CORÁVENT® INCORPORATED



Product Guide

Residential and Commercial Roofing and Siding Ventilation Products

Guide to COR-A-VENT[®] Products & Applications

These are general application guidelines. Ultimately, the building professional has to determine which product is the "Best Fit" for his/her application based on building codes, prevailing weather patterns and product venting capabilities.

For product end views & dimensions, please refer to Application Drawings CAV-EV. Most of our application drawings are available in .dwg & .pdf file formats on our website at www.cor-a-vent.com/drawings.htm

V-600°

Revolution[®] Rolled Ridge Vent





REV-11 and REV-9. The first shingle-over ridge vents made

from 100% pre-consumer recycled plastic. Revolution is the only truly "Green" ridge vent available. The vent core is made entirely from the same polypropylene plastic used to manufacture all of COR-A-VENT's other products.

- 20-foot long by 11" or 9" wide rolls
- 100% pre-consumer recycled polypropylene
- Net Free Vent Area: 12 square inches per linear foot
- Power nailable
 Color: Black

Packaged with two coils of 13/4" galvanized roofing nails and two End Plugs

Roof-2-Wall Vent™



Roof2Wall Vent™

Complete ventilation package for the tough-to-vent detail where a pitched roof meets a vertical wall.

- 6 (six) 4-foot pieces of Roof-To-Wall Vent (24 lineal feet) that provide 6.75 square inches of Net Free Vent Area per lineal foot while stopping rain and snow at the point entry thanks to the Enhanced Snow Screen
- 25-foot by 14" wide roll of aluminum flashing
- A tube of polyurethane caulk (black in color)
- A bag of 2¹/₂" roofing nails • 4 (four) R2W End Plugs

V-600-11" & 8½"

The highest airflow in the industry for nearly every pitch - from 3/12 to 16/12.

- Available in 11" and 81/2" widths
- 20" NFVA provides superior ventilation • Radiused peak keeps the ridge well defined
- Regular and Enhanced versions

12 - 4' pieces per carton

V-600T & V-600TE

- For use with Metal or Tile applications
- 1" x 3¼" x 4' profile
- 10" NFVA, per linear foot, per piece
- Covers: 48 I.f. ridge, 96 I.f. roof to wall
- 24 4' pieces per carton

Soffit Vents

S-400 Strip Vent

Continuous strip soffit vent for hard-to-vent eave details - from zero overhang to open rafter.

- Narrow 1" profile easily concealed
- 10" NFVA per linear foot

24 - 4' pieces per carton

PS-400

- 1" x ³/₄" x 4' profile ideal for 1x soffit panels
- 10" Net Free Vent Area per linear foot

48 - 4' pieces per carton

RS-400

- Power nail to the bird block for quick installation
- 18.75" Net Free Vent Area per piece
- Available in Black or White
- 48 22½" pieces per carton

V-300



V-300-11", 8½" & 7"

An ideal hip and ridge vent with a low %" profile that virtually disappears beneath the cap shingle and even lower price - the best value in the industry.

- Available in 11", 8½" and 7" widths
- Power-Nailable
- 13.5" NFVA
- Use on pitches from 3/12 to 16/12
- Regular and Enhanced versions

12 - 4' pieces per carton or bundle

Specialty Products

Sturdi-Starter

4-foot long x 11/4" wide x 5/16" thick (8 mm) profile extruded polypropylene plastic strip used as a starter strip behind the first course of fiber cement siding.

30 - 4' pieces per bundle

Sturdi-Spacer

Introducing the new Sturdi-Spacer[™] – a heavy-duty, breathable spacer strip for retro-fitting new metal roofing over existing shingle roofs.

72 - 4' pieces per bundle

IN-Vent[®]

- Intake ventilation when soffits or overhangs are inaccessible - perfect for re-roof jobs
- Won't crush or compress after installation • 10" Net Free Vent Area per linear foot

64 linear ft. per ctn. plus 21/2" roofing nails and IN-Vent end cap sections

Rainscreen Siding Vent System

SV-3, SV-5 & Sturdi-Strip[™]

Trapped moisture behind siding can wreak havoc on your home's exterior, causing peeling paint, rotting wood, deteriorating underlayment, and mold or mildew growth. COR-A-VENT® SV-3 and SV-5 Siding Vents and Sturdi-Strips allow that moisture to drain out and let air pass through to keep your wall system dry.

- SV-3: 7/16" thick,
- 24 4' pieces per box
- SV-5: ¾" thick,
- 15 4' pieces per box
- Sturdi-Strips (SS-112): 3/8" thick, 112 - 4' pieces per box



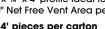
Sturdi-Batten[™]

Sturdi-Batten is a vented batten strip for use with vertical siding, cedar shakes & shingles, or siding panels. Vertically-oriented airways allow both moisture drainage and drying airflow between your siding and housewrap, adding life to your home's exterior.

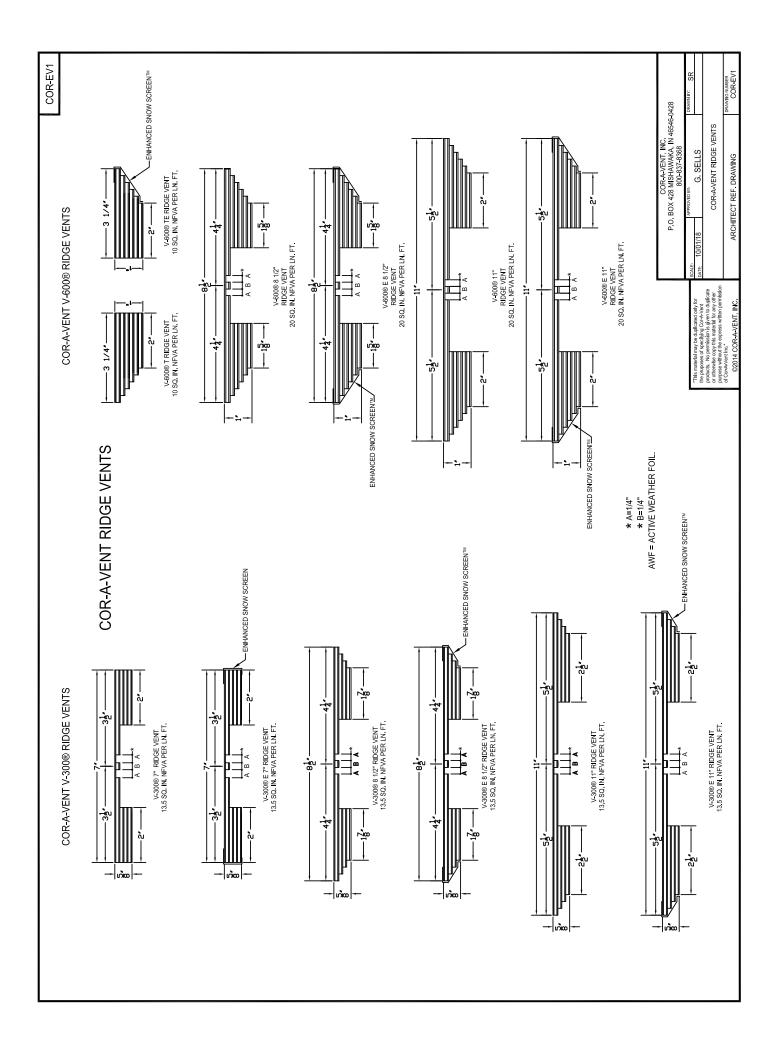
• SB-48: 7/16" thick, 48 - 4' pieces per bundle

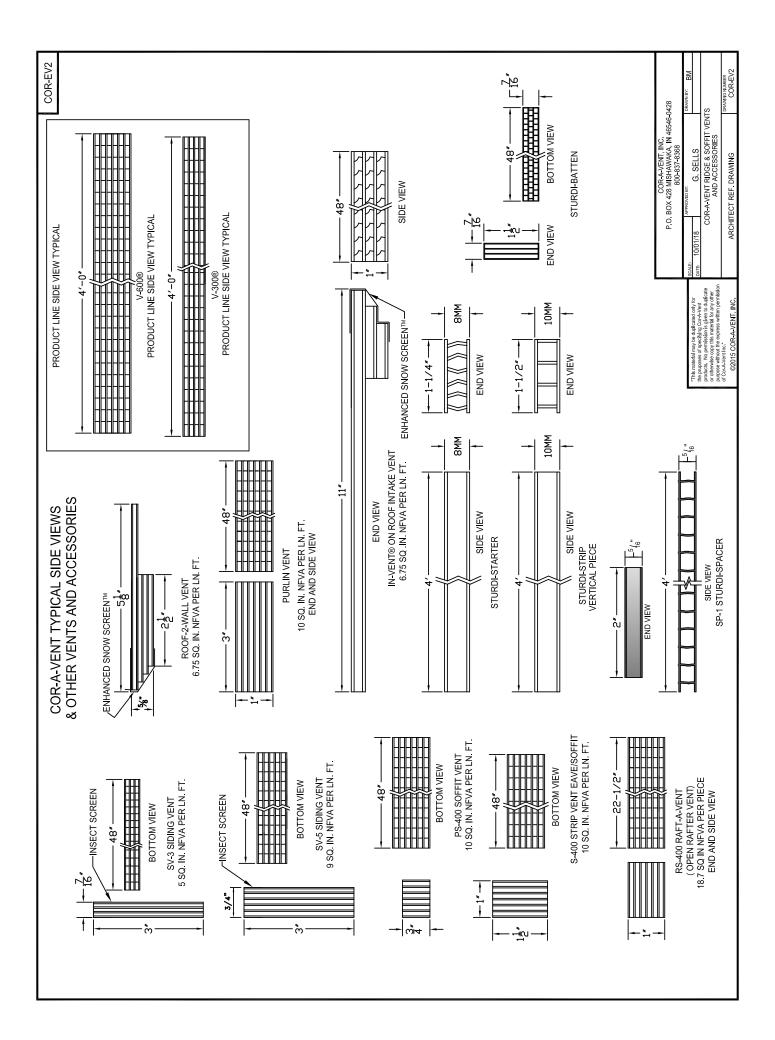
Black White or Tan

Black or White



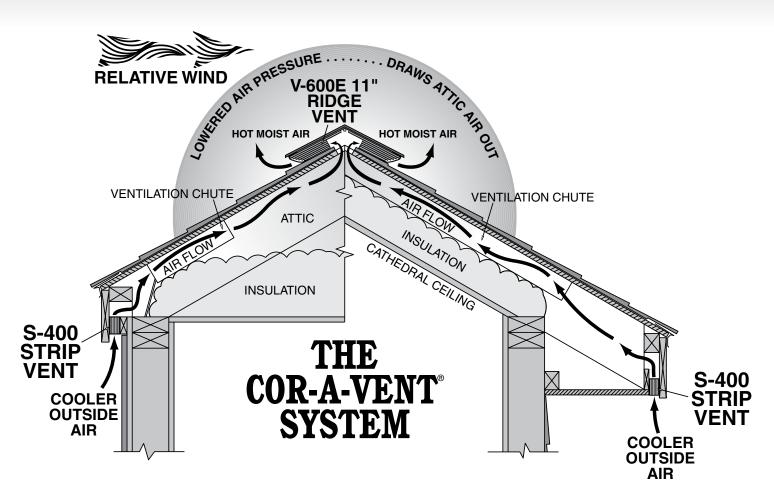






SHINGLE APPS

Balanced Ventilation *How It Works*



A balanced vent system is one that best utilizes three natural forces: air pressure, the thermal effect and diffusion. Basically, for every square inch of ridge (exhaust) vent you must balance it with **at least one square inch or more of soffit (intake) vent.**

COR-A-VENT® ridge & soffit vent products offer:

- V-600 products 20 sq. in. Net Free Vent Area (NFVA)/lineal foot
- V-300 & Fold-A-Vent[®] products 13.5 sq. in. NFVA/lineal foot
- S-400 Strip Vent line offers 10 sq. in. NFVA/lineal foot

With a ridge and soffit system, cooler ventilation air will be drawn into the attic (or roof cavity if a cathedral ceiling) through the soffit/eave vents located within the positive pressure (intake) areas. It will exhaust through the vents in the negative pressure areas, at the ridge. Wind moving over the ridge literally "siphons" the hot/moist air out of attic. If the ridge vent were to be installed alone, then part of the ridge would become an inlet vent to relieve this "draw". This could cause weather infiltration.

The ridge vent must always be installed in combination with some form of soffit/eave intake vents. Do not use ridge vents with gable vents or other roof mounted vents.

The "Ventilation Chute", or air passageway between the soffit and the ridge must not be blocked or restricted so as to impede airflow. Once again, the ridge vent in this situation can act as intake **and** exhaust, causing weather infiltration.

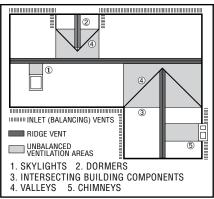
For a more attractive ridgeline, COR-A-VENT recommends installing the ridge vent to the very ends of any given ridge. A ridge that is the same height from **end to end** makes our vent even less noticeable.

Please refer to the backside of this page for examples of typical continuous soffit vents and vent chute details.

Balanced ventilation – The right proportion of venting.

COR-A-VENT[®] has promoted and taught **balanced ventilation** from the day we started. It's a concept all vent manufactures readily endorse. Unfortunately, that information doesn't always end up in the hands of the person designing the building or installing the vents. Balanced venting helps insure the performance you expect from ridge venting – uniform, increased airflow through the roof cavity <u>without weather infiltration</u>.

Balanced venting: An equal or greater amount of vent opening (sq. in net



free vent area/NFVA) in the soffit (intake) than at the ridge. For example, our V-600 products have 20 sq. in NFVA per lineal foot. To balance this, you need 2 soffit/eave/intake vents of approximately

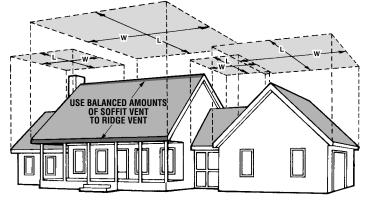
10 sq. in. per lineal foot (1/2 of 20 in each overhang). **Balanced venting:**

Continuous soffit vents are recommended, especially for venting cathedral ceilings. Wherever there is ridge

Figuring Your Ventilation Needs:

V-600E: <u>Square footage of building footprint X .48</u> = Lineal Feet V-600E needed 20

V-300: <u>Square footage of building footprint X .48</u> = Lineal Feet **V-300** needed 13.5



vent above, there should be soffit/eave/intake vents on the structure below. Also, COR-A-VENT **strongly recommends** using of one of our V-300 products (available in 11, $8^{1/2}$ or 7" widths) on cathedral ceiling and hip roof applications. V-300 delivers 13.5 sq. in net free vent area. The volume of space to be vented in cathedrals is smaller. Therefore a lower profile (5/8") vent is called for to further reduce the chance for infiltration. When installing a ridge vent system, <u>all</u> other vent openings (except soffits) must be closed off.

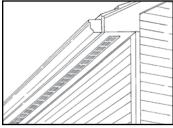
Example:	25' x 50' = 1250 Sq.F.
-	1250 x .48 = 600
	$600 \div 20 = 30$ L.F. V-600 needed

The above formulas will give the amount of COR-A-VENT ridge vent needed for a 1/150 vent ratio, provided an equal or greater amount of soffit venting is used. For a 1/300 ratio, (building code minimum) use half the amount of ridge vent. *Note: Code interpretation may vary. Consult your local building dept.*

For the best appearance, install COR-A-VENT continuously the entire length of the ridge.

Typical continuous soffit vents

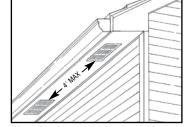
The following NFVA values are approximate, except for COR-A-VENT S-400 strip vent. Consult the vent manufacturer or distributor for actual values for specific products.



Continuous aluminum strip vent – 8-9 sq. in. NFVA per lineal foot.

Typical

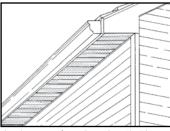
Gable



8" x 16" under eave cornice vents with maximum spacing of 4' apart – gives 14 sq. in. NFVA per lineal foot.

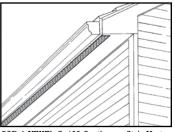
Cathedral

Ceiling

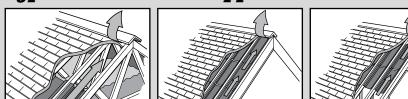


Continuous perforated panels – 1' wide overhang (typical) – gives 12-13 sq. in NFVA per lineal foot.

Knee Wall



COR-A-VENT's S-400 Continuous Strip Vent - 10 sq. in NFVA per lineal foot.



Note: Should you need any assistance in designing your ventilation system, fax or mail a sketch and information to our technical services department. COR-A-VENT will respond with recommendations for your particular building design.



Maintaining an unrestricted air passageway between the soffit and ridge is crucial to the performance of the vent system, and must not be blocked or restricted. COR-A-VENT recommends a minimum 2" air space between the roof sheathing and vent chute or insulation

This material may be duplicated only for the purposes of specifying COR-A-VENT products. No permission is given to duplicate or otherwise copy this material for any other purpose without the express written permission of COR-A-VENT, Inc.
© 2005 COR-A-VENT, Inc.
Balanced Ventilation Sheet 12/14

COR-A-VENT, Inc. • P.O. Box 428 • Mishawaka, IN 46546-0428 Phone: (800) 837-8368 • Fax: (800) 645-6162 info@cor-a-vent.com • www.cor-a-vent.com

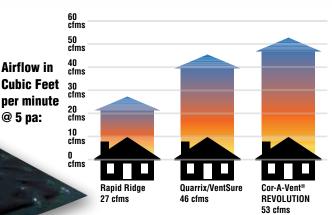
Typical Vent Chute Applications

Why choose... REVOLUTION Rolled-Ridge Vent by COR-A-VENT?

• Environmentally responsible –

Made with 100% pre-consumer Polypropylene plastic

- Durable & Power-Nailable Won't crack or compress like other vents
- Tested & approved Protects from rain & snow infiltration without clogging*
- Superior Airflow –
 12" NFVA, has better airflow than VentSure[®] & Rapid Ridge^{®**}
- More bang for your buck 20-foot roll comes with 2 coils of 1 ³/₄" nails, all for a low price.



* Revolution was put through the following ICC tests, conducted by thirdparty testing company PRI Construction Materials Technology. How did it do?

Dust exposure test (ICC-ES AC132) **RESULT:** < 0.1 grams of dust – Accumulation of dust result is below reportable limit of measurement – Passed

Resistance to wind-driven rain & snow (Florida Building Code TAS 100(A)-95) **RESULT: Passed**

Accelerated weatherization / exposure (ICC-ES AC132; ASTM D 4329; ASTM D 638) **RESULT: Passed**

Self Ignition Temperature (ASTM D 1929) **RESULT: Passed** 🗸



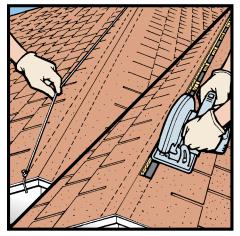
So, why choose Revolution? It's a Better Ridge Vent, with More Features, at a Lower Price!

** In-house airflow testing was done using the Energy Conservatory Minneapolis Duct Blaster (Series B) fan assembly, in conjunction with the Minneapolis pressure and fan flow gauge (Digital Manometer Model DG-3). Pressure utilized was 5 pascals (pa) to simulate low wind/air movement on a typical day.

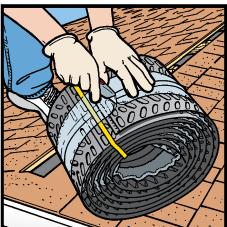
© 2013 COR-A-VENT, Inc.

Revolution Sales Sheet 12/14

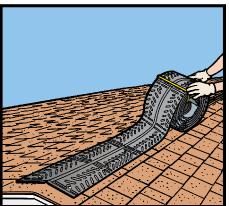
Revolution Installation Instructions



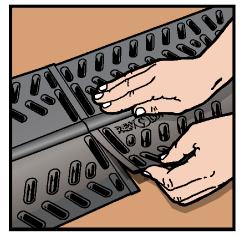
1. Measure a 3" slot, 1½" each side of ridge centerline. This allows for a 2x ridge board or smaller. Snap chalk lines the entire length of the ridge. Cut slot with circular saw and clean out debris. Set saw depth so as not to cut roof rafters. Stop slot 12" short of any ridge end, intersecting ridge or obstruction (such as a chimney).



2. Cut clear band around roll, leaving colored band to hold all but the starter section together. Vent installs with legs down and flat cap on top.



3. Beginning at end of ridge, apply vent with minimum 1¾" nails (2 coils provided in box) following "NAIL HERE" guides along vent cap. Only apply nails within the area between leg cavities – DO NOT apply nails outside of "NAIL HERE" guide marks. Vent may be power nailed or hand nailed. Do not overdrive nails. Apply first four nails (two on each side), then remove colored band to unroll rest of vent. Continue to apply according to marked guides.



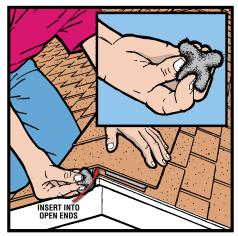
4. For runs longer than 20 feet, additional vent rolls can be applied. Line up end of additional vent roll with previous roll by overlapping at offset lip. **Follow Step 3** to apply rest of vent.



5. For shorter runs of vent, trim areas provided every 12". Cut with utility knife, snips or saw, taking care to follow recognized manufacturers' safety procedures for each.



6. Center shingle cap on vent and nail along "NAIL HERE" guideline. Continue applying caps until all vent is covered with ridge caps. Do not overdrive nails. Nail head should be flush with top of shingle, without indenting it. Pre-forming caps in cold weather helps avoid cracking.



7. To close off ends of vent, fold over a section of End Plug material (2 per ctn.) and pinch together (see inset). Insert End Plug material between vent legs. Once seated properly, seal in place with flexible caulk.

Be careful not to touch knife blade. Always cut in a direction away from yourself. Wear proper hand and eye protection.

12 Square inches Net Free Vent Area per lineal foot. 20' long x 9" or 11" wide x 5/8" thick.

For use on roof pitches 3/12 - 16/12.

Call our technical department for any special application questions.

Important notes: COR-A-VENT ridge vents should always be installed with soffit/eave/intake vents of equal or greater area. All other vent openings (except soffits) should be closed off. The air passage way or "Ventilation Chute" between the inlet (soffit/eave/intake) and the outlet (ridge) vent must not be blocked or restricted.

COR-A-VENT products meet or exceed all nationally recognized building codes for ventilation.



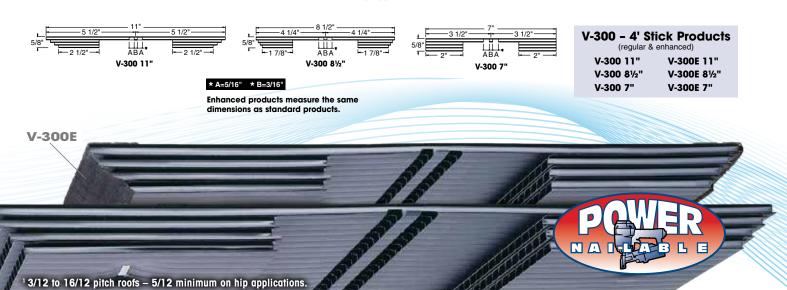
COR-A-VENT, Inc. • P.O. Box 428 • Mishawaka, IN 46546-0428 Phone: (800) 837-8368 • Fax: (800) 645-6162 info@cor-a-vent.com • www.cor-a-vent.com

V-300° Covers all the Angles COR VENT INCORPORATED

- Low-Profile 5/8" Ridge Vent
 Great Value -V-300 is a Best-Seller!
- Easy-to-apply 4-foot sections Power Nailable
- Perfect for use on hips roofs & cathedral ceilings
- Works on steep-pitch roofsup to 16/12¹

Freedom...in architectural design calls for flexibility and Cor-A-Vent's V-300[®] ridge vents deliver the unique flexibility to adapt to just about any roof design – whether on new construction or when re-roofing. V-300 is low profile (⁵/₈[#] high) and recommended for hard to ventilate roofs, such as cathedral ceiling and hip roofs. V-300 ridge vents are available in 11[#], 8¹/₂[#] and 7[#] widths and work great with 3-tab or architectural shingles as well as cedar shake, slate, flat tile and metal roofs.

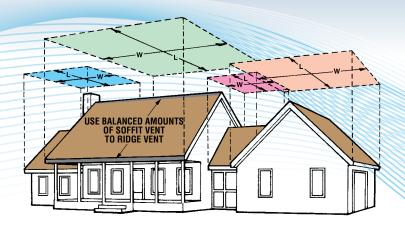
Protection... is what COR-A-VENT offers with our enhanced V-300E snow screen to keep out wind-driven precipitation. The highly breathable filter will allow hot, moist air out, but won't let weather into the attic – recommended for hip applications.



Balanced ventilation-The right proportion of venting

Cor-A-Vent[®] has promoted and taught **balanced ventilation** from the day we started. It's a concept all vent manufacturers readily endorse. Unfortunately, that information doesn't always end up in the hands of the person designing the building or installing the vents. Balanced venting helps ensure the performance you expect from ridge venting – uniform, increased airflow through the roof cavity without weather infiltration.

Balanced Venting: An equal or greater amount of vent opening (square inches net free vent area/NFVA) in the soffit (intake) than at the ridge. For example, our V-300 products have 13.5 square inches NFVA per lineal foot. To balance this, you need 2 soffit/ eave/intake vents of at least 6.75 square inches per lineal foot.



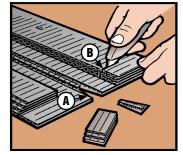
Balanced Venting: Continuous soffit vents are recommended, especially for venting cathedral ceilings. Wherever there is ridge vent above, there should be soffit/eave/intake vents on the structure below.

Also, COR-A-VENT **strongly recommends** using one of our V-300 products (available in 11", $8\frac{1}{2}$ " or 7" widths) on cathedral ceiling and hip roof applications. V-300 delivers 13.5 square inches NFVA. Because the volume of space to be vented in cathedrals is smaller, a lower profile ($\frac{5}{8}$) vent is needed to further reduce the chance for infiltration. When installing a ridge vent system, all other vent openings (except soffits) must be closed off.

If architectural shingles, shakes or roofing with an irregular surface is used, apply a bead of caulk to roof deck before installing vent. This will seal any gaps that could allow weather penetration under the vent.



1. Measure a 3" slot, 1½" each side of ridge centerline. This allows for a 2x ridge board or smaller. Snap chalk lines the entire length of the ridge. Cut slot with a circular saw and clean out debris. Set saw depth so as not to cut roof rafters. Stop the slot 12" short of any ridge end, intersecting ridge or obstruction (such as a chimney).



2. Use a utility knife to cut out a "V" shaped notch from the centerline approximately 1%" in from edge and remove loose material (A). Cut through the bottom 3 layers of the vent as pictured (B) (located approx. 1%" from & parallel to the end). Remove loose pieces. Be careful not to cut into top layer.

For the best appearance, install V-300 products continuously the entire length of the ridge.

Figuring Your Ventilation Needs:

V-300 has 13.5 square inches NFVA/lineal foot

V-300: Square footage of building footprint x .48 = Lineal Feet 13.5 V-300 needed

Example: 24' x 70' = 1,680 Square Feet 1,680 x .48 = 806 806 ÷ 13.5 = 60 Lineal Feet V-300 needed

The above formulas will give the amount of COR-A-VENT ridge vent needed for a 1/150 vent ratio, provided an equal or greater amount of soffit venting is used. For a 1/300 ratio, (building code minimum) use half the amount of ridge vent.

Note: Code interpretation may vary. Consult your local building dept.

Note: Should you need any assistance in designing your ventilation system, fax or mail a sketch and information to our technical services department. COR-A-VENT will respond with recommendations for your particular building design.

Our website contains a complete listing of application details in .PDF and .DWG formats for viewing or downloading, or call our technical staff at **800-837-8368**.

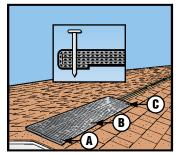


COR-A-VENT, Inc. • P.O. Box 428 • Mishawaka, IN 46546-0428 Phone: (800) 837-8368 • Fax: (800) 645-6162 info@cor-a-vent.com • www.cor-a-vent.com

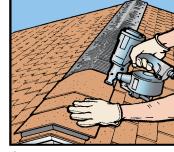
COR-A-VENT[®] products meet or exceed all nationally recognized building codes for ventilation. COR-A-VENT products are covered under the following patents: 5,054,254; 5,339,582; 5,439,417 5,542,882; 5,603,657; 5,704,834; 5,921,863; 6,039,646; 6,213,868; 6,558,251B2; 6,589,113; D465,839 — additional patents pending.

© 2017 COR-A-VENT, Inc.

01/17 V-300Flier



3. Fold flap under and secure with a 2" roofing nail. This allows the nail to penetrate an extra layer of vent material (inset). Align starter end ½" in from edge of roof, and centered on ridge. Be sure to caulk between bottom edge of vent and roof. Nail the starter section at points A, B & C, 2" up from edge.



4. Continue to tack nail both sides of entire length of vent. Use nail pattern shown in step 3. Center shingle cap on vent and nail. Continue nailing until all vent is covered with ridge caps. Be careful not to overdrive nail. Nail head should be flush with top of shingle, without indenting it. Pre-forming caps in cold weather helps avoid cracking.

V-600E 6-PLY

Protect your New or Re-Roof Investment by installing Cor-A-Vent[®] Ridge & Soffit vents.

V-600[®]E Ridge Vent – superior exhaust ventilation

- NEW V-600[®]E with Enhanced Snow Screen: Exterior weather protection that **stops rain and snow before it can enter**
- Certified 20 sq. inches NFVA* per ft. best in the industry
- Easy to handle 4' sections 12 pieces per bundle (48 linear ft.)
- 2¹/₂" roofing nails and end plugs included in each bundle
- Can be applied to hip roofs (V-600E only, on minimum 5/12 pitch)
- Creates a well-defined ridge on pitches from 3/12 to 16/12
- Available in 11" or 8.5" widths
- No baffles to clog with debris, like leaves or pine needles
- Proven design 40+ years of on-the-roof performance

S-400 Strip Vent – superior intake ventilation

- Certified 10 sq. inches NFVA per ft. best in the industry
- Use in all eaves/overhangs to perfectly balance V-600E
- Three colors available black, white & tan
- Lifetime warranty

The Industry's BEST Airflow + Weather Protection Cor-A-Vent[®] V-600E

> • Stainless Steel option available for coastal installations *Net Free Vent Area



S-400

COR-A-VENT® S-400 Soffit/Eave Vents

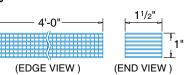
Simple Solutions for all Your Eave Venting Details. The science of a good ridge and soffit vent system depends upon the equalization or "balance" of its two components - the soffit/eave (intake) air and the ridge (exhaust) air. This principle of good venting practice works well with most traditional roof designs.

However, many contemporary house and roof designs are limited in how well they can be naturally ventilated. This is a result of restriction in the amount of, or placement of critical intake ventilation. In the interest of modern architecture and good ventilation practices, COR-A-VENT[®] has developed various unique soffit venting applications using our S-400 Strip Vent.

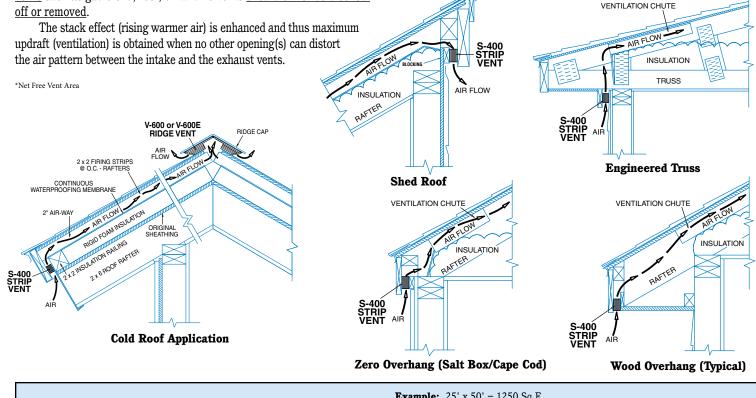
All ridge vents, work best with soffit/eave (intake) vents. For the top performance, place the intake vents low on the structure, typically at the overhangs.

With new construction or when re-roofing, all other attic exhaust vents such as gable-end, roof, or turbine vents should either be blocked

- There really are as many ways to install S-400 Strip Vent as there are eave construction details
- $1'' \ge 1^{1/2}'' \ge 4'$ cross section gives you maximum soffit/eave ventilation in a minimum space
- 10 sq. in. NFVA* per lineal foot
- S-400 fits narrow spaces where other vents can't, like zero overhangs



- The durable 4' Polypropylene (PP) sections are available in black, white or tan, 24 - 4' pieces (96 l.f.) per carton
- Self-cleaning vertical flute orientation doesn't show the dirt
- Crush resistant so you can install with a power nail gun
- Pair up S-400 with any of COR-A-VENT's ridge vent products for an unbeatable system
- Can be installed in multiple layers for additional ventilation



Figuring Your Ventilation Needs:

Example: 25' x 50' = 1250 Sq.F. 1250 x .48 = 600 600 ÷ 20 = 30 L.F. V-600E needed

V-600E: Square footage of building footprint X .48 = Lineal Feet V-600E needed 20

The above formulas will give the amount of V-600E ridge vent needed for a 1/150 vent ratio, provided an equal or greater amount of soffit venting is used. For a 1/300 ratio, (building code minimum) use half the amount of ridge vent. Note: Code interpretations may vary. Consult your local building dept.

For the best appearance and performance install COR-A-VENT ridge and soffit vents continuously at the ridge and in the soffits.

Maintaining an unrestricted air passageway between the soffit and ridge is crucial to the performance of the vent system, and must not be blocked or restricted. COR-A-VENT recommends a minimum 2" air space between the roof sheathing and vent chute or insulation.

Note: Should you need any assistance in designing your ventilation system, fax or mail a sketch and information to our technical services department. COR-A-VENT will respond with recommendations for your particular building design.

This material may be duplicated only for the purposes of specifying COR-A-VENT products. No permission is given to duplicate or otherwise copy this material for any other purpose without the express written permission of COR-A-VENT, Inc. 01/20/2015



COR-A-VENT, Inc. • P.O. Box 428 • Mishawaka, IN 46546-0428 Phone: (800) 837-8368 • Fax: (800) 645-6162 info@cor-a-vent.com • www.cor-a-vent.com

The Industry's BEST Airflow – Cor-A-Vent[®] V-600

V-600 6-PLY

Protect your New or Re-Roof Investment by installing Cor-A-Vent[®] Ridge & Soffit vents.

