

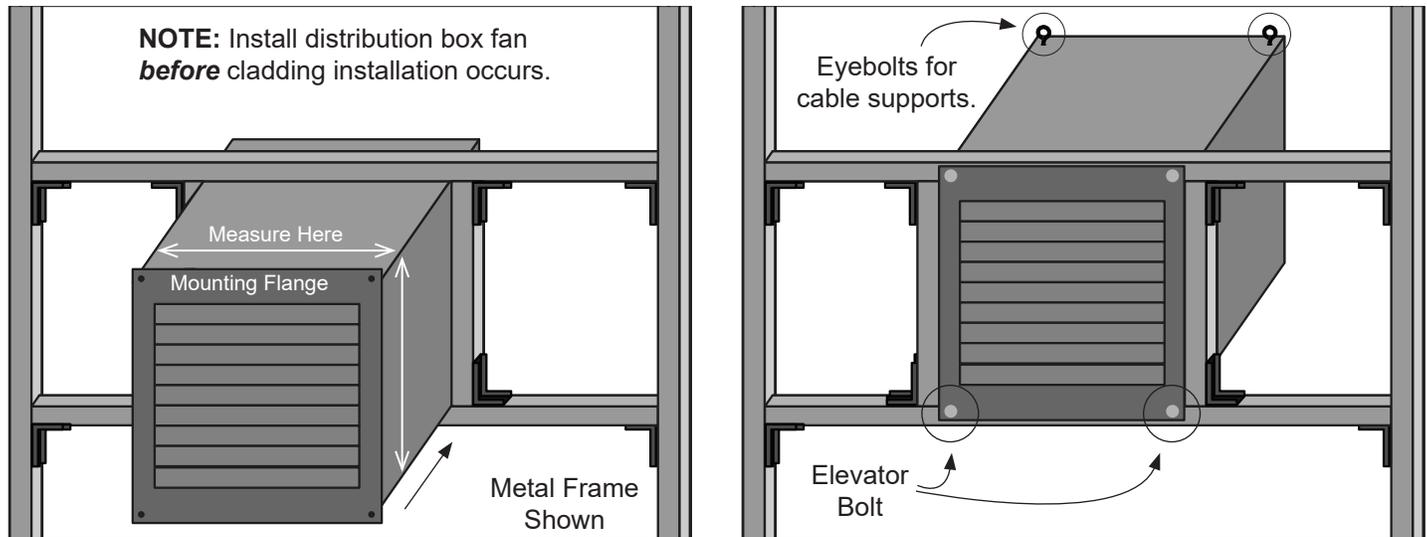
INSTALL AIR DISTRIBUTION FAN

These diagrams show recommended ways to install the air distribution fan. Building specifics, materials, and intended use all affect installation. Before operation, ensure the air distribution fan is attached securely to the building.

ATTENTION: Mounting platform (if used) is customer-supplied and must support weight of air distribution fan and withstand the forces and vibrations that occur during fan operation. **Ensure that building frame is capable of supporting the fan and mounting platform (if used) during operation.** If mounting on a platform or if using metal brackets, ensure these do not prevent smooth operation of sliding side panels of distribution fan. For some applications, panels are removed. **Before operation, install fan as shown using the hardware included with the kit. Enlist the services of an electrician to connect fan and shutter motor to power.**

MOUNTING INFORMATION: For frame members 2" or less, install the 5/16" elevator bolts (included) through air distribution box mounting flange and building frame members. Secure using flat washers, lock washers, and nuts.

ATTENTION: Cable supports and related components are **included with this kit.**



Complete basic steps:

ATTENTION: Install end wall cladding *after* fan is installed. See diagrams on the next page.

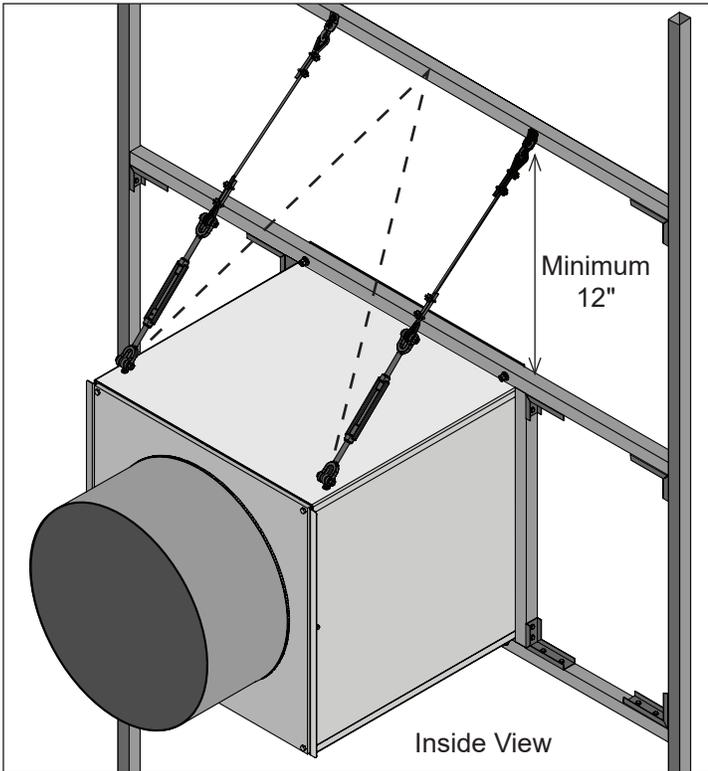
1. To determine rough opening dimensions, measure fan where mounting flange meets distribution box. Allow rough opening dimension to be approximately 1/8" larger than distribution box for easier installation.
2. Frame end wall opening accordingly.
3. Remove eyebolts (if present) from distribution box and slide fan through rough opening **from the outside**. Additional assistants and lifts are required to safely lift box into position.
4. Using mounting holes in the mounting flange corners as guides, drill holes through the end wall frame. Fasteners determine hole size. This example uses 5/16" elevator bolts.
5. Secure box fan to frame using 5/16" elevator bolts, flat washers, lock washers, and nuts. Insert bolts through holes from outside the building. Position flat head of elevator bolt toward where cladding will be installed.
6. Reinstall and tighten eyebolts. Eyebolts at shutter end of air distribution fan are not needed for typical end frame installation as shown. Those do not need reinstalled.

