

Calculations for a Balanced Ventilation System

For proper ventilation, the amount of under eave or soffit ventilation must equal or be greater than the amount of ventilation at the ridge.

I. Determine net free ventilating area (NFVA)

$\frac{\text{Sq. ft. of attic floor space}}{300} = \text{required minimum square feet (ft}^2\text{) of NFVA}$

$300 \text{ ft}^2 = \text{ft}^2 \text{ required NFVA}$

Divide the required NFVA by 2

$\frac{\text{NFVA}}{2} = \text{ft}^2 = \text{ft}^2 \text{ Minimum required ridge ventilation}$

$\frac{\text{NFVA}}{2} = \text{ft}^2 = \text{ft}^2 \text{ Minimum required soffit ventilation}$

II. Determine the amount of ridge ventilation to be installed.

Ridge vent opening width required by manufacturer: _____ in.

Ridge venting to be installed: _____ lineal ft.

Vent opening _____ in. x _____ lineal ft. x 12 in/ft \div 144 in² = _____ ft² of ridge venting

III. Determine the amount of existing soffit ventilation.

Measure existing vent openings and determine total sq.ft.

1. Number of 4" x 12" screened vents: _____ x 48 in² = _____ /144 in.²
= _____ ft² of soffit venting

2. Number of 4" x 16" screened vents: _____ x 64 in² = _____ /144 in.²
= _____ ft² of soffit venting

3. Number of 6" x 12" screened vents: _____ x 72 in² = _____ /144 in.²
= _____ ft² of soffit venting

4. Number of 6" x 24" screened vents: x144 in² = /144 in.²
= ft² of soffit venting

5. Number of " x " screened vents: x in² = / 144 in.²
= ft² of soffit venting

6. Continuous Soffit Venting:

Vent opening width: in. x lineal ft. @ soffit x 12 in/ft = / 144 in.²
= ft² of soffit venting

IV. Provided ventilation

In no case shall the amount of exhaust ventilation (ridge) exceed the amount of intake ventilation (soffit).

Total installed soffit venting (intake) ft²

Total installed ridge venting (exhaust) ft²