

SKRO - Reverse Osmosis System Brochure

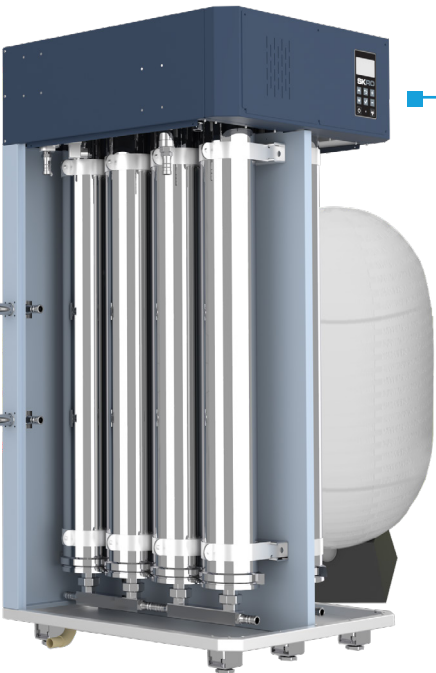


neptronic®

Optimize Humidification with RO filtration

The Neptronic SKRO is a scalable reverse osmosis water treatment system tailored for adiabatic and isothermal Neptronic humidifiers. It is designed to purify water for atomizing applications, and eliminate maintenance on electric, gas, and steam to steam humidifiers. The Neptronic SKRO purifies water using a semi-permeable membrane to remove impurities, dissolved solids, salts, bacteria, and viruses. By applying pressure, water is forced through one or multiple membranes, ensuring exceptionally pure water through advanced filtration.

Designed to fully support Neptronic’s humidification range, the SKRO is available in multiple capacities:



The larger model, covering a range of 500-4510 Lb/h, is built for high-capacity humidifiers and delivers water purification for demanding systems.



The smaller model, covering a range of 265-480 Lb/h, is ideal for small-capacity humidifiers: wall-mounted, compact, and perfect for light-duty applications.



Why you need our SKRO?

The Neptronic SKRO Reverse Osmosis system is your best defense against scale buildup, and high maintenance costs. By removing nearly all of the dissolved minerals, it protects your humidifier, ensures cleaner steam, and boosts energy efficiency. Designed to integrate seamlessly with Neptronic humidifiers, the SKRO keeps your equipment running smoothly and your indoor air at its best. Less cleaning, more performance—just pure, smart humidity control.



Fully Automated Operation



Elegant Design



Hassle-Free Setup

Key Features

- Large capacity range of 265-4510 Lb/h.
- User-friendly interface with LCD display to simplify operation and monitoring.
- Advanced digital sensors to track pressure, water quality (TDS), and flow rates for consistent performance in real time.
- Real-time clock and SD card/USB key for trending, scheduling, and historical tracking.
- Easy upgrades and enhanced functionality via USB updates.
- Dedicated controller to eliminate the need for manual adjustments.
- Top and side access for quick and easy maintenance.
- The enclosed cabinet with a built-in pan drain ensures a clean and secure installation.
- BACnet and Modbus connectivity for smooth integration with building management systems.
- Adaptable to different water conditions.



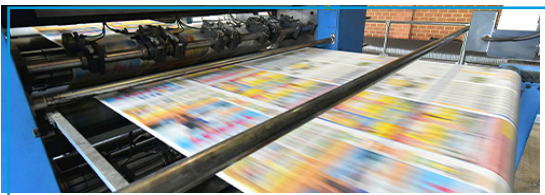
Applications

Isothermal Humidifiers (SKE4, SKG4, SKS4)



Reduces maintenance by providing purified water for consistent performance

Industrial Applications



Perfect for industries such as printing and photography, pharmaceutical, and electronics manufacturing, where clean water is crucial for various processes beyond humidification

High-Pressure Humidifiers (SKH4)



Ideal for use with high-pressure humidifiers for optimal humidification efficiency

