Energy efficient reverse osmosis plant with high capacity



Benefits:

- High-performance membranes
- Low energy consumption
- Operation via PLC with touch screen
- Time and quality flush, ensuring improved water quality and protection of the membranes
- Possible to extract historical data to Excel
- Can have a conductivity meter fitted
- The combination with a mixed-bed system can provide an even lower conductivity (< 0.5 µS/cm)
- All mounted on a stainless steel skid

Reliable and maintenance-friendly

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 (< $20 \,\mu\text{S/cm}$) is required.

Membranes and pumps 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 sparse spaces.

Features:

- Robust and compact system mounted on a stainless steel skid
- PLC control system with touch-screen as standard
- The control unit provides information on the system's operation via the LCD touch screen with graphic display
- Alarm for operation interruptions with external output
- Time and quality flush for better water quality and it protects the membranes
- Effective BWT- high-quality membrane technology
- Energy efficient pump

Intuitive, user-friendly and flexible

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. There is the option to install a USB function for simple and easy transfer of data and operating history to Excel format.

The options include, among others, expanded operational status information and membrane cleaning systems that prolong the membrane's service life.

The flexible design allows for expansion with:

- Preparing for Clean-In-Place used for the mobile CIP unit
- Clean-In-Place unit effective cleaning of the membranes
- Antiscaling dosing increases the utilisation of the raw water up to 80-85%
- Additional conductivity control more monitoring points in the installation
- Frequency control of high pressure pump ensures reliable operation in areas with fluctuating water pressures and temperatures
- GSM option (2-way) communication via TEXT
- Flow transmitter for permeate
- Temperature and pressure transmitter with log function
- Analogue input level transmitter (depending on temperature/pressure transmitter)

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Geminivej 24 • DK-2670 Greve Tel.: +45 43 600 500 bwt@bwt.dk • www.bwt.dk



BWT PERMAQ® Pro 2500

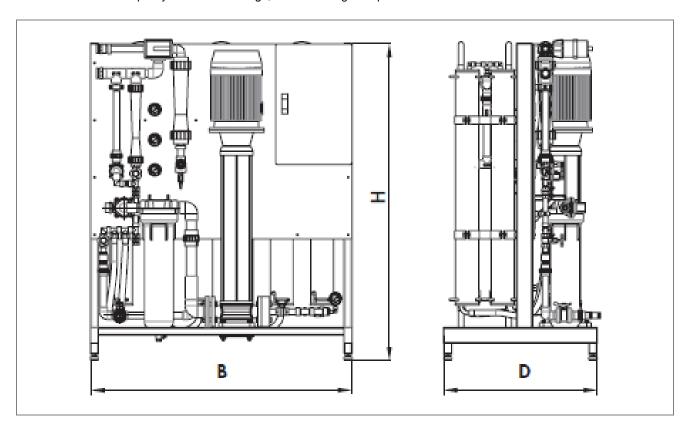
Reverse osmosis system

Technical data:

BWT PERMAQ® Pro 2500	Unit	2510	2520	2530	2540
Nominal permeate performance *	l/h	3100	4300	5100	6200
Salt reduction	%	>98			
Water utilisation WCF (max) **	%	75			
Inlet pressure (min/max)	bar	3/7			
Electrical connection	V / Hz	3 x 400 / 50			
Fuse	А	20 25			25
Pump motor size	kW	5.5 7.5			7.5
Protection class	IP	54			
Raw water temperature	°C	5 – 25			
Ambient temperature	°C	5 – 35			
Inlet	"	1 ½			
Outlet	"	1			
Drain	"	1 1/4			
Width	mm	1300			
Depth	mm	780			
Height	mm	1630			
Weight (dry), approx.	kg	261	323	355	387
Product number		421072515	421072525	421072535	421072545

^{*} 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.



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