

# Reverse osmosis and electro-deionisation.

**The efficient way to  
produce and supply  
pure water on a  
centralised purified  
water supply.**



H<sub>2</sub>O – WATER IN ITS PUREST FORM

stakpure




# stakpure pure water systems.

## Planning + realisation + after sales.

stakpure pure water systems provide an efficient and cost-effective way of producing a centralised supply of pure water as required in laboratories, health care, pharmaceutical companies and industry.

stakpure pure water systems are configured to meet specific needs within a capacity range of 20 l/h to 6,000 l/h. This makes it possible to supply individual laboratory and medical systems, floors or even entire buildings. Our product range spans from conventional reverse osmosis systems, two-step reverse osmosis systems (optional with concentrate treatment), electro-deionisation right up to a combination of different treatment processes. Your application decides on the type of treatment. Reliably and always in constantly high quality.

Equipped with the most modern technology, our systems are also available with control unit and touch panel with process visualisation. All relevant operating and performance parameters can be transferred to the building and central service management system via bus systems such as BACnet.



Thorough introduction and commissioning are as important as after sales service. Just as you like, we are at your disposal with service according to contract or service on demand.

### Planning

Whether small quantities of a few litres, as are required in doctors' surgeries or laboratories on a daily basis, or thousands of litres for large laboratory facilities, hospitals and use in pharmacy and industry – we make sure that your investment remains profitable for a long time to come. It always starts with an in-depth consultation and establishing your requirements before we prepare and submit a well-founded solution. The result may be a standard device, an individual equipment configuration or a solution planned and realised on an engineering basis. The main requirement for a successfully planned system is the personal meeting with you. Ideally on site, of course. That is the best way to establish your requirements; the system parameters are defined together, and often it is possible to give a rough idea of the costs. Please do not hesitate to contact us (at no obligation to yourself) – we're here for you!

### Realisation

Now it's all about the smooth interlinking of the preparatory measures. stakpure works with highly-qualified, motivated staff, every one of whom "lives" their responsibility for the success of the project and the complete satisfaction of our customers. You can rely on our delivery dates just as much as on our systems and service! Your new appliance will be commissioned on site by our trained technicians, who will also instruct your staff in using it.

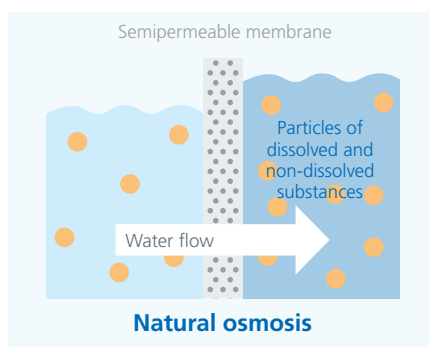
### Service

Service is not an empty promise at stakpure, but an important field of activity in achieving customer satisfaction. Because only the reliable support for a system, whether large or small, will ensure that it runs smoothly and safely, and protect against incalculable risks resulting from downtimes. Detailed instruction and commissioning are just as important to us as the subsequent service. Whatever you wish: we are at your disposal to provide contract-based service or service on demand. Anywhere in Germany, and even in our 24-hour express service if required. We will also undertake the planning and execution of all service tasks. It goes without saying that we will also replace cartridges and filters, as well as ensuring professional reconditioning of the mixed-bed resins.

# stakpure reverse osmosis systems.

## Safe and economical.

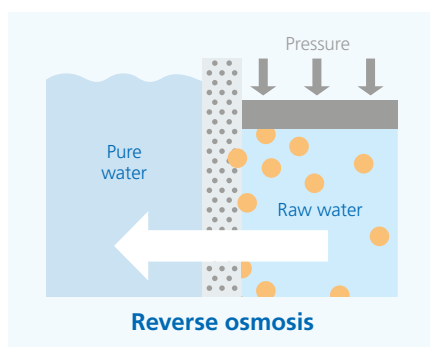
Reverse osmosis removes up to 99% of all water pollution, such as minerals, bacteria and any further particles. The typical WCF rate (utilisation rate) of reverse osmosis systems is 70/30 or rather optimally 75/25. Adaptation of concentrate treatment can increase the yield up to 85%.



### Principle and mode of operation

Osmosis is based on a natural process such as plants use their root cells to gain moisture from soil. The same process takes place in the human body and causes an exchange of substances through the cell membrane.

If you separate two different loaded liquids by a cell membrane, liquid molecules will move towards the less concentrated solution according to the principle of Brownian motion. This leads to osmotic pressure. In order to gain as pure water as possible, considerably higher pressure is generated on the loaded side. Hence the process is reversed and therefore it is called reverse osmosis.



Reverse osmosis systems are ideal for supplying pure water to entire building wings in laboratory (Type III), cleaning and disinfection devices in medical technology (DIN EN ISO 15883) as well as industrial applications.

