SECTION 233713 - DIFFUSERS, REGISTERS, AND GRILLES

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Ceiling diffusers.
2. Adjustable bar registers and grilles.
3. Fixed face registers and grilles.

B. Related Sections:

1. Division 23 Section “Metal Ducts”.
2. Division 23 Section "Air Duct Accessories".

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. Round, Square, Perforated, Louvered, and Linear Ceiling Diffuser:

1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

a. Carnes.
b. Krueger.
c. METALAIRE, Inc.
d. Nailor Industries Inc.
e. Titus.

2. Refer to “Diffusers, Registers and Grilles Schedule” for additional specifications.

2.2 REGISTERS AND GRILLES

A. Adjustable Bar Register and Grilles:

1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

a. Carnes.

b. Krueger.
c. METALAIRE, Inc.
d. Nailor Industries Inc.
e. Titus.

2. Refer to “Diffusers, Registers and Grilles Schedule” for additional specifications.

B. Fixed Face Register and Grilles:

1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

a. Carnes.
b. Krueger.
c. METALAIRE, Inc.
d. Nailor Industries Inc.
e. Titus.

2. Refer to “Diffusers, Registers and Grilles Schedule” for additional specifications.

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 dampers, air extractors, and fire 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 233713