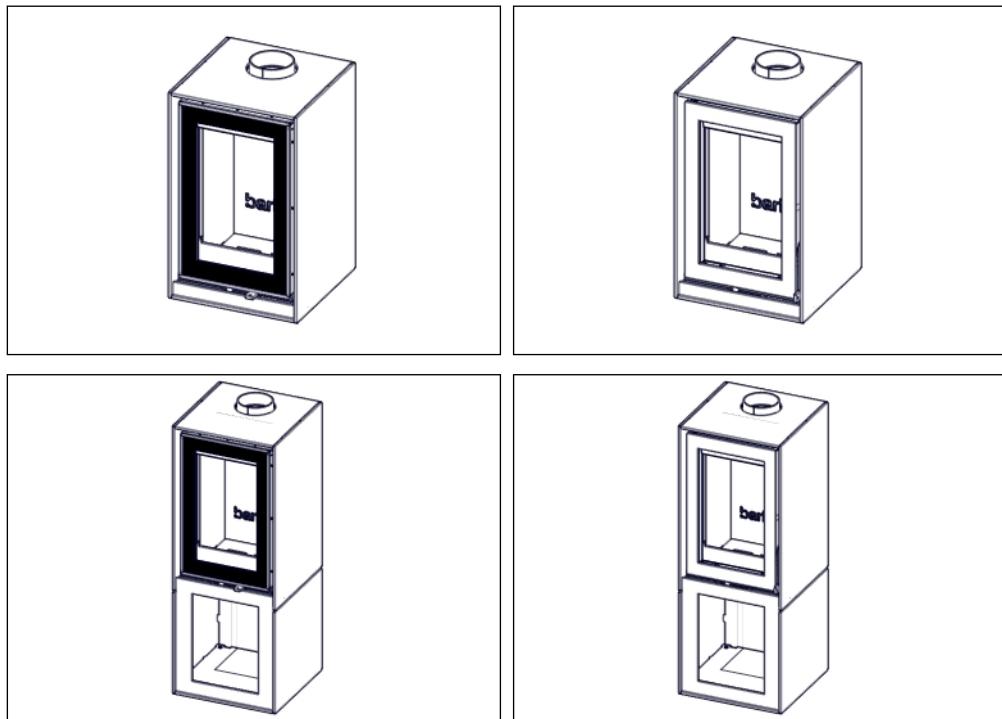


# barbas.

## Installation and maintenance manual

BOX 20 45



This product is not suitable for primary heating purposes



Version number: 01 - 351152  
Date: 10-02-2021

Serial number:  
Production date:

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## 1 Declaration of Performance

### 1.1 BOX 20 45

<b>barbas bellfires .</b> Crafted to wonder		
<b>EU-declaration of conformity</b>		
This EC declaration of conformity applies to the product described below and describes the conformity with the following directives: <b>2009/125/EC Directive for the setting of eco-design requirements for energy-related products (eco-design directive)</b> Relevant Regulation: (EU) 2015/1185		
<b>Declaration of Performance</b> No. 1.818.081-5 - CPR-2013/07/01		
<b>Unique identification code of the product type:</b> Intended use: Manufacturer:  <b>System of AVCP:</b> Harmonised technical specifications: Notified body:  <b>Essential characteristics</b>	BOX 20 45 Space heating in residential buildings Barbas Bellfires BV; Hallenstraat 17; 5531 AB Bladel; The Netherlands  3 EN 16510-2-1:2022 No. 0608	
<b>Mechanical resistance and stability</b> Load bearing capacity 120 kg		
<b>Safety in case of fire - Protection of combustible materials</b> Bottom (d <sub>8</sub> ): 3 cm Floor in front (d <sub>9</sub> ): 50 cm Ceiling (d <sub>10</sub> ): 50 cm Rear (d <sub>11</sub> ): 30 cm Side (d <sub>12</sub> ): 30 cm Side radiation area (d <sub>13</sub> ): 120 cm Front (d <sub>14</sub> ): 120 cm		
<b>Hygiene, health and the environment</b> At nominal heat output Carbon monoxide emission (CO) 1171 mg/m <sup>3</sup> Nitrogen oxides emission (NO <sub>x</sub> ) 104 mg/m <sup>3</sup> Emission of organic gaseous carbon (OGC) 110 mg/m <sup>3</sup> Particulate matter emission (PM) 20 mg/m <sup>3</sup>		
<b>Safety and accessibility in use</b> At nominal heat output Flue gas outlet temperature 362 °C Minimum flue draught 12 Pa Flue gas mass flow 6.3 g/s Fire safety of installation to the chimney T400 G minimum		
<b>Energy economy and heat retention</b> Appliance's thermal heat output and energy efficiency At nominal heat output Space heat output 6 kW Efficiency 75.8 %  Seasonal space heating efficiency 65.8 % Energy efficiency index (EEI) 100 Energy efficiency class A  At nominal heat output At part load heat output Standby mode Electric power consumption N/A N/A N/A		
<b>Sustainable use of natural resources</b> Environmental sustainability NPD		
The performance of the product identified above is in conformity with the set of declared performances. This declaration of performance is issued, in accordance with Regulation (EU) No 305/2011, under the sole responsibility of the manufacturer identified above.		
Signed for and on behalf of the manufacturer by:		
Danny Baijens, CEO		 Bladel, The Netherlands 31 October 2025

## 1.2

## BOX 20 45 with wood log storage module

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## 2 The Clean Air Act 1993 and Smoke Control Areas

The following Barbas BOX 20 45 appliances have been exempted or recommended for exemption under section 21 of the Clean Air Act 1993 and can be used in accordance with the intended use as described in this manual in smoke control areas in the UK.

- Barbas BOX 20 45
- Barbas BOX 20 45 with wood log storage module

The appliances incorporate a factory-fitted modified air control.

Under the Clean Air Act local authorities may declare the whole or part of the district of the authority to be a smoke control area. It is an offence to emit smoke from a chimney of a building, from a furnace or from any fixed boiler if located in a designated smoke control area. It is also an offence to acquire an "unauthorised fuel" for use within a smoke control area unless it is used in an "exempt" appliance ("exempted" from the controls which generally apply in the smoke control area).

In England appliances are exempted by publication on a list by the Secretary of State in accordance with changes made to sections 20 and 21 of the Clean Air Act 1993 by section 15 of the Deregulation Act 2015. In Scotland appliances are exempted by publication on a list by Scottish Ministers under section 50 of the Regulatory Reform (Scotland) Act 2014. Similarly, In Northern Ireland appliances are exempted by publication on a list by the Department of Agriculture, Environment and Rural Affairs under Section 16 of the Environmental Better regulation Act (Northern Ireland) 2016. In Wales appliances are exempted by regulations made by Welsh Ministers.

Further information on the requirements of the Clean Air Act can be found here: <https://www.gov.uk/smoke-control-area-rules> .

Your local authority is responsible for implementing the Clean Air Act 1993 including designation and supervision of smoke control areas and you can contact them for details of the Clean Air Act requirements.

## 3 About this document

This document shows the necessary information to do the installation and maintenance on the BOX 20 45.

This document referred to the BOX 20 45 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.

### 3.1 How to work with this document

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

### 3.2 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 appliance, installation 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

