

How To Stop Drafts and Save On Energy Bills

Imagine leaving a window open all winter long -- the heat loss, cold drafts and wasted energy! If your home has a folding pull-down attic stair, a whole house fan, a fireplace or clothes dryer, that may be just what is occurring in your home every day.

Drafts from these often overlooked holes waste energy and cost you big in the form of higher energy bills. Drafts are the largest source of heating and cooling loss in the home.

Drafts occur through the small cracks around doors, windows, pipes, etc. Most homeowners are well aware of the benefits that caulk and weather stripping provide to minimize energy loss and drafts.

But what can you do about drafts from the four largest "holes" in your home -- the folding attic stair, the whole house fan, the fireplace and the clothes dryer? Here are some tips and techniques that can easily, quickly and inexpensively seal and insulate these holes.

Attic Stairs



When attic stairs are installed, a large hole (approximately 10 square feet) is created in your ceiling. The ceiling and insulation that were there have to be removed, leaving only a thin, unsealed, sheet of plywood.

Your attic space is ventilated directly to the outdoors. In the winter, the attic space can be very cold, and in the summer it can be very hot. And what is separating your conditioned house from your unconditioned attic? That thin sheet of plywood.

Often a gap can be observed around the perimeter of the attic door. Try this yourself: at night, turn on the attic light and shut the attic stairway door -- do you see any light coming through?

If you do, heated and air-conditioned air is leaking out of these large gaps in your home 24-hours a day. This is like leaving a window or skylight open all year 'round.

An easy, low-cost solution to this problem is to add an insulated attic stair cover. An attic stair cover seals the stairs, stopping drafts and energy loss. Add the desired amount of insulation over the cover to restore the insulation removed from the ceiling.

Whole House Fans and Air Conditioning Vents

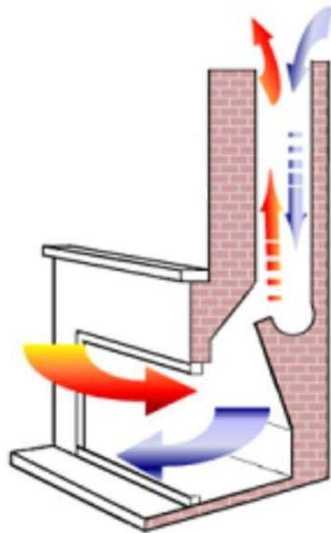
Much like attic stairs above, when whole house fans are installed, a large hole (up to 16 square feet or larger) is created in your ceiling. The ceiling and insulation that were there have to be removed, leaving only the drafty ceiling shutter between you and the outdoors.

An easy, low-cost solution to this problem is to add a whole house fan shutter seal. Made from white textured flexible insulation, the shutter seal is installed over the ceiling shutter, secured with Velcro, and trimmed to fit. The shutter seal can also be used to seal and insulate air conditioning vents, and is easily removed when desired.



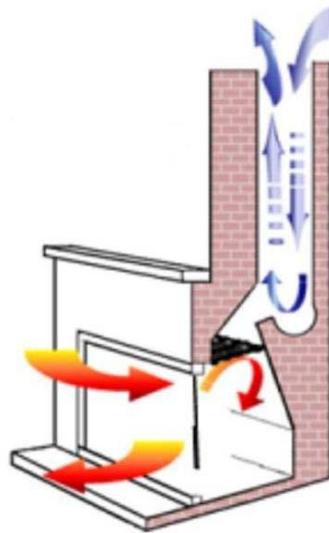
Fireplaces

Over 100 million homes, in North America are constructed with wood or gas burning fireplaces. Unfortunately there are negative side effects that the fireplace brings to a home, especially during the winter heating season. Fireplaces are energy losers.



BEFORE

downdrafts, discomfort, odors, noise, pollutants, toxins, and energy loss!



AFTER

fireplace is sealed, saving energy and stopping drafts, noise, odors, etc.

FIREPLACE PLUG!

Researchers have studied this to determine the amount of heat loss through a fireplace, and the results are amazing. One research study showed that an open damper on an unused fireplace in a well-insulated house can raise overall heating-energy consumption by 30 percent.

A recent study showed that for many consumers, their heating bills may be more than \$500 higher per winter due to the drafts and wasted energy caused by fireplaces.

Why does a home with a fireplace have higher energy bills? Your chimney is an opening that leads directly outdoors -- just like an open window. Even if the damper is shut, it is not airtight.

Glass doors don't stop the drafts either. The fireplace is like a giant straw sucking your expensive heated or air-conditioned air right out of your house!

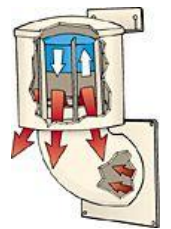
An easy, low-cost solution to this problem is to add a Fireplace Plug to your fireplace. Available from Battic Door, a company known for their energy conservation products, the Fireplace Plug is an inflatable pillow that seals the fireplace damper, eliminating drafts, odors, and noise. The pillow is removed whenever the fireplace is used, then reinserted after.

Clothes Dryer Exhaust Ducts

In many homes, the room with the clothes dryer is the coldest room in the house. Your clothes dryer is connected to an exhaust duct that is open to the outdoors. In the winter, cold drafts in through the duct, through your dryer and into your house.

Dryer vents use a sheet-metal flapper to try to reduce these drafts. This is very primitive technology that does not provide a positive seal to stop the drafts. Compounding the problem is that over time, lint clogs the flapper valve causing it to stay open.

An easy, low-cost solution to this problem is to add a dryer vent seal. This will reduce unwanted drafts, and also keeps out pests, bees and rodents. The vent will remain closed unless the dryer is in use. When the dryer is in use, a floating shuttle rises to allow warm air, lint and moisture to escape.



For more information on Battic Door's energy conservation solutions and products for your home, visit www.batticdoor.com or, to request a free catalog, send a self-addressed stamped envelope to P.O. Box 15, Mansfield, MA 02048.

ABOUT THE AUTHOR - Mark D. Tyrol is a Professional Engineer specializing in cause and origin of construction defects. He developed several residential energy conservation products including an attic stair cover and an attic access door. Battic Door is the US distributor of the fireplace plug. To learn more visit www.batticdoor.com