

WIKING

Document Part Number IN1273

Installation Instructions

for the

WIKING Miro Range

of Stoves

The above are suitable for use in smoke control areas

Wood Models

This manual must be used in conjunction with document
IN1173 the Wood and Multifuel 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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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 50 kW 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. Wiking 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 manual offers user information for the range of WIKING MIRO 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.

WIKING

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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.

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.

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.

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.

Smoke control areas

The WIKING MIRO range are only considered suitable for exemption under the Clean Air Act when burning untreated dry wood. The appliance should only be used to burn wood or authorised fuels. For details of authorised fuels that are suitable for the appliance please contact your appliance distributor.

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.

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 “authorised” fuels) have been exempted by an Order made and signed by the Secretary of State or Minister in the devolved administrations.

The WIKING MIRO range of stoves has been recommended as suitable for use in smoke control areas when burning [fuel].

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.

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 degrees C
WIKING MIRO	4.9 kW	12pa	285

Model	Flue Size	Air Requirement Equivalent Area as Approved Document J	Efficiency Net %	Weight
WIKING MIRO 1/3	6" (153 mm)	see below	78.0	84kg/104kg

* 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.

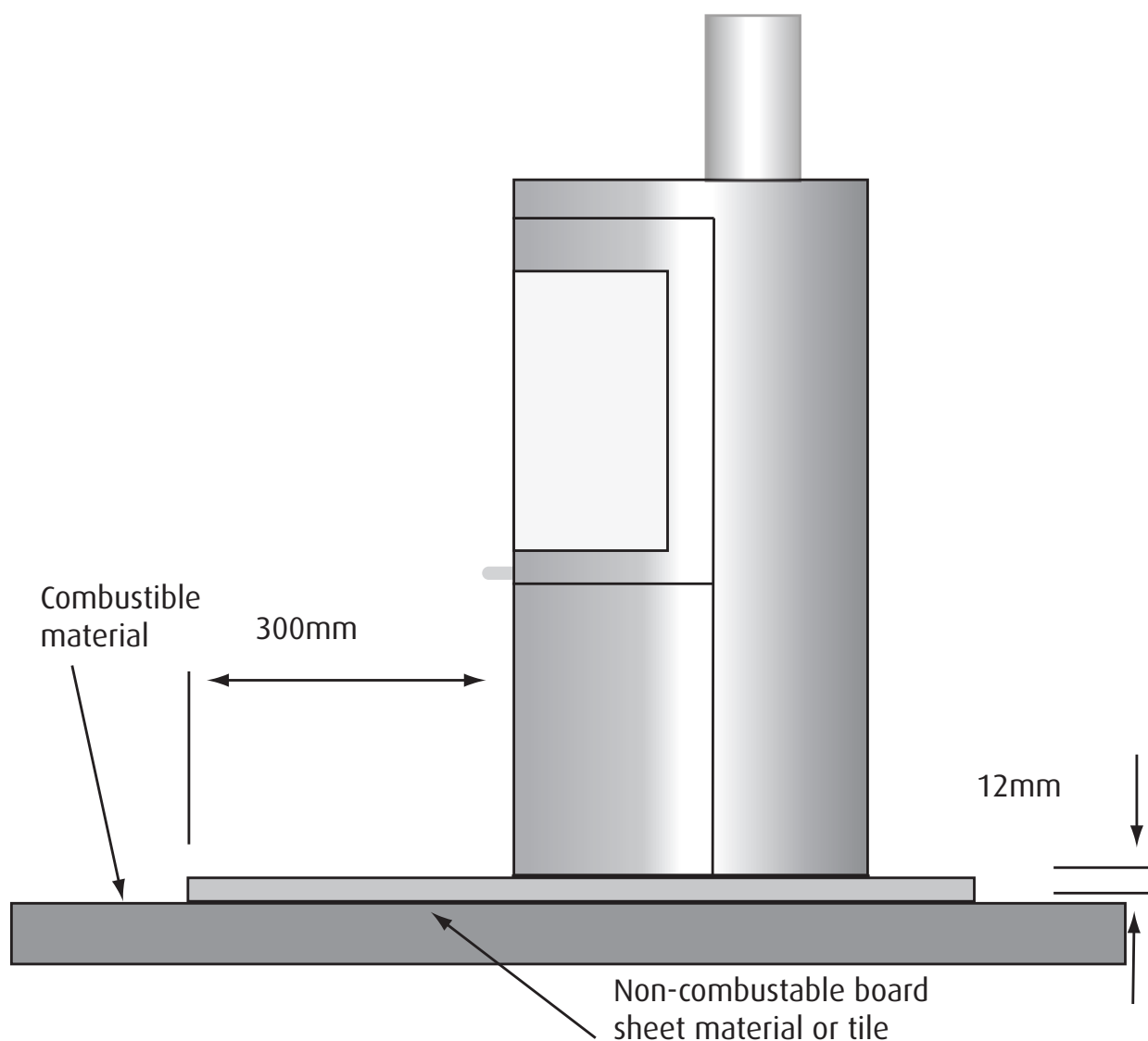
Hearths

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 300 mm in front of the stove and 150 mm 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 12 mm of noncombustible material can be used.

