

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

KACHEL
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STUFA
ILDSTED



TAI 45M



TAI 55M

TAI



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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 optimal use of convection heat as well as thermal radiation (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 TAI 45M

In accordance with construction products regulation 305/2011

No. 035-CPR-2014

1. Unique identification code of the product type:

TAI 45M

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

Unique serial number.

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

Stove for solid fuel without hot water supply in accordance with EN 13240.

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

Dovre N.V. Nijverheidsstraat 18 2381 Weelde Belgium.

5. If applicable, name and contact address of the authorised party 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 KVBG, registered under the number 2013, has performed a type test under system 3 and has issued the test report No. 2014-0118.

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

-



9. Declared performance:

The harmonised norm	EN 13240 :2001/A2 :2004/AC :2007
Essential characteristics	Wood Coal Brown coal
Fire safety	
Fire resistance	A1
Distance from combustible material	Minimum distance in mm Rear: 300 Side: 450
Risk of glowing particles falling out	Conform
Emission of combustion products	CO: 0.09% (13%O ₂) CO: 0.08% (13%O ₂) CO: 0.07% (13%O ₂)
Surface temperature	Conform
Electrical safety	-
Ease of cleaning	Conform
Maximum operating pressure	-
Flue gas temperature at nominal output	273°C 282°C 286°C
Mechanical resistance (carrying weight of chimney)	Not determined
Nominal output	9 kW
Efficiency	75.3% 79.5% 75%

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:

T. Gehem



01/09/2014 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.

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Performance declaration TAI 45C

In accordance with construction products regulation 305/2011

No. 036-CPR-2014

1. Unique identification code of the product type:

TAI 45C

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

Unique serial number.

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

Stove for solid fuel without hot water supply in accordance with EN 13240.

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

Dovre N.V. Nijverheidsstraat 18 2381 Weelde Belgium.

5. If applicable, name and contact address of the authorised party 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 KVBG, registered under the number 2013, has performed a type test under system 3 and has issued the test report No. 2014-0118.

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

-



9. Declared performance:

The harmonised norm	EN 13240 :2001/A2 :2004/AC :2007
Essential characteristics	Coal Performance
Fire safety	
Fire resistance	A1
Distance from combustible material	Minimum distance in mm Rear: 400 Side: 450
Risk of glowing particles falling out	Conform
Emission of combustion products	CO: 0.08% (13%O ₂)
Surface temperature	Conform
Electrical safety	-
Ease of cleaning	Conform
Maximum operating pressure	-
Flue gas temperature at nominal output	282 °C
Mechanical resistance (carrying weight of chimney)	Not determined
Nominal output	9 kW
Efficiency	79.5%

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

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T. Gehem



01/09/2014 Weelde

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Performance declaration TAI 55M

In accordance with construction products regulation 305/2011

No. 038-CPR-2014

1. Unique identification code of the product type:

TAI 55M

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

Unique serial number.

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

Stove for solid fuel without hot water supply in accordance with EN 13240.

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

Dovre N.V. Nijverheidsstraat 18 2381 Weelde Belgium.

5. If applicable, name and contact address of the authorised party 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 KVBG, registered under the number 2013, has performed a type test under system 3 and has issued the test report No. 2015-0010.

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

-



9. Declared performance:

The harmonised norm	EN 13240 :2001/A2 :2004/AC :2007
Essential characteristics	Wood Coal Brown coal
Fire safety	
Fire resistance	A1
Distance from combustible material	Minimum distance in mm Rear: 400 Side: 450
Risk of glowing particles falling out	Conform
Emission of combustion products	CO: 0.09% (13%O ₂) CO: 0.09% (13%O ₂) CO: 0.09% (13% O ₂)
Surface temperature	Conform
Electrical safety	-
Ease of cleaning	Conform
Maximum operating pressure	-
Flue gas temperature at nominal output	318 °C 339 °C 364 °C
Mechanical resistance (carrying weight of chimney)	Not determined
Nominal output	11 kW
Efficiency	75.3% 78.2% 75.2%

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

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T. Gehem



01/09/2014 Weelde

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Performance declaration TAI 55C

In accordance with construction products regulation 305/2011

No. 038-CPR-2014

1. Unique identification code of the product type:

TAI 55C

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

Unique serial number.

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

Stove for solid fuel without hot water supply in accordance with EN 13240.

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

Dovre N.V. Nijverheidsstraat 18 2381 Weelde Belgium.

5. If applicable, name and contact address of the authorised party 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 KVBG, registered under the number 2013, has performed a type test under system 3 and has issued the test report No. 2015-0010.

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

-



9. Declared performance:

The harmonised norm	EN 13240 :2001/A2 :2004/AC :2007
Essential characteristics	Coal Performance
Fire safety	
Fire resistance	A1
Distance from combustible material	Minimum distance in mm Rear: 450 Side: 450
Risk of glowing particles falling out	Conform
Emission of combustion products	CO: 0.09% (13% O ₂)
Surface temperature	Conform
Electrical safety	-
Ease of cleaning	Conform
Maximum operating pressure	-
Flue gas temperature at nominal output	339 °C
Mechanical resistance (carrying weight of chimney)	Not determined
Nominal output	11 kW
Efficiency	78.2%

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:

T. Gehem



01/09/2014 Weelde

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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 whereby toxic gases can 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**:

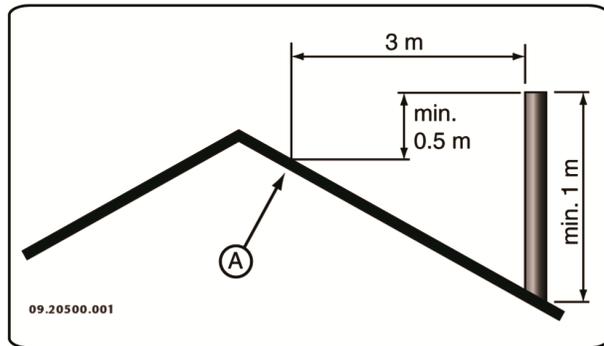
- ▶ The flue or chimney must be made of fire-resistant material, preferably ceramics or stainless steel.
- ▶ The flue or chimney must be airtight and well-cleaned and guarantee sufficient draught.

i 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.

