



## F-Rail<sup>®</sup> Snow Retention Systems

*For Standing Seam Metal Roofs*

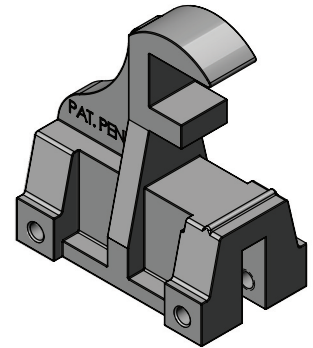
### Description:

The Berger F-Casting is a device designed to be used with tubing to create a Rail System for the prevention of damage caused by the sliding of snow and ice on standing seam metal roofs. The F-Casting is designed to accommodate a seam of up to ½" (0.516") thick two inches (2") high.

The tubing for the F-Rail is available in Stainless Steel, TBSS20 (1"x 1" x 20') and Painted Steel, TBCR24P (1"x 1" x 24').

**The technical information is for informational purposes only and is not intended to replace the manufacturer's recommendations for a particular project. We will provide layout layouts free of charge upon receipt of customer provided roof measurements. Manufacturer is not responsible for improper installation, or installation in insufficient quantities.**

**Every roof is not the same! Call today for a custom layout.**



### General Information:

Snow guards are devices that are attached to the roof structure in order to uniformly retain and hold snow in place on the roof area. The snow guards need to be applied in sufficient quantity according to a prescribed pattern in order to be effective. Snow Guards are intended to prevent snow movement and provide for the controlled melt and breakdown of the snow mass into smaller sections.

Snow guard placement will vary from region to region and will be influenced by roof pitch, the lengths of roof runs and roof features. Local installation customs may not be the best guide for placement. Additional information can be found in sheet metal and air conditioning contractors' national association (SMACNA) architectural sheet metal manual.

Berger Building Products, Inc. recommends that a qualified roofing contractor be employed to install these products. Roofing professionals have the proper equipment, knowledge and ability to complete the task in a safe and satisfactory manner. The applicator is responsible for compliance with regulations governing local building ordinances and safety regulations.

#### Safety Hazards

- Roofing can be hazardous! Serious injury or fatality can result from falls or electrocution from contacting overhead wires. Observe ladder safety rules for load, positioning and security.
- Please make sure all roof surfaces are dry and clean before working. Avoid working in excessive heat, high wind or when there is a threat of lightning. Never work alone.
- Do not allow material to be unsecured on the roof. Falling objects are dangerous.
- Prior to application, Berger Building Products, Inc. requires that the installer evaluate all products in order to determine fitness for use.

#### Do not use Competing/Dissimilar Metals with each other!

Galvanic corrosion will occur when dissimilar metals are in contact in the presence of an electrolyte. Water in the form of condensation, rain or snow is an electrolyte. Water that flows over copper becomes electronegative and will cause corrosion of aluminum or steel. Copper, brass or stainless steel fasteners or nails must be used with copper or brass applications. Make sure rivets are solid copper; do not use copper plated steel rivets in copper or brass assembly. Do not use aluminum or galvanized nails to secure any copper products. Corrosion will be more rapid in the presence of salts such as ocean coastal areas or chlorinated water, acid rain, and polluted industrial atmospheres. Accelerated corrosion will occur when a larger area of an electronegative (cathode/protected) element contacts a small electropositive (anodic/corroded) element.

#### Warranty/Disclaimer

Berger Building Products, Inc. (BBPI) warrants that the products it manufactures shall be free from material defects. Should any of the products prove defective, the obligation of BBPI under this warranty shall be limited to replacement of the defective product or at our option the cost of the product originally shipped by Berger. This warranty is expressly in lieu of all other warranties expressed or implied including the warranties of merchantability and fitness for a particular purpose. There are no warranties, which extend beyond the description on the face hereof. BBPI in no event, whether claim is based on warranties, contract negligence or otherwise, is liable for incidental or consequential damages.

Berger Building Products, Inc (BBPI) will not be responsible for misapplication or modification of product, incorrect material or defects that were obvious at time of installation. Any consequential damage, schedule delays, additional labor, and or equipment rental costs will not be BBPI responsibility. Any BBPI product warranty claim is limited solely to Berger Building Products, Inc.

Berger Building Products, Inc. (BBPI) reserves the right to change design and specification of our products without prior notification or alteration of literature. Materials may be revised to improve strength and corrosion properties and incorporated as a running change without obsolescence.

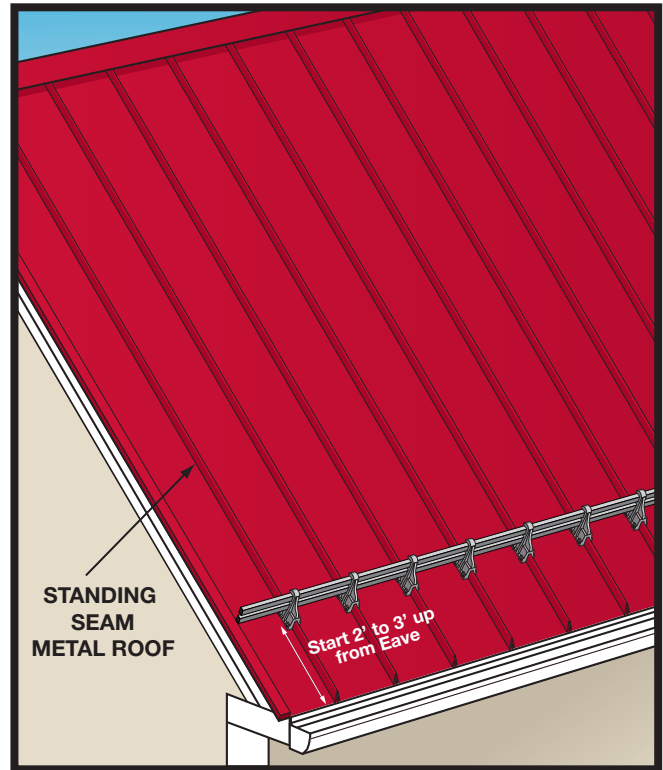
## F-Rail® Snow Retention Systems Installation Instructions for Metal Roofs:

Berger Rail Systems are the most customizable snow rails available. F-Castings can be placed up to 48" apart, depending on the location of the building and length of the panels. Call today for your free consultation.

