
SECTION 07 72 00
ROOF ACCESSORIES

PART 1 - GENERAL

1.1 DESCRIPTION

This section specifies copings, gravel stops, fascias, expansion joints and gutter spikes.

1.2 RELATED WORK

- A. Color and texture of finish: Selection by owner.
- B. Sealant material and installation: Section 07 92 00, JOINT SEALANTS.
- C. General insulation: Section 07 21 13, THERMAL INSULATION
- D. Rigid insulations for roofing: Section 07 22 00, ROOF AND DECK INSULATION

1.3 QUALITY CONTROL

- A. All roof accessories shall be the products of manufacturers regularly engaged in producing the kinds of products specified.
- B. Each accessory type shall be the same and be made by the same manufacturer.
- C. Each accessory shall be completely assembled to the greatest extent possible before delivery to the site.

1.4 SUBMITTALS

- A. Submit in accordance with Section 01 33 23, SHOP DRAWINGS, PRODUCT DATA, AND SAMPLES.
- B. Samples: Representative sample panel of color anodized aluminum not less than 100 mm X 100 mm (four by four inches), except extrusions shall be a width not less than section to be used. Sample shall show coating with integral color and texture and shall include manufacturer's identifying label.
- C. Shop Drawings: Each item specified showing design, details of construction, installation and fastenings.
- D. Manufacturer's Literature and Data: Each item specified.
- E. Certificates: Stating that aluminum has been given specified thickness of anodizing.

1.5 APPLICABLE PUBLICATIONS

- A. The publications listed below form a part of this specification to the extend referenced. The publications are referenced in the text by the basic designation only.
- B. American Society for Testing and Material (ASTM):

- B209/209M-07.....Aluminum and Aluminum Alloy-Sheet and Plate
- B221/221M-08.....Aluminum-Alloy Extruded Bars, Rods, Wire,
Shapes, and Tubes
- C612-10.....Mineral Fiber Block and Board Thermal
Insulation
- D1187-97 (R2002).....Asphalt-Base Emulsions for Use as Protective
Coatings for Metal
- C. National Association of Architectural Metal Manufacturers (NAAMM):
AMP 500-06.....Metal Finishes Manual
- D. American Architectural Manufacturers Association (AAMA):
2605-11.....High Performance Organic Coatings on
Architectural Extrusions and Panels.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Aluminum, Extruded: ASTM B221/B221M.
- B. Aluminum Sheet: ASTM B209/B209M.
- C. Galvanized Sheet Steel: ASTM A526/A526M; G-90 coating.
- D. Insulation: ASTM C612, Class 1 or 2.
- E. Asphalt Coating: ASTM D 1187, Type I, quick setting.

2.2 COPINGS

- A. Fabricate of aluminum not less than 2 -mm thick
- B. Turn outer edges down each face of wall as shown.
- C. Maximum lengths of 3000 mm (10 feet).
- D. Shop fabricate external and internal corners as one piece assemblies with not less than 300 mm (12 inch) leg lengths.
- F. Provide 100 mm (four inch) wide 0.8 mm (0.032 inch) thick watertight joint covers.
- G. Provide anchor gutter bar of 0.8 mm (0.032 inch) thick with anchor holes formed for underside of joint.
- H. Provide concealed guttered splice plate of 0.8 mm (0.032 inch) thick with butyl or other resilient seal strips anchored to splice plate for underside of joint. Use galvanized steel anchor plate providing compression spring anchoring of coping cover.
- I. Finish: as specified.

2.3 EXTRUDED ALUMINUM GRAVEL STOPS AND FASCIAS

- A. Fabricate of aluminum not less than 2 mm (0.078 inch) thick.

- B. Turn fascia down face of wall and up above roof as shown.
- C. Maximum lengths of 3000 mm (10-feet).
- D. Shop fabricate external and internal corners as one piece assemblies with not less than 300 mm (12 inch) leg lengths.
- E. Provide 100 mm (four inch) wide 2 mm (0.078 inch) thick watertight joint covers with 150 mm (six inch) wide 0.8 mm (0.030 inch) thick underside joint flashing.

