

# FIRE-FRONT

FROM WATERFORD STANLEY (MARKETING) LTD.





**INSTALLATION AND OPERATING INSTRUCTIONS** 



# **GENERAL**

The Stanley Fire-Front is designed to increase the efficiency of an existing open fire, and eliminate undue heat loss up the chimney. It is available in two sizes to suit 16" and 18" fireplaces which must conform to certain specifications.

The fitting instructions outline other basic principles to ensure correct installation and effective working. Some variation to detail may however be necessary depending on local site conditions. It is essential that these instructions are followed in absolute detail.

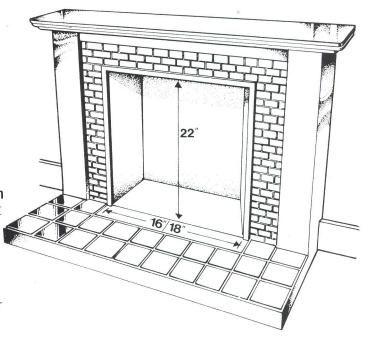
The unit will fit most fireplaces provided they have a rectangular fire opening measuring 16" or 18" wide and 22" high with a **minimum flat** surface each side and on the top of not less than 2". The maximum coverage provided by the unit itself against a flat surface is 20" wide by 23" high.

Installation in fireplaces conforming to specification may incorporate a typical Central Heating Boiler or a Flue Set with Domestic Back Boiler or indeed no boiler at all. Where a particular site is not to standard then such alterations as are necessary must be put into effect to ensure conformation with the installation requirements laid down.

Before proceeding with installation ensure that the chimney is clean and clear of obstructions. Also check that the area at the back of the tiled surround immediately over the fire is protected by a lintel or a course of lime mortar rendering.

The sealing of the unit into the fireplace is vital as air **must** not be drawn into the chimney other than through the air control located on the ash-pit door—check therefore that the fireplace surround itself is sealed all round where it touches the wall. Failure to do this will cause air leakage and reduce draught efficiency. It also means that warm air will be drawn out of the room.

The hot air drawn from the heat exchanger will convect into the room naturally but, a fan blower assembly may be fitted to increase the





convection output and it is available through your supplier as an optional extra. Openings are provided on each side of the front of the surround to facilitate connection of this assembly.

# **INSTALLATION PROCEDURE**

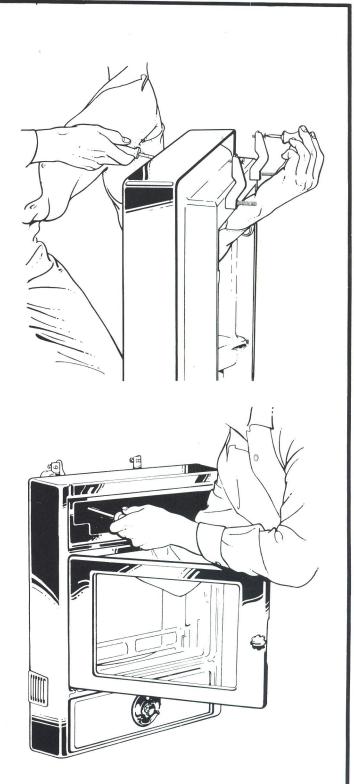
Remove the packaging material and place all loose components to one side.

Fit the top clamping brackets by firstly removing the enamelled air grille at top front of unit by lifting it upwards with a screwdriver or similar tool, being careful not to drop it thus damaging the enamel. There are two brackets and two long fixing bolts. Insert the bolts from the front through the holes provided in the back casting, then screw the brackets loosely to each one making sure that the hook-end of the bracket is facing (reference to the fixing diagrams illustrates the correct position).

Check that the top clamping brackets are facing down and position the unit in the fireplace opening so that it is central, level and lying flush with the fireplace surround. When satisfied that it is correctly located, make a mark on the hearth through the centrally positioned fixing hole in the bottom front casting immediately behind the ashpit door.

