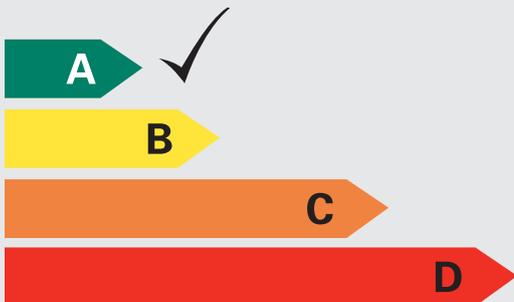




The Guide to Schiedel Chimney Systems



Enabling energy efficiency

Energy efficiency and chimneys

In the drive for more efficient homes all new houses must comply with energy efficient guidelines, aimed at reducing energy consumption and carbon emissions.

By choosing an appropriate heating appliance and an efficient chimney/flue system, you can help meet the Government's target without compromising on the cosy focal point that truly makes a house a home.

Improve Energy Efficiency

The aim is to move away from less efficient heating appliances to ones with higher efficiencies. For primary heating the change will typically be to install an efficient condensing boiler or a pellet boiler. The popular forms of secondary heating until now have been open fires and room open gas fires with typical efficiencies of 32% and 55% respectively. The trend will be to use more efficient closed appliances like stoves and inserts which have efficiencies in excess of 70%.

Chimney Specification

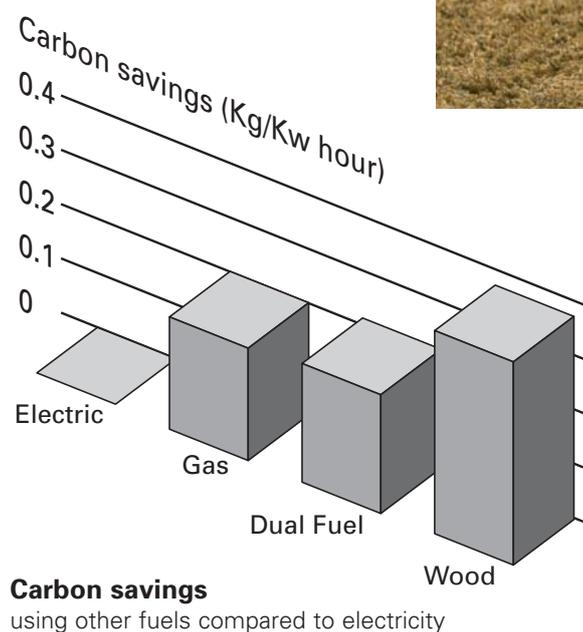
The chimney plays an important role in the overall performance of a heating system. An efficient heating appliance requires a well and consistently insulated chimney to perform at optimum efficiency. This is where the Schiedel Swift and Schiedel Air chimney systems come in. The continuous rock wool insulation along the entire length of the system ensures that the chimney remains warm during the operation of the appliance.

Having spent time and money heating the air in a room the last thing you want is for that hot air to escape up the chimney. With an open fire it is calculated that 40 cubic meters of air will pass up the chimney each hour. The Schiedel Swift open fire systems are fitted with a damper that can be closed when the fire is not lit. This halves the assumed air loss to in the SAP calculation to 20 cubic meters per hour.

If connected to a chimney of less than 200mm, as most stoves are, using a stove will also reduce the air loss to 20 cubic meters

However if you want to go further and reduce the air loss through the chimney to zero, as would be the requirement in a code 5 rated house then you should consider installing an appliance that takes its combustion air from outside the house. This is the purpose of the Schiedel Air chimney system.

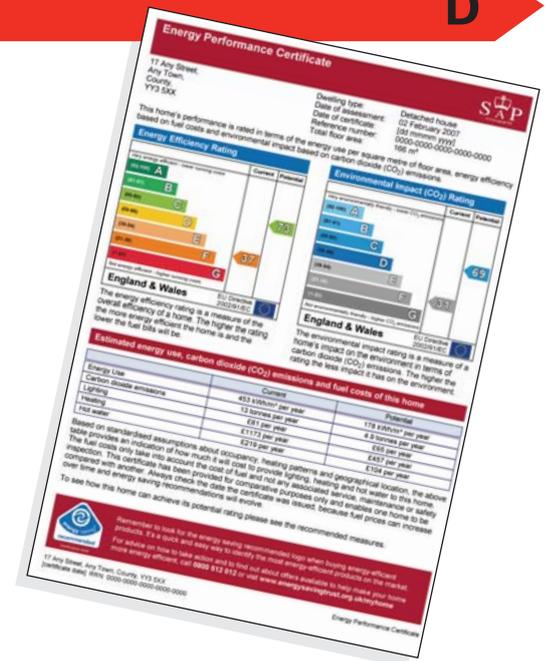
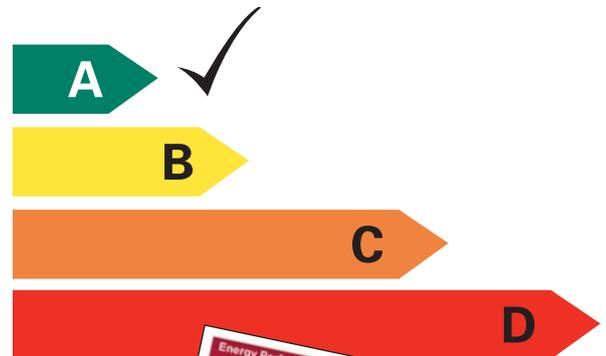
- Greater energy efficiency
- Lower carbon emissions from burning wood
- Meet the requirements of Document L and SAP



