

# E-Series L

## Large Reverse Osmosis Machines, 3 to 23 m<sup>3</sup>/hr



Figure 1: E4H-CE, 3 to 7 cubic meters per hour



Figure 2: E8-CE, 9 to 23 cubic meters per hour

GE Water & Process Technologies has more than 30 years experience in designing and building high quality reverse osmosis systems. Our E-series RO machines (Figures 1 and 2) are designed for durable operation, high quality product water production, easy installation and straightforward control.

### General Properties

#### Typical Applications

- Boiler feed water
- Ion exchange pre-treatment
- Process ingredient water
- Safe drinking water

#### Features

- Compact design
- Energy saving Desal membrane elements
- Micron rated pre-filter
- Automatic inlet shut-off valve
- Permeate purge on shut down (option to disable)
- Emergency stop and motor thermal protection

#### Instrumentation and Controls

- PLC based control system
- Single-source power connection and disconnect
- Universal transformer capable of accepting different voltages
- Permeate and concentrate flow meters
- Digital permeate conductivity meter
- Digital pH meter
- ALARMS: Low inlet pressure, motor starter overload, high temperature (38°C), high permeate conductivity, High permeate pressure, high pH
- Remote machine on/off capability
- Pre-filter, post-filter, pump discharge, primary, and final pressure gauges
- Clean frame design discourages dust or water accumulation

Table 1: Operating Parameters

Operating Pressure	6.9-15 bars
Maximum Recovery	75%
Nominal Rejection	95-98%
Operating Temperature	1-40 °C
Minimum Inlet Pressure	2 bars
Design Temperature*	25 °C

\* Varying the operating temperature will affect machine productivity



Find a contact near you by  
visiting [gewater.com](http://gewater.com) or  
e-mailing [custhelp@ge.com](mailto:custhelp@ge.com).

**Global Headquarters**  
Trevose, PA  
+1-215-355-3300

**Americas**  
Watertown, MA  
+1-617-926-2500

**Europe/Middle East/Africa**  
Heverlee, Belgium  
+32-16-40-20-00

**Asia/Pacific**  
Shanghai, China  
+86 (0) 411-8366-6489

©2008, General Electric Company. All rights reserved.

\*Trademark of General Electric Company; may be registered in one or more countries.

FS1145EN Feb-08

**Table 2: Materials of Construction**

Frame	Painted Carbon Steel
Membrane Elements	Desal AK8040F Desal AK4040FM
Membrane Housing	Stainless Steel
Low Pressure Pipe	Schedule 80 PVC
High Pressure Pipe	Stainless Steel
Control Enclosure	IEC 66
Motor Starters	IEC 66

**Table 3: Pump and Motor**

Pump Manufacturer	Tonkaflo
Pump Type	Multi-stage, centrifugal
Materials	SS shell/housing, Noryl* internals
Castings	SS inlet/discharge
Motor	3-phase, TEFC, 400 VAC, 50 Hz

