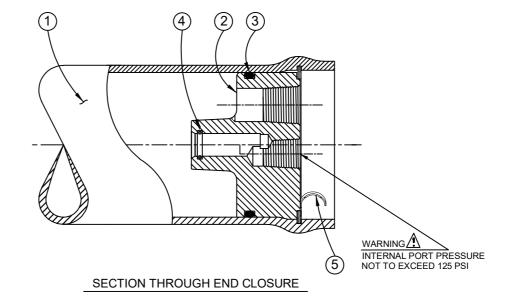


CAUTION: INCORRECT MANIFOLDING WILL CAUSE SEVERE LOCAL STRESS AROUND PORT AND MAY RESULT IN LEAKS AND PREMATURE FAILURE; TAKE EVERY PRECAUTION LISTED ON PAGE 02, SEE INSTALLATION INSTRUCTIONS FOR FURTHER DETAILS

DWG REF	QTY	PART NUMBER	DESCRIPTION	MATERIAL	
			SHE	LL	
1	1	200016	SHELL	Filament Wound Epoxy/Glass composites - Head locking grooves integrally wound in place.	
			HEA	AD .	
2	2	95929	End plug Sub-assembly	Engineering Thermoplastic.	
3	2	196266	Head Seal	Ethylene Propylene - O - Ring	
4	2	196271	PWT Seal	Ethylene Propylene - O - Ring	
			HEAD INTI	ERLOCK	
5	2	46414	Spiral Ring	SA-479 SS 316	
			VESSEL S	UPPORT	
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)

## 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.

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RAWN BY:	SM	DRAWING DESCRIPTION:		DRAWING NO.:		REV.:	
DATE:	13AUG12	MODEL - 40L30N MEMBRANE HOUSING		MODEL - 40L30N MEMBRANE HOUSING 99373		3	L
CHECKED BY:	FF	CUSTOMER NAME:		VESSEL MODEL:			
DATE:	13AUG12	-		40L30N			
PPROVED BY:	SR	PROJECT NAME:		TOTAL QTY		QTY:	
ATE:	13AUG12	-		-			
CN NO.:	6801	CUSTOMER P.O.#: SIZE:		SCALE:	PAGE NO.:		
EV. DATE:	29MAY24	-	A3	NONE	010	F 02	

## **RATING:**

DESIGN PRESSURE/MAWP	300 PSI
	(2.07 MPa)
MAX. ALLOWABLE TEMP	120°F
	(49°C)
MIN. ALLOWABLE TEMP	20°F
	(-7°C)
FACTORY TEST PRESSURE	330 PSIG
	(2.28 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;  $\Delta DIA = 0.01$  in. (0.25mm) and  $\Delta L = 0.03$  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.
- DO NOT...operate outside the pH range 2-12 for cleaning.
- DO NOT...exceed 43.5 hours in a year for cleaning with above mentioned pH range.

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

# **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 select the features you require.

## VESSEL LENGTH CODE - please select

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 supply adapte	rs for the following membrane	brand and specific model
Brand	Model	

# CERTIFICATION REQUIRED

☐ CE Marked – MODULE-D1, CATEGORY-2 (Not applicable for –B1, -C1, -1 vessel) ☐ Certified by Pentair

## EXTERIOR FINISH

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

## FEED PORT CONFIGURATION

Serial number End	Opposite End	
		Standard – 3/4" NPT Female (Standard per drawing)
		Optional – 3/4" BSPT/JISPT Female
		Optional – ½" NPT Female

## PERMEATE PORT CONFIGURATION

Serial number End	Opposite End	
		Standard - 1/2" NPT Female (Standard per drawing)
		Optional - ½" BSPT/JISPT 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 1/2" NPT FC port.

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DRAWN BY:	SM	DRAWING DESCRIPTION:		DRAWING No.:		REV.:
DATE:	13AUG12	MODEL - 40L30N MEMBRANE H	MODEL - 40L30N MEMBRANE HOUSING		99373	
CHECKED BY:	FF	CUSTOMER NAME: VE		VESSEL MOD	SSEL MODEL:	
DATE:	13AUG12	-		40L30N		
APPROVED BY:	SR	PROJECT NAME:			TOTAL	QTY:
DATE:	13AUG12	-				-
ECN NO.:	6801	CUSTOMER P.O.#:	SIZE:	SCALE:	PAGE	NO.:
REV. DATE:	29MAY24	-	A3	NONE	02 O	F 02