

SKR RESIDENTIAL HUMIDIFIER



neptronic[®]
www.neptronic.com

Humidifying your home with a Neptronic SKR residential steam humidifier will help protect your body from winter illness and reduce dry skin, sinus problems and scratchy throats, therefore creating a healthier, more comfortable living environment. Proper humidity levels also protect valuables from permanent damage.

SKR Advantages

The SKR residential humidifier generates mineral free, odorless, sterile steam without the replacement cost associated with electrode cylinders.

- ▶ Steam capacity from 4.5 to 12 lb/hr (2 to 5.5 kg/hr)
- ▶ Permanent cleanable stainless steel evaporation chamber
- ▶ Patented siphon drain requires no drain valve or external tap
- ▶ Environment friendly – no plastic cylinders to replace
- ▶ On/Off operation, modulation optional
- ▶ Drain water tempered to below 140°F (60°C)
- ▶ Self cleaning heating elements

Typical Applications

The SKR residential steam humidifier is the ultimate solution for applications to improve indoor air quality and to protect valuable items for residential and light commercial applications such as:

- ▶ Houses
- ▶ Condominiums
- ▶ Small Offices
- ▶ Humidors
- ▶ Server Rooms

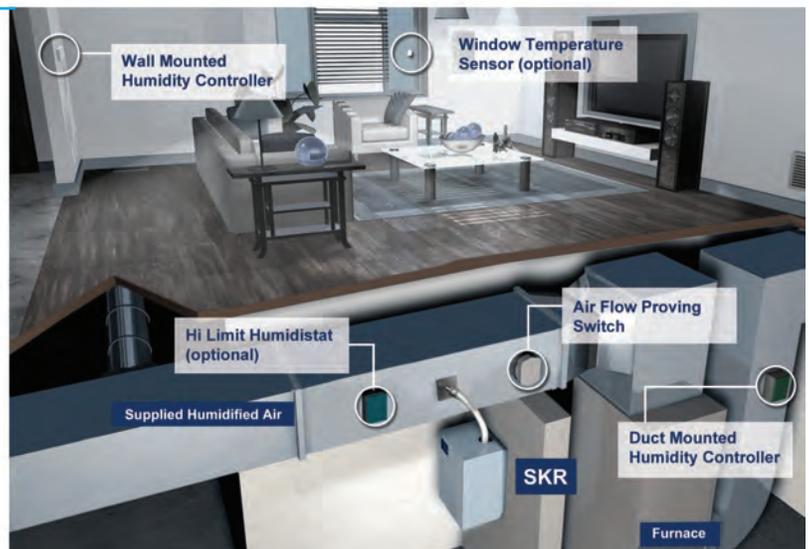


Typical Installation

The SKR humidifier is typically installed through a duct with a dispersion tube. However, we offer fan distribution installations as well for applications where a duct system is not available.

The SKR includes:

- ▶ 1 On/Off humidifier complete with:
 - 1 remote alarm dry contact
 - 1 dry contact to start the HVAC fan on a call for humidity
- ▶ 1 S.A.M. stream absorption manifold for duct distribution
- ▶ 6' (1.8m) flexible steam hose for steam distribution



System Overview

Intelligent Controller

- Manages control sequences and performs self diagnostics
- On/Off or modulating control functions
- LED status display

Evaporation Chamber

Permanent, easily serviceable, stainless steel chamber. No need to replace expensive plastic bottles.

Heater Element

Self-cleaning electric heater element

Internal Plumbing Assembly

High Voltage Quick Connect

Safe, fast and easy connection and reconnection of line voltage.

Water Level Sensors

Conductive water level sensors for normal operation level and drain level.

Patented Siphon Drain

Eliminates the use of a physical device such as a drain valve or external P trap to drain water.

Water fill valve



Evaporation Chamber

Evaporate water, not money!

The Neptronic SKR humidifier includes a permanent, reusable stainless steel chamber instead of a disposable plastic bottle that must be replaced at least once a year, resulting in thousands of dollars of savings. These savings will more than pay for the initial cost of the humidifier.



■ Specifications

Model	Capacity	Power	Amperage			Width	Height	Depth	Height with SDU
			120V	208V	240V				
CASA SKR14	4.5 lb/hr (2.0 kg/hr)	1.4 kW	12A	-	-	10.5" (267mm)	14.5" (368mm)	9" (229mm)	19.75" (500mm)
VILLA SKR25	7.5 lb/hr (3.4 kg/hr)	2.5 kW	-	12A	11A	10.5" (267mm)	14.5" (368mm)	9" (229mm)	19.75" (500mm)
CHATEAU SKR30	9 lb/hr (4.1 kg/hr)	3 kW	-	14.5A	13A	10.5" (267mm)	14.5" (368mm)	9" (229mm)	19.75" (500mm)
BELVEDERE SKR40	12 lb/hr (5.4 kg/hr)	4 kW	-	19.2A	17A	10.5" (267mm)	14.5" (368mm)	9" (229mm)	19.75" (500mm)

*Operation with maximum 0.5" (125Pa) duct static pressure at steam distribution manifold location.