V-600 Ridge Vent – superior exhaust ventilation

- Certified 20 sq. inches NFVA* per ft. best in the industry
- Exceeds all national building codes for ventilation
- Easy to handle 4' sections 12 pieces per bundle (48 linear ft.)
- 2¹/₂" roofing nails and end plugs included in each bundle
- Easy to install, cuts with utility knife no waste
- Creates a well-defined ridge on pitches from 3/12 to 16/12
- Available in 11" or 8.5" widths
- No baffles to clog with debris, like leaves or pine needles
- Proven design 40+ years of on-the-roof performance

S-400 Strip Vent – superior intake ventilation

S-400

- Certified 10 sq. inches NFVA per ft. best in the industry
- Use in all eaves/overhangs to perfectly balance V-600
- Three colors available black, white & tan
- Lifetime warranty
- Stainless Steel option available for coastal installations *Net Free Vent Area



COR-A-VENT® S-400 Soffit/Eave Vents

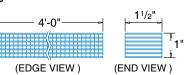
Simple Solutions for all Your Eave Venting Details. The science of a good ridge and soffit vent system depends upon the equalization or "balance" of its two components - the soffit/eave (intake) air and the ridge (exhaust) air. This principle of good venting practice works well with most traditional roof designs.

However, many contemporary house and roof designs are limited in how well they can be naturally ventilated. This is a result of restriction in the amount of, or placement of critical intake ventilation. In the interest of modern architecture and good ventilation practices, COR-A-VENT[®] has developed various unique soffit venting applications using our S-400 Strip Vent.

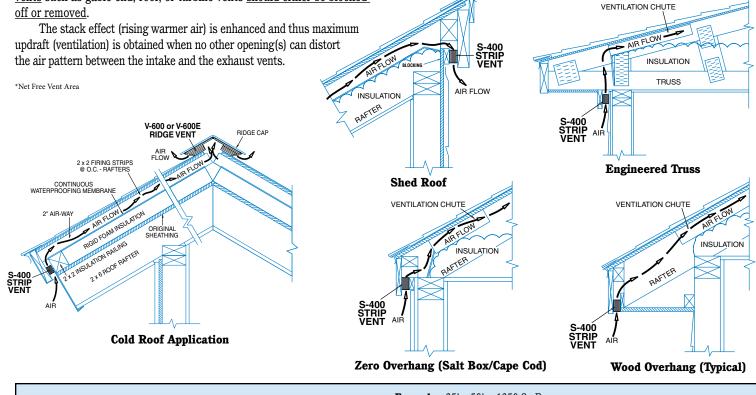
All ridge vents, work best with soffit/eave (intake) vents. For the top performance, place the intake vents low on the structure, typically at the overhangs.

With new construction or when re-roofing, all other attic exhaust vents such as gable-end, roof, or turbine vents should either be blocked

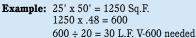
- There really are as many ways to install S-400 Strip Vent as there are eave construction details
- $1'' \ge 1^{1/2}'' \ge 4'$ cross section gives you maximum soffit/eave ventilation in a minimum space
- 10 sq. in. NFVA* per lineal foot
- S-400 fits narrow spaces where other vents can't, like zero overhangs



- The durable 4' Polypropylene (PP) sections are available in black, white or tan, 24 - 4' pieces (96 l.f.) per carton
- Self-cleaning vertical flute orientation doesn't show the dirt
- Crush resistant so you can install with a power nail gun
- Pair up S-400 with any of COR-A-VENT's ridge vent products for an unbeatable system
- Can be installed in multiple layers for additional ventilation



Figuring Your Ventilation Needs:



V-600: Square footage of building footprint X .48 = Lineal Feet V-600 needed 20

The above formulas will give the amount of V-600 ridge vent needed for a 1/150 vent ratio, provided an equal or greater amount of soffit venting is used. For a 1/300 ratio, (building code minimum) use half the amount of ridge vent. Note: Code interpretations may vary. Consult your local building dept.

For the best appearance and performance install COR-A-VENT ridge and soffit vents continuously at the ridge and in the soffits.

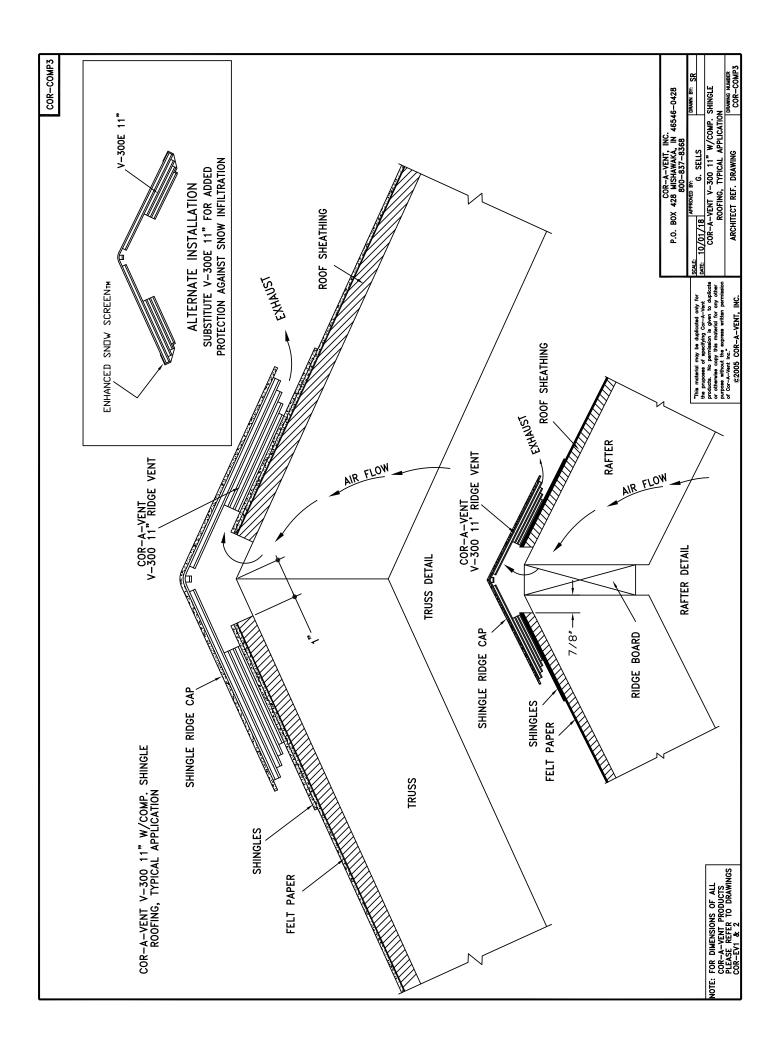
Maintaining an unrestricted air passageway between the soffit and ridge is crucial to the performance of the vent system, and must not be blocked or restricted. COR-A-VENT recommends a minimum 2" air space between the roof sheathing and vent chute or insulation.

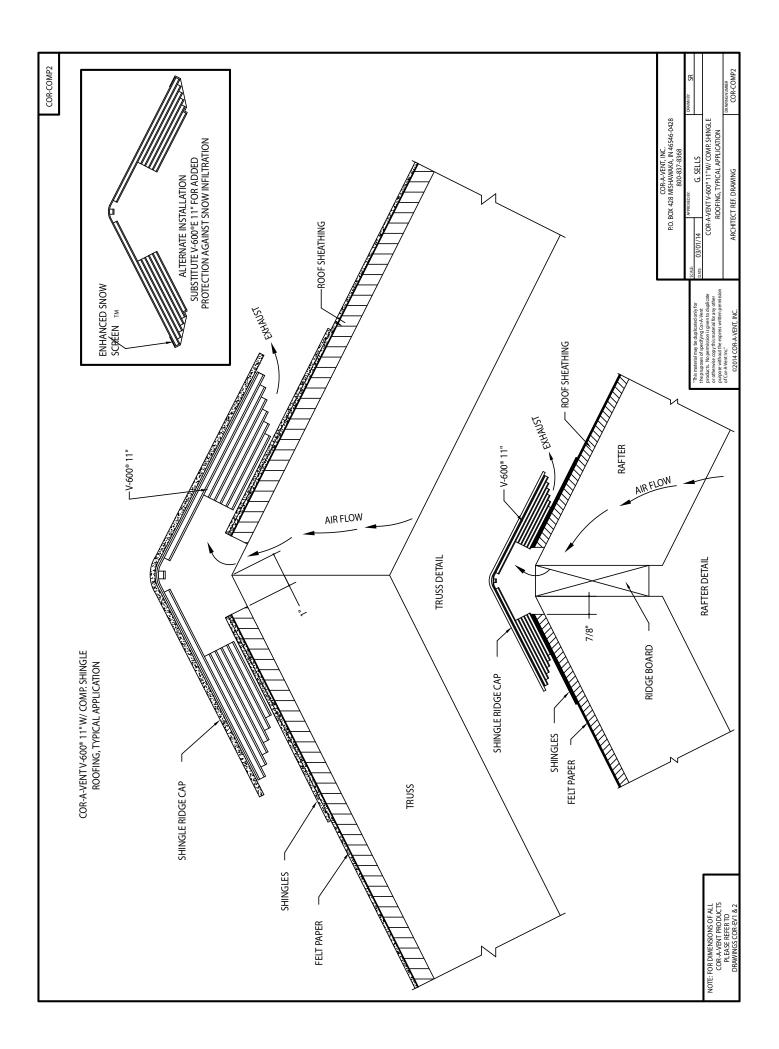
Note: Should you need any assistance in designing your ventilation system, fax or mail a sketch and information to our technical services department. COR-A-VENT will respond with recommendations for your particular building design.

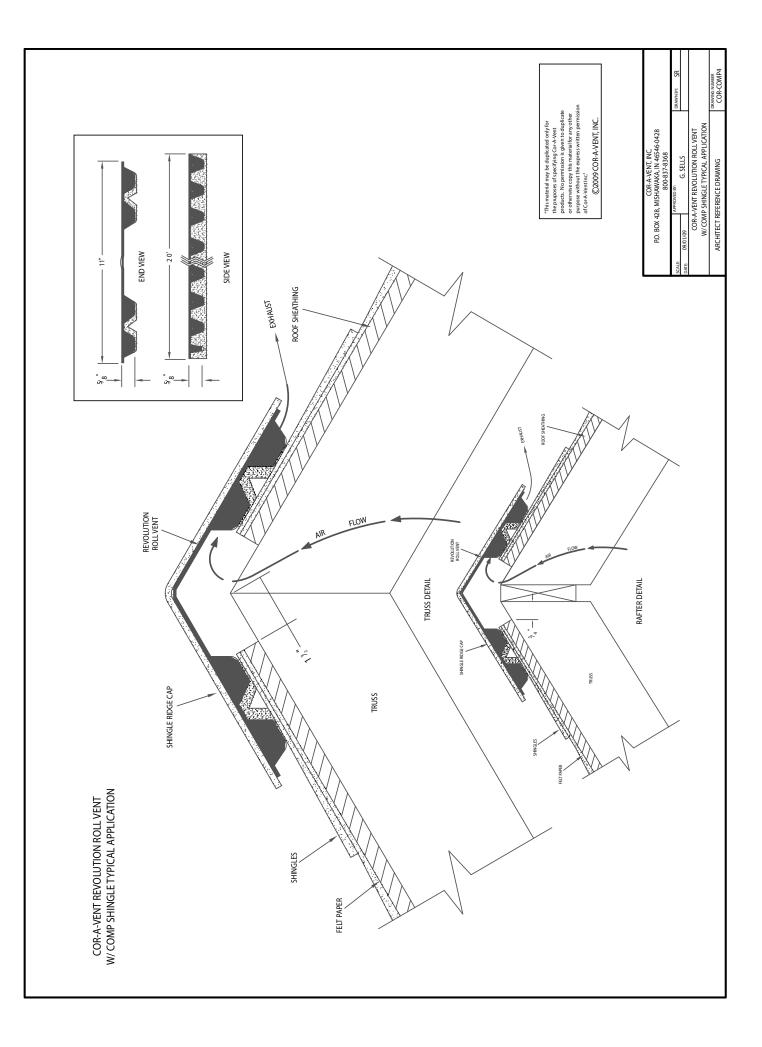
This material may be duplicated only for the purposes of specifying COR-A-VENT products. No permission is given to duplicate or otherwise copy this material for any other purpose without the express written permission of COR-A-VENT, Inc. 01/20/15

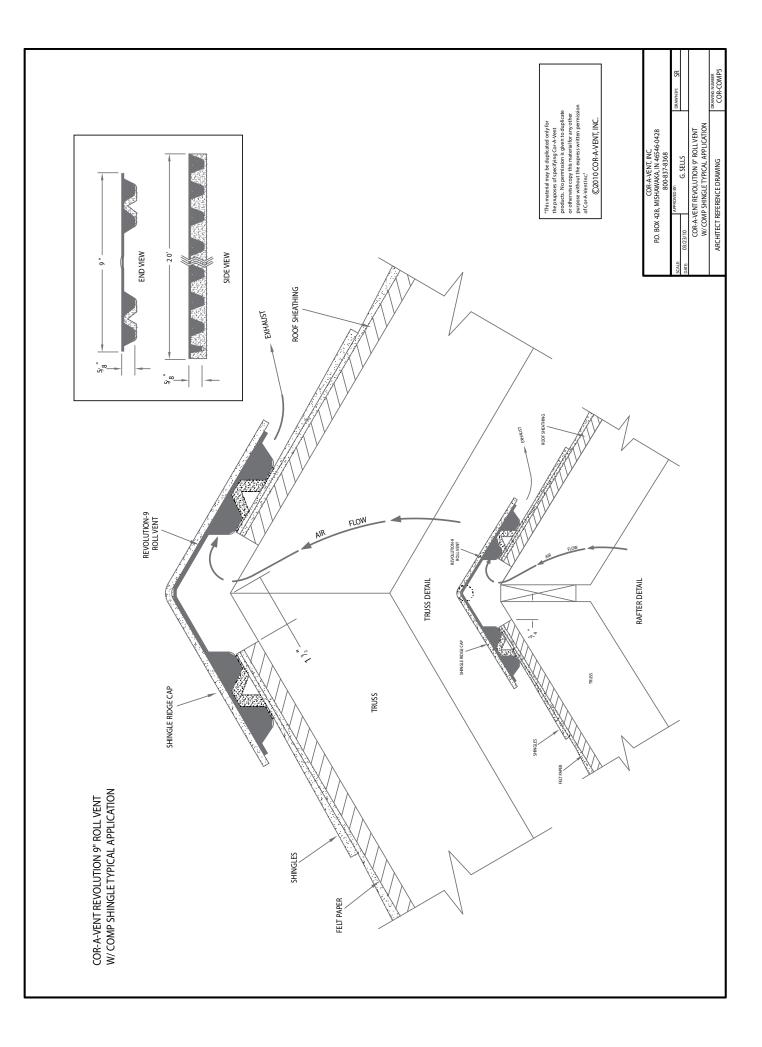


COR-A-VENT, Inc. • P.O. Box 428 • Mishawaka, IN 46546-0428 Phone: (800) 837-8368 • Fax: (800) 645-6162 info@cor-a-vent.com • www.cor-a-vent.com



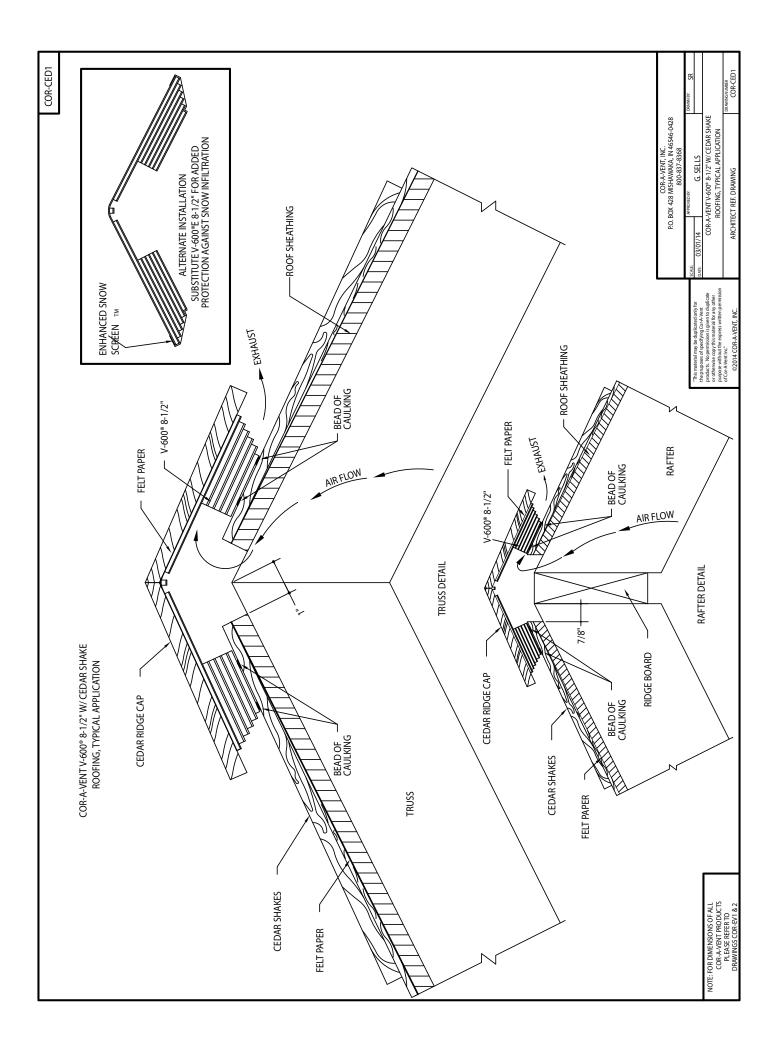


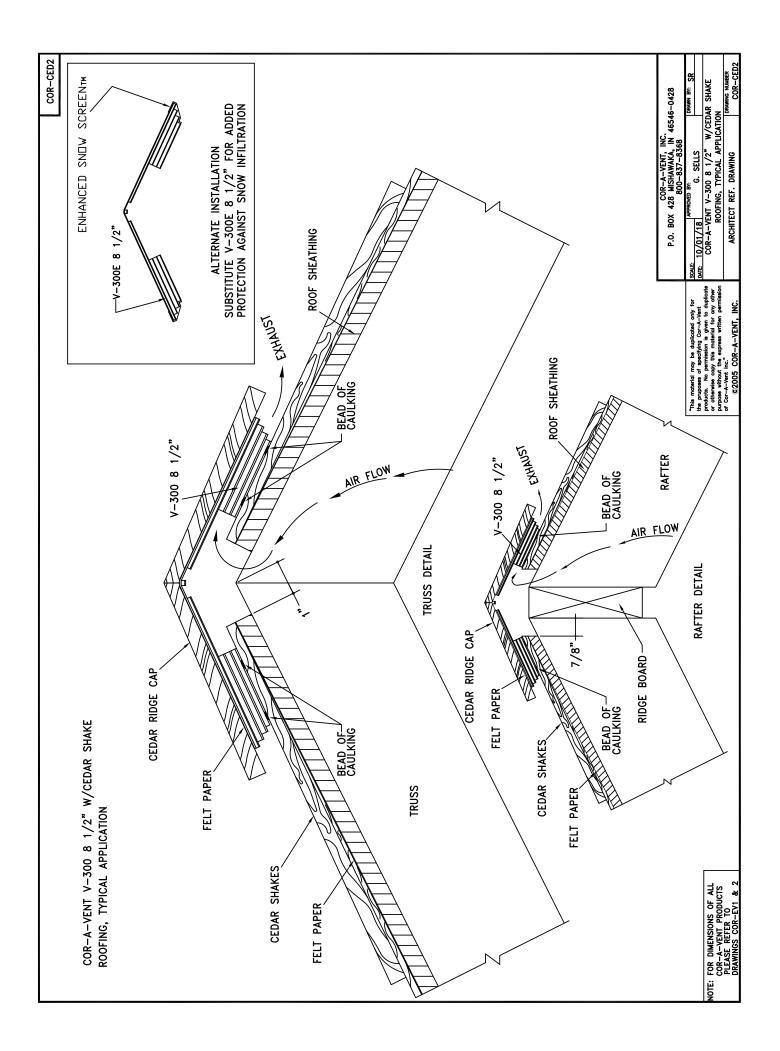


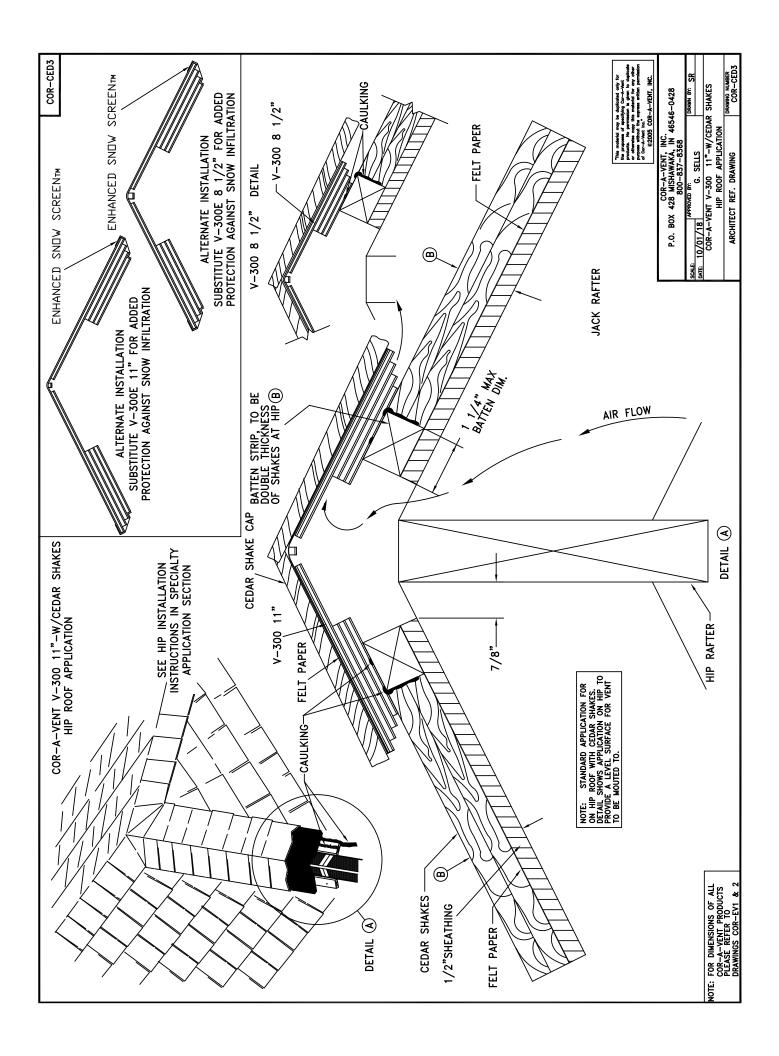


CEDAR APPS

CEDAR APPS

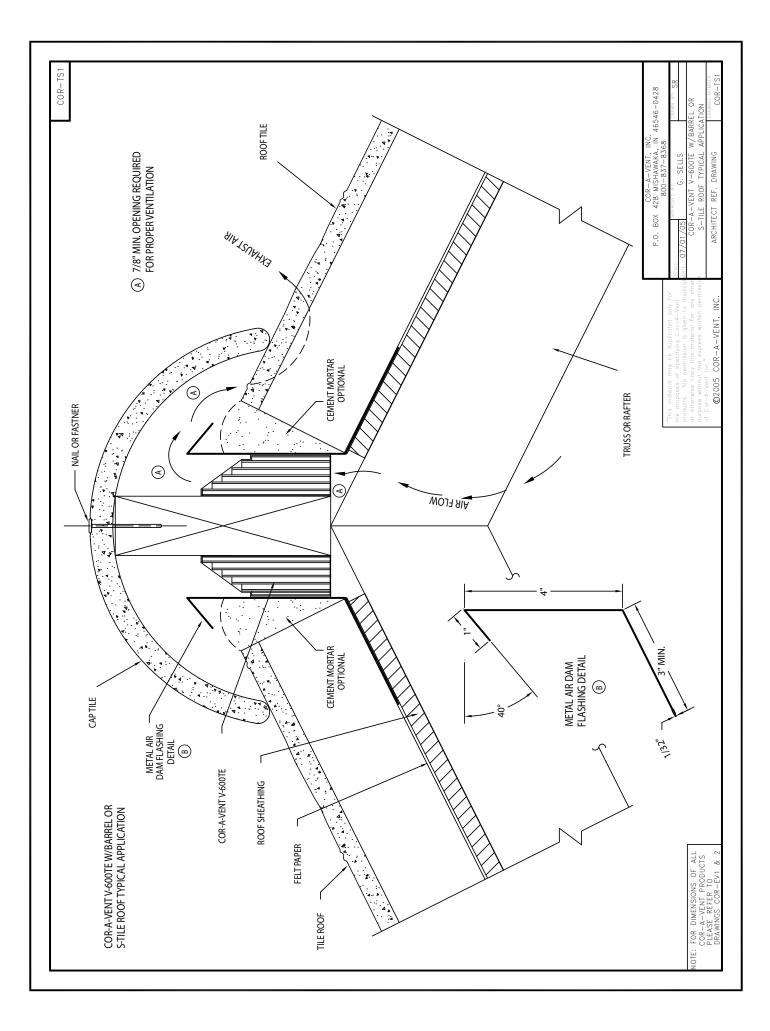


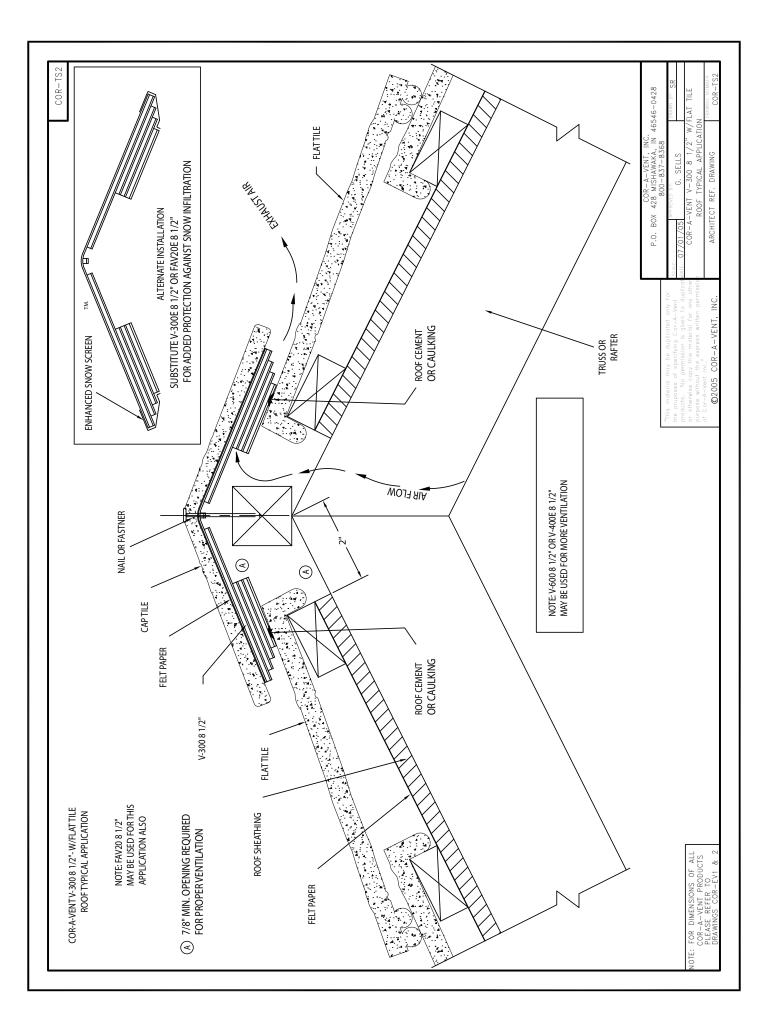


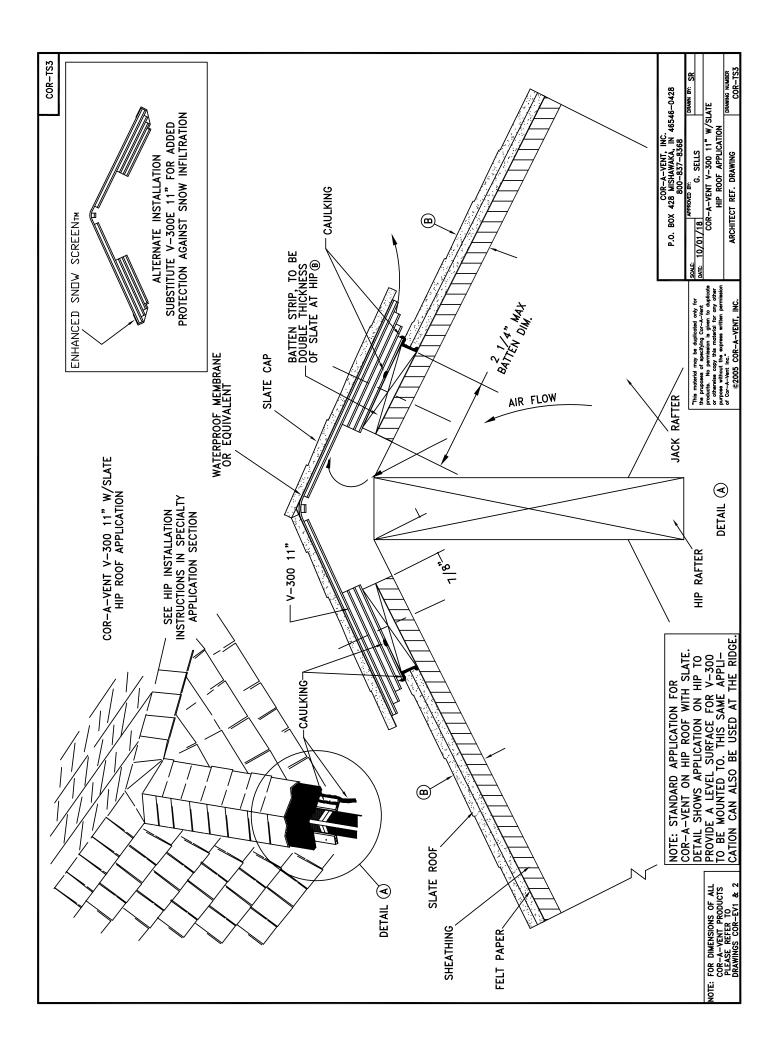


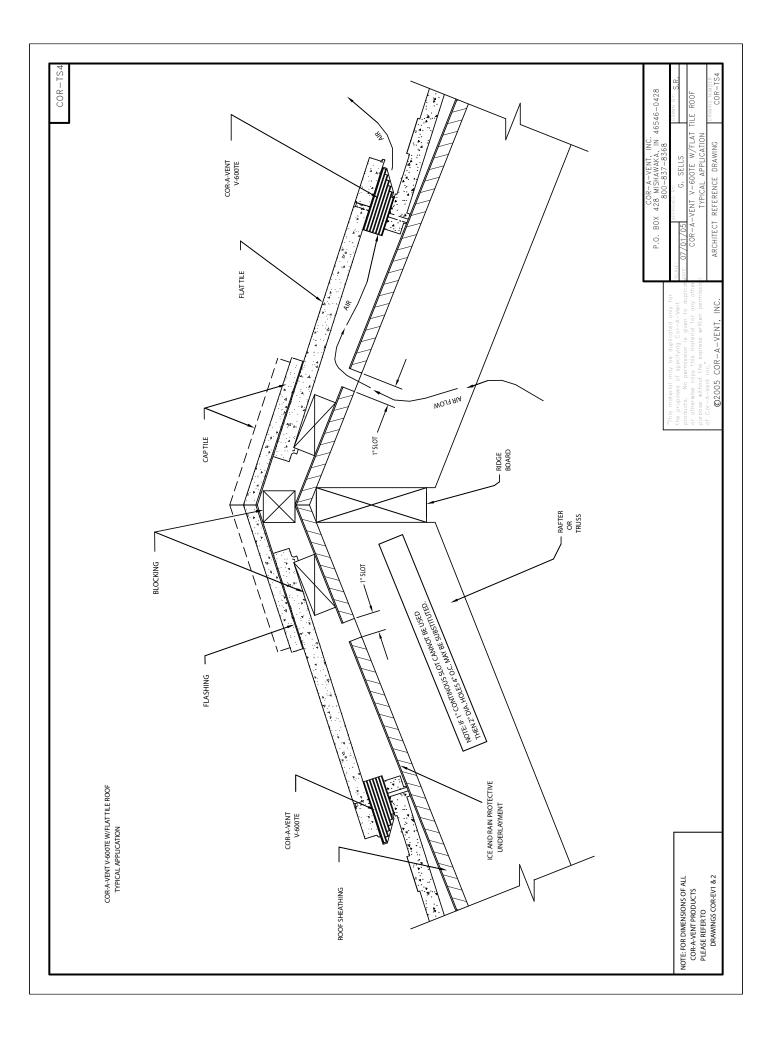
TILE/SLATE APPS

TILE/SLATE APPS



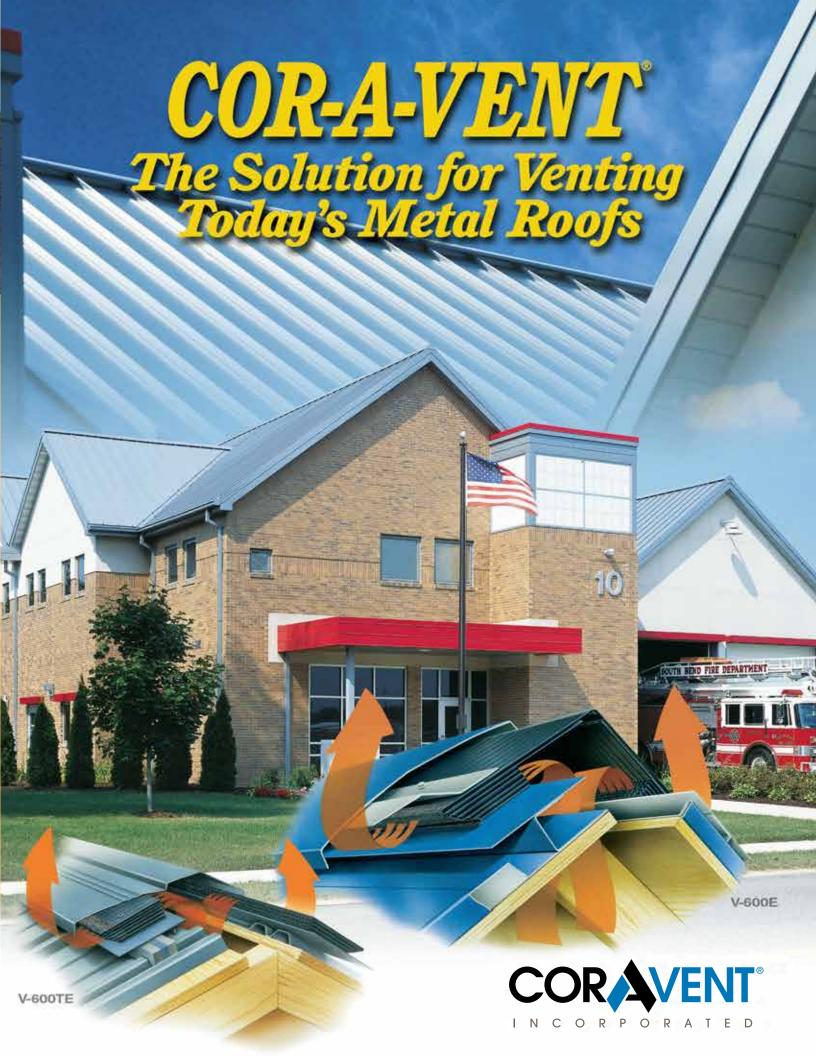






METAL APPS

METAL APPS



Protect the beauty of your metal roofing.

