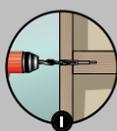
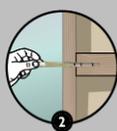


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PILOT HOLE



2  
ADD GLUE  
& INSERT



3  
TAP &  
FINISH

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Info #25

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Info #26

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Info #27

## The CNC Shop With Tom Morin

### Are you ready for CNC?



Woodworking magazines are full of ads for them.

Every company profile features them. The five-man shop down the block just got one. Surely it's time to buy a CNC. But are you really ready? Before you jump on the bandwagon, here is a quick primer.

As you know, CNC stands for computer numerical control. That is, computers (not humans) control the movement of these machines. This technology promises incredible advantages for manufacturers. Some of these include:

Fast, accurate, consistent production. Program your CNC machine to do a given task and it will do it again and again exactly the same way, no matter how complicated or what time of day.

Fast setup. CNC machines need fewer jigs and adjustments to run. In many ways a CNC machine sets itself up.

Lower labour costs. A CNC machine can be more productive per employee than its non-CNC counterpart. CNC machining centres can consolidate several machining steps into one, and can produce a product that is easier to assemble further down the line.

Flexible construction methods. Switch quickly from dowels to conformats to cam locks.

The potential to create more complicated products. Cut curves, angles and odd sizes almost as easily as standard ones. A CNC machine can drill for every track, bracket, lock and screw in one step, simplifying assembly.

Less waste. Coupled with an optimizer (software that crams the most parts onto the fewest sheets), waste can be planned and managed.

Can't wait to get one? Before you make that call, you need to consider what else the machine brings with it.

#### Expense

CNC machines cost a bundle, and must therefore be running most of the time to pay for themselves. On a five year lease with an operator and utilities, an entry level machining centre can easily cost \$6,000 a month

to run. The problem is that while the operator is standing in front of the machine programming, no parts are being processed.

Paradoxically, many shops get their highest paid employees to program the machine while it sits idle. The simple solution is to spend still more money on software that will do this programming in the office, so the machine can run uninterrupted. To gain this efficiency you should expect to pay an additional 20 per cent on software and training.

#### Changing work culture

The CNC shop is run from the office. All drawing, creation of cutting lists, optimization and program writing is done in the office. The level of planning and organization is forced to rise. As a result very few decisions are made on the shop floor

Generally, the CNC shop will have more office staff and fewer shop staff. The office staff must understand both computers and cabinetmaking. This is not a common combination. On the shop floor though, the CNC shop will have more unskilled assemblers and fewer skilled machine operators. Training is critical.

The successful CNC shop must see its machines as one part of an integrated system. That system will include lots of software and computers to feed information to these machines. CNC shop owners who are not comfortable with computers become alienated from their shop floor. They also become overwhelmed and frustrated with the dark side of computers: networks problems, viruses, backups, crashing hard drives, and so forth. You need a plan that anticipates these problems.

#### Learning curve ahead

CNC machines and their corresponding software take considerable time to learn, configure and test. However, the company that integrates CNC successfully will prosper. The problem is, these advantages don't arrive with the installation of the machine. They emerge only after a company has undergone a substantial cultural shift.

Tom Morin is owner of Morin Wood Manufacturing Inc. He can be contacted at tom@morinwood.ca.

## From the Centre With Steve Bader

### Begin with dispelling the myths



Well, the buzz is still here. After more than two months "on the job," the technician students here at the Woodworking Centre of Ontario are busy completing their studies and their projects as the fall semester approaches the home stretch. For some of them (approximately 40 or so) after Christmas means the time to start thinking about full-time positions within our industry.

It is common knowledge that a shortage of skilled workers exists in the woodworking industry, and we all know these individuals will in no way satisfy that demand. It's not even a drop in the bucket. So, how do we address this problem?

Well, a number of initiatives are underway or are being proposed by the Wood Manufacturing Council. One strategy involves you, the employer/supervisor/owner, getting involved with the promotion of our industry and recruiting young people in your area to it.

Many of today's youth believe the myth that being a woodworker means working in a loud, hazardous, dusty environment with archaic equipment. Thanks to

advances in technology, however, new equipment is quieter and safer than ever, dust collection has never been as efficient, and let's face it, almost everything today has a computer monitor attached to it.

The best way to dispel this myth, then, is to engage young people and open their eyes to our industry through classroom visits, open houses, or plant tours. Relay the message that the woodworking industry is a modern, vibrant, fast-paced, multi-billion dollar industry in Canada that blends the best of sophisticated technology with hands-on practicality.

Just as important too, from a personal standpoint, is the potential for a very comfortable livelihood. If more young people, and their parents too, were exposed to the numerous opportunities that come with being a woodworker, they could then be directed to one of the many excellent post-secondary education facilities throughout the country to further their training. As an educator, I can say that if you send them, we'll train them. They will then be ready to step into any number of the roles our industry so desperately needs to fill.

One of the biggest inhibitors to growth within the woodworking industry is the shortage of skilled men and women. Although there is an investment of time required by all of us to organize these "grassroots" strategies to attract young people, in the end wouldn't it be worth it?

Steve Bader is a technologist in the Woodworking Technology program in the Woodworking Centre of Ontario at Conestoga College in Kitchener.