Midland Metal Products

Midland Metal Products is a fourth-generation, family-owned and operated fabricator of sheet metal, wire, and tubing. Founded in the 1920s, the company has been serving the point-of-purchase display industry for 80 years. It is currently owned by Suzanne and Bernie and their sons Marc and BJ.

Midland's high-speed laser cell can process 60" x 120" steel sheets up to 7/8" thick.

Midland's wire forming capabilities enable them to add intricate ornamental touches to their custom displays.

Originally established as the City Wire Frame Company, Midland started out manufacturing various stock and specialty wire products, such as lampshade frames and wire fan guards. Its first venture into point-of-purchase (POP) consisted of supplying potato chip clip racks to a local distributor. This side of the business continued to grow, and in the 1960s, Midland began exclusively serving POP agencies.

Midland produces a variety of custom POP displays for the retail, architectural and gaming industries. Located in Chicago, the firm's 100,000-square-foot production facility boasts an extensive array of the latest precision machining technologies, including laser, CNC, and robotics. The award-winning shop offers full design and engineering services, as well as prototype development. The company's 100+ employees have earned a reputation for delivering specialized products on short timelines. Midland is currently on track to earn its ISO:9001 certification.

Over the years, Midland has earned a well-deserved reputation for quality products at competitive prices, outstanding customer service, and exceptionally high on-time delivery rates. In addition to their state-of-the-art shop floor equipment and machinery, there's another high-tech tool that Midland depends on to deliver its superior customer service – Global Shop Solutions ERP software.

When Midland began searching for a more robust ERP system a few years ago, it quickly settled on Global Shop Solutions ERP software. Not only did system offer the core functionality that Midland sought, it also had the flexibility to customize the payroll module to adapt to a piece-rate system.

"Some of our employees get paid a regular hourly rate and some earn base rate plus incentive pay," explains Jamie Brezinski, Director of IT. "We used to track all the piecework work by hand. With Global Shop Solutions, we simply select the box to indicate that someone is a piece-rate employee, and the system automatically calculates their pay based on their production. And because employees use the Shop Floor Data Collection stations to log on and off jobs, Global Shop Solutions automates the entire process. We no longer have to manually track how many pieces our workers make, and it greatly simplifies our payroll process."

Real-Time Data

At Midland, every job is a custom job, with projects ranging from fairly simple to extremely complex. Many customers bring their own designs to the project, but a larger percentage makes use of Midland's experienced design and engineering team, which leads to one of Midland's biggest challenges on the shop floor.

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For their process engineers, writing a job for the first time is both an art and a science. They have to figure out which materials will be needed and how much of each. They have to determine setup times and which machines and production processes to use. They have to estimate how much time will be required for each step and for overall completion of the production process. Engineers can (and do) draw on experience from similar jobs to guide the decision-making process. But when making a fixture or display product for the first time, there's always a certain amount of guesswork. And even small miscalculations can lead to large discrepancies between estimated versus actual costs of production.

According to Brezinski, Global Shop Solutions ERP software's ability to deliver up-to-date production information in real time allows Midland's engineers to design and schedule jobs with much greater precision and accuracy.

"With Global Shop Solutions, we can pull up data while the job is running and make decisions in real time that affect the outcome of the job," she says. "For example, we can look at the data and see whether we can skip a step or maybe need to add one. We can see where we might need more capacity on a particular machine or workcenter. We can even correct the router or the BOM in midstream to improve efficiencies."

"Global Shop Solutions also allows us to correct rates in the system," Brezinski says. "Some of our jobs have only three or four operations while others can have hundreds. To be able to rate the number of pieces per hour, we get on a particular operation allows us to build a stockpile of data for future jobs. Those jobs won't be exactly the same. But if a part requires the same type of press brake and is run on same type of machine, we can use that data so that creating new BOMs and routers become less art and more science."

Midland's production plant near the heart of downtown Chicago.

Custom Reporting

Like many manufacturers, Midland frequently gets orders with minimal lead times. They also get the occasional request to move up a shipment date – no surprise in today's just-in-time manufacturing environment. Here's where two of Global Shop Solutions' most popular features, the Advanced Planning and Scheduling (APS) module and custom reporting, lend a hand.

