

## Membrane Element

## ESPA - 2521

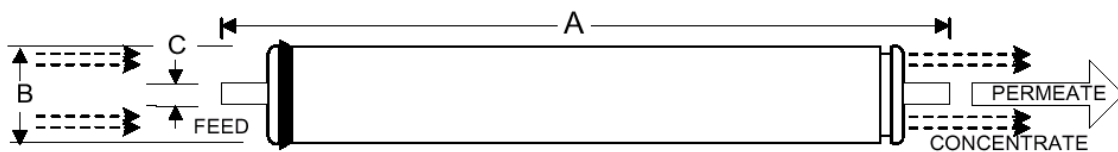
|                          |  |                                 |
|--------------------------|--|---------------------------------|
| <b>Performance</b>       | Permeate Flow:   | 350 gpd (1.3 m <sup>3</sup> /d) |
|                          | Salt Rejection:  | 99.4 % (98.0 % minimum)         |
| <b>Type</b>              | Configuration:   | Spiral Wound                    |
|                          | Membrane Polymer:  | Composite Polyamide             |
|                          | Membrane Active Area:  | 9.9 ft <sup>2</sup>             |
| <b>Application Data*</b> | Maximum Applied Pressure:                                      | 300 psig (2.1 MPa)              |
|                          | Maximum Chlorine Concentration:                                | < 0.1 PPM                       |
|                          | Maximum Operating Temperature:                                 | 113° F (45°C)                   |
|                          | pH Range; Continuous (Cleaning):                               | 2-10 (1-12)*                    |
|                          | Maximum Feedwater Turbidity:                                   | 1.0 NTU                         |
|                          | Maximum Feedwater SDI (15 mins):                               | 4.0                             |
|                          | Maximum Feed Flow:   | 6 GPM (23 l/m)                  |
|                          | Minimum Ratio of Concentrate to Permeate Flow for any element: | 5:1                             |
|                          | Maximum Pressure Drop for Each Element:                        | 10 psi                          |
|                          |  |                                 |

\* 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.

## Test Conditions

Elements are wet tested for quality assurance using the following conditions:

1500 PPM NaCl solution  
150 psi (1.03 MPa) Applied Pressure  
77 °F (25 °C) Operating Temperature  
10% Permeate Recovery  
6.5 – 7.0 pH Range  
(Data taken after 30 minutes of operation)



|                |                |                |                   |
|----------------|----------------|----------------|-------------------|
| A, inches (mm) | B, inches (mm) | C, inches (mm) | Weight, lbs. (kg) |
| 21.0 (533.4)   | 2.4 (61)       | 0.75 (19.1)    | 2 (0.9)           |

**Core tube extension = 1.10" (27.9 mm)**

**Notice:** Minimum permeate flow for individual elements is 15 percent below listed flow. All membrane elements are supplied with a brine seal and o-rings. Most elements are packaged dry, sealed in polyethylene bags, and shipped in a cardboard box. Some elements are sealed in polyethylene bags containing less than 1.0% sodium meta-bisulfite solution and shipped in a cardboard box.

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2/25/15

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