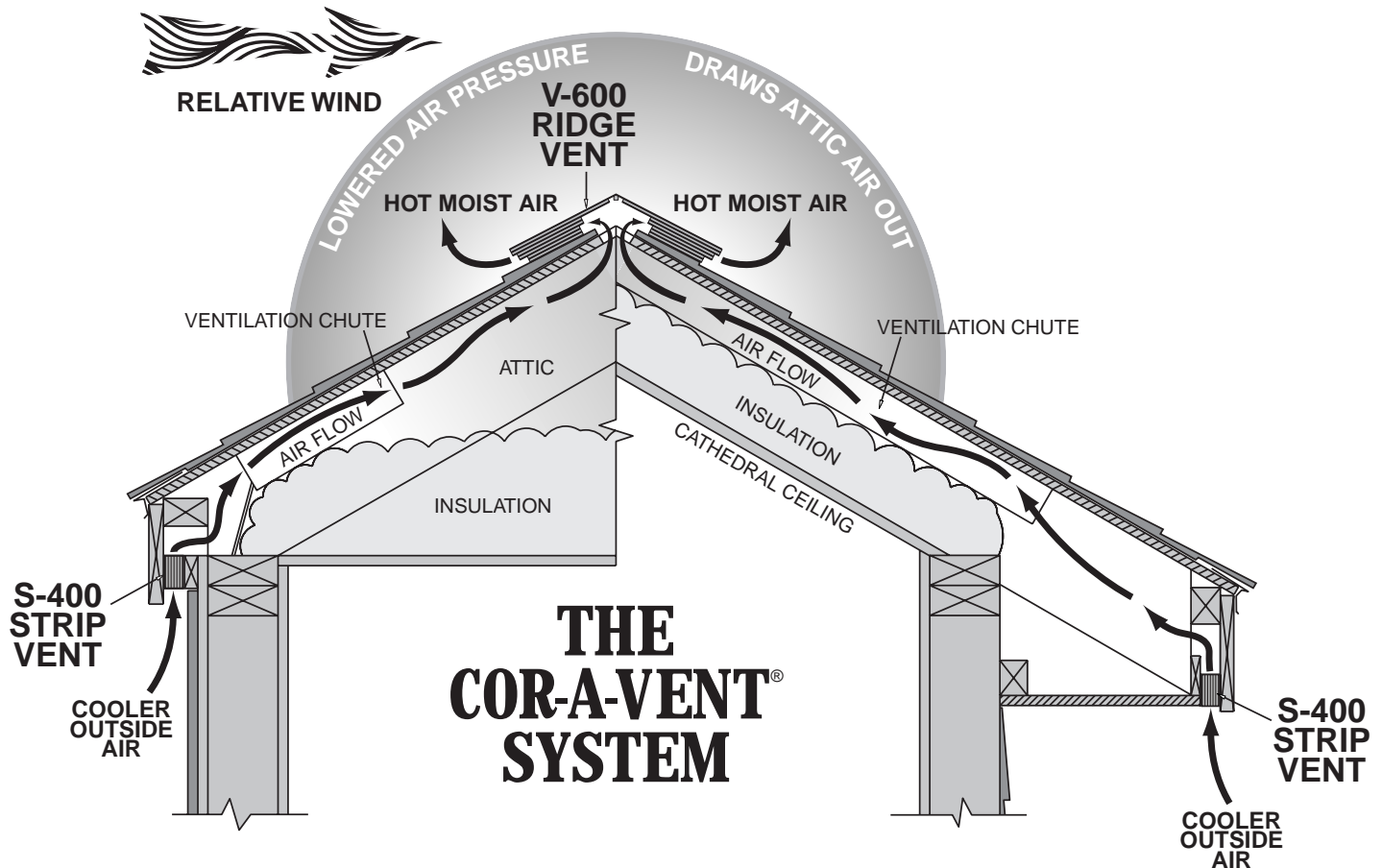


# Balanced Ventilation

## 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-400 & V-600 products - 20 sq. in. Net Free Vent Area/lineal foot**
- **V-300 & Fold-A-Vent® products - 13.5 sq. in. NFVA/lineal foot**
- **S-400 Strip Vent line offers 9 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.***

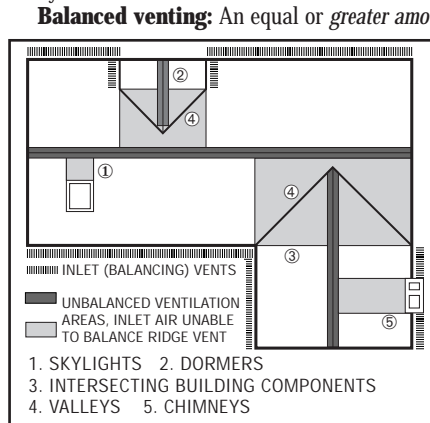
The “Ventilation Chute”, or air passageway between the soffit and the ridge must not be blocked or restricted so as to impede airflow. Once again, the ridge vent in this situation can act as intake **and** exhaust, causing weather infiltration.

