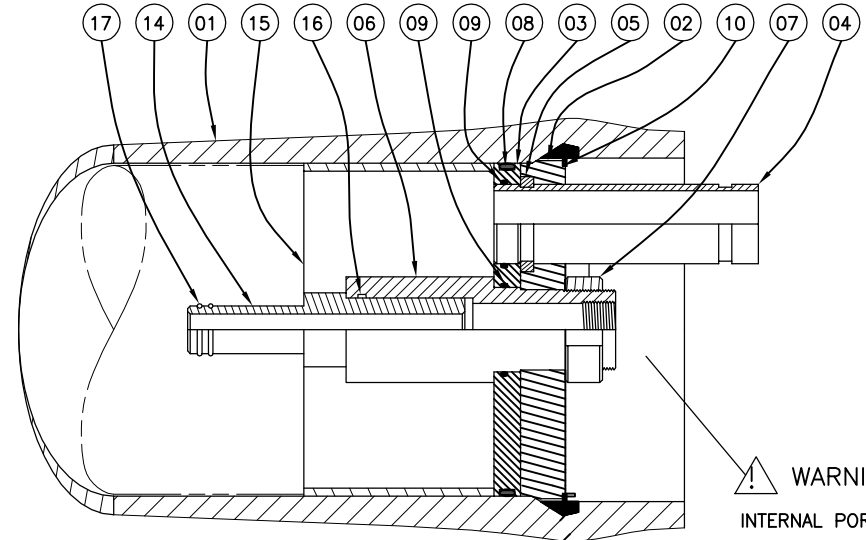
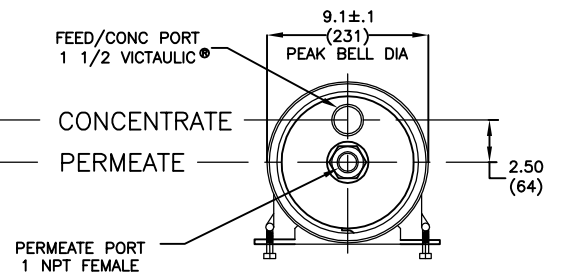
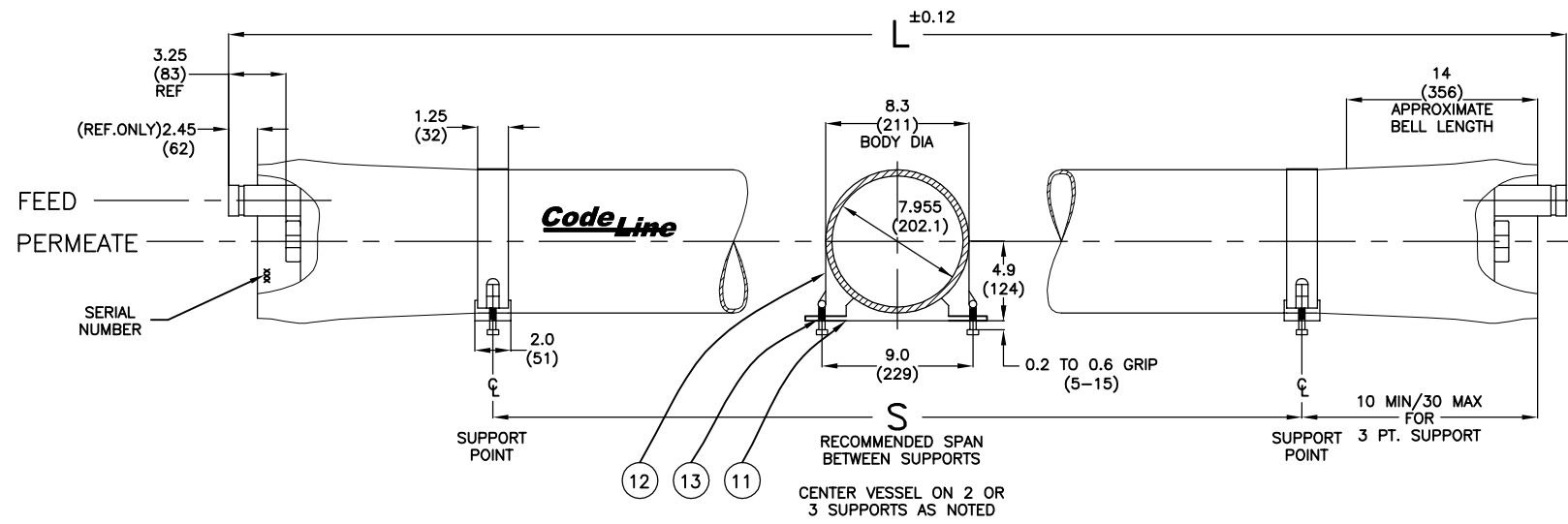


