



HWAM
Intelligent Heat

IN1244
Operating, Installation and Maintenance
Instructions

Hwam 3600 Range

Wood Models

This manual must be used in conjunction with document
IN1173 The Wood and Mutlifuel Chimney and Installation Guide,

This Manual Must Always Be Available To The Stove Operator



Euroheat
Natural Energy Company

Part No.

Model Name

Serial Number

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Operating Instructions

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Automatic

IMPORTANT

- The installation of this appliance must comply with all current BS 8303 local regulations, including those referring to national and European Standards before it can be operated. The stove is not suitable for a shared flue. However, for England and Wales, only, the coming into force on 1st April 2002 of SI 2002 No 440 exempts the householder from this legal requirement for the installation of solid fuel fired appliance whose rated heat output is 50kW or less in a building having no more than 3 storeys (excluding any basement) if a Competent Engineer is employed who is registered under the Registration Scheme for Companies and Engineers involved in the Installation and Maintenance of Domestic Solid Fuel Fired Equipment operated by HETAS Ltd. These registered Competent Engineers may also carry out associated building work necessary to ensure that the installed appliance complies with Building Regulations without involving the Local Authority Building Control Department.
- Improper adjustment, alteration, maintenance or the fitting of replacement parts not recommended by the manufacturer can cause injury or property damage. Do not operate the stove with faulty seals or damaged glass.
- Due to the high operating temperatures of this appliance it should be located away from pedestrian traffic and away from furniture and draperies. Do not store paper or wood near the appliance. Any mats and rugs put in front of the stove should be fire proof and secured to prevent the possibility of tripping.
- Advise all persons as to the stove's high surface temperatures. If it is possible for children or infirm adults to come into contact with the stove, fit a suitable fire guard.
- It is imperative that all air passageways into, out of, and within the appliance are kept clean. All permanent ventilation into the room provided for the stove must remain clear and unobstructed at all times. Consideration must be given to the need for extra ventilation if another heating source needing air is to be operated simultaneously. If an extraction fan is proposed to be fitted to a connecting area of the house, after the stove has been installed, professional advice should be sought from a qualified engineer.
- The user should be advised that the appliance should be inspected regularly and the chimney cleaned at least annually.
More frequent cleaning may be required and the advice of a qualified chimney sweep should be sought.
- Our range of stoves is capable of operating with outstanding efficiency if the flue system is correct. Because so little heat is wasted to the flue it is possible that moisture within the products of combustion will condense if the heat losses within the flue way are too great and allow the flue gases to cool. For this reason we recommend that the stove is fitted with a suitable flue liner, the same diameter as the flue spigot, to prevent the possibility of acidic damage to the fabric of the chimney and damage to the stove which will reduce the longevity of the stove.
- When correctly installed, the stove is designed to produce heat, safely. It cannot do so if the installation is less than absolutely stable, constructed of materials suitable for such an installation and consideration has not been given to the possibility of people with less than ideal common sense operating it.
- Have the existing chimney swept by a chimney sweep. Although you will be lining the chimney, any deposits left in the chimney will cause problems and may become a fire hazard.
- Your attention is drawn to the precautions and responsibilities under the Health and Safety at Work Acts, and whatever new legislation being introduced during the life of this document.

The Model Range Explained

Thank you for purchasing your stove and helping to protect our environment. Hwam and Euroheat insist on progressive development to produce products which are market leading. Our aims are to produce stoves with the latest innovations, user friendly operation and high efficiency for lower cost operation.

This operation manual offers user information for the range of Hwam 3600 stoves.

Model Identification

You will see on the front page of this document a label which confirms which model you have. This label also advises you of the stoves unique serial number. This information is also attached to your stove for reference.

Important

Please ensure the warranty registration form is returned to Euroheat. In this way the model and its history will be recorded for reference in the future.



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Whilst we are always happy to assist you, please make sure you have read this manual before contacting the technical support team.

Technical Support Telephone Number 01885 491117. E-mail tech@euroheat.co.uk

Useful organisations

Solid Fuel Association	0845 601 4406	www.solidfuel.co.uk
The National Association of Chimney Sweeps	01785 811732	www.chimneyworks.co.uk
HETAS Ltd.	0845 634 5626	www.hetas.co.uk

Before Operating this Appliance

The paint used on the stove is a heat resistant paint capable of withstanding 650°C, but it needs to be heated for several hours to allow it to cure and attain its full hardness. The lighting procedure should be followed and the stove's first fire limited to a small fire for one hour, after which its size can be gradually increased to allow the stove to reach its operating temperature. As the temperature of the paint increases a blue hazy smoke will be apparent as the solvents in the paint are driven out. These fumes may activate a smoke detector, if fitted, and during this period the room must be ventilated by leaving the windows open and it should not be occupied by people or pets. The time taken for the paint to be fully cured will be dependant upon the temperature but you should allow at least six hours. If you re-paint or fit new parts to your stove, another period of curing will be necessary but the curing time will be very much shorter.

Multifuel And Wood Stoves

Gas and oil are consistent fuels and stoves can be designed to obtain the maximum heat from them with the user having to do no more than choose a heat setting. Solid fuels are almost infinitely variable and however well a stove has been designed, its performance will ultimately depend on the way the user operates it. Whilst we have endeavoured to make the stove as simple to operate as possible, understanding just a little about the fuels and the way your stove was designed to burn them will be rewarded by your being able to achieve the best from your stove with the least effort.

As a fuel, wood is visually exciting, environmentally friendly, and a renewable source of energy but it is one of the most complex fuels to burn. Wood contains two sorts of components which burn. The fixed carbons which burn as the glowing embers, and the compounds that vaporize when heated to burn as volatile gases, giving the endlessly changing flame patterns. The fixed carbon, which is charcoal, is a virtually trouble free fuel and needs little assistance to burn cleanly, but it would be difficult to describe it as visually entertaining.

When set to its wood burning position, your stove heats the incoming air to ensure it has the minimum cooling effect on any volatiles. The air is supplied as slowly as possible so as not to blow out any established flames and it comes in across the full width of the stove ensuring that all parts of the stove receive an equal air supply. Because the air enters slowly over a curved blade the air is directed towards the burning volatiles rather than the bed of the fire, this allows the tar laden volatile components to use the incoming air as a priority. By placing a log or two towards the front of the fire whenever the flames from previous logs die down, a bed of charcoal will build up. This will be virtually pure carbon and capable of burning for incredibly long periods without causing any tar deposits on the stove's glass even when the air supply is reduced to minimal setting.

Always put logs on to the fire before flames from previous logs have extinguished, this will ensure that when the new logs begin releasing gases it will ignite. Unburned gases will cause smoke and tar deposits and wastes potential heat. Putting on too much wood at one time will both restrict the air supply and cool the combustion chamber making it more difficult for the gases to burn cleanly.

Never put on fresh wood whilst operating the stove with a minuscule air supply as a technique for operating for long periods without attention, it will cause both chilling and air restriction. Properly controlling the rate at which wood burns is not simply a matter of restricting the air supply, nor running the stove with a very small fire, it is maintaining the temperature and ignition flames in the stove whilst balancing the release of gases to match the chosen air supply.

