



**INSTALLATION INSTRUCTIONS &
MANUAL FOR ANNUAL MAINTENANCE**

EVO 100-50

Wood-burning built-in appliance



Barbas wishes you many cosy evenings with your new appliance

This document is an essential part of your fire. Read it carefully before installation and maintenance of the gas fire and keep it in a safe place!



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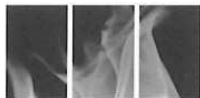
Serial number:

Production date:

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interfocos

**Declaration of Performance**

According to regulation (EU) 305/2011

No. 3.063.001-0 - CPR-2013/07/01

1. Unique identification code of the product-type	Barbas EVO 100-50 - 3.063.001-0 Room heater without hot water supply EN13229:2001/A2:2004/AC:2007																																				
2. Type, batch or serial number or any other element allowing identification of the construction product as required pursuant to Article 11(4)	Barbas EVO 100-50 - 3.063.001-0																																				
3. Intended use or uses of the construction product, in accordance with the applicable harmonised technical specification, as foreseen by the manufacturer	Room heater without hot water supply																																				
4. Name, registered trade name or registered trade mark and contact address of the manufacturer as required pursuant to Article 11(5)	Interfocos BV; Hallenstraat 17; 5531 AB Bladel; The Netherlands																																				
5. Where applicable, name and contact address of the authorised representative whose mandate covers the tasks specified in Article 12(2)	Not applicable																																				
6. System or systems of assessment and verification of constancy of performance of the construction product as set out in Annex V	System 3 and system 4																																				
7. In case of the declaration of performance concerning a construction product covered by a harmonised standard	The notified laboratory KVBG, No. 2013 performed the determination of the product type on the basis of type testing under system 3 and issued test report 2014/0049																																				
8. Declared performance	<table> <tr> <td>Harmonized technical specification</td><td>EN13229:2001/A2:2004/AC:2007</td></tr> <tr> <td>Essential characteristics</td><td>Performance</td></tr> <tr> <td>Fire safety</td><td></td></tr> <tr> <td>Reaction to fire</td><td>A1</td></tr> <tr> <td>Distance to combustible materials</td><td> Minimum distances, in mm Insulation thickness rear = 100 Insulation thickness sides = 100 Insulation thickness ceiling = 100 Front = 800 Insulation thickness floor = 100 </td></tr> <tr> <td>Risk of burning fuel falling out</td><td>Pass</td></tr> <tr> <td>Emission of combustion products</td><td>CO = 0.06 %</td></tr> <tr> <td>Surface temperature</td><td>Pass</td></tr> <tr> <td>Electrical safety</td><td>Pass</td></tr> <tr> <td>Cleanability</td><td>Pass</td></tr> <tr> <td>Maximum operating pressure</td><td>Not applicable</td></tr> <tr> <td>Flue gas temperature at nominal heat output</td><td>T = 228 °C</td></tr> <tr> <td>Mechanical resistance (to carry a chimney/flue)</td><td>NPD</td></tr> <tr> <td>Thermal output</td><td></td></tr> <tr> <td>Nominal heat output</td><td>17 kW</td></tr> <tr> <td>Room heating output</td><td>17 kW</td></tr> <tr> <td>Water heating output</td><td>-- kW</td></tr> <tr> <td>Energy efficiency</td><td>80 %</td></tr> </table>	Harmonized technical specification	EN13229:2001/A2:2004/AC:2007	Essential characteristics	Performance	Fire safety		Reaction to fire	A1	Distance to combustible materials	Minimum distances, in mm Insulation thickness rear = 100 Insulation thickness sides = 100 Insulation thickness ceiling = 100 Front = 800 Insulation thickness floor = 100	Risk of burning fuel falling out	Pass	Emission of combustion products	CO = 0.06 %	Surface temperature	Pass	Electrical safety	Pass	Cleanability	Pass	Maximum operating pressure	Not applicable	Flue gas temperature at nominal heat output	T = 228 °C	Mechanical resistance (to carry a chimney/flue)	NPD	Thermal output		Nominal heat output	17 kW	Room heating output	17 kW	Water heating output	-- kW	Energy efficiency	80 %
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9.	The performance of the product identified in point 1 and 2 is in conformity with the declared performance in point 8. This declaration of performance is issued under the sole responsibility of the manufacturer identified in point 4.																																				

Signed for and on behalf of the manufacturer by:

Danny Baijens, CEO
(Name and function)

Bladel; January 7, 2014
(place and date of issue)



(Signature)

Hallenstraat 17
5531 AB Bladel – The Netherlands
T+31(0)497 339200 – F+31(0)497 339210
www.barbas.com – www.bellfires.com – www.continentalfires.com

1 INTRODUCTION

1.1 GENERAL

The appliance must be positioned and connected by a Barbas dealer/specialist in accordance with these Installation instructions, nationally and locally applicable regulations.

This manual contains directions for both positioning and for connecting the appliance. It also contains indications for the annual maintenance, technical data for the appliance, parts information and directions in the event of problems.

This appliance is 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. The appliance, when sold into the UK market, include a factory-installed modified air slider to ensure compliance with smoke emission requirements within smoke control areas.

Study this manual carefully before using the fireplace. We recommend you keep this manual in a safe place for reference purposes.

The “Instructions for use” is provided separately by the appliance.

“The Clean Air Act 1993 and Smoke Control Areas”

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 it is used in an “exempt” appliance (“exempted” from the controls which generally apply in the smoke control area).

The Secretary of State for Environment, Food and Rural Affairs has powers under the Act to authorise smokeless fuels or exempt appliances for use in smoke control areas in England.

In Scotland and Wales this power rests with Ministers in the devolved administrations for those countries. Separate legislation, the Clean Air (Northern Ireland) Order 1981, applies in Northern Ireland.

Therefore it is a requirement that fuels burnt or obtained for use in smoke control areas have been “authorised” in Regulations and that appliances used to burn solid fuel in those areas (other than “authorised” fuels) have been exempted by an Order made and signed by the Secretary of State or Minister in the devolved administrations.

Further information on the requirements of the Clean Air Act can be found here:
<http://smokecontrol.defra.gov.uk/>.

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 Clean Air Act requirements.

1.2 SAFETY AND INSTALLATION INSTRUCTIONS

Safety

- Do not place flammable objects within 100 cm of the appliance. Pay special attention to furnishings and ornaments around the appliance.
- When you use your appliance, the exterior will become hot. Always wear the glove or use the accessories supplied when filling etc.
Protect yourself and others (especially children!) from burns. Do not leave children unattended when the appliance is burning.
- Watch your clothing. Synthetic clothing in particular can easily catch fire and burn intensely.
- Do not approach the appliance with flammable materials or liquids. Any work with solvents, adhesives etc. in the space heated by the appliance can be very dangerous.
- It is not allowed to connect the appliance to a flue which is already connected to another appliance.
- Check the chimney. Cracks in the chimney may not only lead to damp, staining of walls and leaking of smoke, they can also impair the carrying off of smoke.
- Prevent your chimney being soiled from above (birds' nests etc.) by fitting a suitable cap to the chimney pot.
- Avoid chimney fires!
Have your chimney swept at least once per year - more often if you use your fire a lot. Prevent excessive deposits of soot inside the chimney by not burning freshly-cut wood. Instead, burn clean, dry chopped wood.
- Follow the instructions issued by your local fire brigade.
The appliance can be taken in operation if national and local regulations are satisfied. The required constructive adaptations should be satisfied as well.
- It is essential that the appliance, the flue and combustion air supply are cleaned and inspected annually by a Barbas dealer/specialist.
The safe operation of the appliance will thus remain guaranteed.
- The appliance is suitable and approved for periodical use.

Installation instructions

- The appliance may only be set up if the appliance and location meets the
 - national and local installation regulations;
 - local fire brigade regulations and required architectural provisions.
- Ensure that the room in which the appliance is situated has adequate ventilation.
- Wood and wood briquettes may be stoked in the appliance.
Do not use any coal and liquid fuels or fuel gel in the appliance. The appliance is not intended for use of this fuels and can be dangerous and lead to damage to your health and may seriously damage the appliance.
- **Never** use the appliance to burn rubbish.
- Please read all instructions / stickers on and around the appliance.
- Read the “Instructions for use” before using the appliance for the first time. When you first fire up your appliance, there are a number of extra points you should take into account.
- In transit, some parts of the appliance may have moved from their original place. Check that the door opens and closes, the brake plate is fitted correctly to the brackets at the top of the appliance, the heat-resistant panels are fixed to the walls and the panels on the bottom have not moved. Check if there are no foreign objects in the appliance.
- Avoid over-loading (white burning glow), caused, for example, by lengthy burning with primary air (combustion air supply slider all the way to “+”) or by burning too much wood in one go. The appliance can then become over-heated.
- Ask for the local building regulations, before commencing the installation of the appliance.

