

CoverStory



Entertainment to order — This entertainment center cabinetry was built to fit right in with the wood already in the room

Automating cost effectively

Buying a ShopBot CNC router and inexpensive software adds up to savings

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When one of Terry Cheney's employees lost the tip of his thumb in a shop accident and at the same time Cheney himself developed a serious health problem, it spurred him to

move to CNC machining. By automating, he hoped to cut his dependence on employees and run his Northside Cabinets Inc. in Victoria, Texas, with just his son and himself.

Besides downsizing the shop, Cheney saw CNC as a way to offer services and products that no one else in the area could do. There is another shop in his town with a CNC router, but that shop owner will only cut cabinets on his machine and nothing else. "We're able to do a lot of

Man and machine — The purchase of the ShopBot router helped reduce a shop of four to a shop of two and made it more profitable.

Shop Snapshot



Company name: Northside Cabinets Inc.
Location: Victoria, Tex.
Proprietor: Terry Cheney
Year founded: 1999, incorporated in 2004

Primary products: residential cabinets and doors

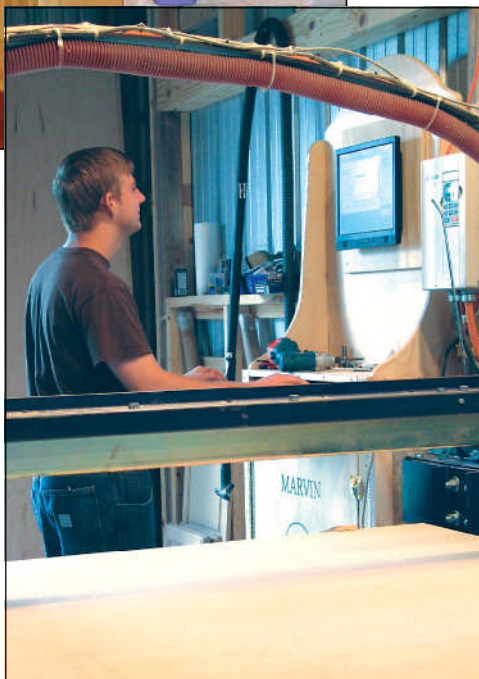
Annual sales: \$250,000

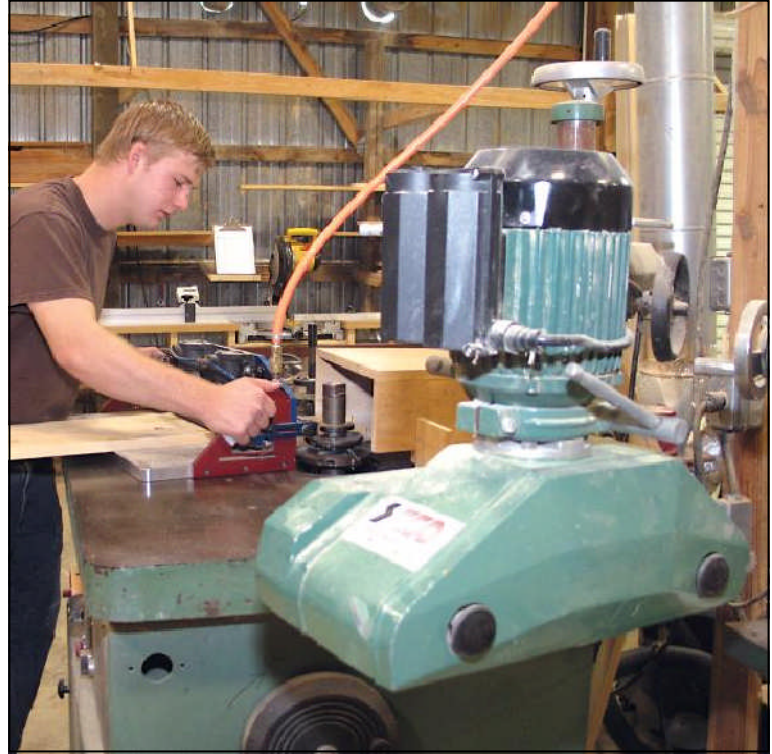
Number of employees: 2

Shop size: 2,000 sq. ft.

Key equipment:

- ▶ ShopBot CNC router
- ▶ DeWalt sliding compound miter saw
- ▶ RGA 9 hp shaper
- ▶ Seco 3 hp power feeder, shaper
- ▶ Grizzly shaper, power feeder
- ▶ Cabinetpartspro software





Dual purpose — When the shaper table is removed and an air-powered jig added, arched doors can be cut with limited equipment.

things for different people," says Cheney. "I have a niche here because I can do specialty items and such."

Entry-level choice

The injury cost Cheney both in shop time and cash. He knew he had to be budget-minded in his CNC choice, matching it to his finances and shop size. He felt that a smaller entry-level CNC router was the ideal way to go. He chose a ShopBot over another entry-level machine based on ShopBot's Web site. "If you ask a question on the Web site, you'll get an answer pretty quick," says Cheney. The machines are in the plants of a lot of major corporations as well, he adds.

