DaVinci Fancy Shake™ Installation Guide

DaVinci Fancy Shake is a synthetic shake carefully engineered to provide the authentic look and durability of natural shake…at a fraction of the cost and weight. Special care has been taken to make the product easy to install. By following these instructions, and using good installation practices, you will be assured of a quality installation.

Note to Installer

DaVinci Fancy Shake offers a 7/16" thick profile, yet remains lightweight, because the shakes have an engineered rib structure on the back. When cutting shakes for open valleys or at overhangs such as eaves and gable ends, the core-out and ribbed support structure on the underside of the shake needs to be hidden by standard metal flashings.

Pay special attention to recommendations for accessories and installation at eaves (page 2), gable ends (page 4) and valleys (page 6).

Job Site Ready!

DaVinci Fancy Shake is delivered to the construction site in bundles pre-collated with all three shake widths and all shake colors that make up the DaVinci Fancy Shake blend that is being installed. This pre-planned distribution produces the right aesthetic effect every time. Collated bundles also simplify installation and save time by eliminating hand sorting on the job site.

This information is provided for the use of professional roofing contractors. This Installation Guide does not supersede local building codes which should always be followed. DaVinci Roofscapes® does not warranty or have any responsibility for installation of its products. The DaVinci Roofscapes Limited Fifty Year Warranty outlines its warranty responsibilities for the roofing materials it manufactures.

For questions about DaVinci Fancy Shake or its application, contact DaVinci Roofscapes®, LLC
913-599-0766 or 800-DaVinci (800-328-4624) or www.davinciroofscapes.com
Please be sure to check DaVinci's website for updates. Installation Guide is subject to change without notice.

IG-FS-4/09

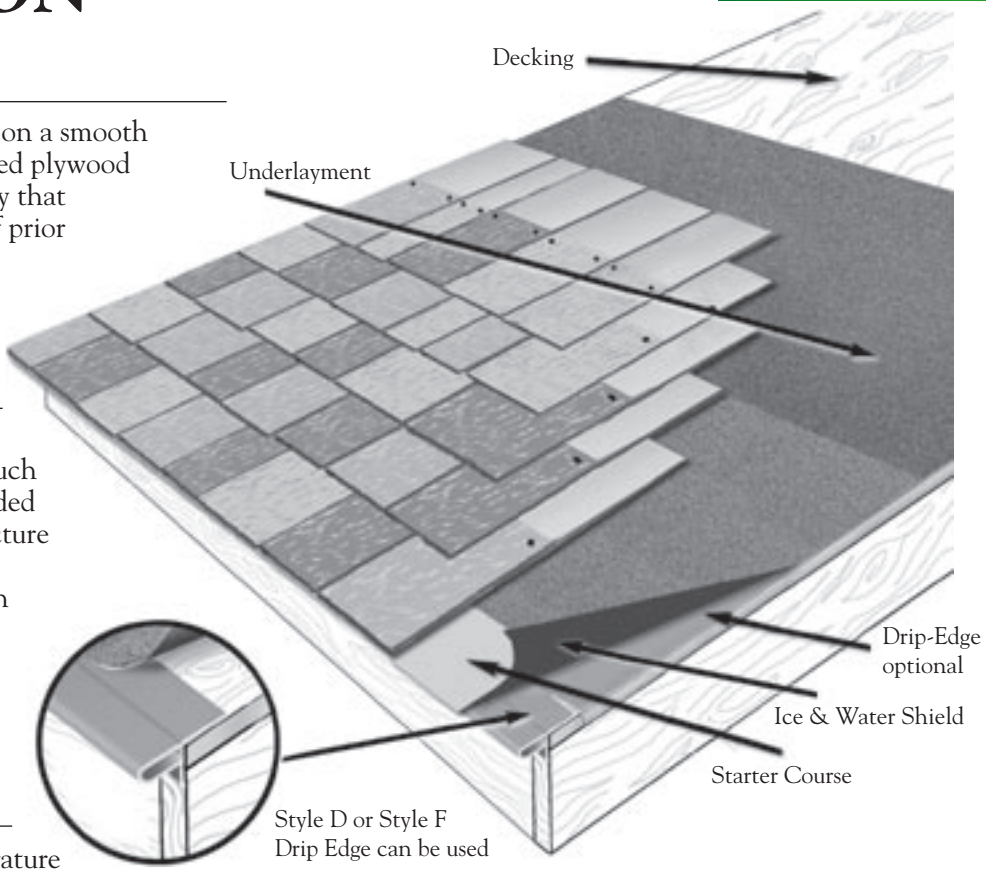
Installation

Decking

DaVinci Fancy Shake must be installed on a smooth flat surface; minimum $^{15}/_{32}$" APA approved plywood or $^{7}/_{16}$" approved OSB. It is also necessary that all previous roofing materials be torn off prior to installation of DaVinci Fancy Shake. Imperfection in the decking may transmit through to finished roof.

Drip-Edge

Metal flashing is required on gable ends and eaves. An overhanging drip edge such as a Style "D" or Style "F" is recommended on gable ends to help mask the rib-structure on the underside. An overhanging drip edge may also be used on eaves although Style "A" or Style "B" drip edge are acceptable options.



Ice and Water Shield (Severe Climate Underlayment in accordance with Chapter 15 of the UBC)

In areas where the average daily temperature in January is 25° F or lower or where ice buildup is possible, DaVinci requires ice and water shield be installed: from the bottom edge to two feet above the exterior wall line on all eaves, in all valleys, on all gable ends, and around all roof projections. In all cases ice and water shield is required in all valleys, regardless of average daily temperatures or the possibility of ice buildup.

Underlayment

Method 1 : Class A installation — One layer of MB Technologies TU-35 must be installed over the entire roof deck including areas with ice and water shield. No interlayment is required.

Method 2 : Class C Installation — Areas of the roof deck not covered by ice and watershield must be covered with 30 lb non-perforated asphalt saturated felt meeting requirements of ASTM D 226.

Starter Course

Each starter tile should be installed extending past the drip edge by approximately 1". However, if using Style D or Style F drip edge, the starter shingle can be allowed to overhang less if it is appropriate for the gutter system. The starter tiles should be installed with the DaVinci logo on top. The starter tiles be spaced $^{3}/_{8}$" apart as tiles will expand when warm. Each starter tile should be nailed with two nails on a line approximately 6" from the butt and ¾" from outside edge.

Getting Started

Use two corrosion-resistant nails in each shake near nailing location shown on the shakes. (See page 9). This includes the roofer's choice of: copper, stainless steel or hot-dipped galvanized nails. Once the starter is in place, begin installing shakes in the lower left corner (or lower right corner for a left-handed roofer).

The shakes should be flush with the starter tiles on the outer (rakes) and lower (eaves) edges. DaVinci recommends $^{3}/_{8}$" gap between shakes.

Two methods of installation are available: Straight or staggered (see details below).

Use the alignment indicator at the top of each shake to help manage the exposure. An exposure of between 6" or 7" is acceptable for straight courses and between 6" and 7" for staggered courses. As you progress up the roof, be careful not to damage shakes already in place. Put something, perhaps a cut shake, under toe irons (scaffolding brackets) to avoid scratching or marring the finish of the shake already installed below.

Installation

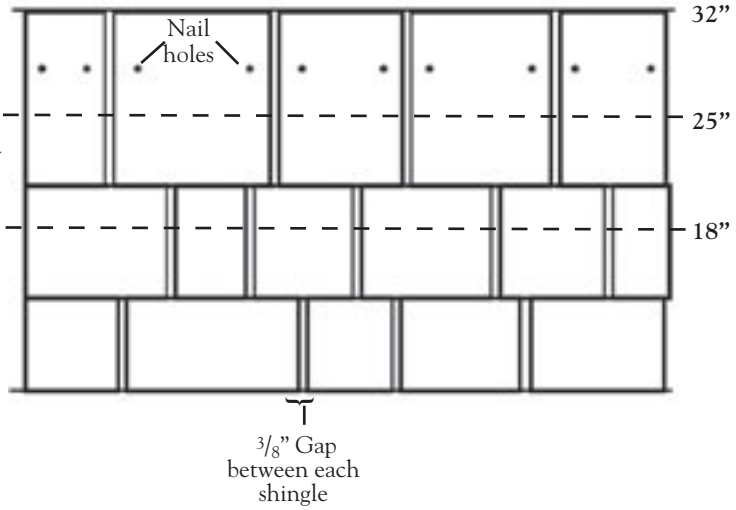
Straight Coursing

Install the shakes one at a time starting in the lower left hand corner if right handed and lower right hand corner if left handed. The first course of shakes should be laid directly on the starter tiles. The shakes should be installed individually with two nails in the defined areas.

The shakes should be laid as they come out of the bundle with a rack type system, also known as rack-style, stair-stepping, or pyramiding; to prevent same size shingle directly on top of another. The shakes should be laid with a 3/8" gap between each shake. The gaps between shakes on adjacent courses should offset by a minimum 1½". The use of the alignment lines on the shakes may be used to facilitate installation but chalk lines should be used frequently to assure horizontal alignment.

Chalk lines should be snapped on underlayment with the tips of the shakes following the lines. Do not snap lines on DaVinci Fancy Shake or use red chalk as the chalk may permanently discolor the shake.

Straight Coursing on DaVinci Fancy Shake at a 7" Exposure
(Tiles can also be laid at 6" Exposure.)



Staggered Coursing

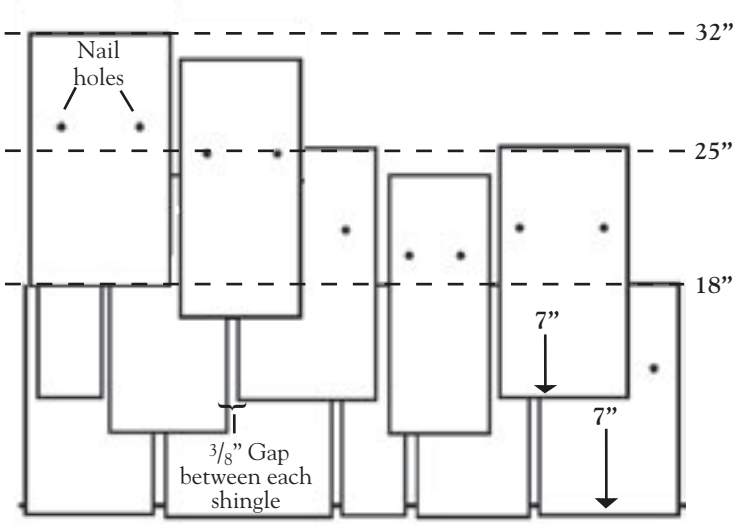
If the roof pitch is 6:12 or greater you may stagger the courses with a 7" exposure. The way this is accomplished is laying the shakes in 7" courses with every other shingle lowered 1". ***Tiles can also be laid at 6" Exposure.***

An example of how to accomplish this is as follows:

Step 1: Lay the starter course across the eave and then put the first course of shake flush on top of the starter. Then snap a horizontal line 7" above the tips of the shakes you just installed or 25" from the eave line (butt of the shake you just laid).

Step 2: Now start laying your second course of shakes putting the tip of the first shingle you lay on the chalk line. The next or adjacent shake should be 1" below the line. The third shake should be on the line; the fourth shake should be below the line. This continues in the same pattern all the way across the roof one shingle tip on the line and the next 1" below the line.

Staggered Coursing on DaVinci Fancy Shake at a 7" Exposure
(Tiles can also be laid at 6" Exposure.)

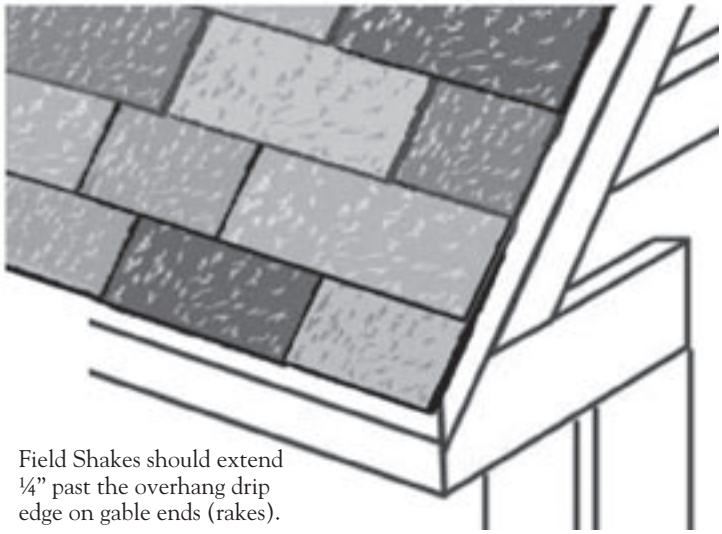


Step 3: Snap another horizontal line 7" above the line you chalked in Step 2 or 32" above the eave line. Start laying shakes as in step 2 with the first shake tip on the line and the next shake tip 1" below the line.

Step 4: Continue up the roof in this manner. Every course does not need to be chalked. As roofers begin to understand the concept, they can use alignment lines to accomplish the stagger. We do, however, recommend occasional horizontal chalking to assure correct alignment.

Chalk lines should be snapped on underlayment with the tips of the shakes following the lines. Do not snap lines on DaVinci Fancy Shake or use red chalk as the chalk may permanently discolor the shake.

Installation



Field Shakes should extend ¼" past the overhang drip edge on gable ends (rakes).

Gap

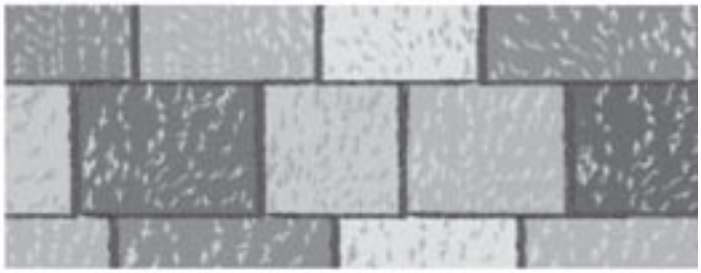
The recommended gap between shingles is 3/8"with a minimum 3/16" gap required.

The number of shingles per square for DaVinci Fancy Shake is based on the assumption of 3/8" spacing between shakes. If spacing is less, more shingles per square will be required.

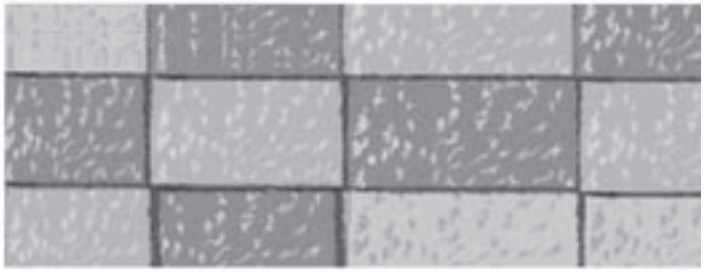
Avoid "Crack on Crack"

The gap between two shingles in one course should always line up 1½" or more from the gap between two shingles in the course below.

Correct



Incorrect



Gable Ends / Rakes

When approaching the gable end of a course, it's always best to avoid cutting shakes. Cutting DaVinci Fancy Shake at gable ends can almost always be avoided by choosing from the three different shake sizes, and spacing between shakes. In the rare case when cutting is required, shakes should be cut so that the factory edge faces out on the gable end.

Cutting

DaVinci Fancy Shake may be cut with a utility knife and straight edge. It may also be cut effectively with a circular saw. Carbide tooth blades are recommended for maximum blade life.

Color and Width Variation

DaVinci field shakes come in three width sizes: 12", 7" and 5". A four-inch shake is also available as an accessory. Each bundle contains a mixture of 30 shakes and includes a pre-collated assortment of widths and colors needed for each color blend. DaVinci Roofscapes® recommends that, if possible, shakes be applied as they come out of the bundles for the most pleasing aesthetic affect and to prevent "striping" and "patterning" on the roof. Keep in mind there needs to be 1½" side lap maintained and installation must be in a rack or pyramid style.

Installation

Hip and Ridge Preparation

After installing field shakes, hips and ridges should be prepared by installing a minimum 6" wide piece of non-corrosive metal or UV stable EPDM or equivalent over the hips and ridges. This metal or rubber should extend at least three inches from the center point on each side of the hip or ridge.

Ridge Vent Application

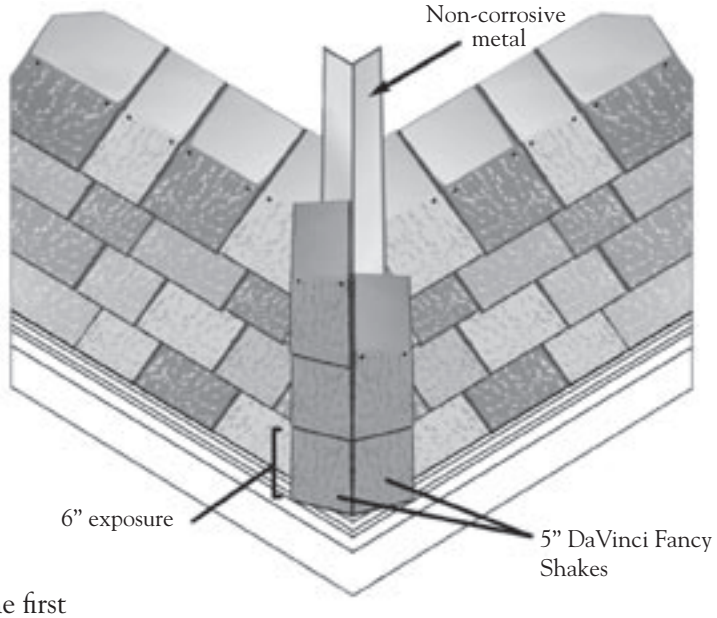
If using a continuous ridge vent we recommend a rigid shingle roll-over type. When installing continuous ridge vent, care should be taken to insure joints in ridge vent are water tight. Once the continuous vent is installed, pre-packaged 6" DaVinci hip and ridge shakes should be installed in accordance with the standard hip and ridge installation instructions below. Special caution should be used when cutting the decking on the ridge to assure adequate nailing for the ridge pieces.

Standard Hip and Ridge Installation

There are two ways to start applying DaVinci Fancy Shake Hip and Ridge at the bottom of a hip. The first way is to install a double course of DaVinci Fancy Shake Hip and Ridge on the bottom of the hip. In this method the top portion of the under-shake should be cut so that it only covers the first course of field shakes. The second course is then installed without cutting. The tails of the shakes are left uncut and will project pass the eave of the roof.

Using a chalk line to assure straightness, the prepackaged 5" hip and ridge should be installed one piece at a time so that the butts of two shingles are adjacent and the inside edges touch. These shakes that make up a hip and ridge unit should be installed with a 6" exposure. DaVinci recommends using 5" units for hips and ridges unless continuous ridge vent is being used.

Standard Installation

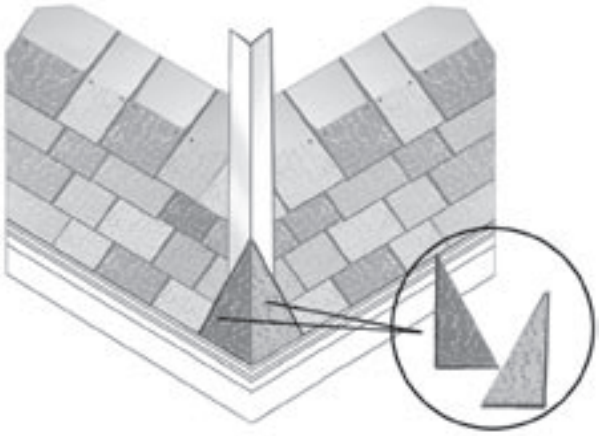


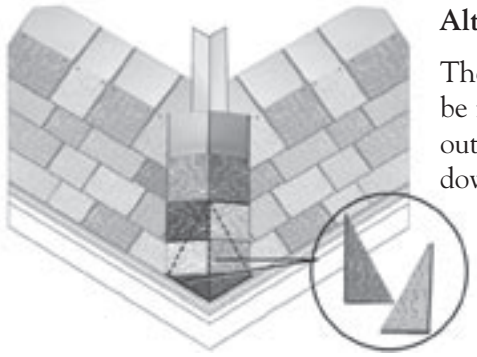
Alternate Hip Starter

The second method for starting a hip will involve mitering the first two shakes installed.

