

# Hatteras® Shingles

# 14

**YOUR OBJECTIVE:**

To learn the correct procedures for installing Hatteras® shingles

## HATTERAS® SHINGLES

Hatteras® shingles are a premium oversize (18" x 36") roofing product with an 8" exposure designed to look like slate.

### SLOPE RESTRICTIONS

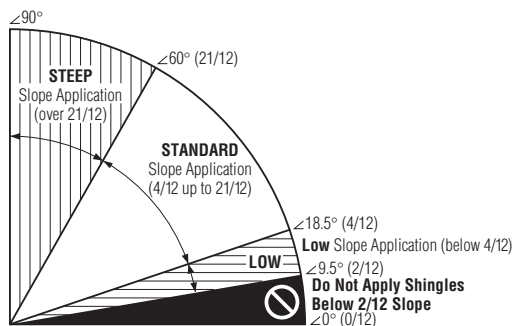


Figure 14-1 Slope definitions

**THE ROOF DECK\* MUST BE AT LEAST:**  $\frac{3}{8}$ " (9.5 mm) thick plywood, or  $\frac{7}{16}$ " (11 mm) thick non-veneer, or nominal 1" (25 mm) thick wood deck.

**FOR UL FIRE RATING,** underlayment may be required. Apply flat and unwrinkled.

**STANDARD OR STEEP SLOPES:** CertainTeed recommends DiamondDeck™ Synthetic Underlayment, Roofers' Select™ High Performance Underlayment, or shingle underlayment meeting ASTM D226, D4869 or D6757. Always ensure sufficient deck ventilation, and take particular care when DiamondDeck or other synthetic underlayment is installed. Follow manufacturer's application instructions.

**LOW SLOPES:** One layer of CertainTeed's WinterGuard™ Waterproofing Shingle Underlayment (or equivalent, meeting ASTM D1970) or two layers of 36" (914 mm) wide felt shingle underlayment (Roofers' Select or underlayment product meeting ASTM D226, D4869 or D6757) lapped 19" (483 mm) must be applied over the entire roof; ensure sufficient deck ventilation. When DiamondDeck or other synthetic underlayment is installed, weather-lap at least 20" (500 mm) and ensure sufficient deck ventilation. Follow manufacturer's application instructions.

**COLD WEATHER CLIMATES (ALL SLOPES):** Application of WinterGuard or its equivalent is strongly recommended whenever there is a possibility of ice build-up. Follow manufacturer's application instructions.

**SEALING:** Shingle sealing may be slowed if the shingles are applied in cool weather and may be further delayed by airborne dust accumulation. We recommend hand-sealing each tab when weather conditions are likely to prevent the factory-applied sealant from activating. Follow the hand-sealing instructions found under "Steep Slope Application."

**CAUTION:** To prevent cracking, shingles must be warm enough to allow proper forming for hips, ridges and valleys.

**FLASHING:** Corrosion-resistant flashing must be used to help prevent leaks where a roof meets a wall, another roof, a chimney or other objects that penetrate a roof.

**WARRANTY:** These shingles are warranted against manufacturing defects and are covered by SureStart™ protection. See the warranty itself for specific details and limitations.

**NOTE:** Hatteras shingles must be applied with an eight inch exposure. This is a "requirement." Changing the exposure will harm the appearance of the installed roof and reduce the shingle's ability to resist wind blow-offs (by shifting the adhesive seal line).

It is likely that Hatteras has been chosen to be used in a high wind area and customers expect exceptional performance — it is therefore critical to follow installation instructions carefully.

\*

For technical questions, information on acceptable alternative application methods and materials, or a copy of the product warranty, contact the sources listed below:	Warranty	Alternate Instructions	Technical Questions
Your supplier or roofing applicator	✓		
CertainTeed Home Institute 800-782-8777	✓	✓	
CertainTeed-RPG Technical Services 800-345-1145	✓	✓	✓

## FASTENING

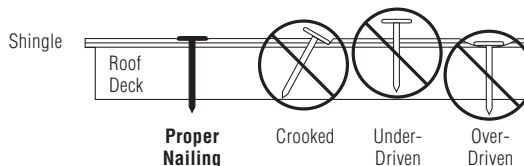


Figure 14-2: Proper and improper nailing.

**IMPORTANT:** For decks  $\frac{3}{4}$ " (19 mm) thick or thicker, nails must go at least  $\frac{3}{4}$ " (19 mm) into the deck. On thinner decks, nails must go at least  $\frac{1}{8}$ " (3.2 mm) through the deck.

Nails must be 11- or 12-gauge roofing nails, corrosion-resistant, with at least  $\frac{3}{8}$ " (9.5 mm) heads, and at least 1" (25 mm) long.

## LOW, STANDARD AND STEEP SLOPE:

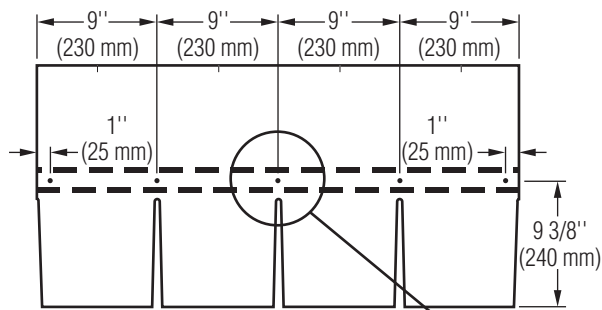


Figure 14-3: Fastening Hatteras Shingles on Low and Standard Slopes

For low and standard slopes, use five nails for each full Hatteras shingle as shown above. (Use six nails as shown at right for Miami-Dade for all slopes.)

