

# BeF Home

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**INSTALLATION AND SERVICE INSTRUCTIONS**

hot air stoves







*Before emptying of ash make sure, that there are no cinders in it.  
Even with cold ash it is possible to find embers which can cause a fire in an ash bin.*



#### Cleaning and maintenance:

You should clean your stove at least twice per heating season or if needed. Clean it when it is cold. The most important for cleaning are tubes of exchanger and smoke flue bend. For cleaning, you need to remove deflectors – see below and brush properly all tubes with brush of Ø70mm. Remove covering of the bend and clean the smoke flue. The best way how to clean the glass is to use a special cleaner for glass (do not use any cleaners with an abrasive action, they can cause scratches on glass!).

**Warning! Cleaners contain aggressive substances – prevent any contact of cleaner with door, seal and frame.**

#### Position:

Stove can be positioned only in rooms and in places which are risk free. There must not be any electric wires in walls and in ceilings where a jacketed chimney insert is installed. In rooms where a stove is situated there must be sufficient fresh-air inlet for combustion. The base where the stove is situated must be made and must be large enough to allow the firebox work correctly.



#### Stove must not be located:



- on stairways (except houses where a maximum of two flats are situated)
- on corridors open to the public
- in rooms, where easily combustible or explosive materials or mixtures are stored or manufactured
- in flats or areas which are aired only by means of ventilators or hot-air heaters if there isn't external air input installed on stove

#### Heating output

Bear in mind the information written in the Equipment Certificate of your stove. The heating potential of the fire depends on the nominal output. Output is applicable to rooms which correspond to the Heat Safety Protection. In rooms which are more than 200 cubic metres it is necessary to count the heat consumption.

#### Stove location and combustion air inflow:

The area must be provided with at least one door which leads into an open space, or with a window which can be open, or it must be connected with other rooms. Only rooms of the same flat or dwelling are counted. If there is not enough the room where the stove is located, must be provided with a tube:

- which leads directly into the stove and supplies minimum volume of convectional air. When the stove is connected with outer air it must be installed on the original stand which is supplied by manufacturer.
  - it is necessary to take deformation resistance into account during tubing batching, especially during curve, branch pipe or long pipe installation.
- for combustion air which leads into an open space and supplies at least 360 m<sup>3</sup>/hour of combustion air 1 m<sup>2</sup> of firebox hole. This tube must be connected directly with the stove. If other fireboxes are located in a heating interconnect ion at least 540 m<sup>3</sup> of combustion air 1 m<sup>2</sup> must be supplied into the firebox. To other fireboxes except this at least 1.6 m<sup>3</sup> of combustion air / hour and on each kW of total nominal heat output when the initial pressure difference was at least 4 Pa as compared to an open space are needed (except stoves which are located in areas that do not depend on air in a room, do not need a smoke flue or are located in areas where the operating safety of stoves cannot be endangered).
  - it is recommended that combusting air is supplied directly into the throat of the appliance
  - it is necessary to arrange tubing for combusting air in buildings with more than two floors, as stipulated by local building regulations, and tubings for combusting air which connect antifire walls, so that fire and smoke cannot spread into other floors or fire compartments.



**It is possible to use data from the technical data list when setting the dimension of combusting air flow piping**



*Ask your chimney sweep or stove builder for professional assistance.*

#### Adequate chimney:

A stove must be connected into a chimney in accordance with national technical standards and regulations. Connection must be done only with the approval of chimney sweep. The chimney must be directly connected, dry and lined with fire-bricks. If the stove should be connected to a chimney already built, it is necessary to clean the chimney and a chimney sweep must check its tightness and condition. A chimney sweep also checks if the chimney is suitable for stove connection. In case when the chimney does not exist or it is not suitable the new chimney dimensions must be according to the Equipment certificate. Low effective height limit of a stack flue is 5 m if counted from the discharge of combustion products slot. In single cases it is possible to connect even to a stack flue with less effective height than 5 m. It must be documented by a calculation of combustion products way that this height is enough for the connection. The stove must have its own chimney.

