

Membrane Element

NANO-SW

Performance

MgSO₄	
Permeate Flow (Nominal):	11,000 gpd (41.6 m ³ /d)
MgSO ₄ Rejection:	99.8% (99.6% minimum)

Type

Configuration:	Spiral Wound
Membrane Polymer:	Composite Polyamide
Nominal Membrane Area:	400 ft ² (37 m ²)
Feed/Brine Spacer Thickness:	34 mil (0.87 mm)

Application Data*

Maximum Applied Pressure :	600 psig (4.14 MPa)
Maximum Chlorine Concentration:	< 0.1 ppm
Maximum Operating Temperature:	113 °F (45 °C)
pH Range, Operation (Cleaning):	3 – 9 (1 – 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)
Maximum Pressure Drop for Each Element:	15 psi
Typical Seawater Performance [†] :	
Nominal Permeate Flow:	6,500 gpd (24.6 m ³ /d)
Nominal Chloride Rejection:	25%
Nominal Sulfate Rejection:	99.8%

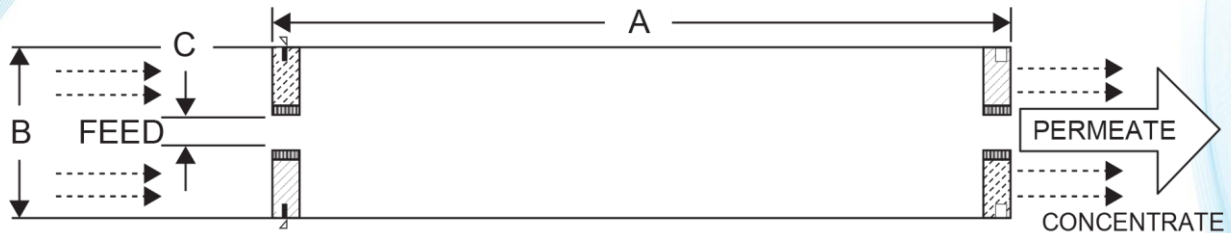
* Limitations shown here are for general use. For specific projects, operating at more conservative values may ensure the best performance and longest life of the membrane. See Hydranautics Technical Service Bulletin TSB107 for more details on operation limits, cleaning pH, and cleaning temperatures.
[†] 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 MgSO ₄
110 psi (0.76 MPa) Applied Pressure
77 °F (25 °C) Operating Temperature
15% Permeate Recovery
6.5–7.0 Feed pH

Product Dimensions



A, inches (mm)	B, inches (mm)	C, inches (mm)	Weight, lbs. (kgs.) ¹
40.0 (1016)	7.89 (200)	1.125 (28.6)	27.6 ± 2 (12.5 ± 1)

Notice: Permeate flow for individual elements may vary ±20%. Element weight may vary. 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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¹ Element weight when shipped from factory. Used, drained elements may still contain an additional 2 lbs (1 kg) of liquid.