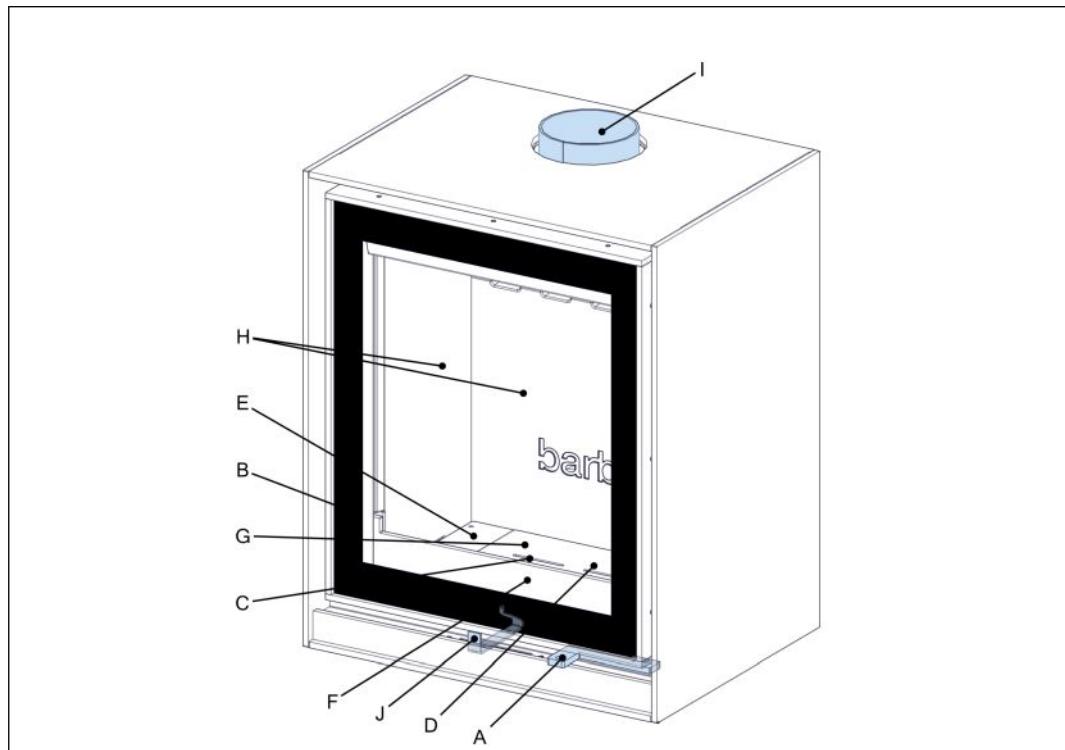
### 3.3 Related documentation

- Installation and maintenance manual
- User manual

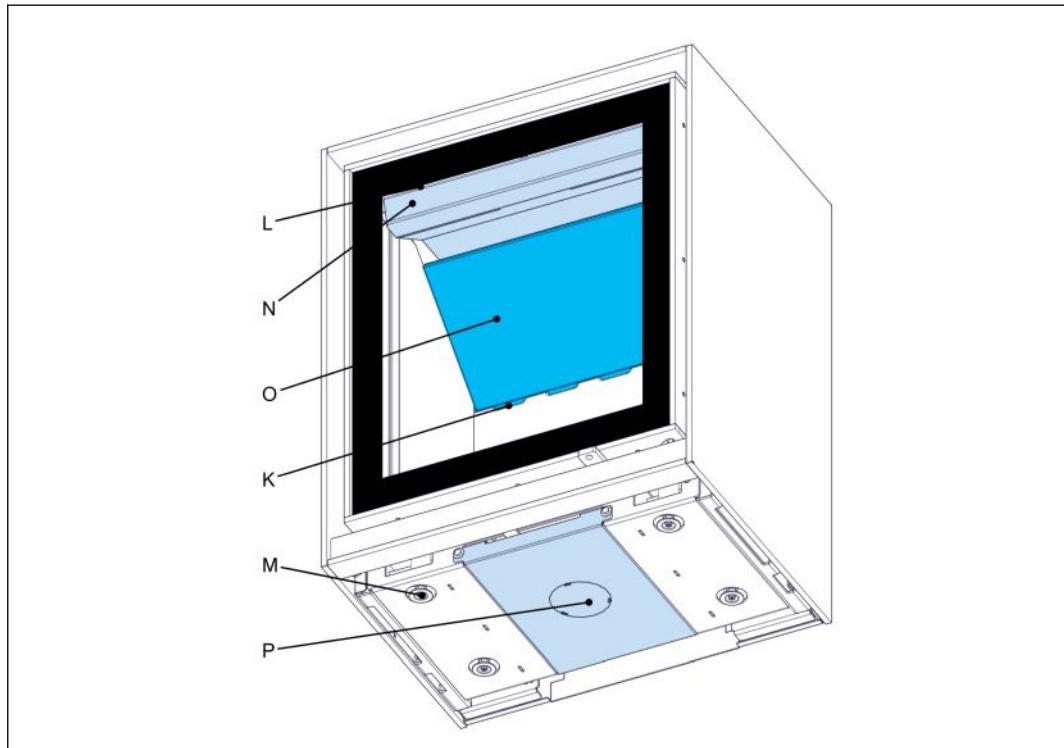
## 4 Description

### 4.1 Overview of the front of the appliance

The BOX 20 45 is available with a screened glass door or with a steel frame door.



A	Door handle	F	Log guard
B	Glass	G	Ash tray (under the grate)
C	Primary air inlet	H	Combustion chamber panels
D	Grate	I	Top flue connection
E	Steel bottom plates	J	Control lever

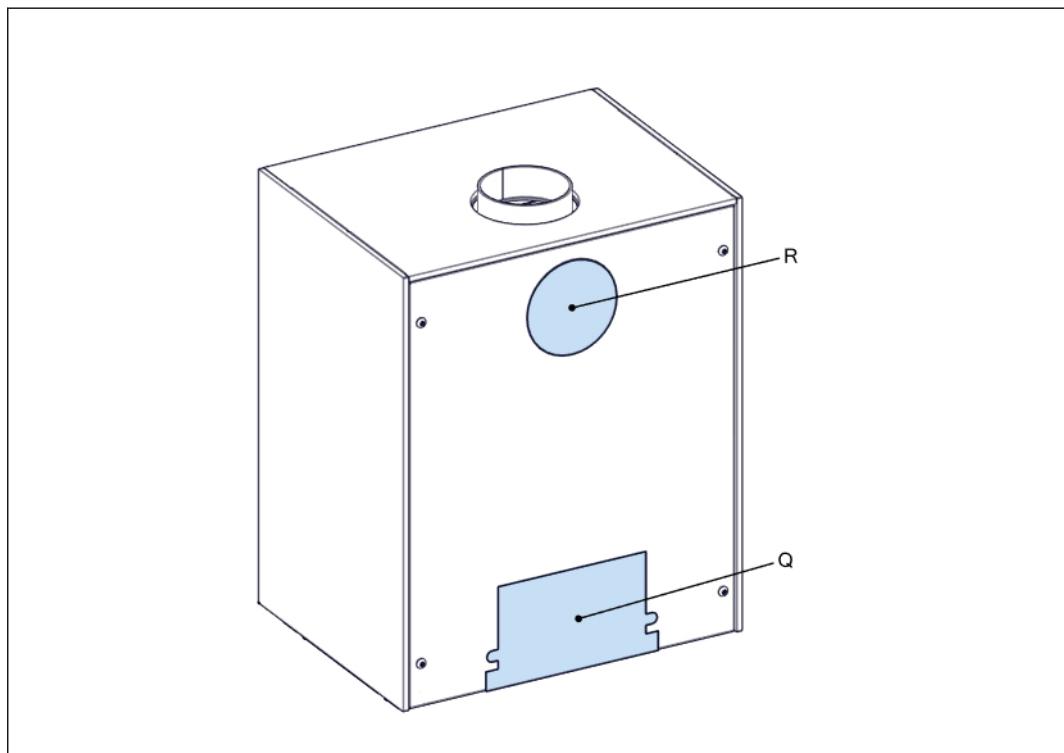
**4.2****Overview of the bottom of the appliance**

K Secondary air inlet  
L Air wash inlet  
M Adjustable feet

N Upper baffle  
O Lower baffle  
P Connection for external combustion air

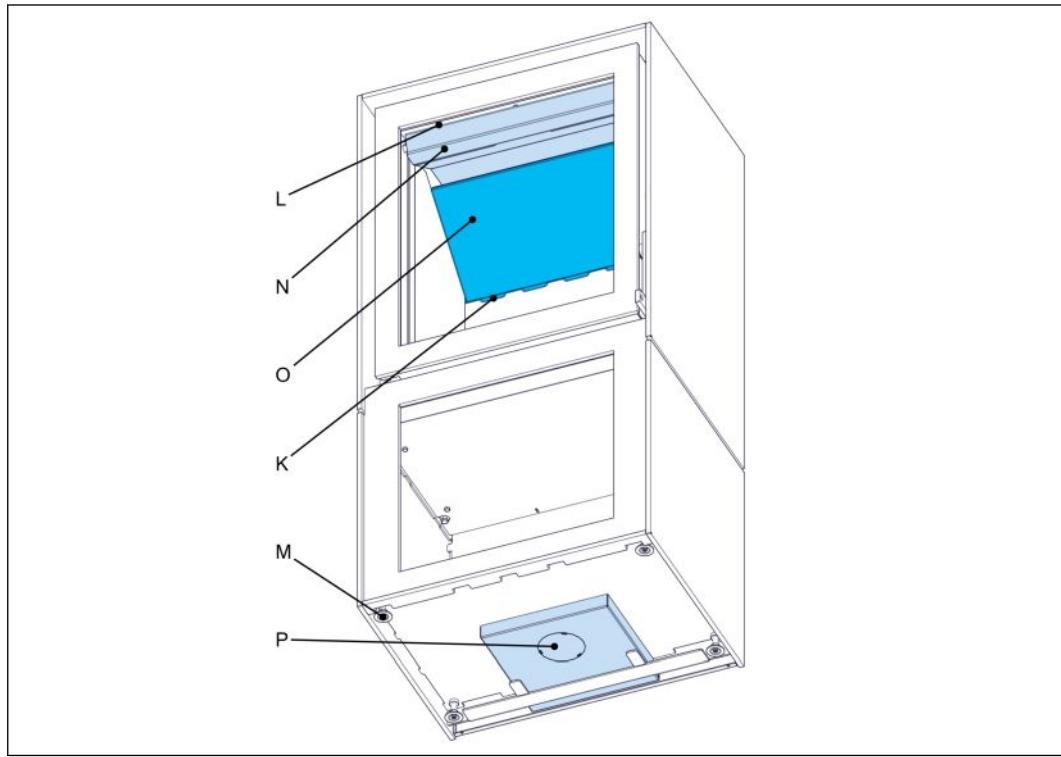
## 4.3

### Overview of the rear of the appliance



Q Connection for external combustion air

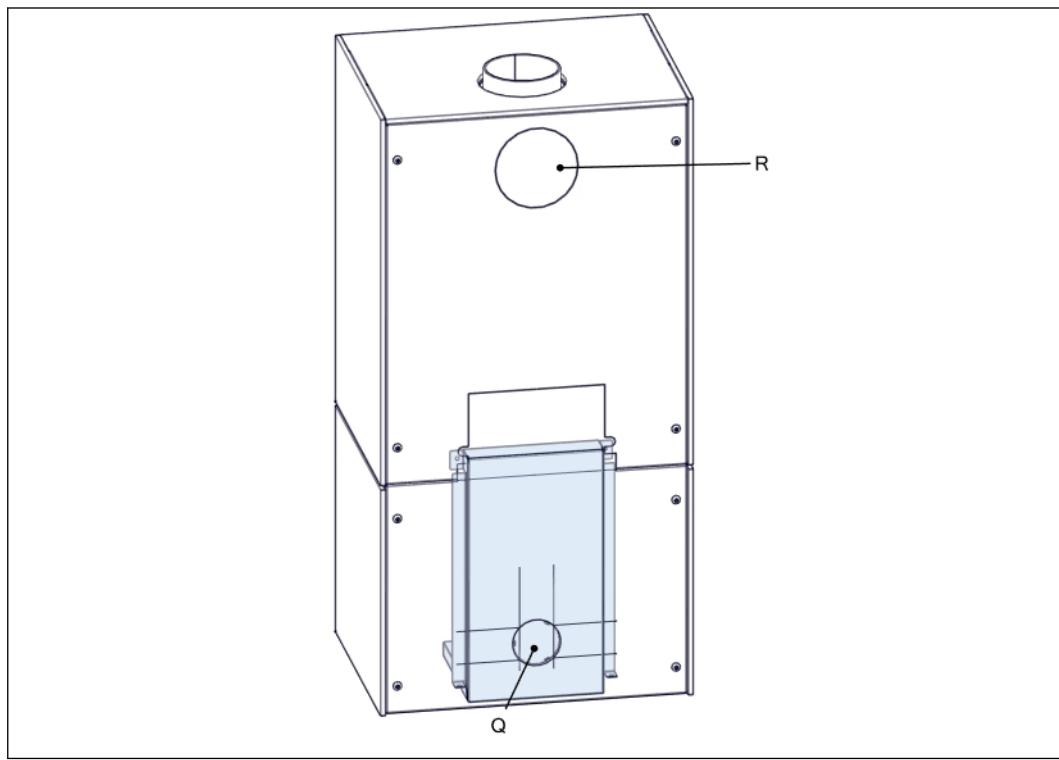
R Rear flue connection

**4.4****Overview of the bottom of the appliance with wood log storage module**

K Secondary air inlet  
L Air wash inlet  
M Adjustable feet

N Upper baffle  
O Lower baffle  
P External bottom combustion air inlet  
(optional)

## 4.5 Overview of the rear of the appliance with wood log storage module



Q External rear combustion air inlet  
(optional)

R Rear flue connection

## 4.6 Intended use

The appliance is intended for indoor use to heat the room wherein it is installed. Do not use it for other purposes.