#### Chimney parameters:

*Chimney parameters in accordance with EN 13384-1 are found in the Equipment Certificate*

#### The floors in front of the stove:

A floor made of combustible material in front of the stove must be protected by an adequate non-combustible material layer. Dimensions of this non-combustible area must be at least: 800mm in the sideways direction of the opening side and 400mm to the front in the direction of the opening side.

### The chimney connection:

If the existing chimney is not provided with a suitable connecting fitting for the stove, it is necessary to make an additional connection. The chimney connection height is arrived at the properly situated stove and an attached smoke flue elbow and a connecting fitting – measured from the top edge of the support plate to the centre of the connecting fitting in the entrance of the connecting area. Gaps for the surround, insulation, expansion joint, etc. must be taken into account.

### Stove connection:

After the initial prepares the stove can be connected by the connecting pieces to the chimney. The stove is connected with the help of the smoke flue made of sheet metal with the max. length of 1.5 m. The smoke flue must be provided with the safety pin to protect it against sliding. When the connecting piece goes through parts with combustion materials (e.g. protective walls), it is necessary to keep instructions in compliance with national technical standards and regulations.



**It is not allowed to put any other attachment which is not approved by the manufacturer into the chimney connection. There must be a safety pin on the smoke flue bellmouth to prevent slippage or turning out!**



### External combustion air income

Hot air stoves are adjusted for direct connection for external combustion air inflow. Bellmouth of diameter of 120mm for external combustion air connection is ending on the back side (or bottom side) of the stove. Inflow for outdoor air connection for combustion in a stove must be as short as possible and must have few bends. For air inflow within the distance of 1.5 m with one bend (max. 90°) it is possible to use a pipe of diameter 100-125 mm. For air inflow within the distance of 3 m with one or two bends (total disjunction of angles 135°) it is possible to use a pipe of diameter 125-150 mm. When longer distance and more bends, it is necessary to take into account air resistance caused by friction of tube walls.

### Fuel

Stoves can be operated only with the following fuel:  
dry wooden logs



**ONLY DRY WOOD LIBERATES LITTLE HARMFUL POLLUTANTS DURING BURNING!!!  
A stove is not suitable for waste burning!!!**



### Combustion air input

It is necessary to supply a sufficient amount of external air into the room when using the fire. The steps for combustion air input cannot be changed and combustion air inputs must be open during the working operation of the firebox.

### Fire protection in a heat radiation area

A minimum distance of 80 cm forwards and sideways must be retained in front of the firebox hole - (furniture, carpets, plants etc.)

### Protection against injuries:

Do not forget that heaters have hot surfaces, for example handles. Use the enclosed protective glove when working with the fire. You could be in a heat radiation area (80 cm) only during mending, and if there is further contact, the skin can be burnt. **Keep the stove out of the reach of children.**



### Application and activation:



#### Acceptable fuel, economical and ecological operation:

The stove is designed to use wood as fuel. The water content is max. 20% of dry weight. Logs should be stored in a dry and well ventilated place for two years. Using excessively wet logs leads to smoke with a tar condensation which could damage the chimney. In any case there is excessive environmental pollution. Logs should be around 30 cm long.

Wood is a very gaseous fuel and needs a lot of secondary air. Regulation with the help of slow or permanent burning is not possible with this kind of fuel. Heating output during wood burning is determined by the amount of the fuel used.

The most ecological and economical is dry wood burning because the heating quality of fresh wood is lower than that of dry wood.

As for burning waste, it must be stressed that burning material such as plastic material, cardboard, painted wood, etc. are harmful for your stove and furthermore is prohibited by the Emission Act. It is allowed to use firelighters, paper and small wood for lighting a fire only.



