



Pall Presents “Water Filtration on Wheels”

An efficient solution when a supplementary or replacement system is needed

When facing source water problems, downtime from equipment malfunctions or emergencies, seasonal surges in consumption, or increased demand that exceeds system capacity, municipal and industrial water providers need a solution to rapidly increase production. If they're in the process of building a new facility, they might need a water treatment system to ensure a smooth transition while the old plant is being decommissioned. Pall Corporation offers a solution that supplements or replaces your system on a permanent or temporary basis—“water filtration on wheels”.

The **Pall mobile water treatment system** comprises a complete, automated, packaged Pall Aria™ microfiltration membrane system mounted in a 48' or 53' box trailer. With appropriate site preparation and minimal labor, the system can be operational within hours. All that is required is to supply the

source water, connect the effluent pipe, and add 460 VAC 3-phase power.

Using the same state-of-the-art hollow fiber membranes as hundreds of installed Pall Aria systems worldwide, the mobile system transforms ground water, surface water, or secondary effluent into water that is free from harmful bacteria, cysts, and particles. More than one million gallons of water a day can be filtered, to 0.1µm at 90-97% efficiency, for drinking or industrial use.

The Pall Aria system's redundant racks are mounted on skids inside the trailer. Up to 40 microfiltration membrane modules are contained in each rack. The system has a flexible configuration and can be engineered to operate in tandem with other water treatment technologies, such as RO.



The Pall mobile water treatment system for the Yucaipa Valley, CA Water District

In addition to housing the system components, the trailer holds equipment to monitor system operation and ensure that the water meets the required quality specifications. Safety features include two exits with platforms and stairs, an eyewash station, interior and emergency lighting, and a glow-in-the-dark walkway.

Pall Aria system specifications

- Pall Microza* PVDF membranes
- Maximum/ minimum water temperature: 104°F (40°C)/ 32°F (0°C)
- 800 GPM (180 m³/h) continuous flow, 23 hours/day, and 400 GPM (90 m³/h) for 1 hour/day, or 400 GPM continuous flow with one redundant rack
- Up to 45 psig outlet pressure

Effluent quality

- Turbidity <0.05 NTU maximum, <0.02 NTU typical
- SDI < 3 maximum, <2.5 typical
- Bacteria and particles >0.1µ removed to nondetectable limits (>99.999%)

Trailer components

- High-density polyethylene piping and tanks and other components that are designed meet 'critical to quality' specifications
- Pressurized outlet for filtrate water
- Programmable logic controller (PLC) including data logging and remote access if phone line box is connected
- Influent and effluent turbidimeters (optional)
- HVAC system to maintain a constant interior temperature when the ambient temperature ranges from -40°F to 110°F.

- Quick connections for feed water, waste streams, filtrate piping and phone and power lines.
- Air compressor with a 240-gallon epoxy lined receiver.
- Automated 'clean in place' system with chemical pump
- Operator work station

Trailer specifications

Dimensions

- Length 48 or 53 ft (14.6 m or 16.2 m)
- Height 13 ft, 6 in. (4.1 m)
- Width 8 ft, 6 in. (2.6 m)
- Shipping weight Approx. 30,700 lb. (14,000 Kg)
- Operating weight Approx. 59,000 lb. (26,800 Kg)

Connections

- HDPE with 304SST reinforcements
- Connection type Grooved (standard) or flanged (optional)
- Inlet 8 in. (200 mm)
- Outlet (filtrate) 8 in. (200 mm)
- Backwash waste 8 in. (200 mm)
- Misc. waste: 3 in. (75 mm)

Electrical requirements

- 460 VAC, 3-phase
- 250 amp breaker
- 148 KVA

Instrumentation

- Customer analog (4-20mA) tie-in and/or discrete tank level for automatic shutdown and control
- PLC

* *Microza is a trademark of Asahi Kasei Corporation.*



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