



**AprilAire**  
PARTNERS

# Dry Air Solutions

Whole-Home Humidifiers

Healthy Humidity in every home.



## AprilAire

We are professional-grade Healthy Air solutions. AprilAire is on a mission to enhance people's health by improving the air in their homes. Healthy Air is essential to living a healthy lifestyle and improving our overall well-being. We are inspired by the needs of consumers and the expertise of professional contractors to create, design, and build innovative solutions.

### AprilAire is Healthy Air.



5-year warranty on all installed products



Designed & Engineered in the USA

### Providing the best service available, we aspire to:

- Answer all calls in thirty seconds or less
- Respond to e-mails within twenty-four hours
- Practice first call resolution
- Follow up quickly with a definitive answer if a call cannot be resolved immediately

We welcome feedback as we continue to strive for improvement.

Customer service agents are available Monday through Friday from 7:00 am through 5:00 pm (CST) and can be reached by phone at 800.334.6011 or by e-mail at [support@aprilaire.com](mailto:support@aprilaire.com).



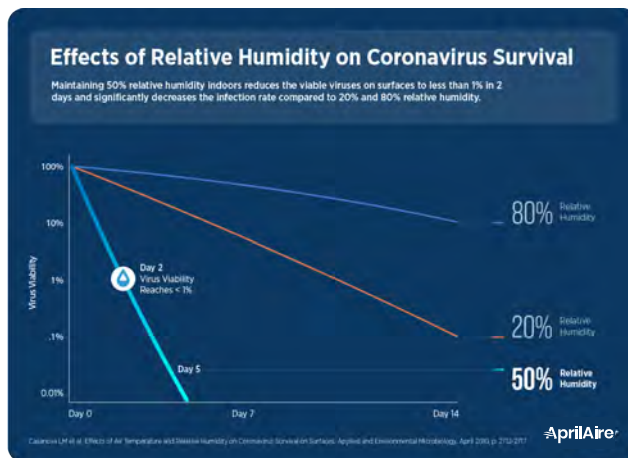
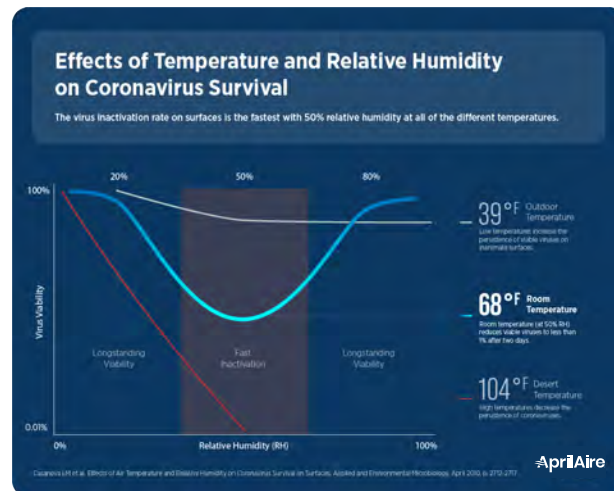
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# Humidity Control Plays A Key Role in Healthy Air



## Health

When humidity is properly controlled within a home, it provides effective virus protection. Air that's too dry can lead to conditions that allow airborne viruses to thrive and proliferate. By adding humidity to air when needed, the amount of time a virus can survive in the air drops drastically. Beyond viruses, proper humidity control – ideally between 40-60% RH – can also help reduce the presence of other contaminants such as allergens, asthma triggers, and other respiratory irritants. AprilAire Humidifiers help maintain 35%-45% humidity in homes, helping you create better, healthier air.



Indoor air temperature near 68°, along with relative humidity near 50%, provides homeowners with healthy air quality while maintaining a comfortable house.



## Comfort

Turning up the heat won't help make a home more comfortable if a home's relative humidity is too low. Maintaining proper humidity helps to remove uncomfortable symptoms of cold winter air that can have on a home's occupants like static shock, dry skin, and headaches.



## Preservation

Humidity levels in the home greatly affect the quality, dimensions and weights of the materials used in a building's construction. Just as moisture is drawn out of human skin in dry air, so too it is drawn out of wood, leather, plaster, cloth and nearly every item in the home. It can also be damaging to some high-end electronics, musical instruments, and expensive wood floors.

In the winter, as moisture is pulled out of the wood, cracks and gaps will appear in the floor. In the summer the floors will expand again. The changes caused by these RH swings can ultimately lead to failure of the floor, leading to high replacement costs not covered by the manufacturer's warranty or the flooring installer. Make sure your customers know that wood flooring manufacturers expect consumers to maintain healthy levels of humidity to combat the effects of dry air.

The preservation benefit describes the change in the dimension of wood with a change in the surrounding RH. Heated air dries out and shrinks wood framing around doors and windows. Outside air infiltrates the home at these and additional locations, as a result of wind and chimney or stack effect.

