

Patriot® XL

11

YOUR OBJECTIVE:
To learn the correct procedure for
installing Patriot® XL shingles.

★ **PATRIOT® XL**

Patriot XL shingles have the installer-friendly TRACKNAIL ZONE, which provides a 1-1/2" wide nailing area.

Closed-cut valleys are preferred by CertainTeed when applying any Patriot XL shingles; however, open and woven valleys are also acceptable.

STANDARD OR STEEP SLOPES: CertainTeed recommends DiamondDeck® or RoofRunner™ Synthetic Underlayment or shingle underlayment meeting ASTM D226, D4869 or D6757. Take care to ensure sufficient deck ventilation when DiamondDeck, RoofRunner or other synthetic underlayment is installed. Follow manufacturer's application instructions.

LOW SLOPES: All roof shingles applied to a low slope deck (2" to below 4" per foot) require the use of CertainTeed WinterGuard® or VYCOR® Waterproofing Shingle Underlayment, or its equivalent,* applied over the entire deck surface. Consult product packaging and individual shingle application instructions for details.

*For low slopes, underlayment equivalents to WinterGuard or VYCOR® include:

- 1) waterproofing shingle underlayments meeting ASTM D1970;
- 2) in areas not prone to snow or ice, two layers of 36" (915 mm) wide felt shingle underlayment lapped 19" (485 mm).
- 3) in areas not prone to snow or ice, two layers of CertainTeed's DiamondDeck or RoofRunner in shingle fashion (half lap) per the low-slope application instructions.

IMPORTANT: Because water drains slowly from these slopes and the Pacific Northwest region is known for its above average annual precipitation, there is a greater chance of water back-up. Therefore, after careful consideration of local weather and the application of Patriot XL shingles on a low slope, CertainTeed is requiring a layer of either WinterGuard, VYCOR® Select, VYCOR® Ice & Water Shield®, VYCOR® Ice & Water Shield® HT, or VYCOR® ULTRA™ over the entire roof deck. A double layer of asphalt felt underlayment or synthetic underlayment is not an acceptable alternative when applying these products in the Pacific Northwest region on low slopes. For added protection, CertainTeed recommends doubling the end and side laps.

Shingle underlayment should meet ASTM D6757, ASTM D4869 Type I or ASTM D226 Type I. Ensure sufficient deck ventilation when DiamondDeck, RoofRunner or other synthetic underlayment is installed. (One layer of shingle underlayment meeting ASTM D4869 applied over the required CertainTeed Waterproofing Shingle Underlayment is also recommended.)

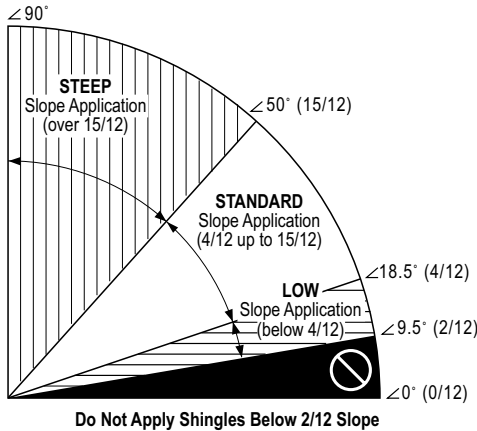


Figure 11-1: Slope definitions.

The roof deck* must be at least: 3/8" (9.5 mm) thick plywood, or 7/16" (11 mm) thick non-veneer, or nominal 1" (25 mm) thick wood deck.

COLD WEATHER CLIMATES (ALL SLOPES): Application of WinterGuard or VYCOR® or a waterproofing shingle underlayment meeting ASTM D1970 is strongly recommended whenever there is a possibility of ice build-up. Follow manufacturer's application instructions.

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.

SEALING: Shingle sealing may be delayed if shingles are applied in cool weather and may be further delayed by airborne dust accumulation. If any shingles have not sealed after a reasonable time period, hand sealing may be necessary.

