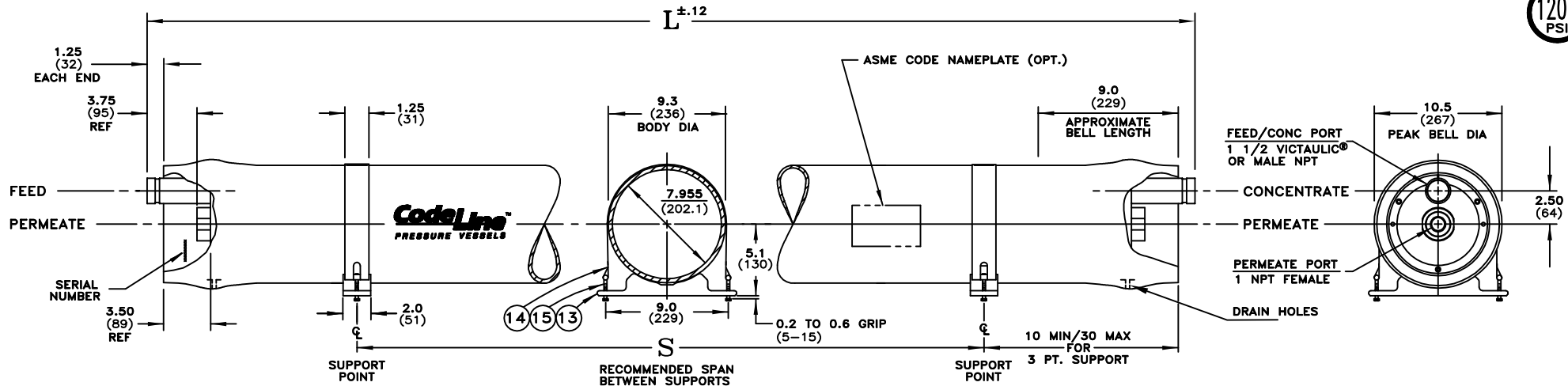
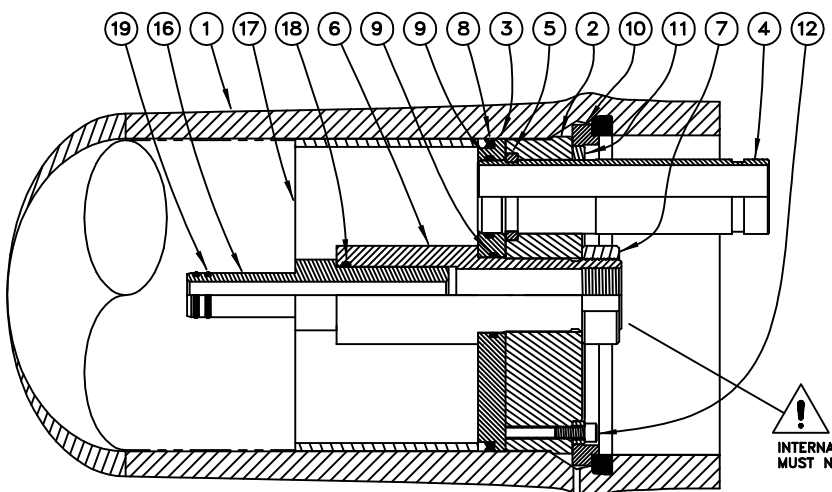


1200
PSI



VIEW AT CENTER SUPPORT
CENTER VESSEL ON 2 OR 3 SUPPORTS AS NOTED



SECTION THROUGH END CLOSURE

ITEM 17 DOWNSTREAM ONLY

NOTES:
• DIMENSIONS IN INCHES (MM APPROX)
• NOT TO BE USED FOR CONSTRUCTION UNLESS CERTIFIED

Dwg. Ref.	Qty. Per	Part Number	Part Name	Materials/Remarks
SHELL				
①	1	Shell Length	Shell Length	Filament wound epoxy/glass composite-Head locking grooves integrally wound in-place
HEAD				
②	2	407001-1	Bearing Plate	6061-T6 aluminum alloy-hard anodized
③	2	407002-1	Sealing Plate	PVC Thermoplastic
④	2	407003-1	Feed/Conc Port	Superaustenitic Stainless Steel - 6% Mo
⑤	2	407233-1	Port Retainer Set	304 Stainless Steel, Two-piece set
⑥	2	407004-1	Permeate Port	PVC Thermoplastic
⑦	2	407005-1	Port Nut	PVC Thermoplastic-left hand thread
⑧	2	6ER002-442	Head Seal	Ethylene Propylene, Quad Ring
⑨	4	6ER001-225	Port Seal	Ethylene Propylene, O-Ring
HEAD INTERLOCK				
⑩	6	45098	Locking Ring	316 Stainless Steel
⑪	2	50562	Securing Ring	Reinforced Plastic - Yellow Color
⑫	6	45228	Securing Screws	316 Stainless Steel
VESSEL SUPPORT				
⑬	*2	52169	Saddle	Engineering Thermoplastic
⑭	*2	45042	Strap Assy	304 Stainless Steel - PVC cushion
⑮	4	46265	Strap Screw	18-8 Stainless Steel
ELEMENT INTERFACE				
⑯	2	As Required	Adapter	Engineering Thermoplastic
⑰	1	45609	Thrust Ring	Thermoplastic, White
⑱	2	45308	Adapter Seal	Ethylene Propylene - O-Ring
⑲	4	As Required	PWT Seal	Ethylene Propylene - O-Ring

