english

EN

BKH green

BKH

USER GUIDE

Hubertus Brunner, Ulrich Brunner

FOREWORD

As a family business, we at BRUNNER can look back on a history rich in tradition of more than 70 years. For three generations, we have been manufacturing firing systems in Eggenfelden, Lower Bavaria, which are among the best in the industry.

We are proud to manufacture products with skilled, well-trained and experienced workers that are characterised by durability, functionality and quality. Our products are the result of high-quality craftsmanship and constant innovation driven by a willingness to try new things and develop reliable products.

We work honestly and constantly to combine the modern with the traditionally proven and to develop mature products that will give you many years of use and pleasure.

Welcome to the BRUNNER family and enjoy your new BRUNNER fireplace!

Ulrich Brunner

Hubertus Brunner

BKH flat 42-66 with lifting door

Please read the entire User Guide before lighting the fire for the first time. In particular, please note the safety precautions in this manual.

The intended use is provided if the operation specified in these instructions is observed.

The non-observance of installation and operating instructions will void the warranty. Any constructional modifications made by the system operator are not allowed!

Installation must be carried out by an authorized stove-fitter, because safety and efficiency of the system depend mostly on proper installation of the product. All valid stove fitting rules and regulations of building law must be observed and followed.

This fireplace is subject to the provisions of BImSchV (Federal Emission Protection regulation). Necessary national and European standards and local regulations must be observed.

Please follow the relevant regulations of your country. In case of doubt, check the valid conditions for the operation of fireplaces in your local area. Subject to technical changes! Please keep the User Guide for future reference!

For an extended product warranty and a good processing of spare parts deliveries, we recommend carrying out the BRUNNER product registration on (www.produktregistrierung.brunner.de).

BRUNNER product registration offers you many advantages:

- Depending on the component, we grant an extended warranty of up to ten years
- Saves time, money and nerves for everyone involved
- Fast procurement of spare parts

CONTENT

01 Guarantee bond · · · · · 42
02 Notes on the ceramic glass pane · · · · · 42
03 Safety Precautions · · · · · 43
04 Basic rules for operation basic · · · · · 44
05 Fuel and heating power · · · · · 46
06 Components of BKH flat · · · · · 51
07 Components of BKH tunnel · · · · · 53
08 Components of BKH corner · · · · · 55
09 Components of BKH panorama · · · · · 57
10 Adjusting of combustion air · · · · · 58
11 The heating process · · · · · 59
12 Cleaning · · · · · 64
13 Cleaning of catalytic converter (optional) · · · · · 65
14 Note · · · · · 67
15 Troubleshooting · · · · · 68
16 Disposal · · · · · 70

01 GUARANTEE BOND

You have purchased an original Brunner product. By this you've done a good deed to yourself and to our environment because we as manufacturers have worked hard to make heating with our products as comfortable and environmental friendly as possible.

Now it is up to you and the proper operation with the proper fuel to make heating clean and economic. Our BRUNNER devices are thereby extremely "good-natured" heaters. Successful for decades, yet absolutely contemporary, even by modern technology BRUNNER.

BRUNNER devices are high quality products that have proven themselves a thousand times- this fact and our wealth of experience have led us to provide this unique guarantee.

We wish you a lot of joy with your BRUNNER device, the friend for a life time.

Hubertus Brunner

02 NOTES ON THE CERAMIC GLASS PANE

BRUNNER uses only high quality glass ceramic.

In a special manufacturing process, the glass panes become cerammed and acquire their unique features.

During this process, it is technically not possible to exclude all optical impairments (fine scratches, solid inclusions, tiny air bubbles[1]) .These must be accepted as results of current technology status, and cannot be considered as reasons for complaint.

[1] - max. 3 air inclusions or solid inclusions < 4mm are accepted, however, no air inclusions protruding to the glass surface with opening larger than 1 mm.
- décor defects smaller than 1mm are allowed as manufacturing tolerances.

03 SAFETY PRECAUTIONS

Initial operation

The paint coat of the stove is not completely hardened before reaching normal operating temperature for the first time. Smoke emissions and unpleasant odours cannot be excluded. Therefore, provide sufficient ventilation of the room when lighting the fire. Open all doors and windows, use an electric fan if necessary, to ensure faster air exchange within the room. During first operation try to avoid staying in this room for too long, if possible.

The combustion chamber door

BRUNNER fireplaces are only intended for operation with the **combustion chamber door closed**. In the case of open operation or opening during combustion, there is a risk of heating gases escaping into the living area.

If the fireplace is not in use, the combustion chamber door remains closed.

Risk of burns

External surfaces of the fireplace, in particular the glass door, may get very hot. Do not touch - risk of burns! Remember to warn your children about this. Basically, children should stay away from a burning stove. Objects made of flammable materials may not be placed on available surfaces of the fireplace. Flammable textile fabrics must have a minimum distance of **5 cm** from the vertical surfaces of the fireplace.

For your own security, store the ashes in a fire-resistant container for at least 24 hours before you dispose of them - Fire hazard! In case of fire call the fire brigade immediately! In the case of chimney fire move all flammable parts and elements away from the chimney. Watch out for flying sparks. Never use petrol or alcohol to light a fire!

Air gratings

Do not close or cover up the warm air vents of your fireplace. Risk of fire or overheating!

Fireplaces with electronic control system

After closing the combustion chamber door of the fireplace, a message must be displayed, informing that the combustion has been started (see User Guide of the electronic control)! If this is not the case, the door contact switches are defective! **Risk of deflagration!** Consult your stove fitter and follow the instructions in chapter “Heating with manually controlled combustion air supply” of the User Guide for the electronic control EAS.

