



hwam
I 40/55

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www.hwam.com



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

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

In England appliances are exempted by publication on a list by the Secretary of State in accordance with changes made to sections 20 and 21 of the Clean Air Act 1993 by section 15 of the Deregulation Act 2015. Similarly in Scotland appliances are exempted by publication on a list by Scottish Ministers under section 50 of the Regulatory Reform (Scotland) Act 2014. In 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 exempted 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 I 40/55 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 53 %.

Appliances recommended as suitable for use in Smoke Control Areas :

- HWAM I 40/55c
- HWAM I 40/55m

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.

Your first heating session

When you light up for the first time, you must do it carefully as all materials must be introduced to the heat gradually. The lacquer will be fully hardened after the insert has been light up for the first time. The door must be opened carefully; otherwise there is a risk that the seals 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.

Approved fuel types

The insert is EU approved for firing with wood exclusively. It is recommended to use dried chopped wood with a water content of 12-18%. Stoking a fire with wet wood results in soot, environmental problems, and a less efficient fuel economy.

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 insert. The great difference is not in the fuel value, but in the weight of the wood types per cubic metre. Beech weighs more per m³ of wood than common spruce, for instance. This is why more common spruce is required, in terms of volume, to obtain an amount of heat similar to that of beech. Heavy types of wood such as ash, beech, oak and elm are generally not that easy to light up. In addition, they burn more slowly and give off more embers. Light types of wood such as birch, maple, spruce and pine are more easy to light up. They burn faster and give off fewer embers. You may therefore take advantage of the light types of wood for lighting and use the heavier types of wood to ensure a longer burning time.

Banned fuel types

It is not allowed to stoke a fire with the following:

- Printed matter
- Plywood, plastic
- Rubber
- Fluid fuels
- Rubbish such as milk cartons, lacquered wood or impregnated wood.
- 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 insert and chimney, rendering the product warranty void.

Storage of wood

A moisture content of 12-18% is achieved by storing recently felled wood outdoors under a lean-to for at least one year, preferably 2 years. 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.

We recommend that you buy a moisture meter to continuously check that the wood has the correct moisture content before it is used for firing. Split the wood and measure the moisture content of the split surfaces.

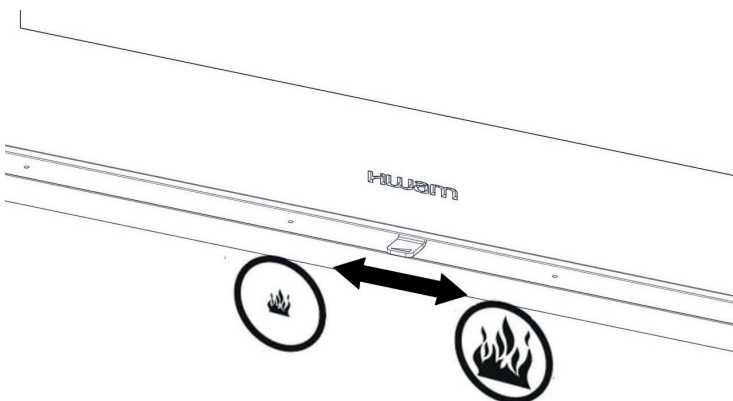
Recommended dimensions

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)	20-40	3-5
Chopped wood	20-40	7-9

Regulating the insert

HWAM® Autopilot™ is set to maximum when the air control lever is in the rightmost position and to minimum when the air control lever is in the leftmost position.



Firing

Push the adjustment bar all the way to the right to set the HWAM® Autopilot™ to maximum effect. Put split kindling, corresponding to two to three pieces of wood (about 2-2.5 kg), into the insert. When stacking the wood, never block the air slot that supplies tertiary air for the combustion. Put two fire lighters in between the upper layer of kindling. Light them and allow the flames to spread slowly.



Tertiary air supply

Keep the door ajar until no more condensation forms on the glass (for a maximum of 5 min.). Close the door. When all the kindling is burning well, set the air control lever to approximately 75% of max. If the fire goes out, this has been done too early. Push the regulating rod to the right again until the fire is burning properly. Allow the kindling to burn out until flames are no longer visible.

Important! The door may only be opened when lighting the insert, adding fuel to the fire or removing ash. Never leave a stove before there are lasting flames in the wood after firing!

Burning

When there are no more visible yellow flames, and a right ember is there, you can fire again. The layer of embers is suitable when the pieces of wood begin to disintegrate and the bottom of the insert is covered by embers.

Slowly open the door and leave it a few centimetres ajar for a couple of seconds to even out the pressure in the combustion chamber before opening the door completely. Put two or three pieces of wood weighing up to 1 kg each into the insert. When stacking the wood, never block the air slot that supplies tertiary air for the combustion.



