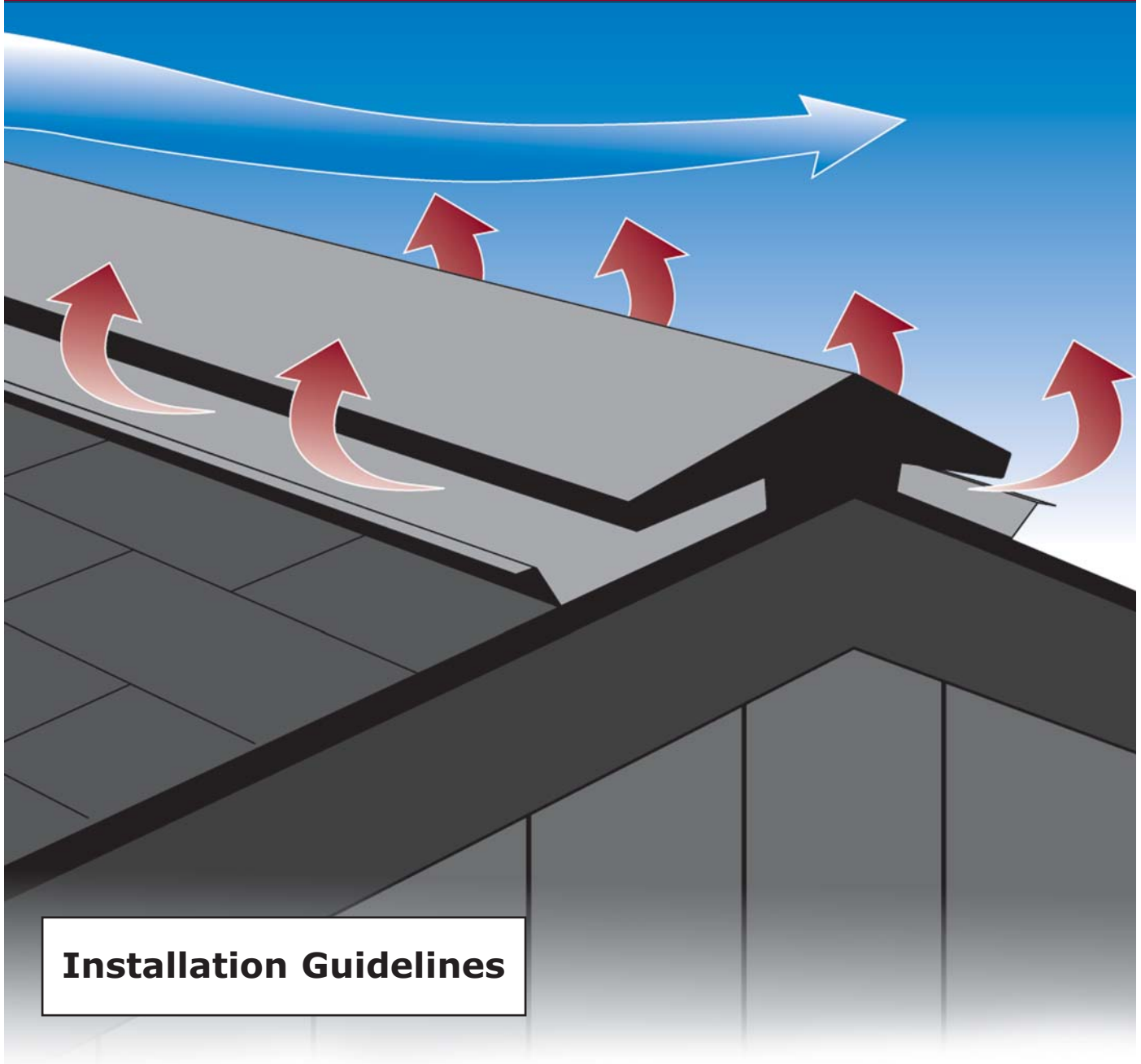


Ventilation Installation Professional™

Education and development program
for attic ventilation systems



Installation Guidelines

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Introduction

This Installation Guidelines Course is one of two key pieces in Air Vent's **Ventilation Installation Professional** (VIP) program. Use it to master the information critical for a thorough understanding of installing Air Vent ventilation products.

The more you know about ventilation products the better you'll be able to recommend attic ventilation solutions and estimate jobs for your customers. Being able to consult on ventilation, especially if you are a roofing or siding professional, lets you differentiate yourself from the competition as a knowledgeable professional. And this means more options, more high-end products to sell, more accurate estimating and more profits for you.

These Installation Guidelines are taken from the installation instructions. They are not intended to be complete step-by-step instructions. For complete instructions, please see the printed installation instructions included with the product.

At the end of the Installation Guidelines, you'll find a 25-question test. If you correctly answer 22 questions (88%), you'll receive a personalized Certificate of Completion ready to be framed or inserted into your presentation portfolio.

If you do not correctly answer at least 22 questions, you'll receive a letter in the mail with instructions on re-taking the test. You can also take the Product Knowledge Course in the VIP program and receive the same benefits associated with the Installation Guidelines Course. You do not have to pass both courses in order to receive a Certificate of Completion. However, if you successfully complete both the Installation Guidelines and the Product Knowledge courses, you will receive two personalized Certificates of Completion.

There are two ways to submit your answers for grading:

1. Print out the test pages. Fill in your name and mailing information and complete the test by circling your answers. Then mail the test to: Air Vent, c/o VIP Online Course, 7700 Harker Drive, Suite A, Peoria, Illinois 61615.
2. Take the test online at <http://www.airvent.com/professional/VIPinstallcourse.html>. Read the question in the VIP Installation Course PDF, then mark your answer in the interactive column to the right of the appropriate question number.

If you have any questions about attic ventilation or products, call Air Vent, Inc., a Gibraltar Company, at 800-AIR-VENT; visit www.airvent.com; or email: education@gibraltar1.com.

