10/10 (PP)

### **STOVE GUARANTEE**

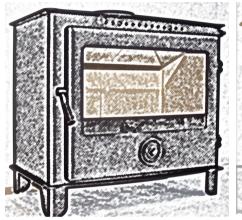
### Conditions of guarantee

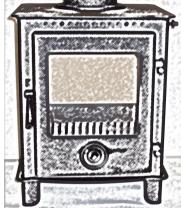
Your stove is guaranteed against defects arising from faulty manufacture for 1 year subject to the following express conditions. Failure to comply with these conditions will invalidate the guarantee.

- Your **Firemaster** dealer or a suitably qualified engineer must install the stove. Upon installation the receipt must be kept as proof of purchase.
- The guarantee is for 1 year from date of purchase.
- The guarantee does not cover parts deemed to be replaceable in the normal usage of the stove. These parts are: firebars, ashpan, side and back bricks, base protection plates, baffle, door rope seal, fuel bar, door glass.



# **5 & 7 SERIES MULTI-FUEL STOVE**





7 SERIES 7kW Maximum Output

**5 SERIES**5kW Maximum Output

INSTALLATION & USER INSTRUCTIONS
(TO BE LEFT WITH THE CUSTOMER)

UK & Ireland

## **GENERAL SAFETY NOTES**



- Properly installed, operated and maintained, this appliance will not emit fumes into the dwelling. However occasional fumes from de-ashing and re-fuelling may occur. Persistent fume emission is potentially dangerous and must not be tolerated. If fume emission does persist, open doors and windows to ventilate the room. Let the fire burn out or eject and safely dispose of fuel from the appliance. Once the fire is cold, check the flue and chimney for blockages and clean if required. Do not attempt to relight the fire until the cause of the fume emission has been identified and corrected. Seek expert advice if necessary.
- Do not fit an extractor fan in the same room as the appliance.
- An adequate air supply for combustion and ventilation is essential. Air openings provided for this purpose must not be restricted.
- It is important that flue ways are cleaned frequently and the chimney swept regularly. Also the stove must be maintained in good mechanical order. Regular sweeping means at least once a year for smokeless fuel and a minimum of twice a year for other fuels.
- If the chimney was previously used for an open fire, it is possible that the higher flue gas temperatures
  generated by the stove may loosen deposits that were firmly adhering to the inner surface of the
  chimney and cause blockage of the fluepipe. We recommend that in such a situation a second
  sweeping of the chimney should be carried out within one month of regular use of the stove after
  installation. Also, lock open or remove any existing dampers in the flueway.
- Should it be likely that children, aged or infirm people approach the fire, then a fireguard should be fitted.
- Avoid the use of aerosol sprays in the vicinity of the stove when it is in operation.

### **INSTALLATION INSTRUCTIONS**

The installer has a responsibility under the Health and Safety at Work Act 1974 to provide for the safety of persons carrying out the installation. Attention is drawn to the fact that fire cement is caustic and hands must be washed thoroughly after use. The appliance is heavy and care must be taken during handling. Although the appliance does not contain asbestos products, it is possible that asbestos may be disturbed in existing installations and every precaution must be taken.

These instructions give a guide for the installation of the appliance but in no way absolves the installer from responsibilities to conform to British Standards, in particular BS9303 and BS6461, relating to the installation of solid fuel appliances. All local regulations, including those referring to National and European standards need to be complied with when installing the appliance. If necessary, any adjoining walls should be protected from the effects of heat.

# CHIMNEY & FLUE

The successful operation of these appliances relies on the adequate performance of the chimney to which it is connected. The chimney must:

- Have an internal cross section of no less than 320 cm<sup>2</sup> (200mm dia). If a flue liner is used it should be 5" diameter (125mm) and suitable for solid fuel.
- Be a minimum 4.6m high from hearth level to pot.
- Be terminated at least 1m above roof level so that the chimney does not terminate in a pressure zone (see Fig. 2, page 5).
- Be free from cracks, severe bends, voids and obstructions.

Once the fire becomes established and the fuel is burning, more fuel can be added. When the stove is hot and the fuel is no longer producing smoke, the air wash control can be reduced. The burning rate of the fire can now be controlled with the spinner. As air from the spinner flows up through the grate it will cool the grate preventing it from overheating and becoming damaged. Reducing the spinner air inlet and introducing air only from the air wash will allow fuel to burn but the grate will not be cooled resulting in damage to the grate. When controlling the fire, the spinner should be altered gradually.

With the above in mind it is plain to see that the stove should ideally be run with the primary air inlet closed and the air wash control open whenever possible. Another advantage of running the stove with the air wash open is that the air being drawn into the stove travels across the glass forming an air barrier between the glass and the fire bed helping to prevent smoke particles sticking to the glass.

