CENTER VESSEL BETWEEN SUPPORTS
SPAN(S) "A" - 3 SUPPORTS REQUIRED
FOR LENGTHS - 4 AND OVER

SHELL

<table>
<thead>
<tr>
<th>Dwg. Ref.</th>
<th>Qty.</th>
<th>Item Code</th>
<th>Description</th>
<th>Remarks/Markups</th>
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<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>50420</td>
<td>End Plug</td>
<td>Engineering Thermoplastic</td>
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<tr>
<td>2</td>
<td>2</td>
<td>5040</td>
<td>Bearing Ring</td>
<td>Nickel-plated Inconel Steel</td>
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<tr>
<td>3</td>
<td>2</td>
<td>45317</td>
<td>Plug Seal</td>
<td>Ethylene Propylene O-Ring</td>
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<tr>
<td>4</td>
<td>2</td>
<td>45294</td>
<td>Adapter Seal</td>
<td>Ethylene Propylene O-Ring</td>
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HEAD INTERLOCK

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<tbody>
<tr>
<td>5</td>
<td>2</td>
<td>45280</td>
<td>Retaining Ring</td>
<td>316 SST</td>
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VESSEL SUPPORT

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<tbody>
<tr>
<td>7</td>
<td>2</td>
<td>45258</td>
<td>Saddle</td>
<td>Engineering Thermoplastic</td>
</tr>
<tr>
<td>8</td>
<td>2</td>
<td>47459</td>
<td>Strap Assembly</td>
<td>304 SST - PTFE Cushion</td>
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<tr>
<td>9</td>
<td>2</td>
<td>47468</td>
<td>Strap Screw</td>
<td>5/16-18 UNC, 18-8 SST</td>
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ELEMENT INTERFACE

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<tr>
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<th>Description</th>
<th>Remarks/Markups</th>
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<tbody>
<tr>
<td>10</td>
<td>2</td>
<td>A/R2</td>
<td>Adaptor</td>
<td>Engineering Thermoplastic</td>
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<tr>
<td>11</td>
<td>2</td>
<td>A/R4</td>
<td>PTFE Seal</td>
<td>Ethylene propylene O-Ring</td>
</tr>
</tbody>
</table>

* PART LISTED ARE STANDARD OPTIONS

WARNING: INTERNAL VESSEL PRESSURE NOT TO EXCEED 125 PSI

SECTION THROUGH END CLOSURE

NOTES:
- DIMENSIONS IN INCHES (IN)
- NOT TO BE USED FOR CONSTRUCTION UNLESS CERTIFIED.
RATING:

**DESIGN PRESSURE**: 600 PSI at 120°F (4.1 MPa at 49°C)

**MIN. OPERATING TEMP.**: 20°F (-7°C)

**FACTORY TEST PRESSURE**: 800 PSI (6.2 MPa)

**BURST PRESSURE**: 3600 PSI (24.8 MPa)

INTENDED USE:

The CodeLine Model 40E50 fiberglass RO Pressure Vessel is designed for continuous, long-term use as a housing for reverse osmosis membrane elements to desalinate typical brackish waters at pressures up to 600 psi. Any make of four-inch nominal diameter spiral-wound element is easily accommodated, the appropriate interfacing hardware for the element is furnished with the vessel.

The CodeLine Model 40E50 must be installed, operated and maintained in accordance with the precautions listed and good industrial practice to assure safe operation over a long service life.

The high performance reinforced plastic shell must be allowed to expand under pressure; undue restraint at support points or piping connections can cause leaks to develop in the shell. The end closures, incorporating close-fitting, interlocking metal components, must be kept dry and free of corrosion; deterioration can lead to catastrophic mechanical failure of the head.

Pentair Water will assist the purchaser in determining the suitability of this standard vessel for their specific operating conditions. The final determination, however, including evaluation of the standard materials of construction for compatibility with the specific corrosive environment, shall be the responsibility of the purchaser.

Specifications subject to change without notice.

**PRECAUTIONS**

**DO...** read, understand and follow all instructions; failure to take every precaution will void warranty and may result in vessel failure.

**DO...** mount shell on horizontal membrane at central span “S,” using compliant vessel supports furnished; tighten hold down straps just snug.

**DO...** provide overpressure protection for vessel set at not more than 10% of design pressure.

**DO...** inspect end closures regularly; replace components that have deteriorated and correct causes of corrosion.

**DO NOT...** make rigid piping connections to ports or clamp vessel in any way that restricts growth of fiberglass shell under pressure; \( \Delta P \theta = 0.02 \) in. (0.5mm) and \( \Delta L = 0.5 \) in. (12.7mm) for a length code -6 vessel.

**DO NOT...** hang piping manifolds from threads or use vessel in any way to support other components.

**DO NOT...** operate vessel at pressures and temperatures in excess of its rating.

**DO NOT...** operate vessel without a complete set of elements and interconnecting hardware.

**DO NOT...** overtighten the connection to the permeate port (hand-tighten plus one-quarter turn, check for leaks.)

**DO NOT...** tolerate leaks or allow ends closures to be routinely wetted in any way.

**DO NOT...** pressure vessel until double checking to verify that the Retaining Ring is in place and fully seated.

**DO NOT...** work on any component until first verifying that pressure is relieved from vessel.

**DO NOT...** operate at pH levels below 3 or above 10.

**DO NOT...** operate vessel with permeate pressure in excess of 125 psi at 120°F (0.85 MPa at 49°C).

**ORDERING**

Using the chart below, please check the features you require and fax them with your purchase order to our customer service department for expedited processing.

For optional materials and or features not listed below, please consult the factory for pricing and availability.

**VESSEL LENGTH CODE** — please check one

<table>
<thead>
<tr>
<th>Code</th>
<th>Model</th>
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</thead>
<tbody>
<tr>
<td>0-1</td>
<td>-2</td>
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<tr>
<td>-3</td>
<td>-4</td>
</tr>
<tr>
<td>-5</td>
<td>-6</td>
</tr>
</tbody>
</table>

**EXTERIOR FINISH** — please check one

- Standard — white high-gloss polyurethane coating over sanded surface.
- Option — optional colors are available for 50 or more vessels per order. Call factory for pricing details.

**CERTIFICATION** — please check one

- Standard — Certified by Pentair Water, Hort code stamped.
- Option — CE marked.

**MEMBRANE BRAND AND MODEL** — please check one and fill in information

- Please supply adapters for the following membrane brand and specific model.
- Brand
- Model

**MATERIAL AND PORT CONFIGURATIONS OPTIONS** — please check one

- Standard — all materials and port configurations per drawing 518017 on the opposite page.

For complete information on proper use of this vessel please refer to the 40E Series USER'S GUIDE, Bulletin 529604.