

Today's homes need whole-home dehumidification.

Experts have identified the ideal level of relative humidity in a home to be between 30% to 60%. Keeping within this range ensures that your customers' homes are at their most comfortable and can limit the effects of many unwanted conditions and harmful household contaminants.

Excessive moisture during spring, summer and fall can leave your customers feeling uncomfortable. Their homes can feel cold and clammy, and especially stuffy at night. Surfaces can become sticky.

Excessive humidity can also create an excellent breeding ground for mold and mildew — invaders that can be unhealthy and destructive to a home, its occupants and its furnishings.

Better home building technology increases dehumidification needs.

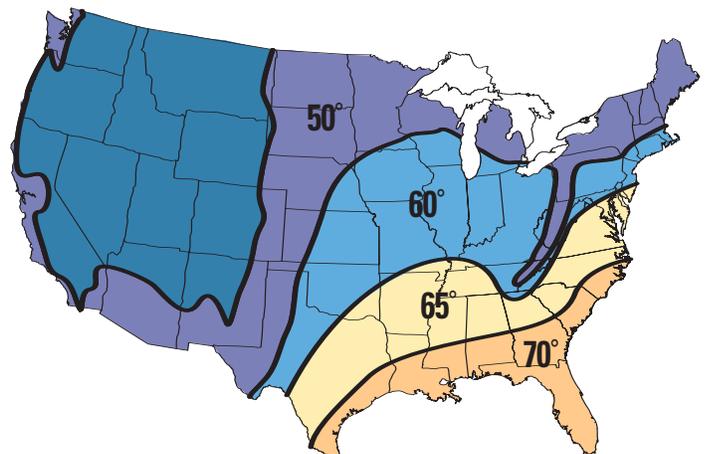
There have been significant energy-saving changes in new and remodeled home construction. Energy-efficient windows and doors with weather stripping are being installed. Insulation is thicker and the use of air-tight vapor barriers is more prevalent. Caulk seals cracks and other potential leaks. All these advances have made homes tighter and more efficient, resulting in reduced operation time for the HVAC system.

Tighter homes have moisture loads that need to be controlled. Although moisture infiltration is reduced, many normal living activities — such as cooking, showering, dishwashing and doing laundry — add significant amounts of moisture. And because the HVAC system needs to operate less in a tighter home, less of this moisture is removed.

Dehumidification is needed throughout the country.

The need for humidity control in the summer varies in different regions. Any area where dew points average above 50°F in the warm months is an area where the humidity has the opportunity to rise above recommended levels. This map represents those regions that have significant moisture content and many hours of air-conditioning systems not operating at peak load conditions. In order to ensure the proper humidity level in the home, these areas require some type of moisture control separate from cooling.

Whole-home dehumidification is a real need with average summer dew points exceeding 50°F in virtually all of the U.S.



More efficient air-conditioning systems can increase dehumidification needs.

The technology of today's air-conditioning systems is vastly improved. Higher SEER cooling systems save energy by reaching desired temperatures more quickly. The majority of the higher SEER air-conditioning coil is dedicated to the sensible load of the home. New tall, thin coil designs drop a home's temperature faster. These changes produce air-conditioning systems that run less frequently and with little latent impact.

In addition, air-conditioning is sized based on peak load—a condition reached only 2% to 3% of the year. The other 97% of the time, the air-conditioning system is operating in a part load condition, resulting in less run time and further reducing the moisture removal capabilities of the system. This situation is especially apparent in spring and fall, when the HVAC system seldom operates. Therefore, a significant need for moisture removal remains.

Many of your customers may try creating optimum humidity conditions by running their air-conditioning longer. They are probably creating a comfort issue by doing so, with their home temperatures consistently dropping below desired comfort levels.

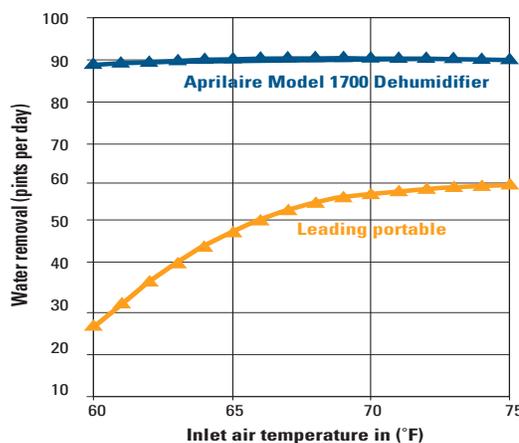
Other products are only partial solutions.

In addition to air-conditioning, there are a number of other ways that are currently being used to address excessive humidity in the home. None of them are a complete solution.