Infiltration of outside air usually occurs at a home's envelope (perimeter walls, windows and doors). Framing around windows and doors will not shrink or crack as much when proper RH levels are maintained inside the home. This will reduce infiltration and in turn improve energy conservation.



## Energy Conservation

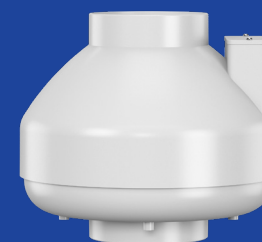
Dry indoor air can shrink the framing around doors and windows, resulting in gaps that let in cold air from the outside, making a home less energy efficient. When humidity is added to the air, these common points of infiltration won't shrink or crack as drastically as they might otherwise. When homes aren't letting cold air in, and the added humidity provides more comfort, heating systems don't have to work quite so hard, saving homeowners on their energy costs.



Fresh Air Ventilation



Air Filtration



Radon Control



Humidity Control

# Superior Performance

AprilAire Humidifiers offer Healthy Humidity for every application, in every home.



## Capacity

The average-size home requires about eleven gallons of water per day. If the humidifier can't deliver at least this much water, it is undersized and not recommended for most installations. AprilAire has evaporative humidifier models that can produce up to eighteen gallons per day and steam units that can provide more than thirty-four gallons per day. Refer to the "Sizing" section on page 20 for detailed information.



## Control

There is a direct relationship between capacity and control. If the capacity is not there, you simply cannot reach the RH levels required for comfort. An AprilAire humidifier is designed not only to provide sufficient capacity, but to control it accurately.



## Operational Efficiency

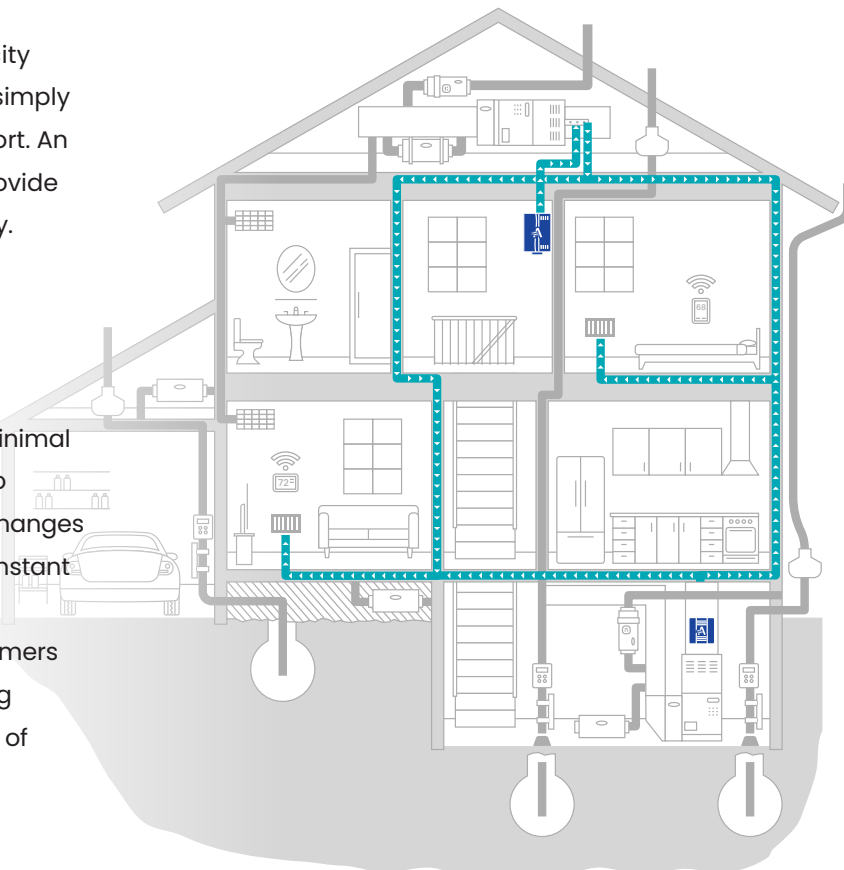
AprilAire Humidifiers operate efficiently with minimal maintenance required. They have the ability to maintain proper RH automatically based on changes in outdoor temperature, or they can hold a constant humidity level that you set manually. AprilAire humidifiers are engineered to give your consumers peace of mind when installed properly; making expensive, time-consuming call backs a thing of the past.

With precise operation, AprilAire Evaporative and Steam Humidifiers are designed to perform to your customers' expectations.



## Ease of Installation

A professional heating and air conditioning contractor can install an AprilAire Humidifier quickly with little interruption to the customer's home. Whether it is an evaporative unit or a steam unit, the installation process for all AprilAire Humidifiers is fast and easy. They are designed to ensure trouble-free operation and high-efficiency performance.

