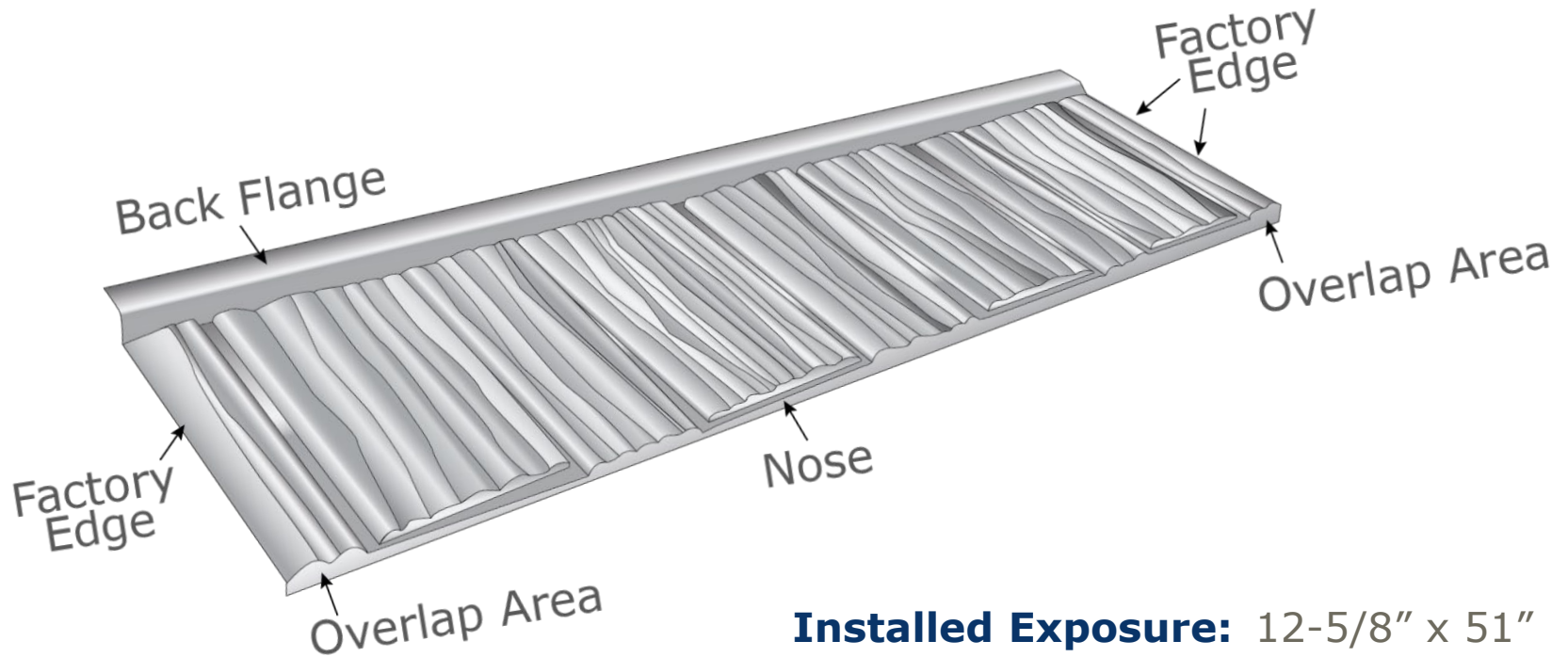


Experience the **DECRA[®]** *Difference*



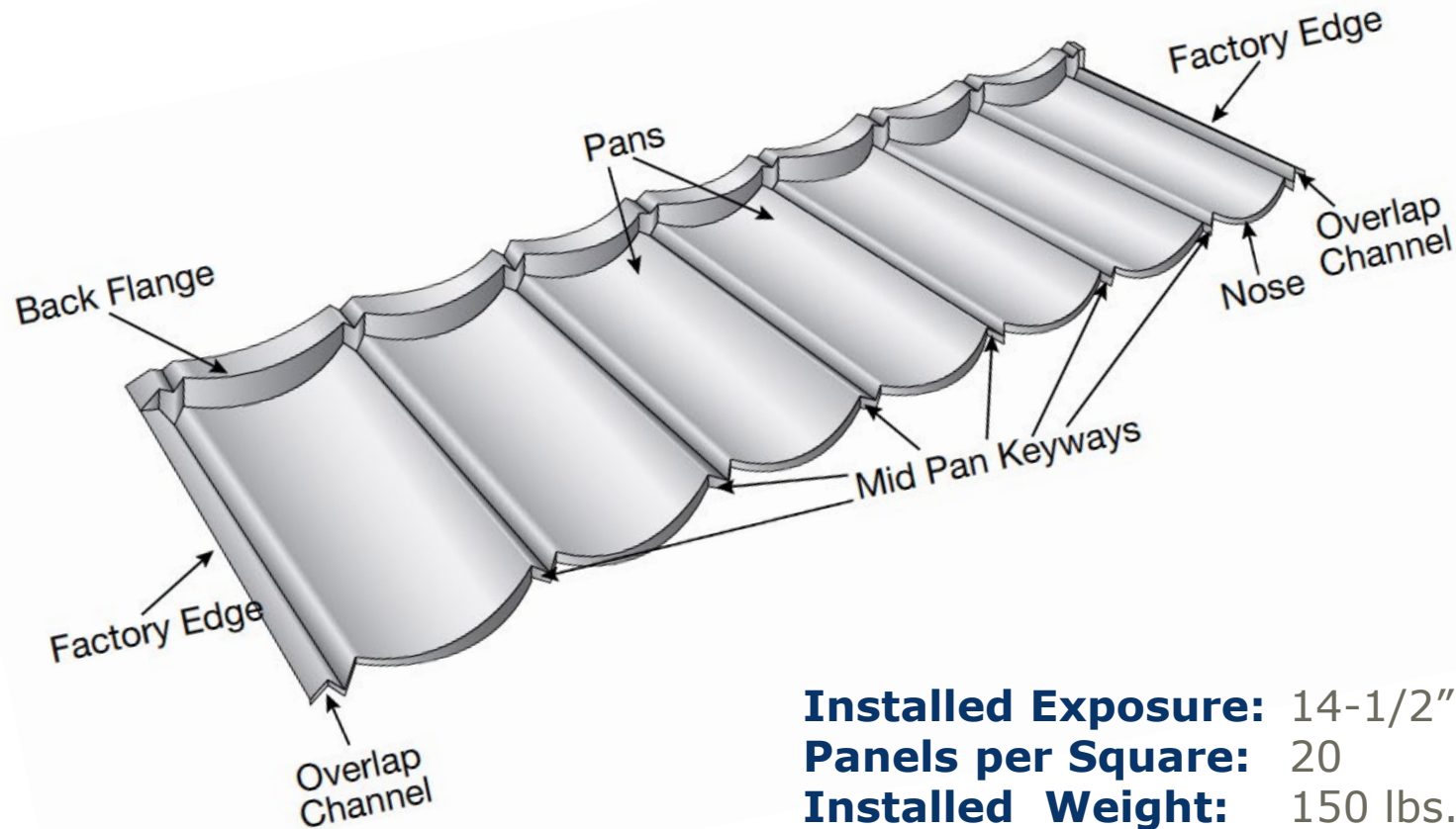
Batten Profile Installation Details DECRA Shake / DECRA Tile

