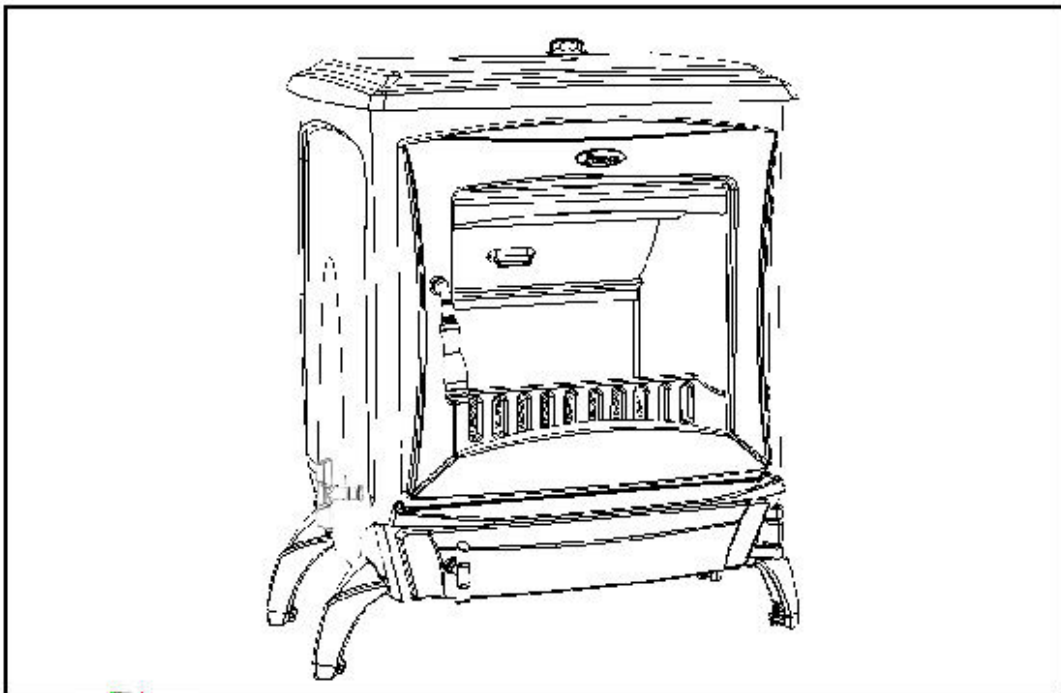


***P**IERCE*



# **GLAS 20 Boiler**

**INSTALLATION & OPERATING INSTRUCTIONS**

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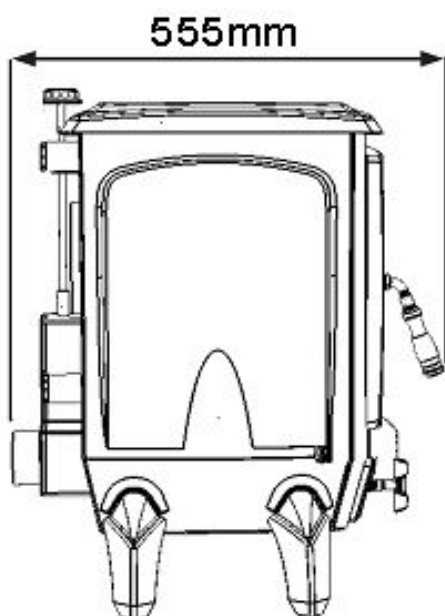
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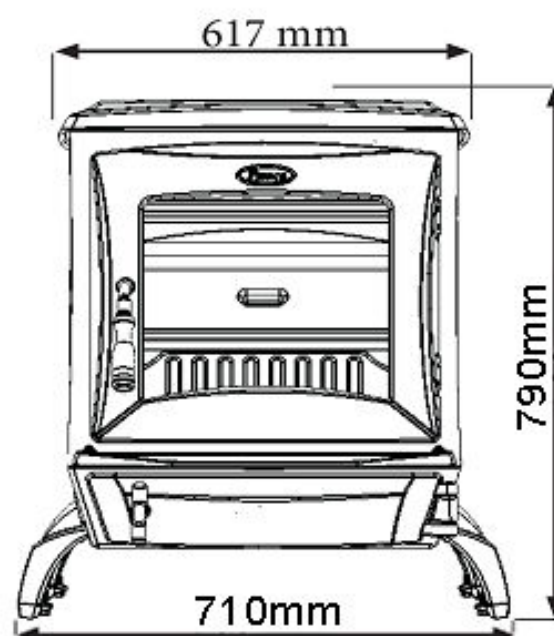
### TECHNICAL DATA:

