

# S-5!<sup>®</sup>

The Right Way!

The right way to attach almost anything to metal roofs!

S-5-H90 & Mini Install

888-825-3432 | www.S-5.com

## Installation Instructions

**S-5!<sup>®</sup> 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 the S-5-H90 has been properly spaced and configured.

**Notice to S-5! 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. Visit [www.S-5.com](http://www.S-5.com) for more details. 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. Information contained within is intended to apply to the document as a whole.

**The S-5-H90 & H90 Mini are designed and made specifically for standing seam profiles with a horizontal fold equal to or greater than 0.65".** For these applications, the setscrew(s) must be accessible from the top for tightening; for other horizontal seam clamp options visit [www.S-5.com](http://www.S-5.com).

## 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; inquire with S-5! for proper tool sourcing)

## To Install the S-5-H90

1. Partially thread the setscrews into the clamp by hand.
2. Turn the clamp so that the bolt hole side is facing up; slip the clamp onto the horizontal portion of the seam.
3. Tighten the setscrews using a screw gun\* and the included screw gun bit tip. 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. The setscrews will dimple the seam material but will not penetrate it. When relying on published load values, setscrew tension should be verified periodically using a calibrated torque wrench as indicated below to ensure the tool is consistently achieving the proper torque range.

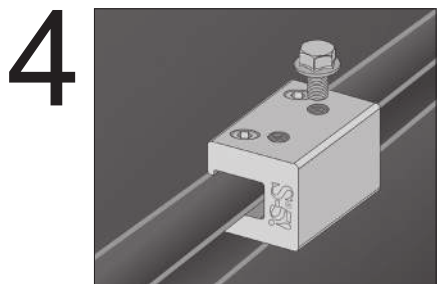
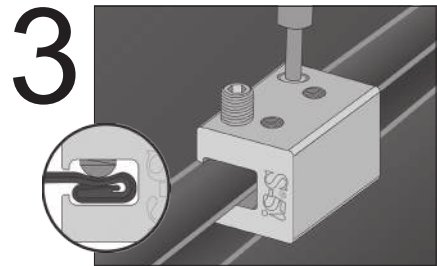
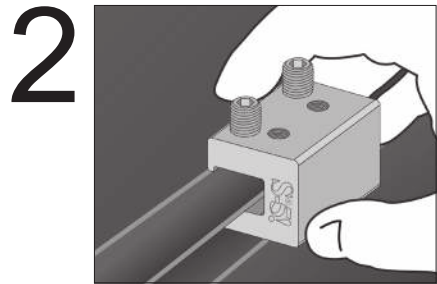
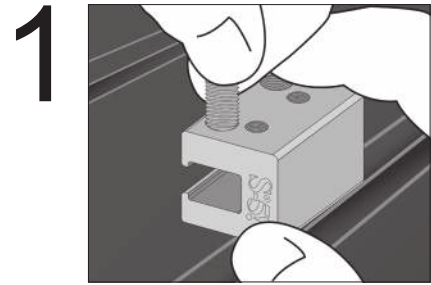
**\*For time-saving tool recommendations, call S-5!**

Specified Torque	Inch Pounds	Foot Pounds	Nm
<b>22ga steel</b>	160-180	13-15	18-20
<b>24ga steel and all other metals</b>	130-150	11-12.5	15-17

Once installed correctly, these clamps require no maintenance or re-inspection for the life of the roof.

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

These instructions are for use by those experienced in the trade. Always follow appropriate safety precautions and use appropriate tools.



## To Install the S-5-H90 Mini

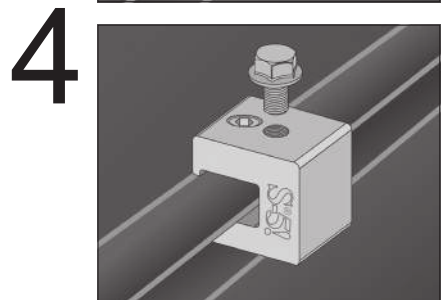
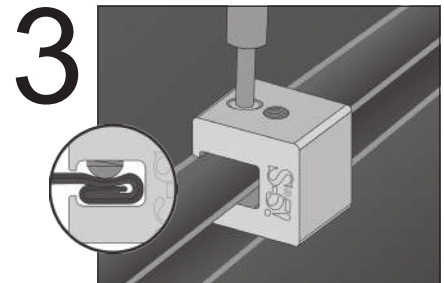
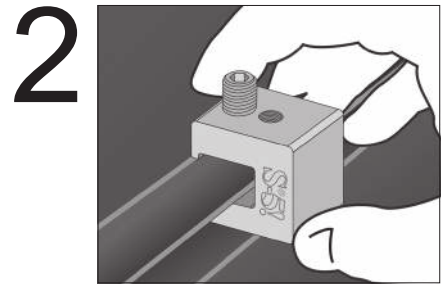
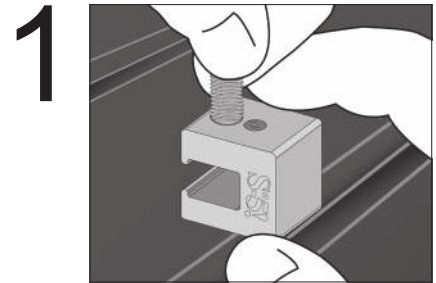
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### S-5!® Warning! Please use this product responsibly!

Products are protected by multiple U.S. and foreign patents. Visit the website at [www.S-5.com](http://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](http://www.S-5.com) for published data regarding holding strength.

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