Remove unit and drill hearth where marked to take the rawl-plug provided, the top of which should sit level with the hearth. Lay unit on its face protecting the enamel surface where necessary and apply sufficient fire cement to the base, so that when it is returned to the vertical position an airtight seal between base and hearth is achieved. Take a good handful of fire cement and roll it into sections approximately 1" thick and apply to the corner of the back casting so as to form a continuous rope effect all around the heat-exchanger. It is important to apply the cement evenly and in generous quantities as it is this material which creates the all-important airtight seal into the fireplace proper.

Ensure that the unit is replaced in the fireopening in the correct position and press home firmly, then loosely insert the fixing bolt into the rawl-plug in the base plate already provided.





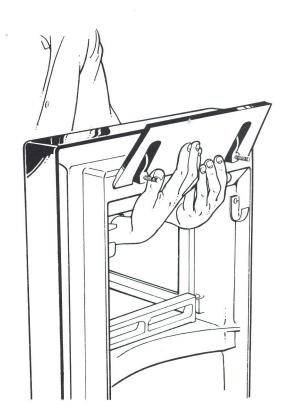
Open the glass fire door and through the opening turn each top fixing clamp upwards, and adjust the distance bolts so that they rest firmly against the lintel, then screw up the main holding bolts on this bracket all the time pressing against the unit to ensure that it is lying absolutely flush against the fireplace surround. It is essential that the fixing clamps are positioned truly vertical otherwise the heat shield plate referred to later cannot be fitted into position.

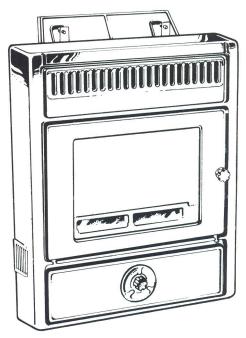
Tighten up base fixing bolt.

The pressure applied when fitting the unit should cause the fire cement to extrude to the leading edge of the back heat-exchanger casting and this may be smoothed down with the fingers and any surplus disposed of. If by chance no cement is evident due perhaps to the boiler or flue set being set back more than usual into the fire opening, a gap may be apparent and it is recomended that this be thoroughly filled with fire cement and smoothed off so as to ensure an absolute airtight joint.

#### **HEAT SHIELD PLATE**

To give added protection to the back of the tiled surround immediately over the fire, a plate is provided which slots into position as shown on the illustration. Ensure that this plate is always correctly positioned, particularly after flue cleaning is carried out.





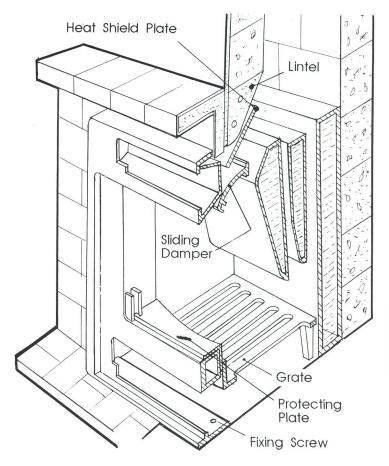


# FIRE-FRONT SLIDING DAMPER ASSEMBLY AND USE

The sliding damper is provided to retain the heat in the firebox and protect the chimney breast. Do not overfire the appliance. The fuel should not be higher than the fire fence sloping upward at about 30°

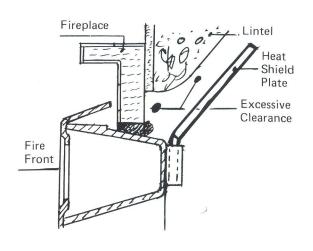
Make sure the grate is the full size of the fireplace to give the best results, especially when burning Anthracite.

Before installing the Fire-Front make sure that the boiler is properly sealed to the fireplace. Fill any gaps between boiler and fireplace with fire cement.



### FIREPLACE PROTECTION

If excessive clearance exists between the fireplace and heat shield plate it must be filled with ceramic blanket or fire cement to prevent overheating of the fireplace.

