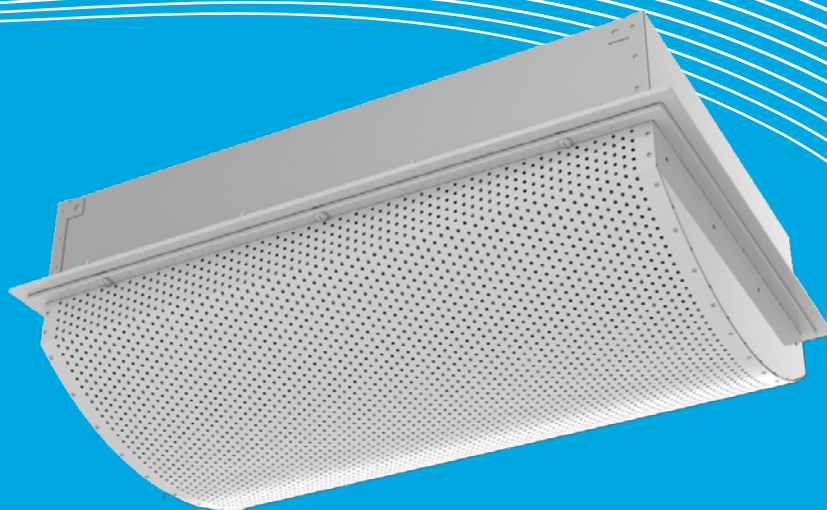


INSTALLATION &
OPERATION MANUAL

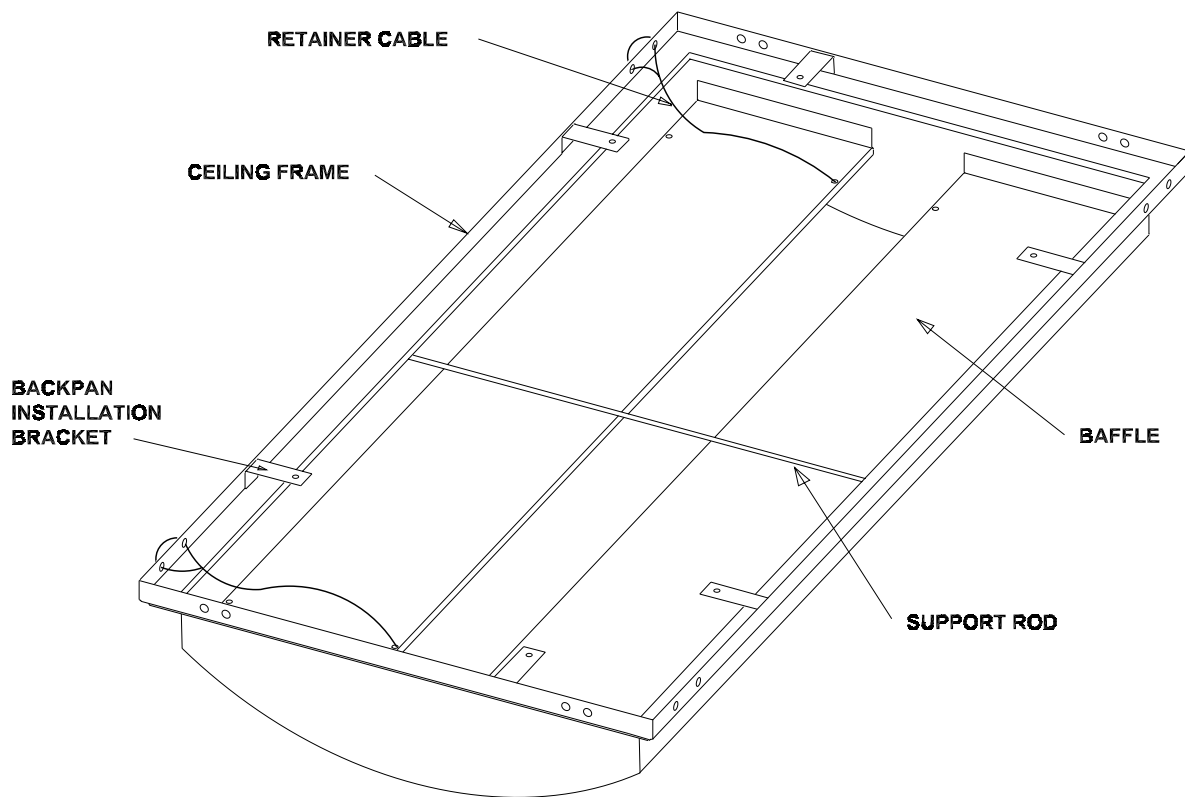


RadiaTec



Lay-In Ceiling Grid Installation

Titus RadiaTec diffusers are designed for both 1-inch and 1½-inch t-bar ceiling systems. The diffuser face is a slightly different size for each t-bar system (see RadiaTec submittal information), though the installation is the same.



Lay-In Ceiling Grid Installation (continued)

The diffuser face can be assembled to the back pan prior to installation. Due to the weight of the diffuser, the Titus RadiaTec was designed for assembly in the ceiling, if necessary. To assemble the diffuser in the ceiling, use the following steps:

STEP 1.

