

METHOD STATEMENT

FOR INSTALLATION OF

HVAC CHILLED WATER PUMPS



CHILLED WATER PUMPS

Method Statement for Installation of Chilled Water Pumps

1.0 Scope

- 1.1 This method statement applies to installation of chilled water pumps and associated valve package.

2.0 Purpose

- 2.1 Purpose of this method statement is to outline the method of storage, handling and installation of chilled water pumps and valve package.

3.0 Material

- 3.1 Pump and motor assembled on a common base frame, coupled using suitable coupling arrangement by the manufacturer.
- 3.2 Isolation valves, strainers, NRV, flexible connectors and piping accessories as per approved submittals.
- 3.3 Pump foundation as per approved drawings.

4.0 Method**4.1 Receiving**

- 4.1.1 When received at site, each pump shall be checked for quantities, model number, physical damages, etc., and notify supplier of any discrepancies for suitable rectification or replacement.
- 4.1.2 Valves and other accessories shall be checked for size, model and quantity. Receiving inspection shall be conducted by the storekeeper, engineer and QC engineer, which shall be documented.
- 4.1.3 Valves shall be segregated as per sizes/models and stored on racks within a covered store.
- 4.1.4 Any items found damaged or not found suitable as per the project requirements shall be quarantined. Non-compliant material shall be clearly marked and stored separately to prevent any inadvertent use until returned to vendor.

4.2 Storage

- 4.2.1 Upon completion of receiving QC inspection, the pumps will be segregated model/size wise and stored accordingly for easy retrieval.
- 4.2.2 Pumps shall be stored on a flat surface in well ventilated and covered storage area.
- 4.2.3 Inlet and outlet flange blanks shall not be removed until ready for connection to pipe work.
- 4.2.4 Manufacturer's instruction shall be strictly followed as applicable.
- 4.2.5 If the pumps are stored for longer periods the shaft shall be periodically rotated.

4.3 **Preparation**

- 4.3.1 The foundations designed to meet the vibration and sound control requirements shall be provided by Main Contractor. Inertia bases will be supplied along with vibration isolators.
- 4.3.2 Check and ensure that the shop drawings used are latest and approved for construction.
- 4.3.3 ETA will co-ordinate the location of foundation as per approved shop drawings.
- 4.3.4 Co-ordinate with the main contractor to ensure that the foundations/concrete filling to inertia bases made as per approved shop drawings.
- 4.3.5 The foundation surface shall be flat and level and smoothly finished top surface.
- 4.3.6 Check co-ordination with other services prior to the installation.
- 4.3.7 Check the piping support locations and cable tray routing locations in co-ordination with pump and piping layout and ensure they are not obstructing the space around pump.
- 4.3.8 Ensure easy accesses and sufficient clearance for servicing and maintenance i.e, for replacement of pump, motor, cleaning of strainer, valves etc.

4.4. **Installation**

- 4.4.1 Mark the locations of the pump base frame.
- 4.4.2 Install the inertia base/pumps as per attached Annexure-I.
- 4.4.3 Shift the pumps to the place of installation in safe manner. Use hand trolley/fork lift/crane as applicable/required as per site conditions.
- 4.4.4 Alignment of coupling arrangement between motor and pumps, after pump installation shall be rechecked by the pump supplier before testing.
- 4.4.5 Ensure proper coupling guards are provided, where applicable.
- 4.4.6 Complete the piping and valve package installation as per approved drawings. Remove the ends caps fixed on the inlet and outlet flanges.
- 4.4.7 Install the electrical power connections as per approved drawings and test for continuity.
- 4.4.8 Provide grounding wiring as per approved drawings/manufacturers instruction.
- 4.4.9 Follow the manufacturer's instructions while installing the pump.

5.0 **Inspection**

- 5.1 After completion of pump installation and piping connections, QC inspection shall be carried out as per pump installation check list.

5.2 “Work Inspection Request” shall be raised for consultants inspection.

6.0 Safety

6.1 All safety precautions shall be followed as per established project safety plan and procedure.

6.2 Only experienced and skilled technicians shall be engaged for carrying out pump installation work.

6.3 The people involve in the installation shall use PPE such as safety helmets, safety shoes, harness, gloves, etc., as required.

6.4 Safety officer shall check and ensure that all safety precautions are followed.

6.5 Safety officer shall check and ensure that all scaffolding and ladders used at site are having duly signed tags.

7.0 References

7.1 Manufacturers catalogue.

7.2 Approved chilled water pump submittals.

7.3 Shop drawings.

7.4 Specification Section 15700.

8.0 Records

8.1 ‘Work Inspection Request’ duly signed by the Consultant’s for installation.

8.2 Pump installation check list.