

# Tier1 – Series Reverse Osmosis Systems

**TIER1 – Series Reverse Osmosis Systems** are engineered in response to the need within the light commercial markets. The Tier1 – 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 RO membrane and membrane housings.

**TIER1 – 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 models can also be upgraded with an optional cover that includes pressure gauges and a dual TDS meter.



**TIER1-WH-RO-700**  
**Reverse Osmosis System**

with optional cover, pressure gauges and TDS meter

## Features

- TF – 3012 – 500 Membrane Element
- 3012 Membrane Housing
- 2.5" x 20" 5 – Micron Sediment Pre-Filter
- 2.5" x 20" 10 – Micron Carbon Block Pre-Filter and Post-Filter
- 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
  - DM – 2 Dual TDS Meter
- Cover without Pressure Gauges
- Blending Valve

# Tier1 – Series Reverse Osmosis Systems

Product Specifications		
Models	TIER1-WH-RO-350	TIER1-WH-RO-700
<b>Design</b>		
Configuration	Single Pass	Single Pass
Feedwater Source <sup>†</sup>	TDS <500 ppm	TDS <500 ppm
Standard Recovery Rate %	40	38
<b>Rejection and Flow Rates**</b>		
Nominal Salt Rejection %	98	98
Permeate Flow (gpm / lpm)	0.24 / 0.91	0.49 / 1.85
Minimum Feed Flow (gpm / lpm)	0.66 / 2.50	1.33 / 5.03
Maximum Feed Flow (gpm / lpm)	8.00 / 30.28	8.00 / 30.28
<b>Connections</b>		
Feed Connection (in)	3/8 GC	3/8 GC
Permeate Connection / Holding Tank (in)	3/8 GC	3/8 GC
Concentrate Connection (in)	3/8 GC	3/8 GC
<b>Membranes</b>		
Membrane(s) Per Vessel	1	1
Membrane Quantity	1	2
Membrane Size	3012	3012
<b>Vessels</b>		
Vessel Array	1	2 Parallel
Vessel Quantity	1	2
<b>Pumps</b>		
Pump Included	No	No
Pump Type	N/A	N/A
<b>System Electrical</b>		
Standard Voltage + Amp Draw	N/A	N/A
<b>Systems Dimensions</b>		
Approximate Dimensions* L x W x H (in / cm)	12.00 x 17.00 x 32.00 / 30.48 x 43.18 x 81.28	12.00 x 17.00 x 32.00 / 30.48 x 43.18 x 81.28
Approximate Weight (lbs / kg)	35 / 15.87	38 / 17.24

**Test Parameters:** 500 TDS Filtered (5 – Micron), Dechlorinated, Municipal Feedwater, 65 psi / 4.50 bar Feed Pressure, 150 psi / 10.34 bar Operating Pressure, 77°F / 25°C, Recovery as stated, 7.0 pH. Data taken after 60 minutes of operation.

\* Does not include operating space requirements.

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

## Operating Limits

Maximum Feed Temperature (°F / °C) <sup>†</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 ppm
Minimum Ambient Temperature (°F / °C)	40 / 4	Maximum Hardness (gpg)	1
Maximum Feed Pressure (psi / bar) <sup>††</sup>	90 / 6 (RO-350, RO-700)	Maximum pH (Continuous)	10
Minimum Feed Pressure (psi / bar) <sup>††</sup>	70 / 5 (RO-350, RO-700)	Minimum pH (Continuous)	4
Maximum Operating Pressure (psi / bar)	90 / 6 (RO-350, RO-700)	Maximum pH (Cleaning 30 Minutes)	12
Maximum Feed Silt Density Index (SDI)	<1	Minimum pH (Cleaning 30 Minutes)	2

<sup>†</sup> 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.

<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.