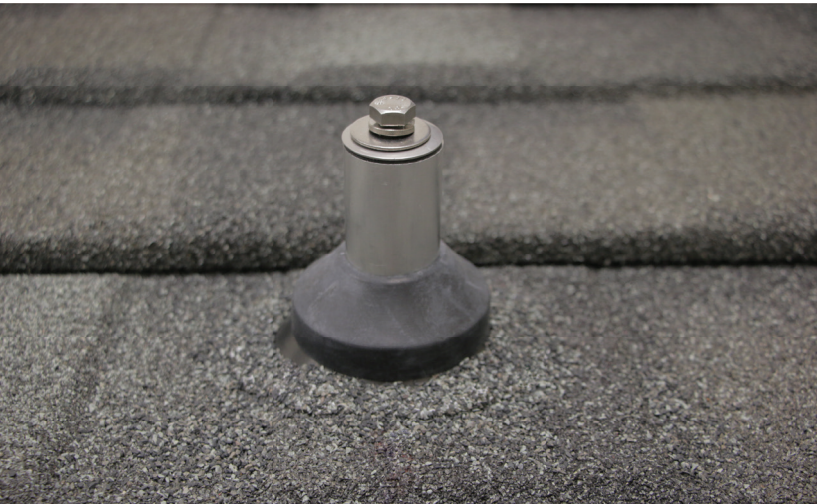
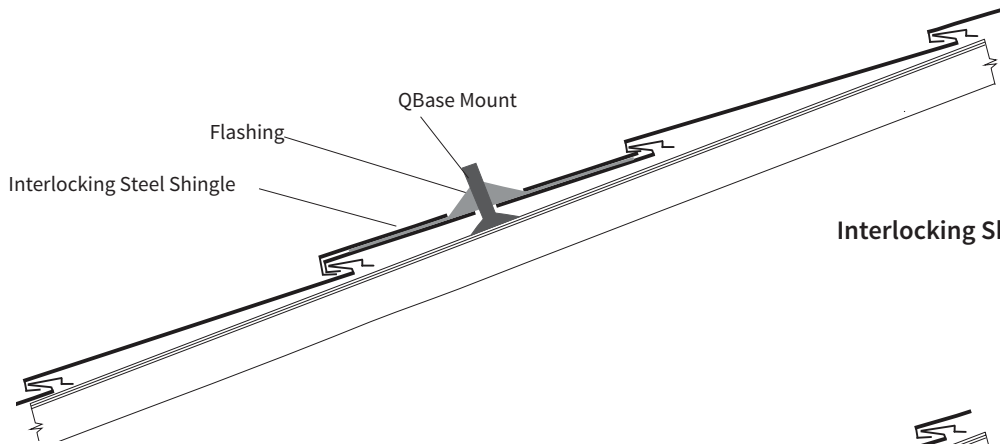


