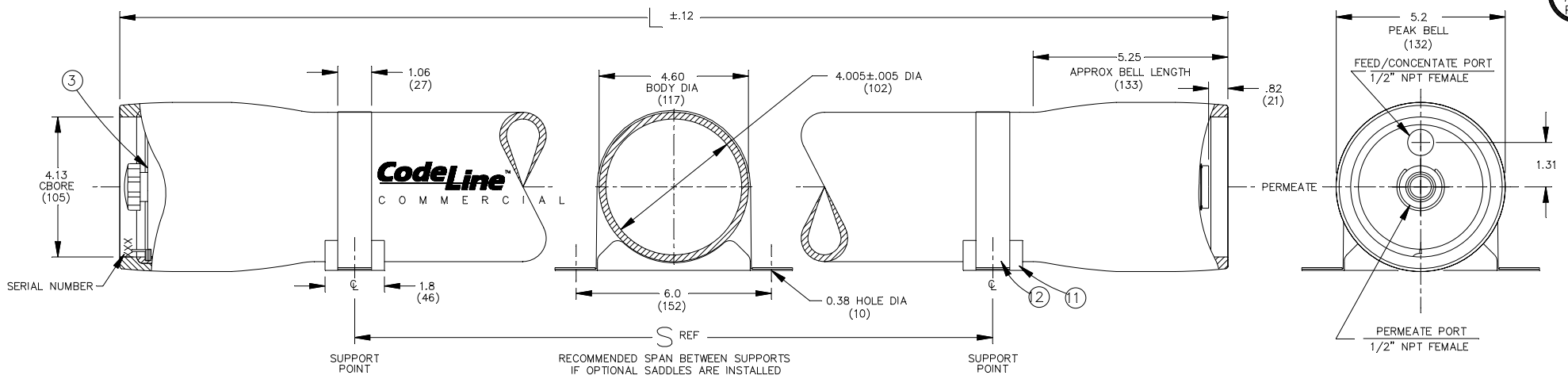
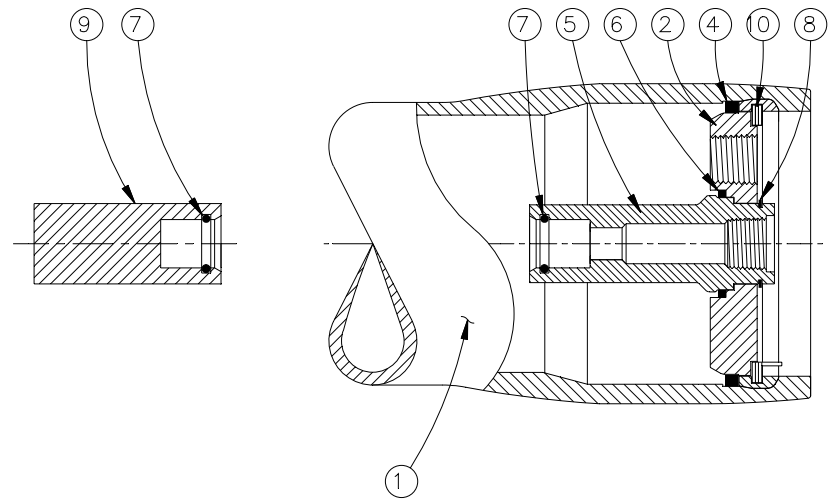


400  
PSI



| Dwg. Ref.          | Qty. Per | Part Number | Part Name                 | Materials/Remarks   |
|--------------------|----------|-------------|---------------------------|---|
| SHELL              |          |             |                           |   |
| ①                  | 1        |             | Shell                     | Filament wound epoxy/glass composite. S.S. head locking grooves integrally wound in place. Shell exterior coated with blue high gloss polyurethane paint. |
| HEAD               |          |             |                           |   |
| ②                  | 1        | 51662       | Bearing Plate             | Fiber Reinforced Epoxy Laminate (CONC. END)   |
| ③                  | 1        | 51657       | Bearing Plate Assy, Blank | Fiber Reinforced Epoxy Laminate (FEED END)  |
| ④                  | 2        | 45352       | Seal                      | Ethylene Propylene - Square Cut   |
| ⑤                  | 1        | 50892       | Permeate Port             | PVC Thermoplastic (gray) - 120° F Max<br>PET Thermoplastic (black) - 176° F Max   |
| ⑥                  | 1        | 45335       | Permeate Port Seal        | Ethylene Propylene - Square Cut   |
| ⑦                  | 2        | 45296       | PWT Seal                  | Ethylene Propylene - O-Ring   |
| ⑧                  | 1        | 45242       | Port Retainer             | 302 SST   |
| ⑨                  | 1        | 50903       | Permeate Cap, Solid       | Engineering Thermoplastic (FEED END ONLY)   |
| HEAD INTERLOCK     |          |             |                           |   |
| ⑩                  | 2        | 45260       | Retaining Ring            | 302 SST   |
| VESSEL SUPPORT     |          |             |                           |   |
| ⑪                  | 2        | 45058       | Saddle - OPTIONAL         | Cast Urethane Elastomer   |
| ⑫                  | 2        | 50329       | Strap - OPTIONAL          | Type 304 SST - PVC cushion  |
| FOR REFERENCE ONLY |          |             |                           |   |



