



Installation Instructions and User Manual

OPTIMUM MF 700-60 WHE 1S

OPTIMUM MF 900-60 WHE 1S

Dear customer,

We thank you for your confidence in the Metalfire fireplace that you have purchased. Our products guarantee many years of heating comfort.

This Metalfire fireplace is the result of careful research and development, years of experience in the wood fireplace market and intensive contact with dealers and customers.

Metalfire offers you quality, durability and design that complies with today's strict ecological requirements.

We wish you a pleasant fireside experience.

Happy heating,

The Metalfire team

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2 Introduction

Please read this manual carefully before using the fireplace for the first time.

These appliances are closed wood fireplaces which must be connected to an individual flue pipe. Flue gases are discharged through this flue pipe. The supply of outdoor air for combustion can be connected directly to the base of the appliance. This allows these appliances to function independently of air in the room.

3 Safety

This appliance has been tested according to **EN 13229-2001 + A2:2004** and **EN16510-1:2022**.

3.1 Safety instructions for the installer



THE INSTALLATION OF THIS WOOD FIREPLACE MAY ONLY BE CARRIED OUT BY A RECOGNISED INSTALLER, IN ACCORDANCE WITH APPLICABLE NATIONAL AND/OR LOCAL STANDARDS AND BUILDING REGULATIONS.



IT IS IMPORTANT THAT THE FLUE GAS PIPE AND THE FRESH AIR SUPPLY PIPE OF THIS WOOD FIREPLACE ARE ONLY CONNECTED BY A QUALIFIED INSTALLER, IN ACCORDANCE WITH NATIONAL AND LOCAL REGULATIONS.

Take the necessary precautions so that items in the immediate vicinity of the appliance are not overheated. This means using incombustible materials for items such as the curtains, floor and walls.

The installer must take all measures required to prevent overheating of adjacent materials. These measures must comply with national and/or local standards and regulations and the installation must meet all (national and European) standards. Take the necessary measures by using fireproof and insulating materials to prevent overheating of flammable materials in the vicinity of the fireplace. See Table 1 on p.**Fout! Bladwijzer niet gedefinieerd.** for the minimum insulation thicknesses.

3.2 Safety instructions for the user



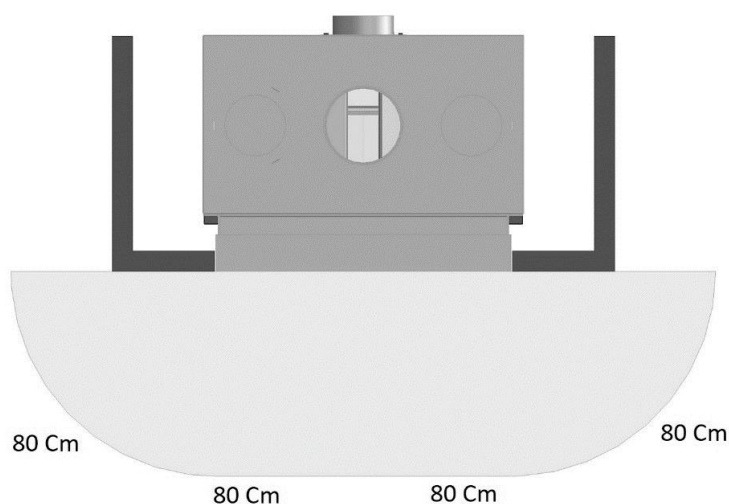
THIS WOOD FIREPLACE IS ONLY INTENDED FOR ADDITIONAL HEATING.



THESE WOOD FIREPLACES RADIATE SIGNIFICANT LEVELS OF HEAT. THE ENTIRE OUTSIDE OF THE FIREPLACE BECOMES EXTREMELY HOT!

Ensure that young children and older people always keep sufficient distance from the fireplace so that they cannot come into contact with it, and provide a fireplace guard around the fireplace if necessary. Never let children operate the fireplace.

Make sure that flammable materials (wooden mantels, curtains, flammable liquids, furniture and so on) are always separated from the fireplace by **at least 80 cm** both above and around it.



THE HEAT RADIATION THROUGH THE FIREPLACE WINDOW CAN BE CONSIDERABLE. THEREFORE, A DISTANCE OF AT LEAST 80 CM MUST BE KEPT FROM FLAMMABLE MATERIAL

All visible parts of the fireplace should be considered as active heating surfaces and should not be touched when the fireplace is in use. Touching these parts constitutes a risk of burns.



DO NOT USE THE APPLIANCE IF THE GLASS IN THE DOOR IS CRACKED OR BROKEN

If defective, the glass in the door must be replaced immediately by a competent Metalfire installer.

4 Technical specifications

4.1 Product fiche

PRODUCT FICHE	
In conformity with DELEGATED REGULATION (EU) 2015/1186	
Manufacturer	Metalfire+ bv Hille 184 B-8750 Wingene - Belgium www.metalfire.eu
Type designation	OPTIMUM MF 700-60 WHE 1S
Indirect heating functionality	No
Energy efficiency class	A+
Direct heat output	kW 9.6
Indirect heat output	kW n.v.t.
Energy efficiency index	% 109.6
Useful efficiency at nominal heat output	% 84.0
Any specific precautions that must be taken when the product is assembled, installed or maintained	See installation and user instructions

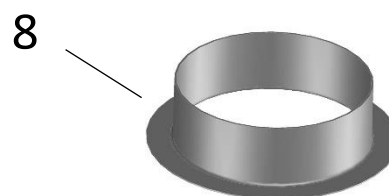
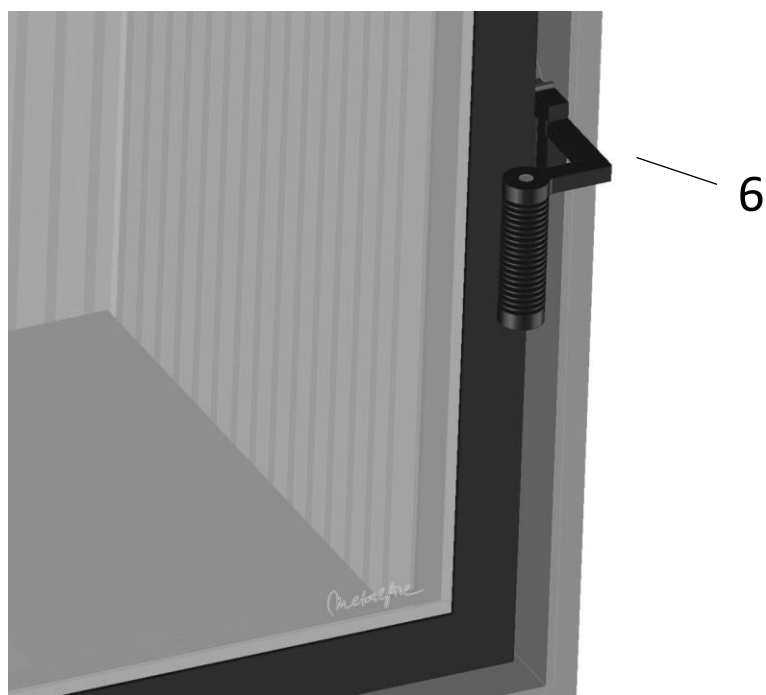
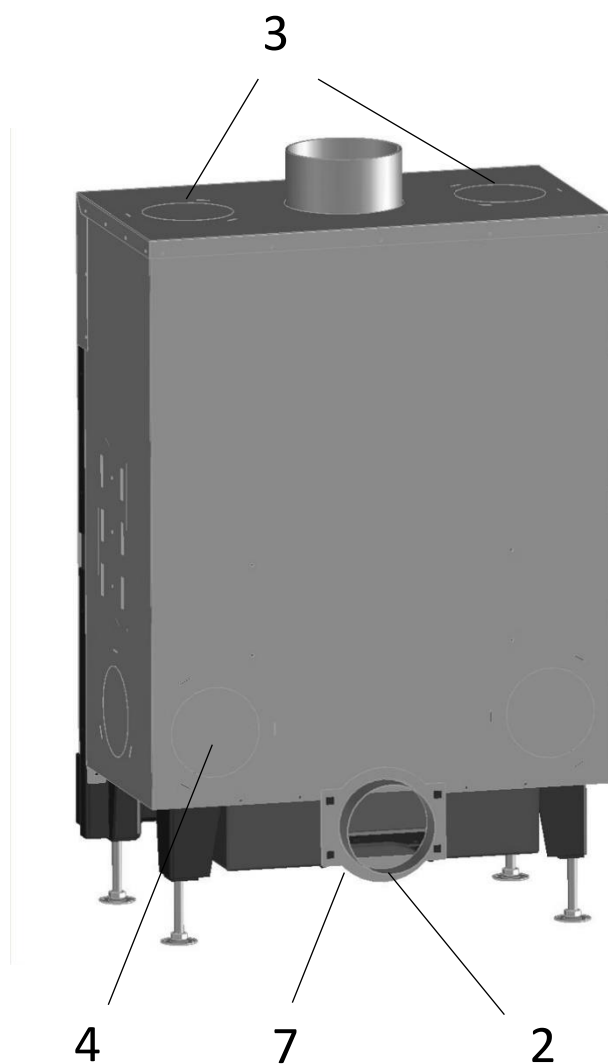
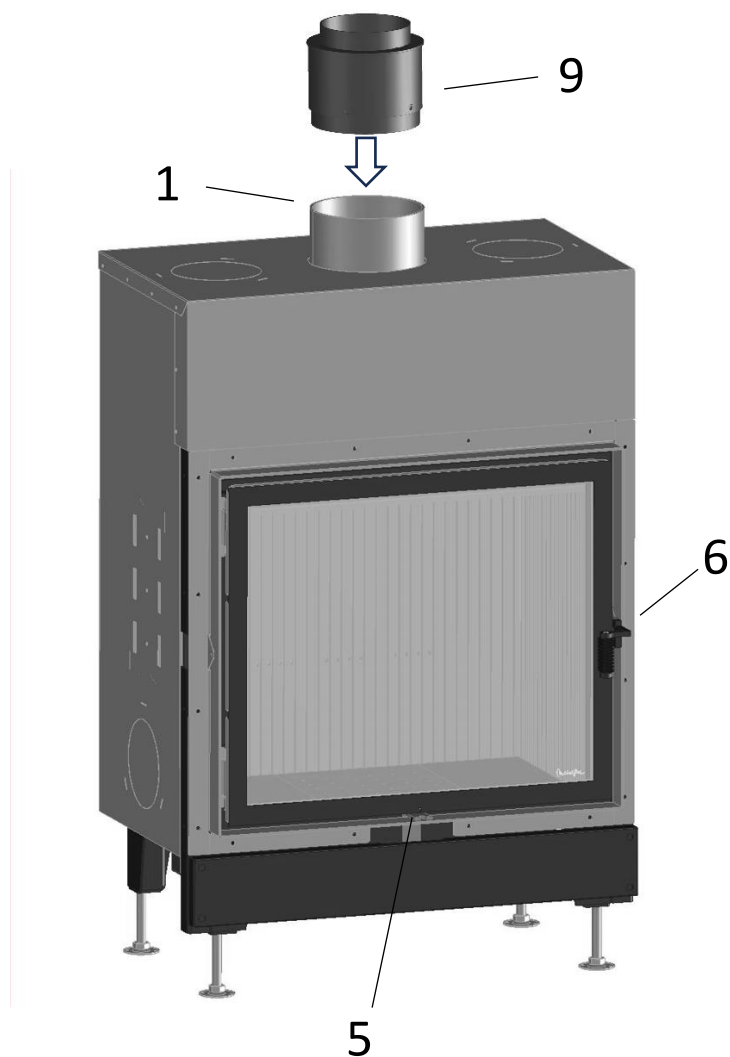
PRODUCT FICHE	
In conformity with DELEGATED REGULATION (EU) 2015/1186	
Manufacturer	Metalfire+ bv Hille 184 B-8750 Wingene - Belgium www.metalfire.eu
Type designation	OPTIMUM MF 900-60 WHE 1S
Indirect heating functionality	No
Energy efficiency class	A+
Direct heat output	kW 12.9
Indirect heat output	kW n.v.t.
Energy efficiency index	% 107.8
Useful efficiency at nominal heat output	% 82.6
Any specific precautions that must be taken when the product is assembled, installed or maintained	See installation and user instructions

4.2 Fireplace characteristics

Table 1

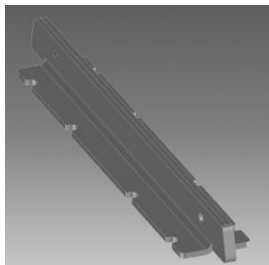
Model	OPTIMUM MF 700-60 WHE 1S	OPTIMUM MF 900-60 WHE 1S	
Fuel	Split stackwood – humidity <15%	Split stackwood – humidity <15%	
Load (input)	11.4	15.6	kW
Nominal heat (output)	9.6	12.9	kW
Efficiency	84.0	82.6	%
Wood charge	1.83	2.6	Kg
Wood consumption rate/hour	2.65	3.6	Kg/u
Max. flue gas temperature with a closed door	199	214	°C
CO at 13% O2	0.06	0.05	%
Dust content at 13% O ₂	20	22	mg/Nm ³
NO _x emissions at 13% O ₂	124	132	mg/Nm ³
Mass flow rate of flue gasses	8	11.2	g/s
OGC	45	56	mgC/m ³
Min. chimney draught	12	12	Pa
*Min. insulation thickness top	5	5	cm
*Min. insulation thickness rear	5	5	cm
*Min. insulation thickness sides	5	5	cm
*Min. insulation thickness front	5	5	cm
*Min. insulation thickness bottom	Only non-flammable material	Only non-flammable material	cm
Distance from insulation to fireplace	1.30	1.30	cm
Chimney connection	Ø180	Ø180	mm
Combustion air connector	1 x Ø150 (min. ±146cm ²)	1 x Ø150 (min. ±146cm ²)	mm
Convection connector inlet	2 x Ø150 (2 x ±180cm ²)	2 x Ø150 (2 x ±180cm ²)	mm
Convection connector outlet	2 x Ø150 (2 x ±180cm ²)	2 x Ø150 (2 x ±180cm ²)	mm
Weight including interior	200	220	kg
Weight accumulation stones	140	190	kg
*Insulation panels: SILCA T300	200°C 0.09	200°C 0.09	W/mK
Thermal Conductivity:	400°C 0.10	400°C 0.10	W/mK
	500°C 0.13	500°C 0.13	W/mK
	800°C 0.19	800°C 0.19	W/mK
	(Values are only valid with minimum 2 convection openings at the top of the appliance)	(Values are only valid with minimum 2 convection openings at the top of the appliance)	

5 Description of fireplace

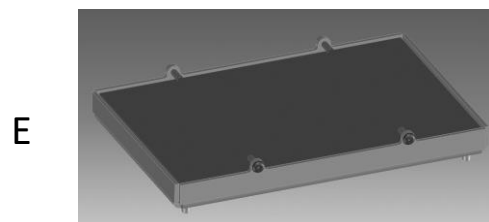
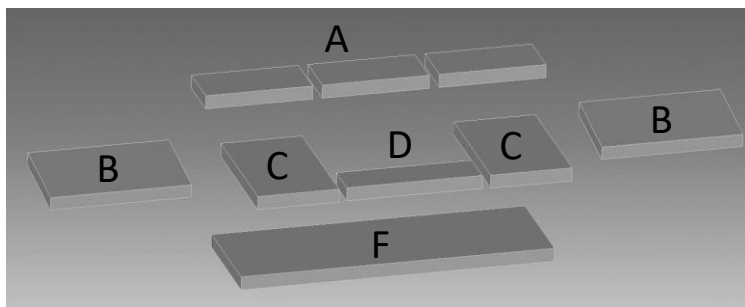


1. Flue gas pipe (Ø180)
2. Combustion air supply (1x)
3. Convection air outlet (2x)
4. Convection air inlet (4x)
5. Air regulator
6. Door tool
7. Connector flange for combustion air
8. Connector flange for convection air
9. Reducer Ø180 to Ø150 (Optional)

	Optimum MF 700-60 WHE 1S (mm)	
A	3x	(197 x 102 x 25)
B	2x	(260 x 165 x 25)
C	2x	(150 x 263 x 25)
D	1x	(250 x 75 x 25)
E	1x	(Katalysator: 240x120x18)
F	1x	(578x210x25)

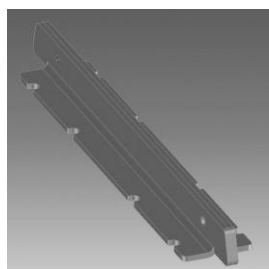


2X

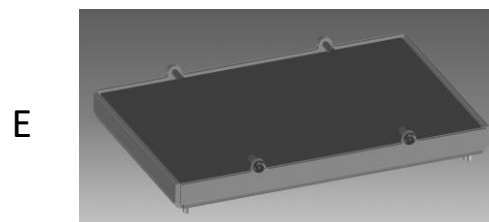
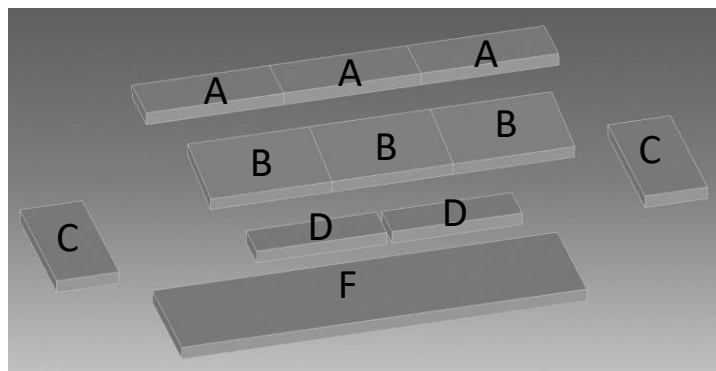


E

	Optimum MF 900-60 WHE 1S (mm)	
A	3x	(264 x 102 x 25)
B	3x	(165 x 233 x 25)
C	2x	(263 x 120 x 25)
D	2x	(250 x 75 x 25)
E	2x	(Katalysator: 240x120x18)
F	1x	(778 x 210 x 25)



3X



E

6 Flue pipe

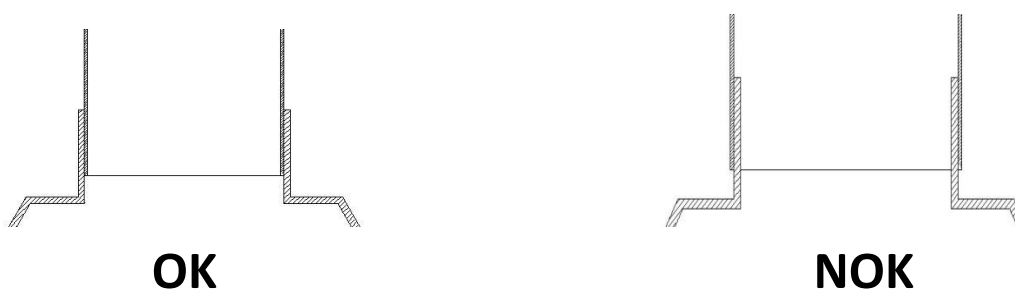
- The flue pipe must be at least 5 metres in height. This height is measured from where it connects to the fireplace. The flue pipe must have a minimum draught of 12 Pascal.
- The channel must be thermally insulated to avoid condensation and to achieve a better draught.
- Changes in direction may be 45° maximum and there may only be two changes in direction.
- The flue pipe must be vertical for at least 1 metre before it changes direction.
- This fireplace must be connected to one individual flue pipe.
- A rain cap must be fitted to prevent moisture from entering the hearth.
- Do not install a flue pipe with a diameter wider than the one provided for the fireplace.
- The outlet and position of the chimney on the roof surface and compared to adjacent buildings can only be installed according to local building standards. Take factors in the surroundings into account (trees, blocks of flats and so on).
- See Table 2 on p.13 for the flue pipe dimensions with closed door operation. If the connection is shortened, 1 metre extra must be calculated for the length of the flue pipe. For each 45° change of direction, 1 vertical metre extra must be calculated.
- Using a flue pipe diameter which is too narrow is at the installer's risk. Also, smoke may blow back into the room when the door is opened.
- If there are several flue pipes or ventilation shafts in the surround space, only one flue pipe may be connected to the fireplace and the remaining channels must be sealed.
- Stainless steel flexible tubes are not recommended.

