

## GLOBAL SHOP SOLUTIONS CASE STUDY

# MaTech Solutions

*MaTech Solutions is a leading fabricator of precision parts and assemblies for the defense and commercial industries. Located in Salisbury, Maryland, the company serves the U.S. and foreign governments, government contractors, and commercial manufacturers. Its customers include U.S. and international defense agencies, commercial telecommunication companies, agricultural conglomerates, gun makers and more.*



*MaTech's facilities located in Salisbury, Maryland.*



*The main manufacturing floor at MaTech.*

Operating out of a 165,000-square-foot facility, MaTech uses state-of-the-art CNC and CMM systems to verify the integrity of their products. The company also offers an a la carte system in which customers can select the specific criteria – such as traceability SQC, automated parameter measurement, or mil spec screening – to be performed on each part. MaTech is ISO-9001 certified.

Founded in 1988, MaTech managed production for years using a project management software and a variety of Excel spreadsheets and manual processes. As the company continued to grow, ownership recognized the need for an integrated production management system, and selected Global Shop Solutions as their ERP software.

### **Saving Time with ERP Software**

Initially, MaTech wanted to achieve four primary goals with Global Shop Solutions ERP software:

- Improve record-keeping by integrating all production data into one system
- Track **labor time and costs** more accurately
- Simplify the **scheduling process**
- Improve **inventory accuracy**

Since implementing the ERP software, MaTech has achieved all this and much more.

“We needed a better way to track everything we do,” says Dorie Simpler, Planning Manager for MaTech. “For example, in the past, we tracked labor by having a manager perform a manual update of everyone’s time. The update wasn’t very accurate, and we didn’t know where the time was being charged.”

“When parts traveled through the shop floor, operators had to fill out a handwritten MIT production card at every step to track the part’s progress through the shop floor,” adds Simpler. “These are the kinds of inefficient processes we wanted to revamp or eliminate.”

With Global Shop Solutions ERP software, operators now log into their work orders and log out when complete. MaTech then uses an internal workflow traveler system, which pulls information directly from the system, to follow the parts through the entire process. The ERP software also allows MaTech to accurately track both direct and indirect time.

### Improving Inventory Accuracy

Inventory accuracy is critical for any manufacturer, but especially for those whose products undergo close scrutiny from industry and government inspectors. Prior to Global Shop Solutions ERP software, MaTech struggled to track work in progress, making it difficult to reconcile inventory costs with materials on hand. And with no cycle counting, finished goods and raw materials inventories were always off.

Using Global Shop Solutions ERP software to perform monthly cycle counting, MaTech has averaged near-perfect inventory counts and costs for the last four years. Cycle counting has also eliminated the need for a physical inventory, so the company no longer has to shut down twice a year to perform a physical count.

“We’ve been carrying 99 percent accurate inventory counts and costs for the last four years,” says Mary Bly, Inventory Accountant for MaTech. “We still make mistakes from time to time. But when we do inventory counts on dollar value and quantity, they’re almost perfect.”

“Accurate inventory means our shop floor module is working correctly,” adds Simpler, “because the counts can’t be correct unless we’re accurately tracking and maintaining the integrity of our work orders. It also means incoming shipping and receiving is all tying together as it should. If I can’t depend on my inventory, I can’t trust my materials resource planning (MRP). If I can’t trust MRP, we can’t ship orders ship on time. With Global Shop Solutions, I know I can trust both.”



*Gun barrels at the beginning stages of production, prior to being hammerforged.*

### Maintaining Compliance

As a defense contractor, MaTech must maintain strict levels of traceability with its inventory. They have to be able to document everything that happens to a raw material from the time it arrives in receiving to when it leaves as part of a finished product. MaTech also has to control inventory on the [accounting side](#) as well.

“We are regularly audited on our inventory control processes to ensure everything is accounted for,” says Bly. “Without Global Shop Solutions, that process would be next to impossible.”

In addition, many of MaTech’s regulated parts required serialization in order to facilitate tracking. Here again, Global Shop Solutions ERP software lends a hand.

