

# Breathe Easy: Understanding the Differences Between MERV Filters in Commercial Applications

## Introduction to MERV Filters

- Filters with a **MERV rating of 1-4** can trap less than 20% of particles 3.0-10.0 microns large
- Filters with a **MERV rating of 6** can trap around 50% of particles between 3.0-10.0 microns large
- Filters with a **MERV rating of 8** can trap around 85% of particles between 3.0-10.0 microns large
- Filters with a **MERV rating of 10** can trap around 50%-65% of particles 1.0-3.0 microns large, and 85% or more of microns 3.0-10.0 microns large
- Filters with a **MERV rating of 11** can trap around 85% of particles 3.0-10.0 microns large, 65% of particles 1.0-3.0, and 20% of particles 0.3-1.0 microns large
- Filters with a **MERV rating of 12** can trap around 80%-90% of particles 1.0-3.0 microns large, and 90% or more of 3.0-10.0 microns large
- Filters with a **MERV rating of 13** can trap around 90% of particles 3.0-10.0 microns large, 85% of particles 1.0-3.0, and 50% of particles 0.3-1.0 microns large
- Filters with a **MERV rating of 14** can trap around 75%-84% of particles 0.3-1.0 microns large, and 90% or more of microns 1.0-3.0 microns large
- Filters with a **MERV rating of 16** can trap around 75% or more of particles 0.3-1.0 microns large

MERV stands for Minimum Efficiency Reporting Value and is a rating system that measures the effectiveness of air filters. The higher the MERV rating, the more efficient the filter is at trapping airborne particles.

In commercial applications, it is important to choose the right MERV rating for your specific needs. Different industries and environments require different levels of air filtration to maintain clean and healthy air quality.

## MERV 8 Filters

MERV 8 filters are commonly used in commercial buildings, schools, and hospitals. They are designed to capture large particles such as pollen, dust mites, and pet dander.

While MERV 8 filters provide basic filtration, they may not be sufficient for environments with high levels of pollutants or where people with allergies or respiratory issues are present.

## **MERV 10 Filters**

MERV 10 filters are an upgrade from MERV 8 filters and are suitable for environments with moderate levels of pollutants. They can capture smaller particles such as mold spores and fine dust.

MERV 10 filters are commonly used in commercial kitchens, manufacturing facilities, and laboratories where air quality is crucial for product safety and employee health.

## **MERV 11 Filters**

MERV 11 filters are designed to capture even smaller particles such as bacteria and viruses. They are commonly used in hospitals and other medical facilities where airborne pathogens pose a significant risk.

In addition to medical environments, MERV 11 filters are also suitable for commercial buildings with high occupancy rates and areas with poor outdoor air quality.

## **MERV 12 Filters**

MERV 12 filters are highly efficient at capturing particles such as smoke, fumes, and odors. They are commonly used in industrial settings where air pollution is a concern.

MERV 12 filters are also suitable for commercial buildings located near highways or other sources of outdoor pollution.

## **MERV 13-16 Filters**

MERV 13-16 filters are the highest-rated filters and are designed for specialized applications such as clean rooms and data centers. They can capture extremely small particles such as bacteria, viruses, and smoke.

MERV 13-16 filters are also suitable for environments with high levels of pollution or where people with severe allergies or respiratory issues are present.