ACROPORE®
Your Water Filtration Specialists

RO Systems
Series PRO

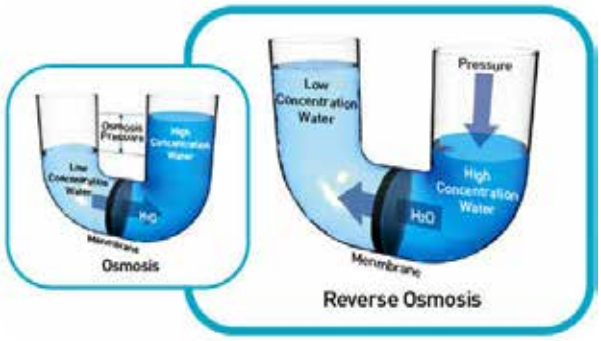
Standard Features

- Carbon coated steel frame
- 4”x40” and 8”x40” TFC spiral wound membranes
- Stainless steel multi-stage pump, vertical type
- 4”x40”, 8x40” and 8”x80” FRP membrane housings
- 5 micron prefilter
- Control panel
- Programmable time delay and set points
- LCD screen
- Motor starter
- Low pressure switch
- Liquid filled pressure gauges
- TDS meter
- Flow meters
- Factory tested to insured quality
- 1 Year warranty

AF-PRO88-196Q

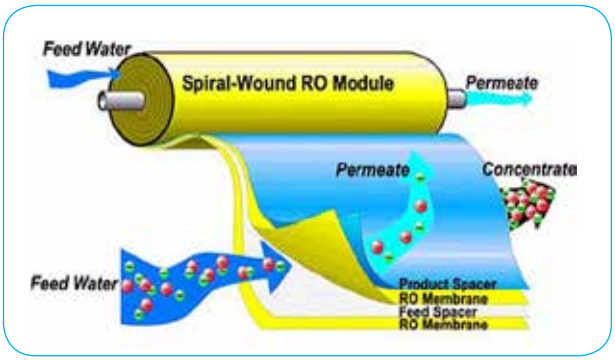
Reverse Osmosis

Reverse Osmosis (RO) is the best technology for drinking water purification. The raw water with the pressure is filtered by RO membrane. Only water molecules can pass through this membrane while others impurities which partilcle size is bigger than 0.0001 micron are removed, including ions, heavy metals, salts, dissolved solids, organic compounds, bacterias and viruses.



RO Membrane

RO membrane is made of Thin Film Composit with pore size of 0.0001 micron. To purify water by RO membrane, the natural osmosis effect must be reversed. In order to force the water of the brine stream (high salt concentration) to flow towards the fresh stream (low salt concentration), the water must be pressurized at an operating pressure greater than the osmotic pressure. As a result, the brine side will get more concentrated.



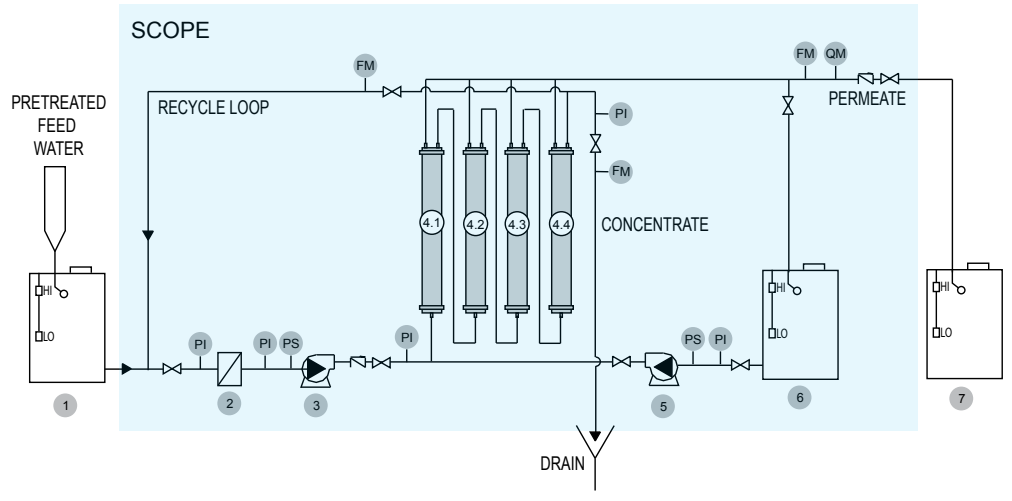
Applications

- Restaurants
- Aquariums
- Manufacturing
- Institutions
- Ice Makers
- Humidification
- Desalination
- Rinse Water
- A wide variety of other applications

Feed water requirements:

