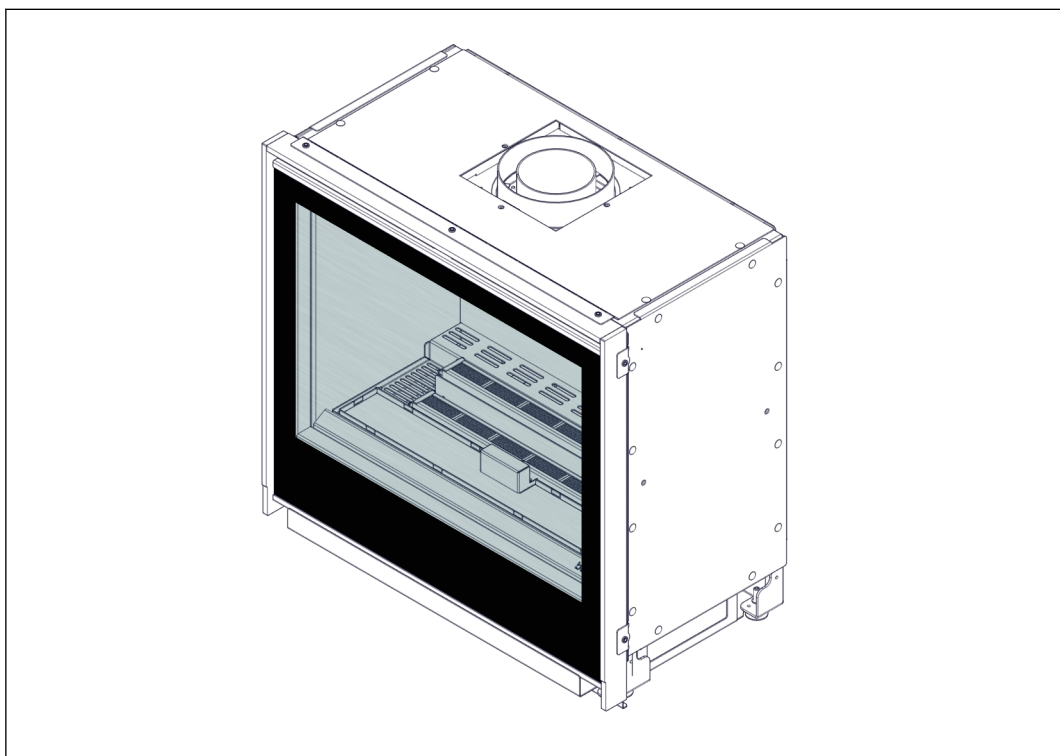


# bellfires. gas fires

## Installation and maintenance manual

Smart Bell 80/60 MF



Serial number:

Production date:

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# Contents

<b>1</b>	<b>About this document.....</b>	<b>5</b>
1.1	How to work with this document.....	5
1.2	Warnings and cautions used in this document.....	5
1.3	Related documentation.....	5
<b>2</b>	<b>Description.....</b>	<b>6</b>
2.1	Intended use.....	6
2.2	Installation options.....	6
2.3	Overview of a typical installation.....	6
2.4	Overview of the appliance.....	7
2.5	Overview of the burner bed and the pilot light.....	8
2.6	Overview of the ceramic log set.....	9
2.7	Overview of the control elements.....	11
2.7.1	Overview of the rear of the gas regulator block.....	11
2.7.2	Overview of the front of the gas regulator block.....	12
2.7.3	Overview of the connections on the gas regulator block.....	13
2.7.4	Overview of the receiver.....	14
2.7.5	Overview of the fan/light module.....	15
<b>3</b>	<b>Safety.....</b>	<b>16</b>
3.1	Safety devices on the appliance.....	16
3.2	Safety instructions for installation.....	16
3.3	Safety instructions with regard to the environment.....	17
<b>4</b>	<b>Installation.....</b>	<b>18</b>
4.1	Installation prerequisites.....	18
4.2	Installation procedure.....	18
4.2.1	Install the appliance.....	18
4.2.2	Horizontally align the appliance.....	19
4.2.3	Make the gas connection.....	19
4.2.4	Do a check on the gas connections.....	19
4.2.5	Make the electrical connection.....	19
4.2.6	Connect the concentric flue system.....	20
4.2.7	Install the flue gas restriction plate.....	20
4.2.8	Remove the baffle plate.....	20
4.2.9	Build the fireplace.....	21
4.3	Prepare the appliance for use.....	21
4.3.1	Do a check on the operation of the lighting.....	22
4.3.2	Put the ceramic log set on the burner bed.....	22
4.3.3	Do a final check on the fireplace.....	24
<b>5</b>	<b>Maintenance.....</b>	<b>25</b>
5.1	Annual maintenance.....	25
5.1.1	Clean the appliance.....	25
5.1.2	Do a check on the appliance.....	26
5.2	Maintenance procedures.....	26
5.2.1	Remove the door (including glass).....	26

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5.2.2	Install the door (including glass).....	27
5.2.3	Remove the frame.....	28
5.2.4	Install the frame.....	29
5.2.5	Clean the glass.....	29
5.2.6	Replace the ambient light bulb when broken.....	29
<b>6</b>	<b>Troubleshooting.....</b>	<b>30</b>
<b>7</b>	<b>Technical specification.....</b>	<b>31</b>
7.1	Smart Bell 80/60 MF (MagniFire) - GB, IE, ES, IT.....	31
7.2	Diagram electricity and gas.....	33
7.3	Dimensions Smart Bell 80/60 with a Built-in frame.....	34
7.4	Dimensions Smart Bell 80/60 with a Classic frame 35 mm.....	35
7.5	Dimensions Smart Bell 80/60 with a Classic frame 52 mm.....	36
7.6	Dimensions Smart Bell 80/60 with a Classic frame 70 mm.....	37
7.7	Dimensions Smart Bell 80/60 with an Insert frame 15 mm.....	38
7.8	Dimensions Smart Bell 80/60 with an Insert frame 50 mm.....	39
7.9	Dimensions Smart Bell 80/60 with an Insert frame 50 mm and Convection fan.....	40
7.10	Dimensions of the restriction plate.....	40
<b>8</b>	<b>Warranty Terms.....</b>	<b>41</b>
<b>9</b>	<b>EU-Declaration of Conformity.....</b>	<b>43</b>



# 1 About this document

This document shows the necessary information to do these tasks on the Smart Bell 80/60 MF:

- Installation
- Maintenance

This document refers to the Smart Bell 80/60 MF as 'the appliance'. This document is an essential part of your appliance. Read it carefully before you do work on the appliance. Keep it in a safe place.

The original instructions of the document are in English. All other language versions of the document are translations of the original instructions. It is not always possible to provide a detailed illustration of every single item of the equipment. The illustrations in this document show a typical setup. The illustrations are for instructional use only.

## 1.1 How to work with this document

1. Make yourself familiar with the structure and content of the document.
2. Read the safety chapter in detail.
3. Make sure that you understand all the instructions.
4. Do the procedures completely and in the given sequence.

## 1.2 Warnings and cautions used in this document

### Warning



If you do not obey these instructions, there is a risk that can cause personal injury or death.

### Caution

If you do not obey these instructions, there is a risk of damage to the equipment or to property.

### Note

A note shows more information.

Symbol	Description
	Visual sign that there is a hazard
	Visual sign that there is a notice

## 1.3 Related documentation

- Preparation manual
- Installation and maintenance manual
- User manual

## 2 Description

### 2.1 Intended use

The appliance is intended for use in a completely sealed or mechanically ventilated house without extra ventilation and/or fume extraction to heat the room wherein it is installed. Do not use it for other purposes.

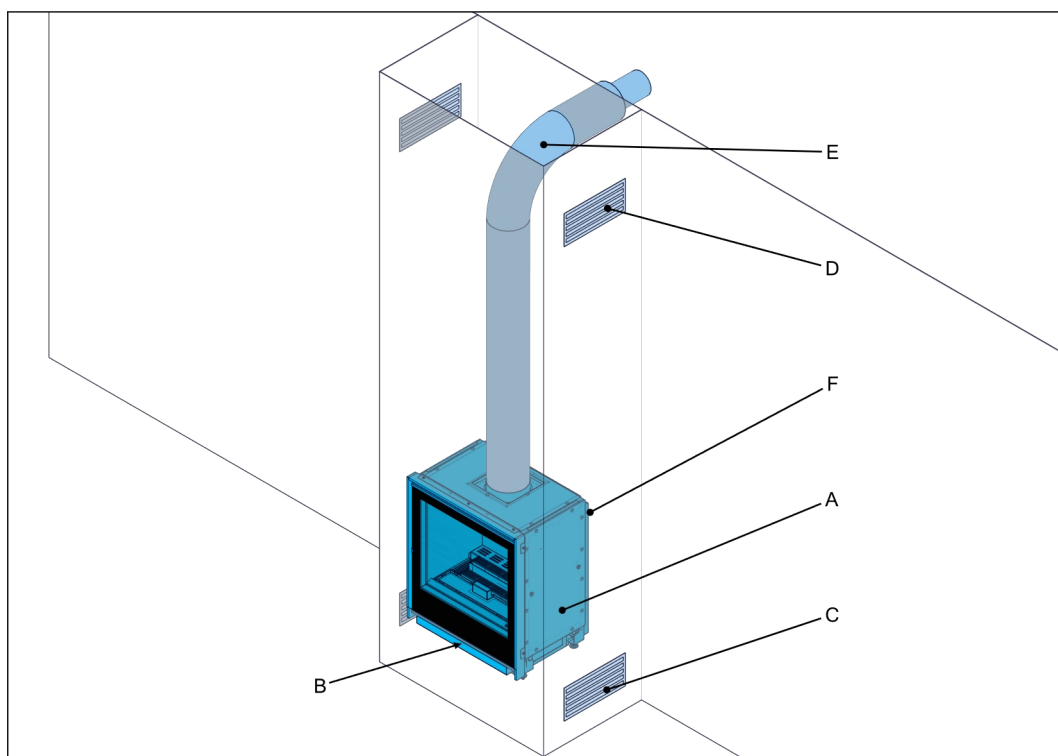
The appliance may only be used at a location that meets the requirements for the installation of the appliance. Refer to the preparation manual.

### 2.2 Installation options

The appliance is supplied with a MF (MagniFire) double burner.

- The appliance can be installed as an insertion into an existing open fireplace or as a built-in appliance in a new fireplace.
- The appliance can be installed with a convection fan set. The convection fan collects the heated convection air from the appliance and releases this air into the room. The convection fan set consists of the convection fan, backcasing, cable and assembly material, which will be installed on the appliance from the factory.
- A mantel iron can be installed on the appliance. The mantel iron makes it possible to build the brickwork of the fireplace beyond the height of the appliance.

### 2.3 Overview of a typical installation

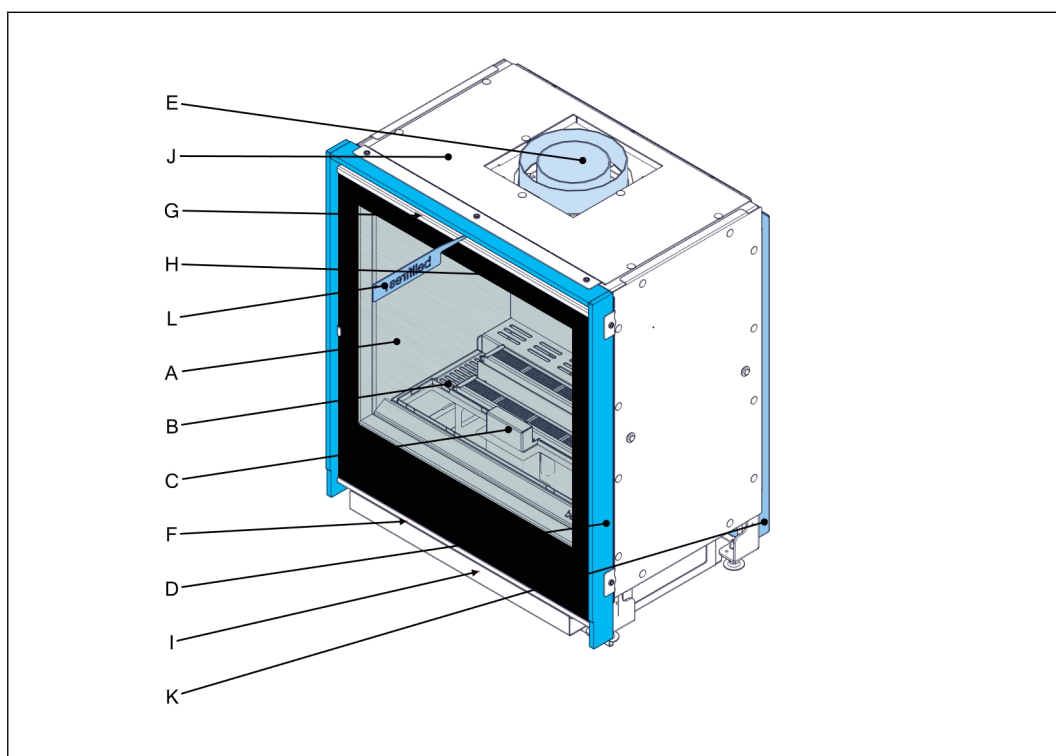


**Note:**

This is an example of a typical installation with the convection fan set option and a wall outlet for the concentric flue, your installation can be different.

	Item	Description
A	Appliance	Decorative gas fire that heats the room
B	Control unit	Contains the gas regulator block, receiver and the fan/light module
C	Inlet grate	Provides the fireplace with air
D	Outlet grate	The heated air in the fireplace is extracted by the outlet grates into the room
E	Concentric flue system (wall outlet variant)	The concentric flue system provides combustion air to the appliance and extracts the flue gases from the appliance
F	Convection fan set (option)	Pushes the heated air of the convection casing.

