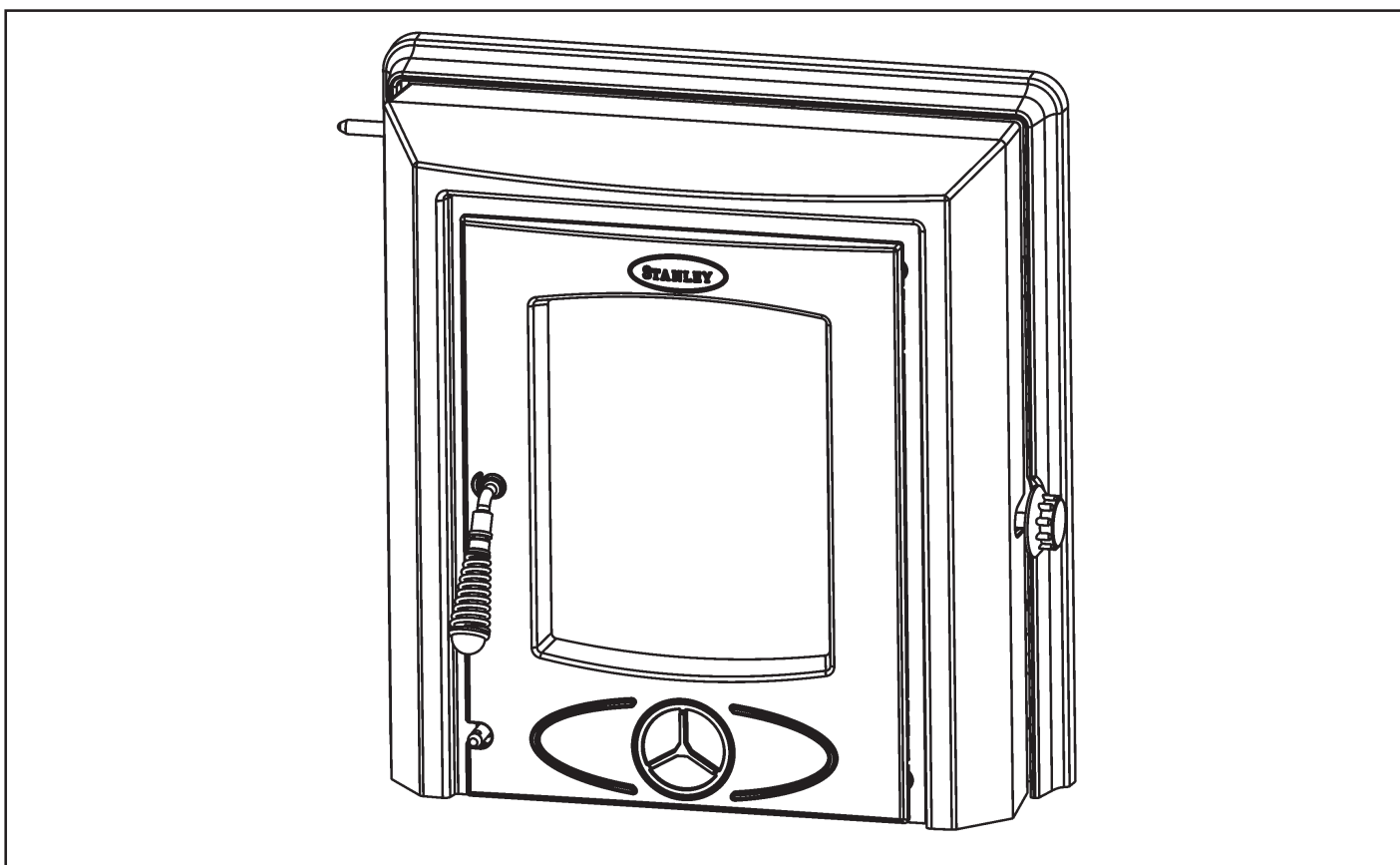




Cara+ Solid Fuel High Output Boiler Insert Stove



This appliance is hot while in operation and retains its heat for a long period of time after use. Children, aged or infirm persons should be supervised at all times and should not be allowed to touch the hot working surfaces while in use or until the appliance has thoroughly cooled.

When using the stove in situations where children, aged and/or infirm persons are present a fireguard must be used to prevent accidental contact with the stove. The fireguard should be manufactured in accordance with BS 8423:2002.

INSTALLATION AND OPERATING INSTRUCTIONS

TABLE OF CONTENTS

	PAGE NO.
1. Insert Stove Installation & Operating Instructions	3
2. General	3
Handling	3
Fire Cement	3
Asbestos	3
Metal Parts	3
3. Electrical Connections	3
4. Pre-Installation Assembly	3
5. Chimney	4
6. Fitting Instructions	5
Fully Lined Chimney	5
Not Fully Lined Chimney	6
7. Front Removal & Fitting	7
8. Down Draughts	7
9. Ventilation & Combustion Air Requirements	8
10. Permanent Air Vent	8
Extractor Fan	8
Outside Air Kit / External Ducted Air	8
11. Commissioning & Handover	8
12. Location	9
13. Clearance to Combustibles	9
14. Floor Protection	9
15. Stove Dimensions	10
16. Technical Data	10
17. Plumbing	11
18. Regulations	11
19. Gravity Circuit	11
20. Injector Tee	12
21. Drain Cock	12
22. Water Circuit Temperature	12
23. Pipe Thermostat	12
24. Secondary Air Control Slider	12
25. Primary air Control	12
26. Recommended Fuels	13
27. Door Handle Operation	13
28. Refuelling	13
29. Slow Burning	14
30. De-Ashing	14
31. Maintenance	14
32. Chimney Cleaning	14
33. Important Notes	15
34. Lighting	15

	PAGE NO.
35. CO Alarms	16
36. Fire Safety	16
37. Frozen System.....	16
38. Glass	16
39. Summer Shutdown.....	16
40. Exploded View	17
41. Fault Finding	18

INSERT STOVE INSTALLATION & OPERATING INSTRUCTIONS

NOTE: Please note that it is a legal requirement under England & Wales Building Regulations that the installation of the stove is either carried out under Local Authority Building Control approval or is installed by a Competent Person registered with a Government approved Competent Persons Scheme. HETAS Ltd operate such a Scheme and a listing of their Registered Competent Persons can be found on their website at www.hetas.co.uk.

GENERAL

When installing, operating and maintaining your stove respect basic standards of fire safety. Read these instructions carefully before commencing the installation. Failure to do so may result in damage to persons or property. Consult your local Municipal office and your insurance representative to determine what regulations are in force. Save these instructions for future reference.

Special care must be taken when installing the stove such that the requirements of the Health & 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 with the skin 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 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.

IMPORTANT WARNING: This stove must not be installed into a chimney that serves any other heating appliance. There must not be an extractor fan fitted in the same room as the stove as this can cause the stove to emit fumes into the room.

The installation must be completed in accordance with current National and European Standards and Local Codes. It should be noted that the requirements and these publications may be superseded during the life of this manual.

Please refer to the current standards, BS EN 15287-1:2007 Design, Installation and Commissioning of chimneys. BS EN 14336:2004: Heating Systems in Buildings. Installation & Commissioning of Water Based Heating Systems. BS EN 12828: 2003; Heating Systems in Buildings. Design of Water Based Heating Systems. BS EN 12831: 2003; Heating Systems in Buildings. method for calculation of the design heat load.

ELECTRICAL CONNECTIONS

The installation of any electrical services during the installation of this stove must be carried out by a registered competent electrician and in accordance with the requirements of the latest issue of BS 7671.

PRE-INSTALLATION

After removing the stove from the packaging, open the fire door and remove the loose packing. Prior to installation all the internal components of the stove are removed to gain access to fixings and to make it lighter for installation.

Measure the proposed location for the stove to ensure that the required space is available and that the front of the stove can fit within the fire surround with provision for the required clearances.

Remove the firebar retainers. To remove the baffle, lift the baffle and slide it forward. When it is clear of the support rib, lift one side which will allow the opposite side to drop down into the centre of the stove. The baffle can then be removed while held at an angle.

Fig 1

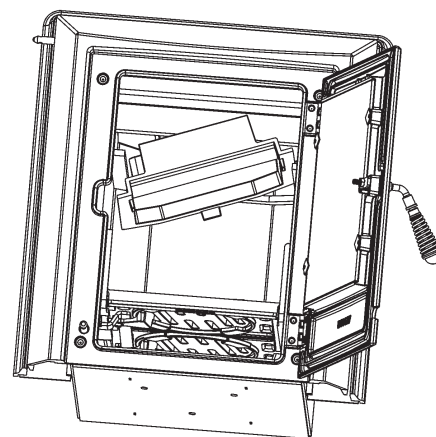
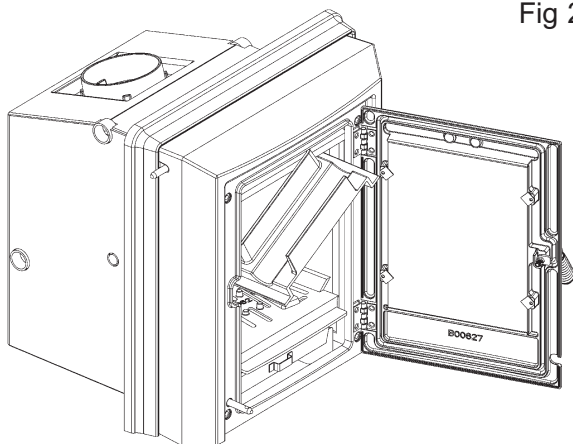


Fig 2



CHIMNEY

THIS PRODUCT IS SUITABLE FOR CHIMNEY INSTALLATION ONLY.

