

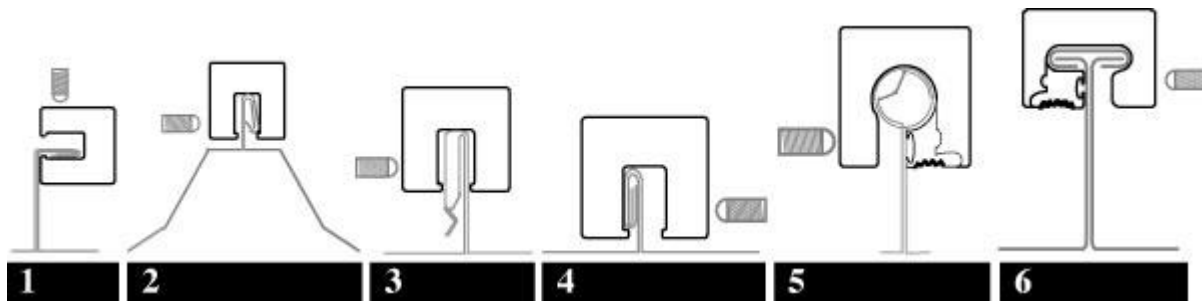
UNISTRUT®

SERVICE COMPANY

S-5! Clamp Installation

We often get questions about how to install common [S-5! clamps](#) on to seam profiles of metal roofs. Whether you're using the Universal [S-5-U](#), the versatile [S-5-V](#) or any other of these durable clamps, installation is quick and easy.

Determine how to position the clamp and which side of the clamp to load the setscrews into. When attaching to machine-folded seams (regardless of panel profile and geometry), S-5! clamps are designed to engage the seam as shown (4). For horizontal seam applications, the setscrews must be accessible from the top for tightening (1). On many snap-together type seams, the setscrews are opposite the open (or overlap) side of the seam (2). On some seams, this aspect of clamp orientation is not critical (3,5).



Assemble both setscrews into the same side of the clamp.

Some S-5! clamps have up to four setscrew locations to make the clamp more versatile. **Only two setscrews are used per clamp.**

Take care that:

- the bolt hole is in the desired (upslope or downslope) orientation.
- the setscrews are on the correct side of the seam.

Position the clamps appropriately on the panel seam. **Both setscrews should be on the same side of the clamp.**

When installing clamps on roof panels which utilize a two-piece panel attachment clip, the clamp may be installed at a clip location if desired. When the panel system utilizes a one-piece clip, installing at clip locations should be avoided.

NOTE: Some horizontal seams may require additional hand crimping at the clamp location.

Torque IT



When relying upon published load values, setscrew tension should be periodically verified using a calibrated torque wrench between 160 and 180 inch-pounds (not foot pounds) (18-20 Nm) when used on 22 gauge steel or between 130 and 150 inch-pounds (15-17 Nm) on 24 gauge steel.

Using a 3/16" Allen wrench attachment tip (provided with the clamps) (on a 1/4" drive screwgun), tighten and retighten setscrews as the seam material compresses.

Load testing of S-5! clamps is done with setscrews tensioned at 115 inch-pounds (24 gauge steel and all other metals) or 150 inch-pounds (22 gauge steel profiles). When relying upon published load values, for maximum holding strength, setscrews should be tensioned and re-tensioned as the seam material compresses. Screw tension should be verified using a calibrated torque wrench between 160 and 180 inch-pounds when used on 22 gauge steel and between 130 and 150 inch-pounds for all other metals and thinner gauges of steel.

On shorter seam profiles, a 4" bit extension on the screwgun will facilitate this work.

Caution: Battery-operated guns may not deliver consistent screw tension. Drywall guns may not deliver adequate tension.

Bolt Tensions* for standard and mini clamps: M10 = 20 foot-pounds, M8 = 13 foot-pounds
*Not VersaBracket™, ProteaBracket™.

If you have any further questions about installing [S-5! Clamps](#), [contact Unistrut Service Company](#) for further assistance.