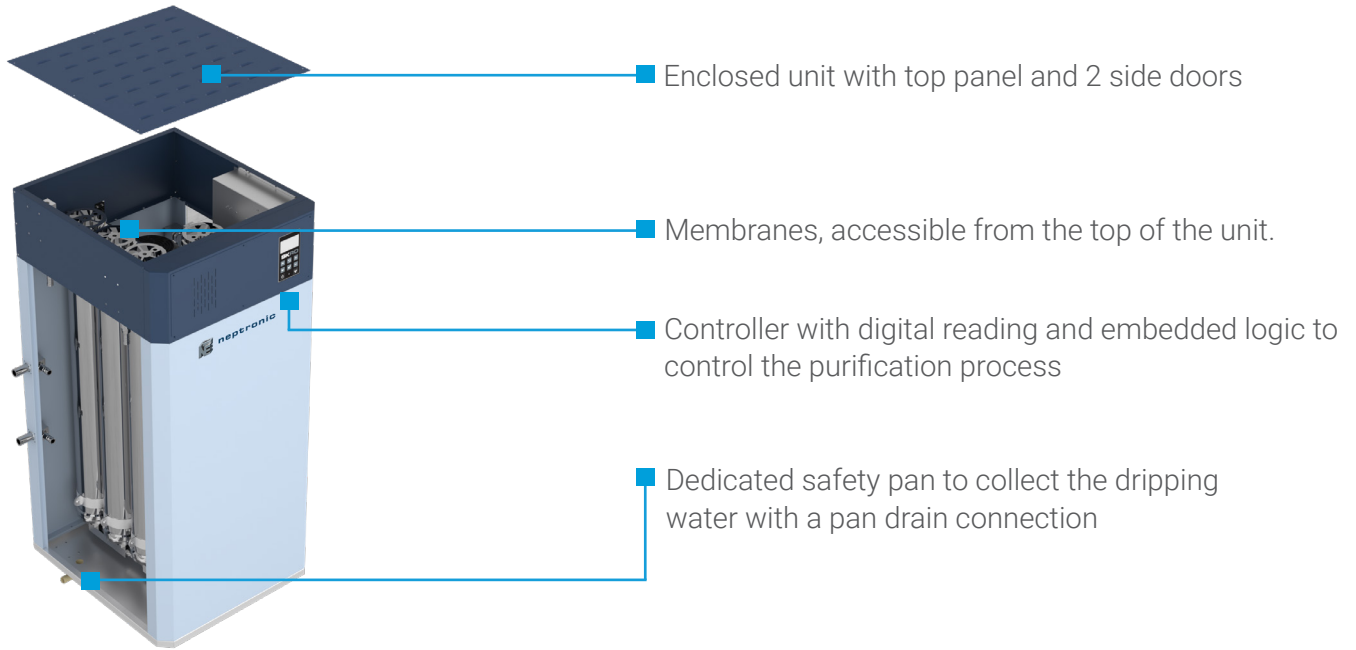
Hard Water Environments



Filters mineral-laden or contaminated water ensuring it's suitable for humidification and preventing scale buildup

Key Features

The SKRO Water Treatment System features a **modular cabinet** that accommodates up to six membranes, with a **Neptronic controller keypad** for real-time monitoring. Its side port membrane housing and manifolds streamline plumbing, keeping the **top caps clear** for easy membrane removal or replacement. Advanced **software-based monitoring** detects performance loss, ensuring efficiency and proactive maintenance.



