AD8040F
Seawater Desalination
Reverse Osmosis, High Rejection

The A-Series, family of proprietary thin-film reverse osmosis membrane elements are characterized by high flux and excellent sodium chloride rejection. AD High Rejection Seawater Elements are selected when extremely high quality permeate is demanded from seawater that is relatively high in TDS. These elements provide excellent rejection characteristics when operated at pressures exceeding 800 psi (5,516 kPa) and elevated seawater temperature conditions. AD8040F High Rejection Seawater elements feature a FRP outerwrap and 27 mil feed spacers. This element is designed with flush end connections.

**ELEMENT SPECIFICATIONS**

<table>
<thead>
<tr>
<th>Model</th>
<th>Flow GPD</th>
<th>Active Area ft²</th>
<th>Rejection Average %</th>
<th>Minimum %</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>AD8040F</td>
<td>5,500</td>
<td>20.8</td>
<td>99.6</td>
<td>99.2</td>
<td>1223381</td>
</tr>
</tbody>
</table>

Specifications are based on a 32000 mg/L NaCl solution at 800 psig operating pressure (5516kPa), 77°F (25°C), 7% recovery, pH 7.5 after 24 hours. Individual flux may vary +25%/-15%.

**OPERATING AND DESIGN PARAMETERS**

Membrane: Thin Film Membrane (TFM®)
Typical Operating Pressure: 800psig (5516kPa)
Maximum Pressure: 1200psig (8268kPa)
Maximum Temperature: 122°F (50°C)
Chlorine Tolerance: 1,000 ppm-hrs, Dechlorination recommended
Optimum rejection pH: 7.0 - 7.5
Operating pH range: 4.0 - 11.3
Cleaning pH range: 2.0 - 11.2
Maximum Pressure Drop: 10 psig (69kPa) per element
Maximum Pressure Drop: 60 psig (345kPa) per vessel
Feed NTU: <1
Feed NTU: <5
Typical Operating Flux: 10-20 GFD (15-35 L/(M²*Hr))

**ELEMENT DIMENSIONS AND WEIGHT**

<table>
<thead>
<tr>
<th>Model</th>
<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>AD8040F</td>
<td>40 (1016)</td>
<td>1.125 (29)</td>
<td>7.88 (200)</td>
<td>32 (14.5)</td>
</tr>
</tbody>
</table>

* The element diameter (dimension C) is designed for optimum performance in Osmonics pressure vessels. Other pressure vessel dimensions and tolerances may result in excessive bypass and loss of capacity. The product ships wet.