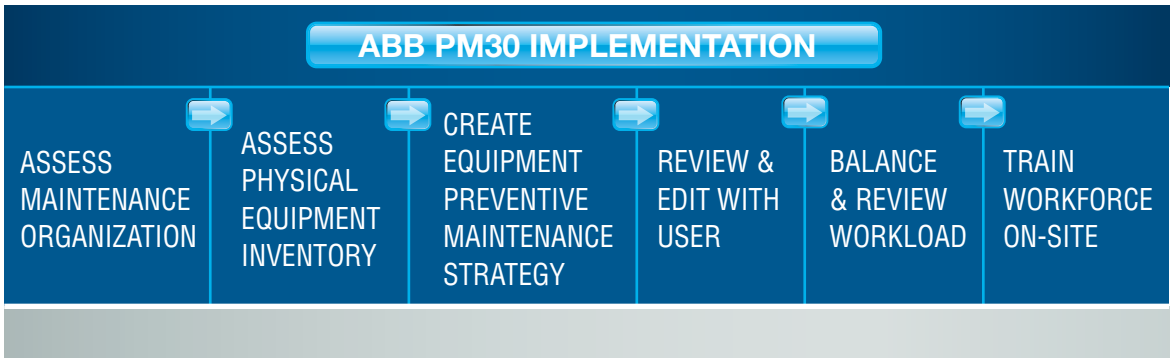
# From reactive to proactive through reliability fundamentals

Rubbermaid
Case Study

| Client | Location | Solution |
|---|---|---|
| Rubbermaid Commercial Products | Winchester, VA USA | ABB PM30 Hosted Maintenance Management Service (HMMS) |

Rubbermaid Commercial Products is a large plastic molding operation in Winchester, VA, USA, employing more than 1200 people across its 44-acre site. The plant has 55 major production machine centers and 1300 equipment assets needing maintenance. The plant operates 355 days a year 24 hours a day.




**"The consistent management of the PM30 use, flexible modification of its contents and administration of the output allow the continuous drive for excellence!"**

**Rich Sankovich,**
**Operations Maintenance Manager,**
**Rubbermaid Commercial Products**

## Business Challenge

Due to an increasingly competitive business environment and rising resource costs, Rubbermaid recognized they needed to quickly and significantly improve plant performance. After evaluating several enhancement alternatives, Rubbermaid concluded that the best improvement approach would be through operational enhancements.

After an internal evaluation, Rubbermaid determined that their lack of reliability fundamentals was resulting in insufficient tracking and issuing of Preventive Maintenance tasks, high and unpredictable equipment failure rate and increased machine downtime. Consequently, Rubbermaid was making unnecessary equipment purchases, paying avoidable high costs and further perpetuating low productivity.

Poor equipment performance coupled with low labor productivity produced many missed customer order deadlines, poor return on net assets and a reactive maintenance environment.

## Solution

Rubbermaid evaluated several reliability improvement options and chose ABB's PM30 Hosted Maintenance Management Service. According to Rubbermaid, there were several key reasons for this decision:

- Rubbermaid could focus on core operations while ABB took care of maintenance process administration
- ABB's extensive database of preventive maintenance approaches would help accelerate deployment
- ABB's ability to quickly produce preventive maintenance tasks
- ABB's reliability knowledge & resources provide assurance
- ABB-recommended tasks and frequencies matched operation characteristics
- ABB could generate monthly reports on all skills in system and PM task status

PM30 was implemented in a phased approach focusing on the most critical equipment first using a proven 6-step implementation process:

ABB Services

**Step 1 Assess Maintenance Organization:** ABB reviewed Rubbermaid's vision and mission statements, organizational structure, and employee roles and responsibilities. ABB and Rubbermaid then worked to identify any performance gaps and develop a plan for achieving performance improvements. During the assessment ABB developed a process for updating Rubbermaid's equipment database and worked with Rubbermaid to establish Key Performance Indicators for the service.

**Step 2 Physical Equipment Inventory**: ABB inspected the customer's inventory and captured relevant data including equipment location, manufacturer, model, serial number and date placed in service. Data was then integrated into ABB's proprietary database of more than 350,000 equipment reliability strategies to provide more complete equipment information for better failure analysis. This was a key phase because it developed a structure for continuous improvement.

**Step 3 Equipment Preventive Maintenance Strategy Creation**: ABB analyzed the data collected and developed detailed equipment plans for production and facility equipment. The recommendations were a product of the Original Equipment Manufacturer's suggestions and ABB's knowledge, world-class expertise and proprietary database. Rubbermaid's commitment coupled with ABB's world-class methodology resulted in a fast implementation of this phase.

**Step 4 User Review & Editing**: Once the reliability strategies were developed, ABB and Rubbermaid worked together to review each maintenance schedule, and the material and tool requirements needed to accomplish the work and achieve key performance targets.

**Step 5 Workload Balance & Review**: ABB and Rubbermaid 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, Rubbermaid was able to immediately reduce equipment downtime.

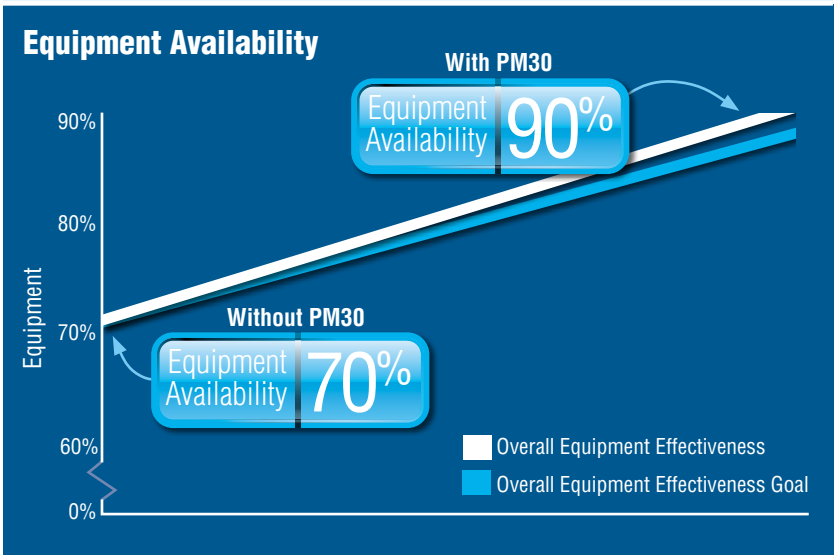
**Step 6 Onsite Workforce Training**: ABB provided training on reports, procedures and work orders used with PM30.

## Results

With PM30, Rubbermaid regularly achieves a 20% higher Preventive Maintenance completion rate than before. Plus, Rubbermaid now has a reliability service that's championed by management staff, unites all maintenance and production employees and enables better planning and scheduling. Maintenance team leaders are now making better decisions through empowerment.

Ultimately, the work environment has changed from reactive to proactive as problems are found and rectified on a planned basis rather than crisis reaction. As a result of these operational improvements, Rubbermaid's equipment failure has decreased dramatically, which has increased production and reduced avoidable maintenance costs.

**Annually recurring avoidable expenses with PM30: $1,283,000.00**

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