

مواصفات المحطة

1000:10000 mg/l	املاح مياه الدخول
<98%	نسبة التخلص من الاملاح
2-40c	درجة حرارة مياه الدخول
مواصفات منظمة الصحة العالمية	جودة المياه المنتجة
صالحة لجميع مواصفات مياه الشرب	املاح المياه المنتجة
10-65%	معدل الاستخلاص
22v/50hz-380v/50hz	القدرة الكهربائية
معيّرات بمراكز عالمية	المعيريات

SYSTEM PARAMETERS

Feed water salinity: 1000-10000mg/L
Salt rejection : $\geq 98\%$
Feed water temperature: 2-40°C
Produced water quality: in line with "World Health Organization Drinking Water Quality Guidelines" "National Drinking Water Quality Standard"
Product water salinity: $\leq 500\text{mg/L}$
Recovery rate: 10-65%
Power supply(available): 380V/50HZ; 220V (440V) /60HZ
Membrane components: international element brand

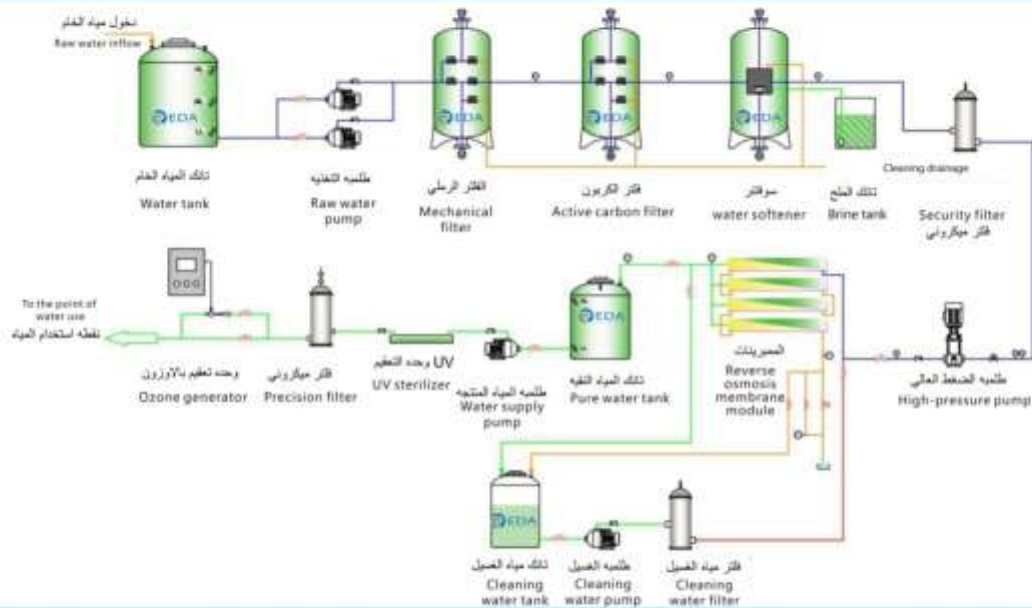




محطة تحليه مياه ابار قدره 15 متر ساعه 15 T/H Brackish water desalination plant

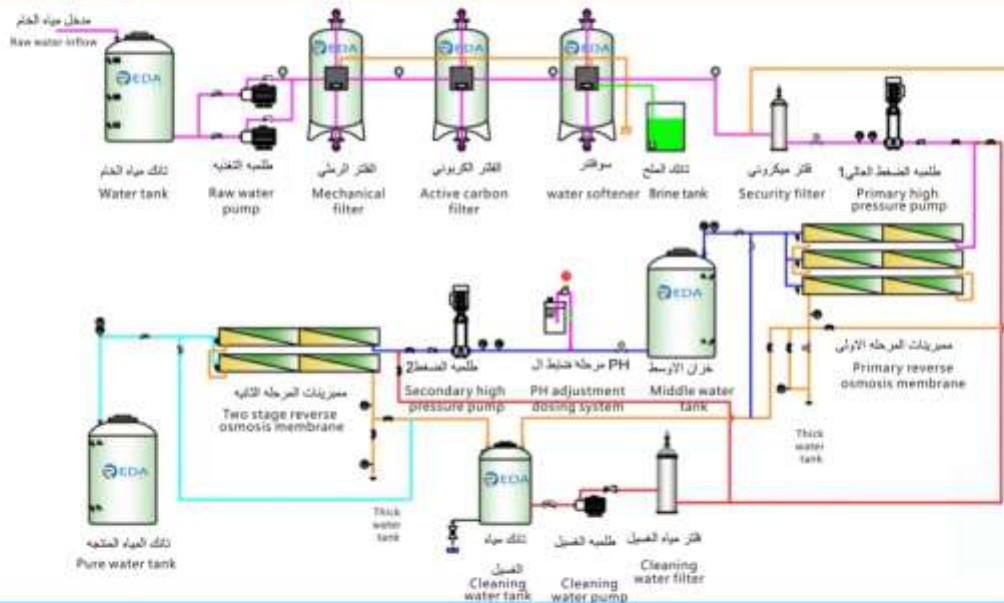


محطة تحليه مياه ابار قدره 25 متر ساعه 25T/H Brackish water desalination plant



مخطط سريان لمحطة تحليه مياه مرحله واحده

Process Flow Of One Stage Reverse Osmosis Equipment

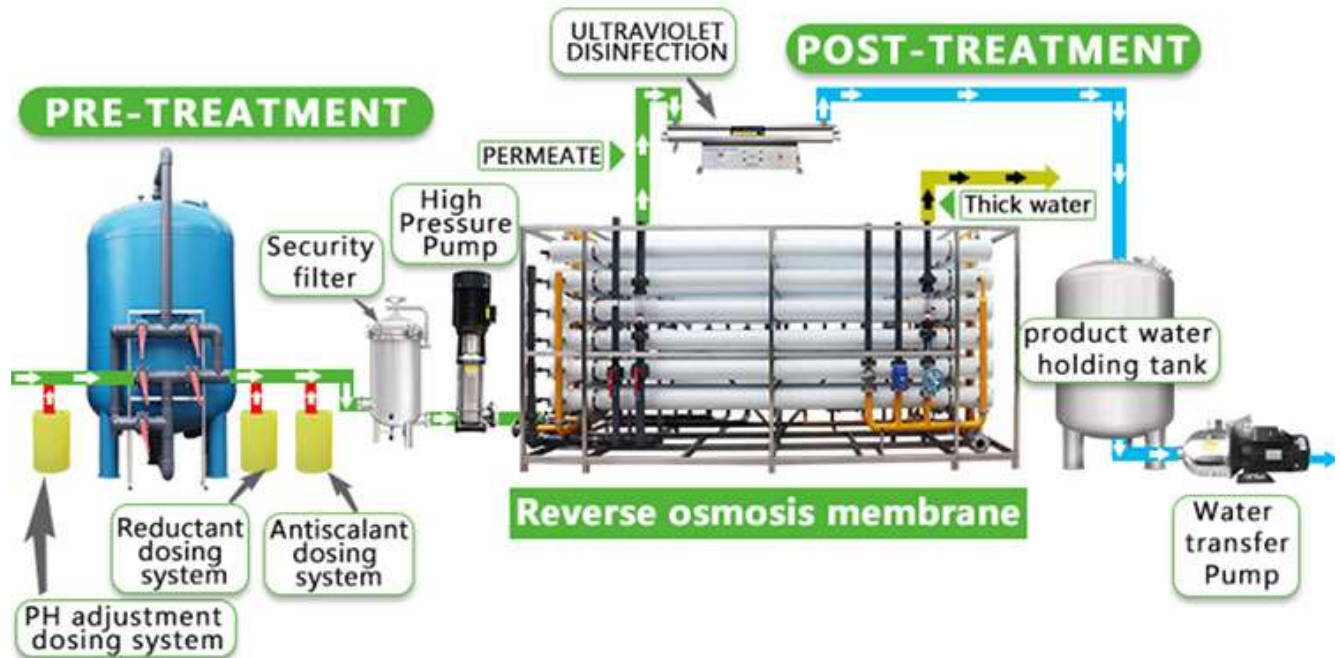


مخطط سريان لمحطة تحليه مياه مرحلتين

Process Flow Of Two Stage Reverse Osmosis Equipment

INDUSTRIAL BRACKISH WATER RO TREATMENT SYSTEMS

PROCESS FLOW OF BRACKISH WATER REVERSE OSMOSIS SYSTEM



Industrial Brackish Water Desalination Plant Capacity range between 48m³/hour to 7500m³/day. If you need smaller than this capacity please see our commercial Brackish Water RO Plant.

If the water TDS is more than 1000ppm, we call this one as brackish water. Different source of science books defines brackish water TDS as different. But if water is not tap water and seawater, and TDS between 100 to 12000ppm, it can be called as brackish water.

All Brackish Water Treatment Plants are started from booster pump, it feeds raw water to pretreatment tanks. Depends on capacity pretreatment tank size and numbers can be changed. Because of High TDS (Total Dissolved Solid) we usually use FRP and Carbon Steel Tanks but we can check your raw water source analysis and we can suggest alternative material. If salt content and TDS high, because of the corrosion, we are using FRP or Carbon Steel material for pretreatment tanks.

Pretreatment consists of Sand Media Filter Tank, Activated Carbon Filter Media Tank and Softener Tank which has ion exchange resin inside, they are very important for Brackish Water Desalination Plant.

