

VAPORSTREAM®

Electric-to-Steam Humidifier

With Vapor-logic® controller

- *Web-enabled access*
- *Interoperability via Modbus® or optional BACnet® or LonTalk®*

High-performance humidification

driSteam® offers a complete line of Vaporstream models to meet a wide range of humidification needs.



VAPORSTREAM HUMIDIFIER

Vaporstream humidifiers use heat caused by electrical resistance in submerged heating elements to boil fill water into steam. Vaporstream is compatible with all water types and numerous dispersion options.

APPLICATION VERSATILITY

From providing comfort humidity to meeting the strictest clean-room requirements, the Vaporstream electric humidifier is an industrial-grade unit designed to meet the humidification demands of any building environment. Vaporstream models and options include multiple control capabilities, a broad capacity range, and compatibility with all water types.

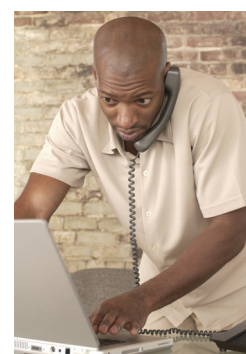
PRECISE CONTROL WITH VAPOR-LOGIC


Vaporstream with Vapor-logic sets new standards for control in electric steam humidification:

Interoperability allows communication with building automation systems via Modbus or with optional BACnet or LonTalk protocols.

Safety presets initiate fill and drain cycles and keep the humidifier cool and safe if sensed conditions, though unlikely, could be hazardous.

Web-enabled control allows you to set up, view, and adjust humidifier functions via Ethernet, either directly or remotely through a network.





STATUS

ALARMS

DIAGNOSTICS

SETUP

HELP

System Status

SPACE RH	SET POINT	OUTPUT
33%	35%	12.3%

RUN MODE

Auto

TANK STATUS

Boiling

Alarms

0 active alarms

> [View Alarms](#)

Messages

0 active messages

> [View Messages](#)

Monday, December 03, 2012 10:40:18 AM

Data stream is LIVE

View all humidifier settings below. Some settings can be changed here. Go to the Setup tab to change settings that cannot be changed from this page.

TANK STATUS:

Run Mode	Auto	CHANGE
Space RH	33%	
RH set point	35%	CHANGE
Input signal	9.3 mA	
Steam output	12.3%	
Steam production	37.4 lbs/hr	
Duct HL switch	Closed	
Tank temperature	194°F	
Tank temp signal	1637 Ohms	
High water probe	Water	
Mid water probe	Water	
Low water probe	Water	
Fill valve	Closed	
Drain valve	Closed	
Airflow switch	Flow	
Interlock switch	Closed	
H2O until drain/flush	9120 lbs	
H2O until service	304000 lbs	
High probe signal	1	
Mid probe signal	1	
Low probe signal	1	

2

VAPORSTREAM ELECTRIC HUMIDIFIER

PROVEN PERFORMANCE

- Consistent and reliable RH control to $\pm 1\%$
- On-off or time-proportioned (TP) control for application control in most environments; solid-state relay (SSR) option for tighter control
- Electronically monitored water level ensures safe and reliable operation

APPLICATION FLEXIBILITY

- Uses tap, softened, or RO/DI water
- Broad capacity range from 2.6 to 129 kg/h, link up to 16 units for capacity up to 2068 kg/h
- Dispersion options from an Area-type fan in open space to dispersion panels in ducts and air handlers meet a wide range of absorption requirements
- Designed to work with any voltage with a wide range of heater sizes, staging options, and model configurations
- Weather cover and climate-controlled outdoor enclosure options

EASY MAINTENANCE

- Cleanout plate and removable cover provide inspection and service access
- Softened water significantly reduces maintenance requirements
- End-of-season autodrain minimizes microbial growth
- User-adjustable water skimmer skims off floating minerals
- Controller-operated drain and flush removes precipitated minerals from evaporating chamber
- Constant thermal expansion and contraction of heating elements continuously sheds mineral buildup
- Easy access to water level control — no components to remove

ADDITIONAL OPTIONS

- 316 stainless steel construction
- Evaporating chamber insulation
- NEMA-4 control cabinet

driSteem dispersion:

Proven and guaranteed

When it comes to absorption performance, competitors don't come close to driSteem's proven and guaranteed dispersion systems. Define your dispersion requirements, and driSteem will meet or exceed them. Guaranteed.

Save even more energy with our High-Efficiency Tube option

An option for new and existing Ultra-sorb® and Rapid-sorb® dispersion assemblies, High-Efficiency Tubes provide significant energy savings: Wasted energy is reduced by up to 85%. Airstream heat gain and condensate are also significantly lowered.

Heated/ventilated outdoor enclosure

Third-party verified for cold temperatures, proven to provide reliable operation under extreme conditions.

