

## **Why You Should Line Your Chimney (With a Stainless Steel Liner)**

Some people think the only justification for lining a perfectly good chimney is that it will help line your hearth retailer's pockets with more of your hard earned cash. After all you just plunked down somewhere between \$800 to \$3000 (or more) for the stove and now they are trying to get more! Please let me explain how this extra step is going to help not just you and the hearth retailer, but also your chimney sweep and maybe even the fire department. And here's the kicker – it could even save you money in the long run.

### **There are five very good reasons for lining a chimney:**

1. Creating the proper flue size.
2. A chimney that is lined from the stove to the top is easy to keep clean.
3. A lined chimney is a safer chimney.
4. Some chimneys that are lined and insulated work better.
5. It may just be a code requirement.

### **Creating the proper flue size**

Some chimneys are built with one purpose and then used for another at a later time. A perfect example of this is the fireplace chimney. These chimneys have large flues that are designed to evacuate the copious amounts of smoke and gases that are created by burning wood in a fireplace with a large opening. The conclusion that many people arrive at after living with this situation is they are throwing a lot of wood into a fireplace that is nice to look at but doesn't give off much heat! The logical next step is to put a wood burning fireplace insert into the existing masonry fireplace. Here is where the liner will help. Although the chimney usually already has a terracotta liner, the size of the liner is a minimum of 8" x 12" and usually 12" x 12" or larger. Some would say, "If my chimney is already lined, why do I need another liner inside of it?" So here is the answer. The flue exit on most of the new E.P.A. rated wood burning inserts is 6" in diameter. When the engineers who designed these stoves were testing them, they performed most of the tests on a 6" flue. Therefore, it stands to reason that these puppies are going to work a whole lot better on – you guessed it – a 6" flue. I have used the fireplace as an example, but there are many chimneys in older homes that were built with over-sized flues that will work better if lined.

### **A chimney that is lined from the stove to the top is easy to keep clean**

In some cases when an insert is installed into a masonry fireplace an installer will use a "direct connect" to connect the stove to the chimney flue. In this case a short length of stainless steel flexible liner is connected to the top of the insert and run through the damper and up above the bottom of the first flue tile, The remaining damper opening is then sealed with a steel plate or ceramic fiber blanket. This installation may work fine, but it creates more expense when it is time to clean the chimney. To properly clean the entire chimney in this type of installation, the stove, and the venting should be removed and then reinstalled after the chimney is cleaned. Chimney sweeps don't enjoy all of this extra work and therefore charge accordingly. If an insert had been installed in this same fireplace with a full liner, the chimney sweep could run his brush and rods right down to the stove. In this case the only extra step is removing the top baffle.

### **A lined chimney is a safer chimney**

Last night I was watching the news, which is a very rare occurrence for me. After all who really wants to hear about all of the bad things that have happened today? Having said that, I saw a report about a house that burned because of a chimney fire. Now, chimney fires can start for of more than one reason. One is creosote build-up, and that should not be an issue if you are burning an E.P.A. certified stove properly with "Good Wood" and "Good Draft". Another reason is the chimney may be too close to combustible materials. A liner, and in some cases an insulated liner, can make a chimney much safer. Of course if you are unsure about the condition of your chimney, you should always consult a professional like your hearth retailer or a chimney sweep. Now, if the house in the news report had an E.P.A. certified stove connected properly installed liner, there is a good chance that the local firemen would have been back at the station perfecting a new recipe instead of out risking their lives putting out a fire!

### **Some chimneys that are lined and insulated work better**

One of the best things about using a chimney liner when it's needed is that the stove will work better. When a stove works better you will be happy, and when you are happy so is your hearth retailer. That reminds me about the saying I use often pertaining to my wife. I'm sure you have heard it: "When Mother is happy, everybody's happy!" Some chimneys are built outside the house, which is not conducive to "Good Draft". As I have mentioned earlier, a large flue will only magnify the problem. The solution here may require adding an insulated liner, which will allow the flue to stay warmer and as a result will contribute to better draft. Another important point, and an opportunity to bolster my claim that a liner may save you money, can be made about improving performance and efficiency when installing a liner. If the stove is running well you will be getting more heat from the stove and get your money's worth from your wood.

### **It may just be a code requirement**

This next part is pretty dry, so bear with me. If the chimney is inside the building envelope and is more than three times the cross-sectional area of the flue outlet of the stove, by code it should be lined. If the chimney is outside the building envelope, it will need a liner if it is more than twice the cross-sectional area. Wow that was dry, I need a drink.

So maybe the liner is going to add cost to the purchase, but it may also be adding to your happiness and well-being.