With APS, engineers can plug in the numbers and immediately see how a rush job or change in shipment date will impact the current workload. In addition, Global Shop Solutions ERP software makes it easy to produce custom reports that provide the data in the formats that engineers need to make the best scheduling decisions. This ability to manipulate the scheduling data combined with the custom reporting enables Midland to excel at delivering jobs with very short lead times.

"One of great things about Global Shop Solutions is the ability to pull data from the system in the exact format that someone will find the most useful," notes Brezinski. "Using Crystal Reports we've created a number of custom reports, one of which has a huge impact on the scheduling process."

"Every morning our COO, Larry Blaisdell, who does the scheduling, holds a production meeting with the department heads to go over what we made yesterday and what's on the schedule for today," she continues. "By looking at the report, he knows exactly how much capacity we have and whether we can make incoming deadlines. We have an excellent reputation for on-time delivery, in large part due to the decisions based on this custom report."

One Integrated System

As the administrator of the Global Shop Solutions ERP software, Brezinski appreciates how well it integrates all the different aspects of the business.

"Prior to Global Shop Solutions, we had different systems for each segment of the business," she says. "We used Quickbooks for accounting, purchasing had their own Access database, and production departments were using an in-house Access-based system. When you have that level of disambiguation throughout the company, it causes real communication problems."

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"With Global Shop Solutions, everything is integrated into one well-functioning system," she says. "Because everyone has access to the same data, it enables our sales team and project management team to provide our customers with the most up-to-date information about the status of their orders. Having instant access to that contemporaneous data is critical to providing the level of customer service that we offer."

In addition to her duties on the IT side, Brezinski also has responsibilities in job costing and inventory control – two critical areas for any custom job shop. Global Shop Solutions ERP software's ability to track jobs from the original order all the way through to final shipment significantly enhances her ability to perform these essential functions.

Toward the end of each month, Brezinski spends much of her time in the Inventory module, where she works with production and purchasing and performs the month-end close on all inventories. This includes making sure all unit and work-in-progress costs are correct and that everyone logged into the right jobs. She then sends this information to the company's external accountants, who oversee the company's financials.

To keep tabs on production costs, Brezinski, along with Process Engineer Mike Zyer, regularly monitors work in progress, paying close attention to anticipated BOM rollups compared to actual unit costs. When a variance is spotted between actual versus estimated, such as more labor dollars than projected, they alert the production manager and together drill down to find the source of the variance. Based on the root cause, Brezinski can make adjustments to bring costs more in line with the estimate.

"With Global Shop Solutions, we can see the status of every job at every stage of the production process," says Brezinski. "This allows us to make cost accounting decisions based on up-to-date information rather than guesswork. For example, suppose the process engineer says that we had to run over on a certain job or that someone clocked into the wrong job. I can go into the system and move the dollars around so that we minimize the variance while maintaining the integrity of the data."

No Islands in Midland

When asked to identify the #1 benefit Global Shop Solutions ERP software has produced in Midland, Brezinski points to the total integration and transparency of data throughout the company.

"When you have a system like Global Shop Solutions where information flows electronically from one department to the next, it clearly illustrates how no part of the business works in a vacuum," she says. "And when people see how we all depend on each other for accurate information, it creates an awareness of how one person's job affects everyone else."

"When people understand that no one is an island unto themselves, they also become more conscious of the data integrity," she says. "They know that they have to put in the correct number of counts or the packing list can't be created. They know that they have to receive incoming materials correctly or we can't pay our vendors. Having that kind of transparency throughout the system has a huge impact on the data integrity."

What makes data integrity so important?

According to Brezinski, it reduces human error. It enables better decision-making. It allows people to work more efficiently and effectively. And perhaps most important, it allows Midland to provide the high level of customer service upon which they stake their reputation and the success of the business.

"As a custom shop, our business depends on the high level of attention we give to every project," she explains. "With Global Shop Solutions, we don't waste time looking for information when a customer needs something. It's right there at our fingertips, so that we can usually give them an answer in a matter of minutes. And with instant access to information any time we need it, we're now able to spend our time in higher-value ways."

"For example, think of all the time it takes for cost accounting to create a spreadsheet and send it to operations," Brezinski concludes. "When you remove those kinds of manual processes, it frees up huge blocks of time for people to improve the business because they're getting things done more efficiently and accurately. With Global Shop Solutions, we have more time to spend on the high-level parts of our jobs that really bring value to the customer and to the business."

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