- Portable dehumidifiers are a huge market, with over 1.5 million units sold annually. This, in itself, is an indication of the demand for moisture control by homeowners. While portable dehumidifiers remove moisture in a given area, they seldom address the needs of an entire home. Also, because of their design, they are not effective in removing moisture at temperatures below 65°F. They can also be noisy and messy.

- Thermostat manufacturers have introduced products that address excessive moisture when used with the air-conditioning system. These advanced thermostats include a humidity control that provides additional

Model 1700 Dehumidifier vs. leading portable at 60% relative humidity



Source: Research Products Corporation

The Model 1700 dehumidifier is designed to have consistent performance across all typical operating conditions, including basements where temperatures can typically average below 65°F.

run time of the air-conditioning equipment to remove moisture at the evaporative coil. The system operates at lower speeds giving the air more time at the coil, focusing on latent energy to remove moisture in the air.

Although this does remove moisture, it also has drawbacks. The result is temperatures in the home that are cooler than expected. Temperatures can drop below the set point when using this method. In addition, there will be times when the homeowner doesn't want additional cooling introduced into the home—when mild outdoor temperatures exist during evenings, fall or summer.

Ask your customers if they experience any of the following conditions:

- Do you ever find the air in your home stuffy?
- Have you ever reduced the temperature setting because you're uncomfortable?
- Do you use a portable dehumidifier?
- Have you ever found that your floors and surfaces feel sticky and clammy?
- Are you concerned with mold and mildew growing in your home?
- Do you have musty odors in any area of your home?
- Do you have condensation on your water pipes?

If your customers answer "Yes" to any of these questions, they are excellent candidates for the ideal whole-home comfort solution—an Aprilaire Model 1700 Whole-Home Dehumidifier.

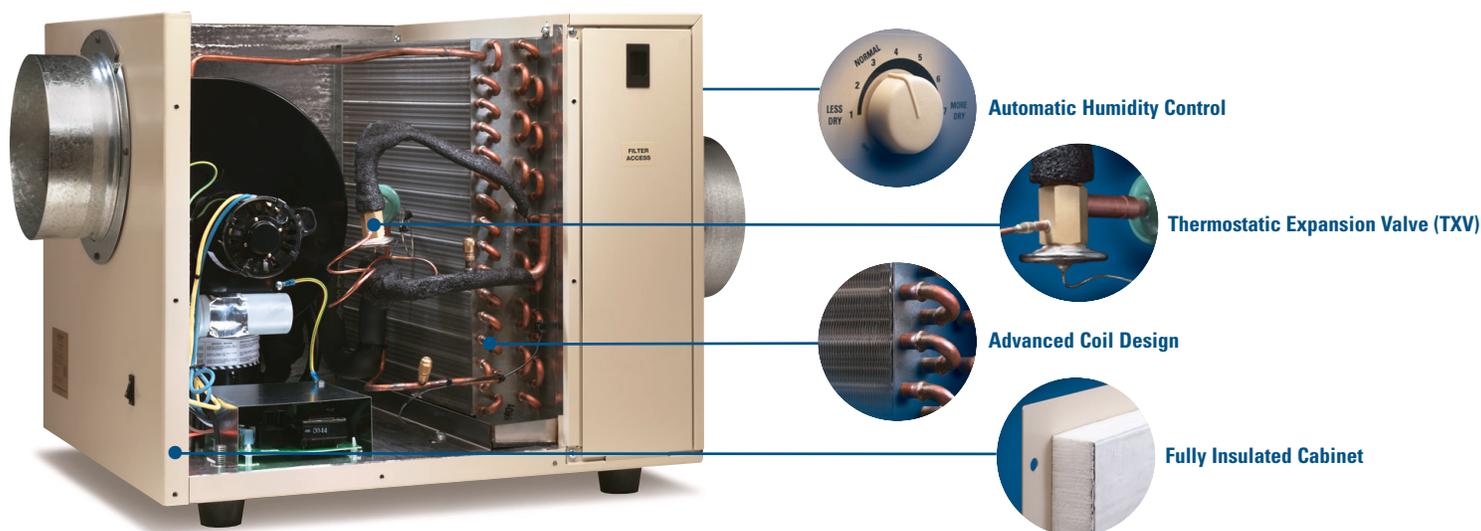
The answer is Aprilaire.

For over 50 years, the name Aprilaire has stood for home humidity control. Today, Aprilaire sets the technical and quality standards in home comfort and the Aprilaire Model 1700 Whole-Home Dehumidifier is the most advanced system in the industry.

