

Advanced Technologies in Water Filtration for Municipal Systems



EATON

Powering Business Worldwide



Bringing a half century of global experience to work for local sustainability

Eaton Strategic Partnership

For more than 50 years, Eaton has been a trusted business partner with municipalities worldwide, understanding their concerns of rising water demand, emerging health threats, and increasing amounts of complex contaminants, all at a time when the population is growing. Eaton's commitment to providing technical, application, and product expertise, coupled with complimentary water treatment technologies, not only enhances municipal water treatment systems but also minimizes the impact to municipalities financial and energy resources.

Eaton has led the way with technology that meets the growing and rigorous water demands of municipalities. Utilizing a variety of filtration technologies, Eaton has consistently implemented the best solutions available while continually striving to make a difference for customers and the environment.

Eaton Filtration Services

- State-of-the-art water testing lab facility
- Long-term or short-term equipment rental
- Field service—inspections, start-up, repair, replacement, and maintenance
- Extensive network of manufacturer representatives and distributors throughout North America
- Worldwide technical support in international markets
- Team of product specialists dedicated to providing application engineering

Well water

Drinking water

Ground water

Membrane protection

Secondary effluent discharge

Well re-injection

Remediation

Hydrant flushing

Water reclamation

Aqueduct systems

Wastewater plants

Irrigation

Dams



Eaton MAXILINE bag filter vessels are designed for flow rates to 4400 gallons per minute—excellent for pre-filtration protection of membrane systems, mixed bed resin systems, etc., available in 3 - 36 bag configurations. Bag filter elements are available in nominal and absolute ratings, pleated and non-pleated; 1 micron and above.

Eaton Sustainability Commitment

Eaton is unwavering in our commitment to being sustainable by design—in the way we operate, through the design of our products, and through the energy and climate saving benefits our products deliver. Eaton issues a Sustainability Report as part of its Annual Report, available on www.eaton.com.





Drinking Water

High Flow MCS mechanically cleaned strainers—fast cleaning magnetically coupled actuation to help improve and reduce costly maintenance and downtime.



The AFR self-cleaning tubular backwash system features low micron retentions—saving costs for labor, replacement media, and media disposal.

Eaton's filtration products have been proven to help municipalities provide safe and reliable pure drinking water for generations. Our products are found throughout multi-barrier water treatment systems. Separation in the larger flow streams start with an Eaton automatic self cleaning strainer or tubular backwashing system followed by one or more steps that include Eaton filter bag or cartridge filtration.



Eaton automatic strainers provide filtration of incoming water protecting membrane system in rigorous application including seasonal algae bloom.

Applications/Products

Pre-filtration for Desalination • Reverse osmosis • Mixed / Fixed resin beds

- Bag filtration—0.45 absolute to 800 micron mesh bags. Perfect for pre-filtration between wells and mixed bed resins to ensure sand, silt and other unwanted particulates do not contaminate resin beds.
- Cartridge filtration—.03 to 150 microns—absolute and nominal ratings available.
- Tubular backwashing filtration—greater than 2 microns—automated system in which no operator attention is available—the AFR series offers high flow rates in a compact footprint.
- High Flow MCS™ mechanically cleaned strainers—standard retention 150 to 1,100 microns.
- Model 2596 automatic self cleaning pipeline strainers designed for continuous efficient removal of entrained solids in pipeline systems.
- Bag filter housings—single bag and multi-bag housings up to a 36 bag configuration.
- Fabricated single and duplex basket strainers in process connections up to 60".

MUNICIPAL



Water quality agencies have come to rely on Eaton's automatic self-cleaning and mechanically cleaned strainers to remove sediment, turbidity, iron, and suspended solids commonly found in surface and ground water. These high quality filters as well as Eaton's other filtration products help cities meet their watershed protection obligations for effectively protecting public health and restoring aquatic ecosystems. Eaton's goal is to support municipalities in their efforts to further enhance the quality of life, economic growth, and the protection of vital resources.

Watershed & Aqueduct Systems



MODULINE™ systems are a compact and efficient bag filtration solution for a range of water filtration needs where continuous flow is required.



Eaton mechanically cleaned strainers at a water reservoir project for irrigation.

Applications/Products

Hydro-electric dam turbine bearing cooling

Automatic strainers, simplex strainer, duplex strainers



Aqueduct pumping lift stations

Automatic strainers, simplex strainer, duplex strainers

Dams

Automatic strainers for cooling water protection of pump seals, turbine bearings, fire system protection in hydroelectric complexes

Irrigation

Automatic self-cleaning strainers

Simplex and Duplex strainers

Mechanically cleaned strainers



Eaton designed automatic self-cleaning strainers provide a highly reliable unit for 24/7 operating installations. Applicable for large diameter piping systems and high flow rates.

AL WATER TRE



Eaton has been assisting municipalities meet the need for cleaner discharges by providing advanced filtration equipment at primary, secondary, and advanced treatment processes at wastewater treatment facilities. The reliability and low maintenance of Eaton's automatic self-cleaning strainers along with other filtration solutions have proven to be cost-effective problem solvers. Their partnership with Eaton has helped many communities increase their ability to provide a sustainable supply of clean water and protect the health of their citizens.

Wastewater Treatment

Applications/Products



Eaton MAXILINE™ bag filter vessels. Pre-filtration of incoming well water protecting membranes in heavy metals abatement system for drinking water.

Wastewater Plants

- Automatic strainers for plant spray nozzle and equipment protection
- Simplex and Duplex strainers for plant equipment and pump protection
- Gas/liquid separators for digester gas recovery and compressor protection



Model 50 butterfly valve duplex basket strainer is a special design with several important features and advantages for large size pipelines with high flow rates.

Water Reuse

- Protection of ultra filtration membrane systems—usually automatic strainers at 200 to 400 microns
- Bag filters for ground water recovery and protection of carbon beds for organic compound systems

Filter wastewater from:

- Homes
- Businesses
- Industries
- Storm water and farm runoff
- Ponds and rivers

Water Reclamation

- Automatic strainers for protection of reclaimed water irrigation system components
- Backwashing tubular filters for reclaimed water processing pre-filtration of various process systems



Eaton automatic strainers provide filtration of 100 micron and above. They are the perfect solution for the protection of plant equipment including spray nozzles, pump seals, water reinjection systems, water recycling systems, etc., in wastewater plants.

Water Recycling

- Automatic strainers for protection of pumps and injection wells in aquifer recharging applications



Model 2596 automatic self-cleaning pipeline strainers designed for continuous efficient removal of entrained solids in pipeline systems.

WASTEWATER TREATMENT



Five 24" Eaton Model 2596 units with backwash assist pumps installed at a waste water treatment plant.

Eaton Technologies

- Customized and modular solutions provide a full range of retention capabilities and construction materials in manual and automated designs
- ISO 9001-2000 quality management
- Standard ASME "U" and "UM" Code Stamp
- "N" stamp available
- European standards – DIN/CE/PE
- Welded filter bag technology meets FDA standards and European directives
- EPA compliant solutions
- Properly sized components to meet any specified flow rate and retention requirement
- NSF approved coatings
- Advanced backwashing/tubular technologies that offer small footprint options
- Ion exchange, carbon bed, and other mixed media systems protection
- Ultra low discharge strainer technology that offers reduced purge volumes

Eaton Filters and Strainers Materials of Construction

304 SS

316 SS

Bronze

Carbon Steel

Cast Iron

Hastelloy®

Titanium

Ductile Iron

Inconel®

Monel®



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