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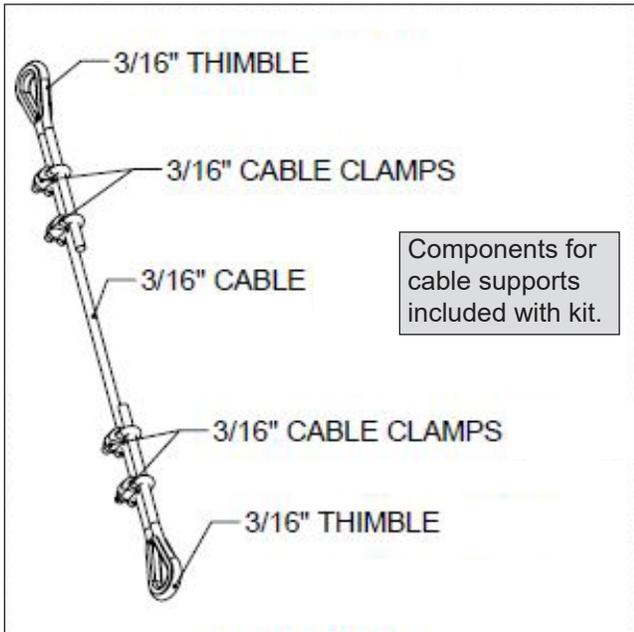


WARNING: Never operate fan when side panels and shutter are closed at same time.

INSTALL AIR DISTRIBUTION FAN — continued



7. Construct and install support cables. Support cables run from eyebolts to building end wall (or peak of the end rafter.)

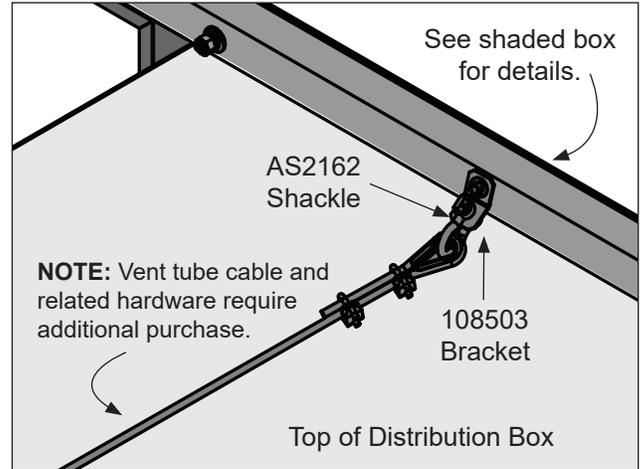


ATTENTION: Kit includes cables, turnbuckles, cable clamps, and all necessary hardware to construct and to anchor cables. *Dashed line (top diagram) shows running cable assemblies to a single mounting point on frame. Either application is acceptable.*



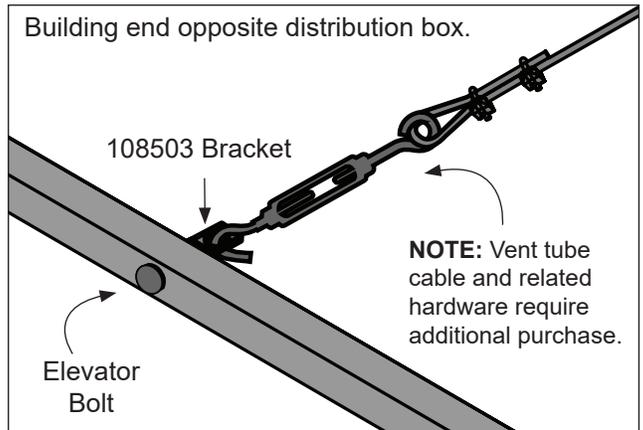
WARNING: Never operate fan when side panels and shutter are closed at same time.

8. After installing support cables, use vent tube and clips (if purchased) to judge support cable position and install support cable anchor bolts—one at each end of the building.



Install Support Cable Anchor Bolts and Clamps:

- FA3182 Elevator Bolt (5/16" x 3")
- FALB02B (5/16") Nut
- FAME07B (5/16") Flat Washer
- FAMA37B (5/16") Lock Washer

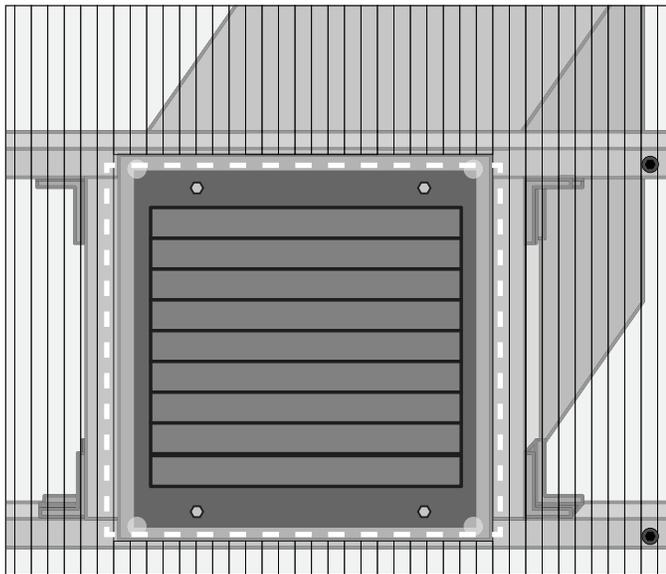
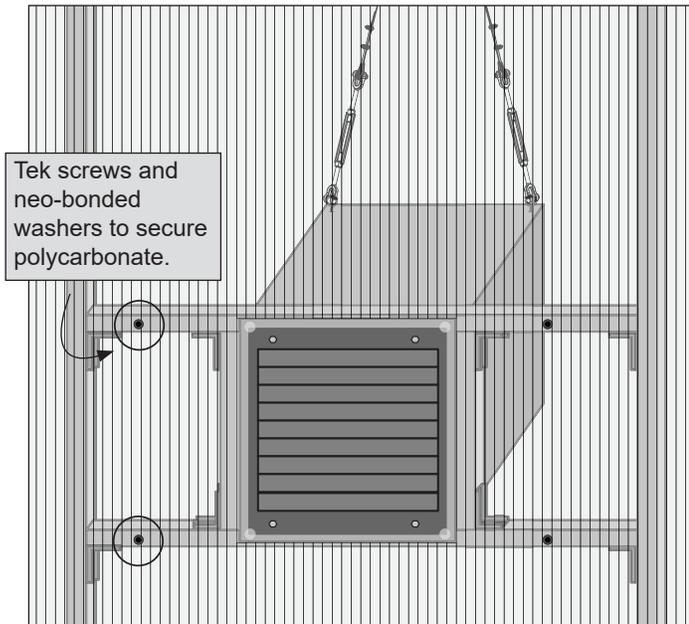