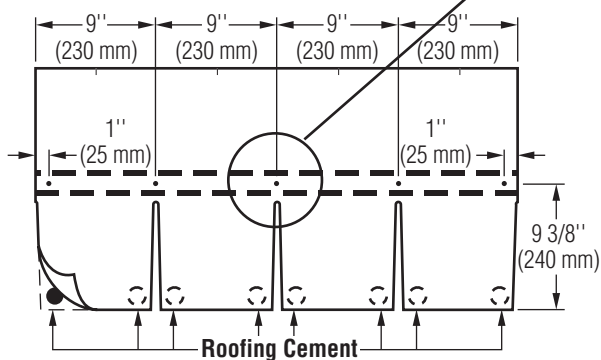


Figure 14-4: Fastening Hatteras Shingles on Steep Slopes

For steep slopes, use five nails and eight spots of asphalt roofing cement for each full Hatteras shingle as shown above. Apply 1" (25mm) diameter spots of roofing cement (ASTM D 4586 Type II suggested) under each tab corner. Press shingle into place; do not expose cement.

**CAUTION:** Too much roofing cement can cause shingles to blister.

## TWO CLEAN-DECK APPLICATION METHODS

Install on new roofs and tear-offs using the following methods:

- ◆ The standard "4 1/2" Single Column Vertical Racking Method."
- ◆ The alternate "Six-Course, 4 1/2" Stepped-Off Diagonal Method."

### (1) 4 1/2" SINGLE COLUMN VERTICAL RACKING METHOD

#### PREPARING THE DECK – NEW ROOF

- ◆ Roof deck must be at least 3/8" (9.5 mm) thick APA-approved plywood, **or** at least 7/16" (11 mm) thick APA-approved non-veneer, **or** at least nominal 1" (25 mm) thick wood deck, not more than 6" (150 mm) wide.

**Underlayment:** Apply as required, following manufacturer's instructions. (Figure 14-6) illustrates application of Roofers' Select and standard felt underlayment, for standard or steep-slopes only. Always ensure sufficient deck ventilation, and take particular care when DiamondDeck or other synthetic underlayment is installed. Follow manufacturer's application instructions.

**Alignment:** Snap horizontal and vertical chalk lines to assure that the shingles will be properly aligned. Expose all shingles 8" (203 mm) ± 1/8" (3.2 mm).

#### STARTER COURSE: **IMPORTANT!**

The starter course must consist of either Hatteras shingles with the lower 8" (203 mm) tab portions removed or CertainTeed High Performance Starter (10"). This is a **requirement** in order to be eligible for the 110 MPH wind warranty.

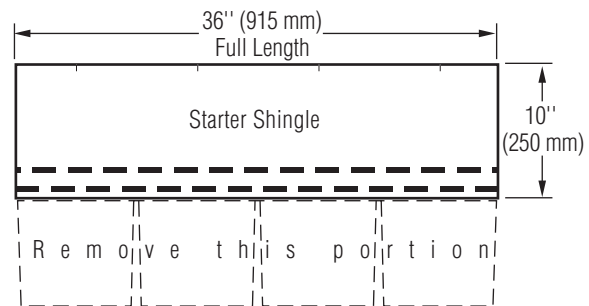


Figure 14-5: Make starter shingles by removing the lower 8".

Install the 10" starter shingle with its sealant stripes at the lower most edge of the eaves and nail firmly into the roof deck as near as possible to eaves' edge while avoiding the sealant.

Cut 4 1/2" (115 mm) off the left end of the first starter shingle only. Apply the 31 1/2" (800 mm) remaining piece to the lower left corner of the roof (Figure 14-6).

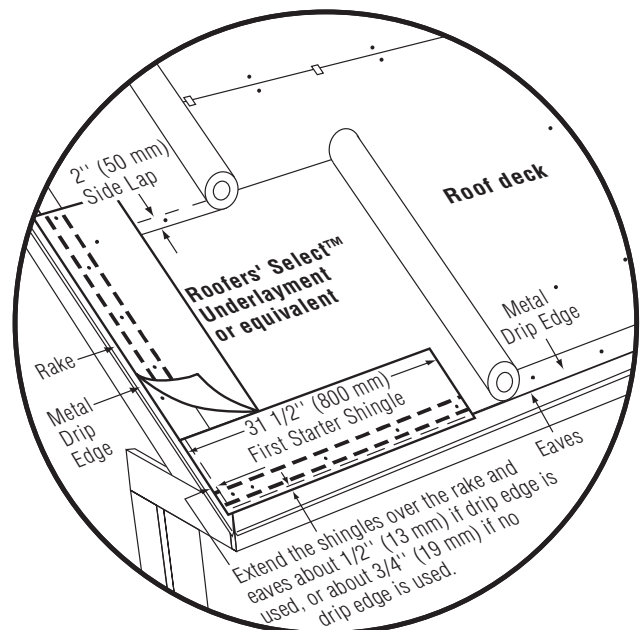


Figure 14-6: Standard slope underlayment and starter drip edge details.

Figure 14-7: Installation schematic.

