



## **Rydal 5 SE**

**Smoke exempt wood burning stove.**

**Installation & user instructions.**

**(To be left with customer).**



Edition 2

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## **Pre-installation checks & general safety notes**

- Installation of this stove **must be** completed in accordance with current local codes and regulations in each country. All local regulations & any rules in force, including those which refer to national and European standards, **must be** observed when installing this product.
- Reference must be made to current issues of British Standard BS 8303, code of practice for installation of domestic heating and cooking appliances burning solid mineral fuel and BS EN 15287-1:2007 design, installation and commissioning of chimneys.
- **Note:** It is a legal requirement under England & Wales Building Regulations that the installation of this stove is undertaken under Local Authority Building Control or is installed by a competent person registered with a Government Approved Competent Persons Scheme. Hetas Ltd operate such a scheme and a listing of their registered Competent Persons can be found on their website at [www.hetas.co.uk](http://www.hetas.co.uk)
- Should any conflict occur between these instructions and any regulations and rules in force then the regulations and rules in force must apply.
- An approved Carbon Monoxide alarm conforming to the latest edition of BS EN 50291 **must be** installed into the room into which the stove is installed. Installation and positioning must be in accordance with current National Building Regulations & any Rules in Force including (Approved Document J. England & Wales). Also refer to the alarm manufacturer's instructions.
- This stove **must not** be installed into a flue that shares any other appliance.
- Extractions fans or units **must not** be installed into the room of stove installation.
- The installer has a responsibility to ensure that all requirements of Health & Safety at Work Act are observed & implemented as stated on the date of installation.
- Due to the weight of this stove adequate facilities must be available for loading, unloading & installation.
- **Always** ensure that there is an adequate air supply into the room containing the stove.
- It is very important that flue ways are regularly swept & checked by an approved person. It is recommended that sweeping and checking should be done at least twice each year for approved smokeless fuel use and quarterly each year for wood burning. The installer must ensure that the chimney is examined for soundness and suitability before the appliance is installed. Remedial action should be taken if required, seeking expert advice if necessary. Where the chimney is believed to have previously served an open fire installation it is possible that the higher flue gas temperatures from a closed appliance may loosen deposits that were previously firmly adhered, with the consequent risk of flue blockage. It is therefore recommended that the chimney be swept a second time within a month of regular use after installation.
- All dampers or restrictors **must be** removed from the flue.
- This stove **must be** maintained to ensure safe operation & efficiency.
- Only use this appliance for domestic property heating in accordance with these instructions.
- Fire cement can be caustic & should not be allowed to come into contact with skin. Refer to manufacturer's instructions.
- This stove contains no asbestos. If there is any situation or possibility of disturbing any asbestos during installation seek professional advice.
- An installation / user manual is enclosed with this 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 this product. This contains information about identification and documentation for

the product.

## **The Clean Air Act 1993 and Smoke Control Areas**

Under the Clean Air Act local authorities may declare the whole or part of the district of the authority to be a smoke control area. It is an offence to emit smoke from a chimney of a building, from a furnace or from any fixed boiler if located in a designated smoke control area. It is also an offence to acquire an "unauthorised fuel" for use within a smoke control area unless it is used in an "exempt" appliance ("exempted" from the controls which generally apply in the smoke control area).

The Secretary of State for Environment, Food and Rural Affairs has powers under the Act to authorise smokeless fuels or exempt appliances for use in smoke control areas in England. In Scotland and Wales this power rests with Ministers in the devolved administrations for those countries. Separate legislation, the Clean Air (Northern Ireland) Order 1981, applies in Northern Ireland. Therefore, it is a requirement that fuels burnt or obtained for use in smoke control areas have been "authorised" in Regulations and that appliances used to burn solid fuel in those areas (other than "authorized" fuels) have been exempted by an Order made and signed by the Secretary of State or Minister in the devolved administrations.

Further information on the requirements of the Clean Air Act can be found here:  
<http://smokecontrol.defra.gov.uk/>

Your local authority is responsible for implementing the Clean Air Act 1993 including designation and supervision of smoke control areas and you can contact them for details of Clean Air Act requirements"

To ensure smokeless operation operate the stove in accordance with these instructions. (Please see instructions within this manual).

The Rydal 5 SE have been recommended as suitable for use in smoke control areas when burning wood.

The appliance is only exempt when used in accordance with these instructions.

## **HETAS LTD approval**

The Rydal 5 SE appliance has been approved by HETAS Ltd as intermittent operating appliances for burning wood logs.

## **Technical data**

### **1.0      Technical and emission data.**

#### **Rydal 5 SE**

|                            |                                                              |
|----------------------------|--------------------------------------------------------------|
| Material:                  | Cast iron and steel.                                         |
| Finish:                    | High-temp resistant paint.                                   |
| Fuel:                      | Wood (Approved wood logs)                                    |
| Log length:                | 25cm maximum                                                 |
| Flue outlet:               | Top or rear                                                  |
| Flue pipe dimension:       | Internal diameter 125mm / 122.7cm <sup>2</sup> cross section |
| Approx. weight:            | 85kgs                                                        |
| Dimensions, distances etc: | Figure 2 & 2A                                                |

#### **Technical data according to EN 13240+A2:2004.**

|                                                                                      |              |
|--------------------------------------------------------------------------------------|--------------|
| Nominal heat output:                                                                 | 4.9kw        |
| Flue gas mass flow:                                                                  | 5.4 g/sec    |
| Recommended chimney draught:                                                         | 12.5 Pa      |
| Efficiency:                                                                          | 80.9 %       |
| CO emission (13% O <sub>2</sub> ):                                                   | 0.07%        |
| Mean flue gas temperature at<br>ambient room temperature of 27°C<br>at date of test: | 217 °C       |
| Operational mode:                                                                    | Intermittent |

#### **Emission data.**

PM mg/m<sup>3</sup>    @ 13% O<sub>2</sub>: 6

OGC mg/m<sup>3</sup>    @ 13% O<sub>2</sub>: 57

CO mg/m<sup>3</sup> @ 13% O<sub>2</sub>: 930

NoX mg/m<sup>3</sup> @ 13% O<sub>2</sub>: 112

## **2.0 Installation introduction**

### **2.1 Unpacking the stove**

After removing the outer packaging, remove the combustion chamber from the wooden pallet and place it gently on its back. The cardboard packaging can be placed underneath to prevent marring. Remove the leg pack from the stove if not assembled at manufacture, bolt each leg securely to the underside of the base on the combustion chamber, using the bolts provided (found inside the stove). Note: There are lower bolts supplied for fitment into holes in the base of each leg, these are adjustable to allow level adjustment of stove to uneven surfaces.

We recommend that two people perform the assembly and installation procedure.

### **2.2 Installing this stove**

The stove and chimney installations **MUST** comply with all current National and Local Building Regulations and any Rules in Force including current issues of British Standard BS 8303 code of practice for installation of domestic heating and cooking appliances burning solid mineral fuel and British Standards BS EN 15287-1:2007 design, installation and commissioning of chimneys; your approved dealer or your local building control officer can advise regarding this. Ultimately, it is you and your installer who is responsible to ensure that the installation complies with all relevant regulations and any rules in force.

For installations within England and Wales also refer to Document J that gives guidance on complying with the Building Regulations.

#### **2.2.1 Tertiary air control.**

The Tertiary air intake is a standard part for the Rydal 5 SE stove, there is no control to the tertiary air intake as it is set at 100% open at manufacture.

#### **2.2.2 Assembling the baffle and removeable internal parts.**

##### **See figures 1.1 to 1.10**

All stove internal parts are assembled at manufacture, however with movements and handling during stove delivery it is possible that some or all of the located parts inside the stove may have moved, therefore it is important to check all these parts for correct position and fitment after the stove is located. Check the baffle and all other parts are located into correct positions including side cheeks, grate assemblies, banking bar and ash pan. Before lighting the stove for the first time, confirm the baffle and all parts are in correct location.

### Location of non-bolted stove internal parts.

Fig 1.1 Drawing of parts that are not bolt fixed to the inside of stove that may have moved during transportation. These parts must be checked to ensure they are in correct location before lighting the stove.

Fig 1.1

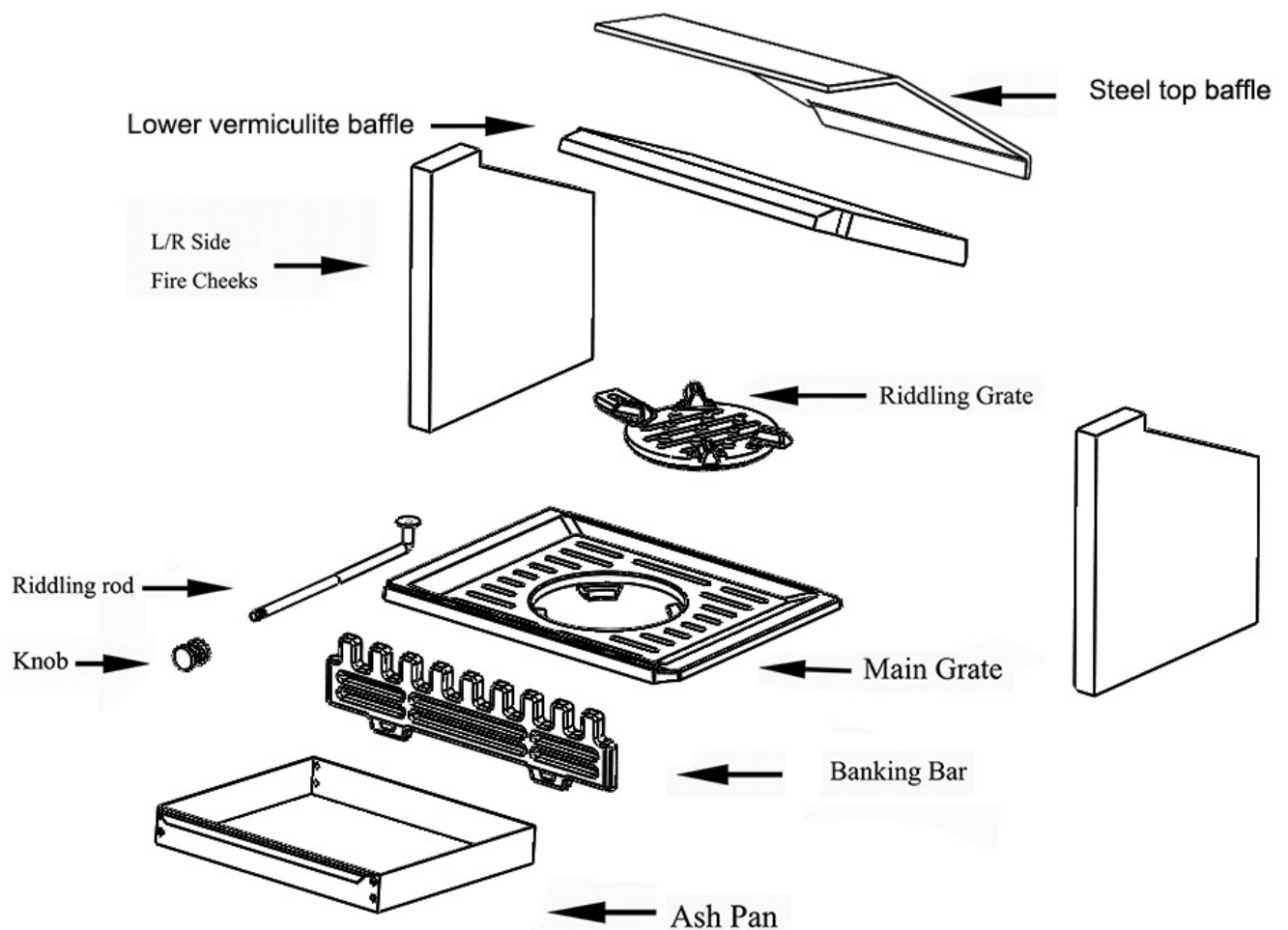


Figure 1.2 Top baffle positioning

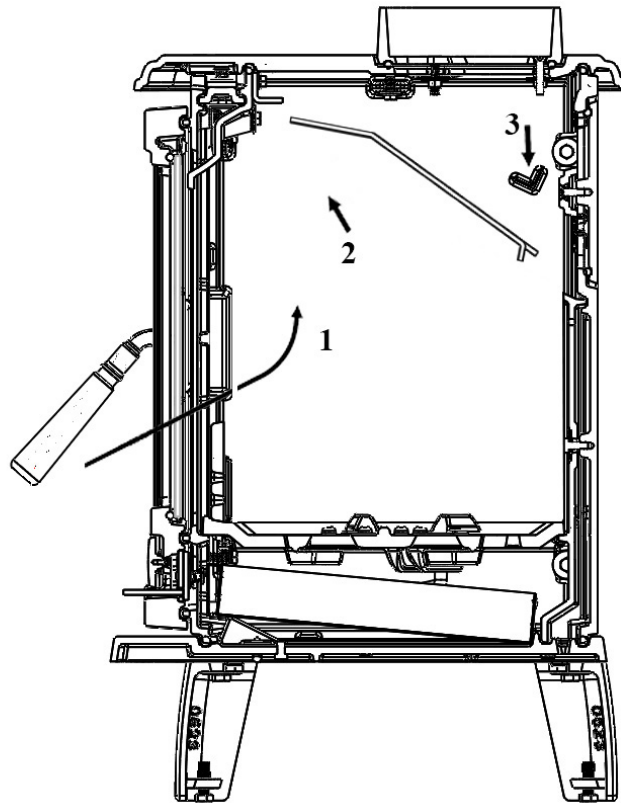


Figure 1.3 Left hand stove vermiculite fire cheek positioning.

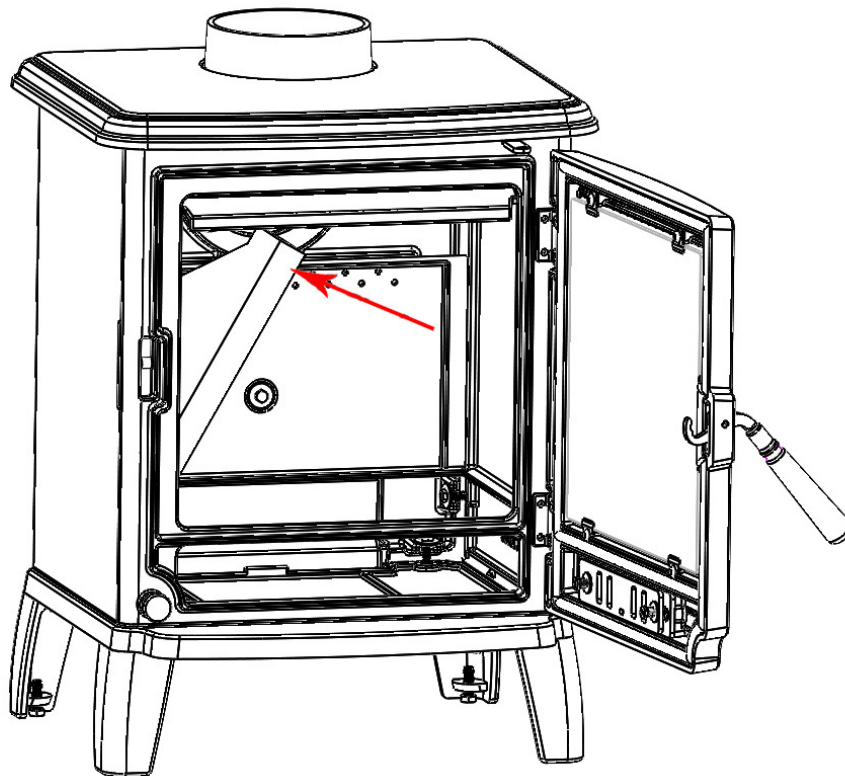


Fig 1.4 Lower vermiculite baffle positioning

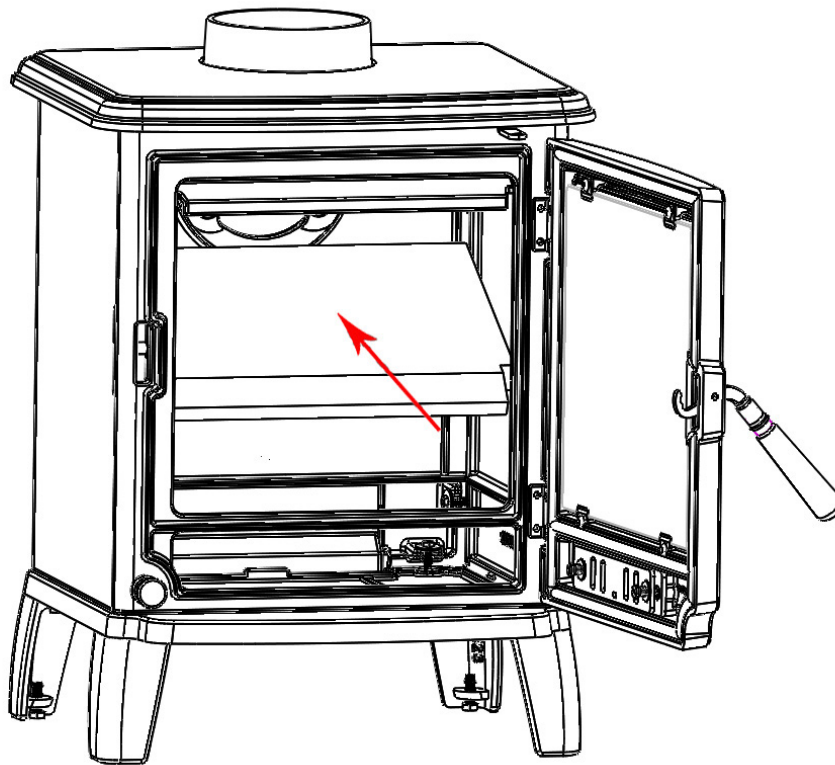


Fig 1.5 Right hand stove vermiculite fire cheek positioning.

