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PELLET STOVE

CFA XILA

INSTALLATION, OPERATION AND MAINTENANCE INSTRUCTIONS

ENG_v.1.0

Introduction

First of all, we would like to thank you for purchasing this ALFA PLAM product.
This short manual has been prepared to make it easier for you to use our product.
The specific technical issues mentioned herein should be reviewed by individuals who perform assembling, installing, and commissioning of the product, in order to carry out this process without any errors.

- These installation, operation, and maintenance instructions must be read carefully before installing and using the product. It should be considered an integral part of the product and must be kept in a safe place.
- All installation, networking, inspection, maintenance, and repair work must be carried out by a qualified person.
- The commissioning should be carried out only by a qualified person.
- Do not use any flammable liquids for starting a fire!
- This product must not be used by persons with physical, sensory, or mental issues or lacking sufficient experience or skills (including children), unless they are supervised and instructed by someone who is responsible for their safety.
- Children must always be supervised by an adult to protect them from accidental contact with hot surfaces of the stove and to prevent them from tampering with the stove's adjustment functions.
- If you require any additional information not included in these instructions, please contact the seller.

The following symbols are used in these instructions:
⚠ **ATTENTION**: Safety warning,
PROHIBITED: Prohibited action,
INFORMATION: Important information.
ALFA PLAM assumes no liability or responsibility for any direct or indirect personal injury or property damage resulting from non-compliance with the recommendations given and emphasized in this manual.

If you do not understand something in this manual, please contact our professional services or an authorized service center. In doing so, always specify the number of the chapter where there is some ambiguity.
Printing, translation and reproduction, even in part, of this manual is subject to licensing by Alfa Plam, which means that Alfa Plam must approve these actions. Technical information, figures, and specifications in this manual must not be given to a third party.
WARNING:
IMPORTANT: Connecting the appliance to the electrical installation must be carried out by qualified and authorized persons in accordance with applicable regulations.
This appliance is not intended for use by persons (including children) with reduced physical, motor, and mental capabilities, or to persons with a limited knowledge and experience in the absence of the person responsible for their safety or care.
Children cannot be allowed to play with this appliance.
DOUBLE COMBUSTION SYSTEM
The flame obtained by proper combustion of the pellet in the stove emits the same amount of carbon dioxide (CO_2), which would be freed as a result of the natural decay of wood.
The amount of carbon dioxide (CO_2) obtained through combustion or decomposition of plant mass corresponds to the amount of carbon dioxide (CO_2) which the plant mass is able to obtain from the environment and to transform it into air and carbon of the plants during its entire lifetime.
The use of non-renewable fossil fuels (coal, oil, gas), contrary to what happens with the wood, releases into the atmosphere huge amounts of carbon dioxide (CO_2), that have been gathering up for millions of years, creating a greenhouse effect. The use of wood as fuel is therefore perfectly balanced with the environment, because the wood as a renewable fuel is in ecological harmony with nature.
Using the principle of clean combustion, we fully achieve these objectives, and so Alfa Plam has directed its development and all activities towards fulfilling this goal.
What do we consider clean combustion and how does it work?
Controlling and adjusting the primary air and injecting the secondary air causes secondary combustion, or the so-called post-combustion, which provides a secondary flame that is by its nature lighter and stronger than the primary flame. The addition of a new oxygen (inserted through the air) allows further combustion of gases that are not completely burned. This significantly increases the thermal efficiency and reduces harmful emissions of carbon monoxide (CO), because the incomplete combustion is minimized. These are the basic characteristics of these stoves and other products of Alfa Plam.

⚠ CAUTION

- The minimum installed power of the heating system must not be less than 65% of the nominal power of the stove and the maximum installed power of the heating system must not be more than 100% of the nominal power of the stove.
- The chimney, to which the stove is connected must meet the requirements provided in the user manual.
- When connecting the appliance to the chimney, never use flexible hoses instead of flue pipes.
- Regular maintenance and care, such as cleaning the stove, the flue pipes and the nozzles (of the pipes), are important to ensure safety, and especially for the sake of economy and in order to maintain the value of the stove.
- Unauthorized modification of the device is prohibited and therefore any unauthorized modification shall render the warranty null and void.

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1. INTRODUCTION

1.1. Product Serial Number

The serial number of the product can be found on the nameplate affixed to the back of the unit as well as on the cover of this manual.

The serial number will be required each time the user requests additional services.

1.2. Materials

ALFA PLAM brand products are made of materials with the following characteristics:

- **Extra thick steel sheets** that provide high stability of the unit;
- For certain models, **very thick ceramic elements and cast-iron components** are used to give the product a distinctive design and finish;
- Before being painted at high temperatures, the **metal parts** undergo a phosphate treatment to ensure maximum surface coating quality and a flawless finish;
- **Gaskets**, which seal the combustion chamber, must be inspected periodically to prevent improper combustion that may occur due to excessive gasket wear;
- **Glass and ceramic components** for the combustion chamber door. For information related to cleaning procedures, please refer to the Maintenance section.

1.3. Certification

This product complies with the EN 16510-2-6 standard for residential space heating appliances using wood pellets. It is also in accordance with Serbian legislation through which the following European directives are implemented:

- 2004/108/EC (Electromagnetic Compatibility Directive);
- 2006/95/EC (Low Voltage Directive);
- 89/106/EEC (Construction Products Directive).

homologation in Switzerland has been carried out by VKF

1.4. Stove Dimensions

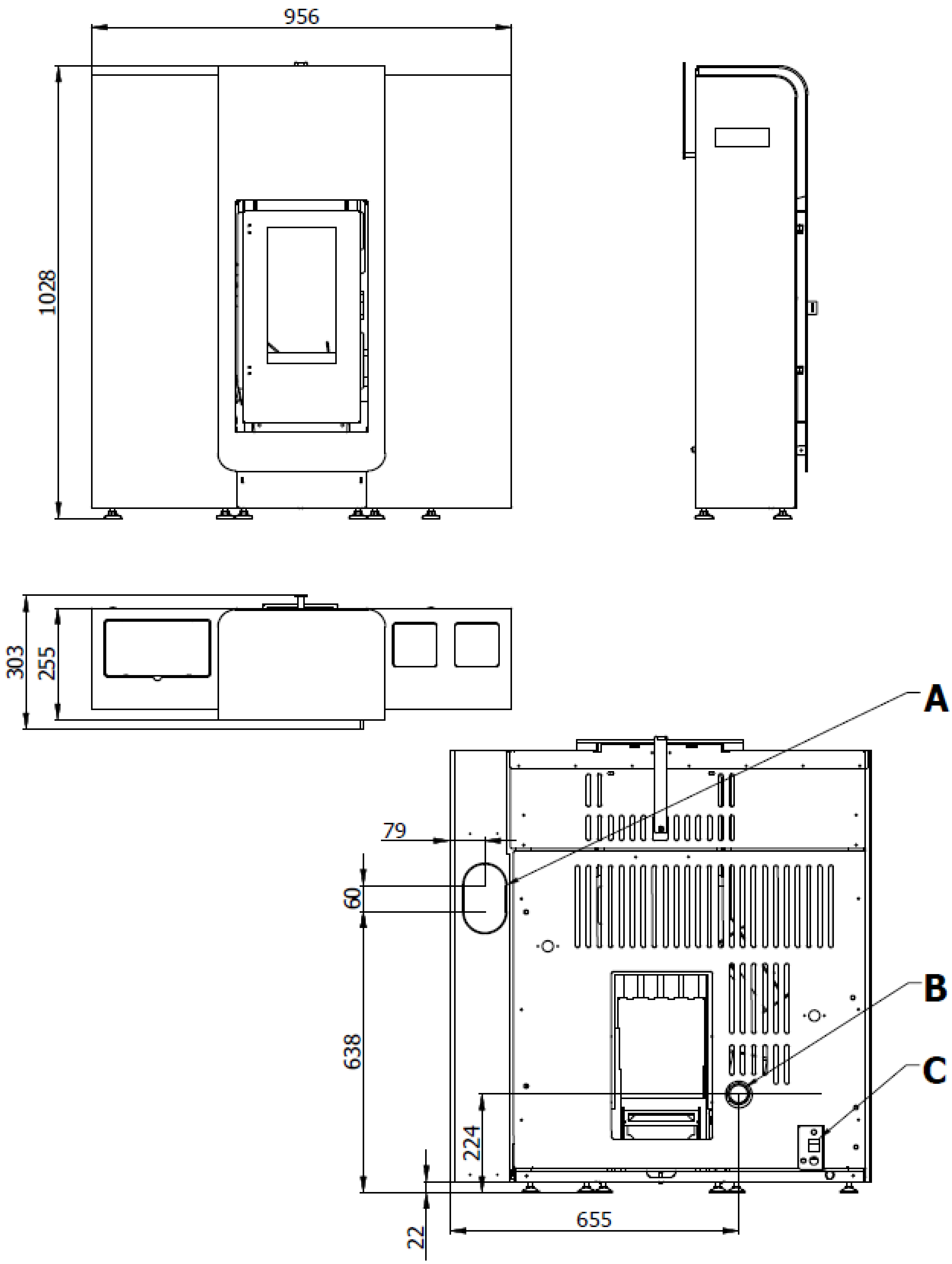


Figure 1

A: Flue gas pipe diameter ø 80 mm.
B: Air inlet ø 50 mm.
C: Electrical connections

