Ventilation Guidelines

The importance of good attic ventilation beneath the roof cannot be overemphasized. Such movement of air will prevent or inhibit condensation of moisture on the undersurface of the Certi-label shakes or shingles, or on the roof decks. Vents should be provided at the soffits (eaves) as well as at gable ends (screened to prevent ingress of insects), on roof by using attic roof ventilation or preferably the ridge lines with cross-ventilation desirable. A rule of thumb for adequate ventilation is that the ratio of total net free ventilation area to the area of the attic should be not less than 1:150, with compensation made for screens over vent apertures. In the case of a balanced system a 1 square foot per 300 square feet of floor area may be adequate ventilation. Check with your local building department. Attic fans may be beneficial, these supplying additional movement of air in attic spaces. Several roof ventilation construction techniques are shown in Figures 15a-c.

Any modification to the vapor barrier system or addition of a vapor barrier system should only be done after consulting with your local building official or a building envelope specialist. In some areas, building envelope specialists are regulated by government. Please check with local building officials to see if there are professional requirements in your area.

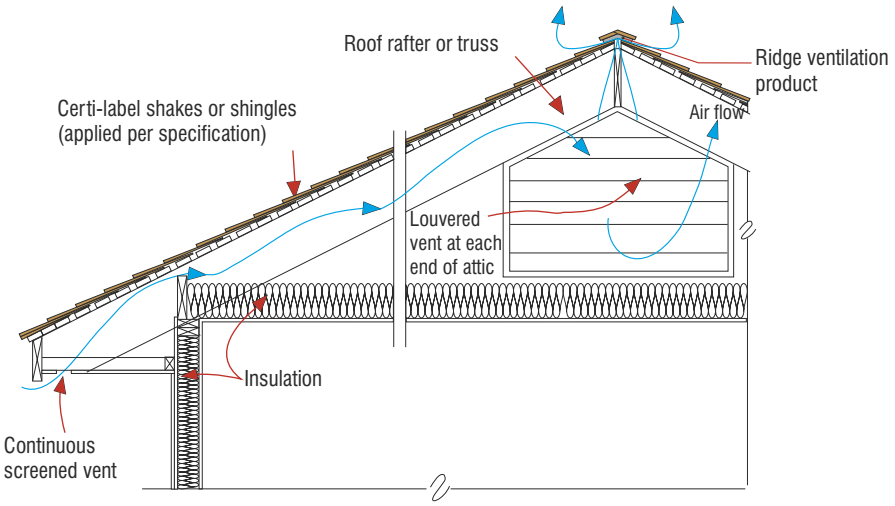

Figure 15a: Gable Roof With Attic

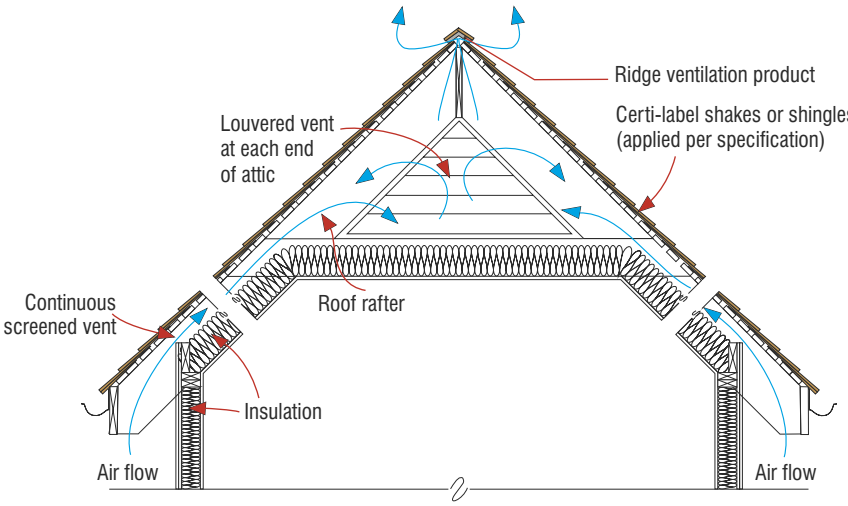

Figure 15b: Cathedral Ceiling With Partial Attic

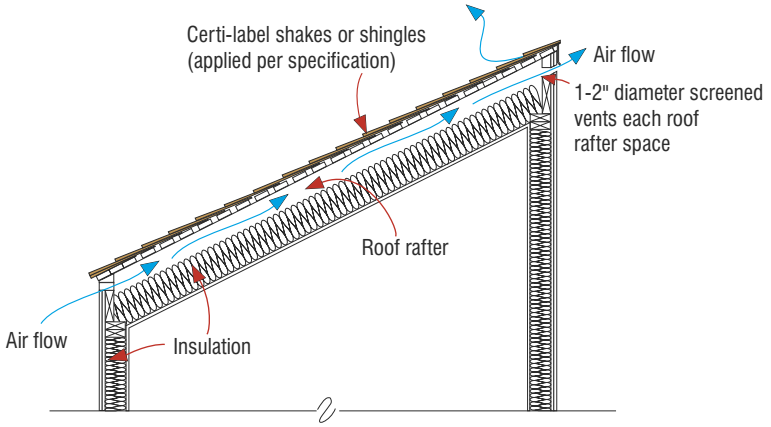

Figure 15c: Shed Roof

Figure 15: Ventilation Details

Ridge Vents

