# Hellenbrand.

# **HRO 3.5 Series Reverse Osmosis Systems**

HRO 3.5-Series Reverse Osmosis Systems are manufactured for light commercial applications and feature a compact wall mount space-saving design. The HRO 3.5-Series come pre-assembled and ready for immediate on-line service with minimal set up and simple utility connections.

HRO 3.5-Series Reverse Osmosis Systems have been engineered for capacities of 200 and 300 gallons per day and feature a single pump design for enhanced performance.

#### Features

- 5 Micron Sediment Pre-Filter
- 10 Micron Carbon Block Pre-Filter and Post-Filter
- Pentek<sup>®</sup> 10" Filter Housings
- HF4 Extra Low Energy Membrane
- Fiberglass Membrane Housing
- 0 300 psi Glycerin-Filled Pump Pressure Gauge
- 0 100 psi Glycerin-Filled Pre-Filter Pressure Gauge
- 0 100 psi Glycerin-Filled Permeate Pressure Gauge
- John Guest<sup>®</sup> Push/Pull Fittings with Locking Safety Clips
- Aquatec<sup>®</sup> High Flow Booster Pump
- Aquatec<sup>®</sup> Tank Pressure Switch
- Aquatec<sup>®</sup> Feed Solenoid Valve
- Aquatec<sup>®</sup> Auto Flush Timer Valve

#### **Options and Upgrades**

- 10" and 20" Floor Stands
- Product Water Storage Tanks
- HF5 Ultra Low Energy Membrane (For Cold Water Applications)
- Stainless Steel Membrane Housing
- HM Digital<sup>®</sup> DM-2 TDS Meter
- Pentek<sup>®</sup> 20" Filter Housings





HRO 3.5-300 Wall Mount Reverse Osmosis System



HRO 3.5-300 Reverse Osmosis System with Optional 20" Stand and 20" Filter Housings

**Engineered Water Treatment Solutions** 

### **HRO 3.5 Series Reverse Osmosis Systems**

PRODUCT SPECIFICATIONS		
	HRO 3.5-300	
Design		
Configuration	Single Pass	
Feed Water Source (ppm)	TDS <1000	
Standard Recovery*	50%	
Rejection and Flow Rates		
Nominal Salt Rejection	98.5%	
Permeate Flow* (gpm / lpm)	0.21 / 0.79	
Concentrate Flow (gpm / lpm)	0.21 / 0.79	
Connections		
Feed (in)	3/8 Tube	
Permeate (in)	3/8 Tube	
Concentrate (in)	3/8 Tube	
Membranes		
Membrane Per Vessel	1	
Membrane Quantity	1	
Membrane Size	2521	
Vessels		
Vessel Array	1	
Vessel Quantity	1	
Pumps		
Pump Type	Aquatec 5800	
Electrical		
Standard Voltage	110V, 60Hz, 1Ph 1.0A	
Voltage Options	220V, 50Hz, 1Ph, 0.5A	
System Dimensions		
L x W x H (in / cm)	9 x 27 x 19 / 22.9 x 68.6 x 48.3	
Weight (lb / kg)	50 / 22.7	

\* Product flow and recovery rates are based on feedwater conditions of 550 TDS at 77°F at 100 psi. Treatment ability of the RO system is dependent on feedwater quality. Higher TDS and/or lower temperatures will reduce product flow. Performance projections should be run for each installation.

## **Operating Limits**

Design Temperature	77°F	Max. Turbidity NTU ^	1
Max. Feed Temperature	85°F	Max. Free Chlorine ppm	0
Min. Feed Temperature	40°F	Max. TDS ppm	1,000
Max. Ambient Temperature	120°F	Max. Hardness GPG ^^	1
Min. Ambient Temperature	40°F	Max. pH (Continous)	11
Max. Feed Pressure psi	85	Min. pH (Continuous)	3
Min. Feed Pressure psi	45	Max. pH (Cleaning 30 Min.)	12
Max. Operating Pressure psi	120	Min. pH (Cleaning 30 Min.)	2
Max. SDI Rating	<3		

Test Parameters: Static pressure tested.

^Appropriate filtration must be installed in order to prevent premature membrane fouling.

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



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