**Do not use combustible liquid, e.g. petrol, alcohol for lighting a fire and do not store similar kinds of liquid near your stove!**



### The first lighting:

The stove should start with a small fire at first, so as not to harm it by very fast temperature rise. Smoke and the smell of burning which may appear during the first lighting of a fire is a result of coating thermal curing. The room should be well aired during first heating.

**Before the first use, check if all removable parts of the stove (Carcon, deflector, grate and ash tray) are in the right position – in accordance with the Equipment Certificate.**

### Lighting a fire:

Stoking a stove is operated through a firebox door. At first bank up the fire with 2 medium large logs on the bottom of the firebox, then put wooden splinters on top of them across (1.5 kg of wood). Then add some paper, paperboard or firelighter, then wood chips and finally small pieces of wood. Set on fire and open all air inflows at maximum (open fully air input or keep the front door little bit open). When the fire is burning well, close the door and regulate required output. When wood is white-hot, burning down, stoke fuel again when there is high heat inside.



**The optimum amount of fuel is recommended in the Equipment Certificate.**

**Due to overloading of the stove, nonreturnable changes will occur!**



**We can provide a guaranty for our products only when the stove is not overloaded and service instructions are kept!**

#### carcon:

- Carcon parts need to be heated up very slowly. Big temperature changes can cause cracking of the carcon parts. The broken carcon however do not affect the function of the stove
- It is important to keep the recommended fuel flow and use dry wood only (max 20% of humidity). In other case fire-bricks are overloaded, the amount of ash is bigger and the wood is not fully burnt.

#### Most common defects:

- Grate deflection or any other part – indication of the stove overloading
- Deflection of exchangeable parts – indication of stove overloading
- Crack in the carcon – isn't a fault of material, indication of bad use
- Bubbles in the glass – up to 5 mm it is not an aesthetic or a functional defekt

**The stove is overloaded when the big amount of fuel is added.  
The recommended one-hour fuel flow is written in the Equipment certificate.**

### Setting of air inlet during hands-off operation:

kamna mají regulaci přívodu vzduchu v boční části kamen. Touto regulací regulujete přívod spalovacího vzduchu do primární komory, přívod spalovacího vzduchu do sekundárního kanálu i čistící vzduch předního skla. Poměry množství vzduchu v jednotlivých kanálech se regulují automaticky. Pro dlouhodobý provoz je možné téměř uzavřít regulaci.

Hot air stoves are provided with the air control on the side of their jacket. With the help of this regulation you can regulate combustion air input (primary air) and also the glass flushing. The proportion of the air amount in each intake is regulated automatically. There is a possibility of nearly closing the regulation for long term operation.

### Adding the fuel:

Apart from using the suitable fuel and having an adequate chimney draught, the clearness of the glass front is influenced by the way the stove is used. It is recommended to add only one layer of fuel on the hot basis. About 5 - 10 seconds before you open the firebox door you should close the controller o combustional air (engaged position – closed, disengaged position – open), to prevent smoke leakage from the firebox to the room. After adding fuel close the firebox door again. Then open all the the controller o combustional air to reduce the rate of fuel burning. When fuel burns, change the regulating again as above.



**WARNING: DO NOT CLOSE INTENSELY AND AFTER THAT DO NOT OPEN INTENSELY EXTERNAL AIR INPUT, THERE IS A POSSIBILITY OF EXPLOSION OF ACCUMULATED UNBURNT GASES!**



Add only one fuel layer into the firebox so it doesn't overhang its front part. Add only the recommended amount of fuel. The stove must not run with any other kind of fuel than stated by producer.

### Ash removal:

At least once a day it is necessary to remove ash, with the help of a clinking bar, from the bottom part of the stove. The best time is in the morning because of the relatively cold state of the stove. It is possible to put wooden ash on compost or to use it as manure. Stoves without grate: the layer of ash mustn't reach the edge of the door. If the stove is covered with a layer of ash, there is a risk of falling embers from the furnace.