Step 1: Start by taking a single piece of DaVinci Fancy Shake Hip and Ridge and laying the butt of the shake with its corner at the corner of the hip and the butt flush with the eave of the house. Make a cut on the shake at the same angle of the hip. Cut a shake for the other side of the hip in the same fashion and press the two shakes tight together.

Alternate Installation: Step 1





Alternate Installation: Step 2

The second set of shake should be installed uncut with these outside edges pulled all the way down to the eave of the roof.

Installation

Valleys

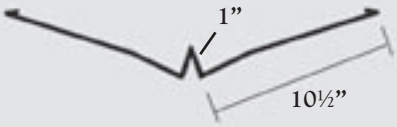
Because DaVinci Fancy Shake has a rib-structure on the underside, special care must be used when installing DaVinci Fancy Shake in valleys. Open or closed valley systems may be used with several variants of each system. Whether installing an open or a closed valley system, valley metal should be made from 24" stock of copper, aluminum, or a minimum 28-gauge clad steel. We require ice and water shield as underlayment in all valleys.

Open Valleys

If open valleys are preferred, take special care in determining proper configuration of valley metal as the cored-out areas of the shake may show once the shakes are cut. Location of the valley, roof pitch and height of roof should be considered in determining if the cuts will be visible.

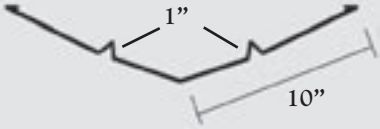
Option A: In many cases, with steeper pitched roofs, it is acceptable to install a "W" valley and cut the DaVinci Fancy Shake on an angle parallel and 2½" from the center diverter. Keep in mind that the cut rib structure of the shakes may be visible from the ground with some roof pitches. Metal should be broken with a diverter at least 1" tall.

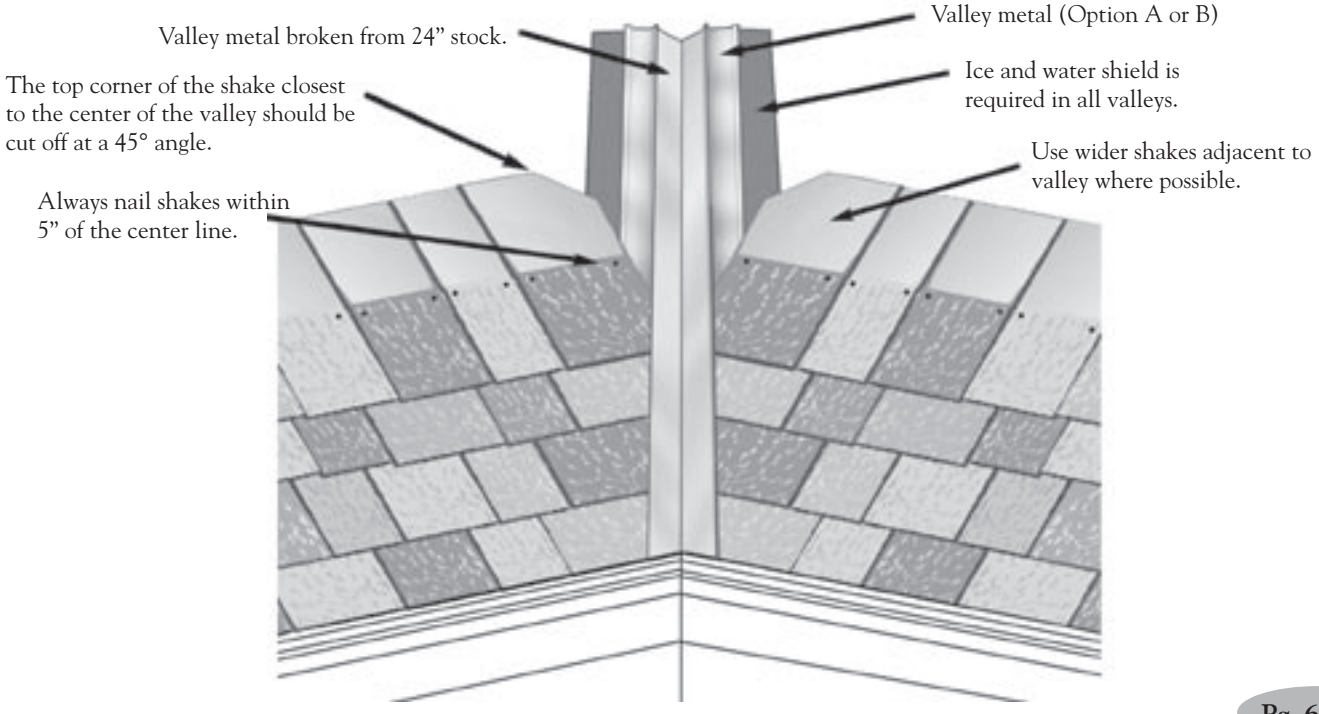
Option A
Single Diverter Valley Metal



Option B: Where Option A is unacceptable, we suggest making the double "W" valley. This should be made from 24" stock that is broken in the middle without diverter to look like a "V". Additionally, there should be a "W" (diverter) on either side 2½" from the center line. (See Diagram) DaVinci Fancy Shake should be cut and laid against the diverters on either side.

Option B
Twin Diverter Valley Metal





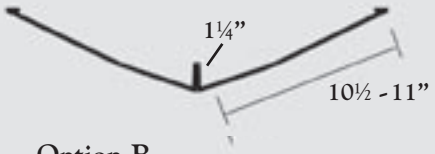
Installation

Closed Valleys

A closed valley can be achieved by using Valley metal option (A, B, or C). In our preferred method, option A, valley metal with a single, narrow-based diverter in the middle is used and the DaVinci Shakes are cut and butted to the diverter. An alternate is to use standard "W" valley with the shakes butted against the diverter. Lastly valley metal broken in the middle with no diverter can be used. In this option shakes should be cut to fit flush with matching course on the opposite side. Wider shakes should be used as valley cuts in order to ensure that nailing be kept at least 5" from center or as far from center as possible.

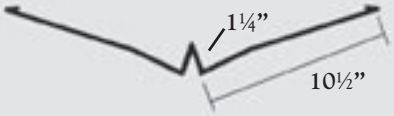
Option A: Install valley with a standing seam in the middle and place already-cut DaVinci Fancy Shake against center standing seam.

Option A
Standing Seam Valley Metal



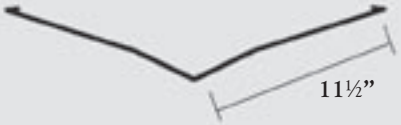
Option B: It is acceptable to install a "W" valley and place an already-cut DaVinci Shake against center diverter. Metal should be broken with a diverter at least 1" tall.

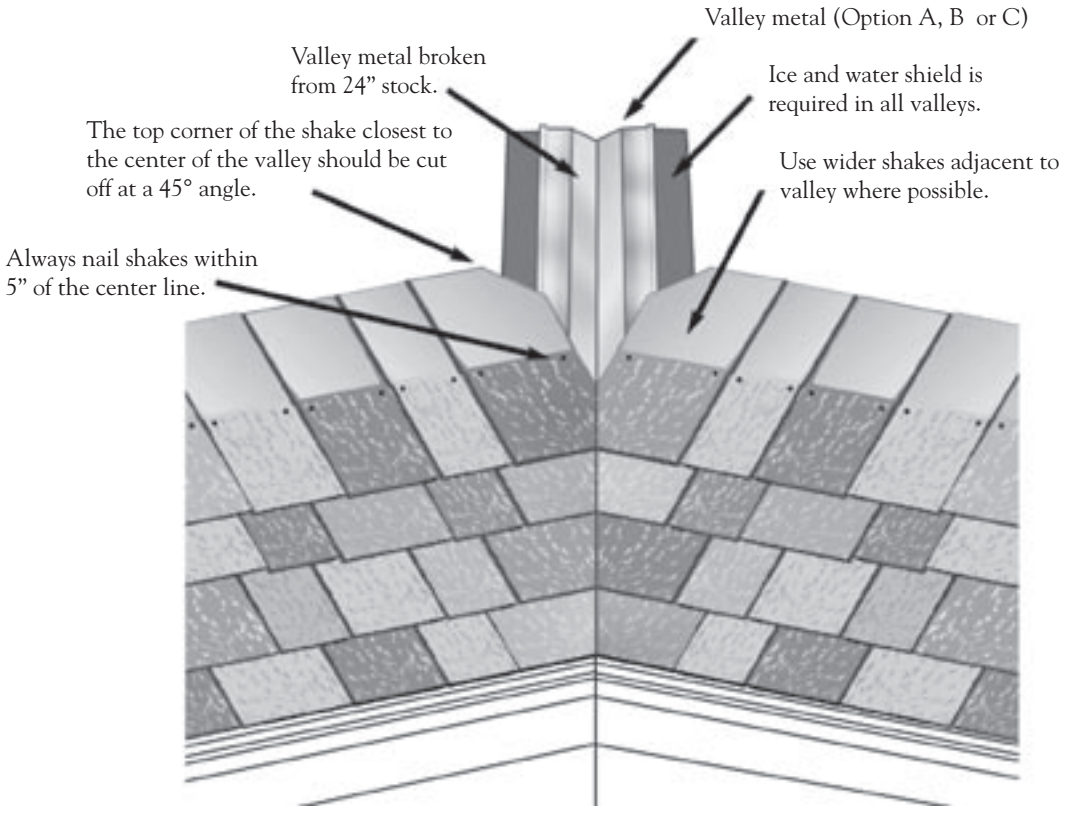
Option B
Single Diverter Valley Metal



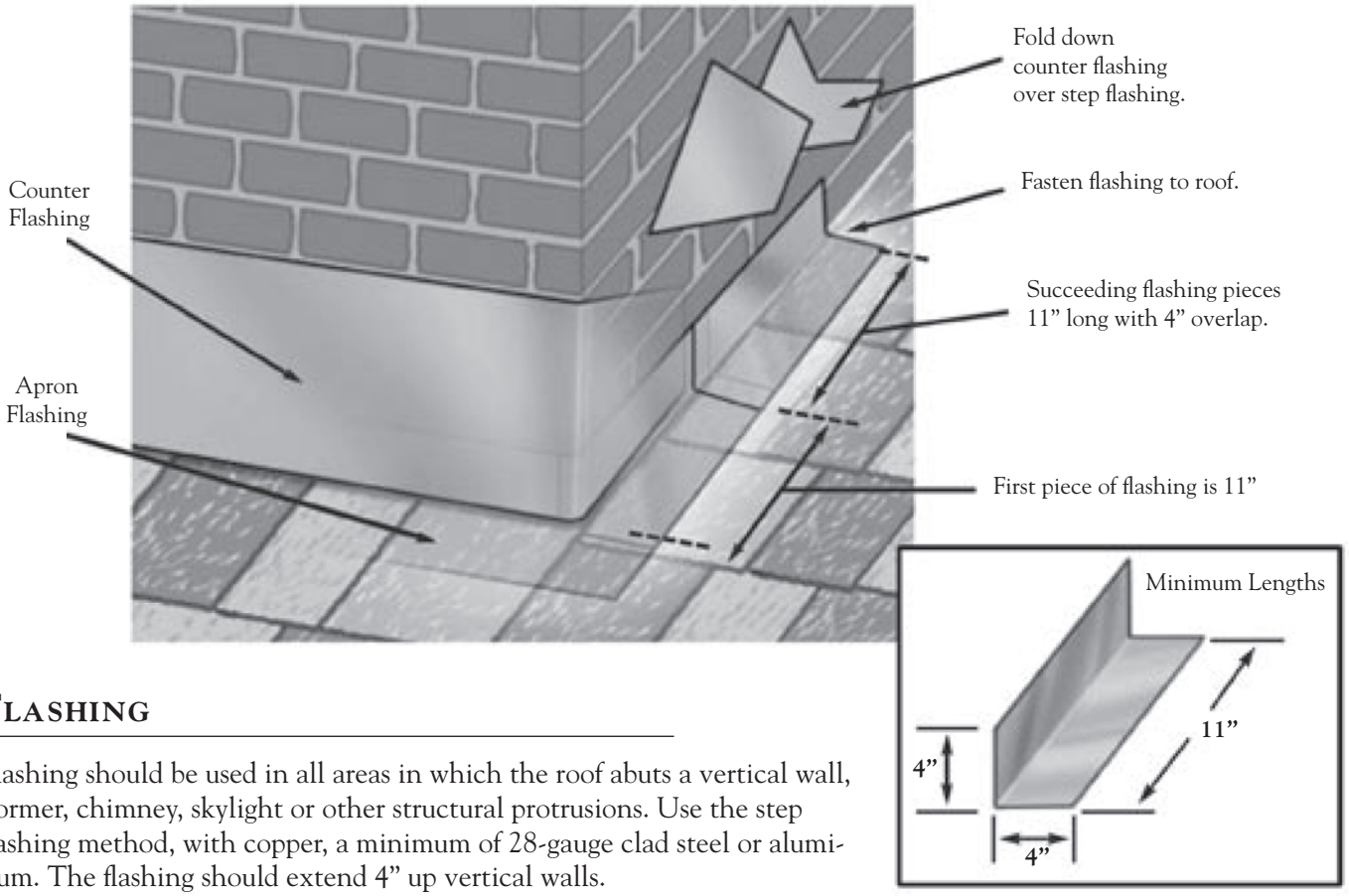
Option C: Classic closed valley with no diverter in the middle of the valley.

Option C
Classic Closed Valley (no diverter)





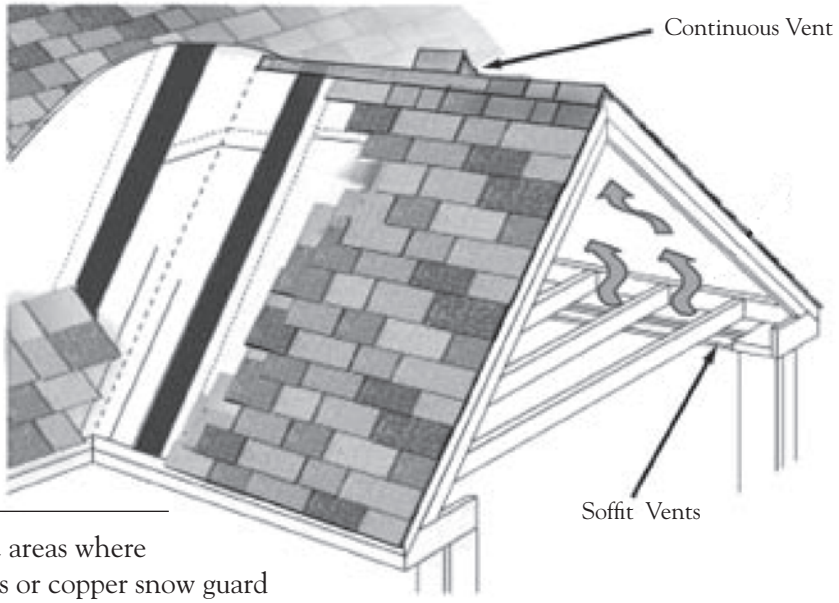
Special Issues



Flashing

Flashing should be used in all areas in which the roof abuts a vertical wall, dormer, chimney, skylight or other structural protrusions. Use the step flashing method, with copper, a minimum of 28-gauge clad steel or aluminum. The flashing should extend 4" up vertical walls.

Ventilation



In some climatic regions of the country, proper ventilation is crucial to the proper performance of a roofing system. Proper ventilation is especially important in cold climates where modern houses are well insulated and weather-tight. We suggest you follow standard building practices in your area and meet all national and local building codes. A continuous ridge vent is an especially effective ventilation system that we highly recommend.

Snow Guards

Snow guards should be used in all geographic areas where heavy snowfall is possible. Most kinds of brass or copper snow guard systems work well with DaVinci. Details regarding installation remain the responsibility of the installer and the customer. For additional information please contact DaVinci at any of the numbers listed on the first page of this guide.

A good source for information is Alpine SnowGuards (802-888-8573 or 888-766-4273)

Product Features

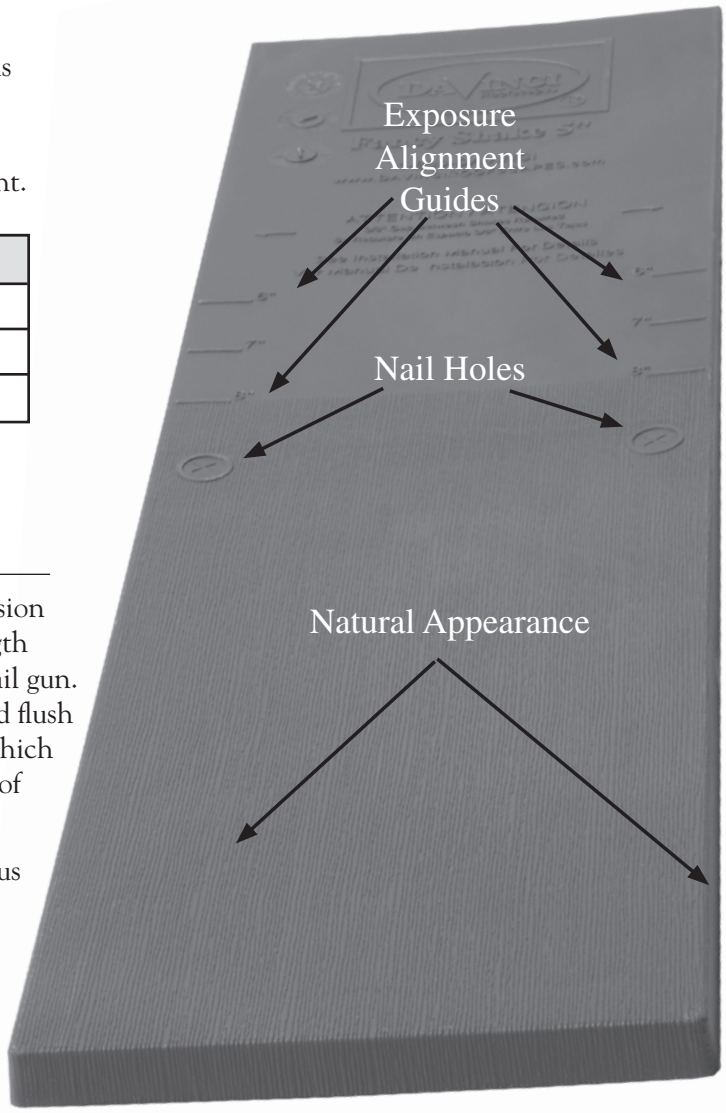
Exposure

With DaVinci Fancy Shake, the allowable exposure depends on two factors:

1. Roof Pitch
2. Whether the shakes are laid staggered or straight.

Roof Pitch	Coursing	Exposure
less than 2:12	Not Recommended	
* 2:12 to 4:12	Straight or Staggered	7”
4:12 or greater	Straight or Staggered	7”

** For slopes between 2:12 and 4:12, an ice water shield is required over the entire area.*



Nailing

Each shingle should be applied with two copper, non-corrosion stainless steel or hot-dipped galvanized 3/8” head x 1½” length nails. Shakes can be nailed by hand or with a pneumatic nail gun. Don’t overdrive nails or nail at an angle. Keep the nail head flush with the surface of the shingle to avoid creating “craters” which can collect moisture and can also prevent the exposed end of the shingles from laying flat.

