

# Specification Sheet



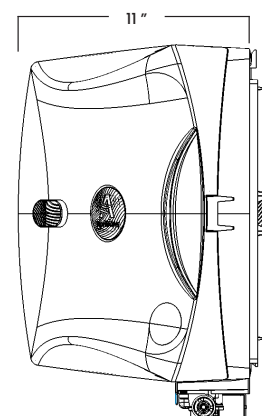
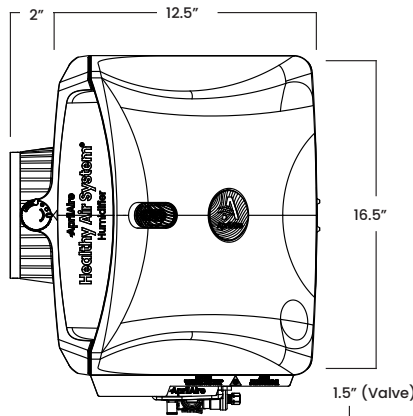
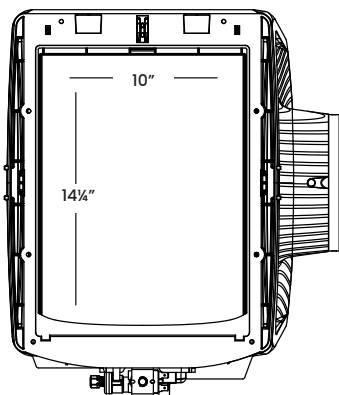
## 620 Series Bypass Evaporative Humidifier



### Specifications

|                       |                                                                                |
|-----------------------|--------------------------------------------------------------------------------|
| Capacity              | 18 GPD (0.75 GPH)                                                              |
| Electrical Data       | 24 VAC - 60Hz - 0.5A<br>10VA Required                                          |
| Required Water Supply | Recommend soft or softened water or installing an inline scale reducing filter |
| Dimensions            | 14 1/2" W x 18" H x 11" D                                                      |
| Weight                | 7 lbs. (Unit Weight)<br>10.5 lbs. (Shipping Weight)                            |
| Bypass Connection     | 6" round                                                                       |
| Plenum Opening        | 10" W x 14 1/4" H                                                              |
| Safety Standards      | Listed to UL 998, CAN/CSA-C22.2 No. 104:20 - Humidifiers                       |
| Max Static Pressure   | 0.3" W.C. with damper wide open<br>1.0" W.C. in damper setting 2               |

Capacity based on 120°F plenum and 70°F water temperature



### Features

- HydroCore™ Technology recirculates water to maximize panel saturation with a 55% reduction in wastewater\*
- One-piece HydroCore simplifies annual maintenance
- Highest capacity AprilAire bypass evaporative humidifier
- Reconfigurable bypass for right or left discharge allows for increased installation options on the supply or return duct
- New adjustable damper positions accommodate installation on high pressure systems
- Fast and easy installation for every application with +/- 3 degree level tolerance
- Designed for tightly constructed homes up to 5,300 ft² total

\*versus Model 600

### Principle of Operation

The AprilAire Model 620 Bypass Evaporative Humidifier delivers maximum moisture output with superior water efficiency for ducted HVAC systems. When the humidifier control signals that humidity is low, water and air flow into the HydroCore where natural evaporation occurs. Increased output and water conservation are realized with water recirculation technology. The humidifier adds humidified air to the return duct where the HVAC system can distribute humidity throughout the home. The Model 620 utilizes water for both evaporation and the removal of solids left behind during the evaporation process. Installing on softened water is recommended. Water may or may not be noticed in the drain line due to the improved efficiency. Once humidity levels are reached, unused water is sent down the drain to prevent standing water from being retained. It is normal to notice a small surge of water in the drain line for this brief event. This is crucial to help flush away trouble-causing mineral deposits and prolong time between service intervals.