Carbon savings
using other fuels compared to electricity

Choosing your appliance at the planning stage is now crucial

Both primary and secondary heating **must** be specified at the design stage if the required energy and carbon savings are to be realised. This is a big change in our thinking as the choice of appliance would usually have been left until building was complete or the house occupied. If the choice is not made before the building, the SAP programme will default to the worst case scenario.



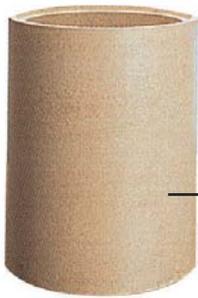
Carbon Saving and Fuel Choice

A common misunderstanding is the more efficient the appliance the greater the carbon saving. The carbon dioxide produced by the fuel used in the appliance has a major impact on carbon emissions. For example, an electric fire is assumed to be 100% efficient but, as can be seen in the graph alongside, electricity is more carbon intensive than other fuels. Significant carbon savings can be achieved by burning wood in a closed appliance like a log burning stove or a pellet boiler.



The Schiedel Chimney System Concept

Traditionally, chimneys are completely constructed on site with separate components supplied by different manufacturers. This process is labour intensive and makes it difficult to ensure consistent insulation. By contrast the Schiedel Swift offers modular, prefabricated units to speed construction and facilitate consistent quality standards.



The concept involves a modular 3-layer insulated chimney system:

1st Layer

A high quality flue liner, made of fireclay, tested to EN1457.



2nd Layer

A flexible insulation board designed to maintain the temperature of the flue gases and allow them to pass freely up the chimney. It also allows the flue liner to expand and contract without damage.



3rd Layer

A lightweight chimney block which safely encases the whole system and provides additional insulation.

Bends and Offsets

It is recommended that a chimney be constructed as a straight chimney. Were a bend is required, for example to move the chimney into a corner in the first floor, a Schiedel Swift bend kit can be used. There are two types of bend kit - a standard bend kit that can be used anywhere in the construction but require additional support, or breast bend kits that are supported within the chimney breast.

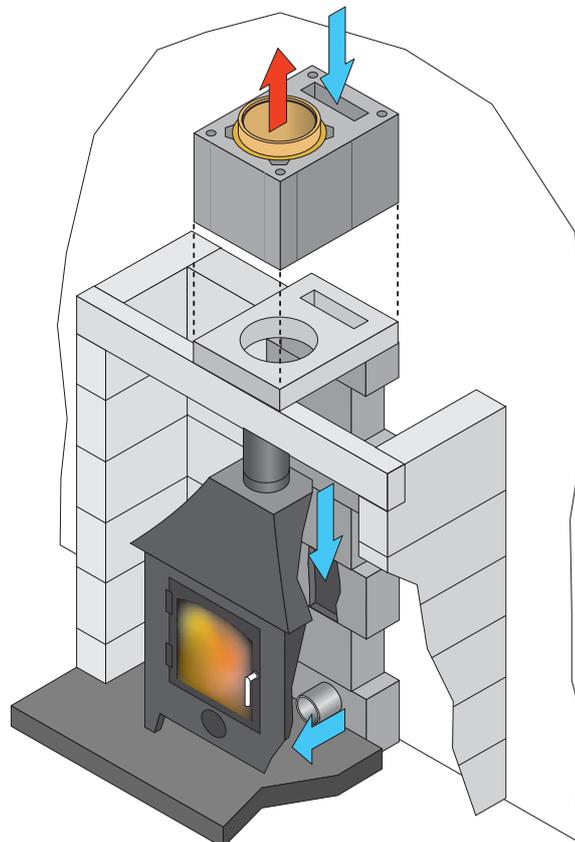
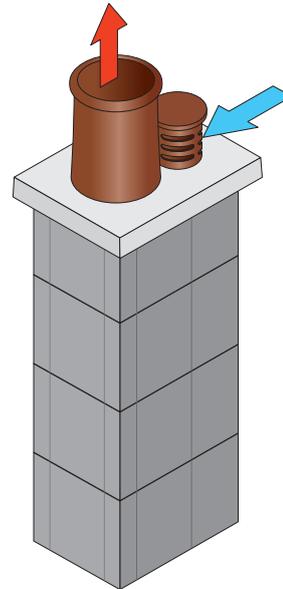


Schiedel Swift Air

In an A rated house the combustion air required for wood burning appliance like a stove burning logs or wood pellets must be supplied directly to the stove from outside the house. These appliances are called room sealed as they are manufactured not to take air from the room. The Schiedel Swift Air provides all the benefits of the Schiedel Swift and in addition neatly and simply delivers the external air to the stove.