Heat radiation area

Do not bring any flammable objects into the radiation area of the viewing pane up to a distance of 120/80 cm from the fireplace door (measured from the glass pane)[2] Risk of fire! Do not leave any objects from flammable materials in front of the fireplace door/glass pane.

Tunnel variants

In case of fireplaces with two glass panes on opposite sides (Tunnel variants), the operation and opening of the combustion door is only available on one side. Only one fireplace door can be opened during use.

When both fireplace doors are opened, air blows can lead to smoke release.

For versions with electronic combustion control it is not possible to load wood and start fire on revision door side.

[2] 80 cm with coated glass pane (GKB = coated glass ceramic)

04 BASIC RULES FOR OPERATION BASIC

Proper operation or use

BRUNNER heating inserts are individual fireplaces that are designed exclusively for operation with natural logs or suitable wood briquettes.

Operation in accordance with the intended use is deemed to have taken place if the information and notes on heating operation, maintenance and fuel given in the instructions are observed.

Heating operation

The service life and functionality of the heating insert depend on correct assembly, proper operation, as well as regular cleaning and maintenance.

The fireplace door should be opened only for loading firewood or cleaning. BRUNNER heating inserts are designed and optimized for closed operation.

Stoves and fireplaces from Ulrich Brunner GmbH are designed for periodic burning. It means that always a minimal amount of firewood has to be loaded and the combustion air must be adjusted according to the following instructions. Insufficient volumes of combustion air will lead to higher emissions and increased staining of the glass door.

Avoid overheating the fireplace with higher filling quantities than specified in the operating instructions! If the fireplace is overheated, discoloration can occur. This discoloration does not constitute a reason for complaint.

Stoking wood

The door handle can heat up after longer heating periods (> 60° C). We recommend using the enclosed protective gloves when stoking up with wood.

It is not intended to add wood while the fire is burning (visible flames). Fuel is added again when the previous burn-up has ended and no more flames can be seen (ember phase).

Heating with storage fireplaces

When using your storage fireplace with ceramic storage mass, please keep the following heating intervals.

First put the maximal load of wood inside the stove, then light up from above and let it burn. After combustion ends, wait for approx. one hour, and then put half the load of wood. After another hour has passed from combustion end, put half the load of wood again, if required. These steps can be repeated after a heating pause of eight hours. If more wood is loaded over a short time, this can result in overheating and storage mass damage.

⚠ Please ask your stove setter for the allowed loads and heating intervals. Different heating intervals will apply, when a storage fireplace is operated for the first time!

Heating between seasons

Check if there is sufficient negative chimney pressure ("draught test")

The fireplace needs a chimney draught for combustion air suction and flue gas exhaust. This chimney draught is reduced, when outdoor temperatures begin to rise. When outdoor temperature exceeds 10° C (50° F), please check the chimney draught before lighting fire (see picture).

Damper flap adjustment

If an optional damper flap[1] is installed, it must be opened completely when the fire is lit. During normal operation with closed door, the damper flap can be closed up to 2/3, depending on chimney draught.

Combustion air supply

The combustion air volume required for combustion must be available for the operation of the fireplace. Sufficient air supply must be ensured before fire is lit. If an outside air flap is installed, it has to be opened and must be left open as long as the fire is burning. Installed combustion air supply devices cannot be modified.

Structural changes to the building

If changes are planned and made in or on the building, the conditions for safe and proper operation of the fireplace can be significantly disrupted. The prerequisites for safe operation of the fireplace must therefore be checked by a specialist in the event of changes.

Such changes can be:

- Installation of an additional fireplace
- structural changes to the chimney
- Installation or modification of ventilation devices, e.g. extractor hood, toilet or bathroom ventilator, controlled ventilation.
- Installation or modification of corresponding household appliances, e.g. exhaust air tumble dryer, central vacuum cleaner system.
- Changes to the building's tightness, e.g. due to the installation of new windows or doors, insulation of roof surfaces, full thermal insulation.

Combustion chamber linings

Important note: Single cracks on fire-resistant combustion chamber linings made of fireclay bricks are no reason for concern.

These exactly dimensioned fireclay bricks are manufactured specially for our fireplaces. The pre-fired bricks protect the steel body, have insulating properties and are an essential component of the low-emission, “green” combustion chamber design.

During operation, hairline cracks may occur due to alternating thermal stress and mechanical shocks during relaying. This is a normal material property, harmless and not a reason for complaint.

What is not normal, are chips of stone falling off, or noticeable, starshaped cracks on several levels.

The black / anthracite surface of the cast iron combustion chamber linings may show colour changes during use. This is a normal, unavoidable pro-

[1] The damper flap is installed in the flue pipe connecting piece between the heating insert and the chimney and is used to regulate the chimney draught.

cess and does not constitute a reason for reclamation.

If the following points are taken into account, the black surface colour will remain intact for a long time:

- Operation as intended with the recommended filling quantities (surface temperature of fireclay < 700° C).
- No treated or coated wood, coal or liquid fuels; only natural wood with residual moisture < 20 %.
- Do not clean the surfaces with steel/wire brushes or cleaning agents.

Door sealing ropes

BRUNNER is using only high-quality door sealing ropes, which are exactly adapted to the requirements of our heating devices.

Yet the door sealings are wear parts, and therefore are not covered by our product warranty.

If the stove is operated as intended, the normal lifetime will be significantly longer.

Overheating, due to loading more wood as described in the operating instructions, direct contact with the glue, as well as use of unsuitable and aggressive cleansing agents may reduce the product lifetime considerably.

