



F1
M-506

CHILLER YARD DETAILS AND CHILLER CONTROLS APPURTENANCES

SCALE: NO SCALE SHOWN

NOTES:

1. REFER TO M-001 FOR MECHANICAL ABBREVIATIONS, SYMBOL LEGEND, AND GENERAL NOTES.
2. REFER TO M-701 FOR CONTROLS ABBREVIATIONS, SYMBOL LEGEND, AND GENERAL NOTES.
3. CLEAN AND FLUSH ALL NEW PIPING SYSTEMS IN ACCORDANCE WITH SPEC. 220111.13.
4. INSTALL AUTOMATIC AIR VENTS AT LOCATIONS INDICATED, AT ALL HIGH POINTS, AND ELSEWHERE AS NECESSARY TO ELIMINATE TRAPPED AIR. EXTEND VENT FROM AUTOMATIC AIR VENT TO NEAREST FLOOR DRAIN OR SOAK PIT.

KEYED NOTES:

1. INSTALL SELECT PIPING AND LINE-SIZE ISOLATION VALVES WITHIN FIRST SYSTEM SHUTDOWN AT BEGINNING OF CONSTRUCTION PROJECT. REFER TO M-002.
2. TYPICAL: CONNECTION TO THE CHILLER INLET AND OUTLET FOR CONDENSER AND EVAPORATOR IS 6" NPS GROOVED PIPE CONNECTION. ALL OTHER FITTINGS MUST BE WELDED, OR FLANGED AS SHOWN.
3. EVAPORATOR AND CONDENSER SPOOL PIECES MUST BE FABRICATED SO THAT WHEN REMOVED, THERE IS A CLEAR PATH FOR THE CONDENSER AND EVAPORATOR TUBE BUNDLES TO BE REMOVED FOR MAINTENANCE. SPOOL PIECES MUST MATE TO THE THREADED LUG STYLE ISOLATION VALVE FLANGE CONNECTIONS.
4. CHILLED WATER SUPPLY AND RETURN TEMPERATURE SENSORS AND ALL INTERCONNECTING WIRING AND CONDUIT MUST BE FURNISHED AND INSTALLED BY THE SUBCONTRACTOR. POINTS ARE AVAILABLE FOR VIEWING IN THE ALC DDC, BUT WILL NOT BE USED FOR CONTROL OF THE CHILLER.
5. CHILLED WATER FLOW METER, ONICON F-1200, AND ALL INTERCONNECTING WIRING AND CONDUIT MUST BE FURNISHED AND INSTALLED BY THE SUBCONTRACTOR. POINT IS AVAILABLE FOR VIEWING IN THE ALC DDC, BUT WILL NOT BE USED FOR CONTROL OF THE CHILLER.
6. HEAD PRESSURE CONTROL VALVE: ELECTRONIC REFRIGERANT PRESSURE ACTUATED LCW CONTROL VALVE PLUS ACTUATOR (FURNISHED BY CHILLER VENDOR) MUST BE INSTALLED BY SUBCONTRACTOR AND COMMISSIONED BY SUBCONTRACTOR AND CHILLER MANUFACTURER. VALVE MUST BE ELECTRONICALLY ACTUATED BY CHILLER CONTROLLER IN RESPONSE TO REFRIGERANT PRESSURE. FOLLOW VALVE MANUFACTURER'S INSTRUCTIONS FOR VALVE INSTALLATION. ISOLATION VALVES MUST BE FURNISHED AND INSTALLED ON EITHER SIDE OF THE CONTROL VALVE TO FACILITATE MAINTENANCE OR REPLACEMENT OF THE VALVE. FURNISH AND INSTALL WIRED CONNECTION, WIRING AND CONDUIT, FROM CHILLER CONTROL PANEL TO THE CONTROL VALVE.
7. INSTALL PUMP DEAD LEVEL. PUMP MUST NOT TOUCH OR REST ON ANY PART OF THE BUILDING STRUCTURE. INSTALL PUMP SO THAT IT CAN BE REMOVED WITHOUT DISMANTLING OR FORCING ADJACENT PIPE. BEFORE START-UP, LUBRICATE PUMP IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS. (DO NOT RUN PUMP DRY). PARALLEL PUMPS ARE 100% REDUNDANT. SUPPORT PUMPS PER S-514.
8. FURNISH AND INSTALL STAINLESS STEEL BRAIDED FLANGED FLEX CONNECTORS ONTO CHW AND LCW PIPING CONNECTION POINTS. FLEX CONNECTORS MUST BE INSTALLED IN A HORIZONTAL ORIENTATION.
9. FURNISH AND INSTALL PRV TO REDUCE LCW WATER PRESSURE FROM 90 PSIG TO 40 PSIG.
10. CONNECT TO SIDE OF MAIN. AVOID TOP OR BOTTOM CONNECTION TO PREVENT AIR OR DEBRIS FROM ENTERING PIPE TO TANK.
11. SHUT-OFF VALVE (LOCKED NORMALLY OPEN)
12. TANK CONNECTION LOCATIONS MAY VARY DEPENDING ON TANK SIZE AND MODEL.
13. FURNISH AND INSTALL 12" MIN. DROP FOR ANTI-THERMOSYPHON LOOP TO PREVENT HEATING OF TANK.
14. DRAIN VALVE REQUIRED TO PROPERLY PRECHARGE TANK.
15. TANK CONNECTION LOCATIONS MAY VARY DEPENDING ON TANK SIZE AND MODEL.
16. SUPPORT AIR SEPARATOR PER S-514.
17. SUPPORT EXPANSION TANK PER S-514.
18. UNION TYPE PIPE CONNECTION PIPE SO PUMP CAN BE REMOVED FOR SERVICE.
19. 1/4" TYPE L COPPER TUBING FOR GAUGE CONNECTIONS.
20. DP TRANSMITTER SHALL BE WIRED TO ALC SYSTEM FOR USE IN MONITORING THE STATUS OF CHILLED WATER PUMP. INSTALL DEVICE ON UNISTRUT STAND FOR VFD PROVIDED BY ELECTRICAL.
21. IFM EFFECTOR FLOW SWITCH FURNISHED BY CHILLER VENDOR. SUBCONTRACTORS MUST INSTALL AND WIRE DEVICE, INCLUDING PIPE SPOOL PIECE AS NECESSARY, IF DEVICE IS SHIPPED LOOSE BY CHILLER VENDOR FOR FIELD INSTALLATION.
22. NORMALLY-CLOSED 2-WAY ELECTRONIC LCW BYPASS CONTROL VALVE FOR LCW FREEZE PROTECTION.

Sheet Title

MECHANICAL DETAILS

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