Installing Quick Mount PV Products on
Metal Shingle Roofs

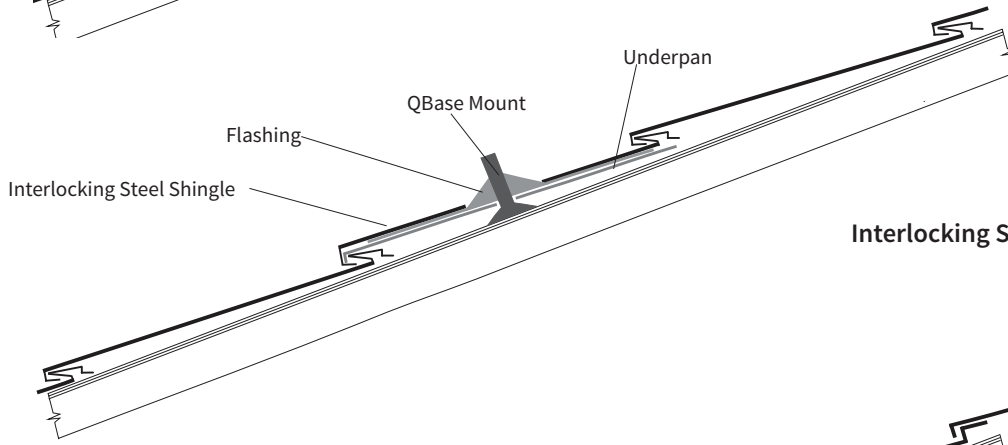


Getting Started

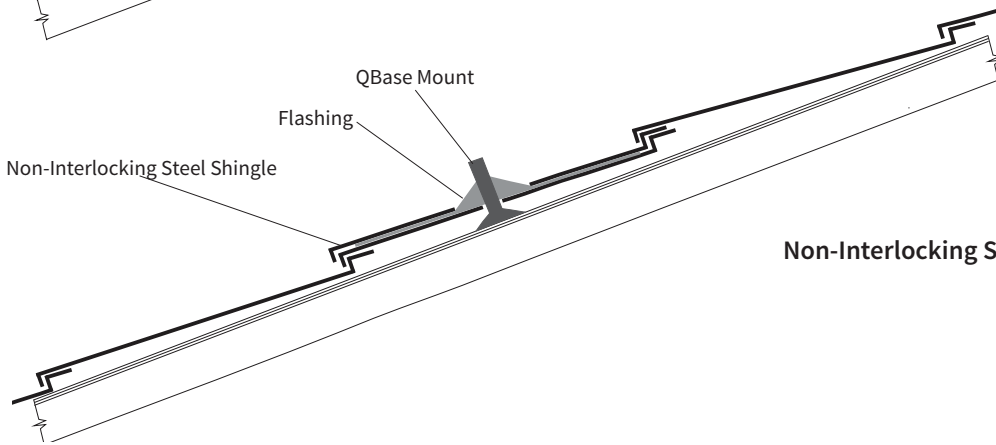
Steel Shingle Roofing Flashing Method and Product Type Terminology



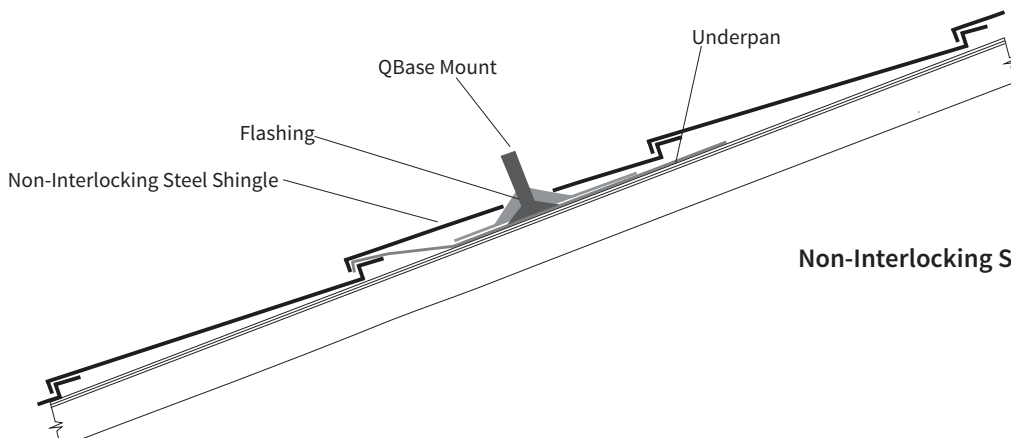
Interlocking Shingles with Sandwich Flashing Method



Interlocking Shingles with Underpan Flashing Method



Non-Interlocking Shingles with Sandwich Flashing Method



Non-Interlocking Shingles with Underpan Flashing Method

Selecting the Proper Quick Mount PV Product & Post Height

Selecting the proper mount to use with a particular shingle type is straightforward.

Shingle Type	Flashing Method	Suggested Product
Interlocking Metal Shingle	Sandwich Flashing	QMNS: QBase® Metal, Shake, & Slate Mount
Interlocking Metal Shingle	Underpan Flashing	QMNC: QBase® Comp Mount
Non-Interlocking Metal Shingle	Sandwich Flashing	QMNS: QBase® Metal, Shake, & Slate Mount
Non-Interlocking Metal Shingle	Underpan Flashing	QMNS: QBase® Metal, Shake, & Slate Mount
Decra® Villa Tile	Underpan / Sandwich Flashing	Custom Kit
Gerard® Barrel Vault	Underpan / Sandwich Flashing	Custom Kit

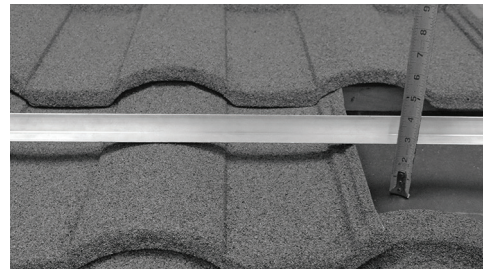
Site conditions vary. Sometimes steel shingle rooftops are installed over existing composition, shingle or other type roofs. Steel shingle rooftops may also be installed on counter battens. In these situations, to determine the correct mounting product, you will need to visit the **Quick Mount PV's Steel Shingle Mount Calculator** on our website.

Using the Calculator

The calculator requires two pieces of information:

- Shingle manufacturer and shingle model
- Dimension from sheathing to highest point on the shingle

Visit Calculator: www.quickmountpv.com/forms/metal-shingle-calculator.xltx



Tools & Parts Needed

Tools: Aviation tin snips, drill with 7/32" bit, impact gun with 1/2" socket, sealant compatible with contacted materials and environmental conditions, tape measure, crayon, channel lock pliers.

Parts: Additional panels matching the roof type are needed to complete installation using the sandwich flashing method. ID numbers notating shingle model and color are printed on the underside of both Decra® and Gerard® shingles. Tile manufacturer and model specific underpans are needed to perform underpan method flashing.

Cutting Steel Shingles

Refer to the shingle manufacturer's instructions regarding cutting steel shingles. Aviation type tin snips are recommended for making cuts as they help protect exposed metal.