The alternative to Schiedel Swift Air is low level or under floor ducting ideally with air supplies from opposite sides of the house.

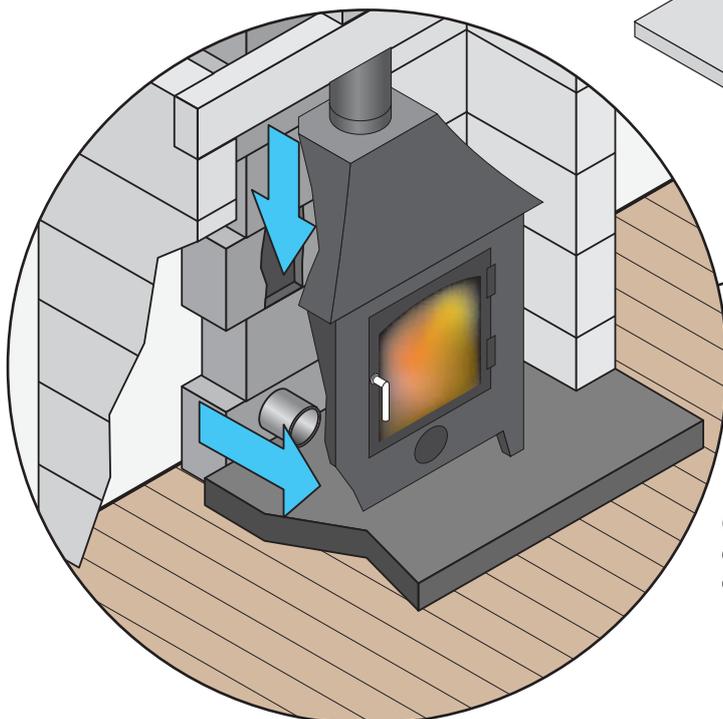
The Schiedel Swift Air solution avoids this by ducting the air through an external air shaft in the chimney.



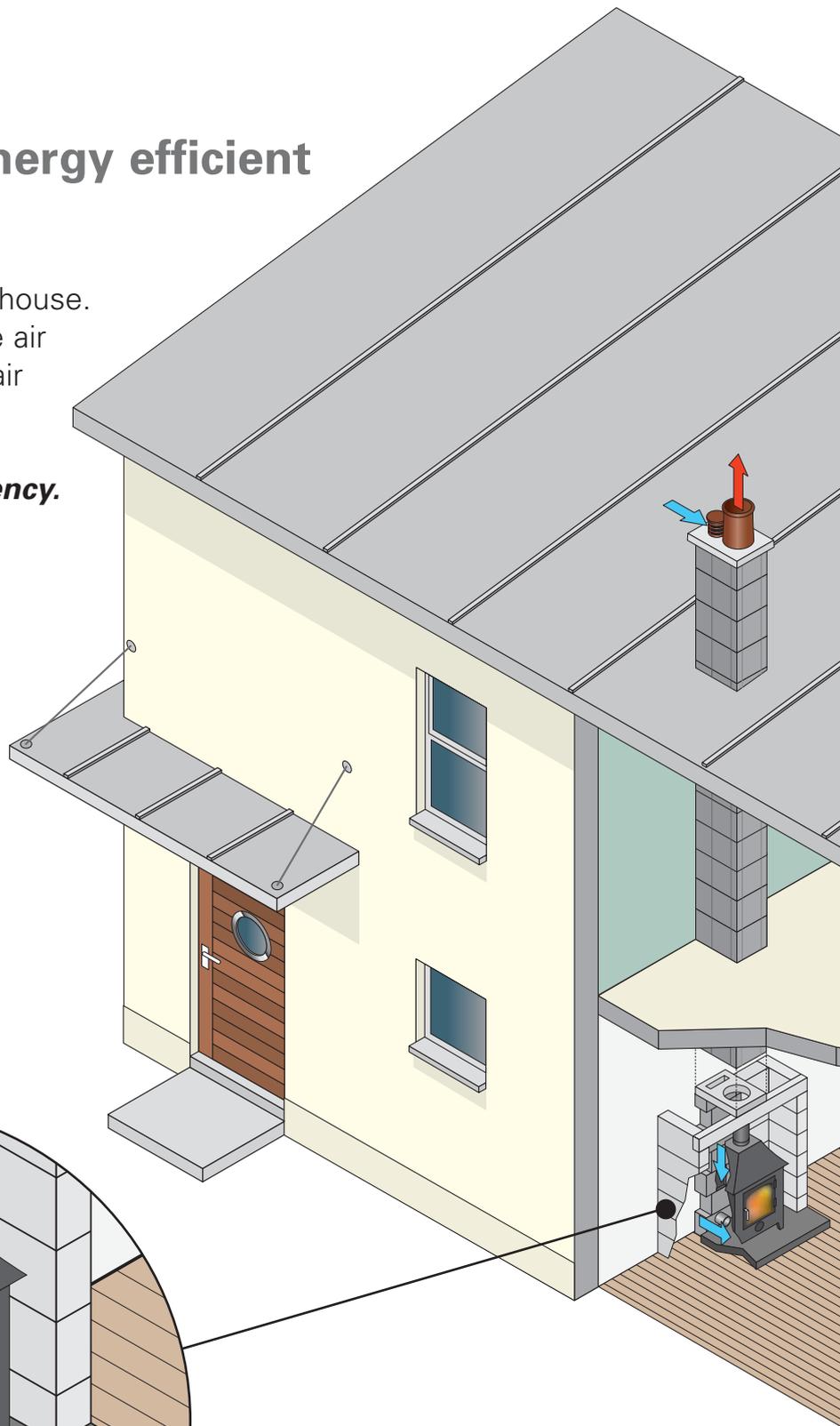
Schiedel Swift Air - energy efficient air tight house