- Max feed water temperature: 45 ^{O}C
- Max Turbidity: 300 NTU
- Max TDS:
  1000 ppm (Tap water),
  3,000ppm (Brackish water)
  5,000 ppm (Seawater)
- Max Iron content : 0.05 ppm
- Operating pressure: 150- 250 psi
- pH tolerance : 2-11

Flow Diagram



1 Pretreated Feed Water Tank
2 5 micron Filters
3 High Pressure Pump
4 RO Membrane and Housing
5 CIP Pump (Optional)
6 CIP Tank (Optional)
7 Product Water Tank
Solinoid Valve
Check Valve
PI Pressure Gauge
PS Pressure Switch
FM Flow meter
QM TDS Meter

RO Membrane Specification	Feed water RO Membrane Size (inch)					
	Tap water		Brackish water		Seawater	
	4 x 40	8 x 40	4 x 40	8 x 40	4 x 40	8 x 40
Membrane material	Polyamide Thin-Film Composit					
Surface area (sq.ft)	78	365	78	365	80	440
Capacity (m^3/hr)	0.25	1.5	0.25	1.5	0.25	1.5
Salt rejection (%)	99.5	99.5	99.5	99.5	99.4	99.8

Model AF-PRO44-36Q

AF-PRO48-72Q

AF-PRO88-196Q

Ordering information								
Part number			Capacity m^3/hr	RO Membrane		Motor Rating (hp)	Dimension L x D x H (cm)	Weight (kg)
Tap Water	Brackish water	Seawater		Size (inch)	Numbers			
AF-PRO44-6Q	AF-PRO44B-6Q	AF-PRO44S-6Q	0.25	4 x 40	1	1	60 x 90 x 150	55
AF-PRO44-12Q	AF-PRO44B-12Q	AF-PRO44S-12Q	0.5	4 x 40	2	2	60 x 90 x 150	80
AF-PRO44-18Q	AF-PRO44B-18Q	AF-PRO44S-18Q	0.75	4 x 40	3	3	60 x 90 x 150	100
AF-PRO44-24Q	AF-PRO44B-24Q	AF-PRO44S-24Q	1.0	4 x 40	4	3	60 x 90 x 150	120
AF-PRO44-30Q	AF-PRO44B-30Q	AF-PRO44S-30Q	1.25	4 x 40	5	4	60 x 90 x 150	200
AF-PRO44-36Q	AF-PRO44B-36Q	AF-PRO44S-36Q	1.5	4 x 40	6	4	60 x 90 x 150	300
AF-PRO48-48Q	AF-PRO48B-48Q	AF-PRO48S-48Q	2	4 x 40	8	4	70 x 250 x 150	360
AF-PRO48-72Q	AF-PRO48B-72Q	AF-PRO48S-72Q	3	4 x 40	12	4	70 x 250 x 150	420
AF-PRO88-96Q	AF-PRO88B-96Q	AF-PRO88S-96Q	6	8 x 40	4	4	90 x 320 x 150	450
AF-PRO88-144Q	AF-PRO88B-144Q	AF-PRO88S-144Q	9	8 x 40	6	5.5	90 x 320 x 150	520
AF-PRO88-196Q	AF-PRO88B-196Q	AF-PRO88S-196Q	12	8 x 40	8	7.5	90 x 320 x 150	600
AF-PRO88-240Q	AF-PRO88B-240Q	AF-PRO88S-240Q	15	8 x 40	10	7.5	90 x 320 x 150	720
AF-PRO88-288Q	AF-PRO88B-288Q	AF-PRO88S-288Q	18	8 x 40	12	7.5	90 x 320 x 150	840

Options

Water Softeners

Anthracite : for Sediment Removal
Manganese Green Sand : For Stain Removal
Activated Carbon : for Chlorine, Tastes and Oders Removal
Cation Resin : for Hardness Removal
Mixed-Bed Resin : for Salt Removal

Water Deionizers

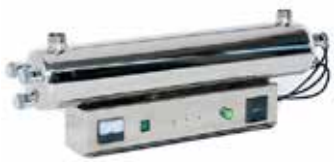
Water deionizers are used in applications requiring very high water quality, usually as polishers after reverse osmosis. Many industries use DI sytems: paints, chemicals, electronics, textiles, plating, cosmetics, boiler feed, food/beverage processing, hospitals/ medical facilities.

Chemical Dosing System

Chemical dosing systems offer a wide range of capacities to meet various chemical treatment applications including chemical injection.

Membrane Cleaning System

Membrane cleaning system is designed for cleaning of various kinds of membrane. For RO system, membrane cleaning system is required for CIP (Clean in Place) operation to clean the RO membrane when the production of system drops by at least 10% or the differential pressure increases by 15%.



UV Sterilizers

The quality of drinking water can change with time and become contaminated with harmful bacteria. Allfyll UV system is a reliable, economical and chemical-free way to safeguard drinking water.

Please request more information

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