i 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

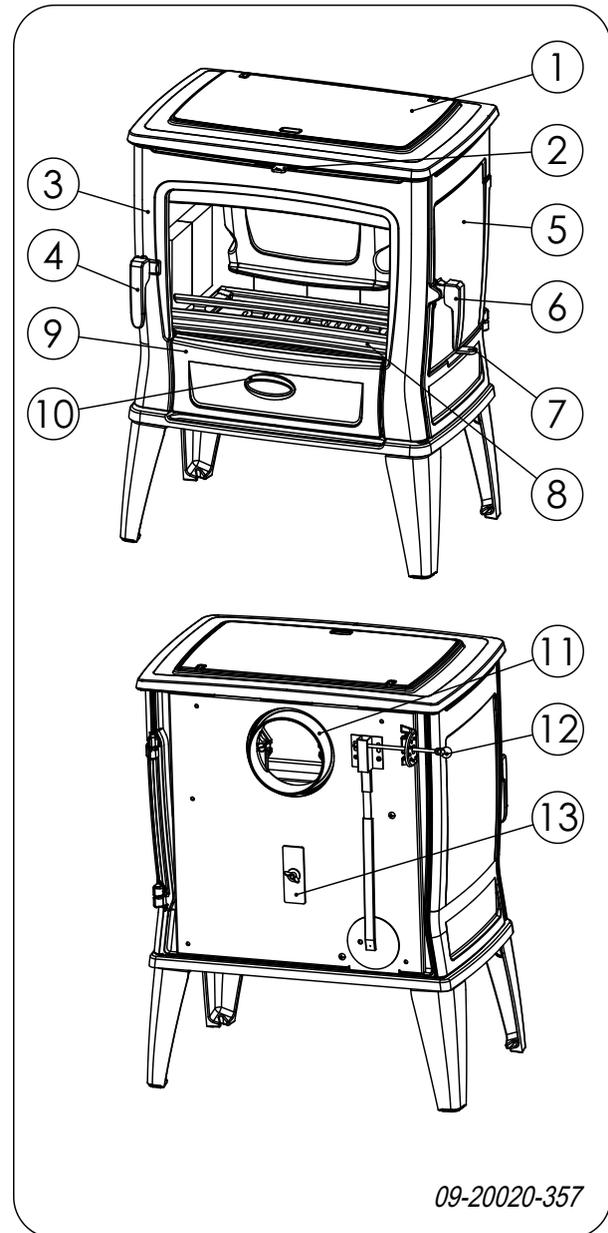
The floor on which the appliance is placed must have sufficient bearing capacity. The weight of the appliance is given in the appendix "Technical Data appendix".

- ⚠ 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 which 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

-  This manual describes the multi-fuel appliance TAI M and the coal appliance TAI C.



1. Filling lid
2. Secondary air slide
3. Door
4. Door bolt
5. Side filling door (TAI M only)
6. Side filling door bolt (TAI M only)
7. Riddling grate bar (TAI M only)
8. Fire basket
9. Ash pan door
10. Ash pan door bolt
11. Flue gas connection
12. Primary air slide / Thermostat
13. Fuel choice selector (TAI M only)



Appliance features

- ▶ The TAI M appliance can be used to burn wood, coal (anthracite) and brown coal briquettes. The appliance comes with a side filling door and coal bunker.
- ▶ The TAI C appliance can be used to burn coal (anthracite) for continuous use. The appliance is equipped with a coal bunker as standard.
- ▶ The appliance can be connected to the chimney at the rear.
- ▶ The appliance comes with a “cold hand” to manipulate the riddling grate (TAI M), to open the filling lid and to remove the ash pan.
- ▶ The multi-fuel appliance (TAI M) is equipped with a separate door for adding the fuel, the ‘side filling door’.
- ▶ The coal bunker can easily be removed via the filling lid.
- ▶ The TAI M appliance is equipped with a riddling grate.
- ▶ The TAI C appliance is equipped with a fixed burning grate.
- ▶ The appliance has two access ports for ash removal.
- ▶ The appliance is equipped with an adjustable thermostat.
- ▶ The appliance is equipped with chamotte or refractory stone interior cladding.

Installation

Preparation

- ▶ Please check the appliance immediately after delivery for damage during transport or any other damage or defects. The appliance is attached to the pallet with screws at the bottom.
-  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, ash pan, grates, bunker and filling lid) from the appliance before 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.

 Chamotte inner plates are ochrous on delivery. They insulate the combustion chamber to improve the combustion, and they can withstand burning anthracite.

Preparing the connection to the flue

You can connect the appliance to the chimney at the rear.

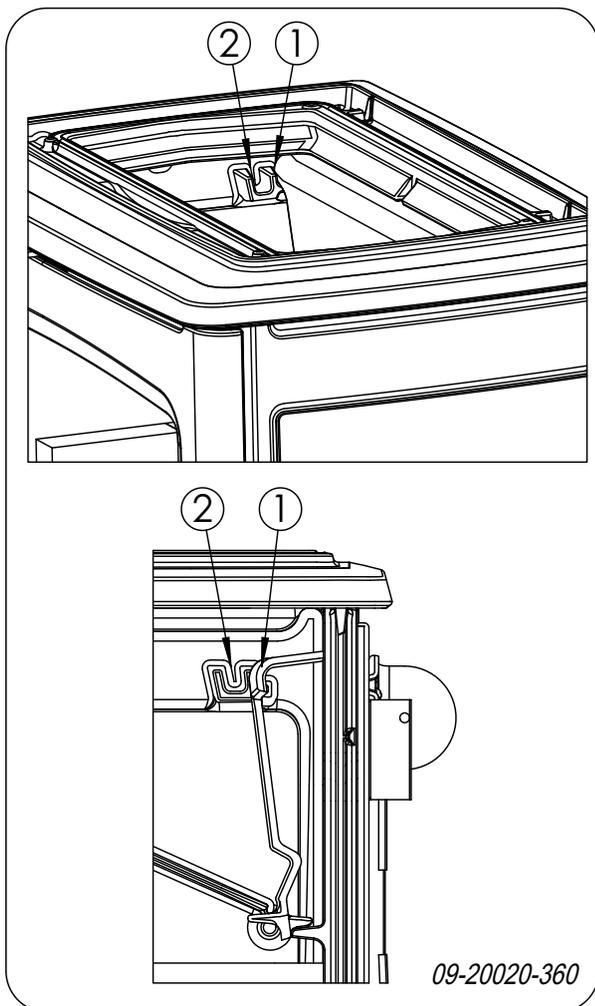
Installing and connecting

1. Position the appliance in the correct place, and make sure it is 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.

