



Sønderskoven Inset 5

Installation and Operating Instructions



Sønderskoven Inset 5 Technical Specification

		SØNDERSKOVEN INSET 5 Cleanburn Stoves, Unit 6, Old Mill Industrial Estate, EX5 4RJ
BS/EN 13229		UKAS# 0692
Stove Mass: 100 kg		
NOMINAL OUTPUT: 4.9 KW		
CO Emission at 13% O ₂ : 0.19%		
Mean Flue Gas Temperature: 292°C		
EFFICIENCY: 77.1%		
Flue Gas Mass Flow: 4.3 g/s		
Minimum clearance to combustible material		
Top of Fire Surround:		200mm
Side of Fire Surround:		150mm
Side Wall:		300mm
This appliance is suitable for intermittent burning		
This appliance is not suitable for use in a shared flue		
Read and follow the operating instructions		
Use only recommended fuels		

This stove has been designed and assembled so that it may be used to burn wood logs in a Smoke Control Area.

Find out if you are in a Smoke Control Area by contacting your Local Authority.

The Sønderskoven Inset 5 has been fitted with a permanent bypass that prevents closure of the secondary air slider. Removal of this will lead to the appliance potentially causing smoke emissions. Without the permanent bypass in place the appliance is not an exempt appliance and so may leave the householder liable for a fine up to £1000.

General Guidance

It is important that your stove is correctly installed as Cleanburn Stoves cannot accept responsibility for any fault arising through incorrect use or installation.

These instructions cover the basic principles to ensure satisfactory installation of the stove, although detail may need slight modification to suit particular local site conditions.

The installation must comply with current Building Regulations, national and European standards, Local Authority byelaws and other specifications or regulations as they affect the installation of the stove.

The Building Regulations requirements may also be met by adopting the relevant recommendations in the current issues of British Standards BS 8303 and BS EN 15287-1.

COMPETENT PERSONS SCHEME

Cleanburn Stoves recommend that this stove is installed by a member of an accredited competent persons scheme e.g. HETAS.

If the installer is not a member of a competent persons scheme, it is a legal requirement to notify your local building control body in advance of any work starting.

HEALTH AND SAFETY PRECAUTIONS

Special care must be taken when installing the stove such that the requirements of the Health and Safety at Work Act are met.

HANDLING

Adequate facilities must be available for loading, unloading and site handling.

FIRE CEMENT

Some types of fire cement are caustic and should not be allowed to come into contact with the skin. In case of contact, wash immediately with plenty of water.

ASBESTOS

This stove contains no asbestos. If there is a possibility of disturbing any asbestos in the course of installation then please seek specialist guidance and use appropriate protective equipment.

METAL PARTS

When installing or servicing this stove, care should be taken to avoid the possibility of personal injury.

MODIFICATION

No unauthorized modification of this appliance should be carried out.

Safety

WARNING – This appliance will be hot when in operation and due care should be taken. The supplied gloves may be used to open the door and operate the air controls.

AEROSOLS

Do not use an aerosol spray on or near the stove when it is alight.

FIREGUARDS

Always use a fireguard in the presence of children, the elderly or the infirm. The fireguard should be manufactured in accordance with BS8423 – Fireguards for use with solid fuel appliances.

DO NOT OVER-FIRE

It is possible to fire the stove beyond its design capacity. This could damage the stove so watch for signs of over-firing. If any part of the stove starts to glow red, the stove is in an over-fire situation and the controls should be adjusted accordingly. Never leave the stove unattended for long periods without first adjusting the controls to a safe setting. Careful air supply control should be exercised at all times.

FUME EMISSION

Properly installed and operated, this appliance will not emit fumes. Occasional fumes from de-ashing and refueling may occur. Persistent fume emission must not be tolerated.

This appliance should not be operated with the doors open

If fume emission does persist then the following action should be taken immediately;

- Open Doors and windows to ventilate room.
- Let the fire out, or eject and safely dispose of fuel from the appliance.

- Check for flue/chimney blockage and clean if required.
- Do not attempt to relight the fire until the cause has been identified and corrected.
- If necessary seek professional advice.

ADVERSE WEATHER

In a small number of installations, occasional local weather conditions (e.g. wind from a particular direction) may cause downdraught in the flue and the stove to emit fumes. In these circumstances the stove should not be used. A professional flue installer will be able to advise on solutions to this problem (e.g. anti-downdraught cowl).

DO NOT FIT AN EXTRACTOR FAN IN THE SAME ROOM AS THIS APPLIANCE.

IN THE EVENT OF A CHIMNEY FIRE -

- Raise the alarm
- Call the Fire Brigade
- Close appliance air controls
- Move furniture, ornaments etc away
- Place a fireguard in front of stove
- Check the chimney breast for signs of excessive heat.

If the wall is becoming excessively hot, move furniture away. Ensure the Fire Brigade can gain access to your roof space in order to check for fire spread.

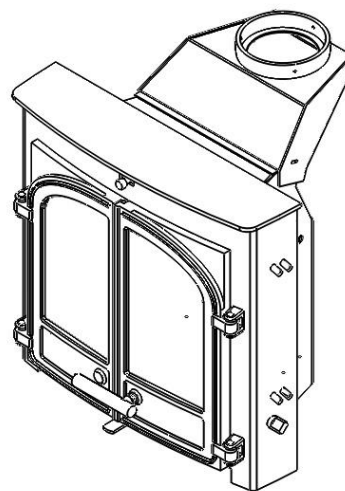
Chimney

Please check the suitability of any fireplace/surround for closed solid fuel appliances before installing this appliance. Cleanburn Stoves Ltd cannot be held responsible for any fault arising through incorrect use or installation.

