

# APPLIED<sup>®</sup> SYSTEMS USA

## Series XL – 2,000 to 10,000 GPD Low Energy RO Systems

### Reverse Osmosis Systems 2,000 to 10,000 Gallons/Day For Feed Water TDS Less Than 1,000 PPM

Designed to produce low dissolved solids water from tap or well water, these systems use extra low energy reverse osmosis membranes. The product water is used in applications such as spot free rinse, water stores, whole house, labs, ice makers, humidification, misting and a wide variety of other applications.

Part of the L-series family (other systems include L and HL series), these systems are designed to work at pressure less than 150 psi. These systems use extra-low energy membranes and are best suited for water of less than 1,000 PPM total dissolved solids (TDS). The systems use the proven, reliable components and are mounted on a sturdy powder-coated metal frame. There are numerous design details, learned from years of experience that are incorporated in our systems. Our process and fluid design ensures an optimum membrane life and minimizes the membrane fouling.

### Key Features

- 38 years of experience is reflected in our quality
- Compact, Heavy Duty, Powder Coated Frame
- Proven components used throughout the system
- Conservatively engineered for reliable long term performance
- Factory tested to ensure trouble-free operation

### Why Applied Membranes?

- Over 10,000 commercial/industrial systems in operation
- Our products are being used in over 100 countries worldwide
- From packaged systems to custom engineered Reverse Osmosis systems, we can take care of your needs
- We are one of the few companies that have the expertise to provide Reverse Osmosis systems for drinking water, boiler feed water, seawater, desalination, ultrapure water, USP water, and water reuse
- We have supplied more systems to more countries than most of our competitors
- Our customers include major national and international companies in every field of application
- We stock more components for all sizes of RO systems than any other company
- We have earned an enviable reputation for our product quality, performance reliability and business integrity



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MEMBRANES INC.<sup>®</sup>**

Industry Leader in RO Expertise and Membrane Applications Since 1983™



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### Standard Equipment

- Thin Film Composite Extra Low Energy Membranes
- Stainless steel membrane pressure vessels
- 5 micron 20" cartridge filter & housing
- Automatic inlet feed solenoid valve
- Permeate flowmeter
- Concentrate flowmeter
- System control valve
- Recycle control valve
- Low pressure pump protection
- Stainless steel multistage RO pump with SS pump throttling valve
- Automatic membrane flush
- Liquid filled pressure gauge for system pressure
- Feed TDS and percent rejection displayed on controller LED
- Product TDS displayed on controller LED
- System on/off with tank level (tank floats included)
- Powder coated carbon steel frame
- Boxed and palletized for shipment

### Microprocessor Controller for Automatic Operation

#### Monitors and/or Controls:

- Inlet valve
- Delayed start-up of high pressure pump
- Feed water flush at system shut-down
- Low pressure switch
- On/Off with tank level
- Permeate Water Quality (TDS)
- Pre-treatment backwash/lockout

#### Controller Features:

- Backlit LED Display
- LED indicator light for system status/alarm
- Front panel access port for calibration of TDS sensor
- LED indicator light for water quality (TDS)
- Start-up and shut-down with tank level
- Feed flush at shut-down
- Low pressure shut-down
- Low pressure automatic restart
- Delayed start-up of high pressure pump

#### I-ROC300



UL Listing Optional

#### LED Display:

- Permeate TDS
- Operating Status
- Alarm Condition

### Recommended Optional Pre-Treatment Equipment

- Carbon filter
- Water Softener
- Multi-media filter

| Model No.         | System Capacity |                     | Qty. of 4x40 Membrane Elements (XLE) | Line Sizes (NPT, Inches) |       |       | System Dimensions (in/cm) |       |        | Approx. Shipping Weight (Lb/Kg) |
|-------------------|-----------------|---------------------|--------------------------------------|--------------------------|-------|-------|---------------------------|-------|--------|---------------------------------|
|                   | GPD             | m <sup>3</sup> /day |                                      | Inlet                    | Perm. | Conc. | Length                    | Depth | Height |                                 |
| <b>XL-14A-216</b> | 2,000           | 7.5                 | 1                                    | ¾"                       | ½"    | ½"    | 20/51                     | 28/71 | 54/137 | 275/125                         |
| <b>XL-24A-216</b> | 4,000           | 15                  | 2                                    | ¾"                       | ½"    | ½"    | 20/51                     | 28/71 | 54/137 | 300/136                         |
| <b>XL-34A-216</b> | 5,800           | 22                  | 3                                    | ¾"                       | ½"    | ½"    | 20/51                     | 28/71 | 54/137 | 325/147                         |
| <b>XL-44A-216</b> | 7,500           | 28                  | 4                                    | ¾"                       | ½"    | ½"    | 20/51                     | 34/87 | 54/137 | 350/159                         |
| <b>XL-54A-216</b> | 9,000           | 34                  | 5                                    | ¾"                       | ½"    | ½"    | 20/51                     | 34/87 | 54/137 | 375/170                         |
| <b>XL-64A-216</b> | 10,000          | 38                  | 6                                    | ¾"                       | ½"    | ½"    | 20/51                     | 34/87 | 54/137 | 400/181                         |

### Notes and Voltage/ Ordering Information

- All dimensions and weights are approximate.
  - **Capacity Basis:** 24 hrs/day
  - **Systems rated at:** 77°F (25°C) using 1,000 ppm sodium chloride solution operating at approx. 200 psi pressure. System capacity changes significantly with water temperature. For higher TDS a water analysis must be supplied and could result in modifications to the system or changing from XL to L or HL series system.
  - **Minimum feed pressure to RO System:** 40-60 PSI.
  - Chlorine must be removed with a carbon filter or with chemical injection prior to the RO system, if present in feed water.
  - Pretreatment for water hardness using a softener should be added to avoid scaling the membranes.
  - Feed water turbidity: Less than 1 NTU ; Feed water silt density index (SDI): 3 maximum. If exceeded, pretreatment with media filter recommended. All pretreatment equipment and SDI test kits are available from Applied Membranes.
  - **Voltage Codes:** 216 = 220 -240v/ 1ph/ 60hz • 215 = 220-240v/1ph/50hz .
- Three phase or other voltages not available with XL Series. See Series L or HL.**

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