The stove is a radiant room heater and must be connected to a chimney of the proper size and type. The chimney must have a diameter of at least 150mm. It is recommended that a flue liner of diameter 150mm be used to line the chimney, the liner should be approved for use with solid fuel. See Fig.3.

An adaptor is available where required to fit between the flue outlet and a 6" flexible flue liner.

Never connect to a smaller size chimney. Do not connect to a chimney serving another appliance.

In order for the stove to perform satisfactorily the chimney height must be sufficient to provide a continuous draught of at least 15 Pa so as to clear the products of combustion and prevent smoke problems into the room.

NOTE: A chimney height of not less than 4.5 metres measured vertically from the outlet of the stove to the top of the chimney should be satisfactory. Alternatively the calculation procedure given in EN 13384-1 may be used as the basis for deciding whether a particular chimney design will provide sufficient draught.

The outlet from the chimney should be above the roof of the building in accordance with the provisions of Building Regulations Approved Document J.

It is permitted to connect using a closure plate and a connection piece from the stove to the closure plate (See Fig. 4), provided that the chimney is of sound construction with no leaks or cracks, a clay flue liner has been used that can withstand up to 1000°C, and the clay liner has a diameter no greater than 200mm.

If installation is into an existing chimney then it must be sound and have no cracks or other faults which might allow fumes into the house. Older properties, especially, may have chimney faults or the cross section may be too large i.e. greater than 10" diameter. Remedial action should be taken, if required, seeking expert advice, if necessary. If it is found necessary to line the chimney then a flue liner suitable for solid fuel must be used in accordance with Building Regulations Approved Document J.

Any existing chimney must be clear of obstruction and have been swept clean immediately before installation of the stove. If the stove is fitted in place of an open fire then the chimney should be swept one month after installation to clear any soot falls which may have occurred due to the difference in combustion between the stove and the open fire.

Any bend in the chimney or connecting flue pipe should not exceed 45°. 90° bends should not be used.

Combustible material should not be located where the heat dissipating through the walls of fireplaces or flues could ignite it. Therefore when installing the stove in the presence of combustible materials due account must be taken of the guidance on the separation of combustible material given in Building Regulations Approved Document J and also in these stove instructions.

If it is found that there is excessive draught in the chimney then a draught stabiliser should be fitted. Fitting of a draught stabiliser will affect the requirement for the permanent air supply into the room in which the stove is fitted in accordance with Approved Document J (see also combustion air supply).

The chimney can be swept through the stove or alternatively an easily accessible soot door can be provided for sweeping the chimney and connecting flue pipe.

ALL FLUE INSTALLATIONS ARE THE RESPONSIBILITY OF THE CUSTOMER.

The stove must be connected from the flue spigot to the chimney/ flue with a suitable flue connection that provides an air tight seal. There is no requirement to seal between the stove and the hearth or between the stove and the fireplace. The boiler can be insulated externally with fireproof rockwool insulation, backfilling with vermiculite is not recommended as it may affect the operation of the air controls.

Fig.3

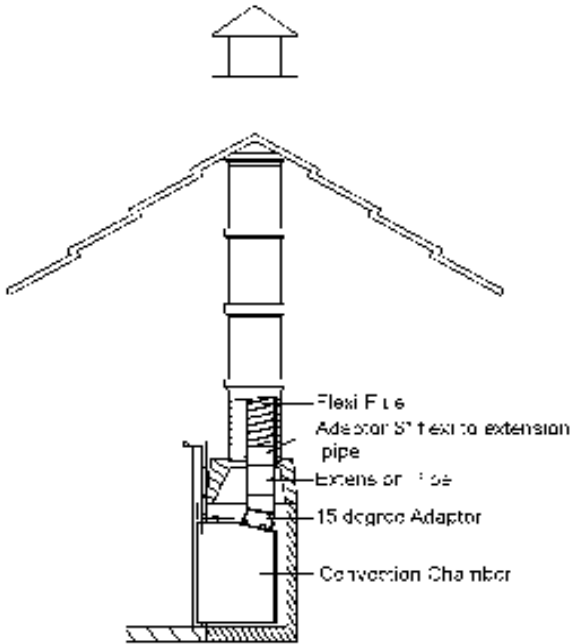
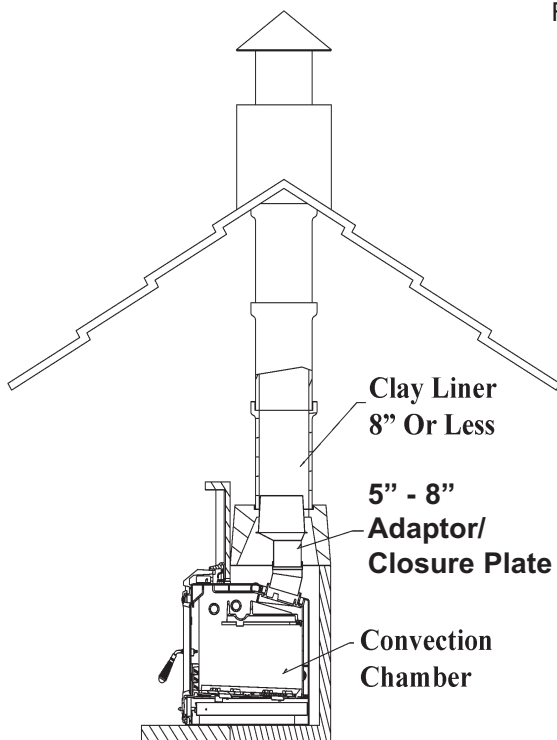


Fig.4

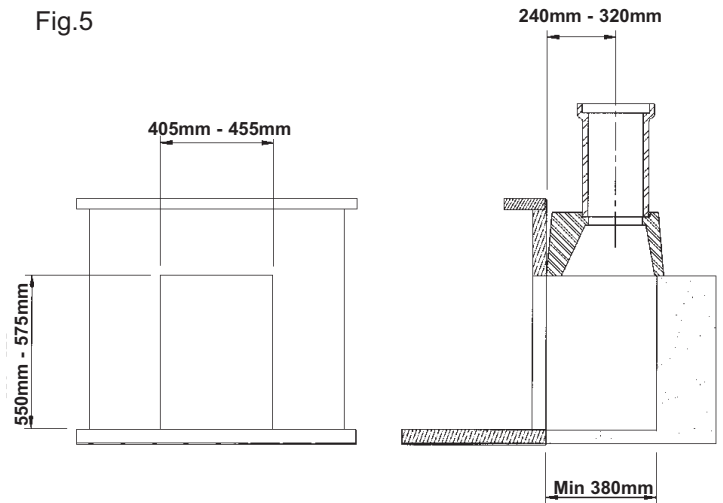


FITTING INSTRUCTIONS

Step 1

Prepare the fireplace area. Ensure the opening is suitable for fitting of the insert stove opening required, i.e. remove fire surround trim if fitted. See Fig.5.

Fig.5



Step 2

Ensure the floor area is level with the hearth, this area needs to be level as the insert fire is screw fixed to the floor.

Step 3

Decide which boiler tapings are to be used to connect the boiler. Remove the temporary plugs from the other two connections and replace with permanent boiler plugs.

Step 4

Remove all internal parts as per pre-assembly instructions prior to lifting it.

Step 5

Inset the stove to its final position.

USING CLOSURE PLATE - (Skip to Step 10)

Step 6

Drop the 150mm twin wall flexi flue liner down through the chimney and into the stove.

Step 7

Lay the sealing gasket on to the flue spigot, connect the flue spigot to the flexi pipe using a 5" extension pipe and a 5" - 6" adaptor. It is not recommended to fit a flexi flue liner within 600mm of the stove flue spigot.

Step 8

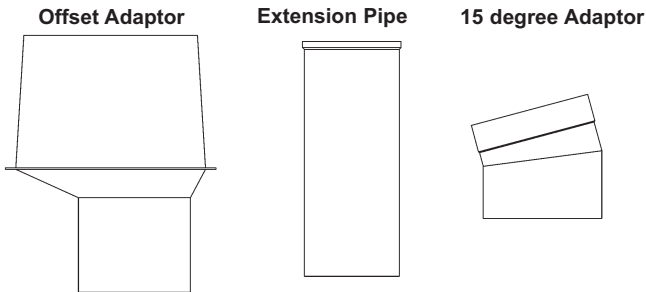
Pull the flexi liner back up through the flue outlet and fix the flue spigot into position using the M8 bolts provided. It may be necessary to cut a prop to hold the spigot in place while the fixings are being attached.

Step 9

Complete the installation of the flexi liner at the top of the chimney in accordance with the manufacturer's instructions.

