

T3 – SERIES REVERSE OSMOSIS SYSTEMS

AXEON® T3 –Series Reverse Osmosis Systems are designed and manufactured for seawater applications requiring capacities of 3,000 to 7,000 gallons per day.

AXEON T3 –Series Reverse Osmosis Systems are equipped with premium components, which include a 316L plunger-type pump for high performance and corrosion resistance, a high grade corrosion resistant aluminum frame, a programmable computer controller with many built-in features and fiberglass membrane housings for durability.



T3 – 6140
Reverse Osmosis System

FEATURES

- S-150 Computer Controller
 - LCD Backlit Display
 - Pre-Treatment Lockout
 - Tank Level Input
 - Low and High Pressure Monitoring and Alarm
 - Permeate TDS Monitoring
 - Hour Meter
 - Feed Flush
- High Rejection Sea Water Membranes
- AXEON 5-Micron Filter Bag
- AXEON FRP-Series Membrane Housings (1,000 psi)
- Pentair® Single O-Ring Cartridge Housing
- Permeate and Concentrate Flow Meters
- GF® Motorized Valve PVC
- 0-100 psi Pre-Filter Out Pressure Gauge
- 0-1500 psi 316L-SS Concentrate Pressure Gauge
- AXEON 316L Stainless Steel Needle Valve
- SS Feed Low Pressure Switch
- SS Pump High Pressure Switch
- Pressure Relief Valve
- Pressure Regulator
- CAT® 316L High Pressure Pump
- TEFC Motor with Thermal Motor Protection
- White Powder Coated Aluminum Frame
- High Pressure 316L Stainless Steel Tubing and Fittings
- High Pressure Hose with Reusable SS Fittings

SPECIFICATIONS

MODELS	T3 – 4140	T3 – 5140	T3 – 6140
Design			
Configuration	Single Pass	Single Pass	Single Pass
Feedwater Source ^A	< 45,000 ppm	< 45,000 ppm	< 45,000 ppm
System Recovery with Recycle %	27-48	27-48	27-48
Rejection and Flow Rates^B			
Nominal Salt Rejection %	99.4	99.4	99.4
Permeate Flow Rate (gpm / lpm)	2.70 / 10.22	3.47 / 13.13	4.80 / 18.17
Minimum Concentrate Flow Rate (gpm / lpm)	4.00 / 15.00	4.00 / 15.00	4.00 / 15.00
Connections			
Feed Connection (in)	1 FNPT	1 FNPT	1 FNPT
Permeate Connection (in)	1 FNPT	1 FNPT	1 FNPT
Concentrate Connection (in)	1 FNPT	1 FNPT	1 FNPT
Membranes			
Membrane Per Vessel	1	1	1
Membrane Quantity	4	5	6
Membrane Size	4040	4040	4040
Vessels			
Vessel Array	1:1:1:1	1:1:1:1:1	1:1:1:1:1:1
Vessel Quantity	4	5	6
Pumps			
Pump Type	Piston	Piston	Piston
Motor HP	7.5	7.5	7.5
RPM @ 60Hz	3600	3600	3600
System Electrical			
Controller	S – 150	S – 150	S – 150
High Voltage Service + Amp Draw	220V, 3PH, 60Hz, 20A ^C	220V, 3PH, 60Hz, 20A ^C	220V, 3PH, 60Hz, 20A ^C
System Dimensions			
Approximate Dimensions ^D L x W x H (in / cm)	60 x 26 x 48.5 / 152.4 x 66.0 x 123.2	60 x 26 x 48.5 / 152.4 x 66.0 x 123.2	60 x 26 x 48.5 / 152.4 x 66.0 x 123.2
Approximate Weight (lbs / kg)	270 / 122.47	300 / 136.08	330 / 149.68

Test Parameters: 35,000 TDS Filtered (5-Micron), Dechlorinated, Municipal Feedwater, 65 psi / 4.50 bar Feed Pressure, 950 psi / 65.5 bar Operating Pressure, 77°F / 25°C, Recovery as stated, 7.0 pH. Data taken after 60 minutes of operation.

- A. Low temperatures and feedwater quality, such as high TDS levels will significantly affect the systems production capabilities and performance. Computer projections must be run for individual applications which do not meet or exceed minimum and maximum operating limits for such conditions.
- B. Product flow and maximum recovery rates are based on feedwater conditions as stated above. Do not exceed recommended permeate flow.
- C. Varies with motor manufacturer.
- D. Does not include operating space requirements.

OPERATING LIMITS^E

Design Temperature (°F / °C)	77 / 25	Maximum Turbidity (NTU)	1
Maximum Feed Temperature (°F / °C)	85 / 29	Maximum Free Chlorine (ppm)	0
Minimum Feed Temperature (°F / °C)	40 / 4	Maximum TDS (ppm)	< 45,000
Maximum Ambient Temperature (°F / °C)	120 / 49	Maximum Hardness (gpg)	1
Minimum Ambient Temperature (°F / °C)	40 / 4	Maximum pH (continuous)	11
Maximum Feed Pressure (psi / bar)	65 / 4	Minimum pH (continuous)	2
Minimum Feed Pressure (psi / bar)	45 / 3	Maximum pH (cleaning 30 minutes)	13
Maximum Operating Pressure (psi / bar)	1,000 / 69	Minimum pH (cleaning 30 minutes)	1
Maximum Feed Silt Density Index (SDI)	< 3		

E. System pressure is variable due to water conditions. Permeate flow will increase at a higher temperature and will decrease at a lower temperature.

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