About Client

Based in Uganda, client is one of the largest producers & suppliers of plastic bottles, containers and other articles for the intended use of storage of medicine, juices and other liquids of different capacities and uses. Client is ISO certified organization and is leading dealer of customized products.

Client’s major products includes Juice/Milk/Liquids containers, pharmaceutical containers, Shampoo and Powder containers, Household Relief supplies, Water/Juice PET Bottles, PET Sweet Jars, cooking oil PET bottles etc.
Objectives

To reduce changeover time
Eliminate non-value adding activities
To reduce inventory levels
To improve OEE (Overall Equipment Efficiency)
To reduce rejections and defects
To improve Six S (Five S + Safety) score

Analysis

After detailed analysis at the client site, following key areas of improvement were identified & addressed

- Lack of Six S (Five S + Safety) standards adherence
- Lack of proper maintenance mechanism
- Abnormal equipment working
- Lack of visuals for efficient use of equipment
- Lack of data analysis
- High wastage
- Lack of proper safety measure
- High changeover time
- Lack of optimum inventory management

Approach

Project Initiation

Following initiatives were rolled out

- Six S (Five S + Safety) Practices
- Autonomous maintenance mechanism
- MTTR (Mean Time To Repair) / MTBF (Mean Time Between Failures) tracking and improvement
- One Pint Lessons (OPL)
- Inventory management through Kanban
- Implementing Kaizens
- SMED (Single Minute Exchange of Die)
- Sustenance mechanism
**Project Implementation**

Team Faber Infinite Consulting, after detailed analysis rolled excellence practices through following steps

- Rolled out Six S (Five S + Safety) mechanism & trained the employees on same
- Equipment Ranking was conducted for all equipment considering the average level of operation, failure frequency, mean time to repair (MTTR), failure cost, repair cost, etc. Further analysis was conducted to understand the equipment failure or breakdown situation by work study
- OEE (Overall Equipment Effectiveness) / MTTR (Mean Time To Repair) / MTBF (Mean Time Between Failures) training imparted to the employees & rolled out across the organization
- Review mechanism established to check implementation of Step 1-2-3 of autonomous maintenance
- Prepared and rolled out more than dozen OPLs (One Point Lesson) & trained employees for improved autonomous maintenance practices
- Optimized visualization with the use of OPLs (One Point Lesson) & rolled out Autonomous Maintenance Mechanism & monitored the progress of same
- Implemented SMED (Single Minute Exchange of Die) to reduce the changeover time
- Implemented robust kanban mechanism to avoid overstocking and understocking of inventory and establishing vigorous inventory management system
- Rolled out Fishbone analysis and why-why analysis to minimize the rejections, defects & material wastage by imparting the problem-solving methodology

**Results Delivered**

- Brought down rejections to less than ~5%
- Reduced changeover time by ~70%
- Rolled out autonomous maintenance and improved overall equipment effectiveness by ~60%
- Improved Six S (Five S + Safety) score to ~80%
- More than dozen OPLs established and rolled out

**Sustenance**

Implemented results shall be sustained over a period using Systematic Audit & Improvement Loop (SAIL) & Daily Work Management (DWM)

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