If the fire dies down too low, opening the primary air control for a short period will revive it. When reviving a low fire it is important to also use kindling before adding larger logs to help prevent smoke.

Reducing the primary air dramatically and all at once on a hot stove will cause the fuel to clinker and will result in a build up of gases and smoke which cold ignite with a bang the moment air is reintroduced.

**Note:** Wood burns most efficiently when the air for combustion is supplied from above the fire bed rather than below. The air supplied above the fire bed provides the oxygen necessary for the volatile gases (smoke), given off by the wood as it heats to combust. This ensures that the gases are burnt and used to heat the stove instead of being wasted up the chimney or condensing and forming tarry deposits inside the stove, in the flue or on the stove glass. Running the stove with the primary air control open and the air wash control closed will provide oxygen for the wood to burn on the fire bed but will not provide air for the volatile gases above the fire bed to combust resulting in a smoky inefficient fire.

#### MINERAL FUELS

Ordinary bituminous house coal is not recommended and must not be burned in smoke control areas. Burning bituminous house coal will result in a sooty stove and chimney, and the stove glass will require cleaning regularly. There are numerous natural anthracites and manufactured smokeless fuels that will burn cleanly and have more reliable burning characteristics. A list of these fuels and their suitability is produced by HETAS (www.hetas.co.uk). Consult your local fuel merchant to find out what is available in your area. Petro-coke should not be used as it burns very hot and may damage the stove castings.

# **MAINTENANCE**

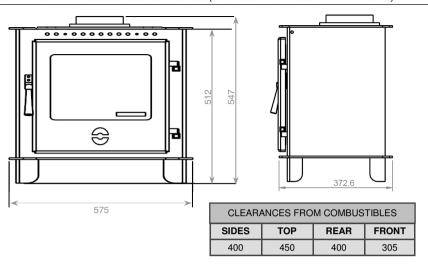
#### CLEANING THE STOVE

The stove should only be cleaned when it is cold. The exterior can be dusted with a firm brush. Do not use a cloth, as this will drag on the paint finish leaving lint on the surface. From time to time it may be necessary to renovate the exterior by repainting. High temperature stove paints in aerosol form are available from your stove dealer. Do not use this form of paint until the stove is cold and always read the instructions on the container before starting to paint. The door glass is made of a special heat resisting ceramic and may be cleaned when cold with proprietary glass cleaning liquids and a dry cloth.

### SHUTTING DOWN THE STOVE (LONG TERM)

The following procedure should be followed if the stove is not to be used for a long period, summertime for instance. Remove all the ashes from the grate and ash pan and use a vacuum cleaner nozzle to clean ash from the base of the stove. Remove the baffle plate and brush the flue ways. Close the door and open the air inlets fully. This action will allow air circulation through the flue ways and help to avoid corrosion and condensation.

Fig. 3b - Dimension & Clearances for 7 Series (all measurements are in millimetres)



#### IMPORTANT INSTALLATION NOTES

- 1. The installation must allow for adequate chimney sweeping.
- 2. Avoid using bends greater than  $45^{\circ}$  to the vertical. All flue pipe sections should be as close to vertical as possible.
- 3. All joints in the flue system must be effectively sealed.
- 4. All flue sockets must face upwards.
- 5. Check the appliance for soundness of seals between castings and main components and that all supplied parts and fittings are correctly fitted.

On completing the installation, check that all the internal components of the stove are positioned correctly.

Check - ashpan, iron grate, baffle, side and back bricks.

### **OPERATING INSTRUCTIONS**

#### YOUR STOVE

Additional loose parts supplied inside your stove include:

Multi purpose operating tool - for lifting the ashpan, adjusting the primary air spinner, adjusting the
air wash control, operating the riddle and the door handle.

## **WOOD BURNING**

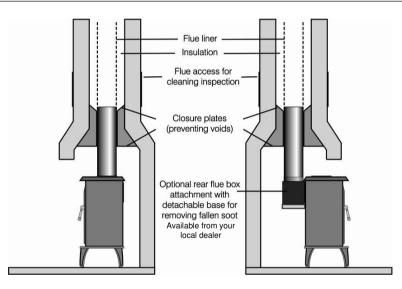
#### LIGHTING & CONTROLLING THE FIRE

Before lighting the fire for the first time ensure that the baffle, side and back bricks and all the internal components are in position. Burning without either will result in the stove overheating and being damaged.

Open the air wash control and the primary air control fully. Place some tightly rolled paper on top of some crumpled paper on the base towards the back of the stove. On top of this, place some small pieces of wood. Light the crumpled paper and close the door.

