



Membrane Element

ESNA1-LF-LD-4040 (Low Fouling Technology)

Performance: Permeate Flow: 1,600 gpd (6.1 m³/d)

CaCl₂ Rejection: 92%
CaCl₂ Rejection (minimum/maximum) 87% / 96%

* Expected calcium rejection for a typical 500 ppm well water is 96% at 13 gfd operating flux and 25°C.

Type Configuration: Low Fouling Spiral Wound

Membrane Polymer: Composite Polyamide

Membrane Active Area: 80 ft² (7.43 m²)

Feed Spacer: 34 mil (0.864 mm) with biostatic agent

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, Continuous (Cleaning): 2-10 (2-12)*
Maximum Feedwater Turbidity: 1.0 NTU
Maximum Feedwater SDI (15 mins): 5.0

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Maximum Feed Flow: 16 GPM (3.6 m³/h)

Minimum Ratio of Concentrate to

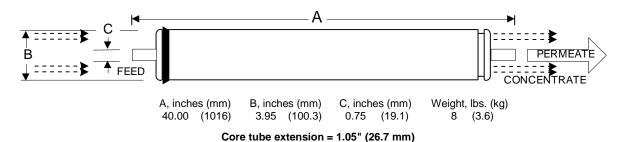
Permeate Flow for any Element: 5:1

Maximum Pressure Drop for Each Element: 10 psi

Test Conditions

The stated performance is initial (data taken after 30 minutes of operation), based on the following conditions:

500 ppm CaCl₂ 75 psi (0.52 MPa) Applied Pressure 77 °F (25 °C) Operating Temperature 15% Permeate Recovery 6.5 – 7.0 Feed pH



Notice: Permeate flow for individual elements may vary -20 or +25 percent. All membrane elements are supplied with a brine seal, interconnector, and o-rings. Elements are enclosed in a sealed polyethylene bag containing less than 1.0% sodium meta-bisulfite solution, and then packaged in a cardboard box.

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^{*} 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.