



Cloth Media Filtration Pilot Systems

Aqua-Aerobic Systems maintains over a dozen cloth media filtration units that are available for pilot studies. Each pilot filter can be fitted with any of the three cloth media options currently available. The units are shipped with hoses, pumps, and other equipment to make the unit self sufficient. Although there are significant differences in what is included, at the core of each unit is a single-disk Aqua MiniDisk® cloth media filter.

Table 1: Aqua MiniDisk Cloth Media Filter Pilot Specifications

Filter Area	10.8 ft ²
Average Design Flow	35 gpm
Maximum Design Flow	70 gpm

Aqua MiniDisk® Cloth Media Filter Pilot Trailer



Figure 1: Aqua MiniDisk® Cloth Media Filter Pilot Trailer

The cloth media filter pilot trailer is a state of the art unit optimized for reuse and low total phosphorus applications. The unit contains a chemical feed system, two flocculation basins, and an Aqua MiniDisk® cloth media filter. Two on-board ortho phosphate analyzers along with Filter IntelliPro® monitoring and control system allow for real-time phosphorus control. An on-board SCADA system tracks key process parameter including backwash information, influent flow, ortho phosphate, and turbidity.

Exterior Dimensions	8.3' x 13.25' x 53'
Power Requirements	480 V, 3Ø, 60 Hz, 50 amps

Stand Alone Aqua MiniDisk® Cloth Media Filter Pilot Units



Figure 2: Stand Alone Aqua MiniDisk® Cloth Media Filter Pilot Unit

Stand-alone Aqua MiniDisk® cloth media filter pilot units are typically used in studies lasting several months or more. These units are shipped with a kit including hoses and an influent pump to make the unit self sufficient at most sites. An on-board SCADA system tracks key process parameters such as backwash and influent and effluent turbidity. A chemical feed system can be connected to these units for testing with chemical addition.

Exterior Dimensions	8' x 6.25' x 7.2' (L x W x H)
Power Requirements	480 V, 3Ø, 60 Hz, 30 amps

Desalination Aqua MiniDisk® Cloth Media Filter Pilot Unit



Figure 3: Desalination Aqua MiniDisk® Cloth Media Filter Pilot Unit

The desalination Aqua MiniDisk® cloth media filter pilot unit has the same features as the stand alone Aqua MiniDisk pilots listed above. The materials of construction for this unit were selected to withstand sea water applications for desalination pretreatment.

Exterior Dimensions	8' x 6.25' x 7.2' (L x W x H)
Power Requirements	480 V, 3Ø, 60 Hz, 30 amps

AquaPrime™ Cloth Media Clarification Pilot Trailer



Figure 4: AquaPrime™ Cloth Media Clarification Pilot Trailer

The AquaPrime™ cloth media clarification pilot trailer contains a single-disk Aqua MiniDisk cloth media filter designed for primary filtration applications. The unit also has the flexibility to be used to test phosphorus removal in tertiary applications and includes a chemical feed system and flocculation basins for this purpose. An on-board SCADA system tracks key process parameter including backwash information, influent flow, and turbidity.

Exterior Dimensions	30' x 8.5' x 13.5' (L x W x H)
Power Requirements	480 V, 3Ø, 60 Hz, 50 amps

CSO Pilot Studies

CSO pilot studies use a standalone Aqua MiniDisk® cloth media filter that has several additional features to help automate testing CSO events. These features include automatically starting the unit, stopping the unit, draining out water after events, and a chemical feed system.



Figure 5: CSO Pilot Unit