**Price Drop Box with HCD Drum 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. Drop Box with HCD Drum Diffusers
	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 55 – Thermal Environmental Conditions for Human Occupancy
10. ASHRAE Standard 70 – Method of Testing the Performance of Air Outlets and Air Inlets
11. ASTM B117 – Standard Practice for Operating Salt Spray (Fog) Apparatus
12. ASTM D610 – Standard Practice for Evaluating Degree of Rusting on Painted Steel Surfaces
13. ASTM D714 – Test Method for Evaluating Degree of Blistering of Paints
14. ASTM D870 – Standard Practice for Testing Water Resistance of Coatings Using Water Immersion
15. ASTM D1654 – Standard Test Method for Evaluation of Painted or Coated Specimens Subjected to Corrosive Environments
16. ASTM D2794 – Standard Test Method for Resistance of Organic Coatings to the Effects of Rapid Deformation (Impact)
17. ASTM D3363 – Standard Test Method for Film Hardness by Pencil Test
18. NFPA 90A – Standard for the Installation of Air-Conditioning and Ventilating Systems
19. UL181 – Standard for Factory-Made Air Ducts and Air Connectors
20. 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 air flow, 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. Manufacturer's Installation Instructions: Indicate installation instructions, recommendations, and service clearances required.
6. Project Record Documents: Record actual locations of units and control components.
7. Operation and Maintenance Data: Include manufacturer's descriptive literature, operating instructions, maintenance and repair data, and parts lists.
8. Warranty: Submit manufacturer warranty and ensure forms have been completed in Owner's name and registered with manufacturer.
9. Maintenance Materials: Furnish the following for Owner's use in maintenance of project.
	1. See Section 01 60 00 - Product Requirements for additional provisions.

**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 Security Grilles with Lattice Face**

1. Basis of Design: Price Industries, Inc.
	1. Drop Box with HCD Drum Louvers: Model DBH

**2.02 Drop box with HCD Drum Louvers**

1. Description:
	1. Furnish and install Price Model DBH drop box with HCD drum louvers in sizes and mounting types indicated on the plans and air distribution schedule.
2. Construction:
	1. The drop box plenum shall be made of steel and be constructed with an acoustically perforated flow pyramid and acoustically insulated bottom and sides.
	2. The drop box plenum shall have a nominal capacity of (**select one**):
		1. 7.5-ton nominal, 3000 cfm max airflow
		2. 15-ton nominal. 6000 cfm max airflow
		3. 30-ton nominal, 12000 cfm max airflow
	3. The drop box plenum shall have Price High Capacity Drum Louvers (HCD) fastened in a 4-way discharge pattern. (See High Capacity Drum Louver specifications for more information on the HCDs)
	4. The drop box plenum shall be supplied with a [standard] or [flanged] inlet.
	5. The auxiliary hanger bracket shall be supplied loose with 1/2” (13mm) hole for threaded rod installation.

1. Paint Specification:
	1. The Drop Box shall have a (**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. Mill galvanized finish.

**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.