Use these alignment guides with the top edge of the previous row of shakes to control the exposure.

Cutting

DaVinci Fancy Shake can be cut with a utility knife and straight edge. Electrical circular saws (carbide blade, two teeth per inch) or cordless circular saws (a minimum of 18 volts is recommended) may also be used.

Natural Appearance

To produce the most natural and realistic appearance, DaVinci Fancy Shake is modeled to reflect machine-sawn shingles. Scientifically engineered, reinforcing ribs on the back of the shingle add stability and strength.

Please note: DaVinci Fancy Shake is made flat, should be stored flat, and must not be installed unless it is flat and in its original form. If shakes are not stored flat and become twisted or curled, lay them flat in a warm place and they will return to their original flatness. Damaged shingles should never be installed.

Quick Reference

Issue	DaVinci Recommends	Acceptable Alternatives
Valley	Copper	28-gauge clad metal
Flashing	Copper	28-gauge clad metal
Eaves Flashing	Copper	28-gauge clad metal
Nails	Non-corrosive stainless steel	Hot-dipped Galvanized

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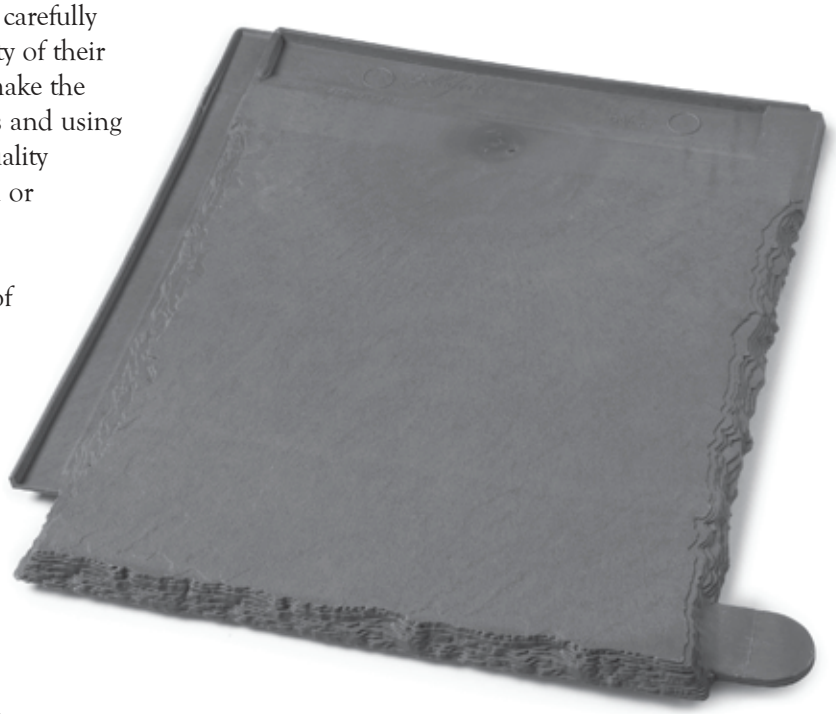
913-599-0766 or 800-DaVinci (800-328-4624) or www.davinciroofscapes.com

Please be sure to check DaVinci’s website for updates. Installation Guide is subject to change without notice.

Bellaforté by DaVinci

Installation Guide
Slate • Shake

Bellaforté Shake and Slate are polymer roof coverings carefully engineered to provide the authentic look and durability of their natural counterparts. Special care has been taken to make the product easy to install. By following these instructions and using good installation practices, you will be assured of a quality installation. DaVinci products do not require certified or manufacturer`s trained installers, however a roofing contractor that is well versed in standard roofing installation practices and who has an understanding of DaVinci installation recommendations/requirements, is recommended.



NOTE TO INSTALLER

Bellaforté products offer variations of profile thickness from ½" (slate) to 1" (shake), yet remain lightweight, because the tiles are not solid. When cutting tiles the ribbed support structure may become visible. In these instances rake tile or special flashing detail should be used for the best aesthetic appearance.

Pay special attention to recommendations for accessories and installation at gable ends (page 7) and valleys (page 5 - 6).

For questions about DaVinci Bellaforté or its application, contact DaVinci Roofscapes®, LLC
913-599-0766 or 800-DaVinci (800-328-4624) or www.davinciroofscapes.com

Please be sure to check DaVinci's website for updates. Installation Guide is subject to change without notice.

INSTALLATION

DECKING

Bellaforté must be installed on a smooth flat surface; minimum 15/32" APA approved plywood or 7/16" approved OSB Imperfections in the decking may transmit through to finished roof. For this reason it is recommended that all previous roofing materials be removed prior to installation of Bellaforté. However, there are some circumstances where overlaying one layer of asphalt shingles is acceptable. This is addressed in the Special Issues Section in the back of this guide.

DRIP-EDGE

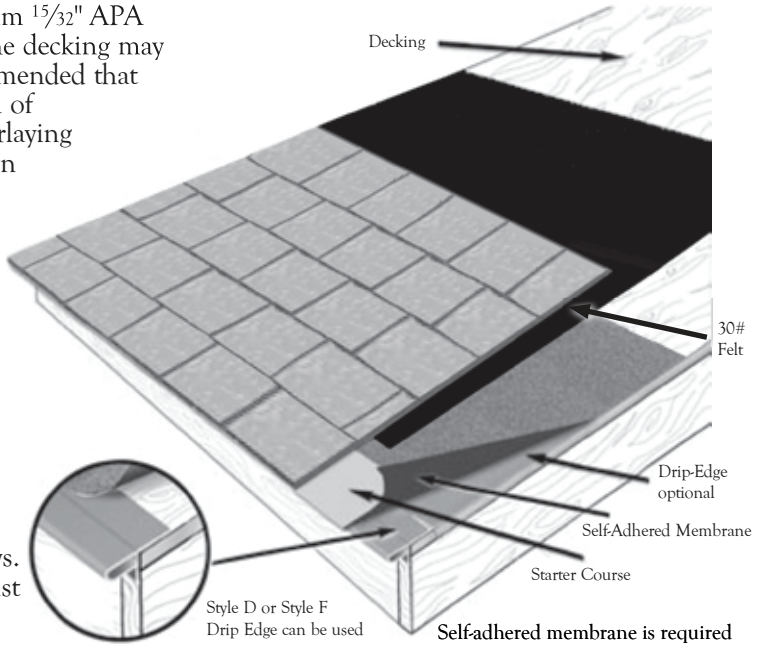
Metal drip-edge made from copper, aluminum, or coated steel should be installed underneath underlayment on all eaves. Drip edge on gable ends is optional.

SELF-ADHERED MEMBRANE

(Severe Climate Underlayment in accordance with Chapter 15 of the UBC)

A full sheet of self-adhered membrane is required in all valleys. At least 18" of membrane is required on all gable ends, against walls, and around projections.

In areas where the average daily temperature in January is 25° F or lower or where ice buildup is possible, DaVinci requires self-adhered membrane be installed from the bottom edge extending two feet above the exterior wall line on all eaves.



Self-adhered membrane is required on the entire roof deck where the roof pitch is a minimum 3:12 but less than 4:12. Bellaforté may not be installed on roofs with pitches less than 3:12.

UNDERLAYMENT

CLASS C FIRE RATED SYSTEM:

In addition to self-adhered membrane a minimum 30 lb felt that meets ASTM D 226 Type II standard or a listed synthetic underlayment[1] is required over the entire roof.

If self-adhered membrane is required in the field of the roof (if there is a skylight for example) it must be installed so that if water ever lands on it, it will flow on top of the other underlayment, not the plywood.

A proven method of installing the various types of underlayment within a roofing system which DaVinci recommends is as follows; Install membrane on the eaves. Cover the membrane and the remaining portions of the roof with the approved underlayment. Then install self-adhered membrane in valleys, along walls and around projections.

CLASS A FIRE RATED SYSTEM:

In order to meet a Class A system for fire a minimum one layer ASTM D 3909 cap sheet[2] and one layer ASTM D 226 type II 30 lb felt must be installed over the entire deck. These underlayments must be used in addition to the self-adhered membrane in order to fulfill the requirements of a Class A system.

See Bellaforté Fire Classification Addendum as other underlayment systems to meet Class A requirements may become available.

Note 1: Underlayment and Asphalt Shingles are listed Class A components of a listed roof deck assembly by an Approved Agency. The third party program in which products are certified, carry a label, and are listed in the directory of an agency accredited by the International Accreditation Service, Inc. (IAS), or by an accredited body that is a partner with IAS in a mutual recognition arrangement, pertaining to certification bodies and their compliance with ISO/IEC Guide 65, General Requirements for Bodies Operating Product Certification Systems. These underlayment and asphalt shingle components are to meet Class A Classification when tested to ASTM E108 or UL 790.

Note 2: Underlayment and Asphalt Shingle components are to be installed with mechanical fasteners in accordance with the manufacturer`s published installation instructions. Self-adhering or adhesive applied underlayment and asphalt shingle installations are outside the scope of this listing.

INSTALLATION

NAILS

Tiles should be installed with nails long enough that they will penetrate through the roof deck and exceed it by 3/16". In most instances 1½" roofing nails are acceptable. We recommend copper, stainless steel, or hot-dipped galvanized nails. Ring-shank nails should be used in high wind areas.

STARTER COURSE

It is imperative that the starter course be straight or subsequent courses will not align properly. The Bellaforté field tiles rely on the starter course to maintain straight coursing. It is therefore necessary that there be a chalk line laid to assure that the starter is straight. For a **Slate** installation the chalk line should be snapped approximately **2½"** above the bottom edge of the roof and **3"** for **Shake** to allow for an approximate 1" overhang. The starter tiles should be placed so the top edge of the starter tile is placed on the line. The amount of overhang maybe adjusted as needed to achieve the best water flow into the gutter. The starter tiles must be spaced ⅜"-½" apart as tiles will expand and contract with temperature change Buckling of the starter pieces will occur if the starter pieces are not spaced properly.

Only white or blue chalk should be used on Bellaforte roofs as permanent chalk (red) will stain the tiles permanently.

FIELD TILE

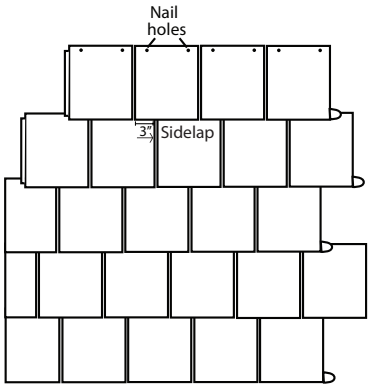
Bellaforté Slate:

The Bellaforté Slate field tiles must be laid from left to right. The outside edge of the tile will be covered by a rake tile on a gable end or a hip and ridge tile on a hip so precise cutting is not necessary. For installing Bellaforté Slate without a rake tile please see Special Issues Section.

The first tile should seat directly on the starter tile. The stop or ledge on the bottom of the field tile rests directly on the top of the starter. Slide the tile as far left as possible. The field tile should then be nailed on the tab first and then on the top of the tile in the left hand corner.

Once the first tile is in place a tile should be placed on top of it to start the second course. This tile should be placed so that it nests on top of the first tile with the ledge on back resting on the top of the first course tile. Slide the tile to the left so that the right side edges of the two tiles are offset by a minimum 3". Before nailing, the overhanging portion on the left side of the tile should be removed. The cut tile should be installed with two nails, one on the tab and another in the top left corner. Then the second tile of the bottom course should be installed. The installation should continue so that the gutter of this next tile is placed under right side of first tile and is sitting on the ledge of the starter tile below. When the tile is properly in place it should feel locked in place when pulled down or to the right. With the tile in place the tab should be nailed, the top left corner should be nailed, and the top right corner of the first tile should be nailed. The installation should continue in this manner. Tiles should be installed in a stair step manner and several courses should be installed going across the roof at one time to assure good color blending.

Random Pattern



A random pattern is the simplest pattern and one that is aesthetically pleasing to many. This pattern is literally accomplished by setting the shingles back random amounts as long as there is a minimum 3" side-lap from the gutter of one tile to the gutter on the tile that sits on the course above or below it. A random pattern is forgiving in that the vertical pattern alignment does not need to be constantly checked to make sure it is straight.

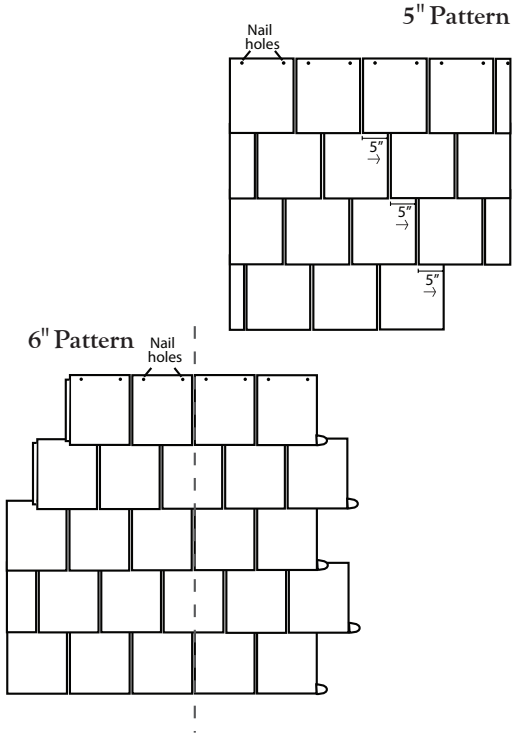
The first tile on the third course should be installed in a like manner. It should also be setback a minimum 3".

When installing Bellaforté tiles a horizontal line should be chalked occasionally to assure horizontal alignment. If tiles must be adjusted to assure straightness the adjustment should be taken out over several courses. Standard Bellaforté Field Tiles cannot be lowered because of the stop mechanism and can only be raised a maximum of ¼" per course. Bellaforté transition tiles can be used to lower a course if required. These tiles are standard field tiles that have had the ledge/stop planed down at the factory. One of the reasons these tiles were designed, was to provide adjustment options as needed. If the lowering of courses is required and transition tiles are not available they can be made onsite from existing standard field tiles. This can be done by removing the ledge from the sides and bottom of a standard tile, so that it is able to lay flat as it is lowered onto the course below.

Alternate pattern methods may be used. Instead of a random pattern, the Bellaforté Slate may be set back a consistent 5" or 6". This will prove to show a consistent vertical pattern that some think is more formal than a random pattern. This type of pattern will be more difficult to install on complex roofs.

The 6" slate pattern is accomplished by setting each tile back 6". With this method the gutters between tiles are in alignment on alternate courses. This installation method makes for a very orderly look. This installation pattern is the most difficult and requires frequent checking of vertical alignment by the means of chalk lines. Both a 5" and 6" pattern will also require the installer to use extra effort around a dormer or other protrusion to ensure the pattern stays straight all the way to the end of the roof.

When using the 5" or 6" method on slate it is important to make the pattern come out both vertically and horizontally on top of a dormer or a gable that abuts the roof lower than the ridge gable. In order to do this the left side of a dormer (for example) must be installed with several tiles above the top of the dormer. With this completed a chalk line may be struck that aligns the right corners of the installed tiles and goes all the way down to eave on the right side of the dormer. Once the chalk line is in place the installer may place the right side of the top tip of the bottom tile on the line. He should use this as a guide to install the necessary tiles to the left. Subsequent courses are installed with a 5" or 6" setback. Good horizontal alignment may be assured by snapping occasional horizontal lines.



Bellaforté Shake: (Read rake tile section before installing Bellaforté Shake on a gable roof)

The Bellaforté Shake field tiles must be laid from left to right. The outside edge of the tile will be covered by a rake tile on a gable end or a hip and ridge tile on a hip so precise cutting is not necessary. For installing Bellaforté Shake without a rake tile, please see Rake Tile: Bellaforté Shake Method 3.

The first tile should seat directly on the starter tile. The stop or ledge on the bottom of the field tile rests directly on the top of the starter. Slide the tile as far left as possible. The field tile should then be nailed on the tab first and then on the top of the tile in the left hand corner.

Once the first full shake tile is in place, a partial shake tile with a minimum 3" removed from the left side of a field tile should be placed on top of it to start the second course. This partial tile should move as far left as possible and the ledge on the back of the tile should be resting on the top of the tile below it. Then the second tile of the bottom course should be installed. The installation should continue so that the gutter of this next tile is placed under right side of first tile and is sitting on the ledge of the starter tile below. When the tile is properly in place it should feel locked in place when pulled down or to the right. With the tile in place the tab should be nailed, the top left corner should be nailed, and the top right corner of the first tile should be nailed. The installation should continue in this manner. Tiles should be installed in a stair step manner and several courses should be installed going across the roof at one time to assure good color blending.

Chalk lines should be snapped on the underlayment only. Do not snap chalk lines on the visible portion of any DaVinci products. Red and orange permanent chalk will permanently stain DaVinci tiles.

INSTALLATION

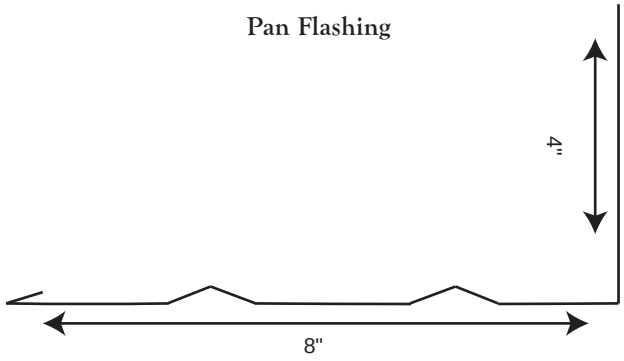
Flashing:

Flashing should be used in all areas in which the roof abuts a vertical wall, dormer, chimney, skylight or other structural protrusions. The use of copper, a minimum 28 gauge clad steel or a minimum .019 aluminum is acceptable.

Pan Flashing Method:

With the self-adhered membrane in place an 8" x 4" piece of "L" metal should be installed so that 4" goes up the wall and 8" lies on the roof deck. An additional strip of membrane should be placed on the outside piece of the "L" metal and onto the underlayment. If the abutment terminates in the "field" the membrane must go over the top of the "field" underlayment. The roof edge of the metal should be crimped. This metal should extend on top of the field tile below. When installing the first tile on the flashing a Bellaforté transition tile should be used.

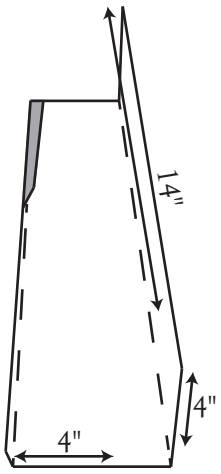
Pan Flashing



Step-Flashing Method:
(Requires Transition Tiles)

Walls or projections must be prepared by installing a minimum of 18" self-adhered membrane that turns up the wall at least 4" and back on the deck (underlayment) at least 14". For the termination of each course a transition tile must be installed with a piece of step flashing 4"x4"x14". The piece of step flashing should have a ¼" return along the portion that is lying on the roof deck. In order to receive the ¼" return two horizontal ledges on the transition tile must be cut. The step flashing will be installed under each transition tile and held in place by the nail that each tile receives at the top.

