

## **Keep a Filter Schedule**

If choosing the right air filter for your HVAC system is confusing, you're not alone! From the right size to the best MERV rating, making sure you have the best air quality in your home or office can be a challenging process.

Asthma and allergy sufferers are particularly sensitive to the air quality around them. The wrong air filter may mean you're breathing in more dust or allergens that can trigger asthmatic and allergic episodes. With the correct MERV rating knowledge, your air filtration system will help you breathe better clean air in your home or workplace.

So what exactly is a MERV rating? And, how can it make a difference in breathing easier?

## **What is Air Filtration?**

Breathing is automatic. For most of us, this means we often overlook what actually happens in the process. Even during a single breath, the air you breathe contains particles of dust, dirt, allergens and other microscopic contaminants that easily enter your lungs. Depending on where you live and work, the outdoor air entering your lungs can be a nightmare combination of harmful particles. Most people are aware of outdoor air pollution, and what hazy weather really means. However, this is true for both air outdoors and indoors.

While one can't filter outdoor air, you can filter indoor air! The air in your home or business is the one place you truly have control over, thanks to filtration. Air filtration is the process of removing harmful particles from the air to create clean, less harmful air. Filters quite literally are able to capture harmful particles and keep them from recirculating throughout your space. This is a beneficial process for anyone spending time indoors. If you struggle with allergies and asthma, it's especially critical to live and work in environments that provide excellent air filtration to help you breathe better throughout the day.

## What is MERV?

MERV is simply an acronym. It stands for minimum efficiency reporting value. A filter's MERV rating is based on how many or how few particles are captured and removed from the air. Thus, the rating is important when choosing the best air filter for your HVAC system and health needs. In general, a good rule of thumb is:

**Lower MERV Ratings:** Trap fewer particles ... thus more particles are recirculated in the air

**Higher MERV Ratings:** Trap more particles, and can capture and filter the smaller particles

This means choosing a filter with a higher MERV rating produces cleaner air as the filter traps a broader range of particles, both large and small. MERV filters capture a multitude of particles, such as: carpet fibers, pet dander, pollen, dust mites, mold spores, bacteria and tobacco smoke.

## What Do the Ratings Mean?

MERV ratings are distributed on a scale from 1-20. However, most residential and commercial buildings don't need filters above a MERV 16 rating.

The scale is based on the micron size of particles that the filter allows through your HVAC system. However, microns might not be the easiest way for most to understand precisely which particles your filter traps to keep out of your breathable air!

In our best layman's terms, here's an easy breakdown of the MERV scale, in terms of how many or how few contaminants are trapped in a filter:

**MERV Ratings 1-4** These filters capture particles larger than 10.0 microns. A filter with these ratings are "basic" filters that help keep your system clean, but will not significantly improve the air quality in your home or office. These filters can trap dust mites, bugs and most household debris.

**MERV Ratings 5-8** These filters capture particles between 3.0-10.0 microns. With this range of filters, you begin to significantly improve the quality

of the air that filters through the HVAC system. In addition to larger particles, these filters also trap pet dander, mold and aerosol sprays.

**MERV Ratings 9-12** These filters capture particles as small as 1.0-3.0 microns in addition to the larger particles. These filters also trap common pollutants and most dust particles. Superior residential air conditioners and most hospital labs choose filters within this range.

**MERV Ratings 13-16** These filters capture particles as small as 0.3 microns. When using filters with the highest ratings, your HVAC system can trap sneeze droplets, smoke and most other sources of pollution. You'll find this level of filtration used in hospital rooms where patients stay or in surgery areas.

For asthma and allergy sufferers, MERV filters between 11-13 are recommended. These filters provide the best air purification to help ease symptoms of lung conditions or allergy flare-ups.

MERV 13 filters can trap and filter out airborne viruses and bacteria, something that is a high priority for most today. This is the best filter for home use.

But what about MERV ratings 17-20? These filters can capture virtually all particles, but most homes or businesses don't require this level of purification. These filters can also be very expensive. You'll find this level of filtration in designated clean rooms used for specific manufacturing and scientific needs.

### **What About Pricing and Replacement?**

As the MERV rating increases, so does the price. However, depending on how often you need to change your filter and where you buy your filters, choosing a higher MERV filter can improve your air quality without costing more.

In most cases, you should replace lower MERV filters every month. You might spend less on these filters, but you'll need to change them more often than higher rated filters.

When choosing higher rated filters you can generally replace them every 60-90 days. You might spend a little more on the purchase price of these filters, but you won't need to change them nearly as often, with cleaner air overall.

### **Keep a Filter Schedule**

It's important to keep track of when your system needs new filters. A dirty filter can restrict airflow in your HVAC system. Also, clogged filters are ineffective at filtering particles and keeping your air clean. Neglecting to change your filters on a schedule can cause expensive damage to your system and worsen health issues.

It's always important to keep an eye on your filters. If the filter is visibly dirty before the 90 day mark, you should change it. Never leave your system without a good filter or with a dirty filter.

### **Get Help Choosing Your Ideal MERV Rating**

We know this is a lot of information on different ratings at once, and it can be confusing to choose the best air filter for your home or business. We're happy to help guide you through the best MERV filter options for your residence or business!