

Part Number

PWP-500

PWP-1000

PRODUCT NAME:

500 - 1,000 GPD Reverse Osmosis

STANDARD FEATURES:

- Manual On and Off Control Switch
- White Powder Coated Aluminum Frame
- 5 Micron Sediment Pre-Filter
- 10 Micron Sediment Pre-Filter
- Single O-Ring Filter Housings
- Brass Rotary Vane High Pressure Pump
- ODP High Efficiency Carbonator Motor
- Low Energy Membranes
- PVC Membrane Housings
- Permeate Flow Meter
- Concentrate Flow Meter
- Feed Low Pressure Switch
- Feed Solenoid Valve
- 316 Stainless Steel Concentrate Valve
- 0-300 psi Pump Pressure Gauge
- 0-100 psi Pre-Filter Pressure Gauges
- John Guest Push/Pull Fittings with Locking Safety Clips

Overview

PWP-Series Reverse Osmosis Systems are designed for overall high performance, high recovery rates, minimal energy consumption and offer great savings with low maintenance and operation costs.

PWP-Series Reverse Osmosis Systems feature a space saving expandable design, exceptional pre-filtration, quality components and allow for many options and upgrades to suit most applications.

PWP-Series Reverse Osmosis Systems have been engineered for capacities ranging from 500-1000 gallons per day.



PWP-1000 Reverse Osmosis System (Front)



PWP-1000 Reverse Osmosis System (Back)

Operating Limits

Maximum Feed Temperature °F (°C)	85 (29.00)	Maximum Free Chlorine ppm	0
Minimum Feed Temperature °F (°C)	40 (4.44)	Maximum TDS ppm	<2000
Maximum Ambient Temperature °F (°C)	120 (48.89)	Maximum Hardness gpg † †	0
Minimum Ambient Temperature °F (°C)	40 (4.44)	Maximum pH (continuous)	11
Maximum Feed Pressure psi (bar)	85 (5.86)	Minimum pH (continuous)	5
Minimum Feed Pressure psi (bar)	45 (3.10)	Maximum pH (cleaning 30 min)	12
Maximum Operating Pressure psi (bar)	150 (10.34)	Minimum pH (cleaning 30 min)	2
Maximum SDI Rating SDI	<3		
Maximum Turbidity NTU	1		

Test Parameters: 550 TDS Filtered (5 Micron), De-Chlorinated, Municipal Feed Water, 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.

† † Scale prevention measures must be taken to prolong membrane life.

Reverse Osmosis System Packages PWP-500 / PWP-1,000

FEATURES & BENEFITS:

- Fully equipped and customizable
- Expandable and lightweight design
- Compact space saving design
- Components easily accessible
- Pre-plumbed, wired and assembled
- Factory tested and preserved
- Low operation costs
- Low maintenance costs
- Easy maintenance and servicing
- CE compliant
- 1-year limited warranty
- Made in the USA

OPTIONS & UPGRADES:

- Extra Low Energy Membranes
- Nanofiltration Membranes
- Stainless Steel Membrane Housings
- Concentrate Recycle Valve with Flow Meter
- PS-100 TDS Controller
- PS-200 Dual TDS Controller
- PSC-150 TDS/Conductivity Controller
- Stainless Steel Rotary Vane Pump
- Computer Controller
- Computer Controller with Feed Flush
- High Pressure Tank Switch
- Chemical Pump Outlet
- Blending Valve
- Permeate Flush with Pressure Tank
- Permeate Flush with Atmospheric Tank
- Permeate Sample Ports
- Single Wood Crate

	Standard
Frame	
White Powder Coated Aluminum Frame	✓
Controls	
Manual On and Off Control Switch	✓
Computer Controller	
Computer Controller Upgrade	
Pre-Treatment Lockout	
Tank Level Input	
LED Controller Display	
Feed Solenoid Valve	✓
Concentrate Recycle Valve	
Feed Low Pressure Switch 15-30 psi	✓
Instrumentation	
Permeate Flow Meter	✓
Concentrate Flow Meter	✓
Concentrate Recycle Flow Meter	
316 Stainless Steel Concentrate Valve	✓
0-100 psi Pre-Filter In Pressure Gauge	✓
0-100 psi Pre-Filter Out Pressure Gauge	✓
0-300 psi Pump Pressure Gauge	✓
PS-100 Permeate TDS Controller	
PS-202 Dual Permeate and Feed TDS Controller	
Features	
Feed Flush	
5 Micron Sediment Pre-Filter	✓
10 Micron Carbon Block Pre-Filter	✓
Single O-Ring Filter Housings	✓
Low Energy RO Membranes	✓
Extra Low Energy RO Membranes	
PVC Membrane Housings	✓
Brass Rotary Vane High Pressure Pump	✓
Stainless Steel Rotary Vane Pump	
High Efficiency Carbonator Motor	✓

Specifications	PWP-500	PWP-1000
Design		
Configuration	Single Pass	Single Pass
Feed Water Source ***	TDS <2000 ppm	TDS <2000 ppm
Standard Recovery Rate †	26%	41%
Recovery with Optional Concentrate Recycle	Up to 75%	Up to 75%
Rejection and Flow Rates		
Nominal Salt Rejection %	98.5	98.5
Permeate Flow* gpm (lpm)	0.35 (1.32)	0.69 (2.61)
Minimum Feed Flow gpm (lpm)	1.35 (5.11)	1.69 (6.40)
Maximum Feed Flow gpm (lpm)	3.00 (11.36)	4.00 (15.14)
Minimum Concentrate Flow gpm (lpm)	1.00 (3.78)	1.00 (3.78)
Connections		
Feed inch	1 FNPT	1 FNPT
Permeate inch	3/8 Tube	3/8 Tube
Concentrate inch	3/8 Tube	3/8 Tube
Membranes		
Membrane(s) Per Vessel	1	1
Membrane Quantity	2	3
Membrane Size	2521	2521
Vessels		
Vessel Array	1:1	1:1:1
Vessel Quantity	2	3
Pumps		
Pump Type	Rotary Vane 401 Brass or 411 SS	Rotary Vane 601 Brass or 611 SS
Motor HP	1/3	1/2
RPM @ 60 (50 Hz)	1725 (1465)	1725 (1465)
Electrical		
Standard Voltage	110V, 60Hz, 1PH, 6.6A	110V, 60Hz, 1PH, 8.2A
Voltage Options	220V, 60Hz, 1PH, 3.2A 220V, 50Hz, 1PH, 3.7A	220V, 60Hz, 1PH, 3.9A 220V, 50Hz, 1PH, 4.1A
Systems Dimensions **		
L x W x H inch (cm)	14 x 20 x 27 (36 x 51 x 69)	14 x 20 x 27 (36 x 51 x 69)
Weight lb. (kg)	65 (29.5)	70 (31.75)

* Product Flow rates and recovery are based on equipment test parameters

** Does not include operating space requirements

*** Treatment ability of the RO system is dependent on feed water quality. Performance projections must be run for each installation.

† Low temperatures and high feed water TDS levels will significantly affect systems production capabilities. Computer projections should be run for individual applications which do not meet or exceed minimum and maximum operating limits.