

Metalfire

ULTIME D RANGE

ULTIME D MF 600-50 WHE 1S
ULTIME D MF 600-75 WHE 1S
ULTIME D MF 800-50 WHE 1S
ULTIME D MF 800-75 WHE 1S
ULTIME D MF 1050-50 WHE 1S
ULTIME D MF 1050-75 WHE 1S

Installation instructions

Model: V5 / 09/2021
Language: English

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2 Introduction

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

Read these installation and use instructions carefully before starting the installation.

Afterwards, you hand them to the customer.

We advise you to check the appliance upon delivery for any transport damage.

The Ultime D range consists of following models:

ULTIME D MF 600-50 WHE 1S

ULTIME D MF 600-75 WHE 1S

ULTIME D MF 800-50 WHE 1S

ULTIME D MF 800-75 WHE 1S

ULTIME D MF 1050-50 WHE 1S

ULTIME D MF 1050-75 WHE 1S

These appliances are closed wood fires which must be connected to one individual flue pipe. Flue gases are discharged through this flue pipe. The supply of outdoor air for combustion can be connected directly to the appliance.

These appliances can therefore function independently of air in the room.

In Germany, a test needs to be carried out on fireplaces that do not depend on air from the room; these fireplaces need to be approved by the building authorities.

It is very important that these wood fireplaces are installed only by a qualified fitter, according to national and local regulations.

3 Safety

3.1 CE certification mark

This appliance has been tested according to EN 13229-2001 and EN 13229-A2:2004 standards.

3.2 Safety instructions during installation

The installation of this wood fireplace may only be carried out by a recognised installer according to applicable national and/or local standards and building regulations.

Take the necessary precautions using incombustible materials so that items in the immediate vicinity of the appliance (curtains, floor, walls and so on) are not overheated.

Check that the fireplace is functioning correctly before commencing with the surrounding fireplace finish. (5.2.2.1. Checking the fireplace)

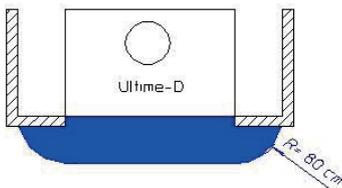
3.3 Safety instructions for user

These wood fires radiate significant levels of heat. The entire outside of the fireplace becomes extremely hot (the metalwork, glass in the door, surface and surround).

So, 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 0.8 m** 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.

Following installation, all visible parts of the fireplace should be considered as active heating surfaces and therefore 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.

This fireplace is only intended for additional heating, i.e. not for continuous use.

3.4 Safety facilities

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 for the minimum insulation thicknesses.

4 Technical specifications

4.1 Product fiche

PRODUCT FICHE	
In conformity with DELEGATED REGULATION (EU) 2015/1186	
Manufacturer	Metalfire+ bv Noorwegenstraat 28 9940 Evergem www.metalfire.eu
Type designation	Ultime D MF 600-50 WHE 1S
Indirect heating functionality	No
Energy efficiency class	A+
Direct heat output	kW 13,8
Indirect heat output	kW –
Energy efficiency index	% 107
Useful efficiency at nominal heat output	% 80,3
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 Noorwegenstraat 28 9940 Evergem www.metalfire.eu
Type designation	Ultime D MF 600-75 WHE 1S
Indirect heating functionality	No
Energy efficiency class	A+
Direct heat output	kW 18,8
Indirect heat output	kW –
Energy efficiency index	% 107
Useful efficiency at nominal heat output	% 79,6
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 Noorwegenstraat 28 9940 Evergem www.metalfire.eu
Type designation	Ultime D MF 800-50 WHE 1S
Indirect heating functionality	No
Energy efficiency class	A+
Direct heat output kW	16,6
Indirect heat output kW	–
Energy efficiency index %	107
Useful efficiency at nominal heat output %	80,2
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 Noorwegenstraat 28 9940 Evergem www.metalfire.eu
Type designation	Ultime D MF 800-75 WHE 1S
Indirect heating functionality	No
Energy efficiency class	A+
Direct heat output kW	21,2
Indirect heat output kW	–
Energy efficiency index %	107
Useful efficiency at nominal heat output %	80,1
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 Noorwegenstraat 28 9940 Evergem www.metalfire.eu
Type designation	Ultime D MF 1050-50 WHE 1S
Indirect heating functionality	No
Energy efficiency class	A+
Direct heat output	kW 19,4
Indirect heat output	kW –
Energy efficiency index	% 107
Useful efficiency at nominal heat output	% 80,2
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 Noorwegenstraat 28 9940 Evergem www.metalfire.eu
Type designation	Ultime D MF 1050-75 WHE 1S
Indirect heating functionality	No
Energy efficiency class	A+
Direct heat output	kW 23,5
Indirect heat output	kW –
Energy efficiency index	% 107
Useful efficiency at nominal heat output	% 80,6
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

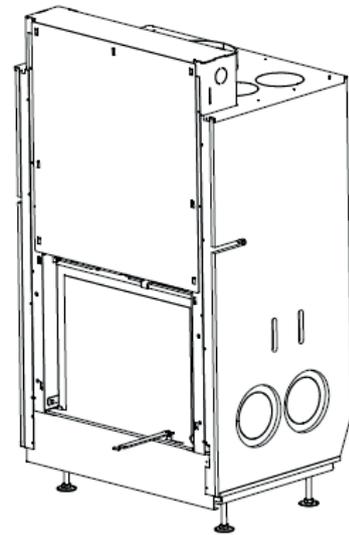
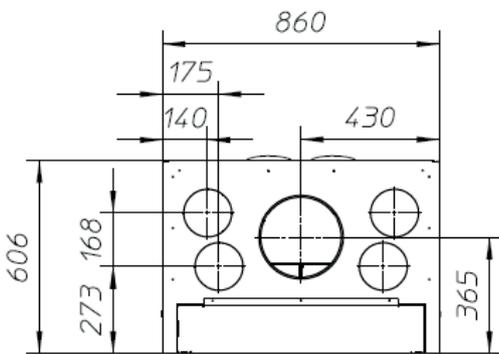
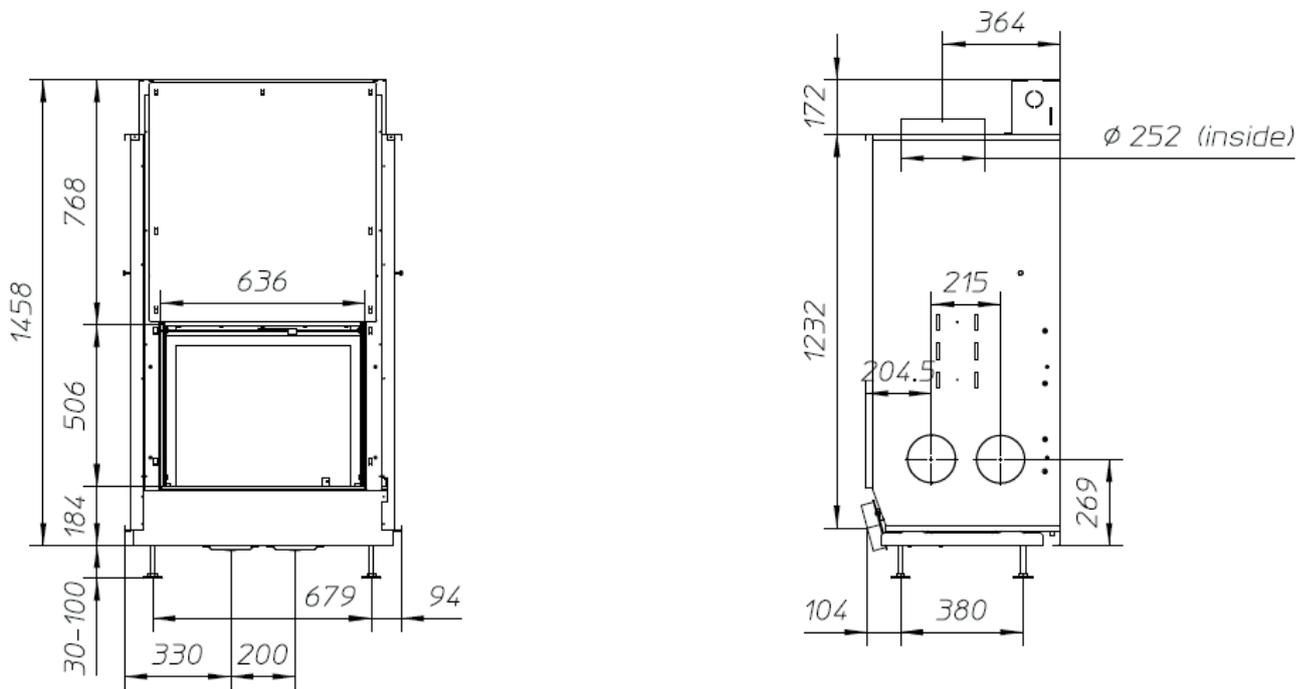
Model		ULTIME D MF 600-50 WHE 1S	ULTIME D MF 600-75 WHE 1S
Fuel		Split stackwood – humidity <15%	Split stackwood – humidity <15%
Heat (input)	kW	17,2	23,6
Nominal heat (output)	kW	13,8	18,8
Efficiency	%	80,3	79,6
Optimum usage range	kW	8 – 15	12 – 20
Wood charge	kg	3,06	3,67
Wood consumption rate/hour	kg/h	3,97	5,40
Flue gas flow	g/s	12,5	15,8
Flue gas temperature	°C	259	287
CO at 13%O ₂	%	0,09	0,07
Dust content at 13%O ₂	mg/nm ³	33	20
Min. chimney draught	Pa	12	12
*Min. insulation thickness top	cm	6,3	8,3
*Min. insulation thickness sides	cm	11,3	11,0
*Min. insulation thickness rear	cm	12,0	9,8
*Min. insulation thickness bottom	cm	Enkel niet brandbaar materiaal	Enkel niet brandbaar materiaal
Chimney connection	mm	Ø250	Ø250
Combustion air connector	mm	1 x Ø150 (1 x 180cm ²)	2 x Ø150 (2 x 180cm ²)
Convection connector inlet	mm	2 x Ø150 (2 x 180cm ²)	4 x Ø150 (4 x 180cm ²)
Convection connector outlet	mm	2 x Ø150 (2 x 180cm ²)	4 x Ø150 (4 x 180cm ²)
Weight incl. cast iron reeded panels	kg	345	368
* Standard insulation "Pumica K,550: 0.14 W/m.K			