DECRA Shake Panel – Detail



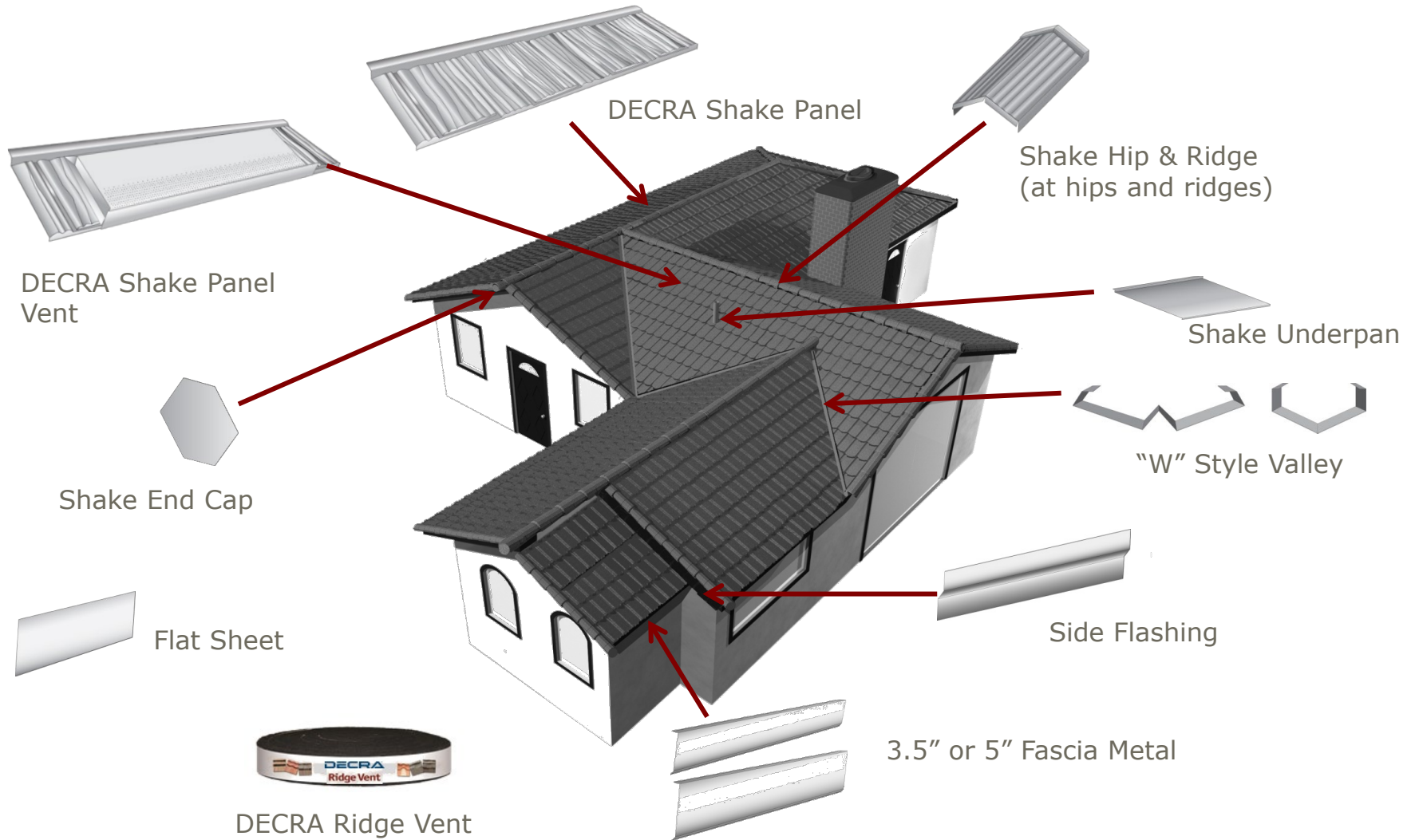
Installed Exposure: 12-5/8" x 51"
Panels per Square: 22.4
Installed Weight: 150 lbs./sq.

DECRA Tile Panel – Detail

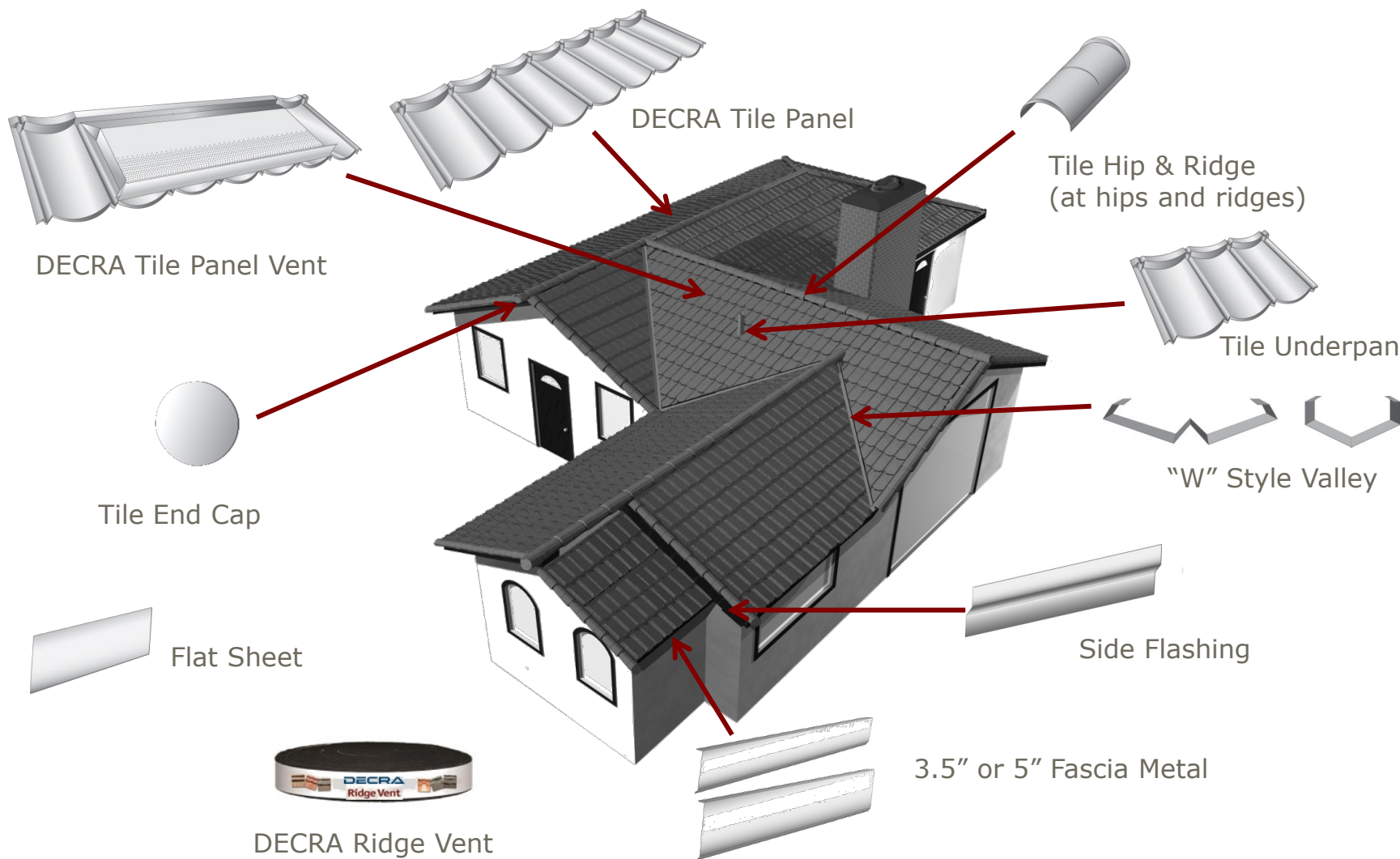


Installed Exposure: 14-1/2" x 50"
Panels per Square: 20
Installed Weight: 150 lbs./sq.

DECRA Shake Roof – Detail



DECRA Tile Roof – Detail

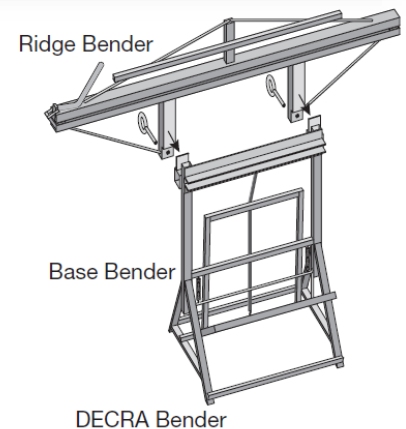
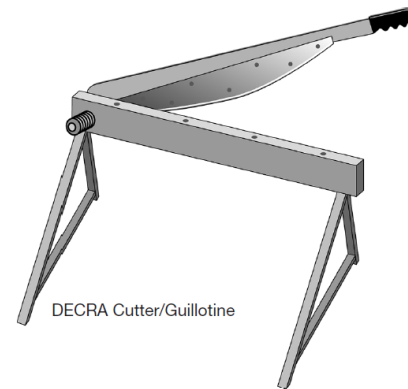


DECRA Batten Profile Installation

- These instructions, drawings and photos are intended as a guide for the installation of DECRA Shake and DECRA Tile.
- Adhere to recommended safety practices.
- Refer to local codes and/or ICC Reports – see links available at www.decra.com.
- Roof slopes of less than 3:12 are considered decorative and panels must be applied over a roof system complying with local codes.

Measuring, Cutting, Bending Panels

- Measurements are made on the roof, however, the panels are normally marked, cut and bent on the ground.
- Panels may be cut with a guillotine, tin snips, or circular saw with metal cutting blade. A portable brake press or hand bender is used to bend the cut edge of the panel for hips, ridges, and valleys.
- Safety equipment should be worn during the installation process.



Deck Preparation – New Construction



- Prepare roof deck to meet local building codes - Underlayment is required
- Underlayment shall comply with ASTM D 226, Type I or Type II, ASTM D 4869, Type I or Type II or ASTM D 1970.
- Check local code requirements as ice and water shield and additional requirements may apply.