Lay the diffuser face on the T-bar. See Figure 1 for major installation components.

STEP 2.

Install hanging wires through the holes in the diffuser frame and tighten the wires. See Figure 1.

STEP 3.

Lay the back pan on the diffuser frame using an adjacent open ceiling panel as shown in Figure 2.

STEP 4.

Use the self-tapping screws provided to fasten the back pan flange to the installation brackets on the diffuser face. Figure 3 shows the selftapping screws.

STEP 5.

Attach the duct to the back pan.

Note: See next page for special HEPA installation.

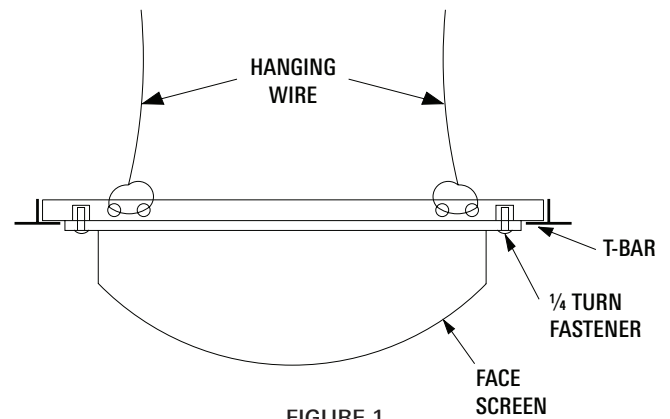


FIGURE 1

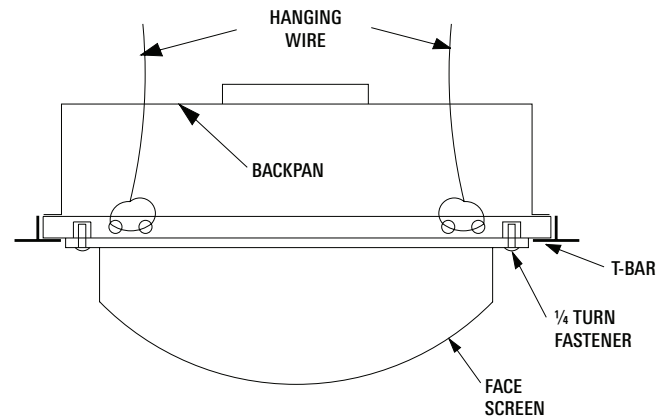


FIGURE 2

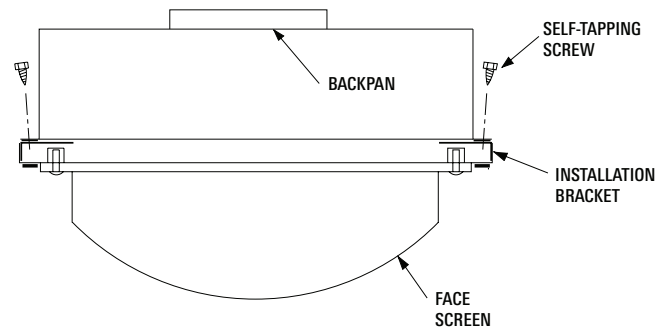


FIGURE 3

Lay-In Ceiling Grid Installation (continued)