When cutting a circular hole for the mount to pass through, drill a starter hole into the shingle located on the circumference of the circle. Begin cutting with the tin snips from this hole.



When using the sandwich method of flashing on interlocking type shingles, it may be necessary to remove the interlock edge on the secondary (top) layer of shingles. Bend up the interlock, then cut it off at the bend using a pair of tin snips.

Applying Granules

Color matched granules and adhesives can be obtained from the shingle manufacturer. For aesthetic purposes, granules can be applied to any part of the shingle that has been cut. Granules are also used to hide roof fastening screws. Application of granules also serves as an additional protective layer.

Working with Gaps Beneath the Underpan on Interlocking Shingle Roofs

In cases where the shingle profile height creates a gap between the roof surface and the underpan, the QBase Mount should be installed directly to the roof surface. Cut a hole in the underpan to allow the mount to pass through. Install underpan over the mount.

Walking on Steel Shingle Rooftops

It is important to utilize proper technique when walking on steel shingle rooftops to avoid damaging the shingles. Please refer to the shingle manufacturer's guidelines.

Decra® Roofing Systems: www.decra.com/products/walking-instructions

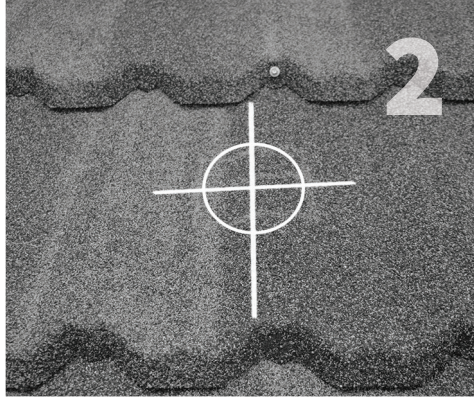
Gerard® Roofing Systems: www.gerardusa.com/metal-roofing/installation/technical-bulletins/walking-instructions

Installation Instructions for Sandwich Method Flashing on Interlocking and Non-Interlocking Steel Shingle Roofs

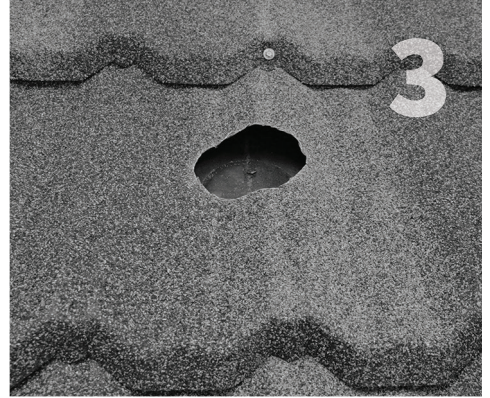
Includes: Decra Tile, Decra Villa Tile, Decra Shake, Decra Shake XD, Decra Shingle XD, Gerard Pacific Tile, Gerard Canyon Shake Tile, Gerard Granite Ridge Shingle, Gerard Barrel Vault, and others



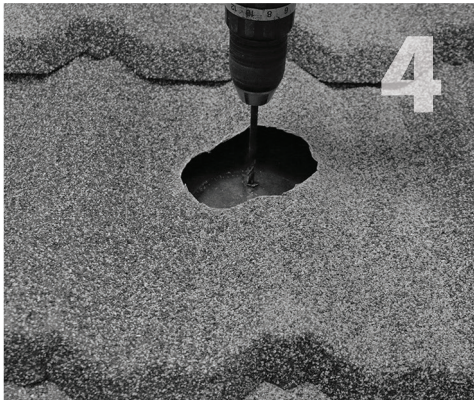
Mark the center of the rafter / structural member at the mounts location on the roofing panel.



Mark the center of the mount and then mark a 4" circle around it.



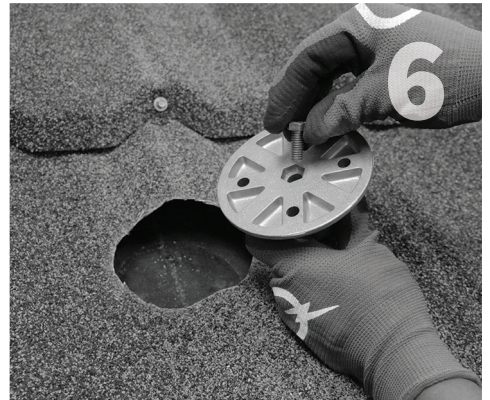
Remove the shingle course and cut a 4" hole in the roofing panel using tin snips. **See Getting Started: Cutting Steel Shingles.**



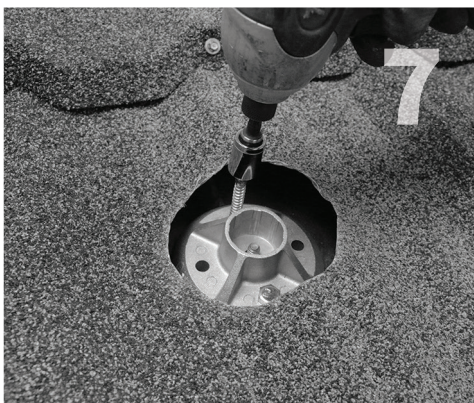
Drill (2) $\frac{7}{32}$ " pilot holes into the center of the rafter.



