

Machining

An Ontario job shop aims to help manufacturers from start to finish

A decade ago when the high tech bubble burst, the negative economic effects rippled from the epicenter in Ottawa to the edge of the Ottawa Valley and beyond. Mid-ripple sat ETM Industries Inc. Based in Renfrew, a rural Ontario town with a population of 8,000, ETM Industries specializes in tooling, design, precision machining and plastic injection moulding. Until the late nineties, a good portion of its metalwork and 70 per cent of its plastics were destined for telecom or aerospace firms in Ottawa and Montreal.

ETM not only weathered the economic storm of the March 2000 dot.com crash, but it weathered it well. And in the wake of the recent recession, ETM felt barely a blip. Canada's manufacturing sector has lost 235,000

The FTC-50 Feeler lathe.



ETM's shop. Twenty of ETM's 22 machining centres and lathes are Feelers.

from A to Z

By Brynna Leslie

jobs since October 2008 and jobs in the sector are at their lowest point in 35 years. Yet for the past ten years, ETM Industries has consistently employed 80 people, a mix of licensed machinists and tool makers, in its 80,000 sq ft facility, located 92 km northwest of Canada's capital.

"When you see their operation from top to bottom, you'll see that they can do just about anything when it comes to machining and turning," says Chris Chaput, a sales representative

with Ottawa-based Legere Industrial Supplies Ltd., a Feeler distributor. Earlier this year, Methods Machine Tools, Sudbury, MA, became the North American importer of Feeler machines.

"They've got the people to do it. And they've got all the equipment to do the work, to design it, to inspect it and to secure the process. As it's being done they don't make mistakes." Chaput should know. He's been selling machinery to ETM since the mid-eighties. Chaput was there a few

years after local tradesman Edward Legree launched ETM as a one-man, one-machine tool and die shop in 1977. He was there when ETM expanded to a six-person shop, including the current co-owner and president Jeff Campbell. And he was there when Campbell and the current vice president J.P. Leclerc, and John Robertson, who is now the general manager, jointly bought the company from Legree in 2008 with Campbell.

Today, ETM runs three distinct



The FTC-280 Feeler lathe.

operations in two, side-by-side facilities: plastic injection moulding; design and builds moulds tools and fixtures; and CNC precision machining. "It's almost like having three businesses, but they all intertwine," says John Robertson, general manager. ETM has pushed its product to the top of the value chain, making parts for aerospace, military, mining, nuclear, and telecom, with 80 per cent of its end product remaining in Canada.

"Ten years ago we weren't doing much value-added work,"

says Robertson. "It started with a little push from the telecom industry. Then aerospace really started pushing a lot of the responsibilities down the supply chain."

The tool room, where ETM got its modest start, is at the heart of the company's distinct advantage over the competition when it comes to value-added manufacturing. A couple of thousand square feet at the back of the main office building and shop, the tool and fixture room is designed for low-volume precision machining, made up of a handful of manual lathes, mills, drills and empty work stations for finishing tiny parts with sandpaper. Among these very simple machines is a five axis Wire EDM.

At ETM, what is designed and prototyped in the tool shop at the back of the main building is often mass produced in the machine shop, or sometimes re-prototyped in plastic and then mass produced in the dedicated injection moulding cell.

"We've become a one stop shop for our customers," said Robertson. "They can buy everything from us: the material, the casting, the machining, the injection moulding, silk screening, heat treating, plating. Everything we do is value-added."

ETM is certified to ISO9001-2000 and AS9100B certified for the international aerospace industry, as well as Control Goods Registered (CGR) for the military. "For this reason, we are very much into leading edge technology," Robertson said.

At the heart of ETM's manufacturing shop are a full range of precision machine tools, the majority of which are Feeler machines.

"At some point our supplier, Legere Industrial Supplies, saw something they liked in the Feeler

line of machining centres, and we did too," said Robertson. In fact, 20 of ETM's 22 machining centres and lathes are Feelers. "We like Feeler for its ability to hold tolerance, in addition to repeatability and reliability."

One of the favourites is the Feeler FV-800 APC. ETM has four of them. It has purchased every upgrade available, including high end Fanuc controls, the top of the line software and the best available spindle on the market.

"The oil spot spindles are the most expensive spindles available, which means fewer breakdowns over time," says Chaput. "This machine gives ETM tight tolerance and high



An injection mould tool open for repair.

“When you see their operation from top to bottom, you’ll see that they can do just about anything when it comes to machining and turning.”

Shop floor employee Marc Beauchamp beside the Feeler APC-FV-800 vertical machining centre.



accuracy parts over a long period of time, which is exactly what they need for their aerospace clients.”

The Feeler FTC 280 CNC turning centres with live tooling have also proven worthy precision machines. Again, current high level volume in the aerospace sector triggered ETM to purchase a third machine in June.

“Anyone in the business knows that every time you move a part manually, you lose a little bit,” said Chaput. “For ETM, doing the milling and turning in one machine improves accuracy, throughput and efficiency.”

For speed, ETM likes the Feeler QM-22. It’s another machine designed to do a high level of production of small parts. “It’s this type of machine that gives us a competitive edge,” says Robertson. The spindle speed is well above average at 12,000 rpm.

“If you don’t keep up with the latest and greatest, you fall behind,” says Robertson. “If my spindle speed runs at 5,000 rpm and the guy down



A close up view of the Feeler FTC-30 lathe.

ETM employee Tom Johnson checks the Feeler FV-1300 vertical machining centre.



the road is running at 12,000 rpm, he's going to be making a lot more product."

Of course, with its diverse clientele, ETM needs more than just small, fast precision machines. ETM machines can produce parts 62 in. in length and 48 in. in width. The Feeler FTC-50 and FTC-30 boast huge bores, suited for parts such as large diameter piping. The machines run 24 hours a day, seven days per week.

"Feeler has proven to be reliable, and that's important. If these machines are not running, we're not making money," Robertson quips.

Robertson boasts that ETM has two of almost every style of Feeler machine. "It's mitigation of risk because it means we will very likely always have a machine up and running when we need it for the customer. And of course, it gives our customers that warm and fuzzy feeling that keeps them coming back," says Robertson with a smile.

For a diversified company like ETM, Robertson says the Feeler machines' compatibilities with a variety of cutting tools is also unmatched. ETM purchases cutting tools through Legere from OSG and Iscar, considered the world's second-largest manufacturer of indexable carbides.

"We also make our own tools, fixtures, moulds and special cutters, so we often modify machines to suit our customers' needs and we can do that very easily with the Feeler machines," says Robertson.

The nature of ETM's business in high end precision manufacturing



ETM's 86,000 sq ft facility and its materials storage area.

means price is a key factor. "We are always purging and looking for the latest that Feeler has to offer," says Robertson. "They're innovative and they've got a good product mix, and we are also buying the service from Legere at the same time."

"ETM is making parts to a certain tolerance that Feeler can handle. I could try to sell them a \$250,000 machine that will last 20 years, but they don't need it for twenty years," explains Legere's Chris Chaput. "If it can run well for ten years and they can pay less, that's the best thing for them and Feeler does that." **CM**

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www.etmindustries.on.ca

www.legereindustrial.com (Eastern Canada distributor for Feeler)

www.methodsmachine.com (North American importer for Feeler)