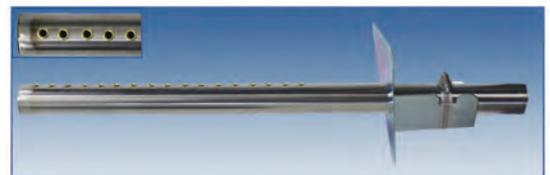
■ Duct Distribution Installation

For a duct distribution installation, the SKR unit requires a S.A.M. steam distribution system to disperse steam.



■ S.A.M.

- ▶ Short absorption distance (less than 5 feet or 155cm)
- ▶ Stainless steel tube with brass nozzles
- ▶ Nozzles prevent condensate from escaping the duct
- ▶ Inclined steam dispersion tube to return condensate back to humidifier or steam trap



S.A.M.: For models SKR30 and SKR40



S.A.M.E2: For models SKR14 and SKR25

Fan Distribution Installations

The fan distribution installation option is ideal to supply steam directly with an SDU (steam distribution unit) into a room without a duct network or for a localized area.

Common Features of SDU

- ▶ Quiet steam distribution
- ▶ Powered and controlled by the humidifier
- ▶ Air pressure switch included
- ▶ Fan will keep running for four minutes after steam production has stopped to prevent any condensation

Integrated SDU

This option is typically used in small stores, small warehouses and laboratories where the visibility of the unit is not an issue.



Remote SDU

Ideal for condos / apartments without a duct network, the remote SDU is designed for through-the-wall installation to provide humidification directly into the room. This option is typically applied in residential applications and small offices to keep the elegance of the room.

Features

- ▶ Distribution unit is installed through a wall partition
- ▶ SKR humidifier is installed in a closet or other closed location
- ▶ Modern design of SDU front grill blends into any decor
- ▶ Low noise (less than 40dBa at 3ft / 1m)
- ▶ Standard, 120Vac power supply



Humidisoft

Specify your SKR Online



Humidifier System Design and Specification Web Application

Ready to specify your SKR Humidifier? Nepronic has developed a web application that saves you time when sizing and specifying Nepronic commercial, industrial or residential humidifiers.

Features

- ▶ Automatic humidification load calculation
- ▶ Web based
- ▶ Report Generator
- ▶ Display Absorption Distance
- ▶ Steam Dispersion Selection
- ▶ Humidifier Options
- ▶ Project Management

Easy to Use

Once you have registered for an online account. You can start creating projects and create your very own humidifier virtually with all the available features with ease.

Project	Humidifier	Dispersion	Options	Reports	Pricing
Type					
<input checked="" type="radio"/> Isothermal (Hot Steam) <input type="radio"/> Adiabatic (Cold Mist)					
Category					
<input type="radio"/> Commercial Electric <input type="radio"/> SKV Evaporative <input checked="" type="radio"/> Residential Electric					
<input type="radio"/> Steam to Steam <input type="radio"/> Direct Steam					
Entering Air Conditions		Indoor Conditions		Distribution	
Temperature <input type="text"/> °C		Temperature <input type="text"/> 70 °F		<input type="checkbox"/> In Duct	
Relative Humidity <input type="text"/> %		Relative Humidity <input type="text"/> 40 %		<input checked="" type="checkbox"/> In Space	
Ventilation System					
<input checked="" type="radio"/> Natural <input type="radio"/> Mechanical <input type="radio"/> Economizer					
Building Volume <input type="text"/> 16000 cu.ft.		Air Changes <input type="text"/> 1 /hr			
Humidifier(s)					
<input type="radio"/> Enter Load Manually		Calculated Load <input type="text"/> 7.17 lb/hr		Total Capacity <input type="text"/> 7.5 lb/hr	

Project	Humidifier	Dispersion	Options	Reports	Pricing
SDU					
<input type="radio"/> None					
<input type="radio"/> On Unit					
<input checked="" type="radio"/> Remote					

Humidifier Product Line



Electric



SKE4

- Capacities from 6 - 270 lb/hr
- Remove chamber easily, without tools
- Outdoor unit available

Gas Fired



SKG4

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

Steam to Steam



SKS4

- Capacities from 33 - 1250 lb/hr
- Scale management system for easy maintenance
- Insulated external panels

Residential



SKR

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

High Pressure Atomizer



SKH

- Capacities up to 4738 lb/hr
- Up to 10 zones
- Installation in-duct or in-space

Evaporative



SKV

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

Direct Steam



SKD

- Capacities from 7 - 1157lb/hr
- Jacketed or Multi-Steam™ SD/HD
- Unique electronic steam controller
- Optional pressurized condensate return (PCR) system

Steam Distribution



Distribution

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

Humidity Controls



Controls

- Humidity controls/sensors
- Safety controls
- BACnet compatible

MANUFACTURER OF ■

- HVAC CONTROLS
- ELECTRIC ACTUATORS
- ACTUATED VALVES
- HUMIDIFIERS
- ELECTRIC HEATERS

■
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