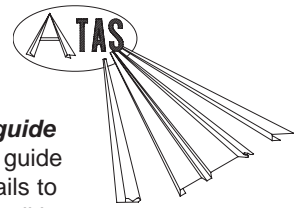


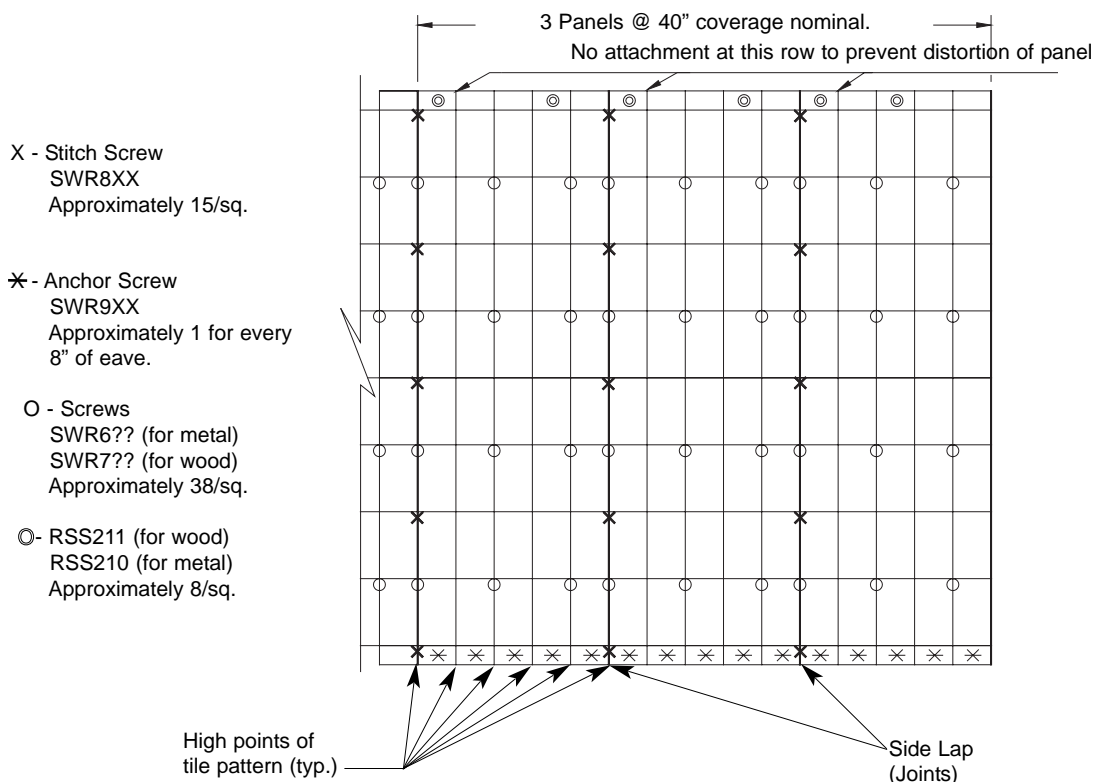
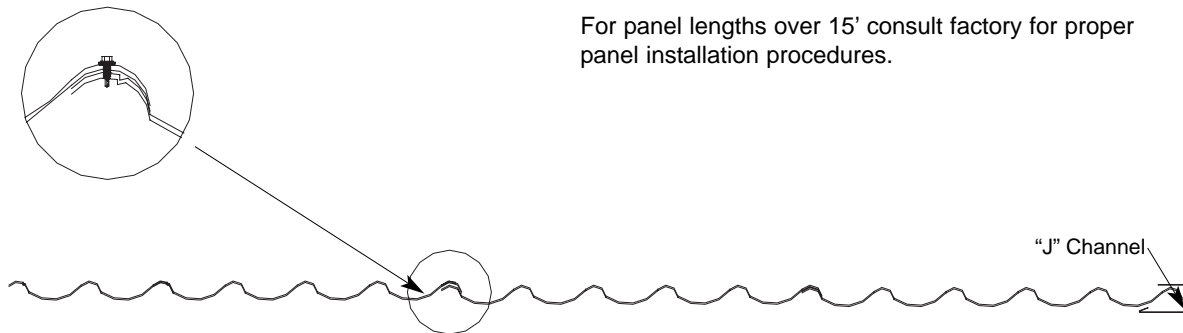
TECHO TILE Installation Guide



Review and understand complete guide before beginning installation. This guide has been prepared as suggested details to particular design conditions. Each condition has certain limitations to performance, aesthetics or economics. Professionals qualified to assess the information regarding suitability for a specific project, should determine that the selection and installation are made to their requirements. ATAS **cannot** assume any responsibility for the actual selection and/or installation of materials.

