

## PRESSURE VESSELS RO CODELINE 4"-1000 PSI PV 40E100 END PORT



## PV 40E100 CODELINE

## MATERIALE DI COMPOSIZIONE:

- Vessel: \_\_\_\_\_ Vetrosesina
- Tappi: \_\_\_\_\_ Lega di alluminio 6061-T6
- Anello di chiusura tappo: \_\_\_\_\_ 316 SST
- Basamento tappo: \_\_\_\_\_ Lega di alluminio 6061-T6

## DATI TECNICI

- Pressione di progetto: \_\_\_\_\_ 69 bar a 49°C (1000 psi a 120°F)
- Temperatura minima di esercizio: \_\_\_\_\_ -7°C (20°F)
- Pressione di collaudo:
  - ASME 89,7 bar (1300 psi)
  - CE 103 bar (1500 psi)
- Pressione di scoppio: \_\_\_\_\_ 414 bar (6000 psi)
- Uscita permeato: \_\_\_\_\_ 1/2" NPT Male
- Uscita concentrato: \_\_\_\_\_ 3/4" NPT Male
- Colore Standard: \_\_\_\_\_ Bianco
- Connessione con membrana: \_\_\_ Tramite adapter (2 x vessel, non inclusi, vedi documentazione tecnica)
- Nr. di elementi disponibili: \_\_\_\_\_ 1-2-3-4-5-6

## CERTIFICATI:

- Ispezione e marcatura ASME CODE (quotazione su richiesta)
- Marcatura CE (quotazione su richiesta)
- Direttiva 97/23/CE (PED)
- NSF/ANSI 61
- ISO 9001:2000

## APPLICAZIONI:

- Osmosi inversa;
- Ultrafiltrazione.

## ACCESSORI DA ORDINARE A PARTE:

- Selle: CA45058 (nr. 2 per vessel fino al 3 elementi, dal 4 elementi fino al 6 elementi nr. 3 per vessel)
- Tiranti: CA47459 (nr. 2 per vessel fino al 3 elementi, dal 4 elementi fino al 6 elementi nr. 3 per vessel)
- Adapter: nr. 2 x vessel (vedi documentazione tecnica).

## TRATTAMENTO DELLE ACQUE:

- Domestiche
- Industriali
- Municipali
- Reflue (contattare l' Ufficio tecnico Hytek)
- di mare
- Farmaceutiche
- Alimentari

## CODELINE PV 40E100

## MATERIALS COMPOSITION:

- Shell material: \_\_\_\_\_ Fiberglass
- Plugs: \_\_\_\_\_ 6061-T6 Hard anodized Alum. alloy
- Retaining ring \_\_\_\_\_ 316 SST
- Bearing ring \_\_\_\_\_ 6061-T6 Hard anodized Alum. alloy

## TECHNICAL SHEET:

- Design Pressure: \_\_\_\_\_ 69 bar a 49°C (1000 psi at 120°F)
- Min. Operating temperature: \_\_\_\_\_ -7°C (20°F)
- Factory Test Pressure:
  - ASME 89,7 bar (1300 psi)
  - CE 103 bar (1500 psi)
- Burst Pressure: \_\_\_\_\_ 414 bar (6000 psi)
- Permeate Port: \_\_\_\_\_ 1/2" NPT male
- Concentrate Port: \_\_\_\_\_ 3/4" NPT male
- Standard color: \_\_\_\_\_ White
- Connection membrane: \_\_\_\_\_ By Adapter (2 x vessel, not included, see technical documentation)
- Nr. elements available: \_\_\_\_\_ 1-2-3-4-5-6

## CERTIFICATIONS:

- Inspection and ASME CODE stamped (quotation on request)
- CE mark stamped (quotation on request)
- 97/23/CE Directive (PED)
- NSF/ANSI 61
- ISO 9001:2000