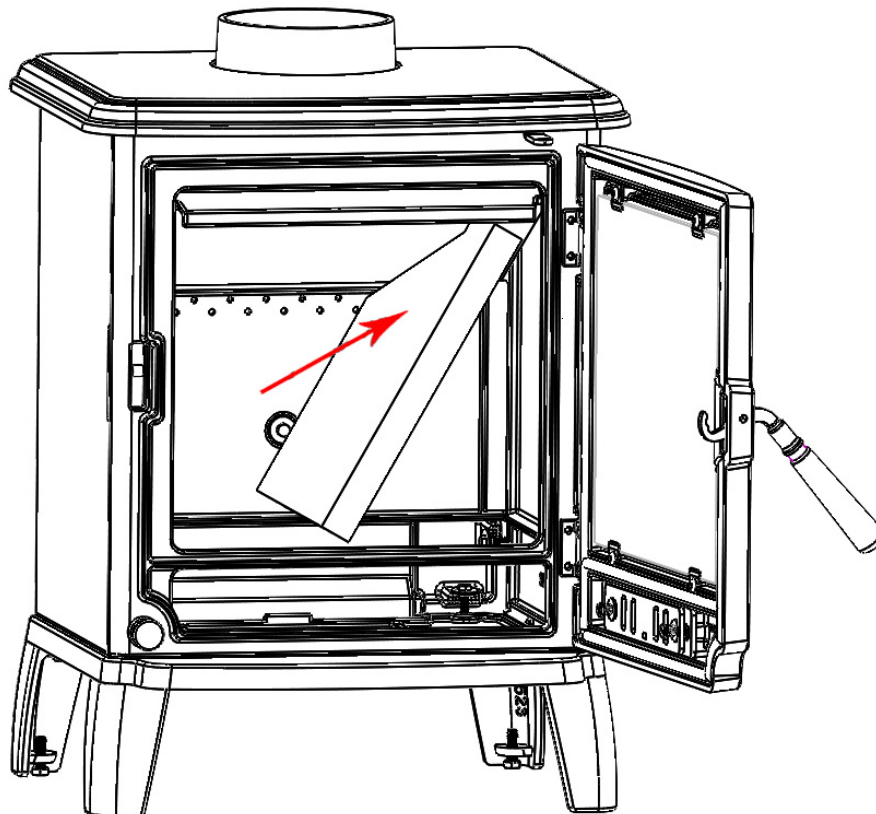


Fig 1.6 Showing top steel baffle in position & lower baffle positioning.

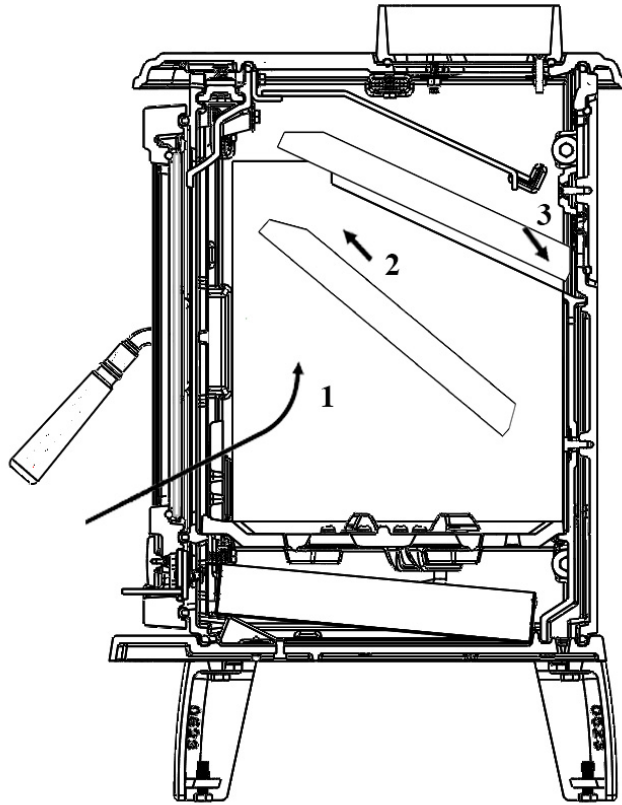


Fig 1.7 Stove main grate positioning

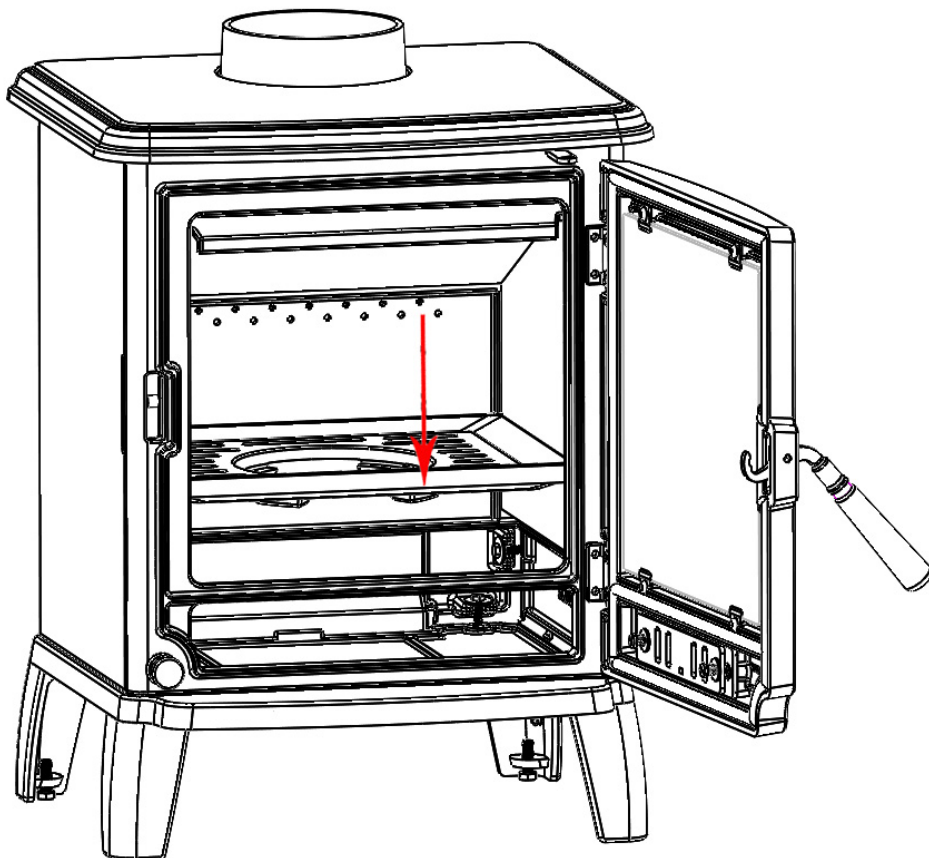


Fig 1.8 Riddling grate positioning. (As facing the stove) The riddling rod connecting hole in the riddling grate to be positioned to the left-hand side of the stove. The riddling rod is connected to the riddling grate eyelet hole to the left-hand side.

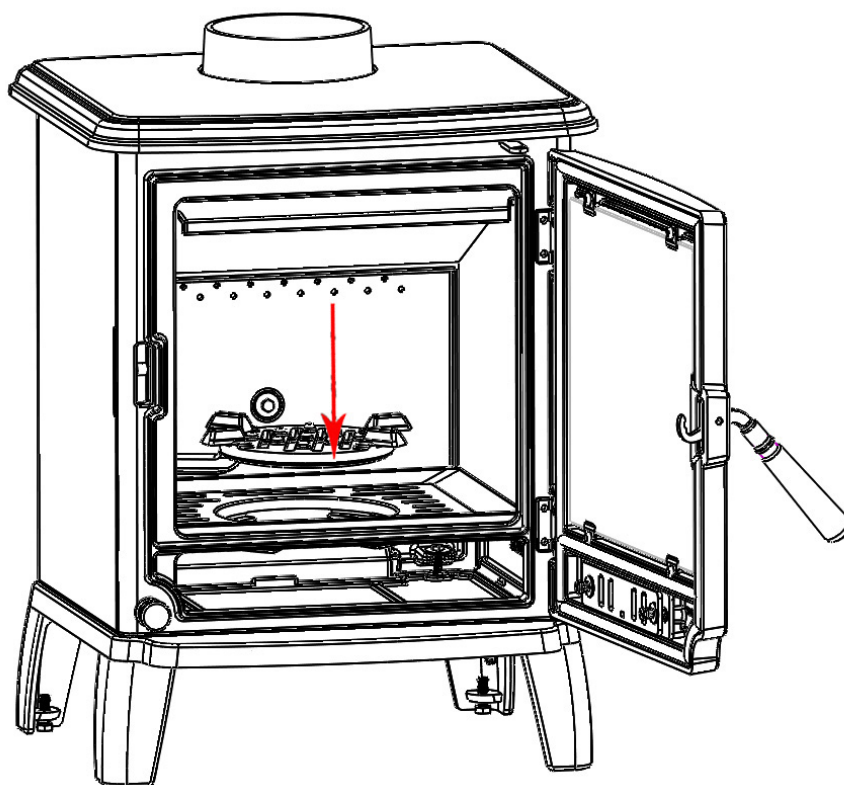


Figure 1.9 Banking bar positioning.

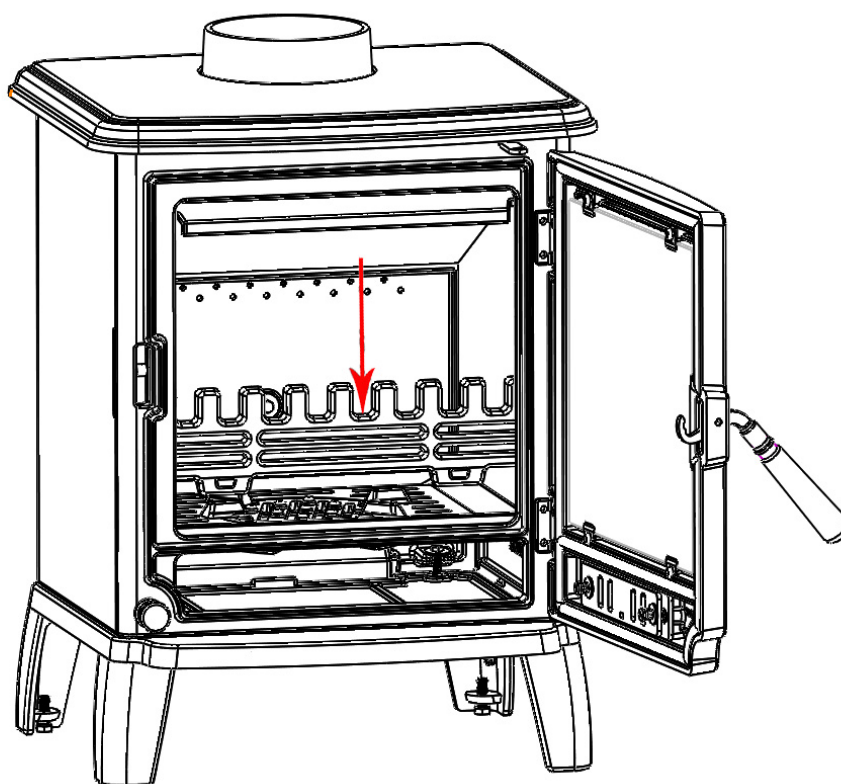
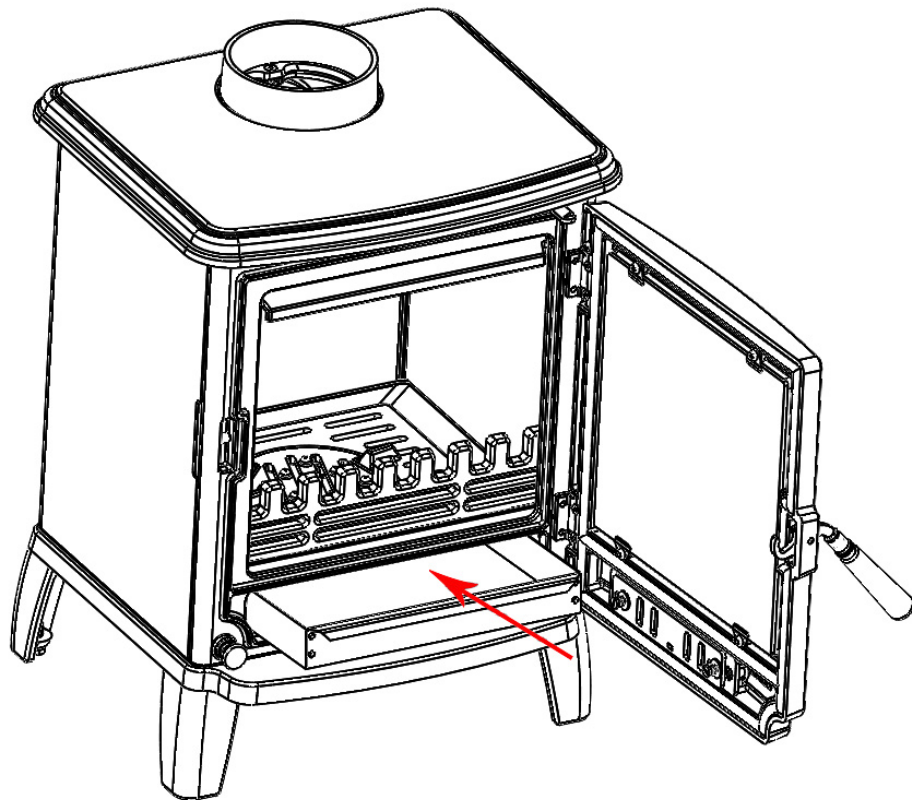


Fig 1.10 Ash pan positioning.