The panels, flashings and trim shown in this guide, illustrated over solid and plumb substrate, assume that the structure has been designed and prepared in accordance with local building codes.

For panel lengths over 15' consult factory for proper panel installation procedures.



PANEL LAYOUT FROM RIGHT TO LEFT

1. Start by stitching panels together from right to left, using fastener (X). Locate fasteners just below step, at high point of profile. Do not fasten to substrate until 3 panels are stitched together.
2. Align 3 panel assembly along eave, allowing for 1/4" to 1/2" space within "J" receiver. Locate fasteners (*) in low point of panel.
3. Fasten panel at ridge line with fastener (O).
4. Fasten panels to substrate with fastener (O) at location shown.
5. Stitch subsequent panels to previous panel using fastener (X). Install panel at eave and ridge with fasteners (*). Fasten panel to substrate using (O).

****During installation DO NOT stand on or over fastening point.**

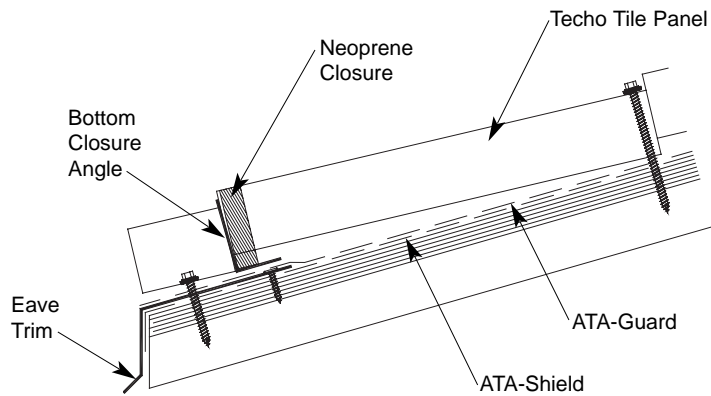
Note: For ease of installation, pre-drill the panels at ground level.

NOTE: Use extreme care not to overdrive the fasteners in the main field of the panel.

In high wind zones, additional fastening may be required. Consult governing codes.

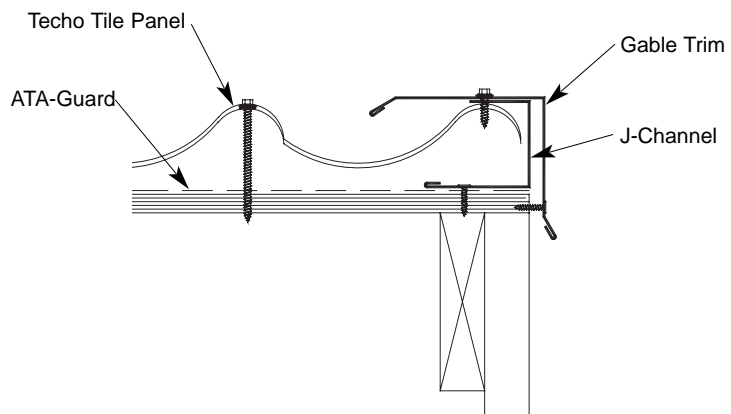
Eave Detail

1. In re-roofing applications: cut back and remove existing shingles and drip edge to be flush with the eave and gable lines. Apply new eave and gable trim as detailed.
2. Install ATA-Shield underlayment. Install drip edge. Install ATA-Guard over drip edge.
3. Install bottom closure angle beyond step, approximately 4" from edge.
4. Install neoprene strip (optional) behind bottom angle closure.
5. Fasten panel at low point making sure fasteners penetrate solid substrate.



