

AIR PURIFIERS 101: How They Work, Benefits & Types

An air purifier is a device that removes harmful airborne particles from the air in your home. The contaminants include dust, bacteria, dirt, and pollen. They are manufactured as small, stand-alone, or larger units affixed to an Air Handler Unit (AHU) or a [Commercial HVAC](#) unit. They can also help remove CO2 from the air before processing in industries.

Do you want the air in your home purified? We can help. Our Company, Galmiche & Sons, is an [HVAC Company](#) in St. Louis, Missouri. We've operated for 60 years, serving residents and the surrounding towns. Call us at 314-993-1110 or Contact us, and we will take care of your air purifying needs.

How Air Purifiers Work

Your house can be a source of air impurities, and the air inside the home is generally dirtier than the air outside. Mould can also develop from the accumulation of moisture. Dust particles and bacteria are circulated in the house through [heating and cooling](#) the air; smoking also pumps toxins into the air, and pets shed fur, thereby giving off dander.

All these cause contaminants to concentrate on the house, and reducing these contaminants helps eliminate problems. Air purifiers should be used to remove these pollutants. Air purifiers use a series of fans to drag the air in your home through high-efficiency particulate-arresting filters and trap the particles mechanically. The purified air is then circulated back into the room, keeping the environment safe and healthy.

Benefits of Air Purifier

There are several benefits of having an air purifier in the home.

- Air purifiers help remove air pollutants – They have filters that clean and purify the circulated air by trapping particles present in the air.
- They remove up to 99.9% of dust particles – The HEPA filters in the purifiers help remove about 99.9% of impurities and dust particles from the air, including mould spores, pollen, pet dander, and dust mites. It is achieved by cycling the air in the room continuously.
- It helps neutralize smoke – Air purifiers help trap smoke in our home before it gets attached to the upholstery. Scientists have proven that second-hand smoke can cause lung cancer in non-smokers. It is vital to have a sound cleaning system to eliminate any lingering smoke.
- Air purifier stops the spread of sickness, germs, and diseases – Several bacteria or viruses can be transferred from one person to another through sneezing and coughing. Bacteria survive in warm, humid areas and can cause serious illness to the young and old. HEPA air purifiers with electrostatic purification can help neutralize a significant percentage of all airborne germs and bacteria.
- They trap allergens released by pets – Pets bring about odours, dander, and urine stains, which can cause respiratory inconvenience or disease. Air purifiers help tackle and trap these allergens before they settle in your home.

Types of Air Purifiers

Filters

- True HEPA/UV-C Air Purifiers - This air purifier can trap 99% of airborne germs, odour-causing bacteria, and 99.97% of airborne allergens using its replaceable HEPA air filters with ultraviolet germicidal light. It can be used in high-allergen areas to eliminate odours, dust mites, smoke, pollen, dust, lint, germs, pet dander, and mould.
- True HEPA Air Purifiers - This air purifier helps eliminate dust mites, pollen, and mould spores using replaceable HEPA-rated filters. They help keep the home smelling fresh by removing the leading causes of seasonal allergies and 99.97% of the airborne particles.
- HEPA-Type Air Purifiers – This cleaner is more economical and less effective than True HEPA Air Purifiers. They are used in fewer allergen areas and have replaceable filters to trap 99% of tiny airborne particles, including pet dander, smoke, and dust, to help maintain clean air.
- Permanent HEPA-Type Air Purifiers – Permanent HEPA-Type Air Purifiers help eliminate 99% of airborne particles, including smoke, odours, lint, dust, and pet dander, with reusable filters, which are not replaceable but only require occasional cleaning.

Adsorbents

These cleaners use an adsorbent material to eliminate odours, chemicals, and smoke from the air. They use an adsorbent method, which is the process of trapping a substance on the surface of another substance, and the common adsorbent used in this case is activated charcoal.

Ultra-Violet Purifiers

Certain microorganisms, viruses, and bacteria are rendered harmless by ultraviolet radiation. Some air purifiers use UV germinal light, eliminating airborne bacteria, germs, and viruses.

Ionizing Purifiers

The corona discharge method is used in this air purifier to send negative ions into the air, which will be attracted to anything with the opposite charge. The particles in the air clump together and become heavier, then settle out of the air.

Contact Galmiche & Sons for Your HVAC Needs

After going through the benefits of having an air purifier in your home, if you've decided to get one, Contact Galmiche & Sons, St. Louis. Whether it is for purchase, installation, or [HVAC maintenance](#), we have you covered. Call us today at 314-993-1110.