Tertiary air supply

The HWAM® Autopilot™ manages the regulation of air supply.

The temperature can, however, be set up or down by pushing the regulation bar either to the right or left, respectively. If the adjustment bar is set farther to the left, combustion is reduced and the burning time is prolonged. By pushing it to the right, combustion is increased and burning time is shortened. Do not add new firewood to the fire until the layer of embers is sufficiently low.

When burning is complete

When the insert is not in use, push the adjustment bar all the way to the left.

Cleaning the glass

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

Firing with coal and pet coke

HWAM I 40/55 is not suitable for firing with coal or pet coke.

IN GENERAL ABOUT FIRING

Chimney

The chimney is the “motor” of the insert and it is crucial for the functioning of the woodburning insert. The chimney draft provides a partial vacuum in the insert. This vacuum removes the smoke from the insert, 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 better the draft. It is crucial, therefore, that the chimney is warmed through properly before closing the damper and limiting the combustion in the insert (a brick chimney takes longer to warm through 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. Contact your local chimney sweeper for the approval of your chimney.

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's height makes cleaning from above impossible, a cleaning hatch must be installed in the chimney.

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.

Quick or strong heat

Quick or strong heat is obtained by burning many small pieces of wood.

Maximum Firing Amount

Fuel	Maximum Amount per Hour
Wood	2.5 kg

Warning: Should these limits be exceeded, the insert will no longer be covered by the factory guarantee, and it may be damaged due to excessive heat. The insert has been approved for intermittent use.

Normal re-firing interval for nominal firing

Fuel	Kg	Normal Firing Interval
Wood	Ca. 1.6	50 min

Prolonged burning time

The slowest combustion is achieved by pushing the air control lever to the left. If the control lever is pushed all the way to the left, no air is supplied through the holes in the rear insulation plate of the combustion chamber. Upon stoking, the firewood will therefore not be able to catch fire. When adding new firewood, always remember to check that the wood has caught fire properly. If not, the air supply must be increased by pushing the air control lever to the right. When the air control lever is pushed approx. 30 mm to the right (when seen from the leftmost position), the wood-burning stove can re-start without further adjustment. The longest burning time is achieved by pushing the air control lever to the leftmost position when the flames are about to die. This will ensure the longest period with embers. A slightly longer burning time can be achieved by adjusting the air control lever slightly to the left (approx. 8 mm) after approx. 20 minutes of burning.

Insufficient firing

If the fireproof materials in the combustion chamber are blackened after a heating session, the insert is polluting, and the automatic air flow regulation system is not functioning properly. The bar must therefore be pushed to the right. Also, it may 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 insert 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

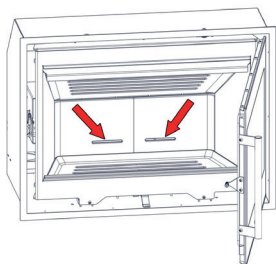
External cleaning

Cleaning of the insert should only be performed when it is not in use/cool. Daily maintenance is limited to a minimum. It is easiest to vacuum the outside of the insert with a tiny nozzle with soft brushes.

If the glass door is grimed with soot, it can be cleaned with slightly dampened paper that has been dipped in the ashes. The outside of the glass can be cleaned with ordinary cleaning solvent used to polish surfaces. We recommend wiping down the window pane when the insert is not in use/cool.

Ash

Ash should be removed regularly to ensure that it does not block the air vents in the rear insulation plate of the combustion chamber.



We recommend removing ash from the combustion chamber with an ash suction device.

Ash can be disposed of through daily refuse collection. Be aware that embers in the ash can remain hot up to 24 hours after the fire in the insert has gone out!

MAINTENANCE

Maintenance

Regularly check to make sure that seals in the door are complete and soft. If not, they should be replaced. Use only original spare parts.

