NL–SERIES REVERSE OSMOSIS SYSTEMS

AXEON® NL–Series Reverse Osmosis Systems are available in capacities ranging from 1,000-4,000 gallons per day (GPD). These commercial RO systems can also be upgraded with a high-pressure pump kit where incoming feed pressures are less than 60 psi. **NL–Series Systems** are the answer for application flexibility, ease of use and economical design. Additional upgrades and accessories are available.

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
- Made in the USA

OPTIONS

- Grundfos CM1-3 Booster Pump
- Accessory Mount Plate
- AXEON Nano Filtration Membrane Elements

NL–2000
Reverse Osmosis System

FEATURES

- AXEON HF5+–Series Membrane Elements
- Black Powder Coated Aluminum Frame
- SDF–Series 5-Micron Pre-Filter
- FRP–Series Membrane Housings (300 psi)
- Pentek® 20" Big Grey Filter Housings
- No Pump Required for Maximum Savings
- Accessory Electrical Outlet
- AXEON Permeate Flow Meter
- AXEON Concentrate Flow Meter with Integrated Needle Valve
- AXEON 0-100 psi Pre-Filtration Pressure Gauges
- Chemical Injection Outlet
- Simple On/Off Control
- Compact Footprint
- Open Frame Design for Easy Service
- Made in the USA

SPECIFICATIONS

MODELS	NL–1000	NL–2000	NL–4000
Design			
Configuration	Single Pass	Single Pass	Single Pass
Feedwater TDS max (ppm)	1,000	1,000	1,000
Standard Recovery %	19	32	46
Flow Rates[A]			
Permeate Flow Rate (gpd / lpd)	1,000 / 3,785	2,000 / 7,570	3,600 / 13,628
Permeate Flow Rate (gpm / lpm)	0.70 / 2.63	1.39 / 5.26	2.50 / 9.46
Minimum Concentrate Flow Rate (gpm / lpm)	3.00 / 11.36	3.00 / 11.36	3.00 / 11.36
Connections			
Feed (inch)	3/4 FNPT	3/4 FNPT	3/4 FNPT
Permeate (inch)	1/2 QC	1/2 QC	1/2 QC
Concentrate (inch)	1/2 QC	1/2 QC	1/2 QC
Membranes			
Membrane(s) Per Vessel	1	1	1
Membrane Quantity	1	1	2
Membrane Size	4021	4040	4040
Nominal TDS Rejection %	97	97	97
Vessels			
Vessel Array	1	1	1:1
Vessel Quantity	1	1	2
Pumps (Optional)			
Pump Type	Multi-Stage	Multi-Stage	Multi-Stage
Motor HP	0.75	0.75	0.75
RPM at 60 Hz	3,480	3,480	3,480
System Electrical[B]			
Standard Voltage and Amp Draw	115V, 60HZ, 1PH, 0.3A	115V, 60HZ, 1PH, 0.3A	115V, 60HZ, 1PH, 0.3A
System Dimensions			
Approximate Dimensions L x W x H (in / cm)	21.5 x 18 x 56.5 / 54.6 x 45.7 x 143.5	21.5 x 18 x 56.5 / 54.6 x 45.7 x 143.5	21.5 x 23 x 56.5 / 54.6 x 58.4 x 143.5
Approximate Weight (lbs / kg)	44 / 20.0	48 / 21.8	60 / 27.2

Warranty Evaluation Test Conditions: Permeate flow rates and salt rejection based on the following test conditions: 550 ppm, filtered and dechlorinated municipal tap water, 77°F / 25°C, 15% recovery for 4040, 8% recovery for 4021, 7.0 pH and the specified operating pressure for membrane element type. Data taken after 60 minutes of operation.

A. Product flow and maximum recovery rates are based on feedwater conditions as stated above. Do not exceed recommended permeate flow.
B. When the pump option is installed the system amp draw is 8.6A @120VAC. Do not exceed 15 Amp total.

OPERATING LIMITS[C]

Design Temperature, °F	77	Maximum SDI Rating	< 5
Maximum Feed Temperature, °F	85	Maximum Turbidity, NTU	< 1
Minimum Feed Temperature, °F	40[D]	Maximum Free Chlorine, ppm	< 0.1
Maximum Ambient Temperature, °F	120	Maximum TDS, ppm	1,000[E]
Minimum Ambient Temperature, °F	40	Maximum Hardness, gpg	0
Maximum Feed Pressure, PSI	80	Maximum pH (continuous)	11
Minimum Feed Pressure, PSI	65	Minimum pH (continuous)	2
Maximum Operating Pressure, PSI	400	Maximum pH (cleaning 30 minutes)	13
Operating Range, PSI	70-130[D]	Minimum pH (cleaning 30 minutes)	1

C. If any of the feed water parameters are not within the limits given, consult your local dealer or distributor for assistance.
D. System Operating Pressure is based on 65 psi feed pressure, minimum concentrate flow as stated, and an average of 2,000 GPD flow per membrane at 77°F.
E. 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 applications which do not meet or exceed minimum and maximum operating limits for such conditions.