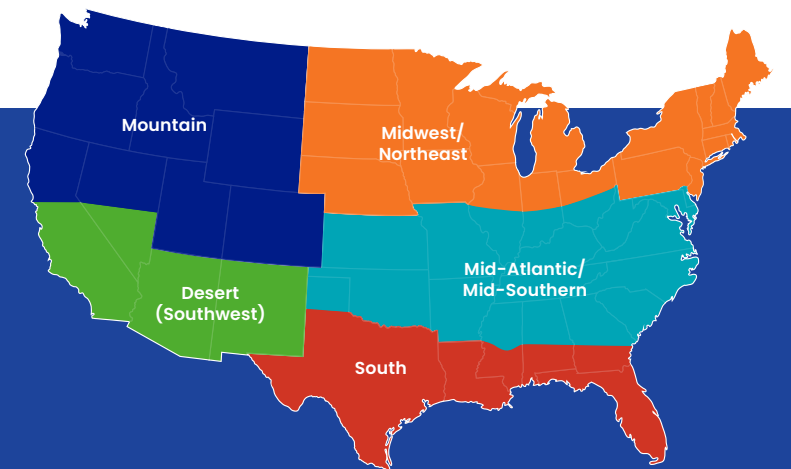


# Selecting The Right Humidifier for The Job

AprilAire humidifiers can be installed on many different types of HVAC equipment and controlled to provide optimal humidity levels. This application guide is to assist in the selection of the appropriate AprilAire product based upon geography and heating equipment.

The AprilAire humidifier product portfolio consists of evaporative flow through, fan-powered products and residential steam. It's important to consider the plenum temperature, air flow (fan speed) and run time (heat call primary, fan only call secondary) when selecting products.

AprilAire's control strategy will maximize the humidifier run time/capacity. The automatic humidity controls have an integrated blower activation relay. This relay is factory set to "ON". It will turn on the humidifier and the HVAC blower for humidification without a heat call. This will dramatically increase the capacity of the humidifier. Installations with a manual humidifier control can increase capacity by turning the thermostat fan to "ON". When installing evaporative humidifiers, it's recommended they are plumbed to hot water.



## Application Map

This application map assists in the selection of the appropriate AprilAire product based upon geography and heating equipment.

| CLIMATE ZONE/RECOMMENDED APRILAIRE HUMIDIFIER SOLUTION BY MODEL |                     |                           |                     |                 |                    |
|---|---------------------|---------------------------|---------------------|-----------------|--------------------|
| EQUIPMENT   | MIDWEST/NORTHEAST   | MID-ATLANTIC/MID-SOUTHERN | MOUNTAIN            | SOUTH           | DESERT (SOUTHWEST) |
| Gas/Oil Furnace-Single Stage or Multi Stage*                    | 400/500/600/700/800 | 400/500/600/700/800       | 400/500/600/700/800 | 500/600/700/800 | 800                |
| Gas/Oil Modulating Furnace**                                    | 700/800             | 700/800                   | 700/800             | 700/800         | 800                |
| Heat Pump/Geo-Single Stage or Multi Stage*                      | 400/500/600/700/800 | 400/500/600/700/800       | 400/500/600/700/800 | 500/600/700/800 | 800                |
| Heat Pump/Geo-Modulating**                                      | 700/800             | 700/800                   | 700/800             | 700/800         | 800                |
| Boiler With AHU (No Heat Source)                                | 800                 | 800                       | 800                 | 800             | 800                |
| Boiler With AHU and Hot Water Coil/Hydro Air Unit               | 700/800             | 700/800                   | 800                 | 800             | 800                |
| Boiler  | 300/865             | 300/865                   | 300/865             | 300/865         | 300/865            |
| Electric Baseboard Heating                                      | 300/865             | 300/865                   | 300/865             | 300/865         | 300/865            |
| Humidifying with A/C Unit                                       | 800                 | 800                       | 800                 | 800             | 800                |

\*PSC, constant torque ECM

\*\*Variable speed ECM

†Evaporative performance of bypass humidifiers decreases with lower airflow volume and lower air temperature. Bypass models can be used in these applications if the HVAC system pressure differential between supply and return ducts is at least 0.08 in. wg and air temperature, hot water and continuous fan in the supply duct is at least 100°F.

## Choosing Evaporative or Steam Humidification


Evaporative and steam humidifiers are very different in their technologies. Evaporative humidifiers do not heat the water themselves, but instead use the HVAC system's heat, drawn through a water panel, to turn the water into vapor. Steam humidifiers heat water to the boiling point, producing steam. Both technologies use the system blower to distribute humidity through the ductwork. Steam units can be mounted with a blower pack if a duct system is not available.

Both technologies are effective at delivering the right levels of humidity throughout the home; however, it's important that the right product is selected to ensure consumer satisfaction.