 If it is found that there is inadequate draw, the recuperator plate at the back of the appliance can be moved to reduce the dampening. See next figure.





Position 1: factory setting for a standard hearth.
 Position 2: the setting for a hearth with less draw.

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

Appliance TAI M can be used to burn brown coal briquettes, anthracite coal and natural wood; sawn and split and adequately dry.

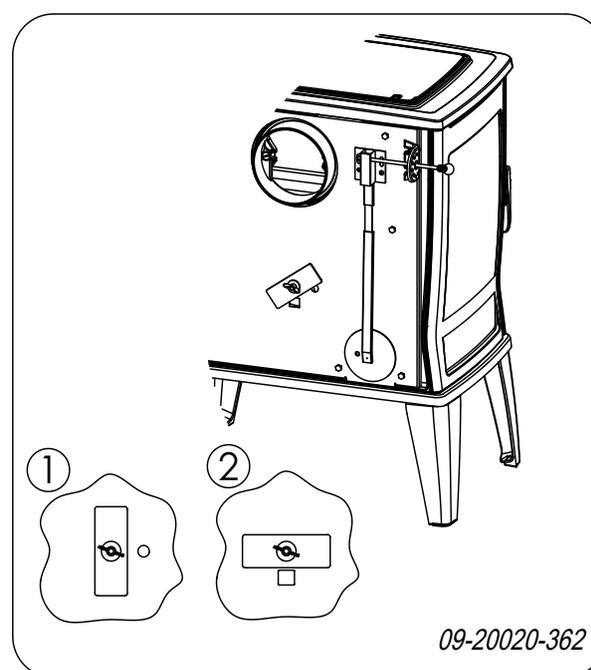
Appliance TAI C is only suitable for burning anthracite coal.

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.

Fuel choice (TAI M)



The fuel choice selector is located in the rear wall of the stove. Set this to position 1 when burning coal and to position 2 when burning wood, see previous image.

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.

Brown coal briquettes

Brown coal briquettes have approximately the same burning characteristics as wood.

- ▶ Ensure there is a good charcoal bed before you start burning brown coal briquettes.
- ▶ For lighting the fireplace, follow the instructions in the "Lighting" paragraph.

Anthracite coal

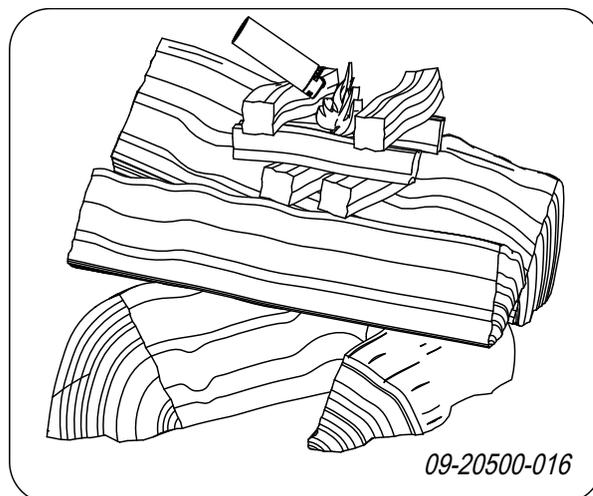
Anthracite coal is divided into various categories on the basis of characteristics, sometimes specified by law, such as the percentage of volatile compounds. The ash content of anthracite coal is between 3% and 13%. The lower the ash content, the higher the net heating value and the less often you have to remove ash.

- ▶ Preferably use category A anthracite coal with a low ash content.
- ▶ Use the recommended size 12/22 or 20/30.
- ▶ For lighting the fireplace, follow the instructions in the "Lighting" paragraph.

Lighting

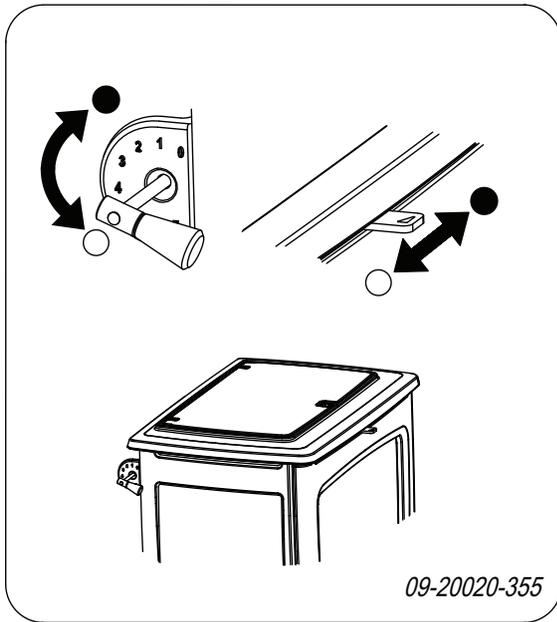
You can check whether the flue has sufficient draught by lighting a ball of paper above the baffle plate. A cold flue often has insufficient draught and consequently, some smoke may escape into the room instead of up the chimney. You can avoid this problem by lighting the fire as described below.

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 door of the appliance and open the primary and secondary air inlets by completely opening the primary and secondary air sliders; see the following figure. If there is inadequate draw, the ash pan can be set at a small tilt for some time.
5. Let the fire develop into a good blaze until there is a glowing bed of charcoal. After this, you can add more fuel and adjust the appliance; see the sections on "Burning wood", "Burning brown coal briquettes (for TAI M only)" and "Burning anthracite coals (for TAI M and TAI C)".





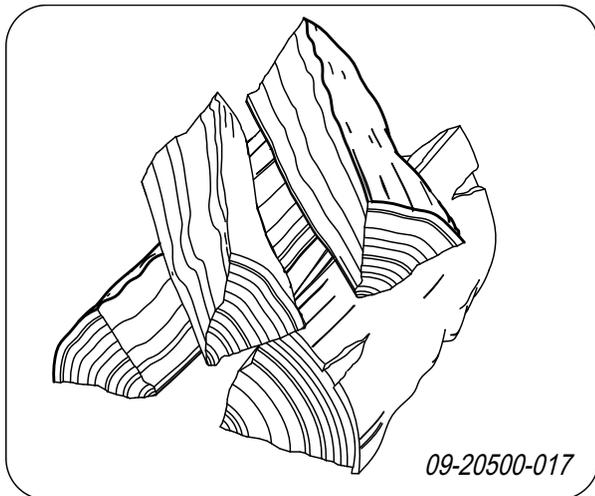
○ = Open ● = Closed

Burning wood (TAI M)

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.

