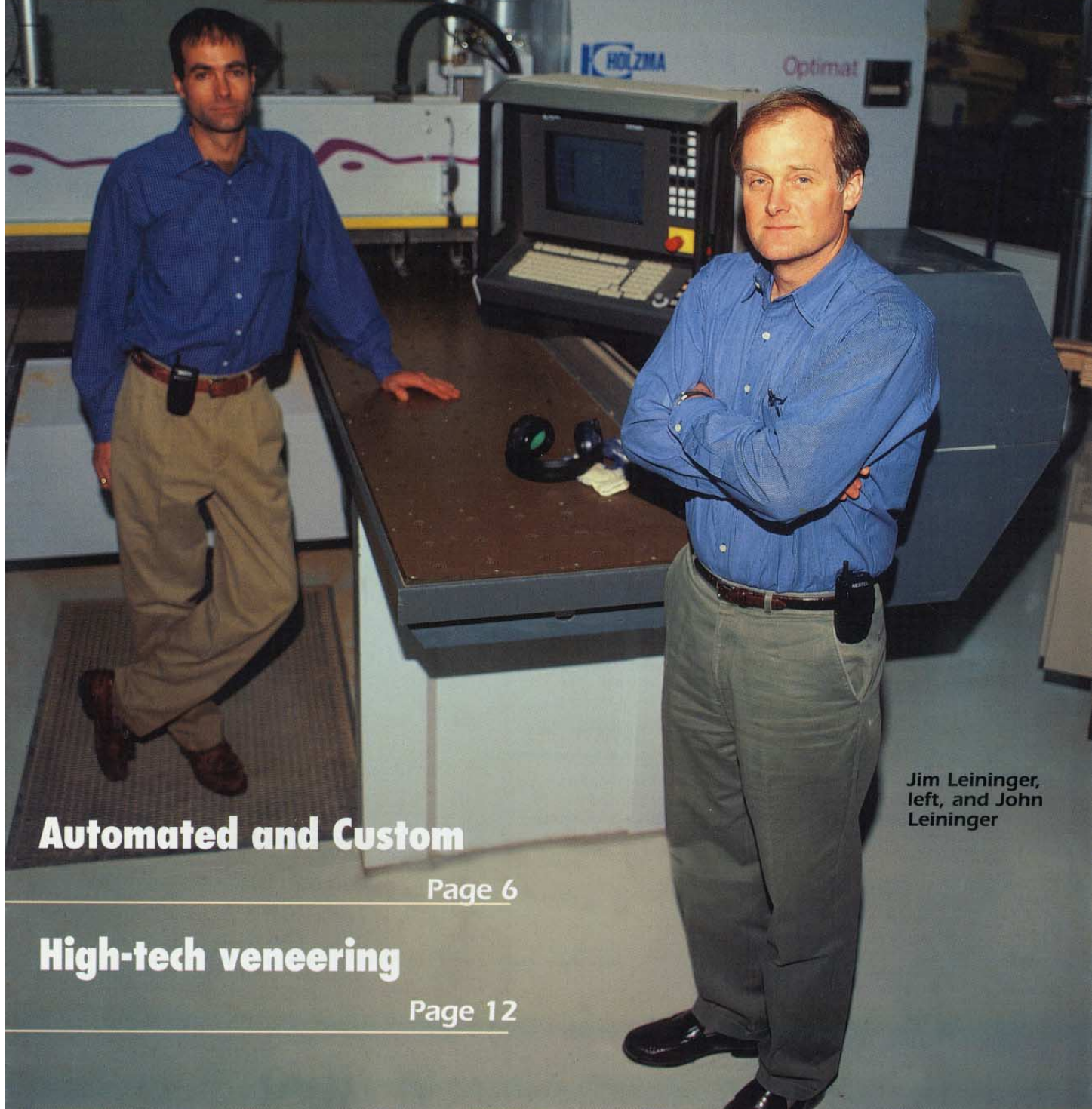


# Advanced Technology **SOLUTIONS**

AUTOMATED MANUFACTURING FOR WOOD-BASED PRODUCTS PRODUCERS



**Automated and Custom**

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**High-tech veneering**

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Jim Leining,  
left, and John  
Leining



