



Turn to the experts

Indoor Environmental Quality Solutions

# HOW CAN YOU MAKE A BUILDING HEALTHIER?

Protect its occupants and boost their performance





Turn to the experts

# Applied Indoor Environmental Quality Products



## OptiClean™ Negative Air Machine

- Developed to create negative pressure spaces in Hospitals for patients that need to be isolated
- 99.97% efficient, long-life HEPA filter removes particles as small as 0.3 microns
- Standard MERV 7 pre-filter
- Minimum 500 CFM
- Portable and adaptable to nearly any appropriately-sized location
- Can be applied as an air scrubber in non-healthcare spaces to improve IEQ
- UVGI can be field installed

### Solutions



Proper building pressurization & air distribution



Using proper filtration



Using UVGI

Agion is a cost effective anti-microbial IEQ solution certified for use in HVAC systems by the United States Environmental Protection Agency (EPA). Combine Agion, in the entire unit, with UV ultraviolet germicidal radiation on coil sections for the maximum anti-microbial control offered by Carrier.



## 39M

- Full range of air filters including HEPA filtration
- Ultraviolet band C (UV-C) germicidal lamps
- Agion antimicrobial technology option
- Double wall construction
- ASHRAE 62.1 compliant drain pans (foam insulated double-wall galvanized or stainless steel)

### Solutions



Increased ventilation rate



Maintaining healthy humidity levels in the building (40-60% RH)



Using UVGI



Using proper filtration



Proper building pressurization & air distribution



## 39CC

- Custom made unit for healthcare applications and improved IEQ
- Advanced particulate and gas phase filtration technologies such as photocatalytic oxidation and bipolar ionization
- Specialized high efficiency filtration HEPA/ULPA/Bag-in Bag-out
- Washdown construction for easier sanitizing/cleaning of the unit
- IEQ design drain pan with dual slope

### Solutions



Increased ventilation rate



Maintaining healthy humidity levels in the building (40-60% RH)



Using UVGI

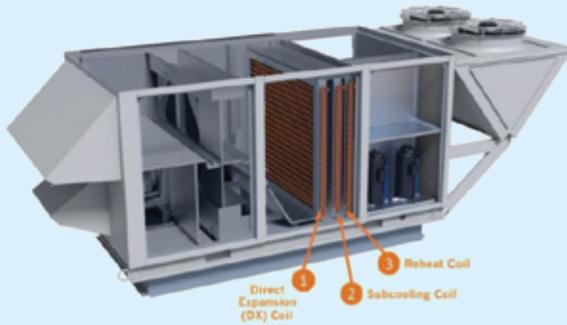


Using proper filtration



Proper building pressurization & air distribution

# Applied Indoor Environmental Quality Products



## 62X

- Dedicated outdoor air unit
- Multiple reheat options for humidity control (Hot gas, Hot Water, Electric).
- 2-in. and 4-in. filter options: MERV-8, 11, 14 pleated media filters
- Sloped, insulated, stainless steel condensate pan

## Solutions



Proper building pressurization & air distribution



Increased ventilation rate



Maintaining healthy humidity levels in the building (40-60% RH)



Using proper filtration

## Full line of Chillers with Heat recovery capabilities for precise humidity control with hot water.

- Air cooled and water cooled options.
- Up to 140F hot water on Heat machines
- Scroll, Screw and NextGen centrifugal options with heat recovery capabilities
- Modular solutions with 30MPW
- From 15 to 800 Tons

## Solutions



Maintaining healthy humidity levels in the building (40-60% RH)



## iVu

- Carrier i-Vu platform with full capability to monitor IEQ
- Capability to monitor temperature, humidity, CO2, VOC, and particle matter concentrations
- Pressurization control capabilities
- Remote monitoring capabilities

## Solutions



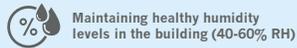
Monitoring IEQ in the building

# Applied Indoor Environmental Quality Products

## HAP

- 30+ years' experience in heat load calculation and energy modeling
- Enables detailed analysis of temperature, relative humidity variations in the spaces for better HVAC system choices, ultimately contributing to the design and construction of Healthier Buildings