It is not allowed to use the appliance as primary heating appliance.

The appliance is intended for use with wood logs or wood briquettes as fuel. Do not use other fuels and waste.

The appliance is intended for use with the door closed.

The appliance may only be used at the location that meets the requirements for the installation of the appliance.

The appliance is intended for intermittent use and is not intended for continuous use.

It is not allowed to connect the appliance on a shared flue gas channel.

The appliance is intended to heat the room by direct heating. It is not allowed to connect the appliance to a central-heating installation.

## 5 Safety

### 5.1 Safety instructions for installation

**Warning:**



- Installation must be done by a qualified installer.
- Install the appliance in accordance with the following installation instructions and the national and local applicable regulations.
- Make sure that the area around the fireplace is free of flammable material at all times. The minimal safe distance is 180 cm.
- If applicable, contact the authorities if it is allowed to connect the appliance to a flue that is also connected to another appliance.
- Do not install the appliance directly against a flammable wall or non-flammable wall. Refer to section [6](#) for minimum clearances between the appliance and the wall.
- Install a carbon monoxide alarm. The carbon monoxide alarm should be battery-powered and designed to operate for the life of the carbon monoxide alarm, following which it should be replaced. Alternatively a mains powered carbon monoxide alarm can be used, however this must be fitted with a sensor failure warning device.

**Caution:**



- Install the appliance on a floor with adequate load-bearing capacity. Refer to section [12](#) for the weight of the appliance.
- Make sure that the chimney has no creaks and is in general good order.
- Install a suitable cap on the chimney outlet to avoid birds' nests build in the chimney.
- Parts in the appliance can be moved during transportation. Make sure these parts are in the correct position.
- Do not use masking tape on the appliance. Masking tape can damage the finish of the appliance.
- Make sure that the chimney temperature class is minimum T400 sootfire resistant.
- Do not install the appliance in a room with a ventilation system that makes pressures below -15 Pa.

### 5.2 Safety instructions with regard to the environment

- Dispose of the packing materials in an environmentally friendly way.
- 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.

## 6 Clearances

**Warning:**



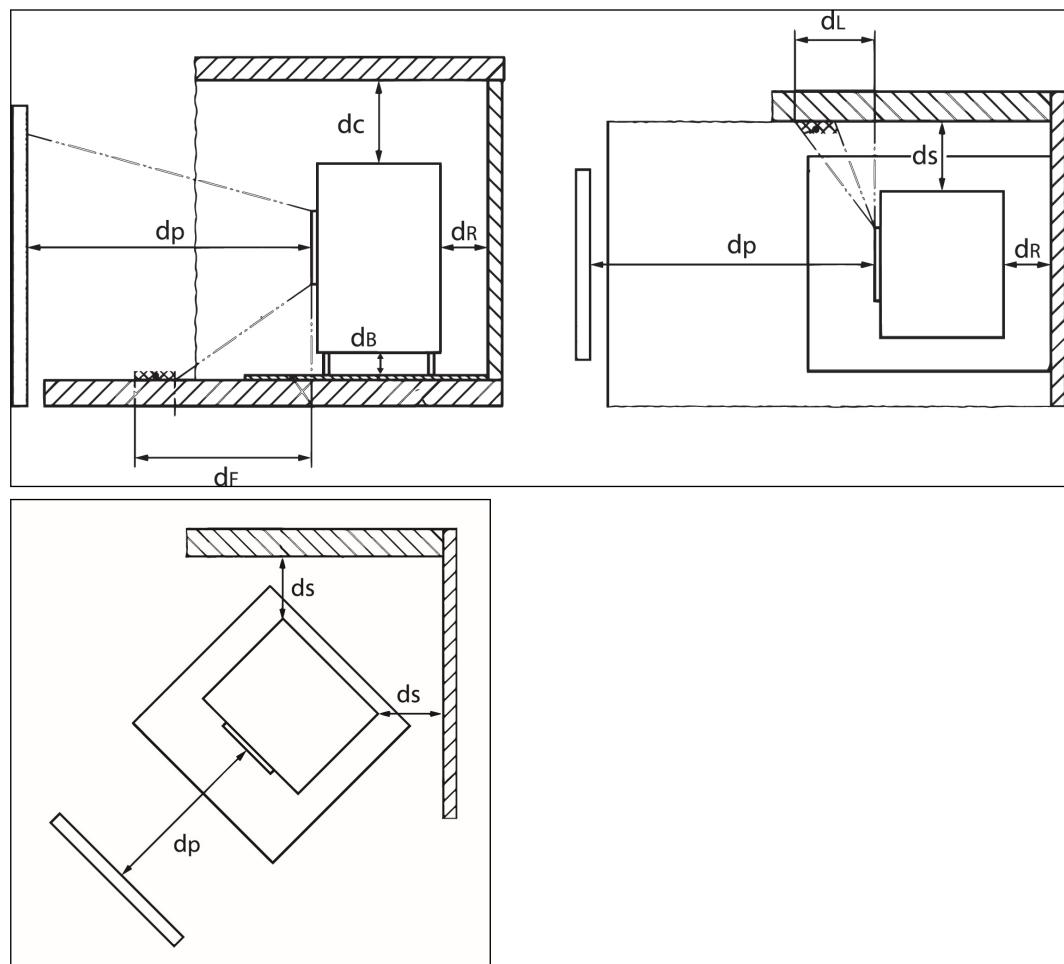
- Obey the instructions in this section. Failure to follow these instruction can create a fire hazard.
- Do not put the appliance directly against a flammable or non-flammable wall.

**Caution:** Make sure that flammable materials near the appliance can never reach a temperature above 85 degrees centigrade



- BOX 20 45, refer to section [6.1](#).
- BOX 20 45 with wood log storage module, refer to section [6.2](#).

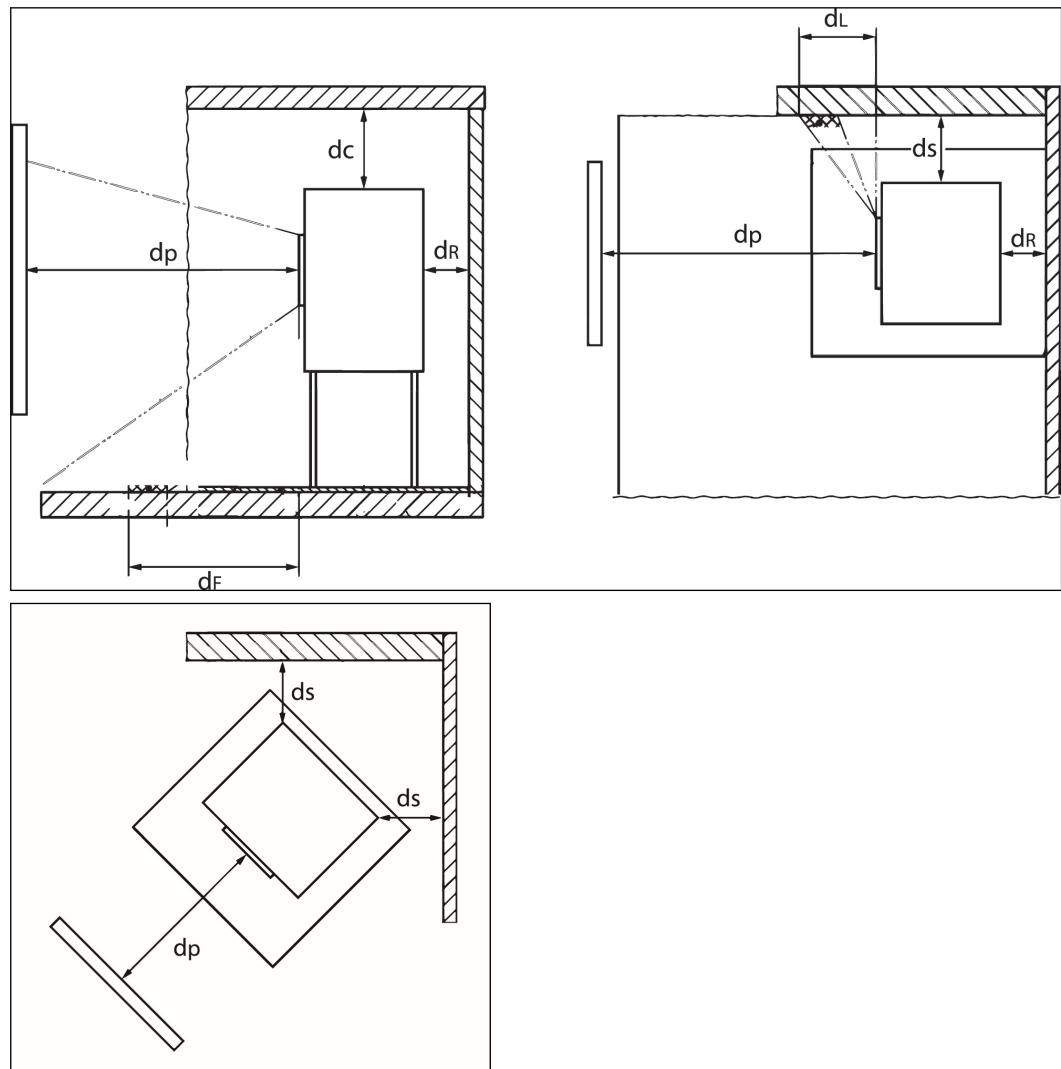
### 6.1 Safety distances



BOX 20 45			
Label	Minimum distance to flammable materials in cm	Remark	Minimum distance to non-flammable materials in cm
$d_P$	120		80
$d_S$	30		5
$d_R$	30		5
$d_B$	3	Install a non-flammable hearth with a thickness of minimum 3 cm (floorstone) when the appliance is put on a flammable floor. The width of the hearth must be minimum 15 cm from each side of the appliance. The minimum depth of the hearth in front of the appliance is minimum 50 cm. If the appliance is put on a flammable platform, make sure the depth of the non-flammable hearth is the same size as the platform in front of the appliance.	-
$d_F$	50		-
$d_C$	50		5
$d_L$	120		-