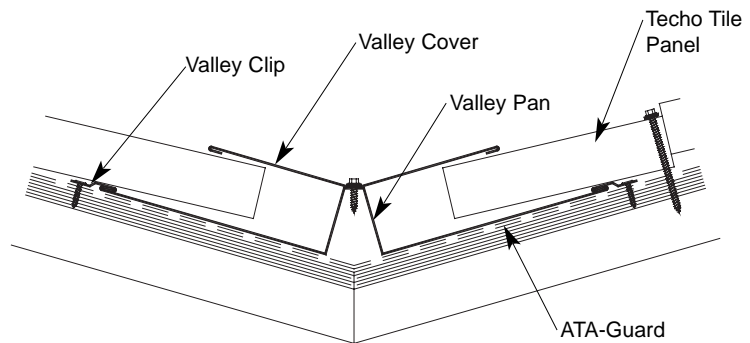
Gable Detail

1. Install channel flush with gable edge, fasteners 2' min. o.c. Seal at fastener penetrations.
2. Install first panel or cut last panel to fit and install. Leave 1/4 - 1/2" space in channel.
3. Place gable trim cap over edge; fasten with appropriate fasteners.



Valley Detail

1. Install ATA-Shield** 19" up both side of the valley line.
2. Install valley sheet, fasten with valley clips and appropriate fasteners.
3. Cut panel to angle, allow 2" to 3" from center of valley, depending on length of panel.
4. Install panels on both sides of valley. Locate panel fastener above valley pan.
5. Install cover (optional) with stitch screws.



Underlayments: ATA-Guard* is a polyolefin based, 100% asphalt free, high strength reinforced roofing underlayment for use on steep slopes beneath metal roofing. 1000 sq. ft. per roll at 48" wide.

Underlayments: ATA-Shield** is the recommended self adhesive underlayment for eaves, sidewall and any critical areas exposed to ice damming and extensive water run off. Available in 65'-8" x 3' 3-3/8" rolls. (2000 sq. ft. per roll).

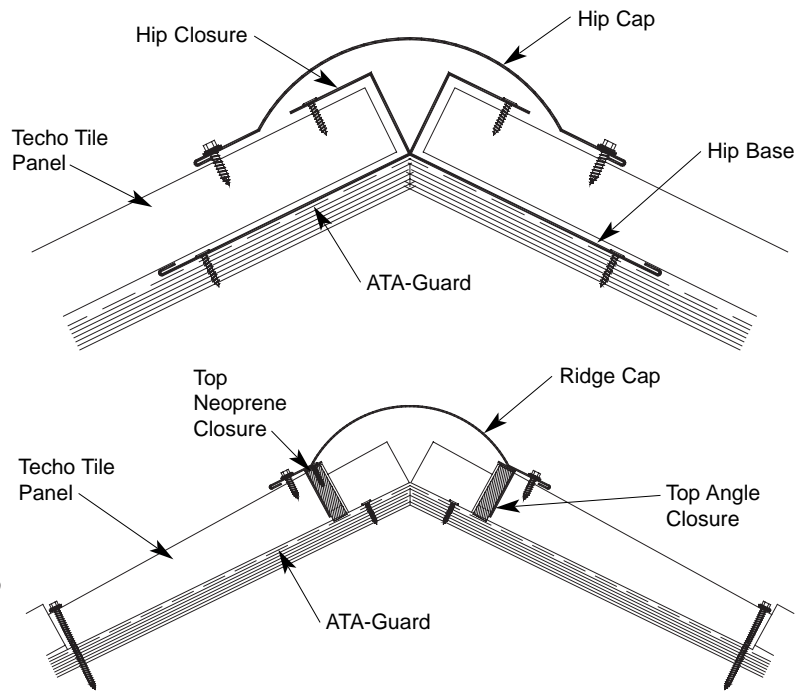
Hip & Ridge Detail

Hip and ridge applications are handled in the same manner.

1. Install panels to meet the Hip/Ridge.
2. Fasten top closure angle and neoprene closure (optional) to panel using #12 x 1" pancake screw.
3. Apply butyl tape to top of closure angle, set ridge/hip cap in place, fasten with stitch screw.
4. Prior to installing the last ridge cap, cut it to size and fasten the end plug to the ridge cap before installing.

At the Hip: place a hip base over the hip, fasten with clip (HPC903). Install the panel to the center of the hip base. Install closure angle, put sealant at the edge of the panel. Install hip cap.

