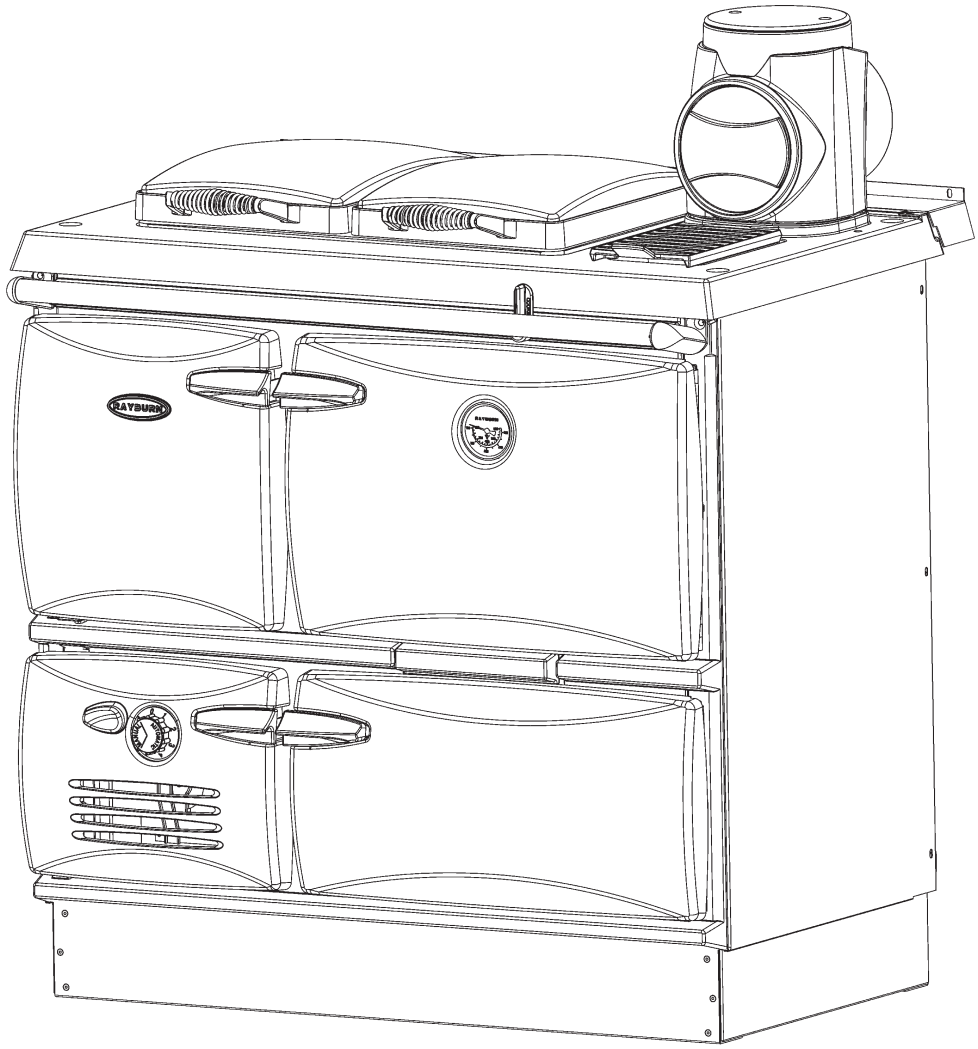
RAYBURN 370 SFW



To ensure safety, satisfaction and maximum service, **this Cooker should be installed by a suitably qualified and competent person.** The provision of a Central Heating facility, requires that the hot water systems involved, conform fully to good plumbing practice and established standards.

INSTALLATION INSTRUCTIONS

TABLE OF CONTENTS

Consumer Protection Act 1987
As responsible manufacturers, we take care to make sure that our products are designed and constructed to meet the required safety standards when properly installed and used.

IMPORTANT NOTICE: PLEASE READ THE ACCOMPANYING WARRANTY: Any alteration that is not approved by AGA, could invalidate the approval of the appliance, operation of the warranty and could also affect your statutory rights. Use only authorised replacement parts.

All local regulations including those referring to national and European standards need to be complied with when installing the appliance.

Control of Substances - Health and Safety Important
This appliance may contain some of the materials that are indicated. It is the Users/Installers responsibility to ensure that the necessary personal protective clothing is worn when handling, where applicable, the pertinent parts that contain any of the listed materials that could be interpreted as being injurious to health and safety, see below for information.

Firebricks, Fuel beds, Fuels - when handling use disposable gloves.

Fire Cement - when handling use disposable gloves. In case of skin contact wash immediately with plenty of water.

Glues and Sealants - exercise caution - if these are still in liquid form use face mask and disposable gloves.

Glass Yarn, Mineral Wool, Insulation Pads, Ceramic Fibre, Kerosene Oil - may be harmful if inhaled, may be irritating to skin, eyes, nose and throat. When handling avoid inhaling and contact with skin or eyes. Use disposable gloves, face-masks and eye protection. After handling wash hands and other exposed parts. When disposing of the product, reduce dust with water spray, ensure that parts are securely wrapped.

Handling Adequate facilities must be available for loading, unloading and site handling.

