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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. The quality seal "Made in Germany" is not an advertising term for us, but a binding promise.

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

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 manufactures have worked hard to make heating with our products as comfortable and environmentally 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. Succesful 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 lifetime.

Hubertus Brunner

NOTES ON THE CERAMIC GLASS PANE

BRUNNER uses only high quality glass ceramic.

The glass panes are ceramicised in a special manufacturing process 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.

SAFETY PREAUCTIONS

Heat radiation area

Do not bring any flammable objects into the radiation area of the viewing pane up to a distance of 80 cm respectively 100 cm for DF 33 and HKD 12 (measured from the glass pane)! Risk of fire! Do not leave any flammable materials in front of the fireplace/glass pane.

Initial operation

The coat of paint of the stove is not completely hardened before reaching normal operating temperature for the first time. Smoke emissions and unpleasent 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.

Fireplace 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. Remember to remove only cold ashes from 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 substances as 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 fireplace door a message must be displayed, informing that the combustion has been started (see User Manual of the control system)! 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 "Manual adjusting of combustion air in the case of emergency" of the User Manual for the control system.

Tunnelvarianten

If tunnel variants are installed as room dividers, you may only open one firing door at a time, otherwise unfavourable pressure conditions may result in cross-flow with flue gas escaping.

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

BASIC RULES FOR OPERATIONS

Proper operation or use

BRUNNER tiled stove 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 depends on correct assembly, proper operation and regular care and maintenance.

The fireplace doors should be opened only for loading firewood or cleaning. BRUNNER heaters are designed and optimized for closed operation. When the fireplace door is open, other fireplaces connected to the same chimney might be impaired. Under certain circumstances this could lead to a risk of flue gas poisoning. The fireplace door must always stay closed, even if the fire is not burning.

BRUNNER stoves and fireplaces are designed for periodic burning. It means that always a minimal amount of firewood must 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 fire-place is overheated, discoloration can occur, especially in the variants with a stainless steel panel. This discolora-tion does not constitute a reason for complaint.

Stocking 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

Damper flap adjustment

If an optional damper flap[2] 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.

2 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

Combustion air supply

Proper functioning of a fireplace depends on the volume of combustion air streaming into the room. Sufficient air supply must be ensured before fire is lit. If an outside air flap is installed, it must be opened and must be left open as long 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 pre-requisites 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 are no reason for concern.

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

During operation, hairline cracks may occur due to alternating thermal stress and mechanical shocks during re-laying. This is a material property, harmless and not a reason for complaint. What is not normal, are chips of stone falling off, or noticeable, star-shaped 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 process and does not constitute a reason for reclamation.

If the following points are taken into account, the black colour of the surface 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 uses exclusively high-quality door sealing ropes, which are exactly adapted to the requirements of our heating inserts.

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 burning particles (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 glass, where it could burn in contact with the glass. The resulting thermal stress could lead to permanent discolorations (grey stains) on the glass.

FUEL AND HEATING POWER

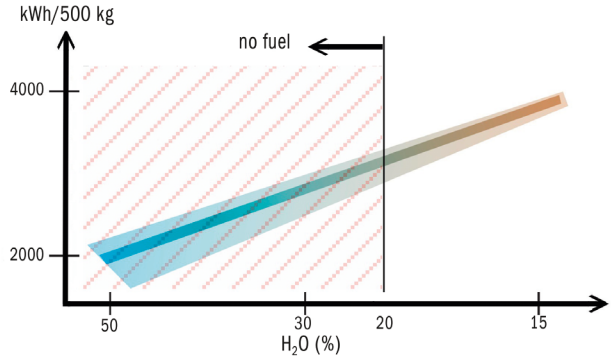
The combustion process in our devices has been optimized to enhance their performance and reduce emissions. You can support our efforts to protect our environment by respecting the following recommendations for low-emission heating: Use only dry, natural wood with a residual humidity factor below 20 %, 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.