1.4.1. Detailed View

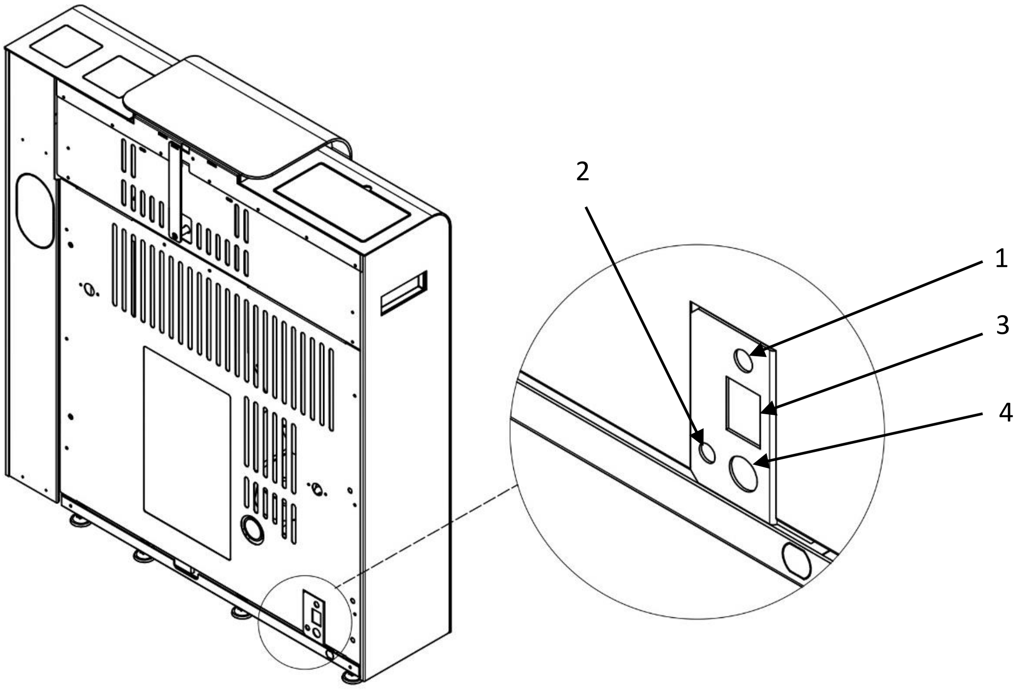


Figure 2

1: Manual reset thermostat
2: Room temperature sensor
3: On/Off switch
4: Power cable

1.5. Technical Specifications of the Product

No.	Parameter	Unit	Explanation	CFA XILA
1	P_{nom}	kW	the nominal heat output or a range of outputs (dependent on fuel types), rounded to the nearest one decimal place	6,5
2	P_{SHnom}	kW	the nominal space heat output or a range of outputs (dependent on fuel types), rounded to the nearest one decimal place	6,5
3	P_{Wnom}	kW	the nominal water output (if an integral boiler is fitted) or a range of outputs (dependent on fuel types), rounded to the nearest one decimal place	–
4	P_{part}	kW	the part load heat output or a range of outputs (dependent on fuel types) if specified, rounded to the nearest one decimal place	4,25
5	P_{SHpart}	kW	the part load space heat output or a range of outputs (dependent on fuel types) if specified, rounded to the nearest one decimal place	4,25
6	P_{Wpart}	kW	the part load water output (if an integral boiler is fitted) or a range of outputs (dependent on fuel types) if specified, rounded to the nearest one decimal place	–
7	P_{slow}	kW	the heat output at slow combustion or a range of outputs (dependent on fuel types) if specified, rounded to the nearest one decimal place	--
8	P_{SHslow}	kW	the space heat output at slow combustion or a range of outputs (dependent on fuel types) if specified, rounded to the nearest one decimal place	--
9	P_{Wslow}	kW	the water heat output at slow combustion (if an integral boiler is fitted) or a range of outputs (dependent on fuel types) if specified, rounded to the nearest one decimal place	--
10	$P_{acc\ in}$	kW	accumulator heat input, in kW or W for Kachelofen inset appliances only, rounded to the nearest one decimal place	--
11	$T_{acc\ in}$	°C	temperature at the separate heat exchanger inlet, for Kachelofen inset appliances only, rounded to the nearest integer	--
12	ζacc	Pa	the flow resistance of the separate heat exchanger as used in the test, for Kachelofen inset appliances only, rounded to the nearest integer	--

13	***ηnom***	%	the appliance efficiency at nominal heat output, rounded to the nearest integer	92,9
14	***ηpart***	%	the appliance efficiency at part load heat output, rounded to the nearest integer	95,22
15	***ηS***	%	the appliance seasonal space heating efficiency at nominal heat output, rounded to the nearest integer	??
16	***EEI***	-	the energy efficiency index, rounded to the nearest integer	???
17	CO_{nom} (13 % O_2)	mg/Nm^3	CO emission at 13 % oxygen content at nominal heat output, rounded to the nearest integer r	89
18	CO_{part} (13 % O_2)	mg/Nm^3	CO emission at 13 % oxygen content at part load heat output if specified, rounded to the nearest integer	89
19	CO_{slow} (13 % O_2)	mg/Nm^3	CO emission at 13 % oxygen content at heat output at slow combustion if specified, rounded to the nearest integer	--
20	NO_{xnom} (13 % O_2)	mg/Nm^3	NOx emission at 13 % oxygen content at nominal heat output, rounded to the nearest integer	121,02
21	NO_{xpart} (13 % O_2)	mg/Nm^3	NOx emission at 13 % oxygen content at part load heat output if specified, rounded to the nearest integer	123,73
22	NO_{xslow} (13 % O_2)	mg/Nm^3	NOx emission at 13 % oxygen content at heat output at slow combustion if specified, rounded to the nearest integer	--
23	OGC_{nom} (13 % O_2)	mg/Nm^3	hydrocarbon emission at 13 % oxygen content at nominal heat output, rounded to the nearest integer	17,88
24	OGC_{part} (13 % O_2)	mg/Nm^3	hydrocarbon emission at 13 % oxygen content at part load heat output if specified, rounded to the nearest integer	16,93
25	OGC_{slow} (13 % O_2)	mg/Nm^3	hydrocarbon emission at 13 % oxygen content at heat output at slow combustion if specified, rounded to the nearest integer	--
26	PM_{nom} (13 % O_2)	mg/Nm^3	particulate matter emission at 13 % oxygen content at nominal heat output, rounded to the nearest integer	19,7
27	PM_{part} (13 % O_2)	mg/Nm^3	particulate matter emission at 13 % oxygen content at part load heat output if specified, rounded to the nearest integer	17,1
28	PM_{slow} (13 % O_2)	mg/Nm^3	particulate matter emission at 13 % oxygen content at heat output at slow combustion if specified, rounded to the nearest integer	--
29	p_{nom}	Pa	minimum flue draught at nominal heat output, rounded to the nearest integer	11
30	p_{part}	Pa	minimum flue draught at part load heat output if specified, rounded to the nearest integer	9,3
31	p_{slow}	Pa	minimum flue draught at heat output at slow combustion if specified, rounded to the nearest integer	--
32	p_W	kPa (bar)	the permissible maximum water operating pressure, if applicable, to be given with 1 decimal	–
33	d_R	mm	the minimum distances from the rear to combustible material, rounded to the nearest integer	300
34	d_S	mm	the minimum distances from the sides to combustible material, rounded to the nearest integer	300
35	d_C	mm	the minimum distances from the top to combustible material in the ceiling, rounded to the nearest integer	–
36	d_p	mm	the minimum distances from the front to combustible material, rounded to the nearest integer	800
37	d_F	mm	the minimum distances from the front to combustible material in bottom front radiation area, rounded to the nearest integer	–
38	d_L	mm	the minimum distances from the front to combustible material in side front radiation area, rounded to the nearest integer	1500
39	d_B	mm	the minimum distances below the bottom (not regarding feet) to combustible material, rounded to the nearest integer	0
40	d_{non}	mm	the minimum distances to non-combustible walls, rounded to the nearest integer	--