The design of the Model 1700 includes built-in intelligence features, like fan cycling and ventilation, that add to the system's value and a home's comfort. Plus, no other whole-home system

also offers localized dehumidification. A separate part of the home that may have excess humidity problems, like a basement, can receive extra control, independent of the HVAC system.

The quality of the Model 1700 is unsurpassed. It utilizes an advanced coil design and a unique control system, with components most frequently found in higher end air-conditioning units. You're offering your customers the ultimate in comfort: a system that does its job quietly, effectively and is virtually maintenance-free.

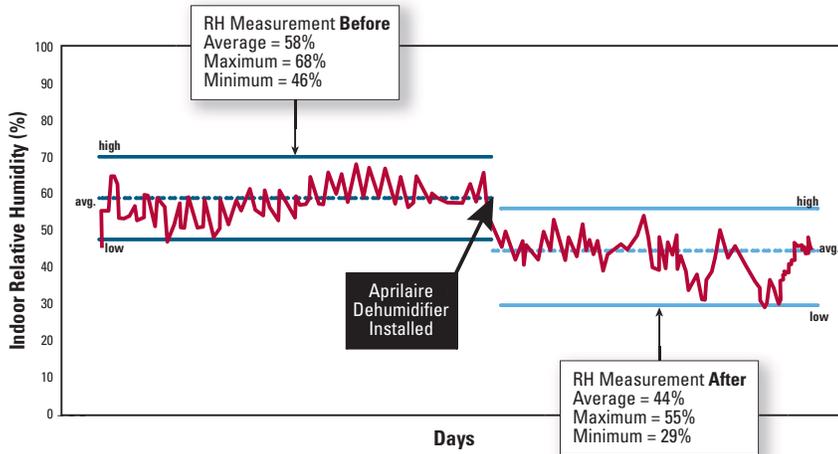


Aprilaire has taken the leadership role in providing a product that meets the needs of you and your customers.

- **Sized for any home:** The Aprilaire Model 1700 Whole-Home Dehumidifier has a high capacity — 90 pints per day — to provide dehumidification in a wide variety of home sizes. The system easily maintains ASHRAE recommended humidity levels during the spring, summer and fall.
- **Built for any temperature:** The use of a Thermostatic Expansion Valve (TXV) metering device allows the Model 1700 to effectively operate in a wider range of ambient temperatures. It also provides increased moisture removal at different temperatures and conditions. A metering device of this quality keeps the system functioning in almost any situation.
- **Achieves optimum humidity quickly:** Two unique design advances — a unique fin design and dual-tube design — give the Model 1700 better surface to surface contact with moisture-laden air. Refrigerant inside the dual coil provides maximum temperature differential, so air reaches dew point quicker and more moisture is removed. These two features provide the system with a 50% SHR rating.
- **Automatic humidity control:** Aprilaire invented automatic humidification control, and the Model 1700 takes full advantage of this expertise. Your customers never need to make an adjustment to maintain proper moisture levels.
- **Installation flexibility:** The interior of the dehumidifier cabinet is fully insulated — sealed with 1-inch foil-faced expanded polystyrene (EPS) insulation. This extra step makes the unit especially quiet and allows installation flexibility. The unit can be installed in attics, garages and crawl spaces without condensation forming on the unit or the heat gain from high temperature areas affecting performance.

**Data from a 2,000 square foot home
shows the instant benefits of installed dehumidification**

(Thermostat Set Point Constant at 75°F)



Source: Research Products Corporation

Extensive before-and-after testing proved that the Aprilaire Model 1700 Whole-Home Dehumidifier has a significant impact in controlling whole-home humidity and enhancing comfort. Before installation, the test home average humidity level was 58%, and for a significant amount of time, the level was over the recommended range of 60%. After installing the Aprilaire Model 1700, the humidity level dropped to an average of 44% and never exceeded 55%, well within the recommended range.



Intelligent Solutions for Indoor Environments™

Aprilaire offers even more than dehumidification with the Model 1700.

Aprilaire has designed ventilation and fan cycling actions into the Model 1700 Whole-Home Dehumidifier to provide even more comfort to the homeowner.

Improved ventilation:

Optional, built-in ventilation delivers fresh outside air when a home needs it most, improving indoor air quality by diluting pollutants and ensuring a home receives recommended air changes per hour.

The dehumidifier uses measurements of outdoor temperature, along with a user adjustable time setting, to determine when to ventilate with outdoor air. The Model 1700 ventilates only when it is needed, never letting in air that is too hot or too cold into the home. Ventilation will not occur if the outside temperature is above 100°F or below 0°F. If the temperature is between 20°F and 0°F, the unit will only ventilate if there is a heat call.

