



## **CITIZEN SERIES**

**CITIZEN MF 700-60 WHE 1S  
CITIZEN MF 900-45 WHE 1S  
CITIZEN MF 900-60 WHE 1S  
CITIZEN MF 1050-45 WHE 1S**

# **Installation and instructions for use**



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“Diese Einbau-und Bedienungsanleitung sind auf Anfrage verfügbar in Deutsch“



## 2 Introduction

We thank you for your confidence in the Metalfire stove you bought. Our products guarantee years of heating and ambience.

Read these installation and usage instructions carefully before starting the installation. After this, you hand these over to the customer.

We advise you to check the stove on receipt for any damage incurred during transport.

The Citizen range consists of the following models:

CITIZEN MF 700-60 WHE 1S  
CITIZEN MF 900-45 WHE 1S  
CITIZEN MF 900-60 WHE 1S  
CITIZEN MF 1050-45 WHE 1S

These appliances are closed wood-burning stoves that are fitted to an individual flue. The combustion gasses are removed via this flue. The supply of outdoor air for combustion can be connected directly to the stove.

These stoves can thus operate independently of the air in the room.

In Germany, a test must be performed on stoves that are independent of the air in the room and these must be approved by the building authorities.

**It is very important that this wood-burning stove is only connected by an approved installer in accordance with nationally and/or locally applicable regulations.**

## 3 Security

### 3.1 CE mark

The stove has been inspected in accordance with standards EN 13229-2001 and EN 13229-A2:2004

### 3.2 Safety instructions on installation

This wood-burning stove may only be installed by an authorised installer in accordance with nationally and/or locally applicable standards and building regulations.

Take the precautions needed to ensure that no overheating of the items in the immediate vicinity of the appliance (curtains, floor, walls, ...) can occur, by making use of non-combustible materials.

Check the stove for correct operation before starting the finishing work.

### 3.3 Safety instructions for the user

These wood-burning stoves give off considerable heat. The complete exterior of the stove gets very warm (metalwork, door glass, finishing frame, ...).

Therefore make sure that young children and the elderly stay far enough from the stove that they cannot come into contact with it and put a guard around the stove if necessary.

Never let children operate the stove.

Ensure that flammable materials (wood finishes, curtains, flammable liquids, furniture) both above and around the stove are at least 0.8 m away from it.

All parts of the stove that are visible after it is built in must be regarded as active heating surfaces and may therefore not be touched during operation. These parts involve a risk of skin burns.

Do not use the stove with cracked or broken door glass.

If defects appear in the door glass it should be replaced by an approved Metalfire dealer.

This stove is only intended for supplementary heating and therefore not for continuous use.

### 3.4 Safety features

The installer should take the measures needed regarding overheating and nearby materials in accordance with the national and local regulations. In addition, the installation must meet all applicable standards, including national and European standards. Take the required measures by using non-flammable and insulating materials to prevent overheating of combustible materials in the vicinity of the stove. See Table 1 for the minimum insulation thicknesses.

## 4 Technical specifications

### 4.1 Characteristics of the stove

Table 1

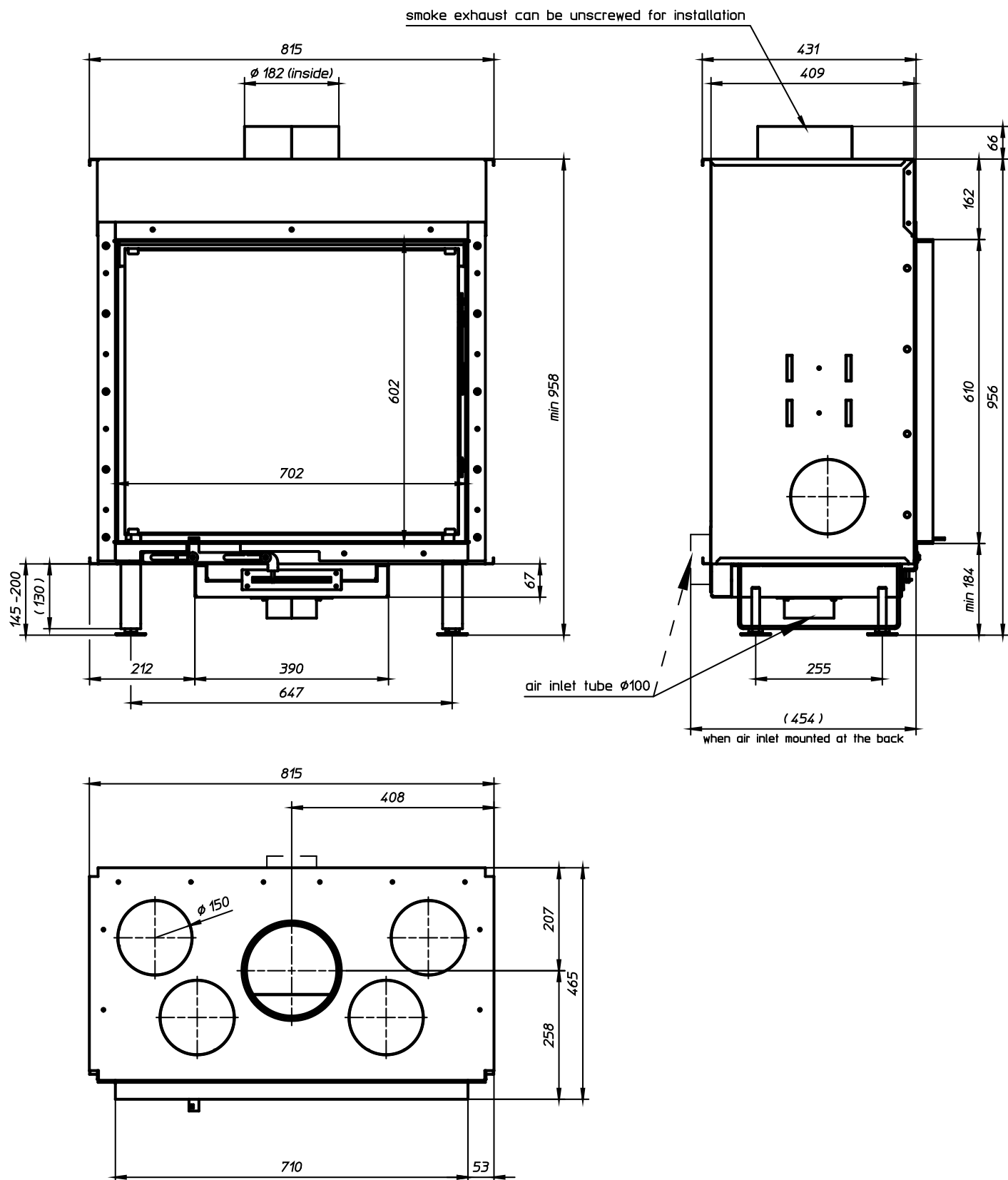
Model	Citizen MF 700-60 WHE 1S	Citizen MF 900-45 WHE 1S
Fuel	Split firewood	Split firewood
Nominal capacity	12.2 kW (approx. 3.5 kg/hr wood)	12.8 kW (approx. 3.7 kg/hr wood)
Efficiency (%)	80 %	78 %
Optimal range of use	7 kW – 14 kW	7 kW – 15 kW
Wood consumption/hr. (max 15% moisture content)	3,38 kg/h	3,73 kg/h
Max. wood consumption limit/hr.	Max. Four pieces with a length of 25 cm and a girth of 30cm±3	Max. Four pieces with a length of 25 cm and a girth of 30cm±3
Combustion gas flow (g/s)	10.3	11.1
Combustion gas temperature (°C)	264	311
CO at 13% O <sub>2</sub> (%)	0.09	0.08
Dust content at 13% O <sub>2</sub> (mg/nm <sup>3</sup> )	25	28
Min. chimney draw (Pa)	12	12
*Min. Insulation thickness, top (cm)	Only non-combustible materials	Only non-combustible materials
*Min. Insulation thickness, side (cm)	5	10
*Min. Insulation, rear (cm)	7	5
*Min. Insulation thickness, base (cm)	4	4
Chimney connection (mm)	Ø180	Ø180
Combustion air connection (mm)	Ø100 – (± 79cm <sup>2</sup> )	Ø100 – (± 79cm <sup>2</sup> )
Convention connection inlet (mm)	4 x Ø150 (± 4 x 180cm <sup>2</sup> )	4 x Ø150 (± 4 x 180cm <sup>2</sup> )
Convection connection outlet (mm)	4 x Ø150 (± 4 x 180cm <sup>2</sup> )	4 x Ø150 (± 4 x 180cm <sup>2</sup> )
Weight incl. cast iron slats (kg)	195 kg	200 kg
* Standard insulation 400 °C: 0.14W/mK		

