

Installation and operation manual solid fuel fireplace insert

GB

ALICANTE, VALENCIA, ALMERIA
tested according to the standard EN 13229

1. Installation manual

1.1 General

Fireplace insert for solid fuel is a single-shaft heating device which replaces the existing heating for short periods between seasons or supports it in the cold seasons. Fireplace insert is designed for local heating. Fireplace insert can be installed in a normal environment. This fireplace insert has been tested according to the standard EN 13229 with fuels: wood and brown-coal briquettes. This fireplace insert met the requirements of this standard.

All local regulations, including regulations relating to national and European standards have to be followed when installing the fireplace insert.

Before mounting the fireplace insert, you have to inform the competent master chimney sweep who will inspect as expert the proper connection of fireplace insert to the chimney. Fireplace insert must be installed on floorings that have corresponding loading capacity. By installation, it is necessary to ensure sufficient space for cleaning of fire insert, flue and chimney. The fire insert must be closed during operation, but also when not in operation, because otherwise it might significantly affect other devices connected to the chimney.

Combustion chamber is enclosed by sheet metal plate filled from inside with vermiculites. In the bottom part of the combustion chamber, there is the bed with cast-iron grate. There is an ash box under the grate. Stokers door are sealed with gasket. The door may be opened only to add fuel. The stokers door are paned with highly heat-resistant glass-ceramic.

The smallest size of the front opening in the lining of fireplace insert is: width 600 mm and height 750 mm. Surface temperatures of the lining can reach, depending on thermal resistance coefficient of the used construction material and its thickness, within the range between 30 and 80°C.

NOTE: when claiming or ordering spare parts always quote the name, type and serial number given on the data card.

1.2 Specifications

Nominal capacity:	8,0 kW
Nominal heating capacity efficiency:	wood = 82,3 %, lignite briquettes = 70,5 %
Operating chimney draft:	10 Pa
Height with legs	825 mm
Width	ALICANTE=588 mm, VALENCIA=590 mm, ALMERIA=600 mm
Depth	ALICANTE=392 mm, VALENCIA=423 mm, ALMERIA=385 mm
Draught shaft diameter:	Ø150 mm
Weight	ALICANTE=61 kg, VALENCIA=65 kg, ALMERIA=72 kg
Recommended fuel:	
- dry hard wood - approximate heating value	15 MJ.kg ⁻¹
- lignite briquettes - approximate heating capacity	20 ÷ 23 MJkg ⁻¹
Approximate consumption of recommended fuel at nominal capacity:	
- wood:	2.2 kg.hod. ⁻¹
- lignite briquettes:	1.7 kg.hod. ⁻¹
Heating capacity:	
- favourable type of construction:	190 m ³
- less favourable type of construction:	145 m ³
- unfavourable type of construction:	98 m ³
Applicable standards:	EN 13229

1.3 Connection to the chimney

At installation comply with all corresponding project, safety and hygienic regulations.

Data to calculate the chimney (at the nominal thermal power):

Fuel	Brown-coal briquettes	Wood
Flue gas flow [g/s]	10,0	6,1
Max. flue gas temperature behind exhaust throat [°C]	377	312
Min. blast draught at nominal thermal power [Pa]	10	10

The fireplace insert can be used to connect a multi-occupied chimney, which means that to the chimney with the fire insert connected, we can connect more devices.

Before connecting the fireplace insert, make sure there is sufficient blast in the chimney. Flame of a burning paper or candle should be sucked into the chimney opening. The fireplace insert should be attached to the chimney flue in the shortest direction.

The fireplace insert should be attached to the chimney flue always with the consent of competent chimney sweeper office in compliance with STN 73 4210 and STN 73 4201.

If the fireplace insert cannot be attached to the chimney flue directly, the flue involved should be the shortest possible and ascend towards the chimney. Flues can be of maximum 1,5 m length. In any case, it is necessary to ensure smoke tubes and bends, mounted on exhaust throat, against getting loose by a pin. Smoke tubes and bends must be attached firm and tight to the fireplace insert and plugged into each other by minimum 40 mm length in the direction of chimney blast. The chimney opening must be fitted with a sheet metal case with a diameter corresponding to the diameter of used smoke tubes.

Correct and incorrect connection of fireplace insert to the chimney is displayed in Figure 1.