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

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

For technical questions, information on acceptable alternative application methods and materials, or a copy of the product warranty, contact the sources listed below:	Warranty	Alternative Instructions	Technical Questions
Your supplier or roofing applicator	✓		
CertainTeed Customer Experience 800-233-8990	✓	✓	
CertainTeed-RPG Technical Services 800-345-1145	✓	✓	✓

FASTENING

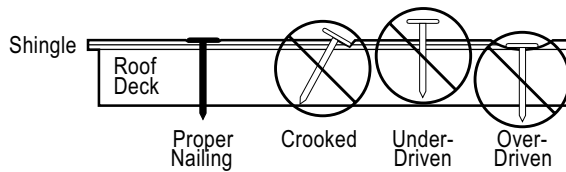


Figure 11-2: Proper and improper nailing.

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

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

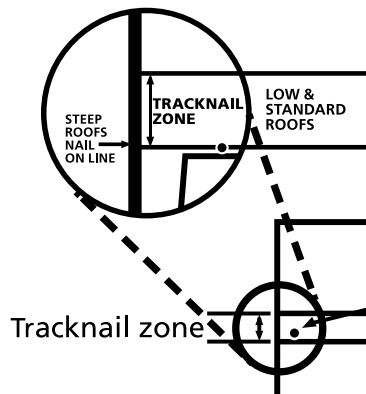


Figure 11-3: TRACKNAIL ZONE features a wider nail area .

LOW AND STANDARD SLOPE

Use four nails for every full shingle as shown below.

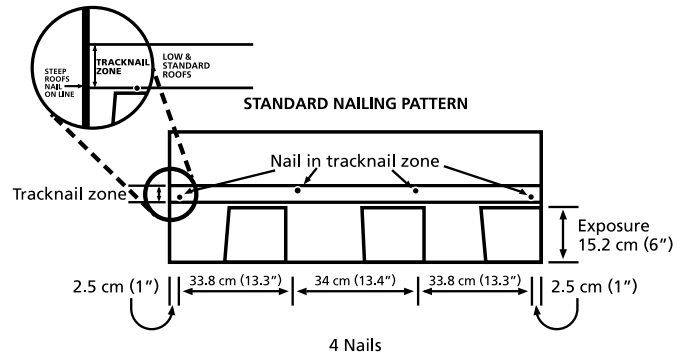


Figure 11-4: Use four nails for every full shingle.

IMPORTANT: When "six nailing" a full shingle, follow the nail pattern shown in figure 11-5, nails are placed in the 1-1/2" TRACKNAIL ZONE.

STEEP SLOPE

Use six nails and four spots of asphalt roofing cement for every full shingle as shown below. Asphalt roofing cement should meet ASTM D4586 Type II. Apply 1" spots of asphalt roofing cement under each corner and at about 12" to 13" in from each edge.

CAUTION: Excessive use of roofing cement can cause shingles to blister.

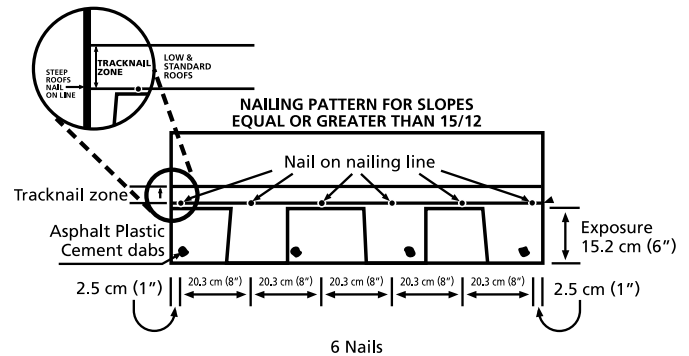


Figure 11-5: Use six nails and four spots of asphalt roofing cement on steep slopes.

IMPORTANT: Failure to follow these steep slope instructions can void the warranty in the event of a shingle delamination.

ONE CLEAN-DECK APPLICATION METHOD

FOUR-COURSE DIAGONAL METHOD (10-1/2" AND 21")

CAUTION: Use of other installation methods may result in an objectionable pattern.

PREPARING THE DECK:

- ◆ Apply underlayment as required. CertainTeed suggests that a layer of shingle underlayment be applied. For UL fire rating, underlayment is generally required. Apply flat and unwrinkled.
- ◆ Snap chalklines to ensure shingles will be correctly aligned.

