

GLOBAL SHOP SOLUTIONS CASE STUDY

PS Garage Doors

PS Garage Doors is a leading designer and manufacturer of industrial doors, fall protection safety products, and flood barriers, providing quality products to customers around the world. Headquartered in Grand Forks, North Dakota, the company serves a variety of industries ranging from mining, power generation and refineries to auto, military, food processing and more.



PS Garage Doors headquarters in Grand Forks, North Dakota.



A new addition to PS Garage Doors headquarters.

Founded in 1974, PS Garage Doors began as a full-service door distributor, repairing and supplying industrial doors. The company soon expanded into manufacturing of industrial sliding doors, sliding roof hatches, access/inspection hatches, and louver/ventilation panels. As PS Garage Doors continued to grow, it further expanded into safety and fall protection products, such as vertical lift mezzanine gates and watertight flood protection barriers. Today, PS Garage Doors manufactures 23 different product lines.

Utilizing a highly experienced team of certified welders, engineers, and 3D CAD designers, PS Garage Doors makes reliable custom products tailored to the unique safety and damage prevention needs of each customer. It also manufactures a variety of made-to-stock products for customers that don't require customized solutions. To manage this complex production environment, PS Garage Doors employs Global Shop Solutions' fully integrated ERP software.

"Our previous production management system couldn't handle work orders or BOMs very well," says Joseph Hogberg, IT Manager for PS Garage Doors. "This led to ongoing scheduling problems that made it difficult to complete projects on time. We acquired Global Shop Solutions primarily for its **robust scheduling capabilities** and seamless integration with our graphic design software. But we have since learned that it can do a lot more."

Near-Perfect On-time Delivery

More than half of PS Garage Doors' business involves custom projects that require completely unique BOMs, drawings, routers, and work orders. Producing all of these from scratch requires lengthy lead times, especially with the drawings, and adds to the difficulty in estimating, quoting and scheduling. Prior to obtaining Global Shop Solutions ERP software, PS Garage Doors scheduled its projects on Excel spreadsheets, which also added to the time and complexity required to schedule work through the shop floor.

To reduce lead times and become more efficient, PS Garage Doors began standardizing designs and manufacturing some common parts and subassemblies in advance, making 10 at a time instead of only one each time an order came through. However, because planners were limited to working on Excel spreadsheets, they scheduled these projects without accounting for the time it took to make the subassemblies. This often wrecked havoc on the overall schedule, causing delays and late deliveries of finished products.

With Global Shop Solutions' powerful Advanced Planning & Scheduling (APS) application, PS Garage Doors can easily integrate the advance subassembly work into the workflow, saving time and minimizing disruptions to the schedule. APS also offers other features, such as forward and backward scheduling and visibility of machine and labor capacities, that enhance scheduling efficiencies and simplify workflow.

"The difference between our old Excel approach and APS is like night and day," says Hogberg. "Workflow is much smoother and jobs get done when they're supposed to. As a result, we don't ship late anymore. Prior to Global Shop Solutions, we averaged 50 to 60 percent on-time delivery. Now we almost never dip below 100 percent."

According to Assembly Supervisor Kris Newman, "The shop floor also feels that since implementing APS, the workflow is far more consistent. This relieved a lot of the stress, overtime hours and stop-start feel of the work we do."

Cutting Lead Times in Half

PS Garage Doors uses SolidWorks, a graphic design software, to automate many of their custom designs. Prior to Global Shop Solutions ERP software, this helped to minimize design time, but did nothing to reduce the amount of time required to build the BOMs, routers and work orders. Thanks to Global Shop Solutions' [seamless integration with SolidWorks](#), BOMs are now built automatically with just a few clicks of the mouse.

With each custom product, PS Garage Doors uses SolidWorks to design everything needed to make the product – down to the smallest nuts and bolts. More importantly, they draw it in such a way that Global Shop Solutions ERP software can import all the data and use it to create very accurate BOMs, detailed packing lists and other documents at the push of a button.

"This saves us the time and effort of building each BOM in Global Shop Solutions – literally hours for every project – and eliminates the errors that occur when you build it manually," says Hogberg. "From there we purchase parts to the job from the BOM, so it also helps with [purchasing and inventory control](#). And because all of the information is in one system now, simplifying a process could be as simple as writing a report."

"Along with APS, the SolidWorks interface has been a real game-changer for us in terms of reducing lead times and increasing on-time delivery," he adds. "We absolutely needed to simplify our design process, and Global Shop Solutions has enabled us to do that. We could not handle the volume of business we're currently doing without the efficiencies gained through Global Shop Solutions."

Flexible Solutions with GAB

Hogberg also points to the [Global Application Builder \(GAB\)](#) as an important tool for simplifying processes. This highly flexible application enables users to easily modify the software to fit their unique operating environment without the time or expense of changing the underlying code. Moreover, custom GAB scripts can be shared among Global Shop Solutions customers through the Application and Reporting Center (ARC) – an online web portal that holds more than 1,000 apps and reports.

For example, PS Garage Doors modified another customer's GAB project to prioritize work orders for APS scheduling. Their new GAB program gives a higher priority to jobs based on certain criteria, such as size, time to complete, due date or use of workcenters. When APS runs its hybrid scheduling at night, it automatically moves high-priority jobs to the front of the schedule. This has also played a role in improving on-time delivery rates.

A different GAB project enables PS Garage Doors to send employees all their paystub information by email. The program is password protected for security, and eliminates the time and cost of printing paystub information and distributing it by hand.



Powder coat yellow (PCY) ladder safety gates.

Hogberg also modified an existing GAB project that provides a master database of all the training each employee has received and when it expires. He added more information fields, such as title, start and termination dates, pay raise history, and other human resources components, making it easy to see an employee's entire training and HR history at a glance.

A Complete ERP System

In addition to reducing design and scheduling time, Global Shop Solutions ERP software is making significant impacts in other areas for PS Garage Doors.

On the shop floor, the **Shop Floor Data Collection stations** make it easy to capture time and attendance data. Employees no longer have to punch a timeclock or keep manual time cards. Instead they log on and off jobs by scanning their badges on the Shop Floor Data Collection screen. The system then does all the tabulation of time and hours, saving managers the time of doing it manually in a spreadsheet.

Having all the financials integrated into one system makes it easier for accounting to do **payroll, accounts receivable, and other accounting functions**. And the ability to track more data has dramatically improved the accuracy of the **estimating and quoting** processes.

"Quoting custom jobs can be difficult," says Hogberg, "but Global Shop Solutions gives us very good estimates of the materials coming in. We can also look at previous jobs with similar quotes and see all the labor tracking on it. This puts us in good position to quote similar jobs or extrapolate a different job that might be a little more unique."

PS Garage Doors continues to work at reducing lead times for its custom jobs. Accordingly, Hogberg is focusing on using more of what Global Shop Solutions ERP software has to offer and helping everyone at PS Garage Doors improve their fluency with the system.

"The better we get with the software, the more we can lower our lead times," he explains.

"I love how the software lets us add our own programs to the main package to simplify processes," he adds. "You just don't find that level of flexibility in other ERP software. But what really sets Global Shop Solutions apart from other ERP systems is how they keep improving it all the time. The people at Global Shop Solutions actually listen to their customers and then build in new features and capabilities to address their needs."

"Global Shop Solutions is a complete ERP system that works great for companies that make the same widget day in and day out and for those that make a different custom product every time," concludes Hogberg. "We do both, and Global Shop Solutions handles each type of production very well."



PS Garage Doors' new HatchSafe design.



Testing an EzDam flood barrier.