



## **Belleek Stove**

*Operating Instructions*

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## ***Warning***

Your appliance is hot while in operation and will retain 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 6539.

## ***Heritage Solid Fuel Stove***

### INSTALLATION & OPERATING INSTRUCTIONS

NOTE: Please note that it is our recommendation that the installation of the stove is carried out by a Competent Qualified Person.

#### ***General***

When installing, operating and maintaining your Heritage 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 complete installation must be done in accordance with current Standards and Local Codes. It should be noted that the requirements and these publications may be superseded during the life of this manual.

### ***Pre-Installation Assembly***

1. After removing the stove from its pack, open the fire door and remove all contents from the ash pan.
2. Fit the fire door handle using the screw provided.
3. Remove the stove from the pallet and position it in the final installation position (See Location & Clearance to Combustibles Section).

### ***Flues***

When installing, operating and maintaining your Heritage 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.

### ***Chimney***

Heritage Stoves are radiant room heaters and must be connected to a chimney of the proper size and type. The chimney must have a cross sectional area of at least 20 square inches 124 sq.cm or a diameter of at least 5" (125mm). Never connect to a smaller size chimney. Do not connect to a chimney serving another appliance. Minimum chimney height 15' (4.1 meters) from the floor on which the stove is installed. A flue that has proved to be unsatisfactory, particularly with regard to down draught should not be used for venting this appliance until it has been examined and any faults corrected. An existing masonry chimney should be inspected and if necessary repaired by a competent mason or relined using an approved lining system. The stove must be connected to a chimney with a minimum continuous draught of 0.06 w.g. Poor draught conditions will result in poor performance. All register plates, restrictor plates, damper etc., which could obstruct the flue at a future date should be removed before connecting this appliance. Where a masonry chimney is not available a proprietary type of 5"/6" -12.5/15cm twin wall, fully insulated pipe may be used. The pipe must terminate at a point not lower than the main ridge of adjacent outside obstructions. With such installation, access to the chimney must be provided for cleaning purposes.

## **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.

## **Ventilation & Combustion Air Requirements**

The minimum effective air requirement for this appliance is 132 cm<sup>2</sup>. When calculating combustion air requirements for this appliance use the following equation: 550mm<sup>2</sup> 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 300mm<sup>2</sup> 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.

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 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.

### **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.

## **Lighting**

Before lighting the fire, check that all dampers and catches are operating correctly and ensure that all flue connections are thoroughly sealed.

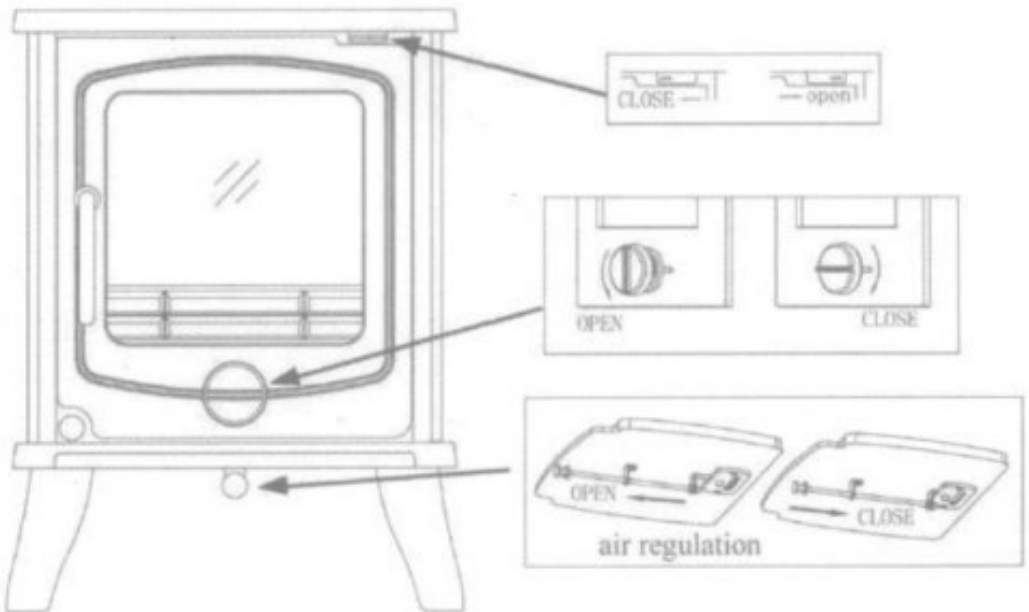
### **Primary Air Setting**

This is operated by a slider valve or a rotary valve (operated by turning in either a clockwise or anti clockwise direction) located at the bottom of the door. The operating valve controls the primary air supply to the stove, providing a conventional air draught to the bed of the fire. For maximum heat output and burn rate open the valve fully and for a minimum heat output and burn rate close the valve. You will soon learn the valve settings to best suit your requirements.

