

LAMINATED SHINGLES



YOUR OBJECTIVE:

To learn the correct procedure for installing Laminated shingles.

ENGLISH DIMENSIONS

**LANDMARK™ SERIES
WOODSCAPE® SERIES**

METRIC DIMENSIONS

**LANDMARK™ SERIES, FIREHALT™
AND ARCHITECT™ 80**

All CertainTeed laminated shingles are built on a fiber glass base to provide a Class A fire resistance rating. The LandMark TL is a unique type of laminated shingle because its patented Tri-Laminate™ design process combines three layers of material to provide an exceptionally strong, dramatically thick shingle with a wood shake style. **Wind warranties are graduated** according to the product's warranty duration: A 25-year laminated shingle provides a 60 mph wind warranty, a 30-year duration provides 70 mph, a 40-year duration provides 80 mph, a 50-year duration provides 90 mph and a limited-life-time duration is warranted up to 110 mph.

NOTE: The wind warranty for 30-year laminated shingles increases from 70 mph to 80 mph when fastened with six nails instead of four. Six nails are required for Architect 80 which carries a 100 mph wind warranty. See Figure 15-4. (Roofing cement is not required, except on steep slopes.)

Deck preparation, ventilation, underlayment, and ice-dam protection are all routine. **With the exception of LandMark TL, closed-cut valleys are preferred** by CertainTeed when applying these laminated shingles. **Open valleys are recommended when applying LandMark TL;** however closed-cut valleys are also acceptable. Woven valleys are not recommended for LandMark TL because the tri-laminated shingle can buckle and become damaged when shaped into the valley. See the appropriate chapters.

Fastening instructions are stringent and must be followed. Nails are required as fasteners for LandMark TL, staples are not allowed. (See Chapter 8 for fastening details.)

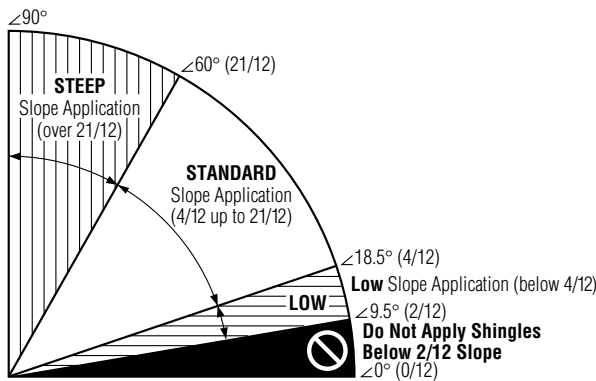


Figure 15-1: Slope definitions.

STANDARD OR STEEP SLOPE UNDERLAYMENT: Roofers' Select™ Shingle underlayment* is suggested (ASTM D4869 Type I). (Refer to the chapter on "Shingle Underlayment," for additional information.)

LOW SLOPE UNDERLAYMENT: One layer of WinterGuard™ or its equivalent*, or two layers of 36" (915 mm) wide felt shingle underlayment lapped 19" (485 mm) must be applied over the entire roof.

IMPORTANT: When installing LandMark TL on low slopes, one layer of WinterGuard or an equivalent waterproofing shingle underlayment **must be applied over the entire roof.** Applying two layers of felt shingle underlayment is **not** an acceptable alternative to WinterGuard. One layer of Roofers' Select or a felt shingle underlayment that meets ASTM D4869 applied over the required WinterGuard is also recommended.

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, not more than 6" (150 mm) wide.

COLD WEATHER CLIMATES (ALL SLOPES): Applying WinterGuard or its equivalent* is strongly recommended wherever there is a possibility of ice build-up.

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 and covered by five years of SureStart protection, except LandMark TL which provides ten years of SureStart and includes coverage for tear-off and disposal costs. 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	Alternate Instructions	Technical Questions
Your supplier or roofing applicator	✓		
CertainTeed Home Institute 800-782-8777	✓	✓	
CertainTeed Fax-on-Demand 800-947-0057	✓	✓	
CertainTeed-RPG Technical Services 800-345-1145	✓	✓	✓

FASTENING

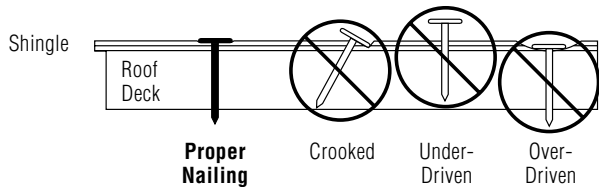


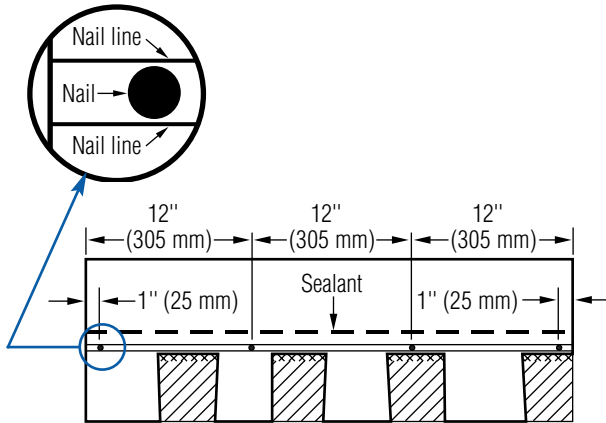
Figure 15-2: Proper and improper nailing.