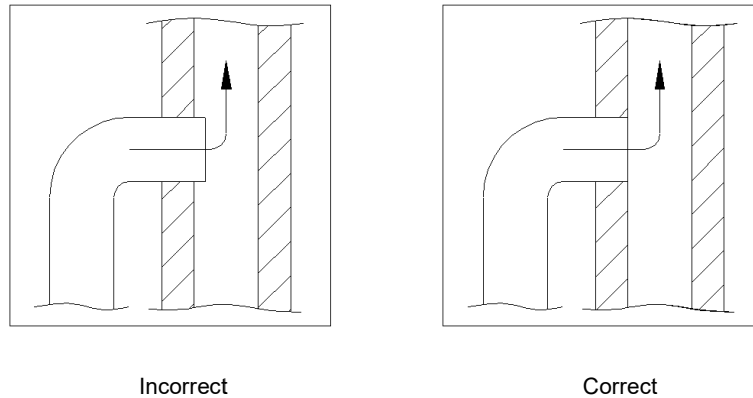


Figure 1

To ensure a failure-free operation, the chimney blast must be kept at 10 Pa (measured inside of smoke tube behind the fireplace insert). As the chimney blast can be affected by changeable factors, as the outside air temperature, combustion temperature, chimney lining, wind power, etc., it varies during the year. Therefore it is recommended to install a damper inside of the chimney.

The fireplace insert can reach the specified performance and efficiency as long as it is connected to a chimney with sufficient blast draught. The chimney's cross section must be 150x150 mm, and minimum height 5 meters.

1.4 Space venting

The fireplace insert operation requires sufficient space venting, meaning incoming flow of outside air into the space where the fireplace insert is operated. That can be done through an open window or open external door. However, it is safer, if together with the installation of fireplace insert a special opening is made in the external wall, in the area where fireplace insert is mounted, in order to ensure sufficient incoming air flow for combustion. Adjustable ventilation grille, opened and closed from inside, should be embedded in the opening. The fireplace insert needs for wood combustion up to 20 m³ of fresh air per hour.

Insufficient air flow runs counter to proper operation of fireplace inserts and is a threat to your safety!

Let the installation of your fireplace insert, its connection to chimney and venting be tested by a competent chimney sweep in your area!

1.5 Fire safety

It is obligatory to strictly adhere to the rules of fire safety covered by STN 92 0300.

In case of nearby flammable building material or objects with combustibility degree B, C1 and C2 according to STN 73 0823, place the fireplace insert with appropriate flue at safe distance which is at minimum 400 mm from these objects.

Safe distance should be doubled if the fireplace insert with flue was standing close to material with the combustibility degree C3. The same applies if the degree of combustibility for the material cannot be proved.

Safe distance can be decreased to half in case of using a nonflammable, heat-insulating shading board, min. 5 mm thick, placed in such a way there is 25 mm gap left between the board and the protected flammable object.

If the flooring is made of flammable material, place the fireplace insert on nonflammable, heat-insulating pad with dimensions exceeding the contour of fireplace insert by 300 mm in the front and by 100 mm on all other sides. The smallest dimensions of the pad and the location method are displayed in Figure 2. Shading board placed on the protected object must exceed the contour of fireplace insert, including the smoke tubes, by at least 150 mm on each side and at least 300 mm above the upper area.

In case of fire in chimney follow the fire safety rules.

Safe distance between the outer skin of fireplace insert (on sides and behind) and the internal wall of backing must be at least 10 cm.

Minimum dimensions of air intake of interior air are 20x20 cm.

Minimum dimensions of exhaust outlet of heated air are double the size of air intake.

The fireplace insert lining must be of fireproof material.

2. Operation manual

2.1 Important safety instructions

In case of conditions leading to danger of temporarily present flammable gases or when there is a danger of fire or explosion (e.g. bonding of floor coverings), the fireplace insert must be shut off before the danger arises.

The fireplace insert must be operated according to this manual. It can be only operated by adult persons; it is unacceptable to leave children close to the fireplace insert in operation.

No flammable liquids can be used to heat up.

IT IS FORBIDDEN TO INCREASE THE NOMINAL THERMAL POWER OF THE FIREPLACE INSERT USING FLAMMABLE LIQUIDS.

The fireplace insert cannot be operated with stoker door open.

Ash has to be disposed of carefully, and placed in nonflammable containers with cover; hot ash cannot be placed in ash bins or kept in open air.

Damaged or nonoperational fireplace insert cannot be used. The user must provide its professional repair before using it again.

During operation, all air supplies to fireplace insert must not be closed.

During operation, it is necessary to monitor the functions of the fireplace insert and the fire safety. You must check the amount of fuel in the hearth, sooting of the grate, conditions of control mechanisms of combustion air, if the door is closed and if the surrounding is clean.

Broken vermiculite brick in hearth is no obstacle to further use of fireplace insert. This does not apply to ceiling vermiculite.

When used simultaneously with other heating device, proper area venting must be provided (see part 1.4).

2.2 Fuel

This fireplace insert is intended for use of: wood, brown-coal briquettes 7", 6" long.