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.

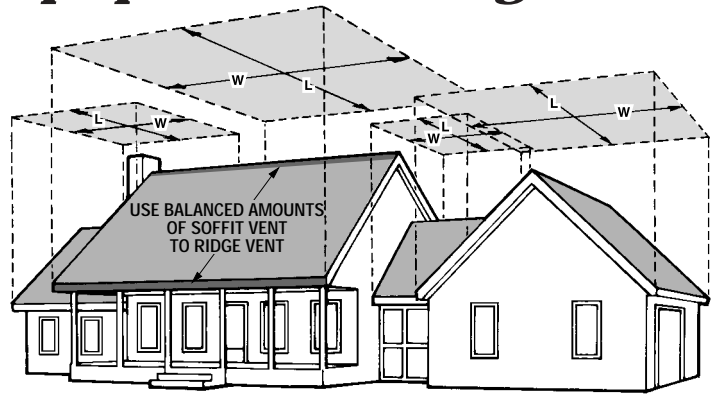
# Balanced ventilation – The right proportion of venting.

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 without weather infiltration.



**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-400 & V-600 products have 20 sq. in NFVA per lineal foot. To balance this, you need 2 soffit/eave/intake vents of at least 10 sq. in. 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 of one of our V-300 products (available in 11, 8½ 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, all other vent openings (except soffits) must be closed off.**

## Figuring Your Ventilation Needs:

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

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

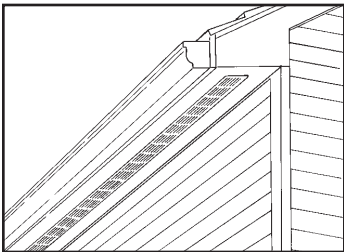
**Example:** 30' x 40' = 1200 Sq.F.  
1200 x .48 = 576  
576 ÷ 20 = 29 L.F. V-600 needed

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.**

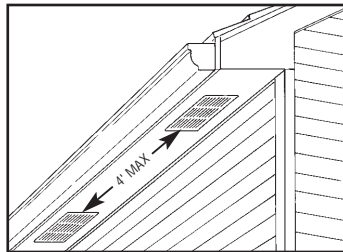
**For the best appearance, install COR-A-VENT continuously the entire length of the ridge.**

## Typical continuous soffit vents

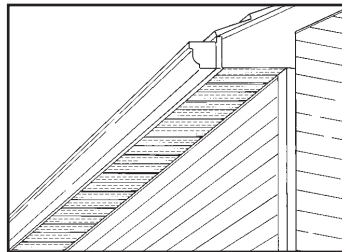
The following NFVA values are approximate, except for COR-A-VENT S-400 strip vent. Consult the vent manufacturer or distributor for actual values for specific products.



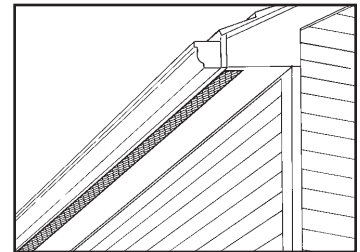
Continuous aluminum strip vent – 8-9 sq. in. NFVA per lineal foot.



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

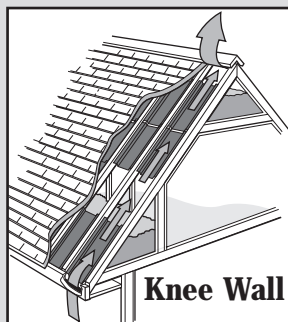
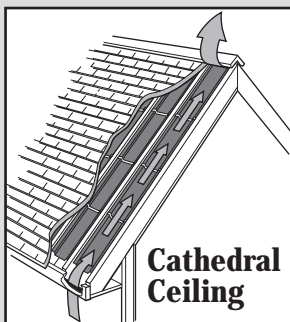
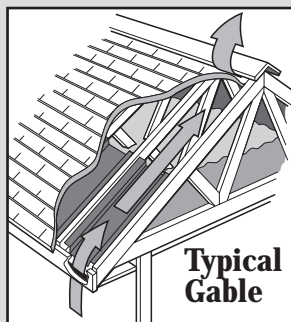


Continuous perforated panels – 1' wide overhang (typical) – gives 12-13 sq. in NFVA per lineal foot.



COR-A-VENT's S-400 Continuous Strip Vent - 9 sq. in NFVA per lineal foot.

## 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®**  
The Leader in Innovative Rooftop Ventilation®

**COR-A-VENT, Inc.**

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