**Price Security Perforated Linear Diffuser**

**Division 23 – Heating, Ventilating, and Air Conditioning**

**Section 23 37 13 – Diffusers, Registers, and Grilles**

The following specification is for a defined application. Price would be pleased to assist in developing a specification for your specific need.

**PART 1 – GENERAL**

* 1. **Section includes**:

1. Slot Diffusers
   1. **Related Requirements**
2. Section 01 30 00 – Administrative Requirements
3. Section 01 40 00 – Quality Requirements
4. Section 01 74 21 – Construction/Demolition Waste Management and Disposal
5. Section 01 78 00 – Closeout Submittals
6. Section 01 79 00 – Demonstration and Training
   1. **Reference Standards**
7. All referenced standards and recommended practices in this section pertain to the most recent publication thereof, including all addenda and errata.
8. ASHRAE Standard 55 – Thermal Environmental Conditions for Human Occupancy
9. ASHRAE Standard 70 – Method of Testing the Performance of Air Outlets and Air Inlets
10. ASTM B117 – Standard Practice for Operating Salt Spray (Fog) Apparatus
11. ASTM D610 – Standard Practice for Evaluating Degree of Rusting on Painted Steel Surfaces
12. ASTM D714 – Test Method for Evaluating Degree of Blistering of Paints
13. ASTM D870 – Standard Practice for Testing Water Resistance of Coatings Using Water Immersion
14. ASTM D1654 – Standard Test Method for Evaluation of Painted or Coated Specimens Subjected to Corrosive Environments
15. ASTM D2794 – Standard Test Method for Resistance of Organic Coatings to the Effects of Rapid Deformation (Impact)
16. ASTM D3363 – Standard Test Method for Film Hardness by Pencil Test
17. NFPA 90A – Standard for the Installation of Air-Conditioning and Ventilating Systems
18. UL181 – Standard for Factory-Made Air Ducts and Air Connectors
19. UL/ULC – Underwriters Laboratories Fire Resistance Directory/Underwriters Laboratories of Canada Equipment and Materials Directory

**1.04 Submittals**

1. See Section 01 30 00 – Administrative Requirements for submittal procedures.
2. Product Data: Provide data indicating configuration, general assembly, and materials used in fabrication. Include catalog performance ratings that indicate airflow, and NC designation.
3. Shop Drawings: Indicate configuration, general assembly, and materials used in fabrication.
4. Project Record Documents: Record actual locations of units and control components.
5. Operation and Maintenance Data: Include manufacturer's descriptive literature, operating instructions (if applicable), and maintenance and repair data.
6. Warranty: Submit manufacturer warranty and ensure forms have been completed in Owner's name and registered with manufacturer.
7. Maintenance Materials: Furnish the following for Owner's use in maintenance of project.

**1.06 Quality Assurance**

1. Manufacturer Qualifications: Company specializing in manufacturing the type of products specified in this section, with minimum ten years of documented experience.

**1.07 Warranty**

1. See Section 01 78 00 - Closeout Submittals, for additional warranty requirements.
2. Provide 12 month manufacturer warranty from date of shipment of diffusers.

**PART 2 – PRODUCTS**

**2.01 Manufacturer**

1. Basis of Design: Price Industries, Inc.
2. Security Perforated Linear Diffusers: MSPLD

**2.02 Security Perforated Linear Diffuser**

1. Description:
   1. Furnish and install Price model MSPLD security perforated linear diffuser in sizes and capacities as shown by the plans and air distribution schedule.
2. Construction:
   1. The diffuser shall consist of a “W-Shaped” 12 gauge steel face with 1/8 inch holes, on 3/16 inch staggered centers.
   2. The diffuser face shall be fastened to a 12 gauge steel sleeve with a [one-way airflow pattern] or [two-way airflow pattern].
3. Paint Specification:
   1. Paint finish shall be (**select one**):
      1. Baked-on powder coat finish.
         1. The paint film thickness shall be a minimum of 2 mils.
         2. The finish shall have a hardness of 2H as tested in accordance with ASTM D3363.
         3. The finish shall pass an ASTM B117 Corrosive Environment Salt Spray Test for 1000 hours with no measurable creep, rusting or blistering as per ASTM D1654, D610 and D714.
         4. The finish shall pass an ASTM D870 Water Immersion test of a minimum of 500 hours with no measurable with no rusting or blistering as per ASTM D610 and D714.
         5. The finish shall have an impact resistance of 100 inch-pounds in accordance with ASTM D2794.
      2. All components shall have a custom finish in a color to match a customer supplied sample.
4. Options (**select all that apply**):
   1. Fastening Options (**select one**):
      1. The diffuser shall be supplied with a 1 x 1 x 3/16 inch steel angle mounting frames.
      2. The diffuser shall be supplied with a 1-1/2 x 1-1/2 x 3/16 inch steel angle mounting frames.
      3. The diffuser shall be supplied with a 1 x 1 x 1/8 inch steel angle mounting frames.
      4. The diffuser shall be supplied with a 1-1/2 x 1-1/2 x 1/8 inch steel angle mounting frames.
      5. Countersunk #12 plated steel spanner screws.
      6. Countersunk #12 stainless steel spanner screws.
      7. Countersunk #12 plated steel Torx screws.
      8. Countersunk #12 stainless steel Torx screws.
   2. Plenum:
      1. The diffuser shall be supplied with a coated steel plenum.
      2. The plenum assembly shall have a side inlet configuration with [field cut], [standard inlet] or [beaded inlet] connection.
      3. [Optional] The plenum shall be internally line with ¼ inch thick [fiberglass] or [fiber free] insulation.

**PART 3 – EXECUTION**

**3.01 Examination**

1. Verify that conditions are suitable for installation.
2. Verify that field measurements are as shown on the drawings.

**3.02 Installation**

1. Install in accordance with manufacturer’s instructions.
2. See drawings for the size(s) and locations of diffusers.

**3.03 Field Quality Control**

1. See Section 01 40 00 – Quality Requirements for additional requirements.

**3.05 Cleaning**

1. See Section 01 74 19 – Construction Waste Management and Disposal for additional requirements.

**3.06 Closeout Activities**

1. See Section 01 78 00 – Closeout Submittals for closeout documentation requirements.
2. See Section 01 79 00 – Demonstration and Training for addition.