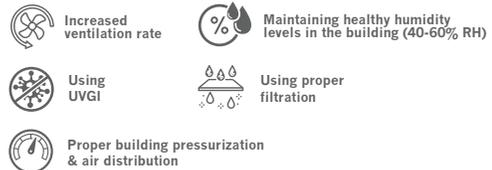
## Solutions



## 50N

- UVC lamps available as special order
- Agion antimicrobial technology option
- Final filter option with y HEPA filters
- Humidi-MiZer® adaptive dehumidification system
- Double wall foam panel construction
- Double-sloped, stainless steel condensate drain pan
- Economizers capable of handling up to 100% outdoor air
- Intertwined refrigeration circuits for optimum performance at part load operation

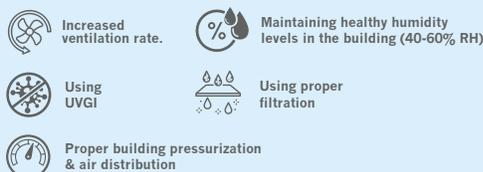
## Solutions



## 50P

- Double wall construction
- Sloped, stainless steel condensate drain pan
- Agion antimicrobial technology option
- Economizers capable of handling up to 100% outdoor air
- UVC lamps available as special order

## Solutions





# Indoor Environmental Quality Products

Carrier® indoor environmental quality products take your comfort to heart with solutions that help clear the air of impurities, manage humidity levels, provide whole-home ventilation and more. It's next-level comfort you can really enjoy, well beyond the basics of simple temperature control. Offering a full complement of options, designed to work with your new or existing home comfort system, Carrier indoor air quality products are a smart and versatile solution for achieving a more comfortable indoor environment.

## There's Something in the Air

When you look around your home, you probably don't see anything unusual. But according to the EPA, you may be surrounded by higher counts of many airborne pollutants than you would be exposed to outside.\* These pollutants can affect your comfort and your well-being.



Make the Invisible Visible: Common Indoor Air Issues		
Issue/Source	Symptom	Solution
<b>Particle Allergens</b> Pets, secondhand smoke, dust mites, wood smoke	Known to trigger and worsen asthma and allergy symptoms	<b>Air Purifier</b>
<b>Chemical Pollutants</b> Cleaners, paints, adhesives, pesticides, cosmetics and air fresheners	Nausea and headaches. At high levels, can cause eye irritation	<b>Ventilator</b>
<b>Carbon Dioxide</b> Simple breathing. Burning candles, gas, wood and other combustibles	Drowsiness, poor concentration	<b>Ventilator</b>
<b>Relative Humidity</b> Too much or not enough moisture in the air	Moist air – mold and dust mites Dry air – nosebleeds, dry eyes and skin	<b>Dehumidifier, Humidifier</b>
<b>Mold and Bacteria</b> Dampness	Coughing, respiratory issues	<b>UV Lamp</b>

## Give Us 30 Minutes, We'll Give You a Solution.

We can address specific air quality issues with products from our comprehensive line of air purifiers and filter cabinets, ventilators, humidifiers, dehumidifiers and UV lamps.



\* <https://www.epa.gov/indoor-air-quality-iaq/inside-story-guide-indoor-air-quality>

# Infinity® Air Purifier

## Our Best Defense

Doors and windows invite pollen, friends and family spread bacteria and viruses, fine dust flies off furniture and floors, and don't forget about hair and dander from pets. It's all trapped inside, circulating in the air that you breathe. Because your indoor air is under constant attack, you need an effective defense – the kind you get with the Infinity Air Purifier.



## A Three-Step Approach

The Infinity Air Purifier uses patented technology as part of a three-step process that treats 100% of the air flowing through your heating and cooling system.

### Step 1 .....

Particles entering the purifier through your duct system are “charged” via ionization.