Model	Citizen MF 900-60 WHE 1S	Citizen MF 1050-45 WHE 1S
Fuel	Split firewood	Split firewood
Nominal capacity	15 kW (approx. 3.9 kg/hr wood)	13.4 kW (approx. 3.8 kg/hr wood)
Efficiency (%)	79 %	79 %
Optimal range of use	9 kW – 18 kW	7 kW – 15 kW
Wood consumption/hr. (max 15% moisture content)	4,26 kg/h	3,79 kg/h
Max. wood consumption limit/hr.	Max. Four pieces with a length of 25 cm and a girth of 30cm±3	Max. Four pieces with a length of 25 cm and a girth of 30cm±3
Combustion gas flow (g/s)	13.3	11.3
Combustion gas temperature (°C)	290	304
CO at 13% O <sub>2</sub> (%)	0.10	0.09
Dust content at 13% O <sub>2</sub> (mg/nm <sup>3</sup> )	26	23
Min. chimney draw (Pa)	12	12
*Min. Insulation thickness, top (cm)	Only non-combustible materials	Only non-combustible materials
*Min. Insulation thickness, side (cm)	4	8
*Min. Insulation, rear (cm)	8	10
*Min. Insulation thickness, base (cm)	4	4
Chimney connection (mm)	Ø180	Ø180
Combustion air connection (mm)	Ø100 – (± 79 cm <sup>2</sup> )	Ø100 – (± 79 cm <sup>2</sup> )
Convention connection inlet (mm)	4 x Ø150 (± 4 x 180 cm <sup>2</sup> )	4 x Ø150 (± 4 x 180 cm <sup>2</sup> )
Convection connection outlet (mm)	4 x Ø150 (± 4 x 180 cm <sup>2</sup> )	4 x Ø150 (± 4 x 180 cm <sup>2</sup> )
Weight incl. cast iron slats (kg)	230 kg	230 kg
* Standard insulation 400 °C: 0.14W/mK		



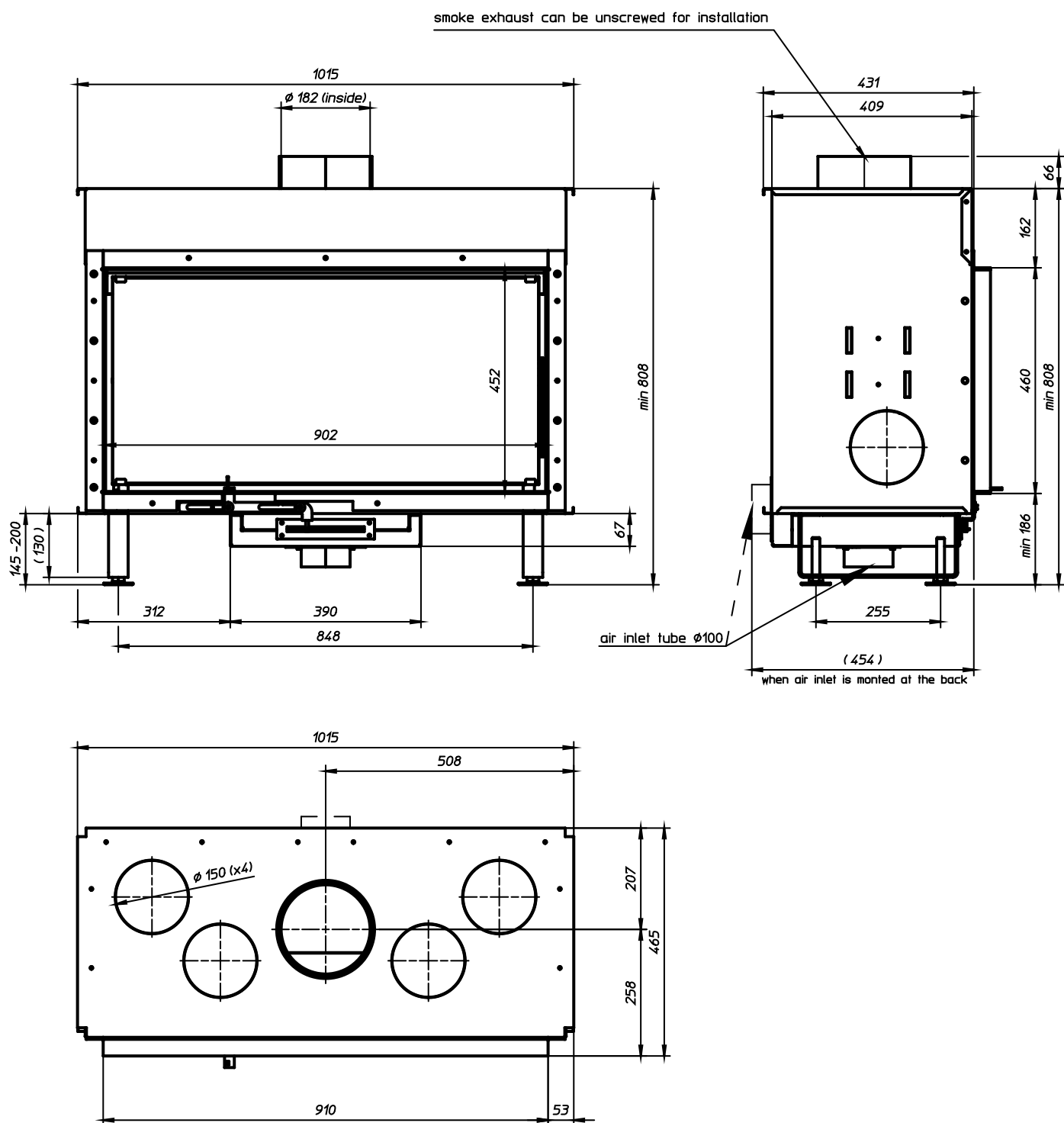
## 4.2 Dimensions of stove

### 4.2.1 CITIZEN MF 700-60 WHE 1S



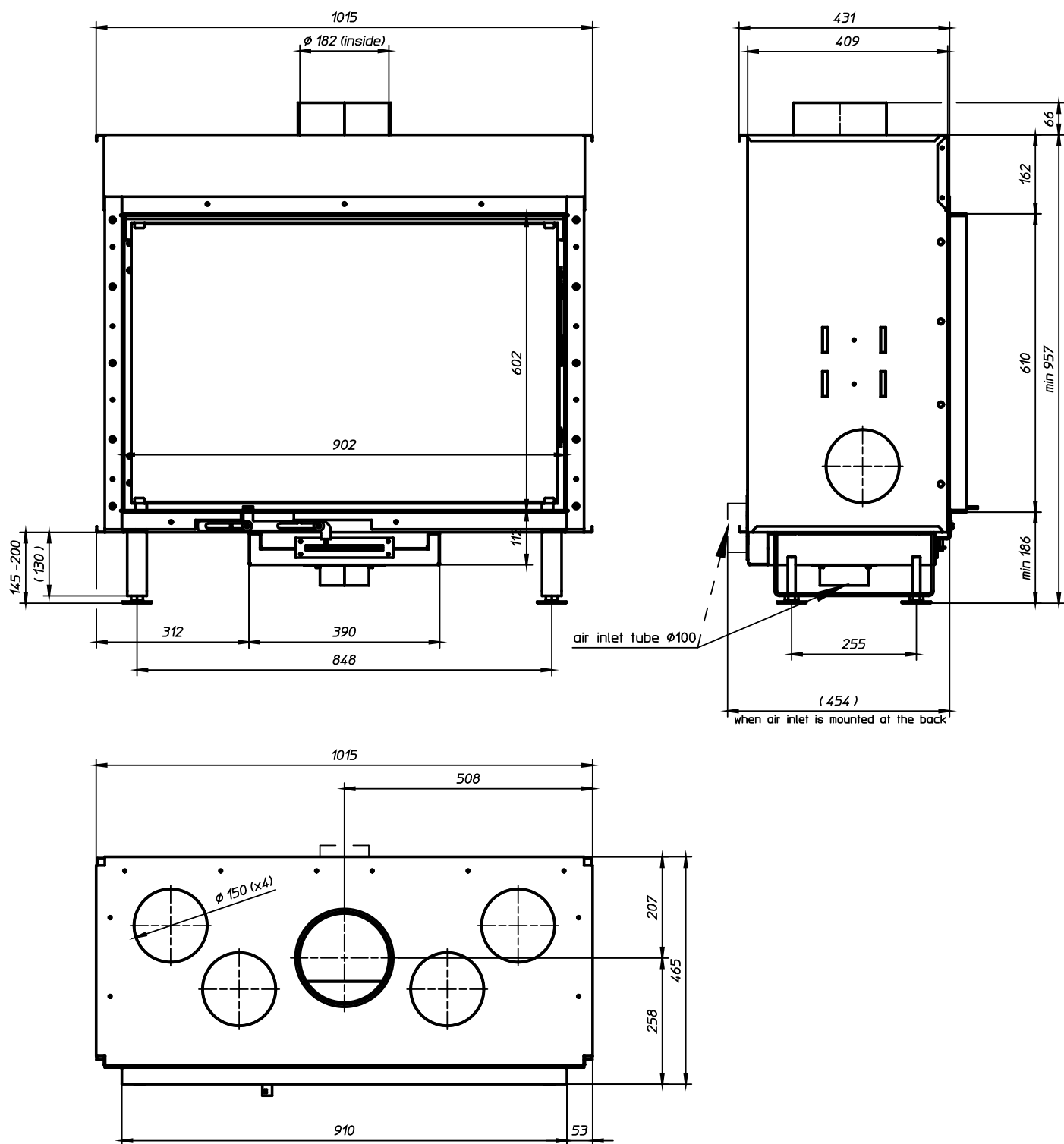
Weight: 195kg (including slats)

