

IDE PROGREEN™ SW-S 1000

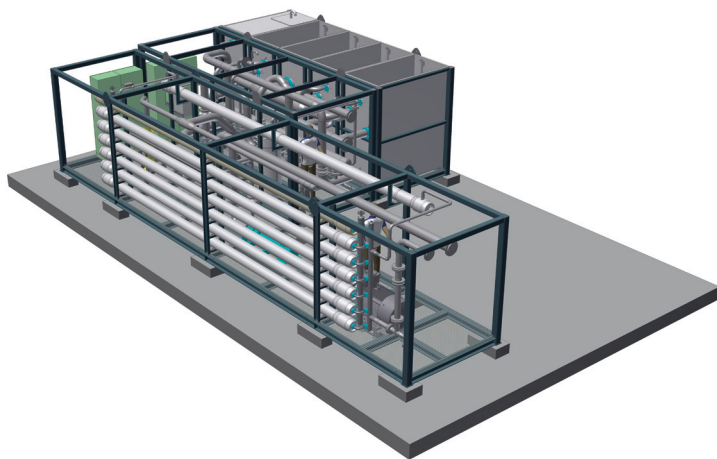
1000 m³/day (184 gpm) SWRO CHEMICAL-FREE DESALINATION PLANT

Key Features

- Patented Direct Osmosis Cleaning (DOC) system
- Energy-efficient high pressure pumps with frequency converter (VFD)
- State-of-the-art, highly efficient energy recovery system
- End-to-end modular PLC with 15" touch screen
- Remote performance monitoring

Optional Features

- Integrated SCADA system
- Configuration: Containerized or skid mounted
- Redundancy options for high availability
- Second pass RO for industrial applications
- Remineralization add-on module



Operating Parameters

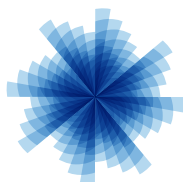
TDS	35,000-41,000 ppm
TSS	< 15 ppm
Operating temperature	15-32°C (59-90°F)
Recovery rate	45%
Energy consumption (T - 27°C)	3.0-3.2 kWh/m ³
Electrical supply	EU: 380-420V 50Hz NA: 440-480V 60Hz

Material Specifications

Piping and accessories (LP)	316 / Polypropylene / PVC
Piping and accessories (HP)	SMO / Super Duplex
High pressure pump	Super Duplex
Pressure vessels	FRP
RO membranes	Polyamide (8')
Skid	Epoxy painted carbon steel

Dimensions

Weight				
Unit Type	Shipping (container)			Installed Weight (ton)
	Quantity	Type	Weight (ton)	
Pretreatment	1	20'	9.0	52.0
Equipment	1	20'	8.0	8.0
RO	1	40'	13.9	18.2
Media	2	20'	13.8	
Overall Footprint [m]				
Length - Min: 5.98 / Max: 11.98				
Width - Min: 2.30 / Max: 6.90				
Height - Min: 2.51 / Max: 2.62				



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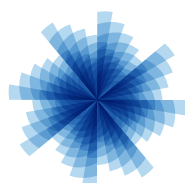
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Equipment & Process Specifications

	Character	Value
Pretreatment	Feed flow rate [m³/hr]	96.3
	Minimum inlet pressure [bar]	1.0
	Contact Media Module	
	Number of units	1
	Manufacturer	IDE
	Media type	Plastic Media Carrier
	Media volume [m³]	2.3
	Filters	
	Number of units	3
	Filter manufacturer	IDE
Filter media type	Gravel, Sand, Anthracite	
Total media volume [m³]	9.6	
Micro Filters		
Filter type	Melt Blown Polypropylene	
Filter manufacturer	Fluytec*	
Desalination	Feed flow rate [m³/hr]	92.6
	Recovery rate [m³/hr]	41.7
	Brine water flow rate [m³/hr]	50.9
	High Pressure Pumps	
	Number of units	1
	Pump type	Piston
	Pump manufacturer	Danfoss*
	Motor power [kW]	132.0
	Motor manufacturer	ABB*
	Energy Recovery System (ERS)	
	ERS flow rate per unit [m³/hr]	50.9
	Number of ERS units	1
ERS manufacturer	Energy Recovery Inc.*	
Circulation Pump		
Pump type	Centrifugal	
Pump manufacturer	Fapmo*	
Pressure Vessels		
Number of units	7	
Vessel manufacturer	Protec*	
Max operating pressure [bar]	82.0	
Number of membranes per PV	8	
Membranes		
Membrane type	TFC Polyamide	
Membrane manufacturer	Toray / Hydranautics / DOW / Nano H ₂ O	

* Or equivalent



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