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.

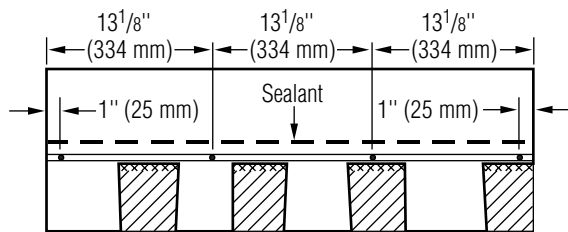
Nails must be 11- or 12-gauge roofing nails, corrosion-resistant, with at least $\frac{3}{8}$ " (9.5 mm) heads, and at least 1" (25 mm) long. LandMark TL requires nails at least $\frac{1}{4}$ " long.

LOW AND STANDARD SLOPE

ENGLISH DIMENSIONS



METRIC DIMENSIONS



LANDMARK TL DIMENSIONS

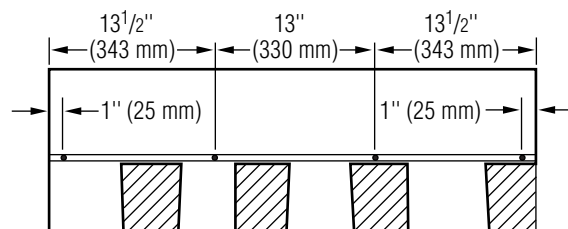
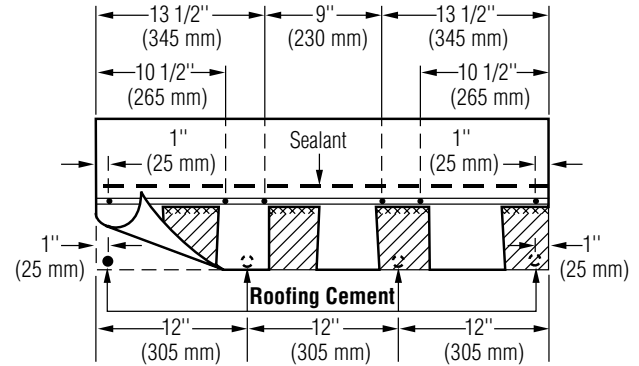


Figure 15-3: Use **four** nails for every full shingle.

STEEP SLOPE

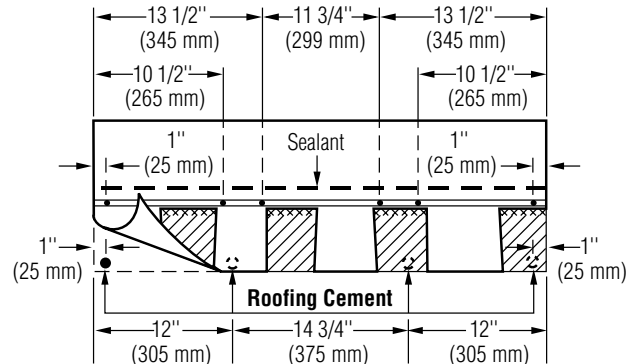
Use **six** nails and four spots of asphalt roofing cement for every full laminated shingle. See below. (Asphalt roofing cement should meet ASTM D4586 Type II.)

ENGLISH DIMENSIONS



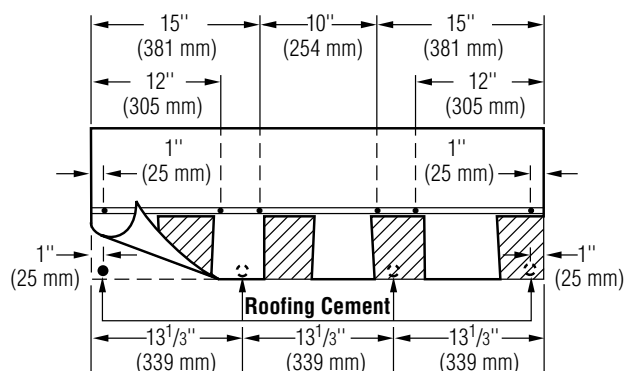
Apply 1" (25 mm) spots of asphalt roofing cement under each corner and at about 12" (305 mm) in from each edge.

METRIC DIMENSIONS



Apply 1" (25 mm) spots of asphalt roofing cement under each corner and at about 12" (305 mm) in from each edge.

LANDMARK TL DIMENSIONS



Apply 1" (25 mm) spots of asphalt roofing cement under each corner and at about $13\frac{1}{3}$ " (339 mm) in from each edge.

Figure 15-4: Use **six** nails and **four** spots of asphalt roofing cement on steep slopes.

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

Here's a Tip... **ROOFING FOREMEN AND SUPERVISORS:** On slow days or half days, schedule training for installers. Read aloud and study or practice one or more chapters in the Master Shingle Applicator's Manual each session. Time spent with workers off the roof pays off. (Thanks for this tip go to David Ruggiero of Pittsburgh, Pennsylvania.)

