



Fusion-Guard Pad-Style Snow Guard Submittal Document Set

ROOF TYPES

- New / Existing Cedar Shingle
- New / Existing Composition (Asphalt) Shingle
- New / Existing Slate
- New / Existing Synthetic Shake or Slate
- New / Existing Tile (Flat, Mission, Round, "S" Tile, Spanish)

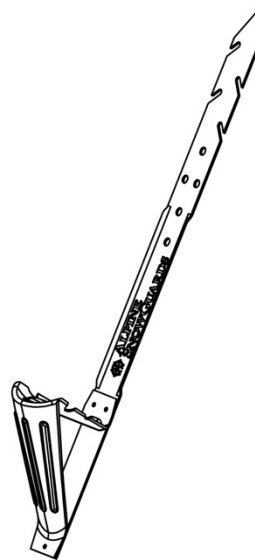
AVAILABLE MATERIALS

- Pre-Powder Coated - Dark Bronze or Graphite Grey (CRS)
- Copper (CU)

AVAILABLE FINISHES

FEATURES/ADVANTAGES

- Pad-style hybrid snow guard allows installer to add optional rods during or after install
- Stiffening ribs on front of pad add rigidity and strength while allowing optional rods to sit static
- Strap is available in multiple lengths to accommodate various roofing materials as well as retrofit applications
- Ideal for residential customers who don't like the look of a pipe-style system on their roof, but want the benefits a pipe-style system provides
- Protects against snow damage at the lower roof level (gutters, valleys, crickets, roof protrusions, plumbing vents, etc) and at ground level (cars, people, landscaping, pets, walkways, ground mounted mechanical units)



Cut Sheet - FUSION-GUARD

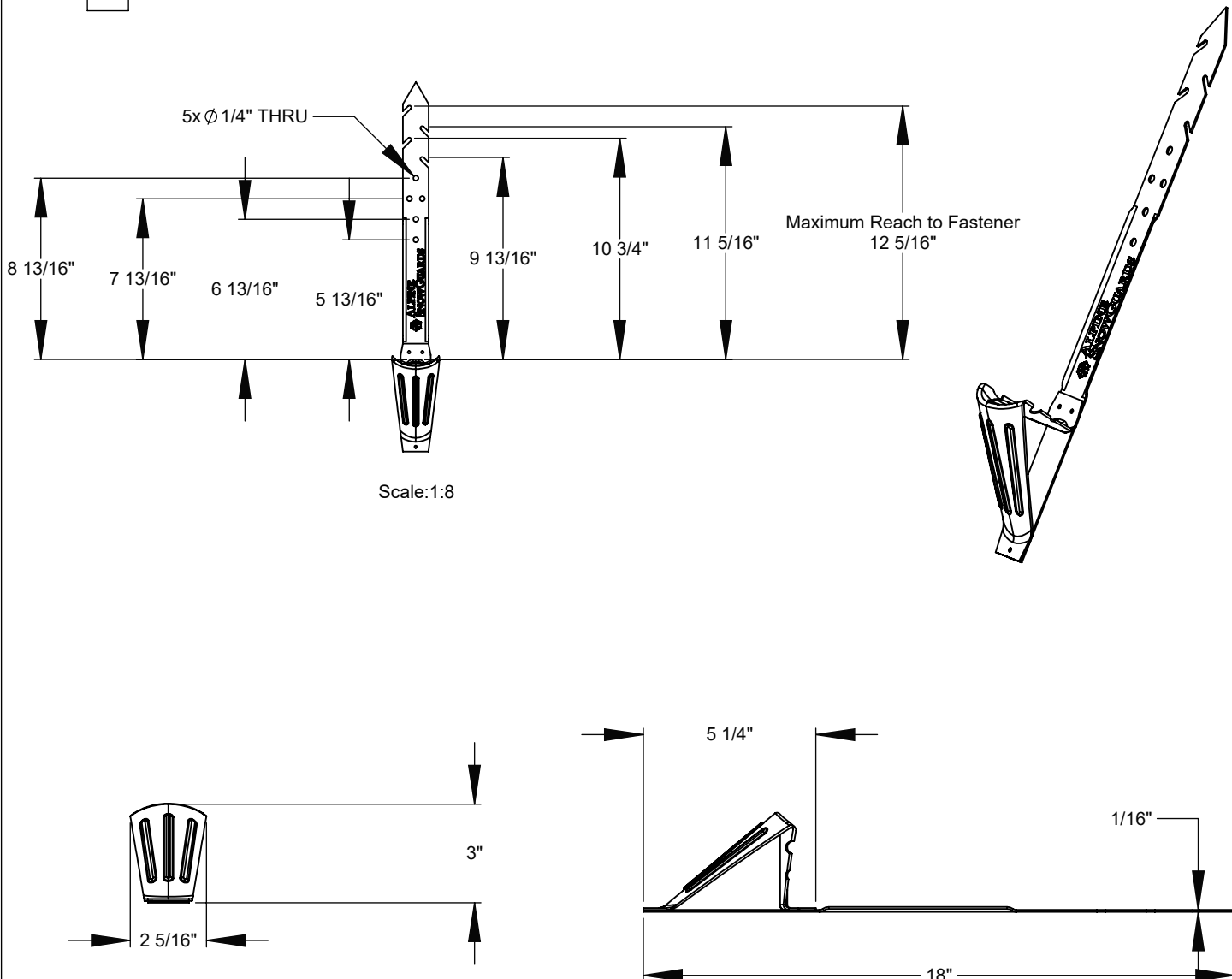
1. Installation to be completed in accordance with manufacturer's written specifications and installation instructions.
2. See spec sheet or contact manufacturer for detailed material, finishes, and configuration options.
3. Contact manufacturer for detailed layout.
4. Do not scale drawings.
5. Subject to change without notice.
6. For patent information, visit our [Patent Page](#).

