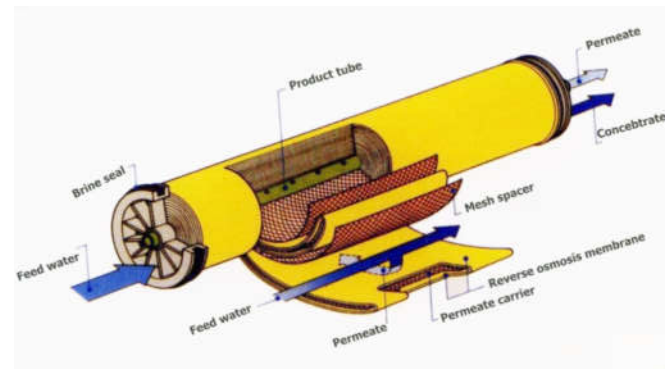




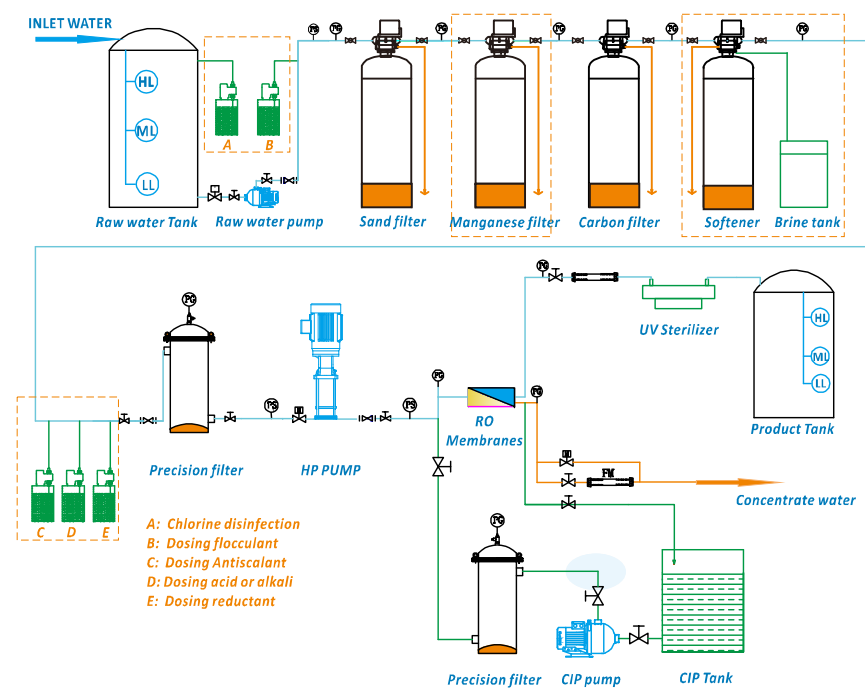
INDUSTRIAL RO SYSTEM

Reverse Osmosis (RO) is a process that uses semi-permeable spiral wound membranes to separate and remove dissolved solids, organic, pyrogens, submicron colloidal matter, color, nitrate and bacteria from water. Feed water is delivered under pressure through the semi permeable membrane, where water permeates the minute pores of the membrane and is delivered as purified water called permeate water. Impurities in the water are concentrated in the reject stream and flushed to the drain is called concentrate water

RO membrane structure



RO System Flow Chart



GUANGZHOU AOMI WATER PURIFICATION SYSTEM MANUFACTURE CO.,LTD



1.5TPH RO System In South Korea
(Raw water pump+Sand filter+softener+H/P pump+ RO membranes)



25TPH RO System In Malaysia
(Raw water pump+Sand filter+ Carbon filter +Manganese filter +softener+H/P pump+ RO membranes)



12TPH RO System In Indonesia
(H/P pump(one on duty+one stand by)+ RO membranes)



10TPH RO System In Thailand
(Raw water pump+Sand filter+ Carbon filter +softener+H/P pump+ RO membranes)

Stand Features:

Booster pump: High quality stainless steel 304/316 pump for long-life usage

Sand filter: Using quartz sand and gravel to removing all physical impurities larger than 10 micron by FRP or SUS tank with multi-port valve.

Carbon filter: Using coconut-shell activated carbon to remove chlorine, odor & taste by a FRP or SUS tank with multi -port valve.

Softener: Using cation resin to remove salts of calcium iron, magnesium that may form scale encrustations by a FRP or SUS tank with a multi-port valve.

Security Filter: 1 or 5 Micron PP filter cartridge to remove sediments and protect the membranes.

High Pressure Pump: High quality stainless steel 304/316 pump pressurizes RO system.

RO Membrane: Separating and removing dissolved solids, organic, pyrogens, submicron colloidal matter, color, nitrate and bacteria from water.