2.4 EXTRUDED ALUMINUM FASCIA-CANT SYSTEM

- A. The fascia-cant system consists of three pieces, an extruded aluminum fascia, a galvanized steel cant, and an aluminum compression clamp.
- B. Furnish in stock lengths of not more than 3000 mm (10 feet) long.
- C. Form fascia from not less than 2 mm (0.070 inch) thick aluminum. Provide four inch wide 0.8 mm (0.032-inch) thick concealed sheet aluminum joint cover plates in back of fascia.
- D. Form cant strip from galvanized steel not less than 0.8 mm (0.0299 inch) thick, to profile shown and design to hold lower edge of the fascia.
- E. Form compression clamp of not less than 0.8 mm (0.032 inch) thick aluminum designed to hold the top edge of the fascia and the built-up flashing.
- F. Internal and external corners:
 - 1. Factory fabricate and fully weld mitered joints.
 - 2. Furnish corner sections in manufacturers standard sizes
- G. Factory fabricated fascia sump assemblies.
 - 1. Fabricate sump assemblies with stainless steel cores and extruded aluminum cover to match fascia-cant.
 - 2. Provide stainless steel outlet, tube sized to suit downspout and solder to core to make watertight.
 - 3. Furnish sump assembly in 500 mm (20 inch) minimum lengths.
- H. Factory fabricated scupper assemblies:
 - 1. Fabricate scupper assembly with extended plates to match fascia-cant in 500 mm (20 inch) minimum lengths.
 - 2. Extend outlet opening not less than 50 mm (two inches) with drip edge.
 - 3. Fabricate with stainless steel cores or sleeve to drain water from toe of cant and flash in to built-up roofing with 100 mm (4 inch) wide flange.

I. Finish on aluminum: as specified.

2.5 EXTRUDED ALUMINUM ROOF EXPANSION JOINT COVERS

- A. Fabricate in 3000 mm (10 foot) lengths with fastener openings slotting for expansion not over 600 mm (24 inch) centers.
- B. Provide four-way expansion, for joint widths shown.
- C. Mill finish on aluminum.
- D. Form waterstop or moisture seals of continuous sheets of neoprene, not less than 0.8 mm (0.032 inch) thick.
- E. Fabricate corners as one piece assembly with mitered and welded joint and least dimension legs not less than 300 mm (12 inches) long.
- F. Factory fabricate end caps and transitions to insure waterproof assembly.
- G. Three piece assembly:
 - 1. Roof expansion joint cover system consists of an extruded aluminum cover, extruded frame or curb vertical section, galvanized steel cant, and aluminum compression clamp counter flashing, complete with moisture seals. Form cover and vertical section from extruded aluminum, 2 mm (0.080 inch) minimum thickness with spring stainless steel tension or pivot bar.
 - 2. Form cant from galvanized steel not less than 0.8 (0.029 inch) thick formed to profile shown.
 - 3. Form splice plates of not less than 0.8 mm (0.032 inch) thick aluminum sheet.
 - 4. Form counter flashing member of 1.3 mm (0.050 inch) thick sheet aluminum, secured with screws to the top edge of the vertical section and providing compression clamp over base flashing.
 - 5. Provide compression gasket separating cover from curb bearing.
- H. Two piece assembly:
 - 1. Roof expansion joint system consists of an extruded aluminum cover combination extruded aluminum frame or curb with integral adjustable counter flashing flange, and moisture seals.
 - 2. Form cover from extruded aluminum 2 mm (0.078 inch) minimum thickness.
 - 3. Form cover anchor system of stainless steel pivot bar.
 - 4. Form frame assembly of not less than 2 mm (0.076 inch) aluminum except for flashing portion.
 - 5. Provide compression gasket separating cover from curb at bearing.

2.6 FINISH

- A. In accordance with NAAMM Amp 500-505.
- B. Aluminum, Mill Finish: AA-MIX, as fabricated.
- C. Aluminum, Clear Finish: AA-C22A41 medium matte, clear anodic coating, Class 1, Architectural, 0.7 mils thick.
- D. Aluminum Colored Finish: AA-C22A42 (anodized or AA0C22A44 (electrolytically deposited metallic compound) medium matte, integrally colored coating, Class 1, Architectural, 0.7 mils thick.
- E. Fluorocarbon Finish: AAMA 2605.2 high performance organic coating.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Install roof accessories where shown.
- B. Secure with fasteners in accordance with manufacture's printed installation instructions and approved shop drawings unless shown otherwise.
- C. Coordinate to install insulation where shown; see Section 07 21 13, THERMAL INSULATION and Section 07 22 00, ROOF AND DECK INSULATION.
- D. Comply with section 07 92 00, JOINT SEALANTS to install sealants where manufactures installation instructions require sealant.
- E. Coordinate with roofing work for installation of items in sequence to prevent water infiltration.
- F. Gravel Stops and Fascias:
 - 1. Install gravel stops and fascia with butt joints with approximately 6 mm (1/4 inch) space for expansion.
 - 2. Over each joint provide cover plates of sheet aluminum, complete with concealed sheet aluminum flashing, centered under each joint.
 - 3. Lap cover plates and concealed flashing over the gravel stop and fascia not less than four inches.
 - 4. Extend concealed flashing over built-up roofing, embed in roof cement and turn down over face of blocking at roof edge.
- G. Aluminum Coping:
 - 1. Install sections of coping with approximately 6 mm (1/4-inch) space between ends of sections.
 - 2. Center joint gutter bar and covers at joints and securely lock in place.
 - 3. When snap-on system is used insure front and back edges are locked in place.

