

ACS3-SERIES

REVERSE OSMOSIS SYSTEMS

ACS3-Series systems are designed and manufactured for seawater applications specifically tailored for capacities ranging from 600-2,200 gallons per day. The ACS3-Series feature a unique and innovative compact design that allows for easy installation in any size area.



REVERSE OSMOSIS

STANDARD FEATURES

- S-150 Computer Controller
- LCD Backlit Display
- Pre-Treatment Lockout
- Tank Level Input
- Low Pressure Monitoring and Alarm
- Dual TDS Monitoring
- Hour Meter
- Feed Flush
- High Rejection Seawater Membranes
- Fiberglass Membrane Housings
- 5 Micron Sediment Pre-Filter
- Pentair® Single O-Ring Cartridge Housing
- Permeate and Concentrate Flow Meters
- 0-100 psi 316-SS Glycerin-Filled Pre-Filter
- Pressure Gauge
- 0-100 psi Pre-Filter Out Pressure Gauge
- 0-1500 psi Concentrate Pressure Gauge
- Plast-O-Matic Feed Solenoid Valve
- 316 Stainless Steel Needle Valve
- SS Feed Low Pressure Switch
- SS Pump High Pressure Switch
- CAT® 316L High Pressure Pump
- TEFC Motor with Thermal Motor Protection
- Chemical Pump Outlet
- Powder Coated Aluminum Frame
- High Pressure 316 Stainless Steel Tubing and Fittings
- High Pressure Hose with Reusable SS Fittings

OPTIONS & UPGRADES

- Booster Pump
- High Pressure Tank Switch
- Permeate Divert Valve
- Fresh Water Flush
- Ultraviolet Light
- Wooden Crate

MODELS	ACS3-600	ACS3-1200	ACS3-1800	ACS3-2200
DESIGN				
System Capacity gpd (lpd)	600 (2,271)	1,200 (4,542)	1,800 (6,814)	2,200 (8,328)
Configuration	Single Pass			
Feed Water Source ³ (ppm)	TDS < 45,000 ppm			
Standard Recovery Rate	15%	20%	25%	36%
REJECTION AND FLOW RATES				
Nominal TDS Rejection	99%			
Permeate Flow ¹ gpm (Lpm)	0.41 (1.55)	0.83 (3.14)	1.25 (4.73)	1.52 (5.75)
Minimum Feed Flow gpm (Lpm)	4.2 (15.9)			
Maximum Concentrate Flow gpm (Lpm)	6 (22.7)			
CONNECTIONS				
Feed (in)	0.5 FNPT			
Permeate (in)	0.375 TUBING			
Concentrate (in)	0.375 TUBING			
MEMBRANES				
Membranes Per Vessel	1			
Membrane Quantity	1	2	3	4
Membrane Size	2540			
VESSELS				
Vessel Array	1	1:1	1:1:1	1:1:1:1
Vessel Quantity	1	2	3	4
PUMPS				
Pump Type	Plunger			
Motor HP (kW)	2.5 (1.85)			
RPM @ 60 (50 Hz)	1725 (1450)			
ELECTRICAL				
Standard Voltage	220VAC 1Ph			
SYSTEM DIMENSIONS²				
L x W x H (in/cm)	48 x 24 x 18.5 (122 x 61 x 47)			
Weight (lb/kg)	145 (65.77)	155 (70.31)	165 (74.84)	175 (79.38)
OPERATING LIMITS				
Maximum Feed Temperature (°F/°C) ¹	85 (29)	Maximum Free Chlorine (ppm)		0
Minimum Feed Temperature (°F/°C) ¹	40 (4.4)	Maximum TDS (ppm)		45,000
Maximum Ambient Temperature (°F/°C)	120 (48.9)	Maximum Hardness (gpg)		0
Minimum Ambient Temperature (°F/°C)	40 (4.4)	Maximum pH (Continuous)		11
Maximum Feed Pressure (psi/bar)	50 (3.4)	Minimum pH (Continuous)		5
Minimum Feed Pressure (psi/bar)	5 (0.3)	Maximum pH (Cleaning 30 Min.)		12
Maximum Operating Pressure (psi/bar)	1000 (68.95)	Minimum pH (Cleaning 30 Min.)		2
Maximum SDI Rating (SDI)	< 3	Maximum Turbidity (NTU)		1

¹Product flow and recovery rates are based on test parameters of 35,000 TDS Filtered (5 Micron), De-Chlorinated, Feed Water, 65psi (4.5 bar) Feed Pressure, 850psi (58.61 bar) Operating Pressure, 77°F (25°C), Recovery as stated, 7.0 pH. Data taken after 60 minutes of operation. ²Does not include operating space requirements. ³Treatment ability of the RO system is dependent on feed water quality. Performance projections must be run for each installation.