

## IAQ Factoids – Interesting facts the you should (or maybe don't want to) know...

- The EPA has ranked indoor air pollution as a high priority public risk.
- According to the EPA, levels of indoor pollutants can be 2 to 5 times higher than outside.
- Most of us spend about 90% of our adult lives indoors.
- 99% of the particles in the air are smaller than 1 micron (1 millionth of a meter). Because they are so small, they remain airborne.
- Household dust is present even in clean homes, and can be composed of mold spores, bacteria, viruses, animal dander, human skin particles, fabric fibers, dust mites, parts of cockroaches, food particles and other debris.
- Inexpensive filters found at local hardware stores are only about 10% efficient for the largest particles.
- Seasonal allergic rhinitis (hay fever) affects more than 35 million people in the U.S.
- 50 Million people in the U.S. suffer from allergies.
- Allergic disease is the 5th leading cause of chronic disease among all ages and 3rd common chronic disease among children under 18.
- 54% of U.S. citizens test positive for one or more allergens.
- There are approximately 20 million asthma sufferers in the U.S., 6 million of them are children. It's the leading chronic illness in children.
- A sneeze can add 100,000 droplets of pathogen-containing moisture to the air. These droplets are called "fomites".
- The average person inhales about 2,300 gallons of air per day.

### Perfect Air™ Purifier

- Exclusive Capture and Kill Technology
- Protects the Air You Breathe
- Enhances Equipment Operation
- Easy to Maintain
- Gas Furnace and Fan Coil Models Available



### Bryant Electronic Air Cleaner

- Protects the Air You Breathe
- Enhances Equipment Operation
- Washable Filter and Cells



### Bryant 4" Media Filter

- Cleaner Air
- Enhances Equipment Operation
- Easy to Maintain



1" Media Filter



0% EFFICIENCY (Based on an equivalent 16 pt MERV scale) 100%

## Frequently Asked Questions

### Q: How does the technology work?

**A:** In step 1, particles entering the air purifier are electrically charged by the precision point ionization array which uses 22,000 volts DC to create dense "clouds" of ions that attach themselves to the particles. In step 2, a specially designed media cartridge is sandwiched between 12,000 volts DC and electrical ground. As a result, a strong electrical field is created across the filter, which causes the negative and positive charges within each filter fiber to separate and migrate to opposite sides of the fiber (polarization). Particles entering the filter are electrically attracted to the oppositely charged part of a fiber resulting in extremely high collection efficiency. In step 3, the intense electric field established across the filter results in a charge separation across the captured pathogen's cell membrane and a stretching of the cell wall. The pathogen is also bombarded by negative ions from the ionization section which further pushes the membrane towards rupture. Additionally, in the ionization section, hydroxyl radicals are produced which create "oxidative stress" on the organism. The net result on captured pathogens is the rupturing of the cell membrane and death.

### Q: Why is germicidal capability important?

**A:** Just capturing pathogens on the filter (like typical systems) doesn't eliminate all the risks associated with poor air quality. Dust, dead skin cells, and other matter collected on the filter provide nutrients on which trapped organisms can grow and, as a result, produce waste products which are then carried downstream into the living space. Certain bacteria, for example, can release endotoxins to which many people are highly allergic. They can irritate the skin, induce respiratory problems, fever, and even shock. In humid environments, mold can multiply and actually grow through a filter and live spores can be distributed throughout the home.

### Q: Does the Perfect Air™ Purifier make any sounds while operating?

**A:** No. Unlike traditional electronic air cleaners, the purifier creates no zapping noises.

### Q: How efficient is this unit's filtration?

**A:** The Perfect Air™ Purifier is equivalent to a MERV 15. The American Society of Heating, Refrigerating and Air Conditioning Engineers (ASHRAE) has established a rating standard designated as 52.2, which created the Minimum Efficiency Reporting Value (MERV) so that various filters can be evaluated properly. MERV ratings are designated with numbers from 1 to 16. The higher the MERV rating, the better the filter's performance (percent efficiency) for smaller particles. A MERV rating of 15 requires 85-95% efficiency for the smallest particles tested.

