

TORTOISE & CLEANLINE FIREBOXES

From Flamewave Fires

INSTALLATION & OPERATING INSTRUCTIONS

*TORTOISE,
CLEANLINE & ARC
FREESTANDING &
BUILT-IN MODELS*

TO BE LEFT WITH THE USER

INDEX

	Page
INTRODUCTION	2
GENERAL INFORMATION	2
SITE PREPARATION	3
INSTALLATION	3, 4, 5
OPERATION & FUEL	6, 7
MAINTENANCE	8
SWEEPING	8
ACCESSORIES	8
INSTALLATION DIAGRAM	9
NOTES & RECORDS	10

INTRODUCTION

Your new **FLAMEWAVE** Firebox has been engineered and carefully constructed in our Kent factory, and we hope that it has arrived in perfect condition.

The main body of the fire is covered by a lifetime guarantee for the original purchaser and installation site, subject to the fire being installed and operated in accordance with the instructions. Grids, trays, fuel retainers, accessories etc. are considered to be consumables and are not covered by the lifetime guarantee.

To enable you to get the very best performance from your fire, it is important to follow the basic principles of installation and operation as set out in this booklet. Please read carefully through all instructions BEFORE beginning the installation. If you are in any doubt or require advice contact your local dealer or supplier. Every effort is made to ensure accuracy of both our products and this booklet, but minor variations may occur in dimensions or specifications. Please ensure that you carefully check all product dimensions on site prior to installation.

As manufacturers, we reserve the right to make changes to the specification without notification.

GENERAL INFORMATION

It is important to ensure that the installation of this appliance complies with all current Building Regulations, local by-laws and any applicable British Standard Codes of Practice. Please note that planning permission may be required where a new chimney is being constructed.

The installer must at all times observe his responsibilities under the relevant Health and Safety at Work Act, including adequate facilities for site handling of the appliance. Care must be taken where fire cement is used as this is a caustic material and if it comes into contact with the skin (particularly cuts) it must be washed off immediately. All persons involved with the installation should wear appropriate protection.

The chimney should be thoroughly checked for soundness, have no obstruction and be swept by a competent sweep before installation starts.

NOTE

These instructions apply to both built-in and freestanding firebox models. References to opening preparation, insulation, gatherhoods, optional trims etc. are specific to built-in models and do not apply to our freestanding fires.

INSTALLATION

FLUE CONNECTION

It is not necessary to fit a flue liner into an existing chimney, provided that it can be demonstrated to be sound and free from leakage. New chimneys must conform to current Building Regulations.

Where a flue liner is to be fitted, a gatherhood (p.4) may be required and can be supplied as an optional extra to make a positive connection between liner and built-in firebox. It is essential to ensure that the internal flue diameter is at least 200 mm (models 1 to 4) 225 mm (model 5) 250 mm (model 6) or 300 mm (model 7).

PREPARING THE OPENING AND HEARTH

The appliance must be installed with a hearth, complying with the current Building Regulations, Doc J. Ideally the opening for a built-in model should be prepared to give a gap of approx 25 mm around the rear and sides of the unit and approx 15 mm at the top (see note below). If the existing opening is too large, and the gap is more than approx 50 mm, it should be built in to the full height of the unit. (See illustration)

AIR SUPPLY

Open fires require air for the burning process. A lack of air can cause fuming and poor performance. To comply with regulations, all rooms containing one of our fireboxes **must** have a dedicated permanent air supply from outside. This free area of ventilation should equate to 160 sq. cm. (models 1 to 4) 200 sq. cm. (model 5) 250 sq. cm. (model 6) or 300 sq. cm. (model 7) and must be provided, if not already present.

BUILDING IN THE FIREBOX/INSULATION - Built-in models only

Slide the built-in Firebox into the prepared opening, the surrounding gap filled with fibreglass or mineral rockwool - roofing grade fibreglass is ideal (see p.4). Taping the insulation to the box will usually make this operation much simpler. This will provide an adequate seal, allow for expansion, and improve the effectiveness of the appliance by reducing the transfer of heat to the surrounding masonry.

Once the box is in position, a fillet of **weak** mortar mix should be applied from the top of the box to the surrounding masonry on top of the insulation. (See illustration)
The mortar is applied by passing handfuls up through the outlet/s on top of the unit.

NOTE. IT IS IMPERATIVE THAT A MINIMUM EXPANSION GAP OF AT LEAST 3mm IS LEFT BETWEEN SIDES, BACK AND TOP OF THE INSET UNIT AND ANY SURROUNDING MASONRY. A LACK OF EXPANSION GAP COULD CAUSE THE UNIT TO BUCKLE. DAMAGE OF THIS NATURE IS NOT COVERED BY THE LIFETIME GUARANTEE.

