

# M-PAK\* mobile filtration system

## pressurized UF for water applications

### description and use

The SUEZ M-PAK\* Mobile Filtration System provides quick and easy service to meet the needs of water users. Units are available for emergency, supplemental, or long-term requirements.

### typical applications

- Iron and Manganese removal from groundwater sources
- Removal of TSS and organics for reuse of process and waste waters.
- Replacement of clarifiers

### pretreatment for reverse osmosis

- High-quality feed water enables RO systems to operate at peak performance with reduced fouling and less cleaning
- Simplify overall pretreatment process
- Protect RO membranes from upset caused by highly variable raw water quality; improves flux rate, reduces cleaning, and extends DI resin and RO membrane life

### tertiary filtration

- Meet or exceed increasingly stringent water treatment requirements
- Enhance treated effluent quality from secondary wastewater treatment process
- Easily augment or replace underperforming granular media with advanced membranes
- Restore wastewater to high-quality treated effluent that can be safely reused for irrigation, aquifer recharge, or process water



### key design features

The M-PAK mobile filtration system is a trailer-enclosed system designed for quick deployment and configured to produce up to 1,400,000 US gpd (5450 m<sup>3</sup>/d) of water filtered from a variety of influent water sources. The system includes continuous monitoring instrumentation, including pressure, flow, temperature, and water quality, ensuring optimal operation.

### membrane modules

Membrane Model .....ZeeWeed\* 1500  
 Style ..... Pressurized UF Hollow Fiber  
 Manufacturer .....SUEZ

### typical treated water results

TSS ..... ≤ 1 mg/L  
 Turbidity ..... ≤0.1 NTU\*\*  
 Silt Density Index ..... ≤ 3  
 TOC .....40–70%removal †‡

\*\* 95% of the time  
 † Pretreatment Required  
 ‡ TOC and color removal is dependent on raw water quality

Find a contact near you by visiting [www.suezwatertechnologies.com](http://www.suezwatertechnologies.com) and clicking on "Contact Us."

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## general properties

Trailer	
Length:	53'-0" (16.2 meters)
Height:	13'-6" (4.1 meters)
Width:	8'-3" (2.5 meters)
Gross operating weight (approx.):	57,000 lbs. (25,900 kg)
Gross shipping weight (approx.):	30,700 lbs. (13,900 kg)

Connections	
Connection Type:	Flange
Raw Water Inlet:	8 inch (200 mm)
Filtrate Outlet:	8 inch (200 mm)
Reject Waste Outlet:	6 inch (150 mm)
Tank Drain Outlet:	6 inch (150 mm)
CIP Waste Outlet:	6 inch (150 mm)
Permeate Tank Drain Outlet:	4 inch (100 mm)
Pressure Relief Outlet:	4 inch (100 mm)

PLC		Instrumentation	
Parameter	Inlet	Outlet	PLC
Flow	X	X	Discrete tank level for automatic shut down and control
Pressure	X	X	
Temperature	X		
Turbidity	X	X	

Electrical	
Service:	480 VAC, 3 phase, 60Hz
Full Load Amps	258 A

System on Board	
Membrane:	ZeeWeed* 1500
Pre-Filter:	500 micron, self-cleaning
Max. Water Temp.:	104°F (40°C)
Min. Water Temp.:	35°F (1.7°C)
Inlet Pressure:	15 psig (1 bar) to 90 psig (6 bar)
Filtrate Outlet Pressure:	30 psig (2 bar)
Reject Waste Outlet Pressure:	Atmosphere (no back pressure)
Tank Drain Outlet Pressure:	Gravity
CIP Waste Outlet:	<5 psig (<0.35 bar)
Filtrate Tank Drain Outlet:	Gravity
Pressure Relief Outlet:	1 psig (0.1 bar) to 100 psig (7 bar)
Air Compressor:	36.5 cfm at 175 psig (12 bar)
Max. Inlet Turbidity:	75 NTU/peak to 200 NTU
Maximum Inlet Water TSS:	300 mg/l
Influent Flow:	Up to 1150 US gpm (261 m <sup>3</sup> /hr)
Filtrate Flow:	Up to 823 US gpm (186 m <sup>3</sup> /h) continuous excepting maintenance clean downtime. Up to 1000 US gpm (227 m <sup>3</sup> /h) averaged over 24 hours.
Reject Waste Flow:	Up to 630 US gpm (143 m <sup>3</sup> /h) max. intermittent

Consult our Commercial Engineering team if a connected Load below the specified 258A is a requirement. There may be an alternate running procedure, under selected circumstances.