Deck Preparation – Tear-off / Re-roof



- Tear off Old Materials
- Clean and prepare deck to meet local codes
- If the panels are installed over another roofing material, additional underlayment is not required unless specified by local code

Deck Preparation – Roof Over Asphalt



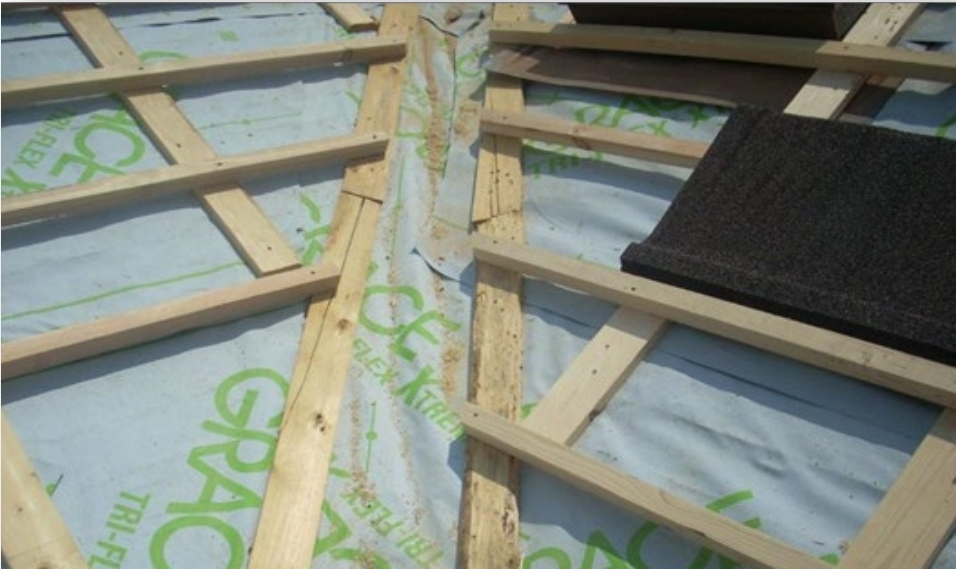
- Cut asphalt shingles back flush with the fascia or rakes as needed and remove hip & ridge pieces
- If the panels are installed over another roofing material, additional underlayment is not required unless specified by local code

Deck Preparation – Roof Over Wood Shake



- Use counter battens to obtain a level surface for battens when installing over an irregular surface.
- **Follow local code regarding requirements for re-roofing over wood shake and other irregular surfaces.**
- Remove existing hip & ridge and cut existing overhang back as needed to install battens.

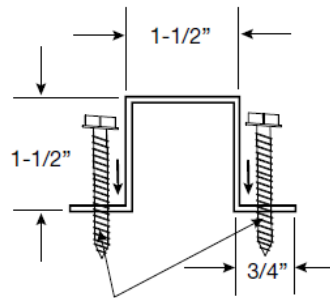
Counter Battens & Battens



- Use counter battens when installing over an irregular surface.
- Position 1 x 4 counter battens over the framing members and secure using 16d common nails into rafters or through sheathing 7" on center.
- Proceed with batten installation as described above.

Steel Hat Sections

- As an alternative to wood battens, steel hat section purlins can be used.
- Fasten steel hat section through rafters using minimum two #9 Hex (1/4" diameter) x 1-1/12" long screws at each steel hat section to rafter intersection.



20 gauge thick
batten suitable
for rafters up to
4' on center.

#9 Hex (1/4" diameter) x 1-1/2" long screw

Venting Preparation – Ridge Venting

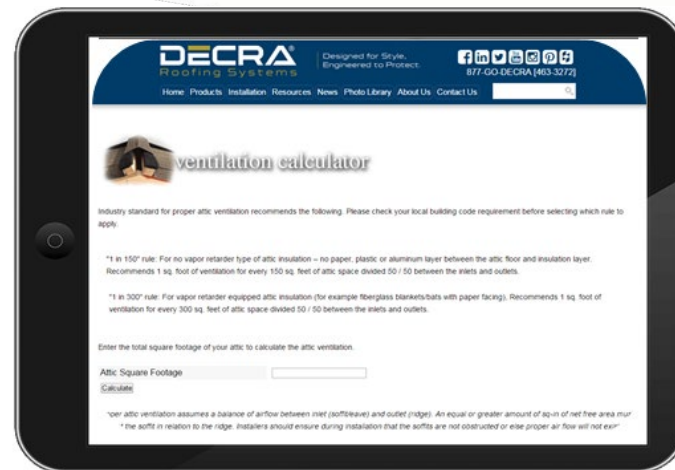
- If using DECRA Ridge Vent material, prepare the deck for ridge venting (without center beam) by cutting both sides of the plywood 3/4" from the center of the ridge to expose attic space, or as required by local codes.
- Refer to Venting section or DECRA Ridge Venting wrapper for additional installation details.



Venting Preparation – Panel Vent

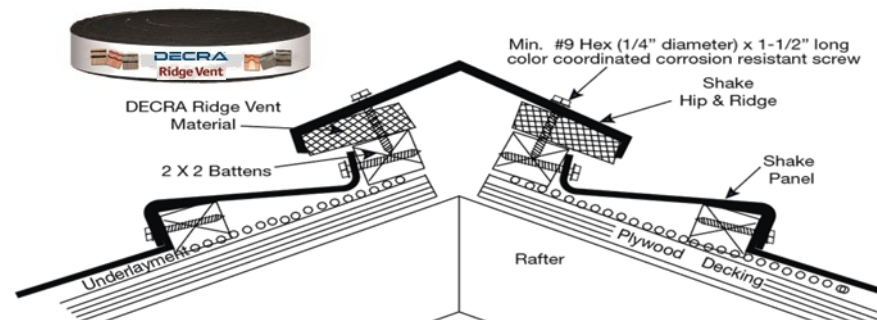
- Calculate the number of DECRA Shake / Tile Panel Vents* and estimate the approximate location.
- Continue with the installation process until you reach the approximate panel vent location.

*DECRA Venting Calculator
available at DECRA.com



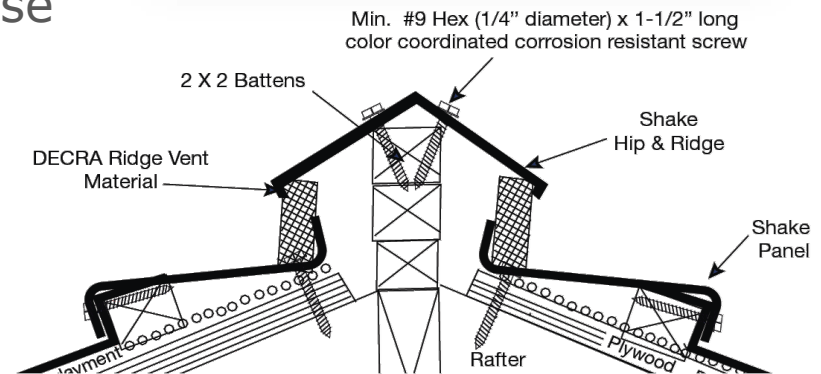
Ridge Venting – No Center Beam

- Install Tile or Shake panels up the last full course before the ridge to the edge of the opening that has been cut for the ridge vent.
- Install 2 x 2 battens along the ridge. Align the top edge of the 2 x 2 along the edge of the plywood on both sides of the ridge to expose attic opening.
- Measure cut, bend and install panels.
- Roll out ridge vent along the tops of battens, remove white paper to expose adhesive and apply pressure to hold material in place.
- Install Hip & Ridge over vent material.



Ridge Venting – Center Beam

- Install panels up the last full course before the ridge.
- Install 2 x 2 battens along the ridge. Cut, bend and install panels. Stack needed number of 2 x 2 and 1 x 2 (depending on roof slope) to roof center beam. Allow for $\frac{3}{4}$ "-1" clearance between hip & ridge and top panel.
- Roll out ridge vent along the tops of battens, remove white paper to expose adhesive and apply pressure to hold material in place.
- Install Hip & Ridge.



Panel Vent - Installation

- Install DECRA panels until you reach the approximate panel vent location.
- Carefully measure, mark and cut a rectangle hole 29" x 5" in the roof deck to match the opening of the underside of the DECRA Panel Vent.
- Install the panel vents as you would normal DECRA panels.



Valley Application with Battens



- Install standard “W” style valley. Valley metal should be min. 7” wide.
- In new construction, the valley must have one layer of Type 30 felt underlayment, 36” wide or ice & water shield underneath as required by local building code.
- Install the valley metal overlapping the valley pieces a min. of 6”.

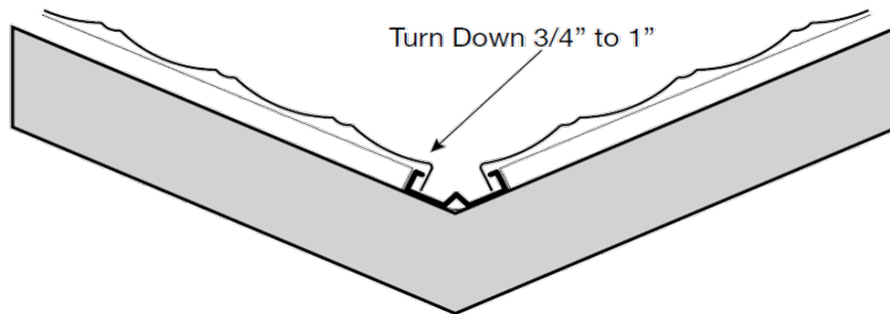
Valley Application with Battens cont'd

- Secure the valley metal to the top of the batten by notching the return at the top of the valley and fold the tab onto the top of the batten and secure with fastener.
- Paint visible areas of valley prior to installing panels.
- After valley flashing has been fit and secured into valley area and full panels have been positioned up to valley, measure for cut panels.