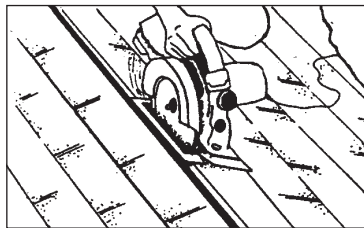
ShingleVent® II 12-Inch Shingle-Over Ridge Vent

- When using standard flat 3-tab shingles, it is unnecessary to caulk under the external baffle on the vent where the vent meets the shingle. When using dimensional or architectural shingles, caulk between the low areas of the shingle and the external baffle on the vent to safeguard against possible weather infiltration at the gaps. Don't plug the drain holes on the vent.

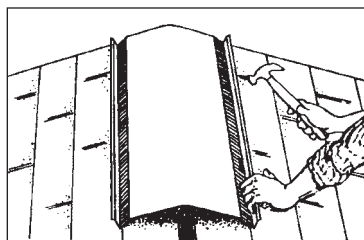
- When installing the vent in cold weather, leave an $\frac{1}{8}$ inch gap between the vent sections to allow room for expansion in warmer weather.

- For ridge pole construction, cut the slot width $\frac{3}{4}$ inch on each side of the ridge pole. For truss construction, cut the slot width $1\frac{1}{2}$ inches.

- For slot length, cut the slot 6 inches from the end walls; 12 inches from an intersecting ridge line or chimney.

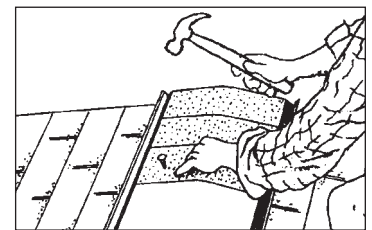


- Fasten the first section using roofing nails through the pre-drilled nail holes. Continue to fasten remaining sections making sure support ribs are flat on the roof and the internal weather filter is secure between the shingles and the vent. Fasteners must penetrate the underside of the roof deck.



- Use a utility knife to cut the final section of vent to the necessary length. The end of the final section should be flush with the end of the roof with the built-in end plug facing the end of the roof.
- For best appearance and curb side appeal, ShingleVent II should be installed end-to-end along the entire roof peak.

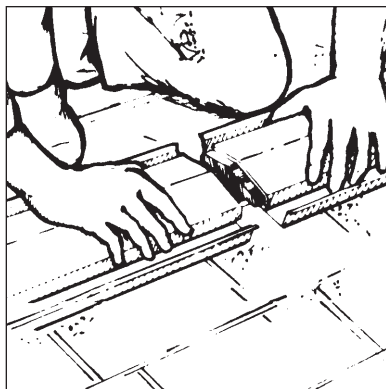
- Nail cap shingles in place using roofing nails long enough to penetrate the roof sheathing.



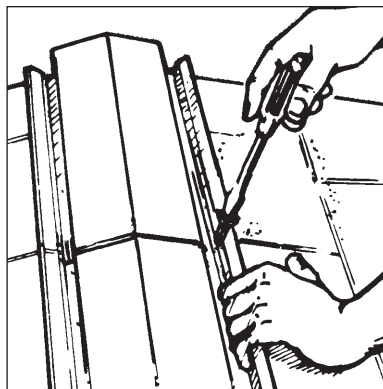
- When using a nail gun to install cap shingles over ShingleVent II, special care should be taken. It is important that the roofing nails penetrate the roof deck without compressing the vent. Nails driven too deep will dimple or distort the cap shingles. Nails not driven deep enough may allow the vent to back out of the roof deck and could result in blow-off.
- Use ShingleVent II on roof pitches from $\frac{3}{12}$ to $\frac{16}{12}$.

Multi-Pitch FilterVent® Aluminum Ridge Vent

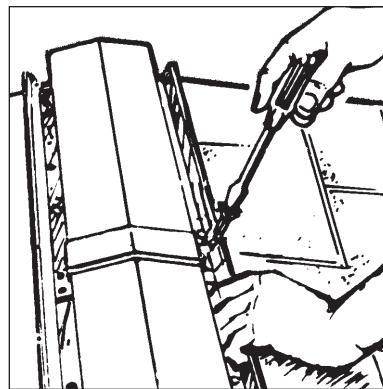
- 1¼ inch aluminum screw shank nails are supplied with the vent. For ease of installation and to prevent vent damage, #8 x 1¼ inch galvanized sheet metal screws may be used.
- Caulking is not required between the external baffle on the vent and the roof surface for installation on asphalt shingles, slate, machine-split shingles or other smooth surfaces. Before applying the vent to dimensional or architectural shingles on new construction, leave the felt long at the ridge and fold back under the vent OR caulk between the low areas of the shingle and the external baffle on the vent to safeguard against possible weather infiltration at the gaps. Don't plug the drain holes on the vent.
- When installing straps at joints and ends, care must be taken not to distort or crush the ridge vent. Install connector straps at the end of each vent section.
- At the very end of the vent run on each end of the roof, insert the end plug into the vent.
- Use Multi-Pitch FilterVent on roof pitches from 3/12 to 12/12.



Join FilterVent section with connector plugs.



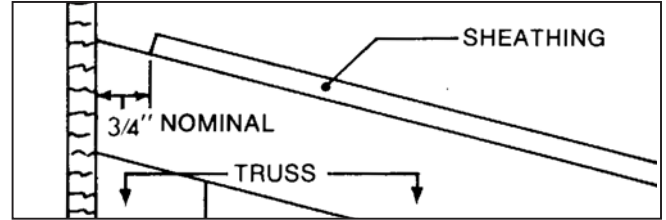
Align joined FilterVent over slot, fasten in place.



