

# INSTALLATION OF S-5! SNO RAIL™ / SNO FENCE™ SNOW RETENTION SYSTEMS

**NOTICE TO S-5 USERS:** Specific layout and assembly schematics for S-5! products are the responsibility of the user or project designer. Due to the many variables involved with specific panel products, climates, snow melt phenomena and job particulars, THE MANUFACTURER CANNOT AND DOES NOT EXPRESS ANY OPINIONS AS TO THE SUITABILITY OF ANY S-5! ASSEMBLY FOR ANY SPECIFIC APPLICATION AND ASSUMES NO LIABILITY WITH RESPECT THERETO. S-5! clamps are tested for ultimate holding strength on various seam types and materials. This information is available from S-5! distributors as well as from the S-5! website: [www.S-5solutions.com](http://www.S-5solutions.com). This document is an installation guide only and the graphics herein are for the purpose of illustrating installation tools and techniques, not system designs.

The systems depicted in this document are brass, however the procedures are the same for Aluminum/Stainless Steel. **Clamp spacings for SNO RAIL/SNO FENCE should never exceed 24"**.

## 1. BEFORE YOU START



First, use a string line across the top of the panel seams at the desired location to establish a true line for installation of the S-5! clamps. Individually measuring each clamp location from the eave is not recommended.

When installing clamps on roof panels which utilize a two-piece panel attachment clip, or on double folded standing seam profiles which use a "fixed clip" the clamp may be installed at a clip location if desired. In the case of other system profiles utilizing a one-piece clip, the clip locations should be avoided.

Note: These instructions show "SNO FENCE" (double rod system). If your system is "SNO RAIL", then the SNOPOST and the second (upper) rod components will not be used. Other procedures are the same.



## 2. PREPARING THE ASSEMBLY

Assemble all set screws to all clamps, and if the system is SNO FENCE, thread all SNOPOSTS into clamps. Tighten the SNOPOST all the way into the clamp, being sure that the rod hole in the SNOPOST is parallel with the rod hole in the clamp.



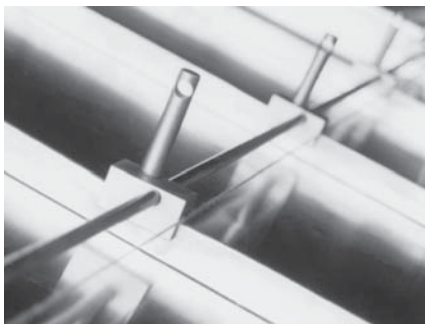
Thread an appropriate number of clamp assemblies onto the SNO ROD, taking care that the orientation of all clamps on the rod is the same. For vertical seam types, determine which side of the seam should be engaged by the set screw. (On folded seam profiles the set screw should engage the folding contours rather than the smooth side of the seam.) On horizontal seam profiles, the clamps will be rotated so that the set screws are accessible from the topside of the seam for tightening.



The "E" units (both clamp and SNOPOST) are used at the rate of one per 48' of assembly, and at the ends of each assembly to "fix" the SNO ROD, preventing its lateral movement. Assemble the appropriate number of "E" assemblies including clamp and post, if applicable. Be sure that the "E" units are used on the first and last rods and at the required intervals of 48'. Other than the small set screw holes provided in "E" units, they are identical to the standard components.

## 3. INSTALLING THE ASSEMBLY

Position the clamp assembly appropriately on the panel seams, using the string line as a guide and loose-fit all clamps to panel seams. Do not tighten set screws onto seams, at this time, but hand tighten if necessary just enough to hold the assembly on the roof.

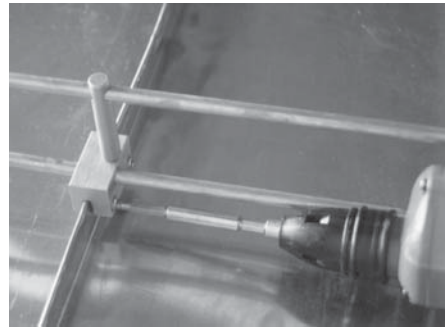


Insert the second SNO ROD through the SNOPOSTS and adjust it laterally to the desired location.

