



INSTALLATION, OPERATION AND MAINTENANCE INSTRUCTIONS



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1. General requirements

This boiler is designed and manufactured according to standard:

EN 14785:2006

When purchasing the pellet boiler, be sure to read this manual.

This instruction has been prepared in accordance with the laws and regulations for safety in the installation and operation of pellet boilers.

Failure to follow the instructions in this manual may result in damage and undesired consequences for which the manufacturer is not responsible.

Errors or incorrect settings could cause hazardous and/or incorrect working conditions.

2. Important information

The purpose of this instruction is to enable the user to take all the necessary measures and prepare all the equipment to ensure safe and correct operation and use of the pellet boiler.

1. The pellet boiler is designed to emit heat when burning pressed wood pellets and to heat rooms by spatial heat flow and heat released from heated water.
2. Use only fuel recommended by the stove manufacturer. Pressed wood pellets class A1 with a diameter of 6 – 8 mm.
3. This appliance must not be used for waste incineration.
4. For the correct operation of the boiler and the electronic equipment connected to it and to prevent accidents, it is necessary to follow the instructions mentioned in this manual.

5. Do not use water to clean the boiler. Water can get inside the boiler and damage the electronics.
6. Do not open the combustion chamber door during operation of the pellet boiler. Fire hazard.
7. The user is fully responsible for the correct operation of the product, which relieves the manufacturer of responsibility for all his actions or inactions.
8. Any intervention or replacement that is made by unauthorized person or using non-original spare parts for the boiler can be risky for the user and exempts the manufacturer from any responsibility.
9. Most surfaces of the boiler are extremely hot (door, handle, glass, flue, etc.). Do not touch these parts before you have put on specifically appropriate protective equipment, such as temperature-resistant gloves or tools.
10. Children should not touch the boiler or play with it while it is working.
11. Do not lit the boiler with the door open or the glass broken.
12. The boiler must be electrically connected to a system equipped with a working zero conductor.
13. Switch off the boiler in case of damage or malfunction.
14. Unburned pellets collected in the burner after each failed ignition attempt must be removed before starting again.
15. Install the boiler according to all fire safety requirements.
16. If a fire occurs in the flue or chimney, turn off the boiler, unplug the power cord, and never open the door. Call to the fire department.
17. Do not ignite the boiler with flammable materials (alcohol or liquid fuel) if the ignition system fails.
18. Periodically check and clean the flue outlet of the boiler fireplace (the connection to the flue pipe).
19. Always keep the hopper lid closed.
20. Keep this instruction and refer to it when necessary

3. Delivery and unpacking

The pellet boiler is delivered on a pallet, well packed in a box. Unpack carefully.

Inspect the boiler for visible defects or damage.

Open the pellet hopper of the fireplace and check if there are inserted:

- Installation and operating instructions;
- Power cable;
- Warranty card.

Read all documentation carefully and do not throw it away.

In the event of a detected defect, damage or missing items during delivery, contact your seller.

4. Pellet boiler components

The pellet boiler consists of the following components:

- **combustion chamber** – fig. 3;
 - **pot - place where the pellets burn** – fig. 4 and fig. 5;
 - **water heater**;
 - **pellet hopper** – pellets for burning are filled into it – fig. 1 and fig.2;
 - **auger for pellets (screw auger)**– delivers pellets from the hopper to the inclined channel and from there to the pot for combustion – fig. 1;
 - **electric gear motor**: drives the pellet auger (screw auger)– fig. 1;
 - **electric lighter**: for initial ignition of the pellets in the pot;
 - **smoke extractor**: ensures removal of flue gases from the combustion chamber to the flue and sucks in air for combustion fig. 1,
 - **pressure switch**: reports the underpressure in the exhaust tract;
 - **limiting thermostat (STB)**: in the event of a failure in the controller or the sensor for measuring the temperature of the hot water, to turn off the supply of pellets;
 - **thermal limiter mounted on the inclined chute for feeding pellets into the combustion chamber**: shuts down the pellet auger in case of backfire or if the inclined chute temperature is exceeded.
 - **light detector**: Opto-sensor for monitoring the light intensity of the flame determining the presence of combustion.
 - **electronic controller with control panel**: monitors and manages the combustion process as well as ensures the operation of the provided protections-
- fig.1