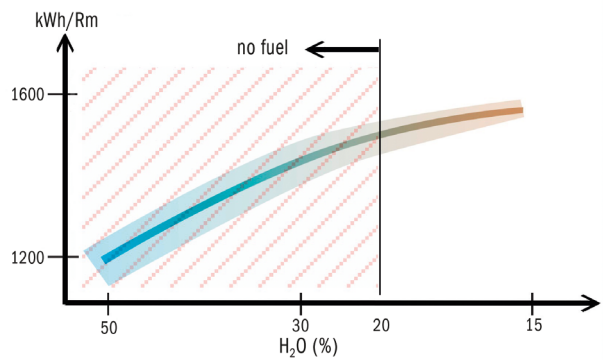
	Water content g/kg wood	Calorific value kWh/kg	Consumption -raised by %
very dry	100	4,5	0
2 years stored	200	4,0	15
1 year stored	350	3,0	71
Freshly cut wood	500	2,1	153

Natural firewood (left) is he best fuel for fireplaces, but you can also use wood-briquettes according to DIN EN ISO 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 = 1m³)

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

cubic meter, 1 m³ layered wood

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

Most suitable for use in open fireplaces are all types of hardwood, like beech or birch. Softwood species (coni-fers) 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 stroking 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 Manual. Unsuitable, not recommended fuels are not allowed to be burned in a fireplace.

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

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DF 33 with niche panel-cladding 01
Storage stove with adjacent heat storage mass
and plinth frame (basic element)
Tiles: Seyffarth

COMPONENTS DF

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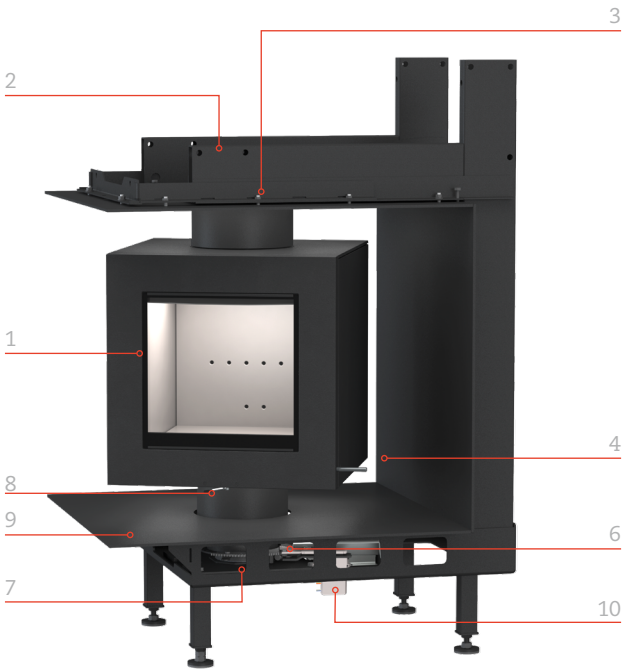
DF 33



1 DF Standard 2 Niche support 3 Flue gas outlet 4 door handle/twist handle 5 Remote control (optional) 6 motorized drive (optional) 7 Air supply 8 Combustion air adjusting lever 9 Niche cladding 10 EOS/EAS-actuator (optional) without illustration: On-wall box with board(optional)

TURNING THE DF

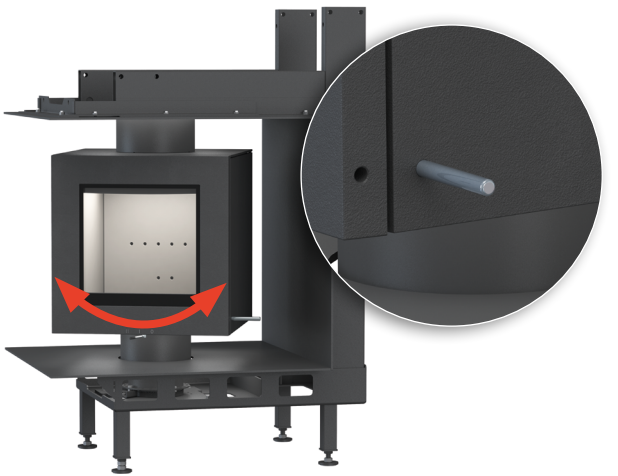
FIRE HAZARD!

The DF must not be turned into a position where combustible materials are located or standing in the radiation range of 100 cm in front of the viewing window!

Note: During operation of the DF, running noises may occur during the rotary motion or moving components or seals may show signs of wear. Depending on the degree of use, it may be necessary to replace the parts. Please contact your specialist company for this.