ONE CLEAN-DECK APPLICATION METHOD FOR ENGLISH DIMENSION SHINGLES

FIVE-COURSE DIAGONAL METHOD ("SEVENS AND FOURTEENS")

PREPARING THE DECK:

- ◆ Roof deck must be at least $\frac{3}{8}$ " (9.5 mm) thick APA-approved plywood, **or** at least $\frac{7}{16}$ " (11 mm) thick APA-approved non-veneer, **or** at least nominal 1" (25 mm) thick wood deck, not more than 6" (150 mm) wide.
- ◆ 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 horizontal and vertical chalklines to assure shingles will be correctly aligned. Expose all shingles 5" (125 mm).

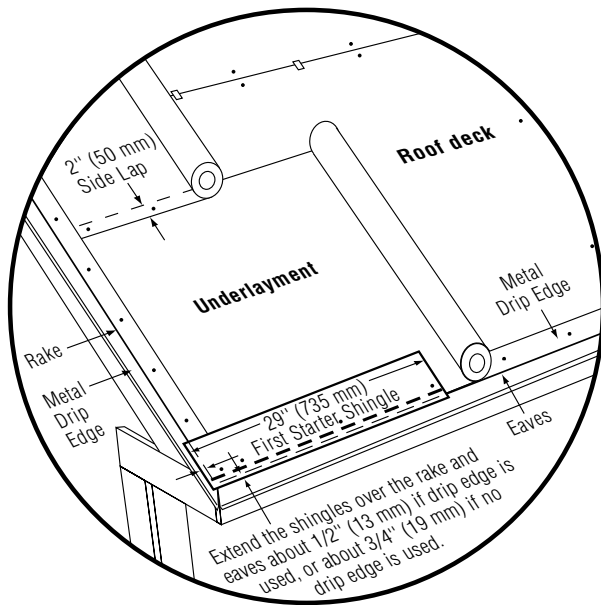


Figure 15-5: Standard slope underlayment and starter drip edge details.

STARTER COURSE:

1. Use CertainTeed's pre-cut (10" x 36") or use standard three-tab self-sealing shingles as the starter shingles, after removing the lower 5" tab portions (Figure 15-6).

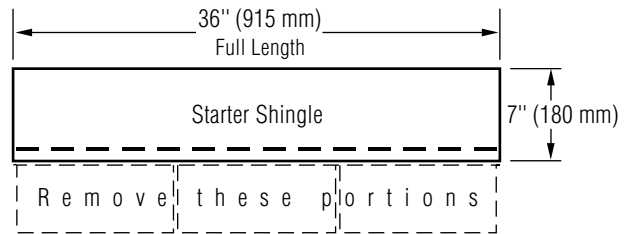


Figure 15-6: Make starter shingles by removing the lower 5" tabs.

2. For the first starter, cut 7" from one side of the starter shingles.
3. Apply the 29" piece to the lower left corner of the roof. Make sure there is $\frac{1}{2}$ " overhanging the rakes and eaves if drip edge is being used. If you are not using drip edge, make the overhang $\frac{3}{4}$ ".
4. Use full 36" long, 7" wide starter shingles for the rest of the course.

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 15-7).

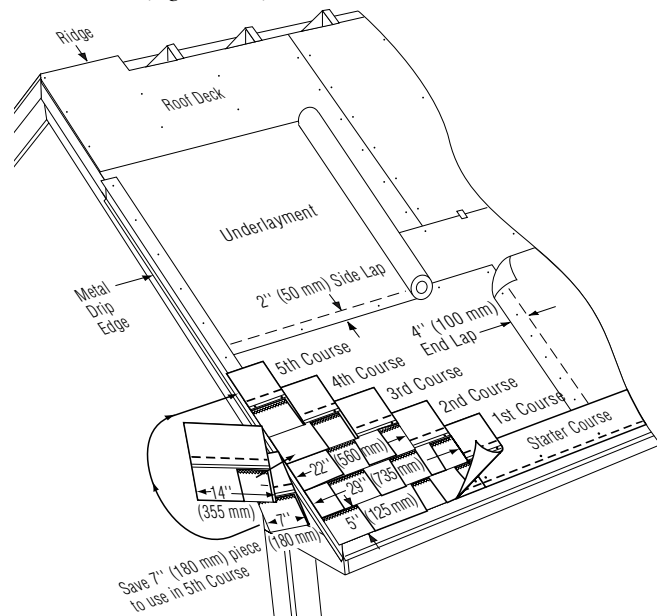


Figure 15-7: Applying the first 5 courses on a standard slope.

