

## SECTION 07 72 53.01

### SNOW GUARDS

#### PART 1 - GENERAL

##### 1.1 SUMMARY

- A. Section Includes:
  - 1. Snow guards for metal roofs.
  - 2. [Non-penetrating] [Face fastened] attachment system.
  - 3. Color-matched metal strips.
- B. Related Sections:
  - 1. Division 1: Administrative, procedural, and temporary work requirements.
  - 2. Section [07 41 00 - Metal Roof Panels:] [07 61 00 - Sheet Metal Roofing:] [\_\_\_\_\_ - \_\_\_\_\_:]  
Metal roof panels.
  - 3. Section 07 72 55 - Roof Accessory Attachment System.

##### 1.2 REFERENCES

- A. Aluminum Association (AA) - Aluminum Standards and Data, 2003 Edition.
- B. ASTM International (ASTM):
  - 1. B85-03 - Standard Specification for Aluminum-Alloy Die Castings.
  - 2. B221-04a - Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes.

##### 1.3 SYSTEM DESCRIPTION

- A. Attachment system to provide attachment to standing seam metal roofs:
  - 1. With only minor dimpling of panel seams.
  - 2. Without penetrations through roof seams or panels.
  - 3. Without use of sealers or adhesives.
  - 4. Without voiding roof warranty.
- B. Loading: Design snow guard system to resist minimum in-service vector load of [\_\_] pounds per linear foot of eave.
- C. Factor of safety: Utilize a factor of safety  $\geq$  [2] [\_\_\_\_\_] to determine allowable loads from ultimate tested clamp tensile load values.

##### 1.4 SUBMITTALS

- A. Submittals for Review:
  - 1. Shop Drawings: Show locations of snow guards on roof and attachment spacing.
  - 2. Product Data: Include product description and installation instructions.
  - 3. Samples:
    - a. Clamp samples.
    - b. 24 inch long cross member samples including color-matched metal strip, splice connector, and other hardware.
- B. Quality Control Submittals:
  - 1. Test results: Results of product tensile load testing, issued by a recognized independent testing laboratory, showing ultimate load-to-failure value of attachment.
- C. Sustainable Design Submittals:
  - 1. Regionally manufactured products: Certify location of material manufacturer and distance from manufacturer to project site.
- D. Closeout Submittals:

1. Certification: Installer's certification that snow guard system was installed in accordance with manufacturer's instructions and approved Shop Drawings.

## 1.5 QUALITY ASSURANCE

- A. Mockup:
  1. Size: Minimum [8] [\_\_\_] feet long.
  2. Show: Snow guard attachment, cross members, and accessories.
  3. Locate [where directed.] [\_\_\_\_.]
  4. Approved mockup may remain as part of the Work.

## PART 2 - PRODUCTS

### 2.1 MANUFACTURERS

- A. Contract Documents are based on S-5! ColorGard by Metal Roof Innovations, Ltd.
- B. Substitutions: [Under provisions of Division 1.] [Not permitted.]

### 2.2 COMPONENTS

- A. Clamps:
  1. Manufactured from 6061-T6 aluminum extrusions conforming to ASTM B221 or aluminum castings conforming to ASTM B85 and to AA Aluminum Standards and Data.
  2. Clamp model: No. [S-5-U.] [S-5-T.] [S-5-Z.] [S-5-E.] [S-5-K.]
  3. Set screws: 300 Series stainless steel, 18-8 alloy, 3/8 inch diameter, with round nose point.
  4. Attachment bolts: 300 Series stainless steel, 18-8 alloy, 10 mm diameter, with flat washers.

\*\*\*\* OR \*\*\*\*

- B. Brackets:
  1. Manufactured from 6061-T6 alloy and temper aluminum extrusions conforming to ASTM B221 and AA Aluminum Standards and Data or cast aluminum.
  2. Model: VersaBracket.
  3. Screws for attachment of brackets to roof: [Stainless steel,] [\_\_\_\_,] of type best suited to application.
- C. Cross Members:
  1. Manufactured from 6061-T6 alloy and temper aluminum extrusions conforming to ASTM B221 and AA Aluminum Standards and Data.
  2. Receptacle in face to receive color-matched metal strips.
  3. Provide splice connectors ensuring alignment and structural continuity at end joints.
- D. Color Strips: Same material and finish as roof panels; obtained from roof panel manufacturer.
- E. Snow and Ice Clips: Aluminum, with rubber foot, minimum 3 inches wide.

## PART 3 - EXECUTION

### 3.1 EXAMINATION

- A. Prior to beginning installation, verify that:
  1. Panel seaming is complete.
  2. Panel attachment is sufficient to withstand loads applied by snow guard system.
  3. Installation will not impeded roof drainage.

\*\*\*\* OR \*\*\*\*

- B. Prior to beginning installation, verify that:

1. Roof attachment is sufficient to withstand loads applied by snow guard system.
2. Installation will not impeded roof drainage.

### 3.2 PREPARATION

- A. Clean areas to receive attachments; remove loose and foreign matter that could interfere with installation or performance.

### 3.3 INSTALLATION

- A. Install system in accordance with manufacturer's instructions and approved Shop Drawings.
- B. Place clamps at maximum 32 inches on center or as required by in-service loads.
- C. Place clamps in straight, aligned rows.
- D. Place both set screws on same side of clamp.
- E. Tighten set screws to manufacturer's recommended torque. Randomly test set screw torque using calibrated torque wrench.
- F. Insert color-matched metal strips into cross members, staggering strips to cover cross member joints.
- G. Attach cross members to clamps; tighten bolts to manufacturer's recommended torque.
- H. Install splice connectors at cross member end joints.
- I. Do not cantilever cross members more than 3 inches beyond last clamp at ends.
- J. Install [one SnoClip] [two SnoClips] per panel between panel seams.

\*\*\*\* OR \*\*\*\*

### 3.4 INSTALLATION

- A. Install system in accordance with manufacturer's instructions and approved Shop Drawings.
- B. Place clamps at maximum 32 inches on center or as required by in-service loads.
- C. Place clamps in straight, aligned rows.
- D. Insert color-matched metal strips into cross members.
- E. Attach cross members to brackets using self-tapping screws provided.
- F. Install splice connectors at cross member end joints.
- G. Do not cantilever cross members more than 3 inches beyond last VersaBracket at ends.
- H. Install SnoClips at spacings indicated on Shop Drawings.

END OF SECTION