



**Brad Carney (left) and Brian Echelbarger have seen their full-service CNC machine shop grow and expand through diversification.**

# Becoming Jacks of All Trades

*Hoosier shop grows as a result of perseverance, determination and diversification*

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“The key thing we’ve learned from being in business,” said Brad Carney, a founder and owner of Carney-Echelbarger Machining (C-E; Kokomo, IN), “is that the more that we diversify, the better off we are.”

Along with his mother and father, Carney in 2004 launched what was originally known as Carney Custom Machining (CCM) in a building behind his parents’ house in Sharpville, IN. The intervening years have been a bit of a

roller-coaster ride, but with perseverance, determination and diversification, the company now is on a gratifying upward swing. Carney expects that trajectory to continue.

While he's glad about that vertical trend, Carney is probably just as glad about a lateral trend his business has gone through. Before moving into its current 8400-ft<sup>2</sup> facility this past summer the company operated from the 1800-ft<sup>2</sup> building it started in.

"We started out with a Fadal 4020 VMC that we bought new," explained Carney. "We also bought a few pieces of used toolroom equipment: a Bridgeport, a Hardinge toolroom lathe, a new DoAll cutoff saw and a Harig surface grinder."

### An Episode of Moonlighting

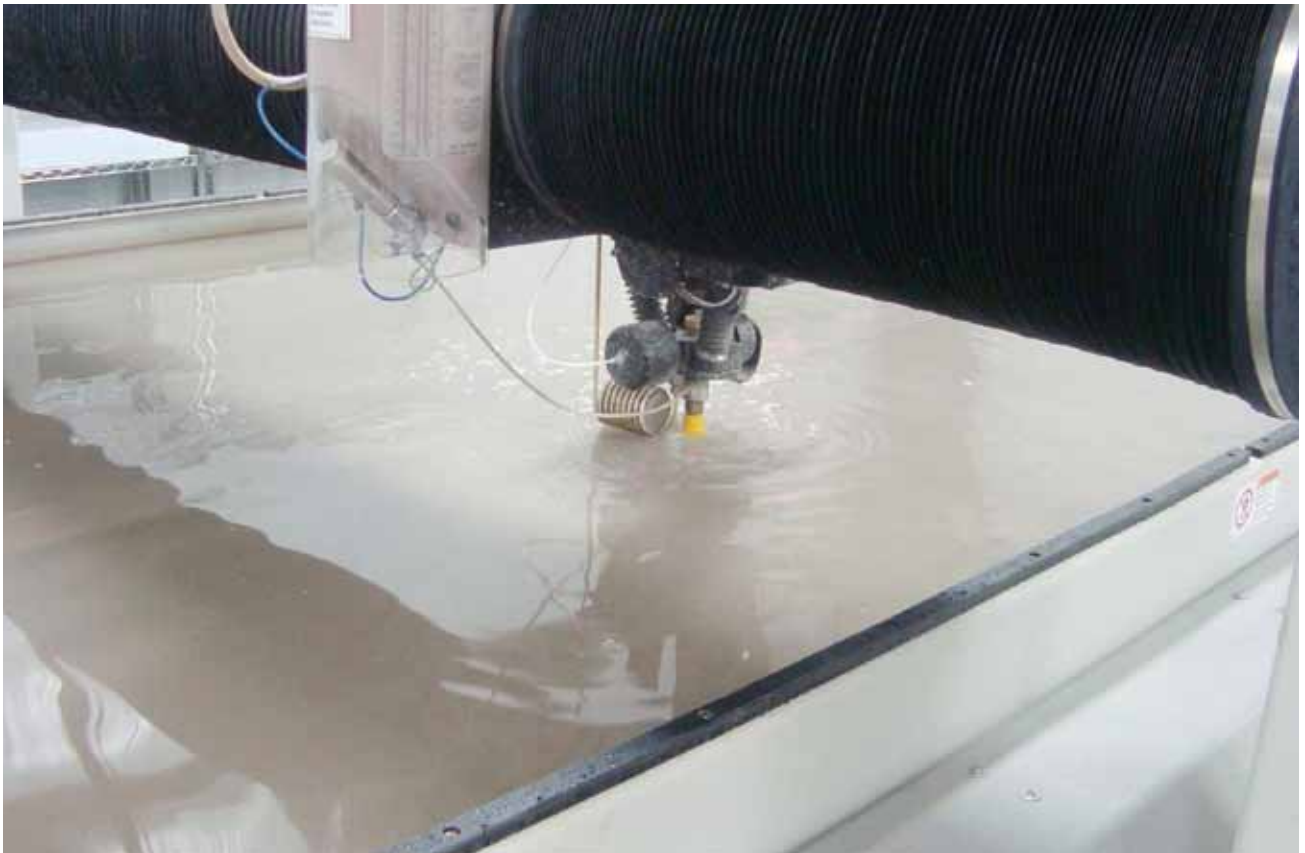
He and his parents launched the company as a sideline to their full-time jobs at a local auto supplier.

