## Nanofiltration

### Sanitary NF Elements

<table>
<thead>
<tr>
<th>Model</th>
<th>Application</th>
<th>Description</th>
<th>Feed Spacer Thickness in. (mm)</th>
<th>Nominal Membrane Area ft² (m²)</th>
<th>Dimensions, in. (mm)</th>
<th>Max Pressure Drop per Element psi (bar)</th>
</tr>
</thead>
<tbody>
<tr>
<td>TNF 383N1</td>
<td></td>
<td></td>
<td>0.031 (0.79)</td>
<td>75 (7)</td>
<td>A: 75 B: 38 C: 38.75</td>
<td>15 (1.0)</td>
</tr>
<tr>
<td>TNF 383N2</td>
<td></td>
<td></td>
<td>0.046 (1.17)</td>
<td>63 (5.9)</td>
<td>A: 75 B: 38 C: 38.75</td>
<td>15 (1.0)</td>
</tr>
<tr>
<td>TNF 384N1</td>
<td>Product Concentration / Preconcentration</td>
<td>USDA Accepted 3A / FDA Compliant</td>
<td>0.031 (0.79)</td>
<td>75 (7)</td>
<td>A: 75 B: 38 C: 38.75</td>
<td>15 (1.0)</td>
</tr>
<tr>
<td>TNF 803N1</td>
<td></td>
<td></td>
<td>0.031 (0.79)</td>
<td>375 (34.8)</td>
<td>A: 40 B: 79 C: 79</td>
<td>15 (1.0)</td>
</tr>
<tr>
<td>TNF 803N2</td>
<td></td>
<td></td>
<td>0.046 (1.17)</td>
<td>310 (28.8)</td>
<td>A: 40 B: 79 C: 79</td>
<td>15 (1.0)</td>
</tr>
<tr>
<td>TMNF 8040PSN1</td>
<td></td>
<td>FDA Compliant</td>
<td>0.031 (0.79)</td>
<td>375 (34.8)</td>
<td>A: 40 B: 101 C: 101</td>
<td>15 (1.0)</td>
</tr>
<tr>
<td>TMNF 8040PSN2</td>
<td></td>
<td></td>
<td>0.046 (1.17)</td>
<td>310 (28.8)</td>
<td>A: 40 B: 101 C: 101</td>
<td>15 (1.0)</td>
</tr>
</tbody>
</table>

**Product Type:** Net-wrapped (no tail), Spiral Wound Element with Proprietary Piperazine Amide Composite Membrane

Selected specifically for maximum retention of sugars & proteins with high passage of monovalent salt ions

**Materials Specifications:**
- Feed Spacers and Element Outer-Wrap: Polypropylene
- Permeate Tubes (plus ATDs & ICs for TMNF 8040PS models): Polysulfone
- Permeate Carrier: Proprietary
- Adhesives: Proprietary

**Operating Limits:**
- Maximum Operating Pressure, psi (bar): 800 (55.2)
- Maximum Operating Temperature, °F (°C): 122 (50)
- Maximum Cleaning Temperature, °F (°C): 122 (50)
- Acceptor pH Range (operating): 3.5-10.5
- Acceptor pH Range (short-term cleaning): 1.8-11.5
- Maximum Pressure Drop per Vessel, psi (bar): 60 (4.0)

(Consult Toray for pressure limits when operating above ambient temperature)

**Maximum Oxidant Tolerance:**
- Free Chlorine Not Detectable
- H₂O₂ continuous (ppm): 20
- H₂O₂ short-term cleaning (ppm) < 77 °F (25°C): 1000

**Dimensions:**

![Dimensions Diagram](image)

**Notice:**
1. Elements are preserved in sodium meta-bisulfitite. 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.
4. Consult Toray for other available sizes.
5. It is not recommended to use any acid cleaning formulations that contain nitric acid.