

HEXATECH	Method Statement For Fan Coil Unit (FCU) Installation	Issue No.: 1	Document Effective Date: 01 Aug 2022	Page 1 of 6
		Revision No.: 0		Document Ref: MS-A006

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INSTALLATION OF FAN COIL UNITS

1.0 *Scope of Work*

To supply, install, testing and commissioning of new chilled water fan coil units. And rectification of defects in new fan coil unit during the Defects Liability Period.

2.0 *Standard Reference*

This method statement shall be read in conjunction with the following documents:

- Healthy, Safety and Environment Plan (HSE Plan)
- Approved Shop Drawings.
- The relevant Malaysian Standards (MS), British Standards (BS), American Standards (ANSI, ASME, NFPA, ASHRAE etc.) and other Codes of Practice where applicable.

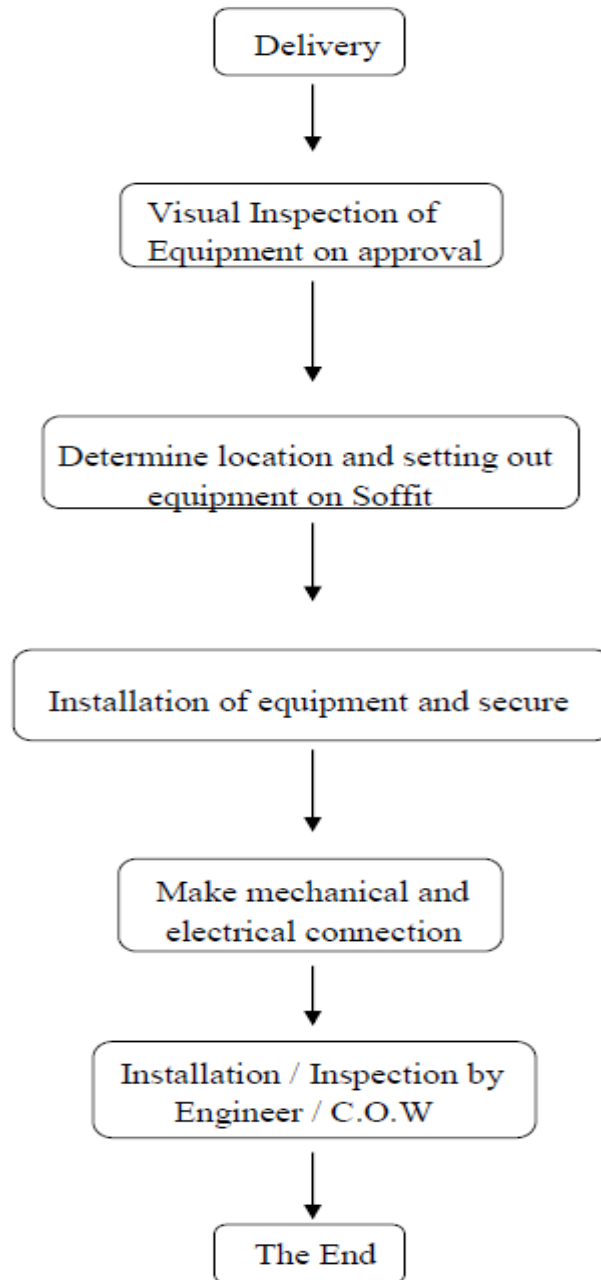
3.0 *Resources*

Material

- a) Fan Coil Unit
- b) Secondary Drain Pan
- c) Neoprene Pad
- d) GI Rod
- e) Expansion Bolt
- f) Bolts, Washer and Nuts
- g) Polythene Sheet

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4.0 Work Flow



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5.0 Handling and Storage

When FCU arrived to site, it will be stored in a clean and dry area prior to installation. All units will temporarily store at a designated area. The unit will be installed immediately or within a determined time period given by the person in charge. This is to minimize obstruction on site.

6.0 Methodology

Pre-delivery preparation

- i. Check shop drawing to ensure that drawing is endorsed with “approved for construction”.
- ii. Prepare method statement for that Equipment/units and submit to the consultant for comments. Obtain approval of equipment from consultant.
- iii. Prepare delivery schedule delivery and check site conditions for storage capacity and availability.
- iv. Coordinate with site staff responsible for the equipment installation.

