

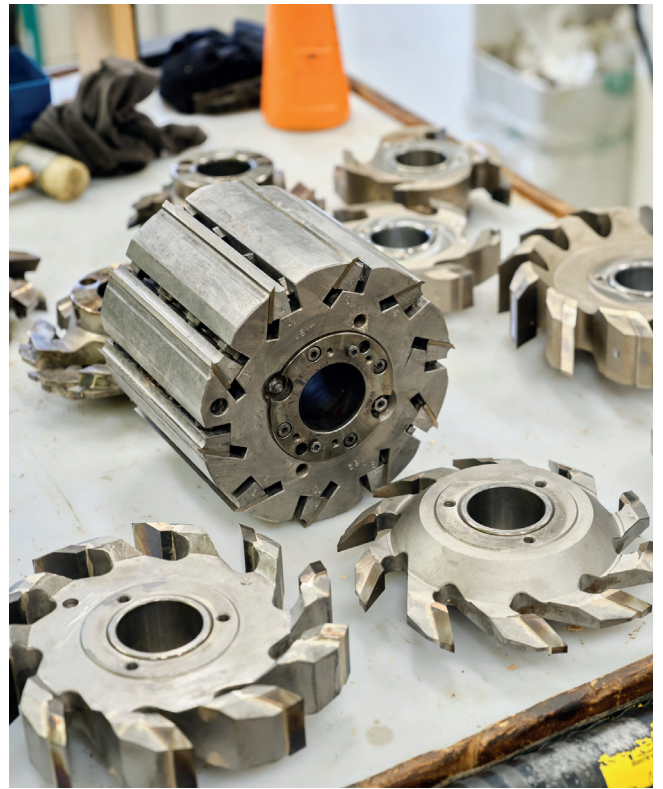
# Monitoring planer spindle vibration and temperature

Planer spindles in sawmills are crucial for the process of transforming timber into finished wood products. The performance and precision of these spindles directly influence the quality and value of the products. Because of this, monitoring and maintaining their operation is essential in keeping high production standards and ensuring the safety of operators. Any deviation in spindle function can lead to various potential risks, making it important to detect these changes before they result in catastrophic failures.

## Challenge

The "traditional" method of condition-based measuring and monitoring involves listening to and visually inspecting the equipment. This approach often results in imprecise and inconsistent data, especially unsuitable for monitoring planer spindles. It is vital to keep track of parameters like temperature and vibration during the production process to ensure the best possible operation. With manual periodic measurements, one is left with a limited set of values that do not reflect the equipment's actual state and do not indicate the development of trending values.

As vibration increases, the temperature rises, which progresses further under load. When abnormal sounds occur, it is often too late concerning irreversible equipment damage. If a planer spindle fails, the spindle can undergo



welding due to high temperatures, resulting in a costly replacement. This situation also halts the rest of the production.

## Solution

- With wireless Neuron vibration sensors, your business can monitor vibration and surface temperature of the planer spindle bearings in real-time, receiving continuous vibration and temperature data.
- The sensors are easy to install and has a battery life of up to 10 years. The Neuron system provides early warnings if the sensors detect abnormal values, allowing immediate action to prevent failures. The expense of a single replacement is significantly less than the cost of an unexpected production halt due to issues like spindle welding.
- Data is presented in a clear system in the Neuron app, which also displays graphs where potential trending developments can be observed. This offers a good approach to predictive maintenance, minimizing corrective maintenance practices.
- Additionally, a historical log of data can be used in condition-based analysis, such as root cause analysis based on specific events.

## What you get

- Neuron Vibration sensor that is easy to install.
- Sensors that detect and transmit vibration and surface temperature data to the Neuron App, with the option to transfer data to other software via API.
- Continuous real-time monitoring of vibration and temperature.
- Historical data is stored, which helps with maintenance planning and troubleshooting.
- Customization of parameters such as measuring frequency upon request.
- The ability to set custom alarm levels via the Neuron app, with quick notifications via email and/or SMS when values reach above a chosen threshold.
- Reduced risk of inefficient operations, equipment damage, and safety hazards due to planer spindle failures.
- Enhanced confidence through reliable monitoring of planer vibration and temperature, leading to more optimized production and safer operations.

## Products in use

- Neuron Vibration Sensor