## 2.4 Overview of the appliance

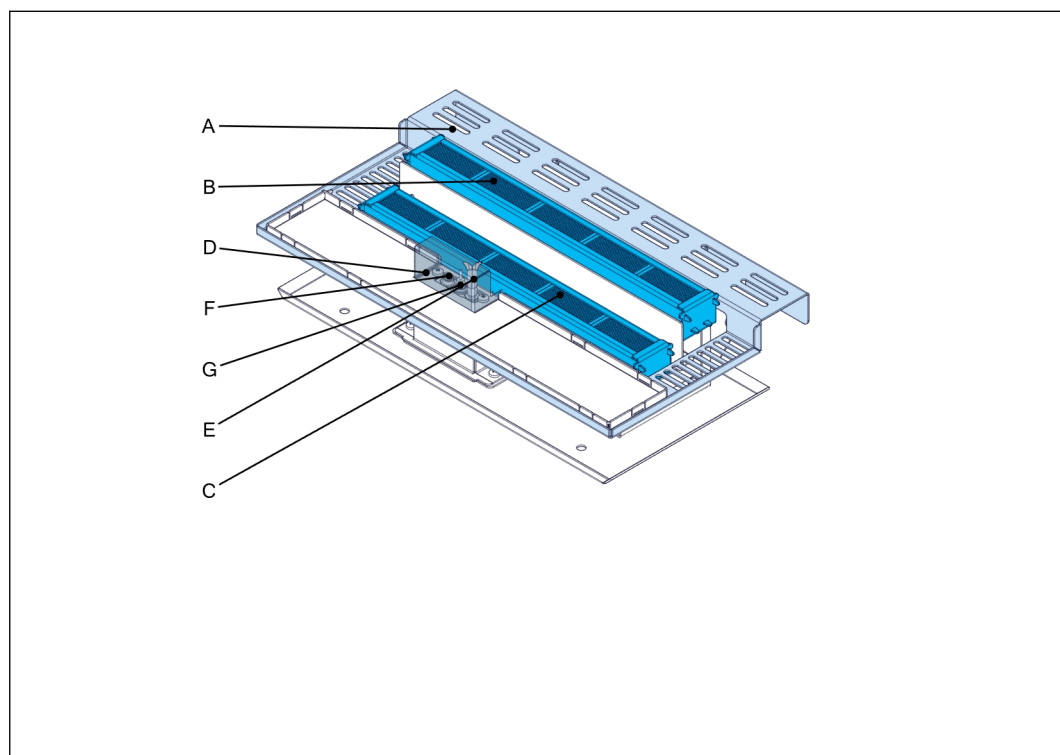


	Item	Description
A	Glass	The heat resistant glass keeps the flue gases inside the appliance and closes the combustion chamber off
B	Burner bed	Top side of the gas burner and grate
C	Pilot light burner	Provides a pilot light
D	Frame (there are different sizes available)	A decorative edge around the glass
E	Concentric flue connection	The connection to the concentric flue system that provides combustion air and extracts the flue gases
F	Inlet opening convection air	An inlet opening in the front of the appliance which is connected to the convection casing
G	Outlet opening convection air	An outlet opening in the front of the appliance which is connected to the convection casing

	Item	Description
H	Overpressure door	Protects the appliance against an overpressure
I	Control unit	Contains the gas regulator block, receiver and the fan/light module
J	Convection casing	Collects the heated convection air. The convection air has a natural upward flow and is extracted by the upper front side openings of the appliance
K	Convection fan set (option)	Pushes the heated air of the convection casing
L	Hook	For opening the door (including glass)



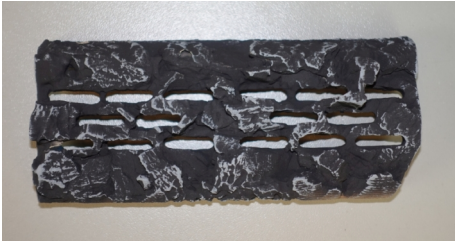


## 2.5

### Overview of the burner bed and the pilot light










	Item	Description
A	Grate	Combustion air gets in the combustion chamber through the grate around the main burner
B	Main burner (upper part)	Supplies the gas for the main upper fire
C	Main burner (lower part)	Supplies the gas for the main lower fire
D	Pilot light outer casing	Protective cover for the pilot light
E	Pilot light burner	Supplies the gas for the pilot light
F	Thermocouple	Detects if the pilot light is on
G	Ignition electrode	Supplies a spark to ignite the pilot light



2.6 Overview of the ceramic log set


No.	Ember grate	No.	Ember grate
4T		4T	
2T		2T	
No.	Ember grate with pilot opening	No.	Ember grate
2TV		2T	
No.	'Fire glass' Dark Amber	No.	'Fire glass' Black
			
No.	Embers	No.	Charcoal
		22	



No.	Charcoal	No.	Charcoal
25		25	

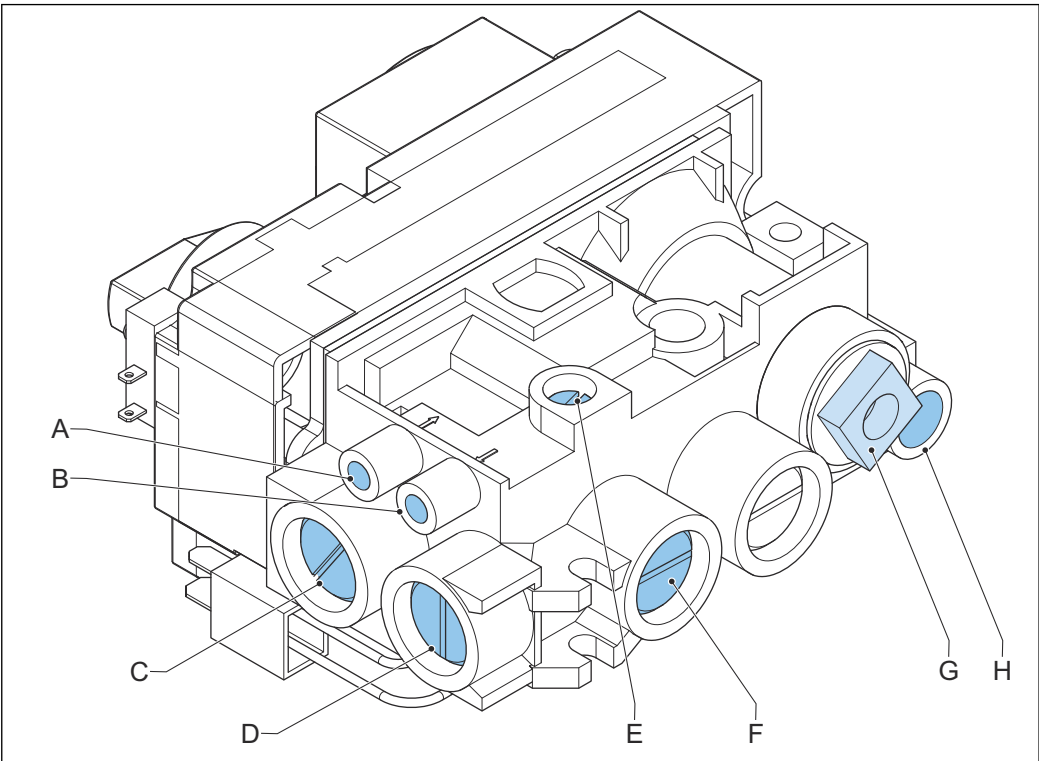
No.	Log	No.	Log
1		2	
4		6	
8			

No.	Wood chip	No.	Wood chip
705		706	

No.	Wood chip	No.	Wood chip
707			

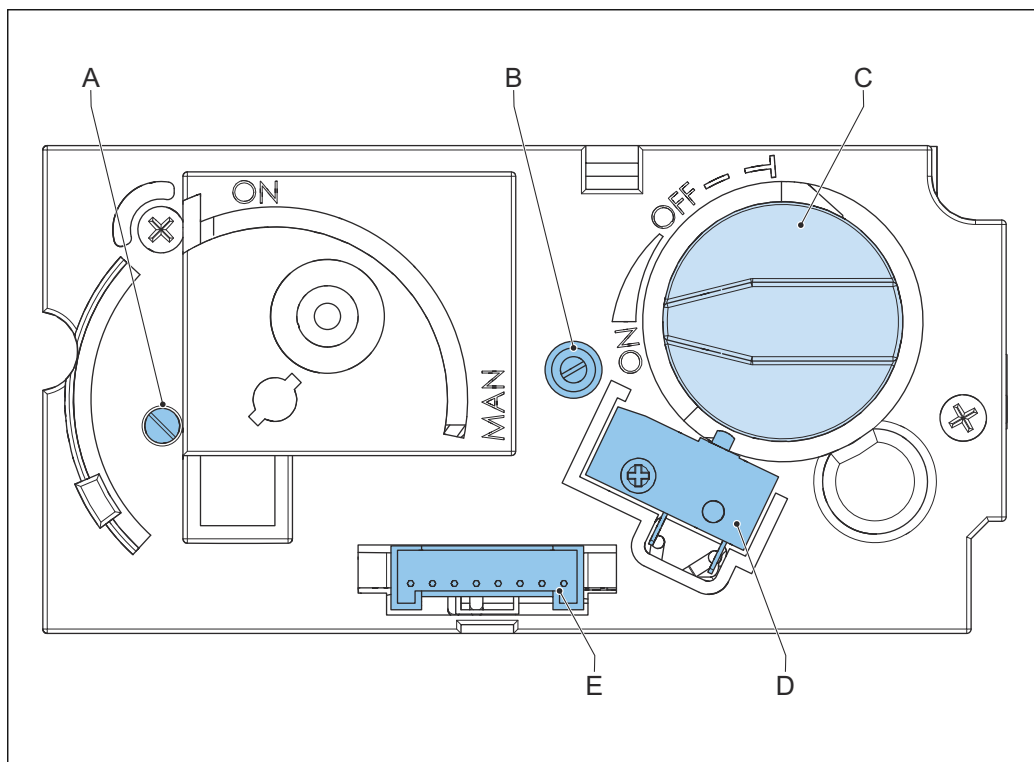
2.7 Overview of the control elements

2.7.1 Overview of the rear of the gas regulator block



	Item	Description
A	Inlet pressure tap	Point to measure the gas supply pressure
B	Outlet pressure tap	Point to measure the front burner pressure
C	Gas supply connection	The connection for the gas supply pipe
D	Gas connection for the front burner	The connection for the front burner gas pipe
E	Adjustment screw for the minimum burner pressure	sets the minimum burner pressure. The adjustment screw is factory set and sealed.
F	Gas connection for the gas valve that is connected to the rear burner	The connection for the rear burner gas pipe
G	Thermocouple interrupter connection	The connection for the thermocouple interrupter
H	Pilot light connection	The connection to the pilot light gas pipe

## 2.7.2 Overview of the front of the gas regulator block

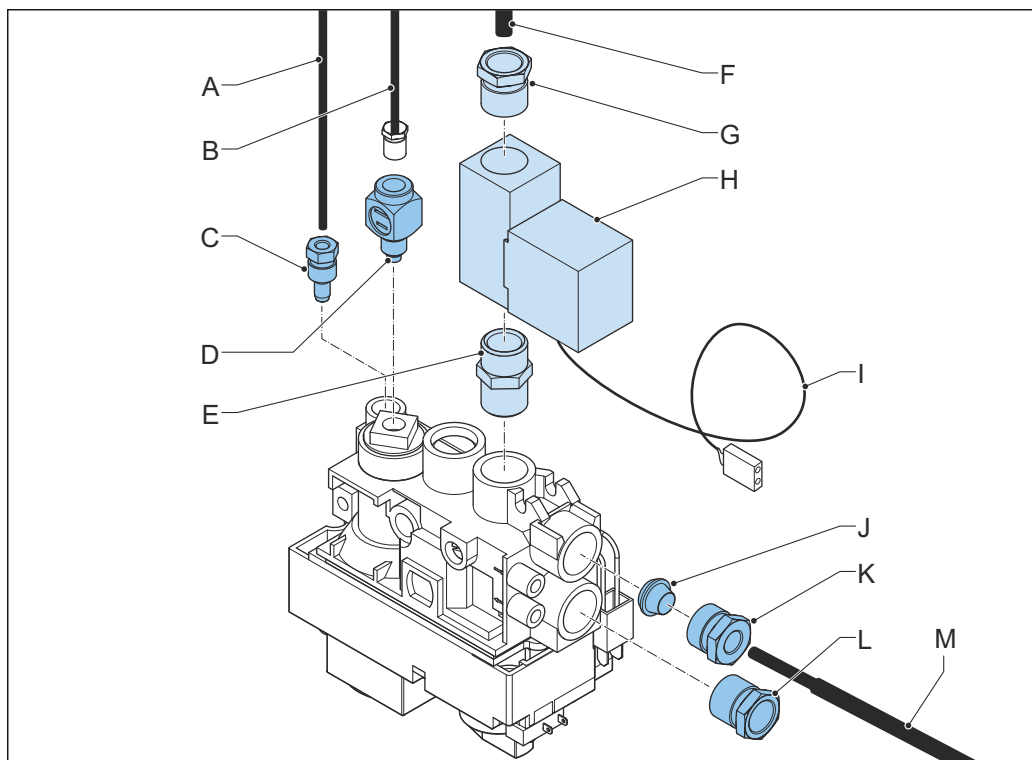


		Description
A	Pilot gas adjustment screw	Sets the pilot light gas pressure. The adjustment screw is factory set and sealed.
B	Adjustment screw maximum burner pressure	Sets the maximum gas pressure for the burner. The adjustment screw is factory set and sealed.
C	Motor-knob	Operates the internal main gas valve
D	Microswitch	Detects the end position of the motor-knob
E	8 wire cable connection	Connects the 8-wire cable from the receiver



