

Case Study

SECTOR FMCG

SIX SIGMA

Star Engineering Ltd.

Lean

YEAR 2010	Star Engineering Ltd. (name changed) is a leading supplier of appliances to one of the leading brands in India for consumer products.
SECTOR Consumer Durables	Their production line was relatively old and was set up as per the batch manufacturing process just as many other manufacturing companies were. There was always a big gap between demand and supply; and invariably in the peak season, the company was losing market share due to this capacity issue. The traditional manufacturing set up was jumbled up with lots of non-value adding activities of material and people movements. It also carried a huge inventory, which was the characteristic of traditional batch processing.
REGION India, Asia	
SERVICES Makers of Consumer Durables	



INDUSTRY OVERVIEW

The Indian consumer durables industry has witnessed a considerable change in the past couple of years. Changing lifestyle, higher disposable income coupled with greater affordability and a surge in advertising has been instrumental in bringing about a sea change in the consumer behavior pattern. Apart from steady income gains, consumer financing and hire-purchase schemes have become a major driver in the consumer durables industry. Energy ratings become points of differentiation. Consumers are willing to pay more for higher-star ratings in consumer appliances, as the higher the rating, the less energy is consumed.

BUSINESS CHALLENGES

The throughput of the process was, on an average, 250 units per day and despite of repeated efforts it could not be improved, even after adding resources. There was always a big gap between demand and supply. Before the improvement initiatives were undertaken, it was believed that double the investment would be required if the demand of 500 units a day has to be met. Hence, it was decided to focus on throughput per shift, lead time taken from raw material to finished goods & finally on the overall inventory.



SSA's APPROACH

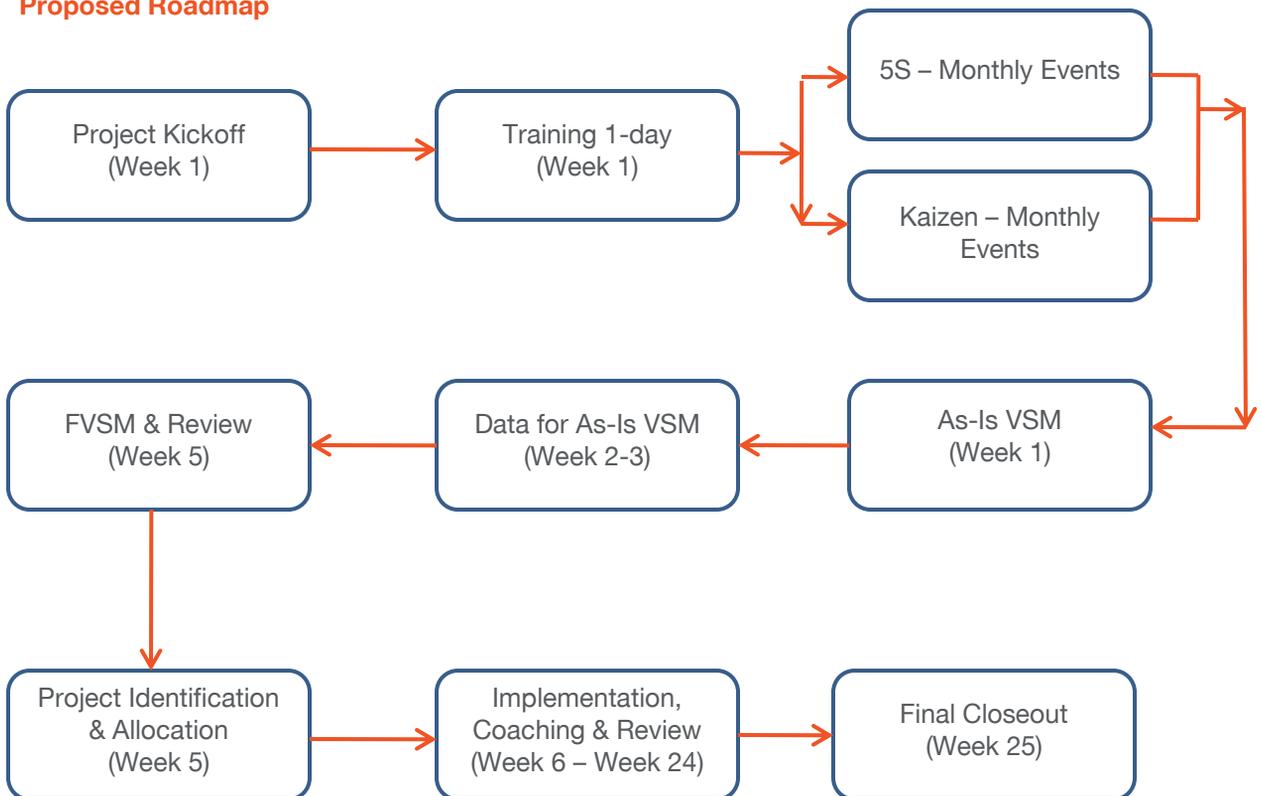
Worldwide, Process Improvement tools and techniques are used for speeding up the manufacturing process and achieving higher productivity with the same resources. For a faster product lead time, SSA recommended LEAN for the manufacturing system re-design.

To ensure the successful implementation of Lean process improvement projects at Star Engineering Ltd, SSA had ensured the following deliverables during the defined tenure of consulting:

- Increase in throughput
- Reduction in inventory
- Improved utilization of floor space
- Reduction in process lead time

SSA successfully drove the Lean Manufacturing System design & Implementation at Star Engineering using the various tools available to them.

Proposed Roadmap



BUSINESS BENEFITS

Post implementation of solutions, the throughput of the line doubled from 250 units to 500 units per day. The WIP came down from 35 to 16 nos. (54% reduction). Other intangible benefits were:

- Proof of Concept accepted by people concerned.
- Housekeeping. (5S)
- Online packing
- Less handling of the product
- Reduction in deterioration due to storage

Area	Old Manpower	Old Production	Manpower as per Lean	Production as per Lean	Productivity increase
Tank & Testing	17	700	19	1000	128%
Assembly Lines	64	800	47	1500	
Kitting	0	0	11	1500	209%
Stores	4	800	3	1500	
Total	85	800	80	1500	199%

On 12th August, Star produced 830 geysers in 7 hours on three lines. This is a very good achievement by Star & we have understood that if kitting & material planning is done properly, production will not be a problem.

- MD, Star Engineering Limited



ABOUT SSA

SSA is a leading Business Excellence Solutions provider specializing in offerings like Lean, Six Sigma, BPMS, Strategy Deployment and many more. SSA provides customized business consulting and training solutions across countries and has helped its clients make a cumulative savings of over Rs. 1000 crores and growing. SSA is the first and only authorized provider of IACET CEUs in India.

For more information about SSA, visit www.ssa-solutions.com