#### SPECIFICATION

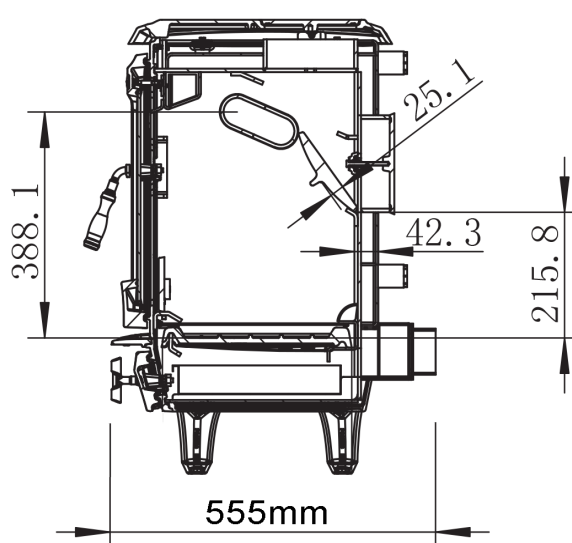
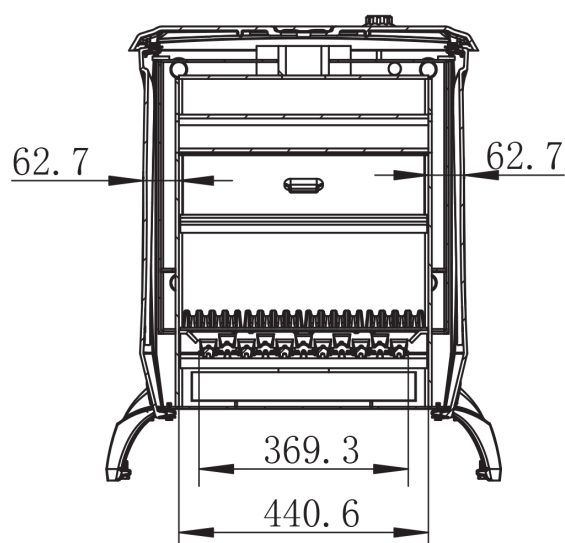
Left View



Front View



#### SECTION DIMENSIONS:



## Installation Introduction with Technical Data

Installation of a fireplace must be according to local codes and regulations in each country. All local regulations, including those which refer to national and European standards, must be observed when installing the product.

Both an installation manual with technical data and a manual on general use and maintenance are enclosed with the product. The installation can only be used after it has been inspected by a qualified inspector. A name plate of heat-resistant material is affixed to the product. This contains information about identification and documentation for the product.

### Technical data:

1. Material: Cast iron
2. Finish: High-temp. Resistance paint
3. Fuel: Multi-fuel
4. Flue outlet: Top rear
5. Inside: 150 mm/175 cm<sup>2</sup> cross section

<b>TECHNICAL DATA</b>		<b>Wood</b>	<b>Manufactured</b>	<b>Approx Nominal</b>
		<b>log</b>	<b>Smokeless</b>	<b>Combined</b>
<b>parameter</b>		<b>mean</b>	<b>mean</b>	
<b>Total efficiency:</b>	<b>%</b>	<b>74.4</b>	<b>74.9</b>	<b>74.6</b>
<b>Nominal heat output</b>	<b>kW</b>	<b>15</b>	<b>20.3</b>	<b>17.7</b>
<b>nominal heat output to space</b>	<b>kW</b>	<b>5</b>	<b>4.9</b>	<b>4.95</b>
<b>nominal heat output to water</b>	<b>kW</b>	<b>10</b>	<b>15.4</b>	<b>12.7</b>
<b>Mean CO emission (at 13% O<sub>2</sub>)</b>	<b>%</b>	<b>0.36</b>	<b>0.22</b>	
<b>Mean flue gas temperature</b>	<b>°C</b>	<b>359</b>	<b>457</b>	
<b>flue gas mass flow</b>	<b>g/s</b>	<b>11</b>	<b>12.7</b>	
<b>Gross weight</b>		<b>195Kgs</b>		
<b>Flue outlet</b>		<b>150mm</b>		
<b>Boiler tapings</b>		<b>1" Bsp</b>		
<b>Max water pressure</b>		<b>2 Bar</b>		
<b>Log size</b>		<b>430mm</b>		
<b>Max water temperature</b>		<b>85°C</b>		

