

# A.B.M. TOOL & DIE BELIEVES IN MAXIMIZING NEW TECHNOLOGY

**A**.B.M. Tool & Die Co. Ltd. was started in 1969 by Armando Blagonic as a job shop offering both machining and fabricating services. Today, A.B.M. has expanded into large metal stamping manufacturing, also providing design and tool building expertise for progressive stamping dies.

As a full service supplier in metal stamping, A.B.M. provides complete welded sub-assemblies for their Tier-One customers. They build tooling up to 30 tons, and can do robotic welding, spot welding, metal stampings up to 600 tons, and can feed and straighten up to 60 inches wide. "Building our own tooling gives our customers a comfort zone," says Terry Blagonic, President and son of the Company's founder. "This enables A.B.M. to offer a full turnkey system to our customers, offering them maximum control over quality and timing of the job. We do everything from the sub assembly including tooling, fixture design & building, all the progressive stamping dies, and we are QS 9000 accredited, offering full inspection services and quality layouts."

"Because we build our own dies," Blagonic continues, "we have invested in a great deal of new technology, like CNC machining, CNC wire EDM, and CNC CMMs. One area we had to look at, however, was that we were spending over \$150,000 for outside laser cutting services. This laser cutting work was only for our blank cutting development. It couldn't help us with our tooling builds. Adding to the frustration of spending the money on outside suppliers, we were not being able to access these suppliers on weekends when we needed them."

"Our first solution was to begin evaluating laser systems," says Blagonic. After our evaluation, we determined that, although lasers could offer high precision and very quick throughput, they were very high priced and limited to the thickness of materials they could cut. So we proceeded to consider other options, including plasma. Plasma was up to

40 percent less in cost and could cut a wider range of non-ferrous materials, but more limited in terms of hardening the edges on the part, not as accurate, and limited in terms of meeting demands of cutting thick parts. Another limitation of plasma is its inherent problems of causing dust and dirt in the manufacturing area."

"The last remaining option was to consider waterjet," says Blagonic. "An associate encouraged us to take a closer look at waterjet because, although it was slower than laser cutting, it

is just as accurate, but still quicker than plasma cutting. After completing our investigation for waterjet cutting for blank development, we discovered it will also contribute to our tool building process. This enabled the waterjet to surpass the other processes in terms of its flexibility. Looking into to the waterjet a little further we discovered it could cut any material - from steel and concrete to Styrofoam and wood, without hardening the edges on steel. Waterjet has enabled us to take 30 percent of the work from our wire EDM machines, 20 percent from our CNC machining process, and it eliminated 15 percent of the time required for our toolmakers to make shims during tooling repair. For the first time, we have a new machine (the waterjet) that was fully booked at the start, simply because it took work away from several other departments, making the company more efficient overall and streamlining our cost to manufacture tooling. In

essence, the waterjet took work away from other operations that had become redundant for that particular type of machine. For example, we took milling of 2D parts away from our CNC machining centers, leaving them to only do 3D contouring, which is for what they were originally intended. Now our wire EDM is focused on wire cutting high precision, hardened materials for cutting punches and die steels. The waterjet is cutting stripper plates, sub plate clearances, other die components,



*Standing in front of ABM's new OMAX waterjet is Flavio Longo, Ted Rimmer of Hascotech and ABM President Terry Blagonic*

and stripper inserts, offering a 200 to 1000 percent quicker delivery time than previous machining processes. Our new OMAX waterjet can cut up to six inches in thickness, and we consider it to be one of the best investments this company has ever made. Another bonus is the OMAX is so easy to operate; it can easily be handled by anyone in the shop. Every tool and die shop needs to purchase a waterjet machine."

To make room for all their recent acquisitions in new capital equipment, A.B.M. has recently moved into its new 80,000 square foot facility on Walker Drive in Brampton, Ontario. "To safeguard for the future," says Blagonic, "it is expandable to 132,000 square feet. We now employ just over 100 people and currently generate over \$20 million in sales.

Approximately 80 percent of our business is automotive and the remainder crosses over to several other different markets."

"One of the most impressive products offered by OMAX," says Ted Rimmer of Hascotech, "is their new 3D cutting software. Now OMAX users can produce 3D cut parts on the



waterjet. We have one customer who is now doing 3D cutting on parts made out of nickel."

**For more information contact A.B.M. Tool & Die Co. Ltd. in Brampton, Ontario or visit [www.omax.com](http://www.omax.com) ■**

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