## APPLICATIONS:

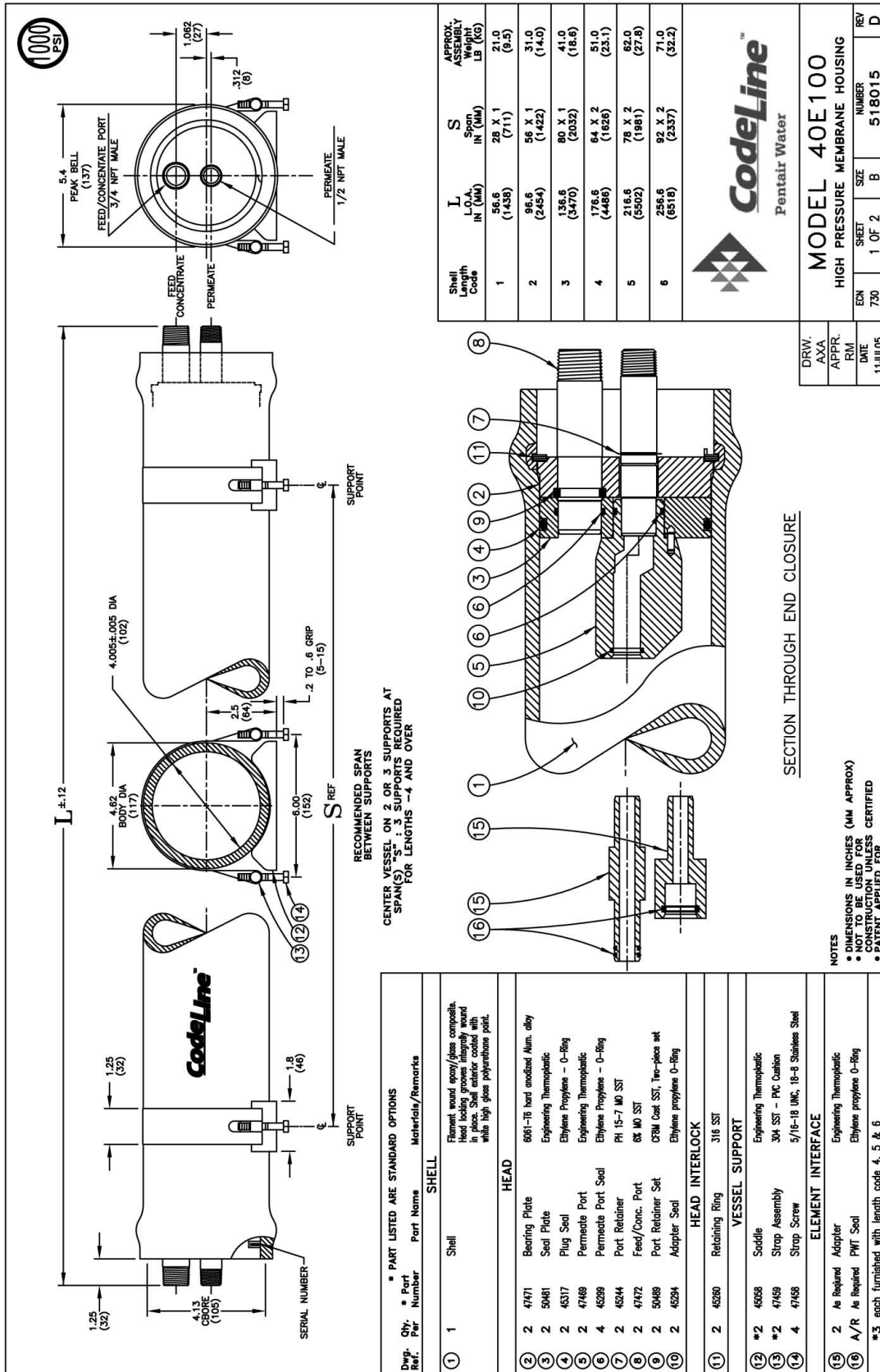
- Reverse Osmose
- Ultrafiltration.

## ACCESSORIES TO BE ORDERED SEPARATELY:

- Saddles: CA45058 (nr. 2 supports required up to 3 elements, 3 supports required for length 4 and over)
- Straps: CA47459 (nr. 2 straps required up to 3 elements, 3 supports required for length 4 and over)
- Adapter: nr. 2 x vessel (see technical documentation).

## WATER TREATMENTS

- Domestic
- Industrial
- Municipal
- Drains (contact Hytek Technical Office)
- Sea
- Pharmaceuticals
- Alimentary



Shell Length Code	L <sub>1</sub> IN (MM)	S <sub>1</sub> IN (MM)	S IN (MM)	APPROX. ASSEMBLY WEIGHT LB (KG)
1	56.6 (1438)	28 X 1 (711)	21.0 (9.5)	31.0 (14.0)
2	96.6 (2454)	56 X 1 (1422)	41.0 (18.6)	62.0 (27.8)
3	136.6 (3470)	80 X 1 (2032)	71.0 (32.2)	71.0 (32.2)
4	176.6 (4486)	64 X 2 (1626)	82.0 (37.2)	82.0 (37.2)
5	216.6 (5502)	78 X 2 (1981)	92 X 2 (2337)	92 X 2 (2337)
6	256.6 (6518)	92 X 2 (2337)		