No two woods have the same burning characteristics but all wood contains water. It is difficult to quantify the amount of water any log might hold whilst its exterior feels dry but it would not be unreasonable to estimate a mug full from a good sized, poorly seasoned log. Imagine pouring that onto your fire every time you introduce a new log and you will realize its obvious effect of cooling the fire. What is not so obvious is that the moisture mixing with the vaporized gases is cooling them, possibly below their ignition temperature. So the water within a wet log cooled the stove, it has prevented much of the potential heat from the log being realized and the unburned combustible products will be deposited as tars within the stove and flue.

Coal suitable for stoves has only a very small proportion of components that vaporise and a far higher fixed carbon content and when the stove is set to its coal burning position air is supplied through the grate to the underside of the fire bed to supply the carbon directly. There will be sufficient spare air travelling through the fire bed to reach the limited gases being released and this air will have been heated as it passed the burning coals.

Because coals suitable for stoves have so little vaporizing content they are virtually trouble free fuels to use, but if you are using one of the manufactured smokeless coals take care to ensure the ash pan is checked regularly because some of them have a very high ash content; this is especially important if you change "brands" because the ash contents can vary dramatically.

A stove is very much safer than an open fire, but if you have children or infirm people in the house please ensure it is suitably guarded, and consideration should also be given to accidental contact with the stove if you are entertaining with a busy house full of guests.

Choice Of Fuels

Wood

All wood will burn slightly differently, but the most important differences between woods is their moisture content. Until the moisture has been driven off from the wood it will remain below its combustion temperature. When the outer skin has dried and beginning to burn, much of this heat energy will be wasted having to boil off the water remaining in the core of the wood. Copious amounts of water vapour, in all but the most insulated flue, will condense, and mix with the products of combustion to form creosote and other undesirable substances which will eat away the fabric of the flue, and eventually build up to block the flue. At any time this build up of tar will be capable of causing a chimney fire.

The advice to burn only "dry" wood is sometimes confusing because the atmospheric moisture will prevent wood ever becoming "dry". It is acceptable to burn wood with a moisture content of less than 20%, which can be achieved by splitting the wood, stacking it so as to allow air to circulate within the stack and storing it under cover for between 18 months and 30 months, depending on prevailing climatic conditions. The use of a wood moisture content meter will confirm the amount of water remaining in the wood easily. The practice of drying wood by the stove should be discouraged, firstly because it should be unnecessary, and secondly because stored wood will invariably become the home to many varieties of insects, many of whom enjoy eating wood. To introduce them into your house and encourage them with heat and time to make new homes in your furniture and structural timbers is not recommended.

Peat (Should Not Be Burnt in a Smokeless area)

Peat burns very well, but it is bulky and its distinct aroma will pervade your home and everything in it, but otherwise peat can be burned as wood.

DO NOT BURN petroleum based fuels such as petro-coke, they may seriously damage your stove. The manufacturers of other blended coal products, containing a proportion of petro-coke, should be approached to confirm the suitability of the product for use within an enclosed appliance that does not have a chrome steel grate.

Choice Of Logs

Never burn wood that is not dry or wood that has been subject to a manufacturing process, such as chipboard, as these contain resins of uncertain toxicity when burned. For the same reasons, wood that has been painted or treated with a preservative should never be burned.

Natural wood is described as being either “hardwood” or “softwood”. Typically all broad leaf trees that lose their leaves in the winter are called hardwoods, and the evergreen conifers are called softwoods. Whilst the wood from the two groups have structural differences, the terms do not define the density or hardness of the wood. Balsa, one of the softest and lightest of woods is classified as being a hardwood and Hemlock, a soft wood, is extremely hard.

The less density wood has, the more its structure is made up of open spaces meaning it will season faster and because of these voids it will burn faster because it will expose more surface area as it disintegrates. This makes light woods suitable for kindling or a rapidly developing fire but unless you enjoy putting wood onto a fire every few minutes it is unsuitable for burning over long periods. Although there is a difference in the speed at which woods burn, equal weights of wood will give very similar amounts of heat.

Because logs are concentric tubes of cells they season faster if they are split, halving the tubes and allowing the moisture to evaporate more easily. Similarly it also allows the volatile gases given off when the wood is heated in a stove to be emitted along its full length rather than at the log’s ends. This helps the gases to be distributed more evenly within the stove and improves not only the efficiency, and emission reduction of wood burning but gives a more attractive fire.

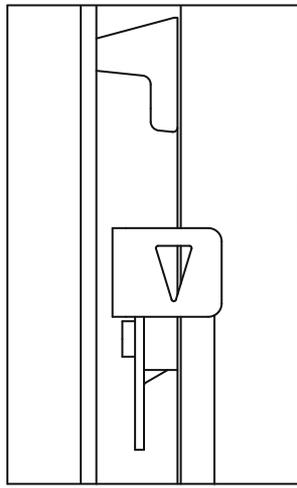
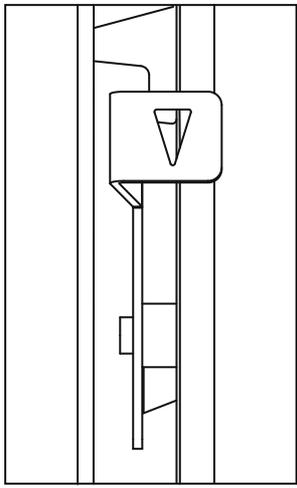
Putting logs onto the fire, bark side down and laying them, well spaced, in random orientation, rather than uniformly horizontally, will also help to increase the efficiency and attractiveness of the fire. To make this easier the ideal log length will be the length the stove’s combustion chamber can accommodate in all directions, and of proportionate cross-section, to allow you to load wood in a “higgledy-piggledy” manner.

DO NOT BURN

Anything but dry, natural wood. Wood that has been painted, treated or has hinges, nails or any plastic attached will almost certainly emit toxic matter when burned. For similar reasons bonded wood products such as chipboard, plywood or fibre board must never be burned.

DO NOT BURN

Household waste. Many seemingly innocuous items like box packaging have been coated with glazes which will produce toxic matter when burned. One old video tape put on the fire will cause more pollution in a few minutes than a life time of wood burning. Not only will a fire burning rubbish pollute, the stove is not designed to contain such an assortment of sizes and weights and a flaming box falling from the stove when the door is opened will present an unacceptable fire hazard.



Stove Controls

Burn Rate Control

The rate at which the stove burns is controlled by adjusting the air entering the stove. Moving the control from minimum to maximum increases the size of the air inlets, primary or secondary air, in the automatic combustion system.

The Automatic Combustion System

A bi-metallic coil heated by the flue gases moves a cam which raises and lowers, dependant upon the heat of the flue gases, a plate or plates which exposes or closes the Primary air (lower inlet) and the Secondary air (upper inlet).