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.

TECHNICAL DATA

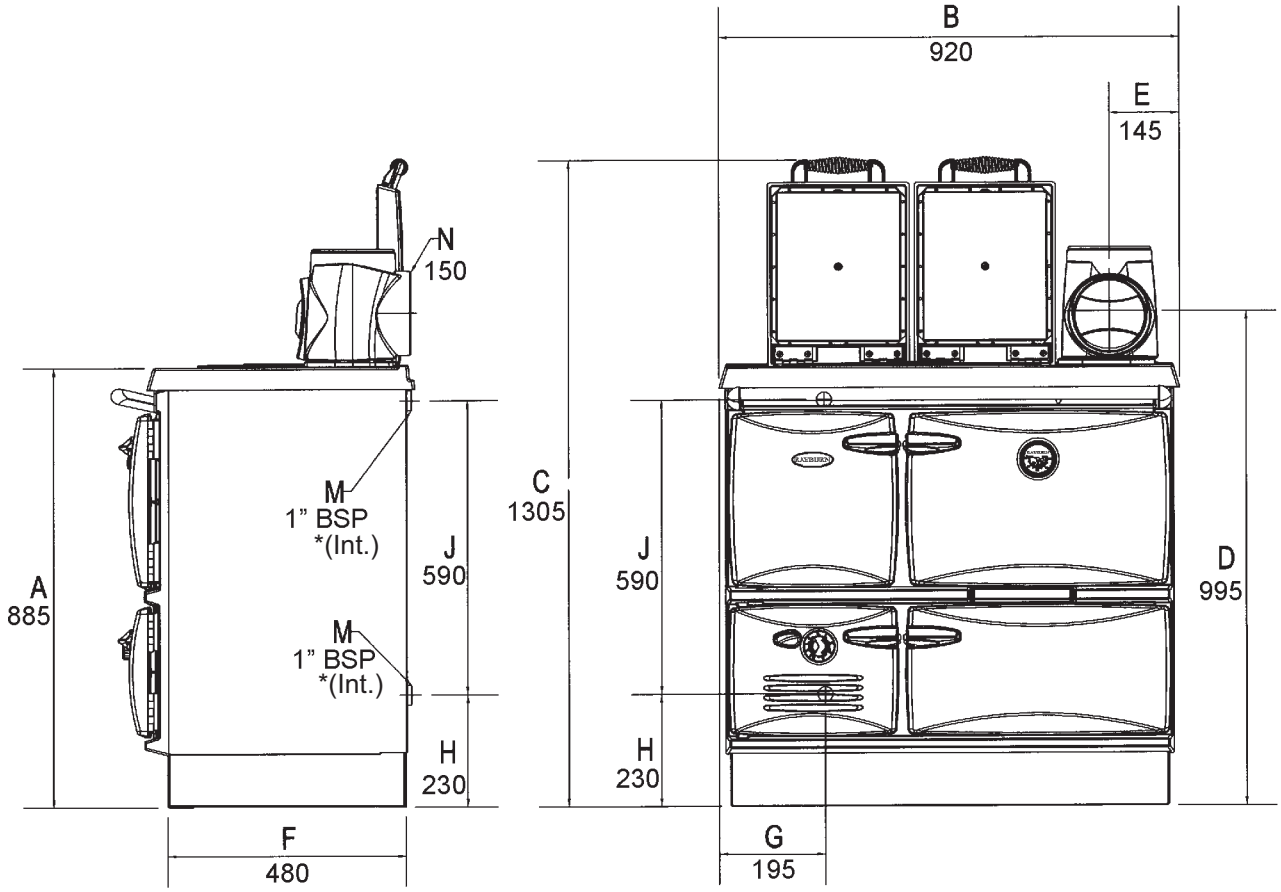
Manufactured Smokeless Fuel (Ancit)				
Mode	**Total Output (kW)**	**Room Output (kW)**	**Boiler Output (kW)**	**Efficiency**
Winter	21.6	8.2	13.4	72.7
Summer	12.2	4.3	7.9	69.8
Typical Refuelling Interval To Obtain Nominal Outputs:			2.0 hrs	
Flue Gas Temperature At Nominal Output:			231-260^{o}C	
Flue Gas Mass Flow:			14.1-16.9 g/s	

Wood Logs				
Mode	**Total Output (kW)**	**Room Output (kW)**	**Boiler Output (kW)**	**Efficiency**
Winter	15.3	5.3	10.0	69.9
Summer	10.9	4.7	6.2	63.6
Typical Refuelling Interval To Obtain Nominal Outputs:			1.0 hrs	
Flue Gas Temperature At Nominal Output:			269-282^{o}C	
Flue Gas Mass Flow:			18.8-21.3 g/s	
Maximum Log Length			380mm	

General	
Gross Weight:	400kg
Flue Outlet Diameter:	150mm
Max Water Pressure:	1.79 Bar
Minimum Flue Draught:	15 pa
Boiler Water Capacity:	20 Litres

SPECIFICATION

Fig.1



WARNING:- THIS APPLIANCE MUST NOT BE USED WITHOUT WATER CONNECTED, OTHERWISE DAMAGE TO THE BOILER MAY BE CAUSED AND/OR HEAT DAMAGE TO SURROUNDING SURFACES.

