

INSTALLATIEVOORSCHRIFTEN EN GEBRUIKSAANWIJZING
INSTALLATION INSTRUCTIONS AND OPERATING MANUAL
INSTALLATION ET MODE D'EMPLOI
EINBAUANLEITUNG UND GEBRAUCHSANWEISUNG
INSTRUCCIONES DE INSTALACIÓN Y USO
MONTERINGS- OG BRUKSANVISNING

HOUTKACHEL
WOOD STOVE
POELE A BOIS
HOLZ-FEUERSTÄTTE
ESTUFA DE LEÑA
ILDSTED



540W



Introduction

Dear user,

By purchasing this heating appliance from DOVRE you have selected a quality product. This product is part of a new generation of energy-efficient and environmentally friendly heating appliances. These appliances make optimum use of convection heat as well as radiant heat.

- ▶ Your DOVRE appliance has been manufactured with state-of-the-art production equipment. In the unlikely event of a malfunction, you can always rely on DOVRE for support and service.
- ▶ The appliance should not be modified; please always use original parts.
- ▶ The appliance is intended for use in a living room. It must be hermetically connected to a properly working flue.
- ▶ We advise you have the appliance installed by an authorized and competent installer.
- ▶ DOVRE cannot be held liable for any problems or damage resulting from incorrect installation.
- ▶ Observe the following safety regulations when installing and using the appliance.

In this manual, you can read how the DOVRE heating appliance can be installed, used and maintained safely. Should you require additional information or technical data, or should you experience an installation problem, please first contact your supplier.

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Performance declaration 540W

In accordance with construction products regulation

305/2011 No. 059-CPR-2025

1. Unique identification code of the product type:

540W

2. Type, batch or serial number or other form of identification for the construction product, as pre-scribed in article 11, subsection 4:

Unique serial number.

3. Intended use for the construction product, in accordance with the applicable harmonised technical specification, as specified by the producer:

Stove for solid fuel without production of warm water in accordance with EN 16510.

4. Name, registered trade name or registered trademark and contact address of the producer, as pre-scribed in article 11, subsection 5:

Dovre N.V. Nijverheidsstraat 18 2381 Weelde Belgium.

5. If applicable, name and contact address for the authorised whose mandate covers the tasks specified in article 12, subsection 2:

-

6. The system or systems for the assessment and verification of the performance durability of the construction product, specified in appendix V:

System 3.

7. If the performance declaration refers to a construction product that falls under a harmonised standard:

The appointed agency GAS.BE, registered under number 2013, has performed a type test under system 3 and has issued the test report No. 2025/0040.

8. If the performance declaration concerns a construction product for which a European technical assessment is issued:

-

9. Declared performance:

The harmonised norm		EN16510-1:2022, EN16510-2-1:2022		
Maximum load chimney		120	kg	
Chimney designation Tclass		T400G		
Safety distances	Front	1000	mm	
	Rear	300	mm	
	Side	400	mm	
	Bottom	N/A	mm	
	Ceiling	750	mm	
	Floor radiation area	300	mm	
	Side radiation area	0	mm	
Protective isolation (insert)		mm		SILCA
Emissions		Nominal	Part-load	
CO-emission (13% O ₂)		1025	1975	mg/Nm ³
NOx-emission (13% O ₂)		125	141	mg/Nm ³
OGC-emission (13% O ₂)		68	60	mg/Nm ³
PM-emission (13% O ₂)		40	86	mg/Nm ³
Flue gas temperature		240	193	°C
minimum draught		12,5	6	Pa
Mass flow of flue gasses		6	8	g/s
Output		6,5	4,2	kW
Efficiency		83	74,5	%
Electrical consumption		0	0	kW
seasonal efficiency		73	%	
Energy-efficiency-index		110,35		
Energy-efficiency-class		A+		

10. The performance of the product described in points 1 and 2 conform with the performance reported in point 9.

This performance declaration is supplied under the exclusive responsibility of the producer specified in point 4:



12/11/2025 Weelde

Tom Gehem
CEO

Due to continuous product improvement, the supplied appliance specifications may vary from the description in this brochure without prior notice having been given.

DOVRE N.V.

