

OVERVIEW & FEATURES

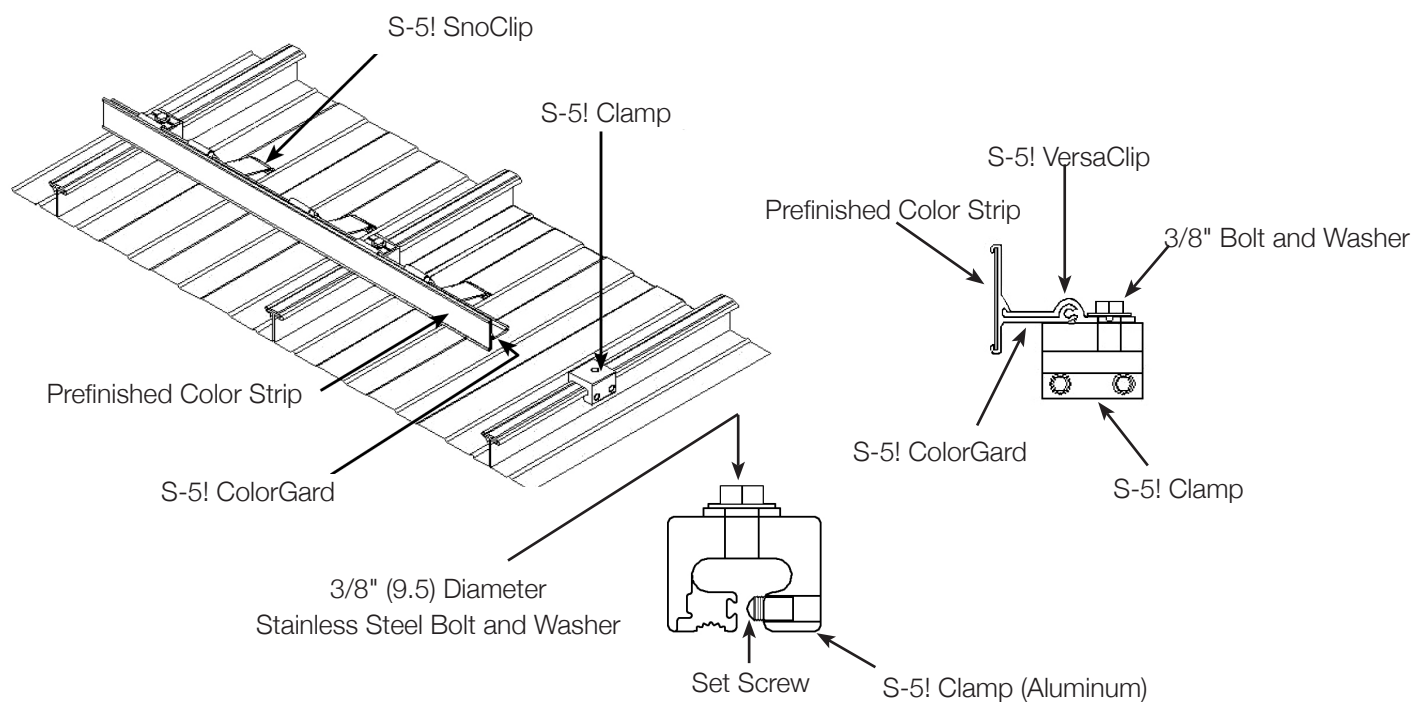
From the manufacturer of S-5!, Garland offers a high performance snow retention system which is compatible with our R-Mer® Shield, R-Mer® Span and R-Mer® Loc metal panel systems. Not only is the S-5! Snow Retention System designed to meet the severe requirements of the harshest of snow loading, but it also reduces the aesthetic impact of other snow retention devices.

S-5! Clamps - The clamp technology involves gripping the seam in such a way that there are no penetrations to the standing seam panels.

S-5! ColorGard™ - The ColorGard not only acts as the actual fence that holds the force of rooftop snow, but it also holds a color-matched strip of material that allows the S-5! system the ability to blend with the roof.

S-5! SnoClips™ - SnoClips provide snow and ice retention in the area of the panel system between the standing seams.

S-5! VersaClips™ - The VersaClip joins the S-5! Clamps to the S-5! ColorGard snow retention fence. All Garland seam profiles use the VersaClip.



No Adhesives - The S-5! system doesn't rely on temperature sensitive adhesives. Typical paint finishes are slippery by their chemistry which makes adhesion particularly difficult.