*** (Int.) Internal Thread**

SITE PREPARATION

The non-combustible hearth must be solid and level and together with the walls adjacent to the cooker and chimney, conform to current Building Regulations.

The cooker and chimney flue installation should be in accordance with the relevant recommendations of the British Codes of Practice BS 8303, BS 6461 Part 1 and BS 7566 Parts 1 to 4 respectively and the central heating system to BS 5449 Part 1. The boiler installation section must also be in accordance with the byelaws of the local Water Undertaking, Regulations for the Electrical Equipment of Buildings published by the Institute of Electrical Engineers and any relevant requirements of the Local Authority.

Ensure that any electrical wiring is correctly earthed.

COOKER POSITION

When the cooker is installed in a recess it must be 'freestanding' and not built-in solid at the sides. Ensure that any combustible material e.g. kitchen furniture is spaced away from the cooker to the recommended distances. See Clearance to Combustibles Section.

BUILDERS OPENING

The fireplace recess should comply with current building regulations, and have an opening of 1,080mm wide minimum, by 343mm deep minimum and 1,680mm high minimum from floor is recommended.

PLEASE NOTE: IT IS ADVISABLE TO CHECK THE SIZE/WIDTH OF YOUR APPLIANCE BEFORE FINALLY FIXING ANY KITCHEN UNITS SINCE ENAMELLED CAST IRON CAN VARY IN SIZE.

THE CHIMNEY

The minimum chimney draught requirement at nominal total heat output is 15 Pa/.06" WG.

This appliance is not suitable for installation in a shared flue system.

Checking existing chimney
The internal and external condition of the chimney should be checked **before** the appliance is installed and rectification made where necessary to prevent leakage or porosity. The soundness of the chimney which should have a minimum flue dimension of 150mm diameter can be confirmed by smoke testing. Advice on the test method can be obtained from HETAS.

When repairing or re-using chimneys its recommended that the building control office be consulted before the commencement of work with particular attention to the chimney height and its termination.

The chimney must be swept before installation.

Erecting New Chimney
The flue through the chimney should be formed with pre-cast moisture and acid-resistant liners with a minimum internal dimension of 185mm square and all in accordance with the current Building Regulations (England and Wales) and in Scotland the Building Standards (Scotland) (Consolidation) Regulations and the Codes of Practice for chimneys and flues BS. 6461 Part 1 and BS 7566 Parts 1 to 4.

Ensure the chimney liners are free of projecting internal building jointing composition before the appliance is installed.

Factory made Insulated Chimneys
It is recommended the chimney be ceramic lined and comply with BS. 4543.

The minimum chimney diameter is 150mm.

IN ALL TYPES OF CHIMNEYS THE MINIMUM HEIGHT FOR CORRECT OPERATION OF THE COOKER IS 4.8m AND SHOULD TERMINATE ABOVE THE ROOF IN ACCORDANCE WITH REGIONAL STATUTORY REQUIREMENTS.

RECOMMENDED FLUE DRAUGHT - 15Pa/.06" WG MINIMUM. THE APPLIANCE SHOULD BE INSTALLED AND CONFORM TO THE CURRENT CODES OF PRACTICE FOR INSTALLATION OF DOMESTIC HEATING AND COOKING APPLIANCES BURNING SOLID FUEL - BS 8303.

ALWAYS ADVISE THE USER TO CLEAN THE COOKER FLUES IN ACCORDANCE WITH THE OPERATING INSTRUCTIONS AND TO HAVE THE CHIMNEY SWEPT AT A MINIMUM OF 6 MONTHLY INTERVALS AFTER THE COOKER IS COMMISSIONED. A VISUAL INSPECTION SHOULD BE CARRIED OUT MONTHLY.

WARNING: PROLONGED SOOT FORMATION MAY RESULT IN THE FLUEWAYS BECOMING BLOCKED AND COULD GIVE RISE TO THE RELEASE OF CARBON MONOXIDE, A POISONOUS GAS, INTO THE ROOM.

COOKER FLUE CONNECTION

The position of available types of flue layouts are shown in Figs. 2, 3 and 4, the cooker flue chamber is adaptable to provide either top or back flue outlets, by means of the reversible loose socket.

(a) **Rear Flue Outlet**
This must only be used where there is a brick flue immediately behind the cooker. Provision must be made for a condensate collecting vessel and cleaning door. See Fig. 3.

NOTE: MAXIMUM HORIZONTAL LENGTH 150mm. EXTENDED REAR FLUE PIPE AND BENDS ARE NOT RECOMMENDED.

(b) **Top Flue Outlet**
The cooker should be connected to the main flue via a 150mm minimum diameter cast iron pipe or appropriately sized vitreous enamelled mild steel pipe and be sealed to the cooker flue chamber with soft rope and fire cement.

Any bends in the flue pipe must be not less than 135º (45º from horizontal) and be complete with a cleaning door.