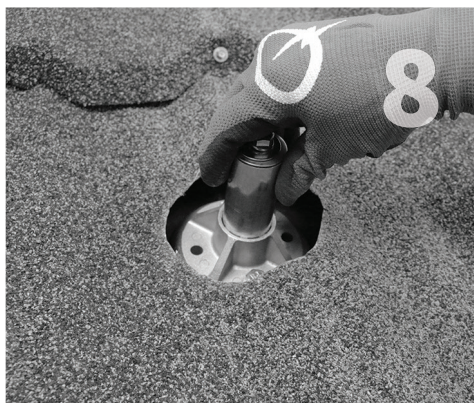
Add sealant compatible with contacted materials and environmental conditions to the pilot holes.



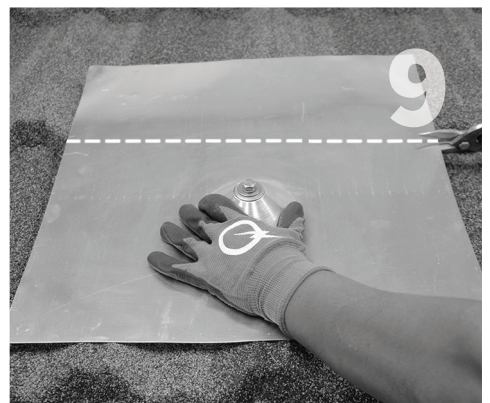
Insert grade-8 cap screw into the bottom of the QBase mount.



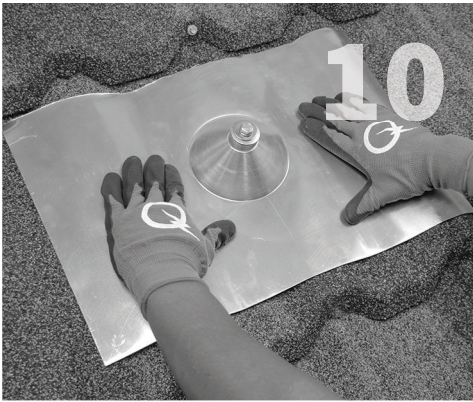
Bolt the QBase mount to the rafter using (2) $\frac{5}{16}$ " lag bolts, and tighten to a snug fit.



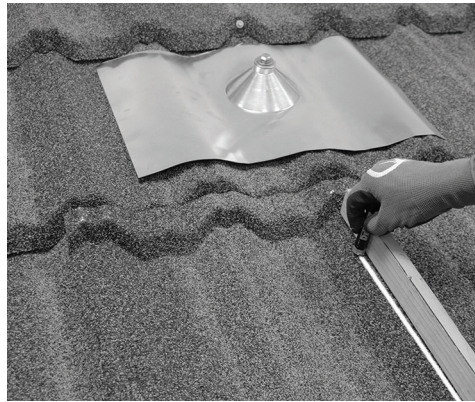
Screw the post onto the grade-8 cap screw in the QBase mount. Use a pair of channel locks to tighten it down.



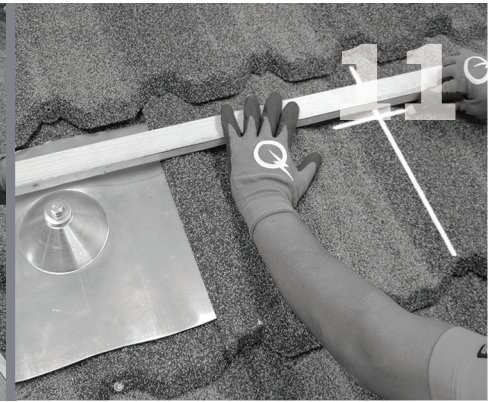
Trim the cone flashing as required to fit the roofing panel.



Mold the dead soft aluminum flashing cone to fit the contours of roofing panel.



Mark off the location of the center of the mount and flashing cone on a secondary 1/2 length panel of the same roofing.



Cut an opening around the cone flashing and down to the bottom of the 1/2 length panel.



For non-interlocking type shingles, insert the cut 1/2 length panel over the flashing and under the panel above.



Interlocking type shingles may require trimming off the interlock of the secondary 1/2 length panel. **(See Getting Started)** Apply sealant where the panels interlock, then place the 1/2 length panel over the flashing and slide the trimmed edge up under the panel above. Apply a second bead of sealant where this edge is embedded.



Screw all roofing panels down.



Apply a bead of sealant where the post meets the flashing.