**Table 4: E-Series CE Specifications 50 Hz**

Model	E4H-CE-3	E4H-CE-5	E4H-CE-7	E8-CE-9	E8-CE-14	E8-CE-23
Part Number	1232267	1232268	1232269	1232259	1232260	1232261
<b>Flow Specifications</b>						
Recovery Range:	50-75%	50-75%	50-75%	66-75%	66-75%	66-75%
Permeate Rate: m <sup>3</sup> /h	3	5	7	9	14	23
Concentrate Rate: m <sup>3</sup> /h	3-1	5-2	7-3	5-3	7-5	12-8
<b>Pump and Motor</b>						
RO Pump Model	SS2823G	SS5512D	SS8512D	SS8512D	SS12509KC	SS24006KC
RO Motor: KW (HP)	3.7 (5)	7.4 (10)	11.2 (15)	11.2 (15)	15 (20)	18.6 (25)
<b>Membrane Elements and Filters</b>						
Membrane Quantity	9	15	24	8	12	20
Membrane Type	AK4040FM	AK4040FM	AK4040FM	AK8040F	AK8040F	AK8040F
Array	2-1	3-2	5-3	1-1-1	2-1-1	3-2
Pre-Filter Quantity	2	2	2	7	7	7
Pre-Filter Model	LD05-20	LD05-20	LD05-20	RO.Zs 01-20-XK	RO.Zs 01-30-XK	RO.Zs 01-40-XK
<b>Connections</b>						
Inlet: mm	DN 40	DN 40	DN 40	DN 50	DN 50	DN 80
Permeate: mm	DN 25	DN 25	DN 25	DN 50	DN 50	DN 50
Concentrate: mm	DN 25	DN 25	DN 25	DN 40	DN 40	DN 40
<b>Dimensions &amp; Weights</b>						
Height: mm (inch)	1702 (67)	1702 (67)	1702 (67)	1981 (78)	1981 (78)	1981 (78)
Width: mm (inch)	3327 (131)	3327 (131)	3327 (131)	4064 (160)	4064 (160)	4064 (160)
Depth: mm (inch)	914 (36)	914 (36)	914 (36)	1168 (46)	1168 (46)	1168 (46)
Shipping Weight Estimate: kg (lb)	500 (1100)	700 (1500)	900 (2000)	1200 (2600)	1400 (3100)	1600 (3500)

### Optional Features (Consult price list for more information)

- Cold Water (CW) configuration
- High Rejection (HR) Membranes
- Fiberglass Reinforced Plastic (FRP) membrane element housings
- Clean In Place (CIP) System

# E-Series M

## Medium Reverse Osmosis Machines, 600 to 2700 liters per hour



Figure 1: E4 M CE Series

When you mention reverse osmosis (RO), GE Water & Process Technologies is the first name to come to mind. Our E-series RO machines (Figure 1) are designed for durable operation, high quality product water production, easy installation and straightforward control.

### General Properties

#### Typical Applications

- Process ingredient water
- Safe drinking water
- Boiler feed water
- Ion exchange pre-treatment

#### Standard Features

- Automatic inlet shut-off valve
- Permeate and Concentrate flow meters
- Pre/post-filter, and primary pressure gauges
- Inlet low pressure switch
- Digital conductivity meter with temperature sensor
- Flow control center including concentrate and recycle valves
- Microprocessor control panel with one potential free contact for remote alarm, dosing pump or level control for permeate tank

#### Optional Features

- Clean in Place (CIP) system installed on a polypropylene frame suitable for retrofit.

Table 1: Operating Parameters

Average Operating Pressure	7-15 bars
Maximum Recovery	75%
Nominal Rejection	90-95%
Operating Temperature	5-35 °C
Inlet Pressure	3-6 bars
Design Temperature*	15 °C

\* Varying the operating temperature will affect machine productivity

Table 2: Materials of Construction

Frame	Polypropylene frame (E4) Powder coated steel (E4H)
Membrane Elements	Desal* AK4040TM
Membrane Housing	Fiberglass Reinforced Plastic
Piping	PN 16
Cartridge Filter	Hytrex*, 5 micron

Find a contact near you by visiting [www.ge.com/water](http://www.ge.com/water) and clicking on "Contact Us".

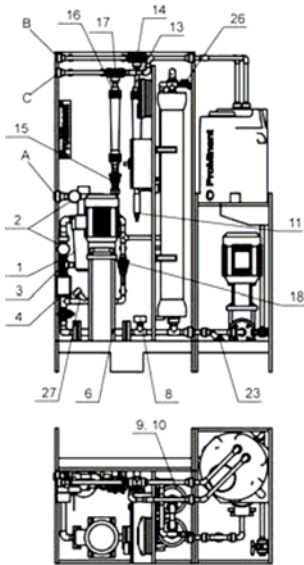
\* Trademark of General Electric Company; may be registered in one or more countries.

©2010, General Electric Company. All rights reserved.