Tabel 2

OPTIMUM	Ø200	Ø180	Ø150	Outdoor air
MF 700-60 WHE 1S	-	>=5m	>=6m	1x Ø150
MF 900-60 WHE 1S	-	>=5m	>=6m	1x Ø150

The minimum heights indicated are for ideal conditions. A longer length may be required, depending on the conditions. The installer must check this when testing the fireplace.

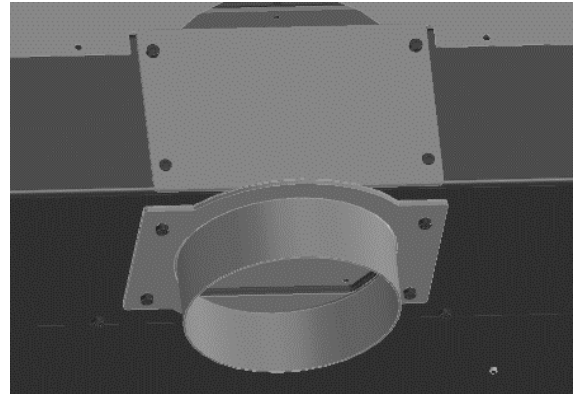
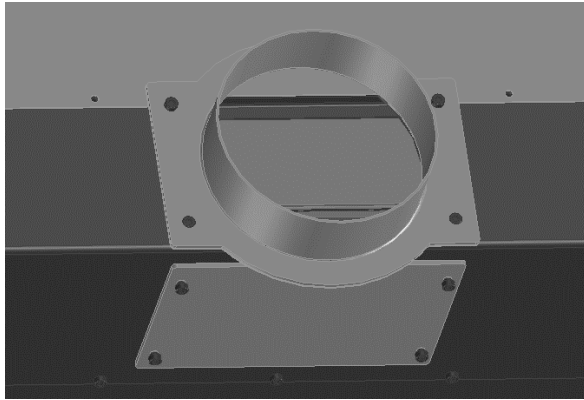
Flue pipe mounting on fireplace



7 Combustion air supply

The combustion process requires air supply. This supply can be achieved as follows.

7.1 Standard connection underneath/rear. Connection diameter 1 x 150 mm.



7.2 Connection requiring air from the room (combustion air from outside)::

When the door is closed, the fireplace is sealed off from the inside area and must therefore be connected to the outdoor air so that the combustion process can take place. This can be done via an outside wall, ventilated cellar or via a ventilation shaft. The direct air supply can be connected to the fireplace via the bottom or the rear of the fireplace.

The connection diameter is 1x Ø150 mm. The net cross-sectional area for the air supply must therefore be at least 180 cm².

This air connection principle ensures that air from the room is not used for combustion. If the connection is made via the bottom of the fireplace, then the rear connection must be sealed. If it is made via the rear, then the bottom connection must be sealed. To this end, 1 cap and 1 connector flange are supplied with the appliance.

7.3 Connection requiring air from the room (combustion air supply from outside):

If the combustion air cannot be connected directly to the fireplace, the installer must ensure that there is an alternative air supply in the room where the fireplace is located. The air supply opening must be at least 180 cm². This air supply should preferably flow into the bottom of the fireplace surround. Make sure that the air supply can be closed off when the fireplace is not in use.

8 Convection air connection

The fireplace can be foreseen without metal convection jacket, with a metal convection jacket or with accumulation stones.

8.1 OPTIMUM without convection jacket

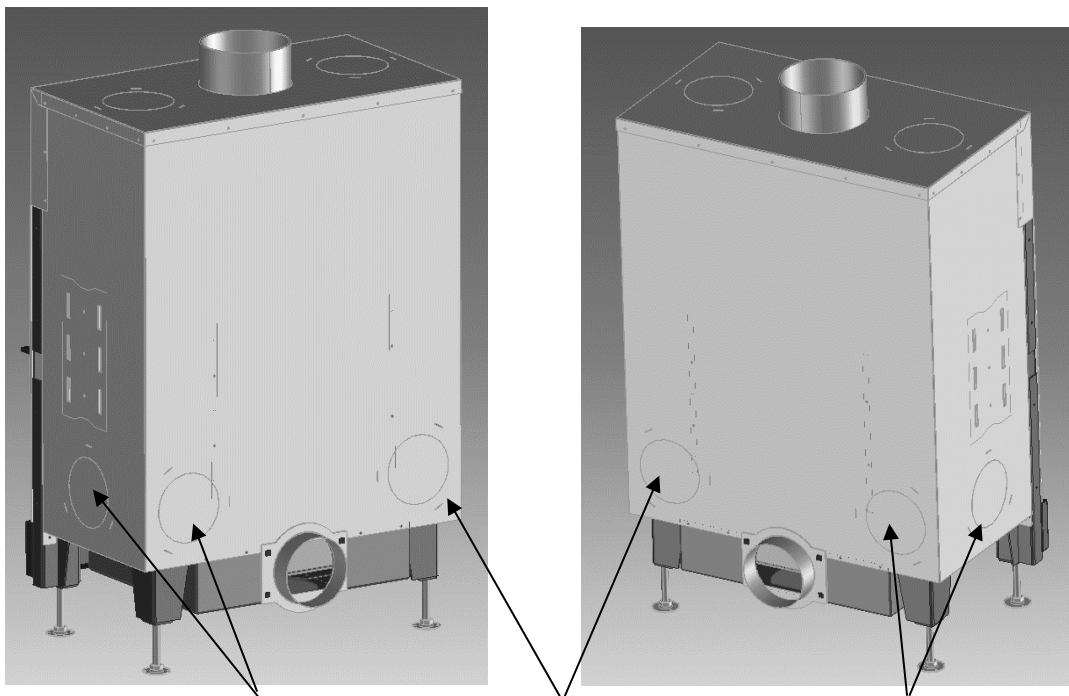
When installing the fireplace, it must be fitted with a convection jacket. If the fireplace is not fitted with a metal convection jacket, it can be built in the same way as below. The convection jacket can then be built via calcium silicate insulation boards.

8.2 OPTIMUM with convection jacket

In this case a metal jacket is mounted around the fireplace chassis. This is the convection mantle. The air in the room passes underneath the convection mantle and returns along the upper surface where it is heated, and then returns into the room.

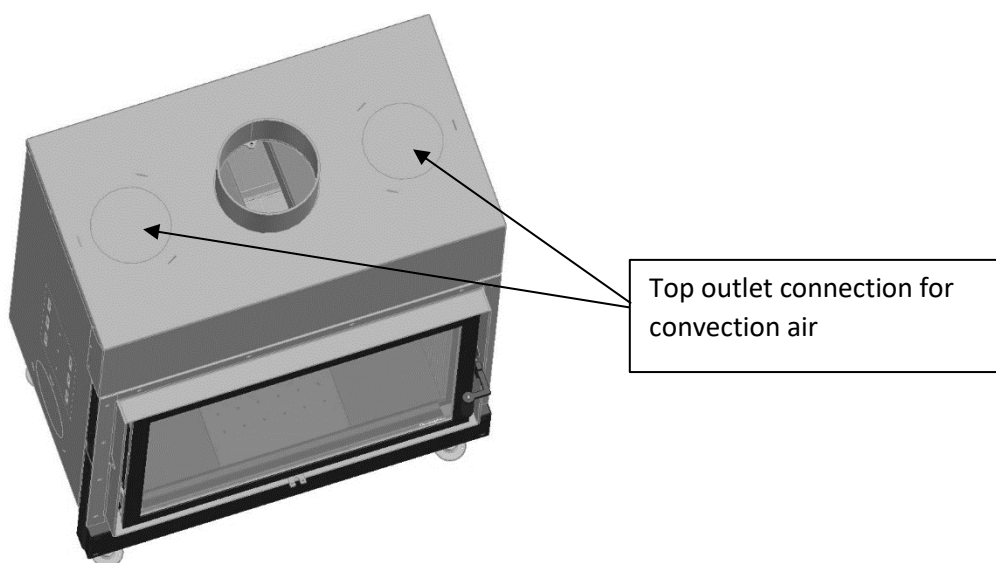
8.2.1 Convection air inlet

There is a 50mm clearance at the bottom of the fireplace through which convection air (room air) can be supplied. If the lower free space is not free, the side/back connection openings of $\varnothing 150\text{mm}$ must be used to connect the room air supply. Make sure this is done symmetrically.



Connection convection air side and back 700-60 (4x) – 900-60 (6x)

8.2.2 Convection air outlet



There are 2 (Optimum MF 700-60 WHE 1S) or 4 (Optimum MF 900-60 WHE 1S) connection on the top of the fireplace for conducting the heated convection air back into the room. At least 2 connections must be used. Always ensure that the same number of outflow openings are connected on either side of the flue pipe. If not, the convection air flow may not be balanced. If the flexible connectors vary too much in length, this may also lead to imbalance in the convection flow.

All openings and grates at the top or bottom of the fireplace surround must be in the same room (have the same air pressure) so that there is a natural flow of air in the room. When assembling the appliance, make sure that the grates and openings are always open.

Passageways for convection air in fireplace surround		
OPTIMUM	Minimum intake of air to convection jacket	Minimum outflow air in fireplace convection jacket
MF 700-60 WHE 1S	350 cm ²	350 cm ²
MF 900-60 WHE 1S	350 cm ²	350 cm ²

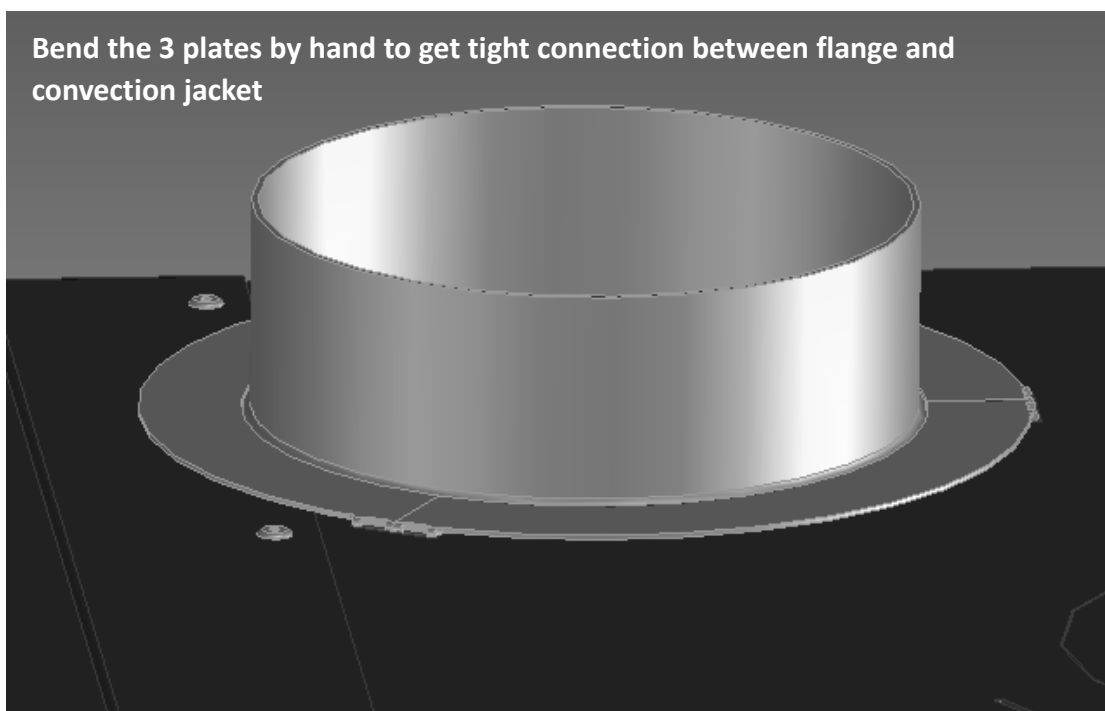
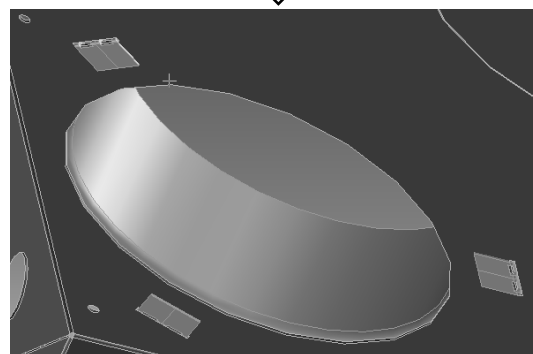
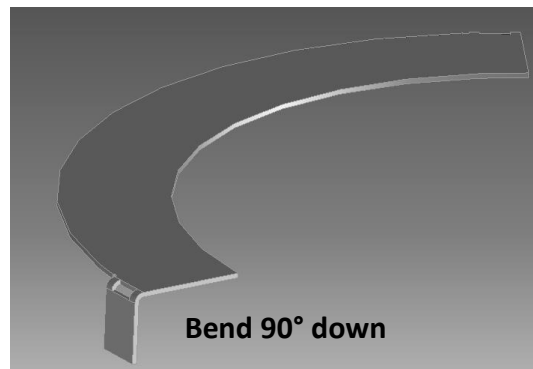
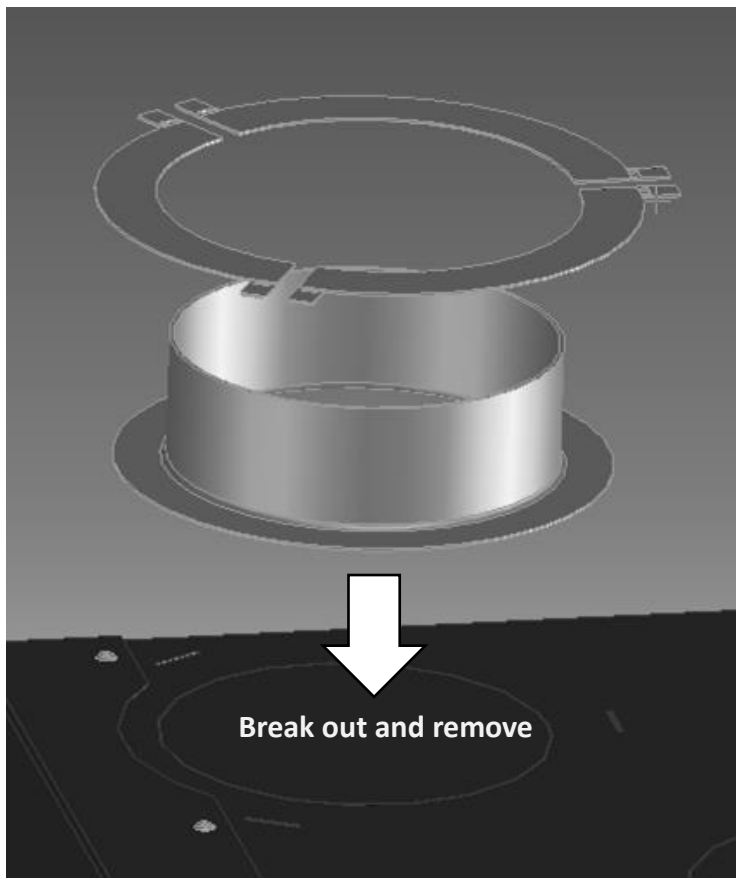
If the requirements for the convection connector/openings are not adhered to, this can lead to overheating and damage to the fireplace. If there is a grate, the net throughput (throughput coefficient) must be taken into account.

Keep a minimum distance of 30 cm between the outflow grates/openings and flammable materials and the ceiling.