### Step 2 .....

The charged airborne particles are “captured” in a specially designed, charged media filter.\*

### Step 3

Captured viruses and bacteria are deactivated, or “killed” using patented, state-of-the-art technology, helping prevent further growth of bacteria on the filter.\*

\* Based on third-party testing (2012) showing 95% of particles size 1.0 to 3.0 microns captured. Based on third-party testing (2012, 2007) showing >99% kill rate for common cold surrogate, Streptococcus pyogenes and human influenza.



## Lab Tested, Effective and Efficient

The Infinity Air Purifier has shown a high rate of effectiveness against cold and flu viruses. This was verified through independent lab testing that shows a 99% inactivation rate within 24 hours for human influenza and common cold viruses as well as streptococcus, the bacteria that causes sore throats.\*

The Infinity Air Purifier's high-efficiency filter earns a MERV 15 measure of efficiency. Air filtration is measured using the Minimum Efficiency Reporting Value (MERV) scale from 1-16, with 16 being the best. That means you can count on highly effective filtering of unwanted airborne particles.

# Air Cleaners

## Carrier® EZ Flex™ Cabinet and Filter

Today's homes are more energy-efficient than ever – sealed tighter and better insulated to keep heated or cooled air on the inside. The unfortunate side effect is that these same homes also do a better job retaining dust, dirt, pollen and more, trapping them inside to circulate and recirculate throughout your living spaces. These particles settle on furnishings, pollute the indoor air and rob your comfort system of efficiency by restricting airflow and making it work a little harder. The Carrier EZ Flex cabinet and filter can help alleviate those issues, with the MERV 13 model effectively clearing the air of more than 90% of airborne particles as small as 1.0 microns in size.\*

## Efficiency

Carrier EZ Flex filters are available in MERV 13 or MERV 10 efficiencies. Air filtration systems are measured with the Minimum Efficiency Reporting Value (MERV) using a scale from 1 – 16, the higher the number the better.

Filtration Efficiency for Particle Sizes*	EZ Flex™ Filter and Cabinet	
	MERV 13**	MERV 10**
3.0 - 10.0 microns (E3)	E3 ≥ 90%	E3 ≥ 85%
1.0 - 3.0 microns (E2)	E2 ≥ 90%	50% ≤ E2 < 65%
0.30 - 1.0 microns (E1)	E1 ≤ 75%	N/A
Germicidal Capability	None	
Filter	Replaceable No cleaning required	



\* Test data obtained by running ASHRAE 52.2 2012 version.

\*\* In order to achieve the MERV rating, the test results must meet the criteria for the three particle ranges.

## Germicidal Ultraviolet (UV) Lamps

Your heating and cooling system is the unsung hero of your home, constantly running in the background to keep you cozy and comfortable. As air passes through the cooling coil, mold spores, bacteria and fungi stick to its damp surfaces. Buildup of these contaminants can reduce system performance and lead to the release of harmful mold spores and unpleasant odors into your home.

To help alleviate these issues, the Carrier® germicidal UV lamp is mounted near the cooling coil where fungus and microbes can grow. The intense UV light is designed to kill bacteria and mold growing on and around the indoor coil, enhancing system efficiency and improving the quality of your indoor air.



# Humidity Management

## Humidifiers

A Carrier® humidifier can “moisturize” dry, heated, winter air, making your home feel more comfortable. That’s important because during the heating season, your home can feel drier than the desert. Properly humidified air can help relieve the discomfort of dry nasal passages, itchy skin and static shocks.

A comfortably humidified home can help save energy, too. Because you are less likely to turn up the heat, you could potentially save money on your heating costs. With five distinctly different models, there’s a Carrier humidifier that is just right for your home.



Model	STM	LBP	SBP	WBP	LFP
Unit Type	Steam	Large bypass	Small bypass	Water saver bypass	Large fan-powered
Capacity (gallons/day)	34	17	12	17	18
Water Vapor Delivery	Dispersion tube in duct	Expanded aluminum evaporator pad	Expanded aluminum evaporator pad	Wicking paper evaporator pad	Expanded aluminum evaporator pad
Notes	Large homes, highest output	Large homes	Small homes	Efficient in water usage	Large homes

\* Varies, based on voltage and amperage.

