

# NL PRO-SERIES REVERSE OSMOSIS SYSTEMS

**AXEON® NL PRO-Series Reverse Osmosis Systems** are plug-and-play turn-key solutions for capacities ranging from 2,000 - 4,000 gallons per day. They provide a cost-effective solution for customers and are easy to install and maintain, which makes them ideal for water purification applications for private residences, restaurants, cafés, car washes, hydroponics, misting and more.

## FEATURES

- On/Off Operation
- Manual Flush
- Permeate Flow Meter
- Post-Filter 0-100 psi Gauge
- Pump Discharge 0-300 psi Panel-Mounted Glycerin-Filled Gauges
- AXEON XE3-Series 4" x 40" Membrane Elements
- AXEON FRP Membrane Housings
- AXEON Depth Filter 2.5" x 20" 5-Micron Sediment Pre-Filter
- AXEON 2.5" x 20" Filter Housing
- Grundfos® Multi-Stage Stainless-Steel Booster Pump
- Normally Closed Composite Feed Solenoid Valve with Manual Bypass
- Feed Low Pressure Switch
- Parker® Push/Pull Quick-Connect Fittings
- Black Powder-Coated Aluminum Frame

**NL PRO-4000**  
Reverse Osmosis  
System



## BENEFITS

- Compact Design
- Instrumentation Easily Accessible
- Pre-Plumbed, Wired and Assembled
- Easy Maintenance and Servicing
- Low Operation and Maintenance Costs
- Individually Tested
- 1-Year Limited Warranty
- Assembled in the U.S.A.

## SPECIFICATIONS

| MODELS                                                  | NL PRO-2000                                     | NL PRO-4000                                     |
|---------------------------------------------------------|-------------------------------------------------|-------------------------------------------------|
| <b>Design</b>                                           |                                                 |                                                 |
| Configuration                                           | Single Pass                                     | Single Pass                                     |
| Feedwater TDS max (ppm) <sup>A</sup>                    | 2,000                                           | 2,000                                           |
| Standard Recovery %                                     | 32                                              | 48                                              |
| <b>Flow Rates<sup>B</sup></b>                           |                                                 |                                                 |
| Permeate Flow (gpd / lpd)                               | 2,000 / 7,570                                   | 4,000 / 15,141                                  |
| Permeate Flow (gpm / lpm)                               | 1.39 / 5.26                                     | 2.78 / 10.52                                    |
| Minimum Concentrate Flow (gpm / lpm)                    | 3 / 11.36                                       | 3 / 11.36                                       |
| <b>Connections</b>                                      |                                                 |                                                 |
| Feed (in)                                               | 3/4 FNPT                                        | 3/4 FNPT                                        |
| Permeate (in)                                           | 1/2 QC                                          | 1/2 QC                                          |
| Concentrate (in)                                        | 1/2 QC                                          | 1/2 QC                                          |
| <b>Membranes</b>                                        |                                                 |                                                 |
| Membrane Per Vessel                                     | 1                                               | 1                                               |
| Membrane Quantity                                       | 1                                               | 2                                               |
| Membrane Size                                           | 4040                                            | 4040                                            |
| Nominal TDS Rejection %                                 | 98.50                                           | 98.50                                           |
| <b>Vessels</b>                                          |                                                 |                                                 |
| Vessel Array                                            | 1                                               | 1:1                                             |
| Vessel Quantity                                         | 1                                               | 2                                               |
| <b>Pumps</b>                                            |                                                 |                                                 |
| Pump Type                                               | Multi-Stage                                     | Multi-Stage                                     |
| Motor HP                                                | 1.0                                             | 1.0                                             |
| RPM at 60 Hz                                            | 3480                                            | 3480                                            |
| <b>System Electrical</b>                                |                                                 |                                                 |
| Standard Voltage + Amp Draw <sup>C</sup>                | 110V, 60HZ, 1PH, 10.6A<br>220V, 60HZ, 1PH, 5.4A | 110V, 60HZ, 1PH, 10.6A<br>220V, 60HZ, 1PH, 5.4A |
| <b>System Dimensions</b>                                |                                                 |                                                 |
| Approximate Dimensions <sup>D</sup> L x W x H (in / cm) | 18 x 22 x 55 / 45.72 x 55.29 x 138.39           | 23 x 22 x 55 / 58.17 x 55.29 x 138.39           |
| Approximate Weight (lbs / kg)                           | 100 / 45                                        | 110 / 50                                        |

**Test Parameters:** 550 TDS Filtered (5 Micron), Dechlorinated, Municipal Feedwater, 65 psi / 4.50 bar Feed Pressure, 100 psi / 6.9 bar Operating Pressure, 77 °F / 25 °C, Recovery as stated, 7.0 pH. Data taken after 60 minutes of operation.

- A. Low temperatures and feedwater quality, such as high TDS levels, will significantly affect the system's 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.
- B. Product flow and standard recovery rates are based on feedwater conditions as stated above. Do not exceed the recommended permeate flow.
- C. Varies with motor manufacturer.
- D. Does not include operating space requirements.

## OPERATING LIMITS<sup>E</sup>

|                                        |          |                                  |       |
|----------------------------------------|----------|----------------------------------|-------|
| 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)                | 2,000 |
| Minimum Ambient Temperature (°F / °C)  | 40 / 4   | Maximum Hardness (gpm)           | 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) | 200 / 14 | Maximum pH (cleaning 30 minutes) | 13    |
| Maximum SDI Rating                     | < 3      | Minimum pH (cleaning 30 minutes) | 1     |

E. If any of the feed water parameters are not within the limits given, consult your local dealer or distributor for assistance.

800-320-4074

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