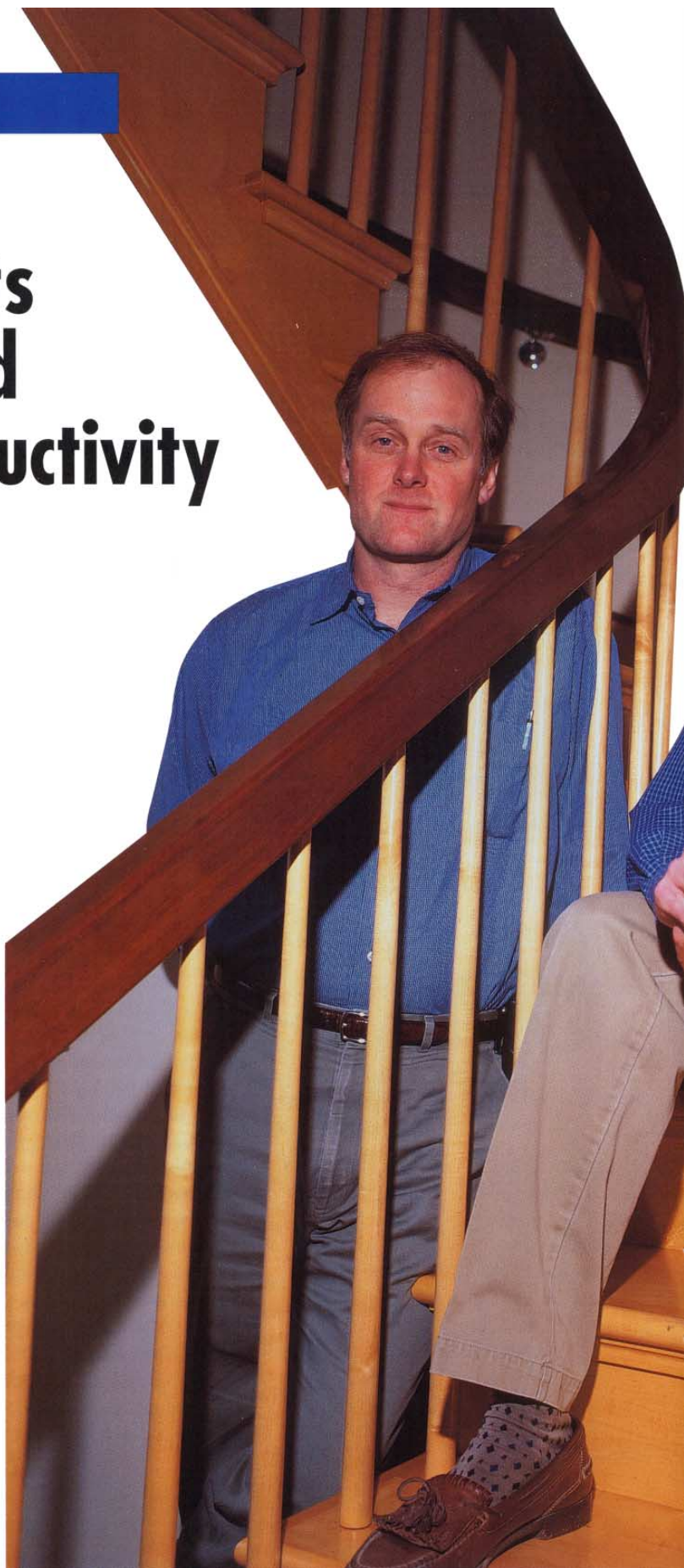
# Machinery investment cuts labor costs and increases productivity for custom architectural woodworking operation

Adding flexibility to their manufacturing operation through new CNC equipment has made a significant difference in the growth and direction of Leininger Cabinet & Woodworking, Inc.

"Now, we can produce a professionally-engineered product, to our customer's exact specifications, much faster and more cost-effectively than before," says John Leininger, president of the company, founded in 1952 by his father.

This tremendous boost in flexibility and productivity is largely due to the installation of a panel processing workcell in 1999. Leininger points to the productivity improvements that have resulted from the purchase of a new Holzma panel saw, Brandt edgebander and Weeke CNC machining center.

"We've reduced the labor time it takes to cut up panels by 40 percent since installing the Holzma. We've also reduced the time it takes to edgeband the panels by another 10 to 20 percent," Leininger says. "The machining work cell has also given us a lot more flexibility to move from different jobs and quantities with very little time lost in changeover."





## Then and now

The fact that the shop has evolved from basic woodworking tools and stationary equipment to CNC machines costing well over \$100,000 each, is testament to the fact that the Leiningers

(father Bob and sons John and Jim) recognized they needed to make investments to remain competitive. Bob studied

with Tage Frid at the RIT School of American Craftsmen with the intent of earning a living as a furniture maker. After starting his shop, Bob realized the company needed to establish a more standardized product line to generate operating capital. At that point the company expanded by building residential cabinetry.