STARTER COURSE:

1. Use CertainTeed Swiftstart® Starter.
2. For the first starter, cut 6" from one side of the starter shingle.
3. Apply the remaining piece to the lower left corner of the roof. Make sure there is 1/2" overhanging the rakes and eaves if drip edge is being used. If you are not using drip edge, make the overhang 3/4". **NOTE:** Overhang should not exceed 1".
4. Use full length starter shingles for the rest of the course.

Alternatively,

1. Position SwiftStart SA parallel to the roof edge, granule side up, with the sealing strip closest to the roof edge.
2. Overhang eaves and rakes by 1/4" to 3/4" (6 mm to 19 mm). If a drip edge extends beyond the eave/rake edge, install flush to drip edge.
3. Drip edge must be primed with FlintPrime QD or equivalent ASTM D41 asphalt primer and allowed to dry prior to application of SwiftStart SA.
4. Remove release liner and roll into place. Apply uniform pressure with hand or hand roller to ensure SwiftStart SA is applied unwrinkled and is fully adhered.
5. When starting a new roll, overlap by a minimum of 6" (152 mm).

SwiftStart SA General Notes:

Only install as much SwiftStart SA as will be covered by shingles same day. If applied in temperatures below 40° (4°), spot nailing may be required until adhesion strengthens as temperatures rise.

SwiftStart SA butt joints must be offset a minimum of 4" (101.6 mm) from the butt joints of the first course of shingles.

When installed on rake, position SwiftStart SA to overlap eave starter course a minimum of 3" (76 mm).

1ST COURSE: Apply a full shingle at the lower left corner of the roof. Make the lower edge and left edge lie flush with the edges of the starter course (Figure 11-6).

2ND THROUGH 4TH COURSES:

CAUTION! Failure to follow instruction steps 1-4 below will bring joints too close together and may cause unattractive patterns! Expose all shingles 6" (152 mm)

1. Cut 10-1/2" off the left end of the first shingle and save this piece for later use. Apply the 31-1/2" long piece over and above the first-course shingle. Leave the bottom 6" tab portion of the first-course shingle exposed.
2. Cut 21" off the first shingle of the third course. Install the 21" long piece over and above the second-course shingle.
3. Apply the previously removed 10-1/2" long piece over and above the third-course shingle.
4. Install a full shingle against the right edge of each shingle in courses one through four.

CONTINUING UP THE ROOF:

1. Beginning again with a full shingle, repeat the four-course pattern up the left rake. (Figure 11-7, B).
2. Fill-in courses across the roof in a stepped diagonal fashion using full shingles. (Figure 11-7, A). Do not run courses straight across.

IMPORTANT: Do not align joints of Patriot XL shingles closer than 6".