Membrane housing: FRP or SUS housings (Pressure at 300PSI/ 450PSI/600PSI) to install RO membranes.

RO Controller: Controlling RO system working; display quality of feed water and produce water; .

Pressure Gauges: Monitoring the system's operating pressure and pretreatment operating pressures.

Pressure Switch: Safety device to protect H/P pump and RO membrane.

Solenoid Valves: Shut off feed water supply to the system or flush RO membranes after starting and before stopping RO system.

Regulator Valve: Stainless Steel /Brass adjustable Valve to regulates the permeate to concentrate ratio (system's recovery).

Flow meter : Indicate the flow rate of system feed water /waste water / produce water ;



Optional Features

- ◆ UPVC /SUS304 / SUS316 Components
- ◆ Motorized valve/Solenoid valve
- ◆ Stainless Steel /Plastic (UPVC, PP) Security filter
- ◆ Dosing System/CIP system
- ◆ Variable-frequency drive(VFD)
- ◆ Concentrates recycle design
- ◆ Auto/ manual multi-port valve
- ◆ PLC controller/Touch screen
- ◆ PH meter /ORP sensor/ SDI meter/ Hardness tester/
- ◆ Temperature detector / residual Chlorine detector etc
- ◆ High Performance UV sterilizer/ Ozone generator
- ◆ Stainless Steel / mild steel with paint Frame
- ◆ Post Treatment Polishing plant
- ◆ Additional Customization Available on Request



2.5TPH RO Brackish System To Oman
(Raw water pump+Sand filter+Dosing antiscalant+ Precision filter+H/P pump + RO membranes+UV+ CIP system)

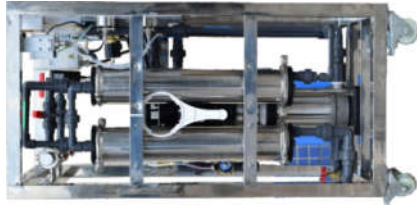
Systems technical parameter table

Capacity	0.25/0.5/0.75/1/1.5/2/2.5/3/3.5/4/5/6/7/8/9/10/12/15/18/20/25/30/40/50/100TPH
Voltage/Frequency	110v/220v/380v/415 / 440/460/ 480, 50/ 60hz singlephase/ 3 phase
Control type	Mini controller/PLC (touch screen option)
Desalination	96%-99%
Recovery rate	50-85%
Temp. Of raw water	1-45°C
Feed water pressure	1-5bar
Membrane working pressure	L/P membrane : 7-9bar H/P membrane : 10-15 bar
Free Residual Chlorine	0.1mg/l
Iron, max.	0.05 mg/l
PH of raw water	2-11

Panel type:



800 GPD RO Host To Ecuador
(1. Motor and Pump made in Italy)
(2. 1pcs 4021 RO membrane)



1600 GPD RO Host To Trinidad and Tobago
(1..CNP&Shingie pump available)
(2. 2pcs 4021 RO membranes)



750lph RO Host
(3pcs 4040 RO membranes)



1000lph standard RO System To South Africa
(Raw water pump+Sand filter+ Carbon filter+ precision filter +softener+H/P pump+ RO membranes+UV)

Box type without pretreatment:



1000lph RO Host To Peru
(1. Manual & Auto control 2. Six precision filter
(3..4pcs 4040 RO membranes.4. UV Sterilizer)

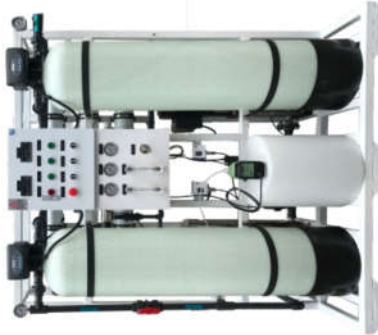


3000lph RO Host To Botswana
(1. Manual & Auto control 2. FRP 8040 membrane housings)
(3..3pcs 8040 RO membranes.4. Conc. water circulation design)



6000lph RO Host To Venezuela
(1. Manual & Auto control 2. FRP 8080 membrane housings)
(3..CIP System design .4. Conc. water circulation design)

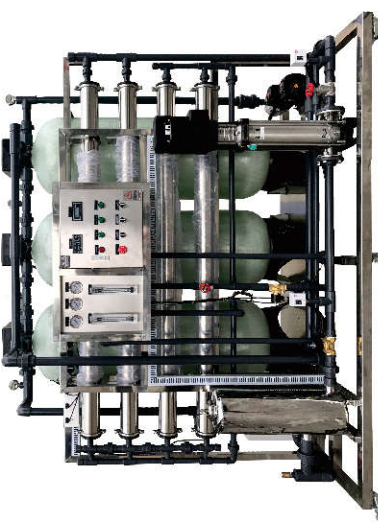
Box type with pretreatment:



750lph RO System To Sri Lanka
(1. FRP 4040 membrane housings 2. Sand filter+ Carbon filter)
(3.. Dosing system 4. Corrosion resistant carbon steel frame)



2500lph RO System To Kenya
(1. SUS 4080 membrane housings 2. Sand filter+ Carbon filter)
(3.. High recovery rate design 4. Corrosion resistant SUS frame)



2000lph RO System To Ghana
(1. SUS 4080 membrane housing)
(2. High recovery rate design 3. Sand filter+ Carbon filter+ Softener)



Special type :



500lph Mineral water system In USA
(500lph RO Host+mineral stone +UV)



1500lph Mineral water system In Russia
(Raw water pump+Sand filter+ Carbon filter+ Duplex Softener
Precision filter+1500lph RO Host+mineral stone tank +UV)



1000lph SUS RO system In Chile
(Raw water pump+Sand filter+ Carbon filter
Precision filter+1000lph RO Host+UV)

Advanced Configuration type :



Carbon steel Pretreatment
(1.Line with rubber or Epoxy resin type)
(2.High Corrosion resistant and High Proof Pressure)



24tph RO system To Malaysia
(1.Raw water pump and Booster pump(one on duty+one stand by) 2. Carbon steel filters. 3. 8040-5 elements FRP Housing)
(4.Precision filter(sand blast) 5. Double door explosion proof control box 6. PLC, Touch screen ,VFD inside)

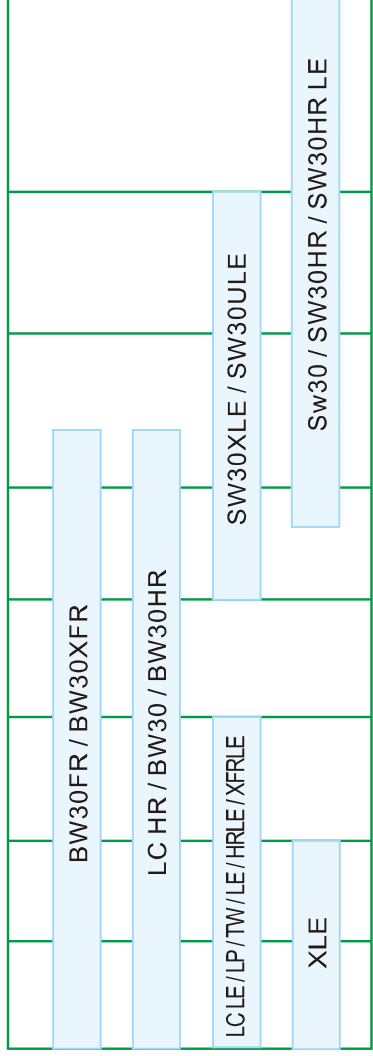


8tph RO system (one on duty+one stand by) To Malaysia
(1.Precision filter(one on duty+two stand by) 2. PLC, Touch screen ,VFD inside)
(3.Booster pump & H/P pump(one on duty+two stand by) 4.8040-3 elements FRP Housing)



20tph RO Container System To South Africa
(1.40HQ Container 2. Carbon steel filter tank)
(3. PLC,Touch screen ,VFD inside 4. 8040-5 elements FRP Housing))

Membrane elements selection guide according to the feed salinity



Feed Salinity TDS,ppm (This chart from DOW Chemical Company)

Typical Applications

- ▶ Agriculture/Automotive/Biopharmaceutical/Bottledwater plants
- ▶ Casinos/Chemical processing/Commercial buildings/Dairies
- ▶ Educational facilities electronics/Government/ grocery/ Food
- ▶ Beverage /health care/ Ink/Dye production laboratories
- ▶ Laundry/ Manufacturing/ Marine/Municipalities/Plating
- ▶ Coating/Printing/Textile/Theme parks/Universities/Vehicle Wash



250lph RO System in Argentina
(1. SUS 4040 membrane housings 2. Sand filter+ Softener)



Advantages

Low pressure, high flow RO membrane

Reduced the pressure and noise from pump and remained the high salt rejection rate

Easy installation and maintenance

One step operating & controlling system using micro controller or PLC(touch screen)

Compact design

When designing systems with 3D drawing soft, reduce the floor area of system.

Individually tested and preserved

Once finishing every system, will test the connections of pipelines and electrical parts to make sure the system is at the best status.

Low total cost of operation and maintenance

The cost is occurred just by power usage. replacement of membranes filter cartridges/ filter materials, etc.