Model		ULTIME D MF 800-50 WHE 1S	ULTIME D MF 800-75 WHE 1S
Fuel		Split stackwood – humidity <15%	Split stackwood – humidity <15%
Heat (input)	kW	20,7	26,5
Nominal heat (output)	kW	16,6	21,5
Efficiency	%	80,2	80,1
Optimum usage range	kW	10 – 18	14 – 22
Wood charge	kg	3,39	4,16
Wood consumption rate/hour	kg/h	4,68	5,97
Flue gas flow	g/s	16,6	17,5
Flue gas temperature	°C	266	283
CO at 13%O ₂	%	0,07	0,08
Dust content at 13%O ₂	mg/nm ³	32	30
Min. chimney draught	Pa	12	12
*Min. insulation thickness top	cm	7,5	10,2
*Min. insulation thickness sides	cm	11,3	13,3
*Min. insulation thickness rear	cm	12,0	9,8
*Min. insulation thickness bottom	cm	Only non-flammable material	Only non-flammable material
Chimney connection	mm	Ø250	Ø250
Combustion air connector	mm	1 x Ø150 (1 x 180cm ²)	2 x Ø150 (2 x 180cm ²)
Convection connector inlet	mm	2 x Ø150 (2 x 180cm ²)	4 x Ø150 (4 x 180cm ²)
Convection connector outlet	mm	2 x Ø150 (2 x 180cm ²)	4 x Ø150 (4 x 180cm ²)
Weight incl. cast iron reeded panels	kg	405	435
* Standard insulation "Pumica K,550: 0.14 W/m.K			

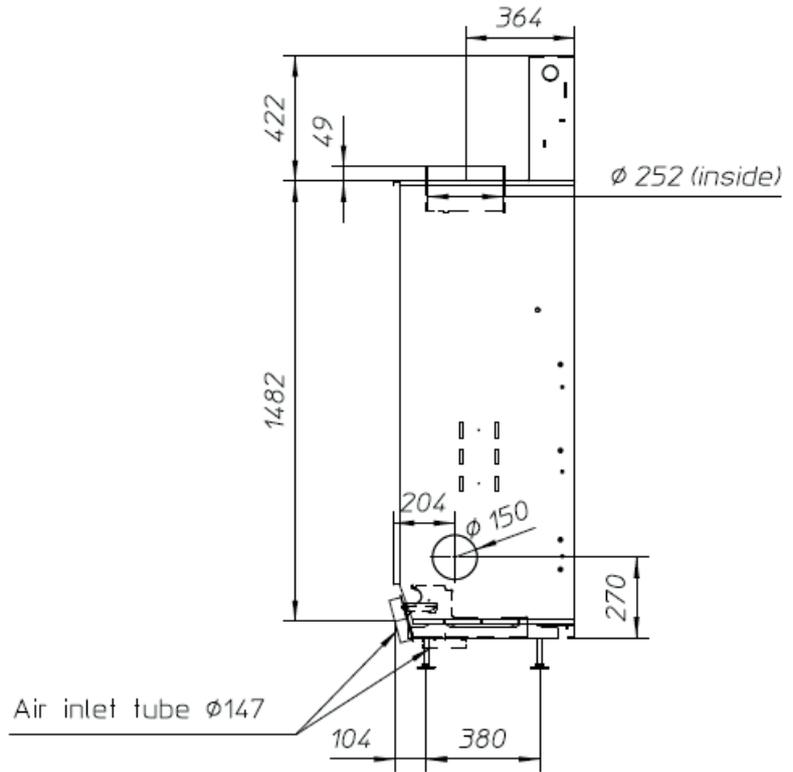
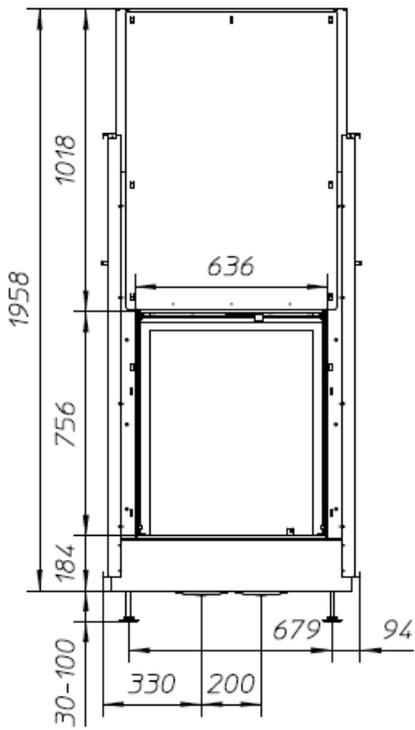
Model		ULTIME D MF 1050-50 WHE 1S	ULTIME D MF 1050-75 WHE 1S
Fuel		Split stackwood – humidity <15%	Split stackwood – humidity <15%
Heat (input)	kW	24,2	29,2
Nominal heat (output)	kW	19,4	23,5
Efficiency	%	80,2	80,6
Optimum usage range	kW	12 – 20	15 – 24
Wood charge	kg	3,72	4,64
Wood consumption rate/hour	kg/h	5,93	6,53
Flue gas flow	g/s	16,8	19,2
Flue gas temperature	°C	275	286
CO at 13%O ₂	%	0,06	0,08
Dust content at 13%O ₂	mg/nm ³	30	40
Min. chimney draught	Pa	12	12
*Min. insulation thickness top	cm	7,5	10,2
*Min. insulation thickness sides	cm	10,5	13,3
*Min. insulation thickness rear	cm	9,4	6,1
*Min. insulation thickness bottom	cm	Only non-flammable material	Only non-flammable material
Chimney connection	mm	Ø250	Ø300
Combustion air connector	mm	2 x Ø150 (2 x 180cm ²)	2 x Ø150 (2 x 180cm ²)
Convection connector inlet	mm	4 x Ø150 (4 x 180cm ²)	4 x Ø150 (4 x 180cm ²)
Convection connector outlet	mm	4 x Ø150 (4 x 180cm ²)	4 x Ø150 (4 x 180cm ²)
Weight incl. cast iron reeded panels	kg	470	495
* Standard insulation "Pumica K,550: 0.14 W/m.K			

Model	ULTIME D MF 1050-50 WHE 1S	ULTIME D MF 1050-75 WHE 1S
Fuel	Logs	Logs
Nominal heat output	19,4 kW	23.5 kW
Efficiency (%)	80.2	80.6
Optimum usage range	12 kW – 20 kW	15 kW – 24 kW
Wood consumption rate/hour (max. 15% humidity)	5,93 kg/h	6,53 kg/h
Max. wood consumption limit/hour	Max. 4 pieces measuring 30 cm in length and with a circumference of 30 cm ± 3	Max. 5 pieces measuring 30 cm in length and with a circumference of 30 cm ± 3
Flue gas flow (g/s)	16.8	19.2
Flue gas temperature (C°)	275	286
CO at 13% O2 (%)	0.06	0.08
Dust content at 13% O2 (mg/nm ³)	30	40
Min. chimney draught (Pa)	12	12
*Min. insulation thickness top (cm)	7,5	10,2
*Min. insulation thickness sides (cm)	10,5	13,3
*Min. insulation thickness rear (cm)	9,4	6,1
*Min. insulation thickness bottom (cm)	Only non-flammable material	Only non-flammable material
Chimney connection (mm)	Ø250	Ø300
Combustion air connector (mm)	2 x Ø150 (± 2 x 180cm ²)	2 x Ø150 (± 2 x 180cm ²)
Convection connector inlet (mm)	4 x Ø150 (± 4 x 180cm ²)	4 x Ø150 (± 4 x 180cm ²)
Convection connector outlet (mm)	4 x Ø150 (± 4 x 180cm ²)	4 x Ø150 (± 4 x 180cm ²)
Weight incl. cast iron reeded panels (kg)	470	495
* Standard insulation "Pumica K,550: 0.14 W/m.K.		

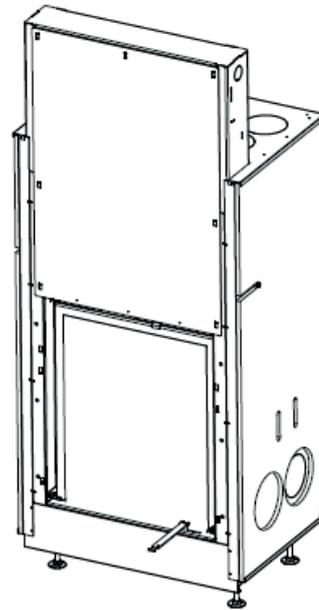
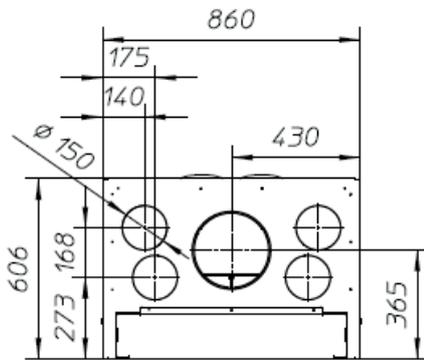
4.3 Fireplace dimensions



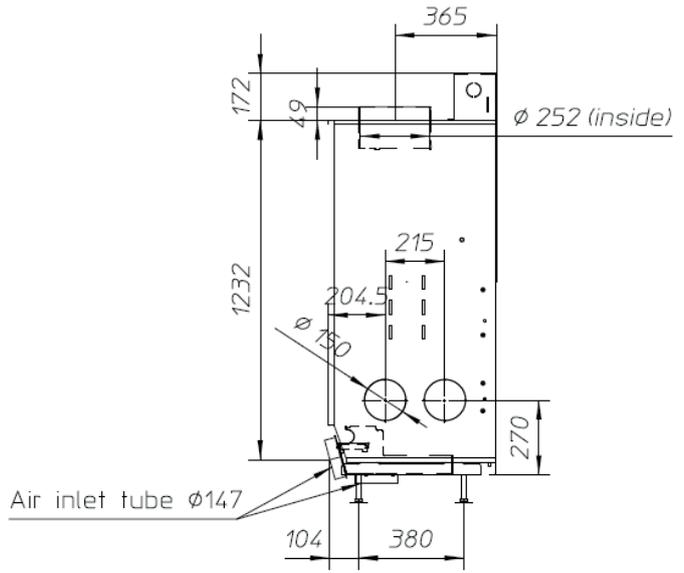
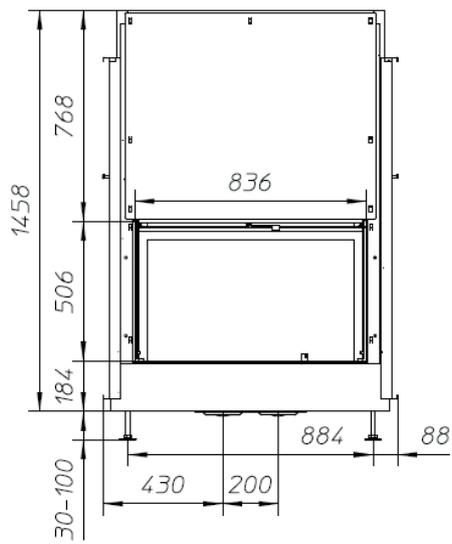
ULTIME D MF 600-50 WHE 1S