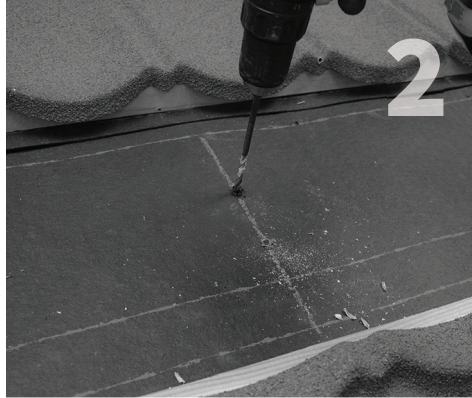
Slip the EPDM rubber collar over the post and slide collar down to the flashing. Install the L-foot using the hardware supplied as required.

Installation Instructions for Underpan Flashing Method on Non-Interlocking Steel Shingle Roofs

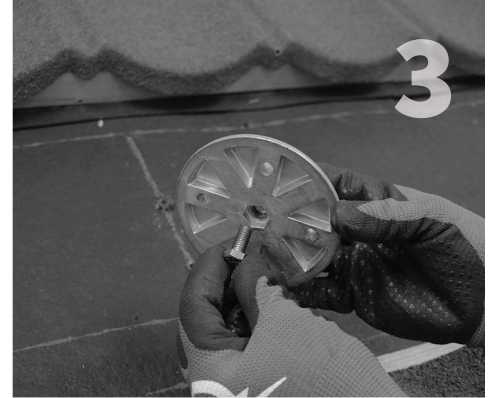
Includes: Decra Tile, Decra Villa Tile, Gerard Granite Ridge, Gerard Pacific Tile, Gerard Barrel Vault, and others



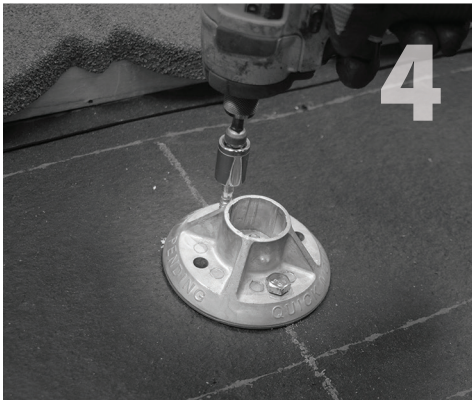
Remove screws from metal shingle panel and remove the panel at the mount location.



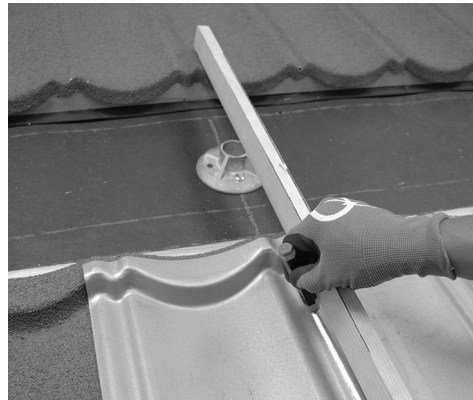
Mark the center of the rafter, layout the mount within the shingle coursing, drill (2) $\frac{7}{32}$ " pilot holes into the center of the rafter.



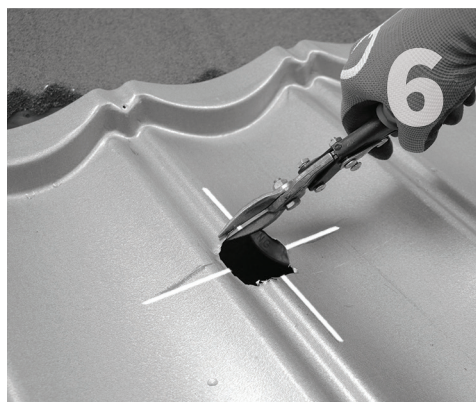
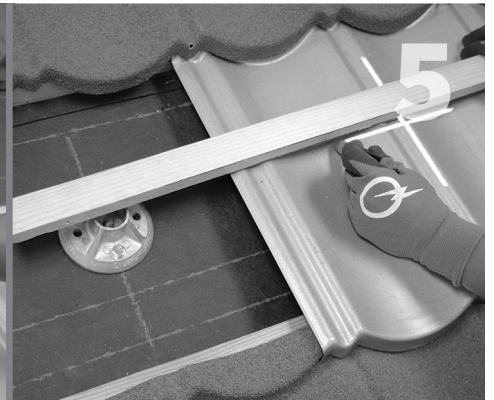
Insert grade-8 cap screw into the bottom of the QBBase mount.



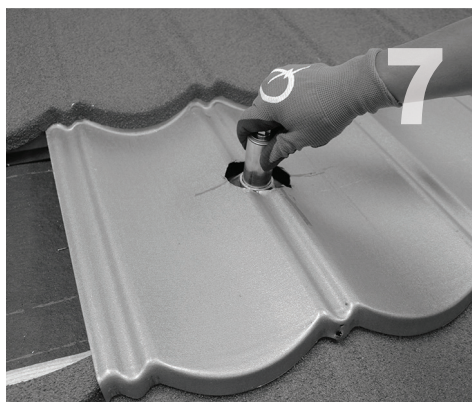
Fill pilot holes with sealant compatible with contacted materials and environmental conditions. Bolt the QBBase mount to the rafter with (2) $\frac{5}{16}$ " lag bolts and tighten to a snug fit.



