

## SECTION 07 62 10

### GUTTERS AND DOWNSPOUTS

#### PART 1 GENERAL

##### 1.1 SUMMARY

###### A. Section Includes:

1. Pre-finished steel gutters and downspouts, with expansion joints.

###### B. Related Sections:

1. Section 07 61 13: Preformed Metal Roofing (*Manufactured*)
2. Section 07 62 00: Sheet Metal Flashing and Trim
5. Section 07 92 000 - Sealants

##### 1.2 REFERENCES

###### A. American Society for Testing and Materials (ASTM):

1. ASTM A2244 - Color Change Quality.
2. ASTM D659-80 - Chalking.
3. ASTM A525 - General Requirements for Steel Sheet, Zinc-Coated (Galvanized) by the Hot-Dip Process.
4. ASTM D2794 - Impact Resistance
5. ASTM D968 - Abrasion
6. ASTM D1737 or D522 - Formability
7. ASTM G23 - Weather-Meter Test. No peeling, blistering, cracking, or loss of adhesion

###### B. Sheet Metal and Air Conditioning Contractor's National Association (SMACNA):

1. SMACNA - Architectural Sheet Metal Manual

##### 1.3 SUBMITTALS

###### A. Comply with requirements of Section 01 33 00.

###### B. Submit shop drawings showing fabrication, shapes, and dimensions. Provide material and finish data.

##### 1.4 QUALITY ASSURANCE

###### A. Conform to Drawings for nominal sizing of components for rainfall intensity determined by a storm occurrence of 1 in 5 years.

##### 1.5 DELIVERY, STORAGE, AND HANDLING

###### A. Stack preformed materials to prevent twisting, bending, or abrasion, and to aid ventilation. Slope to drain.

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- B. Prevent contact with materials during storage which may cause discoloration, staining, or damage.

## PART 2 PRODUCTS

### 2.1 MATERIALS

- A. Pre-finished Steel: 24 gage core steel, color as selected. When pre-finished metal fascia is used, the pre-finished material color selection is to be from same selection of metal roof manufacturer.

### 2.2 COMPONENTS

- A. Gutters and Downspouts: SMACNA Rectangular style profile; detailed as shown on drawings.
- B. Provide end caps, downspout outlets, gutter and downspout straps, screens/strainers and other accessory components in profiles to suit gutters and downspouts.

### 2.3 ACCESSORIES

- A. Anchorage Devices: Straps to SMACNA requirements.
- B. Gutter and Downspout Supports: Straps.
- C. Protective Back Coating: FF TT-C-494, bituminous.
- D. Screens and Downspouts Strainers: Same basic metal as gutter. Screen - fabricated of 1/4" hardware cloth. Strainers are fabricated of galvanized wire, inserted into outlet tubes and held in place by friction.
- E. Downspout Collectors: CPP, pipe, sizes, dimensions and profiles to suit downspouts and underground storm drainage system.

### 2.4 FABRICATION

- A. Form gutters and downspouts of size and profile indicated on Drawings.
- B. Field measure site conditions prior to fabricating work. Coordinate downspout strapping locations with panel installation.
- C. Fabricate with required connection pieces.
- D. Form sections square, true, and accurate in size, in maximum possible lengths and free of distortion or defects detrimental to appearance or performance. Allow for expansion at joints.
- E. Hem exposed edges of metal.

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- F. Place sealant at pre-finished metal joints. Remove all excess material, wipe and wash joints clean.
- F. Fabricate gutter and downspout accessories; construct watertight.

## 2.5 FINISHING

- A. Two-coat Kynar 500 finish system:
  - 1. One coat epoxy base primer.
  - 2. One coat 70% Kynar 500 coating; Fluoropon by DeSoto or Duranar by PPG.
- B. Colors:
  - 1. Manufacturer's standard, color to match MWP-2
- C. Warranty: Manufacturer's standard 20 year.

## PART 3 EXECUTION

### 3.1 EXAMINATION

- A. Verify that surfaces are ready to receive work and conditions are as acceptable.
- B. Beginning of installation means acceptance of existing conditions and substrate.

### 3.2 INSTALLATION

- A. Install gutters, downspouts, and accessories. Install gutter hangers at 2'-0" o.c. and at each expansion and control joint. Install expansion joints at 50'-0" max. Unless noted otherwise.
- B. Joint lengths with formed seams constructed watertight. Flash and seal gutters to downspouts and accessories. Construct expansion joints as detailed on Drawings.
- C. Apply bituminous protective backing on surfaces in contact with dissimilar materials.
- D. Seal metal joints watertight. Install sealant in inside surface of gutters at each joint. After sealing, wash metal clean with solution and rinse with water.
- E. Attach downspouts with straps on 48" centers.
- F. Install screens and strainers on gutters and downspouts. One screen per downspout.

END OF SECTION

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