### 2.2.3 Data plate location. See figure 1.11

Position of the stove data plate which is located to the rear of the stove. This shows important information, including:

- a) Model
- b) Standard number
- c) Production date
- d) Dimensions
- e) Serial number
- f) Weight
- g) Recommended fuel
- h) Co Emissions
- j) Efficiency
- k) Nominal heat output
- L) Notice showing minimum distance to combustibles and other safety notes
- m) Manufacturers details

[illegible]

This stove must only be installed onto floors with an adequate load-bearing capacity. If an existing construction does not meet this requirement, suitable measures (e.g., load distributing plate) must be taken. **Must be in accordance with current National laws, Building Regulations, & any Rules in Force, including BS 8303 and BS EN 15287-1:2007. Also refer to Approved Document J (England & Wales)**

The Rydal 5 SE stove can only be used with a Constructional hearth and Superimposed hearth and must be in accordance with current National laws Building Regulations, & any Rules in Force, including BS 8303 and BS EN 15287-1:2007. Also refer to Approved Document J (England & Wales)

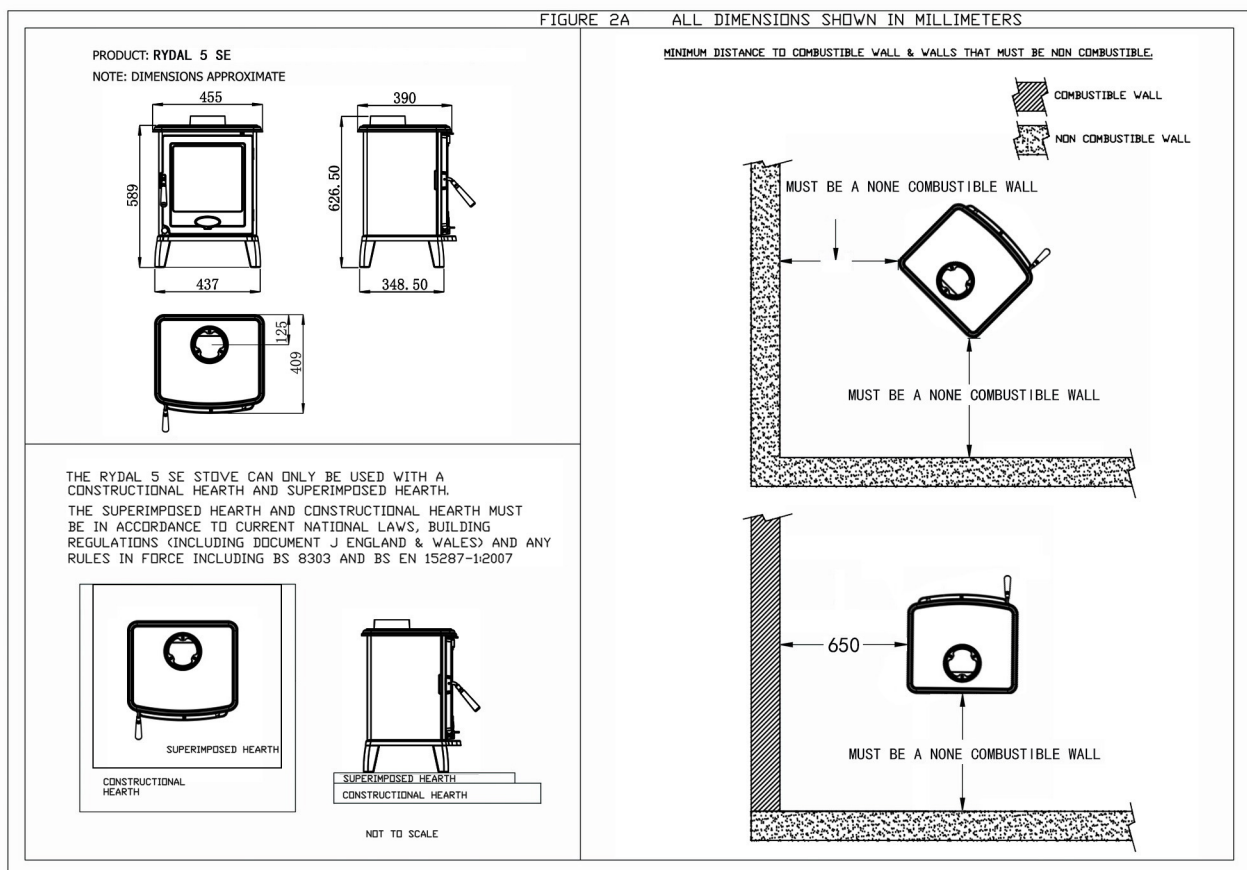
## Minimum distance between the stove and a wall made of combustible material

See figure 2 also refer to current National laws, Building Regulations, & any Rules in Force, including BS 8303 and BS EN 15287-1:2007. Also refer to Approved Document J (England & Wales)

Contact your local building authority regarding restrictions and installation requirements.

Clearance from side of stove: 650mm to left side. / 650mm to right side.

Clearance from rear of stove: The wall must be non-combustible.



## **Distances between stove and a conventional brick Class 1 Chimney.**

**See: Figure 2A**

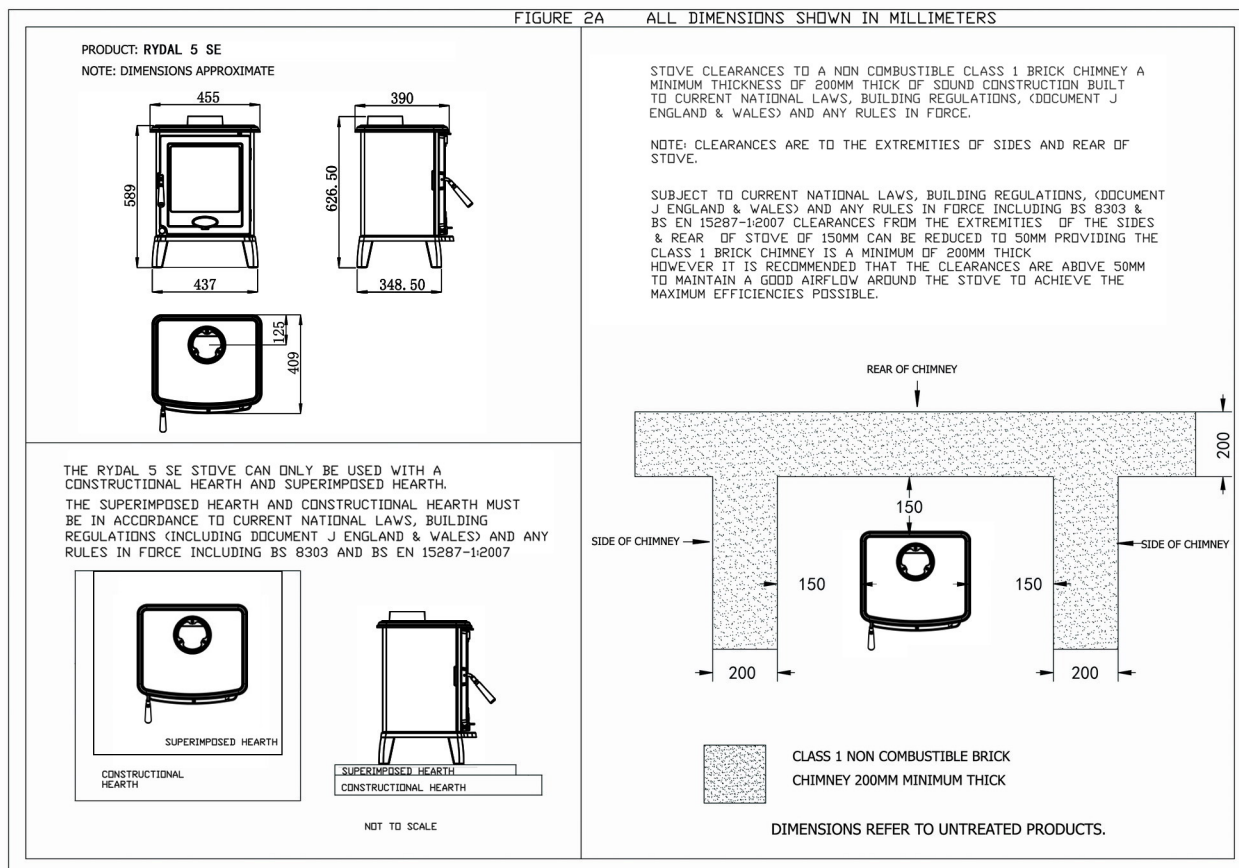
**Refer to current National laws, Building Regulations, & any Rules in Force, including BS 8303 and BS EN 15287-1:2007. Also refer to Approved Document J (England & Wales)**

When installing this stove into a conventional class 1 non combustible brick chimney built to current National laws, Building Regulations and any Rules in Force including BS 8303 and BS EN 15287-1:2007 the clearances between the stove and **non**-combustible chimney must comply with current National laws, Building Regulations & any Rules in Force, however providing all surrounding **non**-combustible brick walls have a minimum thickness of 200mm the clearance between the rear & sides of stove can be reduced to 50mm, refer to current National laws, Building Regulations & any Rules in Force. However, it is recommended that the measurement between the sides & rear of stove to be as large as possible above this dimension, as the efficiency of this stove is dependent on the clearances as shown in figure 2A.

For all other clearances to a **non**-combustible brick wall and chimney refer to current National laws, Building Regulations, (Approved Document J England & Wales) & any other Rules in Force, including BS 8303 and BS EN 15287-1:2007.

Contact your local building authority regarding restrictions and installation requirements.

It is recommended that if a **non**-combustible fireplace such as stone/marble etc is being installed in conjunction with this stove that the fireplace supplier is contacted to see what recommended clearances are required between the stove and the fireplace, although most natural stone and marble is non-combustible there is a possibility of the stone or marble being damaged such as cracking if the stone or marble material is heated excessively.



## Ceiling protection.

**Refer to current National laws, Building Regulations, & any Rules in Force, including BS 8303 and BS EN 15287-1:2007. Also refer to Approved Document J (England & Wales)**

## Clearances to furniture and soft furnishings

Serious consideration should be given to positioning of any furniture or soft furnishings that could be adversely affected by heat. The CE test results state that there must be a minimum of 1200mm from the front of the stove to combustibles however Newman Fireplaces Ltd recommend that any furniture or soft furnishings should be a minimum of 2000 mm away from the stove. **NEVER** use or store aerosol sprays or any other combustible products in the vicinity of the stove when it is in operation or whenever the stove is hot. The stove will remain hot for some time even after the fire is extinguished.

When lit, a wood-burning stove gets hot and therefore adequate protection must be provided, particularly in situations where there is a safety risk to children or the infirm. When using this stove in situations where children, aged and / or infirm persons are present a fireguard manufactured in accordance with BS 8423:2010 + A1: 2016 must be used and such persons must be supervised at all times.

It is also recommended that all other people should use a fireguard in accordance with BS 8423:2010 + A1: 2016 at all times when the stove is alight or hot.

## 2.4 The chimney.

**Refer to current National laws, Building Regulations, & any Rules in Force, including British standard BS EN 15287-1:2007 and BS 8303 Also refer to Approved Document J (England & Wales)**

The construction of the masonry chimneys, flue block chimneys and connecting flue pipe system must meet the requirements of the current National laws, Building Regulations, and any Rules in Force.

This stove must **never** be connected to any shared chimney.

An efficient modern stove places heavy demands on the chimney, and you should have the chimney regularly swept and inspected at least twice a year for smokeless fuel use and quarterly for wood fuel use by an approved chimney sweep.

The flue or chimney system must be in good condition. It must be inspected and swept by a competent registered person and passed for use with the appliance before installation. The National Association of Chimney sweeps (NACS) and for Northern Ireland (NIACS) Northern Ireland Association of Chimney Sweeps offer a register of approved chimney sweeping and inspection services who will issue certificates after inspection and sweeping.

Where the chimney is believed to have previously served an open fire installation it is possible that the higher flue gas temperatures from a closed appliance may loosen deposits that were previously firmly adhered, with the consequent risk of flue blockage. It is therefore recommended that the chimney be swept a second time within a month of regular use after installation by an approved & competent chimney sweep.

If it is necessary to fit a register plate it must conform to the current National laws, Building Regulations and any Rules in Force.

The minimum height of the flue or chimney must be 4.5m from the hearth to the top of the flue, with no horizontal sections and a maximum of 4 bends. Bends must have angles of less than 45 degrees from the vertical. There should be at least 600mm of vertical flue pipe above the appliance before any bends are introduced. Ensure the connecting flue pipe is kept a suitable distance from any combustible material and does not form part of the supporting structure of the building.

The installer must ensure the flue pipe diameter is not less than the diameter of the outlet of the appliance and does not narrow to less than the size of the outlet at any point in the system.

Make provision to remove the appliance without the need to dismantle the chimney.

Any existing flue must be confirmed as suitable for the new intended use as defined in the current Building Regulations.

The flue or chimney systems must be inspected and swept by an approved chimney sweep to confirm the system is structurally sound and free from obstructions.

The flue exit from the building must comply with current National laws, local building control rules, Building regulations and any Rules in Force.

Chimney heights and / or separations may need to be increased in particular cases where wind exposure, surrounding tall buildings, high trees or high ground could have adverse effects on flue draught

It is highly recommended that an approved and certified flexible flue liner that complies with current National laws, Building Regulations and any Rules in Force of the correct internal diameter be used to line the chimney, the liner must be approved for use with wood burning. Flue liner installation must comply with current National laws, Building Regulations, and any Rules in force, also refer to the flue liner manufacturer's instructions. The flue liner must be replaced when

an appliance is replaced, unless proven to be recently installed and in good condition.

The cross-sectional area of the chimney (at its narrowest point) must comply with current National and Local Building Regulations. Generally, the area needed for a wood-burning stove installation should measure at least 150 mm internal diameter. Please refer to current National laws, Building Regulations, and any Rules in Force.

**Important note:** The Rydal 5 SE has been tested for smoke exemption so a minimum internal flue diameter of 125mm can normally be used. \*(This must be confirmed with HETAS or Local Authority Building Control and all National laws, Building regulations and any Rules in Force).

An over-sized chimney is generally hard to keep warm and results in poor draft. In cases where there is an oversized masonry chimney, it is highly recommended that the chimney be lined using an appropriate and approved chimney lining system with the correct internal diameter as stated above.

With respect to the chimney termination, all chimneys should terminate in accordance with current National and Local Building Regulations.

Note that current National and Local Regulations also apply with regard to the placement of chimneys and flues in connection with thatched roofs.

The chimney or flue system must be equipped with access doors for inspection and cleaning. The size of the cleaning door in the chimney must at least equal to that of the cross-sectional area of the chimney. In the event that a chimney fire occurs resulting from faulty operation or prolonged use of damp wood fuel, if safely possible close the air vents of the stove completely, evacuate all persons from the building and contact your local fire department immediately.