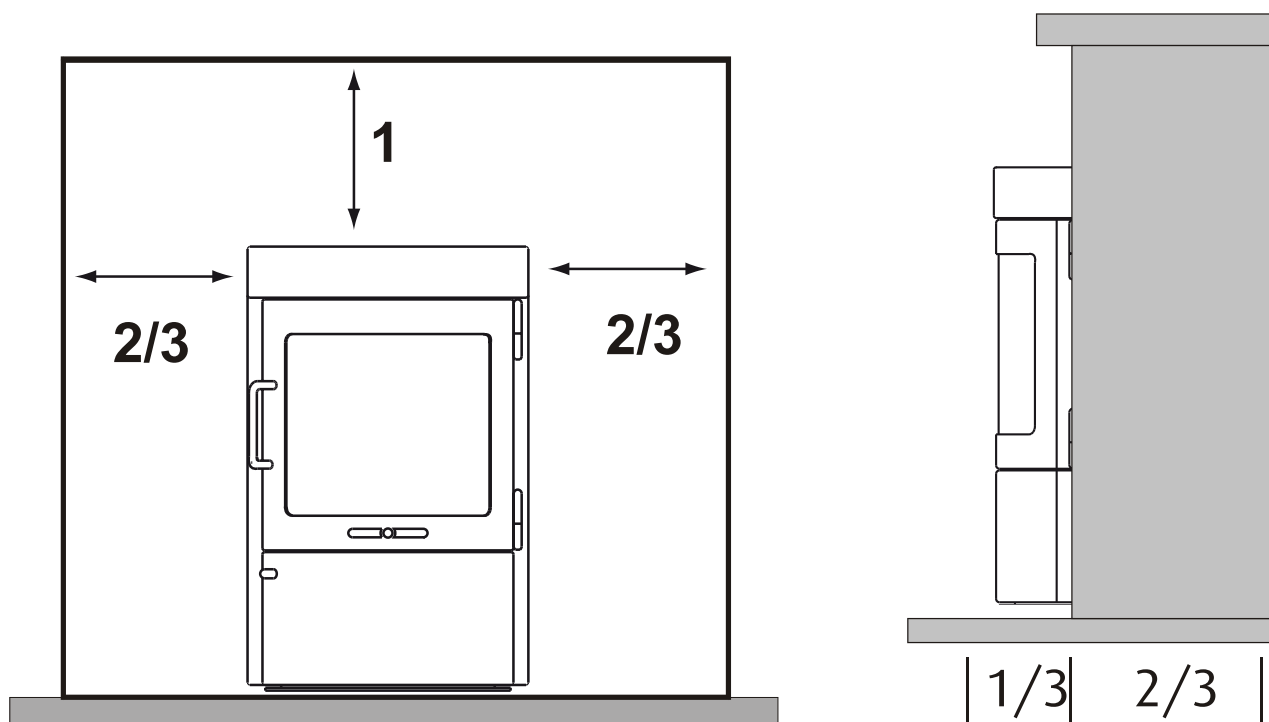
For further information on hearths of either glass, granite or slate visit our web site www.euroheat.co.uk



