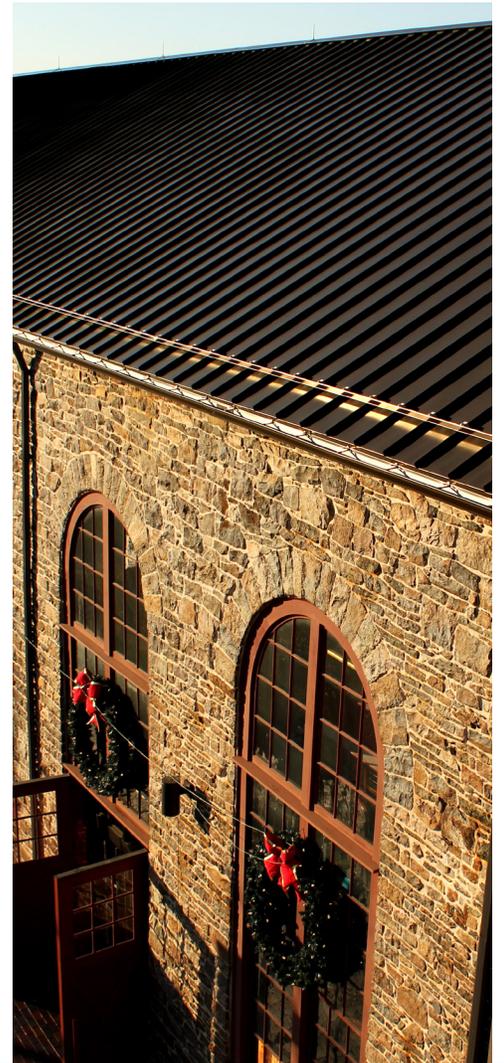


ATAS International, Inc.

Sustainable Building Envelope Technology



| SNOW RETENTION



When snow accumulations begin to melt, the result can be catastrophic as the blanket of snow avalanches off the roof, dumping tons of snow onto anything in its path. The patented S-5!® clamps make ColorGard® the strongest, easiest to install, and best priced solution for standing seam metal roofs.



S-5! Clamps



RSG505

For use with panel:

- Dutch Seam
- Colonial Seam



RSG500

For use with

90° & 180° seams:

- 1" - FLL
- 1½" - FLM
- 2" - FLR
- 2¾" - FLS



RSG507

For use with panel:

- Isoleren RL



RSG520

For use with seam heights:

- 2" - FLR
- 2¾" - FLS



RSG525

For use with seam heights:

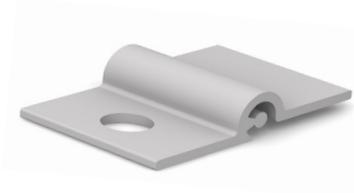
- 1" - FLL
- 1½" - FLM
- 1½" - MRD
- Colonial Seam

S-5! Unpunched Crossmember



RSG530

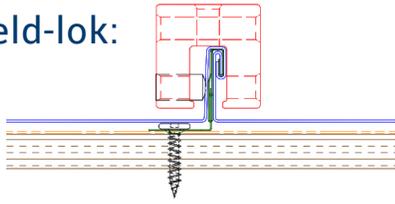
S-5! VersaClip™



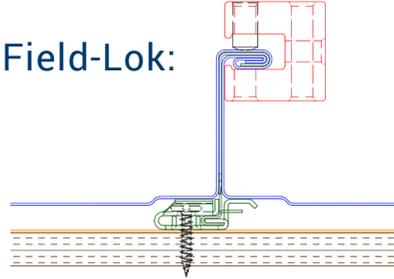
RSG510

CLOSE UP OF CLAMPS

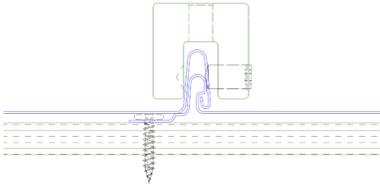
1", 1½", 2" Field-lok:



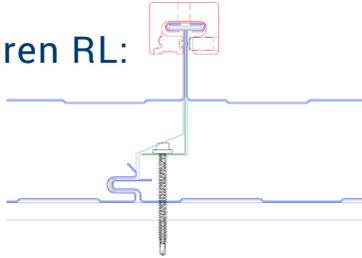
2¾" Field-Lok:



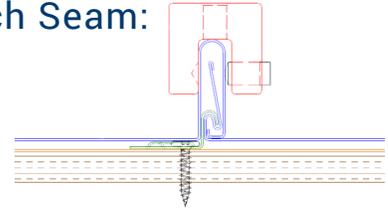
Colonial Seam:



Isoleren RL:



Dutch Seam:



OTHER VERTICAL SEAM ROOF SNOW RETENTION METHODS

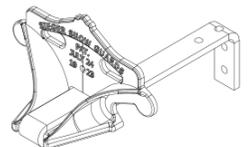
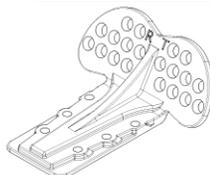
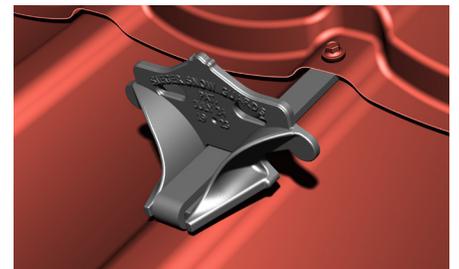
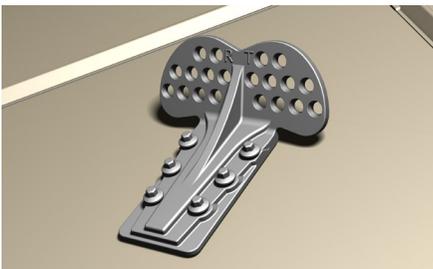
AP 400 Snow Guard



- Seam mounted with set screws
- Does not puncture seam when properly attached
- Can be mill finish or painted to match

MODULAR METAL ROOF PANEL SNOW RETENTION OPTIONS:

Snow retention systems can be used to reduce potential damage to surrounding elements including plants, property, pedestrians, roof top units, and flashing assemblies. They can also be used for water management to prevent ice dams at valley areas of the roof. ATAS' snow retention systems are easy to install and can be perfectly color matched to your roof.



CastleTop, Standing Seam, & Advanta Shingle Snow Retention

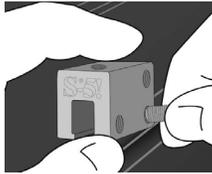
RSG100

ScanRoof Snow Retention

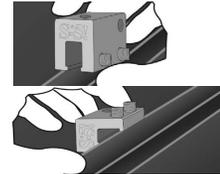
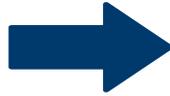
RSG151

Installation Guide: S-5-U Clamp System & ColorGuard

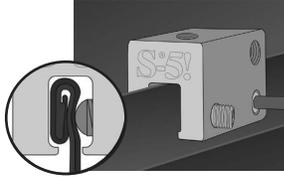
1



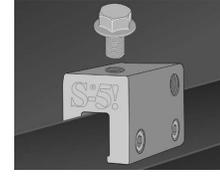
Partially thread the set screws into the clamp by hand. (The S-5-U has four set screw locations to make the clamp more versatile; however, only two set screws are used per clamp. Both set screws should always be loaded into the same side of the clamp.)



Determine how to position the clamp. When attaching to machine-folded seams (regardless of panel profile and geometry), S-5! clamps are designed to engage the seam with set screw opposite seam fold. On many snap-together type seams, the set screws are on the open side of the seam. On some seams, this aspect of clamp orientation is not crucial.

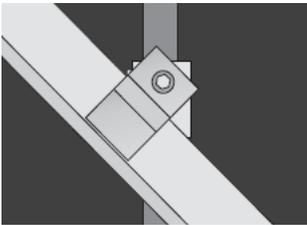


Tighten the set screws using a screw gun and the included screw gun bit tip. Set screws should be tensioned and re-tensioned as the seam material compresses. The set screws will dimple the seam material but will not penetrate it. When relying on published load values, set screw tension should be verified periodically using a calibrated torque wrench as indicated below to ensure the tool is consistently achieving the proper torque range.



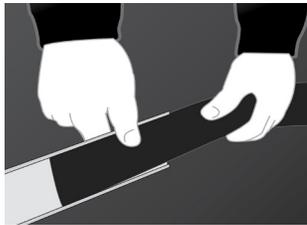
For critical attachment applications utilizing an M8-1.25 x 16 mm Hex Flange Bolt, tighten the included M8 bolt to 160 inch pounds (13 foot pounds).