Available Materials/Finishes:

Cold Rolled Steel (Galvanized)

☐ Pre-Powder Coated Graphite Gray ☐ Copper

☐ Pre-Powder Coated Dark Bronze



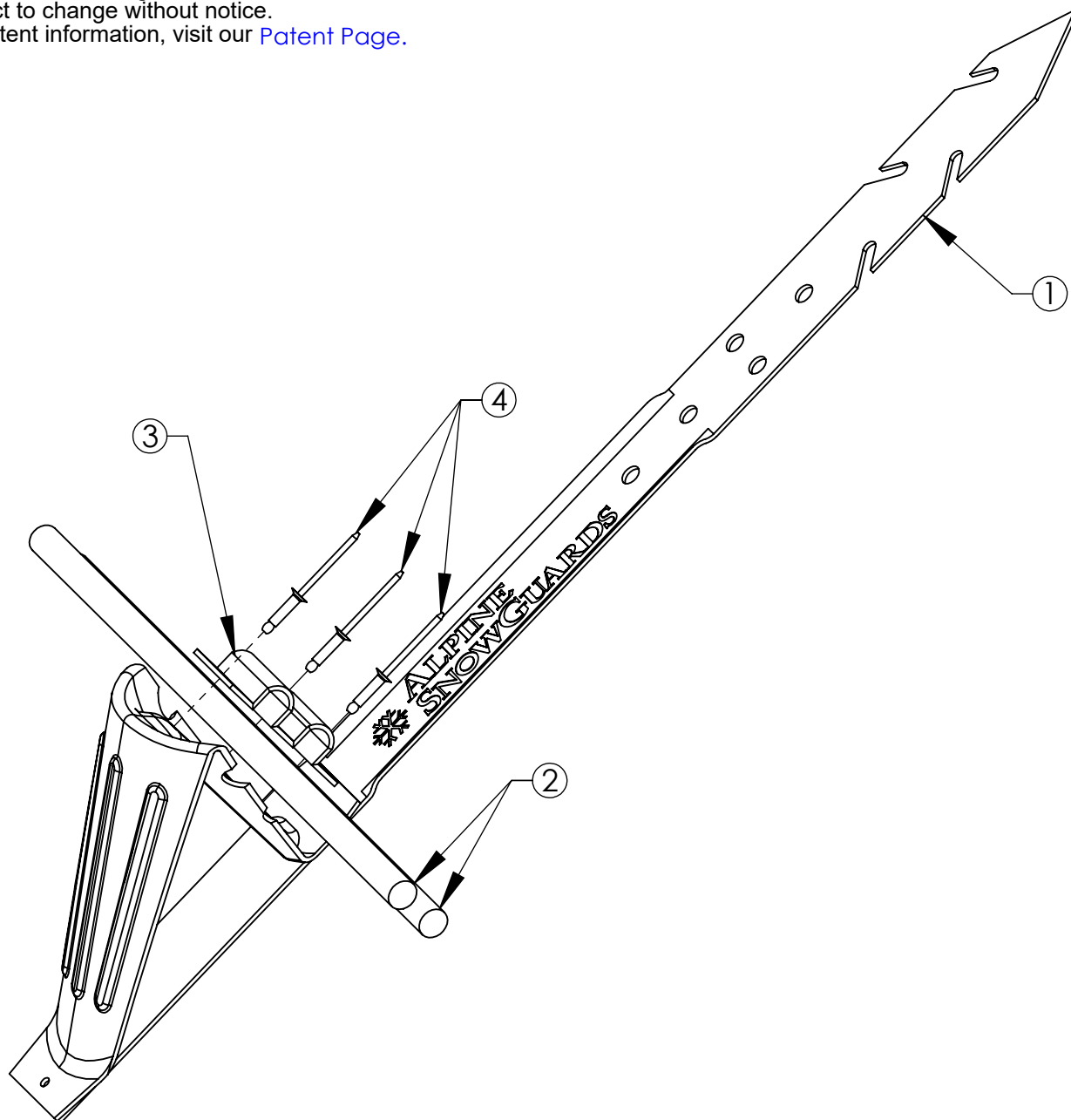
289 Harrel Street
Morrisville, VT 05661
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Scale: 1:5

