



hi-flame

MULTI FUEL STOVES

Instruction Manual

Hi-Flame Inset Convector

Multi Fuel and Wood Burning Non-Boiler Inset Stove

Published June 2014

Please note This appliance has been independently tested and is recommended as suitable for use in Smoke Control Areas when burning wood logs (see pages 10-15). It must, at all times, be operated in accordance with the instructions to minimise the amount of smoke produced.

You will need to refer to the serial number of your stove should you ever need to make a claim under the Hi-Flame Warranty. You will find the serial number, beginning with HF, on the CE plate at the rear of the stove as well as on the lid of the outer packaging.

Write the date the stove was delivered to you below as this is likely to differ from the purchase date.

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This appliance has been SEAI verified

The output and efficiency data for this appliance have been verified by the Irish government Sustainable Energy Authority of Ireland (SEAI) and is listed on their Home-heating Appliance Register of Performance (HARP) database



USER WARNING NOTE

Properly installed, operated and maintained this stove will not emit fumes into the dwelling.

Occasional fumes from removing ash and refuelling may occur. However, persistent fume emission is potentially dangerous and must not be tolerated.

If fume emission does persist, then the following immediate action should be taken:

- Open doors and windows to ventilate the room and then leave the premises
- Let the fire go out
- Check for flue or chimney blockage and clean if required
- Do not attempt to relight the fire until the cause of the fume emission has been identified and corrected. If necessary seek expert advice

The most common cause of fume emission is flueway or chimney blockage. For your own safety these must be kept clean at all times see pages 8 and 9.

If the CO alarm (which should be fitted at the time of installation) sounds, please follow the advice above.



Please note: From 1 September 2014 a CO alarm will now be a mandatory requirement for all stove installations in the Republic of Ireland.

INSTALLER SAFETY FIRST

BS 8303 CODE OF PRACTICE

Please refer to the current issue of British Standard BS 8303, Code of Practice for installation of domestic heating appliances burning solid mineral fuel. Make Reference to Building Regulations, Local Authority Byelaws and other specifications / regulations as they affect the installation of this appliance. See page 6.

HEALTH & SAFETY

During the installation of this stove and any related building works you must comply with any current Health & Safety at Work regulations. When the stove is fired up always wear protective gloves and use the tool supplied when adjusting the stove's air controls.

ASBESTOS

This stove does not contain Asbestos. However, check that there is no possibility of disturbing any asbestos based materials during its installation. You may intend removing an older appliance prior to installing your new stove, and you should be aware that the old appliance or installation could incorporate heat protective asbestos sheet. Use appropriate protective equipment and seek specialist guidance at www.hse.gov.uk/asbestos – do not underestimate the potential dangers of Asbestos.

FIRE CEMENT

Some types of fire cement are caustic and should not be allowed to come into contact with the skin. Protective gloves and glasses should be worn when applying fire cement. In case of contact wash immediately with plenty of water. Always read and follow the fire cement manufacturer's instructions.

Care should also be taken to avoid unnecessary contact between the stove's surfaces and the fire cement as this could damage the paintwork. Any excess fire cement should be quickly removed before it hardens.

HANDLING

The Hi-Flame Inset Convecter is extremely heavy and therefore adequate facilities must be available for its safe loading, unloading and site handling.

METAL PARTS

When installing or servicing this stove care should be taken to avoid the possibility of personal injury from the stove's metal parts. Particular care should be taken to avoid sharp edges when handling or attaching the flue liner.

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INTRODUCTION

Thank-you for purchasing the Hi-Flame Inset Convector. We are confident that it will warm your home even on the coldest winter days and provide you with many years of pleasurable heat.

Before you install or operate your new inset stove however, please read this booklet which contains important safety advice as well as instructions which will help you make the most of your new stove.

All users of this stove should be aware of the contents of this handbook. If other people are going to operate the stove then please keep this booklet handy so that it can always be quickly referred to.

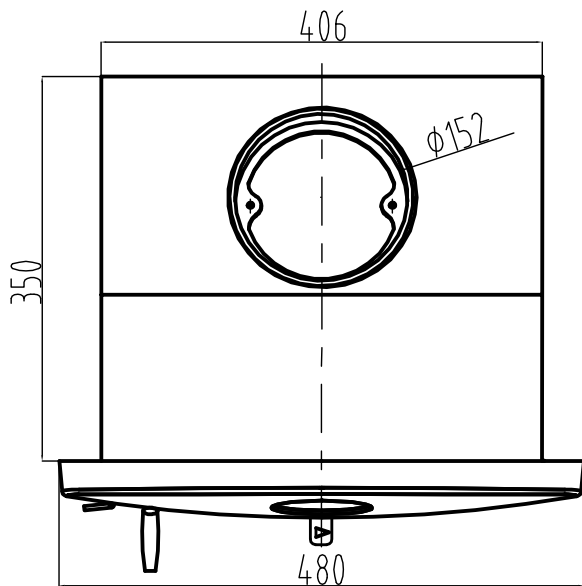
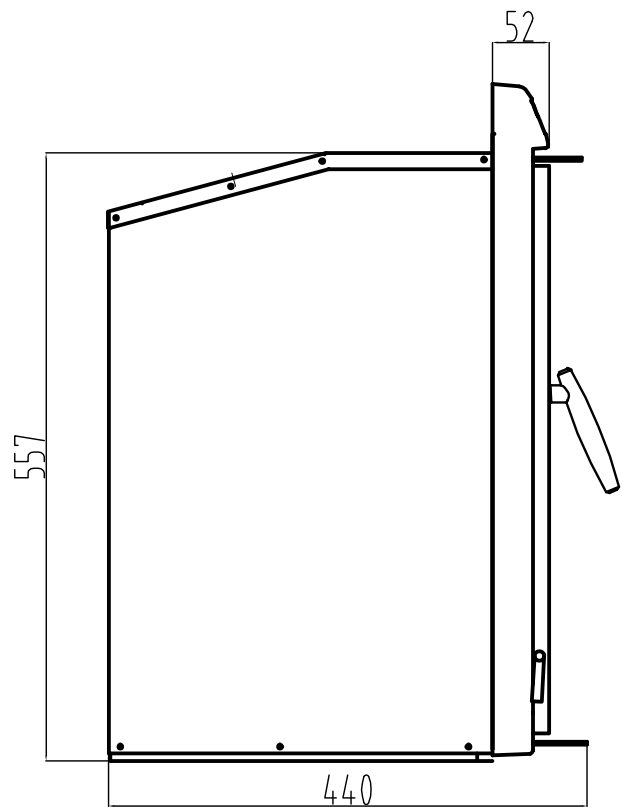
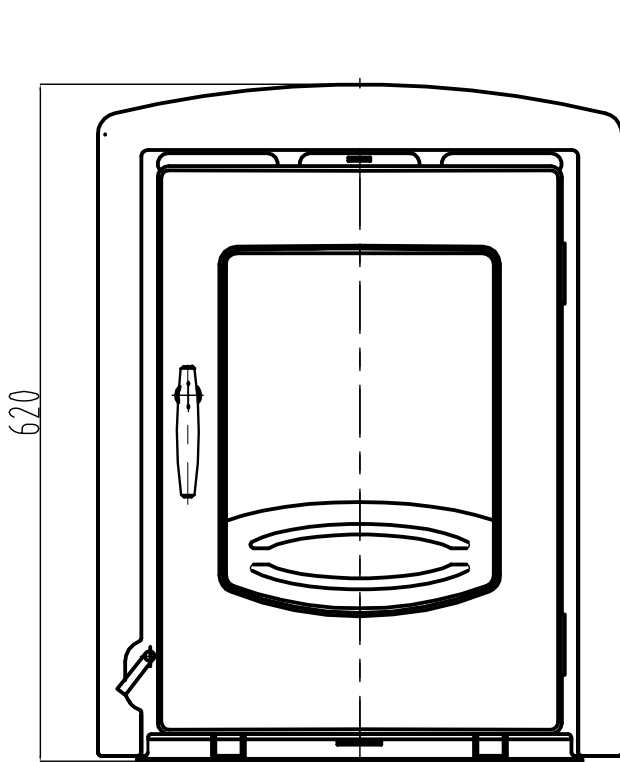
Never let anyone use the stove who is unfamiliar with its correct operation.

PLEASE NOTE

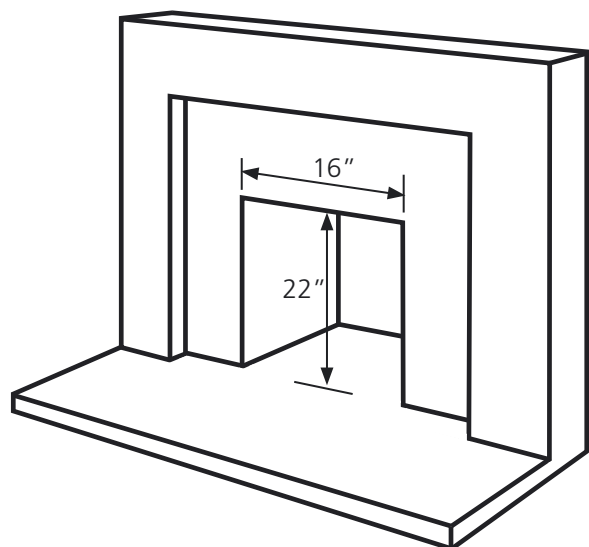
This instruction manual is also used for a number of other inset stove models in the Hi-Flame product range and therefore some of the stove photographs and diagrams used, which are used for guidance purposes only, may differ slightly from your new Hi-Flame Inset Convector. However, the principles illustrated here remain the same.

Hi-Flame Fireplace (UK) Limited June 2014

GENERAL DIMENSIONS



The Hi-Flame Inset Convector Inset should fit within a standard British or Irish fireplace opening (approx 16" x 22"). However, some adjustments to the depth of the fireplace opening may have to be made.



All sizes in mm

Important: Take all critical measurements from the stove on site

TECHNICAL DATA

GENERAL SPECIFICATION

Model Name	Hi-Flame Inset Convector
Model Number	HF5902
Dimensions (mm): Facia	H620 W480 D52
Dimensions (mm): Firebox Ext	H557 W406 D350
Net Weight	89 kg
Gross Weight (packed)	101 kg

CPR DECLARATION OF PERFORMANCE

The materials, design, construction and operating instructions, as well as the CE marking, meet or exceed the appropriate EN13229 Type Test requirements for this type of inset appliance.

Data from Kiwa GasTec BS EN13229: 2001 test
Tested March 2014 for wood logs and mineral fuel

WOOD

Nominal Heat Output	4.9 kW
Test Duration (approx)	0.86 hrs
Efficiency (net)	87.6%
Mean CO Emission (at 13%)	0.44
Mean Flue Gas Temperature	182°C
Flue Gas Mass Flow	2.6 g/s

ANCIT (*mineral fuel*)

Nominal Heat Output	6.9 kW
Test Duration (approx)	1.12 hrs
Efficiency (net)	77.2%
Mean CO Emission (at 13%)	0.01
Mean Flue Gas Temperature	287°C
Flue Gas Mass Flow	4.5 g/s

MINIMUM DISTANCE TO COMBUSTIBLE MATERIALS

We do not recommend the use of combustible mantels	
Top (shelf)	500 mm
Side Walls	150 mm

FLUE

Flue configuration	top only
Flue pipe / liner diameter	150 mm (6")
Minimum flue height from base of stove	4500 mm (15')

RECOMMENDED FUELS

Wood Logs: Moisture content	<20%
Recommended Wood Fuel Load	1.1kg (2lb 7oz)
Maximum Log Length	250 mm (10")
Or Approved Smokeless Fuels (www.hetas.co.uk)	
Recommended Mineral Fuel Load	1.1kg (2 lb 7 oz)

REPLACEMENT GLASS & DOOR ROPE SEAL

Heat Resistant Glass Size (mm)	355 x 365
12mm dia' Door Room Seal Length (m)	1.55

IMPORTANT

In the interests of safety please read these instructions carefully before installing or operating your new stove. Even if you have installed or operated stoves before, remember manufacturer's requirements can vary and can also change with updates to building regulations. If installed in a UK Smoke Control Area this stove must be operated in accordance with the instructions to minimise the amount of smoke produced.