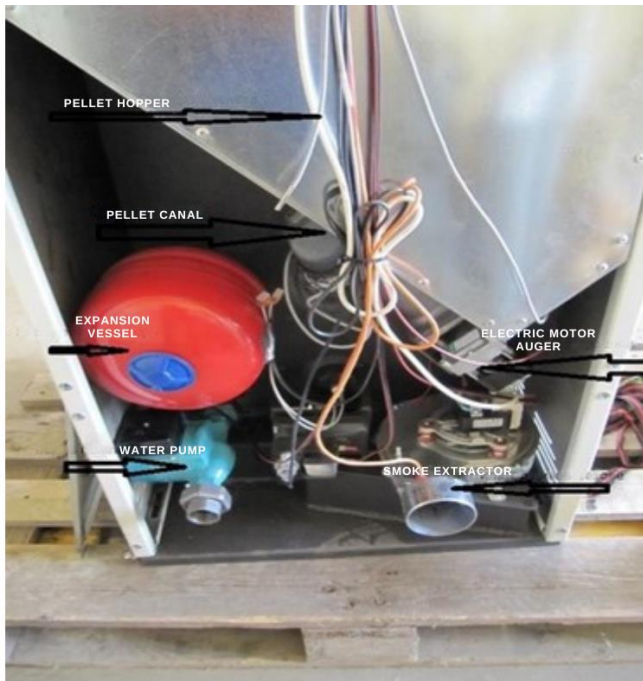


Fig. 1



Fig.2



Fig.3



Fig. 4 Burner pot



Fig. 5 Burner pot

5. Safety Requirements

5.1 User requirements

The user must:

- be an adult (over 18) and responsible person;
- to have certain technical knowledge necessary for the operation, maintenance and cleaning of the pellet boiler.

5.2 Responsibility of the installer

The installer must follow the manufacturer's requirements:

- the installation and adjustment of the boiler is in accordance with local legislation and the instructions given in this manual for operation and maintenance;
- must check if there is enough air for combustion in the room or in the room where the pellet boiler is installed. It is recommended that a periodic check be made to ensure that combustion air is reaching the combustion chamber of the boiler;
- to check that the connecting flue pipes and the chimney comply with the manufacturer's instructions;
- to adjust the pellet boiler according to the type of pellets used,
- when the installation and adjustment of the pellet boiler are finished, it must be put into trial operation for no less than 30 minutes to test all the flue seals and the water installation;
- to check the exhaust gas emissions after the installation and adjustment of the pellet boiler;
- to instruct the user how to adjust, operate and clean the pellet boiler.

6 Installation of the pellet boiler

6.1 General requirements

After all the necessary checks are completed, the installer proceeds with the installation of the pellet boiler.

- Check the minimum volume of the room where the boiler will be installed (not less than 45 m³);
- The space around the boiler must be made of fire-resistant material;
- The minimum distance from flammable materials should not be less than 300 mm. If the floor is made of flammable material, the boiler must be insulated with non-flammable ceramic material.

Observe the following distances:

- on the side - 300 mm,
- rear - 300 mm,
- front - 800 mm.
- floor – the boiler must be placed on a non-combustible floor.

The manufacturer is not responsible for consequences caused by not following the instructions.

6.2. Smoke exhaust system

The correct assembly and connection of the flue gas exhaust system is extremely important for the trouble-free operation of the pellet boiler.

The pellet boiler works constantly with pressure in the flue.

It is forbidden to vent flue gases directly from the pellet boiler through the wall into the atmosphere.

It is mandatory to install a flue to remove flue gases at a height safe for human health

and to be equipped with wind protection.

The flue must be used only by the pellet boiler and no other appliances must be connected to it.

Flue gases are released from the combustion chamber of the pellet boiler to the atmosphere through an opening with a diameter of $\varnothing 80$ mm, located in its rear part. If the outlet of the pellet boiler is connected to a metal flue, it must have a vertical part with a length of not less than 2.5 m, equipped with wind protection device. The pipe system must be airtight insulated with materials resistant to high temperatures (heat-resistant silicone).

Classic masonry chimneys can be used to vent the smoke. If the pellet boiler is connected to a brick chimney, it must be well built and plastered (no cracks).

All parts of the flue must be freely accessible for inspection.

In the lower part of the flue there must be an inspection opening, allowing opening and cleaning.

