**Price Maximum Security Risk Resistant Ceiling 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. Maximum Security Risk Resistant Ceiling Diffuser.
	1. **Related Requirements**
2. Section 01 30 00 – Administrative Requirements
3. Section 01 40 00 – Quality Requirements
4. Section 01 60 00 – Product Requirements
5. Section 01 74 21 – Construction/Demolition Waste Management and Disposal
6. Section 01 78 00 – Closeout Submittals
7. Section 01 79 00 – Demonstration and Training
	1. **Reference Standards**
8. All referenced standards and recommended practices in this section pertain to the most recent publication thereof, including all addenda and errata.
9. ASHRAE Standard 70 – Method of Testing the Performance of Air Outlets and Air Inlets
10. ASTM 610 – Standard Practice for Evaluating Degree of Rusting on Painted Steel Surfaces
11. ASTM 714 – Test Method for Evaluating Degree of Blistering of Paints
12. ASTM D1308 – Standard Test Method for Effect of Household Chemicals on Clear and Pigmented Organic Finishes
13. ASTM D1654 – Standard Test Method for Evaluation of Painted or Coated Specimens Subjected to Corrosive Environments
14. ASTM D4752 – Standard Practice for Measuring MEK Resistance of Ethyl Silicate (Inorganic) Zinc-Rich Primers by Solvent Rub

**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, static pressure 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 7800 - Closeout Submittals, for additional warranty requirements.
2. Provide 12 month manufacturer warranty from date of shipment of grilles and registers.

**PART 2 – PRODUCTS**

**2.01 Maximum Security Risk Resistant Ceiling Diffuser**

1. Basis of Design: Price Industries, Inc.
2. Maximum Security Risk Resistant Ceiling Diffuser Model MSRRCD

**2.02 Maximum Security Risk Resistant Ceiling Diffuser**

1. Description:
	1. Furnish and install Price Model MSRRCD Maximum Security Risk Resistant Ceiling Diffusers of sizes, discharge patterns and mounting types designated by the plans and air distribution schedule.
2. Construction:
	1. The diffuser shall be constructed of 12 gauge hot rolled steel.
	2. Louver blades shall be spaced for 5/16 inch channel width at the diffuser face with a 35 degrees discharge angle. The louvers shall be stitch welded in place and shall follow a zigzag pattern through the diffuser.
	3. Sleeve with integral modular core shall be 4 7/16” long.
3. Paint Specification:
	1. Paint finish shall be (**select one**):
		1. All components shall have a baked-on powder coat finish.
			1. The paint finish must demonstrate no degradation when tested in accordance with ASTM D1308 (covered and spot immersion) and ASTM D4752 (MEK double rub) paint durability tests.
			2. The paint film thickness shall be a minimum of 2.0 mils.
			3. The finish shall have a hardness of 2H.
			4. The finish shall withstand a minimum salt spray exposure of 1000 hours with no measurable creep in accordance with ASTM D1654, and 1000 hours of exposure with no rusting or blistering as per ASTM D610 and ASTM D714.
			5. The finish shall have an impact resistance of 80 inch-pounds.
		2. All components shall have a custom finish in a color to match a customer supplied sample.
4. Options:

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* 1. Mounting Frames:
		1. The grille shall be supplied with (select one):
			1. 1”x1”x3/16” hot rolled steel angle frame shipped loose for field welding
			2. 11/2”x11/2”x3/16” hot rolled steel angle frame shipped loose for bolting
			3. 1”x1”x1/8” hot rolled steel angle frame shipped loose for field welding
			4. 11/8”x11/8” hot rolled steel angle frame shipped loose for bolting
	2. Fastening:
		1. The grille shall be supplied with the following fastening method (**select one**):
1. Countersunk screw holes complete with screws.
2. Countersunk screw holes complete with screws and rear plate
3. No screw holes
	1. Sleeve Extension

a. Diffuser shall be supplied with a (specify length) 12 gauge steel sleeve extension.

**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 grilles and registers.

**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 additional requirements.