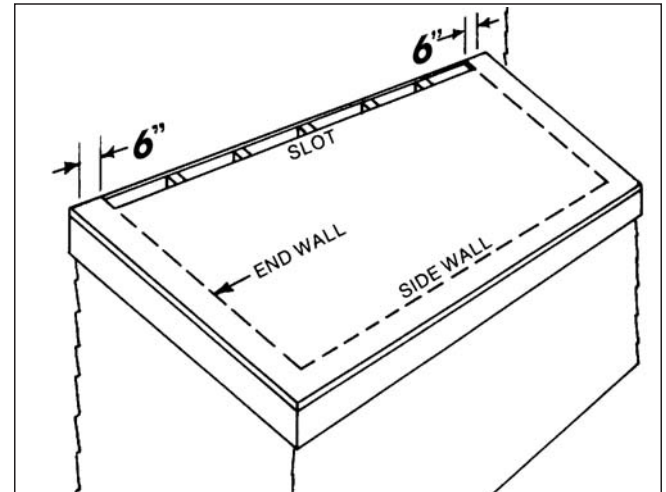
Place straps over joints and fasten in place.

Flash FilterVent® Ridge Vent

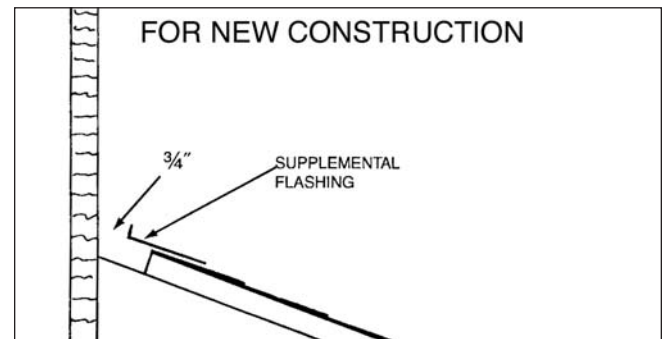
■ **For new construction**, cut the slot $\frac{3}{4}$ inch where the roof joins a vertical wall, cutting the slot before roofing or siding is applied. Slot should terminate 6 inches from end walls. Do not extend slot over the overhang of the roof.



■ **For new construction**, shingle roof up to the slot. Do not flash unslotted portion of roof at ends of the slot but let the top course of shingles lay over it to form one thickness. Place one section of vent over the open slot making sure the rear flange fits snugly against the sidewall sheathing and sufficient clearance is maintained over the louvers to allow airflow. Do not crush the vent. Place supplemental flashing over the slot without fastener, as shown in the illustration. Caulk any low areas or gaps between the flashing and the shingles.

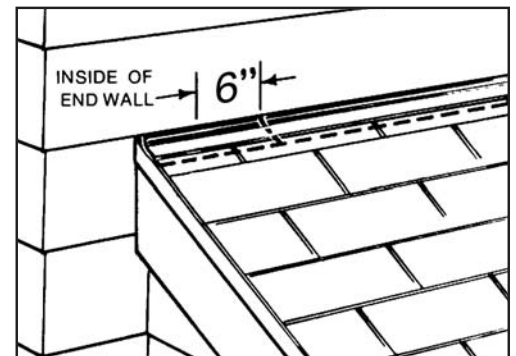


■ **For new construction**, place all sections of Flash FilterVent and supplemental flashing over the open slot extending the vent and flashing the full length of the roof. Insert the end plugs. Butt Flash FilterVent sections with connector plugs, centering so that half of each plug is in each section. Cut final section of vent to the correct length. Extend the vent past the ends of the slot to the full length of the roof. Align joined Flash FilterVent over the slot and nail in place on both roof and sidewall using pre-punched holes and nails as supplied. Fasten straps over joints and nail in place.



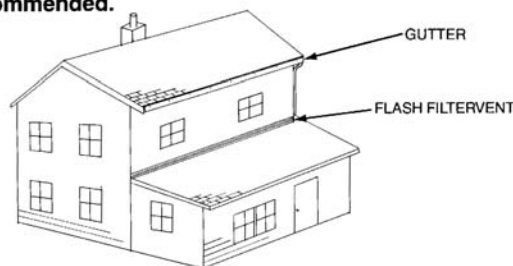
Flash FilterVent® Ridge Vent (continued)

- For existing roofs, measure $1\frac{1}{4}$ to 3 inches down from the flashing on the existing wall and snap a chalk line the entire length of roof. Measure back from inside of house walls 6 inches at each end and draw line from existing flashing to chalk line. This outlines the portion of the roof to be removed.
- For existing roofs, if existing flashing extends past opening, cut through flashing and sheathing using metal-cutting saw blade. Use a power saw to cut through the roof sheathing. Set depth at $\frac{1}{16}$ inch greater than sheathing. Loosen or remove lowest piece of siding on vertical wall so that vertical flange on Flash FilterVent and supplemental flashing can slip behind it.
- If there is a roof above the vent, make sure that any water runoff is diverted away from the area where Flash FilterVent is installed. Gutters are recommended as shown in the illustration below.
- Use Flash FilterVent on roof pitches from $3/12$ to $12/12$.

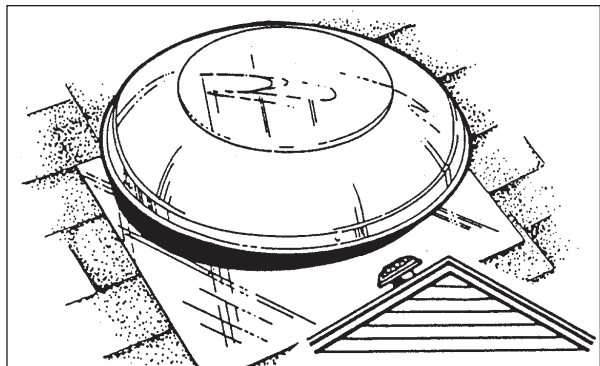


WARNING:

If there is a roof above the vent, make sure that any water runoff is diverted away from the area where Flash FilterVent is installed. Gutters are recommended.

