

Modern Automation Technologies In Stock Preparation & Wet-End

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ABSTRACT

“Paper Records Its History”. True! Most of the paper properties are set at the stock preparation and wet-end of a paper making process. Stock preparation is the section where refining of pulp slurry, blending of various pulp grades, additives, dyes is done in order to achieve a desired end product quality. Use of automation technologies in stock preparation can help achieving desired levels of freeness, pulp strength (by blends of various pulp types), brightness, colour shades and at the same time help keeping energy consumption (in refiners) and additives usage to a desired level, thus helping save the production costs & reducing environmental pollutants.

The next immediate challenge is to retain these valuable fiber & additives received from the stock preparation on the paper machine wet-end. Fixatives and retention-aid chemicals are used to maximize the retention of fibers & additives. The target is better formation, machine runnability, machine cleanliness, optimum usage of retention aid chemicals & fixatives, minimum wastage of precious fiber & additives through drainage, lesser wet-end sheet breaks and the targeted end product quality. Advanced measurement and control technologies are available and implemented in the wet-end in mills all over the globe. These technologies have helped in fiber, additives, chemical & fixatives savings alongside better formation, machine runnability, machine cleanliness, desired end product quality and a cleaner environment.