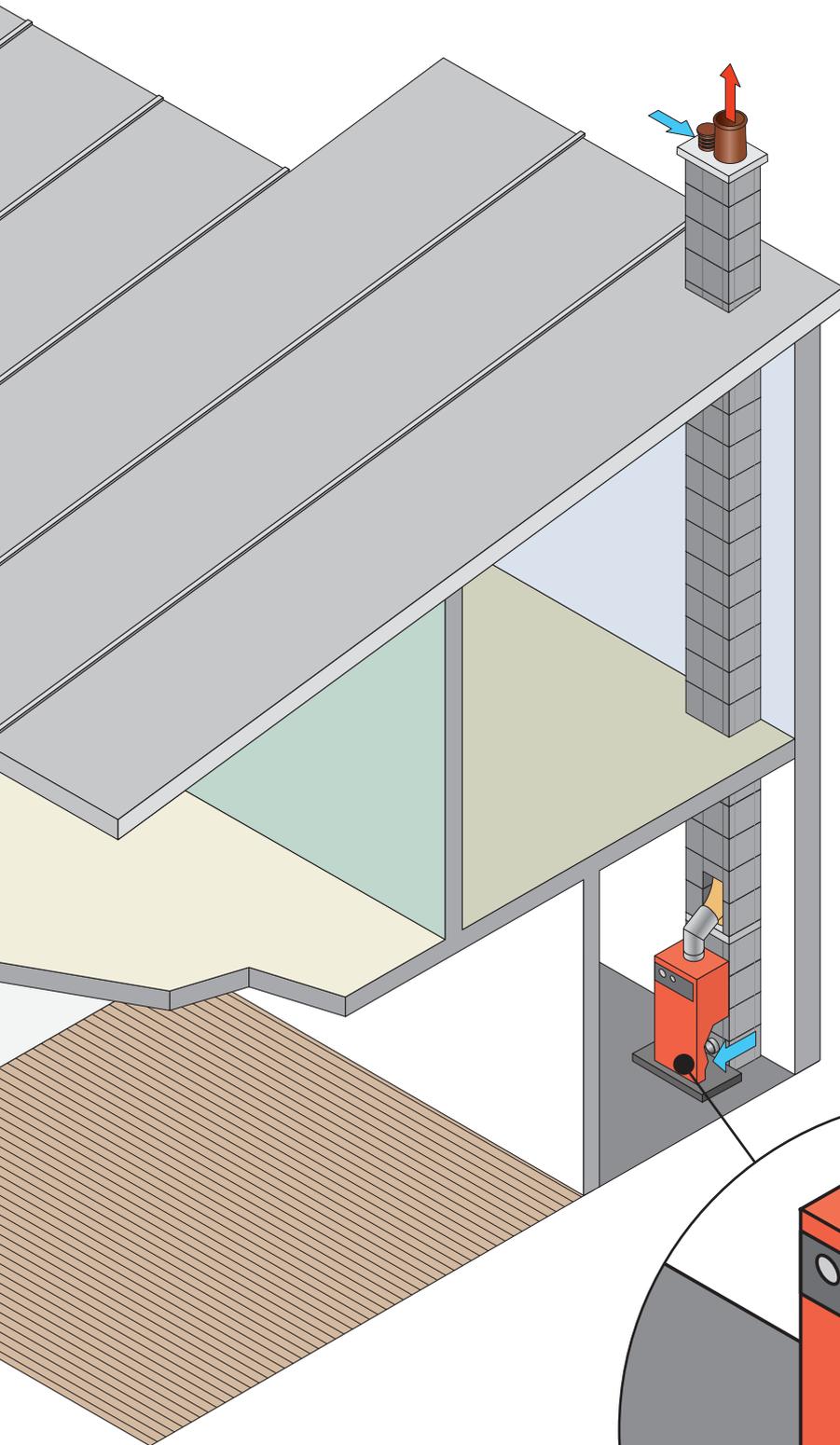
The heated air circulates within the house.
The stove and the boiler do not take air from inside the house so no warm air is lost through the chimneys.

