

Fireflexmaster

Multi-fuel twin wall flexible flue liner

Technical information and installation instructions



WARNING Failure to follow these installation instructions could cause damage due to FIRE, ill health due to CARBON MONOXIDE POISONING, OR even DEATH. If you are unsure of any of the instructions included in this document or have any installation queries, call the telephone number given in these instructions or email us with your enquiry.

Note: there is more advice on our web site which may be useful!

It is important that this chimney liner meets the requirements of the appliance to be installed to and reference to the appliance manufacturer's installation instructions should be made to check that flue size, type and temperature rating meet those required by the appliance.

You must ensure you understand the requirements of these instructions as well as those of the Building Regulations in force in the part of the UK in which the liner is to be installed.

Where a conflict between the two may arise then clarification can be sought from either the manufacturer or the Building Control Department of your Local Authority.

This manual gives basic advice on the installation of Fireflexmaster for many common installation situations, but should you need specific advice on any application, design or installation method, then seek the advice of a specialist.

During and on completion of the installation and any associated building works, you must ensure compliance with the Health and Safety at Work Act and your responsibility under it, and any new regulations which may be introduced while these instructions are in force. This will require the production of a risk assessment and particular attention should be paid to the following:

Access to site: Ensure that suitable and safe access is available to the work area, especially when working at height, on roof areas or enclosed spaces. Do not enter environments you are not competent to work in.

Handling of chimney lining components: The chimney lining, especially in its larger sizes, may be heavy and cumbersome. Ensure you are familiar with your lifting capability and if in doubt ensure that suitable facilities and equipment are available for loading, unloading and handling.

Metal parts: Take care when installing or servicing the flue to avoid personal injury.

Working at heights: Ensure all those involved in working at heights during the installation of the chimney system are trained and qualified to do so.

Ventilation: All combustion appliances require adequate ventilation to operate correctly. If an appliance is present or installed at the same time, care must be taken to add purpose provided ventilation in accordance with Approved Document J of the Building Regulations or the appliance manufacturer's instructions, whichever is the greater.

Asbestos: This chimney liner contains no asbestos. If there is the possibility of disturbing any asbestos in the course of installation, please seek specialist guidance and use appropriate equipment.

A faulty installation can cause danger to the inhabitants and the structure of the building.

Handling

The chimney lining components are manufactured, packed and delivered with care, but it is possible that during this process damage may occur. It is important that all components are checked on arrival and that any damage is reported immediately. If damage occurs after this, the manufacturer cannot take responsibility.

The components and chimney liner are robust when installed, but must be handled with care during transport and installation. If cutting is required, use a fine hacksaw or sharp knife to cut through the main circumference of the liner. Use tin snips to cut through the joints. Protective gloves must be worn. Damaged components must not be used.

The manufacturing process requires the use of a vegetable based lubricant; this is safe to drain out of the liner and safe for contact, but may stain, so care must be taken.

Description

Fireflexmaster is a twin walled flexible stainless steel liner system with a smooth inner lining and a deeply corrugated outer layer to give additional strength and protection.

The approvals for this system chimney only apply when all the components used in the system are manufactured and specified by the manufacturer for use with this system and are used and installed in accordance with these instructions.

Application

These installation instructions are for the use of the Fireflexmaster chimney liner in domestic premises and for the connection to appliances covered under Approved Document J of the Building Regulations. Installations outside this criterion such as commercial and industrial installations or those with induced draught systems can be installed in a similar manner, but the regulations regarding termination and sizing etc will vary and it is the responsibility of the installer or designer to ensure these variations are researched and followed.

The Fireflexmaster chimney lining system can be used with most appliances including the following:

Atmospheric gas boilers

Oil boilers and stoves

Gas stoves

Wood fired and multi-fuel stoves

Industrial and domestic appliances

The system can be used in domestic, commercial and industrial installations where the grading of the system meets the requirements of the appliance.

The chimney liner is available in two grades:

- 1) A 316L grade liner ideal for gas, oil and wood burning appliances and can be used on intermittent use solid mineral fuel or multi-fuel appliances.
- 2) A 904L grade liner which can be used on all of the above situations plus where there is to be regular or continuous use of solid mineral fuels.

Advantages and features

Fireflexmaster flexible flue liner is the top performing chimney liner from H Docherty Ltd, now an ISO 9001:2008 quality standard company. Demonstrating a commitment to providing only top quality products. Please see warranty details on page 16.

Deeply corrugated BS 1449 316L grade stainless steel is manufactured into a twin wall flue liner which combines great strength with flexibility. Thickness: 0.105mm.

A superior 904L stainless steel grade liner is also available.

Outer corrugated layer provides a protective casing during the installation process, and after installation it helps protect the inner layer from corrosion due to attack by residual deposits. The inner layer is smooth to discourage the build-up of soot and other potentially corrosive residues and to encourage the unimpaired flow of flue gases.

Inner and outer layers are joined by the Triple Lock Joint System. Acknowledged to be the best jointing system available, the Triple Lock Joint provides strength and stability by distributing forces evenly round the flue liner. The overlapping joint construction protects the joint from the potentially damaging effects of condensation.

Specification

The twin wall construction, with triple lock and overlapping joints, enables Fireflexmaster to withstand operational temperatures of up to 600°C and short fire temperatures of up to 1000°C - e.g. a chimney fire (in the event of such an occurrence, the future liner performance will be adversely affected).

Suitable for all standard fuel oil and gas installations, seasoned wood less than 20% moisture, wood pellet, any HETAS approved solid fuel products, other fuels may be used but conditionally, please see warranty for further details.

