



SECTION 05735

PERFORATED METAL

Display hidden notes to specifier. (Don't know how? [Click Here](#))

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Architectural metal.
- B. Decorative metal.
- C. Perforated ceiling panels.
- D. Perforated metal screens.
- E. Perforated wall panels.
- F. Railing infill panels.
- G. Sunshades.
- H. Guards.

1.2 RELATED SECTIONS

- A. Section 03300 - Cast-in-Place Concrete: Installation of anchors.
- B. Section 04080 - Masonry Anchorage and Reinforcement: Installation of anchors.
- C. Section 05400 - Cold-Formed Metal Framing: Installation of anchors.
- D. Section 05500 - Metal Fabrications: Frames and supports.
- E. Section 05700 - Ornamental Metal: Frames and supports.
- F. Section 05520 - Handrails and Railings: Inserts.
- G. Section 06400 - Architectural Woodwork: Panel inserts.
- H. Section 06410 - Custom Cabinets: Panel inserts.
- I. Section 08110 - Steel Doors and Frames: Panel inserts.
- J. Section 08710 - Door Hardware: Cylinders for keyed locks.
- K. Section 09910 - Paints: Field applied paint finish.
- L. Section 14200 - Elevators: Interior walls and doors.

1.3 SUBMITTALS

- A. Submit under provisions of Section 01300.
- B. Product Data: Manufacturer's data sheets on each product to be used, including:
 - 1. Preparation instructions and recommendations.
 - 2. Storage and handling requirements and recommendations.
 - 3. Installation methods.
- C. Shop Drawings: Indicate opening dimensions and required tolerances, jamb connection details, anchorage spacing, hardware locations, installation details, and special conditions.
 - 1. Pattern and perforation type.
 - 2. Panel sizes.
 - 3. Panel thickness.
- D. Sustainable Design Submittals:
 - 1. Recycled Products: Indicate percentage of recycled material used in manufacture of products, and percentage classified as post consumer.
 - 2. Regional Products: Indicate location of product manufacturer and distance from manufacturer to project site.
- E. Selection Samples: For each finish product specified, two complete sets of color chips representing manufacturer's full range of available colors and patterns.
- F. Verification Samples: For each finish product specified, two samples, minimum size 6 inches (150 mm) square, representing actual product, color, and patterns.

1.4 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company engineering and fabrication of architectural perforated metal for a minimum of 15 years.
- B. Installer/Fabricator Qualifications: Company experienced in incorporating manufacturer's products into architectural fabrications.
- C. Mock-Up: Provide a mock-up for evaluation of surface preparation techniques and application workmanship.
 - 1. Finish areas designated by Architect.
 - 2. Do not proceed with remaining work until workmanship, color, and sheen are approved by Architect.
 - 3. Refinish mock-up area as required to produce acceptable work.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Store products in manufacturer's unopened packaging until ready for installation.
- B. Store products wrapped or otherwise protected and under clean and dry storage conditions until required for installation.

1.6 PROJECT CONDITIONS

- A. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's absolute limits.

1.7 COORDINATION

- A. Coordinate fabrication of perforated metal components with fabrication of work on or in which the panels will be installed.

- B. Providing final size measurements to manufacturer in time to avoid delay in the construction schedule.

1.8 WARRANTY

- A. Provide manufacturer's standard limited warranty against defects in materials and workmanship.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Acceptable Manufacturer: Diamond Mfg. Co., which is located at: 243 W. 8th St. ; Wyoming, PA 18644; Toll Free Tel: 800-233-9601; Email: [request info \(kkelly@diamondman.com\)](mailto:kkelly@diamondman.com); Web: www.diamondman.com
- B. Substitutions: Not permitted.
- C. Requests for substitutions will be considered in accordance with provisions of Section 01600.

2.2 PERFORATED METAL

- A. Type and Pattern:
 - 1. Round Hole, Staggered Centers, 60 degree.
 - 2. Round Hole, Staggered Centers, 45 degree.
 - 3. Round Hole, Straight Centers.
 - 4. Square Hole, Staggered Centers.
 - 5. Square Hole, Straight Centers.
 - 6. Round End Slot, Staggered Centers.
 - 7. Round End Slot, Straight Centers.
 - 8. Square End Slot, Staggered Centers.
 - 9. Square End Slot, Straight Centers.
 - 10. Hexagon Hole.
 - 11. Decorative Hole.
 - 12. Customer Designed Pattern.
- B. Material Type:
 - 1. Stainless Steel.
 - 2. Aluminum.
 - 3. Carbon Steel.
 - 4. Galvanized Steel.
 - 5. Brass.
 - 6. Copper.
 - 7. Plastics.
 - 8. Bronze.
 - 9. Zinc.
 - 10. Titanium.
 - 11. Composites.
- C. Material Type: _____.
- D. Material Thickness: _____.
- E. Hole Size: _____.
- F. Hole Shape: _____.

- G. Staggered or Straight Dimension: _____.
- H. Open Area: _____.
- I. Side Margins: _____.
- J. End Margins: _____.
- K. Blank Areas and/or Locator Holes: _____.
- L. Surface Protection: _____.

2.3 METAL FINISHING

- A. Anodizing: _____.
- B. Degreasing: _____.
- C. Painting: _____.
- D. Polishing: _____.
- E. Powder Coating: _____.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Do not begin installation until openings and substrates have been properly prepared to receive the products of this section.
- B. Verify dimensions, tolerances, and method of attachment with other work on-site.
- C. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

3.2 PREPARATION

- A. Clean surfaces thoroughly prior to installation.
- B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.

3.3 INSTALLATION

- A. Install in accordance with manufacturer's instructions.
- B. Provide suitable means of anchorage acceptable to manufacturer such as dowels, anchor clips, bar anchors, expansion bolts and shields, and toggles.
- C. Anchor supports securely with allowance for necessary thermal movement and structural support.
- D. Erect metalwork square, plumb, straight, and true, accurately fitted, with tight joints and intersections.
- E. Do not install component parts that are observed to be defective, including warped, bowed, dented, abraded and broken members.

- F. Do not cut, trim, weld or braze component parts during erection in manner that would damage finish, decrease strength, or result in visual imperfection or failure in performance. Return component parts that require alteration to shop for re-fabrication, if possible, or for replacement with new parts.
- G. Separate dissimilar metals and use gasket fasteners, isolation shim, or isolation tape where needed to eliminate possibility of corrosive or electrolytic action between metals.

3.4 PROTECTION

- A. Protect installed products until completion of project.
- B. Touch-up, repair or replace damaged products before Substantial Completion.

END OF SECTION