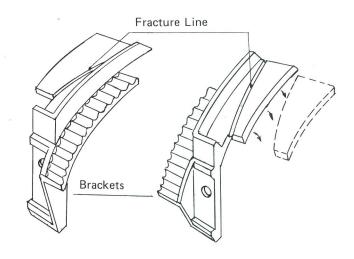




## SLIDING DAMPER BRACKETS

The brackets are supplied to suit parallel boilers. These can be modified to suit tapered boilers by breaking or cutting off the extra material on the fracture line as shown opposite.

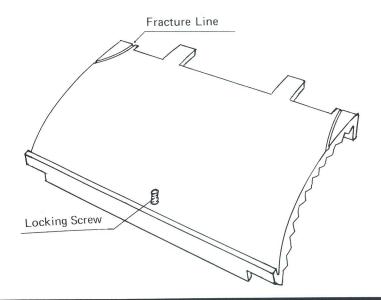
Before installing the Fire-Front attach the sliding damper brackets to the back with the screws provided and make sure the sliding damper moves freely between them. If the boiler is of the tapered type cut the excess material off at the fracture line.



There must always be a gap of 1/2 - 1 inch, 12 - 24mm between the sliding damper and boiler to allow the flue gasses to escape.

#### SLIDING DAMPER

When the damper is in position hand tighten the locking screw to prevent it falling back.





#### **INSTALLATION**

Remove existing boiler dampers or front plates from triple pass boilers as they prevent heat from reaching the water jackets of the boiler.

Make sure there is a standard lintel fitted behind the fireplace, this protects the chimney breast.

A single steel bar is not sufficient to prevent excessive heat build-up in the fireplace.

For use with the present Grant Triple Pass Boiler remove the front plate only and leave the damper in position.

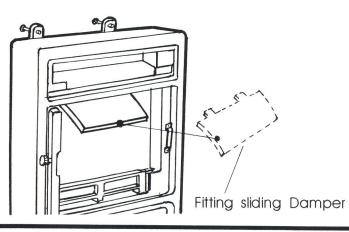
Pull it forward about 1 inch to allow the flue gasses to escape.

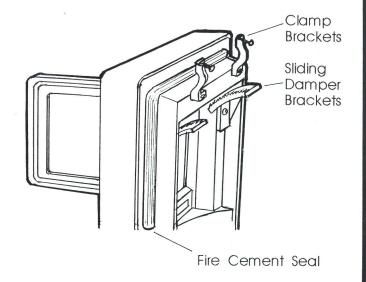
#### SEALING

Apply the fire cement in the form of a rope to the inner back casting after wetting the casting surface.

Press the Fire-Front into the fireplace and position the clamp brackets. Tighten the bottom screws through the heat exchanger and then tighten the top screws against the lintel as shown. Make good any gaps in the fire cement seal from inside the Fire-Front before fitting the heat shield plate.

Fill any gaps at the side of the damper brackets with fire cement.



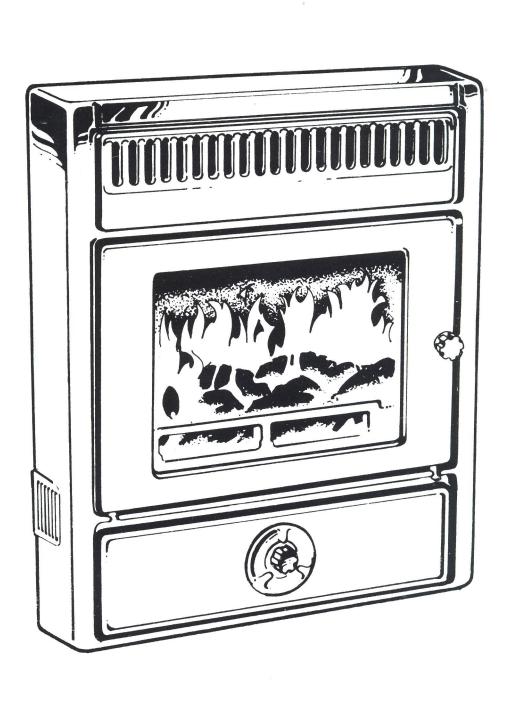


When the installation is complete, fit the sliding damper through the door and push up over the brackets until the projecting lugs touch the front of the boiler. This will leave a gap for the flue gasses.