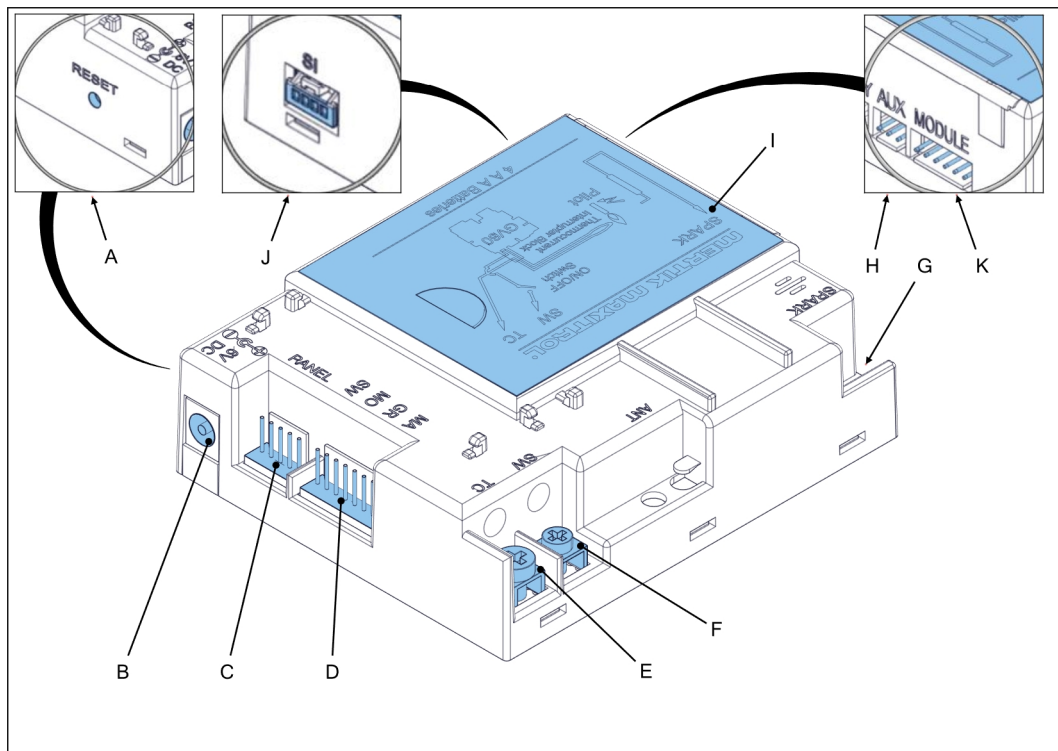
### 2.7.3

### Overview of the connections on the gas regulator block



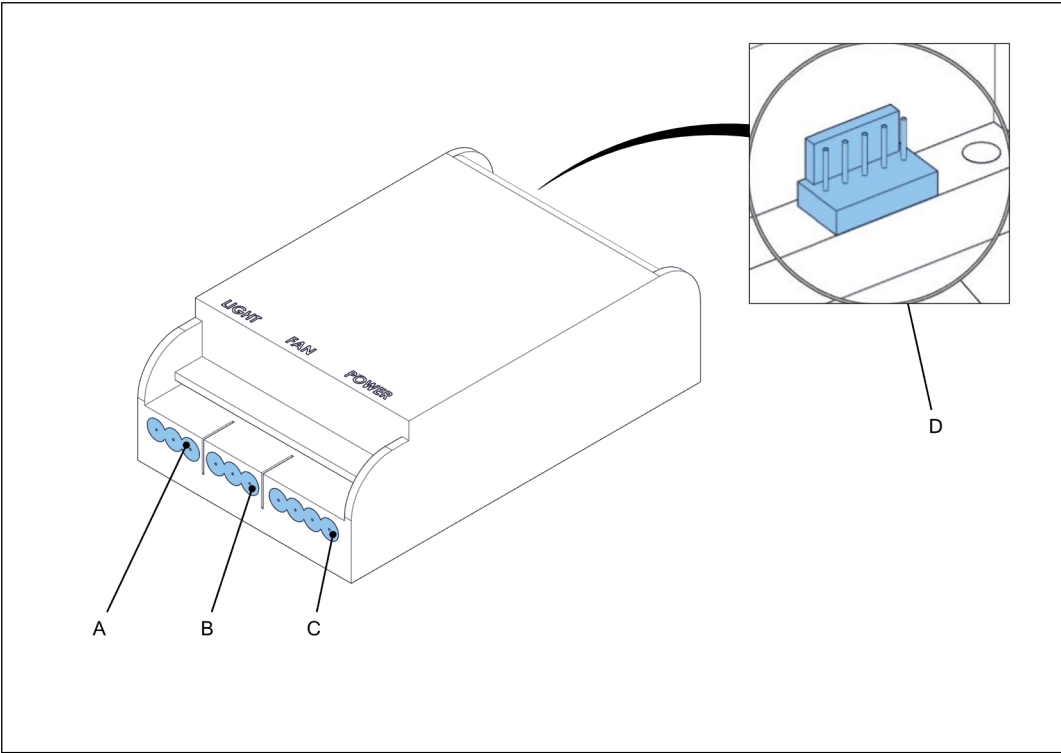
Item	Description
A	Pilot light pipe Supplies gas to the pilot light burner
B	Thermocouple Detects if the pilot light is on
C	Connector (nut-olive) Ø 4mm Connects the pilot light gas pipe to the gas regulator block
D	Thermocouple interrupter Interrupts the signal of the thermocouple, and bypasses this signal through the receiver. When the thermocouple signal is cut off by the receiver (requested by the remote control) or when the thermocouple signal is weak or broken, the gas supply to the pilot light will stop.
E	Connector Connects the gas valve of the rear burner
F	Gas pipe rear burner Supplies gas to the rear of the main burner
G	Connector (nut-olive) Ø 8mm Connects the rear burner gas line to the gas valve of the rear burner
H	Gas valve of the rear burner Controls the flow of gas to the rear burner
I	Control cable of the gas valve of the rear burner Connects the valve to the receiver
J	Olive Ø 8mm For the gas pipe to the front burner
K	Nut Ø 8mm For the gas pipe to the front burner
L	Gas supply connection Inlet for the gas supply
M	Gas pipe front burner Supplies gas to the front of the main burner

## 2.7.4 Overview of the receiver



	Item	Description
A	Reset button	Reset of the receiver
B	Connection for an adapter	Optionally, a 6 VDC adapter can supply the receiver and an optional wifi-box with power
C	connection for external operating	Optionally, a wall switch or domotica system can be connected
D	8 wire cable connection	Sends signals to the gas regulator block
E	Thermocouple voltage / current IN (red connection)	Connection to the thermoelectric pilot light shut-off wire IN
F	Thermocouple voltage / current OUT (yellow connection)	Connection to the thermoelectric pilot light shut-off wire OUT
G	Piezo cable connection	Connection for the piezo cable which is connected to the ignition electrode of the pilot light
H	Connection to the gas valve rear burner (AUX)	Sends a signal if the rear burner must burn
I	Battery compartment cover	Batteries are not applicable in the receiver for this appliance. (Power is supplied by the fan/ light module.)
J	Connection for a wifi-box (SI)	Optionally, a wifi-box can be connected to the receiver to control the appliance with a smart-phone or tablet with the Bellfires app.
K	Connection for the fan/light module (MODULE)	To control the light function and optionally to control the fan speed function

2.7.5 Overview of the fan/light module



	Item	Description
A	connection for the power supply	Connection for the 230 VAC power cable with an earthed plug. Connection is also used for earthing the appliance
B	Connection for a convection fan	Powers the convection fan. Optional for this appliance
C	Connection for the ambient lights	Powers the ambient light bulbs
D	Connection for the receiver	To control the light function and optional the convection fan function

## 3 Safety

### 3.1 Safety devices on the appliance

Name	Description
Thermo-electric pilot light shut off	Prevents unforeseen discharge of gas from the main burner.
Overpressure door	If an overpressure occurs in the appliance, the door opens for a short duration. When the door opens, a loud noise can occur. If an overpressure occurs, the installer must do a thorough check on the appliance.

### 3.2 Safety instructions for installation



**Warning:**

- The appliance must be positioned and connected as a 'room sealed system' appliance by a certified and registered gas installation engineer
- Before beginning the installation, check that the details on the rating plate correspond to the gas type and supply pressure to which the appliance will be connected.
- Install the appliance in accordance with the following installation instructions, and the national and the local applicable regulations.
- Do not put flammable materials in the fireplace.
- Make sure that the area around the fireplace is free of flammable materials at all times. the minimal safe distance is 100 cm from the fireplace.
- Make sure that the burner openings stay clean during installation. Blockage of the burner openings can lead to a dangerous situation.
- Make sure that the gas regulator block and the piping remain free of cement or other building material. Otherwise, the gas regulator block or the piping can start to leak.
- Do not twist the flexible pipes to the gas regulator block. Make sure that there is no stress on the flexible pipes and the gas regulator block.
- Make sure that you do not damage the pipes.
- Make sure that the compression fittings do not come loose.
- Do not install the appliance against a flammable rear wall.
- After installation, Make sure that the pipes and compression fittings are gas tight.

**Caution:**

- Only use the items that are supplied or described in the preparation manual and other related documentation.
- Do not use masking tape on the appliance. Masking tape can damage the finish of the appliance.
- Do not insulate the appliance. If necessary, only install strips of white, loose insulation wool that is heat resistant up to at least 1000 °C. Install the insulation strips with a width of maximally 15 cm to protect the walls. Only install these strips on top and on the side of the appliance.
- Do not use fiberglass, rockwool, or any other sort of insulation material. These materials produce pungent odour and can produce discolouration of the fireplace.
- Make sure that brickwork is build with a clearing of at least 3 mm between the sides and the top of the appliance and the brickwork. The appliance can expand during operation due to heating.
- Do not build the brickwork higher than the casing without the use of a mantel iron.

**3.3****Safety instructions with regard to the environment**

- Dispose of the packing materials in an environmentally friendly way.
- Dispose of batteries as chemical waste.
- Dispose of ceramic heat-resistant glass as household waste. Do not dispose of ceramic heat-resistant glass in a glass recycling container.
- Dispose of an obsolete appliance according to instructions of the authorities or the fitter.
- Obey the local regulations.

## 4 Installation

### 4.1 Installation prerequisites

1. Make sure that the location agrees with the requirements. Refer to the preparation manual.
2. Make sure that the details of the rating plate of the appliance agree with the gas type and gas pressure of the gas supply.

### 4.2 Installation procedure

**Note:**

The appliance is factory set to the correct nominal heat input. The pilot light is set to the correct level of gas consumption.

- Do all the procedures in this section. Optional procedures are indicated with (optional).

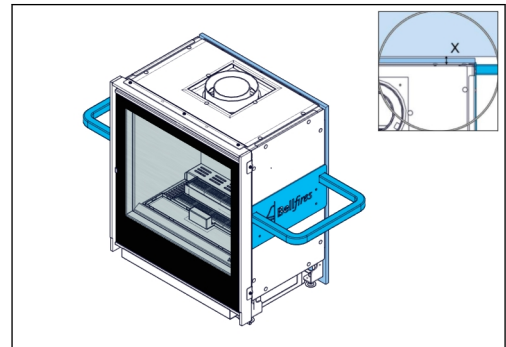
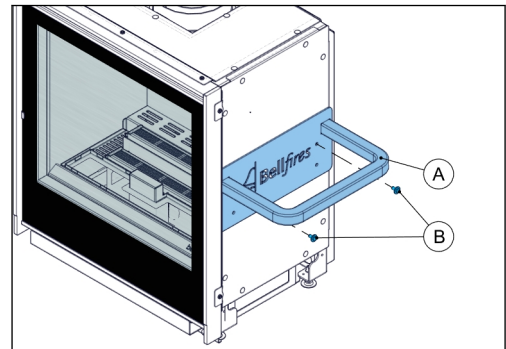
#### 4.2.1 Install the appliance

**Safety conditions****Caution:**

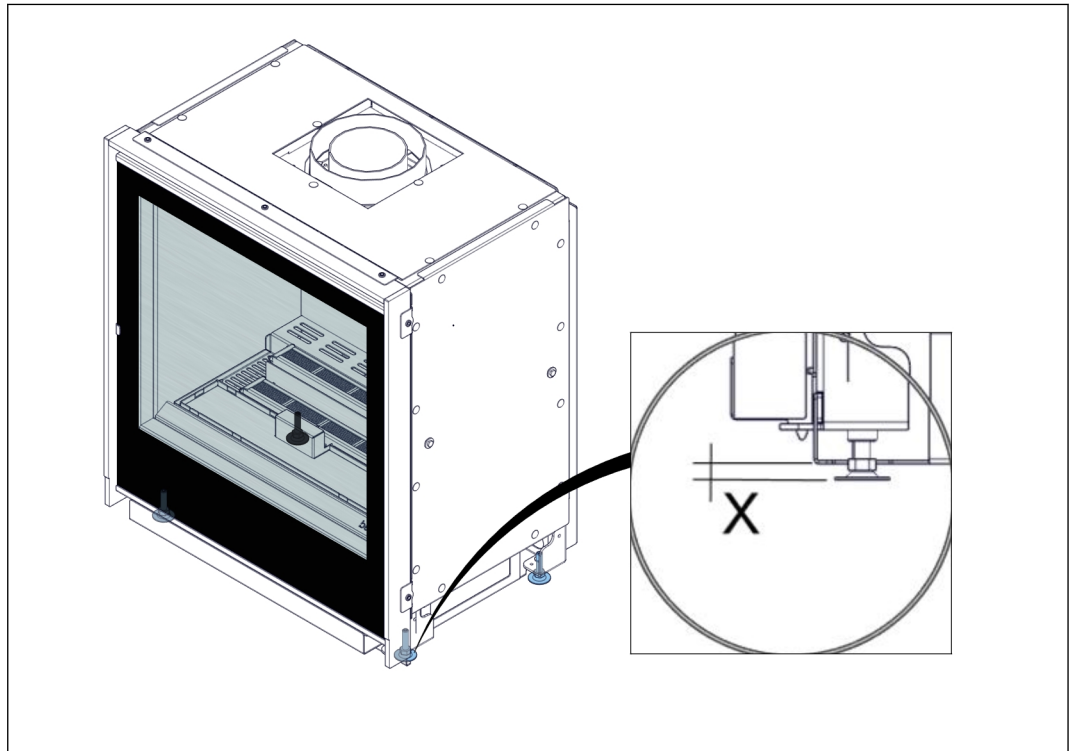
Do not install the appliance against a flammable rear wall.

**Procedure**

1. Install the carrying brackets (A). Use the fasteners (B). You can use the carrying brackets to move the appliance.
2. Install the appliance. Make sure that the distance  $x$  is approximately 2 cm.
3. Remove the carrying brackets.
4. Put a nonflammable insulation plate (B) of at least 12 mm thick between the appliance and the rear wall. Make sure that the insulation plate covers the entire area of the rear of the appliance.



#### 4.2.2 Horizontally align the appliance



- Adjust the adjustable feet. Use an hexagonal key of size 4.
  - a) Make sure that distance x is at least 1 cm.
  - b) Make sure that the appliance is installed horizontally.

#### 4.2.3 Make the gas connection



**Caution:**

- Do not twist the gas supply pipe to the gas regulator block. Make sure that there is no stress on the gas supply pipe and the gas regulator block.
  - Make sure that you do not damage the gas supply pipe.
1. Connect the gas to the appliance. Use a compression fitting.
  2. Make sure that the gas is correctly connected.

