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WHAT KIND OF ATTIC VENT IS BEST?

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Power vents and turbines are not a good idea in northern climate attics. (search keyword "attic" for the title " CONFUSION: POWER ATTIC VENTILATORS ARE NOT RECOMMENDED FOR WINTER USE. WHY?")That leaves gravity vents, vents that allow warm air in the attic to rise and escape out the top of the roof together with vents in the lower portion of the attic that allow colder outside air to come into the attic to replace the escaping air. In the winter time the attic air is not hot but because of heat losses from the house and the sun's effect on the roof, it is warmer than outside air so it rises. The secret of choosing a good attic ventilation system is to choose one that allows this slow rise of warm air to circulate throughout the attic and pass without obstructions.If a lot of snow accumulates on your roof, you should use vents that stand up high above the snow, not the low profile button vents that will get buried in the snow.The most efficient gravity flow vent is a combination of continuous soffit vents under the eaves with a continuous ridge vent on the top of the house. This gives good cross ventilation of the attic. A continuous ridge vent is not easy to install after the house has been built, but it is essential for cathedral ceilings where there is no attic space for the air to circulate. One company (Maximum Ventilation) has even developed a closed ridge vent with two or three copulas to carry the air from the ridge vent up above any deep snow. A continuous ridge vent with poor soffit venting is a disaster as snow will now blow in from the top. Good soffit venting will keep the air flowing out the top all the time.Second best are roof vents, either lots of them or continuous vents under the eaves, accounting for about 45 percent of all venting space, and then simple roof-top or gable vents for the other 55 per cent of the venting space. These higher vents should be placed mainly on the downwind side of the house to help create a draft up through the eaves.Turbine-type, air-powered ventilators work as simple gravity holes when there is no wind. They effectively help attic ventilation in winds up to 15 miles per hour. Above that they tend to draw too much and create the same problems as power ventilators. They also inevitably become noisy.Unless you need to seal your attic closed (search keyword "attic" for the title "MYTH: THE MORE ATTIC VENTILATION IN WINTER THE BETTER.") do not be too afraid to add many attic gravity vents. Just make sure that rain and snow cannot get in. The minimum venting is one square meter of screened ventilation hole to every 150 square meters of floor space (or one square foot per 150 square feet). If you have loose fill, stop it from blowing around by covering it with fiberglass batts or Tyvek. (search keyword "house wrap" for the title "CAN AIR BARRIERS BE PUT ON THE OUTSIDE OF THE HOUSE?") If you block the intake vents the exhaust ones will do no good and this could even cause a negative attic pressure that can draw moisture up from the house.

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