

## GLOBAL SHOP SOLUTIONS CASE STUDY

# Magnus Precision Manufacturing, Inc.

*Magnus Precision Manufacturing, Inc. is a wholly-owned subsidiary of Floturn, Inc., an employee-owned company based out of Cincinnati, Ohio. Magnus is headquartered in the beautiful Finger Lakes region of upstate New York in the town of Phelps. Operating out of a 55,000-square-foot, state-of-the-art facility, Magnus is known as the east coast's leading manufacturer of super precision, highly complex machined parts and assemblies for the aerospace, medical, industrial, firearms and optical industries. Magnus is currently ISO 9001:2008, and will soon acquire AS-9100C certification. Additionally, Magnus also possesses a Federal Firearms License, and is ITAR registered.*



*Using the Shop Floor Data Collection station for work order movement.*



*Mazak Hyper Quadrex 200 MSY at Magnus.*

Previously, Magnus ran the business with basic accounting software and a spreadsheet-based shop floor control system. The lack of integration between the two required extensive manual data entry, which frequently led to data entry errors and great difficulty in tracking down information on jobs, parts and inventory. In addition, poor scheduling of jobs led to low on-time delivery rates.

After researching several different ERP vendors, Magnus chose Global Shop Solutions ERP software, primarily for its robust **Advanced Planning & Scheduling** (APS) module as well as the overall flexibility of the system.

### **99% Inventory Accuracy**

Since implementing Global Shop Solutions ERP software, Magnus has made tremendous strides in **inventory** accuracy and materials management.

“Locating inventory was nearly impossible,” recalls Controller Diane Mays. “We weren’t using a bin system, so when we wanted to find something, we had to go out on the floor and hunt for it. My second week on the job I found myself crawling over pallet racks looking for parts, and that’s when I said ‘Never again!’”

Mays assembled a team to redesign the physical area and install the bin locations. The team made sure all the inventory data was properly entered into Global Shop Solutions ERP software, so that now all inventory transactions are processed through the system and readily located.

Magnus now averages 99.9% accuracy on inventory, including work in progress. And they now conduct a physical inventory only once a year instead of twice, generating a 65% reduction in labor time to perform the count.

“We still have to do physical inventory once a year because our auditors require it,” says Mays. “But with the bins and cycle counts we know where inventory is located at all times. So now it takes six people less than a day to perform the count, and we don’t have to shut the shop down while doing it.”

### **APS Leads to 30% Improvement in On-Time Delivery**

Meanwhile, scheduling jobs through the APS module has improved on-time delivery rates by nearly a third.

“APS gives us complete visibility of where every job is on the shop floor,” says Mays. “At any time we can see if a job isn’t progressing like it’s supposed to and take appropriate action. The late job report is also very helpful because it gives a summary overview of every job that might be late. It even shows when a job we haven’t started yet might be late due to a future constraint in a workcenter.”

### **Reducing Scrap**

In the past, supervisors only looked at work orders after a job was closed. This led to high levels of scrap and rework because problems were not identified until after the fact. With Global Shop Solutions ERP software, Magnus can easily review work orders as jobs move through the shop floor, allowing them to identify problems with scrap as a job is progressing and take appropriate action.

“Used to be we didn’t record scrap until the job got closed, so it often came as a surprise,” she says. “Now, operators enter scrap into the system as it occurs, so we can analyze it as the job progresses.”

“We have also instituted several different actions to cut down on rework, but they all stems from the ability to use Global Shop Solutions to see the data in real time so we can address problems in real time,” adds Mays. “If an area shows up that normally doesn’t have scrap, we can quickly move in and see what we need to do to rectify the situation.”



*Expeditor using Global Shop Solutions ERP software.*

### **Seamless Integration with Accounting**

As controller, Mays loves the way Global Shop Solutions ERP software captures and moves labor, material and other data to the system’s robust **financial module**. Instead of manual time sheets, operators electronically clock on and off jobs using the **Shop Floor Data Collection** stations throughout the shop floor. The system automatically sweeps the labor transactions into the work order to keep labor and material costs accurate in real time.

“We do the labor balancing every day to keep it current,” says Mays. “We also close work orders every day, and once a week we make sure all direct and indirect cost are flowing properly. As long as people are entering the data properly, everything is as clean and accurate as it’s supposed to be.”

As a result, Mays can now close the books in one day at month’s end.

“Closing the books is not a value-added activity, but it needs to be done,” she says. “With Global Shop Solutions, when you look at everything on a daily and weekly basis, all you have left at month’s end is to review the last few days, so it goes very quickly. We even use the Payroll module to cut our payroll checks.”

### **Flexibility, Visibility of Data Make the Difference**

Asked to identify Global Shop Solutions ERP software’s most versatile feature, Mays readily points to the ever-popular Supply & Demand screen in the Inventory module.

“Supply & Demand is the doorway for finding any piece of information in Global Shop Solutions,” she says. “If you want to know anything about a part, a job or a customer, you can quickly find it from this screen. You can see where a sales order or work order is. You can review the entire history of a part or customer. You can see if a contract with the customer is ending and whether it might be time for new pricing.”

“We use this screen on a daily basis for all sorts of tasks,” she adds.

Next on her list of essential features is the system’s flexibility and ease of **customization**, including the ability to seamlessly integrate with Crystal reports.

To help improve quality, Magnus created a custom report that compares actual to estimate on the work orders. If a work order doesn’t look right, the report very clearly lays out the standard versus actual performance for each work center on the job. The report goes to the engineers, who then investigate the job to determine what happened and implement improvements.

“Global Shop Solutions is an amazingly flexible ERP system,” she says. “I enjoy watching the **Friday Features** every week to see what other companies are doing with the software, even in areas that we don’t use, because you never know when you might learn something useful.”

“If our business ever changes or we have something new come in, I’m confident the software can handle it for us,” concludes Mays. “If not, the folks at Global Shop Solutions can help us write a reporting tool or custom program instead of having to add a third-party program. And that’s the beauty of the system – it adapts to what we need to do rather than forcing us to adapt to it.”



*Magnus’ Deburr Department.*



*OKK Horizontal Mill and 325 piece tool changer.*