#### 4.2.4 Do a check on the gas connections

- Make sure that the gas connections do not leak. Use soapy water or a leak tester.

#### 4.2.5 Make the electrical connection



**Caution:**

- Use a wall socket with earth connection.
  - The socket must be accessible at all times.
1. Connect the plug to the wall socket.
  2. Make sure that the electrical cable does not touch the appliance, due to the high temperatures of the appliance.

#### 4.2.6 Connect the concentric flue system

1. Connect the concentric flue system to the appliance. Use the materials that are specified in the preparation manual. Do not use any other materials.
2. Make sure that all mechanical connections of the concentric flue system are correctly connected.

#### 4.2.7 Install the flue gas restriction plate

##### Safety conditions

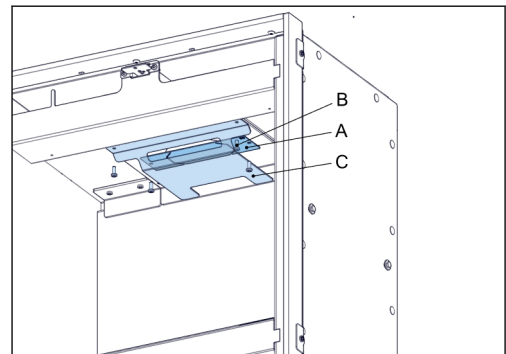


##### Caution:

Install the correct restriction plate. An incorrect restriction plate can cause damage to the appliance.

##### Procedure

1. Remove the door (including glass). See [5.2.1](#).
2. Install the restriction plate (A) with the fasteners (B) in the appliance. Use the restriction plate specified in the preparation manual. Baffle plate (C) stays in place when a restriction plate must be installed. .



#### 4.2.8 Remove the baffle plate

The appliance is factory supplied with a baffle plate. This baffle plate is located at the top of the combustion chamber, just before the connection with the concentric flue. The baffle plate only remains on location, if a restriction plate needs to be mounted. Refer [4.2.7](#).

##### Safety conditions



##### Warning:

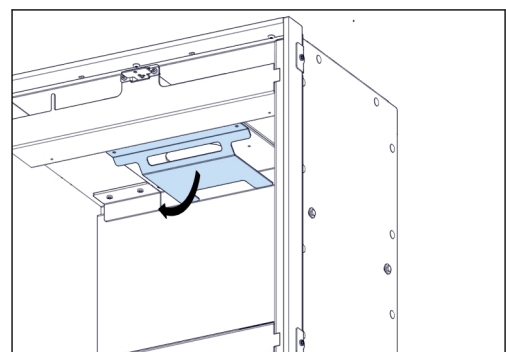
Always remove the baffle plate if there is no need to mount a restriction plate!!!

No restriction plate → No baffle plate !!!!!

Failure to remove the baffle plate, if there is no need to mount a restriction plate, can lead to dangerous situations!

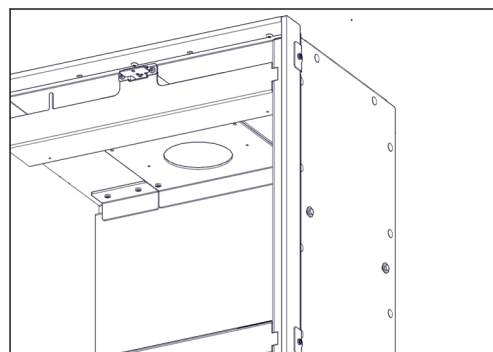
##### Procedure

1. Remove the baffle plate, by unscrewing two bolts.
2. Screw the bolts back into the ceiling of the combustion chamber, after the baffle plate has been removed.





3. Baffle plate has been removed. (The use of a restriction plate, without a baffle plate, is not allowed.)



## 4.2.9

### Build the fireplace

#### Safety conditions



#### Caution:

- Remove the door (including glass). See [5.2.1](#).
- Remove the frame to prevent damage of the frame during work. See [5.2.3](#)
- Make sure that the gas piping remains free of cement or other building material. Otherwise, the gas piping can start to leak.
- Make sure that brickwork is build with a clearing of at least 3 mm between the sides and top of the appliance and the brickwork. The appliance can expand during operation due to heating.
- Do not use masking tape on the appliance. Masking tape can damage the finish of the appliance.
- Do not build the brickwork higher than the casing without the use of a mantel iron.



#### Note:

- Make sure that the thickness of any plastering is taken into account when the brickwork is being build.
- If you use other material than bricks, install the material in accordance with the instructions of the supplier of the material.

#### Procedure

1. Identify the positions where the inlet grates and the outlet grates must be put. See [2.3](#) and refer to the preparation manual.
2. Build the brickwork around the appliance up to the upper frame.
3. If applicable, install a mantel iron.
  - a) Put ceramic felt on the top of the mantel iron. Brickwork can be built on top of the ceramic felt.
4. Build the fireplace around the appliance.
5. Install the grates on the inlet openings and the outlet openings.
6. Install the frame on the appliance.

## 4.3

### Prepare the appliance for use

- Do all the procedures in this section. Optional procedures are indicated with (optional).

### 4.3.1 Do a check on the operation of the lighting

- Make sure that the operation of the ambient lights function well. To operate the lights with the remote control, refer to the user manual

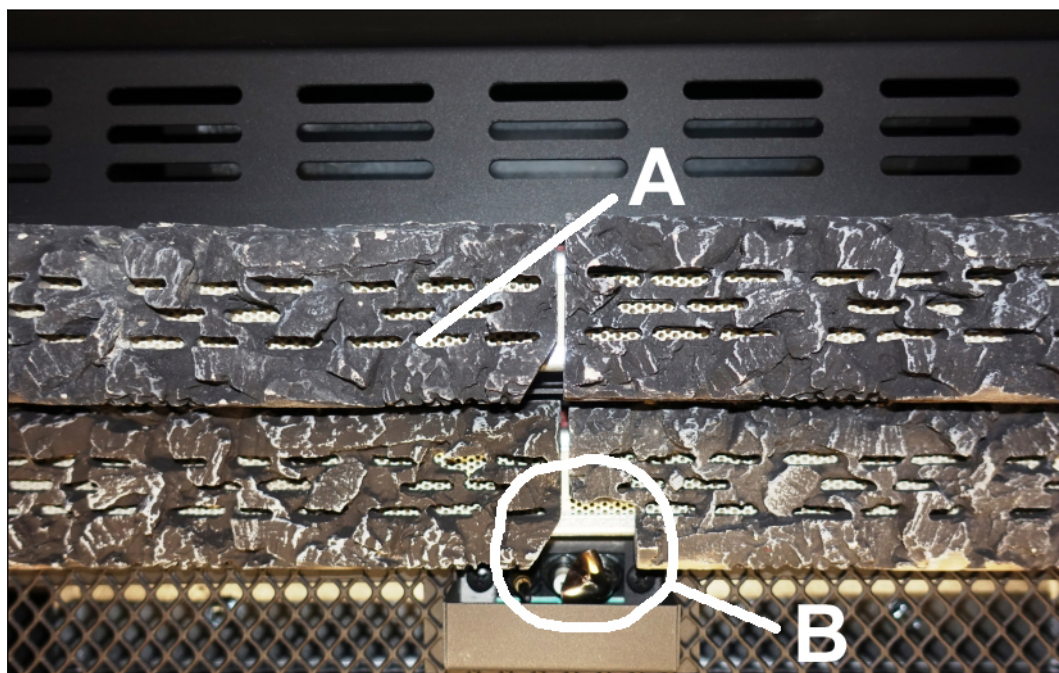
### 4.3.2 Put the ceramic log set on the burner bed

#### Safety conditions

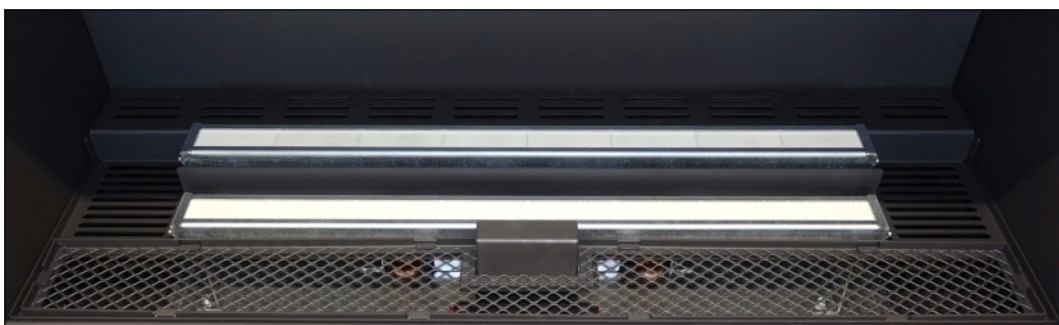


#### Warning:

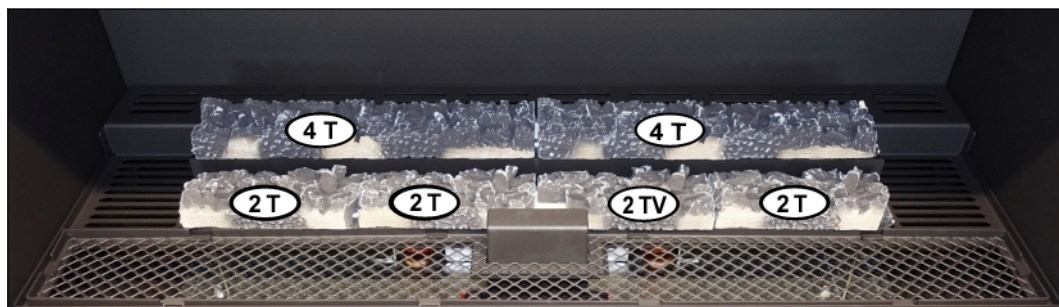
- Make sure that none of the openings of the ember grates (A) are blocked. Blockage of the openings of the ember grates can lead to a dangerous situation.
- Put the items of the log set in the correct configuration for the type of gas burner. If you put the items of the log set in another configuration, a dangerous situation can occur.
- Do not put anything against the pilot burner or in the protective pilot light cowl (B).
- Only use the items that are supplied.



#### Preparation



1. Make sure that all items of the log set are there. See [2.6](#).
2. Put the ceramic ember grates on the lower and upper main burner, as shown below. Refer to [2.6](#) for the numbers of the items.



3. Spread the fire glass -dark amber- evenly on the metal grate in front of the burner bed.

Spread the fire glass -black- evenly on the metal grate on the left (L) and right (R) of the burner bed.



**Note:**

Set the light intensity of the ambient lighting to maximum on the remote control. Refer to the user manual. Make sure that the light intensity is the same everywhere. Adjust the distribution of the fire glass if necessary.



4. Spread the embers evenly behind and beside the burner bed.



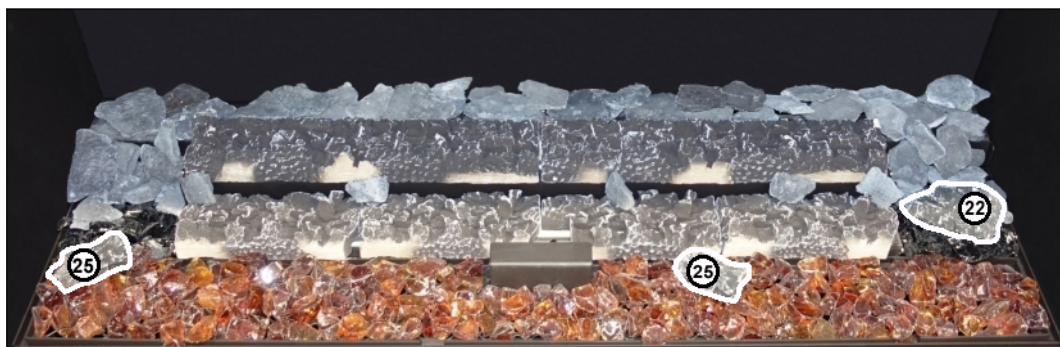
**Caution:**

Do not apply embers on the openings of the ember grates. Embers in the openings of the ember grates can cause a blockage of the openings.

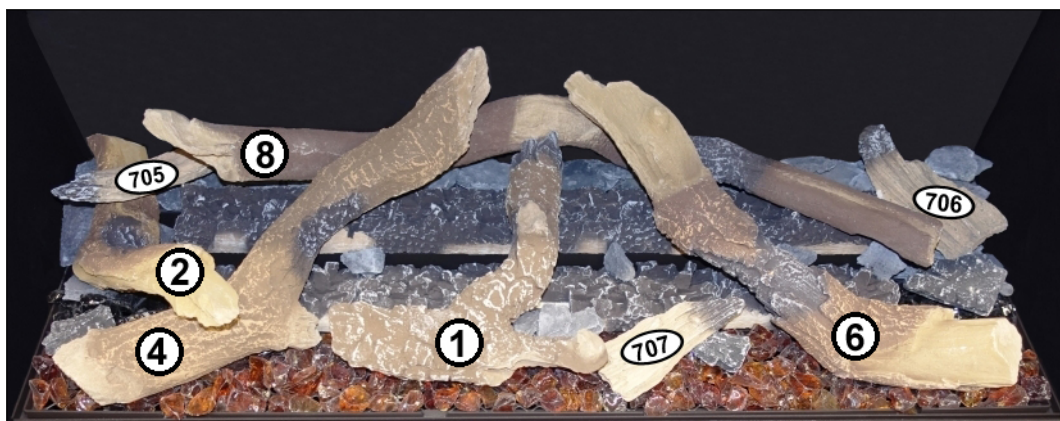


5. Put the charcoal pieces at the designated places around the burner bed. Refer to [2.6](#) for the numbers of the items.





6. Put the logs and chips of wood on the burner bed. Refer to [2.6](#) for the numbers of the items.



7. Install the door (including glass.) Refer to [5.2.2](#).

### 4.3.3

### Do a final check on the fireplace

#### Safety conditions



#### Caution:

Wait 4 weeks after the installation before you use the fireplace. The cement needs to harden. A final check on the fireplace can be done directly after the installation.

#### Procedure

1. Start the appliance and do a check on the ignition of the pilot light and main burner. The ignition must be quiet and must produce a calm flame. To start the appliance, refer to the user manual.
2. Do a check on the main burner. The flames increase in height and change from blue/yellow to yellow.
3. If all flames are yellow, the appliance is ready for use.