2 PLACING

2.1 APPLIANCE DESCRIPTION

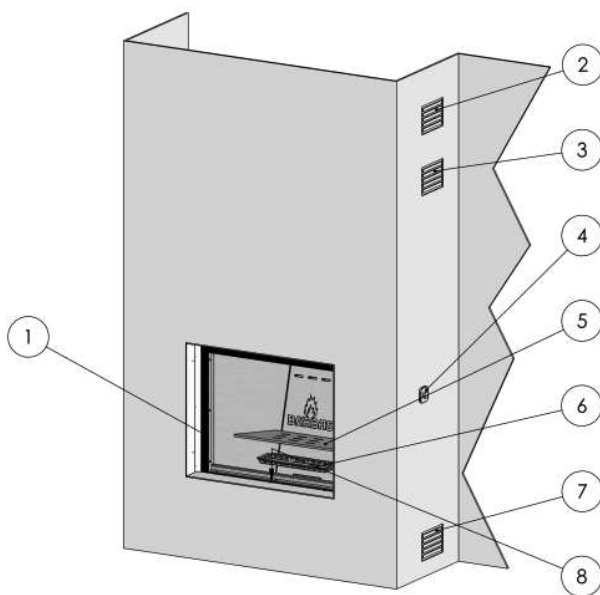


Figure 1: Overview appliance

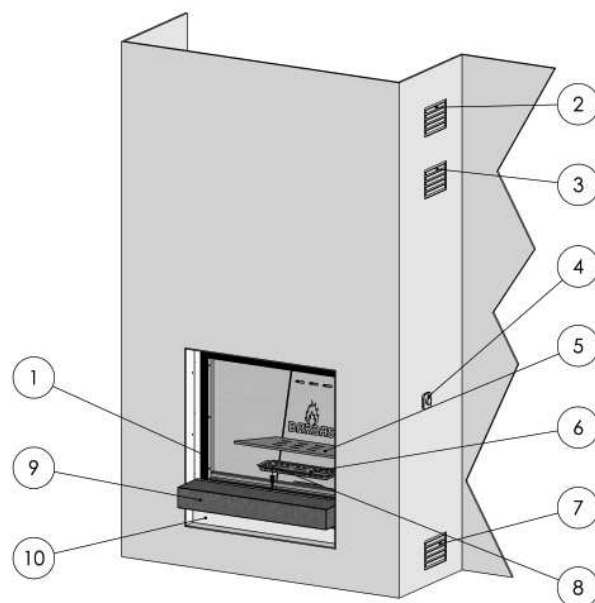


Figure 2: Overview appliance including optional stone plateau

- 1 Ceramic heat-proof glass
- 2 Outlet opening (2x grate) (chimney breast) natural convection air
- 3 Outlet opening (2x grill convection set) (chimney breast) convection air
- 4 Wall dimmer switch (optional) with integrated ON/OFF switch to control the speed of the built-in Perma Air[®] convection fan (option)
- 5 Grate
- 6 Ashtray
- 7 Inlet opening (2x grate)(chimney breast) Ventilation air chimney breast / Convection air / Combustion air
- 8 Combustion air-supply slider (Combined operation for the primary, secondary and tertiary combustion air-supply)
- 9 Stone plateau
- 10 Door for admittance to motor

Supplied with the appliance:

Documentation	• Installation instructions • Instructions for use
Attributes	• Glove (Heat resistant up to max. 95°C) • Operating hook / Poker • Remote control

N.B. If any part is missing, please contact your dealer.

2.2 PREPARATION FOR POSITIONING

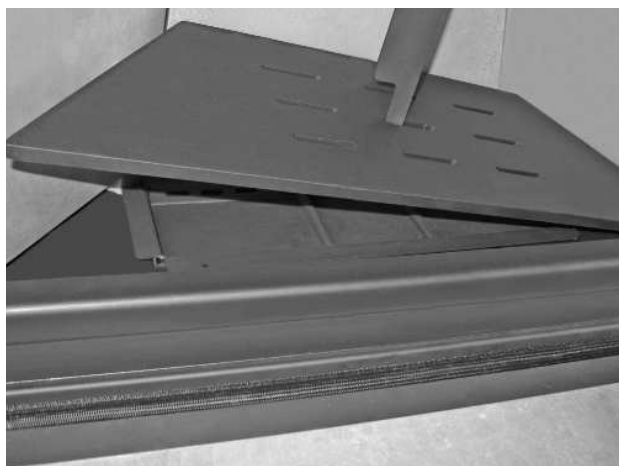
2.2.1 General function control

Check all functions of the appliance before fitting.

- Check the opening and closing operation of the door by means of the remote control (for the operation of the remote control see Chapter 3 of the Instructions for use)



- Check whether the retardant plates (brake plates) are located correctly.
- Check the operation of the slider for the regulation of the combustion air intake (middle below the window).
- Check whether the ashtray is completely empty.



- Report any defects immediately to your dealer.
- Remove enclosed documents and components from the appliance.

2.2.2 Connection Possibilities:

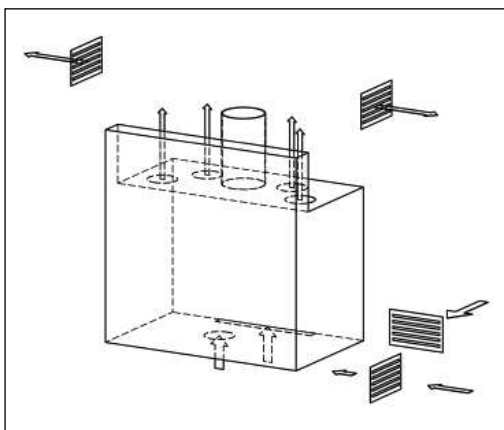
Important: The appliance is supplied with a pre-fitted airbox / fan box (if applicable). It is not possible to alter this after delivery.



① Installing in an existing or new fireplace.

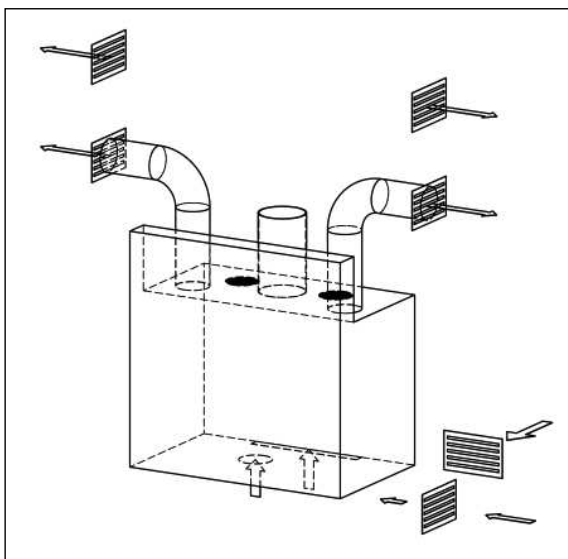
A Build-in.

Without airbox / fan box.



B Build-in with convection set.

Without airbox / fan box.

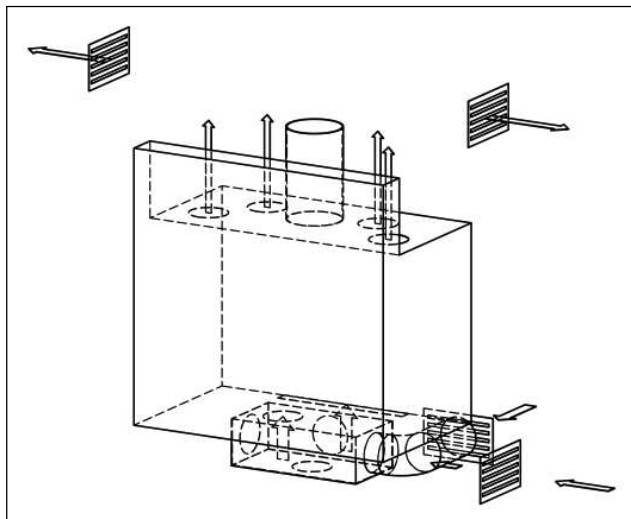


C Build-in with airbox / fan box.

Without convection set.

Convection air through the chimney breast.

Combustion air supply through the airbox / fan box.



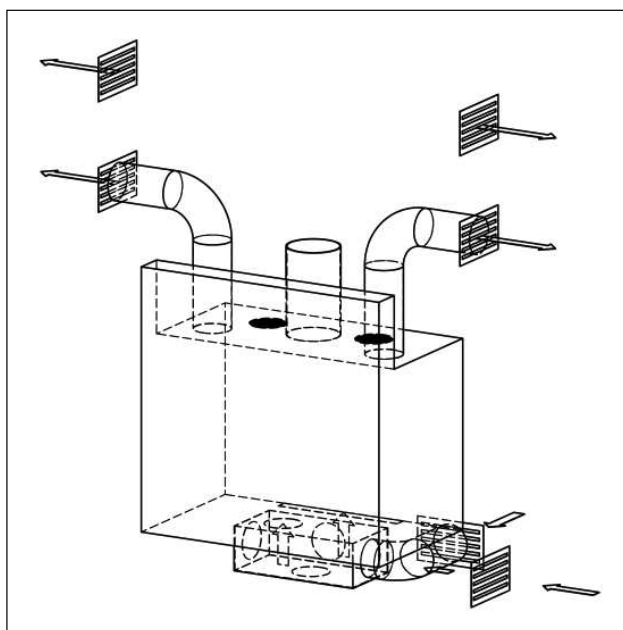
D Build-in with airbox / fan box.

