Specification Sheet

AprilAire

HydroCore™ Series

620

Large Bypass Evaporative Humidifier



5 YEAR WARRANTY

DESIGNED & ASSEMBLED IN THE USA
UTILIZING U.S. AND GLOBAL COMPONENTS

18 GPD

Specifications

Capacity	18 GPD (0.75 GPH)
Electrical data	24 VAC - 60 Hz - 0.5A 10VA Required
Required water supply	Recommend soft or softened water or installing an inline scale reducing filter
Dimensions	14 ½" W x 18" H x 11" D
Weight	7 lbs. (Unit Weight) 10.5 lbs. (Shipping Weight)
Bypass connection	6" round
Plenum opening	10" W x 14 ¼" 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 1.0" W.C. in damper setting 2

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

Features

- HydroCoreTM Technology recirculates water to maximize panel saturation with a 55% reduction in wastewater*
- One-piece HydroCore Water Panel cartridge 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

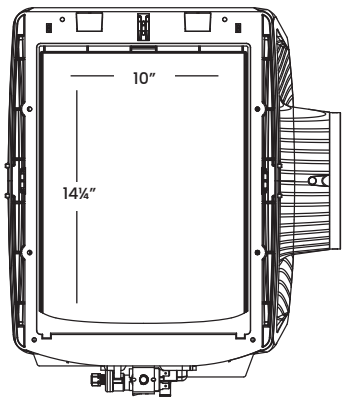
*Compared to AprilAire 600 Humidifier

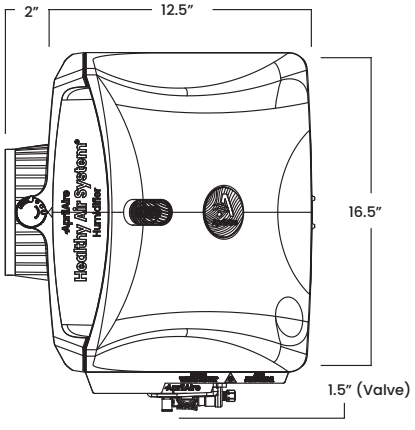
Principle of Operation

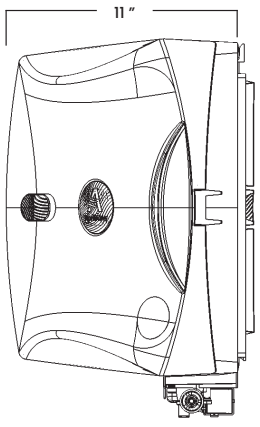
The AprilAire 620 Bypass Evaporative Humidifier delivers maximum moisture output with superior water efficiency for ducted HVAC systems. When the humidifier control signals that humidity is low, water and air flow into the HydroCore where natural evaporation occurs. Increased output and water conservation 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 620 Humidifier 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

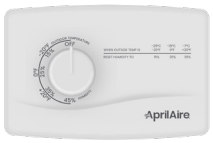
GPD Needed Per Square Foot‡ Based on Building Structure Tightness

STRUCTURE TIGHTNESS	Total Treated Volume of Building (Ft^3)								
	8000	12000	16000	20000	24000	32000	40000	48000	56000
	Total Treated Building Floor Area (Ft^2) With 8 Ft Ceilings								
	1000 Ft^2	1500 Ft^2	2000 Ft^2	2500 Ft^2	3000 Ft^2	4000 Ft^2	5000 Ft^2	6000 Ft^2	7000 Ft^2
Tight	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
Average	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
Loose	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

‡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 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
Dimensions (W" x H" x D")	6 x 4 ¼ x 1 ½	5 ⅛ x 3 ⅜ x 1 ¹⁵⁄₁₆
AC Power	24 VAC (18-30 VAC) at 60 Hz	N/A
Power Consumption	0.08A @ 24 VAC	N/A
RH Setting Range	10%-45%, Off (45%: max humidity)	15%-45%, Off (45%: max humidity)
Humidity (RH)	Control Accuracy: ±3% Control Range: 0% to 45% Differential: 3%	Control Accuracy: ± 5% Control Range: 0% to 45% Differential: 5%
Control Options	System Setting: Auto or Manual Blower Activation: On or Off	N/A

Annual Operation & Maintenance



Fall Startup:

- Turn humidistat to desired set point
- Set damper knob to WINTER (located next to AprilAire logo)
- 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 HYDRLH HydroCore Kit)
- For hard water installs, remove and replace the orifice every season



MODEL L



ORIFICE
(INCLUDED WITH HYDRLH)

*Digital humidifier control in automatic mode, no adjustment necessary

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