

# How to install Air Handling Unit?

Below is the procedure for the installation of air handling unit which is part of HVAC system. Below precise procedure will help you understand the sequence of installation.

- Check the AHU's foundation and ensure it is as per approved drawings. Check the area around the foundation and ensure access to the *Air Handling Unit* from all sides as applicable. Ensure availability of sufficient slope to the drainpipe, for easy draining of condensate drain. Place the anti-vibration ribbed rubber pads of correct thickness as per approved drawings/submittals.
- In case of multiple rubber pads the pads shall be placed done above the other, with the ribs at right angle to each other. AHU sections are assembled at site/location by factory trained personnel only.
- Shift the Air Handling Units to the place of installation in safe manner using fork lift/crane as applicable. Ensure that the correct AHU is shifted to the place of installation. Air inlet, outlet, fresh air connection and chilled water connection orientation are as per approved drawings. If the AHU's are shipped in multiple sections, the AHU's will be assembled strictly as per the manufacturer's instructions.
- The AHU's are placed correctly on foundation with vibration isolator rubber pads at right location. The AHU's will be properly leveled and parallel to room walls/other installations. AHU's shall be inspected again for any damage during hoisting/shifting. Upon satisfactory positioning of AHU's any open air/water outlets of AHU's shall be closed properly and area shall be cleaned, complete protection in areas where other trades are working.

## **Air, Chilled Water, Electrical and Condensate Drain connections**

- Ducting connection shall be done as per approved shop drawings. Provide flexible duct connections as applicable/as approved submittal. Provide proper supports as per approved drawings.
- Chilled water connections shall be made as per approved drawings. Ensure supply and return connection is made properly to the air handling unit. Provide pipe flexible connection and other piping accessories as per approved drawings and submittals. The piping shall be free of any strain and shall not exert any load on AHU's.
- The piping connections to AHU's shall be pressure tested to 1.5 times the working pressures. Coils not included in test. Strainer shall be cleaned after pressure testing and initial flushing of chilled water piping system.
- Install the control valves, strainer, commissioning set correctly as per direction of flow as per approved drawings. Ensure proper

operation of valve handles and sufficient space for valve installation. Condensate drain piping shall be terminated at the nearest floor drain. Provide the 'U' trap in the condensate drain piping. Ensure provision for cleaning of 'U' traps. Ensure proper slope to enable easy draining. Flow test of the **AHU's** drain tray, condensate drain pipe and ensure water is drained out completely.

### **Electrical Connections**

- Electrical power connections shall be done as per approved drawings. AHU requires power supply from MCC panels which should be approved as well separately. Installation of MCC panels can be done as per approved procedure.
- Inspection Request for installation of **Air Handling Unit** AHU shall be raised for consultant's inspection. QC inspection shall be carried out as per the installation checklist and manufacturer's instructions.