811-HR(CA)
Brakish Water Desalination FRP Membrane Element
Reverse Osmosis

ELEMENT SPECIFICATIONS

<table>
<thead>
<tr>
<th>Model</th>
<th>Flow (GPD)</th>
<th>Flow (m3/d)</th>
<th>Active Area (ft²)</th>
<th>Active Area (m²)</th>
<th>Rejection Average</th>
<th>Rejection Minimum</th>
</tr>
</thead>
<tbody>
<tr>
<td>811-HR(CA)</td>
<td>6,700</td>
<td>25.4</td>
<td>350</td>
<td>32.5</td>
<td>97.5%</td>
<td>96.0%</td>
</tr>
</tbody>
</table>

Specifications are based on a 2000 mg/L NaCl solution at 420 psig operating pressure (2930 kPa), 77 deg F, 25 deg C, 10% recovery, pH 6-7. Individual flux may vary ±25%/-15%. Average salt rejection after a minimum of 24 hours in continuous operation.

OPERATING AND DESIGN PARAMETERS

Membrane: Cellulose Acetate
Typical Operating Pressure: 140-400 psig (965-2760 kPa)
Maximum Pressure: 450 psig (3143 kPa)
Maximum Pressure Drop: 10 psig (69 kPa) per element
50 psig (345 kPa) per vessel
Chlorine Tolerance: 1 ppm maximum, continuous 30 ppm for 30 min. during sanitization
Typical Operating Flux: 10-20 GFD (15-35 L.H⁻¹.M⁻²)

Optimum rejection pH: 5.0-6.5
Operating pH range: 5.0-6.5
Cleaning pH range: 3.0-8.0
Maximum Temperature: 86°F (30°C)
Feed NTU: <1
Feed SDI: <5

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>811-HR(CA)</td>
<td>40 (1016)</td>
<td>1.139 (29)</td>
<td>8.3 (211)</td>
<td>42 (19.1)</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 and flow restriction.

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 less than <100F, dry, in original carton and not in direct sunlight.