



TO THE DESIGNER

TFC CANOPY is pleased to present this specification guide to assist you in the selection of the appropriate TFC system for your project.

You will discover that we have many different systems from a single source, allowing you the freedom of design using more than one system and a variety of finishes.

Whether your projects call for flat, bent, curved, compound shapes, painted stainless, stone, caulk or dry joint materials, TFC has a system or combination of systems to meet your individual project needs.

TFC has the capability to service all of North America and areas beyond. Our facility is equipped with state-of-the-art technology to ensure unparalleled quality and service from manufacturing to installing the product.

This guide illustrates some of the basic details, abbreviated systems and suggested specification, all of which are available on disc to assist you in your design. We would like to meet with you personally to resolve any questions or concerns, and help you design an optimal project.

Please contact us at your earliest convenience. We have many qualified professionals on staff to assist you in your design and engineering needs.

Respectfully,
TFC Canopy, a Division of Centurion Industries, Inc.

Bob Patterson
President, TFC Canopy



TFC
7/8" Corrugated Panel System
(General Specification)

DESCRIPTION

Corrugated panels provided superior flexibility for use as a wall or roofing panel. The 7/8" panel has excellent negative load capability even for high-wind pressures. The Corrugated panels can be produced perforated for a variety of exterior projects, such as equipment screens. Perforated corrugated panels are also highly suitable for interior acoustical applications as well.

FEATURES

- Remove the protective film quickly after installation.
- Panels should be laid flat in a dry, indoor environment during storage.
- Panels should always be lapped against prevailing winds.
- Typical side lap spacing is 18". Consult a Professional Engineer for specific requirements, as this may not be appropriate for all applications.
- 1/8"x1/2" tape sealant shall be used at all side laps when used as a roof panel.
- When using this panel in a roofing application, it should be lapped two corrugations. Panels may be lapped one corrugation when used in a siding application.
- Minimum recommended roof slope: 2:12

PANEL DIMENSIONS

- Coverage Width Siding: 37.33" Roofing: 34.67"
- Rib Pitch 2.67"
- Profile Depth 0.875"
- Thickness .032 Aluminum, .040 Aluminum, 22 ga. Steel, 24 ga. Steel
- Weight 0.471 lb/ft², 0.585 lb/ft², 1.25 lb/ft², 1.00 lb/ft²

SECTION 074200 – PREFORMED WALL PANELS

PART 1 – GENERAL

1.1 DESCRIPTION OF WORK

- A. This section covers the pre-finished, pre-fabricated exposed fastener metal wall system. All metal trim, accessories, fasteners, insulation and sealants indicated on the drawings as part of this section.
- B. Drawings and general provisions of the Contract, including general and Supplementary Conditions and Division 01 Specifications, apply to this section.

1.2 SUMMARY

- A. Section Includes
 - 1. Factory formed exposed fastener metal wall panels
- B. Related work specified elsewhere.
Note to Specifier: Select appropriate Sections below or add other related Section.
 - 1. Section 05 12 00 - Structural Steel
 - 2. Section 06 10 50 – Miscellaneous Carpentry
 - 3. Section 07 25 00 – Water-Resistive Air Barrier
 - 4. Section 07 60 00 - Flashing and Sheet Metal
 - 5. Section 07 90 10 – Joint Sealants

1.3 REFERENCES

- A. Metal Wall Panel Assembly: Metal panels, attachment system components, miscellaneous metal framing, thermal, and accessories necessary for a complete weather tight system.
- B. References:
 - 1. American Society for Testing and Materials (ASTM)
 - a. ASTM B 209: Aluminum and Aluminum Alloy Sheet and Plate
 - 2. Sheet Metal and Air Conditioning Contractors National Association (SMACNA)
 - a. SMACNA Architectural Sheet Metal Manual, 1993 edition
 - 3. Aluminum Association
 - a. Aluminum Design Manual
 - 4. Metal Construction Association
 - a. Preformed metal Wall Guidelines
 - 5. Code References
 - a. ASCE, Minimum Loads for Buildings and Other Structures
 - b. IBC International Building Code

1.4 QUALITY ASSURANCE

- A. Manufacturer and erector shall have a minimum of 5 years of experience in the manufacturing & installation of this product.
- B. Panels shall be factory-produced only. No portable, installer-owned or installer-rented machines will be permitted.
- C. Field measurements shall be taken prior to the completion of shop fabrication whenever possible. Coordinate fabrication schedule with construction schedule to avoid delay in the work. Field fabrication may be allowed to ensure proper fit.
- D. ASTM B209 Standard Specification for Aluminum and Aluminum-Alloy Sheet and Plate - .032, .040 Aluminum, 22 ga. Steel, 24 ga. Steel

1.5 WALL SYSTEM PERFORMANCE TESTING

- A. General Performance: Metal wall panels shall comply with performance requirements without failure due to defective manufacture, fabrication, installation or other defects in construction.
- B. Panel System shall be designed to meet applicable building code Wind Load requirements.
- C. Panels to meet:
 - 1. Wall System shall be designed to meet applicable Local Building Code.

1.6 SUBMITTALS

Note to Specifier: Revise Section number in paragraph below as appropriate

- A. The Contractor shall check and approve all shop drawings and letters of intent for conformance with the Contract Documents prior to forwarding to the Architect for his review.
- B. Furnish detailed drawings showing profile and gauge of exterior sheets, location and type of fasteners, location, gauges, shape and method of attachment of all trim locations and types of sealants, and any other details.
- C. Provide finish samples of all colors specified.