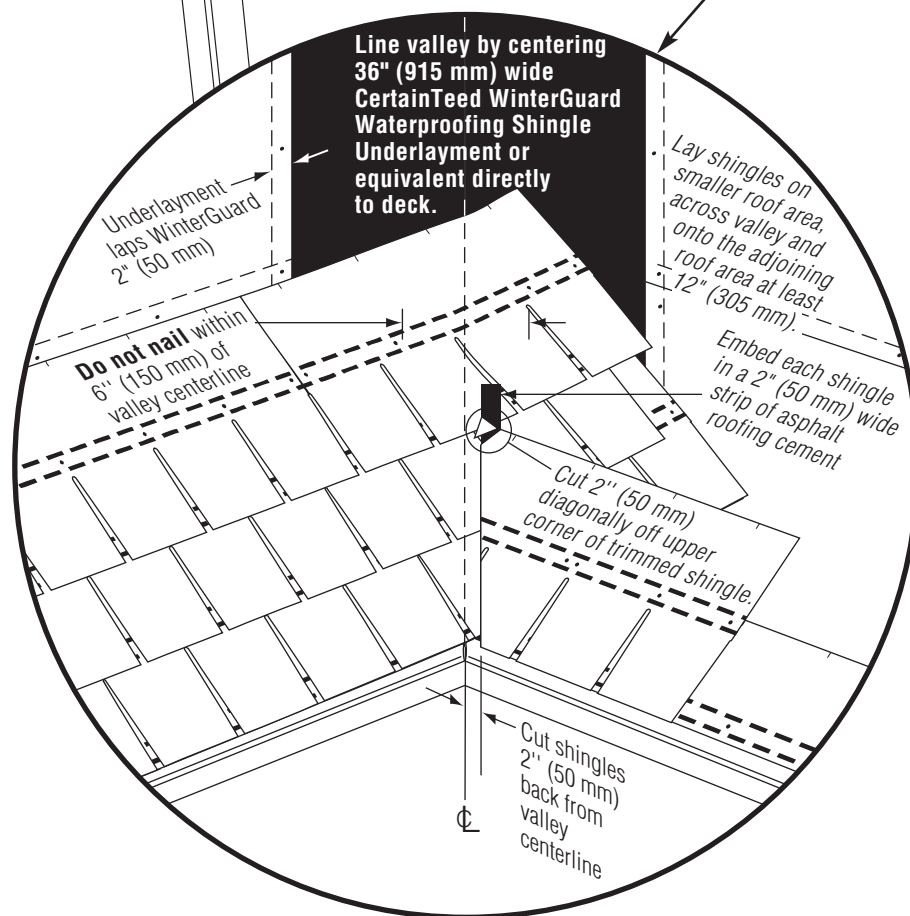
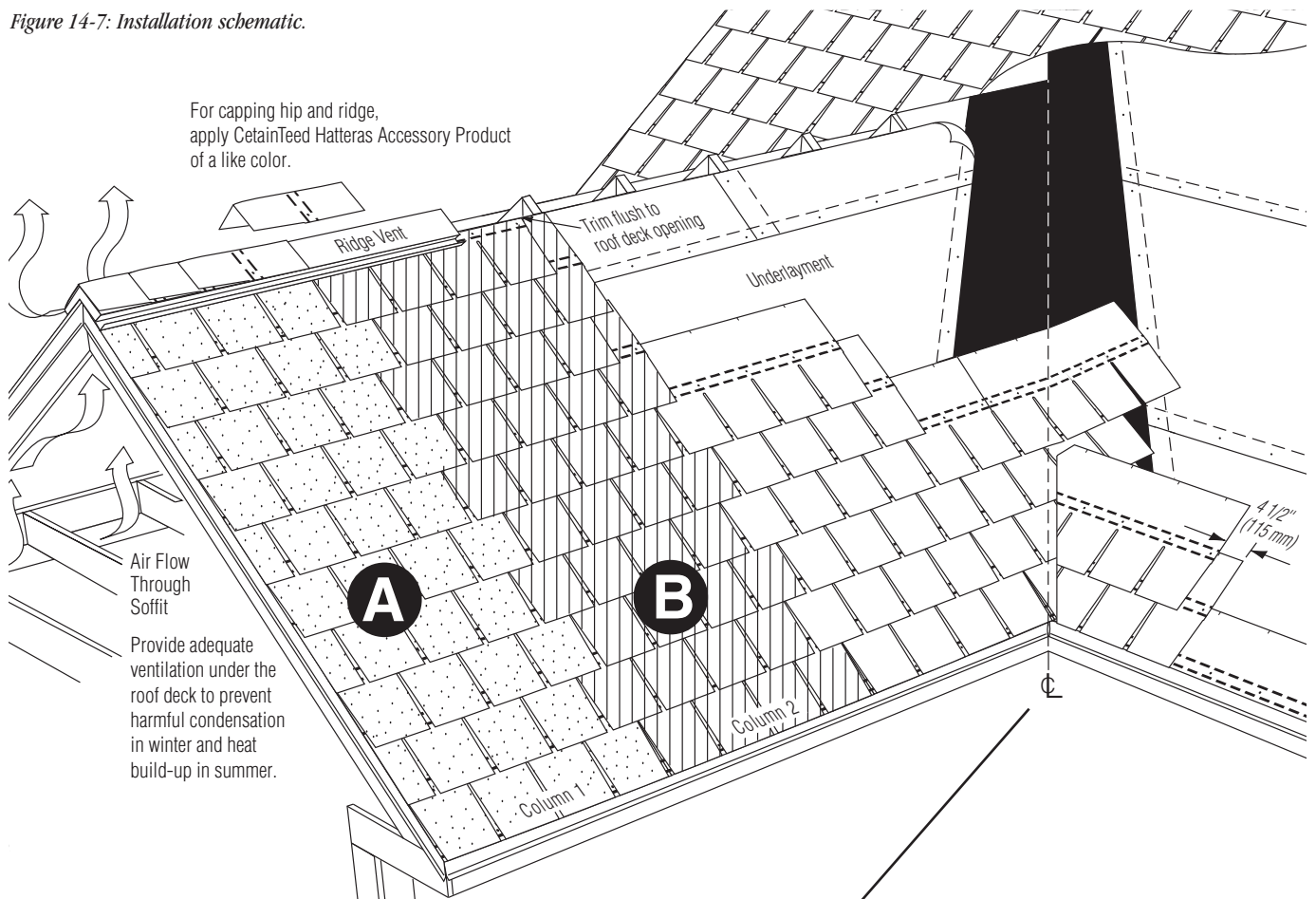


