

Rockwell Automation On-Site Support Helps Heavy Equipment Manufacturer Improve Inventory Accuracy, Reduce Costs, and Cut Downtime

Storeroom Management Services help improve stock accuracy and save \$240,000 through inventory consolidation

Solution

Rockwell Automation On-Site Support

- Business Process Analysis (BPA) identified needs through process mapping, manpower and work-flow analyses, and benchmark comparisons
- Six Sigma storeroom study analyzed processes, developed baseline data points for usage, lead times and stock reorders
- Inventory gap analysis determined needs and appropriate spares quantity requirements
- Dedicated resources include on-site project manager, storeroom attendants and inventory specialists

Results

Plant recorded improvements in all major key performance indicators (KPIs)

- Inventory accuracy: 98 percent
- Fill rate: 97 percent
- Shipped on time: 99 percent
- Cycle count accuracy: 99 percent
- Order accuracy: 100 percent

Reduced overall inventory

- \$1.9 million reduction
- \$700,000 cost avoidance through just-in-time (JIT) practices
- \$240,000 cost savings through inventory consolidation



On-site support from Rockwell Automation has helped the company improve its inventory accuracy, reduce downtime and improve on-time delivery

Background

The ability to efficiently manage tool cribs and MRO inventories can be crucial in helping manufacturers control costs and minimize downtime. Many companies, however, lack the skills, expertise and manpower needed for optimum inventory control and efficiency.

One leading heavy equipment manufacturer struggled with a lack of clear metrics and inefficient inventory management practices at its Midwest transmission manufacturing plant. Its inventory growth and stock inaccuracies were leading to higher carrying costs and frequently putting the plant at risk for incurring substantial downtime losses.

The existing outsourced storeroom services vendor offered little on-site dedicated management to supervise crib attendants or manage inventory. As a result, the manufacturer sought to replace the provider with one that could provide more in-depth expertise in storeroom management, analysis and optimization capabilities.

LISTEN.
THINK.
SOLVE.™

Challenge

With extremely tight turnaround times for delivering new machines, the plant's ability to produce transmissions in a timely fashion is critical. Like many manufacturing operations, the company's primary focus is on quality and productivity, with less attention given to issues like parts inventory and storeroom management. The lack of defined inventory performance goals and expert oversight increased downtime due to not having the right replacement part on hand.

With downtime potentially impacting the company's ability to meet delivery goals, the manufacturer needed a more reliable solution. The company began evaluating its options for getting inventory processes under control.

Core goals for the manufacturer focused on the need to improve inventory accuracy, reduce costs, optimize floor space and minimize downtime. This meant not only optimizing storeroom efficiency, but having more accurate inventory tracking and more reliable spares in stock.

Solutions

After evaluating several suppliers, the manufacturer selected Rockwell Automation for a three-year on-site service and support contract focused on achieving critical key performance indicators (KPIs) that are measured on a monthly and quarterly basis. Core metrics evaluated as part of the program include turn ratio, cycle count accuracy, fill rate, ship-on-time rate and stock-out percentage. Rockwell Automation provides the manufacturer with dedicated on-site storeroom management resources that include an on-site project manager, 13 storeroom attendants and several inventory specialists.

At the beginning of the project, Rockwell Automation consultants performed a business process analysis (BPA) to identify

the plant's needs and determine solutions to business problems through process mapping, manpower and workflow analyses, and comparisons of operational processes to industry benchmarks. Next, a Six Sigma study of the plant's storeroom operations helped establish baseline data points for usage, lead times and stock reorder levels. In addition, a storeroom analysis identified inventory gaps, opportunities for standardization, along with recommendations for appropriate spare parts quantities. Additional tasks included developing standard operating procedures (SOP) for all storeroom activities and material transactions.

To help reduce waste, Rockwell Automation established lean processes to standardize the company's approach to manage inventory. It also provided a complete layout and redesign of the plant's storeroom operation, inventoried the entire maintenance and repair inventory, and reconciled the company's business system to help eliminate inaccurate data prior to implementing best practices.

Results

Since its implementation, on-site support from Rockwell Automation has helped the company improve its inventory accuracy from 68 percent to 98.6 percent. At the same time, it helped reduce downtime and improve on-time delivery.

Before conducting the inventory analysis, the manufacturer's business system indicated that the storeroom housed approximately 21,000 line items. Upon completion, the analysis identified more than 41,000 specific line items, showing the plant was carrying about 20,000 more parts than it thought, revealing a significant amount of hidden cost.

One strategy that helped the plant dramatically reduce its inventory was the implementation of just-in-time (JIT)

practices for reordering parts. Instead of executing automatic inventory reorders, the project manager now runs a weekly query and reviews with the customer what needs to be ordered to meet immediate production demands. The JIT approach enabled the manufacturer to reduce costs by \$800,000 by better utilizing on-hand inventory and eliminating carrying expenses. The company also saved more than \$240,000 through inventory consolidation.

Finally, the manufacturer has recorded improvements in all of its major KPIs, including:

- Inventory accuracy: 98 percent
- Fill rate: 98 percent
- Shipped on time: 99 percent
- Cycle count accuracy: 95 percent
- Order accuracy: 100 percent
- Overall inventory reduction: \$1.9 million

One unintended result of the project's success was that the plants at the company's other manufacturing locations began sending their excess inventory to this location as a way to reduce their carrying costs. While this created a temporary influx of inventory, the plant was able to absorb the extra stock and continue its inventory optimization due to the inventory management processes that Rockwell Automation had already established. The manufacturer now is considering expanding the on-site support to its other locations, based on this plant's impressive results.

By relying on the tools and experience of Rockwell Automation for its inventory management, the manufacturer can concentrate on its primary mission – producing high-quality transmissions and meeting delivery deadlines. More importantly, it is now able to focus on productivity and uptime, which helps drive more profit to the bottom line.

The results mentioned above are specific to customer's use of Rockwell Automation products and services in conjunction with other products. Specific results may vary for other customers. Six Sigma is a registered trademark of Motorola, Inc.

www.rockwellautomation.com

Power, Control and Information Solutions Headquarters

Americas: Rockwell Automation, 1201 South Second Street, Milwaukee, WI 53204 USA, Tel: (1) 414.382.2000, Fax: (1) 414.382.4444

Europe/Middle East/Africa: Rockwell Automation, Vorstlaan/Boulevard du Souverain 36, 1170 Brussels, Belgium, Tel: (32) 2 663 0600, Fax: (32) 2 663 0640

Asia Pacific: Rockwell Automation, Level 14, Core F, Cyberport 3, 100 Cyberport Road, Hong Kong, Tel: (852) 2887 4788, Fax: (852) 2508 1846