CASE STUDY:

General Cable Saved in Raw Material Usage By Decreasing Inconsistencies

General Cable (NYSE: BGC), is a Fortune 500 Company boasting over 14,000 associates on six continents. With more than 165 years of experience, General Cable is headquartered in Highland Heights, Ky., with 57 manufacturing facilities across 26 countries.

General Cable is a global leader in the development, manufacture, design and distribution of aluminum, copper and fiber-optic wire and cable products and systems solutions for the energy, construction, industrial, specialty and communications sectors. Serving commercial, industrial, electric utility, telecommunications, OEM, military/government, retail, electrical and communications distributor customers worldwide, the company is the largest wire and cable company in North America and the third largest in the world with annual revenues of more than $6 billion.

Challenge

As the company continued to grow and acquire more product brands, General Cable saw the need for consistent production data analytics across its global manufacturing base. Though the company continued to produce high-quality products, it wanted to implement a system that improved the ability to control process variation from plant to plant. With a standard approach to data collection and analysis, the company could ensure high quality, control raw material usage and prevent operational inefficiencies associated with rework, giveaway, production delays or customer complaints.

Solution

In General Cable approached InfinityQS International, Inc., the global authority on Manufacturing Intelligence and enterprise quality, about implementing ProFicient, a proven Manufacturing Intelligence hub powered by a centralized SPC analysis engine. Together, General Cable and InfinityQS worked closely to create a solution that addressed the needs of the company’s supply chain, while increasing visibility and production consistency.

To date, General Cable has implemented ProFicient on premise at 14 of its manufacturing locations in a terminal server environment. The company has created a centralized repository for seamless data collection and analysis.

General Cable’s on-premise implementations included over 100 individual applications to monitor manufacturing processes and ensure product quality. These applications collect critical-to-quality data to control process variations. General Cable integrated numerous devices such as micrometers, microscopes, scales, cameras and more.

With InfinityQS ProFicient, data points are automatically collected every 100 to 200 feet of cable to produce flow charts and control charts. Plant floor operators use statistical process control to assist them with machine control adjustments, while General Cable’s quality team analyzes data to help identify areas for improvement activities.

Zack Tran, project manager, General Cable, said, “The implementation of InfinityQS ProFicient is creating visibility across our global manufacturing base and elevating the level of trust in the data. This work helps us identify opportunities, improve process variations and control raw material usage, as we continue to uphold General Cable’s commitment to produce quality products for our customers.”
Over the course of one year, General Cable has focused on data collection and analysis on specific production lines in two of its manufacturing plants—a copper line in a Texas plant and two lines in an Indiana plant, one copper and one aluminum. This project was specifically intended to identify ways to reduce process variation and improve raw material usage, while maintaining or improving the quality of the products.

With InfinityQS ProFicient, General Cable used SPC to drive out variations and retarget raw material usage through analyzing process capabilities and implementing the use of control charts.

Tran concluded, “The key to successfully implementing SPC is not only making sure data are collected frequently—a single data point isn’t meaningful—but also knowing what to do with the data after they are collected. By utilizing control charts in InfinityQS ProFicient, we can clearly identify trends in our processes and make adjustments accordingly. In one case, our actions resulted in significant increases in processes capability and that makes me very happy. If a process is capable, it improves product quality and save money on all fronts.”

General Cable intends to continue its implementation of InfinityQS ProFicient in more plants to achieve Manufacturing Intelligence across its vast, global manufacturing base.

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- Zack Tran, Project Manager, General Cable