

GLOBAL SHOP SOLUTIONS CASE STUDY

DeJong Manufacturing, Inc.

Since 1979, *DeJong Manufacturing, Inc.*, a privately-held, woman-owned contract metal fabricator in New Sharon, Iowa, has been serving up a variety of high-quality metal fabricated parts for industries ranging from construction, transportation and agriculture to food and eCommerce.



DeJong employees receiving a John Deere Global Hay and Harvesting Supplier of the Year award.



Two of DeJong's CNC machining centers at its headquarters.

DeJong began operations as a traditional sheet metal fabrication and machining business. However, management quickly realized that the future of manufacturing lay with computer controlled machines, and adopted a philosophy of constant innovation through ongoing investment in high-tech machinery. Today, the company's 175,000 sq. ft. facility – recognized as one of the most technologically advanced manufacturing facilities in the Midwest – boasts numerous high-powered computer controlled laser cutting and forming cells, along with CNC horizontal and vertical machining, plasma cutting, high speed turret punching, automatic sawing, welding, hardware insertion, powder coating, and light assembly capabilities.

Over the years, DeJong has produced more than 50,000 different part numbers for customers ranging in size from large OEM manufacturers like John Deere and Caterpillar to small "mom and pop" operations with less than 10 employees. These parts include brackets, frames, and various structures found in tractors, combines, balers and other complex products. Known for its quality parts, outstanding customer service, and one-stop shop capabilities, DeJong is ISO 9001:2008 registered, and can support every requirement in a fabricated metal ISO-compliant manufacturing plant.

In addition to the firm's sophisticated machinery, DeJong's commitment to investing in high-tech equipment extends to the tools they use to run the business itself. So it's no surprise that when management decided to leave their old ERP vendor, they went with industry-leading Global Shop Solutions as their new ERP software of choice.

EDI, Capacity Planning Seal the Deal

When DeJong Manufacturing's previous ERP vendor insisted that they upgrade to a new version of the software – a move that would have required almost starting over from scratch – management decided to shop around for a better ERP system and a more flexible business partner.

"We narrowed the selection process down to three different systems," says Matt DeJong, Vice President of Sales and Manufacturing. "We eliminated one right away because everything resided on their server (software as service). If you lose the Internet, for whatever reason, you're dead in the water. With Global Shop Solutions, everything stays on our server, which keeps us in total control of the system. We also wanted a system with full **Electronic Data Interchange (EDI)** features so we could communicate with customers electronically. Global Shop Solutions' seamless EDI capabilities sealed the deal for us."

According to DeJong, Global Shop Solutions ERP software offered numerous other features that made the buying decision an easy one. It had a built-in ability to integrate with the company's **laser nesting software**. Its robust **inventory management system**, **barcode scanning**, and wireless devices promised to significantly improve operating efficiencies in the warehouse and on the shop floor. But it was the robust capacity planning feature that really caught DeJong's attention.

"Global Shop Solutions gives us the ability to forecast by letting us enter actual purchase orders as well as orders for what customers think they might buy from us," says DeJong. "From there we can go into the **Advanced Planning & Scheduling (APS)** application, and within 15 seconds we can see how that forecasting will impact workflow. If the customer sends us a forecast for 18 months out, we can instantly see how busy we will be on that customer's product 18 months out. We can then make sure that we won't run into any shortages of people, materials or machine capacity."

"Prior to Global Shop Solutions, we didn't have that level of visibility," continues DeJong. "And the data we did have wasn't very accurate. Now, as long as the customer sends an accurate forecast, we can tell what materials we need to order and how many hours we will be working six months in advance. It's awesome!"

Curtailing the Paper Trail

Although DeJong Manufacturing hasn't gone **totally paperless** (yet), Global Shop Solutions ERP software has allowed them to significantly reduce the amount of paper flowing through the shop floor.

Suppose a customer sends in a revision change. Previously, shop floor personnel would pass around multiple copies of the change document to make sure everyone got the correct revision. Now, Global Shop Solutions ERP software electronically forwards the correct revision to all workstations, without the need for paper.

The software has also simplified the contract part pricing process, whereby DeJong's large OEM customers send huge Excel spreadsheets to request set pricing on large quantities of part numbers for an entire quarter. In the past, sorting through the spreadsheets required large amounts of manual entry. Because the spreadsheets are electronically imported through EDI, what used to take hours can now be accomplished in a matter of minutes.

In their efforts to go paperless, DeJong also enlisted the aid of a Global Shop Solutions **Consultant** who helped the company set up move tickets. When someone finishes laser cutting a part, the move ticket prints out a label that tells the operator to take the part to the press brake. When the part gets finished there, the move ticket spits out another label that tells the operator to take it to the paint department, and so on until the part is finished.