Nijverheidsstraat 18 Tel : +32 (0) 14 65 91 91
B-2381 Weelde E-mail : info@dovre.be
Belgium

Safety

-  Please note: All safety regulations must be complied with strictly.
-  Please read carefully the instructions supplied with the appliance for installation, use and maintenance before using the appliance.
-  The appliance must be installed in accordance with the legislation and requirements applicable in your country.
-  All local regulations and the regulations relating to national and European standards must be observed when installing the appliance.
-  The appliance should preferably be installed by an authorised installer. Installers will be aware of the applicable regulations and requirements.
-  The appliance is designed for heating purposes. All surfaces, including the glass and connecting tube, can become very hot (over 100°C)! When operating, use a so-called "cold hand" or an oven glove.
-  Ensure that the appliance is adequately guarded if young children, disabled people, the elderly or animals are present in the vicinity.
-  Safety distances from flammable materials must be strictly adhered to.
-  Do not place any curtains, clothes, laundry or other combustible materials on or near the appliance.
-  When in use, do not use flammable or explosive substances in the vicinity of the appliance.
-  Avoid chimney fires by having the chimney swept regularly. Never burn wood with the door open.
-  In the event of a chimney fire: close all the appliance's air inlets and alert the fire service.
-  If the glass in the appliance is broken or cracked, it must be replaced before the stove is used again.
-  Do not exert force on the door, do not allow children to pull on the opened door, never stand or sit on the opened door and do not place heavy objects on the door.

-  Ensure that there is adequate ventilation in the room in which the appliance is installed. If ventilation is insufficient, combustion will be incomplete, which may lead toxic gases to spread through the room. See the chapter "Installation requirements" for more information on ventilation.

Installation requirements

General

- The appliance must be connected tightly to a well-functioning flue.
- For connection measurements: see "Technical data" appendix.
- Ask the fire service and/or your insurance company about any specific requirements and regulations.

Flue

The flue is needed for:

- Removal of combustion gases via natural draught.
 -  As the warm air in the flue or chimney is lighter than the outside air, it rises.
- Air intake, needed for the combustion of fuel in the appliance.

A poorly functioning flue or chimney can cause smoke to escape into the room when the door is opened. Damage caused by smoke emissions into the room is not covered by the warranty.

-  Do not connect multiple appliances (such as a boiler for central heating) to the same flue, unless local or national regulations allow this. In the event of two connections ensure that the difference in height between the connections is no less than 200 mm.

Ask your installer for advice regarding the flue. Refer to the European norm EN13384 for a correct calculation for the flue.

The flue must satisfy the following **requirements**:

- ▶ The flue or chimney must be made of fire-resistant material, preferably ceramics or stainless steel.
- ▶ The flue or chimney must be airtight and well cleaned and guarantee sufficient draught.



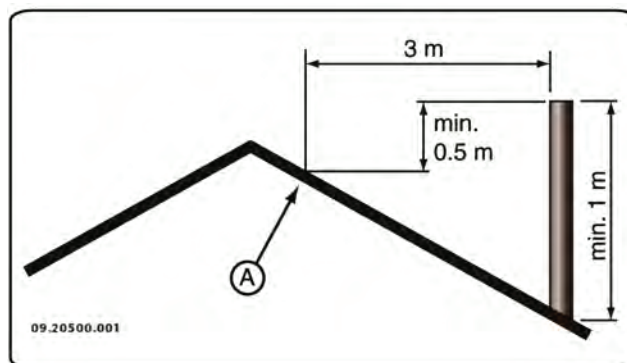
A draught/vacuum of 15 - 20 Pa during normal operation is ideal.

- ▶ Starting from the flue spigot, the flue must run as vertically as possible. Changes in direction and horizontal pieces disrupt the outward flow of combustion gases and may cause soot deposits.
- ▶ To prevent combustion gases from cooling down too much, which reduces the draught, ensure that the interior diameter is not too big.
- ▶ The flue or chimney should ideally have the same diameter as the connection collar.



For nominal diameter: see "Technical data" appendix. If the smoke channel is well insulated, the diameter may be slightly bigger (up to 2x the section of the connection collar).

