



Ventilation Calculation Worksheet

When the area of free ventilation box on page 3 of the CF-1R-ALT form is checked as an alternative to installation of a cool roof, calculations are required to be completed to substantiate the ventilation area provided, as follows:

Ventilated Attic Area _____ FT² ÷ 150 = _____ FT² required ventilation

_____ FT² required ventilation X 144 _____ ÷ 2 = _____ (sq. in.)
 (From above) (Convert to sq. in.) (50% **lower** and 50% **upper**)

Type of **Lower** Vent _____ Type of **Upper** Vent _____

Lower vents = _____ in² X _____ = _____ in² (_____)
 (Net Free Area per vent) (quantity) (**total**) (Req.-from above)

Upper vents = _____ in² X _____ = _____ in² (_____)
 (Net Free Area per vent) (quantity) (**total**) (Req.-from above)

“**Net Free Area**”-Provided by ventilation product manufacturers

Note:

50 percent of the required ventilating area to be provided by ventilators located in the upper portion of the space to be ventilated, at least 3 feet above the eave or soffit vents, and 50 percent of the required ventilation to be provided by eave or soffit vents. CBC 1203.2

The 2008 California Energy Code also states that attic space shall be provided with ventilators equal to or greater than 1 FT² for every 150 FT² of attic space, with a minimum 30% of the free ventilation area installed within 2' vertically of the ridge. (CF-1R-ALT Form)

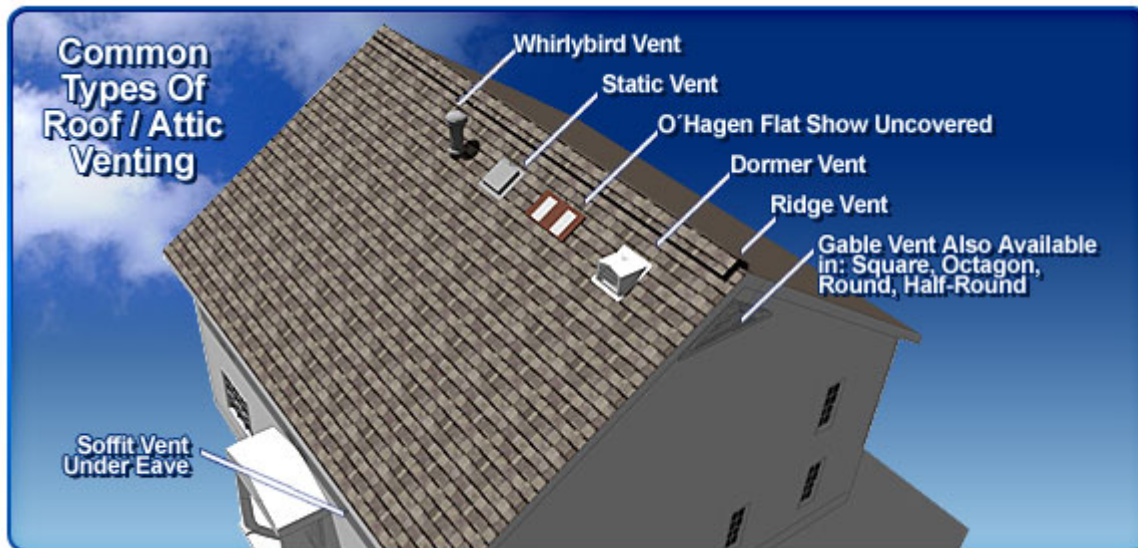
Signature _____ Date _____

Homeowner Contractor

Ventilation Information

Roof & Attic Ventilation: What You Need To Know:

Attics must be properly vented so that the air is able to escape back outdoors as quickly as it is being blown into the attic. Most homes have some form of roof/attic venting.



(The illustration above illustrates a home outfitted with different types of vents commonly found on homes)

Why Proper Roof/Attic Venting Is Important

The system works by pulling cool air into the home, while at the same time pushing warm air from your home's living space into your attic. As the attic becomes pressurized, the warm air from the living space and superheated attic air flows out of the structure through existing vents. In order to balance the flow of outgoing air, your home should have a minimum amount of venting to allow the air to escape outside. **Attic venting is measured by "net free area"**. Net free area is the actual opening of a vent after deducting blockage or restrictions, such as screening or vent slats.

What happens if your home does not have proper roof/attic venting?

The warm air being pushed into the attic follows the path of least resistance and if it cannot escape to the outside, it will flow back down your walls and back into your living area. Many homes have vents that are screened. The screening cuts the air flow through these vents and reduces the effective "free ventilation area".