Step Flashing



Transition Tiles:

The Bellaforté transition tile is a tile without the alignment ledge on the back. Transition tiles are used wherever there is a metal flashing that occurs between courses. Examples of this include pipe flashings, valleys that terminate in the field and step flashings. Transition tiles may also be used wherever toe-irons are used to support walk boards. Transition tiles are also used to adjust coursing when necessary. Once the first transition tile makes the transition, subsequent tiles may be regular Bellaforté field tiles. A transition tile may be fabricated in the field by removing the back ledge with a knife or planer. Unused transition tiles may be substituted for regular field tiles but a chalk line must be used to maintain straight coursing.

Valleys:

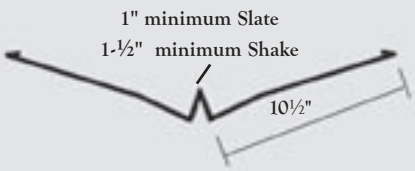
Bellaforté Shake and Slate may be installed as an open or closed valley. For a closed valley, "W" valley metal should be used. The center diverter should be a minimum 1" for slate and 1½" for shake. For an open valley the valley metal should be broken in the middle with diverters on either side. These diverters also need to be a minimum 1" and 1½" respectively. With the valley metal in place an 18" strip of self-adhered membrane should be placed on top of the valley metal. The membrane should be parallel and 1" from the diverter and should extend past the outside edge of the valley. Cut Bellaforté tiles should be butted against the center diverter for a closed installation or the outside diverter on an open valley.

Valleys:

When nailing a piece of tile in the valley that is 6" or shorter it is recommended that one fastener be placed in the upper corner where the cut tile overlaps.

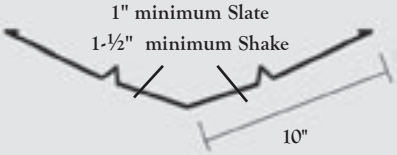
Option A: In many cases, with steeper pitched roofs, it is acceptable to install a "W" valley and cut the Bellaforté tile on an angle parallel and 2½" from the center diverter. Keep in mind that the cut rib structure of the shakes may be visible from the ground with some roof pitches.

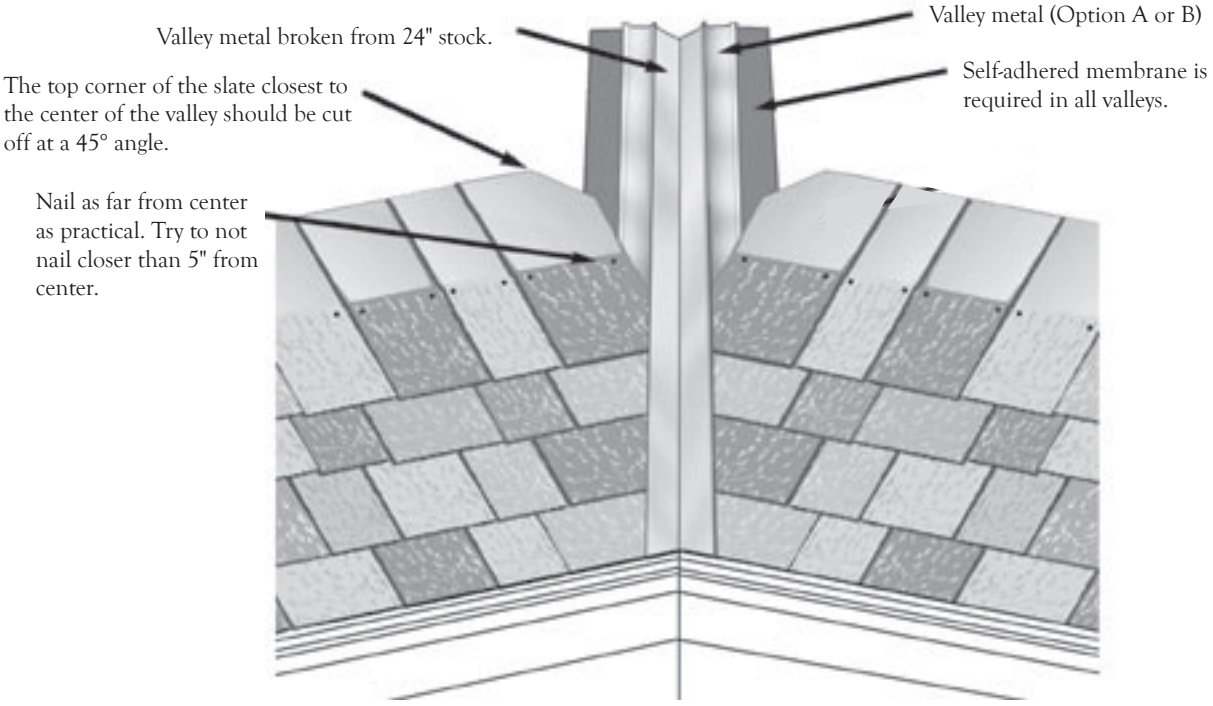
Option A
Single Diverter Valley Metal



Option B: Where Option A is unacceptable, we suggest making the double "W" valley. This should be made from 24" stock that is broken in the middle without diverter to look like a "V". Additionally, there should be a "W" (diverter) on either side 2½" from the center line. (See Diagram) Bellaforté should be cut and laid against the diverters on either side to mask the rib structure.

Option B
Twin Diverter Valley Metal





INSTALLATION

Gable Ends / Rakes:

An 18" strip of self-adhered membrane should be run vertically on top of the underlayment on gable ends. Bellaforté tiles placed on the gable end maybe nailed anywhere that they will be covered by the rake tile.

Rake Tile - Bellaforté Slate:

The rake tiles are installed to finish the gable ends. The first tile is installed on the gable end so that the butt of the tile is flush with the butt of the first course of Bellaforté. The tip of the first rake tile should be cut so that it doesn`t overlap the second course of tile. The rake tile should be nailed with an approved fastener long enough to penetrate through roof deck and exceed it by 3/16" (2" roofing nail acceptable in most instances); once on the roof side and once on the wall side. The tile should be nailed high enough so that the nails are covered by the next rake tile. The second rake tile should be installed so that the tip of the rake tile just touches the butt of the second course. Subsequent rake tiles should be installed in the same way.

Rake Tile - Bellaforté Shake:

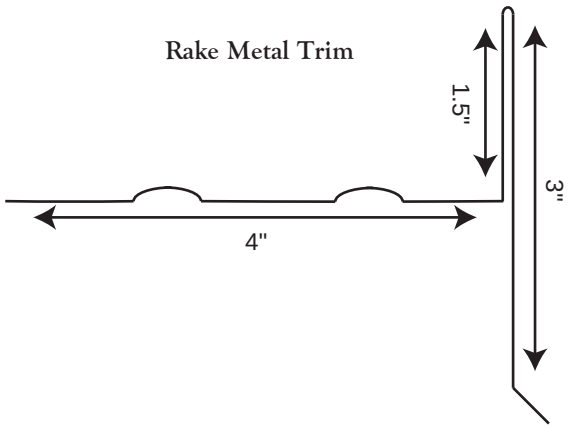
When installing Bellaforté Shake on a gable roof three methods of installation are available.

Method 1: Install the 12" field tiles without false breaks to begin and end each course on gable ends. This makes the thickness of the tiles on the gable ends consistent.

Once all the field tiles have been installed the first rake tile is installed on the gable end so that the butt of the tile is flush with the butt of the bottom course of field tiles. The tip of the first rake tile should be cut so that it doesn`t overlap the second course of tile. The rake tile should be nailed once on the roof side and once on the wall side. The tile should be nailed high enough so that the nails are covered by the next rake tile. The second rake tile should be installed so that the tip of the rake tile just touches the butt of the second course. Subsequent rake tiles should be installed in the same way.

Method 2: Rake tiles may be installed with two screws into the gable wall or fascia. This is accomplished by placing the tile and holding it down and screwing a 2" corrosion resistant screw through the butt of the rake tile and into the gable end wall or fascia. Then another screw should be used on the gable wall side to attach the top of the rake tile. This method is used most often if field tiles of variable thickness were used on the gable ends. This will hold the rake tiles down and make the installation look more uniform.

Once all the field tiles have been installed the first rake tile is installed on the gable end so that the butt of the tile is flush with the butt of the bottom course of field tiles. The tip of the first rake tile should be cut so that it doesn`t overlap the second course of tile. The second rake tile should be installed so that the tip of the rake tile just touches the butt of the second course. Subsequent rake tiles should be installed in the same way.



Method 3: Gable End/Rake installation without rake tiles. A piece of flashing can be installed to terminate the tiles at the gable ends. The rake metal trim looks like a “T” with the main leg 4" and 1½" on each side of the top of the “T”. This should be installed on top of a 24" strip of self-adhered membrane running down the gable end. Once the metal trim has been installed, a 12" wide strip of self-adhered membrane should be installed on top of the metal trim so that at least 2½" of the 4" leg is covered.

INSTALLATION

Cutting:

A cordless battery operated circular saw is recommended for efficient cutting of Bellaforté tiles. A standard wood cutting blade is adequate for smooth cuts. A razor knife can be used to cut the tiles, although it is more difficult and time consuming and results in an uneven cut edge.

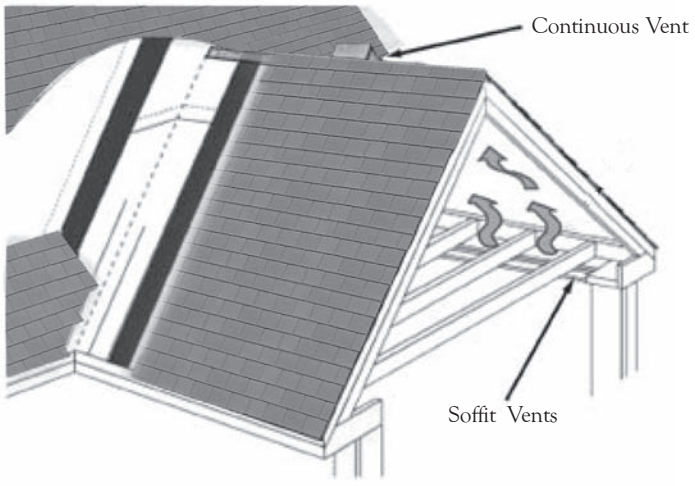
Hip & Ridge Tile:

The one piece hip and ridge tile should be installed at a 12" exposure. The tiles should be nailed once on each side about ¾" from the outside edge with 2" roofing nails (must penetrate through roof deck and exceed it by 3/16"). The hip and ridge should be nailed approximately 12½" from the butt of the tile. When nailing hip and ridge tiles on a hip it is best try to nail the hip and ridge through the butt of the field tile not in the void below the butt. The nail may be raised up to an inch above the nailing circle if necessary. If tile must be nailed in the gap below the butt of the field tile don't drive the nail down so hard that it distorts the hip and ridge tile. A chalk line should be used on the hips to assure straightness. A shingle over type continuous ridge vent may be used if wanted. If continuous ridge vent is used nails used to secure the hip and ridge tiles must penetrate through the decking and exceed it by 3/16".

Hip Starter Application:
At the bottom of a hip, the hip and ridge tile may be cut on an angle so that the bottom edge may be installed parallel with the eave. A piece of flashing or UV stable roofing material should be installed along the bottom 6" of the hip in order to protect the area under the seam formed by the cut material. The cut hip and ridge tile is then assembled so that the two cut pieces are butted together to form the bottom piece of hip and ridge. Once these two tiles are in place a full hip and ridge tile is installed and pulled down so the outside corners just reach the bottom of the roof.

Ventilation:

Proper ventilation is crucial to the proper performance of a roofing system. Proper ventilation is especially important in cold climates where modern houses are well insulated and weather-tight. We suggest you follow standard building practices in your area and meet all national and local building codes. A continuous ridge vent combined with appropriate soffit ventilation is an especially effective ventilation system that we highly recommend.



Special Issues

Snow Guards:

Snow guards should be considered in all geographic areas where accumulating snow fall is possible. Most kinds of brass, copper, or clad aluminum snow guard systems work well with DaVinci. Rocky Mountain Snow Guards, Inc. is a good source for further information about snow guards. Contact them at www.rockymountainsnowguards.com or call 888-755-7667. It is recommended that snow guards be installed during the installation of the DaVinci roof although retro-fit snow guards are available for previously installed DaVinci roofs. Details regarding installation remain the responsibility of the installer and the customer.

For additional information please contact DaVinci at any of the numbers listed on the first page of this guide.

High Wind Areas:

Ring shank nails should be used in high wind areas. Four nails should be placed in the defined areas (circles) instead of the two nails in a non-high wind area. Florida or HVHZ areas refer to local building codes.

Asphalt Shingle Overlay Installation:

Although it is recommended that Bellaforté be installed on a smooth flat surface where all previous roofing material has been removed, overlaying one layer of Class A fiberglass asphalt shingles is an acceptable alternative. In some situations, when performing a roof over installation the following items must be addressed in addition to the standard installation method. Also nothing written here is meant to supersede any local and/or national building codes which must always be followed and should be researched prior to any job start.

Preparation:

The new roof may show any imperfections that are in the existing substrate as unpleasant dips and bumps. This can be minimized by cutting and/or fastening all buckled, raised, and curling shingles. The surface should be as flat and smooth as possible.

Shingles along the eaves and rakes must be cut back in order to install the starter and rake tiles.

Fasteners:

Nails for field tiles should be long enough to penetrate the roof deck and exceed it by a minimum 3/16". Nails used for hip and ridge should also penetrate the roof deck and exceed it by 3/16".

Rake Edges/Gable Ends:

A piece of "L" shaped drip edge may need to be used along rake/gable ends, depending on the thickness of the existing shingle roof. This would be installed on top of the existing shingles along the rakes and under the new field tiles. The metal should be bent in such a way that it has a minimum of 3" on the roof deck side and an appropriate length of metal to overlap the corresponding rake fascia board by a minimum of ½". The rake tiles would then be installed as previously instructed. The metal is to close and protect any opening that would have been present between the bottom of the installed rake tiles and the existing rake trim or shingle molding.

Flashings:

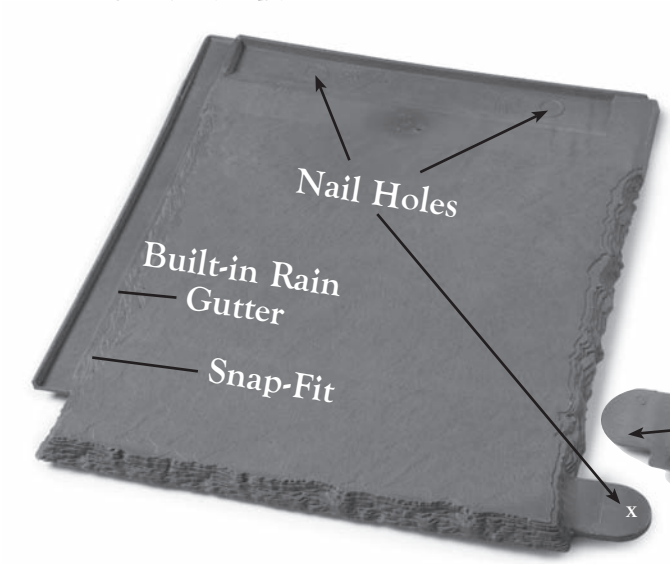
All flashings must be new and cannot just be caulked, cemented, or resealed. This includes but is not limited to valleys, step, pipe, vent, etc.

Special Issues

Nailing:

Each tile should be applied with three copper, non-corrosive stainless steel, or hot-dipped galvanized, ⅜" head x 1½" length nails in most instances. Roofing nails that penetrate through the roof deck and exceed it by ⅜₁₆" should be used. Tiles can be nailed by hand or with a pneumatic nail gun. Don't overdrive nails or drive nails at an angle. Keep the nail head flush with the surface of the shingle to avoid creating "craters" which can collect moisture and can also prevent the exposed end of the shingles from laying flat.

Bellaforté Front



Bellaforté Back

Quick Reference

Issue	DaVinci Recommends	Acceptable Alternatives
Valley	Copper	28-gauge clad metal
Flashing	Copper	28-gauge clad metal
Eaves Flashing	Copper	28-gauge clad metal
Nails	Non-corrosive stainless steel	Hot-dipped Galvanized

Electro-Galvanized Nails:

DaVinci recommends the use of copper, stainless steel, or hot-dipped galvanized nails. We realize however that in many climatic regions nail corrosion is not a factor in the long-term performance of the roof system. Therefore DaVinci Roofscapes supports the use of Electro-galvanized nails and a system using those nails will be in compliance with the DaVinci Fifty-year Limited Warranty. The exception to that is that if the nails fail, any portion of the warranty associated with wind performance would be void.

For questions about DaVinci Bellaforté or its application, contact DaVinci Roofscapes®, LLC
913-599-0766 or 800-DaVinci (800-328-4624) or www.davinciroofscapes.com

Please be sure to check DaVinci's website for updates. Installation Guide is subject to change without notice.

DaVinci Shake

Multi-Width Shake • Single-Width Valoré Shake

Installation Guide

DaVinci polymer shakes are carefully engineered to provide the authentic look of hand-split shakes with dramatically increased durability and resistance to fire and impact. Special care has been taken to make the product easy to install. By following these instructions, and using good installation practices, you will be assured a quality installation.

Note to Installer

DaVinci Shake offers a 5/8" thick profile, yet remains lightweight, because the shakes have an engineered rib structure. When cutting shakes for valleys or at overhangs such as eaves and gable ends, the ribbed support structure on the underside of the shake needs to be hidden by standard metal flashings. In addition, DaVinci offers a 12" solid accessory tile that can be used in these areas and would not require the need for special flashing.

Pay special attention to recommendations for accessories and installation at eaves (page 2), gable ends (page 4) and valleys (page 7).

Job Site Ready!

DaVinci shake bundles are delivered to the construction site pre-collated with shingle widths and color variations in the ordered blend. This pre-planned distribution produces the right aesthetic effect every time. Collated bundles also simplify installation and save time by eliminating hand sorting on the job site.

Multi-Width Shake		
Widths: 9", 8", 7", 6", 4"	Length: 22"	Thickness at butt: 5/8"
Single-Width Valoré Shake		
Widths: 9"	Length: 22"	Thickness at butt: 5/8"

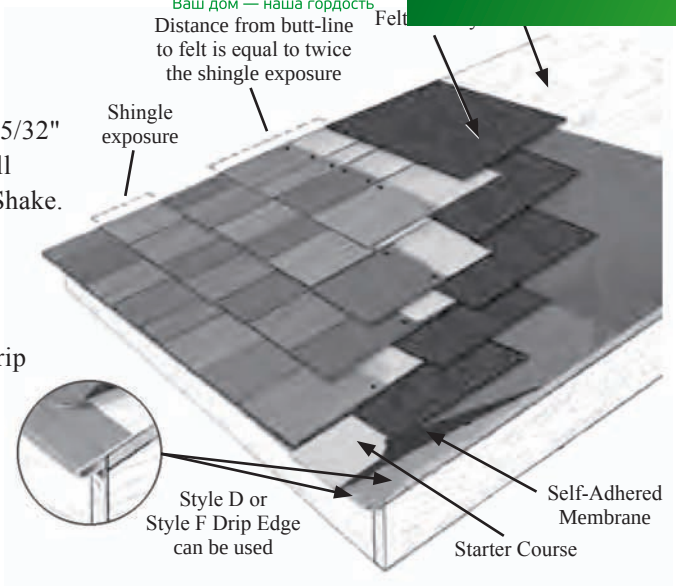
For questions about DaVinci Shake or its application, contact DaVinci Roofscapes®, LLC
913-599-0766 or **800-DaVinci (800-328-4624)** or **www.davinciroofscapes.com**

Please be sure to check DaVinci's website for updates. Installation Guide is subject to change without notice.