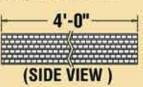


- ventilation removing heat and preventing condensation in your roof cavity.
- . The efficiency of a static ventilation system that is self-cleaning and maintenance-free.
- · Plenty of options for whatever style of metal roofing you choose from standing seam to profile panel to metal shakes.
- · Light weight, easy to install vent that can be screwed down without crushing.
- Long lasting, guality products that are guaranteed for the life of your roof.
- When paired with our Purlin Vent[™] forms a total system for venting both sidewalls and roots. See Purlin Vent details at: cor-a-vent.com



COR-A-VENT products are low profile, from 5/8" to 1" high. and virtually disappear beneath the ridge cap. Made of thermally stable, crush resistant polypropylene (PP) sheets*, our vents don't compress over time, so roofing screw holes don't elongate and leak. COR-A-VENT is easy to install, with a minimum of

waste. A wide, solid base on all our products insures a good seal under the vent. The vent's cross section lets maximum air flow through, while our enhanced vents (V-600TE & V-600E) keep



fine powdered snow out. COR-A-VENT's design also works with any closure and cap system.

We're the leading manufacturer of attractive, tested vent applications for metal roofing. Offer your customer the low profile beauty and performance of continuous ridge venting, on whatever style and color roof they choose. With the growing acceptance of metal for light commercial, residential and institutional roofs, it just makes sense to top off the job with a ventilation system that looks as good as the rest of the roof.

Visit www.cor-a-vent.com and see all the ridge and eave venting details we offer for metal roofing. Our versatility and breadth of applications earns us the title of ... The Leader in Innovative Rooftop Ventilation!"



Standing Seam.

This is becoming the preferred roofing system for builders of low-rise commercial, industrial



and institutional buildings. More than 50% of these types of structures erected in the past several years have standing seam

roofs and more than 1 billion square feet of standing seam metal roofing has been installed. This roof-style is designed to be weather-tight, with a clip-fastened system beneath the steel panels to cut down on roof penetrations. Paired up with **COR-A-VENT** ridge vents, it's a beautiful roof that will last.

Profile.

Also known as "screw down" roofing, this system is durable, lightweight and relatively inexpensive compared to other



types of metal roofing and is installed over and

fastened directly to the decking underneath. Profile panel is widely used with industrial and agricultural structures like garages and utility buildings, or horse and animal barns.

COR-A-VENT is a perfect match for this investment – the one on the roof and everything underneath it.

Metal Shake.

With the look of shingle and the durability of metal, this alternative to typical residential roofing has plenty of options.

Choose from metal shakes that resemble cedar wood or tile, or stone-coated products that resemble asphalt



shingles, like the inset photo of stone-coated shingles from **COR-A-VENT** customer Gerard Roofing Technologies.

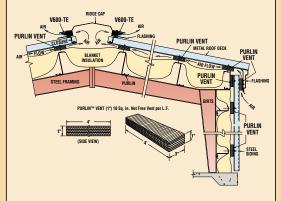
COR-A-VENT comes in a variety of widths to match the cap sizes of today's popular metal shake roofs.

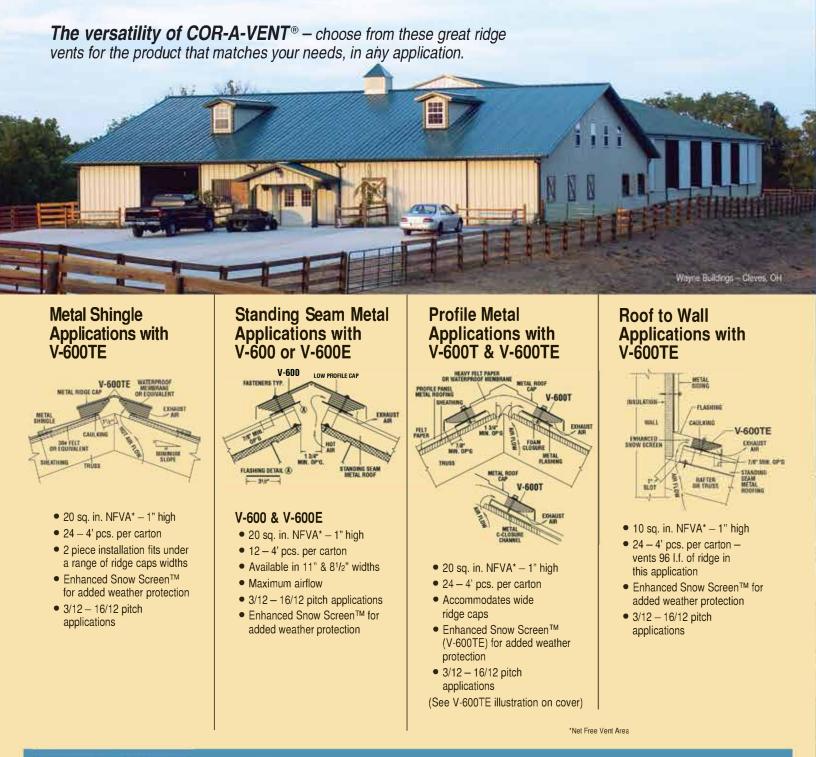
*Crush test results of 7,653 PSF (#'S per square foot) per RADCO Test Report RAD-2376

Purlin Vent.

- Use Purlin Vent under the roof and behind the sidewall to vent the total building envelope.
- Fluted 1" cross section provides maximum airflow in minimum space.
- Works as a thermal break between roofing/purlin and siding/girt to reduce heat/cold conduction.
- Purlin Vent provides a "drain path" for any rain or moisture that penetrates the sidewall.
- Use with any of COR-A-VENT's metal ridge and eave vent applications for a complete system (V600-TE shown).*
- Use with Roof Hugger™ on metal re-roofs to add insulation and ventilation.
- Made of heat stable, crush resistant polypropylene (PP) sheets.**
- Doesn't compress over time, so roofing

& siding screws holes don't elongate and leak.







Metallic Products Corporation is a leading manufacturer of OEM and aftermarket roof vents for metal applications. They offer a made-to-order 10-ft. finished ridge vent assembly, and COR-A-VENT is the heart of this product. Steel parts match the roof type and color finish, and all paint types and colors are available, including Kynar[®].

For more info. call them at 800-356-7746 or visit www.mpvent.com

Our website contains a complete listing of application details in .PDF and .DWG formats for viewing or downloading, or call our technical staff at 800-837-8368.



COR-A-VENT

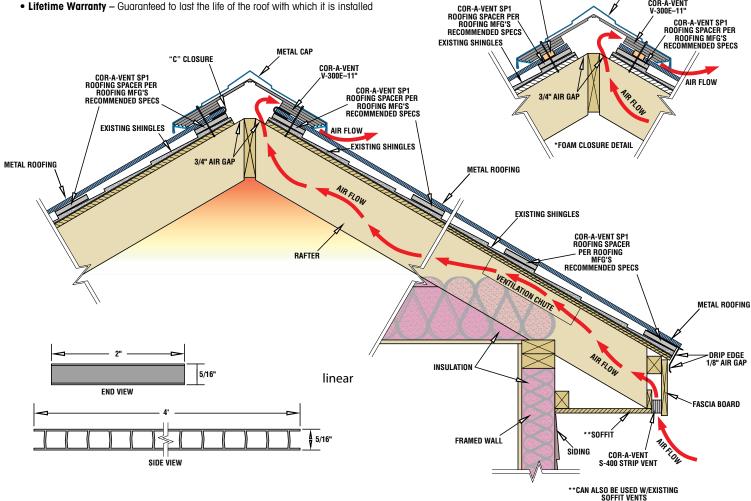
products meet or exceed all nationally recognized building codes for ventilation. COR-A-VENT products are covered under the following patents: 5,054,254; 5,339,582; 5,439,417 5,542,882; 5,603,657; 5,704,834; 5,921,863; 6,039,646; 6,213,868; 6,558,251B2; 6,589,113; D465,839 — additional patents pending.

COR-A-VENT, Inc. • P.O. Box 428 • Mishawaka, IN 46546-0428 Phone: (800) 837-8368 • Fax: (800) 645-6162 info@cor-a-vent.com • www.cor-a-vent.com

Introducing the new Sturdi-Spacer[™] – a heavy-duty, breathable spacer strip for retro-fitting new metal roofing over existing shingle roofs.

STURDI-SPACER[™] KEY FEATURES:

- Breathable Spacer Over 3" N.F.V.A. per foot to provide airflow & moisture drainage between roofs
- Intake Booster Provides additional intake ventilation to enhance ridge/exhaust vent performance
- Power-Screwable & Nailable Heavy-duty 5/16" (8mm) thick PP material won't crush or compress
- Easy-to-Handle 4-foot long strips are more convenient to transport and handle on the roof
- Lifetime Warranty Guaranteed to last the life of the roof with which it is installed



Sturdi-Spacer installs in continuous rows, 2-feet on-center up the roof, just like wood batten strips. The difference, though, is the airflow - Sturdi-Spacer allows over 3 square inches of Net Free Vent Area/linear foot to create a breathable batten system between the two roofs, allowing trapped moisture to drain away and fresh air to pass through. Create a minimum 1/8" air gap at the bottom of the roof behind the drip edge, and Sturdi-Spacer will also provide an extra boost of intake ventilation from the eave to the ridge, enhancing the performance of ridge/exhaust ventilation at the top of the newly-installed metal roof.

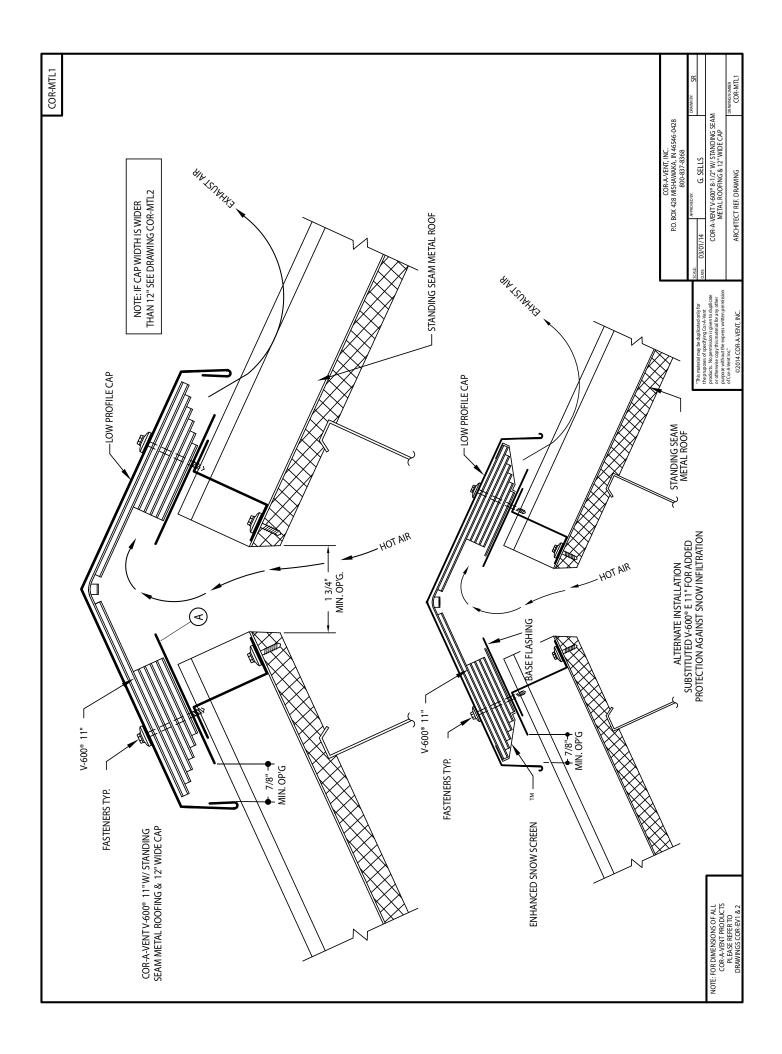
Sturdi-Spacer (product code: SP-1) is made from 5/16" (8mm) thick single-ply Polypropylene plastic and comes in strips that are 2-inches wide by 4-feet long. They are power-nailable and power-screwable, and will not compress like other commercial spacer products on the market. Metal panels or hidden clip systems can be applied directly to the Sturdi-Spacer for easy installation.

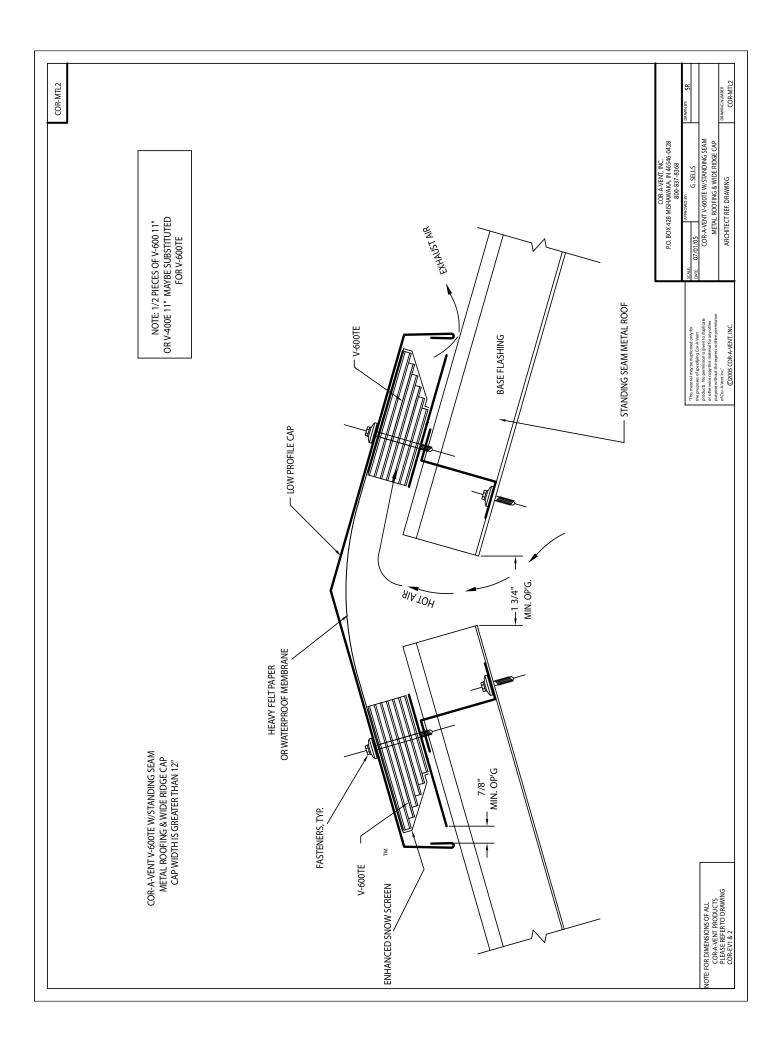
METAL CAP

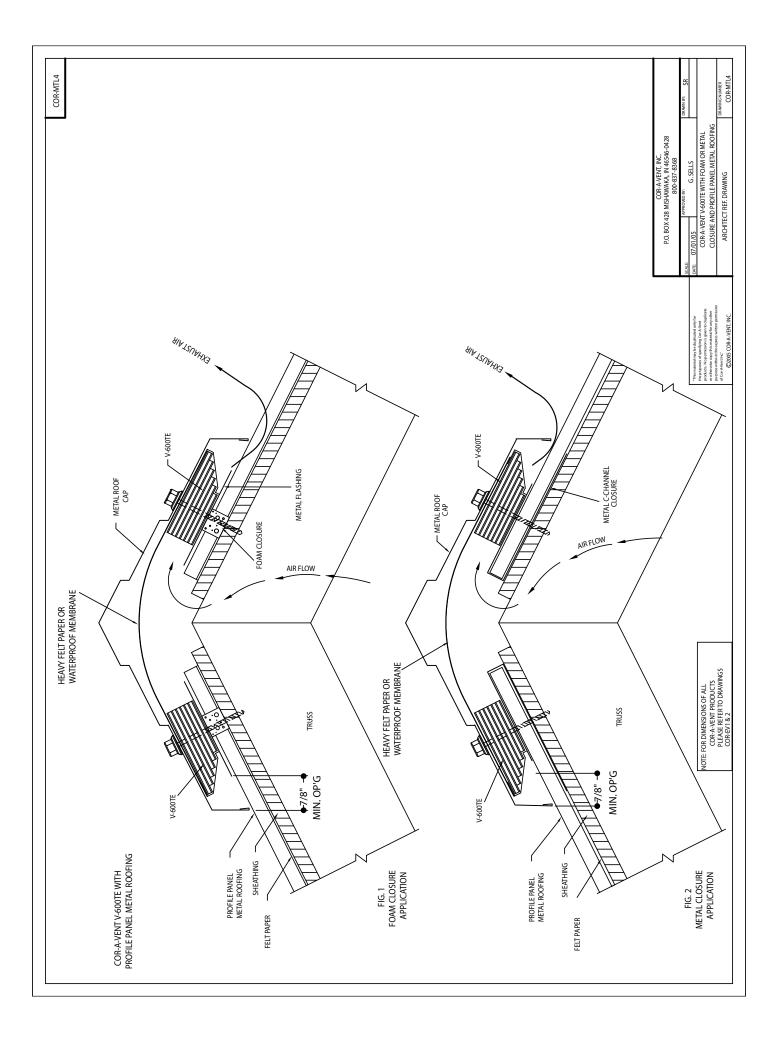
COR-A-VENT

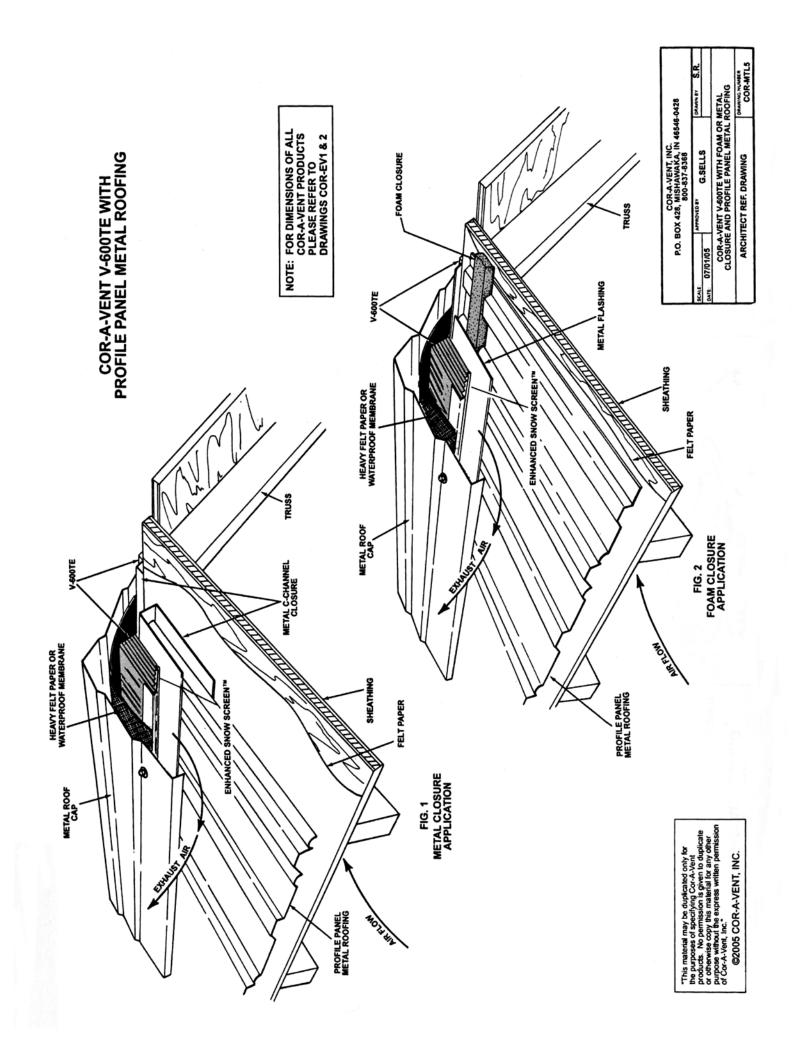
*FOAM CLOSURI

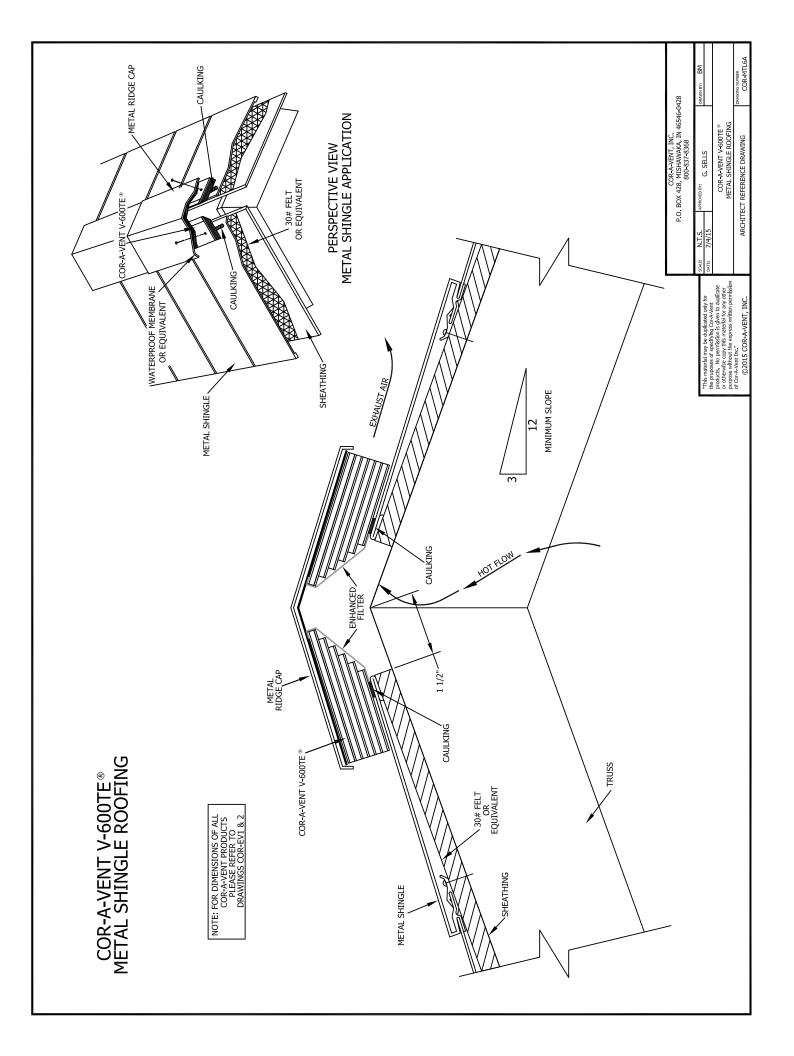
COR-A-VENT, Inc. • P.O. Box 428 • Mishawaka, IN 46546-0428 Phone: (800) 837-8368 • Fax: (800) 645-6162 info@cor-a-vent.com • www.cor-a-vent.com