### Benefits at a glance

- One central system – space-saving
- No regeneration costs
- No use of chemicals
- Free from particles and bacteria
- High pure water yield
- Modular capacity upgrade

### Typical rejection rate of a stakpure reverse osmosis system

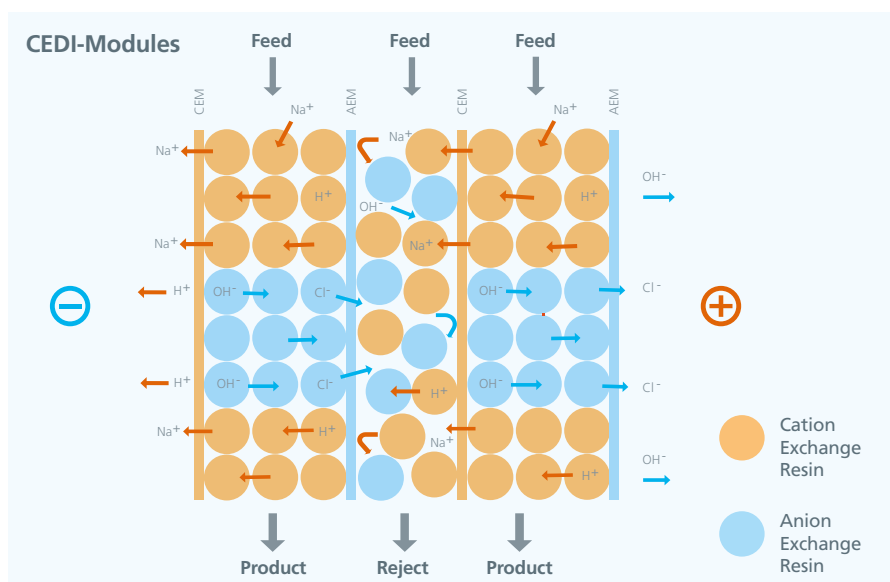
Minerals	99%
Bacteria	99%
Particles	99%
Pyrogens	99%

# stakpure electro-deionisation ED.

## For the highest of demands.

Electro-deionisation combines two processes for producing ultrapure water, the electrodialysis and ion exchanger processes (IEP).

Whereas the conventional ion-exchanger process involves chemically regenerating the resins on a regular basis after longer time use, electro-deionisation continuously regenerates the resins using electric current.



### Principle and mode of operation

With electro-deionisation, water is split into H<sup>+</sup> and OH<sup>-</sup> ions by applying an electric voltage within the cells. This creates a process that continuously regenerates the mixed-bed resins without adding chemicals. Ions are held back on the mixed-bed resins and flushed out through selective membranes that only let anions or cations through. This process rules out any occurrence of impurities and the risk of „impure mixed-bed resins“ contaminating the pure water that is produced.

Electro-deionisation systems produce a constantly high water quality, making them ideal for supplying pure water to entire building wings in the laboratory (Type II), central sterilisation units in clinics (DIN EN 285) as well as for many pharmaceutical and industrial applications.

### Typ. pure water values and retention rates of stakpure electro-deionisation

Res. conductivity 0.067 bis 1 µS/cm

Typ. res. conductivity 0.1 µS/cm

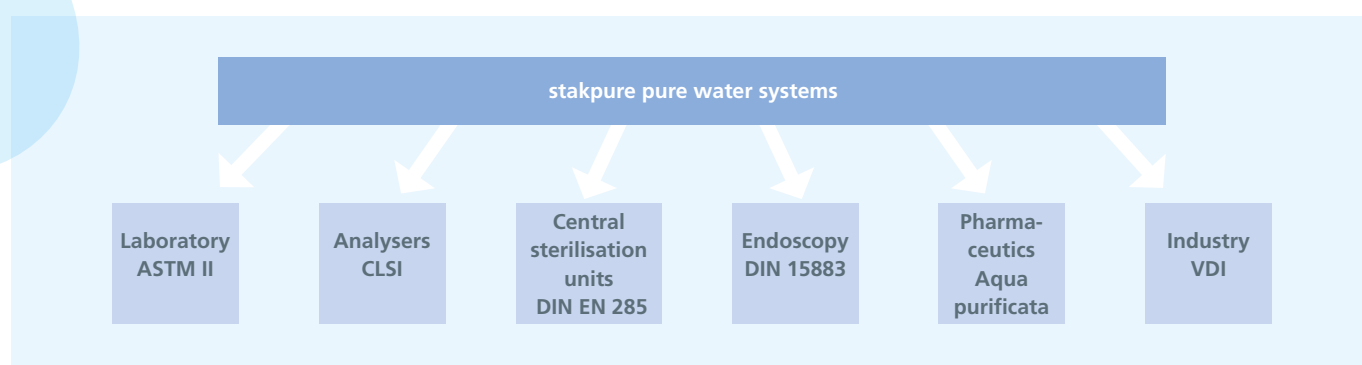
Bacteria 99%

Particles 99%

silicates > 99%

TOC-value < 30 ppb

# Pure water of all grades. For laboratory and medical technology.



Whether supplying pure water in hospitals & clinics for central sterilisation, in medical practices for endoscopy or for large laboratory facilities and clinical analysis supply – we offer the ideal solution for any need.