Figure 14-8: Highlight of closed-cut valley detail.

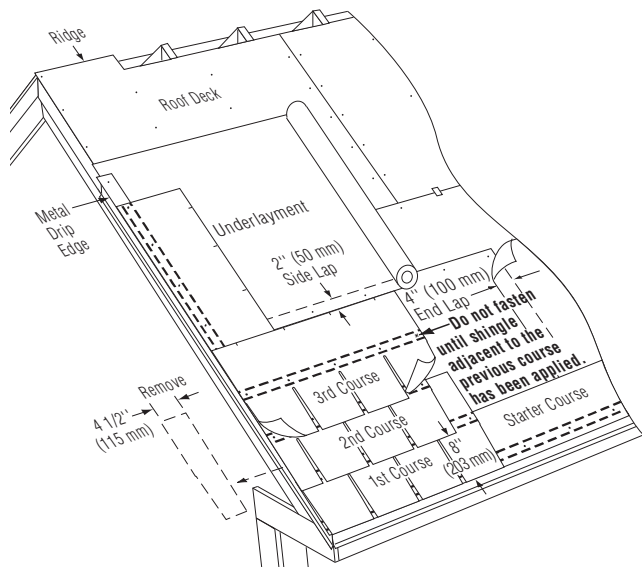


Figure 14-9: Applying the first three courses on a standard slope.

**FIRST COURSE:**

Apply a full Hatteras shingle at the left corner of the roof, flush with the starter course left corner (Figure 14-9).

**SECOND COURSE:**

Cut 4 1/2" (115 mm) off the left end of a full shingle and apply the remaining 31 1/2" (80 mm) over the left edge of the 1st course (Figure 14-9).

**SUCCEEDING COURSES:**

Begin application of the 3rd course with a full shingle. Fasten with four nails. **Leave the right end unfastened until later** (Figure 14-9).

Begin the fourth course using a shingle 4 1/2" (115 mm) cut off its left end. Fasten with five nails (Figure 14-7-A).

To begin the application of subsequent courses, alternate full shingles (36" [915 mm]) and cut shingles (31 1/2" [800 mm]) up the rake edge, fastening as described above (Figure 14-7-A).

**REMAINING COLUMNS AND COMPLETION OF THE COURSES:**

Apply a full shingle against the right edge of each shingle in the previous column. When applying a shingle against a covered shingle, carefully lift the right edge of the shingle above and slip the new shingle under it. Fasten as usual with five nails, then fasten the loose right edge of the upper shingle (Figure 14-7-B).

**NOTE:** It is suggested that each shingle tab at the rake edges be hand-sealed for extra protection against blow-offs. Apply a 1/4" bead of roofing cement beneath each shingle tab and press the shingles into place to bring the cement near the edge, but not visible.

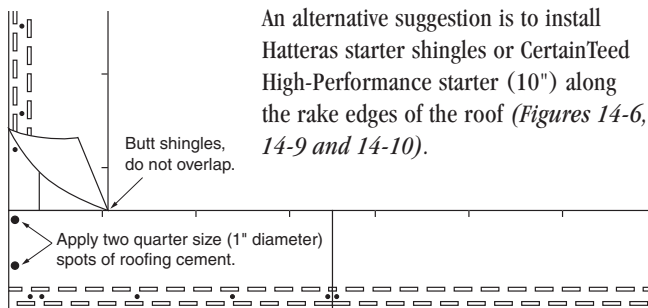


Figure 14-10: Applying the starter shingles along rake edges.

Be sure to apply two quarter-sized (1" diameter) spots of roofing cement and butt shingles (DO NOT OVERLAP) as shown in Figure 14-10.

**(2) SIX-COURSE, FOUR-AND-ONE-HALF INCH, STEPPED-OFF DIAGONAL METHOD**

**IMPORTANT!**

**STARTER COURSE:**

The starter course must consist of either Hatteras shingles with the lower 8" (203 mm) tab portions removed or CertainTeed High Performance Starter (10"). This is a **requirement** in order to be eligible for the 110 MPH wind warranty.