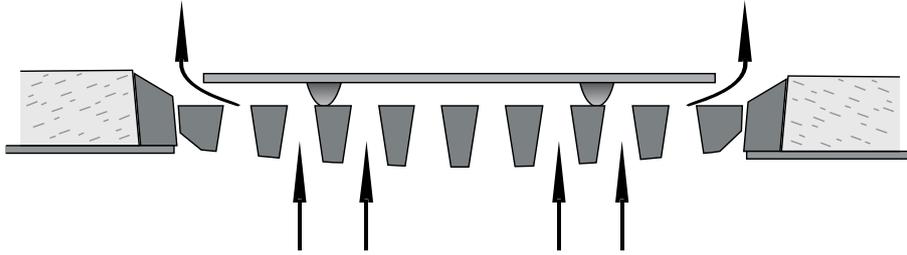
The three phases of a fire:

- 1) The lighting phase, where there must be an air supply at the top and bottom of the fire (secondary and primary air, respectively).
- 2) The combustion phase. At the ideal temperature of between 1000-1200° Celsius there is only a need for air above the fire, i.e. secondary air.
- 3) The burning-out phase. The temperature falls, the air supply above the fire is gradually reduced, and the lower damper opens, i.e. primary air.



Grate Cover Plate

Your HWAM stove is supplied with a loose cover plate for the riddling grate. This is a 3 mm thick steel plate. It is placed on top of the riddling grate and prevents the embers from falling into the ash pan. The cover plate is raised approx. 8 mm above the grate, thus ensuring that the automatically controlled primary combustion air is distributed evenly at the base of the combustion chamber.



First Lighting of the Stove

When you light the stove for the first few times it should be with small fires increasing in size, as all the materials must be given time to adapt to the effects of heat. The paint on the body of the stove will be fully hardened after the stove has been cured, however the door and the ash pan should be opened very carefully before this as there will otherwise be a risk that the gaskets will stick to the paint.

Curing

The paint may initially give off unpleasant fumes and an odour, so make sure that the room is well ventilated. The paint will be soft, so care must be taken with the stove for the first 6-8 firings. This is called curing and is not a fault of the stove and will stop.

Soapstone Finish

Soapstone must gradually be conditioned to heat. Soapstone may contain water, which is why you must be cautious when you fire your stove for the first time to keep the fire low for the first two hours.

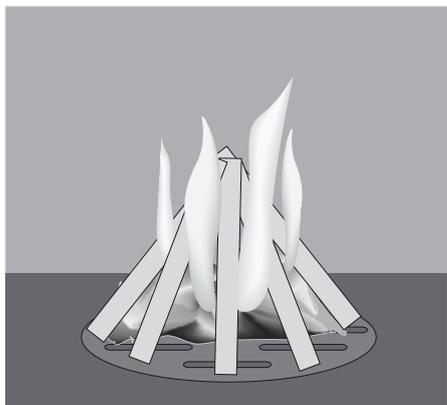
This will allow the soapstone to dry slowly and release the tension in the stone without any damage to the soapstone.

We recommend following the procedure below:

First firing

Place two lightly crumpled sheets of tabloid sized newspaper in the stove. Then lean some small, extremely dry kindling with a diameter of between 3–5cm vertically against the paper in a conical formation, leaving space between each piece and light it. Make sure the air controls are set to maximum and leave the door of the stove slightly open. Keep the door slightly ajar until the kindling is burning brightly, then shut the door.

Do not leave the stove unattended with the door open.

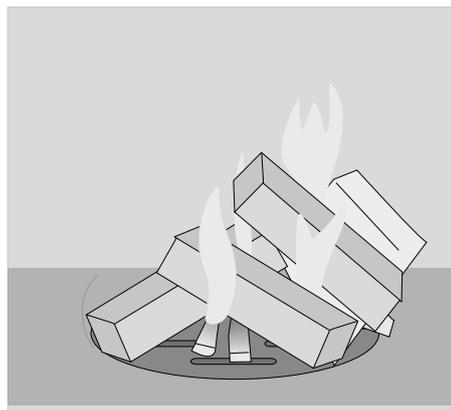
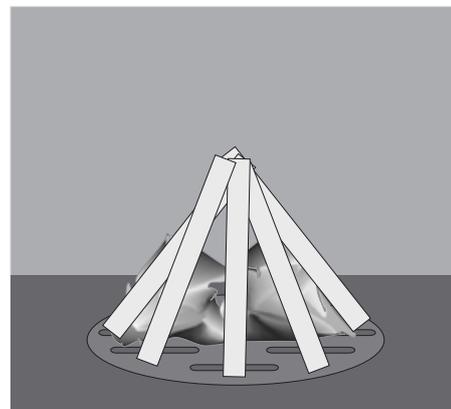


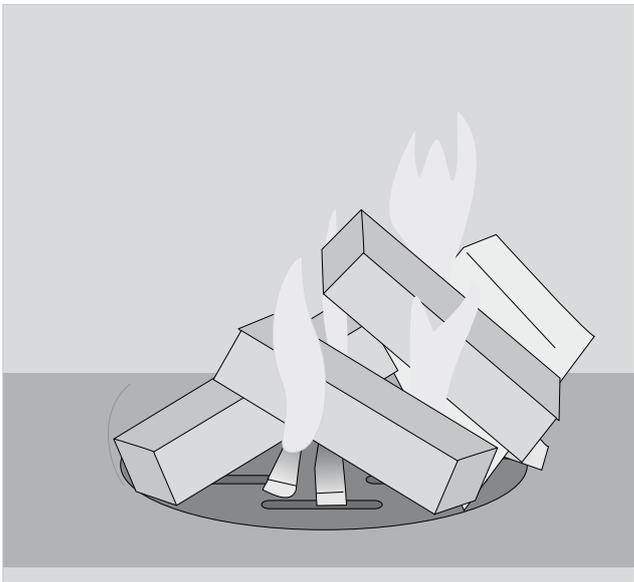
After it has been lit and when it is burning well, add a similar amount of kindling.

Adjust the air inlet control to mid/low setting.

Using small logs keep the fire burning low for two hours then gradually build up the fire.

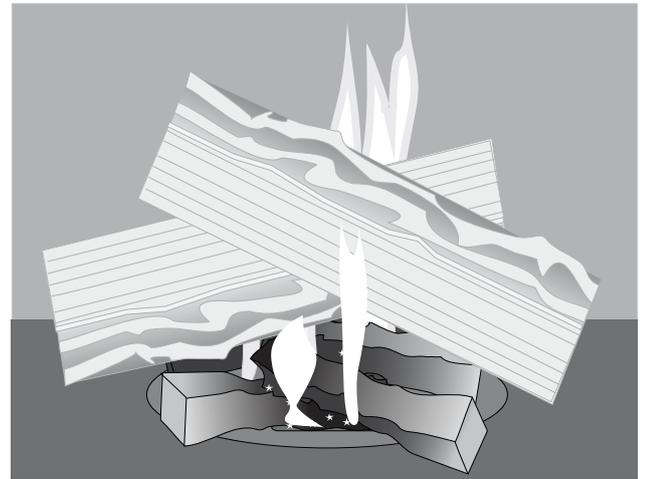
Always use the glove supplied with the stove when loading with fuel or operating any of the controls or handles.