Glass pane

When loading wood into the fireplace, make sure to avoid the falling of wood onto the viewing glass, where it could burn in contact with the glass. The resulting thermal stress could lead to permanent discolorations (grey stains) on the viewing glass.

05 FUEL AND HEATING POWER

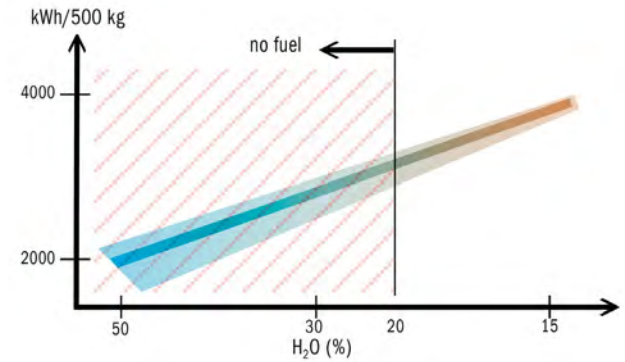
The standard combustion process "green"has been optimized to enhance their performance and reduce emissions. You can support our efforts to protect our environment by respecting the following recommendations for low-emission heating: Use only dry, natural wood with a residual humidity factor below 20 %, or wood briquettes according to DIN EN 17225-3.

Damp, freshly cut or improperly stored wood has a high water content, therefore does not want to burn, makes a lot of smoke and gives not much of heat. Use only firewood which has been stored for at least two years in a dry place with sufficient air circulation. Because dry wood is much more calorific, you can save on fuel costs.

For example: Dry wood has a calorific value of approx. 4 kWh/kg, freshly cut wood only 2 kWh/kg. You will need twice the amount of wood to achieve the same heating power.

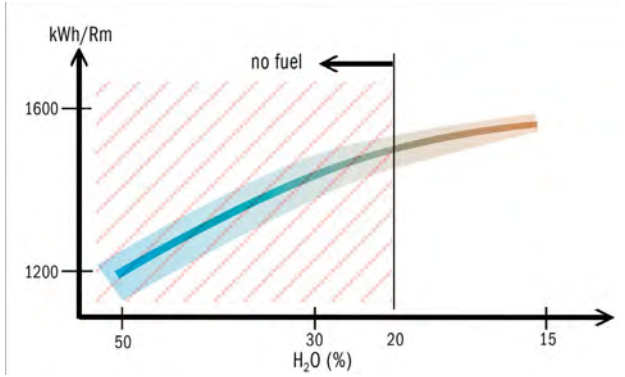
	Water content g/kg wood	Calorific value kWh/kg	Consumption- raised by %
very dry	100	4,5	0
stored for 2 years	200	4,0	15
stored for 1 year	350	3,0	71
freshly cut wood	500	2,1	153

Natural firewood (left) is the best fuel for fireplaces, but you can use also wood briquettes according to DIN 17225-3, Class A1, length > 14 cm (5.51 in), diameter > 8 cm (3.15 in) (right)



What amount of heat will I get when buying wood per weight

500 kg **freshly cut** wood	Water content 50 %	500 kg x 2,0 kWh/kg = 1000 kWh
500 kg **dried** wood	Water content 30 %	500 kg x 3,3 kWh/kg = 1650 kWh
500 kg **dry** wood	Water content 15 %	500 kg x 4,1 kWh/kg = 2050 kWh



What amount of heat will I get when buying wood per volume (1 cubic meter = 1 m³)?
RM = cubic metre

1 cubic meter **freshly cut** wood	Water content 50 %	1286 kWh
1 cubic meter **dried** wood	Water content 30 %	1518 kWh
1 cubic meter **dry** wood	Water content 15 %	1550 kWh

RM = cubic metre, 1 m³ layered wood

The water content in the wood can be q
determined with a wood moisture meter

Most suitable for use in open fireplaces are all types of hardwood, like beech or birch. Softwood species (conifers) have a closed-cell structure which is bursting during combustion, causing glowing embers to be thrown out of the fireplace. Hardwood is burning more calm and evenly.

You can control the heat radiation intensity by volume of wood and the intervals for stoking up.

Adjusting the heat by reducing the volume of combustion air is wrong! If there is not enough combustion air available, the energy contained in firewood cannot be completely released. At the same time, the emissions are rising due to unburned particles.

Too much of firewood or inappropriate fuel types can cause overheating and damage.

No kind of waste shall be burned in a fireplace!

Waste on fire = Toxins in your garden!

⚠ Never use combustible fluids, like petrol or alcohol to light a fire!

Mind the waste incineration ban!

Remember to use only the recommended fuels described in this User Guide. Unsuitable, not recommended fuels are not allowed to be burned in a fireplace.

⚠ Loading too much wood into a fireplace or using improper fuel may cause overheating and risk of fire!

