

Membrane Element

NANO-SW MAX

Performance

MgSO₄

Permeate Flow:	12,000 gpd (45.4 m ³ /d)
MgSO ₄ Rejection:	99.8% (99.6% minimum)

Type

Configuration:	Spiral Wound
Membrane Polymer:	Composite Polyamide
Membrane Active Area:	440 ft ² (40.8 m ²)
Feed/Brine Spacer Thickness:	26 mil (0.66 mm) with HYDRABlock™ Technology

Application Data[^]

Maximum Applied Pressure (Allowed):	1200 psig (8.27 MPa)
Maximum Applied Pressure (Recommended) [*] :	600 psig (4.16 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:	75 GPM (17.0 m ³ /h)
Minimum Ratio of Concentrate to Permeate Flow for any Element:	5:1
Maximum Pressure Drop for Each Element:	10 psi
Typical Seawater Performance [†] :	
Permeate Flow:	7,150 gpd (27.0 m ³ /d)
Chloride Rejection:	25%
Sulfate Rejection:	99.8%

* Exceeding 600 psi may cause a reduction in membrane permeability.

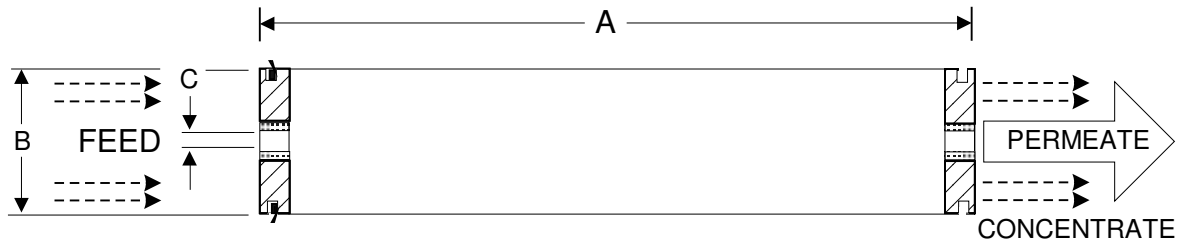
[^] The limitations shown here are for general use. For specific projects, operating at more conservative values may ensure the best performance and longest life of the membrane. See Hydranautics Technical Bulletins for more detail on operation limits, cleaning pH, and cleaning temperatures.

[†] 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
 130 psi (0.9 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)
40.0 (1016)	7.89 (200)	1.125 (28.6)	36 (16.4)

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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