## 6.2

### Safety distances with wood log storage module



BOX 20 45 with wood log storage module			
Label	Minimum distance to flammable materials in cm	Remark	Minimum distance to non-flammable materials in cm
d <sub>C</sub>	50		10
d <sub>P</sub>	120		50
d <sub>F</sub>	20		-
d <sub>B</sub>	See remark.	Install a non-flammable floor plate with a thickness of minimum 1 cm (floor stone) when the appliance is put on a flammable floor. The width of the floor plate must be minimum 15 cm from each side of the appliance. The depth of the floor plate in front of the appliance (d <sub>F</sub> ) is minimum 20 cm. If the appliance is put on a flammable platform, make sure the depth of the non-flammable plate is the same size as the platform in front of the appliance.	-
d <sub>L</sub>	120		-
d <sub>S</sub>	30		5
d <sub>R</sub>	30		5

## 7 Installation requirements

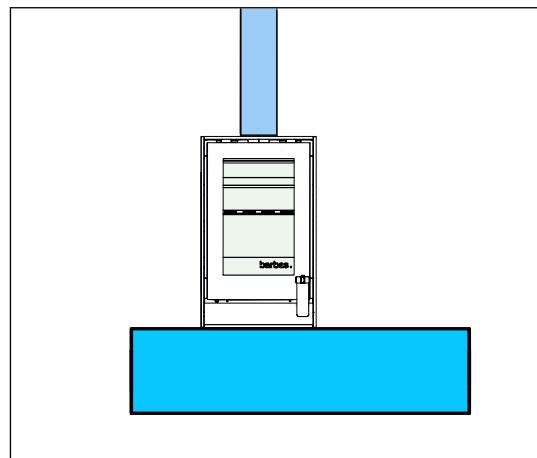
### 7.1 Requirements on the installation of the appliance

- Make sure that the location agrees with the safety requirements. Refer to section [5.1](#).
- Make sure the floor is made of concrete or a solid pedestal of non-combustible material.
- Make sure the floor is level. After placement it is not possible to level the appliance.
- Make sure the floor can support the weight of the appliance. Refer to section [12.1](#) for the weight of the appliance.
- Make sure that the floor temperatures below and in front of the appliance cannot be higher than 85 °C, during use of the appliance. Refer to section [6](#).
- The non-combustible floor must have a width that extends at least 150 mm from each side of the appliance and a minimum depth in front of the appliance according the requirements in section [6](#).
- Make sure the room where the appliance is installed has correct ventilation.
- Make sure that combustion air can flow into the appliance without obstruction.
- If applicable, it is recommended to install a valve in the external combustion air pipe.

### 7.2 Installation on a natural stone platform

Obey the requirements if the appliance is put on a natural stone platform.

- The platform must have minimum thickness of 3 cm.
- The platform must support the weight of the appliance directly underneath it.
- Ask your natural stone dealer for additional advice regarding the specific type of stone in combination with the appliance.



### 7.3 Requirements on the chimney

- Make sure the design and installation of the chimney is in accordance with EN 15287-2:2008, EN 13384-1:2015+A1:2019 and the good operation of the chimney is proven according EN 13384-2:2015+A1:2019 for the situation on site.
- Make sure that in case of use of an existing (masonry) chimney, it is in good order and applicable for the appliance. Ask your dealer or chimney sweeper for advice.
- Make sure the flue system obeys the national and local applicable regulations.
- Make sure the weight of the chimney is not supported by the appliance.
- Only connect the appliance to a chimney that is also connected with other appliances if it is permitted by local regulations and if the chimney allows to connect multiple appliances to it. Ask your installer for advice.
- The flue system must have a temperature class designation of minimum T400.
- The inner diameter of the chimney must be minimum mm over the total length.

- Use a steel chimney pipe with a wall thickness of minimum 2 mm between the appliance and the existing chimney.
- Do not use more than 2 bends of 45°.
- Do not use horizontal flue pipes.
- The chimney outlet must be minimum 5 meter above the top of the appliance.
- The chimney outlet must be minimum 40 cm above the top of a sloped roof.
- The chimney outlet must be minimum 1 meter above a flat roof.
- The chimney outlet must be free from any objects (buildings, trees, etc.) within a horizontal range of minimum 5 meter.
- Make sure to remove the chimney valve when present in the existing chimney.
- Make sure your fire insurance policy covers any damage caused by a chimney fire.

## 7.4

### Requirements on the external combustion air pipe

- Make sure the external combustion air pipe obeys the national and local applicable regulations.
- The inner diameter of the combustion air pipe must be minimum 80 mm over the total length.
- Use a flexible stainless steel or aluminum pipe.
- The maximum length of the external combustion air pipe is 5 meter.
- Do not use more than 1 bend of 90°.
- Make sure to cover the inlet of the external combustion inlet pipe with a suitable grate.
- It is recommended to install a valve in the external combustion air valve, to avoid debris or fallen leaves in the line and to avoid water vapour condensation in the appliance.

## 8 Installation of the appliance

### 8.1 Install the appliance

1. Put the appliance in the designated position. To put the appliance on a natural stone platform, refer to section [7.2](#).
2. Obey the safety distances. Refer to section [6.1](#).
3. If necessary, put a nonflammable hearth under the appliance. Refer to section [6.1](#).
4. Make sure that the flue connection on the appliance is correct in line with the flue pipe to the ceiling.
5. Make sure the appliance is installed horizontally. Use a spirit lever.

### 8.2 Connect the optional external air supply

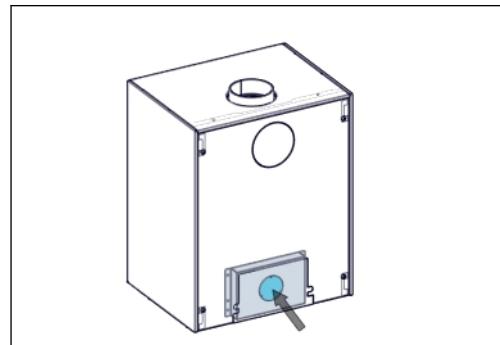
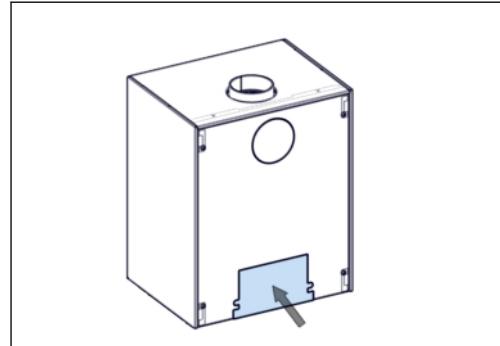
- The appliance has the possibility to connect a supply pipe for external combustion air. During operation the appliance gets combustion air from this air duct.
- It is strongly recommended to install a valve in the external combustion air supply pipe, to avoid debris in the pipe and to avoid water vapor condensation in the appliance when not in use.

Connection on the rear of the appliance, refer to section [8.2.1](#).

Connection on the bottom of the appliance, refer to section [8.2.2](#).

#### 8.2.1 Rear connection

1. Remove the break out plate with a hammer.
2. A second break out plate (round) is now visible. Remove this second break out plate with a hammer.
3. Put the connection ring in the open external air inlet opening.
4. Bend out the 3 lips on the connection ring to attach the connection ring on the inlet opening.
5. Identify the location in the outer wall for the external combustion air supply inlet.
6. Make a hole in the outer wall with at a minimum diameter of 80 mm.
7. Put a flexible aluminum pipe in the hole.

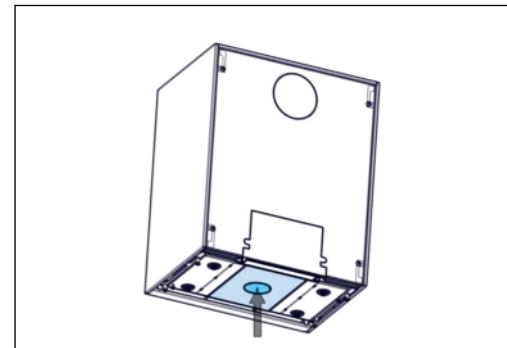


8. Install a grate in the hole in the outer wall and attach the flexible aluminum pipe to it.
9. Attach the other end of the flexible aluminum pipe on the connection ring. Use a hose clamp.

### 8.2.2

#### Bottom connection

1. Remove the round break out plate at the bottom of the appliance with a hammer.
2. If necessary, put the connection ring in the open external air inlet opening.
3. Bend out the 3 lips on the connection ring to attach the connection ring on the inlet opening.
4. Identify the location in floor for the external combustion air supply inlet.
5. Make a hole in the floor with at a minimum diameter of 80.
6. Put a flexible aluminum pipe in the hole.
7. Attach the other end of the flexible aluminum pipe on the connection ring. Use a hose clamp.



