

# **BOHEMIA 30, 40, 50 & 60.....FREE STANDING STOVES**



## **Distributed in the UK by Pevex Enterprises Ltd**

Unit 12F Seven Acres Business Park, Waldringfield, Ipswich, IP12 4PS.

Tel: 01473 736399

Fax: 01473 736406

Congratulations on the purchase of your new Bohemia stove. Your new purchase will provide you with a level of pleasure and comfort not previously experienced in your home.

**Please read and follow the advice and instructions on the safe and efficient operation of your stove to ensure it has a long trouble free life. Also read and follow the installation instructions before installing the stove.**

### **PART 1 OPERATING INSTRUCTIONS**

A stove compared with an open fire is a very efficient heating appliance and must be installed and used safely and wisely, it is important to understand the working of such an appliance and to understand the process of converting the fuel into heat and its efficient transfer from the firebox to the room in order to gain the most from the stove.

A stove creates an almost perfect environment to burn wood in. The firebox will run at a very high temperature ideal to burn the volatiles given off in the burning process and the concise air controls allow minimal heat loss into the flue. A Bohemia stove operates at an efficiency of between 65 % and 70% on a Gross CV basis (71 to 77% Net) and is very much more efficient than an open fire avoiding the wasteful draughts normally associated with that type of appliance

Burning wood is the natural way to store the sun's energy to then be released in a carbon neutral process to heat your house when the need is most. On a cold winters night there is nothing to beat the release of heat and flame in a stove to raise the spirit.

The preparation and burning of wood as a fuel in stoves can be traced back many centuries, however it is a forgotten or maybe never fully discovered activity in the United Kingdom, we have much to learn from our European and Scandinavian neighbours whose colder winters have instinctively led them into a natural wood burning culture.

Wood for fuel is probably one of the most environmentally friendly energy sources, it is carbon neutral, trees used for fuel production regenerate very quickly and it is a pleasant and satisfying job preparing the firewood for the coming winters.

### **WARNING NOTE**

Properly installed, operated and maintained this stove will not emit fumes into the dwelling. Occasional fumes from de-ashing and refueling may occur. However, persistent fume emission is potentially dangerous and must not be tolerated. If fume emission persists, 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 appliance
- 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. **Any permanent air vent provided for combustion air must not be blocked off. There must not be an extractor fan fitted in the same room as the stove as this can cause the stove to emit dangerous fumes into the room.**

### **CHIMNEY CLEANING**

The chimney should be swept at least once a year for smokeless fuels and a minimum of twice a year for wood and other fuels. It is important that the flue connection and chimney are swept prior to lighting up after a prolonged shutdown

period. 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.

In situations where it is not possible to sweep through the stove the installer will have provided alternative means such as a soot door. After sweeping the chimney, the stove flue outlet and the flue pipe connecting the stove to the chimney must be cleaned with a flue brush.

When installed with a top flue outlet it is possible to sweep through the Bohemia Stoves. Remove the baffle, and access can be gained to the flue pipe.

**The connecting flue pipe and stove baffle should be checked monthly to clear any fly ash or soot deposits.**

### **USE OF A FIREGUARD**

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 BS6539.

### **INSTRUCTIONS FOR USE:**

#### **First Firing**

The stove has been treated with a heat-resistant coating, which hardens at a temperature of approximately 250<sup>0</sup> C. This hardening process causes the production of smoke and malodorous fumes, so the room must be very well ventilated.

**During the first firing**, which should be carried out using approximately 1 kg of wood, the stoking door must be left slightly open and must not be closed until the stove is cold. This is to prevent the sealing rope sticking to the stove.

### **RECOMMENDED FUELS**

The recommended fuel to be burnt on these stoves is wood logs.

**PLEASE NOTE THAT ALL THE BOHEMIA STOVES HAVE OBTAINED APPROVAL FROM HETAS LTD., FOR BURNING WOOD LOGS ONLY.** It should also be noted that it is an offence to burn wood logs in the stove if it is installed within a Smoke Control Area.

Correct firing provides optimal heat output and maximum economy. At the same time, correct firing prevents environmental damage in the form of smoke and malodorous fumes and also reduces the risk of chimney fires.