With convection set.

Convection air supply through a grate in the bottom side of the fireplace.

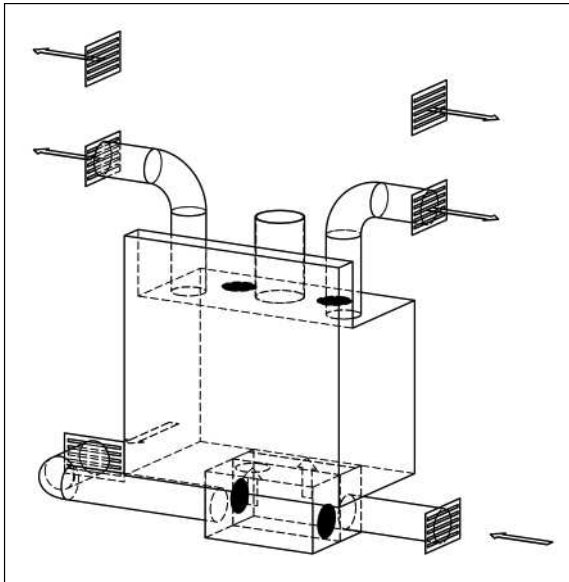
Convection air through the chimney breast.

Combustion air supply through the airbox / fan box.

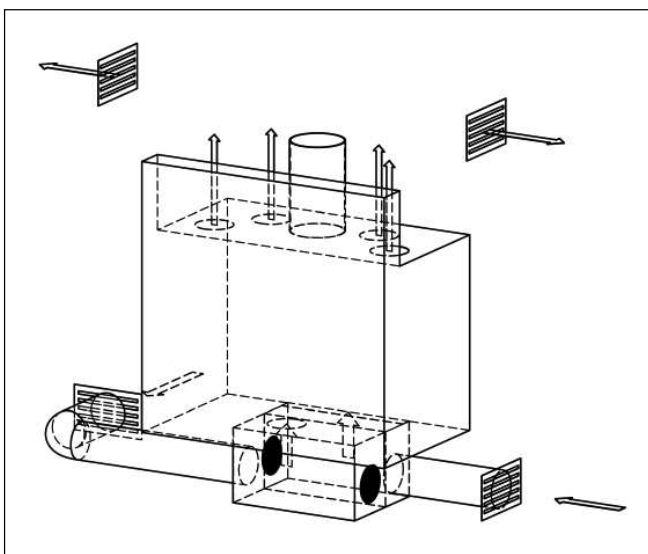


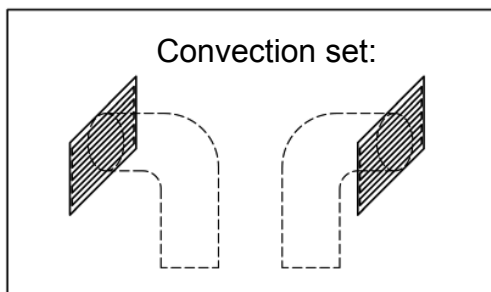
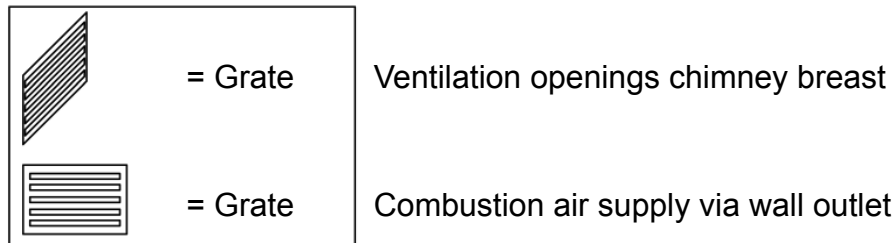
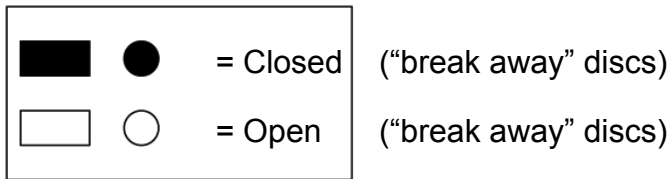
- II Installing the appliance with a fan box.
- Directly external combustion air supply
 - Convection fan with built-in dimmer switch
 - Convection air supply through a grate/opening from the living room

E Build-in with airbox / fan box.
With convection set.
Combustion air supply through the airbox / fan box.



F Build-in with airbox / fan box.
Without convection set.
Convection air through the chimney breast.
Combustion air supply through the airbox / fan box.





2.2.3 Combustion air intake

The local chimney sweep/authorities must be consulted prior to fitting regarding the suitability and combustion air supply. DIN 18160 (house chimneys) must be observed. DIN 18895 parts 1 and 3 also apply.

The air, which is piped in through a grill in the wall, ensures that the air in the room is refreshed and is also used for the combustion process.

The combustion air is sucked in through the grill in the chimney breast and through the opening underneath the appliance. Because some of this air passes through the chimney breast, it can be referred to as pre-heated combustion air.

The built-in appliance can also be fitted with an air duct (this is compulsory in Germany) which draws the combustion air directly from outside.

The air intake must have a opening of at least Ø125 mm. If required, the air pipe can be fitted with a control damper. In this case, the position of the damper must be visible from the outside. The use of a direct combustion air intake is strongly advised if the appliance is fitted with a convection fan set.

- Combustion air from the living-room:

When using the appliance, please ensure there is a sufficient supply of fresh air: use a grate with a minimum net opening in the outer wall of 150 cm².

When necessary, the combustion air inlet Ø125 mm at the underside of the appliance may be used. Through the hollow space, underneath the appliance, and a grate in the chimney breast, combustion air can be supplied from the living room.

Make sure that the ventilation supply is open; this is particularly important with today's airtight dwellings.

If the dwelling has mechanical ventilation that creates under pressure in the room where the appliance is located, it is necessary to fit a flue gas fan.

The type of flue gas fan is dependent on the capacity of the mechanical ventilation system. Always consult your fitter about this.

In dwellings with an operating extractor hood, this should be turned to the lowest setting or turned off altogether. If the extractor hood remains in use, additional ventilation must be provided in compensation. This will not only avoid poor combustion, but will also prevent flue gases being sucked from the appliance into the room.

Should creating an extra ventilation opening prove insufficient, it is then necessary to fit a flue gas fan.

- Combustion air directly from outside:

The appliance now has a completely closed combustion system, which allows it to operate independently of the surrounding air in the room where the appliance is located.

If desired the air pipes can be fitted with a control valve. In this case the valve location must be visible from the outside. It is strongly advised to provide a direct combustion air-supply if the appliance is supplied with a convection fan set.

- Appliance **with** substructure airbox / fan box without convection fan:

Use one of the three combustion air supply connections Ø125 mm (external) of the airbox / fan box.

Fit a rigid or flexible pipe measuring Ø125 mm between this air supply connection and the "outside air supply opening in the wall/floor".

- Appliance **with** substructure airbox / fan box with convection fan:

Use the Ø125 mm (external) combustion air supply connection at the left, right or bottom side of the airbox / fan box.

Fit a rigid or flexible pipe measuring Ø125 mm between this air supply connection and the "outside air supply opening in the wall/floor".

2.2.4 Combustion air supply / Chimney

Every appliance needs its own chimney. Multiple connections to one main chimney is not permitted. Ensure that any existing chimney is completely air-tight and in good condition. It must be suitable to accommodate the appliance in question. Make sure your chimney has a proper cap to prevent rain getting in and birds nesting on it.

The draught in your chimney determines how your appliance will burn. The recommended draught is approx. 15 Pa (0.15 mbar). Your chimney should be at least 4 metres tall from the point at which the chimney connects to the appliance.

Chimneys which are well-insulated measuring in excess of 8 metres can develop a significant draught if the appliance is raging. We therefore advise you to fit a chimney damper or draught diverter between appliance and the chimney.

Ensure that any existing chimney is completely air-tight and in good condition. The diameter of the entire chimney, including the chimney pot on the roof must have a diameter at least equal to the diameter of the flue gas outlet of the appliance. See Chapter 7.

If there is no suitable chimney immediately available, we advise you to use double-walled insulated stainless steel pipe sections. A chimney must be compliant with the prevailing building regulations. Have a specialist carry out the building. When purchasing such pipe sections, we advise you to find out whether some form of casing of the pipes is required.

