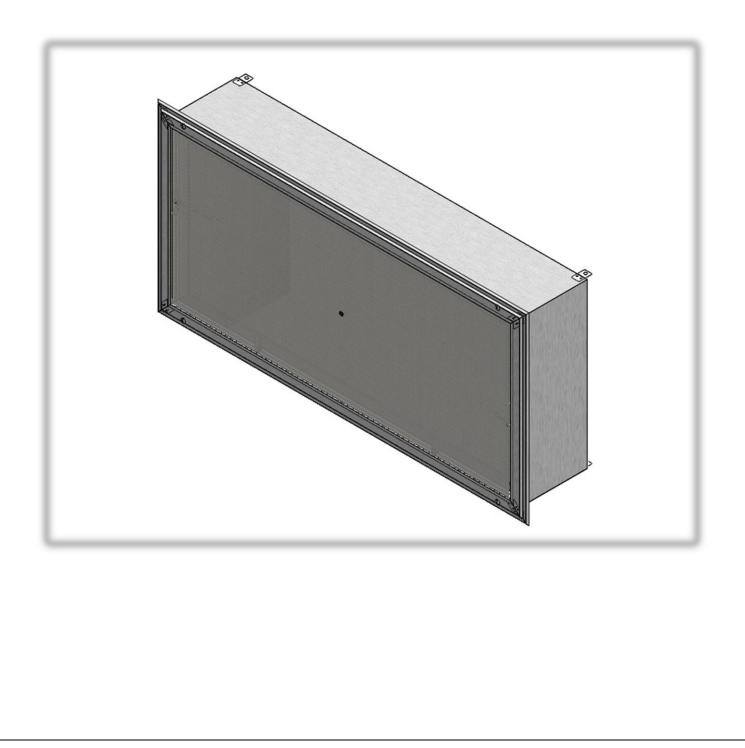
READ COMPLETELY AND SAVE THESE INSTRUCTIONS FOR FUTURE REFERENCE

# LAMINAR FLOW HEPA FILTER DIFFUSER INSTALLATION AND SERVICE MANUAL



## **Critical operation conditions of the Laminar Flow HEPA Filter Unit**

• DO NOT TOUCH the HEPA filter media. Damage to filter media may void the filter warranty. The screen is to protect against accidental touching of the filter. Never place objects on the filter. Always transport or lift the filter by its frame.

### READ COMPLETELY AND SAVE THESE INSTRUCTIONS

#### WARNING!

- Installation work must be completed by qualified persons in accordance with all applicable codes and standards, to include fire-rated constructions.
- When cutting or drilling into walls and ceilings, be careful not to damage electrical wiring and other hidden utilities.
- If this unit is to be installed within close proximity to water, mark the unit as according to applicable codes and standards.
- This unit is to be used only as intended by the manufacturer. If you have any questions regarding the use, installation, or operation of this unit, contact the manufacturer:

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## INSTALLATION

The Laminar Flow HEPA Diffuser is fully assembled from the factory with the exception of the HEPA filter which is shipped separately.

**NOTE:** These instructions are for a T-bar lay-in ceiling. Some installations require custom mounting and/or custom diffusers. In those cases be sure to seal the unit to the ceiling and seal all penetrations through the plenum walls.

- Step 1 -- Carefully remove the unit from the shipping carton and inspect for damage that may have occurred during shipping. If shipping damage is found, do not install. Call the manufacturer to report damage.
- Step 2 -- Wipe down unit to remove shipping dust and debris.
- Step 3 -- Raise unit into ceiling and lower onto gasketed opening. Gasket should be a closed-cell material approved for the environmental conditions. It is recommended to further support the unit from above using the tabs welded to the plenum.
- Step 4 -- Install the HEPA filter per the "Removal and Replacement of the HEPA Filter with Gel Seal" section on page 5.
- Step 5 -- Wait at least 30 minutes after filter install and ensure there is a positive pressure in the room before performing any challenge leak testing.

## Removal and Replacement of the HEPA Filter with Gel Seal

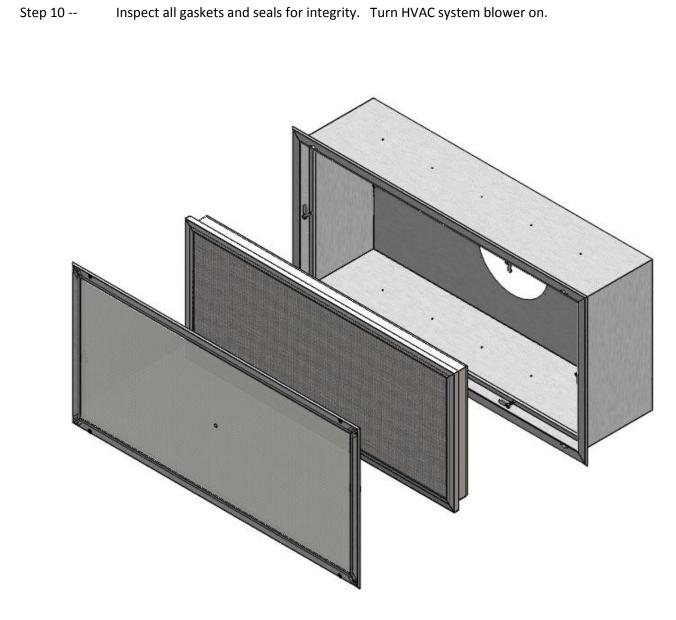
#### WARNING!

The HEPA filter may be protected by an expanded metal screen. This is to prevent accidental touching of the filter media. It is not meant to allow handling of the filter in these areas. Handle the filter ONLY by the frame.

Tools required: Flat screw driver; 7/16" nut driver

NOTE: The manufacturer recommends two people to remove and install the HEPA filter in the unit.

- Step 1 -- Shut off airflow to the diffuser.
- Step 2 -- Using a flat screw driver, release the face frame by rotating the four (4) fasteners a quarter-turn counter clock-wise. Unhook the safety cables from the filter clips. Set the frame aside.
- Step 3 -- Using a 7/16" nut-driver, evenly loosen the nuts holding the filter retaining clips by working your way around the unit loosening the nuts a little at a time. To make installing the new filter easier, loosen the nuts until flush with the end of the threaded stud. USE TWO PEOPLE TO SUPPORT THE FILTER and rotate the filter clips toward the offset hole until clip is clear of the filter.
- Step 4 -- Allow gravity to pull the filter away from the unit. If installing a new filter discard the filter in an appropriate manor.
- Step 5 -- If the unit is equipped with the HEPA-lert battery powered LED system, replace the battery at this time.
- Step 6 -- Unpack the new filter and inspect for shipping damage. If damage is found do not install in unit; call the manufacturer for replacement arrangements.
- Step 7 -- Using two people, raise the filter into place assuring the seal edge is approximately in the center of the gel channel. The threaded posts will help align the filter.
- Step 8 -- While supporting the filter by its frame, rotate the filter clips so that the clips are supporting the frame and are at 90° to the frame. Evenly tighten the nuts by working your way around the unit tightening the nuts a little at a time. Stop tightening when the aluminum filter frame contacts the stainless steel housing frame. DO NOT OVER TIGHTEN. Wait at least 30 minutes before performing any challenge testing to allow the gel to fully adhere to the unit.
- Step 9 -- Raise the face frame back into place, re-attach the safety chains, and secure quarter-turn fasteners.



# Replacement of HEPA Filter with Gel Seal

Figure 1