Evaporative humidifiers are an effective choice for applications where the unit can be attached to ductwork. Steam products are ideal for larger homes, mountain climates, and regions that experience milder winters. Steam units also work well where evaporative products cannot be installed or do not offer enough capacity: systems with little to no mounting space on the plenum, attics, crawl spaces, and homes heated by in-floor heat, electric strip heat, boilers, and hydronic heat systems.

## Humidification for Non-Ducted Systems

about  
**21**  
million homes are heated without ductwork. Differentiate your business by solving this problem in your region.



Dry air is not only unhealthy, it's uncomfortable. In addition to accelerating the transmission of airborne viruses, it can aggravate asthma and allergy symptoms, and cause wood floors and furnishings to warp. Maintaining healthy levels of humidity helps to reduce these symptoms and protect the wood in your home.

Our humidifiers provide whole-home humidification for every application. We utilize steam and evaporative technologies in our products to provide you with effective options based on such variables as square footage and existing heating/cooling system. When it comes to the 21 million homes with non-ducted systems such as boilers, mini-splits, and radiant heat, we have what you need to provide Healthy Air through humidity control to more customers.

## Evaporative Humidification

Residential evaporative humidifiers are generally designed in one of two styles, bypass or fan-powered. The difference is how the air is delivered to the humidifier. In the bypass design, air is passed from the supply to the return. In the powered version, a fan is used to blow air through the unit.

### Easy to Maintain

It takes a couple of minutes to replace the water panel. For best performance, it's recommended the water panel be replaced annually.\*

\*Twice per humidifier season for the Model 400

### Long Life

Trouble-free performance and minimal maintenance are ensured by the design features of the AprilAire evaporative humidifier. All humidifier housing parts that come in contact with water are non-metal and will never rust or corrode. Neither heat nor water will affect them under normal operating conditions.

Periodic preventative maintenance should be conducted on the distribution tray directly on top of the water panel. It should be inspected annually and cleaned of excess mineral deposits. Annual inspection of the feed tube and periodic cleaning of the orifice is all that's needed to extend the life of the humidifier. If properly maintained, an evaporative humidifier will last the life of the HVAC system on which it is installed.

### Ease of Installation

Most models of evaporative humidifiers mount directly onto the plenum of the HVAC system. The Model 300 is designed for use in homes without central forced air systems and mounts between or below floor joists, delivering healthy humidified air into the living space.



Model 600

Model 700

Model 300

### Convenience

The components that require significant cleaning can simply be replaced. Replacing a water panel is much easier and more cost effective than taking hours to clean portable units. Many contractors will replace the water panel as part of a scheduled maintenance program for the HVAC system.

### Capacity

Most evaporative humidifiers efficiently use the HVAC system to operate. The plenum temperature and blower from the furnace or air handler are used to produce humidity. The amount of time the plenum temperature is raised from a heat call is variable and so is the actual temperature; with heat pumps around 90°F and gas furnaces at 120°F. The HVAC blower is needed to create humidity. However, a raised plenum temperature is not needed when the humidifier is plumbed to hot water. Hot air with hot water can raise the humidifier's performance. These variables are all considered in the capacity chart on the specifications page (see back cover).

## Sequence of Operation

The water in evaporative humidifiers flows to the distribution tray located at the top of the humidifier. The water is uniformly distributed across the width of the tray and through a scientifically designed system of outlets. It flows by gravity over the water panel evaporator. Dry air is moved through the moisture-laden water panel where it absorbs some of the water and carries that moisture in vapor form throughout the home.

The correct water flow is determined by an orifice. When the humidifier is operating, the water that is not evaporated passes on to the drain (in the drain-equipped models). Trouble-causing minerals that are the inevitable result of water evaporation are either trapped by the water panel, contained in the scale control insert or flushed down the drain.

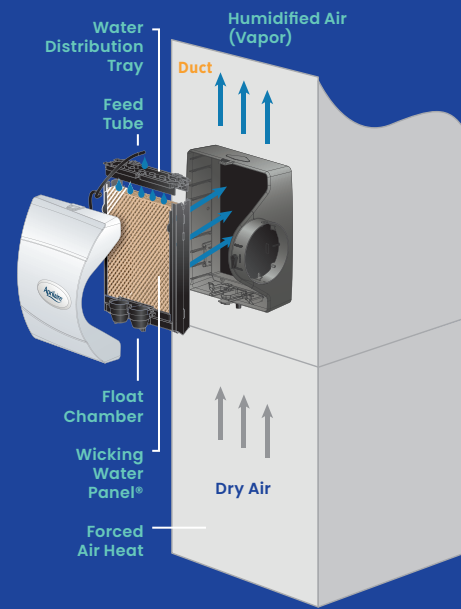
## Duct Location (for Models 400, 500, 600, 700)

The fan-powered Model 700 humidifier is designed to be installed on the warm air supply plenum of forced air furnaces or heat pumps. If there is no space on the warm air supply plenum for the humidifier, the unit may be installed on the cold air return duct; however, you will need to supply the humidifier with hot water because the hot water will be the only heat source.

