

CODELINE® 40L SERIE

COST EFFECTIVE MEMBRANE HOUSING FOR LOW PRESSURE APPLICATIONS

MEMBRANE HOUSING DATASHEET

ARTICLE CODE: 40L30N

GENERAL INFORMATION

Codeline 40L serie is a specially designed end entry membrane housing serie made up of filament wound epoxy/glass fiber. The special design is targeted to meet the demands of low cost - low pressure applications, aiming at maximizing the performance of typical industrial and commercial water treatment system. The operating pressure of this housing is 300 PSI. This serie is ready to meet all low pressure applications for nanofiltration and reverse osmosis.

UNIQUE FEATURES

- Single piece head assembly manufactured by high grade engineering thermoplastics provides high strength and superior chemical resistance.
- Improved head seal captured in the head gives better sealing, minimizing leakage probability.
- Integrally formed locking grooves provides enhanced end margin strength.
- Exteriors coated with high gloss polyurethane paint provides better UV resistance.
- Mirror Finish ID for easy & quick loading and unloading of membranes.
- Quick lock head retention system for quick onsite maintenance.
- Compact design for use in compact and low energy water treatment units.
- Head seal Area is formed by mandrel surface; hence more accurate.

CERTIFICATIONS

- Pentair Certified

CODELINE 40L SERIE SPECIFICATION*

Model No.	Drawing No.	Design/Operating Pressure	Max. Operating Temperature	Qualification Pressure	Element Length
CODELINE 40L30N	99373	300 PSI/20 Bar	120°F/49°C	1200 PSI/124 Bar	-B1(14") -C1(21") -1; -2; -3

Any make of 4" nominal diameter spiral-wound element with a 3/4" diameter male product water tube is easily accommodated

* Specifications subject to change without notice (for more details refer to model specific engineering drawings)

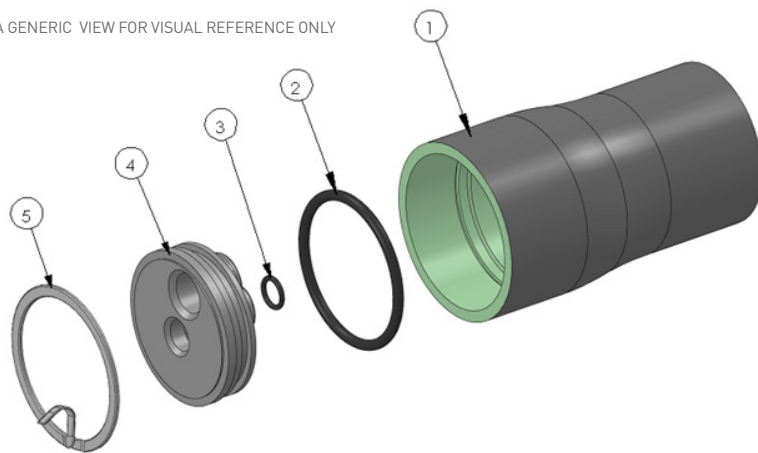
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EXPLODED VIEW & DETAILS

A GENERIC VIEW FOR VISUAL REFERENCE ONLY



DRG REG	QTY	Description	Material	40L30N
				Part number
1	1	Shell	SHELL Filament Wound Epoxy/Glass composites – Head Locking grooves integrally wound in place.	Order section
2	2	Head Seal	Ethylene Propylene – O Ring	45317
3	2	PWT Seal	Ethylene Propylene – O Ring	45296
4	2	End Plug	Engineering Thermoplastic	95929
5	2	Retaining Ring	316 Stainless Steel	46414
6*	2	Saddle	Engineering Thermoplastic	45058
7*	2	Strap Assembly	304 Stainless Steel – PVC Cushion	47459

* Not shown in the above exploded view



CODELINE®

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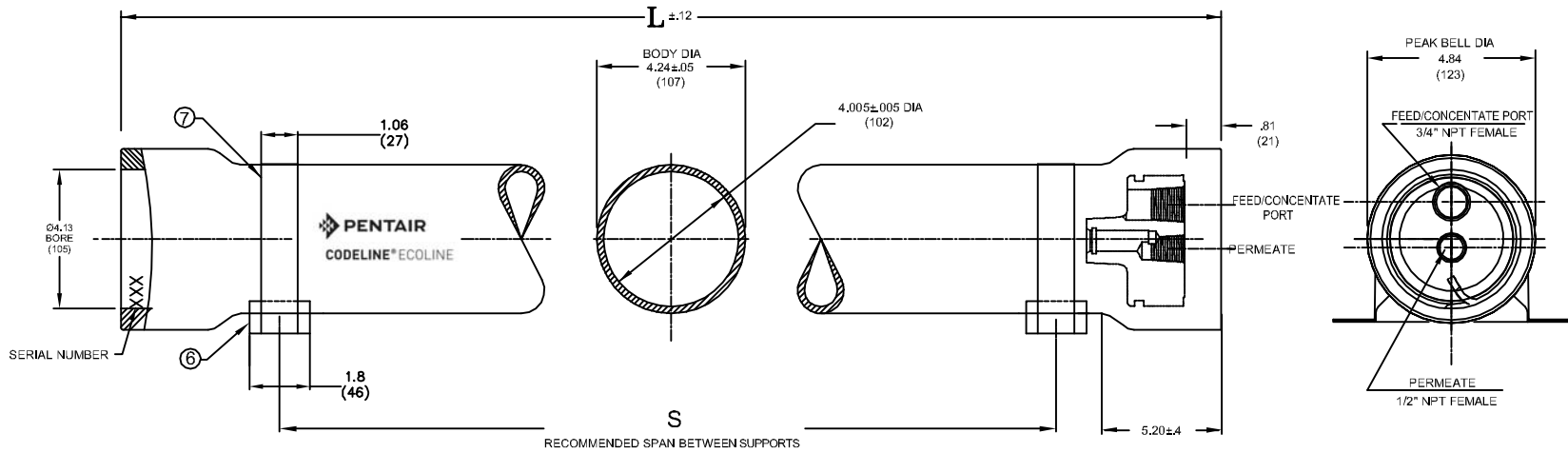
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1