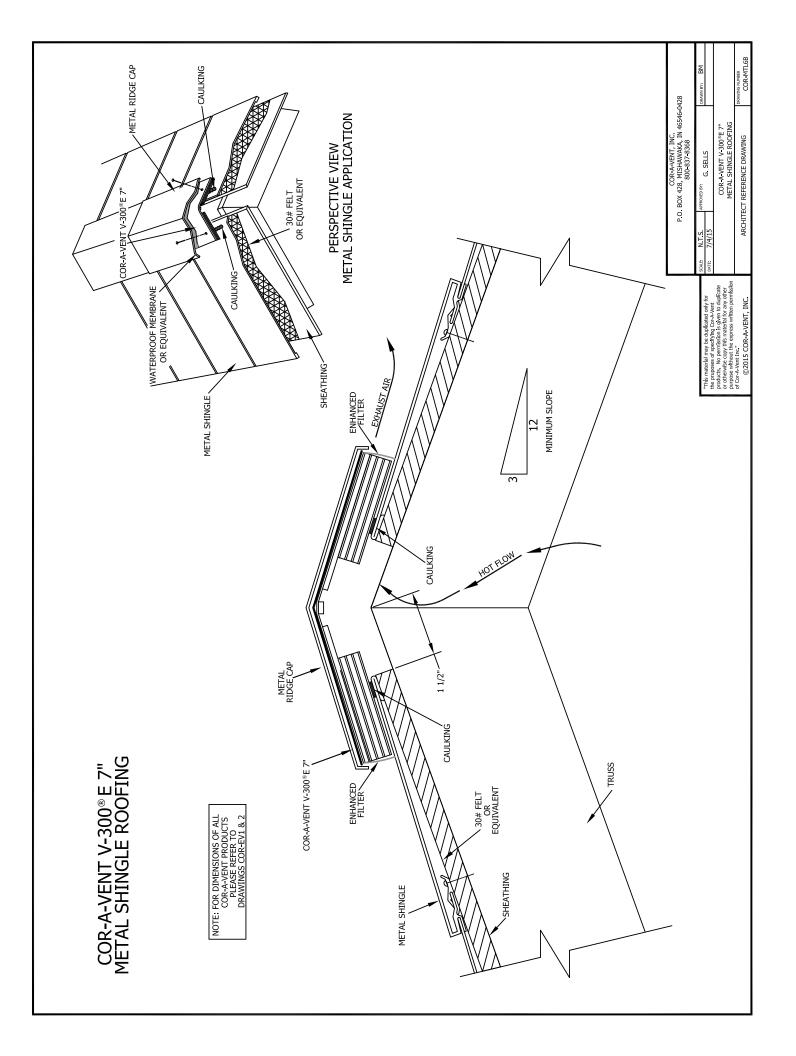


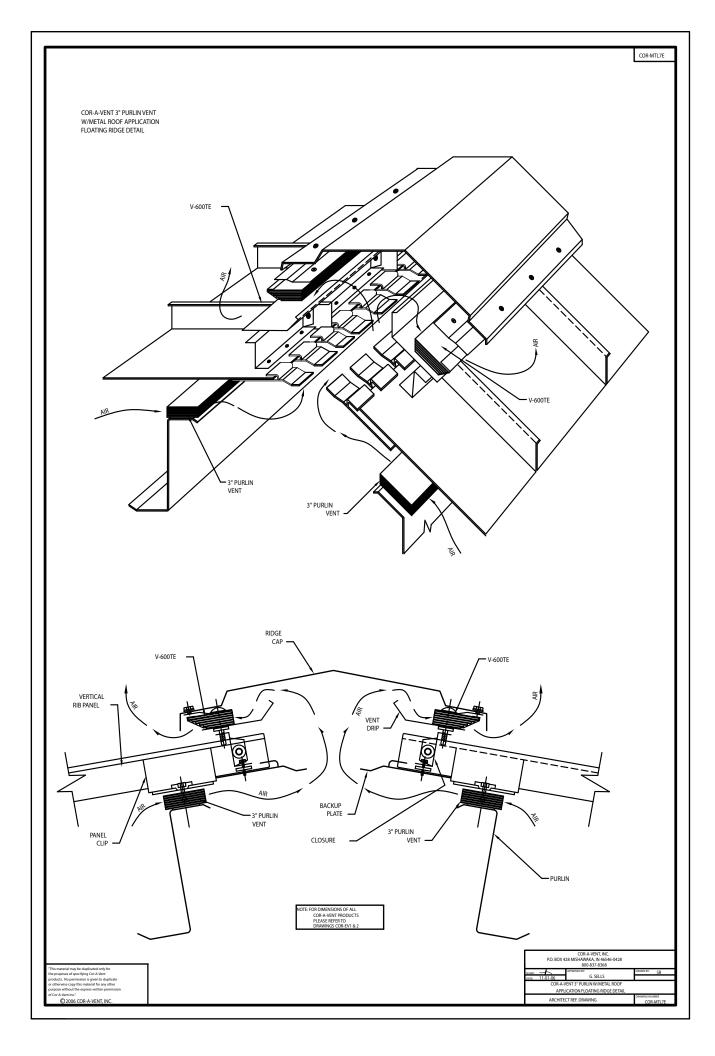


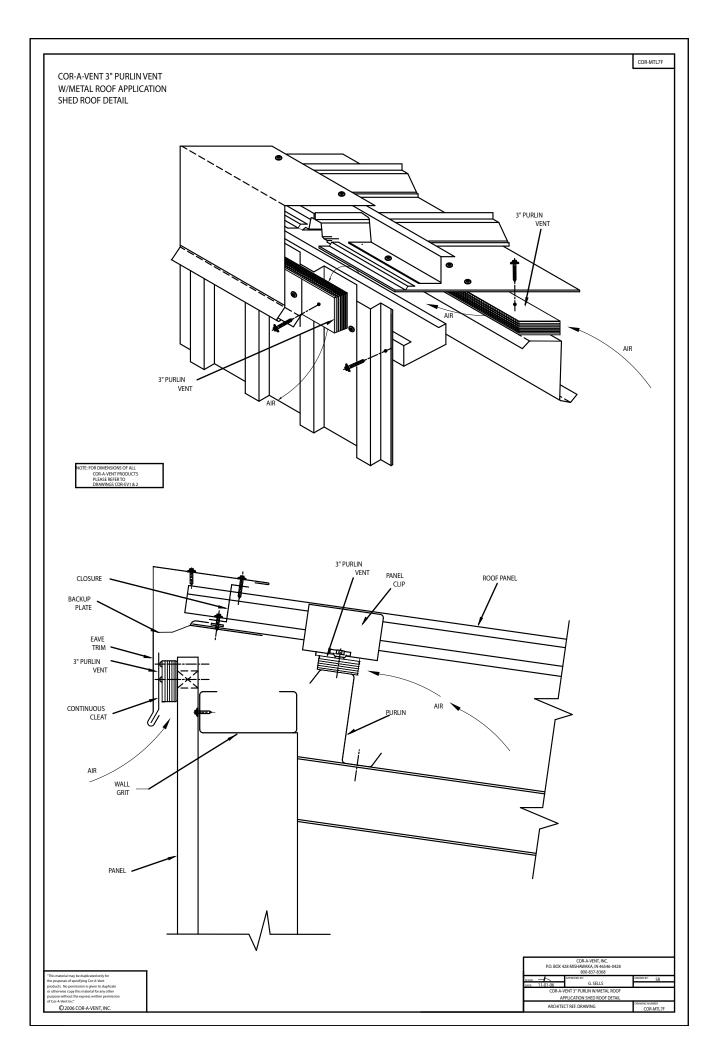


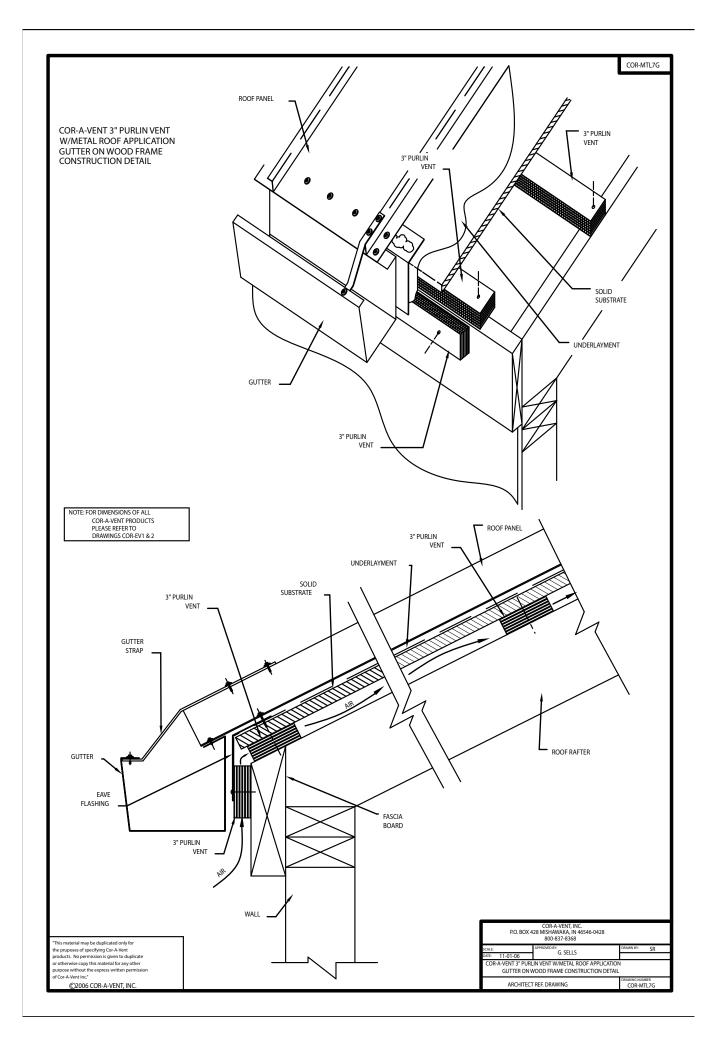


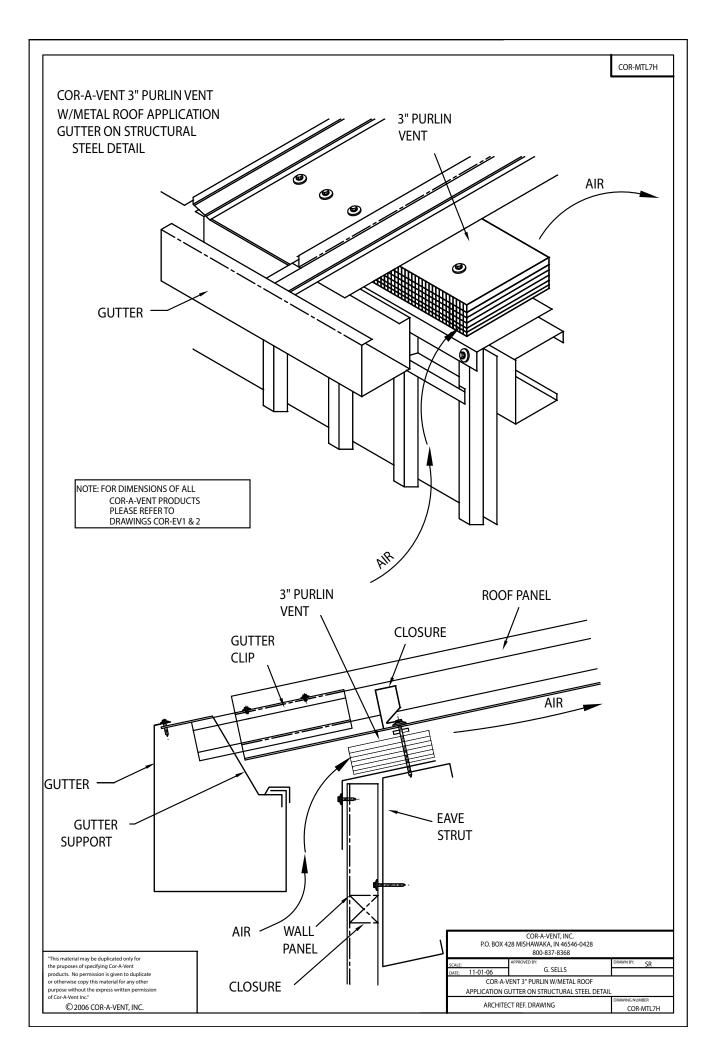


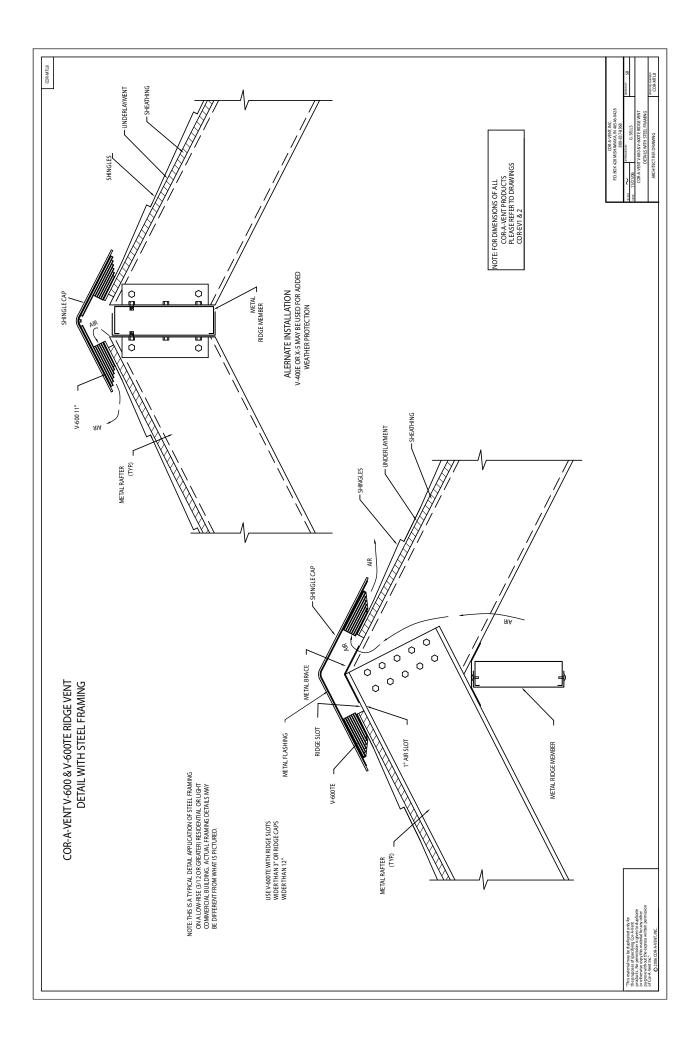


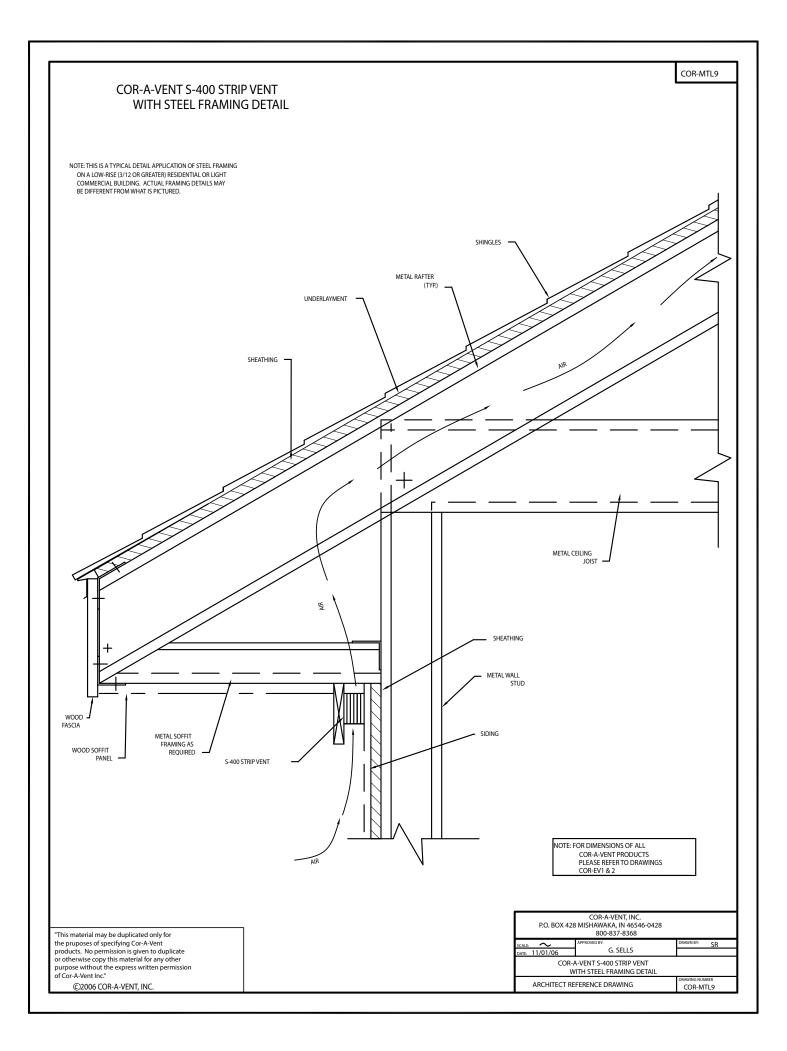


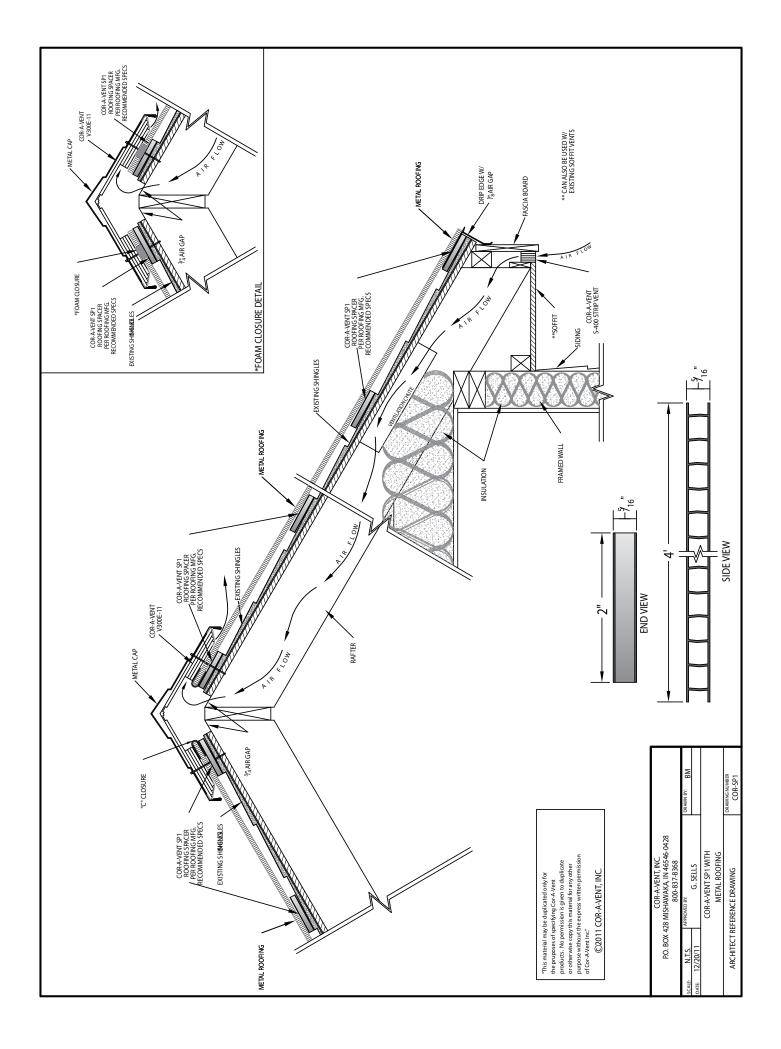












SOFFIT APPS

SOFFIT APPS



HOT/MOIST ATTIC EXHAUST AIR

0

V-600E

S-400 Strip Vent: The original, continuous soffit venting solution is still the best choice for venting overhangs and eaves – and once architects find out about it, they spec it on every job! With 10 sq. inches NFVA per foot, S-400 provides superior intake ventilation for any detail – from zero overhang to open rafter tails.

> S-400 STRIP VENT COOL EXTERIOR AIR





Simple Solutions for all Your Eave Venting Details

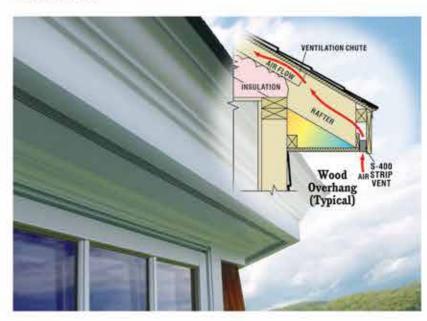
The science of a good ridge and soffit vent system depends upon the equalization or "balance" of its two components – the soffit/eave (intake) air and the ridge (exhaust) air. This principle of good venting practice works well with most traditional roof designs.

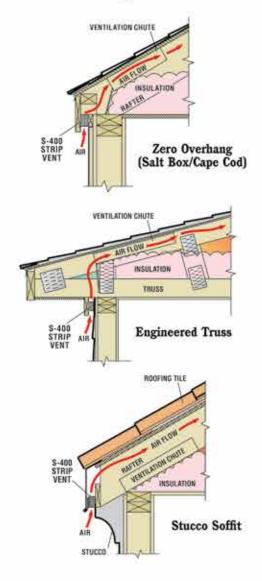
<u>However</u>, many contemporary house and roof designs are limited in how well they can be naturally ventilated. This is a result of restriction in the amount of, or placement of critical intake ventilation. In the interest of modern architecture and good ventilation practices, COR-A-VENT has developed various unique soffit venting applications using our S-400 Strip Vent.

<u>All ridge vents</u>, work best with soffit/eave (intake) vents. For top performance, place the intake vents low on the structure, typically at the overhangs.

With new construction or when re-roofing, <u>all other attic exhaust vents</u> such as gable-end, roof, or turbine vents <u>should either be blocked off or removed</u>.

The stack effect (rising warmer air) is enhanced and thus maximum updraft (ventilation) is obtained when no other opening(s) can distort the air pattern between the intake and the exhaust vents.





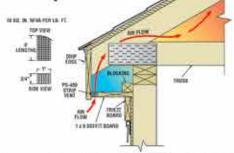




• There really are as many ways to install S-400 Strip Vent as there are eave construction details

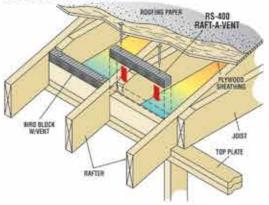
- 1" x 1¹/2" x 4' cross section gives you maximum soffit/eave ventilation in a minimum space
- 10 sq. in. NFVA per lineal foot
- S-400 fits narrow spaces where other vents can't, like zero overhangs
- The durable 4' PP sections are available in black, white or tan
- Self-cleaning vertical flute orientation doesn't show the dirt
- Crush resistant so you can install with a power nail gun
- Pair up S-400 with any of COR-A-VENT'S ridge vent products for an unbeatable system
- Can be installed in multiple layers for additional ventilation

PS-400 Strip Vent



Another new soffit product from COR-A-VENT is the **PS-400 Strip Vent**, a ³/4" wide continuous strip that's perfect for 1x soffit panels. Like the original **Strip Vent**, **PS-400** is available in either black or white and provides 10 sq. in. Net Free Vent Area per lineal foot. Pre-attach **PS-400** to the 1x for quick installation.

RS-400 Raft-A-Vent



COR-A-VENT S-400TAN Strip Vent w/Overhang Soffit Application

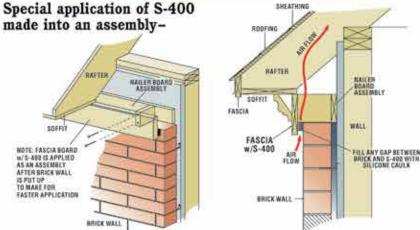
-1-

(END VIEW)

4'-0"

(EDGE VIEW)

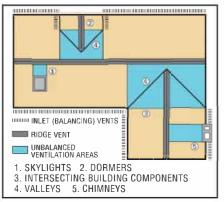




Balanced ventilation – The right proportion of venting.

COR-A-VENT^{\circ} has promoted and taught **balanced ventilation** from the day we started. It's a concept all vent manufactures readily endorse. Unfortunately, that information doesn't always end up in the hands of the person designing the building or installing the vents. Balanced venting helps insure the performance you expect from ridge venting – uniform, increased airflow through the roof cavity <u>without weather infiltration</u>.

Balanced venting: An equal or greater amount of vent opening (sq. in. net



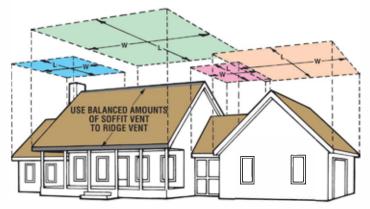
of vent opening (sq. in. net free vent area/NFVA) in the soffit (intake) than at the ridge. For example, our V-300 products have 13.5 sq. in NFVA per lineal foot. To balance this, you need 2 soffit/eave/intake vents of at least 6.75 sq. in. per lineal foot (1/2 of 13.5 in each overhang).

Balanced venting: Continuous soffit vents are recommended, especially for venting cathedral ceilings. Wherever there is ridge

Figuring Your Ventilation Needs:

V-400E: Square footage of building footprint X .48 = Lineal Feet V-600E needed 20 V-300: Square footage of building footprint X .48 = Lineal Feet V-300 needed

13.5



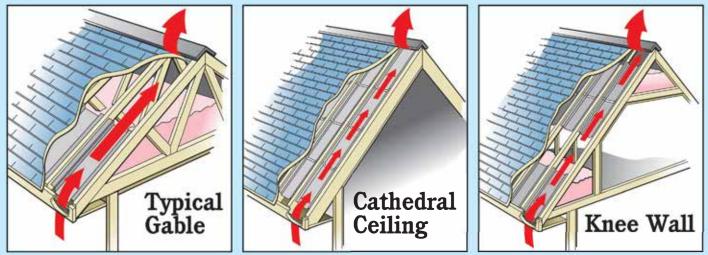
vent above, there should be soffit/eave/intake vents on the structure below. Also, COR-A-VENT **strongly recommends** using of one of our V-300 products (available in 11, 8¹/2 or 7" widths) on cathedral ceiling and hip roof applications. V-300 delivers 13.5 sq. in. net free vent area. The volume of space to be vented in cathedrals is smaller. Therefore a lower profile (5/8") vent is called for to further reduce the chance for infiltration. **When installing a ridge vent system,** <u>all</u> other vent openings (except soffits) must be closed off.

Example: 25' x 50' = 1250 Sq.F. 1250 x .48 = 600 600 ÷ 17 = 35 L.F. V-400E needed

The above formulas will give the amount of COR-A-VENT ridge vent needed for a 1/150 vent ratio, <u>provided an equal or greater amount of soffit venting is used</u>. For a 1/300 ratio, (building code minimum) use half the amount of ridge vent. *Note: Code interpretation may vary. Consult your local building dept.*

For the best appearance and performance install COR-A-VENT ridge and soffit vents continuously at the ridge and in the soffits.

Typical Vent Chute Applications



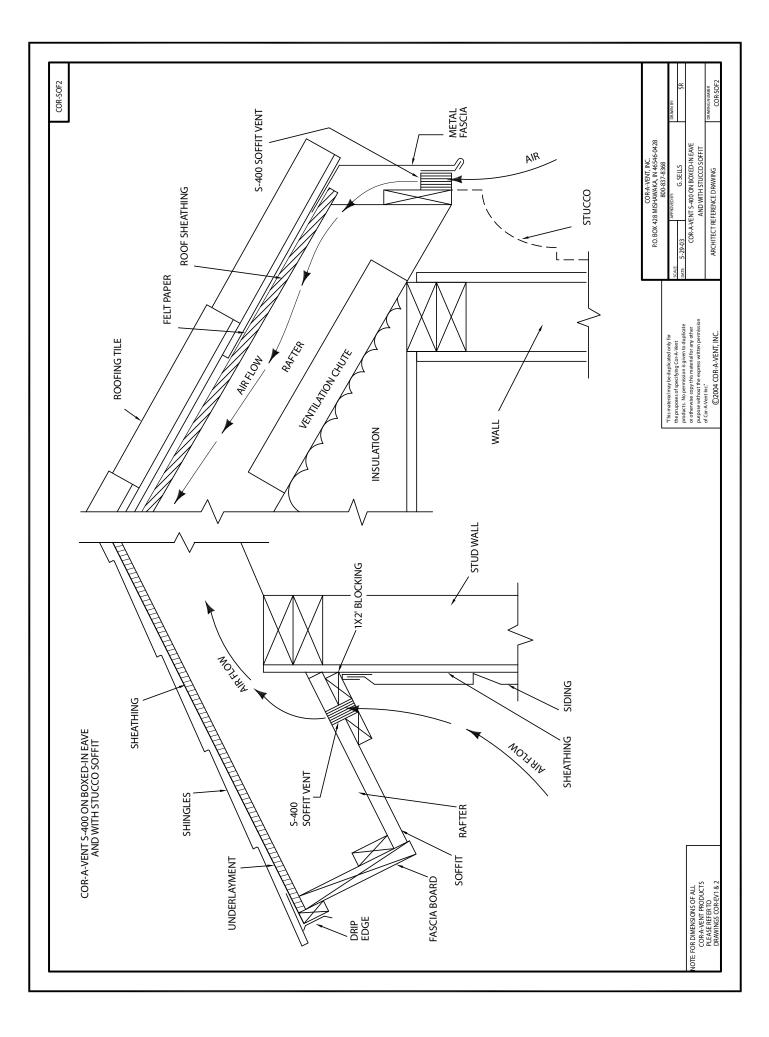
Maintaining an unrestricted air passageway between the soffit and ridge is crucial to the performance of the vent system, and must not be blocked or restricted. COR-A-VENT recommends a minimum 2" air space between the roof sheathing and vent chute or insulation

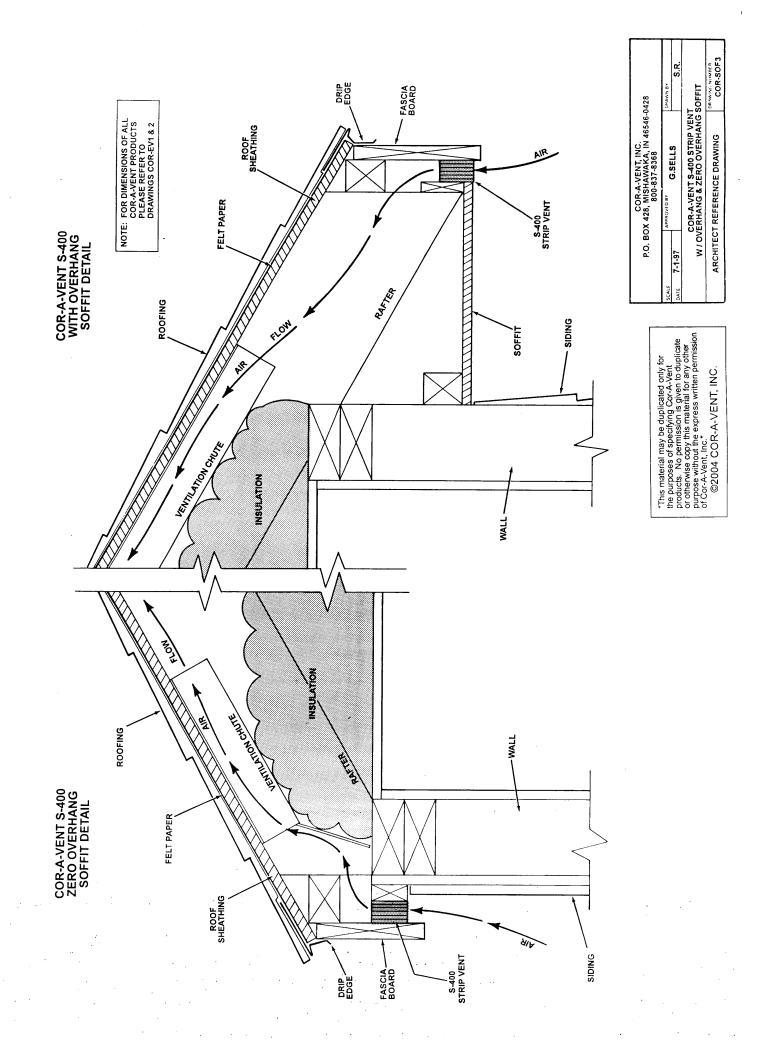
Note: Should you need any assistance in designing your ventilation system, fax or mail a sketch and information to our technical services department. COR-A-VENT will respond with recommendations for your particular building design.

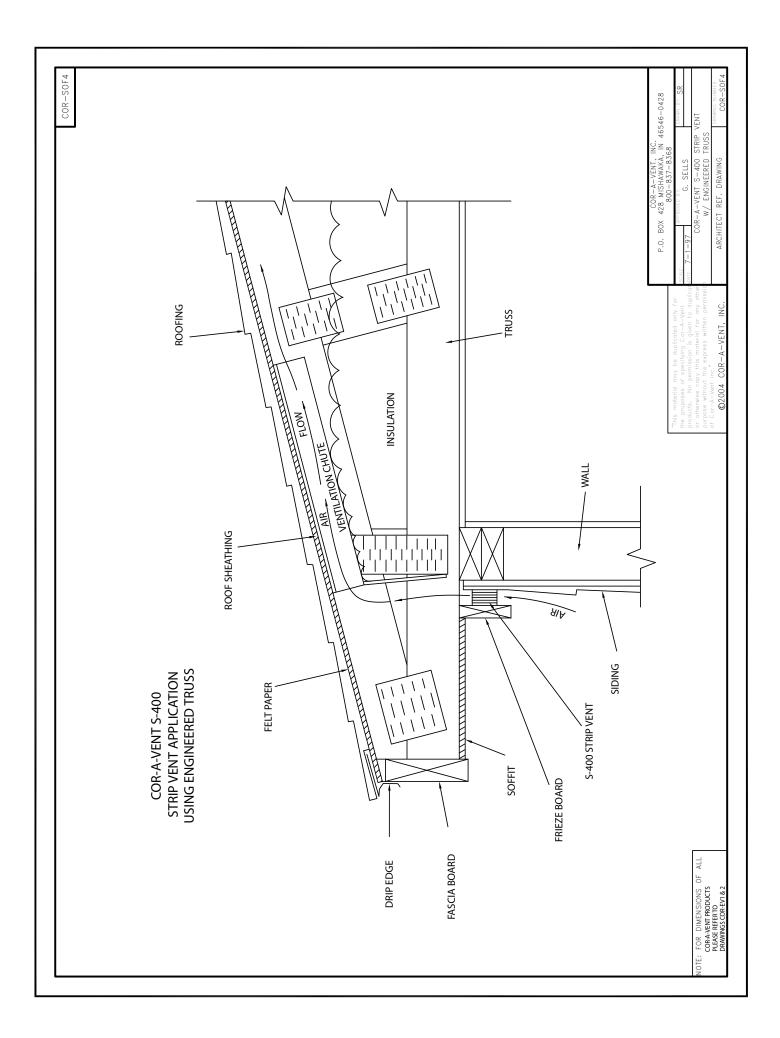
COR-A-VENT products meet or exceed all nationally recognized building codes for ventilation. COR-A-VENT products are covered under the following patents: 5.054,2545,5328,4075,539,5825,5439,417;5,542,8825,5603,657;5,704,834;5,803,805;5,839,059;5,921,863;6,039,646; 6,213,868;6,558,251128;6,589,1135,6598,356;10465,839 - additional patents pending.

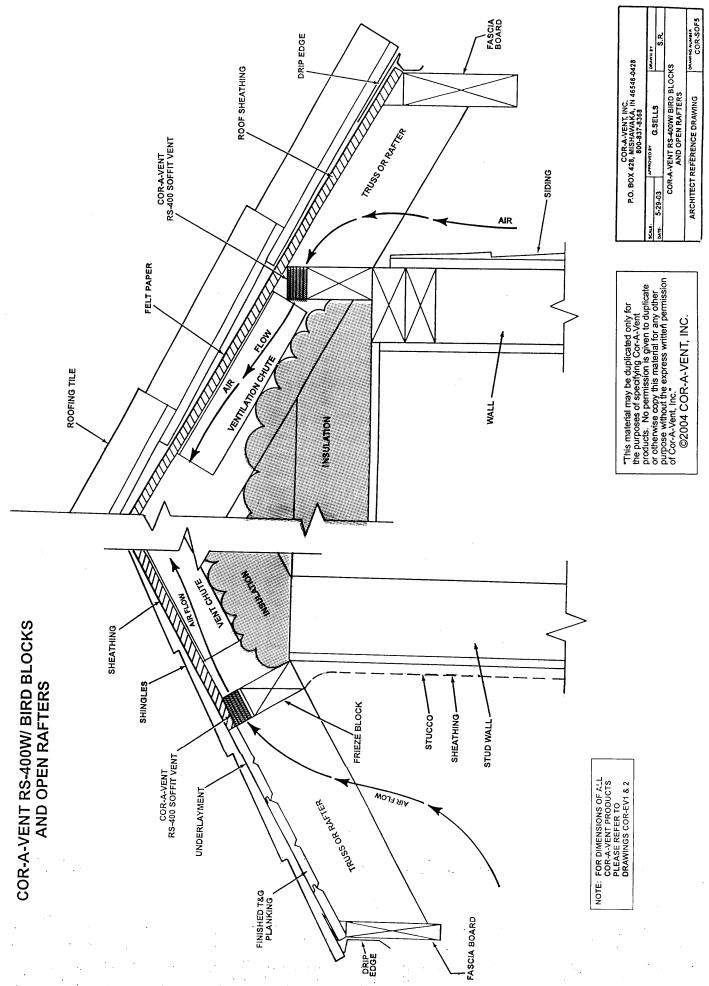
This material may be duplicated only for the purposes of specifying COR-A-VENT products. No permission is given to duplicate or otherwise copy this material for any other purpose without the express written permission of COR-A-VENT, Inc.

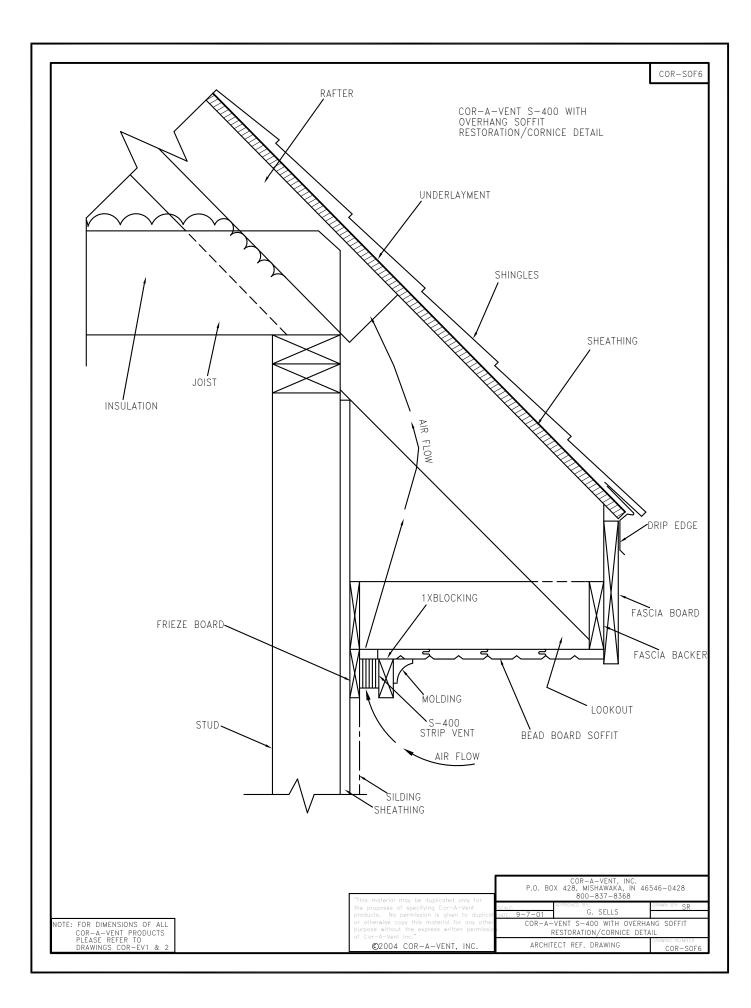
COR-A-VENT, Inc. • P.O. Box 428 • Mishawaka, IN 46546-0428 Phone: (800) 837-8368 Fax: (800) 645-6162 info@cor-a-vent.com • www.cor-a-vent.com

