



# Mourne Eco Inset 550 (Glass)

## Installation and Operating Instructions

CE Approved EN 13229: 2001 and EN 13229-A2:2004



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## Introduction

Thank you for purchasing your Eco Ready Mourne Stove. We are confident you will enjoy years of environmentally friendly heating and a beautiful centerpiece to your home. In order to help you enjoy the product to its full potential please read this manual thoroughly before installation and operation. It is important to keep the manual after installation as a useful reference tool.

**Installer: This appliance must be installed by a competent person with adherence to BS8303 Code of Practice for installation of domestic heating appliances burning solid mineral fuel. It is important to follow all national building regulations, local by-laws and requirements of health and safety at work regulations.**

**Handling** – The stove is heavy and therefore adequate facilities must be available for loading, unloading and site handling. This will require 2 people.

**Fire cement** – Some types of fire cement are caustic and therefore should not be allowed to come into contact with skin. Should fire cement come into contact with skin wash hands immediately with plenty of water. Protective glasses should be worn. If fire cement comes in contact with eyes, wash with plenty of water and seek medical advice immediately. Always follow the fire cement's manufacturer's instructions.

**Asbestos** – This stove does not contain asbestos. If there is a possibility of disturbing asbestos during installation or if asbestos is suspected seek the guidance of a specialist

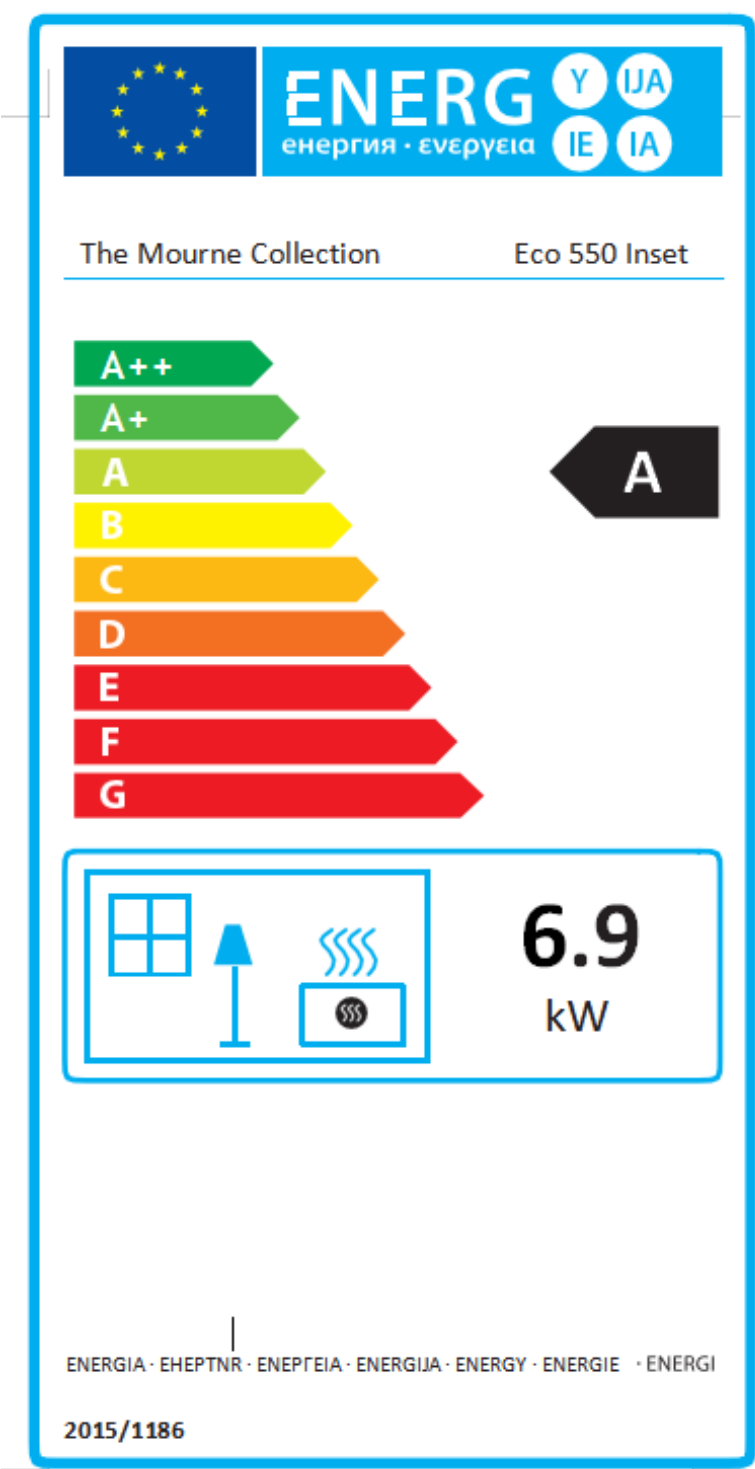
and comply with all relevant local government regulations.