## **2.5 Stove Pipe connection.**

**Refer to current National laws, Building Regulations, and any Rules in Force including BS 8303 and BS EN 15287-1:2007. Also refer to Approved Document J (England & Wales)**

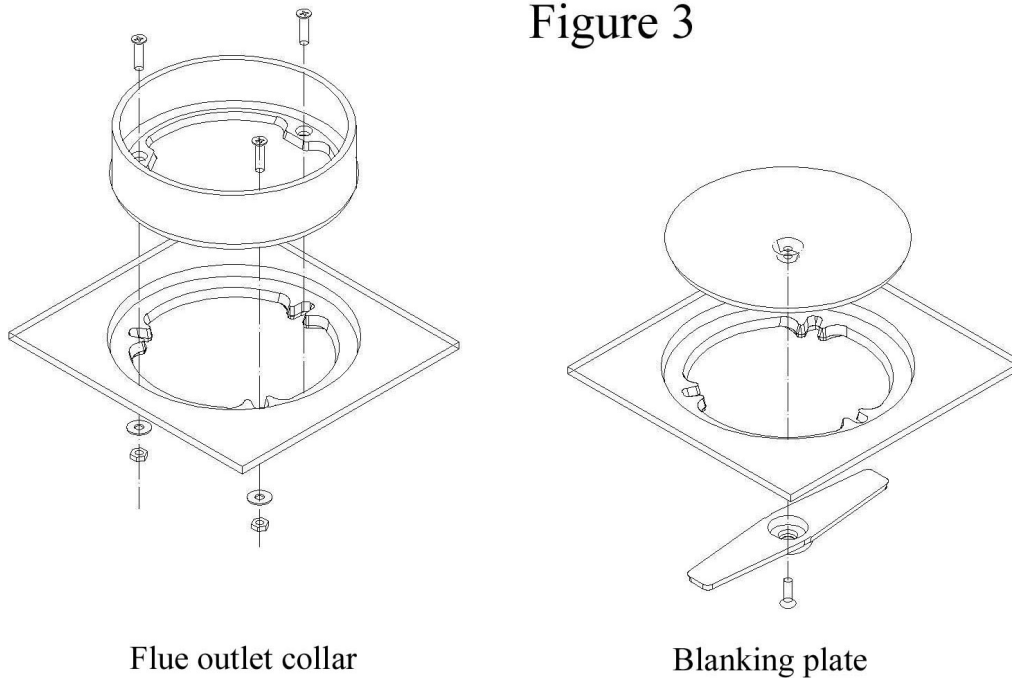
There are two stove flue exits enabling either top or rear venting depending on installation requirements. Using suitable stove sealer or gasket between the flue collar and stove securely bolt into position to the flue exit position required using the 3 fixing bolts, nuts and washers supplied. See figure 3. Use suitable stove sealer or gasket between the stove and blanking plate and blank the redundant stove flue exit securely using the blanking plate and fixing bolt and clamp supplied. See figure. 3

A suitably gauged metal rigid stove flue pipe of the correct size complying with current National laws, Building Regulations, and any Rules in Force (not supplied), is connected to the flue collar.

The joint between the stove collar and rigid stove pipe **MUST BE** fully sealed using suitable stove rope / fire cement. When the rigid stove flue pipe is fully inserted into the stove flue collar drill two suitably sized holes in a suitable position 180° apart through the stove flue collar and rigid stove pipe and use either corrosion proof self-tapping screws or bolts, nut and washers of suitable size to ensure the rigid stove pipe is unable to be pulled out of the stove collar. Ensure the self-tapping screw or bolt nut and washers do not obstruct the stove collar flue way and ensure the screws or bolts and locating holes are airtight.

The chimney or flue way that the stove pipe is connected must be of at least 125mm internal diameter. (ii) rectangular or square flues having the same internal cross-sectional area and a minimum dimension of 100mm for straight flues or 125mm for flues with bends or offsets. Refer to current National laws, Building Regulations, any Rules in Force including BS 8303 and BS EN 15287-1: \*(This must be confirmed with HETAS or Local Authority Building Control and all National laws, Building regulations and any Rules in Force).

Figure 3



## 2.6 Connecting to a masonry chimney

**Refer to current National laws, Building Regulations, & any Rules in Force, including BS 8303 and BS EN 15287-1:2007. Also refer to Approved Document J (England & Wales)**

The stove with rigid stove pipe connection to the chimney and flue and any parts used for this connection must be in accordance with current National laws, Building Regulations and any Rules in Force.

It is highly recommended that an approved certified flexible flue liner that complies to current National laws, Building Regulations and any Rules in Force of the correct internal diameter be used to line the chimney, the liner must be approved for use with wood burning. Refer to the Flue liner installation instructions and current National laws, Building Regulations, and any Rules in Force.

The chimney or flue system must be equipped with access doors for inspection and cleaning. The size of the cleaning door in the chimney must at least equal to that of the cross-sectional area of the chimney.

The chimney or flue way that the stove pipe is connected must be of at least 125mm internal diameter or (ii) rectangular or square flues having the same internal cross-sectional area and a minimum dimension of 100mm for straight flues or 125mm for flues with bends or offsets. Refer to current National laws, Building Regulations, and any Rules in Force including BS 8303 and BS EN 15287-1: \*(This must be confirmed with HETAS or Local Authority Building Control and all National laws, Building regulations and any Rules in Force).

## **2.7 Connecting to a stainless-steel twin wall insulated flue system**

**Refer to current National laws, Building Regulations, & any Rules in Force, including BS 8303 and BS EN 15287-1:2007. Also refer to Approved Document J (England & Wales)**

If the installation is to use a suitable and approved twin walled stainless steel insulated flue system you **must** comply with current National, Local Building Regulations and any Rules in Force, including referring to the flue manufacturer's instructions concerning installation and clearances to combustible materials such as walls, floor joists and ceilings etc.

It is important that the insulated flue system is properly supported both at ceiling level and at roof level.

The Stove **must not** bear the weight of the chimney system (See chimney flue manufacturer's instructions). Excessive weight on the stove will inhibit expansion and could lead to damage of the stove top. Damage caused to the stove in this way would not be covered by the manufacturers guarantee.

The chimney or flue system must be equipped with access doors for inspection and cleaning. The size of the cleaning door in the chimney must at least equal to that of the cross-sectional area of the chimney.

The chimney or flue way that the stove is connected must be of at least 125mm internal diameter.

\*(This must be confirmed with HETAS or Local Authority Building Control and all National laws, Building regulations and any Rules in Force).

## **2.8 Ventilation (Fresh air supply):**

**Refer to current National laws, Building Regulations, & any other Rules in Force, including BS 8303 and BS EN 15287-1:2007. Also refer to Approved Document J (England & Wales)**

The Rydal 5 SE, nominal heat output 4.9kw. Note: This is the nominal heat output not the maximum heat output.

- A wood burning stove requires air for combustion and therefore you may need to install additional ventilation to the room. An adequate air supply for ventilation & combustion is required to the room into which the stove is installed. As this stove is CE tested to 4.9kw nominal heat output a purpose provided air vent is not normally required, (England and Wales). However, in certain circumstances a purpose provided air vent may be required such as: insufficient natural ventilation, a flue draught stabiliser is fitted and date of building construction etc.
- Refer to current National laws, Building Regulations and any other Rules in Force to any other country or area outside of England for ventilation requirements.
- We suggest that it is advantageous to provide an air supply into the room that the stove is installed.
- When determining the ventilation requirements account will need to be made for any other combustion devices in the room.
- Purpose provided air vents must be of the correct size, be non-closable and unrestricted, and must comply with current National laws, Building Regulation & any other Rules in Force.
- Installation of purpose provided air vents must be installed to comply with current National laws, Building Regulation & any other Rules in Force.
- Extractor fans or any other similar devices must not be installed in the room into which the stove is installed.

- Air inlet vents should be positioned in the room at locations to avoid them becoming blocked. If the air supply is inadequate the chimney draft may be too weak, with the possible result that the stove will not burn properly leading to a potentially dangerous situation. Smoke spillage may also occur especially during the refueling process.
- 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 interconnecting doors fully open. and 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.
- This stove requires an adequate air supply in order for the stove to operate safely and efficiently. The installer may have fitted a permanent air supply vent into the room in which the stove is installed to provide combustion and / or ventilation air. This air vent should not under any circumstances be shut off or sealed.

## **2.9 Chimney Draft**

**Refer to current National laws, Building Regulations, & any Rules in Force, including BS 8303 and BS EN 15287-1:2007. Also refer to Approved Document J (England & Wales)**

The recommended chimney draft is 12.5 Pa when the stove is operating at its nominal heat output. If smoke spillage occurs when the fire door is opened, it is probably due to poor chimney draft. This type of stove requires at least **12.5 Pa** of chimney draft to achieve satisfactory combustion and smoke spillage prevention. However, in cases where the stove door is opened too vigorously you could expect that slight smoke spillage may occur.

**Important:** If the flue draught is excessive this will cause over firing and rapid burning of the fuel, this will impair controlling the burn rate which is a dangerous situation and also cause damage to the stove, the stove warranty would be invalidated in this situation. If the flue draught is excessive consult a Hetas registered stove installer or (equivalent for other countries). Do not use the stove until the situation has been remedied.

### **Draft conditions**

The chimney's draft is the resulting effect within the flue caused by the difference in temperature within the flue and the cooler temperature outside. Other factors that can influence the level of draft include the length of the flue, insulation of the chimney, adverse weather conditions or tall buildings or trees nearby the flue terminal.

### **Poor draft occurs when:**

- The atmospheric temperature difference is too low, e.g. a poorly insulated chimney.
- The outside temperature is too high, e.g. during the summer months.
- There is no air movement (wind) outside.
- The chimney is not tall enough, with the result that the terminal sits in the lee of the roof surface or in the vicinity of tall trees or neighboring buildings. These conditions are also associated with downdraft where the flue gases are pushed back down the chimney.
- Flue draft is diluted by residual air entering the chimney, e.g. due to inadequate fluepipe joints

or leaks at the cleaning door or flue collar.

- Unsealed, unused fireplaces are connected to the chimney.
- The flue is blocked, e.g., by soot, due to inadequate cleaning, loose debris or even a birds nest.
- The room to which the stove is installed is too tightly sealed. See section 2.8 Ventilation Fresh air supply).

### **A good draft is achieved when:**

- The temperature difference between the flue way or chimney and outside atmosphere is high. (Higher temperature in flue way or chimney and cooler temperature to external atmosphere). This also applies during firing, when the need is greatest.
- The weather is clear and there is a good wind.
- The chimney is of the correct height.
- The room that the stove is installed is adequately ventilated.

## **2.92 Carbon Monoxide Alarm**

**Refer to current National laws, Building Regulations, & any Rules in Force, including BS 8303 and BS EN 15287-1:2007. Also refer to Approved Document J (England & Wales)**

An approved Carbon Monoxide alarm conforming to the latest edition of BS EN 50291 **must be** installed into the room into which the stove is installed. Installation and positioning **must be** in accordance with current National laws, Building Regulations and any Rules in Force including Approved Document J (England & Wales). Also refer to the alarm manufacturer's instructions.

## **2.95 Handle. Figures 3.5 - 3.5A - 3.5B**

This stove is supplied with three types of handles for customer preference. One is a Bakelite handle; the second is a removable stainless-steel handle and the third is provision to fix the stainless-steel handle into position.

### **Handle assembly**

This stove is assembled with one type of handle when manufactured. If your preference is to use one of the other two handles supplied, then please refer to the handle assembly pictures and instructions on how to change. A stove mitten is supplied with this stove for your use when operating the stove, if the mitten supplied is of the incorrect size for the user then it is recommended that the user sources a CE approved stove mitten or glove to the correct size before lighting and operating this stove. Refer to the end user for the handle configuration required before installation.

### **Important.**

- ▲ Only change the handles when the stove is cold and not being used.

**Figure 3.5 shows the parts for Bakelite handle.**

- Part 1 & 2. Screw and washer for retaining Bakelite handle to spindle elbow.  
Part 3. Bakelite handle.  
Part 4. Handle spindle elbow.

**Assembly:**

Securely attach the Bakelite handle part 3 to the handle spindle elbow part 4 using the bolt and washer parts 1 & 2.

**Operation.**

To operate the handle, move in the direction as shown in figure 4 to either open or close the door.

**Fig. 3.5**



### **Figure 3.5 A shows the parts for plug in removable stainless-steel handle.**

(This will reduce the heat transfer into the handle when the stove is hot and being used).

- |             |                                                                               |
|-------------|-------------------------------------------------------------------------------|
| Part 1 & 2. | Screw and washer for retaining stainless steel handle to the plug-in adaptor. |
| Part 3.     | Spacer.                                                                       |
| Part 4.     | Stainless steel handle.                                                       |
| Part 5.     | Plug-in adaptor.                                                              |
| Part 6.     | Handle spindle elbow                                                          |

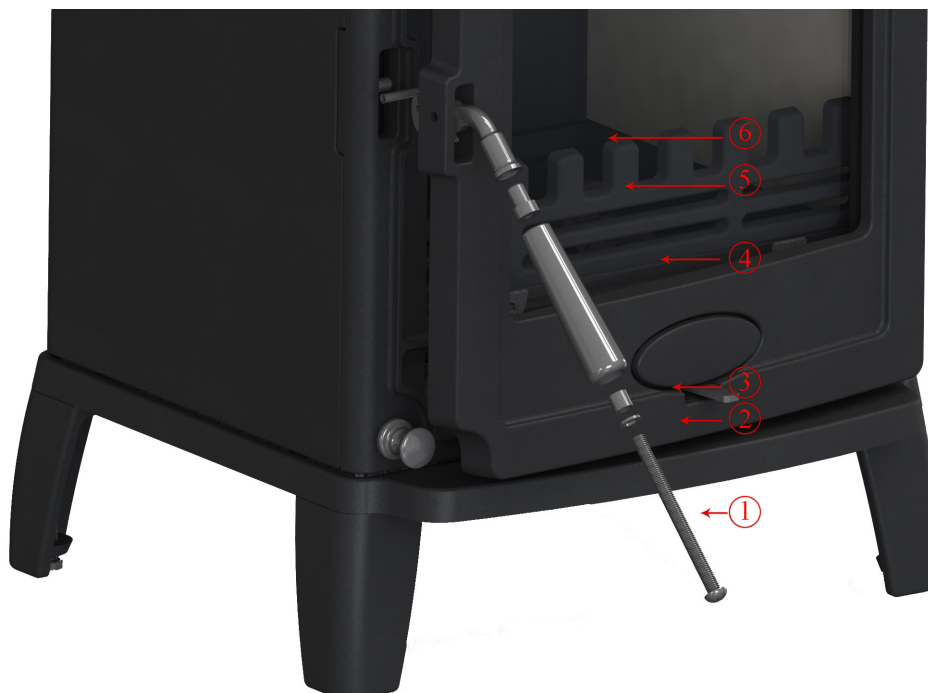
### **Assembly:**

Securely attach the stainless-steel handle part 4 to the plug-in adaptor part 5 using the bolt and washer parts 1 & 2, and spacer part 3.

### **Operation.**

When assembled, the plug-in handle should be placed away from the stove and any heat and used only when the door requires to be opened or closed during lighting or re fueling, simply plug the handle into the handle spindle elbow and operate in correct direction as shown in figure 4 to unfasten the door latch, (the handle must be held into position). The handle is then unplugged from the handle spindle elbow. The same process is used for closing the door with exception of operating the handle in correct direction as shown in figure 4 to fasten the door latch. Always place the removable handle away from the stove when not in use in a cool position, ensure the surface the handle is being placed is **non**-combustible and not able to be damaged by heat by the metal surface of the handle.

**Fig. 3.5 A**



### **Figure 3.5 B**

Showing the parts for the fixed stainless-steel handle. (This can be used for aesthetic purposes when the stove is not alight and not being used).

- Part 1 & 2.       Screw and washer for retaining stainless steel handle to the plug-in adaptor.
- Part 3.           Stainless steel handle.
- Part 4.           Handle spindle elbow.

### **Assembly:**

Securely attach the stainless-steel handle part 3 to the handle spindle elbow part 4 using the bolt and washer parts 1 & 2.

### **Note:**

Due to the heat transfer from the stove to the handle will subsequently make the handle extremely hot, therefore it is recommended that this handle is only used for aesthetic purposes when the stove is not alight and not being used such as the summer period and changed for handle assembly option 3.5 or 3.5A when the stove is required to be used.

**Fig. 3.5 B**



## 2.96 Commissioning and handover

- Ensure the installation of this stove is completed in accordance with current National laws, local codes, and Regulations in each country. All local regulations & any rules in force, including those which refer to national and European standards, **must be** observed when installing this product.
- Ensure all parts are fitted in accordance with these instructions.
- Check the soundness of door seals, castings and all joints.
- On completion of the installation allow a suitable period for any fire cement and mortar to dry out, before lighting the stove. Once the stove is under fire check all seals for soundness and check that the flue is functioning correctly and that all products of combustion are vented safely to atmosphere via the chimney terminal.
- Check the operation of all air controls.
- Carry out a final smoke draw test.
- Warm the flue within inside the stove with a blowlamp or similar product, for approximately 10 minutes.
- Place a smoke pellet on the centre of the grate. Ensure all air controls are fully open.
- Close the stove door. The smoke emitted from the smoke pellet should now be drawn fully up the flue and be seen to exit from the flue terminal.
- Complete the test with all windows and doors closed within the room the stove is fitted.
- If there are any extractor fans fitted in adjacent rooms the test must be repeated with the fans switched on and running on maximum with interconnecting doors fully open and all external windows and doors closed.
- Check the effect of any ceiling fans that may be installed on their maximum setting.
- If the smoke spillage test fails, re-check the flue system and room ventilation. Products of combustion entering the room are potentially very dangerous and the stove must never be left installed in this condition.
- When the fault of the smoke test failure has been identified and rectified another smoke test must be completed to ensure that no products of combustion enter the room and property.
- Check the stove for smoke or fume spillage under normal use, light the stove and slowly increase the temperature.
- Complete the test with all windows and doors closed within the room the stove is fitted.
- If there are any extractor fans fitted in adjacent rooms the test must be repeated with the fans switched on and running on maximum and with interconnecting doors fully open and all external doors and windows fully closed.
- Check the effect of any ceiling fans that may be installed.
- Ensure no products of combustion enter the room and property.
- When the appliance reaches its normal operating temperature open the door and carry out a spillage test with a smoke match or pellet around the door opening.
- If spillage occurs allow the stove and chimney system to cool and re- check the flue system and ventilation. This must be rectified to ensure safe operation of this stove before handing over to the end user.
- On the completion of the installation and commissioning ensure that the operating instructions for the stove are left with the customer and user.
- Explain to the user the safe operation of the appliance, use of controls and the importance of using suitable fuels and never to exceed the maximum fuel load stated within these instructions.

- Explain to the user the three types of handle configurations available and show how they can be changed and how they are used.
- Explain to the user the high temperatures the stove can reach and never to touch any part of the stove and flue pipe. Explain that the stove and flue pipe will remain hot for some time after the stove has been used and not to touch any part. Show and hand to the user the stove mitten and tool supplied for use in operating the handle and all air controls, including the ash pan and riddling grate and explain how to use.
- Advise the user that when using the appliance for the first few days, to allow the appliance to settle and allow fixing sealers and paint to fully cure. Advise the user to operate the appliance at a lower temperature for the first few days to achieve this.
- Advise the user what to do should smoke or fumes be emitted from the stove.
- Ensure that an approved carbon monoxide alarm has been fitted and make the user aware of its operation and importance.
- Explain to the user the cleaning and routine maintenance requirements.
- Explain to the user the requirement to use a suitable fireguard when children, elderly or infirm persons are within the room the appliance has been installed.
- Explain to the user that it is recommended that all persons within the room the appliance has been installed to use a suitable fireguard.
- Explain to the user that a suitable fireguard must be used when the appliance is left unattended.
- Record the appliance serial number and also give to the user as this will be needed for any spares that may be required and any warranty claim. The serial number is located on the data plate that is fixed to the rear of the stove, this serial number can also be found on a aluminum tab riveted to the internal base of the stove directly under the removable ash pan

### 3.0 User Manual

#### Important.

Please read the installation and user instructions so that you become fully acquainted and understand how to use and operate this stove safely.

▲ = **Warning sign.**

▲ Installation of this stove **must be** completed in accordance with current local codes and regulations in each country. All local regulations & any rules in force, including those which refer to national and European standards, **must be** observed when installing this product.

▲ **Important Note:** It is a legal requirement under England & Wales Building Regulations that the installation of this stove is undertaken under Local Authority Building Control or is installed by a competent person registered with a Government Approved Competent Persons Scheme. Hetas Ltd operate such a scheme and a listing of their registered Competent Persons can be found on their website at [www.hetas.co.uk](http://www.hetas.co.uk)

▲ Section 2.95 Handle. This has information regarding the types of handles that are available.

▲ This stove is a high heat producing appliance and may cause severe burns & injury if touched to any part.

- ▲ **Do not** touch the surface of this stove when hot. This stove may still be hot even after the fire is extinguished.
- ▲ This stove gets very hot when burning and also remains very hot for some time even when the fire is extinguished, therefore adequate protection must be provided, particularly in situations where there is a safety risk to children, aged and the infirm. When using this stove in situations where children, aged and / or infirm persons are present a fireguard manufactured in accordance with the latest edition of BS 8423 + A1 **must be** used and such persons **must be supervised at all times.**
- ▲ It is also recommended that all other people should use a fireguard in accordance with the latest edition of BS 8423+ A1 at all times when the stove is alight or hot.
- ▲ It is **not** recommended that the stove is left operating unattended. If the stove is operating unattended a fireguard **must** be used and comply with the latest edition of BS 3248
- ▲ **Ensure** the area around the stove is clear of all obstacles so as not to be a trip hazard and allowing a totally unobstructed space whilst lighting, re fueling, adjusting the air controls, removal and replacement of ash pan and at all other times.
- ▲ Use the long ash pan key provided for operating and adjusting all air controls, including removal & replacement of the ash pan when necessary and operation of the riddling control. Also use a stove mitten as below when operating the stove and when holding and using the long ash pan key.
- ▲ It is recommended always to use approved and suitable stove tongs for loading and refueling the stove with wood to avoid any part of your arms and hands entering or touching the stove. Use the stove mitten to hold the tongs.
- ▲ A stove mitten is supplied with this stove for your use when operating the stove, however if the mitten supplied is of the incorrect size for the user then it is recommended that the user sources a CE approved stove mitten or glove to the correct size before lighting and operating this stove.
- ▲ Where the chimney is believed to have previously served an open fire installation it is possible that the higher flue gas temperatures from a closed appliance may loosen deposits that were previously firmly adhered, with the consequent risk of flue blockage. It is therefore recommended that the chimney be swept by an approved chimney sweep a second time within a month of regular use after installation.
- ▲ Chimneys / Flues and connectors should be swept, cleaned, and checked at least twice a year if burning approved smokeless fuel and at least quarterly each year when burning wood, by an approved and registered Chimney Sweep. Ensure the Chimney / Flue sweeping and checking schedules for both fuels include sweeping and checking at least once before the heating season and at least once after the heating season.  
Registered chimney sweep associations:  
The National Association of Chimney sweeps (NACS) and for Northern Ireland (NIACS)

Northern Ireland Association of Chimney Sweeps. Both associations have a register of suitably qualified chimney sweeping and inspection services that issue certificates after inspection.

- ▲ If the stove is to be left unused for a prolonged period, then it should be given a thorough clean to remove ash and unburned fuel residues. To enable a good flow of air through the appliance to reduce condensation and subsequent damage, leave the air controls fully open.
- ▲ It is important that the flue connection, any appliance baffles or throat plates and the chimney are swept, cleaned, and inspected by an approved and registered chimney sweep prior to lighting up after prolonged shutdown periods.
- ▲ The installer may have fitted a permanent air supply vent into the room in which the stove is installed to provide combustion and / or ventilation air. This air vent should not under any circumstances be shut off or sealed.
- ▲ An approved Carbon Monoxide detector alarm conforming to the latest edition of BS EN 50291 **must be** installed into the room the stove is installed. Installation and positioning must be in accordance with current National laws, Building Regulations including Approved Document J (England & Wales) and alarm manufacturers instruction.

### ▲ **Actions to take if the alarm sounds in a CO emergency**

If you suspect fumes are escaping from your combustion appliance into your home, or your carbon monoxide alarm goes off.

- Turn the appliance off, by closing the air controls.
- Open doors and windows to ventilate the building.
- Leave the building immediately and do not return until your appliance has extinguished and the air in the room is clear.
- If you feel unwell go to your doctor, or call one of the following:
- NHS England on 111
- NHS Direct on 0845 46 47 (in Wales)
- NHS 24 on 111 (in Scotland)
- If it is urgent phone 999 for an ambulance. Tell them you feel your symptoms may be related to carbon monoxide poisoning.
- Before you reuse the appliance, have it serviced by a HETAS Registered Installer (England & Wales) or equivalent approved installer for other nations and the chimney swept by an approved chimney sweep.
- Do not use the appliance until you are told it is safe to do so.

Provisions of an alarm must not be considered a substitute for either installing the appliance correctly or ensuring regular servicing and maintenance of the stove and chimney system.

▲ **The common symptoms of carbon monoxide poisoning can include:**

- Headaches
- Breathlessness
- Nausea and / or vomiting
- Dizziness or collapse

▲ Extra fuel **must not** be stored on, below or next to the stove.

▲ **Never** use or store aerosol sprays or any other combustible products in the vicinity of the stove when it is in operation or whenever the stove is hot. The stove will remain hot for some time even after the fire is extinguished.

▲ **Clearances to furniture and soft furnishings.**

Serious consideration should be given to positioning of any furniture or soft furnishings that could be adversely affected by heat. The CE test results state that there must be a minimum of 1200mm from the front of the stove to combustibles, however Newman Fireplaces Ltd recommend that any furniture or soft furnishings to be a **minimum of 2000 mm** away from the stove. **Never** use or store aerosol sprays or any other combustible products in the vicinity of the stove when it is in operation or whenever the stove is hot. The stove will remain hot for some time even after the fire is extinguished.

When lit, a wood-burning stove gets hot and therefore adequate protection must be provided, particularly in situations where there is a safety risk to children or the infirm. When using this stove in situations where children, aged and / or infirm persons are present a fireguard manufactured in accordance with BS 8423:2010 + A1: 2016 **must be** used and such persons **must be** supervised at all times.

▲ **Never** place laundry near to the stove.

▲ **DO NOT** place photographs, TV's, paintings, porcelain, etc or other combustible items on the wall or near to the appliance. Exposure to hot temperatures can be dangerous and cause damage.

▲ **Never** over fire or use incorrect fuel to the stove as this can be dangerous and cause damage to the stove and invalidate the stove warranty.

▲ This appliance has been tested at a nominal heat output to the requirements of EN 13240:2001 for intermittent operation, it is **VERY IMPORTANT** you **DO NOT** exceed the maximum fuel loads and operation of the stove is followed as the instructions.

▲ Only use this appliance for domestic property heating in accordance with these instructions.

▲ Your home building insurance company may require you to inform them that a new heating appliance has been installed on your property, so it is strongly advised to check with your insurance provider. Check that your cover is still valid after installing the appliance and also check with them if all chimney sweeping, cleaning and inspections certificates are required to

be kept together with the approved stove installer, installation and service maintenance records.

- ▲ This stove should be serviced at least annually by a suitably qualified and registered stove installer.
- ▲ This stove contains consumable parts, and their replacement intervals can vary depending on how the stove is operated and the fuel being used. Also, a heavy build up of ashes on the grate and Riddling grate will cause premature damage, see section 3.2.3  
Consumable parts: Grate, Riddling grate, Banking bar, glass, all seals, side bricks, Back brick, Bottom brick, Top baffles, Ashpan.  
Consumable parts are not covered under any stove guarantee.

▲ **WARNING NOTE.**

- ▲ Properly installed, operated, and maintained this stove will not emit fumes into the dwelling. Occasional fumes from de-ashing and re-fueling may occur. However, persistent fume emission is potentially dangerous and must not be tolerated. If fume emission does persist, then the following immediate action should be taken: -
  - Open doors and windows to ventilate the room and then leave the premises.
  - Let the fire go out.
  - Check the flue for chimney blockage and clean if required by an approved chimney sweep.
  - Do not attempt to relight the fire until the cause of the fume emission has been identified and corrected. If necessary, seek expert advice.
  - The most common cause of fume emission is flue way or chimney blockage. For your safety these **must be** kept clean at all times.

▲ **Fire Safety: Serious consideration should be given for the following:**

- The installation of smoke detectors.
- A conveniently located approved fire extinguisher to contend with small fires resulting from embers.
- A practical evacuation plan.

▲ **A plan to deal with a chimney fire as follows:**

- Notify the fire department.
- Prepare all occupants for immediate evacuation.
- If safely possible, close all air openings into the stove.

### 3.1 Maximum fuel loads and choice of fuel.

#### Maximum fuel load

| <u>Stove model</u> | <u>Wood</u>                                                     |
|--------------------|-----------------------------------------------------------------|
|                    |                                                                 |
| <b>Rydal 5 SE</b>  | 1 to 2 x Small to medium sized logs maximum total weight 0.98kg |

#### Recommended fuel: Seasoned hardwood

Only use seasoned hardwood logs with a moisture content of 16 % plus or minus 4 %

Never use wet wood or unseasoned wood.

Suitable hardwood is available commercially and normally sold in bags, ensure if your fuel is sourced this way that it meets the criteria above. It is recommended that your fuel supplier uses a managed and renewable source.

Pieces of wood with a diameter greater than 10 cm should always be chopped. The pieces of wood should be short enough to be able to lie flat over the layer of embers, with air at both ends. The maximum length of wood to be no more than 25cm.

#### Maximum fuel load.

The maximum fuel load to be one or two small to medium sized logs (total weight 0.98kg) this should burn for about an hour before needing to refuel, then the appliance is operating at approximately 4.9Kw.

Ensure the wood fuel does not obstruct the tertiary air inlet holes to the rear of inside of the stove. The wood fuel to be placed below all tertiary air inlet holes.

Ensure that all wood is placed so as not to touch and obstruct the glass and door when closed, all fuel to be loaded behind the banking bar, ensuring that all fuel does not project passed the banking bar.

#### Not recommended as fuel:

Green or damp wood reduces stove efficiency and soils the glass, the internal walls and the flue (soot, tar, etc.).

Softwood.

Used timber. Burning treated wood (railway sleepers, telegraph poles, off cuts of plywood or chip board, pallets, etc.) quickly clogs the flue ways (soot, tar,) etc, pollutes the environment (pollution and smell,) etc, and cause the fire to burn too quickly and overheat.

“Green wood” and “recovered wood” can eventually cause a chimney fire.

#### Prohibited fuel:

Plastic bags and any form of bituminous coal or petroleum-based coke. Do not use the appliance as an incinerator or use any liquid fuels. **This is very dangerous and may damage the product and pollute the atmosphere.**

All other fuels.

## 3.2 Use

### Important

- It is strongly recommended that you do not leave your stove alight at night or unattended. It harms the environment, and constitutes very poor use of the wood, as the gases in the wood do not ignite at the low temperature but settle as soot (unburned gases) in the chimney and stove, this can cause damage to the chimney flue and stove. Extreme conditions, such as poor draught in the chimney, large quantities of wood or wet wood, may, in the worst-case scenario, cause an explosive ignition.
- It is not recommended firing the stove in the summer period, when there is minimal need for heat, the combustion will be poor due to the air controls being at a low setting this will harm the environment, and constitutes very poor use of the wood, as the gases in the wood do not ignite at the low temperature but settle as soot (unburned gases) in the chimney and stove, this can cause damage to the chimney flue and stove. Extreme conditions, such as poor draught in the chimney, large quantities of wood or wet wood, may, in the worst-case scenario, cause an explosive ignition.
- After a prolonged shut-down period the stove and chimney system should be checked to ensure that there is no blockage by an approved and competent stove installer such as Hetas registered (England & Wales) or equivalent for other nations and a qualified and approved chimney sweep. For example, a bird may have nested at the top of the chimney.
- If you fire the stove using wet wood, a lot of the fuel's thermal energy will be spent forcing the water out of the wood, without releasing any heat to the stove. This incomplete combustion results in a layer of soot being left in the stove, pipe, and chimney, this will harm the environment, and constitutes very poor use of the wood, as the gases in the wood do not ignite at the low temperature but settle as soot (unburned gases) in the chimney and stove, this can cause damage to the chimney flue and stove. Extreme conditions, such as poor draught in the chimney, large quantities of wood or wet wood, may, in the worst-case scenario, cause an explosive ignition.

### Odours when using the stove for the first time

#### Painted products:

The stove may emit an irritating gas when used for the first time, and it may smell a little. The room should be thoroughly ventilated. Let the fire burn with a high draught (without over firing) until all traces of the gas have disappeared and no smoke or smells can be detected. Evacuate all people from the room until all odours have cleared. If for any reason the odours do not clear, do not add more fuel and allow the fire to extinguish, seek professional assistance.

### Air Control: See figure 4

Always use the long ash pan key and stove mitten to operate the air controls.

