SECTION **07 71 23**

**Prefabricated Custom Box Gutter System**

I. PART ONE- GENERAL

* 1. SUMMARY:

# Work included: Manufacturer shall provide a complete prefabricated custom box drainage gutter system including the following:

## For gutter with a girth\* greater than 24”, gutter support brackets are to be used at intervals of not more than 48” O.C. complete with .125” x 1.0” galvanized or stainless steel bar gutter support brackets wrapped on all four (4) sides with one longitudinal seam that is not visible after installation. Gutter Sections: Lengths of 10'-0” to 20’-0” (3048 mm to 6096 mm). No post painting of gutter support brackets.

1. All gutter, regardless of girth, to be hung using hidden hangers or hidden spacers. When gutter support brackets are used with gutter installation a maximum spacing of 48” O.C. is required. Installations without gutter support brackets 24” O.C. maximum spacing is required.

## 3. Interior gutter splice joints adjoining all gutter sections using same metal and paint finish as gutter.

## 4. Provide all downspouts to the size, shape and locations where indicated on the drawings.

5. Use outlet tubes to connect all gutter and downspouts.

## 6. Connect downspouts to underground storm drains, at locations where required by the drawings.

# B. Related Work: [Insert applicable sections].

*\* Girth refers to the width of the unformed metal stock.*

# 1.02 SUMMARY:

1. Provide labor, material, and equipment necessary for furnishing a complete installation of commercial gutter system.

1.03 SUBMITTALS:

# A. Product Data: Provide Roof Drainage Components & Accessories, Inc. product data for all materials in this specification.

# B. Shop drawings: Show profiles, joining method, location of accessory items, anchorage and flashing details, adjacent construction interface, and dimensions.

#

# C. Samples: Available on request; sized to adequately represent material.

1.04 PRODUCT HANDLING:

# A. All materials shall arrive in the original sealed and labeled manufacturer’s packaging.

# B. Store materials in a dry, protected, well-vented area. The contractor shall report damaged material immediately to the delivering carrier and note such damage on the carrier’s freight bill of lading. Copies of bill of lading noting the damage shall be provided to the manufacturer.

# C. Remove all protective plastic surface film immediately after installation.

1.05 SUBSTITUTIONS:

# A. Proposals for substitution products shall be accepted only from bidding contractors a minimum of 10 working days before bid due date. The proposed substitution shall meet the performance and quality standards of this specification (see section 1.04).

1.06 JOB CONDITIONS:

# Verify that other trades are complete before installing the gutter system.

# Mounting surfaces shall be straight and secure; substrates shall be of proper width.

# Refer to the construction documents, shop drawings and manufacturer’s installation instructions.

# Where applicable, coordinate installation with roof membrane manufacturer’s installation instructions.

# Observe all appropriate OSHA safety guidelines for this work.

1.07 WARRANTY/GUARANTEE:

# A. Manufacturer’s Standard Warranty: Warranted materials shall be free of defects in material and workmanship for five years after shipment. If, after inspection, the manufacturer agrees that materials are defective, the manufacturer shall at their option repair or replace them. For paint finish warranty, consult manufacturer.

II. PART TWO- PRODUCTS

#  2.01 MANUFACTURERS:

# A. Roof Drainage Components & Accessories, Inc.

 60 Don Westbrook Ave. N.

 Jasper, GA 30143

 Phone: 706-692 7333; prompt 1

 Fax: 706-692-7335

 E-mail: sales@rdcaa.com

 Web: [www.rdcaa.com](http://www.rdcaa.com)

2.02 GUTTER, DOWNSPOUT & ELBOW SYSTEM:

# A. Gutter:

# Custom sizedGutter as shown on the drawing(s). Gutter Sections: 10'-0” to 20’-0” (3048 mm to 6096 mm).

 Metal thickness minimums as per table:

|  |
| --- |
| **CUSTOM BOX GUTTER** |
| **GIRTH\*** | **STEEL** | **COPPER**  | **ALUMINUM** | **STAINLESS**  |
| Up to 24” | 24 GA or 22 GA | 16 OR 20 OZ | 0.032”, 0.040” or 0.050" | 26 or 24 GA |
| 24.01” to 30.0” | 22 GA | 20 OZ | 0.040" or 0.050" | 24 GA |
| 30.01” to 35” | 22 GA or 20 GA | 20 OR 24 OZ | 0.050" or 0.063” | 24 OR 22 GA |
| Over 35” | Subject to review of gutter profile and installation detail. |

