

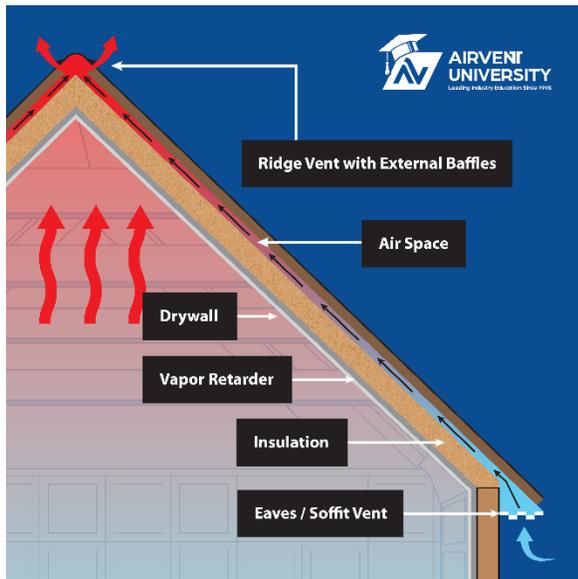


AIRVENT UNIVERSITY LESSON PLAN

November 2025 Lesson Plan

Venting a Cathedral Vaulted Ceiling Attic.

There are two types of attics both of which need balanced airflow through them. There's a **traditional attic** that has a flat floor that is walkable or crawlable. About 80% of the attics in North America are traditional. Here is some helpful information about the remaining 20% that have a **vaulted or cathedral ceiling "attic."**



The "attic" for a **cathedral or vaulted ceiling** is the gap between the underside of the roof deck and the insulation. This was supposed to be factored in during the building of the house. Specifically, the "attic" is a 1.5-inch-wide gap running low to high along the cathedral/vaulted ceiling allowing a continuous flow of air (see "[Vaulted Cathedral Ceiling Airflow View](#)" illustration).

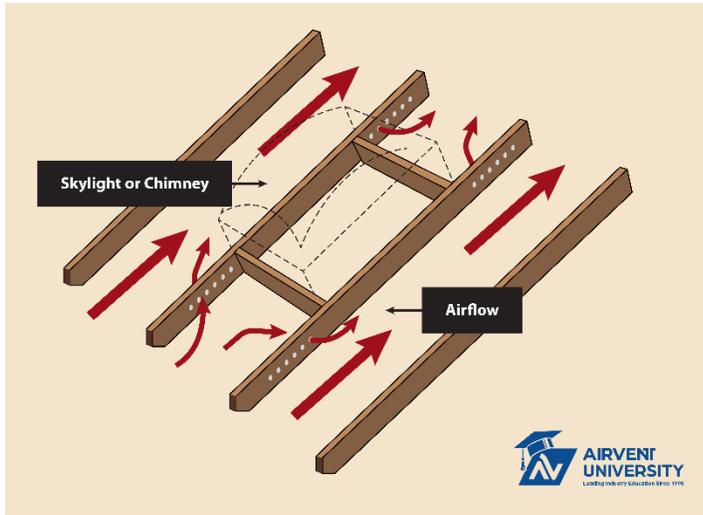
For exhaust ventilation, ridge vent along the peak of the roof is the most logical choice because it will allow continuous airflow along the entire ridge across all rafter bays.

Otherwise, a dedicated vent would need to be installed in each rafter bay – such as box vents or wind turbines, etc. – and that could look rather unsightly.

For intake, there are multiple choices including traditional soffit vents, rectangular undereave vents, fully vented soffit, vented drip edge, and roof-top installed intake vents. Allow the design of the house and roof to guide your selection of intake vents.

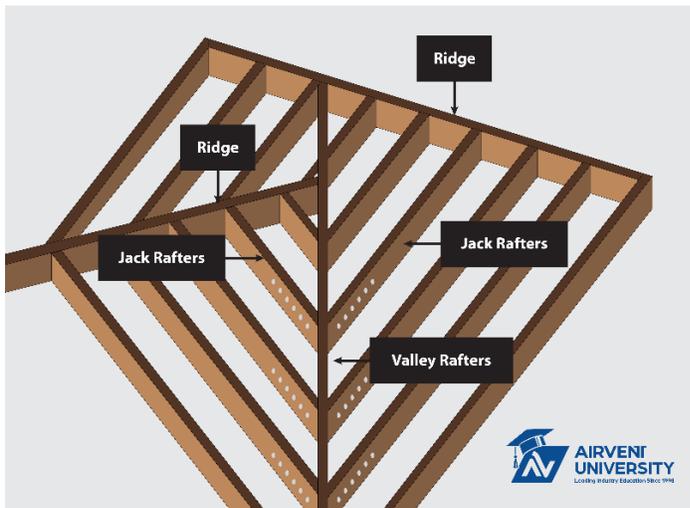
If you're re-roofing a house with a cathedral ceiling attic and you are unsure if the 1.5-inch-wide gap was factored in during the original build, you can lift one of the sheets of roof deck to see. If it's packed with attic insulation without any allowance for ventilation, an airflow gap will need to be created. Often, it's just a matter of inserting attic insulation baffles to create that 1.5-inch-wide airflow gap.