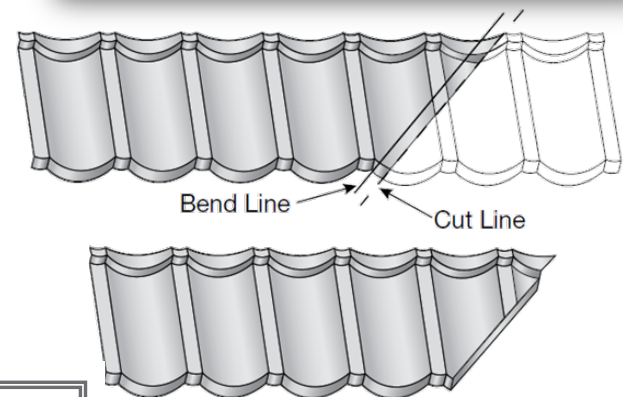


Open Valley

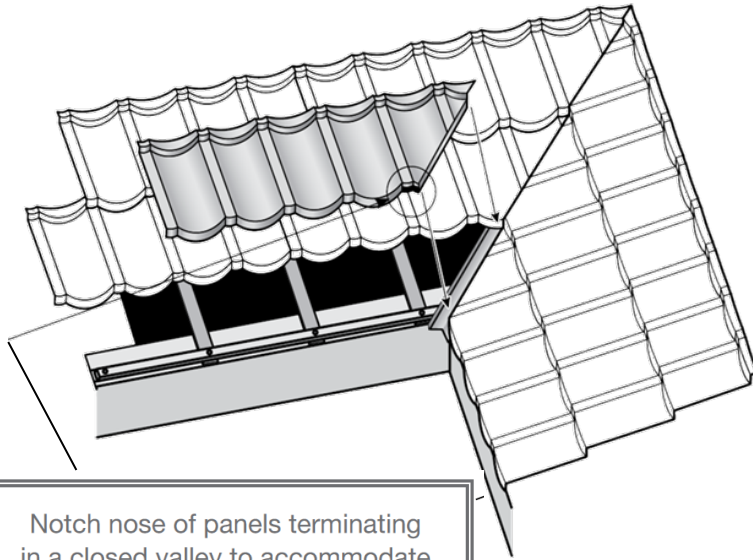
- To create an open valley, snap lines to desired opening.
- Working on one side of the valley at a time, measure, cut and bend panels starting at the bottom of the valley and working up.
- Bend and cut edge of panels down against the up-stand of the valley metal.



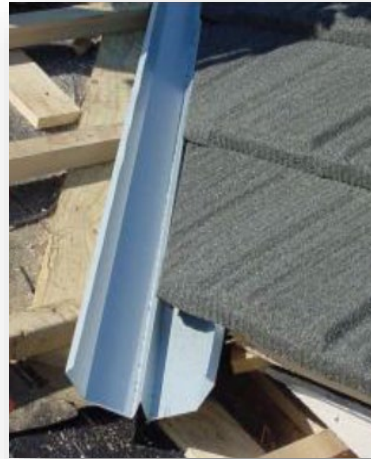
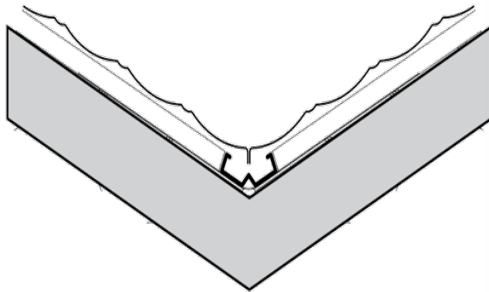
Verify batten spacing along the valley to ensure accuracy.



Closed Valley

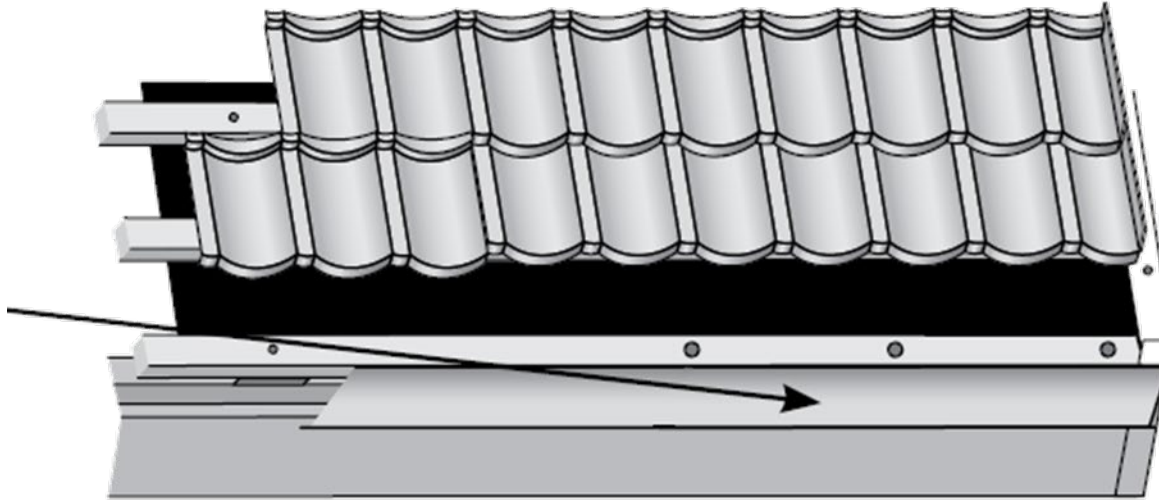


Notch nose of panels terminating in a closed valley to accommodate the width of the valley.



- Find and establish the center of the valley by either snapping a line or following existing center rib.
- After valley flashing has been fit and secured into the valley area, start on one side of the valley by measuring, cutting, bending and installing panels in a clean straight line.
- Next, measure, cut and bend panels to fill in the other side of the valley. Make sure these panels meet the opposing side of the valley.

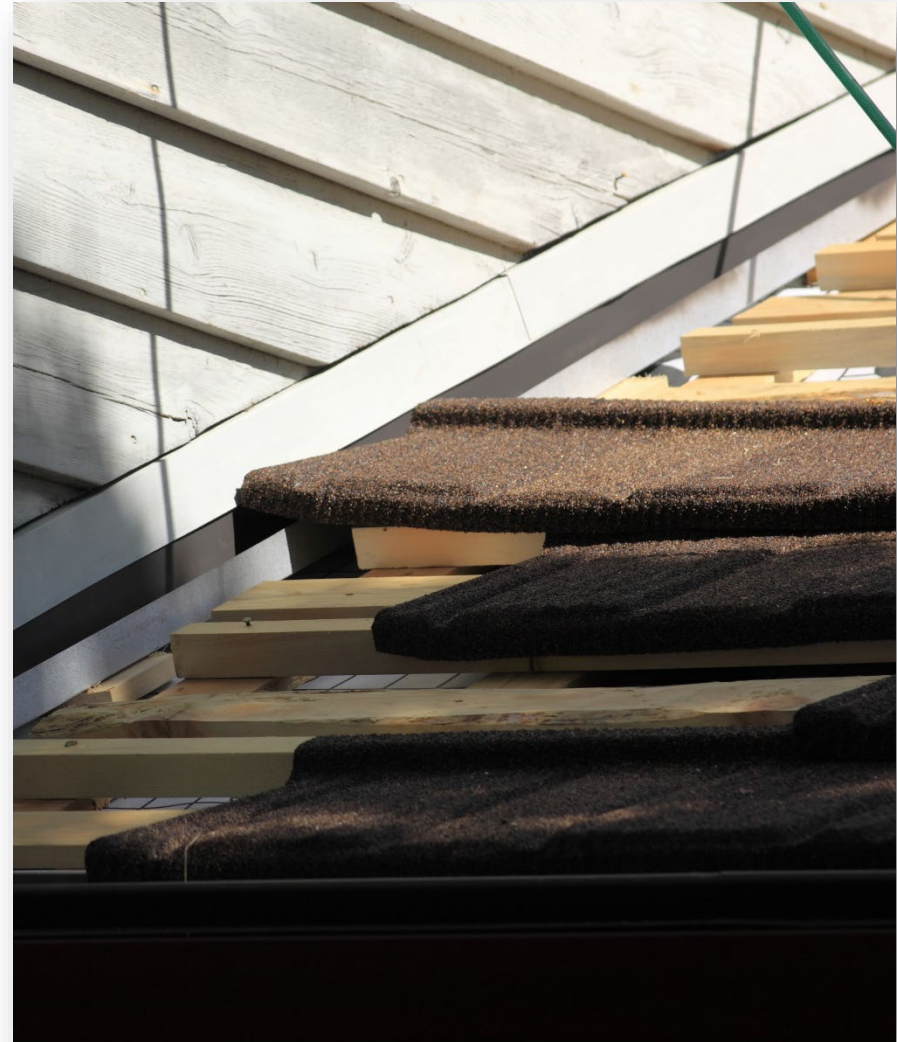
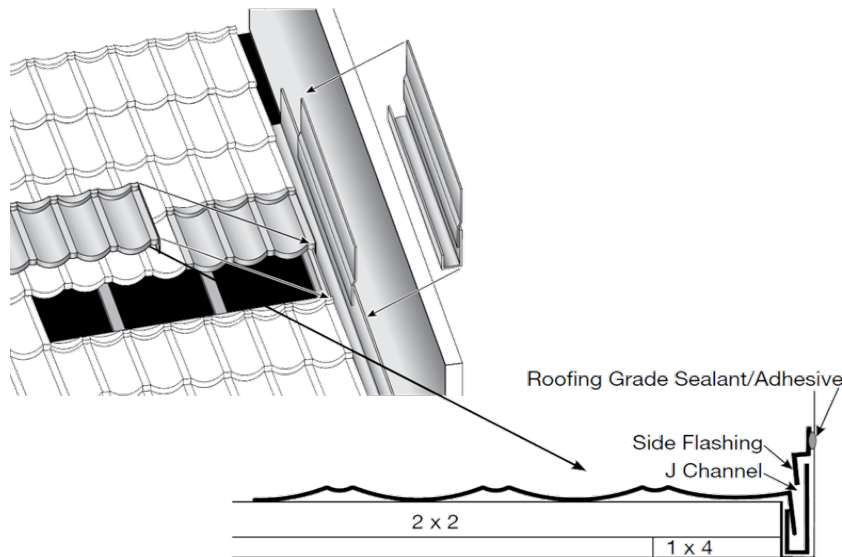
Fascia Metal Flashing