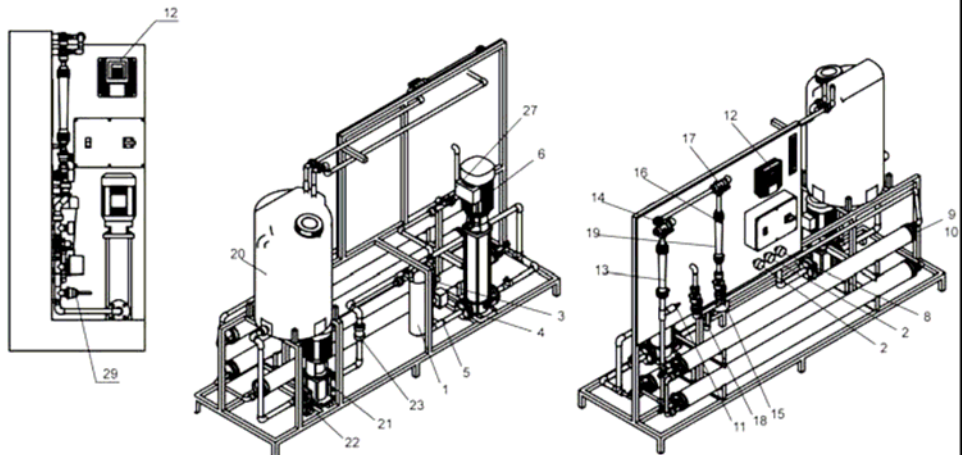


**Table 3: E4H Specifications - 50 Hz**

Model	E4-CE-600	E4-CE-900	E4-CE-1500	E4H-CE-1800	E4H-CE-2400	E4H-CE-2700
Base System	3020807	3020808	3020809	3020840	3020841	3020842
Including CIP	3021387	3021388	3020843	3020844	3020845	3020846
<b>Flow Specifications</b>						
Recovery	75%	75%	75%	75%	75%	75%
Permeate Rate l/h	600	900	1500	1800	2400	2700
Concentrate Rate l/h	200	300	500	600	800	900
<b>Pump and Power</b>						
Power Supply	3/400 VAC/50 Hz, Neutral Connection Required					
Power Consumption	1.5 kW	1.5 kW	2.2 kW	2.2 kW	2.2 kW	2.2 kW
Pump Manufacturer	KSB	KSB	KSB	KSB	KSB	KSB
Pump model	Movitec VF2-13	Movitec VF2-15	Movitec VF2-16	Movitec VF4-13	Movitec VF4-15	Movitec VF4-15
<b>Membrane Elements and Filters</b>						
Quantity	2	3	5	6	8	9
Array	1-1	1-1-1	1-1-1-1-1	1-1-1	2-1-1	2-1
Housing Configuration	Vertical	Vertical	Vertical	Horizontal	Horizontal	Horizontal
Pre-Filter Model	GX05-9 ¾	GX05-9 ¾	GX05-9 ¾	GX05-20	GX05-20	GX05-20
Pre-Filter Quantity	1	1	1	1	1	1
<b>Connections</b>						
Inlet	DN 15	DN 15	DN 20	DN 20	DN 25	DN 25
Permeate	DN 15	DN 15	DN 15	DN 15	DN 20	DN 20
Concentrate	DN 15	DN 15	DN 15	DN 15	DN 20	DN 20
<b>Dimensions &amp; Weights</b>						
H*W*D mm (w/o CIP)	1650*720*700	1650*720*700	1650*720*700	1800*2600*750	1800*2600*750	1800*3500*750
H*W*D mm (with CIP)	1650*1120*700	1650*1120*700	1650*1120*700	1800*2600*750	1800*2600*750	1800*3500*750
Average Shipping Weight kg	210 +30 (CIP)	240 +30 (CIP)	315 +30 (CIP)	470 +30 (CIP)	485 +30 (CIP)	710 +30 (CIP)