For models ordered with HEPA filter rack, follow the directions on the preceding page with the following exceptions:

- A. Gasketing is a standard option for HEPA rack models. Figure 4 shows the general location of gasket, while Figure 5 shows a close up view of where the gasketing is often applied
- B. Instead of Step 4 in the preceding steps, the screws are used to attach the back pan flange to the HEPA filter frame.
- C. Follow the Cleaning and HEPA Filter Replacement installation guidelines on Page 9 to install the filter.

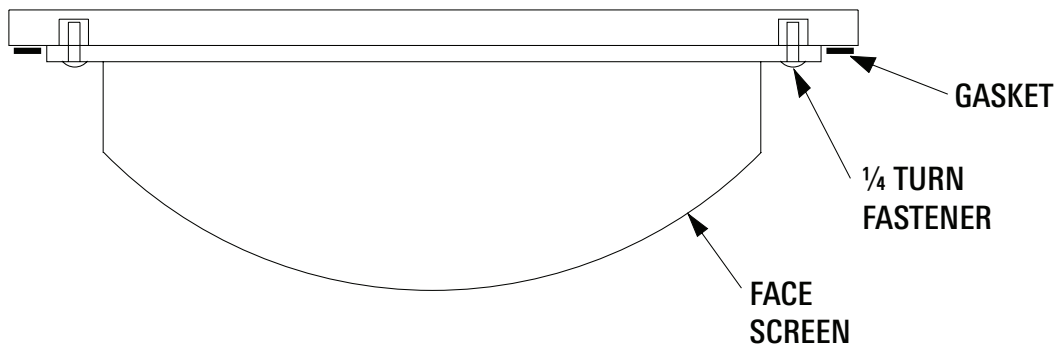


FIGURE 4

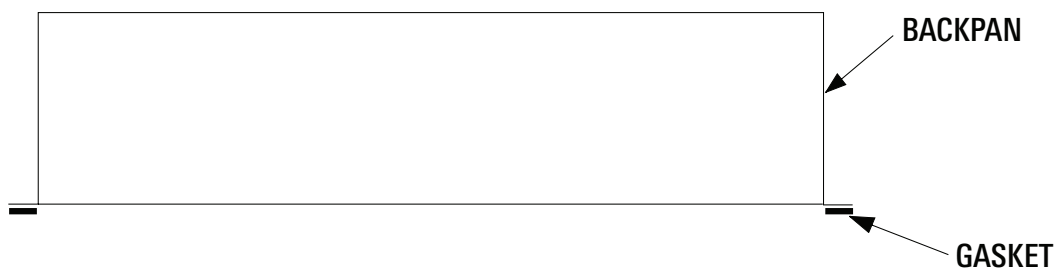


FIGURE 5

Surface Mount Installation

Surface mounting of the Titus RadiaTec diffuser is accomplished with the use of the Titus TRM rapid mount frame.

The diffuser face can be assembled to the back pan prior to installation. Due to the weight of the diffuser, the Titus RadiaTec was designed for assembly in the ceiling, if necessary. The assumption for the following installation procedure is access to the ceiling space is limited. To assemble the diffuser in the ceiling, use the information provided in the following steps:

STEP 1.

Install back pan by attaching to duct and using wires to suspend it from the ceiling above.

STEP 2.

Install the Titus TRM Rapid Mount frame by wedging the ceiling between the security clip and the frame, assemble together using self-tapping screws supplied. Figure 6 shows a detailed view of the security clip mounting.

STEP 3.

Lay the diffuser face into the TRM frame. Figure 7 shows the TRM frame and other installation components.