Pretreatment is used to remove large number of suspended solids, iron, turbidity, unwanted color, unpleasant taste, chlorine, sediment, organic contaminants, odors. In pretreatment we can control the flow by manual or automatic for Brackish Water RO Plant.

After pretreatment water goes to cartridge filter housing, we call it as security filter, most of application we are using stainless steel 304 or 316 material, but if water is very salty like brackish or seawater, we can use carbon steel or FRP or PVC Plastic Cartridge Filter Housing or Bag Filter Housing. There is 1µm or 5 µm PP filter in cartridge filter housing Brackish Water RO Plant.

After cartridge filter housing, water goes to membrane pressure vessel with High Pressure Pump, you have brand option for High Pressure Pump and it allows you to adjust your budget. Membrane housing shell inside depends on capacity we have 4040 or 8040 Membranes. Most of our Brackish Water Treatment Plant project we are using DOW Filmtec, Toray , Vontron, Hydranautics, LG brand ro membranes.

Membranes, in industrial Brackish Water Desalination Plant, are most important part. They block if particle size bigger than 0.001µm and molecular weight up to 150-250Dalton. It consists of impurities, particles, sugars, proteins, bacteria, dyes, organic and inorganic solids.

Also Brackish Water Treatment Plant system can have chemical dosing at pretreatment or post treatment, like antiscaling (antiscalant), antifouling, pH adjustment, Sterilization & Disinfection chemicals.

In REDAWATER when we check customer water analysis report, sometimes because of scaling and fouling problems, we can use CIP (Clean In Place) System, it wash membrane in membrane housing and make membrane life longer.

Parts for Brackish Water RO Plant



Electrical Power of industrial Brackish Water RO Plant

For industrial Brackish Water Treatment Plant needs 220-380V/50Hz/60Hz. For bigger capacity, because of high pressure pump, it needs 380V 50/60Hz. As regards to your Brackish Water RO Plant machine design, we will check your electrical supply and decide fix power to you.

Membrane Sizes and Quantity for BWRO Water Treatment Plant

Model Number	Permeate Flow Rate	Membranes	
	Liter/Hour	Size	Quantity
BW-RO-2000L	2000	4040	8-10
BW-RO-3000L	3000	8040	4
BW -RO-4000L	4000	8040	4-6
BW -RO-5000L	5000	8040	5-6
BW -RO-6000L	6000	8040	6-8
BW -RO-8000L	8000	8040	8-10
BW -RO-10000L	10000	8040	12
BW -RO-15000L	15000	8040	16-18
BW -RO-20000L	20000	8040	24-25
BW -RO-30000L	30000	8040	35-40
BW -RO-45000L	45000	8040	50-60
BW -RO-100000L	100000	8040	110-120
BW -RO-200000L	200000	8040	220-240

Before Buying Industrial Brackish Water Desalination Plant,you should know:

1. Pure Water Production Capacity (L/day, L/Hour, GPD).
2. Feed Water TDS and Raw Water Analysis Report (prevent fouling and scaling problem)
3. Iron and Manganese must be removed before raw water enter to membrane of Brackish Water Desalination Plant
4. TSS (Total Suspended Solid) must remove before industrial Brackish Water Treatment Plant's membrane.
5. SDI (Silt Density Index) must be less than 3
6. Must be sure your water source does not have oil and grease
7. Chlorine must be removed before industrial Brackish Water RO Plant
8. Available electrical power voltage and phase
9. Layout of place for industrial Brackish Water RO Plant

Features of Industrial Brackish Water Desalination Plant

Standard Futers	Available Options
Programmable PLC Control	Automatic Flush
Motor Starter	Ozone Generator
Raw Water Feeding/Booster Pump	UV Sterilizer
Stainless Steel Cartridge Filter Housing	Chemical Dosing
FRP Membrane Housing	pH control monitor
Mitsubishi Processor Control	ORP Control monitor
Low Pressure Switch	Remote Control
High Pressure Switch	Pretreatment System
Liquid filled pressure gauge	Post Deionization Unit
Stainless Steel 304 Frame	CIP Membrane cleaning system
Permeate Conductivity Monitor	Touch Screen Control
Raw Water Conductivity Monitor	Tank Level Switch
Membranes	Customer Logo
Control Valves	
Stainless Steel/UPVC Piping	

Operation Specification for Industrial Brackish Water RO Plant

Feed Water TDS > 1000ppm	Hardness over 18ppm needs antiscalant dosing	Turbidity must be removed
Max. Feed Water Temp: 42°C	Operate at higher TDS results lower recovery	H2S must be removed
pH tolerance: 3-11	Max. iron content: 0.05ppm	
Feed Water Pressure: 1.5 to 6 bar	Max. Silica tolerance: 60ppm	