

SECTION 23 75 00
AIR HANDLING UNITS
Design Standard

PART 1 GENERAL

1.1 PURPOSE

- A. Air handling units are an essential element of the mechanical space ventilation, cooling, and heating systems. This design standard has the purpose of creating a consistent application of air handling unit requirements throughout the San Mateo County Community College District therefore achieving a standard of quality for maintenance, energy efficiency, and reliability throughout all renovation and new building projects.

PART 2 PRODUCTS

2.1 Design and specify work to include materials, installation and testing of central station air handling unit for a complete and operating system

- A. All air handling units shall have, at minimum, a dedicated set of two-position outside air dampers for ventilation requirements plus a second set of modulating outside air dampers, as required, for economizer operation or tracking with exhaust air.
- B. A full coil section width casing with access door shall be used to separate the chilled and heating coils.
- C. Coils shall be copper coils with aluminum fins except at Skyline College where all coils shall be copper coils with copper fins due to the harsh environment.
- D. Insulated casings and plenums shall be specified for all units, including those serving heat and vent applications. Provide double wall casings at all locations.
- E. Casings for heat and vent applications shall have space for installation of future cooling coil.
- F. Units shall be installed to allow removal of all coils and filters. Clearance equal to full-finned width of coil shall be provided to facilitate removal.
- G. Units shall be mounted on internal vibration isolators and concrete housekeeping pads.
- H. Units shall have a mixing box and filter box or a combination filter/mixing box properly sized so as not to exceed the filter manufacturer's recommended face velocities. Low leakage dampers (2%) shall be provided for mixing box dampers.
- I. All cooling coil drain pans shall be stainless steel.
- J. Variable speed drives shall be installed on the air handlers in a separate conditioned vestibule.
- K. Fan Arrays (Fan Walls) may be utilized to reduce noise and provide inherent redundancy. Fan Arrays may be self-contained or coordinated with the architectural for interior installation.

2.2 APPROVED MANUFACTURERS

- A. Light Commercial Air Handlers:

1. Carrier
2. York
3. McQuay
4. Trane

B. Commercial Package A/C Units:

1. Temtrol
2. Governair
3. Team Air
4. Haakon
5. Hunt Air
6. Dynamic Air Technologies

PART E EXECUTION

3.1 SUBSTITUTES ALLOWED?

Yes, if performance and quality equivalency can be evidenced.

3.2 ASSOCIATED DESIGN STANDARDS AND CONSTRUCTION SPECIFICATIONS:

23 05 29 - Hangers and Supports for HVAC Piping and Equipment
23 05 48 - Vibration and Seismic Controls for HVAC Piping and Equipment
23 05 53 - Identification for HVAC Piping and Equipment
23 05 93 - Testing, Adjusting and Balancing
23 31 00 - Ductwork

END OF SECTION