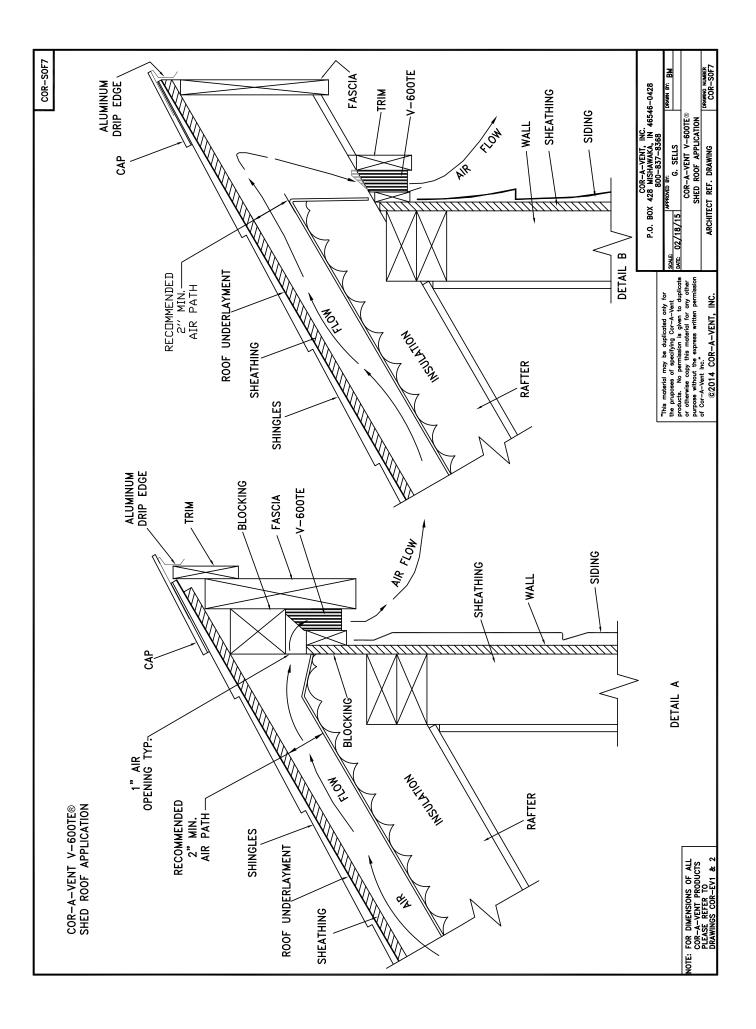


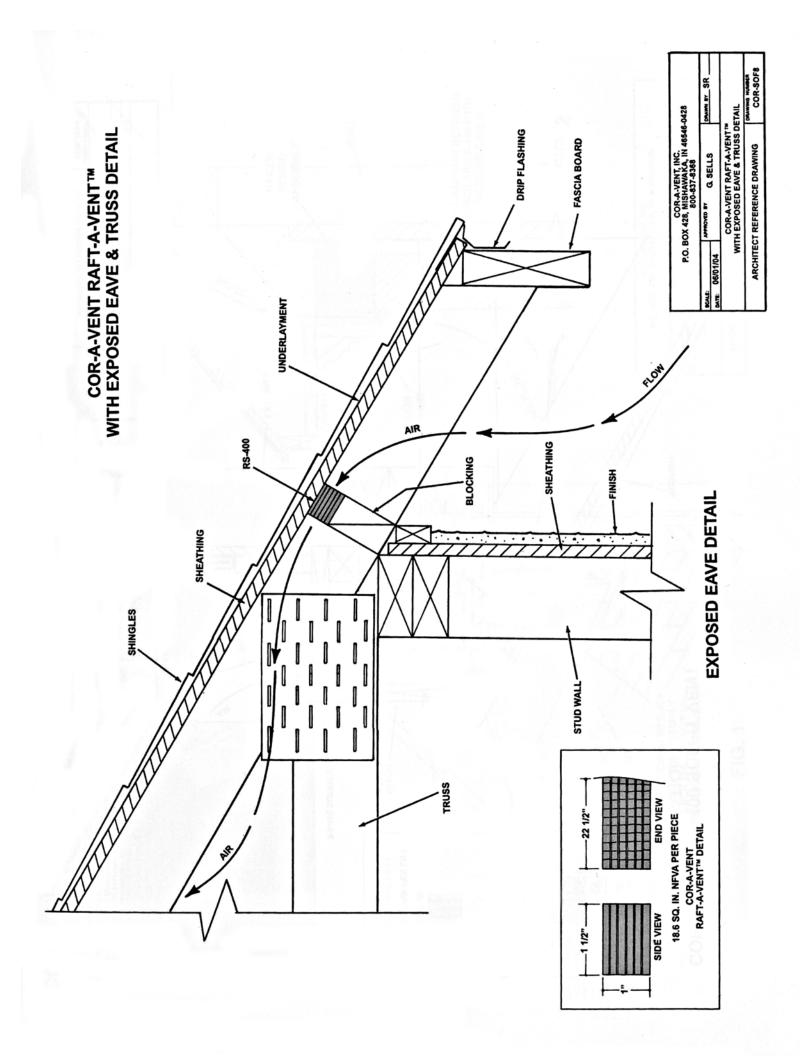


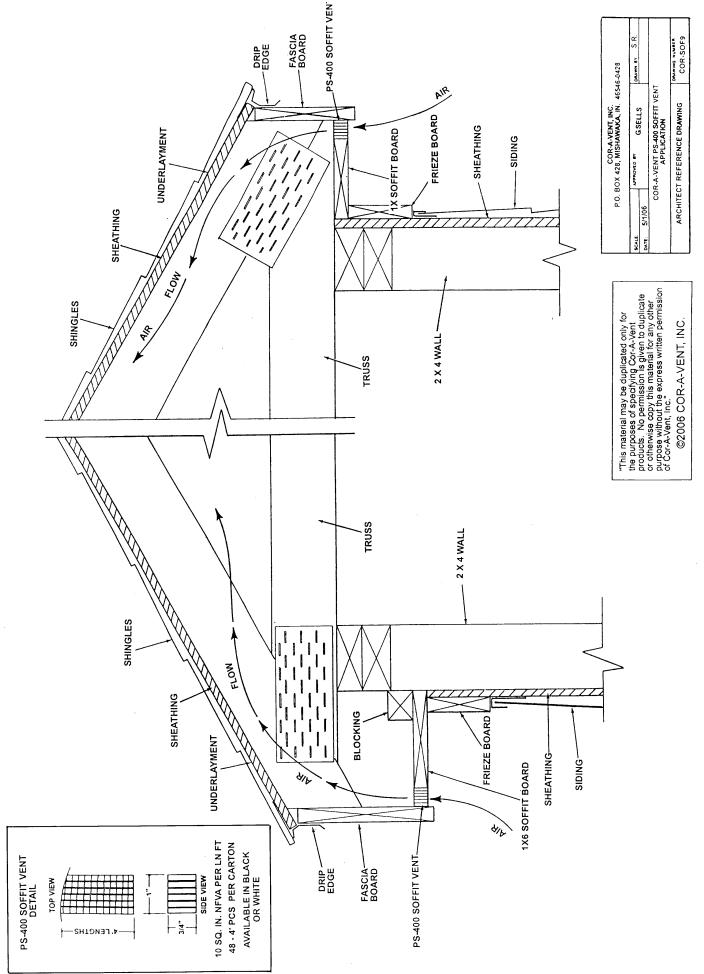




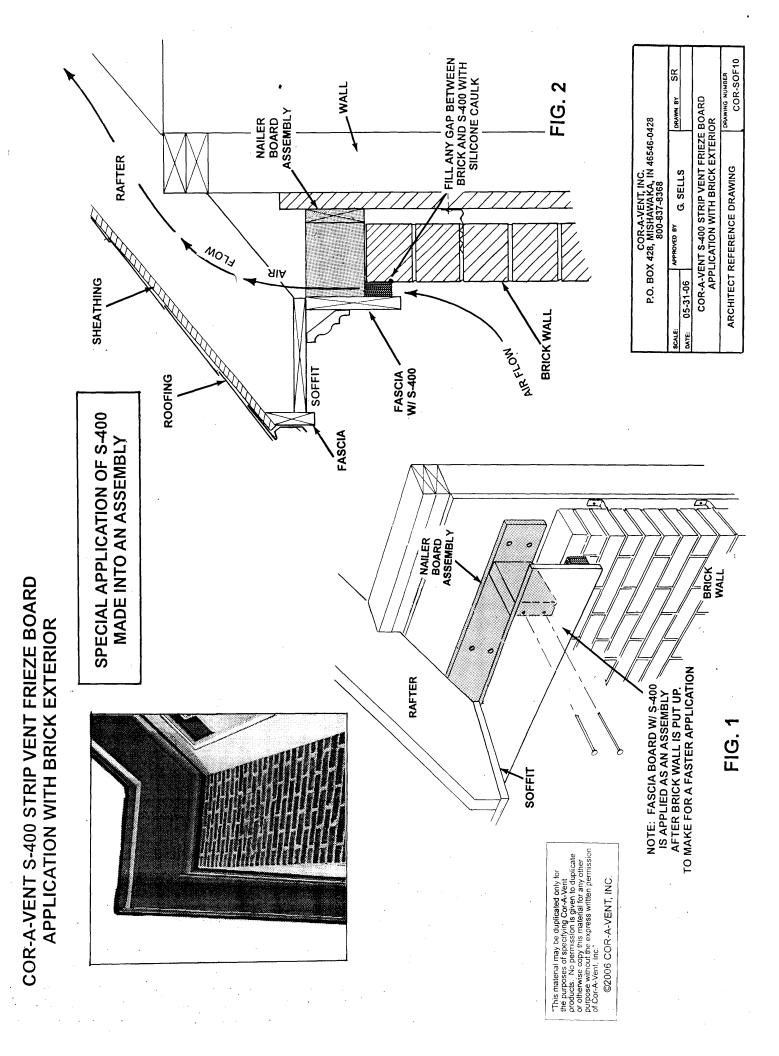


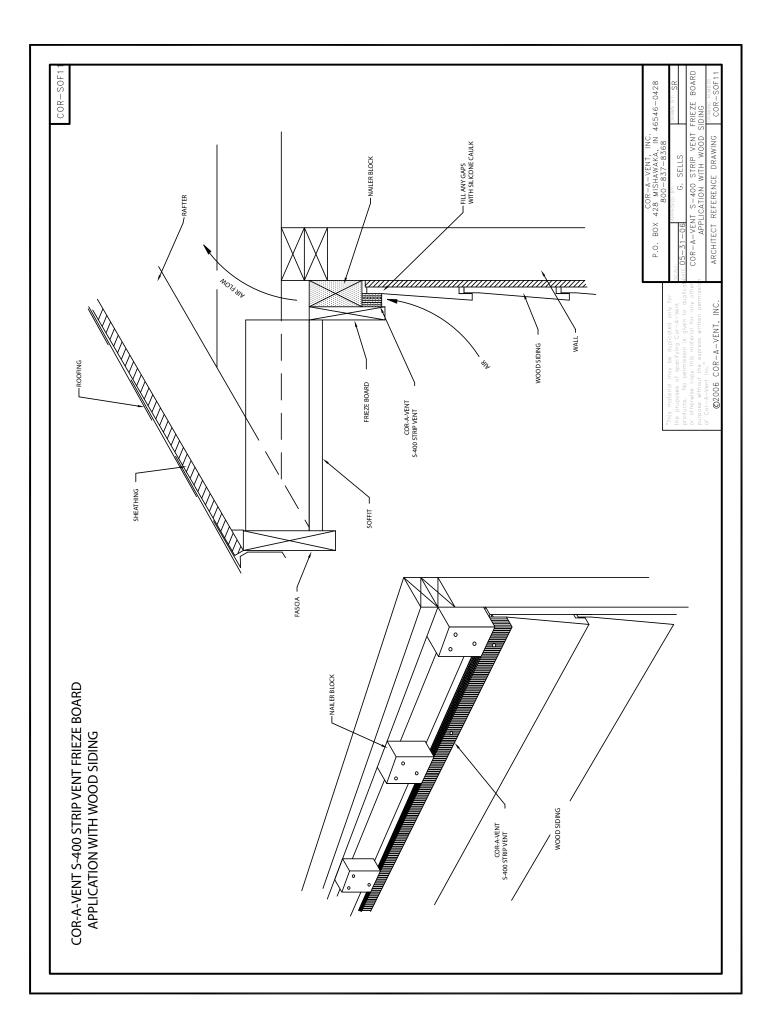






COR-A-VENT PS-400 SOFFIT VENT APPLICATION





SPECIALTY APPS



"Save Your Siding"

Cor-A-Vent's Siding Vent System: Your Rainscreen Ventilation Solution

"In areas that experience frequent wind-driven rain and areas susceptible to high winds, it is recommended that a rain screen design be considered when specifying wood or fiber cement siding."

- from FEMA's 2009 Hurricane Ike Recovery Advisory



First things First –

Q: What is a "rainscreen"?

A: A rainscreen is a wall drainage and ventilation system that creates a space between the exterior cladding and your home's moisture barrier.

Q: Why do I need a rainscreen?

A: To prevent moisture from becoming trapped between your siding and wall sheathing. Over time, trapped water can cause your moisture barrier to fail and ruin your siding.

Q: Is a rainscreen required by building code?

A: In some areas of the United States, like Oregon, and in Canada, a rainscreen is required, while it will likely be required soon in other coastal areas. You can refer to the International Residential Code (IRC) section R703.1 for more information about this requirement.

Q: How do I incorporate a rainscreen into my walls?

A: With **Cor-A-Vent's Siding Vent System** – the first commercial rainscreen product on the market. The first part of the system is the heavy-duty **Sturdi-Strip** furring strips, which hold the siding away from the wall, creating the necessary capillary break (³/8" or 10mm) that will allow moisture to drain out instead of becoming trapped. Our **Siding Vent** products – either the ⁷/16" thick **SV-3**, or the ³/4" thick **SV-5** – at the top and bottom of the walls will let that moisture drain out and allow fresh air to pass through, keeping the system dry, all while keeping insects out. (see detail on pages 3,4 & 8)

Q: How do I know if I need the SV-3 or the SV-5?

A: That will be determined by your choice of furring strips. If you go with Sturdi-Strips or another nominal $\frac{1}{2}$ " thick furring, you would use the SV-3. If you go with pressure-treated $\frac{3}{4}$ " thick wood furring strips, or a double layer of Sturdi-Strips to achieve $\frac{3}{4}$ " thickness, you would need the SV-5.

Q: Why should I use the Siding Vent System instead of another rainscreen product?

A: The Siding Vent System was designed to last (see testing data on page 9) and will not crush or compress like competing "drainage mat" rainscreen products. This is why James Hardie *does not* recommend using a drainage mat, but *will* recommend Cor-A-Vent's Siding Vent System for use with their siding products (http://www.jameshardie.com/d2w/best-practices/ appendix-glossary-esr-hz5-us-en.pdf).

Q: Does this system work with vertical siding or cedar shakes?

A: Yes to both – using the new **Sturdi-Battens**, a 7/16'' thick drainable batten strip. In vertical siding applications, Sturdi-Battens install every 16'' o.c. to 24'' o.c. based on the spacing recommended by the siding manufacturer (see detail drawings on pages 6 & 7). Spacing for cedar shakes and shingles will depend on those products' specific exposure (see page 7). Install the 7/16'' thick SV-3 at the top and bottom of the wall to provide moisture drainage, airflow, and an insect barrier.

Q: Do I still need a starter strip with the Siding Vent System?

A: Yes, since the siding has been furred out from the wall to the same thickness as the Siding Vents being used at the top and bottom, a starter strip like Cor-A-Vent's Sturdi-Starter (see back cover) for the first course of siding will still be required.



SV-3 Siding Vent

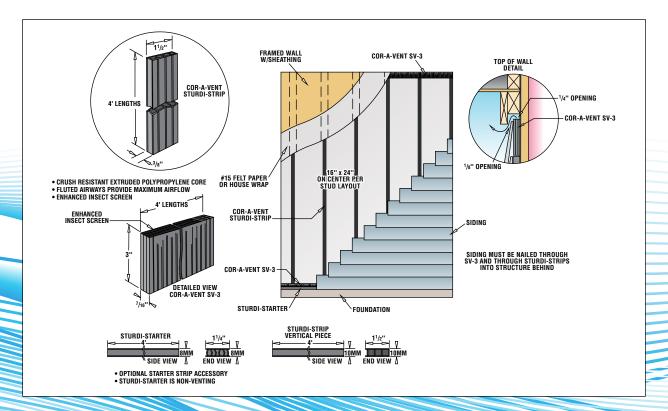


- Easy-to-handle 4-foot long sections
- Pairs great with Sturdi-Strips, or other 3/8" to 1/2" thick furring
- 24 pieces per carton (96 lineal feet)
- Color: Black
- Heat-resistant: made from profile extruded polypropylene plastic
- Impact-resistant: screw, staple or power-nail in place
- Crush-resistant: Will not compress like "drainage mat" products
- James Hardie[®] recommended, unlike "drainage mat" products

(see: http://www.jameshardiecommercial.com/pdf/HardiePanel-Rainscreen-Quick-Reference-Guide.pdf)

Q: How much SV-3 do I need?

A: SV-3 runs linearly along the top and bottom of the wall, as well as above and below windows or doors. Take the total length of all walls and multiply by 2 (for top and bottom), then account for above and below wall penetrations to determine how many linear feet of SV-3 you will need.



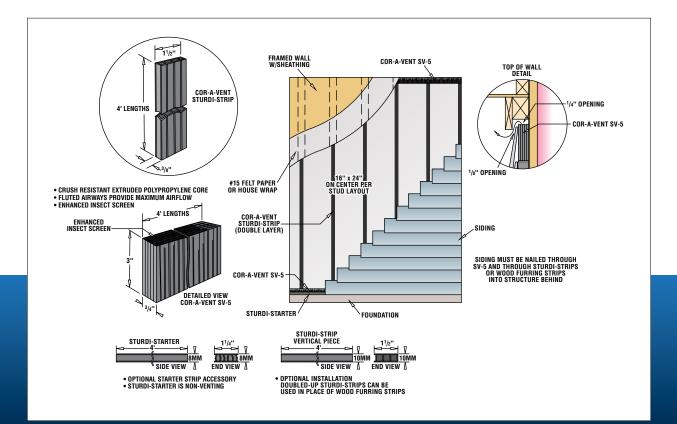


- 3/4'' thick by 3'' high
- Easy-to-handle 4-foot long sections
- Pairs great with doubled-up Sturdi-Strips, or other 3/4" thick furring
- 15 pieces per carton (60 lineal feet)
- Color: Black
- Heat-resistant: made from profile extruded polypropylene plastic
- Impact-resistant: screw, staple or power-nail in place
- Crush-resistant: Will not compress like "drainage mat" products
- James Hardie® recommended, unlike "drainage mat" products

(see: http://www.jameshardiecommercial.com/pdf/HardiePanel-Rainscreen-Quick-Reference-Guide.pdf)

Q: How much SV-5 do I need?

A: SV-5 runs linearly along the top and bottom of the wall, as well as above and below windows or doors. Take the total length of all walls and multiply by 2 (for top and bottom), then account for above and below wall penetrations to determine how many linear feet of SV-5 you will need.





- Impact-resistant: screw, staple or power-nail in place
- Crush-resistant: Will not compress like "drainage mat" products
- James Hardie[®] recommended, unlike "drainage mat" products

(see: http://www.jameshardiecommercial.com/pdf/HardiePanel-Rainscreen-Quick-Reference-Guide.pdf)

Q: How many Sturdi-Strips do I need?

A: On stud spacing with 16-inch centers, you would need 1 linear foot of Sturdi-Strip for every square foot of wall \rightarrow for 500 square feet of wall, you would need 500 lineal feet of Sturdi-Strips. For 2-foot on center spacing, you would need 80% of that number – or take your square foot total and multiply by 0.8 \rightarrow for 500 square feet of wall, you would need 400 lineal feet of Sturdi-Strips.



Sturdi-Batten

Drainable batten strip **<u>NEW!</u>**



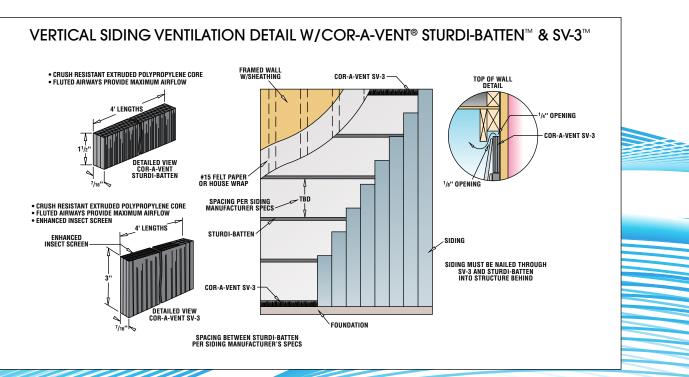
Sturdi-Batten is a vented batten strip for use with vertical siding, cedar shakes & shingles, or siding panels.

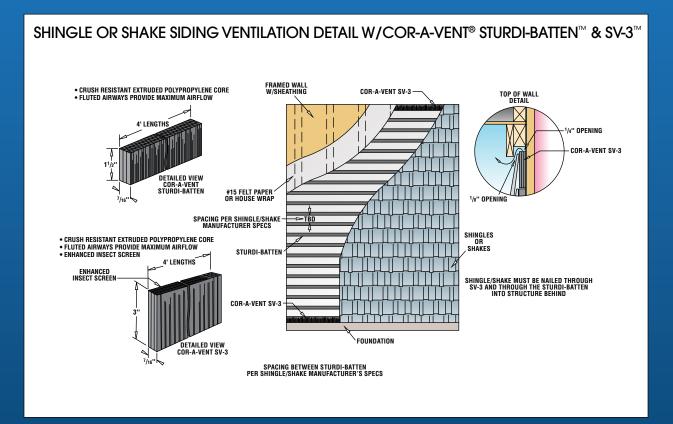
The Sturdi-Batten advantages:

- **DURABLE:** Three plys of heat-resistant PP plastic create a ⁷/16" thick batten strip that won't crack or compress like "drainage mat" style products when power-nailed, screwed or stapled in place.
- VERSATILE: Use with a number of applications, including vertical siding, panel siding and cedar shakes. (see arch. drawings on Page 6 & 7)
- RELIABLE: Vertically-oriented airways allow both moisture drainage and drying airflow between your siding and housewrap, adding life to your home's exterior.
- **ECONOMICAL:** Save money using Sturdi-Battens instead of drainage mats, which must be applied to the entire wall. Sturdi-Battens can be installed only as often as required by your siding manufacturer's recommendations, meaning lower material cost.

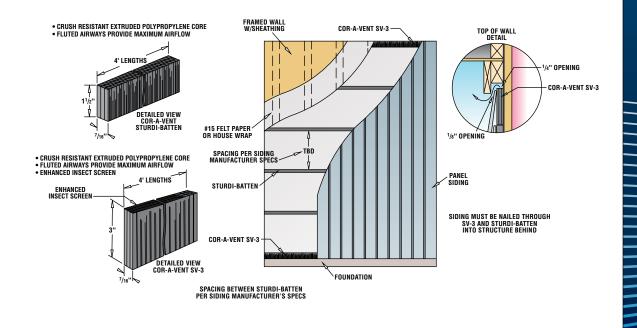
SPECIFICATIONS:

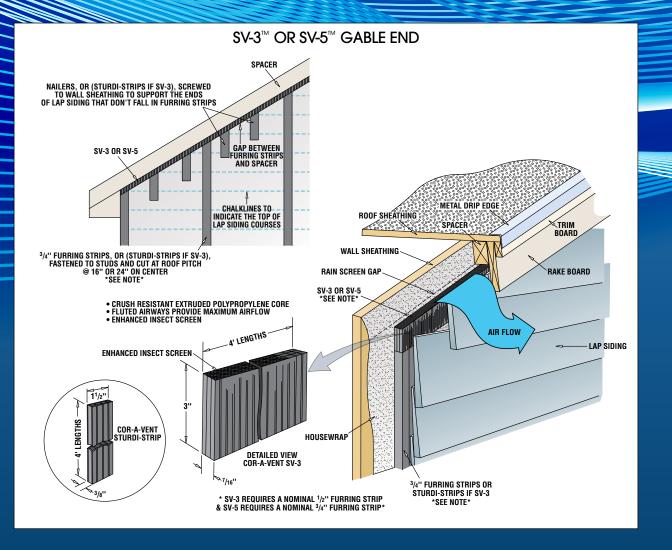
- ⁷/16" thick by 1½" wide
- Easy-to-handle 4-foot long sections
- Pairs perfectly with the SV-3 siding vent
- 48 pieces per carton (192 lineal feet)
- Color: Black
- Heat-resistant: made from profile extruded polypropylene plastic
- Impact-resistant: screw, staple or power-nail in place
- Crush-resistant: Will not compress like "drainage mat" products

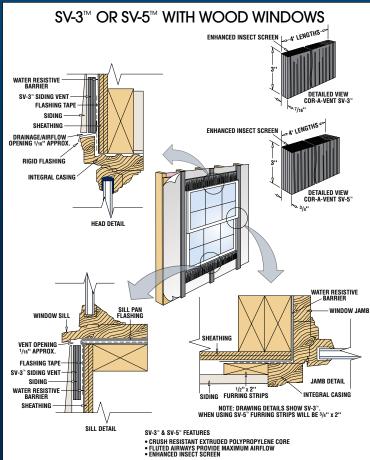




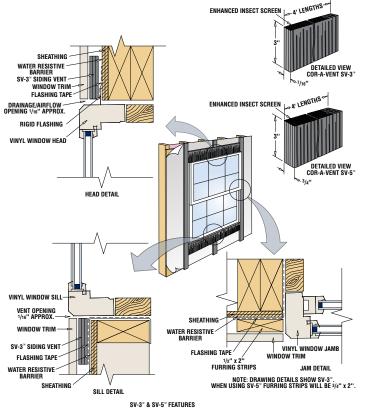
PANEL SIDING VENTILATION DETAIL W/COR-A-VENT® STURDI-BATTEN™ & SV-3™











CRUSH RESISTANT EXTRUDED POLYPROPYLENE CORE
 FLUTED AIRWAYS PROVIDE MAXIMUM AIRFLOW
 ENHANCED INSECT SCREEN

The Siding Vent System: Tested For Performance

The following tests recognized by the International Code Council (ICC) were performed on Cor-A-Vent® Siding Vent products SV-3, SV-5 and Sturdi-Strips by independent testing agency PRI Construction Material Technologies.

Purpose: Determine the compliance of Cor-A-Vent's *SV-3* and *SV-5 Sidings Vents and Sturdi-Strip* with the requirements found in Florida Building Code (2010), Section 2606.4: Specifications (Plastic).

Test Methods: Testing was conducted in accordance with **ASTM D 635-03** and **ASTM D 635-06**: *Standard Test Method for Rate of Burning and/or Extent and Time of Burning of Plastics in a Horizontal Position,* ASTM D 1929-96 (2000)^{£1} and ASTM D 1929-96 (2001)^{£1}: *Standard Test Method for Determining Ignition Temperature of Plastics* and ASTM E 136-12: Standard Test Method for Behavior of Materials in a Vertical Tube Furnace at 750°C.

Compressive strength was determined in accordance with **ASTM 1621-10:** Standard Test Method for Compressive Properties of Rigid Cellular Plastics.

Resistance to Accelerated Weathering was determined by comparative tensile strength testing in accordance with **ASTM D 638:** Standard Test Method for Tensile Properties of Plastics before and after 2,000 hours of accelerated weathering in accordance with **ASTM G 154:** Standard Practice for Operating Fluorescent Ultraviolet (UV) Lamp Apparatus for Exposure of Nonmetallic Materials. Exposure consisted of 12 hour cycles – 8 hours UV at 158°F followed by 4 hours condensation at 104°F.

Statement of Attestation:

The physical property performance of this material was determined in accordance with the standard methods listed herein. The laboratory test results presented in this report are representative of the material supplied. **Purpose:** Determine the drainage efficiency of *Cor-A-Vent's SV-3 and SV-5 Siding Vents and Sturdi-Strip* in accordance with ASTM E 2273: Standard Test Method for Determining the Drainage Efficiency of Exterior Insulation and Finish Systems (EIFS) Clad Wall Assemblies.

Test Methods: Testing was conducted in accordance with **ASTM E 2273-03(2011):** Standard Test Method for Determining the Drainage Efficiency of Exterior Insulation and Finish Systems (EIFS) Clad Wall Assemblies as modified to be applied to the product, as installed in accordance with the manufacturer's published installation details.

Two wall assembly specimens, 4'x8', were constructed to typify the standard installation of *Cor-A-Vent's SV-3 and SV-5 Siding Vents and Sturdi-Strip* as follows:

Wall Construction Framing members: Nominal 2x4 conventional wood framing

Sheathing: ⁷/16″ OSB

Water Resistive Barrier: ICC-ES AC 38 approved

Product Description: Cor-A-Vent Siding Vent System: SV-3 Siding Vent with Enhanced Insect Screen Sturdi-Strips plastic furring strips

Fasteners: Tacked with 1-1/2" galv roofing nail

Wall Covering: James Hardie HardiPlank siding

Fasteners: 2-⁵/8″ galv ring shank nails

Statement of Attestation:

The properties of this material were determined in accordance with the requirements set forth in the ICC-ES AC356 Acceptance Criteria for Moisture Drainage Systems Used with Exterior Cement Plasters or Adhered Masonry Veneer Walls. The laboratory test results presented in this report are representative of the material supplied.

Pressure-Equalized Rain Screen: Moisture Control for High-Wind Regions

INTRODUCTION

In January 2009, the Federal Emergency Management Agency (FEMA) released an advisory in the wake of Hurricane Ike, entitled "Siding Installation in High-Wind Regions". In this advisory, FEMA recommended "that a rain screen design be considered when specifying wood or fiber cement siding." Specifically, FEMA recommended a "pressure-equalized rain screen wall system", also known as a *PER*, which we will define and discuss.

Pressure-Equalized Screen Wall System

In a paper published by the Institute for Research in Construction (IRC), the National Research Council explains pressure equalization as, "When the outside air pressure is transferred to an air space behind exterior cladding, the cladding is exposed to a near-zero pressure *differential."* Which is to say, by equalizing the pressure on both sides of the cladding – outside and inside – there is less chance of moisture penetrating through that cladding. The *PER* system is broken down into three necessary components:

- A rainscreen (i.e. vented cladding).
- A compartmented air chamber.
- An air barrier system.

RAINSCREEN

A rainscreen is a simple enough concept: the creation of a space between the exterior cladding (siding) and the air/moisture barrier (housewrap or felt) for the purpose of allowing moisture drainage as well as ventilation. For a properly-functioning rainscreen system, a sufficient amount of space must be created behind the siding to achieve a capillary break, to allow moisture to drain and air to flow. In coastal British Columbia, an area of North America that sees the some of the highest amounts of yearly rainfall, a minimum of 10mm ($^{3}/_{8}$ ") is required by code. At $^{7}/_{16}$ " thick, the **SV-3 Siding Vent** exceeds this requirement. In higher wind areas, the greater the dynamic (kinetic) pressure on siding, and in turn the greater the chance for more moisture penetration, requiring a more sufficient space to properly ventilate and equalize this pressure. The ¾" thick **SV-5 Siding Vent** would be more appropriate for this condition.

COMPARTMENTED AIR CHAMBER

The second component of a PER requires smaller compartments along the wall to diffuse the amount of pressure across the entire façade of a building or residence. This requires the use of solid or non-cross-breathing furring strips, such as pressure-treated lumber or Cor-A-Vent® **Sturdi-Strips**. So-called "drainage mat" style rainscreen products, as well as "breathable" or "flow-through" furring strips, would not be recommended when trying to achieve a *PER* system.

AIR BARRIER

According to the NRC, "A good air barrier system is a key component of a durable, functioning wall system." The bettersealed the underlayment behind your siding, the less ventilation may be required to achieve proper pressure equalization.

RESOURCES

For more information about the above concepts, please refer to these publications and documents:

- FEMA "Siding Installations in High-Wind Regions" http://www.fema.gov/media-librarydata/20130726-1644-20490-2776/757 apd 8 sidinginstallation.pdf
- NRC "Pressure Equalization in Rainscreen Wall Systems" https://www.nrc-cnrc.gc.ca/ctu-sc/files/doc/ctu-sc/ ctu-n17_eng.pdf
- AIA "The Rain Screen Principle"
 <u>http://www.aia.org/aiaucmp/groups/ek_members/</u>
 <u>documents/pdf/aiab098384.pdf</u>



Trapped Moisture – "It's an epidemic."

s a manufacturer of home ventilation products, we talk a lot about moisture and the damage it can do. It's why Cor-A-Vent® is in business. But it's one thing to talk about

moisture damage, and another thing to see it, up close and personal. When moisture is trapped within a building envelope – with no way to escape and no chance to dry out – it can cause surprising harm, even to expensive and substantial building products like house wraps and lap siding.

Like with anything else, if you want something to last, you have to take the time and care to build it right. That's how Chris Donatelli does it. The president of Donatelli Builders, a nationally recognized Chicago-area custom home builder and remodeler, recently shared with us a job which proves that point. Donatelli was called out to a home in Inverness, Ill., a high-end



suburb of Chicago, where the homeowners were seeing some major problems with their lap siding – splitting and cupping wood, peeling paint, and signs of something worse going on behind the scenes.

When they removed the siding, that's exactly what they found. Failing, water-stained house wrap, rot, mold – all due to moisture trapped between the house wrap and the siding, with nowhere to go and no way to dry. Donatelli said the home's stained cedar siding, which was less than 20 years old, was failing in a way that is becoming all too familiar to him.

"In the last five years, the biggest disasters I've seen on jobs have all been moisture related," Donatelli said. "I think it's an epidemic; homes are not being built to breathe properly, and all of this damage that it's causing will be in the millions of dollars to fix. We're at a point in the building industry where we're doing all of these things to make a house tighter, which is good, but it becomes unforgiving. If mistakes are made, that mistake is going to cause a problem much faster."

The mistake on this job was with the drainage plane between the house and the siding – or more specifically, the lack thereof. The solution Donatelli turns to is Cor-A-Vent's Siding Vent System, which is also commonly referred to as a "rainscreen system". The idea is simple: create a space between the house wrap/underlayment and the siding to give moisture a way to drain and to allow air to ventilate through and keep everything dry.

By using a combination of Cor-A-Vent Sturdi-Strips – heavy-duty furring strips up the wall spaced over the studs – and SV-3 Siding Vents located top and bottom along the wall, this provides the drainage plane necessary to keep water from becoming trapped, and eventually becoming a huge problem.

"Creating air circulation is the best thing you can do to create longevity and health in a home," Donatelli said, "but it's also the most often overlooked part of the process. That's why we use Cor-A-Vent's Siding Vent System. It's the best way to fix this problem."

Donatelli Builders also utilizes the new Sturdi-Starter for an easy-to-install starter strip for the first course of siding, another component of the System. And rather than using subcontractors for the install, Donatelli's crew personally handles all their work, which shows in the final results.

"We do this in-house," Donatelli said. "Subs would never take the time to do this the right way."

Doing it the right way is exactly the point of a utilizing the Siding Vent System in the first place. When it's done right, from the design phase and on, builders, architects and home owners can avoid costly repairs down the road.



"There's no reason cedar siding shouldn't last if it's not taking on excessive moisture," Donatelli said. "Wood should last."

Check out Donatelli Builders at http://donatellibuilders.com/

Be sure to check out the new Sturdi-Starter plastic starter strip...

A Perfect Start for Your New Siding

- A prefabricated starter strip for use behind the first course of fiber cement siding, as well as above windows and doors.
- Saves money, time and labor no more cutting starter strips from good planks of siding
- Durable and impact resistant Power nailable or install with staples or screws (use siding manufacturer's recommended fastener)
- Easy-to-handle 4-foot strips install fast and clean
- Made with heat resistant ⁵/16" (8 mm) thick polypropylene plastic lifetime warranty

Sturdi-Starter

COR

COR-A-VENT, Inc. • P.O. Box 428 • Mishawaka, IN 46546-0428 Phone: (800) 837-8368 • Fax: (800) 645-6162 info@cor-a-vent.com • www.cor-a-vent.com

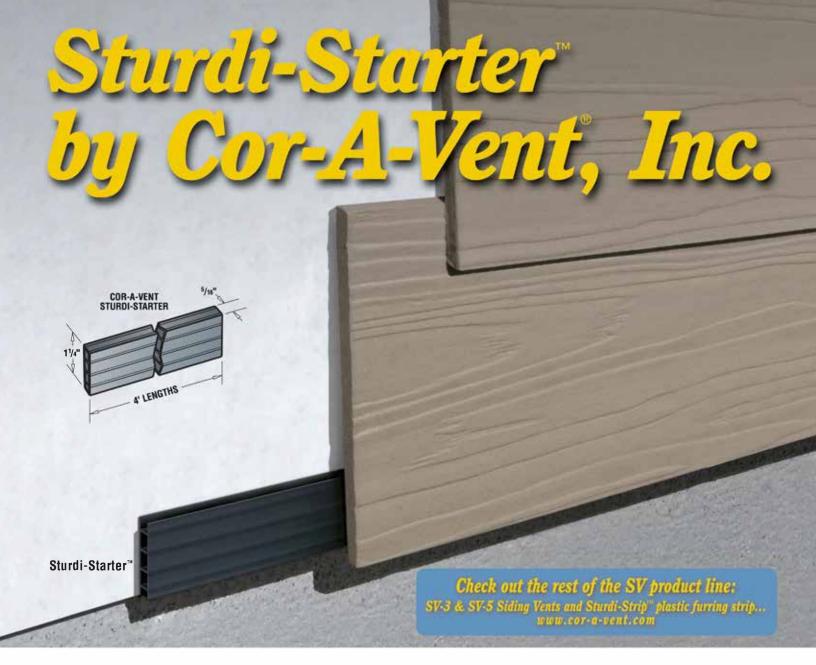
Find us on...







