

# SUBMITTAL SHEET DEHUMIDIFIER MODEL 1870 AND 1870W

Project:	Dealer:
Architect:	Engineer:
Contractor:	Location:
Suppliers:	Date:



- □ 1870 (DUCTED) 8' power cord with plug provided
- □ 1870W Terminal connection for hard wiring

# **OPERATION**

The Aprilaire 1800 Series dehumidifiers are designed to dehumidify the air coming into the unit by passing the incoming air over an evaporator coil, dropping the air temperature below the dew point. The moisture is removed from the air and drains out of the dehumidifier to a common floor or waste drain. The air is then reheated in the condenser coil and exits the unit.

Dehumidification occurs until the relative humidity (%RH) setting is reached. The unit then shuts off until periodic sampling determines the need for dehumidification. The integrated digital display and control monitors the %RH during sampling of the incoming room or HVAC return air.

## APPLICATION

All the Aprilaire 1800 Series dehumidifiers are the perfect product for whole-home dehumidification, basements, crawlspaces and sealed attics.

### **VENTILATION**

All 1800 Series models have the ability to bring in fresh, outdoor air into the living space. Fresh air will dilute stale air and pollutants and will reduce humidity in the winter months. If the humidity level of the outdoor air higher than the %RH setting, the dehumidifier will begin dehumidification to reduce the humidity in the home to set humidity level. The outdoor fresh air is brought in through 6" round

CAPACITY	130 pints/day at 80°F/60% RH inlet and 0.0 "w.c. ESP
ENERGY FACTOR	2.9 liter/kilowatt hour (KWH) in accordance with AHAM DH-1 2008 80°F, 60% RH conditions
SUPPLY VOLTAGE	120 VAC; 60Hz
CURRENT DRAW	8.3 Amps in accordance with AHAM DH-1 2008 80°F, 60% RH conditions
AIRFLOW	310 CFM @ 0.0 "w.c., 226 CFM @ 0.4 "w.c.
SOUND LEVEL	50 dBA ducted
UNIT DIMENSION	18-3/4" H (cabinet) x 19-1/2" W 30" L without collar, 38" L with collar
UNIT WEIGHT	113 lbs
FILTER EFFICIENCY	Washable MERV 8"
DUCT CONNECTION	10" round
DRAIN CONNECTION	3/4" nominal drain tubing Supplemental barb fitting for 1/2" clear drain tubing
CONTROL	Built in digital control with display
CONTROL MOUNTING	Field interchangeable from top to front
CABINET INSULATION	1/2" EPS
AIR DISCHARGE	Interchangeable from end to top
DUCT COLLARS	10" round at inlet and outlet
BACKDRAFT DAMPER	Included in outlet duct collar
REFRIGERATION	R-410A
EVAPORATOR COIL	Corrosion resistance E-coated coil
POWER CORD	8' power cord with plug

duct with a 6" round, normally closed damper. This complies with ASHRAE 62.2-2010, Energy Star, and 2012 International Residential Code (IRC).

The dehumidifier has built in controls to adjust the amount of fresh air that is brought in to the home. If wired to the HVAC system, the dehumidifier will bring in the outdoor air when the HVAC system calls for heating, cooling, or is running continuous fan. If the amount of set ventilation time has not been met during the HVAC calls, the dehumidifier will open the ventilation damper and turn on the HVAC fan and bring in fresh air until the ventilation time has been met.

High and low temperature limits are available in 3 different modes, preventing outdoor air that is too hot or too cold from being delivered to the home. If the outdoor temperature rises above the high limit or drops below the low limit, ventilation will not occur. If the outdoor temperature drops below the heat only limit, ventilation will be allowed only when the HVAC system is calling for heat. A high indoor %RH limit is also available in all three ventilation modes.

#### **ZONED DEHUMIDIFICATION**

The 1800 Series dehumidifiers are capable of zoned dehumidification. In this application, the dehumidifier can control the humidity in two separate zones in the home, a Primary and Secondary Zone.