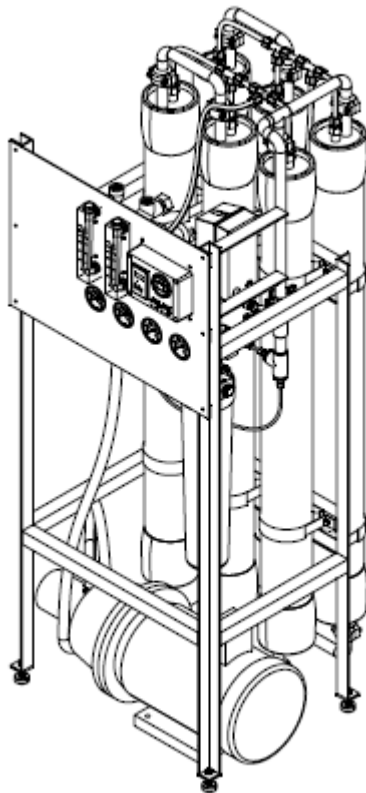
**Figure 2: E4 M CE Series, range 600 to 1500**



**Figure 3: E4H M CE Series, range 1800 to 2700**

# E-Series Ultra

## High Brackish E-Series 50 Hz Reverse Osmosis Machine 1.14 m<sup>3</sup>/hr (27 m<sup>3</sup>/day or 5 gpm)



**Figure 1: E-Series Ultra\***

High Brackish water RO capable of handling TDS from 3,500-35,000 ppm. When you mention reverse osmosis (RO), GE Water & Process Technologies is the first name to come to mind. Designed for operation, high quality product water production, easy installation and straightforward control.

\*P&IDs and General Arrangement drawings available upon request.

### General Properties

#### Typical Applications

- Process ingredient water
- Rinse water
- Food ingredient water
- Safe drinking water
- Boiler feed water
- Ion exchange pre-treatment

#### Features

- 1-micron pre-filter
- Automatic inlet shut-off valve
- Permeate and Concentrate flow meters
- Remote machine on/off capability
- Pre-filter, post-filter, primary, and final pressure gauges
- Autoflush system
- Low inlet pressure switch
- Digital conductivity meter with programmable relay
- Alarms: Low Inlet Pressure, Motor Starter overload

**Table 1: Operating Parameters**

Max Operating Pressure	80 bar (1160 psig)
Max Recommended Recovery	35-45%
Nominal Rejection	99.6%
Max Operating Temp	30 °C (86 °F)
Min Recommend Inlet Pressure	2 bar (30 psig)
Design Temperature	20 °C (68 °F)



Find a contact near you by  
visiting [gewater.com](http://gewater.com) or  
e-mailing [custhelp@ge.com](mailto:custhelp@ge.com).

**Global Headquarters**  
Trevose, PA  
+1-215-355-3300

**Americas**  
Watertown, MA  
+1-617-926-2500

**Europe/Middle East/Africa**  
Heverlee, Belgium  
+32-16-40-20-00

**Asia/Pacific**  
Shanghai, China  
+86 (0) 411-8366-6489

©2006, General Electric Company. All rights reserved.

\*Trademark of General Electric Company; may be registered in one or more countries.

**Table 2: Materials of Construction**

Frame	Painted Carbon Steel
Membrane Elements	AD4040FM (4" diameter)
Membrane Housing	FRP (BEL)
Inlet Plumbing	Schedule 80 PVC
High Pressure Plumbing	Reinforced rubber hose
Permeate/Concentrate Tubing	Polyethylene, NSF approved
Control Enclosure	NEMA 1
Motor Starters	NEMA 4X
Cartridge Filter	RO,Save, 1 micron, 20-inch

**Table 3: Pump and Motor**

Pump Manufacturer	Danfoss
Pump Type	Positive displacement
Materials	Duplex 2205 SST shell/housing,
Castings	Duplex 2205 SST
Motor	3-phase, TEFC, 380VAC/50Hz 7.5 Hp

