

Total Productive Maintenance helped an Asian dairy producer save more than €9M in three years



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Customer

A large dairy producer in Asia.

Challenge

An Operational Cost Guarantee (OCG) agreement for their Tetra Pak filling lines had helped our customer to reduce cost and increase productivity. After two years, they wanted to expand the continuous improvement activities to the whole factory.

Solution

A full Total Productive Maintenance (TPM) implementation – a three-year process covering all employees and all equipment.

Results

Accumulated savings between 2014 and 2016 totalled more than €9 million. Overall Equipment Effectiveness (OEE) increased from 70% to 80%, and production costs were reduced by 13%.

Customer challenge

Back in 2011, the customer faced a number of issues. Production costs were relatively high due to excessive waste, setup times were long and equipment breakdowns frequent. To address these issues, we started the Continuous Improvement Journey by implementing a 2-year Operational Cost Guarantee agreement. The results, which included savings of more than €3 million, were positive. The customer decided to expand the continuous improvement activities to the whole factory, and improve all loss areas across the plant.

Our solution

We improved the customer's efficiency using our expertise to help them get the most from their operations. We expanded the existing Continuous Improvement activities into a full Total Productive Maintenance (TPM) approach. In short, TPM means that everyone within the organisation, from top management to line workers, endeavors to maximise productivity.

The customer chose a 3-year implementation plan, with a Japan Institute of Plant Maintenance (JIPM) Award as target. The plan included a full TPM structure including 5S and Daily Management System. We helped the customer establish relevant KPI's and an efficient continuous improvement methodology. This was implemented by training and coaching different teams across the customer's organisation.

Results achieved

The accumulated direct savings, not counting benefits from additional capacity, between 2014 and 2016 totalled more than €9 million.

The efforts also improved the customer's competitiveness and core KPI's. Overall Equipment Effectiveness increased from 70% to 80% over three years, and the high level is sustained thanks to the implemented routines. Additionally, the customer's productivity (output per workforce) has increased by 230%, and they have secured a production cost saving of 13 percentage points.

There were also a number of more intangible effects, such as raised engagement and motivation levels, and better alignment between departments.

The customer has applied for the targeted award, and continues their TPM journey with our ongoing support.

The key principles when implementing TPM are:

- Secure that the current situation in terms of performance, cost and risk is clearly defined
- High focus on the foundations, to enable deployment of methodologies in a sustainable way
- Use Daily Management System (DMS) to create people empowerment
- Involve the whole organisation, from left to right and top to shop floor On-site, hand-in-hand coaching and audits from Tetra Pak
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Customer case

An Asian dairy producer.

Challenge: Implement continuous improvement activities to focus on all plant loss areas. **Solution:** A full TPM approach, involving the entire organisation.

> €9M

70% -> 80%

13%

Accumulated savings

OEE increase

Production cost reduction

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