

Ask Jon Eakes

# CONFUSION: SHOULD VENT DUCTS GO THROUGH THE CEILING?

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Many government or crown corporation publications are afraid to ask too much of homeowners both in terms of work and comprehension. They prefer that homeowners do things half-way rather than not at all. When compromises seem to work some of the time, these publications (and many contractors) are quick to recommend them. Unfortunately, in trying to keep things simple they often don't explain the limits of these compromises.

If you did an excellent job of sealing around the duct holes through the ceiling, and the caulking never cracked, there would be few problems with ducting through the attic (other than the constant dripping from condensation inside the ducting). But leaks often do occur, especially in renovation jobs.

Vent holes in the ceiling and ducting in the attic are rarely perfectly sealed, and with time even good seals develop some cracks. The severe climate of the Prairies will not forgive such cracks, and serious attic condensation often develops from this source. As well, cold temperatures create condensation inside the ducts, despite heavy insulation, causing water to roll back into the house, drip from the inside grill and create rust or joint sealing problems inside the duct itself. In regions where the temperature is less severe and the air more capable of drying out the attic there are the same air leakage problems but their consequences are less drastic. Such regions are the lower mainland of British Columbia, southern Ontario, the Eastern Townships of Quebec, and some of the Maritimes. These are all areas south of the 4,900 Degree Day Celsius line.

The reality is that heating or ventilation ducts installed in a Canadian attic are attempting to run hot air through the coldest possible portion of the house in the winter, and air conditioning ducts in the attic are attempting to run cold air through the hottest possible portion of the house in the summer. In addition, any mechanical equipment or filters that are located in the attic are doomed to zero maintenance. Personally I question the cold climate competence of any installer or manufacturer recommending using the attic for anything at all. At least Canadian plumbers know better than to try and run water pipes up there!

Even in Canada's mild regions, following the Prairies' lead in keeping to a minimum the number of holes in the ceiling and as little ducting in the attic as possible, will ensure you encounter no problems. If you live above this line, in any of the provinces, you should definitely adopt the Prairie standard. This means running vents horizontally through the wall to the outside, or down through an interior closet or wall into the basement and out the side wall. Vents should be on the downwind side of the house, if possible, and should always slope very slightly towards the outdoors, draining any condensed moisture over the joints and outside.

If you really believe you have no choice, think about your hallways before you give in. Check this link to [An Alternative to running ducts through the attic.](#)

## Keywords:

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