



Water Technologies & Solutions fact sheet

Zeeweed * 1000 Immersed Ultrafiltration

Description and Use

SUEZ leverages decades of research, development, and operational experience to offer a suite of advanced ultrafiltration membranes, including the ZeeWeed 1000 immersed membrane (Figure 1).

ZeeWeed 1000 membranes produce superior water quality and are virtually unaffected by variable raw water quality – all at a cost comparable to conventional filtration technology.

Compared to pressurized ultrafiltration technology, ZeeWeed 1000 membranes offer best in class:

Footprint - membranes can be stacked in columns up to 4 high, providing maximum flow in minimal space. Footprint savings become substantial at flows above 10 MGD (40 MLD).

Energy – because ZeeWeed 1000 membranes are immersed, they use a vacuum - not pressure - to produce permeate. They can even operate by siphon alone. Significant energy can be saved.

Typical Applications

ZeeWeed 1000 has membranes optimized for specific applications:

- ZW1000-450 and -550 for drinking water.
- ZW1000-700 for drinking water, pre-treatment for RO in low suspended solids applications
- ZW1000-500 for filtration of tertiary treated wastewater.

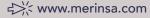


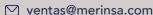
Figure 1:ZeeWeed 1000 ultrafiltration module

General Properties

- 0.02 µm nominal pore diameter optimal removal of particulates, bacteria and viruses.
- PVDF hollow fiber membrane provides high mechanical strength and chemical resistance.
- Outside-in filtration provides high solids tolerance.









ZeeWeed 1000 Module Specifications

Specification	Measurement					
Flowpath	Immersed, Outside-in					
Membrane material	PVDF, non-ionic and hydrophilic					
Nominal pore size	0.02 micron					
Module dimensions	Height		Length		Width:	
	685 mm (27.0 in)		691 mm (27.2 in)		107 mm (4.2 in)	
Shipping weight	23 kg (50 lb)					
Typical lifting weight ¹	21-27 kg (50-70 lb)					
Housing material	ABS, PPE/PPO					
ZeeWeed 1000 model	450	550		500		700
SAP#	3096943	3111	344	3111347		3111340
Surface area	41.8 m ² (450 ft ²)	51.1	m² (550 ft²)	46.5 m ² (500 ft ²)		65 m ² (700 ft ²)
Fiber diameter (OD/ID)	0.95/0.47 mm	0.95,	/0.47 mm	0.8/0.47 mm		0.8/0.47 mm
Certifications	NSF61, KTW, DWI					

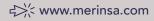
¹ Will vary with solids accumulation

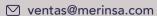
Operating, Cleaning and Storage Information

Parameters	ltem Description	Measurement			
Performance	Flow range	55 – 110 m³/day (10-20 gpm)			
Operating conditions	TMP range	0-90 kPa (0-13 psi)			
	Maximum temperature	40°C (104°F)			
	Operating pH	5.0-10.0			
	Maximum air scour flow	3- 5 dm³/hr (2-3 dcfm) / stack			
Cleaning	Cleaning pH range	2.0-12.0			
	Maximum chlorine concentration per clean ¹	1,000 mg/L (as Cl ₂)			
Preservative ²		50% glycerine, 50% water solution			
Storage in packaging	Maximum storage time	1 year			
	Storage temperature	5°C to 35°C (41°F to 95°F)			
		Protect from UV exposure			

 $^{^{1}}$ Higher concentrations are possible depending on feedwater, pH and long term chlorine exposure.







² Replacement membranes can be provided glycerine-free for an extra cost. Talk to SUEZ to learn more.