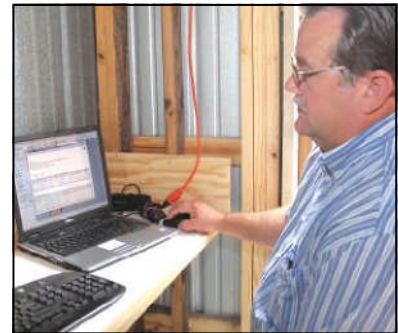
Cheney bought the CNC router without a vacuum table because that addition just wasn't in his budget. Cheney cuts all parts in two passes with a downward spiral cutting tool to adjust for the absence of vacuum hold down. "We make two cuts

because with the down spiral bit it packs the saw dust into the grooves and that holds pieces in place sufficiently so we don't get a lot of jiggle or a lot of movement that could result in a gouge in a piece," says Cheney. "The down spiral is really the key to our being able to successfully use this without putting a whole lot of screws on it to hold parts."

Cost-effective cabinets

Buying the router was intended to reduce the shop to a smaller operation needing less manpower. Though the router is used for many individual, unique pieces, it had to be able to cut cabinets. "The primary thing we do is build cabinets, so that's where this Cabinetpartspro program comes in," says Cheney. This inexpensive program provided an easy way to go from the drawings to cutting the parts out.

Going with a more expensive, more comprehensive software was



Winning combination

Using a combination of e-Cabinet Systems and Cabinetpartspro software helped owner Terry Cheney to get information from design to manufacturing inexpensively.

out of the question for Northside Cabinets Inc. It wasn't just the initial cost that was prohibitive, but the yearly support fees. But he found the basic operating software that came with the ShopBot wasn't designed for what Cheney wanted to do.

Cheney has been using e-Cabinet Systems software from Thermwood for drawing up his designs for years

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Expanding opportunities

The CNC router allowed Cheney Woodworks to cut these parts easily. It's assembled to become a fixture that holds interior doors on display.

and loves the free program. Once the drawings are finished in e-Cabinet Systems, Cheney exports the cutlists and information to an Excel spreadsheet. The Cabinetpartspro program converts the data into machining information.

Cheney likes the ease with which the program works, as well as the low cost. It took him about an hour to set up the library in the program. He can go in and delete parts he doesn't want nested or cut on the machine. He can set the starting position of the tool path and the direction to provide the best pattern to keep parts in place without a holddown option. "If I had a vacuum hold down I wouldn't even have to mess with that," he says.

Before Cheney found Cabinetpartspro he was spending more time laying parts out on the computer than

it would take him to cut them with the saws. "Cabinetpartspro made the ShopBot do what I finally wanted after 1-1/2 years for \$250."

Cheney says that although the software has limitations, to him they're insignificant. Cheney uses e-Cabinet to draw, present and sell jobs, to generate cutlists, door, drawer and face frame lists, while the Cabinetpartspro nests and cuts the cabinet box parts.

Doors, drawers and frames

Cheney had started his business building doors and only moved into cabinets when doors proved to be less profitable. But he didn't drop door making altogether. "After being a door shop, we have all the equipment, we know how to use it, we know how to build doors very profitably for ourselves, with the

cost of doors now," he says.

Both Cheney and his son are able to build everything on site and don't outsource anything. Machines in the shop are set up to do multiple tasks. An RGA 9 hp shaper serves double-duty with a Seco 3 hp power feeder. By removing a table the setup can accommodate arches.

Machines are also set up in groupings to make door production easier. Adjacent to the RGA shaper is a Grizzly shaper with power feeder and a Seco shaper. The shop also has a Mini Max T3 5 hp shaper with a sliding table.

Backs for the cabinets are cut on a Powermatic 66 table saw. Face frames are cut to size using a DeWalt miter saw.

Key to making the shop work was getting a system in place.

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Inexpensive solutions — *When Northside Cabinets needs equipment to process parts the answer is often to build it rather than buy it, like this homemade door clamp.*

Cheney gives credit to the ideas and theories of Ken Susnjara, president of Thermwood, for helping him streamline his shop and quicken the manufacturing process. "I would say that we build a cabinet in about a third of the time now than it used

to take us," says Cheney.

Saving money

Besides saving money in employee costs, Cheney says that there were other savings. "The amount of material we used went way down



Doors, doors, doors — The router will also allow the shop to do MDF doors and to create special designs in wood doors to suit anyone's taste.

without employees," he says. Instead of the material costs for the cabinets amounting to 45 percent of the total manufacturing costs, material costs were reduced to 35 percent of the total cabinet cost.

Although there was that savings, Cheney found the CNC required a big learning curve that cut into his current years' sales. "The thing that killed us was not being able to get right into cutting out parts for cabinets," says Cheney. "The money is in the cabinets and the profitability of that machine to me is cutting cabinet parts. Until we were able to use this machine to cut out parts, that machine was not profitable and was a drain on our resources."

But now that everything is all up to speed, Northside Cabinets Inc. is just making more money. "The amount that we're able to put in our pockets is better." □

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