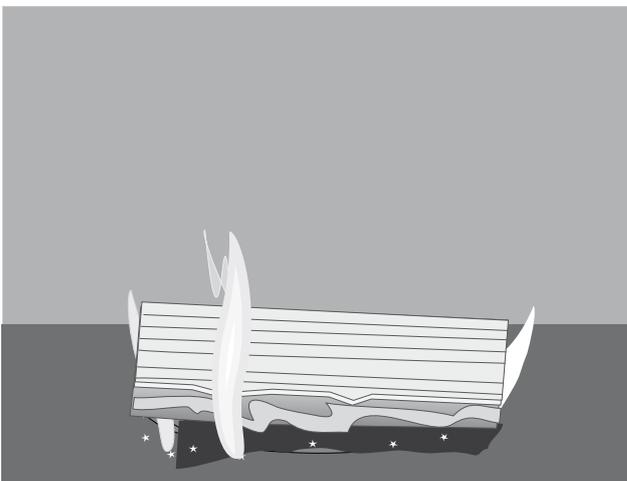


Wearing the stove glove place a few logs larger than kindling wood over, but not smothering the kindling.

When the previous loading of wood is burning brightly add two larger split logs to bridge the fire. Always avoid putting wood directly onto wood burning with flame, try and leave air space under the wood for the flame to form, because the new, cold log will tend to cool the fire.



Reduce the burn rate control setting when the fire is established to the desired heat output and set the air wash control to the mid setting. See the individual lighting and operating instructions for the stoves on the following pages.



Putting new logs bark side down, will give you both maximum efficiency and best visual effect as it begins to burn.

At the rear of the combustion chamber you will observe that there are a series of holes or slots, these are there to allow air into the combustion chamber and should NOT be covered at any time

Important!

Do not open the ash pan door when lighting the stove and always keep it closed when the stove is in use, otherwise you may destroy the automatic combustion control.

General Maintenance of the Stove

Ash Removal

The ash pan should NOT be removed and emptied when the stove is operating. Removal of the ash pan when the stove is lit will allow unregulated air to enter the stove which can damage the automatic combustion control system.

Do not allow ash to block the combustion air slots/holes at the rear of the combustion chamber. We recommend that these slots/holes are vacuumed regularly.

The embers within the ashes may remain alight for up to 24 hours after the stove has gone out, so they must be disposed of in a non combustible container.

Cleaning the Stove

Cleaning the Glass

Before attempting to clean your stove's glass the stove must be extinguished and allowed to cool, as for safety reasons it would be potentially unsafe to attempt cleaning when the stove is operating or still hot.

The glass in your stove is specially formulated to withstand the very high temperatures and proprietary glass cleaners are not recommended as their compositions may contain chemicals that will weaken or etch into the glass.

Newspaper moistened with water to which a little vinegar has been added will normally remove most staining, but for really stubborn marks, gentle polishing with fine steel wool lubricated with a few drops of dish washing detergent will need to be employed. Great care must be taken not to clean the glass too vigorously as particles of grit may have adhered with the stain and these could cause scratching if dragged across the glass. However well the stove burns it will eventually become necessary to clean the glass, but if cleaning becomes necessary too often we advise you to review your operating procedures to determine whether cleaner and more efficient combustion can be achieved.

Check the condition of the seals around the glass regularly for signs of leakage, replace only using the manufacturer's sealing gaskets.

The Stove Body

Any maintenance of the stove should only be carried out when it is cold. Daily maintenance is limited to vacuum cleaning the stove externally, using the soft brush attachment. You can also dust the stove using a dry, soft cloth or brush, but only when the stove is cold.

Maintaining Painted Surfaces

If the stove is scratched, or the paint flakes off over time, it can easily be repaired with fine emery paper and a special spray paint.

Spray Paint

Order product number HW99-0043BL for black surfaces, and HW99-0043GRY for grey surfaces

Once a year, the stove should be thoroughly serviced by a suitably qualified heating engineer. The combustion chamber should be cleared of ashes and soot. Door and fittings should be lubricated using a copper-based grease. The rope seals on the doors and glass should be replaced before the start of a new heating season. The instructions for this can be found in the installation instructions supplied with the stove.

Maintenance of Soapstone

What is soapstone?

Soapstone is a natural material, a natural stone, which absorbs and stores heat effectively. The result is that the heat from the stove is given off over a longer period of time.

There are different types of soapstone. The type is determined by the composition of minerals of the stone e.g. talcum powder, magnesium and chloride. This results in different shades and structures in areas and lines of the stone.

Soapstone must gradually be conditioned to heat. Soapstone may contain water, which is why you must be cautious when you fire your stove the first 3 times. For each time the temperature may be increased. This will allow the soapstone to dry slowly and release the tension in the stone without any damage to the soapstone. See the first lighting instructions on page 23.

Maintenance of soapstone

Cleaning the soapstone can be done with a pH neutral (pH7) cleanser.

- The soapstone must be at room temperature.
- Moisten the stain with undiluted cleanser and leave it to soak for a few minutes.
- Wash the surface with clean, hot water.

Difficult stains can be removed carefully with acetone or colourless spirit. Be careful not to get these solvents onto the painted surfaces of the body of the stove as they will remove the paint.

Alternatively the stains can be sanded with very fine sanding paper. If the soapstone is sanded with water and wet sanding paper it is possible to obtain a smooth surface.

Repair of small scratches or strokes, can be made by using very fine sanding paper.

- The soapstone must be at room temperature.
- Sand the surface with very fine sand paper until the scratch has disappeared – remember to use a sanding block to ensure an even surface.
- Polish with water and wet very fine sand paper if a smooth and even surface is desired.

In case you have more than one soapstone on your stove, all stones can be polished to an even result.

Operational Problems

Blackened glass

The wood is too damp. Only use wood stored for at least 12 months under cover and with a moisture level not exceeding 25%.

Smoke in the room when opening door

Open the door slowly, a few millimetres at first, then gradually to allow the pressure changes within the stove to equal out.

Insufficient chimney draft. See page 10, Flue Draught Measurement or contact a chimney sweep. Soot door leaking or dislodged. Replace or refit.

Never open the door when there are still flames on the wood.

Uncontrollable combustion

Faulty seal in door or ash pan. Fit new seal.

If there is an excessive chimney draft, it may be necessary to fit a draught stabilizer or a stabilizing cowl (See IN1173).

If the steel plates in the combustion chamber develop scales or become deformed, this is due to excessive heat caused by over firing the stove. This can be caused by excessive chimney draught, incorrect operation of the stove or incorrect fuel type, e.g. a petroleum coke based product. If over firing is evident contact your local retailer who can advise you on the most suitable remedy.

Fulmination

A stove may sometimes give off a loud noise, and this is known as fulmination.

Most stoves will make a "ticking" sound when heating up and cooling down. In a few cases this normal ticking will be replaced by a number of loud bangs. This is due to tension in the construction which is released during heating and cooling and has no practical significance for the function of the stove and does not constitute a safety risk or a fault in the construction of the stove.

In some cases it may be possible to remove this tension by allowing the stove to heat up very quickly.

Cracked glass

The glass in the stove door is a special ceramic glass that can stand extremely high temperatures, but it is particularly sensitive to knocks and blows at high temperatures and when heating up and cooling down.

So if the door is closed with a bang or is subjected to knocks and blows in other ways, there is a high risk that the glass will crack – typically at the corners where it is secured to the door.

If an accident should happen it is possible to order a repair kit containing glass, gaskets, etc., and instructions for replacing the glass from your local retailer or directly from Euroheat.

White or opaque glass

If the glass becomes white and opaque and cannot be cleaned as normal, it may have been damaged.

