AT – Series Reverse Osmosis Systems

FLEXEON AT – Series Reverse Osmosis Systems set the industry standard with a compact, space saving design with high quality components. These systems are available in capacities of 500 and 1,000 gallons per day and feature 4.5" diameter sediment and carbon block pre–filters, low energy membranes, a high pressure pump and a solenoid valve all mounted onto a corrosion–resistant, powder–coated aluminum frame.

FLEXEON AT – Series Reverse Osmosis Systems can also be upgraded for higher recovery rates by adding the concentrate recycle option.

AT – 1000
Reverse Osmosis System

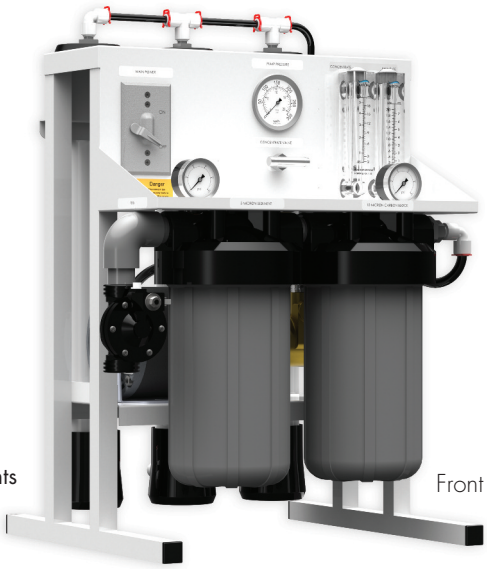
Benefits

- Fully Equipped and Customizable
- Lightweight Design
- Compact Space Saving Design
- Components Easily Accessible
- Pre–Plumbed, Wired and Assembled
- Factory Tested and Preserved
- Low Operation Costs
- Low Maintenance Costs
- Easy Maintenance and Servicing
- 1–Year Limited Warranty

Know Higher Standards™

Features

- Manual On and Off Control Switch
- White Powder Coated Aluminum Frame
- AXEON 5 – Micron Sediment Pre–Filter
- AXEON 10 – Micron Carbon Block Pre–Filter
- AXEON by Pentek® Single O–Ring Filter Housings
- Fluid–O–Tech™ Low Lead Brass Rotary Vane High Pressure Pump
- ODP High Efficiency Carbonator Motor
- AXEON HF1 – Series Low Energy Membrane Elements
- AXEON PVC – Series Membrane Housings
- AXEON Permeate Flow Meter
- AXEON Concentrate Flow Meter
- Feed Low Pressure Switch 15 – 30 psi
- AXEON Composite Feed Solenoid Valve
- AXEON 316L SS – Series Concentrate Valve
- AXEON 0 – 300 psi Pump Pressure Gauge
- AXEON 0 – 100 psi Pre–Filter Pressure Gauges
- Push/Pull Fittings with Locking Safety Clips



Front

AT – 1000
Reverse Osmosis System

Back

Options

- AXEON HF4 – Series Extra Low Energy Membrane Elements
- AXEON HF5 – Series Ultra Low Energy Membrane Elements
- AXEON NF3 – Series Nanofiltration Membrane Elements
- AXEON NF4 – Series Nanofiltration Membrane Elements
- AXEON SS – Series Membrane Housings
- AXEON FRP – Series Membrane Housings
- Concentrate Recycle Valve with Flow Meter
- HM Digital™ PSC – 150 TDS/Conductivity Controller
- Fluid–O–Tech™ Stainless Steel Rotary Vane Pump
- Minitrol Computer Controller
- Minitrol IF Computer Controller with Feed Flush
- S – 150 Computer Controller with Feed Flush
- High Pressure Tank Switch
- Chemical Pump Outlet
- Blending Valve
- Permeate Flush with Pressure Tank
- Permeate Flush with Atmospheric Tank
- Permeate Flush with Mechanical Float
- Permeate Sample Ports
- Wooden Shipping Crate

Product Specifications		
Models	**AT – 500**	**AT – 1000**
Design		
Configuration	Single Pass	Single Pass
Feedwater Source†	TDS <2000 ppm	TDS <2000 ppm
Standard Recovery Rate %	26	41
Recovery with Concentrate Recycle %	Up to 75	Up to 75
Rejection and Flow Rates†††		
Nominal Salt Rejection %	99	99
Permeate Flow (gpm / lpm)	0.35 / 1.32	0.69 / 2.61
Minimum Feed Flow (gpm / lpm)	1.35 / 5.11	1.69 / 6.40
Maximum Feed Flow (gpm / lpm)	3.00 / 11.36	4.00 / 15.14
Minimum Concentrate Flow (gpm / lpm)	1.00 / 3.78	1.00 / 3.78
Connections		
Feed Connection (in)	1 FNPT	1 FNPT
Permeate Connection (in)	3/8 QC	3/8 QC
Concentrate Connection (in)	3/8 QC	3/8 QC
Membranes		
Membrane(s) Per Vessel	1	1
Membrane Quantity	2	3
Membrane Size	2521	2521
Vessels		
Vessel Array	1:1	1:1:1
Vessel Quantity	2	3
Pumps		
Pump Type	Rotary Vane 401 Brass	Rotary Vane 601 Brass
Motor HP	1/3	1/2
RPM @ 60Hz (50 Hz)	1725 (1465)	1725 (1465)
System Electrical		
Standard Voltage + Amp Draw	110V, 60Hz, 1PH, 6.6A**	110V, 60Hz, 1PH, 8.2A**
High Voltage Service + Amp Draw	220V, 60Hz, 1PH, 3.2A** 220V, 50Hz, 1PH, 3.7A**	220V, 60Hz, 1PH, 3.9A** 220V, 50Hz, 1PH, 4.1A**
Systems Dimensions		
Approximate Dimensions* L x W x H (in / cm)	14 x 20 x 27 / 36 x 51 x 69	14 x 20 x 27 / 36 x 51 x 69
Approximate Weight (lbs / kg)	65 / 29.5	70 / 31.75

Test Parameters: 550 TDS Filtered (5 – Micron), Dechlorinated, Municipal Feedwater, 65 psi / 4.50 bar Feed Pressure, 150 psi / 10.34 bar Operating Pressure, 77°F / 25°C, Recovery as stated, 7.0 pH. Data taken after 60 minutes of operation.

* Does not include operating space requirements.

** Varies with motor manufacturer.

Note: All 50Hz systems come standard with AXEON HF4 – Series Extra Low Energy Membrane Elements.

Operating Limits††

Maximum Feed Temperature (°F / °C)	85 / 29	Maximum Turbidity (NTU)	1
Minimum Feed Temperature (°F / °C)	40 / 4	Maximum Free Chlorine (ppm)	0
Maximum Ambient Temperature (°F / °C)	120 / 49	Maximum TDS (ppm)	2000
Minimum Ambient Temperature (°F / °C)	40 / 4	Maximum Hardness (gpg)	0
Maximum Feed Pressure (psi / bar)	85 / 6	Maximum pH (Continuous)	11
Minimum Feed Pressure (psi / bar)	45 / 3	Minimum pH (Continuous)	2
Maximum Operating Pressure (psi / bar)	150 / 10	Maximum pH (Cleaning 30 Minutes)	13
Maximum Feed Silt Density Index (SDI)	<3	Minimum pH (Cleaning 30 Minutes)	1

† 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.

†† 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 feedwater conditions as stated above. Do not exceed recommended permeate flow.