

# *PuriFresh*<sup>®</sup>

## CLEAN ROOM

### INSTALLATION MANUAL AND OPERATING INSTRUCTIONS

**CAUTION:**

READ AND UNDERSTAND THIS MANUAL THOROUGHLY  
BEFORE INSTALLING OR OPERATING THE UNIT!

ElaTek, Inc.  
2 Chippewa Court  
Madison, WI 53711  
Telephone: 608-238-2039  
Facsimile: 608-238-0270  
<mailto:inquire@purifresh.com>  
Internet Address: [www.purifresh.com](http://www.purifresh.com)



Made in the USA

## I. INTRODUCTION

Many people who suffer from allergies or asthma would love to open a window to let in fresh air, especially in the spring and fall. They don't because of the allergens in the outside air, which will induce allergic reactions, or even an asthma attack. Instead, they sit with their windows closed in stuffy indoor air. Even with the windows closed, there is a small amount of infiltration of outside air, even in the tightest new homes. In older, leaky homes, there can be a substantial amount of outside air entering with the windows closed. This air contains outdoor allergens. While running an air cleaner can reduce the amount of allergens, it cannot eliminate them from the indoor air, as long as they are continually entering through infiltration through cracks.

The PuriFresh<sup>®</sup> Clean Room forces HEPA filtered air into the room under pressure, reversing any flow of outside air through cracks. Since the PuriFresh<sup>®</sup> Clean Room uses a commercial grade single pass true HEPA filter, the air entering the room is completely scrubbed of all allergens, including mold spores. In addition, essentially all of the micron-sized particulates, generated by power plants, diesel trucks, etc., are removed. In many parts of the country, these particulates are at high enough levels to represent a health hazard, especially for vulnerable people such as the elderly or people with asthma.

<b>Product Specifications:</b>	
Maximum Air Flow	140 CFM (Cubic Feet per Minute)
Maximum Pressure Drop	0.7 inches of water at cutoff (no air flow)
Filter <sup>1</sup> Performance	99.97% of 0.3 micron particles (true HEPA)
Filter Size	12" x 24" x 3"
Overall Size	12" x 24" x 12 1/8" (excluding connector, knob and latches)
Weight	24 pounds
Power consumption	40 Watts (max.)
Sound level at 120 CFM	Less than 50 dB at 1 meter
Inlet Connector	Standard round 4 inch connector

<sup>1</sup> The filter is manufactured by Glasfloss Industries ([www.glasfloss.com](http://www.glasfloss.com)).

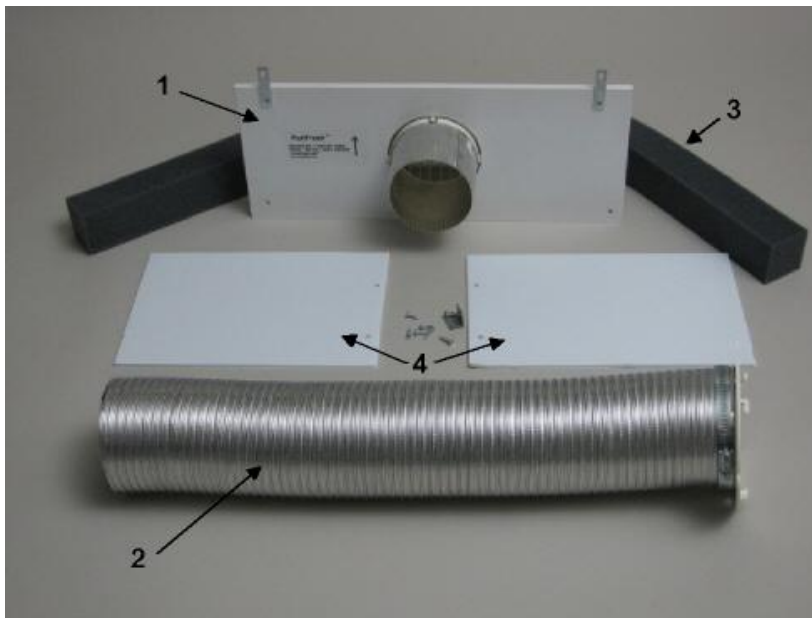
## II. INSTALLATION

We will describe installing and running the PuriFresh® Clean Room using the optional Window Kit, sold separately. The Window Kit is shown in Figure 1, and it is intended for use in a double hung window only. If you have another type of window, contact us before attempting to install the Window Kit.

Open the Window Kit and check to see that you have the following:

1. One Fresh Air Intake.
2. One flexible 4-inch duct.
3. One black open cell foam gasket block 2" x 2" x 36".
4. Two pieces of corrugated plastic board 8" x 12" x 3/16".
5. One sash-retaining angle with screw hardware.
6. Two flat head and four round head wood screws.