- Be connected to this one appliance only.
- New chimneys must be tested in accordance with HETAS requirements.
- If the stove is installed as a free standing appliance, it should not support any part of the chimney.
- Voids in the chimney should be avoided, as these will prevent a steady flue draught.
- The stove flue pipe should pass beyond the narrowing of the chimney (See Fig. 1).
- Consideration should be given to falling soot. For rear outlet stoves it may be necessary to provide
  a soot catchment area in the flue pipe so that soot does not settle in the path of the flue gases.
  The optional rear flue box attachment available from your local dealer has a detachable base that
  allows for fallen soot to be removed (See Fig. 1).
- A flue/chimney access point may also be required so that the state of the chimney can be checked and any fallen soot removed.
- External flues must be insulated to prevent heat loss.

Fig. 1 - Ideal Flue Connections



### **FLUE DRAUGHT**

The chimney can be checked, before the stove is installed, with a smoke match. If the chimney doesn't pull the smoke it may suggest the chimney needs attention (see the Flue Diagnosis Table, on page 4).

#### **MEASUREMENTS**

The flue draught test hole must be drilled in the flue pipe as close to the stove as possible and before any flue draught stabiliser.

**Note:** This test is only a guide as an apparently poor flue may improve once the stove is installed, lit and the flue is warmed. If, once the stove is installed, there is any doubt that the chimney is providing an adequate draught, a flue draught reading can be taken with the stove lit. Two flue draught readings should be taken, one with the stove at minimum firing rate and one at maximum firing rate.

#### MINIMUM

The stove should be lit and allowed to warm the flue thoroughly. The air controls can then be set so that the stove burns on a low setting. Allow the burning rate to become steady. The flue draught reading should now be taken with the primary air intake closed and the airwash control fully open.

#### **MAXIMUM**

The primary air intake can now be opened to allow the stove to burn at maximum rate. Give the stove some time for the burning rate to become steady and then close the primary air intake, make sure the airwash control is fully open and take a flue draught reading immediately.

Ideally, the flue draught readings should range between 1mm wg (10 Pa) and 2.5mm wg (25 Pa). Any readings significantly outside this range may indicate the need for remedial action.

Low flue draught symptoms: difficult to light and smoke coming into the room.	
CAUSE	REMEDY
Cold chimney	Line the chimney
Chimney too short	Extend the chimney
Down draught	Relocate/extend chimney terminal. Fit an anti down draught cowl
Chimney diameter too large	Line the chimney
Chimney obstruction	Clear/sweep the chimney
Restricted air supply	Check for competing draughts (other chimneys, extractor hoods/ fans). Fit an air vent if the room is sealed
High flue draught symptoms: damage, chimney fire.	fire difficult to control, fuel will not last, stove too hot, stove
CAUSE	REMEDY
External wind conditions combined with chimney terminal	Fit stabiliser cowl. Fit flue draught stabiliser.

## **INSTALLING THE STOVE**

### **POSITIONING**

The overall dimensions of the stove are shown in Fig. 3. Also shown in Fig. 3 are recommended distances between the stove and surrounding combustible materials. As a rule, any surrounding combustible material should not exceed 80°C. There should be sufficient space around the stove for service work.

### **HEARTH**

The construction of the hearth must conform to Building Regulations, must be firm, non-combustible and capable of supporting the stove. (Refer to Building Regulations Document J).

#### **FLUE CONNECTION**

The flue pipe used to connect the stove to the chimney is 5" (125mm) in diameter. The stove is supplied ready for top flue connection. To change to rear connection the flue blanking plug supplied with the stove is used to block the top flue outlet. The blanking plug in the rear flue connection must then be removed (to access the bolts attaching the rear flue connection the convector panel must first be removed). A rear flue box attachment is also available from your local dealer that allows the stove to be installed further out of any building recess.

Fig. 1 shows suitable flue connections.

#### **VENTILATION**

Please note the Firemaster 7 will require 1100mm<sup>2</sup> of extra ventilation to the room.

Fig. 2 - Chimney and Flue Performance

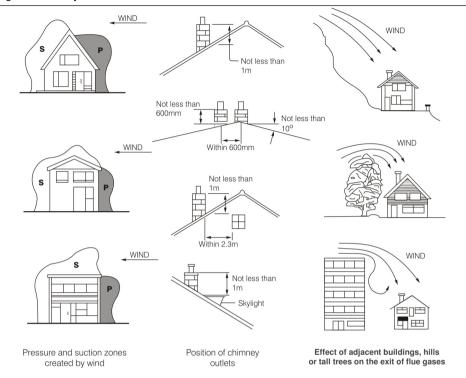


Fig. 3a - Dimension & Clearances for 5 Series (all measurements are in millimetres)

