

Parging Smoke Chambers

The smoke chamber is the section of the fireplace that has the job of directing the combustion byproduct (smoke) from the firebox into the flue. If you consider that an average firebox is about 4 feet wide and an average flue is about 1 foot wide, the inverted funnel shape needed to direct smoke into the flue is called the smoke chamber.



This funnel shape is usually formed by Corbelling brick or block. **Corbelling** is a method of laying bricks like steps to achieve a desired shape.

This method works very well for creating the shapes we need. Unfortunately, because of the way this is done, it often leaves gaps between bricks, block or at the top of the smoke chamber where the smoke should enter the flue, allowing it to leak to areas of the chimney or structure that are not intended to contain those products. Additionally, those byproducts can accumulate as creosote (a flammable residue) in those same areas.



Parging is a type of stuccoing inside the chimney that is done for three main reasons. First, is to reduce turbulence in the flow of combustion gases. Second is to prevent combustion residue or smoke from leaking or accumulating in crevices or parts of the chimney. Third, it forms a uniform surface, since bricks and mortar can expand and contract with heat at different rates, that movement can create gaps. A single surface of like material lessens that risk.

When a new fireplace is built, Parging of a smoke chamber is required by the building code. Since a mason building a fireplace to code, is following codes for proper masonry wall thickness and type as well as distance to combustibles, a new fireplace is usually parged with a type of mortar.

But on an existing fireplace where parging was not done or has failed. **We do not know if proper conditions exist where we cannot see**, such as the masonry work behind walls.



Therefore, when we repair an existing smoke chamber we use a specialized material that has insulative properties and is UL listed for **zero distance to combustibles**. The process usually involves removal of the old damper and frame so we can reach what is needed, hand forming of the material to form a single cast smoke chamber and the installation of a flue top type damper. Creating a finished product like the one to the right.

Pricing for this type of job can vary greatly based on size and accessibility, and all are quoted individually, but most cost between one and two thousand dollars. If you would like more information , call us at **(203) 881 2256**

