

PART 1 - GENERAL

- 1.1 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.
- 1.2 ACTION AND INFORMATIONAL 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.  
.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.
- 1.3 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.
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- 1.4 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.
- 1.5 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.

PART 2 - PRODUCTS

- 2.1 GENERAL
- .1 To meet capacity, pressure drop, terminal velocity, throw, noise level, neck velocity as indicated.
  - .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.
  - .4 Colour: standard as directed by Departmental Representative.
  - .5 See Diffuser/Grille schedules on Drawings.
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- 2.2 MANUFACTURED UNITS .1 Grilles, registers and diffusers of same generic type, products of one manufacturer.
- 2.3 RETURN AND EXHAUST GRILLES AND REGISTERS .1 General: with opposed blade dampers.
- 2.4 DIFFUSERS .1 General: volume control dampers with flow straightening devices and blank-off quadrants and gaskets.
- .2 See schedules as indicated.

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 oval head stainless steel screws in countersunk holes where fastenings are visible.
- 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.