## Pure water for laboratory technology (ASTM)

The ASTM\* D1193-06 (2011) deals with the requirements for chemical analyses and physical tests. For central laboratory water supply, i.e. feedwater for laboratory washers, autoclaves and ultrapure water systems, pure water of Type II is needed.

Type	Grade	Conductivity ( $\mu\text{S}/\text{cm}$ ), max.	Resistance ( $\text{M}\Omega \times \text{cm}$ ), min.	pH	TOC ( $\mu\text{g}/\text{l}$ ), max.	Sodium ( $\mu\text{g}/\text{l}$ ), max.	Chloride ( $\mu\text{g}/\text{l}$ ), max.	Silicon ( $\mu\text{g}/\text{l}$ ), max.	Bacteria (CFU/ml), max.	Endotoxins (EU/ml), max.
Ultrapure water	I**	0.056	18.0	–	50	1	1	3	–	–
	I** A	0.056	18.0	–	50	1	1	3	10/1000	0.03
	I** B	0.056	18.0	–	50	1	1	3	10/100	0.25
	I** C	0.056	18.0	–	50	1	1	3	100/10	–
Pure water	II	1.0	1.0	–	50	5	5	3	–	–
	II A	1.0	1.0	–	50	5	5	3	10/1000	0.03
	II B	1.0	1.0	–	50	5	5	3	10/100	0.25
	II C	1.0	1.0	–	50	5	5	3	100/10	–
Pure water	III	0.25	4.0	–	200	10	10	500	–	–
	III A	0.25	4.0	–	200	10	10	500	10/1000	0.03
	III B	0.25	4.0	–	200	10	10	500	10/100	0.25
	III C	0.25	4.0	–	200	10	10	500	100/10	–
Pure water	IV	5.0	0.2	5.0–8.0	–	50	50	–	–	–
	IV A	5.0	0.2	5.0–8.0	–	50	50	–	10/1000	0.03
	IV B	5.0	0.2	5.0–8.0	–	50	50	–	10/100	0.25
	IV C	5.0	0.2	5.0–8.0	–	50	50	–	100/10	–

\* American Society for Testing and Materials

\*\* Using an appropriate 0,2 $\mu\text{m}$  membrane filter.





### Pure water for the supply of analysers of Clinical Laboratory Standards Institute (CLSI)

This institute defined the quality requirements of water for clinical laboratories. The regulations that were valid up to 2006 (NCCL types 1, 2 and 3) but were then invalidated by the requirement that water must be suitable for the intended usage. Only the degree of purity of so-called "Clinical laboratory reagent water" (CLRW) is described.

Parameter	CLRW
Resistance [ $M\Omega \times cm$ ]	10
TOC [ppb]	< 500
Bacteria [CFU/ml]	< 10
Particle content	Inline 0.2 $\mu m$ -filter



### Pure water for the supply of cleaning and disinfection devices (DIN EN ISO 15883)

At least the use of softened water or reverse osmosis water can prevent lime deposits. Using acidic disinfectants, such as based on peracetic acid, a low chloride content can also lead to pitting corrosion. Therefore, a chloride value limit of < 50 mg/l is recommended. For the final rinse, fully demineralised water is suggested. However, for process optimisation it is advisable to use fully demineralised or at least softened water for pre-wash, cleaning and intermediate wash steps. The water quality according to DIN EN 285 proves itself for the final rinse step in mechanical instrument reprocessing.

Minimum requirements water	
Total hardness [ $^{\circ}dH$ ]	< 3 (< 0,5 mmol CaO/l)
Total minerals [mg/l]	< 500
Chloride content [mg/l]	< 100
pH value	5 up to 8

Minimum requirement demineralised water	
Conductivity [ $\mu S/cm$ ]	$\leq 15$ (differ from table of DIN EN 285)
pH value	5 – 7
Total hardness [mmol CaO/l]	$\leq 0.02$
Total minerals [mg/l]	$\leq 10$
Phosphate content ( $P_2O_5$ ) [mg/l]	$\leq 0.5$
Silicate content ( $SiO_2$ ) [mg/l]	$\leq 1$
Chloride content [mg/l]	$\leq 2$
Microbiological	min. drinking water quality according to TrinkwV