300
PSI

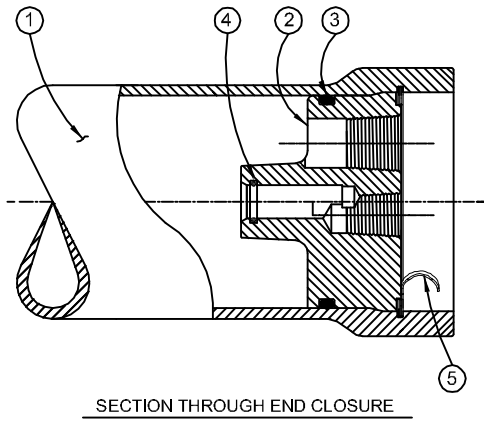
B

B

DWG REF	QTY	PART NUMBER	DESCRIPTION	MATERIAL
SHELL				
1	1	ORDER SECTION	SHELL	Filament Wound Epoxy/Glass composites - Head locking grooves integrally formed in place.
HEAD				
2	2	96288	End plug	Engineering Thermoplastic.
3	2	45317	Head Seal	Ethylene Propylene - O - Ring
4	2	45296	PWT Seal	Ethylene Propylene - O - Ring
HEAD INTERLOCK				
5	2	46414	Retaining Ring	316 Stainless Steel.
VESSEL SUPPORT				
6	2	45058	Saddle-Optional	Engineering Thermoplastic.
7	2	47459	Strap-Optional	304 Stainless Steel-PVC Cushion.

A

A



NOTES:-
 " DIMENSION IN INCHES (MM APPROX.)
 " SHELL EXTERIOR COATED WITH WHITE, HIGH GLOSS POLYURETHANE PAINT.
 " NOT TO BE USED FOR CONSTRUCTION UNLESS CERTIFIED.

Dash Length	L IN(MM)	S IN(MM)	Approx Weight LB(KG)
-B1	18 (457)	Any	3 (1.2)
-C1	25 (635)	Any	4 (1.8)
-1	44 (1118)	25 (635)	9 (4.1)
-2	84 (2134)	56 (1422)	16 (7.3)
-3	124 (3150)	80 (2032)	23 (10.5)

PENTAIR
CODELINE®ECOLINE

DRAWN DATE	SM 13AUG12	MODEL 40L30N LOW PRESSURE MEMBRANE HOUSING			
CHECKED DATE	FF 13AUG12	DATE	DWG. NO.	REV.	
		22MAR13	99373	B	
APPROVED DATE	SR 13AUG12	ECN 2775	SCALE NONE	SIZE A3	
				SHEET 1 OF 2	

4

3

2

1

RATING:

DESIGN PRESSURE..... 300 PSI at 120°F
(2.06 MPa at 49°C)

MIN. OPERATING TEMP..... 20°F
(-7°C)

FACTORY TEST PRESSURE..... 450 PSI
(3.10 MPa)

BURST PRESSURE..... 1200 PSI
(8.27MPa)

INTENDED USE

The Ecoline Model 40L30N Fiberglass RO Pressure Vessel is designed for continuous, long-term use as a housing for reverse osmosis elements in typical commercial water treatment systems at pressures upto 300 psi. Any make of 4 inch nominal diameter spiral wound element with a 3/4 inch diameter 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 closure, incorporating close-fitting, interlocking metal components, must be kept dry and free of corrosion; deterioration can lead to catastrophic mechanical failure of the head assembly.

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 or vertical members at central span "S" using compliant vessel supports; tighten hold down straps just snug.
- 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 make rigid piping connections to ports or clamp vessel in any way that restricts growth of fiberglass shell under pressure. Δ DIA = 0.01 in. (0.25mm) and Δ = .03 in. (.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 port pressure in excess of 125 PSI (0.9 MPa) at 120°F (49°C)
- 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 rings are in place
- DO NOT work on any component until first verifying that pressure is relieved from vessel

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

Please specify the following:

- VESSEL MODEL
- MEMBRANE ELEMENT MAKE AND MODEL NUMBER
- SPECIFIC CONCERNS regarding INTENDED USE and requests for SPECIAL MATERIALS of CONSTRUCTION

40L30N-

SHELL LENGTH/ELEMENT INTERFACE

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

SHELL FINISH

Exterior Shell Finish
White, high-gloss polyurethane coating

OPTIONS

END PLUG MATERIALS

MATERIALS
* 30% Glass Filled Noryl.
PVC

PERMEATE PORT CONFIGURATIONS

Port Sizes
* 1/2" NPT Female
1/2" BSP/JIS Female

FEED/CONC. PORT CONFIGURATIONS

Port Sizes
* 3/4" NPT Female
3/4" BSP/JIS Female
#1/2" NPT Female

* STANDARD OPTIONS
PVC end plugs only with 1/2"NPT F/C port