A few points for your attention:

- chimneys must be free-standing, i.e. they must not rest on the appliance itself.
- all connections between the appliance and the chimney must be properly insulated.
- flammable material must be kept clear (outside the casing/insulation zone) of all through-feeds in the floor or wall (remember the roof decking).

Do not make any horizontal connections. Deposits and soot will collect here (unless it is a short horizontal connection directly behind the built-in fire).

The chimney calculation, as in Germany, is made according to DIN 4705 parts 1 and 2 with each of the following measured values:

- | | |
|--|-------------|
| - mass flow of the flue gasses | : 15,9 g/s |
| - temperature of the flue outlet on the fire | : 274°C |
| - chimney draught | : 0,12 mbar |
| - nominal power output | : 17 kW |

2.2.5 Convection air supply and- outlet

Convection air (heating air) is exclusively for the transfer of heat from the appliance to the living space. This air comes from the room and stays in the room.

- Use convection set:
The function of the convection set (option) is to improve the convection through the appliance, resulting in efficiency improvement and preventing high temperatures in the chimney.
The set consists of :
 - 3 m aluflex
 - 2 exit grids (white)
 - 2 collar adaptors Ø125 mm
 - 4 hose clamps
- When assembling the convection set take the following points into consideration:
 - Ensure that the flexible hose connections are gastight. If desired, insulate the flexible pipes with heat-insulating material that is resistant to temperatures in excess of 700°C.
 - The air exit grids cannot be fitted until a few days later, once the masonry has been pointed and allowed to dry. If one or more channels are connected leading to other rooms, these rooms must be fitted with closable grids. These are available from your dealer, as well as the flexible hoses and clamps required.
 - Within a range of 30 cm either side and 50 cm above the escape opening (exit grids), there must be no flammable materials (e.g. wooden ceiling, fitted furniture).
 - The convection casing of the built-in fire must be covered all around with a 10-cm thick layer of insulation (use of ceramic wool is permitted).

2.2.6 Convection fan set

The appliance can be supplied with an optional airbox / ventilatorbox for a direct combustion air supply from outside and / or a convection air supply.

The heat transfer can be increased by transporting the heat with the airbox / fan box (optional). With this system, hot air is blown into the room.

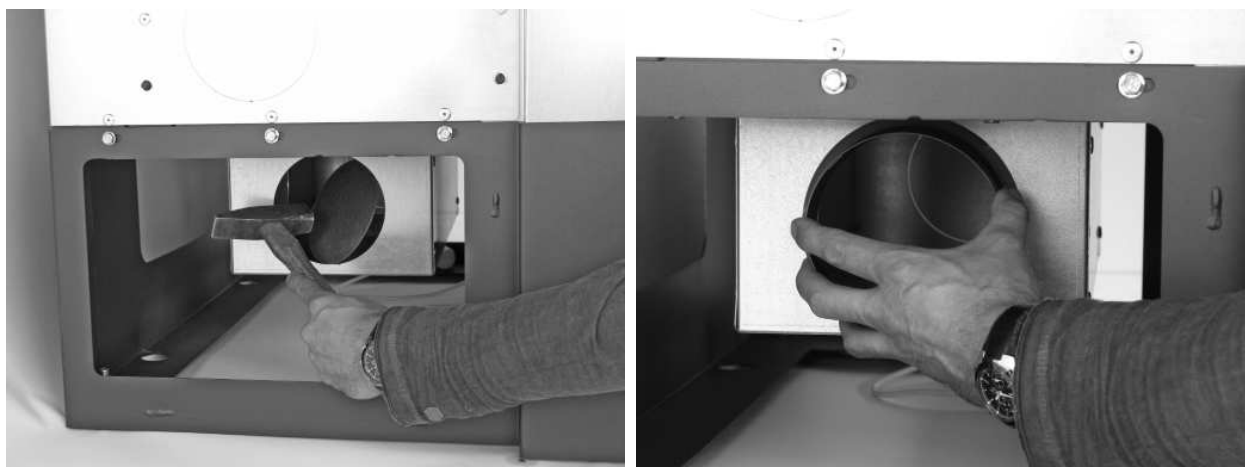
The convector fan built into the box is regulated by a built-in dimmer, with an integrated on/off switch.

The fan doesn't have any automatic regulation based on the appliance temperature.

If on purchasing the appliance the optional convection fan set has been opted for, this will have been pre-fitted.

Connecting convection air to the airbox / fan box

Knock out two "break-away" discs of the airbox / fan box with a hammer.



Connecting combustion air to the airbox / fan box

1x circular disc left or right - back.

This will be the convection air inlet. Place the collar adapter (125 mm) on the convection air intake opening.

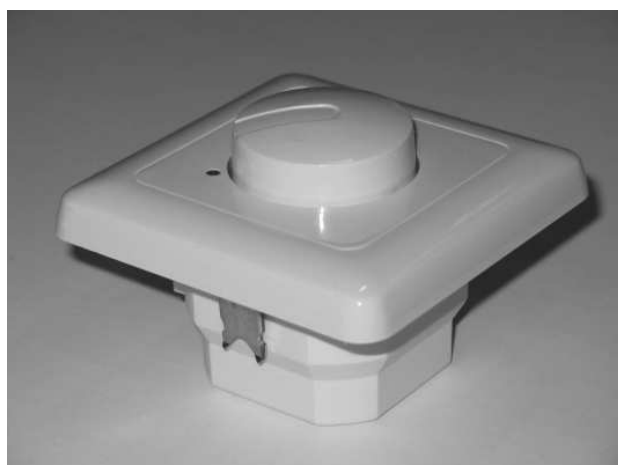
1x circular disc left or right - front.

This will be the combustion air inlet. Place the collar adapter (125 mm) on the combustion air intake opening.

Make the direct combustion air supply to the outside with a metal (flexible) tube (Ø125 mm) and a grid on the outside wall.

Dimmer with integrated
ON - OFF switch.
For installation in built-in box.

Electrical connections dimmer.



Built-in box for dimmer.



Refer to the electrical wiring diagram supplied separately with the fan box, connect the dimmer to the fan.



For maintenance, the convection fan can be reached after removal of the complete floor of the combustion.

2.2.8 The casing / fireplace

- The casing may not be directly connected to the built-in fire, but must be constructed so that it is self-supporting; a mantle iron or lintel should be used for this. The covering in the area must be of non-flammable materials of flame-retardant material class A1. This includes bricks, cladding, ceramic tiles, metal or plasterwork, Promatec and Nobrande.
- The opening for incoming and outgoing air from the casing must be at least totally 900 cm². At least 200 cm² from the opening for incoming and outgoing air must not be closable. The ventilation of the casing/fireplace can be provided by grills, but this can also be achieved by not building the fireplace right up to the ceiling (leaving a gap of 5 cm).
- When building in the appliance you can, if you wish, use a convection set (1x or 2x) (option) to connect the convection openings to the warm air exit grills in the chimney breast (See also Chapter 2.2.5).
- Built-in fires must be constructed such that the adapter from the chimney and convection pipes can easily be cleaned.
- There must be no electrical cables or gas pipes in the walls surrounding the area of the fireplace.

Heat-insulating materials

The heat-insulating materials to be used must meet specific quality standards. Manufacturers of insulating materials quote an insulation number on the packaging consisting of 10 numbers in accordance with the stipulations of AGI-Q132. Only those insulating materials listed in the adjacent table 1 or alternatives approved (in Germany) by DIBT may be used.

Insulation material		Delevired in ...		Heat conductivity		Max user temperature		Density	
Co-de	Sort	Co-de	Form	Co-de	Can be delivered as	Co-de	°C	Co-de	kg/m³
10	Mineral fibre	01	Strips	01	Mats (1)	20	200	02	20
11	Glass fibre	02	Individual fibres	02	Mats (2)	25	250	03	30
12	Stone fibre	03	Granular fibres			30	300	04	40
13	Cinter fibre	04	Felt			35	350	05	50
		05	Fins mats			40	400	06	60
		06	Mats			45	450	07	70
		07	Plates			50	500	08	80
		08	Bowls			55	550	09	90
		09	Segments			60	600	10	100
		10	Twisted	10	Bowls (1)	65	650	11	110
				11	Bowls (2)	70	700	12	120
						75	750	13	130
						80	800	14	140
						85	850	15	150
				20	Plates (1)	90	900	16	160
				21	Plates (2)			17	170
								18	180
								19	190
								20	200
		99	Other	99	Tailor made	99	Different approval standard	99	Different approval standard

* **Table1:** data on heat-insulating materials (permitted heat-insulating materials are those in grey).

Summary of insulation properties:

- Temperature resistance > 700°C
- Density > 80 kg/m³
- Insulation figure as per AGI-Q 132
- Must not end with 99 (see table)

3 INSTALLATION

3.1 GENERAL

When fitting one of these appliances local and/or national regulations relating to fire safety must be followed. In case of doubt, consult the fire safety department of the local fire brigade, particularly if the fire is to be fitted in a home with walls and/or floors containing flammable material.

