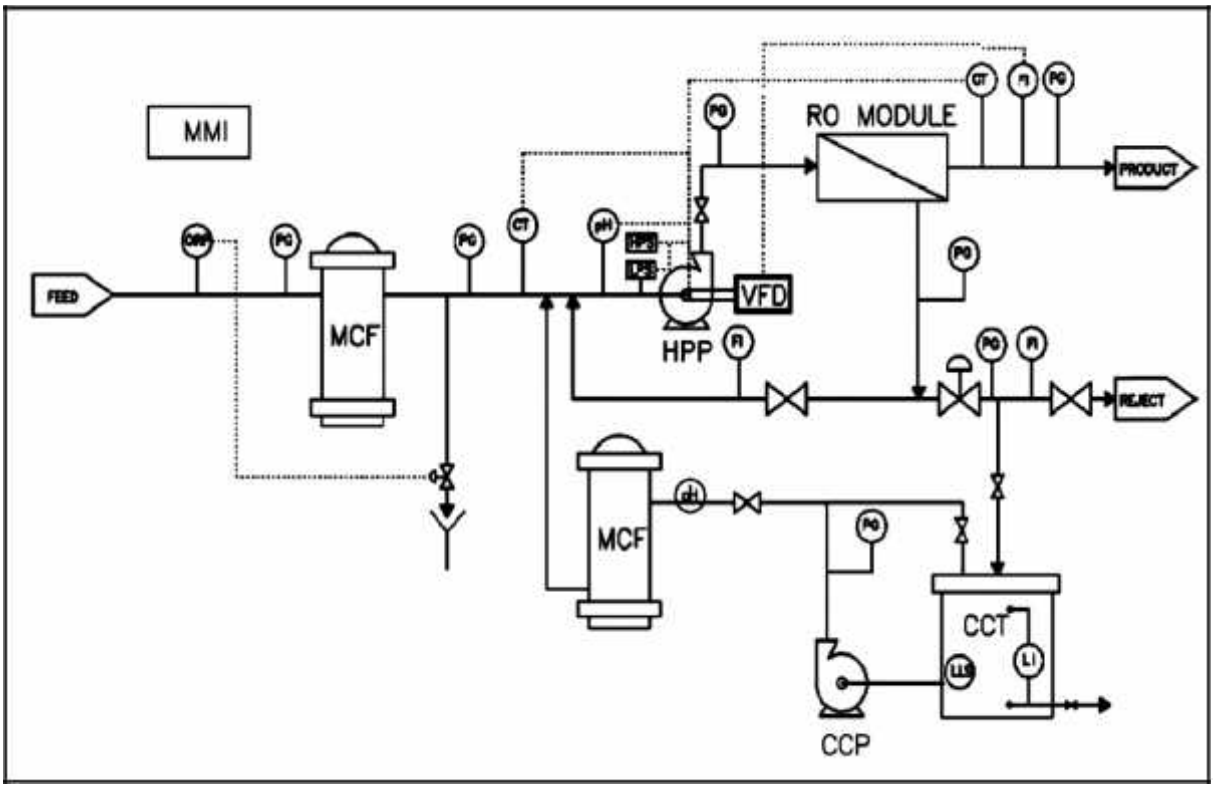
IONIX

REVERSE OSMOSIS SYSTEMS

DESALINATION AT ITS BEST

STANDARD PID

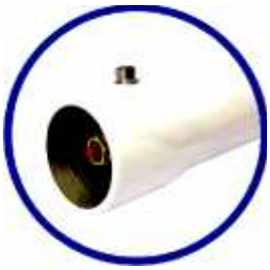


SCOPE OF SUPPLY	
1.	Micron catridge filter (SS/AIP)
2.	High presure pump (SS 304 / SS 316)
3.	RO membranes as per design
4.	RO housing
5.	Skid
6.	All standard instrumentation
7.	Piping and valves
8.	PLC with MMI
9.	UFD (optional)

ADVANTAGES OF ROION

- *ROION systems are completely pre-engineered with makes the delivery time shorter and faster, and less erection work exide.*
- *Better membrans life, integrated flushing incorpored, clean systems makes ROION superior in comparison to systems*

- *Designed of side port provides good ecstatic piping and elegant looks, also easy maintenance.*
- *Standardised on DOW membrane for better performance and service life, using of I-Lock membranes makes lesser breakdown and better performance*



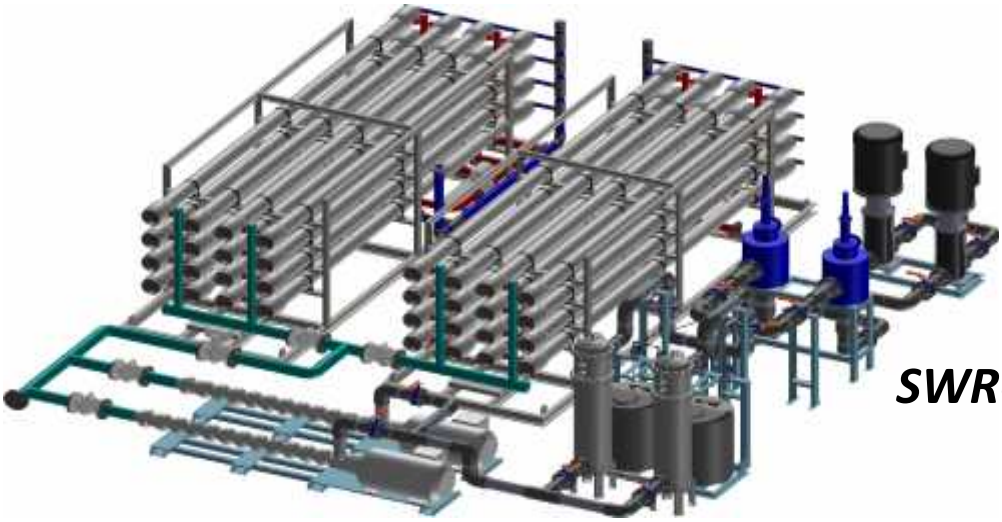
- *MMI facilitates better system operation, monitoring and control*
- *MMI can be hooked up with PLC and clients DCS system for remote operations*

