



## SECTION 07 72 55

### ROOF ACCESSORY ATTACHMENT SYSTEM

#### PART 1 - GENERAL

##### 1.1 SUMMARY

###### A. Section Includes:

1. Roof accessory attachment system for standing seam metal roofs and walls.

###### 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 system.
3. Section [07 72 53.01] [07 72 53.02] - Snow Guards: Snow guards for metal roof system.
4. Section [\_\_\_\_\_ - \_\_\_\_\_]: Roof-mounted [equipment.] [walkways.] [parapet bracing.] [solar panels.] [accessories.] [\_\_\_\_\_.]
5. Section [\_\_\_\_\_ - \_\_\_\_\_]: Roof-mounted piping.
6. Section [\_\_\_\_\_ - \_\_\_\_\_]: Roof-mounted conduit.

##### 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.
3. E527-83(2003) - Standard Practice for Numbering Metals and Alloys.

##### 1.3 SYSTEM DESCRIPTION

###### A. Roof accessory attachment system to provide attachment to standing seam metal roofs:

1. With only minor dimpling of panel seams.
2. With only round point set screws.
3. Without penetrations through roof seams or panels.
4. Without use of sealers or adhesives.
5. Without voiding roof warranty.

## 1.4 SUBMITTALS

### A. Submittals for Review:

1. Shop Drawings: Show locations of clamps on roof, clamp spacing, and type of component being attached.
2. Product Data: Include product description and installation instructions.
3. Samples: Samples of typical clamp.

### B. Quality Control Submittals:

1. Test results: Results of product load testing performed on panel seams.

### 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 roof attachment system was installed in accordance with manufacturer's instructions and approved Shop Drawings.

## 1.5 QUALITY ASSURANCE

### A. Load Testing:

1. Provide product tensile load testing performed by a recognized independent testing laboratory.
2. Test loading to failure on mockup of specific panel seams proposed for this Project, performed in direction parallel to seams.

### B. Mockup:

1. Size: [Minimum of [two] [\_\_\_\_] panel seams.] [\_\_\_\_.]
2. Show: Panel seams, clamps, and roof accessory being attached.
3. Locate [where directed.] [\_\_\_\_.]
4. Approved mockup may remain as part of the Work.

## 1.6 WARRANTIES

- A. Provide manufacturer's 1 year warranty providing coverage against defects in materials and workmanship.

## 1.7 MAINTENANCE

- A. Extra Materials: Provide [30] [\_\_\_\_] extra clamps with set screws and attachment bolts.

## **PART 2 - PRODUCTS**

### **2.1 MANUFACTURERS**

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

### **2.2 COMPONENTS**

#### **A. Standard 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-E.] [S-5-T.] [S-5-K.] [S-5-Z.] [S-5-R.] [S-5-T2.]
3. Set screws: 300 Series stainless steel, 18-8 alloy, 3/8 inch diameter, with round nose point, two per clamp. Cup-point setscrews are not permitted.
4. Attachment bolts: 300 Series stainless steel, 18-8 alloy, 10 mm diameter, with flat washers.

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

#### **B. Mini 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 Mini.] [S-5-E Mini.] [S-5-T Mini.] [S-5-Z Mini.]
3. Set screw: 300 Series stainless steel, 18-8 alloy, 3/8 inch diameter, with round nose point, one per clamp. Cup-point setscrews are not permitted.
4. Attachment bolts: 300 Series stainless steel, 18-8 alloy, 8 mm diameter, with flat washers.

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

#### **C. Clamps:**

1. Manufactured from red brass, Copper UNS Alloy No. C23000.
2. Clamp model: No. S-5-B.
3. Set screws: 300 Series stainless steel, 18-8 alloy, 3/8 inch diameter, with round nose point. Cup-point setscrews are not permitted.
4. Attachment bolts: 300 Series stainless steel, 18-8 alloy, 10 mm diameter, with flat washers.

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

#### **D. Mini Clamps:**

1. Manufactured from red brass, Copper UNS Alloy No. C23000.
2. Clamp model: No. S-5-B Mini.
3. Set screw: 300 Series stainless steel, 18-8 alloy, 3/8 inch diameter, with round nose point, one per clamp. Cup-point setscrews are not permitted.
4. Attachment bolts: 300 Series stainless steel, 18-8 alloy, 8 mm diameter, with flat washers.

## **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 transferred from clamps.
  - 3. Installation will not impeded roof drainage.

### **3.2 PREPARATION**

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

### **3.3 INSTALLATION**

- A. Install clamps in accordance with manufacturer's instructions and approved Shop Drawings.
- B. Place clamps in neat, straight rows, evenly spaced.
- C. Place both set screws on same side of clamp.
- D. Tighten set screws to manufacturer's recommended torque.
- E. Randomly test set screw torque using calibrated torque wrench.

**END OF SECTION**