



Specifications

Rack System:

The rack system and controls shall be provided by equal to or greater than the Omni Temp Model OTSD as deemed by the District. The system shall be an "UL or ETL Listed" package system for outdoor or indoor installation. Pre-wired to main fused disconnect switch and pre-piped for single point connection. Rack to be manufactured of structural steel frame constructed to prevent any vibration noises. Modify existing medium rack to redirect piping of the Walk-in Boxes to the new Medium temp rack. Internal piping must meet ASHRAE standards for pressure drop and velocities. All copper piping must have a plastic bushing where secured to a steel support. Receivers must be sized for 100% pump down of each system. Suction lines to be insulated back to each compressor suction valve. If liquid line is sub-cooled it must be insulated to each fixture it serves. System will be manufactured as single piece of equipment, no spilt condenser. Two existing rack systems will need new E2 controllers to replace the existing RMCC controllers at site. Factory will program the new E2 controllers to meet job site conditions. There will be an emergency power connection to rack as the one at site has and as shown on our wiring sheet and design sheet.

Compressors:

System will be manufactured with the following standard components, Semi-hermetic compressors in parallel, phase loss monitor, E2 controller, suction, discharge and liquid line transducer's, oil reservoirs, oil regulators, oil separators, oil filter, oil shut off valves, replaceable core suction filters, replaceable core liquid filter, liquid line moisture indicator, head fans for low temperature compressors, suction, liquid and discharge headers, dual pressure relieve valves, defrost system, contactors, Sentronic oil failure switch's, automatic high/low pressure switch's with super hoses, control panel, control transformer (if needed), ball shut-off valves on suction and liquid lines leaving the rack.

Computerized Monitoring Intelligent Network (CMIN):

Model # OTR-225

System to continuously monitor the operation of the refrigeration rack components and walk-in systems. System to provide a monitoring electronic loop controller with alarms for multiple monitoring points for a HACCP monitoring reports. Manufacture to provide factory monitoring of CMIN system by phone modem (by client) for (1) year from the date of acceptance. Client to supply a dedicated phone line. CMIN process controller device to provide access to the system through use of user names or passwords. Process controller menu to allow access to individual controllers on the network, select display, change the values and setting within the process controller, monitor the process server, and interface with word Microsoft Windows compatible processing, spreadsheet and database software. System to monitor, control and alarm the following: Low refrigerant level, compressor oil failure, high/low pressure, fan cycling, sub-cooling of refrigerant, multiple compressor staging, kWh, box temperature control with high/low alarm, defrosting of coils and data provide audio/visual alarms, tied into the local alarm system, in a location designated by the client. Alarm Annunciator to indicate whether the monitor has received an alarm signal from any refrigerated units or the mechanical refrigeration system rack. Direct phone line need at rack. See Omni Temp prints for field wiring needed. Two new E2 controllers will be needed to change the old RMCC controllers at site to accomplish above monitoring.

Evaporators: Are all existing at site

Walk-in/base coils shall be direct expansion types of such size and design as to affect required temperatures, humidity and to suit the application intended, manufactured by Bohn, Russell or Omni Temp. No substitutions will be accepted. Evaporators used will be all "Underwriters Laboratory Listed" supplied from factory with an expansion valve and solenoid valve pre-wired and pre-piped under nitrogen pressure and meet the refrigerant listed in schedule. The factory will supply coils for a parallel system with Manley ball valves pre-piped and shipped under pressure. Factory will supply manley ball valves for each case supplied by others.

Installation:

All field piping installed as per factory standards and the sizing of the piping shall meet proper velocities as per factory standards. Insulation will be foam type 25/50 smoke and fire type. Medium temperature will use 3/4" thick wall, low temperature will use 1" thick wall and sub-cooled liquid lines will use 3/4" thick wall. All field piping must have a plastic bushing wherever steel to copper tubing comes together. Include all labor, material, equipment, tools, refrigerant, oil, and other required accessories for the complete installation of the systems as shown and specified. Interconnection of all accessories accomplished for ease of servicing. Particular attention must be given to oil return, refrigerant pressure drops and neatness. Placement of all exposed pipes approved prior to installation with General Contractor. Spacing of piping must in accordance with factory standards and not exceeding 8'-0". Factory representative will be required to perform startup of the new condenser. Factory will train the clients Maintenance personally and kitchen people on the operation of the CMIN and systems.

Testing:

After installation and before charging, evacuate all piping systems to a 500-micron evacuation. After evacuation, charge system with nitrogen and maintain pressure of 150% working pressure for 6 hours. Cap off, install pressure gauge and hold for 24 hours minimum. Re-evacuate, hold for 6 hours, charge and make electronic detector test all joints.

Work by Others:

Final wiring of connections, conduit and/or pull boxes provided under applicable electrical and plumbing contracts. See R-1 drawing for wiring schematic for field wiring. All field piping by others.

Warranties & Service:

Included shall be a full one (1) year warranty for all parts by factory and labor on the entire refrigeration package by installing contractor, from the day of final acceptance of the installation as previously specified. Manufacturer shall also include a five- (5) year extended warranty on the compressors for exchange, client to pay all freight charges. All defective or replaced parts must be returned to the factory for replacement. Lack of maintenance, nuisance calls or miss-setting of temperature controls at evaporators, are not covered under labor warranty.