- ▶ The section (area) of the smoke channel must be constant. Wider segments and (in particular) narrower segments disrupt the outward flow of combustion gases.
- ▶ In fitting a cover plate/exhaust cap to the flue: make sure that the cover does not restrict the flue outlet and that the cap does not impede the outward flow of combustion gases.
- ▶ The flue must end in a zone that is not affected by surrounding buildings, trees or other obstacles.
- ▶ The flue outside the house must be insulated.
- ▶ The flue should be at least 4 metres high.
- ▶ As a rule of thumb: 60 cm above the ridge of the roof.
- ▶ If the ridge of the roof is more than 3 metres from the flue: use the measurements given in the following figure. A = the highest point of the roof within a distance of 3 metres.



Room ventilation

For good combustion, the appliance needs air (oxygen). This air is supplied via adjustable air inlets from the area in which the appliance is installed.



If ventilation is insufficient, combustion will be incomplete, which may lead toxic gases to spread through the room.

As a rule of thumb, the air supply should be 5.5 cm²/kW. Extra ventilation is needed when:

- ▶ The appliance is in a well-insulated area.
- ▶ There is mechanical ventilation, for example a central extraction system or an extraction hood in an open kitchen.

You can provide extra ventilation by having a ventilation louvre fitted on the outside wall.

Make sure that other air consuming appliances (such as tumble-driers, other heating appliances or a bathroom fan) have their own supply of outside air, or are switched off when you use the appliance.

Floor and walls

The floor on which the appliance is placed must have sufficient bearing capacity. The weight of the appliance is given in the appendix "Technical Data appendix".



Protect flammable flooring from heat radiation by means of a fireproof protective plate. See the appendix "Distance from combustible material".



Remove combustible material such as linoleum, carpets/rugs and similar materials below the fireproof protective plate.



Keep sufficient distance between the appliance and combustible materials such as wooden walls and furniture.



The connecting tube also radiates heat. Ensure that there is sufficient distance or a shield between the connecting tube and combustible material.

The rule of thumb for a single-walled tube is a distance of 3x the diameter. If a lining shell is fitted around the tube, a distance of 1x the diameter is permissible.



Carpets and rugs must be at least 80 cm away from the fire.



Use a fireproof floor plate to protect a flammable floor from any ash that may fall in front of the stove. The floor plate must comply with national standards.

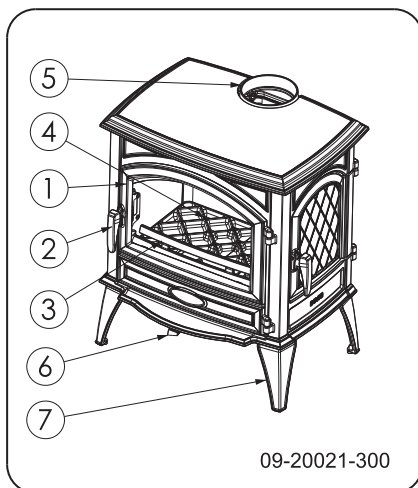


For the dimensions of the fireproof protective plate: see the appendix "Distance from combustible material".



For further requirements with respect to fire safety, see the appendix "Distance from combustible material".

Product description



1. Door
2. Latch
3. Fire basket
4. Stove base
5. Flue gas connection
6. Air control scraper
7. Leg

Installation

Preparation

- Please check the appliance for damage caused during transport or any damage or defects immediately after delivery.



If you detect transport damage or any other damage or defects, do not use the appliance and notify the supplier.

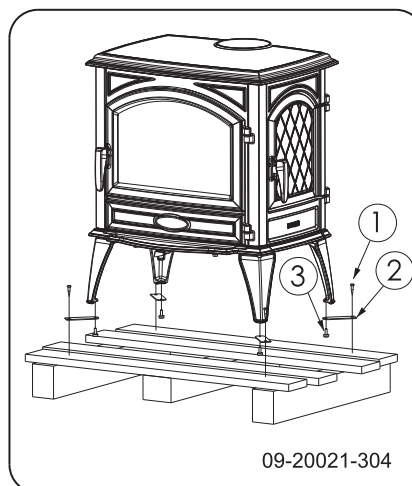
- Remove the removable parts (fire-resistant inner plates, fire compartment, fire basket, ash removal port and ash pan) from the appliance before you start installing the appliance.



