

SECTION 23 37 13

DIFFUSERS, REGISTERS, AND GRILLES

PART 1 GENERAL

1.01 QUALITY ASSURANCE

- A. Test and rate performance of air outlets and inlets in accordance with ADC Equipment Test Code 1062 and ASHRAE 70.
- B. Test and rate performance of louvers in accordance with AMCA 500.

1.02 SUBMITTALS

- A. Product Data:
 - 1. Diffusers, grilles, and registers.
 - 2. Louvers.
 - 3. Louvered Penthouses, Gravity Intakes and Reliefs
- B. Quality Assurance Data:
 - 1. Sound Test Data and Criteria.
 - 2. Test reports for previous design, and documentation showing previous design ratings and configurations.
- C. Project Record Documents:
 - 1. Shop Drawings.
 - 2. Product cut sheets.

PART 2 PRODUCTS

2.01 DIFFUSERS, GRILLES, AND REGISTERS

- A. Ceiling Diffusers:
 - 1. Ceiling diffusers shall be rectangular/square louvered type diffuser.
- B. Ceiling Registers and Grilles:
 - 1. Ceiling supply registers and grilles (adjustable curved blades).
 - 2. Ceiling exhaust and return registers and grilles (louvered rectangular).
 - 3. Ceiling grid core exhaust and return registers and grilles (egg crate).
- C. Ceiling Slot Diffusers.
- D. Ceiling Linear Exhaust and Return Grilles.
- E. Wall Supply Registers and Grilles:
 - 1. Wall Supply Registers and Grilles shall be heavy duty gauge with integral volume damper and 2 way throw.
 - 2. Registers and grilles shall have tamper-proof hardware.
- F. Wall Exhaust and Return Registers and Grilles:
 - 1. Wall exhaust and return registers and grilles shall be heavy duty gauge with integral volume damper and 2-way throw.
 - 2. Registers and grilles shall have tamper-proof hardware.
- G. Linear Wall Supply Registers and Grilles.

2.02 LOUVERS:

- A. Louvers:

1. Louvers shall be drainable and have a mesh bird/bug screen.
- B. Louvered Penthouses:
 1. Penthouses shall be drainable and have a mesh bird/bug screen.
 2. Penthouses louvers shall have 18" insulated roof curb.

2.03 GRAVITY ROOF HOODS AND VENTILATORS:

- A. Gravity Roof Hoods:
 1. Fabricate air inlet or exhaust hoods in accordance with SMACNA HVAC Duct Construction Standards.
- B. Gravity Roof Ventilators.

2.04 GOOSENECKS:

- A. Fabricate in accordance with SMACNA HVAC Duct Construction Standards. Provide removable screen in discharge. Discharge to be cut back 45°. Opening of discharge shall not face north or west.

PART 3 EXECUTION

3.01 INSTALLATION

- A. Install diffusers, registers, and grilles level and plumb, according to manufacturer's written instructions, Coordination Drawings, original design, and referenced standards.
- B. Closely coordinate installation of ceiling mounted devices with the lighting plan.
- C. Provide access to balancing dampers and control devices.
- D. All diffusers, grilles, and registers shall be selected to meet a Noise Criteria (NC) of 30 or less.
- E. Intake louvers, penthouses, and hoods shall be sized for maximum velocity of 500 fpm. Exhaust, relief, louvers, penthouses, and hoods shall be sized for maximum velocity of 750 fpm.
- F. All diffusers, grilles, and registers shall be scheduled on the drawings. Indicate the device identification tag and air flow on the drawings.
- G. Intake and exhaust louvers, penthouses and hoods shall be scheduled on the drawings. Provide identification tag and airflow on the drawings.

END OF SECTION 23 37 13