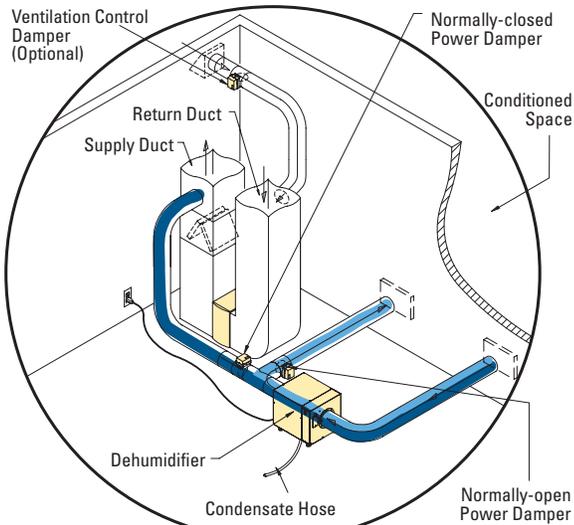
Improved air circulation:

Built-in fan cycling can improve the humidity and temperature balance throughout the home. It can minimize cold and hot spots and improve the performance of other Aprilaire accessories — such as Automatic Humidifiers and Air Cleaners — to improve better overall comfort. The system ensures the proper air changes per hour are carried out by the central HVAC fan. The setting is customizable based on house size.

Offer your customers whole-home dehumidification, the best choice for your business.

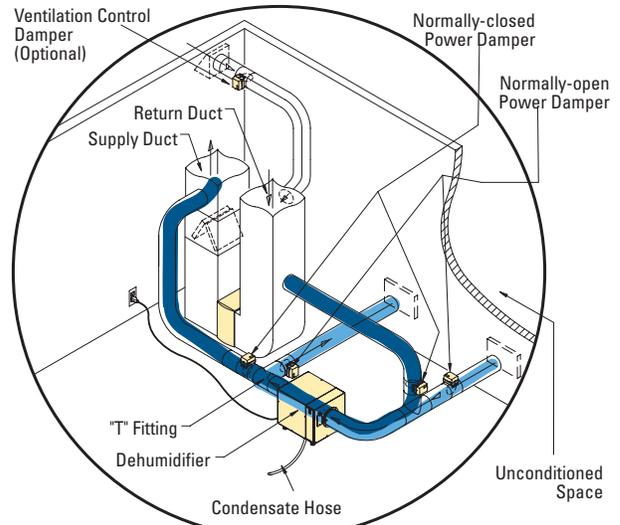
Don't let your customers settle for anything less than Aprilaire. Give them the comfort they deserve with proper humidity control. Quote Aprilaire dehumidifiers today with both homeowners and builders. This is your opportunity to distinguish yourself as an indoor air quality leader who understands proper humidity control and provides the best in comfort and durability.