Technical data according to EN13240

Recommended chimney draught: 12 Pa

Operational mode: Intermittent

Intermittent combustion in this context means normal use of the fireplace, i.e. fuel is added as soon as the fuel has burnt down.

## **GENERAL INFORMATION:**

Before installation of your Pierce Stove these instructions should be read carefully to fully understand the controls of your new stove. Keep these instructions for future reference.

Due care should be taken when unpacking and installing a Pierce Stove as not to cause damage to your new stove or its surroundings. Check all components are present and functioning before installation occurs.

## **INSTALLATION REQUIREMENTS**

Installation must always be completed in accordance with current building regulations by a competent qualified person. Incorrectly installed stoves can cause serious accidents such as chimney fires or damage to insulation materials in partition walls and or roofs and ceilings. The installation of the stove to current building regulations is the sole responsibility of the home owner.

## **CHIMNEY REQUIRMENTS**

Do not install a Pierce Stove into a chimney that serves any other heating appliance. The chimney height must be a minimum of 4.5 meters vertically from the floor on which the stove is installed to the top of the flue terminal in order for the stove to perform satisfactorily. The chimney should not have an excessive cross sectional area and should be in good condition without any cracks or blockages. The advice of an expert should be sought in relation to having the chimney lined, if deemed necessary by an expert a suitable lining for a solid fuel stove must be used. The internal diameter of any chimney or flue liner used must not be less than 125mm. Any flue liner and or adaptors used must be fitted strictly to the manufacturer's installation instructions. The flue should be checked and swept before connection to the stove. There may be a need to fit a draught stabilizer if an excessive draft exists, advice should be sought from an expert on the draft conditions. The chimney should be swept twice per year, any flue liner used should be cleaned in accordance with manufacturer's instructions.

## **AIR SUPPLY / VENTILATION**

When installing a stove it is recommended that a permanent air vent be fitted if not already in position. The vent should have an effective area of 550mm<sup>2</sup> per kW of rated output above 5kW. In some instillation conditions under 5kW output stoves will have sufficient air for combustion from natural draughts from doors and windows. In newer properties designed to be almost airtight it may be necessary to have a vent fitted for a stove under 5kW rated output. It is recommended to seek expert advice on the air supply/ventilation for your installation to achieve the best performance from your Pierce Stove. If an air vent is fitted it must not be obstructed for any reason when the stove is in use. An extractor fan should not be fitted in the same room as your stove as fumes may emit into the room. It is recommended to fit a Carbon Monoxide alarm for your safety where you have a stove Installed; this is not mandatory in the republic of Ireland at present but is mandatory in the UK.

## **EXTERNAL SURFACE CLEANING**

Cleaning on the matt finish stove is recommended with a brush attachment on a vacuum cleaner.

Cleaning on an Enamel finish stove is recommended with mild soapy water and a soft cloth.

Strong abrasive utensils or strong detergents should never be used, always clean the stove after cooling.

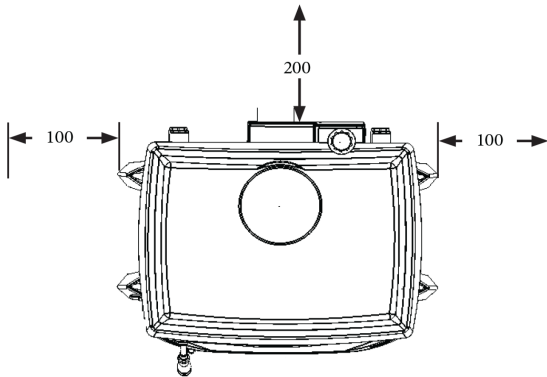
### **DISTANCE TO COMBUSTIBLES**

Pierce stoves operate at high temperatures and for safe operation of your Pierce Stove there are minimum distances to combustible materials, including wood and Plaster board, that must be adhered to at all times. These distances are as follows (see below diagram also)

100mm to either side of the stove

200mm to the back of the stove

460mm from the flue pipe of the stove



The stove should also be installed on a solid non combustible base.

