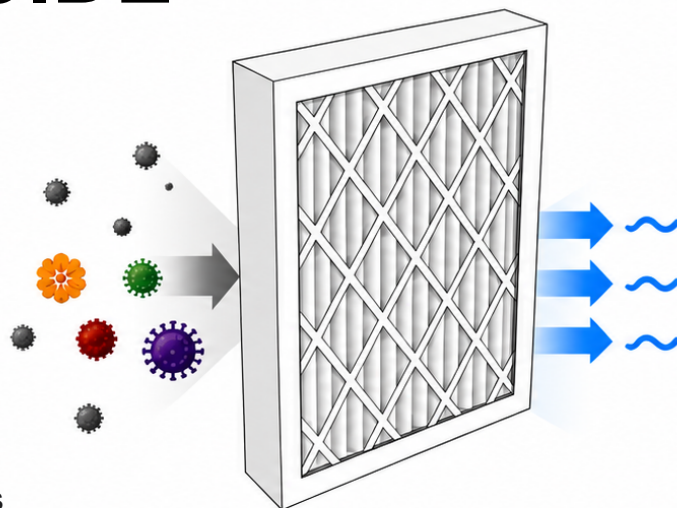


HVAC FILTER GUIDE FOR SCHOOLS

Guide to air filters for Heating, Ventilation, and Air Conditioning (HVAC) systems in schools.

Air filters can help improve indoor air quality by filtering out harmful particulate and biological pollutants, such as dust, smoke, pollen, mold, viruses, and bacteria. These filters are assigned different ratings based on their ability to remove specific particles from the air. This guide explains filter ratings to help you select the best filter that meets your school's air quality needs.



WHY FILTERS MATTER



DUST



POLLEN



SMOKE



MOLD



BACTERIA



VIRUSES

HOW ARE HVAC FILTERS RATED?

Minimum efficiency reporting value (MERV) ratings express a filter's ability to capture particles of different sizes. Filters used in HVAC systems typically range from MERV 1 (lowest particle removal efficiency) to MERV 16 (highest particle removal efficiency).

There are several ways to rate air filters. The most common is MERV, but you might also see others like FPR (Filter Performance Rating) or MPR (Microparticle Performance Rating). Even though they have different names, the rule is the same: the higher the rating, the better the filter is at catching small particles to keep your air clean.

WILL A HIGHER MERV FILTER INCREASE ENERGY COST?

Not necessarily! Higher-efficiency filters can increase resistance to airflow (pressure drop), which may affect energy use. However:



Filter design varies widely—higher MERV does not always mean higher energy use.



Some high-efficiency filters are designed to maintain airflow with lower resistance.

Before upgrading:



Check your system's specifications.



Consult an HVAC professional if unsure.

DID YOU KNOW?



- Higher MERV filters capture more of the small particles that can affect students and staff health.
- A properly installed filter is just as important as the MERV rating.
- Higher MERV does not always mean higher energy cost.



Clean air supports better health, fewer absences, and better learning for students and staff.

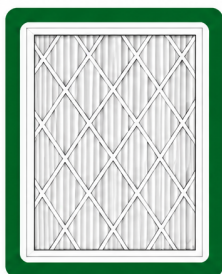


1. HOW CAN I TELL IF THE FILTER IS THE RIGHT SIZE FOR MY FURNACE/HVAC SYSTEM?

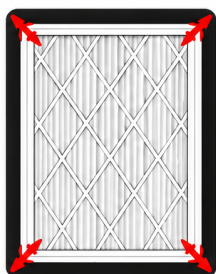
Filters are usually 1 to 5 inches thick and come in many sizes to fit different systems.

Choose a size that fits snugly in your filter frame. Air should not be able to leak around the edges, but you also shouldn't have to bend or crush the filter to force it in.

If you are not sure which filter to use, check the HVAC manufacturer's recommendations or contact a HVAC technician for help.



GOOD FIT FILTER



POOR FIT FILTER

2. HOW OFTEN SHOULD I REPLACE THE HVAC FILTER?

Replace filters according to manufacturer's recommendations. Many factors can affect how quickly filters get dirty. Look for signs that it might be time to change your air filter.

- Visible dust and dirt buildup on the filter surface.
- Reduced airflow from vents or longer HVAC run times.
- Increased energy bills.

Best practices include:



Check monthly: Visually inspect your filter once a month to see if it's dirty.



Mark the date: Write the installation date on the edge of the filter.



Turn off system: Always turn off the HVAC system before changing the filter to prevent debris from entering the unit.

3. HOW DO I PICK THE RIGHT FILTER FOR MY HVAC SYSTEM?

Depending on your needs, a higher MERV rated filter will take out more from the air than a lower rated filter.

MERV 13 or higher is recommended to provide the best filtration and cleanest air. However, it can put a strain on your HVAC system if it is older (pre-2010). Always check your manufacturer's recommendations, or consult with an HVAC technician to prevent damage to your HVAC system.



RECOMMENDED

If your HVAC system can accommodate it, a MERV 13 or higher filter is recommended for the best air filtration.

MERV RATINGS: WHAT THEY CAPTURE

The following infographic will help you decide which filter to buy depending on what your indoor air quality needs are.

Lower ← Efficiency → Higher

Contaminant	MERV 4	MERV 6	MERV 8	MERV 11	MERV 13
Lint					
Dust					
Pollen					
Dust mite debris					
Mold spores					
Smoke					
Smog					
Pet dander					
Bacteria					
Viruses					