## 4.2.2 CITIZEN MF 900-45 WHE 1S



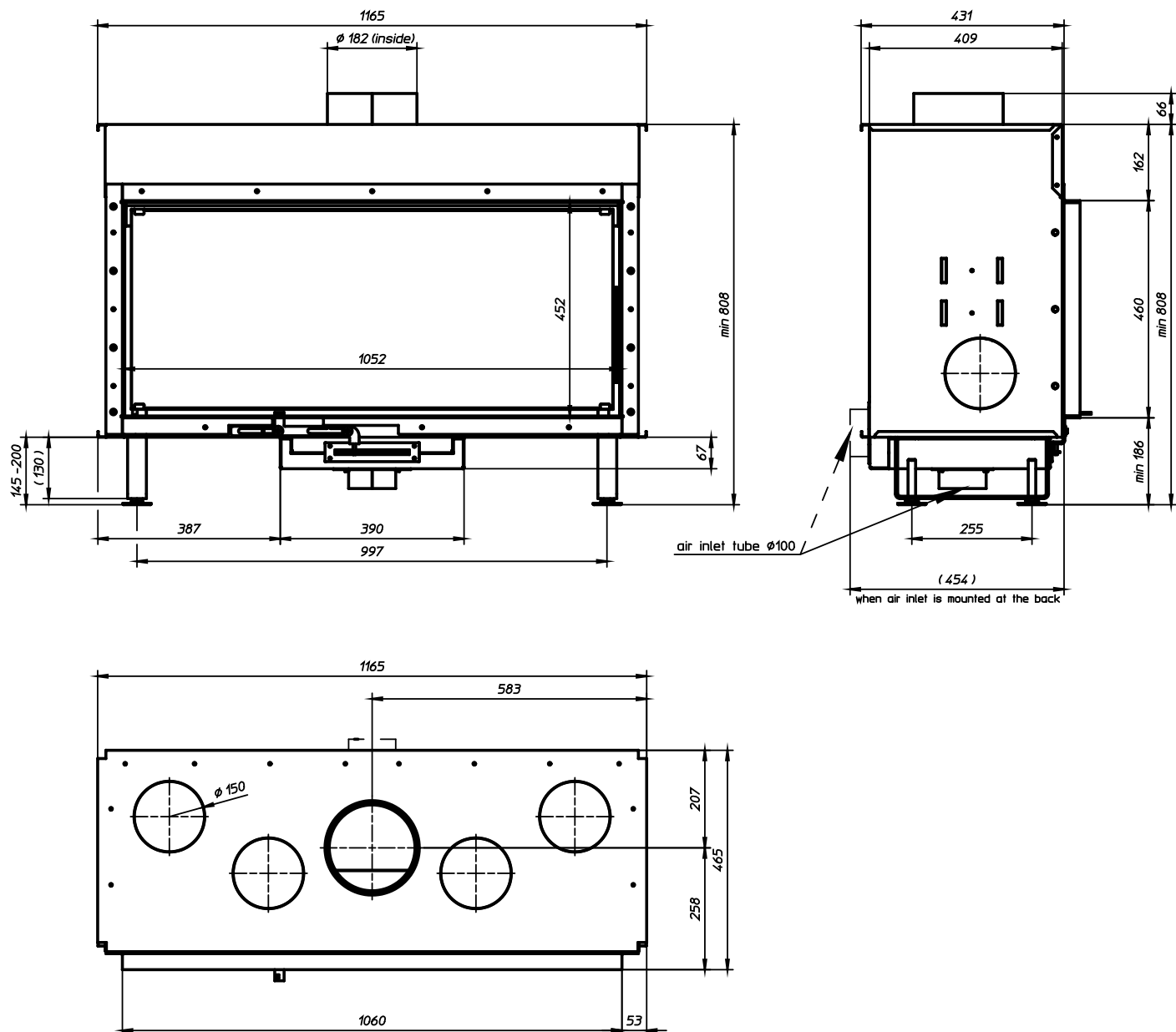
Weight: 200kg (including slats)

#### 4.2.3 CITIZEN MF 900-60 WHE 1S



Weight: 230kg (including slats)

#### 4.2.4 CITIZEN MF 1050-45 WHE 1S

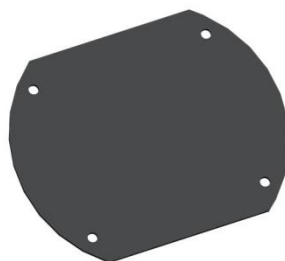


Weight: 230 kg (including slats)

## 5 Installation and building-in instructions

### 5.1 Description of the spare parts delivered

- Stove
- Installation and usage instructions
- Door-Air regulator key
- Mounting flanges for convection air
- Mounting flange for air supply,
- Lid
- Paint spray can
- slats, vermiculite plates
- (insulation plates, frame) according to order



### 5.2 Building-in and positioning the stove.

#### Comments:

- The stove may only be moved in an upright position.
- Remove the packaging and dispose of it in an environmentally-friendly way.
- There are openings along the side of the stove to allow it be moved using a set of lifting brackets.

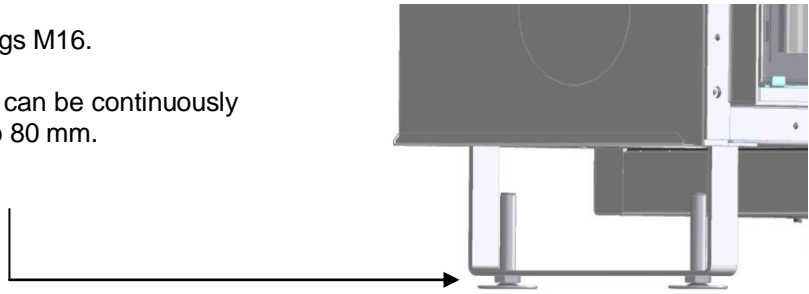


#### 5.2.1 Positioning the stove

Always ensure that the surface is strong enough to bear the weight of the stove (see Table 1) and its surround. If the existing surface is unsuitable, take measures to reinforce it in order to better distribute the weight.  
(See Table 1)

The stove has four adjustable support legs M16.

To level the stove, every supporting foot can be continuously adjusted. The control range is from 24 to 80 mm. A 24 mm spanner is used for this.



If the highest position of the supporting legs is insufficient, a load-bearing structure should be constructed on which the stove can rest. This must be strong enough to bear the weight of the stove.

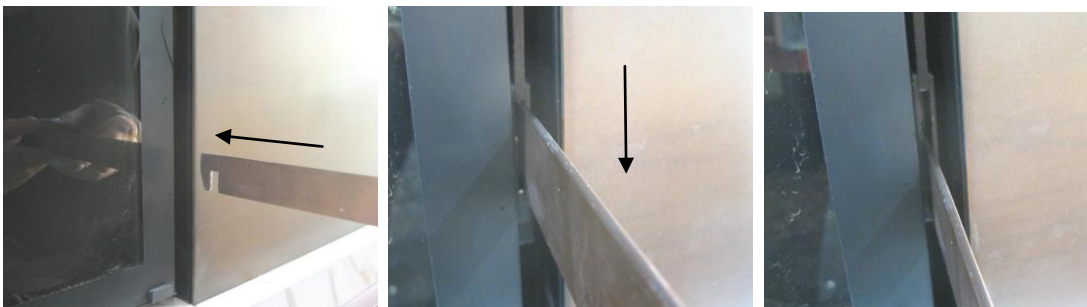
### 5.2.2 Building-in the stove

**Before the finishing work on the surround of the stove can begin, a basic test must be performed. For this, see Section 5.4.**

#### 5.2.2.1 Controlling the stove

Before starting to assemble the stove, the following components should be checked for correct operation:

- Check the door for correct operation.
  - o Inserting door key



The door handle is on the right of the stove door. Put the door key in the rectangular recess of the door handle. Then push the door key downwards. The door key is now anchored in the door handle. The door key is removed in reverse order.

- o Open the door forwards to add wood or clean the door glass.



After applying the door key, the door can be unlocked. To do this, turn the door handle upwards. The door can now be opened.

- Check the air regulator



It should be possible to move the air regulation screw quickly and easily to the left and right. For this, use the Metalfire handle supplied.

- Check the operation of the movable damper. This plate can be found at the front of the stove, just above the hinged door. This is operated via the hinged door of the stove. If the door is opened, the movable damper is also opened; when the door is closed, the damper is closed. Open the hinged door and manually operate the lever of the movable damper to check its operation.



Opened damper (with door open)

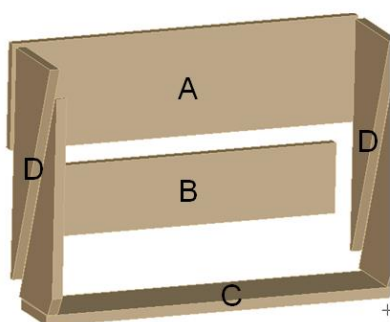


Closed damper (with door in closed position)

#### 5.2.2.2 Fit the parts delivered with the stove.

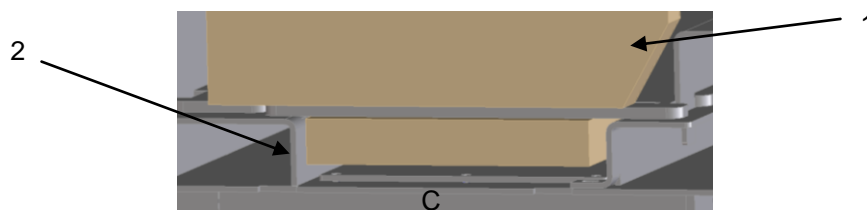
- Fitting of vermiculite plates:

These plates are on both sidewalls, the rear wall, under the base plate and on top.