### **GLASS CLEANING**

When there is sufficient heat generated from the fire the air wash system should keep the glass clean. Over time the glass may require cleaning, it is recommended to clean with a liquid detergent and soft cloth taking care not to scratch the glass.

### **ON COMPLETION OF INSTALLITION**

Allow enough time for any fire cement and or mortar used in the installation to dry out according to the manufactures instructions.

A small fire may then be lit to check the installation of the stove.

**Wait at least 24 hours before running the stove at full output.**

### **Please note;**

**When this stove is properly installed it will not emit any fumes into the room. On occasion when using the riddling grate or refueling the stove a small amount of fumes might escape into the room. Constant fume emission is dangerous. If there is persistent fume emission into the room open the windows and doors and let the fire go out. Check the chimney/flue for any blockages and have them cleaned if necessary. Do not relight the stove until the cause of the fume emission has been ascertained and corrected, get expert advice if necessary.**

## **CHIMNEY FIRE**

It is unlikely you will ever experience a chimney fire if your stove is installed and operated correctly as per the operation instructions. In the unlikely event of a chimney fire close the primary air and secondary air controls immediately, evacuate the building and call the Fire Service. Do not re-enter the building until you have been advised by the Fire service that it is safe to do so. Ensure the stove is not used again until the chimney has been swept and the stove, chimney and flue have been inspected by a qualified competent person.

## **IMPORTANT INFORMATION**

- 1. This appliance should not be used as an Incinerator.**
- 2. Non recommended fuels, including liquid fuels should not be used.**
- 3. This appliance, especially surfaces, will be hot to touch when in operation and due care should be taken. It is recommended to use an appropriate fire guard when children the aged or infirm are present.**
- 4. No unauthorized modifications should be made to this appliance.**
- 5. Only recommended replacement parts from the manufacturer should be used for this appliance.**

## **OUTSIDE AIR COMPATABLE**

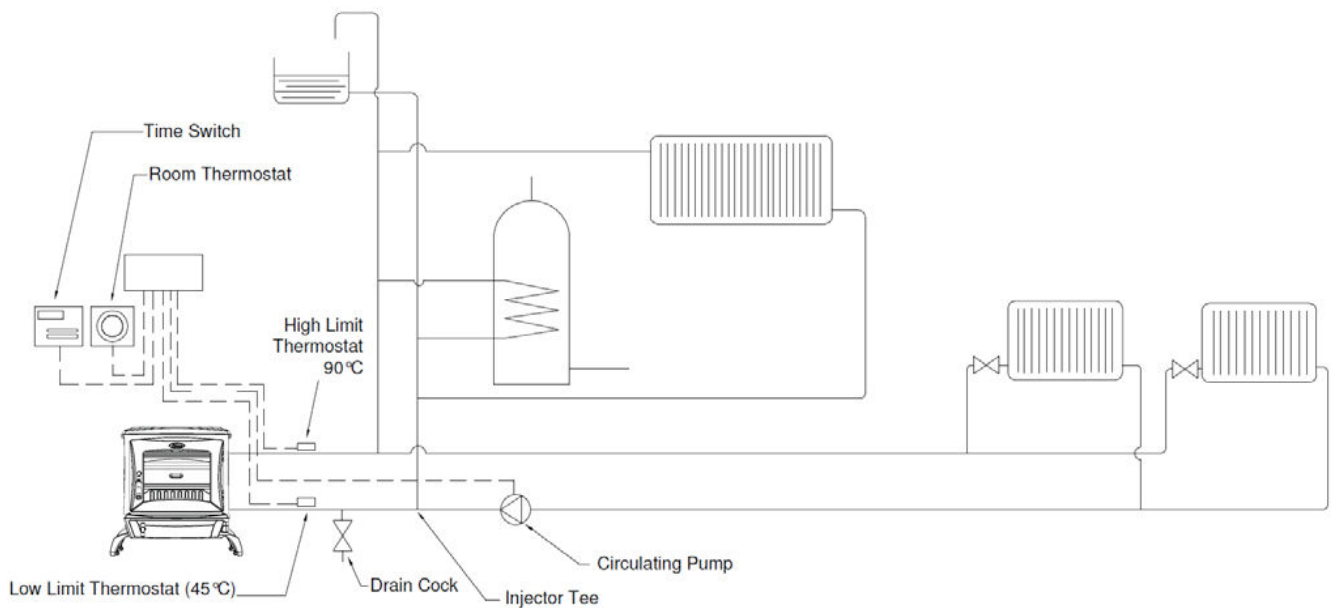
This stove is equipped with an outside air connection on the bottom rear of the stove. The connection can be connected to a 75mm flexi pipe and connected directly to the outdoors through an underground pipe or through a wall at the rear of the stove depending on where the stove is positioned in the building. This allows for the primary air for the stove to be drawn directly from outside instead of from the room. It is recommended if used to adhere to the safe distance to combustibles when fitting the pipe and also to fit an anti vermin cowling to the outside of the pipe.