Fire surround back panels suitable for solid fuel are usually in three sections and slabbed. Many fire surrounds are suitable only for use with gas and electric fires and therefore not suitable for solid fuel.

This product is designed to fit into a standard 16 inch fireback. An adaptor for flexible flue liners (150mm) is also available if required. The upper section of the fireback may need to be removed to fit the flue adaptor. The chimney height and the

position of the chimney terminal should conform to Building Regulations.



Check that the chimney is in good condition, dry, free from cracks and obstructions. The diameter of the flue should not be less than 150mm and not more than 230mm. If any of these requirements are not met, the chimney should be lined by a suitable method.

The chimney must be swept before connection to the stove.

Where the chimney is believed to have previously served an open fire installation, it is possible that the higher flue gas temperature from the stove may loosen deposits that were previously firmly adhered, with the consequent risk of flue blockage. It is therefore recommended that the chimney is swept a second time within a month of regular use after installation.

If you have any doubts about the suitability of your chimney, consult your local dealer/stockist.

If there is no existing chimney then either a prefabricated block chimney in accordance with Building Regulations Approved Document J, or a twin-walled insulated stainless steel flue to BS4543 can be used. These chimneys must be fitted in accordance with the manufacturer's instructions and Building Regulations.

Flue Draught

If the flue draught exceeds the recommended maximum, a draught stabiliser must be fitted so that the rate of burning can be controlled and to prevent over firing.

If the reading is less than the recommended minimum then the performance of the appliance will be compromised.

The flue draught should be checked under fire at high output.

Minimum Draught – 1.2mm Water Gauge

Maximum Draught – 2.5mm Water Gauge

Connection to the Chimney

The gap between the old fireplace and stove flue outlet must be filled in so that there is a smooth streamlined entry into the flueway.

It is essential that all connections between the stove and chimney-flue are sealed and made airtight.

Both the chimney and any flue pipe must be accessible for cleaning and if ANY parts of the chimney cannot be reached through the stove (with baffle removed), a soot door must be fitted in a suitable position to enable this to be done.

Air Supply

Where necessary, any air opening must be kept clear of blockage or obstruction. Due consideration should be given to air requirements for any other appliances in the same room or space.

Material Clearances

Any non-combustible walls within 50mm of this appliance should be at least 200mm thick and should extend 300mm above the top of the appliance and at least 1.2 metres above the hearth. Any walls more than 50mm from the appliance may be reduced to a thickness of 75mm. Ensure the inter-connecting flue pipe also has adequate clearances to combustible materials.

A hearth with a minimum thickness of 125mm should be provided. The hearth should extend to at least 300mm in front of the stove and 150mm at

the sides, and should be in accordance with the current building regulations.

In all instances the hearth and fireplace recess should be made of non-combustible material.

The appliance shall be installed on a floor with adequate load-bearing capacity. If the existing construction does not meet this prerequisite, suitable measures (e.g. load distributing plate) should be taken to achieve it.

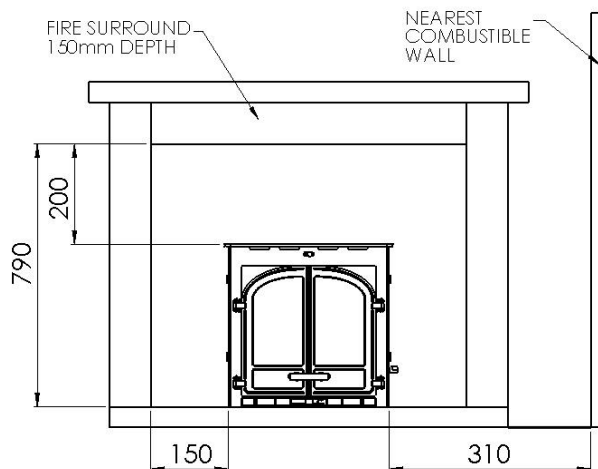
Minimum Distances to Combustible Material

Above the stove	200mm
At the side of the stove	150mm
Nearest Side Wall	310mm
In front of the stove	900mm

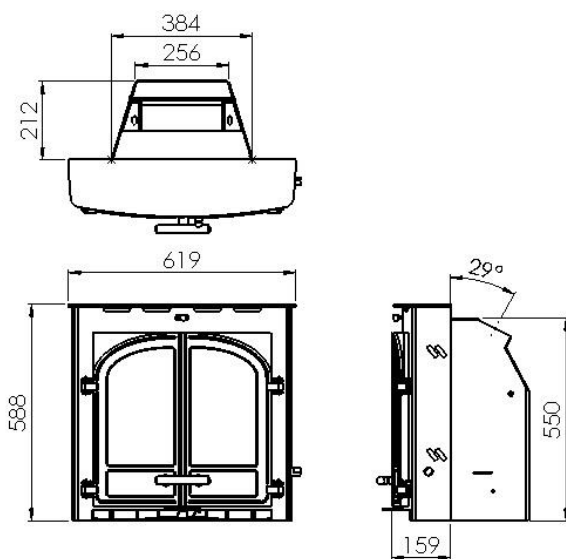
Note: combustible material refers to any material that will degrade when subjected to heat (e.g. plaster)

FIREPLACE DIMENSIONS

(Fire surround and side wall shown are combustible and all dimensions stated are minimum)