For installation, you will need a screwdriver, a utility knife, a ruler, and a small drill for making a pilot hole.



**Figure 1: The PuriFresh® Window Kit.**

Before beginning installation of the Window Kit, remove the PuriFresh® Clean Room from its box. Place it on the floor as shown in Figure 2, in the approximate location it will go. Plug it in to a three-pronged outlet directly. The use of an extension cord is not recommended. If the outlet is not three pronged, have a qualified electrician convert it. Turn the unit on to check that it has not been damaged in shipment.

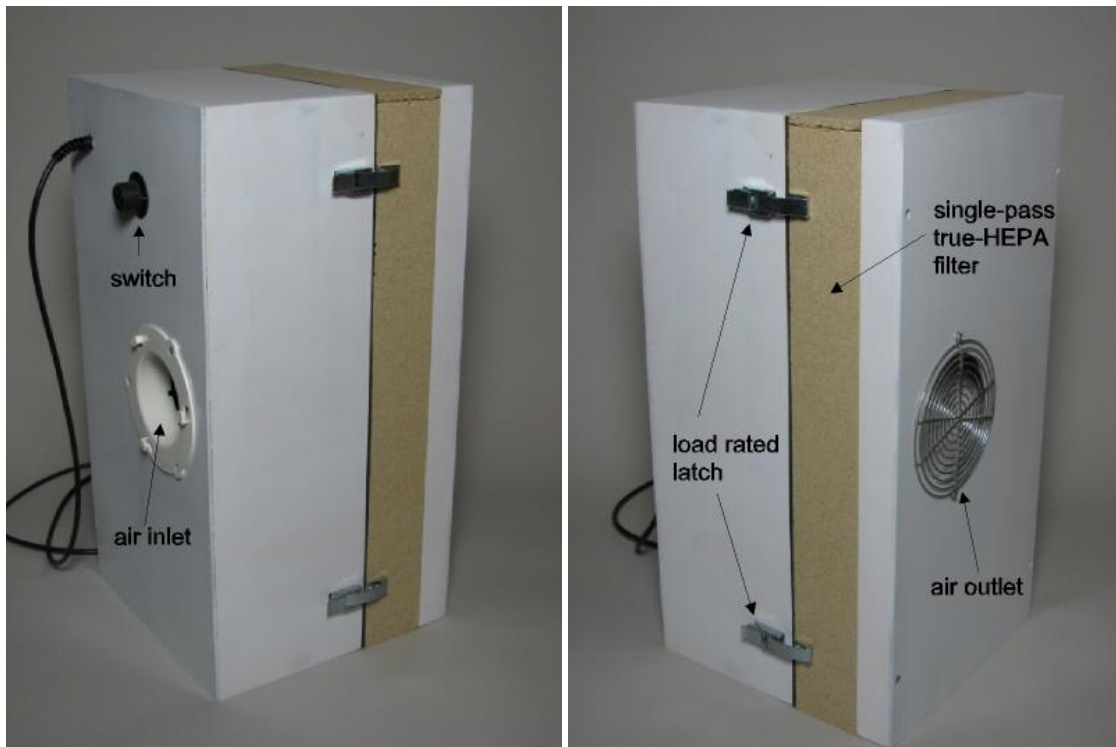


Figure 2: The PuriFresh® Clean Room.

The Window Kit can be installed in any double hung window with a width between 20 and 40 inches. **DO NOT INSTALL IN A WINDOW ABOVE A SIDEWALK OR ANYWHERE SOMEONE MAY BE BELOW WHO CAN BE INJURED OR KILLED IF PART OF THE KIT OR A TOOL FALLS OUT DURING INSTALLATION.** Open the window sash approximately 10 inches or more. Attach the fresh air intake to the window sash using the two mending plates and the two flat head screws as shown in Figure 3. Note: If one of the corrugated plastic boards (see Figure 1) is wide enough to cover the opening that remains, the fresh air intake can be placed to one side of the window opening as shown in Figure 3. If the window is too wide (greater than approximately 29 inches), position the fresh air intake to be approximately centered in the window opening.

To make the process of attaching the Fresh Air Intake to the sash easier, we suggest marking the screw positions first with a pencil, then drilling pilot holes.

**Be sure to install the Fresh Air Intake with the arrow on the label pointing up.** This places the clear plastic hood over the opening on the outside in the position that prevents rain from entering the opening.



**Figure 3: Attach the Fresh Air Intake to the window sash using the mending plates and flat head wood screws, as shown. BE SURE THAT THE ARROW IS FACING UP.**

Use the corrugated plastic pieces supplied with the Window Kit to cover the open gap, or gaps on the side of the fresh air intake. Measure the width of the gap. Add an inch, then cut the corrugated plastic piece to that width. Place the cut piece with the two holes overlapping the Fresh Air Intake. Use two of the round head wood screws provided to attach the plastic piece to the Fresh Air Intake, as shown in Figure 4.

