

Expertly fanning the flames

You've seen and heard it all before. The customer wants a large open fireplace but the flue was built for a twelve inch Victorian grate. Also the top of the chimney is below the ridge line and there are fourteen protected trees in the line of the prevailing wind. Here Danish manufacturer Exhausto offers its help.

From your own experience and training you know there are a hundred and one reasons why a flue or chimney may not work correctly but explaining these to a customer may not be so easy writes Peter Røge of Exhausto.

The effectiveness of any chimney in maintaining a natural draught that prevents smoke from an open fire spilling into the room depends on a number of factors.

The predominant issue is the ratio of the area of the fireplace opening to the area of the flue but other factors, such as the number of bends, are also important.

Natural draught may not be reliable

A smooth flow of smoke and gases will rise more quickly than a turbulent flow, so the internal condition of the chimney is important. The smooth internal surface of a newly built chimney usually creates better flow than an old chimney with crumbling mortar. Lining a chimney obviously provides the ultimate in 'smooth flow' but it also reduces the diameter of the chimney which can upset the ratio of the fireplace to flue area.

Natural chimney draught is in large part created by two factors. One is the movement of air across the top of the flue, the other is the temperature differential in the flue. The greater the difference in temperature between the heat of the fire at the bottom and the cooler air at the top, the better the chimney will perform. As outside temperature rise, chimneys will tend to be less effective.

Air movement across the top of the chimney is affected by the surroundings. Hills in the path of the prevailing wind, clumps of trees, even the design of the house itself can all have a major role in whether a chimney works effectively. Whatever reduces air flow across the top of the chimney reduces its effectiveness.

A solution for improving the draught in a chimney or flue is a fan system of the type we manufacture and with which we've now had over fifty years experience.

Fireplace dealers who supply Exhausto chimney fan systems already

know of the extensive support from nationwide technology centres.

As these we offer help with the key calculations, provide quotations and get chimney fan systems designed correctly and installed quickly and efficiently.

An Exhausto system creates a fully controlled draught in the chimney. This can dramatically improve combustion and ensure that whatever smoke and dust the fire creates disappears up the chimney to the outside world.

The draught is electronically controlled, guaranteeing the effectiveness of the chimney independent of wind, the weather, the size of the chimney or the location of the fireplace. A controlled draught also makes it much easier to light the fire with the user able to alter the speed of the chimney fan and therefore control the draught from their living room.

Modern open gas fires are extremely safe but there can be concerns about combustion efficiency when they are a few years old or if they have not been serviced regularly.

Fail safe reliability for gas

Exhausto chimney fan systems for gas, while similar in principle to those for solid fuel fires, differ in a number of ways and are usually installed to ensure safety.

As well as making sure that the combustion products from the gas fire go safely up the chimney, our fan systems also turn off the gas supply to the fire if the chimney becomes obstructed. As soon as the chimney obstruction is cleared, and the fan can draw a proper draught up the chimney, the gas supply is restored and the gas fire can be lit as normal.

The Exhausto chimney fan system is the only one available on the market that has a fully certified fail-safe facility that provides both safety and the opportunity to have an open gas fireplace. Because the draught is electronically controlled, it guarantees the effectiveness of the chimney, whatever the weather conditions.

The draught is maintained automati-

cally, without any need to control it manually.

Even if a customer has no chimney, there are chimney fan systems that are installed with a horizontal flue to exhaust from the outside wall of your house.

To find out more about the help we have available from our Exhausto Technology Centres, visit www.exhausto.co.uk or phone us on 01494 465166.