The glass in the stove door is a special ceramic glass that can tolerate gentle flame impingement, however fierce flames which are directed onto the glass will cause it to revert irreversibly to its original opaque state. Never burn any manufactured wood based products bonded with adhesive such as chipboard, burn only natural unadulterated wood as manufactured by nature and only smokeless fuels which have been approved for use in an enclosed appliance.

The combustion chamber lining has cracked or broken

The fireproof Skamolox lining in the combustion chamber is made of vermiculite, which is a specially manufactured material that can withstand very high temperatures and also provides efficient insulation and thereby ensures the optimum temperature and combustion in the combustion chamber.

The material is porous and cannot withstand knocks or blows.

Cracks are usually caused by a blow to the material with a piece of wood or similar.

This is not detrimental to the insulating effect as long as the stones are still correctly placed in the stove.

The liners should be replaced when they have been worn down to approximately half their original thickness.

After this they will no longer provide proper insulation and therefore do not ensure the correct combustion temperature, nor can they protect the stove against the high temperatures in the combustion chamber.

The door will not open

If the door cannot be opened, this will normally be due to the heat of and tension in the material.

Wait until the stove is cold and try again.

In very rare cases the closing mechanism on the door may have broken.

This will make it necessary to obtain the help of your stove distributor.

Rust

The stove will not rust if it is correctly installed and connected. When the inside of a stove rusts this is often due to the fact that it is exposed to dampness from the chimney when not in use during periods of warm wet weather.

To minimise this risk, the stove can be lit during these periods to ensure that it is thoroughly dry inside. In some properties, where the temperature is often low indoors during the winter, the temperature in the combustion chamber can become so low that water from the stationary air will condense on the metal surface of the stove. This water may lead to a rust attack.

To avoid this we recommend ensuring there is a draught through the stove, possibly by allowing the air supply to the stove to remain slightly open during the winter. The metal surfaces within the stove can also be sprayed with "WD40" or a similar water repellent to protect them from the effects of moisture.

If the outside of the stove rusts, this will generally be because it has been stored in damp surroundings for a longer period of time and water has been able to form on its surface.

If this does occur, it is possible to order a spray paint to match the colour of the stove.

Order product number HW99-0043BL for black surfaces, and HW99-0043GRY for grey surfaces.

Declaration

The information provided for the room heater fuelled by wood (solid mineral fuel), has been measured as specified in EN13240:2001 and EN 13240-A2:2004.

Hwam and Euroheat have a policy of continual research and development and reserve the right to modify its appliances without prior notice.

We make every effort to ensure that the information provided in this document is correct and accurate at the time of printing. Continued updates occur to adapt documents to customer requirements and appliance changes. For the latest editions of all Euroheat documentation visit our web site www.euroheat.co.uk.

We would request that you inform Euroheat of information which you feel is not provided in this document which would assist other users in the future.

Welcome to the world of real Stoves

Euroheat Technical Team



Installation Instructions

For Stoves

Hwam 3600 Range

This Manual Must Always be Available to the Stove Operator



Euroheat
Natural Energy Company

Part No.

Model Name

Serial Number

Technical Details Intermittent Operation

Intermittent operation is when the appliance is used for short firing periods for example 45 minutes to 2 hours. This is a common operation in warmer weather such as cold spring evenings. The information provided below where indicated as HETAS approved is from the current CE standards EN 13240:2001 and EN 13240 A2:2004. The test fuel is wood.

Model Name	Heat Output Nominal Wood	Flue Draught Nominal Heat Output	Flue Gas Temperature deg C
Hwam 3600 Range	6.kW	12pa	292

Model	Flue Size	Air Requirement Equivalent Area as Approved Document J	Efficiency Net %	Efficiency Gross %	Weight
Hwam 3610	6" (153mm)	Nil	78	71	112kg
Hwam 3630	6" (153mm)	Nil	78	71	136kg
Hwam 3640	6" (153mm)	Nil	78	71	136kg
Hwam 3640 With Soapstone Cover	6" (153mm)	Nil	78	71	226kg
Hwam 3650	6" (153mm)	Nil	78	71	168kg
Hwam 3650 With Heat Storage Compartment	6" (153mm)	Nil	78		241kg
Hwam 3660	6" (153mm)	Nil	78	71	168kg
Hwam 3660 With Soapstone cover	6" (153mm)	Nil	78	71	279kg
Hwam 3660 With Soapstone Cover and Heat storage compartment	6" (153mm)	Nil	78	71	352kg

* Air requirement equivalent area. Building regulations Document J, advises that an air supply should be installed for appliances with a heating output over 5kW. Document J indicates that there should be sufficient advantageous air for heating outputs below this amount. With modern properties this may not always be the case and/or more free air may be required. Continuous or intermittent operation will result in different heating outputs due to the nature of the fuel and the appliance. If in doubt increase the suggested area listed or contact your HETAS approved engineer for assistance.

