GLOBAL SHOP SOLUTIONS CASE STUDY

Dumur Industries

When people think of defense contractors, they don't usually expect to find them out on the great Canadian plains. But tucked away in the quiet little town of White City, Saskatchewan, sits a company that plays a key role in keeping military ground combat vehicles up and running.





Dumur Industries headquarters in White City, Saskatchewan.

Dumur Industries is ISO 9001:2008 and ISO 14001 certified, and consistently provides quality products and on-time delivery.

Founded in 1987, Dumur Industries began operations as a sheet metal firm specializing in the production of commercial ventilation and stainless fabrication for the food service industry. In 1997, the company expanded into the defense, oil and gas, power utility, and communications sectors, and has never looked back. Today, the firm makes about 95% of its products for military defense industries around the world.

The company's military products consist mainly of machined, fabricated and welded assemblies large and small, primarily in mild steel, ballistic, aluminum and stainless steels for component parts for ground vehicles. On the non-military side, Dumur Industries makes precision components for the oil and gas sector and agricultural industry, as well as commercial electric motor components, ventilation equipment, and consumer after-market auto accessories. Their production mix ranges from simple washers and brackets to complete assemblies, and lot sizes range from one to several thousand.

A recognized a leader in the precision metal machining and fabrication industry, Dumur Industries is ISO 9001:2008 and ISO 14001 certified, and has earned a reputation for quality workmanship in all its products and on-time delivery to all its clients.

Prior to implementing Global Shop Solutions ERP software, Dumur Industries used a basic commercial software program to manage the business. According to company President Bob Dumur, the program worked reasonably well for smaller manufacturing companies. But it lacked a robust scheduling module, and didn't have the capacity to grow with the business.

"As we looked to the future, we knew we needed a much more powerful ERP system," recalls Dumur. "We purchased Global Shop Solutions ERP software in 2003, and it proved to be the right choice. In many ways it was similar to our previous system, only bigger, better and much more sophisticated. We had to get used to the different screens and the way Global Shop Solutions does things. But after a short learning curve, we had the system up and running in no time."

Improved Costing and Scheduling

Ask any manufacturer the secret to competing in today's markets and they're likely to say: controlling costs. Dumur agrees.

"If you can't control costs, you're constantly swimming upstream," he says, "and the cost controls on Global Shop Solutions are fantastic! We make simple parts that cost 50 cents, and highly complex assemblies with multiple levels of components that can cost in excess of \$200,000. With Global Shop Solutions, we can see our costs on every component we make – not after the job is done, but live, while the job is in progress.



"At any given time I can look at any job and see exactly what our costs are up to that point in the production process," says Dumur. "I can see if we're running over or under on materials. I can see where we stand with estimated labor hours versus actual. Plus, Global Shop Solutions has all kinds of reports and notifications that alert you to potential problems as they occur. You don't have to constantly monitor every job because the system tells you when something gets off track."

For Operations Manager Kendra Danbrook, scheduling comes in a close second in terms of management priorities – not surprising given the company's constantly changing production schedule.

At any given time, Dumur Industries has up to 10,000 open work orders on the shop floor. The run time for different jobs can range from a few hours to several months. Many of the company's complex components require up to 100 subcomponent work orders. And lead times for ordering raw materials can sometimes take up to 10 weeks. Fortunately, says Danbrook, the Advanced Planning & Scheduling (APS) application handles everything the company can throw at it with ease.

"We used to manually schedule the entire shop floor, which was a very time-consuming task," says Danbrook. "Now, we just input all the data and let Global Shop Solutions do it for us. The software gives us the same visibility of data on the scheduling side as it does on the costing side, so that we can see exactly when every job will start and end. We can see which jobs are on schedule and which might be running behind. We can search for the data in many different ways, and we always find what we're looking in a very short time."

"APS is a strong tool because it's so visual," adds Danbrook. "You're not just looking at numbers, but also at charts and colors that are easy to grasp. People interpret data differently, and Global Shop Solutions allows us all to work together by understanding the data and reacting to it."