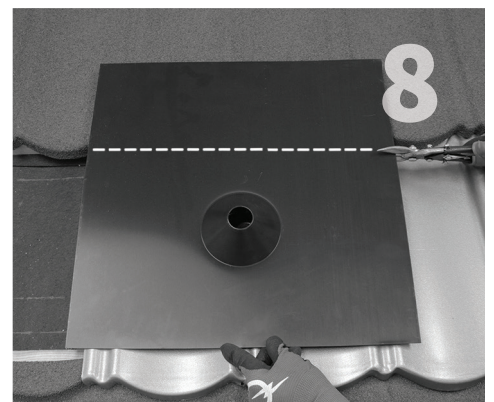
Mark off the location of the center of the mount on the underpan made specifically for your roofing type.



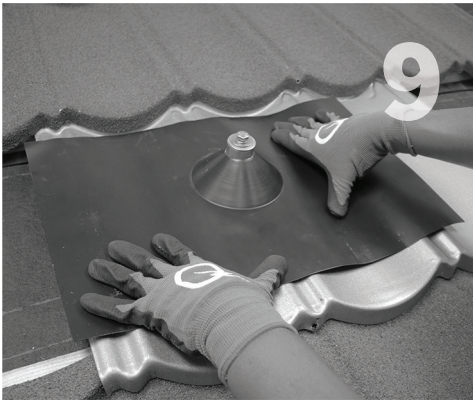
Mark a circle and cut out with aviation tin snips. The hole should be large enough to leave about a $\frac{1}{2}$ " gap between the underpan and the QBBase mount.



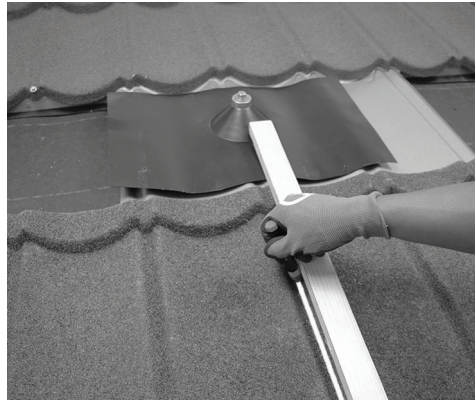
Lay the underpan into place. Screw the post into the grade 8 cap screw in the QBBase mount. Use a pair of channel lock pliers to tighten it down.



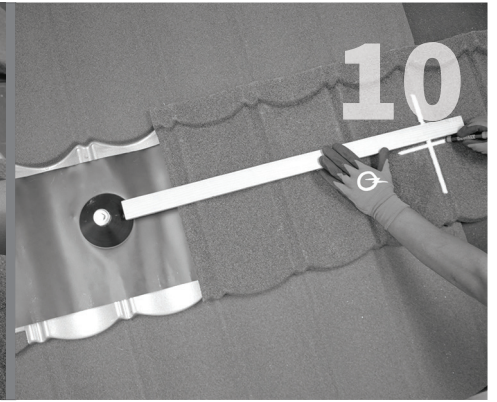
Trim the cone flashing as required to fit the underpan.



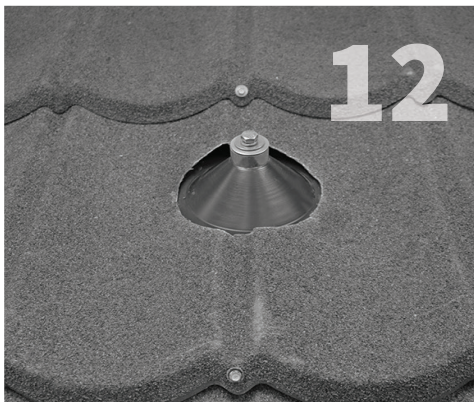
Mold the dead soft aluminum flashing cone to fit the contours of the underpan.



Mark off the location of the center of the mount and the flashing cone on the panel that was removed in step 2.



Mark a circle and cut out with aviation tin snips. The hole should be large enough to leave about a 1/2" gap between the cone flashing and the panel. **See Getting Started: Cutting Steel Shingles.**



Reinstall the panel over the flashed QBase mount and post using the screws removed in step 1.



Apply a heavy bead of sealant to the area between the panel and the flashing. Smooth sealant *without removing a large amount* of sealant. Sealant should maintain thickness as much as possible. Apply a bead of sealant where the post meets the flashing.



Slip the EPDM rubber collar over the post and slide collar down to the flashing.