41	***s***	mm	Protective insulation according to manufacture r’s instructions	--
42	el_{SB}	kW	the consumption of electrical auxiliary energy at standby, to be given with 3 decimals	0,004
43	el_{max}	kW	the consumption of electrical auxiliary energy at nominal heat output, to be given with 3 decimals	0,034
44	el_{min}	kW	the consumption of electrical auxiliary energy at part load heat output, to be given with 3 decimals	0,026
45	***E, f***	V, Hz	Power supply voltage, frequency, rounded to the nearest integer	230V, 50 Hz
46	W_{max}	W	Maximum electric power input, rounded to the nearest integer	--
47	T_{snom}	°C	the flue gas outlet temperature at nominal heat output, rounded to the nearest integer	100
48	T_{spart}	°C	the flue gas outlet temperature at part load heat output, rounded to the nearest integer (to be given for pellet operation only)	76
49	**Tclass**	-	Chimney designation according to the appropriate chimney standard	T 200 G
50	$\phi_{f,g\ nom}$	g/s	the flue gas mass flow at nominal heat output, rounded to the nearest one decimal place	4,96
51	$\phi_{f,g\ part}$	g/s	the flue gas mass flow at part load heat output rounded to the nearest one decimal place (to be given for pellet operation only)	3,08
52	V_h	m^3/h	The standing air loss, if specified, rounded to the nearest one decimal place	--
53	**CON or INT**	-	whether the appliance is capable of continuous operation (CON), whether the appliance is capable of intermittent operation (INT)	INT
54	d_{out}	mm	the diameter of the flue gas outlet, rounded to the nearest integer	80
55	***L, H, W***	mm	the overall dimensions of the appliance (length, height, width), rounded to the nearest integer [a]	303 x 1028 x 956
56	***m***	kg	Mass of the appliance, rounded to the nearest integer	80
57	m_{chim}	kg	the maximum load of a chimney the appliance may carry, to be rounded to the nearest integer	0
58	🕮	-	meaning “read and follow the user operating instructions”	

Table 1

1.6. Fuel Characteristics

A distinctive feature of this stove is that it burns natural fuel (wood pellets), which is produced from wood industry waste (sawdust/shavings) in an environment-friendly manner. After being properly cleaned and dried, sawdust and wood shavings generated during wood processing are compressed under extremely high pressure to produce small cylinders of pure wood (pellets). Each small cylinder may vary in length and thickness, ranging from 1 to 3 cm in length and from 6 to 7 mm in diameter.

Wood pellets are characterized by low moisture content (below 12%) and high density (600 kg/m³), as well as their uniformity and compactness, which give this type of fuel a high calorific value (DTV 4100–5000 kcal/kg).

Figure 3

The wood pellets used as fuel for this stove must be of excellent quality, as prescribed by standards DIN 51731, ÖNORM M 7135, and EN plus A1. The pellet characteristics specified by these standards are listed in the table below.

⚠ **ATTENTION**: As required by the applicable laws governing the characteristics of commercial fuels (DPCM 10/1995), pellets must be produced only from untreated wood shavings, without any additives.

Use of liquid or any solid fuel other than wood pellets is **strictly** prohibited.

⚠ **ATTENTION**: To ensure optimal stove performance, it is recommended to use wood pellets certified by an accredited body. The use of pellet types not approved by the manufacturer may lead to stove malfunction and void the warranty.

Storage and handling of wood pellets are essential tasks that must be performed with care.

- The fuel must be stored in a dry and warm place.
- Pellets must be handled in a way that prevents excessive crumbling or formation of fine dust.

Observing these two simple rules will ensure more efficient combustion and even contribute to the proper operation and maintenance of the appliance’s moving mechanical components.

⚠ **ATTENTION**: If the appliance will not be used for an extended period of time (more than one month), all remaining pellets must be removed from the hopper to prevent moisture absorption, which could cause product malfunction.

Wood pellets quality standards	Unit of measurement	ÖNORM M 7135	DIN 51731	DIN plus	EN plus A1
Diameter	mm	4 to 10	4 to 10	4 to 10	6 ± 1
Length	mm	5 x P1	< 50	5 x P1	3.75 < D < 40 3
Density	kg/dm3	> 1.12	1.0–1.4	> 1.12	>0.6 (mean volumetric mass density)
Moisture	%	< 10	< 12	< 10	< 10
Ash	%	< 0.50	< 1.50	< 0.50	< 0.50
Heating power	kWh/kg	> 5	4.86–5.42	> 5	> 4.5
Sulphur	%	< 0.04	< 0.08	< 0.04	< 0.05
Nitrogen	%	< 0.3	< 0.3	< 0.3	< 0.3
Chlorine	%	< 0.02	< 0.03	< 0.02	< 0.02
Dust	% of weight	< 2.3	-	< 2.3	< 1
Binders	% of compacted material	< 2	2	< 2	
1 No more than 20% of pellets may exceed a length of 7.5 times the diameter D.					
2 The DIN standard prohibits the use of any additives. However, this prohibition does not apply to small heating systems.					
3 No more than 5% of pellets may exceed a length of 40 mm, with a maximum of 45 mm.					

Table 2

FUEL LOADING

Open the lid of the hopper to pour in the pellets. Regarding fuel, you must follow the instructions provided in the relevant section of this manual.

⚠ **ATTENTION**: Do not allow the plastic bag in which the pellets are packed to come into contact with hot parts of the appliance during fuel loading.

⚠ **ATTENTION**: Do not remove the protective grid inside the pellet hopper.

⚠ **ATTENTION**: Do not place the full weight of the pellet bag on the appliance.

⚠ **ATTENTION**: After loading, close the hopper lid.

Periodically check the quantity of pellets in the hopper and refill it timely. This will prevent the stove from entering a fault mode due to fuel shortage, which triggers an audible alert for the user to respond and resolve the issue.

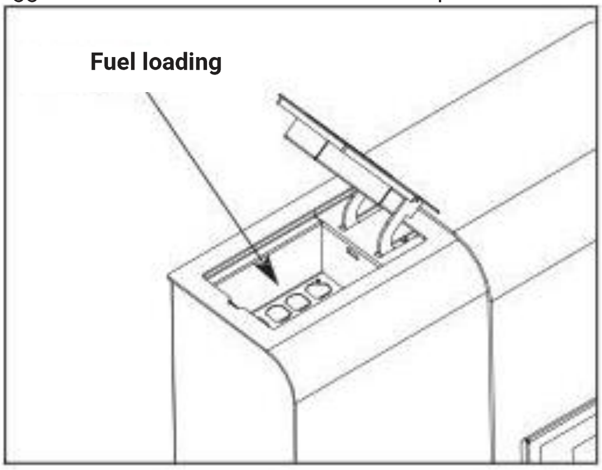


Figure 4

1.7. Safety Recommendations

⚠ **ATTENTION**: Read the enclosed instruction manual carefully before installation.

⚠ **ATTENTION:** Before switching on the appliance, the combustion chamber must be emptied to prevent unexpected difficulties.

The use of any type of solid or liquid fuel other than 6 mm diameter wood pellets, for which the stove is designed, is strictly prohibited. Avoid using wet or crushed pellets.

To ensure optimal stove performance, it is recommended to use wood pellets certified by an accredited body. The use of pellet types not approved by the manufacturer may lead to stove malfunction and void the warranty.

When loading the hopper with pellets, take care to prevent the pellets against falling into internal parts of the appliance.

⚠ **ATTENTION**: If the stove fails to ignite during startup, it will be necessary to empty the combustion chamber. Failure to do so may result in excessive consumption of pellets and significant smoke generation.

⚠ **ATTENTION**: While the stove is in the ignition, shutdown, or operating phase, do not open the stove door or unplug the power cable, even if the combustion chamber is overfilled. Initiate the shutdown procedure and wait for the stove to complete this phase. Do not restart the stove until the problem indicated on the display has been resolved.

⚠ **ATTENTION**: Do not interrupt the stove's shutdown procedure (e.g., by unplugging the power cable).

⚠ **ATTENTION**: If wood pellets begin to accumulate in the combustion chamber while the unit is in operation, immediately initiate the shutdown procedure and, once completed, restart the stove using a higher air intake program. If pellets continue to accumulate, try using a different type of pellets or contact an authorized service technician.

⚠ **ATTENTION**: Never manually insert pellets into the combustion chamber.

⚠ **ATTENTION**: To avoid potential issues, always follow the proper operation instructions provided in this manual regarding the device and its electrical components.

⚠ **ATTENTION**: Installation, networking, control, maintenance, and repair procedures must only be carried out by qualified personnel.

⚠ **ATTENTION**: The product must be installed in full compliance with current legal standards.

⚠ **ATTENTION**: Always adhere to the safety recommendations and standards referred to in this manual.

⚠ **ATTENTION**: Anyone performing interventions on the appliance must first read and fully understand the contents of this manual and be familiar with the functions of the control panel (display).

⚠ **ATTENTION**: The appliance may only be used and programmed by adults. Incorrect or arbitrary parameter settings may lead to hazardous situations and malfunctions. Parameter adjustments may only be carried out by authorized personnel (service technicians).