### 8.3

#### Connect the flue gas pipe

##### Preliminary requirements

- If the appliance is installed on an unlined, masonry flue with a large diameter, use an insulated flue lining system .
- Make sure the design and installation of the chimney is in accordance with EN 15287-2:2008, EN 13384-1:2015+A1:2019 and the good operation of the chimney is proven according EN 13384-2:2015+A1:2019 for the situation on site.



**Caution:** During operation of the appliance the outer side of the flue system becomes hot. Refer to section [6.1](#) for minimum distances to flammable material.



**Note:** If the appliance is installed on an unlined, masonry flue with a large diameter, consider using a flue lining system to improve the performance of the appliance.

##### Procedure

1. Connect the flue to the flue gas connection on the appliance. If necessary use a steel flue adaptor.
2. If the flue is connected to an existing (masonry) chimney, make sure that the gap between the flue and the existing chimney is sealed with ceramic wool or any other applicable component (ask your flue system supplier for advice)
3. Make sure that all mechanical connections of the flue system are correctly used.
4. Make sure that all of the flue system is gas-tight,

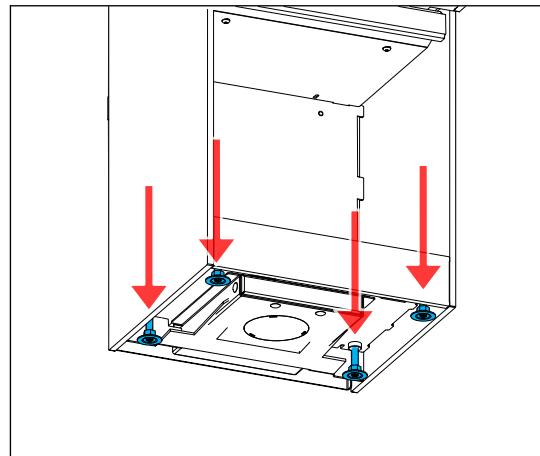
## 8.4 Final check on the appliance

1. Make sure the door closes and opens easy.
2. Make sure the control lever moves easy to left and right without undue noise.
3. Make sure the plates on the side and rear wall of the combustion chamber and the baffles are in the correct position.

Contact your dealer if the final check shows a defect.

**9****Installation of the appliance with wood log storage module****9.1****Install the appliance**

1. Put the appliance in the designated position.
2. Obey the safety distances. Refer to section [6.2](#).
3. If necessary, put a nonflammable plate under the appliance. Refer to section [6.2](#).
4. Make sure that the flue connection on the appliance is correct in line with the flue pipe to the ceiling.
5. Make sure the appliance is installed horizontally. If necessary, adjust the adjustable feet with a 13 mm fork spanner. Use a spirit lever.



6. Go to section [9.3](#) for instruction for the connection of the flue pipe.

## 9.2

### Connect the optional external air supply

- The appliance has the possibility to connect a supply pipe for external combustion air. During operation the appliance gets combustion air from this air duct.
- It is strongly recommended to install a valve in the external combustion air supply pipe, to avoid debris in the pipe and to avoid water vapor condensation in the appliance when not in use.

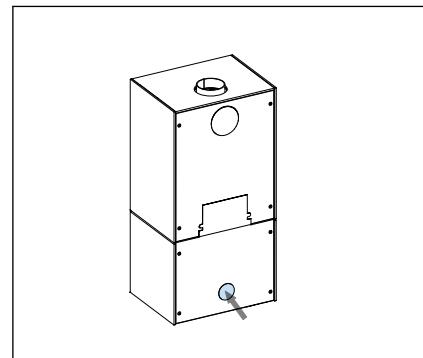
Connection on the rear of the appliance, refer to section [9.2.1](#).

Connection on the bottom of the appliance, refer to section [9.2.2](#).

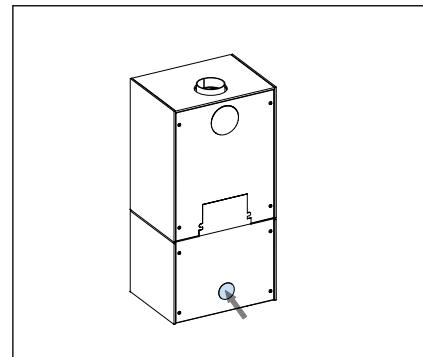
#### 9.2.1

##### Rear connection

1. Remove the break out plate with a hammer.



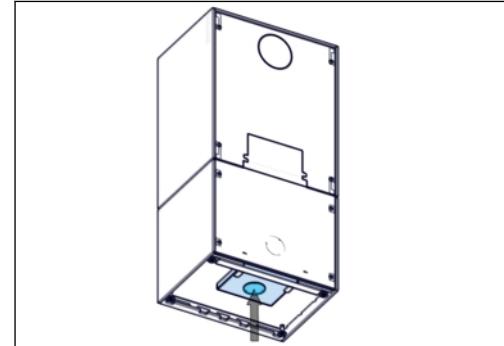
2. A second break out plate (round) is now visible. Remove this second break out plate with a hammer.
3. Put the connection ring in the open external air inlet opening.
4. Bend out the 3 lips on the connection ring to attach the connection ring on the inlet opening.
5. Identify the location in the outer wall for the external combustion air supply inlet.
6. Make a hole in the outer wall with at a minimum diameter of 80 mm.
7. Put a flexible aluminum pipe in the hole.
8. Install a grate in the hole in the outer wall and attach the flexible aluminum pipe to it.
9. Attach the other end of the flexible aluminum pipe on the connection ring. Use a hose clamp.



## 9.2.2

### Bottom connection

1. Remove the round break out plate at the bottom of the appliance with a hammer.
2. Apply a sealing compound (e.g. silicone sealant or similar) between the inlet opening and the connection ring.
3. Bend out the 3 lips on the connection ring to attach the connection ring on the inlet opening.
4. Identify the location in the floor for the external combustion air supply inlet.
5. Make a hole in the floor with at a minimum diameter of 80.
6. Put a flexible aluminum pipe in the hole.
7. Attach the other end of the flexible aluminum pipe on the connection ring. Use a hose clamp or screws.



## 9.3

### Connect the flue gas pipe

#### Preliminary requirements

- If the appliance is installed on an unlined, masonry flue with a large diameter, use an insulated flue lining system .
- Make sure the design and installation of the chimney is in accordance with EN 15287-2:2008, EN 13384-1:2015+A1:2019 and the good operation of the chimney is proven according EN 13384-2:2015+A1:2019 for the situation on site.



**Caution:** During operation of the appliance the outer side of the flue system becomes hot. Refer to section [6.2](#) for minimum distances to flammable material.



**Note:** If the appliance is installed on an unlined, masonry flue with a large diameter, consider using a flue lining system to improve the performance of the appliance.

#### Procedure

1. Connect the flue to the flue gas connection on the appliance. If necessary use a steel flue adaptor.
2. If the flue is connected to an existing (masonry) chimney, make sure that the gap between the flue and the existing chimney is sealed with ceramic wool or any other applicable component (ask your flue system supplier for advice)
3. Make sure that all mechanical connections of the flue system are correctly used.
4. Make sure that all of the flue system is gas-tight,

## 9.4

### Final check on the appliance

1. Make sure the door closes and opens easy.
2. Make sure the control lever moves easy to left and right without undue noise.
3. Make sure the plates on the side and rear wall of the combustion chamber and the baffles are in the correct position.

Contact your dealer if the final check shows a defect.

## 10 Maintenance

**Warning:**

Make sure that the appliance has cooled down completely before doing the procedures in this section.

Do all procedures in this section when necessary.

### 10.1 Appliance

1. Remove ashes from the floor of the combustion chamber.
2. Examine the door seals. Replace damaged seals.
3. Remove the grate and empty the ash tray.
4. Examine the baffle for damage. Replace when damaged.
5. Clean both sides of the glass with glass spray or ceramic hob cleaner.
6. Clean the inside of the appliance with a soft brush.
7. Clean the metal parts on the outside of the appliance with a dry lint free cloth. Use Barbas heat resistant paint spray to repair lacquer damage.

### 10.2 Combustion air supply

1. Make sure that the inlet of the pipe of the external combustion air supply is not blocked by leaves or other debris.
2. Clean the inlet of the pipe of the external combustion air supply.

### 10.3 Chimney

**Note:**

It is recommended to contact a registered chimney sweep company to inspect and clean the chimney.

1. Sweep and inspect the chimney
2. Make sure there is no blockage in the chimney, for example by birds' nests.
3. Make sure the chimney is in good condition. Examine for cracks, loose parts and flue gas leakage. It is recommended to use an inspection camera.

Make sure to remove the baffles before the chimney sweep work. Refer to step 4 and step 5 in chapter [11](#) for the procedure to remove the baffles.

Make sure to replace the baffles after the finish of the chimney sweep work and before firing the appliance.

## 11

## Removal of the interior of the combustion chamber

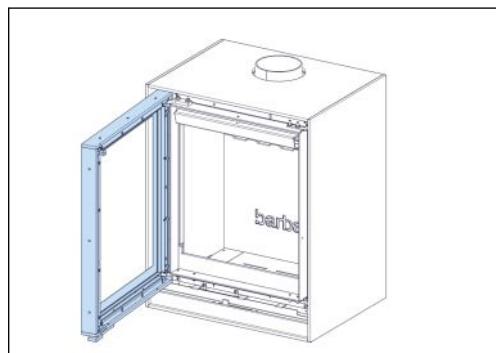


### Note:

For chimney sweep work, only remove the upper baffle (refer to step 4 of this instruction) and lower baffle (refer to step 5 of this instruction).

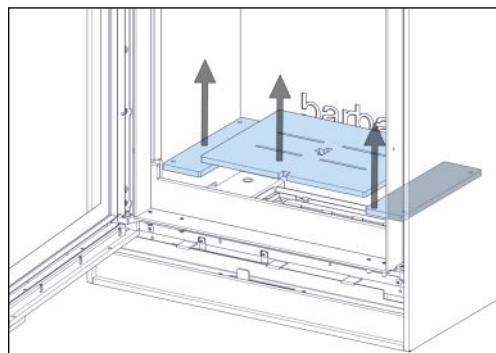
#### 1. Remove the door

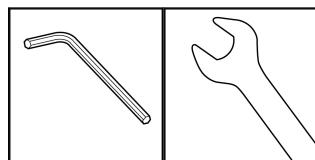
- Open the door completely.