Flexible Radius Data - Fireflexmaster should not be forced to exceed a bend radius of more than twice it's own diameter

DIAMETER	RADIUS
100mm	200mm
125mm	250mm
150mm	300mm
175mm	350mm
200mm	400mm

Supply

Drum length - 33m for 125mm and 150mm, 30m for 175mm to 200mm diameters, other diameters and lengths are available upon request.

To complement Fireflexmaster flue liner, a full range of stainless steel fittings are available – all checked to European quality standard ISO 9001:2008 and all are CE marked. The warranty requires the use of components from the Docherty Group only.

Approvals and authority

Docherty Fireflexmaster is approved to British Standard BS EN 1856-2:2009 and complies with the following requirements:

Temperature Class T600

Pressure Class NI

Resistance to Condensate Class D & W

Corrosion Resistance Class: VmL50022 (316) DRY, VmL50022 (316) WET, VmL70022 (904) DRY, VmL70022 (904) WET

Sootfire Resistance Class G(25, when within a masonry chimney)

Regulations and standards

Under the England and Wales Building Regulations Approved Document J a flexible flue liner can only be installed into a masonry chimney and there must be no part of the liner exposed outside the masonry. The flexible liner must not be visible and so a closure plate will be required, and the joint between the connecting flue pipe and the liner must be below the closure plate to ensure the flue pipe can be replaced without disturbing the chimney liner.

Flue sizing

The sizing of flues for appliances should be based on the type of fuel and the appliance to be used:

• Gas appliances

In the case of gas appliances, flues should be sized in accordance with Building Regulations Approved Document J table 5, the Gas Safety in Use regulations and in all cases as required by the manufacturer's installation instructions.

• Oil appliances

Flues for oil appliances should be sized in accordance with the requirements of Approved Document J Paragraphs 4.4 and 4.5.

• Solid fuel appliances

The size of flues for solid fuel appliances should be in accordance with the requirements of Approved Document J Paragraphs 2.4 to 2.7 and as given in table 2 of ADJ.

This chimney system is most often used with solid fuel and so the above guidance is reproduced below:

ADJ Section 2 - Size of flues

2.4 Flue pipes should have the same diameter or equivalent cross sectional area as that of the appliance flue outlet and should not be smaller than the size recommended by the appliance manufacturer.

*2.5 Flues should be at least the size shown in **table 2*** relevant to the particular appliance and not less than the size of appliance flue outlet or that recommended by the appliance manufacturer.*

2.6 For multi-fuel appliances, the flue should be sized to accommodate burning the fuel that requires the largest flue.

* See page **5**

Approvals and authority ADJ Section 2 - Size of flues - Table 2

Table 2 Size of flues in chimneys	
Installation (1)	Minimum flue size
Fireplace with an opening of up to 500mm x 550mm	200mm diameter or rectangular/square flues having the same cross-sectional area and a minimum dimension not less than 175mm
Fireplace with an opening in excess of 500mm x 550mm or a fireplace exposed on two or more sides	See paragraph 2.7. If rectangular/square flues are used the minimum dimension should be not less than 200mm
Closed appliance of up to 20kW rated output which: a. burns smokeless or low-volatiles fuel (2) or b. is an appliance which meets the requirements of the Clean Air Act when burning an appropriate bituminous coal (3) or c. is an appliance which meets the requirements of the Clean Air Act when burning wood (3)	125 mm diameter or rectangular /square flues having the same cross-sectional area and a minimum dimension not less than 100mm for straight flues or 125mm for flues with bends or offsets
Pellet burner or pellet boiler which meets the requirements of the Clean Air Act (3)	125mm diameter This may be reduced to no less than 100mm when permitted by the appliance manufacturer and supported by calculation according to BS EN 13384-1:2002. This calculation can be applied to an individual installation or manufacturers can provide precalculated designs.
Other closed appliance of up to 30kW rated output burning any fuel	150mm diameter or rectangular/square flues having the same cross-sectional area and a minimum dimension not less than 125mm
Closed appliance of above 30kW and up to 50kW rated output burning any fuel	175mm diameter or rectangular/square flues having the same cross-sectional area and a minimum dimension not less than 150mm
Notes: 4. Closed appliances include cookers, stoves, room heaters and boilers. 5. Fuels such as bituminous coal, untreated wood or compressed paper are not smokeless or low-volatiles fuels. 6. These appliances are known as 'exempted fireplaces'	

Provision for cleaning and inspection

All flues must have provision for cleaning and internal inspection. Approved Document J states that for all fuels,

ADJ paragraph 1.51

Openings for inspection and cleaning should be formed using purpose factory made components compatible with the flue system, having an access cover that has the same level of gas tightness as the flue system and an equal level of thermal insulation. Openings for cleaning the flue should allow the easy passage of the sweeping brush. Covers should also be non-combustible except where fitted to combustible flue pipe (such as plastic flue pipe). After the appliance has been installed, it should be possible to sweep the whole flue.

Insulation

If it is decided to insulate the void around the liner then dry, unmixed granules of Vermiculite or Perlite should be used. Care must be taken to ensure the exposed section of the chimney stack must be water tight and free from damp.

It is important to ensure the weight of the insulation to be used can be supported by the closure plate installed and that the insulation is complete from bottom to top of the void with no areas left unfilled. Where the void is large and cold then the liner can be wrapped with Thermaflue insulation and the void vented as described in the installation instructions.

For further details contact Docherty Group.

Terminals

Where Fireflexmaster is connected to a gas appliance, a flue terminal that complies with section 5 of BS715 is required.

Where Fireflexmaster is connected to an oil burning appliance, a rain cap or universal terminal may be used. However, as there is a corrosion risk on such systems, regular inspection is recommended.