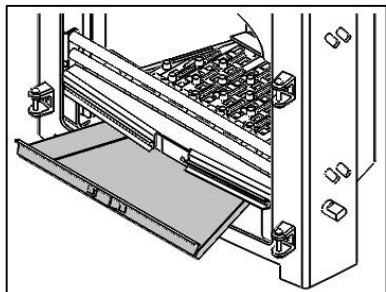
APPLIANCE DIMENSIONS



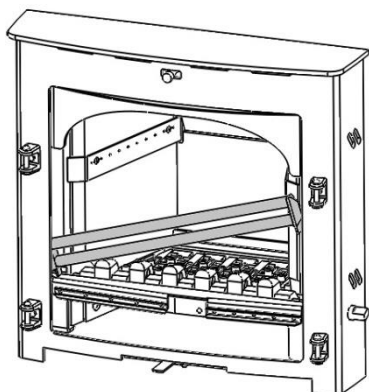
Removing Internal Components

All internal components must be removed prior to fitting the stove. This will make handling the stove easier; allow access to fixings and the flue outlet; as well as protect the internal components from damage during the installation process.

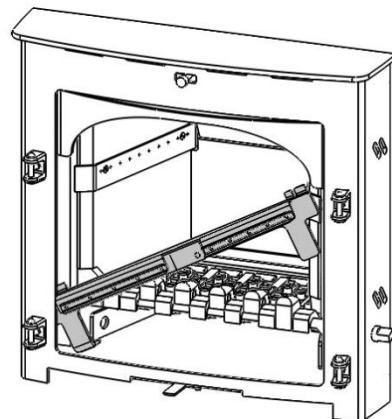
1. Open the door(s) and remove the ashpan.



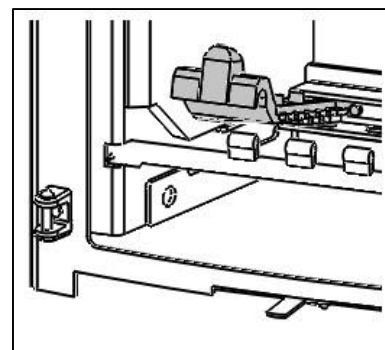
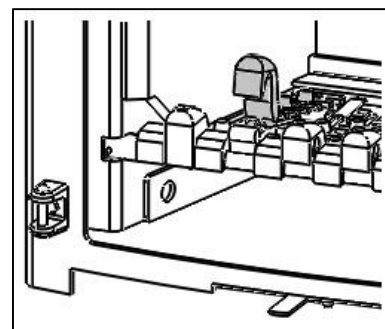
2. Remove the fuel retainer by lifting the right-hand side until it will clear the opening and remove.



3. Remove the catch bar / front plate by lifting the right-hand side until it will clear the opening and remove.

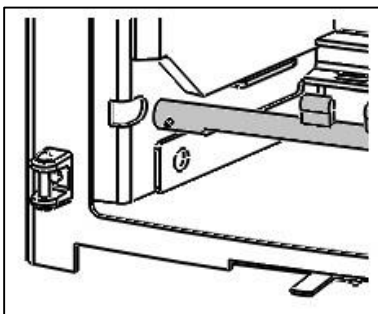


4. Remove the grate bars by lifting them away from the cam bar and pulling forward out of the rear grate support. The singular bars should be removed first, noting their positions (low or high), leaving the two static triangular bars to last.

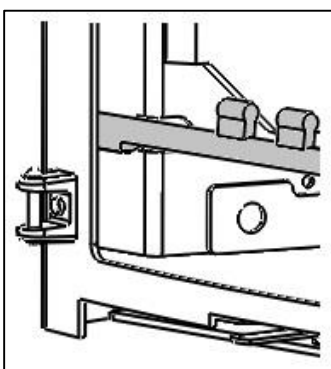


N.B. When re-installing, the side bars need to be installed first, followed by the singular bars. The final two grate bars should be installed at the same time for ease of fit.

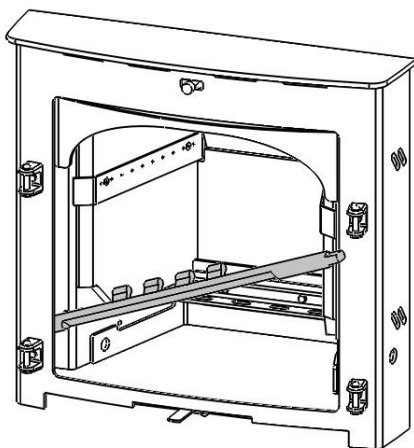
5. Remove the cam bar by firstly sliding it to the right until the left hand end is clear of the hole.



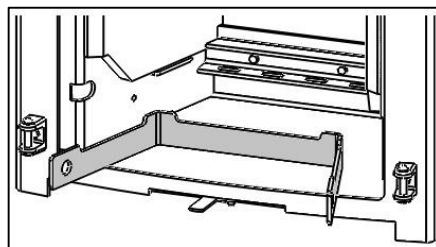
6. Then maneuver the free end into the void in the front left of the stove.



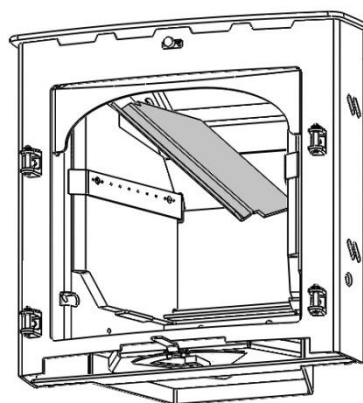
7. Slide the cam to the left until the right hand side is clear of the hole, then raise one side and swing out through the door opening.