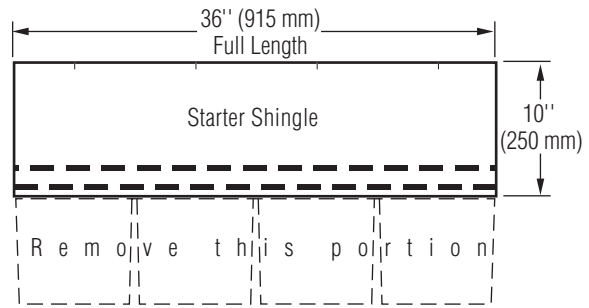


Figure 14-11: Make starter shingles by removing the lower 8".

Install the 10" starter shingle with its sealant stripes at the lower most edge of the eaves and nail firmly into the roof deck as near as possible to eaves' edge while avoiding the sealant.

Cut 4 1/2" (115 mm) off the left end of the first starter shingle only. Apply the 31 1/2" (800 mm) remaining piece to the lower left corner of the roof (Figure 14-6).

**1ST COURSE:** Apply a full Hatteras shingle at the lower left corner of the roof. Make the tabs flush with the starter-course shingle at the eaves and rakes (Figure 14-12).

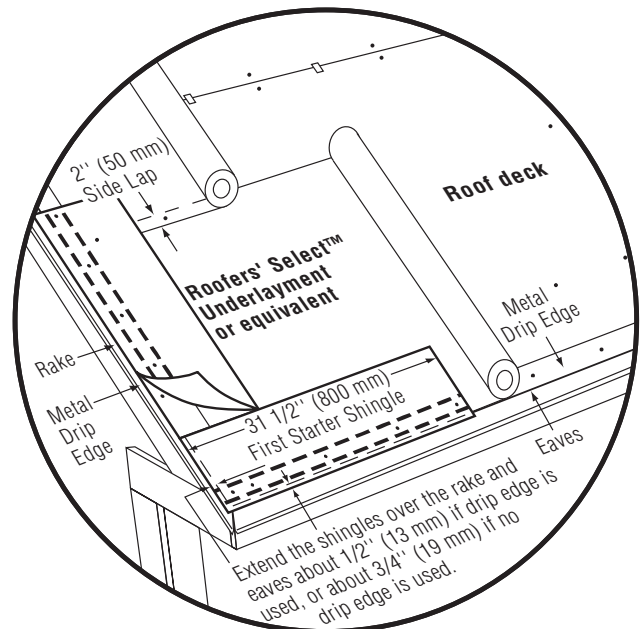


Figure 14-12: Standard slope underlayment and starter drip edge details.



## 2ND THROUGH 6TH COURSES:

1. For the second course, cut  $4\frac{1}{2}$ " off the left end of a full shingle, and install this cut shingle over and above the first shingle of the first course. Leave the 8" tabs of the first-course shingle exposed to the weather by aligning the lowermost edge of the second course with the top of the flared cutouts (Figure 14-13).

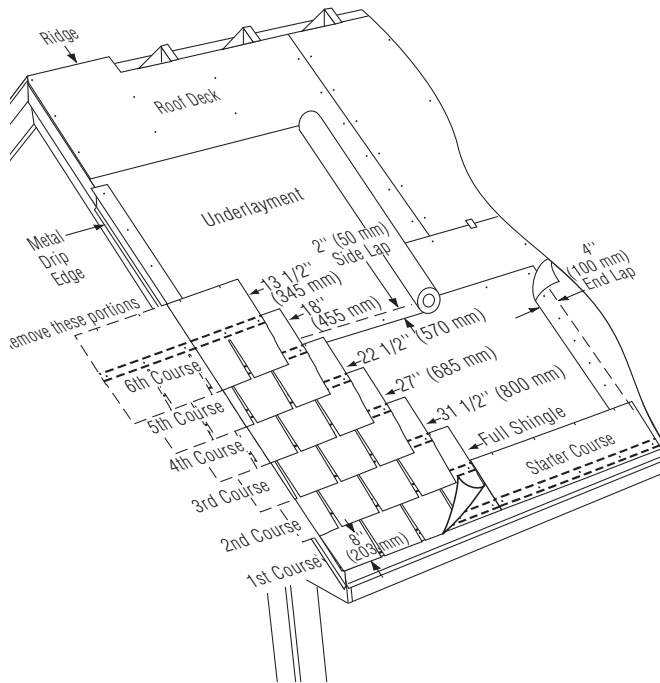


Figure 14-13: Applying the first six courses on a standard slope.

2. The first shingle in each of the next courses will be  $4\frac{1}{2}$ " shorter than the first shingle of the course below. This means that the first shingle of the third course will be 27" long (9" cut off). The first shingle of the fourth course will be  $22\frac{1}{2}$ " long ( $13\frac{1}{2}$ " cut off). The first shingle for the fifth course will be 18" long (18" cut off), and the first shingle of the sixth course will be only  $13\frac{1}{2}$ " long ( $22\frac{1}{2}$ " cut off).

**CONTINUING UP THE ROOF:** Starting with the seventh course, repeat the above six-course pattern up the left rake until you reach the ridge.

**CONTINUING ACROSS THE ROOF:** Use full shingles to complete each course across the roof.

Note: Do not use any shingle pieces less than 9" wide.

## CAPPING THE HIP AND RIDGE

Use of Hatteras Accessory for covering hips and ridges of a roof is strongly recommended, since they provide 110 MPH wind protection.

Carefully separate the three-piece units by hand prior to application, by first folding along the pre-cut lines and then detaching the pieces. (See Figure 14-14).