Leininger grew steadily through the 1970s, gaining a strong reputation as residential woodworking experts. This allowed the Leiningers to invest in high-production equipment, which opened the doors to commercial work.

Today, more than 75 percent of the company's business comes from commercial customers such as banks, law offices, health care facilities, restaurants and other businesses.

## Good and quick

Regardless of whether the work involves laminated panels, hardwood veneers, or solid wood mouldings, the key to delivering projects involving short production runs and shorter lead times, while maintaining profitability, has been the company's integration of

## LEININGER CABINET & WOODWORKING INC.

AT A GLANCE:

**Established:** 1952

**Location:** Lexington, KY

**Products:** Architectural woodwork and casework, cabinets, desks, countertops, fixtures for both commercial and residential customers

**Market:** Primarily central Kentucky, along with surrounding states

**Manufacturing facility:** 30,000 sq. ft.

**Employees:** 20

**Projected 2001 sales:** \$1.5-\$2 million

**Owners:** John and Jim Leininger; founder: Bob Leininger

flexible, CNC machinery.

The main panel processing cell is equipped with a Holzma Optimat HPP-81 panel saw, a Brandt KD-97-C edgebander equipped with a return conveyor and a Weeke BP-12 Optimat point-to-point machining center.

Three operators, who have been cross-trained on all the equipment, process laminated components for case-work projects and assemble the boxes at adjacent dowel insertion and case clamp workstations. The Holzma saw also efficiently cuts hardwood veneer panels, giving the cabinetmakers working on custom projects more time to focus on details requiring their skills as woodworking artisans.

Other project components, like solid surface countertops, are fabricated at the shop before the order is shipped. They are then installed by a contractor who handles 90 percent of Leininger's work.

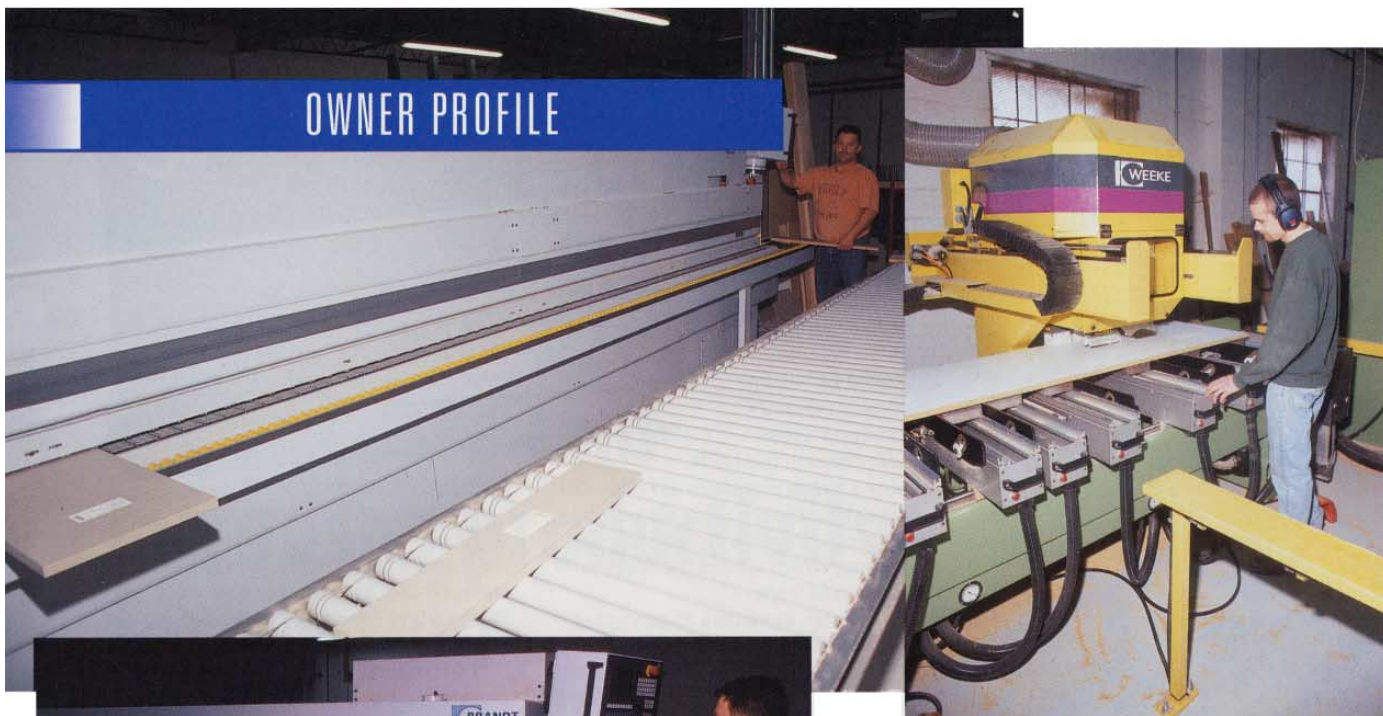
"We have a couple of in-house people,

*Leininger Cabinet & Woodworking produces high-end architectural woodwork and casework, like the elegant, contemporary altar shown here.*