A log circumference of 25 cm corresponds to a log diameter of about 9 cm

Fireplace	Recommended load volume	Log length
BKH Flat 42-42	1,5 - 3 kg	25 - 33 cm
BKH Flat 42-50	2 - 4 kg	25 - 33 cm
BKH Flat 42-66	2 - 4 kg	25 - 33 cm
BKH Flat 42-98	2 - 5 kg	25 - 33 cm
BKH Flat 50-42	1,5 - 3 kg	25 - 33 cm
BKH Flat 50-82	2,5 - 5 kg	25 - 33 cm
BKH Flat 50-98	2,5 - 5 kg	25 - 33 cm
BKH Flat 50-122	4 - 7 kg	33 - 50 cm
BKH Flat 50-162	4 - 7 kg	33 - 50 cm
BKH Tunnel 42-50	2 - 4 kg	25 - 33 cm
BKH Tunnel 42-66	2 - 4 kg	25 - 33 cm
BKH Tunnel 42-98	2,5 - 5 kg	25 - 33 cm
BKH Tunnel 50-82	2,5 - 5 kg	25 - 33 cm
BKH Tunnel 50-98	2,5 - 5 kg	25 - 33 cm
BKH Tunnel 50-122	4 - 7 kg	33 - 50 cm
BKH Tunnel 50-162	4 - 7 kg	33 - 50 cm
BKH Corner 42-42-42	1,5 - 3 kg	25 - 33 cm
BKH Corner 42-66-42	2 - 4 kg	25 - 33 cm
BKH Corner 42-98-42	2,5 - 5 kg	25 - 33 cm
BKH Corner 50-82-42	2,5 - 5 kg	25 - 33 cm
BKH Panorama 45-45-45-45	1,5 - 3 kg	25 - 33 cm
BKH Panorama 45-65-45-65	2,5 - 5 kg	33 - 50 cm
BKH Panorama 45-80-45-80	2,5 - 5 kg	33 - 50 cm
BKH Panorama 45-35-60-35	2,5 - 5 kg	33 - 50 cm
BKH Panorama 45-35-90-35	2,5 - 5 kg	33 - 50 cm
BKH Panorama 45-35-120-35	3 - 5 kg	33 - 50 cm

If your product is not listed, you can find an overview of all BKH formats using the adjacent QR code.
(https://link.brunner.de/fireplaces-green-overview)

BKH flat 42-66 with lifting door
Combustion chamber lining- cast iron

06 COMPONENTS OF BKH FLAT

Image 1: BKH Flat with side opening door

Image 2: BKH Flat with lifting door

1 Cast iron dome with connecting piece 2 Body 3 Door with ceramic glass pane 4 Door handle (side opening door)/Plug-in handle (lifting door) 5 Combustion air adjusting lever 6 Combustion air opening or installation location for connection box (outside air connection, air intake flap actuator for electronic combustion control)

BKH Tunnel 42-66 lifting door- side opening door
Combustion chamber lining- cast iron

07 COMPONENTS OF BKH FLAT TUNNEL

Image 1: BKH Tunnel with side opening door

Image 2: BKH Tunnel with lifting door

1 Cast iron dome with connecting piece 2 Body 3 Door with ceramic glass pane 4 Door handle (side opening door)/Plug-in handle (lifting door) 5 Combustion air adjusting lever 6 Combustion air opening or installation location for connection box (outside air connection, air intake flap actuator for electronic combustion control)

BKH Corner 42-66-42 I
Combustion chamber lining - chamotte

08 COMPONENTS OF BKH CORNER

Image 1: BKH Corner with side opening door

Image 2: BKH Corner with lifting door

1 Cast iron dome with connecting piece 2 Body 3 Door with ceramic glass pane 4 Door handle (side opening door)/railing (lifting door) 5 Combustion air adjusting lever 6 Combustion air opening or installation location for connection box (outside air connection, air intake flap actuator for electronic combustion control)

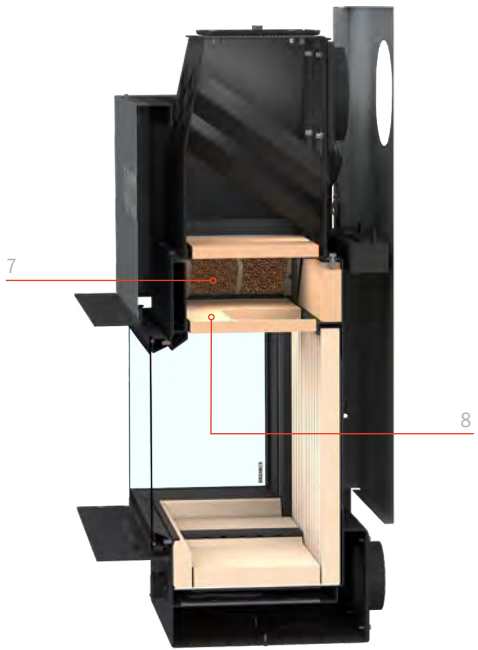
Right/left Corner versions available

BKH Panorama 45-45-45-45
Combustion chamber lining - chamotte

09 COMPONENTS OF BKH PANORAMA

Image 1: BKH Panorama with lifting door

Image 2: BKH Panorama Section



1 Cast iron dome with connecting piece 2 Body 3 Door with ceramic glass pane 4 Door handle 5 Combustion air adjusting lever 6 Combustion air opening or installation location for connection box (outside air connection, air intake flap actuator for electronic combustion control) 7 Catalytic converter 9 Deflector plates

10 ADJUSTING OF COMBUSTION AIR

Fireplace inserts have an opening in the floor area through which the required combustion air flows in. The air is either supplied via an outside air connection (air connection box) or directly from the room.

During combustion, the combustion air volume is adjusted by a control air lever on the fireplace. ("air slider").

For fireplaces with electronic combustion control, please refer to the instructions supplied with the electronic control unit.

Position 1 (100 % OPEN)

Lighting fire in a cold fireplace and maximum burning power.

