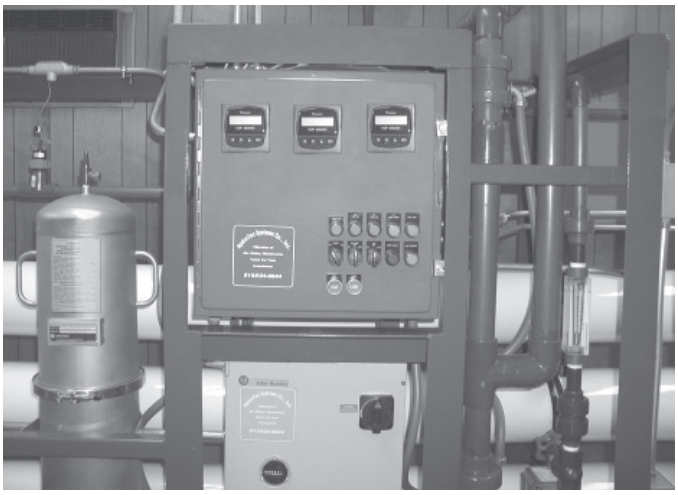
COMMERCIAL RO SYSTEMS

SEAWATER DESALINATION SYSTEMS
(NOMINAL 35,000 TDS DESIGN)

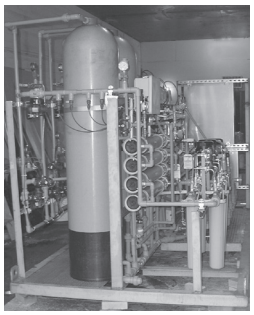
Standard Features

- Energy efficient, high flow membranes
- 5 micron sediment pre-filter
- Allen-Bradley programmable controller
- Liquid level float with auto shut-off
- Auto-flush system
- Pre- and post-filter, feed, concentrate, and product water pressure gauges
- Visual inline flow meters
- Low pressure feed water switch
- Victaulic style 304 stainless steel housing connections
- Low pressure alarm capable
- Motor starter with safety disconnect



Optional Features

- 2 m³d field portable system with gas or diesel powered generator
- Digital permeate TDS meter
- Automatic antiscalant dosing system
- Automatic or manual pH control dosing system
- Ethernet communication upgrade for the controller
- Digital permeate and concentrate flow meters with low level alarms
- Digital supply and concentrate pressure gauges with high level alarms
- Clean-in-place membrane maintenance station
- System shutdown during permeate flush
- Stainless steel wetted parts for liquid end of pump
- Step-down transformer from 3 phase to single phase
- Available in all international voltages



Operating Parameters

Operating Pressure	1000 psi
Min. Supply Pressure	15 psi
Max. Temperature	113°F (45°C)
Nominal TDS	35,000 ppm
Max. Inlet Free Chlorine	< 0.1 ppm

Specifications

Membrane Housings	High pressure, fiberglass reinforced plastic membrane housings
Frame	Structural fiberglass and aluminum
Controller Power Requirements	120V/60Hz/1Ph
Motor Power Requirements	230–460V/60Hz/3Ph
Pumps	Neutating disc design with positive displacement, brass pump head, Buna diaphragm, and stainless steel valve and seat

SAFE WATER TECHNOLOGIES, INC.
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MEMBER Water Quality ASSOCIATION

FORM 1289
EFFECTIVE
JULY 2003

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	HTS-2-SEA	HTS-4-SEA	HTS-8-SEA	HTS-12-SEA	HTS-20-SEA	HTS-28-SEA	HTS-38-SEA	HTS-57-SEA	HTS-82-SEA
Actual Permeate (m^3d / gpd)	0.38 / 100	1.13 / 300	1.9 / 500	3.8 / 1000	11.4 / 3000	29 / 7600	38 / 10,000	57 / 15,000	76 / 20,000
Nominal Size (m^3d / gpd)	1.9 / 500	1.9 / 500	1.9 / 500	4.5 / 1200	13.6 / 3600	36.3 / 9600	54.5 / 14,400	82 / 21,600	114 / 30,000
Recovery	50 - 75%	50 - 75%	50 - 75%	50 - 75%	50 - 75%	50 - 75%	50 - 75%	50 - 75%	50 - 75%
Concentration Rate (gpm)	0.07	0.14	0.21	3.10	3.10	6.50	6.90	9.60	12.80
Recycle Rate (gpm)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.7
Supply Rate (gpm)	1.7	1.7	1.7	3.8	5.1	11.7	13.9	20.0	26.7
RO Pump Design Flow (gpm)	1.7	1.7	1.7	3.8	5.1	11.7	13.9	20.0	36.4
RO Pump Design Pressure (psi)	450.0	679.0	807.0	950.0	1050.0	1050.0	1050.0	1050.0	1050.0
RO Motor HP (60 Hz)	2.0	2.0	5.0	5.0	5.0	10.0	15.0	20.0	25.0
RO Motor kWh @ Flow	0.58	0.88	1.04	2.75	4.08	9.35	11.11	20.00	24.80
CIP Pump Design Flow (gpm)	10	10	10	10	20	20	20	30	30
CIP Pump Design Pressure (psi)	60	60	60	60	60	60	60	60	60
CIP Motor HP (60 Hz)	1	1	1	1	2	2	2	3	3
CIP Motor kWh @ Flow	0.91	0.91	0.91	0.91	1.83	1.83	1.83	2.74	2.74
Chemical Pretreatment	Optional	Optional	Optional	Optional	Required	Required	Required	Required	Required
Membrane Elements									
Diameter (in / cm)	4 / 10.16	4 / 10.16	4 / 10.16	4 / 10.16	4 / 10.16	4 / 10.16	4 / 10.16	8 / 20.32	8 / 20.32
Number	1	1	1	2	3	8	12	18	6
Array (Pressure Vessels)	1-0	1-0	1-0	1-1	3-0	2*4	2*6	3*6	6-0
Connections NPS & DN									
Inlet (in / mm)	1/2 - 15	1/2 - 15	1/2 - 15	1/2 - 15	3/4 - 20	3/4 - 20	1 - 25	1 - 25	1 - 25
Permeate (in / mm)	1/2 - 15	1/2 - 15	1/2 - 15	1/2 - 15	1/2 - 15	1/2 - 15	3/4 - 20	1 - 25	1 - 25
Concentration (in / mm)	1/2 - 15	1/2 - 15	1/2 - 15	1/2 - 15	1/2 - 15	1/2 - 15	1/2 - 15	3/4 - 20	3/4 - 20
Estimated Footprint									
Height (in / cm)	30 / 76	30 / 76	30 / 76	30 / 76	36 / 91	36 / 91	60 / 152	60 / 152	60 / 152
Width (in / cm)	48 / 122	48 / 122	48 / 122	48 / 122	48 / 122	166 / 422	246 / 625	246 / 625	246 / 625
Depth (in / cm)	24 / 61	24 / 61	24 / 61	24 / 61	24 / 61	24 / 61	30 / 76	30 / 76	30 / 76
Estimated Weight									
Shipping (lb / kg)	245 / 111.2	245 / 111.2	245 / 111.2	270 / 122.5	305 / 138.3	405 / 184	445 / 202	525 / 239	730 / 330
Installed (lb / kg)	204 / 92.5	204 / 92.5	239 / 108.4	239 / 108.4	297 / 134.7	321 / 145.6	455 / 206.4	526 / 238.6	601 /272.6

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