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 airflow 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