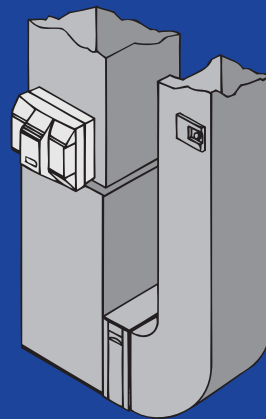
Bypass humidifiers are designed to be installed on the warm air supply plenum or cold air return of a forced air upflow, or downflow, horizontal furnace or heat pump. The humidifier is then ducted to the opposite side return or supply. The operation is the same regardless of which duct is used for the installation. Correct operation requires a minimum static pressure of 0.2" w.c.

## Water Quality

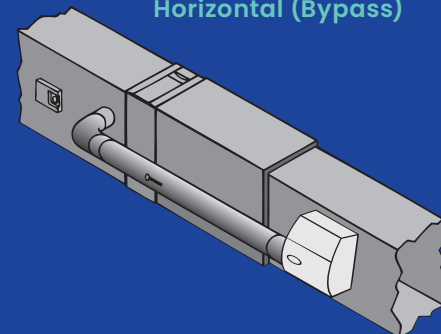
Evaporative humidifiers will perform with hard or soft water. For optimal performance, water up to 140°F can be used. For the humidifier to work without an active heat call, it must be plumbed to hot water.



Upflow (Power)



Horizontal (Bypass)



# Steam Humidification

AprilAire steam humidifiers are simple to install, operate and maintain. AprilAire steam units are offered with two operational technologies: on/off and modulation. With on/off control, the humidifier will operate at full capacity until the set point is reached. With modulating operation, the humidifier's output will vary depending on how close or far away indoor RH levels are from the desired set point.

## Simple to Service and Maintain

To create steam, water needs to be heated. With electrode technology, electrical current flows between two submerged electrodes. Resistance of the water to the electric current heats the water. The submerged electrodes are found in a replaceable canister. At the end of a humidifier season, the canister should be replaced. The electrodes should be replaced at least every three years. No cleaning, no scrubbing, simply replace the canister and you're ready for the next humidifier season.

## Limited Water Quality Concerns

When water is heated, it boils and produces steam leaving behind deposits and minerals. Electrode technology requires impurities in the water to promote the flow of current. For this reason, water filtration is not required with electrode technology, minimizing the complexity of the installation and on-going operating costs. The unit will operate with water hardness between 3 and 36 grains—a very wide range. If reverse osmosis or deionized water is present, plumb unit to water line prior to those devices.

## Simple Unit Selection

The AprilAire steam humidifier uses electricity to boil the water. The control algorithm in the unit manages the water level to ensure either 11.5 or 16.0 amps of current is maintained while operating, depending on installation. The 11.5/16.0 amps is the same if it's installed with 240v or 120v, leading to an increase in

steam produced based on the voltage that is selected. This flexibility allows the same unit to be used for small and large homes.

## Easy to Install

Included with every AprilAire steam humidifier is a remote mounting kit, automatic digital humidifier control, dispersion tube, drain tube, saddle valve and mounting hardware. All parts required for a remote or duct install are included with the unit. Simply mount the unit, connect water feed and drain lines, and mount the dispersion tube in the duct and you're done.

## Capacity

The AprilAire Model 800 Steam Humidifier can add 11.5 to 34.6 gallons per day (GPD) of moisture to the air. Increased voltage leads to greater humidity capacity and 240 volts is recommend to achieve maximum potential.

## Sequence of Operation

AprilAire steam humidifiers deliver humidity to a home's conditioned space through the use of the HVAC system ductwork. The humidifier operates utilizing electrode technology: current flowing between two electrodes in the disposable steam canister boils water to generate steam. Drain and fill valves in the humidifier work together to maintain the correct water level in the canister to satisfy the demand for humidity based on the electrical conductivity of the water.

## Dispersion Technology

The proper speed and method of dispersing steam into the air stream is essential to avoid rusting ducts. AprilAire steam humidifiers quickly deliver the hottest, driest steam to the air by utilizing “dispersion tubelets.” This technology prevents excess water from forming in the duct work when the dispersion tube is properly installed. Refer to the chart at the right for steam absorption distances within ductwork.

## Water Conductivity

Our steam humidifiers are optimized to work with the majority of water conditions and related conductivity and hardness—even artificially softened water. We also offer a low conductive (LC) canister for use in water that is by nature extremely soft—such as homes fed from a reservoir water source. The Model 80LC is also recommended in all 120VAC installations. The Model 80LC canister should not be used in homes where the water is artificially softened with a water softener—use a Model 80 canister in this application.