1/23/2024

Assembly Sheet - FUSION-GUARD WITH ROD

1. Installation to be completed in accordance with manufacturer's written specifications and installation instructions.
2. See spec sheet or contact manufacturer for detailed material, finishes, and configuration options.
3. Contact manufacturer for detailed layout.
4. Do not scale drawings.
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ITEM NO.	PART CODE	DESCRIPTION	QTY
1	FUSION-GUARD	FUSION-GUARD	1
2	RD77 OR PP77	.375" ROD OR PIPE (6' LENGTHS)	AS NEEDED
3	FUSION-GUARD-ROD BRK	FUSION-GUARD ROD BRACKET-SS	1
4	R-POP SS 3.0X6.0	SS POP RIVET 3.X6.0	3



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1/14/2021



Fusion-Guard Specification Sheet Snow Guards

PART 1 – GENERAL

1.1 SUMMARY

A. WORK INCLUDES

1. FUSION-GUARD snow guard that attaches directly to roof deck.
2. Coordinate with roof installation to assure proper placement of snow guards.
3. Provide appropriate snow guard and fasteners for roof system.

B. RELATED SECTIONS

- | | |
|---|----------------------------|
| 1. Section 076000: Flashing and Sheet Metal | MasterFormat 2016 07 60 00 |
| 2. Section 073100: Shingles and Shakes | MasterFormat 2016 07 31 00 |
| 3. Section 077200: Roofing Accessories | MasterFormat 2016 07 72 00 |
| 4. Section 077253: Snow Guards | MasterFormat 2016 07 72 53 |

1.2 SYSTEM DESCRIPTION

A. COMPONENTS

Bracket: A snow guard assembly that consist of individual metal snow guards.

1. FUSION-GUARD

Bracket Accessories (for use only with rod): Rods, attachment rod bracket, and rivets that allows installer to use as a hybrid pad/rod-style snow guard system.

1. RD77 (3/8" rod) or PP77 (pipe)
2. FUSION-GUARD-ROD BRK Rod Bracket
3. R-POP SS 3.0X6.0 Rivet

B. ROD ACCESSORIES:

1. RD87, external couplings
2. RD65, end collars
3. RD95, ice flags (optional)

C. DESIGN REQUIREMENTS:

1. Spacing to be recommended by manufacturer or building engineer.
2. Install 2 fasteners per snow guard.
3. It is important to design new structures or assess existing structures to make sure they can withstand retained snow loads.
4. When used with rods, a break in the assembly is required every 48-feet and rods have a 6-inch maximum allowable overhang from end bracket.