- Flashing is Required along the fascia to cover build up at the first batten.
- Stone coated fascia metal is available in 3.5" and 5" exposures in all colors.

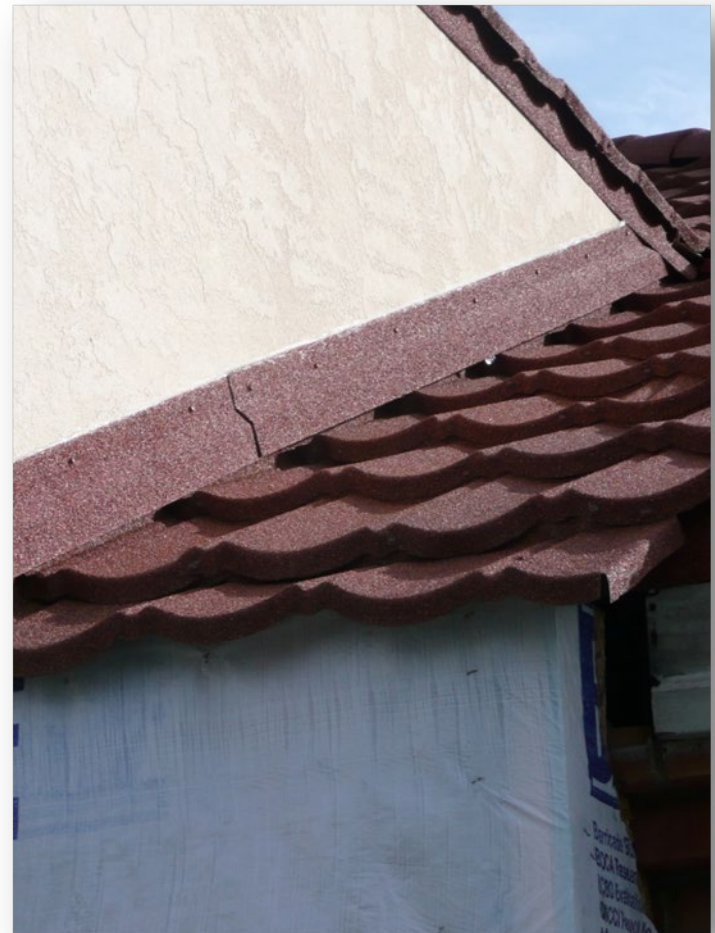
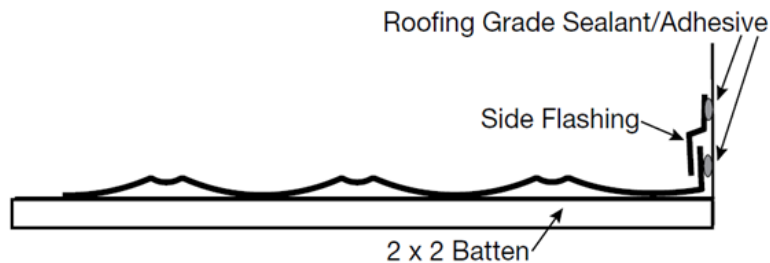
Roof to Wall w/ J Channel (Tile Pan)

- Slide J Channel under existing under existing sidewall flashing, turn panel down into J Channel. If J Channel will not fit up the existing flashing, slide J Channel up under the existing siding.



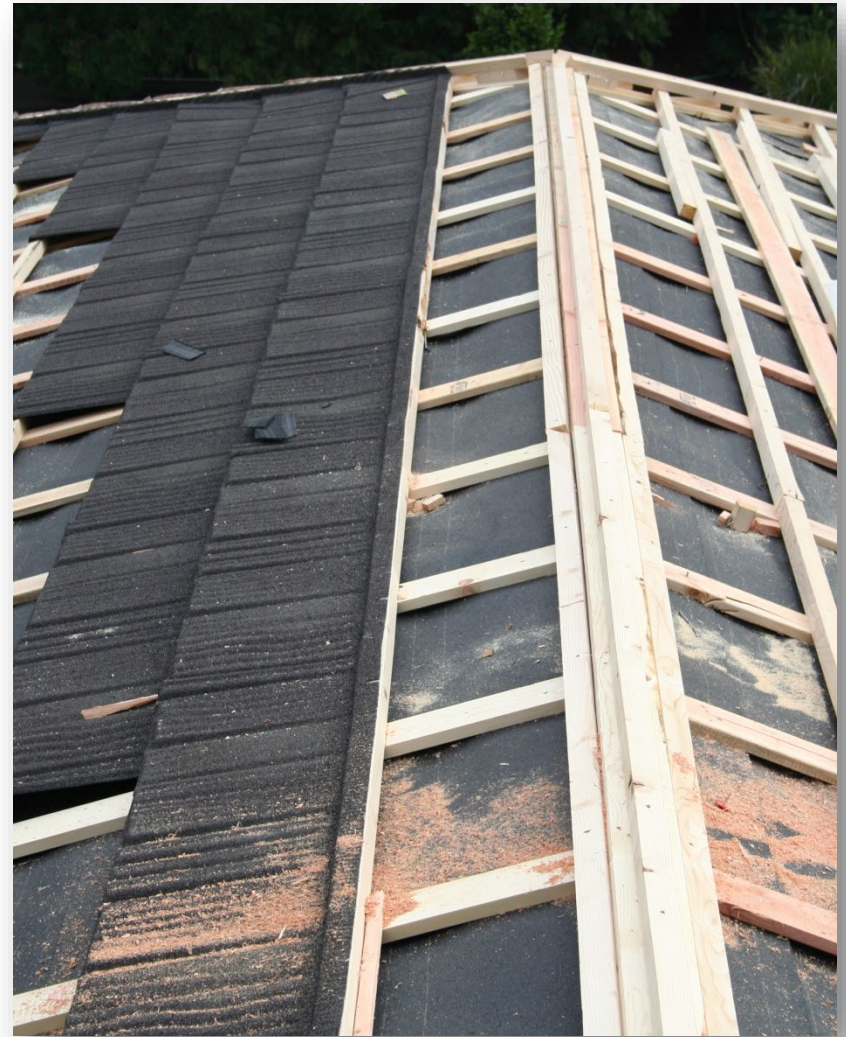
Roof to Wall w/ Side Flashing

- If no existing flashing is present, turn the panel up 2" and counter flash with Side Flashing.
- Seal turn up against the wall and seal Side Flashing before applying to wall.