The damper can be withdrawn for chimney cleaning. We recommend the damper be in contact with the boiler and that the gap created by the lugs kept clear to allow free passage of smoke and fumes to the chimney.

Keep the Fire-Front door closed and set the spin wheel opening to give the best results when burning fuel.

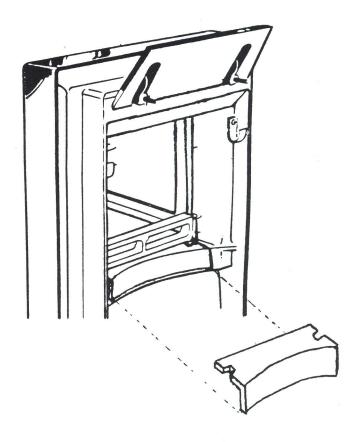






#### AIR DUCT PROTECTING PLATE

This casting is hung loosely over the lugs provided for the firebar.



#### **FUELS**

THE STANLEY FIRE-FRONT WILL BURN DRY PEAT, PEAT BRIQUETTES, DRY WOOD, ANTHRACITE, COALITE, PHURNACITE AND SUNBRIGHT SUCCESSFULLY. A FIRE BED OF 3 TO 4 INCHES DEEP WILL GIVE THE BEST RESULTS.

BITUMINOUS COAL TENDS TO BLACKEN THE GLASS WHEN BANKED DOWN.
PETROLEUM COKE OR WONDER COKE OR CALCO ARE NOT SUITABLE. THEY DO NOT FORM AN ASH BED AND CAN BURN THE FIRE BARS.



#### **BOTTOM FIRE BAR**

The heat-exchanger casting is shaped on the inside at the base to suit a typical 16" or 18" fire bar or fire basket. In most cases the existing bar will suit. However, slight pattern variations between different manufacturers may result in an imperfect match and prevent the unit fitting properly into the fire opening, and whilst it may be possible to modify the particular bar to suit, it is essential to bear in mind that the bar must be removable at all times and as such should be a loose fit.

Where patented types of fires are fitted i.e. continuous burning units, it is unlikely that the fire grate used will suit and these will have to be replaced with a standard 16" or 18" fire bar which can be procured from your supplier.

#### **CHIMNEY**

It is assumed that a good draught is available in the chimney, as the unit of itself will not overcome inherent draught problems.

When lighting for the first time, maintain a low level of firing to permit curing of the fire cement.

#### PLEASE NOTE:

The fire grate on which the fire rests must cover the full area of the firebox.

There must not be any significant gaps between the grate and Stanley Firefront and boiler (or fireback), as this will reduce efficiency.

# **OPERATING INSTRUCTIONS**

The unit will burn all types of solid fuel; house coal, anthracite, coke, phurnacite, or similar manufactured fuels as well as turf and timber. For clear glass use a smokeless fuel.

#### LIGHTING THE FIRE

Open the air control fully. Kindle with paper and sticks or an approved type of firelighter in the usual way and add a small amount of fuel; ignite and close the fire door with the tool provided. When the fire is established, add fuel as needed.

Under no circumstances, should any flammable liquid, such as petrol, paraffin etc. be used to light or freshen a fire.

When the fire is well established, adjust the rate of burning by opening or closing the air control which increases or reduces the supply of primary air to the fire.





#### **OVERNIGHT BURNING**

Establish a good bright base to your fire and add fuel to the level of the retaining grate. Close and lock the fire door with the fire tool provided and close the air control fully. The fire will burn from ten to twelve hours unattended depending on the type of fuel used. However, as chimneys vary in their efficiency, a degree of trial and error may be necessary in order to obtain the air control opening exactly suited to your needs. Air must not enter the fire other than through the air control.

The rate of burning is controlled by the setting of the air control. If it is ineffective in controlling the fire, then air is leaking into the combustion area due to poor sealing in the course of installation. Or indeed, it may be due to the ash-pit door not being correctly positioned.

