

Nanofiltration Membrane Element

NANO-SW-4040

Performance	MgSO₄	
	Permeate Flow (Nominal):	2000 gpd (7.6 m ³ /d)
	MgSO ₄ Rejection (Nominal):	99.8% (99.6% minimum)
Type	Configuration:	Spiral Wound
	Membrane Polymer:	Composite Polyamide
	Nominal Membrane Area:	75 ft ² (7 m ²)
	Feed/Brine Spacer Thickness:	34 mil (0.87 mm)
Application Data*	Maximum Applied Pressure (Recommended) [^] :	600 psig (4.14 MPa)
	Maximum Chlorine Concentration:	< 0.1 PPM
	Maximum Operating Temperature:	113 °F (45 °C)
	pH Range, Operation (Cleaning):	3.0 - 9.0 (1.0 – 11.5)
	Maximum Feedwater Turbidity:	1.0 NTU
	Maximum Feedwater SDI (15 mins):	5.0
	Maximum Feed Flow:	16 GPM (3.6 m ³ /h)
	Maximum Pressure Drop for Each Element:	15 psi
	Typical Seawater Performance [†] :	
	Nominal Permeate Flow:	1,200 gpd (4.6 m ³ /d)
Nominal Chloride Rejection:	25%	
Nominal Sulfate Rejection:	99.8%	

* The limitations shown here are for general use. For specific projects, operating at more conservative values may ensure the best performance and longest life of the membranes. See Hydranautics Technical Bulletins for more detail on operation limits, cleaning pH, and cleaning temperatures.

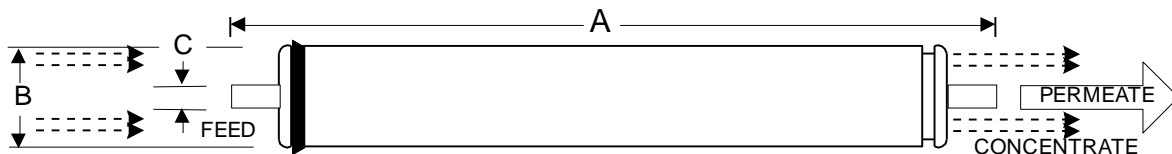
[^] Element can withstand 1,200 psig as maximum applied pressure, however, applied feed pressure exceeding 600 psig may cause reduction in membrane permeability.

[†] Typical Synthetic Seawater Test Condition: 35,000 ppm NaCl + 8000 ppm MgSO₄, 200 psi (1.4 MPa), 77 °F (25°C), 15% Permeate Recovery, 6.5 – 7.0 feed pH.

Test Conditions

The stated performance is based on the following test conditions:

2000 ppm MgSO₄
 110 psi (0.76 MPa) Applied Pressure
 77 °F (25 °C) Operating Temperature
 15% Permeate Recovery
 6.5 – 7.0 Feed pH



A, inches (mm)	B, inches (mm)	C, inches (mm)	Weight, lbs. (kg)
40.00 (1016)	3.95 (100.3)	0.75 (19.1)	8 (3.6)

Core tube extension = 1.05" (26.7 mm)

Notice: Permeate flow for individual elements may vary + or - 20 percent. Element weight may vary. All membrane elements are supplied with a brine seal, interconnector, and o-rings. All membrane elements are supplied with a brine seal, interconnector, and o-rings. Elements are enclosed in a sealed polyethylene bag containing deionized water, and then packaged in a cardboard box.

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