450
PSI



⚠ WARNING !
INTERNAL PORT PRESSURE
MUST NOT EXCEED 125 PSI

| Dwg. Ref. | Qty. Per | Part Number | Part Name | Materials/Remarks |
|--------------------------|----------|-------------|-------------------|---|
| SHELL | | | | |
| 01 | 1 | | Shell Length | Filament wound epoxy/glass composite-Head locking grooves integrally wound in-place |
| HEAD | | | | |
| 02 | 2 | 51051 | Bearing Plate | 6061-T6 aluminium alloy-hard anodized |
| 03 | 2 | 96003 | Sealing Plate | PVC Thermoplastic |
| 04 | 2 | 50567 | Feed/Conc Port | SS-316 as per ASME SA-312 |
| 05 | 2 | 45090 | Port Retainer Set | CF8M Cast SS, Two-piece set |
| 06 | 2 | 50569 | Permeate Port | PVC Thermoplastic |
| 07 | 2 | 45066 | Port Nut | Engineering Thermoplastic |
| 08 | 2 | 96000 | Head Seal | Ethylene Propylene - O-Ring |
| 09 | 4 | 45312 | Port Seal | Ethylene Propylene - O-Ring |
| HEAD INTERLOCK | | | | |
| 10 | 2 | 47336 | Retaining Ring | 316L SST |
| VESSEL SUPPORT | | | | |
| 11 | *2 | 52169 | Saddle | Engineering Thermoplastic |
| 12 | *2 | 45042 | Strap Assy | 316L Stainless Steel |
| 13 | 4 | 46265 | Strap Screw | 5/16-18 UNC, 18-8 Stainless Steel |
| ELEMENT INTERFACE | | | | |
| 14 | 2 | As Required | Adapter | PVC Thermoplastic |
| 15 | 1 | 45069 | Thrust Ring | Engineering Thermoplastic |
| 16 | 2 | 52245 | Adapter Seal | Ethylene Propylene - O-Ring |
| 17 | 4 | As Required | PWT Seal | Ethylene Propylene - O-Ring |

NOTES
 *SHELL EXTERIOR COATED WITH WHITE, HIGH GLOSS ALIPHATIC POLYURETHANE PAINT.
 *WET PAINT THICKNESS 200 MICRONS.
 *DIMENSION IN INCHES (MM APPROX.)
 *NOT TO BE USED FOR CONSTRUCTION UNLESS CERTIFIED
 *GENERAL TOLERANCES APPLY, FOR DETAILS CONTACT FACTORY

SECTION THROUGH END CLOSURE
 ITEM 15 DOWNSTREAM ONLY

| Shell Length Code | L L.O.A. IN (MM) | S Span IN (MM) | Empty Weight LB (KG) |
|-------------------|------------------|----------------|----------------------|
| 1 | 63 (1600) | 40 X 1 (1016) | 32 (15) |
| 2 | 103 (2616) | 80 X 1 (2032) | 47 (21) |
| 3 | 143 (3632) | 120 X 1 (3048) | 61 (28) |
| 4 | 183 (4648) | 80 X 2 (2032) | 76 (34) |
| 5 | 223 (5664) | 100 X 2 (2540) | 90 (41) |
| 6 | 263 (6680) | 120 X 2 (3048) | 105 (48) |
| 7 | 303 (7696) | 140 X 2 (3556) | 119 (54) |



| | | | | | | |
|--------------|-------|--------------------|------|--------|-----|--|
| ENGR | PGS | MODEL 80E45 | | | | |
| QLTY | SM | MEMBRANE HOUSING | | | | |
| DATE 24MAR10 | SCALE | SHEET | SIZE | NUMBER | REV | |
| ECN 1799 | NONE | 1 OF 2 | B | 99112 | J | |

RATING:

DESIGN PRESSURE.....450 PSI at 120°F
(3.1 MPa @ 49°C)
MIN. OPERATING TEMP.....20°F
(-7°C)
FACTORY TEST PRESSURE...CE / ASME
675 / 585 PSI
(4.65Mpa) / (4 MPa)
BURST PRESSURE.....2700 PSI
(18.6 MPa)

INTENDED USE:

The CodeLine Model 80E45 Fiberglass RO Pressure Vessel is designed for continuous, long-term use as housing for reverse osmosis membrane elements to desalt typical brackish waters at pressures up to 450 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 CodeLine Model 80E45 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 from 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 failure
- 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; ΔDIA = 0.02 in. (0.5mm) and ΔL = 0.2 in. (5mm) 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 @ 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... work on any component until first verifying that pressure is relieved from vessel
- 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 80E45 -1 -2 -3 -4 -5 -6 -7

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

Please supply adapters for the following membrane brand and specific model
Brand _____ Model _____

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 99112 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.