ALPINE SNOWGUARDS™
www.alpinesnowguards.com

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07 72 53 Snow Guards

#115R Pipe-style Snow Guard for Membrane Roofs

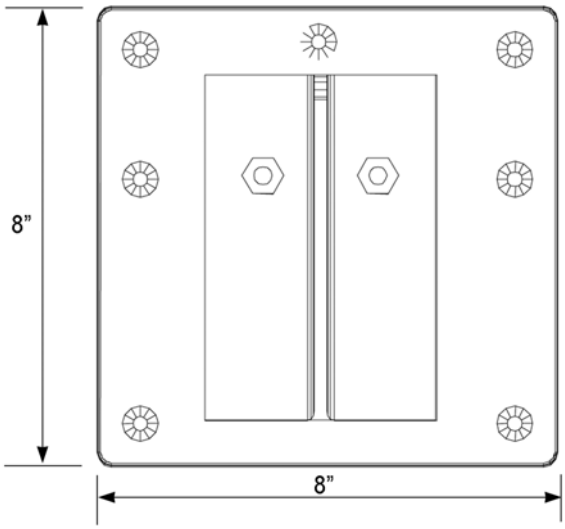
NOTES:
1. SNOW GUARDS TO BE INSTALLED ACCORDING TO MANUFACTURERS' SPECIFICATIONS.
2. DO NOT SCALE DRAWINGS.
3. CONTACT MANUFACTURER FOR DETAILED LAYOUT.
4. PRODUCTS MAY VARY FROM ILLUSTRATION.
5. ITEMS SUBJECT TO CHANGE WITHOUT NOTICE.

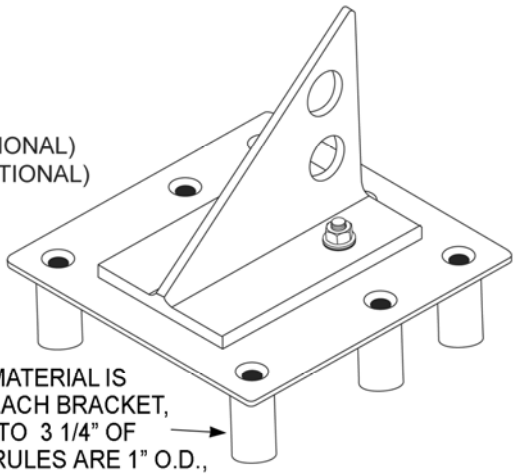
REVISIONS		
REV.	DESCRIPTION	DATE

☑DESIRED PIPE CONFIGURATION
- ☑2 PIPE (SHOWN)
- ☐2 PIPE HI-HOLE
- ☐3 PIPE

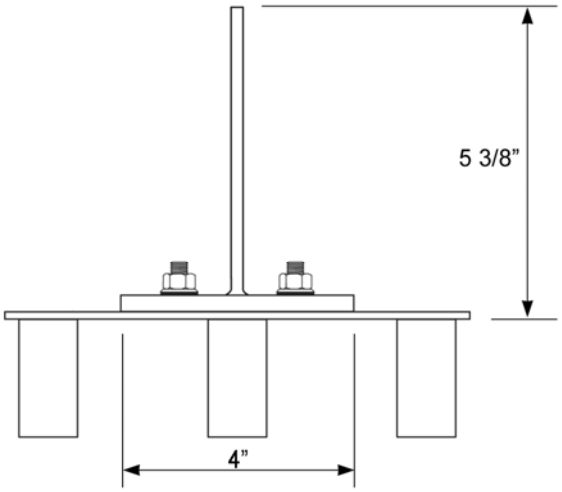
☑FINISH
- ☑MILL FINISH (STANDARD)
- ☐POWDER COAT
  - ☐RAL#_____

