

Reverse Osmose

Capaciteit 1500 - 3000 l/h



Brackish water RO systems

Low energy consumption with frequency controlled pump (BW/FU): savings potential up to 30%

Brackish water RO system for desalination of hardness stabilized drinking water (by antiscalant dosing) with a salt content of up to 5000 mg/l. With RO 1000 microprocessor control system.

BW- and BW/FU-systems already contain:

- Control for metering pump Dosin AS-K
- Concentrate flushing device KSE
- Preparation for injection point
- Connection Set for manual cleaning unit, ARA



Centaurusweg 148-02 5015 TA TILBURG
T. +31 (0)13 533 44 69 E. geon@geonwater.nl

www.geonwater.nl

BW and BW/FU serie

Unit design Stainless steel main frame with plastic front panel housing the instruments and controls.

Special inlet filter with 5 µm-filter cartridge, stainless steel **high pressure pump** low noise (incl. frequency converter for BW/FU systems), multi-stage centrifugal type, **low energy spirally wound modules** with **energy-efficient PA/PS composite membranes** in GRP vessels with inliner.

Valves such as sampling valves for feed water and permeate (for each pressure vessel), inlet solenoid valve, valves made of stainless steel to regulate the flow rate of permeate, concentrate and concentrate recirculation.

Pressure gauges for inlet and outlet pressure pre-filter, pump pressure, operating pressure and concentrate pressure, pressure switch for monitoring the feed water pressure.

Flow meters for permeate, concentrate and concentrate recirculation flow rate.

Permeate **conductivity measurement**, temperature compensated, measuring range 2-200 µS/cm.

Connection set for cleaning device, T-piece for injection point, concentrate flushing device.

Control cabinet with lockable main switch, electrical switchgear for control of the high-pressure pump and antiscalant dosing unit.

Unit is completely wired, pre-assembled and ready for installation. Electrical equipment in accordance with VDE 0100 part 600, VDE part 1.



RO 1000 microprocessor control system for fully automated monitoring and control of the reverse osmosis unit with **two-line LCD** (16 characters per line) and process-visualisation of

Operating data: permeate conductivity (temperature-corrected), permeate temperature, operating hours,

Malfunction signals: low pressure, hard water, motor overload, high conductivity pre-alarm, high conductivity fault, status signals: permeate discard, permeate recycling, concentrate displacement, concentrate rinse, intermittent rinse during shut-down, shut-down by external signal (forced stop, regeneration), LEDs for operation, malfunction, regeneration, discard, disinfection and full tank.

Inputs (low voltage) for level control with 1 or 2 float switches, hardness monitoring unit (the RO 1000 control system includes control functions for the limitron hardness monitoring unit), shut-downs by external signal (forced stop, regeneration), 2 universal inputs,

Outputs for softening unit (230V/50Hz), 2 solenoid valves for concentrate rinse, permeate discard and recirculation, universal output, analogue output conductivity permeate (4-20 mA) and DDC (collective malfunction signal on floating changeover contact). The units are designed for a maximum TDS of 5,000 mg/l, a water temperature of 15°C, a maximum colloidal index of 3 and free permeate outlet. Under these conditions, the units still reach design permeate flow after three years of operation. The permeate recovery depends on the raw water quality and the type of pre-treatment.

Permeate flushing unit as an option available.

Technical Data BW + BW/FU		UO 1500 BW	UO 2000 BW	UO 2500 BW	UO 3000 BW
Permeate flow rate	l/h	1.500	2.000	2.500	3.000
Min. salt rejection	%	97	97	97	97
Recovery	%	50	50	50	50
Operating pressure	bar	15	15	15	15
Membrane element / number		4040/6	4040/8	4040/10	4040/12
Voltage	V/Hz	3 x 400/50	3 x 400/50	3 x 400/50	3 x 400/50
Motor power	kW	3	4	4	4
Pre-fusing	A	16	16	16	16
Feedwater connection	DN	32	32	32	32
Permeate/concentrate connection	DN	25/25	25/25	25/25	25/25
Connection dosing point	R	½ "	½ "	½ "	½ "
Conductivity range	µS/cm	20 – 2,000	20 – 2,000	20 – 2,000	20 – 2,000
Height	mm	1,650	1,650	1,650	1,650
Width	mm	2,550	2,550	3,550	3,550
Depth	mm	700	700	700	700
Weight approx	kg	250	350	370	420

All installation sizes: Min./ max. feed water pressure 2 / 6 bar, Min. / max. feed water temperature 5 / 35 °C, Max. ambient temperature 40 °C, pH 3 - 11

Centaurusweg 148-02 5015 TA TILBURG
T. +31 (0)13 533 44 69 E. geon@geonwater.nl

www.geonwater.nl

