



A.D. METALNA INDUSTRIJA VRANJE
Radnička br:1

SOLID FUEL PROGRAMME DORMO R



This product meets the requirements of the Ecodesign Directive in terms of efficiency and air pollution level, in order to contribute to the reduction of energy consumption and negative environmental impact.

INSTRUCTIONS FOR INSTALLATION, ADJUSTMENT AND USE

ENG_v.1.1

GENERAL INFORMATION

Generally speaking, it is necessary to comply with the current building rules and regulations for fireboxes in the country of use, as well as with all local, national and European standards.

Important before use:

- Make sure your furnace operates properly; it is important to read this manual carefully and to strictly follow the instructions therein.
- Use only the recommended types of fuel - wood logs.
- The required discharge pressure for normal workload should be approximately 12 Pa. For the discharge pressure over 15 Pa, you should use the built-in damper valve in the outlet pipe.
- In the room where the furnace is installed, it is necessary to make sure there is sufficient supply of fresh air into the firebox. If the windows and doors are sealed, or if other appliances, such as steam extractors, dryers, fans, and so on, drag the air out of the room where the furnace is located, then the combustion air (fresh air) needs to be brought in from the outside, as necessary. In this regard, it is necessary to consult with a competent chimney organization before the furnace is set up.
- You must not keep any flammable materials in the ash tray. The filling height must not exceed the height of the side walls of the ash tray.
- Furnace and ash area door must be kept closed (except for ignition, insertion of fuel and ash cleaning), to prevent the release of hot air.
- The furnace must not be changed, except in case of our offered, tested and original parts and accessories, and if the changes are made by our factory service center.
- In case of fire in the chimney, the furnace door should be kept closed, and so should the air regulator! Never attempt to extinguish a fire in the chimney by pouring water in it. The water vapour which is formed in the chimney can cause explosions. If necessary, use the emergency phone number to call the fire department!
- If interference occurs, close all air regulators and do not insert new fuel into the furnace until the cause of the problem is eliminated!

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1. TECHNICAL DATA "DORMO R"

- rated heat output.....11,64 kw
- utilization rate.....79,31 %
- chimney draft required.....12 Pa
- width.....750mm
- depth.....400mm
- height.....803mm
- flue pipe diameter.....Ø 210mm
- height from the floor to the axis of the flue pipe.....652mm
- firebox volume.....18dm3
- rated heating power.....11kJ
- ash container volume.....9 dm3
- CO content.....0,117 %
- flue gas temperature.....238 °C
- room heating capacity.....138-183 m3
 - o fuel type: wood
- weight.....110 kg
- Regulated combustion with the possibility of adjusting the required amount of air using the air regulator.