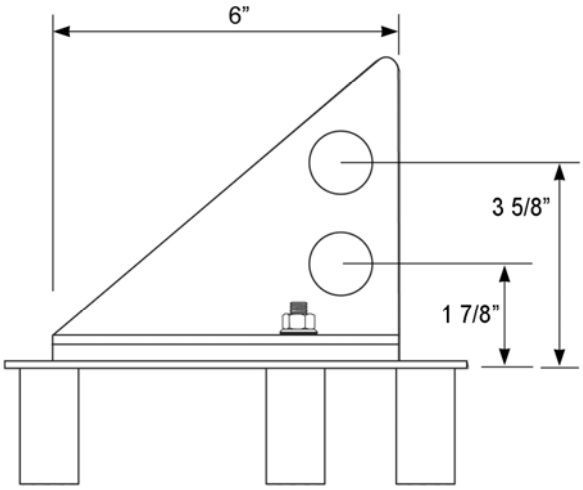
☑PIPE SYSTEM
- ☑PIPE
- ☑COUPLINGS
- ☑END COLLARS
- ☑END CAPS
- ☐ICE FLAGS (OPTIONAL)
- ☐ICE SCREEN(OPTIONAL)





NOTE:
24" OF FERRULE MATERIAL IS INCLUDED WITH EACH BRACKET, ENOUGH FOR UP TO 3 1/4" OF INSULATION. FERRULES ARE 1" O.D., 3/4" I.D. ALUMINUM.





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#115R Pipe-Style Snow Guard Specification Sheet

PART 1 – GENERAL

1.1 SUMMARY

A. WORK INCLUDES
   1. #115R Snow guard that attaches directly to the roof deck.
   2. Provide appropriate snow guard and fasteners for the roof system.

B. RELATED SECTIONS
   1. Section 07600: Flashing and Sheet Metal MasterFormat™ 2004 07 60 00
   2. Section 07500: Membrane Roofing MasterFormat™ 2004 07 50 00
   3. Division 7: Thermal and Moisture Protection.

1.2 SYSTEM DESCRIPTION

A. COMPONENTS:
   1. #115R Snow guard system consists of snow guard bracket and base plate
   2. Tubing (snow rails).
   3. Couplings.
   4. End Caps (optional).
   5. End Collars (optional).
   6. Deck Fasteners
      a. To be of metal compatible with snow guards.
      b. Fasteners should be selected for compatibility with the roof deck.
      c. Fastener strength should exceed or be equal to that of the snow guard system.
   7. Adhesive: to be membrane roof manufacturer approved.

B. DESIGN REQUIREMENTS:
   1. Spacing to be recommended by manufacturer or building engineer.
   2. A minimum of 7 fasteners per snow guard base plate.
   3. It is important to design new structures or assess existing structures to make sure that they can withstand retained snow loads.

1.3 SUBMITTAL

A. Submit manufacturer's specifications, standard detail drawings, recommended layout and installation instructions.

1.4 QUALITY ASSURANCE

A. Installer to be experienced in the installation of specified roofing material and snow guards for not less than 5 years in the area of the project.

1.5 DELIVERY / STORAGE / HANDLING

A. Inspect material upon delivery and order replacements for any missing or defective items. Keep material dry, covered and off the ground until installed.

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PART 2 - PRODUCTS

2.1 MANUFACTURER

A. Alpine SnowGuards. A division of Vermont Slate & Copper Services Inc, 289 Harrell St, Morrisville VT, (888) 766-4273, www.alpinesnowguards.com.

2.2 MATERIALS

A. Snow guard component is extruded and milled 6061-T6 Aluminum
B. Base Plate is 11 gauge (1/8") thick; (choose one)
    1. 302 or 304 Stainless Steel.
    2. Steel, 1018 alloy, mild steel.
C. Tubing is 6061-T6, 1" outside diameter and 1/8" wall thickness extruded Aluminum.
D. Couplings are 2011 Aluminum 3" long.
E. End Caps are 302 stainless steel.
F. Ice Flags are 5052-H32 or 6061-T6 Aluminum 3" x _" (as needed).
G. End Collars are 6061 T-6 aluminum shaft collars.
H. Ferrules are 6061-T6, 1" outside diameter and 1/8" wall thickness extruded aluminum.
I. Fasteners for base plate to snow guard base are 304 Stainless Steel with an 18-8 finish.