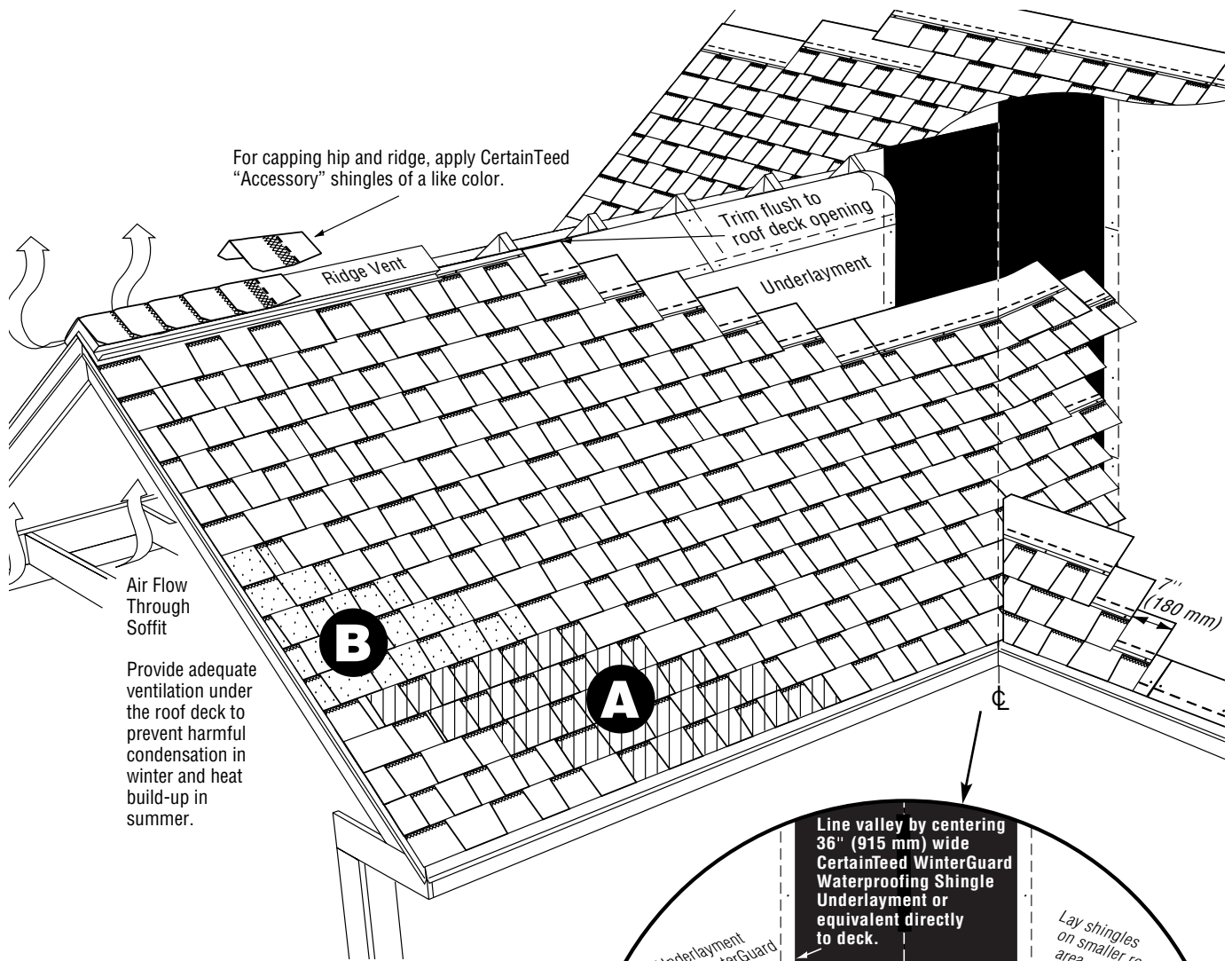


Figure 15-8: "Five-Course Diagonal Method" installation schematic.

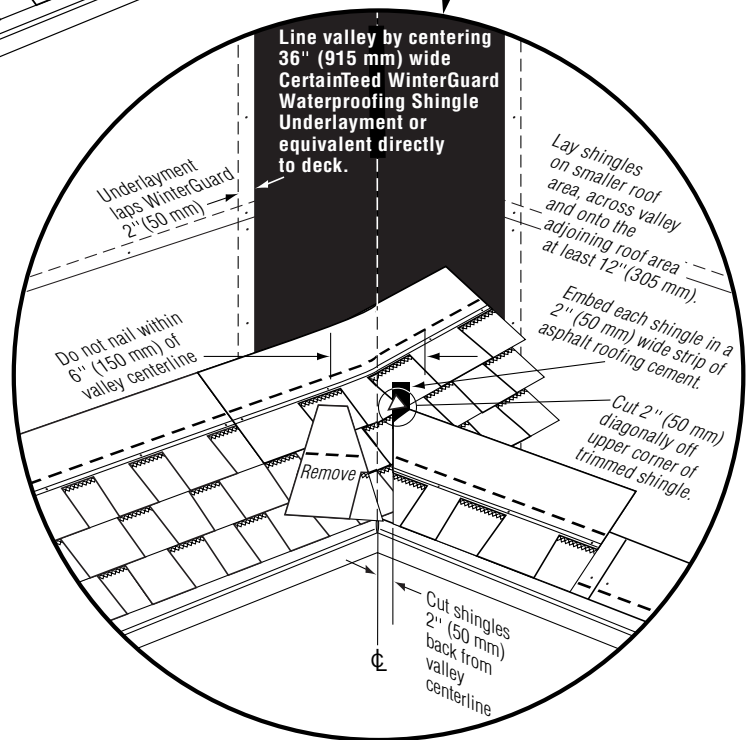


Figure 15-9: Highlight of closed-cut valley details.

