

- 1) High discharge pressure cutout switch for each compressor.
 - 2) Low suction pressure cutout switch for each compressor.
 - 3) Anti-short cycle timer for each compressor.
 - 4) Low ambient operating controls as indicated on schedule.
8. Equipment Supports
- a. See 15001 for requirements.

C. Thermostat

1. Provide a programmable thermostats with automatic changeover, adjustable deadband, and a minimum ranges of 55F to 85. Thermostat shall have separate, adjustable 7 day/24 hr. occupied and unoccupied schedules for system (compressor and blower) and ventilation (cycle with compressor or continuous during occupied period.)
2. Thermostat shall be compatible with equipment selected and shall be capable of performing control functions indicated. Match number of stages of heating and cooling as indicated on equipment schedules.
3. Provide manufacturer's recommended thermostats capable of optimizing multistage compressors and variable speed air handlers for humidity control where scheduled on plans.

2.2 REFRIGERANT PIPING AND ACCESSORIES

A. Tubing shall be Type ACR complying with ASTM B 280.

B. Insulate refrigerant suction piping as follows:

1. Above Grade or in PVC conduit: 3/4" thick, preformed, flame retardant, nitrile rubber based elastomeric insulation similar to Armstrong FR Armaflex.
2. Below Grade: 1" thick, pre-formed rigid cellular glass type similar to Pittsburgh Corning Foamglas. Finish with two coats of asphalt base mastic equal to Foster 60-25 reinforced with layer of glass fabric.
3. All insulation materials and coatings shall meet flame spread and smoke developed ratings per NFPA 90A when tested in accordance with ASTM Standard E-84. Smoke developed rating shall be less than or equal to 50, and flame spread rating shall be less than or equal to 25. All coatings and mastics shall be non-flammable in wet state.

C. Pipe Hangers

1. Pipe hangers shall be Auto-Grip, Fee and Mason, Grinnel, or approved equal, steel clevis hangers selected within the manufacturer's published load ratings.
2. Use vibration isolators in hanger rods whenever piping is subject to vibration, or where shown on drawings.

D. Sleeves

1. Sleeves shall be 18 gauge galvanized steel or preformed plastic. Sleeves shall be sized to allow approximately 1/8" gap around the pipe or its insulation.