2.3 FINISH

A. All base plate materials (concealed below flashing) provided mill finish.
B. Bracket Finish:
    a. Mill Finish
    b. Powder coated

PART 3 - EXECUTION

3.1 EXAMINATION

A. Substrate: Inspect roof system to be properly attached and installed to withstand additional loading incurred. Notify General Contractor of any deficiencies before installing Alpine SnowGuards.

3.2 INSTALLATION

A. Comply with architectural drawings for location and with Manufacturer's instructions for installation and recommended layout.

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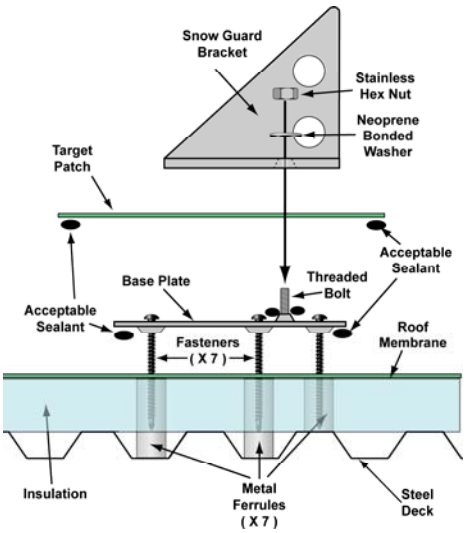
#115R Pipe-Style Snow Guard for Membrane Roofs Assembly Instructions

What's in the box?
Each #115R consists of an extruded and milled aluminum bracket, a stainless steel base plate, 2 neoprene-bonded washers, 2 stainless nuts and the ferrule material. The material used for the ferrules is the same as the pipe for the snow guard system. 24" per bracket is supplied, that is enough for about 3 ¼" of insulation. Ferrules are not cut to order; measuring and cutting should be done onsite to avoid mistakes.



What's not in the box.
You will also need 7 fasteners per bracket. The fasteners must be long enough to penetrate the insulation and go well into the deck below.

Flashing (Target Patch) is available from Alpine or you can make your own. It should be a minimum of 12" square.

Appropriate mastics and patching techniques should be used according to the type of membrane roofing and the manufacturer's instructions.

You will need a coring took to make 1" holes through the membrane and insulation.

I. Base Plate (The base plate is the flat piece with the two threaded studs.) Start by measuring and snapping a line to ensure proper placement.

A. Place the base plate on the finished membrane and mark the locations of the seven fastener holes. NOTE: The threaded studs on the base plate are not centered. For #115R installation, align the base plate so that the studs are on the up-slope end of the base plate**.(Figure 1)**

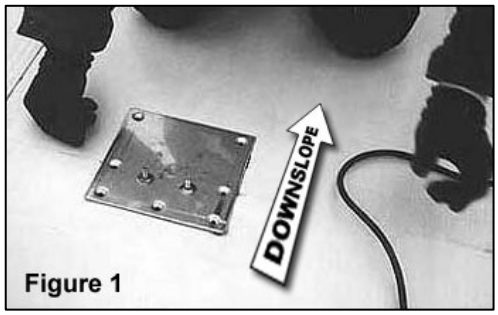


Figure 1

B. Remove the base plate and at the seven marked locations, bore seven 1" holes through the finished membrane and through the insulation until the substructure is reached. **(Figure 2)**

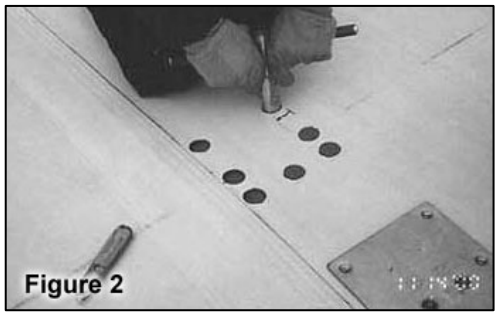


Figure 2

C. Measure the depth of each hole and cut the ferrules to rest on the substructure and be flush with the finished roof surface when inserted into the holes – refer to the illustration above. The ferrules must rest firmly against the deck and be even with the surface. Drop the ferrules into place. The ferrules will prevent the insulation from compressing when the base plate is tightened into place. **(Figure 3)**