John, left, and Jim Leininger



## OWNER PROFILE



*The main panel processing cell is equipped with a Holzma Optimat HPP-81 panel saw (below) and a Brandt KD-97-C edgebander (top and above) equipped with a Doucet return conveyor.*



*This Weeke BP-12 Optimat point-to-point machining center (above) is used for machining panels at Leininger Cabinet & Woodworking.*

but most of what we make is installed by a contractor we have worked with for years," Leininger says.

One of the hallmarks of the company's business is a wide-ranging clientele. This means that the type of work moving through the shop continually changes.

"The diversity of projects we fabricate as a custom production woodworking shop tends to attract skilled people," Leininger says.

With the addition of CNC machinery, Leininger has been able to make more effective use of the woodworking talent in his organization. Skilled craftsmen are free to focus on added-value details. This allows their work to stand apart from the competition. Other skilled associates write the programs needed to process orders with the automated equipment. With proper programming, any second-guessing in the shop is virtually eliminated, saving time, material and labor.

### Process improvements

While the panel processing workcell has been a monumental advancement over the way Leininger used to fabricate casework, he's not ready to slow down. He is looking to more effectively integrate his information management software and invest in a new case clamp.

Currently, casework orders designed with an AutoCad system are converted through Cabinetware software to generate a cut list for the panel saw operator. At the same time, CutRite software is used to generate an optimization program





*Among the many custom products produced by Leininger Cabinet & Woodworking is this commercial office setting.*

to maximize panel productivity. Production control bar-code labels, containing secondary machining information, are generated at the panel saw and applied to the parts before the components move to the edgebander. After components are edgebanded and machined on the Weeke point-to-point, they're ready for assembly.

### Capital investments

The company takes a very methodical approach to capital improvements. But, the Leiningers are not opposed to making substantial investments when they know it will be good for the business. In the past two years, they've invested \$1 million to expand their facility and buy equipment. The three pieces of machinery in their panel processing workcell

resulted in a much more productive environment at Leininger. As operators become accustomed to the cell manufacturing system, and are cross-trained on the equipment, more consistent quality work is produced.

"I always think we could do more with four people in that work cell, but as time goes on, the three guys we have there now are producing a lot of work," Leininger says. "We're definitely doing more work today with the same number of people."

Building on the talents of this family business is important to Leiningers. All family members involved in the operation, themselves, their father and two uncles who work in the shop, are quick to recognize the contributions all associates have made to the company's suc-

important to treat them well, and that includes investing in the equipment that will help them produce quality work," Leininger says.

### Better is the bottom line

As Leininger and his brother, Jim who crunches the numbers, continue to monitor output and track overall productivity, they both readily recognize how important the investment is to their company. And even without hard numbers, it's what helps maintain a competitive edge in a market that features a lot of talented woodworking firms.

"It's easy to demonstrate the difference in the work you do when you have the capability to professionally engineer a customer's project," Leininger says. "It (technology) makes it a lot easier to produce AWI (Architectural Woodwork Institute) premium grade work. We can achieve lower tolerances, and we can deliver a much better product to our customers. In a way, it sort of guarantees the quality of our work as long as we pay attention to the software that's running the equipment."

Addressing the big picture is the key.

"In this business you have to take a long-term look at the payoff of a piece of equipment," Leininger says. "Sure, we look at bottlenecks first and see how we can eliminate those bottlenecks in our operation. But we also look at how a particular investment will help us down the road, and what opportunities it may create for the company and the people working here."

**stiles**

**"We've reduced the labor time it takes to cut up panels by 40 percent since installing the Holzma. We've also reduced the time it takes to edgeband the panels by another 10 to 20 percent. The machining work cell has also given us a lot more flexibility to move from different jobs and quantities with very little time lost in changeover."**

— John Leininger, president of Leininger Cabinet & Woodworking Inc.

represent half of that investment. However, the panel saw has already paid for itself in labor savings and productivity improvements.

More space and better equipment has

cess. Providing good equipment and a good work environment is just as important as a decent wage and benefits.

"When you find good people, it's