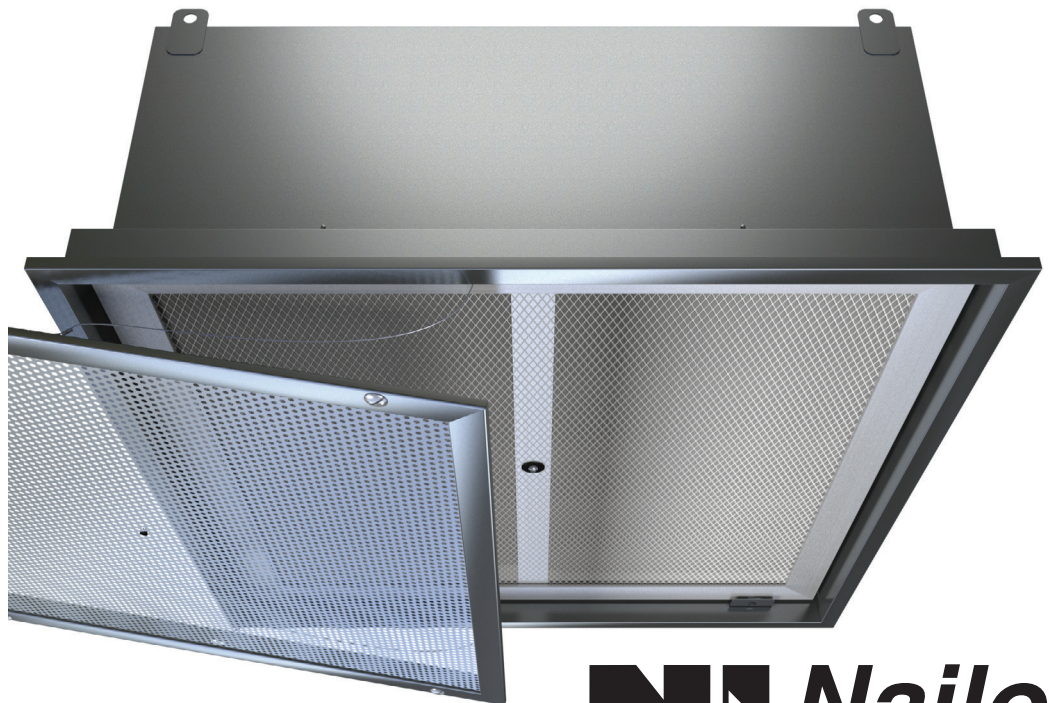


INSTALLATION, OPERATION & MAINTENANCE

M A N U A L

Laminar Flow Ceiling Diffuser with Filter

Models: 92LFDF-SS & 92LFDFS-AL



Read completely and save these instructions
for future reference.

 **Nailor**[®]
Industries Inc.

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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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SURFACE MOUNT INSTALLATION PROCEDURE:

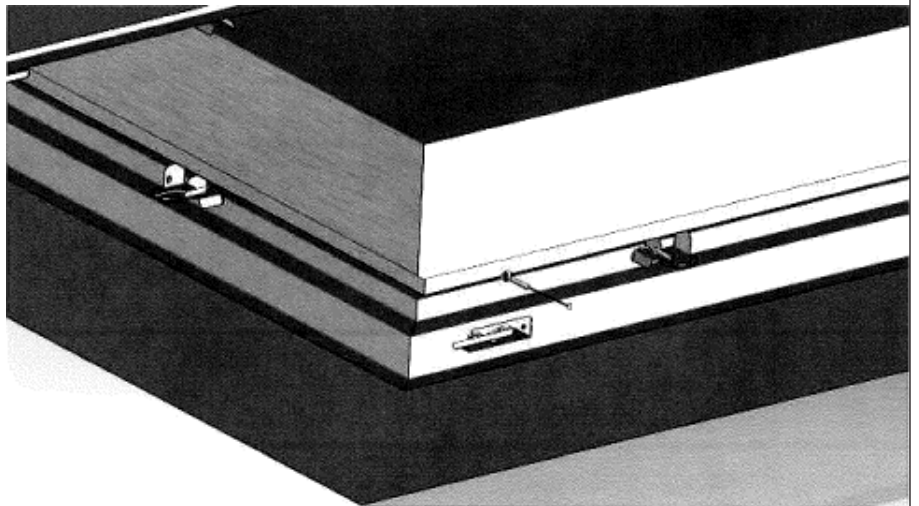
The Diffuser is fully assembled from the factory with the exception of the HEPA filter which is shipped separately.

NOTE: These instructions are for surface mounting to a sealed 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** Prepare the ceiling: Cut a rectangular hole in the desired location 1.4" smaller than the nominal size of the diffuser. For example, cut a 46.6" x 22.6" hole for a 48 x 24 unit. Frame the hole with 2 x 4 wood or equivalent steel studs. Always measure the units to verify dimensions before making cuts.



