# **stakpure** Pure water system RO 120 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: H**olds 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: C**omplete 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..

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| 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.

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| 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.

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| 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 $^{1}/_{4}$“ |

## Technical data

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

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| 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

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| Performance (at 10°C) | 120 l/h |
| RO Membrane retention quota | > 99 % of salts, microorganisms and bacteria |
| WCF Rate | adjustable up to 75% |

## Limits and connections

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| 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 | 210 kg |

## Article number:

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| 15200120 | Pure water system RO120 READY |