## 5 Maintenance

### 5.1 Annual maintenance

- Do all procedures in this section every year.



**Caution:**

- Use only original parts. Individual parts for replacement or accessories are available from your BELLFIRES-dealer.
- Introduced modifications to the appliance are not permitted.

#### 5.1.1 Clean the appliance

Safety conditions

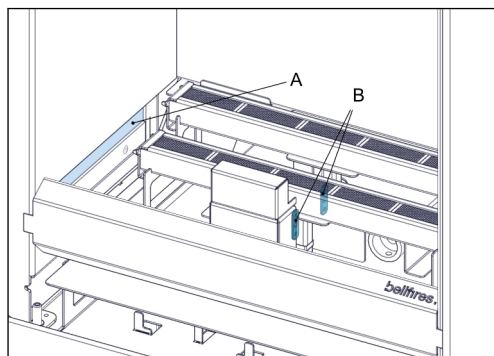


**Caution:**

- Turn off the gas supply to the appliance before cleaning.
- Turn off the power supply to the appliance before cleaning.

Procedure

1. Remove the glass. Refer to [5.2.1](#).
2. Remove the content from the burner bed.
3. Clean the removed content carefully with a soft brush.
4. Clean the inside of the appliance, including the main burner, the pilot light burner and the flue system.
5. Remove the grate.
6. Clean the combustion air intake
  - a) Clean the combustion air intake (A) at the bottom sides of the appliance.
  - b) Clean the primary combustion air inlet openings (B) of the main burner (front and rear).
7. Clean the ambient light bulbs. Refer to [5.2.6](#).
8. Clean the convection air route.
9. If the convection fan is installed in the appliance, clean the convection fan carefully. Use a soft brush.
10. Do a check for damage on the inside of the appliance, including these parts:
  - a) Main burner.
  - b) Pilot burner.
  - c) Combustion air intake.
  - d) Flue system. Use a flashlight if necessary.
11. Clean the glass. Refer to [5.2.5](#).
12. If the black mirror rear wall is installed in the appliance, clean the black mirror. Use glass spray or ceramic hob cleaner.
13. Prepare the appliance for use. Refer to [4.3](#).



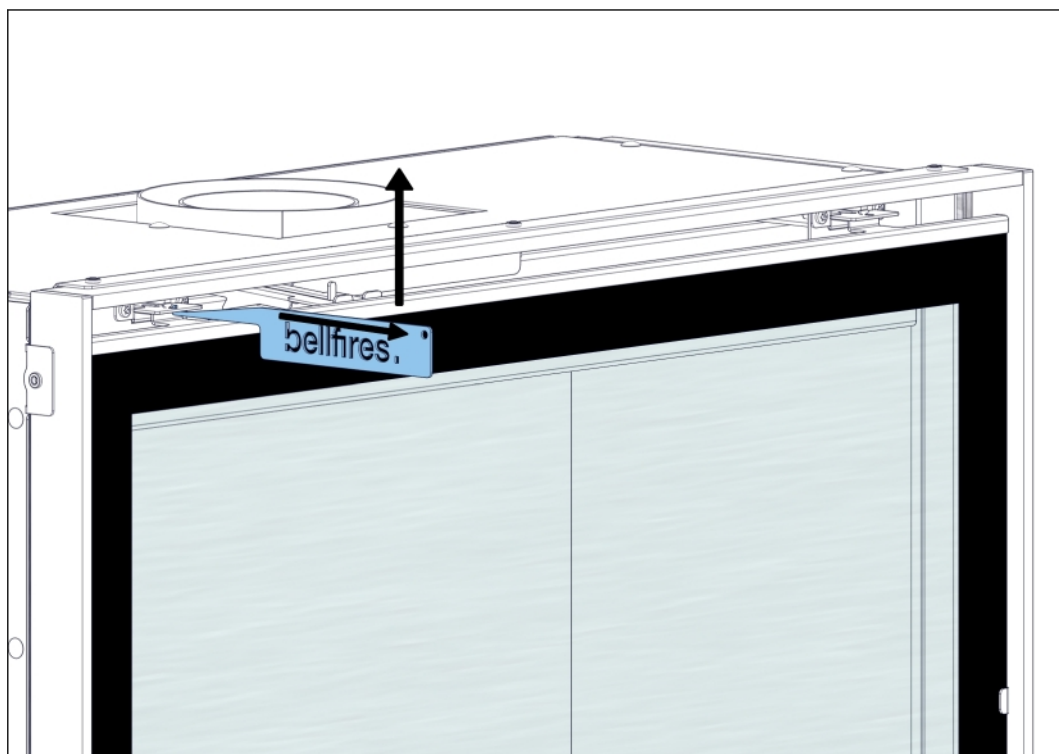
### 5.1.2 Do a check on the appliance

1. Do a check for leaks on the gas pipes and the gas pipe connections. Refer to [4.2.4](#).
2. Make sure that the pilot light operates correctly. The pilot light must not show any anomalies.
3. Make sure that the main burner operates correctly. The fire must not show any anomalies.
4. Do a check of the gas supply pressure and the burner pressure.
  - a) Use the inlet pressure tap and outlet pressure tap on the gas regulator block to measure the supply pressure and the burner pressure.
  - b) Measure the pressure when the appliance is off and when the appliance burns on maximum. Refer to [7](#) for the required supply pressure and burner pressure.
5. Make sure that the ambient lighting operates correctly. Refer to the user manual.
6. If the convection fan is installed in the appliance, make sure it works correctly. Refer to the user manual.
7. Do a check on the concentric flue system and the outlet construction. Make sure that all the connections of the concentric flue system are secure.

## 5.2 Maintenance procedures

### 5.2.1 Remove the door (including glass)

1. Turn off the gas supply to the appliance before removing the door.



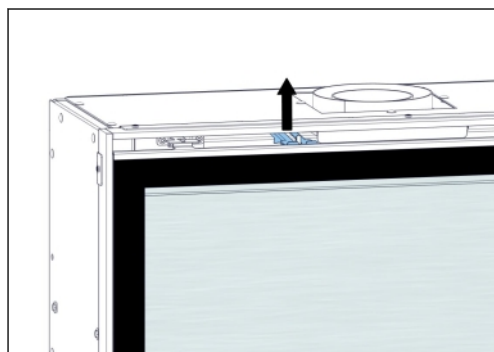
2. With the hook, pull the thin, metal spring strips on the top left and right from the studs on the door.

3. Dismantle the safety strip from the door.

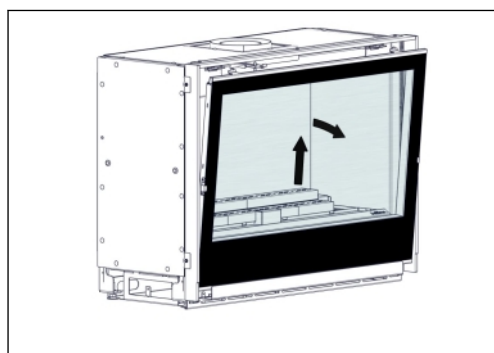


**Caution:**

When loosening the door and after it has been loosened, support it with your hand to prevent it falling forward !



4. Carefully tilt the door and the glass forwards at the top. Prevent damage by laying paperboard on the chimney breast, under the door. Pull the door upwards and remove it from the appliance.



## 5.2.2

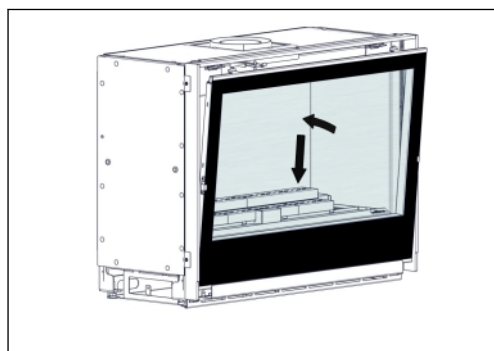
### Install the door (including glass)



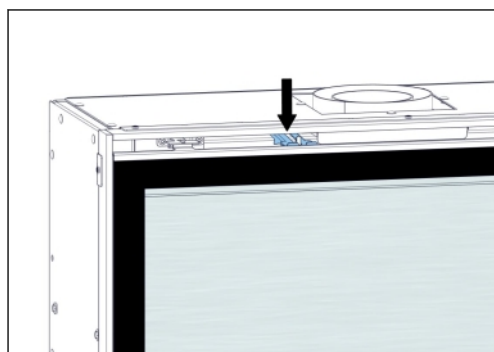
**Caution:**

Make sure that the door with the glass pane fits properly in the appliance and seals the inside of the appliance. If the door does not fit properly there is a risk of flue gas leakage.

1. Install the door (including glass) in the reverse order of the procedure 'Remove the door (including glass)'
2. Push the safety strip first fully back into the appliance, by lifting the strip a little.
3. Place the door and glass, and tilt it backwards.



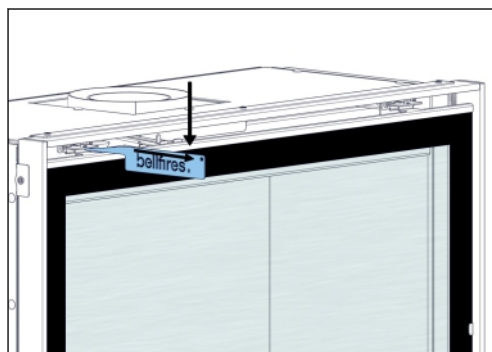
4. Attach the safety strip on the door.



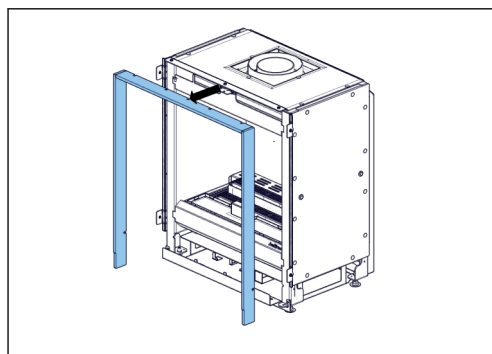
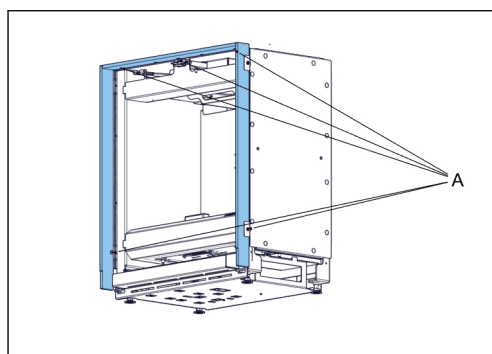
5. With the hook, pull the thin, metal spring strips on the top left and right on the studs of the door.

**Caution:**

- Make sure whether the door is properly positioned underneath in the 2 holes of the front.
- Make sure whether the door is placed in the middle of the front.
- The door must fit tightly all round to the edge of the combustion chamber.
- Make sure that the spring strips, on the top, remain in their proper place.

**5.2.3****Remove the frame**

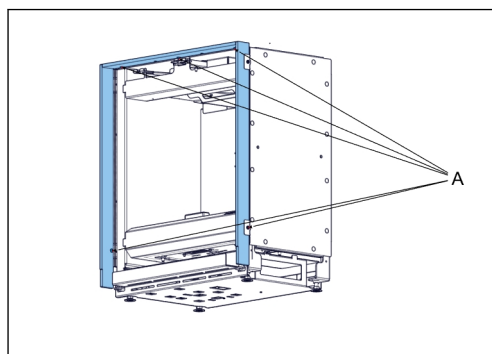
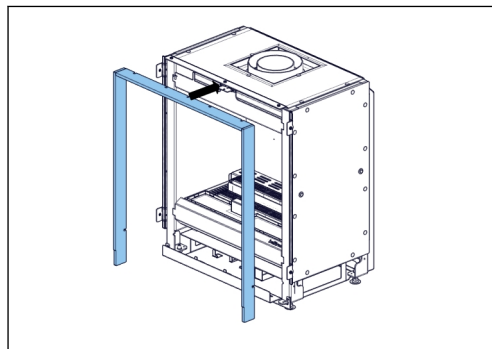
1. First remove the door (including glass). Refer to [5.2.1](#).
2. Loosen the 3 hexagonal bolts on the inside of the top frame and the 2 Hexagonal bolts at the bottom left and bottom right (A) respectively a couple of turns.
3. Remove the frame.





### 5.2.4 Install the frame

1. Push the frame on the appliance.
2. Tighten the 3 hexagonal bolts on the inside of the top frame and the 2 Hexagonal bolts at the bottom left and bottom right (A) respectively.
3. Make sure that the frame connects well to the wall.



### 5.2.5 Clean the glass

1. Clean the glass with a soft cloth, a sponge or paper. Use glass cleaner or ceramic hob cleaner.
2. Make sure that the glass is dry. Water droplets can leave a mark on the glass.

### 5.2.6 Replace the ambient light bulb when broken

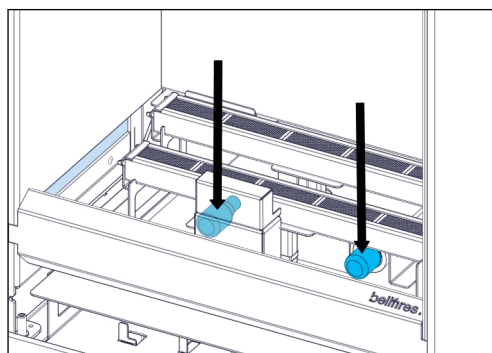
1. Turn off the power supply to the appliance.
2. Remove the content from the burner bed.
3. Remove the grate.
4. Carefully unscrew the broken light bulb from the ceramic fitting.
5. Carefully turn the new light bulb in the ceramic fittings.



#### Caution:

- Turn the ambient light bulbs completely into the ceramic fitting!
- Use only the Belfires ambient light bulb.

6. Prepare the appliance for use. Refer to [4.3](#).
7. Turn on the power supply to the appliance.
8. Make sure that the ambient lighting operates correctly. Refer to [4.3.1](#).



