

mobile M-PAK* CE filtration

pressurised UF for fresh and seawater application

description and use

The SUEZ Mobile M-PAK 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

Pre-treatment for reverse osmosis

- High-quality feed water enables RO systems to operate at peak performance with reduced fouling and less cleaning
- Simplify overall pre-treatment 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
- Seawater compatible materials of construction

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 Mobile M-PAK filtration system is a CE marked ISO container system designed for quick deployment and configured to produce up to 250 m³/h (1100 gpm) of water filtered from a variety of influent water sources.

The M-PAK system contains continuous monitoring instrumentation, including: pressure, temperature, flow and water quality, ensuring optimal operation.

Membrane Modules	
Model	ZeeWeed* 1500
Style	Pressurised UF Hollow Fiber
Manufacturer	SUEZ
Typical Treated Water Results	
TSS	≤ 1 mg/L
Turbidity	≤ 0.1 NTU ¹
Silt Density Index	≤ 3
TOC	40 – 70% removal†‡

¹ 95% of the time

† Pre-treatment Required

‡ TOC and colour removal is dependent on raw water quality

All information is typical, some unit variation possible.

Find a contact near you by visiting www.suezwatertechnologies.com and clicking on "Contact Us."

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additional information

Model	M-PAK 40	M-PAK 60
System on Board		
Membranes	40x SUEZ ZW1500	60x SUEZ ZW1500
Pre-Filter	100 micron, self-cleaning	100 micron, self-cleaning (boll filter)
Inlet and Outlet Conditions		
Influent Flowrate	Up to 130 m ³ /hr (575 gpm)	Up to 300 m ³ /hr (1320 gpm)
Effluent Flowrate	Up to 100 m ³ /hr (440 gpm)	Up to 250 m ³ /hr (1100 gpm)
Waste Flowrate	Up to 68 m ³ /hr (300 gpm) max. intermittent	Up to 100 m ³ /hr (440 gpm) max. intermittent
Max Water Temperature	40°C (104°F)	40°C (104°F)
Min Water Temperature	1.7°C (35°F)	1.7°C (35°F)
Inlet Pressure	1 bar (15 psig) to 5.5 bar (80 psig)	4.5 bar (65 psig) to 5.5 bar (80 psig)
Permeate Outlet Pressure	1.3 bar (15 psig)	1 bar (14 psig)
Backwash (Reject) Outlet Pressure	0.34 bar (5 psig)	0.34 bar (5 psig)
UF Module drain Waste Outlet Pressure	Gravity	Gravity
Max. Inlet Turbidity	75 NTU normal / 200 NTU peak	75 NTU Normal / 200 NTU peak
Maximum Inlet Water TSS	300 mg/L	300 mg/L
Feed water salinity ¹	0 - 45,000 ppm NaCl	0 - 45,000 ppm NaCl
PLC and Instrumentation		
Inlet	Flow, Pressure, Temperature, Turbidity, Conductivity	
Outlet	Flow, Pressure, Turbidity	
GE Fanuc ² PLC	Discrete tank level for automatic shutdown and control	

All information is typical, some unit variation possible.

installation & utility requirements

Model	M-PAK 40	M-PAK 60
Connections		
Connection Type	Flange, ANSI#150	Flange, ANSI#150
Raw Water Inlet	152 mm (6 inch)	2 off 152 mm (6 inch)
Permeate Outlet	152 mm (6 inch)	2 off 152 mm (6 inch)
Backwash Waste Outlet / Off spec	102 mm (4 inch)	102 mm (4 inch)
UF Module drain Waste Outlet	102 mm (4 inch)	102 mm (4 inch)
PSV outlet	102 mm (4 inch)	152 mm (6 inch)
CIP waste Outlet	102 mm (4 inch)	102 mm (4 inch)
CIP/BP Tank Overflow	102 mm (4 inch)	102 mm (4 inch)
Electrical Information		
Service	380/480 VAC, 50/60 Hz, 3 Phase	380/480 VAC, 50/60 Hz, 3 Phase
Breaker size	250A	100A
Container		
Dimensions (l x w x h)	12.2m (40 ft) x 2.4m (8 ft) x 2.9m (9ft 6 inch)	12.2m (40 ft) x 2.4m (8 ft) x 2.9m (9ft 6 inch)
Gross shipping weight	12,474 kg (27,500 lbs)	12,474 kg (27,500 lbs)
Gross operating weight	18,144 kg (40,000 lbs)	18,144 kg (40,000 lbs)

All information is typical, some unit variation possible.

Notes:

¹ Typical range with some feed water variations possible, contact SUEZ for evaluation

² GE Fanuc is a trademark of General Electric Company