- Schiedel, enabling energy efficiency.

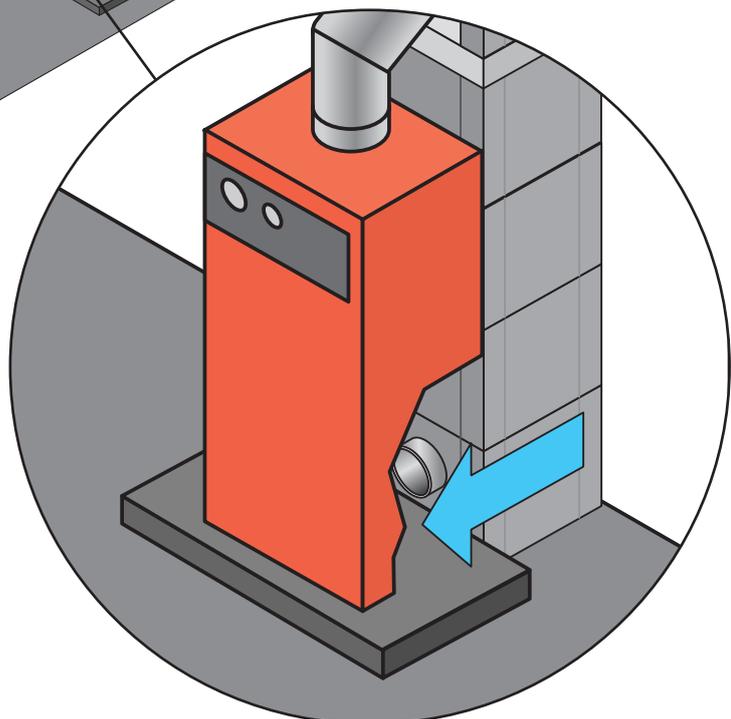


Combustion air is supplied directly to the stove from outside the house.





Combustion air is supplied directly to the boiler from outside the house.

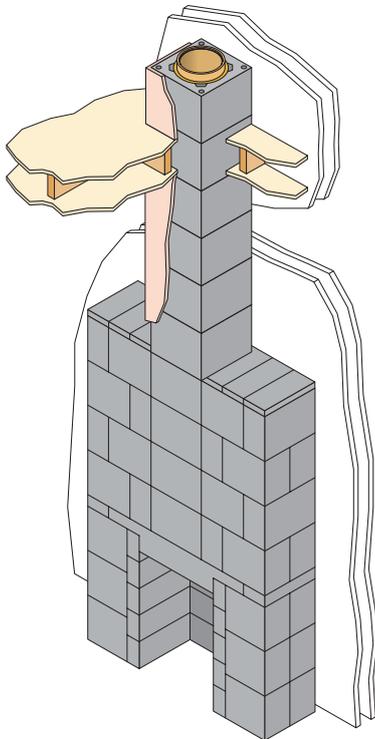
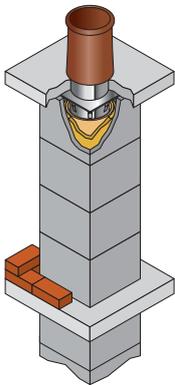


Schiedel Swift - Open Fires

Internal Swift

(timber frame, steel frame and masonry construction)

Single chimney for timber frame, steel frame or masonry constructions. Available with a corbel for 3 brick wide (675mm) brick or rendered stack, or as a Plain Swift without the corbel stack (400mm square). Strengthening bars only required if chimney is taller than 1.2m.

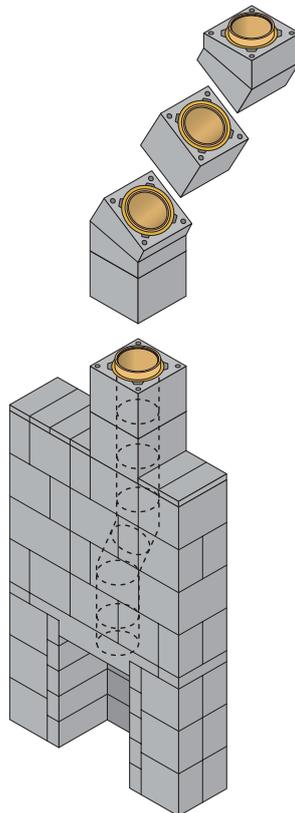


Bend Kits

(two kits available)

The Breast Bend Kit - allows the flue to be moved from 200 - 600mm in the chimney breast.

