AQUA-AEROBIC SYSTEMS, INC.
A Metawater Company

AquaDisk® Cloth Media Filter
Unique Qualifications and Key Features

Aqua-Aerobic Systems is recognized as the world leader in cloth media filtration technology proven by our experience of more than 700 cloth media installations worldwide with over 1,500 filter units designed to handle a wide range of flows. We pride ourselves in offering a systems-based solution to each project and outstanding service and support after installation. Aqua-Aerobic Systems' success is justified by our reliable designs, application expertise, quality manufacturing and ongoing research and development. We pledge to continue to partner with our customers, providing solutions with innovative and proven technologies such as the AquaDisk® Cloth Media Filter.

Key features and benefits of AquaDisk cloth media filters are highlighted below.

The unique vertical configuration of AquaDisk filters results in footprint reduction. This translates into smaller filter building requirements, providing cost savings especially for environments where freezing is a concern.

AquaDisk filters utilize pile cloth media with 3-5 mm of active filter depth. This media depth allows the filter to store solids within the cloth providing a solids loading rate up to 3.25 lbs TSS/ft^2/day. This solids loading rate is superior to other filtration technologies available in the market. The backwash rate for cloth media filters is 1-3% of throughput under normal operational conditions. The pile cloth media also allows buildup of a layer of solids or mat that provides an additional "tighter weave" filtration barrier which assists in removal of smaller particles.

AquaDisk filters are unique in that the vertical configuration and outside-in flow pattern allow heavier solids to settle to the bottom of the filter tank. This attribute inhibits heavier solids from contacting the pile cloth media which results in power savings and prolongs media life expectancy due to minimized on demand backwashing. In addition, the outside-in flow pattern of AquaDisk filters allows filtration to continue during plant upsets. This feature is particularly critical when extreme upstream upset conditions occur that surpass the media hydraulic / solids loading rate.

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AquaDisk filters' backwash system is composed of two backwash suction shoes that contact the media creating a high pressure vacuum. The vacuum pressure provided by the backwash pumps causes the pile cloth fibers to extend to their natural state through the opening in the backwash shoe to enhance the cleaning action. This configuration maximizes solids removal and allows visual inspection from the top of the basin without the concern of a high pressure spray to escape by splashing out of the basin. Direct contact of the backwash shoes to the media ensures effective media cleaning, as well as preventing unfiltered water from entering the backwash system, which unnecessarily increases total backwash volume. The backwash shoes are connected to a pump that can be sized to meet a specific discharge head without the need of adding a sump with additional pumps to direct the backwash to a specific discharge point.

Our standard AquaDisk filters utilize a PLC based control system that allows easy interface communication over a network to access data – trending, etc., and provides increased value to the operator. Hand switches are also provided for manual operation.

AquaDisk filter media is available for overnight delivery and does not require special tools for field installation. The media is light weight, easily accessible and replacement is a one man job. The pile cloth media utilized in AquaDisk filters typically operates for 7-10 years without replacement.

Aqua-Aerobic Systems offers support of our AquaDisk filters in a number of ways. We offer process assistance, either onsite or by phone. Clients take comfort in knowing that Aqua-Aerobic Systems is available 24 hours a day, 7 days a week, and 365 days a year, for the life of their wastewater treatment system. Plant welfare is important and Aqua-Aerobic Systems' Customer Response Center guarantees the service required to maintain plants.

AquaDisk filters offer equivalent or better filtration performance than any other tertiary filter available on the market today. This has been independently verified in successful Title 22 testing for the state of California, countless side by side pilot studies and hundreds of AquaDisk filters in operation throughout North America and the rest of the world. Aqua-Aerobic Systems has over 40 years of experience in filtration of secondary wastewater effluent and over 20 years of experience in wastewater filtration utilizing cloth media, making Aqua-Aerobic Systems the leader in cloth media filtration technology.

The features of AquaDisk cloth media filters mentioned above including small footprint, high solids loading rate, low backwash rate, PLC control system, simple maintenance, and years of experience with cloth media filtration technology, enable Aqua-Aerobic Systems to provide long lasting products fully assuring reliable, quality effluent and lowest cost of ownership.

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