Sea Water Reverse Osmosis (SWRO) Systems

Overview

IONIX Sea Water Reverse Osmosis (SWRO) plants are designed to treat sea water, or high salinity ground water, with < 40,000 mg/L of dissolved solids (TDS) and < 30 mg/L of suspended solids (TSS), to achieve potable water quality.

The standard treatment process involves pre filtration (auto-backwashing multimedia filters and cartridge filters), anti-scalant dosing to prevent membrane scaling, RO desalination and auto flushing and CIP systems for membrane cleaning. Additional pre-RO and post-RO treatment steps may be added as required to suit feed water conditions and/or treated water quality requirements.

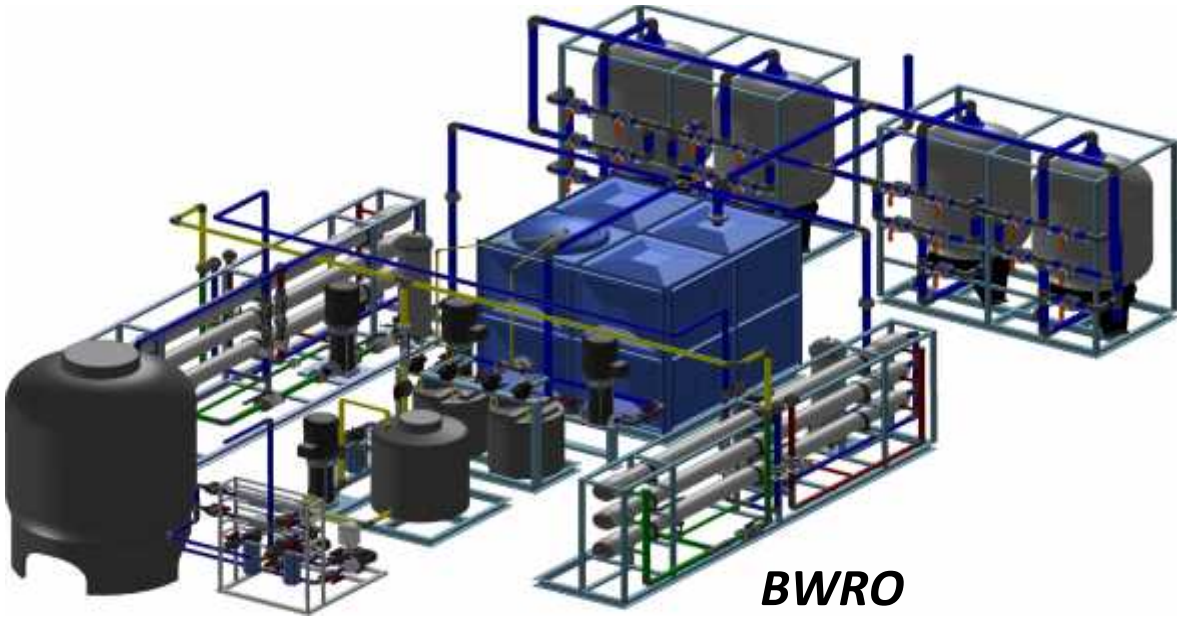


SWRO

Brackish Water Reverse Osmosis (BWRO) Systems

Overview

BWRO process means filtration by the source of well water by the reverse osmosis membrane. The RO water treatment plant has one stream producing (capacity 1725 m3/day) of permeate water. Raw water tank is the source of supply. Raw water is feed to system by filter feed backwash pumps. raw water is passed through manual sand filters where fine solids and silt are removed. Sand filters are provided with manual backwash system, the filter feed pumps are used to backwash as per requirement. Back washing should be done at least one or twice a day based on head loss of filters. Before sand filtration raw watr is dosed with sodium hypochlorite solution in order to disinfect raw water. Before feeding to cartridge filters feed water is employed by pretreatment. In preteatment system antiscalant and acid are dosed. Antiscalent is dosed to avoid scaling of membrane elements which hapers membrane filtration process. Dechloration is also done to avoid degradation of RO membrane.



BWRO

Cartridge filters are used to remove fine particles of about 1 micron size. size 40” cartridge filters 15 number of candles are used to filter raw feed. The high pressure pumps are used to generate required pressure for membrane filtration process. The RO unit consist of two stages. First stage comprises of 10 pressure vessels each with 5 element while second stage consist of 5 pressure vessels with 5 elements. The RO system is designed with recovery of 75%. RO permeate is then collected in permeate tank.

Before permeate storage tank RO permeate water is employed by post treatment. It is dosed with caustic soda in order to maintain pH to neutral and chlorination is useful for storage purpose. Addition of chlorine to permeate water avoids biological growth in permeate flows indicators indicate the flow of permeate and reject.

PT.IONIX INDONESIA
Jl. Tanah Abang 1 NO 11f, Jakarta Pusat 10160
Telp : (021) 82738188
Website : www.ionix.co.id