

PART 1 – GENERAL

1.01 DESCRIPTION

- A. Provide Heating, Cooling, and Ventilating Equipment as specified herein and shown on the Drawings.
- B. Equipment capacity and size shall be as indicated on the Drawings.
- C. Related Work: The requirements of Section 23 05 00, Common HVAC Materials and Methods, also apply to this section.

1.02 QUALITY ASSURANCE

- A. Air Handling Equipment: Rated in accordance with AMCA certified rating procedures and AMCA labeled.
- B. Air Conditioning and Refrigeration Equipment Rating: Rated in accordance with ARI certified rating procedures and ARI labeled.
- C. Gas-fired Equipment: Design certified by American Gas Association.

1.03 SUBMITTALS

- A. Submit catalog data, construction details and performance characteristics for each HVAC unit.
- B. Submit operating and maintenance data.

PART 2 - PRODUCTS

2.01 SMALL PACKAGED HVAC UNITS

- A. Non-Ducted/Ducted, Split System Cooling/Heat Pump Unit:
 - 1. Non-Ducted Indoor Section: Non-ducted, compact fan coil unit designed for wall, ceiling, recessed ceiling, or concealed ducted mounting. Quantity, style, and capacity as listed on the drawings. Multispeed direct drive fan with adjustable discharge louvers and air filter. Indoor unit powered via outdoor unit. Provide with wired thermostat and controls to control multiple units from a single thermostat. See plans.
 - 2. Ducted Indoor Section: Ducted, compact fan coil unit designed for concealed ducted mounting. Quantity, style, and capacity as listed on the drawings. Multispeed direct drive fan with a section for air filter. Indoor unit powered via outdoor unit. Provide thermostat as indicated. Contractor to provide a OSA duct connection to the RA plenum with a 2-position control damper.
 - 3. Outdoor Section: Capacity matched with indoor section(s), steel cabinet with hermetically sealed compressor(s), accumulator, crankcase heater, high and low pressure switches, restart delay relay, condenser coil, and propeller fans. Low ambient operation to 20 degrees. Single or multiple circuit as indicated. Provide preinsulated lineset for each indoor unit.
 - 4. Acceptable Manufacturers: Daikin, Carrier, LG, Sanyo, Mitsubishi, or approved.

PART 3 - EXECUTION

3.01 INSTALLATION

TERMINAL HVAC EQUIPMENT

- A. Install and arrange equipment as shown on the Drawings and as recommended by the equipment manufacturer.
- B. Piping: Refer to applicable sections for piping, ductwork, insulation, painting, etc.

3.02 ROOF MOUNTED EQUIPMENT INSTALLATION

- A. All roof mounted mechanical equipment shall be supported and seismically anchored on leveled, flashed and counterflashed **[vibration isolated]** curbs anchored to resist seismic forces and suitable for the roof construction. Minimum curb height shall be 12" above the roof unless indicated otherwise on the Drawings. Flashing into the roof is specified in another Section.
- B. Make all piping, electrical and duct penetrations for each equipment within the curb unless shown otherwise on the Drawings. Piping and electrical conduit routed above and across the roof shall be supported on flashed and counterflashed curbs with pipe guides anchored to the curbs in "pitch pockets." Submit shop drawings on other arrangements for approval.
- C. Acoustical Protection: Install two layers of 5/8" weatherproof sheet rock with staggered joints on the perimeter angle and cross members provided with the vibration isolator bases. Apply sheet rock around all ductwork above the roof and caulk all joints and seams. Provide additional acoustical materials as recommended by acoustical engineer.

3.03 AIR HANDLING INSTALLATION

- A. Installation and Arrangement: Air handling equipment shall be installed and arranged as shown on the Drawings. Comply with the manufacturer's recommendations for installation connection and start-up.
- B. Lubrication: All moving and rotating parts shall be lubricated in accordance with the manufacturer's recommendations prior to start-up.
- C. Filters: Specified filters or approved temporary construction filters shall be installed in supply units prior to start-up or used for drying and/or temporary heat.

3.04 CONDENSATE DRAINAGE

- A. Provide complete condensate drainage system. Route condensate to approved interior receptor. Discharging condensate to the exterior is not permitted.

3.05 CONTROLS

- A. Wiring: All wiring shall be in accordance with the National Electrical Code and local electrical codes.
- B. Mounting: All controls intended to be operable by the occupant shall be mounted with the operating portion no more than 46" above the floor or as otherwise required by applicable codes.

END OF SECTION