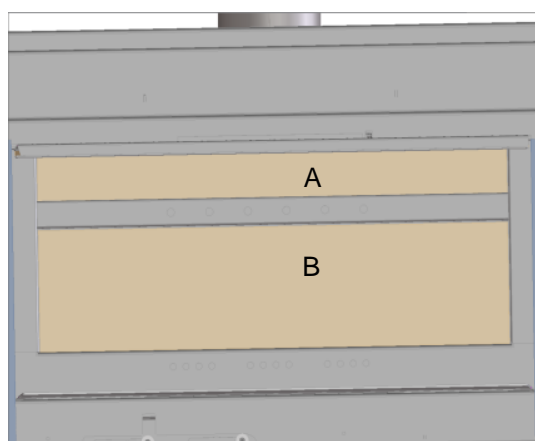


	A	B	C	D(/2)
Citizen MF 700-60 WHE 1S	260x690	173x590	161x684	207x522
Citizen MF 900-45 WHE 1S	110x730	172x786	161x884	207x373
Citizen MF 900-60 WHE 1S	255x884	172x786	161x884	207x522
Citizen MF 1050-45 WHE 1S	106x930	174x930	161x1034	207x373

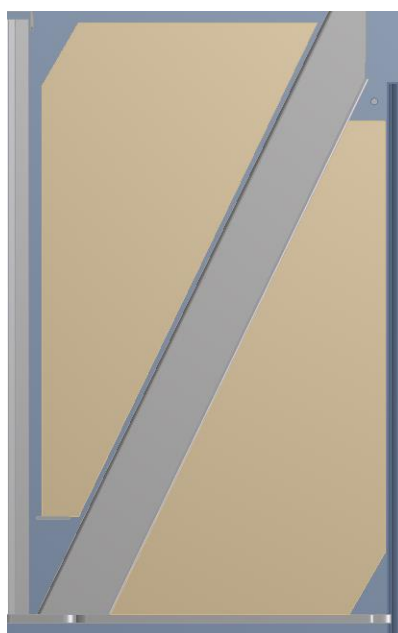
First fit the vermiculite plate under the fire base (C). This requires the primary air distribution profile and the grate to be removed. (1 + 2)



The plates are then fitted to the rear wall (A and B).



The plates can now be fitted along both sidewalls (D). These are supported at the top by a bracket while the bottom rests on the base of the stove. Insert the plates with the bevelling at the front and with the largest bevel positioned above.



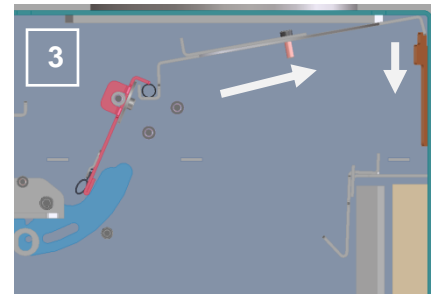
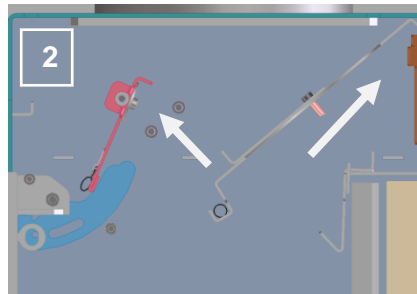
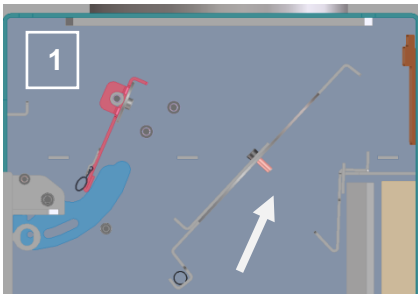


Fit the plates as shown in the figure below.

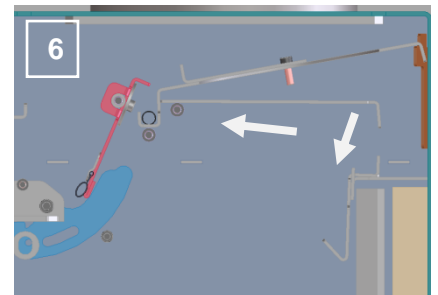
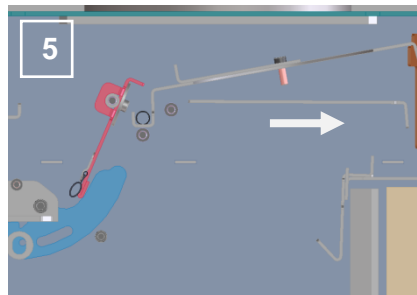
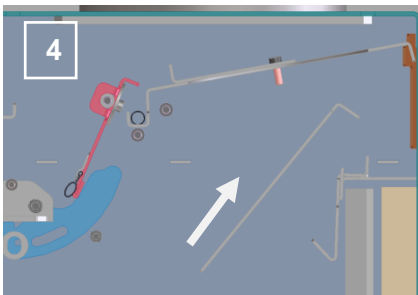
- Fitting stainless steel smoke baffle plates

The smoke baffle plates must be fitted in the correct order - first the top plate, then the middle and finally the lower plate. For disassembly, do this in the reverse order.

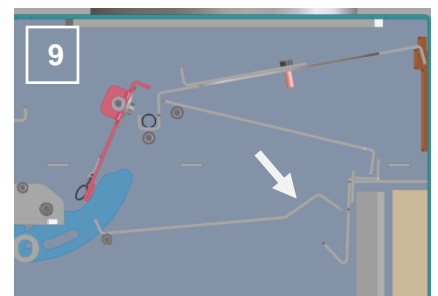
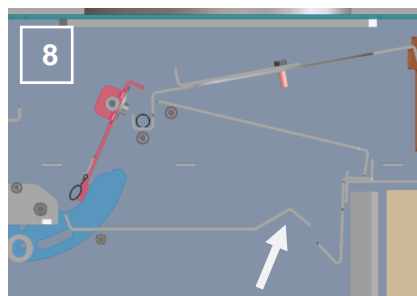
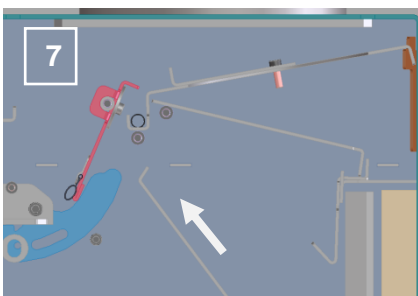
1. To fit the top smoke baffle plate, you put it into the fireplace with the rear tilted upwards.
2. Bring the plate against the top of the stove and then move it past the positioning pins.
3. Once it is past the pins, move the plate towards the rear and top.



4. Then let the top plate lie on top of the positioning pins at the front and in a bracket at the rear. Then put the middle plate into the fireplace, again by tilting it slightly upwards at the rear.
5. Then move it forwards. Ensure that the front of the plate come to lie on top of the positioning pin.
6. Let the plate be supported at the front on the positioning pin and rotate the plate downwards at the back.



7. Unlike the previous two plates, you fit the lower plate in the fireplace with the front tilted upwards, above the positioning pin.
8. Let the plate rest on the positioning pin and then move the plate to the rear and upwards.
9. Let the plate rest on the bracket at the back of the fireplace.



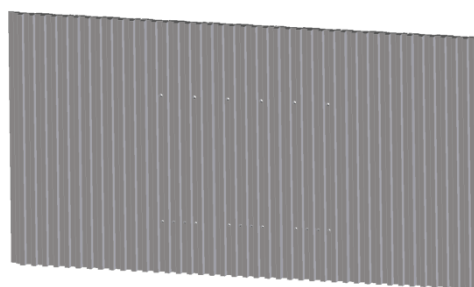
Fitting the cast iron slats:

Overview table - slats

Stove type	Slat type	Quantity
Citizen MF 700-60 WHE 1S	L600 B120 without drill holes	2
	L600 B120 with 6 drill holes	3
Citizen MF 900-45 WHE 1S	L450 B120 without drill holes	4
	L450 B120 with 6 drill holes	3
Citizen MF 900-60 WHE 1S	L600 B120 without drill holes	4
	L600 B120 with 6 drill holes	3
Citizen MF 1050-45 WHE 1S	L600 B120 without drill holes	6
	L600 B120 with 6 drill holes	3

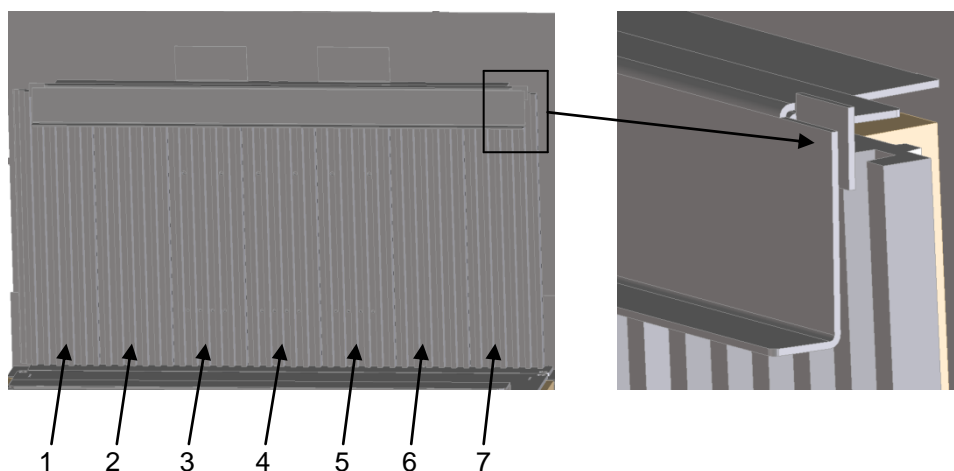
After fitting the vermiculite plates the slats can be placed in the stove.

