



CASE STUDY

Case of an Agro-Chemical Company



Scope

Line Balancing with work simplification in Tablet Weighing area of the plant

Context

Our Client is a global generic crop protection, chemicals and seeds company, headquartered in India (Mumbai). The three companies in that group, are listed on the Indian stock exchange, with a combined market capitalization of approx \$2.5 billion.

The revenue of our Company has grown at a CAGR of 26% over the last 5 years.

Client operates in every continent and have a customer base in 123 countries with our own subsidiary offices overseas. Client is ranked amongst the top 5 post patent agrochemical industries in the world.

Client also has over 20 manufacturing sites including 9 in India, 4 in France, 2 in Spain, and 3 in Argentina).

Challenges

Major challenge was environment of plant, lot of harmful gasses are there, Assessing Man power in each department and allocation of optimum man power in each workstation, Time and motion study setting the production norms, Balancing the assembly lines of stations by identifying the bottleneck and elimination, unavailability of skilled people was the major problem so to analyze the work method and deskilling the method, improvement in existing layout to proper utilization of work place.

RESULTS

Expected throughput increase by 39%

deployment reduced by 59%





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Methodology

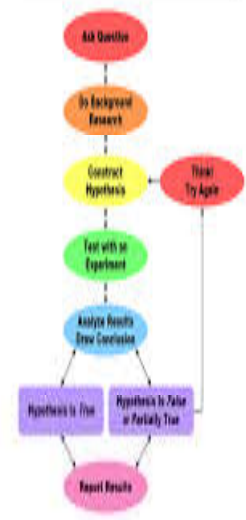
First team understood all the processes and working by mapping the flow using Flow process charts, to assess Material Flow, current Utilization of resources, to optimize work allocation for Existing manpower, and did method study to develop the new and improved method of doing job with optimum utilization of Resources. Prepared new lay-out for weighing thereby easing the material flow in the plant and then line balancing for proper work allocation and creating flow.

VCS decided to work in two phases : 1. Work simplification & Line balancing, and 2. Mechanizations

During phase I we balance the line, rearranged the work stations, simplified the activities with the help of time and motion study, in this phase our main focus was throughput optimization, Line Balancing and work simplification.

During phase II, we introduced semi automated cap tightening machine with some automation.

Scientific Method



Results

After implementation of first phase, workers deployment in this section reduced from 34 to 16 in a day with production of 8.34 MT (from 6.0 MT); This included allowances (like time for relieving (Severe working Condition Allowance), lunch break, and milk and banana break).

Introduction of Cap tightening machine helped to reduce deployment by 4, and also resulted in increase in production.