**Model 800 Steam Humidifier**

| ABSORPTION DISTANCE<br>(Minimum distance from dispersion tube downstream to any obstruction or bend in duct) |                   |                        |                        |                        |                        |
|--|-------------------|------------------------|------------------------|------------------------|------------------------|
| Humidifier Output (gal/day)  | Airflow Velocity* | 75°F & 30% RH Setpoint | 70°F & 45% RH Setpoint | 65°F & 45% RH Setpoint | 45°F & 45% RH Setpoint |
| Up to 16.0   | 300 fpm           | 13"                    | 19"                    | 23"                    | 30"                    |
|  | 600 fpm           | 6"                     | 10"                    | 12"                    | 18"                    |
|  | 1200 fpm          | 3"                     | 5"                     | 6"                     | 13"                    |
|  | 1800 fpm          | 2"                     | 3"                     | 4"                     | 10"                    |
| 20.5-25.0  | 300 fpm           | 15"                    | 23"                    | 28"                    | 45"                    |
|  | 600 fpm           | 6"                     | 12"                    | 13"                    | 26"                    |
|  | 1200 fpm          | 5"                     | 6"                     | 7"                     | 19"                    |
|  | 1800 fpm          | 3"                     | 4"                     | 5"                     | 16"                    |
| 25.0-35.0  | 300 fpm           | 24"                    | 31"                    | 36"                    | 60"                    |
|  | 600 fpm           | 17"                    | 22"                    | 26"                    | 48"                    |
|  | 1200 fpm          | 12"                    | 15"                    | 18"                    | 25"                    |
|  | 1800 fpm          | 10"                    | 13"                    | 15"                    | 20"                    |

\*Velocity in feet per minute = Duct airflow volume in cubic feet per minute/duct area in square feet. Example: 1,200 cfm through 16" X 12" duct = 1,200/(12 X 16/144 sq. in./sq. ft.) = 1,200/1.333 = 900 fpm

| MODEL SELECTION BASED ON WATER CONDUCTIVITY |          |                      |   |
|---|----------|----------------------|---|
| Conductivity                                | Hardness | Water Characteristic | Recommended Model Installed at 208/240VAC |
| 75-100                                      | 0-3      | Naturally Soft       | Model 80LC                                |
| 100-300                                     | 3-9      | Naturally Soft       | Model 80LC                                |
| 300-500                                     | 9-15     | Slightly Hard        | Model 80                                  |
| 500-650                                     | 15-20    | Moderately Hard      | Model 80                                  |
| 650-850                                     | 20-25    | Hard                 | Model 80                                  |
| 850-1250                                    | 25-36    | Very Hard            | Model 80                                  |
| Above 1250                                  | Above 36 | Extremely Hard       | Installation Not Recommended              |

The Model 80LC will not work with water that has been artificially softened with a water softener. The Model 800LC is recommended for any installation regardless of water quality when installed at 120VAC.



**Replaceable Canister**

**AprilAire Model 800**

## Canister Replacement

Canister replacement is recommended every humidifier season and our steam humidifiers also have a service light that will turn on when the canister should be replaced due to decreasing efficacy.

### Simple Canister Replacement:

1. Turn off power at the unit — unit will automatically drain.
2. When drain is finished, turn off electrical power to unit.
3. Remove front panel.
4. Disconnect electrodes, water sensor and hose clamp at top of canister.
5. Replace with correct canister (see “Model Selection” chart above) and provided O-ring.

## Fan Pack

For homes without duct work or where duct work is not accessible, we offer a Fan Pack. The Fan Pack marries with the AprilAire steam humidifier to disperse humidity.

Applications that do not have forced air through a duct system to distribute air into the home are typically installed with the AprilAire Model 865 ductless humidifier with Fan Pack. The Fan Pack is mounted in the conditioned space and distributes the humidity into the air. Humidity levels are adjusted in the living space by the Model 65 Humidifier control.

**Easy Installs, Versatile Applications**



# Sizing

Sizing a humidifier is similar to sizing a heating and cooling system. The humidifier capacity required will be determined by various factors, including: the volume of area being humidified, the air change rate (infiltration or ventilation) and humidification load.

## Volume of Humidified Area

The volume can be determined from a floor plan or from measurements taken within the home. It's important to determine the volume, not just the square feet. Care should be taken to determine ceiling height or any open space such as vaulted ceilings. If the basement is heated and ventilated, its volume should also be included.

## Air Change Rate (Infiltration or Ventilation)

The amount of infiltration is usually calculated when computing the heating and cooling load.