STOVE CONTROLS AND FEATURES

1 Primary Air Control Air which enters under the grate for multi fuel burning and to help get a wood fire started (slide to the right to fully open).

2 Secondary Air Control Air which enters at the top of the fire chamber to ensure a cleaner burn and effective wood burning (slide to the right to open).

3 Airwash System Part of the secondary air control system which diverts hot air down along the front of the glass to burn off unwanted sooty particulates and help keep it clean.

4 External Riddler When burning mineral fuels move the riddler knob backwards and forwards to rotate the riddling grate and clear the ash.

When operating the stove's controls always wear a heat resistant mitten.



IMPORTANT SAFETY ADVICE

- Ensure that an approved carbon monoxide detector (BS EN50291:2001) is fitted in the same room as the stove. It should be powered by a battery designed for the working life of the alarm. *Please note* this is now a requirement under UK and NI Building Regulations.
- External surfaces including the fire chamber door and operating handles, windows and stove bodywork will become extremely hot. Always use the tool provided and avoid touching these parts of the stove without proper protection, such as heat-resistant gloves or other protective aids.
- Potentially combustible material or objects such as soft furnishings should never be left on or near any of the stove's hot surfaces. Ensure that wood supplies and log baskets are kept at a safe distance from the stove. See Minimum Distance to Combustibles page 5.
- Never leave children unattended in the room where your stove is being operated. Ensure that children are aware of the potential danger and make sure that they keep clear of the stove when it is in operation. Where children, the elderly or the infirm are present always use a fireguard manufactured in accordance with BS 8423:2002 to prevent accidental contact with the stove.
- This stove should *not* be fitted in a room with an extractor fan (eg kitchen) as this will adversely effect the air quality in the room and could be dangerous for the room's occupants. It will also starve the stove of combustion air and reduce the stove's efficiency.
- To ensure your safety make sure that your stove's installation complies with all local, national and European building regulations' ventilation requirements. Low energy houses have their own particular requirements and should be strictly adhered to.
- Do not use flammable liquids to ignite the fire. In the confined space of the stove's fire chamber there is a real potential to cause a life-threatening flash flame or explosion.
- Never over-fire the stove. If any external parts of your stove glow red during operation then immediate action should be taken to reduce the supply of combustion air to the fire chamber through the Primary and Secondary and Air controls which should quickly limit the intensity of the fire.
- This stove is CE approved and tested to EU EN13229 standards in the United Kingdom by Kiwa GasTec of Cheltenham, Gloucestershire. Alterations to its construction could be potentially dangerous and will also render your product warranty void.
- Do not use aerosol products in the vicinity of the stove when it is in use.
- Check and clean the stove's flueway and the top of the baffle plate regularly to help avoid potential blockages and clean your chimney regularly. Page 8.

INSTALLATION REGULATIONS

You must ensure that your stove is installed by a recognised competent person who is appropriately qualified in the installation of stoves and that the installation complies with all local, national and European building regulations.

In the UK we strongly recommend using a Hetas registered installer (www.hetas.co.uk) and in Ireland a registered installer from INFO – the Irish Nationwide Fireplace Organisation (www.fireplace.ie).

The installer should refer to the current issue of British Standard BS 8303, Code of Practice for installation of domestic heating burning solid mineral fuel, the current issues of British Standards BS EN 15287-1:2007 design, installation and commissioning of chimneys (www.hetas.co.uk/professionals/standards), as well as Building Regulations, Local Authority Byelaws and other specifications / regulations as they affect the installation of the appliance.

For further information please consult:

England & Wales Building Regulations Document J (revised October 2010) – Combustion Appliances and Fuel Storage Systems www.planningportal.gov.uk

Scotland Building Standards (2001) Domestic www.sbsa.gov.uk

Northern Ireland Building Regulations (Northern Ireland) 2000 / Amendment 2006 / Amendment No 2 2006 www.buildingcontrol-ni.com

Isle of Man Building Regulations (2007) – Isle of Man www.gov.im

Republic of Ireland NB A new Document J – Heat Producing Appliances will be published in September 2014 with new legal responsibilities for the installer and homeowner including the mandatory fitting of CO alarms. www.viron.ie

Other Information Points

Soliftec For additional useful information and links to the government websites above, including informative downloads, visit www.soliftec.com.

The Solid Fuel Association website is also a very good source of practical information and downloads www.solidfuel.co.uk.

The British Flue and Chimney Manufacturers Association website www.bfcma.co.uk, produces a number of authoritative and informative download guides to flues and chimneys for solid fuel stoves.

HOUSEHOLD INSURANCE

Some building insurance companies require the householder to inform them of the installation of a new fixed heating appliance. A relevant certificate of Building Regulations compliance (Hetas or Building Control certificate) will almost certainly be sought in the unfortunate event of an insurance claim.

PACKING LIST

As soon as you receive your new stove please check that you have a full set of components as set out in the list below. In the unlikely event of a shortage, please report this immediately to the dealer that you bought the stove from.

Never attempt to operate the stove with missing or damaged components.

Product Information

A This Instruction Booklet and Warranty Card

B Stove Serial Number

Stove Components

C Flue Collar (including attached self-tapping screws)

D Flue Collar Fixing Bolts

E Fire Grate and attached External Riddling Handle

F Fire Fence / Log Bar

G Vermiculite Firebricks – Left, Right and Back (in place)

H Upper Baffle Plate (in roof of fire chamber)

I Lower Baffle Plate (in roof of fire chamber)

Equipment

J Ash Pan

K Ash Pan Handle / Operating Tool

Tool Bag

L Safety Mitten

M Spare Glass Retaining Clips

N Spare Glass Retaining Clip Screws

O Allen key (for door hinges)

P Spare 12 mm diameter Door Rope Seal



INSPECTING YOUR NEW STOVE

Your new inset stove is extremely heavy. Adequate facilities must be available for its safe loading, unloading and site handling. Always handle with care and make sure that you have additional strong help when you move it. Care should be taken to avoid the possibility of personal injury from the stove's metal parts.

The door and door handle, should never be used to grip the stove as they could be damaged from supporting the stove's weight. Items, such as the fire grate and carrier frame as well as both baffle plates can all be easily removed to help reduce the weight. These will all need to be removed in any event to attach the flexible flue liner and to secure the stove body to the hearth.

Under no circumstances should the door be removed as this will invalidate your Hi-Flame Warranty.

Always lift the stove to finally position it. Alternatively it may be possible to place the stove on heavy duty plastic sheeting or thick floor covering to slide the stove into position, being careful not to damage any finished floor or decorative hearth surfaces with trapped grit or building debris.

- **Unpack** Remove your new stove from its recyclable packaging. Retain this until the stove is installed and is fully operational. Unfasten retaining wires and remove any components, including those inside the ash pan, from inside the stove.

- **Inspect** Please inspect the stove to check that it has not been damaged in transit – never attempt to install a stove which has been damaged. If damage is suspected then report this immediately to your stove dealer.

- **Check List** Study the Packing List (see left) and make sure that you have received all of the components listed before proceeding. Some components are contained within the ash pan or will already be fitted to the stove.

- **Baffle Plates** As part of the Hi-Flame Inset Convectors clean burn combustion system the stove unusually features two baffle plates. Check the position of both baffle plates inside the 'roof' of the stove to ensure that they have not moved during transit or handling. These are the two heavy metal plates which direct flames and flue gases around the fire chamber and flueway to improve efficiency and help retain heat inside the stove.

It is best to fully familiarise yourself with the correct positioning of both baffle plates by practising removing them both and re-fitting them prior to the stove's installation as you will need to regularly check the tops of these plates and the access to the flueway to avoid potential soot build up and blockages. Once you know how to do this it is a very easy operation – see pages 8 and 9 .

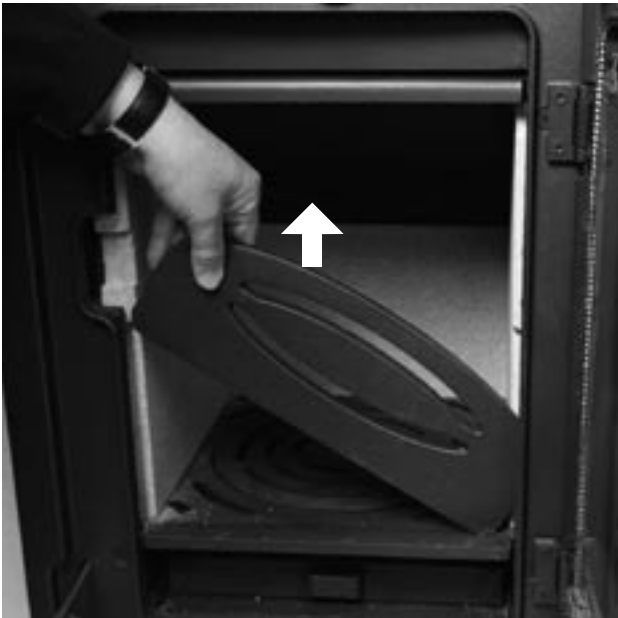
REMOVING THE BAFFLE PLATES

Regular checking of both baffle plates will ensure that the stove's flueway stays clear of soot to ensure continued safe and efficient operation.

If you have never owned a stove before it is important to understand how critical this aspect of operating a stove is. As stated previously it is best to familiarise yourself with removing the baffle plates before the stove is installed.

If undertaking this operation after the stove has been used take precautions to avoid soot and debris falling on to any flooring and floor coverings or porous fireplace stonework. Remove any ash or soot from the fire chamber.

With the Hi-Flame Inset Convector there are no additional fixing brackets or bolts to remove. However, the various components need to be removed (and replaced) in the correct order to make things easier.



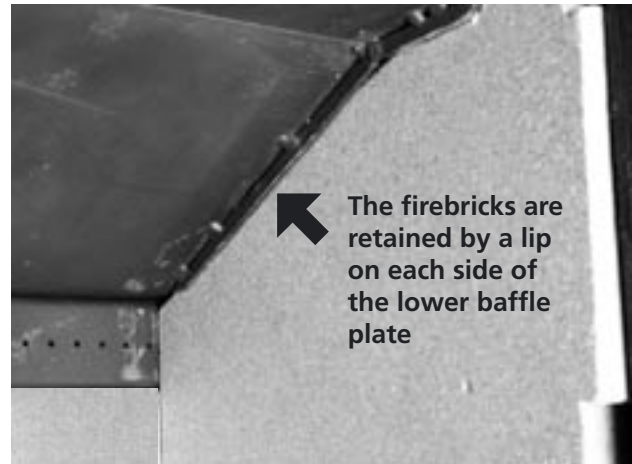
1 Fire Fence Firstly, remove the fire fence to provide additional room to manoeuvre the firebricks and baffle plates in and out. This lifts upwards as shown.

2 Side Firebricks Next remove the left and right hand side firebricks – these are held in place by retaining lips on either side of the lower baffle plate.

Simply put your hand inside the 'roof' of the fire chamber and push the lower baffle plate upwards. This will then release the firebricks which should be able to be pulled forward and dropped down inside the stove.

You may need to gently prise out the firebricks by using a chisel or slot screwdriver as they can sometimes be a tight fit, particularly when the stove is new. Take extra care not to force the firebricks and crack them.

You will have to hold the lower baffle plate upwards



and out of the way at the same time as you remove the firebricks.

Do not let the baffle move or fall down until both firebricks have been removed as the baffle plate could easily become wedged in and be difficult to remove.



There should be no need to remove the rear firebrick.