Turnbuckle, cable, and cable clamps are included with the vent tube support kits if these were purchased (CF2305, CF2315, or CF2325).

NOTE: Additional purchase required for **vent tube and vent tube support kits.**

See page 6 for additional vent tube support kit and vent tube information. Install cable later if desired.

9. Install cladding. Example below shows end wall covered with twinwall polycarbonate panels.



ATTENTION: Do not install fasteners to secure cladding to the frame *around the air distribution fan*. This area to remain free of fasteners to allow for the installation of adapter box and light trap. See dashed line in diagram above.

10. Enlist the services of an electrician to connect fan and shutter to power.
11. Test operation of air distribution fan.
12. Continue by installing adapter box and light trap as shown on the following pages.



Reserved for Notes

INSTALL ADAPTER BOX AND LIGHT TRAP

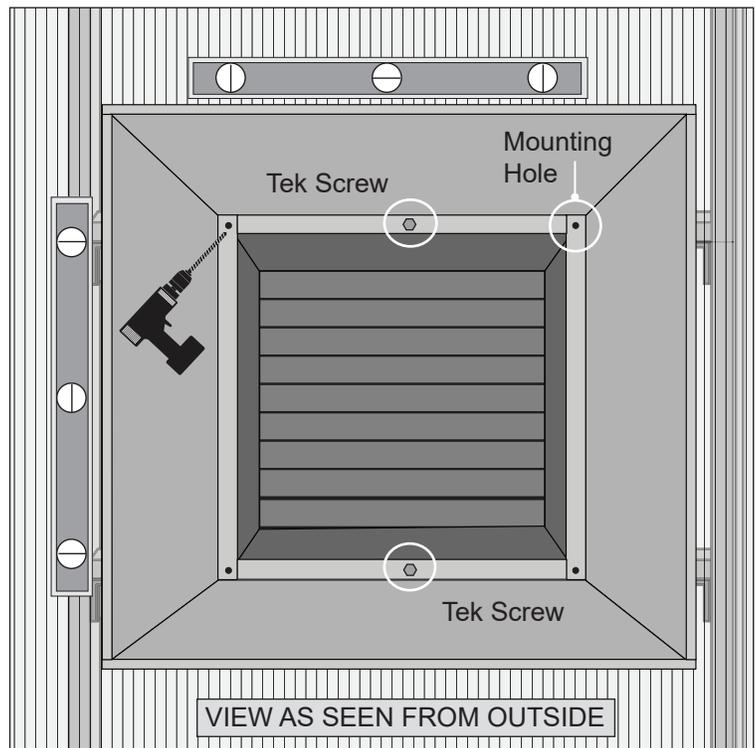
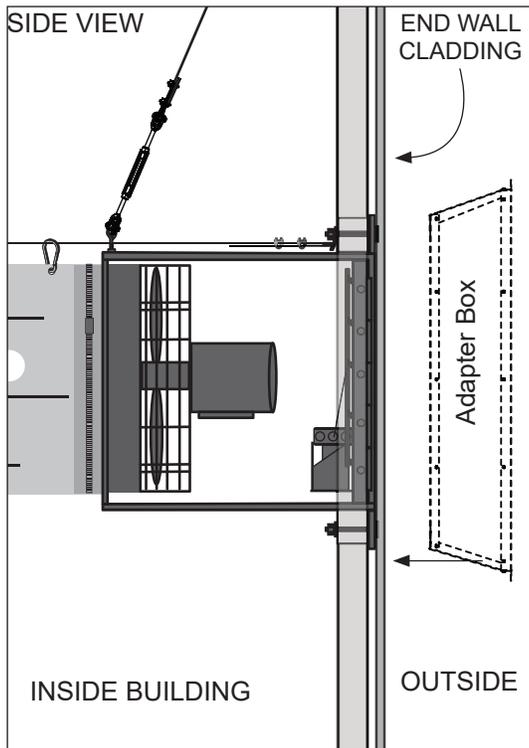
Use the hardware shown to secure adapter box to frame. Assistants are required to lift and hold the adapter box in position for mounting. Depending on height above ground, lifts and ladders may be required. *Seek the help of a professional contractor experienced with installing similar fans and shutters. Do not attempt to install alone.*

Complete these steps:

1. With assistance, lift adapter box up to fan location outside the building.
2. Center adapter box over shutters and check that fan is level and square on building. Use a level and adjust adapter box position as needed.