Installation

Decking

DaVinci Shake must be installed on a smooth flat surface; minimum 15/32" APA approved plywood or 7/16" approved OSB. It is necessary that all previous roofing materials be removed prior to installation of DaVinci Shake. Imperfections in the decking may transmit through to finished roof.



Drip-Edge

Metal flashing is required on gable ends and eaves. An overhanging drip edge is recommended on gable ends to help mask the rib structure on the underside. An overhanging drip edge may also be used on eaves although non-overhanging drip edge styles are acceptable options.

Self-Adhered Membrane

(Severe Climate Underlayment in accordance with Chapter 15 of the UBC)

In areas where the average daily temperature in January is 25° F or lower or where ice buildup is possible, DaVinci requires self-adhered membrane be installed: from the bottom edge extending two feet above the exterior wall line on all eaves. The self-adhered membrane is required in all valleys regardless of average daily temperatures or the possibility of ice buildup.

Underlayment and Interlayment

Method 1: Class A installation
One layer of GAF VersaShield® Fire–Resistant Roof Deck Protection (ESR-2053) in addition to required self-adhered membrane.

Method 2: Class A Installation
One layer Fontana VulcaSeal G40 in addition to required self-adhered membrane (This system is not recognized by ICC-ES).

Method 3: Class C Installation
The entire roof must be covered with an approved underlayment in addition required self-adhered membrane.

Pitches below 6:12 – DaVinci Shake should be installed with 30 lb felt interlay. Felt interlay is installed by rolling out 18" wide rolls of 30 lb felt at the same exposure as the shakes. The felt should be applied over the top portion of the shakes and extend onto the plywood sheathing so that the bottom edge of the felt is positioned at a distance above the butt equal to twice the weather exposure. So for an exposure of 10", start the layer of felt 20" above the butt line of the course below. If a class A installation is required the felt interlay must be used in addition to the other required underlayments. An alternative to using felt interlay is to use two layers of approved underlayment with their laps offset. If class A is required one of these layers may be GAF VersaShield or Fontana VulcaSeal G40.

Note 1: Underlayment and Asphalt Shingles are listed Class A components of a listed roof deck assembly by an Approved Agency. The third party program in which products are certified, carry a label, and are listed in the directory of an agency accredited by the International Accreditation Service, Inc. (IAS), or by an accredited body that is a partner with IAS in a mutual recognition arrangement, pertaining to certification bodies and their compliance with ISO/IEC Guide 65, General Requirements for Bodies Operating Product Certification Systems. These underlayment and asphalt shingle components are to meet Class A Classification when tested to ASTM E108 or UL 790.

Note 2: Underlayment and Asphalt Shingle components are to be installed with mechanical fasteners in accordance with the manufacturer's published installation instructions. Self-adhering or adhesive applied underlayment and asphalt shingle installtions are outside the scope of this listing.

Fasteners

Tiles should be installed with nails long enough that they will penetrate through the roof deck by at least 3/16". In most instances, 1¾" roofing nails are acceptable. We recommend copper, stainless steel, or hot-dipped galvanized nails.

Ring-shank nails should be used in high wind areas.

Starter Course

Each starter tile should be installed so that it extends past the drip edge by approximately 1". If using overhanging drip edge, the starter shingle may overhang less if it is appropriate for the gutter system. The starter tiles should be installed with the DaVinci logo on top. The starter tiles should be spaced 3/8" apart as tiles will expand when warm. Each starter tile should be nailed with two approved nails on a line approximately 6" from the butt and ¾" from outside edge.

Installation

Getting Started

Use approved nails in each shake at or near nailing location shown on the shakes (see page 10). Nails may be placed lower than the indicators as long as the tile above it covers the nail. Once the starter tiles are in place, begin installing shakes in the lower left corner (or lower right corner for a left-handed roofer). The shakes should be flush with the starter tiles on the outer (rakes) and lower (eaves) edges. DaVinci recommends a minimum 3/8" gap between shakes.

Two methods of installation are available:

1. Straight: in which the exposure of each shake is kept consistent
2. Staggered: in which the exposure varies by a maximum of 1" on adjacent shakes

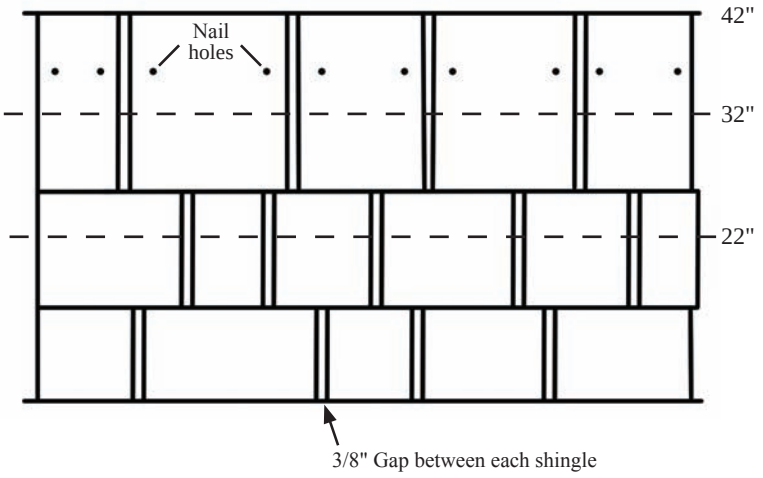
Use the alignment indicator at the top of each shake to help manage the exposure. An exposure of between 9" or 10" is acceptable for straight courses and 9" for staggered courses. As you progress up the roof, be careful not to damage shakes a ready in place. Put something, perhaps a piece of cardboard or cut shake, under toe irons (scaffolding brackets) to avoid scratching or marring the shake already installed below.

Straight Coursing

Install the shakes one at a time starting in the lower left hand corner if right handed or lower right hand corner if left handed. The first course of shakes should be laid directly on the starter tiles with the butt of the shake flush with the butt of the starter tile. The shakes should be installed individually with two nails in or near the defined areas. The shakes should be laid individually with a rack type system, also known as rack-style, stair-stepping, or pyramiding; to prevent same size shake directly on top of another. The shakes should be laid with an approximate 3/8" gap between each shake. The gaps between shakes on adjacent courses should offset by a minimum 1½". To assure proper horizontal alignment we recommend that chalk lines be snapped frequently. These chalk lines should be placed on the underlayments so that the shakes are aligned by the tips of the tiles rather than the butts.

Chalk lines should be snapped on underlayment with the tips of the shakes following the lines. Do not snap lines on DaVinci Shake or use red chalk as the chalk may permanently discolor the shake.

Straight Coursing on DaVinci Shake at a 10" Exposure



Staggered Coursing

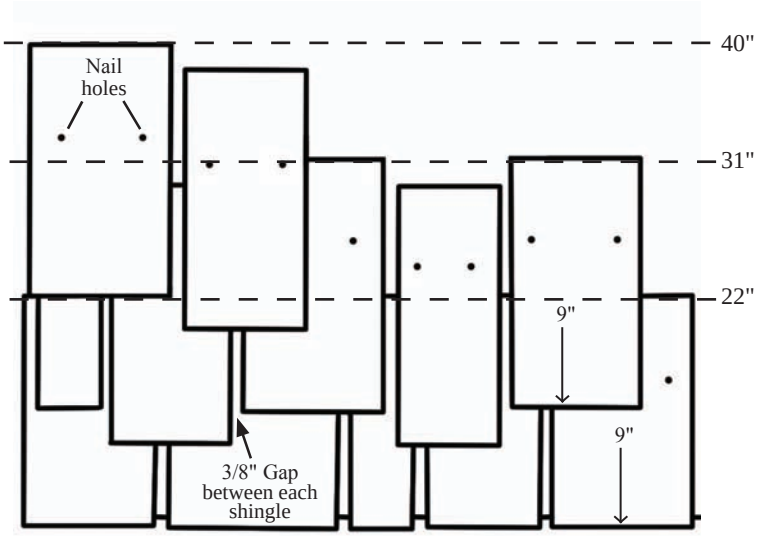
Staggering the courses is accomplished by laying the shakes in 9" courses with every other shingle lowered 1".

An example of how to accomplish this is as follows:

Step 1: Lay the first course of shakes flush on top of the starter. Then snap a horizontal line 9" above the tips of the shakes you just installed or 31" from the eave line (butt of the shake you just laid).

Step 2: The first shake on second course should be installed putting the tip of the shake on the chalk line. The next or adjacent shake should be 1" below the line. The third shake should be on the line; the fourth shake should be below the line. This continues in the same pattern all the way across the roof one shingle tip on the line and the next 1" below the line.

Staggered Coursing on DaVinci Shake at a 9" Exposure



Installation

Straight Coursing *(Continued)*

Step 3: Snap another horizontal line 9" above the line you chalked in Step 2 or 40" above the butt of the first course of shakes. Start laying shakes as in Step 2 with the first shake tip on the line and the next shake tip about 1" below the line.

Step 4: Continue up the roof in this manner. Every course does not need to be chalked. As roofers begin to understand the concept, they may use alignment indicators to accomplish the stagger. However, we do recommend frequent horizontal chalking to assure correct alignment.

Chalk lines should be snapped on underlayment with the tips of the shakes following the lines. Do not snap lines on DaVinci Shake or use red chalk as the chalk may permanently discolor the shake.

Valoré Shake Installation Tip: 4 ½" or 5" setback pattern

Method 1: A 5" setback pattern is recommended. In this method, starting from the bottom course, each Valoré Shake is set back 5" from the shake on the adjacent course. This pattern is most easily established by using a roofing hammer with gauge set at 5". Once the pattern has been established the setback should be checked occasionally.

Method 2: A 4 ½" pattern may also be used. In this method, starting from the bottom course, each Valoré Shake is set back 4 ½" from the shake on the adjacent course. This method requires that the pattern be straight vertically as well as horizontally because the breaks between shakes on alternate course are aligned. With this method we recommend frequent vertical chalk lines so that the pattern may be checked regularly.

Gap

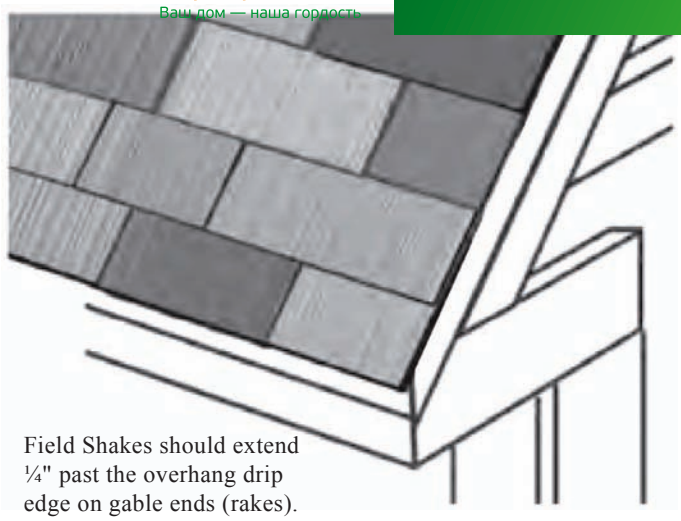
The recommended gap between shakes is 3/8" with a minimum 3/16" gap required. The number of shingles per square for DaVinci Shake is based on the assumption of 3/8" spacing between shakes. If spacing is less, more shingles per square will be required.

Avoid "Crack on Crack"

The gap between two shingles in one course should always line up 1½" or more from the gap between two shingles in the course below.

Correct

Incorrect



Field Shakes should extend ¼" past the overhang drip edge on gable ends (rakes).

Gable Ends / Rakes

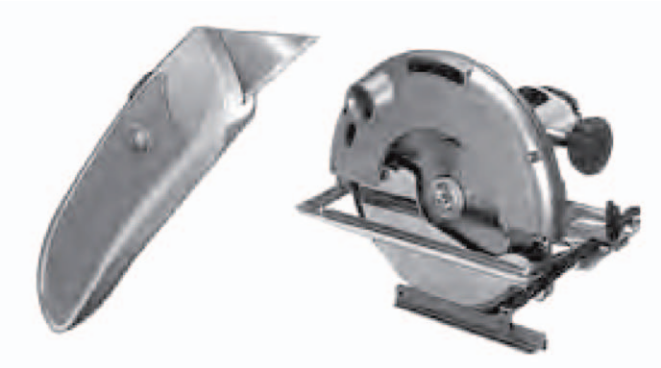
Cutting DaVinci Shakes at gable ends, or where a course terminates can almost always be avoided by choosing from the five different shake sizes and adjusting the spacing between shakes. In the rare case when cutting is required, shakes should be cut so that the factory edge faces out on the gable end.

Valoré Slate Installation Tip

The shakes are all 9" wide so must be cut at gable ends and any abutments. The Valoré shakes should be cut so that the factory edge is on the outside.

Cutting

DaVinci Slate may be cut with a utility knife and straight edge. It may also be cut effectively with a circular saw. Carbide tooth blades are recommended for maximum blade life.



Color and Width Variation

DaVinci multi-width field shakes come in five widths: 9", 8", 7", 6" and 4". Each bundle contains a mixture of 25 shakes and includes a pre-collated assortment of widths and colors needed for each color blend. Single-Width Valoré shakes come in a single 9" width with 20 shakes per bundle. DaVinci Roofscapes recommends that the shakes should generally be installed as they come out of the bundles. Keep in mind there must be 1½" side lap maintained and installation must be in a rack or pyramid style.

Installation

One-Piece Hip and Ridge Application: Hip and Ridge Preparation

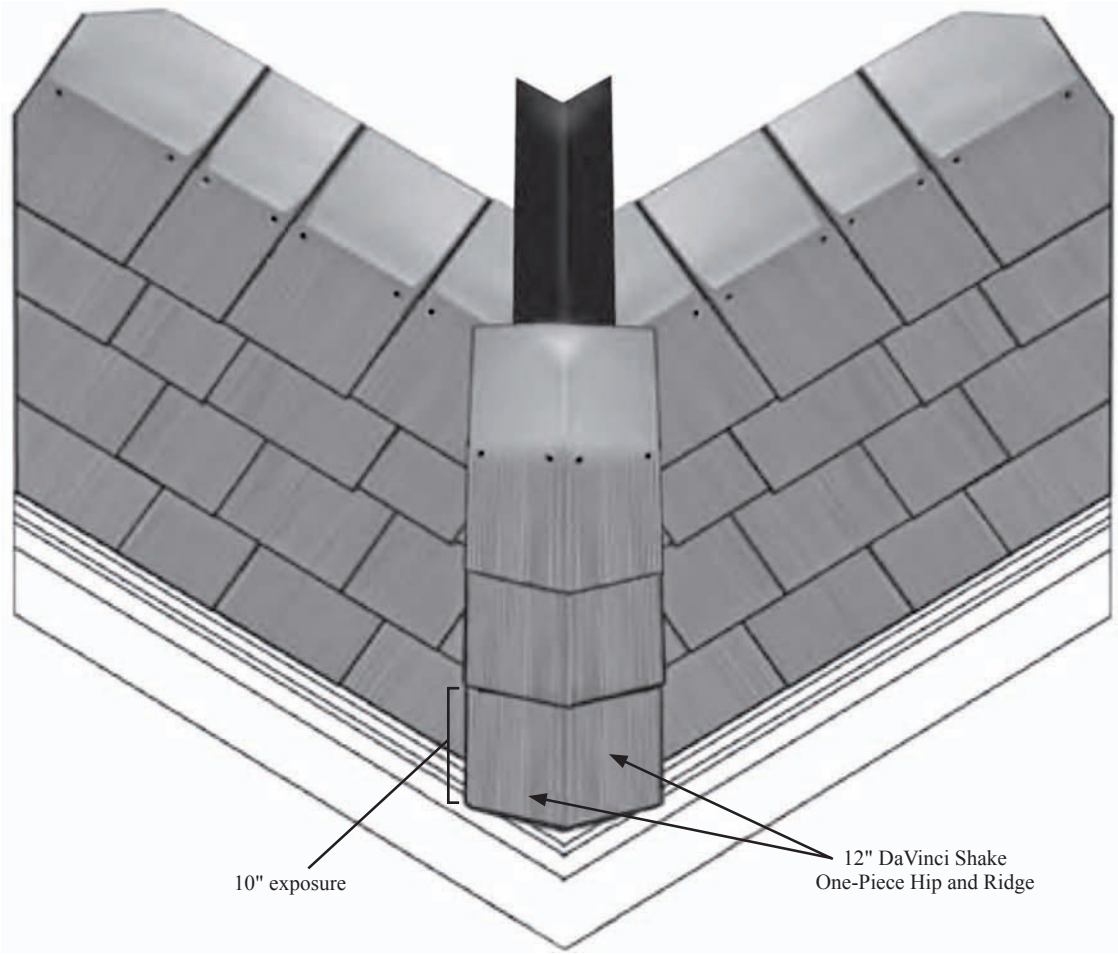
DaVinci one-piece hip and ridge shakes have an optimum appearance when used on pitches of 12:12 or less. Steeper pitches may cause outside edge to lift and it is recommended the conventional two-piece hip and ridge method be used for pitches greater than 12:12. Roofing nails that penetrate through the roof deck and exceed it by 3/16" should be used.

Ridge Vent Application

If using a continuous ridge vent we recommend a rigid shingle roll-over type. Once the continuous vent is installed, prepackaged 12" DaVinci One-Piece Hip and Ridge shingles should be installed in accordance with the standard hip and ridge installation instructions below. Special caution should be used when cutting the decking on the ridge to assure adequate nailing for the ridge pieces.

DaVinci One-Piece Hip and Ridge Shingle Installation

- DaVinci Shake one-piece hip and ridge should be installed at a 10" exposure with two roofing nails in each piece.
- A pair of 6" shakes should be used as a starter course underneath the first piece of hip and ridge. These 6" tiles should be cut so that they are approximately 5" widths and they should also be cut in length so that they don't extend beyond the top of the second course of field tiles. If preferred on the bottom of a hip the two 6" DaVinci Shakes may be placed upside down so that the rib structure on the underside is not visible.
- When installing the hip and ridge attempt to nail in areas where the underneath shakes offer support. It is not necessary to nail precisely in the nailing circles. This is especially important on hips. Roofing nails that penetrate through the roof deck by 3/16" should be used.