**Metal parts** – During installation and servicing this stove; all appropriate care should be taken to avoid the possibility of personal injury. This includes potential sharp metal edges.

## Essential Safety Advice

- Ensure an approved carbon monoxide alarm is fitted in the same room as the stove and regularly tested.
- Always use a heat resistant glove when operating a lit stove. This includes touching any surface or refueling.
- Do not leave children unattended with a lit stove.
- Follow the distance to combustibles rules outlined in this manual and ensure soft furnishings are kept well away from the stove.
- Only use the recommended fuels outlined in this manual.
- Keep the door of the stove closed during operation. Only during the initial lighting phase can this remain slightly ajar (but must not be left unattended when the door is open).
- Sweep your chimney regularly to avoid build-up of soot, tar and potential birds' nests. These can restrict the flue gases and be very dangerous.
- Follow all necessary flue, hearth and air supply regulations outlined in the relevant local building regulations.

Energy Labels



Product Fiche	
Commission Delegated Regulation (EU) 2015/1186 Energy Labelling of Local Space Heaters	
Manufacturer Name:	The Mourne Collection
Model Name:	Eco Inset 550
Energy Efficiency Class:	A
Nominal Heat Output to Room (kW):	6.9kW
Nominal Heat Output to Water (kW):	N/A
Net Efficiency (%):	75.8%
Energy Efficiency Index :	101

## General Specification

Model	Eco 550 Inset
Dimensions (frame)	H571 x W640 x D344
Fuel Type	Multi (wood and smokeless fuels)
Flue Outlet	Top
Flue Diameter	125mm
Direct air supply	Yes
DEFRA Exempt	Yes
Eco 2022	Yes

## CE/Ecodesign Test Data

Fuel: Wood		
Nominal Heat Output	6.9	kW
Energy efficiency	75.8	%
CO (at 13%)	0.06	vol%
NO <sub>x</sub> (at 13%)	110	mg/m <sub>o</sub> <sup>3</sup>
C <sub>x</sub> H <sub>y</sub> (at 13%)	56	mgC/m <sub>o</sub> <sup>3</sup>
PM (at 13%)	29	mg/m <sub>o</sub> <sup>3</sup>

Fuel: Anthracite		
Nominal Heat Output	6.8	kW
Energy efficiency	78.5	%
CO (at 13%)	0.10	vol%
NO <sub>x</sub> (at 13%)	146	mg/m <sub>o</sub> <sup>3</sup>
C <sub>x</sub> H <sub>y</sub> (at 13%)	15	mgC/m <sub>o</sub> <sup>3</sup>
PM (at 13%)	25	mg/m <sub>o</sub> <sup>3</sup>

## Minimum Distance to Combustibles

Rear	400mm
Sides	200mm
Combustible items such as wooden mantels/beams must be at least 600mm above the stove.	

## Flue

It is important that all relevant building regulations are followed when building an appropriate flue.

We strongly recommend that your stove is fitted using a stainless steel flue liner. Fitting a flue liner will allow the chimney to be swept via the stove door (by removing the baffle plates). However, if you do not use a liner the installer should, if possible, provide an alternative means, such as a soot door with adequate air-tight seal, in the chimney wall to be able to clean the whole of the chimney / flue system.