**Table 4: E-Series Ultra Specifications - 50 Hz**

Specifications	Ultra 6
E-Series Ultra	2340000UA
Recovery Range:	45%
Permeate Rate: m <sup>3</sup> /h (gpm)	1.14 (5)
Concentrate Rate: m <sup>3</sup> /h (gpm)	1.39 (6.1)
Pump Model	APP2.5
Motor: KW (HP)	5.6 (7.5)
Quantity	6
Array	2-2-2
Inlet: cm (inch)	1.9 (0.75)
Permeate: cm (inch)	1.9 (0.75)
Concentrate: cm (inch)	1.9 (0.75)
Height: cm (inch)	152 (60)
Width: cm (inch)	76 (30)
Depth: cm (inch)	66 (26)
Shipping Weight Estimate: kg (lb)	147 (325)

# PRO AP Series 50 Hz

## Reverse Osmosis Machines from 11 to 102 m<sup>3</sup>/hr



### Features

- GE Fanuc Quick Panel 6-inch
- Primarily text operating screens
- Touchscreen controls
- GE Fanuc Micro VersaMax
- Communication: RS232/DH485
- 4-20 mA instrument display on instrument center
- Skid mounted motor starter (Wye-Delta)

### Materials of Construction

High-pressure piping	304 SS, Sch. 10
Low-pressure piping	PVC, Sch. 80
Frame	Painted blue carbon steel
Enclosure	NEMA 12 (painted blue)

### Instrumentation

Flow Meters	Permeate, concentrate
Conductivity	Permeate
pH	Feed
Pressure	Pre-filter, post-filter, primary, final, permeate, concentrate, pump discharge
Pressure Switch	Feed, permeate, concentrate
ORP	Feed
Instrument Center	Thornton 770 MAX

### Options Available

- High Rejection Membrane Elements
- Low Energy Membrane Elements
- PRO Multi-Media filters
- PRO Clean-in-Place units
- PRO chemical feed systems
- Transfer pumps and storage tanks
- Allen Bradley or Siemens control package

### Documentation Included

- Operation and maintenance manual
- Drawings: piping and instrumentation, electrical and general dimension

### Operating Parameters

Design Recovery <sup>1</sup>	75%
Design temp.	16°C
Operating range	1.6 to 29.4°C
Nominal rejection	97-99%
Design inlet pressure	2-4 bar

<sup>1</sup> Recovery Rate can vary +/- 5%

a product of  
**ecomagination**<sup>SM</sup>



Find a contact near you by visiting [www.ge.com/water](http://www.ge.com/water) and clicking on "Contact Us".

\* Trademark of General Electric Company; may be registered in one or more countries.

©2008, General Electric Company. All rights reserved.

## Membrane Elements and Housings

Membrane Model	OSMO PRO 365
Style	Spiral-wound elements
Manufacturer	GE
Membrane type	TFC (Polyamide)
Average membrane flux	28-29 l/mh (16-18 gfd)
Membrane rejection	99.0-99.6%
Manufacturer	GE
Housing material	FRP

## Cartridge Filtration

Housing model	7 Rounds, 102cm (40")
Housing material	316 SS
Cartridge filter	1-micron nominal, ROsave.Z*s