Position 2 (75-50 % OPEN)

Main combustion phase in

- Position 2_{max} with maximum wood volume (75 % open)
- Position 2_{min} with maximum wood volume (50 % open)

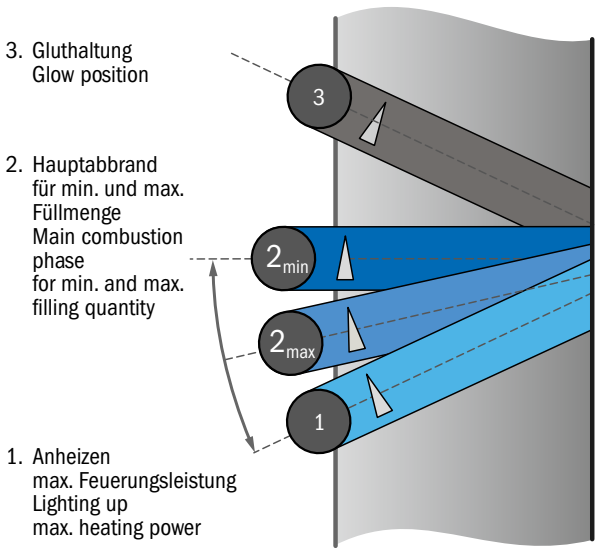
Position 3 (CLOSED)

Glow position

All air openings are closed

CAUTION: Risk of deflagration! Set the 'Glow' position only after the fire has burned down completely

Respect the ventilation requirements for simultaneous operation with other fireplaces. Pay particular attention to the requirements for operation together with ventilation systems.



You will find this graphic on a scale of 1:1 as a "template" on the last cover page.

11 THE HEATING PROCESS

The new standard of BRUNNER fireplaces is called “green”. With the right fuel and the right operation, a BRUNNER fireplace can be operated with the lowest possible emissions. The combustion chamber is designed as a trough firebox without a grate or ash box. The combustion air flows laterally into the combustion chamber trough (primary air) and falls down as pane scavenging air (secondary air) from the area above the door into the combustion chamber. The air control lever is always used to set the correct ratio of primary and secondary air depending on the combustion situation.

green

Optimum emissions are achieved when the logs are stacked crosswise at the bottom of combustion chamber!

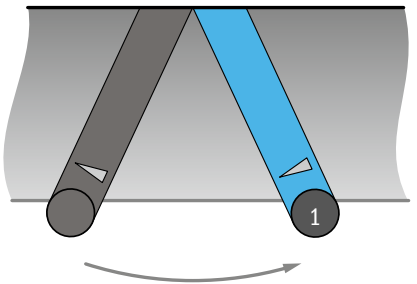
The ash bed at the bottom of combustion chamber cannot block the lateral combustion air lever!

Remember to remove the excess of ash in time!

1 Combustion chamber floor with integrated firing bowl for the air intake flap of the combustion control system
2 Side floor stones
3 Side combustion air inlet (primary air)
4 Combustion air adjusting lever
5 Connection box

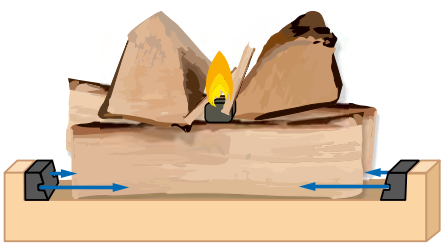
11.1 LIGHTING FIRE IN A COLD FIREPLACE

1. Set the air adjusting lever for combustion to "lighting up" (position 1 = 100 % OPEN). The maximum air supply allows the wood to ignite quickly.



"Air adjusting lever for combustion „Open“: Position 1"

2. Place the prescribed load of wood crosswise in the firing bowl of the combustion chamber. Both logs at the bottom are laid along the longitudinal axis between both lateral combustion air inlets.



Arrangement of logs inside the combustion chamber and placement of fire starters and small pieces of wood.

Firestarter (e.g. BRUNNER Fidibuss) and small wood chips are lit among the pieces of wood in the upper layer. Remember: The quicker the fire is lit, the lower the emissions!

Big and round wood logs are hard to ignite and burn poorly in a cold fire-place. Never use petrol, alcohol etc. as aids for starting fire!

3. Close the fireplace door and watch the starting fire for a few minutes. If the fire goes out, open the door slowly, put a new fire starter between the logs and light up again.

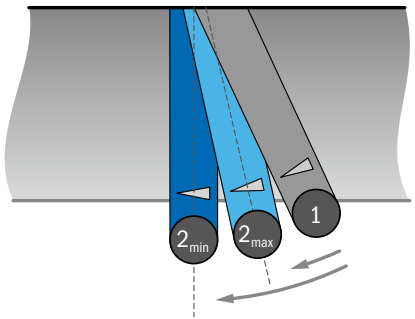
CAUTION: The door remains closed during the whole combustion process!

Perfect lighting process in the firing bowl of the com-bustion chamber with lighter and fire-starter between the top layer of wood logs.

4. In the main combustion phase, the amount of combustion air is reduced.

Flame pattern "Main combustion phase“

We recommend position 2_{max} for maximum load of wood and position 2_{min} in case of smaller loads.



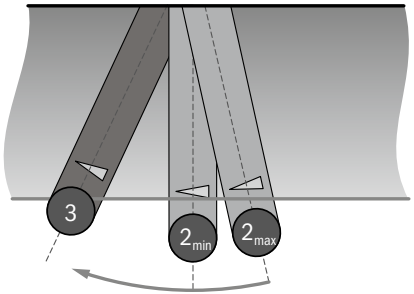
Combustion air adjusting lever „ Main burning phase“: For maximum load of wood and position 2_{min} in case of smaller loads.

5. Combustion is finished.

   The combustion is finished when only embers and no yellow or bluish flames can be seen.

Bed of embers without flames - combustion is finished

If no wood is added, the combustion air can be shut off – Position 3.

