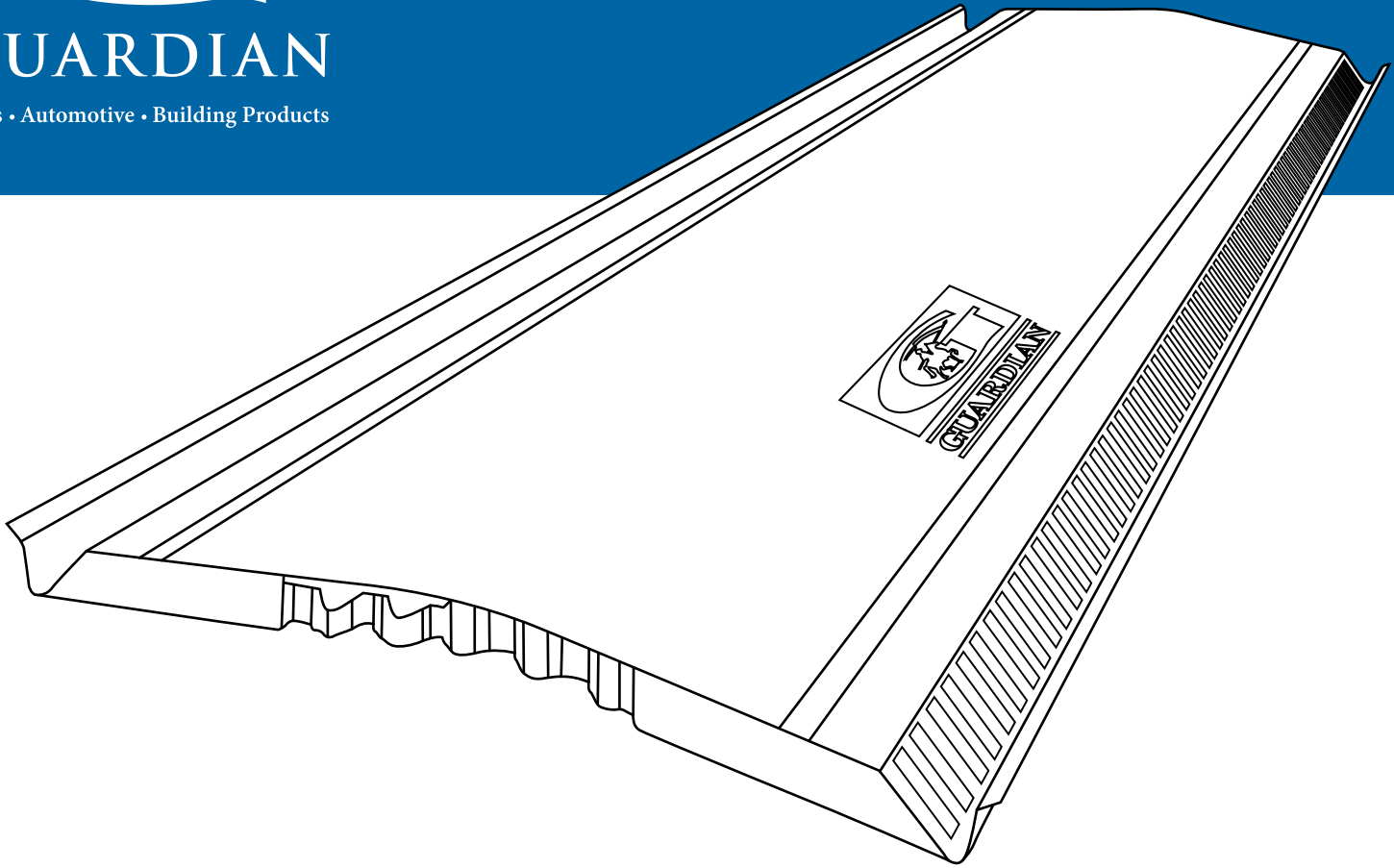




GUARDIAN

Glass • Automotive • Building Products



V GUARD VENT™

4' Shingle Over Ridge Vent Installation Instructions

Roof Deck – Use only over a roof deck made of plywood, OSB (oriented strand board) or a tightly constructed, well-seasoned wood deck with a maximum 6" wide lumber, of proper thickness to meet the roofing manufacturers' specifications for shingle application.

Slope restrictions – Use only on slopes between 3/12 and 16/12.

STEP 1

CALCULATING THE PROPER VENTILATION NEEDS

For the ventilation system to function properly, the ridge vent must be the only exhaust vent for the vented attic space. Do not use with roof vents, pot vents, power vents, turbine vents, or gable end louvers. The intake and exhaust ventilation should be balanced. To achieve a balanced system, the amount of intake (undereave ventilation) and ridge ventilation must be equal. Under no circumstances should the amount of exhaust ventilation exceed the amount of intake ventilation. Use the following equation to determine the minimum linear feet of GuardVent that will be needed for proper ventilation.

