

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 (40.9 m ²)
Feed/Brine Spacer Thickness:	26 mil (0.66 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:	7,150 gpd (27.0 m ³ /d)
Nominal Chloride Rejection:	25%
Nominal Sulfate Rejection:	99.8%

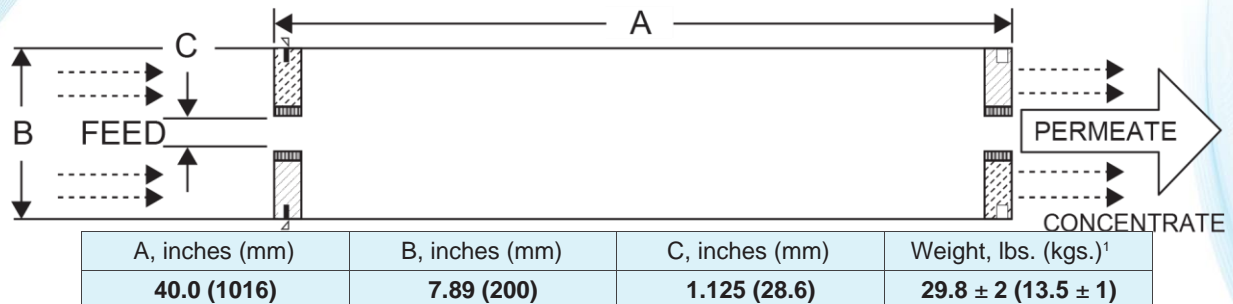
* Limitations shown here are for general use. For specific projects, operating at more conservative values may ensure the best performance and longest life of the membrane. See Hydranautics Technical Service Bulletin TSB107 for more details on operation limits, cleaning pH, and cleaning temperatures.
[†] 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 MgSO₄
 110 psi (0.76 MPa) Applied Pressure
 77 °F (25 °C) Operating Temperature
 15% Permeate Recovery
 6.5 – 7.0 Feed pH

Product Dimensions



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. Hydranautics believes the information and data contained herein to be accurate and useful. The information and data are offered in good faith, but without guarantee, as conditions and methods of use of our products are beyond our control. Hydranautics assumes no liability for results obtained or damages incurred through the application of the presented information and data. It is the user's responsibility to determine the appropriateness of Hydranautics' products for the user's specific end uses.

¹ Element weight when shipped from factory. Used, drained elements may still contain an additional 2 lbs (1 kg) of liquid.