// by Mary McKenna, editorial content specialist, Gorman Pompili Communications //

HEARTBEAT OF THE SHOP

A customized pipe cutter helps a shop slice production time as well as labor costs

Cutting with precision and accuracy is an integral part of any metal fabrication enterprise – and for good reason. A clean, exact cut makes for more accurate welding and less time spent grinding and refitting. But, getting that quality cut is no easy task.

Even when fed by a skillful hand, it often takes time, considerable effort (especially with a batch of big pipe) and a lot of rehandling to meet customer specifications. Delivering on schedule and on budget, often with little margin for error, can be difficult.

In recent years, CNC pipe profilers have revolutionized the metal fabrication industry, allowing shops to get more from their metal and attain greater accuracies – and doing so in a fraction of the time it takes to do it manually. These approaches can be a real game changer, but depending on the scope and scale of the business (and infrastructure), they certainly aren't a one-size-fits-all solution.

For MMC Contractors, a national mechanical contractor, finding the tool that would meet the needs of their growing business seemed like a pipe dream until one manufacturer stepped in with a customized prototype that cut everything but profits.

Growing pains

Headquartered in Kansas City, Mo., MMC Contractors was established in 1932 when three brothers decided to start a plumbing business during the Great Depression. Almost a century later and the company is now a nationally ranked mechanical contractor specializing in complex projects of any size. Today, it services the healthcare, energy, mission critical, pharmaceutical, industrial and commercial markets, among others, across seven locations nationwide. The company's Omaha location features a newly added fabrication shop to make room for office expansion.

The Omaha team's focus is primarily pipe spool fabrication for a range of pre-construction, sheet metal, new construction and renovation ›

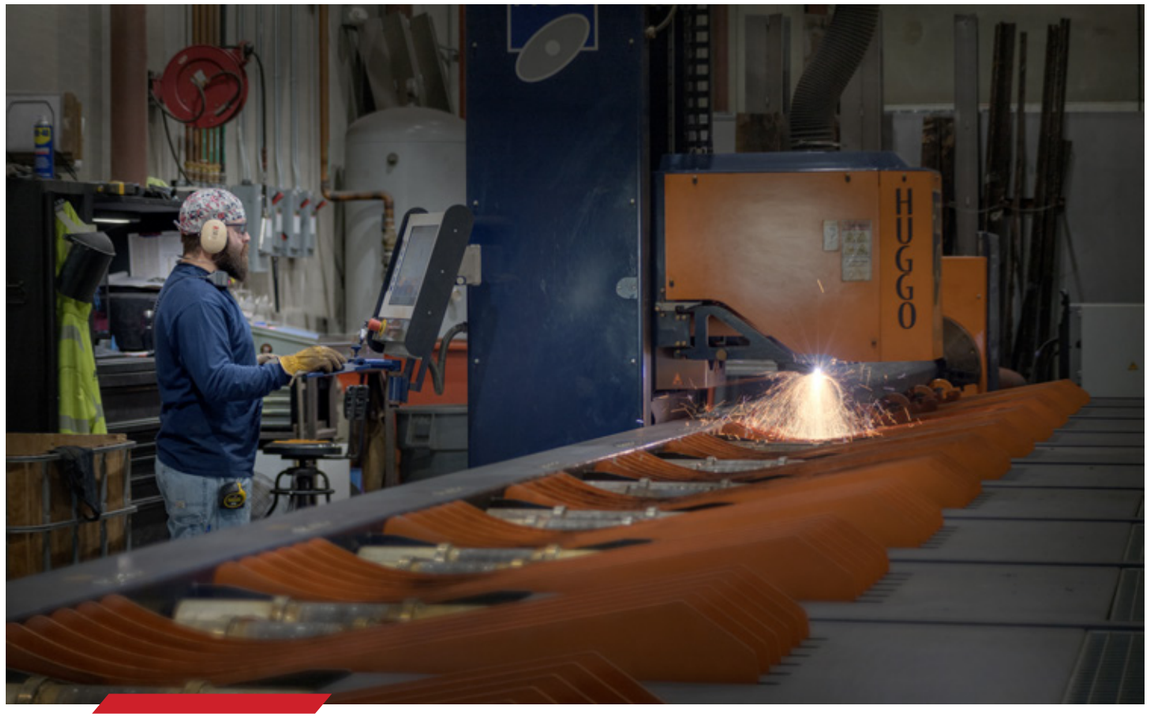
> "The quality of the cuts that have come off the machine have been phenomenal."
>
> *// Mark Janning, fabrication shop manager, MMC Contractors //*

