



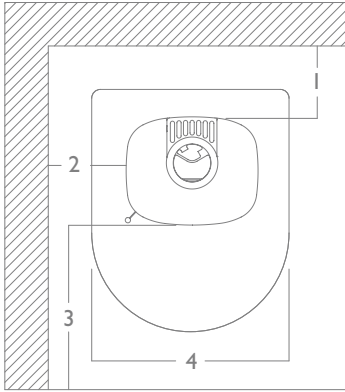
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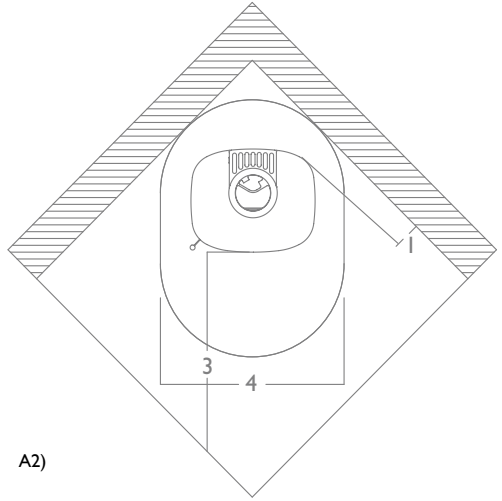
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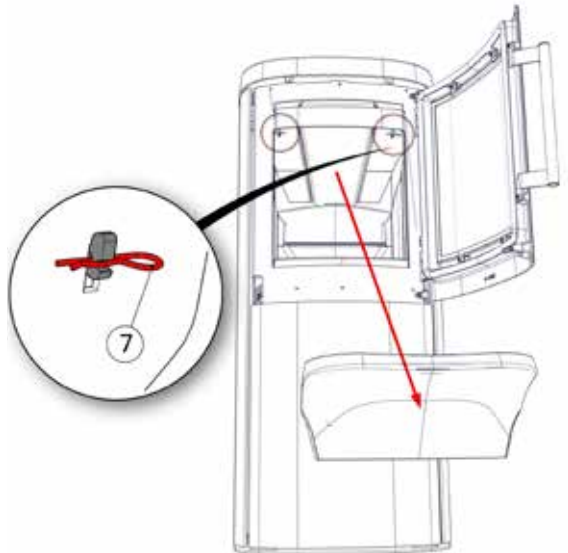
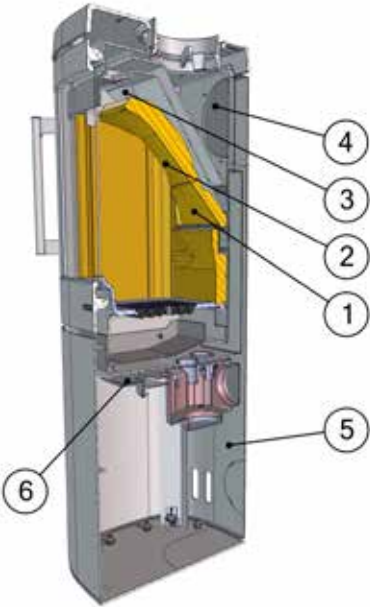