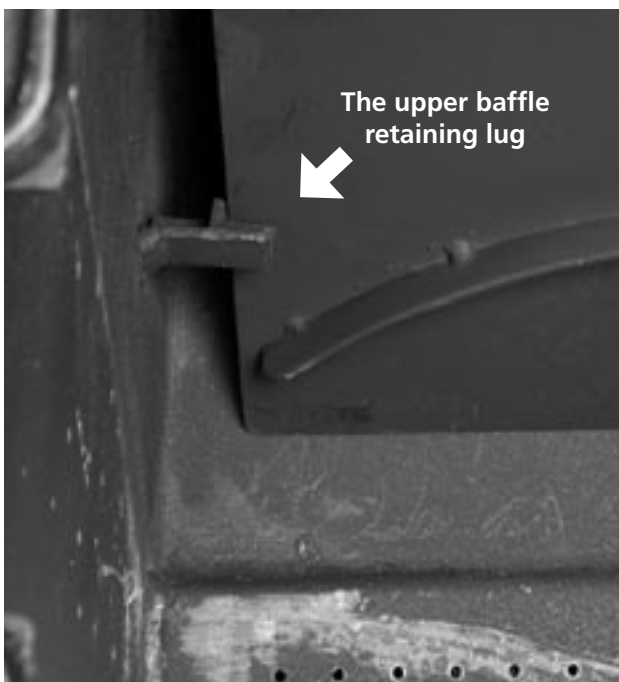
3 Removing the Lower Baffle Plate

The lower baffle plate is very heavy and you should be careful not to let it trap your hands or fingers. Simply push it upwards to one side and let the other side of the baffle drop down to clear the ledge on top of the Tertiary Air channel at the back of the stove. Using both hands you should then be able to carefully manoeuvre the baffle plate out from the fire chamber. Take extra care to avoid knocking it into the glass. You can now access the smaller, upper baffle plate.



4 Removing the Upper Baffle Plate

The upper baffle plate is held in place by two retaining lugs (A) at either side of the fire chamber walls and is positioned against the back wall. Again push the baffle upwards to one side to clear the retaining lugs and then drop it downwards to manoeuvre it from the fire chamber.



Inspect both baffle plates for signs of damage and if necessary use a light wire brush to clean them.

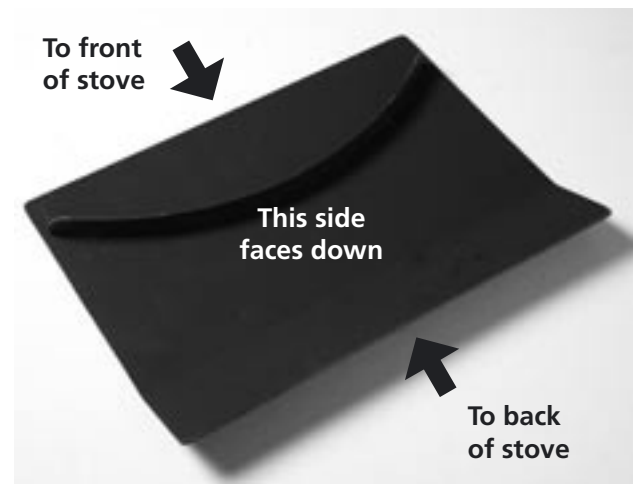
Check and thoroughly clean the flueway (the flue outlet). If soot and other deposits, such as creosote tar, are extensive then you will need to urgently review your choice of fuel. This could be because of wet or unseasoned wood which causes creosote or soot-producing bituminous house coal – see pages 12 and 13). It could also be to do with how you operate your stove, for example, too much slumber burning without burning on 'full power' at least once a day.

5 Replacing the Baffle Plates

To replace the baffle plates simply reverse the procedure outlined above being careful to note the correct position of the components – see below.

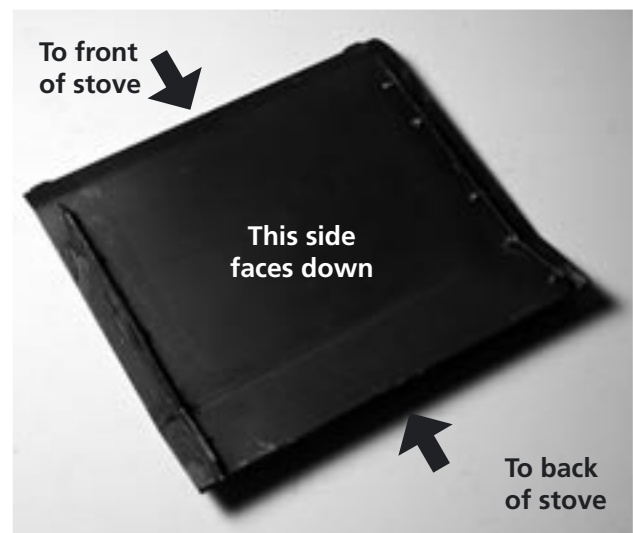
The Upper Baffle Plate

This is the smaller of the two baffles and should be replaced first. its distinctive curved feature points downwards towards the fire grate.



The Lower Baffle Plate

This should be replaced once the upper baffle plate is firmly in place. its firebrick retaining lips along its sides face downwards and the firebricks fit in behind them.



UK SMOKE CONTROL AREAS

The Clean Air Act 1993 and Smoke Control Areas

Under the Clean Air Act local authorities may declare the whole or part of the district of the Authority to be a Smoke Control Area. It is an offence to emit smoke from a chimney of a building, from a furnace or from any fixed boiler if located in a designated Smoke Control Area. It is also an offence to acquire an 'unauthorised fuel' for use within a Smoke Control Area unless it is used in an 'exempt' appliance ('exempted' from the controls which generally apply in the Smoke Control Area).

The Secretary of State for Environment, Food and Rural Affairs has powers under the Act to authorise smokeless fuels or exempt appliances for use in Smoke Control Areas in England. In Scotland and Wales this power rests with Ministers in the devolved administrations for those countries. Separate legislation, the Clean Air (Northern Ireland) Order 1981, applies in Northern Ireland. Therefore it is a requirement that fuels burnt or obtained for use in smoke control areas have been 'authorised' in Regulations and that appliances used to burn solid fuel in those areas (other than 'authorised' fuels) have been exempted by an Order made and signed by the Secretary of State or Minister in the devolved administrations. Further information on the requirements of the Clean Air Act can be found at the following website: www.smokecontrol.defra.gov.uk.

Your local authority is responsible for implementing the Clean Air Act 1993 including designation and supervision of Smoke Control Areas and you can contact them for details of Clean Air Act requirements

The Hi-Flame Inset Convector HF5902 has a factory-fitted modified control damper to prevent closure of the secondary air control beyond the 5mm open position and has been recommended as suitable for use in Smoke Control Areas when burning wood logs. In addition, the appliance can burn Authorised Solid Smokeless Fuels in Smoke Control Areas

RECOMMENDED FUELS

Please note If you live in a UK Smoke Control Area you must only burn approved smokeless fuels. The following fuels are approved by Hi-Flame for use in the HF5902 inset Convector:

- **Wood Logs** *Only ever use dried, fully seasoned chopped wood logs with a moisture content of less than 20%.*

Wood which is well seasoned makes a distinctive 'clack' rather than a dull 'thud' when knocked together. It will also feel much lighter than an unseasoned log. Other indicators include bark peeling away and cracking and splitting around the outside.

Ideally wood should be seasoned outdoors for between 18 to 24 months – the harder the wood

then the longer the seasoning. It should be stacked off the ground with plenty of space between the logs to allow air movement and with the top covered to keep rain and snow out. Seasoned wood will give you approximately 50% more heat output than the equivalent unseasoned log.

Most types of hardwood, for instance Ash (generally regarded as the best), Birch, Beech, Oak and Elm can be used. However, avoid woods with a high resin content. As a rule of thumb, the heavier the wood, then the greater the heat output and the longer burn time – the time between refills. All of this is providing it is fully seasoned wood.

Never use wet or unseasoned (green) wood as this will cause nuisance smoke and a very disappointing fire.

Its use could quickly result in the build up of soot and creosote which, because of the higher temperatures of stove flue gases, could easily cause a flue or chimney fire. In addition, burning wet wood creates other environmental problems, a less efficient fuel economy and can eventually clog your flue system and cowl. It will also reduce the effectiveness of the stove's Airwash system thus causing staining and blackening of the glass.

Wet or unseasoned wood produces the following poor performance:

- Hard to light fires
- Fires that are difficult to keep going or to keep burning well
- Smoky fires with fewer flames which are also of a dull orange colour
- Increased dense grey / blue smoke from the chimney
- Shorter burn times
- Low heat output
- Dirty glass and firebricks
- Excessive and rapid creosote build-up in the flue system and chimney
- Unpleasant smoky smells both inside and sometimes outside the house

Manufactured or finished wood products, such as plywood and chipboard, must also be strictly avoided because of the high chemical adhesive content used in their production which will also leave harmful residue inside the stove and flue system.

For more information about wood fuel visit the DEFRA funded National Energy Foundation website *Logpile* at www.nef.org.uk/logpile.

• **Peat or Turf** *Do not use in a Smoke Control Area.* Peat is an excellent cost-effective fuel alternative and provides a similar calorific heat output to wood. However, you must ensure that the peat is kept thoroughly dry as it absorbs and retains unwanted moisture very easily.

You can find out more about Peat by visiting these suppliers' useful websites – www.peatheat.co.uk (Scotland) and www.bnm.ie/fuels (Ireland).

• **Multi Fuels** (Other than wood or peat). *Only burn Authorised Smokeless Solid Fuels in a Smoke Control Area.* Use solid fuels which are recommended and approved for use in stoves.

If you cannot burn wood then we recommend burning an authorised smokeless alternative, such as smokeless coal ovals, as this is better for the stove and flue system as well as the environment. There are many different brands of high quality smokeless coal ovals available in the UK and your local fuel merchant, preferably a member of the Approved Coal Merchants Scheme, will be able to advise you on those suitable for multi fuel stoves.

You can also find out more about the various fuel types by visiting www.hetas.co.uk and www.solidfuel.co.uk.

PROHIBITED FUELS

Never use your stove like an incinerator. Burning prohibited 'fuels' in a Smoke Control Area is illegal.

Burning the following materials could also damage your stove and flue system, rendering the product warranties on the stove and flue system components void.

• **Petroleum Coke** Never burn petroleum coke as this burns at a very high temperature and its continued use will almost certainly cause irreparable damage to components such as the grate, baffle plate and fire fence.

• **Bituminous House Coal** is not recommended because it produces excessive soot deposits, which is not good for the environment, and thus considerably increases the need for frequent cleaning of the stove and flue system.

• **Household Rubbish** Printed matter (excluding very small amounts of newspaper for starting the fire), plastic, rubber, lacquered or impregnated wood, plywood, chipboard and household rubbish, such as milk cartons, should also be avoided. During combustion some of these materials may develop substances which could be hazardous to your health and be harmful to the environment.

• **Flammable Liquids** Never use methylated spirits, petrol or other highly inflammable liquids for lighting the fire as these could cause an explosion in the confined spaces of the fire chamber.

UNDERSTANDING HOW DIFFERENT FUELS BURN

Wood and solid or mineral fuels (multi fuels) burn in different ways and you will need to understand these differences if you are a newcomer to wood burners and multi fuel stoves.

Putting it simply, mineral fuels, such as coal or smokeless 'ovals', need a flow of combustion air

through the bottom grate which is known as Primary Air, whereas wood fuel works much better when its combustion air is taken from above the grate. This source of air is known as Secondary Air. Wood always burns best on a bed of its own embers and the ashes shouldn't need to be riddled. Mineral fuels differ because they need combustion air from below the grate therefore it needs to be riddled, by using the external riddler to keep the air passage clear.

See the section below to help you understand how to control the different types of combustion air that wood and mineral fuels need.

Your new stove can burn very well, or very poorly, depending on how you light the fire, how you refuel the fire, and, of course, the type and quality of the fuel that you are burning. A log moisture meter is a cost-effective investment if you want to maximise the efficiency of your stove and wood fuel.

