

Furnace Filters Guide – Choosing The Best Residential Furnace Air Filter For Your Home

By Jackie LoBuglio (JD Supply Furnace Filter & Air Cleaner Outlet)

Residential furnace filters have evolved considerably, cleaning up our air and our homes better than ever before. Affordable residential furnace air filter and air purification technologies can now efficiently cleanse our air of dust and particles down to the sub-micron size range - particularly benefiting anyone who suffers from allergies and asthma. You now have a wide range of residential furnace air filters to choose from – so read this article to help you decide which air filter type you should select next time you change out Your furnace filter.

Modern Residential Furnace Air Filter Technologies

The traditional residential furnace air filter that many people continue to use was designed to protect our ductwork and air conditioning system from relatively large dust particles, rather than to clean the air in our homes. However, an increasing awareness of indoor air pollution, and the availability of more sophisticated air filter technologies that can improve our lifestyle, revolutionized the range of residential air cleaning products that are now available to us.

Free-standing HEPA air purifiers may be situated in specific rooms (often children's bedrooms) to cleanse the air of fine particles such as tobacco smoke and pollen grains. Additionally, powerful 'whole house electrostatic air cleaners' or 'whole house HEPA air purifiers' are now commonplace, because these 'central units' can actually cleanse the air that we breathe throughout our entire home.

Your Furnace Air Filter Lifecycle

For efficient operation, your furnace air filter must never restrict airflow to your furnace beyond the capability of its fan to compensate. For this reason, and for maximum energy efficiency, all furnace manufacturers (and furnace air filter manufacturers) recommend that you check your furnace air filters regularly - and change them once they have become loaded to their dust holding capacity.

So How Can You Tell When Your Furnace Air Filter Needs Changing – The two most obvious indicators that your furnace filter has reached the end of its life cycle are:

- Your furnace air filter is visibly plugged with dust and debris
- You are experiencing significant airflow reduction from your heating/cooling vents

Residential Furnace Air Filter Types And Their Effectiveness

If you are still using a traditional furnace air filter we highly recommend that you consider upgrading to a more sophisticated type of air filter at your next change out. You will immediately experience the benefits that come with cleaner air including:

- Cleaner air to breathe (allowing reduced susceptibility to allergy induced asthma if you choose the right filtration system)
- Less dust in your home so that less cleaning is required

In order to help you decide which type of air filter you should choose, let's review the most commonly available residential furnace air filters in order of their effectiveness:

1. Traditional Fiberglass Disposable Furnace Air Filters (Limited Effectiveness)



The most commonly used residential furnace air filter is the *'Fiberglass Throwaway Panel Air Filter'* – one of the least expensive residential furnace air filters that you can buy (hence it's popularity). However, we in the trade refer to it as a "bugs and birds air filter", primarily because it is only designed to capture larger particles and debris.

The fiberglass throwaway panel filter is designed only to protect your furnace fan and ductwork from by large dust particles, but it will not clean your air very efficiently at all. Fiberglass furnace air filters are normally not rated using the Minimum Efficiency Reporting Value (MERV) air filter efficiency rating system (if it were it would only be able to achieve a MERV 2 or MERV 3 rating at best).

2. Polyester Disposable Furnace Air Filters (Minor Effectiveness)



Since polyester fibers are less irritating than glass fibers, *'Polyester Throwaway Panel Air Filters'* are considered better to work with than fiberglass throwaway air filters. Polyester throwaway filters also have slightly higher efficiency than their fiberglass counterparts because the polyester fibers pack more efficiently allowing a better particle retention capacity. Polyester furnace air filters are also not usually rated using the MERV rating system (but would be equivalent to a MERV 3 or MERV 4 at best).

3. Traditional Pleated Disposable Furnace Air Filters (Effective – Very Effective)



'Pleated Throwaway Panel Air Filters' are typically manufactured from non-woven synthetic media, formed into a V-shaped or U-shaped pleat configuration, and bonded to expanded metal wire reinforcement. This is then glued to (high wet-strength) beverage board for a rigid air filter that virtually eliminates 'dirty air bypass' when installed properly. Pleated panel furnace air filters are available in a range of efficiencies from MERV 7 through MERV 11.

4. Residential Air Cleaner Furnace Air Filters & Cartridges (Highly Effective)



Furnace and furnace air filter manufacturers such as Honeywell, Aprilaire, Carrier, York, and others, have developed a type of *Air Cleaner Module* that can be installed on the return air side of your furnace. These modules accommodate 3"-6" depth, high efficiency residential air cleaner filters that are similar to a pleated filter, but have higher dust holding capacity because of their increased depth.

Residential Air Cleaner Filters are readily available in a range of efficiencies including MERV 8, MERV 11 and MERV 12. Some have a plastic or metal frame that is reused, while the dirty media is thrown away and replaced with new stock. *Cartridge Style Air Cleaners* are disposed of completely when spent. If you have one of these air cleaner modules installed in your furnace, you can purchase replacement filters for most brands at our [Discount Online Air Cleaner Outlet](#).

5. Residential Air Whole House HEPA Air Purifiers (Maximum Effectiveness)



High Efficiency Particulate Air Filters (HEPA Filters) are now available for removal of airborne sub-micron sized particles 'Whole House HEPA' residential furnace filtering applications.

Though whole house HEPA filters are more expensive than standard filters (and may also require special installation), they can be extremely beneficial for allergy and asthma sufferers because they very efficiently remove sub-micron particles from the air in your home.

Note: when an air filter works long enough to accumulate trapped dust particles, it actually becomes better at capturing even smaller particles. However, at some point, it will become too restrictive to the furnace airflow, and must then be changed out. For this reason, Whole House HEPA filters are often equipped with a separate blower to compensate for the limited capacity of a standard furnace to overcome the inherent airflow resistance of the HEPA filter.

Choosing The Optimum Residential Air Filter Summary

If you're still using the cheapest possible disposable residential air filter in your furnace / HVAC system, you're probably not achieving very much air filtration at all. By moving up to a quality pleated air filter you'll remove significantly more particulate which will help you breathe more easily and also help you keep your home much cleaner.

If you want higher performance and are willing to make a modest investment, consider installing a residential air cleaning unit. In our opinion, anyone building a new home or replacing an existing furnace / HVAC unit should seriously consider installing a residential air cleaner as part of their new heating / cooling system.

If you, or a family member, suffer from allergies, a Whole House HEPA unit is undoubtedly your best possible solution. This technology is now affordable for most people, and it has the power to literally transform your home lifestyle when correctly implemented.

Whichever residential air filter technology you decide is your best fit, you must remember to change out your filter at the appropriate time, otherwise your furnace / HVAC system will not function correctly and your investment will be wasted.

When it comes to upgrading your residential air filter system or buying your replacement filters check out the online discount air filter catalog at JD Supply. We stock the major brands and models with best available discount pricing. If you can't find what you need in our catalog just e-mail info@boiler-outlet.com or call **1-866.800.9286** for a best available discount price quotation. We also provide a custom air filter fabrication service, and ship discount residential HVAC equipment and air filters anywhere in North America.