

Safe Maker

Quebec safe manufacturer becomes a custom job shop

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THE PROBLEM

Expanding production capability

THE SOLUTION

A machine that cuts, punches and bends in one process

Much of today's manufacturing is based on outsourcing jobs to specialist firms. You get your metal cut and bent there and then you may assemble it in house before sending it to a coating or plating company. Bringing the work in house however can lead to profit and opportunity.

Case in point, Groupe Ultra started in 1976 when Jean Charest started making safes in the west end of Montreal under the company Ultratrix (Industry) Ltd. It was a small, 93 sq m (1,000 sq ft) shop that designed the safes but, "the welding, cutting and assembling was all done by an outside shop," says his son, Sébastien Charest, president and owner of Groupe Ultra. "My father did not want to go into



Groupe Ultra president and owner Sébastien Charest convinced father and company founder Jean that to grow they'd need to expand operations and purchase new equipment.



The TRUMPF TruMatic 7000 punch laser combination machine is a recent addition to the company's cutting and bending operations. Sébastien Charest says it gives Groupe Ultra a competitive edge.





Groupe Ultra purchased a larger facility in 2005 as part of a long term plan for growth, which included purchasing new fabricating equipment.

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Attending local CEGEPS for mechanical engineering and administration, he worked for his father and tried convincing him to get into the manufacturing side of the business. “He didn’t want to, but when the Chinese came into the market I convinced my father to start to build our own safes.” They started to buy their own equipment—initially it was just welding equipment and they sent out the metal cutting and bending to outside firms. “We had a building of 6,000 sq ft and were assembling the safes in our office.”

THE EQUIPMENT

The TRUMPF TruMatic 7000 punch laser combo is the latest addition in Groupe Ultra’s fabrication shop. Purchased last year, the high end combination machine will help the company create parts that none of their competitors will be able to match, according to owner and president Sébastien Charest. The machine features a 4 kW laser that can process an 8 mm (5/16 in.) sheet of metal. Able to hold 22 tools, the machine’s punching head has a maximum stroke rate of 1,200 1/min in the medium format (1,000 1/min in large format). The ability to make holes, countersink and tap the holes is what is most impressive for Charest. He says he was able to reassign two workers from the manual tapping station to other parts of his growing company because of this feature. “We break a lot less taps than with the manual method.” The Sheet Master automatic feeding system also means the company can let the machine work independently without too much worker input.



TRANSITIONING FOR GROWTH

Being young and ambitious, the now 42-year old told his dad that if they wanted to grow they’d have to move to a new facility and take on more manufacturing. “He said, you proved to me that everything that you are doing is working—go ahead and buy a new building,” recalls Charest. They purchased the new facility, a 3,345 sq m (36,000 sq ft) operation situated on the West Isle of Montreal in 2005. “I thought we were giving a lot of money out to outside job shops for laser cutting and bending. Why not buy the machines and do it ourselves?”

But buying a laser came with problems. The first laser did not work as well as expected, in terms of cutting speed and the cost of ownership, and running the laser cutter proved to be burdensome for the small company. “With the potential of the machines I was not able to pay for the machines with only our product,” says Charest. “So I decided to create a new company called Laser Cut Ultra and take



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outside jobs. And since that time, the company has grown by taking outside jobs.”

In 2007 it reformed itself into Groupe Ultra—a company of four complementing businesses. Ultranix still builds safes sold throughout North America. Coup Laser Ultra (Laser Cut Ultra) laser cuts and bends materials for customers as well as boasting a powder coating room. Square Pro Max is the welding shop that provides TIG and MIG welding while Ultra Vac is a pneumatic conveyor system company. The safes are made with hot rolled steel, but the company also works with aluminium and stainless steel. The company cut metals up to 25.4 mm (1 in.) thick. Group Ultra serves the aerospace industry, as well as furniture and train companies.

LASER EVOLUTION

The laser cutting operation recently underwent a change with the introduction of a punch laser combination machine, which Charest says gives Groupe Laser Ultra and parent Groupe Ultra a competitive advantage. The decision to buy the new machine was a logical step in the evolution of the company, says Charest.

“With the combination, we can do parts that no one else can do,” said Charest. This new machine can cut, punch and bend in one process. There is no need to move the parts to other machines for secondary and tertiary processes. The biggest savings is in the tapping. “We can tap the hole right away. We can countersink on the machine and even some small bending as well,” he says. “We saved work from two guys

The TRUMPF TruMatic 7000 punch laser combination machine features a 4 kW laser that can process an 8 mm (5/16 in.) sheet of metal.



on the floor because we can do all the tapping on the machine. They work in a different area now. They used to do just tapping. It is more precise as well, we break a lot less taps than with the manual method. It expanded our production and the quality is much higher.” Another benefit to this machine is the Sheet Master automatic loader. “We can load up the sheets and it will run by itself. It is fully independent,” said Charest.

In addition to the punch laser combination machine, the shop houses two dedicated laser cutters, a 1.5 by 3 m (5 by 10 ft) TruMatic 3050 6,000 W machine, a 1.8 x 4.3 m (6 by 14 ft) TruMatic 3040 4000W machine, and the new 1.2 x 2.4 m (4 by 8 ft) TruMatic 7000 punch laser combo equipped with Sheet Master. All the lasers are CO2 units. On the bending side there is a 4,000 mm (157 in.) TruBend 5320, a 4,000 mm (157 in.) TruBend 3180 and a 1.016 mm (40 in.) TruBend 7000. The company runs 20 hours a day, five days a week with half or full shift on a Saturday as needed. It employ 45 people in total. Charest says it is hard to find good people to come work for them. “We get them through schools, references and newspaper adds.” The main thing, he points out, is to keep turnover low and to this end he says, “we treat them very well. When they do a good job we make sure that they know that we appreciate what they

do.”

Finding skilled people to work in manufacturing these days is a big problem he acknowledges, “and it is going to get worse and worse. The thing we do is to get good people. If they have been working for us for a long time, we allow them to grow in the company. If we see someone in the company, a shipper, who is giving his heart when he works, when we have an opportunity for them to advance, and if they want to move to let’s say something like bending, if they are interested, we train them and they grow with us in the company.”

The training is usually done in the shop, but on occasion he says they do send their employees to the TRUMPF centres for training.

They send them to TRUMPF because the equipment—laser cutters, benders and the newest acquisition, the TRUMPF TruMatic 7000 combo punch laser—are made by TRUMPF. “The first laser we bought was not cutting at the speed that was stated and that we needed for our production,” said Charest. “With

TRUMPF machines, the quality of the service and the quality of the machine is great. The speed is the same as that on the spec sheet. We can even go faster than the speed that is specified.”

While the recession of 2008 was a difficult one for Groupe Ultra, Charest says they weathered the storm reasonably well because they had a solid reputation.

“With Ultranix we had good customers, we worked hard to get some new customers, and had good pricing and good quality.” The cutting and welding business grew due to the quality of their work and “our lead times are good and we deliver on time. That is an important thing for us,” adds Charest. He looks at the future with great optimism, “we are growing. Last year we had a very nice progression and it will be continuing this year with more progression.” SMT

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