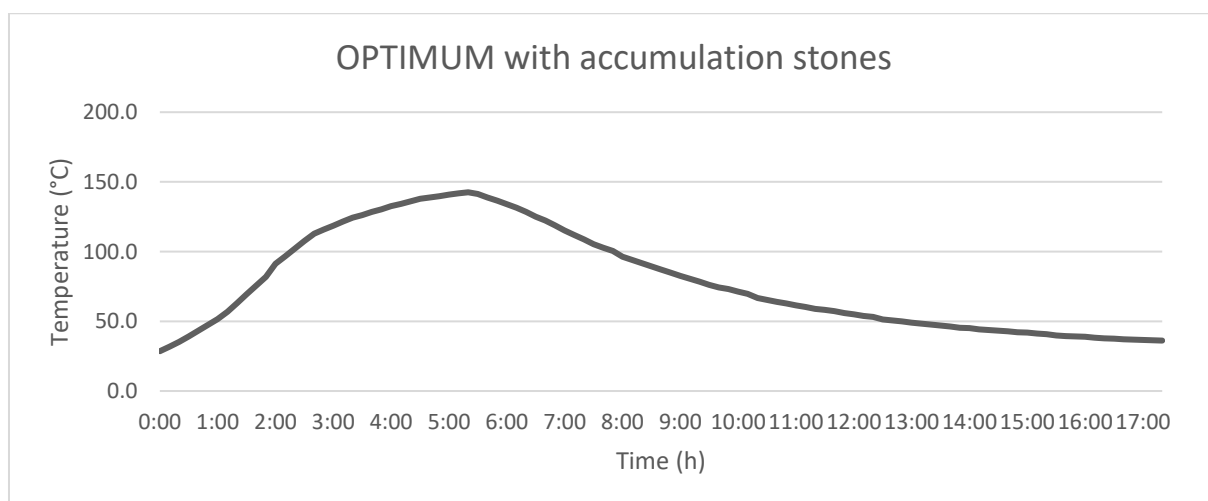
If the dimensions of the air flow openings are too narrow, this can lead to the outflowing convection air temperatures being too high and this may in turn be accompanied by unpleasant odours and discolouration.

8.2.3 Convection air connection

The pre-cut Ø150 mm plates can be removed by tapping them. The connector flanges can then be mounted on the convection jacket using the circular mounting plates.



8.3 OPTIMUM with accumulation stones



Weight	OPTIMUM MF 700-60 WHE 1S	OPTIMUM MF 900-60 WHE 1S
Accumulation stones	140 kg	190 kg

Optionally, the fireplace can be fitted with Metalfire+ accumulation stones. These accumulation stones are soapstone. A soapstone accumulates the heat of the fireplace and spreads the heat release through natural convection over a longer period. After the fireplace is extinguished, the stones can continue to release the stored heat for up to more than 8 hours via the convection openings at the top of the casing. The length of time the accumulation stones give heat depends on how long and how hot the fireplace has been burning. The fireplace with accumulation stones is

installed without a convection jacket. However, convection openings are provided at the bottom and top of the casing for convection air supply and extraction, so that the bricks can release the accumulated heat to the room via the convection openings at the top.

Passageways for convection air in fireplace surround		
OPTIMUM	Minimum intake of air to convection jacket	Minimum outflow air in fireplace convection jacket
MF 700-60 WHE 1S	350 cm ²	350 cm ²
MF 900-60 WHE 1S	350 cm ²	350 cm ²

By absorbing and storing the excess heat generated during a fire, it gradually releases it into the room, ensuring a more even and consistent temperature for an extended time. This means less reliance on other heating sources. The use of accumulation stone can lead to cost savings on your heating bills. With the heat stored in the accumulation stones, you can enjoy warmth long after the fire has burned out. With stored heat, less wood is needed.

9 Fireplace surround and connections

The fireplace surround and finish must be made from incombustible and heat-resistant material. Brickwork and plastering must not be in direct contact with the fireplace or the optional mantelpiece; there must always be a gap of at least 3 mm between them. This is to allow for the fireplace to expand without damaging it.

Make sure that flammable materials (wooden mantels, curtains, flammable liquids, furniture and so on) are always separated from the fireplace by at least 80 cm both above and around it.

Ensure that the inside of the surround is completely dust free before closing the surrounds. This will prevent dust particles from entering the convection air.

The surface should be strong enough to bear the weight of the fireplace. If the existing construction is not sufficient for bearing the weight, appropriate measures must be taken in order to distribute the weight of the fireplace (see Table 1 on p.10 for the weight of the fireplace).

Ensure the necessary insulation of the required thickness is placed between the fireplace and flammable materials (see Table 1 on p.10).

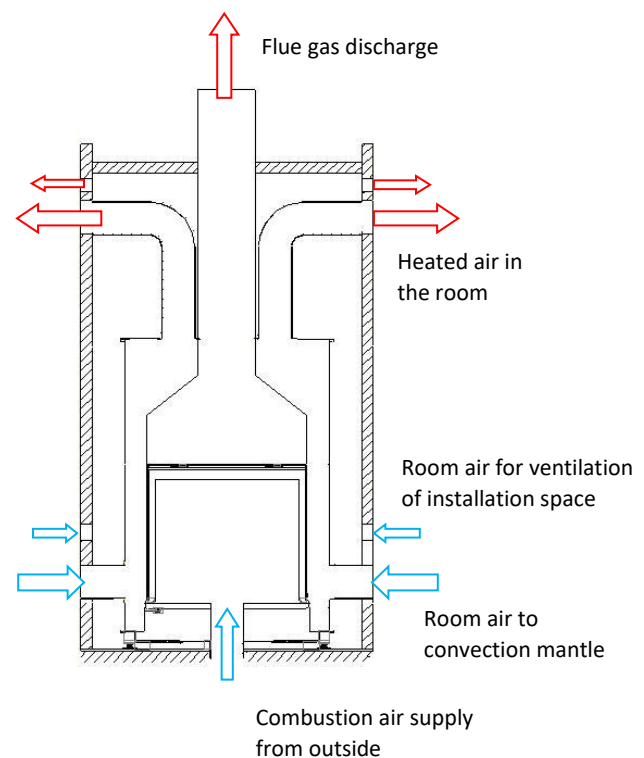
9.1 Installation examples

Combustion air supply from outside the room

The combustion air that comes from outside is connected directly to the fireplace.

The air supply from the room to the convection mantle is connected underneath via flexible connectors. The heated convection air in the room returns to the room via the flexible connectors which are connected at the top. The combustion air supply is completely separated from the convection air.

The supply of room air also takes care of the ventilation of the installation space. This is the preferred configuration.

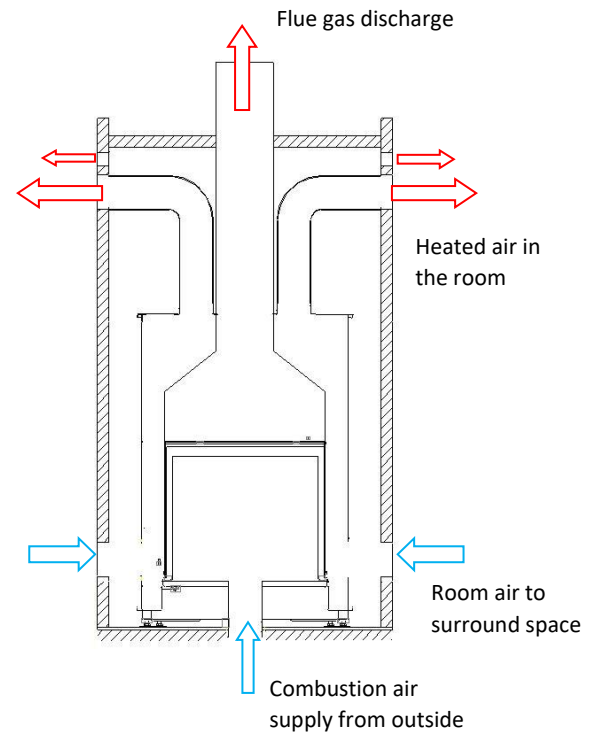


Combustion air supply from outside the room

The combustion air that comes from outside is connected directly to the fireplace.

The air supply from the room enters the fireplace from underneath the surround. The $\varnothing 360$ mm connection openings at the bottom of the sides/rear wall must be opened so that the air in the room can flow into the convection mantle. No flexible connectors are connected at the bottom.

The heated convection air in the room returns to the room via the flexible connectors which are connected at the top. The combustion air supply is completely separated from the convection air.



Combustion air supply from inside the room

Combustion air taken from the room is best compensated by an air inlet in the vicinity of the fireplace. This inlet should be at least 360 cm^2 . The throughput coefficient must be taken into account if a grate is used.

E.g. If the coeff. is 0.6, then the grate should be at least 600 cm^2 .

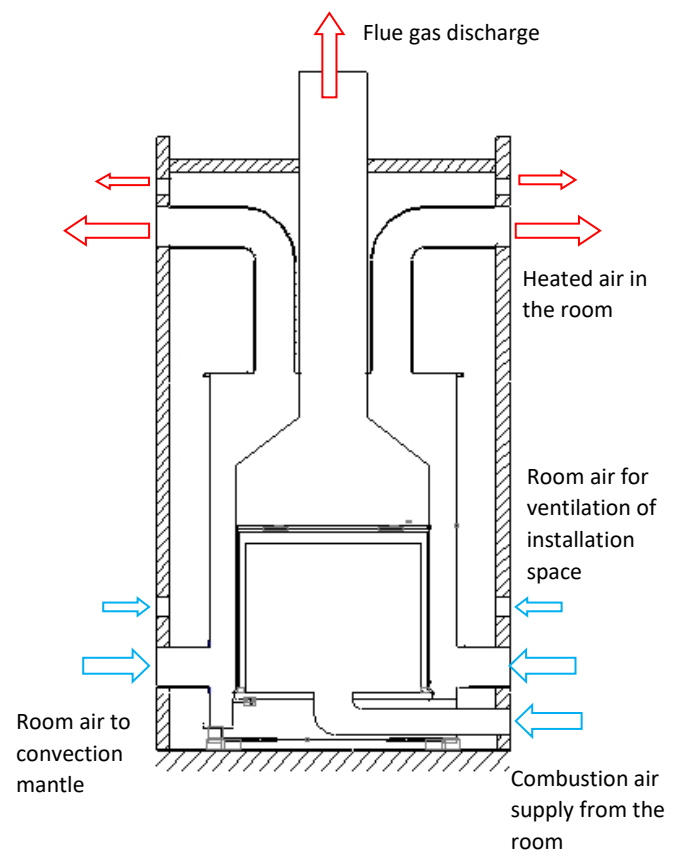
Connecting the combustion air to the fireplace can be effected using two $\varnothing 150$ mm flexible connectors.

If the air supply cannot be taken from close to fireplace, the air supply must be drawn via ventilation grates installed elsewhere (e.g. through an upper window or the wall facade).

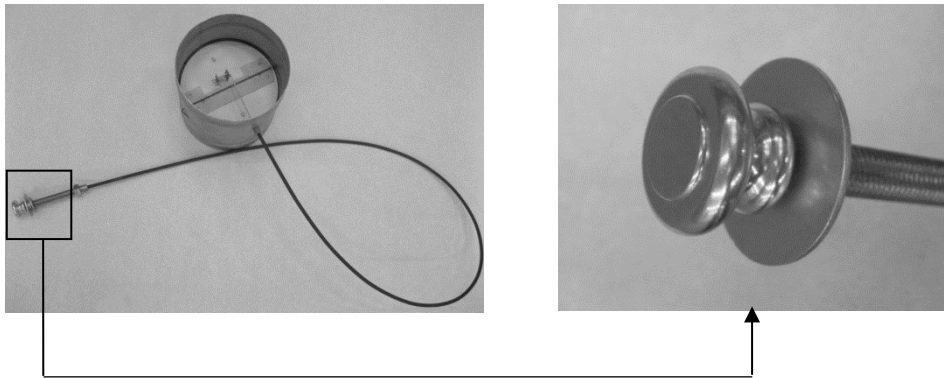
Ensure that a closable air vent is used, so that cold air does not flow into the room when the fireplace is not in use.

The air supply from the room to the convection mantle is connected underneath via flexible connectors. The heated convection air in the room returns to the room via the flexible connectors which are connected at the top.

The supply of room air also takes care of the ventilation of the installation space.



Closable air supply vents with cable controls can be purchased from Metalfire.

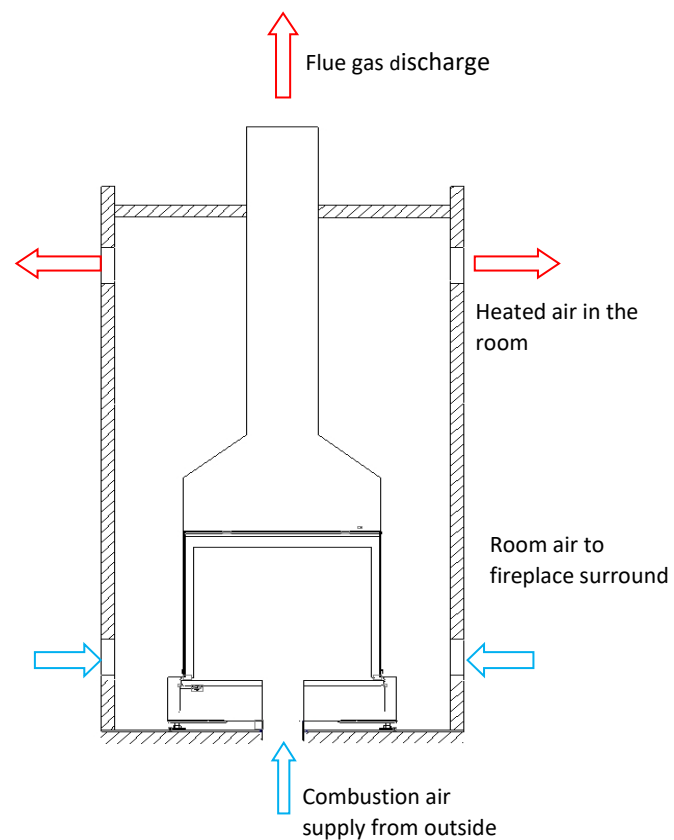


Appliance without convection mantle

The combustion air supply must be installed as depicted in the sketches shown previously.

The air supply from the room enters the fireplace via opening(s) at the bottom of the surround.

The heated air in the room flows through the opening(s) at the top of the surround back into the room. The air supply opening at the bottom and top must both be at least 700 cm^2 . If there is a grate, the net throughput (throughput coefficient) must be taken into account. The openings at the top must be 30 cm lower than the ceiling.

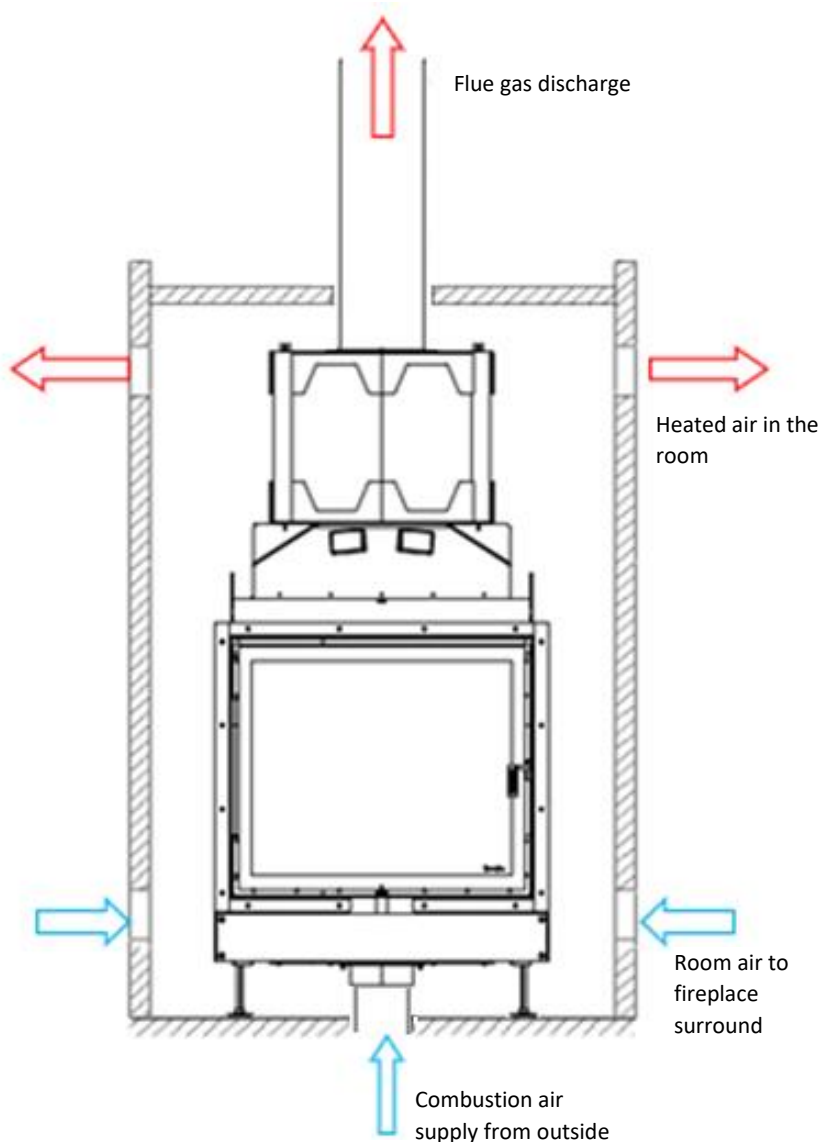


Appliance with accumulation stones

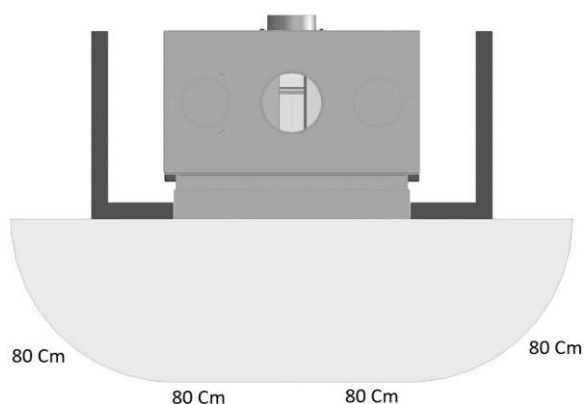
The combustion air supply must be installed as depicted in the sketches shown previously.

The air supply from the room enters the fireplace via opening(s) at the bottom of the surround.

The heated air in the room flows through the opening(s) at the top of the surround back into the room. The air supply opening at the bottom and top must both be at least 700 cm². If there is a grate, the net throughput (throughput coefficient) must be taken into account. The openings at the top must be 30 cm lower than the ceiling.



Safety zone from flammable materials



The heat radiation through the fireplace window can be considerable. Therefore, a distance of at least 80 cm must be kept from flammable material.

