

Reverse Osmosis System Dulcosmose® SW

Salt water is transformed into drinking water.



Permeate output 780 – 29,000 l/h

A reverse osmosis system of type of SW has PVC pipework on the low-pressure side. The high-pressure side of the system has a potable water-compatible, highly corrosion-resistant inner seal due to the high NaCl content. The integrated semi-automatic cleaning system with permeate and/or raw water flushing ensures exceptionally long membrane service lives, as scaling and fouling effects are minimised. The system can be adapted with ease to specific

customer requirements. Pipework material, other types of membrane for enhanced salt retention, integration of measuring and control technology and metering technology to visualisation of the entire process with peripheral components via a PLC. Everything can be selected at random. Optional for all systems: They can be fitted with a system for energy recovery from the concentrate flow. The latest generation of what are known as pressure controllers is used.

Your benefits

- Integrated energy recovery system based on state-of-the-art pressure controllers
- Efficient operation with low pressure membranes with outputs of up to 50% and high salt retention rates of up to over 99%
- Reduced maintenance and service costs as well as long membrane service lives, thanks to integrated cleaning concepts and flushing options
- Service-friendly construction of systems on a corrosion-resistant powder-coated steel or stainless steel frame
- Simple and safe to operate: Central control of the entire system by microprocessor controller or industrial PLC with touch panel and process visualisation
- Application-optimised design taking into account economic aspects, such as the durability of the membranes, energy efficiency and process automation

Field of application

- Decentralised, public or private supply of potable water.

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Technical Data

The product range Dulcosmose® SW was designed for the following values in feed water:

Salt content max.	40,000 mg/l*
pH range	3.0 ... 10.0
Silt density index max.	3
Free chlorine max.	0.1 mg/l
Total Fe, Mn max.	0.2 mg/l
Total hardness max.	water must be chemically stabilised
Bacteria count max.	100 KBE/ml
Turbidity max.	0.5 NTU
COD max.	5 mg/l**

* Differing salinities affect the performance data accordingly

** As O₂

Plants with 4" and 8" membranes, salt rejection of the plants 99%

Plant	Permeate capacity	Number of 4" and 8" membranes	Connected load without	Connected load with	Dimensions H x W x D
	at 25 °C water temperature		energy recovery	energy recovery	
	l/h	No.	kW	kW	mm
PRO 0078SW	780	6	5.5		1,800 x 3,500 x 1,000
PRO 0185SW	1,850	3	11.0		1,800 x 4,000 x 1,000
PRO 0240SW	2,400	4	15.0		1,800 x 4,000 x 1,000
PRO 0300SW	3,000	5	18.5	11.2*	1,800 x 4,000 x 1,000
PRO 0360SW	3,600	6	18.5	14.7*	1,800 x 4,000 x 1,000
PRO 0490SW	4,900	8	30.0	20.5*	1,800 x 5,000 x 1,200
PRO 0610SW	6,100	10	37.0	20.5*	1,800 x 6,000 x 1,200
PRO 0730SW	7,300	12	41.0	24.0*	1,800 x 5,000 x 1,400
PRO 0920SW	9,200	15	75.0	27.5*	1,800 x 6,000 x 1,500
PRO 0980SW	9,800	16	75.0	35.5*	1,800 x 5,000 x 1,500
PRO 1230SW	12,300	20	75.0	35.5*	1,800 x 6,000 x 1,500**
PRO 1470SW	14,700	24	90.0	41.0*	1,800 x 7,000 x 1,500**
PRO 1840SW	18,400	30	110.0	56.0*	1,800 x 7,000 x 1,500**
PRO 2210SW	22,100	36	132.0	66.0*	1,800 x 7,000 x 1,500**
PRO 2580SW	25,800	42	150.0	66.0*	1,800 x 7,000 x 1,500**
PRO 2900SW	29,000	48	180.0	90.0*	1,800 x 7,000 x 1,500**

* Energy recovery by pressure exchanger technology

** Separate cleaning tank

On request, these plants can also be supplied with different membrane types for other salt rejection, and with measuring and control equipment (conductivity, ORP, pH measurement) and metering equipment (in pre-treatment and post-treatment).