1.2 SUBMITTAL

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

1.3 QUALITY ASSURANCE

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

1.4 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



Fusion-Guard Specification Sheet Snow Guards

PART 2 – PRODUCTS

2.1 MANUFACTURER

A. Alpine SnowGuards®, a Division of Vermont Slate & Copper Services, Inc.
289 Harrel St., Morrisville, VT 05661 | 888-766-4273 | www.alpinesnowguards.com

2.2 MATERIALS

A. FUSION-GUARD

1. DC01 Galvanized Cold Rolled Steel (CRS) – 0.059" thickness
2. Copper – .039" thickness snow guard head, .064" thickness strap

2.3 ACCESSORY MATERIALS

A. FUSION-GUARD-ROD BRK – 304 Stainless Steel

B. R-POP SS 3.0X6.0 – 304 Stainless Steel

C. Rod (RD77) or Pipe (PP77) (choose one)

1. 304 Stainless Steel, 3/8" diameter rod
2. 6061 Aluminum, 3/8" diameter pipe

D. External Couplings (RD87). External and exposed coupling which can also serve as an expansion mechanism 3" long (choose one)

1. 304 Stainless Steel, 3/8" diameter

E. End Collars (RD65) (choose one):

1. 304 Stainless Steel
2. 6000 Series Aluminum (for powder coated systems only)

F. Ice Flags (RD95) [3" wide x length (as needed)]:

1. 304 Stainless Steel, 3/8" diameter

2.4 FINISH (choose one):

A. DC01 Cold Rolled Steel (CRS)

1. Powder Coated Dark Bronze
2. Powder Coated Graphite Grey

PART 3 – EXECUTION

3.1 EXAMINATION

A. Substrate

1. Inspect structure on which snow guard system is to be installed and verify it will withstand any additional loading that it may incur. Notify general contractor of any deficiencies before installing Alpine SnowGuards' products.
2. Verify roofing material has been installed correctly prior to installing snow guards.

3.2 INSTALLATION

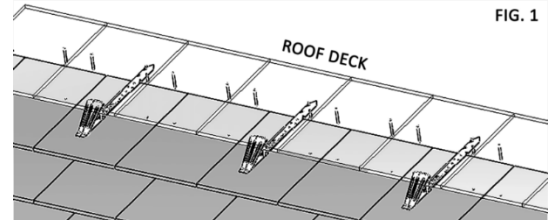
A. Comply with architectural drawings and snow guard manufacturer's recommendations for location of system. Comply with manufacturer's written installation instructions for installation and layout.

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07 72 53 Snow Guards

Fusion-Guard Snow Guard Installation Instructions

ROOF TYPES

- New / Existing Cedar Shingle
- New / Existing Composition (Asphalt) Shingle
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NEW ROOF INSTALLATION

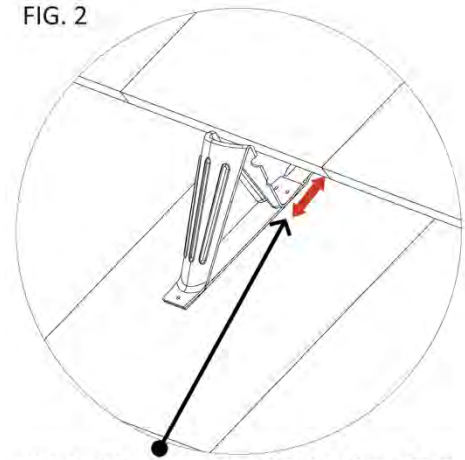
1. Install the first 2-3 rows of roofing material (3 rows for slate, tile or shingle. 2 rows for synthetic materials), and place the strap of the snow guard on the roof deck (*fig. 1*).
Note: When installing on 3-tab shingles, lay Fusion-Guard on top of shingle, centering on keyway between shingles.
2. Place snow guard low enough on shingle to leave a minimum gap of 5/8", or at least 3 times the thickness of the shingle, whichever is greater, from the shingle above (*fig. 2*).
3. Use a minimum of 2 fasteners of a material compatible with snow guard and roof system to attach snow guard.

