

APPLICATION NOTE AN002

Pulp Processing

PAPER & PULP

INDUSTRY: Paper & Pulp

APPLICATION: Multi-stage bleaching process efficiency for hard and soft wood pulp

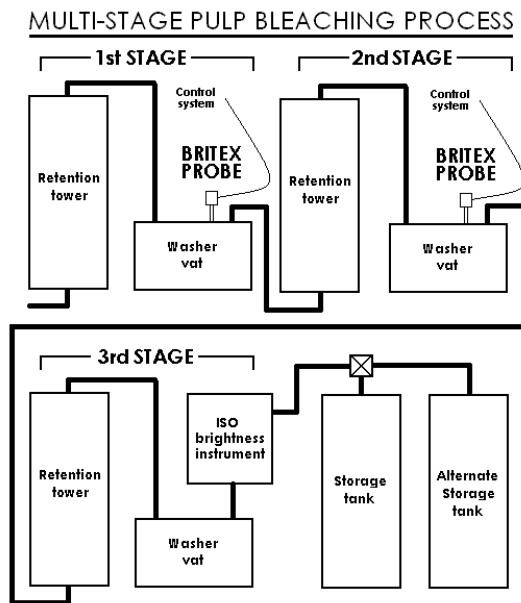
The Challenge

A major Pulp and Paper manufacturer needs to improve bleaching efficiency by determining brightness levels in early bleaching stages to improve quality and minimize associated costs.

Current processes generally provide brightness measurements made just before pulp is directed into storage tanks at the end of the pulping process. Measurements made in prior stages involve a time-consuming process of taking a sample from the washer vat, drying and preparing it for a brightness measurement in the lab.

The Solution

EMX industries, Inc has developed the BriteX series of brightness probes that provide in-process relative brightness measurements in early bleaching stages, allowing real-time process adjustments. Monitoring of relative brightness in the 1st and 2nd stage provides measurement data that can be correlated to final brightness measurements allowing tighter control of bleaching processes. The BriteX probe is suitable for use in both hardwood and softwood processes.



The block diagram shows a general overview of a multi-stage bleaching process. Traditionally, the pulp brightness is measured following the last stage of the process, too late to make process adjustment to improve pulp brightness.

Since the use of ISO brightness measuring instruments in early bleaching stages is cost prohibitive and manual sampling methods are time consuming, the BriteX monitoring probe provides a cost-effective solution. The BriteX provides an analog output signal allowing the control system to monitor the relative brightness of the pulp in real-time.

The photo on the right shows the BriteX with the cover removed. The enclosure is FRP (fiberglass reinforced plastic) suitable for use in highly corrosive environments. The BriteX probe is available in 316 stainless steel or titanium for immersion into washer vats.



Equipment Required

BX1000P-T-370	BriteX Probe, 370nm, 22" Titanium probe
BX1000P-T-457	BriteX Probe, 457nm, 22" Titanium probe
BX1000P-S-370	BriteX Probe, 370nm, 22" 316 stainless steel probe
BX1000P-S-457	BriteX Probe, 457nm, 22" 316 stainless steel probe



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