

The Comfort Corner

Attic Ventilation

The International Residential Code specifies a 1 to 150 ratio of total net free ventilating area to area of space to be ventilated when it comes to ventilating attics. So, what exactly does this mean and why is it important to ventilate attics in the first place?

We'll start with the second part of the question. Ventilation provides the conditions that allow air to move, obviously. Efficient ventilation systems provide a steady, high volume of air movement.

At this point, we should note that simply cutting a 6" hole somewhere in the attic is not creating an efficient ventilation system. The air movement we are discussing needs to be controlled and balanced. The amount of air coming in must be equal to the amount going out, otherwise the attic will start sucking air from the house or stagnate due to insufficient free vents.

The purpose of ventilation is twofold:

1. During warmer months, it keeps attic air moving and, by extension, make the house easier to cool. Basic physics tells us that hot air rises and cold air falls. By circulating the air in the attic, all the really hot air that



would build up in there is pushed up and out. Also, We should note that during the really hot months, unventilated attic seldom loses enough heat overnight to compensate for heat gained during the day.

2. During cooler months, it reduces moisture to keep attics dry & helps prevent ice dams. The warm inside air can hold more moisture than the cool air outside (and in the attic) and as this warm, moist air hits the cold, dry air, it can condense.

So, now we're at the stage to get some practical information. Let's take a house with an attic with 2000 square feet. Now we'll divide this by 150 to find the total net free ventilating area, 13.3 square feet. To make sure that the system is balanced, we then divide this number in half because half the vents will be lower and half will be higher. This means that 6.6 square feet (or 950 square inches) of ventilation is required at both the bottom and top of the attic.

Feel free to visit our website (www.northstarcomfort.com) for an Attic Sizing Ventilation Guideline. It's under the Insulation Services tab and completely free.