Where Fireflexmaster is connected to a multi-fuel and wood burning appliance there is a risk that the use of a covered terminal may increase flow resistances and more rapid formation of deposits and acid condensation, therefore rain caps and universal terminals are not recommended for use. Where there is a known risk of birds nesting or rain intruding down the liner, a terminal can be fitted as long as the above is taken into consideration.

If the installation is to a chimney which penetrates a thatch roof (or other roof which may be easily ignitable), then follow the guidance given in the appropriate HETAS guidance document.

Testing after installation

Once the liner has been installed, the flue must be tested in accordance with Approved Document J Appendix E of the Building Regulations appropriate for the appliance connected.

Competent persons and notice plates

According to Approved Document J the chimney lining must be installed by a competent person or under a Building Control Notice.

If an engineer is HETAS Registered for the installation of stainless steel flexible chimney linings, then they can carry out the installation and issue a certificate of compliance. However, if a non-registered person does the installation, this must be under a Building Control Notice.

In all cases a Notice plate must be completed and affixed as stated in Approved Document J.

Carbon monoxide alarm

Where a chimney is being installed to service a solid fuel appliance, Building Regulations require the fitting of a carbon monoxide alarm in the same room as the appliance. This alarm must be to BS EN 50291 and be powered by a battery designed to work for the life of the alarm.

If the appliance is not installed at the same time, then it is the responsibility of the appliance installer to supply and fit this, but if the appliance is installed at the same time then this must be in place at the time of commissioning.

Use after a chimney fire

Although Fireflexmaster is tested and approved to withstand soot fires, it is likely that the material in the liner will be damaged to an extent that will result in a rapid corrosion of the liner thereafter.

As a result it is recommended that any flexible flue liner is replaced after a chimney fire.

Installation details

METHOD ONE (pot hanger style)

1. Preparation

The lubricant used in the manufacturing process may still be present in the liner when it is delivered. Care must be taken to ensure the liner is drained prior to installation and that the hearth and surrounding area are adequately protected as this may stain.

Remove any existing temporary flexible flue if present.

Sweep chimney prior to fitment of flue and ensure all deposits of soot and tar are removed (ideally this should be done by an APICS, Guild of Master Chimney Sweeps or NACS member and a certificate obtained). Also check stability and condition of chimney pot. Re-bed chimney pot if necessary (see note 8 for using method two).

Inspect the chimney both internally and externally for defects and repair if necessary, ensuring the exposed part of the chimney stack are as air and water tight as possible.

2. Closure plate

At the top of the fireplace recess fit a suitable closure plate of zero rated non-combustible board that can withstand temperatures of over 200oC for long term or 1.5mm rust protected steel (stainless steel is suitable). The closure plate should be sized correctly to prevent any debris falling on to the appliance and, if required, it should be strong enough to support any insulation used to fill the void around the liner. Note that if no additional support bracket is to be provided for the liner and the closure plate is to be relied upon to locate and support the base of the liner, then the closure plate must be steel.

The plate should have a suitable hole cut to accept the correct size and type of adaptor being used. The closure plate is supported and secured to angle iron support brackets on all four sides which are secured to the inner brickwork by means of non-combustible fixings, for example self-threading bolts or metal raw bolts.

3. Inserting liner

Attach the liner support bracket, which is part of the pot hanger cowl kit, to the upper end of the liner before lowering the liner down the flue. This is to prevent the liner falling down the chimney when being lowered.

It is essential at this stage to identify that the liner is the correct way up to ensure the support bracket is on the correct end.

There is a small arrow on the outside of the liner to indicate the correct fitment; this must be pointing upwards (see Fig 1).

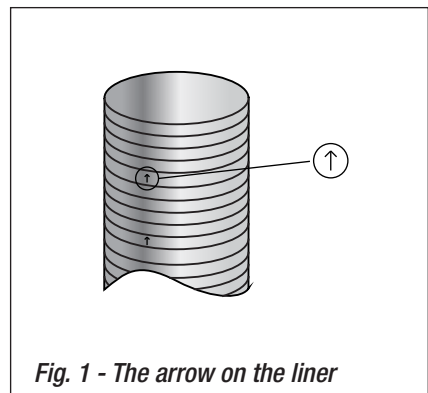


Fig. 1 - The arrow on the liner

Installation details

METHOD ONE (pot hanger style) continued

Inserting liner *continued*

Attach a nose cone and draw rope to the bottom of the liner (see Fig 2) to assist in the lowering of the liner to the desired position. This is normally done with a large amount of tape or self-tapping screws. Lower the rope down the flue (this may require a weight to be added) and pass the rope through the cut hole in the closure plate.

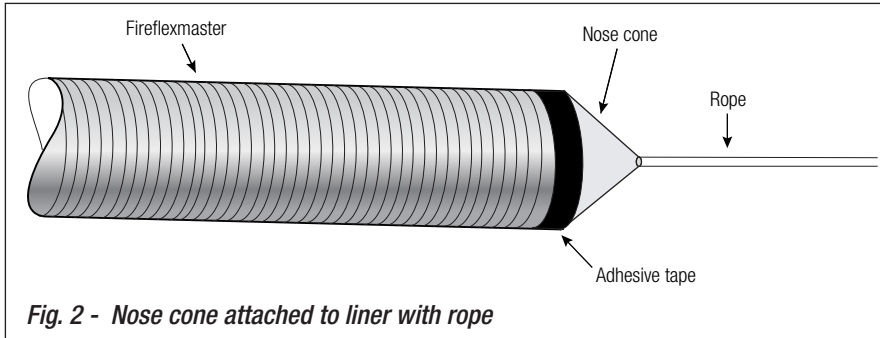


Fig. 2 - Nose cone attached to liner with rope

Pull the liner down the chimney; this is best done with someone at the top of the chimney directing the liner into the chimney pot at the same time as it is pulled down the chimney using the rope. Rotating the liner can assist in getting it past bends and offsets without damage. Where a top hat adaptor is being used, pull the liner through the hole in the closure plate sufficiently to allow the removal of the cone and the fixing of the adaptor (do not pull too much through or it may be difficult to pull it back into the flue to get the adaptor to locate correctly).

