

S3-Series Reverse Osmosis Systems

S3-Series Reverse Osmosis Systems are engineered for high rejection rates.

S3-Series Reverse Osmosis Systems are designed and manufactured for seawater applications specifically tailored for capacities ranging from 600 – 2200 gallons per day.

The **S3-Series Reverse Osmosis Systems** feature a unique and

innovative compact design that allows for easy installation

in any size area. The high grade corrosion resistant aluminum frame features a modular 2-in-1 design that allows for the system to be divided in to multiple assemblies for easier mounting. The **S3-Series** is also equipped with premium components which include a 316L SS plunger-type pump for high performance and corrosion resistance, a programmable computer controller with many built-in features, fiberglass membrane housings for durability and FilmTec™ seawater membranes for high quality product water.



**S3-4125
Reverse Osmosis System**

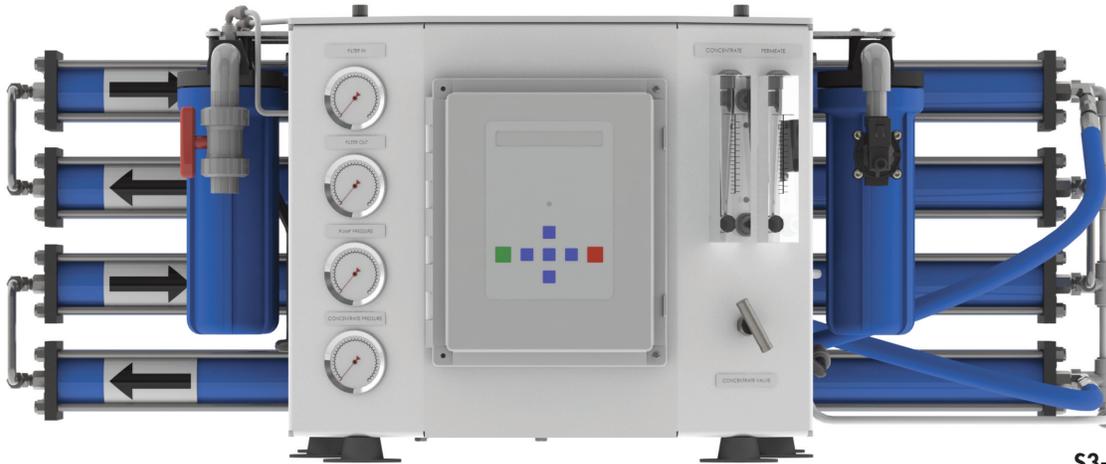
Benefits

- Fully Equipped and Customizable
- High Quality Components
- Compact 2-in-1 Design
- Individually Tested and Preserved
- Low Operation and Maintenance Costs
- Easy Maintenance and Servicing
- Pre-Plumbed, Wired and Assembled
- CE Compliant†
- 1-Year Limited Warranty
- Made in the U.S.A.

