

AXEON R1-SERIES SPEC SHEET

REVERSE OSMOSIS SYSTEM

Product Specifications										
Models	R1-1140	R1-2140	R1-3140	R1-4140	R1-5140	R1-6140	R1-8140	R1-10140	R1-12140	
Design										
Configuration	Single Pass	Single Pass	Single Pass	Single Pass	Single Pass	Single Pass	Single Pass	Single Pass	Single Pass	
Feed water TDS max (ppm) †	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	
Standard Recovery %	29	45	56	63	68	56	63	68	71	
Rejection and Flow Rates ††										
Permeate Flow Rate (gpd / lpd)	1,800 / 6,813	3,600 / 13,627	5,400 / 20,441	7,200 / 27,254	9,000 / 34,068	10,800 / 40,882	14,400 / 54,509	18,000 / 68,137	21,600 / 81,764	
Permeate Flow Rate (gpm / lpm)	1.25 / 4.73	2.50 / 9.46	3.75 / 14.19	5.00 / 18.93	6.25 / 23.66	7.50 / 28.39	10.00 / 37.85	12.50 / 47.32	15.00 / 56.78	
Minimum Concentrate Flow Rate (gpm / lpm)	3 / 11.35	2.50 / 9.46	3.75 / 14.19	5.00 / 18.93	6.25 / 23.66	7.50 / 28.39	10.00 / 37.85	12.50 / 47.32	15.00 / 56.78	
Concentrate Recycle Flow Rate (gpm / lpm)	Up to 5 / 18.93	Up to 5 / 18.93	Up to 5 / 18.93	Up to 5 / 18.93	Up to 5 / 18.93	Up to 5 / 18.93	Up to 5 / 18.93	Up to 5 / 18.93	Up to 5 / 18.93	
Connections										
Feed Connection (in)	1 FN PT	1 FN PT	1 FN PT	1 FN PT	1 FN PT	1 FN PT	1 FN PT	1 FN PT	1 FN PT	
Permeate Connection (in)	3/4 FN PT	3/4 FN PT	3/4 FN PT	1 FN PT	1 FN PT	1 FN PT	1 FN PT	1 FN PT	1 FN PT	
Concentrate Connection (in)	3/4 FN PT	3/4 FN PT	3/4 FN PT	1 FN PT	1 FN PT	1 FN PT	1 FN PT	1 FN PT	1 FN PT	
Membranes										
Membranes (s) Per Vessel	1	1	1	1	1	1	1	1	1	
Membrane Quantity	1	2	3	4	5	6	8	10	12	
Membrane Size	4040	4040	4040	4040	4040	4040	4040	4040	4040	
Nominal TDS Rejection %	98.5	98.5	98.5	98.5	98.5	98.5	98.5	98.5	98.5	
Vessels										
Vessel Array	1	1:1	1:1:1	1:1:1:1	1:1:1:1:1	2:2:2	2:2:2:2	2:2:2:2:2	2:2:2:2:2:2	
Vessel Quantity	1	2	3	4	5	6	8	10	12	
Pumps										
Pump Type	Multi-Stage	Multi-Stage	Multi-Stage	Multi-Stage	Multi-Stage	Multi-Stage	Multi-Stage	Multi-Stage	Multi-Stage	
Motor HP	1.5	1.5	1.5	1.5	3	3	3	3	3	
RPM at 60 Hz	3450	3450	3450	3450	3450	3450	3450	3450	3450	
System Electrical										
Standard Voltage + Amp Draw	220v, 60 Hz 1PH, 8.8A **	220v, 60 Hz 1PH, 8.8A **	220v, 60 Hz 1PH, 8.8A **	220v, 60 Hz 1PH, 8.8A **	220v, 60 Hz 1PH, 16A **	220v, 60 Hz 1PH, 16A **	220v, 60 Hz 1PH, 16A **	220v, 60 Hz 1PH, 16A **	220v, 60 Hz 1PH, 16A **	
Approximate Dimensions * L x W x H (in / cm)	26 x 26 x 60 73.66 x 66.04 x 154.94	26 x 26 x 60 73.66 x 66.04 x 154.94	26 x 26 x 60 73.66 x 66.04 x 154.94	26 x 26 x 60 73.66 x 66.04 x 154.94	26 x 26 x 60 73.66 x 66.04 x 154.94	26 x 26 x 60 73.66 x 66.04 x 154.94	26 x 26 x 60 73.66 x 66.04 x 154.94	26 x 50 x 60 83.82 x 127 x 154.94	26 x 50 x 60 83.82 x 127 x 154.94	26 x 50 x 60 83.82 x 127 x 154.94
Approximate Weight (Lbs / kg)	250 / 113.40	290 / 131.54	330 / 149.68	370 / 167.83	430 / 195.05	470 / 213.19	510 / 231.33	550 / 249.48	590 / 267.62	

Test Parameters: 550 TDS Filtered (5-Micron), Dechlorinated, Municipal feed-water, 65 psi, / 4.50 bar feed pressure, 80 psi / 5.5 bar operating pressure, 77F / 25C, recovery as stated, 7.0 pH. Data taken after 60 minutes of operation.

* Does not include operating space requirements ** varies with motor manufacturer.

OPERATING LIMITS ††

Maximum Feed Temperature (°F / °C)	85 / 29	Maximum Free Chlorine (ppm)	0
Minimum Feed Temperature (°F / °C)	40 / 4	Maximum TDS (ppm)	2,000
Maximum Ambient Temperature (°F / °C)	120 / 49	Maximum Hardness (gpg)	0
Minimum Ambient Temperature (°F / °C)	40 / 4	Maximum pH (Continuous)	11
Maximum Feed Pressure (psi / bar)	85 / 6	Minimum pH (Continuous)	2
Minimum Feed Pressure (psi / bar)	45 / 3	Maximum pH (Cleaning 30 minutes)	13
Maximum Pressure (psi / bar)	200 / 14	Minimum pH (Cleaning 30 minutes)	1
Maximum Feed Silt Density Index (SDI)	<3	Maximum Turbidity NTU	1

† Low temperature and feed-water 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.

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

††† Product flow and maximum recovery rates are based on feed-water conditions as stated above. Do not exceed recommended permeate flow. Design conditions are not identical to test conditions, please contact the manufacturer or your supplier for more information.