# INDOOR AIR QUALITY SOLUTIONS



Healthy Climate® Indoor Air Quality Solutions

Solutions that fit your unique needs





# Healthy Climate® Indoor Air Quality Solutions

Custom, whole-home product solutions that reduce concentrations of contaminants in the air, while also improving comfort

An indoor air quality solution for every home, every need

Easy integration with heating and cooling systems for a cleaner, healthier and more comfortable home environment

According to the U.S.
Environmental Protection
Agency, the air inside the
average home is up to five
times more polluted than
the air outside.\* Results
from in-home air tests across
North America support this
government finding. Nearly
every home (96%)\*\* had at
least one IAQ problem:

- 86% had high levels of particles and bioaerosols like dust, pollen and viruses
- 71% were filled with odors and potentially harmful chemicals and gases

### THE CHOICE FOR A HEALTHIER, MORE COMFORTABLE HOME

Dust dancing all around you? Is the sight of mold making you green?

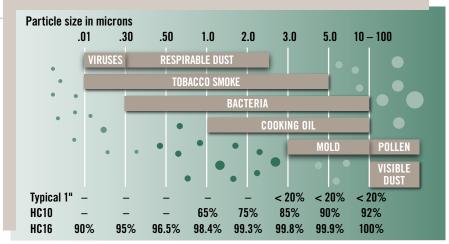
For whatever problem you're having with your home's air, there's a Healthy

Climate® solution.

# **Leading Innovation in Filtration**

Healthy Climate air cleaners are rated up to MERV 16—for the utmost in contaminant control. And unlike many other systems available, Healthy Climate air cleaners maintain their efficiency over the life of the filter. As an added benefit, these products are easily installed in your ductwork, where they capture over 95% of fine particles (down to 0.3 microns†)—irritants that can be inhaled deep into the lungs.

### PARTICLE-REMOVAL EFFICIENCY – HEALTHY CLIMATE AIR CLEANERS



The Healthy Climate® collection is the industry's first complete line of ozone-free indoor air quality systems. In the earth's stratosphere, ozone helps block potentially harmful ultraviolet light from reaching the ground. However, at lower levels in the atmosphere—the air we breathe—it's a product of pollution and can cause respiratory irritation.\*\*\*

<sup>\*</sup>Source: www.epa.gov/iaq, June 27, 2001

<sup>\*\*</sup>Source: AirAdvice 2004 field study - 10,254 tests

<sup>\*\*\*</sup>Source: U.S. Environmental Protection Agency, "Ozone Generators that are Sold as Air Cleaners: An Assessment of Effectiveness and Health Consequences," August 2006
†One micron = 1/25,000 of an inch in diameter

# **COMMON IAQ PROBLEMS AND SOLUTIONS**



	PURIFICATION	
Problem	Odors and Chemical Vapors	
	Perfumes, cleaning supplies, paints, pet odors, cooking fumes and other airborne contaminants	
	Small, Respirable Particles and Bioaerosols/Microorganisms	
	Pollen, dirt, pet dander, dust mites, bacteria, viruses and mold	
Solution	Air-purification systems attached to the furnace or air handler, where contaminants are removed and destroyed before air is recirculated into the home.	



PureAir<sup>™</sup> air purification system Cleans the air in your home better

system you can buy



**HC16/HC10 Media Air Cleaners HEPA Filtration** System



#### **FILTRATION** Problem Small, Respirable Particles and Bioaerosols/Microorganisms Pollen, dirt, pet dander, dust mites, bacteria, viruses and mold Air filtration systems combat indoor pollution by capturing even the smallest Solution contaminants and keeping them from recirculating back into the home's air.



**HUMIDITY CONTROL** Problem Too Much Moisture Can make the air feel stuffy and warmer than the actual temperature, and can also promote the growth of mold, mildew, fungi, bacteria and viruses Too Little Moisture Can cause dry skin, sore throats and respiratory problems, along with annoying static electricity Solution Dehumidifiers and humidifiers work with the home's heating and cooling system to keep moisture levels balanced in every room.

**Humiditrol® Dehumidification System Power Humidifier Bypass Humidifier** 



A Roman	VENTILATION	
Problem	Poor Airflow	
	A common problem in newer homes, which are tightly sealed to conserve energy. Instead of continually moving, indoor air becomes stagnant, and contaminants have no way to escape.	
Solution	Ventilation systems replace stale, contaminated indoor air with outdoor air—providing the fresh-air feel of an open window, with virtually no heat/energy loss or safety risk.	







THE RESERVE	ELIMINATION
Problem	Small, Respirable Bioaerosols/Microorganisms
	Pet dander, dust mites, bacteria, viruses, mold and other contaminants that can collect on the air-conditioning coil, reducing system efficiency, and circulate through the home.
Solution	UVC lamps dramatically reduce concentrations of potentially harmful microorganisms.