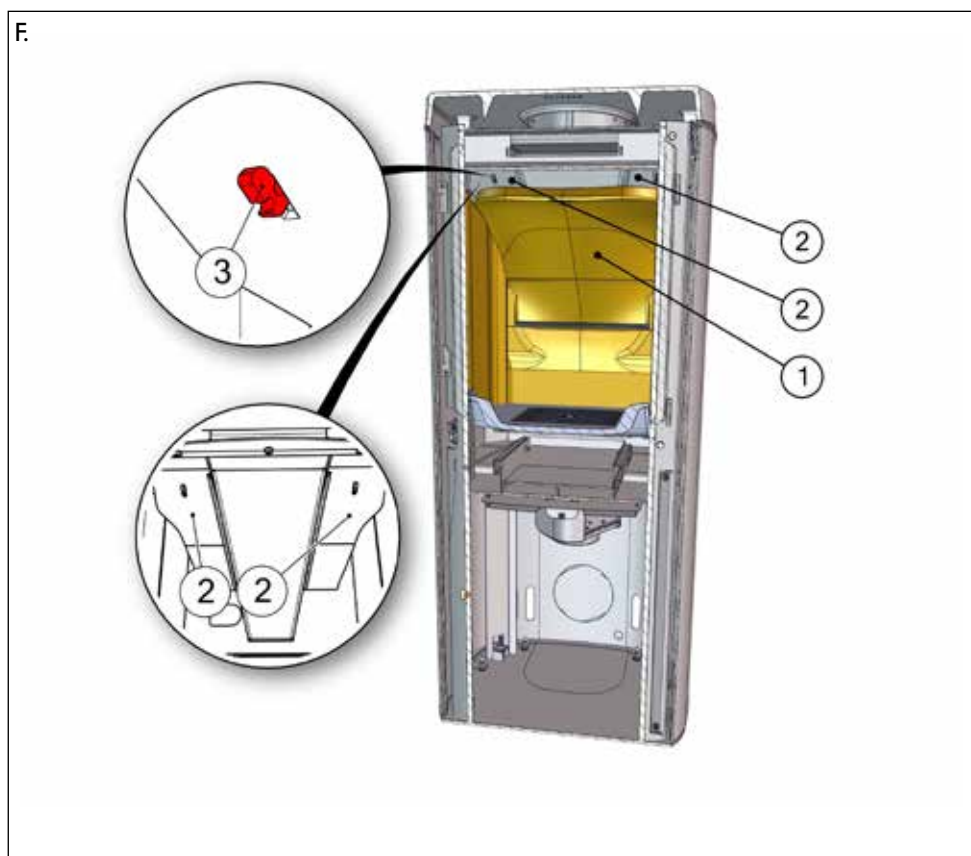
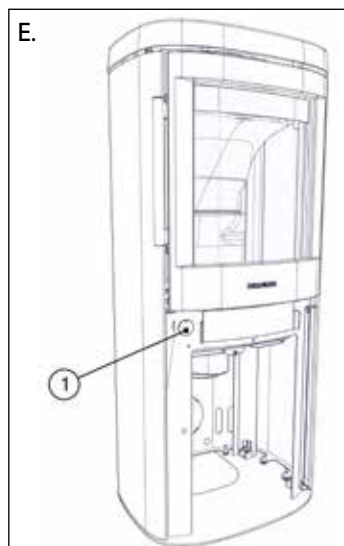
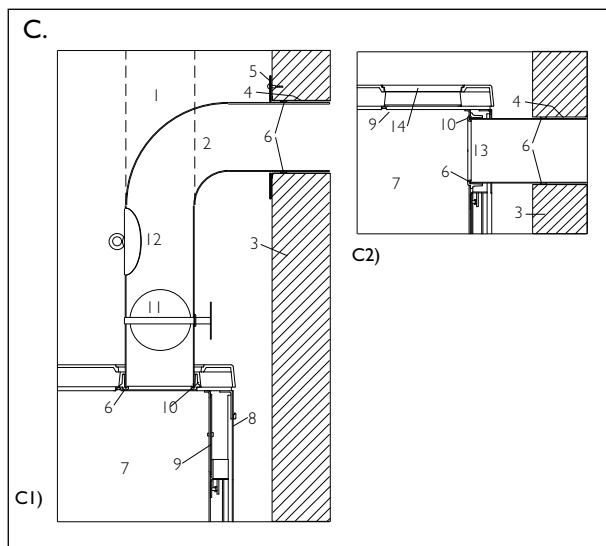
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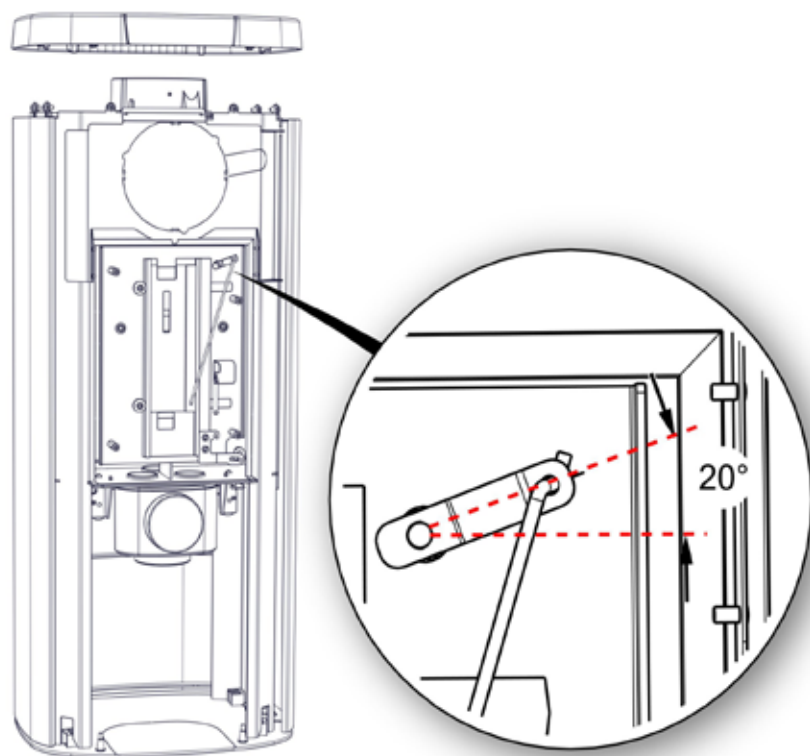
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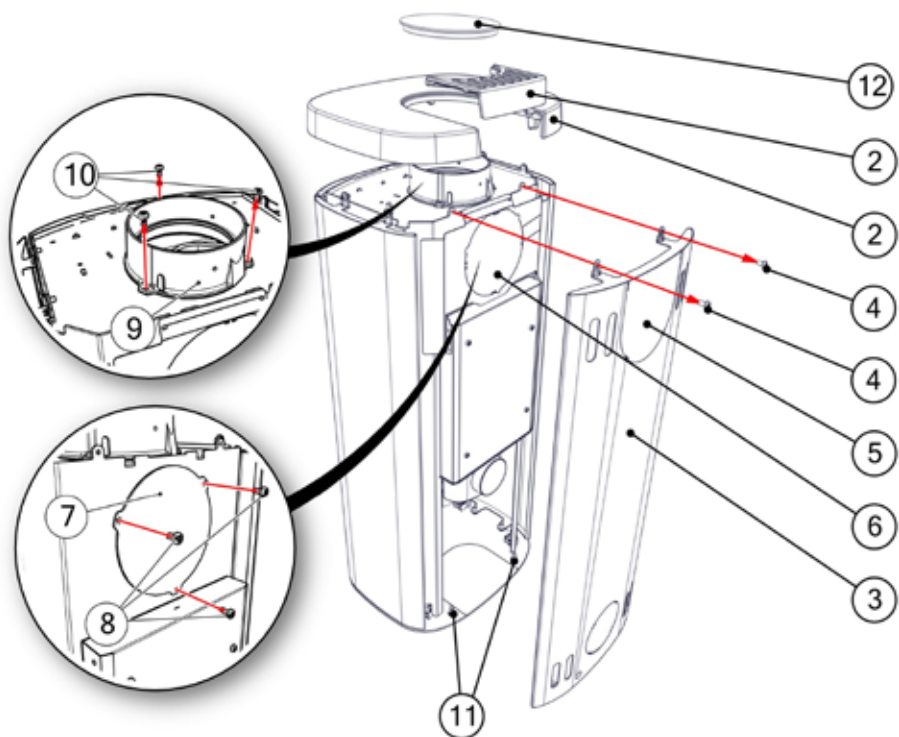




