



RS  
SERIES

# Electric Resistive Steam Humidifiers



Humidification and Evaporative Cooling

 **nortec**



commercial offices  
hospitals  
computer rooms  
museums  
clean rooms  
schools  
high-tech centres  
printing plants

## Nortec RS-Series humidifiers resolve demanding application needs.

Productivity and quality of life are directly affected by the indoor environment. People work better and feel better in favorable surroundings. So do products and machines! They all respond in various ways to changes in air quality, temperature and humidity. All three elements must be just right to maximize performance and reliability, both in humans and equipment. Correct humidity is critical, since too much humidity can be as destructive as too little.

Nortec is a world leader in state-of-the-art humidification technology. Our focus is concentrated exclusively on designing and building better humidification systems. Every Nortec RS-Series model has been engineered to meet the highest standards of cost-effective, efficient performance. They are designed for ease of installation, adaptability, simplicity of operation, ease of maintenance and servicing, energy efficiency, cleanliness and long-term reliability.

Nortec RS-Series humidifiers offer complete application flexibility to systems engineers, contractors and customers. They can be integrated into central Heating/Ventilating/Air Conditioning (HVAC) systems or placed in specified locations for individual room control. Models are available to serve small or large areas with outputs of 10 - 180 lbs/hr.

# Operating advantages

## Precise Control

All RS-Series humidifiers have an advanced controller with display for precise and efficient relative humidity control. The humidifier can be controlled by a humidistat, a relative humidity sensor or be connected to a central Building Management System (BMS) for maximum control flexibility.

The RS-Series humidifier's controller provides readout and adjustment of all operating parameters. The humidifier will make service adjustments automatically or trigger a shutdown while displaying the function requiring operator attention.

## Economy

Nortec RS-Series humidifiers provide lower initial installation costs for the customer. Operating costs are also reduced through efficient steam conversion rates and minimal energy losses due to low hot water drain rates.

RS-Series humidifiers provide clean humidification, reducing air-borne contaminants and subsequent health-related employee absenteeism. Correct interior humidity levels in winter maintain comfort at lower temperatures and can reduce heating costs.

RS-Series self-diagnostics confirm optimal operational efficiency and reduce servicing costs.

## Installation Flexibility

RS-Series humidifiers offer unprecedented installation flexibility. They can be configured for both small and large systems. All RS-Series humidifiers are completely packaged for installation ease.

The standard drain water cooling ensures drain water does not exceed 140°F (60°C) to meet local plumbing codes. Steam distribution is easily accomplished through either the HVAC duct system or into individual areas through remote blower packs.



RS-Series  
Outdoor

RS-Series



# Technology

## Resistive Steam

The resistive element humidifier offers highest accuracy performance for humidity critical applications. When using the SSR option with a high precision humidistat, the RS-Series can be accurate to  $\pm 1\%$  RH. The RS-Series is designed for use with potable or DI/RO water. For potable water applications, the unique scale collector tank option saves time and money during cleaning. The base mounted tank collects minerals and is easily removed for disposal of scale.

The RS-Series is the most advanced resistive steam humidifier available. It's high quality heating elements provide the most accurate humidity control available in the world.





Features	
Display of space RH and set-point	■
Keypad set-point adjustment	■
Network capabilities	■
Cylinder drain 3 day no call	■
Tempered drain during normal and manual operation	■
Alphanumeric function display	■
Keypad programming and status indicator lamps	■
Output display of capacity in lbs/hour	■
P+I Control System	■
Auto self test on start up	■
Micro computer electronics	■
Potable water operation	■
DI/RO water operation	■
Stainless Steel cylinder	■
High quality incoloy heating elements	■
Dual float water level control	■
Manual output adjustment	■
On/Off control system	■
Single modulation control	■
Fill cup with 1 inch air gap	■
Safety door interlock switch	■
C-UL-US Listed	■
30 month limited warranty	■
SSR operation	■
Advanced Scale Management System	■
OnLine-Series for web based monitoring and control	■
Links-Series Building Management System	■
Keep Warm (stand-by heating)	■
<b>Outdoor Units Only</b>	
Heating and cooling protection	■
Weather proof enclosure	■
Integral design with internal pipe chase	■

■ Standard ■ Optional

# Options



## SOFTWARE

### Links-Series

Nortec **Links-Series** offers monitoring and control allowing humidifier(s) to communicate to your Building Management System (BMS). The controller is factory installed and is located internally to the humidifier. Simply specify at time of order what operating protocol you are using – BACnet IP, BACnet MSTP, LonWorks or Johnson N2.

### OnLine-Series

Nortec **OnLine-Series** is a remote interactive communication package that allows web-based contacts to monitor, maintain and control a humidification center from any location worldwide using standard internet connections. This advanced software shows graphic representations of the humidifier and its key parameters (up to 75 functions).



## STEAM DISTRIBUTION

### BP-Series

for in space applications (remote mounted).



### AS-Series

to distribute atmospheric steam into ducts.



### AM-Series

for use in air handlers or ducts where short steam absorption distance is critical.



## Technical data

SPECIFICATION	RS 010	RS 015	RS 020	RS 030	RS 045	RS 065	RS 090	RS 135	RS 180
Capacity: lbs/hr	0-10	0-15	0-20	0-30	0-45	0-65	0-90	0-135	0-180
Capacity: kg/hr	0-4.5	0-6.0	0-9	0-13.6	0-20	0-29	0-40	0-61	0-82
Input kW max	3.8	5.1	7.7	11.5	15.3	22.4	30.6	45.9	61.2
Voltage	208-600	208-600	208-600	208-600	208-600	208-600	460-600	460-600	460-600
Phase	1	1	1	1/3	3	3	3	3	3
No. of Stainless Steel Tanks	1	1	1	1	1	1	1	2	2



### Steam Distribution Choices \*\*

Nortec steam hose I.D.	1-3/4" 4.5 cm	1-3/4" 4.5 cm	1-3/4" 4.5 cm	1-3/4" 4.5 cm	1-3/4" 4.5 cm	1-3/4" 4.5 cm	1-3/4" 4.5 cm	1-3/4" 4.5 cm	1-3/4" 4.5 cm
Duct mounted distributors	yes	yes	yes	yes	yes	yes	yes	yes	yes
Remote mounted blower packs	yes	yes	yes	yes	yes	yes	yes	yes	yes
Short Absorption Manifold (SAM-e)	yes	yes	yes	yes	yes	yes	yes	yes	yes

\* Capacities are voltage dependant. Output can be field adjusted from 10% to 100% of rated capacity.  
 \*\* Refer to Engineering Manual for steam distribution methods.



As a leading manufacturer of commercial/industrial humidification systems for more than 40 years, Nortec has the technology and application expertise to meet the needs of any application.

**Contact us today and ensure you have the best humidification solution for your application.**

**USA** 1860 Renaissance Boulevard, Sturtevant, WI 53177  
826 Proctor Avenue, Ogdensburg, NY 13669

**Canada** 2740 Fenton Road, Ottawa, Ontario K1T 3T7

**Tel** 1.866.NORTEC1 **Fax** 613.822.7964 **Email** [nortec@humidity.com](mailto:nortec@humidity.com)