## 6 Troubleshooting

Problem	possible cause	solution
The main fire stops to burn	The concentric flue system is not installed according to the specified instructions.	Install the concentric flue system correctly. Refer to the preparation manual.
	An incorrect flue gas restriction plate is fitted.	Install the correct gas restriction plate. Refer to <a href="#">4.2.7</a> .
	Insufficient pressure of the gas supply.	Contact your gas supplier company
	The concentric system has a leak. The leak is possibly on the inside of the concentric flue.	Check the concentric flue system. Refer to the preparation manual for correct installation.
	There is no power supply (230 VAC).	Repair the power supply.
The appliance does not react on the remote control	The batteries of the remote control are empty.	Replace the batteries. Refer to the user manual.
The pilot burner stops to burn	There is insufficient exhaust of the flue gases.	Check the concentric flue system. Refer to the preparation manual for correct installation.
	The pilot burner is dirty.	Clean the pilot burner
	The pilot burner is defective.	Replace the pilot burner
	The thermocouple is defective	Replace the thermocouple
The light does not operate	The light bulb is defective	Replace the light bulb
The fan (option) does not operate	The fan is defective	Replace the fan
A loud noise occurs in the appliance	The overpressure door is activated.	Do a check on the appliance for problems.
The lacquer of the appliance is damaged		Use an aerosol can with heat resistant lacquer to repair any damage in the laquer.

## 7 Technical specification

### 7.1 Smart Bell 80/60 MF (MagniFire) - GB, IE, ES, IT

	Natural gas	Butane/ Propane
Name	Bellfires	Bellfires
Model	Smart Bell 80/60 MF	Smart Bell 80/60 MF
Country	GB, IE, ES, IT	GB, IE, ES, IT
Product identification no	0063CM3684	0063CM3684
Indirect heating functionality	No	No
Type of appliance under CE-norm	C <sub>11</sub> / C <sub>31</sub> / C <sub>91</sub>	C <sub>11</sub> / C <sub>31</sub> / C <sub>91</sub>
Category of appliance	I <sub>2H</sub> natural gas G20	I <sub>3B/P</sub> butane/propane G30/G31
Energy efficiency class	B	C
Energy efficiency index (EEI)	83	78
Nominal heat input (Gross calorific value)	8.5 kW	Butane (G30) : 7.5 kW Propane (G31) : 6.1 kW
Nominal heat output	6.5 kW	Butane (G30) : 5.4 kW Propane (G31) : 4.4 kW
Minimum heat output (indicative)	2.9 kW	Butane (G30) : 3.1 kW Propane (G31) : 2.5 kW
Useful efficiency (Net Calorific Value (NCV)) at nominal heat output	85.0 %	80.0 %
Useful efficiency (Net Calorific Value (NCV)) at minimum heat output (indicative)	76.6 %	74.7 %
NO <sub>x</sub> (max.) (Gross Calorific Value (GCV))	<130 mg/kWh <sub>input</sub>	<130 mg/kWh <sub>input</sub>
NO <sub>x</sub> class	4	4
Gas rate (max.)	0.80 m <sup>3</sup> /hr.	Butane (G30) : 570 gr/hr. Propane (G31) : 450 gr/hr.
Supply pressure	20.0 mbar	Butane (G30) : 37.0 mbar Propane (G31) : 37.0 mbar
Burner pressure (max.) Hot	12.2 mbar (*)	29.0 mbar (*)
Burner pressure (max.) Cold	11.5 mbar (**)	29.0 mbar (**)
Burner pressure (min.)	3.5 mbar (***)	11.0 mbar (***)
Primary air inlet burner rear	1x Ø6.0 mm	1x Ø8x15 mm + 2x Ø3.5 mm
Primary air inlet burner front	1x Ø6.0 mm	1x Ø8x15 mm + 2x Ø3.5 mm
Gas regulator block (remote control)	Mertik GV 60	Mertik GV 60
Main burner	MagniFire 530x40 mm (2x)	MagniFire 530x40 mm (2x)
Main burner injector Rear	no 170 (= 1x Ø1.70 mm)	no 95 (= 1x Ø0.95 mm)
Main burner injector Front	no 170 (= 1x Ø1.70 mm)	no 100 (= 1x Ø1.00 mm)
Pilot light burner	SIT 0.145.019	SIT 0.145.019

	Natural gas	Butane/ Propane
Pilot light burner injector	no 36 (SIT 0.977.091)	no 23 (SIT 0.977.150)
Gas connection	3/8" G / Ø12 mm	3/8" G / Ø12 mm
Concentric flue system connection	Ø100 mm - Ø150 mm	Ø100 mm - Ø150 mm
Batteries remote control receiver	None	None
batteries remote control hand transmitter	2x 1.5V AAA	2x 1.5V AAA
Electrical connection	230 VAC / 50 Hz	230 VAC / 50 Hz
Auxiliary electricity consumption at nominal heat output	0.05 kW / 0.09 kW incl. fan	0.05 kW / 0.09 kW incl. fan
Auxiliary electricity consumption at minimum heat output	0 kW	0 kW
Auxiliary electricity consumption in standby mode	0 kW	0 kW
Weight:		
• Basic model	74 kg	74 kg
• Including all options	78 kg	78 kg
The specific precautions that shall be taken when the local space heater is assembled, installed or maintained, are listed in the attached documents:	<ul style="list-style-type: none"> <li>• Preparation manual</li> <li>• Installation and maintenance manual</li> <li>• User manual</li> </ul>	<ul style="list-style-type: none"> <li>• Preparation manual</li> <li>• Installation and maintenance manual</li> <li>• User manual</li> </ul>

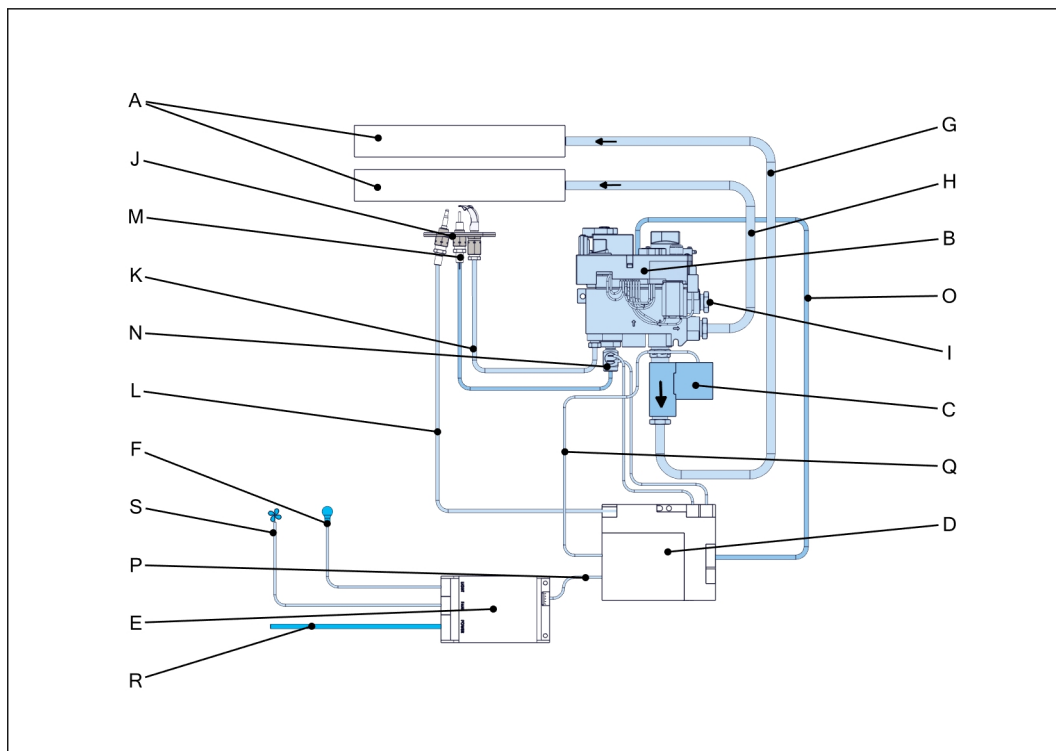
(\*) Both burners at maximum. Appliance is on temperature.

(\*\*) Both burners at maximum. Appliance is cold.

(\*\*\*) Both burners at minimum.

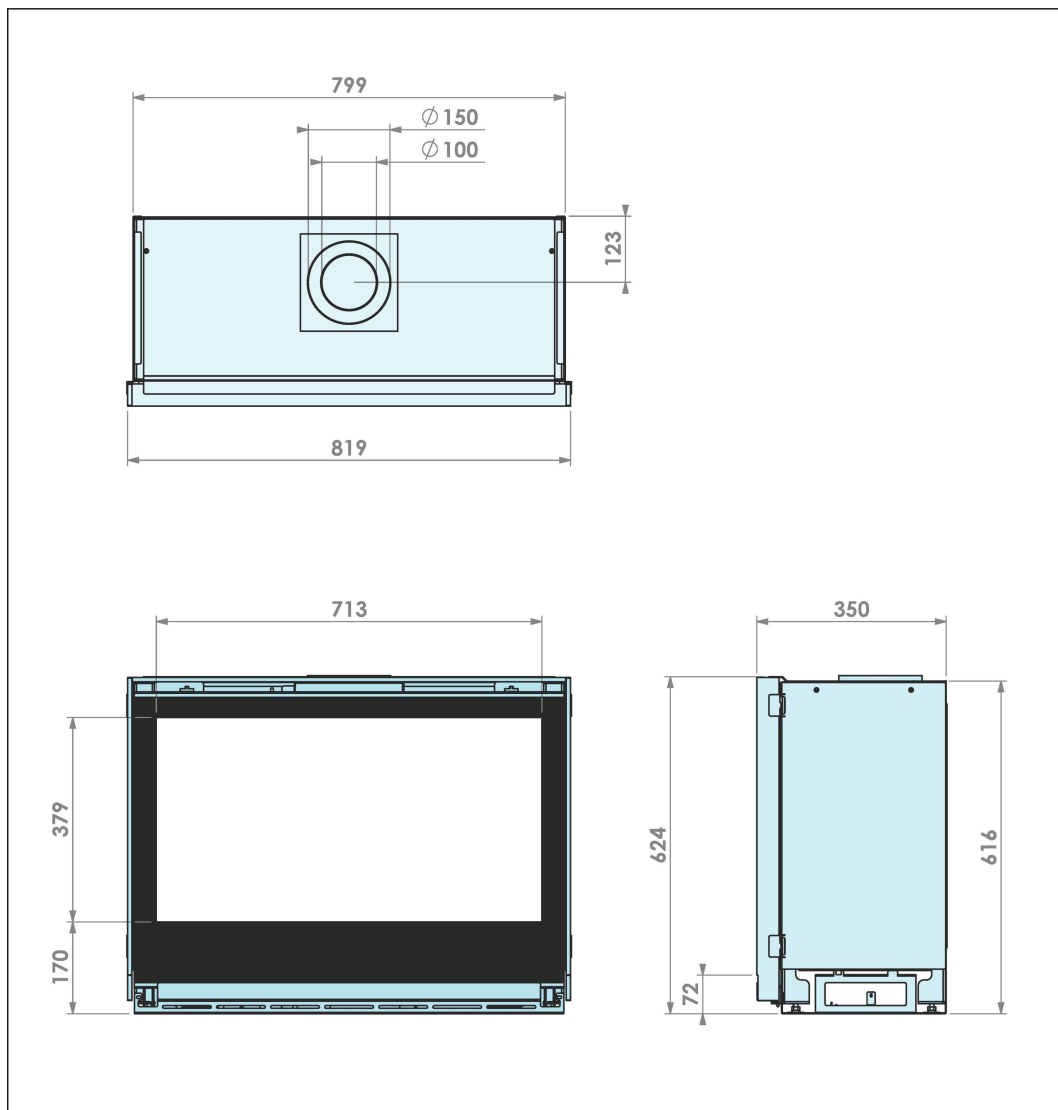
Heat changing surface: Entire front of the appliance.

## 7.2 Diagram electricity and gas

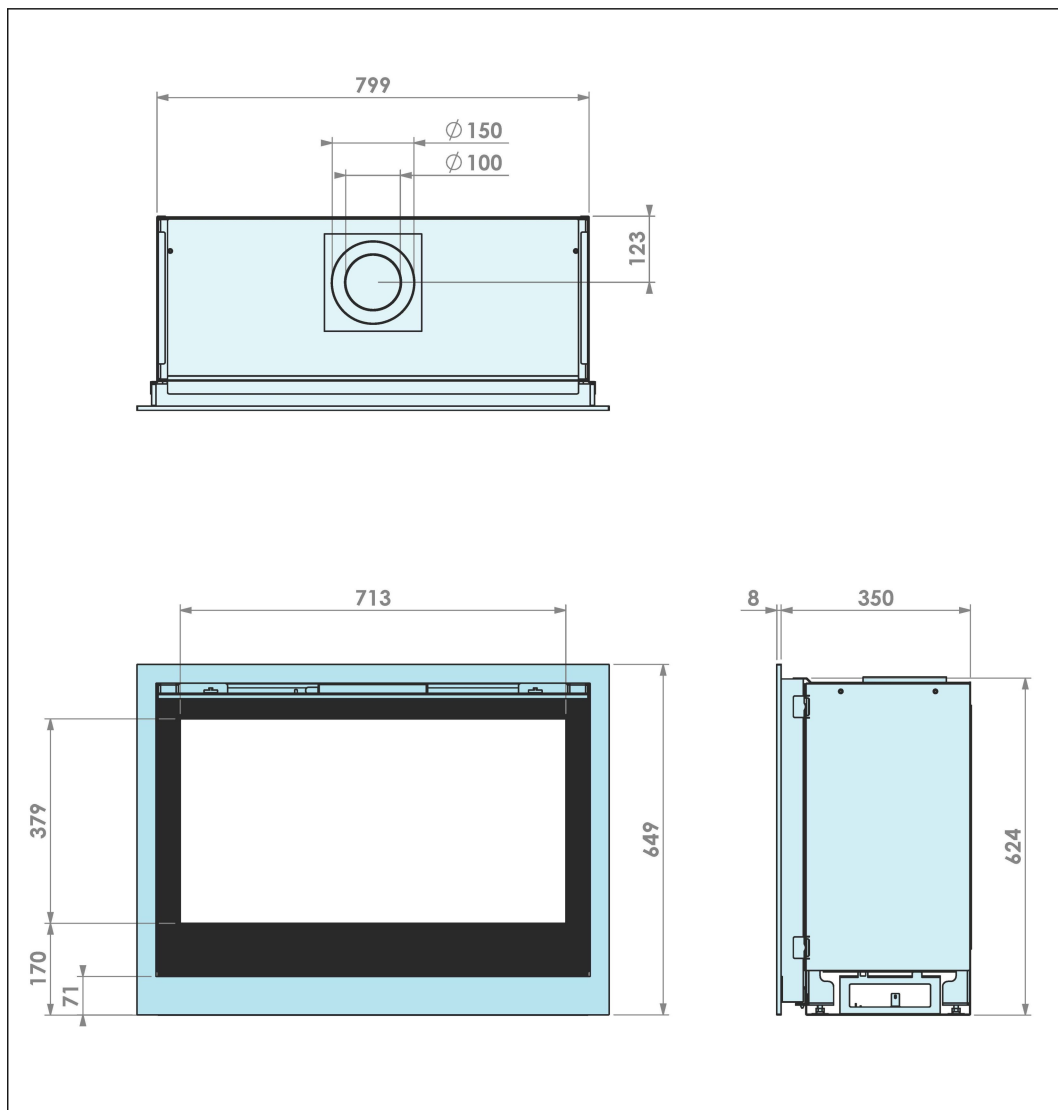


	Item
A	Main burners
B	Gas regulator block
C	Gas valve of the rear burner
D	Receiver
E	Fan/Light module
F	Ambient lighting
G	Gas pipe rear burner
H	Gas pipe front burner
I	Gas supply connection
J	Pilot light burner
K	Pilot light pipe
L	Piezo cable
M	Thermocouple
N	Thermocouple interrupter
O	8 wire cable
P	5 wire cable
Q	2 wire cable
R	Connecting cable 230VAC with earthed plug
S	Convection fan (option)