Site Activities Preparation

- i. Units delivered to site shall be checked for quantity against delivery order.
- ii. Inspect equipment according to specification and approved equipment schedule.
- iii. For storage purpose, the units shall be kept in a dry place and free from moisture and water.

Installation Procedure

- i. Mark the location of the particular unit to be installed.
- ii. Site supervisors will study and counter check the proposed unit location against the approved coordinated shop drawings.
- iii. Measurement will be conducted at site to determine the unit’s exact location. The workers will be instructed to prepare the equipment to be installed later.

Fixing Procedure

- i. Scaffolds are placed under the location of the unit to be installed.
- ii. Measurement of the units mounting point is taken. Once the dimension has been determined, a mark point is then marked on to the soffit of the floor slab.
- iii. Anchor hole are then drilled along the marked points. Anchor plugs are inserted into the holes before the hanger rod are screw fixed.
- iv. The hanger rod is then slot in at the unit’s mounting point. Neoprene pad washer is then slot in and the unit bolted in with two nuts. The additional nut is to jam and secure the installation.
- v. Excess hanger rods are then cut-off.
- vi. Request for inspection will be submitted to the resident engineer or his representative and jointly witnessed by the contractor’s representatives.

Termination of duct work to Fan Coil Unit

- i. Measurement will be conducted to determine the required lengths of ductwork that will be required to terminate to the FCU. Preparation of ductwork sections will be carried out to be installed later.
- ii. Ensure the air filter is in position before proceeding with the ductwork termination work. And that there is no obstruction for filter removal for servicing on the future.
- iii. For duct termination to FCU, a canvas joint shall be used as a vibration isolator, to isolate the vibration of the FCU to the ducts.

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Termination of pipe work to Fan Coil Unit

- i. Measurement will be conducted to determine the required lengths of pipe work to terminate to the FCU. The workers will be instructed for preparation of pipe work sections to be installed later.
- ii. Accessories, i.e. flexible joint, strainer, balancing valve, motorized control valve and butterfly valve shall be fitted.
- iii. Insulation for this accessory shall be carried out only when the complete section of pipe and FCU has passed the pressure test and that any other sensors or instrument by other trades such as BTU meter or flow meter are installed
- iv. Connect condensate drain pipe with U trap using PVC pipe discharged to nearest floor trap.
- v. Pipe and valves connected to the unit must be supported separately, the unit should be free from additional loads of pipes and valves.

Termination of control wiring and supply wiring

- i. All wiring shall be terminated in to the equipment with cable lugs and numbering ferrule.
- ii. All wiring work shall be in Electrical Trunking / GI conduit. Termination of Trunking / conduit to FCU shall be in flexible GI conduit not exceeding 1 m in length.
- iii. Services indication code, such as colour sticker shall be used if specified.
- iv. Final Inspection upon completion of item above shall be inspected and inspection form will be submitted to the relevant parties jointly witnessed by the contractor's representatives.

7.0 Inspection and Testing

All service shall be tested/inspected for: -

- i. Material Receiving Inspection
- ii. Fan Coil Unit installation work checklist
- iii. Duct installation checklist
- iv. Piping installation checklist
- v. Trunking/Conduit Installation Checklist

8.0 List of Site Installation and Test

- a) Doc No. AC-007
- b) Doc No. AC-007A

Please refer the attachment (CL/INST/FCU) and (CL/TEST/FCU)

9.0 HSE Requirement

- 1) The objective is to implement the quality control on site, which shall be followed by the construction team so that the Contractor without any costly re-work would finally accept the finished work.
- 2) All workers will be provided with appropriate personnel protection equipment (PPE) and this must be worn during the work .Workers who failed to comply with this requirement will be removed from site.
- 3) Unauthorized personnel are not permitted within construction area.

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- 4) Safety Officer will closely supervise and checked the safety of the construction area.
- 5) To prepare scaffolding and stage work (relevant works).
- 6) To select and provide waste area.
- 7) To provide safe area for the storage of equipments.

10.0 List of Tools

- Chain Block
- Drilling machine
- Lifting Belt / Wire Rope
- Anchor bolt
- Diamond Saw Cutter
- Hammer
- Screw Driver
- Spanner
- Measurement Tap

Manpower

- Project Manager
- Site Manager
- Project Engineer
- Safety Officer
- Site Supervisor
- Piping Supervisor
- Piping Installation Workers

End