

## Reducing costs through the application of Total Productive Maintenance



### Background

This electrical component provider produces and delivers key electrical components to a wide number of customers. The products go into two main categories and the manufacturing and supply chain process is developed to ensure this. These products are widely used in street lighting, in greenhouses and the lighting of buildings such as shops, showrooms, hotels and public spaces.

Both categories of product have a high output but are also energy efficient. The first category product uses half of the energy of other similar designed components typically used and the second category product is an energy efficient replacement for modern automotive electrical components.

The provider currently uses injection moulding, a technique which is already widely used in plastics, to create the intricate shaped ceramic components.

Energy efficiency has become an important issue and global demand has risen for these products. This in turn has led to rising demand for the electrical components.

### The Challenge

The factory has been using Lean improvement techniques to improve the productivity, delivery and quality of the factory for several years but they recognised the need to reduce costs even further to ensure that they remained competitive against emerging market competition.

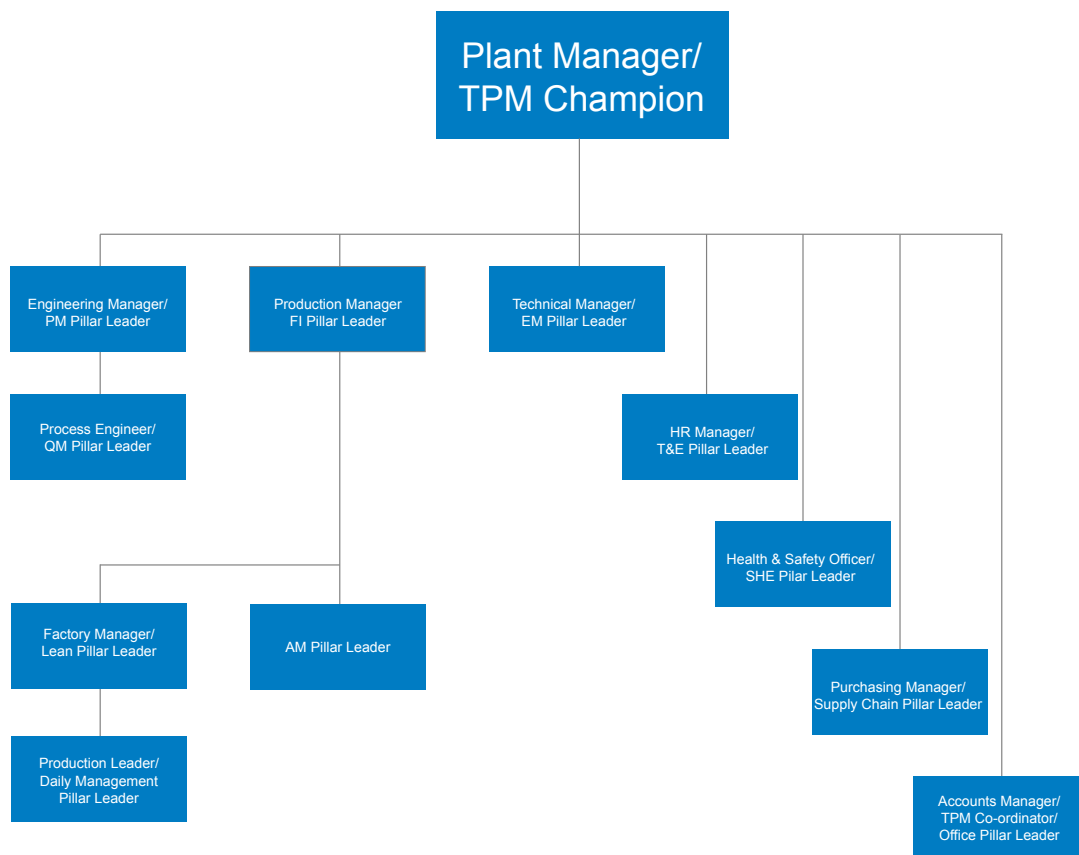
### The Objectives

The introduction of TPM was seen as a long term solution for the company which would allow the losses within the business to be identified and eliminated. This would allow them to achieve a production cost for a typical electrical component, a reduction of over 60% within a 4 year period.

### The Industry Forum Solution

In 2010 Industry Forum and the factory conducted initial management training and a pilot TPM project, focussed primarily around Autonomous and Planned Maintenance on the front and mid end process. Following on from this a decision was taken by the Senior Leadership Team to use the Japan Institute of Plant Maintenance (JIPM) Total Productive Maintenance Award as a structure to drive sustainable business improvement within the organisation.

During early 2011, further TPM Pillar training was conducted with members of the leadership team, followed by a road map activity to help establish a TPM Pillar structure and align it to the vision and Strategy of the factory. This improvement structure includes the standard 8 TPM pillars that are assessed by JIPM together with 2 additional specific pillars: Lean and Supply Chain.



Activities to support the introduction and sustainability of TPM within the factory were conducted throughout the following 3 years. Periodic assessments against the JIPM Award criteria have shown that the team is on track to be to apply for the first level TPM Award in 2014.

The team already have examples of zero breakdown equipment and zero accidents, operators have ownership for their areas and OEE, delivery and quality has improved across all areas of the factory.

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