

Ask Jon Eakes

Stopping cold air drafts from ducts to the outdoors.

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I get a lot of complaints about cold air drafts coming in through ducts connected to the outdoors. Here are some solutions.

Butterfly dampers

Any exhaust vent that rises up and out will have a tendency to let cold air fall back down that duct. Quality butterfly dampers are available that have a little spring inside, two flappers and a weather-stripped rubber stopper. This one comes from a company called Aeroflo at www.ContinentalFan.com. They prevent most air movement in the wrong direction. This one costs 30 to 40 dollars, as opposed to a cheap 5 dollar one (single plate that pivots), but it is about that much more effective as well.

Floating hood damper -- superb for Clother Dryers

This is the best exhaust hood I have ever seen. Mine has flawlessly worked for 10 years now. It comes in two models, the one in the graphic has a spring to assist the lift of the floating hood when used with a low powered bathroom exhaust fan. The one for use with a powerful clothes dryer does not have that spring. This large and a bit ugly gadget has a hat like lid that floats on the exhaust air stream inside the hood. When the exhaust air stops, it drops down and locks off the duct. No wind, no birds, no bugs can get back in. It never freezes open or closed. You can't make it smaller, but you can paint it.

Note on availability 2016 : For several years the Heartland Dryer Vent Closure was available at some hardware stores in Canada, then as so many good products that don't sell enough to justify shelf space, it disappeared. For some time it was still available until the company web site disappeared in 2014. A copycat that appears to work well but not as sturdy a construction showed up in Amazon.ca and on the web from Lambro Ind. – to be found by searching Dryer Vent Closure.

Then in 2016 the original company web site, HeartLandNatural.com is back offering the dryer closure that works better than anything I have found in any renovation centre. The problem is shipping from the US costs more than the vent itself – but you can also find both the Heartland and the Lambro now on Amazon.ca and avoid unknown border costs.

If you want to use this exhaust hood for a fan less powerful than a clothes dryer, like a bathroom fan or a Humidex basement fan, you will need a little \$6 spring assist that essentially makes the floating hood lighter. Unfortunately this seems to be only available at the HeartLandNatural.com site.

A NO vote on the Pro-Shield Dryer Vent Hood

As people are searching for a viable cold climate alternative for the Venetian blinds flapper type of vent that we all know doesn't work, an interesting concept has showed up in most Canadian hardware stores distributed out of Ontario -- the Pro-Shield Dryer Vent Hood. It is a large round disk with a retaining spring to keep it closed. I had an expert evaluate it and I couldn't have said it better:

"Cheap is an understatement. I pushed it open with my fingers and the spring popped out and it will not close now. Your thought was correct it will jam open and stay open or if you are lucky and you make it until the winter it will then freeze shut."

Combustion Air Damper

When you have a gas furnace that uses household air for combustion (as opposed to a closed combustion chamber that uses outdoor air and no chimney) the Canadian Gas code requires that you have a combustion air duct bringing fresh air into the area around the furnace. This provision in the code has been enforced for years in the Prairies and has recently begun to be enforced in Eastern Canada. The problem is that this duct spills cold air into the basement 24 hours a day. For a through

discussion of this problem check out the link to "Combustion Air" and to the Hoyme Damper.

A company in Alberta produces the answer to this problem, called a Hoyme Damper, and it is the only damper approved by the gas code for this use.

When the thermostat calls for heat, the damper opens and lets the fresh cold air in, which gets sucked up by the furnace and sent up the chimney. When the furnace goes off, the damper closes the duct. Simple and efficient to make your basement heatable. It has been used for 20 or more years in Alberta, and is barely even known by heating contractors east of the Prairies. We should talk to each other more often.

Wind driven drafts

Kitchen exhaust fans that run directly through the wall are particularly susceptible to wind driven drafts coming back into the kitchen. Where wind is a problem you need a wind hood on the outside. The best ones sold as standard items come from Ventilation-Maximum often available at renovation centres. This hood not only has wind baffles built in, but has a double gasket seal that really works. If you cannot get these, or they are not effective enough for your wind load, then have a sheet metal shop build a protective hood that can go over your regular hood but drop down at least 18" below the existing grill. That should definitely help to reduce the wind effect inside the house. No one sells such things because they are considered ugly -- effective but ugly.

Cleaning Ducts

Follow this link for cleaning your ducts.

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