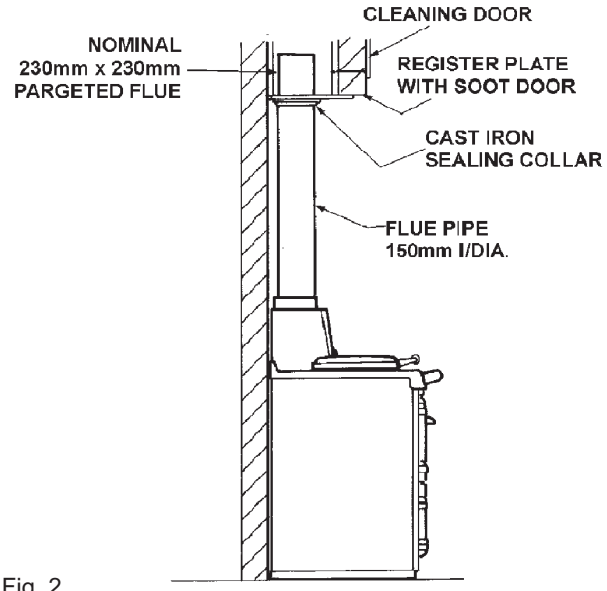


Fig. 2 DESN 515206

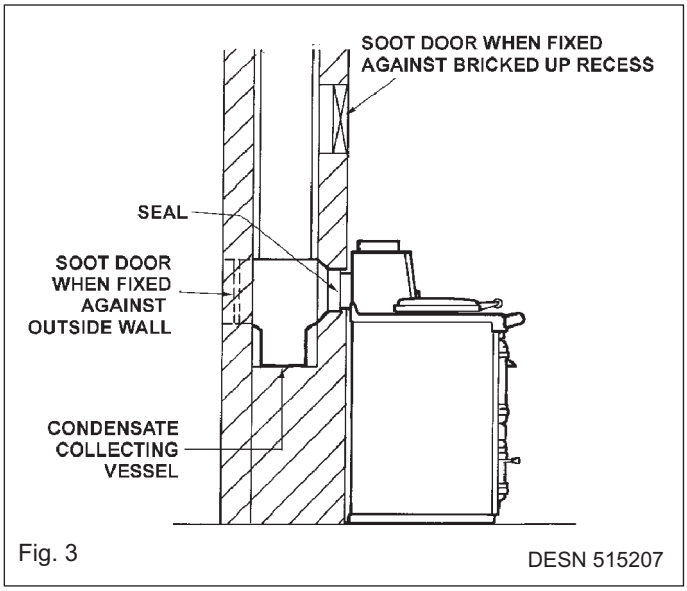


Fig. 3 DESN 515207

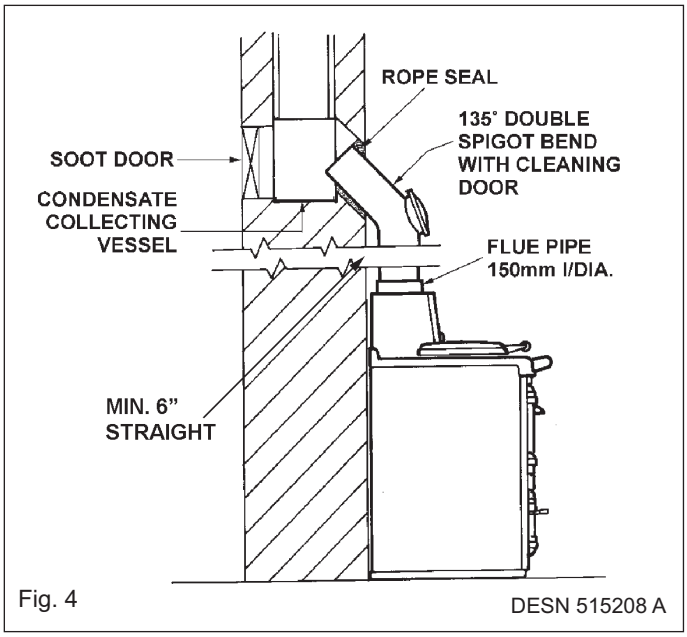


Fig. 4 DESN 515208 A

A minimum 6” vertical length of flue pipe must be fitted before any bend is included.

FLUE LAYOUTS

In Fig. 2. the cooker is installed in an existing recess. There must be a clearance of not less than 150mm between the top of the flue pipe and any overhanging brickwork.

Any cavities or pockets above the register plate should as far as possible be filled and if necessary the flue pipe should be extended into the throat of the chimney and soot door provided for chimney sweeping.

If a flue liner or insulated chimney is used, the size should not be less than 150mm diameter.

There are two Isokern pumice liners which are also recommended. One is the standard 175mm diameter and the other is a 170mm thin wall. The thin wall has a smaller outer diameter and is designed to fit an existing chimney system. Both have a lifetime guarantee.

In Fig. 3, the cooker is connected direct to a brick flue. Horizontal pipe runs between cooker and brick flue **must not** be used.

In Fig. 4, the cooker is connected to an existing brick flue with a length of flue pipe. Square bends and horizontal runs **must not** be used. There must be a cleaning door at every bend.

NOTE: WHATEVER METHOD OF INSTALLATION IS EMPLOYED, AIR MUST NOT BE ALLOWED TO ENTER THE CHIMNEY EXCEPT THROUGH THE COOKER. ALL JOINTS MUST BE AIR-TIGHT.