USING FLEXIBLE LINER - (Skip to Step 16)

Fig.6



Step 10

Measure the distance to the flue outlet of the stove and compare to the chimney, decide on best orientation of the offset adaptor.

Step 11

Push the offset adaptor into position and make a seal using approved fire cement between the adaptor and the clay liner. The seal should be tapered to allow any condensation that may occur in the chimney flow back into the flue. See Fig.7.

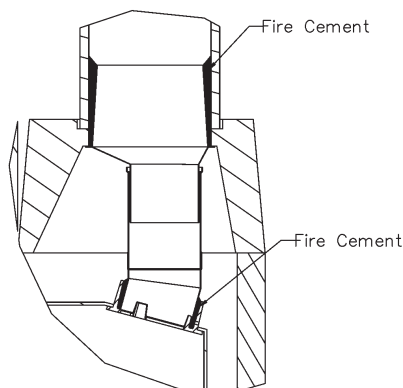


Fig.7

Step 12

Measure and cut the extension pipe at the straight end to the required dimension using the guide collar provided.

Step 13

Lay the flue gasket onto the flue spigot and then fit the extension pipe to the spigot using the grub screws provided and seal using fire cement.

Step 14

Fit the spigot, 15° Adaptor and extension pipe so that it completes the flue installation between the stove adaptor (closure plate).

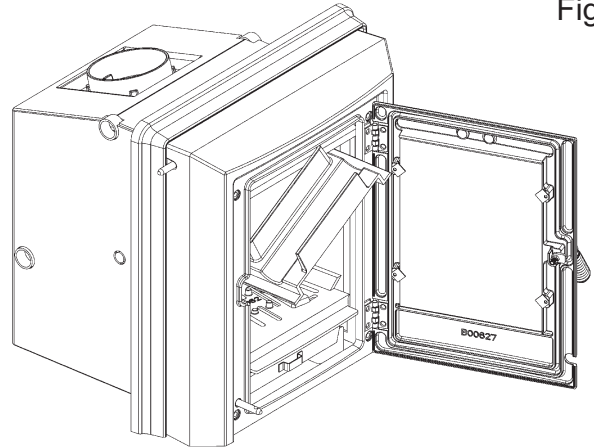
Step 15

Bolt the spigot to the stove and re-apply fire cement to the seals where it may have been disturbed during the installation.

Step 16

Replace the baffle by inserting it at an angle into the stove as shown in Fig.8. Then lift the baffle up into the top of the stove while maintaining it at an angle. Twist the baffle so that it is above the support rail. Then lift the back edge and slide the baffle back to the rear of the stove so that the tab on the baffle drops into the corresponding slot on the support rail.

Fig.8



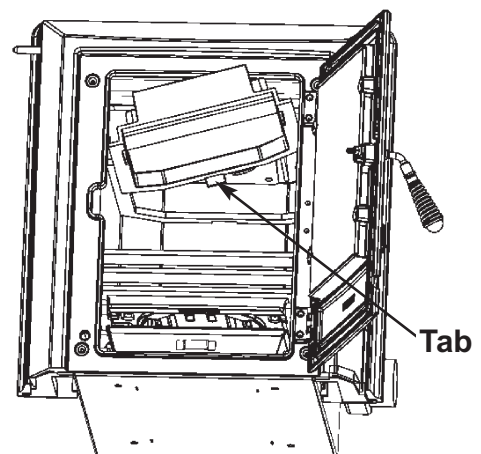
Step 17

Plumb the boiler - See Plumbing Section. Check all connections for leakage before insulating the boiler and infilling the system.

Step 18

Fill the void around boiler with fire retardent insulating wool.

Fig.9



FRONT REMOVAL & FITTING

If necessary the front casting can be removed to improve access at the side of the product when making the connections. First remove the screws fixing the door to the hinges while supporting the door and ensuring the surface does not get damaged (extra care is needed on enamel finish).

Then remove the 4 front fixing screws (see Fig.10) which will allow the front casting and the surrounding shroud to be removed from the boiler by sliding it to the left to clear the secondary air control rod and then pulling it forward, in some circumstances it may be necessary to unscrew the secondary air control rod before removing the front. The wall flange can then be removed by unscrewing the fixings on top and sliding it up clear of the guides. (see Fig.11)

Make the required connections and replace the front in reverse order making sure that the front seals fully to the boiler.

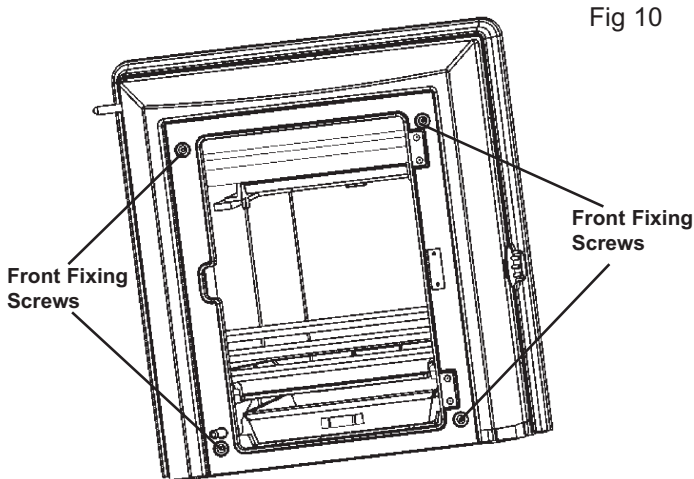


Fig 10

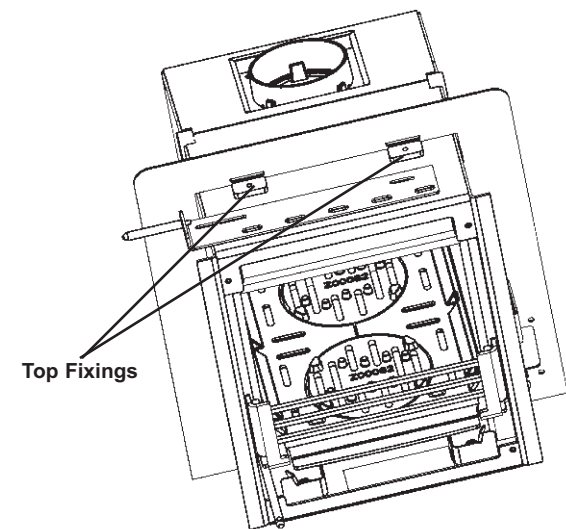
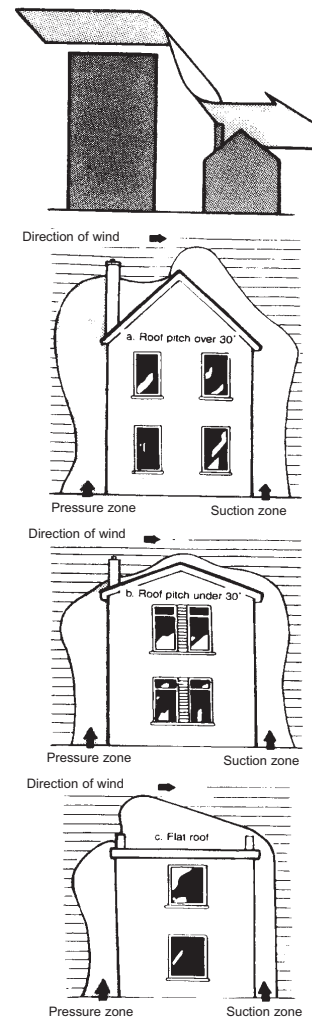


Fig 11

DOWN DRAUGHTS

However well designed constructed and positioned, the satisfactory performance of the flue can be adversely affected by down draught caused by nearby hills, adjacent tall buildings or trees. These can deflect wind to blow directly down the flue or create a zone of low pressure over the terminal. A suitable anti-down draught terminal or cowl will usually effectively combat direct down blow but no cowl is likely to prevent down draught due to a low pressure zone. (See Fig.12)

Fig 12



VENTILATION AND COMBUSTION AIR REQUIREMENTS

It is imperative that there is sufficient air supply to support correct combustion. The minimum effective air requirement for this appliance is 54cm². When calculating combustion air requirements for this appliance use the following equation: 550mm² per each kW of rated output above 5 kW should be provided, where a flue draught stabiliser is used the total free area shall be increased by 300mm² for each kW of rated output. If there is another appliance using air fitted in the same or adjacent room, it will be necessary to provide an additional air supply.

Especially Airtight Properties:-

If the stove is being fitted in a property where the design air permeability is less than 5m³ / (h.m²) (normally newer properties built from 2006), then a permanent ventilation must be fitted to provide 550mm² of ventilation for each kW of rated output. If a draught stabiliser is also fitted then the requirement is 850mm² per kW of rated output.

All materials used in the manufacture of air vents should be such that the vent is dimensionally stable, corrosion resistant, and no provision for closure. The effective free area of any vent should be ascertained before installation. The effect of any grills should be allowed for when determining the effective free area of any vent. Air grills should be positioned so that they are not liable to blockage.

Air vents direct to the outside of the building should be located so that any air current produced will not pass through normally occupied areas of the room.

An air vent outside the building should not be located less than the dimensions specified within the Building Regulations and B.S. 8303: Part 1 from any part of any flue terminal. These air vents must also be satisfactorily fire proofed as per Building Regulations and B.S. 8303: Part 1.