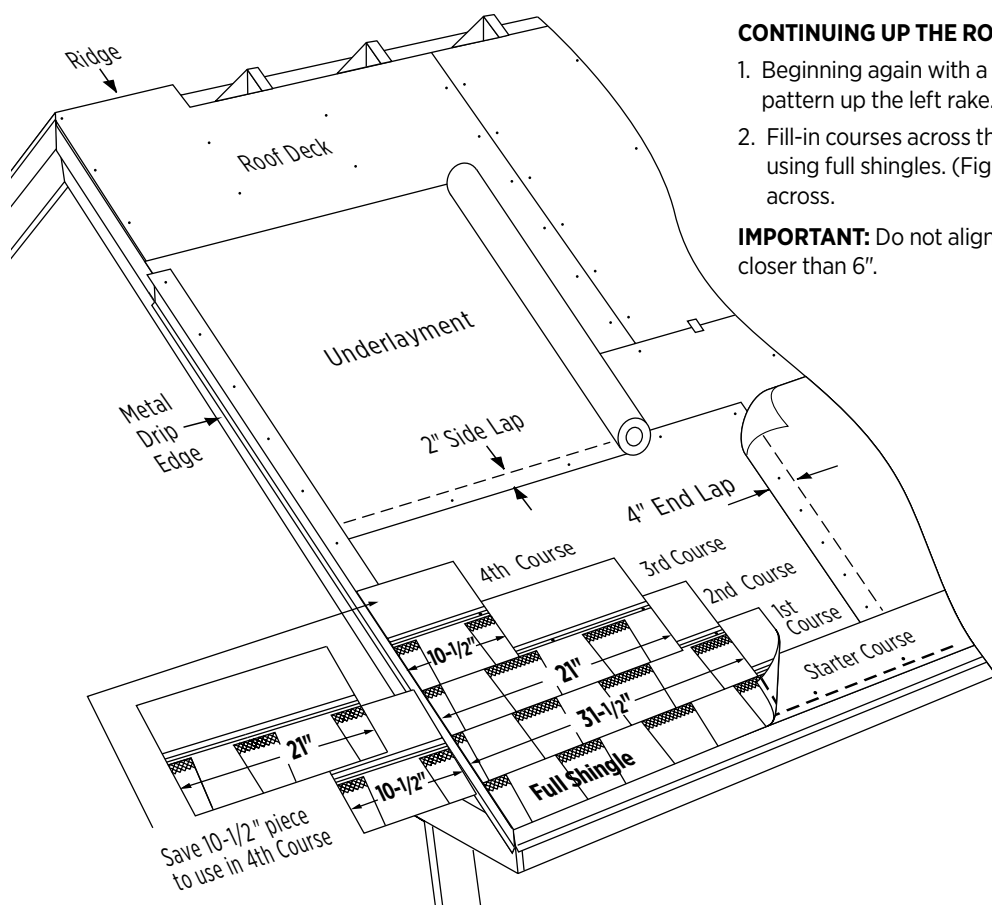


Figure 11-6: Applying the first 4 courses of Patriot XL.

Figure 11-7: "Four-Course Diagonal Method" installation schematic.