If the chimney is unlined, and there is any doubt about its condition, it should be lined in accordance with current Building Regulations.

PROVISION MUST ALWAYS BE MADE FOR SWEEPING THE CHIMNEY.
IMPORTANT: CEMENT TYPE PIPES AND FITTINGS MUST NOT BE USED WITHIN 2m. OF THE COOKER. CHIMNEYS OF PLAIN PIPE ARE NOT RECOMMENDED BUT CERTAIN PROPRIETARY MAKES OF INSULATED CHIMNEY ARE SUITABLE.

VENTILATION & COMBUSTION AIR REQUIREMENTS

It is imperative that there is sufficient air supply to the cooker in order to support correct combustion. The air supply to this appliance must comply with current Building Regulations. The minimum effective air requirement for this appliance is 91.3cm^2. This increases to 141.1cm^2 where a flue draught stabiliser is fitted. If another appliance is fitted in an adjacent room it will be necessary to calculate 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.

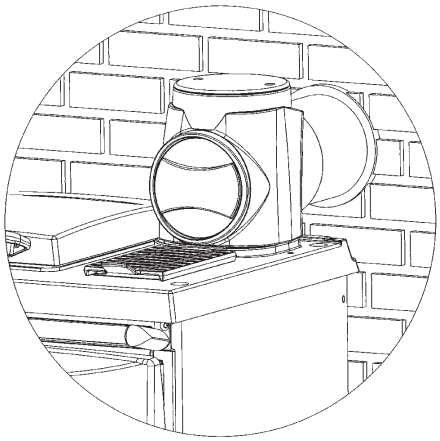
Where such an installation exists, a test for spillage should be made with the fan or fans and other appliances using air in operation at full rate, (i.e.extraction fans, tumble dryers) with all external doors and windows closed.

If spillage occurs following the above operation, an additional air vent of sufficient size to prevent this occurrence should be installed.

Especially Airtight Properties:-

If the cooker is being fitted in a property where the design air permeability is less than 5m^3 / (h.m^2) (normally newer properties built from 2006), then a permanent ventilation must be fitted to provide 550mm^2 of ventilation for each kW of rated output. If a draught stabiliser is also fitted then the requirement is 850mm^2 per kW of rated output.

Fig.5



FLUE BOX

Apply fire cement to the socket in the hob. Attach a short length of 6" (150mm) I.D. pipe approx. 10" (250mm) long to the outlet of the flue box by means of fire cement. Place the flue box on the hob and the pipe into the wall and consolidate the fluebox and pipe into the fire cement. Apply 3 or 4 coils of 10mm (1/2') insulating rope to the pipe and fill the wall cavity with fire cement. (See fig. 5).

CENTRAL HEATING AND HOT WATER SYSTEM

THIS APPLIANCE MUST NOT BE USED WITHOUT WATER CONNECTED.

It is recommended that a 190 litre (40 galls) indirect hot water storage cylinder of the double feed type e.g. (Complying with BS. 1566 Part 1:DF Type 10) should be lagged and fixed vertically as near as possible to the cooker.

The 28mm minimum diameter primary flow and return pipes must not exceed 10m in length and pipes longer than 5m must be lagged.

Ensure that the flow pipe has an open vent and rises continuously from the boiler to the cylinder to ensure good gravity circulation.

In combined systems, the water draw-off pipes to the taps must be dead-leg connection from the vent/expansion pipe.

There are only two boiler tappings on this cooker and a typical design layout is shown in Fig. 6.

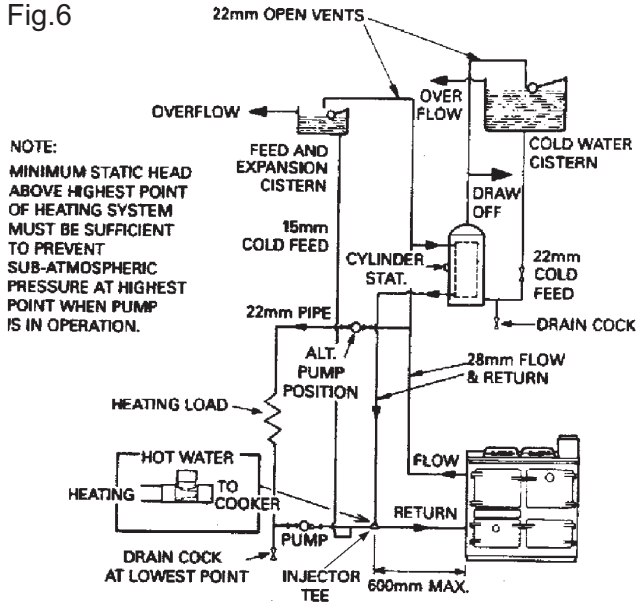
An injector tee is provided which must be fitted to ensure adequate primary flow circulation when the water circulator is operating, otherwise there may be a lack of domestic hot water. The heating flow and return pipes may be 22mm, the return pipe being connected to the 28mm primary return by the injector tee, and the tee outlet connected to the boiler return pipe.

All installations must be fitted with a drain tap at the lowest point of the system.