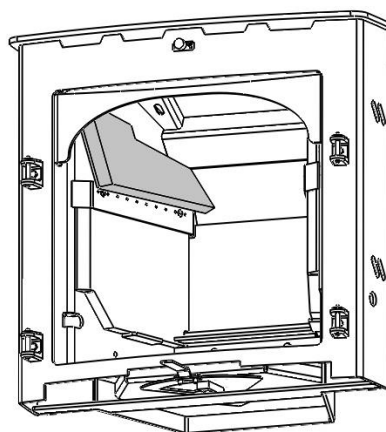
8. Remove the ash barrier by sliding out of the stove.



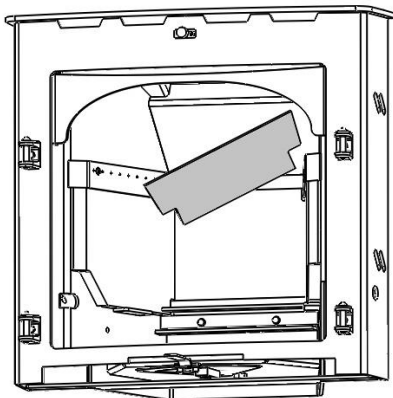
9. Remove the baffle by lifting and tilting one edge so it can be lowered into the firebox and removed.



10. Remove one of the upper side bricks by lifting it out of its support on the tertiary air bar, and lowering it into the firebox. **(Note: at this stage only remove one of the upper side bricks.)**

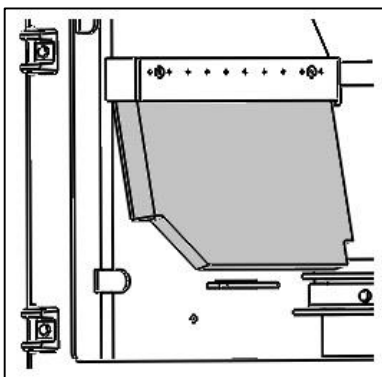
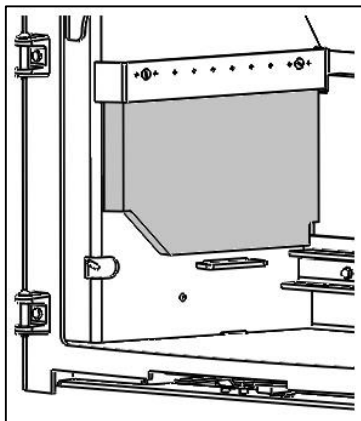


11. Remove the upper rear brick by lowering it down into the firebox and out.

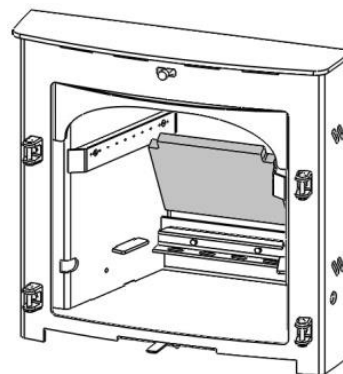


12. The second upper side brick can now be removed.

13. Remove the lower side bricks by lifting the brick until the bottom edge can clear the support bracket. Then tilt slightly into the firebox and lower out from behind the tertiary air bar.

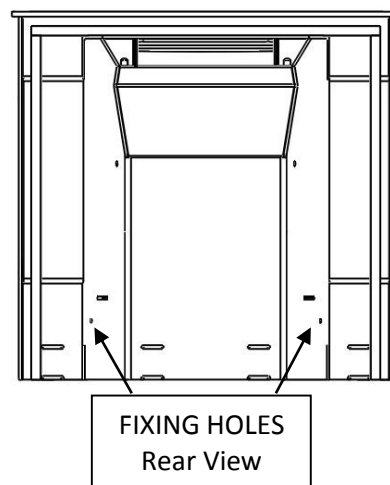


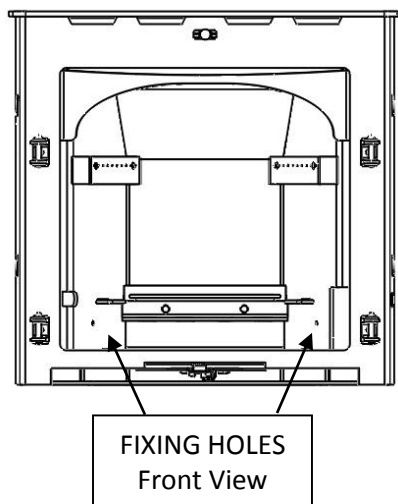
14. Remove the lower rear brick by tilting the top edge into the firebox and lifting out.



Installing the Stove

1. Unpack the stove.
2. Remove internal components.
3. Move the stove into position inside the fireplace opening being careful not to damage the hearth or paintwork on the stove and making sure that the rope seal is compressed forming a tight seal between the stove and fireplace.
4. Drill into the existing fireback through the fixing holes in the body, (see below) using a 6mm drill bit.
5. Place the screws provided into the fixing holes and gently tighten until the stove feels secure.
6. Fill the fixing holes with fire cement to form an airtight seal.
7. Seal the area where the throat meets the flue outlet of the stove with fire cement.
8. Refit the internal components.





Commissioning and Handover

Upon completion of the installation, allow a suitable period of time for any fire cement and mortar to dry out. A small fire may then be lit and checked to ensure the smoke and fumes are taken from the stove up the chimney and emitted safely to atmosphere. Do not run the stove at full output for at least 24 hours.