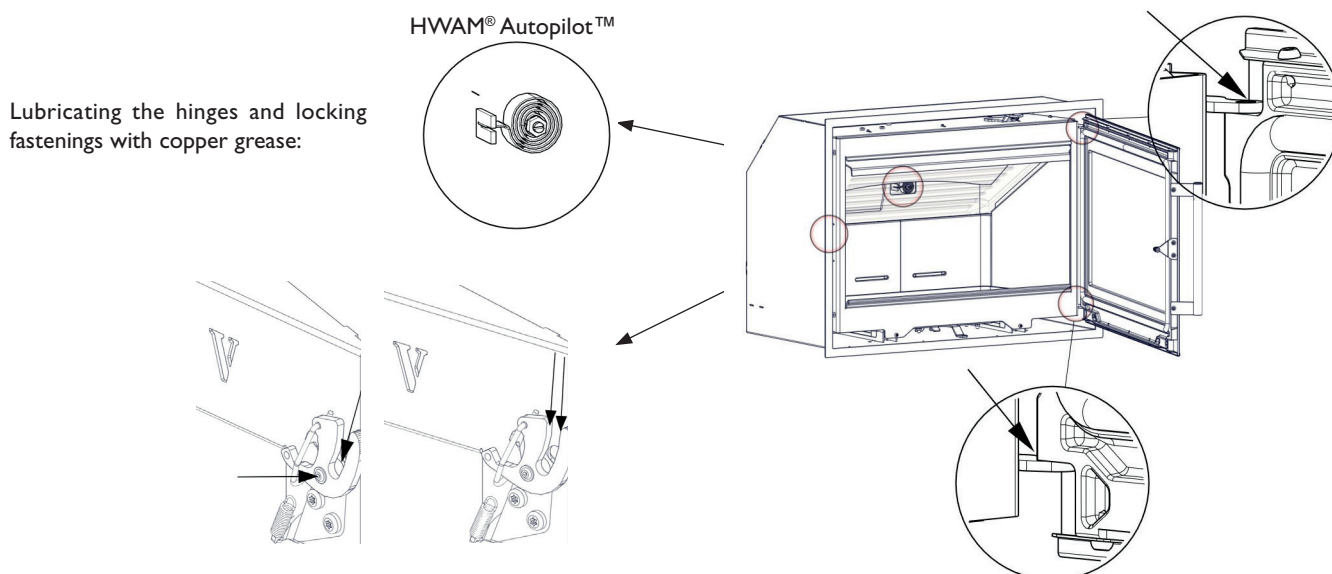
The insert should be thoroughly cleaned once a year. Ash and soot must be removed from the combustion chamber. Use copper grease to lubricate hinges and locking fastenings.

Service inspection

At least once every other year, the insert should receive a thorough, preventative service inspection. Among other things, the service inspection covers:

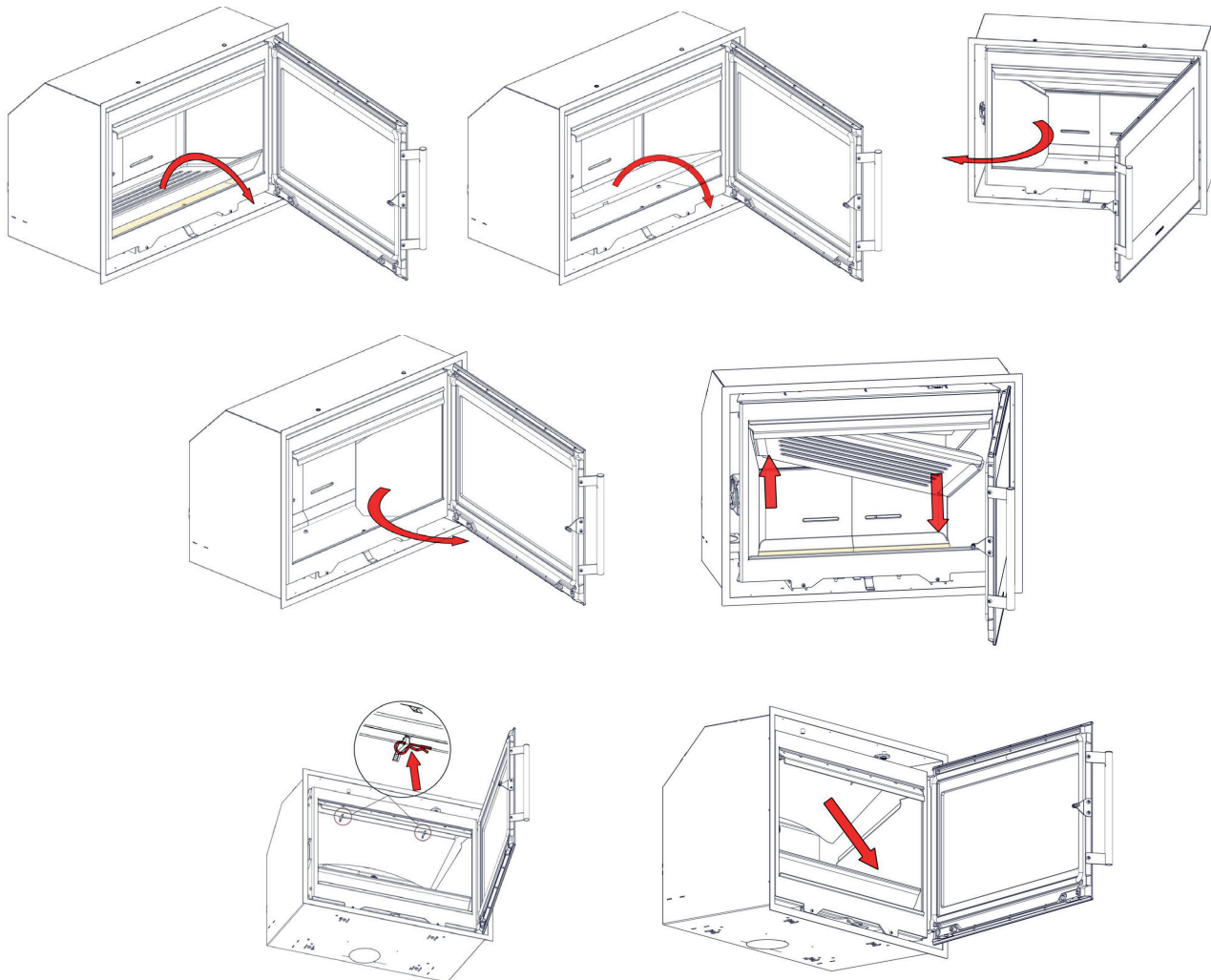
- A thorough cleaning of the insert.
- Check the spring in the HWAM® Autopilot™ unit and replace if necessary.
- Checking gaskets. Replace gaskets if they are not intact or are no longer soft.
- Inspection/possible replacement of heat insulation material.
- Lubricating the hinges and locking fastenings with copper grease.