Installation

Two-Piece Hip and Ridge Application: Hip and Ridge Preparation

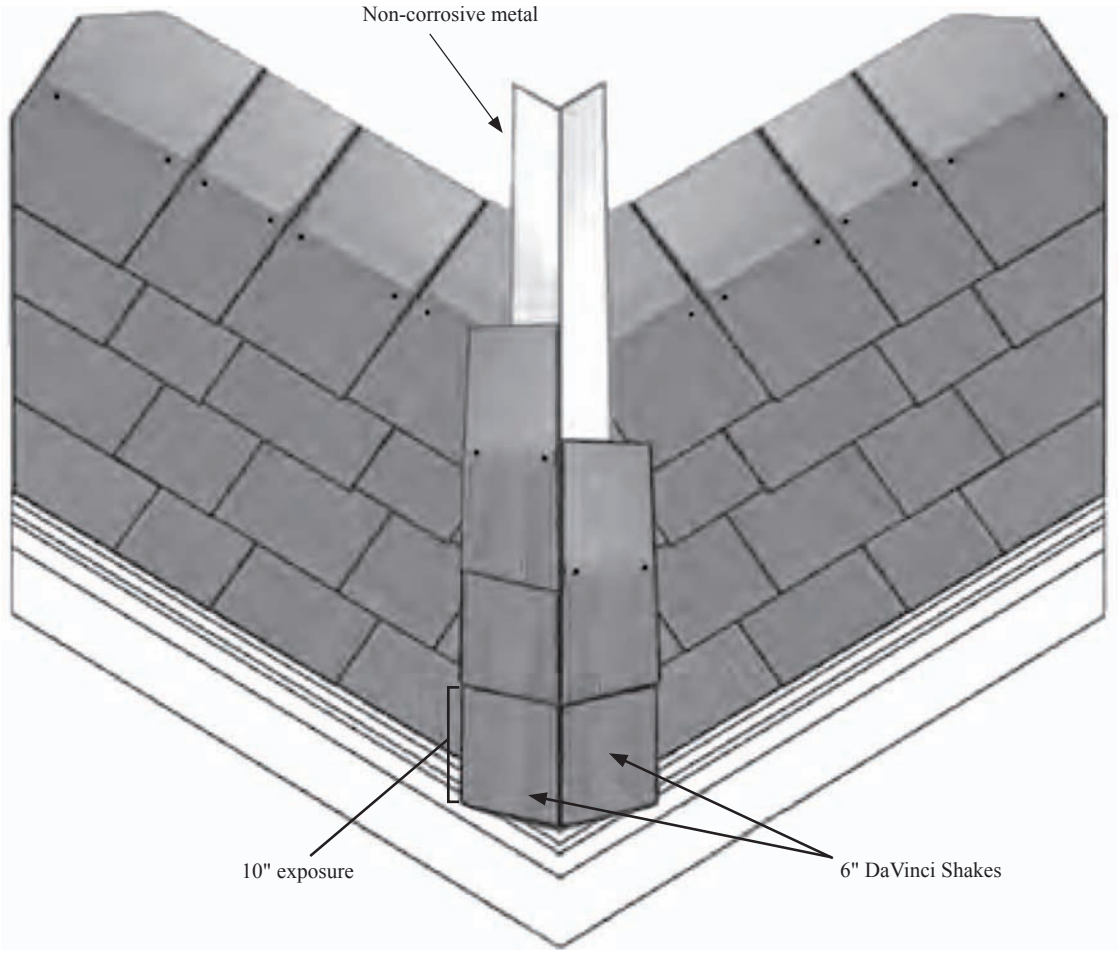
After installing field shakes, hips and ridges should be prepared by installing a minimum 6" wide piece of non-corrosive metal, UV stable EPDM or equivalent over the hips and ridges. This metal or EPDM should extend at least three inches from the center point on each side of the hip or ridge.

Ridge Vent Application

If using a continuous ridge vent we recommend a rigid shingle roll-over type. When installing continuous ridge vent, care should be taken to insure joints in ridge vent are water tight. Once the continuous vent is installed, prepackaged 6" DaVinci hip and ridge shakes should be installed in accordance with the standard hip and ridge installation instructions below. Caution should be used when cutting the decking on the ridge to assure adequate nailing for the ridge pieces. Roofing nails that penetrate through the roof deck and exceed it by 3/16" should be used.

Two-Piece Hip and Ridge Shingle Application

The bottom piece of hip and ridge should be cut so the tip does not extend past the butt of the second course. If preferred on the bottom of a hip, two 6" DaVinci Shake cut 5" wide placed upside down can be used as an under course. This will prevent the rib structure from being seen on the underside. These shakes that make up a hip and ridge unit should be installed with a **ten-inch exposure**. Using a chalk line to assure straightness, the prepackaged 6" hip and ridge should be installed one piece at a time so that the butts of two shingles are adjacent and the inside edges touch.



Installation

Valleys

Because DaVinci Shake has a rib-structure on the underside*, care must be used when installing DaVinci Shake in valleys. Open or closed valley systems may be used with variants of each system. Whether installing an open or a closed valley system, valley metal should be made from 24" stock of copper, minimum .019 aluminum, or minimum 28-gauge clad steel. DaVinci requires self-adhered membrane be used in all valleys.

*A 12" solid shake accessory tile is available.

Open Valleys

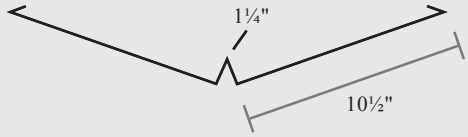
If open valleys are preferred, be aware that the cut edge of the tile may be seen. Location of the valley, roof pitch and height of roof should be considered in determining if the cut tiles will have an acceptable appearance.

Option A: In many cases, with steeper pitched roofs, it is acceptable to install a "W" valley and cut the DaVinci Shake on an angle parallel and 2½" from the center diverter. Keep in mind that the cut rib structure of the shakes may be visible from the ground with some roof pitches.

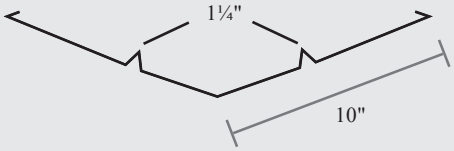
DaVinci offers 12" solid tiles if the rib structure or open area under DaVinci shakes is a concern.

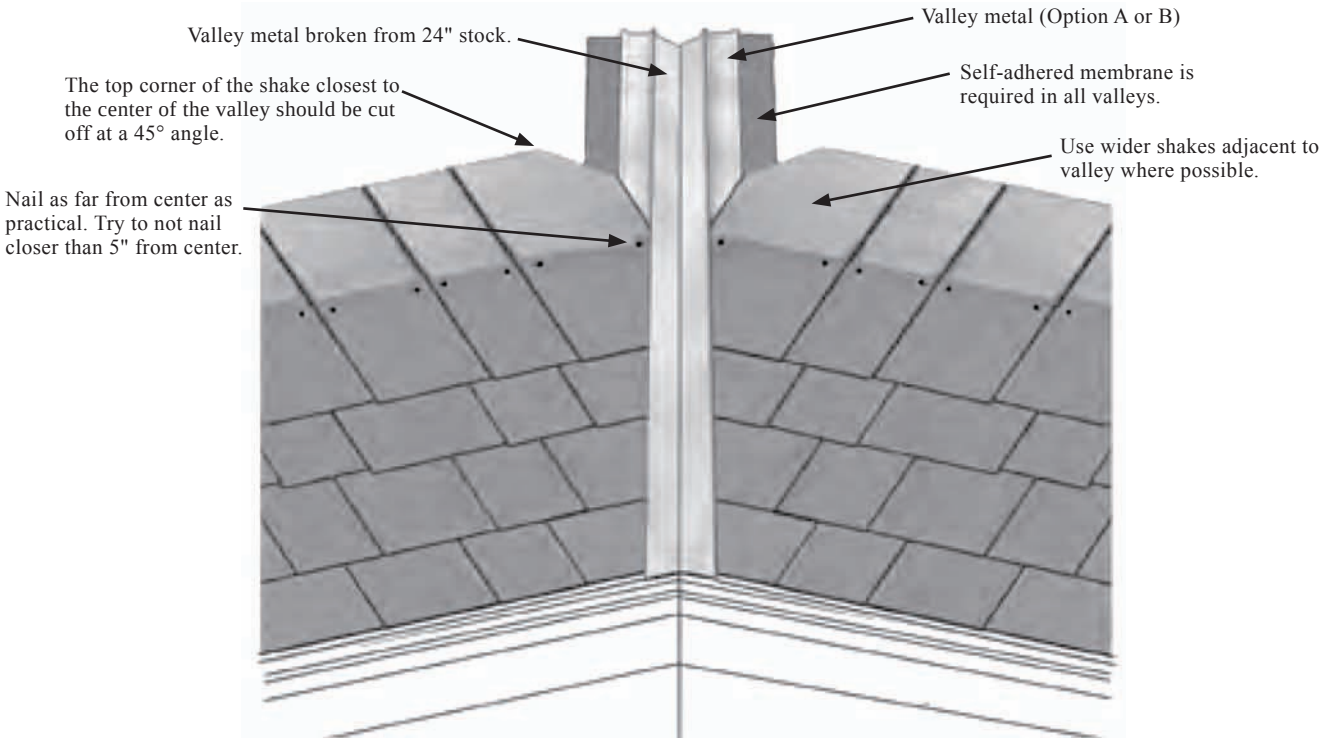
Option B: Double "W" valley. This should be made from 24" stock that is broken in the middle without diverter to look like a "V". Additionally, there should be a "W" (diverter) on either side 2½" from the center line. (See Diagram) DaVinci Shake should be cut and laid against the diverters on either side to mask the rib structure.

Option A
Single Diverter Valley Metal



Option B
Twin Diverter Valley Metal





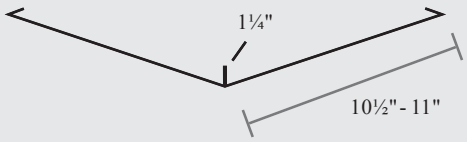
Installation

Closed Valleys

A closed valley can be achieved by using valley metal option (A or B). In our preferred method, option A, valley metal with a single, narrow-based diverter in the middle is used and the DaVinci Shakes are cut and butted to the diverter. An alternate is to use standard “W” valley with the shakes butted against the diverter. Wider shakes should be used as valley cuts in order to ensure that nailing be kept at least 5" from center or as far from center as possible.

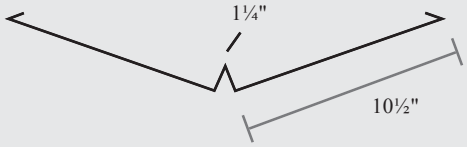
Option A: Install valley with a standing seam in the middle and place already-cut DaVinci Shake against center standing seam.

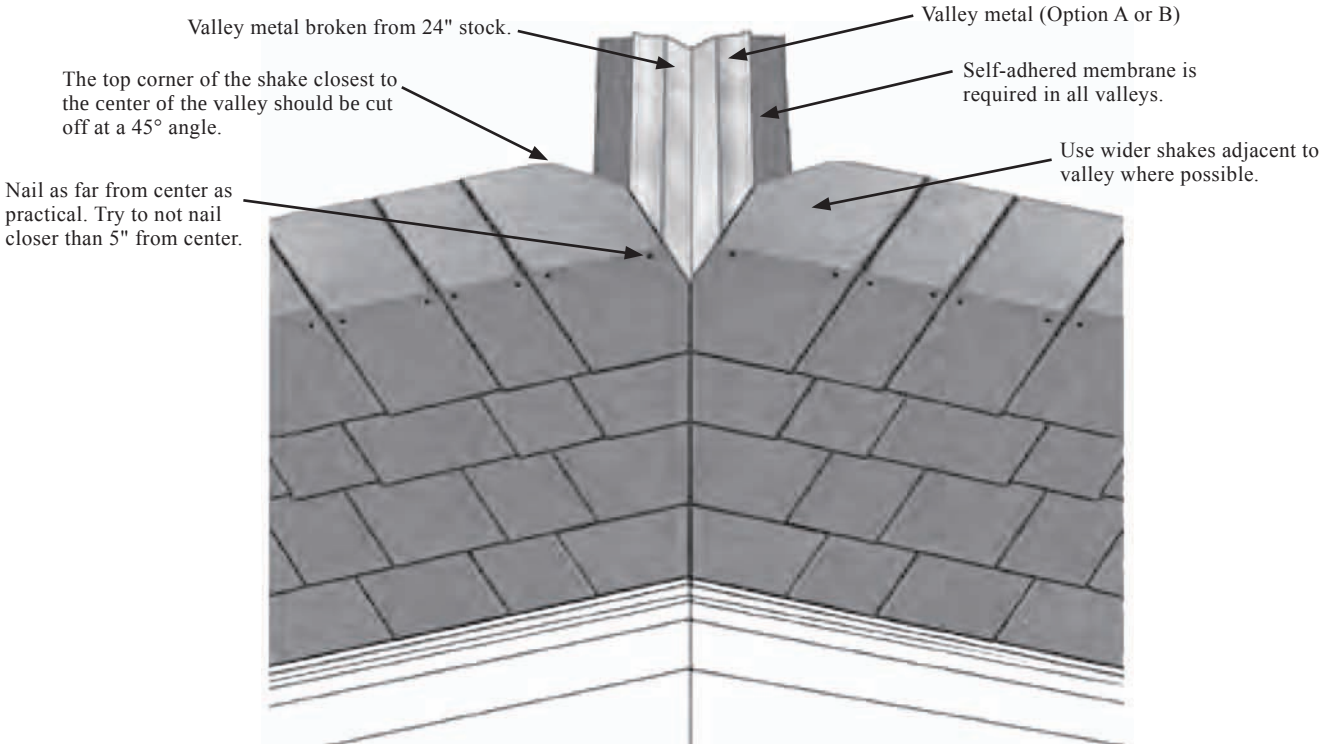
Option A
Standing Seam Valley Metal



Option B: It is acceptable to install a “W” valley and place an all ready-cut DaVinci Shake against center diverter. Metal should be broken with a diverter at least 1¼" tall.

Option B
Single Diverter Valley Metal



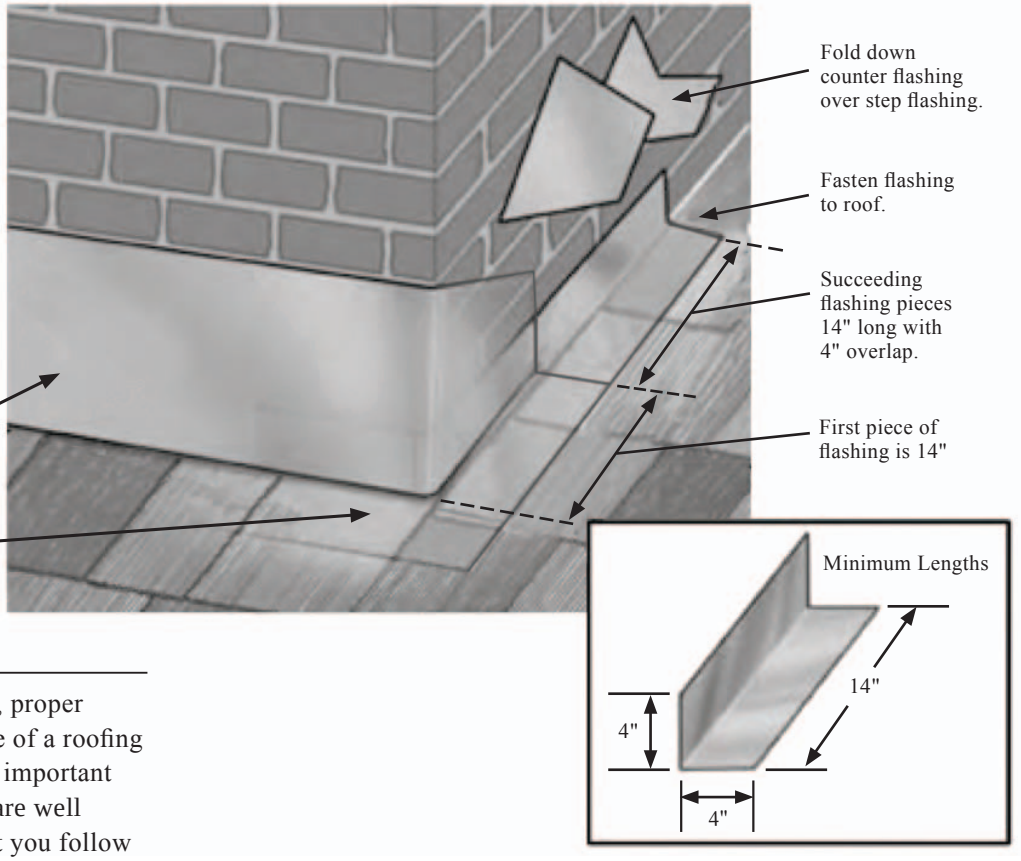


Special Issues

Flashing

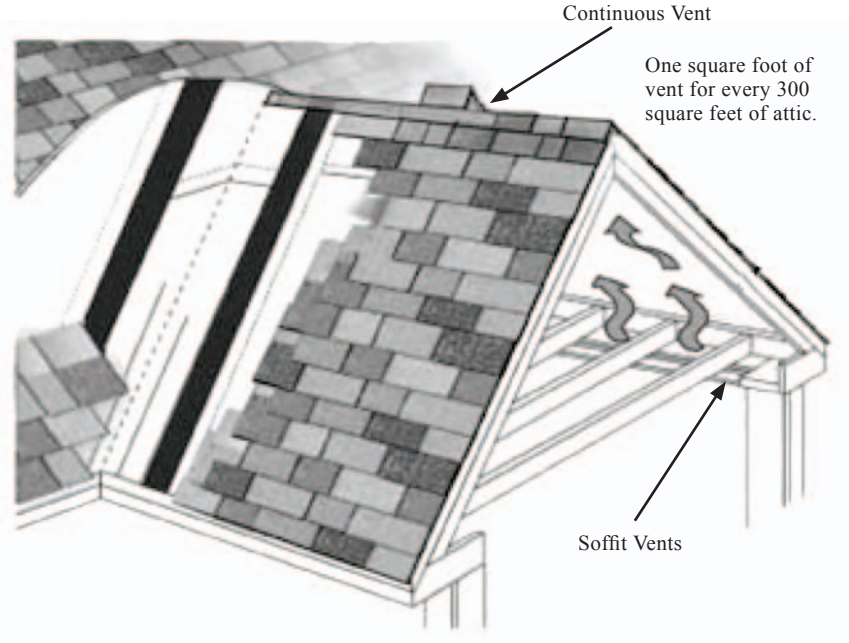
Flashing should be used in all areas where the roof abuts a vertical wall, dormer, chimney, skylight or other structural protrusions.

Use the step flashing method,with copper, a minimum of 28-gauge clad steel, or a minimum .019 aluminum flashing. The flashing should extend 4" upvertical walls.



Ventilation

In some climatic regions of the country, proper ventilation is crucial to the performance of a roofing system. Proper ventilation is especially important in cold climates where modern houses are well insulated and weather-tight. We suggest you follow standard building practices in your area and meet all national and local building codes. A continuous ridge vent combined with proper intake or eave ventilation is an especially effective ventilation system, and one that we highly recommend.



Snow Guards

Snow guards should be considered in all geographic areas where accumulating snow fall is possible. Most kinds of brass, copper, or clad aluminum snow guard systems work well with DaVinci. Rocky Mountain Snow Guards, Inc. is good source for further information about snow guards. Contact them at **www.rockymountainsnowguards.com** or **call 888-755-7667.** It is recommended that snow guards be installed during the installation of the DaVinci roof although retro-fit snow guards are available for previously installed DaVinci roofs. Details regarding installation remain the responsibility of the installer and the customer.

For additional information please contact DaVinci at any of the numbers listed on the first page of this guide

Product Features

Exposure

Roof Pitch	Coursing	Interlay	Max. Exposure
Less than 3:12	Not Recommended		
less than 6:12	Staggered	Required*	9"
less than 6:12	Straight	Required*	10"
6:12 or greater	Staggered	Recommended	9"
6:12 or greater	Straight	Recommended	10"

Felt interlay is suggested on any pitch and required on pitches less than 6" in 12".
**If two layers of Fontana VulcaSeal is used interlay is not required.*

Nailing

Each shake should be applied with two copper, non-corrosive stainless steel, or hot-dipped galvanized, 3/8" head x 1¾" length nails in most instances. Roofing nails that penetrate through the roof deck and exceed it by 3/16" should be used. Shakes can be nailed by hand or with a pneumatic nail gun. Don't overdrive nails or drive nails at an angle. Keep the nail head flush with the surface of the shingle to avoid creating "craters" which can collect moisture and can also prevent the exposed end of the shingles from laying flat.