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"It was packed to the max," said Carney. "We were also using my parents' attached garage to store material. We also were using the driveway, but under-roof we had only 1800 ft<sup>2</sup>."

Within that space was an impressive arsenal of equipment for a startup operation.

"We had a lot of contacts in racing and we thought we would have enough work from that to keep us in business," said Carney. "That's what led us to go ahead and start the company. We were completely wrong in our assumption that the racing contacts were going to be a good way to keep the business growing. You can probably make a fortune in rac-



***A new Omax 80X Water Jet (shown) and a Mori Seiki Duravertikal 5100 Machining Center have been added to the shop's complement of equipment as a result of the expansion.***

ing, but it appears that they don't want to pay very much for machined parts."

Fortunately, they had kept their jobs at the auto supplier and had not bet everything on the roll of the entrepreneurial dice. Looking for other work, they came across another

gearbox parts, drive-based parts and some wheels, shafts and just various parts for high school teams. The company had done the design work on the parts and was selling them to numerous teams all over the country and eventually all over the world."

**"We had a decent baseline of work to go ahead and try to make it on our own, sink or swim."**

local company, AndyMark Inc. It was C-E's first step in diversification.

"[They] were involved in [supplying] high school robotics teams, and they were just starting out as well," said Carney. "I was friends with the two engineers that started that company. They also worked at the same supplier we did and they began to have us make parts for them. That was the biggest reason for us to start showing some growth early. We made

AndyMark became the Carney's first core customer. The shop still works for them today. Other work followed, but not quite enough for the Carneys to take the risk yet of leaving their employer.

### Impact of the Great Recession

By the time the Great Recession reached full force, however, that employer, like many suppliers in the domestic auto



*Cramped and crowded, C-E's original operation had only 1800 ft<sup>2</sup> under roof.*





***The new facility is more than four times as large as the original building and includes office space as well. The site is also large enough for future expansion.***

industry, was on the ropes. It eventually filed for reorganization in bankruptcy court.

“They were trying to reduce headcount pretty drastically, especially in the tooling area, where we worked,” said Carney. He took a buyout and his parents took retirement. They went

“After working for us a year and a half and showing a great deal of promise,” Carney said, “my mom and dad wanted to get away from owning the business, made an offer for Brian and me to buy out their portion of the business. Brian and I took it over on a 50-50 basis in 2011.”

**“We have a wide range of customers so we work with a wide range of material.”**

into the family business full time. “We had a decent baseline of work [in the shop] to go ahead and try to make it on our own, sink or swim.” (Ironically, a vestige of the Carneys’ former employer made it through the tough times and now is one of C-E’s core customers.)

#### **Enter Echelbarger**

Brian Echelbarger also worked at the auto supplier and took a buyout about the same time. Eventually he came to work for the Carneys.

By this time the company, now known as Carney-Echelbarger Machining, had added a lot of capability. The facility was now home to not just the equipment it started out with, but at least a dozen more machines, including a second Fadal VMC, a Star 32-mm Swiss lathe, an AmaraSeiki C&C lathe, two wire EDMs, two ram EDMs, three drill presses, a vertical cutoff saw and a vibratory tumbler and a wide variety of measuring equipment. It was also able to deal with a very broad range of materials, ranging from the relatively soft (plastics) to the very hard (titanium and other exotic metals).

