

SECTION 233700 - AIR OUTLETS AND INLETS

PART 1 GENERAL

1.1 WORK INCLUDED

- A. Diffusers.
- B. Grilles and registers.

1.2 RELATED WORK

- A. Section 23 05 93 - Testing, Adjusting, and Balancing for HVAC.

1.3 QUALITY ASSURANCE

- A. Make air flow tests and sound level measurements in accordance with applicable ADC equipment test codes and ASHRAE standards.
- B. Manufacturer shall certify cataloged performance and ensure correct application of air outlet types.

1.4 SUBMITTALS

- A. Submit shop drawings and product data under provisions of Section 013300.
- B. Submit product data and shop drawings covering each item, together with schedule of outlets.
- C. Submit manufacturer's installation instructions under provisions of Section 013300.
- D. Review requirements of outlets as to size, finish, and type of mounting prior to submitting shop drawings and schedules of outlets.
- E. Check location of outlets and make necessary adjustments in position to conform with architectural features, symmetry, and lighting arrangement.

PART 2 PRODUCTS

2.1 ACCEPTABLE MANUFACTURERS

- A. Titus.
- B. Nailor.
- C. Price.
- D. Krueger.
- E. Substitutions: Under provisions of Section 012500.

2.2 APPLICATION

- A. Rate units in accordance with ADC standards.
- B. Base air outlet application on space noise level of NC 35 maximum.
- C. Provide supply outlets with sponge rubber seal around edge.
- D. Provide baffles to direct air away from walls, columns, or other obstructions within radius of diffuser operation.
- E. For sidewall supply grilles provide streamlined and individually adjustable blades, depth of which exceeds 3/4 inch maximum spacing. Provide spring tension or other device to set blades. Provide units with horizontal face.

2.3 SUPPLY DIFFUSERS

- A. Provide Titus Model TDC or approved equal rectangular as scheduled, removable multi-core type diffuser to discharge air on 360 degree pattern with sectorizing baffles where indicated or required.
- B. Diffusers shall have surface mount type 1 or lay-in type 3 as required.
- C. Fabricate of steel with baked white enamel finish.
- D. Provide opposed blade damper and multi-louvered equalizing grid with damper adjustable from diffuser face.

2.4 RETURN, EXHAUST AND TRANSFER REGISTERS AND GRILLES

- A. Titus model 350-RS or approved equal sidewall and ceiling registers, provide streamlined blades, depth of which exceeds 3/4 inch spacing. Provide fixed blades set at 35 degrees, with horizontal face.
- B. Provide 1-1/4 inch margin frame with countersunk screw holes.
- C. Fabricate of aluminum with 20 gauge minimum frames and 22 gauge minimum blades, steel and aluminum with 20 gauge minimum frame, or aluminum extrusions.
- D. Provide registers, with integral gang-operated opposed blade dampers with removable key operator, operable from face.
- E. Transfer Grilles shall be similar to registers but without dampers.
- F. Finish in factory baked white enamel finish.

PART 1 EXECUTION

1.1 INSTALLATION

- A. Install items in accordance with manufacturers' instructions.
- B. Paint ductwork visible behind air outlets matte black.

END OF SECTION 233700