### Q: How do I know when to change my filter?

**A:** If your purifier is used in conjunction with the Bryant® Evolution™ Control, the control will notify you when it is time to change the filter. Other thermostats may have a timer or reminder built in. Check with your Bryant dealer to find out if your particular thermostat has a filter change reminder. If not, ask the dealer about a semi-annual or annual maintenance service.

### Q: What can happen if someone changes an ordinary filter containing live pathogens?

**A:** The person changing the filter can be exposed to potential health risks. For example: 1) a person may come in contact with a contaminated surface containing live infection-causing pathogens and; 2) movement of the dirty filter can shake loose dust pathogens into the air which could then be inhaled.

### Q: Are there any odor control benefits to the Perfect Air Purifier?

**A:** The Perfect Air Purifier is capable of capturing very small particles, down to 0.1 micron. Only odors associated with the presence of particulates will be reduced. If odor control is a concern, Bryant recommends installing a ventilator to bring in fresh air.

### Q: What is the power consumption of the purifier?

**A:** Approximately 18 watts.

**bryant** **WHATEVER IT TAKES™**

Heating & Cooling Systems

A Member of the United Technologies Corporation Family.  
Stock Symbol UTX.

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Visit our website at [www.bryant.com](http://www.bryant.com)



Before purchasing this appliance, please read the important energy cost and efficiency information available from your dealer.  
Manufacturer reserves the right to discontinue, or change, at any time, specifications or designs without notice and without incurring obligations.

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We Encourage Professionalism



Through Technician Certification by NATE

**bryant**

Perfect Air™ Purifiers



**EVOLUTION™**  
SYSTEM

# Bryant® Clears the Air with Superior Efficiency and Convenience.

## A Rich Tradition of Enhanced Indoor Air

Since 1904, Bryant® has treated American homeowners to a tradition of indoor comfort. Through the commitment and dedication of our product development and manufacturing teams, we have consistently met every new challenge head-on and delivered the products to meet or exceed expectations. Today, as indoor environments can be as much as 5 times more polluted than outdoor air, Bryant offers patented, industry-exclusive and state-of-the-art air purification technology - the Perfect Air™ Purifier.

The Perfect Air Purifier is Bryant's premier air purification solution. It's the perfect choice for adults who can spend as much as 90% of



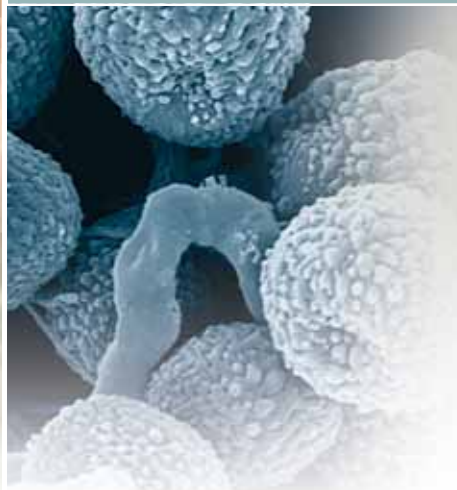
their time inside. And, it's an excellent defense against pollutants that can invade the estimated 2,300 gallons of indoor air you breathe each day.

## High-Efficiency Whole-Home Air Filtration

Your home is where you go to relax. However, pollen and mold spores can enter through open doors and windows, bacteria and viruses can spread between family and friends, fine dust particles get kicked up from floors and furniture, and dander and hair fall from pets. These contaminants can circulate throughout your home, spreading disease or triggering allergic and asthmatic reactions. Bryant comes to the rescue with a complete line of air filtration products led by the Perfect Air™ Purifier.

The Perfect Air Purifier is ideal for homeowners with allergy concerns, those that are susceptible to airborne germs such as infants and the elderly, and those sensitive to the effects of pollen, pets and more. Unlike many portable air cleaners, the Perfect Air Purifier is extremely quiet and can treat the air throughout your home. Available in both gas furnace and fan coil models, the Perfect Air Purifier cleans over 100 times more air than popular portable units.

