

Monitoring of saw blades in planing mills

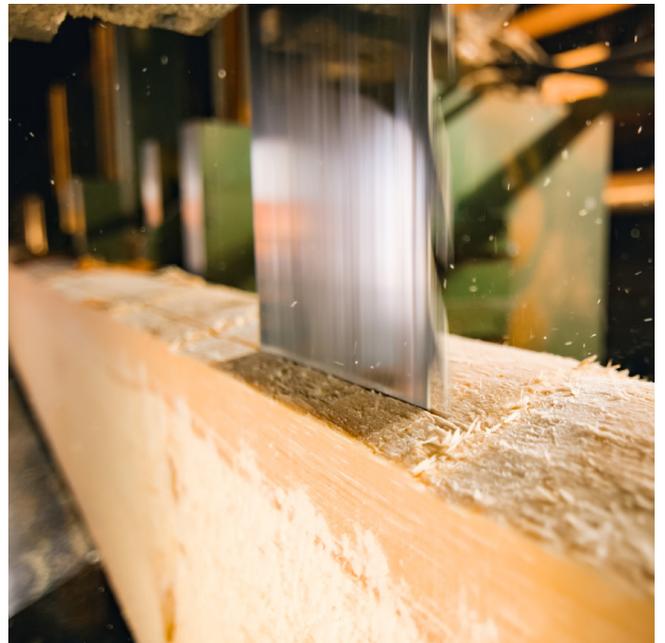
Unplanned changes of saw blades cause production halts that propagate down the production line in a planing mill. With a Neuron IR sensor, saw blade temperature is monitored, and sawing speed can be adjusted to fit the capability of the saw and saw blade. This leads to planned changes of saw blade without interrupting production. Better knowledge of saw blade temperature also leads to increased productivity since the saw can be run at optimal sawing speed at any time.

Challenge

- Planing mills split wood into planks with a saw before planing.
- A saw blade that becomes too hot will lose its tension, which means it needs to be replaced. Such saw blade replacements lead to a halt in production and a reduction in production capacity.
- The production halt on the saw will propagate to later stages in the production process, such as planer and packing operations, and leads to equipment and personnel not being able to produce while the saw blade is changed.

Solution

- Neuron IR sensors are installed in the saw, pointing at the saw blades.
- The saw blade temperature is displayed to the saw operator, who can adjust sawing speed to the optimal speed given the current production and saw blade condition.
- The Neuron IoT system can also provide alarms to operators if temperatures are increasing above the user selectable thresholds. This allows for operating the saw with temperature monitoring, without an operator constantly checking the saw blade temperature on a display.



- Any saw blade will deteriorate over time. The operator will detect this by observing an increased temperature of the saw blade. Sawing speed can then be reduced to continue production without the saw blade losing its tension. Change of saw blade will then be performed at a planned production break without consequences for the rest of the production line.

What you get

- Continuous measurement of temperature without touching the saw blade
- Measurement every two minutes – for 7 years
- Easy mounting with magnet – one sensor per saw blade
- Control the saw blade speed so that the saw blade does not get too hot.
- Possible to set alarm limits for notification without looking at measurements in the app

Products in use

- Neuron Infrared 380