

STANDBY SCREW MACHINE PRODUCTS

EXPANDING MACHINED PARTS PRODUCTION INTERNATIONALLY WITH DELMIAWORKS
ERP AND MES SOLUTIONS

Case Study



With DELMIAWorks ERP and MES solutions, Standby Screw improved its machining productivity, resulting in a leaner operation and enabling the Ohio-based machined parts manufacturer to expand internationally by opening facilities in China and Thailand.

Challenge:

Improve operational efficiency, production processes, inventory management, profit margins, collaboration, resource utilization, and decision-making to support growth and international expansion by finding a solution that both automates manufacturing and provides realtime access to all production, financial, and operational data.

Solution:

Replace its old manufacturing software with DELMIAWorks ERP solutions, including ERP, Finance, Quality Control, Inventory Management, Time & Attendance, RealTime Production Monitoring, Tooling Management, Preventive Maintenance (MRO—Maintenance, Repair, Overhaul), Forecasting, Electronic Digital Interface (EDI), Warehouse Management, Customer Relationship Management (CRM), and Manufacturing Execution System (MES) modules.

Results:

- Grew annual revenue
- Expanded RealTime Production Monitoring to facilities in Asia
- Maximized resource utilization
- Increased production throughput

Founded in 1939 by William F. Marcell and Fred Baumer, Standby Screw Machine Products is a leading machined parts manufacturer that continues to be owned and operated by the Marcell family. With three production facilities in Berea, Ohio; Foshan, China; and Samut Prakan, Thailand, the multinational manufacturing company is committed to providing uncompromising quality and service on every part and every order. Standby Screw produces a wide range of custom-designed parts to exact customer specifications, using technically advanced equipment and processes. The company's flexible, in-house production capabilities enable it to deliver finished parts in any quantity while keeping precision, timeliness, and cost-effectiveness top of mind.

"The DELMIAWorks ERP and MES system has become essential to our operations because it provides more accurate information upon which we are making critical business decisions. In short, it has enabled us to operate more effectively, efficiently, and successfully, providing the insights that we need to remain lean in all three of our production facilities."

—Jay Jay Koi, Vice President

Until 2013, Standby Screw utilized an old manufacturing software solution to organize orders, schedule jobs, and manage production operations in its shop. Because that manufacturing software implementation involved a lot of customization and was not implemented to the fullest extent, company management eventually lost confidence in the system and the accuracy of the information it provided, according to Vice President Jay Jay Koi. "We decided to replace the previous system because it became exceedingly difficult to get good information out of it," Koi recalls.

"We had not kept up the maintenance and we were behind on upgrades, which led to things breaking in the system and made the information suspect," Koi notes. "The last straw was when the inventory costing system failed to apply overhead and labor costs to our orders, which resulted in questions about our true cost of goods sold. That's when we began looking for a new solution to help us organize, manage, and automate our operations."

After evaluating several enterprise resource planning(ERP)andmaterialsrequirementsplanning (MRP) systems, Standby Screw management decided to implement DELMIAWorks® ERP and MES(ManufacturingExecutionSystem)solutions—including the ERP, Finance, Quality Control, Inventory Management, Time & Attendance, RealTime™ Production Monitoring, Tooling Management, Preventive Maintenance (MRO—Maintenance, Repair, Overhaul), Forecasting, Electronic Digital Interface (EDI), Warehouse

Management, Customer Relationship Management (CRM), and Manufacturing Execution System (MES) modules—because the solutions support process-specific manufacturing processes, including machining, and provide the capabilities that will help the company boost productivity, make better decisions, plan more effectively, and continue to grow. DELMIAWorks ERP and MES software is a solution in Dassault System's **3DEXPERIENCE®** Works business innovation portfolio, purpose-built for small and mid-size manufacturing companies.

"We were impressed with the RealTime Production Monitoring, Inventory Management, and scheduling capabilities afforded by the DELMIAWorks ERP and MES systems," Koi recounts. "We also valued the fact that DELMIAWorks required very little customization and actually helped us improve some of our processes by aligning them with how the system operates."

SMOOTH TRANSITION, LEANER OPERATION

Standby Screw made the transition to the DELMIAWorks ERP and MES systems over a weekend in 2013, experiencing no downtime in its operations and immediately benefitting from real-time access to accurate information. "The biggest improvement initially involved scheduling because we have a much better view into the progress of a job, including how long it will run and how many personnel are required," Koi points out. "DELMIAWorks enables us to see where we can consolidate jobs and machines, where we are tight, and where we have room to grow."

The company also realized immediate improvements in its purchasing operation, implementing a just-in-time approach to purchasing steel, by far its largest raw material, resulting in better cash flow and lower inventory costs. "With the implementation of the DELMIAWorks ERP and MES systems, we've got a lot leaner in our operation," Koi explains. "The system has allowed us to maximize resource utilization while investing in new machines and production capabilities to support growth."



DELMIAWorks ERP and MES solutions help Standby Screw management make better decisions in terms of staffing, scheduling, and capital investments by providing remote, real-time access to critical financial, operational, and production information.

GROWING DOMESTICALLY AND INTERNATIONALLY

Following the DELMIAWorks ERP and MES implementation, Standby Screw continued to grow, opened its production facility in Thailand in 2023, and expanded DELMIAWorks implementations at its facilities in both China and Thailand. "With all three facilities now using DELMIAWorks, we are capitalizing on improved scheduling and creating room to grow," Koi stresses.

"We're seeing improved accuracy in our quoting, more collaboration on the shop floor, and better quality control with fewer rejects and less scrap and rework," Koi adds. "We also value the CRM system for remaining up-to-date with the needs of our most valued customers."

MAKING BETTER DECISIONS

With the remote, real-time access to critical financial, operational, and production information that DELMIAWorks provides, Standby Screw management can make better decisions in terms of staffing, scheduling, and capital investments. For example, the company leverages a 12-month

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rolling forecast of customer orders to make purchasing and scheduling decisions that align with that forecast. Moreover, management has insight into labor and equipment needs based on the schedule, allowing the company to staff up to meet busy periods or add equipment to handle additional jobs with more capacity.

"The DELMIAWorks ERP and MES system has become essential to our operations because it provides more accurate information upon which we are making critical business decisions," Koi says. "In short, it has enabled us to operate more effectively, efficiently, and successfully, providing the insights that we need to remain lean in all three of our production facilities."

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