4. Fixing the liner at base

Remove nose cone, tidy up the end of the flue liner and insert it in to the flue connection on the upper socket of top hat adaptor. Seal with appropriate sealer and use stainless steel self-tapping screws through outer adaptor wall into liner to secure in place. Please note that there are alternative fixings. If a clip fit adaptor is being used, clip in place and seal with fire cement or another appropriate sealer (capable of withstanding 1,000°C for 30 minutes).

Offer top hat adaptor up to the closure plate in the required position, either mark through holes to drill pilot holes for stainless steel self-tapping screws or secure in place with 6mm self-drilling stainless steel hex screws or similar. This system allows the fitting of the liner independent to the stove and eliminates the need for any other support bracket at the base of the flue liner.

5. Connecting liner to appliance

Measure the required length of connecting flue pipe; this is from the internal base of the appliance spigot (the final resting position of flue pipe) to face of top hat adaptor plus 50mm. This will give the minimum length of flue pipe needed to make a correct connection.

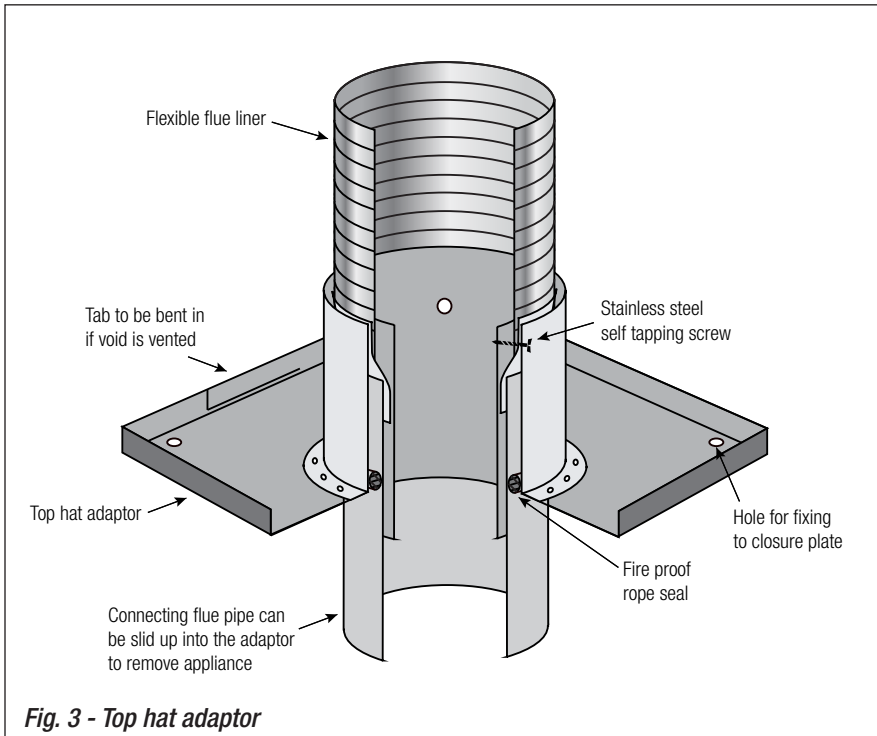
Slide connecting pipe up into the top hat adaptor as far as it will go; this will allow the stove to be positioned correctly under the pipe.

(continued on page 9)

Connecting liner to appliance *(continued from page 8)*

Put a run of self-adhesive fireproof tape onto the bottom of the connecting flue pipe and lower the connecting pipe into the appliance off take spigot; if the tape has not been used, seal with fire cement or a suitable sealer as before.

To seal the top connection between the outer wall of the connecting pipe and inner wall of the top hat adaptor, pack a suitably sized rope seal around the joint to bridge and seal the gap (using at least two complete turns/wraps of fire-rope to make a gas and airtight seal - see Fig 3).



An alternative sealing method would be to wrap several turns of flat profile self-adhesive fireproof tape around the protruding neck of the adaptor, so that when the connecting pipe is slid over and into the top hat adaptor an air and gas tight seal connection is made. A stainless steel screw can be screwed through the connecting pipe and into the neck of the adaptor; this will hold the fire rope in position. If venting the void push the tabs in the back of the base to allow air into the system, but if back filling with insulation leave these in place.

