

PART 1 **GENERAL**

1.1 **SUMMARY**

- .1 Section includes:
 - .1 Supply, return and exhaust grilles and registers, diffusers and linear grilles, for commercial use.

1.2 **REFERENCES**

- .1 American Society of Heating Refrigerating and Air-Conditioning Engineers (ASHRAE).
 - .1 ASHRAE 70, Method of Testing for Rating the Performance of Air Ducts and Outlets.

1.3 **SYSTEM DESCRIPTION**

- .1 Performance requirements:
 - .1 Catalogued or published ratings for manufactured items: obtained from tests carried out by manufacturer or those ordered by manufacturer from independent testing agency signifying adherence to codes and standards.

1.4 **SUBMITTALS**

- .1 Product Data:
 - .1 Submit manufacturer's printed product literature, specifications and datasheet in accordance with Section 01 33 00 - Submittal Procedures. Include product characteristics, performance criteria, and limitations.
 - .1 Submit two copies of Workplace Hazardous Materials Information System (WHMIS) Material Safety Data Sheets (MSDS) in accordance with Section 01 33 00 - Submittal Procedures.
 - .2 Indicate following:
 - .1 Capacity
 - .2 Throw and terminal velocity
 - .3 Noise criteria
 - .4 Pressure drop
 - .5 Neck velocity
- .2 Quality assurance submittals: submit following in accordance with Section 01 33 00 - Submittal Procedures.
 - .1 Certificates: submit certificates signed by manufacturer certifying that materials comply with specified performance characteristics and physical properties.
 - .2 Instructions: submit manufacturer's installation instructions.

1.5 **QUALITY ASSURANCE**

- .1 Health and Safety Requirements: do construction occupational health and safety in accordance with Section 01 35 29.06 - Health and Safety Requirements.

1.6 **DELIVERY, STORAGE, AND HANDLING**

- .1 Packing, shipping, handling and unloading:
 - .1 Deliver, store and handle in accordance with Section 01 61 00 - Common Product Requirements.
 - .2 Deliver, store and handle materials in accordance with manufacturer's written instructions.
- .2 Waste Management and Disposal:
 - .1 Construction/Demolition Waste Management and Disposal: separate waste materials for reuse and recycling in accordance with Section 01 74 21 - Construction/Demolition Waste Management and Disposal.

1.7 **MAINTENANCE**

- .1 Extra Materials:
 - .1 Provide maintenance materials in accordance with Section 01 78 00 - Closeout Submittals.
 - .2 Include:
 - .1 Keys for volume control adjustment
 - .2 Keys for air flow pattern adjustment.

1.8 **ACCEPTABLE MATERIALS**

- .1 Where materials are specified by trade name, refer to the Instructions to Tenderers for a procedure to be followed in applying for approval of alternatives.

PART 2 **PRODUCTS**

2.1 **GENERAL**

- .1 To meet capacity, pressure drop, terminal velocity, throw, noise level, neck velocity.
- .2 Frames:
 - .1 Full perimeter gaskets.
 - .2 Plaster frames where set into plaster or gypsum board.
 - .3 Concealed fasteners.
- .3 Concealed manual volume control damper operators as indicated.
- .4 Colour: standard or as directed by Departmental Representative.

- .5 Acceptable Materials: E. H. Price, Titus, Nailor, Carnes, Krueger, Tuttle & Bailey or as approved by Addendum in accordance with Instructions to Tenderers.

2.2 MANUFACTURED UNITS

- .1 Grilles, registers and diffusers of same generic type to be product of one manufacturer.

2.3 GRILLES, REGISTERS AND DIFFUSERS

- .1 All grilles, diffusers and registers shall be of type and size indicated on drawings and shall be complete with O.B. damper unless otherwise noted.
- .2 Grilles & Diffusers are as follows:
- | | | |
|--------|---|--------------------------------|
| Type A | - | E.H. Price 300x300/SCD/31/B12. |
| Type B | - | E.H. Price 520/F/L/A/B12. |
| Type C | - | E.H. Price 500x500/SCD/31/B12. |
| Type D | - | E.H. Price 80/F/A/B12. |
| Type E | - | FanAm Hush Grill HG45. |

PART 3 EXECUTION

3.1 MANUFACTURER'S INSTRUCTIONS

- .1 Compliance: comply with manufacturer's written recommendations or specifications, including product technical bulletins, handling, storage and installation instructions, and datasheet.

3.2 INSTALLATION

- .1 Install in accordance with manufacturers instructions.
- .2 Install with flat head stainless steel or cadmium plated screws in countersunk holes where fastenings are visible.
- .3 Bolt grilles, registers and diffusers, in place, in gymnasium and similar game rooms.
- .4 Provide concealed safety chain on each grille, register and diffuser in gymnasium and similar game rooms and elsewhere.

3.3 CLEANING

- .1 Proceed in accordance with Section 01 74 11 - Cleaning.
- .2 Upon completion and verification of performance of installation, remove surplus materials, excess materials, rubbish, tools and equipment.

END OF SECTION