**Model 620A** comes with an Automatic Humidistat | **Model 620M** comes with a Manual Humidistat

**HydroCore™**  
TECHNOLOGY

## HUMIDIFIER SIZING GUIDELINES GPD NEEDED PER SQUARE FOOT<sup>1</sup> BASED ON BUILDING STRUCTURE TIGHTNESS

| STRUCTURE TIGHTNESS | TOTAL TREATED VOLUME OF BUILDING (FT <sup>3</sup> )                     |                      |                      |                      |                      |                      |                      |                      |                      |
|---------------------|-------------------------------------------------------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
|                     | 8000                                                                    | 12000                | 16000                | 20000                | 24000                | 32000                | 40000                | 48000                | 56000                |
|                     | TOTAL TREATED BUILDING FLOOR AREA (FT <sup>2</sup> ) WITH 8 FT CEILINGS |                      |                      |                      |                      |                      |                      |                      |                      |
|                     | 1000 Ft <sup>2</sup>                                                    | 1500 Ft <sup>2</sup> | 2000 Ft <sup>2</sup> | 2500 Ft <sup>2</sup> | 3000 Ft <sup>2</sup> | 4000 Ft <sup>2</sup> | 5000 Ft <sup>2</sup> | 6000 Ft <sup>2</sup> | 7000 Ft <sup>2</sup> |
| <b>Tight</b>        | 3.3 GPD                                                                 | 5.0 GPD              | 6.7 GPD              | 8.3 GPD              | 10.0 GPD             | 13.4 GPD             | 16.7 GPD             | 20.1 GPD             | 23.4 GPD             |
| <b>Average</b>      | 6.7 GPD                                                                 | 10.0 GPD             | 13.4 GPD             | 16.7 GPD             | 20.0 GPD             | 26.7 GPD             | 33.4 GPD             | 40.1 GPD             | 46.7 GPD             |
| <b>Loose</b>        | 10.0 GPD                                                                | 15.0 GPD             | 20.0 GPD             | 25.0 GPD             | 30.1 GPD             | 40.1 GPD             | 50.1 GPD             | 60.1 GPD             | 70.2 GPD             |

<sup>1</sup>GPD = Gallons Per Day, as recommended by AHRI (Air Conditioning, Heating and Refrigeration Institute), Guideline F

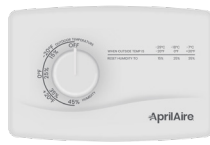
A family of 4 will add 2 gallons of humidity per day through everyday activities like breathing, cooking, bathing and washing. Evaporative capacities assume blower is active 100% of the time, plenum temperature is at 120° F and water is cold.

## Included Wall-Mount Control



### Model 60 (620A) Automatic Humidistat

- RH adjustment knob
- Backlit LCD displays RH & setting when adjusting
- Change water panel and service needed indicator lights
- Blower Activation mode can extend humidifier run time
- Outdoor temperature sensing for automatic set back of humidity to reduce window condensation
- Manual or automatic operation (Return duct mounted)

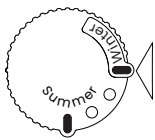


### Model 4655 (620M) Manual Humidistat

- RH adjustment knob
- Duct or wall mounting options for easy access
- Humidity guide lets the user pre-adjust RH based on expected outdoor temperature changes
- Simple wiring

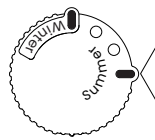
|                                  | Model 60                                                              | Model 4655                                                             |
|----------------------------------|-----------------------------------------------------------------------|------------------------------------------------------------------------|
| <b>Dimensions (W" x H" x D")</b> | 6 x 4 1/4 x 1 1/2                                                     | 5 1/8 x 3 3/8 x 1 15/16                                                |
| <b>AC Power</b>                  | 24 VAC (18-30 VAC) at 60 HZ                                           | N/A                                                                    |
| <b>Power Consumption</b>         | 0.08A @ 24 VAC                                                        | N/A                                                                    |
| <b>RH Setting Range</b>          | 10%-45%, Off (45%: max humidity)                                      | 15%-45%, Off (45%: max humidity)                                       |
| <b>Humidity (RH)</b>             | Control Accuracy: ±3%<br>Control Range: 0% to 45%<br>Differential: 3% | Control Accuracy: ± 5%<br>Control Range: 0% to 45%<br>Differential: 5% |
| <b>Control Options</b>           | System Setting:<br>Auto or Manual<br>Blower Activation: On or Off     | N/A                                                                    |

## Annual Operation & Maintenance



### Fall Startup:

- Turn humidistat to desired set point
- Set damper knob to WINTER
- Confirm water supply is on



### Spring Shutdown:

- Turn humidistat to OFF\*
- Set damper knob to SUMMER

### Once Per Season:

- Remove cover and HydroCore; replace with a Genuine AprilAire HydroCore Model L Water Panel Cartridge
- Brush away any scale buildup in the base or valve cup
- Inspect drain line and clear any buildup or blockages
- Inspect orifice; remove and replace if there is buildup or blockages (included with HYDR LH HydroCore Kit)
- For hard water installs, remove and replace the orifice every season

\*Digital humidifier control in automatic mode, no adjustment necessary



MODEL L



ORIFICE  
(INCLUDED WITH HYDR LH)