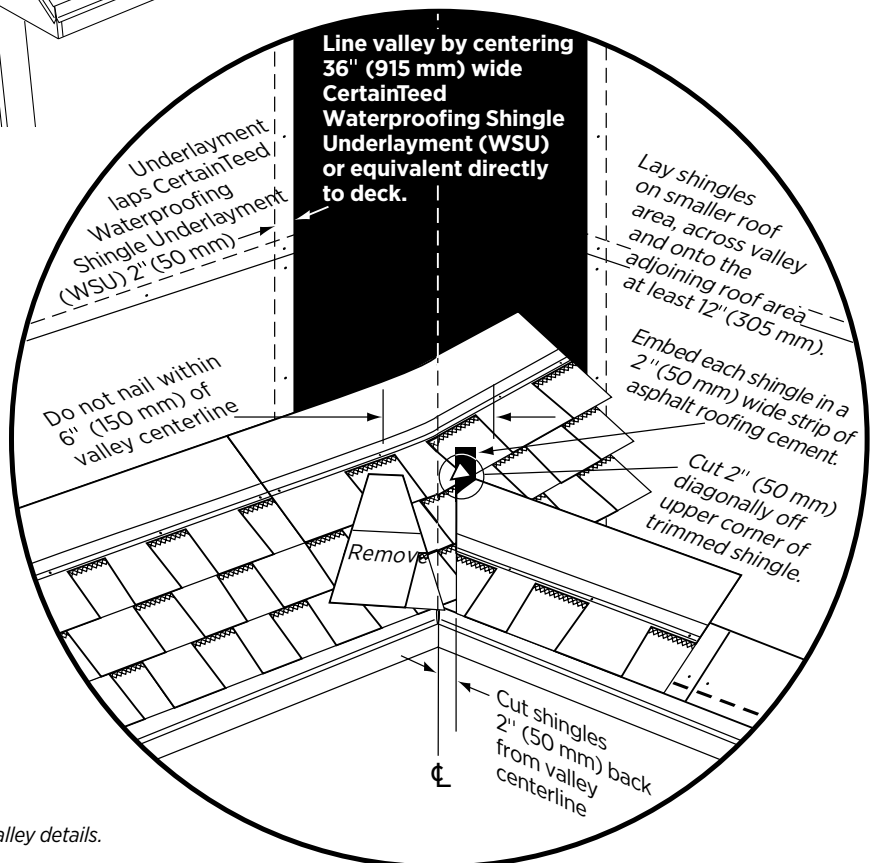
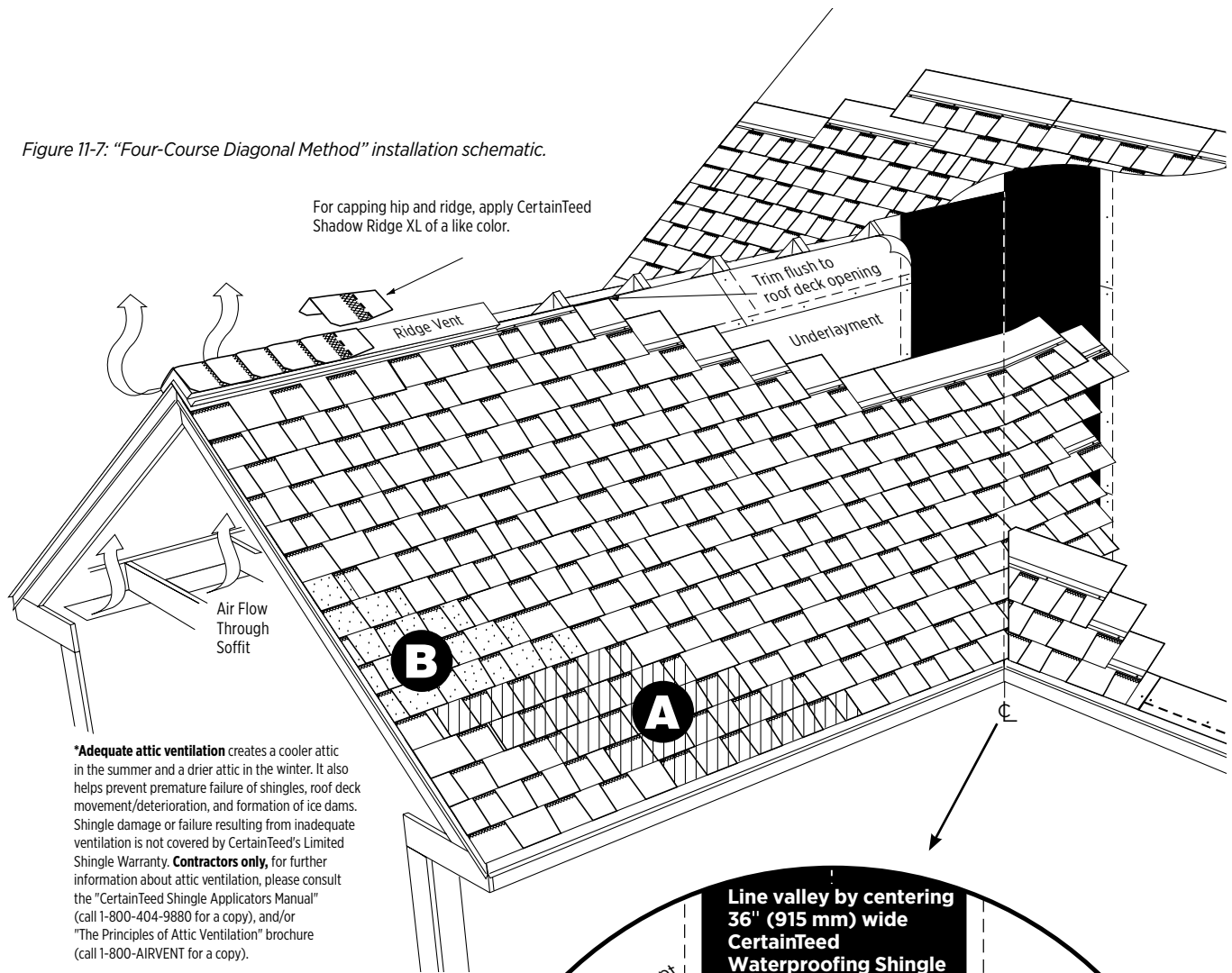


Figure 11-8: Highlight of closed-cut valley details.

CHIMNEY FLASHING

Metal Step Flashing

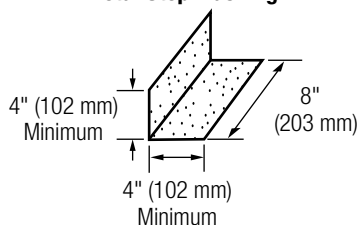


Figure 11-9: Step flashing minimum dimensions.