applications within Nebraska and the surrounding areas. Partnering with customers to meet design and service needs from bid to closeout, at every stage of construction and beyond, is what they do best.

According to Mark Janning, fabrication shop manager at the Omaha facility, business has really spiked over the last decade, creating more work and the need for more skilled workers and faster turnarounds than ever before. What started as a small shop with some focus on fabrication has now grown into an entire building dedicated to fabrication for three different trades.

"We went from two steamfitters in the shop to as many as 26," Janning reports. "MMC also took on a sheet metal department during that time. Both departments were growing, and every year, we would fabricate more than the last."

Justin West, a steamfitter foreman at MMC, is seen here working with a CAD file.



The fully automated, customized ProCutter 900 RB from HGG has been described by the staff at MMC Contractors as a workhorse that can do almost anything.

With growth came growing pains and projects that surpassed the capabilities of the then 17,000 sq.-ft. shop. Janning and current pipe fabrication manager, Matt Townsend, say jobs were time and labor intensive with the smaller, more primitive entry-level machine they used at the start. Featuring a roller-type system with single-axis cutting capability, the machine wasn't built for speed or accuracy and often that meant rolling 42-ft. randoms that had to be manually set at bevels and angles and cut by hand.

Steamfitter foreman, Justin West, says this often resulted in a series of inconsistent cuts. "When we did these pieces by hand, we'd have about 2 ft. of ›

drop," he explained. "The cuts were not as precise."

Finding the right fit

These challenges, combined with the opportunity to move the fab shop in November 2020 and acquire 40,000 sq. ft. of new warehouse space, gave the team at MMC the ability to imagine a better way of doing business. Prompted to implement process improvements, they began looking at what it would take to expedite their workflow and upgrade their equipment.

"We wanted to automate our process," Janning explains. "The building next door was for sale. It was a pivotal moment. We needed a machine that fit the space, though."

Specifically, they needed a machine with an offload system that was oriented sideways. This would enable them to discharge pipe into the flow of the shop.

While the team at MMC was aware of a pipe profiling machine from HGG Profiling Equipment that promised much of what they were looking for in a plasma cutter, including durability and increased precision and accuracy, the stock model was simply too big for their space, and size wasn't the only concern. It didn't offer the side discharge they needed and would take precious time off the clock training operators to use it – or so they thought.

The team decided to meet with HGG to discuss options. According to West, HGG listened intently to their wish list of desired features and machine capabilities, undaunted by the need for a unique solution.

"When we discussed design, they came to our offices and asked, 'What do you need?'" Janning notes.

HGG offered to design and build a machine that fit their space – one›

Parts are designed in CAD and then easily transferred into the HGG machine. With the push of a button, the machine cuts everything at once.

What started as a small shop with some focus on fabrication has now grown into an entire building dedicated to fabrication for three different trades.

with a unique infeed and a side discharge – and in November 2020, MMC purchased and installed the fully automated, customized ProCutter 900 RB.

An incredible addition

The results were immediate, with nearly instant time savings. A recurring job involving 30-in. pipe that took two weeks to cut prior to installation of the new machine now is complete in only four days.

The configuration with the infeed feature turned out to be an “incredible addition,” changing the way pipe is brought into the shop, West says. The infeed bed with outside conveyor and side discharge bed on the pipe profiler inside the shop has streamlined the overall workflow.

Additionally, there is a lot less scrap. The software is programmed to drop about 0.5 in. between cuts. This, paired with the ability to optimize the pipe to ›

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