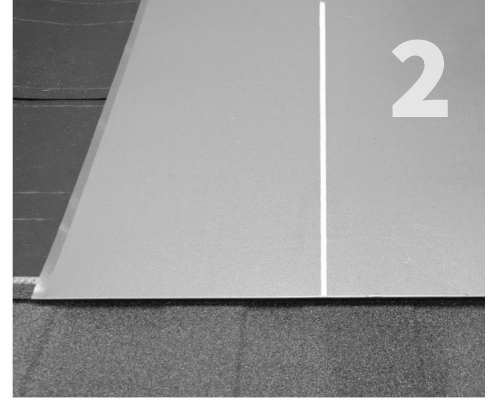
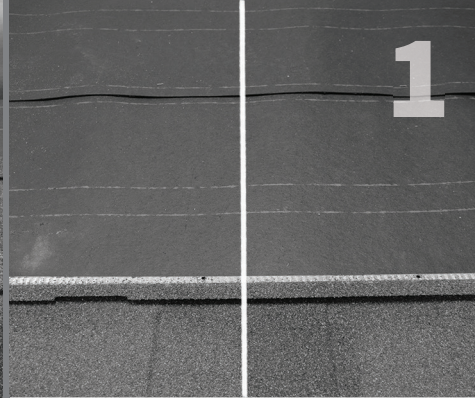
Apply color matched stone granules to the sealant. **See Getting Started: Applying Granules.**



Install the L-foot using the hardware supplied as required.

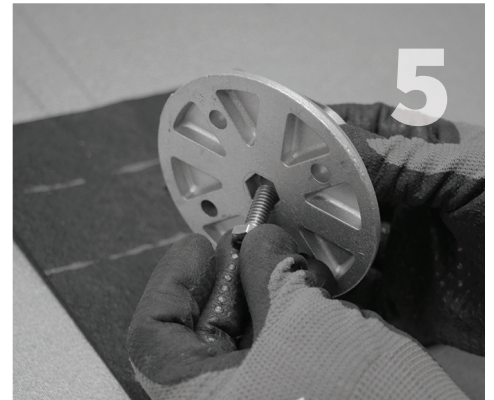
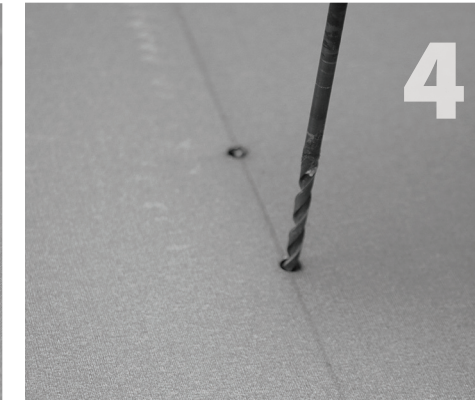
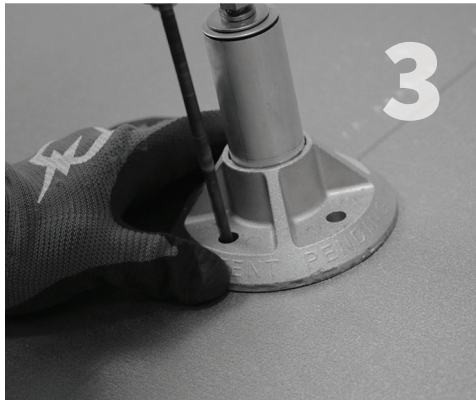
Installation Instructions for Underpan Flashing Method on Interlocking Steel Shingle Roofs

Includes: Decra Shake, Decra Shake XD, Decra Shingle XD, Gerard Canyon Shake Tile, Gerard Granite Ridge, and others



Remove the panels at the mount location to the course below your lowest mount. For new construction, install roofing panels up to the course below your lowest mount. Locate the rafter on the roof.

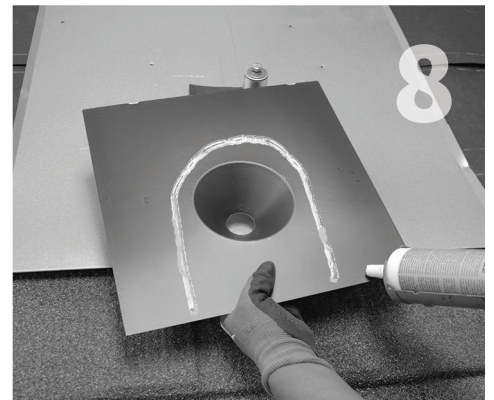
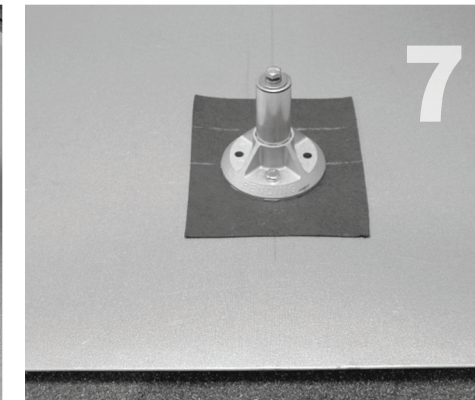
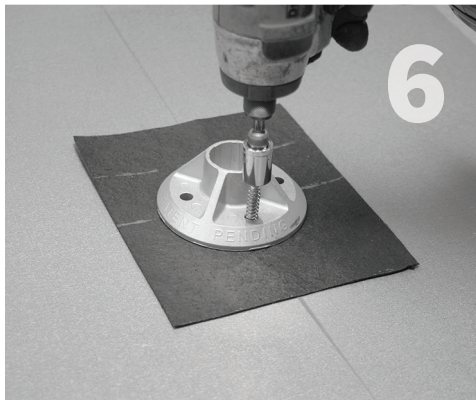
Install the manufacturer's interlocking underpan made specifically for your roofing style. Mark off rafter on the underpan.