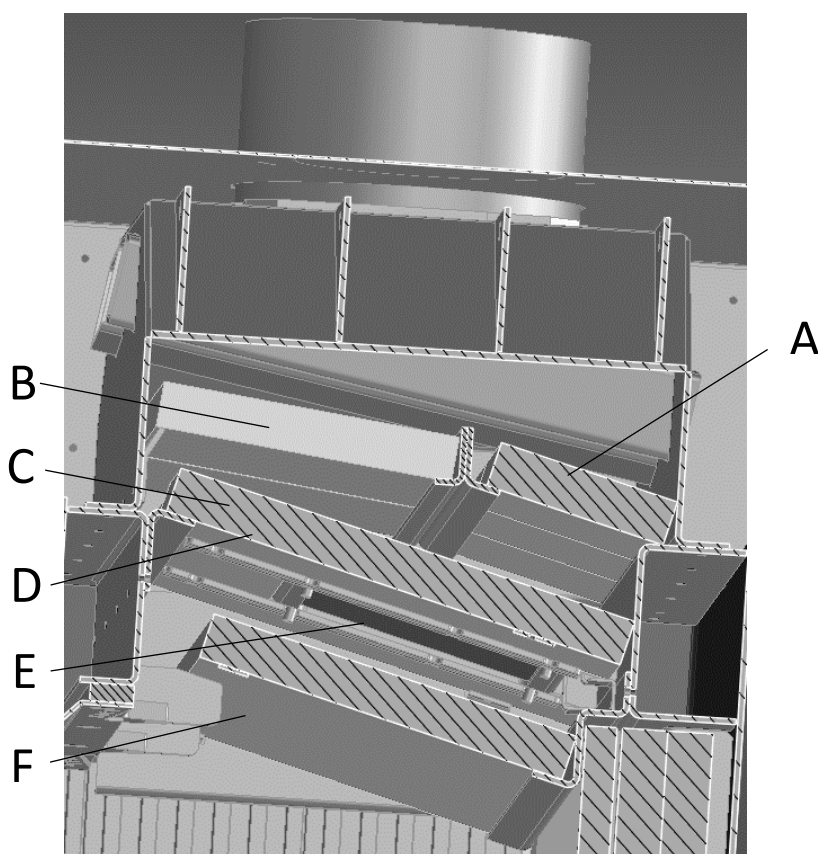
10 Smoke deflection plates

When the door is closed, the smoke deflection plates keep the heat in the combustion chamber. This ensures optimum combustion and efficiency.

When opening the door, e.g. to refill wood, the door should be opened carefully to avoid smoke backflow into the chamber. The door should only be opened to refill when the previous load of wood has completely burned out and there are no more flames in the fireplace.

Depending on the construction of the flue, in some cases less draught may be present in the chimney. As a result, there may still be smoke return to the room when the door is open. To avoid smoke backflow in case of reduced draft in the chimney, the configuration of the smoke deflection plates can be adjusted. The possible configurations for the smoke deflection plates are described in section 10.2.

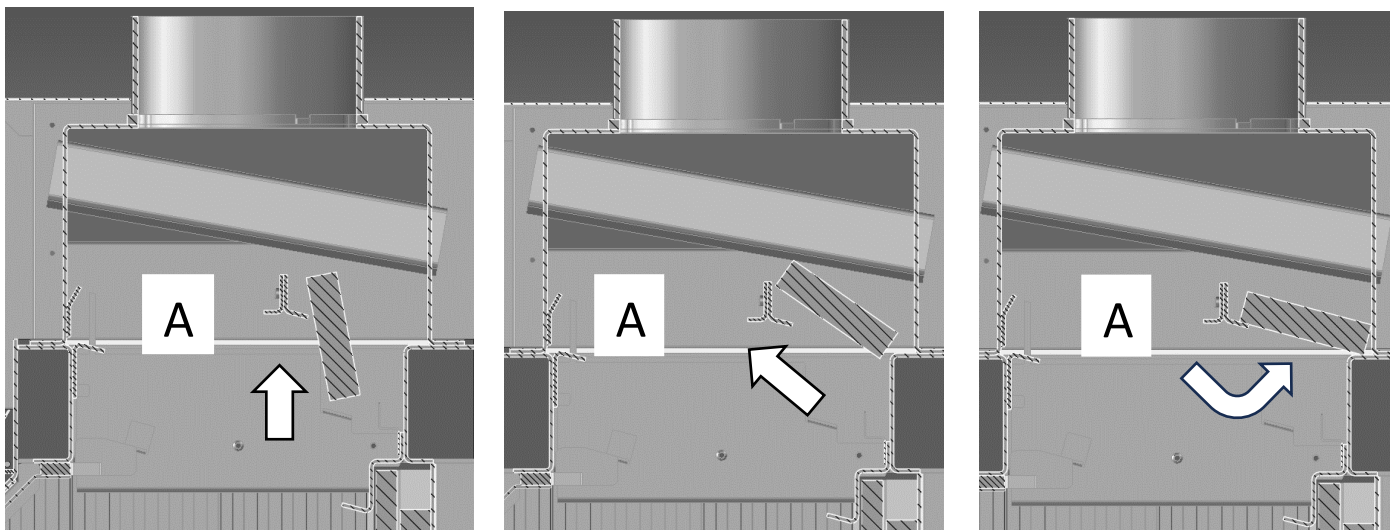
To make cleaning the chimney easier, the smoke deflection plates can be removed from the fireplace.



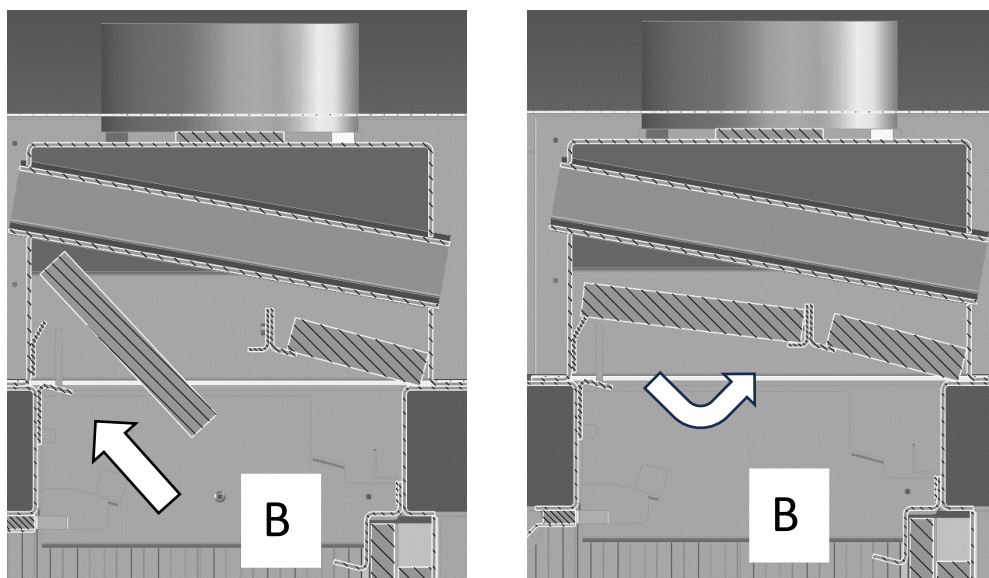
	Optimum MF 700-60 WHE 1S (mm)		Optimum MF 900-60 WHE 1S (mm)	
A	3x	197 x 102 x 25	3x	264 x 102 x 25
B	2x	260 x 165 x 25	3x	165 x 233 x 25
C	2x	150 x 263 x 25	2x	263 x 120 x 25
D	1x	250 x 75 x 25	2x	250 x 75 x 25
E	1x	Catalyst: 240x120x18	2x	Catalyst: 240x120x18
F	1x	578x210x25	1x	778 x 210 x 25

10.1 Placing and removing the smoke deflection plates

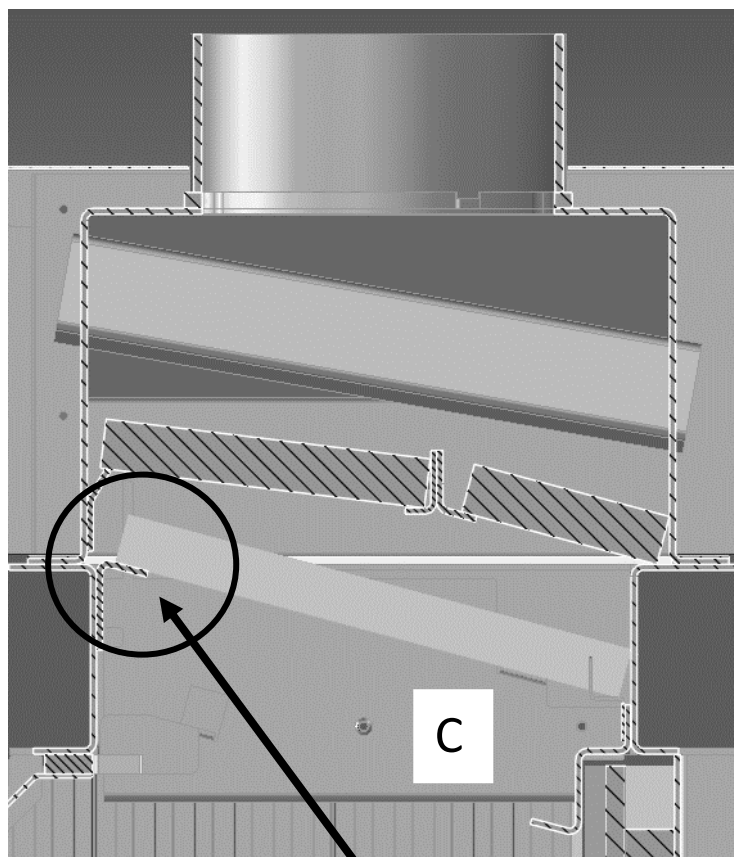
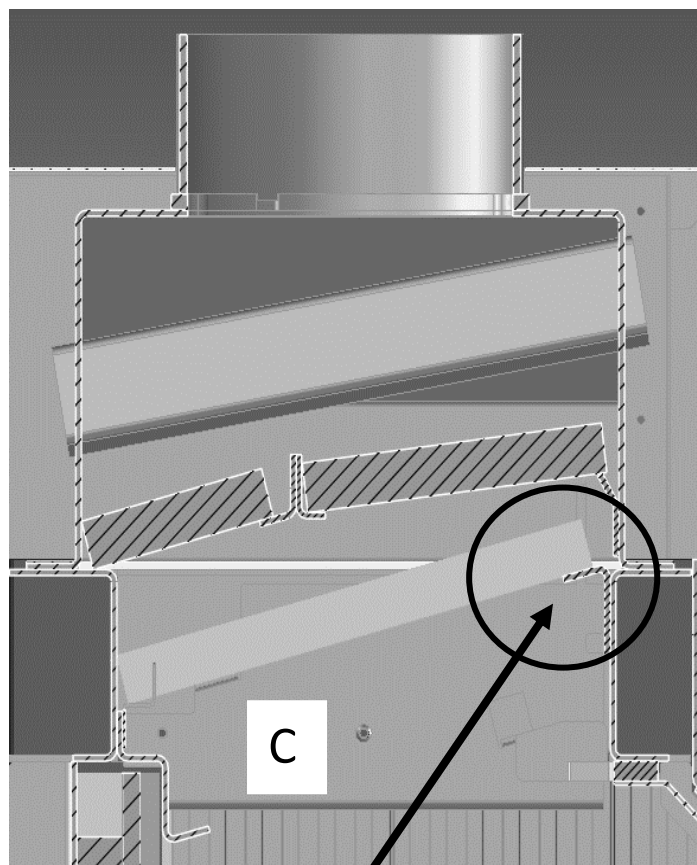
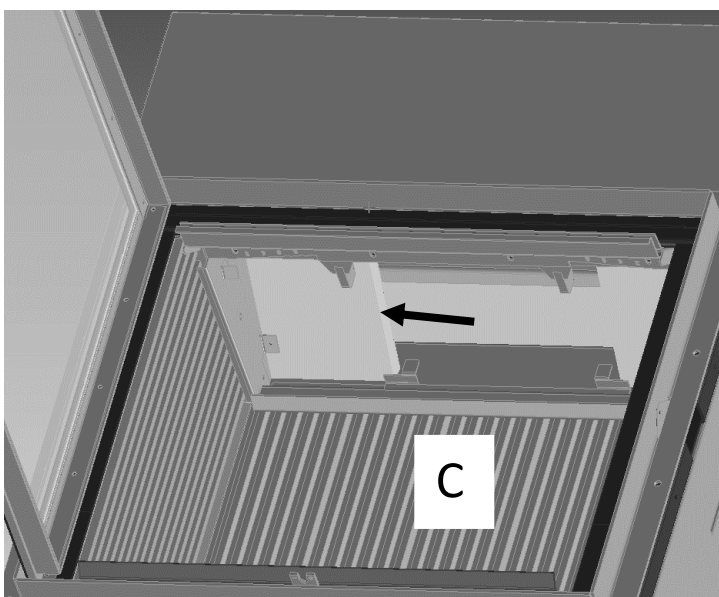
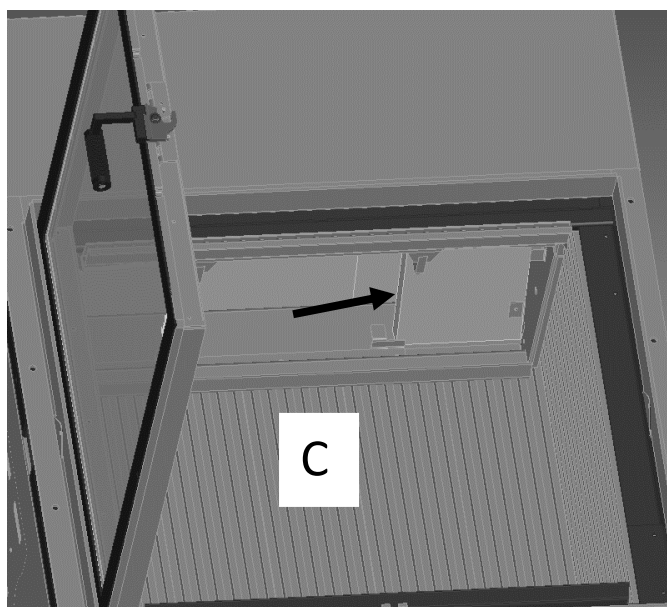
Step 1: Place smoke deflection plate A on top



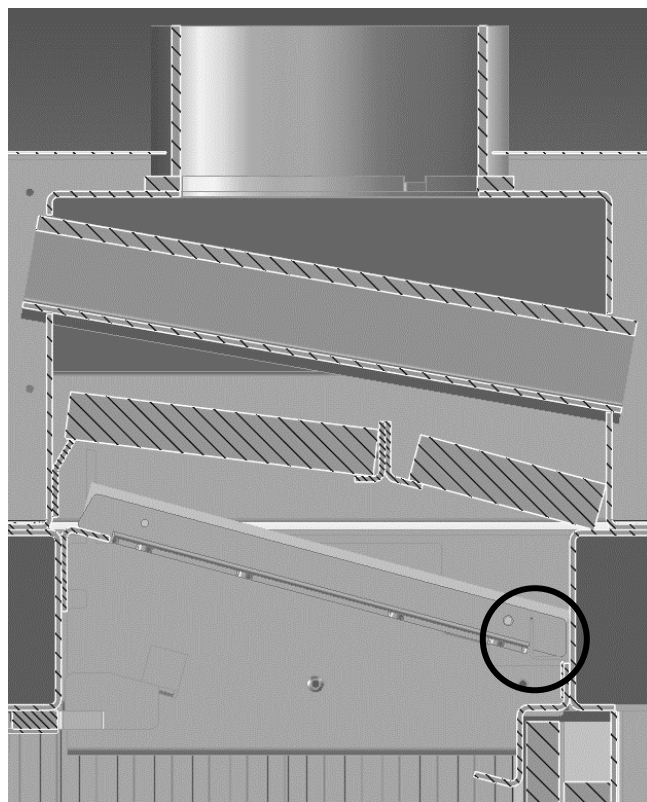
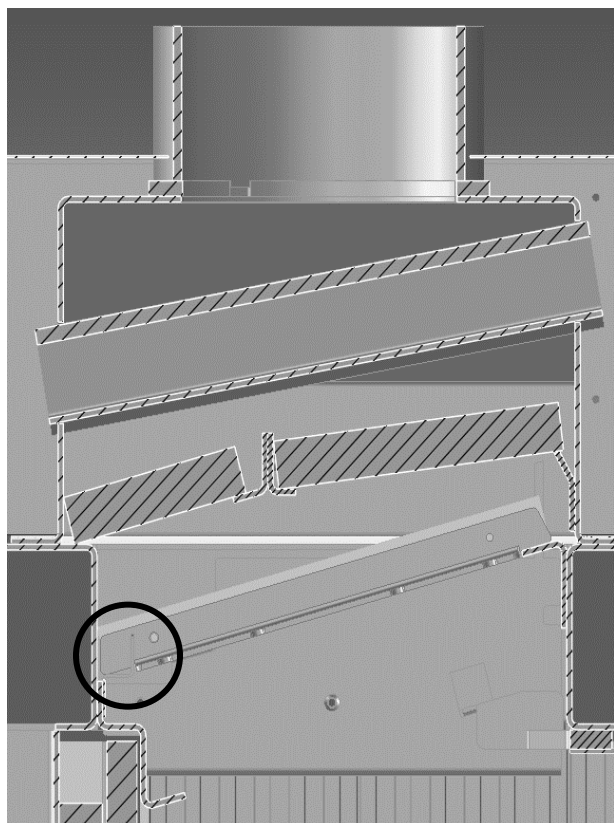
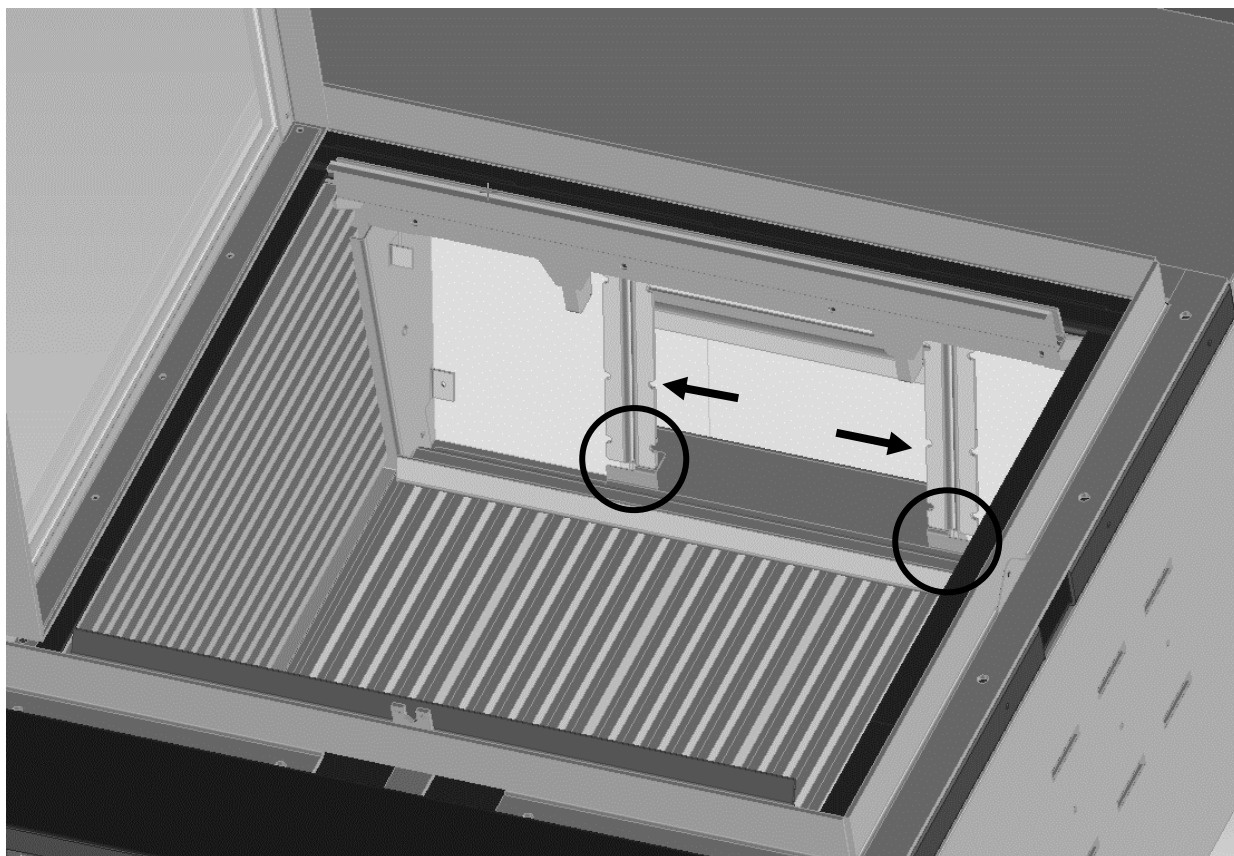
Step 2: Place smoke deflection plate B on top