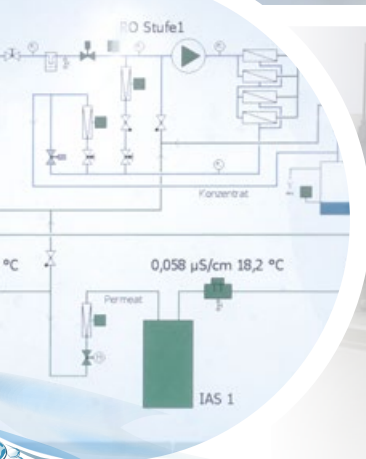


### Pure water for steam and large-size sterilisers (DIN EN 285 – Annex B)

Proposed maximum values for feed water pollution:

Substance / Feature	Feed water
Evaporation residue [mg/l]	$\leq 10$
Silicates ( $SiO_2$ ) [mg/l]	$\leq 1$
Iron [mg/l]	$\leq 0.2$
Cadmium [mg/l]	$\leq 0.005$
Lead [mg/l]	$\leq 0.05$
Heavy metal residue except iron, cadmium and lead [mg/l]	$\leq 0.1$
Chlorides (Cl) [mg/l]	$\leq 2$
Phosphates ( $P_2O_5$ ) [mg/l]	$\leq 0.5$
Conductivity at 25 $^{\circ}C$ [ $\mu S/cm$ ]	$\leq 5$
pH value (degree of acidity)	5 up to 7.5
Appearance	colorless, clear, without deposits
Hardness [mmol/l] (sum of alkaline earth ions)	$\leq 0.02$

Note: Compliance should be checked using recognised analytical methods.





# stakpure reverse osmosis systems.

## Compact units for decentralised supply. Type III + 15883 Water.

### stakpure RO ready

„All in one“ unit in a cabinet with lockable door and observation window. All components (pretreatment, water softening, reverse osmosis, pure water tank with level control and pressure booster) are integrated and premounted ready to connect. Multilingual microprocessor controller with LCD display for controlling and monitoring RO systems. Display of permeate conductivity, fully automatic rinsing cycles, potential-free fault reporting relay. Module-based capability of increasing capacity at a later stage.

stakpure RO ready	60	150	200*	300*
Permeate performance at 10 °C [l/h]	60	150	200	300
Power consumption [kW]	1.2			
Mains voltage [V/Hz]	230/50-60			
Max. operating pressure [bar]	14			
Dimensions [W x D x H mm]	820 x 600 x 1870		1020 x 600 x 1870	
Weight [kg]	200	215	240	250
Order no.	15200060	15200120	15200200	15200300

\* without integrated water softening system



### stakpure RO ready mini

„All in one“ unit for space-saving integration into a 90s base. All components (pretreatment, reverse osmosis, pure water tank with level control and pressure booster) are integrated and premounted ready to connect. Multilingual microprocessor controller with LCD display for controlling and monitoring RO systems. Display of permeate conductivity, fully automatic rinsing cycles. Module-based capability of increasing capacity at a later stage.

stakpure RO ready mini	60	120
Permeate performance at 10 °C [l/h]	60	120
Power consumption [kW]	0.6	
Mains voltage [V/Hz]	230/50-60	
Max. operating pressure [bar]	14	
Dimensions [W x D x H mm]	800x600x800	
Weight [kg]	50	55
Order no.	15200061	15200121



# stakpure reverse osmosis systems.

## For centralised supply.

## Type III + 15883 Water.



### stakpure RO cabinet

Ready-to-connect, compact RO system in a cabinet for wall-mounting. Digital micro-processor controller with LCD display for controlling and monitoring all operating and performance parameters as well as for displaying permeate conductivity. Fully automatic rinsing cycles. Module-based capability of increasing capacity at a later stage.

stakpure RO cabinet	20	40	60	120
Permeate performance at 10 °C [l/h]	20	40	60	120
Power consumption [kW]	0.30			
Mains voltage [V/Hz]	230/50-60			
Max. operating pressure [bar]	14			
Dimensions [W x D x H mm]	600x400x800			
Weight [kg]	50	55	55	60
Order no.	15300020	15300040	15300060	15300120

### stakpure RO easy

Ready-to-connect RO system on stainless-steel frame. Multilingual microprocessor controller with LCD display for controlling and monitoring RO systems. Display of permeate conductivity, fully automatic rinsing cycles, potential-free fault reporting relay. Module-based capability of increasing capacity at a later stage.



stakpure RO easy	100	150	200	300	350
Permeate performance at 10 °C [l/h]	100	150	200	300	350
Power consumption [kW]	0.60				
Mains voltage [V/Hz]	230/50-60				
Max. operating pressure [bar]	14				
Dimensions [W x D x H mm]	600x600x1600				
Weight [kg]	80	85	100	110	118
Order no.	15400100	15400150	15400200	15400300	15400350

RO easy systems with 600 and 900 l/h are also available on request.

