



Customer case

Tetra Pak helped a bottled water producer in China reduce its cleaning-in-place costs while cutting implementation time.

Tetra Pak®
PROTECTS WHAT'S GOOD

Customer

A large bottled water producer in China.

Challenge

The customer wanted to improve performance by introducing Total Productive Maintenance (TPM), without the added expense of manual data collection, analysis and visualisation.

Solution

Digital CIP Analysis saved on TPM implementation costs by automatically recording, consolidating and visualising detailed information. The producer was then able to optimise CIP (cleaning-in-place).

Results

By combining TPM and Digital CIP Analysis the customer was able to reduce CIP costs by 30%. The customer also halved the time normally required to implement TPM.

 **30%** ↓

**Reduction in CIP
(cleaning in place) costs**

 **50%** ↓

**Reduction in time
required to implement TPM
(total predictive maintenance)**

Customer challenge

Total Productive Maintenance (TPM) improves performance by identifying losses and waste, and then eliminating them. One of the methodologies used is cleaning-in-place (CIP), which optimises cleaning time. However, implementing TPM requires minute-by-minute data collection, and this can be time-consuming if done manually. Moreover, data has to be consolidated so that the producer can take action and adjust parameters. These challenges highlighted that a less labour-intensive way of introducing TPM was required.

Our solution

Digital CIP Analysis saves on the cost of TPM deployment by automatically recording, consolidating and visualising detailed information such as faults, alarms and process deviations. Moreover, information can be gathered second by second, and the digital tool then analyses the five alarms that are most frequently stopping CIP. This improved data collection, analysis and visualisation is delivered without increasing the number of staff.

Results achieved

With improved information about CIP, the customer was able to reduce the number of alarms set off. This has decreased the time required for CIP, thereby increasing performance and reducing utilities consumption. As a result, CIP costs have fallen by 30%. Moreover, Digital CIP Analysis has reduced TPM implementation time by 50%. The customer now plans to deploy the solution in other parts of the world.

The key principles when implementing TPM are:

- Secure that the current situation in terms of performance, cost and risk is clearly defined
- High level of focus on the foundation, 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 bottom
- On-site hand-in-hand coaching and audits by Tetra Pak



Tetra Pak® Services

Tetra Pak® Services cover every aspect of your food production, from daily routines to business insights. Our tailored service solutions improve performance, optimise costs and ensure food safety throughout the lifecycle of your operation. With Tetra Pak as your partner, you get the people, portfolio and presence to achieve your performance goals.

Find out more about Tetra Pak® Services at [tetrapak.com/services](https://www.tetrapak.com/services)