

Water Treatment



Engineering & Construction

**Reverse Osmosis
RO SW Mod.**

STRUCTURAL FEATURES

Models from SW 100 to SW 2500

- Cartridge filter, housing in AISI 316L, supplied with wire cartridge with 5 micron filtration level.
- Centrifuge pump, horizontal, multi-stage in AISI 316 to models SW-HR200.
- From SW-HR250-ERT to SW-HR2500 ERT models, the main pump is in DUPLEX (or in SAF), the second one and the turbine for energetic recovery in DUPLEX (or in SAF).
- Reverse Osmosis Rack composed by reverse osmosis modules with very high saline rejection. The modules are of spiral type, with compound film in polyamide suitable to provide the envisaged services. The models are in PRFV vessels.
- High pressure hydraulic lines in AISI 316L, T.I.G. soldering with inert gas inner protection (in DUPLEX 2055 steel on request)
- Low pressure hydraulic lines, in PVC
- AISI 316 pressure control valve
- AISI 316 valve for concentrate intercepting
- Valves for taking the sample from each vessel
- Valve for taking permeate sample
- Control instrument:
 - No. 3 pressure gauges in glycerine bath, scale 0-10 bar, housing in stainless steel, AISI 316 connections
 - No. 2 pressure gauges in glycerine bath, scale 0-100 bar, housing in stainless steel, AISI 316 connections
 - Analyzer-indicator of permeate flow rate, blade type
 - Analyzer-indicator of concentrate flow rate, blade type
 - Pressure switch with minimum supply of the high pressure pump
 - Pressure switch with maximum pressure delivery of the high pressure pump
 - Analyzer-indicator of the permeate conductivity, supplied with electrode
- Electric panel for control and automation of the SW unit, IP55 protection level, for the supply of high pressure pump, no. 3 metering pumps, for the management of ON-OFF signals and of the analogical signals. The panel allows to manage no. 2 entrance remote contacts (Start-Stop levels of SW unit) and an outlet remote contact for managing of any pre-feed pump
- Connections and valves in high and low pressure lines envisaged for fluxing and washing of the membranes, with by-pass circuit of the high pressure pump and concentrate draining valve
- Pre-assembly on skid, in AISI 304
- Electric and hydraulic connections inside the skid of permeation group

TECHNICAL DATA

Models from SW 100 to SW 2500
TDS 35.000 mg/l , T = 20 °C

TECHNICAL DATA

Models from SW 100 to SW 2500
TDS 45.000 mg/l , T = 25 °C

Model	Flow rates	
	Permeate	Feeding
	m ³ /h	m ³ /h
SW 100/35	4,20	11,00
SW 150/35	6,25	16,50
SW 200/35	8,40	22,00
SW 250/35 ERT	10,50	26,50
SW 300/35 ERT	12,50	31,50
SW 400/35 ERT	16,80	42,00
SW 500/35 ERT	21,00	52,50
SW 600/35 ERT	25,00	72,00
SW 750/35 ERT	31,50	62,50
SW 1000/35 ERT	42,00	105,00
SW 1500/35 ERT	62,50	157,50
SW 2500/35 ERT	104,50	261,50

Model	Flow rates	
	Permeate	Feeding
	m ³ /h	m ³ /h
SW 100/45	4,20	13,00
SW 150/45	6,25	19,00
SW 200/45	8,40	25,5
SW 250/45 ERT	10,50	32,00
SW 300/45 ERT	12,50	38,00
SW 400/45 ERT	16,80	51,00
SW 500/45 ERT	21,00	64,00
SW 600/45 ERT	25,00	76,00
SW 750/45 ERT	31,50	96,00
SW 1000/45 ERT	42,00	127,00
SW 1500/45 ERT	62,50	189,00
SW 2500/45 ERT	104,50	317,00

- NB:** (2) One or more energy regenerators with greater efficiency (Pressure exchangers) with decrease in installed power up to 25% as to the value in schedule could be installed for some models
- (3) Except for the powers of well pumps, pre-feeding pumps, washing pumps and pumps for removal of water produced
- NB:** - The company holds the right to modify the technical and aesthetic characteristics of each equipment

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