Air vents in internal walls should not communicate with bedrooms, bedsits, toilets, bathrooms or rooms containing a shower.

Air vents traversing cavity walls should include a continuous duct across the cavity. The duct should be installed in such a manner as not to impair the weather resistance of the cavity.

Joints between air vents and outside walls should be sealed to prevent the ingress of moisture. Existing air vents should be of the correct size and unobstructed for the appliance in use. If there is an extraction fan fitted in adjacent rooms where this appliance is fitted, additional air vents may be required to alleviate the possibility of spillage of products of combustion from the appliance/flue while the fan is in operation. Refer to B.S. 8303 Part 1.

Where such an installation exists, a test for spillage should be made with the fan or fans and other appliances using air in operation at full rate, (i.e. extraction fans, tumble dryers) with all external doors and windows closed.

If spillage occurs following the above operation, an additional air vent of sufficient size to prevent this occurrence should be installed.

PERMANENT AIR VENT

The stove requires an adequate air supply in order for it to operate safely and efficiently. The installer may have fitted a permanent air supply vent into the room in which the stove is installed to provide combustion and/or ventilation air. This air vent should not under any circumstances be shut off or sealed.

Extractor Fan

There must not be an extractor fan fitted in the same room as the stove as this can cause the stove to emit smoke and fumes into the room.

Outside Air Kit / External Ducted Air (Optional)

An Outside Air Kit is available as an optional extra, please contact your local dealer for details.

'HETAS product approval covers this appliance when installed in accordance with the manufacturer's instructions and relevant standards. As there is currently no standard for Ducted Combustion Air Supply this does not fall within the remit for HETAS product approval. Responsibility for the specification of this and for appropriate manufacturer's instructions is carried by the appliance manufacturer, as allowed for under the Building Regulations.'

COMMISSIONING & HANDOVER

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

On completion of the installation and commissioning ensure that the operating instructions for the stove are left with the customer. Ensure to 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 what to do should smoke or fumes be emitted from the stove. The customer should be warned to use a fire guard to BS 6539 in the presence of children, aged and/or infirm persons.

LOCATION

There are several conditions to be considered in selecting a location for your stove.

- A. This product is designed to be installed into a fire-place.
- B. Allowances for proper clearances to combustibles.
- C. Plumbing, gravity circulation to cylinder.

CLEARANCE TO COMBUSTIBLES

This appliance must be installed in a recess, the recess should not contain any combustible materials. Wooden battens and plaster board should not be used within the clearance to combustibles. The minimum clearance to combustibles required is 200mm to the top, 150mm to the sides, 550mm directly to the front and 350mm to any combustible flooring.

FLOOR PROTECTION

This appliance must be installed on a solid, level, concrete base, a non combustible hearth conforming to current Building Regulations must extend to the front of the appliance.

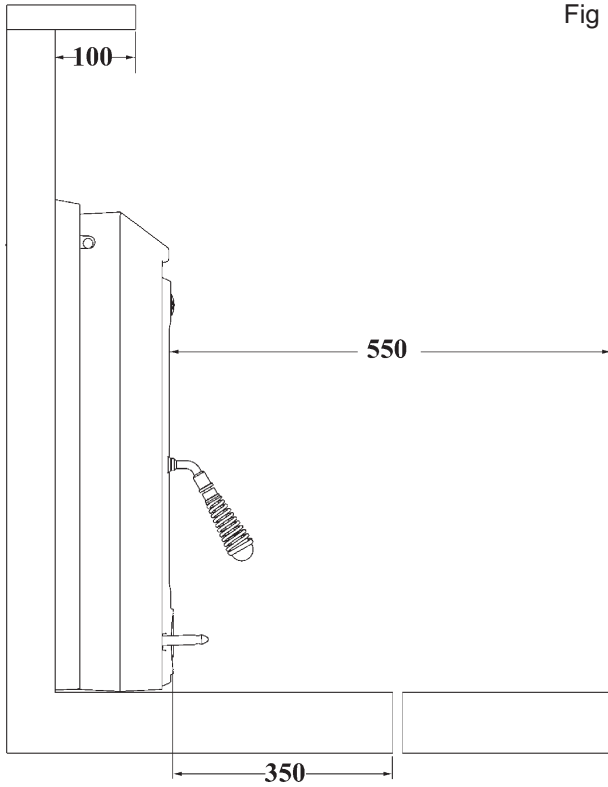
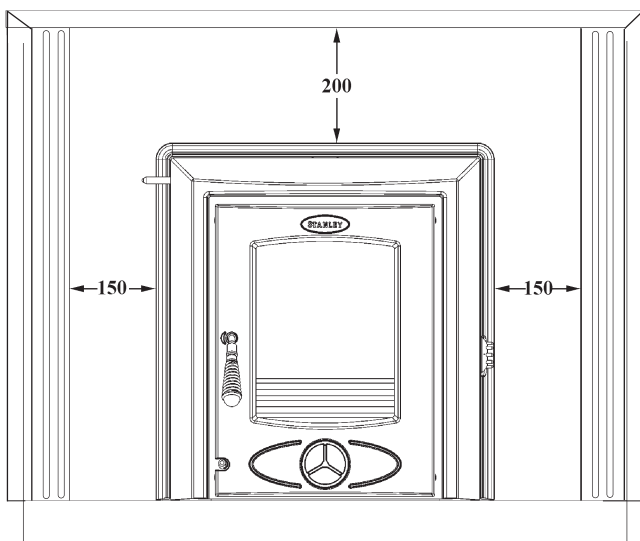


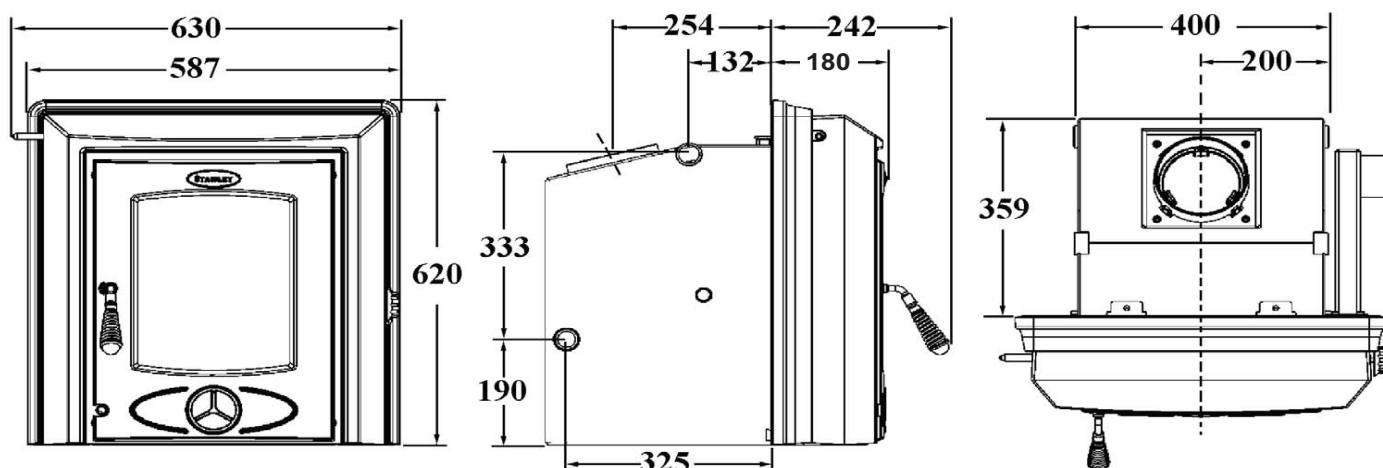
Fig 13

Fig 14



STOVE DIMENSIONS

Fig.15



TECHNICAL DATA

	MANUFACTURED SMOKELESS FUEL			WOOD		
	Room	Water	Total	Room	Water	Total
Max Output: (kW)	3.7	13.2	16.9	5	8	13
Nominal Output: (kW)	2.8	12	14.8	4.2	6.9	11.1
Typical refuelling intervals to obtain nominal outputs:	MSF 1.5 hr			WOOD 1 hr		
Flue Gas Mass Flow:	8.0g/s			8.0g/s		
Flue Gas Mass at nominal output:	427°C			270°C		
Gross Weight:	165 kgs					
Flue Outlet Diameter:	125mm					
Flue Draught:	12 Pa					
Boiler Tappings:	1" BSP					
Boiler Capacity	10 Litres					
Max Water Pressure:	2 Bar					
Efficiency:	73.6 %			77.3%		
Log Size:	N/A			420mm		

PLUMBING

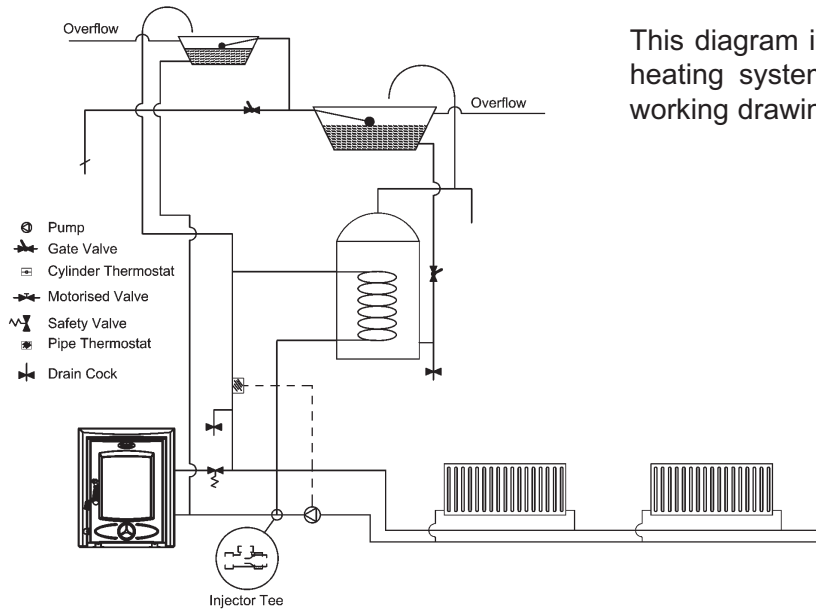
REGULATIONS

The plumbing must be in accordance with all relevant regulations and practices. It must include a gravity circuit with expansion pipe, open to the atmosphere. The central heating will normally be pump-driven as with other types of boilers.