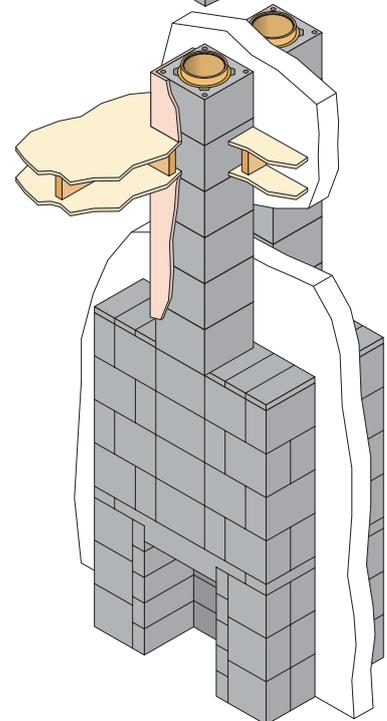
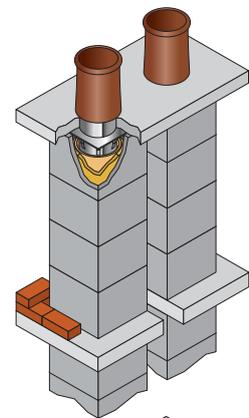
The Standard Bend Kit - allows the flue to be moved horizontally as far as required, so long as it is supported in the traditional manner.



Back to Back Swift

(masonry construction)

Suitable for two chimneys to be constructed on either side of a masonry party wall and coming together in one stack. Corbel provided for brick or rendered stack. Strengthening bars only required if stack is taller than 1.2m.

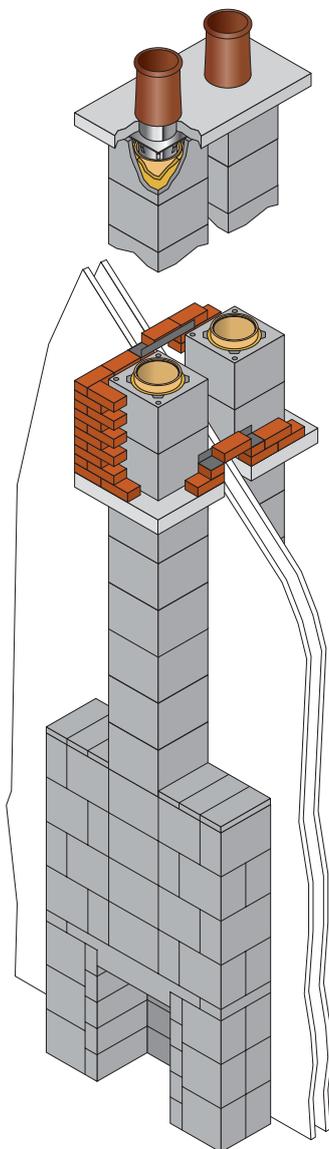


Schiedel Swift - Open Fires

Back to Back Swift

(timber frame and steel construction)

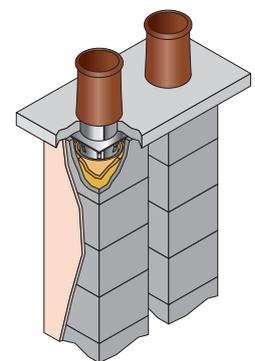
As for masonry construction but enables the chimney to be built without breaking into a timber frame party wall.



Back to Back Plain Swift

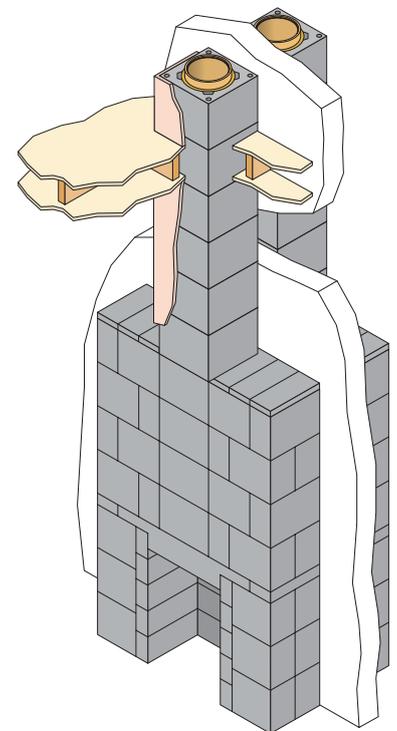
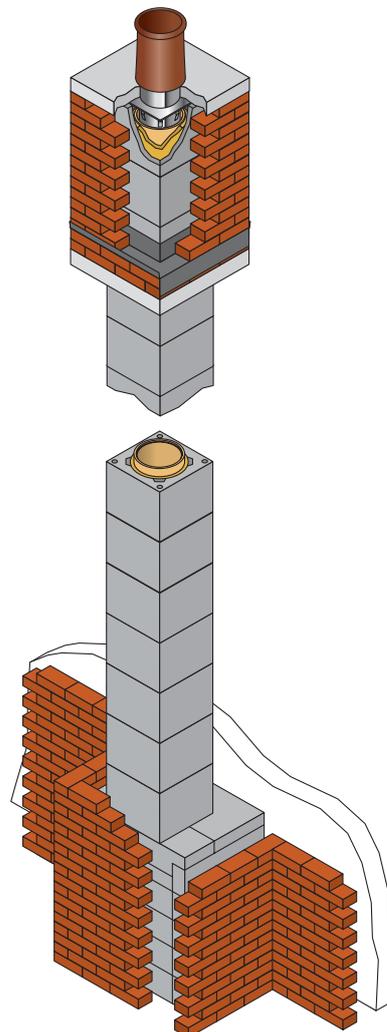
(timber frame, steel frame and masonry construction)