These are further compelling reasons for fitting a flexible flue liner:

- **Safety.** Your existing chimney could have cracks in the wall and therefore leak smoke, fumes and carbon monoxide into other parts of the building.
- **Staining.** Condensation or creosote can seep through the chimney wall, causing stains on decorative coverings.
- **Flue Draw.** The chimney will draw better with the appropriate diameter flue (not found in traditional brick chimneys or clay liners). This is particularly the case in colder chimneys e.g. external chimney breasts.

The stove must not be fitted in a shared chimney.

A flue pressure of minimum 12 Pascals is required for satisfactory appliance performance. It is recommended that the flue pressure does not exceed 20 Pascals.

All appropriate spillage tests should be carried out after the stove has been installed. These are essential to ensure the safe running of the stove and flue system. Further details can be found in the relevant building regulations.

## Hearth & Back Panel

A constructional hearth should be made of a solid non-combustible material, set on a firm and level base and be at least 125mm thick. The decorative hearth on top should be 'jointed and filled' to avoid the stone cracking with heat. Building regulations normally require the hearth to extend 225mm in front of the stove, however it is good practice to extend this to 460mm to catch any ashes when the door is open. If a stone panel is used around the stove, it is also important that this is jointed and filled to avoid cracking with heat.

All other building regulations must be followed when selecting an appropriate hearth.

## Air Supply

In houses built both before and after 2008 a dedicated air vent is required. This can be supplied using the direct airbox and ducting (see section below) or a vent to the room. If using a vent, it should be of sufficient size as outlined in local building regulations. Always follow the local building regulations in relation to air supply.

## Recommended Fuels

**Wood.** We recommend the use of kiln dried or well-seasoned wood with a moisture content of less than 20%. Look out for the 'Ready to Burn' mark and see [www.readytoburn.org](http://www.readytoburn.org) for more information. Remember wet wood is a false economy, it produces less heat when burnt and requires you to sweep your chimney more frequently. It is also damaging to the environment.

Recommended max log length      300mm

Recommended fuel load              1.4kg

**Tip:** Wood is a renewable product and if sourced locally from sustainable woodlands your appliance can be close to carbon-neutral.

**Tip:** It's easier to light your stove with woods like birch. When lit, you can add harder woods such as ash.

**Smokeless coal.** If you cannot burn wood, authorised smokeless coal can be used as an alternative.

## Prohibited Fuels

Burning the right fuel will prolong the life of your stove. However, burning the following materials can damage your stove and flue system and will invalidate the warranty.

**Petroleum coke.** Never burn petroleum coke in your stove as this burns at a very high temperature, shortening the life of the replaceable stove parts and causing irreparable damage to the stove body.

**Bituminous house coal** is not recommended as it produces excessive soot deposits which are both damaging to the environment and clog up the flue system.

**Household waste materials.** Materials such as plastic, rubber, lacquered or impregnated wood, plywood, chipboard and household rubbish should be avoided. Some of the chemicals in these materials burn at very high temperatures, can be hazardous to your health and harmful to the environment.

**Flammable liquids.** Never use flammable liquids to light the stove as these could cause an explosion in the confined spaces of the fire chamber.

## **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).

In England appliances are exempted by publication on a list by the Secretary of State in accordance with changes made to sections 20 and 21 of the Clean Air Act 1993 by section 15 of the Deregulation Act 2015. Similarly in Scotland appliances are exempted by publication on a list by Scottish Ministers under section 50 of the Regulatory Reform (Scotland) Act 2014.

In Wales and Northern Ireland these are authorised by regulations made by Welsh Ministers and by the Department of the Environment respectively.

Further information on the requirements of the Clean Air Act can be found here at: <https://www.gov.uk/smoke-control-area-rules>

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.

The Mourne Eco Inset 550 has been recommended as suitable for use in smoke control areas when burning wood logs. Mourne Eco Inset 550 must be fitted with a permanent stop to prevent closure of the secondary / tertiary air controller beyond 10mm open.

### **Fuel Overloading**

The maximum amount of fuel specified in this manual should not be exceeded, overloading can cause excess smoke.

### **Refuelling on to a low fire bed**

If there is insufficient burning material in the fire bed to light a new fuel charge, excessive smoke emission can occur. Refueling must be carried out onto a sufficient quantity of glowing embers and ash 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 excess smoke.

