

Improving production through reliability basics

Client: Large Bottling Plant

Location: Opelousas, LA USA

Solution: ABB PM30 Hosted Maintenance Management Service

Business challenge

A large Bottling Plant in Opelousas, LA USA, is a major supplier to one of the world’s leading beverage companies. Although the plant was successful in the past, its’ customer’s production and quality expectations were no longer being met.

The bottling plant’s Director of Manufacturing analyzed the plant’s operational situation and realized they needed to quickly improve their production output and reliability culture. Although he hoped to immediately transform the plant into an industry leader through implementing the latest technologies, the director understood the importance of first implementing reliability fundamentals. In fact, the director’s firm belief was that *“A good preventive maintenance program is one of the key pillars of any successful TPM (Total Productive Maintenance) program.”*

Solution

ABB’s PM30, Hosted Maintenance Management Service was selected to help improve plant performance. PM30 was implemented and fully operating at the plant in only four weeks. The 6-step implementation process include:



In the first step, ABB collected and analyzed the plant’s equipment inventory, equipment interdependence and scheduling requirements data. ABB then identified unique performance conditions including production peaks, valleys and shutdowns. After unique performance conditions were identified, ABB and the plant worked to define optimal employee roles and responsibilities, review current plant conditions and reliability methodologies before collaborating to develop Key Performance Indicators and goals for the project.

The Physical Equipment Inventory step involved ABB inspecting the customer’s inventory and capturing relevant data including equipment location, manufacturer, model, serial number, and date placed in service. Data was then integrated into ABB’s proprietary database to provide more complete equipment information for better failure analysis. This was a key phase because it developed a structure for continuous improvement.

In the Equipment Preventive Maintenance Strategy Creation step, ABB analyzed the data collected and developed detailed equipment strategies for production and facility equipment. The recommendations were a product of ABB's knowledge, world-class expertise and proprietary database of more than 350,000 equipment reliability strategies. The bottling plant's commitment coupled with ABB's world-class methodology resulted in a fast implementation of this phase.

Once the reliability strategies were developed, ABB and the customer worked together to review each maintenance schedule, and the material and tool requirements needed to accomplish the work and achieve key performance targets.

In the Workload Balance & Review step, ABB and the plant collaborated to establish a 12-month model maintenance plan that would enable the plant to effectively and efficiently modify schedules according to changing demands. Once a maintenance plan was established, the plant was able to immediately reduce machine downtime.

The last step of the PM30 implementation was Onsite Workforce Training. ABB provided training on reports, procedures and work orders used with PM30. Once the necessary class-room training was completed, ABB provided on-the-job training by working side-by-side with employees on the plant floor.

Excellent Results

After implementing PM30, the plant achieved an 11% increase in line efficiencies, and production output increased while maintenance costs remained constant. This is especially impressive considering the average age of the equipment was 30 years. Furthermore, PM30 enabled the bottling plant to improve operational processes, reliability culture and achieve sustainable results.

In their own words

The bottling plant's operations/quality control manager summed up his experience with ABB; *"We have been down the software road before, but PM30 is unique because it lets the maintenance staff focus on equipment issues, which is where the real return on investment comes from. Since PM30, we are now running instead of crawling, quality issues have decreased, waste has reduced, and our safety and environmental stance has been improved as well. Specifically, our sterilization process is very time-sensitive, and once the product goes in, it has to complete the process in a prescribed timeframe. PM30 ensures that the equipment keeps running. In addition, our operators are taking full ownership of equipment, finding deficiencies before they result in breakdowns."*

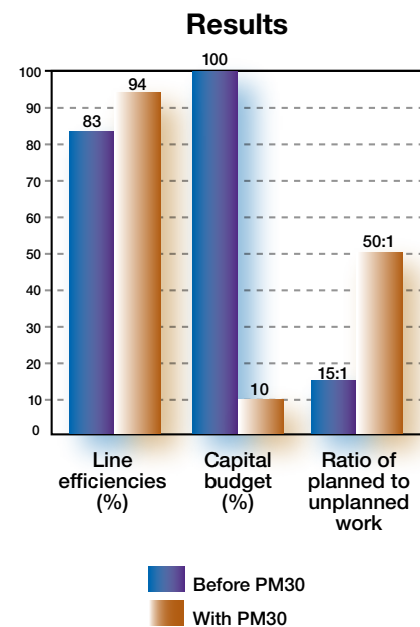


ABB Inc.
 579 Executive Campus Drive Phone: 877-234-6756
 Westerville, Ohio 43082 Fax: 614-818-6557
 USA Reliability.services@us.abb.com