Determining Your Ventilation Requirements

HUD Requirements for Proper Ventilation.
Ref: MPS 403-3

The following US Department of Housing and Urban Development Statutes covering the ventilation of structural space furnish a basic guide for determining proper ventilation styles and sizes for any home. These statutes appear in the latest edition of the Minimum Property Standards.

The Correct Amount of Roof Ventilation:

- As a general rule, one square foot of net free vent area per 300 square a feet of attic floor or area to be vented is recommended.
- In the rare situation where no vapor retarder is used and proper distribution of undereave and ridge vents cannot be achieved, one square foot of net free vent area should be provided for each 150 square feet of attic floor or area to be vented.
- For a balanced system, ventilation should be equal at the undereave and ridge.
- In cases where a balanced system cannot be achieved, always provide more than 50% of the total required ventilation at the undereave and the remainder at the upper portion of the roof.

Openings: All openings greater than 1/8 inch must be screened to prevent insect penetration and louvered to protect against the entrance of rain and snow.

The Proper Amount of Foundation Ventilation:

- One square foot of net free vent area is recommended for every 1500 square feet of floor area covered by a polyethylene vapor retarder. Ratio is 1:150 if vapor retarder is not used.
- Net free vent area is that area unobstructed by screens, louvers, or other materials.
- Heated crawlspaces and basements do not need vents.
- Earth floors should be covered with a 4 - 6 mil. polyethylene vapor retarder.
- Providing at least two crawlspace vents will allow for a flow of air in and out of the

crawlspace.

Openings: All openings must be screened to prevent insect penetration and protected from the entrance of rain and snow.

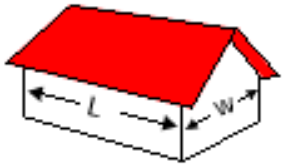
Natural Ventilation

A natural ventilation system utilizes ventilators installed in openings in the attic and properly positioned to take advantage of natural air flow to draw hot summer or moist winter air out and replace it with fresh outside air.

Calculate:

1 Determine the Square Footage of the Attic or Area to be Vented

(To do this, multiply the width in feet by the length in feet)



Square Feet

2 Choose an Exhaust System Based on Attic Size

Needed for Exhaust:	Ridge Vents	Roof Vents		Gable Vents		Turbines	
Sq. In. NFVA at Upper Roof	Minimum ft. of Rigid Roll	Vents Needed	Model	Vents Needed	Model	Vents Needed	Model
☐	☐	☐	VTS4-144 VTS5-144		VTS416 VTS516	☐	VTS812 VTS912
	Minimum ft. of Rigid Strip	☐	VTS400 VTS500	☐	14x24		
	☐	☐	TS405 VTS505	☐	8x24		
		☐	VTS407 VTS507	☐	24x24		
		☐	VTS408 VTS508		VTS716		
		☐	VTS450 VTS550	☐	18x24		
		☐	VTS452 VTS552	☐	24x30		

			☐	VTS457 VTS557
			☐	VTS705

Based on 1:300 Ratio. Double for 1:150 Ratio.

3 Choose Undereave Vents Based on Exhaust System

Needed for Intake at Soffit	Number of Undereave Vents Needed			
	Ridge Vents		Roof Vents, Gable Vents, or Turbines.	
Sq. Inches NFVA at Soffits	Vents Needed	Model	Vents Needed	Model
☐		VTS618R VTS622R		VTS618R VT622R
	☐	16x8	☐	16x8
		VTS646R VTS648R VTS649		VTS646 VTS648R VTS649R
	☐	96x2	☐	96x2

Based on 1:300 Ratio. Double for 1:150 Ratio.

4 Choose Foundation Vents Based on Attic Size

Foundation Vents

Vents Needed	Model No.
☐	VTS632R
☐	TS732SR

1:1500 Ratio (requires vapor retarder). If no vapor retarder, 1:150 ratio applies.