1. Determine the square footage of your attic space. Measure the length and the width of your attic floor and multiply the 2 numbers. If your attic is not uniform, calculate the square footage of each individual area then add the numbers to determine the total square footage (figure 1).

$$\text{Length} \times \text{Width} = \text{Square feet of attic space}$$

2. Determine the minimum square feet of Net Free Area (NFA) needed for a well balanced ventilation system:

$$\frac{\text{Square feet of attic space}}{300} = \text{Minimum square feet NFA needed}$$

3. GuardVent 4' shingle over ridge vent has 18 square inches of net free area per linear foot. To calculate the total linear footage of GuardVent that you will need (round up to the nearest whole number):

$$\frac{1}{2} \times \text{Minimum square feet of NFA} \times \frac{144}{18} = \text{Minimum linear feet of ridge vent needed}$$

EXAMPLE: **Step 1:** A house with an attic 40' in length x 50' in width = 2000 square feet

Step 2: $\frac{2000 \text{ sq feet}}{300} = 6.67 \text{ sq feet of NFA needed}$

Step 3: $\frac{1}{2} \times 6.67 \times \frac{144}{18} =$

27 (rounded up) linear feet of GuardVent

4. To determine the amount of undereave ventilation required:

A = Amount of NFA (square inches per linear foot) of undereave vent or intake vent.

$$\frac{1}{2} \times \frac{\text{Minimum square feet of NFA needed} \times 144}{A \text{ (from above)}} = \text{Minimum linear feet of undereave vent needed}$$

STEP 2

INSTRUCTIONS FOR CUTTING VENTILATION SLOTS IN ROOF DECK

After you calculate the amount of GuardVent needed, determine your type of roof system. First, determine if your roof system is a truss or ridge pole (ridge board) construction. See the drawings for clarification (figures 2 and 3).

For truss construction (roofs without ridge pole or ridge board construction) – cut a $\frac{7}{8}$ " opening along each side of the ridge, total width of $1\frac{3}{4}$ " (figure 1).

For ridge pole or ridge board construction – cut a $1\frac{5}{8}$ " opening along each side of the ridge, total width of $3\frac{1}{4}$ " (figure 3).

Regardless of roof construction type, slot opening should **not exceed 3 1/4" wide**.

Measure and chalk the line for the slot opening. Make certain to stop the cut at least 6" from the inside of any end walls and at least 12" from any hip and ridge intersections or chimneys (figure 4). The hole can be best cut with a circular saw. Adjust the depth of the blade so as not to cut the rafters. Cut the slot and remove the decking.

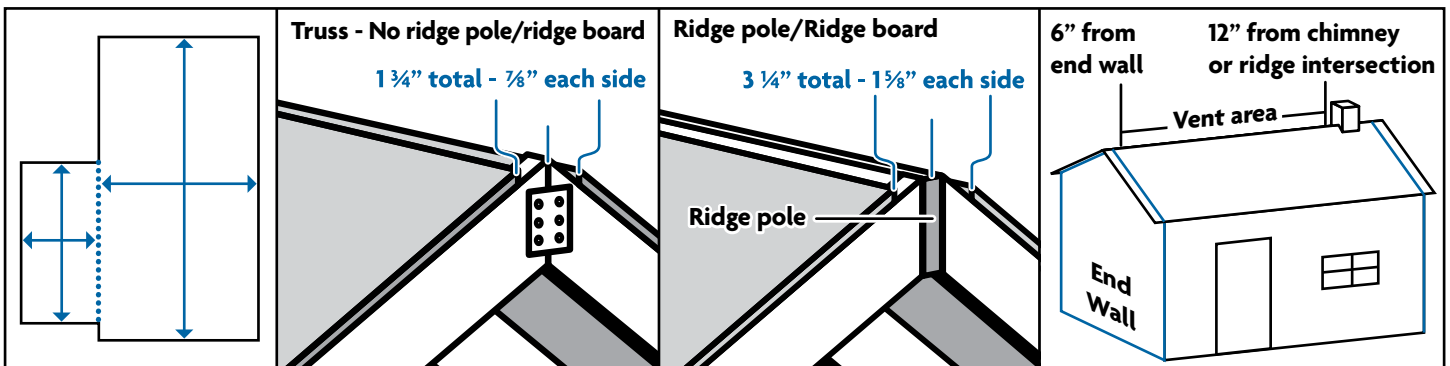


Figure 1

Figure 2

Figure 3

Figure 4

STEP 3

INSTALLATION OF THE RIDGE VENT

1. Align the GuardVent 1" from the gable end of the roof. Center the vent over the slot and conform the vent to the ridge, making sure the vent is contacting the roof surface.
2. Using the provided 2 1/2" ring shank galvanized nails, fasten the vent to the roof. Start by fastening at the end of the vent and work your way down, alternating sides. Nails should be placed 1 1/2" from the end of the vent and centered every 9" along the nail line, 6 nails per side. Nail each side and continue down the ridge (figure 5).
3. Apply the subsequent 4' sections of GuardVent, working your way along the length of the ridge. Use the stay straight alignment tabs to help keep the vent centered. The stay straight alignment tabs should be under the end laps of each vent when they are put together (figure 6).

