

Product of the Month: AirPuriX wall and ceiling mount air purifiers make floor standing air purifiers obsolete

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The discovery during the pandemic that aerosolized pathogens, such as infectious bacteria and viruses including COVID-19, can float in the air for hours totally upended the prevailing thinking regarding how the clean air that streams from room air purifiers should be directed.

To maximize effectiveness of a room air purifiers, we learned that the best positioning is where the purifier's airstream can be directed to continuously displace air in the breathing zone which may have become contaminated with pathogens left there from people while speaking.

Most floor standing units cannot do this. With clean air exiting horizontally, below the level where people are speaking, it's physically not possible to effectively direct their airstream towards the breathing zone. Although the majority of room air purifiers sold are the floor standing type, the reality is that most provide little, if any, protection where necessary against these aerosolized pathogens.

The main reason earlier air purifiers were designed to be floor standing was that, prior to the successful use of ultraviolet energy for room air purifiers, HEPA filter utilization was the most often

chosen solution.

Lower rated HEPA filters do make possible the mass production of simple and inexpensive fan-filter air purifiers for dust, dander and pollen type applications. For air purifiers to also be effective for pathogens such as infectious bacteria and viruses, larger HEPA filters with higher ratings are required and these filters have aspect ratios that make the air purifiers unsuitable for positioning other than on the floor.

This shortcoming makes them ill-suited for this application because the air stream from floor standing units is not properly positioned.

The best places to mount room air purifiers are on the wall or in the ceiling because the air stream can then be directed into the breathing zone.

While continuously cleaning and recirculating the air is possible from any location within the room, only the ceiling and wall units can be mounted high enough in the room for their airstreams to be positioned for maximum effectiveness.

With this knowledge, the AirPuriX engineers set out to design an air purifier that could be properly configured for both wall and ceiling mounting.

By utilizing advanced high power Ultraviolet (UVC) technology we discovered it was possible to design highly effective air purification units with aspect ratios appropriate to meet the configuration requirements for both ceiling and wall mounting. This was not possible for air purifications that used HEPA filters with enough filtering capacity to meet the requirements of this application.

The Airix 24W wall mounted air purifier is specifically designed for rooms up to 500 s/f in area. For rooms greater than 500 s/f, ceiling mounted Airix 24C units, or a combination of both, is recommended.

The Airix 24W comes with a cord that plugs into any standard AC wall outlet while the Airix 24C installs nicely in grid ceilings and is best mounted professionally

As an added bonus, the ultraviolet energy also makes it possible to treat volatile organic compounds, called VOCs, that create the annoying odors and harmful gases, such as formaldehyde and benzyne, that can be present in indoor spaces. According to the EPA, VOCs can be emitted by products such as paints, office equipment, cleaning supplies, pesticides, and thousands more.

Airix 24 units also contain filtration to capture pet dander, a common cause of allergens and skin irritation.

It should be noted that HEPA filters trap, but do not inactivate viruses. Changing a fully used filter which may contain live and growing contaminants can be quite messy while changing the Airix 24 ultraviolet tube cartridge is simple and quick.

Ultraviolet energy has been used since the early 20th century in applications ranging from medical sterilization and drinking water disinfection to surface decontamination and air purification.

Ultraviolet light is radiated naturally to the Earth from the Sun, but the ozone layer blocks most of it from reaching the Earth's surface. It can also be produced using generators at the specific wavelengths proven to kill or inactivate these harmful pathogens. The two 55 watt UV generators contained within each AiriX 24 provide more germ killing power than other air purifiers in its class.

For more information please visit www.airpurix.com

New England Real Estate Journal - 17 Accord Park Drive #207, Norwell MA 02061 - (781) 878-4540