Vaporstream capacities and electrical specifications

Table 4-1:

Vaporstream VLC European electrical specifications and capacities, standard water and RO/DI water

Model (kW-stages)	Heaters		Single-phase 230V			Three-phase 400V **		
	Qty.	Stages *	kW	I max. A	Steam capacity kg/h***	kW	I max. A	Steam capacity kg/h***
2-1	1	1	1.8	8.0	2.4	—	—	—
3-1	1	1	2.8	12.0	3.6	—	—	—
4-1	1	1	3.7	16.0	4.7	—	—	—
5-1	1	1	4.9	21.3	6.3	—	—	—
6-1	3	1	5.5	24.0	7.1	6	8.7	7.8
9-1	3	1	8.3	35.9	10.7	9	13.0	11.6
12-1	3	1	11.0	47.9	14.2	12	17.3	15.5
16-1	3	1	—	—	—	16	23.1	20.7
21-1	3	1	—	—	—	21	30.3	27.1
25-1	3	1	—	—	—	25	36.1	32.3
12-2	6	2	11.0	47.9	14.2	12	17.3	15.5
18-2	6	2	16.5	71.9	21.4	18	26.0	23.3
24-2	6	2	22.1	95.8	28.3	24	34.6	31.0
32-2	6	2	—	—	—	32	46.2	41.4
42-2	6	2	—	—	—	42	60.6	54.3
50-2	6	2	—	—	—	50	72.2	64.6
18-3	9	3	16.5	71.9	21.4	18	26.0	23.3
27-3	9	3	24.8	107.8	32.1	27	39.0	34.9
36-3	9	3	33.1	143.8	42.7	36	52.0	46.5
48-3	9	3	—	—	—	48	69.3	62.1
63-3	9	3	—	—	—	63	90.9	81.4
75-3	9	3	—	—	—	75	108.3	97.0
24-4	12	4	22.0	95.8	28.5	24	34.6	31.0
36-4	12	4	33.1	143.8	42.7	36	52.0	46.5
48-4	12	4	44.2	191.7	56.6	48	69.3	62.1
64-4	12	4	—	—	—	64	92.4	82.7
84-4	12	4	—	—	—	84	121.2	108.6
100-4	12	4	—	—	—	100	144.3	129.3

* Heater stage identifies the number of contactors.

** Three-phase power supply connection. All heater loads are wired Delta.

*** Total humidifier load = load to meet design conditions + load to compensate for steam loss from the dispersion assembly and interconnecting piping. If total humidifier load is more than the humidifier's maximum capacity, design conditions will not be met. For steam loss data see the driSteam Design Guide available for downloading and printing at www.dristeam.com

Table 5-1:
Vaporstream VLC dimensions, tap/softened water and RO/DI water

Model (kW - stages)		Without mounted control cabinet		
		A (length)	B (width)	C (height)
		mm	mm	mm
2-1, 3-1, 4-1, 5-1		318	660	480
6-1, 9-1, 12-1, 16-1, 21-1, 25-1		453	559	480
12-2, 18-2, 24-2, 32-2, 42-2, 50-2		644	559	480
18-3, 27-3, 36-3, 48-3, 63-3, 75-3		834	559	480
24-4, 36-4, 48-4, 64-4, 84-4, 100-4		1025	559	480
Model (kW - stages)	With mounted control cabinet option			
	Max. control cabinet size	A' (length 2)	B' (width 2)	C' (height 2)
		mm	mm	mm
2-1, 3-1, 4-1, 5-1	M	375	864	770
6-1, 9-1, 12-1, 16-1, 21-1, 25-1	M	635	762	770
12-2, 18-2, 24-2, 32-2, 42-2, 50-2	L	737	762	866
18-3, 27-3, 36-3, 48-3, 63-3, 75-3	XXL	834	813	1171
24-4, 36-4, 48-4, 64-4, 84-4, 100-4	XXL	1025	813	1171

Notes:

- For all Vaporstream models with optional insulation, add 25 mm to dimensions A, C, and C'.
- Dimensions are largest possible for these models. Actual dimensions may be smaller.