It is forbidden to install regulating flaps in the smoke outlet (valves that can prevent the removal of smoke, respectively make it difficult to draft).

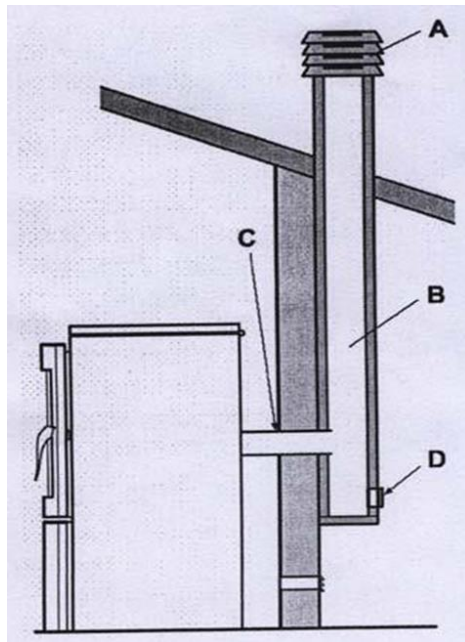


Fig. 6

- A) Wind protection cowl
- B) Maximum chimney diameter 150 mm, maximum height 4-5 m
- C) Gasket
- D) Control opening for cleaning

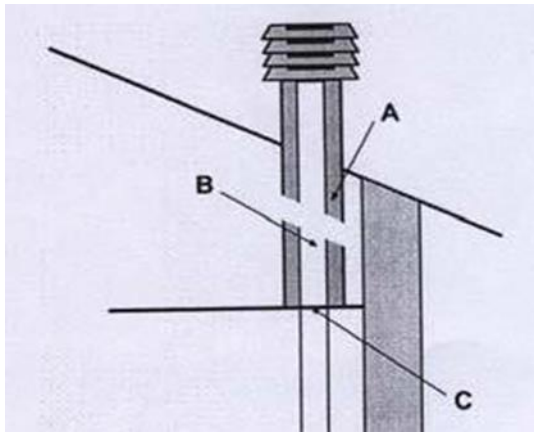


Fig.7

- A) Mineral wool
- B) Steel pipes
- C) Barrier plate

Avoid contact with combustible material (such as wooden beams) and in all cases it will be necessary to isolate them from the metal flue with fireproof materials (see figure 7).

ATTENTION! Do not connect the exhaust gas system of the pellet boiler to a chimney to which another stove, boiler or aspiration system is already connected.

6.3. Combustion air supply

The air needed to burn the pellets is taken from the room where the pellet boiler is installed. It is sucked from the smoke fan through a pipe with a diameter of Ø 43 mm.

If there is another heating appliance in the room, the necessary amount of air must be provided for the proper functioning of all appliances.

6.4. Connecting the pellet boiler to the power supply

The pellet boiler works with a supply voltage of 230 V / 50 Hz and therefore it must be connected to an electrical supply.

Before connecting the pellet boiler to electricity, make sure that:

- the characteristics of the electrical network correspond to the data or specification given on the nameplate of the boiler.
- The power cord must be kept away from hot places and must not come into contact with sharp edges that could injure it.
- When the boiler is installed in the appropriate place, the two-position switch and the socket must be easily accessible.
- Check that the connection is properly grounded.
- If the boiler is not used for a long time, you must disconnect it from the electrical network. Place the switch in the OFF position, position (0).
- In case of damage or malfunction, turn off the engine or the switch in the OFF position (0) and contact an authorized service center.

- **Do not operate the pellet boiler** if one of the safety devices is damaged, malfunctioning or not working.
- **Do not turn off the power by pulling the plug while the boiler is operating.** This can jeopardize the proper functioning of the pellet boiler.



Fig.8

7 Operation of the pellet boiler

7.1 General requirements

After you have made sure that the boiler is installed correctly, you can set all parameters and perform the first ignition. In most cases, the pellet boiler is set by the manufacturer, but the installer must check these settings and make adjustments for the pellets the user is using.

The setting can be done through the control panel or over the Internet using the appropriate software.

7.2. Safe ignition of the pellet boiler

- Never use gasoline or other flammable liquids to light the boiler if it is not ignited by the electric lighter. Keep these liquids away from the boiler while it is operating.
- Do not open the door to clean the glass while the boiler is operating.

