Improving the ventilation of your home

By Rick Bunzel

Mountain View Property Inspections

Many homeowners don't understand the dynamics of venting crawl spaces and attics. Insufficient airflow is a widespread problem in many homes. It not only affects the home in the winter but also spring and summer. For example, many homeowners close off the crawl space vents for the winter thinking they will save on their heating bills, but that's a time when they really need them. Moisture gets trapped in the crawl space creating a great environment for mold and fungi, which then gets drawn into the house. Moisture from inside the home also gets drawn into the attic and condenses on the underside of the roof. Given enough moisture we will see water damage and mold on the roof sheathing. Lack of attic ventilation in the summer can cause temperatures of 150 degrees or more in the attic, causing a heat buildup in the house and making the air conditioning system to work harder.

A number of types of vents are available to provide attic ventilation. As with crawl space vents, most include louvers or screens to prevent the entry of insects and rodents, and these coverings slow air circulation. Therefore, twice the amount of ventilation is needed in most cases to compensate for this reduction. With or without a vapor barrier, circulation of the air throughout the attic space would be more effective if the vent openings were distributed equally between low areas (eave and soffit) and high areas (roof ridge). Many homes have eave vents and these frequently get blocked when additional insulation is added. If your house has eave vents make sure that are unblocked. If you're having a new roof installed ask to have additional vents installed. The best vent is continuous ridge vent. A ridge vent with eave vents will naturally provide plenty of ventilation for the attic.

If your home is very warm in the summer, consider adding a mechanical ventilation system to your attic. These can be purchased from most home improvement store for $50 and up. They can be mounted on a gable vent or roof vent. Most are equipped with a thermostat that will switch the fan on at a preset temperature.

With homes built on crawl spaces, moisture rising from the earth is a major source of household humidity. The high levels of humidity in crawl spaces can be a problem in both summer and winter. Foul odors in the home or crawl space, mold and mildew growth in the interior of the home (especially in closets) and growth of fungi in the crawl space itself are signs of the problem. Covering the

crawl space ground with a vapor barrier (10 mil polyethylene) will dramatically drop the moisture levels. In addition to a vapor barrier, crawl spaces should be provided with adequate natural ventilation to facilitate air movement throughout the space. Many of these homes also have the furnace and water heater located in this space and a source of combustion air is also required. In many cases where the moisture levels are higher than 50%, a mechanical ventilation system can help. These systems are similar to a radon mitigation system except they just draw air from the crawl space. Typical this system will work in conjunction with existing crawl space vents. The system has a humidistat, which turns the fan on when the humidity reaches a preset level. As an added bonus homes with vapor barriers and mechanical ventilation will have much lower radon readings than home without.

Rick Bunzel is the Principle Inspector at Mountain View Property Inspections.
WWW.MVPinspection.com If you have questions or comments, Rick Bunzel can be contacted at Mountain View Property Inspections @ 303-443-9063 or MVPInspection@comcast.net