

# LP-SERIES REVERSE OSMOSIS SYSTEMS

**AXEON® LP-Series Reverse Osmosis Systems** are engineered in response to the need within the light commercial markets. The LP-Series systems provide a cost-effective solution for customers and are easy to install and maintain. These systems are designed to be wall mounted or free-standing and feature a 5-Micron Sediment and 10-Micron Carbon Pre-Filters, Slim Line Filter Housings and AXEON 500 GPD membranes and membrane housings.

**AXEON LP-Series Reverse Osmosis Systems** are available in models ranging from 350 to 700 gallons per day (GPD), at a line pressure of 70 psi. The LP-500 model is available with a pump to deliver 500 GPD.

The models can also be upgraded with an optional cover that includes pressure gauges and a dual TDS meter.



**LP-700**  
**Reverse Osmosis System**  
 with optional cover, pressure gauges and TDS meter

## FEATURES

- AXEON TF-3012 500 Membrane Element
- AXEON 3012 Membrane Housing
- AXEON 2.5" x 20" 5-Micron Sediment Pre-Filter
- AXEON 2.5" x 20" 10-Micron Carbon Block Pre-Filter and Post-Filter
- Pentair® 20" Slim Line Filter Housings
- Automatic Shut Off Valve
- Push/Pull Fittings with Locking Safety Clip

## OPTIONS AND UPGRADES

- 20" Floor Stand
- Cover with Glycerin-Filled Pressure Gauges Including:
  - Post-Filter Pressure Gauge
  - Operational Pressure Gauge
  - Permeate Pressure Gauge
  - HM-Digital® DM-2 Dual TDS Meter
- Cover without Pressure Gauges
- Blending Valve
- 10" Filter Housings

# SPECIFICATIONS

| MODELS                                                  | LP-350                                           | LP-500                                           | LP-700                                           |
|---------------------------------------------------------|--------------------------------------------------|--------------------------------------------------|--------------------------------------------------|
| <b>Design</b>                                           |                                                  |                                                  |                                                  |
| Configuration                                           | Single Pass                                      | Single Pass                                      | Single Pass                                      |
| Feedwater Source (ppm) <sup>A</sup>                     | TDS < 500                                        | TDS < 500                                        | TDS < 500                                        |
| Standard Recovery Rate %                                | 40                                               | 46                                               | 38                                               |
| <b>Flow Rates<sup>B</sup></b>                           |                                                  |                                                  |                                                  |
| Permeate Flow (gpm / lpm)                               | 0.24 / 0.91                                      | 0.35 / 1.31                                      | 0.49 / 1.85                                      |
| Minimum Feed Flow (gpm / lpm)                           | 0.66 / 2.50                                      | 0.76 / 2.88                                      | 1.33 / 5.03                                      |
| Maximum Feed Flow (gpm / lpm)                           | 8.00 / 30.28                                     | 8.00 / 30.28                                     | 8.00 / 30.28                                     |
| <b>Connections</b>                                      |                                                  |                                                  |                                                  |
| Feed (in)                                               | 3/8 QC                                           | 3/8 QC                                           | 3/8 QC                                           |
| Permeate / Holding Tank (in)                            | 3/8 QC                                           | 3/8 QC                                           | 3/8 QC                                           |
| Concentrate (in)                                        | 3/8 QC                                           | 3/8 QC                                           | 3/8 QC                                           |
| <b>Membranes</b>                                        |                                                  |                                                  |                                                  |
| Membrane Per Vessel                                     | 1                                                | 1                                                | 1                                                |
| Membrane Quantity                                       | 1                                                | 1                                                | 2                                                |
| Membrane Size                                           | 3012                                             | 3012                                             | 3012                                             |
| Nominal TDS Rejection %                                 | 98                                               | 98                                               | 98                                               |
| <b>Vessels</b>                                          |                                                  |                                                  |                                                  |
| Vessel Array                                            | 1                                                | 1                                                | 2 (Parallel)                                     |
| Vessel Quantity                                         | 1                                                | 1                                                | 2                                                |
| <b>Pumps</b>                                            |                                                  |                                                  |                                                  |
| Pump Included                                           | No                                               | Yes                                              | No                                               |
| Pump Type                                               | N/A                                              | Aquatec 5800                                     | N/A                                              |
| <b>System Electrical</b>                                |                                                  |                                                  |                                                  |
| Standard Voltage + Amp Draw                             | N/A                                              | 110V, 50 / 60Hz, 1PH, 4A                         | N/A                                              |
| <b>System Dimensions</b>                                |                                                  |                                                  |                                                  |
| Approximate Dimensions <sup>C</sup> L x W x H (in / cm) | 12.00 x 17.00 x 32.00 /<br>30.48 x 43.18 x 81.28 | 12.00 x 17.00 x 32.00 /<br>30.48 x 43.18 x 81.28 | 12.00 x 17.00 x 32.00 /<br>30.48 x 43.18 x 81.28 |
| Approximate Weight (lbs / kg)                           | 35 / 15.87                                       | 41 / 18.60                                       | 38 / 17.24                                       |

**Test Parameters:** 500 TDS Filtered (5-Micron), Dechlorinated, Municipal Feedwater, 65 psi / 4.50 bar Feed Pressure, 100 psi / 6.8 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 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.  
 B. Product flow and maximum recovery rates are based on feedwater conditions as stated above. Do not exceed recommended permeate flow.  
 C. Does not include operating space requirements.

## OPERATING LIMITS

|                                                 |                                              |                                  |     |
|-------------------------------------------------|----------------------------------------------|----------------------------------|-----|
| Maximum Feed Temperature (°F / °C) <sup>A</sup> | 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)                | 500 |
| Minimum Ambient Temperature (°F / °C)           | 40 / 4                                       | Maximum Hardness (gpg)           | 1   |
| Maximum Feed Pressure (psi / bar) <sup>D</sup>  | 90 / 6 (LP-350, LP-700);<br>70 / 5 (LP-500)  | Maximum pH (continuous)          | 10  |
| Minimum Feed Pressure (psi / bar) <sup>D</sup>  | 70 / 5 (LP-350, LP-700);<br>45 / 3 (LP-500)  | Minimum pH (continuous)          | 4   |
| Maximum Operating Pressure (psi / bar)          | 90 / 6 (LP-350, LP-700);<br>100 / 7 (LP-500) | Maximum pH (cleaning 30 minutes) | 12  |
| Maximum Feed Silt Density Index (SDI)           | < 1                                          | Minimum pH (cleaning 30 minutes) | 2   |

D. System pressure is variable due to water conditions. Permeate flow will increase at a higher temperature and will decrease at a lower temperature.