2

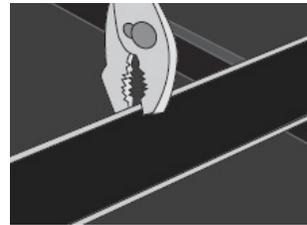


When seam spacing is not divisible by 4", when panels are not laid up true-to-dimension, or when ColorGuard is installed askew to the panel seams, the VersaClip facilitates installation. The VersaClips are inserted into the ColorGuard prior to placement of ColorGuard on the clamps. Align clips with S-5! clamp. VersaClip can be used with punched or unpunched ColorGuard.

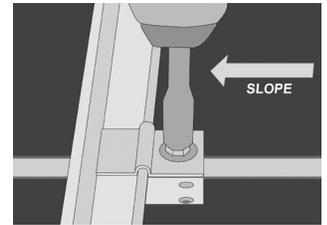
3



To maintain color conformity over time, ColorStrips should be sheared from the same prefinished metal as the roof panels. Shear strips to exactly 2" wide (8' or 10' long). Slide the ColorStrip into the ColorGuard cross-member as shown. Joints in the ColorGuard should be concealed by offsetting the joints of the ColorStrip from the joints of the ColorGuard. The joints of the ColorStrips can be overlapped about 1/2" if desired. Each ColorStrip should be secured to the ColorGuard somewhere along its length. This is done by pinching the retainer lip of the ColorGuard with an ordinary pair of pliers.



4

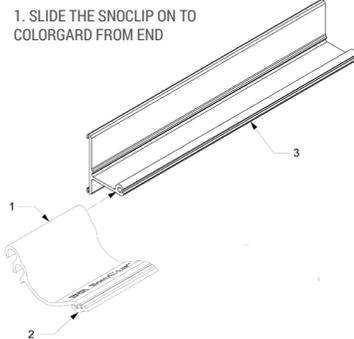


Attach ColorGuard to clamps with the stainless bolts provided. Bolts can be tightened with a 1/2" (13mm) box-end wrench, or ratchet. On larger jobs, a 1/2" drive electric impact will expedite this work. Tension bolts to a minimum of 13 ft-lbs (18 Nm). Trim ColorGuard at the end of the assembly, being sure it does not cantilever more than 4" beyond the last clamp of an assembly. Any trimmed piece of ColorGuard must be attached with at least two clamps.

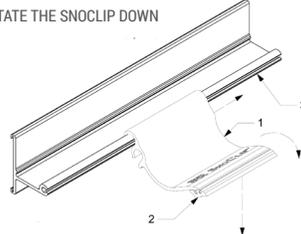
5

Installation Guide for S-5! SnoClip RSG525

1. SLIDE THE SNOCLIP ON TO COLORGUARD FROM END



2. ROTATE THE SNOCLIP DOWN



3. THE "TOE" OF A PROPERLY INSTALLED SNOCLIP WILL ENGAGE THE PANEL BEFORE THE "HEEL" DOES

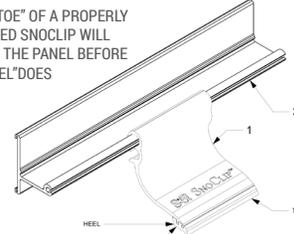
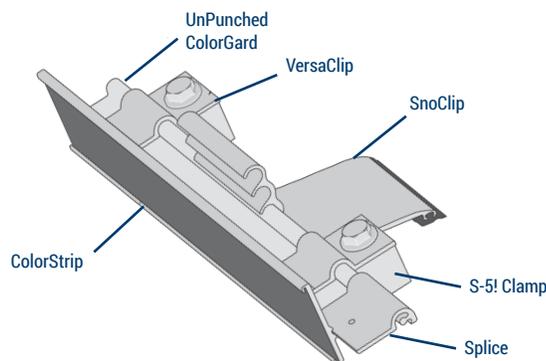


Illustration of Complete Vertical Seam Roof Snow Retention System



Recommended Torque Pressure

Specified Torque	Inch Pounds	Foot Pounds	Nm
22 ga Steel	160-180	13-15	18-20
All other metals and thinner gauges of steel	130-150	11-12.5	15-17