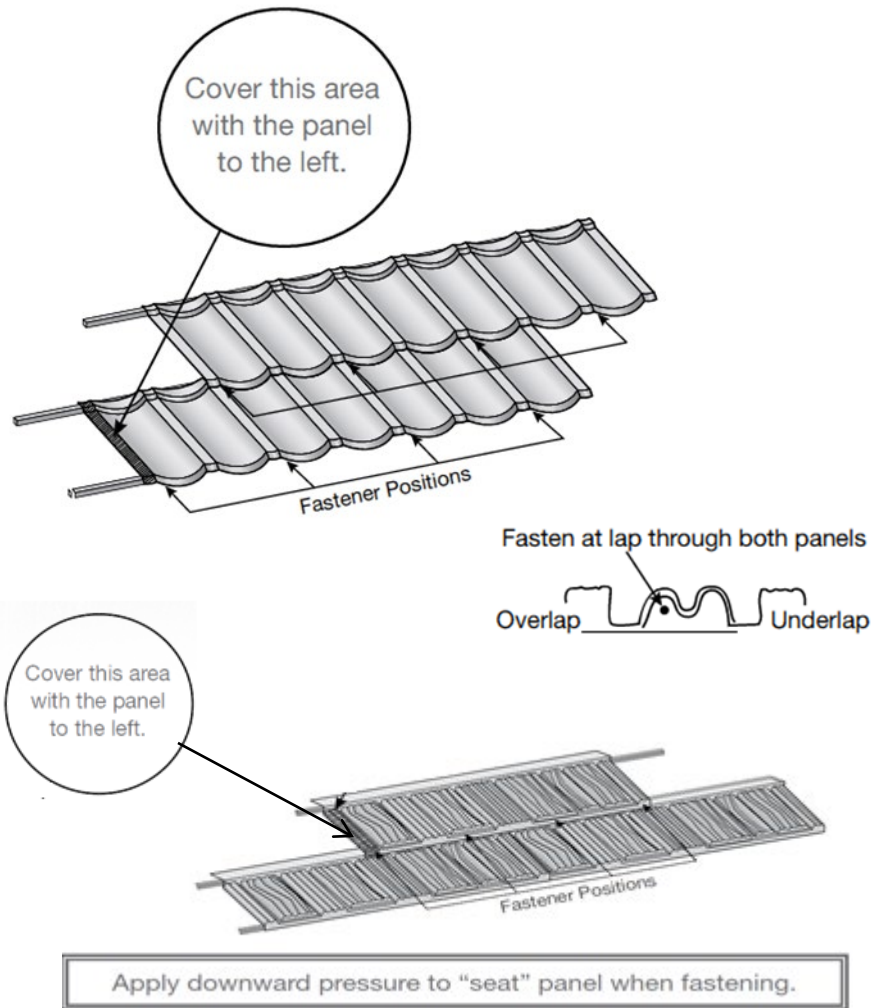


Panel Layout with Battens

- Lay full panels starting with the first full course down from the ridge. Fasten first course along back flange. Lay panels by tucking them under the upper panels.
- DECRA Shake panels should be staggered to create an irregular appearance. DECRA Tile should be staggered sideways a minimum of one pan. DO NOT use even panel offsets.
- Panels can be laid either right to left or left to right.
- After laying three courses, begin fastening the nose and work down.



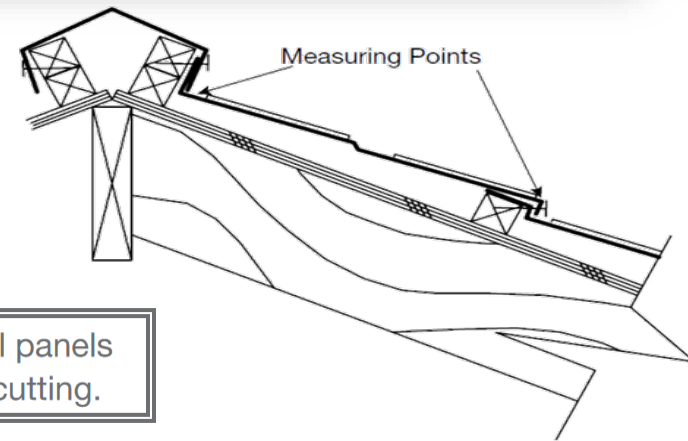
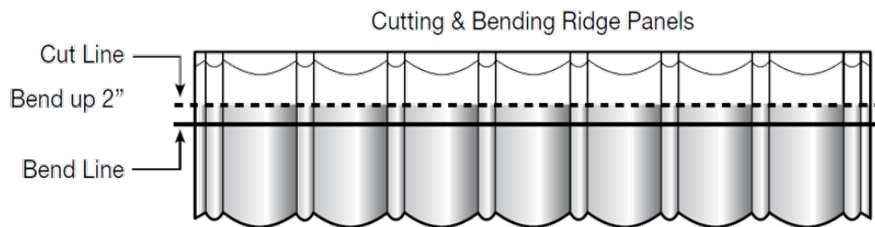
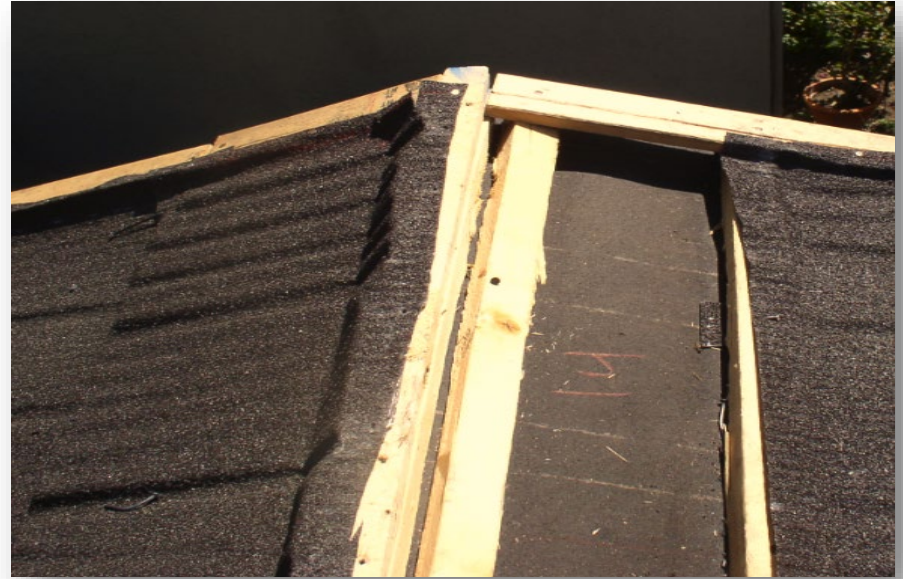
Fastening Panels with Battens



- Panels are fastened to wood battens with a min. of four 8d corrosion resistant common nails or four min. #9 Hex (1/4" diameter) x 1-1/2" long corrosion resistant screws.
- Screws should be used in freeze/thaw areas.
- One fastener is placed on the downturn of the panel 1" from the overlapped edge.
- The remaining fasteners are evenly spaced across the panel.

Panel Installation - Ridge

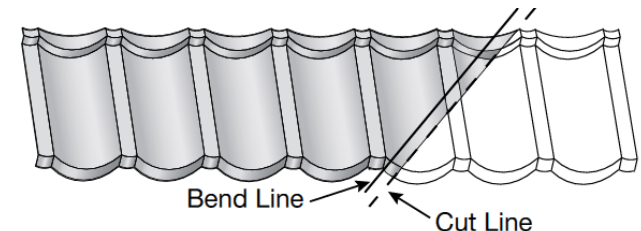
- Measure from the front of the back flange to front of 2 x 2 at the ridge and bend panel.
- Add 2" to the bend line and cut panel.
- Install panels along the ridge one side at a time. Conform each panel to the ridge and fasten.
- Install panels along the other side of the ridge. Keep panels straight.



Panel Installation - Hip

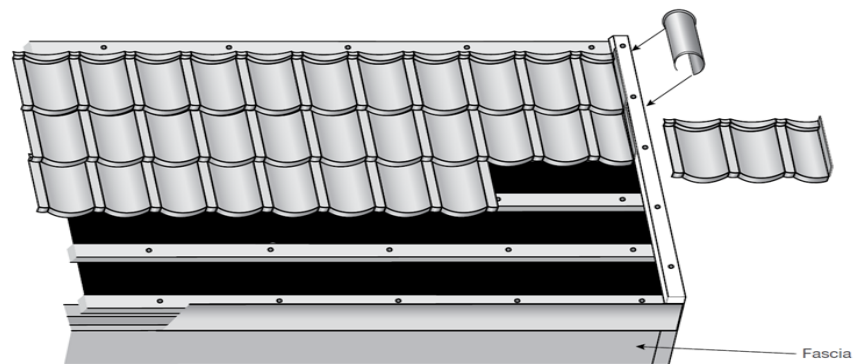


- When installing Tile or Shake, run a 2 x 2 vertically up the battens next to the hip.
- Bring the panel to the 2 x 2 and turn the panel up 1-1/2".
- After cutting the panels, make a 1-1/2" bend that will run along the 2 x 2 at the hip.



Rake / Gable with Battens

- When installing panels along the rake/gable and finishing it with Hip & Ridge, run a 2 x 2 vertically along the rake.
- In a batten installation the 2 x 2 will sit on top of the battens.
- Bring the panel up to the 2 x 2 and bend panel up 1-1/2".