Inhibitor

A corrosion inhibitor **MUST** be added to the heating system to protect the heat exchanger and pipework. Inhibitor must also be replaced if the system is drained after installation. As a precaution, the heating system **MUST** also be flushed out prior to the addition of the inhibitor to ensure any flux, debris is removed.

Fig.6



Typical Central Heating/Hot Water System

CENTRAL HEATING PUMP CONTROL

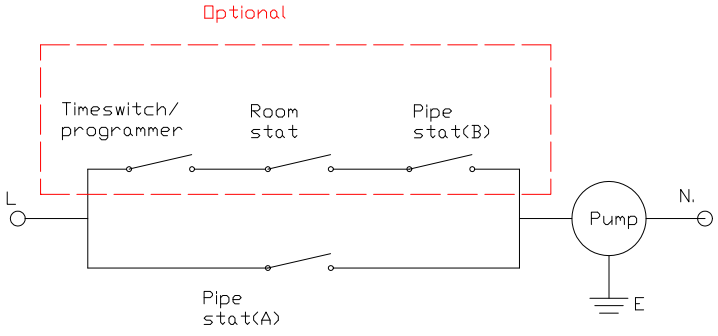
The central heating pump must be controlled by fitting a pipe thermostat on the flow pipe as close as possible to the cooker. If it is used on its own it should be set to approx. 55°C

Alternatively the pipe thermostat (A) can be wired in parallel with another pipe thermostat (b) which is wired in series with a timeclock and room thermostat.

In this instance priority can be given to hot water by setting the pipe thermostat (A) to approx. 85°C used only to prevent boiling, the pipe thermostat (B) should be set to approx. 55°C.

AT LEAST ONE RADIATOR (USUALLY THE BATHROOM) SHOULD **NOT** BE FITTED WITH A TRV (THERMOSTATIC RADIATOR VALVE), TO ACT AS A HEAT LEAK, SHOULD THE BOILER OVERHEAT AND THE PUMP FAIL TO START.

Fig.7



HIGH UPDRAUGHTS

Tall chimneys may develop excessively high updraughts which prevent the appliance operating correctly.

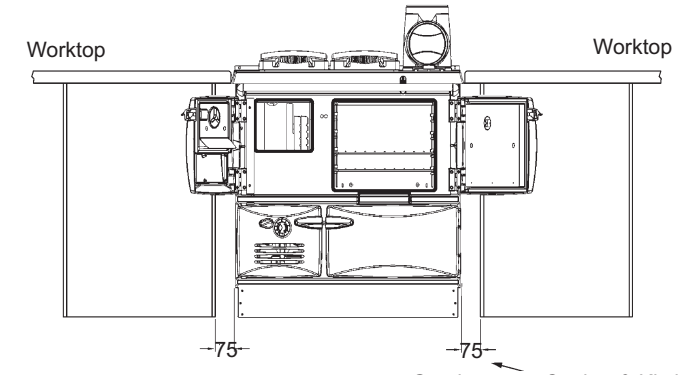
It is recommended that a proprietary brand adjustable flue draught stabiliser having an openable cross sectional area of 182.5sq cm (6”ø pipe) be fitted above the flue pipe connection, either in the brickwork or into a right angle ‘T’; fitting in the flue pipe position that will not inconvenience appliance operation or maintenance.

COOKER CLEARANCE

The Cooker should not be installed at zero clearance to combustible materials. The sides should have a minimum clearance of at least 75 mm (3”) from combustible materials unless otherwise fully insulated.

This cooker is supplied with a back filler piece which should be used with fitting the cooker between kitchen units. This filler piece is mounted to the wall behind the cooker using the appropriate screws and rawl plugs (not supplied) and allows adequate clearance from the front of the cooker to the front of the kitchen units for door opening (see Fig.8 & 8a)

Fig.8



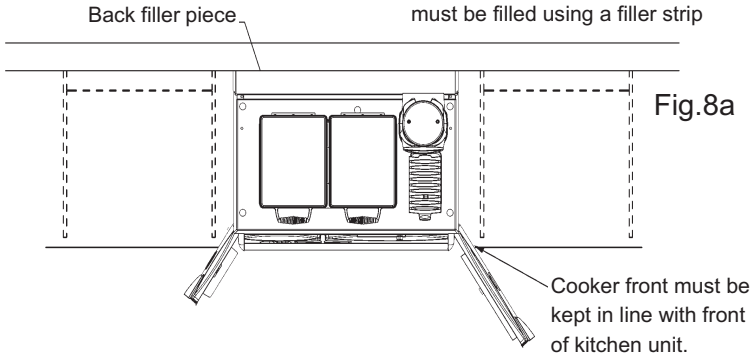


Fig.8a

TESTING & COMMISSIONING

After completing the installation, the heating contractor should demonstrate to the user the operation of the appliance and the routine cleaning method.

The protective grease should be removed from the hotplate before lighting.

Check that the system is full of water and free from air locks.

For the first couple of days do not overfire. The cast iron inside the cooker will build up heat gradually and overfiring may cause damage.