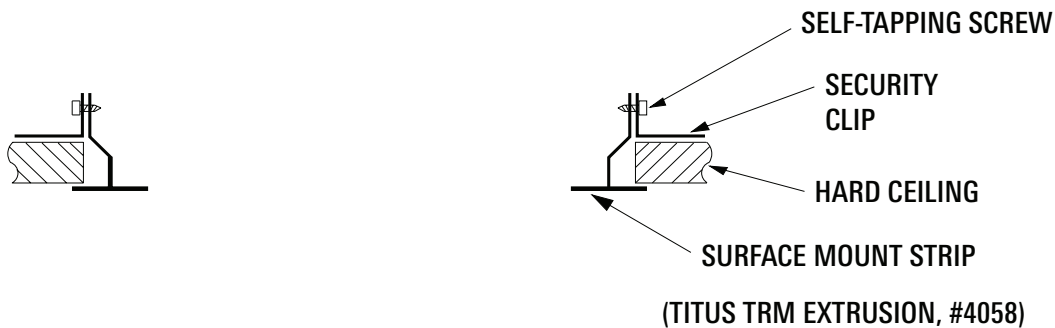


FIGURE 6

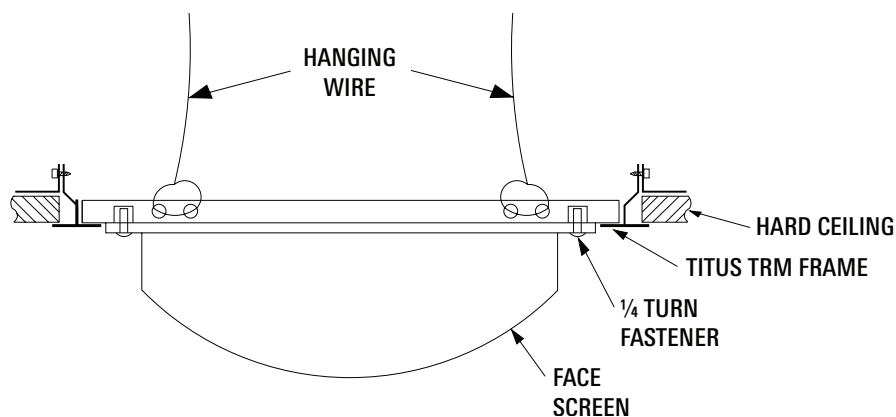


FIGURE 7

Surface Mount Installation (continued)

STEP 4.

Open the diffuser face by loosening all ¼-turn fasteners. Figure 8 shows the face screen in the secured position and Figure 9 shows the face screen opened and a new filter being inserted.

Note: The diffuser face must be supported when this occurs, as the face will swing open and hang by the retainer cables.

STEP 5.

Install hanging wires through the holes in the diffuser frame and tighten the wires. See Figure 1.

STEP 6.

Use the self-tapping screws supplied to attach the back pan flange to the back pan installation brackets. This can be done from the room-side. Figure 10 shows self-tapping screw locations.

STEP 7.

Restore diffuser face and lock all ¼-turn fasteners. Figure 8 shows the location of ¼-turn fasteners.

Note: See next page for special HEPA installation.