Fireplace Design

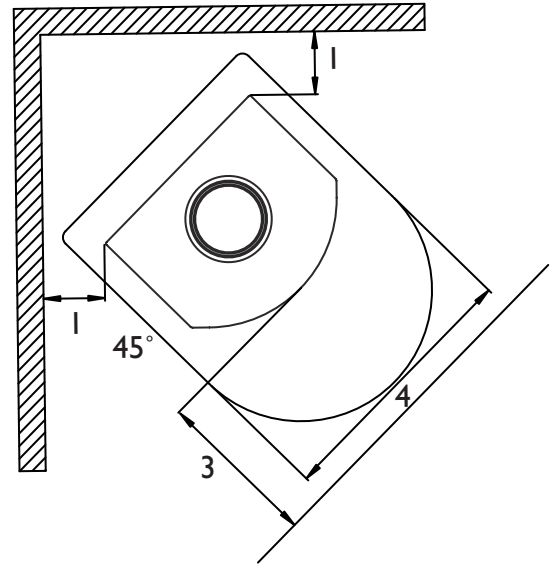
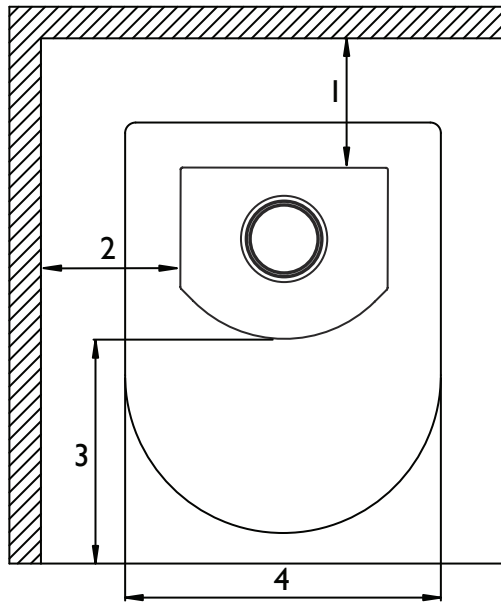
Do not be tempted to fit the stove into an unsuitable fireplace. Beyond the requirements of Building Regulations and access to facilitate servicing the stove, providing a setting which will compliment a stove is not a luxury, it is the practicality of making the most of an investment. A good builder 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

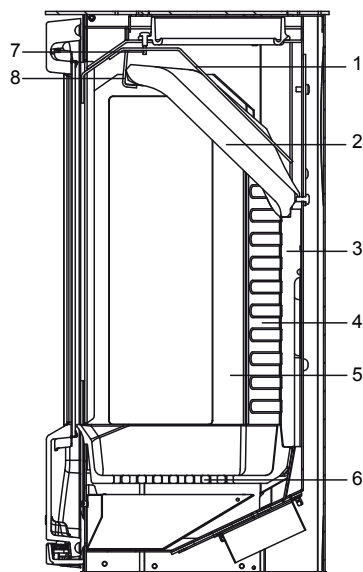


If the stove is to be installed into a fireplace recess the installation must comply to BS8303 1 to 3: 1994

	Free Standing Installation	
1	From non combustible back wall	50mm
1	From combustible back wall	100mm
2	From non combustible side wall	100mm
2	From combustible side wall	520mm
3	hearth in front	300mm
1	Distance to 45° sidewall	380mm
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) The Steel baffle plate is hung from two hooks (7) that are transport protection clips, please remove before use.
- 2) Vermiculite baffle which rest on two fixings (8)
- 3) Rear burn plate
- 4) Side Vermiculite plate
- 5) Side Plate
- 6) Bottom cast iron plate.

1. The smoke plate or rear skamolex baffle. To be placed on top of the rear plate and holders on each side of the combustion chamber.
2. The baffle plate. Each half is hung on hooks located beneath the top plate. Once the stove has been installed, the transport protection is removed. Lift the smoke plate up and forward. Then lower it and remove it from the stove. The transport protection should then be bent downward/forwards until it is vertical
3. Grate cover plate. Should always cover the grate.

The adjustable feet

WIKING Miro 3 has four adjustable feet built into the base of the stove. Open the door of the wood section, and loosen the screws of the back plate and remove. Adjust the feet to required height, and replace the back plate.

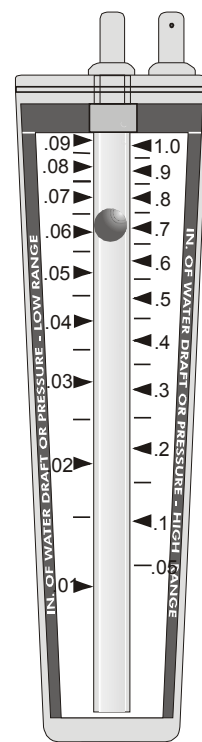
Flue Draught Measurement

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.



Handling

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

Fire Cement

Some types of fire cement are caustic and should not be allowed to come into contact with the skin. In case of contact wash immediately with plenty of water.

All joints in the connection between the stove and the chimney must be made gastight using fire cement and where necessary fire-proof rope infill.

Asbestos

This stove contains no asbestos. If there is a possibility of disturbing any asbestos in the course of installation then please seek specialist guidance and use appropriate protective equipment.

Metal Parts

When installing or servicing this stove care should be taken to avoid the possibility of personal injury.

CO Alarms

Building regulations require that whenever a new or replacement fixed solid fuel or wood/biomass appliance is installed in a dwelling, a carbon monoxide alarm must be fitted in the same room as the appliance.

Further guidance on the installation of the carbon monoxide alarm is available in **BS EN 50292:2002** and from the alarm manufacturer's instructions.

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

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.



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