Custom "Booster" Enables More Scheduling Flexibility

Without question, scheduling represents one of Global Shop Solutions ERP software's strongest features. However, Dumur Industries has taken it a step further by having Global Shop Solutions Consultants write several custom programs to better adapt APS to their unique operating environment. One of these customizations consists of a "boosting" program that allows Danbrook and her team to manipulate where jobs will fall within the schedule.



Customer satisfaction is key at Dumur.

Out of the box, APS enables users to boost due dates on work orders up to a certain point. The custom booster enables Danbrook to manually boost the due date beyond the point already built into the system, giving her much more flexibility and control over the scheduling process.

Why the need for a customer booster?

"With thousands of open work orders on the shop floor every day, things are changing all the time," she explains. "New orders come in, jobs get put on hold, or we have issues with data packages and customer-supplied drawings. And of course we get the occasional rush job that has to be done right away. These things constantly impact the schedule."

"Instead of having to tell people I need them to run this work order instead of that one, I can manually boost it and APS automatically communicates the change to everyone on the shop floor," says Danbrook. "This saves a lot of time; and in today's world, time is money!"

Simplifying All Areas of the Business

Another big challenge for custom metal fabricators involves minimizing inventory costs while ensuring sufficient quantities of raw materials for incoming orders. According to Dumur, the ERP software allows the company to purchase materials just in time by automatically updating inventory material levels whenever a job is completed. On the purchasing side, the Auto Purchasing screen automatically generates a purchase order when orders come in, thereby creating demand for new materials, which are then automatically purchased by Global Shop Solutions ERP software.

When customers call in with questions, Danbrook goes immediately to the Supply & Demand screen in the Inventory application, one of Global Shop Solutions' most popular features. From there she can instantly check the status of any part or job, drilling down to any level of detail from one easy-to-use screen.



"Customers are always wanting to know about a specific job or part number," she says, "and Supply & Demand gives me all the information I need. I can see how many parts are on order, how many orders there are, how many quantities are on each purchase order, and the status of all the customer's jobs. And because the data is instantly available, I never have to call customers back."

Dumur uses Supply & Demand for a different task – costing jobs and components.

"With Global Shop Solutions, I can look at similar parts we've made in the past and use the historical data to requote the component," he says. "The data also helps me identify ways to improve specific production processes. For example, if we need to make a part less expensive, we can use the ERP software to study the production hours on each sequence and find a way to lean out that part."

Dumur Industries has also used the Global Application Builder (GAB) feature to adapt the software to its specific needs. One recent GAB customization allows workers to electronically communicate important information about a part or a job by typing notes onto the screen. When someone else logs onto the job, a box automatically pops up with the information, ensuring that the person sees the information.

The ability to create custom reports using Crystal Reports also comes in handy.

Dumur's staff recently created a custom report that identifies the dollar value of all sales scheduled to ship within a specified 30-, 60-, 90-day window. As a result, Dumur can precisely determine scheduled sales within those windows, enabling him to make key decisions regarding capacity, overtime, and margins.

A Powerful Competitive Weapon

After years of use, both Dumur and Danbrook consider Global Shop Solutions ERP software a vital tool for improving the company's ability to compete in the marketplace. Danbrook points to the ERP software's automation as a key advantage.

"Everything in Global Shop Solutions is automatic," she says. "I can drop a work order into the system and everything is instantly communicated throughout the company. In fact, the ERP software cuts down on a lot of non-vital communication because you can communicate anything you want to do with one click of a button."

For Dumur, it all goes back to costing.

"In this business, costing control and knowing your capacity are everything," he concludes, "and Global Shop Solutions gives us a high level of control over both. For example, the system automatically warns us if we're running over production hours on an assembly. We'll grab the costing reports and ask, 'How did we overrun this job by 40 hours?'"

"And that's the great thing about Global Shop Solutions – it will warn us that we've used 80% of our production hours but we're only 50% through the job," says Dumur. "This ability to identify problems and fix mistakes live, rather than after the job is finished, gives us a real competitive edge."



95% of Dumur Industries' products are made for military defense industries.



A Dumur Industries product on the assembly line.