Engineered Membrane Solutions

AXEON S3-Series Reverse Osmosis Systems

Standard Features



S3-4125
Reverse Osmosis System

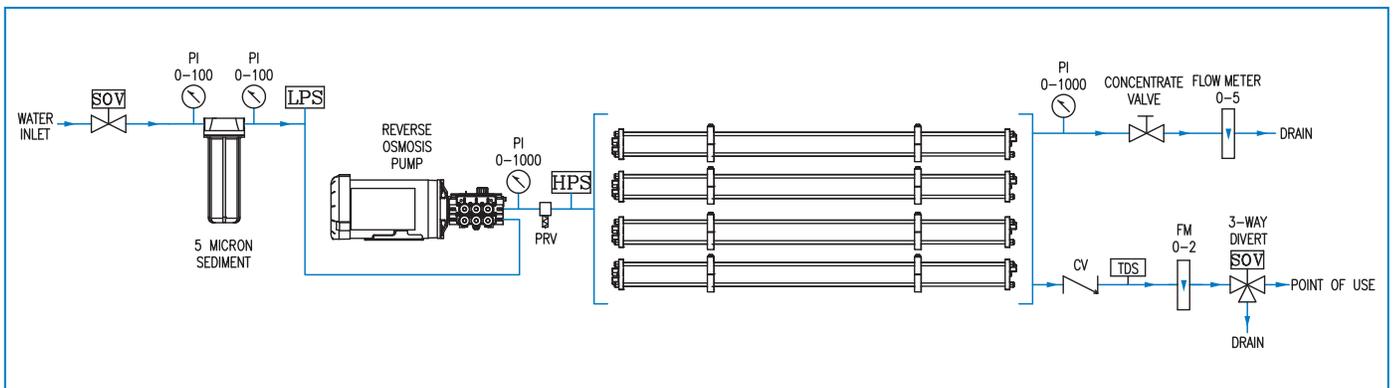
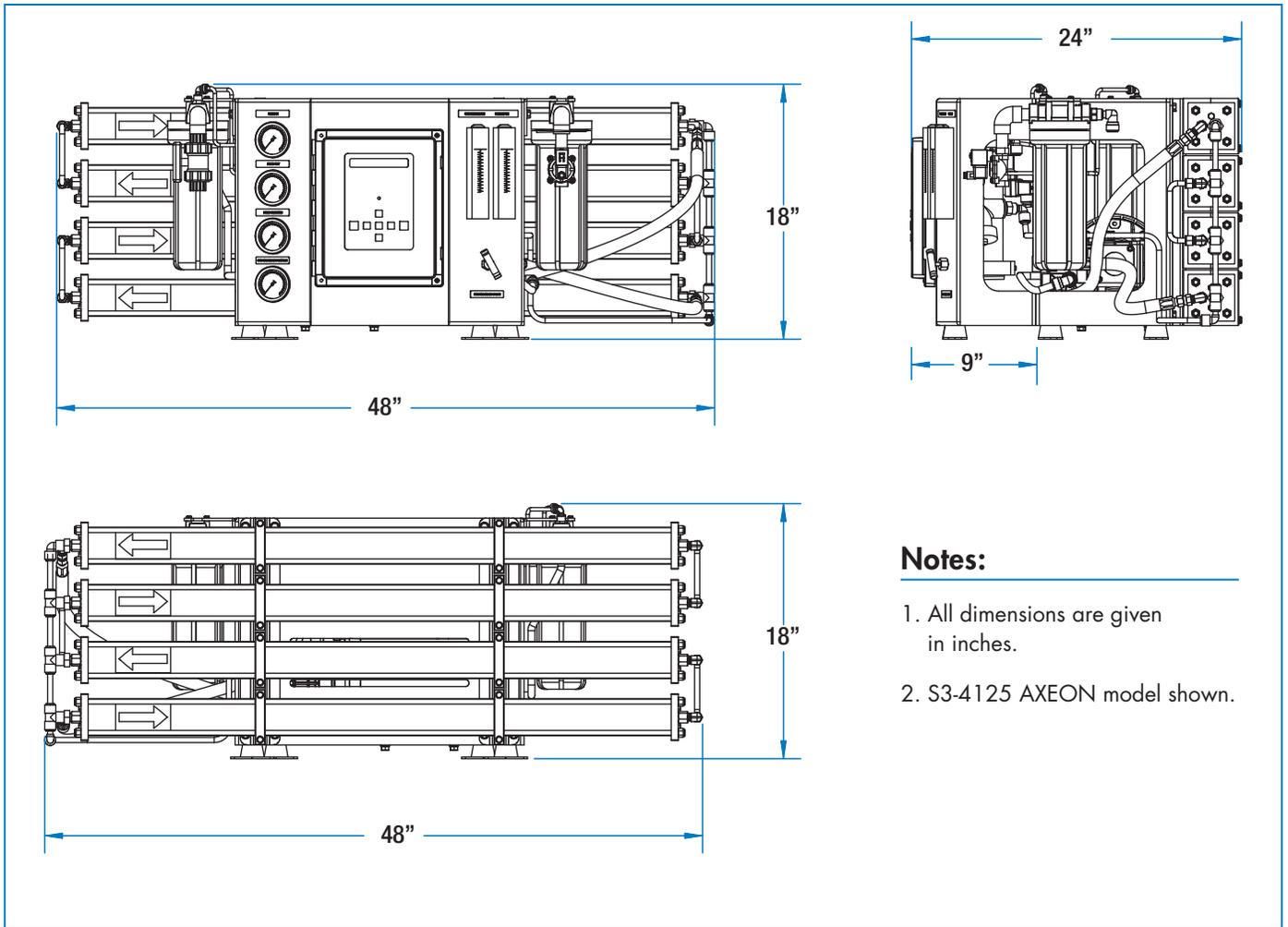
- S150 Computer Controller
 - ◆ LCD Backlit Display
 - ◆ Tank Level Input
 - ◆ Low Pressure Monitoring and Alarm
 - ◆ High Pressure Monitoring and Alarm
 - ◆ TDS Monitoring
- KING® Permeate Flow Meter
- KING Concentrate Flow Meter
- AXEON Pre-Filter 0-100 psi Panel Mounted 316 Stainless Steel Glycerin Filled Gauges
- AXEON Pump Discharge and Concentrate 0-1000 psi Stainless Steel Glycerin Filled Gauges
- AXEON 316 Stainless Steel Needle Valve
- 10 Micron and 5 Micron Pleated Sediment Pre-Filters
- Single O-Ring Heavy-Duty Filter Housing
- FilmTec® High Rejection Seawater Membranes
- High Pressure Filament-Wound FRP Membrane Housings – 1000 psi
- GP® 316 Stainless Steel Plunger-Type Pump
- TEFC Motor with Thermal Motor Protection
- Plast-O-Matic® PVC Flush Solenoid Valve
- SS Feed Low Pressure Switch
- SS High Pressure Pump Switch
- High Pressure 316 Stainless Steel Tubing and Fittings
- High Pressure Hose with Re-usable SS Fittings
- High Grade Powder Coated Aluminum Frame

