About Client:

Client is the one of the leading manufacturers suppliers & exporters in textile industry. The major products of client are polyester chips, yarn and greige fabric.

The client has also received triple ISO certification. The client serves customers in India as well as overseas with products and services focused on textile.
Objectives

To increase the first grade production

To reduce second grade production

To reduce wastage percentage

Best industry practice to be established

Analysis

Faber Infinite identified five significant opportunities:

- There was potential to improve first grade production
- Wastage percentage was high
- There was high variation in Continuous Polymer plant process parameters
- Pack Cleaning and Changing was not Standardized
- Scope to improve Equipment reliability

Approach

Project Initiation

- Studied the end to end process and worked out all the possibilities which can affect the quality/thread breakages
- Formed project teams in each department with responsible team leaders
- Detailed data collection and analysis of past two years
- Training given to the team regarding quality improvement tools and prepared road map for the quality improvement project
- Initiated the quality improvement project via Six Sigma methodology
Project Implementation
Six Sigma Approach

Define:
- Detailed project charter was prepared
- Analyzed the baseline and finalized the targets
- Prepared SIPOC (suppliers, inputs, process, outputs, and customers)

Measure:
- Sample data collected of key process parameters
- All possible reasons for thread breakages analyzed through fish bone analysis
- Sigma Level, DPMO (Defects Per Million Opportunities) calculation and Process mapping were completed

Analyze:
- Process Capability analysis was conducted, analyzed the value of Cp and Cpk
- Drilled down all the possible factors to vital few by Pareto analysis
- Identified parameters with high correlation to Quality by scatter plot and Multiple regression analysis
- Established major reasons / causes of thread breakages in spinning by Pareto and Why-Why Analysis

Improve:
- SMART Action Plan prepared and Implemented to improve existing condition
- SOP (Standard Operating Procedure) created for key processes and implemented effectively

Control:
- Upper and Lower Control limits defined for each parameter by taking all practical variations in consideration
- Control Charts Implemented and displayed at Gemba
- Assured Sustenance of project improvements by robust Daily Work Management Framework.

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

Results Delivered

Waste reduction by 0.99% i.e. 30,000 kg/month of production which delivered savings of ₹ 3.2 Cr (INR 32 Million) annually

First grade Quality production improved by 4.89%, monthly revenue growth by ₹ 1.4 Cr (INR 14 Million)

Reduction in second grade production by 1.65%, monthly revenue growth ₹ 41.4 lacs (INR 4.4 Million)

Improved the Sigma level from 3.25 to 4.80

Sustenance

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