"The move tickets also make it much easier to find materials in each department," explains DeJong. "If I finish laser cutting a part and put it up on the shelf in the press brake department, people can't easily see what's up there. But if I put a move ticket on side of the load, they can easily see what's on the shelf and know where to get it."

Recently, DeJong made the transition to a totally wireless finished goods warehouse. Everything that comes into the warehouse now gets a scannable **barcode label**, which allows employees to do bin-to-bin transfers. When parts are received into finished goods, they receive a label and get put in a bin. Employees then print out a shipment report that identifies the exact location of every product. Then they go to that bin, pull out the product, and prep it for shipment.

"It's a real time-saver," notes DeJong, "because we no longer have to rely on a person to remember where all the parts are in the warehouse."



One of DeJong's fully-automated CNC laser cutting cells.

Simplifying with Auto Purchasing and Custom Enhancements

From automated purchasing to **custom enhancements**, DeJong continues to be amazed at the flexibility of the software and its ability to adapt to the company's unique operating environment.

DeJong Manufacturing does not have one single purchasing agent or even a dedicated purchasing department. Instead, different members of management order materials for different parts of the business. With many ERP systems, this approach could make it difficult to order materials in a timely manner and track what has been ordered. Not so with Global Shop Solutions ERP software.

"Global Shop Solutions allows us to use different sort codes that make it simple to track who needs to order what and when," explains DeJong. "I'm in charge of ordering all the carbon steel. My brother, Joel, buys the stainless steel and structural products we need. And other people are responsible for various raw materials used in the production process. We simply enter a different sort code for each material and the system tells us what items we need to purchase and for what jobs."

"Even better, when one of my commodities hits the reorder point, the software automatically notifies me through the message system without my having to run the auto purchase report," continues DeJong. "If I'm traveling, it sends an email to my Blackberry, telling me the quantity and type of commodity I need to order. All I have to do is message a team member to order the materials so they arrive in time for the job."

For the most part, DeJong Manufacturing uses the ERP software right out of the box. But with the assistance of a Global Shop Solutions Consultant, they have made several enhancements that have had a real impact on the shop floor and administrative offices.

As any manufacturer knows, last-minute customer changes can present a real challenge when determining priorities and organizing workflow. One small enhancement to the **Shop Floor Data Collection** system has greatly improved the company's ability to respond to these requests in a timely manner.

"Suppose a customer calls me in distress," says DeJong. "Their part isn't due for a week, but if we don't ship it within two days they're in big trouble. Normally, the Shop Floor Data Collection stations list all the parts due on the same day in order of priority, but they don't necessarily prioritize down to the hour. Global Shop Solutions created an enhancement for us whereby we assign that customer's order a 999 priority."

"When we do that, the software turns the entire line red so that it visually stands out from all other lines on the work order," says DeJong. "People on the floor see the red line and know they need to jump on that order. The work order stays red until the work at that workstation is complete. Then the part moves to the next operation, where the line turns red on their Shop Floor Data Collection screen. This ensures that we complete the part in an expedited manner and meet the customer's requested ship date. In addition, we no longer need all the added communication from the past (emailing, paper prints and dispatch lists, paging supervisors for expedites) because the system does it all."

Global Shop Solutions ERP software has also made other enhancements that allow people to do things like print scrap tickets and barcode labels from the Shop Floor Data Collection stations. They can e-invoice customers who prefer not to receive paper invoices. They can even email purchase orders and sales order acknowledgements, all from within the ERP software with just a click of the mouse button.

Unprecedented Visibility of Data

Where has Global Shop Solutions ERP software made the biggest difference in simplifying the business?



Agricultural ladders being powder painted.

According to DeJong, it's the visibility of information throughout the company combined with the dramatic reduction of paper movement and manual data entry that enables much more efficient utilization of people and resources. For example, prior to Global Shop Solutions ERP software it used to take up to 70 hours to manually key in all the orders from one OEM customer. Through the EDI feature, that task now takes about 12 hours.

In addition, the company no longer incurs the time and expense of having an outside sales force because the ERP software gives the inside sales reps all the information they need to complete sales over the phone and the Internet. The ability to track, organize and manage data even helps DeJong Manufacturing maintain its key supplier status with all their customers.

"Recently, a supplier development engineer from John Deere contacted us," says DeJong. "He wanted to make sure we had the capacity to keep up with their increased demand this year. I sent him a screenshot from the capacity planning module and that provided all the verification he needed. He basically said, 'That's all I need to see. I'll talk to you in six months.'"

"And that's what amazes me the most about Global Shop Solutions," says DeJong. "We don't have to spend nearly as much time monitoring everything on the shop floor because the software does it for us. And we don't spend nearly as much time telling people what to do. They simply go the Shop Floor Data Collection screens and the system tells them what to do and when. If you ask me, that's a great way to run a business!"



An overview of six CNC laser cutting cells.



Ladders being washed at the DeJong facility.