2ND THROUGH 5TH COURSES:

CAUTION! Failure to follow instruction steps 1-5 below will bring joints too close together and may cause unattractive patterns!

1. Cut 7" off the left end of the first shingle and save this piece for later use. Apply the 29" long piece over and above the first-course shingle. Leave the bottom 5" tab portion of the first-course shingle exposed (*Figure 15-7*).
2. Cut 14" off the first shingle of the third course and save this for later. Install the 22" long piece over and above the second-course shingle.
3. Apply the previously removed 14" long piece over and above the third-course shingle.
4. Apply the previously removed 7" long piece from the second course over and above the fourth-course shingle.
5. Install a full shingle against the right edge of each shingle in courses one through five.

CONTINUING UP THE ROOF:

1. Beginning again with a full shingle, repeat the five-course pattern up the left rake (*Figure 15-8 – see B*).
2. Fill-in courses across the roof in a stepped diagonal fashion using full shingles (*Figure 15-8 – see A and B*). Do **not** run courses straight across.

IMPORTANT: Do not align joints of shingles closer than 3½" from one another.

ONE CLEAN-DECK APPLICATION METHOD FOR METRIC DIMENSION (13¼" x 38¾") AND LANDMARK TL (13¼" x 40") SHINGLES

FIVE-COURSE DIAGONAL METHOD (5⅝" AND 11¼")

PREPARING THE DECK:

- ◆ Roof deck must be at least ⅜" (9.5 mm) thick APA-approved plywood, **or** at least ⅞" (11 mm) thick APA-approved non-veneer, **or** at least nominal 1" (25 mm) thick wood deck, not more than 6" (150 mm) wide.
- ◆ 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 assure shingles will be correctly aligned. Expose all shingles 5⅝" (143 mm).

STARTER COURSE:

1. Use CertainTeed pre-cut (10" x 38¾") starters or metric three-tab self-sealing shingles as the starter shingles, after removing the lower tab portions or cut English dimension three-tabs to provide starter shingles that are 7⅝" in height.
2. For the first starter, cut 5⅝" from one side of the starter shingles.
3. Apply the remaining piece to the lower left corner of the roof. Make sure there is ½" overhanging the rakes and eaves if drip edge is being used. If you are not using drip edge, make the overhang ¾".

4. Use full length starter shingles for the rest of the course.

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 15-10*).

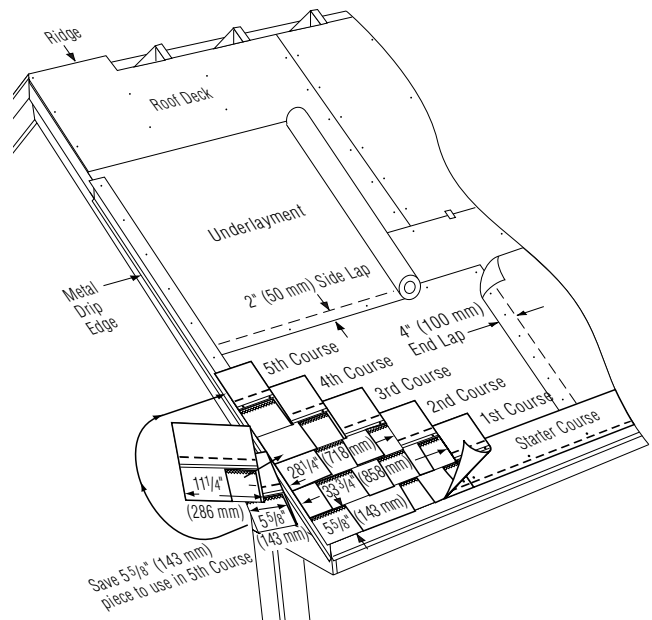


Figure 15-10: Applying the first 5 courses of Metric dimension. Note: The LandMark TL dimensions differ (see instructions below.)

2ND THROUGH 5TH COURSES:

CAUTION! Failure to follow instruction steps 1-5 below will bring joints too close together and may cause unattractive patterns!

1. Cut 5⅝" off the left end of the first shingle and save this piece for later use. Apply the 33⅝" (34⅜" for Landmark TL) long piece over and above the first-course shingle. Leave the bottom 5⅝" tab portion of the first-course shingle exposed (*Figure 15-10*).
2. Cut 11¼" off the first shingle of the third course and save this for later. Install the 27½" (28¾" for Landmark TL) long piece over and above the second-course shingle.
3. Apply the previously removed 11¼" long piece over and above the third-course shingle.
4. Apply the previously removed 5⅝" long piece from the second course over and above the fourth-course shingle.
5. Install a full shingle against the right edge of each shingle in courses one through five.

CONTINUING UP THE ROOF:

1. Beginning again with a full shingle, repeat the five-course pattern up the left rake.
2. Fill-in courses across the roof in a stepped diagonal fashion using full shingles. Do **not** run courses straight across.