On completion of the installation and commissioning, ensure that the operating instructions and operating tools for the stove are left with the customer. Advise the customer on the correct use of the appliance with the fuels likely to be used on the stove and warn them to use only the recommended fuels for the stove.

Advise the user on what to do should smoke or fumes be emitted from the stove.

The user should be warned to use a fireguard to BS 6539 in the presence of children, aged and/or infirm persons.

Operating Instructions

Read the 'General Guidance' Section at the start of these instructions before operating your stove for the first time.

Allow sufficient clearance between the stove and pictures, plasma screen televisions or ornaments etc, as these could be damaged and could potentially create a fire hazard (For more information read the 'Material Clearance' section of these installation instructions).

WARNING – This appliance will be hot when in operation and due care should be taken. The supplied operating tool or gloves may be used to open the door and operate the air controls.

AEROSOLS

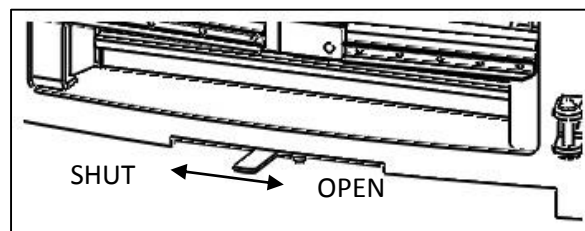
Do not use an aerosol spray on or near the stove when it is alight.

AIR CONTROLS

Installed and used correctly this stove will burn cleanly and efficiently. Therefore, to avoid the disappointment of poor performance, please familiarize yourself with the controls and their recommended settings before use.

PRIMARY AIR

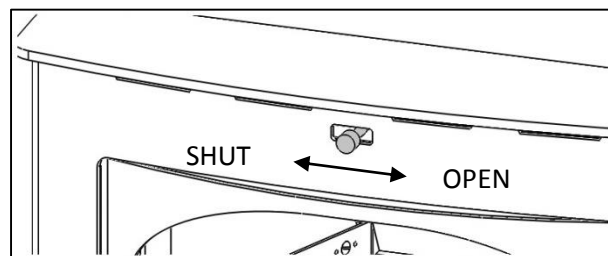
The slider at the bottom of the stove controls the primary air. This provides a conventional air draught to the bed of the fire. The control is open when the slider is fully to the right.



SECONDARY & TERTIARY AIR

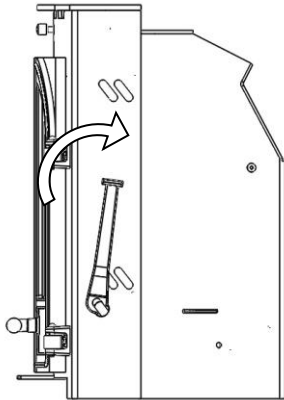
Secondary air is controlled via the slider above the door(s), it is this "Airwash" that keeps a clean and uninterrupted view of the fire.

Tertiary air is fixed and enters the stove through the holes on the side of the firebox. It aids in good secondary combustion and reduces emissions into the chimney and environment.



LOCOMOTIVE GRATE

Your Cleanburn Stove is fitted with a locomotive type grate. So that de-ashing can be carried out cleanly and easily, it is riddled from the outside of the stove with the doors closed.



BURNING WOOD

For optimal performance when burning wood, open the grate by pushing the operating tool away from you.

LIGHTING

We recommend that you have two or three small fires before you operate your stove to its maximum heat output. This is to allow the paint to cure in steadily and to give a long service life to the paint finish. During this curing in process you may notice an unpleasant smell. It is non-toxic, but for your comfort we would suggest that during this period you leave all doors and windows open.

Open both air controls fully and light one or two firelighters placed centrally on the grate, allowing the flames to become established before placing several pieces of small dry kindling in a criss-cross fashion above the firelighters, taking care not to smother the fire. Close the stove door. Once the kindling is well alight open the door and build the fire by gradually adding slightly larger pieces of wood, closing the door afterwards.

Once the fire is established close the Primary Air Control (slide control fully to your left) and add more fuel as necessary. The Secondary Air Control can be used to regulate the burn rate of the stove.

Should the fire fail to light correctly open the door and use a poker to spread the fuel across the bottom of the firebox. Close the door and allow

the fuel and stove to cool before attempting to relight the fire.

N.B. Leaving the air controls in the closed position, adding too much fuel or using wood that is wet or too large will prevent the fire from establishing correctly and may result in smoke emission from the stove.

When the stove is up to operating temperature the operating tool or gloves should be used to operate the air controls.

REDUCED COMBUSTION

In order to shut down the stove, reduce the primary and secondary air by sliding both controls to the left.

If the controls are left in this position, the fire will be starved of air and will die down.

If you want to revive the fire it is recommended that the primary air control is opened first, and then the secondary air control.

Warning!- The stove will remain **hot** for a considerable time after the fire has been extinguished.

THE CLEAN AIR ACT 1993 AND SMOKE CONTROL AREAS

Under the Clean Air Act 1993 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 here:

<http://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 Sønderskoven Inset 5 has been recommended as suitable for use in Smoke Control Areas when burning wood logs.

REFUELLING

Add the new fuel to the fire and open both air controls fully to allow flames to establish on the new fuel. Once the fire is established and the logs are blackened, set the primary air control to its closed position and adjust the secondary air to give the desired heat output. **Never leave the stove unattended until you are certain that the flames are fully established.**

Avoid refuelling on to a low firebed as this may cause excessive smoke emission. Ensure there are sufficient embers to ignite the new fuel rapidly. Alternatively add some more kindling before adding larger pieces of firewood.