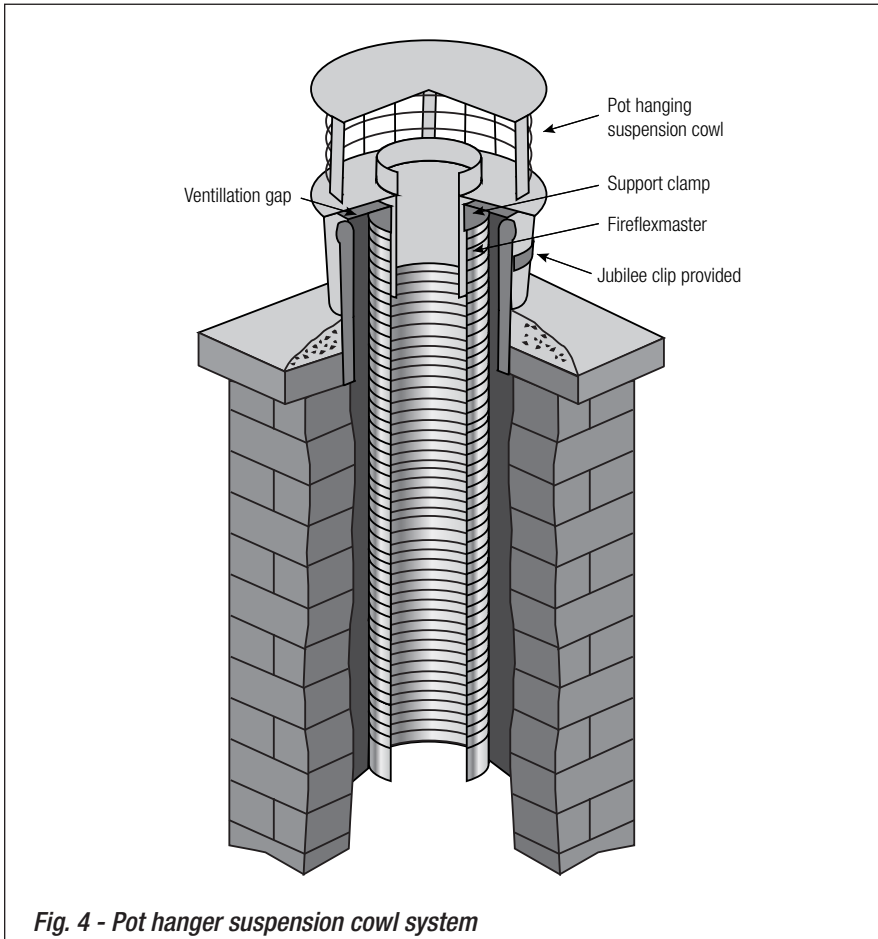
Important note: Liners in excess of 15 metres should be supported at 8 metre intervals.

6. Fixing top of liner

From the top of the chimney ease the liner back up the flue to ensure the liner is as tight in the chimney as possible; this will allow for later expansion when the liner gets hot in use. Reposition the liner support bracket so that it again rests on top of the chimney pot. If you are going to back fill the area around the liner with insulation (dry and unmixed pouring grade Vermiculite or Perlite), this should be done at this stage. Cut the excess flue liner off at a point approximately 5mm above the liner support bracket and remove the surplus liner to a safe place to avoid injury.

Insert the sleeve of the pot hanger cowl into the liner and push into place (see Fig 4). Once in place, secure the cowl to the chimney pot with the straps and jubilee clip provided. Other termination methods are available such as a suspension cowl or top insert sleeve which can be used with other terminal options if required.

Note: The terminal will create the top vent when fixed and so whether venting or back filling the void there is no variation to this operation.



7. Venting the void

If the liner has been fitted leaving an open void around the liner, it is required to ventilate this area at both the top and bottom of the chimney.

Top ventilation – some terminals have air ventilation built in to the design; in the case of the pot hanger described earlier a spacer allowing a gap between the pot and the terminal is included in the unit.

An alternative method is to drill two holes, one on either side of the chimney, upwards and through the stack at an angle of 45 degrees, fitted with sleeves of 15mm copper pipe, prior to the liner being inserted in the chimney ensuring they do not protrude into the flue where they may damage the liner when it is lowered into the chimney. (see Fig 5)

Bottom ventilation – the top hat adaptor can be used to ventilate the bottom of the chimney. (see Fig 3)

Alternatively 2 x 22mm circular metal pipe fittings could be mounted through the closure plate, for example 22mm ballcock header tank elbow fittings. Where this is not possible, a terracotta or other non-combustible airbrick or vent could also be fitted into the chimney. (see Fig 5 & Fig 6)

This must be into the room where the appliance is installed to avoid freezing cold and damp air being drawn into the void.

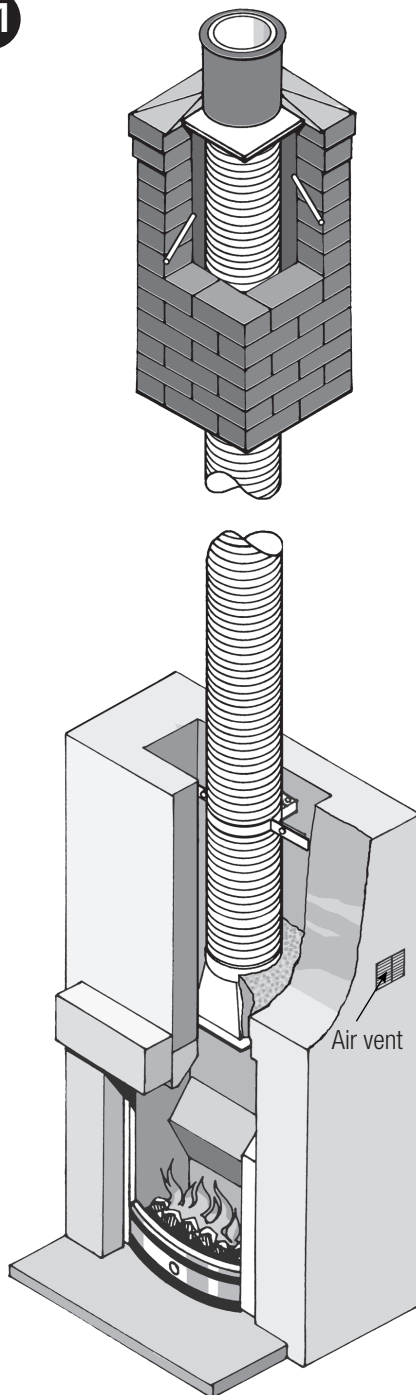


Fig. 5

METHOD TWO (Plate and clamp style)

8. Preparation

Remove any existing temporary flexible flue if present.

Sweep chimney prior to fitment of flue and ensure all deposits of soot and tar are removed (ideally this should be done by an APICS, Guild of Master Chimney Sweeps or NACS member and a certificate obtained). Remove the chimney pot and check its stability and condition. If suitable, then put to one side but if not, obtain a suitable pot to replace it with. Remove any existing mortar from the top of the chimney stack to ensure the level and secure base for the chimney pot when refitted.

Inspect the chimney both internally and externally for defects and repair if necessary, ensuring the exposed part of the chimney stack are as air and water tight as possible.

9. Inserting liner

It is essential at this stage to identify that the liner is the correct way up. There is a small arrow on the outside of the liner to indicate the correct fitment; this must be pointing upwards (see Fig 1).

Attach a nose cone and draw rope to the bottom of the liner to assist in the lowering of the liner to the desired position. This is normally done with a large amount of tape or self tapping screws (see Fig 2).

Lower the rope down the flue (this may require a weight to be added) and pass the rope through the flue to be lined to the fireplace. Pull the liner down the chimney; this is best done with someone at the top of the chimney directing the liner into the chimney pot at the same time. Rotating the liner can assist in getting it past bends and offsets without damage.

Fit the top support bracket to the liner to temporarily suspend it in place by resting it on the top of the chimney stack.

If the top hat adaptor is being used follow sections 2, 4 and 5 as described earlier.

If a standard flue adaptor or long tail adaptor is being used continue as below.

10. Fixing the flue adaptor

Remove nose cone, tidy up the end of the flue liner and insert it in to the flue connection on the flue pipe adaptor. Seal with appropriate sealer and use stainless steel self-tapping screws through outer adaptor wall into liner to secure in place. Please note that there are alternative fixings. If a clip fit adaptor is being used, clip in place and seal with fire cement or another appropriate sealer (capable of withstanding 1,000°C for 30 minutes).

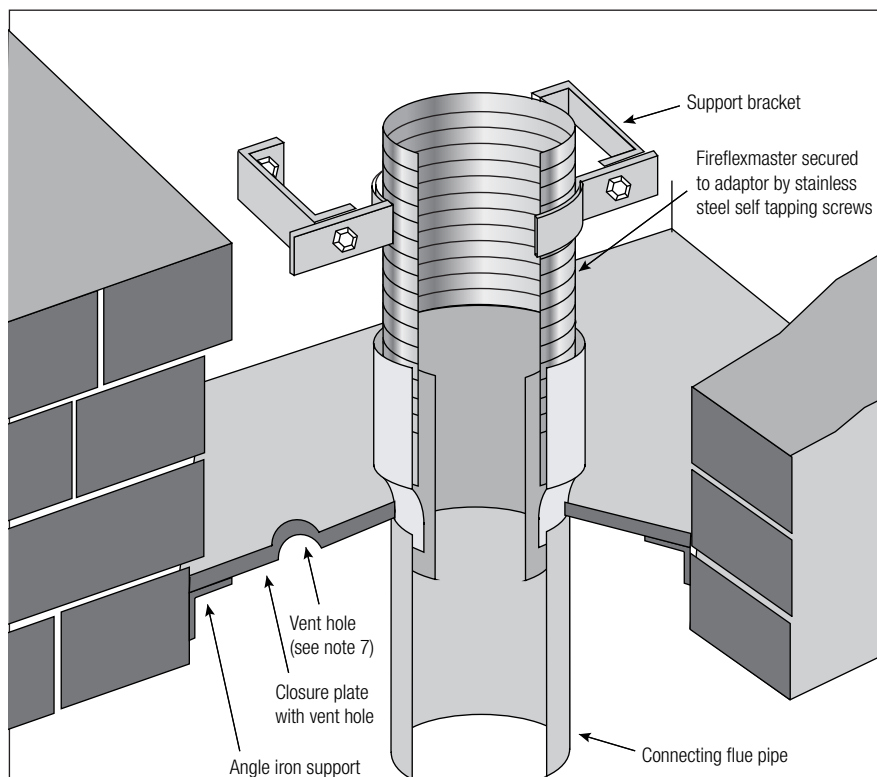
Relocate the top support bracket to position the flue adaptor correctly ensuring the tail of the adaptor will pass through the closure plate to be fitted. The joint between the flue adaptor and the flue pipe must be below the closure plate, but the joint between the flue liner and flue adaptor must be above it.

11. Closure plate

At the top of the fireplace recess, fit a suitable closure plate of zero rated non-combustible board that can withstand temperatures of over 200°C for long term or 1.5mm rust protected steel (stainless steel is suitable). The closure plate should be sized correctly to prevent any debris falling on to the appliance and, if required, it should be strong enough to support any insulation used to fill the void around the liner.

When using this method of installation, the base of the liner must be held and supported by a support bracket. The plate should have a suitable hole cut to accept the correct size and type of adaptor being used. The closure plate is supported and secured to angle iron support brackets on all four sides which are secured to the inner brickwork by means of non-combustible fixings, for example self-threading bolts or metal raw bolts - see fig 6 (see note 2 for alternative fixings).

