Bringing production home for more innovative control

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MTL Technologies' $6 million expansion investment in its facility and new fabricating equipment to bring outsourced work inhouse has helped the company become more competitive.

THE PROBLEM
Outsourcing production and prolonged turnaround times

THE SOLUTION
Building a facility and investing in state-of-the-art automation

If you ask Mark Bedard, president of MTL Technologies Inc. and MTL COOL, what it’s like to go from zero equipment to full production, he would tell you it has been a big learning curve, but the benefits have been extraordinary.

Based in Chambly, QC, MTL Technologies Inc. or MTL Cool as it’s known in the US, builds commercial refrigeration units and Point-of-Purchase (P.O.P) display solutions, of which 95 per cent are sold to large US supermarkets and brands such as Kroger, Meijer, Safeway, PepsiCo, Dannon, and General Mills, to name a few.

It’s a four-generation, family-run company that has been in business for more than 20 years. The letters MTL are the first initials of Bedard’s children’s names—Meredith, Thomas and Lindsay—and today, Bedard’s son and son-in-law are partners at the company.

“My father was a refrigeration contractor doing sales, service and installation. He would build special stuff commercial freeze dryers. I became a partner in the contracting company,” explains Bedard. “I got my first taste of building things, when I was asked to design a cooler for the yogurt industry that would hold an entire pallet of product. So in the store you would have a three-sided glass cooler that you could drive a half

Thomas Bedard, vice president of production, and one of the owners in MTL Technologies and MTL Cool in the US.
pallet into and customers could shop from the top. That’s how it kind of started.”

But when some US companies approached them asking for specific products, it had to start outsourcing to China to keep up with demand. At the time, MTL was working out of a 19,000 sq ft facility, building smaller units and developing prototypes, much of which needed to be subcontracted out for metalworking aspects.

That was about five years ago. “We were producing a lot of thermoelectric refrigeration units—about 20,000 a year, which we continue to do. We were sourcing the large commercial grab and go units through two manufacturers in China,” says Bedard. “Since then, we’ve established good relationships with the two factories, but there were just so many challenges with quality, delivery and regulations—CSA and all that fun stuff,” he adds.

In 2017, Bedard and his team decided to expand the MTL facility to 52,000 sq ft and start manufacturing its products in Canada.

MTL invested $6 million in its semi-automated and automated facility and unveiled it in September 2017. It purchased LVD’s Strippit PX 1530 punch press with a compact tower and the LVD ToolCell, an automated bending cell. through LVD Strippit's distributor Elliott Matsuura Canada.

The PX 1530 is a fully automated punching, forming, tapping and bending machine with a 360° tool rotation. It holds up to 200 tools and can use any tool at any angle of the material being used.

“We did some research before we launched into this expansion. We wanted high end equipment that was state-of-the-art. We went with LVD because we wanted a total solution that didn’t require 14 operators with 30 years of experience,” says Bedard. “Right now we have one operator operating the two machines and making parts for our assembly line. He is able to keep up with the pace, which is something we would normally have subcontracted out before.”

The LVD ToolCell is an automated bending cell that features an automated tool changing system that stores a library of top and bottom tooling. All tools are held within the machine and automatically changed as the job requires, significantly minimizing tool changeover time for better bending productivity.

The LVD Strippit PX 1530 punch press is equipped with a compact material handling tower. The punch press punches, forms, taps and bends products with a 360° tool rotation.
And everything is programmed in-house. The engineers in the front office build the software programs and the operator sets up and runs the punching and bending machines with minimal interaction.

“The compact tower is an option that works with the PX 1530. It’s 20 ft high and stores all the sheet metal,” explains Bedard. “If the program is for small electrical boxes, the PX 1530 will pick the appropriate material needed for that part. Once it’s finished it will move on to another program and choose another sheet of material. It also stores the finished products. It’s so automated; we can send programs to it and just let it run. It will just keep working all night and all weekend.”

The press brake Toolcell, though, does require a physical operator. It stores a library of top and bottom tooling housed within the machine, that’s easily changed through a graphical user interface. The operator basically just needs to place the material in the machine and its angle monitoring laser and correction technology ensures the part is bent to the correct specifications.

Bedard notes that the LVD machines allow the company the ability to make a more complete part, which takes the guess work out for employees on the assembly line, as the holes are pre-tapped and pre-drilled, which decreases the amount of manual manipulation that would normally be needed.

Currently MTL is building prototypes of new modern designs and sending them out to clients in the US. Bedard says that while they’re still working parallel with the overseas factories, MTL is not replicating those units, but rather expanding its new product line at the Chambly facility. “Our new products are also all hydrocarbon based, an environmentally friendly refrigerant. We’re trying to get ahead of the curve on that technology.”

And MTL also does custom designs for clients, such as an open cooler with side racks for dry products. For a company like Kraft, for example, that has Oscar Mayer hotdogs; the side racks can hold buns and condiments, making it a one-stop shop. And with MTL’s new metalworking technology, those racks can now be made in-house.

What is most notable for Bedard is the quick turnaround when it comes to modifications or design changes. “Right now, if we want to make a change to one of our refrigerated cabinets, boom… within a day we’re making new parts that are modified, rather than drawing it, sending it out and waiting to get a price,” he says. “The time we save and the way we can quickly improve our product is enormous.”

Indeed, what use to take three weeks can now be accomplished in less than 24 hours.

The facility will be fully operational by this spring, but plans for more growth are already on the horizon – MTL will be adding 15 more employees to its assembly line and it’s considering manufacturing its own insulated glass on-site.

And if this fresh Canadian business keeps moving at the pace it is, Bedard says MTL will just have to expand again. SMT

MTL is building prototypes of its products for clients in the US.