## ELECTRICAL INSTALLATION

The installation of all electrical connections for example the circulation pump, pump thermostat and any motorized valves must be installed in compliance with local and European building regulations by a competent qualified person.

## PLUMBING INSTALLATION

The plumbing installation must be completed in compliance with all local and European building regulations by a qualified competent person. When installed the system should not rely completely on a gravity fed circuit to the domestic hot water tank but should also incorporate a circulation pump for a pumped radiator circuit. It is recommended to incorporate a heat loss radiator into the gravity fed circuit so in the event of a power cut or pump failure the hot water generated can dissipate through this radiator along with the domestic hot water tank. this appliance must be connect to an open vented system without any manual or automatic valves which could close the flow route from the stove to the systems open vent. Any motorized valves fitted elsewhere to the system must revert to the open position in the event of power failure to allow heat to be safely dissipated through the gravity circulation system. See below diagram of a basic heating system, this diagram is for guidance purposes only.



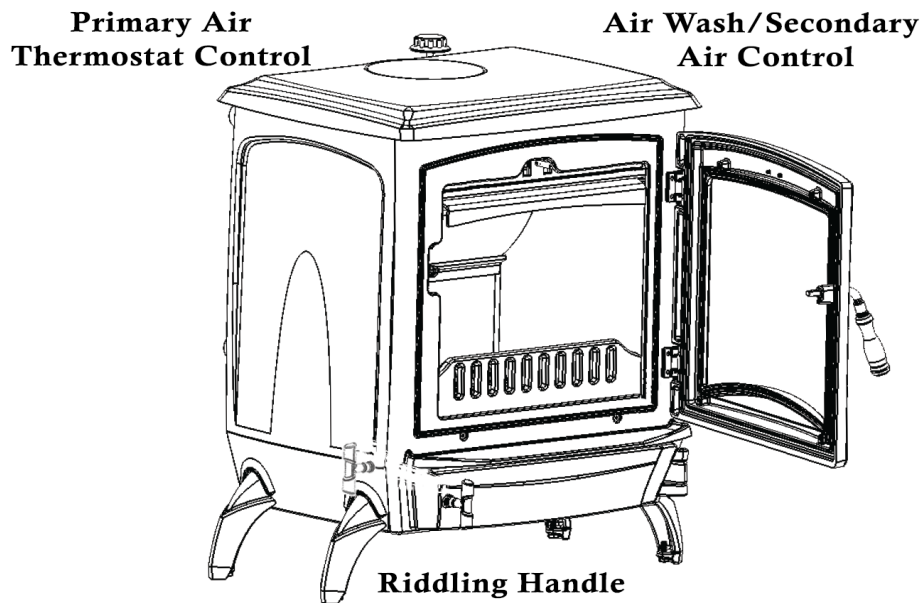


## FAULT FINDING INSTRUCTIONS

Problem	Probable causes	-Action
<b>Fire difficult to start</b>          <b>Fire goes out</b>	<b>Wood green, too damp or poor quality.</b>  <b>Logs are too big.</b>   <b>Air starvation.</b>  <b>Insufficient draught.</b>	<ul style="list-style-type: none"> <li>– Use the recommended fuel.</li> <li>– To light the fire, use small, very dry kindling</li> <li>To maintain the fire, use split logs.</li> <li>– Open primary air and secondary air</li> <li>– Check that the flue is not obstructed, sweep it if necessary</li> </ul> <b>Seek specialist advice.</b>
<i><b>Fire burns too quickly.</b></i>	<b>Too much draught.</b>  <b>Excessive draw.</b>  <b>Poor quality wood.</b>	<ul style="list-style-type: none"> <li>– Ensure that the primary air is closed. Partially close secondary air.</li> <li>– Install a draught stabiliser.</li> <li>– Do not continuously burn small wood or carpentry offcuts.</li> </ul>
<i><b>Smokes while burning.</b></i>	<b>Insufficient draught</b>  <b>Down draught.</b>  <b>Inadequate ventilation</b>	<ul style="list-style-type: none"> <li>– Check that the flue is not obstructed, sweep if necessary.</li> <li>– Install an anti-down draught cowl.</li> <li>– Insure there is adequate ventilation from outside.</li> </ul>
<i><b>Low heat output.</b></i>	<b>Incorrect Fuels.</b>	<ul style="list-style-type: none"> <li>– Use the recommended fuel.</li> </ul>



## **OPERATING INSTRUCTIONS:**



### **PRIMARY AIR THERMOSTAT CONTROL**

The primary air thermostat control is positioned to the right hand side of the top back of the stove (see above diagram). When the control is turned fully counter clockwise it is in the fully closed position and when it is turned fully clockwise it is in the fully open position. The control is numbered from 0 - 4 for you convenience, 0 being fully closed and 4 fully open. When the stove is in use this control can get hot and it is advised to use the glove provided with your stove when adjusting. Primary air is normally used more when burning mineral fuels such as coal.

### **AIRWASH/SECONDARY AIR CONTROL**

The airwash/secondary air control is positioned underneath the door to the top front of the stove (see diagram above). This controls the intake of airwash/secondary air into your stove, slide to the right for the maximum amount of air and to the left for the minimum amount of air. Over time you will find the best setting for your installation and type of fuel used. When the stove is in use this control can get hot and it is advised to use the glove provided with your stove when adjusting. Airwash air is normally used more when burning wood logs.

### **RE-FUELLING/RIDDLING CONTROL**

The riddling control is positioned to the front left side of the stove (see diagram above). Before refueling the stove riddle the fire by rotating the control back and forward to release all the dead ash to the ashpan compartment below. When adding more fuel do not over fill the fire box as this can cause damage by over firing the stove, the fuel should not be filled higher than the front fire fence. After fueling close the door and adjust the primary air thermostat control to the required setting.