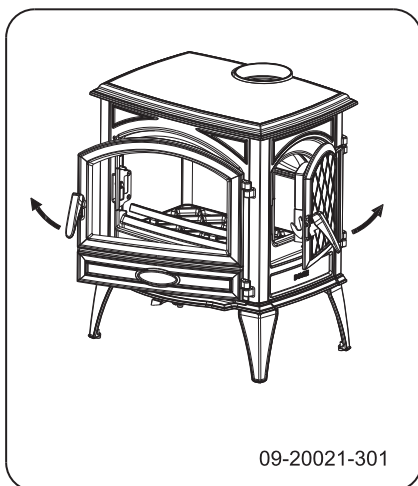
By removing removable parts, it is easier to move the appliance and to avoid damage.



Note the location of the removable parts, so that you can re-position the parts in the correct place later on.



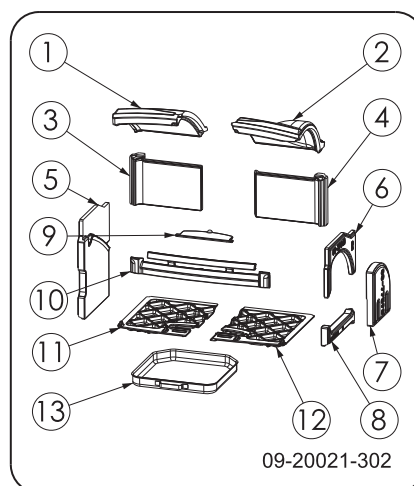
1. Remove the appliance from the pallet by removing the bolts (1).
2. Remove the mounting brackets (2) by turning the adjustable feet (3) out.
3. Reassemble the adjustable feet (3).
4. Open the door; see the following figure:



5. Remove the fire-resistant inner plates; see the following figure:

- a. Remove the fire basket (6).
- b. Lift the left baffle plate (1), slide the right baffle plate (2) to the left and remove. Remove the other baffle plate (1).
- c. Pull the left rear plate (3) forwards from the centre and remove. Pull the right rear plate (4) forwards from the centre and remove.
- d. Remove the left inner plate (5) Remove the right inner plate (6,8)
- e. Remove the inner plate of the side filling door (7)
- f. Remove the ash removal port (9)
- g. Remove the stove base (11,12)
- h. Remove the ash pan (13)

i Vermiculite inner plates are light and tend to be ochrous in colour on delivery. They insulate the combustion chamber to boost combustion.



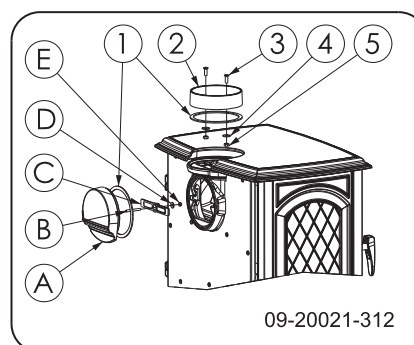
Removable internal parts

- 1 left baffle plate
- 2 right baffle plate
- 3 Inner plate back left
- 4 Inner plate back right
- 5 side inner plate left
- 6 upper side inner plate right
- 7 inner plate side filling door
- 8 bottom side inner plate right
- 9 ash removal port
- 10 fire basket
- 11 left-hand bottom of the fire compartment
- 12 right-hand bottom of the fire compartment
- 13 ash pan

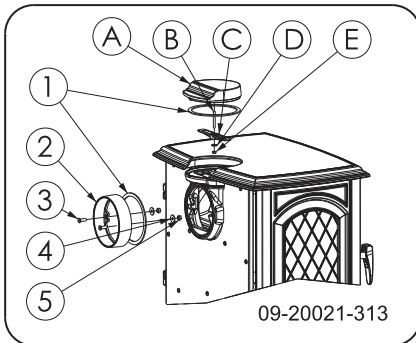
Preparing the connection to the flue

When connecting the appliance to the flue you have the choice of connecting via either the top or the rear. See the paragraphs "Connecting to the rear" and "Connecting to the top".

Connecting to the rear



1. Remove the connection collar (2) from the top of the appliance.
2. Remove the cover (A) from the rear of the appliance.