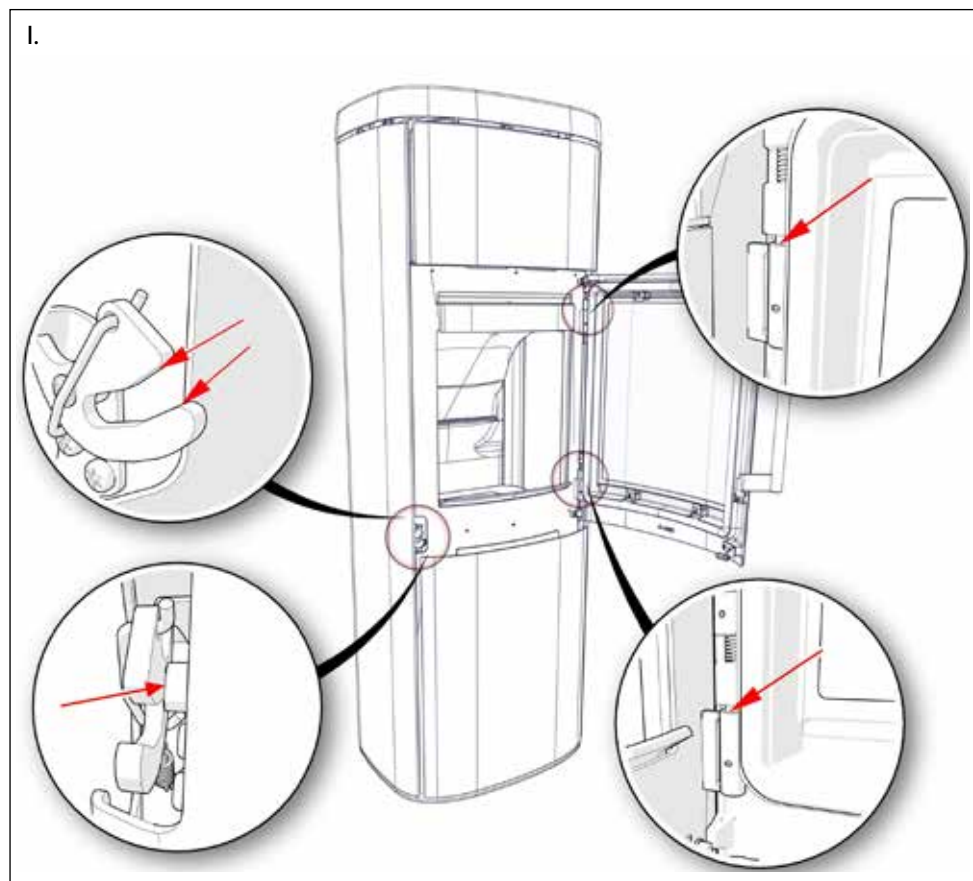
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# FOR UK - THE CLEAN AIR ACT 1993 AND SMOKE CONTROL AREAS

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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 Northern Ireland appliances are exempted by publication on a list by the Department of Agriculture, Environment and Rural Affairs under Section 16 of the Environmental Better Regulation Act (Northern Ireland) 2016. In Wales these are authorised by regulations made by Welsh Ministers.

Further information on the requirements of the Clean Air Act can be found here: <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 HWAM 4500 stoves detailed below have been recommended as suitable for use in smoke control areas when burning wood logs. The appliance has been fitted with a modified secondary air control to prevent closure of the air inlet below 20 %.

