

HEPA Systems Info from Division of Public Health October 2020

Background

In some cases, it is beneficial to use a stand alone HEPA (High Efficiency Particular Air) filtration unit augment existing air handling within a given space. Typically this would be to assist in removal of additional airborne particulate within that given space. If true clean-room or isolation ventilation is desired, this design should be directed to Heating, Ventilation and Air Conditioning (HVAC) design and specialty firm.

General

It would make sense to choose quality units which are manufactured to a known level of performance. A unit sized larger than needed to achieve maximum efficiency should not need to run at its limit to function correctly, thus lowering noise threshold for that particular unit. Additionally, units should be easily maintained by maintenance staff, and replacement filters should be easily accessible for purchase/replacement. Pre-filters should be used/changed regularly to extend the life expectancy of HEPA filters.

I found these recommendations which were geared towards residential units, and found that most of these points/theory were applicable.

- **Figure out where you want to place your air purifier** so you can choose the right size for your space.
- **Look for an air purifier that's good at filtering out pollutants specific to your home or health needs** (removing pet dander or cigarette smoke, for example).
- **Compare *CADR ratings**, which show how effectively an air purifier filters specific pollutants.
- **Choose a device that uses a HEPA filter**, the gold standard for indoor air purifiers.
- **Look at noise levels (listed in decibels) in product specs.** Depending on where you're using your air purifier, you may want a quieter device.
- **Calculate the air purifier's ongoing maintenance and electricity costs** so you can budget beyond your initial purchase.
- **Skip the bonus features**, such as app integration, unless money is no object.

*CADR - clean air delivery rate (CADR) number, a metric developed by the [Association of Home Appliance Manufacturers](#) (AHAM)

Information taken from <https://www.tomsguide.com/reference/air-purifier-buying-guide>

That said, any device that adds something to the air should be looked at closely. Ionization or Ozone for example - I am hesitant to recommend as the levels needed to be effective could impact some people.

Foggers using CDC approved products should be ok to use, as they have undergone rigorous evaluation to attain that approval. The foggers themselves are pretty much a delivery system at that point. It would seem that internally they should be self-cleaning, while the exterior could just be sprayed/wiped down and/or cleaned in accordance with manufactures recommendations.

I understand that there are also peroxide based products being used as well. I am aware but not directly versed on them/their use.

UV light seems to be favored where air handling systems are exchanging/mixing air in dedicated areas. I honestly believe each building, and area of building(s) should be evaluated by a professional to help you to understand the potential benefit for the effort. It may not fit all area's needs, and at that point, be an expenditure with diminishing returns.