Wear protective gloves when loading a burning stove and place the fuel precisely where you want it in the fire chamber by using heat-resistant tongs. Always open the stove door gently to avoid unnecessary air turbulence which could cause fly ash or small lighted embers to be drawn from the fire chamber and beyond the protective hearth.

The stove is *not* designed to be operated with the door left open continuously – this will reduce its operating efficiency and it will consume more fuel very quickly and produce less heat.

CONTROLLING THE COMBUSTION AIR

Your Hi-Flame Inset Convector has two simple air control sliders, use the tool provided to move them:

Primary Air Control This is the slider control in the centre at the base of the stove (right is open). Primary Air is required when burning mineral fuels (and to maximise the supply of air during the initial combustion of wood).

2 Secondary Air Control This is the slider control in the centre at the top of the stove – slide right to open the air supply. Secondary Air is needed when burning wood and is not needed when burning mineral fuels (unless it is to maximise the air supply to aid the initial combustion).



BURNING WOOD LOGS

As previously stated wood burns best on a bed of its own embers which also forms a barrier that reflects heat and protects the fire grate from being damaged. You can therefore leave a bed of ash in place to create a layer of approximately 25mm (1"), only occasionally removing the surplus ash from the grate. However, ash should still be regularly removed from the ash pan ensuring that the ash pan is not so full that the ash makes contact with the underneath of the fire grate to create hot spots and reduce its life span. Once you have lived with your stove for a while you'll soon get to know how often you should do this.

The end grain of the wood produces more of the remaining moisture and gases so whenever possible point the log ends away from the glass to help keep the glass clean. Always use a heat resistant gauntlet or tongs to place your fuel exactly where you want it. Throwing logs in to the fire chamber can sometimes result in fly ash and embers or other logs being propelled from the fire chamber.

Fuel Load

Ideally the logs should be a maximum of 250mm (10") long with a maximum diameter of 100mm (4"). A typical fuel load should weigh 1.1kg (2lb 7oz).

IMPORTANT Fuel Overloading

The maximum amount of fuel specified in this manual should not be exceeded, overloading can cause excess smoke and be dangerous. Do not place the fuel higher than the Tertiary Air jets, just below the lower baffle plate, as blocking these will reduce efficiency and inhibit clean burning. Prolonged burning like this will also reduce the life-span of the baffle plates which, as consumable items, are not covered under the terms of the Hi-Flame Warranty.



Operation with door left open

Operation of this stove with the door left open can cause excess smoke and could be unsafe. Therefore

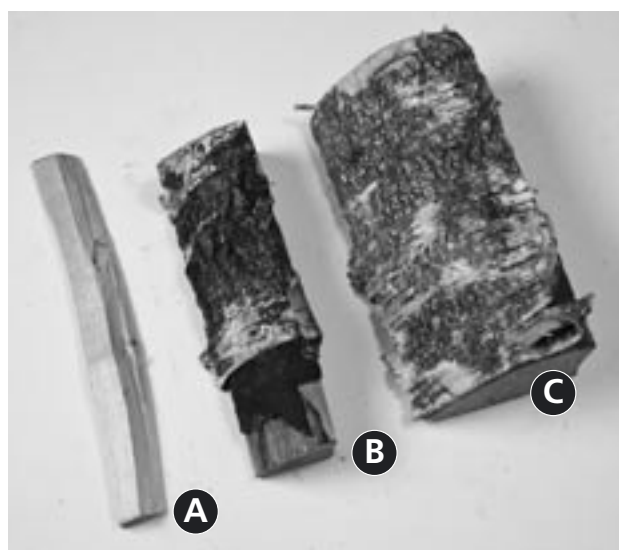
it must not be operated with the door left open except as directed in the following instructions.

Refuelling on to a low firebed

When refuelling you must ensure that there is a sufficient quantity of glowing embers and ash so that the new fuel charge will quickly ignite. Refuelling on an inadequate bed of embers will create excess smoke and will take much longer. It is very much easier and quicker to 'start' again by adding a suitable quantity of kindling to the remaining embers ensuring that there are sufficient brightly burning flames before other medium sized logs (25 – 50mm) are then added.

Operating with the air controls left open

Operation of the stove with all the air controls open can cause excess smoke. The appliance must not be operated with air controls or door left open except as directed in the following instructions. Also See page 11.



Build up the fire in stages

To get the best out of your stove and to ensure it does not create excessive smoke, ideally you will need three different thicknesses of wood log as you build the fire through each lighting phase:

A. Kindling This is generally finely chopped wood, approximately 5 to 10mm thick (1/4" to 1/2") from your supply of logs. Alternatively use dried twigs or small branches which have also been fully seasoned

B. Lighting Logs These are slightly bigger diameter logs, approximately 25 to 50mm (1" to 2")

C. Refuelling Logs These should be approximately 75mm to a maximum of 100mm thick (3" to 4" max'). Bigger logs should be split down to this size

Lighting a Wood Fire

The main difference between smoke and flame is temperature, so when lighting a fire you need to get the temperature in the fire chamber as high as possible as quickly as possible. This is also critical in creating a good 'draw' within the flue system, especially when it is particularly cold outside.

When flue gas temperatures are below 120°C, creosote tars form within the gases and the fire will be smoky and burn with a dull orange flame. Burning the stove like this for a sustained period will create unnecessary smoke, acidic condensates and tars and will not be good for the chimney or flue system.

1 The Lighting Phase

For best results:

Primary Air (bottom control) – fully open (slide right)

Secondary Air (top control) – fully open (slide right)

Door – slightly ajar (optional)

Avoid trying to light the fire with excessive amounts of paper as this has a very high ash content which can 'smother' the ash bed. If you have good dry kindling or sticks then paper should not be needed at all.

The size of the logs used at each stage is also important. If the kindling wood is too large this will not light well and will be slow to get started. Two handfuls of smaller pieces of kindling (equivalent to the weight of typical log) layered in a criss-cross or 'wig-wam' and a small firelighter will get the fire well established and up to operating temperature quickly.

If you feel you have a weak chimney draught, then keeping the stove door slightly ajar for the first 10 – 15 minutes will assist, after which it should be closed. This will also help prevent the build-up of condensation on the door glass until the glass warms up, especially if you have not used the stove for a few days. During the lighting phase the Primary and Secondary air settings on the stove should be fully open.

2 The First Refuel Phase

For best results:

After 10 minutes

Primary Air (bottom control) – close completely (left)

Secondary Air (top control) – fully open (slide right)

Door – closed

Once the embers are starting to glow and the flames start to calm down the first refuelling can take place. For this stage use slightly larger pieces of wood than the lighting wood – but smaller than the main refuelling wood in the next phase. The reason for this is that the embers from the kindling wood are small and will not hold a high temperature for too long.

If unnecessarily large pieces of wood are placed on the embers at this stage and do not ignite well there is a risk that the firebox will quickly cool down and the wood start to smoke. When the first refuelling wood is burning well (say, after about 10 minutes from the start) the Primary air can be completely shut off.

3 The Main Firing Phase

For best results:

After 17 or 18 minutes –

Secondary Air (top control) – adjust to suit

Primary Air (bottom control) – remains closed

Door – remains closed

Once the embers of the first refuel phase are glowing then these can be evenly spread with a poker or companion tool and the main larger refuelling wood can be quickly set.

Wood burns best if the flames have other wood to 'play off'. For example a single dense piece of wood or log will not burn as well as 2 or 3 smaller logs of equivalent mass. The more contact the wood has with each other piece, the hotter the embers will be. 3 or 4 logs tightly packed to each other will burn longer but at a lower temperature than loosely criss-crossed logs.

Approximately 1.0kg (2lb 3oz) of wood logs can be added at this stage. Be careful not to add too many logs as they may 'smother' the fire or cause the stove to over-fire.

Try to avoid setting the ends of the logs pointing towards the glass as this is where some of the gases and moisture from the logs escapes and this can cause staining which the Airwash may find difficult to remove.

Only reduce the Secondary air control when the wood has 'carbonised' and the fire is burning at a high temperature. This is when the ash on the burning wood looks light grey and virtually covers all of the wood. You will be able to tell when the stove is at this stage by studying the colour of the burning surfaces – the 'lighter' they are the better the wood is burning. If the log surface is predominately black and / or the flames are a dull orange then there is still some time to go before the fire is operating at full temperature.

Avoid leaving the stove unattended after refuelling until the flames are well established on the new logs. Always load onto a bed of hot embers.

Once the fire is established the flame pattern can then be adjusted to your requirements with the top Secondary air (Airwash) control.

Getting the balance right between a gently burning stove and one that is burning too slowly, creating smoke and causing the Airwash to fail and consequently the glass to stain, is very much a matter of trial and error. If you are burning well-seasoned wood then a quick 'blast' of the stove operating at 'full throttle', with Secondary and Primary air fully open, should quickly burn off any deposits left from any slower burning phase.

4 Refuelling

For best results: *Just before you refuel –*

Primary Air (bottom control) – fully open

Secondary Air (top control) – fully open

After loading and when new fuel is burning well –

Primary Air – close completely

Secondary Air – adjust to suit

Regular, smaller loads are better because they keep the fire chamber at a higher temperature, without over-firing it. The higher operating temperature helps

prevent nuisance smoke and sooty deposits.

Never overfill the fire chamber and also avoid over-sized pieces of wood which will 'slow' the fire down at the start but then could lead to over-firing.

Before refuelling open the Primary and Secondary air supply so that there is a good strong fire so that the embers are glowing red which will help the new fuel to start burning quickly. This will also ensure that there is no build-up of harmful gas which could be released into the room when the fire chamber door is opened.

Rake the embers and spread them out to make an even bed. You may need to add some kindling to re-establish the fire. Add the new wood as before ensuring that the logs are not tightly packed.

Newly refuelled wood always requires some additional air so make sure the Secondary air is back in the fully open position after refuelling. Do not adjust the Secondary air until the fire is burning well and you can see bright yellow vigorous flames.

Once the fire is established, usually after about 5 minutes, close the Primary air and adjust the flame pattern again to your requirements with the Secondary air (Airwash) control.

If the new wood fuel is slow to catch alight, even with the Primary and Secondary air fully open then you could open the stove door slightly to provide additional combustion air and until strong vibrant flames are established. This should only take a matter of a minute or so and on no account should the stove be left unattended while this is happening as the stove could very easily over-fire.

Some simple wood burning tips

1 Small regular loads when refuelling will produce a more efficient and cleaner burning performance.

2 Avoid burning large amounts of wood with the Secondary air supply turned down as this will reduce the effectiveness of the Airwash system, as well as produce excessive smoke and create potential creosote build-up.

3 Burn on a high output for approximately 30 minutes each day to 'burn off' any potential soot and creosote build-up – but be careful not to over-fire the stove.

4 Never overload the stove – it will be smoky and inefficient as well as very slow to establish a good burn and could eventually possibly over-fire when it does get going.

5 Bright vibrant flames and a clean fire chamber indicates that your stove is operating well.

BURNING MINERAL FUELS

Only use approved smokeless fuels. You can find out more about these by visiting the Hetas website (www.hetas.co.uk) or the Defra website (www.smokecontrol.defra.gov.uk/fuels).

The recommended mineral fuel or approved smokeless fuel load is approximately 1.1kg (2 lb 7 oz).

Mineral fuels require much more combustion air from below the fuel load than wood. This means (depending on your chimney / flue draught) that Primary air (bottom control) is generally needed throughout all of the burning phases. The Primary air control should be in the fully open position at the start of the lighting phase (you may also need to leave the stove door open slightly). Burning mineral fuels also requires the grate to be riddled more often to allow the free flow of combustion air from the Primary air control.

Light your fire in the traditional way with a small wood kindling fire and small amounts of your choice of mineral fuel placed lightly on top making sure to leave plenty of air space. Once the mineral fuel is burning well add additional fuel until there is a good bed of burning fuel. Avoid stacking too much fuel against the back and sides of the stove as this could potentially overheat the stove's components and cause permanent damage. Ideally, when fully burning the fire should look dome-shaped.

