

How Humidifiers Work

A central humidifier works through the air distributing network of a heating and ventilation system to humidify an entire home or commercial building. A central humidifier often is the most efficient kind of humidification - able to automatically feed the right amount of moisture into the airflow of an entire building. When central humidifiers are used, air passes through the heating and ventilation system and picks up moisture from the humidifier on its way to the air distribution outlets. The humidifier introduces moisture into the air stream via one of several methods:

- By providing an extended wet surface (such as a sponge, cloth or foam drum, aluminum pad, or wicking water panel) for evaporation over and through which the air passes
- By spraying atomized water into the air stream, or
- By delivering vaporized water (steam) to the air stream.

Why own a Humidifier?

To counteract dry air, more and more people are adding humidifiers to their home and business heating systems. Proper humidification not only makes people more comfortable, it also helps control static shock and cling along with reducing wear on furnishings such as furniture, fabrics, carpets, as well as musical instruments and artwork.

Humidifiers restore comfortable humidity levels to indoor air by adding controlled amounts of moisture. Permanently installed central systems humidifiers - capable of handling complete homes or commercial buildings - are the most effective and the easiest to control.

For more information about relative humidity or humidifiers contact:

Armstrong International, Inc.
www.armstrong-intl.com

Carnes Company, Inc.
www.carnes.com

Carrier Corporation
www.carrier.com

DRISTEEM Corporation
www.dristeem.com

General Filters, Inc.
www.generalfilters.com

Honeywell International, Inc.
www.honeywell.com/yourhome

LAU Industries
www.laufan.com

Lennox International Inc.
www.lennox.com

Nortec Industries, Inc.
www.humidity.com

Research Products Corporation
www.aprilaire.com

Skuttle Manufacturing Company
www.skuttle.com



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Facts About Humidifiers and Mold

*"Properly controlled
humidity does not
promote mold growth"*

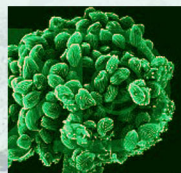
From the
**Air-Conditioning and
Refrigeration Institute**

"Properly Controlled Humidity DOES NOT Promote Mold Growth"

Is Humidification Important?

It is well known that humidification in homes is important for comfort and health. When humidity levels are too high or too low, discomfort, health problems and damage to a home may occur. Low relative humidity may cause drying of the membranes in the nose and throat as well as drying the skin and hair. There is even an increased incidence of respiratory illness in winter when low levels of relative humidity occur. And an excess of humidity may cause condensation, which could mean the potential for mold growth. Indoor relative humidity levels need to be controlled to supply enough moisture for comfort and health.

What is Mold?



Mold is a microscopic fungi that is found everywhere and is an important part of nature's recycling process. Without molds our forests and agricultural fields would be filled with

un-decayed dead plants and trees. There are also many beneficial molds and fungi that are used in the food and beverage industry to flavor cheese or to make beer. A number of molds are very important and are used in the production of medicine, such as penicillin.

Molds require three primary conditions to grow: food, water, and the correct temperature. Homes often have food for mold, such as textiles, drywall, dust and lint. Homes also have temperatures within the desired range and moisture. To keep mold from growing, moisture must be controlled, and food sources need to be minimized.

Maximum Relative Humidity in a Space for No Condensation on Windows

Outdoor Temp. °F	Limiting Relative Humidity, %	
	Single Glazing	Double Glazing
40	39	59
30	29	50
20	21	43
10	15	36
0	10	30
-10	7	26
-20	5	21
-30	3	17

Note: Natural convection, indoor air at 74°F.

Preventing Mold Growth

According to the Environmental Protection Agency (EPA), the key to mold prevention is to solve moisture problems before they become mold problems. Mold prevention tips include:

- Fixing leaky plumbing and building leaks in sinks and faucets
- Removal of free standing water from a home foundation
- Venting of moisture producing sources, such as bath exhaust
- Annual maintenance of a home's heating, ventilation and air conditioning equipment by a certified technician
- Use of a humidistat, which properly controls the humidity level in a home

Low Humidity

Particularly during cold weather, insufficient moisture in the air often is responsible for assorted problems such as stuffy noses, sore throats, increased amounts of dust in the air, cracks and dried-out joints in wood furniture and wood floors, deterioration of artwork and other valuables, wilted plants, and static electricity.

High Humidity

High levels of humidity may cause condensation on windows and walls. Condensation occurs when warm air in a home comes in contact with a cold surface (such as a cold window). The vapor in the air condenses and forms water droplets. Condensation can deteriorate windows and woodwork.