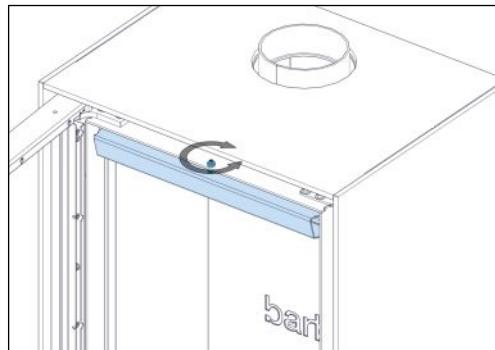
#### 2. Remove the bottom

- Lift the grate and remove from the combustion chamber.
- Lift the left and right steel bottom plate and remove from the combustion chamber.

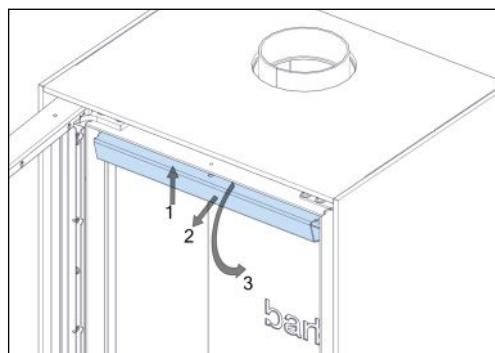


**3. Remove the upper baffle**

- a) Loosen the nut above the heat shield with a 3 mm hexagonal key and a 10 mm fork spanner. Make sure the nut stays attached to the socket screw.



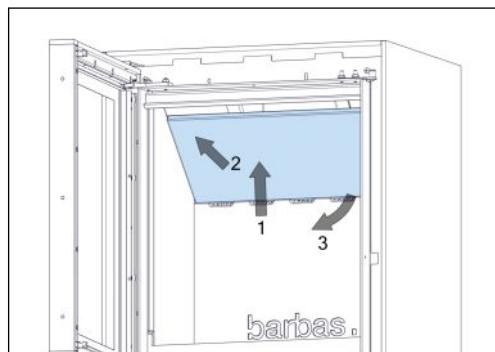
- b) Push up the front of the heat shield (1) and pull it forward (2) and move downward to a vertical position (3).



- c) Remove the upper baffle from the appliance.

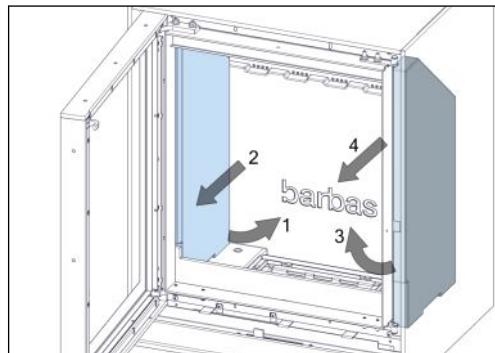
**4. Remove the lower baffle.**

- a) Push up the back side of the lower baffle and move it as far back as possible.
- b) Lower the front side of the lower baffle and remove it from the appliance.



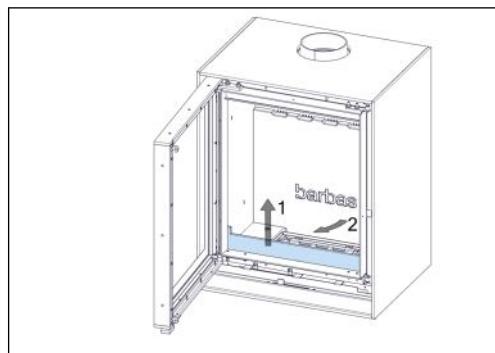
## 5. Remove the side panels

- Move the left side panel a little upward and inwards (1) and remove it from the appliance (2).
- Move the right side panel a little upward and inwards (3) and remove it from the appliance (4).



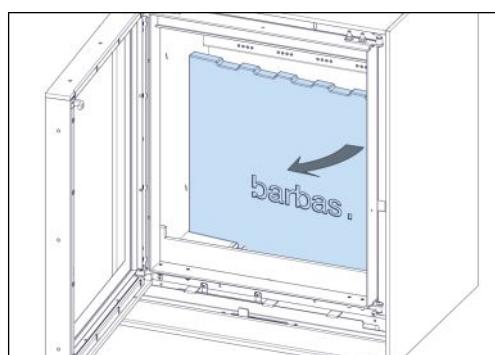
## 6. Remove the log guards

- Lift the front log guard and remove from the combustion chamber.



## 7. Remove the back panel.

- Move the bottom of the back panel forward and remove it from the appliance.



### Note:

To put the parts of the combustion chamber interior back, do the above instructions in opposite order.

## 12 Technical data

### 12.1 Technical data

Name	Barbas	
Model	BOX 20 45 BOX 20 45 with wood log storage module	
EPREL registration number	446808	
Tested in accordance with	EN16510-2-1	
Energy efficiency index	100	
Energy efficiency class	A	
Fuel	Wood logs, Wood briquettes	
Indirect heating function	No	
Room sealed	No (type B/BE)	
Leak rate at 10 Pa	not applicable	
Seasonal efficiency	66 %	
Nominal fuel load	1.4 kg	
Nominal heat output (net)	6.0 kW	
Useful efficiency at nominal heat output	75.8 %	
<b>Emissions (at 13 % O<sub>2</sub>, 273 K, 1013 hPa)</b>		
• carbon monoxide (CO)	1171 mg/Nm <sup>3</sup>	
• particles (PM)	20 mg/Nm <sup>3</sup>	
• organic gaseous compounds (OGC)	110 mg/Nm <sup>3</sup>	
• nitrogen oxides (NO <sub>x</sub> )	104 mg/Nm <sup>3</sup>	
Flue gas mass flow	6.3 g/s	
Flue gas outlet temperature	362 °C	
Flue gas temperature	302 °C	
Minimum chimney draught	12 Pa	
Minimum temperature class of the chimney	T 400	
Flue gas connection	Outer diameter 128 mm, suitable for a pipe with an inner diameter of 130 mm	
External combustion air connection	80 mm	
	BOX 20 45	BOX 20 45 with wood log storage module
Weight with vermiculite interior	120 kg	148 kg
Weight with ceramic interior	127 kg	155 kg
Minimum distance to flammable materials	Refer to chapter 6	
<b>Used materials</b>		

Combustion chamber side and back panels	Heat resistant ceramic 1600 kg/m <sup>3</sup> / Vermiculite 750 kg/m <sup>3</sup> *)
Combustion floor and grate	Steel
Lower baffle	Heat resistant ceramic 1600 kg/m <sup>3</sup> / Vermiculite 750 kg/m <sup>3</sup> *)
Upper baffle	Steel
Front glass	Heat resistant ceramic glass
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>• Installation and maintenance manual</li><li>• User manual</li></ul>
Maximum capacity to carry a chimney	120 kg **)

#### Additional information in order to achieve relevant test results for market surveillance

Mass of basic fire bed	120 g
Criterion for the end of the test cycle	5 vol% CO <sub>2</sub>

\*) Type of material is dependent on the choice made at the time of purchase.

\*\*) if the weight of the chimney or part of the chimney, being carried by the appliance, is more than indicated, the chimney must be supported with a wall bracket.

## 12.2

## Product information according regulation (EU) 2015/1185

Model identifier	BOX 20 45																	
Equivalent models	BOX 20 45 with wood log storage module																	
Indirect heating function	No																	
Direct heat output	6 kW																	
Indirect heat output	- kW																	
Fuel		Preferred fuel (only one)	Other suitable fuel(s)	Emissions at nominal heat output (*) [mg/Nm <sup>3</sup> (13 % O <sub>2</sub> )]			Emissions at minimum heat output (**) [mg/Nm <sup>3</sup> (13 % O <sub>2</sub> )]											
Wood logs, moisture content < 25 %	yes	no		20	110	1171	104	N.A.	N.A.									
Compressed wood, moisture content < 12 %	no	no																
Other woody biomass	no	no																
Non-woody biomass	no	no																
Anthracite and dry steam coal	no	no																
Hard coke	no	no																
Low temperature coke	no	no																
Bituminous coal	no	no																
Lignite briquettes	no	no																
Peat briquettes	no	no																
Blended fossil fuel briquettes	no	no																
Other fossil fuel	no	no																
Blended biomass and fossil fuel briquettes	no	no																
Other blend of biomass and solid fuel	no	no																
<b>Characteristics when operating with the preferred fuel</b>																		
Seasonal space heating efficiency η <sub>s</sub> [%]	66																	
Energy efficiency index (EEI)	100																	
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit											
<b>Heat output</b>																		
Nominal heat output	P <sub>nom</sub>	6.0	kW	Useful efficiency at nominal heat output	η <sub>th,nom</sub>	75.8	%											
Minimum heat output (indicative)	P <sub>min</sub>	N.A.	kW	Useful efficiency at minimum heat output (indicative)	η <sub>th,min</sub>	N.A.	%											
<b>Auxiliary power consumption</b>																		
At nominal heat output	el <sub>max</sub>	N.A.	kW	Single-stage heat output, no room temperature control					yes									
At minimum heat output	el <sub>min</sub>	N.A.	kW	Two or more manual stages, no room temperature control					no									
In standby mode	el <sub>SB</sub>	N.A.	kW	With mechanic thermostat room temperature control					no									
<b>Permanent pilot flame power requirement</b>																		
Pilot flame power requirement (if applicable)	P <sub>pilot</sub>	N.A.	kW	With electronic room temperature control					no									
<b>Other control options (multiple selection possible)</b>																		
Room temperature control, with presence detection																		
Room temperature control, with open window detection																		
With distance control option																		
Contact details	Barbas Bellfires BV Hallenstraat 17 5531 AB BLADEL The Netherlands				www.barbas.com													
(*) PM = particulate matter, OGC = organic gaseous compounds, CO = carbon monoxide, NO <sub>x</sub> = nitrogen oxides																		
(**) Only required if correction factors F(2) or F(3) are applied.																		
Signed for and on behalf of the manufacturer by: Danny Baijens, CEO Bladel; 13 October 2025																		

