

HEPA Air Filters

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Most room air purifiers weigh 10-20 pounds, have a handle, and stand on the floor or a table. They should have a HEPA (High Efficiency Particulate Air) filter (pleated for large filter area) to remove dust, smoke and pollen particles as small as 0.3 μm from the air at their highest and lowest speeds. Consumer Reports (<https://www.consumerreports.org/>) has comparison ratings (Blueair was highly rated there). Look for Energy Star qualified room models to minimize costs. (Do not use electrostatic-precipitators or ionizers, which produce ozone, a lung irritant. Non-HEPA filters work poorly.)

For better efficiency and quietness, pick a larger unit and run it at lower speed, rather than higher speed on a small one. Maximum clean-air delivery rate (CADR) is a measure of cleaning speed. CADR above 350 is good. Choose a model designed for an area larger than yours for better cleaning at a lower, quieter speed.

The HEPA filters should be replaced annually, depending on usage. Some units have a pre-filter for larger airborne particles before they reach the HEPA filter, possibly extending its life; these may be washable. They should also have a charcoal pre-filter to remove certain gaseous pollutants; these must be replaced every 3-6 months of usage, and cannot remove all types of gaseous pollutants.