Well seasoned wood fuel is essential for correct use. Make sure your fuel is kept dry. If the fuel is wet, a large proportion of the heat will be used to vaporize the water, and this energy will disappear up the chimney. It is clearly not only uneconomical to fire with wet fuel but also, as mentioned above, increases the risk of producing soot, smoke and other environmentally damaging by-products. When wood is used as a fuel it is important that it is dry, i.e. wood with moisture content less than 20%. Ideally firewood needs seasoning for at least 2 summers, logs should be stacked in a well ventilated situation, and logs over 100mm diameter should be split. The stack should be protected from rain but remain well ventilated.

### **MIXED FUEL USE**

**PLEASE NOTE THAT HETAS LTD APPLIANCE APPROVAL ONLY COVERS THE USE OF WOOD LOGS ON THIS APPLIANCE. HETAS LTD APPROVAL DOES NOT COVER THE USE OF OTHER FUELS EITHER ALONE OR MIXED WITH THE RECOMMENDED FUELS LISTED ABOVE, NOR DOES IT COVER INSTRUCTIONS FOR THE USE OF OTHER FUELS.**

#### **Use of brown coal and smokeless fuel**

Uni-logs (brown coal brickettes) may be burned on the stove. Good performance will be obtained using these brickettes. Approved smokeless solid fuels may also be used. Avoid over firing. A mixture of seasoned wood and smokeless fuel will provide extended burn times with a good flame picture.

**Use of Petroleum coke and liquid fuels** will invalidate the guarantee and **must not be used** as this will cause the stove to "over fire". Operating at temperatures in excess of 500°C will cause irreparable damage which is not covered by the guarantee.

It is essential when burning smokeless solid fuels that the ashpan is emptied on a daily basis. Ash must not be allowed to build up below the grate. Note brown coal and smokeless fuel should also be stored dry and ventilated.

### **LIGHTING AND COMBUSTION**

The primary air is drawn into the stove through the slide on the door. The secondary air is regulated with the aid of a slider above the door. The heated secondary air flows down the viewing window and then feeds the fire; it is this secondary combustion that completes the burning cycle by turning unburned volatiles into flame.

As much as half of the heat obtainable from wood is obtained from this secondary combustion. It is important that the firebox temperature is maintained at a high level as this also aids complete combustion. The use of a stove pipe thermometer is recommended, as this will indicate stove performance. For example, when first lighting a stove it is important to get it really hot before closing the burning rate down. The firebox temperature should reach 400 °C which equates to approximately 250 °C at the flue pipe

If the stove is operated at this optimum level very clean combustion can be achieved with little or no smoke visible from the chimney.

The best way to light the fire is to use rolled-up balls of paper or firelighters and small pieces of wood laid on the fire grate. Open both the primary and secondary air intake. When the wood is burning well (after approximately 10 to 20 minutes), the next load of fuel can be added. Take care that the fuel is not stacked too closely. It is important to establish a really good hot fire before closing down the air vents. The primary and secondary airflows can now be regulated as necessary.

### **SAFETY PRECAUTIONS**

A risk of blowback can arise if too much dry wood is placed in the stove and burnt with insufficient combustion air. This may result in the production of gaseous compounds which can ignite if the intake of primary and secondary air is insufficient and the firebox temperature too low.

To achieve optimal firing and the best possible heat output, the primary and secondary air intakes must be correctly adjusted. As a general rule, the fire should be regulated using secondary air supply, with which smoke and gases are ignited. This produces a high level of efficiency and also keeps the viewing window clean because the secondary air 'washes over' the glass.

For wood burning it is an advantage always to leave some ash lying in the bottom of the combustion chamber. Take care when emptying the ash pan, as cinders can continue to burn in the ash for long periods of time.

**NOTE:** It is advisable always to leave the top air control slightly open.

Please note that the stove will, naturally, produce soot if both the primary and secondary air intakes are closed completely. This will prevent oxygen from being drawn into the stove, and the viewing window and other parts will become covered with soot and/or tar.

The nominal output is the output to which the stove has been tested. In practice, the stove burns with a heat output range between its minimum and maximum ratings.