Do not add firewood above the level of the tertiary air inlets on the sides of the stove. Exceeding this amount can result in the production of excessive smoke.

RECOMMENDED FUELS

Cleanburn Stoves recommend that wood logs are burnt in this appliance.

To achieve optimum efficiency, do not exceed a maximum fuel load of 1.6Kg.

Burn only dry, well-seasoned wood, which should have been cut, split and stacked for at least 12 months, with free air movement around the sides of the stack to enable it to dry out. The wood should have a moisture content not exceeding 20%.

Burning wet or unseasoned wood will create tar deposits in the stove and chimney and will not produce a satisfactory heat output.

Only authorised smokeless fuels may be used in smoke control areas.

Warning! - Petroleum coke fuels or household waste must not be burnt on this appliance. This appliance must not be used as an incinerator.

Should any difficulties arise over fuel quality or suitability, consult your local approved coal merchant or:

HETAS Ltd – Telephone 01242 673257 –
www.hetas.co.uk

Solid Fuel Association – Telephone 0800 600 000 –
www.solidfuel.co.uk

General Maintenance

Important! –In order to ensure continued compliance with current Building Regulations and Local Authority Byelaws, this appliance requires regular maintenance of the following –

N.B. Refer to the 'Removing Internal Components' section of the installation instructions for details on how to remove each component.

PERIODS OF PROLONGED NON-USE

If the stove is to be left unused for a prolonged period, then it should be given a thorough clean to remove ash and unburned fuel residues. To enable a good flow of air through the appliance to reduce condensation and subsequent damage, leave the air controls fully open.

If the appliance has been unused for a long period, such as during the spring and summer months, a competent person should check the chimney for potential obstructions before lighting the stove *i.e. **get the chimney swept before the start of the heating season.***

AS NECESSARY

Baffle- This should be removed and cleaned at least once a month to prevent any build up of soot or fly ash that could lead to blocked flueways and dangerous fume emission.

If the baffle is removed the chimney/flueway can be swept through the appliance.

Stove body – the stove is finished with a heat resistant paint and this can be cleaned with a soft brush. Do not clean the stove whilst it is hot; wait until it has cooled down. The finish can be renovated with proprietary stove paint.

Glass Panel(s) - Clean the glass panel when cool with proprietary glass cleaner.

Highly abrasive substances should be avoided as these can scratch the glass and make subsequent cleaning more difficult.

Wet logs on heated glass, a badly aimed poker or heavy slamming of the door could crack the glass panel.

The glass will not fracture from heat.

Firebricks - In normal use, these can last for many years. It is possible however, to crack them if logs are continually jammed against them or if they are frequently struck with a poker.

Check periodically for seriously cracked bricks, which can be replaced with new, available from your dealer.

Door Catch - The door catch may require adjustment to maintain the door seal. To adjust the catch, follow the procedure below;

- Loosen the M6 grub screw.
- Rotate the catch shaft one complete turn to achieve the correct door operation.
- Tighten the grub screw.

Rope - Check the rope around the door. If rope is becoming detached, use Cleanburn Stoves rope glue to reattach it. If the rope is in a poor condition, a replacement rope kit may be ordered from the Cleanburn Stoves spares range.

Chimney & Flueways - It is important that the chimney, flueways and any connecting flue pipe are swept regularly. This means at least once a year for smokeless fuels and at least twice a year for wood and other fuels.

The baffle will need to be removed from its supports in order to sweep the chimney (see 'Removing internal components' instructions). Only wire-centred sweeps' brushes fitted with a guide wheel should be used.

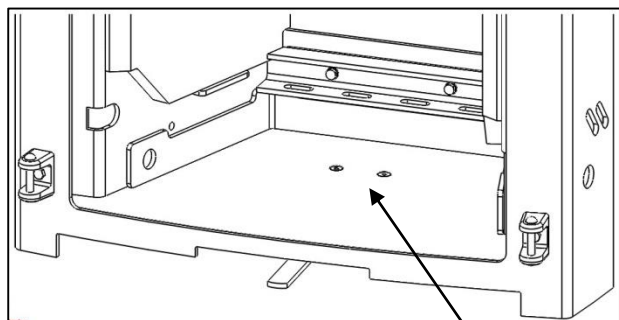
If it is not possible to sweep all parts of the chimney through the appliance, ensure there is adequate access to cleaning doors.

Seasonal use - If the appliance has been unused for a long period of time, such as during the spring and summer months, the chimney should be checked for potential obstructions by a competent person before lighting the stove.

Gaskets - all gaskets used on this appliance are produced from a heat resistant material called Manniglas. The glass gasket will have to be replaced when a new piece of glass is fitted as the gaskets become brittle after firing the stove. Over time you may find that the gasket changes colour. This is due to a reduction in the pigment used in the manufacture of the product and no cause for concern.