“Often, we’re trying to find a part with specific serial number,” says Simpler. “Locating that single part with an Excel spreadsheet can be difficult and time-consuming. With Global Shop Solutions’ in-process serialization features, we accomplish it with just a few clicks of the mouse. This has made a huge difference for us on the shop floor.”

### Handling Large Projects with ERP Software

According to Simpler, the Advanced Planning & Scheduling (APS) module has greatly simplified the scheduling process. Features like forward/backward and finite scheduling, capacity planning, and tool and material scheduling make it easier for Simpler to pull jobs forward or move them out when material requirements don’t fall in line with the scheduled jobs.

“APS enables me to rearrange my running so that everything flows in correctly and schedules the machines appropriately,” notes Simpler. “When we get customer changes, APS gives us great visibility of machine capacity so we can fit the changes in without too much disruption to other projects in progress.”

Even more valuable to Simpler is the **Project Management** module. Designed to track and manage the production of lengthy and/or highly complex projects, this robust module offers many important features.

For example, MaTech can estimate large projects more efficiently and accurately, and easily track budget versus actual throughout the project. They can efficiently track labor and outside costs for every phase of the project. And Project Management makes it easier than ever to track material costs over the length of a project.

“The visibility of data in Project Management is superb,” says Simpler. “From one screen I can see all the work orders on any project and quickly drill down for more information about that project. I can access APS to see where we stand with any project, how its flowing, and whether we’re going to be late or even have the potential to be late on. We can also create and **maintain our BOMs**, some of which are 300 to 400 lines long, faster and more accurately.”

### **Facilitating Intercompany Transactions**

To keep tabs on what’s happening on the shop floor, Simpler uses the ever-popular Supply & Demand screen in the Inventory module and the **Shop Floor Control** module to create new orders, track work in progress, make sure products are shipping on time, and review the quality inspection reports.

“I love the **Purchasing Dashboard**,” says Simpler. “It allows people to maintain notes so I don’t have to call every two seconds if some materials are late or not hitting the floor when I need them to.”

“The engineering control process in the **Quality Control** module has also been invaluable,” continues Simpler. “If someone puts an ECN on a part, Global Shop Solutions automatically inactivates the part. You can’t make a purchase order or sales order for it. You can’t build a work order for it. You can’t do anything until the ECN is removed. Having these kinds of fail-safe features in place has been a real life-saver for us.”

Since MaTech’s visit to Global Shop Solutions’ user training, they have since implemented consolidated financial statements and automated intercompany transactions. The software easily handles intercompany inventory transfers between MaTech’s divisions.

“With Global Shop Solutions, we don’t have to click from one company to another to make cross-company inventory transactions,” says Bly. “The system automatically transfers the inventory, the cost and everything else you want. What used to take five people can now be accomplished with two.”

### **Stronger Competitive Position**

Ultimately, Global Shop Solutions ERP software enables MaTech to compete more effectively in the marketplace. By accurately tracking cost of goods sold, MaTech can bid on jobs more effectively. They can also trust the lead times they give customers when making a bid.

“Having more accurate lead times helps us win jobs we wouldn’t have won before,” says Simpler. “Global Shop Solutions has given us the tools to adapt our processes to ensure we’re tracking costs effectively. As a result, accounting no longer closes work orders for the shop floor, but only monitors work-in-process costs. This has allowed us to know exactly what our projects are costing us in total.”

“This has also allowed us to drastically reduce our late cost of job from nearly \$500,000 five years ago to under \$20,000 in 2014,” continues Simpler. “This lets me know the entire supply chain is properly using the system to ensure that timely transactions – including time keeping, PO receipts, and material issuance – are happening.”

“Global Shop Solutions is a very robust ERP system, but once you figure it out, it’s intuitive and easy to use,” concludes Simpler. “Between our improved inventory accuracy, reliable lead times, better scheduling, and accurate job costing, it definitely makes us more competitive.”