**Price Modular Core Diffusers**

**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. Modular Core 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. ASTM 610 – Standard Practice for Evaluating Degree of Rusting on Painted Steel Surfaces.
9. ASTM 714 – Test Method for Evaluating Degree of Blistering of Paints.
10. ASTM D1308 – Standard Test Method for Effect of Household Chemicals on Clear and Pigmented Organic Finishes.
11. ASTM D1654 – Standard Test Method for Evaluation of Painted or Coated Specimens Subjected to Corrosive Environments.
12. 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. Certificates: Certify that air capacities, pressure drops, and selection procedures meet or exceed specified requirements.
5. Project Record Documents: Record actual locations of units and control components.
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. Modular Core Diffusers: Models SMCD, AMCD

**2.02 Modular Core Diffusers**

1. Description:
	1. Furnish and install Price Model [SMCD] or [AMCD] modular core ceiling diffusers of sizes, discharge patterns, and mounting types designated by the plans and air distribution schedule.
2. Construction:
	1. Diffusers shall be [steel – SMCD] or [aluminum – AMCD] construction.
	2. The diffuser shall consist of an outer frame assembly to facilitate mounting, and shall include an integral collar to allow connection to the square duct.
	3. The diffuser core shall consist of fixed louver directional modules that may be easily field adjusted from the diffuser face without any type of tools or mechanical device for [one-way], [two-way], [two-way corner], [three-way], or [four-way] horizontal discharge airflow.
	4. Each louvered module shall be easily removable to allow access to any damper or other component in or near the diffuser neck.
	5. The core’s blade spacing shall be one inch on center.
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. Mounting Frame:
	1. The diffuser shall be supplied with a frame suitable for (**select one**):
		1. Surface mount with beveled frame.
		2. 15/16 inch wide flat T-bar.
		3. Snap-in T-bar.
		4. 9/16 inch tegular T-bar.
		5. Lay-in [steel] or [aluminum] panel.
5. Options (**select all that apply**):
	1. Damper and Square to Round Adaptor:
		1. The diffuser shall be supplied with an aperture style volume flow damper. The damper shall be manually adjustable from the diffuser face.
		2. The diffuser shall be supplied with a square to round adaptor to connect to round duct. The adaptor shall be optionally available with an opposed blade damper.

**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 additional requirements.