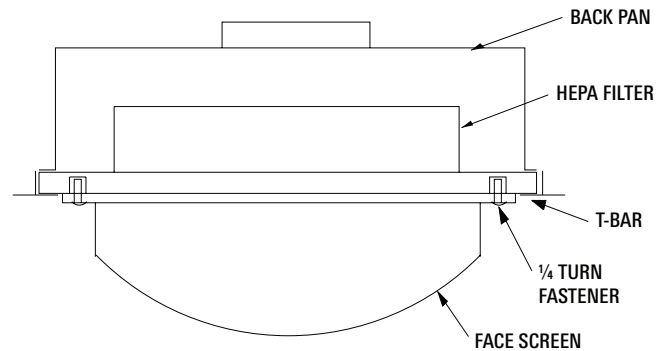


FIGURE 8

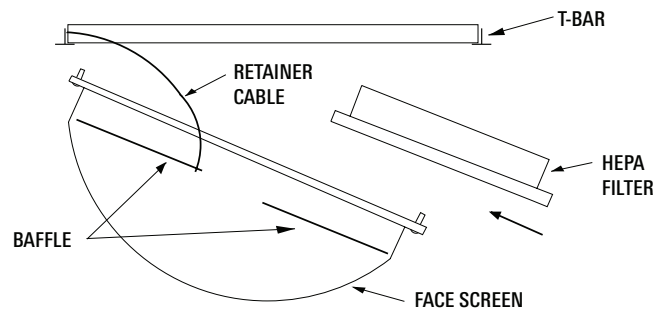


FIGURE 9

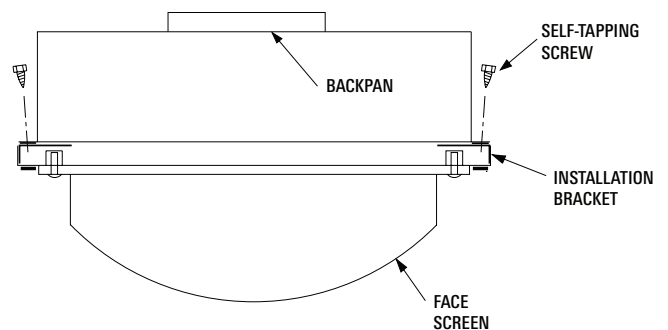


FIGURE 10

Surface Mount Installation (continued)

For models ordered with HEPA filter rack, follow the directions on the preceding page with the following exceptions:

- A. Gasketing is a standard option for HEPA rack models. Figure 11 shows the general location of gasket, while Figure 12 shows a close up view of where the gasketing is often applied
- B. Instead of Step 6 in the preceding steps, the screws are used to attach the back pan flange to the HEPA filter frame.
- C. Follow the Cleaning and HEPA Filter Replacement installation guidelines on Page 9 to install the filter.