Clean the glass only when the boiler is cold, using cotton cloth or paper towels and glass cleaner.

- Make sure the ashtray is placed correctly and that the door is fully closed.
- With the vacuum cleaner, remove the ash from the ash niche only when it has completely cooled down.
- Do not use abrasive cleaners for the surface of the boiler.

7.3. Turning on the boiler for the first time

- Make sure all cables are connected correctly.
- Turn on the boiler.

You have bought a quality appliance. Enjoy your home while creating good thermal comfort and coziness.

8. Warranty Terms

The duration of the warranty is 24 months from the date of sale. The warranty is considered void under the following conditions:

- Incorrect connection;
- Repair and/or modification attempts by the customer;
- Visible damage to the exterior and/or interior of the product;
- Damage caused by lightning storms and/or electric shocks;
- Use in unacceptable conditions / temperature and humidity /;

The removal of factory defects during the warranty period does not lead to its extension. In case of malfunction, the product should be sent to the seller.

9. Cleaning and maintenance of the pellet boiler

It is recommended that the burner pot, ashtray and ashtray niche be cleaned after each use, every day.

The burner pot can be cleaned during operation of the pellet boiler by a cleaning mechanism that is controlled by the controller.

Using a vacuum cleaner for stoves and boilers makes cleaning the pellet boiler easier. The vacuum cleaner must have a filter to prevent dust from entering the room or the room where it is located.

Before you start cleaning, the following precautions should be taken:

- Unplug the boiler from the mains.
- Before working, make sure that the boiler and ashes are cooled.
- The sealing strip on the underside of the burner pot must be in place and must not be damaged (Fig. 10).
- Chimneys should be cleaned twice a year and before each heating season. The chimney should be checked and cleaned every year, preferably at the beginning of the heating season.
- Smoke fan – to be checked and cleaned every six months.
- Perform general cleaning at the beginning and end of the heating season.

The purpose of this special maintenance is to ensure proper and efficient operation of the pellet boiler.

In the event of a flue or chimney fire, get everyone out

the room, turn off the power using the main switch and remove the plug from the wall (the plug should always be easily accessible), and immediately call the fire brigade.