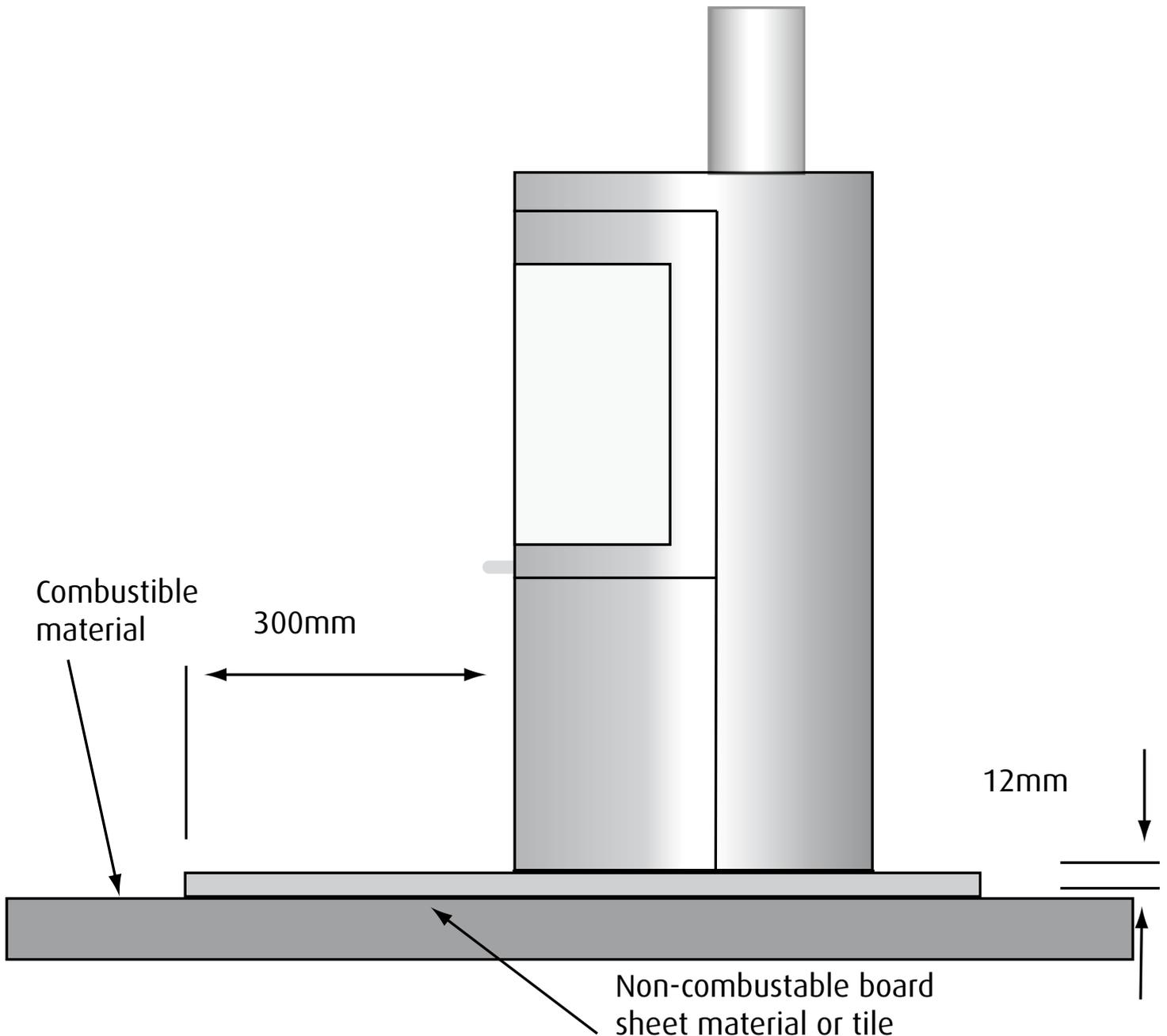
Hearths

The stove should stand wholly above a hearth constructed of suitably robust materials and should be able to accommodate the weight of the appliance and its unsupported flue components. The materials should conform to local Building Regulations and British Standards.

If the stove is not to stand in an appliance recess, a hearth made of non-combustible board/sheet material or tiles of at least 12mm thick may be used as long as the floor can accommodate the weight of the appliance and its unsupported flue components. If it is installed on a wooden floor or similar, the floor must be covered with a non-combustible material, a minimum of 12mm thick, to a distance of 300mm in front of the stove and 150mm to each side measuring from the closed door of the combustion chamber.

The Hwam range of stoves have been tested and conform to standards where the hearth temperature does not exceed 100°C This means a hearth of 12mm of noncombustible material can be used.

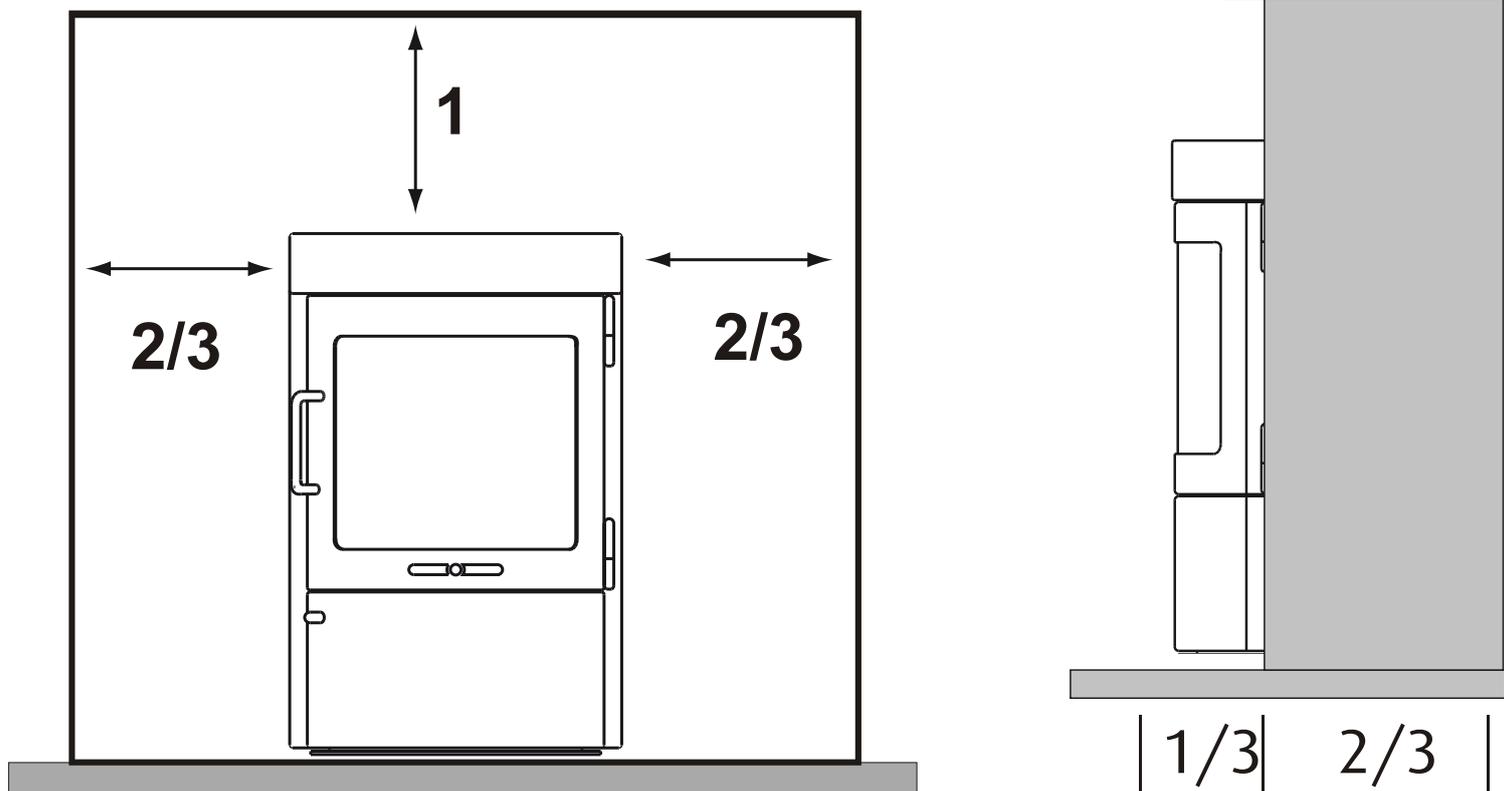
For further information on hearths of either glass, granite or slate visit our web site www.euroheat.co.uk