GATHERHOODS – BUILT-IN MODELS

An optional gatherhood is available where a positive connection is required between firebox and chimney/liner. The gather sits on top of the firebox and is sealed with fireclay. The box and gather are placed into position and the connection to chimney made prior to the fireplace surround being applied. Flexible liners can be attached directly into the spigot of the gatherhood, but where connecting to existing masonry liners a length of flue pipe of appropriate diameter should be used to connect liners to gather. Any gaps around the box/gather should be back filled with rockwool.

NOTE : THE FIREBOX AND/OR GATHERHOOD MUST NOT TAKE THE WEIGHT OF THE SURROUNDING MASONRY OR THE CHIMNEY. REMEMBER TO LEAVE AN EXPANSION GAP.

INSULATION – BUILT-IN MODELS

A word about insulation. As previously stated, the insulation medium of choice is rockwool, or fibreglass, as used to insulate loft spaces. It is **most important** not to use loose fill insulation such as perlite, vermiculite, LECA, etc. These loose materials pack down and when the box expands under heat it can creep forward fractionally. On cooling and contraction, the loose fill packs down further to fill this slight void. As this process is repeated, the box can end up 'walking out' of the opening, making a re-installation a necessity - it will not be possible to simply push the box back to its correct placement.

MAKING GOOD/FITTING OPTIONAL TRIM – BUILT-IN MODELS

A reasonable seal between the firebox and surrounding masonry is necessary to ensure correct functioning of the fire. This will usually have been achieved by the use of insulation around the unit. Where the use of insulation has not been possible, a flexible fireproof gasket between the back edge of the frame and the front face of the opening will be necessary. Where a gatherhood has been used, a gas tight seal will already have been made.

Do not use fireclay behind the frame as a seal, it is not flexible and will almost certainly crack and fall out. Additionally, it can stain the surround and the frame of the fire. Where a decorative frame has been used (see accessories) remove any protective film prior to first firing.

If cement has been used in the installation process, this should be allowed to dry out thoroughly before firing to avoid the risk of cracking. Your installer will advise you how long to leave before lighting a normal fire.

CHIMNEY HEIGHT, SMOKING PROBLEMS

The upper termination of the flue should conform to Building Regulations and the chimney itself should be minimum height of 4 mtrs. above the top of the firebox.

Smoking chimney problems generally fall into two main categories. The first is where the fire 'dribbles' smoke into the room for much of the time, often more pronounced on re-fuelling or with particularly smoky fuel. This can be put down to chimney insufficiency and the causes are many – chimney too short, cross section of chimney too small/opening too large, partially blocked chimney, poorly constructed chimney with too many bends, to name but a few. The solution is often fairly straightforward and one of our fireboxes will invariably help and often cure the problem.

The second category is where the fire suddenly gusts a large quantity of smoke into the room, often when the wind is in a certain direction. This is usually caused by downdraft, which is a geographic problem – e.g. house in valley, tall trees or buildings nearby, or a chimney which is too short. A short chimney problem can be overcome – the other causes often cannot. One of our fireboxes will almost certainly reduce the problem but will not cure it. A cowl **may** help, check with your supplier before buying.

CHIMNEYS MUST BE SWEEPED REGULARLY, AT LEAST ONCE A YEAR AND MORE OFTEN IF HEAVILY USED OR IF NON-SMOKELESS FUELS ARE BURNED. MANY CHIMNEYS ARE TOO SHORT. EXTENDING THE LENGTH WILL OFTEN RESULT IN A SIGNIFICANT IMPROVEMENT IN PERFORMANCE. EXTRACTOR FANS OPERATING IN A HOUSE CAN CAUSE CHIMNEYS TO SMOKE.

SOLID FUEL BURNING & ASH REMOVAL

If solid fuel is to be burnt in one of our fireboxes, the optional multi-fuel grid must be used. If solid fuel and wood are to be burnt together, the grid must still be used. The grid sits on the two runners welded each side of the Firebox and the two firebricks sit on their long narrow edge on top of the grid, resting against the sides of the Firebox. When wood only is used, this is best burnt directly in the log tray/ash pan, but only on a good bed of ash. (p.7)

ASH MUST NEVER BE ALLOWED TO BUILD UP TO TOUCH THE UNDERSIDE OF THE MULTI-FUEL GRID, CHECK LEVEL AND REMOVE REGULARLY

COMMISSIONING THE FIRE

On completion of the installation, the installer should check the appliance under fire for soundness of seals and joints and that the flue functions correctly in venting all smoke and fumes safely to the atmosphere.