H. Fascia-Cant System:

1. Install galvanized steel cant; coordinate with roofing work and after completion of roofing work install extruded aluminum fascia, concealed joint cover plate, and aluminum compression clamp, where shown.
2. Install system to allow for expansion and contraction with 6 mm (1/4 inch) space between extruded aluminum members and galvanized steel cant as required by manufacturer of system.
3. Offset joints in extruded aluminum members from galvanized steel cant joints.

I. Expansion Joint Covers:

1. Install to terminate base flashing 200 mm (8 inches) above roof.
2. Install moisture seals to drain water to outlets that do not permit water to enter buildings construction.
3. Use stainless steel screws when exposed.
4. Three piece assembly:
 - a. Install curb section with screws to wood blocking, allowing 6 mm (1/4 inch) at butt joints between sections with splice plate at joint.
 - b. Install cant to wood blocking by nailing along horizontal flange every 150 mm (6 inches), with galvanized roofing nails 25 mm (one inch) long.
 - c. After completion of base flashing install cap flashing and compression clamp and fasten to the curb or metal cant with stainless steel self-tapping screws with neoprene washers under head spaced approximately 450 mm (18 inches) on center.
 - d. Install expansion joint cover with a 6 mm (1/4 inch) wide end joints.
 - e. Install over end joint a cover plate complete with concealed aluminum flashing, centered under each joint. Fabricate flashing to lap cover not less than four inches.
5. Two piece assembly:
 - a. Install curb section with screws allowing 6 mm (1/4 inch) space at end joints with splice plate at joint.
 - b. After completion of base flashing bend down cap flashing flange and secure to blocking with screws.
 - c. Install expansion joint cover with 6 mm (1/4 inch) wide space at end joints and tension bars at 600 mm (24 inches) on center.

- d. Install cover plates with formed aluminum flashing concealed and centered on joint. Flashing to lap cover not less than 100 mm (4 inches).

3.2 PROTECTION OF ALUMINUM

- A. Provide protection for aluminum against galvanic action wherever dissimilar materials are in contact, by painting the contact surfaces of the dissimilar material with two coats of asphalt coating (complete coverage), or by separating the contact surfaces with a preformed neoprene tape having pressure sensitive adhesive coating on side.
- B. Paint aluminum in contact with wood, concrete and masonry, or other absorptive materials, that may become repeatedly wet, with two coats of asphalt coating.

3.3 ADJUSTING

Adjust expansion joints to close tightly and be watertight; insuring maximum allowance for building movement.

3.4 PROTECTION

Protect roof accessories from damage during installation and after completion of the work from subsequent construction.

4.1 SUMMARY

- A. Design Requirements: Select appropriate size as determined by site conditions to prevent birds from landing and roosting on specified surfaces.

4.2 QUALITY ASSURANCE

- A. Single Source Responsibility: Furnish products from one manufacturer for entire project.
- B. Obtain all technical information from the manufacturer.
- C. Utilize labor or Bird-B-Gone Authorized Installers who are knowledgeable in Bird-B-Gone, Inc. product installations.
- D. Installer shall visit the site to gather all information of existing site conditions.

4.3 SUBMITTALS

- A. Product Data: Submit manufacturer's descriptive literature and product specifications for each product including catalogs, installation instructions and other descriptive material.
- B. Provide Warranty: Material and installations.
- C. Provide Samples: Each type of spike excluding proposed fastening methods.

- D. Provide statement by official indicating that they are a certified installation company.

4.4 PRODUCT HANDLING

- A. Protect Bird-B-Gone, Inc. products from damage before, during and after the installation.

4.5 PROJECT CONDITIONS

- A. Coordination: Furnish samples of system(s) so installation can be coordinated with existing conditions and within on-site conditions.
- B. Visit site and field measure prior to fabrication and delivery of materials.

4.6 WARRANTY

- A. Product shall carry a minimum 5 year guarantee against U.V. breakdown.
- B. Installation shall be guaranteed for 1 year.

PART 5 - PRODUCTS

5.1 ACCEPTABLE MANUFACTURER (OR EQUAL)

Bird Spike Details are designed using the following as an example.

Manufacturer:

Bird-B-Gone Polycarbonate Bird Spike

5.2 PRODUCT DESCRIPTION

- A. Model Designation:
 - 1. Polycarbonate Bird Spike™ - 3", 5" or 7"
 - a. Width of Coverage:
 - i. BBG2000-3: 1" - 5" widths
 - ii. BBG2000-5: 5" - 7" widths
 - iii. BBG2000-7: 6" - 9" widths
 - b. Height: 4-1/2"
 - c. Base: Flexible
 - i. Glue trough feature (underside) for ease of attachment with adhesive.
 - d. Length: 2 ft. sections
 - e. Packaging: 50ft. per box. Twenty five (25) 2ft. sections per box.
 - f. Color: As designated by the project specifications.

- g. Number of Rows: As determined by the manufacturer and based on project conditions.
- h. Mounting System: As determined by the manufacturer and based on project conditions.

5.3 MATERIALS

- A. Material: U.V. stabilized Polycarbonate. Heat and weather resistant (+310°F to -200°F). Non-conductive and will not interfere with electronic security systems or transmissions.
- B. Construction: Rigid one piece construction, available in 7 standard colors including crystal clear.
- C. Adaptation: "Break away" points are located between each set of screw holes. Tin snips, hacksaw, etc. can also be used to cut the product to the desired length.

5.4 MOUNTING SYSTEMS

- A. Wood: Use #8 Wood Screws. For every 2 ft. section of Polycarbonate Bird Spike ten (10) #8 wood screws are required.
- B. Steel, Brick, Stone or Concrete: Use an outdoor construction adhesive that is non-silicone based. Purchase from the manufacturer or call for recommended adhesives. If mounting surface warrants, screw or bolt down Polycarbonate Bird Spike in conjunction with using the adhesive.
- C. Pipes or Poles: Ty-Wraps can be used alone or in conjunction with an outdoor construction adhesive. For U.V. protected Ty-Wraps, purchase directly from the manufacturer or call for recommended products.

PART 6 - EXECUTION

6.1 EXAMINATION

- A. Examine the installation area and note any detrimental or hazardous work conditions. Notify contracting officer or inspector of the detrimental work conditions.
- B. Do not proceed with installation until conditions are corrected.

6.2 SURFACE PREPARATION

- A. Surface should be thoroughly cleaned and free of bird droppings, nesting materials, rust, peeling paint or other debris.
- B. Remove or repair articles that may damage Polycarbonate Bird Spike™ after installation, including overhanging foliage, brush and loose parts on the structure.

6.3 INSTALLATION

- A. Install Polycarbonate Bird Spike as recommended by the manufacturer.
- B. Polycarbonate Bird Spike should be installed correctly, covering the entire depth of the surface, not just the perimeter.
 - 1. Follow the contours and angles closely: cut or break away to fit properly.
 - 2. Space materials in accordance with manufacturer's recommendations.

6.4 INSPECTION

- A. Visually inspect Polycarbonate Bird Spike for any signs of poor installation, including loose screws, fasteners and un-removed debris.
- B. Immediately correct and repair as necessary.

7.1 ICE AND SNOW GUARDS

- 1. Adhered to prefinished metal roof
 - A. snow guard (6 1/4" X 2" Base)(Minimum 12.5sq. inch bonding surface)
- 2. Projected cross-sectional area perpendicular to roof slope
 - B. snow guard (Min. 2" snow holding area at base per unit)
- 3. Clear or integrally colored per architect requirements

7.2 PRODUCT

- A. Materials
 - 1. Polycarbonate polymer material construction
 - a. General Electric "Lexan"
 - b. Bayer "Makrolon"
 - c. Durolon
 - d. Or approved equal
 - 2. Liquid adhesive
 - a. SB-190 sealant adhesive
 - 3. 3M™ Adhesive tape
 - a. Double coated acrylic foam tape
 - 4. Primer
 - a. Tape primer 94 to be used for adhesion of tape to metal surface

7.3 EXECUTION

A. Typical Preparation

- 1. Thoroughly clean metal roof surface area with isopropyl alcohol where snow guard is to be installed

B. Installation Options

1. Adhesive Tape Installation
 - a. Apply thin coat of primer to roof surface
 - b. Peel release paper backing off adhesive tape on snow guard base
 - c. Place snow guard in position on metal surface, applying firm, even pressure perpendicular to roof surface
 - d. Apply bead of sealant around snow guard perimeter

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