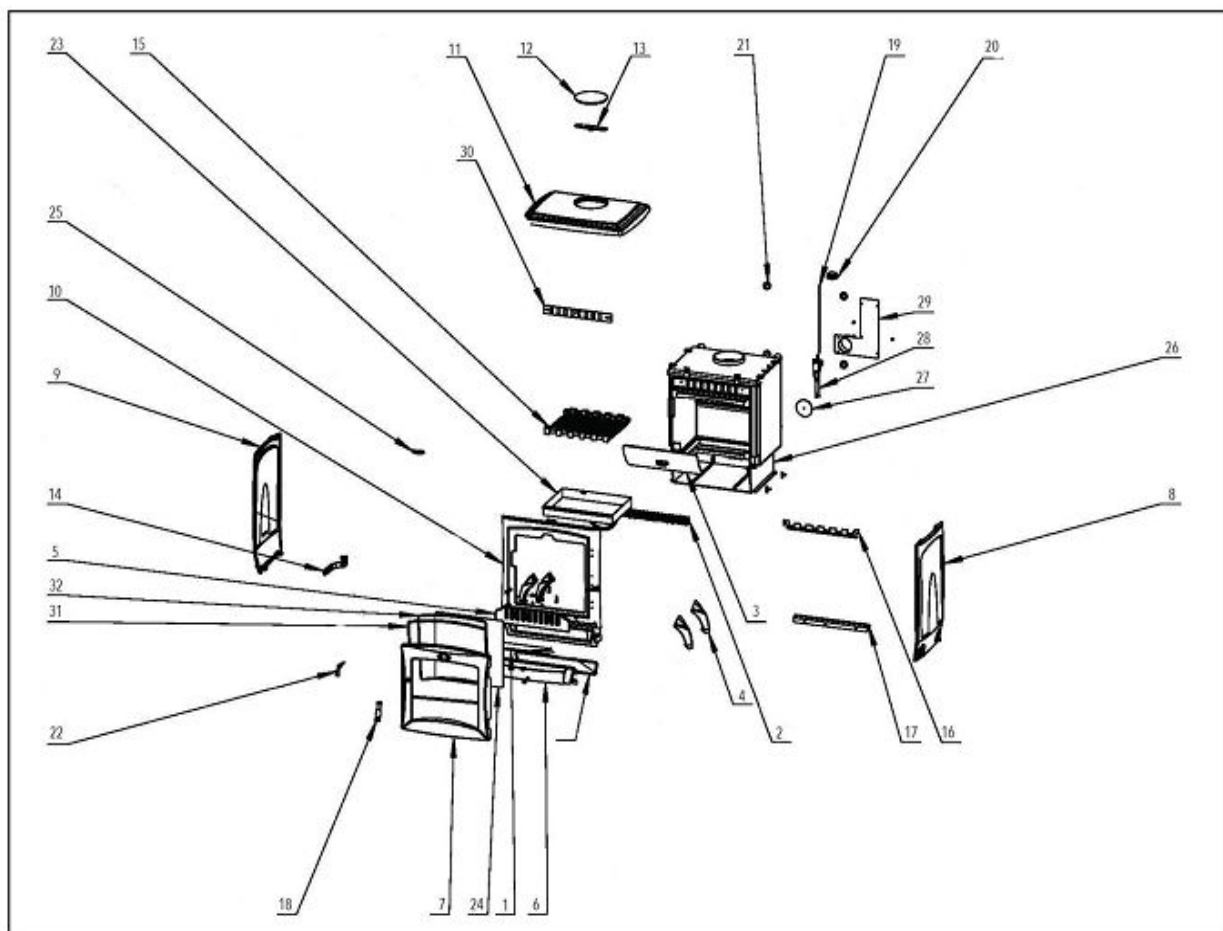
**Never let the ash pan become over full as this will cause damage to the grate. Be sure to empty the ashpan before lighting the stove. Ensure the ash has cooled completely before removing the ashpan and disposing of the ash.**

## **LIGHTING THE STOVE**

First make sure the inside of the stove has been adequately cleaned and that all dead ash has been removed also ensure the ashpan has been emptied and the ashpan compartment is clear of any dead ash. Open the primary air to its maximum setting. Place some firelighters or papers on the centre of the grate and light, add some kindling as required, as the fire establishes itself add your selected fuel and close the door. Adjust the primary air setting as required.

## **FUELS**

The stove has been tested using smokeless fuel (Ancit) and wood logs. Other fuels are available and may give similar results. Wood logs up to 43cm long can be used. All fuels should be kept as dry as possible before Use.