SECTION THROUGH END CLOSURE  
DOWNSTREAM END

- NOTES
- DIMENSIONS IN INCHES (MM APPROX)
  - NOT TO BE USED FOR CONSTRUCTION UNLESS CERTIFIED
  - PATENT APPLIED FOR

| Shell Length Code | L L.O.A. IN (MM) | S Span IN (MM) | APPROX. ASSEMBLY Weight LB (KG) |
|-------------------|------------------|----------------|---------------------------------|
| 1                 | 47.5 (1207)      | 28 (711)       | 14.75 (6.7)                     |
| 2                 | 87.5 (2223)      | 56 (1422)      | 20.75 (9.4)                     |
| 3                 | 127.5 (3239)     | 80 (2083)      | 28.25 (12.8)                    |



|                     |                               |                 |           |                  |
|---------------------|-------------------------------|-----------------|-----------|------------------|
| ENGR<br>LF 24AUG98  | MODEL 40E40                   |                 |           |                  |
| QLTY<br>JK 24AUG98  | LOW PRESSURE MEMBRANE HOUSING |                 |           |                  |
| MRKT<br>DWE 25AUG98 | ECO<br>89323                  | SHEET<br>1 OF 1 | SIZE<br>B | NUMBER<br>518011 |
|                     |                               |                 |           | REV<br>C         |

**RATING:**

DESIGN PRESSURE..... 400 PSI at 120°F  
 (2.8 MPa at 49°C)  
 with PVC permeate port  
 400 PSI at 176°F  
 (2.8 MPa at 80°C)  
 with PET permeate port  
 MIN. OPERATING TEMP..... 20°F  
 (-7°C)  
 FACTORY TEST PRESSURE..... 600 PSI  
 (4.1 MPa)  
 BURST PRESSURE..... 2400 PSI  
 (16.5 MPa)

**INTENDED USE**

The Model 40E40 Fiberglass RO/UF Pressure Vessel is designed for continuous, long-term use as a housing for reverse osmosis and ultrafiltration elements in typical commercial water treatment systems at pressures up to 400 psi. Any make of 4-inch nominal diameter spiral-wound element with a 3/4" diameter male product water tube is easily accommodated.

The Model 40E40 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.

STRUCTURAL NORTH AMERICA, CodeLine Division 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; ▲DIA = 0.01 in. (0.25mm) and ▲L = .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; PVC permeate port) or 176°F (80°C; PET permeate port)
- 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

**NOTE**

Spiral Retaining Ring Removal Tool (1MM007-1) recommended to open and close vessel.

**CAUTION:**

EYE PROTECTION SHOULD BE WORN WHEN REMOVING OR INSTALLING RETAINING RINGS.

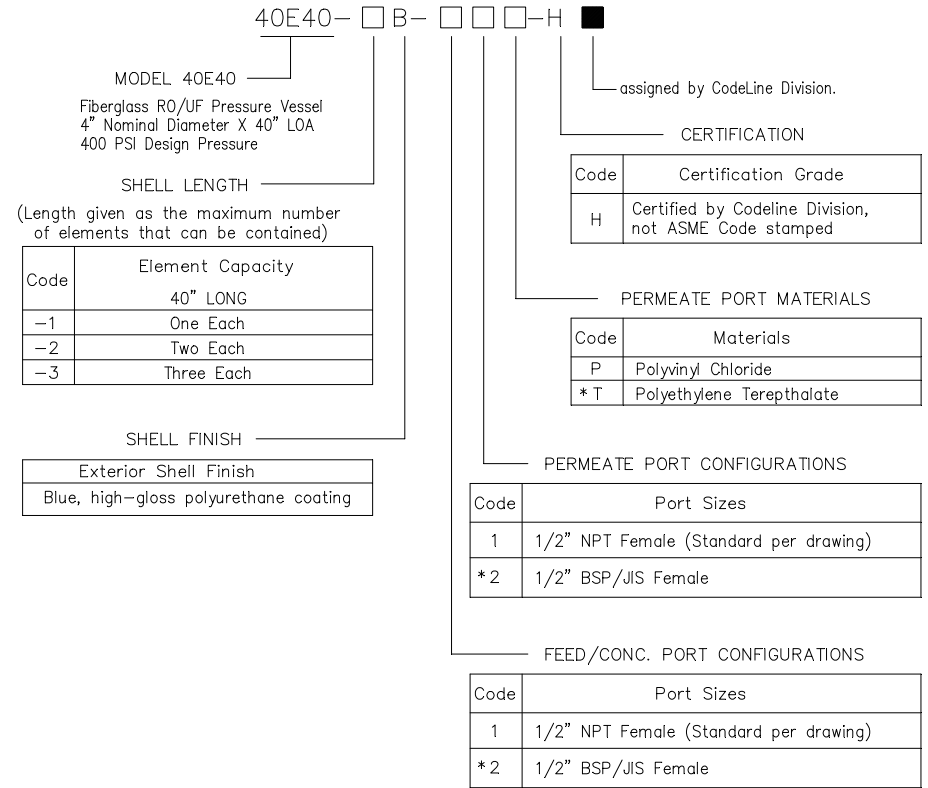
KEEP FINGERS CLEAR FROM RETAINING RING WHILE INSTALLING LAST OF THREE TURNS.

RING MAY SNAP INTO POSITION POSSIBLY PINCHING FINGERS.

**ORDERING**

Please specify the following:

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



\* OPTIONAL – Consult factory for specifications and pricing