When burning good quality mineral fuels the Airwash system (Secondary air) should not be needed to keep the glass clean, therefore Secondary air (top control) can be reduced. The Primary air control should then be used to adjust the flame pattern. You may find that a combination of subtle adjustments to both air controls may best suit your individual requirements.

When refuelling it is better to use smaller fuel loads more often which will provide you with a cleaner, more efficient burn.

Riddle the fuel regularly to maintain a passage of combustion air to the base of the fuel load.

Just after refuelling, open the Primary air (bottom control) to maximise the combustion air delivered to the remaining fuel so that when the new fuel is added it can get quickly established without 'damping' the fire.

Spread the embers with a poker just before adding the fuel. Re-adjust the air settings once all the fuel is burning normally.

Empty the ash pan regularly – at least once a day and do not let the ash build up under the grate as this will create a strong hot spot which could eventually warp or burn-out your grate. It will also eventually limit the flow of Primary combustion air and could affect the stove's performance.

SLUMBER BURNING

The Hi-Flame Inset Convector is designed to allow 'slow' or 'slumber' burning without creating the nuisance smoke normally associated with 'starving' the fuel load of combustion air.

Burn the stove in the normal way and at the refuelling stage, and when the fire chamber has reached temperature (bright yellow flames and white ash covering the remains of the logs), put a good fuel load into the stove and allow it to burn for a further 10 to 15 minutes in the normal way. When all of the surfaces of the logs are covered in bright vibrant flames then it is time to limit the Secondary air supply. Make sure when burning wood that the Primary air is closed.

The best setting to achieve the best slow burn and cleanest glass will be a matter of experimentation. For mineral fuels close the Secondary air supply and minimise the Primary air.

When you return to your stove, fully open both air controls until you have a good fire and then re-set these to normal operating levels. Do not add fuel until the fire bed is hot and red, then add a little for the first time and allow it to ignite properly before adding more.

During overnight burning the stove glass may blacken as the fire dies away and the effectiveness of the Secondary Air and airwash system is reduced, but if dry fuel has been used and a hot fire is established again this should quickly burn off. If the stove is cold the sooty deposit can be wiped away by using a piece of newspaper dipped into the ash bed to create some gentle abrasion on the glass.

After long periods of slow burning we recommend that a good strong fire, lasting about 30 minutes, is undertaken as this will help burn away any sooty deposits that may have built up in the flue system.

REMOVING ASH

Remember, you do not need to riddle wood ash during firing, but possibly only at the start when some Primary air is needed to aid the initial combustion.

Riddling allows mineral fuel ash to fall into the collection pan below the fire bed to help maintain a flow of Primary combustion air to the fuel. The ash pan should never be allowed to over-fill as this will limit the Primary air flow and could cause excessive heat build-up which could eventually warp or burn out the grate.

Locate the operating tool in the slot at the front of the ash pan to make a handle and lift the pan from the stove. For safety reasons ash should be removed when the stove is cold. If this is not always possible then extra care should be taken and decorative and combustible surfaces, such as laminate floors or carpets, should be protected against potential accidental spillage. Even if the ash appears to be cold protective gloves should be worn and the refuse ash placed in a non-combustible container. The ash could still be hot with the possibility of hidden live embers

As you remove the ash from your home ensure that it is covered to protect it from any draught or wind which could blow the ash out of your container.



The forked end of the tool is inserted underneath the ash pan grip as shown above to create the ash pan handle.



INSTALLATION CHECK-LIST

This information is intended to outline the general principles of installing your inset stove. However, as each installation will vary and must comply with local, national and European building regulations, which could be different from country to country, it is unfortunately not possible for these guidelines to be comprehensive.

Legal Requirements

Please note that, not only is it a legal requirement to ensure that your stove installation complies with all applicable building regulations, it is also a requirement of your Warranty that the stove is installed by a competent person such as a Hetas or INFO registered installer who will be fully aware of any building and safety regulations which apply to stove installations in your location.

Inset Stove Location Checklist

- **The existing constructional hearth** (the main part of the hearth) must be suitably constructed and of a thickness that conforms to all applicable building regulations.
- **The back hearth** (the part of the hearth that the inset stove sits upon and which is usually within the fireplace recess or opening) must also suitably constructed and must conform to all applicable building regulations.
- **The superimposed hearth** (the thinner, usually decorative surface, which sits on the constructional part of the hearth) must be suitably constructed and must conform to all applicable building regulations.
- **The fireplace recess** or opening is suitably constructed and must conform to all applicable building regulations and must be able to accommodate meet the safe minimum operating distances to combustible materials required (see right).



- **Any adjacent walls**, next to which a stove is installed, must be of a suitable thickness, made of non-combustible material and must conform to all applicable building regulations.

- **The air supply** must be sufficient for full combustion of the stove's fuel as well as the health and safety of the room's occupants. In homes built before 2008 all stoves above 5kW output require a permanently open air supply within the room which must conform to building regulations. The HF5902 model has been officially rated at a nominal output of 6.9kW (mineral fuel) therefore the installation must incorporate an air vent sized for a 6.9kW stove. For properties which have been built or modified so that their design air permeability is less than 5m³/h.m², a permanent ventilator for the full 6.9kW must be fitted.

Please refer to Approved Document J of the Building Regulations for more detailed information.

- **Any extractor fan** inside the room should be removed or permanently disabled.

- **The chimney** must be of sufficient height, suitably constructed, be in good condition and must conform to all applicable building regulations regarding stove installation. The minimum flue height required for the Hi-Flame Inset Convector is 4.5 metres (15') from the hearth to the top of the chimney terminal.

The chimney should be swept and tested prior to installation.

- **The proximity of all combustible materials** to the intended stove installation must conform to the minimum requirements outlined within this handbook as well as local, national and European building regulations, whichever is the greater. A combustible material is anything which can burn once it gets hot enough and includes skirting boards, wooden fire surrounds, wooden mantels, wallpaper, fabrics and floor coverings. Remember these materials could be concealed behind other materials which on the surface may appear to be non-combustible, for example, stud partitioned walls. It also worth noting that heat-resistant materials will eventually combust should they inadvertently reach the required higher combustion temperatures.

Important Minimum Distances For This Stove

The minimum distances to any combustible materials for the HF5903 Hi-Flame Inset Convector, under normal operation, and which were derived from the CE EN13229 tests, are as follows:

Top (shelf)	500 mm
Side Walls	150 mm

However, in the interests of safety, we do not recommend the use of combustible mantels. Your authorised installer will be able to advise you on the suitability of your proposed location.

INSTALLATION: GENERAL GUIDELINES

Please refer specifically to current local, national and European building regulations and adopt whichever provides the safest margin.

The Hearth

The hearth should be made of solid non-combustible material, set on a firm and level base and should be at least 125mm (5") thick. This can include the thickness of any non-combustible floor under the hearth or non-combustible decorative surface. It must be capable of supporting the weight of the stove (when loaded) along with any attached flexible flue liner which may bear down on the stove. This hearth must conform to local building regulations which may vary from country to country.

In England and Wales there is a minimum requirement for the hearth to project 500mm (20") in front of any brick or stone recess and 150mm (6") at each side of the recess. The hearth should extend by a minimum of 225mm (9") from the front of the stove (which includes the edge of the ash lip). As a general rule it is best to extend the hearth to at least 75mm (3") beyond the furthest out-swing of the stove door if possible to avoid any potential live ash held on the inset door falling on to combustible flooring or floor coverings. If the top of the hearth and any combustible floor coverings are level with each other then a retaining fender should be fitted to warn occupants of the hearth area. Alternatively, a 28mm (1.1") change in level provided by a decorative non-combustible material such as stone, marble, granite, ceramic tiles etc could be used.

Please note that some materials, such as marble, may not be suitable when used in a single sheet. This may prove problematic if, for example, the inset stove is being installed within an existing fire surround which features a one-piece back panel which the inset stove is intended to sit inside. Non-combustible fire surrounds intended for use with solid fuel open fires and stoves feature smaller panels pieced together which allow space for expansion when hot. Your stove dealer or installer should be able to advise you about the suitability of an existing fire surround.

The 'Fireplace'

The stove must be sited within a brick or stone fireplace recess. It is unsafe to use this inset stove as a free-standing stove.

The fireplace side and rear walls should be at least 75mm thick and made of non-combustible brick or stone.

Any gaps at the back and sides of the stove and the fireplace aperture should be filled with non-combustible insulation material such as rockwool or vermiculite. This will improve the efficiency of the stove but also help avoid the build-up of potentially combustible debris.

Inset Stove Fireplace Opening

Your Hi-Flame Inset Convector has been designed to fit relatively easily within a 16" x 22" standard builders' fireplace opening with the pre-cast fire back removed. Some adjustment may have to be made to accommodate the depth of the stove.

- Redundant back boilers or 'Baxi' type ash pits and air intakes ideally should be removed, filled and levelled.
- Gas points should be purged and sealed, or removed altogether, by a registered Gasafe or RGII (Ireland) engineer.
- Existing fireplaces and hearths must be made of non-combustible materials as well as be suitable for use with a solid fuel stove. For example the hearth and back-plate ideally should be 'slabbed' with concrete and any decorative surface finishes, such as marble, should be 'tiled' to allow for heat expansion.
- Ensure that any existing fire surround or fireplace back plate you propose to re-use or leave in position is secure and that any air gaps between it and the back wall are sealed, particularly around the actual fireplace opening and the back-plate interface. It is important for safety reasons that this seal is air tight.
- Where possible once the stove position has been settled upon any significant gaps along the side and back of the inset stove should be filled with a suitable inert material such as Rockwool. A vermiculite and cement mix (6 parts vermiculite to 1 part cement) can be used for filling large spaces – but under no circumstances should it be sealed against the stove sides thus limiting the potential for the stove to be accessed or easily removed at some later point.

Flue Draught

The Hi-Flame Inset Convector has been tested with a flue draught pressure of 12Pa and therefore to ensure performance which is line with the test results on page 5 the ideal flue draught pressure should be approximately 12Pa.

The Chimney and Flexible Flue Liners

Please refer the to the current issues of British Standards BS EN 15287-1:2007 design, installation and commissioning of chimneys.

Other appliances should not share or be connected to the same flue system or chimney.

Generally speaking, the chimney or flue terminal must be above the height of the apex of the building and any other obstructions, such as trees, which are within 3m (10') of the flue terminal. Failure to do this could affect the efficiency of the stove and may also cause unwelcome down draughts which would mean potentially dangerous flue gases could be emitted into room. Please refer to current building regulations (*Document J*).

If you are using an existing chimney and it has been

checked for condition and suitability (see below), in the interests of safety you must ensure that it is swept before the stove is installed, even if it has never been used or you intend to use a flexible liner. To find a local registered sweep visit The National Association of Chimney Sweeps at www.nacs.org.uk or the Guild of Master Chimney Sweeps at www.guildofmasterchimneysweeps.co.uk.

The recommended minimum height for the chimney / flue system from the top of the hearth base to the top of the chimney terminal is 4.5m (15'). If this is not possible then a 'spinner' type cowl, to compensate for any potential limited up-draught, should always be specified and specialist advice sought on the correct type.

Under no circumstances should the stove's 150mm (6") diameter flue be reduced in any part of the flue system as this could cause a build-up of dangerous carbon monoxide gas.

We strongly recommend a flexible flue liner

We strongly recommend that this stove is installed with the appropriate flexible chimney liner to make an air-tight seal to the flue system and ensure the stove's safe and efficient operation.

When your new inset stove is installed with a flexible flue liner it should be possible to sweep the chimney through the stove by simply removing the baffle plates inside the 'roof' of the stove. However, if you do not use a liner the installer should, if possible, provide an alternative means, such as a soot door with adequate air-tight seal, in the chimney wall to be able to clean the whole of the chimney / flue system.

Since stoves create flue gases at a much greater temperature than those produced by an open fire or gas appliance it does not necessarily follow that your chimney will function adequately (or safely) when your new stove is installed. The best way to ensure that you have a fully functioning flue system is to fit an approved flexible multi fuel flue liner.