⚠ **ATTENTION**: ALFA PLAM assumes no civil or criminal liability for damages if the product is subjected to unauthorized repairs or replacement of parts.

⚠ **ATTENTION:** While the appliance is in operation, some of its surfaces may reach extremely high temperatures. Therefore, the user is advised to take all necessary precautions, especially when children or elderly persons with reduced mobility are in the immediate vicinity of the stove.

⚠ **ATTENTION:** Do not obstruct or reduce the exhaust of flue gases in any way. Do not cover the appliance with cloth or other similar materials.

⚠ **ATTENTION**: To prevent the appliance from tipping over, never lean on or place excessive weight on the opened door during cleaning. Avoid applying such force. Take the necessary precautions, especially whenever children or elderly persons with reduced mobility are in the immediate vicinity of the stove.

⚠ **ATTENTION**: Never use the appliance for purposes other than those for which it was designed and manufactured.

⚠ **ATTENTION**: The appliance must not be used for cooking.

⚠ **ATTENTION**: The appliance must not be used if any malfunctions or defects occur. In such cases, immediately unplug the power supply cable of the appliance from the socket and contact an authorized service technician.

NEVER leave the appliance door open while it is in operation. The flue pipes must be inspected regularly.

NEVER use steam to clean the appliance. Always contact qualified and authorized personnel for any necessary service interventions. Only use original spare parts when replacements are required. Fuel may only be supplied to the combustion chamber via the automatic feeding system and never manually by the user.

⚠ **ATTENTION**: In the event of a “failed ignition,” all pellets accumulated in the combustion chamber must be removed before attempting to ignite the stove again. Pellets removed from the combustion chamber must never be returned to the hopper.

This manual must be considered an integral part of the appliance and must be kept throughout its entire service life. It must be stored in a safe place. If the manual is lost or damaged, a copy may be requested from your distributer.

Operating Environment

⚠ **ATTENTION**: The appliance must be installed in a ventilated environment and supplied with sufficient combustion air, in accordance with applicable regulations. This is essential for ensuring its proper operation.

⚠ **ATTENTION**: The room must have a minimum volume of 20 m^3 and must meet all necessary ventilation requirements, as described in Chapter 2 of this manual. If met, these requirements ensure the required air flow for proper combustion (40 m^3/h).

IT IS FORBIDDEN to use the product in bedrooms or bathrooms.

IT IS FORBIDDEN to use the product in rooms where another heating appliance is installed that does not have its own air intake system.

IT IS FORBIDDEN to place the product near flammable materials.

IT IS FORBIDDEN to install the product on a floor made of flammable material, unless a protective plate made of non-combustible material is used.

IT IS FORBIDDEN to use the product in explosive or potentially explosive atmospheres.

2. INSTALLATION

In order to successfully install the product and prevent possible malfunctions, numerous simple recommendations for assembly are given below, in accordance with the relevant applicable standards: UNI 10683, UNI 9615, UNI 9731, and UNI - CIG 7129 for household gas installations, UNI - CIG 7131 and its subsequent amendments.

All local and national laws and European standards must be complied with during installation, operation and maintenance of the appliance.

2.1. Positioning the Appliance

Our product generates heat by drawing in the air necessary for the combustion process directly from the environment intended to be heated.

For this reason, and for the fundamental safety of the stove user, the appliance must always be installed in a properly ventilated environment to ensure a continuous airflow for combustion.

Therefore, it is necessary to install air intake openings connected to the outside atmosphere (as shown in Figure 5).

In accordance with the provisions set out in standard UNI 10683, the air intake openings must meet the following requirements:

1. The area of the free air intake opening must be no less than 80 cm^2;
2. They must be positioned approximately at floor level;
3. They must be properly protected by a wire mesh or grille, so as not to reduce the minimum air passage radius requirement;
4. They must be positioned so as not to be blocked in any way.
5. A proper supply of fresh air can also be achieved by using an opening toward an adjacent room, provided that room is equipped with direct ventilation system and does not pose a fire risk, such as a storage room, garage, or warehouse, as

prescribed by UNI 10683.

Avoid installing the heating appliance in rooms containing devices that cannot operate using a closed loop relative to the environment, or in rooms with appliances that could reduce the room pressure relative to the external environment, as this may result in poor air intake for our product (UNI 10683).

⚠ **ATTENTION**: **It is forbidden to install the stove into a shared chimney.**

When checking the system's compatibility, it is recommended to verify whether the support surface (floor) has the adequate load-bearing capacity (kg) to support the weight of the product. If this is not the case, appropriate safety measures should be taken (for example, using a load distribution plate).

⚠ **ATTENTION**: Keep the external part of the stove away from any fuel or flammable materials: 30 cm from the rear, 30 cm from the sides and 80 cm from the front. If these distances cannot be maintained, provide appropriate thermal insulation (UNI 7129, UNI 10683).

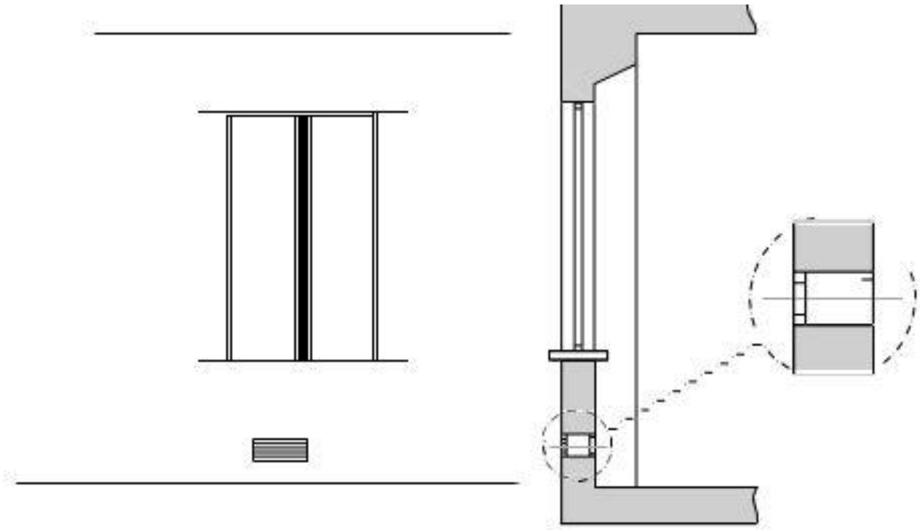


Figure 5: *Example of required air intake opening*

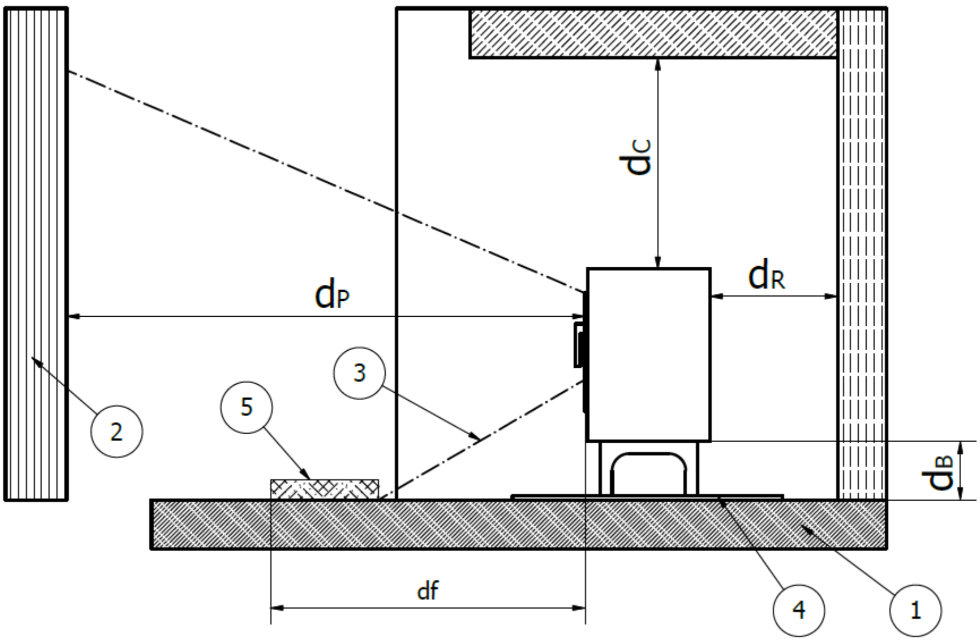
⚠ **ATTENTION**: Do not allow flammable materials to be placed closer than the recommended distances, or to come into contact with the outer surfaces of the stove, as they may reach extremely high temperatures during operation.

⚠ **ATTENTION**: If the floor is made of flammable material (e.g., hardwood), it is recommended to protect it by placing a layer of non-combustible material underneath and around the stove.

During installation, make sure that the power cable remains accessible once installation is complete.

