

# Why do I need a whole house dehumidifier if I have central air conditioning?

On cooler days the A/C may not run long enough to effectively remove humidity—or it may not run at all. Homeowners frequently turn the thermostat down to force the A/C to run in order to feel more comfortable—but that only results in a cold, clammy feeling. Not only will a whole house dehumidifier keep you more comfortable, it will save under these conditions because your A/C won't have to run as often.

#### Can my home be too dry?

Yes. That's why the WHD-130B has an automatic sampling sequence that controls the dehumidification process. You set the humidity level that's most comfortable for you—and you don't have to think about it again.

#### **What's the best humidity level?**

That depends to a certain degree on personal preference. However, most experts agree that the desirable range is between 40% and 60%. That's also a range that discourages the growth of mold, mildew and dust mites.

# Doesn't a portable dehumidifier do the same job and cost less?

Both types of dehumidifiers are designed to remove moisture from the air, but a portable removes it only from one room. The whole house dehumidifier, as the name implies, dehumidifies the entire home. Typically the whole house dehumidifier is quieter than a portable and you don't have to worry about emptying a condensate bucket. But both portable and whole house dehumidifiers are viable options—it just depends on your individual needs, including the size and location of the area requiring dehumidification.

<b>SPECIFICATIONS</b>	
Capacity	130 pints per 24 hours @ 80°F DBT/60% RH
Energy Factor	2.14 l/kWh; 4.51 pt/kWh
Power Supply	115V 60 Hz, single phase, 15 amp dedicated circuit
Compressor	Rotary: Watts 1070, RLA 9.5, LRA 61
Fan Motor	1/10 HP, 1.15 FLA, three speed
Air Flow CFM	400 @ .6" w.c. e.s.p.
Inlet Air Operating Cond.	40°F - 105°F
Filter	Washable nylon mesh, 17" x 23.5"
Cabinet Insulation	EPDM material, 1" thick, R Value 4.2
Duct Connections	8" diameter (inlet and outlet)
Condensate Drain	1/2" O.D.
Weight	150 pounds
Dimensions	19.15"H x 25.13"W x 30"L (cabinet only: 24"L)

WARRANTY: 5 YEARS ON COMPRESSOR, 1 YEAR ON PARTS WITH CERTAIN LIMITATIONS. SEE PRINTED WARRANTY FOR COMPLETE DETAILS.

ACCESSORIES	
7602-200	Wall-Mounted Dehumidistat Control
WHD-14	Hanger Kit includes 4 brackets, 4 isolators
WHD-15	Damper Kit

# The Dehumidifier Experts!

Comfort-Aire's dehumidifier line also includes three portable models, offering a wide range of capacities and features. Both our Whole House and Portable Dehumidifiers are built with high quality components to provide a comfortable environment for your home.



BHD-301 30 pints per day Electro-mechanical controls Operation down to 65°F



BHD-501
50 pints per day
Electronic controls
Low temp operation to 42° F



BHD-651
65 pints per day
Electronic controls
Low temp operation to 42° F

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**Improves comfort level** 

**Protects the home and furnishings** 

Helps prevent the growth of mold and other contaminants

## Why do you need a whole house dehumidifier?

Humidity is a critical factor in our overall comfort level because it affects the body's natural ability to regulate temperature.

In our homes, the temperature may be within what is considered the comfort range, but if the relative humidity is too high, we feel sticky and too warm.

This excess moisture has other adverse effects. It can promote the growth of mold and mildew. Furnishings, fabrics and carpets, even wood can be damaged by excessive moisture. Dust mites also breed in conditions of high humidity.

While a central air conditioner will keep the home at comfortable temperature and humidity levels on hot, humid days, during cooler weather or rainy days the air conditioning may not operate long enough to dehumidify the home.

As a result, you may lower the thermostat because you don't feel comfortable—but you end up feeling cold and clammy. What happens is the cold air holds less moisture than wa<u>rm</u> air, so the relative humidity within your house may actually increase. You may even see condensation on cool surfaces.

The WHD-130B whole house dehumidifier runs when the air conditioning isn't operating. Its sensor automatically starts the unit when humidity is above the desired level, so it dehumidifies without overcooling.

Because the whole house dehumidifier is connected to the central A/C system ductwork, it keeps the entire home at the desired humidity level, not just one room or area as with a portable dehumidifier. This is especially important in today's tighter homeswith vapor barriers, insulation and energy efficient windows, the A/C doesn't have to run as much—the result is that not enough moisture may be removed to keep you comfortable.

# **Big 130-pint per day capacity** dehumidifies the entire house!

#### **Automatic Operation**

How does the unit know if dehumidification is needed? An automatic sampling sequence takes place every hour. The unit's fan runs for 15 minutes to sample the air in the home and sense the of humidity level. The sample passes over a sensor that turns the compressor on if dehumidification is needed. Both the fan and the compressor then run until the humidity level in the air entering the unit reaches the preset level.