Use these alignment guides with the top edge of the previous row of shakes to control the exposure.

Cutting

DaVinci Shake can be cut with a utility knife and straight edge. Electrical circular saws (carbide blade, two teeth per inch) or cordless circular saws (a minimum of 18 volts is recommended) may also be used.

Please note: DaVinci Shake is made flat, should be stored flat and must not be installed unless it is flat and in its original form. If shakes are not stored flat and become twisted or curled, lay them flat in a warm place and they will return to their original flatness. Damaged shake should never be installed.

Electro-Galvinized Nails

DaVinci recommends the use of copper, stainless steel, or hot-dipped galvanized nails. We realize however that in many climatic regions nail corrosion is not a factor in the long-term performance of the roof system. Therefore DaVinci Roofscapes supports the use of Electro-galvanized nails and a system using those nails will be in compliance with the DaVinci Fifty-year Limited Warranty. The exception to that is that if the nails fail, any portion of the warranty associated with wind performance would be void.

Quick Reference

- Don't overdrive or install nails at an angle
- Always leave a gap between all tiles
- Vertical, always install up the roof not one row across the roof at a time
- Install over a clean plywood deck only
- Never use red chalk
- Cut edges always go to the inside along rake edges or gable ends
- Install snowguards in any snow prone area

Issue	DaVinci Recommends	Acceptable Alternatives
Valley	Copper	28-gauge clad metal
Flashing	Copper	28-gauge clad metal
Eaves Flashing	Copper	28-gauge clad metal
Nails	Non-Corrosive Stainless Steel	Hot-dipped Galvanized

For questions about DaVinci Shake or its application, contact DaVinci Roofscapes®, LLC
913-599-0766 or **800-DaVinci (800-328-4624)** or **www.davinciroofscapes.com**
Please be sure to check DaVinci's website for updates. Installation Guide is subject to change without notice.

DaVinci Slate

Multi-Width Slate • Single-Width Valoré Slate

Installation Guide

DaVinci polymer slate is carefully engineered to provide the authentic look and durability of natural slate...at a fraction of the cost and weight. Special care has been taken to make the product easy to install. By following these instructions, and using good installation practices, you will be assured of a quality installation.

Note to Installer

DaVinci Slate offers a ½" thick profile, yet remains lightweight, because the slates have an engineered rib structure. When cutting slates for open valleys or at overhangs such as eaves and gable ends, the ribbed support structure on the underside of the slate needs to be hidden by standard metal flashings. In addition, DaVinci offers a 12" solid accessory tile that can be used in these areas and would not require the need for special flashing.

Pay special attention to recommendations for accessories and installation at eaves (page 2), gable ends (page 4) and valleys (page 6).

Job Site Ready!

DaVinci slate bundles are delivered to the construction site in bundles pre-collated with all shingle widths and all slate colors that make up the DaVinci slate blend purchased. This pre-planned distribution produces the right aesthetic effect every time. Collated bundles also simplify installation and save time by eliminating hand sorting on the job site.

Multi-Width Slate		
Widths: 12", 10", 9", 7", 6"	Length: 18"	Thickness at butt: 1/2"
Single-Width Valoré Slate		
Widths: 12"	Length: 18"	Thickness at butt: 1/2"

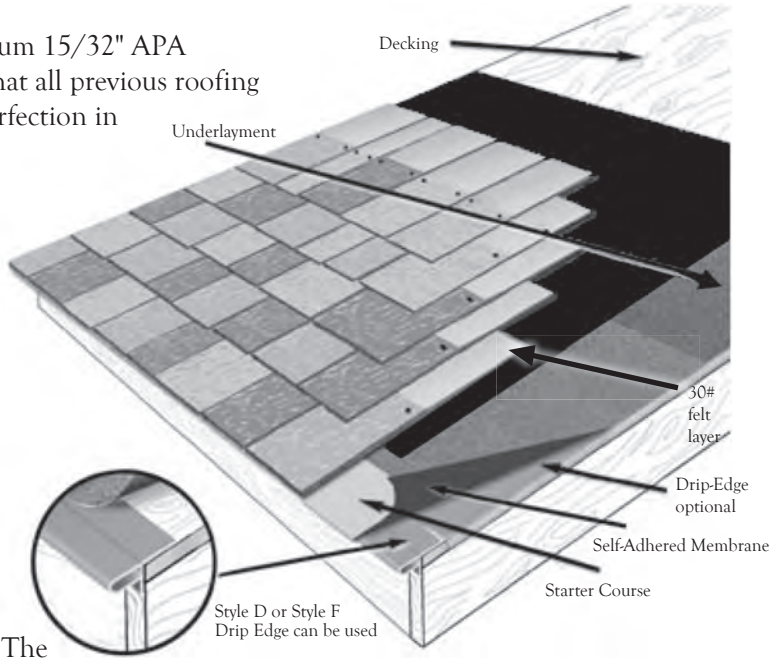
This information is provided for the use of professional roofing contractors. This Installation Guide does not supersede local building codes which should always be followed. DaVinci Roofscapes® does not warranty or have any responsibility for installation of its products. The DaVinci Roofscapes Limited Fifty-Year Warranty outlines its warranty responsibilities for the roofing materials it manufactures.

For questions about DaVinci Slate or its application, contact DaVinci Roofscapes®, LLC
913-599-0766 or 800-DaVinci (800-328-4624) or www.davinciroofscapes.com
Please be sure to check DaVinci's website for updates. Installation Guide is subject to change without notice.

Installation

Decking

DaVinci Slate must be installed on a smooth flat surface; minimum 15/32" APA approved plywood or 7/16" approved OSB. It is also necessary that all previous roofing materials be torn off prior to installation of DaVinci Slate. Imperfection in the decking may transmit through to finished roof.



Drip-Edge

Metal flashing is required on gable ends and eaves. An overhanging drip edge is recommended on gable ends to help mask the rib-structure on the underside. An overhanging drip edge may also be used on eaves although non-overhanging drip edge is an acceptable option.

Self-Adhered Membrane

(Severe Climate Underlayment in accordance with Chapter 15 of the UBC)

In areas where the average daily temperature in January is 25° F or lower or where ice buildup is possible, DaVinci requires self-adhered membrane be installed: from the bottom edge extending two feet above the exterior wall line on all eaves. The self-adhered membrane is required in all valleys regardless of average daily temperatures or the possibility of ice buildup.

Class A Installation

For a Class A installation one layer of ASTM D 226 Type II (No 30) organic felt underlayment is required on the entire roof including areas where self-adhered membrane is required. Underlayment must be installed flat as bumps in underlayment may transfer through the finished roof.

To meet ICC –ES requirements one layer of GAF VersaShield Fire Resistant Roof Deck Protection recognized in ESR-2053 must be used in place of ATM D226 Type II felt when DaVinci Slate is laid at an exposure greater than 6".

Starter Course

Each starter tile should be installed extending past the drip edge by approximately 1". However, if using an overhanging drip edge, the starter shingle can be allowed to overhang less if it is appropriate for the gutter system. The starter tiles should be installed with the DaVinci logo on top. The starter tiles should be spaced 3/8" apart as tiles will expand when warm. Each starter tile should be nailed with two nails on a line approximately 6" from the butt and 3/4" from outside edge.

Fasteners

Tiles should be installed with nails long enough that they will penetrate through the roof deck by at least 3/16". In most instances 1 ½ " roofing nails are acceptable. We recommend copper, stainless steel, or hot-dipped galvanized nails. Ring-shank nails should be used in high wind areas.

Getting Started

Use approved nails in each slate at or near nailing location shown on the slates (see page 9). Nails may be placed lower than the indicators as long as the tile above it covers the nail. Once the starter is in place, begin installing slates in the lower left corner (or lower right corner for a left-handed roofer).
Two methods of installation are available: (see page 3)
1. Straight, in which the exposure of each slate is kept consistent, or
2. Staggered coursing, in which the exposure varies by a maximum 1" on adjacent shingles.

Use the alignment indicator at the top of each slate to help manage the exposure. An exposure between 6" and 7½" is acceptable for straight courses and between 6" and 7" for staggered courses. As you progress up the roof, be careful not to damage slates already in place. Put something, perhaps a cut slate, under toe irons (scaffolding brackets) to avoid scratching or marring the finish of the slate already installed below.

Valoré Slate Installation Tip:
When installing single-width Valoré cut a minimum of 3" off the first slate or starter as both are 12".

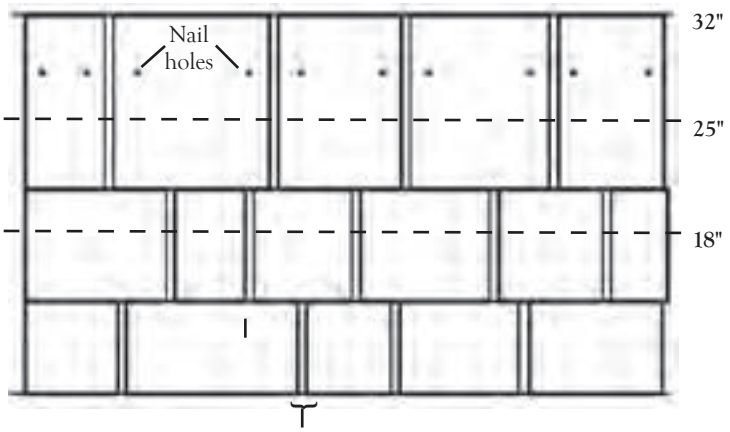
Installation

Straight Coursing

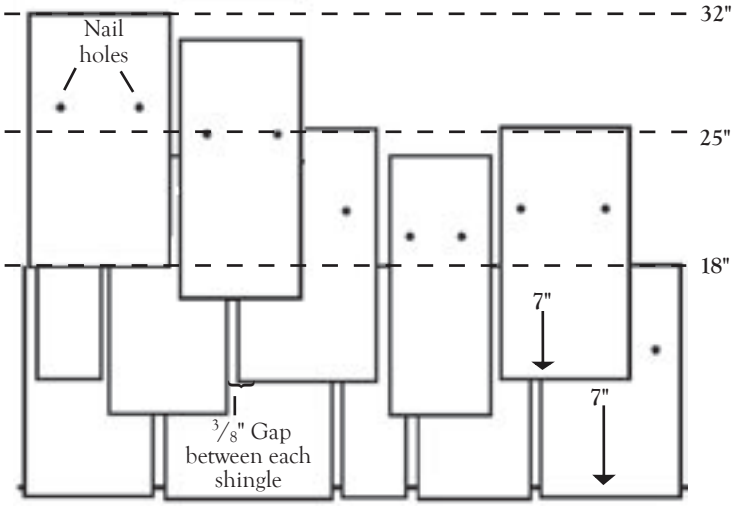
Install the slates one at a time starting in the lower left hand corner if right handed or lower right hand corner if left handed. The first course of slates should be laid directly on the starter slates. The slates should be installed individually with two nails in the defined areas. The slates should be laid as they come out of the bundle with a rack type system, also known as rack-style, stairstepping, or pyramiding; to prevent same size shingle directly on top of another. The slates should be laid with a 3/8" gap between each slate. The gaps between slates on adjacent courses should offset by a minimum 1½". The use of the alignment indicators on the slates may be used to facilitate installation but chalk lines should be used frequently to assure horizontal alignment.

Chalk lines should be snapped on underlayment with the tips of the slates following the lines. Do not snap lines on DaVinci Slate or use red chalk as the chalk may permanently discolor the slate.

Straight Coursing on DaVinci Slate at a 7" Exposure
(Depending on the pitch, tiles can also be laid at 7.5" & 6.0" Exposures.)



Staggered Coursing on DaVinci Slate at a 7" Exposure
(Depending on the pitch, tiles can also be laid at a 6.0" Exposure.)



Staggered Coursing

If the roof pitch is 6:12 or greater you may stagger the courses with a 7" exposure. The way this is accomplished is laying the slates in 7" courses with every other shingle lowered 1". ***For pitches less than 6:12, a 6" exposure is recommended.***

An example of how to accomplish this is as follows:

Step 1: Lay the starter course across the eave and then put the first course of slate flush on top of the starter. Then snap a horizontal line 7" above the tips of the slates you just installed or 25" from the eave line (butt of the slate you just laid).

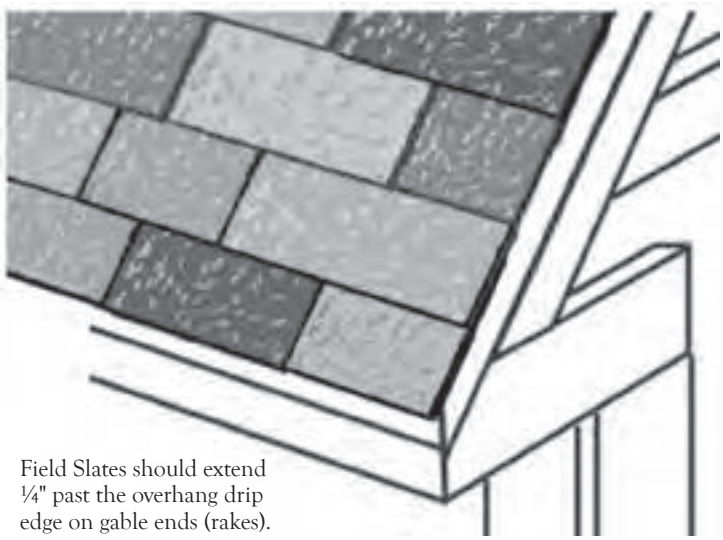
Step 2: Now start laying your second course of slates putting the tip of the first shingle you lay on the chalk line. The next or adjacent slate should be 1" below the line. The third slate should be on the line; the fourth slate should be below the line. This continues in the same pattern all the way across the roof one shingle tip on the line and the next 1" below the line.

Step 3: Snap another horizontal line 7" above the line you chalked in Step 2 or 32" above the eave line. Start laying slates as in step two with the first slate tip on the line and the next slate tip 1" below the line.

Step 4: Continue up the roof in this manner. Every course does not need to be chalked. As roofers begin to understand the concept, they can use alignment indicators to accomplish the stagger. We do, however, recommend occasional horizontal chalking to assure correct alignment.

Valoré Slate Installation Tip: 6" or 5" setback pattern
Method 1: A 5" setback pattern is recommended. In this method starting from the bottom course each Valoré Slate is set back 5" from the slate on the adjacent course. This pattern is most easily established by using a roofing hammer with gauge set at 5". Once the pattern has been established the setback should be checked occasionally.
Method 2: A 6" pattern may also be used. In this method starting from the bottom course each Valoré Slate is set back 6" from the slate on the adjacent course. This method requires that the pattern be straight vertically as well as horizontally because the breaks between slates on alternate course are aligned. With this method we recommend frequent vertical chalk lines so that the pattern may be checked regularly.

Installation



Field Slates should extend ¼" past the overhang drip edge on gable ends (rakes).

Gap

The recommended gap between slates is 3/8" with a minimum 3/16" gap required.

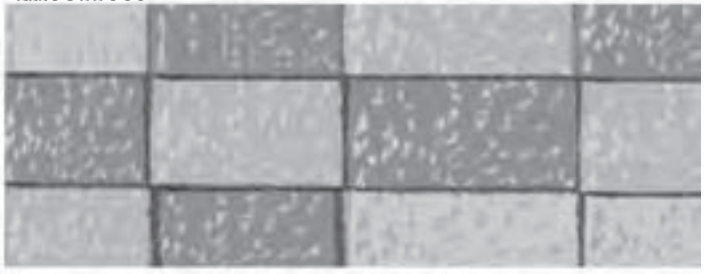
The number of shingles per square for DaVinci Slate is based on the assumption of 3/8" spacing between tiles. If spacing is less, more shingles per square will be required.

Avoid "Crack on Crack"

The gap between two shingles in one course should always line up 1½" or more from the gap between two shingles in the course below.

Correct

Incorrect



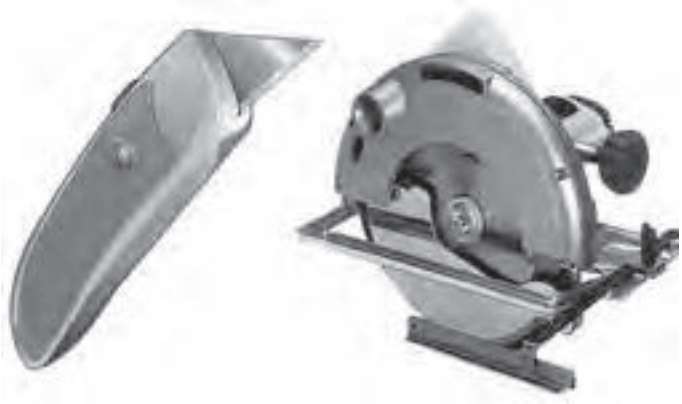
Gable Ends / Rakes

When approaching the gable end of a course, it's always best to avoid cutting slates. Cutting DaVinci Slate at gable ends can almost always be avoided by choosing from the five different slate sizes, and spacing between slates. In the rare case when cutting is required, slates should be cut so that the factory edge faces out on the gable end.

Valoré Slate Installation Tip
The slates are all 12" wide so must be cut at gable ends and any abutments. The Valoré Slate should be cut so that the factory edge is on the outside.

Cutting

DaVinci Slate may be cut with a utility knife and straight edge. It may also be cut effectively with a circular saw. Carbide tooth blades are recommended for maximum blade life.



Color and Width Variation

DaVinci multi-width field slates come in five widths: 12", 10", 9", 7" and 6". Each bundle contains a mixture of 30 slates and includes a pre-collated assortment of widths and colors needed for each color blend. Single-width Valoré Slate comes in a single 12" width with 22 slates per bundle, and each bundle is pre-collated by colors needed for each color blend. DaVinci Roofscapes recommends that slates should generally be installed as they come out of the bundles. Keep in mind there must be 1½" side lap maintained and installation must be in a rack or pyramid style.

Installation

Hip and Ridge Preparation

After installing field slates, hips and ridges should be prepared by installing a minimum 6" wide piece of non-corrosive metal or UV stable EPDM or equivalent over the hips and ridges. This metal or rubber should extend at least 3" from the center point on each side of the hip or ridge. Roofing nails that penetrate the roof deck by 3/16" should be used.

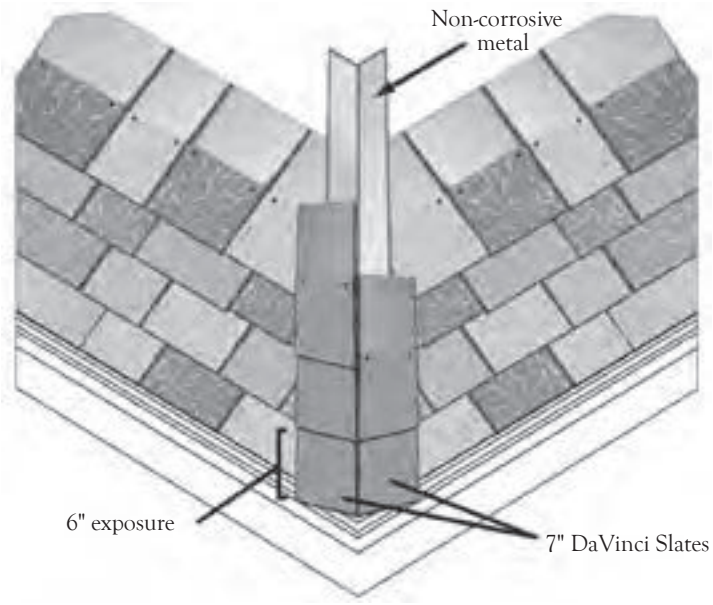
Ridge Vent Application

If using a continuous ridge vent we recommend a rigid shingle roll-over type. When installing continuous ridge vent, care should be taken to insure joints in ridge vent are water tight. Once the continuous vent is installed, pre-packaged 6" DaVinci hip and ridge slates should be installed in accordance with the standard hip and ridge installation instructions below. Special caution should be used when cutting the decking on the ridge to assure adequate nailing for the ridge pieces. Roofing nails that penetrate through the roof deck and exceed it by 3/16" should be used.