Appliances recommended as suitable for use in Smoke Control Areas :

- HWAM 4510c/4510m
- HWAM 4520c/4520m
- HWAM 4530c/4530m
- HWAM 4540c/4540m, HWAM 4540c/4540m with soapstone, HWAM 4540c/4540m with sandstone
- HWAM 4550c/4550m
- HWAM 4560c/4560m, HWAM 4560c/4560m with soapstone, HWAM 4560c/4560m with sandstone

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

If there is insufficient burning material in the firebed to light a new fuel charge, excessive smoke emission can occur. Refuelling 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 excessive smoke.

## **Fuel overloading**

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

## **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.

## **Dampers left open**

Operation with the air controls 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.

## General information

Installation of your HWAM woodburning stove must always comply with local building regulations. It is a good idea to consult your local chimney sweep before installing, since he will be the one to sweep the chimney and stove.

Always follow the instructions of the manual carefully and make sure that the installation is carried out by a qualified professional. See HWAM's list of dealers at [www.hwam.com](http://www.hwam.com) under 'Dealers'.

HWAM packaging material should always be handled in accordance with the local rules for waste handling.

## Room requirements

There must be a constant supply of fresh air to the room in which the stove is to be installed. The wood-burning stove uses approx. 9-20 m<sup>3</sup> air per hour. A window that opens or an adjustable air vent should be sufficient, but it is also possible to connect the stove to a HWAM fresh air system. The air inlet/grating must be placed so that they do not become blocked.

## Technical data

Before installing the stove, you must ensure that the load-bearing capacity of the floor can withstand the weight of the stove and the chimney. The weight of the chimney should be calculated according to its dimensions and height. Weight of the stove:

Model	Weight	Height	Width	Depth
HWAM 4510c/4510m	99/97 kg	75,5 cm	50,0 cm	40,6 cm
HWAM 4510c/4510m with low plinth	105/103 kg	93,0 cm	50,0 cm	40,6 cm
HWAM 4510c/4510m with high plinth	109/107 kg	104,0 cm	50,0 cm	40,6 cm
HWAM 4520c/4520m	94/92 kg	75,5 cm	50,0 cm	40,6 cm
HWAM 4520c/4520m with low plinth	100/98 kg	93,0 cm	50,0 cm	40,6 cm
HWAM 4520c/4520m with high plinth	104/102 kg	104,0 cm	50,0 cm	40,6 cm
HWAM 4530c/4530m	124/122 kg	114,3 cm	50,0 cm	40,6 cm
HWAM 4540c/4540m	119/117 kg	114,3 cm	50,0 cm	40,6 cm
HWAM 4540c/4540m with soapstone	175/173 kg	114,3 cm	50,0 cm	40,6 cm
HWAM 4540c/4540m with sandstone	136/134 kg	114,3 cm	50,0 cm	40,6 cm
HWAM 4550c/4550m	134/132 kg	138,8 cm	50,0 cm	40,6 cm
HWAM 4560c/4560m	129/127 kg	138,8 cm	50,0 cm	40,6 cm
HWAM 4560c/4560m with soapstone	201/199 kg	138,8 cm	50,0 cm	40,6 cm
HWAM 4560c/4560m with sandstone	156/154 kg	138,8 cm	50,0 cm	40,6 cm
Heat storage stones HWAM 4550/4560	Approx. 29 kg			

The stove is mainly made of sheet iron, with some items made of cast iron.

Test result based on EN 13240	
Nominal heating effect	4.9 kW
Flue gas temperature EN 13240 measurement point	260°C
Flue gas temperature measured in the outlet socket	312°C
Exhaust gas flow	4.1 g/s
Efficiency	81%
Test result based on NS 3058	
Particle emissions	2.16 g/kg

## Distance to inflammable materials

Your HWAM stove must always be installed on a non-combustible foundation. If it is set up on a wooden floor or another combustible material, the floor must always be covered with non-combustible material, e.g. a floor plate. The width and depth (distance in front of the stove) of the non-combustible material are determined according to relevant national and local building regulations.

If there is risk of embers falling under the stove, the non-combustible material must also cover the floor under the entire bottom plate of the stove as well as the area next to the stove in accordance with national rules. The non-flammable material must be of a size that is sufficient to prevent embers from falling out on the combustible floor.

Min. distances - <u>uninsulated flue gas pipe:</u> (drawing A)	With steel cladding		With stone cladding
	HWAM 4510 HWAM 4530 HWAM 4550	HWAM 4520 HWAM 4540 HWAM 4560	HWAM 4540 HWAM 4560
1. Recommended for brick wall, back, cm	10	10	10
2. Recommended for brick wall, side, cm	30	10	10
1. For inflammable wall, back, cm	10	10	10
2. For inflammable wall, side, cm	59	35	40
1. To inflammable wall, corner installation, cm	33	7	7
3. Distance to furnishings in front, cm	120	110	110

**IMPORTANT FOR UK (for all other countries please see separate text below)**

- In case of wall installation, **HWAM 4510/4520** must be suspended at least 17.5 cm above an inflammable floor (measured from the bottom plate of the stove). The above requirement applies even if the floor is fitted with a floor plate.
- The variant **HWAM 4510/4520** without a plinth must be installed on a **BS non combustible/ constructional hearth**. The non combustible/constructional hearth must extend 425 mm in front of the appliance. It is still considered a combustible floor even if an ember catching, non-combustible floor plate is placed on top of the combustible floor. Floor in front exceed 100°C demand closer than 425 mm in front of the stove installed without a plinth.
- Floor directly beneath the stove installed without a plinth does exceed 100°C.

