**Price UP Universal Plenum**

**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. Universal Plenum
   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. ASTM 610 – Standard Practice for Evaluating Degree of Rusting on Painted Steel Surfaces
10. ASTM 714 – Test Method for Evaluating Degree of Blistering of Paints
11. ASTM D1308 – Standard Test Method for Effect of Household Chemicals on Clear and Pigmented Organic Finishes
12. ASTM D1654 – Standard Test Method for Evaluation of Painted or Coated Specimens Subjected to Corrosive Environments
13. 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, 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 diffusers.

**PART 2 – PRODUCTS**

**2.01 Manufacturer**

1. Basis of Design: Price Industries, Inc.
2. Universal Plenum: Models UP, UPL
3. Curved Universal Plenum: Models UPC, UPLC

**2.02 Universal Plenum**

1. Description:
   1. Furnish and install Price Model [UP] or [UPL] universal plenum of the sizes indicated on the plans and air distribution schedule.
2. Construction:
   1. The plenum shall be constructed of zinc coated steel.
   2. The plenum shall have a round inlet and the overall plenum height shall not exceed the diameter of the round inlet plus four inches. The inlet shall include a 1-1/4 inch flange for connecting to ductwork.
   3. The open edge of the plenum shall have a hemmed edge for installation of a [concealed mounting bracket] or [straight edge] sized to fit the specified linear [diffuser] or [grille].
   4. Maximum width shall be 24 inches.
3. Application:
   1. The universal plenum shall be used for the following diffuser application (**select one**):
      1. Price Custom Flow Diffuser, Model CF
      2. Price Linear Bar Grille, Model LBP
      3. Price Supply/Return Slot Diffuser, Model SDS
4. Paint Specification:
   1. Paint finish shall be:
      1. Coated steel.
5. Options:
   1. Damper:
      1. The diffuser shall be supplied with a galvanized steel, cable operated volume control damper.
   2. Low Profile (Model UPL):
      1. The plenum shall have an oval inlet and overall plenum height shall not exceed 9 inches. The inlet shall include a 1-1/4 inch flange for connecting to ductwork.
      2. The maximum with for a low profile height plenum shall be 12 inches.
   3. Insulation:
      1. The plenum shall be insulated with 1/4 inch thick insulation. Internally insulated plenums shall be oversized to maintain open free area inside the plenum.
      2. The insulation shall be (**select one**):
         1. Coated fiberglass, internally insulated.
         2. Fiber free foam liner, internally insulated.
         3. Aluminum foil backed fiberglass board, externally insulated.

**2.03 Curved Universal Plenum**

1. Description:
   1. Furnish and install Price Model [UPC] or [UPLC] curved universal plenum of the sizes indicated on the plans and air distribution schedule.
2. Construction:
3. The plenum shall be constructed of zinc coated steel.
4. The plenum shall have a round inlet and the overall plenum height shall not exceed the diameter of the round inlet plus four inches. The inlet shall include a 1-1/4 inch flange for connecting to ductwork.
5. The inlet location shall be toward the [inside] or [outside] of the curvature.
6. The curved plenum shall be constructed with a [flat face], [convex], or [concave] curve.
7. The minimum curve inside radius shall be [120 inches for CFC], [72 inches for SDC].
8. Application:
   1. The universal plenum shall be used for the following diffuser application (**select one**):
      1. Price Curved Custom Flow diffuser, Model CFC.
      2. Price Curved Linear bar grille, Model LBPC.
      3. Price Curved Supply/Return Slot Diffuser, Model SDC.
9. Paint Specification:
10. Paint finish shall be:
    * 1. Coated steel.
11. Options:
    1. Hemmed Sidewall:
       1. For surface mount applications, the curved plenum shall be supplied with a 1/4 inch hemmed edge for installation of a [concealed mounting bracket] or [straight edge] sized to fit the specified linear [diffuser] or [grille].
       2. For lay-in ceiling applications, the curved plenum shall be supplied with a flat sidewall sized to fit the specified linear [diffuser] or [grille].
    2. Damper:
       1. The diffuser shall be supplied with a galvanized steel, cable operated volume control damper.
    3. Low Profile (Model UPLC):
       1. The plenum shall have an oval inlet and overall plenum height shall not exceed 9 inches. The inlet shall include a 1-1/4 inch flange for connecting to ductwork.
       2. The maximum with for a low profile height plenum shall be 12 inches.
    4. Insulation:
    5. The plenum shall be internally insulated with 1/4 inch thick insulation. Internally insulated plenums shall be oversized to maintain open free area inside the plenum.
    6. The insulation shall be (**select one**):
       * 1. Coated fiberglass.
         2. Fiber free foam liner.

**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.