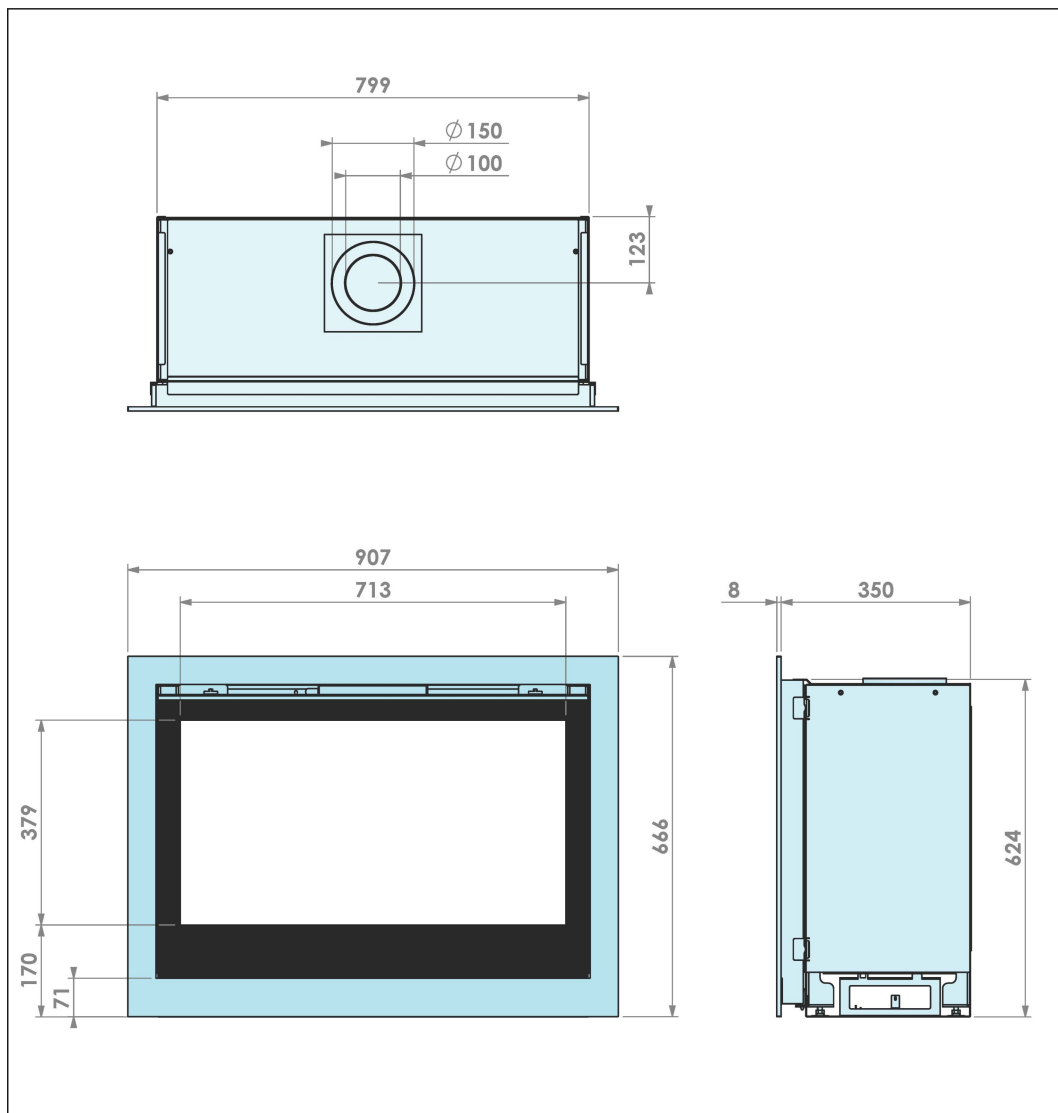
### 7.3 Dimensions Smart Bell 80/60 with a Built-in frame