Take note of the applicable regulations for the distance between the wall and flue pipe. The distance to a brick wall is set to facilitate the servicing of the Autopilots system.

Please be aware that not all glass parts are heat-resistant. For this reason, a glass wall should sometimes be treated as a flammable wall, in which case we ask you to contact your local chimney sweep or glass producer to hear at what distance the stove should be kept from glass.

**IMPORTANT FOR ALL COUNTRIES BUT UK (for UK please see separate text above)**

- In case of wall installation, **HWAM 4510/4520** must be suspended at least 28.5 cm above an inflammable floor (measured from the bottom plate of the stove). The above requirement applies even if the floor is fitted with a floor plate.
- **HWAM 4510/4520** without a plinth and **HWAM 4510/4520** with a low plinth must not be mounted on combustible floors. It is still considered a combustible floor even if an ember catching, non-combustible floor plate is placed on top of the combustible floor.
- A non-combustible structure under **HWAM 4510/4520** without a plinth and **HWAM 4510/4520** with a low plinth must extend at least 480 mm in front of the stove.

Take note of the applicable regulations for the distance between the wall and flue pipe. The distance to a brick wall is set to facilitate the servicing of the Autopilots system.

Please be aware that not all glass parts are heat-resistant. For this reason, a glass wall should sometimes be treated as a flammable wall, in which case we ask you to contact your local chimney sweep or glass producer to hear at what distance the stove should be kept from glass.

## Requirements for chimney and smoke pipe

The chimney must be of a sufficient height to enable an adequate draft and to prevent smoke problems. The stove requires a draft of at least 12 Pa.

The chimney must have a minimum opening equivalent to  $\varnothing$  15 cm. The chimney opening should always be at least the size of the outlet socket of the stove. The chimney must have an easily accessible soot door. Smoke pipe and chimney must always be suitable for a stove connection. Ask your HWAM dealer for more information.

## Changing the flue outlet from a top outlet to a rear outlet (drawing H)

Steps 1 and 12 only apply to the HWAM 4550 and HWAM 4560.

1. Remove the heat storage area front (1) by lifting the front and pulling away from the stove.
2. Lift the top plate (2) off the stove.
3. Remove the rear plate (3) by loosening the two screws (4). The rear plate has a cut-out for the flue pipe. Cut out the plate (5) within this cut-out.
4. The heat shield has a cut-out for the flue pipe. Cut out the plate (6) within this cut-out.
5. Remove the cover plate (7) on the rear of the stove (behind the cut-out plate in the heat shield) by removing the three screws (8).
6. Remove the smoke ring (9) above the combustion chamber by removing the three screws (10).
7. Place the smoke ring (9) in front of the flue outlet hole on the rear of the stove and affix using the three screws (10).
8. Place the cover plate (7) so that it closes the flue outlet on top of the combustion chamber (where the smoke ring was just removed) and affix using the three screws (8).
9. Place the rear plate (3) on the guide taps (11) on the rear side of the stove's base plate and affix the rear plate using the two top screws (4).
10. Lie the top plate (2) on the stove.
11. Place the cast-iron or stone top cover (12) in the hole in the top plate.
12. Re-attach the front (1) to the heat storage area.

## Fitting the loose parts

Before the stove is installed, you must ensure that all loose parts are fitted correctly. Check that all insulation plates of the combustion chamber have been properly placed, i.e. that the bottom plate is horizontal and that the side plates are vertical and reach all the way up to the steel sides of the combustion chamber and down to the bottom plate.

Vertical cross-section of the stoves (Drawing B):

1. Bottom smoke shelf. Must rest on the steel rail at the back of the combustion chamber.
2. Top smoke shelf. Must rest on the bottom smoke shelf.
3. The steel smoke guide plate is in two parts. Each half hangs on a hook under the top plate and is equipped with two pins (7) that serve as protection during transportation. Remember to remove the two pins before you start using the stove.
4. Rear flue outlet. Closed at the factory using a plate affixed with screws. The flue outlet is thus concealed behind the rear plate.
5. Removable rear plate which conceals the Autopilot. Must always be installed if the stove is next to a flammable wall.
6. Loose heat shield under the ash pan.

## Adjustment feet

The stove comes with four adjustment feet. Mount and adjust the adjustable feet screws in accordance with the separate instructions, 2 in each side, to the desired height.

## Connection to chimney

All the stoves have both rear and top smoke outlet that can be connected to an approved steel chimney on top or directly out at the rear to a chimney.

Make sure that the chimney is tight and that no false draft is caused around neither the cover plate, in connection with a covered smoke outlet, nor the cleanout door and pipe connections. Please note that bent and/or horizontal smoke pipes will reduce the effect of the chimney draft.