NOTE: SMOKE/SMELL EMITTED DURING INITIAL USAGE

Some parts of the cooker have been coated with a light covering of protective oil. During initial operation of the cooker, this may cause smoke/smell to be emitted and is normal and not a fault with the appliance, it is therefore advisable to open doors and or windows to allow for ventilation. Lift the lids to prevent staining the linings.

CO ALARM

Building Regulations require that whenever a new or replacement fixed solid fuel or wood/biomass appliance is installed in a dwelling a carbon monoxide alarm must be fitted in the same room as the appliance. Further guidance on the installation of the 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.

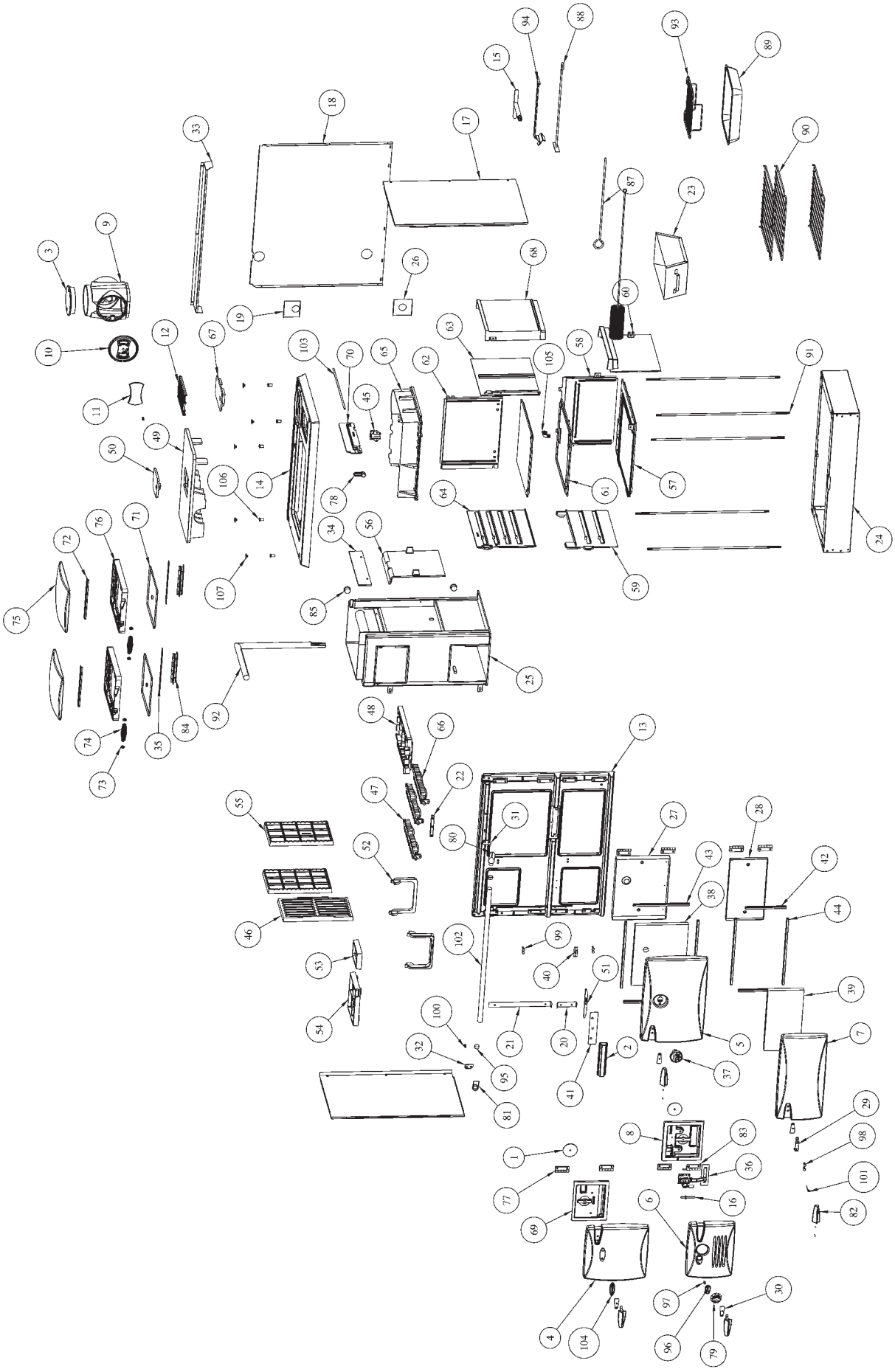
Your installer should have fitted a CO alarm in the same room as the appliance. If the alarm sounds unexpectedly, follow the instructions given under “Warning Note” below.

