

CINCINNATI FAB FAMILY

American Metal Fab family team - John Crowell, his son and daughters - uses 17 CINCINNATI machines to “covers all the bases” in keeping the Three Rivers, Michigan company a leading regional supplier of fabricated and stamped parts.

John Crowell has built American Metal Fab, Inc. on change, diversification and “covering all the bases” of customer needs.

Started in 1975 as a specialty fabricator of aluminum extrusions, the company has evolved and adapted over 29 years into a leading supplier of fabricated and stamped parts for a wide range of customers and industries in Michigan, Indiana and Illinois. “When extrusion didn’t go as well as we hoped, we diversified,” says the pragmatic Crowell, company founder and president. That openness to change has seen the Three Rivers, Michigan fabrication business grow to 100,000 sq. ft. of manufacturing space and 70 employees.



Diversification has been critical in American Metal Fab’s growth and stability, says Crowell, helping protect the company over the years from downturns in particular industries. Today the company produces parts and components for air conditioners, automotive (including trucks, RVs and aftermarket), electrical/electronic cabinets and chassis, office furniture, and medical equipment, to name just the key customer segments. Most customers are located within a 150-mile radius encompassing both Detroit and Chicago. The plant’s location, south of Kalamazoo, is centrally located for serving both metropolitan markets.

For the future, he sees broadening the customer base as vital to offsetting the flight of high volume business out of the country. However, international sourcing hasn’t been a total one-way street, he notes. Some parts and components that American Metal Fab produces today now ship to Mexico.

Crowell’s equipment selections have also been marked by a willingness to change and diversify production capabilities. American Metal Fab has been an early adopter of technology advances. “We are always looking to improve and upgrade to keep a competitive edge,” he says. “It’s important in our market

environment to have the latest technology.” Then his pragmatic side adds, “It’s also important to have good, reliable equipment.”

American Metal Fab found early in its growth that CINCINNATI Incorporated could meet both those requirements with advanced machine designs delivering high performance and reliability. Over the years it has purchased 17 CINCINNATI production machines -

three laser cutting systems, seven CNC press brakes, six OBS hydraulic stamping presses, and a CNC shear.

This equipment range, plus turret presses, allows American Metal Fab to “cover all the bases” in meeting customer needs, says Crowell. “We can take a part from development through volume production - create prototype parts on the lasers, then graduate to higher production once the part design is set. With the laser, you can make changes easily because you are not using hard tooling. You can develop a part and zero-in the process before you go to major production.”

American Metal Fab was one of the first businesses in its region to install a laser cutting system - a CINCINNATI CL-5 back in 1991. “We had a turret press, but the laser offered more versatility in terms of parts with angles, radiuses, and contours. I wanted to try something new and see how it would work. And, it has worked out rather well for us - that first laser is still a good reliable workhorse.”

From first in the region, American Metal Fab in 1996 became one of the first in North America to purchase a high-speed, linear-motor-drive laser - CINCINNATI’s breakthrough CL-707 laser cutting system with 10,000 in/min. head positioning. “That was



a leap of faith," says Crowell. "We took a team from American Metal Fab down to CINCINNATI for the unveiling demo. We were greatly impressed with the combination of speed and accuracy and decided on the spot to get one. The timing was perfect, because I was in the market for another laser anyway." In March, 2000, the company added a second CL-707.

"They're just very productive machines for us," says Crowell. "We focus mainly on light gage sheet, primarily 11 to 24 gauge. That's where the high speed lasers work best, where you get the most productive advantage."

The plant presently runs the two CL-707s two shifts a day and the older CL-5 one shift. The schedule can vary with workload, he said, noting that business levels are starting to pick up for American Metal Fab after the prolonged slowdown affecting all manufacturing.

He sees the lasers becoming even more valuable assets as the company deals with the industry-wide flight of high volume work to lower-cost, offshore producers. "Our goal is to focus on work that requires quicker delivery and smaller quantities than overseas sources can handle," says Crowell. "The lasers give us the speed and flexibility to grow our capabilities in those areas."

Shapes produced on the laser can go to either the CINCINNATI press brakes or OBS stamping presses when further processing is required.

The seven CNC press brakes - ranging from 60 ton/ 4 ft. bed to 135 ton/10 ft. bed - were selected for various kinds of jobs and sizes of parts. "They are very good machines, very reliable," says Crowell. "CNC lets us process lots of different parts with quick setup, important to our production flexibility." Two of the press brakes have six-axis CNC backgages, enabling fast processing of complex parts with multiple die setups.

An OBS stamping press was the company's first machine purchase from CINCINNATI. At the time, 1983, hydraulic presses were

somewhat uncommon, recalls Crowell. "Our perception was that they're safer than mechanicals. Also, the fact that you have full tonnage capacity throughout the whole stroke gives us a little more power and versatility." After the first 110-ton OBS press center, American Metal Fab ordered progressively larger models - a 175-ton in 1984, and 250-ton models in '92, '94, '97 and '98.



The versatile OBS presses allow blanking, forming, drawing, punching and crimping, all on the same machine. Virtually infinite stroke length adjustment allows optimization of speed and stroke length to perform everything from high-speed blanking to low-speed drawing. Fast response hydraulic valves and advanced electronic control enable high cycling speeds. Full tonnage is available throughout the entire stroke length, enabling a lower tonnage OBS to satisfy applications that typically require a larger press.

Overall, the CINCINNATI machines have been highly productive and reliable for American Metal Fab, he says, and the support system for the equipment has been outstanding - both from the factory and Braun Machinery, CINCINNATI's Michigan distributor. The decision to concentrate on one main equipment supplier gave American Metal Fab important commonality on spare parts and learning curve in maintaining and running the machines, stresses Crowell. "It's been a good relationship over the years," he says.