*3 each furnished with length code 6, 7, 7.5 & 8

Shell Length Code	L L.O.A. IN (MM)	S Span IN (MM)	Empty Weight LB (KG)
1	65.0 (1651)	34 (864)	125 (57)
2	105.0 (2667)	56 (1422)	175 (79)
3	145.0 (3683)	80 (2032)	225 (102)
4	185.0 (4699)	104 (2642)	275 (125)
5	225.0 (5715)	128 (3251)	325 (147)
6	265.0 (6731)	* 3 PTS.	375 (170)
7	305.0 (7747)	* 3 PTS.	425 (193)
7.5	325.0 (8255)	* 3 PTS.	450 (204)
8	345.0 (8763)	* 3 PTS.	475 (215)



DRAWN AP 25NOV98		MODEL E8H SEAWATER RO PRESSURE VESSEL			
CHECKED JK 01DEC98					
APPROVED DWE 01DEC98	ECN 1179	SHEET 1 OF 1	SIZE B	NUMBER 507028	REV H

RATING:

DESIGN PRESSURE.....1200 PSI at 120°F
(8.3 MPa at 49°C)
MIN. OPERATING TEMP.....20°F
(-7°C)
FACTORY TEST PRESSURE.....1800 PSI
(12.4 MPa)
BURST PRESSURE.....7200 PSI
(49.6 MPa)

INTENDED USE

The Model E8H Fiberglass RO Pressure Vessel is designed for continuous, long-term use as a housing for reverse osmosis membrane elements to desalt typical seawater at pressures up to 1200 psi. Any make of eight-inch nominal diameter spiral-wound element is easily accommodated; the appropriate interfacing hardware for the element specified is furnished with the vessel.

The model E8H 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 Model E8H 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 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.

CodeLine Division, Structural North America 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. Alternate materials with enhanced corrosion resistance are available on special order.

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 with drain holes down on horizontal members 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 105% of design pressure
- DO... inspect end closures regularly; replace components that have deteriorated and correct causes of corrosion
- DO... keep Port Nut tight; turn counterclockwise to tighten left hand thread
- DO NOT... make rigid piping connections to ports or clamp vessel in any way that restricts growth of fiberglass shell under pressure; ▲DIA = 0.02 in. (0.5mm) and ▲L = 0.3 in. (8mm) for a length code -6 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 kg); permeate - 8 lbs (4 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 (0.9 MPa at 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 all three segments of Locking Ring Set are in place, and that the Securing Ring is fully seated and secured by all three Securing Screws
- DO NOT... work on any component until first verifying that pressure is relieved from vessel

For complete information on proper use of this vessel please refer to the E8 Series USER'S GUIDE, Bulletin 507011B

ORDERING

Please specify the following:

- VESSEL MODEL NUMBER built from table of options below
- MEMBRANE ELEMENT MODEL NUMBER
- SPECIFIC CONCERNS regarding INTENDED USE and requests for SPECIAL MATERIALS of CONSTRUCTION

A vessel model number specifies a complete assembly less element interface components. The required interface components are furnished with the vessel but are specified separately.

Membrane elements and between-element connectors (interconnectors) are furnished by membrane element manufacturer.

E8H-□ W-□ □ □ □ ■

MODEL E8H — Fiberglass RO Pressure Vessel
8" Nominal Diameter
1200 PSI Design Pressure

SHELL LENGTH — Length per code number corresponding to number of elements that can be contained

Code	Element Capacity	
	40" Long	60" Long
-1	One each	
-2	Two each	
-3	Three each	Two each
-4	Four each	
-5	Five each	
-6	Six each	Four each
-7	Seven each	
-7.5		Five each
-8	Eight each	

SHELL FINISH — Exterior Shell Finish
White, high-gloss polyurethane coating over sanding surface

CERTIFICATION — assigned by CodeLine Division

Code	Certification Grade
H	Certified by Advanced Structures, not ASME Code stamped
C	Certified by ASME Authorized Inspector and Code stamped
R	Code stamped and registered with National Board of Pressure Vessel Inspectors (NAT'L BD)

HEAD MATERIALS

Materials	
A	Standard per drawing
X	* Optional

PERMEATE PORT CONFIGURATION

Pipe Connection	
1	1" NPT - Female
*2	Optional

FEED/CONC PORT CONFIGURATION

Pipe Connection	
1	Victaulic Grooved
2	1 1/2" NPT - Male
*3	Optional

DRAIN HOLE LOCATION

- Serial number end
 - Opposite end
- Drain Hole Size #5/32". Only Two Holes per Vessel, one per side.