The connection of several appliances to a single flue/chimney is not allowed.

- Check the function of the lift door
- Check the operation of the combustion air supply slider
- Check the position of the retardant plates (brake plates)
- Check whether the convection holes Ø125 mm (2x or 4x) on the top side are open
- Check that the fan, once fitted, is in working order

The fire must be positioned on a concrete surface. If such a surface is not immediately available, a pedestal must be built from the creeping space.

3.2 PLACING

3.2.1 Inbouw in een schouw

The appliance can be built in using brickwork or by means of fire-resistant plates that are screwed to a metal frame.

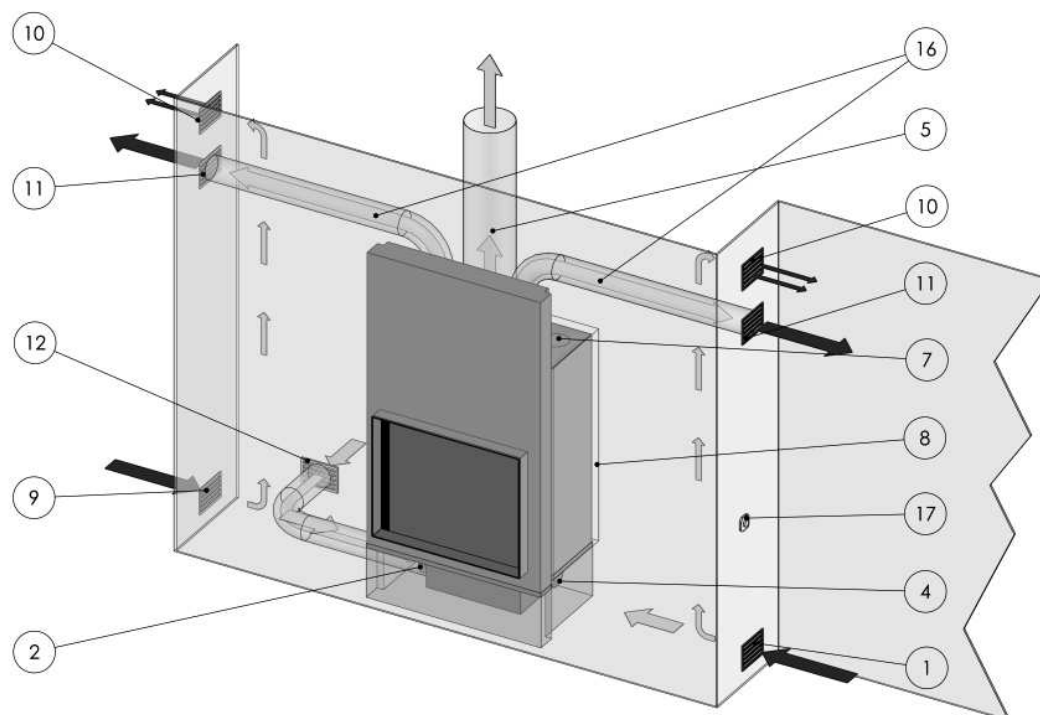
You can, if you like, erect a natural stone mantelpiece in front of this.

- Installation without optional natural stone plateau:
(to place the optional natural stone plateau see Chapter 3.2.5)

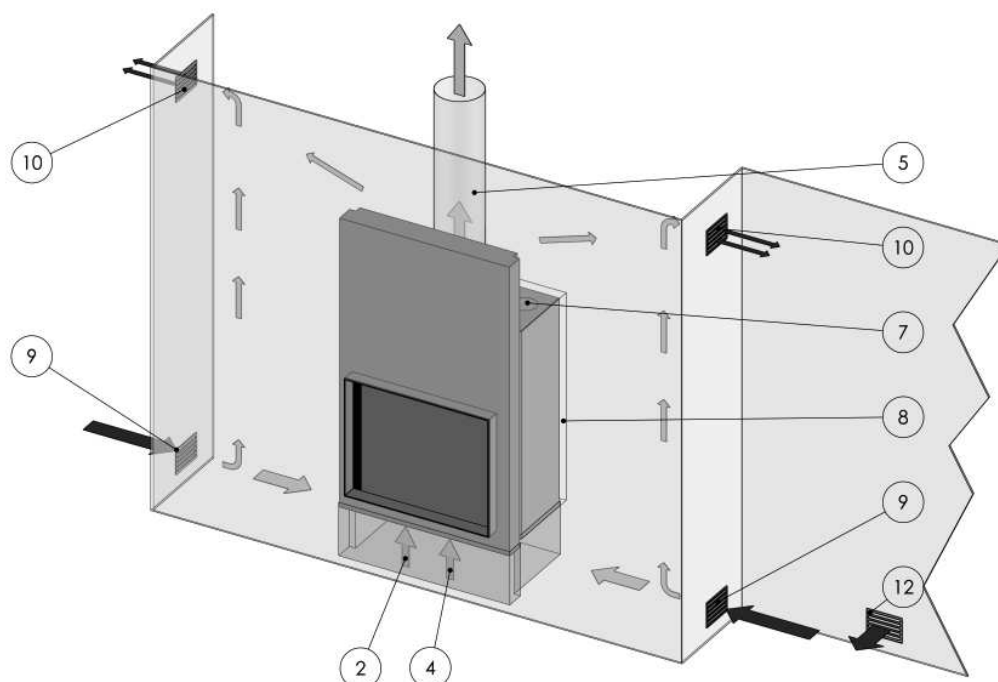
Note !: After installation it must be taken into account that the lift door motor on the underside of the appliance must remain accessible for any maintenance to the motor. This can be done e.g. by making a door on the front of the fireplace at the location of the motor, so that the motor can be reached.

Note !: Ensure that there is a clearance of 2 mm between the brick work/fireproof plate in connection with the appliance expanding when hot.

- (A) Example build-in in a ventilated chimney.
Appliance is fitted with a convection set.
Direct combustion air supply from outside.



- (B) Example build-in in a ventilated chimney.
For a direct combustion air supply from outside and fitted with a convection fan
with a build-in fanspeed controller.



Legend page 24

Legend:

- ① Inlet opening combustion air / convection air / chimney-ventilation air (grate, bottom of chimney)
- ② Inlet opening combustion air (bottom of appliance Ø125 mm) / airbox / fan box Ø125 mm)
- ④ Inlet opening convection air (airbox / fan box Ø125 mm) / (bottom of appliance)
- ⑤ Flue connection (topside of appliance, Ø250 mm)
- ⑦ Outlet opening convection air (top of appliance) / (Connection convection set) (2x or 4x Ø125 mm)
Important: Remove “break-away” discs (2x or 4x Ø125 mm) !
- ⑧ Insulation material, noninflammable !!! (for example ceramic fibre) (sides and top of appliance)
- ⑨ Inlet opening combustion air / convection air / chimney-ventilation air (grate, bottom of chimney)
- ⑩ Outlet opening convection air / chimney-ventilation air (grate, top of chimney)
- ⑪ Outlet opening convection air via convection set (grate, top of chimney)
- ⑫ Inlet opening direct combustion air from outside (grate, exterior wall)
- ⑬ Airbox / fan box: Box with several connection possibilities for a directly combustion air supply from outside and/or with a build-in convection fan including a fanspeed controller (17) for RPM control
- ⑯ Convection set
- ⑰ Fanspeed controller

- If the appliance is to be placed against a bearing wall or against a wall containing flammable material, an air gap of at least 20 mm should first be created. Before it a false wall, 100 mm thick, must be built of masonry or aerated concrete.
- If the appliance is not placed against a bearing wall or a wall containing flammable material, no false wall is necessary. Layers of insulation of at least 100-mm thickness will then be sufficient (class A1, DIN 4102-compliant). See also section 3.3.
- After four weeks, your appliance will be ready for use.

3.2.2 Chimney

If no chimney is immediately available, have one fitted by a recognised specialist only. The chimney must be compliant with local regulations and is particularly important because it has a significant bearing on the function of the appliance.

Basic rules:

- A chimney for an open appliance is not, by definition, suitable for a closable model (i.e. an appliance with doors). As a closed appliance draws in much less (cold) air, the smoke is hotter. Please have your chimney inspected to see whether it is suitable for a closable appliance.
- The chimney opening must be at least 5 metres above the top of the door opening of your appliance.
- The chimney must protrude at least 40 cm above the apex of a sloping roof and at least 1 metre above a flat roof. In short, the chimney must always end in an area with a negative air pressure. Contact your local chimney sweep for the exact dimensions of the chimney opening.
- The internal diameter must not be less than that of the appliance at any point (even at the end of the pipe).
- Avoid bends at all costs. The maximum deviation from the perpendicular is 45°.
- Both the dimensions and the construction must meet stringent construction standards. Your recognised specialist will be pleased to assist.
- Contact your fire insurer to make sure that your policy is in order.