GRAVITY CIRCUIT

The gravity circuit consists of the domestic hot water tank of 135 litres indirect cylinder, fixed in an upright position, recommended for hot water storage and it should be connected to the boiler by 28mm diameter flow and return piping. The pipes should not exceed 7.8 meters (25ft) in length and cylinder and pipework should be fully lagged. The shorter the run of pipe work the more effective the water heating.

Fig.16



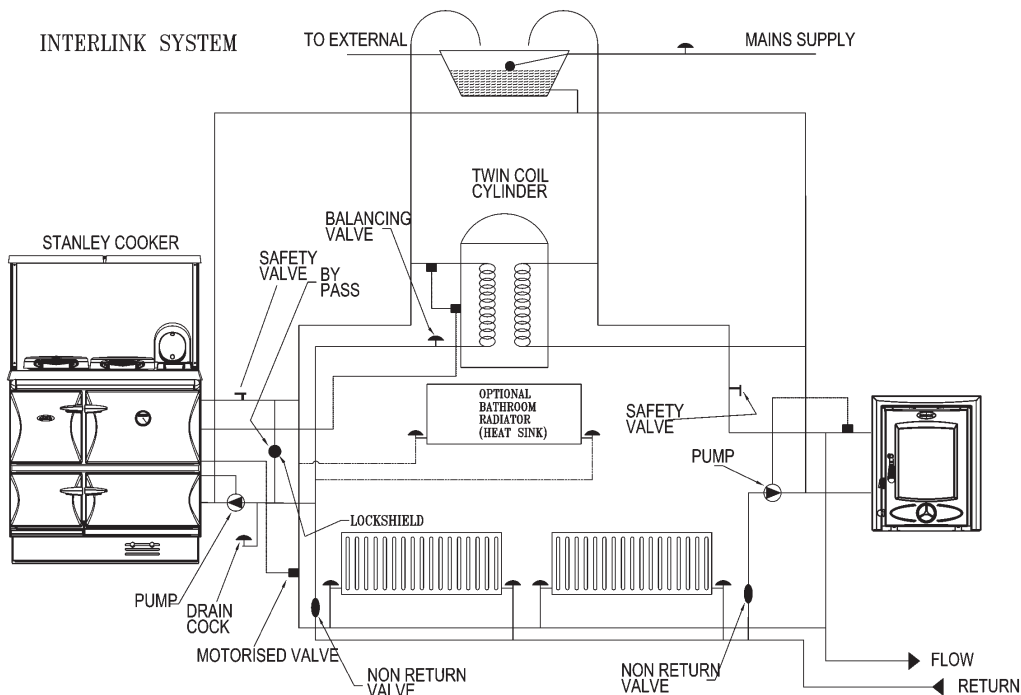
There must be no gate valves on this circuit and it must have an expansion pipe exhausting to atmosphere. Cylinder and pipe work should be lagged to minimise heat loss.

The water system must be properly vented and a double-feed indirect cylinder to the current issue of BS 1566, Copper indirect cylinders for domestic purposes, Part 1 Specification for double feed indirect cylinders is necessary where there is a combined hot water and central heating system

The water system must be properly vented, a double-feed indirect cylinder to the current issue of BS 1566, Copper indirect cylinders for domestic purposes, Part 1 Specification for double feed indirect cylinders is necessary where there is a combined hot water and central heating system.

This diagram illustrates the basic principal of water heating systems and must not be regarded as a working drawing. See Fig.16.

Fig.17



INJECTOR TEE

Where the gravity and central heating circuits join together to return to the stove we recommend the use of an injector tee connection, situated as close to the unit as possible. This type of tee encourages a stable flow of water through both circuits and helps to prevent priority being given to the stronger flow, which is most commonly the pumped central heating circuit.

DRAIN COCK

To allow the central heating system to be drained a 'drain cock' should be fitted at the lowest part of the system.

WATER CIRCUIT TEMPERATURE

The return water temperature should be maintained at not less than 40°C so as to avoid condensation on the boiler and return piping. Fitting a pipe thermostat to the flow pipe of the gravity circuit and wiring it into the pump control will ensure rapid circulation of the hot water.

In some circumstances it may be possible to over-heat the appliance and the water inside will boil. This will be evident by the sound of a knocking noise coming from the appliance and pipes around the house. If this occurs close off all air controls and manually start the central heating pump. One radiator on the heating circuit should remain uncontrolled, this radiator will provide a heat leak and prevent the situation where there is nowhere to discharge hot water should the heating controls be satisfied. Be aware that steam and boiling water will be expended from any open vent from the heating system probably in the roof space at the expansion tank.

In the unlikely event that the appliance is not operating in freezing conditions the water must be drained from the boiler to prevent frost damage.

PIPE THERMOSTAT

The fitting of a pipe thermostat to the flow pipe is essential in order to activate the water circulation pump when the water reaches the selected temperature.

When the water temperature falls below the selected temperature the pipe thermostat will cut off the water circulation pump in order to allow the boiler to recover. See Fig.17.

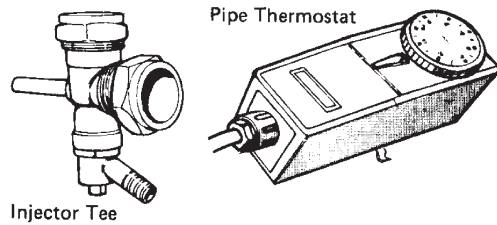


Fig 18

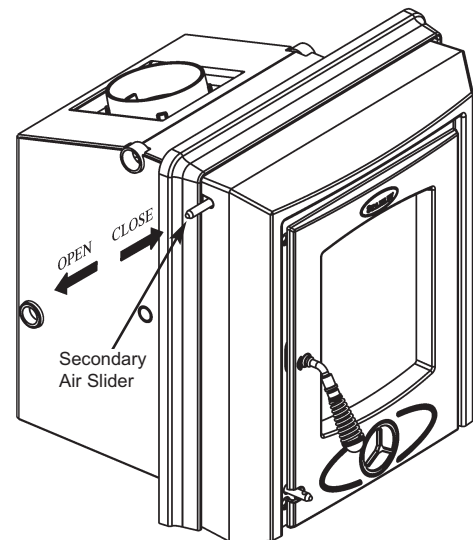
SECONDARY AIR CONTROL - SLIDER

When burning wood, pull the secondary air slider situated on the left hand side out fully. The air control is a slider operation, pull to open and push to close.

The control can be gradually moved between fully open and fully closed for the desired setting. Fully open will be the hottest setting, as this will provide the maximum air to the fire and will help to clean the glass even after it has become sooty. This control can be used in conjunction with the primary air but generally the fire will perform best if the slider is used when burning wood and the primary air control is used when burning manufactured smokeless fuels. These controls are hot when the appliance is in use. **Use the glove provided to operate air controls and door handle when they are hot.** See Fig 19.

NOTE: When burning anthracite the secondary air control must be closed.

Fig 19



PRIMARY AIR CONTROL

When burning manufactured smokeless fuels, the primary air control knob located on the right hand side controls the primary air supply to the stove. For maximum heat output and burn rate rotate the knob fully in a clockwise direction. For a minimum burn rate rotate the knob fully in an anti-clockwise direction until fully closed. See Fig 20

When burning wood the primary air control should be closed or open a minimal amount to maintain the fire.

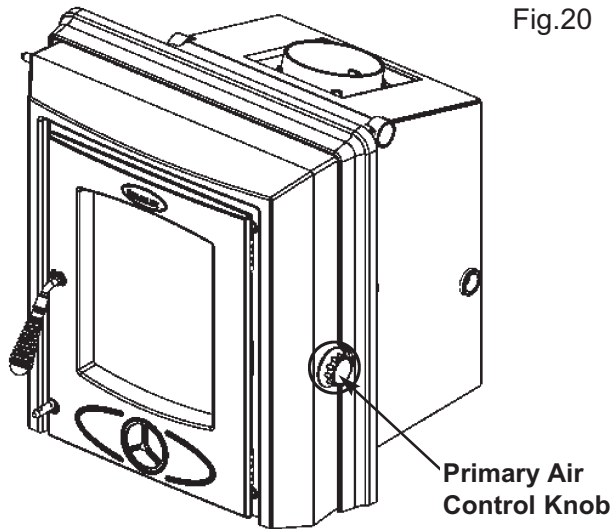


Fig.20

NOTE:-

A boiler model stove will provide heat into the boiler and also to the room in which it is situated. The heat to room is in a fixed relationship with the heat to the boiler.

