

METHOD STATEMENT FOR TESTING & COMMISSIONING OF CHEMICAL DOSING SYSTEM (POT) FOR CHILLED WATER PIPING

The purpose of this method statement is to define the steps to implement the correct practices for the **pre-commissioning & commissioning** of chemical dosing system (pot) for chilled water piping, to ensure that the performance of the system and equipment complies with the project requirements and serves the intended function to satisfactory level, ultimately the chilled water quality is maintained as required for long term use and stability of the chilled water dosing system and the main piping system.

Tools / Testing Instruments

- Dosing Pot
- Valves and associated accessories
- Chilled water piping system

Commissioning Procedures

Before Testing & Commissioning check below:

- Valves and other accessories shall be installed as per the approved shop drawings and manufacturer instruction.
- The location of the system will be as per the shop drawings.
- Remove the packing and ensure that the system is free from transportation damages
- For wall mounted controller panel the exact location of panel and fixing holes to be marked based on approved shop drawing.
- Install the dosing tank on the plinth and fix properly.
- Provide drain point from the dosing tank to the nearest common drain.
- Mount the dosing pump on top of the dosing tank /wall.
- Ensure that the suction valve of the dosing pump and the flexible tubing are in straight position

Electrical Connections

- Check that the power supply is available.
- All the wirings for the panel is completed and tested
- All the wirings for the field instruments are completed
- Check for the tightness all wiring connections and are intact

Start Up and Commissioning:

- Install the low-level switch in the dosing tank as per supplier recommendation.
- Install the conductivity probe in a bypass loop across the return and supply header.
- Ensure that the probe is in continuous contact with moving water.
- Ensure that the probe Tip does not touch any metal parts.
- Provide valves across the bypass loop in order to isolate the loop and take the probe for cleaning
- Provide one separate ½” tapping in the suction or return header for injection point of scale & corrosion inhibitor dosing system.
- Provide one separate ½” tapping in the suction or return header for injection point of biocide dosing system.
- Provide valves in these tapings for removing the injection valves for maintenance.
- Install the impulse water on the makeup water line.
- Tighten all connections as required
- Check that adequate space is available for maintenance.
- Inspection request shall be raised for the consultant / client inspection and approval.
- Install the agitator on dosing tanks.

Safety Requirements

- All safety precautions shall be followed as per the established Project Safety Plan.
- Only experienced and skilled technicians shall be engaged for carrying out Start-up and Commissioning of chemical dosing system (pot) of chilled water piping installed.
- Safety Guards shall be in place and secured prior to start-up.
- Cable test reports shall be verified prior to energisation.
- Appropriate Warning signs and tapes shall be placed during start-up and commissioning as required.
- All PPE shall be worn as appropriate according to the nature of the job.
- Work area shall be maintained neat and clean.