## GE Water & Process Technologies PRO-AP Models

MODEL	PRO-11-AP-50	PRO-23-AP-50	PRO-34-AP-50	PRO-45-AP-50	PRO-68-AP-50	PRO-102-AP-50
Permeate rate: <sup>1</sup>	11 m <sup>3</sup> /hr	23 m <sup>3</sup> /hr	34 m <sup>3</sup> /hr	45 m <sup>3</sup> /hr	68 m <sup>3</sup> /hr	102 m <sup>3</sup> /hr
Concentrate Rate:	3.7 m <sup>3</sup> /hr	7.5 m <sup>3</sup> /hr	11.4 m <sup>3</sup> /hr	15.2 m <sup>3</sup> /hr	23 m <sup>3</sup> /hr	34 m <sup>3</sup> /hr
Feed Rate:	14.7 m <sup>3</sup> /hr	30.5 m <sup>3</sup> /hr	45.4 m <sup>3</sup> /hr	60.2 m <sup>3</sup> /hr	91 m <sup>3</sup> /hr	136 m <sup>3</sup> /hr
<b>Pumps and Motors</b>						
Manufacturer:	Grundfos	Grundfos	Grundfos	Grundfos	Grundfos	Grundfos
Model	CRN 15-17 A-FGJ-G-E-HQQE	CRN 32-13-2 A-G-G-E-HQQE	CRN 45-9 A-G-G-E-HQQE	CRN 64-8-1 A-G-G-E-HQQE	CRN 45-9 A-G-G-E-HQQE	CRN 64-8-1 A-G-G-E-HQQE
Quantity:	1	1	1	1	2	2
Motor HP and type:	15 kW TEFC	30 kW TEFC	37 kW TEFC	45 kW TEFC	37 kW TEFC	45 kW TEFC
Design Flow Rate:	18.6 m <sup>3</sup> /hr	33.2 m <sup>3</sup> /hr	46.5 m <sup>3</sup> /hr	64.6 m <sup>3</sup> /hr	91.0 m <sup>3</sup> /hr	136.0 m <sup>3</sup> /hr
Design boost pressure:	18.0 bar	18.0 bar	18.0 bar	18.0 bar	18.0 bar	18.0 bar
<b>Membrane Elements and Housings</b>						
Membranes quantity:	12	24	36	48	72	108
Memb. housing style:	4 element long, 4 port	4 element long, 4 port	6 element long, 4 port	4 element long, 4 port	6 element long, 4 port	6 element long, 4 port
Banking Arrangement:	1→1→1	3→2→1	3→2→1	6→4→2	6→4→2	9→6→3
<b>Cartridge Filtration</b>						
Cartridge Filter:	ROZs01-40XK	ROZs01-40XK	ROZs01-40XK	ROZs01-40XK	ROZs01-40XK	ROZs01-40XK
Filter Length:	102 cm (40")	102 cm (40")	102 cm (40")	102 cm (40")	102 cm (40")	102 cm (40")
Filter Quantity:	7 per housing 7/change out	7 per housing 7/change out	7 per housing 14/change out	7 per housing 14/change out	7 per housing 21/change out	7 per housing 28/change out
<b>Installation and Utility Requirements</b>						
Inlet:	ANSI 2" flange	ANSI 3" flange	ANSI 3" flange	ANSI 4" flange	ANSI 4" flange	ANSI 6" flange
Permeate:	ANSI 2" flange	ANSI 3" flange	ANSI 3" flange	ANSI 3" flange	ANSI 4" flange	ANSI 4" flange
Concentrate:	ANSI 1.5" flange	ANSI 1.5" flange	ANSI 1.5" flange	ANSI 2" flange	ANSI 2" flange	ANSI 3" flange
Inlet Water Pressure:	2.1 bar min.	2.1 bar min.	2.1 bar min.	2.1 bar min.	2.1 bar min.	2.1 bar min.
Air Pressure:	6.9 bar, oil-free	6.9 bar, oil-free	6.2 bar, oil-free	6.2 bar, oil-free	6.9 bar, oil-free	6.9 bar, oil-free
Drain to be Sized for:	14.7 m <sup>3</sup> /hr	30.5 m <sup>3</sup> /hr	45.4 m <sup>3</sup> /hr	60.2 m <sup>3</sup> /hr	91.0 m <sup>3</sup> /hr	136.0 m <sup>3</sup> /hr
Power:	380 VAC, 3-phase, 50Hz	380 VAC, 3-phase, 50Hz	380 VAC, 3-phase, 50Hz	380 VAC, 3-phase, 50Hz	380 VAC, 3-phase, 50Hz	380 VAC, 3-phase, 50Hz
Control Circuit:	220 VAC, 1-phase, 50Hz	220 VAC, 1-phase, 50Hz	220 VAC, 1-phase, 50Hz	220 VAC, 1-phase, 50Hz	220 VAC, 1-phase, 50Hz	220 VAC, 1-phase, 50Hz
<b>Skid</b>						
Approx. Height:	2010 mm	2216 mm	2075 mm	2075 mm	2126 mm	2551 mm
Approx. Width:	1168 mm	1168 mm	1230 mm	2032 mm	2235 mm	2235 mm
Approx. Depth:	4928 mm	4928 mm	6955 mm	4928 mm	6960 mm	7000 mm
Approx. Shipping Weight:	1542 kg	2040 kg	2720 kg	3175 kg	4305 kg	6350 kg