IMPORTANT: Do not align joints of shingles closer than 3½" from one another.

CHIMNEY FLASHING

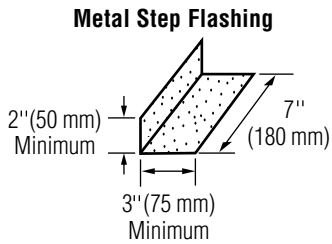


Figure 15-11: Step flashing minimum dimensions.

***NOTE:** Use 7 $\frac{5}{8}$ " or more for Metric dimension and LandMark TL shingles.

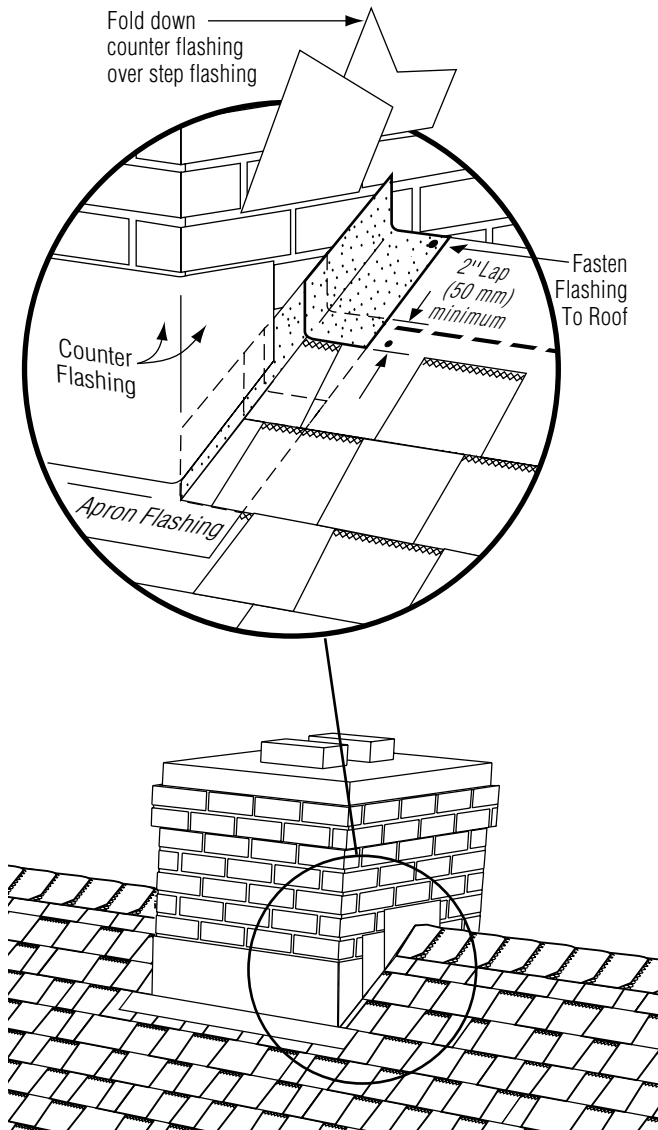


Figure 15-12: Flashing around a chimney.

ONE ROOF-OVER METHOD FOR ENGLISH DIMENSION SHINGLES

PREPARING THE ROOF SURFACE FOR REROOFING

- ◆ Make the surface of the old roof as smooth as possible by replacing missing shingles. Split and nail flat all buckled, raised tabs and curling shingles.
- ◆ It's a good idea to cut old shingles back flush to the rakes and eaves.
- ◆ We suggest that you apply corrosion-resistant drip edge along the rakes and eaves, covering the edges of the old shingles. This will provide a uniform and straight edge that will help prevent water from seeping under the shingle edges.

"NESTING" COMBINED WITH THE FIVE-COURSE DIAGONAL METHOD ("SEVENS AND FOURTEENS")

NOTE: Nesting is preferred over "bridging" methods when reroofing because nesting sheds water best and looks better. Nesting, as described below, is an easy application over square-tab asphalt strip shingles with a 5" exposure. If you are covering a different type or size shingle, you may need to cut back the tabs so that nesting is possible. To do this, simply cut off the leading edge of all old shingles when they are lapped less than 2 $\frac{1}{2}$ " by the new shingles. This permits a flat nested application that avoids lifted edges and slumps.

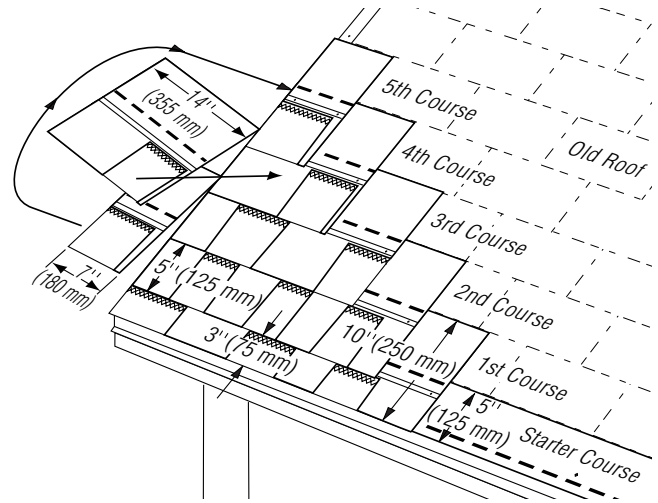


Figure 15-13: Five-Course Diagonal, Nested.