Set of slats



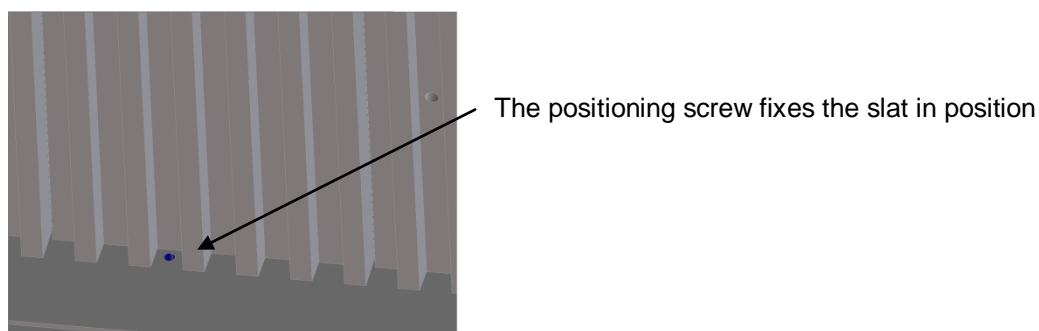
The damper at the top may only be fitted after the slats have been installed in the stove.

To fit the slats to the rear wall, start at the left hand side, as seen when facing the stove from the front. Start with two slats without drill holes (1,2), then three slats with drill holes (3,4,5) are fitted and finally two slats without drill holes (6,7) at the far right.



Slats 2 to 6 are fitted to the base of the stove using screws.

The screws are situated between tooth 2 and 3, counting from the left.



### 5.2.2.3 Positioning the stove

#### Flue

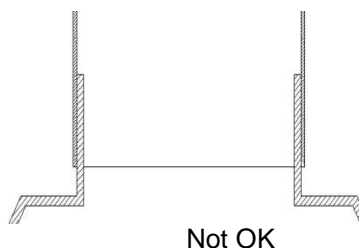
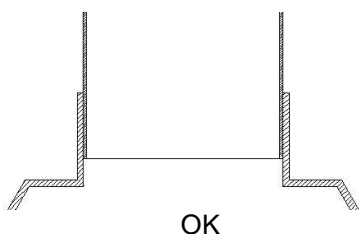
- The flue must have a vertical height of at least 5 metres. This height is calculated from the connection point of the stove. A draw of at least 12 Pascals is required.
- The flue should have thermal insulation to prevent condensation from forming and to provide a better draw.
- Changes in direction may not exceed 45° and two pieces.
- The flue must rise at least 1 metre vertically from the stove before changing direction.
- This stove must be connected to an individual flue.
- The fitting of a rain cap to prevent moisture from getting directly into the stove is compulsory.
- The exit and position of the chimney in the roof surface and with respect to nearby buildings must be in accordance with locally-applicable standards. Take environmental factors into account (trees, blocks of flats ...)
- See Table 2 for flue dimensions. If you reduce the connection, the length of the flue should be extended by 1 metre for every 45° change of direction.
- Using too small a flue diameter is at the risk of the installer and can lead to smoke blowing back into the room when the door is opened.
- If there are multiple flues or ventilation shafts in the surround compartment, only one flue may be connected to the stove and the remaining channels must be sealed.

Table 2

Citizen	200	180	150	Air Ext
MF 700-60 WHE 1S	5m	5m	6m	Ø100
MF 900-45 WHE 1S	5m	5m	6m	Ø100
MF 900-60 WHE 1S	5m	5m	6m	Ø100
MF 1050-45 WHE 1S	5m	5m	6m	Ø100

The minimum heights shown are for ideal circumstances. Depending on the situation, a greater length may be needed. This should be checked by the installer while testing the stove.

#### Fitting the flue to the stove



#### Combustion air

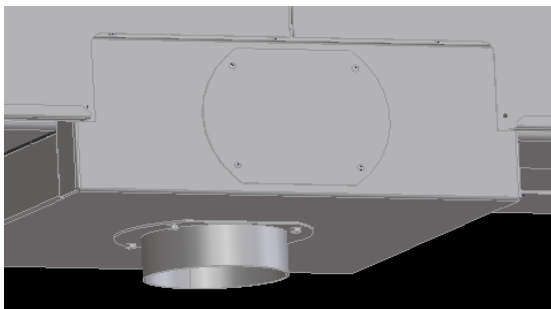
The combustion process requires an air supply. The supply can be performed in the following way.

- Direction connection to outdoor air:

When the door is closed, the stove is shut off from the room and must therefore be connected to the outdoor air for combustion to take place. This can go through the outer wall, via a ventilated cellar space or a ventilation shaft. This direct air supply connection to the stove can be made via either the underside or rear of the stove. The connection diameter is 100 mm. The net air supply cross-section must therefore be at least 78.5 cm<sup>2</sup>.

The principle of the air connection ensures that no air from the room is used for the combustion. If connecting on the underside, the rear must be closed, and if connecting at the rear, the underside must be closed. For this, 1 lid and 1 mounting flange are supplied with the appliance.

- Standard connection below/behind. Connection diameter 100mm.

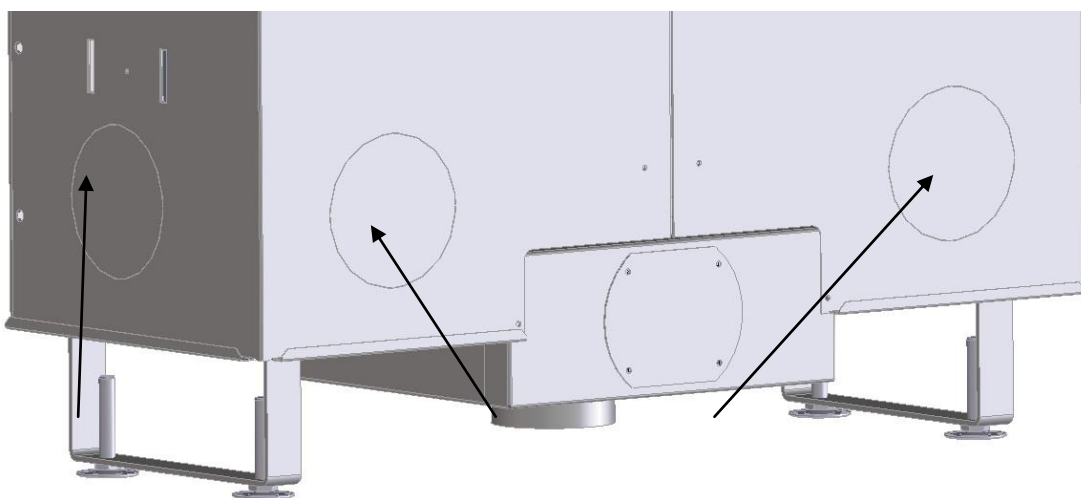


- Combustion air supply from the room:

If the combustion air cannot be connected directly to the fireplace, an alternative air supply should be installed in the room where the stove is located. This air supply opening should have a cross-sectional area of at least 78.5 cm<sup>2</sup>. This air supply should preferably end underneath in the surround of the stove. Ensure that the air supply can be closed off when the stove is not in use. This means of air supply is not recommended if there are extraction systems (fume hoods) that are not self-compensating in the vicinity of the stove.

### Convection air

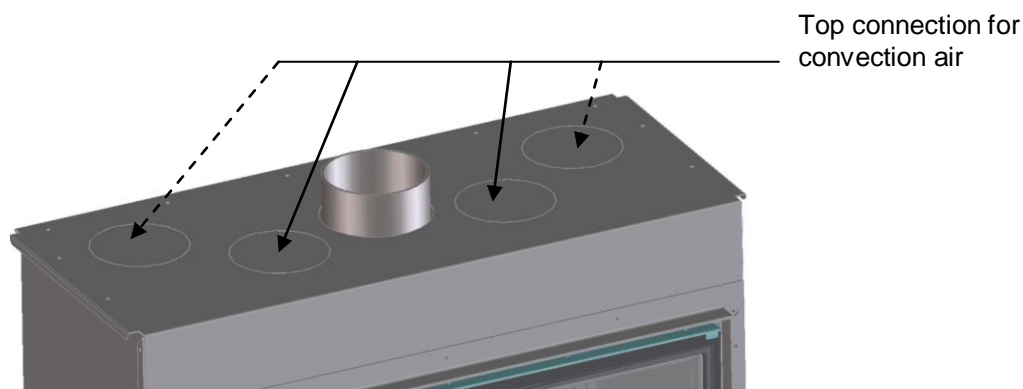
The stove must be fitted with a convection system. This is done by fitting a metal casing around the stove frame. The air from the room flows in under the convection mantle and returns to the room along the upper side. Connection openings of Ø150mm are provided at the sides and at the back to connect with the supply of air from the room. Below the stove there is a 130 mm free space, along which the air from the room can enter.



Side connection for convection air

Rear connection for convection air

At least 2 openings must be made underneath for the convection air. Ensure that this is done symmetrically - either use all 4 connections, or those on the left and right sidewalls or both connections on the back wall. The Ø150 mm pre-cut plates can be removed with a light tap. You can then use the self-tapping screws to fix the mounting flange to the convection mantle.