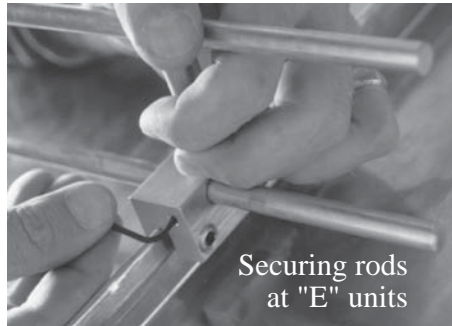


#### 4. TIGHTEN ALL SET SCREWS

After the second (upper) rod has been fitted through the SNOPOSTS, the clamps screws can be tightened. Using an Allen-wrench attachment tip for a 1/4" drive screwgun, tighten and retighten set screws as the seam material compresses. (These screwgun tips are available from your S-5! product distributor.) On low seam profiles, a 4" bit extension on the screwgun will facilitate this work. (photo at right)



**CAUTION:** Holding strength of S-5! clamps is highly dependent upon set screw tension. Consult your distributor or the S-5! website for screw tension when relying on tested holding strength. Most industrial grade screwguns are rated at 115 inch pounds tightening torque and will deliver between 115 and 150 in lbs (13-17 Nm) at the highest torque setting. These tensions will not harm most panel seam profiles and materials. For critical installations screw tension should be periodically verified as tested using a torque indicating wrench.



Securing rods at "E" units

#### 5. SECURE RODS AT "E" UNITS

Thread the 8-32 set screws into the appropriate holes in all "E" units. Tighten this screw with the Allen wrench provided (at left).

#### 6. REPEAT PROCEDURE

Repeat steps 2 through 5 using the rod couplings furnished at all rod intersections. If a rod intersection occurs at a clamp location, field cut the rod so that the clamp location is avoided. Rods should not cantilever past the last clamp at the end of an assembly by more than 4". Rods can be cut with an ordinary hack saw, or a reciprocating saw with a metal cutting blade. Deburring the cut end with a metal file may facilitate installation.

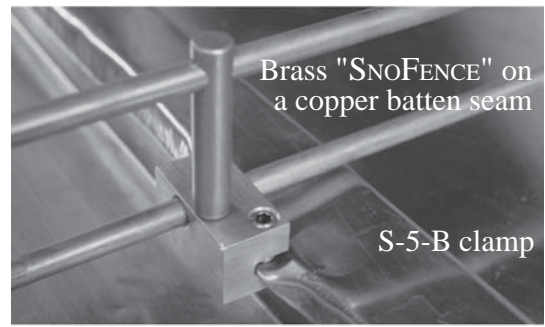


Finishing batten seam at a clamp location

#### TRADITIONAL BATTEN SEAM ROOFING

For traditional batten seam roofing of copper, terne, stainless or zinc, determine the location of the clamps on the seam before closing the seams. At clamp locations use a hand seamer to hold the seam open to a single fold as shown (left). If desired, following clamp installation, the seam can be dressed to the clamp.

If the system is being retrofitted to an existing roof of this type, use a de-seaming tool (at right) to open the seam to a horizontal, single fold at clamp locations.

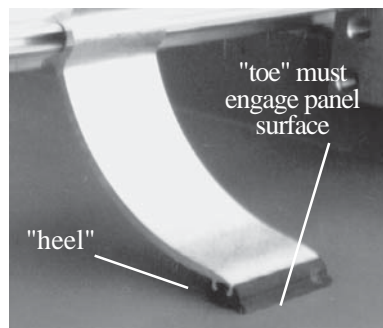


Brass "SNOFENCE" on a copper batten seam

S-5-B clamp

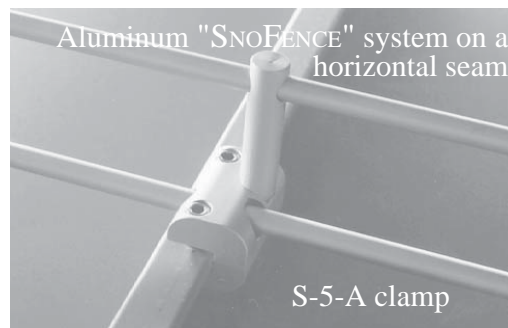
#### USING SNOCLIP™

SNOCLIPS can be added to the assembly using a mallet, pliers, or Channel-Locks. One, two or three clips are used between seams depending upon seam spacing and system design. SNOCLIP has three locks available for use depending upon seam height. Mount the SNOCLIP to the lower rod 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". Note: This part is not used for the brass system.



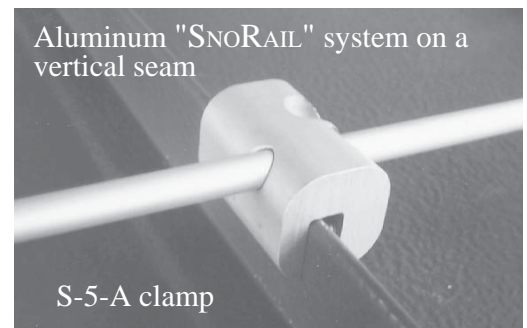
"toe" must engage panel surface

"heel"



Aluminum "SNOFENCE" system on a horizontal seam

S-5-A clamp



Aluminum "SNORAIL" system on a vertical seam

S-5-A clamp

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