

Fire Front 1830 Hot Dipped Galvanized Steel Environmental Ceiling System

MR-MANUFACTURER

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Chicago Metallic is an industry leader in roll forming suspension systems for acoustical ceilings and Decorative Metal ceiling products for Commercial, Institutional, and Industrial Building Markets. With manufacturing plants in Chicago, Illinois; Baltimore, Maryland; Los Angeles, California; and Antwerp Belgium, Chicago Metallic has the capacity to provide an extensive line of quality products worldwide.

Chicago Metallic is a division of the Chicago Metallic Corporation.

PP-PRODUCT PRESENTATION

The 1830 System is designed for use wherever an all aluminum suspended ceiling system would normally be specified. In addition to meeting the needs of an Environmental System, Fire Front 1830 is fire-rated, featuring over 100 U.L. awarded designs. Manufactured from hot dipped galvanized steel with an all aluminum cap, the 1830 System provides an economical alternative to all aluminum suspension systems. The system is ideally suited for exterior applications.

Main runners are 12' in length and have non-directional bayonet couplings. Cross tees are available in 2' and 4' lengths and feature a stepped-end design with a stab-in end tab for labor saving installation and resistance to seismic or lateral pull out. Though cross tees will cantilever during installation without falling out, they may still be removed and reinstalled without the use of special tools.

TS-TECHNICAL SUPPORT

Specification Guidelines for Fire Front 1830 System

Section 09500 - Acoustical Treatment

PART 1 - GENERAL

1.01 Section Includes

Provide Metal Suspension System for Lay-in Acoustical Panel Ceiling.

1.02 Related Sections

- A. Section 09120 - Ceiling Suspension Systems
- B. Section 09545 - Special Ceiling Surfaces
- C. Section 13020 - Integrated Ceilings
- D. Section 13080 - Sound, Vibration, and Seismic Control
- E. Section 15500 - Heating, Ventilating, and Air Conditioning
- F. Section 16500 - Lighting

1.03 Reference

- A. American Society for Testing and Materials (ASTM).
 - 1. C635 - Standard Specification for the Manufacture, Performance, and Testing of Metal Suspension Systems for Acoustical Tile and Lay-In Panel Ceilings.
 - 2. C636 - Standard Practice for Installation of Metal Ceiling Suspension Systems for Acoustical Tile and Lay-In panels.
- B. Underwriters Laboratories (U.L.) Fire Resistance Directory (latest edition).

1.04 Submittals

- A. Product Data Sheets listing dimensions, load carrying capacity and standards compliance.
- B. Samples: 12 inch long samples of main runner and cross tee with couplings.

1.05 Project Conditions

- A. Environmental Requirements:
 - 1. Verify weathertightness of area to receive suspension system prior to installation.
 - 2. Wet trades work to be thoroughly dry and complete prior to suspension system installation.
 - 3. Installation to begin only when temperature and humidity conditions closely approximate interior conditions which will exist when area is complete and occupied.
 - 4. Heating and Air Conditioning Systems to be operating prior to, during, and after installation.

1.06 Maintenance

Furnish additional material equal to _____ percent of ceiling area.

PART 2 - PRODUCTS

2.01 Manufacturer(s)

Chicago Metallic 1830 Fire Front Intermediate Duty Fire-Rated Double Web Suspension System.

2.02 Suspension System Components

A. Main Runners:

- 1. Manufactured from 0.015 inch thick hot dipped galvanized steel 15/16 inch wide by 1-1/2 inches high by 144 inches long with factory punched cross tee slots, hanger holes, and integral bayonet-style end couplings.
- 2. Capped with (white aluminum) (satin silver aluminum) (black aluminum) capping affixed to 15/16 inch flange.
- 3. Manufactured with fire expansion reliefs on fire-rated components in accordance with Chicago Metallic illustrated details.

B. Cross Tee:

- 1. Manufactured from 0.015 inch thick hot dipped galvanized steel 15/16 inch wide by 1-1/2 inches high by (24) (48) inches long with factory punched cross tee slots, hanger holes, and integral stab-in end couplings.
- 2. Capped identical to main runners.
- 3. Manufactured with fire expansion reliefs on fire-rated components.

C. Perimeter Treatment Components:

1. Angle Moldings:

Manufactured from 0.020 inch thick hot dipped galvanized steel 15/16 inch wide by 3/4 inch high by 144 inches long with hemmed edges finished identical to main runners and cross tees.

PART 3 - EXECUTION

3.01 Examination

Examine area receiving suspension system to identify conditions which will adversely affect installation. Do not begin installation until adverse conditions have been remedied.

3.02 Installation - **NON-FIRE-RATED SYSTEM**

A. Main Runners:

Installed 48 inches on center, by direct suspension from existing structure. With not less than 12 gage hanger wires 48 inches on center along main runner length. Wrap hanger wires tightly 3 full turns at each end.

B. Cross Tees:

1. Installed perpendicular to main runners 24 inches on center to form 24 inch by 48 inch module.

2. Installed perpendicular to module forming cross tees to form _____ by _____ modules.

3. Installed adjacent to each unsupported side of recessed fixtures.

C. Angle Moldings: Installed on vertical surfaces, intersecting suspension components, by appropriate method in accordance with industry-accepted practice.

D. Additional Hanger Wires: Wrapped tightly 3 full turns to structure and component at locations where imposed loads could cause deflection exceeding 1/360 span.

FIRE-RATED SYSTEM

A. Suspension System Components:

Installed in accordance with U.L. design number guidelines.

3.03 Repair

Remove damaged components, replace with undamaged components. Clean with non-solvent based non-abrasive commercial cleaning solution.