Fireplace Design

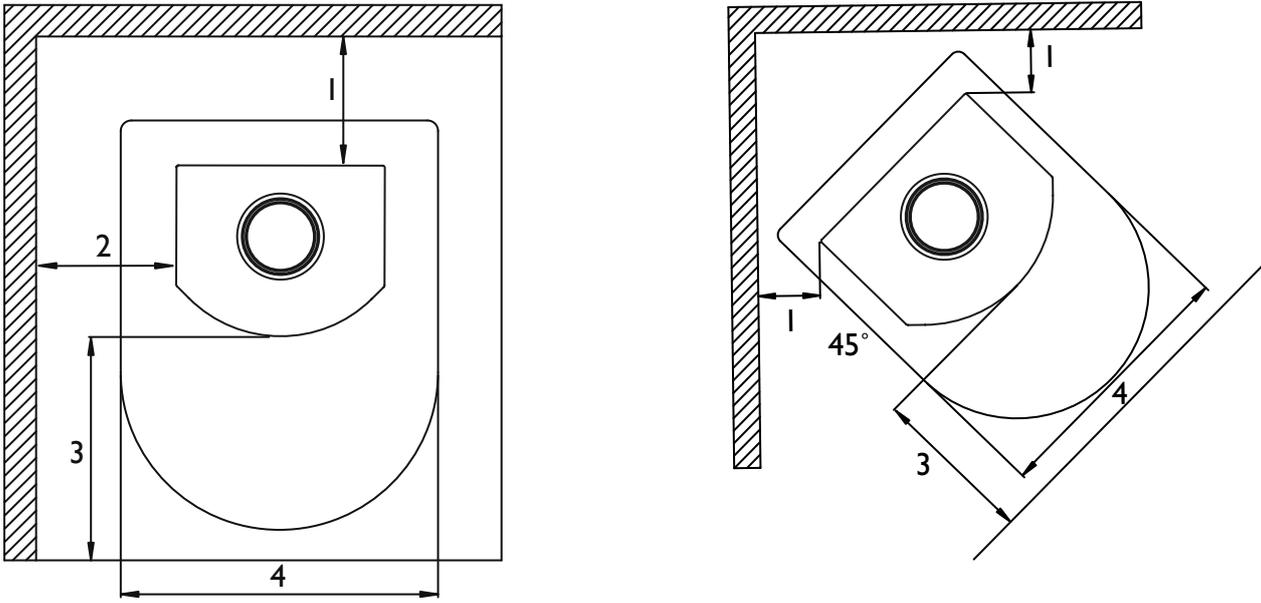
Do not be tempted to fit the stove into an unsuitable fireplace. Beyond the requirements of Building Regulations and access to facilitate servicing the stove, providing a setting which will compliment a stove is not a luxury, it is the practicality of making the most of an investment. A good builder or fireplace specialist will be able to transform even the most utilitarian of fireplaces. Whether altering its proportions to those of the "Golden Mean" ideal, see below, or exposing a wooden or stone lintel or simply removing superfluous detailing for a comparatively small cost, and the result will be a pleasure for many years.

"Golden Mean"



1. The stove must always stand perfectly level. The provision of a suitable level hearth within the recess is an important consideration when planning a fireplace.
2. Sufficient space should be allowed for service work.
3. At least the minimum clearance from inflammable materials and conforming to the current Building Regulations.
4. Sufficient space around the stove so that the controls may be operated without the risk of injury to the operator.
5. Mounting brackets should be installed to facilitate the secure fitting of a fire guard, if one is to be fitted to protect the young, elderly or infirm.
6. Curtains and soft furnishings should be a minimum of 1m from the stoves body or the surface temperature of these furnishings must not exceed 65°C.
7. The mounting of expensive paintings, mirrors and plasma screen televisions above a fireplace is not recommended.

Installation Clearances

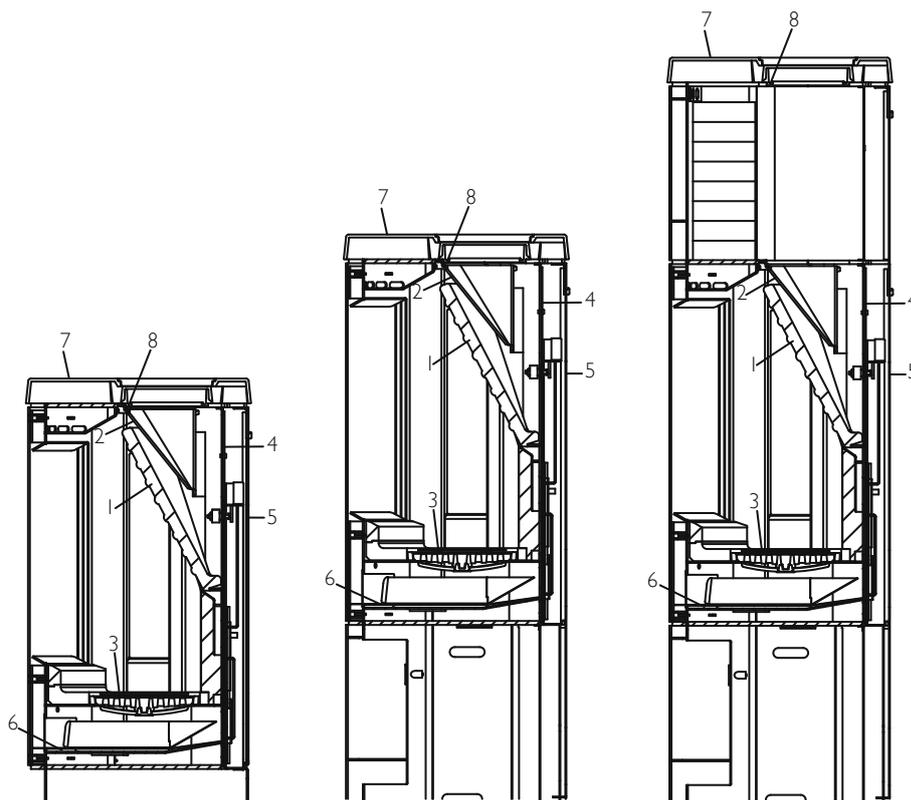


If the stove is to be installed into a fireplace recess the installation must comply to BS8303 1 to 3: 1994

Free Standing Installation		
1	From non combustibile back wall	100mm
1	From combustibile back wall	150mm
2	From non combustibile side wall	150mm
2	From combustibile side wall	400mm
3	Fireproof hearth in front	300mm
1	Distance to 45° sidewall	350mm
4	Distance from furnishings in front	800mm

Fitting The Internal Parts

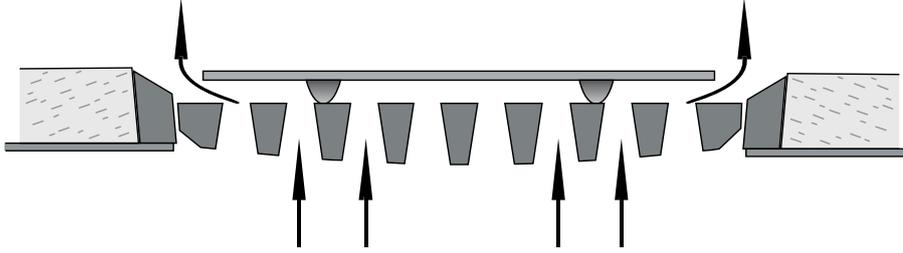
Before the stove is installed, you must ensure that all the internal parts are fitted correctly.



- 1, Baffle plate should be placed on the steel rail and the holder at the front middle.
2. The baffle plate is suspended on three hooks beneath the top plate. One of these hooks has an additional flap that is bent upwards for protection when in transport. This should be removed with a screwdriver before installation.
3. Grate cover plate. Should always cover the grate.
4. Rear flue outlet. If your stove was ordered as top flue outlet this will be factory fitted and sealed.
5. Removable rear plate. Covers the automatic system, this must always be fitted if the stove is installed near a combustible wall.
6. Loose heat shield under the ash pan. This can be used as a lid when the ash pan is removed for emptying.

