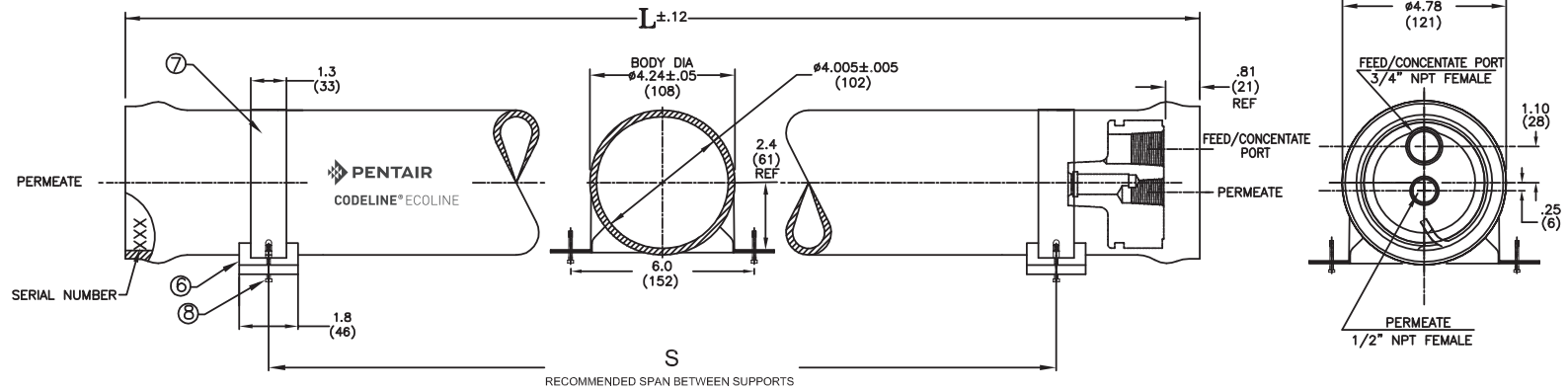


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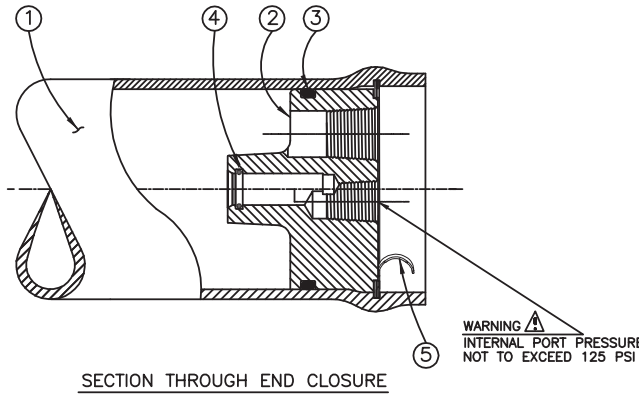
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300  
PSI

CAUTION: INCORRECT MANUFACTURING WILL CAUSE SEVERE LOCAL STRESS AROUND PORT AND MAY RESULT IN LEAKS AND PREMATURE FAILURE; TAKE EVERY PRECAUTION LISTED ON PAGE 02. SEE INSTALLATION INSTRUCTIONS FOR FURTHER DETAILS



## NOTES:-

- ◆ DIMENSION IN INCHES (MM APPROX.)
- ◆ SHELL EXTERIOR COATED WITH WHITE RAL 9003, HIGH GLOSS POLYURETHANE PAINT.
- ◆ NOT TO BE USED FOR CONSTRUCTION UNLESS CERTIFIED.
- ◆ DIRECT CONNECT—NO SUPPLY OF ADAPTERS.

DWG REF	QTY	PART NUMBER	DESCRIPTION	MATERIAL
<b>SHELL</b>				
1	1	200016	SHELL	Filament Wound Epoxy/Glass composites - Head locking grooves integrally wound in place.
<b>HEAD</b>				
2	2	95929	End plug Sub-assembly	Engineering Thermoplastic.
3	2	45317	Head Seal	Ethylene Propylene - O - Ring
4	2	45296	PWT Seal	Ethylene Propylene - O - Ring
<b>HEAD INTERLOCK</b>				
5	2	46414	Retaining Ring	SS 316 as per SA-479 ASME Edition 2015.
<b>VESSEL SUPPORT</b>				
6	2	45058	Saddle-Optional	Engineering Thermoplastic.
7	2	47459	Strap Assembly-Optional	304 Stainless Steel-PVC Cushion.
8	4	97821	Strap screw-Optional	5/16-18 UNC, 1.5" L, 18-8 Stainless Steel.