The heat to the boiler is controlled by the air supply to the stove which is required to have a thermostatic damper for safety reasons. When the temperature of the water in the boiler exceeds 55 °C the thermostatic damper will begin to shut off the air supply, should the water temperature continue to rise the thermostatic damper will continue to close and if the water temperature reaches 85 °C the thermostatic damper closes the primary air supply fully.

In the event where a stove is fitted to a central heating system which is undersized in relation to the nominal heat output to boiler then the stove will operate satisfactorily but will be unable to achieve the nominal heat output to room as the thermostatic damper will shut off the air supply to prevent an overheat situation in the boiler.

For example:- Where a stove provides 2kW to the room and 8kW to the boiler and if the thermostatic damper shuts down the air supply to provide 4kW to the boiler, then the heat to room will decrease proportionally to 1kW.

RECOMMENDED FUELS

All fuels should be stored under cover and kept as dry as possible prior to use.

This appliance has been tested using seasoned wood logs and manufactured briquetted smokeless fuel (Ancit) for closed appliances, sized between

20g and 140g. Other fuels are commercially available and may give similar results. Wood logs up to 420mm long are suitable. All fuels should be stored under cover and kept as dry as possible prior to use.

Do not use fuels with a Petro-coke ingredient as this may cause the grate to overheat, causing damage. Reduced outputs will result when fuels of lower calorific values are used. Never use gasoline or gasoline type lantern fuel, kerosene, charcoal lighter fluid or similar liquids to start or freshen up a fire in this heater. Keep all such liquid well away from the heater at all times. The appliance should not be used as an incinerator. Operate the stove only with the fuelling door closed except for re-fuelling.

This stove has obtained HETAS approval for burning natural and manufactured smokeless fuels only as detailed in recommended fuels below. HETAS Approval does not cover the use of other fuels either alone or mixed with the recommended fuels listed, nor does it cover instructions for the use of other fuels.

DOOR HANDLE OPERATION

The stove is supplied with a detachable door handle. To open the door, insert the silver end of the handle into the door latch on the fire door, turn the handle clockwise and pull the door towards you. To close the door, insert the handle into the door latch as

before, push the door closed, turn the handle anti-clockwise to engage the door catch and remove the door handle.

Alternatively the door handle supplied can be fixed in place. To fix the door handle remove the spigot from the end and thread the handle directly into the door latch.

The glove provided should be used to open/close the door when the stove is hot.

RE-FUELLING

When refuelling with manufactured smokeless fuel riddle the fire by connecting the grate operating tool onto the rocker connection located at the bottom front of the stove. Then gently pull and push the rocker arm until all dead ash has fallen through into the ashpan. Before opening the door, open the primary air by turning the knob clockwise, as this will help to eliminate any smoke or fly ash resident in the combustion chamber. Add fuel to fire, taking care not to overfill higher than the front firebars. Close

fire door and re-set control knob to required setting. Do not operate this appliance with the fire door open. (See Fig.21)

When burning wood the requirement to riddle the fire is much less. Do not riddle the fire with the primary air open but fully open the secondary air control instead. Remember to reset the controls after refuelling.

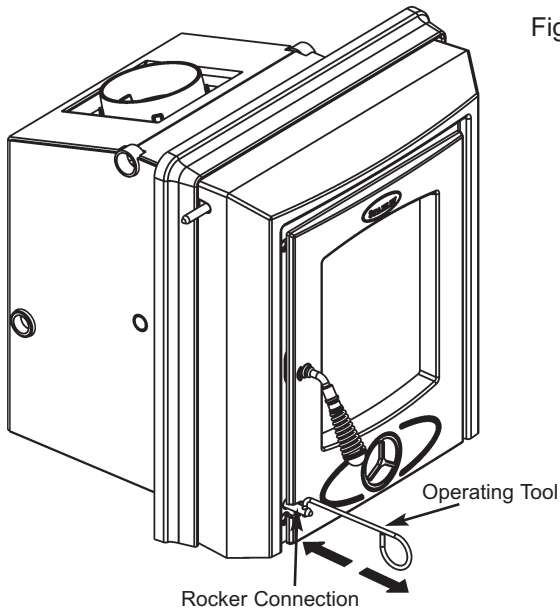


Fig.21

SLOW BURNING

To achieve slow burning when burning wood close the secondary air slide and open a few millimetres using the tool provided. Slow burning will cause the window glass to blacken and should not be used for a long period as it will leave sooty deposits in the flueways. Opening the air slide will increase the heat output and will clear the glass.

To obtain slow burning when burning coal, close the secondary air fully and partially open the primary air control.

DE-ASHING

Never allow the ashpan to over fill as it will cause damage to the grate. Empty the ashpan before lighting. Always ensure that ashes have thoroughly cooled before removing the ashpan. To remove the ashes open the fire door and slot the long tool onto the ashpan. Then lay the ashpan caddy over the tool and align directly in front of the ashpan. Pull the tool to draw the ashpan into the caddy. See Figs.22& 23. Close the fire door. When the ash is disposed of, replace the empty ashpan. Do not leave the fire unattended with the fire door open, even for a minute.

WARNING - NEVER DISPOSE OF ASH WHEN STOVE IS LIGHTING.

Fig.22

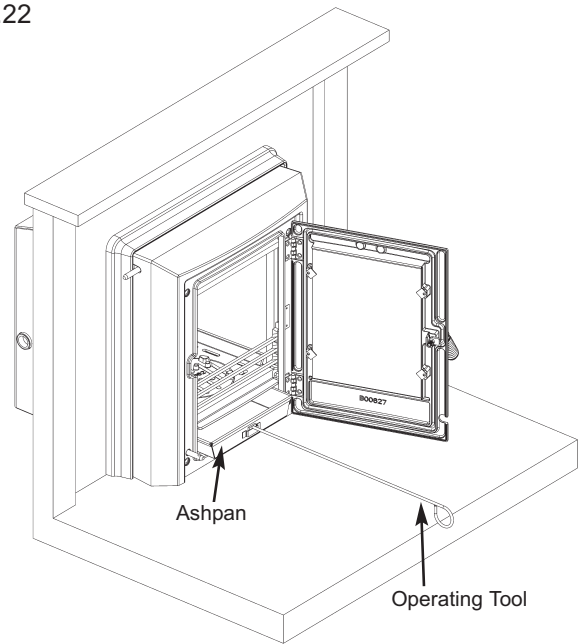
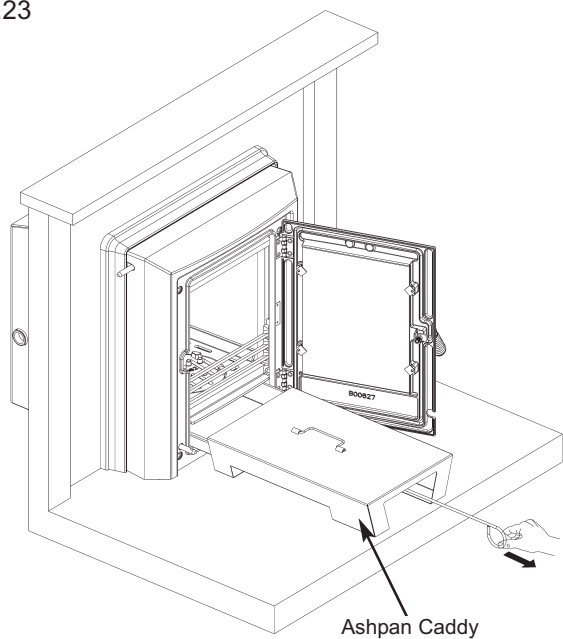


Fig.23



MAINTENANCE

CREOSOTE: Formation and Need for Removal

When some fuels are burned slowly, they produce tar and other organic vapours, which combine with expelled moisture to form creosote. The creosote vapours condense in the relatively cool chimney flue of a slow-burning fire. As a result, creosote residue accumulates on the flue lining. When ignited creosote makes an extremely hot fire.

CHIMNEY CLEANING

The chimney should be cleaned twice annually. The chimney can be cleaned through the stove by removing the fire lining and the baffle. The flue liner should be cleaned in accordance with manufacturers instructions. Always use a brush with plastic bristles that is the correct size to reach all areas of the flue. **REMEMBER COAL GASES ARE TOXIC**

WARNING NOTE

Properly installed, operated and maintained this stove will not emit fumes into the dwelling. Occasional fumes from de-ashing and re-fuelling 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:

- (a) Open doors and windows to ventilate room and then leave the premises.
- (b) Let the fire out .
- (c) Check for flue or chimney blockage and clean if required.
- (d) 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 flue-way or chimney blockage. For your own safety these must be kept clean at all times.

