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 800



BLS 950

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
- **Econo Models Include**
- Minitrol RO Controller
- Fixed Rejection (50%)
- Manual Membrane Flush

- 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

Standard Models Include

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

BLS 2400

- One Year Limited Warranty
- **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).



WATER TECHNOLOGIES, INC. SAF 996 BLUFF CITY BOULEVARD ELGIN, ΙL 60120 USA TELEPHONE 847 888 6900 FACSIMILE 847 888 6924 E MAIL: info@swtwater.com • WEB SITE: www.swtwater.com

- 115V, 60Hz, 1-Phase Electrical • Powder Coated Frame
- Factory Tested for Quality

BLS 1900

- Assembled in the USA

REVERSE OSMOSIS



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 Turbidit.y | 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×17W×14D | 35H×17W×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 55 | (1) 2.5 x 21 55 | (1) 2.5 × 40 55 | (1) 2.5 × 40 SS | (1)4×4055 |
| Membrane Elements, Inches | (1) 2.5 x 21 XLE | (1) 2.5 × 21 XLE | (1) 2.5 × 40 XLE | (1) 2.5 × 40 XLE | (1) 4 × 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).

NOTE: 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)





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