



# METHOD STATEMENT OF AC DUCTING

*Follow these steps for precision in every air.*

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## Step 1: Load calculation

The first step is to calculate the load. It will be designed to provide a room-by-room load for the high-velocity system. It also offered CD including calculation software.

Now the system has been properly sized for the structure, we can start our equipment installation.

## Step 2: You need to locate the correct fan coil unit position

Placing the fan coil unit is the primary concern. The fan coil can be mounted in an unconditioned space. Areas such as shed, attic or crawl areas are acceptable so long as the site is weather-protected. The fan belt device can also be located in a condominium like a locker, services space or cellar. Two fan coil setups are available – horizontal and vertical cabinets.

The location for the return air filtration box and vent must also be taken into consideration. Please also remember the direction of the 9-inch indoor plenum diameter, air tubing, dry cell condensate and coolant lines.

If a fan coil unit is mounted in an attic, such as above a ceiling, a supplementary drain pan and a floating switch should be added.

## Step 3: Make a Cut for the Return Air Opening

Cut the opening of the air out. Choose your exact air pipe spot. Try to stop the air box being mounted in a living room, dining room or kitchen unless a 180-degree curve is required for the air vent. The fan coil should be pushed through the hole until the opening is cut depending on the height and scale of the air rear opening.

The air return box was designed to accommodate the cartridge. For partitions, such as by using a vertical, separate ventilation device, ensure a 90-degree bend in the air piping is feasible for the opening. Then you can verify that the return air box is fitted properly. Do not mount the air return box however until the construction is complete as materials need to be moved into this gap for construction.

## Step 4: Construct a Basic Platform

Depending on the size of the fan spool you can create a basic base. (In the installation manual you can find the instructions for this). The use of 2- by 8-inch plywood and at least 1/2 inch plywood in platform building is suggested. Ensure that the insulation bands given under the device are used for optimum performance.

If the fan coil device has to be suspended, the platform can be suspended by threaded rods of 1/4 inch overhead. Do not explicitly attach a threaded rod to the fan coil. There is no strain to protect the fan coil assembly by platform because of the weight of the assembly. Recall leaving the service room.

## Step 5: Supply full ring connection

Ensure the supply full ring is several inches lower than the fan coil unit rim. The fan bow must be pushed past the edge of the platform to match the full loop. A square opening with four screws would be connected to the plenum ring. Until mounting the supply plenum ring, please be sure to connect the complete ring gasket to the fan coil cabinet.

## Step 6: Connection of the Condensate Drain

The condensate drain trap is now ready to be attached via fan coil. Follow all directions on the condensate drain trap given. In compliance with the local law, the condensate drain line extends from the trap to the correct drain. Make sure the drain is 1/4 inch per foot changed. Do not link to the closed drainage system the condensate line. For overhead networks, still use a secondary drain pan.

## Step 7: Connection of Refrigerant Lines

The next step is to connect the cooling lines to the indoor fan coil from the outside condensing device. Follow the directions for mounting, trapping, height, loading and use of philtre driers for the manufacturer's condensing unit (outdoor unit).

## Step 8: Connection for Supply Tubing and Plenum Duct

In each turn, it is a smart idea to plan the device based on the criteria of scale when installing air delivery components. The complete line can be found in almost any position accessible to the fastening of the supply cable.

Plenum duct installation, any tea, elbows, branch runs and any other tee, elbow, or fan supply runs should be at least 18 cm. It is stated that you should limit the use of tees and elbows in order to ensure a minimal machine load. Depending on the machine configuration, the complete line is 6-foot long and can be sliced to the desired length.

It is stated that you cut off the male end of the first segment when mounting the plenum with the device. Then simply insert the plenum pipes on the fan coil segment into the receiving ear.

Make sure you firmly force the conduit into a snug connect. Next, the six-inch foil facial insulation over the taped joint should be wrapped and taped in place. Make sure the insulation against the coil device of the fan is pulled up.

## Step 9: Installation of Terminator Outlets and Sound Attenuation Tubing

The room terminators / outlets and sound attenuator tubing are now ready to begin construction. Label where you want the room terminators to be mounted. The middle of the terminator would be 5 cm from the wall edge when labelling the position of the terminator. The distance would be 5 cm from each wall edge when mounted at the room-ceiling corner. Boil a 1/8-inch hole for the outlet after marking the spot. Make sure the clearance across the 1/8-inch hole is at least 2 inches down. Using a 4-inch hole saw to cut a hole with the 1/8-inch hole as your pilot as all clearances are checked.

## Step 10: Supply and Install Tubing

The supply tube is now able to be mounted. Regardless only sharp bends are avoided in the tube supply and attenuator tubing. Usually, tube suppliers are in lengths of 100 feet and can be sliced into the necessary volume. This tube has a minimum length of 6 feet and an attenuator maximum of 30 metres. Cut the same length of your supply tubing. After that, mount the connector to the pipe by threading it to the tube end. Under the connector collar tuck the insulation and Mylar scrim. Wrap tape around this connector to ensure the two parts are secured together. Finally, mount the connectors together with a twist before sealed.

You choose to cut a 2-inch hole in the plenum at the plenum site using the hole cutter given. Make sure the hole is at a 20 ° angle in order that a burden on the plenum is removed. Turn the knife back and forth, add just enough pressure to push the compressed edge into the foil and separate the plenum, to cut the hole with the whole knife. Delete from the plenum the hole carved out. No flap left might plug the hole in operations. No problem.

The next move is to bring the full starting gasket around the hole. Insert the full-start connector in the plenum opening. Align the full launch to accommodate the curvature of the plenum pipeline. Insert the full attachment one at a time by hand. Snap the fasteners in place with pliers. When the full start is in operation, balance orifices are able to be mounted, if necessary. Then, during the same method, a connector would be mounted in the open end of the supply channel. After the twisting movement used for attachment of the cable, attach the tube plug to the complete take-off. Your delivery run has now been finished.

When your supply running system is complete, your air duct and air box will begin to be mounted. Remove the air grille and philter from the air box install. Insert the reverse air box

into the reverse air gap and cover the frame from the holes on the long side of the box with four torches. Put the air grille back in the package and repair it with the supplied four screws. Open and insert a philtre in the grille. Then connect either end of the versatile air duct to a fan coil's elliptical end and the air box to the clamp bands.



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