**Codeline™**  
Pentair Water

**MODEL 40E100**  
HIGH PRESSURE MEMBRANE HOUSING

DRW. AXA	APPR. RIM	DATE 11JUL05
EON 730	SHEET 1 OF 2	NUMBER 518015
REV D		

**RATING:**

DESIGN PRESSURE..... 1000 PSI at 120°F  
(6.9 MPa at 49°C)  
MIN. OPERATING TEMP..... 20°F  
(-7°C)  
FACTORY TEST PRESSURE.. ASME / CE  
1300PSI / 500PSI  
(8.96 MPa)/(10.5 MPa)  
BURST PRESSURE..... 6000 PSI  
(41.4 MPa)

**INTENDED USE**

The Codeline Model 40E100 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 1000 psi. Any make of four-inch nominal diameter spiral-wound element is easily accommodated; the appropriate interlocking hardware for the element specified is furnished with the vessel.

The Codeline Model 40E100 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 40E100 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.

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 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 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 = 0.2 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.
- 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 the Retaining Ring is in place and fully seated.
- 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

For complete information on proper use of this vessel please refer to the 40E Series USER'S GUIDE, Bulletin 526006

**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**

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 feature not listed below, please consult the 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**  
CODELINE MODEL 40E100 □-1 □-2 □-3 □-4 □-5 □-6

**EXTERIOR FINISH - please check one**

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

**CERTIFICATION - please check one**

- Standard - certified by Pentair Water, not code stamped.
- Option - Certified by ASME Authorized Inspector, Code stamped and registered with National Board.
- Call factory for pricing details.
- Option - CE marked.

**MEMBRANE BRAND AND MODEL - please check one and fill in information**

- Please supply adapters for the following membrane brand and specific model.  
Brand \_\_\_\_\_ Model \_\_\_\_\_
- Membrane brand and model information is not currently available, but will be supplied to Codeline on or before the following date. \_\_\_\_/\_\_\_\_/\_\_\_\_

**MATERIAL AND PORT CONFIGURATIONS OPTIONS - please check one**

- Standard - all materials and port configurations per drawing 518015 on the opposite page.
- Option - feed/concentrate port, 3/4" victaulic.

## ADATTATORI PER PV 40E100 CODELINE / ADAPTERS CODELINE PV40E100

MARCA MEMBRANA MEMBRANA MAKE	MODELLO/MODEL	ADAPTER	TIPO DI ADAPTER ADAPTER TYPE
GE - Osmonics / DESAL			
	DURATHERM STD RO 4040	CA50130	Male/Maschio
	DURATHERM HWS RO 4040	CA50137	Female/Femmina
	DURASLICK RO 4040 HS	CA50137	Female/Femmina
	DURASLICK RO 4040	CA50137	Female/Femmina
	DURASLICK NF 4040 HS	CA50137	Female/Femmina
	DURASLICK NF 4040	CA50137	Female/Femmina
	CK4040FF	CA50137	Female/Femmina
	CG4040F	CA50130	Male/Maschio
	CE4040NF	CA50137	Female/Femmina
	CE4040FF	CA50137	Female/Femmina
	CE4040F	CA50130	Male/Maschio
	CE4040C	CA50130	Male/Maschio
	CD4040F	CA50130	Male/Maschio
	AK4040TF	CA50137	Female/Femmina
	AK4040NF	CA50137	Female/Femmina
	AK4040FF-CERT	CA50137	Female/Femmina
	AK4040FF	CA50137	Female/Femmina
	AK4040CF	CA50137	Female/Femmina
	AK4040C	CA50130	Male/Maschio
	AG4040TF	CA50137	Female/Femmina
	AG4040NF	CA50137	Female/Femmina
	AG4040FF-CERT	CA50137	Female/Femmina
	AG4040FF	CA50137	Female/Femmina
	AG4040CF	CA50137	Female/Femmina
	AG4040C	CA50130	Male/Maschio
	AD4040FF	CA50137	Female/Femmina
	AD4040F	CA50130	Male/Maschio
	AE4040FF	CA50136	Female/Femmina
	AG4040F	CA50130	Male/Maschio
	AG4040T	CA50130	Male/Maschio
	DK4040F	CA50130	Male/Maschio
	SC4040CZH	CA50130	Male/Maschio
	SC4040F	CA50130	Male/Maschio
	SE4040CZH	CA50130	Male/Maschio
	SE4040F	CA50130	Male/Maschio
	SG4040C	CA50130	Male/Maschio
	SG4040CZH	CA50130	Male/Maschio
	SG4040F	CA50130	Male/Maschio
	VinoPro 4040C-30D/50D	CA50130	Male/Maschio
	411	CA50122	Female/Femmina
	414	CA50136	Female/Femmina
	415	CA50136	Female/Femmina
Filmtec (DOW)			
	RO-4040-FF	CA50137	Female/Femmina
	HSRO-4040-FF	CA50137	Female/Femmina
	NF200-4040	CA50137	Female/Femmina
	NF270-4040	CA50137	Female/Femmina
	NF90-4040	CA50137	Female/Femmina
	NF-4040	CA50137	Female/Femmina
	SW30HR LE-4040	CA50137	Female/Femmina
	SW30-4040	CA50137	Female/Femmina
	XLE-4040	CA50137	Female/Femmina
	LP-4040	CA50137	Female/Femmina
	TW30-4040	CA50137	Female/Femmina

