COMPANY PROFILE

FRYER MACHINE SYSTEMS, INC.

Manufacturing solutions

A "can do" attitude has stood Fryer Machine Systems in good stead since 1982, leading to continued growth as the company has turned its focus to built-to-order engineered machine tools that provide specialized solutions for industry.

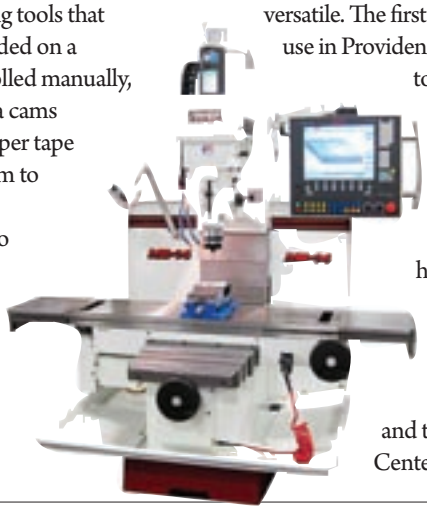
[PHOTO: LARRY FRYER ON THE FACTORY FLOOR]

Manufacturing Manager Eric Swart records test measurements on a Fryer ET-18 lathe, one of the machines in Fryer's Easy Turn Series of toolroom lathes.

Albert Einstein once said, "In the middle of a difficulty lies opportunity." The founding of Fryer Machine Systems, Inc. embodies this very idea: when things don't go as planned, find the workaround solution; look for the silver lining; don't just give up, because you never know where a detour might take you.

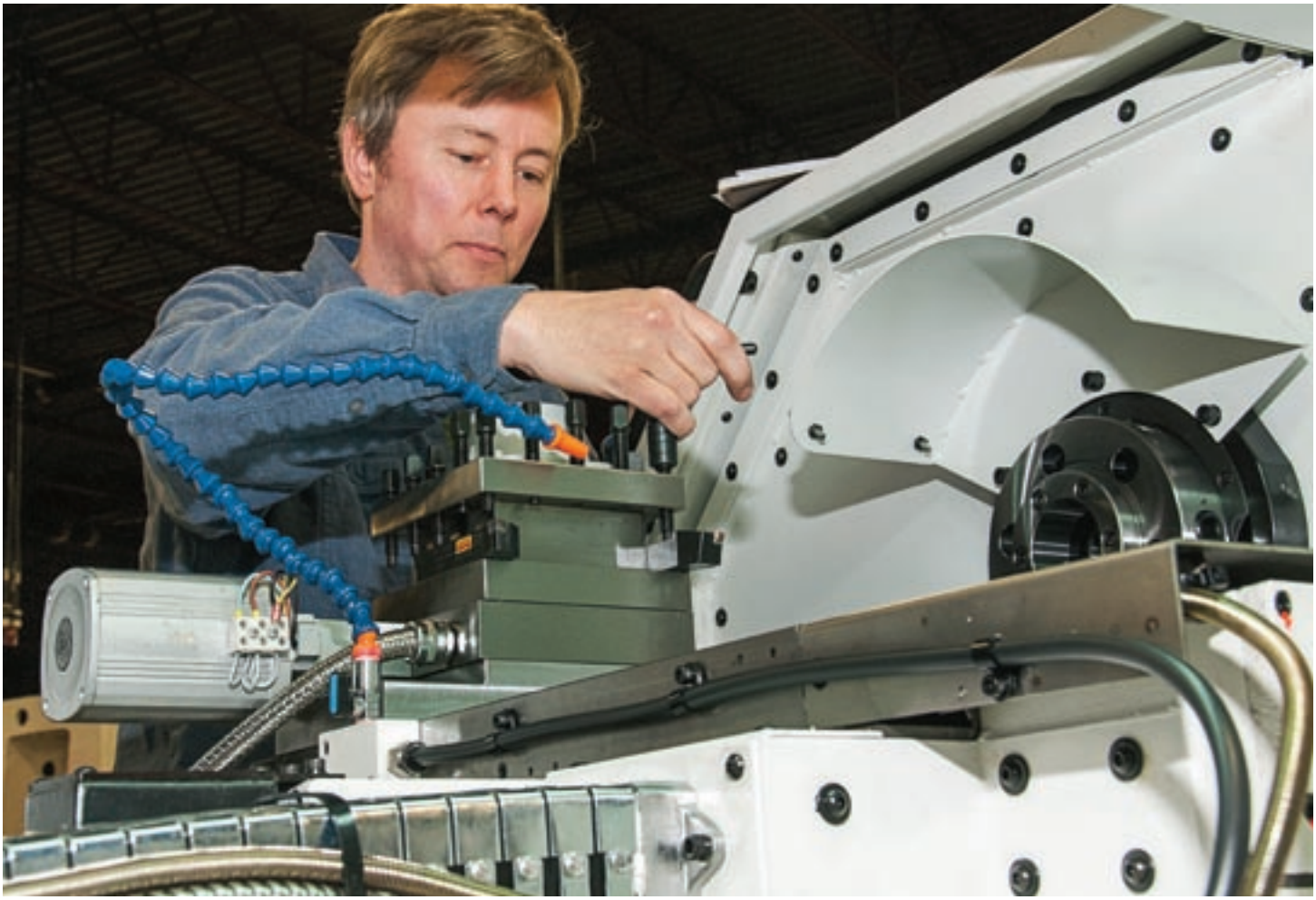
Back in the early 1980s, Larry Fryer was an engineer for a machine tool company based in Wisconsin. After being laid off in 1982, during an economic downturn, he decided to set up his own business and run it from the second bedroom of his East Chester apartment. His new company handled the servicing and updating of Computer Numerical Control machines. CNC machines are automated machining tools that are controlled with precisely programmed commands encoded on a computer. These differ from machining tools that are controlled manually, via hand wheels or levers, or are mechanically automated via cams alone. "Many of the machines at this time were still using paper tape to store the commands and we would go in and convert them to computers," explained Fryer.