<sup>1</sup> Maximum permeate rate listed at design temperature. Permeate rate can be reduced by up to 15%



# SeaPRO Series 50 Hz

Seawater Desalination Machines 35,000 ppm NaCl  
100-300 m<sup>3</sup>/day (20-60 gpm)

## Basic Features (BAS)

- GE Fanuc Quick Panel 6", 6-inch color display, Primarily text operating screens, Touchscreen controls
- GE Fanuc Micro VersaMax, Communication: RS232/DH485, Analog output: 6 points
- 4-20 mA instruments displayed on instrument center
- Variable frequency drive (VFD) for high pressure pump
- Stand alone master control enclosure, skid mounted local control enclosure with terminal strips

## Premium Features (PRE)

- GE Fanuc QuickPanel 12" , 12-inch color display, Text and pictorial operating screens, Touchscreen controls
- GE Fanuc VersaMax, Communication: RS232/DH485/Ethernet, Analog output: 4 points
- 4-20 mA instruments on PanelView
- Primary and final pressure transmitters
- Variable frequency drive (VFD) for high pressure pump
- Automated valves and control for full permeate flush upon shut down
- Stand alone master control enclosure, skid mounted local control enclosure with remote I/O

## Instrumentation

Flow Meters..... Permeate, concentrate  
Conductivity..... Permeate  
pH.....Feed



## Instrumentation (continued)

Pressure ..... Pre-filter, post-filter, primary, final, permeate concentrate, pump discharge (PRE Feature = Primary, Final transmitter)  
Pressure Switch ..... Feed, permeate, concentrate  
Instrument center..... Thornton 770 MAX

## Options Available

- Allen Bradley control system
- Multi-Media filters
- Clean-in-Place (CIP) units
- Chemical feed systems

## Documentation Included

- Operation and maintenance manual
- Control narrative
- Drawings: piping and instrumentation, electrical and general dimensional

## Operating Parameters

Recovery ..... 40 - 45%  
Design temp..... 25°C (77°F)  
Design Feed TDS..... 35,000 ppm NaCl  
Operating range..... 2 to 30°C (35 to 85°F)  
Minimal inlet pressure ..... 2 Bar (30 psi)

a product of  
**ecomagination**<sup>SM</sup>



Find a contact near you by visiting [www.ge.com/water](http://www.ge.com/water) and clicking on "Contact Us".  
\* Trademark of General Electric Company; may be registered in one or more countries.  
©2009, General Electric Company. All rights reserved.

## Materials of Construction

High-pressure piping.....Sch. 10, Duplex 2205  
 Low-pressure piping.....Sch. 80, PVC  
 Frame.....Painted carbon steel  
 Local Enclosure.....FRP, NEMA 4X  
 Main Enclosure.....Painted carbon steel, NEMA 4  
 VFD Enclosure.....Painted carbon steel, NEMA 4  
 Clamps/fittings.....Zinc-plated

## Membrane Elements and Housings

Style.....Spiral-wound elements  
 Membrane type.....TFC HR (Polyamide)  
 Element Area.....37.2 m<sup>2</sup>  
 Average membrane flux.....13.5-17 l/mh  
 Housing material.....FRP, 80 Bar (1200 psi)  
 Housing closure type.....Ring and plate style closure