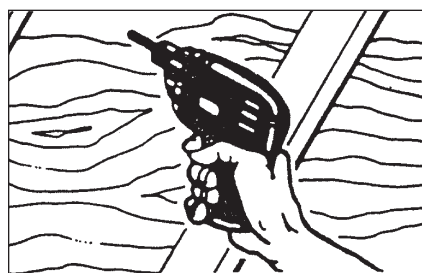


PowerCool™ and PowerCool Plus™ Roof-Mount Power Fans



- Set the fan approximately in the center of the roof close to the ridgeline so that it can only be seen from one side of the house as shown in the illustration.

- Measure the distance to the ridgeline and to one end of the roof. Transfer these exterior dimensions to inside the attic. Locate a center position between two rafters (inside the attic) as near as possible to the outside measurements. Drill a guide hole through the roof from inside that is equal



distance from the two rafters. Place a marker through the roof for quick identification while on the roof.

- Draw a circle 14½ inches in diameter using the guide hole as the center. The power fan carton has a template printed on the back for drawing a circle. Using a saber saw cut and remove all roof shingles and deck inside the 14½ inch diameter circle. Cut an extra 1 inch off the top of the hole (shingles only) to allow room for placing and positioning the flange on the fan. Do not cut through any rafters because that could jeopardize the structural integrity of the roof.

- Make sure the base flange parallels the ridgeline of the roof. The embossed arrow and the word “UP” should be pointing toward the ridgeline. Slip the upper half of the flange under the shingles. Center the fan over the hole. Attach flange securely to roof using roofing nails around the perimeter of the unit (underneath shingles at the top). A non-hardening caulk can be used as a seal between the flange and the shingles.

- *The electrical installation and wiring of the power fan must be done by a qualified electrician in accordance with all local codes and standards, including fire-rated construction.*

- Set the *thermostat* dial to a 100-110° F setting. When the power fan is operational, the fan should start automatically when the attic temperature rises above the preset setting and cut off when the attic is cooled down to approximately 10% below the thermostat setting.

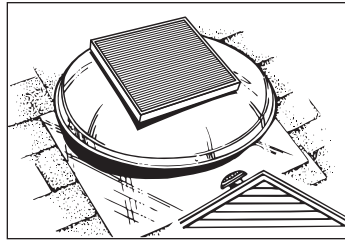
- If the fan is equipped with a *humidistat*, the recommended setting is 80% relative humidity (set the dial at 8). The fan will start automatically when relative humidity rises 4 to 8% above the setting, and will shut off when relative humidity reaches the setting.

- Both the thermostat and humidistat controls are adjustable to provide flexibility of use.

- Use PowerCool and PowerCool Plus power fans on roof pitches from 3/12 to 8/12.

SolarCool™ Roof-Mount Solar Powered Fan

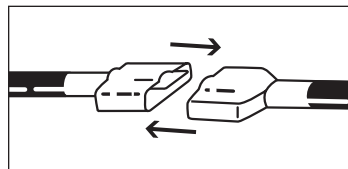
- Position the fan on the back side of the house close to the ridgeline. Select a location on the roof that will maximize the amount of sunlight on the solar panel.



- Measure the distance to the ridgeline and to one end of the roof. Transfer these exterior dimensions to inside the attic. Locate a center position between two rafters (inside the attic) as near as possible to the outside measurements. Drill a guide hole through the roof from inside that is equal distance from the two rafters. Place a marker through the roof for quick identification while on the roof.

- Draw a circle 14½ inches in diameter using the guide hole as the center. The power fan carton has a template printed on the back for drawing a circle. Using a saber saw cut and remove all roof shingles and deck inside the 14½ inch diameter circle. Cut an extra 1 inch off the top of the hole (shingles only) to allow room for placing and positioning the flange on the fan. Do not cut through any rafters because that could jeopardize the structural integrity of the roof.

- Cover the solar panel from sunlight before connecting the wires by using the protective packaging so that it will not produce power. Connect the wires from the solar panel to the motor in the vent (black to black and white to white). Wires run and connect to the solar panel through the throat of the vent.

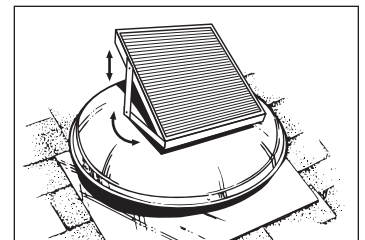


- Make sure the base flange parallels the ridgeline of the roof. The embossed arrow and the word “UP” should be pointing toward the ridgeline. Slip the upper half of the flange under the shingles. Center the fan over the hole that was cut in the roof. Attach flange securely to roof using roofing nails around the perimeter of the fan (underneath shingles at the top). Be careful not to nail through the electrical wires. A nonhardening caulk should be used as a seal between the flange and shingles and also to seal around the base.

- Tilt and/or rotate the solar panel in the direction that maximizes exposure to the sun. Generally, the optimum tilt angle can be calculated by using the site latitude plus 20 degrees; the optimum direction to face the panel is south.

- To tilt the solar panel, loosen the silver thumb screw at the top right corner of the solar panel. Lift the panel up to its desired tilt angle. Tighten the silver thumb screw to secure the solar panel in place.