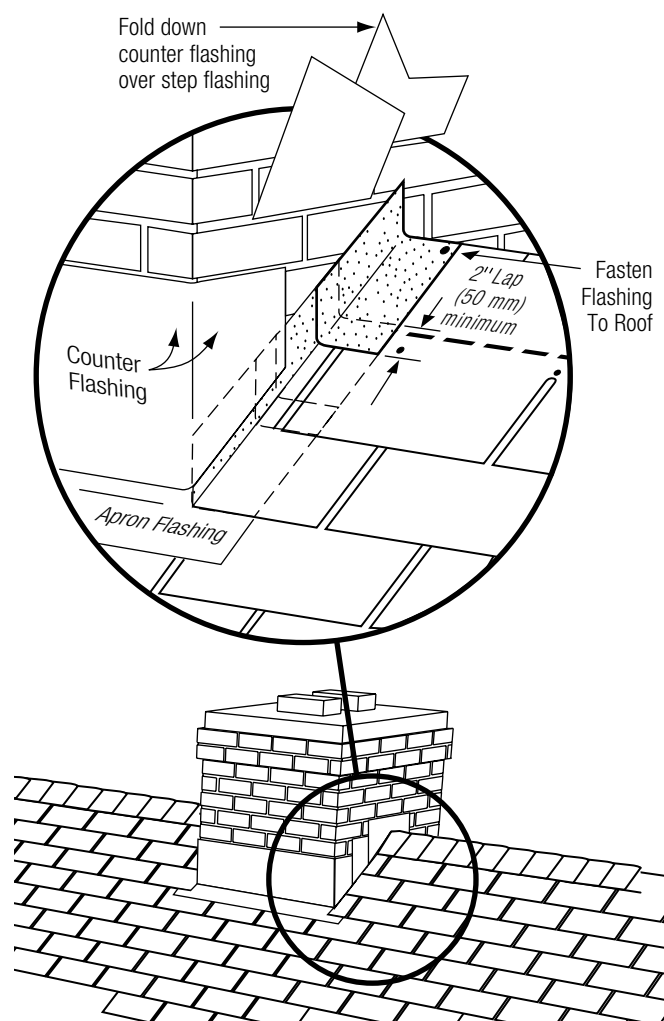


Figure 11-10: Flashing around a chimney.

HIPS AND RIDGES

SHADOW RIDGE XL ACCESSORY SHINGLES

Shadow Ridge XL is a hip and ridge shingle. It is prescored with easy-to-tear tabs to allow the installer to quickly split the shingles in 3 tabs without the use of a knife. Its E-Z FOLD design allows for a beautiful, even layered application for an impeccable 3-D finish. Shadow Ridge XL shingles are made of a stable glass fiber mat coated with asphalt on both sides and covered with mineral granules. Shadow Ridge XL can be installed as a single-layer hip and ridge or the tabs can be superimposed to form a double layer hip and ridge. To maximize the dimensional accent of Shadow Ridge XL, the shingle can be folded on itself to form a triple layer hip and ridge shingle (Figure 11-11).

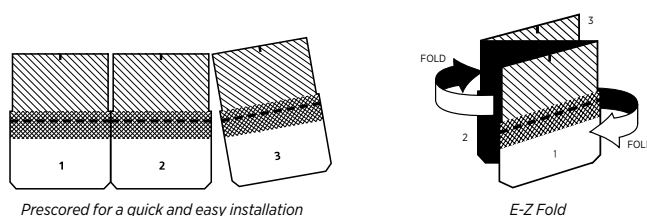


Figure 11-11: Shadow Ridge XL accessory shingles.

ONE-LAYER INSTALLATION

STARTER COURSE:

Cut 5 5/8" (143 mm) off the exposure portion of one piece of the hip and ridge shingle. Align butt edge to the bottom of the hip or to either end of the ridge. Fasten with two (2) fasteners 6" (152mm) from the top of the shingle and 1" (25mm) from each side of the shingle (Figure 11-13).

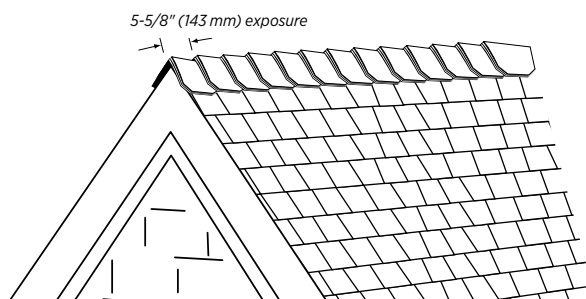


Figure 11-12: Apply a full cap shingle over the starter piece, flush with the bottom and side edges of the starter.