⚠ **ATTENTION**: The power cable must be equipped with a proper grounding connection.

⚠ **ATTENTION**: Avoid touching electrical cables with wet or damp hands.



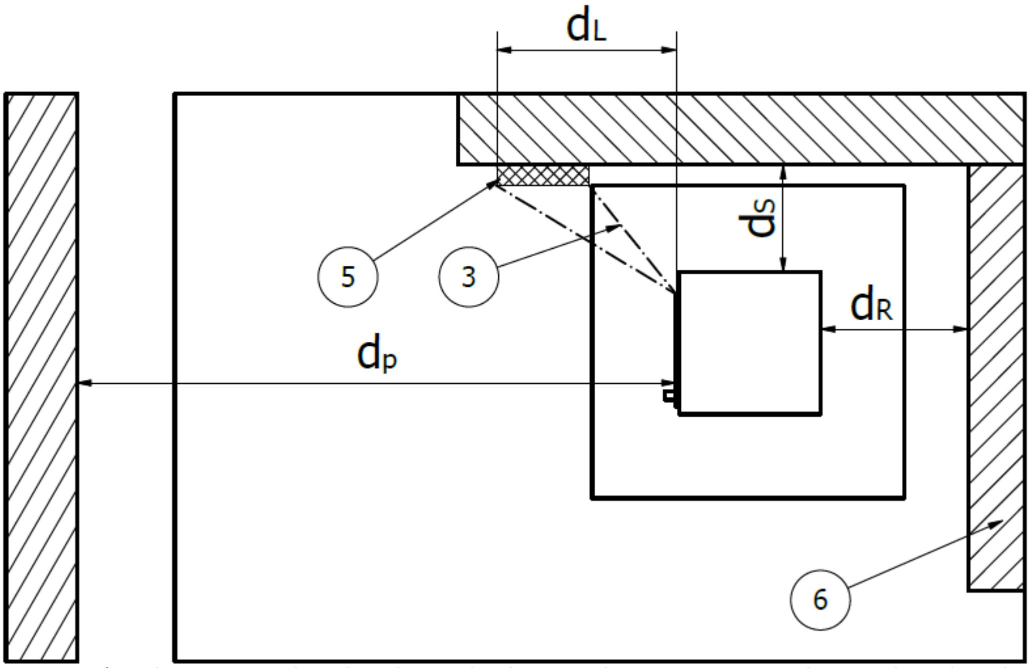


Figure 6 - All minimum safety distances are listed on the product's nameplate — DO NOT use lower values than those indicated (see section INFORMATION ON CE MARKING).

Floor (0 mm in case of appliances without feet)	d_B	0 mm
Floor in front	d_F	1500 mm
Ceiling	d_C	>750 mm
Behind	d_R	300 mm
Laterally	d_S	300 mm
Lateral thermal radiation field	d_L	1500 mm
In front of	d_P	800 mm

Table 3

1.	Floor
2.	Front panel
3.	Thermal radiation area
4.	Floor protection plate
5.	Critical area (temperature exceeds 65K due to thermal radiation)
6.	Walls

Table 4

⚠ **ATTENTION**: Once you determine the exact spot where you will install the stove, you can adjust the feet to achieve the desired height. Two people are required to move the stove sideways. After adjusting the feet, gently lower the stove.

2.2. Flue Outlet Characteristics

The main characteristics of the flue outlet are listed below, based on the requirements of UNI 10683/2012:

- Inspection opening (I);
- The maximum height of the pipe directly connected to the flue outlet of the stove should be between 2 and 3 meters;
- If a horizontal segment is needed, it should not exceed 1.5 meters in length and must be installed with a slope of 3–5% to facilitate the discharge of smoke;
- At the flue outlet use a terminal component that is wind- and water-resistant to minimize changes in draft pressure. Do not install a horizontal segment at the end of the flue system. A slightly positive pressure in the flue pipe is necessary to support the proper discharge of smoke to the external environment.

Please note that any excess heat is managed by the electronic controller (modulation, shutdown, etc.).

- The flue pipes must be made of materials resistant to combustion byproducts and moisture.
- Pipes must be fabricated in a way that prevents any smoke leakage (UNI 10683/2012);
- Pipes must be insulated, especially the external portion exposed to atmospheric conditions.

Avoid using fully horizontal segments.

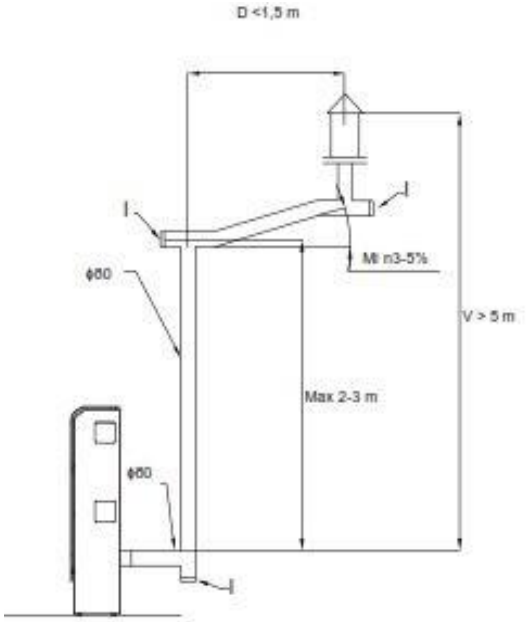


Figure 7: *Exhaust duct*

The room where the heating appliance is installed should not contain air extractors, as they can reduce ambient pressure.

It is strictly forbidden to block the air intake openings.

The flue pipes must be cleaned at least once a year; we recommend a thorough cleaning of both the flue pipes and their connections.

After a period of inactivity and before restarting the stove, check for any blockages in the flue pipe.

⚠ **ATTENTION**: The flue pipes must be fabricated in compliance with UNI 10683/2012.

⚠ **ATTENTION**: Use a proper device to check if the chimney has a minimum draft pressure of 10 Pa.

Installing a damper in the flue ducts is strictly prohibited for devices with a forced-draft system (fan-assisted).

2.2.1. SMOKE EXHAUST THROUGH THE ROOF USING A TRADITIONAL CHIMNEY

One possible solution involves placing the stove near an external wall of the house so that the exhaust gases are released directly outside (see Figure 8). Some recommendations from standard UNI 7129 for this system configuration include:

- Always ensure the presence of an inspection opening (I) to allow regular cleaning and the removal of any accumulated moisture;
- The chimney end piece (T) must be wind- and water-resistant;
- Make sure the chimney is properly insulated in the section that passes through the wall.

If the exhaust chimney is located entirely outside, it must be made of a double-walled stainless-steel structure to ensure greater resistance to weather conditions and to maintain the proper temperature of the exhaust gases.

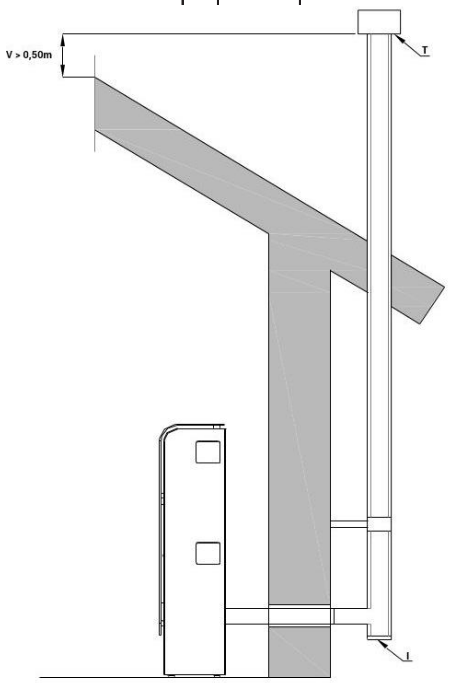


Figure 8: *Flue gas exhaust toward the outer wall*

The stove's exhaust gases may also be vented through an existing traditional chimney (Figure 9), provided that it meets current standards (see UNI 10683). The standard outlines the main characteristics of a proper chimney (T), which are summarized below:

- Proper insulation, especially on the external part exposed to atmospheric conditions;
- Constant internal diameter (there must be no segments with reduced diameter);

- Must be made of materials resistant to high temperatures, combustion by-products, and the corrosive effects of moisture that may form;
- Mainly vertical alignment, with no deviations exceeding 45° from the vertical.

It is recommended that the base of the chimney be equipped with a solid materials or moisture collection chamber (R). The collection chamber must be accessible via an airtight door (I).