# B. Downspout & Elbows:

# Custom sizeddownspout and elbows as shown on the drawing(s). Downspout Sections: Length of 10'-0” (3048 mm).

1. Metal thicknesses as per table:

|  |
| --- |
| **ROUND DOWNSPOUT & ELBOWS** |
| **DIAMETER** | **STEEL** | **COPPER**  | **ALUMINUM** | **STAINLESS**  |
| 3” | 24 GA | 16 OZ | 0.032”, or 0.040”  | 26 or 24 GA |
| 4” | 24 GA | 16 or 20 OZ | 0.040" or 0.050" | 24 GA |
| 5" | 24 or 22 GA | 20 OZ | 0.050" | 24 GA |
| 6’ | 24 or 22 GA | 20 or 24 OZ | 0.050"  | 24 OR 22 GA |
| 7” & LARGER | 22 GA | 24 OZ | 0.050” | 22 GA |

|  |
| --- |
| **CORRUGATED RECTANGULAR DOWNSPOUT & ELBOWS** |
| **SIZE** | **STEEL** | **COPPER**  | **ALUMINUM(1)** | **STAINLESS**  |
| 3X4 | 24 GA | 16 OZ or 20 OZ | 0.032” or 0.040”(1)  | N/A |
| 4X5 | 24 or 22 GA | 16 OZ or 20 OZ | 0.032” or 0.040”(1) | N/A |

1. Not available in *‘mill finish’* aluminum.

|  |
| --- |
| **PLAIN RECTANGULAR DOWNSPOUT & ELBOWS** |
| **GIRTH\***  | **STEEL** | **COPPER**  | **ALUMINUM** | **STAINLESS**  |
| Up to 15” | 24 GA | 16 OZ | 0.032” or 0.040”  | 24 GA |
| 15.01” to 23.0” | 24 or 22 GA | 20 OZ | 0.040" or 0.050” | 24 GA |
| 23.01” to 47.0” | 22 or 20 GA | 24 OZ | 0.050” or 0.063” | 22 GA |

 *\* Girth refers to the width of the unformed metal stock.*

1. All downspouts shall be connected to gutter using a factory fabricated outlet tube

## All downspout, elbows & offsets must have interlocking, acme lock seams.

## Provide two (2) factory fabricated downspout anchor straps per 10’ section.

## Provide factory fabricated elbows and offsets (one piece sections preferred).

# C. Fasteners: As suggested by the manufacturer per substrate application.

# D. Exterior finishes: For aluminum choose natural mill finish, Kynar-500 from manufacturer’s standard colors, or Clear or Color Anodized. For 22 or 24 gauge galvanized steel choose Kynar-500 standard color from manufacturer’s standard colors.

2.03 ACCESSORIES:

# All gutter corners, end caps, expansion joints, outlet tubes, etc. shall be fabricated by the gutter and downspout manufacturer.

1. All accessories to be fabricated from same metal stock and finish as gutter and downspout. No post painting of product.

III. PART THREE- EXECUTION

3.01 INSPECTION:

# A. Verify that gutter installation will not disrupt other trades. Verify that the substrate is dry, clean and free of foreign matter. Report and correct defects prior to any installation.

3.02 INSTALLATION GUTTER SYSTEM:

A. Submit product design drawings for review and approval to Architect or Specifier before fabrication.

B. Installing contractor shall check as-built conditions and verify the manufacturer’s gutter details for accuracy to fit the assembly prior to fabrication.

C. Installer shall furnish mechanical fasteners consistent with manufacturer’s instructions.

END OF SECTION **07 71 23**