



## Humidifier FAQ

### UNIT OPERATION AND TROUBLESHOOTING

#### Why is the humidifier not running?

The following conditions need to be satisfied before the humidifier sequence can start:

- Must be in Auto mode
- No flashing alarms
- Hi limit duct stat- Closed or Satisfied. ( Duct Humidity below setpoint)
- Duct Air Flow switch - Closed
- Inter – Lock switch (Door) - Closed
- Low water probe or low water float – Shows water

#### Can I force the humidifier on without a demand signal with the Vapor-logic® controller?

You could use a signal generator to generate a signal or you can put the humidifier into Test Run mode. This capability allows a technician to simulate a demand for steam production when there isn't one (such as when performing routine maintenance). To confirm functionality, go to the Test Run section of the Diagnostics menu. Set system demand percent and set test run time duration using the Arrow keys and Enter key. Then use the arrow and Enter keys to select Test Start. All safeties, including air flow and the duct high limit switch must be satisfied. To test all of the outputs the tank must have water. The Test mode will fill the tank, but make sure that test time is long enough to fill the it. After testing, the humidifier mode changes to Standby.

#### How do I place the humidifier in Auto or Standby mode?

In the Vapor-logic controller, select the Main key. Use the arrow keys to highlight Status and push the Enter key. Use the arrows to select Mode and push Enter. Use the arrows to select Auto and push Enter. To put the tank in standby it is the same procedure, selecting Standby instead of Auto.

Main > Status > Mode > Auto

#### How do I change the setpoint in the Vapor-logic controller?

You can only change the setpoint from the keypad if you have a Relative Humidity Transmitter wired directly to the humidifier. From the keypad Home screen, push the Main key. Use the Up and Down keys to highlight Status and push Enter to select. Use the Down Arrow key to scroll down until RH setpoint is highlighted. Push Enter to select. Use the Up and Down keys to reach the desired setpoint and the Enter key to save the new selection. The Back key will take you to the Home screen.

#### My duct relative humidity high limit is tripping all of the time. I can't meet the space setpoint.

Your duct high limit stat may be defective or set too low. The default is 80%. To avoid a wet duct, we recommend going no higher than 90%. Alternatively, the humidifier could be over sized for the application. Call DriSteem Technical Support at 1-800-328-4447 to discuss options for your particular model of humidifier.

### **How does a humidifier measure steam output?**

With DriSteem humidification generators, we measure the steam output by measuring the tank temp (boiling point) and the heat source that actually boils the water:

- Steam-to-Steam- steam supply + valve position
- Gas-to-Steam-gas burner + blower speed
- Resistive Electric-Number of heating contactors pulled in + SSR (if used)
- Electrode-Conductivity of the water

### **What is the minimum supply water pressure required? Maximum allowed pressure?**

The minimum water pressure is 25 psig dynamic (172 kPa). This means that the unit must have a minimum of 25 psig (172 kPa) even when the humidifier's fill valve is open or any unit connected to the humidifier's water supply line has a valve open.

The maximum water pressure is 80 psig (552 kPa).

### **At what temperature will the humidifier make steam?**

212 ±5°F (100±5°C). Note that because the tank temperature sensor is located on the outside of the tank, it may read slightly lower. High altitude will also lower the boiling temperature. When fill water has not yet reached the boiling temperature the humidifier will be running and the temperature will be lower. If the humidifier has been running a long time and has not reached boiling it may have a bad heating element (Vaporstream® and Vapormist® humidifier), heat exchangers coated with minerals (Gas-to-Steam or Steam-to-Steam), or low gas pressure (Gas-to-Steam) or in-coming steam (Steam-to-Steam) pressure.

### **What is EOS (End of Season)?**

EOS stands for End of Season and is applicable to humidifiers that have electric drain and fill valves. When the humidifier has had no demand and is in auto mode for 72 hours (changeable in the set-up menu) the humidifier will automatically drain. The EOS drain prevents problems from stagnant water in the tank developing. When the humidifier gets a demand and is still in the auto mode it will automatically fill and start running again.

### **Should I power off my humidifier in the summer?**

This is not necessary. You can put the unit into standby mode or power it off, which will prevent it from running if there is a small call for humidity. All of the water should be drained before leaving the humidifier unused for a long period. The End of Season (EOS) feature will automatically do this or you can put the humidifier first in drain and then into standby when it is empty. Note: End of Season is an optional feature and the humidifier must be left in Auto mode for it to work.

### **How do I reset the service timer on the Vapor-logic controller?**

In the Vapor-logic controller, the "Service Unit" message doesn't auto clear. It calculates how many pounds of water have been converted to steam as determined in the setup menu to calculate when to display the message. You must acknowledge that message by pressing the Message key and push Clear to reset.

## UNIT CONTROLLER (VAPOR-LOGIC) AND NETWORK INTEGRATION

### What is a data download?

Vapor-logic acquires data at one-minute intervals and retains it for seven rolling days for a number of different control points and sensor inputs. This data can be downloaded from the Vapor-logic control panels and e-mailed to DriSteem Technical Support to have DriSteem analyze performance of the equipment. This capture can be downloaded onto a USB flash drive or, when directly connected to the Vapor-logic control panel, via Ethernet connection directly to your computer.

### How and why would I do a backup or restore in the Vapor-logic controller?

Backup and restore functions in the Vapor-logic unit controller are quick and easy ways to restore the settings of the Vapor-logic panel. Once the setpoints, addresses, etc. are set at start-up, the settings can be backed up into a USB flash drive using the Backup function. If, for any reason, the board loses these settings or they were changed inadvertently, they can be restored by taking the Backup file and restoring it to the unit in question. For more information regarding the Backup and Restore functions, please see the Vapor-logic Installation and Operation manual located on [www.dristeem.com](http://www.dristeem.com).

