

Diagram 1: Soffit and Ridge System

Source: Air Vent, Inc. Principles of Attic Ventilation | Illinois: Air Vent, Inc. publisher

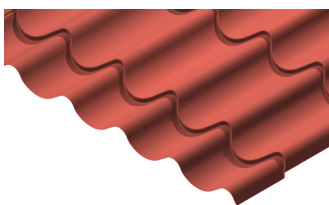
What is adequate ventilation?

A general rule of thumb is a free ventilating area of 1/300 of the horizontal area or slightly less than 1/2 square inch of vent area for each square foot of attic floor. This area is to be properly balanced between equal net free area in the high vent and the low vent.

ASV Spacer Shim
(Patent D809681)



Techo Tile



ScanRoof



Diagram 2: ATAS Techo Tile, ASV Space Shim and ScanRoof metal roofing products allow for air flow between the top-side of the sheathing and the metal roofing.

PROPER ATTIC VENTILATION

Proper attic ventilation (see left) is code driven and ensures a cooler attic in summer and a dryer attic in winter. It is also the most important factor in preventing structural problems to the roof, maintaining consistent temperature of the dwelling, and saving on heating and cooling costs.

The most effective method of ventilation is by the combination of soffit and ridge vents (see diagram 1). The soffit and ridge system meets all requirements because it brings ventilation air across the underside of the roof sheathing, where it has maximum effect in reducing radiation of heat to the attic floor during the summer and preventing condensation in the winter.

This method creates a positive air flow within the attic space. This is accomplished through wind pressure and natural thermal effect.

In addition to a soffit and ridge system, metal roofing is a good choice because, unlike other roofing materials, it has the ability to actually reflect heat away from the roof. The superior reflective properties of metal roofing have shown to decrease cooling costs in the warmer climate areas such as Florida by as much as 34 percent. Another benefit of metal roofing is the air space that some products allow between the panel and roof deck (see diagram 2).

This additional ventilation between the top-side of the sheathing and the metal roof covering further reduces the chance of condensation buildup in the winter and heat buildup in the summer.

In re-roofing situations, this air space also protects the new metal roof from being damaged by curling and deterioration of shingles from the old roof.

A combination of soffit, ridge, above sheathing ventilation spacer shim (ASV), and other metal roofing products offered by ATAS International will ensure that your attic and roof system receive adequate ventilation so you can prevent future problems with your overall roofing structure.