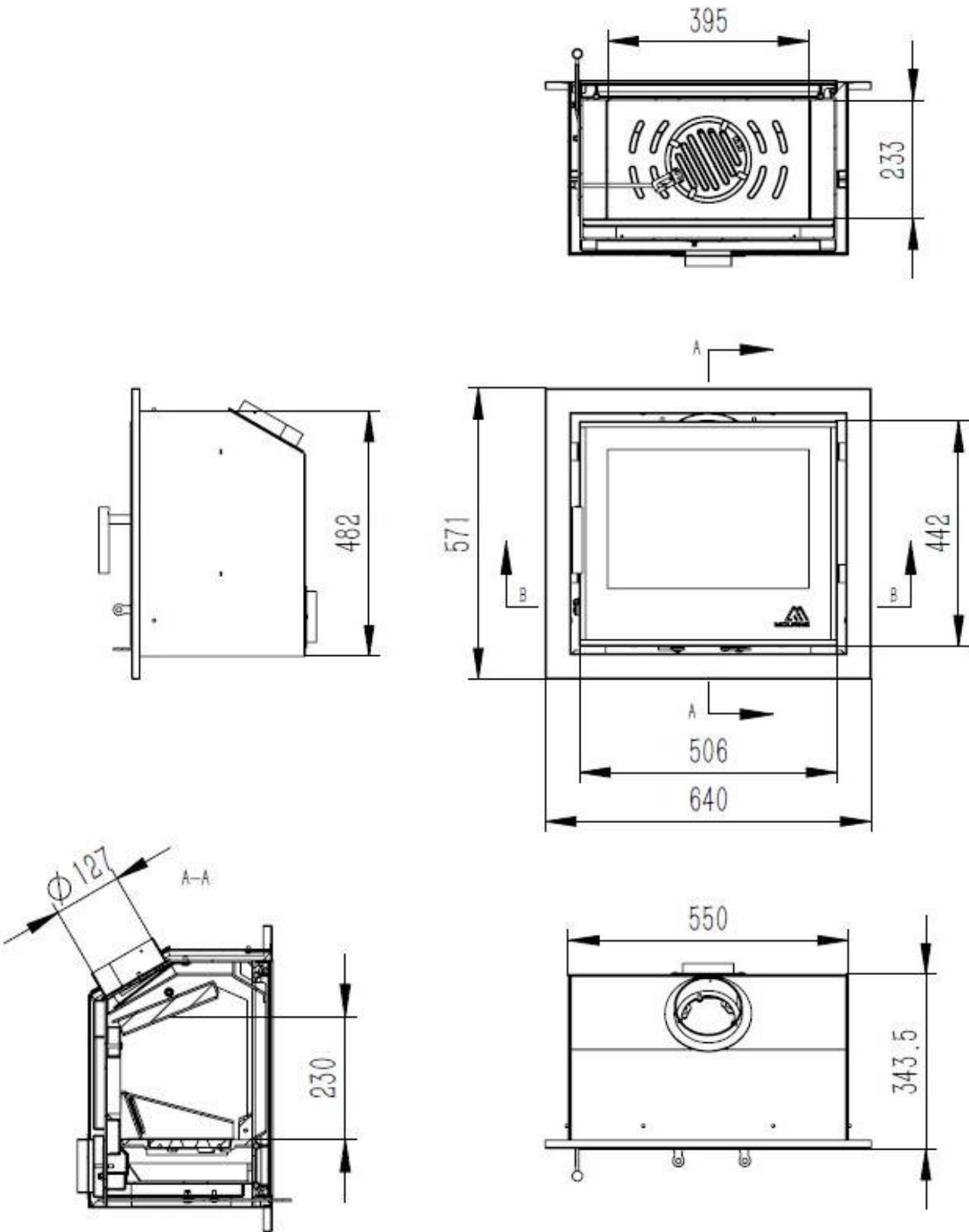
### **Dampers left open**

Operation with the air control or appliance dampers open can cause excess smoke. The appliance must not be operated with air controls, appliance dampers or door left open except as directed in the instructions.