Four connections are available on the top of the stove for leading the heated convection air back to the room. A minimum of 2 connections must be used for a Citizen 700-60 WHE 1S or Citizen 900-45 WHE 1S and 4 connections for a Citizen 900-60 WHE 1S or Citizen 1050-45 WHE 1S. If no more than two are possible, they should be connected as close to the flue as possible (see figure). Always ensure that there are an equal number of outflow openings to the left and right of the flue. If not, this can lead to an imbalance in the flow of convection air. If the length of the flexible duct connectors differs too much, an imbalance is also created in the convection flow.



The mounting flanges for the convection air flexible ducts are fixed to the convection mantle using self-tapping screws.

All openings/grilles above or below in the stove surround, in order to bring about the natural flow of the air from the room, must be in the same space (same pressure area). During assembly, ensure that grilles and openings remain unobstructed.

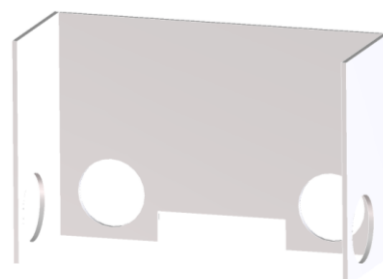
	Citizen MF 700-60 WHE 1S	Citizen MF 900-45 WHE 1S	Citizen MF 900-60 WHE 1S	Citizen MF 1050-45 WHE 1S
Inlet air to convection mantle	At least 350 cm <sup>2</sup>	At least 350 cm <sup>2</sup>	At least 700 cm <sup>2</sup>	At least 700 cm <sup>2</sup>
Air outlet from convection mantle	At least 350 cm <sup>2</sup>	At least 350 cm <sup>2</sup>	At least 700 cm <sup>2</sup>	At least 700 cm <sup>2</sup>

Not observing the instructions with respect to convection connection/openings can lead to overheating and damage to the stove. For a grille, the net permeability (permeability coefficient) needs to be taken into account.

Ensure a minimum distance of 30 cm between the outflow grilles/openings on the one hand and combustible materials and the ceiling on the other.

Flow channel dimensions that are too small led to excessively hot outflowing convection air and this can be associated with odours and possible discolouration.

For every type of stove, Metalfire offers a set of 15 mm thick insulation plates based on cement and calcium silicate that can be fitted directly to the stove to improve its efficiency. These plates are not intended to protect combustible material from overheating.



### Stove surround and connections

The surround and finishing of the stove must be made of non-flammable and heat-resistant materials. Masonry and plasterwork may not be in direct contact with the finishing frame of the stove. There should be a gap of at least 3 mm. This is to allow the stove to expand without causing damage.

Ensure that flammable materials (wood finishes, curtains, flammable liquids, furniture) both above and around the fireplace are at least 0.8 m from the stove.

Ensure that the inside of the surround is completely free of dust before closing-off the surround. This stops dust particles getting into the convection air.

Provide the required insulation of the desired thickness between the stove and any combustible materials.

(See Table 1)

### **Examples (built-in):**

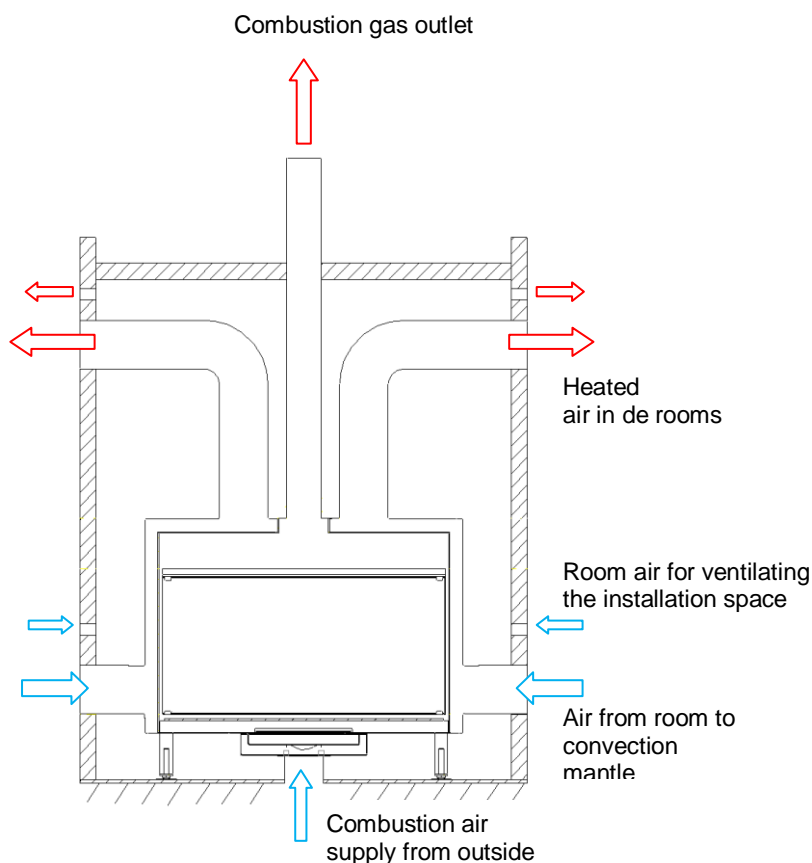
#### **Combustion air supply from outdoors directly to the stove.**

Combustion air that comes from outside is connected directly to the stove.

This can enter either from behind or from underneath.

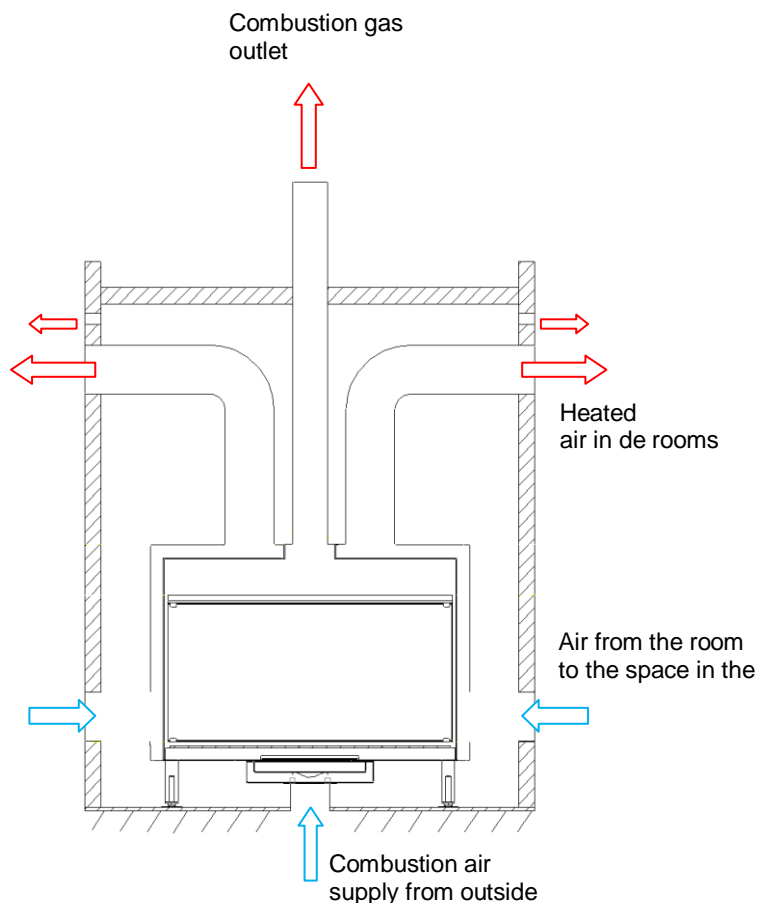
The flow of air from the room to the convection mantle is connected underneath via flexible ducts. The heated convection air returns to the room via the flexible ducts connected at the top. The supply of combustion air is completely separate from the convection air.

Supply of air from the room also provides ventilation of the installation space. This is the preferred configuration.

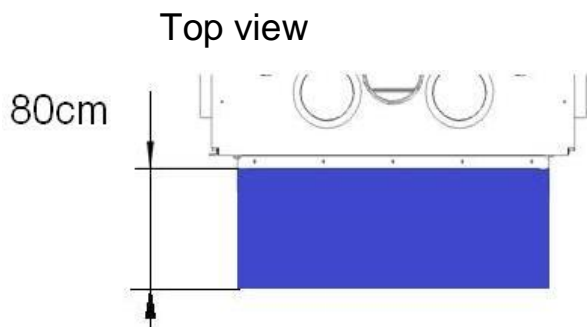


### Combustion air supply from outside the room directly to the stove.

Combustion air that comes from outside is connected directly to the stove. This can enter either from behind or from below. The supply of air from the room enters from below the surround. The Ø150 mm connection openings below the side/rear walls must be opened so that the air from the room can flow into the convection mantle. No flexible ducts are connected underneath. The heated convection air returns to the room via the flexible ducts connected at the top. The supply of combustion air is completely separate from the convection air. Openings at the top of the surround must be smaller than the outflow opening of the flexible ducts at the top in order to force part of the convection air through the convection mantle.