Emission standard dictates that only naturally dried wood (humidity content max. 20%) can be used. Wet wood causes strong tar condensation. The most suitable are wooden logs with diameter of 30 cm and 30 cm long, stored in dry place for at least 2 years. Most suitable are: beech, oak, hornbeam, birch and fruit trees wood.

Only fuel mentioned above can be used.

Unacceptable for use is also: carbon grit, finely chopped chips, bark and chipboard waste, wet wood and wood treated by a prophylactic, paper and pasteboard (except heating up).

Waste combustion is forbidden by Law of protection against emissions.

Combustion gases produced by waste combustion can threaten your health and cause damage to chamotte and metal parts of your fireplace insert and to your chimney.

2.3 Fire inserts setting

The fireplace insert has one control valve for air supply and control of primary and secondary air flow situated under the door.

NOTE: the control mechanisms can be very hot! Use the glove supplied as an accessory for manipulation of hot objects.

2.4 Heating up

Before heating up you must open air supplier. At the same time, ensure air supply to the room (see part 1.4). Recommended fuel should be supplied at the nominal thermal power in intervals of one hour.

Fire is set up using paper and thin wooden chips. Never use petrol, alcohol, kerosene, etc. Place a layer of wooden logs and briquettes on the fire.

Never use more than three wooden logs as fuel load.

When using the fireplace insert for the first time, heat it up with a small fire. First, wait until the fire becomes bigger so that the fireplace insert could slowly and evenly extend and the fireplace body will not suffer any damage due to temperature tension.

In case of difficulties with heating up (weather changes, cold chimney, etc.), local fire is set up in the fireplace insert using paper to heat it up better. During heating up it is necessary to check on the combustion and constantly monitor the fireplace insert. The fireplace insert is covered with heatproof paint that hardens at higher temperatures. Therefore smell is produced during the first phase of heating up. For this reason, especially at the first use, sufficient venting must be provided. We do not recommend touching the external paint of the fireplace insert when using for the first time, because it is not yet hardened and it could be damaged.

2.5 Normal operation

Nominal heating capacity of fireplace heater is 8,0 kW and it is obtained at minimum supply pressure of 10 Pa.

Fuel	Wood logs (25 cm length, 30 cm circumference)	Lignite briquettes
Maximum dose	2,2 kg/hour	1,7 kg/hour
Slider	pull out 10 mm	fully open
Burning time	1.0 hour	1.0 hour

When burning wood, set the slider (pull out to 10 mm) so that the primary combustion air intake is completely closed and the secondary combustion air intake is fully open.

When burning lignite briquettes set the slider (pull out completely) so that both primary and secondary air intakes are fully open.

The combustion air slider is below the firing door.

Quantity and adjustment of combustion air for moderate operation:

Fuel	Lignite briquettes
Maximum dose	approx. 1,7 kg/hour
Slider	open at 5 mm
Burning time	approx. 2 hours

Besides the setting of combustion air slider, the chimney is a very important factor affecting the intensity of combustion and thus the heating performance of your fireplace insert. Increased chimney blast needs smaller supply of combustion air, decreased chimney blast requires larger supply of combustion air.

When using wooden logs, the supply of combustion air should be reduced at the beginning, until the wood gets completely burnt through (little fire). If such a procedure causes very high heating performance, lower amount of fuel should be used.

Optimal control of combustion requires experience, especially when the chimney blast is not constant or the fuel wood used is of changeable quality. When the chimney blast is too strong or when there is too much fuel in the hearth, there is danger of overheating the paint of fireplace insert. The paint becomes silver-white and shortly starts to peel off the fireplace insert. The manufacturer does not assume any responsibility for this kind of paint damage. You can repair this failure by fireplace paint (spray).

2.6 Between-seasons operation

When the outside temperatures reach above around 15°C, it can happen with low combustion performance, and in certain conditions, that the chimney blast is endangered, not drawing the combustion gases completely away (smoke, combustion gases smell). In such case, clean the grate and increase the supply of combustion air. Add smaller and smaller amounts of fuel and clean the grate more often. Close the door and the valves of air supply of other devices connected to the same chimney, which are not in use. Check the cleaning openings of the chimney for tightness.

2.7 Ash removing

To ensure failure-free operation it is necessary to remove the ash from the fireplace insert on time and regularly. The ash box must be emptied in time to enable the combustion air flow through the grate. Otherwise, there is danger that ash under grate would prevent air from flowing and the grate would get overheated and deformed due to the lack of cooling.

Ash must be removed from the fireplace insert before putting fuel inside.

