

Why Does My Fireplace or Woodstove Smoke?

This is a question we get often here at Stove and Spa Center. Where there's fire there's smoke, and when the fire is in your fireplace or wood stove you need that smoke to vent outside. The problem is that this does not always happen as planned. If your fireplace or stove is dumping smoke into your home there is generally 1 of 2 reasons: you didn't open the damper or your fireplace/stove has a drafting problem.

The hearth appliance's flue is most likely the cause of this problem. The flue is the part that runs from the top of your woodstove or fireplace opening up through the roof and forms the chimney outside.. Poor drafting can be caused by a number of things, some are minor fixes and some are more involved. First we will look at the principals of how a fireplace works. Then we will talk about why your fireplace or stove may not be drafting properly and give you ideas about how you can fix these problems.

There are many things that can cause a chimney to vent improperly. We will address these problems individually to help you find your solution faster.

Problem: Fireplace/stove smokes ALL THE TIME - Let's get the obvious out of the way first, damper is closed, flue is clogged with a nest (animals like birds, bees, raccoons, squirrels, etc. like chimney flues), extreme creosote buildup, or other type of blockage. If you have smoke simply pouring into your home whenever you attempt to start a fire you should either call a professional chimney sweep or get some chimney cleaning supplies (which we sell) and begin cleaning.

Problem: Fireplace/stove smokes SOMETIMES - This takes some investigation. Don't just assume it is because of one thing or another. There are so many possible causes for a smoking fireplace that you can spend a ton of money guessing what the problem is. But with some investigation you can usually narrow it down to just 1 or 2 possibilities. Ask yourself the following questions:

First ask yourself these questions:	Solutions to Problems:
Is my damper or air control open all the way?	If your damper is not opened all the way and will not open all the way call a chimney professional and have it replaced/repaired. You may also consider removing your inefficient throat damper and replacing it with a much more efficient top sealing damper cap. It will pay for itself in no time.
When was the last time I had the chimney cleaned and inspected?	You should clean your chimney every season. This will keep hazardous creosote from building up in your flue and also help your fireplace or stove draft better. It will reduce smells in the summer time and eliminate the potential for dangerous chimney fires. If you are burning pitchy sappy woods like doug fir, pine or construction scrap you may need to clean your chimney and spark screen as frequently as every month! NEVER BURN PARTICLE BOARD IN YOUR STOVE OR FIREPLACE,.
Have I added any structures that may be obstructing the draft of my chimney (home additions, garages or new outbuildings with high roofs, etc.)?	If you have added additions to your home or built a new garage, pole barn, or other outbuilding with a high roof it may be causing the problem. Usually this can be fixed by adding length to your flue. It may be all you need. Also check to see if a tree has grown higher/closer to your chimney in the years since it was installed. You need to have a 10' radius around your pipe system to prevent smoke backdrafting.
Have any large trees, plants, shrubs grown up too close to my chimney over the years?	Trees and shrubs can be cut back and trimmed. If this is not an option again an Exhausto Fan will do the trick.
Have I installed new windows, siding, insulation, knocked down walls or made any other structural changes to the interior/exterior of my home?	If you have done any major renovations to your home especially those making it better insulated (which in turn means better sealed and less "breathing") then you may have affected the pressure in your home. Consider checking into an outside air kit if you think your home is sealed better than before. If your home is more opened up then you may have too much free air, try turning on exhaust fans, closing doors to other

	rooms in the home, or consider a special exhaust-venting cap. On rare occasions we have seen a forced air heating system installed incorrectly so it pulls inside air and literally sucks smoke from a woodstove or fireplace back into the room. For problems like this contact your local HVAC (heating/AC business).
Does my fireplace/stove smoke only during high winds?	This could be due to a downdraft created by high winds. There are chimney caps designed to deflect wind turning it into more of a venturi action causing the smoke to be sucked out of the chimney. A wind cap is called for if you live in a high wind region, or have a neighbor with a taller building right next to yours.
Does my fireplace or stove smoke only when I first start a fire?	The most usual cause of this is cold weather when your flue gets a "cold plug"- a mass of dense cold air in your flue. The fire needs to be started properly to create good draft and prevent smoking upon start up. <u>Ask us for our handout on how to start a fire.</u> If you have singlewall pipe and a tall interior pipe system it will help to change over to doublewall interior pipe.
Do small amounts of smoke leak out the top of my fireplace?	This can be caused by an undersized flue/oversized fireplace or stove. A simple solution is the addition of a smoke guard. The smoke guard reduces the size of your fireplace opening and may reduce it enough to create a proper draft. Most often this means that the flue is dirty and needs to be cleaned.
Does my fireplace smoke sporadically with no pattern?	Obviously these can be the most difficult ones to solve but usually have the simplest solutions. This can be caused by doors opening and closing, exhaust fans turning on and off, windows being opened (a opened window in an upstairs bedroom can cause a fireplace to smoke), clothes dryers, or anything that would effect the air pressure in your home. All of these things suck air out of your home creating a vacuum in your home making your flue act like a straw. Outside air make up kits are available to force air into your home.