### ELEMENT SPECIFICATIONS

<table>
<thead>
<tr>
<th>Model</th>
<th>GPD</th>
<th>Flow (m³/d)</th>
<th>Active Area (ft²)</th>
<th>Rejection (%)</th>
<th>Minimum</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>416-HR(CA)</td>
<td>1,650</td>
<td>6.2</td>
<td>80</td>
<td>97.5%</td>
<td>96.0%</td>
<td>1143484</td>
</tr>
</tbody>
</table>

Specifications are based on a 2000 mg/L NaCl solution at 420 psig operating pressure (2930 kPa), 77°F (25°C), 10% recovery, pH 6-7. Individual flux may vary ±15%/-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
- **Chlorine Tolerance:** 1 ppm maximum, continuous 30 ppm for 30 min. during sanitization
- **Operating pH range:** 5.0-6.5
- **Cleaning pH range:** 3.0-8.0
- **Maximum Temperature:** 86°F (30°C)
- **Maximum Pressure Drop:** 10 psig (69 kPa) per element
- **Maximum Temperature:** 86°F (30°C)
- **Feed NTU:** <1
- **Chlorine Tolerance:** 1 ppm maximum, continuous 30 ppm for 30 min. during sanitization
- **Typical Operating Flux:** 10-20 GFD (15-35 L/H·M⁻²)
- **Feed SDI:** <5
- **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
- **Chlorine Tolerance:** 1 ppm maximum, continuous 30 ppm for 30 min. during sanitization
- **Typical Operating Flux:** 10-20 GFD (15-35 L/H·M⁻²)
- **Feed SDI:** <5

### ELEMENT DIMENSIONS AND WEIGHT

- **Model:** 416-HR(CA)
- **Model Flow (GPD):** 416-HR(CA) 3.94 (100)
- **Model A inches (mm):** 40.125 (1019)
- **Model B inches (mm):** 0.775 (20)
- **Model C* inches (mm):** 3.94 (100)
- **Weight lbs (kg):** 11 (5)

*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 a minimum of: <100°F, dry, in original carton and not in direct sunlight.