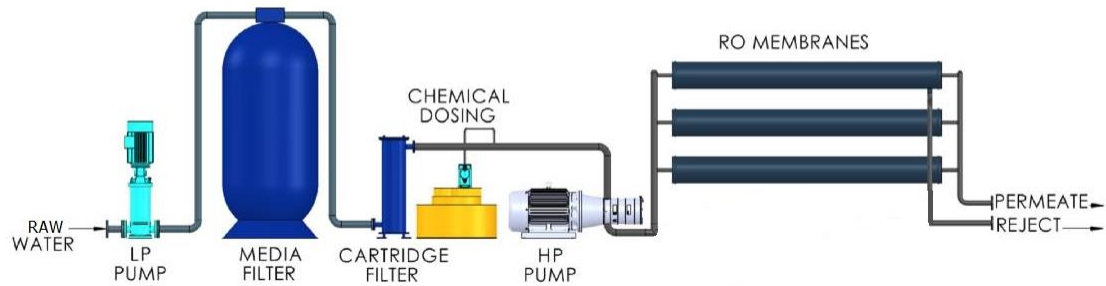


PRODUCT DATA SHEET

Sea Water Reverse Osmosis (SWRO) System

OVERVIEW

Our Sea Water Reverse Osmosis (SWRO) plants are designed to treat water, with < 35,000 mg/L of dissolved solids (TDS) and < 10 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. Our SWRO plants are available as skid mounted or containerised systems.



STANDARD SPECIFICATIONS

Parameter	Units	SWRO-1	SWRO-2	SWRO-3	SWRO-4	SWRO-5	SWRO-6	SWRO-7	SWRO-8	SWRO-9	SWRO-10
Permeate Flow Rate	m ³ /d	10	20	30	40	50	60	70	80	90	100
Permeate Recovery Rate	%	40 - 45									
Permeate TDS	mg/L	< 250									
Raw Water TDS	mg/L	< 35,000									
Raw Water TSS	mg/L	< 10									
Raw Water Temperature	°C	15 ~ 30									
Ambient Design Temperature	°C	15 ~ 30									
RO Water Inlet Pressure	bar	3 - 4									
RO Unit High Pressure	bar	40 - 60									
RO Brine Discharge Pressure	bar	25 - 35									
Power Supply	-	380~450 V, 3 Phase, 50/60 Hz									

STANDARD INCLUSIONS + OPTIONS

✓ = Standard Supply, o = Optional Supply, - = Not Applicable

Equipment	SWRO-1	SWRO-2	SWRO-3	SWRO-4	SWRO-5	SWRO-6	SWRO-7	SWRO-8	SWRO-9	SWRO-10
Skid Mounted Plant & Equipment	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Low Pressure Feed Pump	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
High Pressure RO Pump (c/w ERD)	Std Efficiency	✓	✓	✓	✓	✓	✓	✓	✓	✓
	High Efficiency	-	o	o	o	o	o	o	o	o
Pre-filtration	Sand Filter	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Ultra Filtration	o	o	o	o	o	o	o	o	o
	Activated Carbon	o	o	o	o	o	o	o	o	o
	Cartridge Filters	✓	✓	✓	✓	✓	✓	✓	✓	✓
Anti Scalant Dosing System	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Membrane CIP & Auto Flush System	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
PLC Control System with HMI	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Container with Insulation & climated	o	o	o	o	o	o	o	o	o	o
Additional Post-RO Treatment	o	o	o	o	o	o	o	o	o	o
Premium Instrumentation Package	o	o	o	o	o	o	o	o	o	o
Permeate Distribution Pump Set	o	o	o	o	o	o	o	o	o	o

Instrumentation	Standard Package
Pressure Gauges	✓
Pressure Transmitters (4-20 mA)	o
HP RO Pump Inlet Low Pressure Switch	✓
Flow Gauges (Rotameters)	✓
Flow Transmitters (4-20 mA)	o
Conductivity Transmitter (4-20 mA)	✓
Float Switches (Feed/Permeate, Chemical Dosing & CIP Tanks)	✓
Remote Monitoring & Control Capabilities	o

*** Installation and transportation fee is not included in the stated prices. We will charge 2 technicians and 1 engineer for installation and start-up operations of treatment system. Installation and start-up fee is 500 \$/day for each person.

*** CUSTOMER will pay for traveling-visa (Istanbul – Site in XXX – Istanbul), accommodation and food fees for our personnel during site work

