KRT RETENTION MEASUREMENT

Retention measurement system for monitoring and control

KPM offers a retention measurement system for paper machine retention monitoring and control. KPM KRT retention package is applicable for paper and board machines with or without ash addition.

All needed hardware is included in the system where separate configuration for headbox and whitewater measurements are available. KPM KRT retention package measures total consistency of the headbox and whitewater sample.

Measurement range is 0–1.5% Cs. The sensor measures fibers and particles from 0.01% (100ppm) to 1.5%, (depending on type of stock).

The measuring principle is based on the ability of fibers to depolarize light to a much greater degree than denser solid particles.

Connection to headbox and whitewater

KPM KRT by-pass sensors are connected to the headbox and the whitewater with sample valve and PP sample line. The whitewater sensor includes an automatic backflush valve that keeps the sensor and sample line clean. The whitewater sensor can also be equipped with a deaeration device and a sample pump.

The sensors measure total consistency of the sample and the consistency signals are connected to DCS, where retention is calculated.

No maintenance needed

The sensor has a 3 mm gap between the lenses, which produces a self-cleaning effect due to the increased velocity. In addition, automatic flushing with 3-way valves can be supplied to keep the sensors clean without maintenance. Each sensor can have four remotely selectable calibration curves for applications with varying furnishes.

Robust design in SS316 steel

The sensor is constructed of 316SS with unbreakable stainless steel sample funnel, making the sensors withstand the most aggressive media. The sensor pressure class is PN10. The display unit and sensor have protection class of IP65 (Nema 4X) and do not need protective housing to stand difficult conditions at the paper machine wet end.

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