REVERSE OSMOSIS



BLS SERIES, 400 TO 2400 GPD COMMERCIAL RO SYSTEMS

BLS Series RO Systems are engineered to economically produce high purity water while providing the flexibility to choose system features to meet your application specifications. BLS systems are manufactured using the highest quality components and materials for exceptional performance and reliable operation.











BLS 2400

BLS 1900

BLS 400, 800, 950, 1900, 2400 Features

- 5 micron Sediment Pre-Filtration
- Pentek® 20-inch Slim Line Housing
- Low Feed Water Pressure Safety Switch
- Storage Tank Float Control Connection
- Pretreatment Lockout Connection
- On/Off Standby Switch
- Water Saving Recirculation Loop
- Pre- and Post-Filter Pressure Gauges
- Operating Pressure Gauge
- Feed Water Solenoid Valve
- Fluid-O-Tech™ Rotary Vane Pump
- High Efficiency Carbonator Motor
- Product Water Check Valve
- John Guest® Safety Locking Clips
- 115V, 60Hz, 1-Phase Electrical
- Powder Coated Frame
- Factory Tested for Quality
- Assembled in the USA
- One Year Limited Warranty

Econo Models Include

- Minitrol RO Controller
- Fixed Rejection (50%)
- Manual Membrane Flush

Standard Models Include

- Minitrol RO Controller
- Adjustable Rejection Valve
- Manual Membrane Flush
- Product/Reject Flow Meters

Optimum Models Include

- S-100 RO Controller
- Adjustable Rejection Valve
- Automatic Membrane Flush
- Product & Reject Flow Meters
- Digital TDS Display

Optional Features Include

- 20 inch, 10 micron, Carbon Pre-Filter
- Stainless Steel Pump

- Product Pressure Switch & Relief Valve *
- 220V, 50Hz, 1-Phase

- Export/Domestic Highly Secured Crating
- TDS Digital Monitor

^{*} NOTE: When ordering a BLS Series RO System, the customer must choose between a product water pressure switch (for water storage in a pressurized tank) or a water level float kit (for water storage in an atmospheric tank). See BLS Series Parts List (Form 1259).



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BLS SERIES, 400 TO 2400 GPD COMMERCIAL RO SYSTEM SPECIFICATIONS

	BLS 400	BLS 800	BLS 950	BLS 1900	BLS 2400
Operating Specifications					
Flow Capacity, GPD *	400	800	950	1,900	2,400
Flow Capacity, GPM *	0.28	0.56	0.66	1.32	1.67
Flow Capacity, LPD *	1,514	3,028	3,596	7,192	9,085
Flow Capacity, LPM *	1.05	2.10	2.50	4.99	6.31
Typical Recovery	50%	50%	50%	50%	50%
Design Rejection Rate	98 to 99%	98 to 99%	98 to 99%	98 to 99%	98 to 99%
Typical Operating Pressure	165 PSI (11.3 Bar)	100 PSI (6.8 Bar)			
Nominal Feed Water Flow During Operation	0.56 GPM	1.12 GPM	1.32 GPM	2.64 GPM	3.33 GPM
Nominal Feed Water Flow During System Flush	2.10 GPM	2.10 GPM	4.33 GPM	4.33 GPM	5.33 GPM
Maximum Product Water Back Pressure	50 PSI (3.4 Bar)	50 PSI (3.4 Bar)			
Feed Water Parameters					
Temperature Range, °F	40 to 90°F	40 to 90°F	40 to 90°F	40 to 90°F	40 to 90°F
Temperature Range, °C	5 to 30°C	5 to 30°C	5 to 30°C	5 to 30°C	5 to 30°C
Minimum Pressure	20 PSI (1.3 Bar)	20 PSI (1.3 Bar)			
Maximum Pressure	85 PSI (5.8 Bar)	85 PSI (5.8 Bar)			
Maximum TDS	2,000 PPM	2,000 PPM	2,000 PPM	2,000 PPM	2,000 PPM
Maximum Chlorine Tolerance	0.1 PPM	0.1 PPM	0.1 PPM	0.1 PPM	0.1 PPM
Maximum Hardness	10 GPG (171 PPM)	10 GPG (171 PPM)			
Maximum Iron, Dissolved	0.5 PPM	0.5 PPM	0.5 PPM	0.5 PPM	0.5 PPM
Maximum Oil Tolerance	0.0 mg/l	0.0 mg/l	0.0 mg/l	0.0 mg/l	0.0 mg/l
Maximum Silt Index	5	5	5	5	5
Maximum Turbidity	1 NTU	1 NTU	1 NTU	1 NTU	1 NTU
pH Range	3 to 10	3 to 10	3 to 10	3 to 10	3 to 10
Minimum Pre-Filtration	5 Micron	5 Micron	5 Micron	5 Micron	5 Micron
Design Specifications					
Dimensions, Inches	35H x 17W x 14D	35H x 17W x 14D	60H x 18W x 18D	60H x 18W x 18D	60H x 18W x 18D
Weight, Lb	80	90	100	110	110
Feed Water Inlet Connection	3/8" FNPT	3/8" FNPT	1/2" FNPT	1/2" FNPT	1/2" FNPT
Reject Water to Drain Connection	3/8" Tube	3/8" Tube	1/2" Tube	1/2" Tube	1/2" Tube
Product Water to Storage Connection	3/8" Tube	3/8" Tube	1/2" Tube	1/2" Tube	1/2" Tube
Filter Housing, Inches	(1) 20" Slimline	(1) 20" Slimline	(1) 20" Slimline	(1) 20" Slimline	(1) 20" Slimline
Membrane Housings, Inches	(1) 2.5 x 21 SS	(1) 2.5 x 21 SS	(1) 2.5 × 40 SS	(1) 2.5 × 40 SS	(1)4×4055
Membrane Elements, Inches	(1) 2.5 x 21 XLE	(1) 2.5 x 21 XLE	(1) 2.5 x 40 XLE	(1) 2.5 x 40 XLE	(1) 4 x 40 XLE
Pump, 60 Hz	Rotary Vane	Rotary Vane	Rotary Vane	Rotary Vane	Rotary Vane
Pump, 50 Hz	Rotary Vane	Rotary Vane	Rotary Vane	Rotary Vane	N/A
Motor, 60 Hz	1/3 HP, 1 Phase	1/3 HP, 1 Phase	3/4 HP, 1 Phase	3/4 HP, 1 Phase	3/4 HP, 1 Phase
Motor, 50 Hz	1/3 HP, 1 Phase	1/3 HP, 1 Phase	3/4 HP, 1 Phase	3/4 HP, 1 Phase	N/A

^{*} System production may vary depending upon incoming water temperature and chemistry. Based on feed water with 500 mg/L NaCl and temperature of 77°F (25°C).

 $\textbf{NOTE:} \ \ \textbf{If the RO system is used with chlorinated water, a carbon filter is required. BLS systems are designed for use on potable water sources only.}$

Low Feed Water Pressure Switch: System shuts down at 15 PSI (1.0 Bar) decreasing pressure.

Product Water Pressure Switch: System shuts down at 45 PSI (3.1 Bar) and starts at 25 PSI (1.7 Bar).

Max. System Operating Pressure: 175 PSI (12.1 Bar)