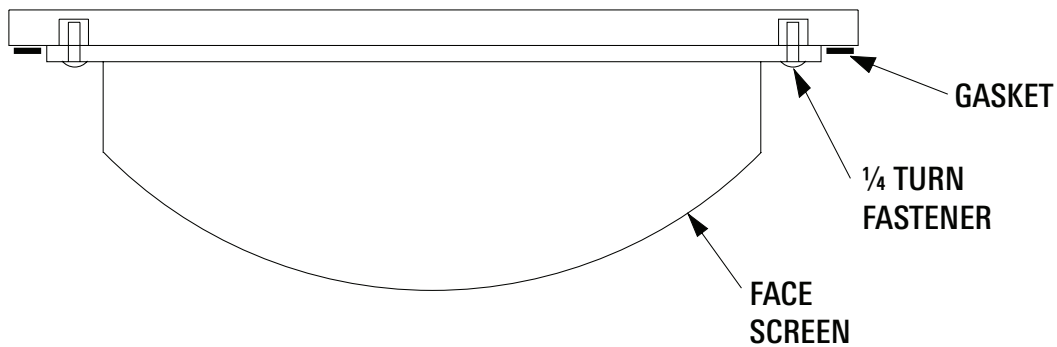


FIGURE 11

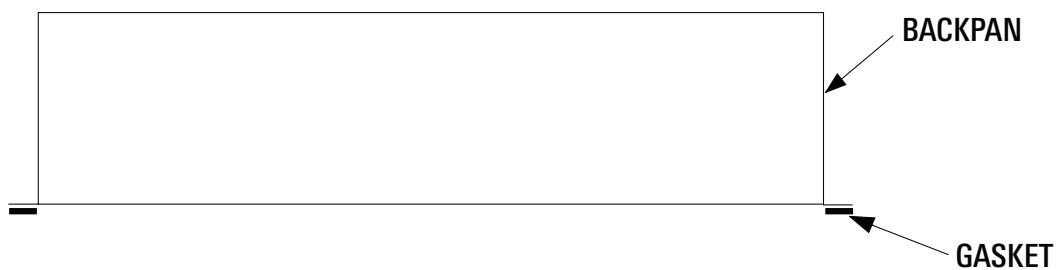
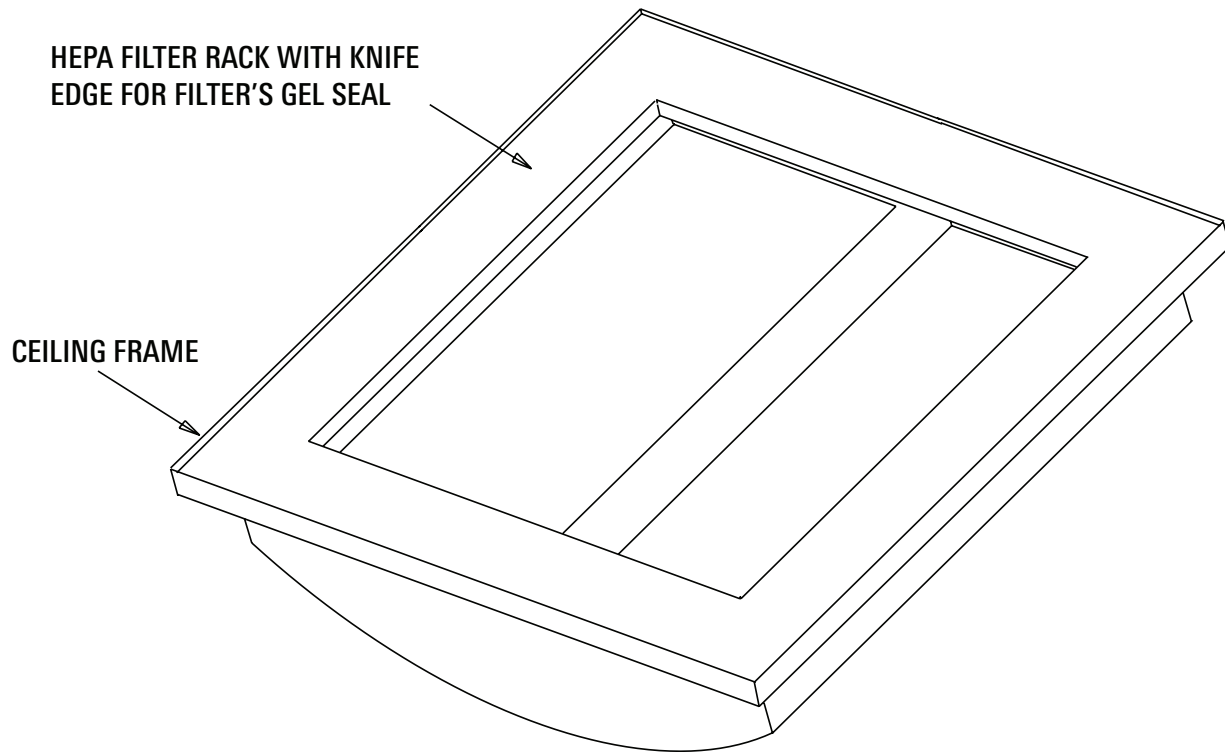


FIGURE 12

Cleaning and HEPA Filter Replacement

The Titus RadiaTec diffuser was designed for easy room-side access to the internal components for cleaning and filter replacement without removing the diffuser from the ceiling. The face is attached to the diffuser frame with ¼-turn fasteners. Opening these fasteners allow the face to hang for full access for cleaning and filter replacement.



Cleaning and HEPA Filter Replacement (continued)

Use the following information for filtering cleaning and replacement.

STEP 1.

Loosen all ¼-turn fasteners.

Note: The diffuser face must be supported when this occurs, as the face will swing open and hang by the retainer cables. Figure 14 shows the face screen in the secured position and Figure 15 shows the face screen opened and a new filter being inserted.

STEP 2.

For HEPA filter rack models, loosening the wing nuts will allow filter to be removed (Figure 16).

STEP 3.