3.2.3 Connecting combustion air supply

- Appliance with substructure airbox / fan box:

Use the Ø125 mm (external) combustion air supply connection at the left or right front side or bottom side of the box.

Fit a rigid or flexible pipe measuring Ø125 mm between this air supply connection and the “outside air supply opening in the wall/floor”.

3.2.4 Connection convection set and convection channels

Convection set (1x or 2x) (option !)

- If required, a convection set can be added when installing the appliance.
- Use convection set:

The function of the convection set (option) is to improve the convection through the appliance, resulting in efficiency improvement and preventing high temperatures in the chimney.

The set consists of:

 - 3 m aluflex
 - 2 exit grids (white)
 - 2 collar adaptors Ø125 mm
 - 4 hose clamps
- Assembly convection set:
 - Secure the collar adaptors (2x or 4x) to the appliance.
 - Now connect the flexible hoses to the collar adaptors (Ø125 mm) on the top of the appliance and to the metal fitting box on the air exit grids that are being used (do not forget to fit hose clamps).
 - Ensure that the flexible hose connections are gastight.
 - If desired, insulate the flexible pipes with heat-insulating material that is resistant to temperatures in excess of 700°C.
 - The air exit grids cannot be fitted until a few days later, once the masonry has been pointed and allowed to dry. If one or more channels are connected leading to other rooms, these rooms must be fitted with closable grids. These are available from your dealer, as well as the flexible hoses and clamps required.
 - Within a range of 30 cm either side and 50 cm above the escape opening (exit grids), there must be no flammable materials (e.g. wooden ceiling, fitted furniture).
- Cover the top, side and rear of the appliance to the front edge with c. 10 cm thick insulating material ($T \geq 700^{\circ}\text{C}$) (Class A1 according to DIN 4102 (= EN 13501)). Leave a few centimetres clearance between the front of the chimney breast and the appliance.
- Ensure the appliance is level by adjusting the feet to the correct height. Use a no.17 spanner for this.
- Make a good seal between the smoke outlet from the appliance to the chimney. See also 3.2.2.

Ensure that the entire flue is gas-tight.

- Ventilate the chimney, by placing ventilation openings at the top and bottom of the chimney breast.
- Close up the front.



(Note for installation without stone plateau the motor remains accessible!)

Available BARBAS grids (option) for ventilating the chimney:

COLOUR	DIMENSION (cm)	CLEAR OPENING (cm ²)
Brass or white (incl. fitting)	13.5 x 13.5	75
Brass or white (incl. fitting)	27.0 x 13.5	150
Perma Air (white)	43.0 x 22.0	550

3.2.5 Fitting the natural stone plateau

To install the natural stone plateau use the two 6*16 flange bolts supplied, combination or box spanner 10, and an allen key.



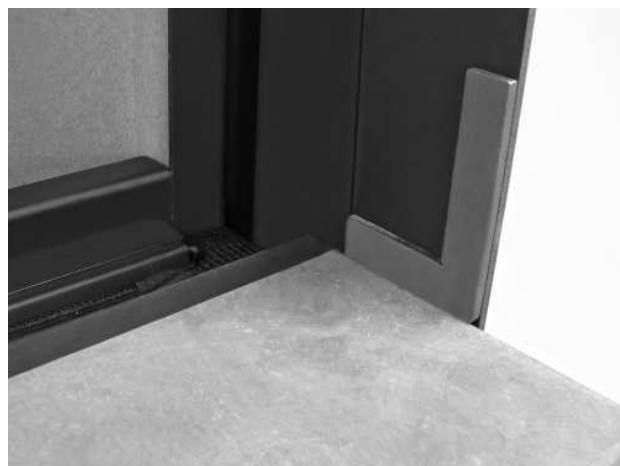
Put the lift door in the top position and place the plateau in its designated position in the appliance.



Fix the plateau at the rear with the 2 flange bolts.



The plateau can be levelled using the 2 allen set screws on the underside of the plateau. To adjust the plateau use a level or angle iron.



4 ANNUAL MAINTENANCE



It is essential that the appliance, the chimney and the combustion air supply are cleaned and inspected annually, by a Barbas-dealer/expert. The safe operation of the appliance will thus remain guaranteed.

Start with maintenance 24 hours after the last burning period.

Recommended order for yearly maintenance:

① Inside the appliance:

- Check the door seals. If necessary, replace the seals.
- Emptying the ashtray.
- Clean the glass on the inside of the door with glass spray or ceramic hob cleaner.
- If the glass is broken or cracked, it must be immediately replaced before operating the appliance again.



Broken ceramic heat-resistant glass may not be thrown away in a glass container, but must be included in normal household waste.

- Check the grate and all interior plates on cracks. If necessary, replace the parts.

② Chimney / flue channel:

- Sweep and inspect chimney. Check for cracks, loose parts, flue gas leakage and overall condition of the chimney.
When in doubt use an inspection camera !

③ Combustion air supply appliance:

- Check the combustion air supply route from the outside up to the appliance.
- Clean the combustion air supply inlet openings.

④ Convection air (Ventilation air) appliance:

- Check the convection air route.
- Clean the convection air intake openings, flues and air escape openings.
- Clean the innerside of the fan box (option).

The convection fan can be reached after removal of the complete floor of the combustion chamber / heating room.

⑤ Outside appliance:

- Clean the outside of the appliance with a dry lint free cloth.
- Wait for the appliance to cool down sufficiently before cleaning. Never use scouring powder, aggressive cleaners or fire polish on the appliance.
- Any lacquer damage can be repaired with a BARBAS heat resistant paint spray can. (Pay attention that the appliance is sufficiently cooled down !)

⑥ Ventilation house:

- Check whether the room where the appliance is installed is sufficiently ventilated according to national and local regulations and standards.
- Ensure that as little dust, and as few particles of cigarette smoke, candles and oil lamps as possible pollute the air in the room in which the appliance is used. Heating of these particles by the convection system of the appliance could lead to discoloration of the walls and ceiling. It is therefore very important to ensure that the room in which the appliance is located is sufficiently ventilated.

⑦ Last check appliance:

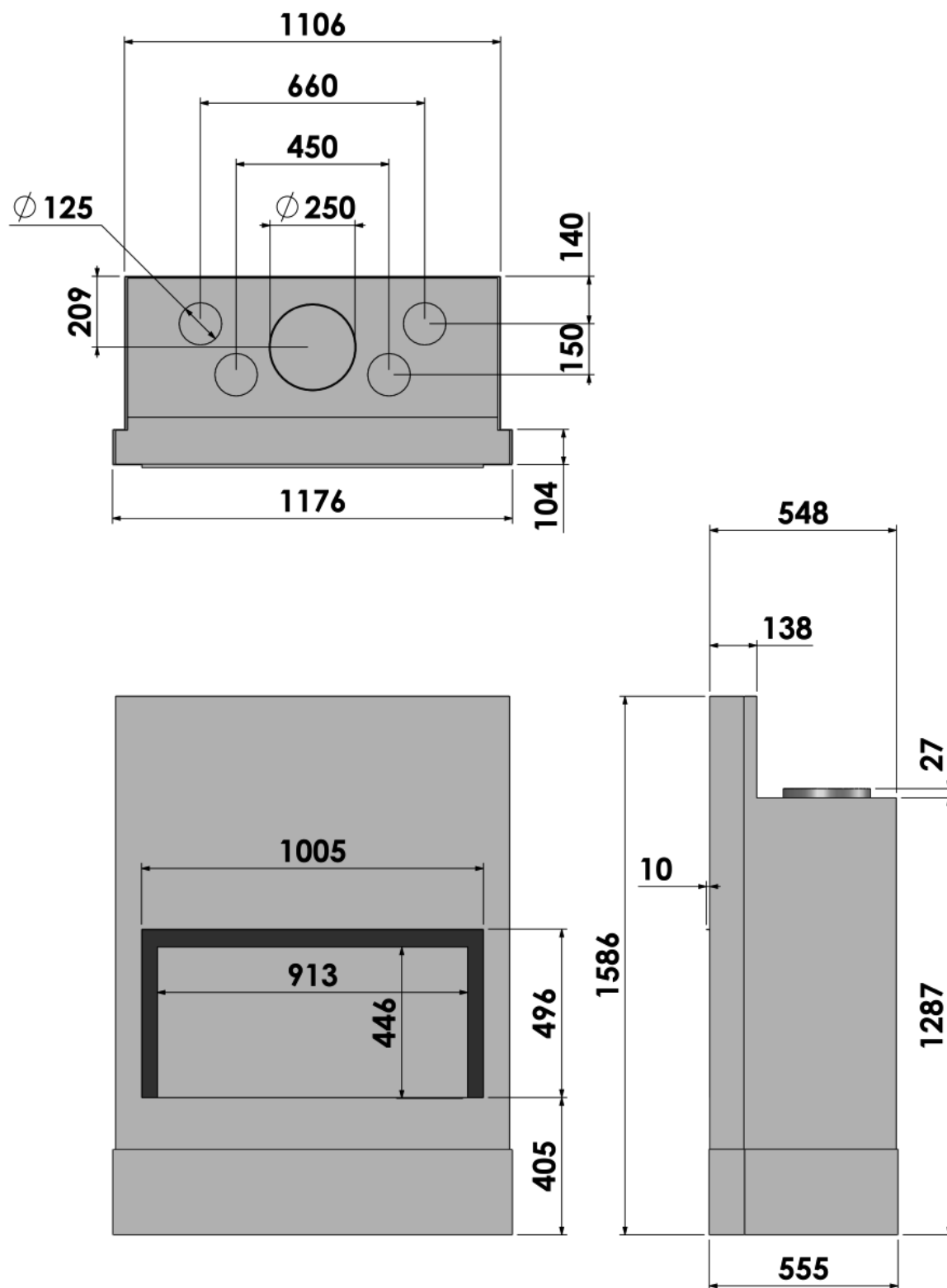
- Check the correct operation from the sliders and flaps. See Chapter 2.2: Preparation / Function check.

