Southco

EPICOR

Southco Gets Fit for Growth and Industry 4.0

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Company Facts

Overview
▶ Location—Worcester, England
▶ Industry—Manufacturer of access solutions
▶ Website—www.southco.com

Success Highlights

Challenges
▶ Transform a traditional manufacturing business into a smart operation using Industry 4.0 technologies
▶ Improve operational effectiveness
▶ Optimize product quality control

Solution
▶ Epicor® Mattec

Benefits
▶ Improved assembly bench utilization by 40%
▶ Increased Overall Equipment Effectiveness (OEE)
▶ Reduced manual data entry
▶ Increased accuracy and productivity
▶ Made critical data for decision-making available anytime, anywhere, from any screen

In the age of the fourth industrial revolution—known as Industry 4.0—digital technologies are linking physical and digital worlds. Southco—an English manufacturer of engineered access hardware solutions, such as entry door latches and locks—began its global digital transformation journey over 10 years ago. Epicor Mattec manufacturing execution software (MES) is embedded right at the heart of its manufacturing facility, linking with other smart technologies and business systems to exchange information.

Facilities transformed into smart factories

Operations teams at Southco use Mattec to seamlessly blend data and production, optimizing every machine and production run to deliver superior quality products. Facilities have been transformed into smart factories by connecting software with processes to increase efficiency—all while reducing defects, downtime, and waste.

Mattec is linked to the enterprise resource planning (ERP) system, the tool room, and the maintenance team, as well as the quality, planning, and production teams. It extracts and organizes data from a host of different sources into a simple dashboard that helps to support continual improvement in the manufacturing process. This information is accessible anytime, anywhere, and from any screen—including mobile devices.

By linking to an ERP system, tooling can be allocated almost immediately, meaning new production can start with minimal downtime—there is no human intervention.

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Optimized efficiencies

By linking operations data with smart manufacturing technologies, Southco is seeing greater productivity, improved utilization of assets, and enhanced decision making.

Tobi Parker, manufacturing services manager for Southco commented, "Previously, we thought we were more efficient than we actually were. Working with Epicor to integrate Mattec into our whole ecosystem has eliminated human inaccuracies from the manufacturing supply chain and pinpointed inefficiencies."

The assembly line has also been optimized. Intelligence from Mattec demonstrated the business was actually only benefiting from 20 percent utilization of its static assembly lines. For example, many products were previously only assembled on their own "exclusive" assembly benches. Mattec highlighted that in some cases, a bench would only be used for eight hours a month. Southco used this insight and deployed semi-automated plug-and-play assembly machines that are now used for multi-assembly tasks. This has pushed average bench utilization up to 60 percent.

Intelligent scheduling

Mattec has allowed Southco to undertake intelligent scheduling in areas of manufacturing such as injection molding. It has reduced machine downtime during tool changes, allowing the lead technicians to adjust the schedule around the material types and associated barrel temperatures. This makes a big difference in shot-to-shot tool change times, as the company no longer has to wait for barrel temperatures to come down—or up—as often as before.

Quality control

By simultaneously observing both production control and process control, the business can constantly improve the quality of work. For instance, before a plastic injection mold opens, the system alerts the operator as to whether the end product is good or bad. This translates into a better product for the customer, as quality monitoring is built directly into the process—rather than having to manually inspect each batch. Having more efficient production processes has enabled the business to improve all aspects of assembly and has actionable insights from data analytics.

All reporting and analysis is built around data from the Mattec system. Sensors flag potential quality issues before they become a problem, and the system captures, records, and makes accessible very detailed batch information for quality control.

Data enables better decision making

The data Mattec collects enables better and faster decision making. It provides Southco with the information it needs to manage suppliers effectively and to optimize productivity. Mattec works together with other business systems to enable internal teams to identify where operational inefficiencies lie.

"Without Mattec, we'd need to employ an additional three or four manual resources inputting data every day," Parker continued. "That's a huge efficiency gain for us as a business, with the added bonus of increased accuracy."

Southco management can more easily locate and analyze data to develop strategies to continue to meet their Overall Equipment Effectiveness (OEE) standard. With 85 percent OEE being the world-class standard, Southco—which is currently operating at 75 percent OEE—has seen a marked improvement to its performance since implementing the Mattec system.

Fit for growth

Mattec is also helping Southco prepare for and manage the growth of the business.

As Southco continues to grow, Mattec is helping management make smarter business decisions. Following the company's recent acquisition of fastener manufacturer DZUS®, Southco had planned—as part of the merger—to integrate five of DZUS's existing

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injection molding machines into its Worcester plant and purchase two more at around £150,000 per machine. However, after looking at the data from Mattec, management realized that with optimization, they would not need to purchase the additional machines—saving the business around £300,000 in capital outlay.

Training staff is also infinitely easier now that processes and guides are accessible digitally, and information sharing and communication between global offices, suppliers, and new facilities is much improved.

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About Epicor

Epicor Software Corporation drives business growth. We provide flexible, industry-specific software designed to fit the precise needs of our manufacturing, distribution, retail, and service industry customers. More than 45 years of experience with our customers' unique business processes and operational requirements are built into every solution—in the cloud or on premises. With this deep understanding of your industry, Epicor solutions dramatically improve performance and profitability while easing complexity so you can focus on growth. For more information, connect with Epicor or visit www.epicor.com.

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