### **Secondary Air Setting**

The Heritage Stove is fitted with a sophisticated Air Wash System. The secondary air flow is controlled by a slider valve located at the top right of the stove.

Figure 4



### **Re-Fuelling**

Riddle the fire by the 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 ash pan. Before opening the door, open the primary air valve, as this will help to eliminate any smoke or fly ash resident in the combustion chamber. Add fuel to fire, close fire door and reset primary air valve to required setting.

Efficiency	81%
Emissions of Co	0.25%
Heating Output	5kw
Size	438x579x513mm
Boiler Size	N/A
Flue Size	150mm
Net Weight	110kg
Max log length	250mm
Air Wash	Yes
Clean Burn	Yes
Multi Fuel	Yes
Boiler Option	No
Ash Pan	Yes
Side Door	No





## Important Notes

Now that your Heritage solid fuel Stove is installed and no doubt you are looking forward to the 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 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.

### Recommended Fuel

Anthracite, smokeless fuels, peat briquettes and seasoned wood are all suitable fuels for consumption in your new stove. Do not use fuels with a Petro-coke ingredient. The stove output levels are assessed on standard House Coals of good quality (Grade A). Reduced outputs will result when fuels of lower calorific values are used. All fuels should be stored under cover and kept as dry as possible prior to use.

#### FUEL CALORIFIC VALUES - SOLID FUELS

<b>Anthracite</b> 25-50mm	C.V.: 8.2kW/Kg 14,000 BTUs/lb
<b>House Coal</b> 25-75mm	C.V.: 7.2kW/Kg 12,000 BTUs/lb
<b>Timber</b> Firebox size	C.V.: 5.0kW/Kg 8,600 BTUs/lb
<b>Peat Briquettes</b>	C.V.: 4.8kW/Kg 8,300 BTUs/lb
<b>Bog Peat</b>	C.V.: 3.4kW/Kg 6,000 BTUs/lb

3. Clean the flue-ways of the stove every week and ensure that there are no blockages
4. Before loading fresh fuel into the firebox, riddle fully to remove all ashes this will allow better and cleaner burning.
5. Never allow a build up of ashes in the ash pan, as this will cause the grate to burn out prematurely.
6. Avoid slow burning of damp or unseasoned fuel as this will result in tarring flue ways and chimney i.e. peat or timber.
7. Allow adequate air ventilation to ensure plenty of air for combustion.
8. Do not burn rubbish/household plastic.
9. Clean the chimney at least twice a year.
10. Burning soft fuels such as timber and peat will stain the glass. Regular cleaning will prevent permanent staining.
11. Keep all combustible materials a safe distance away from unit; please see section for clearances to combustibles.
12. For safety reasons never leave children unaccompanied while stove is in use.

13. Avoid contact with unit when in use as stove reaches very high operating temperatures.

14. 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.

### ***Lighting***

1. Before lighting the stove, ensure that any build-up in the firebox has been removed and that the ash pan has been emptied.
2. Fully open the Primary Air Valve and Secondary Air Valve.
3. Lay a few crumpled sheets of paper on the hearth and then a few small sticks, kindling or an approved firelighter.
4. Ignite and close the door.
5. Never use inflammable liquid i.e. gasoline, petrol paraffin etc. to start or “freshen up” a fire in this heater.
6. Once the fire is well established additional fuel can be placed on the grate you may then adjust the valve settings as required.
7. When using solid mineral fuels it is recommended once the fire is established to close the secondary air supply. The primary air can be adjusted to establish your comfort level.
8. Do not stack fuel above the height of the fire bricks.
9. Wood can be stacked higher in the stove than solid fuel however you must avoid stacking the wood against the baffle plate.
10. Wood will burn with secondary air only adjust the fire as required by controlling the secondary air flow.
11. Burn only dry, well seasoned or kilned dried wood. Burning wet or unseasoned wood will create tar deposits in the stove and flue. This will result in an unsatisfactory performance from your stove.

### ***Shutting Down***

In order to shut down the stove close the primary air and then the secondary air. Once the valves are closed the fire will starve of oxygen and will extinguish. If you require restarting the fire open the primary air first and then the secondary air supply

### ***De-Ashing***

Never allow ash pan to over fill as it will cause damage to fire bars. Open the fire door and remove ash pan using the operating tool. Close the fire door. When the ash is disposed of, replace the empty ash pan.

## ***Disposal of Ash***

Ashes should be placed in a metal container with a tight fitting lid. The closed container of ashes should be on a non-combustible floor or on the ground well away from all combustible materials pending final disposal. If the ashes are disposed of by burial in soil or otherwise locally dispersed they should be retained in the closed container until all cinders have thoroughly cooled.

## ***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.

**CHIMNEY CLEANING** The chimney and connector should be cleaned at least twice a year. Before the heating season commences and once again after the heating season has finished. The chimney connector and chimney should be inspected at least monthly during the heating season to determine if a creosote build-up has occurred. Remove the cast iron baffle plate located at the top end of the Fire bricks before chimney cleaning. When inspecting a masonry chimney, start at the cleanout door, normally found at the base of the chimney, or on the outside. If your chimney does not have a clean-out door one should be provided.