Whole-home, convertible to basement



Operating as a whole-home system
Automatically converted to localized system

Whole-home, with basement option

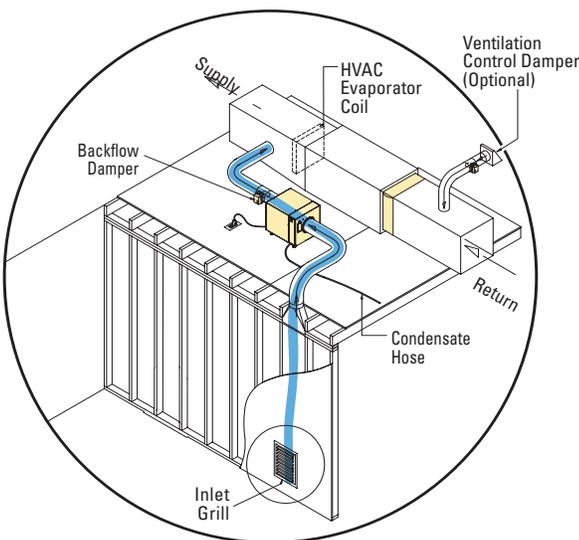


Operating as a whole-home system
Automatically converted to localized system

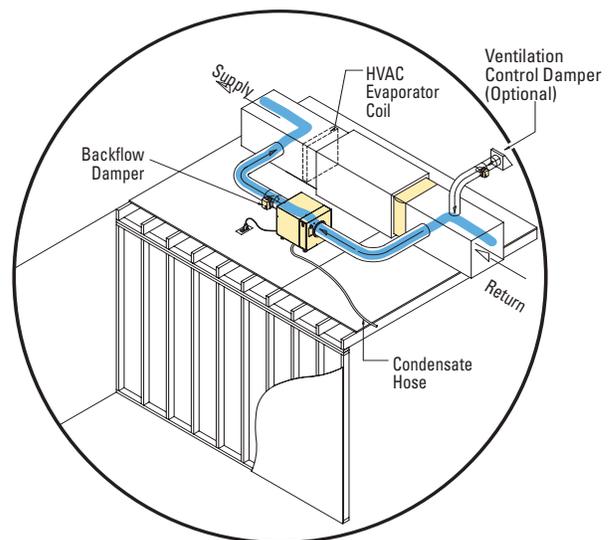
• **Whole-home convertible to basement:** The Aprilaire Model 1700 Dehumidifier can also automatically switch between whole-home and localized dehumidification, allowing you installation flexibility in basement and crawl space applications. Automatic switching allows the system to provide dehumidification to the whole-home when the air-conditioning is on and then converts to a specific location (i.e., basement) when your customers turn off their air-conditioning. Available for both finished basements and unfinished basements.

- Finished basement—requires one basement kit (Model 4522) which includes one normally closed 8-inch damper (Model 6508), one normally opened 8-inch damper (Model 6608) and a transformer (Model 8027).
- Unfinished basement—requires two basement kits (Model 4523).

Whole-home, living space to supply



Whole-home, pulling from return to supply



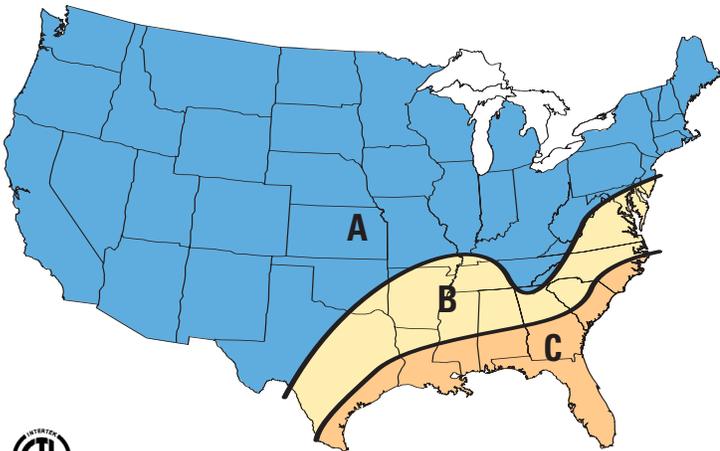
• **Whole-home:** The Aprilaire Model 1700 can pull from a primary living space or from the return of the HVAC system and places the dehumidified air into the supply above the air-conditioning coil in the main supply duct.

- This installation requires a normally closed 8-inch backflow damper (Model 6508).

Offer the Aprilaire Model 1700 Dehumidifier to meet customers' needs for proper dehumidification and differentiate your business.

Unit specifications

- **Dimensions:** 20"W x 24"L x 21.5"H
- **Weight:** 100 lb
- **Capacity:** 90 pints per day @ 80°F, 60% RH (AHAM)
- **Power:** 115 VAC, 9 amps; unit equipped with an 8 ft. power cord
- **Efficiency:** >4.5 pints/kilowatt hour
- **Airflow:** 275 CFM @ 0.6 in. of w.c. external static pressure
- **Filter:** Washable or replaceable, Merv 8, foam core and aluminum frame
- **Controls:** Built-in automatic control, optional living space control
- **Interior insulation:** Entire interior surface is sealed with 1-inch foil-faced EPS (expanded polystyrene) insulation
- **Typical Inlet Air Conditions:**
Temperature: 40°F to 105°F
RH: 30% to 100%
- **Typical Operating Conditions:**
Temperature: 40°F to 150°F
RH: 0% to 100%



Maximum recommended house size

	Air Changes per Hour (ACH)		
	1.00	0.50	0.35
Region A	3,600	5,000	5,000
Region B	2,800	4,500	5,000
Region C	1,700	2,600	3,400

Based on a single story, slab construction home; four occupants; dehumidistat set to less dry; thermostat set to auto fan position; TMY2 weather data; 1.0 lb/hr internal moisture gain due to occupants; air conditioner with thermostat cooling to at least 79°F.



Intelligent Solutions for Indoor Environments™

An entire line of indoor air quality solutions gives you products that are the best in their categories and together set a new standard for performance and reliability. Intuitive to use. Easy to maintain.

Aprilaire products enhance your comfort, health and energy efficiency.

- Automatic Humidifiers • Electronic Thermostats • Ventilation • UV Germicidal Lamps
- Zoned Comfort Control • High Efficiency Air Cleaners • Dehumidifiers