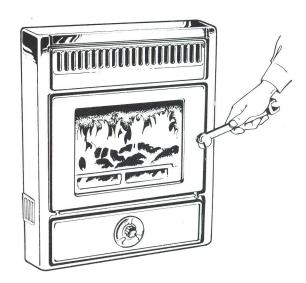
# **ASH REMOVAL**

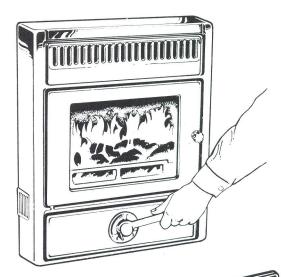
The ash-pan must be emptied at least once daily. Failure to do so will result in ash build-up to a point where air flow through the fire bars is restricted. The consequence of this is severe over-heating of the fire bar casting which can cause serious damage over a very short period.

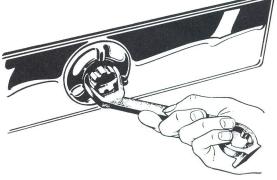
When replacing the ash-pit door **always ensure** it is resting properly and thereby forming a proper seal flat against the Fire Front. An ill-fitting door will create a serious air leak and lead to uncontrolled combustion.

#### **REMOVAL OF ASH-PIT DOOR**

Using the universal operating tool provided, engage the forked end under air control knob and lift.









#### **ASH-PIT DOOR SAFETY DEVICE**

As indicated air must enter the appliance only through the air control. In the event of the ash-pit door being removed for cleaning or other purposes and not replaced, an unrestricted air supply to the fire could cause over-heating. To prevent this happening, we have taken the precaution of fitting a simple safety catch which means that the fire door will not close unless the ash-pit door is correctly in position. The effect of the fire door not closing fully is to cause a spoil draught which thus minimises the over-firing effect.

THIS SAFETY DEVICE IS FITTED FOR YOUR PROTECTION AND TO PREVENT DAMAGE BEING CAUSED INADVERTENTLY TO THE APPLIANCE OR FIREPLACE ETC. ANY ATTEMPT TO BYPASS OR RENDER THIS SAFETY FEATURE INOPERATIVE CAN ONLY BE TO YOUR DETRIMENT AND SHOULD NOT UNDER ANY CIRCUMSTANCES BE ATTEMPTED.

#### FIRE DOOR GLASS PANEL

When using a soft coal, timber or turf, the volatiles and gases produced will form a deposit on the glass. This deposit will burn off under brisk firing conditions, but a residue may remain which is readily cleaned off with a damp cloth or mild abrasive.

If smokeless fuels such as anthracite or phurnacite etc. are used, the problem will not arise.

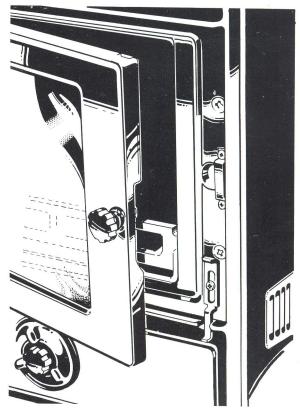
#### CAUTION

If using cut timber, logs etc. ensure they do not project beyond the front bar, otherwise they may cause damage to the glass.

Waterford Stanley (Marketing) Ltd., Bilberry, Waterford,

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#### FOR GENERAL USE

Do have regard to the fact that you are accustomed to using an open fire which has an average efficiency rating of around 10%. When converted by the fitting of a Stanley Fire Front, which has an efficiency rating of 65%, you not only receive the benefits in greater fuel utilisation and economy but a sensitivity of control not possible with an open fire. This is all to the good but it must be appreciated that, this very efficiency can contribute to over-firing if care is not exercised in use and we would accordingly ask, that the closest possible attention be paid to the operating instructions overall and in particular the safety aspects which we have emphasised.

Commence with small fires and build up gradually to the required optimum thus ensuring maximum fuel economy with maximum efficiency.