



Customer Success Story

We pioneer motion

Motors on the labelers reliably monitored

No expert knowledge required for a digital solution

At a leading Thailand food and beverage company, machines run around the clock. To gain more knowledge about the condition of the highly stressed conveyor belt motors of the labeling machines and to avoid unplanned downtime of them, the plant's maintenance department was looking for a predictive Condition Monitoring solution. The customer decided to go with the Condition Monitoring solution SmartCheck, which now replaces offline Condition Monitoring.

Savings from 5 prevented failures: > 20,000 euros.

Customer benefit

- Safe Condition Monitoring in real time with Smart Utility Software
- Less unplanned downtime
- Early detection of bearing defects
- Easy to understand data for decision making
- Better planning of resources and stock

Customer

Food and beverage
Manufacturer, Thailand
Sector

Food & Beverage

Application

Motors, labeling machines

Solution

Condition Monitoring

What drives our customer ...

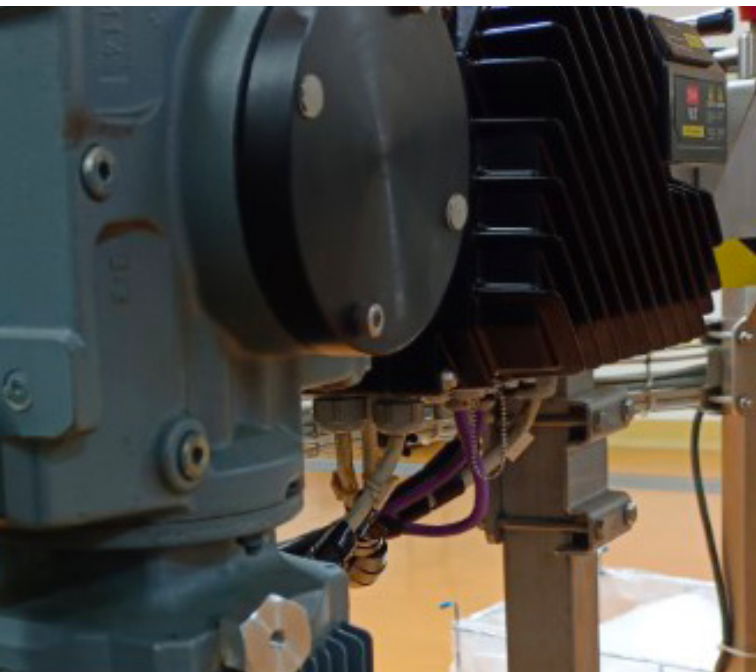


Labeling machine

Challenge

Food supplements are produced in one of the food manufacturer’s numerous plants. The machines run around the clock to meet the high global demand for the product. The utilization of all the machines involved in the process is high. To avoid unplanned downtime, offline manual measuring devices were previously used. However, this monitoring method only gave maintenance the current status at the time of measurement. This was not enough for the maintenance department, especially

because the motors on the conveyor belts of the labelling machines often failed unplanned. This mainly affected the motors at the infeed and outfeed of the conveyor belts, as well as the servo motor that triggers the process for cold gluing. In order to guarantee optimal operating time, the maintenance department was looking for a monitoring solution that would detect an impending failure at an early stage and issue warning messages. With this request, the maintenance department turned to Schaeffler.



| Technical information – Labeling machine | |
|--|----------|
| Packaging | Bottles |
| Labels | 48,000/h |
| Motor Infeed Conveyor | 1435 rpm |
| Servo Motor Cold Glue | 4000 rpm |
| Servo Motor Main Drive | 4000 rpm |
| Motor Outfeed Conveyor | 1420 rpm |

What Schaeffler offers ...

Solution

Schaeffler’s experts recommended the Condition Monitoring solution with SmartCheck. The robust monitoring system detects deviations and changes in vibration behavior. Bearing damage is thus detected at an early stage, which can prevent an unplanned shutdown.

