

## SECTION 23 37 13.13

### AIR DIFFUSERS

#### PART 1 - GENERAL

##### 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

##### 1.2 SUMMARY

- A. Section Includes:

- 1. Rectangular and square ceiling diffusers.
  - 2. Linear slot diffusers.

- B. Related Requirements:

- 1. Section 23 33 00 "Air Duct Accessories" for fire and smoke dampers and volume-control dampers not integral to diffusers.
  - 2. Section 23 37 13.23 "Air Registers and Grilles" for adjustable-bar register and grilles, fixed-face registers and grilles, and linear bar grilles.

##### 1.3 ACTION SUBMITTALS

- A. Product Data: For each type of product.

- 1. Data Sheet: Indicate materials of construction, finish, and mounting details; and performance data including throw and drop, static-pressure drop, and noise ratings.
  - 2. Diffuser Schedule: Indicate drawing designation, room location, quantity, model number, size, and accessories furnished.

#### PART 2 - PRODUCTS

##### 2.1 RECTANGULAR AND SQUARE CEILING DIFFUSERS

- A. Devices shall be specifically designed for variable-air-volume flows.
- B. Material: Aluminum.
- C. Finish: Baked enamel, white .
- D. Face Size: 24 by 24 inches .

- E. Face Style: Three cone .
- F. Mounting: T-bar .
- G. Pattern: Fixed .
- H. Dampers: Radial opposed blade .

## 2.2 LINEAR SLOT DIFFUSERS

- A. Devices shall be specifically designed for variable-air-volume flows.
- B. Material - Shell: Aluminum , insulated .
- C. Material - Pattern Controller and Tees: Aluminum.
- D. Finish - Face and Shell: Baked enamel, black .
- E. Finish - Pattern Controller: Baked enamel, black .
- F. Finish - Tees: Baked enamel, white .
- G. Slot Width: 3/4 inch .
- H. Number of Slots: Two .
- I. Length: 48 inches .
- J. Accessories: T-bar clips on both sides.

## 2.3 SOURCE QUALITY CONTROL

- A. Verification of Performance: Rate diffusers according to ASHRAE 70, "Method of Testing for Rating the Performance of Air Outlets and Inlets."

## PART 3 - EXECUTION

### 3.1 EXAMINATION

- A. Examine areas where diffusers are installed for compliance with requirements for installation tolerances and other conditions affecting performance of equipment.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

### 3.2 INSTALLATION

- A. Install diffusers level and plumb.

- B. Ceiling-Mounted Outlets and Inlets: Drawings indicate general arrangement of ducts, fittings, and accessories. Air outlet and inlet locations have been indicated to achieve design requirements for air volume, noise criteria, airflow pattern, throw, and pressure drop. Make final locations where indicated, as much as practical. For units installed in lay-in ceiling panels, locate units in the center of panel. Where architectural features or other items conflict with installation, notify Architect for a determination of final location.
- C. Install diffusers with airtight connections to ducts and to allow service and maintenance of dampers, air extractors, and fire dampers.

### 3.3 ADJUSTING

- A. After installation, adjust diffusers to air patterns indicated, or as directed, before starting air balancing.

END OF SECTION 23 37 13.13

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