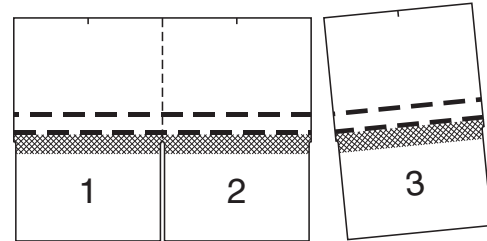


Figure 14-14: 18 three-piece units separate to make 54 Hatteras Accessory shingles.

**IMPORTANT:** To obtain stated linear coverage (36 linear ft. per bundle), and to achieve designed performance and appearance, the directions on the package must be followed, including 8" (200 mm) exposure to the weather. Shadowline is a designed appearance feature that will be visible when shingles are applied properly.

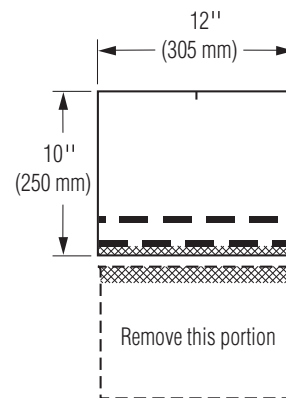


Figure 14-15: Hatteras Accessory Starter

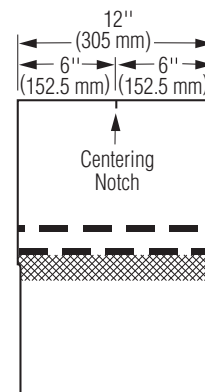


Figure 14-16: Accessory Notch

To apply the capping, start by cutting off the bottom 8" (200 mm) of one Hatteras Accessory shingle and applying the 10" x 12" (250 mm x 305 mm) piece over the hip or ridge by bending this "starter" shingle along its centerline and forming into place. Align butt edge to the bottom of the hip or to either end of the ridge, flush with the edges of the existing shingles. Fasten with two nails. (See Figure 14-17)

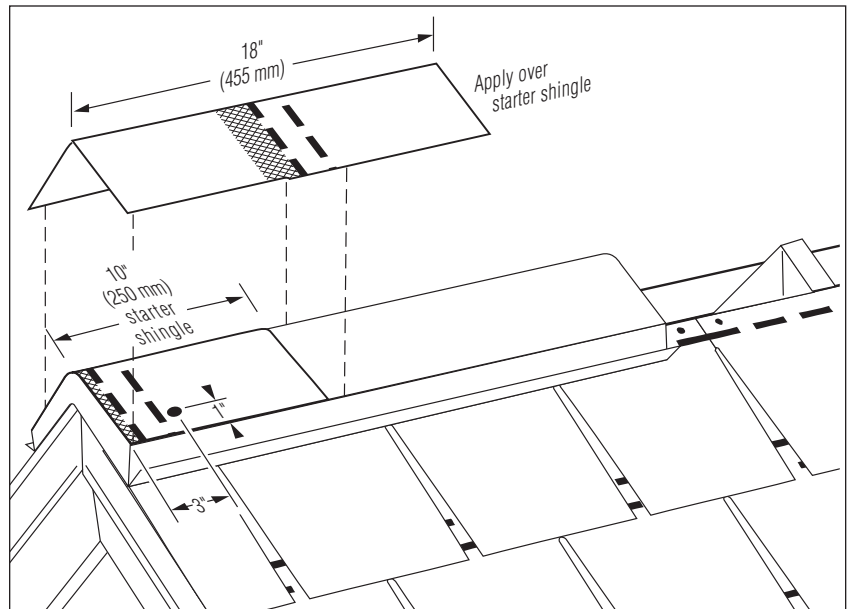


Figure 14-17: Ridge cap installation – starter.

Then apply a full 18" x 12" (455 mm x 305 mm) piece over the starter, bending the shingle along its centerline and forming it into place over the hip or ridge, flush with the bottom and side edges of the starter shingle. Fasten with two (2) nails as shown in the fastening section. (See Figure 14-18 )

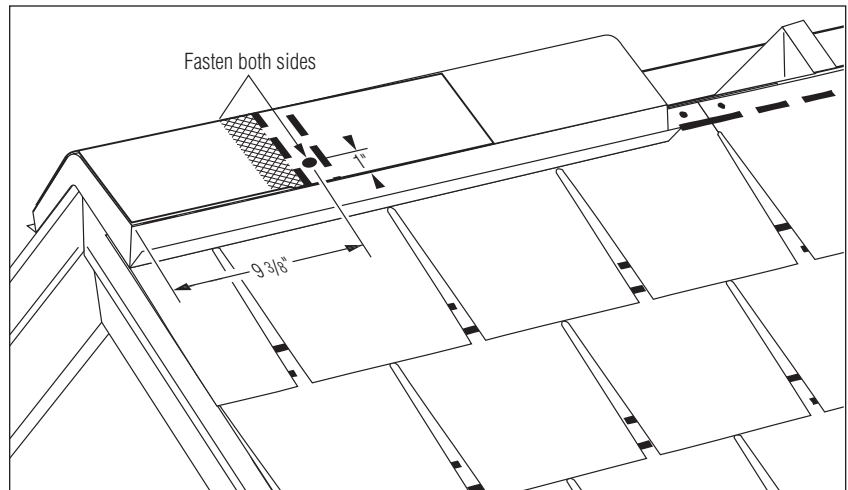


Figure 14-18: Ridge cap installation – First Course.