### stakpure RO central

RO-Cabinet version with lockable door and observation window. Multilingual micro-processor control with LCD display for controlling and monitoring RO systems. Display of raw and pure water conductivity with limiting value setting capability and temperature compensation. Fully automatic rinsing cycles, potential-free fault reporting relay. Module-based capability of increasing capacity at a later stage.

stakpure RO central	300	600	900	1200
Permeate performance at 10 °C [l/h]	300	600	900	1200
Power consumption [kW]	3.3			
Mains voltage [V/Hz]	380/50-60			
Max. operating pressure [bar]	14			
Dimensions [W x D x H mm]	800x600x1850		1000x600x1850	
Weight [kg]	230	250	270	290
Order no.	15300300	15300600	15300900	15301200



### stakpure RO central small

Ready-to-connect RO system on stainless-steel frame. Multilingual microprocessor controller with LCD display for controlling and monitoring RO systems. Display of permeate conductivity, fully automatic rinsing cycles, potential-free fault reporting relay. Module-based capability of increasing capacity at a later stage.

stakpure RO central small	1600	2200	2800
Permeate performance at 10 °C [l/h]	1600	2200	2800
Power consumption [kW]	4.5		
Mains voltage [V/Hz]	380/50-60		
Max. operating pressure [bar]	14		
Dimensions [W x D x H mm]	1350x660x1930		
Weight [kg]	270	290	310
Order no.	15301610	15302010	15303010

RO systems with control unit and bus systems such as BACnet are also available on request.





### stakpure RO central

Ready-to-connect RO system on stainless-steel frame. Multilingual microprocessor control with LCD display for controlling and monitoring RO systems. Display of permeate conductivity, fully automatic rinsing cycles, potential-free fault reporting relay. Module-based capability of increasing capacity at a later stage.

stakpure RO central	2000	3000	4000	5000	6000
Permeate performance at 10 °C [l/h]	2000	3000	4000	5000	6000
Power consumption [kW]	4.5–8.5				
Mains voltage [V/Hz]	380/50-60				
Max. operating pressure [bar]	14				
Dimensions [W x D x H mm]	2800x900x1900				
Weight [kg]	450	480	490	520	530
Order no.	15302000	15303000	15304000	15305000	15306000

RO systems with control unit and bus systems such as BACnet are also available on request.

# stakpure two-step reverse osmosis systems. For centralised supply. Type II + 285 Water.



### stakpure RO duo central

Two-step reverse osmosis system on stainless-steel frame. Multilingual microprocessor control with LCD display for controlling and monitoring RO systems. Display of permeate conductivity, fully automatic rinsing cycles, potential-free fault reporting relay. Module-based capability of increasing capacity at a later stage.

stakpure RO duo central	2000	3000	4000	5000	6000
Permeate performance at 10 °C [l/h]	2000	3000	4000	5000	6000
Power consumption [kW]	9–16				
Mains voltage [V/Hz]	380/50-60				
Max. operating pressure [bar]	14				
Dimensions [W x D x H mm]	2950x850x1800				
Weight [kg]	570	600	630	660	700
Order no.	15702000	15703000	15704000	15705000	15706000

RO systems with control unit and bus systems such as BACnet are also available on request.



# stakpure reverse osmosis systems + electro-deionisation.

## Compact units for decentralised supply. Typ II + 285 Water.

### stakpure RO ED ready

„All in one“ unit in a cabinet with lockable door and observation window. All components (pre-treatment, water softening, reverse osmosis, electro-deionisation, pure water tank with level control and pressure booster) are integrated and premounted ready to connect. Multilingual microprocessor controller with LCD display for controlling and monitoring pure water systems. Display of permeate and pure water conductivity, fully automatic rinsing cycles, potential-free fault reporting relay. Module-based capability of increasing capacity at a later stage.

stakpure RO ED ready	50–80	130–170	270–300
Pure water performance at 10 °C [l/h]	50–80	130–170	270–300
Pure water quality [µS/cm]	0.1–1.0*		
Power consumption [kW]	1.5		
Mains voltage [V/Hz]	230/50-60		
Max. operating pressure [bar]	14		
Dimensions [W x D x H mm]	1020x600x1850		
Weight [kg]	270	280	290
Order no.	17600080	17600170	17600300

\* depending on feed water quality

RO ED ready systems with circulation modules for ring line connection are also available on request.



### stakpure RO ED ready mini

„All in one“ unit for space-saving integration into a 90s base. All components (pre-treatment, reverse osmosis, electro-deionisation, storage tank with level control and pressure booster) are integrated and pre-mounted ready to connect. Multilingual microprocessor controller with graphic display for controlling and monitoring pure water systems. Display of permeate and pure water conductivity as well as tank volume in %. Module-based capability of increasing capacity at a later stage.

stakpure RO ED ready mini	20	40
Pure water performance at 15 °C [l/h]	20	40
Pure water quality [µS/cm]	0.1–1.0*	
Power consumption [kW]	1.1	
Mains voltage [V/Hz]	230/50-60	
Max. operating pressure [bar]	6	
Dimensions [W x D x H mm]	800x600x800	
Weight [kg]	65	70
Order no.	17800020	17800040

\* depending on feed water quality

RO ED ready mini systems with circulation modules for ring line connection are also available on request.