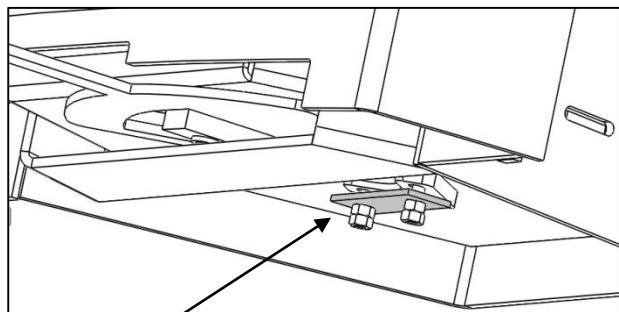
De-ashing – De-ashing should be carried out on a regular basis to avoid a build up of ash and ensure sufficient primary air flow. Empty the ashpan regularly to prevent ash reaching the underside of the great bars. **At least every month remove the ash barrier (see section 'Removing Internal Components') and remove excess ash with a vacuum cleaner.**

Primary Air Valve – The primary air valve can be removed from the stove. To do this first remove the Ashpan, Fuel Retainer, Grate Bars and Cam Bar (see section ‘Removing Internal Components’ of these instructions). This will allow you to gain access to the two countersunk socket set screws in the base.



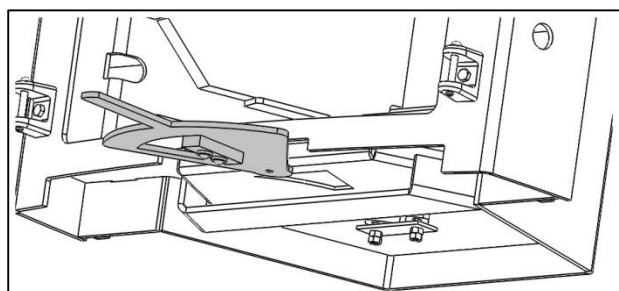
Primary Air Valve Release Screws

Undo these screws until you feel a resistance. If the screws have lifted up out of the base when both have been undone, push them back down so the screw heads are flush with the base. By undoing the screws you are allowing the valve release plate to move into its lowered position.

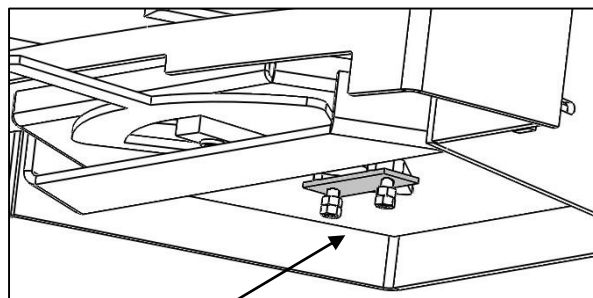


Valve Release Plate in lowered position

Once the valve release plate is in its lowered position as shown above the primary air valve can be removed by lifting the handle until the locating pin is released and pull out of the stove.



To install the primary air valve, slide the valve in centrally until you hear the locating pin click into place. There is a back stop to help guide the valve into place. Check fit by opening and closing the valve. Once you are happy with the fit, tighten the two countersunk socket set screws in the base until the valve release plate is in its upper position.



Valve Release Plate in upper position

Check that the valve can no longer be removed. Re-install the Cam Bar, Grate Bars, Fuel Retainer and Ashpan.

Trouble Shooting

FIRE WILL NOT BURN

Check that –

- Chimneys and flueway are clear.
- A suitable fuel is being used.
- There is an adequate air supply into the room.
- An extractor fan is not fitted in the same room.
- Flue draught is above minimum level (see installation instructions).

FIRE BLAZING OUT OF CONTROL

Check that –

- The door is tightly closed.
- The air controls are in the closed position.
- A suitable fuel is being used.
- The glass is not loose.
- The door rope seal is in good condition.
- Flue draught is below maximum level (see installation instructions).

Spares Information

SINGLE DOOR SPARES

SINGLE DOOR
HCE09/008

DOOR CATCH ASSEMBLY
HCE09/ARRT/043

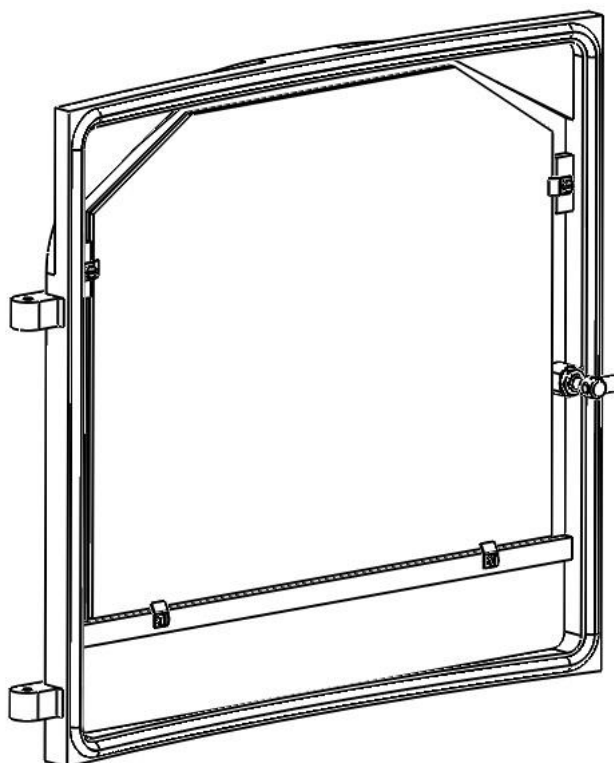
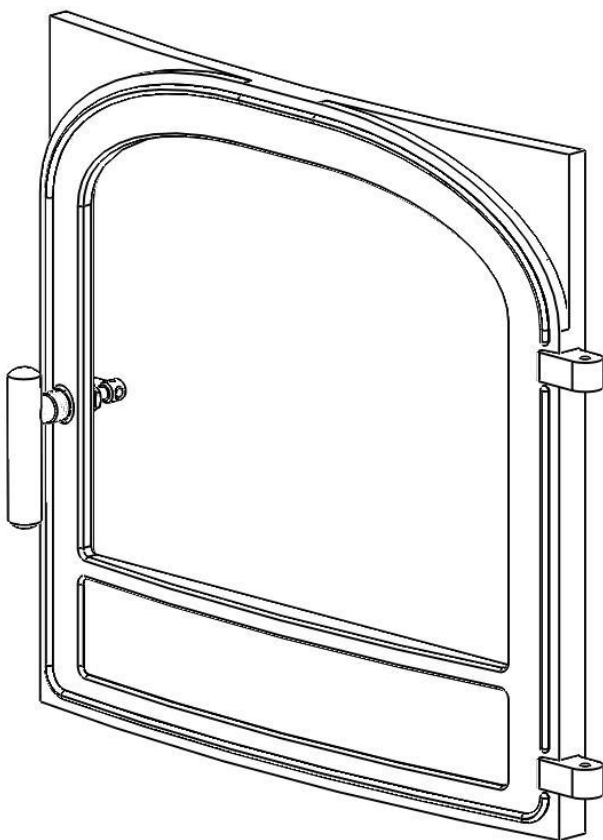
ROPE SEALING KIT
SCPCB900SDRSK-REVC

