

INDOOR AIR QUALITY



Improving your home
comfort by enhancing
the air



The perfect answer to air quality problems?



Healthy Climate[®] Solutions.

With fuel and electricity costs on the rise, today's homes are sealed and insulated better than ever. While this helps reduce utility bills by keeping heated or cooled air from escaping, it can create uncomfortable living conditions. That's because the same air is continuously circulated throughout the home.

A lack of fresh air can make the air feel heavy and overly warm. It can also lead to humidity imbalances and put homes at risk for damage from mold.

To ensure proper air circulation and quality, the average home should have at least .35 ACH (air changes per hour). Many newer, tightly sealed homes have an ACH rating as low as .05, which can lead to an uncomfortable and unhealthy buildup of moisture and pollutants.

Source: American Society of Heating, Refrigerating and Air Conditioning Engineers, Inc.

Solution: Dehumidification (removing moisture)

If the air in your home feels sticky, you may have a problem with humidity. Other telltale signs include:

- ◆ Flaking paint
- ◆ Peeling wallpaper
- ◆ Condensation on windows
- ◆ Damp spots or stains on walls and ceilings
- ◆ Damaged or rotted wood materials
- ◆ Musty smells
- ◆ Insect infestation

The Humiditrol® dehumidifier system works with your central heating and cooling system* to manage moisture levels, so you can enjoy greater comfort. And dry air feels cooler, so you may be able to set your thermostat higher and save money, and be more comfortable at the same time.



If you're like most people, you may try to cope with high humidity by lowering your thermostat while your air conditioner is running. But this can increase your utility bills and make your home feel too cold, rather than comfortable.

*Designed for integration with a two-stage air conditioner with R410A refrigerant, variable speed air handler and SignatureStat™ home comfort control.

Solution: Humidification (adding moisture)

Healthy Climate® whole-home humidifiers work with a *SignatureStat™* control to keep a comfortable amount of moisture in the air. And unlike standard humidifiers, which require constant manual adjustments, Healthy Climate systems automatically respond to changes in outdoor temperature and indoor relative humidity to deliver the perfect balance of comfort and convenience.



Power Humidifier

Equipped with a built-in fan, a flow-through or power humidifier circulates humidified air throughout your home via your furnace duct system.

Bypass Humidifier

This system uses a damper (similar to a valve) to control and direct humidified air to each room in your home.

Solution: Fresh-air ventilation

Healthy Climate ventilation systems replace stagnant indoor air with cleaner air from outside. They offer the fresh-air feel of an open window, with little or no loss of heat or energy.



Energy-Recovery Ventilator (ERV)

Ideal for high-humidity climates, an ERV draws stale, moisture-laden air from inside the house and vents it outside, replacing it with an equal amount of fresh air.

Heat-Recovery Ventilator (HRV)

Also known as air-to-air heat exchangers, HRVs are similar to ERVs, but are designed for cooler climates. They retain heat from indoor air and transfer it to the airstream coming from outside.

Source: American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc.

Why should you keep your home's air clean?

Poor air quality can lead to poor health.

Pollutants in your home's air can cause dizziness, headaches, nasal congestion and fatigue, plus they can aggravate allergies and asthma.

Plus, it can affect how you feel

Humidity inside your home has the same impacts on your comfort as humidity outside. Too much moisture can make you feel sluggish, weak and even sick. Too little can leave you feeling cold and achy.

The flow of air is also a factor. If it isn't moving freely from room to room, your home can feel stuffy or stale. This also causes unpleasant odors to linger.

HOW TO SOLVE THE PROBLEM OF UNCOMFORTABLE AIR

THE PROBLEM	WHY IT'S A PROBLEM	THE SOLUTION
High Humidity (Relative humidity levels above 50%*)	High levels of humidity can make your home feel warmer than the actual temperature and create a breeding ground for mold, mildew, dust mites and bacteria.	Dehumidification – Dehumidifier systems remove moisture from sticky indoor air, making you feel more comfortable—without having to turn down your air conditioner thermostat and over cool your home.
Low Humidity (Relative humidity levels below 35%*)	Dry air can cause skin irritation and respiratory** problems, not to mention annoying static shocks.	Humidification – Humidifiers add moisture to the air, making it easier to breathe—in every room of your home.
Stale or Stagnant Air	Poor ventilation can make rooms feel stuffy. This is a common problem in newer homes, which are tightly sealed to conserve energy. This also means contaminants have no way to escape.	Ventilation – Ventilation systems replace stale indoor air with fresh air from outside.

*National studies and Lennox' own indoor air quality experts indicate that, for optimal comfort and health, your home's relative humidity levels should range between 35 and 50 percent.

**Exposure to excessively dry air (relative humidity of less than 20%) can cause respiratory irritation.

Source: American Academy of Allergy, Asthma and Immunology.



© Lennox Industries Inc. 2006
Visit us at www.lennox.com
23W34 IAQ 5/06

PC45014