When using attic insulation baffles do not butt them end-to-end or overlap them. Instead, leave a space to allow hot air and moisture to pass through. If a space is not included between consecutive pieces, the insulation baffles could act as a vapor retarder on the wrong side of the insulation.



Providing proper ventilation for a cathedral/vaulted ceiling attic gets tricky when **skylights and valleys** are involved.

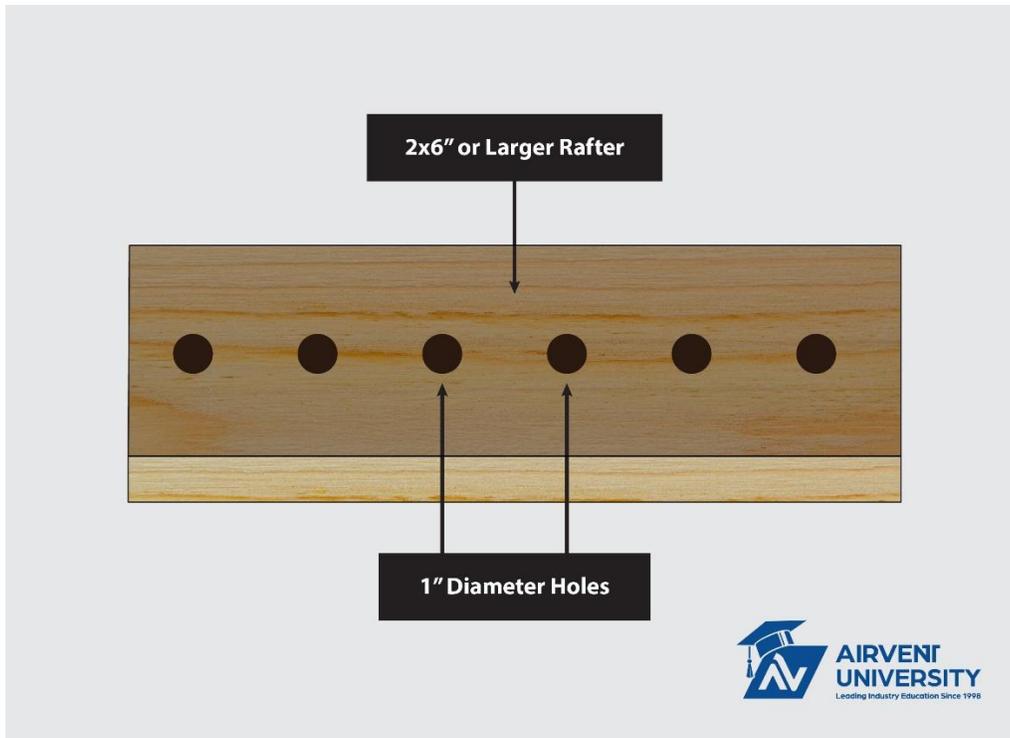
Skylights. When a **skylight** is installed in a rafter bay, it basically blocks the rafter bay. The airflow path is blocked. To unblock it, drill six 1-inch holes horizontally in the rafter above and below the skylight or other rafter bay obstruction – such as a chimney (see **“Skylights Drilling Holes”** illustration).



Valleys. When a cathedral/vaulted ceiling ends in a **valley** you can't access the soffit for intake ventilation. One solution is to drill six 1-inch holes in the rafter that intersects with the valley. These drilled openings will allow intake ventilation to pass through (see **“Valleys Drilling Holes”** illustration).

Caution Drilling Holes: Do not drill holes in 2x4 rafters. The rafters are not large enough. For 2x6 rafters

and larger it is important that the drilled holes are in the center of the wood thickness, the holes are not placed in the middle 1/3rd of the total length of the rafter, and the drilled holes are no larger than 1” in diameter (see **“Drilling Holes”** illustration).



To test your knowledge about what you learned in the November 2025 Lesson Plan please take our short 5-question Pop Quiz.