

GLOBAL SHOP SOLUTIONS CASE STUDY

Advanced Plastiform, Inc.

Headquartered in Zebulon, North Carolina (just outside of Raleigh), *Advanced Plastiform, Inc.* provides custom plastic molding and fabrication services, including thermoforming, injection molding, CNC routing, secondary assembly and finishing. Operating out of nearly 250,000 square feet of manufacturing space in three separate facilities, the company serves a wide variety of industries, ranging from automotive, construction equipment and furniture to medical, transportation and telecommunications.



Advanced Plastiform headquarters in Zebulon, North Carolina.



Advanced Plastiform begins each day with an intense review of the previous night's production, incoming EDI requirements, and today's schedule all within Global Shop Solutions.

The majority of Advanced Plastiform's business focuses on custom heavy-gauge thermoformed products – from 3/16" to 1/2" thick – made from a variety of materials, including ABS acrylic, polyethylene, styrene, PVC and more. Products include covers, door panels, dashboards, roof covers for tractors, liners for commercial refrigerator equipment, hoods, and covers for medical devices. Advanced Plastiform's expert engineers can handle jobs from concept to delivery, and can custom design, develop and create a prototype in as little as six weeks.

These days, every manufacturer needs a reliable business management system to control costs and lean operations. When Advanced Plastiform's outdated ERP system could no longer keep up with the evolving manufacturing environment, management upgraded to Global Shop Solutions ERP software.

"Our old system worked well when we had one machine and 10 customers," says Advanced Plastiform Co-Owner Jay Jolly. "But as we grew, it's limitations became more and more of a constraint. We chose Global Shop Solutions based on referrals from current users, its real-time **inventory tracking** capabilities, and the **in-depth training** for new users."

"We also liked the **family structure** and consistent ownership of the company," he added. "Many ERP companies are a mishmash of different parts brought together through acquisitions. Global Shop Solutions hasn't changed ownership in more than 40 years, so we knew we were getting a fully-integrated software program from one company with one vision of how to meet their customers' needs."

Finding Inventory Fast

Advanced Plastiform often makes hundreds of unique parts for their larger customers, and they use around 1,000 tools, jigs and fixtures to make them. In their old system, finding a part in inventory involved a hit-or-miss process. When searching for the right mold for a specific job, it could take five minutes or five hours to find it.

With Global Shop Solutions, it's a different story.

Everything, from raw materials to tooling and work in progress (WIP) gets its own unique barcode. That barcode is automatically entered and populated throughout the system so that everyone has access to the data. Instead of wasting time hunting down tools or product, managers and shop floor personnel can now identify the exact location in seconds. Jolly finds the lot-bin feature to be especially useful.

Electronically receiving data through EDI allowed Advanced Plastiform to eliminate one position for an annual savings of \$50K.

"Our old system might indicate we had 100 parts," he says, "but I didn't know where they were, who made them, or whether we had one case of 100 or 10 cases of 10. Now I know in real time where my inventory is, including the exact location of over 4,000 items across three manufacturing facilities, and what is in transit between them."

"Every box of product gets a lot label so we know exactly what we have in terms of case quantity," continues Jolly. "If a customer calls for a case of 20, we locate it the system, pull it off the shelf, slap a label on, and ship it. It's that simple."

Improving Inventory Enhances Workflow

Like many manufacturers, Advanced Plastiform holds inventory for some of their customers to pull when needed.

In addition to providing a value-added service for customers,

managing this process in Global Shop Solutions ERP software also enables Advanced Plastiform to work more efficiently.

Many of Advanced Plastiform's kanban customers provide fairly predictable forecasting. For those, Advanced Plastiform typically manufactures and holds two to eight weeks of inventory to level out the workload. The company makes the difficult parts ahead of time, and fits the easier jobs in between other ones.

"With Global Shop Solutions, our planners can easily see where we have the capacity to slide in some of the kanban jobs without disrupting workflow," says Jolly. "This makes us more efficient and allows us to provide better customer service by always having enough inventory on hand."

Meanwhile, the ability to accurately **track costs** has grown by leaps and bounds. Previously, Advanced Plastiform could track material costs fairly closely, but precise labor costs eluded them. Now that machinists electronically log on and off job sequences using the **Shop Floor Data Collection stations**, labor costs automatically get attached to each job, providing true job costing in near-real time.

\$50K in Annual Savings with EDI

Jolly points to another Global Shop Solutions feature – **electronic data interchange (EDI)** – as a big driver of cost savings and improved productivity.

Every day, Advanced Plastiform's customer with 400 different parts sends updated order forecasts (for up to two years) on every item. Previously, all this data had to be manually entered – a task that fell to one employee whose only job was to make sure the hand-typed data matched the customer's printed report. Electronically receiving the data through EDI allowed Advanced Plastiform to eliminate the position, for an annual savings of \$50,000.

"The employee only typed in 30 to 60 days of forecasts because we knew the data would change," says Jolly. "But it was still a full-time job, and it limited our visibility of the forecasts. Now we have two full years of visibility, and the system automatically updates customer changes. EDI also allowed us to move the employee to a higher value position analyzing the data rather than just typing and reviewing it."

"It used to take until noon before we could plan anything beyond today or tomorrow," he continues. "Now we run EDI at 7 am and have full visibility an hour later. People come to our daily production meeting more prepared, reports are more up to date, and any inventory on the reports is within two minutes of real time."

Getting Rid of Paper

Throughout his career, Jolly has maintained a strong dislike of paper. In particular, he worried about reusing printed work documents without updating them. Not surprisingly, one of his first goals with Global Shop Solutions ERP software involved the **elimination of paper** on the shop floor.

At first, some long-term employees grumbled about the change, especially those in shipping. Once they saw how eliminating paper made their jobs quicker and easier, they quickly got on board.

“Our shipping guy used to manually type the data and print a label for every shipment,” says Jolly. “If he keyed in the data incorrectly, he had to do it all over again. Now he simply scans the lot number, hits ‘submit’, and the label automatically prints out. It takes less than a minute and eliminates any rework due to data entry mistakes.”

“The best thing about going paperless is that it forces everyone to use the system,” adds Jolly. “As a result, everyone has the information they need at their fingertips. And it’s instantly available rather than hidden away in some file or somewhere out on the floor.”



All of Advanced Plastiform's production employees use the Shop Floor Data Collection stations exclusively for production data entry, work order management, schedule updates and links to drawings, work instructions and inventory data. Barcoding is the forefront of Advanced Plastiform's material handling, and move tickets direct the flow tooling and WIP to finished goods throughout their three facilities.

100% Increase in Logistics Efficiency

The superb visibility of data in Global Shop Solutions ERP software makes Advanced Plastiform more competitive in many different ways.

Managers can determine true costs and profitability on each individual item. Automated purchasing ensures that Advanced Plastiform has the right quantities of materials and finished goods in stock at all times. Machinists no longer waste time hunting down routers, drawings, routers, BOMs, POs, inventory lists. All of which adds up to a 100% increase in logistics efficiency.

“We used to spend hours looking for tooling, now we find it in minutes,” says Jolly. “EDI has reduced our cost of order entry by over 60%, and has eliminated the cost of submitting order shipment information. Knowing our true item costs allows us to insure we’re competitive on every item, not just on a blanket program.”

Jolly adds that “with Global Shop Solutions, you get one complete integrated system where all the applications talk to each other. The user interface is intuitive and easy to use, and you get all the functionality to run your entire business on one system – without needing a separate server, database, security, access or user list. In today’s just-in-time environment, it’s hard to imagine running a manufacturing business any other way.”