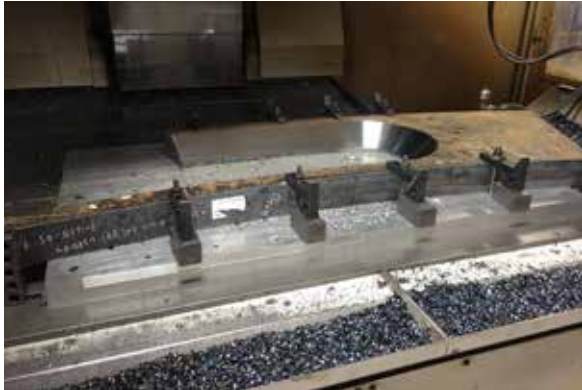


GLOBAL SHOP SOLUTIONS CASE STUDY

QTA Machining, Inc.

Founded in 1996, *QTA Machining, Inc.* is a custom machine shop that manufactures complex and precision parts for companies of all sizes in the U.S. and Canada. Using CNC lathes and mills, EDM machines, OD/ID grinders, and CNC inspection equipment, the Buffalo, New York, based company serves a wide array of customers in the oil and gas, video game, medical, bottle capping, government, and other industries.



An 8" thick plate, weighing 784 lbs, and measuring 61 3/8" x 51 3/4", being milled by Okuma MILLAC 1052V.



The production manager can dispatch a job from his touchpad device equipped with the Shop Floor Data Collection application.

Operating out of 27,000 square feet of production space, the company's highly skilled machinists also offer precision gear and spline cutting services and specialize in taking on difficult precision jobs that other companies can't or don't want to handle. Committed to quality, QTA Machining is ISO 9001:2015 compliant.

Previously, QTA Machining managed the business using a popular but limited ERP program for the production side and QuickBooks for invoicing and **accounting**. This resulted in inefficient and time-consuming processes that produced long paper trails and redundant manual data entry. Seeking to improve on-time delivery rates while leaning production processes, management upgraded to Global Shop Solutions ERP software.

"We selected Global Shop Solutions primarily for its **Advanced Planning & Scheduling (APS)** application and the real-time data collection through the **Shop Floor Data Collection screen**," says Matt Pelczynski, Executive for QTA Machining.

"The integration between applications was better than the other ERP products we researched, but APS was the big selling point," he says. "After seeing its robust capabilities in a live demo, Global Shop Solutions was clearly the best choice for our needs."

35% Improvement In On-Time Delivery Rates

QTA Machining built its business – and its reputation – by providing impeccable quality at competitive prices. However, they often struggled to deliver jobs on time, in large part due to delays with outside services as well as their own internal scheduling difficulties. Since implementing Global Shop Solutions ERP software, the company has nearly doubled its on-time delivery rates from an average of 45% to 80%, and is on track to increase to 90% by year's end.

"Our customers have been willing to sacrifice on-time delivery to get the quality parts they need at the right price," says Pelczynski, "but we wanted to excel in delivery as well. We're now holding our suppliers and vendors more accountable for their delivery dates, and we're using APS to schedule jobs more efficiently and accurately."

How has Global Shop Solutions improved scheduling?

Every week, managers review closed work orders from the previous week. They then build custom reports that allow them to identify and adjust inefficiencies in estimating and scheduling. The next time an adjusted job gets re-ordered, the router contains more accurate job times, which enables more accurate scheduling for better on-time delivery.

“We have about 30 machines but only 15 shop employees, so our workcenters are never at 100% capacity,” adds Pelczynski. “APS allows us to reduce the productivity rate for each workcenter, and accurately assign what we will produce on the shop floor on any given day. This prevents us from overstating our capacity and provides a clearer picture of how we operate on our floor. The ability to review real-time job times has made a big difference in our on-time shipments.”

Achieving a 99.67% Quality Rating

As a manufacturer of precision parts, quality has always been the #1 priority for QTA Machining. With Global Shop Solutions ERP software, managers can now quantify the **quality rate** with remarkable precision. Last year, the company achieved a near-perfect quality rating of 99.67% (blended rate based on returns and in-process deviations).

