



## CHIMNEYS & LINING



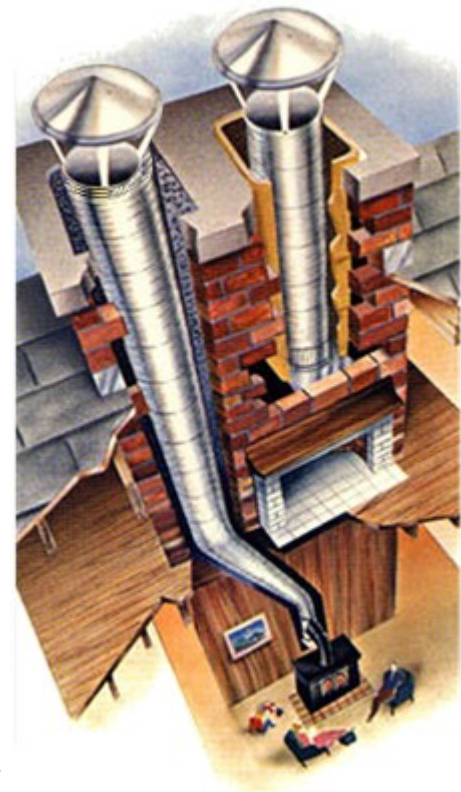
### What is Chimney Lining?

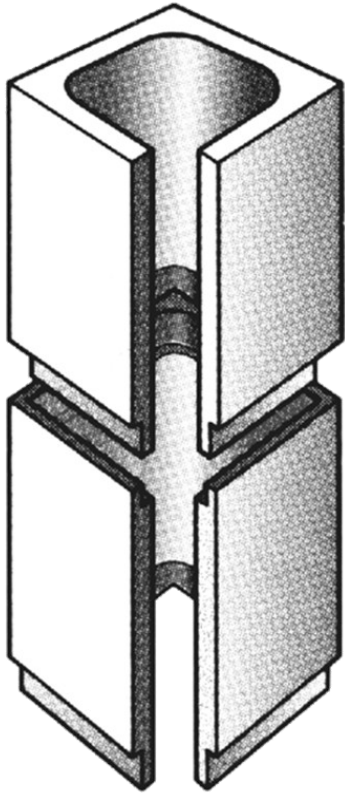
The function of a chimney is to safely remove the products of combustion from a fireplace or appliance to outside of the building, without causing any danger to the occupants of the house. A chimney works because hot air rises and moves from high to low pressure. Factors such as running the appliance at a very slow rate or cold air leaking into the flue will cool the gases and affect the performance of the chimney. Lining systems are designed to replace the flue in an existing chimney, with dimensions appropriate to the appliance. Insulation may be added or integrated into the new flue system to improve the efficiency of the draught. This is a particular requirement for external situations. The Lining method of a chimney and materials vary (see: *Methods of Chimney Lining and Renovation*).

### Why Line Chimneys?

Chimneys are lined for a number of safety related reasons. The illustration (right) shows two types of chimney system lining. While new chimneys may require relining, systems that predate 1965 will often require a modern lining solution for the following reasons:

1. The flue may have lost integrity and can leak smoke into rooms or other parts of the building.
2. Condensates or tar can seep through chimney walls causing staining, inside or outside of the building.
3. Lining with insulation included improves the operation of appliance and flue (particularly important when the chimney is on an external wall).
4. Defective flue systems may be eroded and rough. This will cause frictional resistance to the flow of the gases resulting in poor updraught.
5. Large flues (over 200mm) particularly ones containing voids may affect appliance performance. Some appliance manufacturers specify smaller flues for efficient operation.





## Methods of Chimney Relining and Renovation

Chimneys with existing flues can be relined in several different ways. These include:

1. Using rigid sections of clay, pumice or refractory liner installed by cutting into the chimney wall or by lowering sections down from the top of the stack and infilling with an insulating material.
2. Insulating concrete, pumped in and around an inflatable former by a specialist contractor.
3. Stainless steel flexible liner in a continuous length lowered down the chimney.
4. Spray on coating by a specialist contractor.
5. Ceramic coating by a specialist contractor.

The suitability of any of these methods of lining is dependent on each individual system. You should seek professional advice on what is the most appropriate solution for your need.

## Chimney Faults

Before having a liner installed in your chimney, you should have it swept to remove soot and tar deposits by a professional chimney sweep. For those that already have a chimney lining, a competent sweep will be able to inspect for the following faults:

1. Liners fitted upside down
2. Out of line or overlapping liner
3. Obstructive ledges hindering updraught
4. Protruding cement at joints
5. Liner removed during previous service work or installation
6. Damage through incorrect sweeping (see "more information" for professional chimney sweep organisations)
7. Masonry damaging the liner
8. Blocked terminal (cowl or rain cap)

These faults can lead to a number of problems with the operation of a solid fuel appliance. More importantly, faults with chimney lining can pose a risk to the safety of household occupants and should be rectified immediately.

## For more information

The Solid Fuel Association technical and consumer helpline provides helpful advice on any aspect of solid fuel appliance installation and use.

**Tel:** 0845 601 4406

**Web:** [www.solidfuel.co.uk](http://www.solidfuel.co.uk)

The National Association of Chimney Engineers (NACE) provide a register of competent chimney engineers in the UK and Ireland for a variety of chimney work.

**Tel:** 0800 0924019

**Web:** [www.nace.org.uk](http://www.nace.org.uk)

The Association of Professional and Independent Chimney Sweeps sets standards for, and improve the knowledge and safety of sweeps in the UK.

**Tel:** 0845 604 4327

**Web:** [www.apics.org.uk](http://www.apics.org.uk)

The Guild of Master Chimney Sweeps works to improve standards and professionalism in the UK chimney sweeping industry. They have a directory of Guild approved sweeps on their website.

**Web:** [www.guildofmasterchimneysweeps.co.uk](http://www.guildofmasterchimneysweeps.co.uk)

The National Association of Chimney Sweeps (NACS) promotes high standards for the sweeping, inspection and maintenance of chimneys. They have a directory of approved sweeps on their website.

**Tel:** 01785 811732

**Web:** [www.nacs.org.uk](http://www.nacs.org.uk)



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