Dash Length	L IN(MM)	S IN(MM)	Approx Weight LB(KG)
-B1	18.00 (457)	Any	3 (1)
-C1	25.00 (635)	Any	4 (2)
-1	44.00 (1118)	25 (635)	9 (4)
-2	84.00 (2134)	56 (1422)	16 (7)
-3	124.00 (3150)	80 (2032)	23 (11)

**PENTAIR**  
CODELINE<sup>®</sup> ECOLINE

DRAWN	SM	MODEL 40L30N		
DATE	13AUG12	LOW PRESSURE MEMBRANE HOUSING		
CHECKED	FF	DATE	DWG. NO.	REV.
DATE	13AUG12	20FEB17	99373	F
APPROVED	SR	ECN	SCALE	SIZE
DATE	13AUG12	4280	NONE	B
			SHEET	1 OF 2

4

3

2

1

**RATING:**

DESIGN PRESSURE.....	300 PSI (2.07 Mpa)
MAX. OPERATING TEMP.....	120°F (49°C)
MIN. OPERATING TEMP.....	20°F (-7°C)
FACTORY TEST PRESSURE.....	450 PSIG (3.10 MPa)
BURST PRESSURE.....	1200 PSI (8.27 MPa)

**INTENDED USE:**

The Ecoline Model 40L30N Fiberglass RO/UF Pressure Vessel is designed for continuous, long term use as housing for reverse osmosis and ultrafiltration elements in typical industrial water treatment systems at pressures up to 300 psi. Any make of four-inch nominal diameter spiral-wound element with a ¾" dia male product water tube is easily accommodated.

The Ecoline Model 40L30N must be installed, operated and maintained in accordance with the listed precautions 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 heads.

Pentair 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 material of construction for compatibility with the specific corrosive environment, shall be the responsibility of the purchaser. Alternate materials with enhanced corrosion resistance are available on special order.

Specifications are subject to change without notice.

**NOTE**  
Spiral Retaining Ring Removal Tool (50303)  
Recommended to open and close vessel.

**PRECAUTIONS:**

- DO...read, understand and follow all instructions; failure to take every precaution will void warranty and may result in vessel failure
- DO...mount the shell on horizontal members at span "S" using complaint vessel supports furnished; tighten hold down straps just snug
- DO...provide flexibility in, and support for piping manifolds so that vessel can grow in length under pressure without undue restraint; provide additional flexible joints in large pipes leading to manifold header
- DO...provide overpressure protection for vessel set at not more than 105% of design pressure
- DO...inspect end closures regularly; replace components that have deteriorated and correct causes of corrosion
- DO NOT...work on any component until first verifying that pressure is relieved from vessel
- DO NOT... make rigid piping connections to ports or clamp vessel in any way that resists growth of fiberglass shell under pressure; ΔDIA = 0.01 in. (0.25mm) and ΔL = 0.03 in. (0.8mm) for a length code -1 vessel
- DO NOT... hang piping manifolds from ports 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 element installed.
- DO NOT... operate vessel with permeate pressure in excess of 125 psi at 120°F (0.86 MPa @ 49°C)
- DO NOT... overtighten the connection to the permeate port (hand-tighten plus one-quarter turn, check for leaks)
- DO NOT... tolerate leaks or allow end closures to be routinely wetted in any way
- DO NOT... pressurize vessel until double-checking to verify that the retaining ring is completely inside the groove
- DO NOT... operate outside the pH range 3-11

**CAUTION:**  
EYE PROTECTION SHOULD BE WORN WHEN REMOVING OR INSTALLING RETAINING RINGS. KEEP FINGERS CLEAR FROM RETAINING RING WHILE INSTALLING LAST OF TWO TURNS. RING MAY SNAP INTO POSITION POSSIBLY PINCHING FINGERS.

**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 factory for pricing and availability.

Please note that we require your membrane brand and model number when ordering. If this information is not initially available, you may provide it at a later date by checking the appropriate box below.

**VESSEL LENGTH CODE – please check one**

ECOLINE MODEL 40L30N  -B1  -C1  -1  -2  -3

LENGTH CODE	ELEMENT CAPACITY
-B1	One 14" Direct Connect
-C1	One 21" Direct Connect
-1	One 40" Direct Connect
-2	Two 40" Direct Connect
-3	Three 40" Direct Connect

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

- Please supply end plugs for the following membrane brand and specific model  
Brand \_\_\_\_\_ Model \_\_\_\_\_
- Membrane brand and model information is not available, but will be supplied to Pentair on or before the following date \_\_\_\_/\_\_\_\_/\_\_\_\_

**CERTIFICATION – please check one**

- CE Marked.(Not applicable for -1 vessel)

**EXTERIOR FINISH**

- Standard – White high-gloss RAL 9003 polyurethane coating over sanded surface.
- Optional – Grey high-gloss RAL 7011 polyurethane coating over sanded surface.

Serial number      Opposite

- |                              |                              |
|------------------------------|------------------------------|
| End                          | End                          |
| <input type="checkbox"/>     | <input type="checkbox"/>     |
| <input type="checkbox"/>     | <input type="checkbox"/>     |
| <br><input type="checkbox"/> | <br><input type="checkbox"/> |
| <br><input type="checkbox"/> | <br><input type="checkbox"/> |
| <br><input type="checkbox"/> | <br><input type="checkbox"/> |

**PERMEATE PORT CONFIGURATION**

- Standard – ½" NPT Female (Standard per drawing)
- Optional - ½" BSPT/JISPT Female

**FEED PORT CONFIGURATION**

- Standard – ¾" NPT Female (Standard per drawing)
- Optional – ¾" BSPT/JISPT Female
- Optional – ½" NPT Female

**END PLUG MATERIALS**

- Standard – Noryl ¾" NPT Female FC port & ½" NPT Female Permport connection (P/N 96288)
- Optional - PVC ½" NPT Female FC port & ½" NPT Female Permport connection (P/N 97592)

NOTE:- PVC end plug only with ½" NPT FC port.

For complete information on proper use of the vessel  
Please refer to 40L30N USER'S GUIDE - 95207