AquaDrum® Pressure Series

Cloth Media Filter

Featuring OptiFiber® Cloth Filtration Media

AQUA-AEROBIC SYSTEMS, INC.
A Metawater Company

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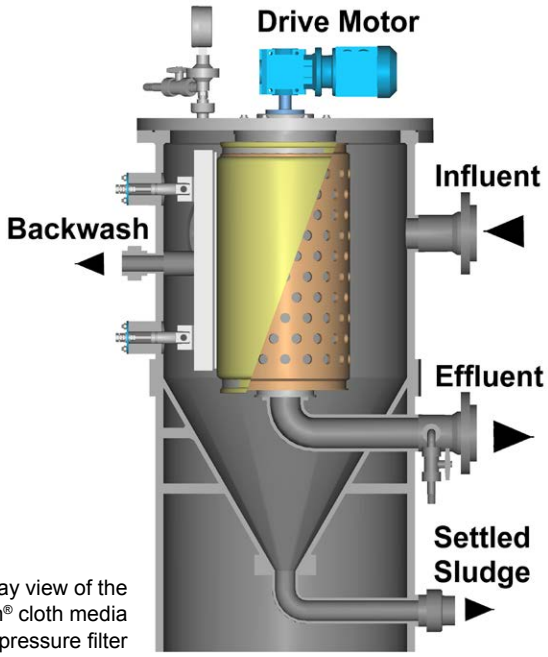
The AquaDrum® Pressure Series Cloth Media Filter is a pressurized vessel consisting of a perforated, vertically oriented drum utilizing OptiFiber® pile cloth filtration media. This pressurized filtration system is engineered to effectively maximize solids removal from water and wastewater. The unit is ideally suited to fit into pressurized systems and avoids breaking pressure and repumping. Each AquaDrum unit is equipped with an independent backwash and solids removal system. Backwash occurs by simply opening a valve without the need for a dedicated backwash pump. The system is controlled via differential pressure.



Cutaway view of the AquaDrum® cloth media pressure filter

Features and Advantages

- Installation in pressurized systems
- High flow rates
- High solids loading capacity
- Suitable for corrosive media (acids and more)
- Low capital and operating and maintenance costs
- Small footprint

Typical Applications

Municipal Water and Wastewater

Pre-filtration for:

- Surface water for drinking water treatment
- Membrane systems
- Activated carbon adsorbents
- UV or ozone disinfection

Industrial Wastewater

- Separation of solids after chemical-physical treatment
- Filtration of corrosive media

AquaDrum®
Cloth media pressure filter system

Operation Description

Filtration

- Influent enters the vessel and flows through the submerged pile cloth media from the outside to the inside while solids are retained on the filter cloth
- Solids deposit on the outside of the media forming a mat as filtrate flows through the media
- Headloss across the filter media increases as solids accumulate, which increases differential pressure

Backwash

- Once differential pressure reaches a set-point (typically 5-10 psi), a backwash cleaning cycle will be initiated
- Controlled minimum pressure is maintained in the filter vessel
- Solids are backwashed off the filter media as the drum rotates
- A pressure differential between vessel and atmospheric pressure provides ample energy for effective backwash
- Filtration is not interrupted

Solids Wasting

- Heavier solids on the tank bottom are removed on an intermittent basis
- Solids are pumped back to a specified solids collection area of the plant

PROTECTING THE WORLD'S WATER.

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The information contained herein relative to data, dimensions and recommendations as to size, power and assembly are for purpose of estimation only. These values should not be assumed to be universally applicable to specific design problems. Particular designs, installations and plants may call for specific requirements. Consult Aqua-Aerobic Systems, Inc. for exact recommendations or specific needs. Patents Apply.

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Bulletin #640B 2/26