

Delivery Time Reduction

Client:

Helicopter Manufacturing Company

Background and Challenge

Our client, a global helicopter manufacturer had recognised that they consistently failed “On Time Delivery” to their customers. These delivery delays had a major impact on the production planning and a significant influence on both cost and reputation.

The objective was therefore very clear; reduce the delivery time to the customers. This was to be achieved by reducing each stage of aircraft manufacturing from 7 weeks to 4 weeks, thereby improving the total production throughput and also delivery time.

Solution

Spitfire Consultancy were requested to assess the situation and work hand in hand with the Management and Operations teams to ensure the objective was achieved successfully. The solution was broken down through 3 key work streams:

- Introduction of Visualisation to identify programme status to schedule, operational delay, reasons and also commitments to actions
- Reduction in operational ‘waste’ by the application of lean methods to create a world class manufacturing cell
- Levelling of operational scheduling through ‘Yamazumi’ analysis to reduce build hours and cost

Implementation

To support the first work stream, the installation of a Visual Management system which branched through each level of the organisation was introduced. This gave real time status of the aircraft build and was supported by a series of governance meetings and an escalation procedure.

For work stream 2, a project team was set up to create a benchmark world class manufacturing cell. After a full analysis of value added and non-value added operations using the 7 tools of lean, the team set about installing a new lean layout to reduce waste, initiated some Kaizen activity and specific Practical Problem Solving (PPS).

In addition, the ‘pulse’ of the build was monitored through Visualisation and Andon systems to ensure adherence to the target output.

Work stream 3 was achieved by analysing the operations work break down and sequenced build. This enabled the team to establish a more balanced build schedule which in turn allowed simplistic output targets to be checked more frequently.



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Case Study - S057

Results

- The newly implemented manufacturing cell achieved the target **4 week build time (reduced from 7 weeks)**
- Value added time **increased from 30% to 70%** through the implementation of lean manufacturing principles
- Escalation of concerns became immediate and strictly governed through a 'Manufacturing Control Centre' review at Senior Management level
- The reaction time to operational concerns increased dramatically through a robust escalation and governance process, centred around the Visualisation.
- The introduction of daily aircraft build reviews now sets the focus for all the support functions for the shift
- A foundation was set to develop a culture of continuous improvement with the creation of a Kaizen process

Pro-active Visual Management

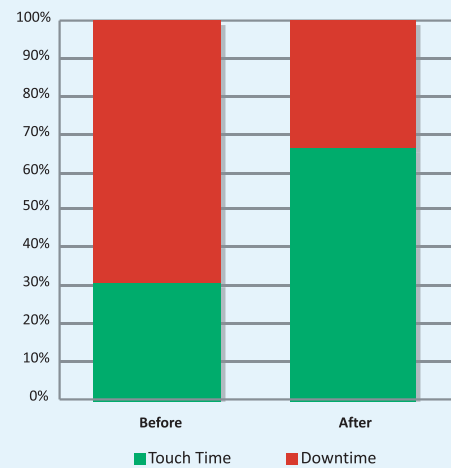


Lean Layout



Increased Value Added Time

Roof to Cabin Join Touch Time



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