

# SK300

**Resistive Steam Humidifiers**



**neptronic**<sup>®</sup>  
[www.neptronic.com](http://www.neptronic.com)



» ENGINEERED TO LAST

# SK300

## Electric Resistive Humidifiers

The self contained **SK300** steam humidifiers produce mineral free, odorless, sterile steam without the replacement cost associated with electrode cylinders manufactured by competitors. The evaporation chamber of the **SK300** consists of a permanent stainless steel tank with self cleaning heating elements. The components of the humidifiers are readily accessible for easy and quick servicing.

### Capacities

#### SK302 – SK360

- 6 to 180 lb/hr (2.7 to 82 kg/hr)
- Wall mount



#### SK370 – SK390

- 210 to 270 lb/hr (95 to 122 kg/hr)
- Floor stand



### Benefits

- Exceptional reliability
- Environmentally friendly
- Generates pure and sterile steam
- Self-cleaning heating elements
- Simplicity of operation and service
- Modern and Attractive Design

### Exceptional Reliability

Each year, **Neptronic**<sup>®</sup> produces thousands of humidifiers to meet a diverse and expanding worldwide demand. Great care has been taken to select materials which have proven themselves for their exceptional performance in very harsh conditions.

The **SK300** humidifiers feature state of the art technology, exceptional reliability, modern design coupled with ease of maintenance.

Reliability of the **SK300** is one of the features that set it apart from competing humidifiers. The content of the supply water is not an issue; the **SK300** accepts any type of water (tap, RO or DI). Using the **AFEC**<sup>®</sup> patented technology, the water sensor will measure the mass of the water (instead of the conductivity) insuring a proper water level at all times.

The steam can be distributed into a duct by a steam grid or with a fan distribution unit for direct space applications.

Once the final assembly of the **SK300** is complete, all units are fully tested and run through a full start-up procedure to ensure superior quality prior to shipping.



## Features

- Permanent easily serviceable stainless steel evaporation chamber
- ON-OFF or MODULATING control functions
- Interactive LCD display and microprocessor controlled self diagnostics
- AFEC® technology insures safe and efficient operation
- Functions exceptionally well in severe, normal or DI/RO water conditions
- Equipped with revolutionary drain pump and waste water cooling device
- Available with “BACnet” communication interface

## Anti-Foaming Energy Conservation System

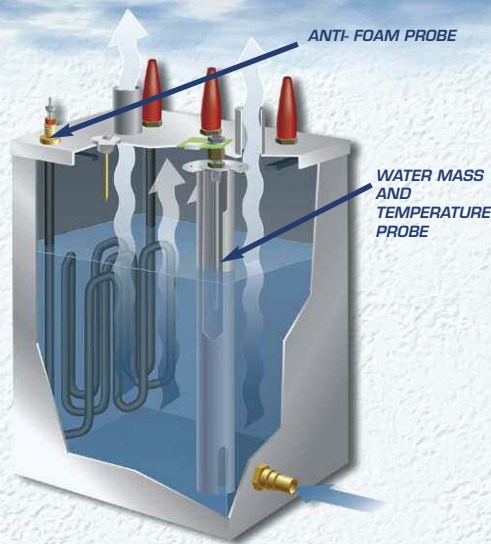
The **AFEC®** technology developed by the **Neptronic®** engineering team offers a unique, safe and energy efficient control of boiling water and steam. The **AFEC®** system consists of a mass measuring water sensor, antifoam sensor, electronic high temperature sensor, interactive LCD display and microprocessor controller.

The **AFEC®** system is unique because the water level sensor cannot be falsely triggered by foam forming on the surface of the boiling water. This eliminates the possibility of damaging the heating elements.

The foam sensing probe which is unique to our design automatically initiates a drain cycle upon foam formation. Unlike other humidifiers the drain can be initiated only when necessary without having a continuous skimming to drain off expensive boiling water.

**AFEC®** is designed to work equally well in deionized, reverse osmosis or potable water.

The **SK300** is unique because it has fast acting electronic safety temperature sensors inside the steam container that are close to the heating elements. Therefore, the **AFEC®** system provides an additional layer of protection.



**ALPHANUMERIC BACKLIT DISPLAY**  
information & control center

**menu & button controls**



**POWER**  
unit is connected to power source



**CHECK**  
unit indicates an abnormal condition of operation



**FILL**  
water supply valve is open



**STEAM**  
humidifier is ON and there is a humidity demand



**MANUAL SWITCH**  
(3 Position)



**AUTO OFF**



**DRAIN**





## Simplicity of Operation and Service

The **SK300** humidifier consists of an automatically water FED permanent stainless steel evaporation chamber which can be easily removed for service.

Periodic service of the evaporation chamber can be easily done in minutes.

Remote communication with the **SK300** humidifier using BACnet® allows change of variables such as set point or PID parameters as well as display of comprehensive information of the humidifier operation.

## Ease of Maintenance



1. Disconnect drain coupling
2. Disengage band clamp
3. Lower evaporation chamber using lifting mechanism and remove water tank for scale removal and cleaning

**DONE!**

## Outdoor Enclosure Option



**Ease of installation:** The **SK300** with outdoor enclosure has been designed to be installed on a roof curb, but it can also be installed on a stand. The connections (water supply, drain, steam, power supply and controls) can be made from the side or bottom of the unit allowing complete flexibility to any configuration.

**Ease of access:** The alphanumeric display is accessible through a window thus there is no need to open the front door to get a status of the humidifier. The outdoor enclosure is equipped with a hinged door and gasket for a tight seal and provides full and direct access to the evaporation chamber and the electrical panel.