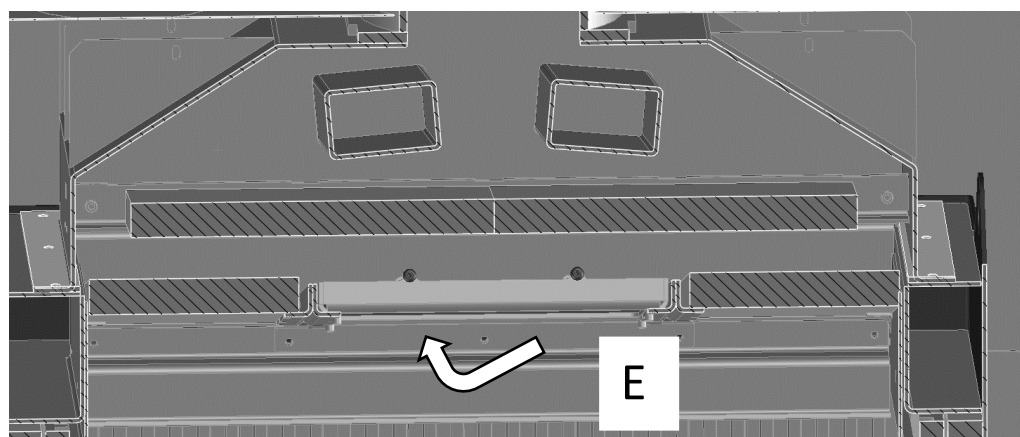
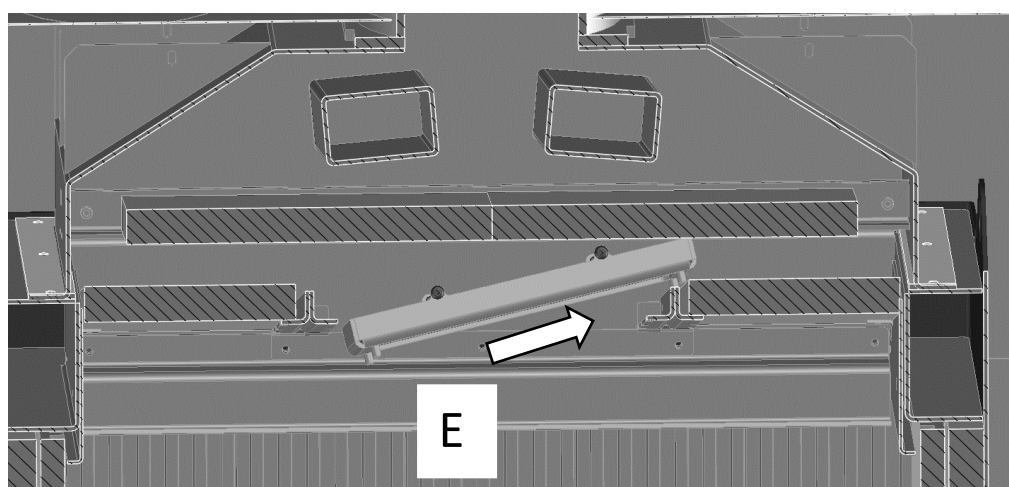
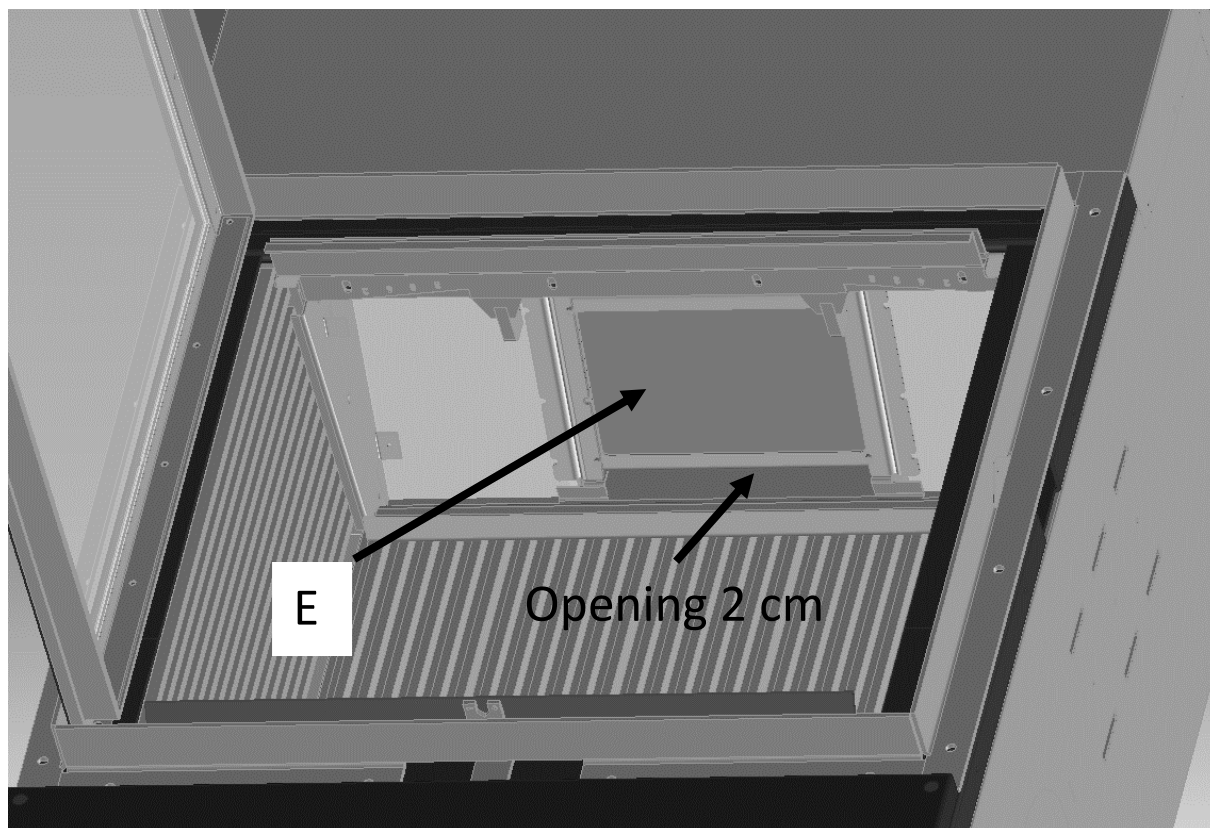
Step 3: Place smoke deflection plate C, on left and right into the fireplace



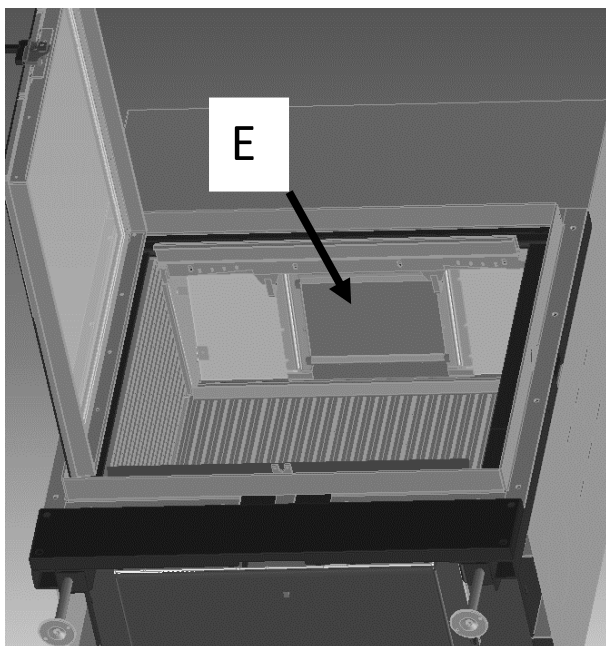
Step 4: place the metal supports for the catalysts



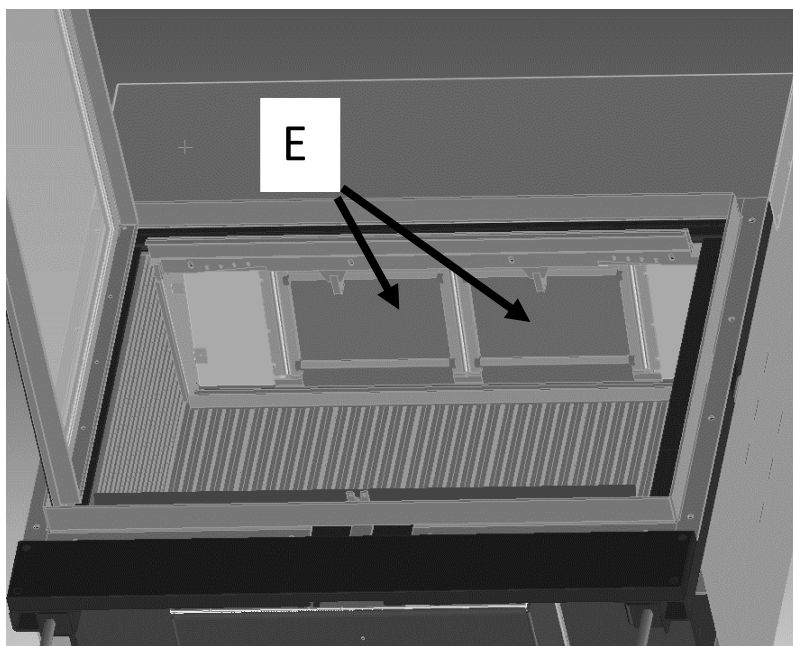
Step 5: Place the catalysts



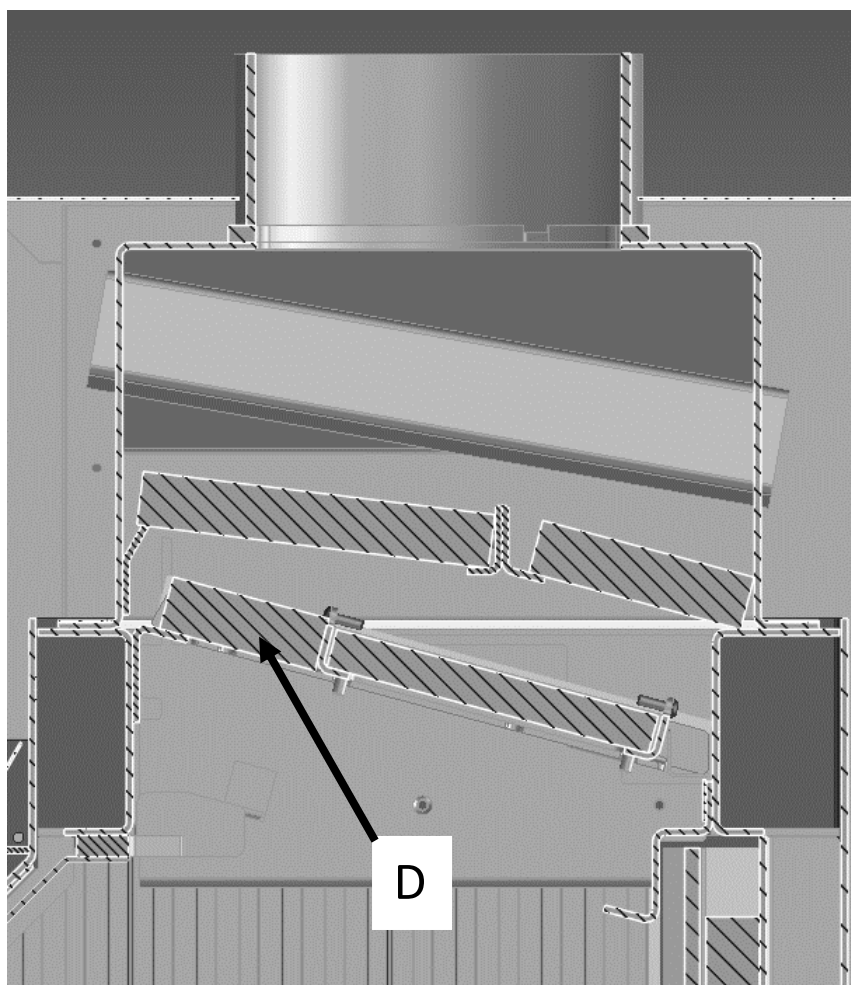
Optimum MF 700-60 WHE 1S: 1 x catalyst

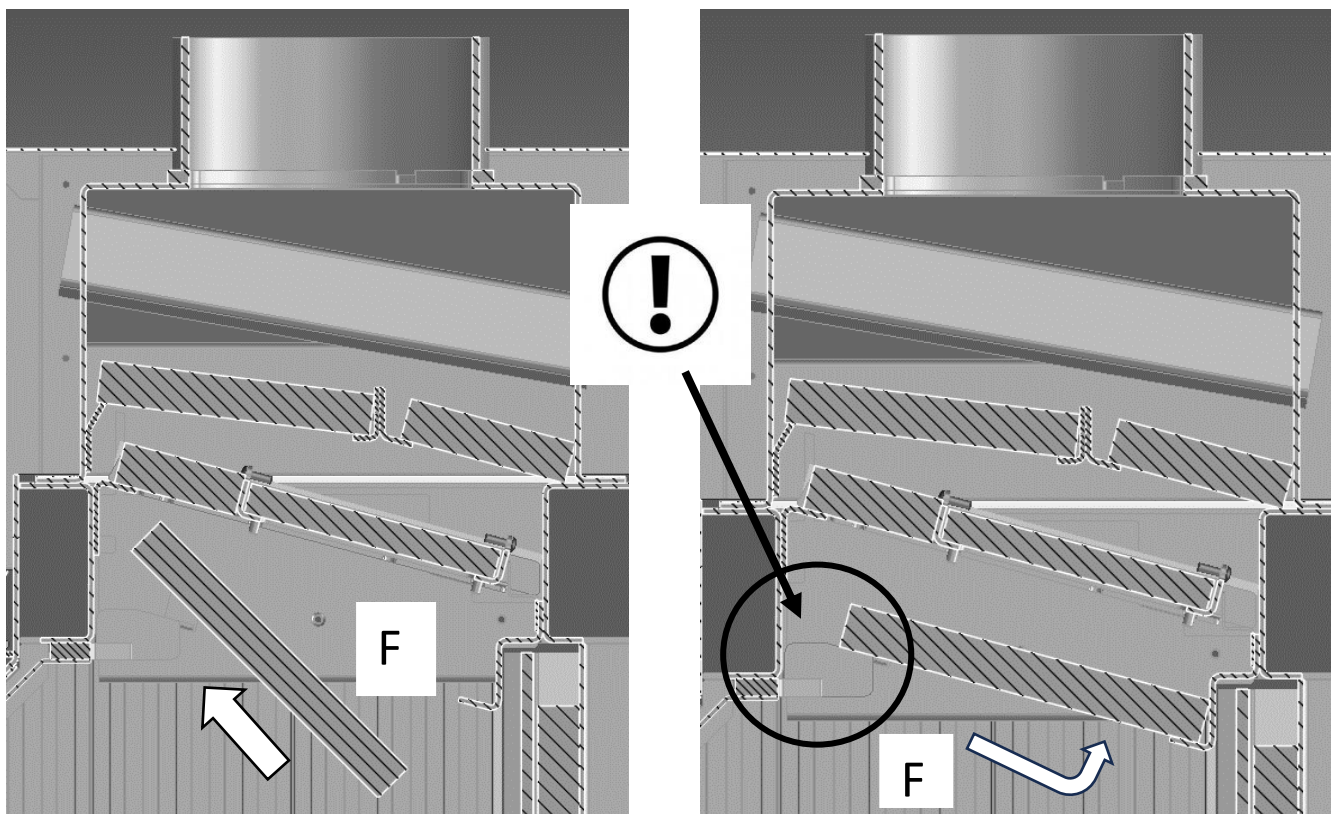


Optimum MF 900-60 WHE 1S: 2 x catalyst



Step 6: place the small smoke deflection plate(s) D



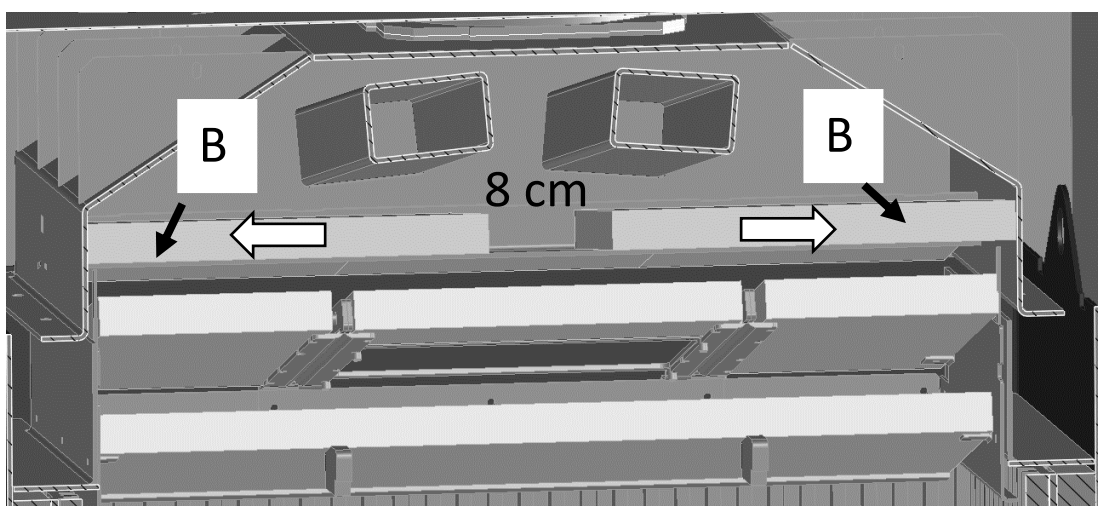


10.2 Smoke deflection plate configurations depending on the flue draft

Depending on the construction of the flue, there may be less draft in the chimney in some cases. As a result, the combustion air supply in the appliance may not be optimal or there may be smoke reflux into the room when the door is open. To avoid smoke reflux when there is reduced draft in the chimney, the configuration of the smoke deflection plates can be adjusted.

