## Membrane Element

### ESPAB MAX

<table>
<thead>
<tr>
<th>Performance</th>
<th>ESPAB MAX</th>
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</thead>
<tbody>
<tr>
<td>Permeate Flow:</td>
<td>9,000 gpd (34.1 m³/d)</td>
</tr>
<tr>
<td>Salt Rejection:</td>
<td>99.3% (99.0% minimum)</td>
</tr>
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<table>
<thead>
<tr>
<th>Type</th>
<th>Configuration: Spiral Wound</th>
</tr>
</thead>
<tbody>
<tr>
<td>Membrane Polymer:</td>
<td>Composite Polyamide</td>
</tr>
<tr>
<td>Membrane Active Area:</td>
<td>440 ft² (40.8 m²)</td>
</tr>
</tbody>
</table>

### 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):** 2-11 (1-12.5)*
- **Maximum Feedwater Turbidity:** 1.0 NTU
- **Maximum Feedwater SDI (15 mins):** 5.0
- **Maximum Feed Flow:** 75 GPM (17.0 m³/h)
- **Minimum Ratio of Concentrate to Permeate Flow for any Element:** 5:1
- **Maximum Pressure Drop for Each Element:** 15 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

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

- **1500 PPM NaCl solution**
- **15 psi (1.05 MPa) Applied Pressure**
- **77 °F (25 °C) Operating Temperature**
- **15% Permeate Recovery**
- **6.5 - 7.0 pH Range**

### Diagram

The diagram illustrates the dimensions and flow directions of the membrane element. The dimensions are labeled as A, B, and C in inches (mm), and the weight is provided in pounds (kilograms). The notice at the bottom indicates that permeate flow for individual elements may vary ± 15 percent. Membrane active area and element weight may also vary within specified limits. All membrane elements are supplied with a brine seal, interconnector, and o-rings. They are packaged in a cardboard box.

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