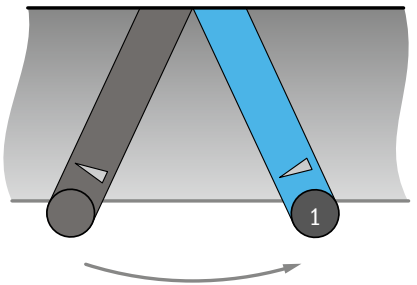


Combustion air adjusting lever „OFF“: Position 3

The combustion air must not be closed during burning (danger of deflagration)!

11.2 STOKING FIRE IN A WARM FIREPLACE

1. Set the combustion air adjusting lever to “lighting up” (Position 1 = 100 % OPEN).(Position 1 = 100 % Open)



Combustion air adjusting lever „ Open“: Position 1

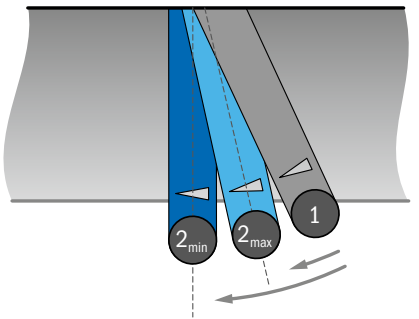
We recommend stirring the glowing embers with a poker.

Put the wood logs inside the combustion chamber. When the fireplace is warm, the loaded wood can be burned even if it reaches above the trough of firebox. The remaining hot embers will light up the wood logs at the bot-tom. The door remains closed during the whole combustion process!

2. If the wood burns with a bright flame and the main combustion phase has been reached, the amount of combustion air is reduced.

Flame pattern "Main combustion phase“

3. We recommend position 2_{max} for maximum load of wood and position 2_{min} in case of smaller loads.



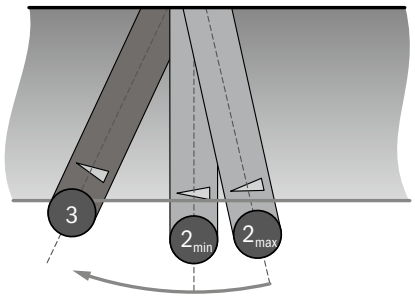
Combustion air adjusting lever "Main combustion phase“: For maximum load of wood and position 2_{max} in case of smaller loads. 2_{min}.

4. Combustion is finished

The combustion is finished when only embers and no yellow or bluish flames can be seen.

Bed of embers without flames - combustion is finished

5. If no wood is added, the combustion air can be shut off – Position 3.



Combustion air adjusting lever „OFF“: Position 3

The combustion air must not be closed during burning (danger of deflagration)!

12 CLEANING

⚠ Only carry out cleaning and maintenance work when the fireplace is cold - risk of burns!

Cleaning the fireplace

We recommend coordinating cleaning work in the fireplace and on components through which hot gas flows with your contractual partner/specialist company (e.g. maintenance contract).

Ash deposits in the flue pipe and reheating surface should be removed annually (e.g. ash vacuum cleaner). The cleaning openings pro- vided can be reached via inspection elements in the chimney shell.

The flue pipe and chimney must be checked for dirt, deposits, moisture and blockages after long periods of non-use.

Cleaning the glass ceramic pane - combustion chamber side

Chimney vacuum, wood moisture, amount of wood and operation are the main factors influencing clean viewing panels. Fogging of the pane surface cannot be avoided in the long term, despite the design of the pane flushing system. Two- or three-sided glass designs (corner, panorama fireplaces) must be cleaned more frequently due to the flow pattern in the corner areas.

We recommend cleaning glass ceramic panes with a commercially available glass cleaner (e.g. glass cook- top cleaner) or fireplace panel cleaner.

Heavily soiled viewing panels can be cleaned with a mixture of ash and water, for example. To do this, dip a wet paper towel into the fine, sand-free wood ash in the oven. Stubborn dirt can be removed with circular movements using the ash paste. Wipe off this film of dirt with a damp paper towel and then with a dry one.

⚠ Never use abrasive cleaners or aggressive cleaning agents!

Do not brush off or otherwise mechanically clean sealing cords!

Protect sealing cords from moisture while cleaning the windshield.

The service life of the sealing cords is significantly reduced if liquids or cleaning agents are absorbed by the sealing cords. This can cause them to harden.

Hardening of the sealing cords can lead to glass breakage! Replace in good time.

Damage to sealing cords caused by improper operation/cleaning is not covered by any warranty claims. Ob- serve the safety instructions for handling ash and embers.

"Click-clack" cleaning lock

The "click-clack" cleaning lock is installed on flat and corner lifting doors.

The flat doors can be tilted forwards when closed, the corner formats can be opened sideways as a revolving door.

Flat and /tunnel formats:

- Close the door completely and remove the plug-in handle (risk of window breakage).
- Lift the safety latch in front of the "click-clack" lock.
- Press the "click-clack" lock (see illustration). The door tilts forward.

"click-clack" locking mechanism for lifting doors

Hold the opening pane and allow it to tilt slowly as far as it will go. In the end position, the door is secured against being pushed up unintentionally.

After cleaning, you can close the door again with a gentle swing. It is important that the lock engages fully and that the safety latch falls in front of the "click-clack" lock.

Tip: Push the door slightly upwards (approx. 5 mm) to close it. This will allow the door to close with less force. Check that the door is firmly seated in the lock.

Corner formats:

On lifting doors in corner format, the "click-clack" cleaning lock is located on the side next to the short door leg. After pressing the opener, the door can be opened like a side - opening door.