Hi-Fame strongly recommend fitting a chimney liner for the following reasons:

- A flue liner is a major 'quantifiable' component in a total and fully functioning flue system. As such it will provide a consistent flue draught from the stove through to the chimney terminal and when back-filled with vermiculite will deliver much needed insulation to keep flue gases as hot as possible which will help minimise the amount of smoke produced. It will also improve the stove's operation with greater control over the fuel burn rate and improve environmental and fuel efficiency.
- Your existing chimney could leak smoke, fumes and potentially dangerous 'invisible' carbon monoxide into other parts of the building.
- Condensation or creosote 'tar', often associated with burning wood, could eventually seep through the

walls, particularly if they are made of old or porous brick and / or are jointed with lime mortar, eventually causing unsightly stains on decorative coverings.

- Stoves work best with the correct draught. Pre-1965 chimneys which have been built for open fires have larger (and irregular shaped) voids than those best suited for a modern stove and thus could reduce the effectiveness of the flue draught by making the flue too cold and difficult to warm. This is a particular problem if the chimney breast is on an outside wall and / or is subject to a strong prevailing wind.
- The interior surfaces of older flues could be eroded and also have rough surfaces which could cause resistance to the smooth flow of gases and consequently result in poor up-draught.
- Unfortunately many houses built since 1965 with clay or concrete chimney liners suffer from these being poorly installed, either through being fitted the wrong way up or not receiving an appropriate application of mortar to make a complete seal on each joint. Even though not particularly old, this could still potentially cause leaking smoke and fumes or condensation stains

Your approved installer will be able to advise you on the suitability of your chimney after undertaking a thorough inspection and smoke test. Any solid fuel flexible liner which is specified should be double skinned stainless steel, either 904L or 316Ti grade and be CE marked and / or Hetas Approved.

The British Flue and Chimney Manufacturers Association website, www.bfcma.co.uk, produces an authoritative and informative download *Yellow Guide* to solid fuel flues and chimneys.

The Chimney Terminal

The existing chimney pot or terminal must be suitable for stove installation and should not restrict the smoke and fumes from the stove. It must provide at least the same outlet area as the flue pipe. It may be that your existing chimney terminal has been replaced with a ventilating terminal if the fireplace has been closed off at some point and this will need replacing.

Your installer will be able to advise you on the correct specification of any new cowl or terminal. Cowls have the additional advantage of limiting rain entering the flue system which could cause the inside of the stove to rust when it is not being used, particularly during the long periods outside the heating season.

FITTING INSTRUCTIONS

Fixing the stove to the hearth

Firstly, remove the baffle plates, fire grate and carrier frame from inside the stove because you will need access to the flueway (to attach the flue collar) and the stove base (to anchor the stove body to the hearth). This will also make the stove lighter and easier to make the minute adjustments for its final position. See pages 8 and 9.

Any gaps at the back and sides of the stove and the fireplace aperture should eventually be filled with a non-combustible insulation material such as rockwool, fireboard, vermiculite panel or vermiculite granules to help maintain the stove's performance.

Temporarily place the stove inside the fireplace recess and ensure that it is both level and makes a good fit. Where the stove anchor screws (not supplied) will eventually penetrate the hearth (these go through the two pre-drilled holes in the left and right hand sides of the base of the stove) these area should be sound and fit to take secure fixings.

Mark the two fixing points for later drilling. Use both fixings to avoid the stove body rocking.

When finally drilling the fixing holes be sure to use the correct drill bit so as not to damage or crack any existing decorative hearth plate.

If you cannot find a suitable fixing point, then drill new holes in the base of the stove where you know that can eventually ensure a good fixing. A secure fit will prevent the stove from moving as even the slightest movement over time could potentially break any air-tight seal between the liner and the stove flue collar.



Attaching the flue collar and flexible liner

A flue collar and two bolts are provided to attach the flexible liner to the top of stove and to make a safe

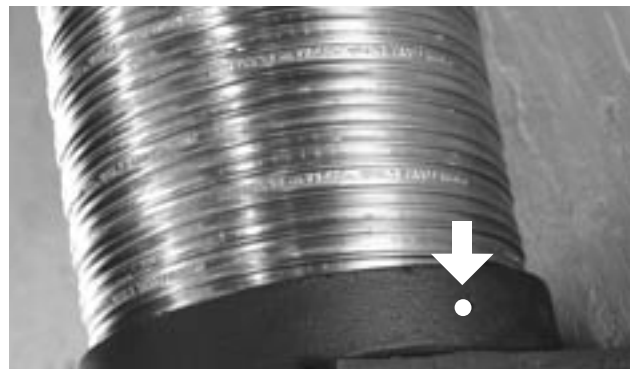


joint between the two.

Fit the bolts to the flue collar first (nut end down) as it is easier and safer to do this now rather than when the collar has been attached to the liner which will have extremely sharp edges.

When the flexible flue liner has been pulled into place through the chimney (firstly, ensuring that the liner is the correct way up), the flue collar can then be attached to the liner by using the self-tapping screws (A) held in position through the pre-drilled holes on the side of the flue collar.

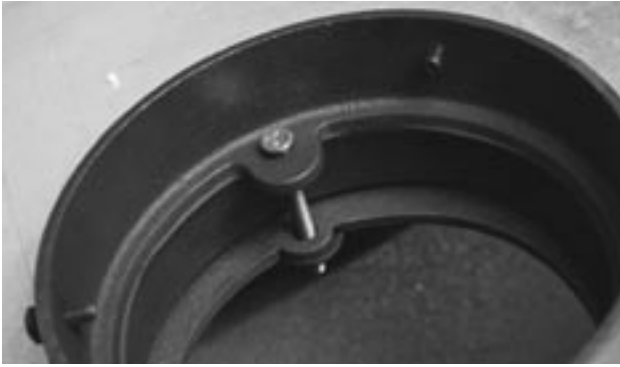
The flue collar fits around the flue liner (see above) so that any potential creosote or condensates will run down the inside of the liner and then into the stove rather than cause a build-up around the top of the stove which could eventually leak or cause a possible fire hazard.



If necessary use fire cement and / or fire rope to make sure the joint is completely air-tight.

The stove can then be replaced and permanently fixed inside the recess. If you need to insulate the sides and rear of the stove with loose vermiculite, this can be undertaken through the stove's flueway once both baffle plates have been removed and before the collar is attached. By manipulating the vermiculite into place by hand this will ensure that when you eventually fill the void with vermiculite, from the top of the flue liner, that no un-insulated gaps are created around the stove.

The flue collar, with the liner attached, can finally be



secured from inside stove with the two securing bolts provided. These should be sufficiently tightened to prevent the liner from moving and to ensure a good air-tight seal. However, do not over-tighten these bolts as this could break the cast iron flanges on the flue collar or stove. It should not be necessary to use any fire cement as the flue collar gasket will ensure a good seal between the stove and collar.

Back-filling the chimney and fitting the flexible liner should only be undertaken when the stove is securely fixed in its final position with the fascia frame tight against the fire surround back plate.

COMMISSIONING

1 Internal Parts Confirm that all internal parts of the stove are correctly fitted, including the baffle plates. See pages 8 and 9.

2 Doors and Seals Confirm that the door closes correctly and that the door seals make an all-round air-tight seal.

3 Smoke Test When the installation is complete it is important that a final safety smoke test is carried out.

Fully open the Primary and Secondary Air controls, and warm the flue by using a blow torch, being careful not to let the flame damage any painted surfaces etc. After about 10 minutes of warming, quickly place an approved smoke pellet in the middle of the fire grate, light it, and close the stove door. Check the flue terminal to ensure sufficient smoke is escaping. Repeat this with the room doors (and any open windows) fully closed.

Remember, this stove should not be installed in the same room as an extractor fan. However, if there is an extractor fan in an adjacent room then this requires a separate test with the fan switched to full and the room door left open to establish the worst case scenario.

After completing a successful smoke test, then a spillage test should also be undertaken (see below).

4 Spillage Test In the interests of safety to avoid any potential carbon monoxide (CO) leakage, it is critical that a spillage test is carried out by the installer.

Light the stove in the normal way (see pages 12– 13) and make sure that the stove is at full operating

temperature – this will be with a completely burning fuel load and could take around 30 minutes, however it cannot be rushed. Check that smoke or any other combustion products do not enter the room during this stage. Please see the note on paint fumes. See ‘Important: First Fires’ page 20.

Also ensure that the Primary and Secondary Air controls are all fully operational.

5 Safe Operation Explain the safe operation of the stove to the user and the importance of using the correct fuel types. See pages 10 and 11.

6 Legal Requirements Explain the householder’s legal requirement to use an approved fireguard whenever children (or the elderly and the infirm) are likely to be in the vicinity of the stove. If the installation is in a designated Smoke Control Area then also explain the householder’s responsibility to only use approved smokeless fuels.

7 Instruction Manual Make sure that the customer receives this copy of the *Instruction Manual*.

8 Warranty Card Complete the relevant parts of the *Hi-Flame Warranty Card* with your Hetas / INFO or competent persons registration number and contact details. This should then be posted to Hi-Flame.

9 Carbon Monoxide Detector Ensure there is an approved carbon monoxide (CO) detector fitted in the same room as the stove and that it has also been tested and the importance of testing it regularly has been explained to the householder. See page 2.

IMPORTANT: FIRST FIRES

Use smaller and shorter ‘gentle’ fires the first five or six times that you fire up the stove, making these progressively bigger, as this will avoid any potential thermal shock and allow the cast iron components to ‘acclimatise’ with each other. Allow the stove to fully cool down between these fires.

When first using the stove it is normal to experience paint fumes or see light smoke rising from some of the stove’s painted surfaces. During this stage ensure that the room has additional ventilation by opening doors and windows to minimise any adverse effects. The hotter you burn the stove the more intense these fumes will be, which is one of the reasons that we advise that you use smaller fires to start with. Every time the stove reaches a new higher temperature it may still be possible to smell these fumes or see some gentle smoke until the paintwork is fully cured.

If smoke and fumes persist do not use the stove and immediately consult your installer, as this may indicate that there could be a possible problem with the installation.

TROUBLE-SHOOTING

CHIMNEY FIRE

If your stove has been installed correctly and you have also operated it correctly and regularly carried out the recommended routine checks then it is unlikely that you will ever experience a chimney fire, which can be highly dangerous.

Chimney fires can be detected by an unusual roaring sound and / or unusual vibrations coming from the chimney breast or the stove itself. The sound is not to be confused with the gentle 'rushing' sound you may normally hear when a stove has a well performing up-draught. You may also see sparks or flames exiting from the chimney terminal outside.

• **Prevention**

If you suspect a chimney fire then immediately close the Primary and Secondary air controls, evacuate the building and call the Fire Service. *Never* open the stove door as this will make the chimney fire worse by providing additional combustion air. Do not re-enter the building until you have been advised by the Fire Service that it is safe.

Do not re-light the stove until the flue system has been thoroughly inspected by an approved installer or chimney sweep and any necessary repairs have been carried out.

• **Causes: Inadequate cleaning**

Chimney fires occur when soot and creosote have built up to such a level that they ignite. It is important therefore that your flue system has as many cleaning access points as practicable to enable comprehensive removal of soot, creosote and other debris. This will also minimise the amount of time it takes for a qualified sweep to clean the system making the system safer and its cleaning more cost-effective in the long run.

• **Causes: Continuous low burning**

To discourage the potential for such soot and creosote build-ups, long periods of consistent 'slumber' or overnight burning should be avoided or that these should at least be compensated for by regular burning on full output for short periods (eg 30 minutes per day) to help burn off any likely deposits before they become problematic.

• **Causes: Poor fuel choice** As previously mentioned unseasoned or damp wood or fuel should always be avoided as these produce excessive soot and creosote.