Suitable for timber frame, steel frame and masonry construction. Used for two chimneys to be constructed on either side of a masonry party wall when a corbel is not required. Strengthening bars are always required.



External Swift

Suitable for a single chimney where the chimney is on the outside of the building. A bend kit can be used to tumble in on one side.



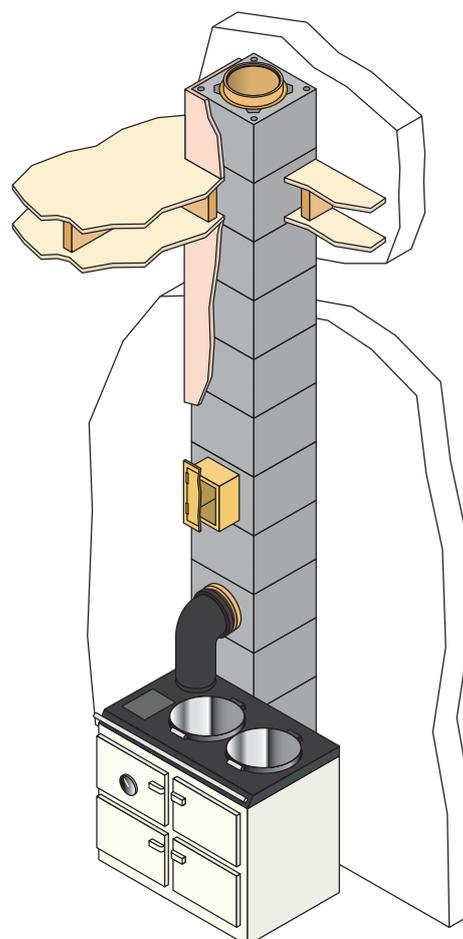
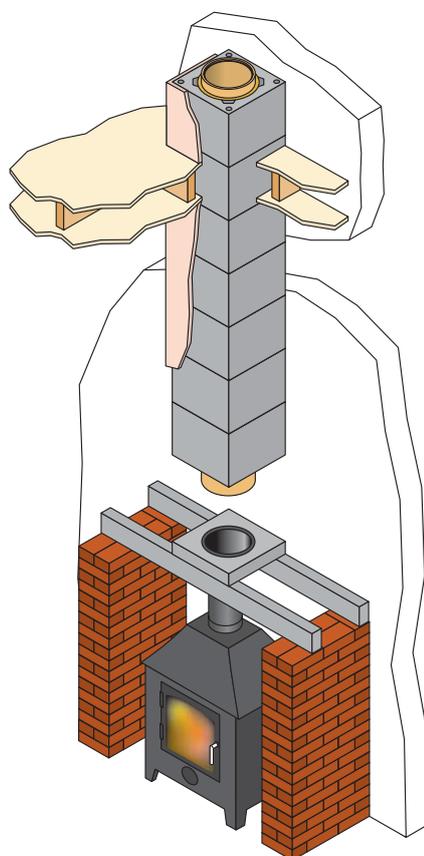
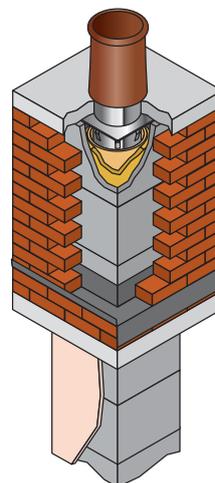
Schiedel Swift - Stoves, Cookers and Boilers

The Schiedel Swift is also an ideal solution for stoves, cookers and central heating boilers.

Neat and simple solutions suit a variety of installations. Shown here are the solutions for a stove and a range style cooker.

These options offer all the benefits of the Open Fire solutions with tailor made components to simplify construction.

The accessories on the stoves, cookers and boiler systems include preformed junction pipes and inspection doors for ease of maintenance.



Stoves

Chimney system to suit oil burning and solid fuel stoves.

Cookers

Chimney system for cookers.

The Schiedel Chimney Kits

Order and delivery of the Schiedel Swift and Schiedel Air could not be easier. All the materials needed to construct the chimney from the base to the chimney pot are supplied as part of a kit. This includes the blocks for the chimney breast and lintel in the open fire option.

Each system consists of a base pallet, referred to by the name of the system and an extension pack to achieve the required height of chimney.