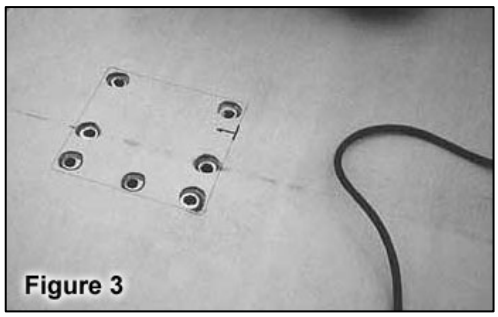


Figure 3

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D. Place the base plate on top of the finished membrane roof so that the seven fastener holes line up with the centers of the seven ferrules. The holes in the base plate will lock into the ferrules when the ferrules are positioned properly. **(Figure 4)**

E. Fasten base plate to the substructure using the appropriate fasteners for the type of decking and the thickness of the insulation. Make certain that the base plate cannot shift.

F. Consult with manufacturer, project engineer or fastener company to determine the fastener required attaching the base plate to the substructure. See testing information for assistance.

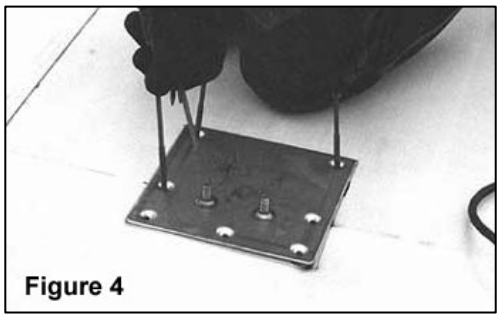


Figure 4

II. Membrane Flashing of Base Plate

A. Prepare the area for flashing according to the membrane manufacturer's instructions for patching. **(Figure 5)**

B. Use a pre-cut and drilled patch/flashing from Alpine SnowGuards or an acceptable piece of flashing material 12" square...

C. If making your own flashing, cut two small holes in membrane flashing to fit tightly over threaded studs.

D. Before installing flashing apply a generous amount of acceptable sealer around threaded studs**. (Figure 6)**

E. Apply flashing over base plate and seal the perimeter of the patch to the deck sheet. **(Figure 7)**

F. The threaded studs are now the only part of the base plate exposed. NOTE: Due to the sealer applied around the studs there may be bleed out at this opening. When the snow guard block is installed and tightened this bleed out will help to create a water tight compression fitting. **(Figure 8)**


Figure 5

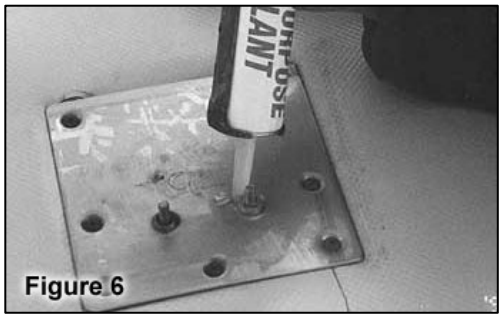
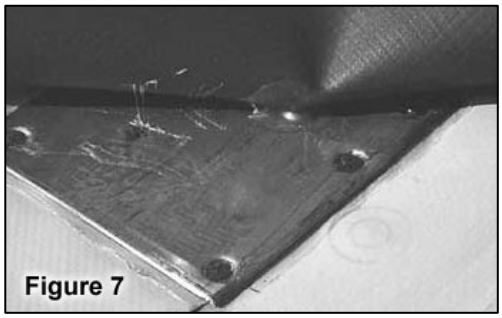