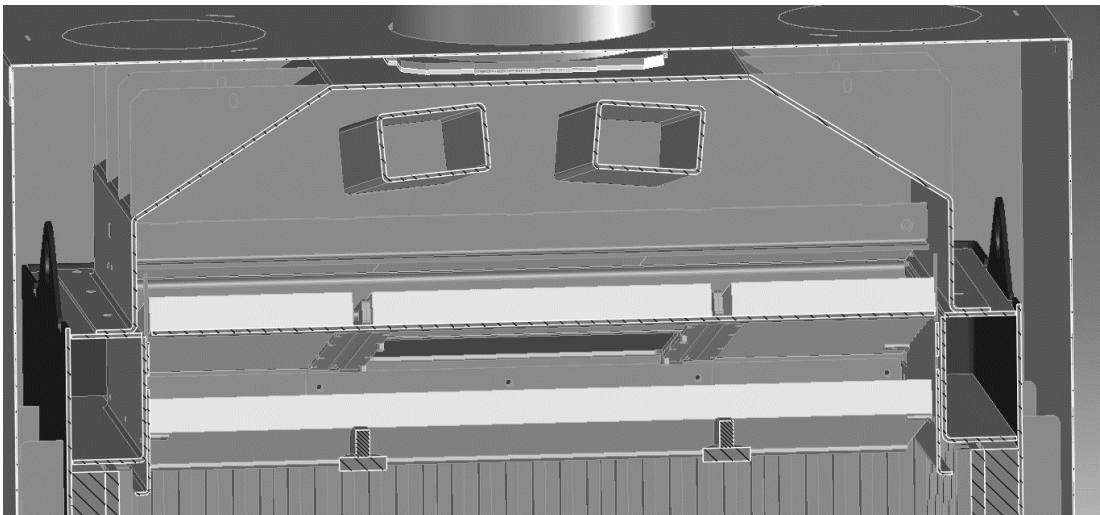
10.2.1 OPTIMUM MF 700-60 WHE 1S – Alternative configurations

- **Alternative configuration 1:**



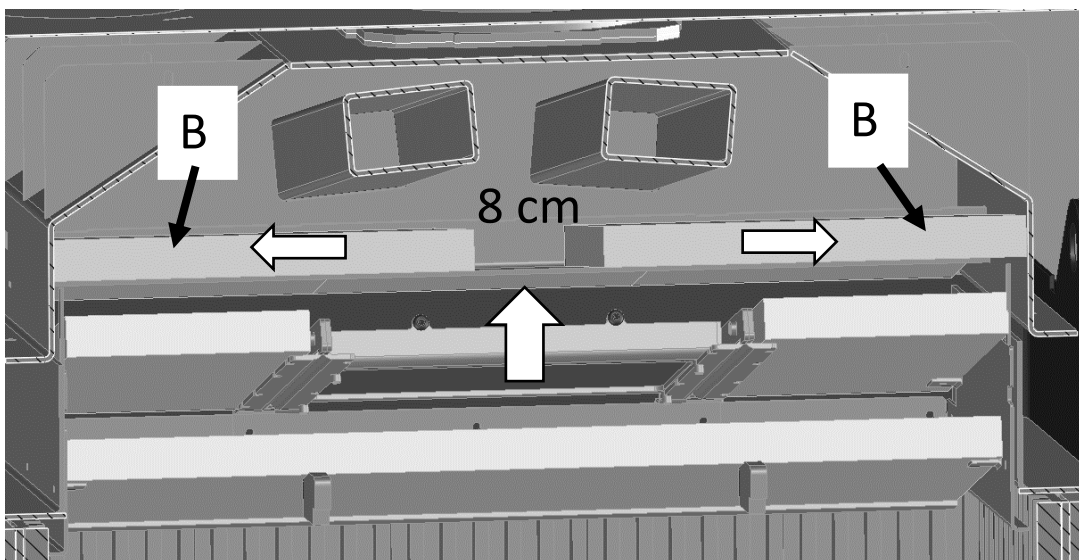
Move the 2 top plates B to the outside. An 8cm gap is created in the middle between the plates.

- **Alternative configuration 2:**



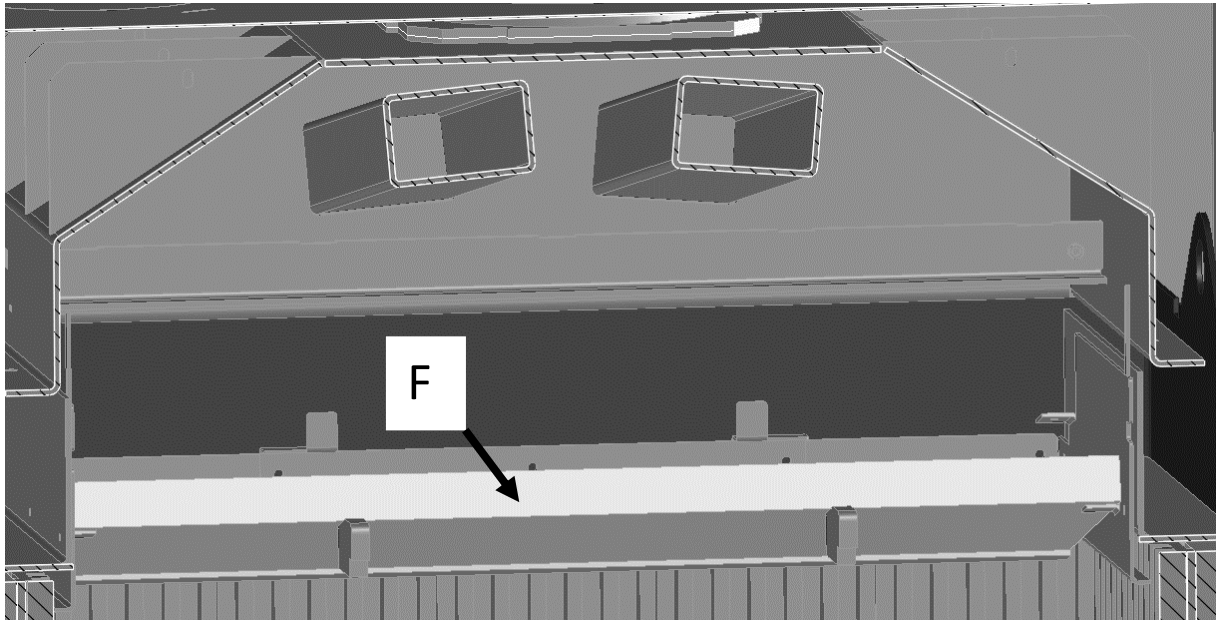
Remove the 2 top plates B

- **Alternative configuration 3:**



Move the 2 top plates B to the outside. An 8cm gap is created in the middle between the plates. Remove plate D

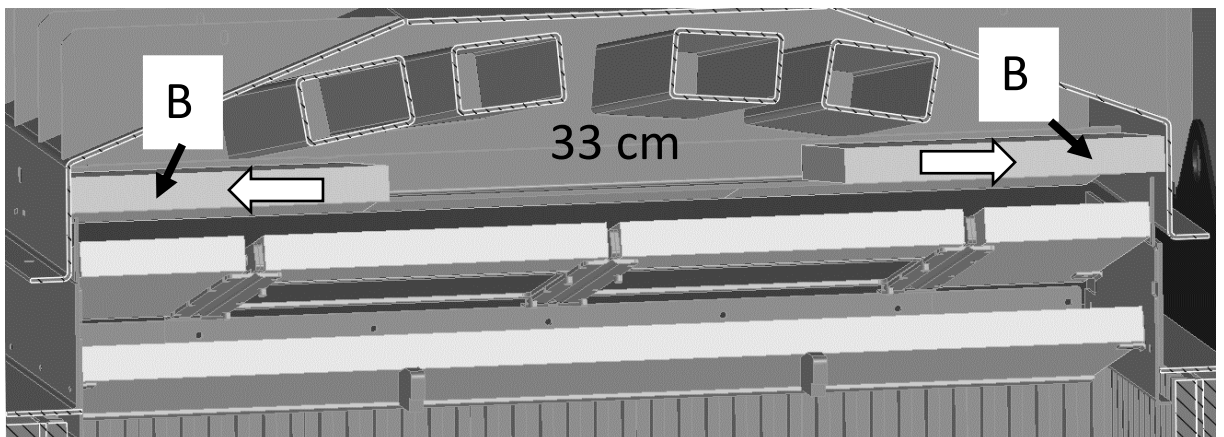
- **Alternative configuration 4:**



Remove all smoke deflection plates and the catalyst, leaving only smoke deflection plate F in the fireplace.

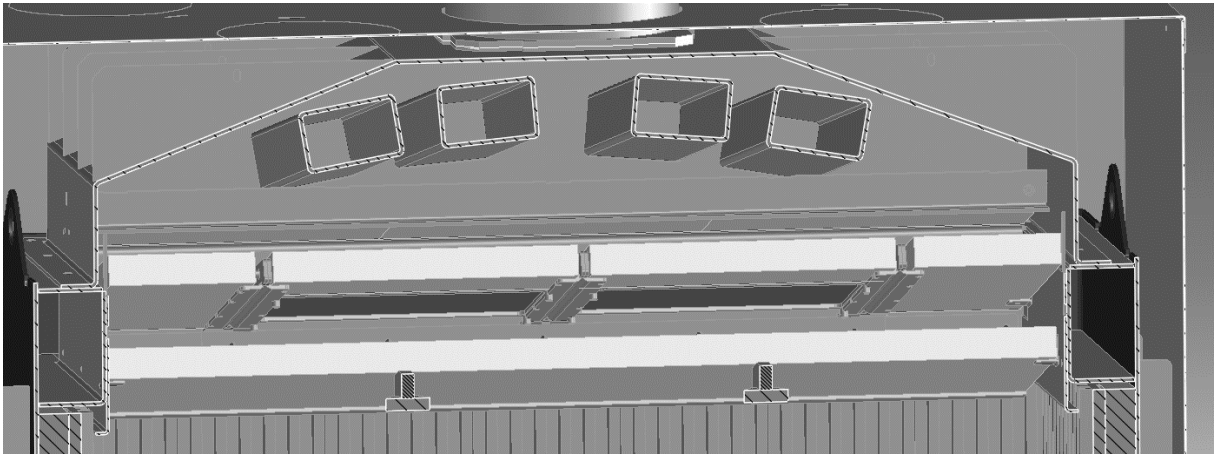
10.2.2 OPTIMUM MF 900-60 WHE 1S – Alternative configurations

- **Alternative configuration 1**



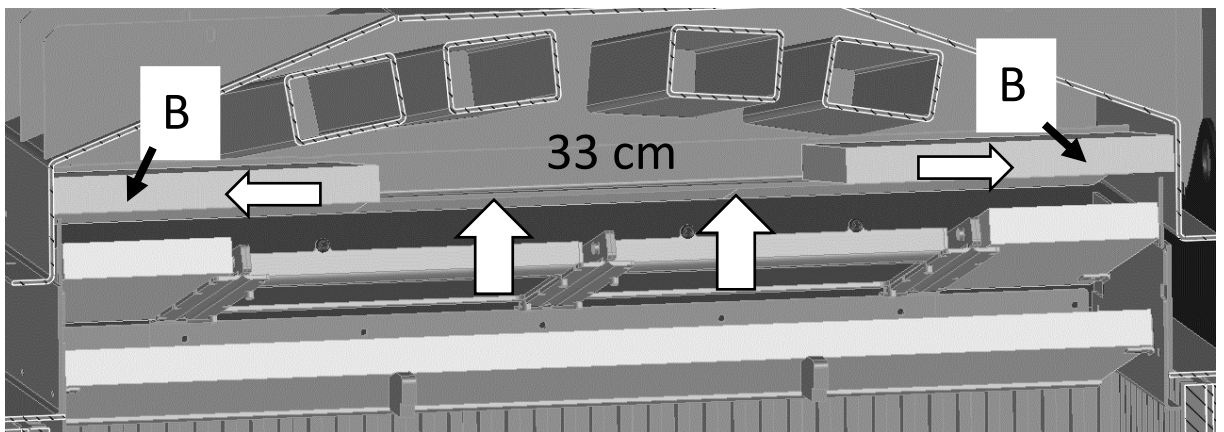
Remove 1 of the 3 top deflection plates B and move the 2 others to the outside. Now there will be a gap of 33cm between the plates.

- **Alternative configuration 2**



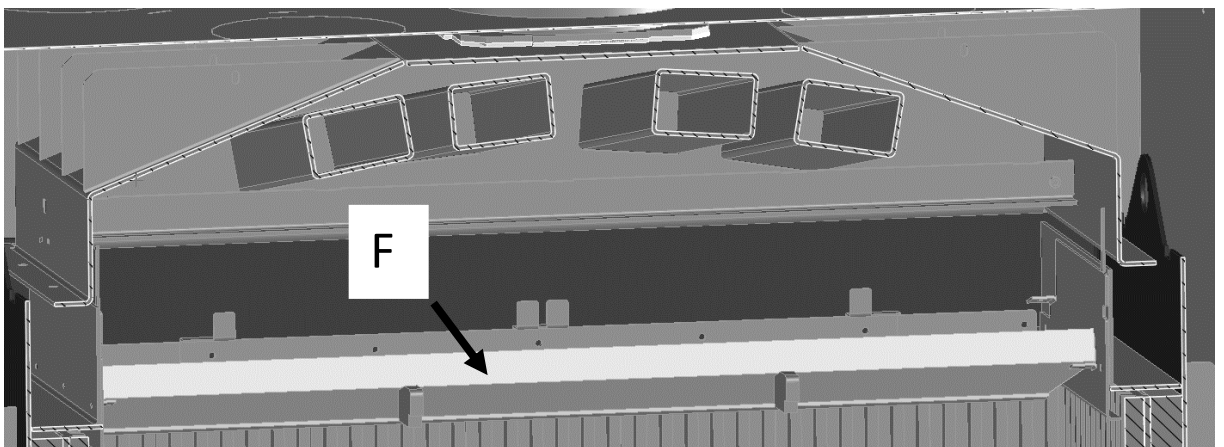
Remove the 3 top deflection plates B

- **Alternative configuration 3**



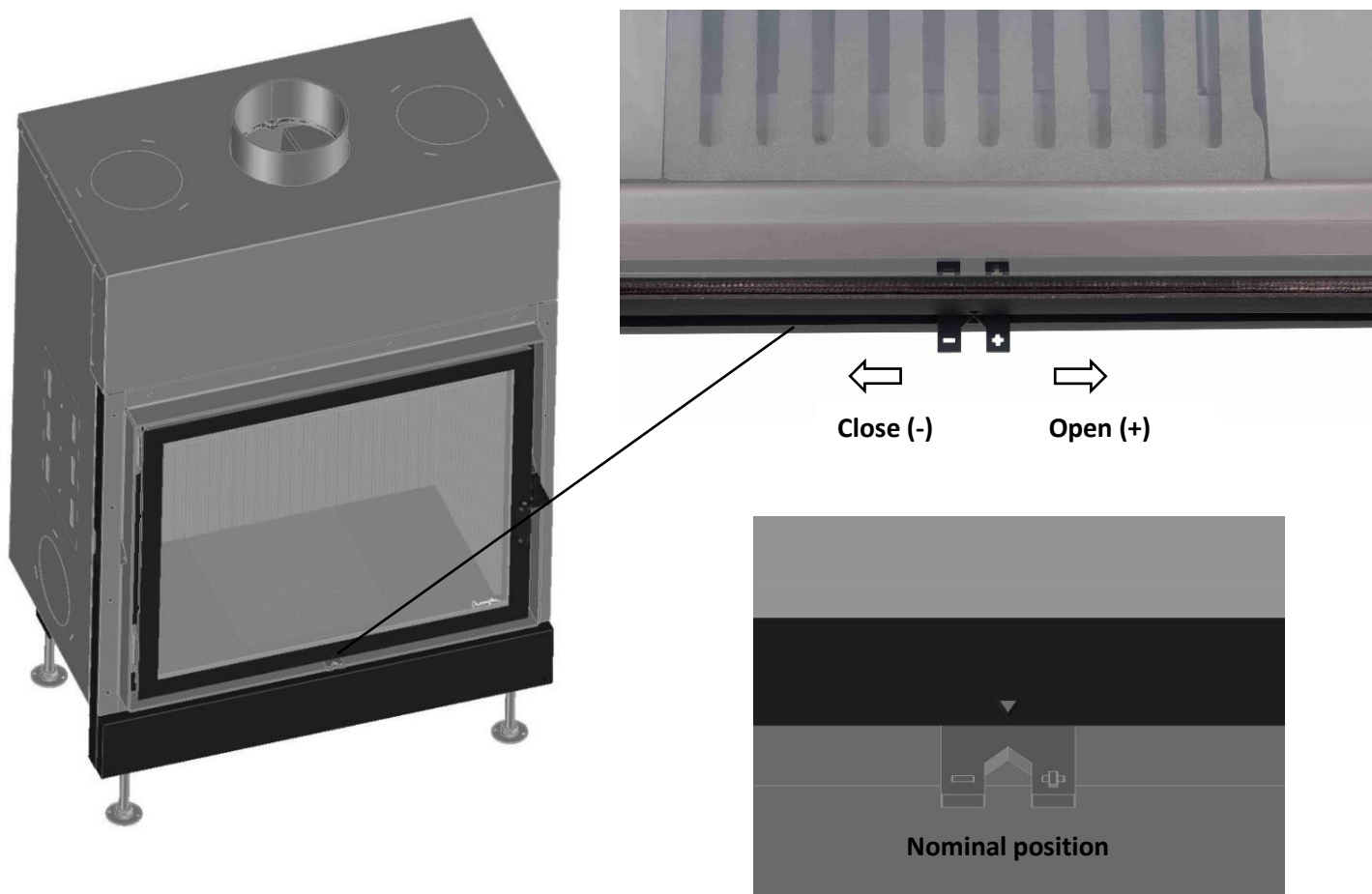
Remove 1 of the 3 top deflection plates B and move the 2 others to the outside. Now there will be a gap of 33cm between the plates. Remove the 2 deflection plates D

- **Alternative configuration 4**



Remove all smoke deflection plates and the catalyst, leaving only smoke deflection plate F in the fireplace.

