stakpure Pure water system RO 60 Ready

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This type of ready-for-connection Stakpure pure water system has been developed to economically produce high quality pure water and pump it, as required, to complete laboratory storeys and doctor's offices, where space is scarce. Pre-treatment, softening and reverse osmosis purification steps, a pure water tank and a booster pump are compactly combined and mounted in a noise-reducing cabinet. The digital microprocessor control displays and controls all operating and performance parameters. The pure water that Ready systems produce complies with appropriate standards such as ASTM and DIN EN 15883.

Scope of delivery and technical data

Electronic control cabinet: Holds all system components and has a transparent door

Pretreatment unit: Active against free chlorine and retains particles in the feed water

Reverse osmosis unit: Retains salts and organic and inorganic impurities

Pure water tank: Complete with water level control for automatic holding of a stock of the pure water produced

Pressure booster system: Acts together with a pressure control for low-noise pumping of pure water to the end-user

Digital microprocessor control: Displays and controls all operation and performance parameters

System set-up: Softening unit

This volume controlled unit fully automatically softens drinking water free of iron and manganese as required by drinking water regulations. It consists of a 5-step central control valve of Type FLECK 5600 SXT with a NORYL microprocessor, blending valve, water meter, a pressure tank made of corrosion-resistant GFRP and highest quality cation exchanger in an integrated cabinet-type tank with float valve..

Type	WEA 32 Compact
Capacity	32 m^3x^0 dH* (1 dH° = 1.25°)
Nominal flow rate	0.32 m^3/h
Resin volume	8 litres
Salt stock	25 kg
Spent salt	1.92 kg per regeneration
Water consumption	0.08 m^3 per regeneration
Operating pressure	2 to 6 bar
Water temperature maximum	30°C
Ambient temperature maximum	5 to 40°C
Mains connection	220 V / 50 Hz
Width x depth x height	310 x 430 x 660 mm
Connector	R 1”

System set-up: Reverse osmosis unit

- √ Safety pressure switch for switch-off when the feed water pressure is too low
- √ High pressure pump for generation of the operating pressure
- √ Reverse osmosis membrane complete with pressure tube and all necessary fittings
- √ Operating pressure gauge for system monitoring and fault diagnosis
- √ Two solenoid valves for raw water and quality rinse
- √ Two regulating valves for setting the operating pressure and the WCF rate
- √ Measuring cells for determination of raw and pure water conductivities
- √ Complete piping with pipes of PA, PP, POM and stainless steel material

System set-up: Pure water tank

Storage tank for holding a stock of pure water fed in from a reverse osmosis system. Made of gray PP and of closed, square and opaque construction, it has a 200 mm inspection opening for cleaning. The tank can be supplied completely piped and with optional additional equipment, such as level control with minimum/maximum triggering for fully automatic stock holding.

Nominal volume	150 litres
Material	Gray polypropylene
Inlet and over-flow connectors	R ¾“
Outlet connector	R 1 $^{1}/_{4}$“
Width x depth x height	700 x 500 x 550 mm

System set-up: Pressure booster

This specially designed multistage booster pump is used as immersion pump with suction at the pump foot and is fitted with a pressure controller. The result is a complete low-noise and space-saving pumping unit for the distribution of pure water.

Fluid pumped	Pure water
Actual flow rate at actual pump head	1.8 m^3/h at 30 m
Pressure control switch-on pressure	2.2 bar
Material	AISI
Power consumption	450 W
Mains connection	230 V / 50 Hz
Outlet connector	R 1 $^{1}/_{4}$“

Digital microprocessor control unit

This universally usable unit is designed for the automatic control and monitoring of reverse osmosis systems. It is equipped with one, or optionally two, conductivity meters with temperature compensation and, optionally, boards for 4-20mA recorder outputs. It is integrated in a separate electronic control cabinet for wall mounting. The following functions / operating modes are carried out and displayed:

√ Stand-by

√ Production

√ Rinse following production

√ Interval rinse

√ Maintenance

*Here without control cabinet

Adaption options made possible by programmed

configurations that can be deposited in a storage device.

Features

Menu-driven programming in a two-line display

√ Choice of language: English, French, Spanish, Italian or Dutch

√ Adaptable to application-specific requirements via programmable options

√ Symbols on the control keys make for simple handling and controlling

√ Universally usable, even for large reverse osmosis systems

√ Production can be controlled manually or via the level switch

√ Maintenance interval display programmable via a code

√ Service number can be shown in the display

√ The Info-key calls the status display for the following conditions:

Current status of inputs and outputs, service telephone number,

software version, programming status, type of fault message,

interval rinse with actual time interval, manual rinse time status,

conductivity measuring probe, cell constants

√ Display of the actual raw water and permeate conductivities with indication of the desalting rate in the large green LED display

√ Connector for an optional board for 4-20mA recorder outputs

- √ Inputs for production stop, storage tank full/empty, overpressure, lack of raw water, protective motor switch, alarm reset, temperature probe (optional),concentrate monitoring
- √ Integrated conductivity meter with measuring range switching
- √ Cell constants adjustable for conductivity measurements in the 0.1- 100000 µS/cm range
- √ Cell constants are programmable in the 0.01-10.00 cm range
- √ Manual and automatic temperature compensation
- √ Extension of conductivity measurement via the dual-function display
- √ Optional thermal circuit breaker for pressure pump and fault message
- √ Outputs for pressure pump (protection), inlet solenoid valve, rinsing valve, permeate valve, fault message contact
- √ Not prone to damage on a power failure as all programme functions are stored without a storage battery.
- √ Large microprocessor storage capacity with a “Watchdog” to counter “Operation Code” and frequency monitoring
- √ Control unit construction conforms to the EMC standard with galvanic separation between the microprocessor and the inlet and outlet circuits and with the installation of an extra filter
- √ Available input/output voltages (input/output) 24/24V 115/115V 230/230V

Technical data

Pure water system for connection to softened (0°dH) or hardness-stabilized drinking water that complies with the German drinking water regulations

Blocking index	max. 3
Salt content	max. 2,000 mg/l
Free chlorine concentration	< 0.01 mg/l
Manganese content	< 0.05 mg/l
Iron content	< 0.05 mg/l
CO_2-content	max. 15 mg/l
SiO_2-content	max. 0.4 mg/l
pH-Range	4 to 11

Pure water values

Performance (at 10°C)	60 l/h
RO Membrane retention quota	> 99 % of salts, microorganisms and bacteria
WCF Rate	adjustable up to 75%

Limits and connections

Ambient temperature	5 to 40°C
Feedwater temperature	5 to 35°C
RO raw water pressure	2 to 6 bar
Maximum RO operating pressure	14 bar
Supply voltage	230 Volt / 50 Hz
Total connected load	1.0 kW
Inlet connector	DN 20
Outlet connector	DN 20
Width x depth x height	800 x 600 x 1800 mm
Approximate weight	200 kg

Article number:

15200060	Pure water system RO60 READY