RDP–SERIES REVERSE OSMOSIS SYSTEMS

AXEON® RDP–Series Double Pass Reverse Osmosis Systems are designed for overall superior performance, high rejection rates, and minimal energy consumption. The RDP–Series offers great savings with low maintenance and operation costs.

AXEON RDP–Series Double Pass Reverse Osmosis Systems feature a new, innovative design. The systems feature only the highest quality components, including a programmable computer controller with many built-in standard features, stainless steel booster pumps for high performance and corrosion resistance, high rejection low energy membranes and fiberglass membrane housings for enhanced performance and durability.

AXEON RDP–Series Double Pass Reverse Osmosis Systems have been engineered for capacities ranging from 1,500 to 4,000 gallons per day with zero waste on the second pass.

RDP–1500
Reverse Osmosis System

BENEFITS

- Fully Equipped and Customizable
- Skid Mounted
- Decreased Size of Dimensional Footprint from Standard Reverse Osmosis System
- Components Easily Accessible
- Pre-Plumbed, Wired and Assembled
- Individually Tested and Preserved
- Low Operation and Maintenance Costs
- Easy Maintenance and Servicing
- 20% Less Energy Use than Standard Reverse Osmosis Systems
- 1-Year Limited Warranty

OPTIONS AND UPGRADES

- Permeate Flush
- Permeate Divert
- Permeate Sample Valves
- Pump Pressure Relief Valve
- High Pressure Tank Switch
- Wooden Crate

STANDARD FEATURES

- S–150 Computer Controller
  - LCD Backlit Display
  - Pre-Treatment Lockout
  - Tank Level Input
  - Low and High Pressure Monitoring and Alarm
  - Dual TDS Monitoring with Rejection Percentage Display
  - Feed Flush
  - Hour Meter
- AXEON Permeate and Concentrate Flow Meters (First and Second Passes)
- AXEON Pre-Filter 0-100 psi Panel Mounted Glycerin Filled Gauges
- AXEON Feed Pressure 0-100 psi (Second Pass)
- AXEON Pump Discharge 0-300 psi Panel Mounted Glycerin Filled Gauges (First and Second Passes)
- AXEON 5-Micron Sediment Pre-Filter
- AXEON HF1–Series Membrane Elements (First Pass)
- AXEON HF5–Series Ultra Low Energy Membrane Elements (Second Pass)
- AXEON FRP–Series Membrane Housings (300 psi)
- Pentair® 20" Big Grey Cartridge Housings
- Multi-Stage Stainless Steel Booster Pump
- ASCO™ Composite Feed Solenoid Valve
- Stainless Steel Feed Low Pressure Switch (First and Second Passes)
- White Powder Coated Aluminum Frame

RDP–1500
Reverse Osmosis System

SPECIFICATIONS

MODELS	RDP–1500	RDP–2000	RDP–3000	RDP–4000
Flow Rates[B]				
Permeate Flow Rate (gpd / lpd)	1500	2000	3000	4000
Permeate Flow Rate (gpm / lpm)	1.04	1.38	2.08	2.7
Feedwater[A] TDS Max (ppm)	2000	2000	2000	2000
Standard Recovery (%)	26	31.5	39	43.8
Minimum Concentrate Flow Rate (gpm)	Pass 1–3 Pass 2–0.5	Pass 1–3 Pass 2–0.5	Pass 1–3 Pass 2–1	Pass 1–3 Pass 2–1
Connections				
Feed Connection (in)	1 FNPT	1 FNPT	1 FNPT	1 FNPT
Permeate Connection (in)	1/2 FNPT	1/2 FNPT	3/4 FNPT	3/4 FNPT
Concentrate Connection (in)	1/2 FNPT	1/2 FNPT	3/4 FNPT	3/4 FNPT
Membranes				
Membrane Per Vessel	1	1	1	1
Membrane Quantity	4	5	4	5
Membrane Size	2–4040 / 2–2540	2–4040 / 3–2540	3–4040 / 1–4040	3–4040 / 2–4040
Nominal TDS Rejection %	99.9	99.9	99.9	99.9
Vessels				
Vessel Array	Pass 1–1:1 Pass 2–1:1	Pass 1–1:1 Pass 2–1:1:1	Pass 1–1:1:1 Pass 2–1	Pass 1–1:1:1 Pass 2–1:1
Vessel Quantity	2–4040 / 2–2540	2–4040 / 3–2540	3–4040 / 1–4040	3–4040 / 2–4040
Pumps				
Pump Type	Multi-Stage	Multi-Stage	Multi-Stage	Multi-Stage
Motor HP	1.5 / .75	1.5 / .75	1.5 / .75	1.5 / 1.5
RPM @ 60Hz	3450	3450	3450	3450
System Electrical				
Standard Voltage + Amp Draw	220V, 60Hz, 16	220V, 60Hz, 16	220V, 60Hz, 16	220V, 60Hz, 19
System Dimensions				
Approximate Dimensions[C] L x W x H (in / cm)	26 x 26 x 60	26 x 26 x 60	26 x 26 x 60	26 x 26 x 60
Approximate Weight (lbs)	330	335	320	340

Warranty Evaluation Test Conditions: Permeate flow rates and salt rejection based on the following test conditions: 550 ppm, filtered and dechlorinated municipal tap water, 77°F / 25°C, 15% recovery, 7.0 pH and the specified operating pressure for membrane element type. 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. Does not include operating space requirements.

OPERATING LIMITS[D]

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 Operating Pressure (psi / bar)	200 / 14	Minimum pH (cleaning 30 minutes)	1
Maximum Feed Silt Density Index (SDI)	< 3	Maximum Turbidity (NTU)	1

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