For example, the kit for an standard 8m open fire chimney comes as a 3m base pallet and a 5m extension pack.

Simply choose the type of chimney required and specify the height.

Key Construction Features

- Designed for speed of construction.
- Suitable for Timber Frame, Steel Frame and Masonry construction. Solutions have been specifically designed to meet the requirement of timber framed construction.
- Modular units for easy assembly on site.
- Suitable for all fuels - gas, oil and solid fuels.
- A high temperature ceramic sealant is provided in tubes for ease of application.
- Superior Insulation - The consistency of the insulation maintains the temperature of the flue gases allowing them to pass freely up the chimney. Back filling of insulation is not required.
- The use of a chimney tray is always recommended.
- The high quality fireclay flue liner complies with the European Standard EN1457.



Extension Pack

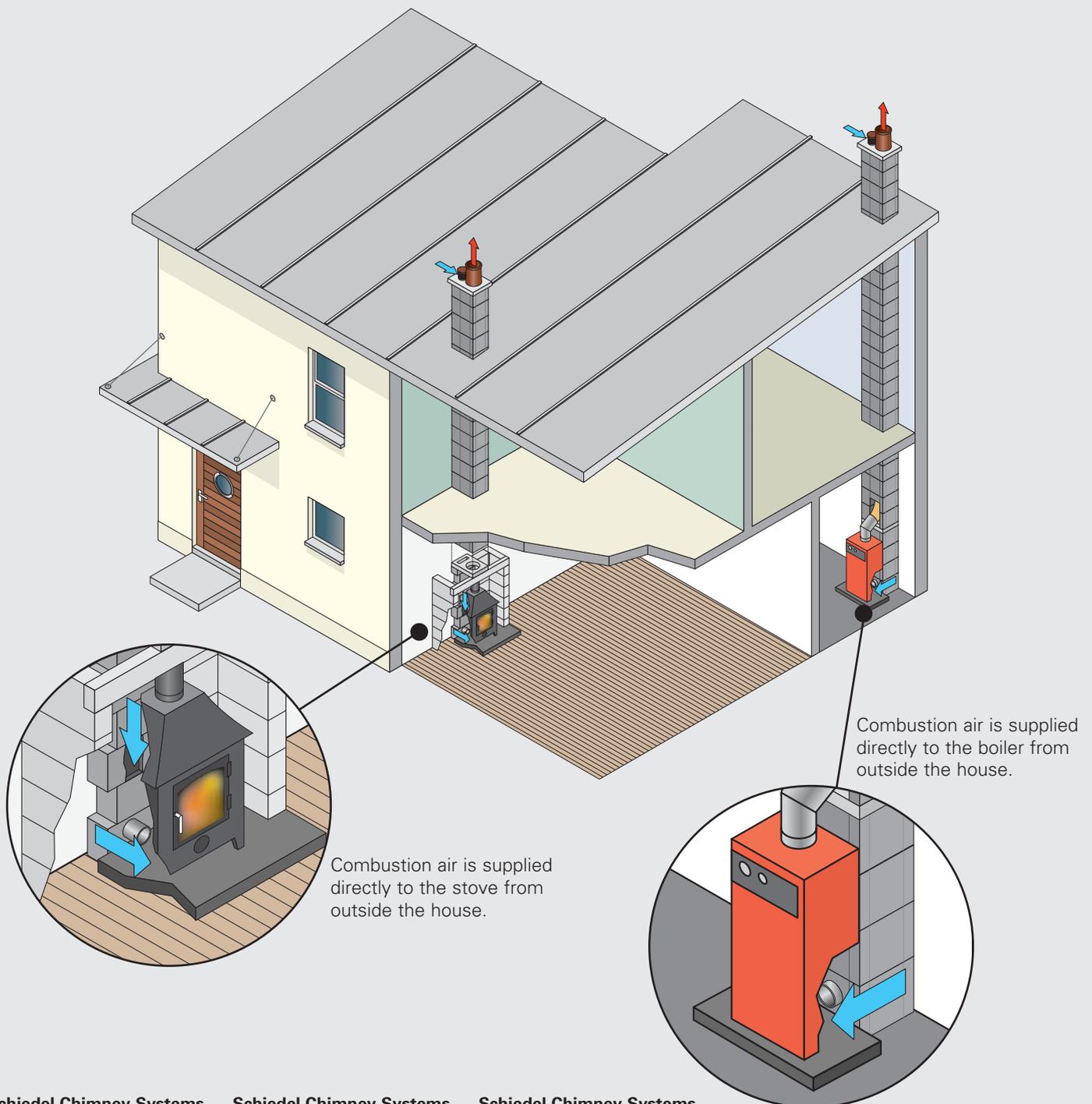


Base Pallet

Schiedel Swift Air Chimney System in energy efficient house

The heated air circulates within the house. The stove and the boiler do not take air from inside the house so no warm air is lost through the chimneys.

- Schiedel, enabling energy efficiency.



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