

GLOBAL SHOP SOLUTIONS CASE STUDY

Key Gas Components

Founded in 1986, *Key Gas Components* is a family-owned and operated manufacturing and engineering services company that offers high-quality gas train components designed to meet the needs of gas appliance OEMs. Operating out of two facilities – a 35,000-square-foot plant in Marion, North Carolina, and a 50,000-square-foot plant in Allegan, Michigan – Key Gas Components has developed a reputation for providing creative manufacturing solutions.



A sampling of precision parts produced by Key Gas Components.



An assortment of Swiss lathe parts.

Key Gas Components produces a wide range of **make-to-stock** and custom parts, including gas valves, manifolds and connectors for HVAC OEMs, as well as valves, fittings, burners and lighters for the food industry and water heater OEMs. The company's fully-equipped model shop can produce custom prototypes to customers' engineering specifications, and a complete testing laboratory is available for compliance testing to CSA, UL, FM and European standards. Key Gas Components also operates a screw machine and CNC machine shop that offers metal machining services and the production of specialty components.

Prior to Global Shop Solutions ERP software, Key Gas Components employed an older type of ERP system that handled a few functions well but did not provide complete business management capabilities. As a result, management struggled to obtain the data to effectively manage inventory, control costs and make informed decisions on how to grow the business. Since implementing Global Shop Solutions ERP software, Key Gas Components now has the data it needs to better manage every aspect of the business.

Better Job Costing = Better Margins

With the **Shop Floor Data Collection** stations positioned at each workcenter, Key Gas Components now enjoys reliable, real-time data collection throughout the shop floor. Managers have the information they need to control costs and maximize capacity while getting projects out the door on time. And Global Shop Solutions ERP software's high degree of **customization** lets managers see the data the way they want to see it.

"For example, we regularly use the standard **Work Order History** screen in combination with a custom 'Work Order Variance' Crystal report to summarize and **analyze job costing data**," says Henderson Cathcart, National Sales Director for Key Gas Components. "That way, we can quickly see whether costs are over or under estimates, by how much, and take appropriate action if necessary."

Work Order History, along with the work order variance report, also helps Key Gas Components price their jobs more accurately.

Many of their OEM customers send in large blanket orders in January, and then take delivery of product at different times throughout the year. Because raw materials prices constantly fluctuate, Key Gas Components must keep a close eye on pricing variations.

“First we look at Work Order History to see how many times we have made the part,” explains Cathcart. “Then we use the custom variance report to develop an average cost based on the variance history. By averaging the past three or four work orders, we can set our prices according to reality-based costs rather than a best guess. We use Work Order History every day to price accurately and maintain our margins.”

Key Gas Components also tracks machine cycle times when making large runs of small machined components. Management used to rely on machine operators to write down how much time it took to make each piece, a historically inaccurate and error-prone process. Now, workers clock into Global Shop Solutions ERP software on every operation, which provides a real time and highly accurate accounting of cycle time for each part on each machine.

“When you’re making 500,000 parts, a half-second variance can make the difference between a 2% margin or 25% margin,” explains Cathcart. “The ability to precisely track cycle times helps control costs and keep our margins where they need to be. This is just one of the many benefits derived from having access to reliable shop floor data.”

Tighter Inventory Controls

Despite the impressive gains in job costing, Cathcart points to inventory control as the area of biggest improvement. Prior to Global Shop Solutions ERP software, Key Gas Components lacked the ability to produce accurate inventory counts. Now, through the use of cycle counting and the material resource planning (MRP) features, they have a firm grasp on inventory levels – and costs – at all times. The ERP software also helps to minimize inventory levels and reduce carrying costs with its automatic reorder point capabilities.

“Before, we could never seem to get a good snapshot of our material levels,” explains Cathcart. “We couldn’t tell with any degree of accuracy what was coming in, going out, or getting assigned to jobs. We now enter all incoming materials into Global Shop Solutions, and use the system to issue materials to the job and make bin transfers. As a result, we know exactly what we have in inventory, where it resides, and whether or not it has been assigned to a job. We plan to implement the [barcoding features](#) in the near future to further simplify this process.”

“Global Shop Solutions also helps to control waste,” adds Cathcart. “Before, workers might pull extra bars for the screw and CNC machines and forget to enter them. Or they would forget to enter excess material when a job was complete. Global Shop Solutions automatically tracks these activities so we can see what’s happening with our materials and production flow, and take steps to reduce waste.”

Like many manufacturers these days, Key Gas Components often performs [inventory management](#) for their customers’ blanket orders. In the past, they typically ran the full orders all at once, which led to a lot of inventory sitting around and tying up cash flow.

Global Shop Solutions ERP software makes it easy to break up blanket orders into separate runs as needed – without over-ordering or running out of materials. The reorder points feature automatically notifies purchasing when materials are running low, and the system tracks inventory levels to determine when to make more product.

“We used to run 100,000 parts and have all the raw materials and production just sitting on the shelf,” says Cathcart, “not exactly what you would call lean manufacturing. Now we just enter the PO, get a release schedule from the customer, and Global Shop Solutions tells us when to order materials and when to make parts. By customizing our blanket orders, we can better manage our costs and cash flow while running a leaner shop floor.”



One of Key Gas Components working on one of their components.

53% Increase In Sales

Since implementing Global Shop Solutions ERP software, Key Gas Components' sales have grown a hefty 53%. Moreover, this growth has occurred without having to add additional staff or overhead.

"We've been able to grow sales in large part because our manufacturing, [scheduling](#), and inventory control are now so well managed that we can fit in more production without adding overhead," says Cathcart. "We've also cut lead times, which helps get parts to customers faster. As a result, much of our sales growth has come from existing customers. They can load us up with more work because we operate more efficiently, which also helps to lower new business acquisition costs."

Cathcart also credits the [Customer Relationship Management](#) (CRM) module with helping grow sales. With it, he can easily track and manage RFQs and new job orders. He makes regular use of the electronic quoting feature, which automatically sends quotes to customers via email. And when customers call in to inquire about the cost of a part or the status of a job, he can instantly access everything he needs to know about the customer, part or job from one screen, and give customers an answer on the spot.

"The best part about CRM is the ability to customize the screens and dropdown menus to fit the way you do business," adds Cathcart. "And you can do it all – from job quoting to sales analysis – remotely with a laptop or tablet. I travel extensively, and the ability to manage projects and take customer service calls on the road is invaluable."

Cathcart sees Global Shop Solutions as a "big" software with a fairly lengthy learning curve. But he also believes that once you figure it out, the system can run your whole business.

"With Global Shop Solutions, you can literally see everything that's going on in the company," he concludes. "Everything you need to know – from accounting to the guy running the screw machine – is right there in front of you, and the data is accurate and in real time. This has given us a firm grasp on our costs for every job, and we use this knowledge to price our products competitively and eliminate those products where we aren't competitive."



CNC Machining Cell



CNC machining part on a CNC machining lathe.