UV-2000/1000/500

# A Lennox® Solution for Every IAQ Need

# "BEST," "BETTER" AND "GOOD"

### "BEST" SOLUTION

Problem	Solution	Recommendation
Particles	Filtration	PureAir <sup>™</sup> system
Bioaerosols	Filtration	PureAir system
Diodeiosois	Elimination	Germicidal Lamp (UV2000)
Chemicals	Purification	PureAir system
Giletilicals	Ventilation	ERV or HRV
Low Humidity Relative humidity levels below 35%*	Humidification	Humidifier
High Humidity Relative humidity levels above 50%*	Dehumidification	Humiditrol® dehumidification system
Stale Air	Ventilation	ERV or HRV

# "BETTER" SOLUTION

Problem	Solution	Recommendation
Particles	Filtration	Healthy Climate® 16
	Filtration	Healthy Climate 16
Bioaerosols	Elimination	Germicidal Lamp (UV1000)
Chemicals	Purification	PureAir system
Cilemicals	Ventilation	ERV or HRV
Low Humidity Relative humidity levels below 35%*	Humidification	Humidifier
High Humidity Relative humidity levels above 50%*	Dehumidification	Humiditrol dehumidification system
Stale Air	Ventilation	ERV or HRV

### "GOOD" SOLUTION

Problem	Solution	Recommendation
Particles	Filtration	Healthy Climate 10
Bioaerosols	Filtration	Healthy Climate 10
bioaerosois	Elimination	Germicidal Lamp (UV500)
Chemicals	Purification	PureAir system
Ciletificals	Ventilation	ERV or HRV
Low Humidity Relative humidity levels below 35%*	Humidification	Humidifier
High Humidity Relative humidity levels above 50%*	Dehumidification	Humiditrol dehumidification system
Stale Air	Ventilation	Lennox ventilation control system

<sup>\*</sup>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.

### DAVE LENNOX SIGNATURE® COLLECTION

### PureAir<sup>™</sup> air purification system



#### PUREAIR™ AIR PURIFICATION SYSTEM

- Industry-leading air purification technology
- Only single indoor air quality system to attack all three classes of indoor air contaminants:
- -Small, breathable particles such as dust, dirt, pollen and allergens
- -Airborne mold spores, bacteria and viruses
- -Odors and chemical vapors
- Removes more than 95% of particles ranging in size down to 0.3 micron
- ◆ Removes more than 90% of bioaerosols ranging in size down to 0.01 micron
- Removes and destroys approximately 50% of household odors and chemical vapors in a 24-hour period (based on laboratory and field studies)
- Reduces and destroys ozone (a product of pollution and a known lung irritant)

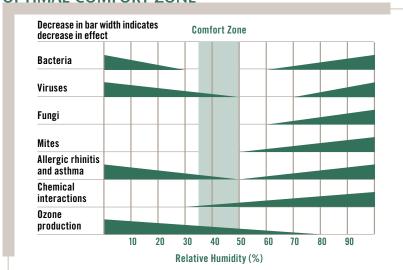
### Humiditrol® Whole-Home Dehumidification System

#### **EFFECTS OF HUMIDITY**

	Low Humidity (0-35% relative humidity)	<b>High Humidity</b> (50% relative humidity or higher)	
Comfort	Makes you feel cooler than actual temperature	Air feels warm and damp	
	Makes you fatigue easily		
Health	Dry skin/throat	Mold, mildew and dust mite growth, which can aggravate allergies and asthma	
	Higher risk of bacterial and viral infections and respiratory ailments	Can promote the release of chemicals from household materials (e.g., formaldehyde	
	Joint and muscle pain	from carpets)	
	Sore eyes		
Home	Warping and splitting of furniture and woodwork	Condensation or frost on windows	

Depending on the season, the RH (relative humidity) in your home should range between 35% and 50%.

### **OPTIMAL COMFORT ZONE**



Source: ASHRAE, adapted from Sterling et al., 1985



# DAVE LENNOX SIGNATURE® COLLECTION HUMIDITROL® DEHUMIDIFICATION SYSTEM

- Manages the moisture in your home's air for greater comfort and improved air quality
- Patented Humiditrol® technology helps reduce humid conditions in the home, reducing the opportunity for mold and mildew problems
- Easily integrates with all Lennox® R410A cooling products to provide comfort, air quality and energy efficiency
- Removes moisture from sticky air to enhance comfort, without having to lower your thermostat and overcool your home
- Designed with reliable, time-tested components
- Installs easily in your existing duct system
- 5-year limited warranty on covered components

# Healthy Climate® Indoor Air Quality Solutions

#### **FILTRATION**



# HEALTHY CLIMATE® 16 MEDIA AIR CLEANER

- Whole-home filtration with no additional power source
- MERV 16\* Precision Pleat<sup>™</sup> media filter
- Hospital inpatient care/general surgery level filtration
- Removes over 95% of particles ranging in size down to 0.3 microns
- Removes over 90% of bioaerosols and microorganisms down to 0.01 microns
- Effective filtration to protect HVAC equipment
- No emissions of ozone, a known lung irritant\*\*
- ◆ Cabinet housed 4-3/8" filter
- 5-year limited warranty on covered components