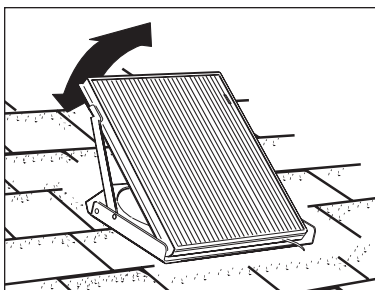
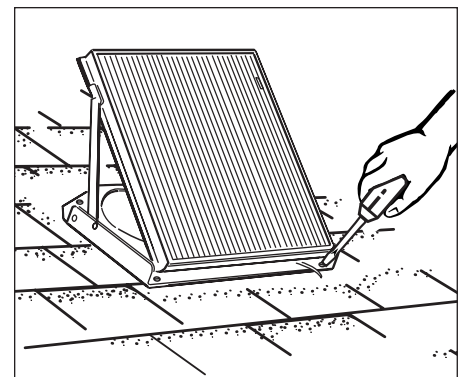
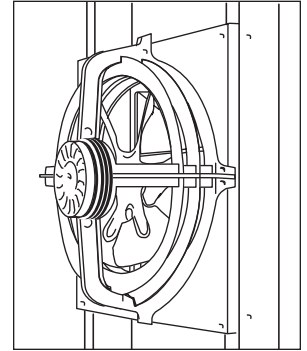
- To rotate the solar panel, loosen the three silver wing nuts located under the solar panel. Rotate the solar panel bracket to the desired rotation angle. Tighten the three silver wing nuts to secure the bracket in place.



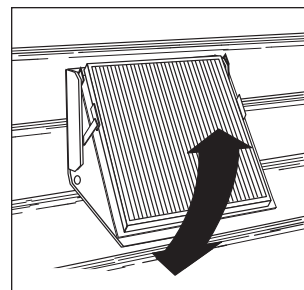
- Use SolarCool on roof pitches from 3/12 to 8/12.

Attic Aire™ Gable-Mount Solar Powered Fan

- Frame the opening of the exterior gable louver with 2" x 4" studs to provide proper spacing for the solar fan and create a sealed exhaust box. For proper performance, fan must be at least 3½ inches away from exterior louver.
- Size a mounting board to cover the opening created by the framing studs. The size of the mounting board is critical to providing a sealed box between the fan and louver.
- Use the template on the carton to cut a 15 inch diameter opening for the fan in the center of the mounting board. Place the fan against the attic mounting board and secure the fan to the back side of the mounting board using #10 wood screws (not provided). Make sure the fan is located so that the specially marked motor bracket is positioned vertically. Fasten the mounting board and the fan assembly to the framing studs with #10 wood screws.
- The solar panel can be located on the roof or on an exterior wall of the house. The panel should be placed with a southern exposure. Position the solar panel away from locations which experience afternoon shade from obstacles such as trees or neighboring structures.
- Tilt the solar panel in the direction that maximizes exposure to the sun. Generally, the optimum tilt angle from the horizon is calculated by using the site latitude plus 20 degrees. To tilt the solar panel, loosen the silver thumb screw at the top corner of the solar panel. Lift the panel up to its desired tilt angle. Tighten the silver thumb screw to secure the solar panel in place. Then tighten the silver locking nut to prevent the thumb screw from loosening over time.



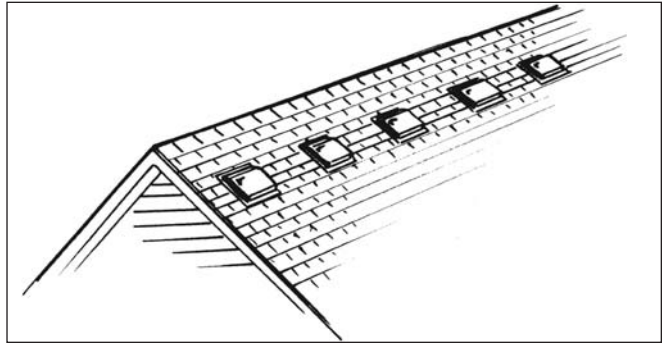
Solar panel mounted on roof.



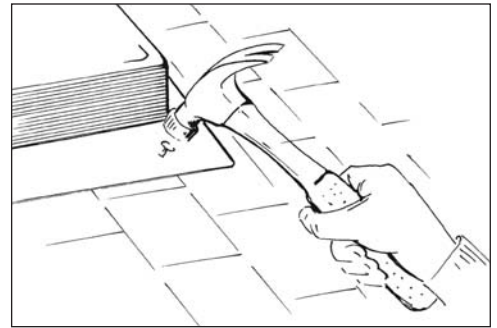
Solar panel mounted on vertical wall.

Airhawk® Roof Louvers

- Position the vents evenly spaced across the roof, below the ridgeline so that the vents can only be seen from one side of the house, yet no greater than 2 feet below the ridgeline.
- Adjust placement of the vents to avoid cutting through any rafters. Drill a guide hole near the center position of each vent.

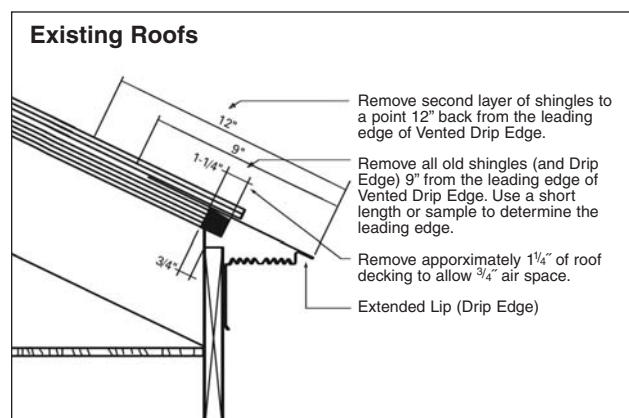
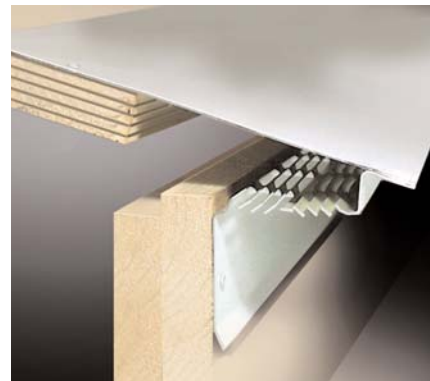