ATTENTION: Verify that mounting flange aligns with building frame. Add framing if needed to match position of mounting flange before continuing with the next step. You must secure adapter box to building frame using a through-bolt connection. **Light traps are heavy and attach to adapter box.**

3. Using two FA4484B Tek screws and the magnetic nut setter (3/8" x 2-9/16"), secure adapter box to frame. *Do not install screws in corners of adapter box. These areas are reserved for 5/16" x 3" bolts and mounting hardware included with kit.*



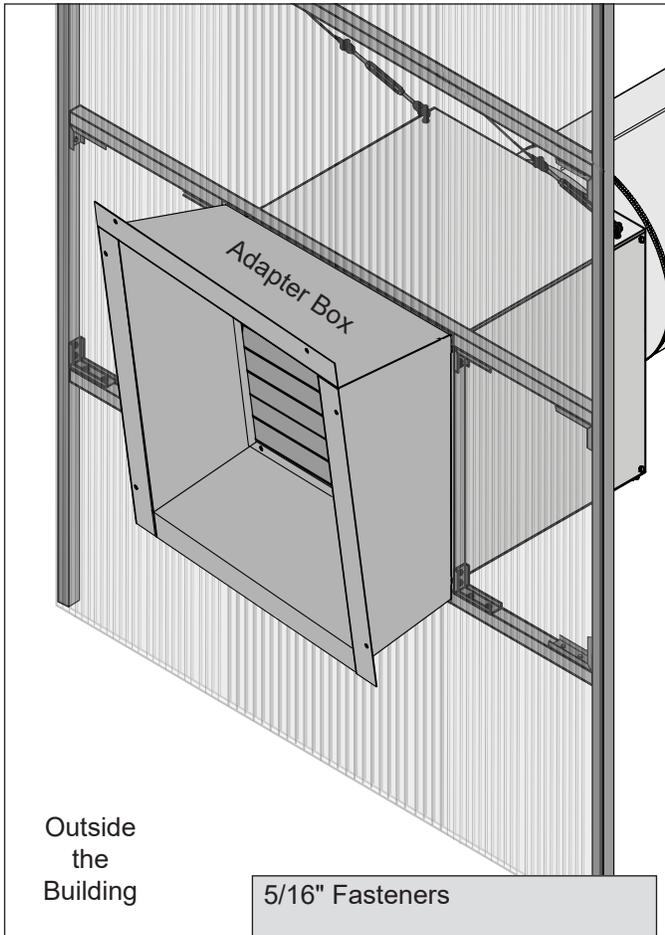
ATTENTION: Ensure Tek screws are driven into the building frame. Large adapter boxes may require additional screws for temporary installation. Use Tek screws for metal frame only; *purchase different screws for wood or other frame materials.*

4. With adapter box in position, use a drill and 3/8" bit to drill mounting holes in each corner. Drill holes through adapter box mounting flange, cladding, *and frame. Install mounting bolts through frame.* Light trap is heavy.

NOTE: Do not drill through heads of elevator bolts used to install air distribution box. If needed, drill adapter box mounting holes a few inches off adapter box corners to prevent conflicts with elevator bolts.

INSTALL ADAPTER BOX AND LIGHT TRAP — continued

- Take 5/16" X 3" bolts sent with air distribution fan kit and secure adapter box to the *outside of building*.



Outside
the
Building

5/16" Fasteners

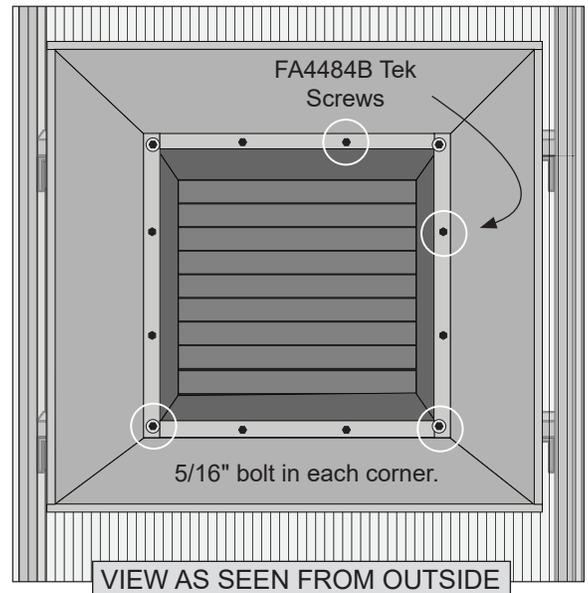
ATTENTION: Use two flat washers, a lock washer, and a nut for each bolt.

- FAG338B Bolt (5/16" x 3")
- FALB02B (5/16") Nut
- FAME07B (5/16") Flat Washer
- FAMA37B (5/16") Lock Washer

Quantity of fasteners depends on adapter box size. For larger adapter boxes that include six (6) 5/16" bolts, drill an additional mounting hole in the top and bottom adapter box flange between each corner.

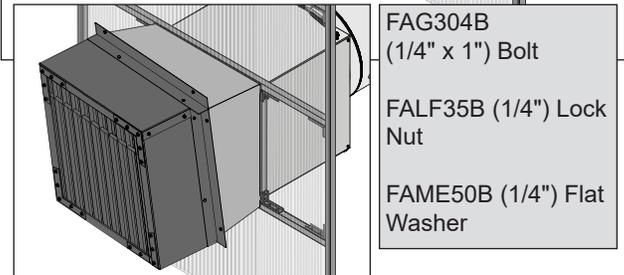
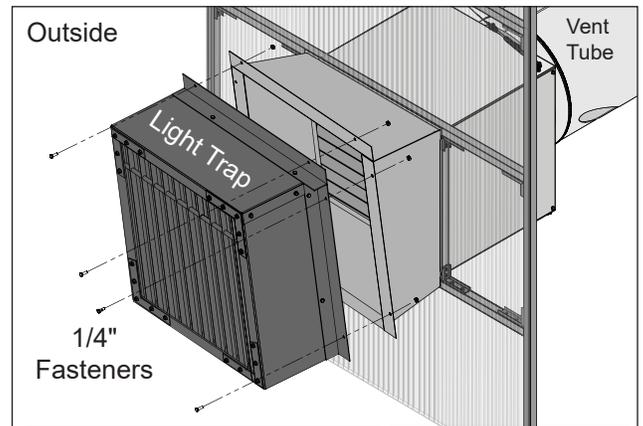
INSTALL ALL MOUNTING BOLTS THROUGH BUILDING FRAME. IF BOLTS ARE NOT LONG ENOUGH, PURCHASE THE CORRECT LENGTH LOCALLY OR CONTACT YOUR SALES REPRESENTATIVE.

- Once adapter box is secured using the 5/16" bolts, install the remaining FA4484B Tek screws around the mounting flange between the bolts.



VIEW AS SEEN FROM OUTSIDE

- Test shutter and fan operation to ensure shutter opens as designed without binding.
- With assistance, carefully lift the assembled light trap up to the installed adapter box.