Note: For applications in cold weather, leave a 1/8" gap between the top edge of each section to allow for expansion as weather warms.

4. At the end of the ridge, it may be necessary to cut the last piece of GuardVent to length. Molded end plugs are spaced every 12" along the underside of the vent. Measure the length of the vent needed to finish 1" from the gable end (Figure 6). Cut the vent to the proper length and position the partial piece so that the pre-molded end plug is at the gable end. The stay straight alignment tabs should be underneath of the cut end of the final piece of vent. Nail the piece into place. Caulk the joint where the cut vent and the full piece meet (figures 7, 8 and 9).

STEP 4

INSTALLATION OF RIDGE CAP SHINGLES

Install the ridge cap shingles directly to the GuardVent according to the shingle manufacturers installation instructions. Nails should be placed along the nail line. Cap shingles should overhang the GuardVent by 1" at each end. It may be desirable to put a bead of asphalt roof cement under the first and last cap shingle to help prevent wind uplift (figure 10).

Note: For high wind areas, it is necessary to apply 1/4" bead of asphalt roof adhesive along each outside edge of the bottom of the GuardVent. Be careful to leave the weep holes open so that moisture can drain from the exterior baffle (figure 11).

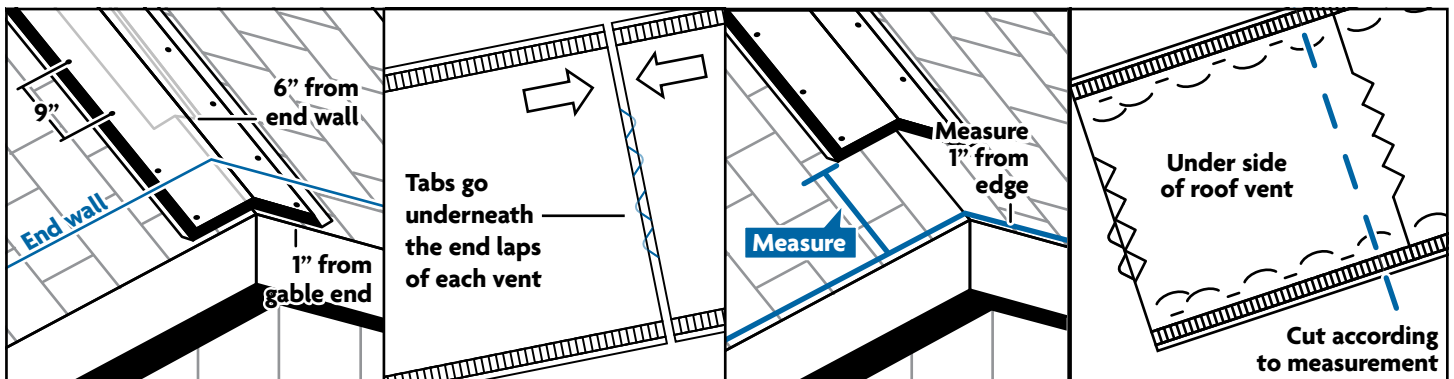


Figure 5

Figure 6

Figure 7

Figure 8

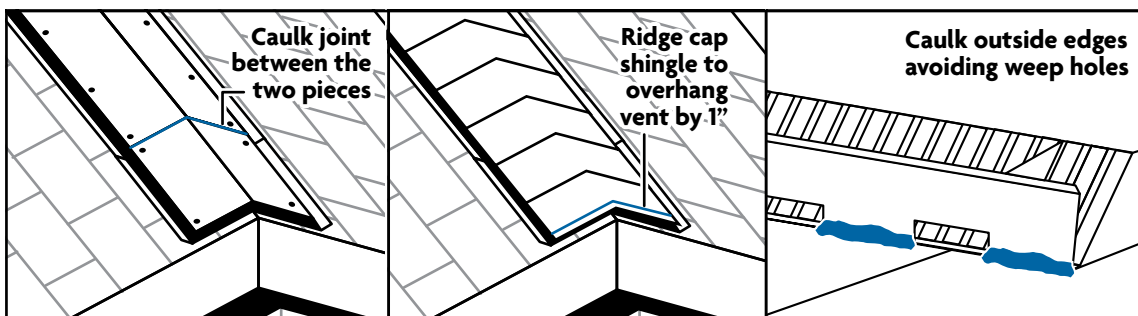


Figure 9

Figure 10

Figure 11

See important notes on back.



Notes:

1. Only install on ridge line. Do not install on hips.
2. For the best appearance, install GuardVent over the entire length of the ridge, leaving it short by 1" at each end. (see installation instructions). Make sure that the vent extends past the ventilation slot by at least 6".
3. When installing over laminate shingles, it is necessary to apply a bead of asphalt roof adhesive along the bottom edge of the external baffle. Avoid weep holes.
4. On applications where there are hip and ridge intersections, terminate the GuardVent a minimum of 6" from the intersection to help prevent possible weather infiltration.
5. Make sure to properly vent the rafter cavity if installing over a vaulted or cathedral ceiling. There should be a minimum of 1 ¾" space along the entire length of the rafter cavity to allow airflow.



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