Fact Sheet

CD Series

High Rejection Brackish Water RO Elements (Cellulose Acetate)

The C-Series family, a triacetate/diacetate blend, has a higher flux and better mechanical stability than standard cellulose acetate. C-Series elements offer an increased chlorine resistance compared to thin-film elements.

CD High Rejection Elements are used for brackish water desalination and process stream.

Table 1: Element Specification

| Membrane          | C-Series, cellulose acetate |

<table>
<thead>
<tr>
<th>Model</th>
<th>Average permeate flow gpd (m³/day)</th>
<th>Average NaCl rejection</th>
<th>Minimum NaCl rejection</th>
</tr>
</thead>
<tbody>
<tr>
<td>CD4025T</td>
<td>1,050 (4.0)</td>
<td>98.5%</td>
<td>96.5%</td>
</tr>
<tr>
<td>CDB040F,WET</td>
<td>6,300 (23.8)</td>
<td>98.5%</td>
<td>96.5%</td>
</tr>
</tbody>
</table>

Table 2: Dimensions and Weight

<table>
<thead>
<tr>
<th>Model</th>
<th>Type</th>
<th>Dimensions, inches (cm)</th>
<th>Weight, lbs (kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CD4025T Female</td>
<td>25.0 (63.5)</td>
<td>0.625 (1.59)</td>
<td>5 (2.3)</td>
</tr>
<tr>
<td>CDB040F,WET Female</td>
<td>40.0 (101.6)</td>
<td>1.125 (2.86)</td>
<td>7.9 (20.1)</td>
</tr>
</tbody>
</table>

Table 3: Operating and CIP parameters

- **Typical Operating Pressure**: 140 - 400psi (965 - 2,758kPa)
- **Typical Operating Flux**: 10-18 GFD (17 - 30 LMH)
- **Maximum Operating Pressure**: 450psi (3,103kPa)
- **Maximum Temperature**: Continuous Operation: 86°F (30°C), Clean-In-Place (CIP): 86°F (30°C)
- **pH Range**: Continuous Operation: 5.0 - 6.5, Clean-In-Place (CIP): 3.0 - 8.0
- **Maximum Pressure Drop**: Over an element: 12psi (83kPa), Per housing: 50psi (345kPa)
- **Chlorine Tolerance**: 1ppm maximum continuous, 30ppm for 30 min. during sanitization
- **Feedwater**: NTU < 1, SDI < 5

Figure 1: Element Dimensions Diagram - Female

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1. Average salt rejection after 24 hours of operation. Individual flow rate may vary ±20%.
2. Testing conditions: 2,000ppm NaCl solution at 425psi (2,930kPa) operating pressure, 77°F, pH 6.5 and 15% recovery.

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