Integrated, Multi-Platform Controller

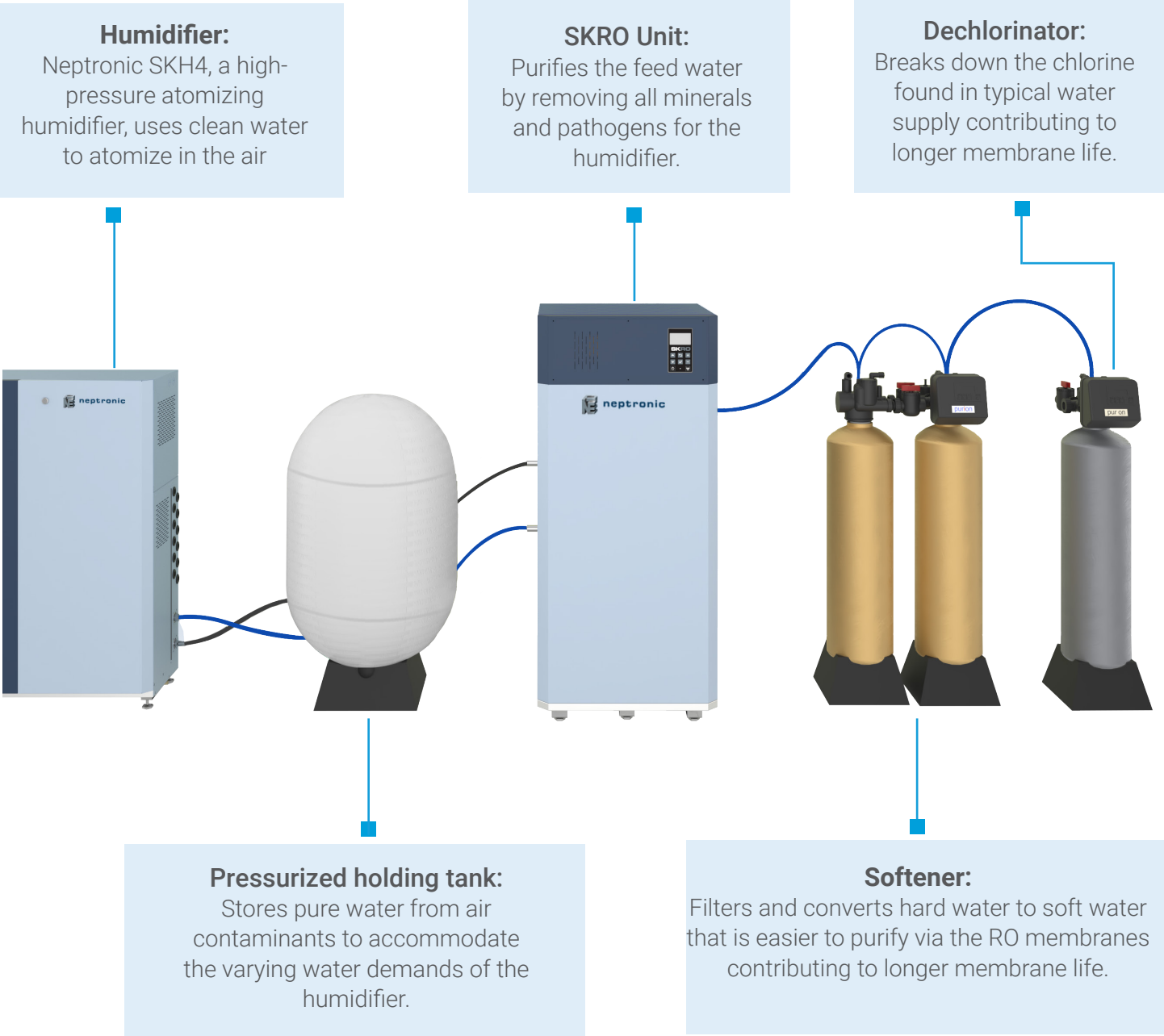
The SKRO controller is configured specifically for your reverse osmosis needs.

- User-friendly, menu-driven interface on a 128 x 64 LCD with 8 function buttons for faster configuration and operation
- Customizable menu access for End Users, Technicians, Installers, and Integrators
- Independent scheduling system for unit operation and drain cycle configurable via the menu or the BACnet communication interface
- Firmware updates via SD card, USB, or BACnet
- View and export trending and alarm logs with ease



Full System

The SKRO Water Treatment System is designed to work seamlessly with a dechlorinator unit and water softener to maximize membrane performance and longevity. All components are available directly from Nepronic and can be optionally mounted on a skid for easy installation.