The company grew and, after a couple of years, moved into machine tool distributorship as well. By 1988 it had distributorships in 11 states and 18 sub-dealers. By 1992, the expanding company moved into a 10,000 sq. ft. building in Patterson, NY and, two years later, was manufacturing a toolroom 3 axis bed mill, the MB14, under its own brand – Fryer Machine. Business was booming and soon, until a larger building was completed, they had to erect a 5,000 sq. ft. tent next to their facility to house additional operations. The MB14 was a hit and they were stacking orders like hotcakes, with 200 orders in the first year alone. What set this machine apart from others on the market were its bed mill—which made it sturdier—and its quill, or handle, that enabled the operator to work the machine manually when needed, making it more accurate and more versatile. The first MB14 machine Fryer manufactured is still in use in Providence, RI. Fryer said, "I have contacted the company to let them know that whenever they are ready to retire that machine there is a place for it here — I want it back."



The MB14— a toolroom 3 axis bed mill—was a hit when it was introduced in 1994 and Fryer was stacking orders like hotcakes, with 200 orders in the first year alone. The first MB14 machine manufactured is still in use. Pictured here is the most recent update.

There were growing pains during the mid 1990s. Keeping a workforce large enough to meet demand meant hiring people that had minimal skills and then training them on the job. Space was another issue, as the tent would attest to. But in 1998, Fryer Machine Systems received assistance from the Putnam County Economic Development Corp. and the Hudson Valley Technology Development Center to secure the resources and expertise



Fryer currently employs 56 people and considers them its greatest resource. It is the production workers, engineers and mechanics who rise to meet each challenge that have propelled this company to success.

necessary to build the 40,000 sq. ft. facility they currently occupy. At this point they were manufacturing CNC lathes with the first "conversational" touch controls, the Touch 2000 CNC control. By the turn of the century, Fryer's product line included 22 different machine tool models for tool room and production shops. They were selling machines both here in the US and internationally.

In 2001 that whirlwind came to a halt. As the events of September 11th, shook the world and the global economy struggled, Fryer Machine lost 60% of its sales almost overnight. "September 11 had a chilling effect on our sales. Not only did we stop receiving new orders, but many existing orders were canceled," said Fryer.