Vertical cross-section of smoke flue (Drawing C)

C1: Top smoke outlet            C2: Rear smoke outlet

1. Steel chimney.
2. Flue gas elbow. Fits into smoke flue socket.
3. Brick-built jamb of flue.
4. Built-in pipe sleeve. Fits smoke flue.
5. Wall rosette. Covers disruption to wall around pipe sleeve.
6. Joint. Sealed with packing material.
7. Smoke outlets of the HWAM stove.
8. Cover plate in the external rear plate – break off if a rear outlet is required.
9. Cover screwed in position: secure it to the top plate with screws if a rear outlet is required.
10. Smoke bushing: to be screwed to the back of the stove if a rear outlet is required.
  11. Adjusting damper in smoke pipe.
  12. Cleaning hatch.
  13. Smoke pipe to rear outlet.
  14. Loose cast iron cover: to be placed on the top plate when there is a rear outlet.

## Chimney

The chimney is the “engine” of the stove and it is crucial for the functioning of the woodburning stove. The chimney draft provides a partial vacuum in the stove. This vacuum removes the smoke from the stove, sucks air through the dampers for the so-called glass pane rinse which keeps the glass free of soot, and sucks in air through both primary and secondary dampers for the combustion.

The chimney draft is created by the differences in temperature inside and outside the chimney. The higher the temperature within the chimney, the greater the draft. It is crucial, therefore, that the chimney is warmed up properly before closing the damper and limiting the combustion in the stove (a brick chimney takes longer to warm up than a steel chimney). On days where the weather and wind conditions create insufficient draught inside the chimney, it is even more important to warm up the chimney as quickly as possible. The trick is to quickly get some flames going. Split the wood into extra fine pieces, use an extra firelighter, etc. If the stove has not been used for a longer period, it is important to check that the chimney pipe is not blocked. It is possible to connect several devices to the same chimney. However, it is important to first check the applicable rules.

Even a good chimney can function badly if it is not used correctly. Similarly, a bad chimney may function well if used correctly.

## Chimney sweeping

To prevent the risk of chimney fires, the chimney must be cleaned every year. The flue duct and the smoke chamber above the baffle plate must be cleaned together with the chimney. If the chimney is too tall to be cleaned from above, it must be equipped with a soot door.

In case of a chimney fire, close all dampers and call the firefighters. Before any further use, have the chimney checked by the chimney sweeper.

## FIRING MANUAL - WOOD

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The lacquer will be fully hardened after the stove has been used, and the door and the ashpan should be opened very carefully as there will otherwise be a risk that the gaskets will stick to the lacquer. In addition the lacquer may initially give off an unpleasant odour, so make sure that the room is well ventilated. The operating handles are located behind the extension beneath the door.

## Tips about fuel

### Approved fuel types

The wood burning stove is EN approved for combustion of wood only. It is recommended to use dried chopped wood with a water content of a maximum of 18%. Stoking a fire with wet wood results in soot, environmental problems, and a less efficient fuel economy. It is recommended to purchase a hygrometer to continuously check that the firewood has the correct moisture content before using it for firing.

### Recommended wood types

All types of wood, for instance birch, beech, oak, elm, ash, conifers, and fruit trees can be used as fuel in your wood burning stove. The great difference is not in the fuel value, but in the weight of the wood types per cubic metre. Since beech weighs more per cubic metre than for instance common spruce, it will take more common spruce to produce the same amount of heat that you would get from a cubic metre of beech.

### Banned fuel types

It is not allowed to stoke a fire with the following: printed matter, plywood, plastic, rubber, fluid fuels, and rubbish such as milk cartons, lacquered wood or impregnated wood or fossil fuels. The reason that you should not apply any of the above is that during combustion they develop substances that are health hazardous and harmful to the environment. These substances could also damage your wood burning stove and chimney, rendering the product warranty void.

### Storage of wood

A water content of a maximum of 18% is achieved by storing the wood for a minimum of one year, preferably two years, outdoors under a lean-to. Wood stored indoors has a tendency to become too dry and combust too quickly. However, it might be advantageous to store fuel for lighting a fire indoors for a few days prior to use.

### Recommended dimensions

The dimensions of the fuel are important to good combustion. The dimensions should be as follows:

Fuel type	Length in cm	Diameter in cm
Wood for kindling a fire (finely chopped)	20-31	2-5
Chopped wood	20-31	7-9

### Special fire lighting guide for stoves with soapstone or sandstone cladding

Soapstone and sandstone are natural products which need to adjust to temperature changes. We recommend following the procedure below:

#### 1. First stoking

Turn the regulator (drawing E, 1) clockwise to maximum. Place two pieces of wood (5-8 cm in diameter) horizontally in the bottom of the combustion compartment (corresponding to 0.9-1.2 kg). Place 6-10 pieces of kindling randomly on top. Place 2-4 firelighters between the top layer of kindling. Light up the fire-lighters and close the stove door. If condensation forms on the glass, keep the door ajar for a little while and close again. When the fire has gone out, open the door and leave it open while the stove cools to room temperature.