### **MAINTENANCE OF MATT BLACK PAINT FINISH**

The surface of the stove has been treated with heat-resistant paint. The stove should be cleaned with a soft brush. Any damage to the surface in the form of chips or scratches can be repaired using touch-up paint, which is available in spray cans. If the stove has become grey in colour due to overheating, touch-up paint of this kind can be used to repaint the stove entirely. Alternatively the stove can be maintained with a traditional type of stove polish of which there are several proprietary makes available. **Do not use an aerosol spray when the stove is alight.**

### **CLEANING THE GLASS**

Incorrect firing, for example using wet wood, or slow burning can result in the viewing window becoming covered in soot. This soot can be easily and effectively removed by using a damp cloth or when necessary a proprietary stove glass cleaner or an ordinary scouring liquid, when the glass is cold.

### **OPERATIONAL PROBLEMS**

In the event of smoke or malodorous fumes being produced, you must first check to see whether the chimney is blocked. The chimney must, of course, always provide the minimum draught necessary to ensure that it is possible to regulate the fire. However, the chimney draught may also be affected by weather conditions. Both wind and temperature can affect the performance of a chimney.

In cases where the wood burns too quickly, this may be due to excessive chimney draught. You should also check to make sure that the door seal is intact. If the stove produces too little heat, this may be due to the fact that you are firing with wet wood. A large proportion of the heat output will be used to dry the wood, resulting in both uneconomical heating and an increased risk of soot and tar deposits forming in the chimney.

### **STANDING DOWN AT THE END OF THE SEASON**

At the end of the burning season the stove should be prepared for the stand down period, this is to prevent corrosion both in the stove and flue system.

The stove should be cleared of all ash, the baffle and flue ways cleared of soot and fly ash and the chimney swept.

All air vents should be in the open position and it is recommended that the door is left ajar to ventilate the chimney.

This is the ideal time to check for parts that may need replacing and to lubricate door hinges and catches. Also it is recommended that all screws holding the glass in place are removed and replaced with a high temperature lubricant.

## **PART II INSTALLATION INSTRUCTIONS (for UK excluding Scotland where local Building regulations must be conformed to).**

It is essential that the installation is carried out by an experienced and competent installer who is HETAS registered (see [www.hetas.co.uk](http://www.hetas.co.uk)). Under England & Wales Building Regulations it is a legal requirement that the stove is either installed by a competent person, which is an installer who is HETAS Registered, or that the installation is carried out under Local authority building control approval and inspection.

See the Building Regulations 2002 Approved document J

[http://www.communities.gov.uk/pub/596/ApprovedDocumentJCombustionappliancesandfuelstoragesystems2002edition\\_id1165596.pdf](http://www.communities.gov.uk/pub/596/ApprovedDocumentJCombustionappliancesandfuelstoragesystems2002edition_id1165596.pdf)

Please see also:

[http://www.communities.gov.uk/pub/340/DomesticHeatingComplianceGuide\\_id1165340.pdf](http://www.communities.gov.uk/pub/340/DomesticHeatingComplianceGuide_id1165340.pdf)

[http://www.communities.gov.uk/pub/711/SolidfuelwoodandoilburningappliancesafetyleafletPDF158Kb\\_id1130711.pdf](http://www.communities.gov.uk/pub/711/SolidfuelwoodandoilburningappliancesafetyleafletPDF158Kb_id1130711.pdf)

### Recommended Reading

Fireplaces Chimneys and Stoves by Michael Waumsley.

Published by the Crowood Press. ISBN1 86126 746 0

## 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 cases 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 the 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

## ASSESSING THE REQUIREMENTS FOR THE INSTALLATION OF A STOVE

Your supplier or Hetas registered installer will be able to advise you on the individual requirements that are needed to install a stove safely.

It is most important that the stove is the correct size. This means that the output should match the heat requirements of the room. Also to be considered is the fuel choice and the provision of suitable and convenient storage with easy access to the stove.

**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.**

Having decided on the ideal appliance then the installation should be fully assessed. The chimney requirements should be carefully assessed. Hearth requirements should be carefully specified, remember the building regulations lay out the minimum requirements. The chances of damaging a floor or carpet will be much reduced if the depth of a hearth is extended beyond the minimum. Any combustible materials should be at least 500mm distant from the sides and back and 800mm clear of the door and should never be allowed to exceed 80 °C. For further advice on chimney and hearth also see details below.