A company reinvents itself

When a business is growing very fast and the demand for its products is great, it is easy to overlook the areas that may not be as efficient or effective as they could be. The silver lining to these tough times in the early 2000s was the chance it gave Fryer Machine to take stock and reinvent itself. The SBA aided Fryer in securing a disaster loan to help keep the business afloat during this difficult time, but the company had to let two-thirds of its employees go, keeping only the best and brightest.

The company also needed to find a way to build higher-quality machines with less, and that is exactly what it did. Larry Fryer explains, "We came out of this time a stronger, more profitable, nimbler company." The result is that quality is now manifested in every machine Fryer makes and in its focus on providing solutions to customers' problems. When a customer needs a machine that can make parts in a certain way or with a specific material, Fryer's engineers will find a way to build that machine.

Over the last decade, Fryer Machine Systems has focused on built-to-order engineered machine tools that provide specialized solutions. Case in point: Raymond Corp., a forklift manufacturer in Syracuse, NY, came to them with a problem. The company was receiving numerous orders for forklifts, but could not produce them fast enough to meet demand. Raymond needed to manufacture rails for their forklifts that were 40 or more feet long. With their existing equipment, machining these rails required multiple steps. Fryer was able to engineer and manufacture a machine that would produce the rails more efficiently, by enabling the machine to move along the rail rather than requiring the rail to move through the machine. This solution increased Raymond's production capability from 40 forklifts a week to 70.

In another example, an engineer from Boeing came to Fryer with an elbow duct workpiece that required 9 different operations to produce. "He had an idea of a way to manufacture the part using far fewer steps, but everyone told him it wouldn't work. We said, let's give it a try. It didn't work, but we did find another solution that reduced the operations in manufacturing the elbow and Boeing now has the patent on it," said Fryer.

Opposite page: Eric adjusts cutting tool prior to testing; above: Builder Glen Conforti prepares to mount a power drawbar; below: Glen adjusts spindle belt tension on a Fryer MB-16, a toolroom bed mill with manual quill.

ATK, another aerospace manufacturer, came to Fryer for help in producing a machine that would cut through a super abrasive material without needing to have the tool bits constantly replaced. Fryer was able to come up with a CO2 laser that cuts along 5 axis to solve the problem. It is this formula of problem-solving that has worked well for Fryer Machine. Sometimes customers come to them looking for a solution; sometimes one of its sales people will hear a customer discussing a problem and ask the engineers, "Can't we do something that would fix this?"

This "can do" attitude propelled Fryer to further expand in 2007, adding 7,000 sq. ft. to the manufacturing and training facility. And this year, another 8,000 sq. ft., which will include a showroom, has been added. The product line now includes 5-axis machines and over 40 models and Fryer is the largest purchaser of Siemens controls in the US. While many items in the company's inventory come from global suppliers, there are also some products from local companies, such as Council of Industry member Hatfield Metal Fabrication, Inc.

Fryer currently employs 56 people and considers them its greatest resource. It is the production workers, engineers and mechanics who rise to meet each challenge that have propelled this company to success. Of course, finding workers that are able to be problem solvers as well as manufacturers is not easy. "That is one of the pluses to being a business here in the Hudson Valley; there is better access to a higher-skilled workforce than you would find in many other locations," Fryer explains. "Still, finding qualified, experienced machinists is next to impossible. We can find some engineers and welders, but they often are green and don't have the experience we would like. If they are the type that will rise to the challenge, we will work with them and they learn as they go." Fryer is excited about the Advanced Manufacturing Lab that just opened at SUNY Westchester and is hopeful this and other initiatives promoting STEM education and manufacturing will be beneficial for the workforce. Fryer himself has a degree in electrical engineering, but is a self-taught machinist.

"We have to use expertise and knowledge as our edge against the competition because there is a higher cost of doing business in New York," said Fryer, acknowledging that the Hudson Valley also presents some obstacles to manufacturers. Regardless of the added costs and challenges, however, Fryer Machine isn't going anywhere because, as far as Fryer is concerned, "The quality of life here is great … good schools, parks, and great views. It's the best place in the country to live."