IMPORTANT NOTES

Now that your Solid Fuel stove is installed and no doubt you are looking forward to many comforts it will provide, we would like to give you some tips on how to get the best results from your stove.

1. We would like if you could take some time to read the operating instructions/hints, which we are confident, will be of great benefit to you.
2. Do not burn fuel with a high moisture content, such as a damp peat or unseasoned timber. This will only result in a build up of tar in the stove and in the chimney and the possibility of a chimney fire.
3. **CLEAN THE FLUE-WAYS OF THE STOVE EVERY WEEK AND ENSURE THAT THERE ARE NO BLOCKAGES. CHECK FLUEWAYS BEFORE LIGHTING ESPECIALLY AFTER A SHUT-DOWN PERIOD. PLEASE REFER TO MANUAL FOR INSTRUCTIONS.**
4. Before loading fresh fuel into the firebox, riddle fully to remove all ashes this will allow better and cleaner burning. See Re-Fuelling Section.
5. Never allow a build up of ashes in the ash pan, as this may cause the grate to burn out prematurely.
6. Allow adequate air ventilation to ensure plenty of air for combustion.
7. Do not burn rubbish/house hold plastic.

8. Clean the chimney at least twice a year.
9. Burning soft fuels such as timber and peat will stain the glass. Regular cleaning will prevent permanent staining.
10. Keep all combustible materials a safe distance away from the appliance, please see section for clearances to combustibles.
12. Never use Aerosols near stove when alight.
11. For safety reasons never leave children or the elderly unaccompanied while stove is in use. Use a fireguard.
12. Avoid contact with appliance when in use as the stove reaches very high operating temperatures.
13. This appliance should be regularly maintained by a competent service engineer. Use only replacement parts recommended by Waterford Stanley. Using unauthorised parts will invalidate your guarantee and may cause damage or injury.

AN ODOUR WILL EMIT FROM STOVE ON FIRST FIRING, WHEN FIRE REACHES MAXIMUM TEMPERATURE OVER A NUMBER OF HOURS THIS ODOUR WILL SUBSIDE.

IT IS BEST ADVISED TO OPEN WINDOWS DURING THIS PERIOD.

THIS ODOUR IS UNPLEASANT BUT NOT TOXIC. YOU MAY WISH TO VACATE THE ROOM WHILE THE PAINT CURES.

LIGHTING

Before lighting the stove check with the installer that the installation work and commissioning checks described in the installation instructions have been carried out correctly and that the chimney has been swept clean, is sound and free from any obstructions. As part of the stoves commissioning and handover the installer should demonstrate how to operate the stove correctly.

IMPORTANT: The first few fires should be relatively small to permit the refractory to set properly and to season the stove.

1. Before lighting the stove, ensure that any build-up in the firebox has been removed and that the ashpan has been emptied.
2. Open the primary air control by turning it clockwise. Open secondary air control by sliding it to the left. These parts will become hot. Use the tool or glove provided.
3. Lay a few crumpled sheets of paper on the grate and then a few small sticks, kindling or an approved firelighter. Ignite and close the door.
4. Never use inflammable liquid i.e. gasoline, petrol paraffin etc. to start or freshen up a fire in this heater.
5. When the fire is well established add fuel to the firebox. Adjust to the desired primary setting and / or the secondary air slide depending on the fuel burned. (See Re-Fuelling Section).
6. To shut the fire down, do not add fuel. Make sure that the fire door is properly closed, that the primary air control is firmly shut and the secondary air slide is pushed fully into the right. Cutting off the air supply will reduce the heat output.

CO ALARMS

Building Regulations require that whenever a new or replacement fixed solid fuel or wood/biomass appliance is installed in a dwelling a carbon monoxide alarm must be fitted in the same room as the appliance. Further guidance on the installation of the carbon monoxide alarm is available in BS EN 50292:2002 and from the alarm manufacturer's instructions.

Provision of an alarm must not be considered a substitute for either installing the appliance correctly or ensuring regular servicing and maintenance of the appliance and chimney system.

Your installer should have fitted a CO alarm in the same room as the appliance. If the alarm sounds unexpectedly, follow the instructions given under "Warning Note" below.

WARNING:-

If the CO Alarm sounds unexpectedly:-

1. **Open Doors and windows to ventilate the room and then leave the premises.**
2. **Let the fire go out.**

FIRE SAFETY

To provide reasonable fire safety the following should be given serious consideration:

1. The installation of smoke detectors.
2. A conveniently located fire extinguisher to contend with small fires resulting from burning embers.
3. A practical evacuation plan.
4. A plan to deal with a chimney fire as follows:
 - a. Notify the fire department.
 - b. Prepare occupants for immediate evacuation.
 - c. Close all openings into the stove.
 - d. While awaiting the fire department watch for ignition to adjacent combustibles from overhead stove pipe or from embers or from sparks from the chimney.

FROZEN SYSTEM

If there is any possibility that the water system may be frozen do not attempt to light the stove until you are certain there is no ice in the system possibly causing a blockage.

GLASS

1. How to clean:

The glass will clean itself when there is sufficient heat generated by burning fuel. If a build-up of creosote occurs on the glass it may be due to draft conditions, poor quality fuel or very slow burning for a long time. Only clean glass when the stove is thoroughly cooled. Clean with a liquid detergent taking care not to scratch the glass with any coal ash deposits.

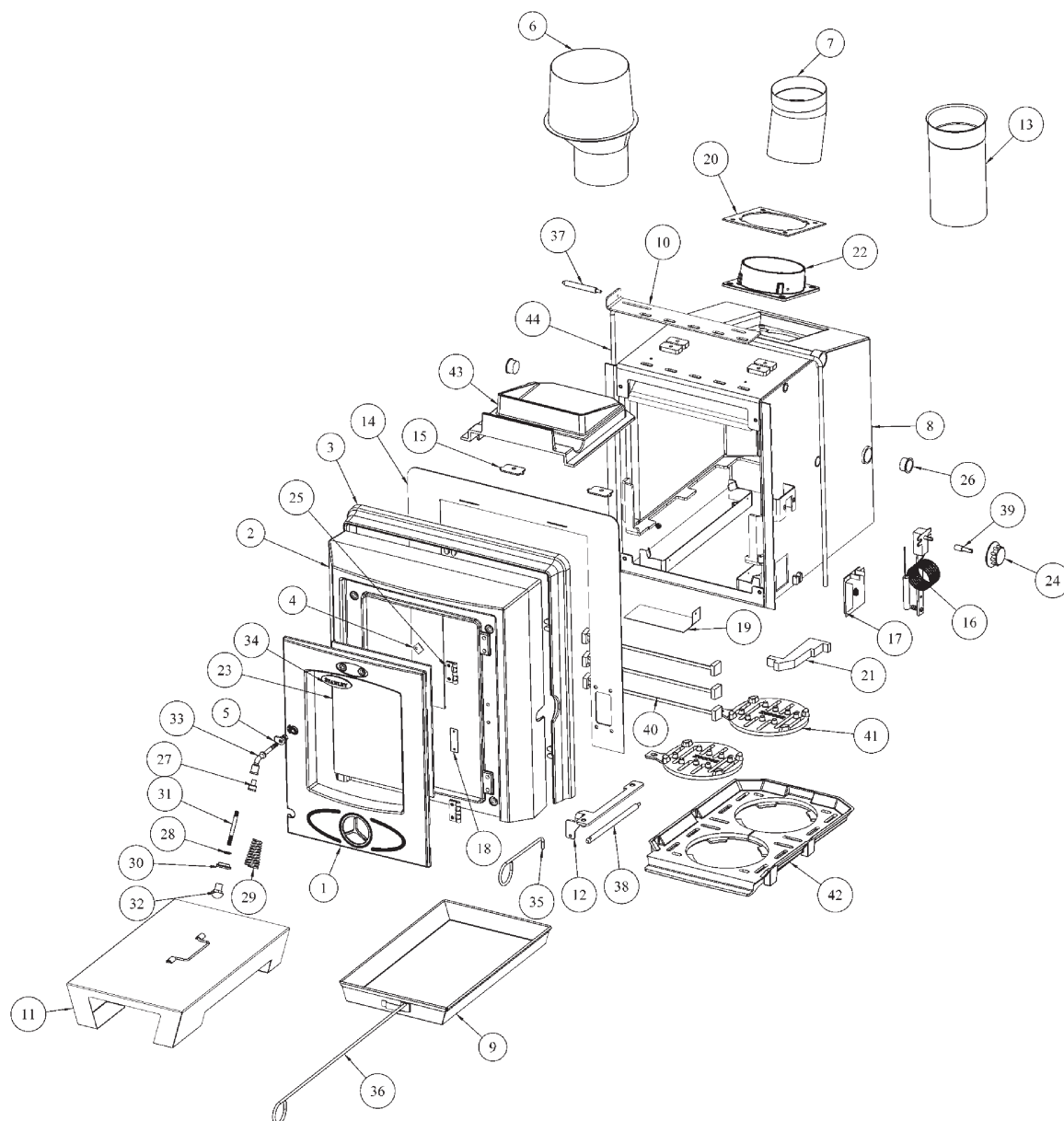
2. Glass Replacement::

- a. Open the door fully.
- b. Remove the clips and carefully remove the broken glass.
- c. Clean the glass recess in the door.
- d. Place the glass into the door recess and replace the four corner clips.
- e. Tighten screws.
- f. Replace glass only with ceramic glass 5mm thick.

