

The right way to attach almost anything to metal roofs!

## Installation Instructions

**S-5!® Warning!** Please use these products responsibly! Visit our website or contact your S-5! distributor for available load test results. The user and/or installer of these parts is responsible for all necessary engineering and design to ensure S-5! clamps have been properly spaced and configured.

**Notice to S-5! product users:** 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! products are tested for ultimate holding strength on various profile types and materials. This information is available from the S-5! website: **www.S-5.com.** This document is an installation guide only and the photographs and drawings herein are for the purpose of illustrating installation tools and techniques, not system designs.

The S-5-T, S-5-Z, S-5-Q, and S-5-H clamps fit "T" and "bulb" shaped seams. Please see individual clamp product sheets for profile details.

## **Tools Needed**

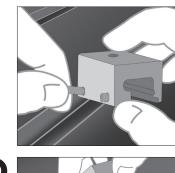
- Screw Gun
- 3/16" Allen Bit Tip (Provided)
- Dial-Calibrated Torque Wrench\*
- (\*For accurate tension values, do NOT use a clicking torque wrench.)

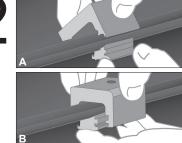
# To Install the S-5-T, S-5-Z, S-5-Q, and S-5-H

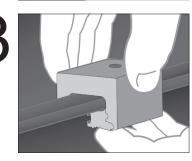
- 1. Partially thread the round-point setscrews into the clamp by hand.
- **2.** Position clamp at desired location along seam with the bolt hole in the correct (upslope or downslope) orientation.
- **3.** For S-5-T, S-5-Z, and S-5-Q (illustrated in image 2A): Install by holding the small insert piece under the edge of the seam, then roll the clamp into position over the seam and the clamp's insert piece.

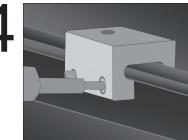
For S-5-H (illustrated in image 2B): Install by positioning clamp at desired location on seam. Slide insert into place.

- 4. Tighten the setscrews at the base of the clamp using a screw gun and the included screw gun bit tip. Standard clamps requiring two setscrews should be tensioned and re-tensioned as the seam material compresses, i.e. tighten the first setscrew, then the second; then repeat until each setscrew achieves the recommended torque. For optimal holding strength, setscrews should be tensioned to 160 to 180 inch pounds on 22ga steel, and 130 to 150 inch pounds on all other metals and thinner gauges of steel. Once installed properly, these clamps require zero maintenance or inspection for the life of the roof.
- **5.** For heavy-duty attachment applications utilizing an M10-1.5 X 16 mm bolt, tighten the included M10 bolt to 20 foot pounds. For heavy-duty attachment applications utilizing an M8-1.25 X 16 mm bolt, tighten the included M8 bolt to 13 foot pounds.











Above illustrations show S-5-T clamp, along with S-5-H clamp on step 2.



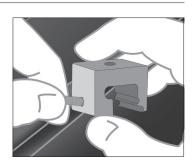
S-5-T, S-5-Z, S-5-Q, and S-5-H Install

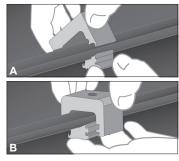
### To Install the S-5-T Mini, S-5-Z Mini, S-5-Q Mini, and S-5-H Mini

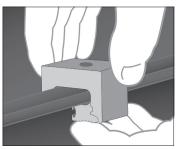
- 1. Partially thread the round-point setscrew into the clamp by hand.
- 2. Position clamp at desired location along seam.
- 3. For S-5-T Mini, S-5-Z Mini, and S-5-Q Mini (illustrated in A): Install by holding the small insert piece under the edge of the seam, then roll the clamp into position over the seam and the clamp's insert piece.

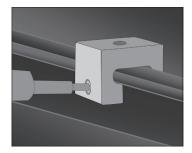
For S-5-H Mini (illustrated in B): Install by positioning clamp at desired location on seam. Slide insert into place.

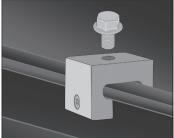
- 4. Tighten the setscrew at the base of the clamp using a screw gun and the included screw gun bit tip. For optimal holding strength, setscrew should be tensioned to 160 to 180 inch pounds on 22ga steel, and 130 to 150 inch pounds on all other metals and thinner gauges of steel. Once installed properly, these clamps require zero maintenance or inspection for the life of the roof.
- 5. For medium-duty attachment applications utilizing an M8-1.25 X 16 mm bolt, tighten the included M8 bolt to 13 foot pounds.













Above illustrations show S-5-T Mini clamp, along with S-5-H Mini clamp on step 2.



F: 903-759-3598 W: www.lmcurbs.com

#### S-5!® Warning! Please use this product responsibly!

Products are protected by multiple U.S. and foreign patents. Visit the website at www.S-5.com for complete information on patents and trademarks. For maximum holding strength, setscrews should be tensioned and re-tensioned as the seam material compresses, i.e. tighten the first setscrew, then the second; then repeat until each setscrew achieves the recommended torque. Clamp setscrew tension should be verified using a calibrated torque wrench between 160 and 180 inch pounds when used on 22ga steel, and between 130 and 150 inch pounds for all other metals and thinner gauges of steel. Consult the S-5! website at www.S-5.com for published data regarding holding strength.

Copyright 2014, Metal Roof Innovations, Ltd. S-5! products are patent protected. S-5! aggressively protects its patents, trademarks, and copyrights. Version 091214.