- Step 4** Using a flat screw driver, release the face frame by rotating the four (4) fasteners a quarter-turn counter clockwise. Unhook the safety cables from the filter clips. Set the frame aside.
- Step 5** Raise unit into the framed opening until the unit is tight against the ceiling. It is recommended to further support the unit from above using the tabs welded to the plenum.
- Step 6** Secure the unit in the ceiling by installing self-drilling screws through the plaster frame into the opening frame. Alternately, pre-drill holes and install wood or sheet metal screws.



- Step 7** Install duct work as required. Clean installation debris from the unit and surrounding ceiling.
- Step 8** Using approved caulk, seal the outer perimeter of the diffuser to the ceiling. Also seal around the mounting screws and any other holes made in the diffuser.
- Step 9** If applicable, install the HEPA filter per the "Removal and Replacement of the HEPA Filter with Gel Seal" on page 6.
- Step 10** Wait at least 30 minutes after filter install and ensure there is a positive pressure in the room before performing any challenge leak testing.
- Step 11** Raise the face frame back into place, re-attach the safety chains, and secure quarter-turn fasteners.

LAY-IN CEILING INSTALLATION PROCEDURE:

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** 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 4** 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 5** Install the HEPA filter per the "Removal and Replacement of the HEPA Filter with Gel Seal" section on page 6.
- Step 6** Wait at least 30 minutes after filter install and ensure there is a positive pressure in the room before performing any challenge leak testing.
- Step 7** Raise the face frame back into place, re-attach the safety chains, and secure quarter-turn fasteners.

REMOVAL AND REPLACEMENT OF THE HEPA FILTER WITH GEL SEAL

WARNING!

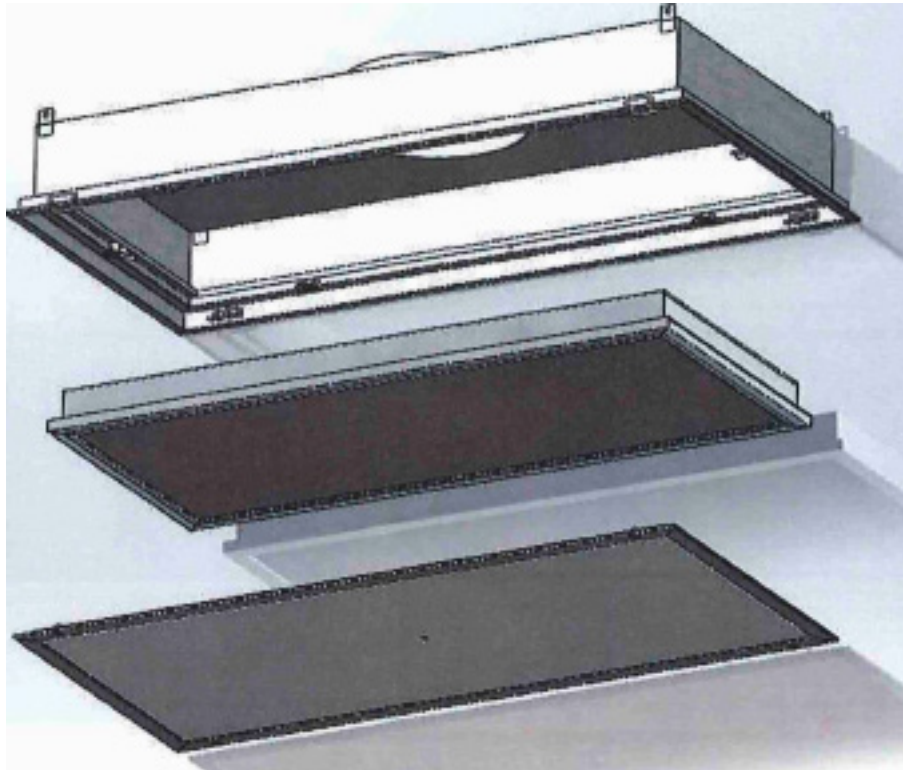
The HEPA filter may be protected by an expanded metal screen. This is to prevent accidental touching of the filter media. It is not meant to allow handling of the filter in these areas. Handle the filter ONLY by the frame.

Tools required: Flat screw driver.

NOTE: Nailor 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 screwdriver, release the face frame by rotating the four (4) fasteners a quarter-turn counter clock-wise. Unhook the safety cables from the filter spacers. Set the frame aside.
- Step 3** USE TWO PEOPLE TO SUPPORT THE FILTER and rotate the filter clips 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 manner.
- Step 5** If the unit is equipped with the HEPA-let 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 Nailor 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 spacers beneath the filter clips 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 filter frame. 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.
- Step 10** Inspect all gaskets and seals for integrity.

REPLACEMENT OF HEPA FILTER WITH GEL SEAL



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