

Congratulations on your purchase of the finest vertical farming air circulation system available. Your commitment to the latest technology in agriculture will yield impressive results. This guide, along with the video instructions available at [www.vertairsolutions.com\Resources](http://www.vertairsolutions.com/Resources) will help you quickly assemble the system with efficiency and ease.

## PRE-INSTALLATION CONSIDERATIONS

- Assign a team of two or more workers to the project. This allows one person or team to fold the ducts into form while the second team slides the ducts onto the rack.
- Make sure your workspace is free of unrelated activities to assure a smooth installation.
- Install the ducts in 8 foot sections for longer rack configurations. This will require two people.
- Your system will be delivered with the air mixture chambers assembled, but all of the ducting in flat sheets.

## TOOLS YOU WILL NEED

- 1/4" x 6" magnetic nut driver
- 1/2" or 9/16" end wrench (depending on rack vendor)
- 1/2" or 9/16" socket wrench (depending on rack vendor)

# ASSEMBLY INSTRUCTIONS

Let's get started!



Begin by installing the air mixture chambers at the end of the racks. If there are multiple tiers, work top to bottom. Insert bolts with washers through the racks so the threads are facing you. Assure they are the same height on either side.



Line up the flanges on your air mixture chamber.



And fasten with included washers and nuts.



Use an end wrench on the bolt and a socket wrench on the nut to secure into place.



While one team is installing air mixture chambers, another will work on folding the ducts. Begin by laying out the main panel of the duct on a flat table. Make sure the bright white side faces down. As folding may weaken the metal, folding once will yield the best results. Apply pressure to the middle and gently fold the walls into place.



Repeat this process until you have the four sides of the duct completed. Line up the pre-drilled holes in the center, making sure the rounded edge is the top fold.



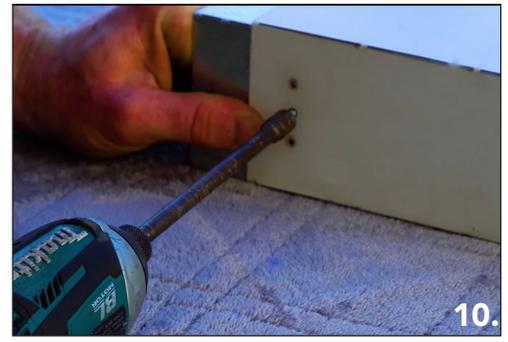
Use the included sheet metal screws to fasten the top fold to the bottom.



8. Fold the duct splice joint into a rectangle.



9. Line up the joint splice screw holes with the holes in the duct.



10. Screw into place on both sides



11. Slip the duct and screw in the bottom



12. Flip the duct to have the fold on top



13. Measure appropriately for included L brackets



14. Once you've measured, attach the L brackets on both sides.



15. You're now ready to install the ducts. Slide the duct onto the collar of the air mixture chamber. It may be useful to loosen the bolts on the mixing chamber to install the first four foot ducts.



16. Drill into place using your L brackets. Make sure the L brackets are lined up with the correct mounting locations based on your racking configuration. Screw the L bracket to the desired mounting point. If you loosened the mixing chamber bolts, re-tighten them after the first pieces of duct are fastened.



Slide the next 4 ft duct section into position, and screw the ducts together using the existing holes that line up, then fasten the L brackets.



Repeat until your entire row is complete



Mount brackets onto your end cap on both sides. If a mounting point is not available at the end cap, make sure there is an L bracket within two feet of the end cap to fasten the end of the duct.



Fasten the end cap to the duct with included metal screws.



Any residue can be easily washed away using a rag and acetone



Slide your filter into the filter housing of the air mixture chamber



Attach the filter door using the included thumb screws.



Drop the fan into the top collar, so the blades are visible from the top.



Drill into place using the attached metal screws, then slip the finger guard down over the top of the fan.



Your Vertical Air Solutions air circulation system is now ready for use. Thank you for your purchase!