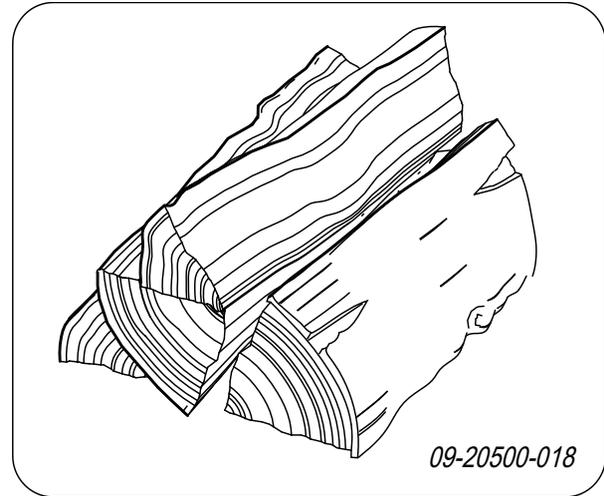
Open stacking



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 and leave the secondary air inlet open.

Maximum amount of wood (TAI M)

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 amount of fuel when using wood with a moisture content of 15%:
 TAI 45M 9 kW can be filled with a maximum of 2.2 kg wood every 45 minutes.
 TAI 55M 11 kW can be filled with a maximum of 2.6 kg wood every 45 minutes.

Burning brown coal briquettes (TAI M)

Brown coal briquettes burn in almost the same way as wood. Using the primary air inlet, ensure sufficient supply of air under the fire. For further information see the paragraph "Burning wood".

Burning brown coal briquettes creates a lot of ash. Regularly remove excess ash. See the paragraph "Removing ashes" for instructions.

i For the properties and use of brown coal briquettes: consult your brown coal briquette supplier or see the brown coal briquette packaging.

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. Place the brown coal briquettes on the charcoal bed.
4. Close the door.

Burning anthracite coal (TAI M and TAI C)

! When burning anthracite coals, always close the secondary air slide and set the plate (this is the fuel choice selector) in the back wall to position 1. See "Fuel choice" paragraph (TAI M)".

Burning coal without bunker

After you have followed the instructions for lighting:

1. Open the primary air slide completely.
2. Slowly open the door of the appliance.
3. Spread the charcoal evenly across the bottom of the stove base.
4. Spread a shovelful of coal on the charcoal bed and wait with the next shovelful until the coals start to glow.
5. Now add more coal.

! Be careful not to smother the fire by adding too much coal at once.

! You have added as much as you can when the glow from the previous load is only just visible.

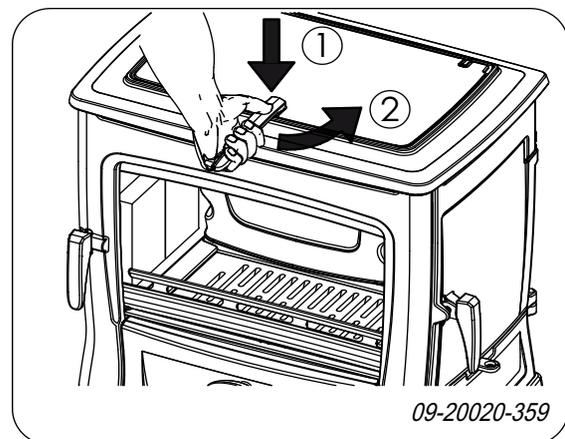
6. Close the door.
7. Allow the coal to burn well for a few minutes and then set the thermostat to the desired position.

! If the coal basket begins to glow red, the fire is burning too strongly.

Burning coal with bunker

After you have followed the instructions for lighting:

1. Open the primary air slide (thermostat) all the way.
2. Slowly open the door of the appliance.
3. Spread the charcoal evenly across the bottom of the stove base.
4. Close the door.
5. Slowly open the filling lid in the top plate.



6. Fill the bunker with coal to below the rear openings in the bunker.
7. Close the filling lid.
8. Allow the coal to burn well for a few minutes and then set the thermostat to the desired position.

! The filling frequency depends on the output demanded.

! To keep the stove burning at night, the thermostat is turned down to around position 1.

The correct position depends on the flue and the weather conditions.

- ⚠ If the coal basket begins to glow red, the fire is burning too strongly.

Heating recommendations

- ⚠ 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.

- ▶ Regulate the air supply using the secondary air inlet (only when burning wood).

i The secondary 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.
- ▶ Regularly adding small amounts of brown coal briquettes or anthracite coal is better than adding a large amount of brown coal briquettes or anthracite coal 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.

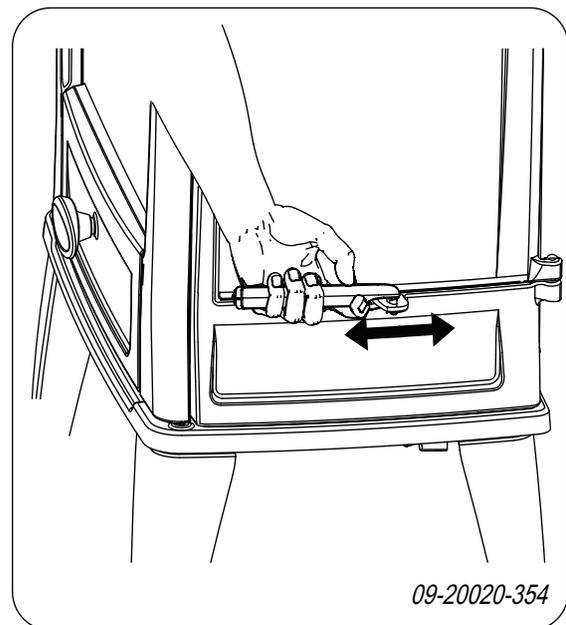
Removing ash

A relatively large amount of ash is left over after burning brown coal briquettes and anthracite coal. Remove the excess ash regularly.

