



FOUR THINGS TO UNDERSTAND WHEN SHOPPING FOR FILTRATION SOLUTIONS

What is a HEPA filter?

HEPA is a type of pleated mechanical air filter. It is an acronym for "high efficiency particulate air [filter]" (as officially defined by the U.S. Dept. of Energy). This type of air filter can theoretically remove at least 99.97% of dust, pollen, mold, bacteria, and any airborne particles with a size of 0.3 microns (μm).

The diameter specification of 0.3 microns responds to the worst case; the most penetrating particle size (MPPS). Particles that are larger or smaller are trapped with even higher efficiency. Using the worst-case particle size results in the worst-case efficiency rating (i.e., 99.97% or better for all particle sizes). To meet the HEPA standard, the filter must remove **99.97% or more of all particles** which are 0.3 microns (micrometers) in diameter.

In other words, **for every 10,000 particles** that are 0.3 microns in diameter, only **three of them pass through**. The smallest virus particles or droplets, including COVID-19, average 0.7 microns.

Look for filters with an H13 rating, also a minimum **Merv 8 prefilter** to increase the life of the HEPA.



WHO ARE WE?

We're passionate about air quality and our small management team has a combined total of 120 years experience in HVAC and building science.

John Daley

John is a product specialist with 40 years of experience working with manufacturers, contractors, and facility managers to link them all together with the right solutions.

Keith O'Hara

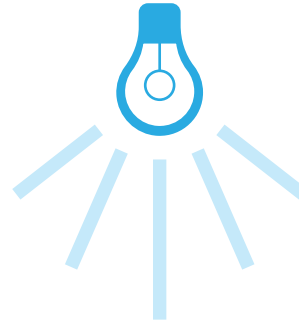
Keith is a licensed C-20 HVAC, and B General building contractor. He has designed, installed, and commissioned thousands of ventilation and filtration systems.

We offer on-site assessment testing, commissioning and design assistance to help schools and commercial building managers create safe indoor air quality.

Consider contacting us before you make any purchasing decisions. Many inferior, and even potentially harmful, products have popped up on the market because of the pandemic. We're here to help you make a data-driven choice—for today and for the long-term air quality issues in the years to come.

What is UVGI?

UVGI is a method of disinfection that uses short wavelength ultraviolet light (UV-C) to inactivate or kill microorganisms and pathogens. Essentially, UVGI is the use of UV light with sufficiently short wavelengths to disinfect surfaces, air, and water. Look for products that are **UL2998 certified** no ozone. Also **CARB** approved for California.



What is the DB scale?

This scale is called **the decibel scale**. On the decibel scale, the quietest audible sound (perceived near total silence) is 0 db. A sound 10 times more powerful is 10 db. A sound 100 times more powerful than near total silence is 20 dB. A sound 1,000 times more powerful than near total silence is 30 dB, 40 dB and so on.

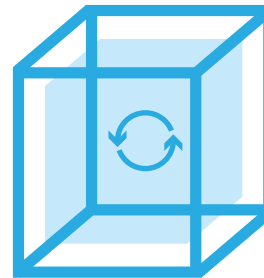
Look for products that are a **maximum of 60db** on high speed for any classroom.



What is ACH?

Air changes per hour, abbreviated ACPH or ACH, or air change rate is a measure of the **air volume added to or removed from a space in one hour, divided by the volume of the space.**[1] If the air in the space is either uniform or perfectly mixed, air changes per hour is a measure of how many times the air within a defined space is replaced each hour.

In the case of filtration it is **how many times the total air volume is cleaned in one hour**, the CDC recommends a minimum of 2 ACH, we feel a better target is **4 ACH** based on this CDC guideline, "If you were in close contact with someone who tested positive for COVID-19 (within 6 feet for more than 15 minutes total over 24 hours).



WHAT DO WE OFFER?

In addition to equipment, we offer assessments and consultation. We understand air quality and employ our experience and skills to help you select the right products for your unique needs.

We have HEPA air scrubbers available capable of 6 ACH for a typical classroom, and smaller wall mount and portable units for offices and even buses or vehicles in 12-volt DC.

All of our products offer H13 HEPA filtration and UL2998 compliant UVGI, all with DB levels below 60.

We also offer a full complement of other HVAC equipment and air quality products including ERV's fans, mini split and VRF equipment.

FREE CONSULTATION

Ask about air flow measurement & trace gas testing

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(800) 798-9458

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