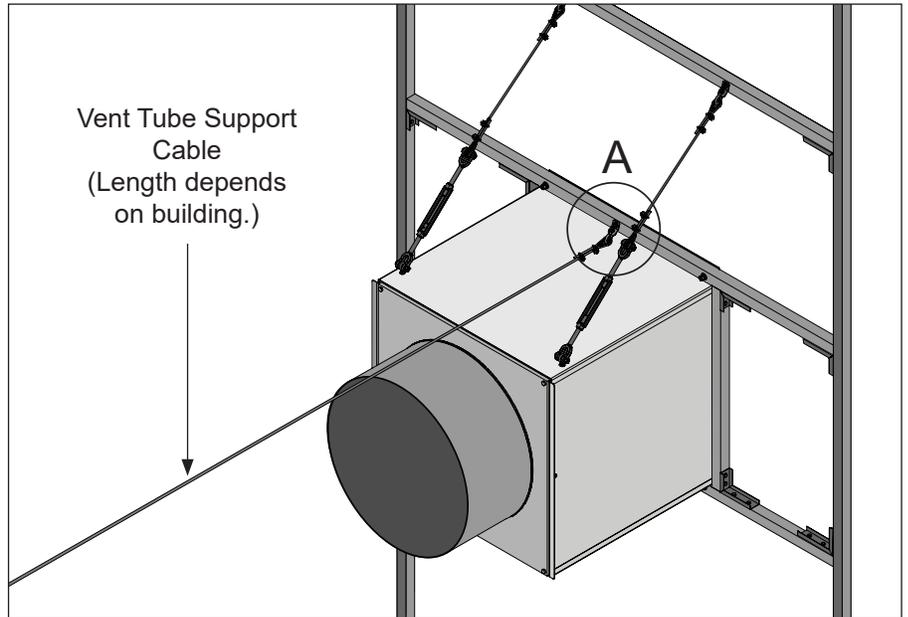
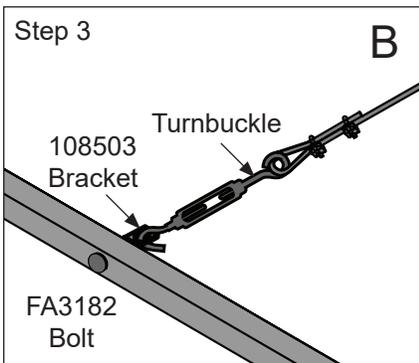
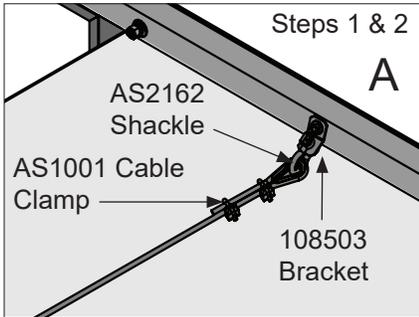
- Align mounting holes of light trap with adapter box and secure using 1/4" x 1" bolts, flat washers, and locknuts. *Drill holes in flange as needed using a 5/16" drill bit.*
- Continue with the next procedure if it applies.

INSTALL VENT TUBE SUPPORT KIT AND VENT TUBE (Additional purchase required.)

Complete these steps for metal frame:

IMPORTANT: Vent tube and vent tube support components are purchased separately. They *are not included* with the air distribution fan. If support kit *was not purchased*, similar components can be purchased locally.

- Using parts included with vent tube support kit, assemble support cable and attach to anchor at each end of building. Support cable runs near top of distribution fan to other end of building. See diagrams on next page. For wood frame, use elevator bolts included with fan kit, or FAX110 screw hooks included with support kit.

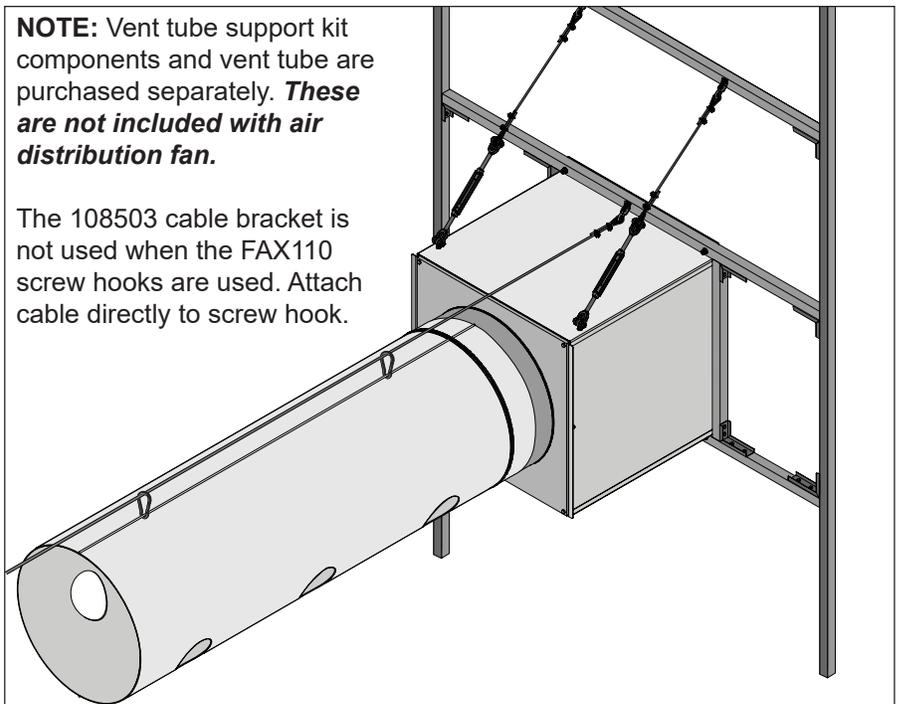


ATTENTION: If frame is wood, use screw hooks included with vent tube support kit to anchor cable ends. Elevator bolts are used for wood and square metal tubes up to 2" thick.

- Attach cable shackle to angled bracket *at fan end (A)* and secure cable end to shackle.
- Move to opposite end of building and secure cable to remaining 108503 angle bracket anchored to frame (B) earlier in this guide.

