CERO-Series Reverse Osmosis Systems

CERO-Series Reverse Osmosis Systems are state-of-the-art, versatile systems for treating tap and well water supplies up to 8,000 gallons per day with minimal energy consumption and low maintenance and operation costs.

CERO-Series Systems feature a robust, innovative design that allows for versatility in the event of feed water quality and temperature variations. These systems feature a stainless steel booster pump for high performance and corrosion resistance, extra low energy membranes and FRP Fiberglass membrane housings for enhanced performance and durability. All systems come pre-assembled and pre-wired for ease of maintenance and servicing.

Features

- HF5-4040 Spiral Wound Thin-Film Composite Membranes
- FRP Fiberglass Membrane Housings
- 4.5" x 20" Single O-Ring Pre-Filter Housing
- 5 Micron Sediment Pre-Filter
- Multistage Centrifugal Pump with ODP Motor
- Thermal Overload Protection
- Pump Operating Pressure Gauge
- Powder Coated Aluminum Frame
- Low Pressure Switch
- Solenoid Valve with Manual Bypass
- Stainless Steel Concentrate Valve

(OPTIONS: Extra Gauges, Flowmeter, Water quality meters And automatic controllers)

CERO-Series Reverse Osmosis Systems

Product Specifications						
	CERO-2000	CERO-2000HP	CERO-4000	CERO-4000HP	CERO-6000	CERO-8000
Design						
Configuration	Single Pass	Single Pass	Single Pass	Single Pass	Single Pass	Single Pass
Feed Water Source***	2000 ppm	8000 ppm	2000 ppm	8000 ppm	2000 ppm	2000 ppm
System Recovery ^	30% – 50%	30% – 50%	30% – 50%	30% – 50%	30% – 50%	30% – 50%
System Recovery with Recycle	50% – 75%	50% – 75%	50% – 75%	50% – 75%	50% – 75%	50% – 75%
Rejection and Flow Rates						
Nominal Salt Rejection	98.5%	98.5%	98.5%	98.5%	98.5%	98.5%
Permeate Flow Rate*	1.38 gpm	1.38 gpm	2.70 gpm	2.70 gpm	4.10 gpm	5.50 gpm
Concentrate Flow Rate (Minimum)	3.00 gpm	3.00 gpm	3.00 gpm	3.00 gpm	3.00 gpm	3.00 gpm
Concentrate Recycle Flow Rate	Up to 3.00 gpm	Up to 3.00 gpm	Up to 3.00 gpm	Up to 3.00 gpm	Up to 3.00 gpm	Up to 3.00 gpm
Connections						
Feed Connection	3/4" FNPT	3/4" FNPT	3/4" FNPT	3/4" FNPT	3/4" FNPT	3/4" FNPT
Permeate Connection	1/2" Male	1/2" Male	1/2" Male	1/2" Male	1/2" Male	1" Male 1/2" Male
Concentrate Connection	1/2" Male	1/2" Male	1/2" Male	1/2" Male	1/2" Male	1/2" Male
Membranes						
Membranes Per Vessel	1	1	1	1	1	1
Membrane Quantity	1	1	2	2	3	4
Membrane Size	4040	4040	4040	4040	4040	4040
Vessels						
Vessel Array	1	1	1:1	1:1	1:1:1	1:1:1:1
Vessel Quantity	1	1	2	2	3	4
Pumps						
Pump Type	Multi-Stage	Multi-Stage	Multi-Stage	Multi-Stage	Multi-Stage	Multi-Stage
Motor HP	1/2 HP	1 HP	1/2 HP	1 HP	1.5	1.5
RPM @ 60 HZ	3450	3450	3450	3450	3450	3450
Electrical						
Standard Voltage	115/220V 1Ph 60 HZ	220V 1Ph 60 HZ	115/220V 1Ph 60 HZ	220V 1Ph 60 HZ	220V 1Ph 60 HZ	220V 1Ph 60 HZ
System Dimensions**						
Approx. Dimensions (L x W x H)	16" x 16" x 45"	16" x 16" x 45"	18" x 18" x 45"	16" x 16" x 45"	16" x 16" x 45"	16" x 16" x 45"
Approx. Weight	150 lbs.	150 lbs.	175 lbs.	200 lbs.	200 lbs.	225 lbs.

** 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.

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	2000^^^
Max. Ambient Temperature	120°F	Max. Hardness GPG ^^	0
Min. Ambient Temperature	40°F	Max. pH (Continuous)	11
Max. Feed Pressure psi	85	Min. pH (Continuous)	5
Min. Feed Pressure psi	45	Max. pH (Cleaning 30 Min.)	12
Max. Operating Pressure psi	150^^^	Min. pH (Cleaning 30 Min.)	2
Max. SDI Rating	<3		

Test Parameters: Static pressure test for 5 minutes.

^ Low temperature 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.

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

^^^ CERO-2000HP and CERO-4000HP are high pressure RO systems and may work with feed water TDS up to 8000 ppm and up to 200 psi.

Made in the U.S.A.