817-HR(PA)
Brackish Water Desalination Full-Fit™ Membrane Element
Reverse Osmosis, High Rejection

ELEMENT SPECIFICATIONS

<table>
<thead>
<tr>
<th>Model</th>
<th>GPD</th>
<th>Flow (m3/d)</th>
<th>Active Area (ft²)</th>
<th>Rejection (Average)</th>
<th>Minimum</th>
<th>Port Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>817-HR(5A)</td>
<td>10,200</td>
<td>38.6</td>
<td>330</td>
<td>99.0%</td>
<td>98.0%</td>
<td>1158141</td>
</tr>
</tbody>
</table>

Specifications are based on a 2000 mg/L NaCl solution at 225 psig operating pressure (1551 kPa), 77 deg. F (25 deg. C), 10% recovery, pH 7.5. Individual flux may vary +25%/-25%. Average salt rejection after a minimum of 24 hours in continuous operation.

OPERATING AND DESIGN PARAMETERS

Membrane: Thin-Film Membrane (TFM®)
Typical Operating Pressure: 200 psig (1396.8 kPa)
Maximum Pressure: 600 psig (4190 kPa)
Maximum Pressure Drop: 10 psig (69 kPa) per element
50 psig (345 kPa) per vessel
Chlorine Tolerance: 1,000 ppm-hrs, Dechlorination recommended
Typical Operating Flux: 10 - 20 GFD (15-35 L.H⁻¹.M⁻²)
Optimum rejection pH: 7.0 - 7.5
Operating pH range: 4.0 - 11.0
Cleaning pH range: 2.0 - 11.5
Maximum Temperature: 122°F (50°C)
Feed NTU: <1
Feed SDI: <3

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>817-HR(5A)</td>
<td>40 (1016)</td>
<td>1.139 (29)</td>
<td>7.9 (201)</td>
<td>37.5 (17)</td>
</tr>
</tbody>
</table>

* The element diameter (dimension C) is designed for optimum performance in Osmonics pressure vessels. Other pressure vessel dimension and tolerance may result in excessive bypass.

Notes:
The Langelier Saturation Index (LSI) of the concentrate must be negative to minimize the possibility of calcium scale formation on the membrane surface.
At start-up the first two hours of permeate should be discarded because of element preservative.
Storage conditions should be at a minimum of: <100°F, dry, in original carton and not in direct sunlight.