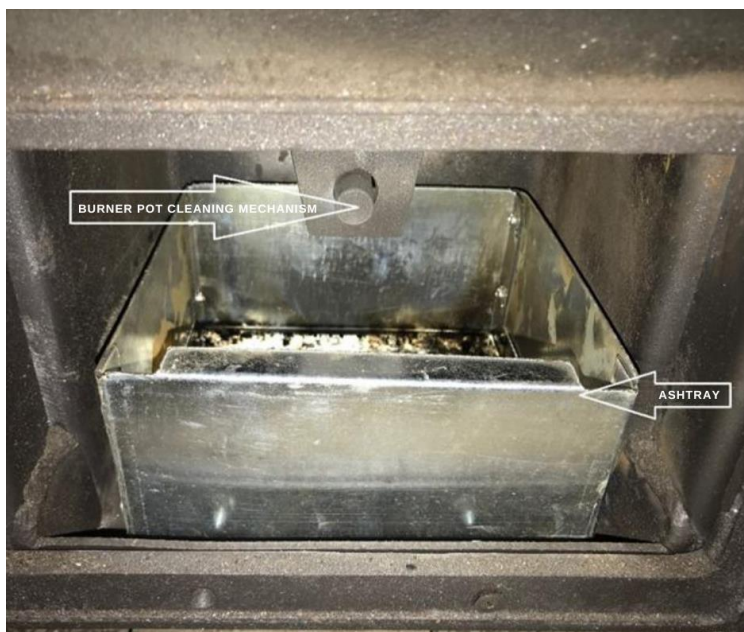


Fig. 9



Fig.10

10. Example scheme for connecting the stove to the water-heating installation

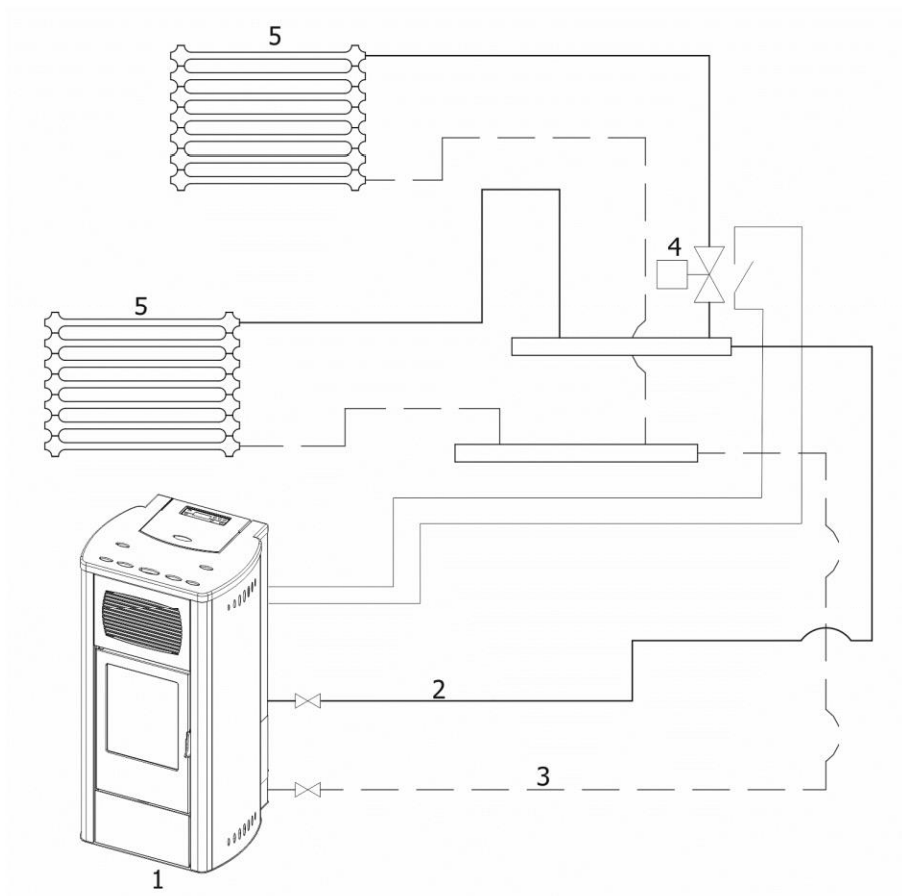


Fig. 31

- 1 Pellet boiler
- 2 Hot water pipe
- 3 Return water pipe
- 4 Zone valve/fit as required /
- 5 Radiators

The pellet boiler is equipped by the manufacturer with a water pump and expansion tank, as well as with a deaerator.

The installer must install a safety valve in the water-heating installation according to the maximum working pressure of the water indicated by the manufacturer. It should also install a 1/2" tap to drain the installation.

11. Pellet quality requirements

ATTENTION! The pellet boiler has been tested only with wood pellets with a diameter of 6 – 8 mm, class EN plus A1, acc. EN ISO 17225-2:2014. The manufacturer accepts no responsibility if you use fuel other than that recommended by the manufacturer. This pellet boiler is made to use pressed wood (pellets).

There are many products of this type on the market, it is important to choose pellets that have the lowest ash content and are not too wet (always ask for a pellet test certificate from the supplier).

The correct functioning of the pellet boiler depends on the type and quality of the pellets.

When the pellets are of low quality, the boiler must be cleaned frequently.

Benefits of using pellets:

- Allow easy loading.
- Better regulation of fuel quantity.
- The small size of the pellets allows the precise supply of the fuel.
- They allow air supply to achieve optimal combustion efficiency.

The high combustion efficiency is also determined by the low moisture content in pellets (constantly below 10% compared to 20% to 30% moisture content of sawn wood).

- Pellet bags can be stored in a small area in a dry garage, basement, utility room or shed.

Pellets should be stored in a dry place that is not too cold. Cold and wet pellets reduce the thermal power of the fuel and require additional cleaning of the combustion chamber .

Pellets should not be stored near the pellet boiler - at least 2 meters away from it. Do not crush them.

The manufacturer of the boiler is not responsible for the use of wood pellets with poor quality, nor for the poor performance of the pellet boiler stove due to such fuel.

12. Information relating to dismantling and destruction of the boiler

Dismantling, disposal and destruction of old, used boilers is the responsibility of the owner.

The owner of the boiler must comply with all legal regulations of his country and the European Union regarding safety and environmental protection.

The dismantling and storage of materials from the boiler can be entrusted to a third party authorized to collect and dispose of these materials.