Use clamps and turnbuckle included with support kit (if purchased). Similar components can be purchased locally, or contact your sales representative to purchase vent tube support kit.

- Once cable is stretched end-to-end, install vent tube. See diagrams to the right and on the next page.
- Test fan and vent tube operation.

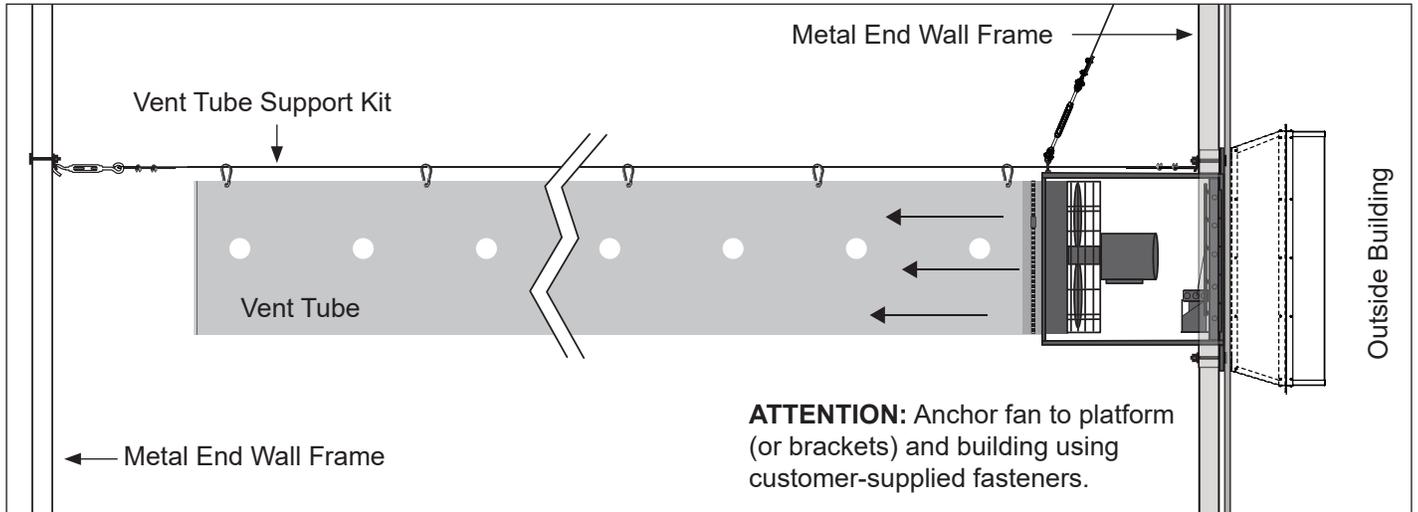


NOTE: Vent tube support kit components and vent tube are purchased separately. **These are not included with air distribution fan.**

The 108503 cable bracket is not used when the FAX110 screw hooks are used. Attach cable directly to screw hook.

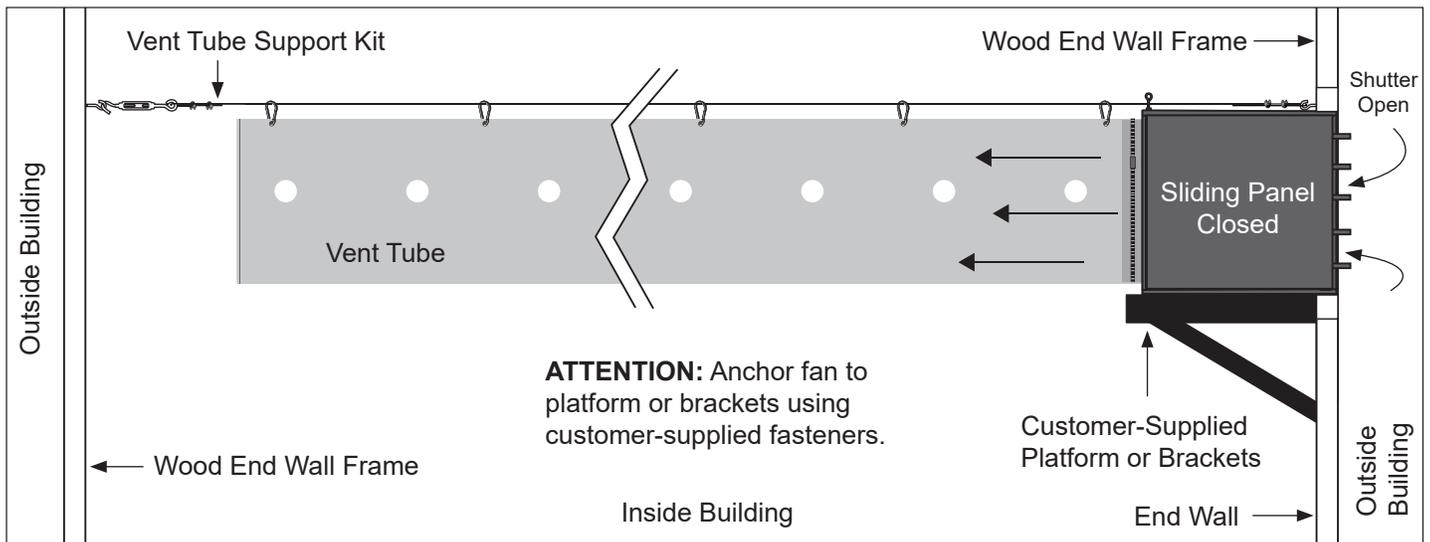
AIR DISTRIBUTION FAN — SAMPLE APPLICATIONS

ATTENTION: Additional purchase required for the vent tube support kit and vent tube shown in the diagrams that follow. Contact your sales representative for information.



INSTALLATION THROUGH BUILDING WALL (INSIDE AIR CIRCULATION): To circulate air inside the greenhouse or building, close shutter and **remove sliding side panels**.

