

## GLOBAL SHOP SOLUTIONS CASE STUDY

# Electronic Power Design, Inc.

*Electronic Power Design, Inc. (EPD) is an engineer-to-order electrical systems integrator with 35+ years of experience creating power systems that efficiently manage energy supplies and reduce or eliminate power system disturbances. Headquartered in Houston, TX, USA, their innovative solutions ensure that energy supply and demand are continually in balance for companies in the data center, water and waste water treatment, marine offshore, dredging, and energy industries.*



*Part of EPD's shop floor dedicated to sheet metal and bus bar fabrication.*



*Some of the switchboards manufactured by EPD.*

For many years, EPD operated a separate production facility in China to manufacture parts that met their specific needs. When market conditions forced the closure of the plant, management deemed it a good time to seek a new ERP program that better aligned with the Houston facility's needs. Mark Bishop, Senior Manager of Manufacturing Planning for EPD, began researching ERP packages of all sizes and capabilities. He selected Global Shop Solutions and EPD went live with the software in early 2021.

"Global Shop Solutions was less complicated than our existing ERP package," says Bishop. "It was easier to use, which minimized the learning curve for our employees. It also offered more flexibility than our old system. Most important, Global Shop Solutions offered a complete system out of the box without having to pay for features and capabilities we didn't want."

EPD fabricates much of the sheet metal and copper parts needed for their product lines, a process that often requires **nesting** and cutting multiple parts from the same sheet. EPD's previous ERP system couldn't properly cost the individual parts. As a result, production managers had zero visibility of sheet metal status until the day it was logged into inventory.

"With Global Shop Solutions, we now have immediate visibility of our fabricated parts," says Bishop. "The ability to see our sheet metal status and costs allows us to plan more effectively, meet customer needs, and accurately track costs."

### **Watching TV on the Shop Floor Improves Efficiency**

Interestingly, watching television on the shop floor has had a big impact on **job costing**, daily labor balancing, and eliminating production inefficiencies. It's part of a Global Shop Solutions product called **TrueView™** that uses TV screens installed around the shop floor to display the real time status of work orders in progress, work orders

scheduled to begin, and hot jobs that need attention. Without leaving their workstations, personnel know which jobs are on schedule and which need prompt action to meet the expected due date.

“From day one we would see a lot of jobs in red and yellow, meaning they were behind schedule,” says Bishop. “But it wasn’t long before we began seeing more green. Instead of hiding the inefficiency of how long jobs were taking, we now know where the time is being spent. This drives more accountability on the shop floor and allows us to determine why some operations were taking longer than they should.”

### **BOM Compare Saves the Day**

EPD’s standardized product lines require massive **bill of materials** (BOMs) to manage the thousands of parts that allow for infinite product variations and configurations. With so many different configurations available, the same BOM rarely goes through the shop more than a few times, which necessitates building new or different BOMs that can take days to complete. Global Shop Solutions’ **BOM Compare** software dramatically reduces the time by enabling users to create Excel versions of their BOMs and import them directly into the system.

“There’s no way we could put all our highly detailed BOMs into the system in a timely manner without BOM Compare,” says Bishop. “And that’s just for the BOMs we build. The BOM for our highest-volume product comes from our partner. With BOM Compare we can easily download their BOMs with their part numbers into an Excel format, pull data from the database to identify our part numbers from the customer’s BOM, and quickly convert the BOM into a format ready to import into Global Shop Solutions.”

“When adding new configurations to existing BOMs we used to manually cross-reference a master list of part numbers to identify which ones were new,” adds Bishop. “Now we simply punch a button, BOM Compare puts the BOM into the right configuration, an engineer imports it, and we’re off and running in an hour instead of a day or more.”

### **Managing Supply Chain Problems**

As with most manufacturers, ongoing global supply chain disruptions make it difficult for EPD to manage material lead times, schedule jobs appropriately, and give customers accurate delivery dates. Global Shop Solutions’ superb visibility of data and accurate **inventory tracking** allow engineers to design around existing inventory to offer equivalent products that may have a small change.

“Sometimes we don’t have the materials in inventory to make the product customers want, so we’re developing new product lines to work around some of the major components we can’t get,” says Bishop. “This enables us to use excess inventory that doesn’t have the exact same rating and has opened up marketing options we normally wouldn’t have looked at.”

### **Visibility + Flexibility Sets ERP Software Apart**

Bishop rates the superb visibility of data as having the biggest impact on EPD, with the flexibility of the software a close second.

Bishop is also a big fan of the ARC, an online portal where users can download tailored reports, programs and Dashboards (at no cost) that other customers have created or Global Shop Solutions built for them.

EPD wanted to speed up replacement of their Kanban inventory materials. Using a program downloaded from the ARC, their forklift drivers can scan a barcode and the program instantly puts it in the queue for purchasing to write the PO. EPD now has Kanban replenishment directly from the warehouse because another Global Shop Solutions customer had requested it in the past.



*A couple EPD employees in the testing area.*

"It's not just the access to real time data, it's also the ability to organize it the way we want to see it," he says. "I've created a number of custom Excel spreadsheets, and Global Shop Solutions makes it easy to connect them to the database. That way I can reference our live data in reporting tools to put the information at everyone's fingertips."

Bishop is also a big fan of the ARC, an online portal where users can download **tailored reports, programs and Dashboards** (at no cost) that other customers have created or Global Shop Solutions built for them.

EPD wanted to speed up replacement of their Kanban inventory materials. Using a program downloaded from the ARC, their forklift drivers can scan a barcode and the program instantly puts it in the queue for purchasing to write the PO. EPD now has Kanban replenishment directly from the warehouse because another Global Shop Solutions customer had requested it in the past.

"With Global Shop Solutions, you get all the modules you need right out of the box," concludes Bishop. "The software is very flexible, the interfaces are highly customizable, and the Global Shop Solutions team will work with you on whatever you want to do. Great company, great product – it's a perfect fit for our business."



---

*EPD's main panel shop.*