# HEALTHY CLIMATE HIGH-EFFICIENCY PLEATED MEDIA AIR CLEANER

- Whole-home filtration with no additional power source
- MERV 10\* media filter
- Removes up to 85% of particles ranging in size down to 3 microns\*\*
- Removes up to 85% of bioaerosols and microorganisms down to 3 microns\*\*
- Effective filtration to protect the HVAC equipment
- No emissions of ozone, a known lung irritant\*\*\*
- ◆ Cabinet-housed, 6" expandable filter
- 5-year limited warranty on covered components



# HEALTHY CLIMATE 10 MEDIA AIR CLEANER

- Whole-home filtration with no additional power source
- ◆ MERV 10\* media filter
- Removes over 85% of particles ranging in size down to 3 microns
- Removes over 85% of bioaerosols and microorganisms down to 3 microns
- Effective filtration to protect HVAC equipment
- No emissions of ozone, a known lung irritant\*\*
- ◆ Cabinet housed 4-3/8" filter
- 5-year limited warranty on covered components



#### HEPA-20/40/60 HIGH-EFFICIENCY PARTICULATE AIR (HEPA) BYPASS FILTRATION SYSTEMS

- "True" HEPA filter media—99.97% efficient in removing particles ranging in size down to 0.3 micron
- Extremely effective in removing airborne allergens and irritants such as dust and bacteria
- Optional carbon filtration helps trap and remove odors
- 5-year limited warranty on covered components



# HEALTHY CLIMATE REPLACEMENT AIR FILTERS

- MERV 16 available in 5" cartridge and 6" expandable
- ◆ MERV 15 available in 3" cartridge
- ◆ MERV 10 available in 3", 5" cartridge and 6" expandable
- ◆ MERV 8 available in 1" cartridge







The Healthy Climate® collection is the industry's first comprehensive line of ozone-free indoor air quality products

<sup>\*</sup>Typical fiberglass filter = MERV 1. MERV (Minimum Efficiency Reporting Value) describes the filter's ability to capture particles. The higher the MERV rating, the smaller the particles captured, which means enhanced filtration. Ranges from 1 to 16.

<sup>\*\*</sup>One micron = 1/25,000 of an inch in diameter

<sup>\*\*\*</sup>U.S. Environmental Protection Agency, "Ozone Generators that are Sold as Air Cleaners: An Assessment of Effectiveness and Health Consequences," August 2006

#### **HUMIDIFIERS**



#### **POWER HUMIDIFIER**

- ◆ 18-gallon capacity per day
- EquaFlo™ distribution tray for optimal moisture
- Equipped with a built-in fan that circulates humidified air throughout the home
- 5-year limited warranty on covered components



#### **BYPASS HUMIDIFIER**

- 17-gallon or 12-gallon capacity per day
- EquaFlo™ distribution tray for optimal moisture
- Uses the air handler or furnace fan to direct humidified air throughout the home
- 5-year limited warranty on covered components

#### **VENTILATION SYSTEMS**



#### HRV1-150/200 HEAT RECOVERY VENTILATOR

- Designed for colder climates
- Retains heat and moisture from indoor air
- Will not restrict airflow for proper filtration
- ◆ Fresh air exchangers remove stale air
- 5-year limited warranty on covered components



#### ERV1-150/200 ENERGY RECOVERY VENTILATOR

- Designed for warmer climates
- Helps reduce conditions of high incoming humidity
- Will not restrict airflow for proper filtration
- Fresh air exchangers remove stale air
- 5-year limited warranty on covered components



#### **VENTILATION CONTROL SYSTEM**

- Whole-home ventilation for improved indoor air quality and comfort
- Automatic monitoring of outdoor temperature and indoor humidity
- Meets ASHRAE (American Society of Heating Refrigerating and Air-Conditioning Engineers) 62.2–2003 ventilation standard—a key strategy for improving indoor air quality
- ◆ 2-year limited warranty

### **GERMICIDAL LIGHTS**



#### UV-2000

- Improves air quality and protects heating and cooling equipment
- Highest intensity on the market today
- Dual lamp
- 2,000 microwatts
- UL-Listed
- 5-year limited warranty on covered components



#### **UV-100**

- Improves air quality and protects heating and cooling equipment
- ◆ 1,496 microwatts
- UL-Listed
- 5-year limited warranty on covered components



#### UV-500

- Improves air quality and protects heating and cooling equipment
- 776 microwatts
- UL-Listed
- 5-year limited warranty on covered components



## **HEALTHY CLIMATE® SOLUTIONS**

For whatever problem you're having with your home's air, you'll find the perfect Healthy Climate® solution. When it comes to contaminants like particles and chemicals, there's no better defense than the PureAir™ air purification system. You also have a choice of filtration systems and germicidal lamps, plus products that help balance moisture levels and improve airflow. With so many innovative options for enhancing and customizing the air inside your home, the ozone-free Healthy Climate collection helps make your home a better place to breathe.