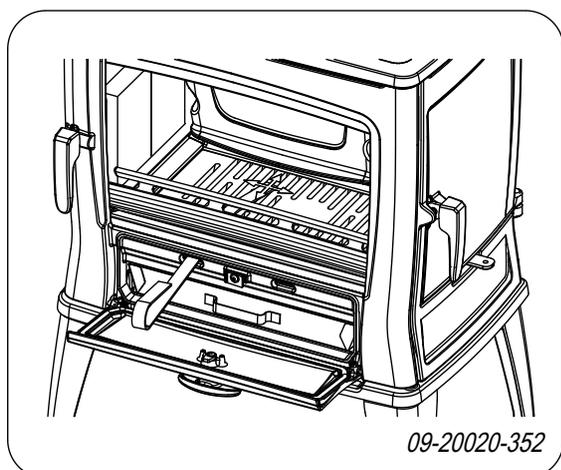
After wood has been burnt, a relatively small amount of ash remains. This ash bed is a good insulating layer for the stove base plate and improves combustion. It is a good idea to leave a thin layer of ash on the stove base plate.

The ash should never reach the bottom of the grate. This will cause the grate to overheat and be damaged.

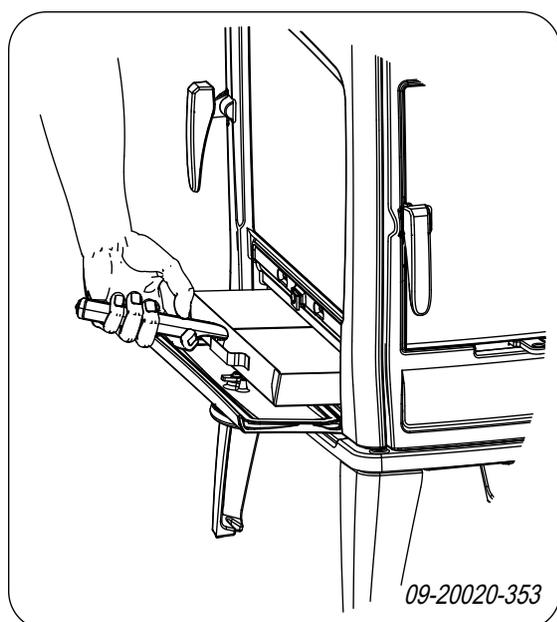
1. Use the "cold hand" provided to manipulate the riddling grate (TAI M); see following diagram.



2. Open the ash door.
3. Use the poker provided to break up the ashes through the access openings above the grate.



4. Remove the ash pan using the "cold hand" provided and empty the ash pan; see next figure.



5. Install the ash pan and close the ash 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.

Maintenance

Follow the maintenance instructions in this chapter to keep the appliance in good condition.

Flue

In many countries, you are required by law to have your chimney checked and maintained.

- ▶ At the start of the heating season: have the chimney swept by a recognised chimney sweep.
- ▶ During the heating season and after the chimney has not been used for a long time: have the chimney checked for soot.
- ▶ At the end of the heating season: close off the chimney and plug with newspaper.

Cleaning and other regularly maintenance

 Do not clean the appliance when it is still warm.

- ▶ Clean the exterior of the appliance with a dry lint-free cloth.

You can clean the inside of the appliance thoroughly at the end of the heating season:

- ▶ Remove the filling lid and the coal bunker.
- ▶ If necessary, first remove the fire-resistant inner plates.
- ▶ If necessary, clean the air supply ducts.
- ▶ Remove the recuperator at the top of the appliance and clean it. See the chapter on "Installation" for instructions on removing and installing the recuperator.

Checking fire-resistant inner plates

The fire-resistant inner plates are consumables that are subject to wear and tear. Inner plates are fragile. Do not knock the inner plates with logs. Check the fire-resistant inner plates frequently and replace them when necessary.

- ▶ See the chapter "Installation" for instructions on removing and installing the inner plates.





The refractory inner plates may begin to show hairline cracks, but this does not negatively affect their functioning.



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

Cleaning the glass

Dirt clings less easily to well-cleaned glass. Proceed as follows:

1. Remove dust and loose soot with a dry cloth.
2. Clean the glass with stove glass cleaner:
 - a. Apply stove glass cleaner to a kitchen sponge, rub down the entire glass surface and give the cleaning agent time to react.
 - b. Remove the dirt with a moist cloth or kitchen tissue.
3. Clean the glass again with a normal glass cleaning product.
4. Rub the glass clean with a dry cloth or kitchen tissue.

▶ Do not use abrasive or aggressive products to clean the glass.

▶ Wear household gloves to protect your hands.



If the glass in the appliance is broken or cracked, it must be replaced before you can use appliance again.



Ensure that no stove glass cleaner runs between the glass and the cast-iron door.

Enamelled stove maintenance

Never clean the appliance while it is still hot. The most effective way to clean the enamelled surface of the stove is with a mild green soap and lukewarm water. Use as little water as possible, rub the surface dry and prevent the formation of rust. Wire wool or other abrasives should never be used. Never place a kettle directly onto an enamelled stove; use a stand to prevent damage. Attention: Do not allow aggressive acidic products to get onto enamelled components.

Lubrication

Although cast-iron is slightly self-lubricating, you will still need to lubricate moving parts frequently.

- ▶ Lubricate the moving parts (such as guide systems, hinge pins, latches and air slides) with heat resistant grease that is available in the specialist trade.

Touching up damaged paint

Small areas of damaged paint finish can be touched-up with a spray can of special heat-resistant paint, available from your supplier.

Touching up the enamelled surface

Enamelling is a process carried out by traditional methods, meaning that it is possible that small colour differences and damage may occur. The appliances undergo a visual inspection in the factory, that is to say, the inspector looks at the surface for a period of 10 seconds from a distance of 1 metre.

Any damage that does not stand out is regarded as OK. A special heat-resistant paint is supplied with the appliance to touch up any minor damage caused during transport.

Apply the heat-resistant paint in thin layers and leave to dry well before using the appliance.

- ▶ Some enamel colours are temperature-sensitive. It can happen that the colour changes during use. The original colour will return after the appliance has cooled down.

- ▶ If enamelled surfaces become very hot, hairline cracks can occur. This is a normal phenomenon and has no impact on the functioning of the stove.