Align gel seal on replacement filter with knife-edge in diffuser back pan and push for tight seal. Replace filter support and tighten wing nuts as shown in Figure 16.

STEP 4.

Restore diffuser face and lock all ¼-turn fasteners. Figure 14 shows the location of ¼-turn fasteners.

Note: Figure 13 shows the profile and critical dimensions within a RadiaTec with HEPA filter rack. Dimensions for this example are based on Maryland-based Filtrertech Company's HEPA filter model. These dimensions will vary by filter manufacturer. Verify filter dimensions and gel seal location prior to ordering replacement filters.

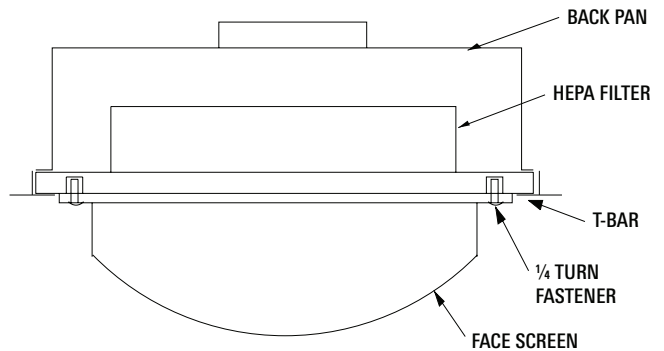


FIGURE 14

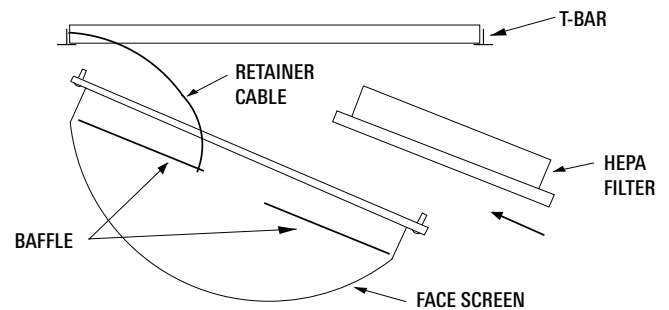


FIGURE 15

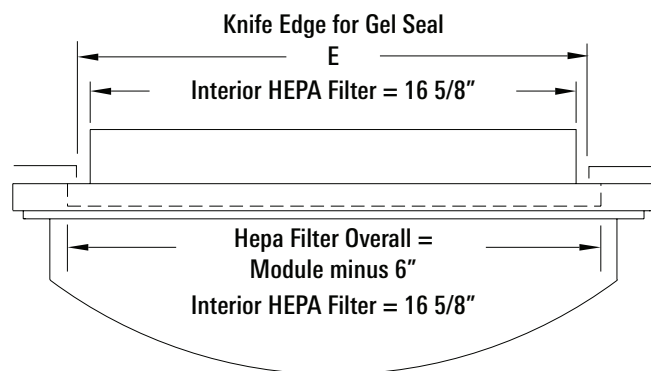


FIGURE 13

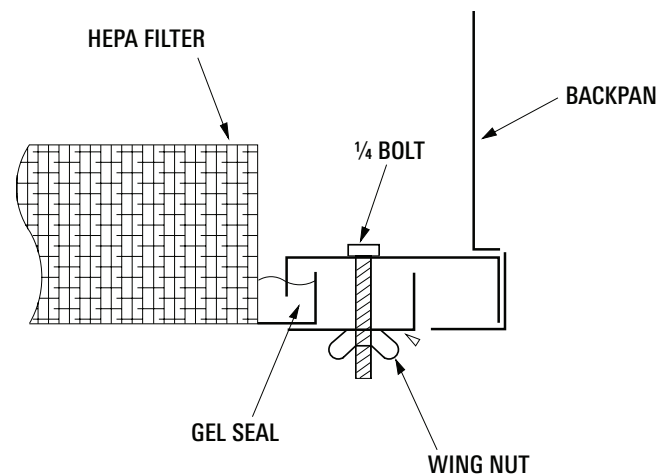


FIGURE 16

Notes

Notes



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