

# **NL-SERIES REVERSE OSMOSIS SYSTEMS**

**AXEON® NL – Series Reverse Osmosis Systems** are available in capacities of 2,000 and 4,000 gallons per day. These commercial RO systems come equipped with a high-pressure pump and the necessary components for application flexibility, ease of use and economical design.

#### **BENEFITS**

- Compact Design
- Instrumentation Easily Accessible
- Pre-Plumbed, Wired and Assembled
- Easy Maintenance and Servicing
- Low Operating and Maintenance Costs
- Individually Tested
- 1-Year Limited Warranty
- Assembled in the USA

#### **FEATURES**

- Simple On/Off controller
- Permeate Flow Meter
- Concentrate Flow Meter with Integrated Stainless Steel Needle Valve
- Pre and Post Filter 0-100 psi Glycerin Filled Gauges
- AXEON XE2-Series 4" x 40" Membrane Elements (70 psi)
- AXEON FRP Membrane Housings
- AXEON SDF-Series 4.5" x 20" Diameter 5-Micron Sediment Pre-Filter
- Pentair® Big Grey Filter Housings



- Flotec® Booster Pump
- Chemical Injection Port and Electrical Connection
- Normally Closed Composite Feed Solenoid Valve with Bypass
- Stainless Steel Throttle Valve
- Feed Low Pressure Switch
- Parker®/Seatech® Push/Pull Quick Connect Fittings
- Black Powder Coated Aluminum Frame

## **SPECIFICATIONS**

MODELS	NL-2000	NL-4000	
Design			
Configuration	Single Pass	Single Pass	
Feedwater TDS max (ppm) <sup>A</sup>	1,000 1,000		
Standard Recovery %	32 46		
Flow Rates <sup>B</sup>			
Permeate Flow (gpd / lpd)	2,000 / 7,570	4,000 / 15,141	
Permeate Flow (gpm / lpm)	1.39 / 5.26	2.50 / 9.46	
Minimum Concentrate Flow (gpm / lpm)	3 / 11.36	3 / 11.36 3 / 11.36	
Connections			
Feed (in)	3/4 FNPT	3/4 FNPT	
Permeate (in)	1/2 QC	1/2 QC	
Concentrate (in)	1/2 QC	1/2 QC	
Membranes			
Membrane(s) Per Vessel	1	1	
Membrane Quantity	1	2	
Membrane Size	4040	4040	
Nominal TDS Rejection %	97	97	
Vessels			
Vessel Array	1	1:1	
Vessel Quantity	1	2	
Pumps			
Pump Type	Multi-Stage	Multi-Stage	
Motor HP	0.5	0.5	
RPM at 60 Hz	3450	3450	
System Electrical			
Standard Voltage and Amp Draw <sup>c</sup>	115V, 60HZ, 1PH, 12.7A	115V, 60HZ, 1PH, 12.7A	
System Dimensions			
Approximate Dimensions <sup>D</sup> $L \times W \times H$ (in / cm)	21.50 x 18 x 56.50 / 54.60 x 45.70 x 143.50	21.50 x 23 x 56.50 / 54.60 x 58.40 x 143.50	
Approximate Weight (lbs / kg)	87 / 39.50	99 / 44.90	

Test Parameters: 500 TDS Filtered (5-micron), Dechlorinated, Municipal Feedwater, 65 psi / 4.50 bar Feed Pressure, 70 psi / 4.8 bar Operating Pressure, 77°F / 25°C, Recovery as stated, 7.0 pH. Data taken after 60 minutes of operation.

applications which do not meet or exceed minimum and maximum operating limits for such conditions.

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

### OPERATING LIMITSE

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)	1,000
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 / 10.34	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.



A. 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

C. Varies with motor manufacturer.

D. Does not include operating space requirements.