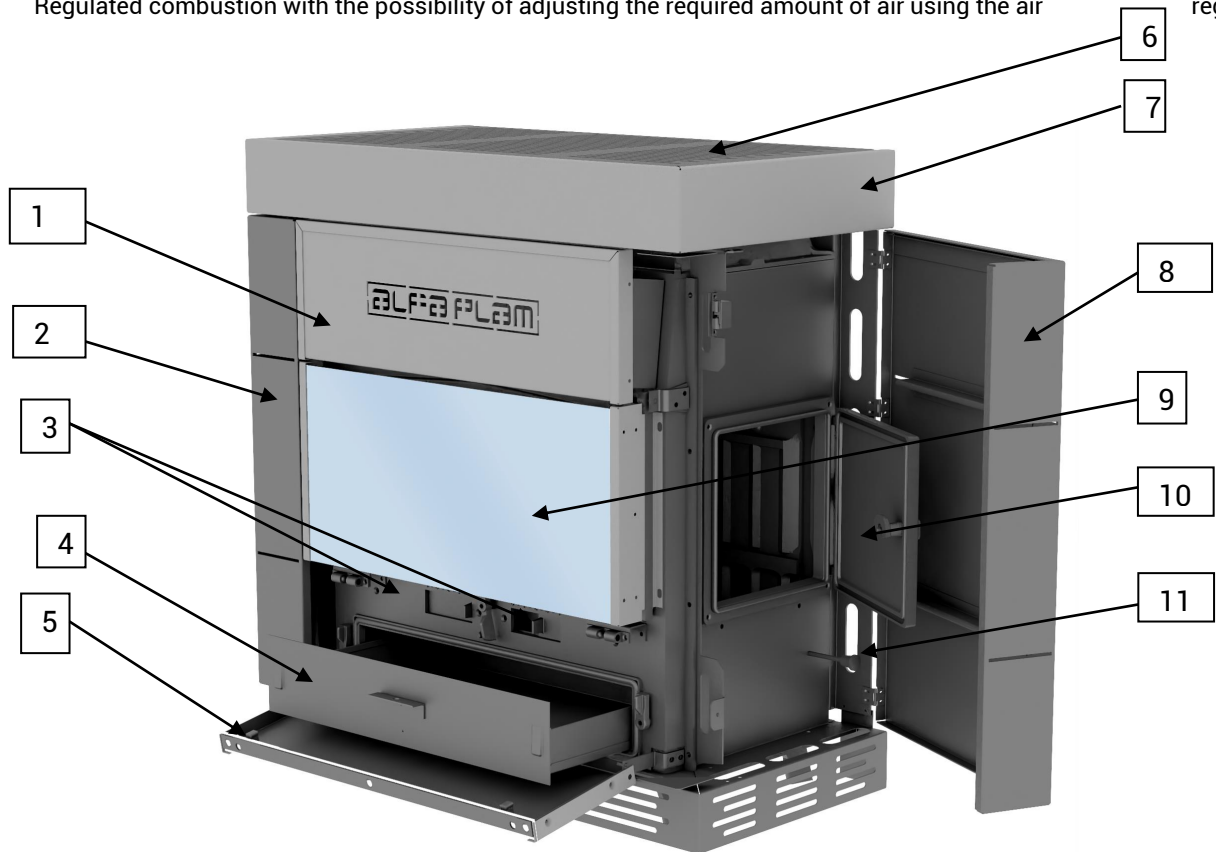


Figure 1
Solid fuel fireplace

- | | |
|---|---|
| <ul style="list-style-type: none"> 1. Mask 3. Air regulators 5. Ash-tray mask 7. Rocker Cap 9. Glass 11. Rocker | <ul style="list-style-type: none"> 2. Lateral Left Side 4. Ash-tray 6. Plate 8. Lateral Right Side 10. Burner door |
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2. Warning before use

Be sure to read the instructions

In the case of a fireplace, after removing the packaging, it should be inspected whether it is complete in terms of basic elements and whether the fireproof front glass is functional (unbroken).

3. Description of the fireplace

The fireplace is designed to enable efficient combustion of solid fuels with the possibility of adjusting and regulating the required amount of air for the combustion process.

The construction of the fireplace differs from other solid fuel stoves, both in design and in the composition of individual elements. Made of tin and cast elements which allows it to be very easy to maintain and clean. The outer shell is enamelled or painted.

The flame chamber is made of sheet metal and lined with cast elements on the inside. The front of the fireplace is equipped with fireproof glass with a mirror effect. A flame can be seen through the glass, which gives a special effect of room heating. There is a fire door on the right side of the fireplace as well, which can be opened by previously opening the lateral right side of the fireplace. The lateral right side is connected to the chamber by a hinge and a strip-right. The closed side of the right side is secured to the chamber with a magnet.

Opening and closing of the lateral right side fire door is performed with a special key, lifting the handle in such a way that the key tooth is placed in the opening of the handle.

Two glass pieces are fitted in the middle part of the fireplace: an outer fireproof decorative glass with a mirror effect and an inner fireproof glass. The inner glass is located on the front cast door.

Under the ashtray mask (Fig. 1, position 1) there are two air regulators to regulate the required amount of combustion air.



Figure 2

The ash-tray is locked with a locker and pulled out with a special key (see Fig. 2), by placing the prismatic tip of the key in the ash-tray holder.