### AHRI defines structure types as follows:

- **Tight construction:** ½ air changes per hour of air infiltration, well insulated with vapor retarders, tight storm doors, windows with weather stripping.
- **Average construction:** 1 air change per hour of air infiltration, insulated with vapor retarders, loose storm doors and windows, dampered fireplace.
- **Loose construction:** 1½ air changes per hour of air infiltration, usually built before 1930 with little or no insulation, no storm doors, no insulated windows, no weather stripping, no vapor retarders, undampened fireplace. AHRI has also established a standard guideline for determining capacity ratings, which provides a means of comparing product specifications. Capacity is determined by the output of the device as if it operated 24 hours per day (AHRI Guideline F 2015).



## Other considerations

The typical family of four will generate two gallons per day of moisture from internal sources such as cooking, showering and breathing. This amount can be subtracted when sizing a humidifier.



| HUMIDIFIER SIZING GUIDELINES GPD NEEDED PER SQUARE FOOT** BASED ON BUILDING STRUCTURE TIGHTNESS |  |          |          |          |          |          |          |
|---|--|----------|----------|----------|----------|----------|----------|
| STRUCTURE TIGHTNESS   | VOLUME OF BUILDING (FT³)                     |          |          |          |          |          |          |
|   | 8000   | 12000    | 16000    | 20000    | 24000    | 32000    | 40000    |
|   | BUILDING FLOOR AREA (FT²) WITH 8 FT CEILINGS |          |          |          |          |          |          |
|   | 1000 Ft²                                     | 1500 Ft² | 2000 Ft² | 2500 Ft² | 3000 Ft² | 4000 Ft² | 5000 Ft² |
| Tight   | 3.3 GPD                                      | 5.0 GPD  | 6.7 GPD  | 8.3 GPD  | 10.0 GPD | 13.4 GPD | 16.7 GPD |
| Average   | 6.7 GPD                                      | 10.0 GPD | 13.4 GPD | 16.7 GPD | 20.0 GPD | 26.7 GPD | 33.4 GPD |
| Loose   | 10.0 GPD                                     | 15.0 GPD | 20.0 GPD | 25.0 GPD | 30.1 GPD | 40.1 GPD | 50.1 GPD |

# Humidifier controls

## Automatic Control

AprilAire digital humidistats are simple to read and keep the homeowner informed on the status of the humidifier. The control has lights to indicate when the water panel should be replaced and when to contact you for service.



## Controlling Humidity

Determining the correct level of indoor relative humidity requires consideration of more than one variable. While it's best for a home's occupants to have relative humidity set between 40-60%, the overall tightness of the home can limit that. Condensation or fogging on windows is usually a sign that indoor RH levels are too high based on their surface temperature. This same condensation could also be taking place inside walls and other areas vulnerable to damage from excessive moisture. The best humidity control plan will set safe limits for indoor RH that achieve maximum benefits without damage or condensation. The table to the right shows the recommended indoor RH based on outdoor temperature.

| RECOMMENDED INDOOR HUMIDITY LEVELS |                          |
|------------------------------------|--------------------------|
| Outdoor Temperature (°F)           | Recommended Humidity (%) |
| +40                                | 45%                      |
| +30                                | 40%                      |
| +20                                | 35%                      |
| +10                                | 30%                      |
| 0                                  | 25%                      |
| -10                                | 20%                      |
| -20                                | 15%                      |

## Continuous Automatic Control

AprilAire humidifiers feature Automatic Humidifier Control, which monitors outdoor temperature and automatically adjusts the humidifier so that it provides the optimal RH level to the home. It can react to temperature changes quickly, which means it can provide up to 50% more moisture than other humidifier controls.

## Modulating Humidifier Control Operation

To precisely adjust the steam output of the Model 801, a control must be used.

When the modulating control detects RH below the








set point, the humidifier energizes the electrodes in the canister to provide steam. Humidification may be required when there is no need for heating or cooling. For this to occur, the HVAC system's blower must be activated before steam is introduced to the duct. If the modulating control does not activate the HVAC system on a call for humidity, we recommend using a blower activation relay. The modulating control will vary the steam humidifier's output based on the difference between the set point and actual RH. The modulating control sends a proportional signal to the steam humidifier providing precise control of the living space humidity. Humidity can also be distributed directly into the living space via the Fan Pack. Refer to the Model 866 operation and specifications for more detail.