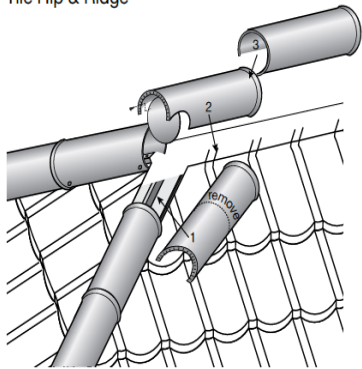


Hip & Ridge

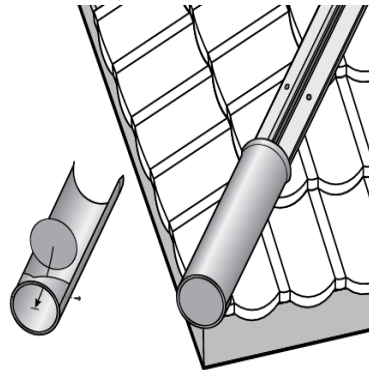
- Install Hip & Ridge pieces along hips, ridges and rakes.
- Hip & Ridge pieces are overlapped and fastened on both sides along the ridges, rake/gables and hip boards with the same fasteners for securing panels.
- Bend and fold exposed ends of hips and ridges neatly and finish with an End Cap.



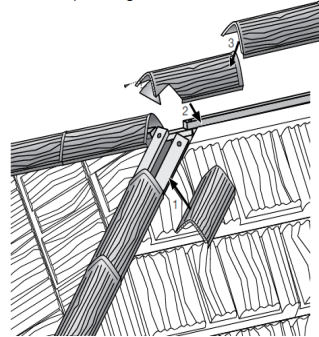
Tile Hip & Ridge



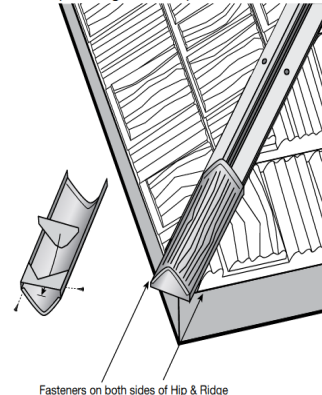
Tile Hip & Ridge End Cap



Shake Hip & Ridge



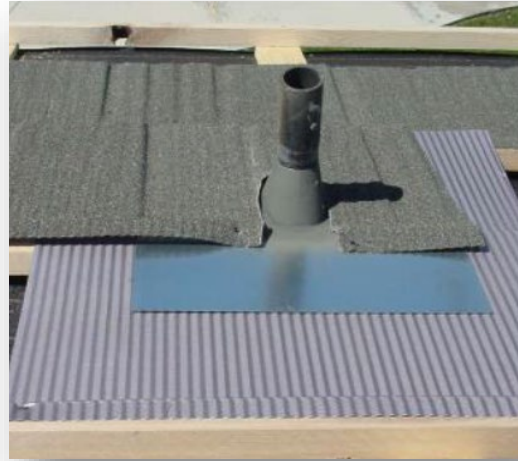
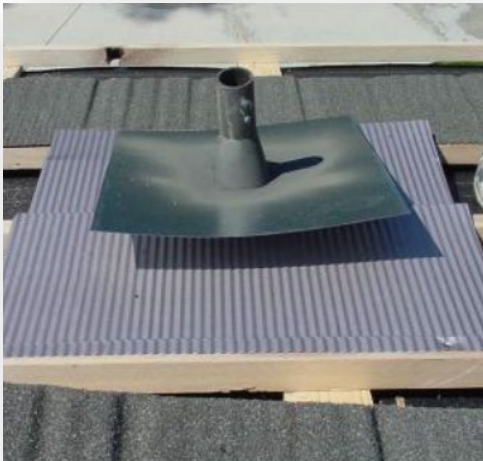
Shake Hip & Ridge End Cap



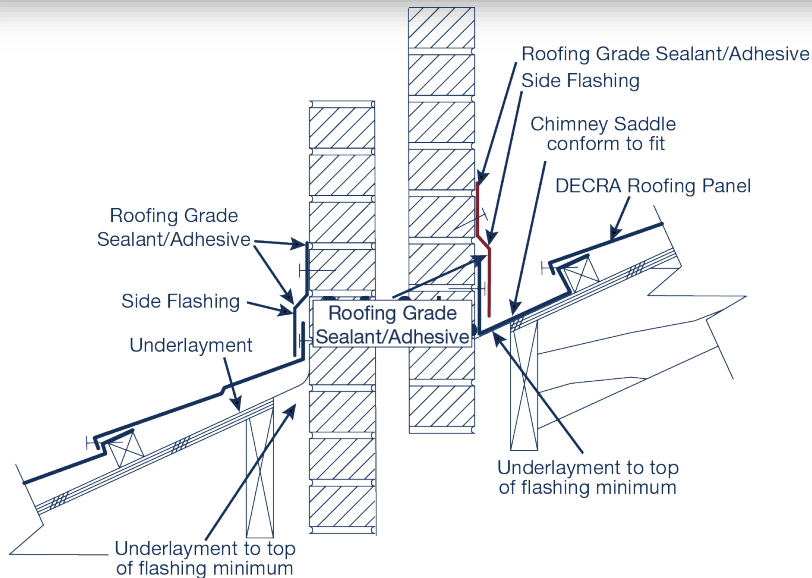
Penetrations

- Cut the Underpan to fit tightly around the plumbing jack. Do not use lead or Copper.
- The Underpan must lap over the lower field panel when positioned around pipe.
- Cut pipe-flashing apron to fit onto Underpan, cut panel to fit snug. Seal around and finish with Touch-Up Kit.

Paint pipes and flashings
prior to installing panels.



Chimneys



- Measure from panel below chimney up to base of chimney, cut panel to fit. Add 2" to all measurements.
- Panels to fit left and right sides of chimney will be measures and cut the same way.
- Measure the width of the chimney, cut, conform and install the chimney saddle to fit above chimney. For brick and stucco, counter flash over top o chimney saddle. For siding, tuck chimney saddle up under siding.

Short Course



- Start battening at the fascia with the longest width and work up to course above or below stepped fascia.
- Measure and treat it like a ridge.
- Measure panel from the front and cut excess from back of panel.

Additional Installation Details



- In high wind areas, top & bottom three courses of full panels should be fastened with 7 fasteners at 7 evenly spaced locations.
- Check local codes and standards in Hurricane Areas.

- For Cold Climate conditions it is recommended to use ice and water shield.
- Fastening panels with a minimum #9 Hex (1/4" Diameter) x 1-1/2" long corrosion resistant screw is recommended.



- Avoid walking on side laps of panels.
- Step on the panel where the nose is supported by the batten.

Additional Installation Details

- Where possible, Roofing Grade (Polyurethane) sealant / adhesive should be covered by roofing materials or by a matching stone granules.
- Sealant should not be used to refinished damaged panel surfaces.



- After Installation is completed, be sure to clean off ALL debris, ESPECIALLY any metal shavings.
- DECRA Touch Up Kits are available in all matching colors and should be used where it is necessary to touch up or repair panel finishes.

DECRA Shake Shadowood



DECRA Shake Charcoal



DECRA Shake Weathered Timber



DECRA Shake Chestnut



DECRA Tile Shadowood



DECRA Tile Charcoal



DECRA Tile Terracotta

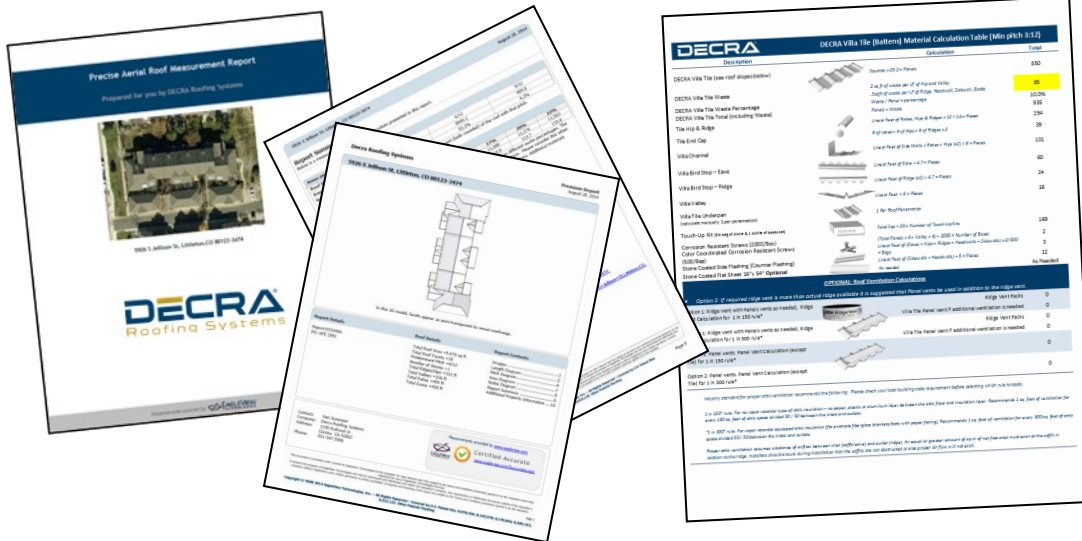
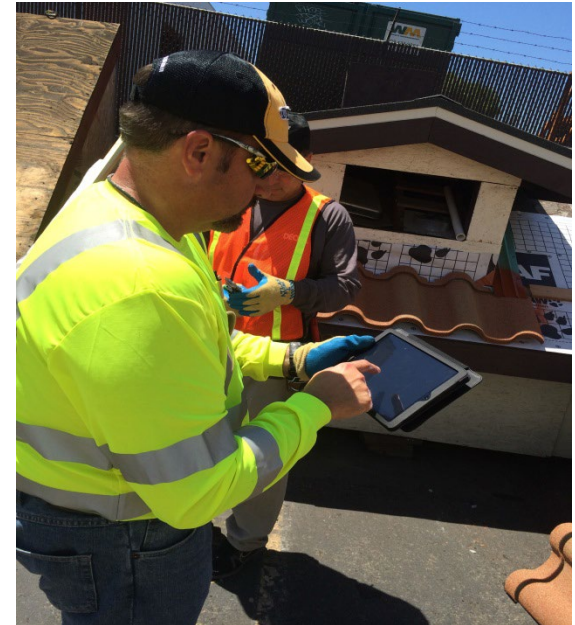