## Extra Effective, Extra Convenient



Offering extremely high air filtration efficiency, the Perfect Air™ Purifier uses patented germicidal technology so effective it captures and kills airborne pathogens such as bacteria, viruses and mold. The same technology is trusted to protect secure government facilities and hospital room patients. And, this product is as convenient as it is powerful because no cleaning is required. Simply remove and replace the media cartridge periodically to maintain peak performance.

## How Does it Work?

Truly a whole-home solution, the Perfect Air™ Purifier treats 100% of the air flowing through your home comfort system using a unique three-step process. Here's how it works:

**Step 1:** The Perfect Air Purifier uses precision point ionization to charge particles as they enter the purifier.

**Step 2:** A specially designed, continuously charged media captures airborne particles.

**Step 3:** Exclusive, state-of-the-art technology kills captured viruses, bacteria, mold spores and other allergens.



### Germicidal Capability

Physiology		Organism	Kill Rate*
Bacteria	Spore Forming	<b>Bacillus subtilis (Anthrax surrogate)</b>	97% <sup>1</sup>
	Gram Positive	<b>Mycobacterium Parafortuitum (Tuberculosis surrogate)</b>	99.9% <sup>2</sup>
		<b>Staphylococcus aureus</b>	97.5% <sup>4</sup> 100% <sup>5</sup>
	Gram Negative	<b>Serratia marcescens</b>	96.6% <sup>1</sup> 100% <sup>4</sup>
<b>Pseudomonas aeruginosa</b>		99.9% <sup>7</sup>	
Virus	<b>Morbillivirus (Measles)</b>	99.9% <sup>1</sup>	
	<b>Vaccinia (Smallpox surrogate)</b>	99.9% <sup>6</sup>	
	<b>Coronavirus (SARS)</b>	99.9% <sup>2</sup>	
	<b>Influenza Wild Type A</b>	99% <sup>1</sup>	
	<b>Human Influenza</b>	99% <sup>2</sup>	
	<b>Avian Influenza</b>	99.9% <sup>3</sup>	
Fungi	<b>Encephalomyocarditis picornaviridae (Human cold virus surrogate)</b>	99.99% <sup>4</sup>	
	<b>Aspergillus versicolor</b>	99% <sup>7</sup>	

Patented technology kills bacteria, viruses and mold

\*Kill rate claim is percentage of pathogens captured on the media that were killed or inactivated after continuous exposure to an energized system for the stated time period.

- <sup>1</sup> After 1 hour exposure
- <sup>2</sup> After 2 hour exposure
- <sup>3</sup> After 5 hour exposure
- <sup>4</sup> After 6 hour exposure
- <sup>5</sup> After 12 hour exposure
- <sup>6</sup> After 18 hour exposure
- <sup>7</sup> After 24 hour exposure

## Warranty

Bryant's Perfect Air™ Purifier provides dependability backed by a written, five-year limited warranty. Extended warranties are also available. Ask your trusted Bryant® dealer for details.

## The Evolution of Comfort

Bryant is at the forefront of a comfort revolution with its exclusive Evolution™ System. Starting with the sleek, sophisticated Evolution™ Control, this system puts more power and ease-of-use at your fingertips than any other comfort control.

A Bryant Evolution System delivers superior comfort while also offering enhanced air cleaning capabilities. Nearly continuous flow of air through your system's filters and an economical multi-speed continuous fan function both contribute to this system's ability to clear the air. True Sense™ dirty filter detection adds to your indoor air quality and system efficiency by letting you know exactly when it's time to clean or replace your filter for optimum performance. And, with our Perfect Humidity™ function, you'll enjoy precision humidity control during the cooling season and control of your humidifier from one convenient location during heating. Simple, intuitive and powerful, the Evolution™ System truly sets a new standard for excellence in home comfort.



The optional Evolution™ Control is much more than just a thermostat. It is your single source of precision temperature, humidity and indoor air quality.



**EVOLUTION™**  
SYSTEM