

How Your Humidifier Works

Your Skuttle Steam Humidifier supplies moist air to your home much the same way as outdoor air is humidified. On a warm summer day, the sun's heat evaporates water from puddles, streams, rivers, oceans, etc., turning it into vapor. The amount of water vapor (*humidity*) that rises into the air is determined by the amount of time the water is exposed to the heat source.

If you were to look inside your humidifier's reservoir, you would see an immersed, tubular heater and two floats. When your home is too dry, the humidistat (humidity control device) installed with your system activates the humidifier heater. A built-in thermostat senses the water temperature and, when the water is warm enough, turns on a relay to activate the blower on your furnace. The blower, independent of your home's heating system, disperses humidified air throughout the house. In other words, the heat necessary for evaporation is supplied by the humidifier itself, rather than by your furnace.

Once the selected level of humidity is reached, the humidifier heater turns off automatically. However, the furnace blower continues to replenish the moisture in your home until the water in the humidifier's reservoir is cooled and ceases to produce steam. All this takes place without disruption to your heating system's normal operation. When the indoor humidity drops below the desired level, the process begins again.

As water is evaporated from the humidifier reservoir and replaced by fresh water, the larger of the two float valves prevents overflow by shutting off the water at the designated level. The smaller float acts as an additional safety device, automatically shutting off the humidifier heater if, for any reason, the water level drops below the heating element.

Because water evaporated from the humidifier leaves behind all its impurities (calcium, iron, lime, bacteria, etc.), the resulting humidification doesn't pollute your indoor air. Instead, your home is freer from these contaminants, creating a healthier, more comfortable environment for you and your family.

How To Extend the Life of Your Humidifier

Mineral buildup on the humidifier's heating element is harmful to the unit. Therefore, routine maintenance is vital to the effectiveness and longevity of your humidifier.

The normal service interval will vary from one-to-three months (i.e., one or two cleanings during a typical humidification season, plus a thorough cleaning at the end of the season). The hardness of your water, your humidistat setting, weather conditions, home construction and the number of occupants in the home all affect the amount of time between cleanings.

NOTES: Due to the complexity of your Skuttle Steam Humidifier, we strongly recommend that you make arrangements with your preferred HVAC or plumbing contractor to clean and service the unit at regular intervals.

Some 60-series models (F60-1 and F60-2) are equipped with a Skuttle Automatic Flushing Timer, which can reduce maintenance significantly (see page 35). Nevertheless, it is wise to check humidifier for mineral buildup every two months or so during the humidification season, and to contact an HVAC dealer if necessary.)

Do not leave water in the humidifier over the warm-weather months.

If the home is left unattended for an extended period of time (e.g., when you are on vacation), turn the humidistat and the water supply to the humidifier off.

FAQs about IAQ

(Frequently Asked Questions about Indoor Air Quality)

Why do I need a humidifier?

More and more homeowners are realizing that, during the winter months, they live in a “sick house”. Family members suffer from dry, itchy skin, parched throats and annoying coughs. Furniture creaks, floors moan, the piano slips out of tune and static electricity zaps the cat. In general, everyone feels miserable because they’re living in an environment that can be drier than the Sahara Desert!

Proper home humidification reduces static electricity, revitalizes dry skin and soothes scratchy throats. It adds moisture to dry, cracked furniture and wilting houseplants. It protects valuable artwork, antiques and musical instruments. It even saves money on winter heating bills. That’s because properly humidified air feels warmer, allowing you to turn your thermostat down a few degrees.

Why should I lower my humidistat setting when the outside temperature drops?

This practice may seem illogical at first. After all, you increase the temperature on your thermostat as the weather becomes colder. Why not do the same with your humidistat?

The answer is that the *relative humidity* (RH) must be reduced in extreme cold weather to prevent condensation on windows and interior surfaces. Otherwise, the excess moisture will eventually cause damage to your home. RH refers to the percentage of water vapor in the air at a specific temperature. Because air expands when heated, the relative humidity decreases unless moisture is added. Conversely, air that is cooled contracts, causing relative humidity to increase until it reaches *dew point* – the temperature at which the air becomes saturated and water condenses (just as it does on a glass of ice water on a warm, humid day). For recommended humidistat settings, refer to the humidistat instructions contained in your humidifier carton.

I just installed a Skuttle humidifier in my house. Why don’t I feel any difference?

The period of adjustment can take up to three weeks – the time needed for your furniture, woodwork, floor coverings, plaster and houseplants to absorb their natural levels of moisture.

Should I run my humidifier during the summer months?