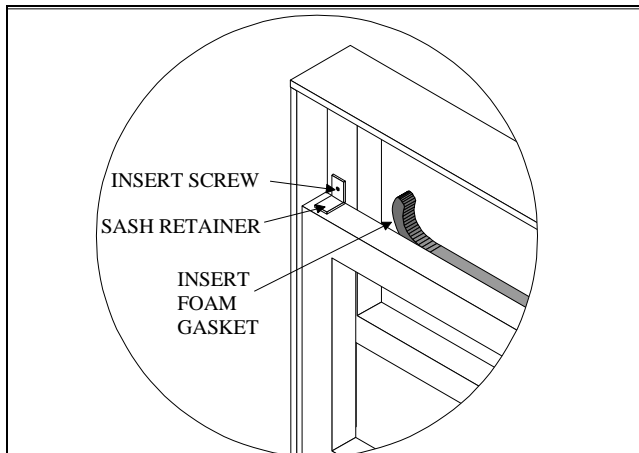


**Figure 4:** Cut a corrugated plastic piece to cover the opening on the side, with a 1-inch overlap, then attach it to the Fresh Air Intake with two of the round head wood screws, as shown.

After the unit is in place in the window, the sash-retaining angle, supplied with the unit, should be placed as shown in Figure 5. The sash-retaining angle prevents the window from accidentally being raised and opening a gap. In addition to maintaining a good seal, it reduces the likelihood of accidents involving children or a break in.

Now take the foam gasket and insert it as shown in Figure 5 between the sash and the upper window glass to seal this opening. Cut off any excess length of the gasket.

At this point, it is helpful to apply some weather-stripping material to seal potential leaks. We suggest caulking cord, which resembles modeling clay, since it can be easily removed and reapplied.



**Figure 5: Attach the sash retaining angle and foam block.**



**Figure 6: Outside view of the fresh air intake after installation in a window.**

Now, as shown in Figure 7, attach the inlet of the PuriFresh<sup>®</sup> Clean Room to the Fresh Air Intake of the Window Kit, using the 5 inch flexible duct provided in the Window Kit. Bend and stretch the flexible duct as needed, being careful not to damage it. For a better seal, we recommend using duct tape, available at any hardware store.



**Figure 7: Connect the inlet of the PuriFresh® Clean Room to the Fresh Air Intake of the Window Kit with the flexible 5 inch duct.**

### III. OPERATION

Close the door to the room, in which, the PuriFresh® Clean Room is installed. Turn the unit on and adjust the flow rate. The unit does not have to be on its highest setting to work. To assure yourself that a lower flow is adequate, go on the other side of the door, and feel the opening under the door for air leaving the room. (If the opening under the door is large, you may have to temporarily block part of it with a towel, or the like, to better feel the air flow.) If you have forced air heating and air-conditioning, close



the registers in the room. Supply heat and humidity to the room in the winter using an electric heater and humidifier. Supply cooling in the summer with a room air-conditioner. To reduce expense, use as low a fresh air flow as possible, consistent with pressurizing the room. Sealing leaks around the room will help.

#### IV. ALTERNATE INSTALLATIONS

The PuriFresh® Clean Room can also be installed between two rooms or between a room and hall. In this configuration, there is no problem with the room becoming cold and dry in winter or hot and humid in summer, since air is being drawn from an indoor environment. Since fresh air is not being introduced, it is important that the room or hall, that the air is being drawn from, is adequately ventilated.

Since the inlet of the PuriFresh® Clean Room uses a standard 4-inch ducting connector, it is easy to connect the inlet to an air source across an interior wall. We suggest you hire a contractor to do the work.

