



Before reading and following any advice that follows, please read and consult your owner's manual.

My wood stove or fireplace seems to create an unusually high amount of smoke into our home. What can be done about this? Was it installed properly?

There can be a number of reasons why smoke is backdrafting into your home. There are four main causes:

- Negative pressure (common in newer homes and basement installations)
- Backdraft (common with outside chimneys, short chimneys or high-wind areas)
- Blocked chimney
- Burn technique / wet wood

In order to recommend solutions to reduce smoke coming into your home, it is important to know what the cause is.

1. Negative Pressure

Negative pressure is essentially the process of heat in your home rising inside and battling the air escaping through your chimney. In other words, heat rises. As the air in your home rises from your basement to your upper floors, your lower floors tries to recoup that air. You may have a negative pressure problem if:

- Your home is airtight around your lower floors (common in newer homes)
- Your wood appliance is in the basement or a lower floor
- Everytime you open the door smoke enters the room even when the stove has been on for a few hours

Possible Remedies

- Open a window near the wood-burning appliance before you open the door. This will provide 'make-up' air for your basement.
- Open the door of your wood appliance very slowly when re-loading it with wood.

2. Backdraft / Cold Chimney

Hot air rises and cold air falls. If your chimney has cold air, smoke may come into your home until the air in the chimney is heated. You may have a cold air chimney problem if:

- You get smoke into your home on light-up
- Your chimney is not much higher than surrounding roof lines or trees

Possible Remedies

- Extend your chimney higher
 - If it is an outside chimney, build an insulated chase around it
 - Keep the fire burning 24 / 7
 - See item 4) Burn Techniques
-



3. Blocked Chimney

Having a chimney blocked with creosote is not uncommon. Most modern appliances have 6" flues and if your wood or burn technique is not perfect, it could get clogged with creosote (or even an animal). Your flue may be blocked if:

- All the smoke enters your home (there is no draft)
- Upon light-up it seems ok, but after the fire heats smoke begins to enter your home (as the flue is restricted)
- You hear 'poofing' sounds as your fire heats up

Possible Remedies

- Hire Friendly Fires to clean your chimney and/or purchase the proper equipment for you to thoroughly clean your system.

4. Burn Technique / Wet Wood

Wet wood.

Everyone says they burn dry wood because they know the guy who knows the guy.... The reality is that if your wood is not split and stored in a top-covered area where wind and sun can dry it out for a minimum of 12 months (preferably 24), your wood is wet. If you are unsure, look at purchasing a wood moisture meter (available in our store). You will be amazed at how much water is in your wood and how much energy is consumed by your system to simply boil the water in the wood.

Improper Burn Techniques.

New efficient wood burning systems must be used and operated in a specific fashion. As a general rule, follow these guidelines:

- Get your flue gas temperatures up to approximately 700 degrees – hot!
- Fill the firebox up with wood (again) and wait 5-7 minutes
- Close the door, shut off most of the air and do not open the door for 6 – 40 hours (depending on the size of your firebox) or until only a few coals are left. Every time you open your door you are cooling your entire system.

For more information

Visit the retailer where you purchased the appliance and request a full burn tutorial and/or check out www.woodheat.org.