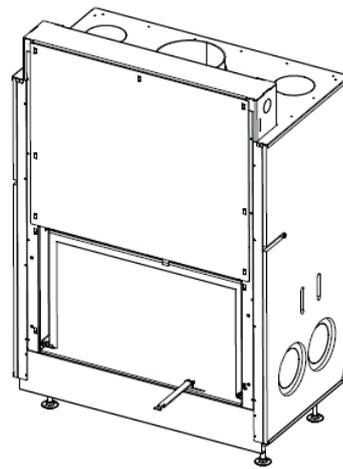
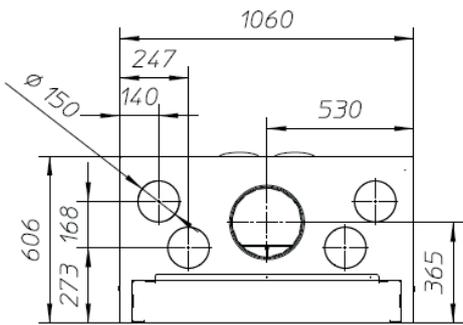
When air inlet mounted at the back



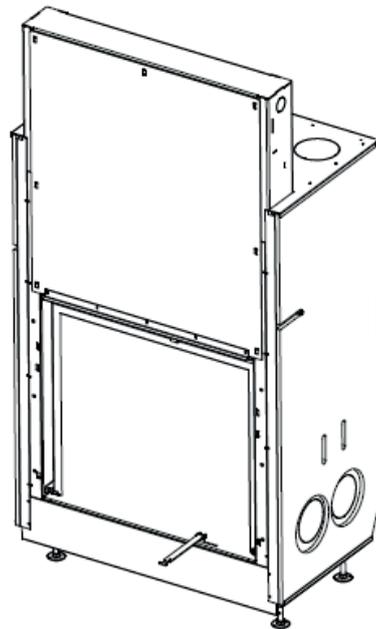
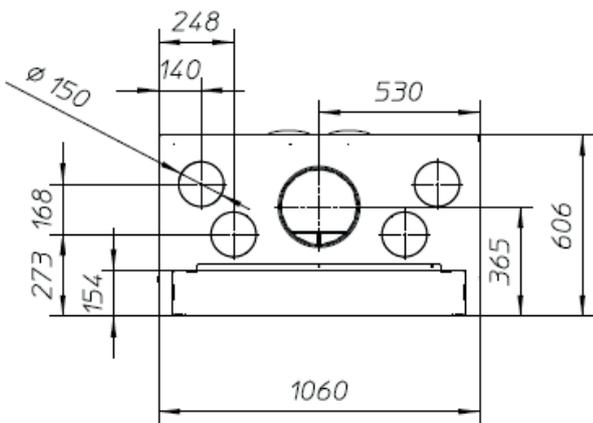
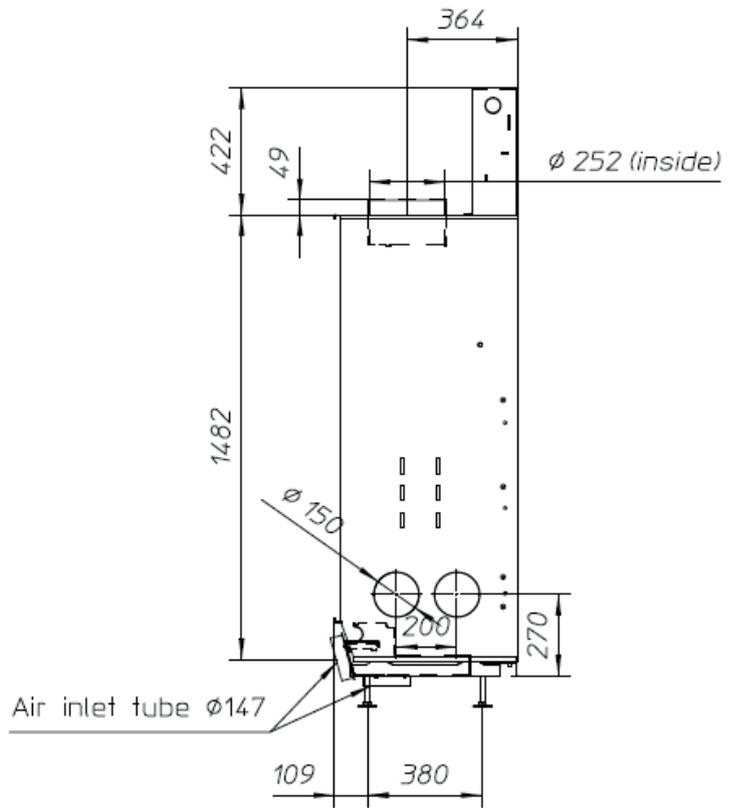
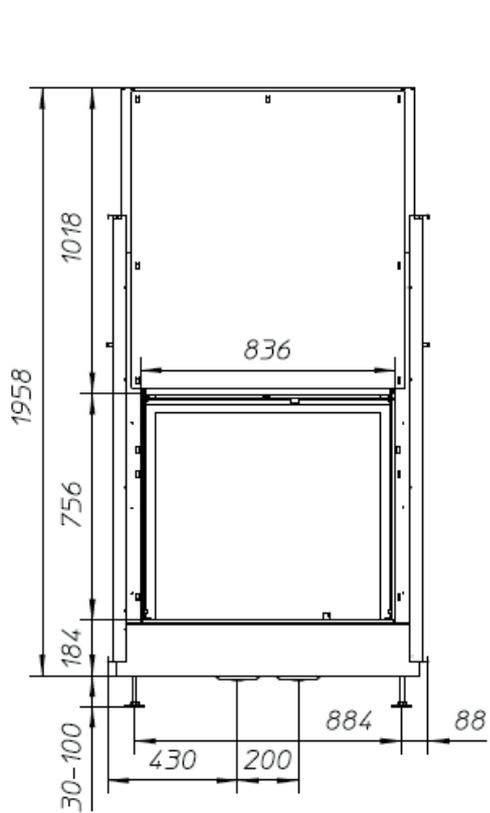
ULTIME D MF 600-75 WHE 1S



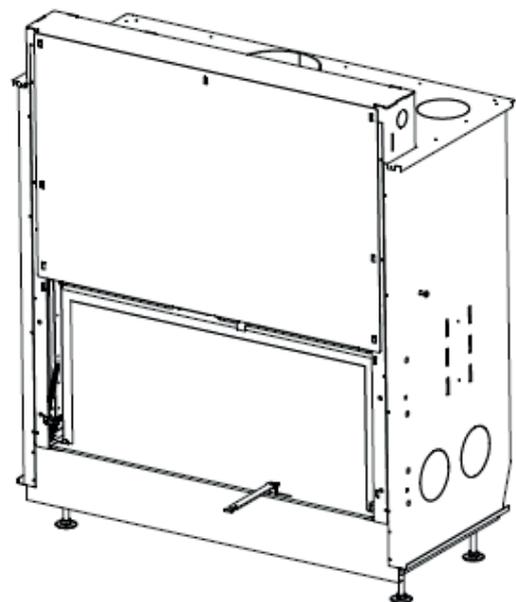
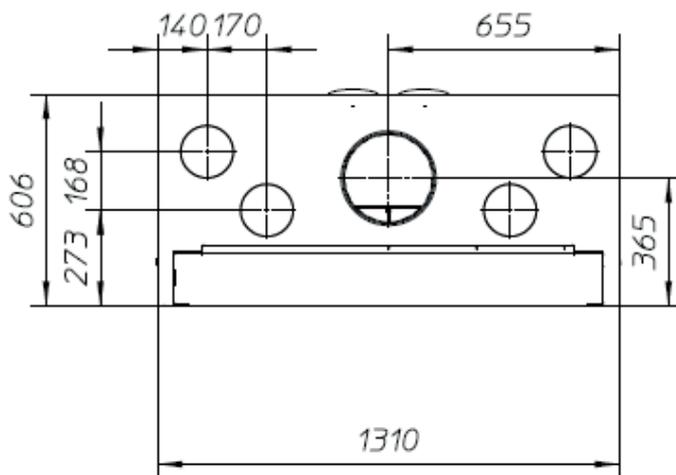
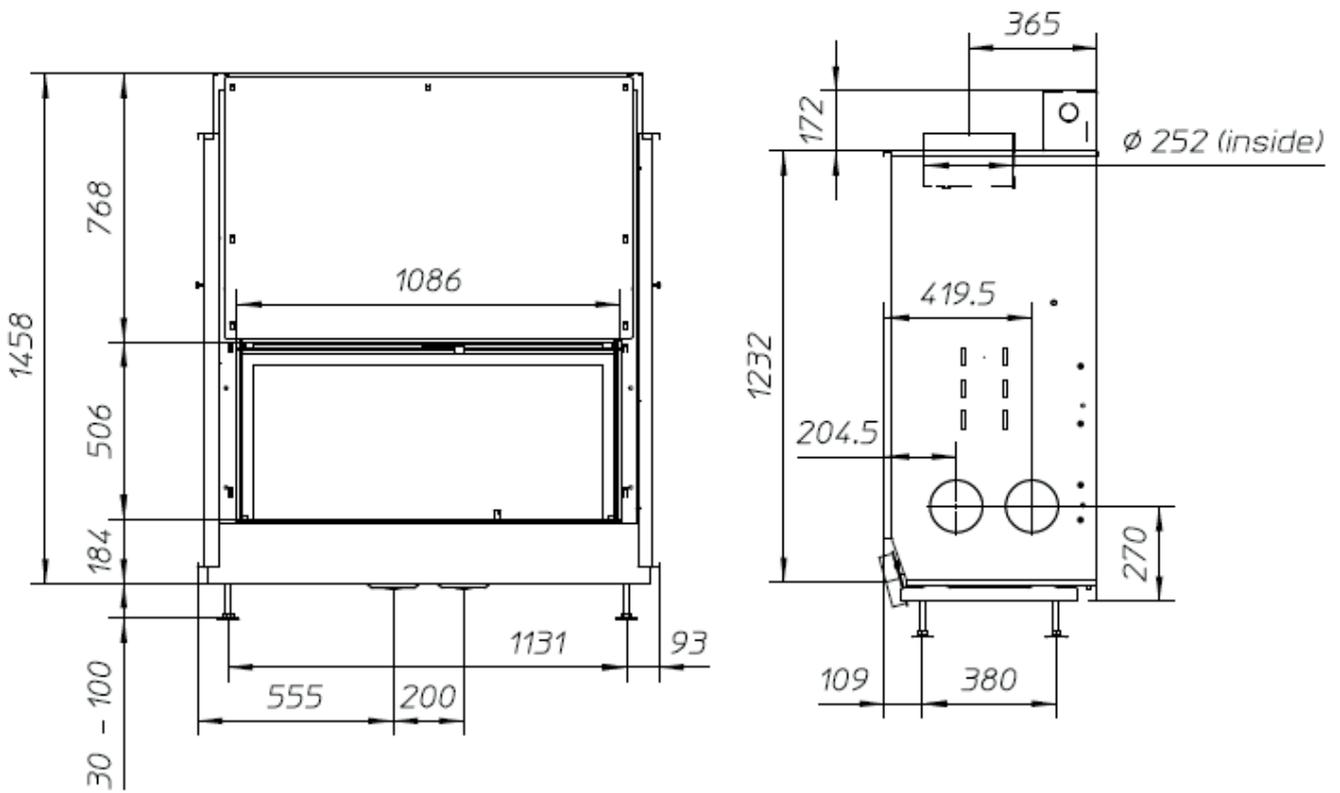
When air inlet mounted at the back



