White Water Filtration in Pulp & Paper Mills

Effective and economical spray nozzle protection with Eaton's F-Series automatic tubular backwashing filter

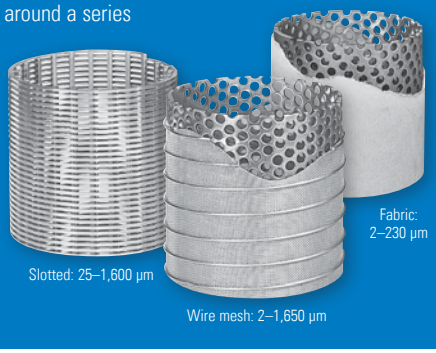
Manufacturing pulp and paper requires a substantial amount of water. It plays an essential role in fibers transportation, equipment cleaning, lubrication, cooling and in development of a high product quality. Much of the water used in the paper making process is pumped and sprayed through nozzles. Clogged nozzles will negatively impact the effectiveness of the nozzles and thus the process. Effective removal of particulate contamination is therefore very important for spray nozzle protection.

Eaton offers a powerful automatic tubular backwashing filter that is well established in spray nozzle protection. This low maintenance filter system provides a valuable service by reducing the particle concentration in white water. It is a modular filter system that can be adapted to process-related changes using extensions. It can be designed to accommodate 2 to 20 filter stations and consequently adapted for different volume flows, enabling it to clean up to 680 cubic meters of water per minute. The automated system does not require any operating personnel and uses differential pressure measurement to detect when the filter elements need cleaning. This process is based on the tubular backwashing principle to backwash one station after the other with a high volumetric flow.

Cleanable Media

Eaton offers media choices from compact configurations—that pack a large amount of surface area into a small amount of space—to simple strainer-type systems for removing larger contaminants.

For spray nozzle protection Eaton recommends slotted wedge wire media (25–1,600 µm) made by winding a continuous triangular-shaped wire around a series of vertical support stringers. These media require no backing. Their inherent strength makes them ideal for reliable performance with abrasive slurries or fibrous materials.



	Specifications F-Series
Inlet/outlet header size	from 3" (DN80) to 12" (DN300)
Body diameter	Ø 114,3 mm (4.5")
Screen length	914.4 mm (36")
Various elements	Single, Tri-Cluster, Accuflux®
Max. pressure	17.2 bar
Max. temperature	177°C (depending on options)
Backwash minimum flow	340 l/min for single and Tri-Cluster media; 567 l/min for ACCUFLUX® media
Backwashing option	internal or external
Other options	backwash diffusers, drain header trap, quick coupler valve connectors, 304 stainless steel frame material, ASME code vessels (10.3 bar) and more

Eaton's modular **F-Series** automatic tubular backwashing filter separates particles from white water

Powering Business Worldwide

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