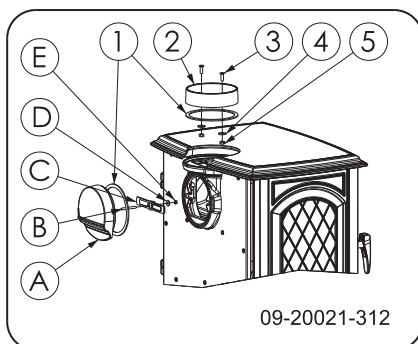
3. Fit the connection collar (2) to the back wall using the mounting materials supplied (3,4,5).
4. Fit the cover (A) to the top plate using mounting materials (B,C,D,E).

Connecting to the top

As standard, the appliance is delivered with the connection collar fitted for a connection at the top, see following figure.

On delivery, the connection at the rear is closed, so that a back cover does not need to be installed.

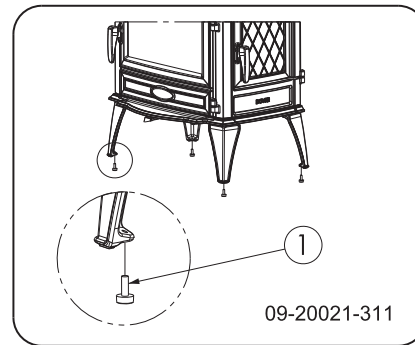
! Because of the distance to the (combustible) wall, the protection plate may not be removed in the back shield.



Installing and connecting

1. Position the appliance in the correct place, and make sure it is level. The appliance is designed with adjustable feet, which may already be mounted on the appliance or be included. Use these

adjustable feet so that the appliance can be placed perfectly level.



2. Connect the appliance to the flue hermetically.
3. Re-position all removed parts in the correct places in the appliance.

! Never use the appliance without the fire-resistant inner plates.

The appliance is now ready for use.

Use

First use

When you use the appliance for the first time, make an intense fire and keep it going for a good few hours. This will cure the heat-resistant paint finish. This may result in some smoke and odours. You could open windows and doors for a while in the area in which the appliance is located.

Fuel

This appliance is only suitable for burning natural wood, namely sawn and chopped wood that is sufficiently dry.

Do not use other fuels, as they can cause serious damage to the appliance.

The following fuels may not be used as they pollute the environment, and because they heavily pollute the appliance and flue, which may lead to a chimney fire:

- Treated wood, such as scrap wood, painted wood, impregnated wood, preserved wood, plywood and chipboard.
- Plastics, scrap paper and domestic waste.

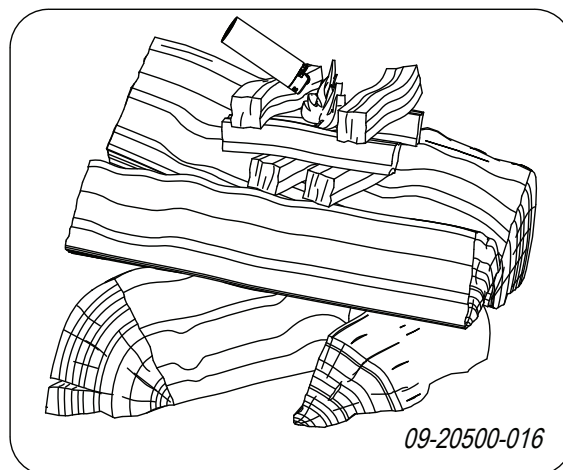
Wood

- ▶ Hardwood, such as oak, beech, birch and fruit tree wood is the ideal fuel for your stove. This type of wood burns slowly with calm flames. Softwood contains more resins, burns faster and sparks more.
- ▶ Use seasoned wood that contains no more than 20% moisture. The wood should have been seasoned for at least 2 years. Wood with a moisture content of 20% provides 4.2 kWh per kg wood. Wood with a moisture content of 15% provides 4.4 kWh per kg wood. Freshly felled wood has a moisture content of 60% and only provides 1.6 kWh per kg wood.
- ▶ Saw the wood to size and split it while it is still fresh. Fresh wood is easier to split, and split wood dries more easily. Store the wood under a roof where the wind has free access.
- ▶ Do not use damp wood. Damp logs do not produce heat as all the energy is used in the evaporation of moisture. This will result in a lot of smoke and soot deposits on the appliance door and in the flue. The water vapour will condense in the appliance and can leak away through chinks in the stove, causing black stains on the floor. It may also condense in the chimney and form creosote. Creosote is a highly flammable compound and may cause a chimney fire.

