

## DP – Series Reverse Osmosis System

### AXEON DP – Series Double Pass Reverse Osmosis Systems

are designed for overall superior performance, high rejection rates, minimal energy consumption and offer great savings with low maintenance and operation costs.

### AXEON DP – Series Double Pass Reverse Osmosis Systems

feature a new, innovative design. The systems feature only the highest quality components, including a programmable computer controller with many built-in standard features, stainless steel booster pumps for high performance and corrosion resistance, high rejection low energy membranes and fiberglass membrane housings for enhanced performance and durability.

### AXEON DP – Series Double Pass Reverse Osmosis Systems

have been engineered for capacities ranging from 1,500 to 4,000 gallons per day with zero waste on the second pass.



**DP – 1500**  
Reverse Osmosis System

## Benefits

- Fully Equipped and Customizable
- Skid Mounted
- Decreased Size of Dimensional Footprint from Standard Reverse Osmosis System
- Components Easily Accessible
- Pre-Plumbed, Wired and Assembled
- Individually Tested and Preserved
- Low Operation and Maintenance Costs
- Easy Maintenance and Servicing
- 20% Less Energy Use than Standard Reverse Osmosis Systems
- 1-Year Limited Warranty

Know Higher Standards™

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## Standard Features

- S – 150 Computer Controller
  - LCD Backlit Display
  - Pre-Treatment Lockout
  - Tank Level Input
  - Low Pressure Monitoring and Alarm
  - Dual TDS Monitoring with Rejection Percentage Display
  - Feed Flush
  - Hour Meter
- AXEON Permeate and Concentrate Flow Meters (First and Second Passes)
- AXEON Pre-Filter 0 – 100 psi Panel Mounted Glycerin Filled Gauges
- AXEON Feed Pressure 0 – 100 psi (Second Pass)
- AXEON Pump Discharge and Concentrate 0 – 300 psi Panel Mounted Glycerin Filled Gauges (First and Second Passes)
- AXEON 5 – Micron Sediment Pre-Filter
- AXEON HF6 – Series Membrane Elements (First Pass)
- AXEON HF5 – Series Ultra Low Energy Membrane Elements (Second Pass)
- AXEON FRP – Series Membrane Housings – 300 psi
- AXEON by Pentek® 20" Big Grey Cartridge Housings
- Multi-Stage Stainless Steel Booster Pump
- ASCO™ Composite Feed Solenoid Valve
- Stainless Steel Feed Low Pressure Switch (First and Second Passes)
- White Powder Coated Aluminum Frame



**DP – 1500**  
Reverse Osmosis System

## Options and Upgrades

- Permeate Flush
  - Permeate Divert
  - Permeate Sample Valves
  - Pump Pressure Relief Valve
  - High Pressure Tank Switch
  - Wooden Crate
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# AXEON DP – Series Reverse Osmosis System

