Specifying a Balanced Ridge Ventilation System/Special Notes

A ridge vent system must be balanced for maximum performance. That means that the net free intake area installed at the eaves must match or exceed the net free exhaust area at the ridge. The total feet of intake (continuous soffit vent) vents should be double the total feet of exhaust (ridge) vents. For example: Use 20 feet of intake vents for 10 feet of exhaust vents.

Code Compliance
According to most building codes, you need a minimum of 1 square foot of ventilation for every 150 square feet of attic floor space.

For new home construction that includes a vapor barrier, the minimum is 1 square foot of ventilation for every 300 square feet of attic floor space.

If your vents are split between ridge vents and intake vents, the minimum requirement is also 1 square foot of ventilation for every 300 square feet of attic floor space.

To determine how many feet of **net free area** you need for a balanced ventilation system, use this formula:

$$\frac{\text{Sq. ft. of attic floor space}}{300} = \text{sq. ft. of net free area needed}$$

For example:

$$\frac{\text{1500 Sq. ft. of attic floor space}}{300} = \text{5 sq. ft. of net free area needed}$$

Exhaust
To determine how many feet of Air Vent **ridge vents** you need, use this formula:

$$\frac{\text{1/2 net free area} \times 144}{18} = \text{feet of ridge vent needed}$$

For example:

$$\frac{\text{2.5 (based on net free area of 5 sq. ft.)} \times 144}{18} = \text{20 feet of Air Vent ridge vent needed}$$

Intake
To determine how many feet of Air Vent intake **(continuous soffit vent)** vents you need, use this formula:

$$\frac{\text{1/2 net free area} \times 144}{9} = \text{feet of continuous soffit vent needed}$$

For example:

$$\frac{\text{2.5 (based on net free area 5 sq. ft.)} \times 144}{9} = \text{40 feet of Air Vent continuous soffit vent needed}$$

NOTE: If your minimum ridge vent requirement is less than the full length of the roof ridge, Air Vent recommends adding the extra feet needed to run the vent from end to end for a more attractive appearance.

When installed in accordance with manufacturer's recommendations, Air Vent products comply with the net free area requirements of the nationally recognized model codes, including those written by BOCA, SBCCI and ICBO. In addition, we have product evaluation approvals from Dade County, Florida (98-0130.03 and 98-0130.04), BOCA (90-56) and SBCCI (9528).

NOTE: Roof Diaphragm Reinforcement in Seismic Zones – The shear strength of the roof diaphragm is an important element of the bracing system of a building in zones of strong earthquake shaking and high winds. The continuous airspace slot across the roof that is required for the Air Vent ridge vent system may significantly interrupt the shear capacity of the roof diaphragm, resulting in a need for reinforcement.