

## High-performance and energy efficient reverse osmosis plant



### Benefits:

- High recovery by means of double array system
- Frequency-control of high pressure pump ensures energy savings & stable operation
- Siemens PLC & large HMI graphic touchpanel
- High quality instrumentation
- RobotFlow- Automatic and self-regulating control ensures best Water conversion factor (WCF)
- Time and quality flush, ensuring improved water quality and longer lifetime of membranes
- Effective BWT-membrane technology with high performance of each membrane
- Prepared for Clean-In-Place unit and Antiscalant dosing

### Reliable and energy-efficient

The system series supplies high quality permeate for boilers, closed/open cold water cycles in climate systems and cooling towers, closed hot water systems and other process water for industrial applications, where a low conductivity (< 20 µS/cm) is required.

Components are selected with a focus on the latest technology, efficiency and quality. This ensures a reliable and efficient system.

Compared to the system's high capacity, the design is compact, maintenance-friendly and allows for easy access to components, as well as simple installation even in confined spaces.

### Adaptation to individual requirements

The plant layout offers great flexibility with several additional options for applications that require minimal maintenance and stable operation.

Options include among others more comprehensive information about operation, extra measurements etc.

Adaptation of systems is based on the customer's individual requirements and needs.

### Intuitive and user-friendly control

PLC control unit with LCD touch screen and graphic display provides easy viewing of important measurements and detailed status information for service and operations personnel.

### Features:

- Effective BWT-membrane technology with high performance of each membrane
- Frequency-control of high pressure pump ensures low energy consumption
- Self-regulating concentrate valve – ensures stable permeate quality at fluctuating feed water quality
- Time and quality flush, ensuring improved water quality and longer lifespan of membranes
- PLC unit provides information via the LCD touch screen with graphic display
- Alarms for plant protection & historical alarm log for diagnosis
- Robust system mounted on a stainless steel skid
- Energy-efficient plant design

### Options:

- Clean-In-Place unit - effective cleaning of the membranes
- Antiscalant dosing - increases the utilisation of the raw water up to 80-85 %
- Remote control via web/GPRS & alarms via mail/SMS. Trendcurves remote accessible

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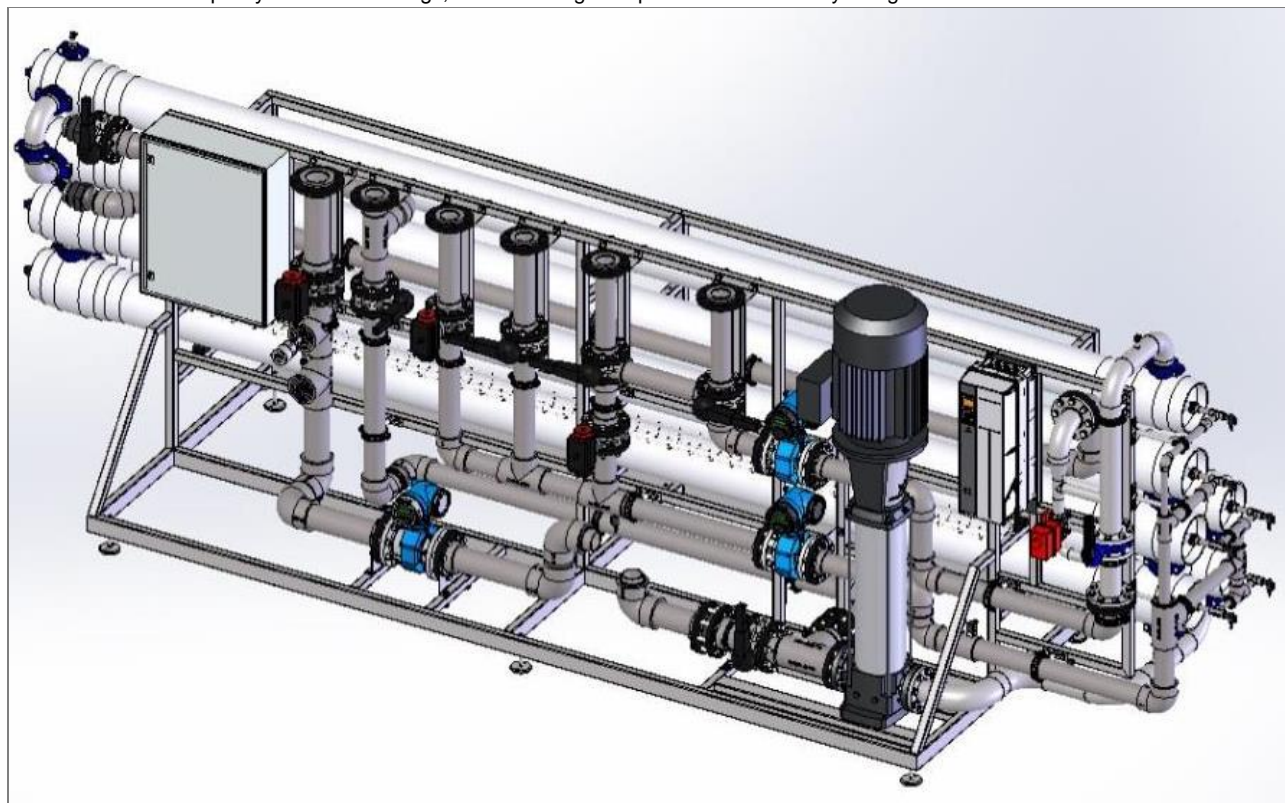
  
BEST WATER TECHNOLOGY

## Technical data:

BWT PERMAQ® Pro	Unit	2930	2940	2950	2960	2970	2980	2990	2995	
Nominal permeate performance *	m³/h	30	40	50	60	70	80	90	100	
Energy consumption	kWh/m³	< 0.7								
Salt reduction	%	>98								
Water utilisation WCF (max) **	%	80								
Inlet pressure (min/max)	bar	3 / 7								
Electrical connection	V / Hz	3 x 400 / 50								
Fuse	A	63		80		125		160		
Power consumption	kW / A	30 / 52		37 / 65		55 / 93		75 / 126		
Protection class	IP	54								
Raw water temperature	°C	5 – 25								
Ambient temperature	°C	5 – 35								
Inlet (flange)	DN	100			125			150		
Outlet (flange)	DN	80			100			125		
Drain (flange)	DN	80			100			125		
Width	mm	6000				7000				
Depth	mm	1300				1600				
Height	mm	2100		2200		2600		2800		3000
Weight (dry), approx.	kg	980	980	1080	1190	1350	1550	1680	1800	

\*\* For water quality of: 10°C, 3 bar, TDS ≤ 500 mg/l ± 15%, SDI ≤ 3.0, oxidants ≤ 0.05 mg/l.

\*\* Based on a water quality of TDS ≤ 500 mg/l, with softening as a pre-treatment and by using antiscalant.



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