COR-A-VENT, Inc. • P.O. Box 428 • Mishawaka, IN 46546-0428 Phone: (800) 837-8368 • Fax: (800) 645-6162 info@cor-a-vent.com • www.cor-a-vent.com



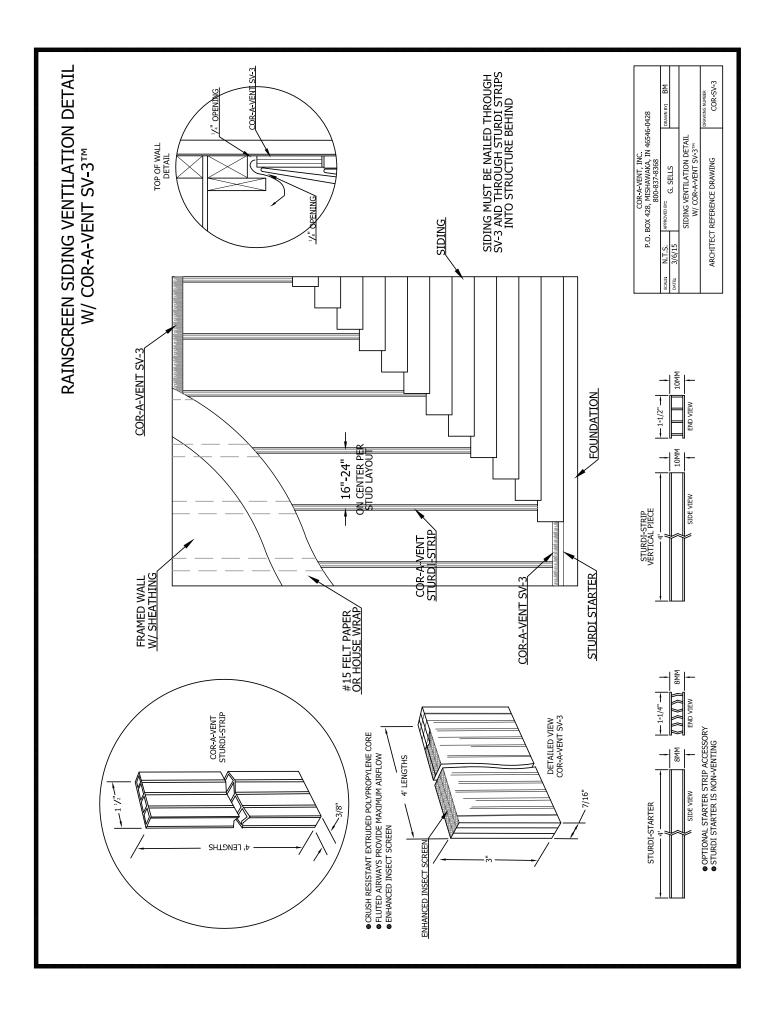
Sturdi-Starter^M is a 4-foot long x 1¹/₄" wide x ⁵/₁₆" thick (8 mm) profile extruded polypropylene plastic strip used as a starter strip behind the first course of fiber cement siding. Sturdi-Starter^M replaces strips ripped from good planks of siding, saving the installer money and materials, time on the job and extra labor.

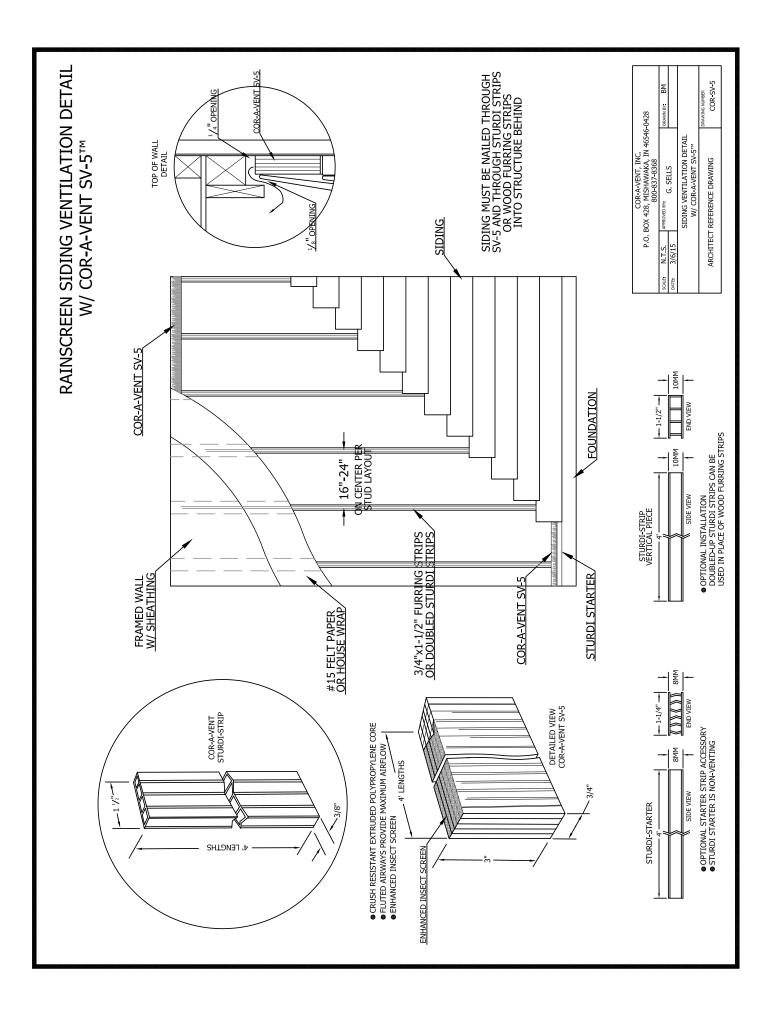
Sturdi-Starter[™]:

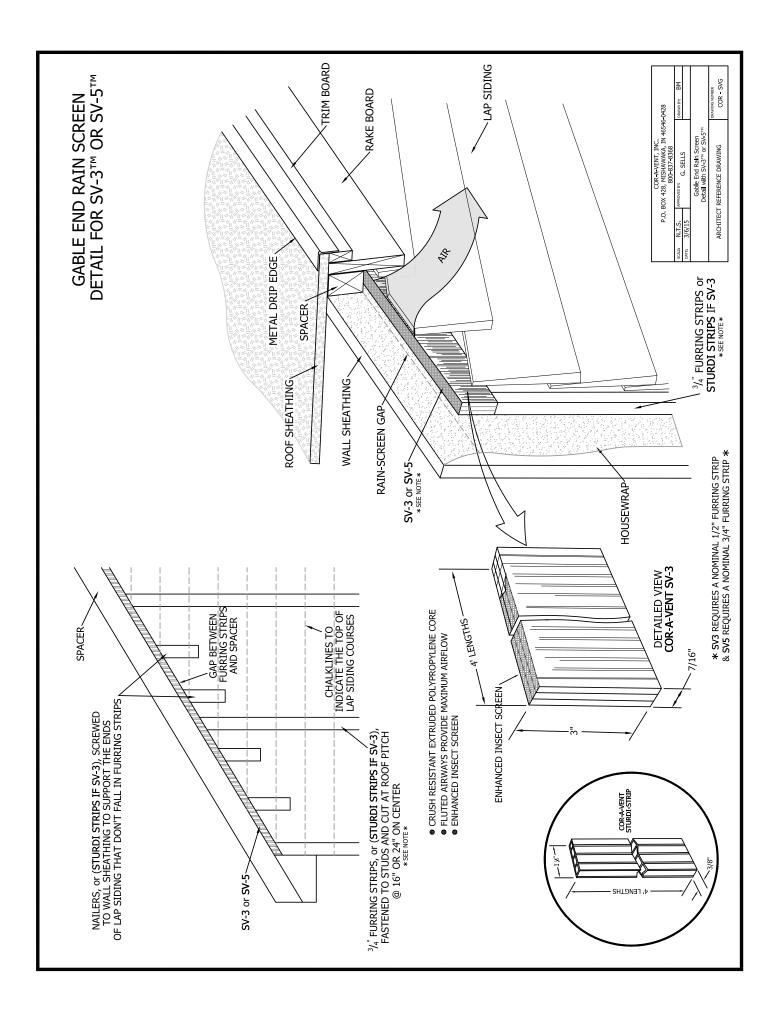
- A prefabricated starter strip for use behind the first course of fiber cement siding, as well as above windows and doors.
- Saves money, time and labor no more cutting starter strips from good planks of siding
- Durable and impact resistant Power nailable or install with staples or screws (use siding manufacturer's recommended fastener)
- Easy-to-handle 4-foot strips install fast and clean
- Made with heat resistant ⁵/16" (8 mm) thick polypropylene plastic lifetime warranty

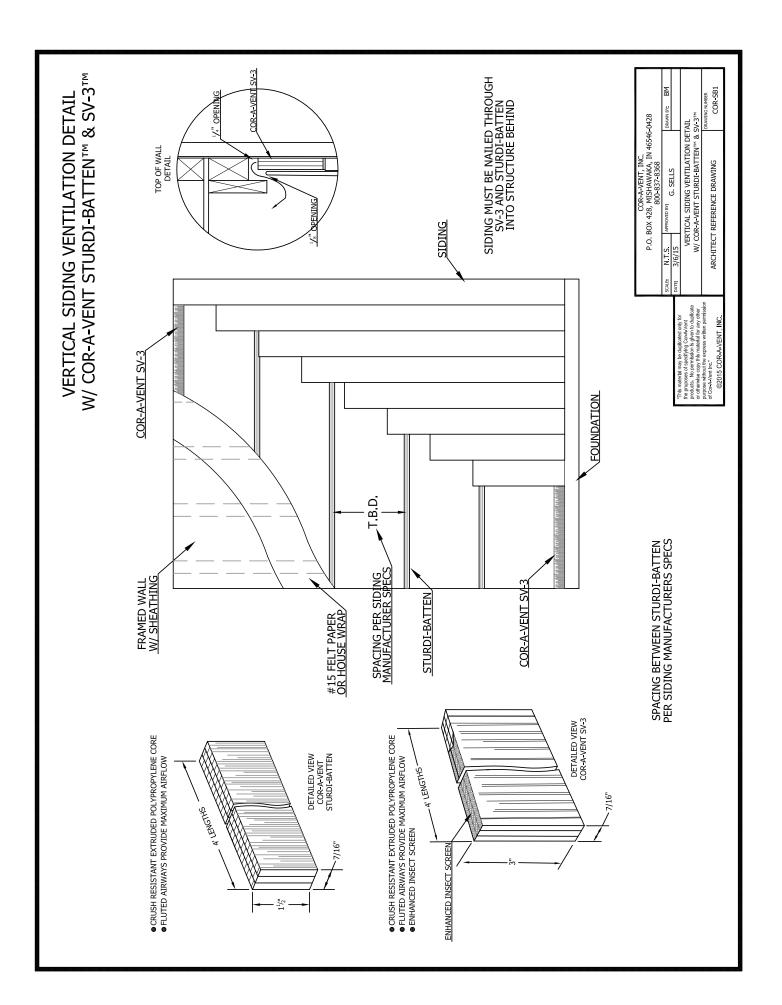


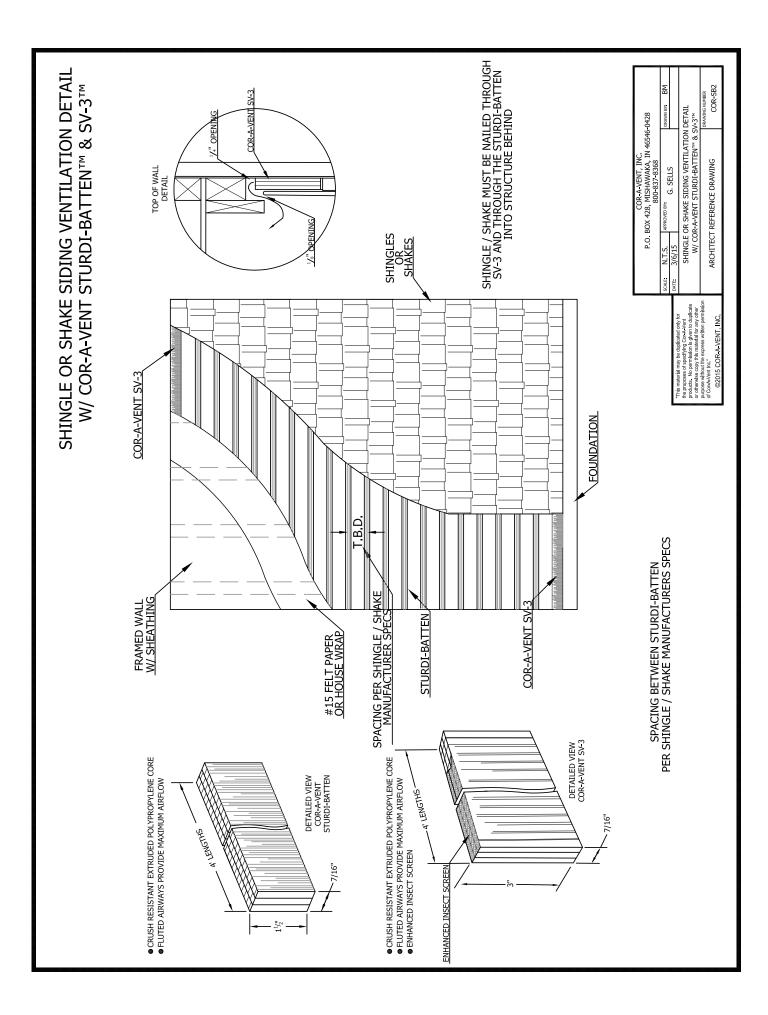
COR-A-VENT, Inc. • P.O. Box 428 • Mishawaka, IN 46546-0428 Phone: (800) 837-8368 • Fax: (800) 645-6162 info@cor-a-vent.com • www.cor-a-vent.com

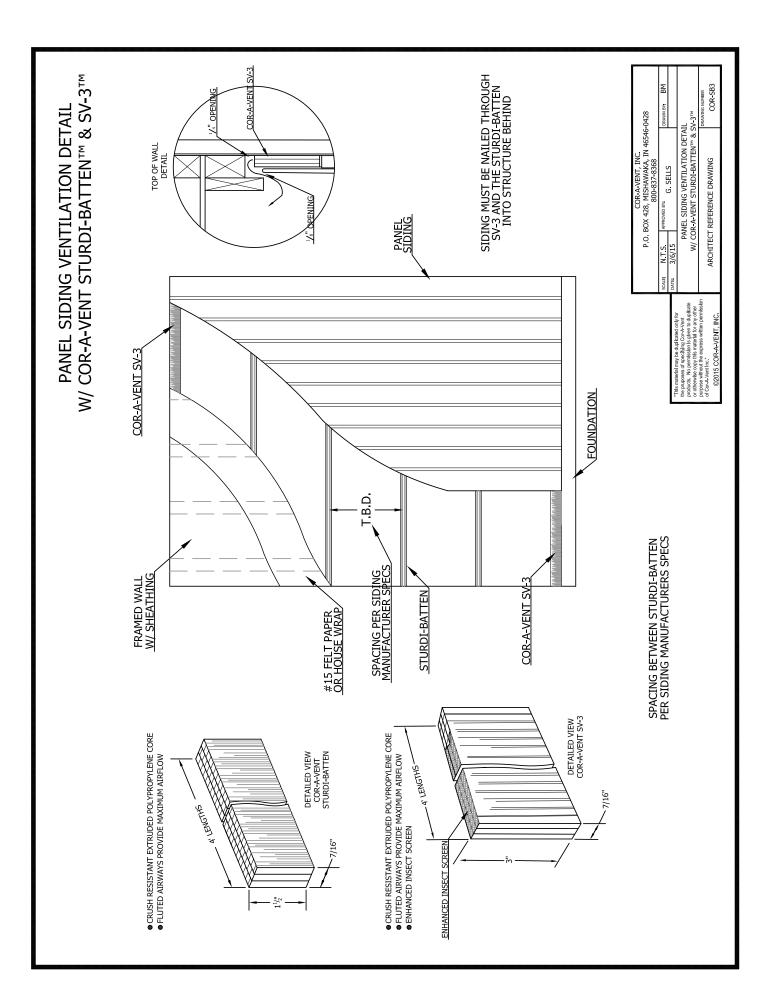












COR-A-VENT® Roof-2-Wall Vent[®] for those Tough to Ventilate Roof to Wall Spaces

THE NAME SAYS IT ALL...COR-A-VENT'S Roof-2-Wall Vent[™] is a complete ventilation package for the tough-to-vent detail where a pitched roof meets a vertical wall. Roof-2-Wall Vent has everything in the box you need for installation:

- 6 (six) 4-foot peices of Roof-To-Wall Vent (24 lineal feet) that provide 6.75 square inches of Net Free Vent Area per lineal foot while stopping rain and snow at the point entry thanks to the Enhanced Snow Screen
- 25-feet by 14 inch wide roll of aluminum flashing
- A tube of polyurethane caulk (black in color)
- A bag of 21/2" roofing nails
- 4 (four) R2W End Plugs



INSTALLATION IS EASY — Each carton contains 6 (six) 4-foot pieces of Roof-2-Wall Vent^m (24 lineal feet), a 25-foot long x 14-inch wide roll of aluminum flashing, a bag of 2½" roofing nails, a tube of polyurethane caulk (black), and four R2W End Plugs.

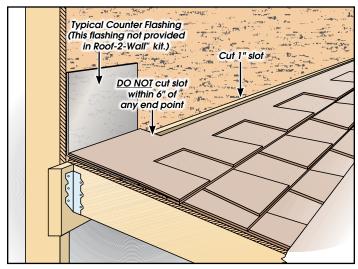
Roof-2-Wall Vent provides 6.75 sq. in. Net Free Vent Area (NFVA) per lineal foot



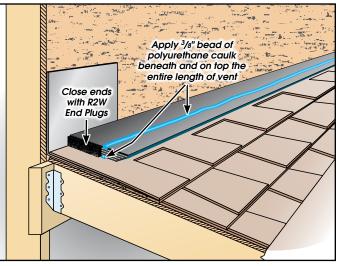
vek is a registered trademark of E.I. du Pont de Nemours and Company or its affiliates.

COR-A-VENT[®] Roof-2-Wall Vent[™] Installation Instructions.

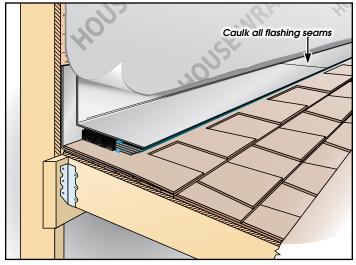
One person can easily install the handy four-foot Roof-2-Wall Vent sections. All you need is a hammer, circular saw, chalk line, utility knife, tape measure and a caulking gun. These instructions are typical for a standard shingle roof application. Check our web site (www.cor-a-vent.com) or call our technical department for advice on your specialized application, or send us a print and we'll "mark up" where and how to vent it.



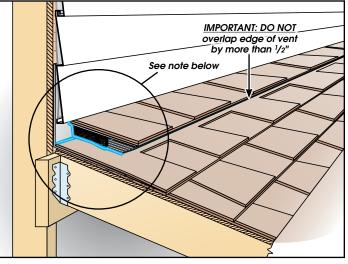
1. Start by cutting 1" a wide clear slot in roof deck at or near the top. Stop slot no less than 6" from the ends of the roof section to be ventilated.



2. Apply 3/8" bead of polyurethane caulk (provided in box) beneath Roof-2-Wall Vent pieces and nail down with $2\frac{1}{2}"$ nails (provided), using a minimum three nails per piece. Run vent at least 6" past slot in decking and close off ends by inserting R2W End Plugs (provided) into end openings. Caulk End Plugs to roof and vent and seal ends after placement. Run another 3/8" bead of flexible caulk along the top of all vent pieces.



3. Use Roof-2-Wall flashing (provided), or other metal flashing, to cover vent up onto wall. Nail flashing securely to the wall and overlap flashing with housewrap or felt paper/water-proof membrane.

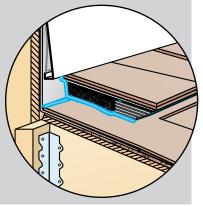


4. Cap or cover Roof-2-Wall assembly with shingle tabs or heavy gauge/ decorative metal cap - cap should overhang the vent by a minimum of ½". Be sure to caulk all ends and joints to ensure a water-tight installation.*

A minimum 3/12 roof pitch is required for Roof-2-Wall application.

NOTE: Installer is responsible for sealing ends of vent for each specific application.

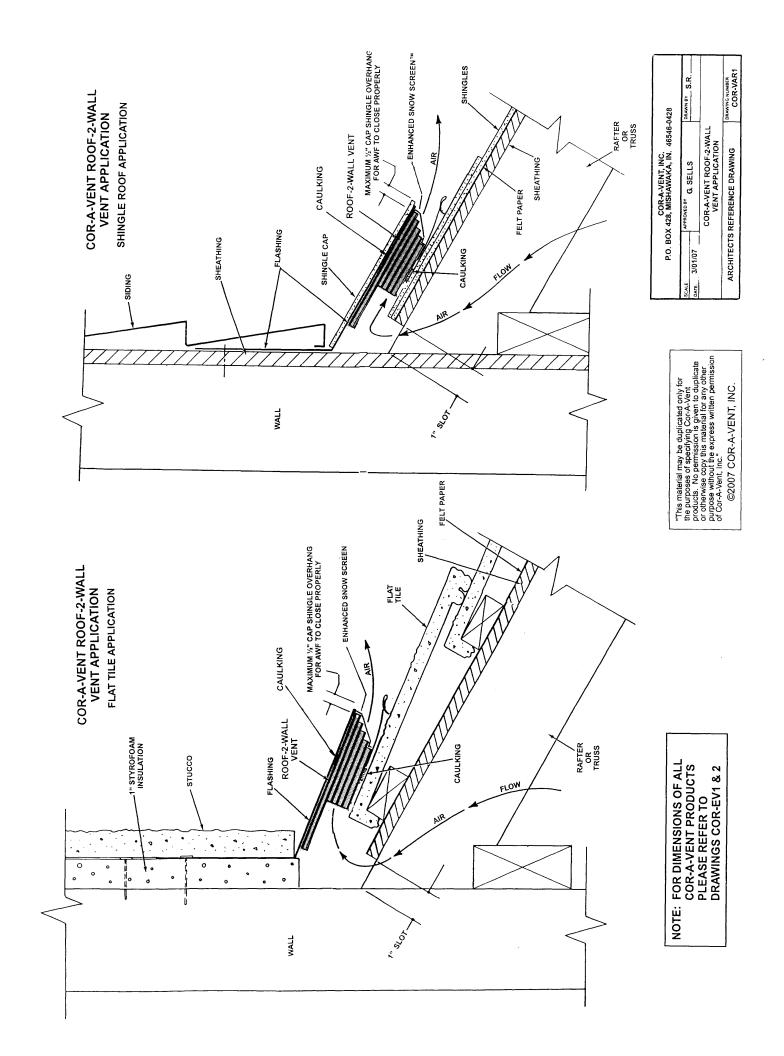
Due to the wide variety of material choices and possible installation options, it is the installer's responsibility to seal the vent assembly's ends with appropriate method and materials to prevent weather infiltration.

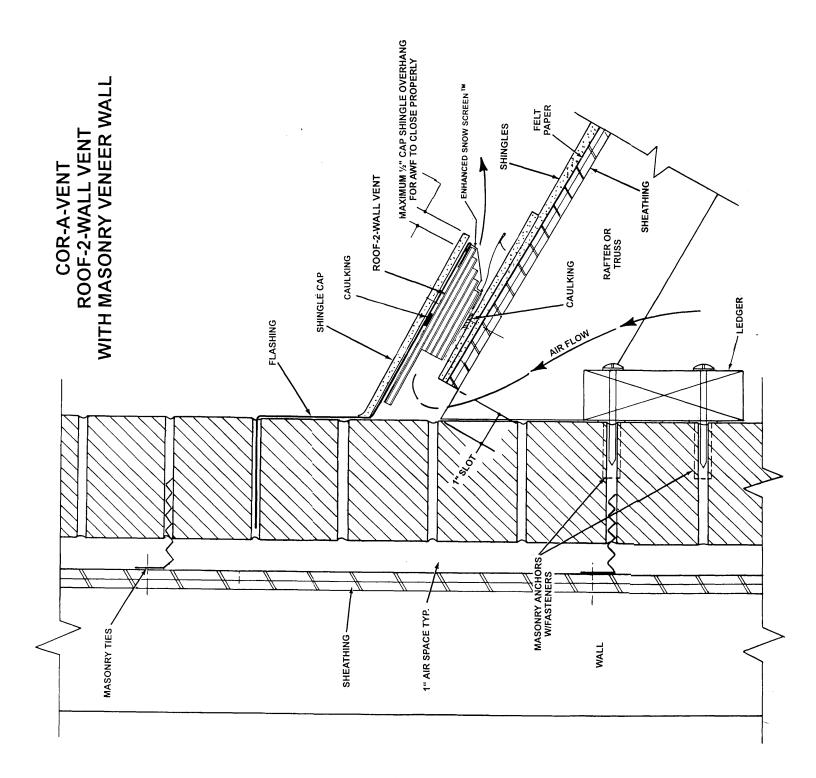


The provided tube of caulk should be sufficient for installation, but if more caulk is required, use a flexible silicone or polyurethane - DO NOT USE ROOF CEMENT.

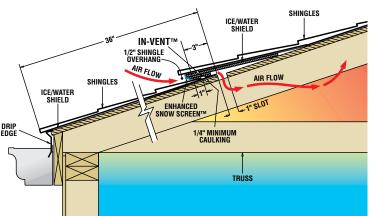


COR-A-VENT, INC. P.O. Box 428 • Mishawaka, IN 46546-0428 Phone: (800) 837-8368 • Fax: (800) 645-6162 info@cor-a-vent.com • www.cor-a-vent.com









Cor-A-Vent, Inc. IN-Vent[®] on-the-roof intake vent – Let's Fresh Air in when Soffits are Out[™] Installation Instructions

Step 1

Begin by cutting a 1-inch wide slot or a series of 1-inch diameter holes into the roof deck, 36 inches up from the drip edge. Do not cut the slot/holes any closer than 12 inches from the ends of the roof. Do not cut the slot/holes any closer than 36 inches from any valley or 24 inches from any wall. Set saw blade depth accordingly to avoid damaging rafters or trusses.

Step 2

Install felt paper or ice & water shield on the roof as normal, but stopping at the slot/holes. Install shingles as normal up to slot/holes, trimming as needed to avoid covering the slot/holes.

Step 3

Snap a chalk line 3 inches down from the bottom of the slot/holes. About 1 inch up from the chalk line, run a minimum $^{1}/_{4^{"}}$ bead of flexible caulking. (Note: This bead of caulking will seal the IN-Vent to the roof – depending on the type of shingles, a wider bead may be needed to avoid gaps under the IN-Vent)

- Provides intake ventilation when soffits or overhangs are inaccessible perfect for re-roof jobs
- Made with sturdy PP plastic material won't crush or compress after installation
- Provides superior airflow 6.75 square inches Net Free Vent Area per lineal foot
- 64 lineal feet per carton plus 2¹/2" roofing nails and IN-Vent end cap sections



Step 4

Starting at the chalk line, run a single 12" long bead of flexible caulk 3" in from and parallel to the gable end of the roof or where the end of the vent will be. Starting at one end of the roof, peel away backing from the provided 4" x 11" IN-Vent End Cap section to expose adhesive side.



Tightly wrap End Cap over the end of the first piece of IN-Vent with the *ribbed side out* and align the edge of the End Cap section with the top edge of the IN-Vent. Set the vent and End Cap in the 12" bead of caulk. Additional caulk may be needed to ensure a proper seal under the End Cap.

Step 5

Using the chalk line as your gauge, align the bottom edge of the IN-Vent on the chalk line and, with the 2¹/2" roofing nails provided, nail down the vent every 12 inches, using the staples in the IN-Vent as your nail line. Also nail the top edge of the IN-Vent every 12 inches (roofing nail must be long enough to penetrate the roof deck). Install IN-Vent pieces continuously the length of the roof and use another End Cap section to close the opposite end. IN-Vent pieces should be installed at least 6 inches past the ends of the slot. **If extra end caps are needed, a similar style of peel-and-stick underlayment or ice/water shield may be substituted.*

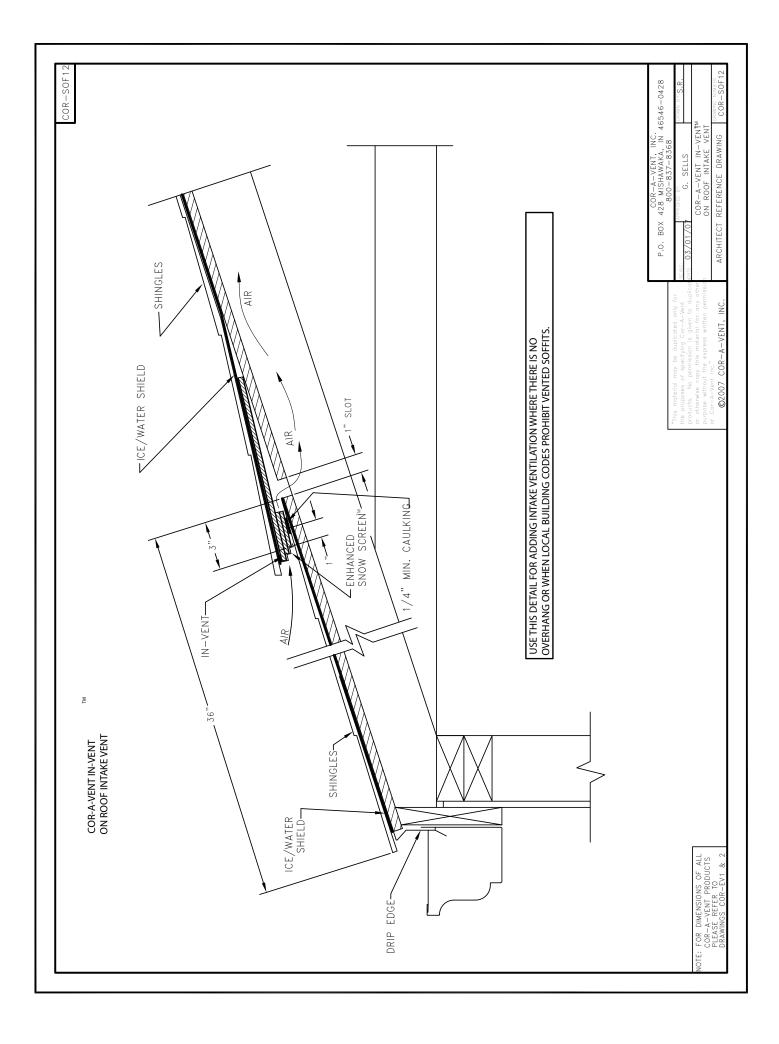
Step 6

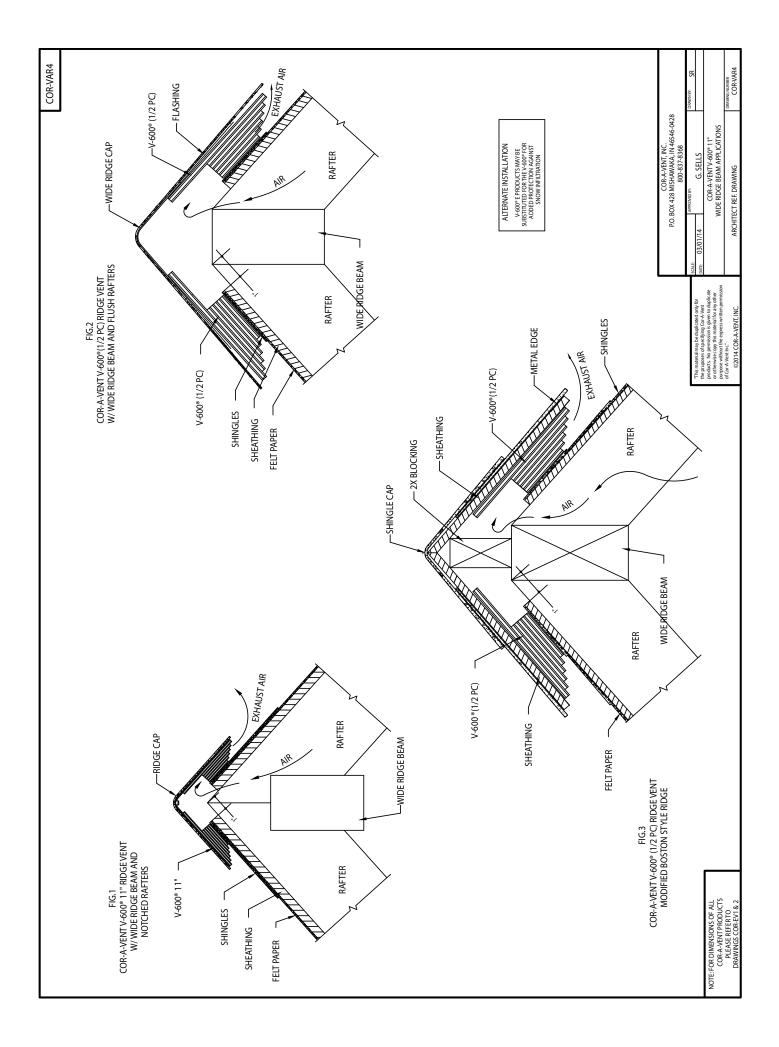
Install a piece of felt paper or ice & water shield over the top of the IN-Vent, up onto the roof. Apply shingle starter strip on top of the IN-Vent and continue installing shingles over the rest of the roof.

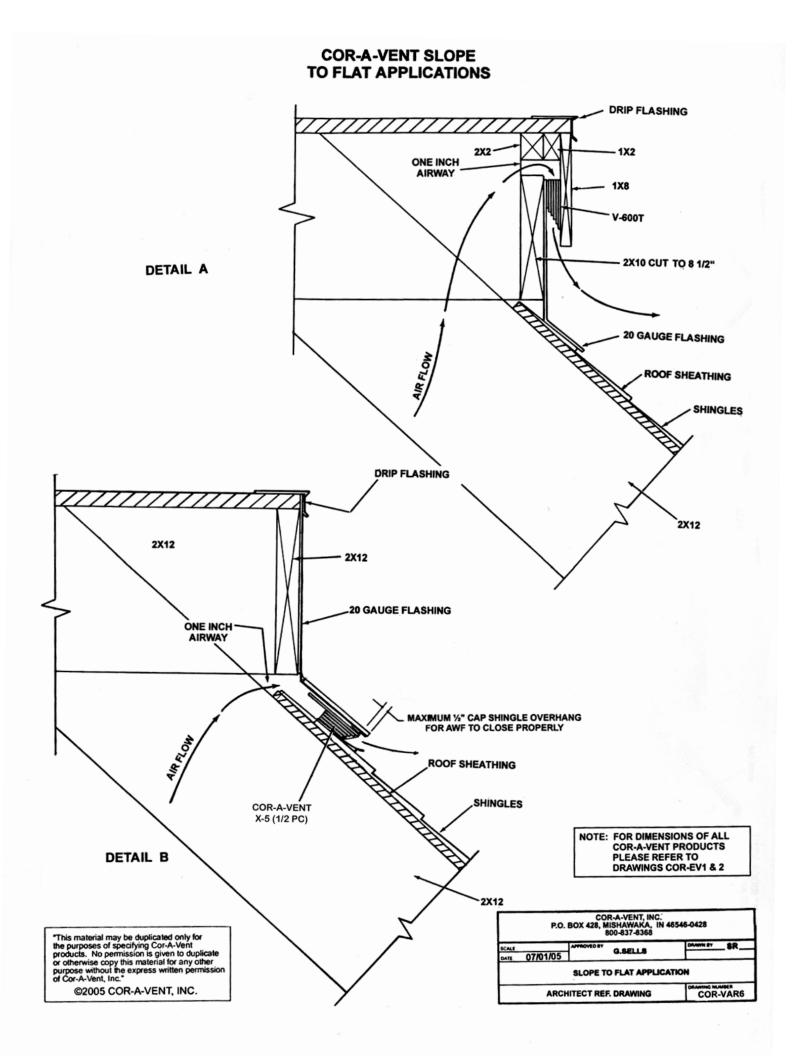
**NOTE: Shingles must overhang the IN-Vent by a minimum of $1/2^{"}$.