Depending on desired use, **sliding side panels are to remain fully closed, or remove them if sides need opened. To prevent panels from falling out of distribution box channels, never allow panels to remain partially open.**



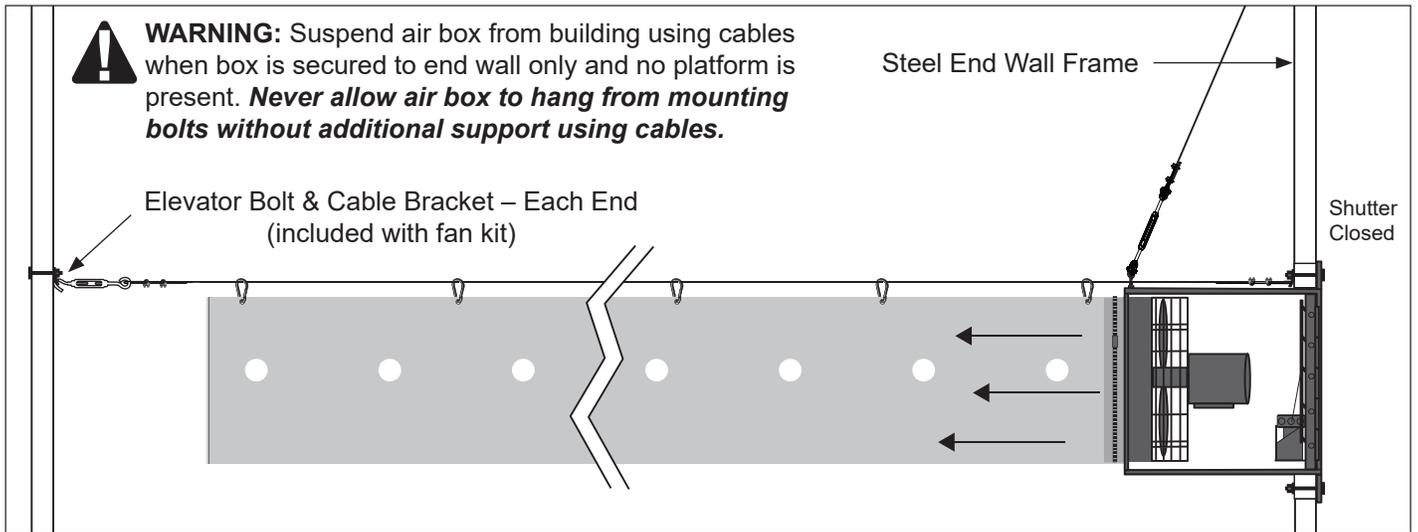
INSTALLATION THROUGH BUILDING WALL (OUTSIDE AIR CIRCULATION): Side View (above) shows installed vent tube support kit and vent tube. Air distribution fan is shown installed in an end wall and anchored to and supported by a customer-supplied platform. This installation allows air to be drawn in from the outside by opening the air distribution fan shutter and closing sliding side panels.

ATTENTION: Light trap and adapter box have been removed to better show open shutter assembly.



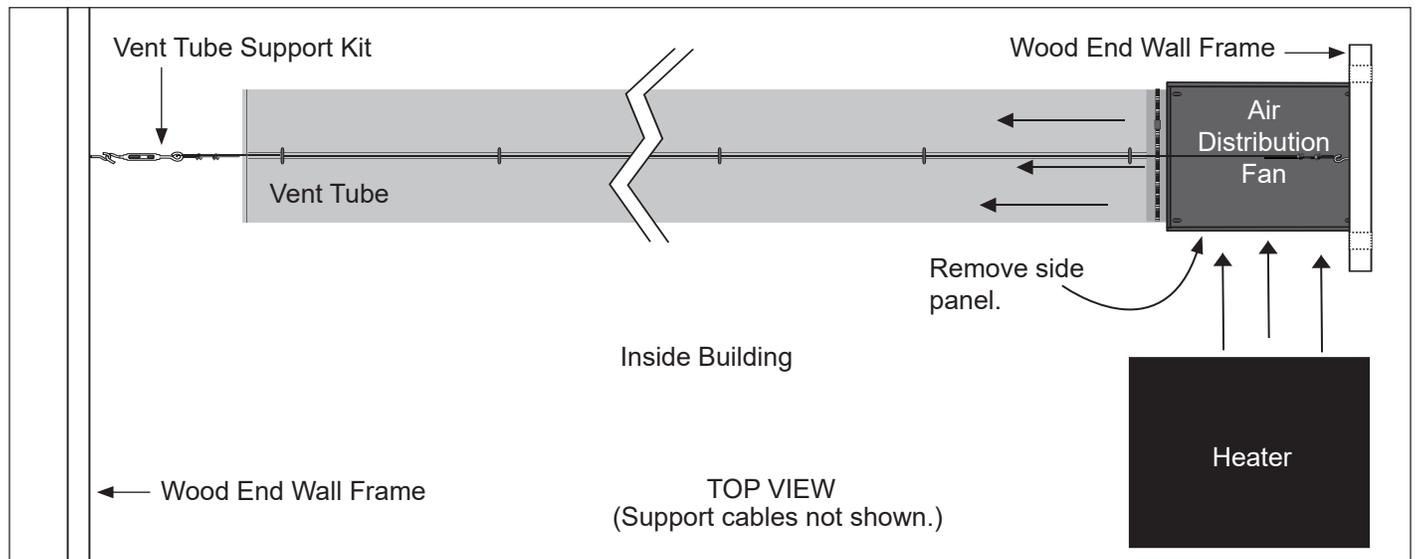
WARNING: Never operate fan when side panels and shutter are closed at same time.