Figure 6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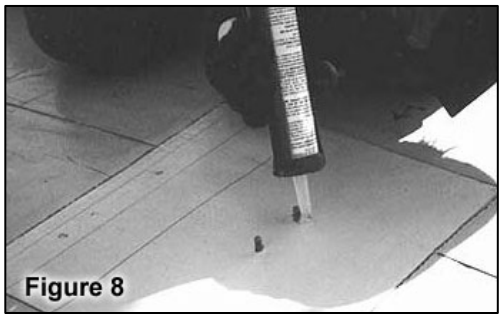
Figure 8

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III Installation of snow guard block

A. Install snow guard block over the threaded studs. The block will be centered on the base plate when installed properly. **(Figure 9)**

B. Place one bonded neoprene washer over each stud.

C. Place one stainless nut over the bonded neoprene washer and tighten. Note: the stainless nut should be tightened to 100 inch pounds to ensure a water tight seal.

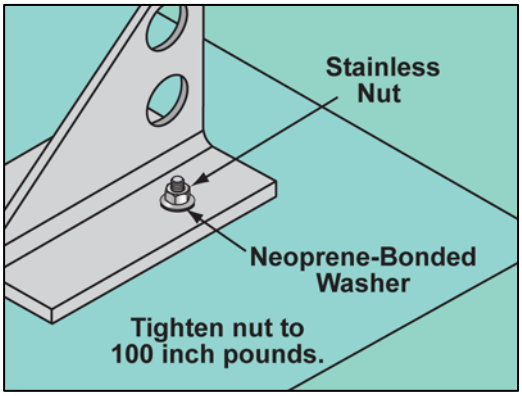


Figure 9


Figure 10

D. Insert tubing through the holes in the uprights. **(Figure 10)**

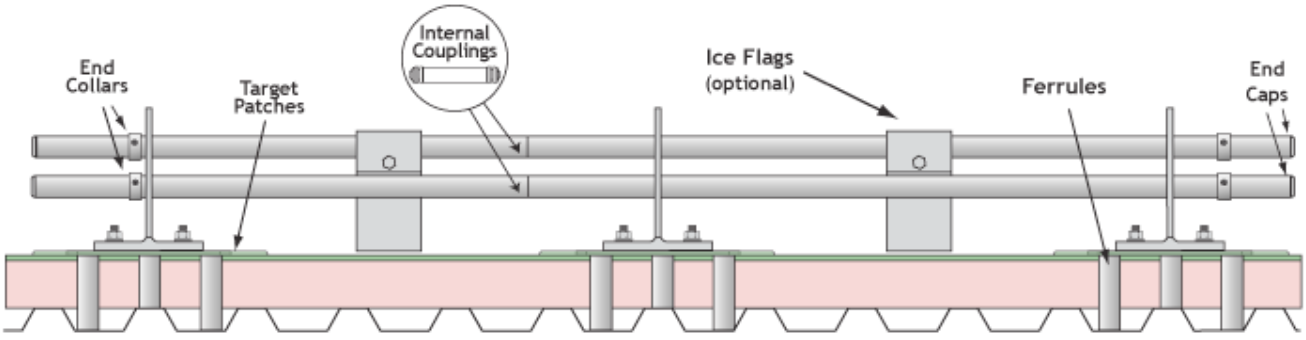
IV Locking Collars, End Caps, and Ice Flags (optional)

A. Locking collars (#65) should be placed over each end of each line of tubing. Center the tubing on the snow guards and tighten the setscrew on the collar until it no longer slips.

B. End caps (#56) are installed by pressing the cap into the end of the pipe.

C. Ice flags (#95), if used, should be placed over the top tube so that the long leg rests against the uphill side of both tubes. Use the carriage bolt and nut to hold the ice flag in position. ***Note: Ice Flags should not touch the roof surface.***

See our Pipe Accessories Installation page for more information on installing pipe, internal couplings, end caps, end collars, Ice Flags and Ice Screen.



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