STOVE, FLUE OR OTHER COMPONENTS GLOWING RED

• **Prevention**

The Primary and Secondary air controls should be immediately closed to let the fire die down to an acceptable level and to reduce the heat output which will in turn eliminate the glow from the over-heated components. Over-firing is dangerous and could

permanently damage or warp your stove and its components. The effects of over-firing are fairly obvious to anyone in the stove industry and will invalidate your Hi-Flame Warranty. Check the stove and the flue system for signs of damage before you re-use the stove.

• **Causes: Over-Firing** This is caused by using the stove at a higher output than recommended for prolonged periods of time and / or over-filling the firebox with fuel. The excessive heat in the flue system produced by over-firing could potentially also lead to a chimney fire (See 'Chimney Fire' above).

SMOKE AND FUMES ESCAPING INTO THE ROOM

When properly installed and operated your stove should not normally emit fumes or smoke into the room. When first using the stove it is normal to experience paint fumes or see light smoke rising from some of the stove's painted surfaces, but these should eventually pass as the paint cures. Occasional minor smoke escape may also occur during the refuelling process. However, persistent smoke or fumes could be dangerous and in this situation you should take immediate avoiding action.

• **Prevention**

Open doors and windows to ventilate the room and let the fire go out to allow the stove to cool. Never pour water onto the fire as this could cause the cast iron components to break.

Most importantly, never re-light the stove until the problem has been identified and solved. If in doubt, in the first instance always seek the expert advice of your approved installer, or authorised Hi-Flame dealer.

There are a number of factors, either alone or combined, which could cause such problems:

• **Causes: A blockage** When safe to do so, examine the flue-way above the baffle plate as well as the chimney system via any inspection hatches and clear any soot blockages. Excessive deposits could also indicate that the chimney or flue itself also needs cleaning.

• **Causes: Inadequate supply of combustion air** Check that any permanent air vent fitted to supply the extra combustion air required for the stove has not been accidentally blocked. Remember there should never be an extractor fan in the same room as a stove, even in a large open plan area. A simple way of checking whether or not the stove is receiving enough combustion air is to open a window in the same room as the stove whilst the stove is operating. If this improves the problem then this would certainly indicate that the stove is being starved of combustion air and the advice of the original installer should be sought.

- **Causes: Extreme weather conditions** High winds or extremes of temperature can also temporarily affect the performance of the chimney draught and consequently its effectiveness in removing smoke and fumes from the stove's fire chamber. In the case of freezing temperatures it is important to build a larger pre-fire than normal to quickly provide the additional heat needed to warm the flue system and to counteract the much lower temperatures at the exit point of the chimney.

Unusually hot sunny days in the Autumn can sometimes produce negative pressure which will affect the up-draught and in these instances you should open a window or door to the outside to help re-balance the interior and exterior pressures which create the up-draught mechanism.

- **Causes: High winds** If the problem is associated with high winds and it becomes a regular occurrence, then you will need to fit a specialist chimney cowl. These are designed to provide a stable draught and prevent specific types of problems. Specifying the right cowl should always be left to an approved installer.

- **Causes: Flue Exit** Check, especially at the beginning of the heating season, that summer tree growth has not interfered with the free passage of smoke and flue gases from the chimney top.

OVERHEATING AND EXCESSIVE FUEL CONSUMPTION

This can be caused by a number of factors.

- **Causes: Excessive Chimney Draught** This limits the effectiveness of the air controls so that the fire burns with very strong bright yellow flames and with very little difference when the air controls are operated. In such circumstances an adjustable draught stabiliser in the flue pipe may need to be fitted to ensure that the stove will always operate under a stable draught to allow the stove's controls to function correctly. In the interests of safety, because draught stabilisers limit the exit of flue gases from the stove, they should only ever be specified, fitted and subsequently tested by an approved installer.

- **Causes: Fuel** The fuel itself may be of poor quality. For example pine and other softwoods used in the building trade will burn much quicker than a good hard wood log, such as Oak.

- **Causes: Faulty Door Seals** The rope seals around the fire chamber door could have become worn and may not create the air-tight seal needed for the Primary and Secondary air controls to function correctly. When the stove is cold, you can easily check this seal by placing strips of paper at various points between the door and chamber and checking that when the door is closed it grips this paper. Any paper which can be removed easily would indicate a weakness of the door seal in that particular spot, in

which case a complete new rope seal should be fitted.

STOVE NOT PROVIDING ENOUGH HEAT

This problem is also usually indicated by dull orange lifeless flames and wood that remains black when burning instead of light grey.

- **Causes: Poor fuel** Poor heat output is more than likely caused by poor fuel, such as 'green' or unseasoned wood or even wet wood. We cannot over-estimate how critical it is to use fully seasoned dry wood. The easiest way to check whether your wood is fully seasoned is to invest in a moisture meter specifically designed for testing wood fuel. These are relatively inexpensive and can be purchased from your stove dealer. When you bear in mind that seasoned wood with a moisture content of less than 20% will give you approximately 50% more heat than unseasoned wood, a moisture meter is modest investment which will more than pay for itself.

Wet or unseasoned wood introduces unwanted moisture into the fire chamber, reducing the stove's operating temperature and thus the effectiveness of the air wash system. In addition it will cause problems of increased soot and harmful creosote deposits within the flue system.

Softwoods such as Pine produce significantly less heat output than hardwoods.

- **Causes: Air controls** Ensure that you fully understand the difference that using the Primary and Secondary air controls make to the performance of the stove and the best way to burn your type of fuel.

- **Causes: Inadequate Combustion Air** A stove starved of combustion air, even when the Primary and Secondary air controls are in the fully open position, will provide limited heat output. Check that any permanent air vent fitted to supply the extra combustion air required for the stove has not been accidentally blocked. Remember there should never be an extractor fan in the same room as a stove, even in a large open plan area.

A simple way of confirming whether or not the stove is receiving enough combustion air is to open a window in the same room as the stove. If this improves the problem then this would certainly indicate that the stove is being starved of combustion air and the advice of the original installer should be sought.

- **Causes: Blockages** When safe to do so, examine the flue-way above the baffle plate as well as the flue pipe and chimney system via the any inspection hatch and clear any soot blockages. Excessive deposits could also indicate that the chimney or flue itself also needs cleaning.

GLASS STAINING OR BLACKENING

Glass can be cleaned easily if it is undertaken regularly and the deposits are not allowed to build up. A proprietary stove glass spray or gel is strongly recommended.

- **Causes: Air Controls** Ensure that you fully understand how the Airwash system works and that you have determined, through some trial and error that you have the correct balance between Primary and Secondary air that your stove needs. Generally, try to use more Secondary air as this air flows down and over the glass to help burn and wash away any particulates that have accumulated there.
- **Causes: Poor fuel** Burning damp or unseasoned wood will cause the glass to stain as the moisture from the fuel considerably reduces the fire chamber temperature reducing the effectiveness of the Airwash system. 'Green' wood will also encourage sticky deposits on the glass which will prove difficult for the impaired Airwash system to remove.
- **Causes: Continuous low burning** Continuously burning your stove with a very low flame, such as slow overnight burning will also cause this problem because the Airwash does not get hot enough and some blackening of the glass should be considered a 'trade-off'. In this instance, if you're sure that the fuel is seasoned and dry, then burning the stove at very high temperature for a short period after a long slow burn will usually burn off any sooty deposits. Glass can be cleaned easily if it is undertaken regularly and the deposits are not allowed to build up. A proprietary stove glass spray or gel is strongly recommended.

ROUTINE CHECKS

During routine checks if you notice anything wrong with your stove then it should be rectified immediately. Never use a stove that you know is not fully functioning – this includes flue components.

- Check your flue system at least once a month using one of the recommended inspection hatches in the flue pipe. After a few checks you will notice a pattern of soot build-up to enable you to determine the inspection and cleaning period best suited to your stove's operation.
- Check and clear the stove's baffle plate and flue-way at least once a month. Remove the firebricks so that the baffle plate can be slid forward and dropped down.
- Make sure the door maintains a good tight fit and visually inspect the door rope seals for fraying or other signs of wear. Test the seal if you suspect that it is no longer air-tight.
- Check that the glass is not chipped or cracked and that the glass sealing tape is still in good condition. Replace if necessary.

STANDING DOWN

There will be some point in the year when you will not need to use your stove for a considerable time and taking care to clean it thoroughly then will save you much time later. This is also a good time to get your chimney swept too as this will prevent any soot build up from falling inside the stove or 'caking' and blocking the flueway or flue system.

- Remove and clean any deposits from the top of the baffle plate and check for wear.
- Remove any debris and deposits from the inside of the stove particularly at the entrance to the flueway.
- Empty the ash pan and thoroughly clean out the ash pan chamber.
- Check all rope seals and replace damaged ropes that do not provide a good seal.
- Check the fire cement bonds around the liner joint and outer flue collar. Remove any loose cement and re-seal.
- Check the firebricks and replace any that have become thin or crumbled.
- Check the fire grate and grate carrier for signs of wear. Excessive wear, such as the grate bars or fire fence which are bent or warped, could be an indication of over-firing or using inappropriate fuels such as petroleum coke. Order genuine replacement components from your authorised Hi-Flame dealer.
- Apply a light spray of machine oil with an aerosol to the Secondary and Primary Air slider controls. Work the oil in by opening and closing the controls a few times. Be careful to protect the stove, fireplace and any other potentially porous surfaces from the oil and do not use the aerosol when the stove is in operation.

You may experience light some fumes from the stove when you eventually re-light it as any excess oil is burned off.

To save time and prevent any inconvenience it is advisable to order your replacement parts as soon as possible. This will avoid the annual rush at the start of the heating season.

ROUTINE MAINTENANCE

- **Baffle Plates and Flueway** During the heating season check the flueway and baffle plate at least once a month to start with and remove any soot deposits. Should these be excessive then your chimney and flue should be professionally cleaned. At the same time review your choice of fuel and the way that you operate the stove. See page 8 'Removing The Baffle Plates'

Regular long periods of slow or overnight burning can create excessive soot because the stove is not operating at the temperature required to burn off most of the soot. Damp or unseasoned wood will quickly 'fur up' a flue system. To find a local registered

sweep visit www.guildofmasterchimneysweeps.co.uk or www.nacs.org.uk.

- **Chimney Cleaning** The Hi-Flame Inset Convecter can be swept through the stove by simply removing the baffle plates – see pages 8 and 9. Sweep your chimney before installation and then at the end of each heating season when you stand down your stove. Burning seasoned dry wood means that you may need to sweep every three months depending on how often you use your stove. The amount of soot deposits removed each time is a good indication of how often you should sweep and as you begin to understand your stove and the wood you burn you can adjust the cleaning intervals accordingly. If in doubt seek the advice of a registered chimney sweep who has experience of cleaning stoves.

- **Firebricks** Regularly inspect the condition of the firebricks. Firebricks only need replacing if part of the brick has burned away revealing the stove bodywork. This could indicate excessive over-firing or using excessive mineral fuel loads which burns at a much higher temperature than wood. Firebricks are deemed as 'consumable' and are therefore not covered under your Hi-Flame Warranty.

- **Cleaning the Glass** Using damp or 'green' unseasoned wood, filling with small fuel loads or operating the stove at low temperatures (slumber burning) will reduce the effectiveness of the Airwash system and cause the glass to stain. Do not allow such staining to build up as it will become more difficult to remove after each firing. When used regularly, a proprietary scratch-resistant stove glass cleaning gel or spray, which can be supplied by your stove dealer, applied with a soft cloth, should be sufficient to keep the glass in pristine condition. Make sure the glass is cold before you apply such cleaners, as applying a cold solution to hot glass could create a thermal shock within the glass causing the glass to crack. Also make sure that all traces of the cleaning fluid have been removed and the glass is thoroughly dry as any residue can be 'baked' on causing unsightly smearing.

- **Replacing Glass** Never use your stove if it has cracked or missing glass. Your Hi-Flame dealer can quickly supply you with a new piece of heat-resistant glass which is made to withstand high temperatures. Remove the screws and glass clamps from each corner and place them in a safe place. Always use the correct sized screwdriver and use releasing oil if the screws prove difficult to remove. If the glass gasket is more than a year old also replace this as its lack of resistance to glass clamp may have caused the glass to break. This can be held in place with heat-resistant rope seal glue from your stove dealer.