## 7.4 Dimensions Smart Bell 80/60 with a Classic frame 35 mm

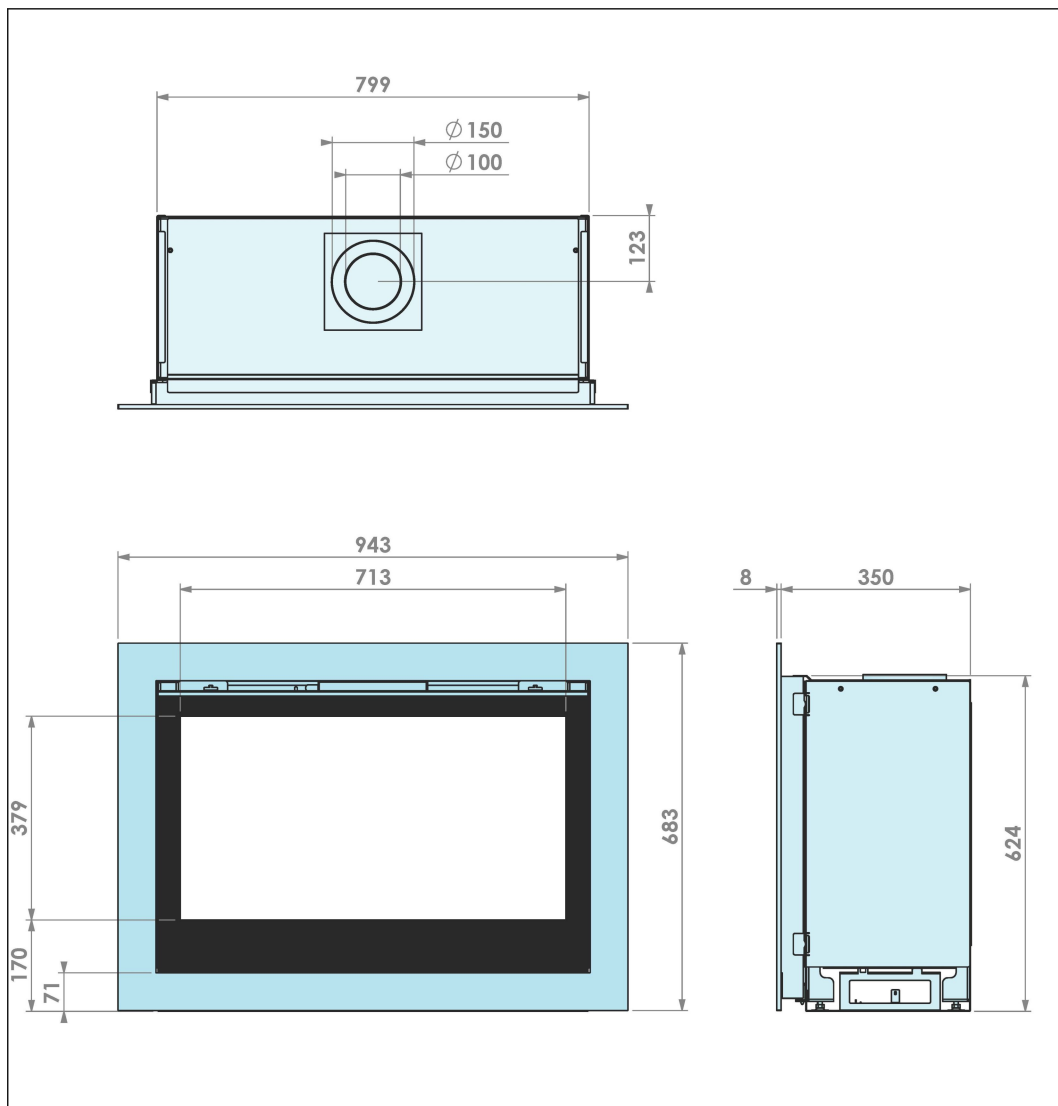


## 7.5 Dimensions Smart Bell 80/60 with a Classic frame 52 mm

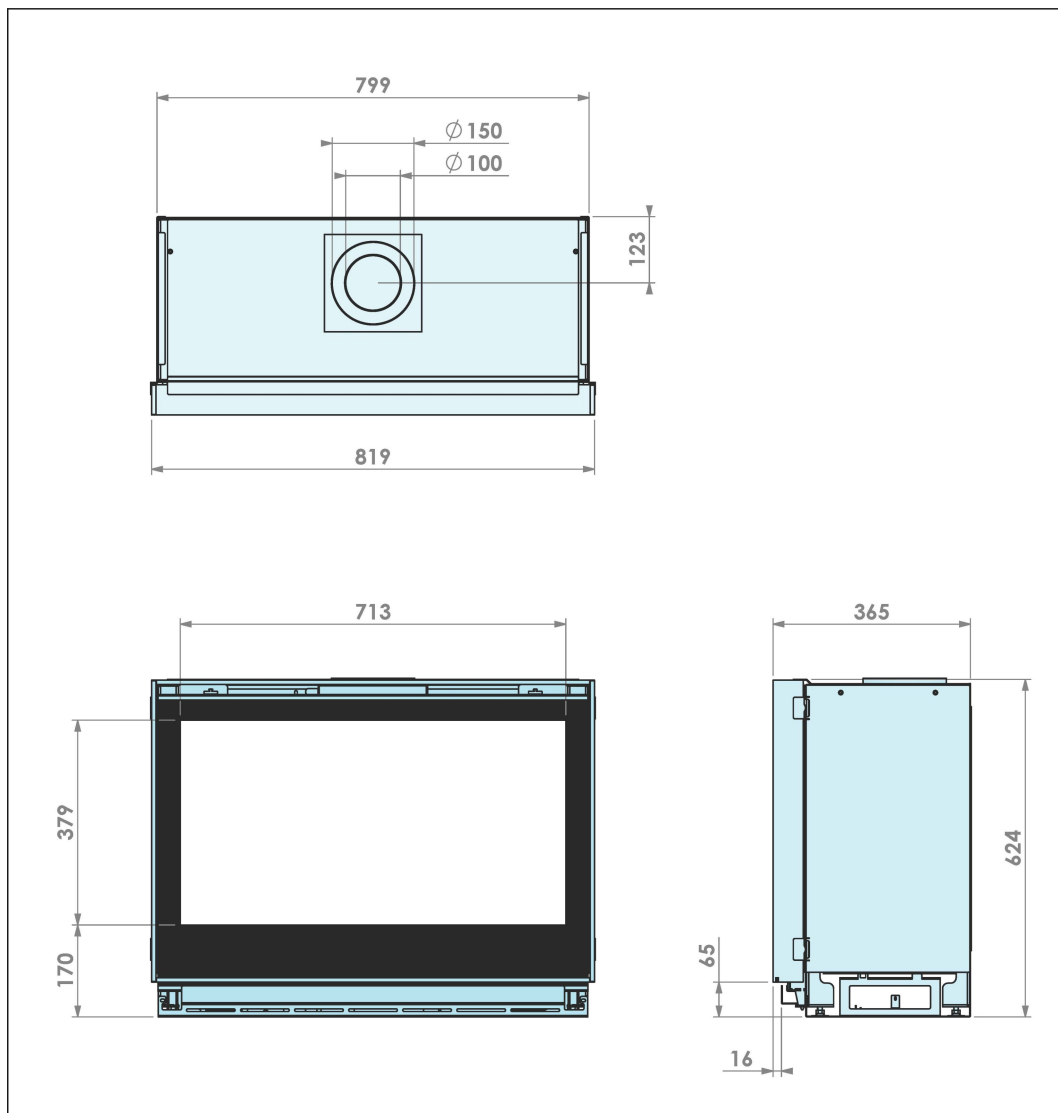




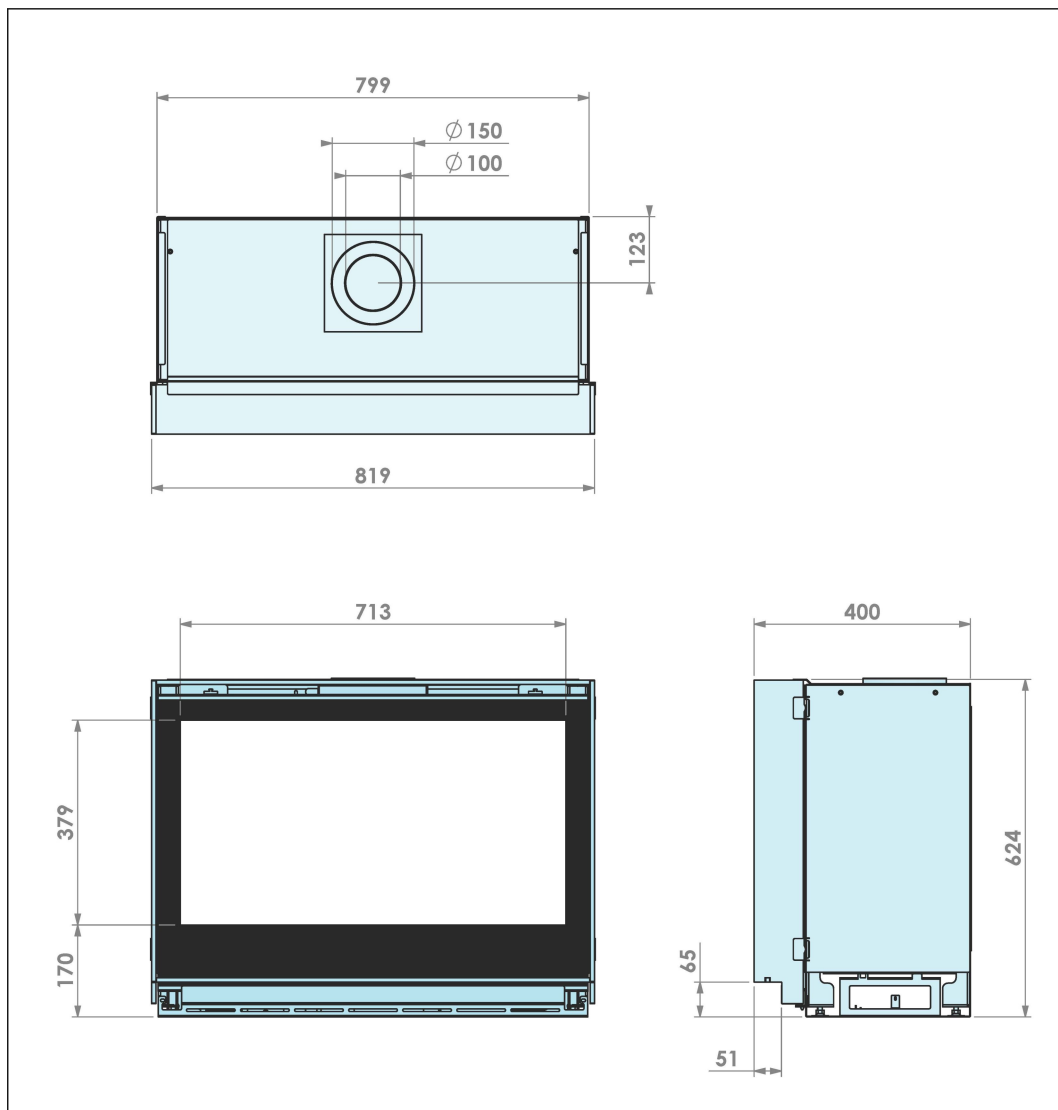
## 7.6 Dimensions Smart Bell 80/60 with a Classic frame 70 mm



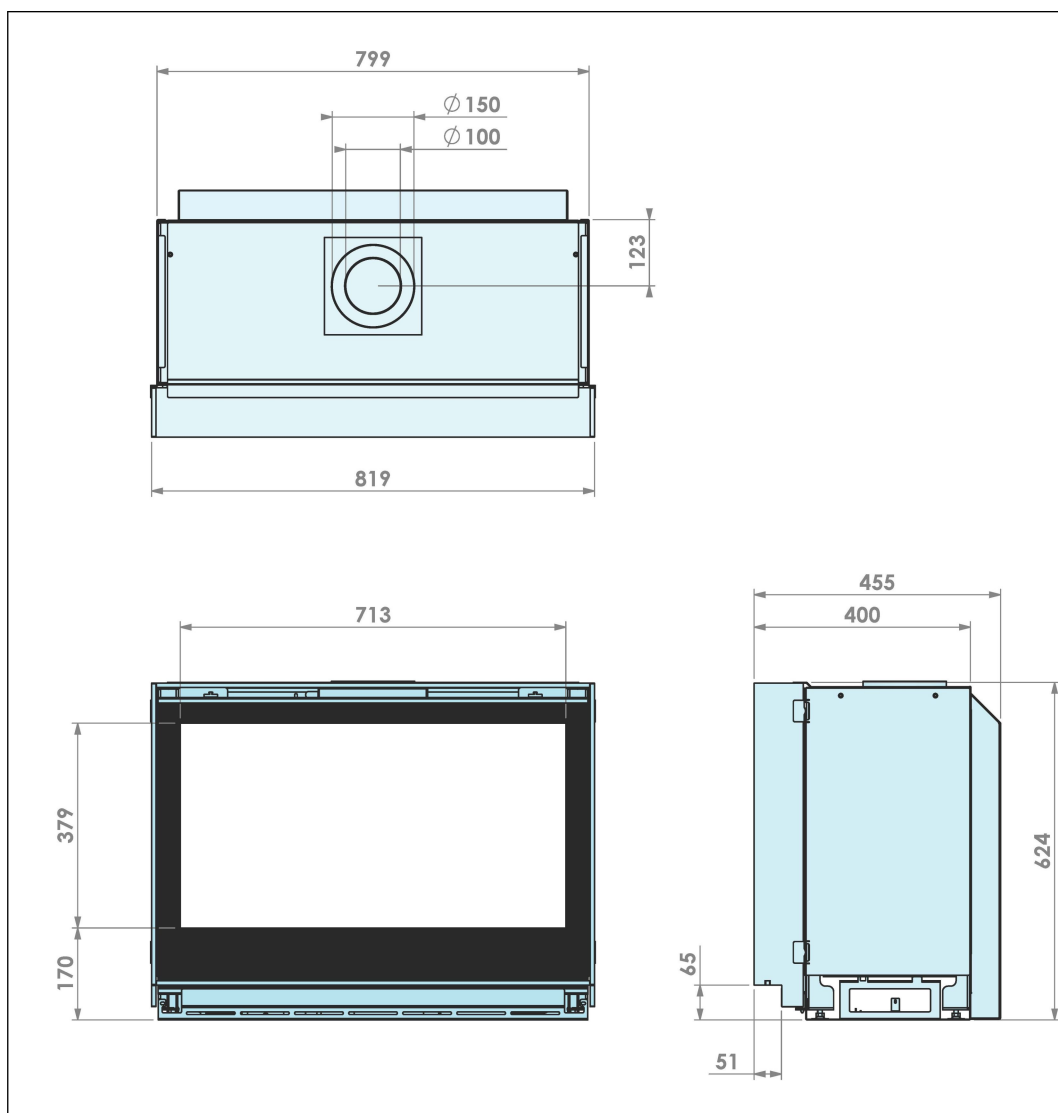
## 7.7 Dimensions Smart Bell 80/60 with an Insert frame 15 mm



## 7.8 Dimensions Smart Bell 80/60 with an Insert frame 50 mm



## 7.9 Dimensions Smart Bell 80/60 with an Insert frame 50 mm and Convection fan



## 7.10 Dimensions of the restriction plate

Width of the delivered flue restriction plates in mm	
Concentric flue connection Ø100 - Ø150	
Roof-mounted outlet	
	30
	40
	50
	65

## 8 Warranty Terms

### Barbas Bellfires Warranty Terms

Barbas Bellfires B.V. guarantees the quality of the supplied Bellfires appliance and the quality of the materials used. All Bellfires appliances are developed and manufactured according to the highest possible quality standards. If, despite all this, something should prove amiss with the Bellfires appliance you have purchased, Barbas Bellfires B.V. offers the following manufacturer's warranty.

#### Article 1: Warranty

1. If Barbas Bellfires B.V. determines that the Bellfires appliance you have purchased is defective as a result of a flaw in the construction or material, Barbas Bellfires B.V. guarantees to repair or replace the appliance free of charge, without charging any costs for labour or spare parts.
2. Repair or replacement of the Bellfires appliance will be undertaken by Barbas Bellfires B.V. or by a Bellfires dealer as designated by Barbas Bellfires B.V.
3. This warranty is supplementary to the existing legal national warranty of Bellfires dealers and Barbas Bellfires B.V. in the country of purchase and is not intended to restrict your rights and claims based on the applicable legal provisions.

#### Article 2: Warranty conditions

1. Should you wish to claim under the warranty, please contact your Bellfires dealer.
2. Complaints should be reported as quickly as possible after they have manifested themselves.
3. Complaints will only be accepted if they are reported to the Bellfires dealer, together with the serial number of the Bellfires appliance which is stated on the front of the user manual.
4. In addition, the original receipt (invoice, receipt, cash receipt) showing the date of purchase must also be submitted.
5. Repairs and replacements during the warranty period do not give any entitlement to an extension of the warranty period. After a repair or replacement of warranty parts, the warranty period shall be deemed to have started on the date of purchasing the Bellfires appliance.
6. If a certain part is eligible for the warranty and the original part is no longer available, Barbas Bellfires B.V. shall ensure that an alternative part of at least the same quality shall be provided.

#### Article 3: Warranty exclusions

1. The warranty on the Bellfires appliance ceases to be in effect if:
  - a. it is not installed according to the supplied installation instructions, and to national and/or local regulations;
  - b. it has been installed, connected or repaired by a non-Bellfires dealer;
  - c. it has not be used or maintained according to the instructions for use;
  - d. it has been changed, neglected or roughly treated;
  - e. it has been damaged as a result of external causes (outside the hearth itself), for example, lightning strike, water damage or fire;
2. In addition, the warranty lapses if the original purchase receipt shows any change, deletion, removal or if it is illegible.

**Article 4: Warranty area**

1. The warranty is only valid in those countries where Bellfires appliances are sold through an official dealer network.

**Article 5: Warranty period**

1. This warranty will only be granted during the warranty period.
2. The body of the Bellfires appliance is guaranteed for a period of 10 years against construction and/or material faults, starting from the moment of purchase.
3. For other parts of the Bellfires appliance, a similar warranty applies from the moment of purchase for a period of one year.
4. For user parts such as glass, glass (cord), thermocouple and the interior of the combustion chamber, a similar guarantee is given until after the first burning.

**Article 6: Liability**

1. A claim granted by Barbas Bellfires B.V. under this warranty does not automatically imply that Barbas Bellfires B.V. also accepts liability for any possible damage. The liability of Barbas Bellfires B.V. never extends further than that stated in these warranty conditions. Any liability of Barbas Bellfires B.V. for consequential damage is expressly excluded.
2. That stated in this provision is not valid if and to the extent that it derives from a mandatory provision.
3. All agreements entered into by Barbas Bellfires B.V. are, unless specifically stated otherwise in writing and to the extent that they are permitted based on applicable law, subject to the FME-CWM general sales and delivery conditions for the technology industry.

Barbas Bellfires B.V.  
Hallenstraat 17 5531 AB Bladel  
The Netherlands  
Tel: +31-497339200  
Email: [info@Bellfires.com](mailto:info@Bellfires.com)

Carefully retain the user manual; it shows the serial number of the appliance. You will need this if you wish to claim under the warranty.

barbas bellfires. fireplaces

fire  
for  
life

## EU-Declaration of Conformity

We

Manufacturer Barbas Bellfires  
 Address Hallenstraat 17  
 5531 AB Bladel; The Netherlands  
 Phone + 31 497 339 200  
 email info@barbasbellfires.com

declare that this declaration of conformity is issued under our sole responsibility  
 and belongs to the product below:

Product: Independent gas-fired convection heater  
 Type: C<sub>11</sub>/C<sub>31</sub>/C<sub>91</sub>  
 Product name: Bellfires

## Description of the product:

Horizon Bell XXL 3 CF/LF	Corner Bell Derby 3 L/R CF/LF/PF	Classic Bell Small
Horizon Bell XL 3 CF/LF	Corner Bell Topsham 3 L/R CF/LF/PF	Classic Bell Medium
Horizon Bell Large 3 CF/LF	Corner Bell York 3 L/R CF/LF/PF	Smart Bell 80/80 PF
Horizon Bell Medium 3 CF/LF	Corner Bell XXL 3 L/R CF/LF	Smart Bell 90/80 PF
Horizon Bell Small 3 CF/LF	Corner Bell XL 3 L/R CF/LF	Smart Bell 75/80 PF
Horizon Bell XS 3 CF/LF	Corner Bell Large 3 L/R CF/LF	Smart Bell 80/70 PF
Horizon Bell Large Tunnel 3 CF/LF	Corner Bell Medium 3 L/R CF/LF	Smart Bell 90/70 PF
Horizon Bell Small Tunnel 3 CF/LF	Corner Bell Small 3 L/R CF/LF	Smart Bell 75/70 PF
Vertical Bell Medium 3 CF/LF	View Bell Derby 3 CF/LF/PF	Smart Bell 80/60 MF
Vertical Bell Small 3 CF/LF	View Bell Topsham 3 CF/LF/PF	Smart Bell 75/55 MF
Vertical Bell Medium Tunnel 3 CF/LF	View Bell York 3 CF/LF/PF	Smart Bell 65/60 MF
Vertical Bell Small Tunnel 3 CF/LF	View Bell XXL 3 CF/LF	Smart Bell 55-60 MF
Derby Large 3 CF/LF/PF	View Bell XL 3 CF/LF	Smart Bell 45/60 MF
Derby Small 3 CF/LF/PF	View Bell Large 3 CF/LF	Box Gas 80 MF
Topsham Large 3 CF/LF/PF	View Bell Medium 3 CF/LF	Box Gas 75 MF
Topsham Small 3 CF/LF	View Bell Small 3 CF/LF	Box Gas 65 MF
York Large 3 CF/LF/PF	View Bell Vertical 3 CF/LF	Box Gas 55 MF
York Small 3 CF/LF/PF	Room Divider Large 3 L/R CF/LF	Box Gas 45 MF
Derby Large Tunnel 3 CF/LF	Room Divider Medium 3 L/R CF/LF	

The object of this declaration is in conformity with the relevant Union  
 harmonisation legislation:

Directive 2009/142/EC (until April 20, 2018)  
 Regulation (EU) 2016/426 (from April 21, 2018)

Used relevant harmonised standards or other technical specifications in relation to which  
 conformity is declared:

EN 613:2000

## The notified body:

Kiwa Nederland BV  
 P.O. Box 137  
 NL-7300 AC Apeldoorn

performed a product verification and issued on January 2, 2018 certificate no: 90975/06

## Signed for and on behalf of:

Danny Baijens, managing director  
 (name and function)

Bladel; Januari 9, 2018  
 (place and date of issue)



(signature)

Barbas Bellfires B.V.  
 Hallenstraat 17  
 5531 AB Bladel  
 The Netherlands

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 www.barbasbellfires.com



# bellfires.

Your Bellfires dealer