investment he made in August when he decided to set up a "Factory of the Future" (see story on page 48) manufacturing cell. The three pieces of equipment that make up the cell include a Holzma panel saw, Brandt edgebander and

Weeke CNC machining center, all controlled from the front end by a modular software. The system was purchased from Stiles Machinery.

"It was actually easier to spend the \$300,000 than it

consistent quality," he says. "I want every piece we manufacture, no matter when we manufacture it, to be of the same high, consistent quality of what we manufactured before and after that project."

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***"It was actually easier to spend the \$300,000 than it was the \$100,000. I knew what I could do with that type of system, and I just decided that if we were going to take the next step in growing our business, we should do it right."***

*— Rick Siewert, owner of Siewert Cabinet & Fixture Manufacturing Inc.*

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was the \$100,000," Siewert says. "I knew what I could do with that type of system, and I just decided that if we were going to take the next step in growing our business, we should do it right."

Complementing the cell are a Jonsdorf JB 10/21 boring machine, a Ritter R46 line drilling machine and a Uhling HP 3000 case clamp.

The decision to make that kind of investment was not one based solely on a desire to grow. Siewert wanted to have more control over the quality of products he turned out, and he wanted that control in place before the job went from the front office to shop.

"My intent is not to replace my skilled cabinetmakers, but to ensure

One example of inconsistent quality the shop has been able to correct with its new manufacturing system is the way drawer slides are mounted to cabinets. Prior to installation of the CNC machining center, holes for the slides were manually located and drilled using a jig. The system was far from perfect, usually requiring some fine adjustments with a hammer to line up the slides. Now, with the modular software and the CNC machining center, holes for drawer slides, as well as other construction holes, can be drilled wherever the design calls for them, and they can be drilled in the same location each and every time the job is run.

The system also did wonders to improve the assembly quality of the projects Siewert produces.

*From conference tables to architectural millwork, Siewert prides itself on designing and fabricating custom orders.*







Siewert's Weeke CNC machining center allows an operator to load one part while another is being processed.

One particular project Siewert has been able to realize the benefits of the system is in the way he fabricates cash carts for the many Indian casinos he services. Each cart consists of seven drawers with individual locks and each drawer is separated by fixed dividers. Oh, and each drawer has to accommodate 300 to 400 lbs. of coins, requiring heavy-duty slide mechanisms.

The end panels for the carts require 200 different holes for construction and drawer slides. Before installing the manufacturing system, each panel took 20 minutes to machine. Now the panels take two minutes.

"Projects go through the shop faster when they're designed in the front office," Siewert says. "You enter the information once, and then it's always there no matter when you decide to manufacture the part. The parts fit and they fit

right. Projects go together much cleaner and much easier because of the preciseness we can achieve during the machining process."

### More capacity

Another benefit Siewert expects to see as a result of his "Factory of the Future" investment is the company's ability to expand and take on more business without adding more people. Siewert is currently running one shift and the manufacturing system is idle part of the time. If he gets the manufacturing cell up to full capacity during the day, he will then consider adding

a second shift.

"We now have a system in place that allows us to provide just-in-time manufacturing for our customers. We don't have a lot

in the shop, allowing associates in the shop to move wherever they're needed.

Even though Siewert's system has only been operating for six months, he's

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*"We now have a system in place that allows us to provide just-in-time manufacturing for our customers. We don't have a lot of finished product taking up space in our shop because there's no need to manufacture a project before the customer is ready to receive it."*

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— Rick Siewert

of finished product taking up space in our shop because there's no need to manufacture a project before the customer is ready to receive it," Siewert says.

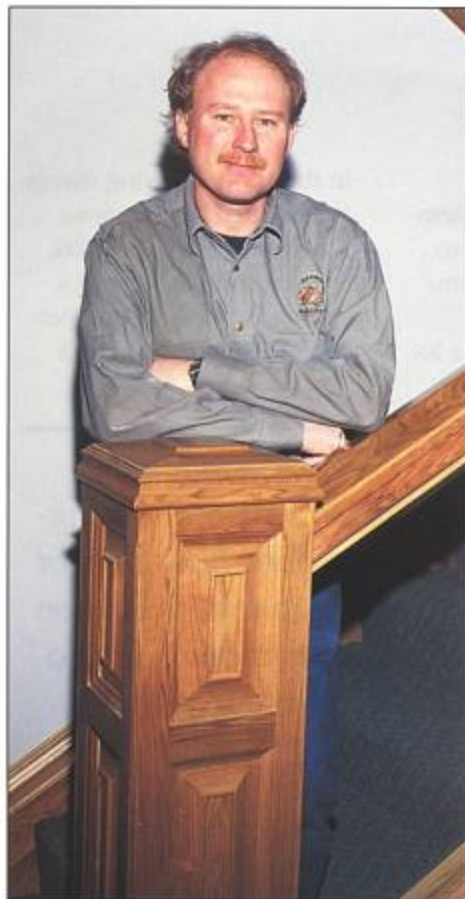
The system allows a shop like Siewert Cabinet to easily cross-train workers

already beginning to track some of the efficiencies it's delivering. Before the system was installed, \$300,000 to \$700,000 worth of work was sent out to subcontractors each year. That work can now be done at Siewert, increasing the company's bottom line.



Participants at Siewert's recent "Factory of the Future" seminar receive an overview of the manufacturing process.





"We arranged the (three pieces of) equipment in a small area, which naturally forces the product through the manufacturing process," Siewert says. "When you do that, you're more likely

business by 10 percent in order to justify the investment in the manufacturing cell. In 1998, Siewert's gross sales increased by 60 percent.

Looks like Siewert's investment

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***"I want every piece we manufacture, no matter when we manufacture it, to be of the same high, consistent quality of what we manufactured before and after that project."***

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— Rick Siewert

to assemble the parts as they come off of the machining operation. We no longer have stacks of different parts waiting to be assembled into cabinets."

From a pay-back perspective, Siewert was advised by his accountant that he would have to increase his

should pay for itself within a couple of years. When that happens don't be surprised to see the young cabinetmaker take the next step in positioning his business to be an even more competitive leader in the industry. **WD**

*Rick Siewert is convinced his investment in technology will generate opportunity and growth for his company.*



*Using a bar coding scanner, an operator quickly sets up the point-to-point portion of a job.*

## The "Factory of the Future"

At Siewert the manufacturing cell links the production processes into a seamless information stream starting at the design level. Parameters developed in the office are electronically transferred to the manufacturing floor and utilized to manage manufacturing. By controlling production through the use of bar code technology, Siewert can virtually eliminate setup time and error, and greatly increase flexibility. This allows Siewert to efficiently handle the demands for shorter turnaround time and smaller production runs.

As products are developed, information is generated, which is then downloaded to your Holzma panel saw through the use of Cut Rite Modular software. Cut Rite creates parts lists, optimizes output, and develops cutting patterns. This software also manages production parameters for a CNC-controlled edgebander and CNC machining center. This information is introduced directly, or via disk, to the sawing center.

As panels are cut, a bar code label is generated at the saw, which is applied to each part. The label contains instructions which manage processing at the edgebander and machining center.

By simply scanning the barcode, edge material is selected from the magazine and all application, scraping, trimming and buffing requirements are immediately set up and edge-processing begins.

Edgebanded parts are then transported to the machining center for all routing and boring operations, again instantaneously set up by scanning the bar code.

With the software, Siewert can set up machines, track jobs through your shop and control costs.