

# SeaPRO\* series 50 Hz

seawater desalination machines 35,000 ppm NaCl  
100-300 m<sup>3</sup>/day (20-60 gpm)

## features

- 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  
 Pressure..... Pre-filter, post-filter,  
 Primary, final, permeate concentrate,  
 pump discharge  
 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)

## 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

## cartridge filtration

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

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

\*Trademark of SUEZ; may be registered in one or more countries.

©2017 SUEZ. All rights reserved.

## membrane elements and housings

Style..... Spiral-wound elements  
 Membrane type..... AD-400  
 Element Area .....37.2 m<sup>2</sup>

Average membrane flux..... 13.5-17 lmh  
 Housing material..... FRP, 80 Bar (1200 psi)  
 Housing closure type ..... Ring and plate style closure

## 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)
Pumps and Motors			
Model:	MSS 1547	MSS 2026	MSS 3024
Manufacturer:	SUEZ/FEDCO	SUEZ/FEDCO	SUEZ/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)
Energy Recovery Booster			
Model:	HPB 20	HPB 20	HPB 30
Manufacturer:	SUEZ/FEDCO	SUEZ/FEDCO	SUEZ/FEDCO
Quantity:	1	1	1
Design boost pressure:	17.9 Bar (260 psig)	18.6 Bar (255 psig)	18.6 Bar (270 psig)
Membrane Elements and Housings			
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
Cartridge Filtration			
Cartridge Filter:	RO.Zs05-40XK	RO.Zs05-40XK	RO.Zs05-40XK
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
Installation and Utility Requirements			
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
SeaPRO Skid			
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)



SeaPRO-8



SeaPRO-16



SeaPRO-28