"click-clack" locking mechanism on the side of corner versions

Cleaning the coated glass ceramic (GKB)

Coated panes are used to reduce heat radiation in the area of the firebox opening. This may be necessary if flammable components (e.g. furniture, doors, windows) are placed too close. The heat-reflecting coating is located on the outside of the glass ceramic. Doors are marked accordingly on delivery.

Only clean the coated exterior with a soft cloth and commercially available window glass cleaner. Do not use scouring pads or abrasive cleaners, as these will damage the glass ceramic surface.

Removing ash

Ideally, the ash bed should be 3-4 cm thick. An ash bed prolongs the ember retention. Therefore, do not empty the stove completely, but only remove the "excess" of ash when cold using a metal dustpan or an ash vacuum cleaner. The ash/ ember bed should not block the side combustion air openings or reach up to the door frame or lower edge of the firebox opening. If the embers are too high, sealing cords can be thermally damaged.

Removing the baffles

To remove fly ash from the baffle plates of the afterburner chamber, they can simply be removed. The proce- dure is described in chapter 12. We recommend cleaning the afterburner chamber once a year.

13 CLEANING OF CATALYTIC CONVERTER (OPTIONAL)

A coat of dry, powder-like deposits will build up with time on the inflow side of the catalytic converter modules. Such deposits will more and more block the openings of catalytic converter inserts; they lead to their lowered performance and have a negative impact on the evacuation of combustion gases. In extreme cases, the combustion gases cannot be led away sufficiently and there is a risk that smoke will be released into the room – risk of poisoning!

Deposits at the bottom of catalytic converter inserts must be cleaned on a regular basis. We recommend cleaning after every 80 - 100 hours of operation. The contamination levels and the required cleaning intervals depend on the operating conditions (hours of operation, quality of wood, negative pressure inside the chimney etc.).

The catalytic converter does not have to be removed for cleaning. Cleaning of upstream/bottom side using a brush attachment of a vacuum cleaner is sufficient.

Catalytic converter cleaning must be performed in a cold fireplace.

1. Removal of deflector plates

Deflector plates are installed above the combustion chamber and can be removed without any tools through the open fireplace door. Remove the ash deposits from deflector plates with a vacuum cleaner.

The lower deflector consists of two plates which are placed close to each other. For removal, one of the plates is pushed above the second plate a little. Then it can be lowered and removed sideways (see picture).

Removal of lower deflector plates

Lift the upper deflector plate at the rear and move the inclined plate all the way up through the air channel. Then it can be lowered at the front and removed (see picture).

Removal of upper deflector plate

2. Catalytic converter cleaning

We recommend cleaning with a vacuum/ash cleaner with brush attachment. Doing so, it is possible to remove and evacuate the adhering particles sufficiently.

Cleaning of catalytic converters using a vacuum cleaner with brush attachment

Another option is to remove the complete catalytic converter using a tool which is attached in delivery contents.

Removal for flat-, corner- and tunnel-formats

The catalytic converter is held by a bayonet catch inside the mounting ring. The tool is attached at the centre and the complete catalytic converter unit is turned clockwise. Now remove the catalytic converter unit from the mounting ring. Parts of this assembly are pushed through the air channel, then lowered at the front and removed (see picture).

Loosening and removing the catalytic converter unit with the accessory tool

The catalytic converter unit can be cleaned with compressed air (out-

doors) or using a vacuum cleaner with brush attachment.

The catalytic converter inserts are placed in their mounting frames. Pay attention to avoid damage of the inserts during cleaning.

CAUTION: The catalytic converter unit can be cleaned only in dry condition. Using liquids, cleaning agents or dish washer will cause irreversible damages of the catalytic converter coating.

Removal for panormal-formats

The cleaning of the catalytic converter for panorama-formats is identical, only the shape of it (two separate, rectangular units) differs compared to the other BKH formats. To clean, first remove the right-hand unit and then the left-hand unit.

Removing the catalytic converter units for panorama formats

3. Mounting of deflector plates

When the catalytic converter was removed for cleaning, it has to be installed again in the mounting ring using the attached tool. The complete assembly is finally secured by turning in counter-clockwise direction.

The deflector plates are installed in reversed order. The correct position is indicated by the protruding guides on the mounting supports.

Deflector plates are significant parts of combustion chamber.

If they are not installed, the “green” emissions standard is not reached and the catalytic converter will incur irreversible damage by direct contact with flames.

14 NOTE

In case of damage to the fireplace or other parts of the system, please contact your stove fitter immediately. In case of severe damage of door sealing ropes - do not use the fireplace.

To ensure safe operation of the system, remember to use only genuine replacement parts.

Modifications on devices can be made only by persons with manufacturer's authorization.

The warranty expires if the device has not been used as intended. Intended use includes reading and following the instructions of this User Guide.

Note on Door Closing:

The lifting door is equipped with a self-closing function. This function pulls the door into its end position but does not create a completely tight seal. To ensure full all-around tightness, the sliding door must be lightly pressed by hand after self-closing until a tight fit is achieved. This applies to all models of the BKH series (Panorama, Flat, Tunnel, and Corner). Only manual pressing of the door ensures complete sealing in the front area.

