F-Series Flush Metal Plate Wall Panels



GUIDE SPECIFICATION

SECTION 07 42 23 FLUSH METAL PLATE WALL PANELS

PART 1 GENERAL

- 1.1 SECTION INCLUDES (Delete items that do not apply)
 - A. Flush Metal Plate Panels
- 1.2 RELATED SECTIONS (Add or delete other related sections)
 - A. 05 10 00 Structural Metal Framing
 - B. 05 40 00 Cold Formed Metal Framing
 - C. 07 60 00 Flashing and Sheet Metal
 - D. 07 90 00 Joint Protection
- 1.3 REFERENCES (Add or delete other references)
 - A. AAMA 501.1 Standard Test Method for Water Penetration of Windows, Curtain Walls and Doors Using Dynamic Pressure
 - B. AAMA 508 Voluntary Test Method for Pressure Equalized Rain Screen Wall Cladding Systems
 - C. AAMA 621 Voluntary Specification for High-Performance Organic Coating on Coil-Coated Architectural Hot-Dipped Galvanized
 - D. ASTM A755/A755M Specification for Sheet Steel Metallic-Coated by the Hot-Dip Process and Pre-Painted by the Coil-Coating Process for Exterior Exposed Building Products
 - E. ASTM A792/A792M Standard Specification for Sheet Steel, 55% Aluminum-Zinc Alloy-Coated by the Hot-Dip Process
 - F. ASTM E283 Standard Test Method for Determining Rate of Air Leakage Through Exterior Windows, Curtain Walls and Doors Under Specified Pressure Differences Across the Specimen
 - G. ASTM E331 Standard Test Method for Water Penetration of Exterior Windows, Skylights, Doors, and Curtain Walls by Uniform Static Air Pressure Difference
 - H. NAAMM Metal Finishes Manual for Architectural and Metal Products

1.4 PERFORMANCE REQUIREMENTS

- A. Testing documentation certified by an independent testing agency that meets or exceeds specified design and performance requirements.
- B. Water Penetration in accordance with AAMA 501.1 at 6.24 PSF.
- C. Pressure Equalized Rain Screen Performance in accordance with AAMA 508.
- D. Air Infiltration in accordance with ASTM E 283 at 1.57 PSF.
- E. Water Penetration in accordance with ASTM E 331 at 6.24 PSF.

1.5 SUBMITTALS

- A. Product Data: Manufacturer's data sheets on product to be used:
 - 1. Provide test reports from manufacturer indicating product compliance with requirements.
 - 2. Preparation instructions and recommendations.
 - 3. Installation Methods.
- B. Shop Drawings: Show profile, thickness of metal panels, layout and dimensions of panels, location and type of fasteners, shape and method of trim attachment to structural support.
- C. Panel Analysis: Withstand design loads without detrimental effects or deflection, thermal effects, and resistance to fastener pull out.
- D. Verification Samples: Two samples, representing actual product, color, and patterns.
- E. Quality Assurance Submittals:
 - 1. Manufacturer Erection Instructions: Installation instructions including material storage and handling, installation sequence, panel locations, attachment methods, details, and required trim accessories.

1.6 QUALITY ASSURANCE

- A. Manufacturer Qualifications: 10 years of experience in the production of metal wall panels
- B. Installer Qualification: Work supervised by person authorized by manufacturer
 - 1. Installer: 10 years of experience with projects of similar size and scope.

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1.7 DELIVERY AND STORAGE

- A. Deliver and store products in manufacturer's unopened packaging bearing the brand name and manufacturer's identification until ready for installation.
- B. Store panel materials on dry, level, firm and clean surfaces. Stack no more than two bundles high. Elevate one end of bundle to allow moisture to run off, cover and ventilate to allow air to circulate and moisture to escape.

1.8 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 recommended limits.

1.9 WARRANTY

- A. Provide manufacturer's standard limited warranties for products and finishes.
 - 1. Material Warranty: Manufacturer agrees to repair or replace items that fail in materials or workmanship within warranty period. Items covered by the warranty include structural performance and finish performance.
 - a. Installation Warranty Period: 2 years from date of Substantial Completion.
 - 2. Finish Warranty: Period: 10 years from date of Substantial Completion. Manufacturer agrees to repair or replace metal panels that show evidence of deterioration of finish, including flaking or peeling from metal substrate.

PART 2 PRODUCTS (Delete items that do not apply)

2.1 MANUFACTURERS

- A. Basis of Design: Visionline F-Series Plate
- B. Substitutions: None
- C. Requests for Substitutions: in accordance with Section 01 60 00 Product Requirements

2.2 FLUSH METAL PLATE PANELS (Delete items that do not apply)

A. Galvalume Steel

- 1. Panel:
 - a. Depth: 1" nominal
 - b. Joint: ½" nominal
 - c. Size: As shown on drawings

2. Material:

- Aluminum-Zinc Alloy-Coated Steel Sheet: ASTM A792/A792M Grade 50, Coating Class AZ50 pre-painted by the coil-coating process per ASTM A755/A755M
- b. Thickness in Gauge: 22

3. Finish:

- a. 70% PVDF in accordance with AAMA 2605
 - . Color: (standard, non-standard) (Select desired color)
- b. Silicone Modified Polyester in accordance with ASTM D2244/D2247
 - i. Color: (standard, non-standard) (Select desired color)
- c. Bare Galvalume steel sheet conforming to ASTM A792/AZ55

4. Accessories:

b.

- a. Flashing and Trim: Match material, finish and color of adjacent metal panels
 - i. Minimum Thickness: To match metal panel
 - Fasteners: Stainless steel or coated fasteners designed to withstand load requirements
- c. Support Framing: Hat, half-hat, C, U or Z configurations in galvanized steel, aluminum, fiberglass, or nylon as recommended by manufacturer and shown on drawings

2.3 FABRICATION

- A. Panel Forming: Fabricate panels with precision equipment that laser cuts holes and notches in sheets and performs all bending operations with automated equipment to maintain tight tolerances and uniform consistency.
- B. Panel Finish Method: Provide finish that complies with NAAMM's Metal Finishes Manual for Architectural and Metal Products

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PART 3 EXECUTION

3.1 EXAMINATION

- A. Provide dimensions to manufacturer to achieve proper fit to wall panel envelope in a timely manner so as not to impact construction schedule.
- B. Install within the following tolerances:
 - 1. Plus or minus 1/8 inch in 5 feet, any direction along framing plane.
 - 2. Verify vertical bearing support is provided behind horizontal panel systems at support as recommended by manufacturer.
- C. Examine individual panels upon removing from the bundle, notify manufacturer of panel defects. Do not install defective panels.

3.2 PANEL INSTALLATION

- A. Panels shall be installed level to dimensions and layout indicated on shop drawings.
 - 1. Use recommended clips, screws, fasteners, and sealants as indicated.
 - 2. Install per manufacturer's guidelines and recommendations, weathertight, without distortion, buckles or waves.
- B. Dissimilar materials: Treat contact areas as recommended by panel manufacturer.

3.3 FLASHING AND TRIM INSTALLATION

- A. Place trim and trim fasteners only as indicated per details on approved shop drawings.
- B. Apply sealant tape at trim, per manufacturer's shop drawings, for weathertight installation.

3.4 CLEANING AND PROTECTION

- A. Remove protective film immediately after installation.
- B. Touch-up, repair or replace damaged metal panels and trim.
- C. After panel installation, clear weep holes and drainage channels of obstructions, dirt and sealant.

END OF SECTION