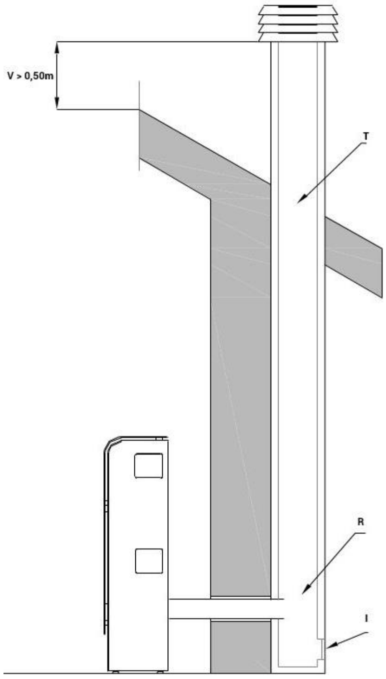


Figure 9: *Flue gas exhaust through traditional roof chimney*

It is advisable to follow the guidelines established by standards UNI 9615 and UNI 9731, which specify the size and diameter of the chimney (T). In any case, never use a flue duct with an internal diameter smaller than 100 mm.

If the flue duct has a larger diameter, a steel pipe (A) must be installed inside it (C), as shown in Figure 10.

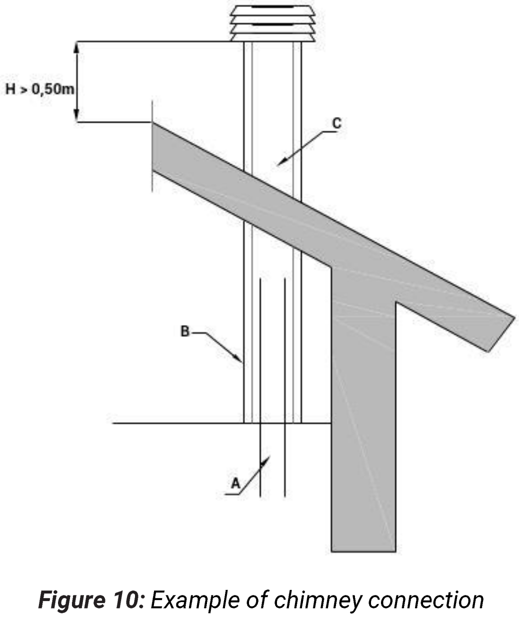
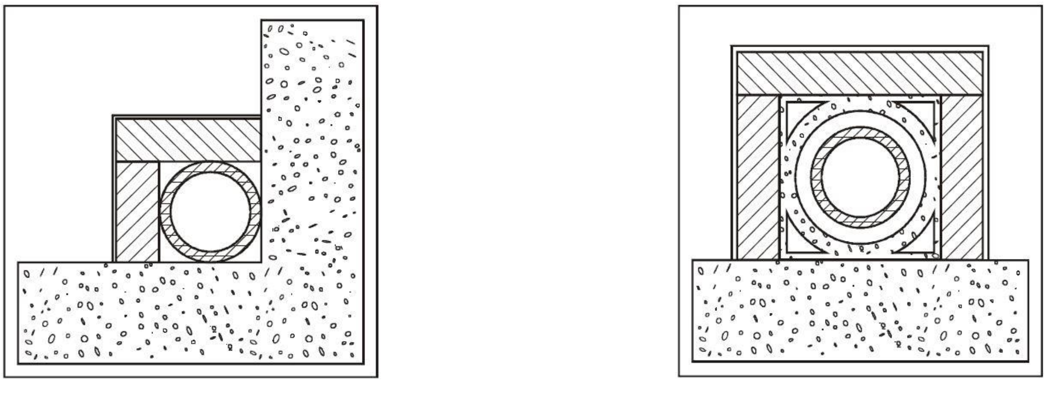
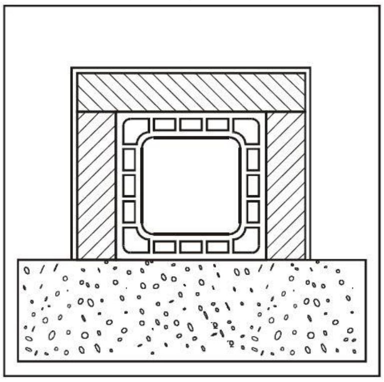


Figure 10: *Example of chimney connection*

The steel pipe must be insulated with a suitable heat-resistant material, such as rock wool or vermiculite, and must be separated from the external part of the chimney itself.

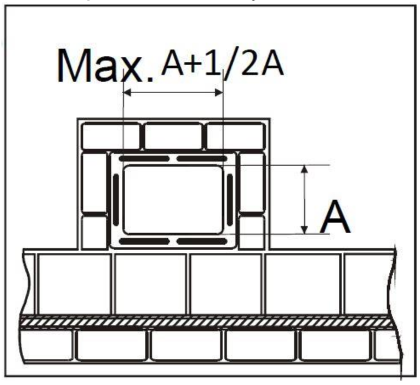


AISI 316 stainless steel chimney with double insulated chamber, made of material resistant to 200°C. Optimal efficiency of 100%



Traditional clay chimney with indentations. Optimal efficiency of 80%

Fire-resistant chimney with a double-insulated chamber and an external lightweight concrete shell.
Optimal efficiency of 100%



The use of flue pipes with a rectangular internal cross-section is prohibited if the aspect ratio deviates from the design. Modest efficiency of 40%

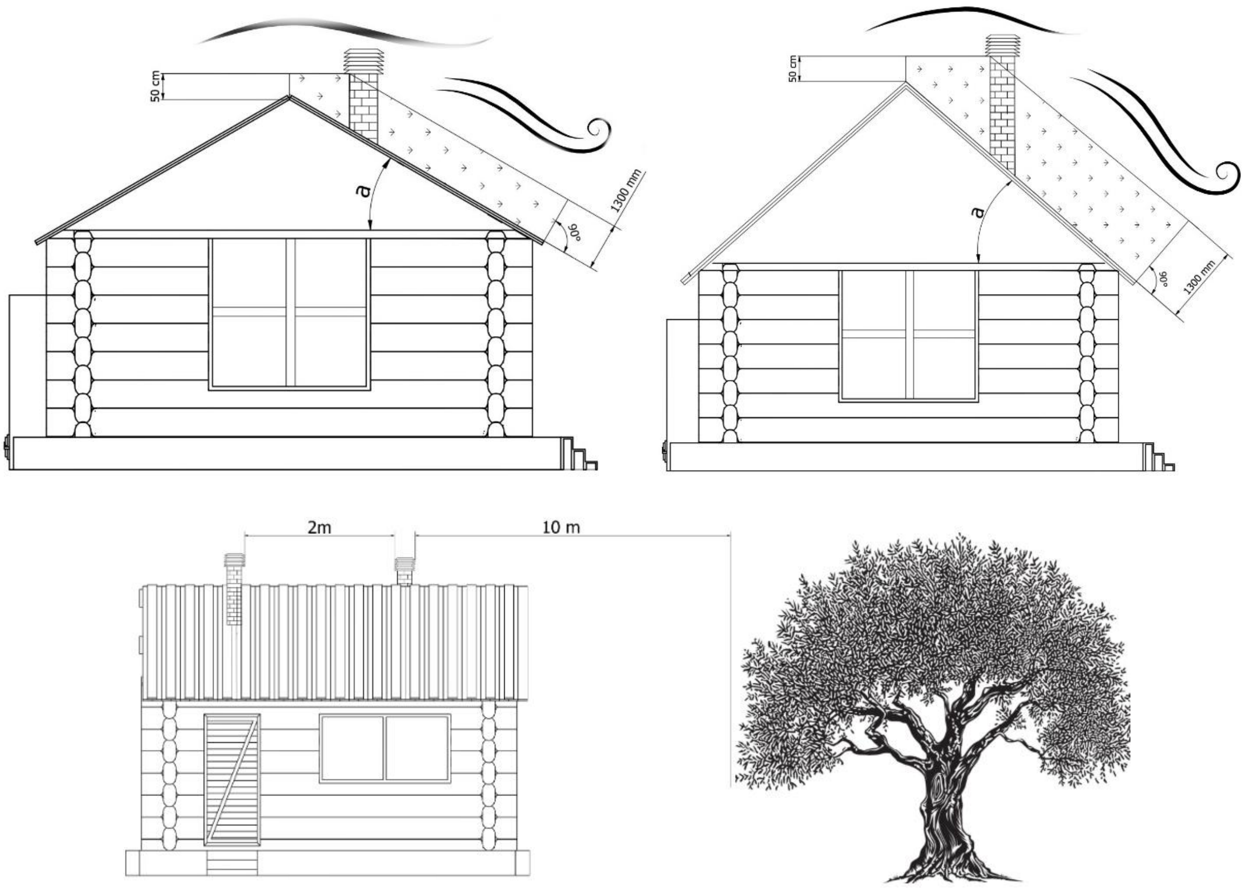


Figure 10.1 - Chimney - positioning and distance

2.3. ELECTRICAL CONNECTION

These stoves must be connected to the power supply. Our stoves are equipped with electrical cables suitable for medium temperatures. If the power cable needs to be replaced (e.g., if damaged), please consult our authorized technical personnel or specialists. Before connecting the stove to electricity, ensure the following:

– the electrical system characteristics match the specifications listed on the stove's identification nameplate.