There are 3 air intakes to the Rydal 5 SE, two of these air intakes are controllable.

The primary air supply, where air passes up through the riddling grate, is controlled to the Rydal 5 SE stove using the lever air control situated below the glass on the front door, move to the left to close and to the right to open, see figure 4. This control is only used when lighting or refueling the stove, at all other times the primary air control should be in the closed position.

The amount of heat emitted by the stove is regulated using one air control for wood burning.

The secondary air (air wash system), which is supplied to the combustion chamber over the internal glass, is controlled using the upper air control lever, move to the left to close and to the right to open.

A third air inlet (normally named tertiary air) provides a constant, pre-heated air supply to the combustion just above the fire, this has no control as it is set to be 100% open at manufacture.

The exact positioning of the air controls to achieve optimum burn for the Rydal 5 SE will depend on many factors such as weather conditions, chimney size and local topography. However, to give some guidance, if you adjust your settings so that one to two small to medium sized logs (total weight 0.98kg) burn for about an hour before needing to refuel, then the appliance is operating at about 4.9Kw. This is the maximum amount of fuel that should be used, overloading can be dangerous, cause excess smoke and damage the stove.

### **3.2.1 Use with wood:** See figure 4

- **It is recommended always to use approved and suitable stove tongs for loading and refueling the stove with wood to avoid any part of your arms and hands entering or touching the stove. Use the stove mitten to hold the tongs.**
- **Always use the long ash pan key and stove mitten to operate the air controls.**

#### **Lighting**

##### **Important:**

Ensure the area around the stove is clear of all obstacles so as not to be a trip hazard and allowing a totally unobstructed space whilst lighting, re fueling, adjusting the air controls, removal, and replacement of ash pan and at all other times.

- 1) Slide the top secondary air control to fully open. Open fully the primary air control.
- 2) To achieve clean burning and maximize the performance and efficiency of the appliance it is important to raise the temperature of the stove and chimney as quickly as possible. Thus, when lighting the appliance, the technique is to open the door and start with a small amount of kindling with all air controls fully open, use a long taper to ignite the kindling and then close the stove door.
- 3) After a few (~5) minutes, open the stove door and some larger pieces of wood should be added. Close the stove door.
- 4) Only when these have been well-alight and the flames dying down, should the stove door be opened and normal sized logs be added, then close the stove door.
- 5) When these logs are well alight, the primary air control should be fully closed, and the fire controlled using the secondary air control. To operate at the nominal heat output both the primary and secondary air controls to be fully closed, the stove will then be fed air from the tertiary air outlets that are permanently open.
- 6) The Rydal 5 SE intended use and design to be at the nominal heat output of 4.9kw, however the stove can be controlled beyond the nominal heat output by opening the secondary air control, the further the secondary air control is opened the flames within the firebox will increase and the wood fuel will be burnt at a faster rate, you must ensure that the stove is not overfiring, it is recommended that a suitable approved stove flue temperature gauge is used to ensure the stove is not getting over to hot, or overfiring. The flue temperature at the date of stove testing at the stoves nominal heat output was 217 °C. Seek professional advice from a registered and approved stove installer and the flue temperature gauge manufacturer's

instructions for installation and use.

When the stove was smoke exempt tested at its medium setting the secondary air control was opened 50% at this setting the report shows the mean nominal heat to space to be 5.1kw.

## **Refueling**

### **Note:**

If there is insufficient burning material in the fire bed to light a new fuel charge, excessive smoke emission can occur. Re fuelling must be carried out onto a sufficient quantity of glowing embers and ash so that the new fuel charge will ignite in a reasonable period. If there are too few embers in the fire bed, add suitable kindling to prevent excessive smoke.

- 1) Only open the door slowly when the fire is low but with sufficient glowing embers to ignite the new fuel charge. Add more logs and close the stove door and open both the primary and secondary air controls fully.
- 2) When the appliance is refueled, leave the primary and secondary air controls open for 2 to 3 minutes, or until the logs are well alight, before fully closing the primary air control and closing the secondary air control.
- 3) Always refuel onto a good bed of glowing embers.
- 4) Never leave the primary air control open, other than when lighting and re-fuelling the appliance.

## **Important: Fuel overloading.**

- Never overload the firebox. The maximum amount of fuel specified in this manual should not be exceeded, overloading can be dangerous, cause excess smoke and damage the stove.
- Ensure the wood fuel does not obstruct the tertiary air outlet holes to the rear of inside of stove. The wood fuel to be below all tertiary air outlet holes.
- Ensure that all wood is placed so as not to touch and obstruct the glass and door when closed, all fuel to be loaded behind the banking bar, ensuring that all fuel does not project passed the banking bar.
- Never leave the appliance unattended for long periods and always ensure that the newly charged logs are burning well before leaving the room.
- Do not refuel when a large amount of flame is in the firebox as this could cause smoke or flames to spill into the room. Only re fuel when the fuel and fire is low.
- Close the stove door immediately after refueling.

Wood is a material that contains a great deal of gas (approximately 75 %). The gases are released when the wood is ignited and heated up. For this reason, it is important that the gases are ignited quickly after stoking. If the wood just lies smoldering, especially after re-stoking, a lot of smoke is created, which, in the worst case, may cause an explosive ignition of the gasses, resulting in damage to the stove and a possible dangerous situation.

To ignite the gases that are released from the wood, and to keep clear, lasting flames during the combustion process, it is always important to let in the required quantity of oxygen (air supply). The setting of the air supply, the method of ignition and the lighting intervals depend on the draught in the chimney, the wind and weather, the amount of heat required & fuel, etc. This means that it may take some time before you get to know the correct functioning of the stove under any given circumstances.

Note: (To load fuel, the door should be opened slowly, avoiding a sudden

rush of intake air, so that smoke does not escape into the room). Always close the door after refueling.

### **Operation with door left open**

**Warning: The firebox door shall be kept closed except during ignition, refueling and removal of residue material.**

It is recommended providing the ash pan is not full of residue material that the ash pan is emptied when the fire is not in use and the stove, and all residue and components are cold.

Operation with the door open can be dangerous and cause excessive smoke. The appliance **must not** be operated with the appliance door left open except as directed in the instructions.

### **Stove shut down.**

If there is still fuel burning in the stove firebox, it is not recommended closing the air controls completely unless there is a chimney fire in progress (See section 3.0 User Manual, under the heading, A plan to deal with a chimney fire as follows:).

Closing the air controls during the combustion process will cause poor combustion and could cause a build up of gases that could ignite dangerously.

Always ensure that the air controls are open enough to maintain some flames in the firebox.

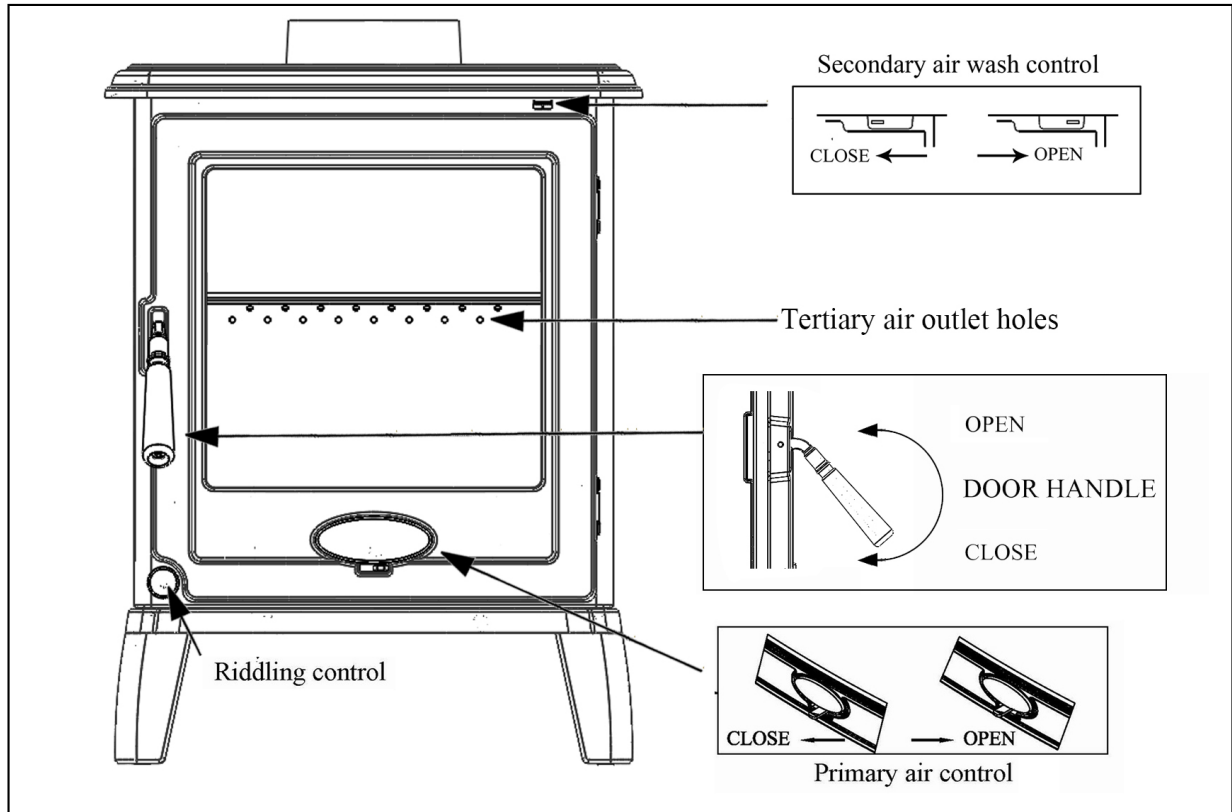
If it is required to shut down the appliance, then run the stove on a higher setting without over firing until all the fuel has been burnt before closing the air controls.

### **Rydal 5 SE controls. See figure 4**

**Note:** The Rydal 5 SE has 3 versions of the handle refer to section 2.95 for details. All handle versions operate as figure 4 to open and close.

A stove mitten and long ash pan key is supplied with this stove for your use when operating the stove, if the mitten supplied is of the incorrect size for the user then it is recommended that the user sources a CE approved stove mitten or glove to the correct size before lighting and operating this stove.

**Figure 4**



**Very Important:**

**Warning: The firebox door shall be kept closed except during ignition, refueling and removal of residue material.**

It is recommended providing the ash pan is not full of residue material that the ash pan is emptied when the fire is not in use and the stove, and all residue and components are cold.

The stove door should never be opened when the stove is being fired vigorously and only opened when the fire requires lighting, when the fuel is low and needs to be re fuelled and removal of residue material via the ash pan, at all other times the stove door **MUST BE CLOSED**.

**3.2.2 Ash removal**

**See figure 5**

**Always use the key provided and stove mitten to operate the riddling control and to lift the ash pan.**

It is essential to keep the grate free from a heavy build up of ashes. This product is equipped with a riddling grate that when operated with the control helps to remove ashes to the ash pan whilst the stove is in operation, it is recommended that this process is used when the fire is low and the fuel is low. To operate the riddling grate, simply pull and push the riddling control knob which in turn will operate the riddling grate.

For more thorough cleaning of the fire grate, only when the stove is **not a light and completely**

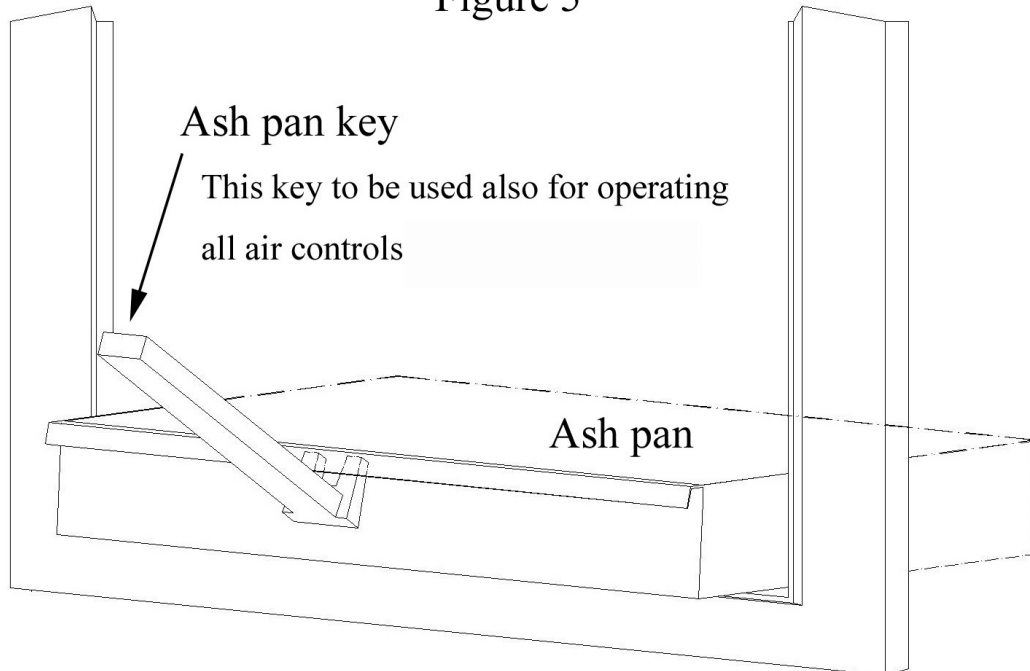
**cold**, open the stove glass door, and sweep ashes into the ash pan with a suitable brush or alternatively use a specialist approved Hepa filter stove ash vacuum for this task. Ensure to take necessary action to avoid breathing in any ashes or any other particles or products when carrying out this process. An approved and suitable mask is recommended for this process, together with appropriately approved hand protection gloves and eye protection.

Always empty the ash pan at least once a day or whenever it is full of ashes. Use the key provided and stove mitten to remove and replace ash pan into position. Never allow the ash pan to overfill allowing ash to be in contact with the underside of the grate. If this condition is allowed, the grate will wear out pre-maturely. It is recommended providing the ash pan is not full of residue material that the ash pan is emptied when the fire is not in use and the stove and all residue and components are cold.

### **Disposal of ash**

Ashes should be placed in a non-combustible leak proof metal container with a tight-fitting lid. The closed container of ashes should be placed on a non-combustible floor or ground well away from all combustible materials and any hazard pending final disposal. If the ashes are disposed of by burial in soil or otherwise locally dispersed, they should be retained in the closed container until all cinders have completely cooled.

Figure 5



### **3.3 Maintenance**

**Refer to current National laws, Building Regulations & any Rules in Force. Also refer to Approved Document J (England & Wales)**

**Maintenance only to be carried out when the stove is not in use and cold.**

**Always comply with all Health and Safety regulations whilst servicing and maintaining this stove.**

- **Ensure the correct PPE is used** for each operation that is being undertaken, for example, suitable protective masks whilst cleaning the stove and re painting stove, suitable hand protection gloves to protect from any sharp edges, broken glass and any residue materials, suitable eye protection goggles to protect against sharp objects, broken glass and any dust or particles. If vacuuming ashes and any residue material, ensure the vacuum cleaner is suitable and approved for stove use and is equipped with the correct HEPA filters.
- The stove should be regularly serviced (At least once every year) by an approved and competent stove installer such as Hetas registered (England & Wales) or equivalent for other nations to ensure continued safe and efficient operation. Some simple procedures are given below under sections 3.3.3 to 3.3.5 which the user can also adopt.