The amount of venting depends upon the size of roofing material, roof design/structure (attic present or not, etc.) as well as local climatic conditions. Check with your local building official for requirements in your area. One rule of thumb for venting the attic area is 1 square foot per 150 square feet of floor area. One half of this (1/2 square feet per 75 square feet of floor area) amount should be in the soffit or eave and one half (75 square feet) in the roof system. In the case of a balanced system a 1 square foot per 300 square feet of floor area may be adequate ventilation. Check with your local building department.

Low Slope (6:12 or less)

The CSSB recommends the installation of ridge vents that allow for installation of pre-manufactured ridge applied over the vent material. There are many manufacturers of this design.

Steep Slope (8:12 or greater)

On steep slope roofs, the correct ridge vent products can actually facilitate the ease of installation of Certi-label ridge units. Always follow the manufacturer's installation instructions. The predominant ridge material manufactured today is for a low slope roof. However, by using a ridge vent that is malleable and at least 8 1/2" wide, the material can be installed across the minimum 3" of air space at the ridge to create a shallowing of the slope at the ridge. Care must be taken to caulk the ridge vent material to the Certi-label shakes or shingles. Proper nailing of the ridge units will create a serviceable application.

Severe Climate Areas

In all wind driven snow areas, the proper ridge vent should have a screening effect to prevent snow infiltration (not louvered or baffled).

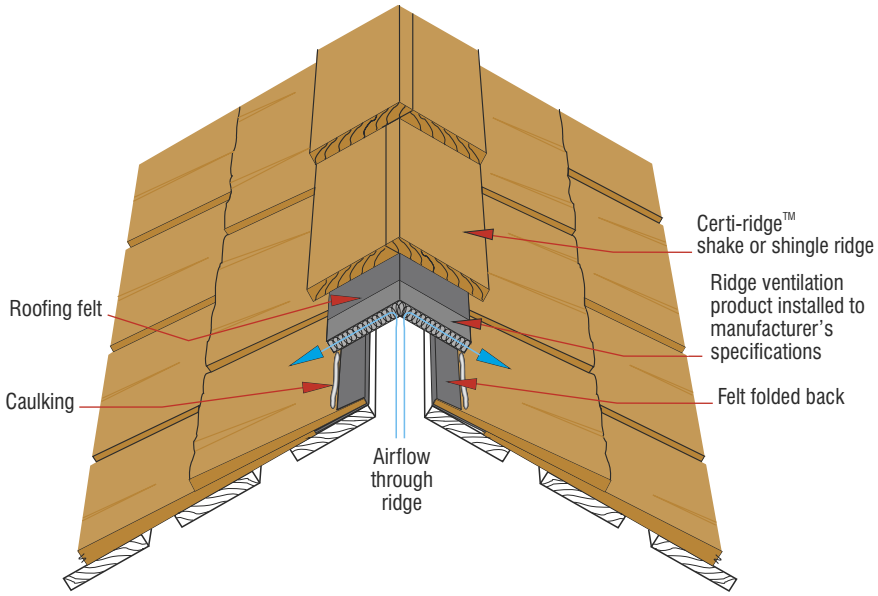

Figure 16: Ridge Ventilation Detail

Architect: Gaylord Granger, Libby O' Brien-Smith Architects, Photo: Eduardo Calderon