

Nalco Water Press Effluent Monitor

NALCO Water
An Ecolab Company

PROGRAM PROFILE
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The Nalco Water Press Effluent Monitor (PEM), is a unique platform that supports papermakers with key information regarding paper machine felt conditioning cycles. This information can provide operators and decision makers the necessary data to Determine, Detect and Deliver results to their process by allowing customization of the cleaning program to maximize efficiency. Reductions in variability can potentially improve Overall Machine Efficiency (OME).

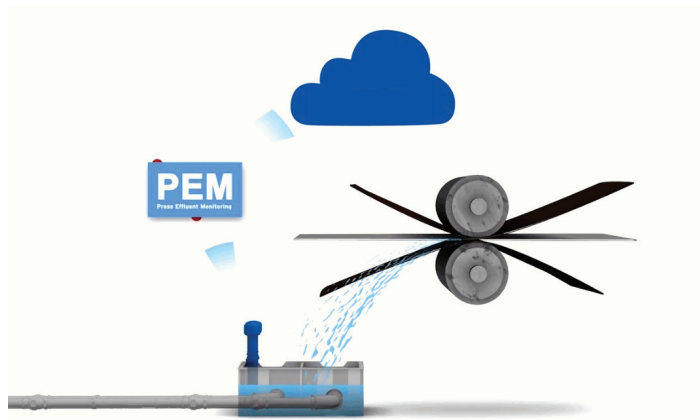


Figure 1: Press Effluent Monitor

BENEFITS

- Improved control of press section conditioning cycles
- Improved runnability via no breaks caused by wash cycles and operating with cleaner press fabrics
- Reduced energy consumption
- Decreased felt costs via improved felt life from optimum Felt conditioning
- Chemical feed optimization
- Complete 24/7 monitoring from one self-contained system
- Enabled program optimization
- Decreased rejects
- Early warning of system upsets
- Moves press fabric cleaning from “Art” to “Science”

DESCRIPTION

Monitoring and controlling press cleaning cycles is a critical component in the paper making process. Historically, uhle box water was rarely monitored due to the challenging nature of this water and maintaining the accuracy of traditional monitoring devices being difficult.

The Nalco Water PEM is a novel technology that continuously monitors three variables in Uhle box water and utilizes data to design, modify and manage the felt conditioning program.

Data is utilized to determine:

- Chemical dosage (Concentration)
- Application Time
- Rinse Time
- Application Frequency
- Product Selection

The Press Effluent Monitor (Figure 1) combines the measurement capabilities of several devices into one, easily maintained unit. Measurements of up to four white-water streams from four separate sources on a paper machine, are provided. More probes are implemented on earlier “work horse” press felts such as a pickup felt and first press than on latter presses such as third and fourth felts.

Normally the Uhle box water from four press felts are chosen (Figure 2). But there is flexibility to choose streams from other sources such as press pan, suction roll, seal box, etc. Data from the Nalco Water Press Effluent Monitor allows the operator to adjust chemical feed pumps or the length of the conditioning cycle.

Nalco Water Press Effluent Monitor Sampling Parameters:

- Turbidity
- pH
- Temperature

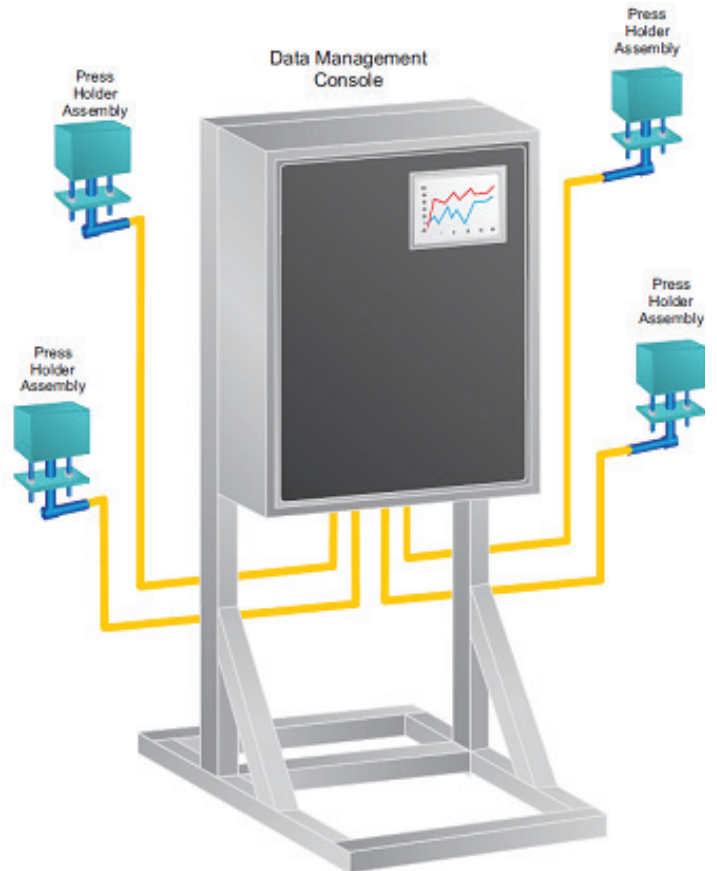


Figure 2: PEM Layout

Data from the Nalco Water Press Effluent Monitor is available on the monitor display for immediate notification of changing system conditions. Data can be downloaded for analysis of trends. Trending and alarming are also available remotely via the Nalco enVision web site (<https://envision.nalco.com>).

SUPPORT

If you have any questions about this specification, please contact your local Nalco Water sales engineer. In North America, you can also contact the Nalco Water Global Equipment Solutions Technical Support Group at 800-323-8483.

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