EXISTING ROOF INSTALLATION (RETROFIT)

1. Slide snow guard up and between rows of roofing material, positioning strap so it is able to hook onto one of the fasteners on the roofing material above snow guard. Pull down into place so snow guard is well-seated.
2. It may be necessary to repeat step 1 until snow guard "hooks" properly. The top of the pad should be placed to leave a minimum gap of 5/8", or at least 3 times the thickness of the roofing material above, whichever is greater (*fig. 2*).

Note: Use appropriate retrofit hook to adequately space snow guard head 3 times the thickness of the roofing material. (*fig. 2*)

FIG. 2



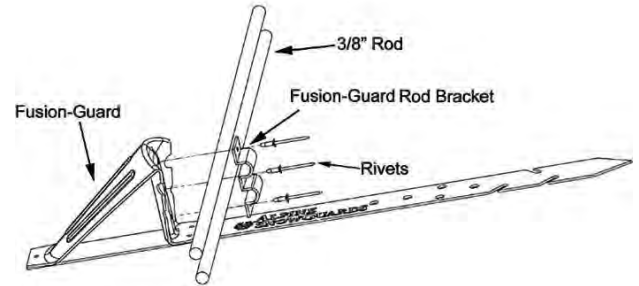
PROPER SNOW GUARD PLACEMENT

Ex. 0.5" shingle thickness X 3 = 1.5" spacing
Back of head is 1.5" from front edge of shingle

Fusion-Guard Snow Guard Installation Instructions

ROD INSTALLATION (OPTIONAL):

Refer to Assembly Sheet for Diagram



1. Fasten Fusion-Guard Rod Bracket to face of snow guard using the 3 rivets or #6-32 sheet metal screws.
2. Insert 3/8" rod (RD77).
3. On runs longer than 6', join rods with external couplings (RD87).

Note: Rod style snow guards must have a break in the assembly every 48' of eave length to allow for thermal expansion. Rods have a 6-inch maximum allowable overhang from end bracket.

4. End collars (RD65) should be placed over the end of each run of rod, on the inside of the outermost brackets. End collars should be installed 1/2" from bracket.
5. Optional ice flags (RD95) are available.

OPTIONAL ROD LAYOUT GUIDELINES	
Roof Pitch	Alpine SnowGuards' Guideline*
8/12	Rods installed at least on lowest row of pads
9/12	Rods installed at least on lowest 2 rows of pads
10/12	Rods installed at least on lowest 3 rows of pads
Over 10/12	Rods installed on all rows of pads

*Performance will vary with roof pitch, snow loads, density of snow, etc. Some areas may require more rods than others. The number of rows installed is at the discretion of the end user. If the above rod layouts do not meet your desired performance, additional rows of Fusion-Guard may be installed.