– if the flue exhaust system is made of metal, it must have a functional grounding connection in accordance with current standards and legal regulations. **Grounding is required by law.**

– The power cable must never reach a temperature that is 80°C higher than the ambient temperature. Once the stove is installed and positioned the bipolar switch or socket must remain easily accessible.

– If the stove is not going to be used for an extended period of time, disconnect it from the power supply or turn the switch to the OFF (0) position.

In case of malfunction or abnormal operation, immediately disconnect the stove from the power supply or turn the switch to the OFF (0) position and contact an authorized service center.

2.4. Disassembly and Waste Disposal

The packaging consists of non-toxic and non-hazardous materials. No special disposal procedures are required. The disposal of remaining packaging components is the user's responsibility. The user must carry out relevant disposal procedures in accordance with the applicable regulations in the country where the product is installed.

⚠ **ATTENTION**: Keep packaging elements out of the reach of unattended children or persons with disabilities.

2.5. Electrical Connections

Connect the product to the household electrical network.

To turn the appliance on, simply press the main switch located on the back of the unit. Once this is done, the stove will be ready for ignition. For ignition and programming procedures, refer to Section 3.1.

2.6. Room Temperature Sensor

The room temperature sensor allows for continuous monitoring of the temperature in the room where the stove is installed. Proper placement of the room temperature sensor will ensure the correct operation of the product.

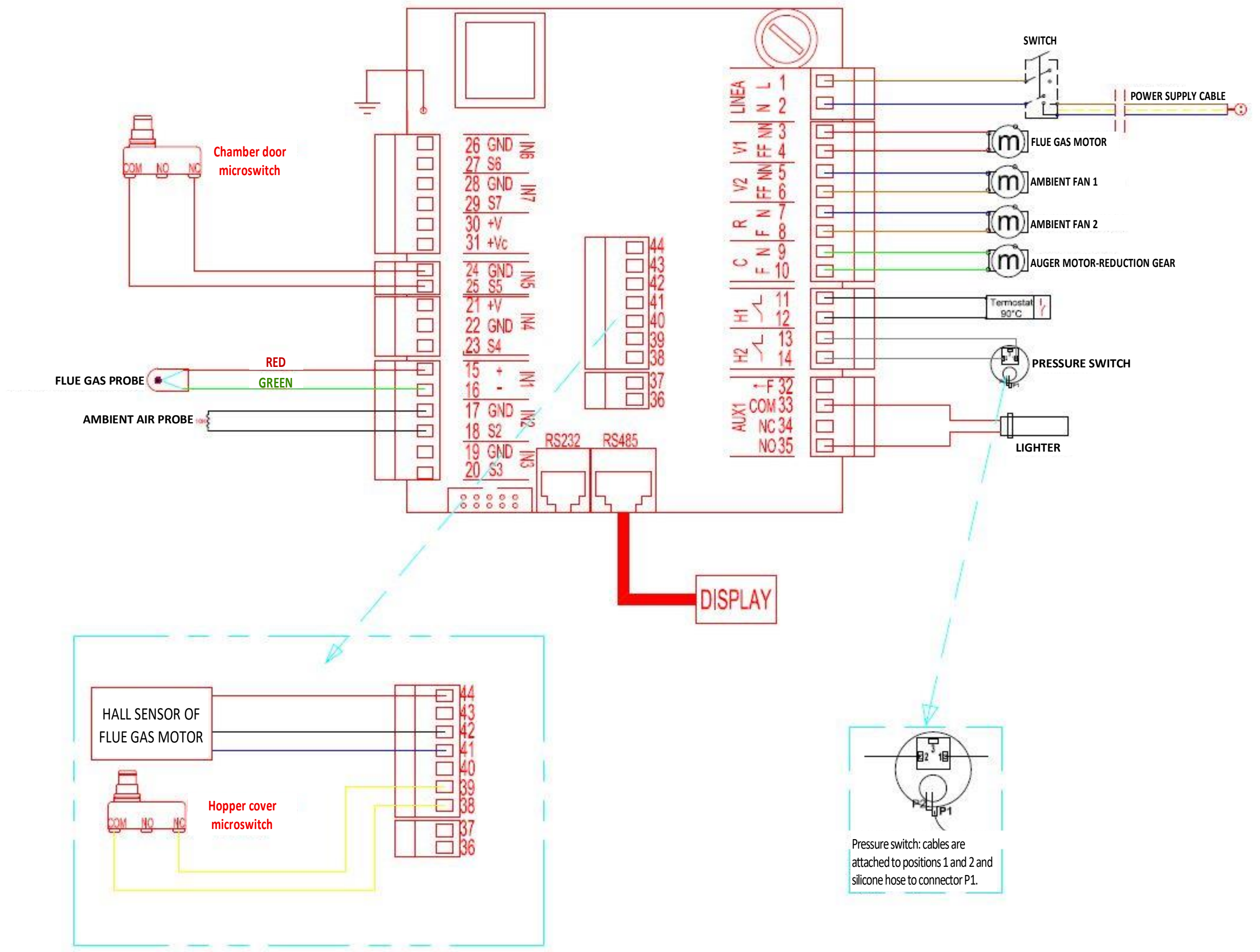
In case of fire in the chimney or flue pipes, immediately turn off the stove and disconnect it from the electrical system.

2.7. Wiring Diagram

For completeness of data, the wiring diagram is provided. The diagram is specifically intended for the technical personnel responsible for installation and maintenance.

⚠ **ATTENTION**: The main switch does not guarantee electrical disconnection of the stove from the power supply. For this reason, the stove's power supply cable must be unplugged before removing the sheet metal covers.

To inspect the electronic board, the left-side sheet metal cover of the stove must be removed.



3. USE OF PRODUCT

Before describing the product's operation in detail, please note that you must comply with relevant national and local regulations, rules, and applicable laws during its use. To better understand how the product operates, diagrams of the control panel (display) are provided, along with detailed descriptions and instructions for performing the initial startup of the stove. The product can be easily ignited by plugging in the power cable and pressing the IGNITION button.

To ignite the stove, connect the power supply cable to an electrical outlet and press the ignition button located on the back.

During the first few ignitions, unpleasant odors and fumes may be emitted from the painted components. These are a normal result of the chemical stabilization process of the special paints used, so it is essential to thoroughly ventilate the room during this stage.

⚠ **ATTENTION**: Please note that the stove door must remain closed while the product is in operation.

⚠ **ATTENTION**: Although the surface temperatures reached by this product are not excessively high, caution is advised when touching it. In particular, the outer surfaces of the combustion chamber can reach high temperatures during prolonged use.

⚠ **ATTENTION**: Keep the external part of the stove away from any fuel or flammable materials: 30 cm from the rear, 30 cm from the sides and 80 cm from the front. If these distances cannot be maintained, provide appropriate thermal insulation (UNI 7129, UNI 10683).

To avoid malfunctions that may lead to personal injury or property damage, it is recommended to avoid sudden and frequent switching on and off of the product, and instead follow the operating steps provided by the manufacturer.

⚠ **ATTENTION**: The household electrical system must be properly grounded (in functional condition), otherwise, the electronic board malfunction may occur.

It is not recommended to use the stove with an unstable power supply: frequent power outages may lead to malfunctions.

It is advisable to thoroughly clean the chimney and flue pipe connections, as well as the flue pipes themselves (at least once during the entire heating season), to prevent the risk of fire.

Please note that the stove door must remain closed while the product is in operation.

Any unauthorized modification to the device is strictly prohibited.

Only use replacement parts recommended by the manufacturer.

3.1. ELECTRICAL CONNECTION

These stoves must be connected to the power supply. Our stoves are equipped with electrical cables suitable for medium temperatures. If the power cable needs to be replaced (e.g., if damaged), please consult our authorized technical personnel or specialists. Before connecting the stove to electricity, ensure the following:

– the electrical system characteristics match the specifications listed on the stove's identification nameplate.

– if the flue exhaust system is made of metal, it must have a functional grounding connection in accordance with current standards and legal regulations. **Grounding is required by law.**

– The power cable must never reach a temperature that is 80° °C higher than the ambient temperature. Once the stove is installed and positioned the bipolar switch or socket must remain easily accessible.

– If the stove is not going to be used for an extended period of time, disconnect it from the power supply or turn the switch to the OFF (0) position.

In case of malfunction or abnormal operation, immediately disconnect the stove from the power supply or turn the switch to the OFF (0) position and contact an authorized service center.

3.2. First Ignition

Particular attention should be paid to cleaning the burner in the combustion chamber before starting the ignition process, and ensuring that the braided gasket under the combustion chamber is properly laid, i.e. that it sits flush against the combustion chamber support.