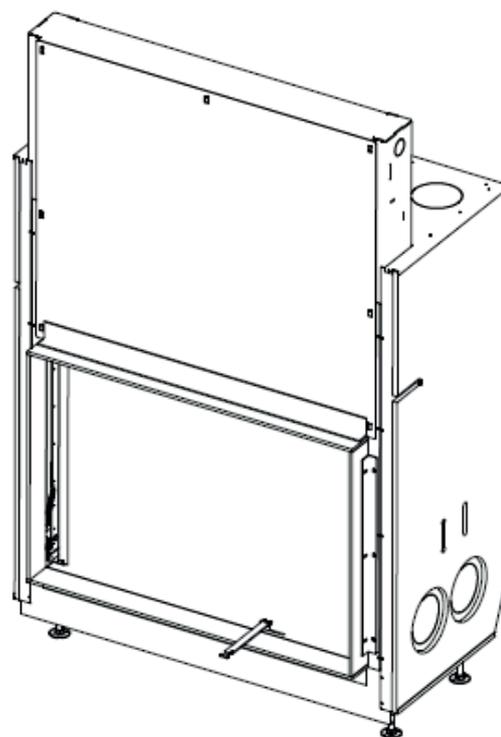
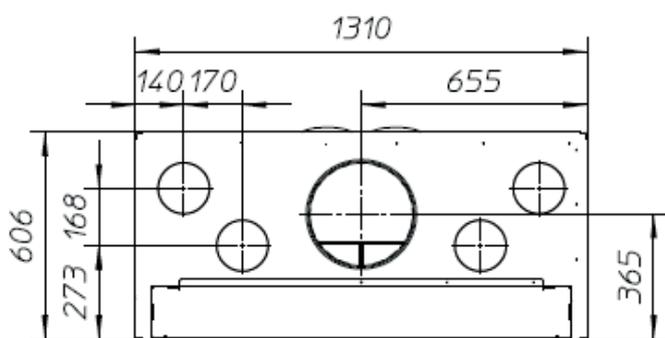
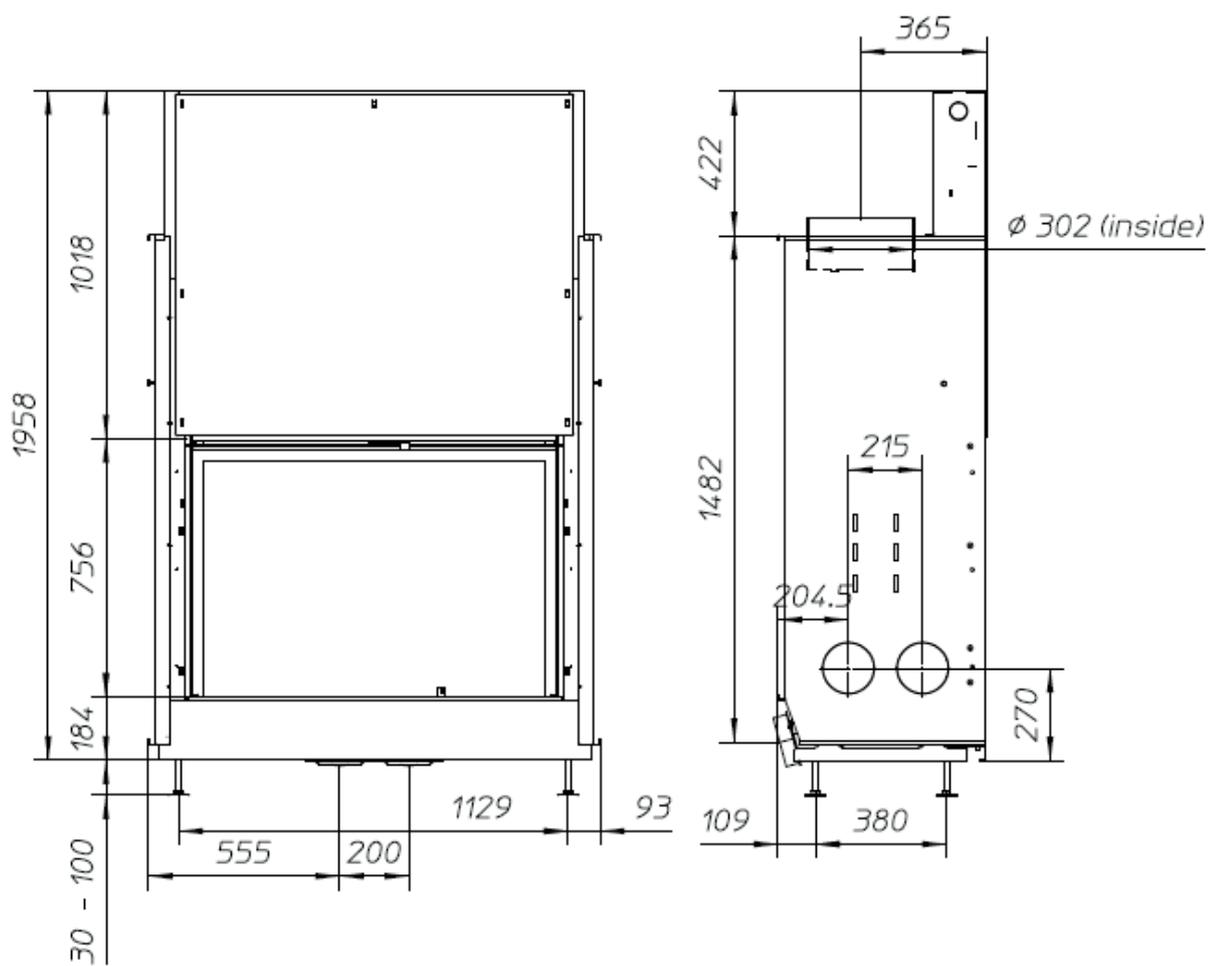
ULTIME D MF 800-50 WHE 1S



ULTIME D MF 800-75 WHE 1S



ULTIME D MF 1050-50 WHE 1S

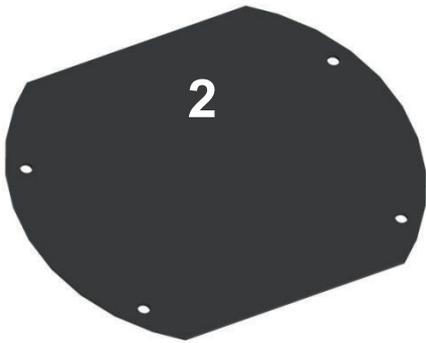


ULTIME D MF 1050-75 WHE 1S

5 Installation instructions and positioning

5.1 Description of supplied parts

- Fireplace
- Instructions for installation and use
- Ash pan (1)
- Lid (2)
- Connector flange for air inlet (3)
- Door and air control lever (4)
- Grates (5)
- Connector flanges for convection air (6)
- Reeded panels (7)
- Poker (8)
- Spray paint can
- Vermiculite panels
- Insulation boards (optional)
- Frame (optional)



5.2 Installing and positioning the fireplace

Remarks:

- The appliance must remain upright during transportation.
- Remove the packaging and sort the waste in an environmentally responsible way.
- There are openings on the side of the fireplace to move it, using a set of lifting brackets.



5.2.1 Positioning the fireplace

Always measure that there is a sufficiently solid base that will take the weight of the fireplace (see Table 1) and the surround. If the existing base is not adequate, the necessary measures must be taken to reinforce it or to distribute the weight more evenly.
(See Table 1.)



The fireplace is supplied with 4 adjustable M16 support feet.

To level the fireplace, each support foot can be adjusted. The adjustment range is from 30 to 100 mm. A 24 mm spanner can be used for this.

If the highest position of the support feet is not sufficient, a supporting structure must be built, on which the fireplace can be placed. It must be strong enough to bear the weight of the fireplace.

5.2.2 Installing the fireplace

A basic test should first be carried out before finishing the entire fireplace surround. For this, refer to Section 5.4.

5.2.2.1 Checking the fireplace

Before assembling the fireplace, the following parts should be checked to ensure that they are in good working order:

- Remove the protective wrapping from the lifting door system. To do so, remove the M8 x 120 locking screws on both sides. **Never remove the screws before or during transport!!**



- Check that the door is working properly.
 - o Moving the lifting door up and down

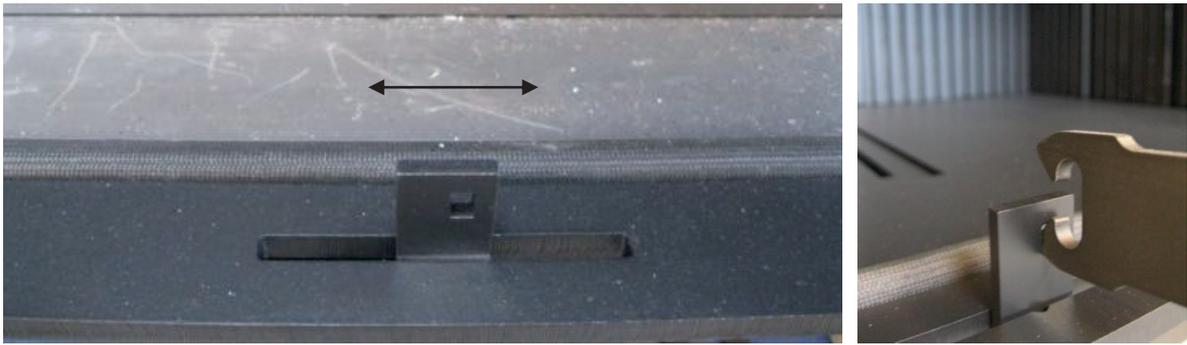


Use the door lever to move the lifting door up and down. The door lever can be attached to the lifting door on the left as well as on the right. The resistance on the lifting door is greater for the first 4 cm; after that it should be very easy to move.

- o Swing the door towards the front to clean the glass door.



- Check the air regulator



The air regulator lever should slide smoothly to the left and to the right. Use the supplied Metalfire lever for this.

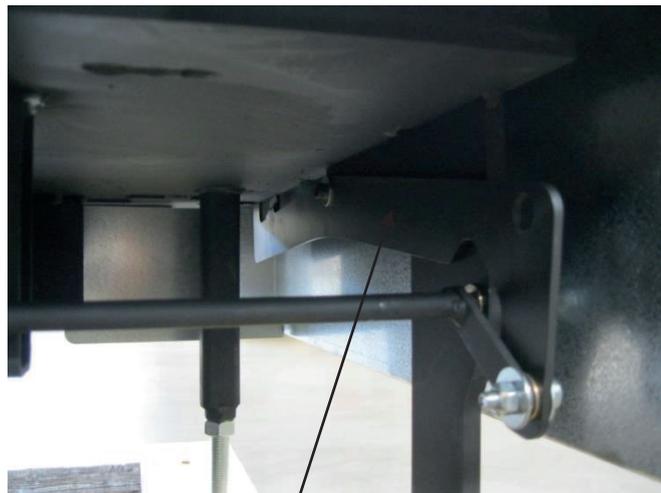
- Check the air bypass flap to ensure that it is in good working order.

