



## **Standard Features**

- Capacity 100 3,000 Liter/hr
- 2.5" x 40" or 4"x40" RO membranes
- Stainless steel multi-stage pump, vertical type
- 2.5" x 40" or 4"x 40" FRP membrane housings
- 5 micron Microfiltration system
- Control panel
- Programmable time delay and set points
- Pressure switch
- Liquid filled pressure gauges
- TDS meter
- Flow meters
- Stainless steel frame
- · Factory tested to insured quality
- 1 Year warranty



#### **Reverse Osmosis**

Reverse Osmosis (RO) is the best technology for drinking water purification or processing water treatment. 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.

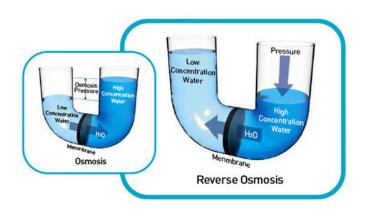
#### **RO Membrane**

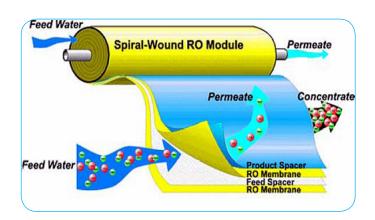
RO membrane is made of Thin Film Composit with pore size of 0.0001 micron. To purify water by RO membrane, the natural osmosis effect must be reversed. In order to force the water of the brine stream (high salt concentration) to flow towards the fresh stream (low salt concentration), the water must be 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 °C

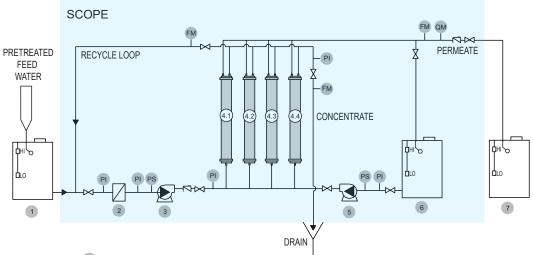
Max Turbidity: 300 NTU
Max TDS: 3,000ppm

Max Iron content : 0.05 ppmOperating pressure: 150 psi

pH tolerance : 2-11

PO Membrane Specification	RO Membrane size (inch)			
RO Membrane Specification	2.5" x 40	4" x 40"		
Membrane material	Polyamide Thin-Film Composit			
Surface area (sq.ft)	28	78		
Capacity (Liter/hr)	100	300		
Salt rejection (%)	99.5	99.5		

# **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
- Theck Valve
- PI Pressure Gauge
- PS Pressure Switch
- FM Flow meter
- QM TDS Meter



AF-PRO44-36Q

Ordering information									
Part number	Сар	acity	RO Membrane		Motor Rating	Dimension	Approx. Weight		
	m³/day	Liter/hr	Size (inch)	Numbers	(hp)	L x D x H (cm)	(kg)		
PRO24-2Q	2	100	2.5 x 40	1	0.5	60 x 60 x 150	45		
PRO24-4Q	4	200	2.5 x 40	2	0.5	60 x 60 x 150	50		
PRO24-6Q	6	300	2.5 x 40	3	0.75	60 x 60 x 150	60		
PRO44-6Q	6	300	4 x 40	1	1	60 x 75 x 150	60		
PRO44-12Q	12	600	4 x 40	2	1	60 x 75 x 150	70		
PRO44-18Q	18	900	4 x 40	3	1.5	60 x 75 x 150	90		
PRO44-24Q	24	1,200	4 x 40	4	1.5	60 x 75 x 150	100		
PRO44-30Q	30	1,500	4 x 40	5	2	60 x 75 x 150	115		
PRO44-36Q	36	1,800	4 x 40	6	2	60 x 75 x 150	130		
PRO44-48Q	48	2,400	4 x 40	8	3	60 x 90 x 150	170		
PRO44-60Q	60	3,000	4 x 40	10	3	60 x 90 x 150	200		

Design, specification and materials subject to change without notice.

# **Options**



#### **Media Filters and Softeners**

Anthracite: for Sediment Removal

Manganese Green Sand : For Stain Removal

Activated Carbon: for Toxic Organics, Chlorine, Tastes and Oders Removal

Resin (Na+): for Hardness Removal



### **Chemical Dosing Systems**

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



# **Membrane Cleaning Systems**

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%.



# **Ozone Systems**

- Ozone can literally oxidize material in water 3,200 times faster than chlorine
- Ozone is the best choice for bacterial disinfection and inactivation of viruses.
- Ozone can precipitates iron, manganese, sulfides, nitrites and organometallics.
- Ozone can oxidize organics causing color, taste and odor problems, some detergents and pesticides, phenols, VOCs, turbidity control and micro flocculation of soluble organics.



#### **UV Systems**

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

Please request more information

#### Acropore Technology Co., Ltd.

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