The appliance will function correctly only when there is no uncontrolled air intake, which means the stove door MUST be tightly closed, and all other air inlets must also be sealed, except for the one specifically intended for this purpose. It is therefore good practice to check that the door gasket fits tightly around the chamber along its entire perimeter (i.e. that it ensures good sealing).

Installation regulations in relation with pellet products, EN14785, UNI 10412 for heating and hot water systems, and UNI 10412 for wood stoves, require a 10-11-Pa vacuum at the base of the chimney, and special attention must therefore be paid to the flue gas exhaust system. If the chimney is too short or has too many flue pipes, the air intake required for combustion (which affects the combustion process itself) is also reduced. Slow smoke flow can, in some cases, lead to an increase in temperature, which reduces the stove's operating power.

Since there are various types of pellets available on the market, the operation of the stove must be adjusted according to the specific fuel used.

To allow customers to adapt the stove to different types of pellets and installation setups, the user menu offers four preset types, marked in ascending order from 1 to 4. A higher number indicates greater system ventilation. In extreme cases, if none of the preset types ensures efficient combustion, please note that operating parameters may ONLY be adjusted with the assistance of authorized ALFA PLAM personnel, who will evaluate the situation and provide the best solution for each specific case.

To allow the stove to properly heat up, it is recommended to set the power level to "4" or "5" during the ignition phase and for a few minutes thereafter.

For user's convenience, the following sequence outlines the steps required to start the appliance.

1) Fill the pellet hopper to the optimal level. We recommend filling the hopper to the optimal level. The optimal level is reached when the fuel touches the perforated grid inside the hopper.
2) Connect the appliance to a power outlet.
3) Press the switch located on the back of the stove.
4) Follow the instructions described in Section 3.3.

⚠ **ATTENTION**: Do not, under any circumstances, insert your hand into the pellet feeding auger while the stove is operating.

⚠ **ATTENTION**: Do not open the stove door or disconnect the stove from the power supply, even in the event of clogging or fuel buildup in the combustion chamber. Initiate the shutdown procedure and resolve the issue before attempting to restart the ignition process.

SHUTTING DOWN THE APPLIANCE

Press and hold the **Ignition** button for a few seconds. The shutdown process will begin according to the program set through the electronic board (the shutdown interval is variable and may take several minutes).

⚠ **ATTENTION**: We recommend not to interrupt the shutdown process before it is fully completed, for example, by unplugging the appliance.

If the flame goes out due to a lack of pellets, turn off the stove. Add more fuel to the hopper and restart the ignition process only when the stove is turned off.

It is strictly forbidden to manually insert pellets into the combustion chamber.

⚠ **ATTENTION**: The stove door must remain closed whenever the appliance is in use; it may only be opened for maintenance purposes when the appliance is cold.

The stove must not be modified.

Any unauthorized repairs, use of non-original spare parts, or unauthorized replacement of product components will void the warranty and may lead to malfunctions and serious safety hazards for users in close proximity to the appliance.

⚠ **ATTENTION**: During use, avoid obstructing the ventilation openings that ensure continuous airflow for combustion, as well as the air intake on the back of the appliance.

3.3. Safety Devices

The appliance is equipped with the following safety devices:

- **Hopper temperature thermostat**: This device shuts down the appliance whenever the set safety limit is exceeded;
- **Flue gas temperature meter**: this component monitors the flue gas temperature and continuously oversees the proper functioning of the appliance;
- **Pressure switch**: this component detects whether there is a blockage in the exhaust system, i.e., the flue pipes;
- **Ambient temperature probe:** this component continuously measures the temperature of the room in which the stove is installed;
- **Modulation mode:** If the flue gas temperature exceeds the designated safety threshold, the appliance will automatically reduce the quantity of pellets being burned until the temperature drops below the defined limit.

Incorrect parameter settings may lead to exceeding safety thresholds and increased pellet consumption. Safety thresholds may also be exceeded due to poor ventilation in the room where the stove is located, which results in insufficient intake of air.

IT IS FORBIDDEN to disable safety devices. Once the cause that triggered the safety system has been eliminated, the appliance may be restarted to restore its proper functioning.

⚠ **ATTENTION**: The appliance must be installed in such a way that its power cable is easily accessible.

Note: The section on safety has been prepared with normal operating conditions in mind, as described and specified in Chapter 3. ALFA PLAM accepts no responsibility for any personal injury or property damage that may occur if the stove is not used in accordance with the conditions outlined in this user manual. ALFA PLAM also accepts no responsibility for any personal injury or property damage that may occur if the user fails to comply with the following regulations:

A) All necessary measures and precautions must be taken to ensure the stove cannot be turned on while maintenance, adjustments, part replacements, or other servicing operations are being performed;

B) Do not remove or alter any of the appliance’s safety devices;

C) The appliance must be connected to a properly functioning flue gas exhaust system;

D) Ensure that the room in which the stove is installed is adequately ventilated, as prescribed in this manual.

4. IMPORTANT INSTRUCTIONS

THE FOLLOWING INSTRUCTIONS ARE REQUIRED FOR THE SAFETY OF PEOPLE, ANIMALS, AND PROPERTY.

We wish to inform the installer of the stove on some of the general guidelines which must be followed for proper installation and for proper stove mounting. These standards are required, but not completely. For further and more detailed information one needs to read the rest of this instructions manual.

- Plug the stove into an outlet that is grounded.
- The switch on the rear of the stove is set to position 1.
- Do not allow children or pets to be near the stove.
- Use pellets only, not other fuel.
- Notify all users about the potential risks and dangers and teach them how to handle the appliance.
- If the stove is placed on a wooden floor, then it is recommended to isolate the pedestal on which it stands.

The stove operates with a combustion chamber, which is in the negative pressure. **Therefore, make sure that the smoke is well thermally insulated.**

When the stove is turned on for the first time then, due to the stabilization process a small amount of paint (not harmful to health) that covers the stove vaporizes. It is therefore necessary to air the room so that it is cleared from the fumes.

5. WARNING SAFETY MEASURES FOR STAFF MAINTENANCE

The contractors who work in maintenance, in addition to following all safety measures, must:

- Always use safety equipment and personal protective equipment,
- Turn off the power supply before they start working,
- Always use the appropriate tools,
- Before they begin any work on the stove they need to keep in mind that it should be cold and that the ashes should be cold as well. They need to make sure the handles are cold as well.
- **NEVER TURN THE STOVE ON** if there is just one of the safety devices that is defective, improperly set up or it does not work at all.
- Do not make modifications of any kind, for any reason, other than those permitted and explained by the manufacturer himself.
- Always use original spare parts. Never wait until the components wear out before you replace them.

Replacing the worn parts, or the components of the stove before they stop working contributes to the prevention of damage caused by accidents due to sudden failure, or breaking of the components, which can lead to serious consequences for people and/or property located around the stove.

- Clean the firebox before lighting the stove.
- Make sure there is no condensation. If condensation occurs it shows that there is water from the cooling smoke.

We recommend you find the possible causes to be able to establish a regular and correct operation of the stove.

3.4. WARNING SAFETY MEASURES FOR THE USER

The place where the stove is to be set up, called the mounting place, must be prepared by local, national, and European regulations.

The stove is a "heating machine" and while it is on **it has outer surfaces that are very hot or that achieve very high temperatures.**

This stove is designed to burn fuel from pressed wood mass (a pellet with a diameter of 6 mm, with the length of 40 mm, with maximum moisture 8-9%).

It is therefore very important to pay attention to the following when the stove is on:

- Do not approach and touch the glass on the door, there is a BURNING HAZARD
- Do not approach and touch the smoke drain pipe, there is a BURNING HAZARD
- Do not do any cleanups
- Do not open the door because the stove is working properly only when it is sealed
- Do not throw away the ashes when the stove is ON
- Children and pets need to stand away from the stove
- FOLLOW ALL INSTRUCTIONS GIVEN IN THIS MANUAL

Likewise, the proper use of biofuel pellets means:

- Only use the fuel that meets the manufacturer's instructions,
- Always follow the maintenance plan for the stove,
- Clean the stove every day (only when the stove and the ash are cold),
- Do not use the stove in case of any defects or abnormalities, in the case of unusual noise and/or suspected faults,
- **Do not spray water on the stove, even when firefighting,**
- **Do not turn off the stove by pulling the plug. Use the button on the board to turn off,**
- Do not tilt the stove, IT MAY BECOME UNSTABLE,
- Do not use the stove as a support or a holder. Never leave the tank lid open.
- Do not touch the dyed parts of the stove while it is ON,
- Do not use wood or coal as a fuel, **but only the pellet** with the following characteristics: diameter of 6 mm, maximum length 40 mm, maximum moisture content 8-9%,
- Do not use the stove to burn waste,
- Always perform all operations with maximum security measures.

6. SAFETY GUIDILINES FOR IGNITION AND CLEANING OF THE STOVE

- For turning the stove ON never use gasoline, kerosene or any other flammable liquid. