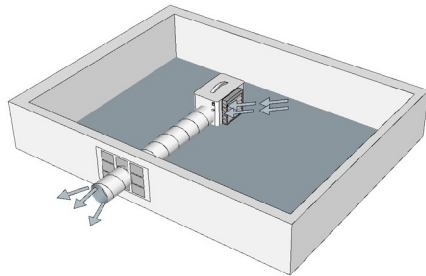


HEPA - High-Efficiency Particulate Air

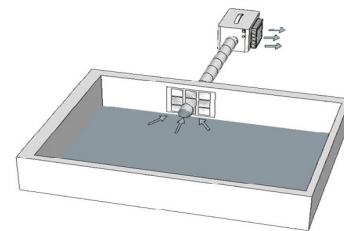
A great article on WebMD¹ helps explain what HEPA filtration is and how it can benefit if you have allergies or sensitivities to dust. While the WebMD article focuses mostly on small, portable, one room residential units it may lend some understanding to how HEPA filtration works and how it can benefit you. Here we hope to give you a basic understanding of how and why we use HEPA negative air filtration on all of our projects.

If you are planning a residential remodel you would likely be concerned about the mess caused by your contractor and the amount of dust migrating throughout your home. You should know that we care about your home and we are the cleanest contractors on the planet, at least we try to be. We pick-up after ourselves every day and never leave you with a mess to deal with. Although no indoor construction project is completely dust free the use of HEPA negative air systems will significantly reduce the migration of dusts and fine powders throughout your home. We use large industrial HEPA negative air filtration systems that capture construction dust like a large vacuum cleaner. A large volume of air is pulled into the HEPA machine like a super vacuum and creates a slight negative pressure (approximately .02 WC) in the containment zone (your kitchen or bathroom). The containment zone is created with light weight clear plastic sheeting that extends from the floor to the ceiling. Specialized tape is used seal the plastic sheeting at the walls, ceiling, floors, doorways, windows,



Inside - HEPA
Negative Air

etc.. This allows the work area to be negatively pressurized and keeps dust from escaping. The incoming vacuum air side (approximately 1500cfm to 2000cfm) is passed through the HEPA Machine then filtered through a high-efficiency particulate air filter (HEPA) with 99.7% efficiency (removing particles as small as 3 microns) and is discharged outside. There are generally two types of negative air configurations. The first, is where the HEPA machine is located inside the containment zone work area such as a kitchen (see Inside diagram). The inside configuration is usually the most efficient, however, depending on the size of your project, and the available room, using the inside configuration may not always be possible. The size of the HEPA machine is approximately 24" wide x 42" long x 36" high and can get in the way even in a standard sized kitchen. There are also (2) 12" discharge ducts that go to the outside through a window or doorway and get in the way too. Were room is limited we use the Outside configuration (see Outside diagram). With the outside configuration the HEPA machine is located outside and (2) 12" ducts are passed through a door or window into the containment zone such as a bathroom (see Inside diagram). The outside configuration is usually the least efficient but is an excellent alternative when space is not available. Both the inside and outside negative air configurations are very effective in the management of construction dust. Even if you don't have allergies or sensitivities HEPA negative air management is the best way to protect you and the contents of your home from construction projects.



HEPA - Outside
Negative Air

¹WebMD Medical Reference Reviewed by Nayana Ambardekar, MD on January 20, 2019, SOURCES: Allergy and Asthma Foundation of America: "Air Filters." Ohio State University College of Medicine Department of Internal Medicine, Division of Pulmonary, Allergy, Critical Care & Sleep Medicine: "HEPA Filters Help Some with Allergies." Link: <https://www.webmd.com/allergies/hepa-filters-for-allergies>