Options and Upgrades

- Booster Pump
- Chemical Pump Switch
- Pressure Relief Valve †
- Wooden Crate

AXEON Naming Matrix

	S3	4	1	25
S-SERIES MODEL				
S3	Sea Water Model			
HOUSING QUANTITY DESIGNATION				
1	1 Vessel			
2	2 Vessel			
3	3 Vessel			
4	4 Vessel			
MEMBRANE QUANTITY PER HOUSING				
1	1 Membrane			
2.5 INCH MEMBRANE DIAMETER				



Array Specifications

Model	Vessel Array	Vessel Size	Vessel Quantity	Membrane Size	Membrane Quantity
S3-1125	1	2540	1	2540	1
S3-2125	1:1	2540	2	2540	2
S3-3125	1:1:1	2540	3	2540	3
S3-4125	1:1:1:1	2540	4	2540	4

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Specifications

Models	S3-1125	S3-2125	S3-3125	S3-4125
Design				
Configuration	Single Pass	Single Pass	Single Pass	Single Pass
Feed Water Source***	TDS<45,000 ppm	TDS<45,000 ppm	TDS<45,000 ppm	TDS<45,000 ppm
Standard Recovery Rate	15%	20%	25%	36%
Rejection and Flow Rates				
Nominal Salt Rejection %	99%	99%	99%	99%
Permeate Flow* gpm (lpm)	.41 (24,600)	.83 (49,800)	1.25 (75,000)	1.52 (91,200)
Minimum Feed Flow gpm (lpm)	4.2 (252,000)	4.2 (252,000)	4.2 (252,000)	4.2 (252,000)
Maximum Feed Flow gpm (lpm)	6 (360,000)	6 (360,000)	6 (360,000)	6 (360,000)
Connections				
Feed inch	½" FNPT	½" FNPT	½" FNPT	½" FNPT
Permeate inch	¾" TUBING	¾" TUBING	¾" TUBING	¾" TUBING
Concentrate inch	¾" TUBING	¾" TUBING	¾" TUBING	¾" TUBING
Membranes				
Membrane Per Vessel	1	1	1	1
Membrane Quantity	1	2	3	4
Membrane Size	2540	2540	2540	2540
Vessels				
Vessel Array	1	1:1	1:1:1	1:1:1:1
Vessel Quantity	1	2	3	4
Pumps				
Pump Type	PLUNGER	PLUNGER	PLUNGER	PLUNGER
Motor HP	2.5	2.5	2.5	2.5
RPM @ 60 (50 Hz)	1725 (1450)	1725 (1450)	1725 (1450)	1725 (1450)
Electrical				
Standard Voltage	220VAC 1PH	220VAC 1PH	220VAC 1PH	220VAC 1PH
Voltage Options	220VAC 3PH	220VAC 3PH	220VAC 3PH	220VAC 3PH
Voltage Amp Draw	11.5-12.5	11.5-12.5	11.5-12.5	11.5-12.5
Systems Dimensions **				
L x W x H inch (cm)	48" X 24" X 18.5"			
Weight lb. (kg)	145 (65.77)	155 (70.31)	165 (74.84)	175 (79.38)

* Product flow and recovery rates are based on equipment test parameters.

** Does not include operating space requirements.

*** Treatment ability of the RO system is dependent on feed water quality. Performance projections must be run for each installation.

Operating Limits

Maximum Feed Temperature °F (°C)	85 (29)	Maximum Free Chlorine ppm	0
Minimum Feed Temperature °F (°C)	40 (4.4)	Maximum TDS ppm	45,000
Maximum Ambient Temperature °F (°C)	120 (48.9)	Maximum Hardness gpg	0
Minimum Ambient Temperature °F (°C)	40 (4.4)	Maximum pH (Continuous)	11
Maximum Feed Pressure psi (bar)	85 (5.9)	Minimum pH (Continuous)	5
Minimum Feed Pressure psi (bar)	45 (3.1)	Maximum pH (Cleaning 30 Min.)	12
Maximum Operating Pressure psi (bar)	1000 (68.95)	Minimum pH (Cleaning 30 Min.)	2
Minimum SDI Rating SDI	<3	Maximum Turbidity NTU	1

Test Parameters: 35,000 TDS Filtered (5 Micron), De-Chlorinated, Feed Water, 65 psi (4.5 bar) Feed Pressure, 850 psi (58.61 bar) Operating Pressure, 77 Degrees F (25 Degrees C), Recovery as stated, 7.0 pH. Data taken after 60 minutes of operation.