

Understanding The Working Of A Laboratory Air Filtration System

A laboratory air filtration system comprises a heat exchanger, humidifier, and HEPA filter. They eliminate harmful particles in the air while providing ample cooling and moisture removal to protect employees from mold growth. These filters can remove anything from microscopic dust particles to bacteria and viruses while preventing cold-forming airborne pathogens such as radon gas.

Filters Used in This System

HEPA Filters are excellent at capturing and removing bacteria and virus particles. These are the most harmful particles in the air, so they must be removed with great efficiency. HEPA filters are made of a fabric filter with integrated filter foam, protected by material like PE or PET.

The HEPA filter traps almost all airborne particles, including germs, pollen, fungi spores, and animal hair. These filters cost more than other types, but they provide excellent filtration that lasts for years without needing to be replaced.

Working

The filter in the Laboratory Air Filtration System works using the filtration principle. This involves the air passing through a filter media which traps pollutants. Particles that are trapped within this material are collected by suction. If you want to learn about Laboratory Air Filtration System, [click here](#).

The entire process is made up of three phases: collection, release, and re-circulation. First, the air is sucked through the HEPA filter, and any particles that may be there fall into it. Next, the filter media trap these unfiltered particles while clean air passes out of them. Finally, once this has been done, they can be released from the HEPA filter in various ways, such as fans or blowers.

How Are Lab Filters Used?

Lab filters are also used in places with a potential for long-term exposure to specific illnesses from infectious bacteria and airborne viruses. In these instances, medical professionals agree that their effectiveness is highly important because they could lead to hospitalization or the ultimate loss of workers' productivity. For this reason, it is crucial to track lab air filters and get them serviced regularly.

To maintain optimum performance, filters must be cleaned regularly, at least once every six months, by certified personnel who are familiar with how they work. This involves replacing the old filter material and replacing it with clean HEPA filter media and humidifier water.