## Cartridge Filtration

Housing material.....GRP (glass reinforced plastic)  
 Cartridge filter.....5-micron nominal, ROsave.Z\*s

## SeaPRO Models

MODEL	SeaPRO-8	SeaPRO-16	SeaPRO-28
Permeate rate:	100 m <sup>3</sup> /day (18.3 gpm)	200 m <sup>3</sup> /day (36.7 gpm)	300 m <sup>3</sup> /day (55.0 gpm)
Concentrate Rate:	150 m <sup>3</sup> /day (27.5 gpm)	244 m <sup>3</sup> /day (44.8 gpm)	367 m <sup>3</sup> /day (67.3 gpm)
Feed Rate:	250 m <sup>3</sup> /day (45.8 gpm)	444 m <sup>3</sup> /day (81.5 gpm)	667 m <sup>3</sup> /day (122.3 gpm)
<b>Pumps and Motors</b>			
Model:	MSS 1547	MSS 2026	MSS 3024
Manufacturer:	Osmonics/FEDCO™	Osmonics/FEDCO™	Osmonics/FEDCO™
Quantity:	1	1	1
Motor HP and type:	29.9 kW (40 Hp) TEFC	37.3 kW (50 Hp) TEFC	74.6 kW (100 Hp) TEFC
Design Flow Rate:	10.5 m <sup>3</sup> /hr (46.28 gpm)	18.5 m <sup>3</sup> /hr (81.5 gpm)	28 m <sup>3</sup> /hr (123.3 gpm)
Design boost pressure:	45.9 Bar (665 psig)	46.2 Bar (670 psig)	45.5 Bar (660 psig)
<b>Energy Recovery Booster</b>			
Model:	HPB 20	HPB 20	HPB 30
Manufacturer:	Osmonics/FEDCO™	Osmonics/FEDCO™	Osmonics/FEDCO™
Quantity:	1	1	1
Design boost pressure:	17.9 Bar (260 psig)	18.6 Bar (255 psig)	18.6 Bar (270 psig)
<b>Membrane Elements and Housings</b>			
Membranes quantity:	8	16	28
Memb. housing style:	4 element long, 4 port	4 element long, 4 port	4 element long, 4 port
Banking Arrangement:	1→1	2→2	4→3
<b>Cartridge Filtration</b>			
Cartridge Filter:	ROZs05-40XK	ROZs05-40XK	ROZs05-40XK
Filter Length:	40" (102 cm)	40" (102 cm)	40" (102 cm)
Filter Quantity:	6 per change out	10 per change out	22 per change out
<b>Installation and Utility Requirements</b>			
Inlet:	1.5" flange	2.0" flange	3.0" flange
Permeate:	1.0" flange	1.5" flange	2.0" flange
Concentrate:	1.5" flange	1.5" flange	2.0" flange
Inlet Water Pressure:	2 Bar, minimum	2 Bar, minimum	2 Bar, minimum
Air Pressure:	7 Bar, oil-free	7 Bar, oil-free	7 Bar, oil-free
Drain to be Sized for:	250 m <sup>3</sup> /day (45.9 gpm)	444 m <sup>3</sup> /day (81.5 gpm)	667 m <sup>3</sup> /day (122.3 gpm)
Power:	220/380 VAC, 3-phase, 50Hz	220/380 VAC, 3-phase, 50Hz	220/380 VAC, 3-phase, 50Hz
Control Circuit:	220 VAC, 1-phase, 50Hz	220 VAC, 1-phase, 50Hz	220 VAC, 1-phase, 50Hz
<b>SeaPRO Skid</b>			
Height:	224 cm (88")	224 cm (88")	224 cm (88")
Width:	132 cm (52")	132 cm (52")	132 cm (52")
Depth:	506 cm (199")	506 cm (199")	506 cm (199")
Weight Estimate for Shipping Purposes:	1542 kg (3400 lb)	1814 kg (4000 lb)	2041 kg (4500 lb)