- Depending on which model of vent is being installed, the diameter of the hole to be cut into the roof will vary. **Refer to the installation instructions that come with the product inside the box.**
- Make sure the base flange parallels the ridgeline of the roof. Slip the upper half of the flange under the shingles. Center the unit over the hole that was cut into the roof. Shingles should lie on top of the flashing all the way down to the lower side of the opening. Flashing from this point should rest on top of the shingles.
- Attach the flange securely to the roof with at least 8 galvanized roofing nails. Nails should be at least 2 inches long and should penetrate the vent, shingles and decking. Use a nail in each corner of the flashing and along the middle of each side of the vent. Use caulk to seal around each nail.
- Depending on which model of vent is being used, the maximum roof pitch on which the vent can be installed varies. **Refer to the installation instructions that come with the product inside the box.**



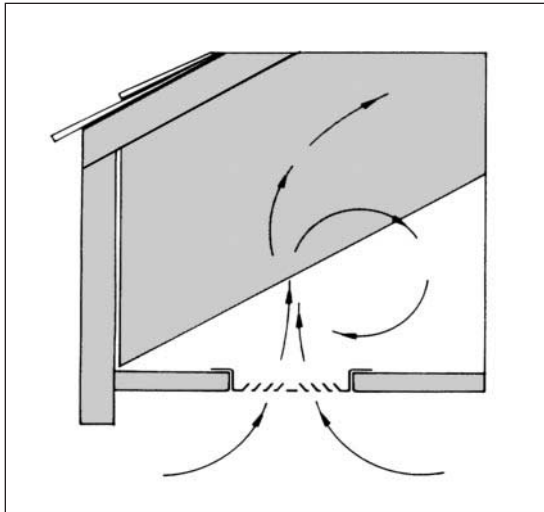
Pro Flow™ Vented Drip Edge

- For existing roofs without reroofing, remove any existing drip edge by carefully lifting shingles and removing nails. If desired, cut a small sample (approximately 3-5 inches) of Vented Drip Edge to use as a guide. Use the guide piece to make sure the vent will fit properly. If there is a gutter, this check with the guide piece will also show if the gutter is low enough. If not, gutter must be removed and reinstalled.
- There should be at least a $\frac{3}{4}$ inch air space between the top of the fascia and the roof deck. If not, remove fascia and trim away enough to allow at least a $\frac{3}{4}$ inch air space.
- Reinstall the fascia. Slip the shingle underlay of the vent under the shingles and felt. If nails interfere, cut with a saber saw. Fascia wrap of the vent should be flush with fascia board. In some cases it may be necessary to bend the fascia wrap and/or shingle underlay for proper fit. Louvers should always remain parallel to the ground.
- Nail shingle underlay of the vent to the rafters. Nail fascia wrap to fascia, fastening at every rafter location.
- Run the Vented Drip Edge the full length of the roof. Overlap section ends to “mate” louvers for best appearance. In order to do that, cut away a small section of the extended lip on the front of the Vented Drip Edge (see illustration). Reseal existing shingles to Vented Drip Edge with caulk.
- Vented Drip Edge can also be used in new construction applications. Refer to the installation instructions inside the box.

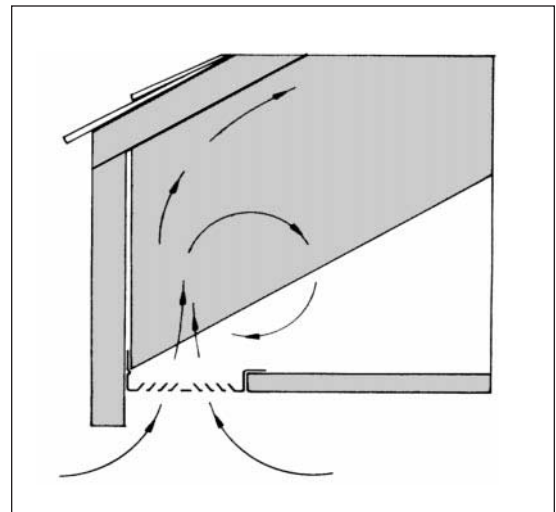


Continuous Soffit Vent

- Continuous Soffit Vent always installs correctly because the arrangement of the louvers is the same from either side. Intake airflow from each side meets above the vent to create gentle turbulence assisting fallout of snow and rain before it is carried to insulation.



- For models with a double leg return, two cuts into the soffit are required, located as close to the fascia as possible.



- For models with a single leg return, only one cut into the soffit is required because the vent installs next to the fascia. The vertical flange of the vent fits against the rafter ends with the fascia going over the flange assuring that the vent will be positioned correctly along the outer edge of the soffit.

General Installation Guidelines

- Attic ventilation is a system of **intake** and **exhaust** making up a balanced system. The amount of intake ventilation net free area should match or exceed the amount of exhaust ventilation net free area.
- Make sure intake vents are clear of debris. Check to see if the attic insulation is blocking the soffit. If so, pull it back and insert an insulation baffle. If the intake vents have been painted, the louvers might be plugged. If so, replace the vents.
- Never install more than one type of exhaust vent on the same roof. If you do, the stronger exhaust vent will pull from the other exhaust vent. When that happens, one of the vents is functioning as an intake vent and one works as an exhaust vent, short-circuiting the ventilation system.
- For best performance, use a tri-polymer caulk, which will maintain its flexibility when exposed to the weather elements. Avoid roofing cements and roofing compounds because they will breakdown or crack when exposed to UV, thus losing the waterproof seal under the vent. Check the caulk manufacturer's specifications to make sure the caulk will adhere to polypropylene plastic or metal material.

Glossary

Balanced System

Equal amounts of intake net free area ventilation at the eaves and exhaust net free area ventilation at or near the ridge.

Bernoulli Effect

A phenomenon whereby low pressure resulting from wind passing over a structure or object creates a pulling or lifting action.

CFM

Cubic feet of air moved per minute. All motorized vents have a CFM rating that defines the vent's capacity to move air. The higher the CFM number, the greater the vent's capacity.