**Service checks: Only when the stove is not in operation and the stove & chimney is cold.**

- Check to ensure the chimney and flue system is in sound condition and working correctly and safely.
- Check that the chimney has been swept and inspected by a suitably qualified and registered chimney sweep to ensure that the chimney / flue is clean and free from any obstructions and to check that the chimney / flue is in sound and safe serviceable condition, also to check the chimney / flue is suitable for the stove being serviced.
- Remove all non-bolted stove parts within the stove. Clean all parts and check for wear and damage. Any parts that are worn or damaged to be replaced with authorized replacements. Note: Vermiculite parts can become brittle with use so take care whilst removing and re fitting. It is recommended that these parts should be changed at least annually or before if required.
- Whilst all the non-bolted parts are removed from the inside of the stove clean all remaining internal stove parts, check all other internal stove parts for wear and damage and replace with authorized parts if required. The top baffle can be unbolted so it can be removed for cleaning and checking.
- Replace the glass panel fibre rope seal, ensure the rope seal is the same type and size as the original.
- Replace the fibre rope seal to the door, ensure the rope seal is the same type and size as the original.
- Check all external parts of the stove for wear and damage if found replace with authorised parts.
- Check the stove collar and stove pipe for damage and wear and ensure any joints are sealed correctly. Rectify with authorized parts if any fault is found.
- Check the register plate (for installations that require) is in good serviceable condition and fitted correctly.
- Check the Carbon Monoxide alarm to ensure it is installed and operating correctly.
- Check that any combustible materials are a safe distance from the stove.

- Check room ventilation air supply to ensure the safe operation of the stove. **Air Supply:** It is essential to check any air supply ventilator in the room is suitable and fully clear and open.
- Check for correct operation of all air controls.
- Check the correct operation and adjustment of the door handle.
- Clean the glass panel as section 3.3.3
- Clean or repaint the external black painted surfaces of the stove as section 3.3.4
- All parts to be re installed to the stove into their correct positions.
- To carry out correct and safe operation tests of the stove as listed in section 2.96 Commissioning and handover. Also refresh the user on the safe operation of this stove.

### **3.3.1 Glass panel fixings & fibre rope seal to rear off stove door**

#### **Replacing glass panel to stove door. See figure 6**

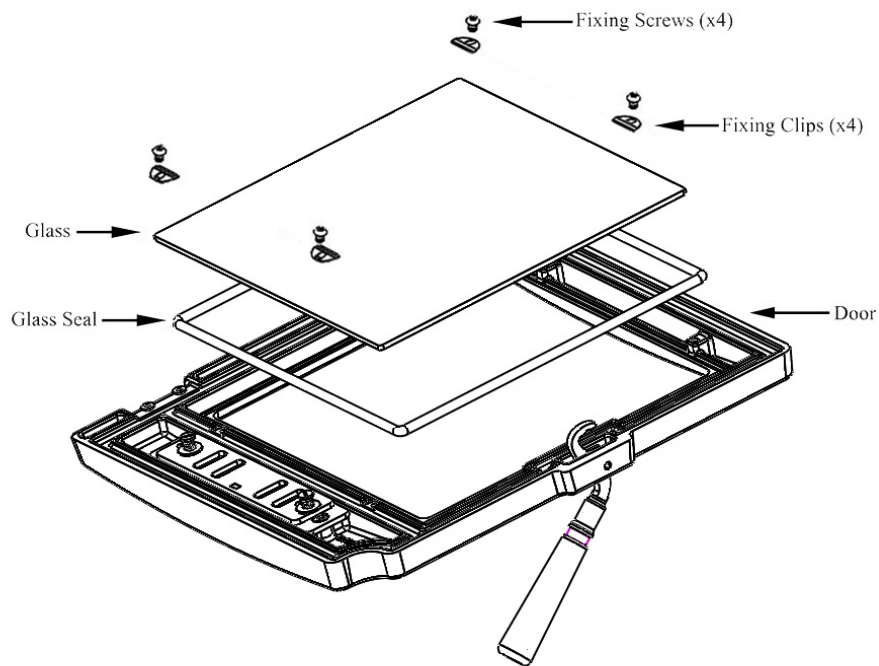
In the unfortunate event the glass panel to main door gets damaged the glass panel must be replaced with an approved stove glass panel, by an approved and competent stove installer such as Hetas registered (England & Wales) or equivalent for other nations.

To change the glass panel, but only when the stove is not in use and completely cold remove the 4 screws and fixing clips to the rear of door. Wear protective gloves and goggles during this process. When fitting the new glass panel locate the glass so it is central to the stove glass seal and located onto seal to all glass edges. Replace the 4 screws and fixing clips and secure the glass panel to door. **DO NOT** over tighten the screws as this can damage the glass.

#### **Replacing the glass rope seal**

- Remove the stove door by removing the 4 screws retaining the hinges to the door and place face down onto a soft sound surface so as not to damage the door or glass. To replace the glass panel to door seal. Remove the glass panel. Remove the old rope seal and scrape old glue from the door locating groove.
- Clean the locating groove with a clean, dry cloth to remove all old dust and debris. Use suitable stove rope glue into the rope locating groove and press the new rope into the locating groove, noting the joint positions. Replace the glass panel. Refer to the stove rope glue manufacturer's instructions for drying times and when the stove can be used after the stove rope glue has been used.
- Using the appliance with a damaged glass seal or damaged glass can cause dangerous fumes to enter the room, or the appliance to over fire resulting in damage.

Fig 6

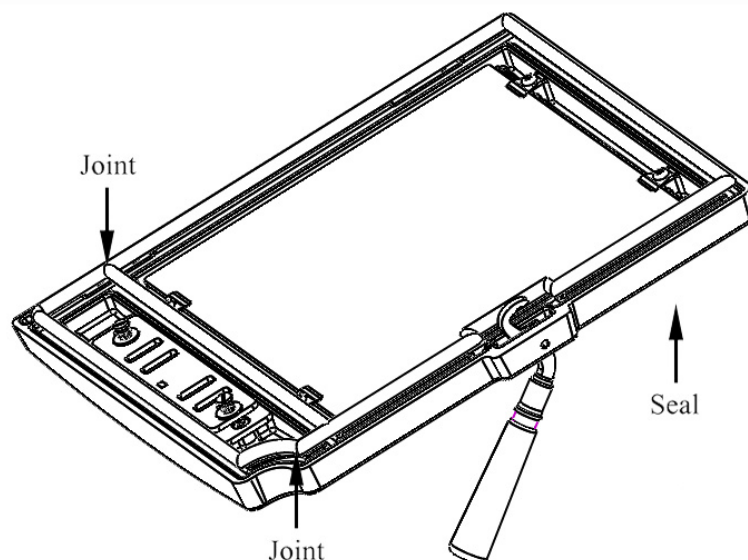


### 3.3.2 **Door fibre rope seals.** See figure 7

The fibre rope seals in the door will wear out over time and should be replaced as required and renewed at least annually by an approved and competent stove installer such as Hetas registered (England & Wales) or equivalent for other nations, in order to prevent runaway combustion.

- Remove the stove door by removing the 4 screws retaining the hinges to the door and place face down onto a soft sound surface so as not to damage the door or glass.
- Remove the old fibre rope seals and scrape old glue from the locating grooves.
- Clean the locating groove with a clean, dry cloth to remove all old dust and debris. Squeeze a generous bead of fresh stove rope seal glue into the rope locating groove. Press the new fibre rope seal into the locating groove, noting the joint positions in fig 7. Refit door and close to apply pressure to new rope. Leave the door closed for at least 12 hours before lighting the appliance and run at a low temperature for approximately one day. Also refer to the stove rope glue manufacturer's instructions. This allows the adhesive to fully bond to the seal.
- Using the appliance with a damaged door seal can cause dangerous fumes to enter the room, or the appliance to over fire resulting in damage

Fig 7



### 3.3.3 Cleaning and maintenance (User)

#### Warnings

- **Ensure the correct PPE is used** for each operation that is being undertaken, for example, suitable protective masks whilst cleaning the stove and re painting stove, suitable hand protection gloves to protect from any sharp edges, broken glass and any residue materials, suitable eye protection goggles to protect against sharp objects, broken glass and any dust or particles. If vacuuming ashes and any residue material, ensure the vacuum cleaner is suitable and approved for stove use and is equipped with the correct HEPA filters.
- If the user does not feel confident to undertake the user cleaning and maintenance, it is highly recommended that you use a suitably qualified stove installer regularly to ensure continued safe and efficient operation of this appliance.
- Cleaning and maintenance only to be carried out when the stove is **not in use and cold.**

### 3.3.4 Cleaning glass (User)

- Cleaning and maintenance only to be carried out when the stove is **not in use and cold.**

This product is equipped with an air wash system to help keep the glass clean when burning wood. Air is sucked in through the air vent above the stove and down along the inside of the glass.

However, some soot will always stick to the glass, but the quantity will depend on the local draught conditions, type of wood used and adjustment of the air wash vent. Most of the soot layer will normally be burned off when the air wash vent is opened all the way and a fire is burning briskly in the stove. **Warning:** Do not exceed the maximum fuel load stated in these instructions and do not over fire the stove.

If it is necessary to clean the glass more thoroughly, we recommend using an approved stove glass

cleaner, generally available from your stove retailer. (Follow manufacturer's instructions).

### **3.3.5 Cleaning and checks inside the firebox. (User)**

- Cleaning and maintenance only to be carried out when the stove is **not in use and cold.**

**Inner firebox:** Brush the inside of the firebox clean from time to time to check the integrity of the plates and liners etc. See section 2.2.2 for details of removeable parts of the stove. It is not normally necessary to paint inside the firebox due to the high temperatures that mean that the paint does not have much effect before being burnt off.

The vermiculite firebox side cheek linings may require replacement occasionally depending upon fuels and the type of usage experienced. If the firebox side cheek linings are damaged or worn replace with manufacturers recommended parts, it is essential that the cast iron behind the side cheeks is not exposed to the fire. Side cheek linings are not covered by warranty, as they are a wearing consumable part.

**Baffles:** It is essential to check the top of the baffles for buildup of soot and ash regularly whether the stove has been used or not used. From time to time remove the baffles if necessary, to ensure that the flue way entrance is completely clear. Baffle plates will require replacement from time to time and are a wearing consumable part.

**Visual checks:** Make visual checks to the inside and outside of the stove if any other items are found to be worn damaged or cracked consult a suitably approved stove installer and do not use the stove until any fault is rectified.

**Stove controls:** Check the stove controls for full and free movement if any ash or debris is restricting the use of the controls, clean as necessary.

**Air Supply:** It is essential to check any air supply ventilator in the property is fully clear and open if installed.

### **3.3.6 External surface cleaning (User)**

- Cleaning and maintenance only to be carried out when the stove is **not in use and cold.**

The cast surface of the Rydal 5 SE stove is painted with black heat-resistant paint. It is best maintained by simply vacuuming it with a soft brush attachment or wiping it down with a dry, dust-free cloth, but only when the stove is not in use & fully cold.

If the stove is used too vigorously, the painted surface may assume a grey tinge over time, but the stove can easily be freshened up with an approved heat resistant spray paint which should be available from your local stove retailer.

The stove must be fully cold and not be in use before the stove is re painted.

Refer to the approved heat resistant spray paint manufacturer's instructions.

This process is recommended to be carried out by an approved and competent stove installer such as Hetas registered (England & Wales) when the stove is being serviced.

### 3.4 Operational problems – troubleshooting

Seek advice from a qualified chimney & stove specialist

#### Operation troubleshooting

| Problem                                                        | Probable Cause                          | Action                                                                                                                                      |
|----------------------------------------------------------------|-----------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|
| Difficulty getting the fire alight and keeping it burning well | Low flue draught                        | Consult your stove installer                                                                                                                |
|                                                                | Wet wood<br>(Over 20% moisture content) | Use dry seasoned hardwood.<br>(Less than 20% moisture content)                                                                              |
| Poor burning control                                           | Flue draught high                       | Consult your stove installer                                                                                                                |
| Burning time is short                                          | Wet wood<br>(Over 20% moisture content) | Use dry seasoned hardwood.<br>(Less than 20% moisture content)                                                                              |
| Heat output too high. (Over firing).                           | Flue draught high                       | Consult your stove installer                                                                                                                |
|                                                                | Air controls set too high               | Reduce output by closing air control.                                                                                                       |
| Low heat output                                                | Flue draught low                        | Consult your stove installer                                                                                                                |
|                                                                | Wet wood<br>(Over 20% moisture content) | Use dry seasoned hardwood.<br>(Less than 20% moisture content)                                                                              |
| Excessive fuel being used                                      | Flue draught high                       | Consult your stove installer                                                                                                                |
|                                                                | Wood too dry                            | Do not use unsuitable wood such as constructional timber or pallets.<br>Only use dry seasoned hardwood with less than 20% moisture content. |

## Smoke emission troubleshooting

| Problem                                                         | Probable Cause                          | Action                                                                                                                                                                                                                                                                                                                    |
|-----------------------------------------------------------------|-----------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Small flames and smoke                                          | Wet wood<br>(Over 20% moisture content) | Use dry seasoned hardwood.<br>(Less than 20% moisture content)                                                                                                                                                                                                                                                            |
| When appliance door is opened<br>smoke spillage enters the room | Flue draught low                        | Consult your stove installer                                                                                                                                                                                                                                                                                              |
|                                                                 | Room ventilation not correct            | Consult your stove installer                                                                                                                                                                                                                                                                                              |
| Smoke is emitted into the room                                  | Flue blocked                            | Evacuate all people from the room into a safe area. If safely possible open all outside doors and windows to the effected room to ventilate. Vacate the room into a safe area. Allow the stove to fully burn out.<br>Consult your stove installer.<br><b>Do not</b> re use the stove until the problem is fully rectified |
| The chimney is emitting grey / blue smoke                       | Wet wood<br>(Over 20% moisture content) | Use dry seasoned hardwood.<br>(Less than 20% moisture content)                                                                                                                                                                                                                                                            |

## Adverse weather troubleshooting

| Problem                                                                        | Probable Cause                                             | Action                                                                                                                                                                                           |
|--------------------------------------------------------------------------------|------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Intermittent smoke enters the room when the stove door is opened on windy days | Down draught                                               | The flue terminal position can affect the stove and flue performance ie, nearby trees or structures. Also, weather conditions can contribute to flue down draughts. Consult your stove installer |
| Intermittent smoke enters the room when the stove door is opened on calm days  | Poor flue draught usually caused by an over size flue      | Consult your stove installer                                                                                                                                                                     |
| Lighting and burning problems on damp and rainy days                           | Temperature of flue is low.<br>Water ingress into the flue | Consult your stove installer                                                                                                                                                                     |
| Noisy air control, (wind noise).                                               | Flue draught high                                          | Consult your stove installer                                                                                                                                                                     |

## Troubleshooting the stove

| Problem                                       | Probable Cause                                 | Action                                                                                                                                                                                                                                                                 |
|-----------------------------------------------|------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| The rapid build up of creosote in the chimney | Wet wood<br>(Over 20% moisture content)        | Use dry seasoned hardwood.<br>Less than 20% moisture content)<br>To avoid a large build up of creosote operate the stove at a higher temperature for a short period of time whenever the stove is used.<br><b>Warning:</b> Do not exceed the maximum fuel load stated. |
| Flue joints expelling tar                     | Stove operated at a continuous low temperature | Operate the stove at a higher temperature for a short period of time whenever the stove is used.<br><b>Warning:</b> Do not exceed the maximum fuel load stated.<br>Refer to user instructions                                                                          |
|                                               | Poor quality wood being used                   | Use dry seasoned hardwood.<br>(Less than 20% moisture content)                                                                                                                                                                                                         |
| When the stove is lit a strong smell occurs   | Stove operated at a continuous low temperature | Operate the stove at a higher temperature for a short period of time whenever the stove is used.<br><b>Warning:</b> Do not exceed the maximum fuel load stated.<br>Refer to user instructions                                                                          |
|                                               | Poor quality wood being used                   | Use dry seasoned hardwood.<br>(Less than 20% moisture content)                                                                                                                                                                                                         |
| Noisy air control, (wind noise).              | Flue draught high                              | Consult your stove installer                                                                                                                                                                                                                                           |
| Excessive dirty glass                         | Wet wood<br>(Over 20% moisture content)        | Use dry seasoned hardwood.<br>(Less than 20% moisture content)                                                                                                                                                                                                         |

## **Troubleshooting the stove (Continued).**

| <b>Problem</b>                | <b>Probable Cause</b>                          | <b>Action</b>                                                                                                                                                                                 |
|-------------------------------|------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Excessive blackening of glass | Poor quality wood being used                   | Use dry seasoned hardwood.<br>Less than 20% moisture content)                                                                                                                                 |
|                               | Flue draught low                               | Consult your stove installer                                                                                                                                                                  |
|                               | Air control use incorrect                      | Refer to user instructions for correct use of air controls                                                                                                                                    |
|                               | Stove operated at a continuous low temperature | Operate the stove at a higher temperature for a short period of time whenever the stove is used.<br><b>Warning:</b> Do not exceed the maximum fuel load stated.<br>Refer to user instructions |

### **Important:**

Major causes of chimney fires are creosote and tar built up in the flue and stove. Consult an approved chimney sweep if you are experiencing tar and creosote problems before continued use of the stove.