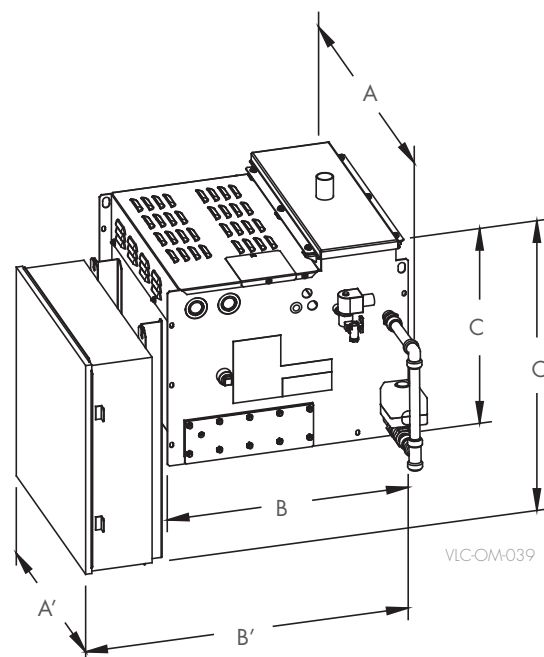
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VAPORSTREAM STEAM DISPERSION OPTIONS

driSteem's steam dispersion products provide rapid, dry steam absorption in ducts, air handling units, and spaces. They disperse steam from any driSteem steam-generating evaporative type humidifier. Vaporstream dispersion options include:

- Ultra-sorb Model LV and Ultra-sorb Model LH
- Rapid-sorb dispersion tube system
- Single dispersion tube
- Area-type fan mounted on humidifier
- SDU mounted remotely

VAPORSTREAM VLC DIMENSIONS, TAP/SOFTENED WATER AND RO/DI WATER



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Vaporstream outdoor operation

OUTDOOR ENCLOSURES

Outdoor humidifier operation in any climate is possible with the driSteem outdoor enclosure. The prepiped, factory-assembled unit ships complete to the job site. Installation is a snap with various mounting options — curb, legs, or flush.

Factory constructed and assembled. The outdoor enclosure is shipped complete with the humidifier preinstalled and tested. The humidifier is prepiped within the enclosure with an integral water seal, ready for quick connection to water, steam and electricity.

Install on the ground or on the roof. Outdoor enclosures are ideal for facilities that have limited interior space.

Certified, tested and proven. In-house testing and numerous successful installations have proven that the outdoor enclosure provides reliable operation under extreme conditions.

Easy access for service. Steel enclosure doors provide full access to internal components. The doors feature stainless steel hinges, and the latches operate from outside and inside of the unit.

Protects in cold and hot climates. To ensure complete safety and operation in all climates, the outdoor enclosure has supplemental heating and ventilating systems that automatically maintain required operation conditions. driSteem humidifiers housed in outdoor enclosures operate properly when outdoor temperatures range from -40°C to 50°C .

Robust design. The outdoor enclosure is ruggedly built to completely protect internal components. The enclosure is constructed of heavy-duty galvanized steel and is fully insulated. Gaskets on doors ensure a tight seal.

Table 6-1:
Vaporstream outdoor enclosure dimensions

Description	Vaporstream models	
	with 1-6 heaters	with 9-12 heaters
	mm	mm
Enclosure height	1422	1422
Enclosure width	1016	1372
Pipe chase position	67	67
	64	64
Pipe chase size	203	203
	495	495
Steam pipe position	343	343
	559	899
	178	178
	210	235
Length	1524	1626

WEATHER COVERS

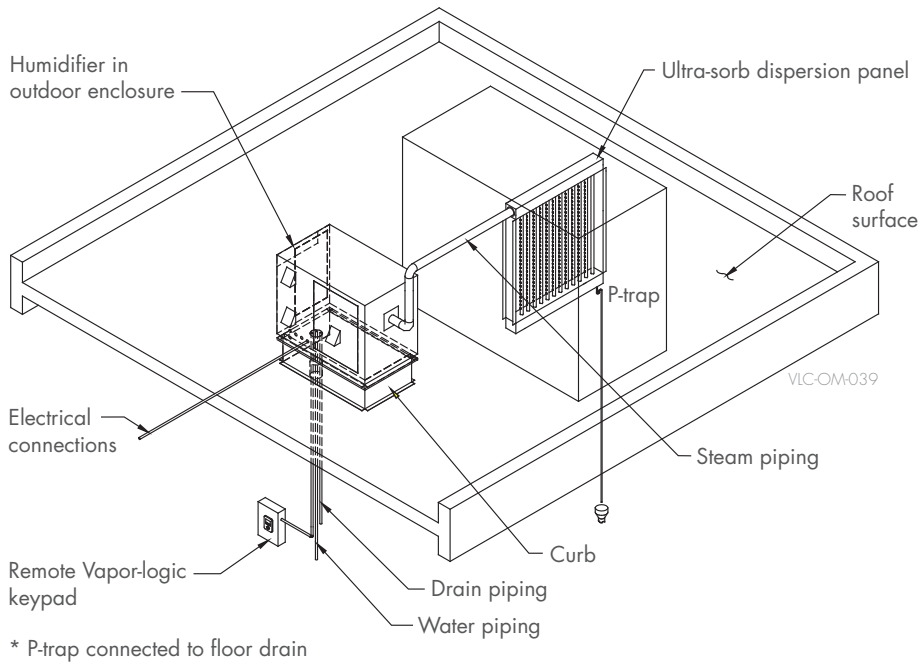
The optional Vaporstream weather cover is water-resistant and designed to protect the humidifier from rain and sun. The weather cover has been tested and approved by ETL Testing Laboratories, Inc., and is listed to UL Standard 1995 and certified to CAN/CSA Standard C22.2 No. 236.