MARCA MEMBRANA MEMBRANA MAKE	MODELLO/MODEL	ADAPTER	TIPO DI ADAPTER ADAPTER TYPE
	BW30-4040	CA50137	Female/Femmina
	BW30LE-4040	CA50137	Female/Femmina
	ROGA 04221 HR	CA50124	Male/Maschio
KOCH (Fluid Systems)			
	4321 UF	CA50125	Male/Maschio
	TFC-4820 FR	CA50137	Female/Femmina
	4720 SR2	CA50137	Female/Femmina
	4221 HR	CA50125	Male/Maschio
	4820 ULP	CA50137	Female/Femmina
	4040 ULP	CA50137	Female/Femmina
	4820 HR	CA50137	Female/Femmina
	4040 HR	CA50137	Female/Femmina
	1820 HF	CA50137	Female/Femmina
	1820 SS	CA50137	Female/Femmina
Hydranautics			
	SWC1-4040	CA50137	Female/Femmina
	ESPA4-4040	CA50137	Female/Femmina
	ESPA3-4040	CA50137	Female/Femmina
	ESPA2-4040	CA50137	Female/Femmina
	ESPA1-4040	CA50137	Female/Femmina
	CPA2-4040	CA50137	Female/Femmina
	ESNA1-4040	CA50137	Female/Femmina
	LFC1-4040	CA50137	Female/Femmina
	LFC3-4040	CA50137	Female/Femmina
	SANRO CPA3	CA50137	Female/Femmina
	SANRO CPA4	CA50137	Female/Femmina
	SANRO-HS	CA50137	Female/Femmina
	SWC2-4040	CA50137	Female/Femmina
Saehan - CSM			
	UE4040-PF	CA50137	Female/Femmina
	NE4040-70	CA50137	Female/Femmina
	NE4040-90	CA50137	Female/Femmina
	RE4040-SH	CA50137	Female/Femmina
	RE4040-SR	CA50137	Female/Femmina
	RE4040-SN	CA50137	Female/Femmina
	RE4040-FL	CA50137	Female/Femmina
	RE4040-FE	CA50137	Female/Femmina
	RE4040-BLF	CA50137	Female/Femmina
	RE4040-BLR	CA50137	Female/Femmina
	RE4040-BLN	CA50137	Female/Femmina
	RE4040-BN	CA50137	Female/Femmina
	RE4040-BE	CA50137	Female/Femmina
	RE4021-BN	CA50137	Female/Femmina
Trisep			
	4040-TS80-TSF	CA50137	Female/Femmina
	4040-XN45-TSF	CA50137	Female/Femmina
	4040-ACM5-TWF	CA50137	Female/Femmina
	4040-ACM4-TSF	CA50137	Female/Femmina
	4040-ACM2-TSF	CA50137	Female/Femmina
	4040-SB20-TSA	CA50142	Male/Maschio
	4040-X201-TSF	CA50137	Female/Femmina

MARCA MEMBRANA MEMBRANA MAKE	MODELLO/MODEL	ADAPTER	TIPO DI ADAPTER ADAPTER TYPE
Toray (Romembra)			
	SC-6101	CA51466	Female
	SC-4101	CA51466	Female
	SC-2101	CA51466	Female
	SU-610	CA51466	Female
	SU-620	CA51466	Female
	SUL-G10P	CA51466	Female
	SU-710P	CA51466	Female
	SUL-G10TS	CA51466	Female
	SUL-G20FTS	CA51466	Female
	SUL-G20TS	CA51466	Female
	SU-720TS	CA51466	Female
	SU-810	CA51466	Female
	SUL-G10	CA51466	Female
	SUL-G20F	CA51466	Female
	SU-710R	CA51466	Female
	SU-710L	CA51466	Female
	SU-710	CA51466	Female
	TM810L	CA50137	Female
	TM810	CA50137	Female
	TMG10	CA50137	Female
	TM710	CA50137	Female