Nomenclature

N	046			B	E
Frequency	Pure water capacity:			Membrane type:	Voltage:
N=60Hz	-	L/h	GPD	A – low energy B – extra low energy C – calcium tolerant D – chlorine tolerant	A = 120v / 1ph B = 208v / 1ph C = 220-240v / 1ph D = 208v / 3ph E = 220-240v / 3ph G= 480v / 3ph H= 600v / 3ph
	012	121	760		
	022	220	1460		
	023	230	1470		
	046	460	2900		
	091	910	5770		
	137	1370	8690		
	205	2050	13000		

SIZING WITH NEPTRONIC HUMIDIFIERS

The SKRO is ideal to size with Neptronic's humidifiers for pure water supply.

The following table shows the various models of SKRO that can sized for the humidifiers.

SKRO Model	Capacities of pure water @ 50 °F			SKE Model	SKG Model	SKH4 Model	SKH4 S Model	
	L/h	Lb/h	GPD					
SKRO-N012x	120	265	760	SKE4-S	-	-	-	
				SKE4-M				
SKRO-N022x	220	480	1460	SKE4-L	SKG4-1 Module	SKH4-N021B	-	
				SKE4-XL				
SKRO-N023x	230	500	1470	-	SKG4-1 Module	SKH4-N021B	-	
SKRO-N046x	460	1010	2900	-	SKG4-2 Modules	SKH4-N050B	SKH4-N062S	
SKRO-N091x	910	2000	5770		SKG4-3 Modules	SKH4-N100B	SKH4-N140S	
SKRO-N137x	1370	3010	8690		SKG4-4 Modules	SKH4-N185B	SKH4-N225S	
SKRO-N205x	2050	4510	13000	-	-	SKH4-N280B	SKH4-N280S	

Humidifier Product Line

SKE4 ⚡



Electric

- Capacities from 6 - 300 lb/hr
- Remove chamber easily, without tools
- Outdoor unit available

SKG4 🔥



Gas Fired

- Capacities from 110 - 810 lb/hr
- Modular design
- Outdoor unit available

SKS4 ↑↑↑



Steam to Steam

- Capacities from 17 - 1250 lb/hr
- Scale management system for easy maintenance
- Insulated external panels

SKVF →→→



Evaporative Cooler

- Airflow up to 6000 CFM
- ECM fan with variable output
- Compact, quiet and standalone

SKR ⚡



Residential

- Capacities from 4.5 - 12 lb/hr
- Permanent cleanable chamber
- Reliable siphon drain

SKH4 🕒



High Pressure Atomizer

- Capacities up to 2800 lb/hr
- Up to 4 zones
- Installation in-duct or in-space

SKV →→→



Evaporative

- Free cooling up to 22°F (12°C)
- Custom design to fit your application
- Hygienic operation with silver ion dosing system

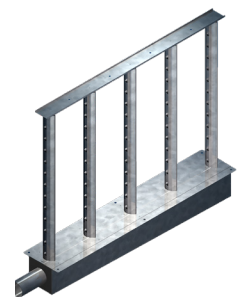
SKD ~~~



Direct Steam

- Capacities from 5 - 1650 lb/hr
- Jacketed or Multi-Steam™ SD/HD
- Unique electronic steam controller
- Optional pressurized condensate return (PCR) system

Distribution



Steam Distribution

- Multi-Steam™ SD/HD distribution
- S.A.M. & S.A.M.E2 wands
- SDU (Space distribution unit)

The background of the top half of the page is a photograph of industrial machinery, likely a paper mill or textile factory. Large rolls of material are being processed by rollers. A blue control panel with yellow warning symbols is visible in the background. The image is overlaid with a semi-transparent blue and white graphic that frames the text.

MANUFACTURER OF

- **HVAC CONTROLS**
- **ELECTRIC ACTUATORS**
- **ACTUATED VALVES**
- **HUMIDIFIERS**
- **ELECTRIC HEATERS**
- **INTEGRATED MANAGEMENT SYSTEM (IMS)**



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