Ensure that the stove is not overburdened. If it does become overburdened then the surface gets very hot possibly resulting in lasting damage to the enamel.

Checking the seal

- ▶ Check whether the door sealing rope is still in good condition and works well. The sealing rope is subject to wear and will need to be replaced over time.

- ▶ Check the appliance for air leaks. Close any chinks with stove sealant.



Allow the sealant to harden fully before lighting the appliance, as any moisture in the sealant will form bubbles, resulting in a new air leak.



Appendix 1: Technical data

Model	45M	45M	45M	45C
Nominal output	9 kW	9 kW	9 kW	9 kW
Flue connection (diameter)	150 mm	150 mm	150 mm	150 mm
Weight	155 kg	155 kg	155 kg	160 kg
Recommended fuel	Wood	Coal	Brown coal	Coal
Fuel property, max. length wood	45 cm	12/22 - 20/30	3" - 6" - 7"	12/22 - 20/30
Mass flow of flue gasses	8.5 g/s	7.6 g/s	8.8 g/s	7.6 g/s
Temperature increase measured in the measuring section	273 °C	282 °C	286 °C	282 °C
Temperature measured at appliance exit	410 °C	389 °C	395 °C	389 °C
Minimum draught	12 Pa	12 Pa	12 Pa	12 Pa
CO emission (13%O ₂)	0.09%	0.08%	0.07%	0.09%
NOx emission (13% O ₂)	91 mg/Nm ³	86 mg/Nm ³	158 mg/Nm ³	86 mg/Nm ³
CnHm emission (13%O ₂)	96 mg/Nm ³	136 mg/Nm ³	109 mg/Nm ³	136 mg/Nm ³
Particulate emission (13%O ₂)	13 mg/Nm ³	4 mg/Nm ³	13 mg/Nm ³	4 mg/Nm ³
Particulate emission in accordance with NS3058-NS3059	-	-	-	-
Efficiency	75.30%	79.50%	75%	79.50%

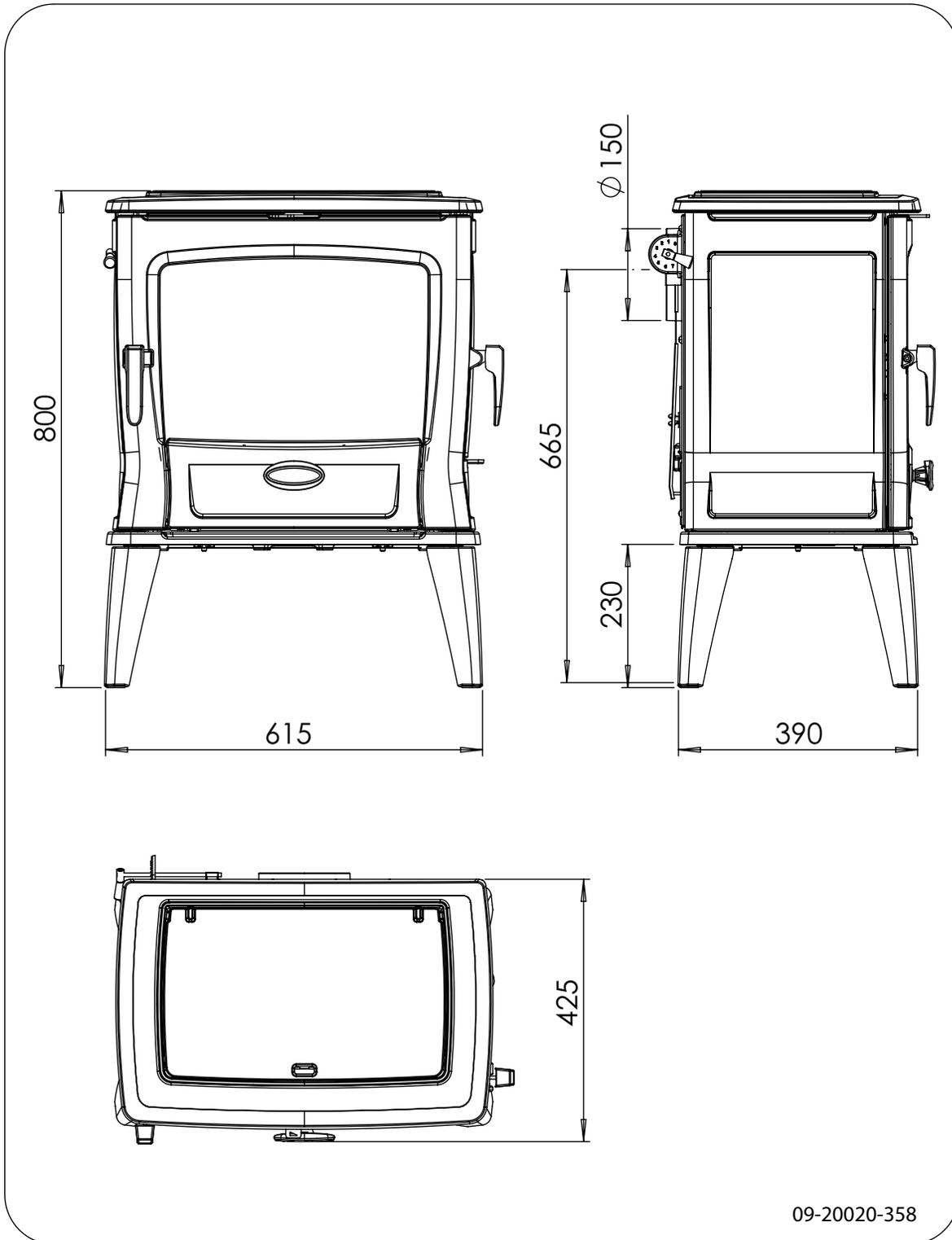


Model	55M	55M	55M	55C
Nominal output	11 kW	11 kW	11 kW	11 kW
Flue connection (diameter)	150 mm	150 mm	150 mm	150 mm
Weight	190 kg	190 kg	190 kg	175 kg
Recommended fuel	Wood	Coal	Brown coal	Coal
Fuel property, max. length wood	55 cm	12/22 - 20/30	3" - 6" - 7"	12/22 - 20/30
Mass flow of flue gasses	8.2 g/s	7.7 g/s	9.0 g/s	7.7 g/s
Temperature increase measured in the measuring section	318 °C	339 °C	364 °C	339 °C
Temperature measured at appliance exit	407 °C	446 °C	453 °C	446 °C
Minimum draught	12 Pa	12 Pa	12 Pa	12 Pa
CO emission (13%O ₂)	0.09%	0.09%	0.09%	0.09%
NOx emission (13% O ₂)	109 mg/Nm ³	60 mg/Nm ³	129 mg/Nm ³	60 mg/Nm ³
CnHm emission (13%O ₂)	62 mg/Nm ³	117 mg/Nm ³	49 mg/Nm ³	117 mg/Nm ³
Particulate emission (13%O ₂)	5.1 mg/Nm ³	4 mg/Nm ³	32 mg/Nm ³	4 mg/Nm ³
Particulate emission in accordance with NS3058-NS3059	-	-	-	-
Efficiency	75.30%	78.2%	75.2%	78.2%