At the back of the fireplace there is a cast socket with a butterfly shaft and a butterfly element that regulates the draft. The position of the butterfly element is secured by a spring onto the shaft and thus the selected draft is maintained. The largest draft in the fireplace is achieved when the butterfly shaft is in a horizontal position, and the lowest when it is in a vertical position. The required draft in the chimney is a minimum of 10 Pa (1 mm VS).

4. Furnace Installation

Before setting up the chimney to the flue installation, you should check the diameter on the wall in the chimney to see whether it is \varnothing 210 mm or \varnothing 120 mm. If it is \varnothing 210 mm, connect directly, and if it is \varnothing 120 mm, you need to reduce the \varnothing 210 mm diameter to \varnothing 120 mm.

NOTE: The furnace must be placed at least 0.5 m from the surrounding household items and walls.

For proper placement and installation of the furnace, you first need to check the airflow in the chimney because good airflow is a prerequisite for the furnace to work properly. Checking the airflow volume is best done using candles, see Figure 3.

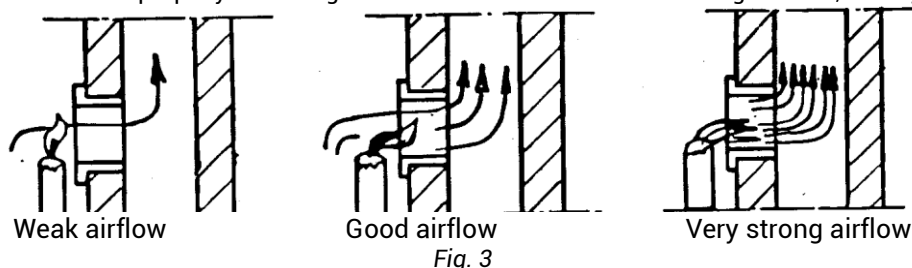


Fig. 3

The airflow intensity depends on the following:

- proper conditions of the chimney,
- atmospheric conditions (the seasons)
- proper conditions of the furnace and other heating appliances connected to the chimney,
- position of the home (whether it is on a hill, in plain or valley)

A proper chimney should meet the following requirements:

- Exceed the rooftop (ridge) by at least 50 cm.
- Surpass the house beside it, which is quite close to the chimney, then a tree, or some other obstacle.
- Have a cross section of at least 14 x 14 cm (half a brick).
- Be on the inner walls of the house; if it is on the outer walls, it should be well insulated.
- The extension needs to be firmly connected if the chimney is extended.
- Be well cleaned, i.e., make sure there are no bird nests, dirt, soot, various obstacles, cavities, etc. If two chimneys are parallel, then they must have special openings for cleaning, which should be tightly closed, and there can be no cavities between the mouths of the chimneys.

When connecting the furnace to the chimney, make sure that flue pipe does not go deep into the chimney opening, as this

reduces the space for the smoke to come out.

Then, preferably, seal the joint, flue pipe - chimney. Two furnaces must not be installed at the same height if they are connected to the same chimney, unless there is a distance of 50 cm between the openings. For a furnace that is not being used but it is connected to the chimney, you should close the airflow regulator, doors and regulators for the air incoming into the firebox.

Atmospheric conditions also affect the intensity of airflow. In the winter, the airflow is more intense because the outside air is colder and heavier, so it pushes the hot flue gases more. In the summer, the ignition is often hampered, precisely because the outdoor air is warm, so the airflow is less intense.

The position of the home (whether it is on a hill or in a plain) especially in windy weather, affects the reduction of the airflow in the plain and increases the airflow on the hill. With previously tested and fulfilled requirements and with the proper installation and connection of the furnace, functionality and safety in operation will be provided.

When installing the furnace, you must adhere to applicable regulations on construction and fire protection requirements. The place where you put the furnace should be horizontal and must have sufficient capacity, otherwise you must implement appropriate measures in order to have uniform load distribution. When it comes to combustible floors (wood, plastic, textiles ...), you need to place sheet steel, copper or other non-flammable materials under the fireplace on the floor. This base should exceed the furnace profile by at least 30 cm, and on the handling side, the base must be greater than the furnace by 50 cm. The space between the wooden or plastic pieces of furniture and other flammable objects that need to be protected must be at least 30 cm on the side and 30 cm on the back of the furnace. Flammable items need to be at a distance of at least 80 cm from the opening of the furnace.

