# Membrane Element

## LFC3-LD-4040 (Low Fouling Technology)

### Performance:
- **Permeate Flow:** 2,100 gpd (7.95 m³/d)
- **Salt Rejection:** 99.7% (99.5% minimum)

### 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 (4.16 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):** 5.0
- **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

* 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
- 225 psi (1.55 MPa) Applied Pressure
- 77 °F (25 °C) Operating Temperature
- 15% Permeate Recovery
- 6.5 - 7.0 pH Range

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### Diagram

![Diagram of Membrane Element](attachment:diagram.png)

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### Table

<table>
<thead>
<tr>
<th>A, inches (mm)</th>
<th>B, inches (mm)</th>
<th>C, inches (mm)</th>
<th>Weight, lbs. (kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>40.0 (1016)</td>
<td>3.95 (100.3)</td>
<td>0.75 (19.1)</td>
<td>8 (3.6)</td>
</tr>
</tbody>
</table>

Core tube extension = 1.05” (26.7 mm)

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**Notice:** Permeate flow for individual elements may vary ±25/15 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 metabisulfite solution, and then packaged in a cardboard box.

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