According to Pelczynski, having a clearly defined RMA process and requiring machine operators to report all deviant parts through the Shop Floor Data Collection stations provides the data sets needed to generate the quality metrics through the ERP software.

“When someone reports deviant parts, the system automatically sends a message to the quality manager,” he explains. “The manager then goes to the shop floor to determine the problem with the part and dispose of it accordingly.”

“Generating a NCMR automatically triggers an email to the operations manager, who reviews it and signs off or adds notes as necessary,” continues Pelczynski. “From there, cause and corrective actions and NCMRs are attached to the work order so that when job comes through again operators don’t make the same mistake.”

Global Shop Solutions ERP software also helps with traceability, an important requirement for many QTA Machining customers. Linking each work order number to the **Document Control** application makes it easy to organize and store all final inspection, in-process, CMM reports and CNC CMM reports, along with material and outside service certs, for fast retrieval.

Less Paper = Less Administrative Work

On the shop floor, QTA Machining’s biggest challenges have to do with effective communication, job dispatching, and **inventory control**. According to Pelczynski, Global Shop Solutions’ powerful **Shop Management** application plays a critical role in facilitating timely communication between the office and shop floor. In particular, it allows managers to assign priority levels to jobs and add detailed work instructions, ensuring jobs are completed correctly and on-time.

With the auto work order generation feature, Pelczynski can instantly generate work orders for parts that need to be manufactured and assign priority levels as necessary. The Auto Purchasing feature facilitates efficient purchasing of all raw materials, tooling, and shop supplies required for each job. And the dispatch lists greatly simplify the process of managing workflow through the shop floor.

Global Shop Solutions ERP software has also cut down on job costs and repetitive administrative work.

“As part of our process of evaluating work orders from the previous week, we also review all job costs,” says Pelczynski. “If we determine that we lost money on a job, we make adjustments so that we turn a profit the next time we run it.”



One of QTA Machining’s Coordinate Measuring Machines (CMM).

“On the administrative side, Global Shop Solutions has significantly **reduced the amount of paper** while totally eliminating duplicate data entry,” continues Pelczynski. “We no longer need to create ad hoc spreadsheets because the system accommodates all our needs. This gives us more time to focus on value-added processes, improving operations, and generating more business. Since implementing Global Shop Solutions, our net sales have increased nearly 20%.”

A Front-to-Back ERP System

Today’s manufacturing customers also want fast customer service. To deliver on this important criterion, QTA Machining personnel use the robust **Customer Relationship Management (CRM)** application to answer customer inquiries in seconds rather than hours.

“In our industry, on-time delivery, competitive pricing, and quality are all givens,” notes Pelczynski. “What sets us apart from competitors is the ability to provide accurate and real-time customer service on demand. Using only the PO number, I can instantly drill down to see the status of a job or work order. I can tell whether it’s open or closed, when it was shipped, how it was shipped, and anything else the customer wants to know – without having to hunt for the information and call the customer back.”

In addition to leaning operations throughout the business, Global Shop Solutions ERP software has also had a big impact on employee morale. Through structured processes and use of the system, QTA Machining employees are now equipped with the tools and communication they need to succeed on the job. This, in turn, allows them to focus on what they do best, which is manufacture quality precision parts.

Pelczynski also gives the software high marks for its flexibility and ease of customization.

“Global Shop Solutions is a true front-to-back ERP system that has the functionality to manage every aspect of the business,” he says. “But to me, the system’s scalability and versatility is by far the most impressive part of the software. The core system has more than enough horsepower to suit our needs, and the added layer of custom **Global Application Builder (GAB)** applications and Crystal reports makes it even more powerful.”

“As we continue to grow as an organization, and as the industry changes over time, we’re confident that we’re equipped and partnered with the right software to accommodate our needs,” concludes Pelczynski.



QTA Machining headquarters in Buffalo, New York.