

BALANCED ATTIC VENTILATION

SUMMARY

This bulletin outlines best practices for planning and executing a balanced attic ventilation system. Ventilation is essential to prolong roof life, enhance indoor comfort and energy efficiency, and prevent structural damage due to moisture and temperature extremes.

WHEN AND WHY TO VENTILATE

Assessing the necessary attic ventilation is crucial in planning your new or replacement roof. This step is key to mitigating the buildup of excessive heat and moisture within your attic space. These accumulations can accelerate the degradation of the roofing system and create harmful ice dams during winter months. Ensuring adequate ventilation protects the longevity of your roof and maintains a healthier home environment.

BALANCED VENTILATION

The principle of balanced ventilation dictates that the airflow entering through intake vents, typically situated around the soffit areas of the roof, must be equal to the airflow exiting through the exhaust vents at or near the roof's ridge.

This balance is essential for maintaining an effective air exchange within the attic space, ensuring air flows smoothly in and out.

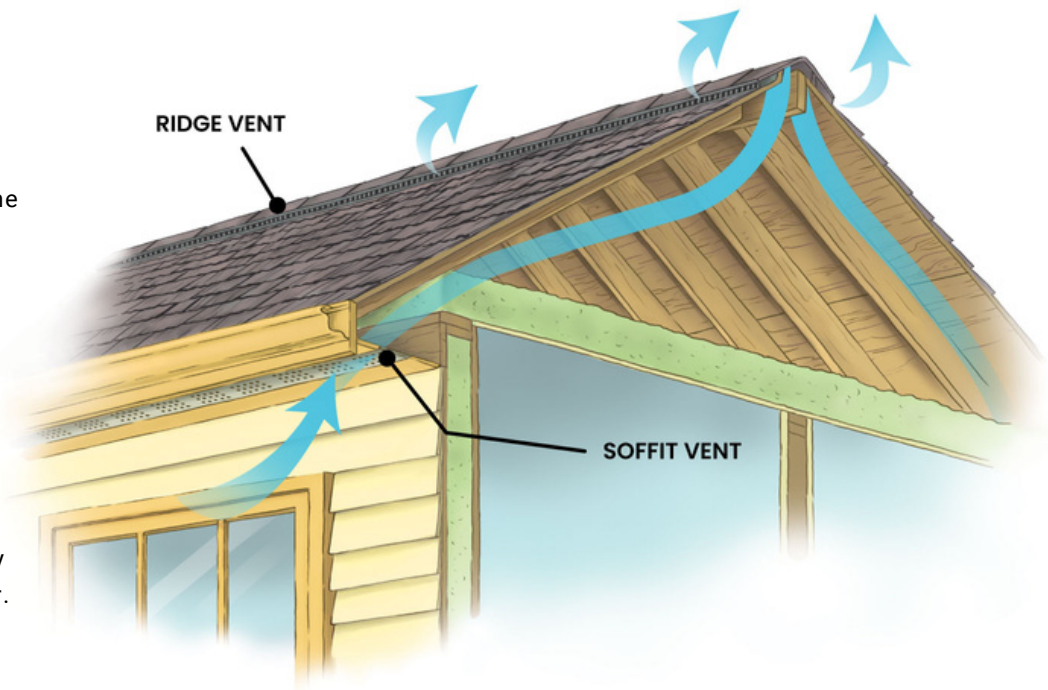
An imbalance, such as having greater exhaust capacity than intake, can compromise the system's efficiency by limiting the removal of warm, moist air. Adequate intake ventilation is critical for enhancing the performance of exhaust vents, promoting more effective moisture and heat removal from your attic.

1:300 RULE

One of the most widely recommended guidelines for attic ventilation is the 1:300 rule. This specifies that for every 300 square feet of attic space, there should be at least 1 square foot of net free ventilation area (NFVA). This calculation should account for an equal distribution between air intake and exhaust mechanisms, ensuring a balanced airflow throughout the attic.

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1:150 RULE

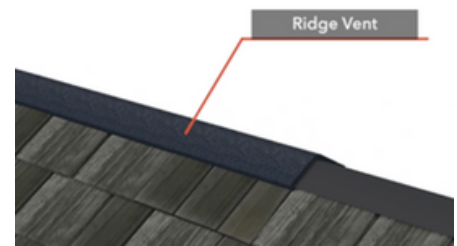
The 1:150 Rule is commonly applied when the vapor barrier is not installed on the warm side of the ceiling, as is when a self-adhered membrane is installed on the entire roof. This rule is also common in areas that experience higher humidity levels and temperatures, as these conditions can increase the potential for moisture accumulation and heat buildup in the attic. The International Roofing Code (IRC) and the Florida Building Code (FBC) require the minimum net free ventilating area to be 1:150 of the area of the vented space, but there are exceptions.

PLAN THE SYSTEM

An optimal attic ventilation system achieves balance, ensuring equal air intake and exhaust volumes. This steady flow of air is crucial for mitigating attic overheating and excessive moisture accumulation, which can lead to ice dam formation and compromise the integrity of your roofing system. Maintaining this balance is key to enhancing the longevity of your roof and protecting your home from potential damage.

- 1. Measure the square footage of the attic space** by multiplying the length of the attic by the width.
- 2. Determine Net Free Ventilation Area (NFVA).**
Based on the 1:300 Rule, for every 300 sq. ft. of attic space, you need 1 sq. ft. (144 sq. in.) of ventilation space split evenly between intake (soffit) and exhaust (ridge).
- 3. Select the ventilation locations and products** that fit your roof. If soffit vents are not an option, an on-roof system at the base of the roof may be necessary. If a continuous ridge vent is not an option, off-ridge vents may be the solution.

Property owners should always discuss the placement and type of vents with a roofing professional.



RIDGE VENT



OFF-RIDGE VENT

WARRANTY

Attic venting does not affect the material warranty of Brava Roof Systems; however, inadequate venting may lead to deck or structural issues compromising the roof as a whole.

Brava does not limit warranty based on these factors, but if unbalanced ventilation causes roof deck issues, system failure may not be covered under Brava's warranty.

Vaulted ceilings and closed cell foam installation do not limit Brava's warranty; however, check regional code and industry best practices for overall roof system longevity.

NOTES

This bulletin is not intended to replace state or local code ventilation requirements. Check with your building official to ensure roof venting meets industry standards and code requirements.

Regional code and industry best practices may specify different or additional requirements beyond the 1:300 or the 1:150 rule.

The specific design of the roof and the local climate conditions may influence the ventilation strategy and design. Consulting with a roofing or ventilation expert is recommended for complex roof designs or clarification on ventilation needs.

RESOURCES

Check for updates to this and other [Technical Bulletins](#) on our [Resources Page](#).

Complete Installation Training, View Resources, and Contact Technical Support by visiting our [Technical Support Portal](#).
(Brava Online Training is Self-Paced and Mobile Accessible.)

Training before beginning installation can improve project outcomes.

QUESTIONS

If you have any questions regarding Brava Roof Tile products and accessories, call 844-290-4196 and ask for Technical Support. Or contact us through the [Technical Support Portal](#).

