



# Air Filters

Tips For Maintaining  
Indoor Air Quality

The dust in your home is made up of pollen, plant and mold spores, pet dander, lint, bacteria, and other contaminants. Regular, daily activities within the home such as dusting, vacuuming, and cooking can increase particulate concentrations. Breathing in these particles can have various health effects such as irritation of eyes and respiratory tissues, decreased lung function, and even cancer.

One way to help lower the particle count in your home is to use better air filters and change or clean them regularly. Filters are disposable, reusable, or refillable and can be man made or natural fibers. Factors that can affect the efficiency of an air filter include: fiber size, fiber density, airflow rate, and particle diameter. For maximum efficiency and protection it is important to follow the manufacturer's instructions on the filter to see how often the filter needs to be replaced or cleaned. The 5 main types of filters are:

(1) Panel filters are usually 1" fiberglass filters, typical furnace filters installed in the duct work of most home HVAC systems. Primary function is to protect the fan and minimize amount of dust on coils; they do little for removing air contaminants; (2) washable/reusable filters are designed to be washed and reused, and therefore never become completely clean. Because of this they can be inefficient at capturing small particles; (3) pleated filters are panel filters that have been pleated or folded to provide more surface area. These filters are typically more efficient than panel filters, but must be changed on a regular basis because flow velocity is reduced. (4) high efficiency pleated filters are pleated filters with an electrostatic charge that is designed to capture small particles and allergens that the previously discussed filters do not; and (5) high efficiency particulate air (HEPA) filters are extended filters that remove sub-micron particles with high efficiency. These types of filters are not designed to fit most standard furnaces and generally require a separate system consisting of a fan and filter.

## Tips for purchasing and maintaining air filters:

- Before purchasing a filter be sure to research the size and type of filter required for your HVAC system and the level of air quality required for your family. This will help ensure you purchase the filter that best fits your needs.
- Read the manufacturer's instructions on maintaining your furnace to determine where the filter is located and how often you should have your furnace inspected by a licensed heating contractor.
- Maintenance is key. As filters become loaded with particles, the available openings for air to flow through become smaller. Disposable filters need to be replaced on a regular basis to insure proper air flow.
- Consider changing air filter more frequently if you are introducing high levels of particulate into your home or have a family member with asthma, allergies, or another lung disease.
- Central filtration system must be operated with the fan "on" for constant air movement through the HVAC system.

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