STARTER COURSE:

1. Remove the tabs and the top 2" from standard self-sealing shingles, leaving 5" by 36" strips.
2. Cut 7" off the length of the first strip, apply the 29" remaining piece over the old first course at the lower left corner, overhanging the rakes and eaves $\frac{1}{2}$ " if drip edge is used, or $\frac{3}{4}$ " if no drip edge is used (Figure 15-13).
3. Continue with full-length starter shingles along the eaves (Figure 15-13).

HIPS AND RIDGES

1ST COURSE:

1. The first-course shingles are made of full LandMark shingles with 2" cut off the bottom of the tabs (*Figure 15-13*).
2. Align the first-course strips with the left and lower edges flush with the starter course.

2ND THROUGH 5TH COURSES:

CAUTION! Failure to follow instruction steps 1-5 below will bring joints too close together and may cause unattractive patterns!

1. Cut 7" off the left end of the first shingle and save this piece for later use. Apply the 29" long piece over and above the first-course shingle. For this and all succeeding courses, align the top edge of the shingle to be applied with the bottom edge of old shingles in the next course. Exposure of first course only is reduced to 3" (*Figure 15-13*).
2. Cut 14" off the first shingle of the third course and save this for later. Install the 22" long piece over and above the second-course shingle.
3. Apply the previously removed 14" long piece over and above the third-course shingle.
4. Apply the previously removed 7" long piece from the second course over and above the fourth-course shingle.
5. Install a full shingle against the right edge of each shingle in courses one through five. Remember that course one shingles are only 10" wide.

CONTINUING UP THE ROOF:

1. Beginning again with a full shingle, repeat the five-course pattern up the left rake.
2. Fill-in courses across the roof in a stepped diagonal fashion using full shingles (*Figure 15-13*). Do **not** run courses straight across.

IMPORTANT: Do not align joints of shingles closer than 3 1/2" from one another.

ONE ROOF-OVER METHOD FOR METRIC DIMENSION AND LANDMARK TL SHINGLES

The same method used for clean-deck application of these shingles are used for roof-overs. Application of these shingles **over** English dimension shingles is not recommended — due to the high cost of workmanship and greater risk of worker error.

SHADOW RIDGE™ ACCESSORY SHINGLES FOR HIPS AND RIDGES

Shadow Ridge accessory shingles have an accented shadow line that are designed to be used with laminated shingles to cap hips and ridges. Easier to apply than cutting full-length shingles at the tab cutouts and trimming the ends of a cap (a total of eight knife cuts), simply fold along the pre-cut lines and detach individual cap pieces. Save valuable installation time.

Shadow Ridge accessory shingles are available in English and Metric dimensions. A wide array of colors are available to complement the main roof colors.

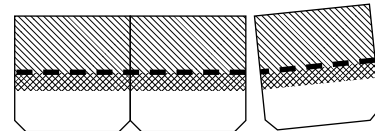


Figure 15-14: Shadow Ridge accessory shingles detach easily from three-piece units to make 72 individual cap pieces.

There are 24 three-piece units in each Shadow Ridge bundle, providing 72 individual caps that will cover 30 linear feet (33 1/2 linear feet, Metric) of a hip or ridge. Each English dimension cap piece is 12" by 12" (Metric caps are 13 1/4" by 9 3/4") and features clipped corners on the bottom edge of the exposed portion.

APPLICATION IS AS FOLLOWS:

1. Apply shingles up to the hip or ridge on both sides, then trim flush.

NOTE: The last course of shingles should have an exposure of 5"* or less when the shingle cap or ridge vent is fastened in place. Otherwise, a potential water leak could occur at exposed shingle end joints.

The figures used in this section illustrate the application of accessory shingles over a ridge vent; application directly to the roof is very similar.

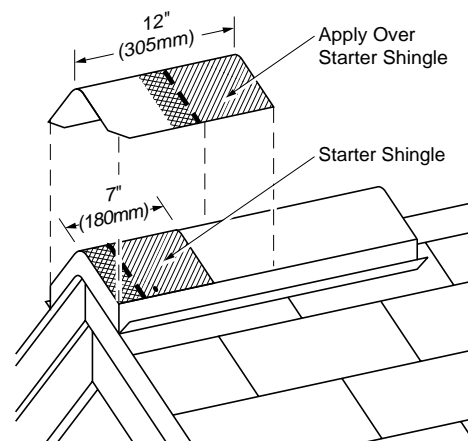


Figure 15-15: Apply a full cap shingle over the starter piece, flush with the bottom and side edges of the starter.

*5 3/8" for Metric.

- Install caps beginning at the bottom of a hip or at either end of a ridge. Apply a starter piece that has the bottom 5" removed (Figure 15-15). Fasten the starter with two nails located about 3" from the rake edge, and 1" in from each side edge. 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.

