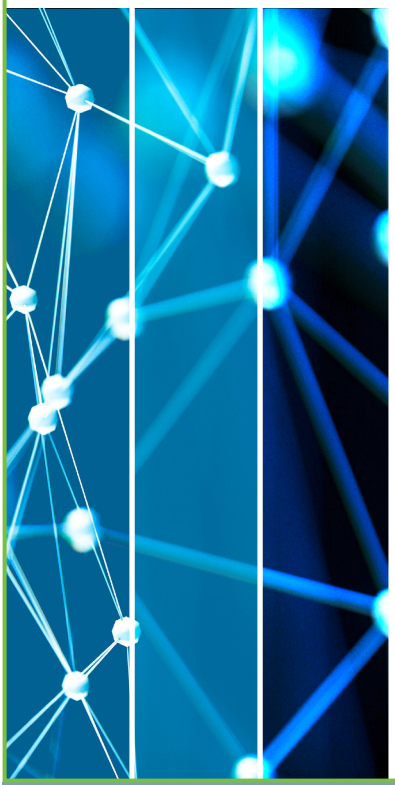
CUSTOMER SUCCESS STORY

LEVERAGING ADVANCED ANALYTICS FOR IMPROVED FAULT DETECTION IN DISCRETE MANUFACTURING PROCESSES

About the Customer

The customer is a leading international supplier of medical devices and materials with a strong reputation for innovative medical products. The company's wide range of medical products and therapies can be found in nearly every department, in almost every hospital worldwide.



THE CHALLENGE

Quality problems cannot be tolerated in the manufacture of medical products. Equipment and material errors can be extremely costly and potentially deadly. Medical manufacturers, therefore, are proactive in seeking out improvements for quality sensing and control in their production lines. Since product defects impact human health, they must also be very conservative when qualifying new methods to detect and address quality issues that meet strict federal standards for quality management systems in medical device manufacturing. The impact of medical devices and materials on human health is such that innovations in device and materials quality control require approval by the U.S. Food and Drug Administration (FDA), a rigorous and time-consuming process.

The customer was seeking to develop a method for detecting and addressing quality issues in real-time in their injection molding and IV bag welding operations. The proposed real-time quality management system had to meet the FDA's Current Good Manufacturing Practices (CGMP) standard before it could be integrated into their manufacturing environment.

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THE SOLUTION

To help the customer detect and address quality issues in real-time, MKS proposed a solution that combined its SenseLink QM quality management software with multivariate analysis (MVA) with the MKS PAC Automation Platform.

The successful integration of these products within the customer's quality management system added significant value by delivering the real-time detection of quality issues during manufacturing operations that the client required. By combining manufacturing automation with real-time data analytics, the customer is now able to ensure that the final components delivered to the end customer are manufactured efficiently and, most importantly, defect-free.

THE BENEFITS:

The use of SenseLink QM and the MKS Automation Platform allowed the customer to eliminate manual and visual quality inspection and to achieve parametric release or "lights out" manufacturing operations. This unique quality management environment, integrating automation functions with embedded MVA, provided the customer with an FDA-approved predictive quality management system.

LEARN MORE

To learn more about how MKS Automation Platform can help you improve productivity in your production operations, go to:
www.mksinst.com/f/mks-custom-automation-platform