1.7 DELIVERY, STORAGE, AND HANDLING

- A. Ordering: Comply with manufacturer's ordering instruction and lead time requirements to avoid construction delays.
- B. Deliver components, sheets, metal wall panels and other manufactured items so as not to be damaged or deformed. Package metal wall panels for protection during transportation and handling.
- C. Unload, store and erect metal wall panels in a manner to prevent bending, warping, twisting and surface damage.

- D. Stack metal panels on platforms or pallets, covered with suitable weather-tight and ventilated covering. Store metal wall panels to ensure dryness. Do not store metal panels in contact with other materials that might cause staining, denting or other surface damage.
- E. Protect strippable protective coating on any metal coated product from exposure to sunlight and high humidity, except to the extent necessary for material installation.

1.8 PROJECT CONDITIONS

- A. Field Measurements: Verify actual dimensions of construction contiguous with metal panels by field measurements before fabrication.

PART 2 – PRODUCTS

2.1 PANEL DESIGN

- A. General: Provide factory-formed, prefinished, lappable exposed fastener, structural ribbed metal wall panel system that has been pretested and certified by manufacturer to comply with specified requirements under installed conditions.
- B. Panels shall be exposed fastener.
- C. Structural Requirements: Engineer panels for structural properties in accordance with latest edition of American Iron and Steel Institute's Cold Formed Steel Design Manual using effective width concept and Aluminum Associations Aluminum Design Manual.
- D. Forming: Use continuous end rolling method. No end laps on panels. It is the intent to provide Factory-Manufactured panel systems only for this project.
- D. Panels shall be directly fastened to the substrate.
- E. The panel shall have an overlapping side lap feature.

2.2 MATERIAL PROFILES

- A. 7/8" x 2.67" Corrugated Panel

2.3 MATERIALS AND FINISHES

- A. Preformed panels shall be fabricated of one of the following: .032, .040 Aluminum, 22 ga. Steel, 24 ga. Steel
- B. Color: Variety of colors
- C. Texture: Panel can be smooth or textured. Finish per manufacturer's finish process.

- D. If Strippable coating to be applied on the pre-finished panels to the top side to protect the finish during fabrication, shipping and handling, film shall be removed before installation.
- E. Trim: Trim shall be fabricated of the same material and finish to match the profile, and will be press broken in lengths of 10 to 12 feet. Trim shall be formed only by the manufacturer of their approved dealer. Trim to be erected in overlapped condition. Use lap strips only as indicated on drawings. Miter conditions shall be factory welded material to match the sheeting. Trim to be fabricated in accordance with standard SMACNA procedure and details.
- F. Closures: shall be pre-molded polyethylene to match the profile of the exposed fastener panel and shall be in lengths as supplied by the panel manufacturer.
- G. Accessories/Fasteners: Fasteners shall be of type, material, size, corrosion resistance, holding power and other properties required to fasten miscellaneous framing members to substrates. Accessories and their fasteners shall be capable of resisting the specified design wind uplift forces and shall allow for thermal movement of the panel system. Exposed fasteners shall not restrict free movement of the panel system resulting from thermal forces, except at designed points of panel fixity
 - 1. Fasteners shall have combination steel and EPDM washers
 - 2. All fasteners shall be applied in accordance with the fastening schedule as provided by panel manufacturer.
 - 3. Flashings and side laps shall be stitch screwed. All accessories, flashings and side laps shall be fastened 12" OC.

2.4 FABRICATION

- A. Comply with dimensions, profile limitations, gauges and fabrication details shown and if not shown, provide manufacturer's standard product fabrication.
- B. Fabricate components of the system in factory, ready for field assembly.
- C. Fabricate components and assemble units to comply with fire performance requirements specified.
- D. Apply specified finishes in conformance with manufacturer's standard, and according to manufacturer's instructions.
- E. Panels are lappable. It is recommended that individual aluminum panels not exceed 16' in length for thermal movement reasons.
- F. Panels shall be roll formed on a stationary industrial type rolling mill to gradually shape the sheet

2.5 FASTENERS

- A. Secure units to supports.
- B. Place fasteners as indicated in manufacturer's standards.

2.6 INSTALLATION

- A. Panels shall be installed plumb and true in a proper alignment and in relation to the structural framing. The erector must have at least five years successful experience with similar applications.
- B. Install metal panels, fasteners, trim and related sealants in accordance with approved shop drawings and as may be required for a weather-tight installation. Conform to standards set forth in SMACNA architectural sheet metal manuals and approved shop drawings for this project.
- C. Remove all strippable coating and provide a dry-wipe down cleaning of the panels as they are erected.
- D. Install panel system to the manufacturer's recommendations.
- C. Abrasive devices shall not be used to cut on or near wall panel system.
- F. Apply sealant tape or caulking as necessary at flashing and panel joints to prevent water penetration.
- G. Remove any strippable film immediately upon exposure to direct sunlight.

2.7 DAMAGED MATERIAL

- A. Upon determination of responsibility, repair or replace damaged metal panels and trim to the satisfaction of the Architect and Owner.

END OF SECTION