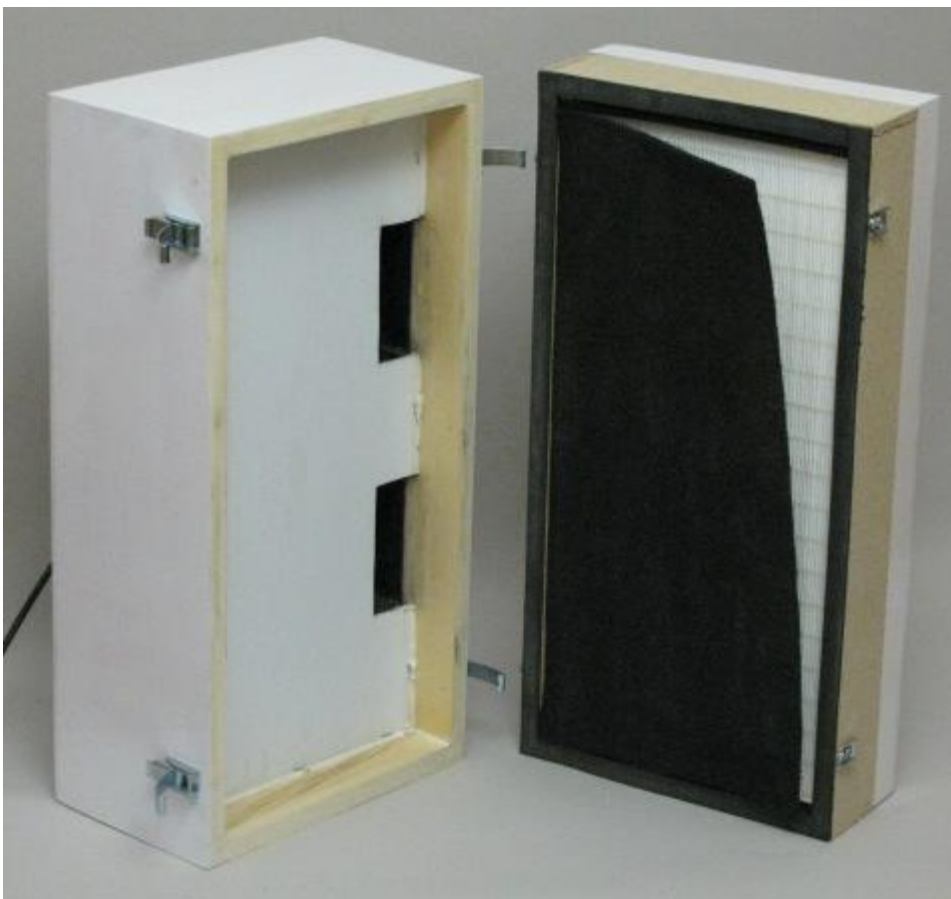
The PuriFresh® Clean Room can also be attached to the fresh air outlet of the PuriFresh® Energy Recovery Ventilator, using the PuriFresh® Fresh Air Duct Adaptor. See our website, [www.purifresh.com](http://www.purifresh.com), for details.

#### V. MAINTENANCE

There is only need for maintenance if you notice a poor flow of air emerging from the outlet of the PuriFresh® Clean Room with the blower at its highest setting. If you do notice a poor flow of air, first check the insect screen on the Fresh Air Intake of the Window Kit. Remove the flexible duct from the Fresh Air Intake to inspect the screen. If it is clogged on the outside from a buildup of dust and debris, clean it.

If there is still a poor flow of air, release the latches on the PuriFresh® Clean Room and separate the unit as shown in Figure 7 below. Clean the pre-filter pad with a vacuum cleaner. Reassemble the unit. Turn the unit on and check for leaks around the rubber gasket. Check, in particular, at the four places the four strips of rubber gasket join. If there are leaks at these points, use a butter knife, or the like to push the foam rubber strips together. Do not disengage the latches. Typically, your bare lip is a good detector of a small leak at these points.

If the flow of air is still poor after cleaning the Window Kit insect screen and the pre-filter pad in the PuriFresh® Clean Room, the HEPA filter needs to be replaced. Contact us about HEPA filter replacement and cost.



**Figure 8: Opening the PuriFresh<sup>®</sup> Clean Room to expose the dirty side of the filter assembly. The pre-filter pad is shown partly removed from its Velcro<sup>®</sup> attachments.**

## V. IMPORTANT NOTES

To keep your room free of outdoor allergens and harmful particulates, keep your PuriFresh<sup>®</sup> Clean Room on **24 hours a day**. Do not turn it off when you leave the room!

The Window Kit is well designed to prevent rain from entering the PuriFresh<sup>®</sup> Clean Room, however, we suggest that you disconnect your PuriFresh<sup>®</sup> Clean Room from the 5-inch flexible duct when there is sever weather, or a driving rain striking the window, in which, the Window Kit is installed. **IF YOU SUSPECT THAT WATER HAS ENTERED THE INTAKE OF THE PURIFRESH<sup>®</sup> CLEAN ROOM, UNPLUG IT IMMEDIATELY AND CONTACT US BEFORE ATTEMPTING TO USE IT AGAIN.**

We welcome any comments or concerns you may have so that we can help you use our product most effectively.

## VI. WARRANTY

The unit has a full one-year warranty on manufacturers defects covering all parts and labor for repair. The warranty does not cover damage to the unit caused by the consumer due to improper handling or installation. The warranty also does not cover damage to the unit when run in unusually corrosive or dusty environments such as, for example, running the unit in a room where wood floors or furniture or cabinets are being sanded. If you are experiencing a problem, first contact us by phone, mail or fax. If we can not assist you in solving the difficulty, we will make arrangements to have it shipped to us for repair or replacement.