## Carrier® Whole-Home Dehumidifiers

As summer temperatures and humidity rise, your air conditioner or heat pump dehumidifies your home during the cooling process. To achieve desired humidity levels, the system often operates with greater frequency. By adding a Carrier whole-home dehumidifier, your system can more effectively pull excess moisture from the air circulating throughout your home. You’ll feel more comfortable without over cooling, meaning you can turn the thermostat up a few degrees to help save on energy costs.

Keeping humidity under wraps can also improve the quality of the air you breathe by keeping mold and some allergens under control.\* It can help prevent warping or structural damage to wood flooring or furnishings. And, setting your dehumidification levels is simple and convenient using the LCD control that can remain on the dehumidifier cabinet or installed at a more easily accessed location.



*A built-in “clean filter” indicator tells you when it’s time to change the filter.*

\* <https://www.epa.gov/mold/brief-guide-mold-moisture-and-your-home>

# Fresh Air Ventilation

## Carrier® Whole-Home Ventilators

Carrier fresh air ventilation offers a controlled solution for bringing fresh outdoor air into your home. It's efficient because it ventilates without the energy loss you would experience through an open window or screen door. Whole-home ventilation is more important than ever with today's more tightly sealed, energy-efficient homes that tend to trap airborne pollutants to circulate throughout your home.

## Comfort and Efficiency

Our energy and heat recovery ventilators can maintain your comfort with minimal heat loss. Here's how:

- Fresh, outdoor air and stale, indoor air enter our high-efficiency heat recovery core
- Up to 70% of heat (or energy) from the indoor air is transferred to the clean, outdoor air for circulation throughout your home\*
- Energy recovery ventilators (ERVs) also remove excess humidity to enhance comfort and save energy
- The outgoing and incoming air never mix, so you have a continuous flow of fresh air

\* Model SVU (Sensible Recovery Energy)

## Which One is Right for Me?



**HRV:** An HRV, or heat recovery ventilator, is a great choice for comfort and efficiency in colder climates with longer heating seasons, such as Canada or the northern United States.



**ERV:** An ERV, or energy recovery ventilator, is the right choice in the Midwest and southern states, where removing humidity from incoming air is vital to efficient, comfortable performance.



**Fresh Air Vent:** Our most affordable and compact whole-home ventilation solution, the Carrier fresh air vent provides a controlled solution for fresh, indoor air without the heat exchange or humidity transfer of an ERV or HRV.



**Add-On ERV:** For installations with space limitations, the add-on ERV offers a more compact solution that fits while still providing the needed ventilation and efficient performance.

# Carbon Monoxide Alarm

## Carrier® Carbon Monoxide Alarm

Carbon monoxide is a colorless, odorless gas produced by incomplete combustion of fuels such as natural and LP gas, kerosene, coal, wood and charcoal. Exposure can cause fatigue, chest pains, impaired vision and coordination, headaches, dizziness, confusion and nausea. That's why it's reassuring to know that you can protect your family with a Carrier carbon monoxide alarm.

The Carrier carbon monoxide alarm can put you at ease with its sophisticated electronics and sensor technology that detects and records the levels of CO circulating in your indoor air. You can monitor the current CO level in your home on a large, easy-to-read digital display. When dangerous levels of CO are present, a loud, audible alarm alerts you and your family automatically. To maximize your protection – and your peace of mind – Carrier recommends placing a carbon monoxide alarm on each level of the house and in every bedroom. Then, follow up with weekly alarm checks and an annual, professional inspection.



### A Continuous CO Monitoring

The easy-to-read, continuous digital display allows you to monitor the level of CO in your home with updated information every 15 seconds.