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

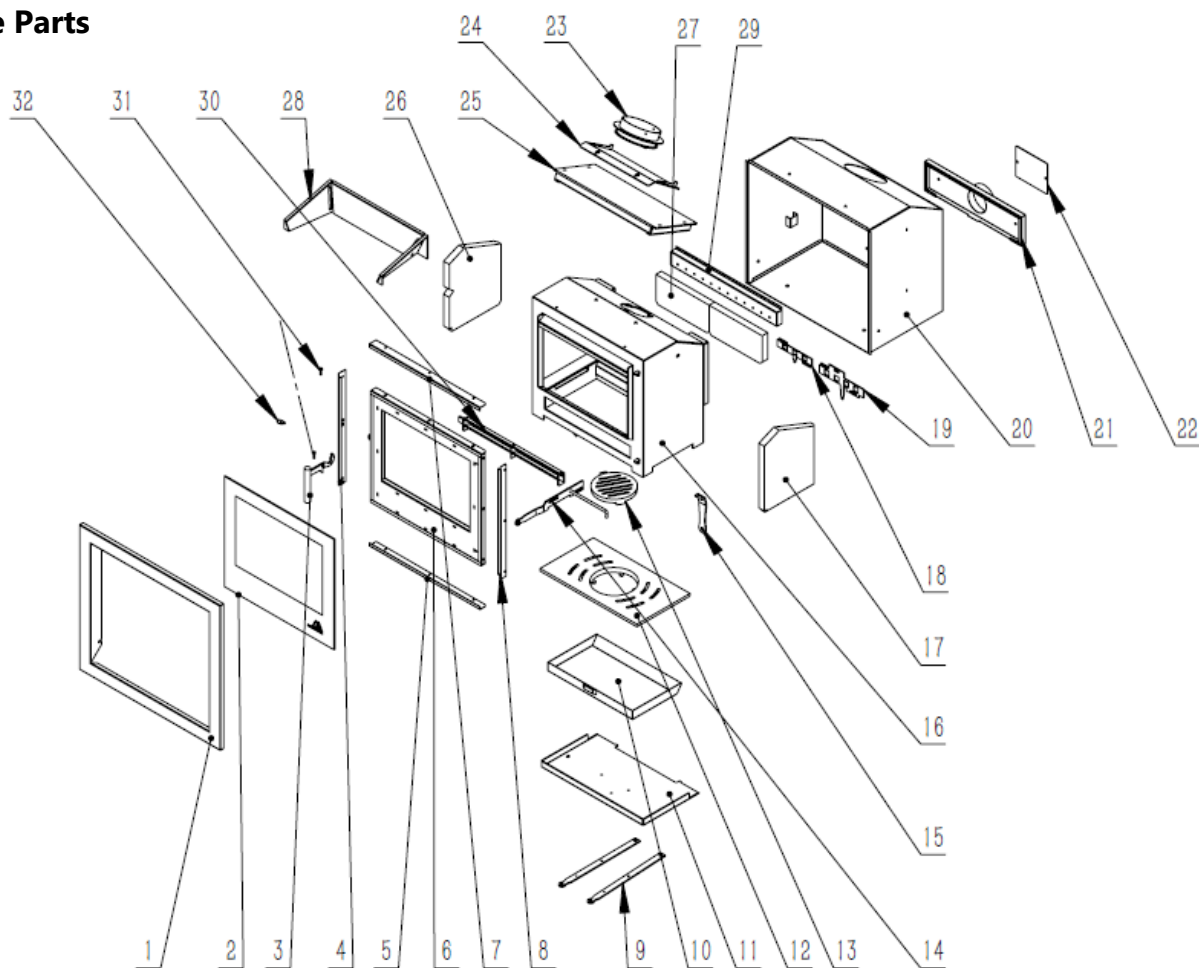
Operation with the door open can cause excess smoke. The appliance must not be operated with the appliance door left open except as directed in the instructions.

Technical Drawings





## Stove Parts



1	4-sided frame
2	Glass
3	Handle
4	Glass retainer (left)
5	Glass retainer (bottom)
6	Door
7	Glass retainer (top)
8	Glass retainer (right)
9	Primary & secondary/tertiary air rods
10	Ashpan
11	Bottom Brick
12	Grate frame
13	Centre grate
14	Ridding arm & rod
15	Ashpan lifting tool
16	Stove body

17	Right side brick
18	Primary air control bar
19	Secondary air control bar
20	Convactor box
21	Direct airbox
22	Direct air blanking plate
23	Flue collar
24	Upper baffle plate
25	Lower baffle plate (cradle + vermiculite)
26	Left side brick
27	Back brick (pair)
28	Coal catchers (set)
29	Tertiary air cover
30	Front log retaining bar
31	Door Hinges
32	Handle Axis

## Features



**Riddling arm.** Pull the riddling arm in and out to make the centre grate rotate and allow the ashes to fall into the ashpan below (see Maintenance: Removing ash section below for more information).

