



Background

Tetra Pak is a global food processing, packaging, and distribution company. Their products are used in more than 160 countries.

Javier Uribe is the maintenance projects and utilities manager for Tetra Pak. He has been with the company for almost 26 years, including three years as maintenance manager at a factory in Saudi Arabia. He now works at a facility in Mexico. Speed is essential for many of the processes performed by the machines in his facility.

"My function here is to keep the machines rolling, to increase the reliability of the machines at optimal cost," Uribe said. "This is a factory that is producing packaging material for food, so we have three big processes. One process is printing, another process is coating, another process is finishing. The machines need to have quite a good alignment, and very good maintenance in all the components, in order to ensure that we can fulfill the customer needs."

When the machines at Uribe's facility needed alignment, he turned to ParAlign Roll Alignment Services. ParAlign was recommended for alignment services by Tetra Pak's central team in Sweden.

"Because of our machines, our processes are very fast so we need to be sure that we have the quick alignment," he said.

ParAlign is an innovative, non-optical measurement method from Prüftechnik that uses inertial technology to measure the parallelism of rolls in machinery. Properly aligned rolls create better and more consistent products, with less wear and tear on machinery. With the ParAlign, no line of sight is required — this makes consistent, reproducible results possible.

Challenges

Another reason Uribe chose ParAlign was the sheer number of rolls in his facility needing alignment. ParAlign Roll Alignment Services ensure accurate and comprehensive roll alignment — fast. Up to 100 rolls per day can be measured with the ParAlign.

It is important to Tetra Pak's production to ensure that maintenance tasks do not take up more than the allotted time, Uribe said. "We are very, very tight in terms of production commitment, so we have a very tight time to have intervention for machines."

At Tetra Pak, as with other production facilities, machinery misalignment can lead to a variety of problems. One of the main problems caused by misalignment is diminished product quality.

"When we have a mis-register, it means we cannot keep the trap between the colors and the creases. We don't have good control process because the web handling is not as it should be," Uribe said. "So this is a symptom that there is something wrong in the machine alignment."



Implementation

The ParAlign service measurements are performed by two specialists from Prüftechnik. Tetra Pak technicians then make the necessary adjustments to the rollers.

"We have visual elements where we can see the progress, where we need to work, what is done, what is missing, and things like that," Uribe said.

The alignment service involves in-depth communication and collaboration between the services team and the client. "There is good communication," Uribe said. "We have meetings before in the middle, at the end. The process is quite good."

The Tetra Pak facility has many machines with many rollers, but with good accessibility in a large space. It was a priority for Tetra Pak to make the machines easy to interact with, Uribe said.

Tetra Pak production facilities have the same layout around the world. "It's a standard," Uribe said. "So if you go to Singapore and then you came to here, you will see the only thing that is different is the people."

Results

Tetra Pak has roll alignment services performed on a calendar-based cadence. They add new machines infrequently but incorporate alignment as part of the installation process when machines are added.

Having used ParAlign Roll Alignment Services before, Uribe said he was confident in the capabilities, accuracy, and process of the ParAlign. "It's good because we are using the latest technology, to be sure that we have the most precise settings and results."

It takes two to three days to measure and align all of the rollers in the Tetra Pak facility. The maintenance team uses that downtime to perform other tasks as well. ParAlign Roll Alignment Services do not disrupt those other maintenance activities.

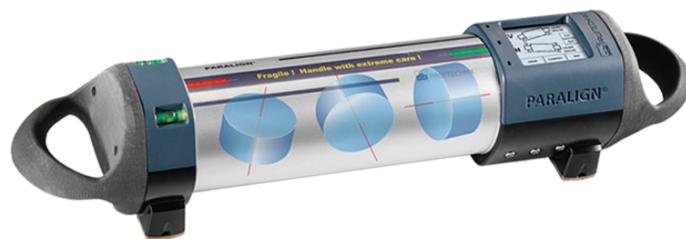
"Our first priority is safety. This is our first priority — safety in our people, safety in our employees, in our commercial partners — and then it's quality, of course," Uribe said. "And to get quality, we need to have the machines in proper alignment."

Benefits

At the end of the ParAlign service, the client receives a detailed report about the alignment service performed. "Everything in the report is clear, accurate, short, objective, and useful," Uribe said.

The ParAlign Roll Alignment Services team has "a very, very good technical profile," Uribe said. "Very good performance, very good result."

"If we don't have proper alignment in our processes, our machines, we don't have good quality," Uribe said. "You should do whatever you need in order to be sure that you will get the higher quality."



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6/2022 6013973a-en

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