

# Case Study

## Operational Improvement

### Client: Generic Pharmaceutical Manufacturing Plant

#### Background:

Our client was a generic manufacturer of secondary pharmaceutical products. Their packing operations were bottlenecked and this was presenting a series of issues that the management of the organisation was struggling to resolve.

These issues included

- Product manufacture was incurring adverse labour and material variances
- The packing area was operating on 3 shifts and the organisation was experiencing difficulties in maintaining the correct level of trained staff to run the operation successfully
- Because of the difficulties with crew levels the packing schedules were not being adhered to and this meant that customer service was falling to below 75% On Time In Full
- The ultimate outcome was that these issues were eroding margin as a direct result of lost orders and increased operating costs.

In addition, management were unsure what the benchmark performance should and could be for this type of packing operation

#### Scope of work:

The scope of work that GPN undertook to carry out was to

- Assess current performance from line observations and an organisation assessment (including current operational data)
- Identify the level of potential opportunities that could be leveraged within the organisation
- Develop and implement an improvement programme to recover the performance of the packing operations
- Train and develop the packing hall teams and support staff to make the process self-sustaining

#### Process:

The initial phase of this assignment was to assess and quantify the potential opportunities that were open to the organisation. This was undertaken by assessing the current performance data and comparing it to our experience in the industry, spending time observing operations in the packing operations and by interviewing support groups to understand how the organisation functioned at a supply level.

Based on this assessment we identified that

1. Changeovers were substantially longer than plan and were in fact longer than the industry average. We projected that there was potentially 950 hours of savings to be achieved by implementing a changeover reduction programme. This equated to Eur70k in annualised cost savings

2. The actual performance of the lines when they were actually running (excluding changeovers and planned stoppages) was approximately 52% on average. Based on the data available we estimated that this could be improved to at least 75% which would yield approximately Eur250k of annualised cost savings. In addition to the cost savings this would result in improved adherence to plan and spare capacity to meet variations in the market

Following the assessment and approval of management GPN implemented a 5-month programme to recover these costs and develop the staff to make it self-sustaining going forward

To do this we

1. Initiated Changeover Improvement Process:  
This was done by observing and documenting some of the changeovers on the packing lines. The teams were taught SMED techniques for changeover reduction. Using the data gathered from the changeover observations the teams agreed first cut improved changeover cycle.
2. Develop a project plan with each line team to repeat the process and achieve additional benefits
3. While implementing 1&2 above, improve the capture of all downtime data to provide a focal point for any new improvement initiatives.
4. In parallel with these activities we reviewed the organisations approach to improvement and implemented a continuous improvement programme centred on clearly defined business needs and a formal project management process.
5. As part of this programme we trained the teams in various improvement techniques including 5S, Kaizen, Problem Solving and Lean Principles
6. Using these techniques we worked with the teams to analyse and interpret the information obtained in 3 above to identify the root causes of the issues and implement resolutions.
7. Once the process was up and running and benefits were being achieved GPN moved into a facilitation and support role helping to embed the CI process on site.

## **Result:**

The timescale for this assignment was 5 months.

The savings on changeovers was achieved in 3 months and yielded an initial saving of approximately Eur80k per annum. This process has now entered a further phase and is projecting a further saving of Eur40k per annum

The operational improvement achieved 80% performance to run rates yielding and overall equipment effectiveness figure of 65%; this is currently projecting savings of Eur250k per annum. This phase of the project was achieved in 5 months.

In addition to the performance levels customer service has improved to 90% On Time In Full against an order board that has grown by 5% above expectations.

A key benefit that the organisation had not considered was in inventory. The improved consistency in operations (both right first time and performance) has resulted in a 20% drop in inventory, which has freed up Eur2m in working capital per annum