Assess also the fireplace surround if any is to be used, it is essential that combustible materials are not used close to the stove and flue pipe of a stove. This requirement may vary depending on the construction of a stove but is advised to keep combustible materials at least 50cms or preferably 1metre away from the stove or flue pipe.

## THE FOLLOWING ITEMS ARE INCLUDED WITH THE STOVE

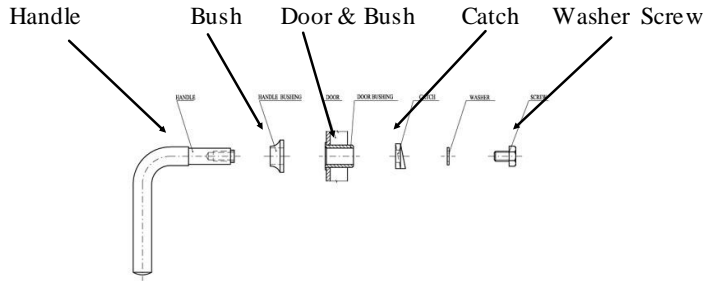
A mitten or glove for operation of door handle, a flue blanking plate, flue collar and door handle and catch assembly.

## ASSEMBLY

The stove is supplied with: 1. A flue blanking plate 2. A flue collar 3. Door handle and catch assembly that all need fitting.

Fit the flue collar and flue blanking plate in the appropriate position. If the flue collar is fitted for a rear outlet position, the flue blanking plate fitted to the top outlet can also be used as a boiling plate for a kettle.

## **DOOR HANDLE AND CATCH ASSEMBLY**



## **HEARTH**

The fireplace and hearth should conform to at least the minimum requirements laid out in the Building Regulations Approved Document J. The hearth should be able to accommodate the weight of the stove and its chimney if the chimney is not independently supported

Stoves must stand on a non-combustible hearth that must extend at least 300mm in front and 150mm to either side and rear if the flue outlet is from the top.

## **DIMENSIONS AND CLEARANCES**

No Combustible materials should be used in the construction of a fireplace or within the chimney or used in the installation of a stove, flue or chimney.

Care should also be taken in the construction of hearths or fireplaces to ensure that suitable provision is taken to allow for expansion and contraction of the construction materials.

When installing a Bohemia in a fireplace recess sufficient space must be provided on either side, behind and above to allow for heat convection and for access for maintenance of stove, flue pipe and chimney.

Recommended minimum clearance from sides to solid masonry 50mm

Recommended minimum clearance from rear to solid masonry 25mm

Recommended minimum clearance from top to solid masonry 150mm

## **CLEARANCES FROM COMBUSTIBLES** when installing in a freestanding situation

Recommended minimum clearance from sides to combustible material 500mm

Recommended minimum clearance from rear to combustible material 450mm

Recommended minimum clearance from front to combustible material 800mm

It is deemed safe to install a Bohemia stove on a combustible floor provided it is covered by a non-combustible hearthplate of at least 12mm thickness and extends at least 300mm in front and 150mm to either side and rear if the flue outlet is from the top.

Note un-insulated flue pipe must be installed to local building regulations (we recommend that not more than a 1 metre length of plain un-insulated pipe is used before connection to a chimney system and that no combustible materials are within 500mm of the flue pipe).

Note if the stove is to be installed in front of combustible materials nearer than 500mm a heat shield must be fitted (not supplied).

## **BOHEMIA, baffle plate**

On installation check that the steel flue baffle is correctly located. The baffle should sit on the rear firebricks and rest on the two lugs on the sides of the stove; the baffle is designed to direct the flame path towards the front of the stove. Removal of the steel baffle allows immediate access into the flue system for sweeping.

## **CHIMNEY IMPORTANT WARNING**

This stove must not be installed into a chimney that serves any other heating appliance.

The chimney must be a minimum height of 4.5 metres overall height and be in accordance with Building Regulations Approved Document J.

Any chimney, either masonry or a prefabricated stainless steel system must be constructed and installed according to building regulations. It is recommended that the minimum diameter of the flue liner be 125mm.

For new masonry chimneys we recommend pumice cement liners. A chimney draught of at least .06" (1.5mm) is recommended.

If it is found that there is excessive draught in the chimney then a draught stabiliser should be fitted.

Provision must be made for easy sweeping of the chimney. A soot door can be built into a masonry chimney and flue pipe is available with cleaning doors.