### Where do I get a BACnet code?

BACnet codes are available from your DriSteem Sales Representative. BACnet codes are an upgrade to Vapor-logic, which is a native Modus RTU control board.

This code must be purchased to allow the operation of either BACnet/IP or BACnet/MSTP. Either the unit was ordered originally with BACnet or the BACnet code can be purchased at a later date. Once the BACnet code is downloaded into the Vapor-logic control board, all of the BACnet options unlock in the Tank Setup menu under the Communications screen. Please see the Vapor-logic Installation and Operation manual located on [www.dristeem.com](http://www.dristeem.com) for further instructions.

## SERVICE AND MAINTENANCE

### Who do I contact to service my humidifier?

Your local DriSteem Sales Representative is a good place to start. If they do not have a service department they can most certainly recommend someone in your market, as they work with most of the Mechanical Contractors and HVAC Service Companies in their sales territory.

### What happens when the humidifier has a lot of scale?

The humidifier can start spitting into the dispersion tube or boiling over because excessive minerals in the water can increase the boil. Scale on the probes can prevent the probe from properly detecting the water level. The drain could get clogged with scale, trapping even more minerals in the tank. Electric heating elements and heat exchangers covered in scale become inefficient, causing the humidifier to run at maximum load while still not meeting the setpoint. The electric heating elements could also fail prematurely.

### Why did my humidifier fill up with scale so fast?

Depending on your water quality, water can hold a lot of Total Dissolved Solids (TDS) that when the water is turned to steam, fall out of the water. This scale falls to the bottom of the humidifier tank. If you increase your drain and fill cycles or change water quality by using a softener, this will help with scale mitigation. [Click here](#) for more information about water quality and the impact on humidifiers.

### How can I prevent scaling?

Increase your drain and fill cycle sequences and switch to softened, reverse osmosis, or de-ionized water to help prevent scaling. [Click here](#) for more information about water treatment systems. Note: Changing from tap/softened water to reverse osmosis or de-ionized water requires an equipment conversion.

### Can I use the DriSteem Humidifier De-scaling Solution in a Drane-Kooler™ water tempering device?

No. DriSteem strongly discourages this practice. The Drane-Kooler water tempering device has some internal parts that are not stainless steel and may not hold up to heavy-duty cleaners such as the DriSteem De-Scaling Solution. This will void the warranty. One could fill the Drane-Kooler with vinegar for a couple of days and then flush it if a cleaning is really required.

### **How often do I need to clean my RO/DI water humidifier?**

During normal operation the RO/DI water humidifier does not need to be regularly drained and flushed. The humidifier should be inspected annually according to the unit Installation and Operation manual. Do not allow RO/DI water to sit for extended periods in the tank as it can contain chlorides that are corrosive to the tank. An occasional chloride test could point out if the RO system needs membranes replaced or the DI system needs to regenerate the beds.

### **How often do I need to clean my Tap/Softened water humidifier?**

Maintenance requirements vary with water quality, because tap and softened water carry a variety of minerals and other materials in a mix that varies from location to location. Very hard (high mineral content) water requires more frequent cleaning and drain/flush cycles than water with low mineral content. Softened water significantly reduces mineral accumulation inside the humidifier. Note: Solids like silica are not removed in the softening process. Humidifier maintenance due to hard water can be significantly reduced when used in conjunction with water treatment. [Click here](#) for more information about water treatment systems.

The best way to determine how often your humidifier needs maintenance is to remove the tank cover and inspect it for mineral deposits after three months of operation. Hours of operation and pounds of steam produced will determine your maintenance schedule, as will water quality. If after three months the tank is filled with scale, it is time to clean. If the tank has little scale, check it again in another three months.

### **How do I clean the probes?**

The metal part only of the probe can be dipped in diluted DriSteem De-scaling Solution or vinegar and then wiped off, keeping the cleaner off of the plastic head. The probes can be gently scraped with nylon tools, a stiff non-metallic brush, a mildly abrasive pad, or oil-free stainless steel wool. Emory cloth can be helpful too. Get as much scale as possible off of the probes without gouging or damaging the probe or introducing oils or contaminants.

### **How do I clean a humidifier?**

Use DriSteem De-scaling Solution. [Click here](#) for more information.

### **Do I need to clean the dispersion tubes?**

The tubes themselves will not require any cleaning. Depending on what quality of water is being supplied via steam to the dispersion panel, you will periodically have to clean the tubelets. The tubelets can be cleaned with pipe cleaners or by using a drill bit (by hand) to keep the tubelets clear of scale build up.

## **PARTS**

### **Why can't I use aftermarket igniters?**

The use of aftermarket (non-DriSteem) igniters voids the unit warranty, and can also cause issues with igniters that are difficult to light. [Click here](#) to learn more.

### **Can I order parts from DriSteem direct?**

Parts for DriSteem equipment can only be ordered from an authorized sales representative. Contact us at [www.drirsteem.com](http://www.drirsteem.com) or call 1-800-328-4447 to find your local rep.

## **GENERAL**

### **How do I know the age of my unit?**

Sometimes the year of production is printed on the serial number label. If not, contact DriSteem Technical Support at 1-800-328-4447 for the age of your humidifier. You will need to provide the serial number.

### **How long does a humidifier last?**

A DriSteem humidifier will last over ten years, on average, depending on water quality and maintenance frequency. [Click here](#) to learn more about water quality and the impact on humidifier operation and maintenance.

Notes:

**DRI-STEEM Corporation**

a subsidiary of Research Products Corporation  
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