A total of six SmartChecks were used on the servo motor and the conveyor motors. In this case, the data is gathered via a SmartController. The solution is visualised on the computer with the SmartVisual analysis software. In the control room, maintenance can thus track the status of the machines at any time and take action if necessary. In this way, faults can be tracked with array alarm learning. SCADA programming was implemented to avoid faults from different sources. The data is exchanged with higher management levels via TCP/IP,SLMP.

What’s special

The user-friendly nature of the Schaeffler Smart Utility software does not require vibration analysis expertise. This allows engineers without vibration knowledge to obtain analysis knowledge and skills more easily and make informed decisions more efficiently.

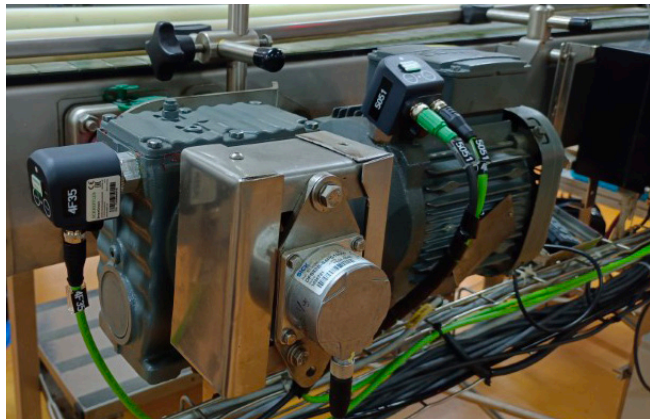


Technical information on SmartCheck

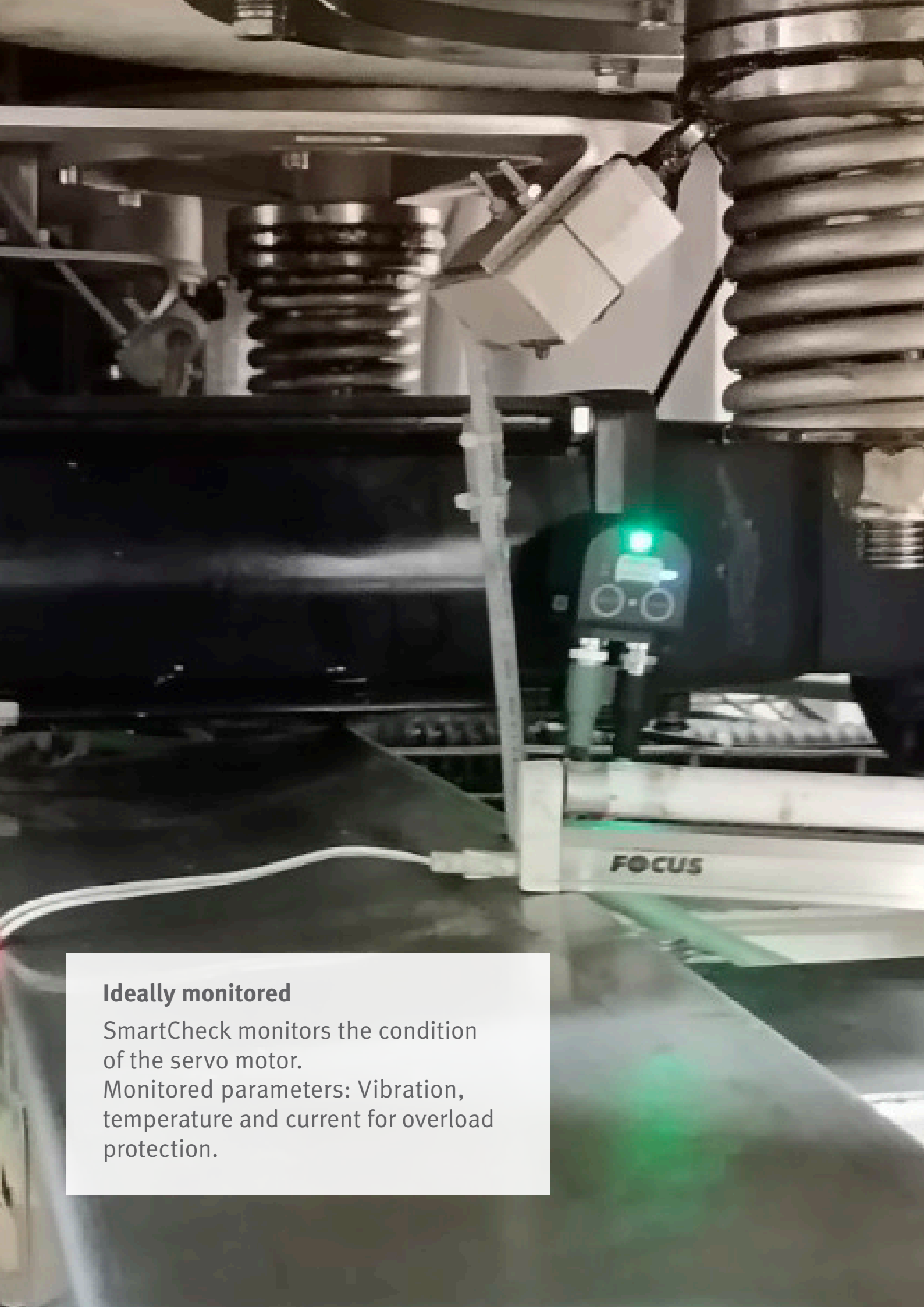
| | |
|--------------------------------|---|
| Monitoring system | 6 Schaeffler SmartChecks |
| Data exchange | TCP/IP,SLMP |
| Monitored units | 4 motors of labeler |
| Monitored operating parameters | Vibration, temperature, speed, load current (amp) |
| Method of diagnosis | Speed, acceleration and envelope |
| Status display | Visualization in customer’s control room and on operator’s PC with Smart Visual |
| Software | Schaeffler Software Smart Utility and Smart Visual |



