## Sanitary High Rejection TRO & TMRO Elements

<table>
<thead>
<tr>
<th>Model</th>
<th>Application</th>
<th>Description</th>
<th>Feed Spacer Thickness in. (mm)</th>
<th>Nominal Membrane Area $\text{ft}^2$ $(\text{m}^2)$</th>
<th>Dimensions, in. (mm)</th>
<th>Max Pressure Drop per Element psi (bar)</th>
</tr>
</thead>
<tbody>
<tr>
<td>TRO 3838HP</td>
<td></td>
<td></td>
<td>0.031 (0.79)</td>
<td>77 (7.1)</td>
<td>Length A: 38 (965)</td>
<td>15 (1.0)</td>
</tr>
<tr>
<td></td>
<td>High Pressure and/or High Rejection RO</td>
<td>FDA Compliant</td>
<td></td>
<td>Element OD B: 3.8 (97) C: 0.83 (21)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TRO 8038HP</td>
<td></td>
<td></td>
<td>0.031 (0.79)</td>
<td>390 (36)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TRO 8038HPN2</td>
<td></td>
<td></td>
<td>0.046 (1.17)</td>
<td>312 (29)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TMRO 8040HP</td>
<td></td>
<td></td>
<td>0.031 (0.79)</td>
<td>390 (36)</td>
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<td>TMRO 8040HPN2</td>
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<td>312 (29)</td>
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</tbody>
</table>

**Product Type:** Net-wrapped (no tail), Spiral Wound Element with Cross-Linked Fully Aromatic Polyamide Composite Membrane

**Materials Specifications:**
- **Feed Spacers and Element Outer-Wrap:** Polypropylene
- **Permeate Tubes (plus ATDs & ICs for TMRO8040 models):** Polysulfone
- **Permeate Carrier:** Proprietary
- **Adhesives:** Proprietary

**Operating Limits:**
- **Maximum Operating Pressure, psi (bar):** 800 (55.2)
- **Maximum Operating Temperature, °F (°C):** 150 (65)
- **Maximum Cleaning Temperature, °F (°C):** 122 (50)
- **Acceptable pH Range (operating):** 2.5-10.5
- **Acceptable pH Range (short-term cleaning):** 1.7-11.5
- **Maximum Pressure Drop per Vessel, psi (bar):** 60 (4.0)
- **Free Chlorine** Not Detectable
- **$\text{H}_2\text{O}_2$ continuous (ppm):** 20
- **$\text{H}_2\text{O}_2$ short-term cleaning (ppm) < 77 °F (25°C):** 1000

**Dimensions:**

- **TRO 3838HP & TRO 8038HP**
- **Dimensions include Anti Telescoping Devices**

**Performance/ Test Conditions:**
- **Membrane:** 23 gfd at 99.8% rejection
- **Feed Water Pressure, psi (bar):** 800 (55.2)
- **Feed Water Temperature, °F (°C):** 77 (25)
- **Feed Water Concentration, mg/l as NaCl:** 32,000
- **Recorery Rate, %:** 8
- **Feed Water pH:** 8

**Notice:**
1. Elements are preserved in sodium meta-bisulfite. Appropriate personal protective equipment should be worn when handling.
2. Toray accepts no responsibility for results obtained by the application of this information or the safety or suitability of Toray’s products, either alone or in combination with other products. Users are advised to make their own tests to determine the safety and suitability of each product combination for their own purposes.
3. All data may change without prior notice, due to technical modifications or production changes.