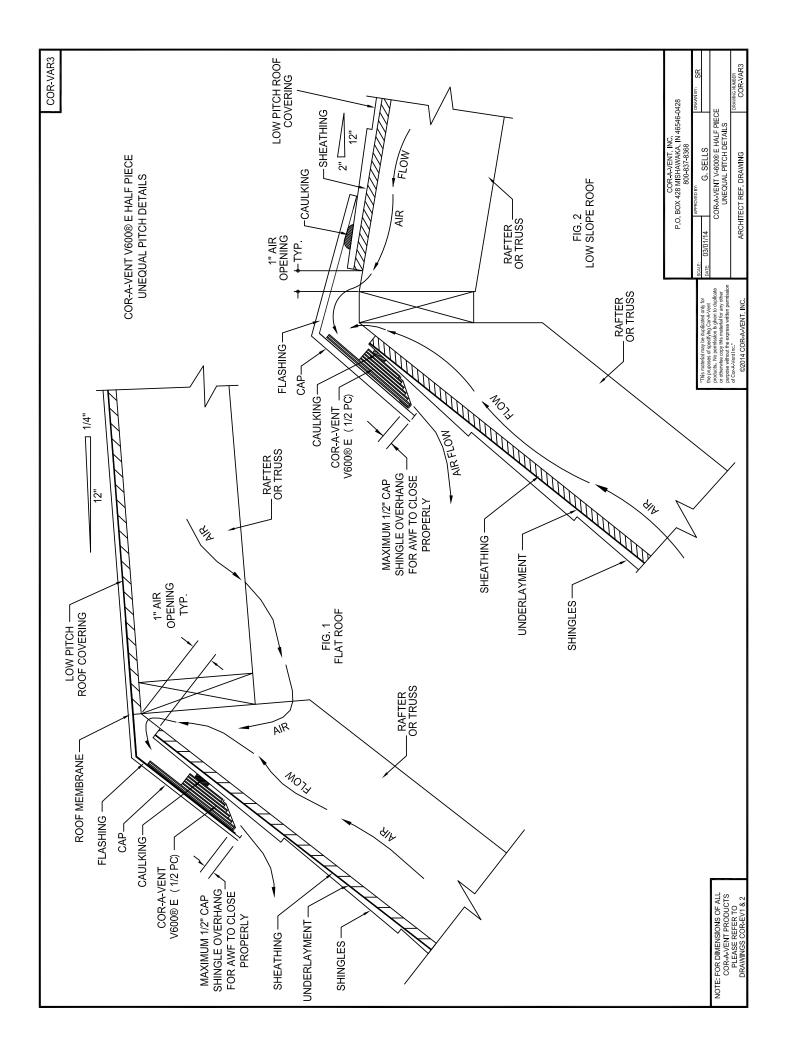


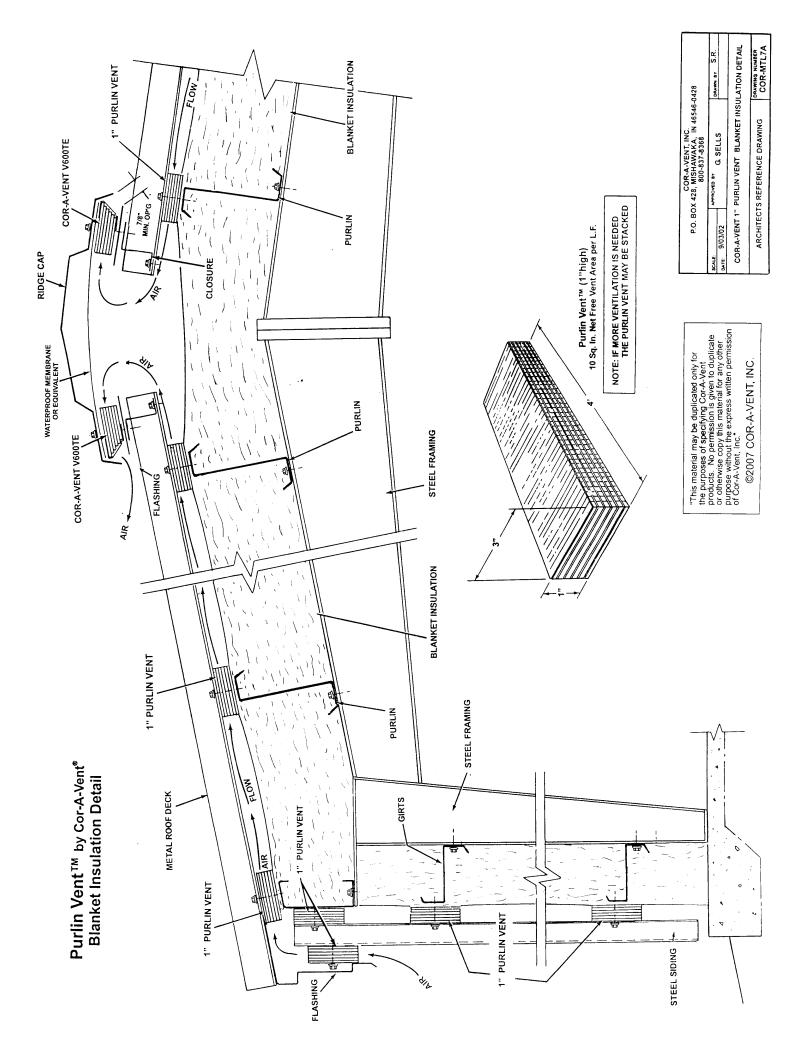
COR-A-VENT, Inc. • P.O. Box 428 • Mishawaka, IN 46546-0428 Phone: (800) 837-8368 • Fax: (800) 645-6162 info@cor-a-vent.com • www.cor-a-vent.com

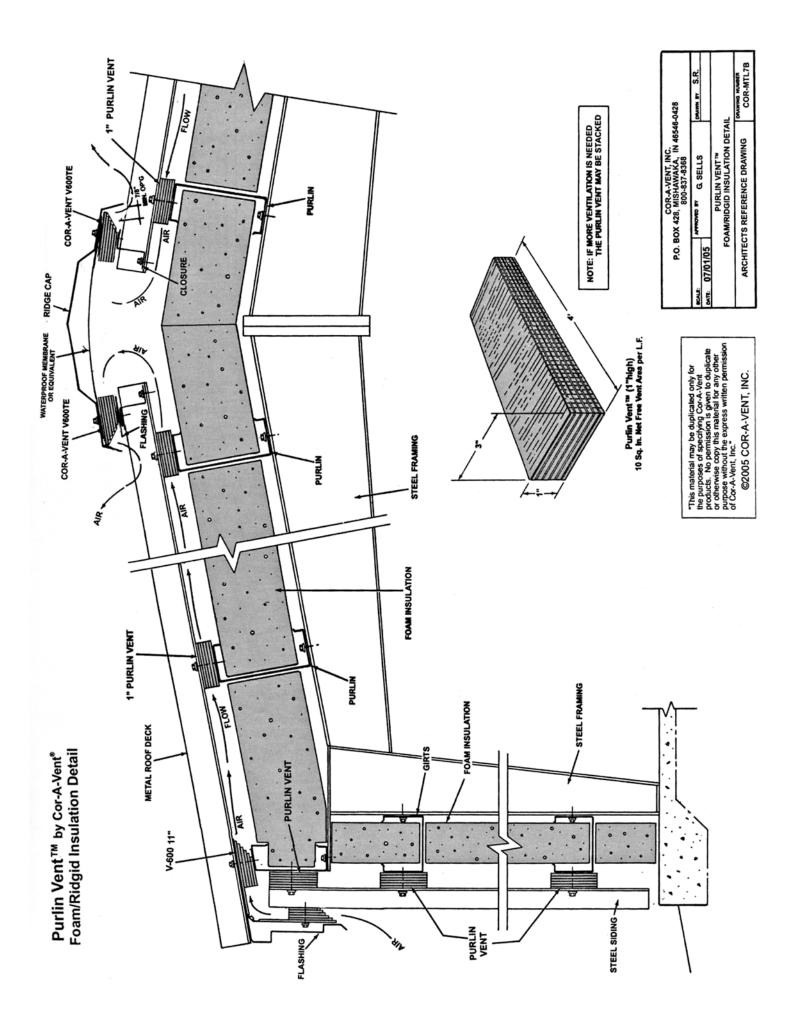


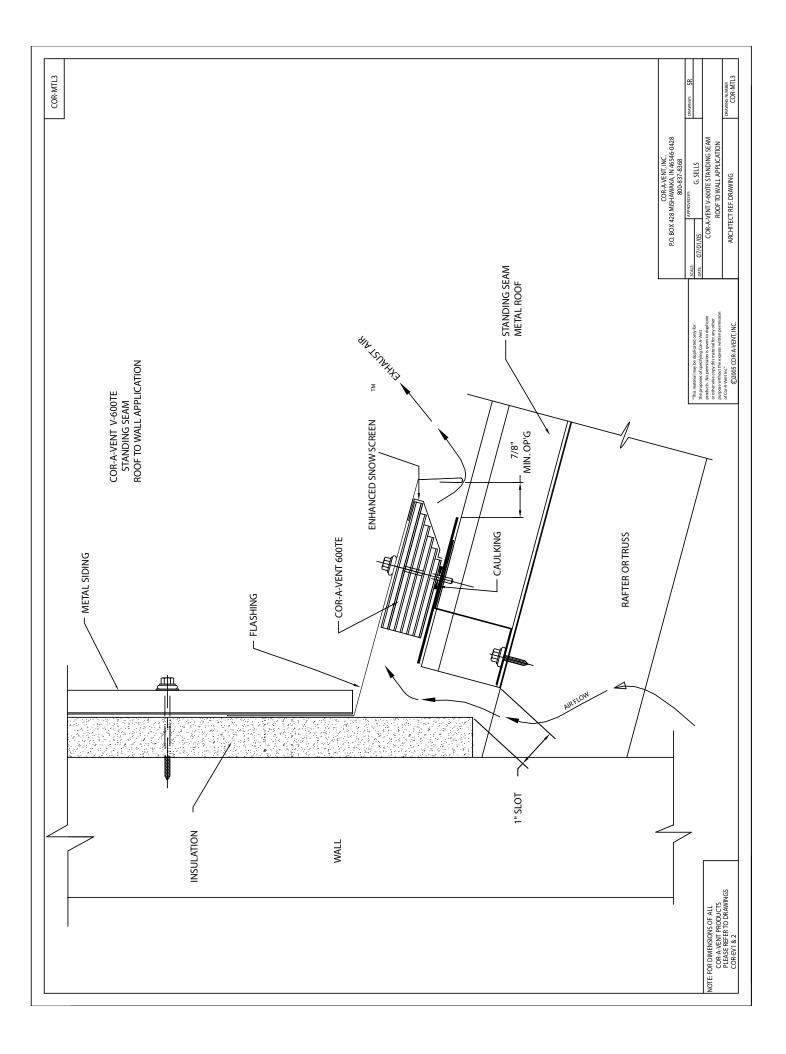


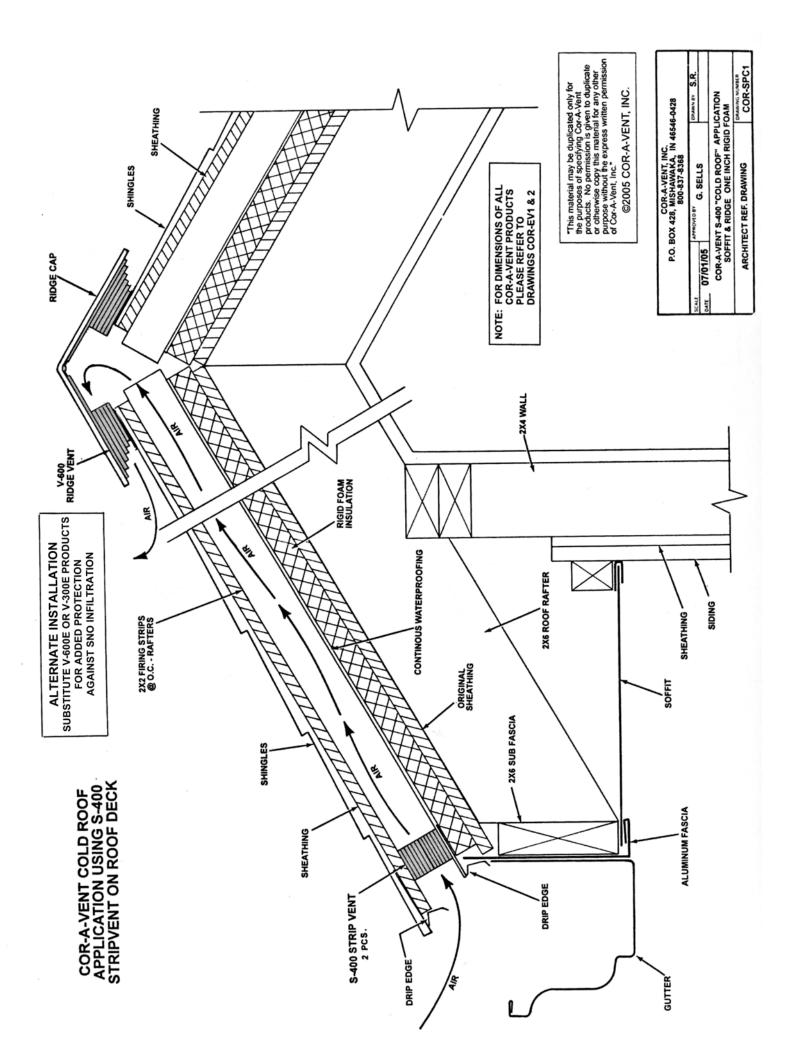


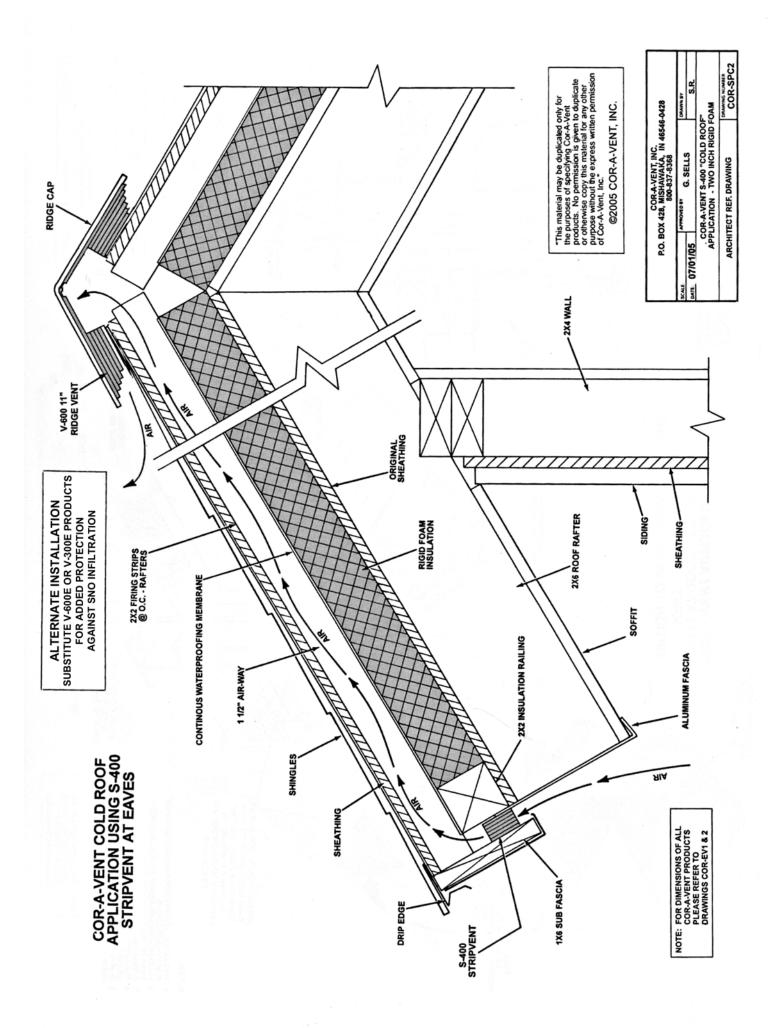


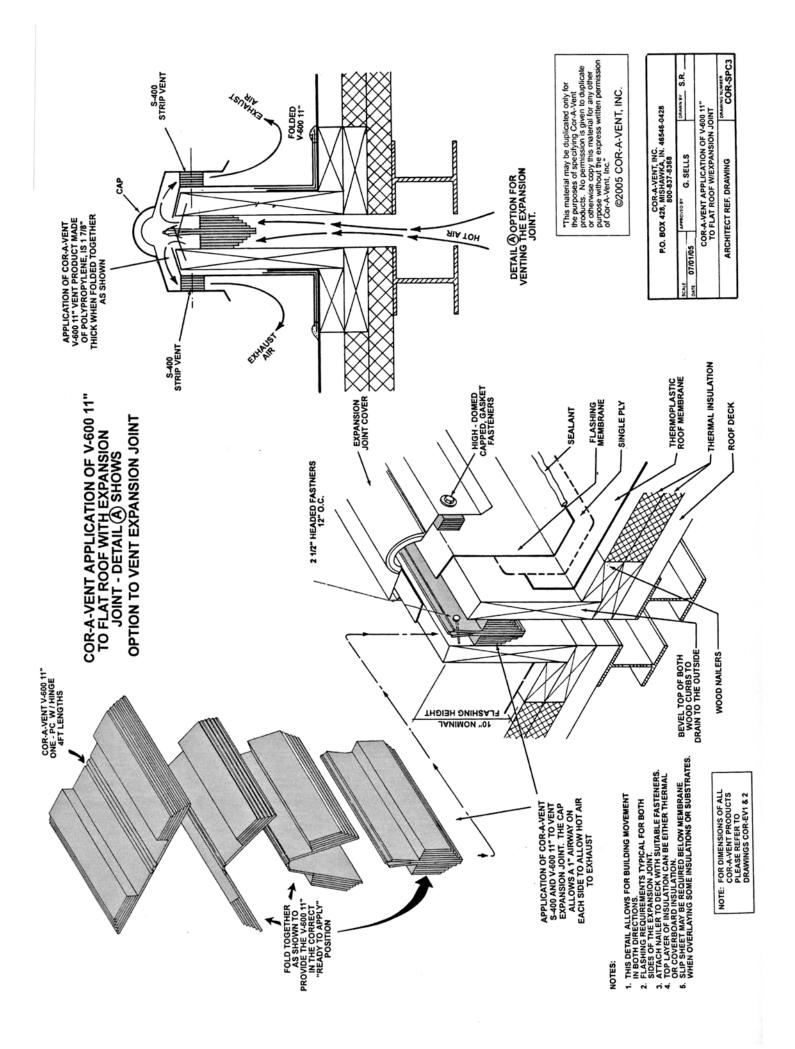


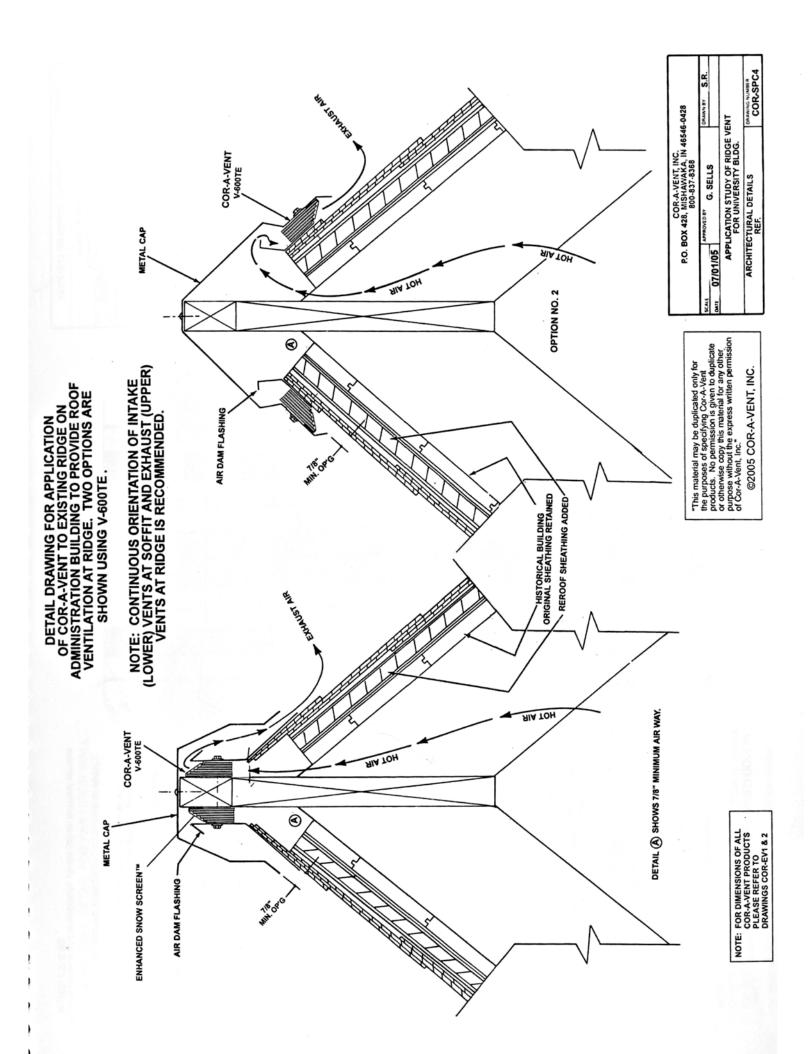


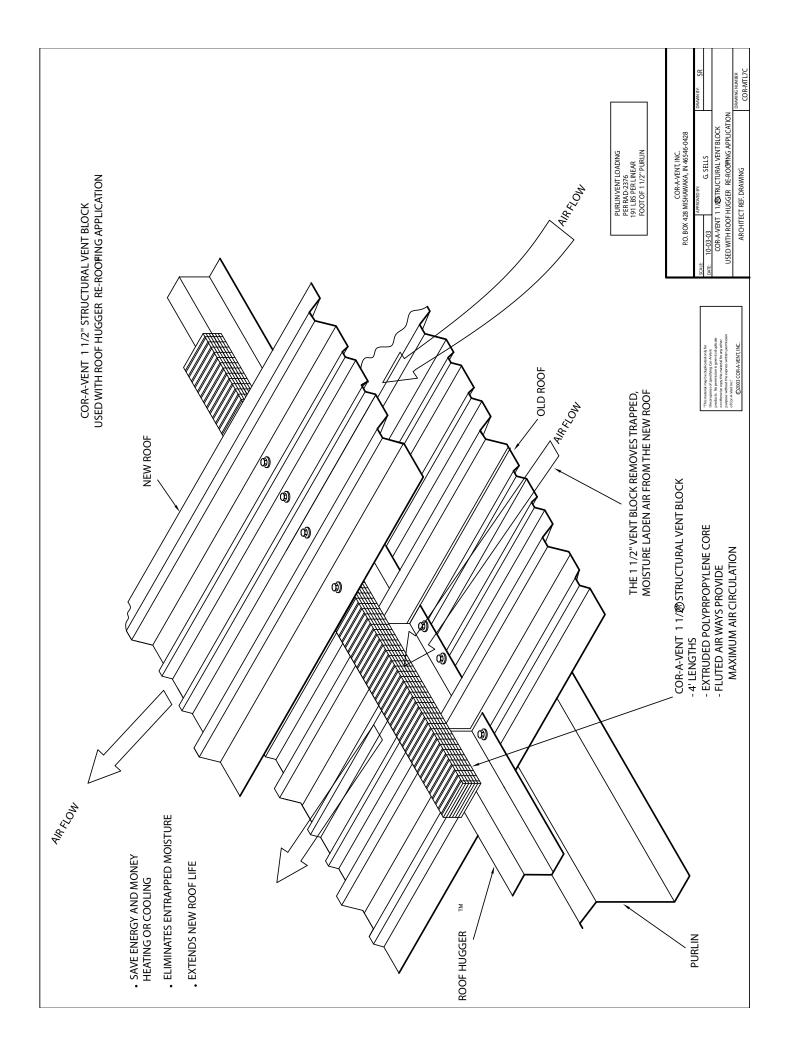


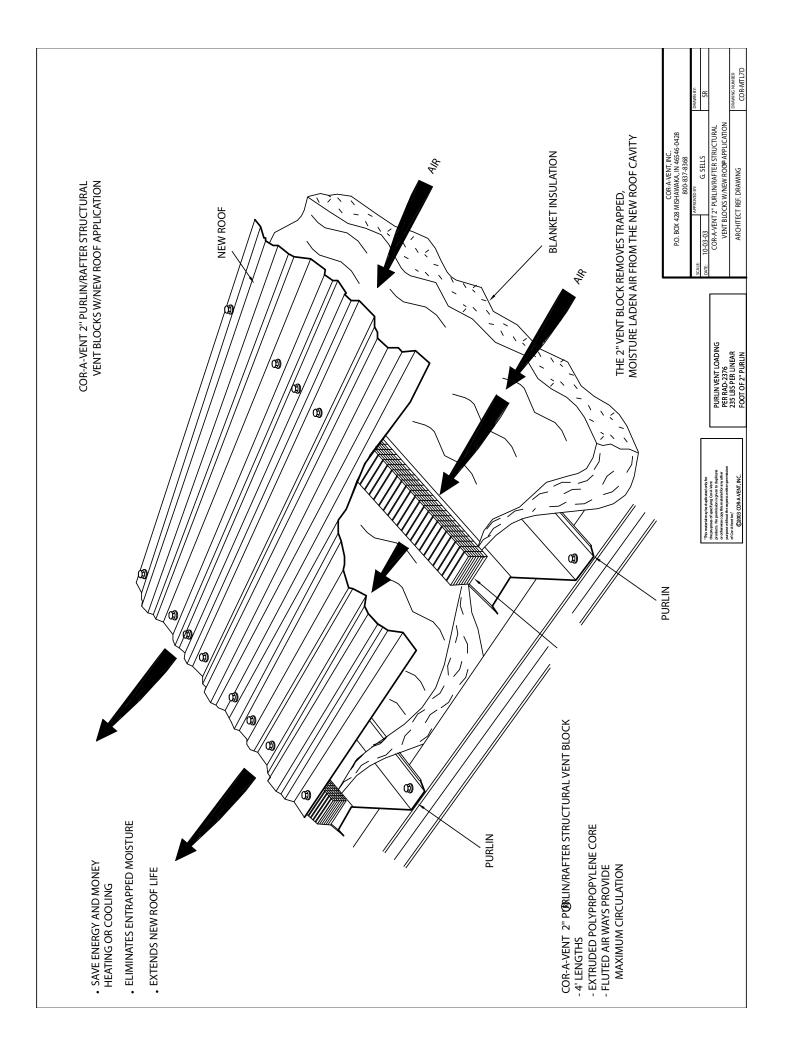


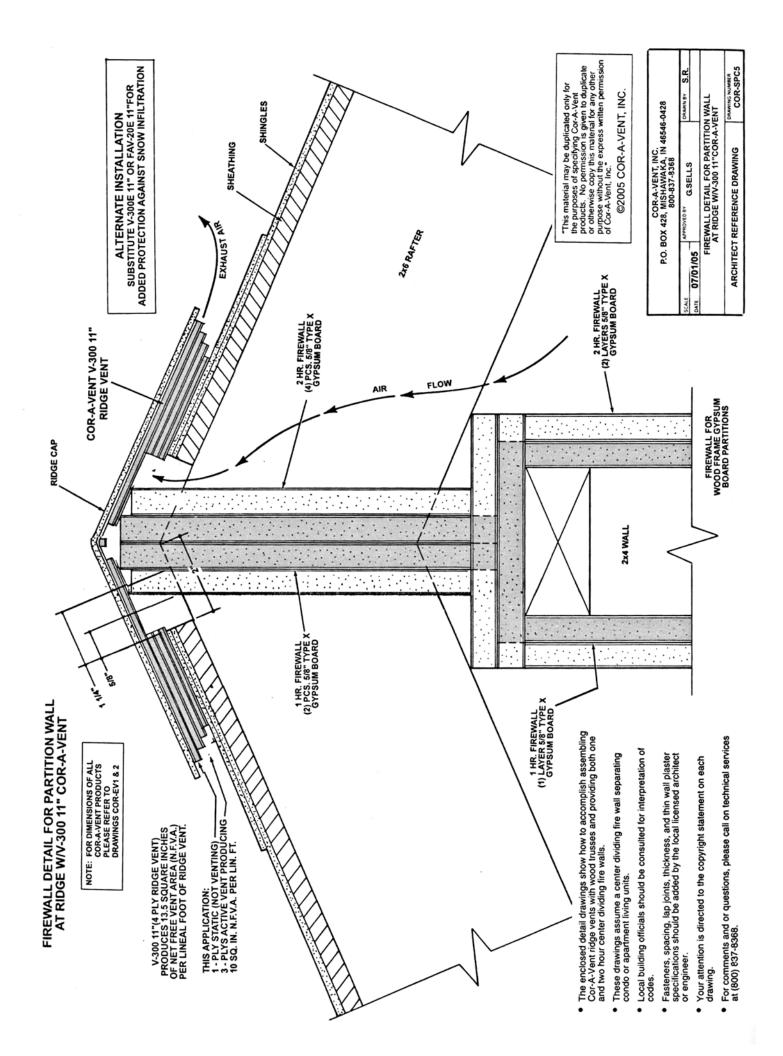


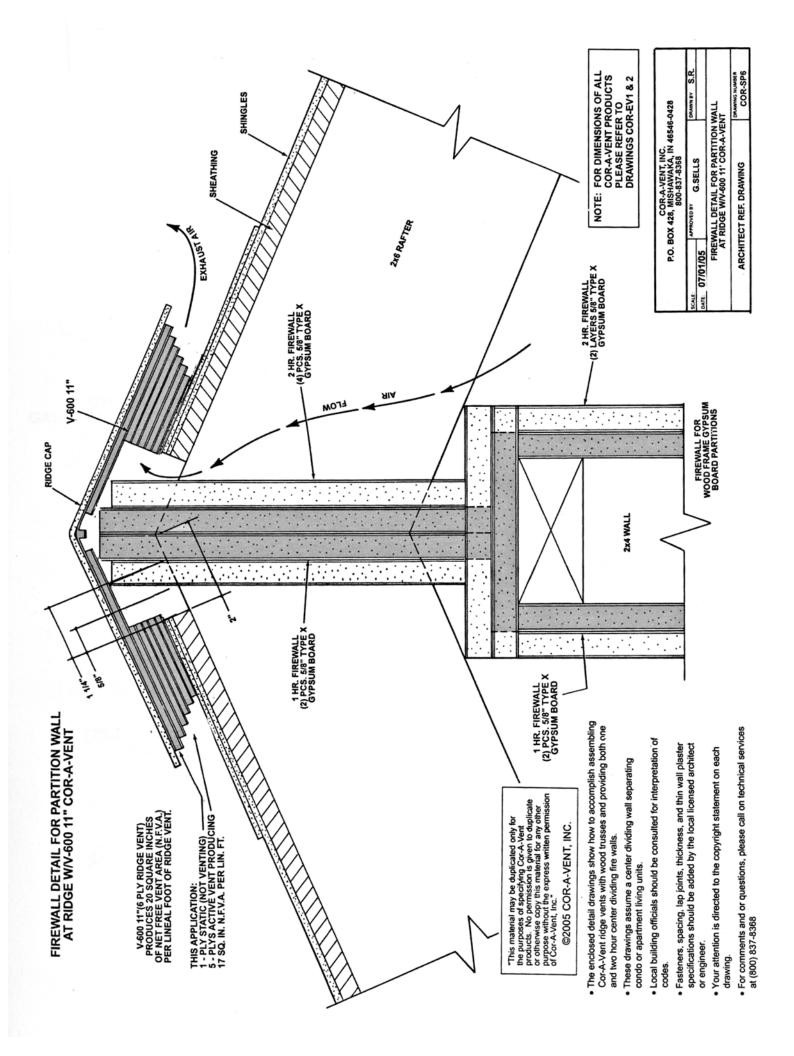








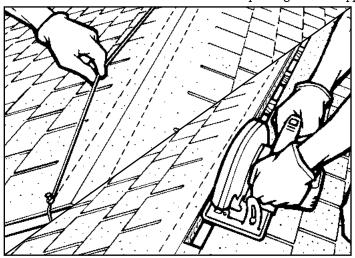




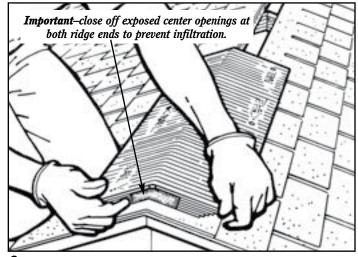
COR VENT[®] Installation and Information Guide.

Easy Installation: *One person can easily install the handy four-foot COR-A-VENT sections.* All you need is a hammer, circular saw, chalk line, utility knife, tape measure and a caulking gun. Here's an installation overview for a standard pitch* gable roof application:

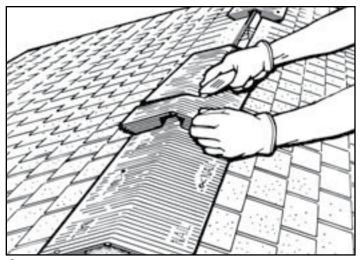
V-600/V-300 Series Ridge Vents



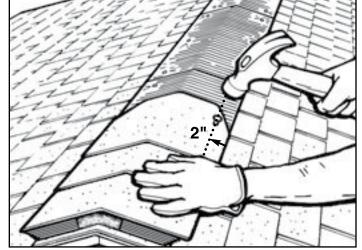
1. Measure a 3" slot, 1¹/2" each side of ridge centerline. This allows for a 2x ridge board or smaller. Snap chalk lines the entire length of the ridge. Cut slot with a circular saw and clean out debris. Set saw depth so as not to cut roof rafters. Stop the slot 12" short of any ridge end, intersecting ridge or obstruction (such as a chimney). If Architectural Shingles, Shakes or roofing with an irregular surface is used, apply a bead of caulk to roof deck before installing vent. This will seal any gaps that could allow weather penetration <u>under</u> the vent.