REMEMBER COAL GASES ARE TOXIC.

## ***Important Warning***

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

- (a) Open doors and windows to ventilate room.
- (b) Let the fire out or eject and safely dispose of fuel from the stove.
- (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 you own safety these must be kept clean at all times.

## **Fire Safety**

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

1. The installation of smoke detectors.
2. A conveniently located class 'A' 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 over head stove pipe or from embers or sparks from the chimney.

## **Glass**

### *Cleaning:*

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 low burning for a long time. Only clean glass when stove is thoroughly cooled.

### *Glass Replacements.*

1. Open the door fully.
2. Remove the four corner screws and clips and carefully remove the broken glass.
3. Clean the glass recess in the door.
4. Attach adhesive thermal tape to the perimeter of the replacement glass.
5. Place the thermal tape side of the glass into the door recess and replace the four corner clips.
6. Tighten screws.
7. Replace glass only with ceramic glass 5mm thick.

## **Enamel Cleaning**

General cleaning must be carried out when the stove is cool. If your stove is finished in a high gloss vitreous enamel, to keep the enamel in the best condition observe the following tips:

1. Wipe over daily with a soapy damp cloth, followed by a polish with a clean dry duster.
2. For stubborn deposits a soap impregnated pad can be carefully used on the vitreous enamel.
3. Use only products recommended by the Vitreous Enamel Association, these products carry the vitramel label.
4. Do not use abrasive pads or cleaners containing citric acid on enamel surfaces.

## **Co2 Alarm**

Heritage Stoves recommend the fitting of a CO Alarm in the same room as the appliance; this is a requirement under Building Regulations. Further guidance on the installation of a 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.

### ***if the Alarm sounds unexpectedly***

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

## **Installation Checklist**

### Flue System

1. Minimum Flue Height of 4.6 metres (15 feet).
2. Appliance should be connected to a minimum of 1.8 metres (6 feet) of 125mm (5") flue pipe with a horizontal run not exceeding 150mm (6").
3. Appliance should be connected to a chimney of less than 250mm (8") in diameter (otherwise the chimney must be lined with a 5" flue liner).
4. The chimney venting position must be above the main ridge of the roof or adjacent outside obstructions.
5. The chimney serving this appliance should not serve any other appliance.
6. Access should be provided to the chimney serving the appliance to allow for cleaning.

### Location

7. Clearance to combustible materials must be adhered to as described in the Clearance to Combustible section.
8. The stove must be installed on a floor protector that covers the area under the stove and extends 18" to the front & 8" to the sides and back. Ventilation & Combustion Air Requirements

9. The room in which the appliance is located should have an air vent of adequate size to support correct combustion (see Ventilation & Combustion Air Requirement Section for specific details).

## **BOILER MODELS**

The plumbing must be in accordance with all relevant regulations and practices. It must include a gravity circuit with vent pipe, open to the atmosphere.

## **Trouble Shooting**

### **Damaged Liners**

Stoves get very hot inside. It is usual for ceramic or vermicule liners to crack or craze, often within a very short time. They usually only need replacing when they have almost disintegrated completely.

### **Deterioration of surface finish**

The Siloxane paint usually used on stoves can withstand very high temperatures. It is easily scratched and can become dull. It may need touching up. Enamel finishes won't dull but it may chip. This can not be painted over.

### **Poor Heat output**

A stove can heat a room of 12m cubed for every KW of heat output. a 5kw model should suit a room of 5m square. To attempt to heat a larger room will result in excessive fuel consumption and damaging overheating.

### **Lack of Controllability**

Wood and some other fuels may burn excessively until the gasses in them have been burnt. You can reduce this by setting the air flow is set to low. You can also adjust the heat output by how much fuel you burn.

### **Difficulty Burning for Extended Periods**

If the fire goes out with unspent fuel, this may be due to lack of airflow. Fuel must be dry to achieve longer burning.

### **Condensation**

Damp fuel can cause condensation on surfaces inside the stove.

### **Smoke coming into the Room**

*New Stove:* Visible fumes from the paint curing, This will only last an hour.

*Inadequate Seals:* Have you checked all flues, pipes and connectors are 100% gas tight?

*Blocked Throat Plate:* Have you cleaned the stove and flue weekly? Is there a back up of soot and ash?

*Poor Air Supply:* No appliance will burn correctly without the right air supply. Lack of air to the fire is a common cause of smoking and poor performance

### **Downdraught**

Wind can blow down a chimney if there is something nearby like a tree, hill or high building. Fitting an anti-downdraught chimney cowl can stop this.

### **Dirty Window**

When using smokey fuels, always have the stoves airwash system activated. Stains can be burnt off by operating the stove at a high rate for a short period.