To continue application of the Hatteras Accessory shingles up the hip or along the ridge, form each shingle over the hip or ridge, and fasten as shown in Fastening Section. Expose Hatteras Accessory shingles 8" (200 mm), covering all nails (See Figure 14-19). To assist in proper alignment, snap a chalk line parallel to the hip or ridge along the line where the side edges of the Hatteras Accessory shingles should be.

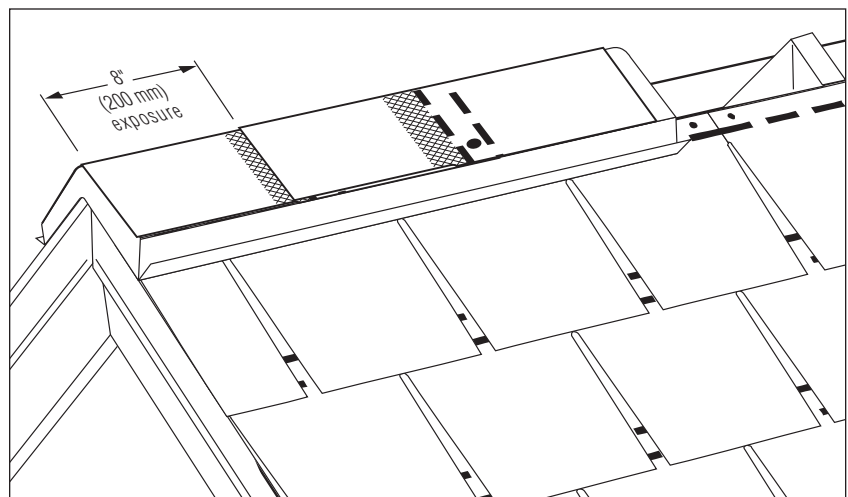


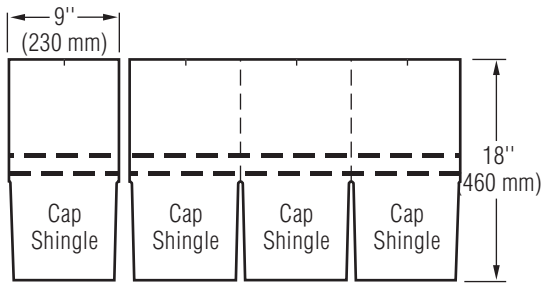
Figure 14-19: Ridge cap installation – Second Course.

**IMPORTANT:** When applying Hatteras Accessory shingles on shingle-over ridge vents, follow ridge vent manufacturer's instructions carefully. Do not allow the primary roofing shingles to block the ridge slot. See additional important information in the General Instructions and the Roof Deck Ventilation sections above.

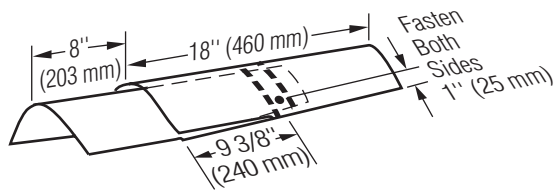
## ALTERNATIVE CAPPING METHOD

Use of Hatteras Accessory shingles is **strongly recommended**; however, cap shingles can be made from standard Hatteras shingles. Cut shingles as shown in *Figure 14-20*.

**NOTE:** If installing a ridge vent, this smaller width cap will require using a 9" wide ridge vent.



*Figure 14-20: Cut Hatteras shingles to make cover cap.*



*Figure 14-21: Installation of caps along hips and ridges.*

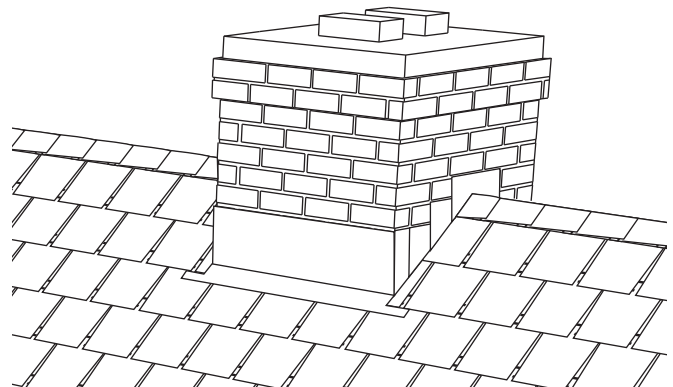
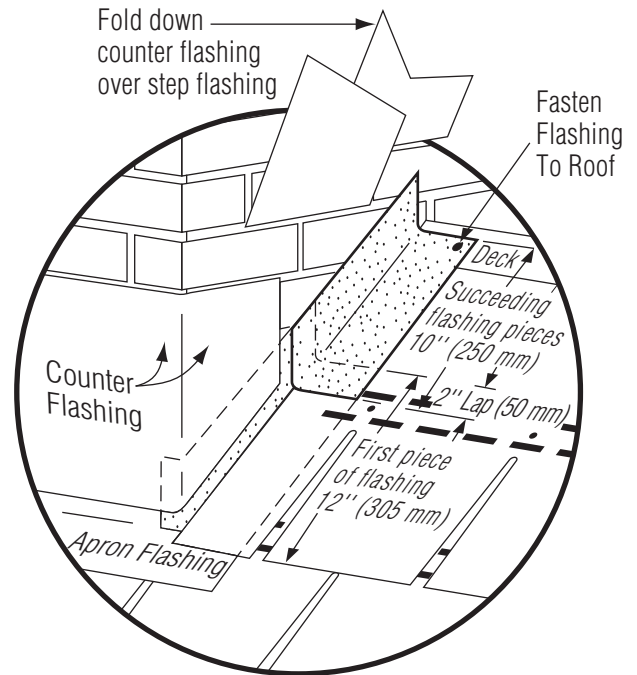
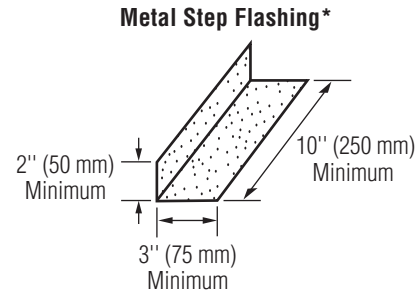
## VENT PIPE FLASHING