2. Nail one shingle cap at each end of the ridge, as with conventional application. Use End Plug in the exposed end on first and last sections of vent, caulk in place. Center first piece on ridge and nail, keeping end of vent $\frac{1}{2}$ " from end of roof. Set 4 nails $\frac{1}{2}$ " from ends and 2" up from edge on each corner of vent, add 2 nails in center of vent 2" up from edge. Repeat this step at the other end of the ridge. For V-300, use the Folded End Cap technique shown on back page.



3. Continue applying COR-A-VENT, **working from ends to middle**. This technique helps remove any dips or sag in the ridge. Align center with previous pieces, making sure vent matches roof pitch before nailing. Continue nailing until entire ridge is covered. Use a utility knife to cut last piece to length. Caulk where bottom edge of end caps rest on roof.



4. Center shingle cap on vent and nail. Nail line for cap shingles is to be $2" - 2^{1}/2"$ up from edge. Continue nailing until all vent is covered with ridge caps. Be careful not to overdrive nail. Nail head should be flush with top of shingle, without indenting it. Pre-forming caps in cold weather helps avoid cracking.

Be sure to use fasteners^{**} long enough to penetrate vent *and* roof deck when nailing the vent and ridge cap on. Heavyweight, architectural and re-roof installations require a longer nail than the standard installation. In high wind areas, use a washer headed nail to prevent shingle cap "blow off". Or, apply a ¹/4" to ³/8" bead of roof cement between the ridge caps, ³/4" up from the bottom edge of shingles parallel to ridge.

COR-A-VENT Ridge Vents are sized for residential and light commercial buildings up to 60 feet wide. Please call COR-A-VENT before using our ridge vents on buildings wider than 60 feet.

*Standard applications V-300° or V-600° – 3/12 - 16/12 pitch. For steeper pitch/wide ridge beam applications see complete installation sheet or see us on the web at www.cor-a-vent.com. **Nail requirements for standard vent and ridge cap installation: V-600 - 21/2" roofing nail, V-300 - 11/2" (with 3 tab shingles installed on *new construction* or after *complete roof tear off)*.

Hip Installation Instructions

If the ridge length is too short to install the recommended amount of ventilation, $COR-A-VENT^{\circ} V-300^{\circ}E 11"$ or $V-600^{\circ}E 11"$ may be installed in equal lengths on the upper half of the hips. These instructions can be used for most shingle, shake or slate applications.

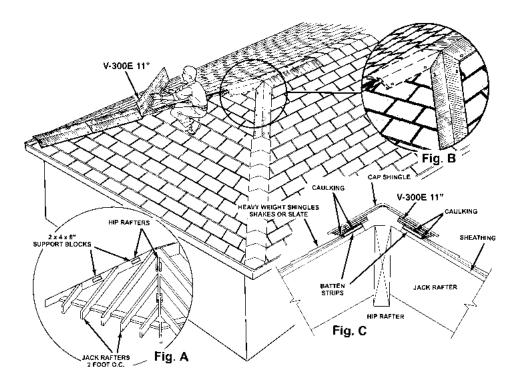
If jack rafters are 16" on center, cut the slot per our ridge installation instructions. If jack rafters are 24" on center, blocking may be needed to prevent the roof sheathing from sagging. Cut 2" x 4" blocks 8" long, and using 16-penny nails, nail blocks between jack rafters and flush with bottom of roof sheathing. Cut the slot per our ridge installation instructions. The blocks will provide support for the roof sheathing. Nail roof sheathing to blocks with 8-penny nails. See Fig. A below. **Note: When using blocking, allow for a loss of 25% in ventilation due to the blocks.**

The slot normally does not need to be cut more than half way down the hips for open attic roofs. The vent may be run all the way down to the end of the roof for appearance reasons, BUT DO NOT CUT A SLOT UNDER IT! This will insure that the air is drawn in from the soffit inlet vents and exhausted out through the ridge and/or hip vents.

If it is an ALL cathedral ceiling roof then the slot must not be cut any closer than 3 feet up from the outside wall of the building. This will prevent any ice build up from leaking back into the building. In areas that receive heavy snowfall, the slot should stop 6 feet up from the outside wall of the house. The vent may be run all the way down to the end of the roof for appearance reasons, BUT DO NOT CUT A SLOT UNDER IT! See Fig. B below for details on how to cut the vent where the hips and ridge come together. The vent can be cut with a utility knife. Caulk all joints with black silicon caulking. Also, caulk end joints on the vent coming up the hip.

If 3 in 1 shingles are used, run a ³/8" bead of silicon caulking down each side of the slot, centered on the nailing surface of the vent. This will insure that the vent is sealed down across the shingle courses and prevent water from weeping in under the vent.

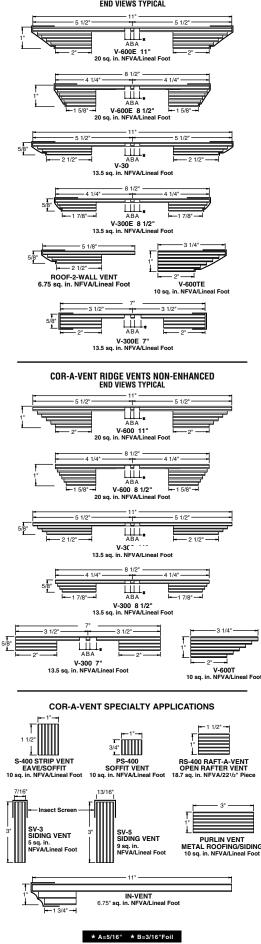
If Heavy Weight Shingles, Shakes, Slate or Tiles are used: see Fig. C below for a detail on how to install a batten strip to provide a level surface for the vent to sit on. Batten strips need to be as thick as the thickest point of the roofing. There MUST NOT BE ANY GAPS UNDER THE VENT or water may leak in.



MINIMUM ROOF PITCH FOR INSTALLATION - 5/12

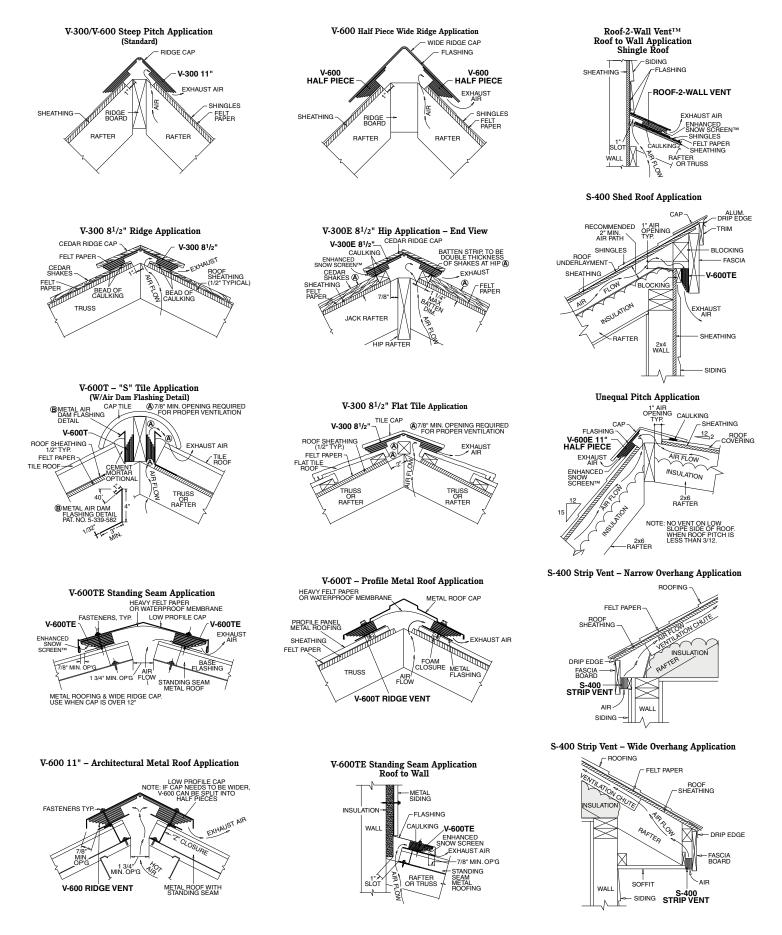
End Views

COR-A-VENT RIDGE VENTS W/ENHANCED SNOW SCREEN

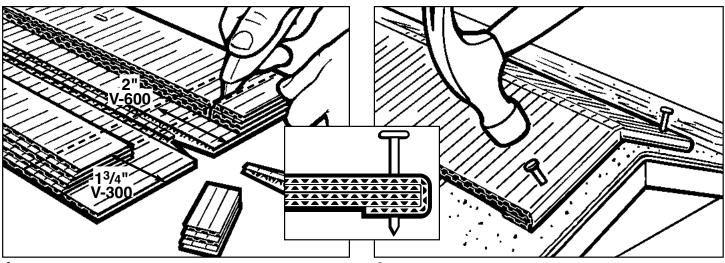


Alternate Installation Examples:

COR-A-VENT[®] continually develops and improves applications to meet the growing demands of architecture and new roofing materials. The specialized details on this page have been proven in thousands of real world installations. We don't experiment on your job. Call our technical dept. for advice on your special application. Or, send us a print and we'll "mark up" where and how to vent it. **Our Enhanced products can be substituted whenever an extra measure of protection is needed**.



COR-A-VENT[®] Folded End Cap Instructions:



1. Turn vent piece (V-300 shown) over so routed slot is facing up. Use utility knife to cut out a "V" shaped notch in one end of vent.

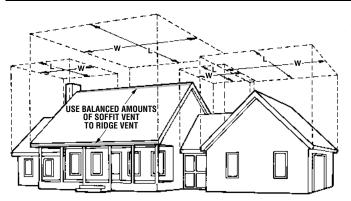
2. Measure 1³/4" from end of vent and make a parallel cut through bottom 3 layers. For V-600, measure 2" from end and cut through bottom 5 layers. Remove loose pieces. Be careful not to cut off top layer!!

3. Fold end flap under and secure with a roofing nail -2" for V-300 or $2^{1/2}$ " for V-600. This allows for the nail to penetrate an extra layer of vent material.

4. Nail vent pieces to roof per instructions above. Be sure to caulk between bottom edge of vent and roof at both ends of the ridge.

Be careful not to touch knife blade. Always cut in a direction away from yourself. Wear proper hand and eye protection.

For the best appearance, install COR-A-VENT continuously the entire length of the ridge.



Figuring Your Ventilation Needs:

V-600 = 20 Sq. inches NFVA/lineal foot. V-300 = 13.5 Sq. inches NFVA/lineal foot.

V-600: Square footage of building footprint X .48 = Lineal Feet **V-600** needed 20

V-300: <u>Square footage of building footprint X .48</u> = Lineal Feet V-300 needed_ 13.5

Example: 25' x 50' = 1250 Sq.F. 1250 x .48 = 600 600 ÷ 20 = 30 L.F. V-600 needed

The above formulas will give the amount of COR-A-VENT ridge vent needed for a 1/150 vent ratio, provided an equal or greater amount of soffit venting is used. For a 1/300 ratio, (building code minimum) use half the amount of ridge vent. *Note: Code interpretation may vary. Consult your local building dept.*

Balanced Ventilation is not only having an equal amount of ridge and soffit vents in net free inches, but having the soffit and ridge vents balance each other on the structure. Wherever there is ridge vent above, there should be soffit/eave/intake vents on the structure below.

Important notes: COR-A-VENT ridge vents should *always* be installed with soffit/eave/intake vents of equal or greater area. All other vent openings (except soffits) should be *closed off*. The air passage way or "Ventilation Chute" between the inlet (soffit/eave/intake) and the outlet (ridge) vent must not be blocked or restricted.

Call our technical service dept. for help with any standard or specialty ridge or soffit applications.

Our website contains a complete listing of application details in .PDF and .DWG formats for viewing or downloading.

"This material may be duplicated only for the purposes of specifying COR-A-VENT^{\circ} products. No permission is given to duplicate or otherwise copy this material for any other purpose without the express written permission of COR-A-VENT, Inc."



COR-A-VENT, Inc. P.O. Box 428 • Mishawaka, IN 46546-0428 Phone: (800) 837-8368 Fax: (800) 645-6162 info@cor-a-vent.com • www.cor-a-vent.com RADCO TEST REPORT Test Report No. RAD-2376 Project No. C-7200 Lab No. TL-1758

LOAD TESTS ON RIDGE VENT AND DETERMINATION OF NET FREE AREA

Prepared for

COR-A-VENT, INC. P.O. Box 428 Mishawaka, IN 46546-0428

by

RADCO

Resources, Applications, Designs and Controls, Inc. Listing and Testing Division 3220 E. 59th Street Long Beach, CA 90805 Telephone: 562-272-7231 Facsimile: 562-529-7513

Prepared by:

Yves-A. Metellus Senior Consultant

Submitted by: úcker, P.E. resident

RADCO

Issued: December 1999 Revised: June 2000

RADCO reports are for the exclusive use of the client to whom they are addressed. Permission is granted to reproduce this report provided it is reporduced in its entirety. The use of the name RADCO (Resources, Applications, Designs and Controls, Inc.), in any advertising or related materials, must receive prior written approval from RADCO. Reports apply only to samples tested at the time of testing and are not necessarily indicative of the quality of apparently identical or similar products. This report contains confidential information intended for the sole use of the addressee. Transmittal by facsimile is prohibited without the express approval and concurrence of the addressee.

TABLE OF CONTENTS

RADED

RAD-2376

1.0		1
2.0	MATERIAL SPECIFICATIONS	1
3.0	TEST PROCEDURES AND RESULTS	1
3.1	LOAD TESTS ON RIDGE VENT	1
3.2	DETERMINATION OF NET FREE AREA	2
4.0	CONCLUSION	3

Revision Record

Section 4.0, Conclusion. The last two (2) paragraphs were added (06-28-00).

1.0 INTRODUCTION

At the request of COR-A-VENT, INC., RADCO conducted a series of load tests to determine the maximum concentrated load their ridge vent will support. The maximum load was established at the point when the vent was crushed; as defined by contact between the upper and lower skins of the cell layer.

RADEO

RAD-2376

2.0 MATERIAL SPECIFICATIONS

The COR-A-VENT, INC. ridge vent is identified as V-600. The vents are corrugated polypropylene plastic which are designed to be installed along a roof ridge line cutout of wood frame construction. Dimensional drawings are in section 3.2.

3.0 TEST PROCEDURES AND RESULTS

3.1 LOAD TESTS ON RIDGE VENT

The test method used was adopted from Standard T 808 om-92 "Flat Crush Test of Corrugated Board", Technical Association of the Pulp and Paper Industry TAPPI 1992. The purpose of this test was to determine what effects a simulated concentrated live load would have on the ridge vents. The vent was cut into a section 5 inches square and was placed between platens on the RADCO United Table Model Electromechanical Testing Machine, Model Number TM-20. Load was applied to produce a loading rate of 25 pounds per second until failure. Ten samples were tested. The results were as follows:

Test	Failure Load (Lbs)	Deviation from average (%)
1	294.4	10.8
2	274.2	3.2
3	293.3	10.4
4	259.0	-2.5
5	250.3	-5.8
6	271.2	2.1
7	269.8	1.5
8	284.9	7.2
9	230.9	-13.1
10	229.3	-13.7
Average	265.7	
	-	

An average value was calculated and then divided by the sample area to determine the average ultimate strength. Each value was then compared to the average and a deviation shown as:

.

RADED

RAD-2376

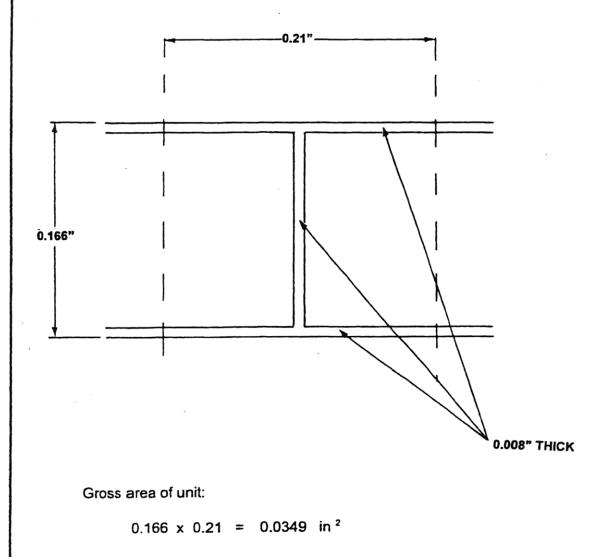
(Ultimate value - Average value) / Average value

This value was expressed as a percent.

Results

Ultimate values did not differ by more than 15%. The average load was 53.146 psi and 7653 PSF

3.2 DETERMINATION OF NET FREE AREA



RAD-2376

RADEO

Gross area of unit walls

 $((2 \times 0.21) \times 0.008) + (0.166 - (2 \times 0.008) \times 0.008) = 0.00456$ in ²

Net free area of unit

0.0349 - 0.00456 = 0.0303 in ²

Net free area of 1 foot strip

 $(12/0.21) \times 0.0303 = 1.731 \text{ in}^2$

4.0 CONCLUSION

An ultimate value of 7653 PSF was determined from load tests conducted on the COR-A-VENT, INC. ridge vent identified as V-600. A net free area of 1.731 in ² per foot was determined by calculation.

This is equivalent to 13.85 in² of free area per foot of the four-ply type V-300 ridge vent. $(1.731 \times 4 \text{ plys} \times 2 \text{ sides})$.

This is equivalent to 20.7 in² of free area per foot of the six-ply type V-600 and V-400 ridge vent. (1.731 x 6 plys x 2 sides).

*** END OF REPORT ***

SECTION 07723

RIDGE, SOFFIT AND SIDING VENTS

** NOTE TO SPECIFIER ** Cor-A-Vent; high-density polypropylene ridge and soffit vents.

This section is based on products manufactured by Cor-A-Vent, Inc., which is located at the following address: P.O. Box 428 Mishawaka, IN 46546-0428 Attn: Technical Support Dept. Tel: (800) 837-8368 Fax: 800-645-6162 Continuous ridge and soffit vents provide balanced ventilation of attic spaces without the use of motors or their consumption of energy, or the maintenance associated with moving parts. Made of durable corrosion-free high-density polypropylene, Cor-A-Vent profiles are suitable for all common roofing materials and conditions.

PART 1 GENERAL

1.1 SECTION INCLUDES

** NOTE TO SPECIFIER ** Delete items below not required for project.

- A. Ridge vents.
- B. Soffit vents.
- C. Hip vents.
- D. Siding vents.

1.2 RELATED SECTIONS

** NOTE TO SPECIFIER ** Delete any sections below not relevant to this project; add others as required.

- A. Section 06100 Rough Carpentry.
- B. Section 07310 Shingles.
- C. Section 07320 Roof Tiles.
- D. Section 07410 Metal Roof and Wall Panels.
- E. Section 07457 Cementitious Panels.

1.3 SUBMITTALS

- A. Submit under provisions of Section 01300.
- B. Product Data: Manufacturer's catalog data, standard details, and installation instructions.
- C. Samples: 2 inch (50 mm) long samples of each profile required.
- 1.4 DELIVERY, STORAGE, AND HANDLING
 - A. Store products indoors and protect from construction traffic and damage.

PART 2 PRODUCTS

07723-1

2.1 MANUFACTURER

- A. Manufacturer: Provide vents fabricated by Cor-A-Vent, Inc.; P.O. Box 428; Mishawaka, IN 46546-0428. ASD. Tel: (800) 837-8368. Fax: (800) 645-6162.
- B. Substitutions will not be acceptable.

2.2 MATERIALS

A. Ridge Vents - General: Manufactured of corrosion-free, extruded, high-density polypropylene. Ridge Vents with an "E" in name have enhanced snow screen. Roof-2-Wall Vents have an Active Weather Foil.

** NOTE TO SPECIFIER ** Ventilation requirements for attics are generally based on the national Building Codes. They call for a ratio of 1:300, i.e. 1 square foot of ventilation for every 300 square feet of attic area, with 50 percent of the ventilating area at the eaves and 50 percent at the ridge. Note: Interpretation of these codes may vary. For exact information consult your local building code or building official. In a straight gable roof application, a continuous V-600 series vent with continuous strip vents at both soffits provides 40 square inches of ventilation per linear foot, which is capable of adequately venting an attic up to 75 feet wide at a ratio of 1:300. However, buildings 40 feet or wider may require additional soffit venting, depending on local code requirements. On installations of this size contact the Cor-A-Vent Technical Support Department. Ridge/Soffit vent systems should not be used in conjunction with other roof top vents or gable end vents. Delete all products below that are not required. If more than one style of ridge vent is required, insert an identifying name so the contractor will know which type is to be used where.

- B. Ridge Vents: Cor-A-Vent V-600-11 and V-600E-11 Ridge Vent.
 - 1. Net free area: 20 sq in per lin ft (42336 sq mm/m).
 - 2. Color: Black.
 - 3. Dimensions: 11 inches (279 mm) wide by 48 inches (1220 mm) long by 1 inch (25 mm) high.
- C. Ridge Vents: Cor-A-Vent V-600-8 ¹/₂ and V-600E-8 ¹/₂ Ridge Vent.
 - 1. Net free area: 20 sq in per lin ft (42336 sq mm/m).
 - 2. Color: Black.
 - Dimensions: 8-1/2 inches (216 mm) wide by 48 inches (1220 mm) long by 1 inch (25 mm) high.
- D. Ridge Vents: Cor-A-Vent V-600/T & V-600/TE Ridge Vent.
 - 1. Net free area: 20 sq in per lin ft (42336 sq mm/m).
 - 2. Color: Black.
 - 3. Dimensions: 3-1/2 inches (89 mm) wide by 48 inches (1220 mm) long by 1 inch (25 mm) high.
- E. Ridge Vents: Cor-A-Vent V-300-11 & V-300-11E Ridge Vent.
 - 1. Net free area: 13.5 sq in per lin ft (28577 sq mm/m).
 - 2. Color: Black.
 - 3. 1. Dimensions: 11 inches (279 mm) wide by 48 inches (1200 mm) long by 5/8 inch (16 mm) high.
- F. Ridge Vents: Cor-A-Vent V-300-8-1/2 & V-300E-8-1/2 Ridge Vent.
 - 1. Net free area: 13.5 sq in per lin ft (28577 sq mm/m).
 - 2. Color: Black.
 - 3. Dimensions: 8-1/2 inches (216 mm) wide by 48 inches (1220 mm) long by 5/8 inch (16 mm) high.

** NOTE TO SPECIFIER ** Soffit vents must always be used with ridge vents to provide balanced attic ventilation and to prevent rain infiltration under severe weather conditions.

- G. Ridge Vents: Cor-A-Vent V-300-7 & V-300E-7Ridge Vent.
 - 1. Net free area: 13.5 sq in per lin ft (28577 sq mm/m).

- 2. Color: Black.
- 3. Dimensions: 7 inches (178 mm) wide by 48 inches (1220 mm) long by 5/8 inch (16 mm) high.
- H. Ridge Vents: Cor-A-Vent Fold-A-Vent-11 & Fold-A-VentE-11 Ridge Vent.
 - 1. Net free area: 13.5 sq in per lin ft (28577 sq mm/m).
 - 2. Color: Black.
 - 3. Dimensions: 11 inches (279 mm) wide by 240 inches (6096 mm) long by 5/8 inch (16 mm) high.
- I. Ridge Vents: Cor-A-Vent Fold-A-Vent-8 ½ & Fold-A-VentE-8-1/2 Ridge Vent.
 - 1. Net free area: 13.5 sq in per lin ft (28577 sq mm/m).
 - 2. Color: Black.
 - 3. Dimensions: 8-1/2 inches (216 mm) wide by 240 inches (6096 mm) long by 5/8 inch (16 mm) high.

** NOTE TO SPECIFIER ** Soffit vents must always be used with ridge vents to provide balanced attic ventilation and to prevent rain infiltration under severe weather conditions.

- J. Ridge Vents: Cor-A-Vent Fold-A-Vent-7 Ridge Vent.
 - 1. 1. Net free area: 13.5 sq in per lin ft (28577 sq mm/m).
 - 2. 2. Color: Black.
 - 3. Dimensions: 7 inches (178 mm) wide by 240 inches (6096 mm) long by 5/8 inch (16 mm) high.
- K. Ridge Vents: Cor-A-Vent Roof-2-Wall Vent.
 - 1. Net free area: 8.5 sq in per lin ft (17994 sq mm/m).
 - 2. Color: Black.
 - 3. Dimensions: 5.12 inches (128 mm) wide by 48 inches (1220 mm) long by 13/16 inch (20 mm) high
- L. Ridge Vents: Cor-A-Vent Revolution-11 Ridge Vent
 - 1. Net Free Vent Area: 12 sq in per lin ft (25394 sq mm/m).
 - 2. Dimensions: 11 inches (279mm) wide by 240 inches (6096mm) long by 5/8 inch (16mm) high.
 - 3. Color: Black
- M. Ridge Vents: Cor-A-Vent Revolution-9 Ridge Vent.
 - 1. Net Free Vent Area: 12 sq in per lin ft (25394 sq mm/m).
 - 2. Dimensions: 9 inches (229mm) wide by 240 inches (6096mm) long by 5/8 inch (16mm) high.
 - 3. Color: Black.
- N. Soffit Vents General: Manufactured of corrosion-free, extruded, high-density polypropylene.
- O. Soffit Vents: Cor-A-Vent S-400 Strip Vent.
 - 1. Net free area: 10 sq in per lin ft (21168 sq mm/m).
 - 2. Dimensions: 1 inch (25 mm) wide by 48 inches (1220 mm) long by 1 1/2 inch (38 mm) high.

- 3. Color: Black.
- 4. Color: White.
- P. Soffit Vents: Cor-A-Vent PS-400 Strip Vent.
 - 1. Net free area: 10 sq in per lin ft (21168 sq mm/m).
 - 2. Dimensions: 1 inch (25 mm) wide by 48 inches (1220 mm) long by 3/4 inch (19 mm) high.
 - 3. Color: Black.

^{**} NOTE TO SPECIFIER ** Delete 1 of the following 2 paragraphs.

** NOTE TO SPECIFIER ** Delete 1 of the following 2 paragraphs.

- 4. Color: White.
- Q. Soffit Vents: Cor-A-Vent RS-400 Raft-A-Vent.
 - 1. Net free area: 10 sq in per lin ft (21168 sq mm/m).
 - 2. Dimensions: 1 inch (25 mm) high by 22.5 inches (570 mm) long by 1-1/2 inch (38 mm) wide.
 - 3. Color: Black.
 - 4. Color: White.

** NOTE TO SPECIFIER ** Delete 1 of the following 2 paragraphs.

- R. Soffit Vents: IN-Vent (Rooftop Inlet Vent).
 - 1. Net free area: 6.75 sq in per lin ft (14289 sq mm/m).
 - 2. Dimensions: 11 inches (279 mm) wide by 48 inches (1220 mm) long by 1 inch (25 mm) high
 - 3. Color: Black.
- S. Siding Vents: SV-3.
 - 1. Net free area: 5 sq in per lin ft (10585 sq mm/m).
 - 2. Dimensions: 7/16 inches (10.5mm) wide by 48 inches (1220 mm) long by 3 inch (75 mm) high.
 - 3. Color: Black.
- T. U. Siding Vents: SV-5.
 - 1. Net free area: 8.75 sq in per lin ft (17994 sq mm/m).
 - 2. Dimensions: 3/4 inches (18.75mm) wide by 48 inches (1220 mm) long by 3 inch (75 mm) high.
 - 3. Color: Black.
- U. Siding Vents: SS-112 Sturdi Strips.
 - 1. Dimensions: 3/8 inches (9.65mm) depth by 1-1/2 inches (38 mm) wide by 48 inches (1220) long.
 - 2. Color: Black.
- V. Siding Starter Strip: ST-30 Sturdi Starter.
 - 1. Dimensions: 5/16 inches (7.87mm) wide by 1 1/4 inches (31.75 mm) tall by 48 inches (1220) long.
 - 2. Color: Black.

PART 3 EXECUTION

- 3.1 EXAMINATION
 - A. Verify that framing, sheathing, and shingles are secured and ready to receive vents.
 - B. Verify that there is a 1 inch (25 mm) wide clear air space between sheathing and each side of ridge board or, if trusses are used, a 1-1/2 inches (40 mm) wide continuous clear air space centered on ridge.
- 3.2 INSTALLATION

Α

General:

** NOTE TO SPECIFIER ** Vents should ordinarily be installed at each of the following locations. Edit as necessary to describe project conditions.

- 1. Install ridge vents along entire length of roof ridges.
- 2. Install soffit vents along entire length of soffits.
- 3. Install Roof-2-Wall vent along entire length of intersection of vertical walls.

** NOTE TO SPECIFIER ** Vents along hips are used only when the ridge vents would not provide adequate venting. Delete the following paragraph if hip vents are unnecessary.

- 4. Install V-300(E), Fold-A-Vent (E), V-600E on hips to provide proper ventilation.
- B. Ridge Vents:
 - 1. Fit end cap onto one end of the first and last piece of ridge vent.
 - 2. Lay a bead of calking on the underside of the end cap, press the piece and cap into position, and nail through the end cap, the ridge vent, and into the roof sheathing.
 - 3. Use roofing nails that are long enough to penetrate ridge vent and through roof sheathing.
 - 4. Drive the nails down flush so that the vent and end cap are held down firmly.
 - 5. Do not indent by over driving.
 - 6. Butt each successive piece up snugly, checking for straight alignment.
 - 7. Use 2 nails in each end and 1 at each side at center, pulling up slightly when nailing second side to ensure that the vent is nailed at the same pitch as the roof.
 - 8. If roof shingles are the heavy dimensional type, a bead of sealant must be applied on top of the shingles to provide weather seal between the shingles and vent.
- C. Cap Shingles:
 - 1. Place the first cap shingle with approximately 1/2-inch (40 mm) overhang over the end cap and at each side of the ridge vent.
 - 2. Nail down through the shingle, the ridge vent, and through the roof sheathing.
 - 3. Nails must be long enough to penetrate the roof sheathing. In high wind areas, washerhead nails may be used to provide additional holding for the shingle caps.
 - 4. Do not fasten ridge vents with staples.
 - 5. Preform shingle caps in cold weather to avoid cracking or humping up over the ridge.
 - 6. Apply cap shingles with 1 nail each side, up approximately 2-1/2 inches (60 mm) from the overhanging edge.
 - 7. Drive nails flush; do not indent.

** NOTE TO SPECIFIER ** Delete the following paragraph if project does not have a steep pitch or a wide ridge beam.

- D. Steep Pitch and Wide Ridge Beam Applications:
 - 1. Cut ridge vents into 2 half pieces lengthwise.
 - 2. Nail half pieces over shingles on either side of the ridge slot.
 - 3. Fasten metal flashing over ridge vent.
 - 4. Cut oversize shingle ridge caps or lap 12 inch (305 mm) long shingles, and install as specified.

** NOTE TO SPECIFIER ** Delete the following paragraph if hip vents are not required.

- E. Hips: Install ridge vent as needed on hips to provide proper ventilation. If vent must be run down entire length of hip, do not cut slot within 3 feet (1 m) of the building line.
 - Rafters at 24 inches (610 mm) on centers: Install 8 inches (200 mm) long 2x4 (50 x 100 mm) wood blocking nailed or screwed into hip rafter between each rafter to support roof sheathing. Nail sheathing to blocking.

** NOTE TO SPECIFIER ** Allow 25 percent loss when computing ventilation at hips when blocking is used.

- 2. Apply a continuous bead of sealant to roof shingles immediately prior to placing hip vent to form a seal between roof shingles and bottom of hip vent.
- 3. Vents may be continued down hip without slot to maintain uniform appearance.

** NOTE TO SPECIFIER ** Delete the following paragraph if no clerestory or shed roofs are required.

F. Roof to Wall: Install continuous Roof-2-Wall vents full length of intersections of roof with vertical walls in accordance with drawings.

** NOTE TO SPECIFIER ** Delete the following paragraph if cedar shakes are not used.

- G. Cedar Shakes:
 - 1. Select shakes of uniform thickness to provide an even surface for the vent to rest on.
 - 2. Lay a bead of sealant on top of and between edges of shakes to provide weather seal

between shakes and vent.

3. Install wet sheet on top of vent and cap with shakes. Use nails of sufficient length to penetrate sheathing.

** NOTE TO SPECIFIER ** Delete the following paragraph if metal roofs are not used on the project. Contact Cor-A-Vent for application guide #10 for more information on metal roof applications.

H. Metal Roofing: Install ridge and soffit vents as specified by manufacturer and in accordance with drawings.

** NOTE TO SPECIFIER ** Delete the following paragraph if tile roofs are not used on the project. Contact Cor-A-Vent for application guide #9 for more information on tile roof applications.

I. Tile Roofs: Install ridge and soffit vents as specified by manufacturer and in accordance with drawings.

** NOTE TO SPECIFIER ** Delete the following paragraph if Weathershield flashing is not required by imbalanced venting conditions.

J. Flashings: Install specified flashings where indicated on the drawings.

3.3 SOFFIT VENTS

- A. Install continuous vents full length of soffits, unless otherwise indicated.
- B. Ensure that adequate blocking or barriers are installed to prevent insulation from impeding air flow.

3.4 SIDING VENTS

- A. Nail SV-3 or SV-5 in a continuous band along the wall at the level where the siding will start. A continuous band of SV-3 or SV-5 may also be nailed at the top of the wall where the siding ends if full ventilation behind the siding is desired. SV-3 and SV-5 may also be used above and below windows and above doors to provide drainage/ventilation in these areas as well.
- B. If SS-112 Sturdi Strips are being used with the SV-3 they should be nailed to the wall either at 16 inches (406 mm) OC or 24 inches (610 mm) OC, depending on the stud layout of the wall and alongside all windows and doors. Note the SS-112 are a spacer and are not designed to hold the weight of the siding, the siding must be fastened through the SS-112 Sturdi Strips into structural material behind them. Typically when the SV-5 is being used a 3/4 inch (19 mm) thick furring strip is used instead of the SS-112 Sturdi Strips, but they can be doubled up and used if desired. The fastener for the siding must be long enough to go through both layers and attach to structural material behind them.
- C. The ST-30 Sturdi Starter is used instead of ripping a piece of siding to place behind the bottom of the first row. The ST-30 will provide the same angle as the ripped siding to the first row of siding.

3.5 ADJUST AND CLEAN

A. Remove any scrap from the site, and leave in a neat and clean condition.

END OF SECTION

COR VENT®

COR-A-VENT, Inc.

P.O. Box 428 • Mishawaka, IN 46546-0428 Phone: (800) 837-8368 • Fax: (800) 645-6162 info@cor-a-vent.com • www.cor-a-vent.com