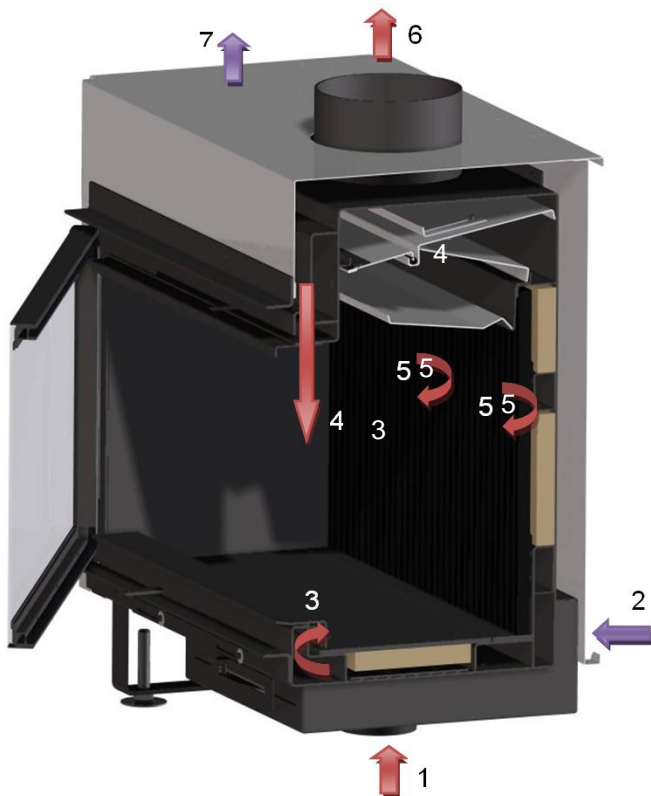
### Safety zone to combustible materials



The heat radiation from the stove window can be considerable. This is why there should be a minimum distance of 80 cm from combustible material.

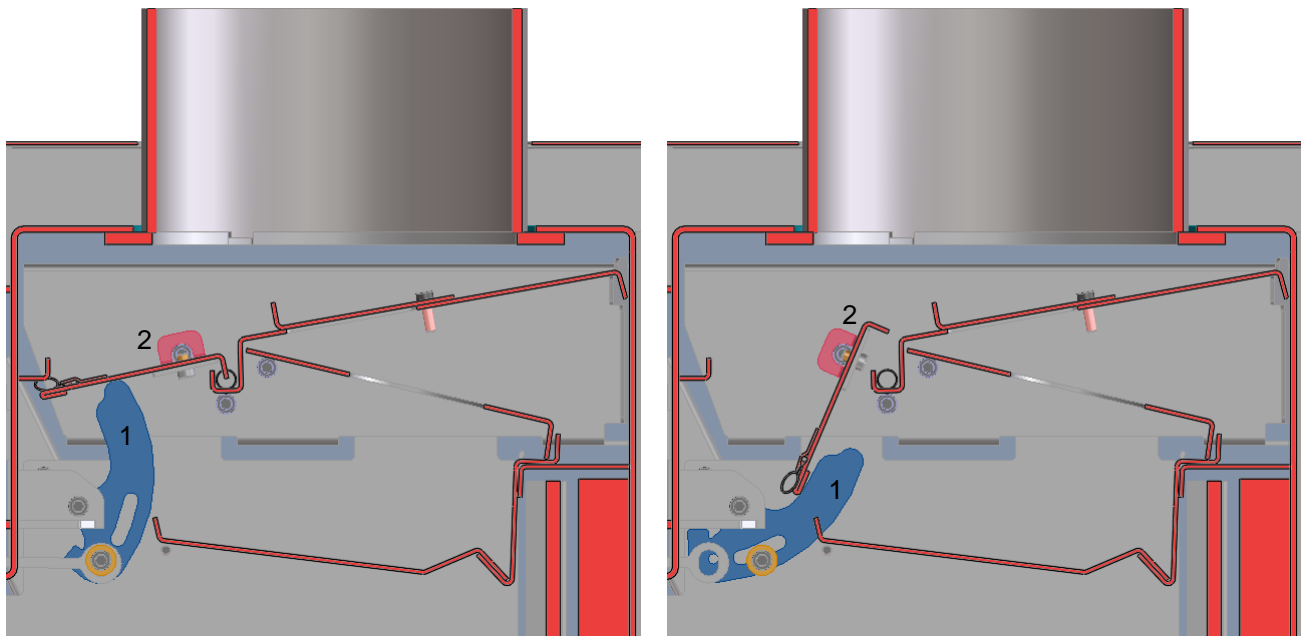
### 5.3 Operating principles of the Citizen.

#### 5.3.1 Air flows



- 1 Supply of combustion air (behind/underneath)
- 2 Supply ambient air/convection air
- 3 Primary air supply for combustion
- 4 Secondary air supply for combustion/rinsing glass
- 5 Tertiary combustion air supply
- 6 Removal of combustion gasses
- 7 Release of heated convection air

#### 5.3.2 Operation of dampers



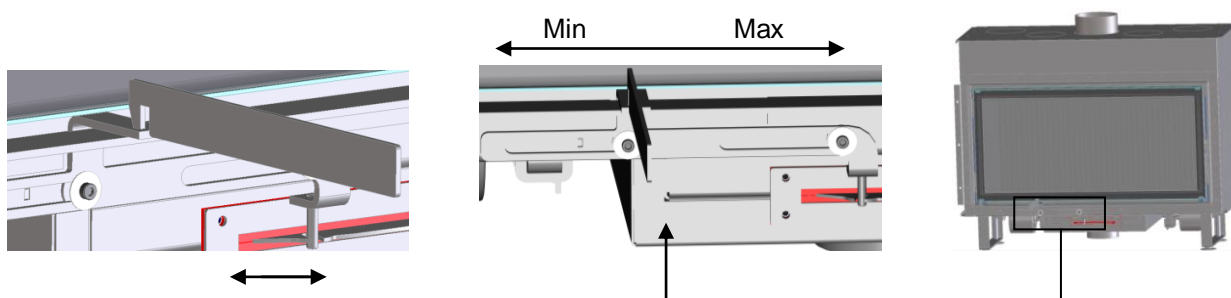
*Door closed*

*Door open*

When you open and close the door, the damper lever (1) will move back and forth horizontally and the valve (2) will pivot. When the door is closed, the valve will be in the closed position. If the door is opened the valve will be in the open position. If the door is opened, the combustion gasses can escape more quickly via the flue.



### 5.3.3 Control of combustion air supply



The combustion air supply can be set by using the handle supplied. When the sliding handle is fully to the right the air supply is at its maximum. In this position the primary, secondary and tertiary air supplies are fully open. If the handle is in the middle position, the primary air supply is cut off and the secondary and tertiary air supplies are opened. In this position the fire burns at normal capacity when the draw in the chimney is 12 Pascals. Moving the handle further to the left reduces the secondary and tertiary air supply and reduces the output of the hearth.



## 5.4 Basic test of the stove

Before starting the finishing work on the stove surround, a basic test of the stove must be performed.

Clean the inside and outside of the door glass so that no grease from fingers or other contaminants can burn into the glass. These cannot be removed afterwards.

When the stove is heated for the first time, paint vapours can be released from the curing of the heat-resistant paint. This is accompanied by smoke generation and odour. These vapours are not dangerous. Provide enough ventilation to remove this odour as soon as possible.

If masonry or plaster has already been installed around the stove, this should be allowed to dry out fully before firing up the stove or there will be a risk of cracks forming.

### 5.4.1 Fuel

The Citizen is suitable for burning wood. To achieve good combustion, the moisture content of the wood may not exceed 15-20%. If this is not the case, the window of the stove will get dirty faster, the heat output of the fire will be significantly less and the chimney will accumulate soot faster, thereby increasing the risk of chimney fires.

To reach this level of moisture, the wood needs to be seasoned for 2 or 3 years in a dry and well-ventilated place.

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

The ideal wood blocks have a length of 25 cm and a girth of up to 30 cm. No more than 4 such blocks may be put into the stove at the same time.

The use of resinous types of wood is not recommended as this can lead to sparks and a short burn time.

The use of chipboard, laminates, treated wood or combustible waste is prohibited for environmental reasons and to prevent damage to the stove.

Do not use methyated spirit/alcohol, petrol, oil or other fire accelerants.

### 5.4.2 Making up the fire for the first time

Open the door of the stove.

Open the combustion air regulator all the way (all the way to the left).

Put a small finely-split piece of kindling wood on top of the grate.

Light the kindling wood using firelighters.

Close the hinged door stove but leave it ajar by about 5 cm. This fans the fire and condensation in the stove and on the window is avoided.

The door must remain ajar during the first firing to prevent the seal between the door frame and stove frame getting stuck shut during the hardening of the heat-resistant paint.

As soon as the kindling is burning well, the wood blocks can be placed on the fire.

Large wood blocks should only be added after a good glow is achieved.

Allow the fire to extinguish after an hour so that the stove can cool down and to allow the paint to cure properly.

### 5.4.3 Checks to be performed

During the first firing, ensure that there is sufficient draw in the chimney. Fumes can find their way into the room if the draw is insufficient.

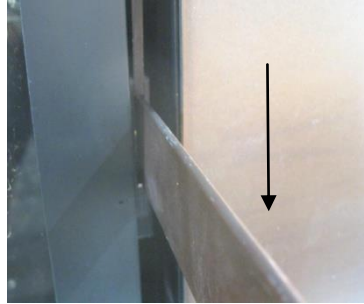
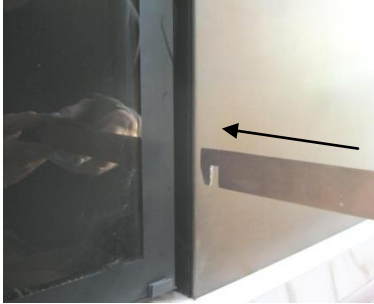
An excessive draw in the chimney can lead to overfiring and a fire that could be hard to control.