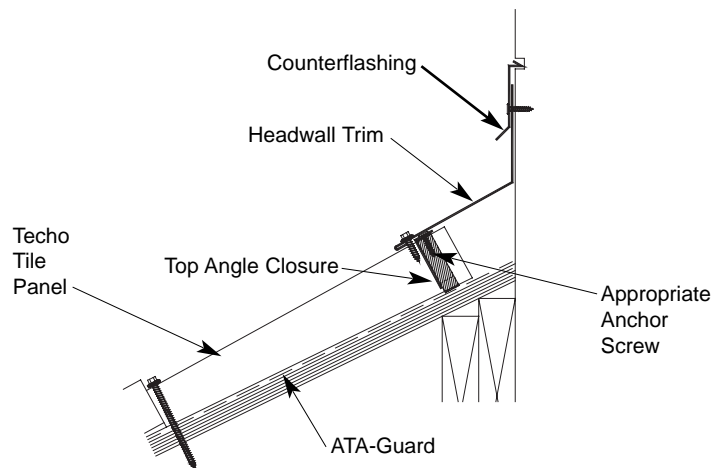
Note: Do not cut any metal over an installed metal roof. Do not use an abrasive saw for cutting metal. When cutting the panels on the hips use a nibbler or a Tenryu steel - pro blade for ferrous metals or equal. To prevent metal particles from falling on the panel, turn it upside down when cutting. Remove all chips and dust immediately from roof panels.



Headwall Detail

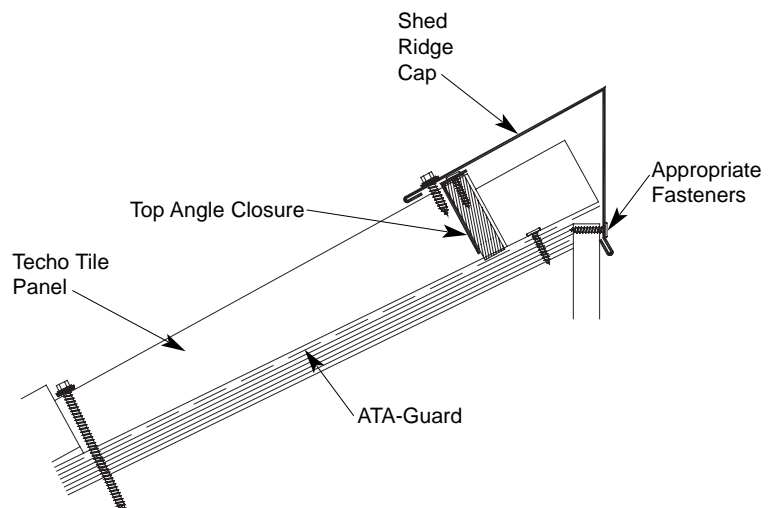
Install appropriate underlayment to the edge.

1. Depending on the wall treatment, cut a reglet in the wall.
2. Install panel to headwall.
3. Fasten top closure angle and neoprene closure (optional) on the panel.
4. Install headwall trim over the panel while insuring that the perpendicular section is flush to the wall.

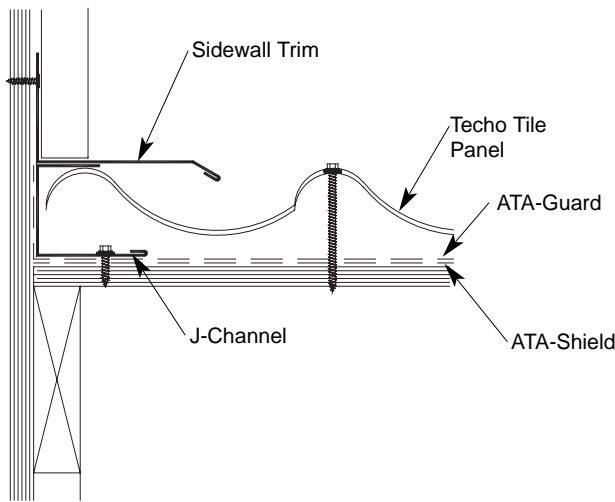


Shed Ridge Detail

1. Install panel to edge of roof.
2. Fasten top closure angle and Neoprene Closure (optional) to the panel, max. 5" from roof edge.
3. Put high quality sealant along curve of panel and on top of closure angle.
4. Fasten with appropriate fasteners.



Sidewall Detail



1. Install ATA-Shield** below sidewall flashing and up sidewall if possible.
2. Fasten channel with SWR8XX screws.
3. Fit and install panel into channel.
4. Install sidewall flashing prior to wall treatment or cut a reglet and install counter flashing (not shown).

