



A dairy producer avoided an unplanned stoppage and significant costs thanks to Predictive Maintenance finding a fault on a separator before it was too late



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Customer

A dairy producer in Spain.

Challenge

To minimise production downtime and optimise operational costs with long production running times (6,000 h/yr).

Solution

The customer added Predictive Maintenance to the service agreement so that the condition of their Tetra Pak Separators could be continuously monitored by Tetra Pak.

Result

The continuous condition monitoring solution installed by Tetra Pak was able to detect a faulty bearing before it failed. The faulty bearing was duly replaced as part of planned maintenance thus avoiding an unplanned stoppage and significant costs for lost production time.

Customer challenge

The separator is a critical part of the line in any dairy processing plant. If the separator is not performing as it should in a production line, it can cause a stoppage. Due to the high utilization of separators that can be around 6,000 hours on a yearly basis, it is important to avoid unplanned stoppages. In the case of our customer who is a Spanish dairy producer, during every working hour, 20,000 litres of milk on average pass through a Tetra Pak Separator so every lost hour of production counts.

Our solution

In 2018, Tetra Pak installed a condition monitoring solution on the Tetra Pak Separators at the Spanish customer's dairy. Using sensors, this cloud-based solution continuously monitors critical functions of machinery to detect deviations from normal running conditions at an early stage. Using this system, the condition of the machinery is monitored over time based on certain parameters known as Key Health Indicators (see illustration).



Thanks to condition monitoring, Tetra Pak detected a deviation in one of the separators. The deviation originated from a specific bearing and was monitored carefully. Over time, the deviation increased in magnitude and this was a warning signal to the experts at Tetra Pak that the bearing was near the end of its working life. In consultation with the customer, the decision was taken to change the bearing and a Tetra Pak field service engineer performed planned maintenance to replace it.

Results achieved

This timely measure avoided an unplanned stop which would have entailed estimated costs for the customer of €15,000 for parts and labour. If the bearing fails unexpectedly, the separator needs to be dismantled at considerable cost. In contrast, thanks to Predictive Maintenance, only 6 hours of downtime were required to change the bearing. Additional savings of approximately €30,000 were made because 48 hours of downtime in production, if the bearing had broken down unexpectedly, could be avoided.

Customer case

A dairy producer in Spain

Challenge: Maximise uptime and reduce maintenance costs.

Solution: Tetra Pak Separators were monitored continuously by including Predictive Maintenance in the service contract.

Customer savings estimate:

€45,000 due to avoiding unplanned downtime

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