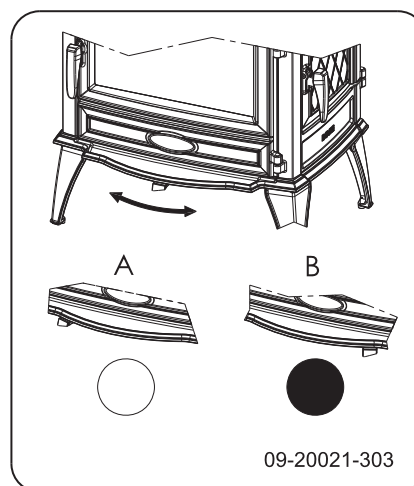
Lighting

You can check whether the flue has sufficient draught by lighting a ball of paper above the baffle plate. A cold flue often has insufficient draught and consequently, some smoke may escape into the room instead of up the chimney. You can avoid this problem by lighting the fire as described below.

1. Stack two layers of medium sized logs crosswise.
2. Stack two to three layers of kindling crosswise on top of the logs.
3. Place a firelighter between the bottom layer of kindling and light the firelighter according to the instructions on the packaging.



4. Close the appliance door and open the air inlet of the appliance completely; see Position A on the following figure.
5. Allow the fire to develop into a good blaze until there is a glowing bed of charcoal. You can then add fuel and adjust the appliance, see the chapter "Stoking with wood".



○ = Open

● = Closed

Maximum amount of wood

To stoke continuously at the rated power, wood must be added every 45 minutes. If you use a smaller amount of wood each time, you can add wood more often. Each stove is designed to work with a specific maximum amount of wood. If you use a larger quantity of wood, the heat output increases. This can cause the hearth to be overloaded and parts can be damaged.

Allowable maximum amount of fuel when using wood with a moisture content of 15%:

- 540W can be filled with a maximum of 1,6 kg wood every 45 minutes.

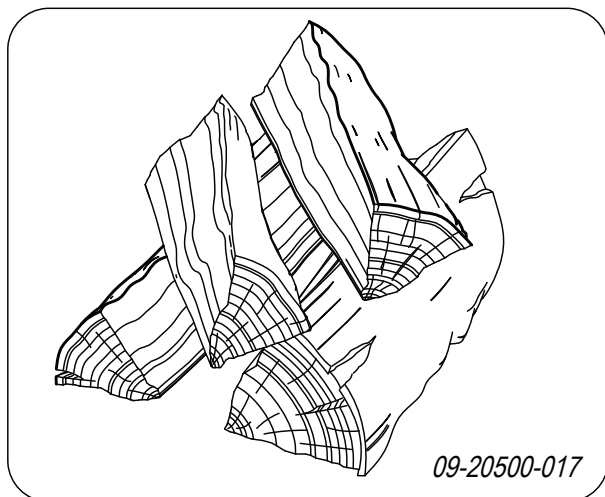
 Fill the combustion chamber to at most 1/3 capacity, and never add wood above the openings for secondary air.

Burning wood

After you have followed the instructions for lighting:

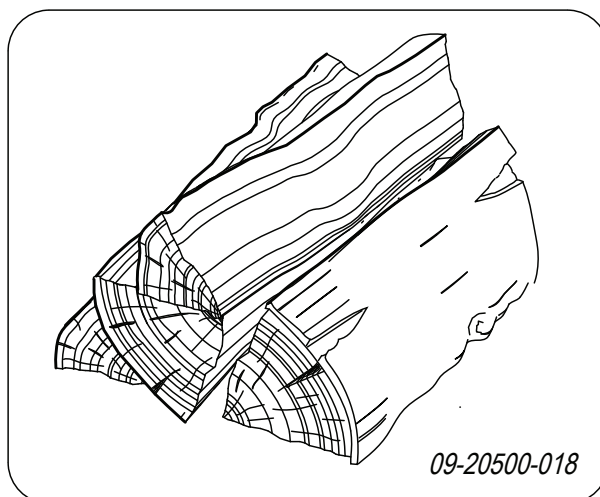
1. Slowly open the door of the appliance.
2. Spread the charcoal evenly across the bottom of the stove base.
3. Stack a few logs on the charcoal.

Open stacking



If the logs are stacked openly, the wood will burn quickly as the oxygen can reach each log easily. If you want to use the stove for a short while, make an open stack.

