

GLOBAL SHOP SOLUTIONS CASE STUDY

Fullerton Tool Company

Headquartered in Saginaw, Michigan, *Fullerton Tool Company* is a third-generation, family-owned business that specializes in the design and production of solid carbide cutting tools for a wide variety of industries. Founded in 1942, the company manufactures high-quality end mills, drills, reamers, burrs, saws, keyseat cutters, and other instruments used to cut metal and other materials.



Fullerton Tool utilizes the latest technologies and high precision equipment to remain an industry leader of solid carbide tooling.



Fullerton Tool produces the highest quality solid carbide tooling for the automotive, aerospace and medical industries.

With a primary focus on the automotive, aerospace and medical industries, Fullerton Tool's largest domestic customers include industry icons such as Ford, General Motors, Chrysler and Boeing. However its products are also used by manufacturers in countries around the globe, including China, Singapore, Mexico, United Kingdom and continental Europe. Committed to quality, Fullerton Tool is ISO 9001:2008 certified, and also utilizes lean concepts such as 5S, Six Sigma and Fast Response Manufacturing to deliver its premium metal cutting tools at competitive prices.

An early adopter of ERP software, Fullerton Tool managed production for many years with an early-stage ERP system. Over time, the ERP product was unable to keep up with the company's growth, and management decided to upgrade to Global Shop Solutions ERP software.

"At the time, we were struggling to reduce our lead times and still hit customer due dates," says Gary Bruff, Vice President of Manufacturing for Fullerton Tool. "We needed an ERP solution that provided better visibility into shop floor data. We also wanted a system that could grow with us so we wouldn't have to go looking for a new one in five or 10 years. Global Shop Solutions' fully integrated system had what we were looking for in both areas."

Precision Scheduling with APS

Like most manufacturers, Fullerton Tool operates a bustling shop floor, with up to 2,500 active work orders at any given time. In addition, the company offers several types of services with varying lead times. Some of these services require less than 24 hours to complete. Others can take three or five days, while some require three to four weeks.

To further complicate matters, some areas have to manage orders coming from all of these different services. In such a complex production environment, efficient scheduling of workflow is paramount to delivering finished product on time. According to Bruff, Global Shop Solutions ERP software helps organize, prioritize and schedule jobs in a timely and efficient manner. It also enables managers to identify production bottlenecks that could prevent the completion of jobs as scheduled.

“One of our biggest scheduling problems is that a lot of our jobs have to go through multiple machines but were not configured in work cells,” says Bruff. “The **Advanced Planning & Scheduling** (APS) application helps us schedule each machine in the right order so that we get the job done on time. In areas where there are several of these jobs, APS prioritizes them so that we work on them in the right order.”

APS also helps prevent bottlenecks by identifying in advance when and where the workflow will be light in some areas and heavy in others. This enables managers to adjust the labor hours and move people around in those areas to balance the workloads.

20% to 30% Improvement in On-Time Delivery

Since implementing Global Shop Solutions ERP software, Fullerton Tool has improved on-time delivery rates by a robust 20% to 30%. Bruff attributes this to several factors that produce a better real-time understanding of where each job is in the production process and what might get in the way of on-time completion. These include using the dispatch lists to work on jobs in the correct order, and using APS to schedule the more complex jobs that require multiple operations.

“The **Work Order History** screen is very helpful,” adds Bruff. “On the rare occasions when we do ship late, we review the information, compile the data, and assign a root cause to identify the reasons the job wasn’t completed on time. From there, we can put a plan in place to fix it so we don’t repeat the same mistakes going forward.”

Even more impressive, Fullerton Tool has grown revenues by 40% since implementing Global Shop Solutions ERP software. And, according to Bruff, the software has had no problems keeping up.

“The system provides a great foundation to support our growth because it’s designed to grow with us,” he says. “As we add more machines and people, the system scales with us. That’s one of the main reasons we acquired the software in the first place. It doesn’t just fit our current size; it fits what we’re trying to do for the long term.”

Effective Use of Labor

Controlling labor costs is a key factor in maintaining a competitive pricing structure. In addition to improving machine utilization efficiency, APS also helps Fullerton Tool use labor time appropriately.

For example, many of the company’s skilled machinists are qualified to run multiple different machines. When bottlenecks occur, APS identifies when and where moving someone to a different machine could help ease the congestion.

“The visibility of workflow in Global Shop Solutions is very good,” says Bruff. “As we’re looking at a particular job in the system, APS might tell us we have 10 hours of work in one area and 20 hours in another. If we decide to use a night shift person for the job, we can put them on the area that needs 20 hours rather than the area that needs 10. This results in more efficient use of our labor and ensures the work gets done on time.”

Leaning All Aspects of the Business

In addition to scheduling and on-time delivery, Global Shop Solutions ERP software has created numerous improvements in other areas that all contribute to a leaner, more efficient business.



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These include:

- **Job costing.** With the ability to track time, labor and material costs in real time, Fullerton Tool can now identify the precise cost of a job as soon as it ships. It also enables managers to identify areas needing process improvement and adjust pricing when appropriate.
- **Sales analysis.** The customized analysis and reporting tools enable Fullerton Tool to analyze sales and margins by part, customer, product line and more. They provide useful summaries that help management determine which customers and products are more profitable than others and make better decisions about where to deploy their resources.
- **Superb traceability.** Global Shop Solutions ERP software enables complete traceability of a part or material from the time it comes in as a raw material to the time it gets shipped out as part of a customer order.

“Our customers don’t require us to trace our parts,” notes Bruff, “but they like the fact that we can do it. In fact, we often use it as a selling point with potential new customers. And when we have a quality issue, we know right away what machine it ran on and who ran it so we can work with them to correct the issue.”



A Fullerton Tool employee using Global Shop Solutions ERP software.

Saving Time Throughout the Business

With up to 250 jobs coming due each day, it takes a lot of coordination to make sure they ship on time. Fullerton Tool simplifies this process by using the Open Order Review screen to obtain a quick overview of which jobs are due that day and whether any are going to be late. From there, they can drill down to see where those jobs are in the production process and what’s causing the holdup.

Another “little” time saver came from a custom screen that was modified using the **Global Application Builder (GAB)**, a SDK that enables users to create custom scripts and programs without having to modify the system’s underlying code.

“The order entry screen contains a number of fields we don’t use,” explains Bruff, “and the GAB program eliminates the need to tab through all of them to get where we want to go. That may not seem like much, but we enter a lot of orders every day. Even if it only saves five seconds per order, at the end of the day it adds up to significant time savings.”

“Bottom line is that Global Shop Solutions gives you a complete business management tool,” says Bruff. “From estimating to shipping to service afterwards, it does a great job of covering all the main areas of a manufacturing business. As long as you set it up right and enter the data correctly, it becomes easy to execute customer orders in an efficient and timely manner.”