Consult a qualified heating engineer if you experience continued flue problems and do not use the stove until the problem is rectified.

### **3.5 Replacement parts**

- Only use replacement parts recommended by the manufacturer.
- Modifications to this appliance **must not** be made.

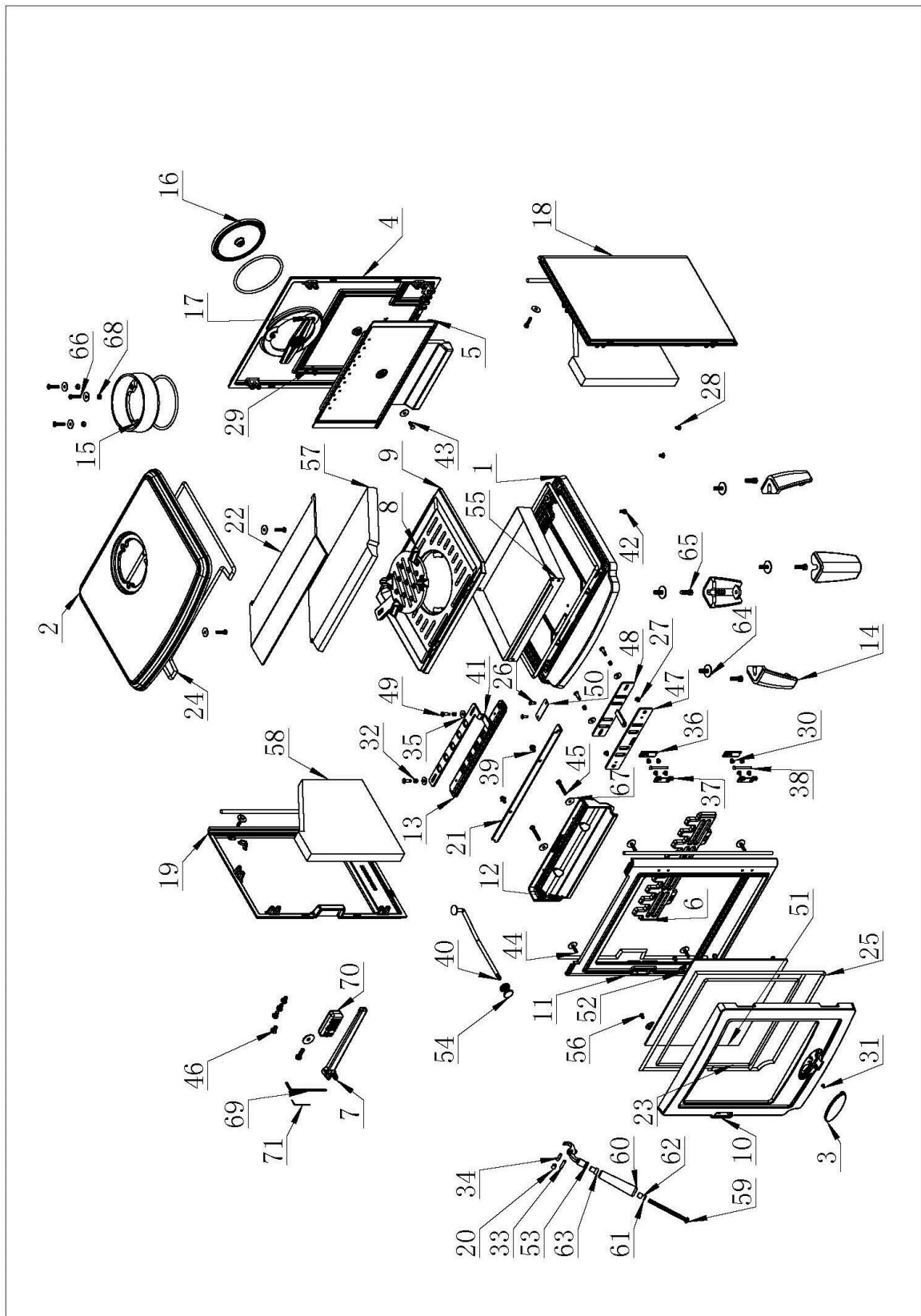
### **3.6 Product End-of- Life / Recycling**

To Dispose of the stove after the product life has expired, please observe the following information:

Dispose of the items correctly i.e., separate the parts to be disposed of in material groups.

Always dispose of items in a way that is sustainable as possible and that is in line with the current environmental protection, reprocessing / recycling, and disposal technology.

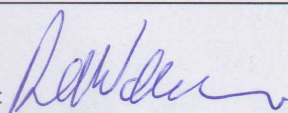
### 3.7 Exploded view with part identification for Rydal 5 SE



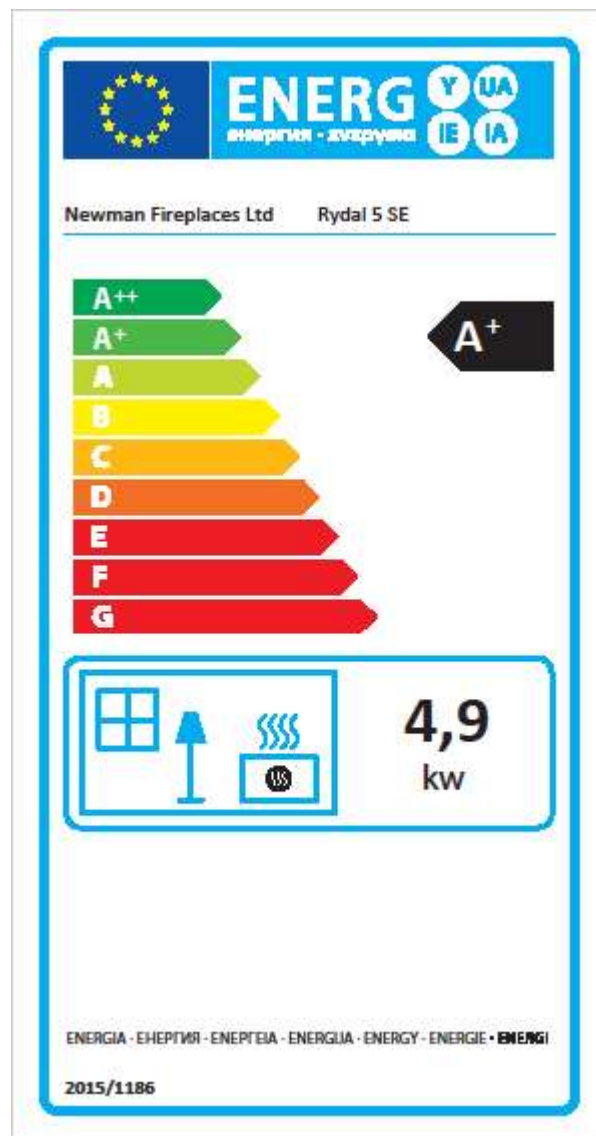
| No. | Code              | Stove Parts                | Quantity |
|-----|-------------------|----------------------------|----------|
| 1   | 0501              | Base                       | 1        |
| 2   | SM05U02           | Top                        | 1        |
| 3   | CAFNW03           | Spin valve                 | 1        |
| 4   | SM05UNW04         | Back                       | 1        |
| 5   | SM05U11           | Back brick                 | 1        |
| 6   | 0520              | Fire retainer              | 1        |
| 7   | CA0105            | Ashpan handle              | 1        |
| 8   | AF0515            | Moving grate               | 1        |
| 9   | SM05U14           | Grate                      | 1        |
| 10  | SM05UNW07         | Door                       | 1        |
| 11  | SM05UNW03         | Frame                      | 1        |
| 12  | SM05U09           | Air wash damper            | 1        |
| 13  | 0556              | Air wash base              | 1        |
| 14  | 0523              | Leg                        | 4        |
| 15  | 125               | Collar                     | 1        |
| 16  | C125              | Flue Cover Blanking Plate  | 1        |
| 17  | C125Y             | Blanking Plate Locking Bar | 1        |
| 18  | SM05UNW06         | Right side                 | 1        |
| 19  | SM05UNW05         | Left side                  | 1        |
| 20  | CA0153-NW03       | Handle ring                | 1        |
| 21  | CA1911-AM1401U-02 | Steel plate                | 1        |
| 22  | CA1911-SM05UNW-01 | Steel baffle               | 1        |
| 23  | CA0801            | Fiberglass rope            | 1        |
| 24  | CA0802            | Fiberglass rope            | 1        |
| 25  | CA0802-1          | Fiberglass rope            | 1        |
| 26  | BXGMD-2           | Stainless steel rivet      | 2        |
| 27  | CA0250            | Bolt                       | 2        |
| 28  | CA0292            | Bolt                       | 2        |
| 29  | CA0274            | Bolt                       | 1        |
| 30  | CA0293            | Bolt                       | 8        |
| 31  | CA02933           | Bolt                       | 1        |
| 32  | CA0707            | Spring                     | 4        |
| 33  | CA0602            | Spring pin                 | 1        |
| 34  | CA0620            | Spring pin                 | 1        |
| 35  | CA0301            | Washer                     | 4        |
| 36  | CA1605            | Door Hinge A               | 2        |
| 37  | CA1606            | Door Hinge B               | 2        |
| 38  | CA0614            | Hinge Axle                 | 2        |
| 39  | CA0294-1          | Bolt                       | 2        |
| 40  | CA1401-SM05U      | Riddling Rod               | 1        |
| 41  | CA1113-SM05U      | Air wash plate             | 1        |
| 42  | CA0211            | Bolt                       | 1        |

|    |                |                                      |    |
|----|----------------|--------------------------------------|----|
| 43 | CA0212         | Bolt                                 | 1  |
| 44 | CA0214         | Bolt                                 | 14 |
| 45 | CA0217         | Bolt                                 | 2  |
| 46 | CA0222         | Bolt                                 | 4  |
| 47 | CA1118-SM05UNW | Bottom air inlet damper              | 1  |
| 48 | CA1114-SM05UNW | Bottom air inlet plate               | 1  |
| 49 | CAL0112        | Axial Fiber                          | 4  |
| 50 | CAL0101-ZJ     | Serial Number Plate                  | 1  |
| 51 | CA10-SM05UNW   | Glass                                | 1  |
| 52 | CA1112         | Glass clip                           | 4  |
| 53 | CA0143A-NW03   | Stainless steel handle hook<br>elbow | 1  |
| 54 | CA010402       | Stainless steel knob                 | 1  |
| 55 | CA1204         | Ash pan                              | 1  |
| 56 | CA0293-1       | Bolt                                 | 4  |
| 57 | FRSM05U29      | Vermiculite Baffle                   | 1  |
| 58 | FRSM05U1213    | Vermiculite left & right brick       | 2  |
| 59 | CA0266         | Bolt                                 | 1  |
| 60 | CA0144         | Stainless steel tapered handle 2     | 1  |
| 61 | CA0501-1       | Spring washer                        | 1  |
| 62 | CA0104-ZH      | Roller                               | 1  |
| 63 | CA0103-ZH      | Cylindrical plug                     | 1  |
| 64 | CA0305         | Washer                               | 5  |
| 65 | CA0225         | Bolt                                 | 9  |
| 66 | CA0276         | Bolt                                 | 3  |
| 67 | CA0302         | Washer                               | 20 |
| 68 | CA0402         | Nut                                  | 3  |
| 69 | NLFBS-004      | Inside Hexagon Spanner               | 1  |
| 70 | GZJ-001        | Desiccant                            | 1  |
| 71 | NLFBS-007      | Inside Hexagon Spanner               | 1  |

### 3.8 Declaration of Performance

| EC Declaration of Performance                                                                                                                                                                                          |                                                                                                                                 | CE                   |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|----------------------|
| The undersigned, representing the following:                                                                                                                                                                           |                                                                                                                                 |                      |
| Manufacturer                                                                                                                                                                                                           |                                                                                                                                 |                      |
| <b>Newman Fireplaces Ltd</b>                                                                                                                                                                                           |                                                                                                                                 |                      |
| Unit 6 & 7, Rawreth Barns, Dollymans Farm, Doublegate lane, Wickford, Essex. SS11 8UD                                                                                                                                  |                                                                                                                                 |                      |
| Herewith declare that the products:                                                                                                                                                                                    |                                                                                                                                 |                      |
| Description                                                                                                                                                                                                            | Product code                                                                                                                    |                      |
| Rydal 5 SE                                                                                                                                                                                                             | NS-21                                                                                                                           |                      |
| Description of product: Rydal 5 SE domestic wood fuel burning heating stove.                                                                                                                                           |                                                                                                                                 |                      |
| Are in conformity with the provisions of the following EC directive(s) when installed in accordance with the installation instructions in the product documentation:                                                   |                                                                                                                                 |                      |
| 98/106/EEC Constructional products regulation 305/2011<br>and the standards referenced below have been applied:<br>EN 13240 : 2001 + Amendment A2:2004 Roomheaters fired by solid fuel- Requirements and test methods. |                                                                                                                                 |                      |
| Product: Roomheater fired by solid fuel as covered under the scope of the standards listed.                                                                                                                            |                                                                                                                                 |                      |
| Characteristic                                                                                                                                                                                                         | Performance                                                                                                                     | Report               |
| Fire safety                                                                                                                                                                                                            | Satisfies                                                                                                                       | EZKA/2019-05/00017-3 |
| Emission of combustion data                                                                                                                                                                                            | <u>Wood</u><br><br>PM mg/m3 @ 13% 02: 6<br>OGC mg/m3 @ 13% 02: 57<br>CO emission mg/m3 @ 13% 02: 930<br>NoX mg/m3 @ 13% 02: 112 | EZKA/2019-05/00017-3 |
| Release of dangerous substance                                                                                                                                                                                         | None                                                                                                                            | EZKA/2019-05/00017-3 |
| Surface temperature                                                                                                                                                                                                    | Satisfies                                                                                                                       | EZKA/2019-05/00017-3 |
| Mechanical resistance<br>(To carry a chimney / flue)                                                                                                                                                                   | Maximum weight to be supported 1kg                                                                                              | EZKA/2019-05/00017-3 |
| Thermal output / efficiency Net                                                                                                                                                                                        | Wood 4.9kw @ 80.9%                                                                                                              |                      |
| Distance to combustibles                                                                                                                                                                                               | Minimum distances, in mm<br>Rear: Must be non-combustible<br>Sides: 650mm<br>Front: 1200mm                                      | EZKA/2019-05/00017-3 |
| Test laboratory: 0608<br>Name: R. A. Newman<br>Position: Director<br>Signature: <br>Date: 18th June 2020                           |                                                                                                                                 |                      |

### 3.9 Energy Label.



## 4.0 Product fiche

| Product Fiche                                                                             |                       |
|-------------------------------------------------------------------------------------------|-----------------------|
| Commission Delegated Regulation (EU) 2015/1186<br>Energy Labelling of Local Space Heaters |                       |
| Supplier's Name or Trademark:                                                             | Newman Fireplaces Ltd |
| Suppliers Model Identifier:                                                               | Rydal 5 SE            |
| Energy Efficiency Class of Model:                                                         | A+                    |
| Nominal Heat Output to Room (kW):                                                         | 4.9                   |
| Nominal Heat Output to Water (kW):                                                        | n/a                   |
| Net Efficiency (%):                                                                       | 80.9                  |
| Energy Efficiency Index (%):                                                              | 107                   |



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