Operational Excellence at Cryogenic Tanks Manufacturer

Case Study

INDIA

About Client:

Client is world’s second largest and India’s largest manufacturer offering comprehensive cryogenic liquid and gas transportation, storage and distribution solutions to the industrial gas industry, oil field service industry as well as LNG industry. Client’s major products are Storage tanks, Transportation tanks, Vaporizer, Cylinder filling system, etc. It comprises of four companies which perfectly complement each other through their individual product range, technical expertise and geographical location.
Objectives

To increase the production of Equivalent tanks
To increase the productivity (Man day index)
To decrease the production throughput time (days)
To reduce the distance travelled by the job

Analysis
Faber Infinite conducted detailed on-site analysis, it reflected following:

- Production schedule was long
- Lead time was high
- Delay in deliveries was high

Approach

Project Initiation
The main purpose was to meet delivery dates through reduction of production throughput time.

- The critical initial buy in of the top management towards changing paradigms was built by a top management conclave to align & flag off the transformation journey
- Training of key change agents was conducted to increase awareness about operational excellence and agree improved target levels
- Process Quantity (PQ) Analysis
- All the current material and information flow was tracked using Current State Mapping – CSM
- Future material flow and information flow was decided using Future State Mapping - FSM
- Future state implementation
- Daily work management was implemented for daily tracking of job activities
- Sustenance was assured using gemba meetings and why-why analysis
Implementation

The objective was to reduce production throughput time via following steps:

By improving material flow
Faber Infinite Consulting helped the client improve material workflow using following tools and techniques:

- Value Stream Mapping (VSM) was used for reducing Non-Value Adding activities & inefficiencies
- Spaghetti diagram was used for reducing distance traveled between two activities
- Lean flow arrangement was used for reorganizing shop layout
- Work packs were used for streamlining the activities according to the takt time

By improving information flow

- Window Planning and Unichro system were devised and rolled out for planning the activities on daily basis
- Single piece flow technique was used for moving the job according to plan
- Gemba meetings were organized for interaction of the people associated
- Why – Why Analysis was used for solving day to day problem effectively and eliminating the issues from the root

Results Delivered

Production Equivalent Tanks increased by 40%

Productivity (Man day index) increased by 40%

Production Throughput time (Days) reduced by 20%

Distance travelled decreased by 27%

Sustenance

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

Visit Faber at www.faberinfinite.com for more information and a complete list of regional contacts or send us e-mail: consulting@faberinfinite.com