

# Steep Slope Technical Point

## Information Sheet

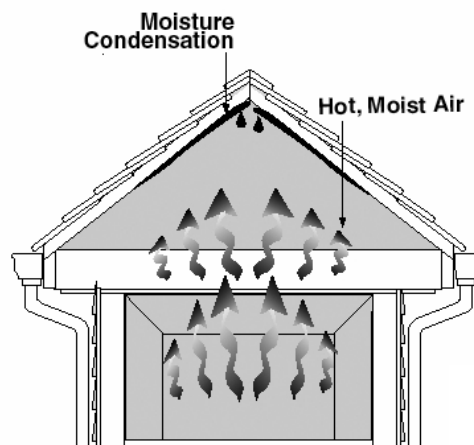
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From North America's Largest Roofing Manufacturer™*

## SUBJECT: *Proper Attic Ventilation*

<p><i>Why Is Proper Ventilation So Important?</i></p>	<p>With advances in construction products and procedures, heat, moisture and condensation that used to escape through walls and windows are now building up inside of homes and attic spaces. An excess of attic heat can lead to moisture build-up in the attic, increased energy costs, ice dams, and potential damage to roofing products and structural supports. <b>See Fig. 1</b></p>
<p><i>What Precautions Need To Be Taken?</i></p>	<p><b>Reduce excess heat and moisture in attics with proper ventilation.</b> The best way to ventilate an attic and ensure a balanced and functional system is to use continuous soffit (intake) and ridge (exhaust) vents. Calculations for a properly balanced system can be achieved by following the FHA (Fair Housing Administration/ HUD) <b>1/300 Rule</b>. This calls for 1 sq.ft. of net free ventilation per 300 sq.ft. of attic floor area.</p>
<p><i>How Do Soffit And Ridge Vents Work?</i></p>	<p><b>Continuous soffit and ridge venting works by convection.</b> Using the natural force of hot air rising ensures proper airflow from the eave all the way to the ridge. Cool, dry air replaces hot, moist air that is "pushed" out through the ridge vent.</p>
<p><i>How To Avoid Attic Ventilation Problems...</i></p>	<p><b>There are a few misunderstandings regarding proper ventilation.</b> A few of those are: <b>Multiple vents:</b> If continuous soffit and ridge vents are used, gable vents should be closed; power fans and any other roof vents should be removed or disconnected. The use of mixed ventilation systems, such as soffit and ridge vents in combination with a power fan could result in reverse airflow. <b>Unbalanced system:</b> Ventilation systems such as soffit and ridge vents must be balanced to work effectively. <b>Venting hips:</b> Ridge vents installed on the hips of a roof are prone to leaking. <b>Utilizing exhaust vents as intake:</b> Roof louvers, ridge vent or other static exhaust vents installed at or near the eave edge will not function effectively as intake ventilation.</p>
<p><i>How Does Ventilation Affect Warranty Coverage?</i></p>	<p><b>GAF-Elk's Shingle Limited Warranty against manufacturing defects will remain in effect</b> with or without proper ventilation being used. However, any damage caused due to inadequate ventilation is not covered under the terms of the warranty. The GAF-Elk Shingle Limited Warranty covers manufacturing defects; it does not warrant the workmanship of the roofer who installs the shingles or the installation/performance of the roof deck. GAF-Elk can assume no responsibility that the installation conforms to local code requirements.</p>
<p><i>Where Can I Get More Information?</i></p>	<p><b>GAF-Elk Technical Services can assist you...</b> with these and other questions you may have regarding ventilation. GAF-Elk Technical Services can be contacted at <b>800-ROOF-411</b> (800-766-3411). Also, <i>the GAF-Elk website is a great resource</i> for just about any question you may have or for additional information you may require. That site is at: <a href="http://www.gaf.com">www.gaf.com</a>.</p>



**Fig 1**