

Hydroscreen[®] static screens for whitewater reuse

Problem

A Midwest recycled boxboard mill producing 425 MTD wanted to clean up a whitewater stream.

Their two-fold goal was fiber recovery and cleaning the whitewater for reuse on their paper machine showers.

Solution

The mill selected dissolved air flotation as the core of the proposed system. Screens were an important part of this system, and the mill selected Hydroscreens[®]. These screens facilitate a consistent flow and reduce the amount of suspended solids going to the DAF unit.

The Hydroscreen[®] static screens were supplied with exclusive bi-wave wedgewire panels and .020" slot openings. Solids recovered by the Hydroscreen[®] static screens are sent directly to the pulper for reuse, along with floating solids from the DAF unit.

Filtrate goes to the DAF. Effluent from the DAF process is further polished and used as machine shower water.

Results

The new system has allowed this mill to close the loop and stop wasting its whitewater stream to the sewer. The Hydroscreens[®] have effectively reduced solids loading to the DAF and require only minimal attention.



Design Data

Flow rate	900 GPM whitewater from whitewater chest
Furnish	Secondary fiber (OCC)
Freeness	200-300 CSF
Temperature	100° F
Solids discharge consistency	7.6%
Filtrate consistency	900 PPM (.09%)
Equipment	Four Hydroscreens [®] - Model HS72 with .020" wedgewire screen panels



