

## SECTION 15855 - DIFFUSERS, REGISTERS, AND GRILLES

### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. Section Includes:
1. Rectangular and square ceiling diffusers.
  2. Adjustable bar grilles.
  3. Fixed face grilles.

#### 1.2 SUBMITTALS

- A. Product Data: For each type of product indicated, include the following:
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, Register, and Grille Schedule: Indicate drawing designation, room location, quantity, model number, size, and accessories furnished.

### PART 2 - PRODUCTS

#### 2.1 CEILING DIFFUSERS

- A. Rectangular and Square Ceiling Diffusers - :
1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
    - a. A-J Manufacturing Co., Inc.
    - b. Anemostat Products; a Mestek company.
    - c. Carnes.
    - d. Hart & Cooley Inc.
    - e. Krueger.
    - f. METALAIRE, Inc.
    - g. Nailor Industries Inc.
    - h. Price Industries.
    - i. Titus.
    - j. Tuttle & Bailey.
  2. Devices shall be specifically designed for variable-air-volume flows.
  3. Material: Steel.
  4. Finish: Baked enamel, white.
  5. Face Size: 24 by 24 inches or 12 by 12 inches centered in a 24 by 24 inch mounting panel.
  6. Face Style: Plaque.
  7. Mounting: T-bar or mounting panel (for 12 by 12 inch).
  8. Pattern: Adjustable.
  9. Dampers: Adjustable sectorizing baffles.
  10. Accessories:
    - a. Sectorizing baffles.

## 2.2 GRILLES

### A. Adjustable Bar Grille:

1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
  - a. A-J Manufacturing Co., Inc.
  - b. Anemostat Products; a Mestek company.
  - c. Carnes.
  - d. Dayus Register & Grille Inc.
  - e. Hart & Cooley Inc.
  - f. Krueger.
  - g. METALAIRE, Inc.
  - h. Nailor Industries Inc.
  - i. Price Industries.
  - j. Titus.
  - k. Tuttle & Bailey.
2. Material: Steel.
3. Finish: Baked enamel, white.
4. Face Blade Arrangement: Horizontal spaced **3/4 inch** apart.
5. Core Construction: Integral.
6. Rear-Blade Arrangement: Vertical spaced **3/4 inch** apart.
7. Frame: **1-1/4 inches** wide.
8. Mounting: Countersunk screw.

### B. Fixed Face Grille

1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
  - a. A-J Manufacturing Co., Inc.
  - b. Anemostat Products; a Mestek company.
  - c. Carnes.
  - d. Dayus Register & Grille Inc.
  - e. Hart & Cooley Inc.
  - f. Krueger.
  - g. Nailor Industries Inc.
  - h. Price Industries.
  - i. Titus.
  - j. Tuttle & Bailey.
2. Material: Steel.
3. Finish: Baked enamel, white.
4. Face Arrangement: **1/2-by-1/2-by-1-inch** grid core.
5. Core Construction: Integral.
6. Frame: **1-1/4 inches** wide.
7. Mounting: Countersunk screw or lay in.

## 2.3 SOURCE QUALITY CONTROL

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

## PART 3 - EXECUTION

### 3.1 INSTALLATION

- A. Install diffusers, registers, and grilles 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, registers, and grilles with airtight connections to ducts and to allow service and maintenance of the balancing dampers.

### 3.2 ADJUSTING

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

END OF SECTION 15855