SUMMER SHUTDOWN

For summer shutdown of the stove, ensure all ashes have been cleaned from the ash compartment and that the air control is open, to avoid condensation in the stove firebox and possible corrosion during this shutdown period.

EXPLODED VIEW



- | | |
|---|--|
| 1. FIRE DOOR - B00627AZZ | 24. AIR CONTROL KNOB - U00006AXX |
| 2. FRONT CASTING - B00628AZZ | 25. HINGE - U00153AXX |
| 3. FRONT CASTING SHROUD - B00632AZZ | 26. BOILER PLUG - V00016AXX |
| 4. DOOR GLASS CLIP - F00003AXX | 27. SPIGOT TO DOOR HANDLE - V00021AXX |
| 5. DOOR CATCH - F00928AXX | 28. BLACK NYLON CAP WASHER - V00669AXX |
| 6. 8 - 5"ADAPTOR - F01201AXX | 29. BLACK COIL SPRING HANDLE - V00806AXX |
| 7. 15 DEG ADAPTOR - F01200AXX | 30. BLACK DIA INCREASING COLLAR - V00807AXX |
| 8. BOILER ASSEMBLY - F01106AXX | 31. BLACK M8 X 80 SPINDLE - V00808AXX |
| 9. ASH PAN - F01137AXX | 32. BLACK HANDLE END CAP - V00850AXX |
| 10. AIR WASH SLIDER PLATE - F01143AXX | 33. DOOR AXLE - V00857AXX |
| 11. ASHPAN CADDY - F01149AXX | 34. BADGE - V00912AXX |
| 12. LINKAGE ASSEMBLY - F01181AXX | 35. TOOL - V01018AXX |
| 13. 5" X 250MM STRAIGHT PIPE - F01199AXX | 36. ASHPAN TOOL - V01019AXX |
| 14. WALL FLANGE PLATE - F01264AXX | 37. AIR WASH PULL ROD - V01021AXX |
| 15. WALL FLANGE FIXING PLATE - F01265AXX | 38. RIDDLE PULL ROD - V01030AXX |
| 16. THERMOSTAT - G00001AXX | 39. THERMOSTAT CONNECTOR SHAFT - V01039AXX |
| 17. DAMPER PLATE ASSY - L00667AXX | 40. FIRE FENCE - Z00020AXX |
| 18. SERIAL NUMBER PLATE - N00234BXX | 41. GRATE - Z00062AXX |
| 19. DATA PLAQUE - N00580AXX | 42. GRATE HOLDER - Z00063AXX |
| 20. FLUE GASKET - P00102AXX | 43. TOP BAFFLE - Z00064AXX |
| 21. AIR SEAL SPONGE - P00111AXX | |
| 22. 5" FLUE - Q00752AXX | |
| 23. 16" DOOR GLASS - T00098AXX | |

SYMPTOM	POSSIBLE CAUSES	REMEDY
Stove Difficult To Light	Air controls set incorrectly	Air controls must be set to maximum settings on initial light-up
	Moisture content of fuel too high	Ensure fuel is sufficiently dry
Fire Burns Too Quickly	Air controls set incorrectly	Adjust Air controls
	Rope seals perished/worn	Replace rope seals
	Excessive Chimney Draught	Seek professional chimney advice
Fire Burns Too Slowly/Low Heat Output To The Room	Air controls set incorrectly	Adjust Air controls
	Insufficient flue draught	Seek professional chimney advice
	Ash buildup	Do not allow ashpan to overflow
	Thermostat shutting down as hot water is not being dissipated from the boiler	<ol style="list-style-type: none"> 1. Unit not connected to enough radiators 2. Ensure all radiators valve turned on 3. Check pump operation & associated pipe stat position
Fire Bricks Cracked	Normal wear and tear	Replace firebricks when they begin to crumble as opposed to showing minor cracks
Grate Cracked	Build up of ash causing overheating	Replace the grate and do not allow ashpan to overflow
	Operation with the ash door open	While the stove is in operation the door should be closed
	Burning non approved fuel	Burn the correct fuel
Glass Sooting Up	Air wash not working	Open the air wash control
	Moisture content of fuel too high	Ensure fuel is sufficiently dry
	Fuel excessively dirty	Use smokeless fuel
	Insufficient flue draught	Seek professional chimney advice
	Air controls set to minimum settings	Operate the stove at or close to the nominal output
Smoking On Refuelling	Air controls set incorrectly	Air controls should be fully open prior to refuelling
	Insufficient flue draught	Seek professional chimney advice
	Chimney or flueways in stove have become partially blocked	Clean the flueways in the stove. If problem persists have the chimney cleaned by a suitable competent person
	Lack of combustion air	Ensure adequate sized air vent / air supply to the room
	Top baffle fitted incorrectly	Consult instructions to ensure baffle fitted in correct orientation

SYMPTOM	POSSIBLE CAUSES	REMEDY
Creosote/Tar Build-up in Firebox and on Flue Pathways	Insufficient flue draught	Seek professional chimney advice
	Moisture content of fuel too high	Ensure fuel is sufficiently dry
	Fuel excessively dirty	Use smokeless fuel
	Air controls set to minimum settings	Constant low burning can produce excessive soot
Smells From Stove/Installation	Final cure of the painted surfaces	This odour is unpleasant but not toxic. It is best advised to ventilate the room and leave unoccupied.
	Incorrect sealant used	All flue Joints must be sealed with fire cement only
	Flue gather not cleaned prior to installation	Soot deposits on existing fireplace/flue gather could possibly burn off when the unit & the surrounding area is heated up.
	Insufficient flue draught	Seek professional chimney advice
Water In Base Of Stove	Condensation on light up	It is acceptable to have a little condensation on start up, when the fire is established condensation should not be present
	Condensation as the circulation pump is not properly controlled.	The pump should be controlled by a pipe stat attached to the flow (or return) pipe to the cylinder.
	Moisture content of fuel too high	Use seasoned wood logs
	Leak in boiler	Replace the boiler





STANLEY SOLID FUEL STOVE WARRANTY

CONDITIONS OF WARRANTY

Your Stanley Solid Fuel Stove is guaranteed against any part that fails (under normal operating conditions) as detailed in the following table with timelines specified from the date of installation of the appliance. If the unit is not installed within six months of date of purchase, the warranty will commence six months from the date of purchase.

Warranty Period	Parts Covered (Parts & Labour unless Stated)
Up to 1 Year	<ul style="list-style-type: none"> • Refractory materials (supply only) • Rope seals, glass seals and cement seals. • Surface Finish on Seno models. • Grates and fire bars. • Ceramic glass is covered for Thermal breakage (supply only). • Rust (if reported before installation) • Aesthetic Damage (provided reported on date of receipt)
Up to 5 Years	<ul style="list-style-type: none"> • All external castings & enamel finishes (excluding impact damage or damage caused by overfiring). Pictures of damage must be submitted to WS Service Department.
Up to 3 Years	<ul style="list-style-type: none"> • Boiler - A Leaking Boiler Report must be conducted by an Authorised Stanley Service Engineer and submitted to WS Service Department for review.

The warranty is given only to the original consumer/purchaser only and is non-transferable. The appliance must be installed by a suitable qualified person and installed as per the requirements of the manual. Failure to comply with the installation requirements will void your warranty. Waterford Stanley reserve the right to replace any part due to manufacturing defect that fails within the warranty period under the terms of the warranty. The unit must be used for normal domestic purposes only and in accordance with manufacturer's operation instructions.

LIMITS OF LIABILITY

The warranty does not cover:

- * Special, incidental or consequential damages, injury to persons or Property, or any other consequential loss.
- * Any issue caused by negligence, misuse, abuse or circumstances beyond Waterford Stanley's control.
- * Any issue with wear and tear, modification, alteration, or servicing by anyone other than an authorized service engineer.
- * Installation and operational related problems such as draught related issues external to the stove, inadequate venting or ventilation, excessive flue offsets, negative air pressure caused by insufficient burning of improper fuel.
- * Damage caused to the unit while in transit.
- * Enamel discolouration due to over firing, enamel damage caused by impact, damage to baffles caused by over firing and fading of surface finish on casting.
- * Stress fractures on bricks.
- * Rust on cast iron parts unless reported prior to unit being installed.
- * Aesthetic damage, rust & missing parts on units purchased off display.

Note: Adequate clearance must be maintained around the appliance to ensure the ease of part removal in the possible event of their damage/failure. Waterford Stanley are not responsible for any costs incurred in the removal of items installed in the vicinity of the appliance that have to be moved to facilitate a part replacement.

All warranty claims must be reported to the Waterford Stanley Service Department and must be submitted with the product serial number (located on the front casting), date of purchase, proof of purchase (if requested) and details of the specific nature of the problem.

Manufactured by
Waterford Stanley Ltd.,
 Unit 401-403, IDA Industrial Estate, Cork Road,
 Waterford, Ireland.
 Tel: (051) 302300 Fax (051) 302315

