



The Shop: **BMP METALS**

Custom sheet metal fabricator believes in state-of-the-art equipment

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Walking through the two manufacturing buildings of Brampton, Ont.’s BMP Metals you get the sense that investment in technology is one way that this family run custom fabrication shop keeps ahead of its competition, both domestically and globally.

As the punching machines bang out parts in their high tempo rhythm, press brakes bend metal and welders and grinders throw light and sparks from behind their protective barriers. Across a narrow lane, lathes and mills produce a wide variety of parts and many of this equipment runs 24/7.

One of the latest additions to BMP’s family of equipment is a custom robotic bending cell.

The marriage of a seven-axis Motoman robot (HP165) to a nine-axis, 125 ton, 10-foot, down acting Amada press brake created challenges for the installation team from Mississauga, Ont.’s Paramount Machinery as well as for the staff of BMP.

However, you cannot argue with the results. By adding this robotic capability to their bending operation, BMP Metals can create accurate, repeatable bends in sheets both large and small.

The Way of the Future

“We installed this type of system to help eliminate the two-man jobs and to increase the flexibility of our bending operation,” explained Robert Daniel Bedard, facilities manager and son of the company’s founder, Robert Bedard Sr. “It’s the way of the future.”

BMP had an ergonomic issue with a particular bending operation because two operators were wrestling with a large panel. Not only was the size an issue, but this particular part also had a large cutout, which reduced the panel’s rigidity.

The success of the process speaks for itself because the company is now doing other parts on this system as well.



Left to right:
Johanne Rappoccio of BMP Metals, Eric St. James of Paramount Machinery and Robert Bedard, Jr. of BMP Metals.

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“We are also doing a lot of high production work in this cell,” added Bedard.

The robot was chosen because of the length of its reach, however, the lifting power (165 kilograms) will now allow BMP to bend larger and heavier pieces as well.

“The advantage that we offer by retrofitting a robot is that we can put it on almost any press brake and the customer doesn’t have to buy a new one,” explained St. James. “Most of the OEMs supply this type of system as a fully integrated cell. We will integrate a robot with your existing machine for about one-third of the cost of a complete cell. Furthermore, the customer retains full manual control of the brake with the flip of a switch. It’s effectively the best of both worlds.”

Learning Curve

BMP is a precision sheet metal fabricator with a twist. The company can also add engineering design, CNC machining, milling and turning, electromechanical assembly, paint coatings and plastic injection molding to the manufacturing process. Turnkey solutions... one stop shop.

What this means is that, as a company, they are used to adding new technology and the training that goes with it.

“If you want to stay a step ahead, you have to re-invest,” said St. James. “BMP is staying ahead because of their willingness to re-invest in technology. But, along with this comes a need for constant skill upgrades and training. When you buy a robot from Motoman not only does it come standard with a three-year warranty, but training is also included.”

Bedard explained that the learning curve was fairly large on this project, however, the capability that it brings to the shop far outweighs the growing pains.

“There was one job in particular where we also integrated a deburring machine with this system, which created a new batch of issues,” said Bedard. “Normally the bending process is quite simple. The robot picks up the sheet, automatically checks to make sure there is only one sheet selected, squares it, forms it and places it on a skid.”

The biggest problem with robots is the bottleneck that occurs after bending. However, the press brake and robot combination and the robotic welder that BMP has in place, complement each other very well.

This is yet another example of the culture of introducing new technology rather than relying on older, perhaps outdated, technology.

“We are definitely not stopping here either,” said Bedard of the latest installation.

Equipped with state-of-the-art automated machinery BMP currently supplies, but is not limited to, the telecommunications, medical, industrial automation, transportation, traffic circulation and security and defense sectors.

“Five years ago telecommunications was, by far, the biggest industry we served,” explained Bedard’s sister, Johanne Rappoccio, manager business strategy. “Since then we have made a conscious effort to diversify into other market sectors including medical and industrial automation. It was a natural progression for us and this new robotic system will better enable us to meet our customers’ needs.”

For more information, visit www.bmpmetals.com or www.paramountmachinery.ca. ■