| Product Specifications                 |                           |                             |                           |                             |
|--|---------------------------|-----------------------------|---------------------------|-----------------------------|
| Models                                 | DP – 1500                 | DP – 2000                   | DP – 3000                 | DP – 4000                   |
| <b>Flow Rates</b>                      |                           |                             |                           |                             |
| Permeate Flow Rate (gpd)               | 1500                      | 2000                        | 3000                      | 4000                        |
| Permeate Flow Rate (gpm)               | 1.04                      | 1.38                        | 2.08                      | 2.7                         |
| Feedwater† TDS max (ppm)               | 2000                      | 2000                        | 2000                      | 2000                        |
| Standard Recovery (%)                  | 26                        | 31.5                        | 39                        | 43.8                        |
| Minimum Concentrate Flow Rate (gpm)    | Pass 1 – 3 Pass 2 – 0.5   | Pass 1 – 3 Pass 2 – 0.5     | Pass 1 – 3 Pass 2 – 1     | Pass 1 – 3 Pass 2 – 1       |
| <b>Connections</b>                     |                           |                             |                           |                             |
| Feed Connection (in)                   | 1 FNPT                    | 1 FNPT                      | 1 FNPT                    | 1 FNPT                      |
| Permeate Connection (in)               | 1/2 FNPT                  | 1/2 FNPT                    | 3/4 FNPT                  | 3/4 FNPT                    |
| Concentrate Connection (in)            | 1/2 FNPT                  | 1/2 FNPT                    | 3/4 FNPT                  | 3/4 FNPT                    |
| <b>Membranes</b>                       |                           |                             |                           |                             |
| Membrane(s) Per Vessel                 | 1                         | 1                           | 1                         | 1                           |
| Membrane Quantity                      | 4                         | 5                           | 4                         | 5                           |
| Membrane Size                          | 2 – 4040 / 2 – 2540       | 2 – 4040 / 3 – 2540         | 3 – 4040 / 1 – 4040       | 3 – 4040 / 2 – 4040         |
| Nominal TDS Rejection %                | 99.9                      | 99.9                        | 99.9                      | 99.9                        |
| <b>Vessels</b>                         |                           |                             |                           |                             |
| Vessel Array                           | Pass 1 – 1:1 Pass 2 – 1:1 | Pass 1 – 1:1 Pass 2 – 1:1:1 | Pass 1 – 1:1:1 Pass 2 – 1 | Pass 1 – 1:1:1 Pass 2 – 1:1 |
| Vessel Quantity                        | 2 – 4040 / 2 – 2540       | 2 – 4040 / 3 – 2540         | 3 – 4040 / 1 – 4040       | 3 – 4040 / 2 – 4040         |
| <b>Pumps</b>                           |                           |                             |                           |                             |
| Pump Type                              | Multi-Stage               | Multi-Stage                 | Multi-Stage               | Multi-Stage                 |
| Motor HP                               | 1.5 / .75                 | 1.5 / .75                   | 1.5 / .75                 | 1.5 / 1.5                   |
| RPM at 60 Hz                           | 3450                      | 3450                        | 3450                      | 3450                        |
| <b>System Electrical</b>               |                           |                             |                           |                             |
| Standard Voltage + Amp Draw            | 220V, 60Hz, 16            | 220V, 60Hz, 16              | 220V, 60Hz, 16            | 220V, 60Hz, 19              |
| <b>System Dimensions</b>               |                           |                             |                           |                             |
| Approximate Dimensions* L x W x H (in) | 26 x 26 x 60              | 26 x 26 x 60                | 26 x 26 x 60              | 26 x 26 x 60                |
| Approximate Weight (lbs)               | 330                       | 335                         | 320                       | 340                         |

**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, 7.0 pH and the specified operating pressure for membrane element type. Data taken after 60 minutes of operation

\* Does not include operating space requirements.

## Operating Limits<sup>††</sup>

|                                       |          |                                  |       |
|---------------------------------------|----------|----------------------------------|-------|
| Maximum Feed Temperature (°F / °C)    | 85 / 29  | Maximum Free Chlorine (ppm)      | 0     |
| Minimum Feed Temperature (°F / °C)    | 40 / 4   | Maximum TDS (ppm)                | 2,000 |
| Maximum Ambient Temperature (°F / °C) | 120 / 49 | Maximum Hardness (gpg)           | 0     |
| Minimum Ambient Temperature (°F / °C) | 40 / 4   | Maximum pH (Continuous)          | 11    |
| Maximum Feed Pressure (psi / bar)     | 85 / 6   | Minimum pH (Continuous)          | 2     |
| Minimum Feed Pressure (psi / bar)     | 45 / 3   | Maximum pH (Cleaning 30 Minutes) | 13    |
| Maximum Pressure (psi / bar)          | 200 / 14 | Minimum pH (Cleaning 30 Minutes) | 1     |
| Maximum Feed Silt Density Index (SDI) | <3       | Maximum Turbidity NTU            | 1     |

<sup>†</sup> Low temperatures and feedwater quality, such as high TDS levels will significantly affect the system 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.

<sup>††</sup> System pressure is variable due to water conditions. Permeate flow will increase at a higher temperature and will decrease at a lower temperature.

<sup>†††</sup> Product flow and maximum recovery rates are based on feedwater conditions as stated above. Do not exceed recommended permeate flow. Design conditions are not identical to test conditions, please contact the manufacturer or your supplier for more information.