**CAUTION:** Standard sized flashing boots used to flash around vent pipes may not be large enough to provide sufficient coverage under the cut-outs of a Hatteras shingle. Remember to account for the fact that Hatteras shingles are installed with an 8" exposure and the cut-out space of its oversized shingle tabs.

## METAL STEP FLASHING

The first course of metal flashing must be a minimum of 5" x 12" (125 mm x 305 mm), bent as shown in *Figure 14-22*, applied flush with the lowermost edge of the first shingle.

Succeeding courses of flashing must consist of pieces that are a minimum 5" x 10" (125 mm x 250 mm), bent as shown in *Figure 14-22*. Place each piece of flashing 2" (50 mm) up the roof from where the lowermost edge of the next (overlapping) shingle will be applied. Each succeeding course of flashing must "overlap" the flashing course below it a minimum of 2" (50 mm).



*Figure 14-22: Flashing around a chimney.*

## “TEAR-OFF”

Inspect the condition of the roof to determine that the load bearing capacity is adequate for the application of the Hatteras shingles. If the old roof consists of two or more layers of shingles, or it consists of wood shingles (other than sawn square-butt style), it is required to remove (tear-off) the existing roofing. If the old shingles had an exposure other than eight inches (203 mm), it is strongly recommended that the existing roofing be removed, since roofing over these shingles can produce patterns that may have an objectionable appearance. After tear-off, repair the decking and /or install new decking and apply new underlayment, eaves flashing, and Hatteras shingles using the 4½" Single Column Vertical Racking Method recommended procedure.

## “ROOF-OVER”

### OVER ASPHALT SHINGLES:

**IMPORTANT:** If Hatteras shingles are applied over existing roofing shingles having an exposure other than eight inches (203 mm), CertainTeed requires using the nesting method described below. Never apply Hatteras shingles over laminates or lock-type shingles. Failure to follow these directions will cause shingle “bridging” that can give an objectionable appearance and reduce the performance of the roofing.

## CUTBACK/NESTING METHOD

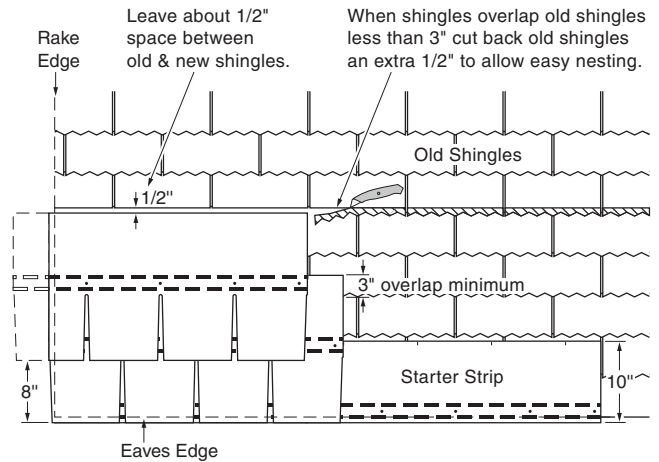


Figure 14-23: “Cutback/Nesting Method”

- 1) Make the surface of the old roof as smooth as possible by replacing missing shingles. Split and nail flat all buckled, raised or curled shingle tabs.
- 2) Cut old shingles back flush to the rakes and eaves.
- 3) Apply corrosion-resistant drip edge along the rakes and eaves, covering the edges of the old shingles.
- 4) Starter Course: If applying over old 5" exposure shingles, prepare starter strip according to Hatteras application instructions. Apply starter strip with sealant near bottom edge so that the top edge of the starter strip will nest below the lower edge of the third course of old shingles. Starter shingle should overhang eaves and rake edges about ½". If applying over shingles of other than 5" exposure, apply CertainTeed High-Performance™ 10" starter in a similar fashion, with the sealant near the eaves. Follow the cutback/nesting method described below if the top edge of the starter shingle overlaps the old shingles less than 3".
- 5) Remainder of Roof: Apply Hatteras shingles using the 4½" single column vertical racking method. When Hatteras shingles overlap the old shingles less than 3", cut back old shingles to the overlap dimension plus about ½", to allow easy nesting. This “Cutback/Nesting Method” permits the upper part of the Hatteras shingle to lay smoothly against the old shingles, resulting in a roof that will perform better and have a more even appearance.

### OVER SQUARE-BUTT WOOD SHINGLES

If the existing roof consists of square-butt wood shingles, apply beveled wood strips to obtain an even base, and apply underlayment, eaves flashing and Hatteras shingles per the 4½" Single Column Vertical Racking Method description.