

stakpure Pure water system RO 500 ED

stakpure

This compact system is widely applied for the reliable and economical production of the pure water that is required by laboratories and laboratory complexes, central sterilisation in clinics and the pharmaceutical and other industries. Two proven techniques are combined to produce a pure water quality that fulfils current standards, such as ASTM II, CLSI and DIN EN 285. Reverse osmosis is the first step. It produces a demineralised permeate that is passed to the second step, electrodeionization, a process that is continually subject to self-regeneration and removes remaining salts. The stainless steel frame holds both of these purification steps, a pretreatment unit and also the digital microprocessor control that controls and calls all operating and performance parameters.

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Scope of delivery and technical data

Stainless steel frame for holding RO 500 ED

Pretreatment unit consisting of two 20" filter cartridges
for protection against free chlorine and particles

Reverse osmosis unit for initial desalting and removal of organic and inorganic impurities

Continuously self-regenerating **electrodeionization module** for removal of remaining salts,

Digital microprocessor control for controlling and calling of all operating and performance parameters



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. 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 rinsing
- √ Maintenance



*Here without control cabinet

Adaption options by programmed

configuration that can be deposited in a storage.

Features

Menu-driven programming in a two-line display

- √ Choice of language: English, French, Spanish, Italian or Dutch
- √ Matching 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 plants
- √ 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
- √ Inputs for:
Production stop, storage container 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 μ S/cm range
- √ Cell constants are programmable in the 0.01-10.00cm range
- √ Manual and automatic temperature compensation
- √ Extension of conductivity measurement via the dual-function display

- √ Optional thermal circuit breaker for the 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
- √ The control unit construction, with galvanic separation between the microprocessor and inlet and outlet circuits (plus the installation of an extra filter), conforms to the EMC standard
- √ The control unit can be supplied as wall unit or inserted in a cabinet
- √ Available input/output voltages (input/output) 24/24V 115/115V 230/230V

Technical data

Pure water system for connection to softened (0°dH) 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 system for the production of water with the following specifications

Performance (at 10°C)	500 l/h
RO Membrane retention quota	> 99 % of salts, microorganisms and bacteria
Remaining conductivity ED*	0.1 to 1 µS/cm/ max. 15mg/CO ₂
Typical residual conductivity ED*	0.1 µS/cm
TOC- value ED	< 30 ppb
Silicate and microorganism reduction ED*	> 99 %
WCF-Rate of the entire system	adjustable up to 65 %
Ambient temperature	5 to 40°C
Feedwater temperature	5 to 35°C
Raw water pressure RO	2 to 6 bar
Operating pressure RO	max. 14 bar
Operating pressure ED	1 to 4 bar
Pure water back-pressure	max. 0 to 1 bar
Supply voltage	400 Volt / 50 Hz

Connected load	2,2 kW
Inlet connector	DN 20
Outlet connector	DN 20
Saline connector	DN 10
Width x depth x height	1400 x 600 x 1800 mm
Approximate weight	350 kg

Article number:

17300500

Pure water system RO500 EDI

*depends on the tap water quality and the CO₂ content of the feedwater