

Increasing capacity through the implementation of lean tools & techniques



Background

Electron Technical Solutions Ltd (Electron) is a UK leader in the painting of plastic components, providing matt, semi-gloss, full-gloss, soft feel, spatter, metallic and chrome effect finishes. Electron has facilities to produce small or large volumes, and there are two fully automated painting cells. The company produces approximately 40,000 components a week. As well as the painting of components, there are elements of sub-assembly.

In 2005 Electron impressed Jaguar Land Rover with its ability to paint exterior plastic trim such as grilles and bumper components, and since then the company has been experiencing an increasing demand for its products.

The Challenge

Electron was experiencing such a high demand for painting interior and exterior plastic trim from companies such as Bentley, Jaguar Land Rover and Toyota that it was essential to maximise every opportunity to increase production. There were particular inefficiencies during product changes and the percentage of product defects was too high.

The Objectives

The aim of the project was to achieve an increase in overall equipment effectiveness (OEE), increase capacity through further lean implementation and also to increase turnover to £7m per annum.

The Industry Forum Solution

The programme was delivered with funding assistance and advice from the Northwest Automotive Alliance (NAA) Business Excellence (BE) programme and delivery of the improvement programme by SMMT Industry Forum Ltd. Value stream mapping was conducted with the aim of looking at processes and improving them, in particular getting things right first time and avoiding defects, to avoid downtime and to save costs. Measures were implemented to standardise processes, achieve better organisation on the paint line, and improve the layout of areas. The principle of continuous improvement was also applied to the team meetings which took place at the beginning of each shift, as well as to the briefing board and instructions about how the line operates. Improvements were made to the flow of parts, and measures were introduced with the aim of eliminating contamination and waste.

The Customer's View

The project has resulted in significant improvements in a number of areas, most notably:

- Getting processes right first time, leading to fewer defects and improved quality
- Less downtime, resulting in increased productivity and capacity (this applies to both the existing and the new paint lines).

Electron has now taken on new projects such as the painting of trim for the new 2013 model year Range Rover, and there is still extra capacity for other new products. The company's turnover is on course to increase as planned

Steven Schofield, Managing Director of Electron Technical Solutions Ltd

"The work carried out by SMMT Industry Forum Ltd has definitely been beneficial. There was a need for staff to take time out to analyse the processes on our line but this has proven to be extremely worthwhile as significant improvements in productivity have resulted, and we can now take on more business. Over recent years we have invested significantly in capital equipment and this project has helped us to achieve the best possible return on that investment."

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