*Every guard will not fit every roofing application. It is important to know the size and thickness of your standing seams prior to selecting a snow guard.*

### Installation:

1. Measure correct distance and snap a straight line to mark seam for casting position.
2. F-Castings are furnished with a factory-installed oval and dish tipped setscrew combination, which should be tightened in place with a 7/32" hex-bit socket.
3. Torque will vary depending on the type and gauge of the metal roofing; the recommended method for determining proper torque is to install one first, with the setscrews on the uphill side. After tightening the setscrews, loosen and remove the unit, and inspect the indentations created in the metal to see that proper spherical indentation was obtained. **Over tightening can cause damage to snow guard resulting in failure. Maximum torque 28 ft lbs.**
4. Start and end each run of rail with an F-Casting
5. After Castings are installed, fit the square tubing rails into the receiver pockets.
6. The rail in the lowest position of the standing seam, rail must be cut to the width of the metal roof panel seams. A dab of Surebond Everseal (SB-190), or high quality sealant may be used in the receiver pockets to ensure a snug fit. This is recommended when using painted tubing.
7. For the upper rails, install the full length of the rail into the receiver pockets and place a black plastic end cap into each side of rail.
8. The rails can be butted up against each other, but do not connect. Butt termination should be at the centerline of guard. Rails can overlap the casting up to halfway across the metal panels. E.g. if your panel is 18" wide, the tubing can run 9" past the castings.
9. After installing the upper rail, pre-drill a hole to accommodate a #8 x 0.50" self-tapping on each end of the top section of rail. This screw should be on the outside of the furthest castings on the rail tubing to help prevent the section of rail from sliding horizontally. Rule of thumb; place one wherever there is an end cap. Some contractors have used adhesive in the receiver pocket to achieve the same results. However, this may not be feasible during winter.



The illustration shown is typical for a rafter run of no more than 20 feet in an area with a ground snow load no more than 30 psf. If your project exceeds this criteria, contact Berger for a free consultation.

## F-Rail® Snow Retention Systems Installation - Layouts:

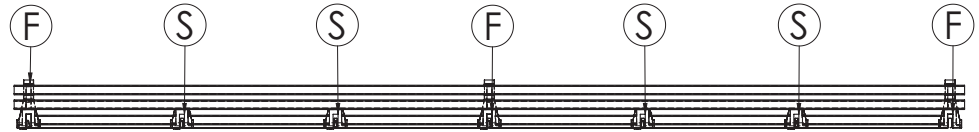
Berger S-Castings can be used with F-Rail to supplement the rails between the seams.

### Typical Spacing for 3 RAIL Configurations – 16" Panels

for a rafter run of no more than 20 feet. F-Castings can be placed up to 48" apart, depending on the location of the building and length of the panels.

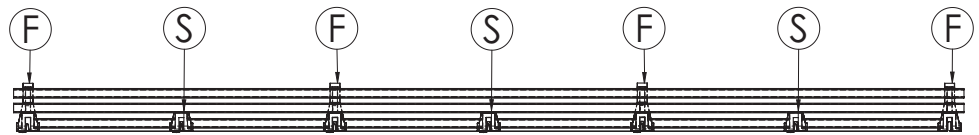
#### Areas of light snow:

3 rails - 2 rails above the seam and 1 rail between the seams



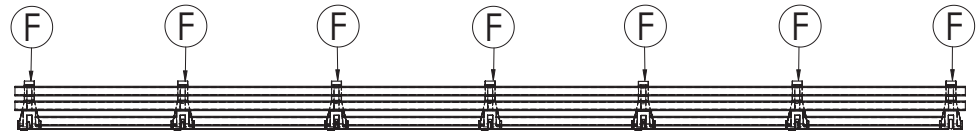
#### Areas of moderate snow:

3 rails - 2 rails above the seam and 1 rail between the seams



#### Areas of heavy snow:

3 rails - 2 rails above the seam and 1 rail between the seams

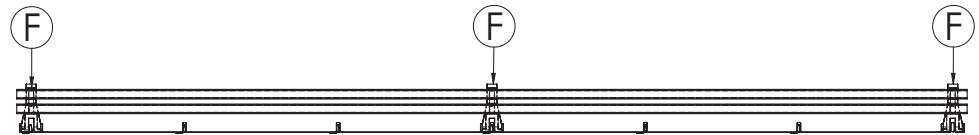


### Typical Spacing for 2 RAIL Configurations – 16" Panels

for a rafter run of no more than 20 feet. F-Castings can be placed up to 48" apart, depending on the location of the building and length of the panels.

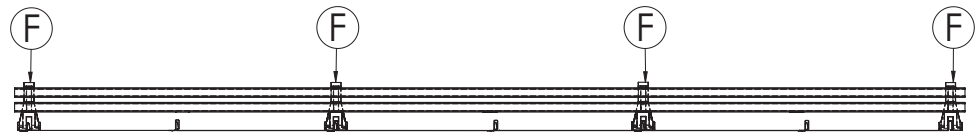
#### Areas of light snow:

2 rails above the seam



#### Areas of moderate snow:

2 rails above the seam



#### Areas of heavy snow:

2 rails above the seam