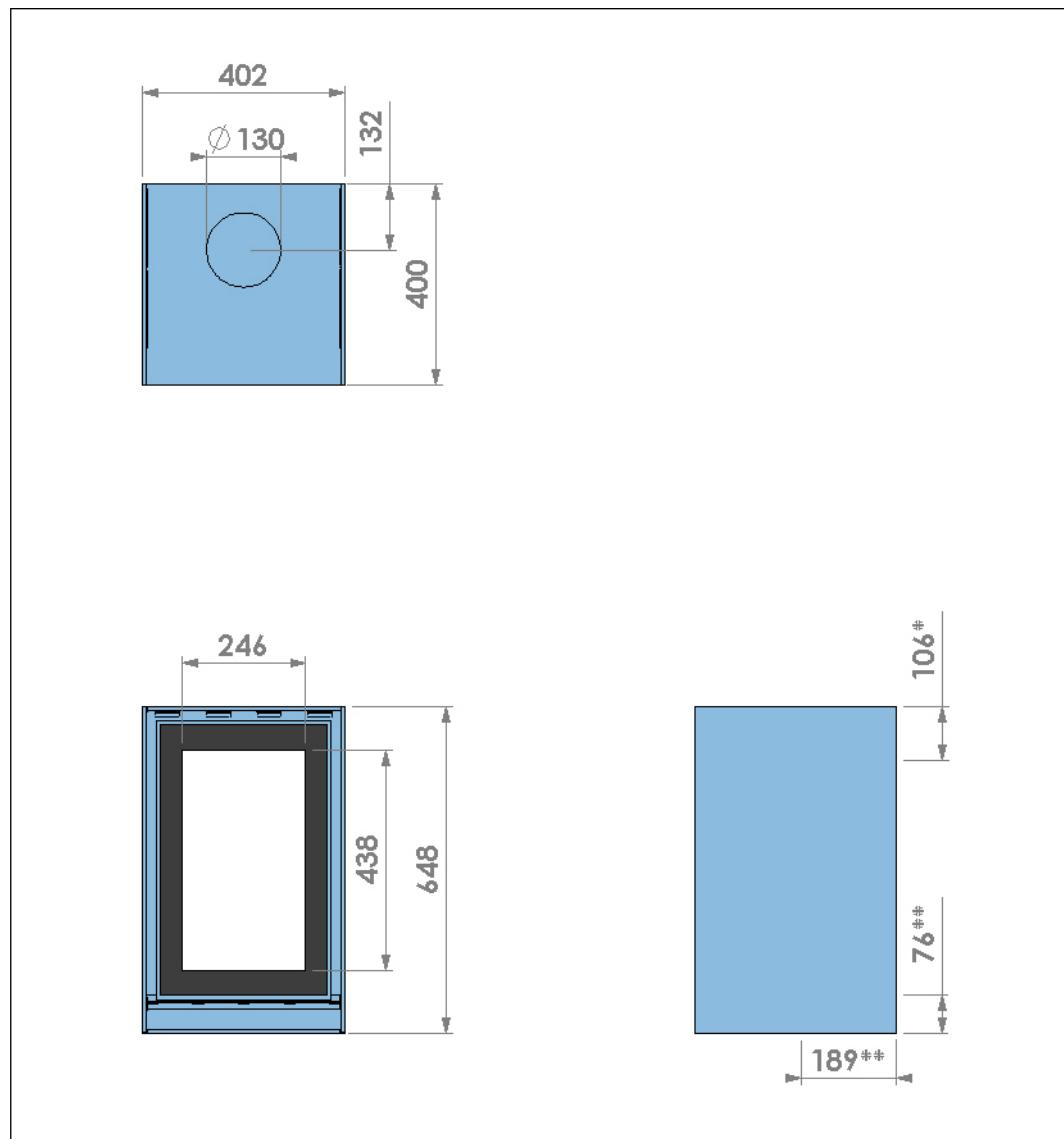
## 12.3

## Explanation of used notations on typeshield

Notation	Description
$m_{\text{chim}}$	The maximum weight of a chimney the appliance may carry
$d_B$	The minimum distances below the bottom to combustible material
$d_F$	The minimum distances from the front to combustible material in the bottom front radiation area
$d_C$	The minimum distances from the top to combustible material
$d_R$	The minimum distances from the rear to combustible material
$d_S$	The minimum distances from the sides to combustible material
$d_L$	The minimum distances from the front to combustible material in the side front radiation area
$d_P$	The minimum distances from the front to combustible material
$\text{CO}_{\text{nom}}$	Carbon monoxide emission at nominal heat output
$\text{NO}_{x\text{nom}}$	Nitrogen oxide emission at nominal heat output
$\text{OGC}_{\text{nom}}$	Hydrocarbons emission at nominal heat output
$\text{PM}_{\text{nom}}$	Particle emission at nominal heat output
$\text{CO}_{\text{part}}$	Carbon monoxide emission at part load heat output
$\text{NO}_{x\text{part}}$	Nitrogen oxide emission at part load heat output
$\text{OGC}_{\text{part}}$	Hydrocarbons emission at part load heat output
$\text{PM}_{\text{part}}$	Particle emission at part load output
$T_{s\text{nom}}$	The flue gas outlet temperature at nominal heat output
$p_{\text{nom}}$	Minimum flue draught at nominal heat output
$\Phi_{f,g \text{ nom}}$	The flue gas mass flow at nominal heat output
$T_{s\text{part}}$	The flue gas outlet temperature at part load heat output
$p_{\text{part}}$	Minimum flue draught at part load heat output
$\Phi_{f,g \text{ part}}$	The flue gas mass flow at part load heat output
$T_{\text{class}}$	Temperature designation of the chimney
$P_{\text{nom}}$	The nominal heat output
$\eta_{\text{nom}}$	The appliance efficiency at nominal heat output
$P_{\text{part}}$	The part load heat output
$\eta_{\text{part}}$	The appliance efficiency at part load heat output
$\eta_s$	The appliance seasonal space heating efficiency at nominal heat output
EEI	The energy efficiency index
$E_{\text{class}}$	The energy efficiency class
INT	The appliance is capable of intermittent operation
CM	Room-sealed appliance with a manually closed and locked door
B	Non-room-sealed appliance
	Read and follow the user operating instructions