You should leave sufficient space between the furnace and the flammable objects (wood paneling, furniture, curtains, etc.).

Installation of objects above the furnace is not allowed if you use the furnace top surface.

When installing the drain pipes for used air, you should leave a gap of at least 40 cm away from the flammable materials.

Before connecting the furnace to the chimney, you should consult a competent local chimney sweeping institution. Connecting the chimney to the furnace is done through the connecting elements in SRPS.M.R4.031 (DIN 1298 or DIN EN 1856-2). Make sure that the connecting parts for the chimney do not enter the waste gases drain intersection, and that they are properly sealed.

5. Air Regulation

Air regulation is done on the front side of the furnace under the cover.

Air regulators on the front side of the furnace enable the ignition and fuel combustion.

Make sure that the ash tray is not filled up. You should empty it regularly as to enable the unobstructed airflow.

Due to the poor supply of oxygen, there are large emissions of harmful substances, which can lead to blocking the chimney.

5.1. Primary Air

Reliable fuel combustion is determined based on the primary combustion air.

This air is adjusted by regulating the primary air to the front side of the furnace under the cover. Air regulation is done on the front side of the furnace under the cover.

Figure 2, position 7 shows the opening and the closing direction of the regulator. To fire the wood, the regulator needs to be opened as much as possible.

NOTE: To avoid overheating of the furnace, the quantity of fuel must not exceed 2.0 kg of dry log wood per hour, when the combustion air is properly adjusted.



Fig. 2

5.2. Using the Handle on the Firebox Door

As the handle on the firebox door becomes extremely hot while the furnace is in operation, opening and closing of the firebox door is possible only by using a special key from the attached furnace accessories (see Fig. 3).



Fig. 3

6. Putting the Furnace into Operation

Before the first use of the furnace, you need to wipe the enamel surfaces with a damp cloth in order to avoid staining. Painted surfaces are not to be touched, nor are there any objects to be left on the furnace in order to prevent paint damage.

After reading the instructions, the first furnace putting into operation follows. When the furnace is fired for the first time, open the windows as the corrosion protection creates an unpleasant odour and some smoke. This is normal occurrence, and it will stop after a short time. If necessary, turn on the fan to make rapid air circulation. Fire up to a maximum temperature for at least one hour. If during the first firing the maximum combustion temperature is not reached, there may be problems with the odour later.

People including pregnant women and young children should be out of the room during the firing phase.

Keep in mind that some of the furnace built-in parts (drain pipe, loading door, furnace door) become very hot while the furnace is in operation, and there is a risk of burns. Keep small children away from the furnace.

6.1. Putting the Furnace into Operation and Its Running

- Open the primary air regulator all the way (Fig. 1, position 2)
- Open the furnace door
- Load the wood wool, wood chips or paper
- Put two pieces of wood before this
- Fire
- Close the furnace door
- Let the wood burn

After the glow is formed, load new fuel through the fire opening, and adjust the air regulator for primary air according to the type of fuel. Never put new fuel onto the flame!

A certain amount of smoke is released when the furnace door is opened suddenly. When adding fuel, you should open the furnace door slowly as to avoid the suction of the smoke. This way, you stop the smoke from coming into the room.

Nominal heating power can be achieved with the following amounts of fuel, and the following adjustments to the primary air regulator.

Type of Fuel	Quantity of Fuel	Combustion Time	Left Air Regulator on the Furnace Front Side	Right Air Regulator on the Furnace Front Side
	Kg	H	Degree	Degree
Cleaved wood	2.0	1	10 mm open	10 mm open

The furnace may only be used with natural, cleaved wood. Cleaved wood is inserted using wooden pieces that are 32 cm long.

Lacquered, painted, laminated and impregnated heated wood or wood processed using adhesives cannot be used in the furnace. In such a case, any guarantee or responsibility of the manufacturer shall cease to exist. Heating wood you intend to use must be dry (wood humidity 20%). The wood is usually dry after two years of storage in a dry and well ventilated place. Wet wood has a low calorific value and leaves deposits in the exhaust stacks and in the chimney.

Under the most adverse weather conditions, interferences may be formed in the chimney (e.g. bad weather). In such cases, the furnace may not be used for safety reasons.

7. Handling and Usage

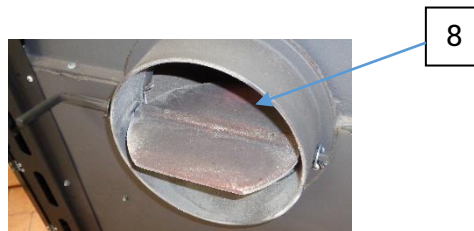


Fig. 4

Before firing the chimney, the throttle shaft should be turned into a horizontal position (Figure 4, position 8). Firing of the furnace is done with paper and fine chopped wood (when the regulators on the front of the furnace are opened all the way) positioned on the grid. Positioning the paper and fine wood, as well as the firewood, is done through the opening on the right lateral side, given that the lateral doors are already opened (Figure 1, position 6).

When the basic glow is formed, you need to place the thicker wood close to the right door and set up the air regulators (Figure 1, position 1), as well as the airflow regulator (Figure 4, position 8). In order to use the furnace economically, you should load it with wood up to the front grill grid. By adjusting the air regulators, you regulate the combustion speed and the temperature in the room by placing the throttle to the 0, 1, 2, 3, 4 – marks on the front side of the furnace. In general, for the furnace firing, you should use the door on the right lateral side of the furnace.

7.1. Furnace Cleaning and Maintenance

The entire furnace should be regularly checked by an expert. The furnace, flue and chimney must be cleaned regularly several times a year, and at least once during the heating season.

Regular maintenance and cleaning of the furnace is of particular importance for good and reliable operation of the furnace. Maintenance of the enamelled and painted surfaces is recommended only when the furnace is cold. The furnace is washed with clean water and a soft cloth. Painted surfaces of the furnace are cleaned with a dust brush or a dry cloth. When it comes to the painted parts of the furnace, do not use water or a damp cloth. The time intervals for cleaning the furnace depend on the type of fuel or on the duration and type of furnace.

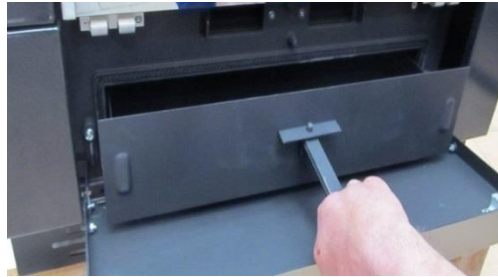


Fig 7

The ash tray (Figure 7, pos. 9) should be emptied regularly before each furnace firing. You need to clean the grill once or twice a week. In case of clogging of the vents with slag or other combustion residue, they must be removed immediately. When firing, avoid the formation of soot on the glass. Soot is formed during combustion for the following reasons:

- bad airflow in the chimney (bad chimney)

- the furnace is not used properly, for instance, supply is interrupted too soon. Regarding the above mentioned facts, we have no influence over them. That is why we cannot assume any responsibility for the clean glass.

Grill shaking is done using the handle shown in Figure 8, position 10.

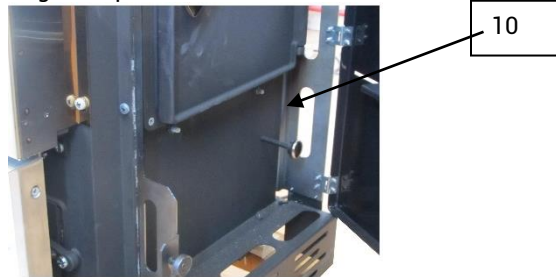


Fig. 8

8. General Information

If you follow the instructions for installation and use of the furnace, this furnace will be a reliable source of heat. Our service center can solve all of your problems with the furnace. In case of complaints regarding the problems or errors when it comes to functionality, please contact our service center. They will help you to order spare parts as well.