If the room thermostat calls for heating or cooling while the dehumidifier is operating, it will stop until the A/C, furnace or heat pump brings the temperature to the desired level. After the A/C stops, the dehumidifier begins the sampling sequence again to ensure the home remains at a comfortable level.



Optional wall-mounted dehumidistat gives convenient humidity control in the living space

#### Effective, efficient dehumidification

When the dehumidifier fan is running, moist air from the living spaces is drawn into the unit via the inlet duct. It passes through the filter to remove air-borne contaminants, then continues on through the cold evaporator coil which causes the moisture to condense on the coil, much like condensation on the outside



from either side for easy cleaning

of a glass of ice water. The moisture falls into a stainless steel drain pan and is carried away by the drain hose.

The air then passes through the condensing coil where it is warmed before being discharged into the living space. To maximize this process, a thermostatic expansion valve provides precise refrigeration control over a wide range of operating temperatures.

#### Simple installation using existing ductwork

A whole house dehumidifier is installed as part of the

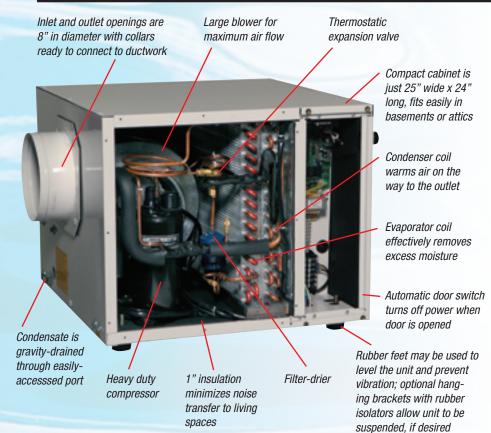
heating and air conditioning system. Insulated, flexible ducts are used to connect the dehumidifier to the air conditioning duct system.

The dehumidifier can be installed in new construction or existing structures, in basements, attics or crawl spaces—at roughly 2 feet square, it doesn't require a lot of room. It can sit on a flat surface using the rubber feet that are included to level the unit. It can also be suspended with the optional hanger kit (Part No. WHD-14); four brackets and four rubber isolators come in the kit.

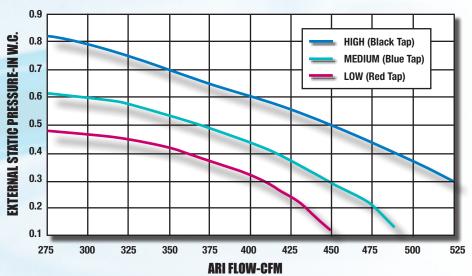
Power supply is standard 115V.

### **COMPONENTS**

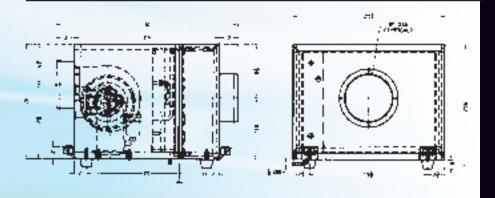




## **BLOWER PERFORMANCE** at fan speed taps



### **DIMENSIONS**



## **FEATURES & BENEFITS**

Optional Wall-Mounted Control—The unit comes with self-contained controls but is easily converted to a dehumidistat control mounted in the living area (similar in appearance to a thermostat), saving trips to the basement or attic to change the setting.

Cleanable Filter—A permanent nylon mesh filter captures particulates and airborne dirt to improve indoor air quality; the filter is easily accessed from either side for cleaning.

Frost Control—Frost can collect on the coil after prolonged operation or if the home is kept at very cool temperatures. An automatic defrost system will turn off the compressor, but allow the fan to operate until any ice accumulation is melted. Once the coil is clear, the dehumidifier will resume normal operation.

Minimal Maintenance—The WHD-130B is built for long life and trouble-free operation. Periodic cleaning of the filter keeps the unit operating at peak efficiency.

Quiet Operation—The WHD-130B is designed for quiet operation. The cabinet is lined with 1" thick high density insulation that absorbs and reflects sound, keeping most unwanted noise from the duct system and living spaces. The compressor is mounted on rubber isolators to prevent vibration, and the entire unit can be placed on rubber feet or suspended using rubber isolators (optional) to further reduce noise transmission into the home.

Energy Efficient—Because drier air is more comfortable, many people actually raise the temperature setting on their air conditioner when a dehumidifier is installed, reducing the load on the air conditioner and helping extend its life.

Fits Any Size Home—With a dehumidifier, the greater the unit's capacity, the faster the home can be brought to a comfortable level. At 130 pints of moisture removed per day, the WHD-130B is effective in virtually every home and in the most humid conditions.