No Fasteners - The S-5! system does not rely on fasteners penetrating the panel surface which can increase the possibility of system leakage.

Ease of Installation - Because there is no waiting for adhesives to cure or panel penetrations to worry about, the S-5! installation is easy to perform. The system is designed to snap together with the simplest of tool requirements.

Reduced Aesthetic Impact - The S-5! ColorGard rail is designed to receive a strip of material that will actually match the exact color of the roof. The paint system of the metal strip will be the exact paint system of the roof.

Engineered Design - Garland will design the proper usage of the S-5! system based upon the specifics of a particular roof. Garland has tested the exact load performance of our panel systems with the S-5! clamps. Snow loads can be calculated utilizing the American Society of Civil Engineers (ASCE-7) method. Quantity, placement and general use of snow retention is a recommendation. Snow loads and use of snow retention should be confirmed by the project specifier.

INSTALLATION INSTRUCTIONS

Use a stringline across the top of the panel seams at the desired location to establish a true line for installation of the S-5! clamps. When installing clamps on roof panels, the clip locations must be avoided. The bolt hole in the clamp should be at the upslope end of the clamp. Position the clamps appropriately on the panel seam, using the stringline as a guide. Using an Allen-wrench attachment tip for a 1/4" screw gun, tighten and retighten set screws as the seam material compresses.

Note: Tighten set screws to a torque between 115 for aluminum and 24 gauge steel, and 180 for 22 gauge steel inch pounds (13-17 Nm) with an industrial grade screw gun. Screw tension should be periodically verified as tested using a torque indicating wrench. Battery operated guns may not deliver consistent screw tension. Drywall guns may not deliver adequate tension.

1. The VersaClips are inserted into the ColorGard prior to placement of ColorGard on the clamps. Align clips with S-5! clamp.
2. Attach VersaClip to clamps with stainless bolts and washers provided. Bolts can be tightened with a 9/16" box-end wrench, or ratchet. On larger jobs a 1/2" drive electric impact will expedite this work. Tension bolts to 42 ft. lbs. (57 Nm).
3. Add splice pieces at each ColorGard joint. The "dimple" in the splice piece will automatically provide a 1/8" space between adjoining sections to allow for linear thermal expansion of the ColorGard.
4. Slide the color strip into the ColorGard crossmember. Joints in the ColorGard can be concealed, if desired by offsetting the joints of the color strip from the joints of the ColorGard. The joints of the color strips should be overlapped about 1/2 inch. Each color strip should be anchored to the ColorGard somewhere along its length. This is done by pinching the retainer lip of the ColorGard with an ordinary pair of pliers. It can be done at one end of the ColorGard section, or anywhere along its length. The ColorGard should not exceed 6" past the end of an assembly.
5. If it is necessary to field cut ColorGard, such as at the end of an assembly, it can be done with a hack saw, or electric reciprocating saw with a fine-tooth metal cutting blade. A power mitre saw with a fine-tooth carbide tip blade also works well. Clamp the ColorGard into place on the saw table, and feed the blade into the material slowly.
6. SnoClips are added to the assembly using a mallet, pliers, or Channel-Locks. Clips are used between seams depending upon seam spacing and system design. SnoClips have three locks available for use depending upon seam height. Mount the SnoClip to the back of the ColorGard using the lock that results with the rubber "foot" resting properly on the panel surface. When applying downward pressure on the part, the "toe" should engage the surface of the panel just before the "heel".

For more information, visit us at: www.garlandco.com

The Garland Company, Inc.

3800 East 91st Street
Cleveland, OH 44105
FAX: 216-641-0633
Phone: 216-641-7500
Toll Free: 800-321-9336

Garland Canada Inc.

209 Carrier Drive
Toronto, Ontario
Canada, M9W 5Y8
FAX: 416-747-1980
Phone: 416-747-7995
Toll Free: 800-387-5991
(Only in Canada)

Tests verified by independent laboratories. Actual roof performance specifications will vary depending on test speed and temperature. Data reflects samples randomly collected. A $\pm 10\%$ variation may be experienced. The above data supersedes all previously published information. Consult your local Garland Representative or Garland Corporate Office for more information.

S-5!™, ColorGard™, SnoClip™, and VersaClip™ are trademarks of Metal Roof Innovations, Ltd.
R-Mer is a trademark of The Garland Company, Inc.