

Reverse osmosis 6000 gpd



Daily production chart (liters/day)

TDS (NaCl) inlet water (mg/l)

°C/°F		500	1 000	2 000
25/77	(gpd)	6 000	5 904	5 717
25/11	(lpd)	22 710	22 347	21 639
15/59	(gpd)	5 400	4 896	3 989
15/59	(lpd)	20 439	18 531	15 098
5/41	(gpd)	3 629	3 312	2 621
3/41	(lpd)	13 736	12 536	9 920 =

 $^{^{*}}$ Inlet water parameters used for calculations : raw water at 25°C. SDI < 3, no counterpressure.





Components

l l	nlet valve	1" FNPT		
I	nlet filter	5 microns, 114 x 508 mm (4,5 x 20"))	
P	ressurization pump	Submersible booster pump		
		Stainless steel 316		
M	1otor	1HP NEMA		
L	ow pressure protection	Pressure switch		
M	1embrane housing	PVC 4040		
M	1embrane type	TFC - Low energy		
M	1embrane dimensions	102 x 1 016 mm (4" x 40")		
Ν	lumber of membranes	3		
M	1embrane surface m²(pi²)	24,3 (261)		
R	Recirculation control	Manual flow control		
	Prain control	Regulation valve (flow/pressure)		
R	Reject flow meter	0-37,9 lpm (0-10 gpm)		
P	ermeate flow meter	0-18,9 lpm (0-5 gpm)		
S	ystem shutoff control	Float/contact device		
Ir	nlet water quality monitor	0-1 000 μS		
P	ermeate water quality monitor	0-250 μS		
	Display screen	Printed circuit board, 2 line screen		

Connections

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Electric power supply	208-240VAC/1ph/60Hz, 12-10,4 Amp. 208-575VAC/3ph/60Hz Other power supply configurations available on demand
Inlet	1" FNPT
Permeate	3/4" MNPT
Reject	3/4" MNPT
PūreRince process	1/2" FNPT

Feed water

Inlet pressure	25-50 psi (1,7 - 3,4 bar)		
Operating pressure	90-130 psi (6,2 - 9,0 bar)		
Temperature	4 - 30 °C		
рН	2 - 11 SU		
Chlorine	0,05 mg/l		
Iron (Max.)	<0,3 mg/l		
Silica (Max.)	10,0 mg/l		
Total dissolved solids (Max.)	3 000 mg/l		

Operating specs

Permeate flow rate *	15,8 lpm (4,17 gpm)
Reject flow rate @ 50 %	15,8 lpm (4,17 gpm)
Daily production	22 710 l (6 000 gal)
Reject rate	97-99 %
Recovery ratio	50-65 %
Rinse time	15 minutes
Rinse volume (Min.)	113,7 l (30 gal)
Width x Depth x Height	838 x 457 x 1 372 mm
	(33 x 18 x 54")
Shipping / operating weight	132/181 kg (290/400 lbs)

Options

Raw water conductivity probe	
Reject water conductivity probe	
BACnet or Modbus communication protocols available	
Direct feed	
Programmable logic controllers (PLC)	
Stainless steel piping (316)	
Alternate or auxiliary pump	

Reverse osmosis 6000 gpd

Technical specifications: Commercial and industrial reverse osmosis systems

Operating profile

The system uses reverse osmosis technology to reduce total dissolved solids (TDS) level in water by a minimum of 95%, depending on raw water quality. System contains its own pressurization system to optimize the production of water through the membranes. System operating pressure should be between 90 and 130 psi (6,2 and 9,0 bar). System functionalities include monitoring and regulating devices to adjust the system's operating pressure. The system contains an electric inlet valve that closes when a tank full or a problem signal is received. A low pressure switch serves to protect pump from cavitation damage during low pressure occurrences. On/Off cycling is based on a normally open dry contact (ex.: level float switch), a pressure switch or an external contact. The unit is equipped with audible and visual alarms as well as a fused disconnect switch.

SIRIUS 570-GK

Dimensions in millimeters (inches)

Pump design

Units use a multi-stage vertical stainless steel submersible pump. Pump motor is 1 HP (60Hz) or $1\frac{1}{2}$ HP (50Hz) and NEMA rated.

Membranes and housings

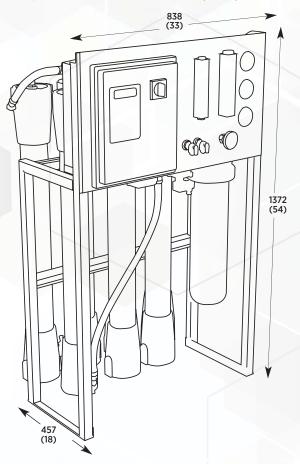
System uses 3 TFC low energy membranes. Each membrane size shall be 102×1016 mm (4.0" x 40") with an area of 8,1 m². Each membrane and housing shall be rated for a working pressure to 225 psi (15,5 bar). Housings shall be mounted in a vertical configuration.

Plumbing configuration

System incorporates a reject recovery design and provides for an adjustable internally recirculated flow rate. Reject flow is controlled by a pressure regulating valve. During a shut down mode, the feed side of the membrane shall be flushed with at least 5 housing volumes of permeate water. PureRince cycle shall be automatic with each shutdown.

Skid

The system in assembled on a corrosion resistant stainless steel frame. The unit will not weight more than 125 kg during operation.



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