When the door is open, the bypass flap draws the air supply from outside the house through the convection mantle, where it is heated, and into the living room. This air supply prevents low pressure from forming in the house when the fireplace door is open.

The flap is in the middle at the back, at the bottom of the hearth. This flap should be shut when the door is closed; when the door is open, this flap should lead the air through the convection mantle to the outflow vents in the surround.



Controls via bottom left of lifting door



Air bypass flap in open position (when the lifting door is open)

5.2.2.2 Installing accompanying components in the fireplace.

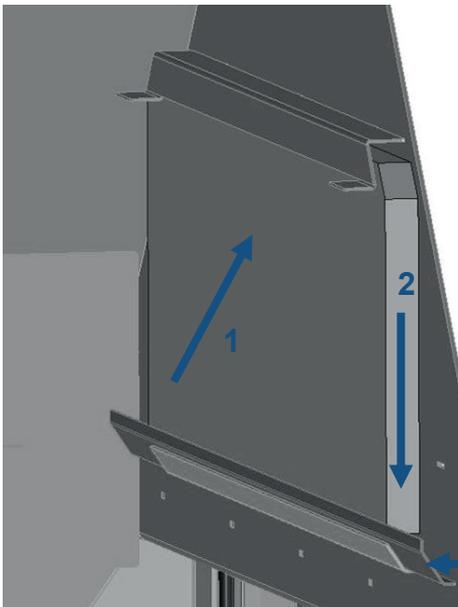
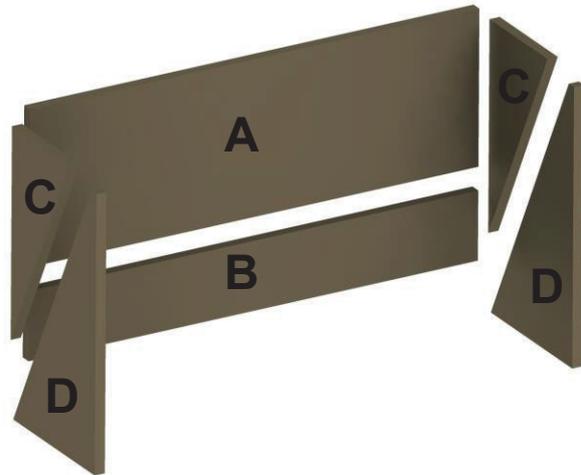
- Installing vermiculite panels:

These panels are in both sides, in the rear wall and in the front panel (above the lifting door). Slide the lifting door right to the top. The lower smoke deflection plate must be removed before you can start the installation (see Section 5.3.2)

Begin by installing the panels in the rear wall. The top panel (A) is locked at the top with a support bracket and rests at the bottom on the tube profile with holes.

The panel at the bottom (B) fits into the recess below the tube with holes and rests on the bottom profile.

Now that the panels can be installed in both of the sidewalls (C and D). These rest underneath on the sloping tube and on the bottom of the hearth.



Now install the panel in the front wall above the lifting door. This panel is supported by a bracket at the top and at the bottom. Install the panel with sloping edges facing the top.

First push the panel far enough with the upper edge behind the support bracket (step 1) so that it can then be pushed with the bottom edge in the lowest support bracket (step 2).

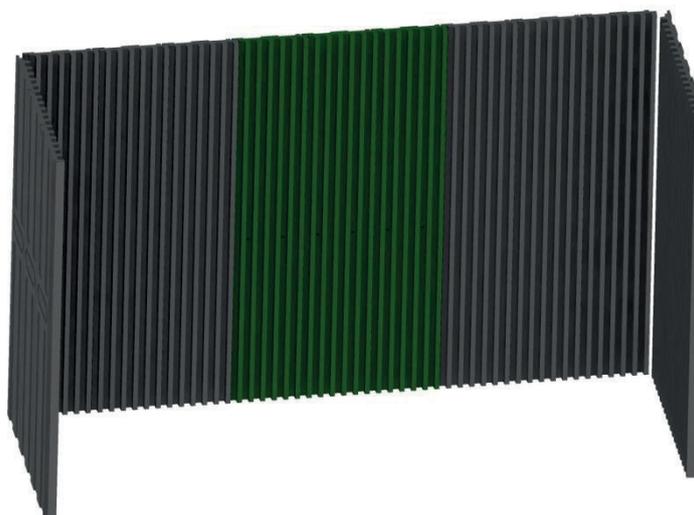
Finally, place the removable bar (item no. 3) under the vermiculite panel.

- Installing the cast iron reeded panels:

The reeded panels can be installed once the vermiculite panels have been installed.

Fireplace type	Slat type	quantity
ULTIME D MF 600-50 WHE 1S	L450 B120 without drilled holes	10
	L450 B54 without drilled holes	1
	L450 B120 with 2 drilled holes (green in the figure)	1
ULTIME D MF 600-75 WHE 1S	L600 B120 without drilled holes	10
	L600 B54 without drilled holes	1
	L600 B120 with 2 drilled holes (green in the figure)	1
ULTIME D MF 800-50 WHE 1S	L450 B120 without drilled holes	10
	L450 B120 with 2 drilled holes (green in the figure)	3
ULTIME D MF 800-75 WHE 1S	L600 B120 without drilled holes	10
	L600 B120 with 2 drilled holes (green in the figure)	3
ULTIME D MF 1050-50 WHE 1S	L450 B120 without drilled holes	12
	L450 B120 with 2 drilled holes (green in the figure)	3
ULTIME D MF 1050-75 WHE 1S	L600 B120 without drilled holes	12
	L600 B120 with 2 drilled holes (green in the figure)	3

Overview table of reeded panels.



Example of a reeded panel set for Ultime D MF 1050-75 WHE 1S

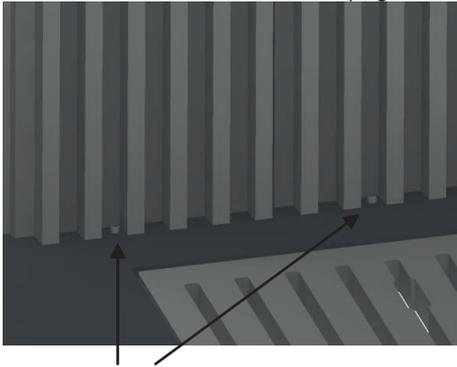


The bottom smoke deflection plate can only be mounted after the reeded panels have been installed in the fireplace. First the 3 reeded panels along the sidewalls are installed. These reeded panels do not have drilled holes.

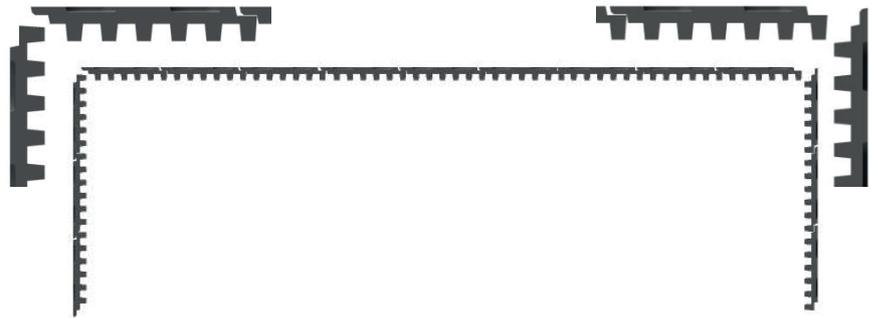
Begin by installing the reeded panels on the rear wall on the right-hand side (when standing facing the front of the fireplace). Start with 2 (for 600 and 800 models) or 3 (1050 model) reeded panels without drilled holes; then install the reeded panels with drilled holes (coloured green in the figure); and then finally install the remaining reeded panels without drilled holes on the far left.

The 3 reeded panels with drilled holes (coloured green in the figure) are positioned on the bottom of the hearth using screws.

The screws must be centred (3 grooves to the left and 3 grooves to the right).



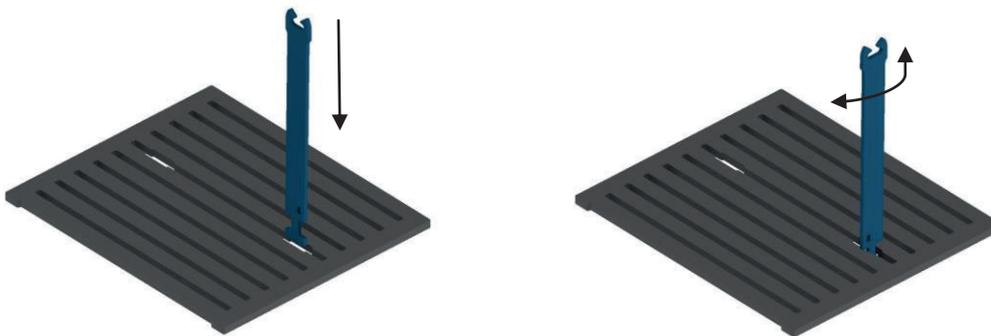
The positioning screw holds the reeded panel in place (models)



The position of the reeded panels in the left and right-hand corner (800 and 1050)

- Installing the combustion grate

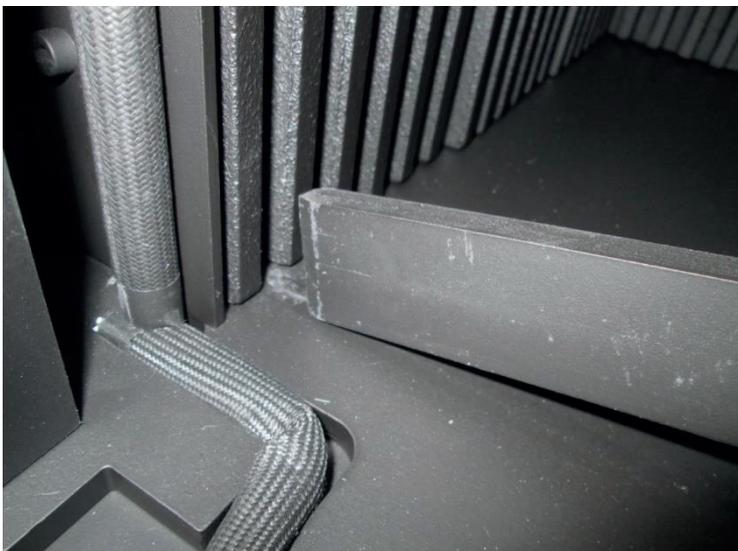
Place the lever with the two indentations in the widened slot in the grate. Turn the lever with the two indentations 90° in the grate. Now you can lift and move the grate.



The combustion grate must be installed with the narrowest slot openings facing upwards.

- Installing the stoking bar

Put the stoking bar in the first recess on both sides (left and right) of the reeded panels.



5.2.2.3 Installing the fireplace

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 Pascals.
- 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 for the flue pipe dimensions. If the connection is shortened, 1 metre extra must be included for each 45° change of direction.
- Using a flue pipe diameter which is too narrow is at the installer's risk and 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.