“When things started coming in the door and especially when the economy got tougher,” said Carney, “we realized that we shouldn’t limit ourselves on anything, especially materials. It’s very rare when a customer comes to us with something that we haven’t already machined at some point and that we won’t machine. It was out of necessity more than anything. We have a wide range of customers so we work with a wide range of material. My mom and I and Brian all come from a model maker background, so we have a lot experience working with plastics and also in making molds.”

### A Full-Service Shop

Experience also allowed (and allows) C-E to be a full-service CNC machine shop. The company provides not just machining but also design, engineering, prototyping, inspection and assembly services. Fabrication is part of what they offer as well, including welding and CNC bending.

“A lot of the design and engineering comes from our previous employment,” Carney said. “I went to Purdue for mechani-

cal engineering. In addition, we’ve had on-the-job training on CAD/CAM for years and years now. Our top five people are very well versed in design and engineering as well as metallurgy. We had to learn as we went. It also helped that we worked hand in hand with a lot of engineers on a daily basis. We definitely do have a pretty wide range of skill sets with our core employees.”

### A Diversified Customer Base

The experience was bolstered by and helped attract a diversified core customer base. In addition to its original robotics and automotive customers, C-E has added an orthopedics company and a defense contractor to its list. It also makes parts for machine tools that Robert Bosch manufactures for use in a facility in South Carolina.

“The parts,” said Carney, “are for machines that are [Bosch’s] own design. We’ve made a lot of subassemblies such as for pick-and-place systems. The orthopedic side is mostly fixturing and test fixtures for the company to test its product that ends up inside somebody. The automotive stuff is mostly prototype machining of parts that will be cast when they go into production. The customer wants to see what the parts will look like and make sure that they’ll work before they send them out to be cast. The defense work is all over the place. Some of what we make goes to an end user and some is used to build up other products.”

**“The first four years were pretty easy. It was just me, my mom and my dad.”**

Until recently, all this activity based on diversification born of necessity took place in C-E’s compact, crowded birthplace.

“The first four years were pretty easy,” Carney said. “It was just me, my mom and my dad. It was not too big of a deal as far as being on top of each other. But once we started getting more and more busy and everything was running all the time it got really difficult. You really had to like who you were working with. I don’t think you could pass by someone without touching each other. But it made it nice for changing parts on multiple machines because you only had to take one step in any direction.”

### Time for a Change

“We felt we were at maximum output in the previous building,” said Carney. “We had enough work coming from

our current customers to see the need to expand and add more equipment to fill what we could see coming through the door. We were working 24 hours a day, seven days a week at the other facility. We still work 24 hours a day 6 days a week now. We've added three pieces of equipment—one

a facility larger than the 6000-ft<sup>2</sup> building they had first envisioned.

"Once we started laying everything out we thought we needed 6000 ft<sup>2</sup> of actually machining space," Carney said. They realized, however, that they would also need space

## "We felt we were at a point where we were going to start losing money if we didn't expand."

used, and a new Omax 80X Water Jet and Mori Seiki Duravertical 5100 Machining Center—since we've gotten [into the new building]. And we are on the brink of needing to add a couple more pieces.

"We felt we were at a point where we were going to start losing money if we didn't expand."

Carney admits that there was some trepidation over making the move, which was budgeted at \$700,000 to purchase land, erect the building and buy equipment. A \$170,000 loan at 2.5% interest from the city of Kokomo's Technology and Industry Revolving Loan Fund, along with private financing from Community First Bank of Indiana, helped make the project palatable.

C-E's plan to add 17 more jobs over the next five years was a key to tapping into the city's loan fund.

Debra Cook, Kokomo's director of development, told the *Kokomo Tribune* that the Industrial Revolving Loan Fund typically offers \$10,000 for every job created to cover funding gaps companies cannot obtain through private loans and other financial sources. C-E already has added five employees since making the move, bringing total employment to 11, which includes the two partners as well as Carney's father and wife.

### Bigger than Imagined

The prospect of continued growth in terms of both the number of employees and the volume of business also led the partners to construct

for offices and other nonmachining needs. "So, we added a two-story space in front of the building," he explained. "We only had to add a couple of feet to the height to accommodate that. The increase in cost did not turn out to be that much different.

"Brian and I bought land large enough to expand and we hope to. After the initial five-year period here our goal is to continue to grow. We believe our biggest opportunities are to diversify into areas that we are not in now." **ME**