# stakpure reverse osmosis systems + electro-deionisation.

## Compact units for decentralised supply of Type II + 285 Water.

### stakpure RO ED cabinet



RO system with integrated electro-deionisation. Cabinet version with lockable door and observation window. Multilingual microprocessor control with LCD display for controlling and monitoring electro-deionisation systems. Display of permeate and pure water conductivity with limiting value setting capability and temperature compensation. Fully automatic rinsing cycles, potential-free fault reporting relay. Module-based capability of increasing capacity at a later stage.

stakpure RO ED cabinet	50–80	130–170	270–300
Ultrapure water output at 10°C [l/h]	50–80	130–170	270–300
Ultrapure water quality [µS/cm]	0.1 – 1.0*		
Power consumption [kW]	0.9		
Mains voltage [V/Hz]	230/50-60		
Max. operating pressure [bar]	14		
Dimensions [W x D x H mm]	600x610x1670		
Weight [kg]	148	158	171
Order no.	17400080	17400170	17400300

\* depending on feed water quality

RO ED systems with control unit and bus systems such as BACnet are also available on request.

### stakpure RO ED ultra



RO system with integrated electro-deionisation and recirculation module (polisher). Multilingual microprocessor control with LCD display for controlling and monitoring electro-deionisation systems. Display of permeate and pure water conductivity with limiting value setting capability and temperature compensation. Fully automatic rinsing cycles, potential-free fault reporting relay. Module-based capability of increasing capacity at a later stage.

stakpure RO ED ultra	50–80	130–170	270–300
Ultrapure water output at 10°C [l/h]	50–80	130–170	270–300
Ultrapure water quality [µS/cm]	0.067 – 0.1*		
Power consumption [kW]	0.9		
Mains voltage [V/Hz]	230/50-60		
Max. operating pressure [bar]	14		
Dimensions [W x D x H mm]	600x610x1670		
Weight [kg]	172	184	197
Order no.	17500080	17500170	17500300

\* depending on feed water quality

RO ED systems with control unit and bus systems such as BACnet are also available on request.

### stakpure RO ED central

RO system with integrated electro-deionisation on stainless-steel frame. Multilingual micro-processor control with LCD display for controlling and monitoring electro-deionisation systems. Display of permeate and pure water conductivity with limiting value setting capability and temperature compensation. Fully automatic rinsing cycles, potential-free fault reporting relay. Module-based capability of increasing capacity at a later stage.

stakpure RO ED central	500	800	1100
Ultrapure water output at 10°C [l/h]	500	800	1100
Ultrapure water quality [µS/cm]	0.1 – 1.0*		
Power consumption [kW]	3.5		
Mains voltage [V/Hz]	380/50-60		
Max. operating pressure [bar]	14		
Dimensions [W x D x H mm]	1400x600x1800		
Weight [kg]	360	370	400
Order no.	17300500	17300800	17301100

\*depending on feed water quality

RO systems with control unit and bus systems such as BACnet are also available on request.



### stakpure RO ED central

RO system with integrated electro-deionisation on stainless-steel frame. Multilingual micro-processor control with LCD display for controlling and monitoring electro-deionisation systems. Display of permeate and pure water conductivity with limiting value setting capability and temperature compensation. Fully automatic rinsing cycles, potential-free fault reporting relay. Module-based capability of increasing capacity at a later stage.

stakpure RO ED central	2000	3000	4000	5000	6000
Ultrapure water output at 10°C [l/h]	2000	3000	4000	5000	6000
Ultrapure water quality [µS/cm]	0.1–1.0*				
Power consumption [kW]	3.5	3.5	3.5	5.5	5.5
Mains voltage [V/Hz]	380/50-60				
Max. operating pressure [bar]	14				
Dimensions [W x D x H mm]	2800x900x1800				
Weight [kg]	520	570	580	610	650
Order no.	17302000	17303000	17304000	17305000	17306000

\*depending on feed water quality

RO systems with control unit and bus systems such as BACnet are also available on request.



# stakpure reverse osmosis systems.

## For supply of analysers.

### CLRW (CLSI).



#### RO medical mini

„All in one“ unit in a cabinet with emergency supply for safe supply of analysers. All components (pre-treatment, reverse osmosis, pressurised tank, polisher for residual desalination as well as 0.2 µm sterile filter) are integrated and pre-mounted ready to connect. Optionally available with UV-disinfection and degassing unit. Multilingual microprocessor controller with LCD display for controlling and monitoring pure water systems. Display of permeate and pure water conductivity. Fully automatic rinsing cycles, potential-free fault reporting relay. Module-based capability of increasing capacity at a later stage.