Note Regarding Trim Details

The application of flashing and trim requires a detailed approach. Consideration should be given to the roof's geometry and course it creates for water run-off. Location of gutters and the use of snow retention systems should also be considered. Proper planning regarding the sequence of material overlap is critical. Sealants, such as butyl tapes and tripolymers, should be used at overlapping trim edges, in conjunction with exposed fasteners, and to seal flashings and other ancillaries. All fasteners should be properly tightened and not overdriven at an angle. Fasteners that are too loose can "back out" over time. An overdriven fastener may cause a depression in the material, which becomes a collection point for standing water.

Pipe Detail

Step 1

Cut on the proper pipe diameter marked on the flashing.

Step 2

Position over pipe and slide down the pipe.

Step 3

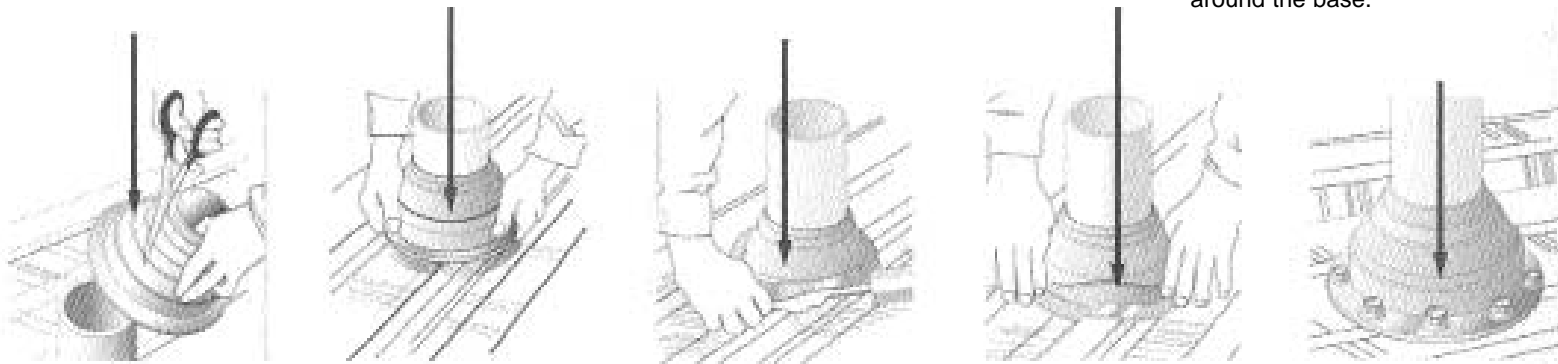
Apply polyurethane sealant to the bottom of the base.

Step 4

Mold the flexible base to the panel contours.

Step 5

Fasten with 1/4" x 1-1/8" drilling fastener every 1-1/2" around the base.



Pipe drawings provided by Triangle Fasteners

Tools and Rules:

Basic Equipment Required:

Tie-off ropes, safety harness, long level, ladders, scaffolding with approved planking, extension cords with approved ground plugs and services.

Additional Tools:

Metal folding tool, hammer, chalk line, measuring tape, metal cutting tools - nibblers, drills, hacksaw, utility knife, pop-rivet gun, caulking guns, layout and combination square, C clamps, sheet metal shears (including RH, LH, straight and overhead). Power driven screw gun with proper bits, depth setting nosepiece, variable speed.

Choose the correct equipment and tools to do the job in a safe manner. Wear safety gear and follow OSHA requirements.

Follow of few simple rules:

1. Never cut the panels with an abrasive cut-off wheel or torch, as this will damage the finish.
2. Do not weld the trim or panels.
3. Remove any small burrs left by cutting, screwing or drilling.
4. Remove protective masking immediately after trim is installed.
5. Caution should be taken when unloading the panels to prevent damage.
6. Use appropriate screws for the type of underlayment and long enough to fully penetrate and secure the panel.
7. The stored materials should be kept dry.
8. Do not cut on finished roof. Remove all drill spirals, chips and dust immediately.
9. Seal neoprene closures and soft cell foam by applying appropriate sealant to both surfaces.
10. Put appropriate sealant/butyle tape between overlapping trims.
11. Overlap trims in a manner not to impede the flow of water.

For further information or assistance, contact our Residential Product Support at 877-286-3320