

Kraft process



Measuring wood chip characteristics in real time (CMS-CWS)

The same product used to measure wood chip characteristics in real time (CMS-CWS) can be used by pulp and paper mills to develop an optimization strategy for their kraft process. Online real-time measurements, particularly of the flow of dry wood chip mass and wood chip moisture content, enable the operator or the control system to effectively control white liquor flow rate, fill frequency (batch process), as well as cooking temperature and time in order to stabilize the chemical reactions generated by the process and the Kappa Number. This type of optimization can help to improve performance and productivity, to reduce the quantity of white liquor used, and also reduce reject rate.

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RETURN ON INVESTMENT AND DIRECT BENEFITS

At a kraft plant that produces 200 tons of pulp per day, the return on investment is estimated at \$1.1 M per year:

- \$425 K saved on the purchase of wood chips representing the same tonnage of pulp produced (increased productivity);
- \$675 K saved on white liqueur, increased performance, etc.

The system also allows for direct gains to be generated through:

- Improved quality of end products;
- A more stable process which in turn allows for easier and more accurate control;
- Less waste.

MAIN APPLICATIONS

The technology is presently operating at pulp and paper plants using the kraft process.

This application could easily be adapted for other purposes such as batch or continuous bulk material processes. Also refer to the CMS-CWS spec sheet.

For advice or information on the kraft process:

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