RO medical mini	60	120	140
Pure water performance at 10°C [l/h]	60	120	140
Pure water conductivity [µS/cm] / Resistance [MΩ x cm]	0.1–1.0 / 10–1		
Particle content/Bacteria* [KbE/ml]	< 10		
Emergency supply	yes		
UV-disinfection unit	optional		
Degassing unit	optional		
Power consumption [kW]	0.3		
Mains voltage [V/Hz]	230/50-60		
Max. operating pressure [bar]	14		
Dimensions [W x D x H mm]	600x610x1670		
Weight [kg]	230	240	240
Order no. (with UV- and degassing)	15600060	15600120	15600140
Order no. (without UV- and degassing)	15600061	15600121	15600141

\*Inline 0.2 µm-Filter





## RO medical

„All in one“ unit in a cabinet with emergency supply for safe supply of analysers. All components (pre-treatment, reverse osmosis, storage tank, pressure booster, external polishers for residual desalination as well as 0.2 µm sterile filter) are pre-mounted ready to connect. Multilingual microprocessor controller with LCD display for controlling and monitoring pure water systems. Display of permeate and pure water conductivity. Fully automatic rinsing cycles, potential-free fault reporting relay. Module-based capability of increasing capacity at a later stage.

RO medical	100	180	300
Pure water performance at 10 °C [l/h]	100	180	300
Pure water conductivity [µS/cm] / Resistance [MΩ x cm]	0.1 – 1.0 / 10 – 1		
Particle content/Bacteria* [KbE/ml]	< 10		
Emergency supply	yes		
UV-disinfection unit	yes		
Degassing unit	optional**		
Power consumption [kW]	1.2		
Mains voltage [V/Hz]	230/50-60		
Max. operating pressure [bar]	14		
Dimensions [W x D x H mm]	600 x 610 x 2130		
Weight [kg]	230	240	250
Order no.	15600100	15600180	15600300

\*Inline 0.2 µm-Filter

\*\*RO medical 100–300 with degassing unit are also available on request.



# stakpure accessories.

## For reverse osmosis systems.



### Filter housings and filter cartridges

Pressure-resistant filter casings made of plastic with wall mount as well as appropriately sized filter cartridges for pre-filtration, particle and sterile filtration. Also as activated carbon filter combined with pre-filter.

stakpure filter housings	10"	10"	10"	20"	20"	20"
Pressure gauge	without	1	2	without	1	2
Casing material		PP			PP	
Seal		Buna			Buna	
Max. operating pressure [bar]		8.5			8.5	
Max. temperature [°C]		52			52	
Connection, both sides		R3/4"			R3/4"	
Dimensions [Ø x length mm]		130x311			130x568	
Weight [kg]	1.2	1.3	1.4	1.9	2.0	2.1
Order no.	16531000	16531100	16531200	16532000	16532100	16532200

stakpure pre-filter cartridges	10"	10"	10"	10"	20"	20"	20"	20"
Pore size [µm]	1	3	5	5 + activated carbon	1 µm	3 µm	5 µm	5 + activated carbon
Design				10"			20"	
Flow rate at 0.15 bar Δp [l/h]	750	1000	1500	750	1500	2000	3000	1500
Order no.	16510100	16510700	16510500	16520100	16510600	16510800	16511000	16520200

stakpure particle and sterile filtration	10"	20"
Pore size [µm]	0.20	0.20
Approx. flow rate at 0.15 bar Δp [l/h]	800	1600
Order no.	16555500	16555800

## System separator

Safety device that is compliant with EN 1717 and DIN 1988 – DVGW (German drinking water specifications). It prevents non-potable water from flowing into the public water supply should back-pressure, reverse flow or suction occur in the system.

stakpure ST FK4	ST 20	ST 25	ST 32	ST 40	ST 50
Flow rate at 0.7 bar $\Delta p$ [m <sup>3</sup> /h]	2.0	3.0	4.0	6.0	10.0
Connections	R3/4"	R1"	R1 1/4"	R1 1/2"	R2"
Width [mm]	208	247	272	315	345
Depth [mm]	140	168	180	220	230
Height [mm]	218	263	263	446	446
Weight [kg]	1.55	1.65	4.6	4.7	4.8
Order no.	25014000	25014100	25014200	25014300	25014400



## Backflushable fine filter + household water station

Filter combinations with backflushable fine filter and pressure reducer in one unit – DVGW-tested (German Association for Gas and Water). The fine filter prevents foreign particles from being washed in, such as rust particles, hemp remnants and grains of sand. The pressure reducer prevents pressure damage and lowers water consumption.