Cold Roof

The condition in which the roof temperature is equalized from top to bottom. An equalized roof temperature can help eliminate the conditions that can lead to the formation of ice dams.

Condensation

The change of water from vapor to liquid when warm, moisture-laden air comes in contact with a cold surface.

Conduction

Flow of heat directly through a solid material; responsible for most heat loss or gain in a residence.

Convection

Transfer of heat by air currents, i.e., gravity, hot air furnace.

Deck

The surface, installed over the supporting framing members, to which the roofing is applied.

Dormer

A framed window unit projecting through the sloping plane of a roof.

Drip Edge

A corrosion-resistant, non-staining material used along the eaves and rakes to allow water run-off to drip clear of underlying construction.

Eaves

The horizontal, lower edge of a sloped roof which typically overhangs the walls.

Exhaust Vent

An outlet or opening installed high on the roof near the ridge or in the gable for the purpose of ventilating the underside of the roof deck.

External Wind Baffle

The built-in wing or lip on a ridge vent that deflects wind up and over the vent creating the Bernoulli Effect that enhances airflow performance by pulling or lifting the air out of the attic. It also deflects weather elements over the vent away from the attic.

Flashing

Pieces of metal or roll roofing used to prevent seepage of water into a building around any intersection or projection in a roof, such as vent pipes, chimneys, adjoining walls, dormers and valleys. Galvanized metal flashing should be minimum 26-gauge.

Gable

The upper portion of a sidewall that comes to a triangular point at the ridge of a sloping roof.

Gable Roof

A type of roof containing sloping planes of the same pitch on each side of the ridge. Contains a gable at each end.

Gambrel Roof

A type of roof containing two sloping planes of different pitch on each side of the ridge. The lower plane has a steeper slope than the upper. Contains a gable at each end.

Gutter

A shallow channel or conduit of metal or wood set below and along the eaves of a house to catch and carry off rainwater from the roof.

Hip

The inclined external angle formed by the intersection of two sloping roof planes. Runs from the ridge to the eaves.

Hip Roof

A type of roof containing sloping planes of the same pitch on each of four sides. Contains no gables.

Ice Dam

A collection of melted snow that refreezes, typically at the projecting eave of a sloping roof. The ice dam causes the water from melting snow to back up under roof shingles.

Intake Vent

An inlet or opening installed in the soffit or undereave area for the purpose of ventilating the underside of the roof deck.

Glossary

Internal Weather Filter

An untreated, unwoven fiberglass material inside certain ridge vents that provides extra weather protection from wind-driven rain, snow and dust.

Louver

An opening with a series of horizontal slats so arranged as to permit ventilation but to exclude rain, sunlight or vision.

Mansard Roof

A type of roof containing two sloping planes of different pitch on each of four sides. The lower plane has a much steeper pitch than the upper, often approaching vertical. Contains no gables.

Net Free Area

The total unobstructed area through which air can enter or exhaust a non-powered vent; generally measured in square inches. All nonpowered vents have a Net Free Area rating.

O.C.

On center. The measurement of spacing for studs, rafters, joists, and the like from the center of one member to the center of the next.

Overhang

The portion of the roof structure that extends beyond the exterior walls of a building.

Perm

A measure of water vapor movement through material.

Pitch

The degree of roof incline expressed as the ratio of the rise, in feet, to the span, in feet.

R-Value

Thermal resistance, a measure of a material's or a construction's ability to retard heat flow. R-Values in a series of materials can be added to determine a construction's total thermal resistance.

Radiant Heat

Heat transferred from one body to another which are not in contact (i.e., from the sun to a roof).

Rafter

One of a series of structural members of a roof, designed to support roof loads. The rafters of a flat roof are sometimes called roof joists.

Rake

The inclined overhang of a gable roof.

Ridge

The horizontal line at the junction of the top edges of two sloping roof surfaces. The rafters of both slopes are nailed to a board at the ridge.

Sheathing

Exterior grade boards used as a roof deck material.

Shed Roof

A roof containing only one sloping plane. Has no hips, ridges, valleys or gables.

Slope

The degree of roof incline expressed as the ratio of the rise, in inches, to the run, in feet.

Soffit

The finished underside of the eaves.

Square

A unit of roof measurement covering a 10 ft. by 10 ft. roof area, or 100 square feet of roof area.

Thermal Effect

The inherent property of warm air to rise, also known as thermal buoyancy.

Vapor Diffusion

The process in which water vapor naturally travels from high-humidity conditions to low-humidity conditions; for example, from the living space into the attic.

Vapor Retarder

Any material used to prevent the passage of water vapor. Applied to insulation or other surfaces, it retards vapor travel to regions of low temperature where it may condense. A material is considered a vapor retarder if it has a perm rating of 1 or less (the lower perm, the better the vapor retarder). Examples: Kraft facing on insulation, foil facing on insulation.

Vent

Any device installed in a roof, gable or soffit for the purpose of ventilating the underside of the roof deck. Any outlet for air that protrudes through the roof deck such as a pipe or stack.

Waterproofing Shingle Underlayment (WSU)

A special self-adhering waterproofing shingle underlayment designed to protect against water infiltration due to ice dams or wind-driven rain.

Taking the VIP Installation Guidelines Test

After reviewing the course material on the previous pages, you're ready to take the VIP Installation Guidelines test that follows. To successfully complete this course and qualify for your VIP rewards, you must correctly answer 22 of the 25 questions on the test. If you do not correctly answer at least 22 questions, you will be notified in writing regarding re-taking the test. Be sure to fill out your name and mailing information so that we can mail your test results and Certificate of Completion.

There are two ways to submit your answers for grading:

1. Print out the test pages. Fill in your name and mailing information and complete the test by circling your answers. Then mail the test to: Air Vent, c/o VIP Online Course, 7700 Harker Drive, Suite A, Peoria, Illinois 61615.
2. Take the test online at <http://www.airvent.com/professional/VIPinstallcourse.html>. Read the question in the VIP Installation Course PDF, then mark your answer in the interactive column to the right of the appropriate question number.

