

How do I properly vent a range hood?

Last Updated: Saturday, November 3rd, 2001, Created: Saturday, November 3rd, 2001

Vern has a range hood on an inside wall and is wondering if he could just use the hollow wall cavity or should he line it, and could he just vent into the attic because the attic itself is vented.

There are actually a lot of interesting questions there Vern. First remember that there is a lot of grease and moisture in that exhaust, just think of how dirty that filter gets. So if you vent directly into a wall cavity you will fill the wood with both moisture (for swelling and rot) and grease (for a great fire hazard). No to using a bare wall cavity. You must always use ventilation ducting, preferably smooth metal ducting, both to make it easier for the air to flow and to be able to clean it some day.

Just venting into the attic is guaranteed to create frost in your attic because it will freeze to cold beams before it ever reaches the vent. The photo shows what can happen if you fail to seal all the joints in the ductwork, especially the one where it goes out the vent, even if you wrap the whole thing in insulation. That's right, the white stuff is frost.

The graphic shows the duct going up and through the roof. This is not the most desirable way to do it because you will always get some condensation on the end of the duct where it attaches to the roof outlet, but sometimes it is the only way possible outdoors. You must not vent into the soffits, or even under the soffits unless you are more than a foot and a half below the soffit to allow the wind to dissipate the moisture before it rises back up into the attic. When you must go through the attic, some people put a loop or bend in the line to stop the condensation from dripping right back into the kitchen. The problem here is that you will collect water, and mould growth in the loop. It may even plug up like a plumbing trap. If you do have to go out through the roof you must use a special roof exhaust (not an attic ventilation exhaust) that has a collar on it allowing you to clamp the exhaust duct air tight to the assembly. This will cause most, but not all, of the condensation to drip out onto the roof. Maximum Ventilation makes one of the most sturdy and windproof ones on the market, one that will work on a snow covered roof.

For other alternatives like going out the gable end of the attic, or down through the basement, check out the keyword "Exhaust Fans" in the database.

Keywords:

Attic, Condensation, Duct, Exhaust Fans, Kitchen