- Apply a full cap shingle over the starter (Figure 15-15), and place fasteners at 5 5/8" (6 1/4" for metric) up from the exposed bottom edge and 1" in from each side. Nails must not be exposed on the finished roof. All nail heads must be driven straight and must not cut into the shingle surface.

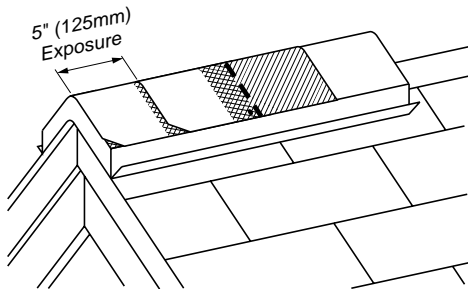


Figure 15-16: Install cap shingles at their correct exposure and cover all fasteners.

NOTE: Each cap has a laying/alignment notch at the top edge to center the piece on the ridge line, and two notches on each side to indicate the correct exposure and shadow-line placement (Figure 15-17). The side notches of the cap being applied should be aligned with the top edge of the previously applied cap.

*5 5/8" for Metric.

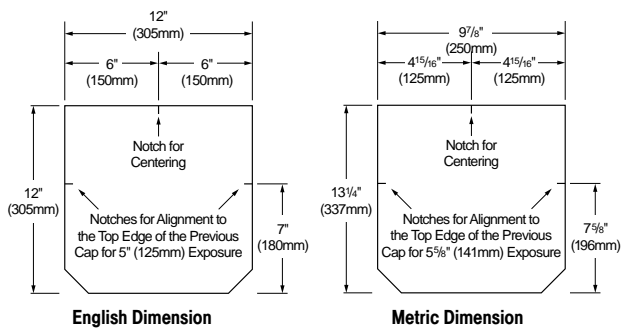


Figure 15-17: Each Shadow Ridge shingle has a centering notch and two side-alignment notches to help ensure proper placement

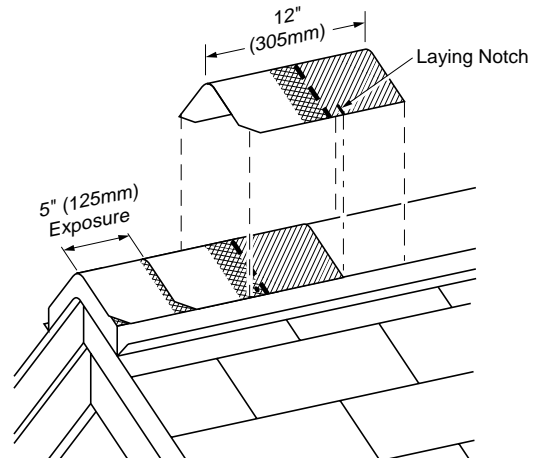


Figure 15-18: Use laying notches to center shingles on hips and ridges, and to locate the correct exposure.

CONTOURRIDGE™

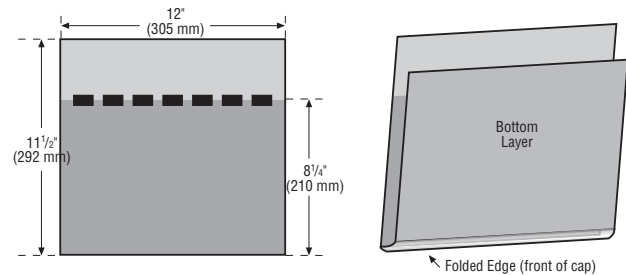


Figure 15-19: There are 30 cap shingles per bundle of ContourRidge that covers 20 linear feet of hip or ridge at an 8" exposure.

APPLICATION IS AS FOLLOWS:

- Install the first cap at the eaves for hips and opposite the prevailing wind for ridges. Fasten with one nail applied on each side of the cap shingle 8 3/4" back from exposed end and 1" up from the lower edge.
- Apply the next cap shingle so the folded front edge covers the sealant stripe resulting in an 8" exposure. Fasten with one nail applied on each side of the cap shingle 8 3/4" back from exposed end and 1" up from the lower edge.

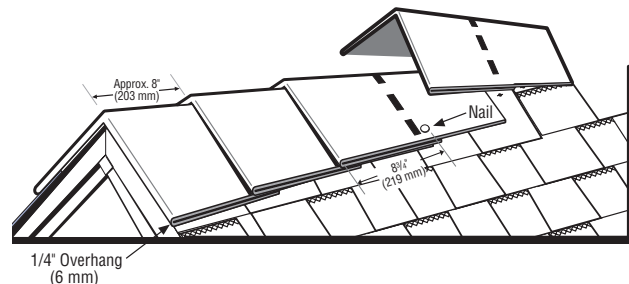


Fig 15-20: The extra exposure and thickness of ContourRidge enhances the rooflines and saves installation time.

- Continue in the same fashion using the sealant stripe as a gauge to install cap shingles at an 8" exposure.

NOTE: All fasteners must penetrate at least 3/4" into the roof deck or completely through.