THESE INSTRUCTIONS SHOULD BE LEFT WITH THE CUSTOMER/USER

GENERAL INFORMATION

Ensure that the convection channels at the top and bottom of the fire are not restricted or blocked at any time, as this will adversely affect the effective operation of the unit and could cause the unit to overheat. Any resulting damage would not be covered by the lifetime guarantee. Always keep the area around the fire clean and clear of furniture or other objects.

GUARDING THE FIRE

A lock-on sparkguard is available as an optional extra and should be used when there is a risk of sparking and always when the fire is left burning unattended. As with all heating appliances, a properly constructed approved guard should be used to protect children and the infirm or elderly.

NOTE. WHILST THE OPTIONAL SPARK GUARD IS SUBSTANTIALLY CONSTRUCTED, IT WILL NOT NECESSARILY PREVENT LOGS FROM ROLLING OUT OF THE FIRE. LOAD FUEL CAREFULLY AND CONSIDER USING A FIXED FIREGUARD

FUEL

All of our fireboxes are supplied ready to burn wood and peat. With the addition of the optional multi-fuel grid, solid fuel can be burnt either on its own or mixed with wood. Most solid fuels recommended for open fires, bituminous or smokeless, can be used successfully, but the use of petroleum based cokes **must be avoided** - the intensity of their burning rate will prematurely damage the grid and the firebox. This type of damage is not covered by the guarantee. Check carefully with your fuel supplier.

When wood is used as fuel it should be well seasoned, i.e. split and stored under cover in a well ventilated place for at least a year before being used. All species of timber have virtually the same calorific value pound for pound. Ash is the supreme wood to burn, beech is perfect, fruit woods are good, oak is dense and slow burning, pine can spit. Unseasoned wood gives a poor looking fire and disappointing performance and can lead to excessive tarry deposits in the chimney with the attendant risk of a chimney fire. Wet wood doesn't burn until it's dried out!- if you do use unseasoned logs, much of the available energy is wasted in drying it out first.

PAINT BURN-OFF

All Fireboxes have a durable high temperature powder-coat finish but, like all paint finishes, this will not resist flame impingement. You may notice a white bloom/flaking of the coating where the flames contact the back of the box for the first few firings. This is normal and does not adversely affect the operation of the fire or the guarantee we offer. Products of combustion will coat this area quite quickly with normal usage and the white bloom can be removed with a damp cloth if required.

LIGHTING, RUNNING, RE-FUELLING AND DAMPER OPERATION,

Before lighting a fire for the first time, ensure that enough time has been allowed for any cement or plaster work to have dried out thoroughly. A week will normally be sufficient, but check with your installer. Only have modest fires for the first 3 or 4 firings to allow the firebox to 'bed-in'

The chimney damper (Tortoise fireboxes only) has a lever control which is located at the top left of the opening. It is operated with the ring end of the supplied tool, push to fully open, pull to close to the minimum setting. Light the fire with the damper fully open and once the chimney has warmed-up, after approx. 15 mins., the damper can be progressively closed. If the fire smokes, you have closed the damper too far – simply open it up a little to ensure that all smoke is taken into the chimney with no spillage to the room. The ideal setting will be found with practice.

When wood only is being burnt, place one inch of ash or dry sand in the base of the tray, before first lighting, for protection purposes. Without this protective layer, there is a risk of buckling the tray. In time, any sand will be replaced by ash (see ash removal below). To assist lighting, proprietary firelighters may be used, in which case the manufacturers instructions should be followed. However, dry kindling and paper is the most effective and speedy way to light a fire. Once the fire is established, fuel can be added as required. Refuel the fire as necessary.

ASH REMOVAL

Wood burns best on a good layer of ash and takes its oxygen supply from the top, think of a bonfire. This ash bed acts as a heat reservoir as well as helping to regulate the burning rate. Ash should only be removed when it starts to fall over the sides of the tray and becomes a nuisance. Skim excess ash off the top but always leave at least a 1" layer in the base of the tray (wood ash is excellent for the garden!)

Solid fuels on the other hand must be burnt on the grate, with a good supply of air passing through it from below. It is vital to **remove the ash regularly** and it must **never** be allowed to build up to a point where it comes into contact with the underside of the grid, as this will cause damage to the casting making it burn out prematurely. With the grid in position, it is simple to remove the ash pan through the gap below the fuel retainer bar, or through the drop down flap, with the tool provided.

REMEMBER THAT ASHES CAN REMAIN VERY HOT, LONG AFTER A FIRE APPEARS TO HAVE GONE OUT. IT IS OFTEN POSSIBLE TO RE-KINDLE A FIRE IN THE MORNING BY RAKING OVER THE ASHES AND PLACING SMALL AMOUNTS OF FUEL ON THE EMBERS.