Mark the location for your mount over the center of the rafter and drill (2) $\frac{3}{8}$ " clearance holes through the underpan. See: **Getting Started** for working with gaps beneath the underpan.

Drill pilot holes through the clearance holes and into the rafter using a $\frac{7}{32}$ " bit. Add sealant compatible with contacted materials and environmental conditions.

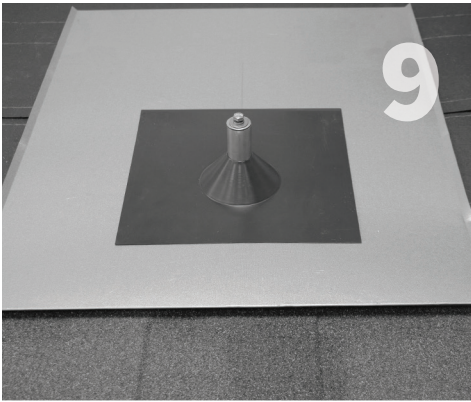
Insert grade-8 cap screw into the bottom of the QBBase mount.



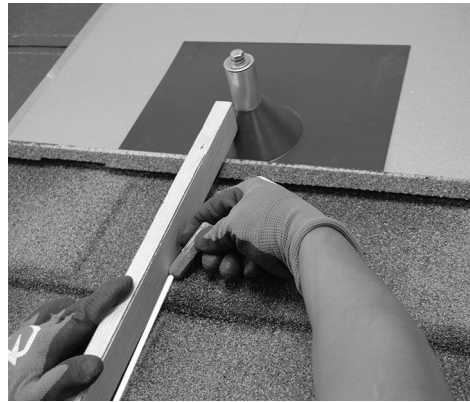
Cut an approximately 5" x 5" square of roofing felt. Bolt the QBBase mount to the rafter on top of the square of felt using (2) $\frac{5}{16}$ " lag bolts, and tighten to a snug fit.

Screw the post into the grade-8 cap screw in the QBBase mount. Use a pair of channel lock pliers to tighten it down.

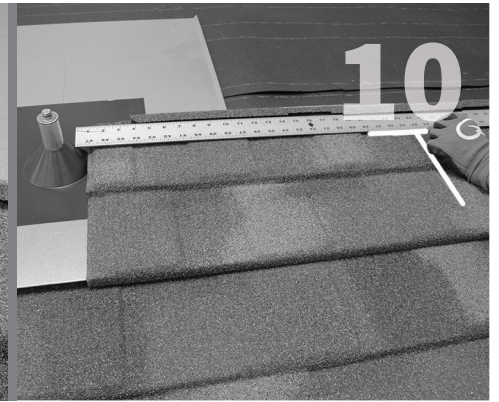
Apply an upside down "U" shape of sealant to bottom of the cone flashing.



Slide the flashing over the post/standoff.



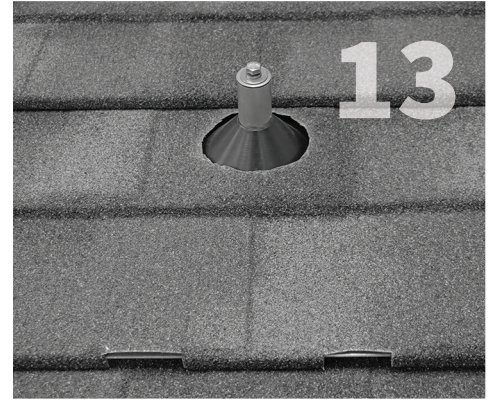
Mark off the location of the center of the mount and the flashing cone on the shingle panel that was removed in step 2.



Mark a circle and cut out with aviation tin snips. The hole should be large enough to leave about a 1/2" gap between the cone flashing and the panel.
See Getting Started: Cutting Steel Shingles.



Use tin snips to cut (2) 2" notches in the bottom interlocking edge of the next panel. The notches should be centered approximately 4" apart, centered below mount. Granules may be added for aesthetic purposes. **See Getting Started: Applying Granules.**



Reinstall the shingle panel over the flashed QBase mount and post using the screws removed in step 1.



Apply a heavy bead of sealant to the area between the shingle panel and the flashing. Smooth sealant *without removing large amount of sealant*. Sealant should maintain thickness as much as possible. Apply a bead of sealant where the post meets the flashing.



Slip the EPDM rubber collar over the post and slide collar down to the flashing.



Cover sealant with shingle manufacturer's color matched stone granules. **See Getting Started: Applying Granules.** Install the L-foot using the hardware supplied as required.



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