

SECTION 23 37 00  
AIR OUTLETS AND INLETS  
Design Standard

PART 1 GENERAL

1.1 PURPOSE

Air outlets and inlets 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 outlets and inlets throughout the San Mateo County Community College District therefore achieving a standard of quality for maintenance 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 HVAC outlets and inlets for a complete and operating system.

- A. Where possible, balancing dampers shall be located at the branch take-off instead of at the diffuser to reduce air noise. Where this is not possible, the damper at the diffuser shall be screwdriver operated
- B. Grilles, registers, and diffusers:
1. Indicate 1-, 2-, 3-, or 4-way deflection so as to reduce chances of drafts
  2. Coordinate mounting frames with construction types per finish schedule
  3. Provide components that have velocity, throw and drop, and noise criteria ratings for each size device as listed in manufacturer's current standard literature, which are plus or minus 10 percent of the components as listed in the Diffuser, Register and Grille Schedule, or as specified herein
  4. Due to sound and the disruption to the airflow discharge issues the installation of perforated face diffusers and grilles is prohibited.
  5. In high bay spaces (ceiling greater than 15' above finished floor) high performance drum louver diffusers shall be used that provide airflow control from one to four directions.
- C. Gravity intake and relief penthouses:
- Stormproof, gravity type. Penthouse: Aluminum or fiberglass. Cover: Removable and lined with fiberglass insulation to prevent condensation. Provide birdscreen, roof curb, and anti-condensation coating

2.2 APPROVED MANUFACTURERS

- A. Grilles, registers, and diffusers
1. Titus
  2. Tuttle & Bailey
  3. Krueger
  4. Price

5. Carnes
6. Nailor
- B. Gravity intake and relief penthouses
  1. Acme
  2. Breidert
  3. Carnes
  4. Greenheck
  5. JencoFan
  6. ILG
  7. Cook
  8. Penn

### PART 3 EXECUTION

#### 3.1 SUBSTITUTES ALLOWED?

Yes, if performance and quality equivalency can be evidenced.

#### 3.2 ASSOCIATED DESIGN STANDARDS AND CONSTRUCTION SPECIFICATIONS

23 05 93 - Testing, Adjusting and Balancing Design Standard

23 31 00 – Ductwork Design Standard

END OF SECTION