

## GLOBAL SHOP SOLUTIONS CASE STUDY

# Electro-Mechanical Corporation

Founded in 1958 in a small building in Bristol, Virginia, Electric Motor and Repair Sales was the first in its region to offer 24/7 repairs for motors and electrical apparatus. Over the years, the company grew through expansion and acquisitions, and began manufacturing a variety of products including underground power centers, coil winding equipment, metal castings, and more.



EMC has nearly one million square feet of modern manufacturing facilities located in Virginia, Tennessee and Mexico.



EMC's Federal Pacific facility, just one of their family of company divisions.

In 1971, the company changed its name to **Electro-Mechanical Corporation** (EMC) and continued to expand the business into more diverse markets. New product lines included switchgear and transformer products, and most recently, electrical distribution equipment for solar, data center and other mission-critical applications.

Today, EMC is one of America's largest privately held, family-owned manufacturers of electrical apparatus. Its family of manufacturing, repair and service companies are recognized around the world for supplying high-quality power distribution components and the design and construction of innovative mining systems.

### Stepping Up to ERP

For 30 years, EMC managed the business with an old legacy system that grew increasingly unable to meet the company's rapidly growing needs. The continued reliance on spreadsheets and manual data entry made it hard to get timely information on the shop floor, and the data was often inaccurate.

In January of 2020, EMC replaced the legacy system with **Global Shop Solutions**, a sophisticated ERP software system built for today's "Internet of Things" manufacturing environment. Kathy Watson, Director of IT for EMC, described the system upgrade as "transformative" for EMC.

"As a **mixed-mode** manufacturer with two separate repair facilities and a configured product line, we needed an ERP system that could seamlessly handle different types of manufacturing," says Watson. "We researched many different ERP systems, and Global Shop Solutions had everything we were looking for, including robust capabilities and a **Product Configurator** that fit us perfectly."

"We liked the company as well as the product. Global Shop Solutions offers U.S.-based support, and it's a family owned business with a family culture," continues Watson. "They worked with us at every step of the **implementation** process to ensure it was successful, and that's when we knew we made the right decision."

## First Thing's First

EMC's first goal with ERP was to provide ready access to real-time production data on the shop floor. Having all the data in Global Shop Solutions would eliminate the need for the spreadsheets and ancillary databases and significantly reduce the amount of manual data entry. This involved a lengthy process of cleaning and preparing the data to migrate into Global Shop Solutions, but this arduous task yielded immediate dividends.

"Having all the data accessible through ERP has transformed the way we work," says Watson. "We can now access data faster and easier than we ever could in our legacy system, and we can trust that it is accurate and up to date. We saw immediate improvement in scheduling, costing, and other key areas of the business. In less than a year we already do many things very differently, and we're looking forward to changing more."

Next up on the agenda of improvements for EMC is deploying Global Shop Solutions' **BOM Compare software**. This handy tool enables manufacturers to download CAD drawings and BOM specifications directly from SolidWorks and other CAD software programs. This saves time and reduces errors by eliminating the need for engineers to manually key in the data. BOM Compare also compares the imported CAD or CAM BOM with the Global Shop Solutions BOM to easily identify any updates or discrepancies between the two.

"Our jobs often require large and complex BOMs," says Watson. "Once we have the BOM Compare interface up and running, importing the data will significantly reduce the time it takes to get jobs into production on the shop floor."



*EMC employees hard at work on the shop floor at the Line Power facility.*

## Next Step: Continuous Improvement

Despite the tremendous advances made during the first year, Watson feels EMC still has much to learn about all that Global Shop Solutions has to offer. Scheduling still involves a fair amount of manual processes that need to be eliminated. Product costing and financial reporting can use some fine tuning. EMC's ultimate goal is to make full use of the software, taking it one step at a time.

"We plan to accomplish that goal through continuous **training and learning**," says Watson. "Global Shop Solutions provides plenty of tools for becoming more fluent with the software, and they're always ready to provide support when we need it. Their consultants and support personnel know the system inside and out and they have excellent communications skills. We can always rely on their expertise to resolve any issue we may have."