**Primary air control.** This provides air flow to the fuel bed. It should be in the open position (slide to the right) when starting a fire or when burning anthracite. It should be closed (slide to the left) when burning wood after the flames have been established.

**Secondary/Tertiary air control.** This controls both the secondary and tertiary air using the same control. The secondary air diverts air along the front of the glass, burning soot and keeping the glass clean. The tertiary allows air to flow into the chamber from a horizontal strip at the rear. This flow of air helps ignite unburnt particles, promoting a cleaner burn.

## Installation

The installer should explain the correct usage and maintenance of the stove to the end user, and pass on this manual as a reference tool.

### A. Removing the stove from the convector box

1. Remove the front log retaining bar.
2. Remove the coal catchers.
3. Remove the ashpan.
4. Remove the centre grate (tilt to dislocate from riddling rod and then remove).
5. Remove the grate frame.
6. Push the lower baffle plate up to release the side bricks. Now remove the side bricks by pushing up from the cut-out in the bottom corner of each brick. (The lower baffle plate has two parts: the lower baffle plate cradle made from steel; and the lower baffle plate made from vermiculite).
7. Remove the upper baffle plate using a hex key (Allen key).
8. Remove the flue collar using a hex key (Allen key).
9. Remove stove from the convector box. Remove two bolts located inside the stove on top left and top right and the stove can be removed from convector box.

### B. Attaching the flexible flue liner

1. Position the flexible flue liner into the chimney.

2. Attach the flexible flue liner to a flexi-to-vitreous adaptor.
3. We now recommend that you attach the adaptor to a 30 degree vitreous bend as this will take the initial impact of the heat from the stove. Connecting directly to a flexible flue liner could shorten the life of the flexible flue. Use self-tapping screws to secure in place.
4. Attach the 30 degree bend to flue collar. Use self-tapping screws to secure in place (holes are pre-drilled in the flue collar).
5. Leave the flue collar (and other parts) suspended in the chamber, in line with the top of stove.

**Tip:** It's best to leave the 3 hex bolts positioned in the flue collar but only partially tightened. This will make the flue collar fitting easier (as described in section E).



### C. Installing a direct air supply (optional)

1. Remove the two hex key (Allen key) bolts from the back of the inset stove body.
2. Insert the threaded bars into back of stove (where the bolts have been removed from).

3. Now place the outside airbox over the threaded bars and tighten with washers and nuts provided .
4. Attach a 100mm diameter aluminum duct onto the outside of the direct airbox using jubilee clip to tighten over the spigot.



(Image showing how direct air duct is fitted (image shows Eco Inset 400 model))

**NB if you are not using the direct air supply it is important that the direct airbox is not fitted and the blanking plate is fitted to the rear of the stove convector box. Failing to do this will make the stove draw air for combustion from inside the chimney. This can be dangerous and will stop the stove working effectively.**

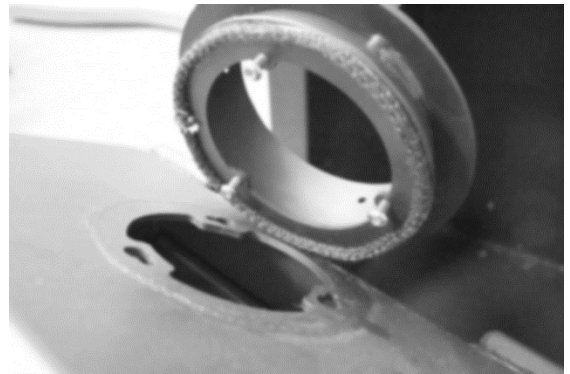
### D. Preparing the Fireplace

1. Ensure all redundant boilers and gas pipes are removed safely by a suitably qualified engineer.
2. Gaps between the back and sides of the stove and the fireplace chamber should be filled with non-combustible insulation material such as rockwool (this works better than a vermiculite mix that can be difficult to remove). This will improve the efficiency of the stove and avoid the build-up of debris behind the stove.

