Reducing Downtime And Improving Inventory Turns

Plex Systems

Tillsonburg, Ontario-based Marwood Metal Fabrication is a multi-facility, stamping and modular assembly supplier. Marwood produces an extensive range of components for use in the automotive manufacturing industry.

Like many other manufacturers that introduced some of the first Enterprise Resource Planning (ERP) systems years ago, Marwood faced a dilemma. Its outdated DOS-based system needed another upgrade, and management had to decide whether it was worth the investment to throw more money at a system that was far less than state-of-the-art.

After a thorough evaluation, Marwood selected Plex Online to replace the legacy system. The team selected Plex Online for its leading-edge support and comprehensive capabilities of ERP, manufacturing execution systems (MES), quality management, customer relationship management (CRM), shop floor integration, and much more.

Also, because Plex Online is delivered with a Software as a Service (SaaS)/ cloud computing model, Marwood avoids the cost, hassles and business disruptions associated with new version upgrades. With Plex Online, there are never any new versions to install. Enhancements are made to the software on a real-time basis at no additional cost.

Integrated System Replaces a Dozen Databases

Plex Online seamlessly integrates data from every aspect of Marwood’s operations, enabling the company to effectively and efficiently manage financials, bills of material, purchasing, receiving, inventory, manufacturing, quality, planning and

scheduling, shipping, EDI, engineering change tracking, subcontracting, document control, program management, human resources, supply-chain management, and more.

System users from all of Marwood's departments and facilities access accurate, real-time data and pull reports anytime, from anywhere.

Plex Online replaced Marwood's antiquated ERP system as well as 10 disparate databases that hadn't even talked with each other before, and it eliminated the need for management to track and update a lot of redundant data.

"We've discovered that Plex Online is the only true ERP — as in 'enterprise-wide' — solution," noted Marwood's Director of Engineering Steve Spanjers. "Everybody and their brother offers financials, but Plex Online is the only system that encompasses everything, including areas that we didn't even have systems for but tracked through manual spreadsheets."

PLC Integration is a Gamechanger

Thanks to Plex Systems' partner Kors Engineering, all of Marwood's shop floor machines have programmable logic controllers (PLCs) that enable seamless, real-time communication through Plex Online.

"This PLC integration using Kors' PleXML tool enables the system to manage large volumes of machine data and provide detailed shop-floor information," said Kors Engineering President Tony Kaczmarek. "Marwood's operators have everything they need to meet their rigorous quality standards, all right at their fingertips."

"Integrating PLCs with Plex Online allows all of our machines -- many different makes and models -- to communicate with each other," said Spanjers. "With the PLC integration, we automatically report production at a highly detailed level, increase equipment uptime, and ensure a consistently high-quality part output. It completely changes the way we do business."

Kors Engineering implemented the PLC integration 100 percent remotely, without any business disruption to Marwood. After Kors brought the first few machines online, Marwood brought up the rest of the machines in all three of their plants on their own. This allowed them to optimize their time and resources.

Shop Floor Controls Lead to Customer Satisfaction

The keys to Marwood's shop floor productivity are the quality checksheets that must be completed before any job is run. Plex Online randomizes the details on the checksheets, ensuring they are carefully reviewed for each job.

For each operation, if the associated checksheet isn't completed, the machine stops production. The checksheets require supervisor sign-offs. If something is out of spec, the supervisor won't sign off on the part, and this prevents any quality issues or production delays.

Noted Spanjers, “Marwood customers are delighted with this function, as they can review the number of quality checks and be assured that any part that does not meet quality specifications will not be shipped.”

The combination of the checksheets and the overall PLC integration lets Marwood achieve high levels of customer satisfaction.

“Our customers are assured that all production data can be tracked, indexed and searched,” said Spanjers, “and thanks to our machine integration, they know we’re doing exactly what we say we will. It’s a highly reliable system, and it makes them feel confident in us.”

Efficiencies Bring Measurable Improvements

Plex Online enables Marwood to achieve measurable improvements in operations.

“With on-time inventory tracking, for instance, we reduce raw materials and work-in-process inventory costs, and we’ve improved our inventory turns by 50 percent,” explained Spanjers. “Our overall productivity has increased, and we are beating the Precision Metalforming Association (PMA) index to which we track our performance, in every single category.”

“Overall, we do the same amount of business we did before the economic downturn, and we’re doing it with half the number of people. Plex Online is definitely a big part of that.”

About Plex Online

Plex Online, built on a “Software as a Service” (SaaS) model, offers more than 350 functional modules, providing manufacturers instant access to vital information and management functions using a simple Web browser. The on-demand solution features product lifecycle management (PLM) functions such as program and change management, enterprise resource planning (ERP) functions such as accounting and finance modules, customer relationship management (CRM) features such as order entry and tracking, manufacturing execution systems (MES) functions such as production scheduling and machine integration and supply chain management (SCM) functions such as supplier quality and traceability.

For more information, visit www.plex.com *[1].*

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