⑧ General:

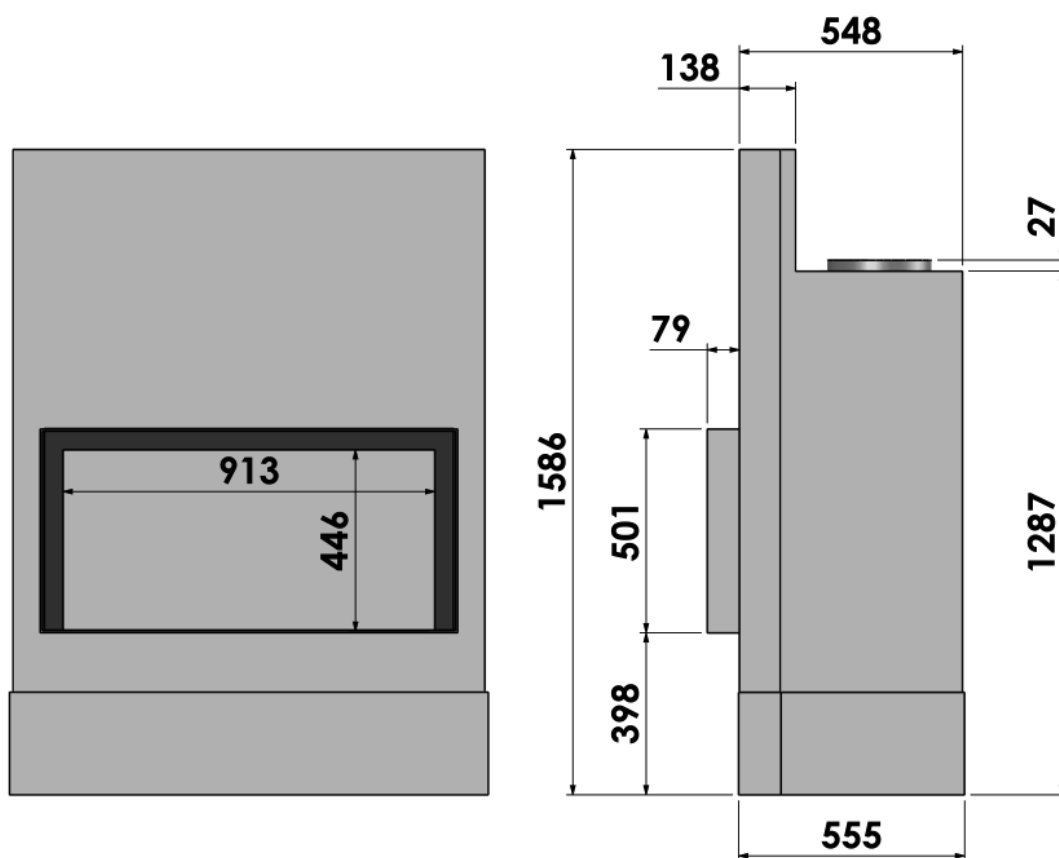
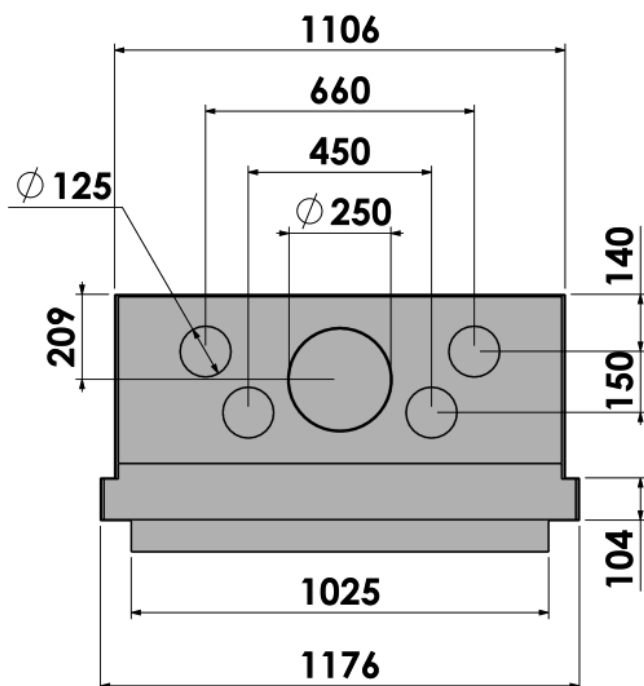
- Parts:
Individual parts for replacement/accessories are available from your BARBAS dealer. Use only original parts.
- Modifications:
Introduced modifications to the appliance are not permitted.