stakpure Type RF + HS	RF 20	RF 25	RF 32	RF 40 HS	RF 50 HS
Flow rate at 0.2 – 0.6 bar $\Delta p$ [m <sup>3</sup> /h]	2.0	3.0	4.0	6.0	10.0
Connections	R3/4"	R1"	R1 1/4"	R1 1/2"	R2"
Width [mm]	150	150	150	370	408
Depth [mm]	178	178	182	150	150
Height [mm]	415	415	415	590	590
Filtration down to [µm]			100		
Weight [kg]	2.3	2.6	3.9	8.1	10.0
Order no.	16552900	16553000	16553100	16554000	16554100



# stakpure accessories.

## For reverse osmosis systems.



### Storage tanks 100 – 500 l

Storage tanks in grey PP for storing purified water from reverse osmosis systems. Closed and opaque design, round, including manhole for cleaning. The tank comes completely piped and is available with optional accessories. On request, also available with sloping tank bottom for completely discharging and effective disinfection.

stakpure storage tank	Type RT 100 PP	Type RT 200 PP	Type RT 300 PP	Type RT 400 PP	Type RT 500 PP
Material	PP				
Volume [Liters]	100	200	300	400	500
Colour	grey				
Overflow connection	R3/4"				
Outlet connection	R1 1/4"				
Inlet connection	R3/4"				
Dimensions [Ø x height mm]	470x680	560x840	690x830	760x1050	780x1100
Weight [kg/empty]	12	14	16	18	20
Order no.	16500100	16500200	16500300	16500400	16500500
Order no. with sloping tank bottom	16500101	16500201	16500301	16500401	16500501

Further tank sizes and custom-made solutions are available on request.



## Storage tanks 1100 – 3000 l

Storage tanks in black PE for storing pure water from reverse osmosis systems. Closed rectangular design, including 400 mm manhole with lid and tension ring as well as galvanised steel bandages.



stakpure storage tank	Type RT 1100 PE	Type RT 1500 PE	Type RT 2000 PE	Type RT 3000 PE
Material	PE			
Volume [Liters]	1100	1500	2000	3000 l
Colour	black			
Overflow connection	R3/4"			
Outlet connection	R1 1/4"			
Inlet connection	R3/4"			
Dimensions [L x W x H mm]	1400x720 x1400	1560x720x1640	2070x720x1690	2230x995 x 1650
Weight [kg/empty] Weight	55	70	110	165
Order no.	16501100	16501500	16502000	16503000

Further tank sizes are available on request.



# stakpure water softening systems.

## For softening water the reliable way.



### stakpure stand-alone softeners

The System is either volume or time-controlled, for softening iron and manganese-free drinking water, in compliance with the German Drinking Water Ordinance, fully automatic with 5-stage central control valve and microprocessor with integrated blending valve and water meter. Pressurised tank made of non-corroding GFP, including top-quality cation exchanger, built into cabinet container with float valve.

stakpure WEA compact	32	60	100
Capacity at 10 °dH [m³]	3.2	6	10
Nominal flow rate [m³/h]	0.32	0.6	1.0
Salt charge [kg]	25	75	75
Dimensions [W x D x H mm]	320x500x670	320x500x1120	320x500x1120
Order no.	16127200	16127400	16127800

Sensor-controlled water softening systems are also available on request.



### stakpure twin water softening system

A twin system, volume-controlled, for softening iron and manganese-free drinking water, in compliance with the German Drinking Water Ordinance, fully automatic with 5-stage central control valve with intelligent control electronics, made of red brass. 2 pressurised tanks made of non-corroding GFP, including top quality cation exchanger. 1 salt water tank with sieve bottom and float valve.



Image: Double softener with brine tank

stakpure WEA Duo	60	100	200	440	600	800
Capacity at 10 °dH [m³]	2x6	2x10	2x20	2x44	2x60	2x80
Nominal flow rate [m³/h]	0.6	1.0	2.0	4.4	6.0	8.0
Salt charge	75	75	150	200	200	300
Connection	R1 "	R1 "	R1 "	R1 ½ "	R1 ½ "	R2 "
Height [mm]	1200	1200	1650	2000	2000	2200
Width [mm]	1110	1200	1300	1800	1900	2700
Depth [mm]	500	500	600	800	800	950
Order no.	16128200	16128400	16128600	16120200	16120400	16130600

Sensor-controlled water softening systems are also available on request.

### stakpure accessories for water softeners

The use of genuine products from the stakpure range of accessories for water softeners is recommended where higher standards are required on constant water quality.

stakpure accessories	Order no.
Total hardness measuring instrument	16100000
Salt tablets for water softeners (1 bag = 25 kg)	16200000
1 " mounting block with blending valve and test tap	16115900
1 1/2 " mounting block with blending valve and test tap	16116000
Blending device 1 1/4 "	25011200
Blending device 2 "	25011300





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We are certified  
according to  
ISO 9001: 2015

Is reliable and economic preparation of pure and/or ultrapure water a topic for you?  
Just call us!

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