15 TROUBLESHOOTING

Problem	Cause	Solution
Smoke is coming out into the room	The combustion air lever is closed (position 3).	Set the combustion air lever in '**fire starting**' position 1.
	Unfavorable weather conditions; insufficient chimney draft.	Call your chimney sweep.
	A room ventilator (e.g. extractor hood) or mechanical ventilation system is causing negative pressure in the room, which is stronger than the chimney draft.	Turn off the room ventilator or mechanical ventilation system. Install a negative pressure monitoring device (e.g. Brunner USA).
	Combustion air supply is blocked.	Call your fireplace contractor.
	The smoke pipe connecting piece between fireplace insert and chimney is blocked.	Please clean the smoke pipe connecting piece (this is usually not a chimney sweep's job).
	The chimney is filthy, closed or blocked.	Call your chimney sweep.
	Unsuitable fuel	Wood is damp or too big pieces of firewood are used. Please use the recommended fuel as indicated in these instructions.
	Catalyst converter is added	Cleaning the catalyst surface (see Chapter 12)
Unusual smell	Deposits of dust	Heat up the stove strongly. Provide for ventilation.

Problem	Cause	Solution
Glass panes are often dirty	Unsuitable fuel.	Wood is damp or too big pieces of firewood are used. Please use the recommended fuel as indicated in these instructions.
	Insufficient combustion air supply.	Set the combustion air lever in position 1 or position 2. Check the combustion air supply and smoke outlet. Call your fire-place contractor, if possible.
	Insufficient chimney draft.	Call your chimney sweep.
Condensate build-up	Too damp wood is being used.	Please use the recommended fuel as indicated in these instructions.
	Insufficient combustion air supply	Set the combustion air lever in position 1 or position 2. Check the combustion air supply and smoke outlet. Call your fire-place contractor, if possible.

16 DISPOSAL

Fireplace inserts contain valuable materials that must be recycled. Observe the applicable national legal regulations for disposal.

Danger of electrocution

Electrical connections of the fireplace insert are under mains voltage. This can lead to electric shock

Switch off the power supply

Secure the power supply against being switched on again

- Old metal parts can be disposed of as metal recycling.
- Electrical and electronic components must be disposed of as electronic waste. Fireclay linings can be disposed of as rubble.
- Fireclay linings can be disposed of as rubble.
- Dispose of insulating and insulating materials of the heating or fireplace insert in a closed container on a suitable waste disposal site.
- Do not put the glass ceramic discs in the waste glass collection container! The glass panes can be disposed of as normal household waste.

Recycling of catalytic converters containing precious metals

Oxidative catalytic converters, as installed in modern wood stoves, are very effective at reducing emissions of carbon monoxide and hydrocarbons. This is possible, because precious metals like platinum, palladium and rhodium are used on the surface of catalytic converters. These precious metals are distributed very evenly in very small amounts on the surface of catalytic converters. Over the years, the abrasive effect of particles streaming through the catalytic converter will cause the partial diminishing of the coating containing precious metals. Continuous overheating of catalytic converters (T > 700° C) will damage the coating. In certain cases, the catalytic converter should be replaced and a new converter must be in-stalled to ensure the catalytic effect.

Used catalytic converters are suitable for re-use. Even if they are broken or damaged, they are suitable for recycling.

Contained precious metals can be recovered by thermal or chemical separation techniques to almost 90 %, and then used again in the manufacturing process.

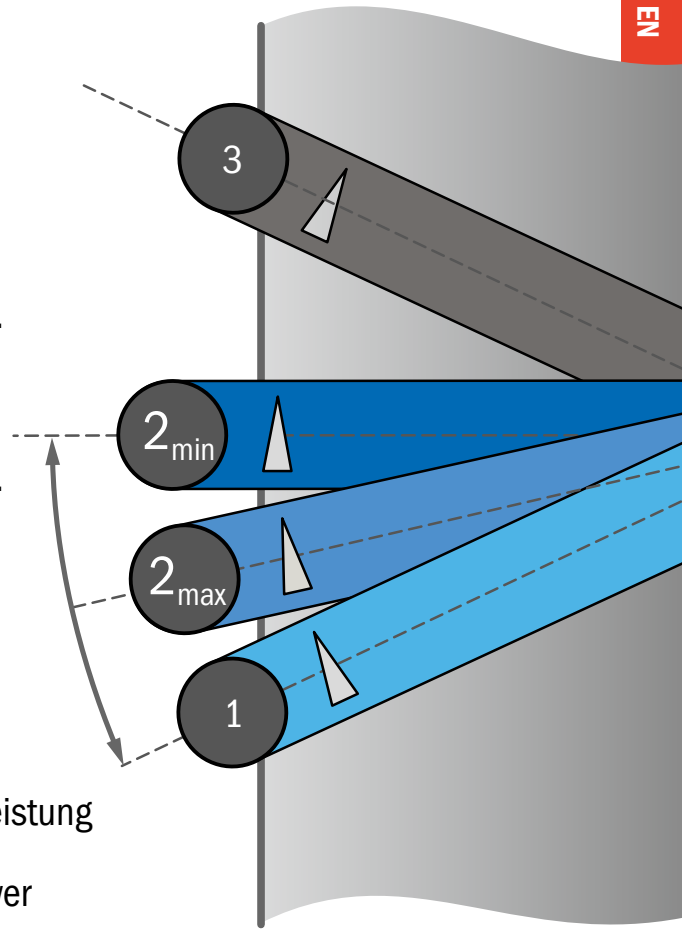
Please send the used catalytic converter to a recycling station.

Thank you very much for your efforts in supporting the protection of environment and sustainable use of resources.

3. Gluthaltung
   Glow position

2. Hauptabbrand
   für min. und max.
   Füllmenge
   Main combustion
   phase
   for min. and max.
   filling quantity

1. Anheizen
   max. Feuerungsleistung
   Lighting up
   max. heating power



Schablone "Verbrennungslufteinstellung"zum Anlegen an der Bedienseite des Heizkamins

"Combustion air setting" template for placing on the operating side of the fireplace