SmartCheck installed on servo motor.



SmartCheck installed on servo motor.



Ideally monitored

SmartCheck monitors the condition of the servo motor.

Monitored parameters: Vibration, temperature and current for overload protection.

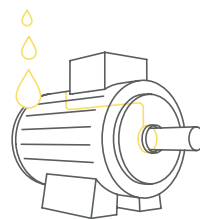
What else Schaeffler has to report ...



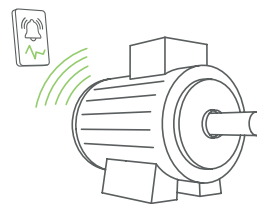
Always an overview of the machines with SmartCheck and associated software

SmartCheck is part of the Schaeffler Lifetime Solutions portfolio, which offers a comprehensive range of products, services and solutions for industrial maintenance. It is designed to support maintenance engineers throughout a machine's entire lifetime.

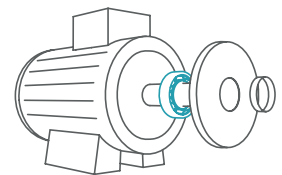
www.schaeffler.de/en/lifetime-solutions



Lubricate



Monitor



Mount

Why Schaeffler?

- Technical expertise
- Friendly and knowledgeable customer service
- Quick and easy installation

Why this specific solution?

- Precise machine condition data
- Easy, intuitive operation
- Automated learning mode

Customer

The customer is one of the world's leading consumer goods manufacturers and operates globally in America, Europe, Africa, Oceania and Asia. As one of Southeast Asia's leading food and beverage companies, the client is committed to making a difference in all the communities it supplies. For decades, the company has been committed to research and development, using advanced technologies to produce healthy nutritional supplements that help millions of people around the world live better lives. More than 40,000 employees work for the company.