DECRA Tile Garnet



Helpful Online Tools

- MyDECRA App is available for free download at the Apple Store and Google Play
- Eagleview Premium Reports are available at gold level pricing through MyDECRA.
- Comes with FREE DECRA Material list for ALL profiles.



Helpful Tools

DECRA Tile & Shake Estimating Sheet

Estimating Sheet - DECRA Tile & DECRA Shake - Battens

Project Name: _____ Date: _____

Description	Profile	Color	Calculations	Total
(A) DECRA Tile 20 panels per square 14-1/2" exposure - min pitch 3:12			Squares x 20 = Panels (8-12% Waste Factor)	
(A) DECRA Shake 22.4 panels per square 12-5/8" exposure - min pitch 3:12			Squares x 22.4 = Panels (8-12% Waste Factor)	
DECRA Tile Panel Vent			Ventilation Calculator available at www.decra.com	
DECRA Shake Panel Vent			Ventilation Calculator available at www.decra.com	
(B) Tile Hip & Ridge Shake Hip & Ridge			Linear Feet x 12 = Exposure = Pieces Needed As needed for hip, ridge & rake/gable	
Tile End Cap Shake End Cap			As needed for closure at hip, ridge & rake/gable at eave	
DECRA Ridge Vent (2) 20 rolls / package			Linear Feet Ridge ÷ 20 (2) = Rolls Needed Ventilation Calculator available at www.decra.com	
(C) 3.5" Fascia Metal (Eave) Flashing 5" Fascia Metal (Eave) Flashing 6" Length			Linear Feet ÷ 6 = Pieces Needed (Includes 5" Overlap)	
(D) Valley Metal "W" Style Valley 14" Galvanized		n/a	(When estimating allow for 6" overlap)	
(E) Underpan Tile 16-1/2" x 24" Shake 14-5/8" x 24" (Use with Non-Lead Pipe Jacks)		n/a	1 per Roof Penetration	
(F) Side Flashing Roof-to-Wall Counter Flashing			Linear Feet ÷ 6 = Pieces Needed (Includes 5" Overlap)	
Flat Sheet 16" x 54"				
Color Coordinated Corrosion ¹ Resistant Screws ² #9 Hex (1/4" diameter) x 1-1/2" long	500 pc / bag 4 bags / box		1 Bag Per 4 Squares	
2x2 Timber Battens ² (Non-Treated)	100 Linear Feet per Square on Tile 110 Linear Feet per Square on Shake	n/a		
1x4 Counter Battens ²	60 Linear Feet per Square (Use when roofing "over" irregular existing materials to level the deck)	n/a		
Touch-Up Kit or 5 lb. Bag of Chip Use at penetrations, transitions & panels	Bag of stone chip & bottle of acrylic base coat or 5 lb. Bag of Chip			

¹If nails are used in lieu of screws for panel fastening, use black 8d corrosion resistant box nails, full head, sourced locally.

²Battens and counterbattens use 16d common nails.

Colors: (Tile) Chestnut, Chestnut, Gargol, Granite Grey, Sea Green, Shadowwood, Teacocha, Weathered Timber
(Shake) Chestnut, Chestnut, Granite Grey, Sea Green, Shadowwood, Weathered Timber

*CONSULT LOCAL BUILDING CODES. **HIGH WIND AREAS REQUIRE ADDITIONAL FASTENERS. COPPER AND LEAD ACCESSORIES ARE NOT TO BE USED DUE TO D&B SIMILAR METAL REACTION. This estimate is provided in good faith and should not be assumed to reflect the exact components required to roof this plan. DECRA Roofing Systems will not be held liable for the accuracy of this estimate.

Measuring DECRA Stone Coated Steel Tile & Shake - Battens

www.decra.com

(A) Field Panels
(8-12% waste)
DECRA Tile
20 panels per square
DECRA Shake
22.4 panels per square

(B) Hip & Ridge (hip, ridge, rake/gable)
Tile Hip & Ridge (battens)
14-1/2" exposure
Shake Hip & Ridge
12-5/8" exposure

(C) Fascia Metal (Eave) Flashing
3.5" vertical face (eave-off or new)
5" vertical face (roof over)

(D) Valley Metal, 10" lengths
Minimum 7-1/2" wide and
1-1/2" upturn at edge

(E) Underpan
Use with non-lead pipe jacks
Tile 16-1/2" x 24"
Shake 14-5/8" x 24"

(F) Side Flashing
4" Face, 2" Bar counter flashing

Waste: Roofs with long ridge runs can encounter high waste factors due to removal of top section of full panels at variable ridge course. See drawing below. Refer to chart for number of panels needed to cover rafter lengths and always round up.
Example: A 19' rafter and 42' eave will require 176 Tile panels (16 x 11) and in Shake will require 190 panels (15 x 11)

Panels Needed

Tile		Shake	
Rafter Length	Eave Length	Rafter Length	Eave Length
1'-0"	1'-0"	1'-0"	1'-0"
2'-0"	2'-0"	2'-0"	2'-0"
3'-0"	3'-0"	3'-0"	3'-0"
4'-0"	4'-0"	4'-0"	4'-0"
5'-0"	5'-0"	5'-0"	5'-0"
6'-0"	6'-0"	6'-0"	6'-0"
7'-0"	7'-0"	7'-0"	7'-0"
8'-0"	8'-0"	8'-0"	8'-0"
9'-0"	9'-0"	9'-0"	9'-0"
10'-0"	10'-0"	10'-0"	10'-0"
11'-0"	11'-0"	11'-0"	11'-0"
12'-0"	12'-0"	12'-0"	12'-0"
13'-0"	13'-0"	13'-0"	13'-0"
14'-0"	14'-0"	14'-0"	14'-0"
15'-0"	15'-0"	15'-0"	15'-0"
16'-0"	16'-0"	16'-0"	16'-0"
17'-0"	17'-0"	17'-0"	17'-0"
18'-0"	18'-0"	18'-0"	18'-0"
19'-0"	19'-0"	19'-0"	19'-0"
20'-0"	20'-0"	20'-0"	20'-0"

Use as guide only
For Installation Questions Call
DECRA Roofing Systems at 800-258-9740

Call DECRA for additional details

800-258-9740

Support Materials available at

www.decra.com

Code Compliance

- Code compliance information can be found at <http://www.decra.com/technical/product-evaluations>

ONLINE CERTIFICATIONS DIRECTORY
 Prepared Roof Covering Materials, Formed or Molded Metal, Fiber-Cement or Fire Retardant-treated Wood
 See General Information for Prepared Roof-covering Materials treated Wood

ICC-ES Report
 ICC-ES Evaluation Report
 ICC-ES | (800) 423-6587 | (562) 699-0543 | www.icc-es.org
 Most Widely Accepted and Trusted
 ESR-1754
 Valid: 11/14 to 11/15
 Division: 07 00 00—THERMAL AND MOISTURE PROTECTION
 Section: 07 31 16—METAL SHINGLES
 Section: 07 32 19—METAL ROOF TILES
 REPORT HOLDER:
 DECRA ROOFING SYSTEMS, INC.
 1230 RAILROAD STREET
 CORONA, CA 92882
 EVALUATION SUBJECT:
 Steel Roofing Panels: Tile Profile: DECRA Villa Tile Shake Profiles: DECRA Shingle Plus AND Shingle XD™
 Shingle Profiles: DECRA Shingle Plus AND Shingle XD™
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 Section: 07 31 16—METAL SHINGLES
 Section: 07 32 19—METAL ROOF TILES
 REPORT HOLDER:
 DECRA ROOFING SYSTEMS, INC.
 1230 RAILROAD STREET
 CORONA, CA 92882
 EVALUATION SUBJECT:
 Steel Roofing Panels: Tile Profile: DECRA Villa Tile Shake Profiles: DECRA Shingle Plus AND Shingle XD™
 Shingle Profiles: DECRA Shingle Plus AND Shingle XD™
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