Because, in most areas of the country, summer air is naturally more humid, it's not necessary to humidify your home until colder weather sets in.

NOTE: For additional answers to your questions, visit our website at www.skuttle.com.

Skuttle® Automatic Flushing Timer

Flushes Drum and Reservoir Type Humidifiers Every 12 Hours



The Skuttle Flushing Timer . . .

- Automatically flushes the humidifier water pan with fresh, clean water twice daily
- Reduces buildup of minerals and dissolved solids in evaporative media and reservoirs; helps maintain the efficiency of your humidifier
- Reduces or eliminates servicing during the humidification season
- Uses minimal electricity, and uses 80 percent less water than conventional flow-thru humidifiers
- Is approved by Underwriters Laboratories
- Installs easily (by an HVAC contractor) – usually within 20 minutes



Skuttle® Model 216 Make-Up Air Control

Provides Year-Round, Filtered Fresh Air



The Skuttle Make-Up Air Control . . .

- Draws outside air into the furnace, where it is filtered, heated or cooled, and circulated through your home's duct system
- Combats interior air pollution created by today's tightly constructed homes
- Reduces drafts and uncontrolled air infiltration to provide year-round comfort
- Improves furnace efficiency by providing proper combustion air
- Adjusts automatically; uses no electricity
- Is made from corrosion-resistant, stainless steel to ensure long life

Skuttle® High-Efficiency Air Cleaners

Help Homeowners Breathe Easier



Skuttle Air Cleaners . . .

- Trap most of the in-home, airborne contaminants that are potentially harmful to your health
- Provide high-efficiency, high-capacity filtration with minimal airflow resistance
- Feature deep-pleated filter media to permit extended, high-volume service – up to 12 months
- Are housed in sturdy, 20-gauge, zinc-coated steel cabinets (protected by a 10-year warranty) to support up to 500 pounds of HVAC equipment and accessories
- Have an easy-lock door for an extra-tight seal and fast, easy filter cartridge replacement
- Are available in three sizes to fit virtually any furnace installation

The Skuttle® “Happy House” – Your Assurance of Enhanced IAQ



Healthful indoor air (often called *indoor air quality* or *IAQ*) is significantly cleaner than the air in many of today's homes. It also contains appropriate levels of moisture and fresh outside air to aid the health and comfort of residents.

Humidification

In cold weather, dry indoor air often makes homes drier than a desert. Acting like a sponge, the parched air absorbs moisture wherever it can find it – furniture, plants, pets . . . even people. The result is a variety of discomforts and problems, including dry skin, stuffy noses, hacky coughs, sore throats, allergies, damage to furniture and woodwork, wilted plants and static electricity.

Too much or too little humidity in a home promotes an increase in bacteria, viruses, fungi, respiratory ailments and other unhealthy conditions. Skuttle humidifiers restore a home's relative humidity to a balanced, healthier, more comfortable 30-to-50 percent range. And Skuttle makes humidifiers to fit more furnace systems, floor plans and water types than any other manufacturer.

Filtration

Your body's respiratory system is designed to filter out airborne particles that are three-to-five microns in diameter. Smaller particles can be inhaled, potentially causing serious health problems. The smallest contaminants (a single micron or less) are dispersed through HVAC ductwork and make up about 99 percent of the particles circulating throughout a typical home.

Skuttle duct-mounted air cleaners capture most of these contaminants in a deep-pleated filter which traps far more particulates over a longer period than standard, flat-filter designs. The results are cleaner indoor air, longer filter life, longer furnace life and a healthier living environment.

Ventilation

A primary cause of “sick house syndrome” is a negative air pressure buildup, resulting from a lack of fresh-air exchanges throughout the home. Negative air pressure can also contribute to mold growth.

To help eliminate these problems, Skuttle manufactures two ventilation products:

- The Make-Up Air Diffuser supplies additional combustion air to appliances that have inadequate combustible air sources.
- The Model 216 Make-Up Air Control automatically draws fresh, outside air into the furnace, where it is filtered, heated or cooled, and circulated through your home’s duct system. As a result, a slight pressure builds up in the home, keeping untreated air from seeping in around the doors and windows.

No wonder we call a home protected by Skuttle Indoor Air Quality Products a “Happy House”. For more information, call us toll-free at (800) 848-9786, or visit us on the web at www.skuttle.com.

If you have questions about your Skuttle humidifier, or to learn which Skuttle IAQ products are right for your home, contact your local heating and air conditioning contractor:



Skuttle®

Indoor Air Quality Products

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Quality Made
in the USA