



Calculating Proper Attic Ventilation

Use this formula when one half of the ventilation is in the soffit and one half of the ventilation is in the roof or if a vapor retardent having a transmission rating not exceeding 1 perm is installed on the warm side of the insulation.

Net Free Area: Use the steps below to calculate the total Net Free Area (NFA) required. NFA is the actual amount of opening a roof or soffit vent provides after allowing for the screen and framework of the louver. To achieve the NFA it is necessary to cut the proper size opening in the roof deck or soffit.

Step 1
Calculate the square footage of the attic

Attic Floor Space = _____
Square Feet

Step 2
Divide **Step 1** (square feet of floor space) by 300. This will give you the 1/300 ratio required by most codes.

Attic Floor Space Divided by 300 = _____
Square Feet

Step 3
Multiply **Step 2** by 144.* This converts Sq. Ft. to Square Inches.

Step # 2 X 144 = NFA = _____
Square Inches

Step 4
Divide **Step 3** (NFA) by 2. 1/2 of the ventilation in the eaves in 1/2 in the roof.

Total NFA/2 = _____
Square Inches

Step 5
Enter the NFA of your **EXHAUST** vent

= _____
Square Inches

Step 6
Enter the NFA of your **INTAKE** vent

= _____
Square Inches

Some Common Ventilation Products & Their Net Free Areas

- Airvent ShingleVent II=18.0 sq in/lineal ft.
- Airvent ShingleVent II-9=16.0 sq in/lineal ft.
- Airvent Multi-Pitch Filter Vent=18.0 sq in/lineal ft.
- Airvent Peak Performer II=12.0 sq in/lineal ft.
- Airvent Peak FilterVent=9.0 sq in/lineal ft.
- Airvent Flash FilterVent=9.0 sq in/lineal ft.
- Airvent CRV 10"=18.0 sq in/lineal ft.
- Airvent SLA Slant Aluminum Box Vent=50 sq in
- Airvent SQP Square Plastic Vent=61 sq in

- GAF SSB960 Static Vent= 60 sq in (10" round hole)
- GAF Cobra Vent= 16.9 sq in/lineal foot
- GAF Snow Country Advanced=18.0 sq in/lineal ft.
- GAF Ridge Runner with Nails=12.5 sq in/lineal ft

- Mid America RidgeMaster= 12.228 sq in/lineal foot
- Mid America RidgeMaster Plus=12.228 sq in/lineal foot
- Mid America Hipmaster=12.228 sq in/lineal foot

- OC Ventsure Rigid Roll Ridge Vent 11 1/4" x 20'=12.5 sq in/lineal foot
- OC Ventsure Heat and Moisture 4' Strip=20 sq in/lineal foot
- OC Ventsure Plastic Slant Back Roof Vent= 55 sq in

BASED ON THE ABOVE CALCULATIONS YOU WILL NEED:

_____ **EXHAUST VENTS**

_____ **INTAKE VENTS**

To find the number of intake and exhaust vents needed we took the NFA required / NFA of vent.

See Reverse For Intake Ventilation



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Some Common Ventilation Products & Their Net Free Areas (Recommended hole size)

Intake	<p>Airvent The Edge Vent= 9 sq in /ft. Airvent Continous Soffit Vent= 9 sq in /ft. Airvent Undereave Vent 4"x16"=28 sq in Airvent Undereave Vent 6"x16"=42 sq in Airvent Undereave Vent 8"x16"=56 sq in Airvent Vented Drip Edge10'=9 sq in / ft.</p>
Intake	<p>CertainTeed Ironmax 10" Perf. Soffit= 6.4 sq in /sq. ft. CertainTeed Invisivent T3 Vinyl Vent=1.6"per sq. ft.</p>
Intake	<p>Mini Louver 1"=.18 sq in/pc Mini Louver 2"=.47 sq in/pc Mini Louver 3"=1.34 sq in/pc Mini Louver 4"=2.88 sq in/pc</p>
Intake	<p>Napco T4 Comercial Aluminum Full Vent=13.2 sq in /sq. ft. Napco D6 Durabilt Aluminum Full Vent=11 sq in /sq. ft. Napco T4 Durabilt Aluminum Full Vent=13.2 sq in /sq. ft. Napco Triad Plus Vinyl Hidden Vent=9.19 sq in /sq. ft. Napco Triple 4 Vinyl Per. Soffit = 6.4 sq in /sq. ft.</p>
Intake	<p>OC 4' Inflow Vent=10 sq in/lineal foot</p>