Please allow 2 to 3 weeks for processing.

VIP Installation Guidelines Test

Name _____

Company _____

Address _____

City, State, ZIP _____

E-mail _____ Phone _____

- 1) To allow room for expansion of the vent during warm weather, when installing ShingleVent® II ridge vent during the cold weather:
 - a. leave a $\frac{1}{4}$ inch gap between the vent sections
 - b. leave an $\frac{1}{8}$ inch gap between the vent sections
 - c. it's unnecessary to leave a gap between vent sections
- 2) For ridge pole construction, cut the slot opening for ShingleVent II ridge vent:
 - a. $\frac{3}{4}$ inch on both sides of the pole
 - b. $1\frac{1}{2}$ inches on both sides of the pole
 - c. a total of $1\frac{3}{4}$ inches at the ridge
- 3) When nailing the ridge cap shingles on ShingleVent II:
 - a. use staples
 - b. use roofing nails long enough to penetrate completely through the roof sheathing
 - c. it's not necessary to install cap shingles on the ridge vent
- 4) When installing Multi-Pitch FilterVent® on asphalt shingles, slate, machine-split shingles or other smooth surfaces:
 - a. it's necessary to caulk underneath the external baffle
 - b. it's not necessary to caulk underneath the external baffle
 - c. Multi-Pitch FilterVent should not be installed on smooth surfaces
- 5) The connector straps for Multi-Pitch FilterVent:
 - a. are not necessary for installation
 - b. should be installed at each end of the vent section
 - c. can be used at the installer's discretion

VIP Installation Guidelines Test

- 6) Multi-Pitch FilterVent can be installed on roof pitches from:
- 3/12 to 16/12
 - 3/12 to 12/12
 - 3/12 to 8/12
- 7) Flash FilterVent is designed to be used:
- as an intake vent at the soffit
 - as an exhaust vent on the peak of a gable roof
 - as an exhaust vent where a roof meets a vertical wall
- 8) If there is a roof above where Flash FilterVent is installed:
- it's important that any water runoff is diverted away from the area where the vent is installed
 - gutters are recommended on the roof above where Flash FilterVent is installed
 - both a and b
- 9) PowerCool™ roof-mount power fans are ideally best positioned where on the roof?
- in the center down near the eaves on the back side of the house
 - in the center close to the ridgeline on the back side of the house
 - in the center close to the ridgeline on the front side of the house
- 10) When positioning the PowerCool flange on the roof, the embossed arrow and the word “UP” should be pointing in which direction?
- toward the ridgeline
 - toward the sides of the house
 - there isn't an embossed arrow or the word “UP” on PowerCool flanges
- 11) The humidistat setting on PowerCool Plus™ power fans:
- is recommended to be set at 50% relative humidity
 - is recommended to be set at 80% relative humidity
 - PowerCool Plus power fans do not have a humidistat
- 12) The SolarCool™ roof-mount power fan:
- requires a 14½ inch diameter hole cut into the roof
 - requires a 13½ inch diameter hole cut into the roof
 - requires a 12½ inch diameter hole cut into the roof

VIP Installation Guidelines Test

- 13) The SolarCool solar panel:
- a. is recommended to be tilted and/or rotated facing in the north direction for optimum performance
 - b. is recommended to be tilted and/or rotated facing in the south direction for optimum performance
 - c. cannot be tilted and/or rotated
- 14) The template printed on the Air Vent power fan cartons:
- a. can be used to assist with cutting the circle hole in the roof
 - b. can be used to measure the length of roofing nails to fasten the flange
 - c. Air Vent power fan cartons do not have a printed template
- 15) The Attic Aire™ Gable-Mount Solar Powered fan features a solar panel:
- a. that can be mounted on the roof only
 - b. that can be mounted on the roof or on an exterior wall of the house
 - c. that is built into the fan blade design
- 16) Airhawk® roof louvers should be positioned on the roof:
- a. no more than 1 foot from the ridgeline
 - b. no more than 2 feet from the ridgeline
 - c. no more than 3 feet from the ridgeline
- 17) To securely attach the flange on Airhawk roof louvers to the roof, it's recommended to use:
- a. at least 8 staples
 - b. 6 galvanized roofing nails
 - c. at least 8 galvanized roofing nails
- 18) When installing Pro Flow™ Vented Drip Edge in a retrofit application, how much of an airspace should there be between the top of the fascia and the roof deck?
- a. 1/4 inch
 - b. 1/2 inch
 - c. at least 3/4 inch
- 19) The louvers on Pro Flow Vented Drip Edge:
- a. should always be parallel to the ground
 - b. should be slightly tilted downward for best airflow
 - c. should be slightly titled upward for best weather protection

VIP Installation Guidelines Test

- 20) Pro Flow Vented Drip Edge:
- can be used in new construction and retrofit applications
 - can only be used in new construction applications
 - can only be used in retrofit applications
- 21) Air Vent's Continuous Soffit Vent with a single leg return:
- installs next to the fascia
 - requires only one cut into the soffit
 - both a and b
- 22) Ideally, an attic ventilation system should be installed:
- balanced with equal amounts of intake and exhaust vent net free area
 - with exhaust vents only
 - with intake vents only
- 23) A regular inspection of intake vents should include:
- checking for debris and paint that could plug the vent openings
 - checking if the attic insulation is blocking the soffit
 - both a and b
- 24) Installing two different types of exhaust vents on the same roof:
- maximizes the attic ventilation system's efficiency
 - short-circuits the ventilation system
 - creates an even flow of airflow throughout the attic
- 25) Air Vent's VIP program stands for:
- Verifying Installation Procedures
 - Verification Installation Process
 - Ventilation Installation Professional

