

Air purifier company seeks emergency FDA approval for device that rids indoor air of virus

ActivePure says its plug-in purification systems can eliminate coronavirus-causing pathogens in the air

By **Dalvin Brown**

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As the country races to approve and roll out a coronavirus vaccine, one company is seeking federal approval to attack the ongoing coronavirus crisis from a different angle.

Last week, Dallas-based ActivePure filed an application with the Food and Drug Administration seeking approval to use its range of plug-in air purifiers against SARS-CoV-2, the virus that causes covid-19. The devices are used in homes throughout the United States, utilizing technology shown in studies to kill airborne viruses within enclosed spaces.

Over the summer, the company's Aerus Medical Guardian was designated a medical device by the FDA for use in health-care settings. At the time, it was shown to kill 99.98 percent of the live virus on surfaces within seven hours. Now, after further testing, the company says more of its products are effective against the virus. But this time it's tackling the air.

Recent lab tests revealed ActivePure's patented technology can kill airborne virus particles in three minutes, the company says. When turned on, its Aerus Pure and Clean and Vollara Air and Surface Pro devices work continuously to reduce pathogens indoors, even when people are present in the room.

"We are seeking the (emergency use authorization) for use in all indoor environments so that these areas will be safer for people all over the world in this time of pandemic and beyond," said Joe Urso, CEO and chairman of ActivePure.

Hundreds of thousands of ActivePure filtration devices are installed throughout the country, the company says. Its technology is available in free-standing units as well as HVAC systems within hospitals, government buildings, restaurants, office buildings and homes. Prices start at \$199 and can go as high as \$1,499.

It offers its line of products through various HVAC contractors, Aerus franchisees and Vollara distributors. The company says it will sell directly to consumers "soon."

While many home-based air purifiers rely on passive HEPA filters or ultraviolet light to kill contaminants, ActivePure uses active, NASA-inspired technology to disinfect the air.

Standard air purifiers use a fan and filter system that sucks in unclean air, captures contaminants and pushes clean air back into the room. In the filtration company's system, a fan brings in free oxygen and water molecules and then converts them into special molecules as they pass through an internal UV light.

These ionized particles are then sent back out into a room to find and destroy microorganisms.

“Going out on the attack and proactively neutralizing covid-19 viruses is a highly effective way to minimize the amount of virus that reaches your mask or lands on surfaces you may touch,” said Andy Eide, vice president of engineering at ActivePure in a statement.

The disinfecting method has been shown to work against other RNA viruses, DNA viruses, bacteria, mold and fungi, the company says.

NASA developed similar technology referred to as an ethylene “scrubber” in the mid-1990s to help with growing plants. The device would draw in ethylene, a gas emitted by plants that speeds up decay, and convert it into water and carbon dioxide, which help plants grow.

In 2017, the space agency acknowledged the filtration company’s efforts to introduce the technology to people’s homes. ActivePure used CDC-approved labs that tested its products against the novel strain of coronavirus.

Researchers found ActivePure’s air cleaners could reduce the virus’s concentration in the air by more than 99 percent, according to the company. During testing, the air purifiers were turned to their lowest setting of 29-cubic-feet per minute of air movement.

ActivePure, which is owned by the 96-year-old company Aerus Holdings, isn’t the only air purification firm seeking to combat the ongoing coronavirus outbreak. In September, Hong Kong-based Aurabeat said it received FDA permission to market its device as a medical-grade air purifier under the agency’s modified enforcement policy amid the public health crisis.

More may be on the way. Study trials found the PYURE Company’s air purifier reduced airborne SARS-CoV-2 below the limit of detection in 80 minutes.

The air-cleaning technology may serve as one way to reduce exposure to the virus, which health experts say is spread primarily via respiratory droplets. However, it’s far from a cure or vaccine.

The Environmental Protection Agency warns that disinfecting the air alone is not enough to protect people from the coronavirus. “When used along with other best practices recommended by CDC and others, filtration can be part of a plan to protect people indoors,” the EPA says.

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