Turning with manual operation

To turn the DF by hand, insert the door handle/rotating handle into the rear position. Now the DF can be rotated by 200°.



Turning with motor drive

The operation is performed with the remote control. It is not possible to operate the motor drive directly on the DF.

Press ▲ to turn the DF to the right:

Press ▼ to turn the DF to the left:

When pressing ▲▲ or ▼▼ the DF rotates to the right or left as far as it will go.

If you would like to interrupt this movement, press any key.

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LIGHTING FIRE IN A COLD FIREPLACE

1. Check whether the ash bed is not too high. Maximum height 3 - 5 cm below the door edge. If the ash bed is too high, there is a risk of embers falling out when adding more.
2. Bring the combustion air control element to the heating position. The combustion air can flow powerfully onto the wood to achieve rapid heating.
3. Place split logs loosely in the combustion chamber. Place a lighter between the logs, e.g. B. Fidibus, place and light. Lighters are practical tools that are only lit under or in front of the logs. Please note: large logs of wood degas and ignite poorly in a cold oven. Never use substances such as gasoline, spirits or similar to ignite!

Arrangement of lighters, kindling sticks and logs for heating from above

Flame image “main combustion phase”

4. Close the fire door and observe the fireplace or fireplace heater for the first few minutes. If the fire goes out, slowly open the fire door, place a new lighter between the logs and light it.
5. After heating up successfully, you can move the combustion air control element to the nominal heating output position if desired.
6. If you do not want to add any more filling quantity, turn on the combustion air control element at the end of the combustion, i.e. H. When no flames can be seen anymore, switch to embers position. You must not set this position during the combustion and degassing phase, as in this position the combustion air is completely shut off. If there is a sudden inflow of oxygen (e.g. opening the furnace door), “standing gases” in the combustion chamber and any additional heating surfaces can suddenly react with the incoming atmospheric oxygen (deflagration).

Ember bed without flames - burning finished

“Reload” on the bed of embers

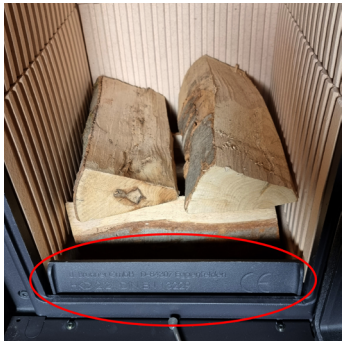
STOKING UP IN A WARM FIREPLACE

1. Move the combustion air control element to the heating position and place the desired filling quantity on the base embers. When the fuel is placed on the bed of embers, the fuel is heated and the moisture it contains is expelled and evaporated. This leads to a drop in temperature in the combustion chamber. The volatile fuel components that are expelled at the same time require sufficient combustion air so that this phase, which is critical in terms of emissions, can be passed through quickly and the temperature necessary for clean combustion is reached.
2. If the fire is burning with a bright flame, you can move the combustion air control element to the rated heating output position if desired.
3. If you do not want to add any more filling quantity, turn on the combustion air control element at the end of the combustion, i.e. H. When no flames can be seen anymore, switch to embers position. You must not set this position during the combustion and degassing phase, as in this position the combustion air is completely shut off. If there is a sudden influx of oxygen (e.g. opening the furnace door), “standing gases” in the combustion chamber and any additional heating surfaces can suddenly react with the incoming atmospheric oxygen (deflagration).

Another tip: Always use smaller logs for the first laying. These burn faster and bring the firebox up to temperature. Use the slightly thicker logs for topping up. Some types of wood briquettes swell in the firebox, i.e. H. They expand under the influence of heat and increase their volume. Always place the fuel close to the rear wall so that no fuel parts come into contact with the pane even if they slip.

Additional information for HKD 2.2 / 2.2 XL / 2.2k:
The text angle in the lower door web area is designed to be removable so that service work can be carried out on the combustion air mechanism. The cast element must not be moved or removed during operation. In the intended position, the component lies flat on the opening (see illustrations).

⚠ If the text angle is incorrectly inserted or missing, combustion air flows uncontrolled into the combustion chamber and ash can block the combustion air duct. As a result, the viewing window becomes excessively dirty!


wrong text angle


correctly used text angle

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