Table 2

Ultime D	300	250	200	Air Ext
MF 600-50 WHE 1S		>=4	>=5	1x Ø150
MF 600-75 WHE 1S		>=4	>=8	2x Ø150
MF 800-50 WHE 1S		>=4	>=6	1x Ø150
MF 800-75 WHE 1S		>=5		2x Ø150
MF 1050-50 WHE 1S		>=5	>=8	2x Ø150
MF 1050-75 WHE 1S	>=5	>=8		2x 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.



Combustion air

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

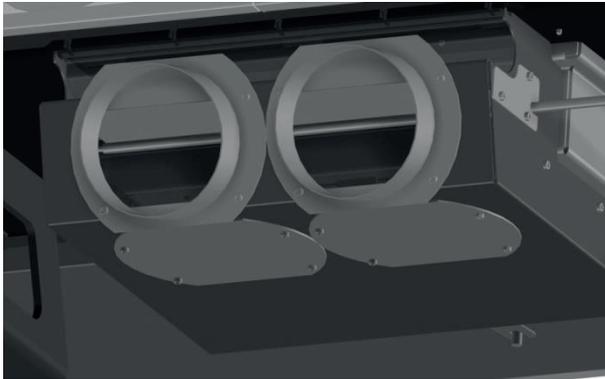
- Connection requiring air from the room.

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 diameter of the connection is 2x 150 mm. (Only 1x 150 mm is necessary for the 600-50 and 800-50 models.) The net cross-sectional area for the air supply must therefore be at least 360 cm². (Or 180cm² for the 600-50 and 800-50 models.)

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, 2 caps and 2 connector flanges are supplied with the appliance. (Or 3 caps and 1 connector flange for 600-50 and 800-50 models.)

- Standard connection underneath/rear. Connection diameter 2x 150 mm.



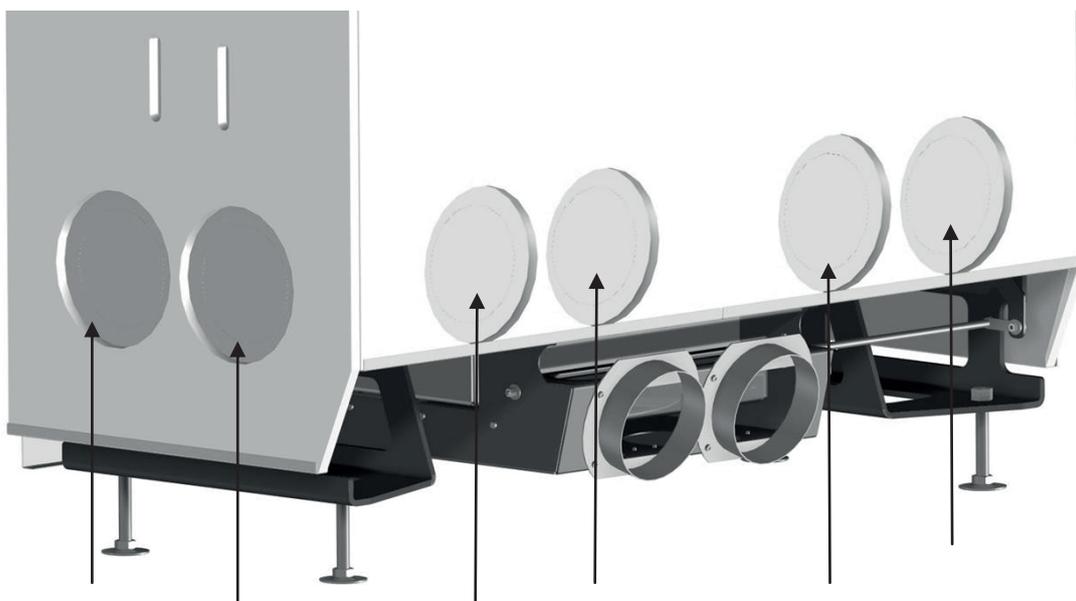
- Combustion air supply from the room:

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 360 cm². (Or 180cm² for the 600-50 and 800-50 models.) 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.

Convection air

The fireplace needs a convection system. To this end, a metal casing is mounted around the hearth frame. 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.

There are Ø150mm connection openings on both sides as well as on the back to connect the supply of air in the room. There is also a free space of 50 mm at the bottom of the appliance through which the air in the room can be channelled.

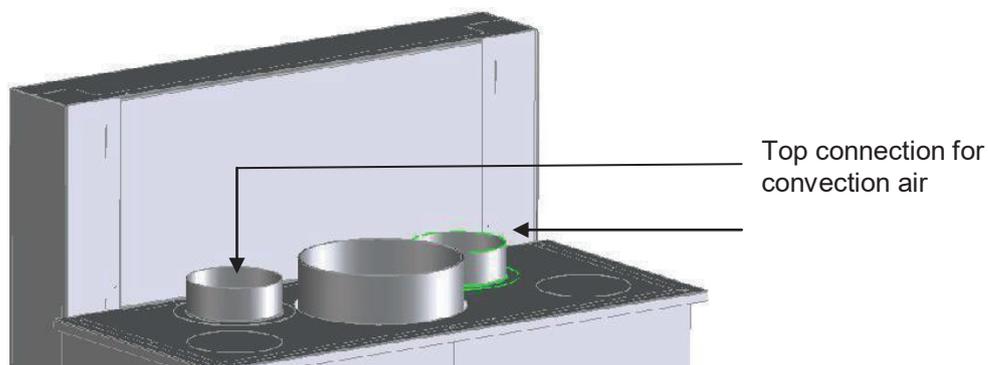


Side connection for convection air

Rear connection for convection air

At least 4 connection openings for the convection air must be cleared at the bottom of the hearth. Ensure that this is done symmetrically (at least 2 openings are needed for the 600-50 and 800-50 models).

The pre-cut Ø150 mm plates can be removed by tapping them. The connector flanges can then be mounted on the convection mantle using self-tapping screws.



There are 4 connections on the top of the fireplace for conducting the heated convection air back into the room. All 4 connections must be used (at least 2 for 600-50 and 800-50 models). If only two are used, the ones closest to the casing of the lifting door must be connected (see figure). 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.



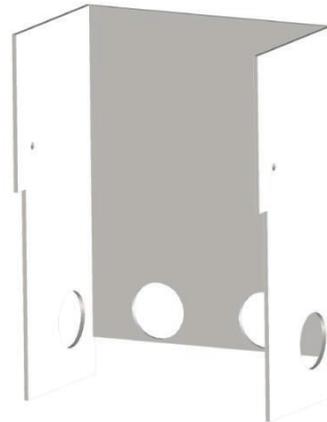
The connector flanges for the convection air flexible connectors are mounted to the convection mantle using self-tapping screws.

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						
	600-50	600-75	800-50	800-75	1050-50	1050-75
Minimum intake of air to convection mantle	400 cm ²	700 cm ²	400 cm ²	700 cm ²	700 cm ²	700 cm ²
Minimum outflow air in fireplace convection mantle	400 cm ²	700 cm ²	400 cm ²	700 cm ²	700 cm ²	700 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.

Metalfire offers a set of 15 mm insulation boards made of calcium silicate and cement for every type of fireplace, which can be installed directly on the fireplace and improve its efficiency. These boards are not intended to protect flammable materials against overheating.



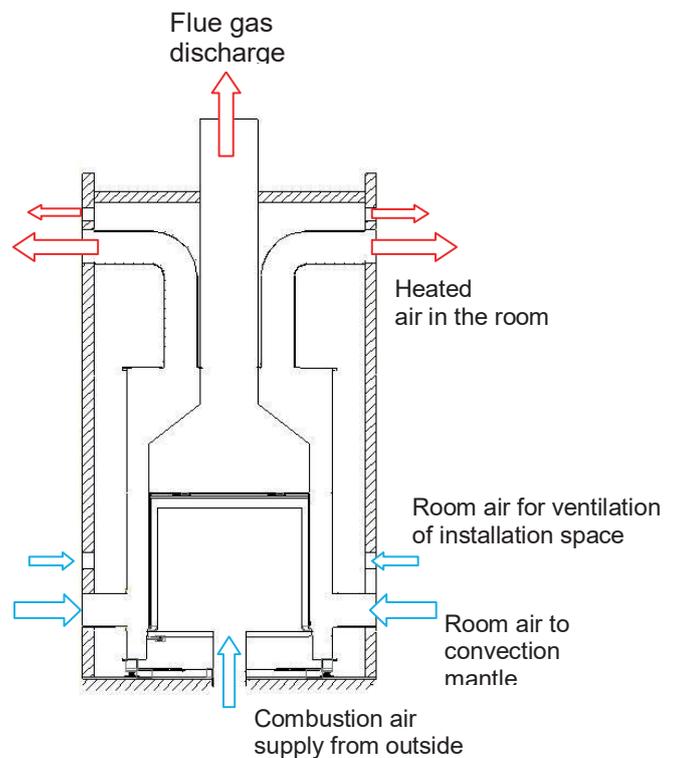
Fireplace surround and connections

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. Ensure that flammable materials (wooden mantels, curtains, flammable liquids, furniture and so on) are always separated from the fireplace by at least 0.8 m, 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. Ensure the necessary insulation of the required thickness is placed between the fireplace and flammable materials. (See Table 1.)

Installation examples:

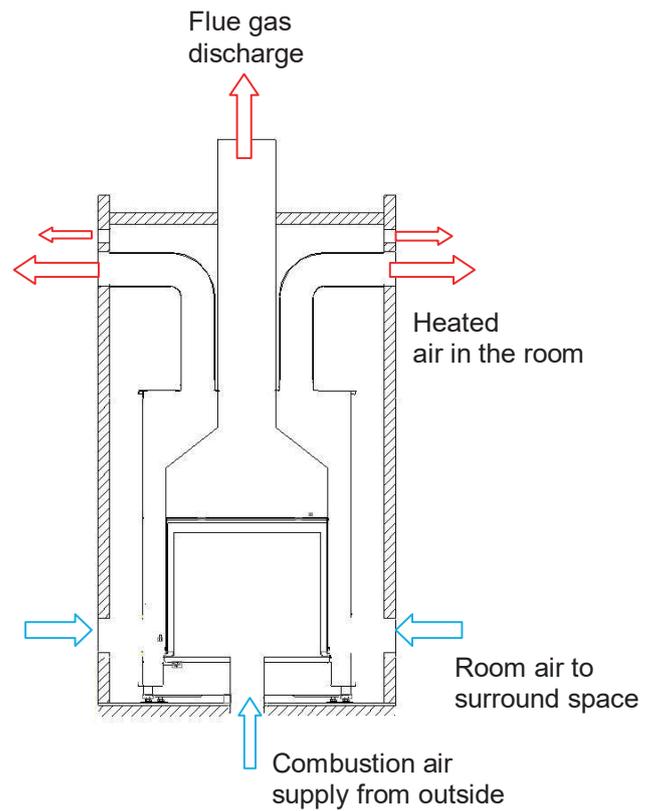
Combustion air supply from outside the room

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.