GLASS GASKET
HCE09/101

DOOR GLASS
HCE09/102

GLASS CLIP
HHR08/046

GLASS CLIP SCREW
FSJM05008SS



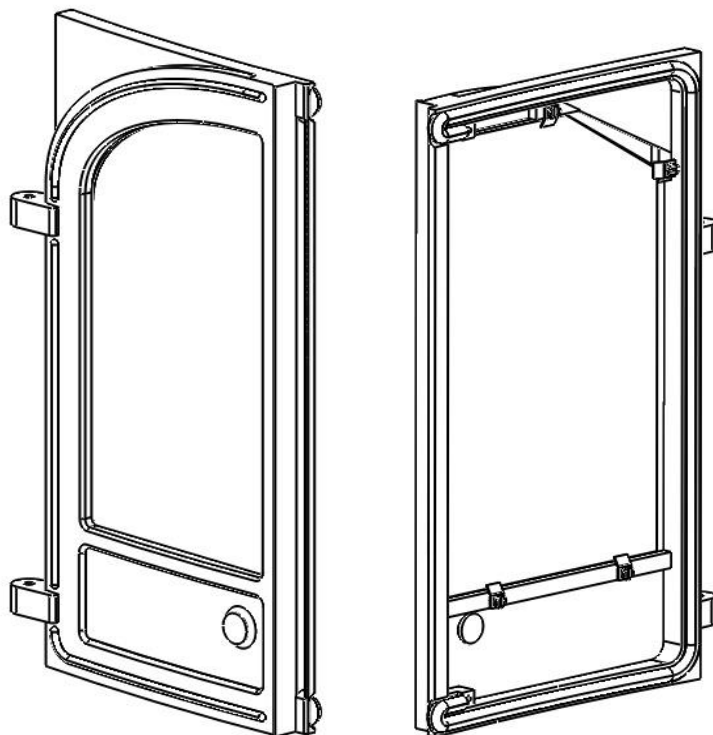
DOUBLE DOOR SPARES

LEFT HAND DOOR

LEFT HAND DOOR
HCE09/010

GLASS CLIP
HHR08/046

GLASS CLIP SCREW
FSJM05008SS



DOOR GLASS
HCE09/031

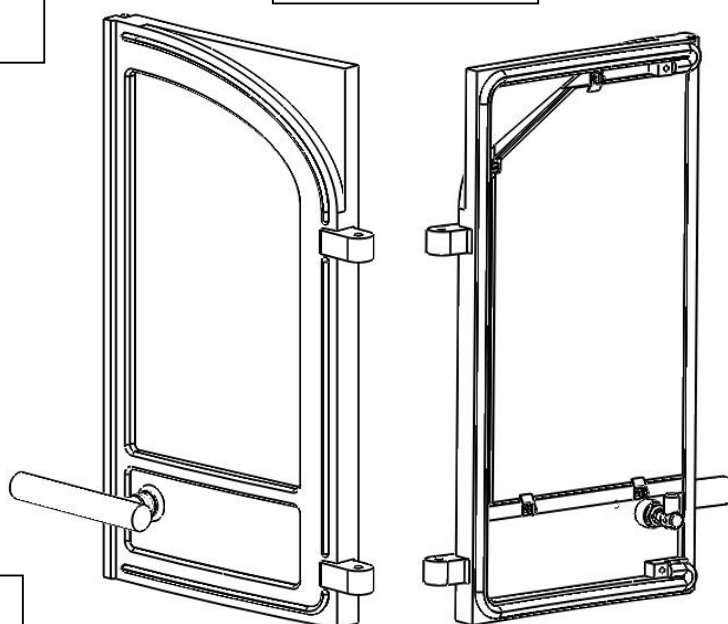
GLASS GASKET
HCE09/030

RIGHT HAND DOOR

RIGHT HAND DOOR
HCE09/009

ROPE SEALING KIT
SCPCB900DDRSK

DOOR HANDLE
HCE09/033



GLASS CLIP SCREW
FSJM05008SS

GLASS CLIP
HHR08/046

GLASS GASKET
HCE09/030

DOOR CATCH
ASSEMBLY
HCN05/ARRT/031

BODY ASSEMBLY SPARES