WARNING:-

If the CO Alarm sounds unexpectedly:-

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

EXPLODED VIEW



PARTS LIST

No.	Description	Code
1.	Spin Valve	B00032AXX
2.	Front Cleaning Door	B00164BXX
3.	Bonnet Blanking Plate	B00296AXX
4.	Fire Door	B00558AXX
5.	Oven Door	B00559AXX
6.	Ash Door	B00560AXX
7.	Warming Oven Door	B00561AXX
8.	Ash Door Back	B00562AXX
9.	Bonnet	B00571AXX
10.	Bonnet Cover	B00572AXX
11.	Bonnet Spin Valve	B00573AXX
12.	Trivet	B00574AXX
13.	Front	B00584AXX
14.	Hob	B00644AXX
15.	Riddling Handle	F00063AXX
16.	Thermostat Holder	F00076AXX
17.	Side Panel	F00078AXX
18.	Back Panel	F00079CXX
19.	Upper Blanking Plate	F00082AXX
20.	Front Cover Plate (Short)	F00083AXX
21.	Front Cover Plate (Long)	F00084AXX
22.	Fire Bar Link	F00097AXX
23.	Donard SF Ashpan	F00100AXX
24.	Base	F00101DXX
25.	Boiler	F00102DXX
26.	Lower Blank Plate	F00117AXX
27.	Main Oven Door Panel	F00906AXX
28.	Warming Oven Door Panel	F00907AXX
29.	RH Strap	F00911BXX
30.	Base Plate	F00914AXX
31.	Fix Plate RH	F00915AXX
32.	Fix Plate LH	F00916AXX
33.	Hob Back Filler Piece	F00986AXX
34.	Oven Side Flue Plate	F01001AXX
35.	Hinge Cover Plate	F01257AXX
36.	Thermostat Without Knob	G00004AXX
37.	Thermometer 100 to 300	G00519AXX
38.	Main Oven Door Insulation	J00230AXX
39.	Warming Door Insulation	J00231AXX
40.	Serial Number Plate	N00234BXX
41.	Gasket (200 * 43 * 2mm)	P00011BXX
42.	Silicone Oven Seal 266mm	P00097AXX
43.	Silicone Oven Seal 312mm	P00098AXX
44.	Silicone Oven Seal 416mm	P00099AXX
45.	Steam Escape	Q00107AXX
46.	Riddling Grate	Q00113AXX
47.	Fire Bar Standard	Q00148AXX
48.	Fire Bar Frame	Q00149AXX
49.	Hotplate	Q00152AXX
50.	Cleaning Plateto Hotplate	Q00154AXX
51.	Front Cleaing Door Clip	Q00158AXX
52.	Summer Grate Support	Q00162AXX
53.	Summer Front Brick	Q00163AXX
54.	Summer Back Brick	Q00164AXX
55.	Summer Side Brick	Q00165AXX

No.	Description	Code
56.	Baffle	Q00166BXX
57.	Base Plate	Q00168BXX
58.	Oven Bottom Back	Q00169AXX
59.	Oven Bottom Side (Left)	Q00170BXX
60.	Oven Bottom Side (Right)	Q00171BXX
61.	Oven Bottom	Q00172BXX
62.	Top Oven Back	Q00173BXX
63.	Right Side Oven Top	Q00176CXX
64.	Top Oven Side (Left)	Q00177AXX
65.	Oven Top	Q00187CXX
66.	Fire Bar Special	Q00233AXX
67.	Cleaning Plate To Hob	Q00590AXX
68.	Flue Way Right	Q00735BXX
69.	Fire Door Back	Q00746AXX
70.	Oven Damper	Q00749AXX
71.	Lining Panel - 300	RO2E340773
72.	Strap - Lid Centre Fixing	RO2M342362
73.	Cup - Coil Handle	RO4M340521
74.	Coil Handle	RO4M340522
75.	Insulating Cover	RO4M342347
76.	Insulating Cover Base	RO5E342348
77.	Hinge Butt” (Black)	U00029AXX
78.	Oven Damper Knob (Black)	U00032AXX
79.	T/Stat Knob (Black)	U00094AXX
80.	Towel Rail Bracket RH	U00106AXX
81.	Towel Rail Bracket LH	U00107AXX
82.	RH Door Handle (Black)	U00156AXX
83.	Extended Hinge (Black)	U00158AXX
84.	Lid Hinge	U00197AXX
85.	Boiler Plug	V00016AXX
86.	Cleaning Brush	V00072AXX
87.	Poker	V00073AXX
88.	Scraper	V00074AXX
89.	Roasting Tin	V00091AXX
90.	Oven Shelf	V00092BXX
91.	Stay Rod	V00096AXX
92.	Secondary Air Pipe	V00097AXX
93.	Grill For Roasting Tin	V00099AXX
94.	Ashpan Lifter	V00499AXX
95.	Towel Rail Bung	V00522AXX
96.	Port Hole Cover	V00774AXX
97.	Spacer	V00775AXX
98.	Pivot Pin	V00800AXX
99.	Catch	V00801AXX
100.	Fix Spindle	V00802AXX
101.	Torsion Spring 1557 RH	V00865AXX
102.	Towel Rail	V00888AXX
103.	Damper Axle	V00905AXX
104.	Badge	V01040AXX
105.	Steam Vent	W00904AXX
106.	Stay Rod Nut	W00920AXX
107.	Stay Rod Nut Cap	W00923AXX

With AGA Rangemster's policy of continuous product improvement, the Company reserves the right to change specifications and make modifications to the appliance described at any time.

RAYBURN

from AGA

Manufactured by
AGA Rangemaster
Station Road
Ketley Telford
Shropshire TF1 5AQ
England

www.rayburn-web.co.uk
www.agacookshop.co.uk