

Make Your Own Filter Fan

Clean the air inside your home

FILTER FANS CAN HELP KEEP THE AIR INSIDE YOUR HOME CLEAN AND HEALTHY.

One easy and affordable way to make your own air cleaner at home is with a box fan and a furnace filter. These “filter fans” can filter out the small particles that are common in wildfire or wood smoke. Particle pollution can lead to a number of immediate and long-term health impacts such as trouble breathing, asthma attacks, and lung and heart disease. Particle pollution is especially dangerous for children, the elderly, and people with sensitive immune systems.

HOW DOES THE FILTER FAN WORK?

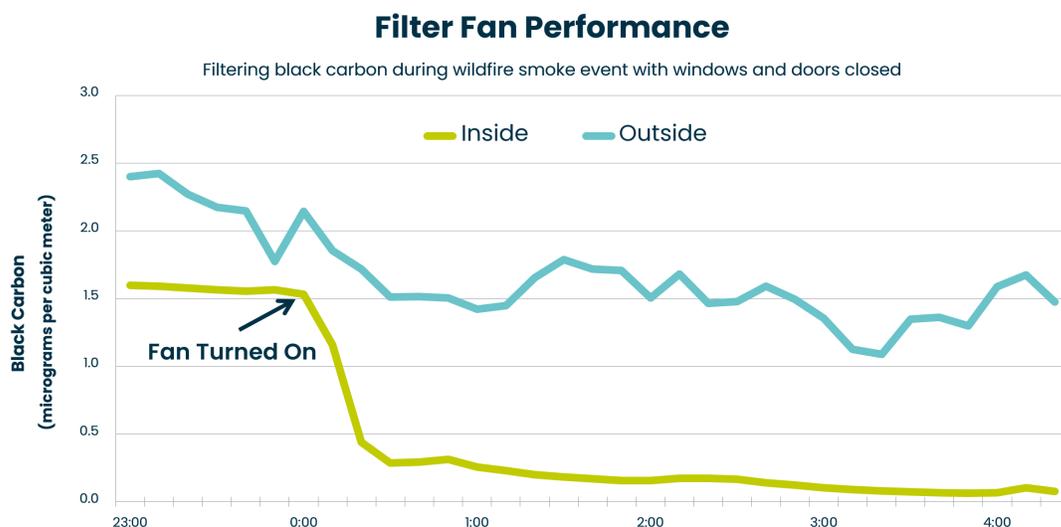
The fan sucks air through the filter, trapping dust, pollen, and other particles. Cleaner air comes out the other side. Attach the filter to the back of the fan making sure the arrows on the filter are pointing towards the fan. Then turn the fan on.

HOW EFFECTIVE ARE HOMEMADE FILTER FANS?

We measured air pollution levels in four homes in the Puget Sound region to learn more about how these filters perform. In smaller rooms, with the windows and doors closed, we found up to a 90% reduction in air pollution.

When used properly, a small room can be cleaned in 15 minutes or less. The filter fan cannot clean large rooms, but if placed nearby it can help clean the area around you.

It is important to keep windows and doors closed when using the filter fan. This prevents polluted air from re-entering the room.



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FILTER FAN USE INSTRUCTIONS

Box fans were not designed for use with filters and the safety of filter fans has not been tested. Be sure to follow these instructions:

- Use the fan in the room you spend the most time in.
- Position the fan toward the middle of the room, away from walls and big objects. Do not position the fan near a dusty or dirty area or the fan will blow the dust into the air.
- **Close all windows and doors while fan is in use.** The filter fan can't clean the air if outside pollution is re-entering the room. However, if it is too hot inside you can open a window and run the fan without the filter.
- Use the fan for at least 10–15 minutes when needed.
- For electrical safety, do not use the fan in the bathroom or near water.
- Turn off the fan periodically to prevent overheating.
- Turn off filter fan when you leave the room.
- **Do not use while sleeping or not at home.**
- Replace filters every 3 months or when they look dirty.
- Filters should have a “MERV-rating” of 13.
- **By accepting the filter fan, the user accepts responsibility for the use, maintenance, and performance of the filter fan received from the Puget Sound Clean Air Agency.**

WHEN SHOULD YOU USE THE FILTER FAN?

- If the air outside is smoky or dusty. During and after anything that creates indoor air pollution, like smoking, cooking, or burning incense or candles.
- For safety, fans should not be used if no one is home or if everyone is asleep.
- Do not use the filter fan if the windows are open.



ASSEMBLY INSTRUCTIONS

There are two versions that you can make at home, one using metal clips with a screw driver and one using plastic brackets with no tools.

Printed assembly instructions are included with the filter fan kits.

You can also find them at pscleanair.gov/filterfan