

enVerid Systems introduces new high-efficiency air filtration product with UVGI

September 08, 2020 - Owners Developers & Managers

Westwood, MA enVerid Systems unvield a new high-efficiency filtration product that has been shown to capture 99.99% of viruses including a surrogate for the COVID-19 virus. The enVerid Air Purifier combines a high-efficiency filter with built-in ultraviolet germicidal irradiation (UVGI) technology to capture and inactivate viruses. enVerid's solution is one of the only integrated high-efficiency + UVGI filtration products to have undergone independent lab testing for a surrogate virus for SARS-CoV-2, the virus behind COVID-19.

The enVerid Air Purifier is a ceiling mounted, localized filtration solution suitable for offices, classrooms, retail stores, and other commercial applications. It offers a cost-effective way to ensure healthy indoor air quality without the significant expense of upgrading HVAC systems and the "energy penalty" associated with conditioning higher volumes of outside air. Compared to portable air filters, the ceiling mounted system saves valuable floor space, avoids clutter, and allows for more flexible placement to minimize noise and optimize air flow.

"Indoor air quality (IAQ) has never been more important to school administrators, building owners, and tenants as they prepare for people to return to school and work," said Christian Weeks, CEO of enVerid Systems. "Consistent with our company mission to make the world a cleaner, healthier place, we are excited to expand our product offerings with a solution that provides peace of mind for building occupants and owners concerned about COVID-19 airborne transmission in the buildings where we learn, work, and shop."

A modular solution, the enVerid Air Purifier can be deployed individually in high-occupancy zones or in a series across larger spaces. Each unit can clean the entire air volume every 20 minutes in a space up to 1,000 s/f. For an average size classroom with typical ventilation rates, the Air Purifier can help achieve five air changes per hour, which is the number recommended by the Harvard T.H. Chan School of Public Health for classrooms. Multiple units can be installed to meet the requirements of any size space.

The latest guidance for Reopening of Schools and Universities from ASHRAE's Epidemic Task Force recommends the use of high-efficiency filters and UV machines in classrooms, residence halls, and in rehearsal rooms and green rooms. This advice is supported by many experts, including a recent paper from the Harvard T.H. Chan School of Public Health on "Risk Reduction Strategies"

for Reopening Schools." According to the paper, "Portable air cleaners with high-efficiency particulate air (HEPA) filters may be useful to reduce exposures to airborne droplets and aerosols emitted from infectious individuals in buildings."

Similarly, ASHRAE's most recent Building Readiness guide recommends high-efficiency filters "in high occupancy or high bioburden (such as the building entry) spaces" in addition to increasing filter MERV levels in existing air handling equipment fans and motors.

Third-party tests conducted by LMS Technologies, a US-based independent air media and filter testing company, showed that the enVerid Air Purifier removes 99.99% of viruses from air passing through the filter. Testing was done using MS-2-bacteriophage, a surrogate for SARS-CoV-2. Viral efficiency testing was performed according to ASTM F2101-19, the standard test method for determining bacterial filter efficiency for medical face mask materials.

Testing by LMS also showed a single pass efficiency of 99.95% for particles whose diameter is equal to 0.3-0.5 μ m, the lower end of the size range generally attributed to bioaerosols that can carry viruses. The UVC sterilization lamp installed in the return air box kills bacteria and viruses entering the unit and adsorbed on the filters. The Air Purifier can also be used without the UVC sterilization lamp.

Additional information about the enVerid Air Purifier can be found at https://enverid.com/products/air-purifier/.

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