DISPOSE OF ASHES WITH EXTREME CAUTION

MAINTENANCE

Our fireboxes requires minimum maintenance. The black powder coated surfaces of the fire should be dusted with a soft bristle brush and can be wiped clean with a slightly damp soft cloth.

If a trim is fitted to the frame of the inset fire, this can be cleaned with a proprietary metal cleaner. Stainless steel trims can be cleaned with a damp cloth.

SWEEPING THE CHIMNEY

To ensure safe and effective operation of the fire, the chimney must be swept regularly. We recommend sweeping at least once a year – more frequently if heavily used or if green wood or bituminous coal are used. The chimney is easily accessed through the fully open damper (if fitted) and the outlets in the top of the firebox. Your sweep will be very familiar with our fireboxes

WARNING NOTE

Properly installed and operated, this fire will not emit fumes into the room. Occasional slight fuming on re-fuelling may occur. **Persistent fume emission must not be tolerated.** If fume emission persists, immediately take the following action :

1. **OPEN DOORS AND WINDOWS TO VENTILATE THE ROOM**
2. **LET THE FIRE GO OUT OR EJECT AND SAFELY DISPOSE OF THE FUEL FROM THE APPLIANCE**
3. **HAVE THE FLUE/CHIMNEY CHECKED FOR BLOCKAGE**
4. **DO NOT ATTEMPT TO RELIGHT THE FIRE UNTIL THE CAUSE OF THE FUMING HAS BEEN IDENTIFIED.**
5. **IF NECESSARY SEEK PROFESSIONAL ADVICE**

ACCESSORIES

The following optional accessories are available:

SOLID FUEL GRID AND BRICKS

SPARKGUARD

GATHERHOOD (BUILT-IN)

VARIOUS FRAME TRIMS (BUILT-IN)

GAS CONVERSION KIT

BATTERY REMOTE CONTROL

Removable for woodburning

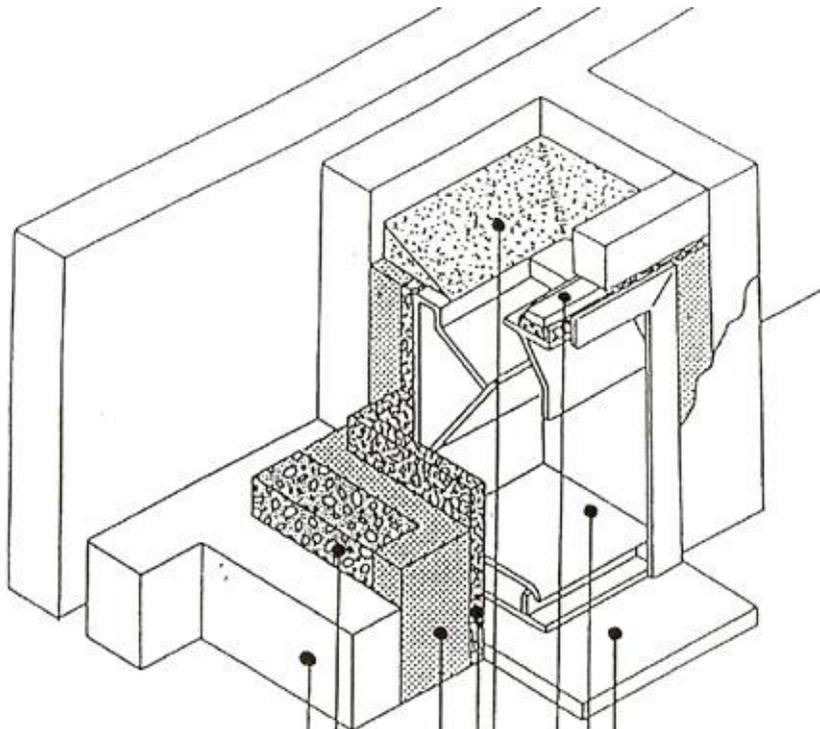
Fully covers the fire opening

For positive connection to a new chimney

Can be fitted retrospectively

Available for Natural Gas or LPG

For gas conversion kits



- Existing Brickwork
- Backfill
- New Brick/Blockwork
- Insulation
- Cement Fillet
- Lintel
- Tortoise Firebox
- Constructional Hearth

NOTES

DATE OF PURCHASE

DATE OF INSTALLATION

MODEL NAME / NUMBER

SUPPLIER NAME

ADDRESS

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.....

TEL. NUMBER

INSTALLER NAME

ADDRESS

.....

.....

TEL. NUMBER

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