### B Built-In Safety Check

The test/reset button checks the unit's electronic circuitry and horn so you can be assured the unit is functioning properly. It also resets the unit during an alarm.

### C Convenient Peak Level Tracking

With the simple push of a button, the carbon monoxide alarm will display the highest recorded CO level since the alarm was last reset or unplugged.

### D Installation Versatility

The AC plug adapter is removable and corded to provide the ultimate installation flexibility – it can be wall-mounted, placed on a table top, or simply plugged directly into an available outlet. You can pick the best location to maximize the effectiveness of the alarm.

### E Uninterrupted Protection

The rechargeable lithium ion battery helps the carbon monoxide alarm provide uninterrupted protection, even during a power outage. (No need to replace batteries once a year.)



# Plug-in Dehumidifier

Improve air quality in individual rooms with our purifier and dehumidifier



Auto Restart Function



Omni-directional Castor



Self-Diagnosis and Auto-Protection Function



Timer



Powerful Dehumidification

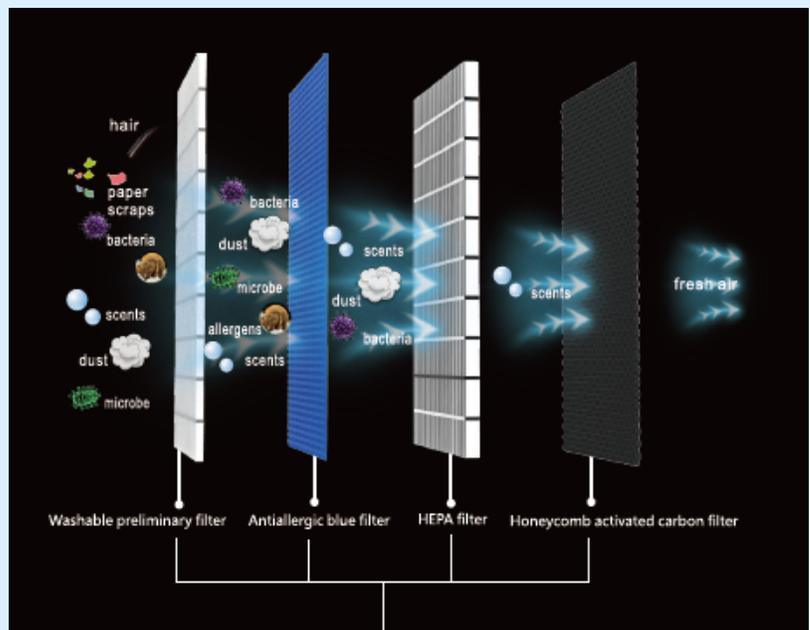


LCD Display



Auto Restart Function

# Air Purifier



## Other Products



### ULTRAVIOLET LAMPS

Germicidal lights that disinfect the air, for residential, light commercial, industrial, hospitals, airports, hotels, education, manufacturing and others

### BIPOLAR ION GENERATORS

Neutralize odors and purify the air



### AIR FILTRATION

We have a variety filters from hepa, merv 8 to 15 pleated, carbon, high temperature, high volume and industrial

### CHEMICALS

Chemicals for the cleaning of indoor and outdoor units. Available options: biodegradable, antibacterial, antifungal cleaners and bio-fresh



## Other Products



### AIR CURTAINS

Creates a thermal barrier to prevent the entry of insects, dust and debris

### COATING PROTECTION TREATMENT

FDA approved, inorganic, no fungal growth, no oxidation, hydrophobic, resistance to salt, acids, radiation, alkalis, biological contaminants, reduce energy cost



### CONDENSING PUMPS

Extracts water from indoor units to avoid excess humidity in the system. Options: tank, mini flowatch, cassette, flowita, vision, maxi flowatch, and others

### DEHUMIDIFIER & HUMIDIFIERS

Control humidity levels in different spaces. Residential and light commercial



### FIRE & SAFETY

Smoke & Carbon Monoxide Alarms, Duct Smoke Detectors, Monitoring Cameras



Turn to the experts

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