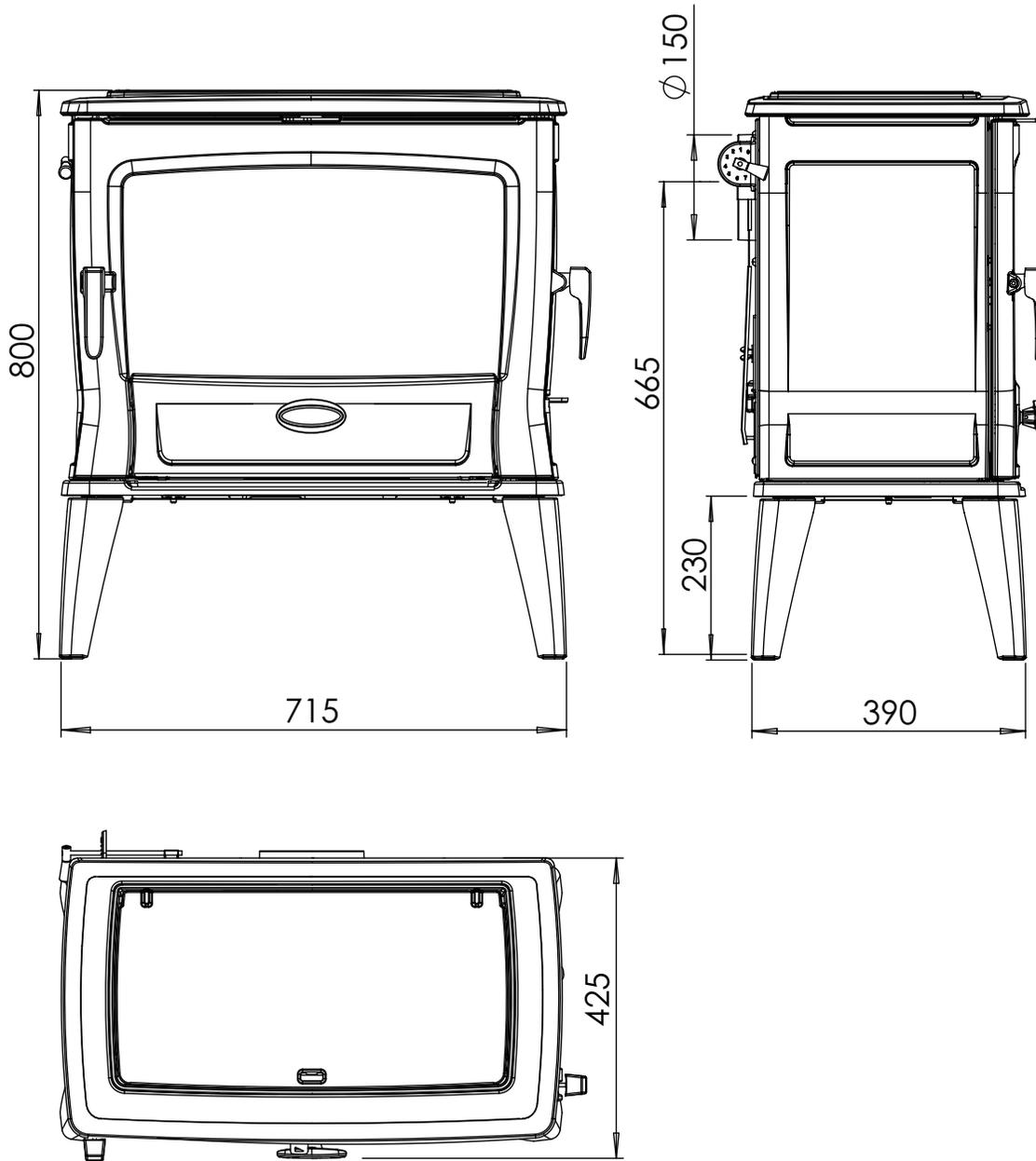
Appendix 2: Dimensions

TAI 45M / TAI 45C



English

TAI 55M / TAI 55C

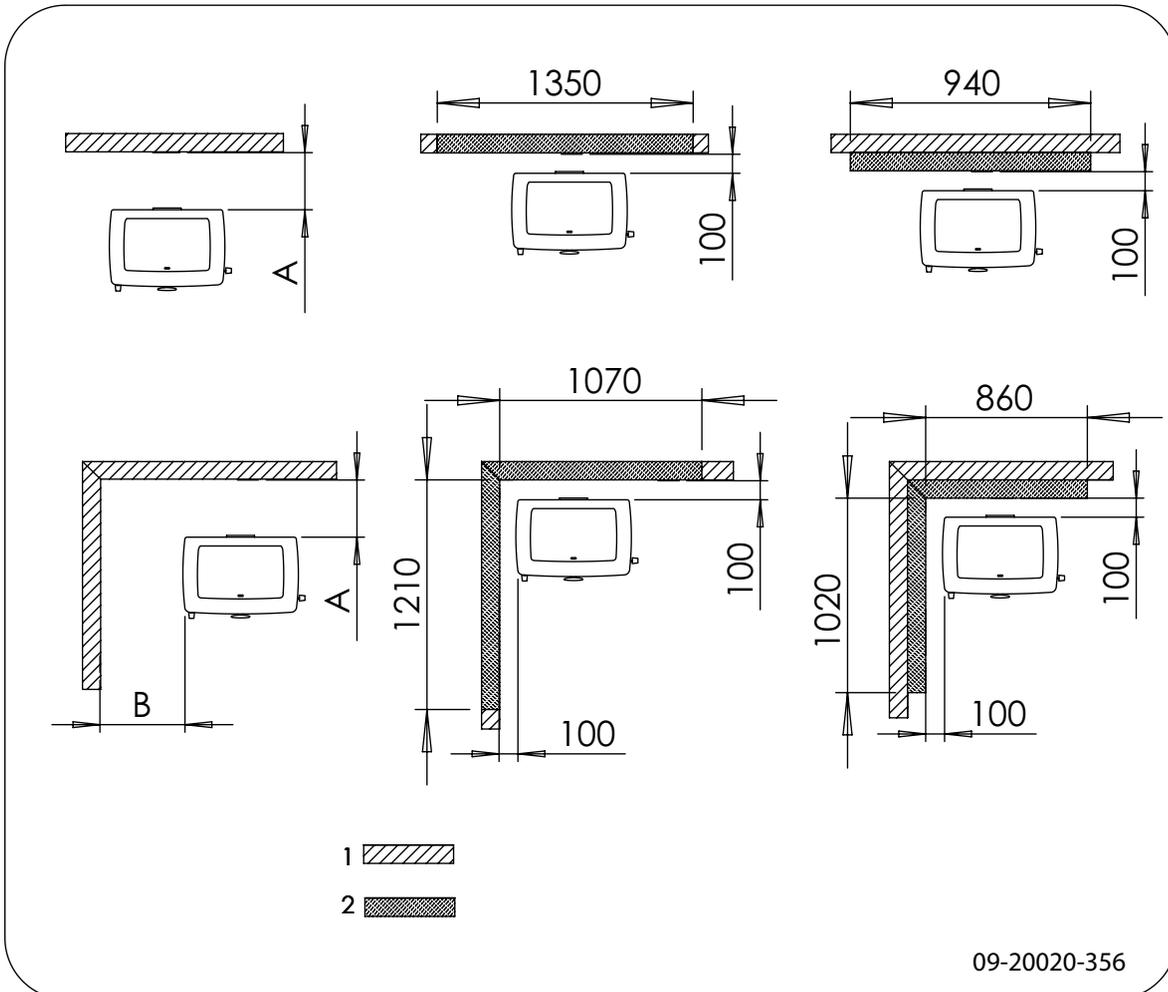


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Appendix 3: Distance from combustible material

TAI 45M and 45C / TAI 55M and 55C - Minimum distances in millimetres



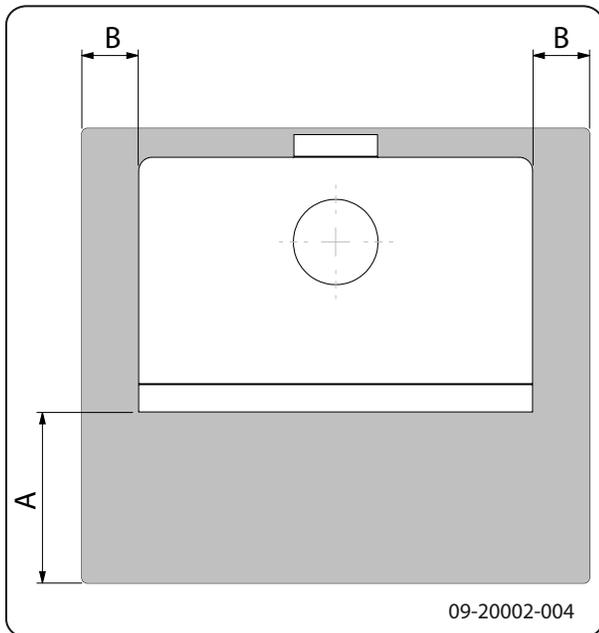
	A (mm)	B (mm)
TAI45M	300	450
TAI45C	400	450
TAI55M	350	450
TAI55C	400	450

1	Combustible material
2	Incombustible material, thickness 100 mm

English



TAI 45M and 45C / TAI 55M and 55C - Incombustible floor plate dimensions



Minimum dimensions of fireproof floor plate

	A (mm)	B (mm)
Din 18891	500	300
Germany	500	300
Finland	400	100
Norway	300	100



Appendix 4: Diagnosis diagram

					Problem	
●					Wood will not stay lit	
	●				Gives off insufficient heat	
		●			Smoke emissions into the room when adding wood	
			●		Fire in appliance is too intense, is hard to adjust	
				●	Deposit on the glass	
					possible cause	possible solution
●	●	●		●	Insufficient draught	A cold flue usually fails to create sufficient draught. Follow the instructions for starting a fire in the 'Use' section; open a window.
●	●	●		●	Wood too damp	Use wood with no more than 20% moisture.
●	●	●		●	Logs too large	Use small pieces of kindling. Use split logs no larger than 30 cm in circumference.
●	●	●	●	●	Wood stacked incorrectly	Stack the logs in a way that allows adequate air flow between the logs (open stacking, see "Burning wood")
●	●	●		●	Flue does not work properly	Check whether the chimney meets the requirements: at least 4 metres high, correct diameter, well-insulated, smooth inside, not too many bends, no obstructions in chimney (bird's nest, too much soot deposit), hermetically tight (no chinks).
●	●	●		●	Chimney stack incorrect	Sufficiently high above the roof, no obstacles in the vicinity
●	●	●	●	●	Air inlets set incorrectly	Open the air inlets completely.
●	●	●		●	Appliance connected to the flue incorrectly	Connection should be hermetically tight.
●	●	●		●	Vacuum in area in which the appliance is installed	Switch off extraction systems.
●	●	●		●	Insufficient supply of fresh air	Provide an adequate air supply; if necessary use outside air connection.
●	●	●		●	Bad weather ? Inversion (reversed air flow in chimney because of a high outside temperature), extreme wind speeds	We recommend you don't use the appliance in the case of inversion. If required, install an extra hood on the flue to increase the draught.
		●			Draught in the living room	Avoid draught in the living room, do not place the appliance near a door or heating air ducts.
				●	Flames touch the glass	Make sure the wood is not positioned too close to the glass. Slide the primary air inlet cover closer to the "Closed" position.
			●		Appliance is leaking air	Check the door seals and appliance joints.

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