Standard Hip and Ridge Installation

There are two ways to start applying DaVinci Slate hip and ridge at the bottom of a hip. The first way is to install a double course of DaVinci Slate hip and ridge on the bottom of the hip. In this method the top portion of the under-slate should be cut so that it only covers the first course of field slates. The second course is then installed without cutting. The tails of the slates are left uncut and will project pass the eave of the roof. Using a chalk line to assure straightness, the prepackaged 7" hip and ridge should be installed one piece at a time so that the butts of two shingles are adjacent and the inside edges touch. These slates that make up a hip and ridge unit should be installed with a 6" exposure. DaVinci recommends using 7" units for hips and ridges unless continuous ridge vent is being used.

Standard Installation

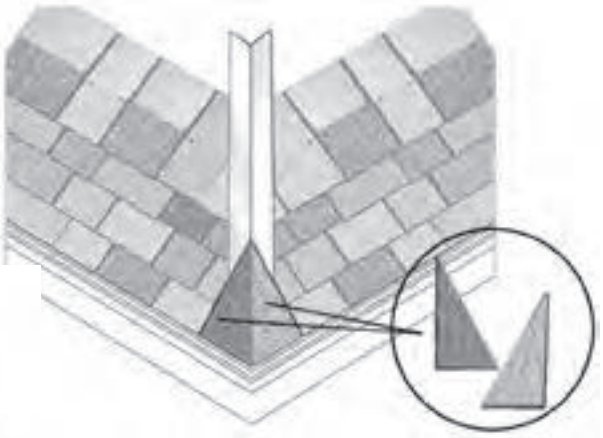


Alternate Hip Starter

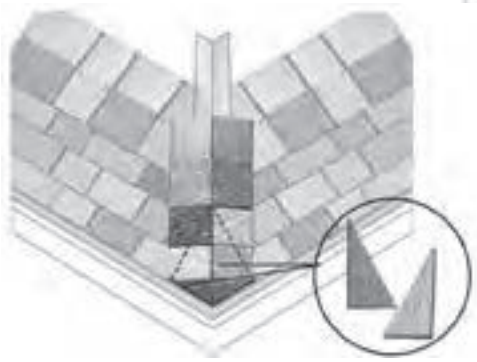
The second method for starting a hip will involve mitering the first two slates installed.

Step 1: Start by taking a single piece of DaVinci Slate hip and ridge and laying the butt of the slate with its corner at the corner of the hip and the butt flush with the eave of the house. Make a cut on the slate at the same angle of the hip. Cut a slate for the other side of the hip in the same fashion and press the two slates tight together.

Alternate Installation



Step 2: The second set of slate should be installed uncut with these outside edges pulled all the way down to the eave of the roof.



Installation

Valleys

Because DaVinci Slate has a rib-structure on the underside, special care must be used when installing DaVinci Slate in valleys. Open or closed valley systems may be used with several variants of each system. Whether installing an open or a closed valley system, valley metal should be made from 24" stock of copper, minimum .019 aluminum, or minimum 28-gauge clad steel. DaVinci requires self-adhering membrane be used in all valleys. When installing a DaVinci color blend, DaVinci recommends using different colors and different widths of shingles as the first shingles in the valley for valley cuts.

Open Valleys

If open valleys are preferred, take special care in determining proper configuration of valley metal as the rib structure of the shingle may show once the slates are cut. Location of the valley, roof pitch and height of roof should be considered in determining if the cuts will be visible.

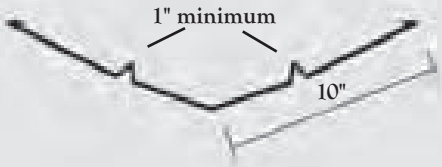
Option A: In many cases, with steeper pitched roofs, it is acceptable to install a "W" valley and cut the DaVinci Shake on an angle parallel and 2½" from the center diverter. Keep in mind that the cut rib structure of the shakes may be visible from the ground with some roof pitches.

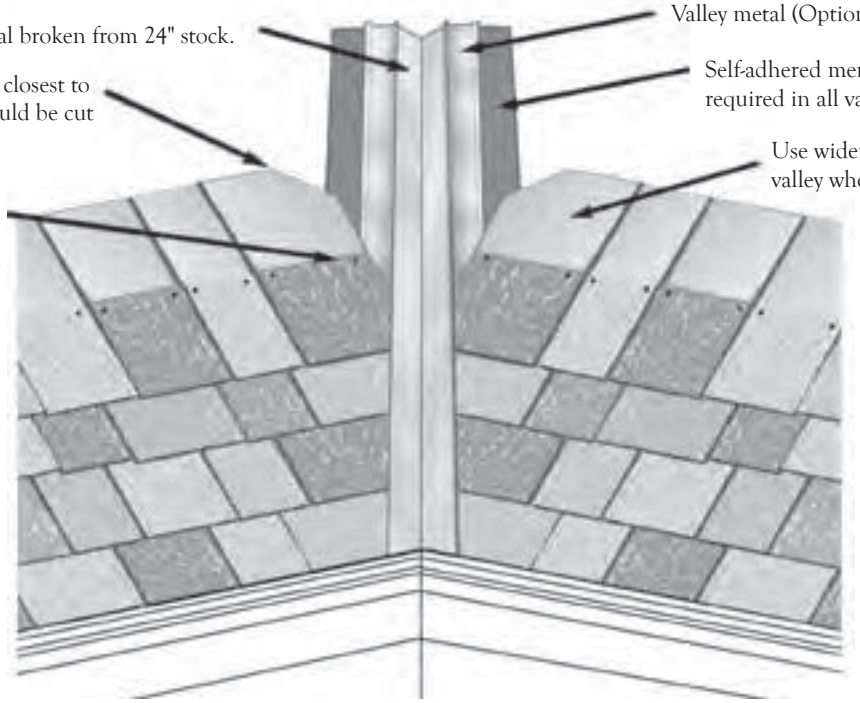
Option A
Single Diverter Valley Metal

DaVinci offers 12" solid tiles if the rib structure or open area under DaVinci slates is a concern.

Option B: Where Option A is unacceptable, we suggest making the double "W" valley. This should be made from 24" stock that is broken in the middle without diverter to look like a "V". Additionally, there should be a "W" (diverter) on either side 2½" from the center line. (See Diagram) DaVinci Slate should be cut and laid against the diverters on either side to mask the rib structure.

Option B
Twin Diverter Valley Metal



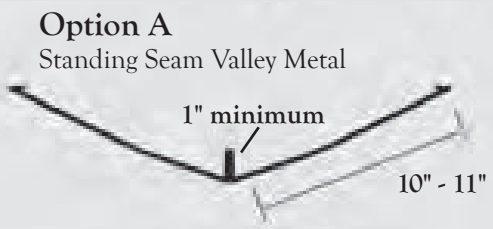


Installation

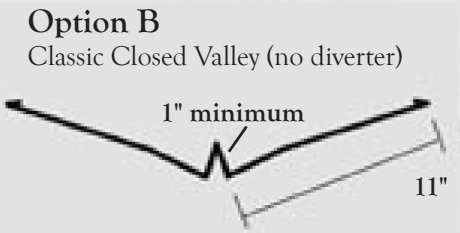
Closed Valleys

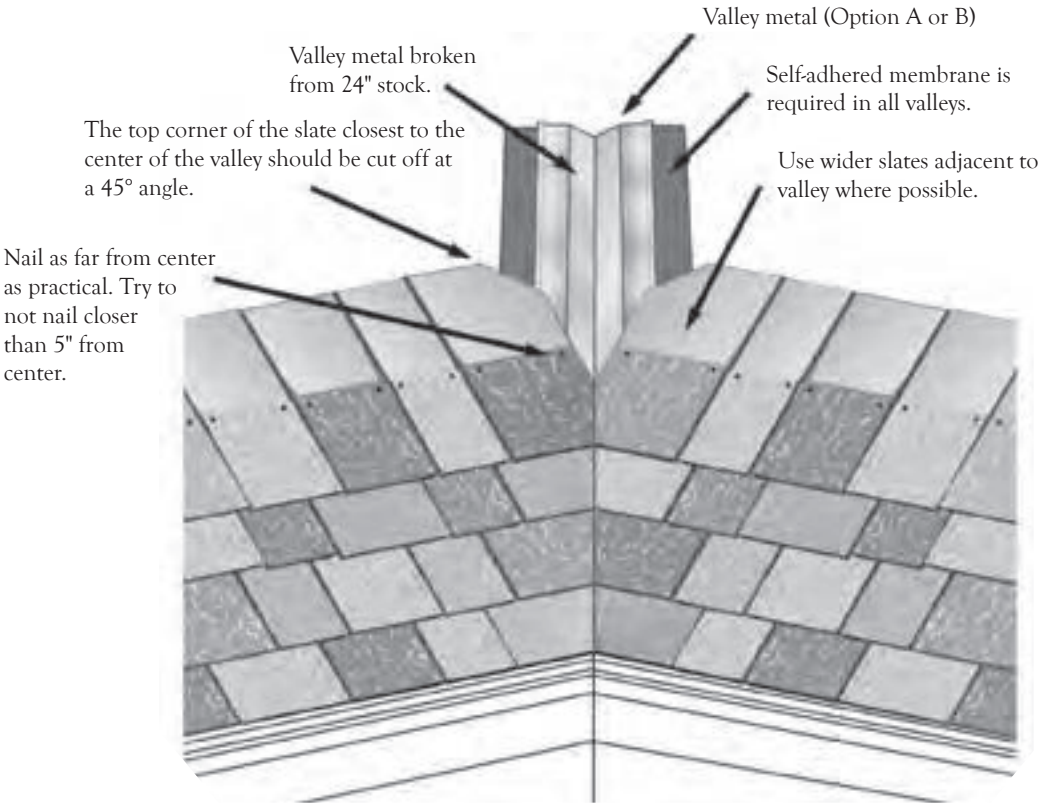
A closed valley can be achieved by using valley metal option (A or B). In our preferred method, option A, valley metal with a single, narrow-based diverter in the middle is used and the DaVinci slates are cut and butted to the diverter. An alternate is - to use standard "W" valley with the slates butted against the diverter. Wider slates should be used as valley cuts in order to ensure that nailing be kept at least 5" from center or as far from center as possible.

Option A: Install valley with a standing seam in the middle and place already-cut DaVinci Slate against center standing seam.



Option B: It is acceptable to install a "W" valley and place an all ready-cut DaVinci Slate against center diverter. Metal should be broken with a diverter at least 1" tall.



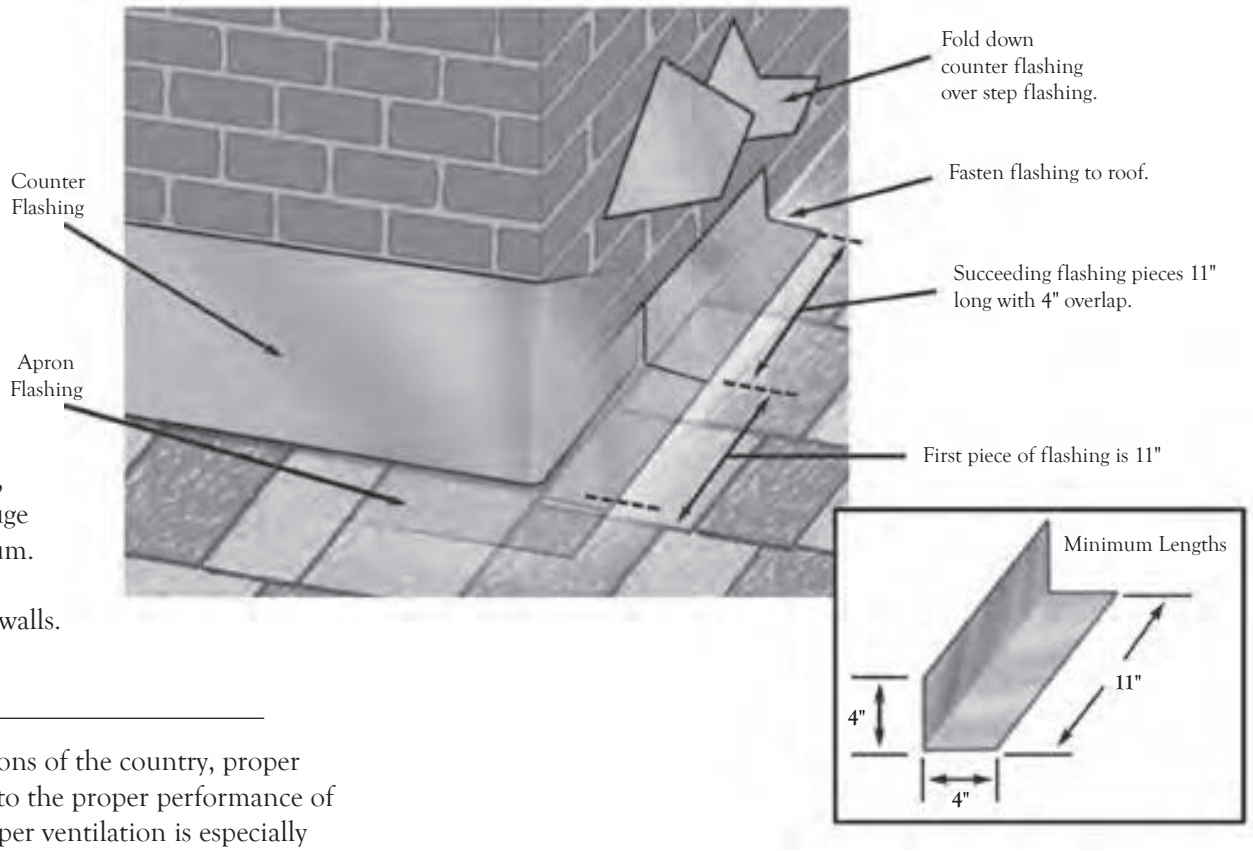


Special Issues

Flashing

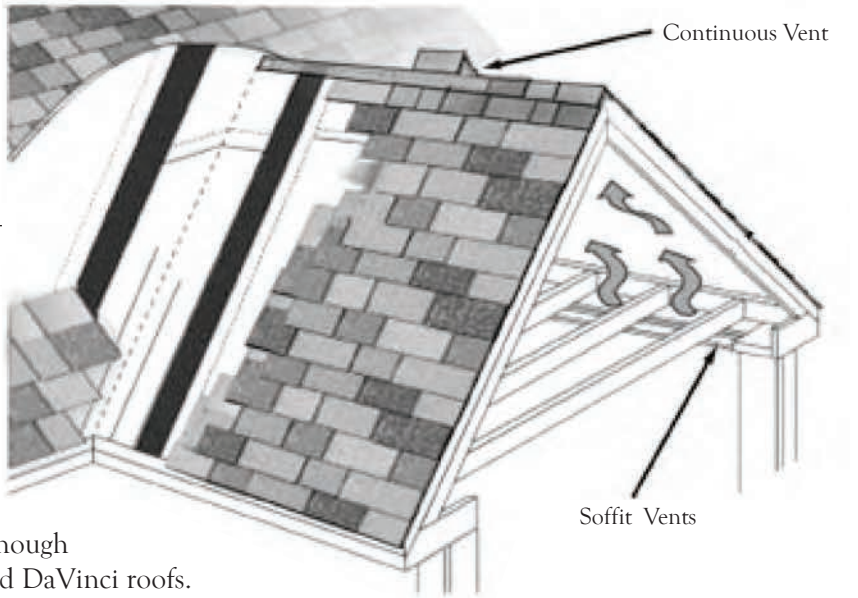
Flashing should be used in all areas in which the roof abuts a vertical wall, dormer, chimney, skylight or other structural protrusions.

Use the step flashing method, with copper, a minimum of 28-gauge clad steel, or aluminum. The flashing should extend 4" up vertical walls.



Ventilation

In some climatic regions of the country, proper ventilation is crucial to the proper performance of a roofing system. Proper ventilation is especially important in cold climates where modern houses are well insulated and weather-tight. We suggest you follow standard building practices in your area and meet all national and local building codes. A continuous ridge vent is an especially effective ventilation system that we highly recommend.



Snow Guards

Snow guards should be considered in all geographic areas where accumulating snow fall is possible. Most kinds of brass, copper, or clad aluminum snow guard systems work well with DaVinci. Rocky Mountain Snow Guards, Inc. is good source for further information about snow guards. Contact them at www.rockymountainsnowguards.com or call 888-755-7667. It is recommended that snow guards be installed during the installation of the DaVinci roof although retro-fit snow guards are available for previously installed DaVinci roofs. Details regarding installation remain the responsibility of the installer and the customer.

For additional information please contact DaVinci at any of the numbers listed on the first page of this guide.

Product Features

Exposure

With DaVinci Slate, the allowable exposure depends on two factors:

1. Roof Pitch
2. Whether the slates are laid staggered or straight

Use Exposure Alignment Guides with the top edge of the previous row of slates to control the exposure.

Roof Pitch	Coursing	Exposure
Less than 3:12	Not Recommended	
* 3:12 to 4:12	Straight or Staggered	6"
4:12 to 6:12	Straight or Staggered	6"
6:12 or greater	Staggered	7"
6:12 or greater	Straight	7½"

** For slopes between 3:12 and 4:12, an ice water shield is required over the entire area.*

Nailing

Each shingle should be applied with two copper, non-corrosive stainless steel, or hot-dipped galvanized, 3/8" head x 1½" length nails. Roofing nails that penetrate through the roof deck and exceed it by 3/16" should be used. Slates can be nailed by hand or with a pneumatic nail gun. Don't overdrive nails or nail at an angle. Keep the nail head flush with the surface of the shingle to avoid creating "craters" which can collect moisture and can also prevent the exposed end of the shingles from laying flat.

Use these alignment guides with the top edge of the previous row of slates to control the exposure.

Cutting

DaVinci Slate can be cut with a utility knife and straight edge. Electrical circular saws (carbide blade, two teeth per inch) or cordless circular saws (a minimum of 18 volts is recommended) may also be used.

Please note: DaVinci Slate is made flat, should be stored flat, and must not be installed unless it is flat and in its original form. If slates are not stored flat and become twisted or curled, lay them flat in a warm place and they will return to their original flatness. Damaged shingles should never be installed.

Quick Reference

Issue	DaVinci Recommends	Acceptable Alternatives
Valley	Copper	28-gauge clad metal
Flashing	Copper	28-gauge clad metal
Eaves Flashing	Copper	28-gauge clad metal
Nails	Non-Corrosive Stainless Steel	Hot-dipped Galvanized

Electro-Galvinized Nails

DaVinci recommends the use of copper, stainless steel, or hot-dipped galvanized nails. We realize however that in many climatic regions nail corrosion is not a factor in the long-term performance of the roof system. Therefore DaVinci Roofscapes supports the use of Electro-galvanized nails and a system using those nails will be in compliance with the DaVinci Fifty-year Limited Warranty. The exception to that is that if the nails fail, any portion of the warranty associated with wind performance would be void.

For questions about DaVinci Slate or its application, contact DaVinci Roofscapes®, LLC
913-599-0766 or 800-DaVinci (800-328-4624) or www.davinciroofscapes.com
Please be sure to check DaVinci's website for updates. Installation Guide is subject to change without notice.