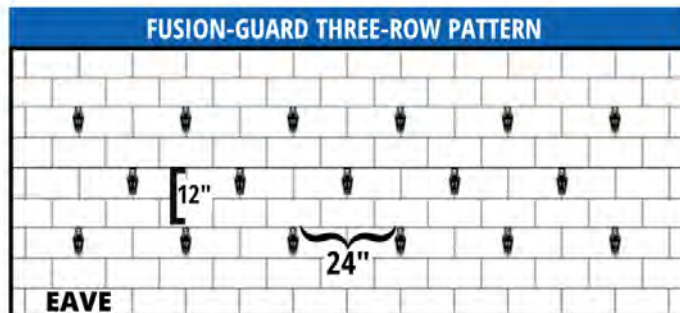
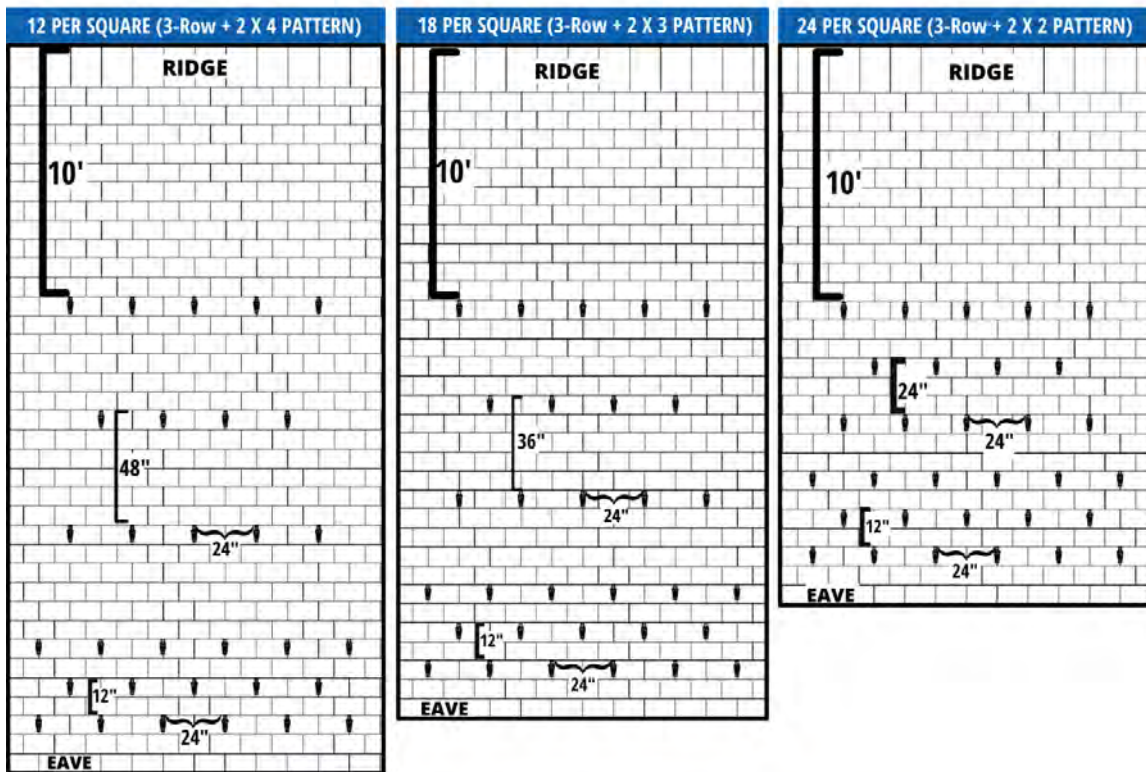
Fusion-Guard Snow Guard Installation Instructions

STANDARD SNOW GUARD LAYOUT OPTION

IMPORTANT: All layouts begin with a 3-row pattern. Estimated quantities provided include 3-row pattern. If you have any questions, please contact us at 888-766-4273.

Please use the guidelines below to determine the appropriate layout for your installation.

PAD LAYOUT GUIDELINES					
Layout	Rafter Length	Ground Snow Load (PSF)	Roof Pitch	Est. Snow Guard QTY.	Spacing
3-Row Pattern	15' or Less	75 psf or Less	16/12 or Less	17 per 10' of Eave	3 rows, 24" on center horizontally with middle row staggered 12". Rows vertically spaced every other course.
4 x 2 Pattern	Greater Than 15'	75 psf or Less	16/12 or Less	12 per roofing square	Space rows 2' horizontally and 4' vertically to within 10' of the ridge.
3 x 2 Pattern	Any	76 - 110 psf	16/12 or Less	18 per roofing square	Space rows 2' horizontally and 3' vertically to within 10' of the ridge.
2 x 2 Pattern	Any	111 - 150 psf	16/12 or Less	24 per roofing square	Space rows 2' horizontally and 2' vertically to within 10' of the ridge.



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Snow Guard Maintenance

Our snow guards must be inspected annually. Any defects or damage in materials and/or workmanship must be reported to Alpine SnowGuards immediately. Seller will not be responsible for snow guard systems that have not been properly maintained.

- Ensure snow guard brackets, accessories & components are intact, have not been displaced, and show no signs of damage or wear.
- Inspect fasteners into roof deck.
- Inspect snow guard-related waterproofing and replace or repair where necessary to ensure roof integrity.
- Snow accumulation on roofs and rooftop solar panels must be removed to avoid damage to the roof or panels, the building structure, and anything below. Heavy snowfalls, drifting, and the gradual accumulation of snow and ice can lead to less-than-ideal snow guard performance.
- Check each clamp set screw with a torque wrench to ensure proper fastening has been maintained (clamp-to-seam models).
- Inspect sealant, tape, and adhesive. Remove and replace as needed.

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