Ridge vents in roof help cool temperature in attic

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Every year, with the arrival of hot weather and humid air, customers ask the best ways to cool their attics and reduce air-conditioning bills. The answers I give often surprise them.

Current codes require that attics be ventilated. And even though ventilating a 120-degree attic with 90-degree air does relatively little to cool the space, any drop in temperature is good.

If you are thinking about adding ventilation, consider a ridge vent, which is installed along the peak of the roof. These vents are most effective because they are located at the highest point in the attic where hot air rises and collects.

Another question I often get concerns power ventilators. These are usually a poor solution to hot attics for two reasons. First, the power vent fans often use more energy than they save. Second, the fans discharge too much air from the attic. As the air pressure in the attic tries to equalize, hot air off the roof can be drawn into the attic from passive roof vents, or already cooled air may be drawn into the attic from holes in the ceiling, such as recessed light fixtures or vent pipes.

The best way to reduce the cost of cooling your house is to seal the hidden air leaks between your living space and attic. Hidden air leaks are commonly found around recessed light fixtures, pull-down stairways or scuttle holes, dropped soffits above wall cabinets, and chases (enclosed pathways) for duct work and plumbing.

Small holes around light fixtures and exposed vents can be sealed with caulk or expandable foam available at a hardware or home improvement store. Larger holes like soffits and chases can usually be sealed by installing a piece of plywood or foam board at one end of the opening to block the air flow through the channel. Consider installing a foam board box over your pull-down stairway or scuttle hole. I have seen many creative boxes constructed by homeowners.

You should also consider upgrading the insulation above your ceiling. Depending upon the type, 9 to 14 inches of insulation is preferable.

Send home repair questions to Ask the Inspector at H&G@ajc.com. Because of the volume of mail, not all questions can be answered. Our expert, Bill Garwood, spent 15 years as a building contractor before becoming a home inspector in 1990. He is part owner of a residential inspection firm and a company providing training in building inspection and codes.