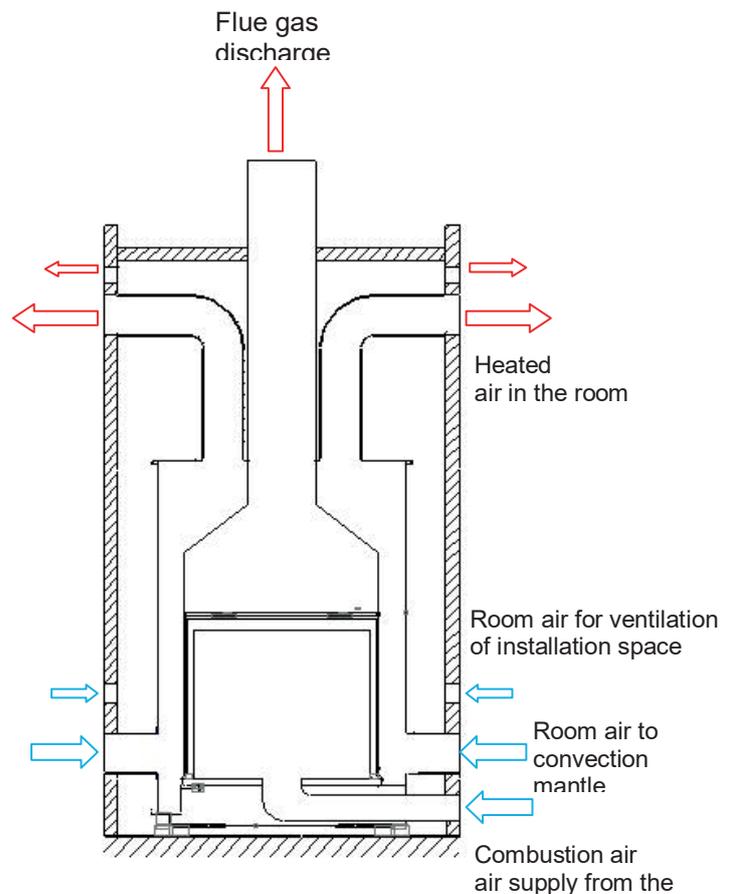
Combustion air supply from outside the room

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 Ø360 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.

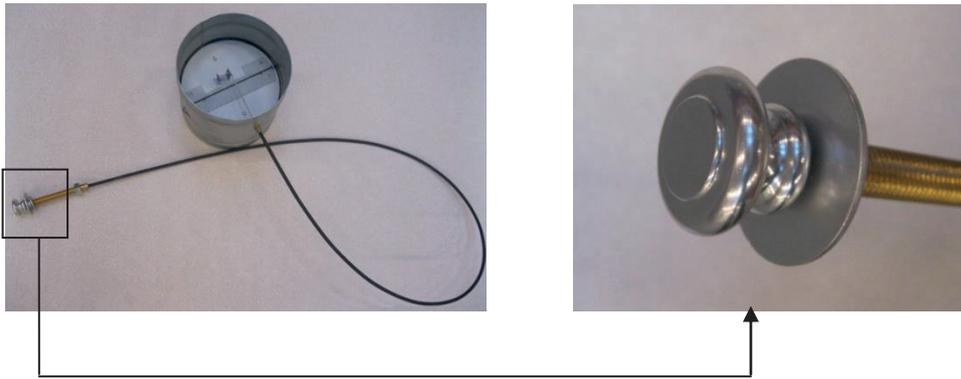


Combustion air supply from inside the room

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 cm². 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 cm². Connecting the combustion air to the fireplace can be effected using two Ø150 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 ventilation grate above a 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.

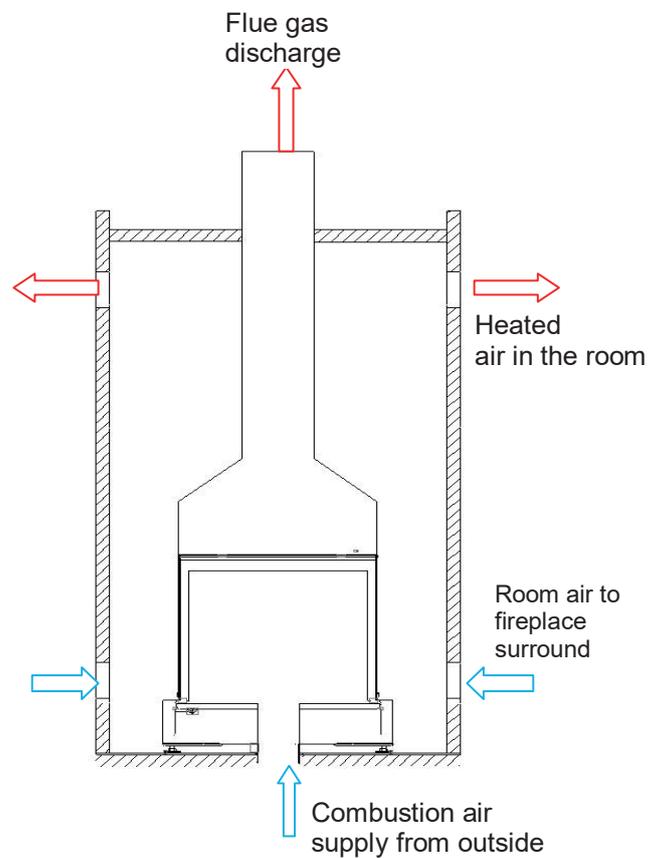


Closable air supply vents with cable controls can be purchased from Metalfire.

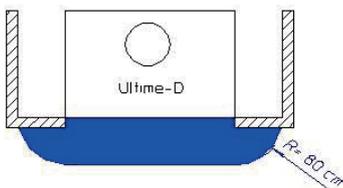


Appliance without convection mantle

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 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.



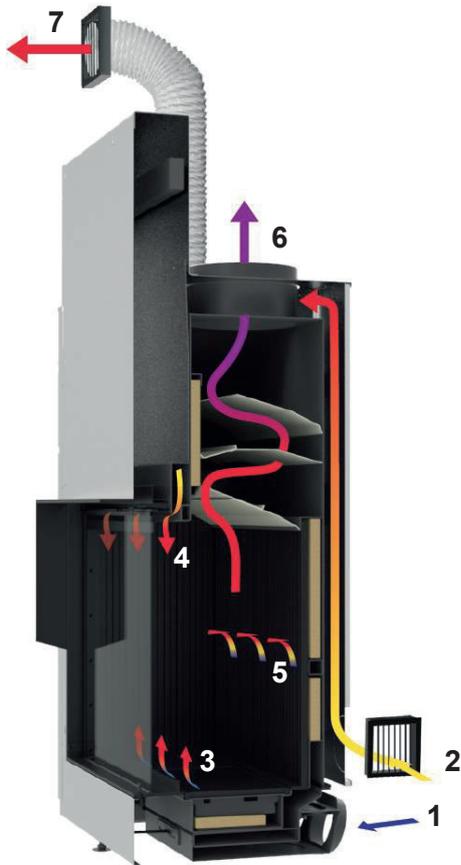
Safety zone from flammable materials



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

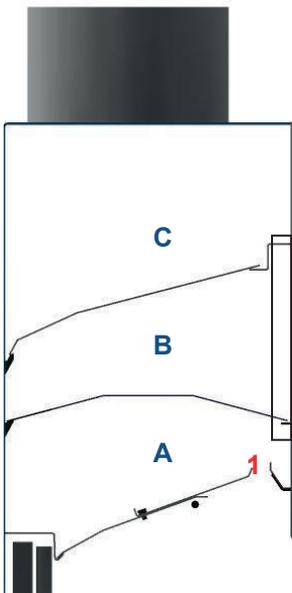
5.3 The working principle of the Ultime D

5.3.1 Air flows



- 1 Combustion air supply (rear/underneath)
- 2 Air supply from the room/convection air
- 3 Primary air supply for combustion
- 4 Secondary air supply for combustion/ air wash system
- 5 Tertiary air supply for combustion
- 6 Flue pipe for flue gas discharge
- 7 Emission of heated convection air

5.3.2 Setting and functioning of smoke deflection plates

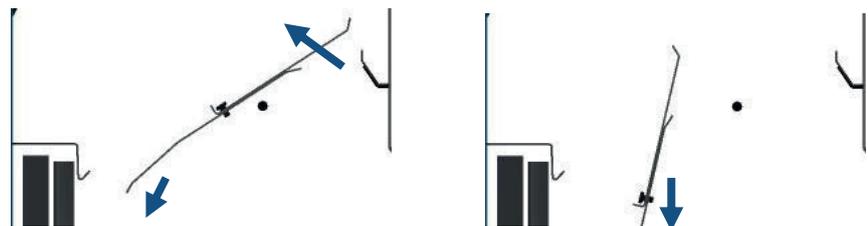


Flue gas opening 1 can be adjusted using adjustable smoke deflection plate A. The setting depends on the chimney's natural draw and affects the combustion and efficiency of the fireplace. By default, the opening is set to maximum efficiency.

The wider the passageways, the easier it is to discharge flue gasses. When adjusted correctly, there should be no backdraught when the door is open, assuming that the prescribed flue pipe configuration has been observed.

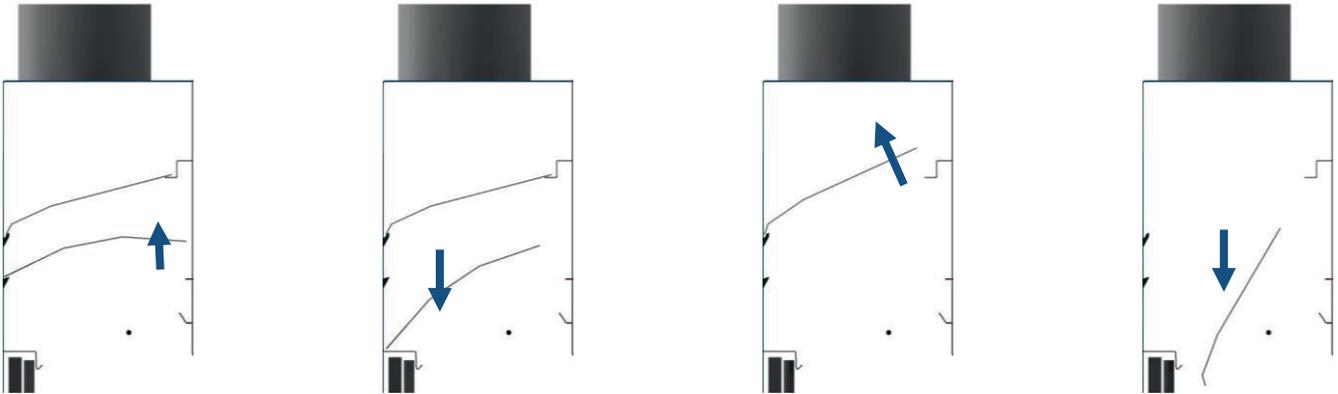
To change the setting of the passageway, the bottom smoke deflection plate must be removed from the fireplace.