11 Regulating the combustion air supply



The combustion air supply can be adjusted using the supplied handle. Maximum air supply for combustion is achieved when the slidable handle is moved completely to the right.

It is best to slide the lever completely to the right when lighting the fire. Once the kindling wood is nicely ignited after 10 to 15 minutes, the air regulator can be put back in the middle position.

If the handle is in the **middle position** (as shown in the figure), the fireplace burns at **nominal heat output**. In this position, the combustion and efficiency are best when the chimney is drawing at 12 Pascal.

Moving the handle further to the left reduces the air supply and this decreases the output of the fireplace. When you slide the handle further to the left from the middle position, this reduces the air supply in the fireplace. Once the air supply is in the fully left position, the fire in the fireplace will be extinguished.



ADJUSTING THE FIREPLACE IN THIS WAY ONLY INFLUENCES THE COMBUSTION PROCESS WHEN THE FIREPLACE IS ON WITH THE DOOR CLOSED

12 Basic test for the fireplace

A basic test of the fireplace must be carried out before commencing with the fireplace surround. Clean the glass in the door on the inside and outside so that no grease marks from fingers or other dirt burns into the glass. Stains cannot be removed afterwards. Check to make sure that all mechanical parts are working properly (e.g. door system, air regulator).

The first time the fireplace heats up, it releases paint fumes which are caused by the curing of the heat-resistant paint. This is accompanied by smoke and unpleasant odours. These fumes are harmless. Make sure that there is adequate ventilation to dissipate the smell as soon as possible. Leave the door a little open.

If brickwork or plastering has already been completed around the fireplace, ensure that it is completely dry before starting the fire, otherwise there is a risk of cracking or fissures in the brickwork or plastering.

12.1 Checks to be carried out

Check that the chimney is drawing properly during the first heating. If the draught is insufficient, flue gasses may be drawn back into the room. When stoking the fire with the door open, backdraught is more critical and must be adequately tested. If necessary, adjust the smoke deflection plates or change the chimney configuration.

A too strong draught in the chimney can lead to a fire that burns too intensely and is difficult to control.



Using air extractors in the area where the fireplace has been installed may cause problems.

13 Fuel

This fireplace is suitable for burning wood. The humidity level of the wood should be no more than 15% for good combustion. If this not the case, the fireplace window will rapidly become dirty, the heat of the fire will be significantly lower and the chimney will become clogged more quickly, which increases the risk of chimney fire.

To reach this humidity level, the wood must be dried in a dry and ventilated place for at least 2 to 3 years. Logs, for example from beech, oak or birch trees, are the most suitable fuel.

Use the right load and weight of wood for the type of fireplace you have. By using the right load of wood and putting it in the fireplace in the right way, combustion will be optimal and the window will be less likely to get dirty.

Optimum MF 700-60 WHE 1S	Optimum MF 900-60 WHE 1S
 <p>The logs should ideally be 25 cm in length with a circumference of maximum 10cm. The maximum number of these logs in the fireplace at any time should be 2 logs. The total weight of the 2 logs together should be about 1.83 kg. Place the 2 logs horizontally in the centre of the fireplace.</p>	 <p>The logs should ideally be 25 cm in length with a circumference of maximum 10cm. The maximum number of these logs in the fireplace at any time should be 3 logs. The total weight of the 2 logs together should be about 2.60 kg. Place the 3 logs vertically in the centre of the fireplace.</p>

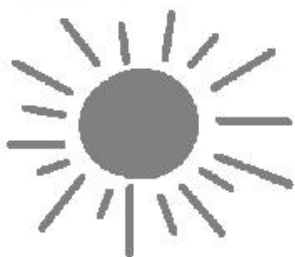
Using resinous wood types is strongly discouraged because they spark and have a short burning time. Resinous wood types can cause a chimney fire. Using chipboard, laminated or treated wood or combustible waste is not permitted for environmental reasons and because of the damage it does to the fireplace. Burning this kind of wood will also cause the fireplace window to become dirty faster.



DO NOT USE SPIRITS, PETROL, OIL OR OTHER FIRE ACCELERANTS



THE WOOD MUST BE DRIED IN A DRY AND VENTILATED PLACE FOR AT LEAST 2 TO 3 YEARS



14 How to correctly start the fire



AIR EXTRACTORS IN THE SAME ROOM OR AREA AS THE FIREPLACE MAY LEAD TO PROBLEMS



ENSURE THAT THE FIREPLACE IS WORKING CORRECTLY FOR SEASONAL USE AND FOR ADVERSE CHIMNEY DRAUGHT DURING CERTAIN WEATHER CONDITIONS. FOR EXAMPLE: WHEN THE WEATHER IS MISTY, THE DRAW IN THE FIREPLACE CAN BE INSUFFICIENT, INCREASING THE RISK THAT THE FLUE GASSES CANNOT BE EVACUATED OR ARE SUCKED AWAY VIA THE AIR INLET.

14.1 Particulate matter

This appliance has been tested according to the **EN 13229-2001 + A2:2004** and **EN16510-1:2022** standards.

This fireplace complies with the particulate matter emission levels described in these harmonised standards.

When the fireplace is incorrectly lit or used, however, the particulate matter can increase when kindling the fire, such as when there is not yet enough draw in the chimney or when the temperature in the fireplace and the chimney is not yet optimal. It is therefore important to take the following aspects into account when lighting and kindling the fire.

14.2 Lighting the fire



DO NOT USE SPIRITS, PETROL, OIL OR OTHER FIRE ACCELERANTS

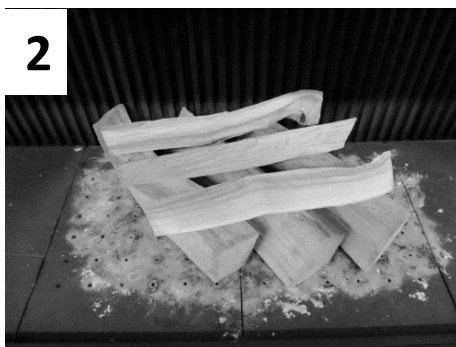
Before loading the aforementioned amount of logs into the fireplace, the fireplace must contain a nice bed of glowing embers. To create this glowing bed of burned down coals, some wood must be burned down and carbonised.

Open the hinged door and **slide the air regulator completely to the right** (Section 11 **Fout! Verwijzingsbron niet gevonden.**)

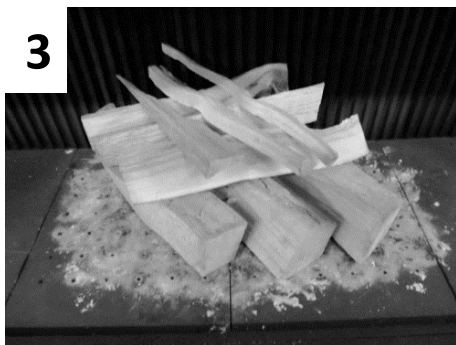


1. Begin with laying 3 logs at a slight angle on the bottom of the fireplace. The total weight of the 3 logs together should not exceed ± 2 kg.

Placing the logs at a slight angle to the window is necessary to preventing them from burning against the window and blackening it.



2. Lay another 3 logs of lighter kindling wood on top of the 3 logs already laid. These logs should be laid at a right angle to the 3 thicker logs. Ensure that the logs are spaced out to allow sufficient air flow via the bottom of the fireplace.



3. Lay a number of thinner pieces of kindling wood on top of this second level.



4. Finally, lay 2 firelighters on top of these pieces, together with some even thinner kindling wood.

Use a long match to light the firelighters on the top of the wood stack.

Lighting the stack at the top will cause the firelighters to ignite the thinner kindling wood first, while the flame at the top heats up the chimney.

As the chimney heats up, the draw in the fireplace will increase.

Turn the hinged door just before the lock, so the door is slightly open. Keep the air regulation completely to the right.

Wait until the stack of kindling wood is burning nicely before closing the door completely. Once the wood stack is sufficiently burning, close the door completely.

Allow the wood stack to burn down until there is a nice bed of coals and then add 2 to 3 times the amount of kindling wood to the burning fire. Close the door every time. Once the fire begins to become agitated, you can slide the air regulator to the middle position.

After 40 minutes to 1 hour (depending on the amount of kindling wood you have used), make sure that a nice, glowing bed of red coals has formed under the wood logs. Allow the wood to burn down completely until only the glowing bed of red coals remains at the bottom of the fireplace.

Open the door and use a fire poker to carefully spread out the burning coals.

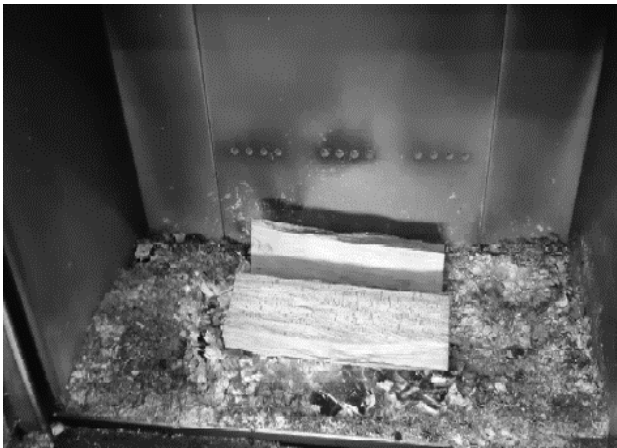

Carefully lay the provided kg of wood on this glowing bed of coals (see Section 13 Fuel p.35).

Do not lay this load of wood onto the fire before a nice glowing bed of red coals has been created.

14.3 Adding new wood

In order to maintain optimal combustion, it is best to add a load of firewood as soon as the flames disappear and the previous load of wood has entered into the glowing phase, i.e. when there is no more smoke development.

To add new wood, open the lifting door by sliding it upwards slowly. This prevents smoke from suddenly entering the room due to creating a sudden draught towards the room. Lay 2 or 3 logs on top of the glowing coals that remain from the previous load of wood (see Section 13 Fuel p.35 and Section 14 How to correctly start the fire p.37)

Optimum MF 700-60 WHE 1S	Optimum MF 900-60 WHE 1S
<div>1,83kg 25cm</div>  <p>Lay the wood logs in the middle of the fireplace with some space in between. Be careful that the wood logs are far enough away from the front window to avoid leaving a black deposit on the glass.</p>	<div>2,60kg 25cm</div>  <p>Lay the wood logs in the middle of the fireplace with some space in between. Be careful that the wood logs are far enough away from the front window to avoid leaving a black deposit on the glass.</p>

If the wood logs are too close to the window, the flames can come into contact with the window. When this happens, the flames leave a black deposit on the glass.

15 Options

15.1 Flue gas reducer Ø150

Optionally, an adapter from Ø180mm to Ø150mm can be fitted on the fireplace.

With the reducer (Ø180mm to Ø150mm), the appliance can easily be connected to a Ø150mm flue.

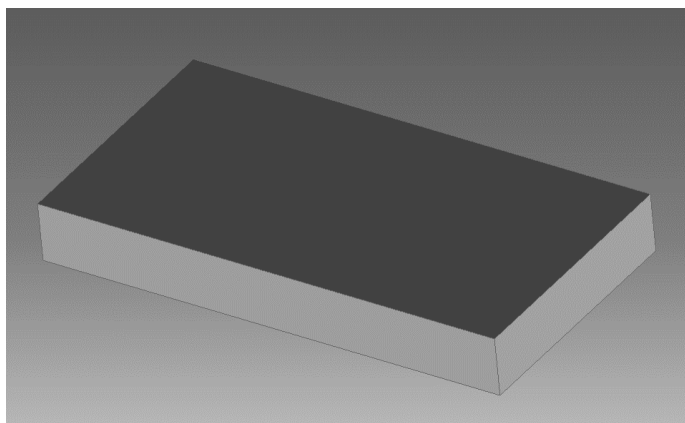
The reducer can be placed on the existing Ø180mm outlet at the top of the fireplace.



15.2 Accumulation stones



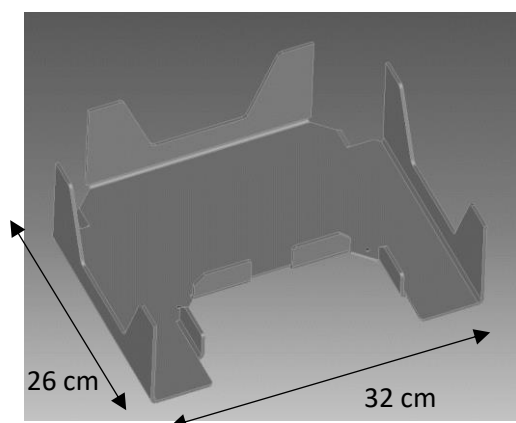
15.2.1 Installing accumulation stones



Accumulation stone (12.6kg)

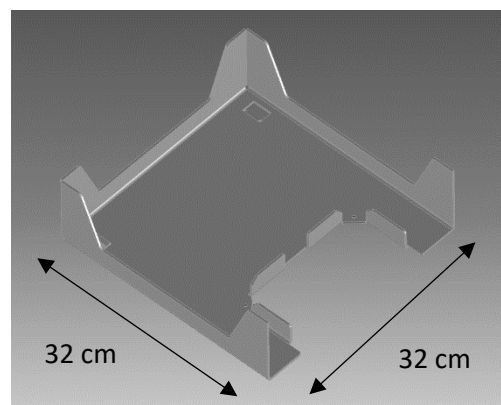
Optimum MF 700-60 WHE 1S: 10 pieces

Optimum MF 900-60 WHE 1S: 14 pieces



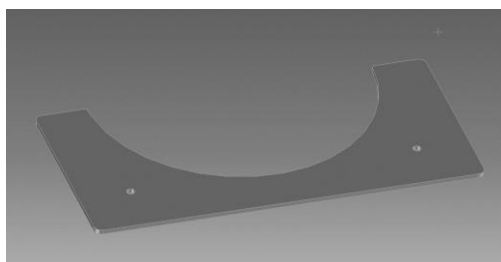
Support plate for accumulation stones:

Optimum MF 700-60 WHE 1S: 4 pieces



Support plate for accumulation stones:

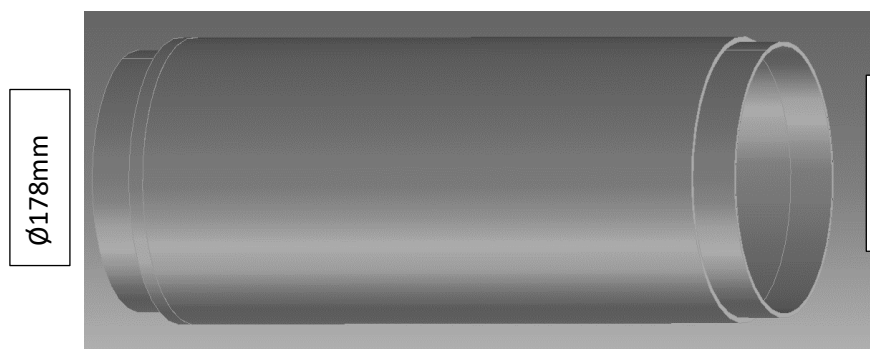
Optimum MF 900-60 WHE 1S: 4 pieces



Top plate for accumulation stones:

Optimum MF 700-60 WHE 1S: 2 pieces

Optimum MF 900-60 WHE 1S: 2 pieces

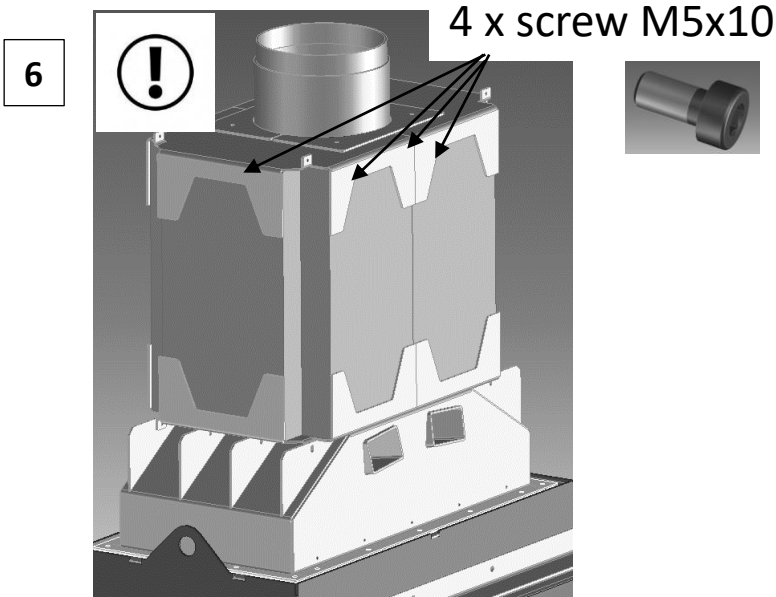
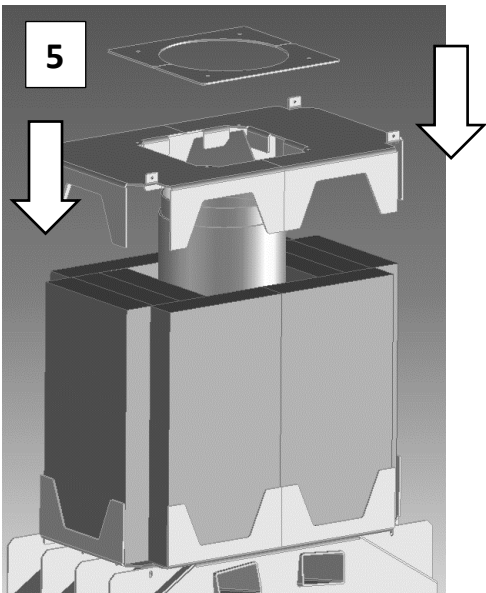
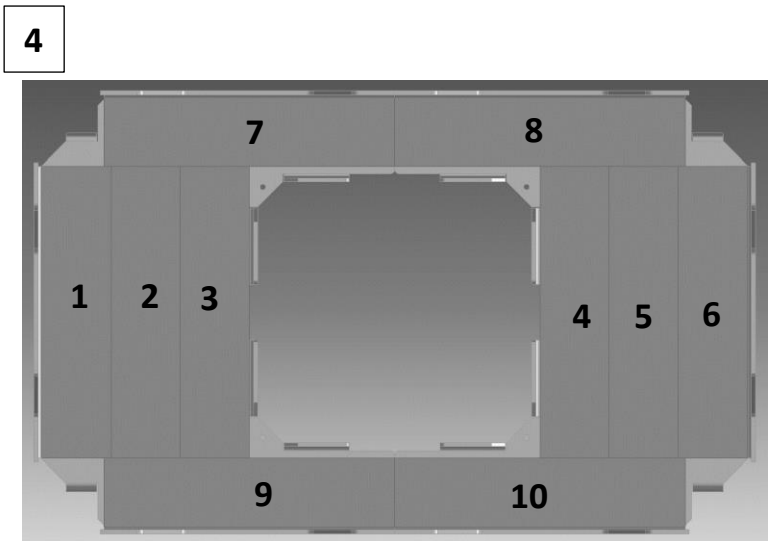
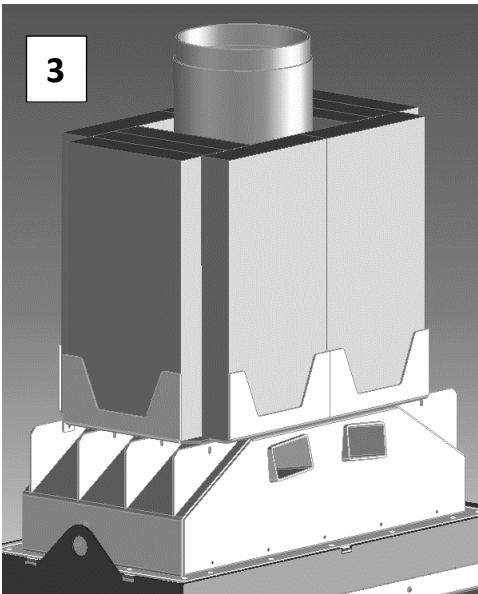
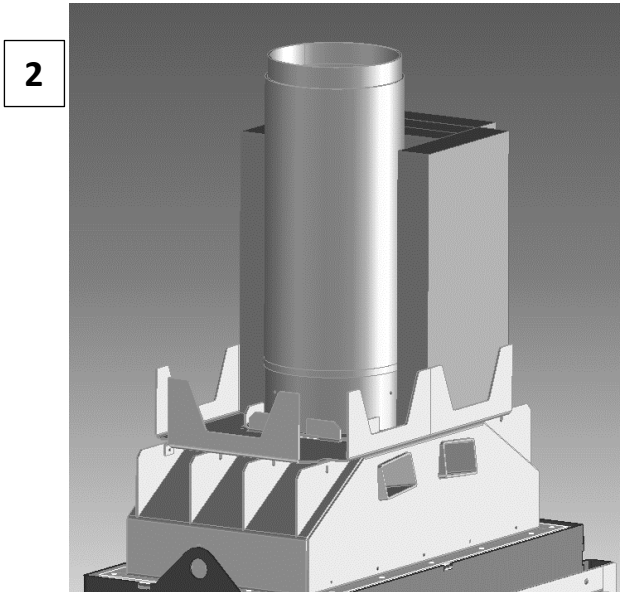
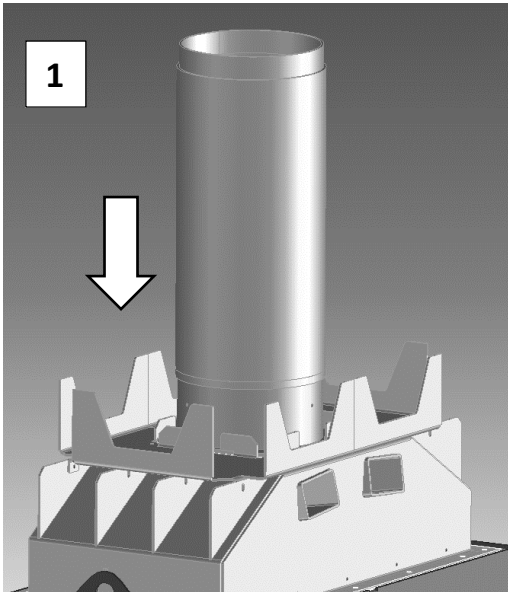


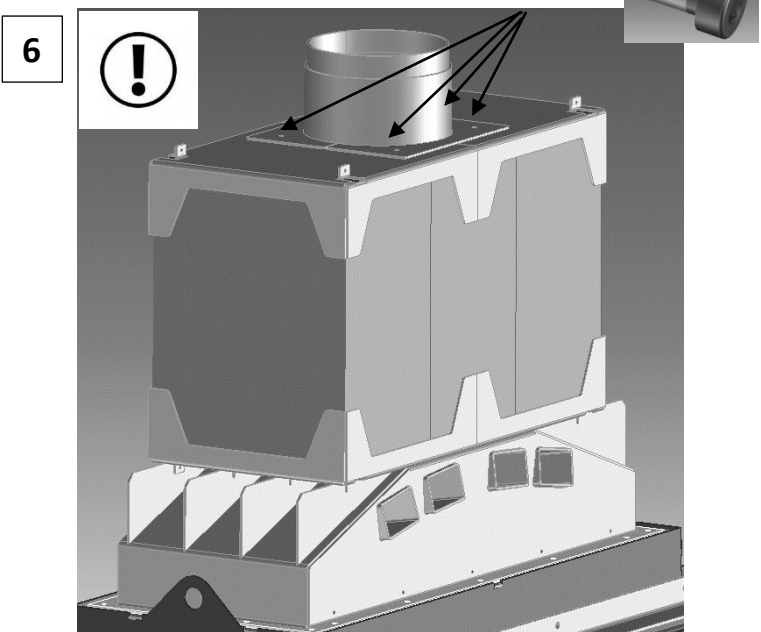
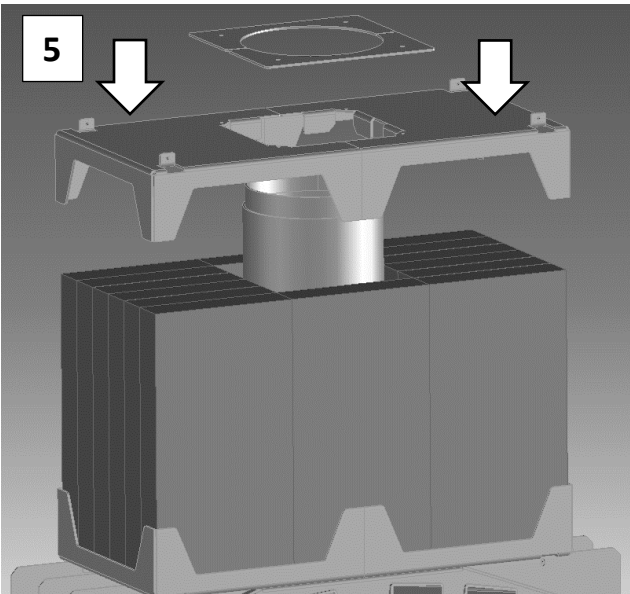
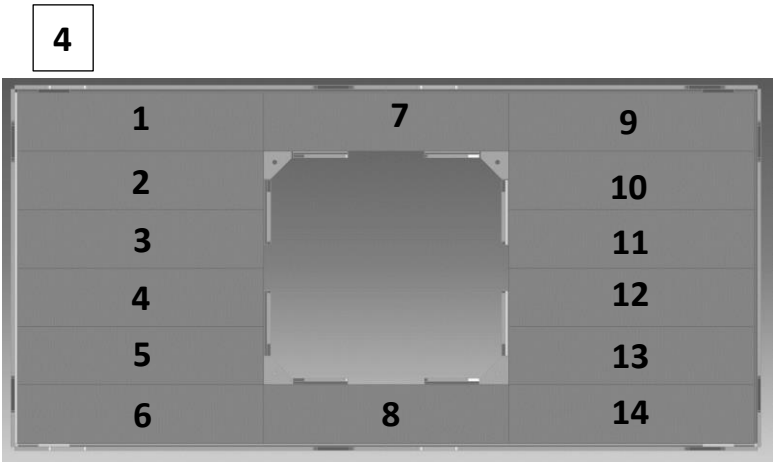
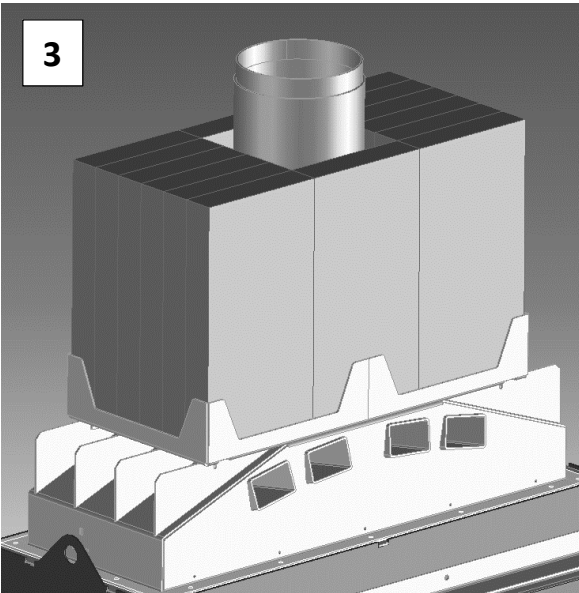
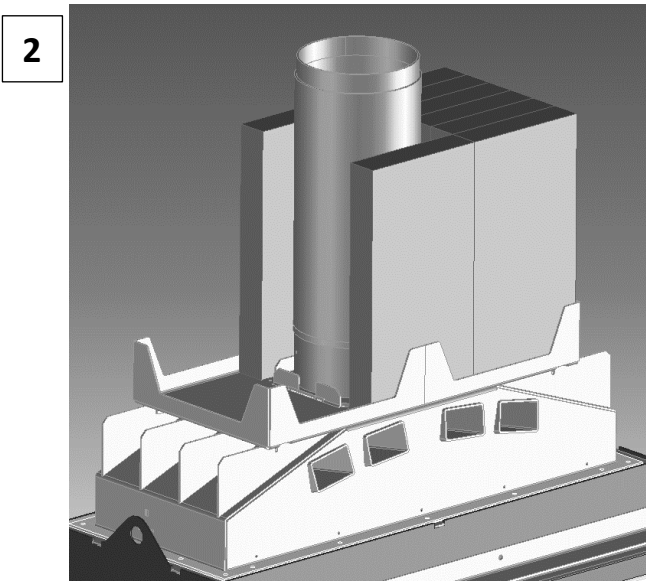
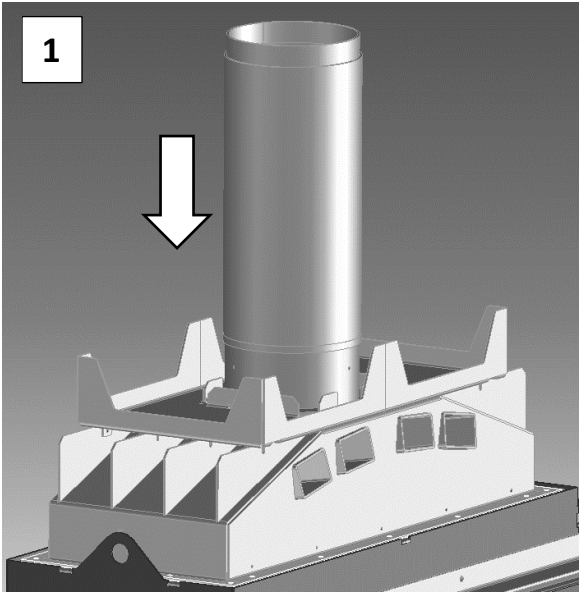
Exhaust tube Ø180 - L470mm

Optimum MF 700-60 WHE 1S: 1 pcs

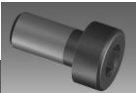
Optimum MF 900-60 WHE 1S: 1 pcs

Optimum MF 700-60 WHE 1S





4 x screw M5x10



16 Maintenance

16.1 Cleaning the glass

Use a window cleaning product and use a cloth to wipe the dirt off the glass. Ensure that the sealing does not come into contact with this product to prevent damage.

Persistent dirt can be removed by dipping a damp cloth in the ash and using it to clean the glass.

Always wipe down the glass with a damp cloth after cleaning it to remove any vestiges of the cleaning agent

16.2 General maintenance

Allow the fireplace to cool down completely and remove all ash remains before starting maintenance.

Varnished components can be cleaned using a damp, lint-free cloth.

Do not use harsh, abrasive detergents.

The paintwork on the fireplace can be touched up with heat-resistant spray paint which is available from Metalfire.

Regularly use an ash vacuum to remove ash remains that have fallen into the area under the base plates.

Damaged seals must be replaced. Have this carried out by a competent Metalfire installer. The flue pipe should be cleaned and inspected at least once a year.

17 Malfunctions

17.1 The glass is getting dirty quickly

- Use the recommended wood with a maximum humidity of 15%.
- Leave the lifting door open with a gap of 2 to 5 cm and light the fire as prescribed.
- Check that there is sufficient draught in the flue pipe.
- If there is insufficient draught, removing the smoke deflection plate with the circular holes may improve the evacuation of the flue gases (see Section Smoke deflection plates p. 24).
- Check the seals for damage and replace where necessary.
- Check whether the combustion air supply channel is open.

17.2 Backdraught

- Let the fireplace heat up sufficiently with the lifting door closed before burning the fire with an open door.
- Check whether the lowest smoke deflection plate hinges open when the lifting door opens.
- Check that the flue pipe is not blocked (bird's nest).
- Check the combustion air supply.
- Negative pressure in the room because of the ventilation system or an extractor hood.
- Incorrect flue pipe dimensions (diameter too narrow, too short in length).
- Use wood with a maximum humidity of 15%.

17.3 Fire is not responding to air regulator

- Check the seals.
- Check that the glass is making contact with the seal at the bottom when the lifting door is in the closed position.
- Check that the door is properly latched after cleaning the glass.
- Clean the holes in the base plates and the area under the base plates using an ash vacuum.
- Check the combustion air supply.

17.4 Broken glass in the door

If defective, the glass in the door must be replaced immediately by a competent Metalfire installer.

17.5 Other damaged components

Damaged metal components, seals and insulation boards in the fireplace may only be replaced with Metalfire+ components. Contact a competent Metalfire dealer for this.

17.6 Unpleasant odours

- Limit the volume of wood to what is prescribed.
- During the first few times that the fireplace is used, the heat-resistant paint cures and this is accompanied by an unpleasant odour. Ensure that there is sufficient ventilation.
- Check whether there is any backdraught.
- Check whether the convection air temperature remains below 100°C. This prevents unpleasant odours due to burning dust.

17.7 What do in the event of a chimney fire

Chimney fires can occur when accumulated soot in the chimney catches fire. This is accompanied by serious smoke development and a roaring sound in the flue pipe.

- Call the fire brigade.
- Never try to put out the fire with water!
- Use sand or salt to put out the fire in the fireplace.
- Close the lifting door and move the air regulator to the extreme left (closed).
- Have the chimney checked and repaired by a recognised specialist.

18 Guarantee clause

18.1 Guarantee period

- 5-year guarantee on the general structure of the fireplace
- 2-year guarantee on the fireplace's cast iron reeded panels and combustion grate

The guarantee applies exclusively to defects in workmanship.

The guarantee period commences on the date specified on the invoice.

The invoice is the only valid proof of guarantee.

The renewal or replacement of parts under guarantee does not extend the overall guarantee period.

The guarantee is limited to the simple exchange of components which are acknowledged by our technical service to be defective; the guarantee excludes any compensation for the inability to use the fireplace. The cost of transport, travel expenses and assembly costs are borne by the user.

All guarantee claims must be handled via the installer or competent Metalfire+ dealer.

18.2 Exclusion

Damage or defects caused by failure to correctly observe the instructions for use and installation are excluded from the guarantee.

The guarantee lapses in the event of poor maintenance of the fireplace, in the event of accident or disaster caused by means other than the fireplace itself or caused by a repair carried out by a person not authorised to do so.

The guarantee lapses in the event of internal modifications or alterations to the fireplace.

The following are not covered by the guarantee provision:

- Using unsuitable fuels.
- Damage to the glass and seals.
- Damage as a consequence of transport, storage and installation.
- Using non-original Metalfire parts.

18.3 Proviso

Metalfire+ bv reserves the right to modify its appliances, brochures, installation manuals and user manuals at any time and without prior notice.

Metalfire+ bv
Noorwegenstraat 28
B-9940 Evergem
BELGIUM
www.metalfire.eu

Dealer:
Date of installation:
Production number:
(number under base plate)