



## ANNEXE B.2

### Installation Check List and Request for Commissioning Engineer

<b>Flo Fab / Rep. Office:</b>	<b>Flo Fab Job No:</b>
<b>Address:</b>	<b>Customer Order No.</b>
<b>Customer:</b>	<b>Equipment Type:</b>
<b>Address:</b>	
<b>Model:</b>	<b>S.N. :</b>

The following check list must be completed prior to Commissioning Engineer's Presence on site. Please mark in the appropriate box  and add any necessary remarks in space provided.

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| <p><b>A. Flo Fab EQUIPMENT</b></p> <ol style="list-style-type: none"> <li>1. Equipment clean and undamaged. <input type="checkbox"/></li> <li>2. Equipment damaged (Attach report) <input type="checkbox"/></li> <li>3. Loose items available <input type="checkbox"/></li> <li>4. Unit placed on correctly set A.V. Ms <input type="checkbox"/></li> </ol> <p><b>B. WATER PIPING</b></p> <ol style="list-style-type: none"> <li>1. Piping installed in the whole system between pumps, chiller, boilers, cooling tower, cooling coils, tanks, etc. <input type="checkbox"/></li> <li>2. Strainers are to be installed as near as possible to the pump inlet with a minimum 40 mesh basket. <input type="checkbox"/></li> <li>3. Make-up and fill lines installed to system &amp; operational. <input type="checkbox"/></li> <li>4. Binder type test points in addition to the pressure transducers and gauge connections installed in liquid lines. <input type="checkbox"/></li> <li>5. Dedicated water flow switch in pump leaving liquid line (all units, minimum Wired direct to pump control panel (**)) or PD Switch) <input type="checkbox"/></li> <li>6. All water piping checked for strain – piping should not spring when connections are broken at unit. <input type="checkbox"/></li> <li>7. Piping leak tested and flushed through bypass loop and strainers cleaned after flushing. Piping systems filled and trapped air vented. <input type="checkbox"/></li> </ol> <p><b>C. WATER FLOWRATE(*)</b></p> <ol style="list-style-type: none"> <li>1. Pump water flow rates available to meet pump design requirements. Note: Do not apply flow rates above Flo Fab design maximum. <input type="checkbox"/></li> </ol> <p><b>D. OTHER PIPING (Where required)</b></p> <p><input type="checkbox"/></p> | <p><b>E. ELECTRICAL WIRING</b></p> <ol style="list-style-type: none"> <li>1. Main &amp; Control power supply available. <input type="checkbox"/></li> <li>2. Wiring completed from main power supply to starter. <input type="checkbox"/></li> <li>3. Wiring completed from starter to pump motor (If required). <input type="checkbox"/></li> <li>4. Fusing installed in accordance with Flo Fab instructions (DO NOT OPERATE PUMP MOTOR, FOR ANY REASON) <input type="checkbox"/></li> <li>5. All wiring and earthing fitted in accordance with relevant regulations. <input type="checkbox"/></li> <li>6. Incoming supply completed to Control center. <input type="checkbox"/></li> <li>7. External control wiring completed from Control Center to flow switch(s), pump motor starters, BMS, etc. in accordance with approved wiring diagram. NOTE: All control wiring to be screened cable as per Flo Fab instructions. <input type="checkbox"/></li> <li>8. Power available and wiring completed to liquid pumps starters and motors, and the rotation of each checked. <input type="checkbox"/></li> </ol> <p><b>F. SITE CONDITIONS</b></p> <ol style="list-style-type: none"> <li>1. Service available for testing equipment <input type="checkbox"/></li> <li>2. Sufficient load available for testing and operating unit <input type="checkbox"/></li> <li>3. Personnel available for final field wiring check <input type="checkbox"/></li> <li>4. Owners operating personnel available for instruction<br/>NAMES: _____ <input type="checkbox"/></li> <li>5. Special Entry requirements, security or safety requirements YES/NO (Details if YES) <input type="checkbox"/></li> </ol> <p><b>G. WATER TREATMENT</b></p> <ol style="list-style-type: none"> <li>1. Treatment system in place for water <input type="checkbox"/></li> <li>2. Chilled water/Condenser water quality is satisfactory (*) <input type="checkbox"/></li> </ol> <p><b>H. COOLING TOWER (IF AVAILABLE)</b></p> <ol style="list-style-type: none"> <li>1. Fan Rotation check <input type="checkbox"/></li> <li>2. Cooling Tower sump in clean condition <input type="checkbox"/></li> </ol> |
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**GENERAL REMARKS:**

\*Flo Fab takes no responsibility for inadequate water flows, water quality, or water temperatures

\*Do not install flow control orifice plate at the inlet of the pump.

\*\*Flow switch should be installed on straight piping 5 times the pipe dia before and after the flow switch or as approved Flo Fab accepted drawings.

The work detailed above is, in progress and will be completed by

Failure to comply with the recommendations made within the installation, Operational & Maintenance Manual or the above will invalidate the equipment warranty.

With reference to the above contract, we are requesting the presence of a Flo Fab Commissioning Engineer at the job site and agree to meet all charges for aborted, prolonged or repeated site visits made through no fault of Flo Fab inc.

Please complete the above and send pictures of the piping arrangement and/or Balancing report available.



**FLO FAB**

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**OUR LOCATIONS**

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