

BT – Series Reverse Osmosis Systems

FLEXEON BT - Series Commercial Reverse Osmosis

Systems further expand the FLEXEON commercial reverse osmosis lineup with three models designed for 1,500, 1,800 and 2,000 gallons per day.

Featuring 4.0" diameter sediment and carbon block pre-filters, low energy membranes and a high pressure pump, the BT – Series sets the industry standard for high-performance reverse osmosis systems. These models can also be upgraded with options for higher recovery rates by adding the concentrate recycle option.



Benefits

- Fully Equipped and Customizable
- Expandable and 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 Stainless Steel Concentrate Valve

AXEON 0 – 300 psi Pump Pressure Gauge

AXEON 0 – 100 psi Pre–Filter Pressure Gauges

 John Guest® Push/Pull Fittings with Locking Safety Clips



BT - 2000 Reverse Osmosis System



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	BT – 1500	BT – 1800	BT – 2000		
Design					
Configuration	Single Pass	Single Pass	Single Pass		
Feedwater Source [†]	TDS <2000 ppm	TDS <2000 ppm	TDS <2000 ppm		
Standard Recovery Rate %	41	30	63		
Recovery with Concentrate Recycle %	Up to 75	Up to 75	Up to 75		
Rejection and Flow Rates ^{†††}					
Nominal Salt Rejection %	99	99	99		
Permeate Flow (gpm / lpm)	1.04 / 3.93	1.25 / 4.73	1.38 / 5.22		
Minimum Feed Flow (gpm / lpm)	2.04 / 7.72	4.25 / 16.10	2.35 / 8.89		
Maximum Feed Flow (gpm / lpm)	3.00 / 22.70	6.00 / 22.71	6.00 / 22.70		
Minimum Concentrate Flow (gpm / lpm)	1.00 / 3.78	3.00 / 11.36	1.00 / 3.78		
Connections					
Feed (in)	1 FNPT	1 FNPT	1 FNPT		
Permeate (in)	3/8 QC	3/8 QC	3/8 QC		
Concentrate (in)	3/8 QC	3/8 QC	3/8 QC		
Membranes					
Membrane(s) Per Vessel	1	1	1		
Membrane Quantity	2	1	3		
Membrane Size	2540	4040	2540		
Vessels					
Vessel Array	1:1	1	1:1:1		
Vessel Quantity	2	1	3		
Pumps					
Pump Type	Rotary Vane 601 Brass	Rotary Vane 1001 Brass	Rotary Vane 1001 Brass		
Motor HP	3/4	3/4	3/4		
RPM @ 60 Hz (50 Hz)	1725 (1465)	1725 (1465)	1725 (1465)		
System Electrical					
Standard Voltage + Amp Draw	110V, 60Hz, 1PH, 11.0A**	110V, 60Hz, 1PH, 11.0A**	110V, 60Hz, 1PH, 11.0A**		
High Voltage Service + Amp Draw	220V, 60Hz, 1PH, 5.6A** 220V, 50Hz, 1PH, 5.6 A**	220V, 60Hz, 1PH, 5.6A** 220V, 50Hz, 1PH, 6.6A**	220V, 60Hz, 1PH, 5.6A** 220V, 50Hz, 1PH, 6.6A**		
Systems Dimensions					
Approximate Dimensions* L x W x H (in / cm)	19 x 23 x 46 / 48 x 58 x 116	19 x 23 x 46 / 48 x 58 x 116	19 x 23 x 46 / 48 x 58 x 116		
Approximate Weight (lbs / kg)	105 / 47.63	105 / 47.63	115 / 52.16		

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.

Note 1: All 50Hz systems come standard with AXEON HF4 - Series Extra Low Energy Membrane Elements.

Note 2: BT – 1800 Reverse Osmosis Systems come standard with the Concentrate Recycle Valve and Flow Meter options in order to achieve a higher recovery rate.

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.

ttt Product flow and maximum recovery rates are based on feedwater conditions as stated above. Do not exceed recommended permeate flow.





^{*} Does not include operating space requirements.

^{**} Varies with motor manufacturer.

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