#### 2. Second stoking

Turn the regulator (drawing E, 1) clockwise to maximum. Place two pieces of wood (5-8 cm in diameter) horizontally in the bottom of the combustion compartment (corresponding to 0.9-1.2 kg). Place 6-10 pieces of kindling randomly on top. Place 2-4 firelighters between the top layer of kindling. Light up the fire-lighters and close the stove door. If condensation forms on the glass, keep the door ajar for a little while and close again. When no more yellow flames are visible and a suitable layer of embers has built up, the stove can be stoked again. A suitable ember layer is when the bottom of the combustion chamber is covered by embers which are shining brightly. Place 2 pieces of new firewood (up to 1.15 kg each) with a diameter of approx. 7-9 cm in the combustion chamber. When all of the wood has caught fire, turn the regulator (1) to middle position. Allow the fire to burn and let the stove cool to room temperature before stoking again.

### **3. Third stoking**

Repeat the procedure for the second stoking, but put in more wood this time. Allow the fire to burn and let the stove cool to room temperature after the fire has gone out.

#### **Restoking**

Follow the general instructions, see the sections “Lighting the stove” and “Stoking”.

#### **Lighting the stove (drawing E)**

A successful combustion process requires that the wood is lit in the right way. A cold stove and a cold chimney challenge the combustion process. It is important to achieve a high flue gas temperature quickly. Turn the regulator (I) clockwise to maximum. Place two pieces of wood (5-8 cm in diameter) horizontally in the bottom of the combustion compartment (corresponding to 0.9-1.2 kg). Place 6-10 pieces of kindling randomly on top. Place 2-4 firelighters between the top layer of kindling. Light up the fire-lighters and close the stove door. If condensation forms on the glass, keep the door ajar for a little while and close again. When the kindling is burning well, turn the regulator (I) to middle position. If the fire goes out when the regulator is turned, return it to maximum position again until the fuel catches fire and then turn it to middle position again. Allow the kindling to burn up completely until there are no longer any visible flames. The stove can then be stoked again.

**Important!** The ash pan must not be opened during the lighting stage and must always be kept closed when the stove is lit or the Autopilot might be damaged. Only open the door when lighting the stove, refuelling it and cleaning it.

#### **Stoking (drawing E)**

When no more yellow flames are visible and a suitable layer of embers has built up, the stove can be stoked again. A suitable ember layer is when the bottom of the combustion chamber is covered by embers which are shining brightly. Put at least two pieces of wood into the stove, weighing up to 1.15 kg each. Do not regulate the stove again as the Autopilot system will do this, but the temperature can be adjusted with the regulator (I). Turning it to minimum (counter-clockwise) will reduce the rate of combustion and make the stove burn slower. Turning to maximum (clockwise) will increase the rate of combustion and make the stove burn faster. Wait until the layer of embers is suitably low before stoking again.

**During combustion, the outer surfaces of the stove will become hot, and due care must therefore be shown.**

The stove is not approved to use coal or pet coke as a fuel. However, briquettes can be used to fuel the fire and should be placed on the embers produced by the burned wood. Turn the regulator to its full clockwise position until the briquettes fully ignite.

**Remember that the regulator must then be turned to the left again.**

**Be aware that using fuels other than wood, will cause soot to form on the glass pane.**

#### **Operating the heat compartment damper**

There is a damper at the back of the stove between the top plate and the heat compartment that opens and closes the flow of convection air in the heat compartment. The supply of convection air can be opened by moving the damper to the left and closed by moving the damper to the right.

To store heat in the heat storage stones in the heat storage area as quickly as possible, it is recommended that the convection vent be kept closed while the fire is lit.

With the convection vent closed, the heat storage area retains the heat stored in the heat storage stones for the longest possible duration. If the vent is opened, the heat stored in the stones in the heat storage area will be released into the room as quickly as possible.

# FIRING IN GENERAL

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## Rapid or fierce heat

Rapid or fierce heat is obtained by burning many small pieces of wood.

## Maximum amounts of fuel:

The maximum allowed amount of fuel per hour is:

Model	Wood
HWAM 4500	2.4 kg

If these limits are exceeded, the stove will no longer be covered by the factory guarantee, and it may also become damaged due to excessive heat. The stove has been approved for intermittent use.

## Typical re-firing interval

Typical re-firing interval at nominal performance:

Model	Re-firing interval	Wood
HWAM 4500	45 min.	1.1 kg

## Long burning times

For the slowest possible combustion, turn the regulator counter-clockwise (to the left). By turning the regulator all the way to the left, the stove receives no primary air (the air that comes through the grate). The stove cannot be lit after a new firing without the regulator being turned to the right, which allows primary air to enter the unit. After lighting, always check that persistent flames develop in the wood. If not, the air supply is too limited and must be increased by turning the regulator to the right (clockwise).

## Insufficient firing

If the fireproof materials in the combustion chamber are blackened after a fire, then the stove is polluting, and the automatic air flow regulation system is malfunctioning. Therefore, more air must be supplied by turning the regulator clockwise (to the right). It may also be necessary to burn more wood.

## How to achieve the best combustion

### • Use clean and dry wood.

Wet wood results in inefficient combustion, plenty of smoke, and soot. Furthermore, the heat will dry the wood, not heat up the room.

