

Food Industry Productivity and Yield Improvement

Project Start Date: April 5, 2004

Project End Date: July 29, 2005

Company profile

This client was established in 2002 through an acquisition. Located in California, this company has eight manufacturing plants and one distribution location outside the U.S.A. which is located strategically throughout North America.

Business situation

The new management had set aggressive sales and production goals for all the plants within the company. The historical inconsistency of the Generators and Acetators made it difficult to accurately forecast production for any given plant. Additionally, factors such as heat/humidity, water quality, food intake, and operators' experience played a large role in the production inconsistency. Lastly there was no tool to easily compare and benchmark between sites and monitor the process improvement efforts.

Implementation Approach

Manufacturing – Analyzing each of the Acetators, Filters and Tanks in every plant led to the understanding of the unique characteristics and needs of every plant, as well as helping to identify areas for improvement:

- Equipment Utilization – Tracking equipment uptime gave the team the necessary data to identify which equipment was being underutilized or had most downtime due to mechanical failure. This led to the implementation of the necessary solutions to improve the equipment's performance such as preventative maintenance procedures and schedules. Stores of spare parts were identified and located in appropriate geographic locations to allow for quick turn around in a break down situation.
- Goals and Targets – Every Acetator was given a production target based on historical data and equipment capabilities. Every operator, manager and upper

manager was aware of such goals. Review of results was made on a daily basis to understand trends and implement changes when necessary.

- Identifying Waste – Creating a Value Stream Map of the entire manufacturing and shipping process in each plant helped facilitate the identification of bottlenecks. This enabled the operation improvement teams to prioritize their efforts and focus on implementing the needed changes.
- Data Analysis – A new database system was designed and implemented to track production results, materials received, calibration information, equipment settings/configurations and enable the users to create ad hoc queries which then were used for decision making by employees at different levels of the company.
- Labor Productivity- Process studies introduced the proper staffing needs across plants
- Identifying Waste – Value Streaming the entire process drove Kanban systems, reduced headcount, and higher first time yield.

The Numbers

The new layout created a continuous, smooth flow. Employees having defined the operating procedures had ownership of the process. Productivity increased 142% and WIP decreased approximately 67%.

The new layout created a continuous, smooth flow. Employees have defined operating procedures and ownership of the process. Productivity increased 142% and WIP decreased approximately 67%.

During implementation Strategy3 created permanent and sustained change.

Results

Total production performance increased by an average of 20% without any major capital invested in any of the plants. The increase in production allowed the company to be more responsive to short lead times (<24 Hrs) and not have to pay high premiums on shipping. The total trans-shipments and delay orders was reduced by an average of 60% across the company.

Total project savings per plant: **\$900,000 annually across four plants.**