Compact stacking



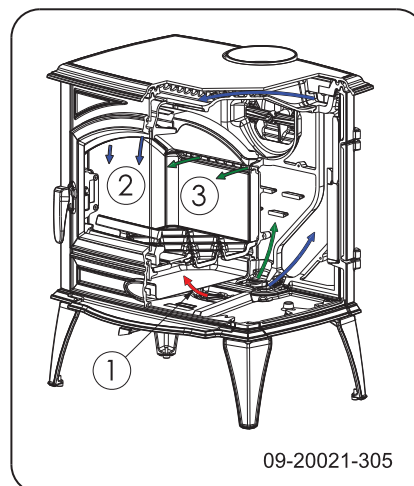
If the logs are stacked tightly, the wood will burn more slowly as the oxygen can only reach some logs easily. If you want to burn wood for a longer period, make a compact stack.

4. Close the door of the appliance.
5. Close the primary air inlet by moving the control slide to the central position.

 Do not fill the appliance by more than a third.

Controlling combustion air

The appliance has various features for air control; see next figure.



The appliance has one air slide that regulates both the primary and the secondary air inlet. If the air slide is as far to the left as it will go, the primary and secondary

air inlets are open. As the air slide is moved more to the right, this closes off the primary air inlet and then the secondary air inlet. If the air slide is slid as far to the right as it will go, a small air vent remains open to allow for post-combustion under the baffle plate.

If you have a stove with a reference point on the air slide, you can find more information [here](#).



Advice



Never burn wood with an open door.



Regularly burn wood with intense roaring fires.

If you burn at a low setting frequently, tar and creosote may be deposited in the flue. Tar and creosote are highly combustible substances. Thicker layers of these substances may catch fire if the temperature in the flue increases suddenly. By allowing the fire to burn very intensely regularly, layers of tar and creosote will disappear.

Low intensity fires can also cause tar deposits on the stove window and door.

When the outside temperature is mild, it is better to burn wood intensely for a few hours instead of having a low intensity fire for a long period of time.

- Control the air supply using the air vent.



The air inlet not only supplies air to the fire but to the glass as well, so that it does not quickly become dirty.

- Open the primary air inlet for the time being if the air supply by the secondary air inlet is inadequate or if you want to fan the fire.
- Topping up with a few logs regularly is better than adding many logs in one go.

Extinguishing the fire

Do not add fuel and just let the fire go out. If a fire is damped down by reducing the air supply, harmful substances will be released. For this reason, the fire should be allowed to go out naturally. Keep an eye on the fire until it has gone out. All air inlets can be closed once the fire has died completely.

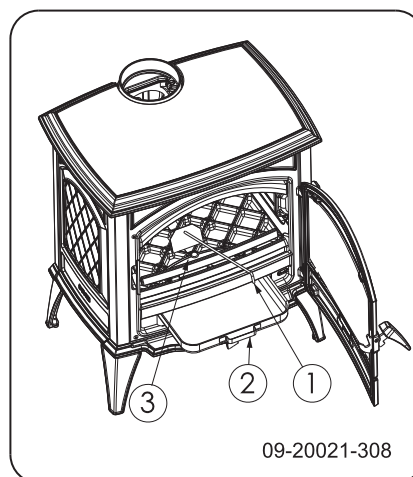
Removing ash

After wood has been burnt, a relatively small amount of ash remains. This ash bed is a good insulating layer for the stove base plate and improves combustion.

It is a good idea to leave a thin layer of ash on the stove base plate.

The flow of air through the fire plate must not be obstructed, however, and no ash may be allowed to accumulate behind a cast-iron inner plate. Remove the excess ash regularly.

1. Open the door of the appliance.
2. Use the scraper (1) to open the ash removal port (3) in the bottom of the fire compartment: see the following figure.
3. Scrape the excess ash through the ash removal port into the ash pan (2) below it.
4. Close the ash removal port.
5. Using the glove supplied, remove the ash pan and empty it.
6. Replace the ash pan and close the door of the appliance.



Fog and mist

Fog and mist hinder the flow of flue gases through the flue. Smoke can blow back and cause a stench. If it is not strictly necessary, it is better not to use the stove in foggy and misty weather.

Resolving problems

Refer to the appendix "Diagnostic diagram" to resolve any problems in using the appliance.