### • The fire should only be stoked with a little wood at a time.

You achieve the best combustion by starting up a fire often and using only a little wood. If you use too much firewood, it will take some time before the temperature reaches a level where you achieve a good combustion.

### • Make sure there is the right amount of air.

You should also make sure that there is plenty of air – especially in the beginning - so the temperature in the wood burning stove climbs quickly. In this way the gasses and particles released during the combustion will be consumed by the fire. Otherwise they build up soot in the chimney (constituting a chimney fire risk) or will be released in a non-combusted state into the environment. The wrong amount of air supply creates inefficient combustion and a modest effect.

### • Don't savour the fire during night time.

We advise against adding fire wood to your stove and reducing the air supply at night in an attempt to still have some embers left in the morning. If you do so, large amounts of hazardous smoke will be emitted, and your chimney will be exposed to unnecessarily large amounts of soot with the risk of a chimney fire.

## Cleaning the glass

We recommend wiping the glass after a fire. This is best done using a paper towel.



## Types of fuel

The stove may be damaged by very high temperatures and the glass may turn white, for example. This can be avoided by never allowing the stove to burn with the door open and taking great care with types of fuel that develop excessive heat, such as briquettes.

We recommend using birch or beechwood, which has been split and stored for at least one year outdoors under cover. Wood stored indoors tends to become too dry and burn too quickly.

Briquettes give off a lot of heat. Certain types expand considerably, thus causing an uncontrollable combustion.

**The stove is EN 13240 approved for firing wood only. No particle board, lacquered, painted or treated wood, plastics, or rubber may be burned.**

## MAINTENANCE

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### Cleaning

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 remember, only when the stove is cold. Do not use water, spirit or any other kind of cleaner, as this will damage the lacquer.

Once a year, the stove should be thoroughly serviced. The combustion chamber should be cleared of ashes and soot. The hinges and the closing hook must be greased with liquid copper fat spray (heat-resistant up to 1100°C), see drawing I. Lift the door approx. ½ cm and spray copper fat onto the hinge leaf.

### Service inspection

Your stove should be given a thorough, preventive inspection once every two years. This includes:

- Thorough cleaning of the stove.
- Checking the spring in the Autopilot unit. Replace if necessary.
- Checking gaskets. Replace gaskets if they are not intact or are no longer soft.
- Checking and/or replacing insulation material.
- Checking the combustion chamber base.
- Use copper grease for hinges and locking hooks (see drawing I).

All service checks must be performed by an authorised fitter. Use only original spare parts.

### Inside cleaning

Before chimney sweeping can be performed, the regulator must be set to its minimum position to prevent soot and ash from entering the Autopilot control.

Remove the top smoke shelf and the two-part steel smoke guide plate from the stove before cleaning. (Drawing F)

- Lift the smoke shelf (1) out of the combustion chamber.
- Unhook each half of the smoke guide plate (2) from the hook (3) under the top plate.

### Ashes

It is easiest to empty the ash pan by pulling a plastic bag over it, turning it upside down and then carefully removing it from the bag. Ashes are disposed of via the domestic waste collection.

**Please note that there may be embers in the ashes for up to 24 hours after the fire has gone out!**

### Insulation

The efficient, but porous insulation 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.

### **HWAM Autopilot™ (Drawing G)**

Lift the top plate off the stove. Remove the rear plate by loosening the two screws. On a cold stove, the starting point of the feeler is controlled. The starting point for a cold stove is approx. 20° above horizontal (at laser cut mark).

It should feel easy going and bouncy when you push it, no matter if the stove is cold or hot. By rising or falling temperatures it must not move at a bound. The damper plates must be dry and clean and slide together unhindered. Control bars and slide gates may have to be smeared with WD40 (never oil).

### **Door/glass**

A sooty glass door can easily be cleaned with a piece of moist kitchen roll dipped in ash. Go about it in vertical movements (up and down). Follow up with a dry piece of kitchen roll. Check frequently to ensure that seals in the door are intact and not brittle. Failing this, they should be replaced. Use original seals only.

### **Surface**

The surface normally requires no treatment. Any damage to the coating may be remedied using a Senotherm spray.

### **Guarantee**

The guarantee does not cover damage due to insufficient maintenance!

## **OPERATIONAL PROBLEMS**

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### **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 18% RH.
- The door gasket may be leaking.

### **Smoke in the room when opening door**

- The grate in the chimney may be closed. Open the grate.
- Insufficient chimney draft. See section on chimney or contact 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. Fit new seal.
- If there is an excessive chimney draft, it may be necessary to close the regulating rod. Close the regulating rod when the stove is not in use.
- If the steel plates in the combustion chamber develop scales or become deformed, this is due to excessive heat. Stop using the stove and contact the dealer.

**At interruptions that you cannot yourself rectify, you should contact the dealer.**

## **DECLARATION OF PERFORMANCE**

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The DoP can be downloaded from our website via the following links:  
[www.hwam.com/dop/4500](http://www.hwam.com/dop/4500)





[www.hwam.com](http://www.hwam.com)