

Work Method Statement

BEFORE INSTALLATION

- Check to see if you have all of the tools required for the installation.
- Verify that all fan components were received.
- Ensure work area is safe and that all security, policies and procedures for the facility are met.
- Inspect the lift device or mobile platform.
- Each person installing the Ecoair HVLS Fan must use a safety harness at all times.
- Other safety requirements may be required for installation.
- All workspace safety requirements, lock out procedures and hoarding of construction zone for the assembly and installation must be met and followed.

Steps to install:

All fasteners used for installing & assembly of the fan should be locked with Loctite thread lock-Loctite243

1. Attach the Top Plate to the Sector Bracket with beam in between using the four bolts (M14Grade12.9-200mm) with lock nuts (M14) and washers (8 plain washer & 4 spring washer). Depending on the thickness of the I beam (StudM14-1000mm), spacers may need to be used to ensure the top plate is parallel to the Sector Bracket.
2. Secure the rectangular tube to the Sector Bracket by tightening bolts (M14-100mm) with lock nuts (M14) and washers (2 plain washer and 1 spring washer).
3. Carefully bring the top of the fan unit up to the bottom of the tube, connecting the lower mounting built into the fan to the tube using two bolts (M14-100mm) with lock nuts (M14) and washers (2 plain washer & 1 spring washer) through the two holes at the forward (Hub) end of the fan.

Note:

- *The key to insuring that cables stay tight is making sure they have fair amount of tension on them to begin with.*
 - *Loosen the outermost clamp, take up the slack, and retighten the clamp so that both clamps are Holding the tension.*
 - *Use eye-bolts to attach the GI wire ropes to the building structure, and use the open-end chain links(supplied with hardware) to attach the cables to the fan frame as shown*
 - *Don't angle the guy-cables too steeply. Anything much steeper than a 45 degree is not suggestable*
4. Before letting the fan hang, attach the safety cable with clamps (D clamp-M10), first around the upper beam, and then through the holes built into the top of the fan structure. Using the two clamps provided, clamp both ends of the safety cable together tightly. Wire ties to hold the safety cable snug are recommended for neatness and to keep any stray wire from interfering with the fan operation.

5. To limit fan motion, help keep it level, an additional safety feature GI wire rope should be used.
 - a) Attach the four GI wire ropes using 2 clamps (M10) to the adjoining roof structures.
 - b) Attach the cables to the fan frame using the open-end chain links. Install two cables Clamps, pull up the slack in the cable, and tighten the clamp that is farthest from the fan. (Space the two clamps about 450mm)
 - c) Using the tensioning tool tension the cables and tighten the inner cable clamp while holding tension with the tool.
 - d) Take a couple of laps around, tightening each cable a bit at a time
 - e) Check the front to back and side to side hang of the fan for uniform levelness, using the GI wire ropes to help make the fan unit level. (GI = GALVANISED IRON)
6. Secure the winglets to the end of each fan blade using fasteners (M8-40mm) provided. Make sure the peak of the winglet is towards the direction of flow.
7. Insert the open end of the fan blade to one of the wings of the impeller
 - a) Secure the wire rope first to the innermost hole using a fastener (M8-50mm), corresponding to previous impeller arm.
 - b) Use the remaining two holes to clamp the blade to the fan assembly using fasteners (M8-50mm). Repeat installation steps for the remaining blades. Fully mount the blade mount Fasteners.
8. Clamp the hub cover to the bottom of the motor assembly. Make sure the company logo is facing downward.