3. If the stove is to be raised off the ground level (as when using the 4-sided frame), it is important that non-combustible blocks are fixed in place and given sufficient time for the mortar to set before the convector box is fixed to these blocks (see section E part 3).

### **E. Installing the stove into the fireplace chamber**

1. Ensure the frame is securely connected to the convector box (this is attached with bolts on the sides and the top of the frame).
2. Place the convector box into position in the fireplace chamber.
3. The convector box is then bolted into position by two holes located at bottom of the box. This will ensure the stove cannot be pulled out of position. (It's recommend to slide the stove into position now to ensure you have got the convector box in the correct position, then remove the stove again and bolt the convector box to the floor).
4. Place the stove into the convector box. If the direct airbox has been used (see section C) guide the aluminum duct through the hole on the bottom of the convector box and then through the wall of the house.
5. You can now connect the flue collar to the stove by placing your hands into the stove and pulling the flue collar down to the stove. Twist the flue collar into position and bolt with the hex bolts.



(Image taken from outside the chamber to demonstrate the fixings (image shows Eco Inset 400 model))

6. Bolt the stove to the convector box with the 2 bolts located on each side of the stove (this can be done from inside the stove).

### **F. Reinstalling the stove parts**

1. Replace the upper baffle plate and attach with the hex bolts.
2. Now place the lower baffle plate into position, holding the front up with your hand until it can rest on the side bricks. Replace side bricks and drop the lower baffle plate into position. The side bricks come with a beveled edge to slot into place. The left side brick features a cut out to allow for placement around a screw inside the stove.



(Image showing the lower baffle plate's final position (image shows Eco Inset 400 model))

3. Replace the grate frame.
4. Replace the centre grate connecting the riddling arm to the riddling rod.
5. Replace the ashpan.
6. Replace the coal catchers (if required).
7. Replace the front log retaining bar.

### **Lighting the Stove for the First Time**

It is important that you light three or four small fires in your appliance before you allow the stove to reach its maximum heat output. This will avoid damage and preserve the life of your stove.

You may notice an unpleasant smell from your stove during the first few operations. This will happen as the paint and parts of the stove 'cure'. It is not toxic, but it is recommended that you leave the windows and doors open to allow the smell to dissipate.

Use only wood for the initial small fires.

### **Lighting the Stove**

There are a number of different ways to light a fire including the 'traditional method' and the 'top-down method'. We recommend the top-down method with an eco-firelighter as the easiest and most environmentally friendly. The traditional method works best for anthracite.

When lighting the stove open the air controls fully (slide to the right). Letting the door to remain slightly ajar will also allow more air in the chamber and encourage combustion. Do not leave the stove unattended when the

door is ajar. After the kindling has caught well (5-10 minutes), close the door.

If burning wood, after a further 10 minutes you can turn the primary air off (slide to the left) and reduce the flow slightly from the secondary/tertiary control (slide partially to the left).

If burning anthracite you will need to keep both the primary and secondary/tertiary controls open at least partially.

### **The 'top-down method'**

1. Cut a range of medium logs and small kindling that fit horizontally inside your stove.
2. Starting with the medium-sized logs, place 2 pieces flat on the fire grate, with enough space between them to allow air to circulate.
3. Finish with 4 smaller-sized pieces of kindling across the medium ones below, again crisscrossing each layer and creating a stack.
4. Place an Eco firelighter on top of your stack and cover with one more layer of kindling.
5. Ignite the firelighter on top of the kindling.
6. Once the fire stack has started to catch well, you can add full logs gently using a heatproof glove.

### **Maintenance**

#### **A. Removing the baffle plate(s)**

1. Remove the front log retaining bar.
2. Remove the coal catchers.
3. Remove the ashpan.

4. Remove the centre grate (tilt to dislocate from riddling rod and then remove).
5. Remove the grate frame
6. Push the lower baffle plate up to release the side bricks. Now remove the side bricks by pushing up from the cut-out in the bottom corner of each brick.
7. Remove the upper baffle plate using a hex key (Allen key).