# Humidity Control

## Humidifiers—Part of the AprilAire Healthy Air System

| HUMIDIFIERS  | TYPE OF HUMIDIFICATION   | UNIT SIZE<br>WIDTH X HEIGHT X DEPTH  | PLENUM<br>OPENING           | CAPACITY GPD=<br>GALLONS PER DAY | ELECTRICAL<br>DATA  | WATER<br>PANEL/<br>CANISTER |
|--|--|--|-----------------------------|----------------------------------|---|-----------------------------|
|  <p><b>#800</b><br/><b>#801</b></p>       | <p><b>Steam</b></p> <p>For larger homes and applications when evaporative units are less practical (attics, crawl spaces, closets, milder winter climates, non-forced air-heating source).</p> | 10 1/8" x 20 7/8" x 7 1/8"   | -                           | 11.5 GPD<br>16.0 GPD<br>20.5 GPD | 120V 60HZ<br>11.5 AMP<br>120V 60HZ<br>16.0 AMP<br>208V 60HZ<br>11.5 AMP | 80††                        |
|  <p><b>#865</b><br/><b>#866***</b></p>    | <p><b>Ductless Steam</b></p> <p>Includes the Model 800, Fan Pack, Model 65 Control and Model 4028 Drain Trap. For homes without forced-air heating systems.</p>                                | <p>Fan Pack:<br/>14" x 6 29/32" x 3 15/16"</p> <p>Finished Grille:<br/>16 3/16" x 9" x 1 3/32"</p> | -                           | 30.0 GPD<br>23.3 GPD<br>34.6 GPD | 208V 60HZ<br>16.0 AMP<br>240V 60HZ<br>11.5 AMP<br>240V 60HZ<br>16.0 AMP |                             |
|  <p><b>#700*</b><br/><b>#700M**</b></p>   | <p><b>Fan Powered Evaporative</b></p> <p>Built-in fan that pulls heated air directly from the furnace.</p>   | 15 29/32" x 18" x 10 11/32"  | W: 14 3/4"<br>H: 14 31/100" | 18 GPD                           | 120V 60HZ<br>0.8 AMP  | 35                          |
|  <p><b>#600*</b><br/><b>#600M**</b></p>  | <p><b>Large Bypass Evaporative</b></p> <p>Uses the furnace blower to move air through a Water Panel®.</p>  | 15 3/8" x 15 3/4" x 10 1/4"<br>6" dia. round opening   | W: 10"<br>H: 12 3/4"        | 17 GPD                           | 24V 60HZ<br>0.5 AMP   | 35                          |
|  <p><b>#500*</b><br/><b>#500M**</b></p> | <p><b>Small Bypass Evaporative</b></p> <p>Designed for smaller homes</p>   | 15 5/8" x 13" x 10 1/4"<br>6" dia. round opening   | W: 9 1/2"<br>H: 9 1/2"      | 12 GPD                           | 24V 60HZ<br>0.5 AMP   | 10                          |
|  <p><b>#400*</b><br/><b>#400M**</b></p> | <p><b>Water Saver Bypass Evaporative</b></p> <p>Uses 100% of water and evaporative technology that eliminates the need for a drain. Conserves Water.</p>                                       | 15 3/8" x 15 3/4" x 10 1/4"*<br>6" dia. round opening<br>See note on heat pumps†                   | W: 10"<br>H: 12 3/4"        | 17 GPD                           | 24V 60HZ<br>0.5 AMP   | 45                          |
|  <p><b>#300</b></p>                     | <p><b>Self-Contained Evaporative</b></p> <p>For boilers, mini-splits, radiant heat and ductless systems.</p>   | 14 3/8" x 12 1/2" x 22 3/32"   | -                           | 13 GPD                           | 120V 60HZ<br>0.7 AMP  | 35                          |

\* Automatic Digital Control (shown)

\*\* Manual Control - For those rare occurrences where an automatic control is not practical, AprilAire offers the same great humidifiers with a mechanical control.

\*\*\* 801 & 866 Modulating Steam Humidifier - For precise RH control. Controls are sold separately.

† Heat Pumps - Model 400 can be installed in heat pump applications. However, due to the fact that heat pumps deliver lower temperature air to the home than gas furnaces, evaporation will be approximately 60% of rated capacity. (With other AprilAire models, hot water can be used instead of cold to maximize evaporation. However, due to the nature of the wicking water panel in Model 400, hot water provides less benefits). As such, your dealer will need to take the size and age of your home into consideration to ensure the Model 400 will provide satisfactory comfort and protection through adequate humidification.

†† Model 800LC available with 80LC canister for less conductive water 75-300µS/cm and 120VAC applications.

‡ AHRI Air Conditioning, Heating, and Refrigeration Institute GPD = Gallons Per Day Guideline F

A family of 4 will add 2 gallons of humidity per day through everyday activities like breathing, cooking, bathing and washing. Evaporative capacities assume blower is active 100% of the time, plenum temperature is at 12° F and water is cold.

Bypass Humidifiers - Can be installed on the supply or return plenum.

Water Usage Rate - Model 300 is 6 gph (gph=gallons per hour); Models 500, 600 and 700 are 3 gph; Model 400 is 0.7 gph; Model 800 is 0.6 to 1.8 gph depending on voltage, amp draw and water quality.

Water Usage Rate - Models 350 and 360 are 6 gph (gph=gallons per hour); Models 500, 600 and 700 are 3 gph; Model 400 is 0.7 gph; Model 800 is 0.6 to 1.8 gph depending on voltage; amp draw and water quality.