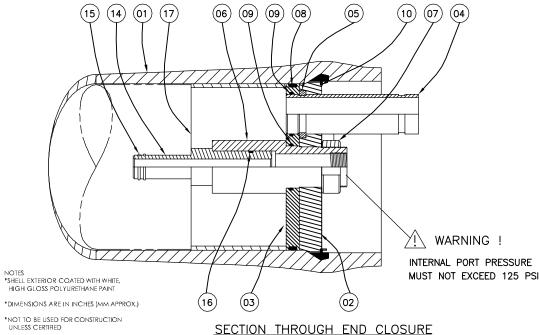


DWG REF	QTY	PART NUMBER	DESCRIPTION	MATERIAL	
			S	HELL	] \
<b>①</b>	1	ORDER SECTION	SHELL	Filament Wound Epoxy/Glass composites-Head locking grooves integrally wound in place.	
			Н	EAD	
<u>@</u>	2	47317	Bearing Plate	6061-T6 Aluminium Alloy-Hard Anodized as per ASME SB-221/SB-209.	
3	2	96003	Sealing Plate	Engineering Thermoplastic.	
<b>0</b> 4	2	50556	Feed/Conc Port	UNS S32750 #	
<b>(</b> 55)	2	45090	Port Retainer Set	CF8M Cast SS, Two-piece set.	
6	2	50558	Permeate Port	Engineering Thermoplastic.	phannin dill
(a)	2	45066	Port Nut	Engineering Thermoplastic.	] / /
@	2	96000	Head Seal	Ethylene Propylene - O Ring.	] \ /
9	4	45312	Port Seal	Ethylene Propylene - O Ring.	<b></b>
HEAD INTERLOCK				]	
9	2	47336	Retaining Ring	316 Stainless Steel	
			VESSE	L SUPPORT	
Э	*2	52169	Saddle	Engineering Thermoplastic.	NOTES *SHELL EXTERIOR COATED WITH WHITE.
(2)	*2	45042	Strap Assy.	304 Stainless Steel - PVC cushion	HIGH GLOSS POLYURETHANE PAINT
(3)	4	46265	Strap screw.	5/16-18 UNC, 18-8 Stainless Steel.	*DIMENSIONS ARE IN INCHES (MM APPROX.)
			ELEMEN	TINTERFACE	*NOT TO BE USED FOR CONSTRUCTION UNLESS CERTIFIED
14)	2	A/R	Adapter	Engineering Thermoplastic.	*GENERAL TOLERANCES APPLY, FOR DETAILS CONTACT FACTORY
(5)	4	A/R	PWT Seal	Ethylene Propylene - O - Ring	*L.O.A REFERS TO OVERALL LENGTH OF THE VESSEL.
16	2	52245	Adapter seal	Ethylene Propylene - O - Ring	*EMPTY WEIGHT REFERS TO SHELL WEIGHT INCLUDING HEAD ASSEMBLIES WITHOUT MEMBRANES.
17)	1	45069	Thrust Ring	Engineering Thermoplastic.	#GRADE UNS \$32750 AS PER ASME \$A-790 SEAMLESS PIPE.
		* :	3 Each Fumished Witl	Length Code 4, 5, 6, 7 & 8.	7. STOURSE STOUSSE/ SO NOT ER MOINTE SA 770 SEAMLESSTIFE.



Shell Length Code	L L.O.A. IN (MM)	S Span IN (MM)	Empty Weight LB (KG)		
1	65.125	30 X 1	75		
'	(1654)	(762)	(34)		
2	105.125	70 X 1	105		
2	(2670)	(1778)	(48)		
3	145.125	110 X 1	135		
3	(3686)	(2794)	(61)		
	185.125	75 X 2	165		
4	(4702)	(1905)	(75)		
_	225.125	95 X 2	195		
5	(5718)	(2413)	(89)		
	265.125	115 X 2	226		
6	(6734)	(2921)	(103)		
-	305.125	135 X 2	256		
7	(7750)	(3429)	(116)		
_	345.125	155 X 2	286		
8	(8766)	(3937)	(130)		

# **PENTAIR CODELINE®**

CTION	THROUGH	END	CLOSURE
ITEM (	(17) DOWNSTRE	EAM ON	LY

ENGR	IS	
QLTY	HP	
DATE	19N0V14	SC

MODEL 80E100 MEMBRANE HOUSING

REV

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CALE SHEET SIZE NUMBER В 99108 ECN: 3420 NONE 1 OF 2

## RATING:

DESIGN PRESSURE	1000 PSI at 120°F
	(6.89 Mpa @ 49°C)
MIN.OPERATING TEMP	20°F
	(-7°C)
FACTORY TEST PRESSURE	CE / ASME
	1500 / 1100 PSI
(10.3	34Mpa) / (7.58 MPa)
BURST PRESSURE	6000 PSI
	(41.4 MPa)

## INTENDED USE:

The CodeLine Model 80E100 Fiberglass RO Pressure Vessel is designed for continuous, long term use as housing for reverse osmosis membrane elements to desalt typical sea waters at pressures up to 1000 psi. Any make of eight-inch nominal diameter spiralwound element is easily accommodated: the appropriate interfacing hardware for the element specified is furnished with the vessel.

The CodeLine Model 80E100 is designed in accordance with the engineering standards of the Boiler and Pressure Vessel Code of the American Society of Mechanical Engineers (ASME Code). At small additional cost, vessels can be inspected during construction by an ASME Authorized inspector and ASME Code stamped.

The CodeLine Model 80E100 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.

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 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 material of construction for compatibility with the specific corrosive environment, shall be the responsibility of the purchaser.

Specifications are 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
- DO...mount the shell on horizontal members at span "S" using complaint vessel supports furnished: 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 resists growth of fiberglass shell under pressure;  $\Delta DIA = 0.015$  in. (0.4mm) and  $\Delta L = 0.2$  in. (5mm) for a length code -8 vessel
- DO NOT... hang piping manifolds from ports or use vessel in any way to support other components; branch connection piping may be simply supported between the header and port; maximum weight of branch piping; feed/concentrate - 16 lbs (7.3 kg); permeate -8 lbs (3.6 kg)
- DO NOT... operate vessel at pressures and temperatures in excess of its rating
- DO NOT... operate vessel without permeate ports internally connected with a complete set of elements and interconnecting hardware
- 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 doublechecking to verify that the retaining ring is completely inside the groove
- DO NOT... work on any component until first verifying that pressure is relieved from vesse1
- DO NOT... operate at pH levels below 3 or above 10

#### **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

MODEL $80E100 \square -1 \square -2 \square -3 \square -4 \square -5 \square -6 \square -7 \square -8$
MEMBRANE BRAND AND MODEL - please check one and fill in information

	Please supply	adapters i	for the	following	membrane	brand	and sp	ecific	mode
	Brand	•		Mc	odel		•		

# CERTIFICATION REQUIRED

- ☐ ASME Stamped and National Board Registered (please consult factory for pricing) ☐ CE Marked
- ☐ Standard, Certified by Pentair water.

# EXTERIOR FINISH - please check one

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

## MATERIAL OPTIONS

- ☐ Standard All materials as per drawing 99108 on the first page.
- Customer specified materials: -(Please consult the factory, as these options will affect pricing and vessel lead-time.)

For complete information on proper use of this vessel please refer to the 80E series USER'S GUIDE Bulletin 523004.

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