

## SECTION 10 70 00

METAL SHADE CANOPIES AND METAL GRILLES  
02/09

## PART 1 GENERAL

## 1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

## ASTM INTERNATIONAL (ASTM)

ASTM B 211 (2003) Standard Specification for Aluminum and Aluminum-Alloy Bar, Rod, and Wire

## NATIONAL ASSOCIATION OF ARCHITECTURAL METAL MANUFACTURERS (NAAMM)

NAAMM AMP 500 (2006) Metal Finishes Manual

## 1.2 DESCRIPTION

Provide fixed Custom metal shade canopies and metal grilles as shown on the drawings, as specified, and as needed for a complete and proper installation.

## 1.3 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government. Submit the following in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:

## SD-02 Shop Drawings

Metal shade canopy drawings; G, AE

Metal grille drawings; G, AE

Drawings and structural calculations shall be stamped and signed by a registered Civil or Structural Engineer currently licensed in the State of California.

## SD-03 Product Data

Metal Shade Canopies and Metal Grilles; G, AE, including specifications, data, and installation instructions from the manufacturer of the metal shade canopies.

Sample warranty certificate; G, AE

## SD-04 Samples

Metal Shade Canopies and Metal Grilles; G, AE

### Metal Grilles; G, AE

one sample minimum 24 inch long of each material to be utilized at each metal shade canopy.

### SD-05 Design Data

#### Connection Calculations; G, AE

### SD-11 Closeout Submittals

#### Warranty

#### 1.3.1 Shop Drawings

Metal shade canopy drawings and Metal grille drawings showing complete system including anchorage, details, and connections.

#### 1.4 QUALITY ASSURANCE

##### 1.4.1 Performance Requirements

Design sunshades and grilles to accommodate local requirements for snow and wind loading. Provide connection calculations that have been stamped by a Registered Civil or Structural Engineer currently licensed in the State of California.

##### 1.5 WARRANTY

Provide written warranty to the owner that all metal shade canopy and metal grille products will be free of defective materials or workmanship for a period of one year from date of installation.

## PART 2 PRODUCTS

### 2.1 METAL SHADE CANOPIES AND METAL GRILLES

a. Components: All fascia, blades and outrigger components shall be 6063-T5 aluminum alloy. Outrigger support tab brackets shall be high strength aluminum.

1. Outriggers shall be custom fabricated aluminum plate and designed to have flush blade to plate appearance when assembled. Outriggers must be custom fabricated to the profiles detailed. Outriggers to be a minimum of 1/4 inch thick.

2. Blades shall be extruded aluminum and of airfoil design. Blades shall be factory assembled to outriggers using stainless steel, type F, thread cutting screws through internal screw slots in blades. Welded construction is not acceptable. Blades must be removable for replacement in case of damage.

3. Blades to be miter cut and fitted to outrigger plates. Metal shade canopies will ship in corded sections to be fitted support members by the installer.

4. All diagonal support rods, steel support tubes, steel brackets and steel plate tabs are not included in this specification scope of work.

## b. Composition:

1. Outriggers: Tapered flat bar.
2. Blade configuration: Flat bars with 45 degree angle as shown on drawings.
3. Fascia: Round.
4. Mounting: Cantilevered as shown on Drawings.
5. Size: 5-foot wide (from face of wall to outside of edge of fascia).

## c. Finish:

1. General: Comply with NAAMM AMP 500 "Metal Finishes Manual" for finish designations and application recommendations, except as otherwise indicated. Apply finishes in factory after product assembly. Protect finishes on exposed surfaces prior to shipment. Remove scratches and blemishes from exposed surfaces, which will be visible after completing finishing process.

(a) Provide color as indicated in Exterior Finish Schedule from standard Kynar 500 colors.

(b) Fluorocarbon Coating: Inhibitive thermo-cured primer, 0.2 mil minimum dry film thickness, and thermo-cured fluorocarbon coating containing "Kynar 500" resin, 1.0 mil minimum dry film thickness.