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

### THE CHIMNEY CONNECTION

The flue pipe for connecting the appliance to the chimney must be installed according to Building Regulations Approved Document J and its diameter must be not less than the diameter of the outlet of the appliance. The fluepipe must be adequately sealed to both the stove and the chimney to avoid any leakage.

We recommend also that no more than 1metre of plain un-insulated flue pipe be used to connect to the chimney.

### ALL CHIMNEYS SHOULD BE SWEEPED AND INSPECTED BEFORE INSTALLATION OF ANY APPLIANCE

For relining existing chimneys 316 or 904 grade stainless steel liners or pumice cement liners in accordance with Building Regulations Approved Document J should be used. Liners should be suitably insulated. We recommended that any chimney relining is carried out by an experienced and competent installer who is HETAS registered (see [www.hetas.co.uk](http://www.hetas.co.uk)). The HETAS Guide to Approved Products and Services lists Chimneys and lining systems suitable for use with solid fuel.

### Sweeping through BOHEMIA.

When installed with a top flue outlet it is possible to sweep through the Bohemia Stoves. Remove the baffle, and access can be gained to the flue pipe.

### VENTILATION

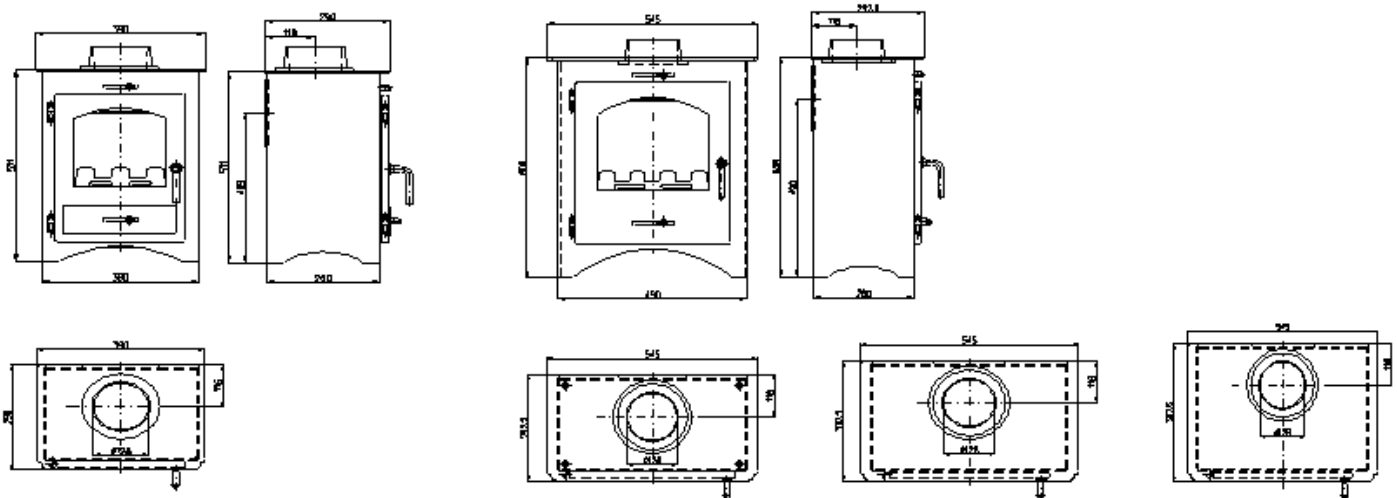
Adequate ventilation in the form of a permanent air vent must be provided in accordance with building regulations .

**The BOHEMIA 60 requires a permanent air vent opening of minimum 550sq mm under Building Regulations.** Purpose made ventilation is not required on the 30, 40, and 50 models but sufficient adventitious ventilation must be available.

### COMMISSIONING

The installer should carry out the following checks and ensure that the stove is fully functional. We strongly recommend that a first firing is included in the commissioning process

1. Check all flue pipe connections
2. Check door latch mechanism
3. Check door and glass seals are all intact and secure
4. Warm chimney and check draught.
5. Instruct customer in use of stove.
6. Leave instructions for customer
7. Check that after initial firing the door seals are not stuck to the body of the stove



Bohemia 30

Bohemia 40

Bohemia 50

Bohemia 60