## 6 Operating instructions

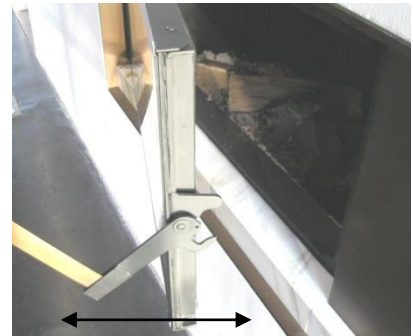
### 6.1 Open the hinged door.

#### 6.1.1 Opening and closing the hinged door

The door handle is on the right of the stove door. Put the door key in the rectangular recess of the door handle. Then push the door key downwards. The door key is now anchored in the door handle. The door key is removed in reverse order.



After applying the door key, the door can be unlocked. To do this, turn the door handle upwards. The door can now be opened. To close the door, move the door handle forwards until the door is closed. When this is closed, move the door handle down.



#### 6.1.2 Door glass cleaning

Open the door glass only after the stove has cooled.

To make it easier to clean the door glass, the door can pivot open (see Section 6.1.1).



Door glass in opened position. The glass is now easy to reach for cleaning.

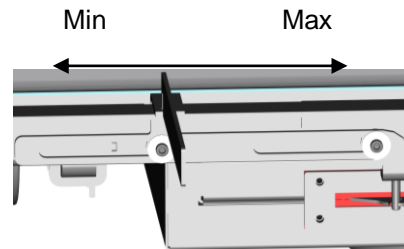
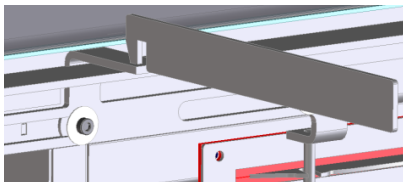
Some cleaning products can damage the seals of the stove, so keep them away from the seals. Only clean the glass after the stove has cooled down completely.

## 6.2 Control of the combustion air

The combustion air supply can be set by using the handle supplied. When the sliding handle is fully to the right the air supply is at its maximum. In this position the primary, secondary and tertiary air supplies are fully open.

If the handle is in the middle position (handle groove - loop), the primary air supply is cut off and the secondary and tertiary air supplies are opened. In this position the fire burns at normal capacity when the draw in the chimney is 12 Pascals.

Moving the handle further to the left reduces the secondary and tertiary air supply and lowers the output of the hearth.



## 6.3 Making up the fire

### 6.3.1 Fuel

The Citizen is suitable for burning wood. To achieve good combustion, the moisture content of the wood may not exceed 15-20%. If this is not the case, the window of the stove will get dirty faster, the heat output of the fire will be significantly less and the chimney will accumulate soot faster, thereby increasing the risk of chimney fires.

To achieve this moisture level, the wood needs to be seasoned for 2 or 3 years in a dry and well-ventilated place.

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

The ideal wood blocks have a length of 25 cm and a girth of up to 30 cm. No more than 4 such blocks may be put into the stove at the same time.

The use of resinous types of wood is not recommended as this can lead to sparks and a short burn time.

The use of chipboard, laminates, treated wood or combustible waste is prohibited for environmental reasons and to prevent damage to the stove.

Do not use methylated spirit/alcohol, petrol, oil or other fire accelerants.

### 6.3.2 Lighting the fire

Move the combustion air regulator all the way to the right.

Open the hinged door. Put finely-split kindling wood on top of the grate. Set fire to the wood with firelighters. Set the hinged door ajar by 5 cm to raise the fire some more.

Larger blocks can be added as soon as the kindling is burning well. These may have a length of 25 cm and a girth of 15 cm. Place these blocks on top of the small kindling wood.

Ensure that no glowing particles come into contact with the seal as a result of damage. As soon as the larger blocks are burning sufficiently, the hinged door can be closed all the way.

A glowing firebed will now have been formed. Create room in the firebed to lay on 3 new blocks. These blocks may have a length of 25 cm and a maximum girth of 30 cm. The air regulator may now be moved to the middle position so there is only secondary and tertiary air supply to the fire. Three of these blocks equal the nominal capacity of the stove.



Topping up the wood is best done when the flames have died down and the wood blocks have entered a glowing phase.

Use the handle to open the hinged door. Do this slowly so that no abrupt air flows are created in the stove and no smoke enters the room. For this, first open the door a few centimetres and then wait before opening it further.

Distribute the embers using a poker and place new wood blocks on the fire bed.

Re-close the hinged door.

Do not exceed the maximum amount of wood, as given in Section 4.1.

If the air regulator of the stove is to the left of the middle position (reduced secondary air supply), this must be moved to the right (primary air supply) before opening the door to add new wood. In this way, the risk of sudden rush of air into the stove is minimised (explosion risk).



## 6.4 Firing with closed hinged door

The citizen operates with the hinged door closed. This will lead to optimal combustion results.

Characteristics with door closed:

- Optimum combustion and maximum heat yield at lower wood consumption.
- More environmentally-friendly heating.
- Greater fire safety.
- The intensity of the fire is controlled via the combustion air supply regulator.
- If the outdoor air is directly connected to the stove, the combustion is not affected by the pressure in the room. Ventilation systems, fume hoods, etc. do not affect the combustion.

# 7 Maintenance

## 7.1 Cleaning the glass

Check the description in Section 6.1.1 for opening and closing the door.

Use a window cleaning product and wipe with a cloth to remove dirt from the glass. To prevent damage, ensure that the seals do not come into contact with this product.

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

Always wipe with a damp cloth after cleaning to remove any residual cleaning agent.

## 7.2 General maintenance

Allow the stove to cool completely and remove all residues before starting maintenance work.

The lacquered components can be cleaned with a damp, lint free cloth.

Do not use aggressive detergents.

The lacquering of the stove can be re-touched with heat-resistant paint in a spray can available from Metalfire.

Damaged seals must be replaced. Have this performed by your approved Metalfire installer.

The flue should be cleaned and inspected annually.

## 8 Malfunctions

### 8.1 Glass quickly becomes dirty

- Use wood with a maximum moisture content of 15%.
- Leave the hinged door open by 5 cm while the fire is building.
- Follow the instructions to stoke the fire.
- Check that there is sufficient draw in the flue.
- Check the seals for damage and replace them where necessary.
- Check that the combustion air supply channel is not obstructed.

### 8.2 Smoke blow-back

- Check the flue for obstructions, e.g. bird's nest.
- Reduced pressure in the room caused by the ventilation system or a fume hood
- Wrong sized flue (diameter too small, too short, ...)
- Use wood with a maximum moisture content of 15%.

### 8.3 The fire does not respond to the air regulation

- Check the seals.
- Check that the door is correctly locked.
- Check the combustion air supply.

### 8.4 Broken door glass

If defects appear in the door glass it should be replaced by an approved Metalfire dealer. It is not permitted to use the stove with broken glass.

### 8.5 Odour nuisance

- Limit the amount of wood as directed
- During the first firings, the heat-resistant paint hardens and this is accompanied by unpleasant odours. Ensure sufficient ventilation
- Check that there is no blow-back of smoke.
- Check that the temperature of the convection air remains below 100°C. This prevents odours resulting from burning dust.

### 8.6 What to do in case of a chimney fire.

A chimney fire can occur when accumulated soot in the chimney ignites. This is accompanied by rapid smoke development and a roaring sound in the flue.

- Call the fire service
- Never extinguish the fire with water.
- Use sand or salt to extinguish the fire in the stove.
- Close the hinged door and move the air regulator all the way to the left (closed).
- Have the chimney checked and repaired by an approved specialist.

## 9 Terms of guarantee

### 9.1 Length of guarantee

- A five year guarantee on the general structure of the stove.
- A two year guarantee on the cast iron slats and the grate.

This guarantee only applies to manufacturing faults.

The guarantee period begins on the invoice date.

The invoice is the only legally valid proof of guarantee.

Renewal or replacement of parts under guarantee does not extend the guarantee.

The guarantee is limited to the simple exchange of parts that are recognised as defective by our technical service and does not cover compensation for the inability to use the stove. Transport costs, moving costs and assembly costs are to be paid by the user.

All claims against guarantee should be made via the dealer.

### 9.2 Exclusions

Damage or defects resulting from incorrect following of the installation and usage instructions fall outside the scope of the guarantee.

The guarantee lapses if the stove is poorly maintained, if there is an accident or disaster with a cause external to the stove or if a repair was performed by a non-designated person.

The guarantee lapses if alterations or internal changes are made to the stove.

These do not fall under the terms of the guarantee:

- The use of unsuitable fuels.
- Damage to glass and seals.
- Damage incurred during transport, storage and installation.
- Use of non-original Metalfire components.

### 9.3 Restriction

Metalfire+ BV reserves the right to change its appliances, brochures, installation and user guides at any time and without notice.

#### **Metalfire+ BV**

Noorwegenstraat 28

B-9940 Evergem

BELGIUM

[www.metalfire.eu](http://www.metalfire.eu)

For you to fill in:

Dealer: _____
Date of installation: _____
Production number: _____ (can be found under the fire grate)