

Customer Case

MM FOLLA CELL

Intellinova Parallel EN

Pulp and Paper

Norway

Wood chipper monitoring and condition-based maintenance – a winning combination

Norwegian pulp mill MM FollaCell values sustainable development and embraces innovation to achieve continuous growth. For this forward-looking mill, combining high-performance condition monitoring technologies and innovative wood chipper performance optimization is a winning strategy that drives cost savings and production efficiency.

Sustainability focus

MM FollaCell follows the UN's sustainability goals and actively promotes the green transition and the global circular economy by creating value from renewable raw materials such as logs, sawmill chips, and hydropower.

Wood chipper monitoring

The traditional approach to replacing wood chipper knives has been time-based replacement. The Folla mill used to replace the knives twice per week. This approach, however, leads to a considerable waste of resources when the full life span of the knife parts is not utilized.

Now, FollaCell relies on SPM's wood chipper monitoring system to replace the knives only when necessary – typically once a week. The mill also saves significant labor costs by replacing the knives on weekdays instead of calling out extra staff on weekends.

The estimated annual time savings from making the knife changes based on condition is approximately 200 hours.

Since introducing SPM's wood chipper monitoring solution, the mill has saved up to 50% in knife replacement costs.

Stone detection problem solved

Despite a stone trap and metal detection, FollaCell had trouble with debris entering the wood chipper, such as stones and other hard materials.

SPM Norway, in cooperation with FollaCell, developed a way to use the Intellinova online system to detect unwanted materials about to enter the wood chipper.

In 2024, the system detected five pieces of hard debris. Had they gone undetected, it is estimated that they would have led to approximately fifty hours of lost production and significant repair costs.

Embracing innovation for continuous improvement

Innovation is an ongoing part of everyday life at FollaCell. The company is open to reconsidering and evaluating current working methods and perspectives. Therefore, testing SPM's wood chipper monitoring solution was an obvious choice to see how they could increase productivity and save money in the wood-chipping process.

Implementing new ways of monitoring the wood-chipping process has increased production hours and saved the mill significant money.

Better planning, smoother operations

Combining process optimization and condition monitoring brings new value to the FollaCell plant.

Condition-based monitoring also means that even minor reductions in the operating condition are detected and can be corrected at an early stage, for example, lubrication, imbalance, and high temperature. FollaCell has many success stories involving condition monitoring of wash presses, refiners, pumps, fans, and more.

Factory Acceptance Testing (FAT) of new and repaired machinery ensures that it will run as efficiently as possible for as long as possible.

Large parts of the production process are based on 24/7 production, with only parts of weekends and major maintenance stops available for maintenance activities. This was a major reason for choosing a condition monitoring solution from SPM that provides a planning horizon allowing the mill to add maintenance efforts to already predetermined stop times.

Optimized maintenance and production

Moving from time-based to condition-based chipper knife replacement not only saves the mill money and time, but using the knives as long as possible also helps reduce the environmental footprint.

In some cases, FollaCell leaves the repair work of larger machine parts to external contractors, enabling them to plan their repair work so that spare parts stock can be restored with refurbished parts and personnel can be scheduled to take part in the mill's planned maintenance stops.

Any major breakdowns during planned production also affect the internal production schedule. In many cases, this forces the production line and personnel to work harder, often leading to increased costs, higher energy consumption, and reduced opportunities for the maintenance department to do their planned jobs.

Furthermore, the exceptional pre-warning times provided by the patented HD condition monitoring technologies allow FollaCell to save considerable sums by optimizing spare part handling, reducing tied-up capital in spare parts, etc.

Work environment

A system that helps avoid unplanned stoppages and disruptions to critical machinery contributes to reducing personal stress that, over time, risks ending in ill health. It enables personnel to focus on their regular work with continuous improvements in a safe and favorable work environment.

MM FollaCell produces high-quality pulp – BCTMP, CTMP, and TMP – from round wood and sawmill chips, all from sustainable forestry. The mill has an annual production capacity of approximately 140,000 tons. CTMP can be used in most paper and cardboard products.