2.8 Cleaning and maintenance

Depending on frequency of use, the fireplace insert must be cleaned once or more times per year (in cold state). Cleaning is executed as follows:

Smoke tube is removed and cleaned outside in appropriate container. Accumulation area of combustion waste may be cleaned using a steel brush and vacuum cleaner. Subsequently, the smoke tube must be reset between the chimney and the exhaust throat of the fireplace insert.

NOTE: The fireplace insert can only be used again after cleaning when all parts removed for cleaning have been returned back.

The fireplace insert is covered on the outside with heatproof paint. When the paint is hardened (after few hours at nominal thermal power), it can be cleaned on surface using dry towel.

This heatproof paint is not resistant to humidity. Therefore do not put any wet objects on the fireplace insert, it could produce rust spots. The glass in stoker door can be cleaned using a common glass cleaner, when only light sediment appears. Hard sediment can be removed using a burning cleaner or with fine steel wool.

NOTE: the glass can have sharp edges; therefore use protective gloves when replacing the glass!

If the fireplace insert has not been used for a longer period, before starting to use it again it is necessary to check possible obstruction in the fireplace insert, flue or chimney.

2.9 Problem sources and their solving

In case of failures (e.g. smoke) appearing during operation, contact your local competent chimney sweeper. If damage is caused to the fireplace insert, contact the shop where you purchased the fireplace insert. These are the most common failures, their sources and solutions

Type of failure	Possible cause	Solution
Smell creating	Used protective paint drying out, evaporation of oil residues	Operate the fireplace insert according to the operation manual for few hours at low power. Then heat for few hours at maximum power.
Too low thermal power	Selected power is too small. Insufficient chimney blast. Smoke tube is incorrectly connected	Let the heat necessity be checked by an expert. Chimney blast must be at least 10 Pa! Check the chimney for tightness. Doors of other devices connected to the chimney must be closed tight. Ensure tightness of cleaning covers. Possibly use 1,5 m long vertical smoke tube (slope path). Check the smoke tube.
Fireplace insert reeks and smokes	Smoke is insufficiently drawn away (obstructed chimney or return flow in chimney) Chimney is too weak Combustion of wet wood	The cause is nearly always in the area of combustion gases route. Check the smoke tubes and chimney blast, if possible, consult a chimney sweeper. Only use well dried wood.
Glass in stoker door gets quickly dirty with soot	Incorrect combustion, e.g. wet wood Smoke is insufficiently drawn away (obstructed chimney or return flow in chimney)	Only use well dried wood. Check the smoke tubes and chimney blast, if possible, consult a chimney sweeper.
Fireplace insert heats too strong	Sealing of stoker door is damaged	Change the seal.
Curl of smoke	Sometimes obstructed chimney or return flow in chimney When all air suppliers are closed Too much fuel in hearth	Consult a chimney sweeper. During operation, all air suppliers cannot be closed.

		Only add one layer.
Damage to grate	Grate is burnt through, or scaled	Burning of grate is always caused by full ash box. Empty ash box.

2.10 Accessories list

- Protective glove.

2.11 Spare parts list

- Stoker door
- Stoker door glass
- Stoker door gasket
- Stoker door handle
- Vermiculites
- Ash box
- Cast-iron grate
- Cast-iron glass protection

Only use these spare parts.

3. Warranty

If a failure of function or failure of surface coating appears during the warranty period, never repair it yourself. Warranty and after-warranty repairs are performed by the manufacturer.

We guarantee for the quality, function and elaboration of the fireplace insert for the period of 2 years from the date of purchase by customer, in terms that all failures undoubtedly caused by incorrect manufacturing we repair in short time at our own expense, under the condition that the fireplace insert:

- Was operated exactly according to the manual.
- Was connected to the chimney according to the standards.
- Was not violently mechanically damaged.
- Was not subject to repairs, adjustments or unauthorized manipulation.

When claiming the product, you must give full address and state the conditions which lead to it. We will see into the claim if you present the warranty certificate with the date of purchase and the seal of the seller.

It is in your interest to ask for a legibly completed warranty certificate on purchase. We decide on the method and location of repair in our factory.

When purchasing the product, check the stoker door glass and chamotte bricks. The manufacturer accepts contingent claims on damaged glass only after first heating up in the product.

It is unacceptable to operate the device at thermal overload, that means:

- The amount of used fuel is higher than recommended.
- The amount of combustion air is higher than recommended.
- Use of unacceptable type of fuel.

Thermal overload can appear as:

- Deformation of hearth ceiling,
- Over-burning of grate,
- Breakage of vermiculites

In case of incorrect operation the manufacturer does not accept any claim of the device.

The change of product or cancellations of purchase contract are subject to relevant regulations of the Civil Law and Complaints Procedure.