

HEATBASE FACTSHEET 12

Flue gas leak and Temporary conversion to open flue boiler

If your room sealed/balanced flue boiler has been diagnosed as having a flue gas leak. You need to contact an Installer to rectify this problem, or if you are a tenant you must contact your landlord.

Flue gas leaks can be caused if the internal seals breakdown, welding on the flue degrades, or if the flue terminates in a position where the products of combustion become trapped around the flue terminal. When any of these things happen “spent” flue gases are being drawn back into the boilers air supply. This can alter the emissions of the boiler giving an intermittent and erratic combustion, and may lead to smoking problems and intermittent lockouts. The “spent” flue gases can be hot, and as well as containing carbon monoxide and other noxious gases, also contain acidic moisture. This can cause damage to burner components and electrical connections. If the leak is seen to be causing damage or potential problems, your boiler may have been temporarily converted into an open flue or low level discharge boiler instead of a room sealed balanced flue boiler.

If the problem has been caused by degradation of the flue seals, it could be caused by the high flue gas temperatures associated with sludge in the boiler and system. If this is the case your boiler and system will require power flushing (see FACTSHEET 6). If sludge or scale has not been removed, then the boiler will continue to produce high flue gas temperatures and the flue seal will degrade again quite quickly.

If your boiler uses an air hose or snorkel, it may have been removed from the burner, blocked to try to prevent any fumes entering the room through the pipe, and possibly been sealed with a foil tape. If your boiler uses an air box, or a room sealed casing; then this could have been left off, we have no means of blocking the air supply. In either case the boiler is no longer room sealed and therefore fumes or smells may become evident in certain wind conditions.

If there is no air brick, temporary ventilation must be used e.g. keeping a window open in the room. A carbon monoxide alarm should be used and an installer contacted to carry out the repair or replacement of the flue.

Room sealed balanced flue boilers draw their air for combustion from outside through part of the flue system, and therefore do not require an air brick to supply combustion air to the appliance. They cope better in windy conditions and are less likely to smell.

Open flue/low level discharge boilers are not room sealed, they draw their combustion air from the room and therefore require an air brick. They are more prone to back pressure problems and can smell and allow fumes back into the room in certain wind conditions.