Smoke deflection plate A can be removed by first lifting the back, then moving slightly forwards and then removing it by tilting it downwards at the back.



The screws can be loosened using a size 10 screwdriver and the setting can be adjusted via the slots in the adjustable section. After adjustment, tighten the screws and put the smoke deflection plate back into the fireplace. Take the steps in the reverse order to when dismantling the fireplace.

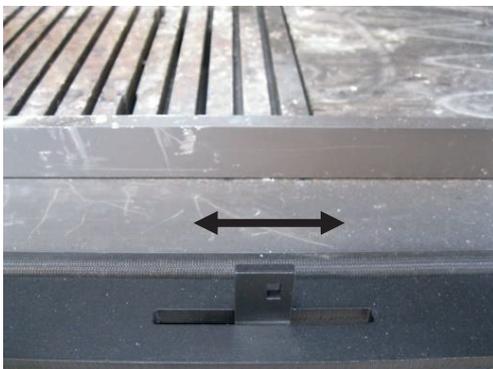
To discharge the flue gasses faster when stoking the fire often with the door open (door in top position), the middle and/or top smoke deflection plates are removed from the fireplace.



The plates need to be removed to facilitate the cleaning of the chimney. Moving the top smoke deflection plate is done in exactly the same way as removing the bottom plate (lift it upwards, move it forwards, move the back downwards: see the bottom of the previous page).

After cleaning, put the smoke deflection plates back in their correct position.

5.3.3 Regulating the combustion air supply



The combustion air supply can be adjusted using the supplied lever. Maximum air supply for combustion is achieved when the movable lever is moved to the extreme right-hand side. All the air inlets are fully open in this position (see Section 4.3.1).

If the lever is in the central position (as shown in the figure), the primary air supply is closed off and the secondary and tertiary air supplies remain open. In this position, the fireplace burns at the nominal heat output when the chimney is drawing at 12 Pascal.

Moving the lever further to the left reduces the secondary and tertiary air supply and this decreases the output of the fireplace.

Adjusting the fireplace in this way only influences the combustion process when the fireplace door is closed.

5.4 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.

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.

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.

Caution:

- 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 or unfavourable weather conditions.

5.4.1 Fuel

The Ultime 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. The most suitable wood types are oak, beech and birch.

The logs should ideally be 25 to 30 cm in length and have a maximum circumference of 30 cm. The maximum number of these logs in the fireplace at any one time should be 3 logs (Ultime 600 and 800 models), 4 logs (Ultime 1050-50) and 5 logs (Ultime 1050-75).

Using resinous wood types wood is strongly discouraged because they spark and have a short burning time.

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.

Do not use spirits, petrol, oil or other fire accelerants.

5.4.2 Lighting the fire for the first time

- Move the lifting door upwards.
- Set the combustion air control to maximum (completely to the right).
- Put small pieces of kindling wood on top of the grate surface.
- Light the kindling wood using firelighters.
- Slide the lifting door downwards, but leave a gap of five cm. This will fuel the fire and prevent condensation from forming in the hearth and on the glass.
- When lighting the fire for the first time, the door must be slightly ajar to prevent the seal between the door frame and hearth frame from sticking together while the heat-resistant paint is curing.
- Once the kindling wood is burning well, small logs can be added to the fire.
- Only add larger logs once the fire is burning well.
- Allow the fire to go out after an hour so that the fireplace can cool down and the paint can finish curing.

5.4.3 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 likely and must be adequately tested. If necessary, adjust the smoke deflection plates or change the chimney configuration.

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

To remedy this, adjust the smoke deflection plates (slightly close the openings).

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

6 Operating instructions

6.1 Opening the lifting door

6.1.1 Moving the lifting door up and down

Place the door lever on the lifting door pin. This can be done on the left as well as on the right. Then move the lifting door upwards using the door lever. The resistance will be stronger for the first 4 cm. This movement will unlatch the door seal. Any further movement of the door should be very smooth.



6.1.2 Hinging the glass door open

Only open the glass door once the fireplace has cooled down.

The glass door can hinge open to facilitate cleaning.

Ensure that the lifting door is in the downward position (is closed).

The door can be unlatched using the lever which is in the upper right-hand corner (concealed behind the finish).

Swing the glass door open using the door levers to the left and right at the top.

Do the reverse to close the glass door once again.



Position 1: Door window latched
Position 2: Door window open



Glass door in open position. The glass is now easy to access for cleaning purposes.

Some detergents may damage the fireplace seals, so prevent detergents from coming into contact with the seals.

Only clean the glass once the fireplace has cooled down completely.

6.2 Emptying the ash pan

Only empty the ash pan once the fireplace has cooled down completely and there are no glowing or burning embers. Put the lifting door into the top position first.

Regularly empty the removable ash pan under the combustion grate, which must be emptied regularly. If the ash pan is too full, it may slow down the supply of primary combustion air.

The combustion grate must first be moved out of the way before the ash pan can be cleaned.

You can then remove the ash pan to empty it or access it directly with a vacuum cleaner to empty it.



Place the grate against the rear wall so that the ash pan is released.



Now the ash pan can be removed using the two rims on the tray. When replacing the grate, ensure that the air inlets face the back and the left- and right-hand side.

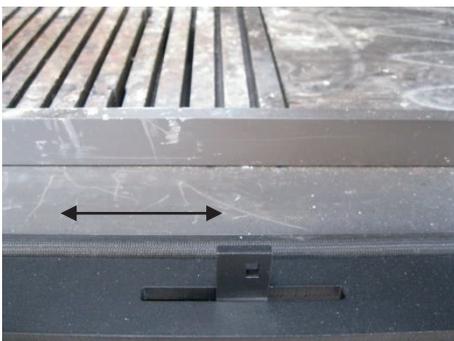
6.3 Regulating the combustion air

The combustion air supply can be adjusted using the supplied lever. Maximum air supply for combustion is achieved when the movable lever is moved to the extreme right-hand side. The primary, secondary and tertiary air inlets are all fully open when the lever is in this position.

If the lever is in the central position (slot in the lever - triangle), the primary air supply is closed off and the secondary and tertiary air inlets remain open. In this position, the fireplace burns at the nominal heat output when the chimney is drawing at 12 Pascal.

Moving the lever further to the left reduces the secondary and tertiary air supply and this decreases the output of the fireplace.

Adjusting the fireplace in this way only influences the combustion process when the fireplace door is closed.



7 Lighting the fire

- Caution:
- 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 or unfavourable weather conditions.

7.1 Fuel

The Ultime 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.

The most suitable wood types are oak, beech, hornbeam and birch.

The logs should ideally be 30 cm in length and have a maximum circumference of 30 cm. The maximum number of these logs in the fireplace at any one time should be 3 logs (Ultime 600 and 800 models), 4 logs (Ultime 1050-50) and 5 logs (Ultime 1050-75).

Using resinous wood types wood is strongly discouraged because they spark and have a short burning time.

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.

Do not use spirits, petrol, oil or other fire accelerants.

7.2 Lighting the fire

Move the combustion air adjustor to the extreme right-hand side.

Move the lifting door upwards.

Check whether the ash pan is empty.

Put split kindling wood on top of the grate surface. Light the wood using firelighters

Leave the lifting door ajar with a gap of 5 cm to fuel the fire.



Larger logs can be added to the fire once the kindling wood is burning well. These logs may be 30 cm in length and have a maximum circumference of 15 cm. Place the logs on top of the kindling wood.



Make sure that no glowing ashes come into contact with the seal to avoid damage. The lifting door can be shifted downwards completely once the larger logs have ignited properly. A bed of glowing embers should now form. Spread the bed of glowing embers sufficiently using a poker and then add 3 new logs. These logs may be 30 cm in length and have a maximum circumference of 30 cm. The air regulator can now be moved to the central position so that there is only secondary and tertiary air supply for combustion. Three of these logs correspond to the nominal output of the fireplace.



Examples of ways to stack the wood to achieve the best possible mixture of air.



Adding wood is best done after the flames have died down and the logs are glowing. Move the lifting door upwards using the lever. Do this slowly so that no sudden air flows occur in the fireplace and the smoke does not escape into the room. Spread the embers using a poker and put new logs on top of the bed of glowing embers. Close the lifting door once again. Keep to the maximum quantities of wood mentioned in Section 4.4.1.

If the fireplace air regulator is to the left of the central position (reducing secondary air supply), then it should first be moved to the right (primary air supply) before the door is opened and new wood is added. This will keep the risks that arise from too much air flow into the fireplace to a minimum (explosion hazard).

7.3 Burning with closed or open lifting door

The Ultime D can function with a closed or open lifting door, provided the flue pipe configuration is adequate. Optimum combustion is achieved with a closed lifting door. Using the fireplace with an open lifting door is best restricted to shorter periods.

When the lifting door is open, the outdoor air flow is routed via the convection mantle so that it is heated when entering the room.

Performance when the door is closed:

- Optimum combustion and maximum efficiency with lower wood consumption.
- More environmentally friendly heating.
- Safer from a fire prevention point of view.
- The intensity of the fire can be controlled via the combustion air supply arrangement.
- If the combustion air is connected directly to the outdoor air, combustion air is not affected by air pressure levels in the room. Ventilation systems, extractors and so on do not affect combustion.

Performance when the door is open:

- Lower efficiency levels (about 20%).
- Fire hazard from sparks and naked flames.
- The intensity of the fire cannot be controlled; air enters the fireplace unchecked.
- Consumption of air from the room is significant.
- Backdraught may occur in the room due to pressure fluctuations in the room through the use of an extractor hood, for instance.
- Higher wood consumption rate.
- Crackling embers and the smell of wood smoke give a more pleasant feeling of warmth. The feeling of a real fireplace.

Recommendations for open fire:

Only open the fireplace once it is fully heated so that the draw is optimum and a bed of glowing embers has formed. Always have the lifting door down when lighting the fire. Never leave an open fire unsupervised.

8 Maintenance

8.1 Cleaning the glass

Consult the description in Section 5.1.2 on how to open and close the door.

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.

8.2 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 remove ash remains that have fallen into the area under the ash pan.

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.

9 Malfunctions

9.1 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 5 cm when lighting the fire.
- Stoke the fire as prescribed.
- Check that there is sufficient draught in the flue pipe.
- Adjust the smoke deflection plates. If there is insufficient draught, increasing the openings may assist the removal of flue gasses. (See Section 4.3.2.)
- Check the seals for damage and replace where necessary.
- Check whether the combustion air supply channel is open.

9.2 Backdraught

- Let the fireplace heat up sufficiently with the lifting door closed before burning the fire with an open door.
- Check whether the middle smoke deflection plate hinges open when the lifting door opens.
- Widen the openings of the smoke deflection plates.
- 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%.

9.3 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 ash pan and the area under the ash pan.
- Check the combustion air supply.

9.4 Broken glass in the door

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

9.5 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.

9.6 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.

10 Guarantee clause

10.1 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 dealer.

10.2 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.

10.3 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

To be completed by you:

Dealer: _____
Date of installation: _____
Manufacture number: _____ (number on the plate under the ash pan)