Table 6-2:
Weather cover dimensions

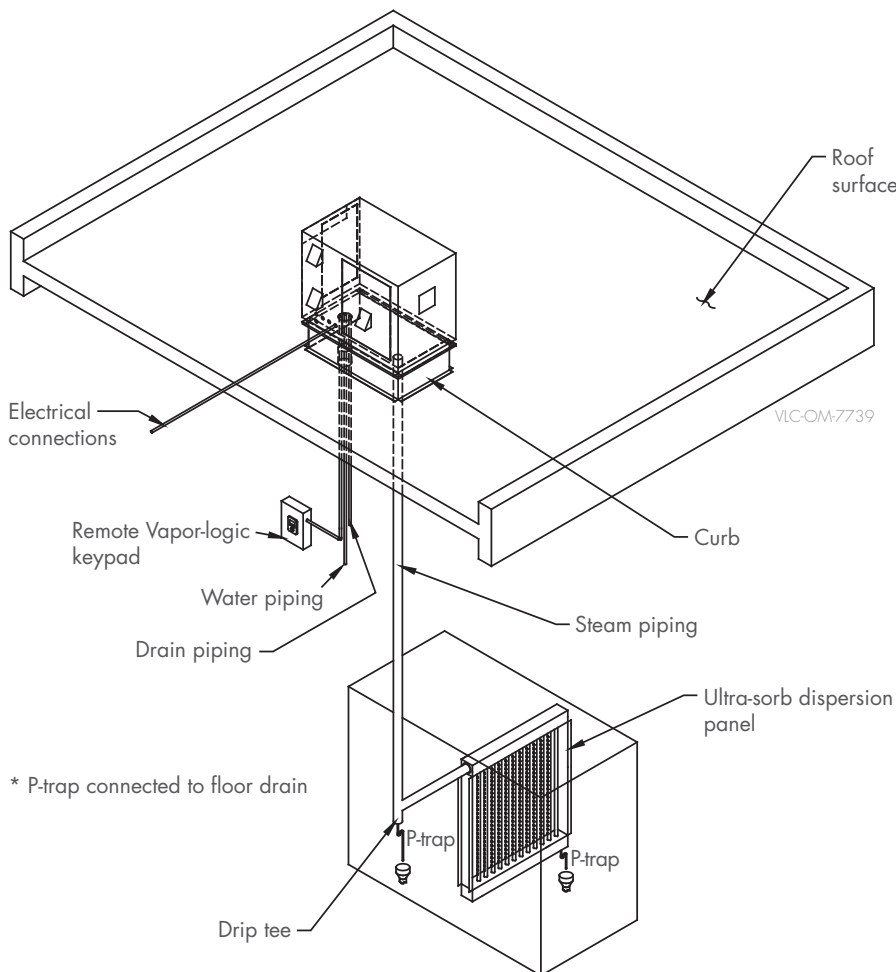
Description	1-3 heaters	6-heaters	9-heaters	12-heaters
	mm	mm	mm	mm
Height	1676	1676	1676	1676
Length	1118	1118	1118	1118
Width	889	991	1118	1270

Vaporstream outdoor enclosure typical installations

TYPICAL ROOFTOP INSTALLATION OVERVIEW WITH AHU ON TOP OF BUILDING



TYPICAL ROOFTOP INSTALLATION OVERVIEW WITH AHU INSIDE BUILDING



DRI-STEEM Corporation

A subsidiary of Research Products Corporation
DriSteem U.S. operations are ISO 9001:2015
certified company

European office:

Marc Briers
Grote Hellekensstraat 54 b
B-3520 Zonhoven
Belgium
+321 1823595 (voice)
+321 1817948 (fax)
E-mail: marc.briers@dristeem.com

U.S. Headquarters:

14949 Technology Drive
Eden Prairie, MN 55344
800-328-4447 or 952-949-2415
952-229-3200 (fax)

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EXPECT QUALITY FROM THE INDUSTRY LEADER

For more than 45 years, DriSteem has been leading the industry with
creative and reliable humidification solutions. Our focus on quality is
evident in the construction of the Vaporstream humidifier. driSteem leads
the industry with a Two-year Limited Warranty and optional extended
warranty.

For more information

www.dristeem.com
sales@dristeem.com

For the most recent product information visit our website:

www.dristeem.com