1	Front Strip	PS10562	17	Grate baffle	TBPS10536
2	Ash Baffle	PS10557	18	Door Handle	CA0102-ZH
3	Boiler Baffle	PS10549	19	Dwang for thermostat	CA1304-03
4	Leg	PS10523	20	Handle for thermostat	CA01388
5	Fire Fence	PS10520	21	Water Inlet Cover	CA1701-SL
6	Ashpan Door	PS10508	22	Door Handle Axle	CA0101-ZH
7	Fire door	PS10507	23	Ashpan	CA1211400X300X50
8	Right Plate	PS10506	24	Door Glass	CA10PS105
9	Left Plate	PS10505	25	Logo Badge	CAL0101KE(Logo)
10	Front Frame	PS10503	26	Boiler	CA01PS105T
11	Top Plate	PS10502	27	Thermostat Damper	CABDAMP02
12	Blanking Plate	C150	28	Thermostat	CABWKQ02
13	Blanking Plate Locking Bar	C150Y	29	Primary Air Inlet baffle	CA1118-PS105
14	Ashpan Handle	CA0105A	30	Air Wash Shutter	CA1113-PS105
15	Grate Bar	PS10514	31	Fiberglass rope	CA0802Ø8
16	Blanking Plate	CA1102-D	32	Fiberglass rope	CA0801Ø6
			33	Riddling handle	CA01092-1