Ensure the adaptor sitting on the top of plate and the tail of the adaptor passing through the closure plate sufficiently to allow a positive fit to the connecting flue pipe. *(continued)*



Adaptor - MA - available as standard - long tail angled and increaser in both clip fit and screw fixing

Fig. 6 - Using MA adaptor at base; note joint between flue pipe and adaptor must be below closure plate. Vent shown for vented void; vent not required if installation has been back filled with Vermiculite or Perlite

12. Fixing the top of the liner

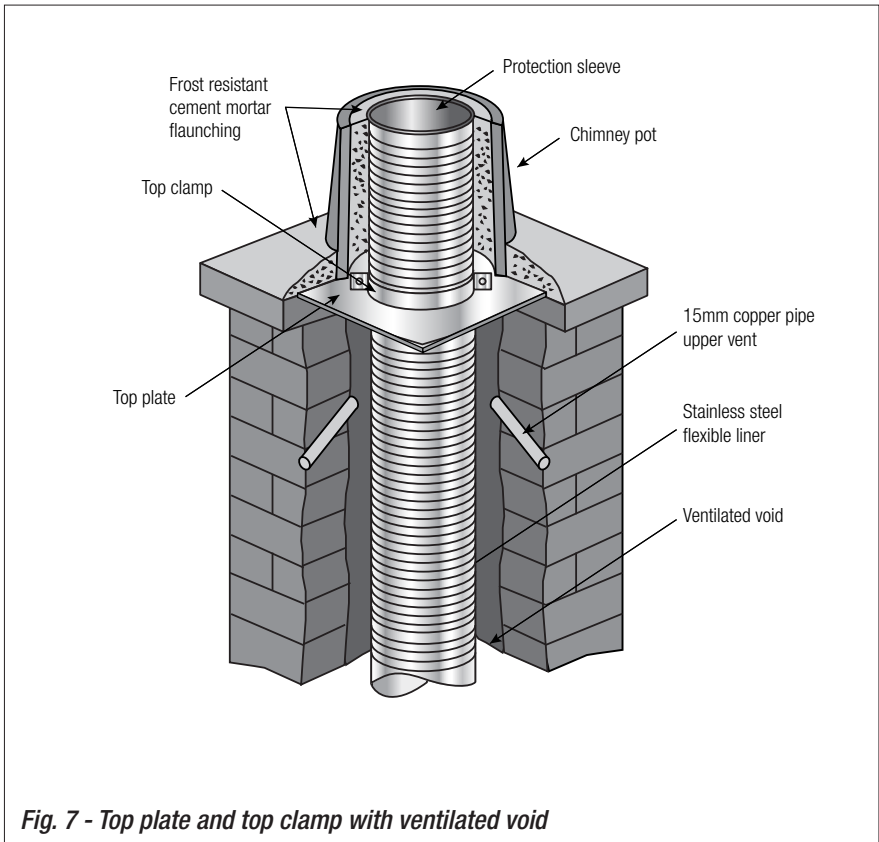
From the top of the chimney ease the liner back up the flue to ensure the liner is as tight in the chimney as possible; this will allow for later expansion when the liner gets hot in use.

Reposition the support bracket so it again rests on the top of the stack.

If the area around the liner is to be back-filled with dry and unmixed pouring grade Vermiculite or Perlite it should be carried out at this stage. If the liner has been fitted leaving an open void around the liner, it is required to ventilate this area at the top and bottom sections of the chimney (see note 13).

Remove the top support bracket, fit the top closure plate in position and pull the liner tight, refit the top support bracket to take the weight of the liner.

Refit chimney pot and cut the excess flue liner off at a point just above the top of the chimney pot (20-25mm). Fit the top insert sleeve and then fill around the liner with dry vermiculite up to a point 50 – 60mm below the top of the pot (see Fig 7). Flaunch over the Vermiculite with a mortar mix of 4 parts sharp sand to 1 part ordinary Portland cement and slope this up from the top of the pot to meet the top of the sleeve. Fit weather terminal or other type of cowl if required.



13. Venting the void

If the liner has been fitted leaving an open void around the liner, it is required to ventilate this area at both the top and bottom of the chimney.

Top ventilation – some terminals have air ventilation built in to the design; in the case of the pot hanger described earlier, a spacer allowing at least 6mm gap between the pot and the terminal can be inserted.

An alternative method is to drill two holes, one on either side of the chimney, upwards and through the stack at an angle of 45 degrees, fitted with sleeves of 15mm copper pipe, prior to the liner being inserted in the chimney ensuring they do not protrude into the flue where they may damage the liner when it is lowered into the chimney. (see fig 7 & note 5)

Bottom ventilation – The top hat adaptor can be used to ventilate the bottom of the chimney (see Fig 3). Alternatively 2 x 22mm circular metal pipe fittings could be mounted through closure plate, example 22mm ballcock header tank elbow fitting. Where possible a terracotta or other non-combustible airbrick or vent could also be fitted in to the chimney (see Fig 5 & Fig 6). This must be in the room where the appliance is installed to avoid freezing cold and damp air being drawn into the void.

14. Connecting the liner to the appliance

Measure the required length for connecting flue pipe to make a suitable connection.

Note - a telescopic length of connecting flue pipe may be required for a top exit stove when using a standard flue adaptor. This would not be the case if using a long tail adaptor or top hat adaptor.

For users of this appliance

Your building insurance company may require you to inform them that you have installed a new heating appliance. Check that your cover is still valid after installing the appliance.

FUELS

MINERAL FUELS (solid smokeless fuel and bituminous coals)

It is recommended that only fuel recommended in the HETAS guide to products and services (the most up to date issue) be used.

