EHRS Fact Sheet

Air Purifier

Maintaining healthy indoor environments is important, and air purifiers can play a supporting role by helping reduce airborne pollutants such as dust, allergens, smoke and microorganisms. While they are not a stand-alone solution and cannot replace proper ventilation or a well-maintained HVAC system, air purifiers can be a useful part of a broader strategy to support occupant health and overall comfort.

Quick Take

What is Clean Air Delivery Rate (CADR) ?
CADR indicates how quickly an air purifier can remove smoke, dust, and pollen from the air, serving as a key measure of overall purification efficiency and real-world performance.

Why is Room Size Compatibility important?
Choosing an air purifier with a capacity that matches your room size ensures effective air cleaning and prevents underperformance or unnecessary energy use.

Filter Types:
Different air purifier filters target specific pollutants, so understanding their functions helps you choose the right system for your needs.

1. Prefilter:
A prefilter helps improve an air purifier's performance and lifespan by capturing large particles before they reach the main HEPA filter. Its primary functions include:

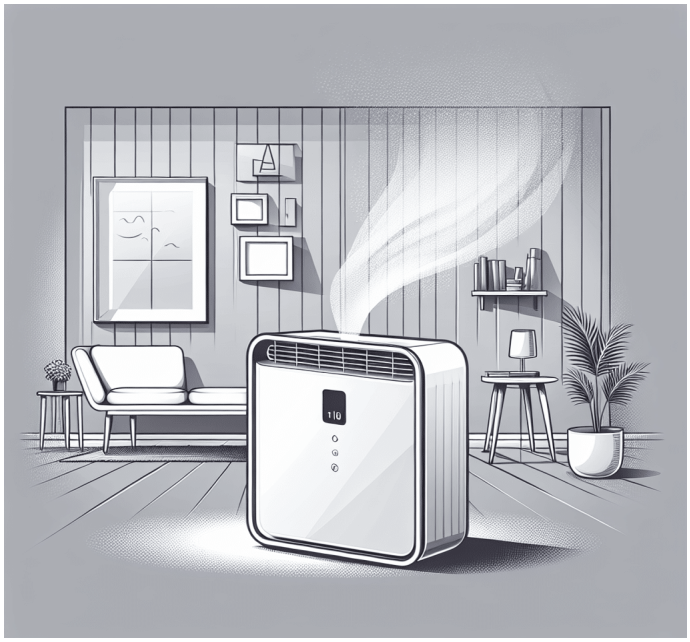
- Captures big particles such as dust, lint, pet hair, and larger pollen.
- Prevents the HEPA filter from clogging, allowing it to focus on fine particles like smoke, mold spores, and other tiny pollutants.
- Extends the life of the HEPA filter, reducing how often it needs to be replaced.
- Helps maintain airflow and efficiency, so the purifier can run effectively.

2. HEPA Filters:
HEPA filters capture at least 99.97% of microscopic particles, including allergens and fine dust, making them one of the most effective options for improving indoor air quality.

3. Carbon Filter (also called an activated carbon filter):
A carbon filter helps remove airborne gases and odors that HEPA filters cannot catch.

What Air Purifiers Cannot Do

- Cannot remove pollutants stuck to surfaces (dust on furniture, settled particles)
- Cannot improve outdoor air or fix building ventilation issues
- Cannot filter gases or chemicals unless equipped with activated carbon
- Cannot work effectively if the room is too large for the device's capacity
- Is not a substitute for addressing the source of contaminants



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