The inspection must be performed by a qualified professional. Use only original spare parts.



Cleaning

Before chimney sweeping can be performed, the adjustment bar must be set all the way to the left to prevent soot and ash from entering the HWAM® Autopilot™. Remove the grate, the skamolex bottom and the skamolex sides. Remove the smoke shelf. Push the plate forward and lift it up a bit to the side. Tilt one side downward. The plate is now free and can be removed from the combustion chamber. Unless the safety fittings for transportation (2 split pins) have not already been removed, start by removing the split pins. Lift the steel smoke deflector plate off of the hooks so that it can be removed.

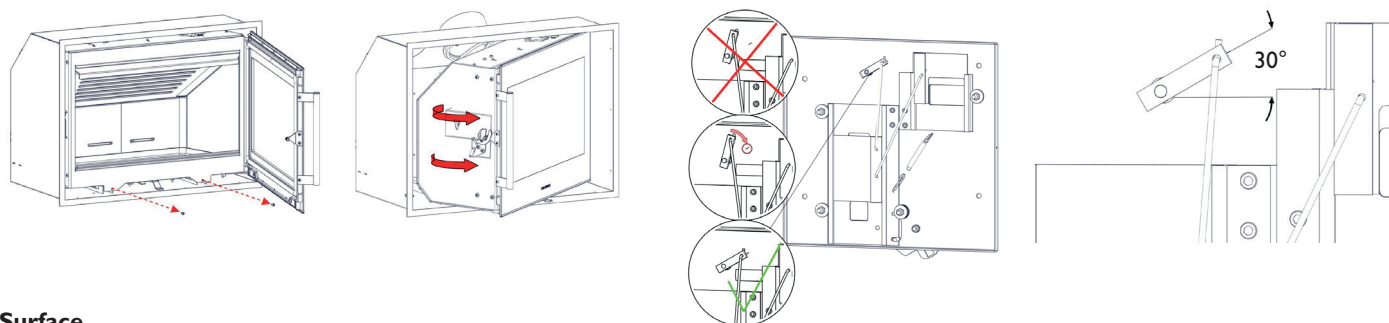


Insulation

The efficient, but porous insulation of the combustion chamber may, in time, be worn and damaged. Cracks in the insulation are irrelevant to the efficiency of the stove. However, it should be replaced, if there are actual holes due to parts of the lining falling off or when, due to wear and tear, it has been reduced to less than half its original thickness.

HWAM® Autopilot™

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



Surface

Usually, it is not necessary to any treatment to the painted surfaces of the wood-burning stove. Any damage to the paint may, however, be remedied with spray paint, which can be bought from your stove retailer.

Guarantee

The guarantee does not cover damage due to insufficient maintenance!

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 18%.
- The doors seals may be not be tight.
- Insufficient secondary air introduced to the pane-flushing system. Push the adjustment bar further to the right until the glass is burned clean.
- Intermittent firing. Allow the insert to heat through properly.

Smoke in the room when opening door

- The damper in the chimney may be closed. Open the damper.
- Insufficient chimney draft. See section on chimney or contact chimney sweep.
- Soot door leaking or dislodged. Replace or refit.
- Never open door when there are still flames in the wood.

Uncontrollable combustion

- A seal in the door is not completely tight. Replace the seal.
- If the draught is too strong inside the chimney, it may be necessary to set the adjustment bar to minimum, i.e. to the left.

If problems occur that you cannot fix yourself, please consult your wood-burning stove retailer.

DECLARATION OF PERFORMANCE

The DoP can be downloaded from our website via the following link:
www.hwam.com/dop/i40-55