2. Furnish manufacturer's twenty (20) year limited warranty against failure of the Kynar 500 finish.

## d. Manufacturers

1. Construction Specialties, Inc., Crawford N.J. (Basis of Design)
2. Industrial Louvers Inc., Delano, MN.
3. Intertec a division of Doralco, Alsip, IL.

## 2.2 METAL GRILLES

## a. Materials:

1. Aluminum extrusions: ASTM B 211, Alloy 6063-T52.
2. Clip Angles: Structural grade aluminum.
3. Fasteners: Aluminum or stainless steel. Provide types, gauges and lengths to suit conditions.
4. Anchors and Inserts: Use non-ferrous or hot-dipped galvanized anchors and inserts for installation and elsewhere as required for corrosion resistance. Use stainless steel expansion bolt devices for drilled-in place anchors. Furnish inserts are required, to be set into concrete work.

## b. Construction:

1. Blades: Horizontal "T" blades, spacing as shown on drawings. Fabricate from extruded aluminum sections in 6063-T52 alloy, .081-inches thick minimum.
2. Depth: 4 1/2-inches.
3. Blade Angle: 45 degrees and 90 degrees as shown on drawings.
4. Mechanically secure grille to steel supports with extruded aluminum clip angles. All fasteners to be stainless steel or aluminum.
5. Mounting: Grilles shall be mounted horizontally.

## c. Finish:

1. General: Comply with NAAMM "Metal Finishes Manual" for finish designations and application recommendations, except as otherwise indicated. Apply finishes in factory after product assembly. Protect finishes on exposed surfaces prior to shipment. Remove scratches and blemishes from exposed surfaces, which will be visible after completing finishing process.

(a) Provide color as indicated in Exterior Finish Schedule from standard Kynar 500 colors.

(b) Fluorocarbon Coating: Inhibitive thermo-cured primer, 0.2 mil minimum dry film thickness, and thermo-cured fluorocarbon coating containing "Kynar 500" resin, 1.0 mil minimum dry film thickness.

2. Furnish manufacturer's twenty (20) year limited warranty against failure of the Kynar 500 finish.

## d. Manufacturer and Product

Construction Specialties, Inc., Crawford N.J.; Modular Series  
(Basis of Design)

## PART 3 EXECUTION

## 3.1 INSTALLATION OF METAL SHADE CANOPIES

a. Design Requirements: Meet or exceed structural design criteria shown on General Structural drawings. Provide connection calculations that have been stamped by a registered Civil or Structural Engineer currently licensed in the State of California.

b. Inspection: Examine openings to receive the work. Do not proceed until any unsatisfactory conditions have been corrected.

## c. Installation:

1. Comply with manufacturer's instructions and recommendations for installation of the work.

2. Verify dimensions of supporting structure at the site by accurate field measurements so that the work will be accurately designed, fabricated and fitted to the structure.
3. Anchor metal shade canopy to building substructure as indicated on drawings.
4. Cut and trim component parts during erection only with the approval of the manufacturer or fabricator, and in accordance with his recommendations. Restore finish completely. Remove and replace members where cutting and trimming has impaired the strength or appearance of the assembly as directed.
5. Do not erect warped, bowed, deformed or otherwise damaged or defaced members. Remove and replace any members damaged in the erection process as directed.
6. Set units level, plumb and true to line with uniform joints.

### 3.2 INSTALLATION OF METAL GRILLES

- a. Design Requirements: Meet or exceed structural design criteria shown on General Structural drawings. Provide connection calculations that have been stamped by a registered structural engineer in the State of California.
  - b. Inspection: Examine openings to receive the work. Do not proceed until any unsatisfactory conditions have been corrected.
  - c. Installation:
    1. Locate and place metal grille units plumb, level and in proper alignment with adjacent work.
    2. Use concealed anchorages wherever possible.
    3. Form tight joints with exposed connections accurately fitted together.
    4. Use isolation tape where aluminum comes in contact with steel or concrete.
- End of Section --