Grate Cover Plate

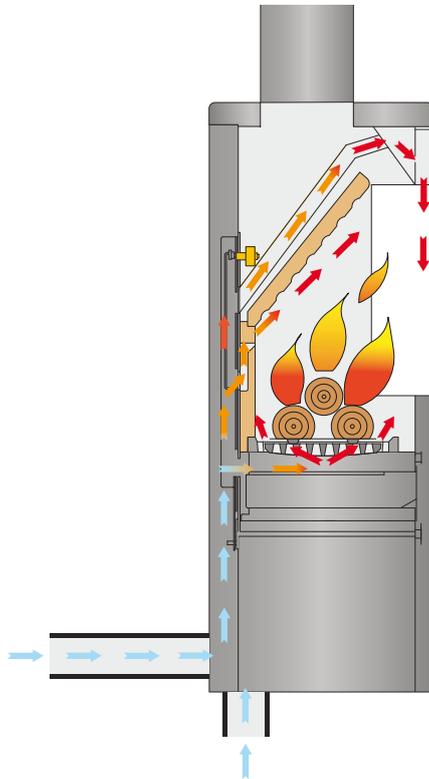
Your HWAM stove is supplied with a loose cover plate for the riddling grate. This is a 3 mm thick steel plate. It is placed on top of the riddling grate and prevents the embers from falling into the ash pan. The cover plate is raised approx. 8 mm above the grate, thus ensuring that the automatically controlled primary combustion air is distributed evenly at the base of the combustion chamber.



Fresh Air System

Instead of letting the air from the room into the stove for combustion, it is possible to take in fresh air from outside and introduce this directly via a duct into the back or the base of the stove.

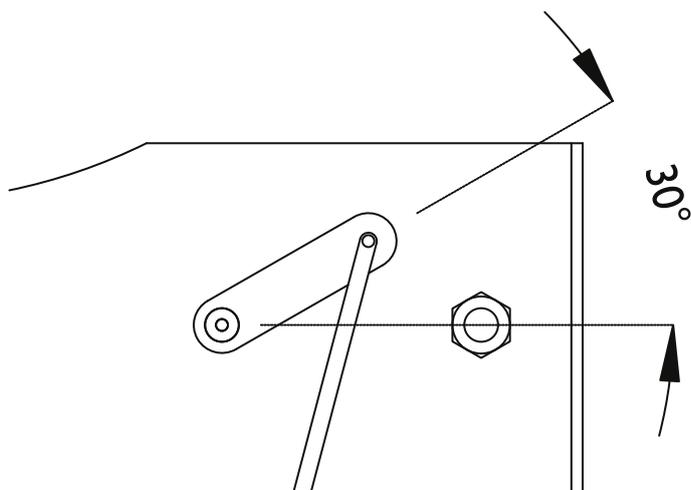
Today, many modern dwellings are so airtight to conform with building regulations that it is an advantage to attach a fresh air intake to the stove. This continually supplies the air for combustion while the stove is in use but as the air is ducted directly into the back of the stove it stops cold fresh air mixing with the warm air in the room chilling the room or causing draughts.



Fresh Air Systems are available. See www.euroheat.co.uk for further information.

Maintenance Instructions

Automatic Combustion Control



Lift off the rear panel.

On a cold stove, the starting point of the mechanism is controlled. The starting point on a cold stove is about 30° above horizontal.

It should move easily and spring loaded when you push it, no matter if the stove is cold or hot.

With a rising or falling temperature it should move gradually.

The damper plates must be dry and clean and slide together unhindered.

Control bars and slide gates may have to be lubricated with a proprietary lubricant such as WD40 or a PTFE based product such as Amberglide.

Insulation (Skamolex)

The mica board insulation material of the combustion chamber may, in time, become worn and damaged. Cracks in the insulation have no effect on the efficiency of the stove. The insulation should be replaced, however, when it is reduced to less than half the original thickness due to wear and tear.

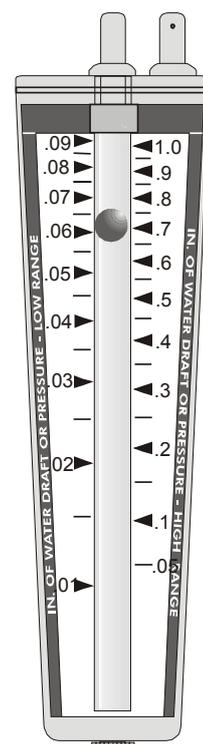
Flue Draught Measurement

A flue draught which is too low will result in the stove being difficult to light, responding only slowly to demands for increased output and unable to reach its full heating output. If this is the case rectification work of the chimney construction should be undertaken. A flue draught which is too high will cause difficult control conditions, and makes it possible to over fire the stove, which can seriously damage it. In this instance a flue draught stabiliser may need to be fitted or if it is wind assisted excessive flue draught a stabilizing cowl may need to be fitted.

The negative pressure created within the combustion chamber of the stove must be measured using a test hole drilled into the flue, as close to the stove as possible and before any draught stabilizer that may be fitted to the flue. To ensure a constant air inlet size the readings should be taken with the air inlet controls set at maximum.

Euroheat can supply the flue draught measurement gauges.
Order number MS026.

Note: this is not a water manometer used to measure gas pressure.



DECLARATION OF CONFORMITY

Manufacturer:
HWAM Heat Design AS
Nydamsvej 53
DK – 8362 Hørning
Denmark

Tel.: +45 86 92 18 33
Fax: +45 86 92 22 18
E-mail: heatdesign@hwam.com

hereby declares that:

Product:	Type:
Wood-burning stove	HWAM 3410

was manufactured in accordance with the provisions of the following directive:

Reference no.	Title:
89/106/EEC	Construction Products – CPD

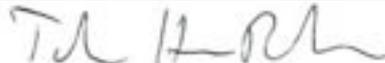
and the following harmonised standards:

No:	Title:	Udgave:
EN 13240	Roomheaters fired by solid fuel	2001
EN 13240/A2	Roomheaters fired by solid fuel	2004

and other standards and/or technical specifications

No:	Title:
NS 3058	Enclosed wood heaters - Smoke emission
NS 3059	Enclosed wood heaters - Smoke emission

Hørning, 26.11.2008


Torsten Hvam Pedersen
Factory and quality manager

Commissioning Check List Mark box when completed

Inspect the door and glass seals and ensure all handle latches are adjusted correctly, procedure in the operating instructions.

Check baffles are installed correctly and that the riddling mechanism is operating correctly.

Ensure that the fire responds to the operation of the controls and that there are no visible emissions of the combustion products into the room.

Check the flue draught is within the parameters within these instructions. If the draught is excessive fit a suitable flue stabiliser. If they are below the requirements, rectify whatever problem exists with the flue installation.

Instruct the user on the use of the tools, operation of the appliance and the summer shut down procedure. Information in the operating instructions.

Instruct the user never to operate the stove with the furnace door open and that the user is aware of the requirement of a suitable fire guard where children, the old or infirm may come into contact with the appliance.

Hand over the installation instructions, operating instructions and completed warranty form to the user. Remind the owner to return the warranty form for registration.

Complete the Stoves Registration Form and Pass to User for Registration

Euroheat and Hwam have a policy of continual research and development and reserve the right to modify its appliances without prior notice.

We make every effort to ensure that the information provided in this document is correct and accurate at the time of printing. Continued updates occur to adapt documents to customer requirements and appliance changes. For the latest editions of all Euroheat documentation visit our web site:

www.euroheat.co.uk.

We would request that you inform Euroheat of information which you feel is not provided in this document which would assist other users in the future.