**Robust design for any climate:** The **SK300** outdoor enclosure is fully insulated and constructed from heavy duty steel. The bottom drip pan is made from stainless steel. Exterior and interior surfaces are protected with a zinc primer and a polyurethane powder coating for best resistance against scratching and corrosion. A built-in anti-freeze and overheat protection ensures safe operation in any climate.



# Steam Distribution Systems



Note: Insulated multi-steam available

## Output and Power Consumption

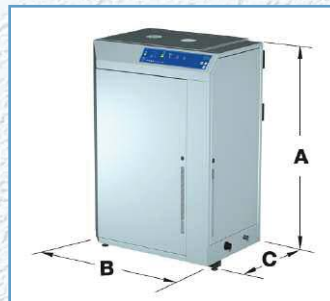
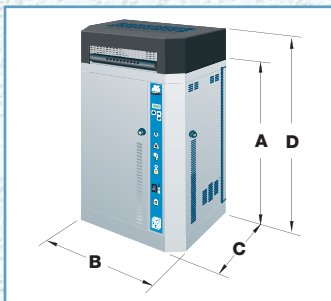
model	power KW	capacity Kg/hr	amperage							# of outlets	dia. of outlets
			240/1	208/1	208/3	480/1	480/3	600/1	600/3		
SK302	2 KW	6 lb/hr 2.73 kg/hr	8.5	10	-	4.5	-	3.5	-	1	1-3/8" 35mm
SK304	4 KW	12 lb/hr 5.5 kg/hr	17	19	11.5	8.5	5	7	4	1	1-3/8" 35mm
SK306	6 KW	18 lb/hr 8 kg/hr	26	30	16.5	13	7.2	10.5	6	1	1-3/8" 35mm
SK310	10 KW	30 lb/hr 14 kg/hr	-	-	28	-	12	-	10	1	1-3/8" 35mm
SK314	13.5 KW	40 lb/hr 19 kg/hr	-	-	38	-	16.5	-	13.5	1	1-3/8" 35mm
SK320	20 KW	60 lb/hr 28 kg/hr	-	-	XX	-	25	-	20	2	1-3/8" 35mm
SK330	30 KW	90 lb/hr 41 kg/hr	-	-	-	-	36	-	30	2	1-3/8" 35mm
SK340	40 KW	120 lb/hr 56 kg/hr	-	-	XX	-	50	-	40	2	2-1/8" 51mm
SK360	60 KW	180 lb/hr 82 kg/hr	-	-	-	-	72	-	60	3	2-1/8" 51mm
SK370	70 KW	210 lb/hr 95 kg/hr	-	-	-	-	84	-	70	1	3" 76mm
SK380	80 KW	240 lb/hr 108 kg/hr	-	-	-	-	96	-	81	2	3" 76mm
SK390	90 KW	270 lb/hr 122 kg/hr	-	-	-	-	109	-	91	2	3" 76mm

XX: Available, please consult factory.

Note: Designate the letter M for modulating units (ie: SK320M)

Designate the letter D for units operating with deionized water

## Dimensions



model	A	B	C	D	SDU
SK302	23-1/2" 597mm	18-1/2" 470mm	11-1/2" 292mm	29-1/8" 737mm	SDU-1
SK304	23-1/2" 597mm	18-1/2" 470mm	11-1/2" 292mm	29-1/8" 737mm	SDU-1
SK306	23-1/2" 597mm	18-1/2" 470mm	11-1/2" 292mm	29-1/8" 737mm	SDU-1
SK310	28-1/2" 724mm	21" 533mm	12-1/2" 318mm	35-1/8" 890mm	SDU-2
SK314	28-1/2" 724mm	21" 533mm	12-1/2" 318mm	35-1/8" 890mm	SDU-2
SK320	28-1/2" 724mm	21" 533mm	12-1/2" 318mm	41-3/8" 1048mm	SDU-3
SK330	28-1/2" 724mm	21" 533mm	12-1/2" 318mm	41-3/8" 1048mm	SDU-3
SK340	31-1/4" 794mm	32" 813mm	12-1/2" 318mm	-	-
SK360	31-1/4" 794mm	32" 813mm	12-1/2" 318mm	-	-

model	A	B	C	Weight	
				Empty	Full of water
SK370	48.1" 1221mm	33" 838mm	25" 635mm	320lbs 145kg	444lbs 200kg
SK380	48.1" 1221mm	33" 838mm	25" 635mm	320lbs 145kg	444lbs 200kg
SK390	48.1" 1221mm	33" 838mm	25" 635mm	320lbs 145kg	444lbs 200kg

No SDU (space distribution unit) available

SK300 SDU (space distribution unit) available on models SK302 to SK330

# NEPTRONIC'S FAMILY OF HUMIDIFIERS



**SK300**  
ELECTRIC HUMIDIFIER

**SKR**  
RESIDENTIAL HUMIDIFIER

**SKG 3000**  
GAS HUMIDIFIER

**SKS**  
STEAM TO STEAM

**SKD**  
DIRECT STEAM

**SKA**  
AIR AND WATER ATOMIZING  
HUMIDIFIER

**SKV**  
EVAPORATIVE  
HUMIDIFIER/COOLER

## HUMIDISOFT

Saves you time when sizing and specifying commercial, industrial or residential humidifiers.

- Calculates required humidification load
- Selects humidifier model and available options
- Indicates non-wetting absorption distance
- Complete steam dispersion manifold design tool
- Creates equipment schedule and specifications
- Generates approval specification sheet
- Saves project history in a data base

**EASY-TO-USE!**

distributed by:



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**BACnet**<sup>®</sup>  
International

Manufacturer of actuators, actuated valves, controls, humidifiers and electric heaters

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