## **B. Removing the centre grate**

1. Remove the ashpan.
2. Remove the centre grate (tilt to dislocate from riddling rod and then remove).

## **C. Sweeping**

The chimney should be swept before connection to the stove and we recommend sweeping your chimney twice a year thereafter. The best times to have your chimney swept are just before the start of the heating season (or after your stove has not been used over a prolonged period). The second time should be after the peak of the main heating season.

Use an approved chimney sweep.

## **D. Cleaning**

1. The glass of the stove can be cleaned with a non-abrasive stove glass cleaner and a cloth.

Tip: Use dry wood and leave the secondary airwash open to keep the glass clean during operation.

2. The stove body can be cleaned using a dry, clean cloth. Do not use a wet cloth as the parts can rust over time. Avoid cleaning the stove when hot.

## **E. Removing ash**

The riddling rod can be used to shake the ash from the stove chamber in the ashpan below.

Burning wood: Wood burns best on a bed of ash and also produces much less ash than anthracite. As a result you only need to clean out the ashpan occasionally when burning wood.

Burning anthracite: It is important not to allow the ash to build up on the underside of the grate as this will reduce the life of the centre grate and grate frame. Sweep the ash into the ashpan and clean out the ashpan after every light (after the stove has cooled).

## **Trouble Shooting**

**Dirty glass.** 1. Ensure the secondary/tertiary air control is in the on position (slide to the right). 2. Only burn dry wood with a moisture content of less than 20%. 3. Do not overfill the fire chamber (keep wood below the tertiary air holes, and place wood nearer the back of the fire chamber).

**Low heat output.** 1. Only burn dry wood with a moisture content of less than 20%. 2. Try burning harder woods with a higher calorific value.

**The stove or flue pipe is glowing.** 1. Turn the air controls to a lower position immediately (slide to the left). 2. Do not overload the fire chamber with excessive fuel. 3. Do not burn the stove with the door open. 4. Do not use coal with petroleum coke in the fuel. This is not suitable for use in this stove and will invalidate the warranty.

**Crazed glass.** See item above 'The stove or flue pipe is glowing' for likely issues. Crazed glass is also an indication of overfiring.

**Bad smell during initial lighting.** You may notice an unpleasant smell from your stove during the first few operations. This will happen as the paint and parts of the stove 'cure'. It is not toxic, but it is recommended that you leave the windows and doors open to allow the smell to dissipate.

**Smoke is coming from the stove.** It is normal to experience paint fumes during the initial light. It is also normal to have small amount of smoke enter the room when refueling. Apart from the two reasons mentioned above, smoke entering the room can be very dangerous. Open windows and

doors and evacuate the room immediately. Your stove fitter will need to ensure the chimney is not blocked, it is of sufficient height and the internal parts (inc. the baffle plate) are installed correctly.

## **Warranty**

The stove body, frame, door and convector box are covered under a 1-year warranty. This is extended by a further 4 years if the warranty card is completed and returned to the address below. It is important that the stove is fitted by a competent person, following both the local building regulations and the specifications outlined in this manual. Failure to do so could invalidate the warranty. For the avoidance of doubt, the stove is covered under the warranty, but labour costs are not covered.

Replacement parts are not included under the warranty, but can be bought from your local stove retailer. This includes (but is not limited to) glass, grates, bricks, baffle plates and the painted surface).



### Warranty Registration

Serial number of stove

Stove model

### Installer details

Name of installer & company

Address

Email address

Phone number

HETAS registration number

Date of installation

Flue system used

### Customer details

Name of end customer

Address

Email address

Phone number

The stove body, frame, door and convector box are covered under a 1-year warranty. This is extended by a further 4 years if the warranty card is completed and returned to the address shown. It is important that the stove is fitted by a competent person, following both the local building regulations and the specifications outlined in this manual. Failure to do so could invalidate the warranty. For the avoidance of doubt, the stove is covered under the warranty, but labour costs are not covered.

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**Please complete and  
return to:**

### The Mourne Collection

T&T Distributors  
Springhill Road,  
Carnbane Industrial Estate.  
Newry. BT35 6EF.





**The Mourne Collection**

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