Lubricate the screws and holes and reverse the process, being careful not to over-tighten the screws and clamps in case you break the glass.

- **Paint Finish** Your stove fascia has been finished

with heat-resistant paint and is very easy to maintain. Regularly remove ash and dust from surfaces with a soft cloth or brush. To maintain the original paint finish you can use traditional 'stove black' polish which your Hi-Flame dealer can supply. Make sure the stove is cold and always protective gloves as this type of polish can cause deep staining to the skin and fingernails.

Repair worn or scratched surfaces with a proprietary heat-resistant black spray paint made specially for stoves, also available from your stove dealer. Never use an aerosol spray on, or near, the stove when it is burning or it is hot. Mask the glass and handle and protect the fireplace and other surfaces from spray.

- **Enamel Finish** If your stove is a model with an enamel finish, in order to keep the stove's enamel surfaces in pristine condition regularly wash them with a soft cloth and mild soap when the stove is cold. Ensure that any excess moisture is removed at the end of the washing process. Do not use any cleaner which has an abrasive content as this will remove the shine from the enamel. Any heavy staining caused by wood fuel residue can be removed by soaking the affected area with stove glass cleaner and, once dissolved, removing and polishing with a soft cloth. Accidental chips in the enamel should be repaired immediately with an appropriate enamel repair kit to avoid the damaged enamel flaking off and the area becoming much bigger.

- **Door Rope Seals** It is important that you maintain a tight door seal as this prevents unwanted air leaking into the fire chamber and helps make the Primary and Secondary air more effective in controlling the fire.

When the stove is cold, to check the door stove seal, place strips of paper between the door and 'door frame' and shut the door. If you have to pull hard to remove these or they tear, then you have an effective door seal. If these can be easily removed or if they slide around you will need to replace the door seal. Your new Hi-Flame stove is supplied with a spare rope 12mm diameter seal for the door. To replace, remove the old seal and completely clean the seal channel of old glue and ash. Use liberal amounts of proprietary heat-resistant fire rope glue to secure the rope and glue both ends to make a well-sealed joint. Ensure that the new rope joint is also in the middle at the base of the rope seal channel. Do not leave any gaps, particularly at the joint as this will limit control of the combustion air and affect the efficiency of the stove.

- **Air flow through stove** The heat from your inset stove arrives in the form of radiated heat from the hot castings and the convection of hot air through channels in the stove bodywork. In order to maintain this convection process, and to avoid household dust being drawn into the air intakes and dust, as well as heat, being re-distributed into the room, please vacuum or dust the stove surfaces regularly.

THE HI-FLAME WARRANTY

VERY IMPORTANT:

This stove has been CE EN13229 tested in the UK to ensure that it meets strict constructional, performance and safety standards. It is not the responsibility of Hi-Flame or their distributors to ensure that it is installed and operating correctly at the time of the installation. **This is the responsibility of the stove owner. Complaints regarding the performance of the installation should therefore be addressed to the stove installer in the first instance.**

Hi-Flame offers the original retail purchaser a 1 Year Warranty with a further limited 4 Year Extended Warranty subject to the following terms and conditions being met. Claims under this Warranty must be reported in the first instance to the dealer you purchased the stove from. In the unlikely event of a Warranty claim being made the claim will only be entertained by Hi-Flame or their distributors if it follows this procedure and complies with the Terms and Conditions set out below.

TERMS AND CONDITIONS

All claims must follow this procedure.

Your stove is guaranteed against defects subject to the following conditions:

1 The stove must have been installed by a qualified / government recognised stove installer and upon completion the appropriate Hetas or Building Notice Certificate of Completion, which specifically covers the installation of the stove, has been issued. A copy of this must be attached to the claim form. *For legal and insurance reasons, without this approved paperwork, the stove installation must be regarded by Hi-Flame as illegal and potentially life-threatening and therefore we cannot entertain the Warranty claim (This does not limit your statutory rights). In such instances you must contact the stove installer.*

2 The sales receipt or invoice for the stove must be kept as proof of purchase and a copy attached to the claim.

3 The stove serial number must not be damaged or missing and must be quoted on the claim.

4 You must not have used the stove to burn any of the prohibited fuels listed in the Instruction Manual.

5 The stove must have been continuously kept in a serviceable condition. You must not have allowed the stove to corrode. *Warranty claims for stoves which are more than 12 months old must include the service record and a copy should be attached to the claim.*

6 You must not have modified the construction of the stove in any way.

7 The stove must not have been used for commercial purposes (eg rented or holiday accommodation, public bar, where the stove's operation could be subject to abuse).

What the Hi-Flame Warranty covers

- Bodywork
- Doors, Door Handles and Door Hinges
- Flue collar
- Primary, Secondary and Tertiary Air Controls
- Ash Pan and Multi-Purpose Tool
- External Riddler Control

Hi-Flame guarantee that your product will be free from defective parts, materials and workmanship at the time of purchase by the original consumer for a period of 1 year for components, bodywork casing, door and boiler (parts and labour), excluding consumable parts. The optional further 4 Year Extended Warranty for the bodywork casing, door and boiler (parts only) is only applicable if the Warranty Card has been completed in full (including the Installer / installation requirements) and it has been posted to Hi-Flame for our records.

Hi-Flame will repair or replace at its option any stove or stove part thereof found to be defective under these Warranty Terms and Conditions.

What the Hi-Flame Warranty DOES NOT cover

In line with other manufacturers the Warranty does not cover the following 'consumable' items

- Fire Ropes and Gasket Seals
- Heat Resistant Glass
- Baffle / Throat plate
- Fire Grate and Fire Grate Carrier Frame
- Firebricks and Fire-cemented Joints
- Painted surfaces

The Warranty does not cover an illegally installed stove (see point 1 above).

The Warranty does not cover parts deemed to be consumables which include paint, firebricks, fire grates, vermiculite panels, smoke deflection plates (baffle plates), gaskets, rope seals and heat-resistant glass.

Limits of Warranty

The Hi-Flame Warranty is not transferable and applies to the original retail purchaser only. It does not cover the failure of the appliance due to accidental damage, misuse or abuse, modification, illegal installation, repairs (other than those by the authorised dealer) or failure to maintain the stove in a serviceable condition.

Under no circumstances shall Hi-Flame be liable for any incidental or consequential damage claims of any nature whatsoever arising from the non-conformance of the stove under the terms of the manufacturer's Warranty. These include loss of profit, commercial losses, transport costs and damage during transport, costs in connection with any dismantling and reassembling of the stove and its installation components.

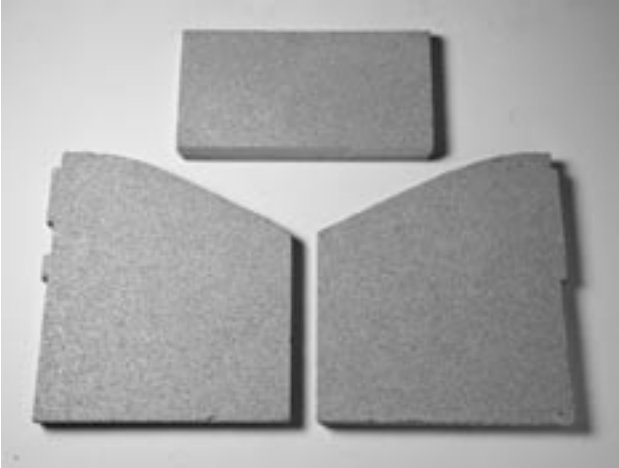
The terms and conditions of the warranty do not affect, nor do they intended to affect, your statutory rights

HI-FLAME SPARE PARTS

In the interests of safety, only ever use genuine Hi-Flame replacement components. Once you have identified the component you need this will be readily available from your authorised Hi-Flame dealer.

Firebrick Set

Set of three vermiculite firebricks



Lower Baffle Plate



Upper Baffle Plate



Fire Grate and Riddling Bar



Fire Grate Carrier Frame



Fire Fence (or Log Bar)



Ash Pan and Operating Tool



ANNUAL SERVICE

In the interests of safety it is important that your Hi-Flame Inset Convector is serviced annually as outlined below. This should be carried out by a qualified person such as your original approved installer, a Hetas or INFO registered installer or Hi-Flame dealer.

When the stove is cold strip, clean and inspect it.

Internal Components Remove and inspect the following: Baffle Plates, Firebricks, Grate Assembly, Fire Fence and Ash Pan. Use a wire brush to clean the baffle plates, grate assembly and fire fence. Wire brush the inside of the stove and remove all ash and debris from the stove and the ash pan chamber. Check all parts for wear or damage and replace as necessary. Cracked firebricks can be repaired with fire cement but firebricks which have crumbled or are missing parts which expose the fire chamber walls should be replaced. Re-fit all the internal parts.

Liner Connection With the baffle plates removed check that the liner remains securely attached to the flue collar and that any seal remains air-tight. Repair crumbling or failed seals by using the appropriate heat-resistant fire cement.

Stove Glass Check the glass for chips or cracks and the glass seal condition and replace if necessary.

Thoroughly clean the stove glass on both sides using a proprietary glass cleaner.

Door Seal Check that this makes an air-tight seal and replace if necessary. Ensure that the new rope joint is also in the middle at the base of the rope seal channel.

External Bodywork Visible external surfaces should be dusted with a soft cloth or light brush.

- Examine all paintwork for signs of wear and re-paint these areas using an appropriate heat-resistant black aerosol paint. *Warning: do not use the aerosol if the stove is alight or hot.* When the aerosol paint has dried, apply traditional stove black polish to all painted surfaces (optional).

- Lightly oil the hinges and the locking mechanism.

Air Controls When standing down at the end of the heating season these should be left in the open position to allow some movement of air which will help avoid condensation and moisture building up inside the stove and flue system. These can be closed up to 50% if it gets too draughty.

Important In the interests of safety use only genuine Hi-Flame replacement parts which are readily available from your authorised dealer.

NB It is advisable to have the chimney or flue system swept at the same time.

FIRST SERVICE

Date

Next Service Due

Work carried out:

Signed

Print

Dealer's Stamp or HETAS / INFO Registration No.

SECOND SERVICE

Date

Next Service Due

Work carried out:

Signed

Print

Dealer's Stamp or HETAS / INFO Registration No.

THIRD SERVICE

Date

Next Service Due

Work carried out:

Signed

Print

Dealer's Stamp or HETAS / INFO Registration No.

FOURTH SERVICE

Date

Next Service Due

Work carried out:

Signed

Print

Dealer's Stamp or HETAS / INFO Registration No.

FIFTH SERVICE

Date

Next Service Due

Work carried out:

Signed

Print

Dealer's Stamp or HETAS / INFO Registration No.

A NOTE ABOUT BUILDING CONTROL AND HETAS

In the United Kingdom most installations of solid fuel and wood burning appliances and systems are subject to the requirements of Building Regulations. These regulations must be observed and such installations need to be notified to the relevant Local Authority Building Control department by law.

Hetas (www.hetas.co.uk) is the official body recognised by the Government to approve solid fuel domestic heating appliances and the registration of competent installers.

HETAS registered installers in England and Wales can self-certificate their work thus avoiding the need for costly and time consuming Building Notice applications to the local Building Control department. They will provide you with a certificate of compliance upon completion of the installation and send a copy to Hetas for onward notification to your local authority. The certificate of compliance is an important record demonstrating that the work was carried out legally and in accordance with the relevant Building Regulations and by a trained and competent installer from a registered business.

Should you ever wish to sell your property, the information about work carried out under Building Regulations is required and used by solicitors on their enquiry forms. Failure to demonstrate compliant work could adversely affect the sale of your property.

More information on the Building Regulations process can be found on the Communities and Local Government website www.labc.uk.com

Hi-Flame Multi Fuel Stoves

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