APPLICATION:

For the first row, starting with one complete piece of a hip and ridge shingle, cover the starter course shingle by lying flush to the bottom and sides of the starter course and fasten as per 11-14. All subsequent rows are formed by bending the hip and ridge shingle along the centerline leaving 5 5/8" (143 mm) exposure. (Figure 11-12).

Make sure fasteners used to apply caps penetrate at least 3/4" into or through the decking.

TWO-LAYER INSTALLATION

STARTER COURSE:

Cut 5-5/8" (143 mm) off the exposure portion of two (2) pieces of the hip and ridge shingle. Apply this double-layer shingle (one on top of the other), aligning butt edge to the bottom of the hip or to either end of the ridge. Fasten with two (2) fasteners 6" (152mm) from the top of the shingle and 1" (25mm) from each side of the shingle (Figure 11-13).

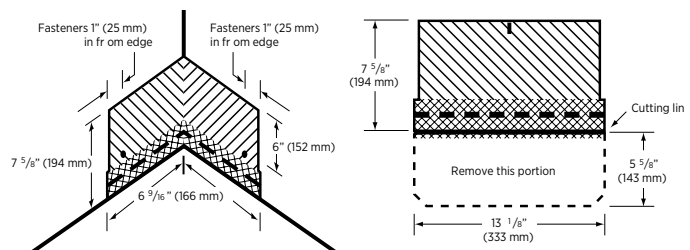


Figure 11-13: Shadow Ridge XL Starter Course Fastening

APPLICATION:

For the first row, starting with two (2) complete pieces of hip and ridge shingles placed one on top of each other, cover the starter course shingles and fasten as per Figure 11-14. For all subsequent rows, apply two complete pieces of hip and ridge shingles placed one on top of each other over the previous row while ensuring a 5-5/8" (143 mm) exposure (Figure 11-12).

Make sure fasteners used to apply caps penetrate at least 3/4" into or through the decking.

NOTE: To assist in proper alignment when ridge vent is not used, snap a chalk line parallel to the hip or ridge along the line where the side edges of the cap shingles should be.

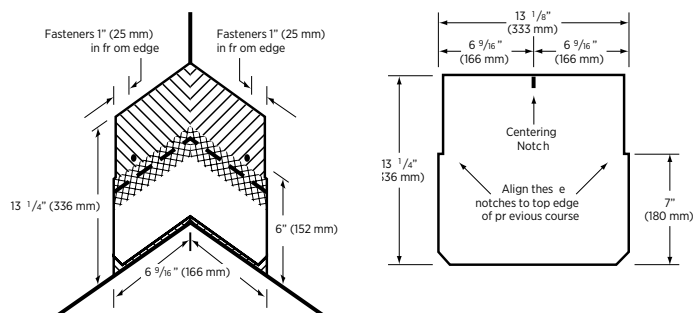


Figure 11-14: Shadow Ridge XL Fastening

E-Z FOLD THREE-LAYER INSTALLATION

For three-layer applications, instead of detaching individual pieces from a full shingle, simply fold the shingle onto itself as shown in Figure 11-11. Always ensure shingles are stacked straight in multi-layer applications.

STARTER COURSE:

Cut 5-5/8" (143 mm) off the exposure portion of three (3) pieces of the hip and ridge shingle. Apply this three-layer shingle (one on top of the other), aligning butt edge to the bottom of the hip or to either end of the ridge. Fasten with two (2) fasteners 6" (152mm) from the top of the shingle and 1" (25mm) from each side of the shingle (Figure 11-13).

APPLICATION:

For the first row, starting with three (3) complete pieces of hip and ridge shingles placed one on top of each other, cover the starter course shingles and fasten as per Figure 11-14. For every subsequent row, apply three complete pieces of hip and ridge shingles placed one on top of each other over the previous row while ensuring a 5-5/8" (143 mm) exposure (Figure 11-12).

Make sure fasteners used to apply caps penetrate at least 3/4" into or through the decking.

IMPORTANT: When installing Shadow Ridge XL hip and ridge shingles over ridge vents, follow ridge vent manufacturer's instructions carefully. Do not allow primary shingles and/or roofing underlayment to block air movement through the ridge line.



Patriot® XL
Installation Video