5 DIMENSIONS

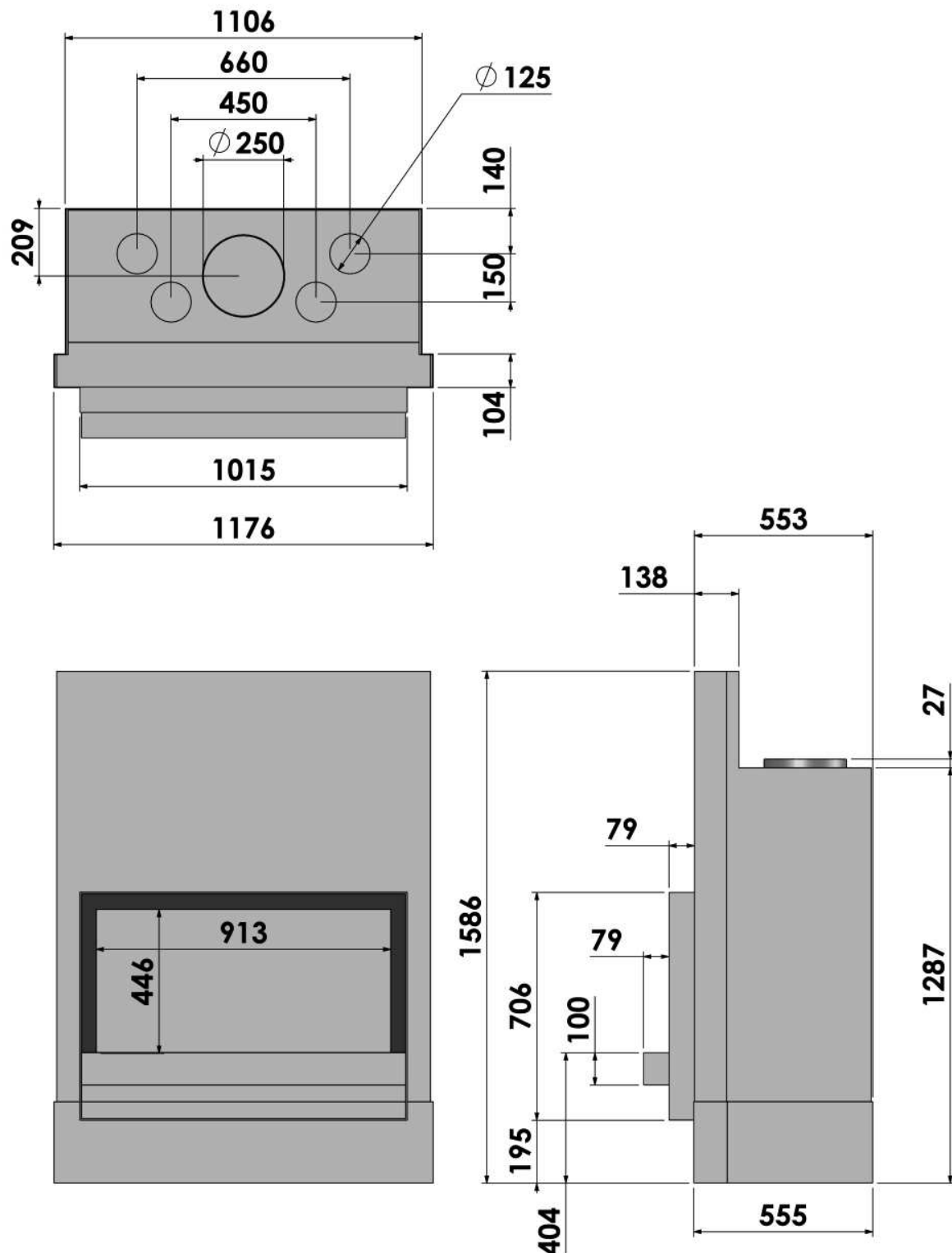
5.1 EVO 100-50 • Hidden Door



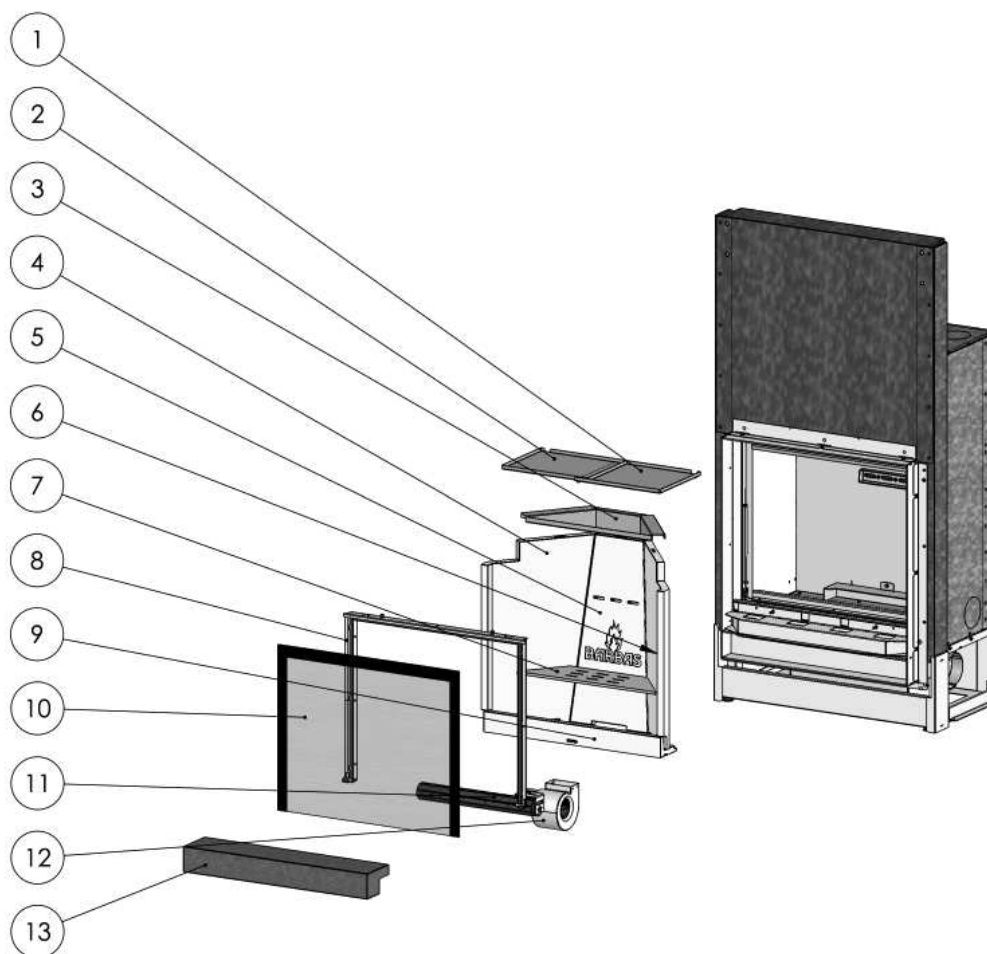
5.2 EVO 100-50 • with 80 mm frame



- 5.3 EVO 100-50**
- with 80 mm frame
 - with natural stone plateau



6 REPLACEMENT PARTS



Item no	Article number	Description
1	336010	Retardant plate top, right
2	336011	Retardant plate top, left
3	336009	Retardant plate under
4	335832	Side panel, left
5	335831	Rear panel
6	335833	Side panel, right
7	335977	Grate
8	335966	Door
9	335834	Bottom stone
10	335359	Heat-resistant glass
11	333958	Motor
12	336031 / 336033	Convection air fan (option)
13	334877	Natural stone plateau (option)

When ordering, please give the serial number.

7 TECHNICAL DATA

EVO 100-50

Combustion:

Measured in compliance with EN 13229 : 2001 and EN 13229 - A2 : 2004

Fuel Wood
Nominal output 17 kW
Efficiency 80%

Emissions (dry, at 13% O₂, 273K, 1013 hPa):

Carbon monoxide (CO) 0.06 %; 703 mg/m³ (STP, at 13% O₂)
Dust 30 mg/Nm³ (STP, at 13% O₂)
Total hydrocarbons (C_xH_y) 58 mg/m³ (STP, at 13% O₂)
Nitrogen oxides (NO_x) 166 mg/m³ (STP, at 13% O₂)

Flue gas mass flow 15.9 g/s
Flue temperature 228°C
Chimney draught 0.12 mbar
Flue gas connection Ø250 mm (Ø248 mm ext.)
Weight - EVO 100-50 320 kg
- Natural stone plateau 38 kg
- Airbox / Fan box 5 kg

Inside:

Dimensions
- surface area (b x d) 0.188 m²
- clear fire opening (h x b) 427 x 918 mm

Interior side panels Heat-resistant panels 1600 kg/m³
Interior bottom Heat-resistant panels 1600 kg/m³;
steel grate
Inner lining Steel (heat-resistant and rust-proof)
Retardant plates (brake plates) Stainless steel

Outside:

Construction Sheet-steel casing
Doors Lift door (Steel, ceramic heat-resistant glass)

Operation:

- Electrically operated lift door
- Combustion air supply slider
Single combined slide for controlling the
primary, secondary and tertiary air supply.

Ash collection: Ashtray with grate

Combustion air supply:

At least 150 cm² opening in the room where the fire is located or a outside air supply opening of Ø125 mm in wall/floor.

Opties:

- Airbox / fan box with 230 VAC / 95 W fan (Perma Air[®]) for transport of heating air. Rev control by built-in fanspeed controller.
- Convection set (1x or 2x).
- Natural stone plateau.

8 WARRANTY TERMS**Interfocos
Warranty terms**

Interfocos 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, Interfocos B.V. offers the following manufacturer's warranty.

Article 1: Warranty

- 1.1. If Interfocos B.V. determines that the Barbas appliance you have purchased is defective as a result of a flaw in the construction or material, Interfocos B.V. guarantees to repair or replace the appliance free of charge, without charging any costs for labour or spare parts.
- 1.2. Repair or replacement of the Barbas appliance will be undertaken by Interfocos B.V. or by a Barbas dealer as designated by Interfocos B.V.
- 1.3. This warranty is supplementary to the existing legal national warranty of Barbas dealers and Interfocos 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

- 2.1. Should you wish to claim under the warranty, please contact your Barbas dealer.
- 2.2. Complaints should be reported as quickly as possible after they have manifested themselves.
- 2.3. 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 front of the instructions for use.
- 2.4. In addition, the original receipt (invoice, receipt, cash receipt) showing the date of purchase must also be submitted.
- 2.5. 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.
- 2.6. If a certain part is eligible for the warranty and the original part is no longer available, Interfocos B.V. shall ensure that an alternative part of at least the same quality shall be provided.

Article 3: Warranty exclusions

- 3.1. The warranty on the Barbas 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-Barbas 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 appliance itself), for example, lightning strike, water damage or fire;
- 3.2. In addition, the warranty lapses if the original purchase receipt shows any change, deletion, removal or if it is illegible.

Article 4: Warranty area

- 4.1. The warranty is only valid in those countries where Barbas appliances are sold through an official dealer network.

Article 5: Warranty period

- 5.1. This warranty will only be granted during the warranty period.
- 5.2. 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.
- 5.3. For other parts of the Barbas appliance, a similar warranty applies from the moment of purchase for a period of one year.
- 5.4. 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

- 6.1. A claim granted by Interfocos B.V. under this warranty does not automatically imply that Interfocos B.V. also accepts liability for any possible damage. The liability of Interfocos B.V. never extends further than that stated in these warranty conditions. Any liability of Interfocos B.V. for consequential damage is expressly excluded.
- 6.2. That stated in this provision is not valid if and to the extent that is derives from a mandatory provision.
- 6.3. All agreements entered into by Interfocos B.V. are, unless specifically stated otherwise in writing and to the extent that they are permitted based on applicable law, subject to the Conditions of the Dutch Metal and Engineering Association (METAALUNIEVOORWAARDEN), as filed with the registrar of the Court of Rotterdam on 1 January 2008.

Interfocos B.V.
Hallenstraat 17
5531 AB Bladel
The Netherlands
Tel: +31-497339200
Email: info@Barbas.com

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



Your Barbas dealer