WOOD LOGS

If not carried out correctly wood burning can produce considerable deposits of soot and tar which will greatly increase the risk of a chimney fire. The amount of these deposits can be reduced by burning well-seasoned wood logs with a moisture content of less than 20% and by running the fire with a bright flame to reduce risk of condensation.

Household waste, treated timber, high chlorine or sulphur content and petroleum based solid fuels must not be burnt.

SERVICE AND MAINTENANCE

1. For the life expectancy of the chimney liner to be achieved it will require regular maintenance and inspection.

2. The warranty will only be valid if there is evidence of such maintenance which includes a certificate of sweeping at least once a year from one of the following professional sweeps organisations:

APICS – Association of Professional Independent Chimney Sweeps

GMCS – Guild of Master Chimney Sweeps

NACS – National Association of Chimney Sweeps

3. If the fuel in use or the amount of use makes the chimney sweep recommend more than annual sweeping on their certificate then this advice must be followed.

4. Once a year the length of the chimney system should be inspected for signs of degradation and any issues seen should be fully investigated.

APPLIANCE OPERATION

If the appliance is slumbered overnight or for longer periods then it is advisable to run the appliance at controlled high fire condition for a period of at least 15 minutes. Prolonged slumbering of the appliance is a contributing factor to a liner failure. It is important to maintain sufficiently high flue gas temperatures in order to avoid condensate and acid corrosion problems.

Fireflexmaster warranty

Fireflexmaster is manufactured in the United Kingdom by H Docherty Ltd under a quality management system accredited to **ISO 9001:2008**. It is also approved to the latest European Standard **EN1856-2** and **CE approved** ensuring it meets EU safety, health and environmental requirements. **When applied, installed, used and maintained correctly, Fireflexmaster will provide many years of reliable service.**

- 316 and 904L grade stainless steel flexible flue liners have a **LIFETIME*** conditional warranty - the liner will be covered for the lifespan of the appliance

WARRANTY CONDITIONS:

1. H Docherty Ltd obligations under the terms of this warranty are to supply replacement product for failures due to manufacturing defects only.
2. It specifically does not cover labour costs, or any other incidental or consequential losses.
3. The complete installation has been designed and installed in accordance with Approved Document J of the Building Regulations and any Local or National Building Regulations.
4. The liner has been installed in accordance with H Docherty Ltd installation instructions.
5. The installation has been completed by a HETAS or NAPIT registered installer, or alternatively has been approved and signed off by Local Authority Building Control.
6. A Notice Plate must be visible stating the date of installation, the name and address of the installer and the type, size and make of the liner.
7. The liner must not be modified or changed in any way.
8. If you change the appliance, it is best practice to also change the liner.
9. **Fuel:**
 - 9.1. Fireflexmaster is suitable for use on oil, gas and approved solid fuels.
 - 9.2. Use only high quality solid fuels as approved by HETAS.
 - 9.3. In the case of wood the moisture content should be no greater than 20%.
 - 9.4. 316L grade stainless steel flue liners are suitable for continuous use with oil, gas & wood. It is also suitable for occasional use of solid mineral fuels, but this must be limited to 20% of the total fuel burnt to be covered by the LIFETIME conditional warranty.
 - 9.5. 904L grade stainless steel flue liners are suitable for continuous use with oil, gas & wood and with solid mineral fuels. To be covered by the LIFETIME warranty in case of continuous use of mineral fuels, the 904L grade liner must be installed.
 - 9.6. Where other fuels are used the warranty does not cover failure due to corrosion or over firing of the appliance.
10. The appliance Fireflexmaster is serving must not be located where there is risk of chemical contamination.
11. Long periods of slumbering will greatly reduce the life expectancy of Fireflexmaster. For this reason slumbering is not recommended.
12. Chimneys located on external walls, or large chimney voids and tall chimney stacks should be insulated to avoid the risk of condensation and corrosion.
13. Evidence of a chimney fire will invalidate this warranty.
14. When burning smokeless fuels the liner must be swept at least once a year by a competent professional chimney sweep (such as APICS, GMCS, NACS or HETAS approved sweep) and certificates must be kept and made available in the event of a warranty claim. When burning wood or other mineral fuels, the liner should be swept at least twice a year.
15. The use of proprietary cleaning compounds are not recommended and will invalidate the warranty.
16. A suitable system for sweeping Fireflexmaster liners would be a Viper with 7mm ROD for liners up to 8" and a 9mm ROD for 8" and above. The use of power brush systems is only recommended for straight flues and the flue must only be power swept on the downward direction with the brush being pushed up the flue. With a suitable brush head with lateral whip lines, brush heads that have whips terminating in the centre of the brush with exposed protruding ends are not recommended.
17. To validate the warranty, the installer must register the installation by completing the registration form at www.docherty.co.uk/liner-warranty-registration/. A warranty confirmation will be sent by way of receipt, this should be kept in a safe place as it will be required in the event of making a warranty claim.
18. **Making a warranty claim:**
 - 18.1. The householder/user should make any warranty claim against the installer or the company or individual they purchased the product from.
 - 18.2. H Docherty Ltd will only accept warranty claims from those individuals or companies that purchased the goods directly.
 - 18.3. Claims should be made through the H Docherty Ltd branch network (www.docherty.co.uk) quoting the warranty registration number, date of installation, type and diameter of product, appliance, fuel used and details of the fault or warranty claim.
 - 18.4. In all cases, H Docherty Ltd reserves the right to inspect the product in situ before agreeing to replace any product under the terms of this warranty.
 - 18.5. If the reason for failure is anything other than a manufacturing defect, then H Docherty Ltd reserve the right to charge for any relevant inspection.
19. Nothing in this warranty affects the consumer's statutory rights under the Customer Rights Act 2015.