AIR DISTRIBUTION FAN — SAMPLE APPLICATIONS (continued)



INSTALLATION THROUGH BUILDING WALL (INSIDE AIR CIRCULATION): Diagram shows air distribution box suspended by support cables. Anchor air distribution fan to end wall or sidewall of building and then support using the cables, clamps, and turnbuckles included with air distribution fan kit. **Ensure building frame members and fasteners are able to support the weight of the air distribution box and withstand the forces created during operation.**

Depending on desired use, *sliding side panels are to remain fully closed, or remove them if sides need opened. To prevent panels from falling out of distribution box channels, never allow panels to remain partially open.*

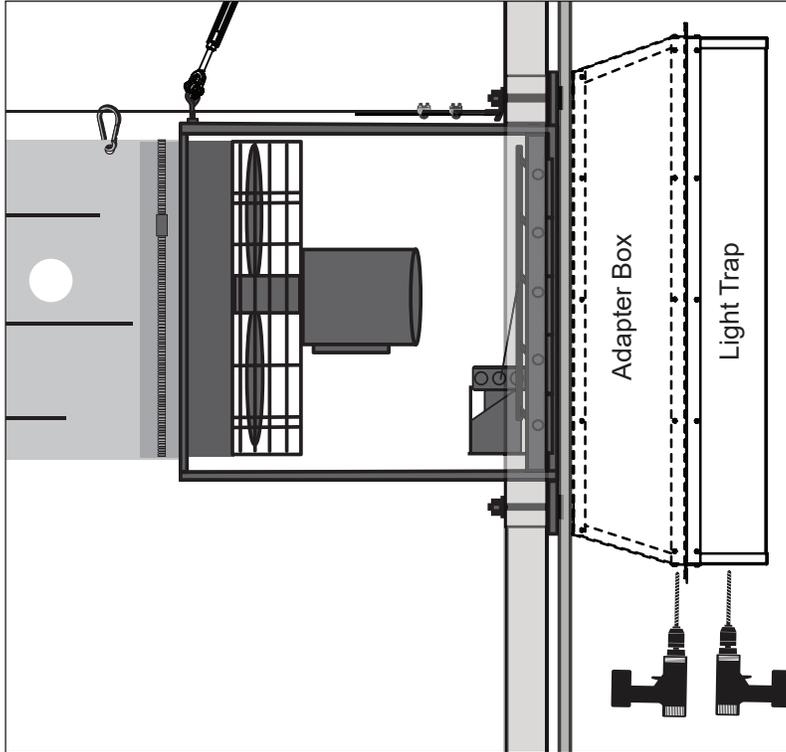


INSTALLATION THROUGH BUILDING WALL (HEATED INSIDE AIR CIRCULATION): Top View (above) shows heater installed near air distribution fan. Air distribution fan is shown installed in an end wall and anchored to and supported by a customer-supplied platform. This installation allows air to be drawn in from outside when needed by opening the shutter and closing sliding side panels.

To circulate warm air inside greenhouse or building during the heating season, close fan shutter and remove sliding side panels. Set air distribution fan to run continuously (or when heater is on) to circulate warm air. **To open sides of box, remove panels. Never allow panels to remaining partially opened.**

WARNING: Never operate fan when side panels and shutter are closed at same time.

DRILL DRAIN HOLES

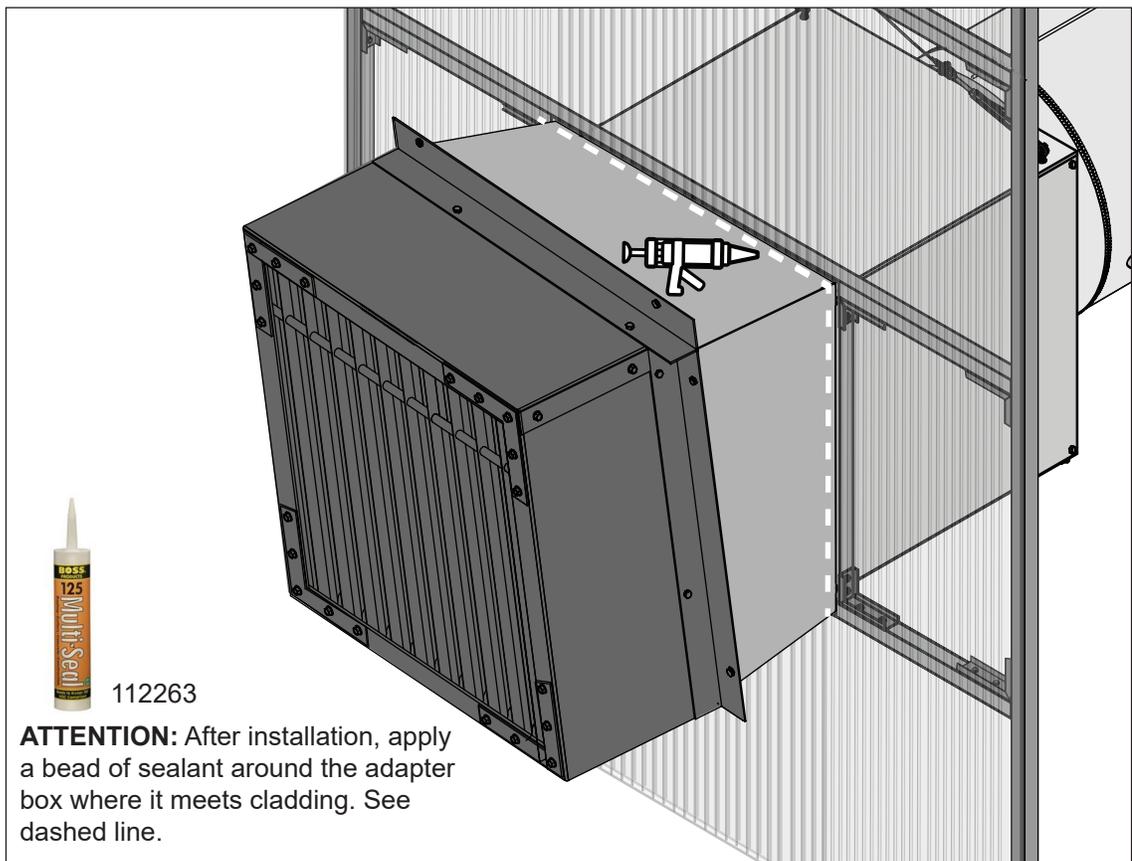


ATTENTION: To allow water to drain from light trap and adapter box, drill a 3/8" to 1/2" hole in each along the bottom near the center.

Exercise caution when drilling through light trap to prevent damage to light trap vanes.

Clean drain holes as needed throughout the year to prevent damage to light trap.

SEAL AROUND ADAPTER BOX



ATTENTION: After installation, apply a bead of sealant around the adapter box where it meets cladding. See dashed line.