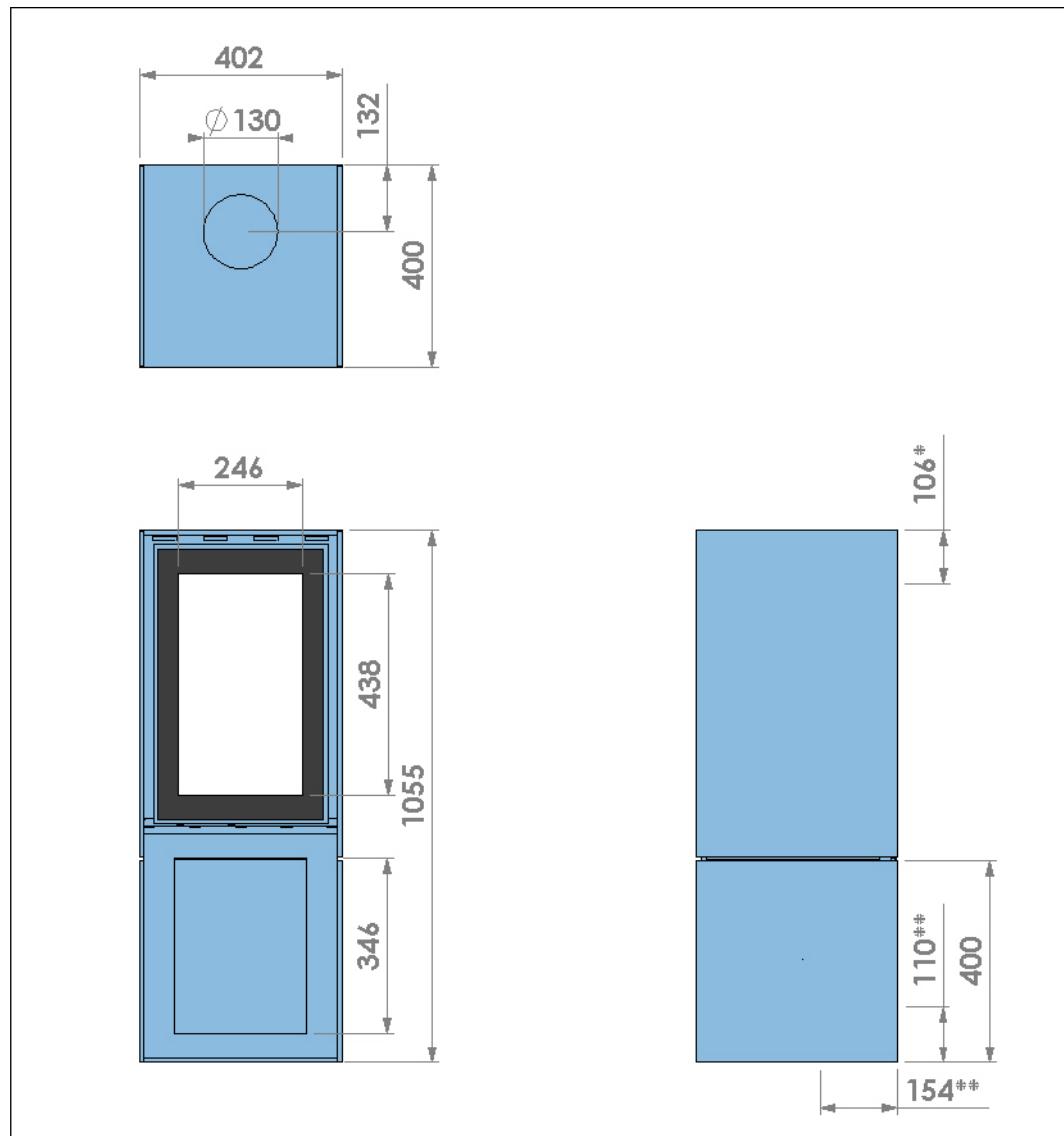
## 13 Dimensions

### 13.1 Dimensions BOX 20 45 with screened glass door



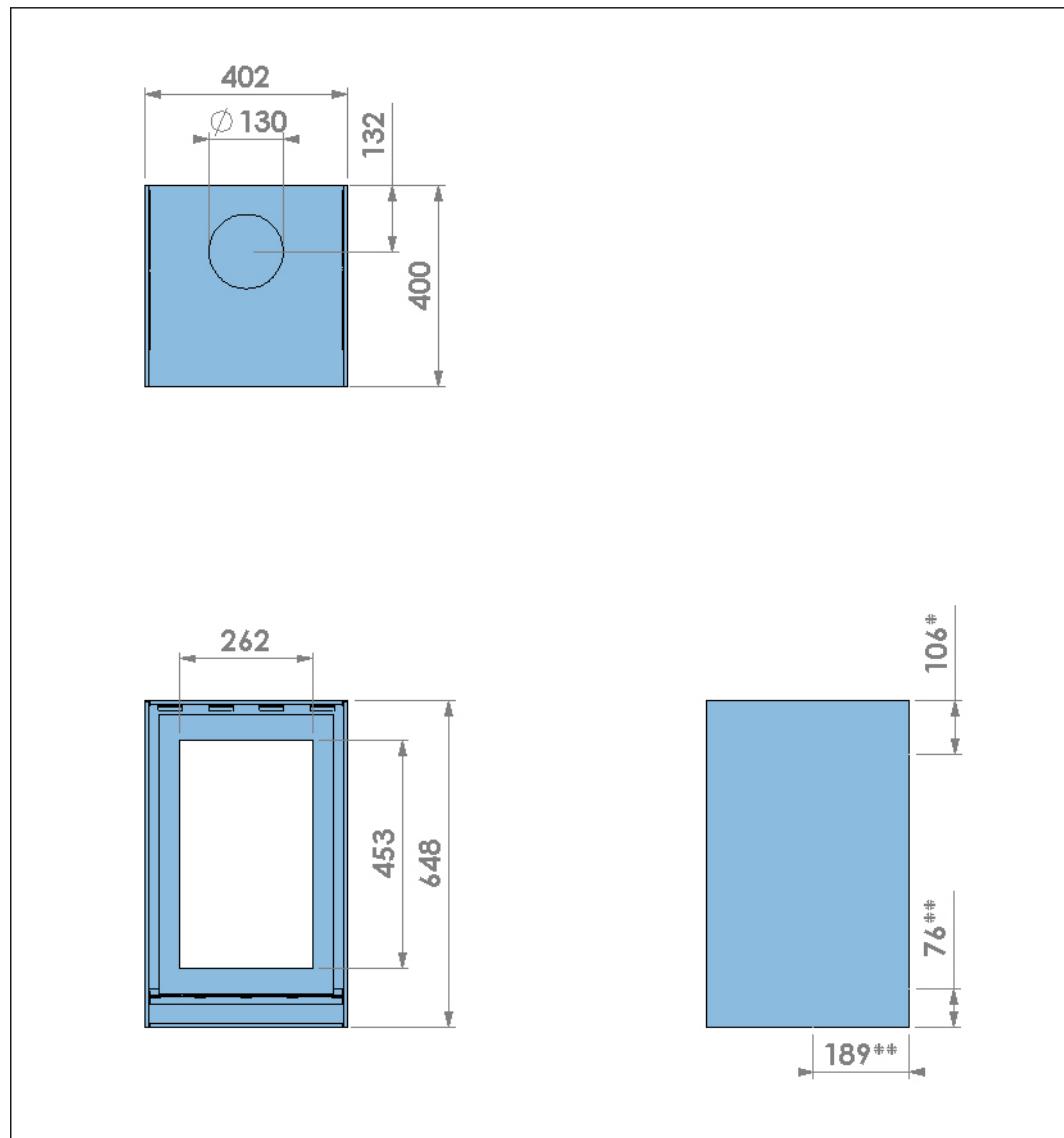
13.2

Dimensions BOX 20 45 with wood log storage module and screened glass door



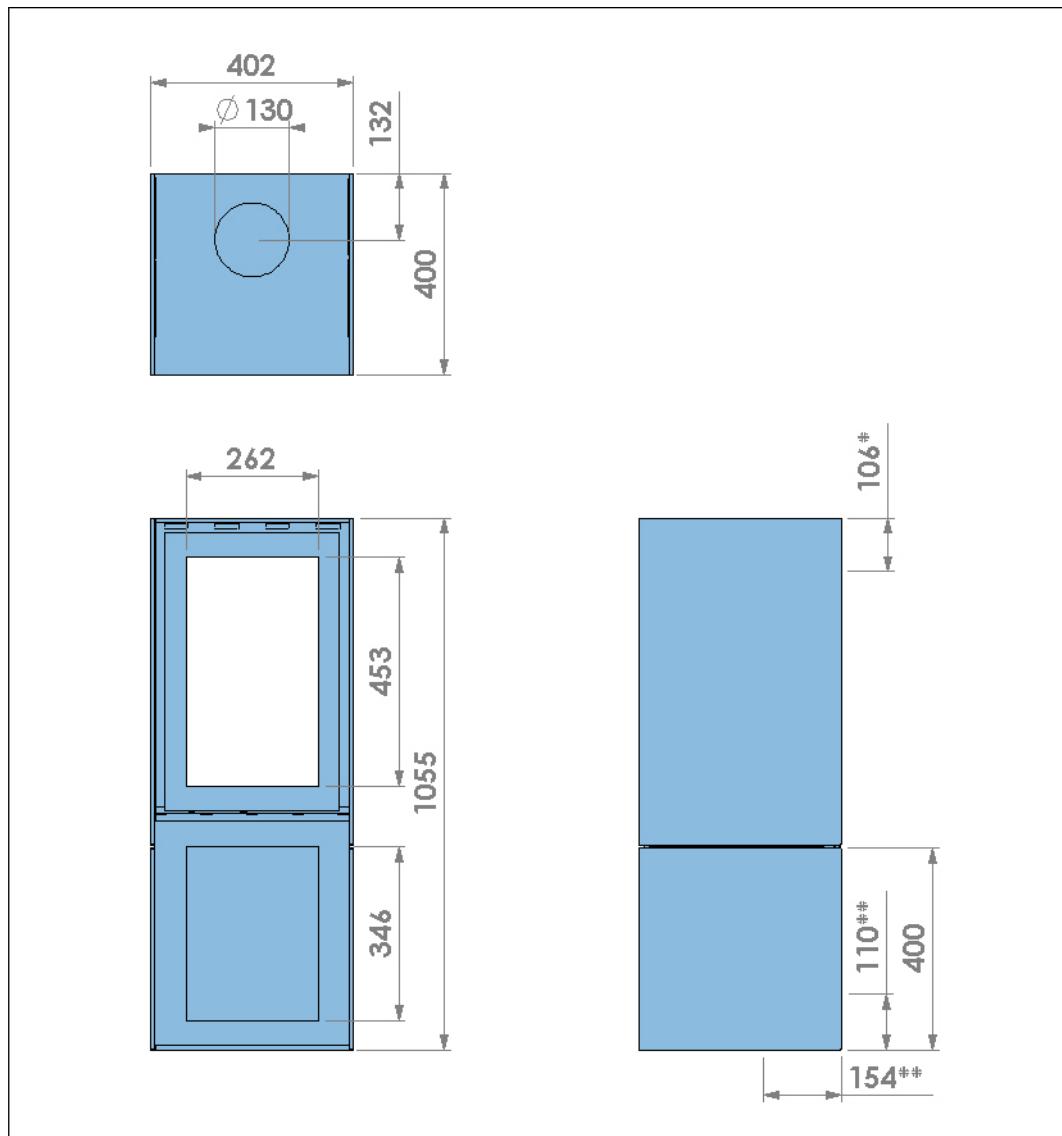
## 13.3

## Dimensions BOX 20 45 with steel frame door



13.4

Dimensions BOX 20 45 with wood log storage module and steel frame door



**14****Warranty Terms**

To make a claim under the warranty, it is important to register the Barbas appliance after purchase via [www.barbas.com](http://www.barbas.com).

**Barbas Warranty Terms**

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

**Article 1: Warranty**

1. If Barbas B.V. determines that the Barbas appliance you have purchased is defective as a result of a flaw in the construction or material, Barbas B.V. guarantees to repair or replace the appliance free of charge, without charging any costs for labor or spare parts.
2. Repair or replacement of the Barbas appliance will be undertaken by Barbas B.V. or by a Barbas dealer as designated by Barbas B.V.
3. This warranty is supplementary to the existing legal national warranty of Barbas dealers and Barbas 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 Barbas 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 Barbas dealer, together with the serial number of the Barbas appliance which is stated on the enclosed documents.
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 Barbas appliance.
6. If a certain part is eligible for the warranty and the original part is no longer available, Barbas 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 Barbas appliance ceases to be in effect if:
  - a. it is not installed according to the installation instructions, and to national and/or local regulations;
  - b. it has been installed, connected or repaired by a non-Barbas dealer;
  - c. it has not been 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 appliance 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 Barbas 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 Barbas 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 Barbas appliance, a similar warranty applies from the moment of purchase for a period of two years.
- 4. For user parts such as glass, glass sealing cord 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 B.V. under this warranty does not automatically imply that Barbas B.V. also accepts liability for any possible damage. The liability of Barbas B.V. never extends further than that stated in these warranty conditions. Any liability of Barbas 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 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 B.V.

Hallenstraat 17

5531 AB Bladel

The Netherlands

Email: [info@Barbas.com](mailto:info@Barbas.com)

Carefully retain the enclosed documents; they show the serial number of the appliance. You will need this if you wish to claim under the warranty.





# barbas .

Your Barbas dealer

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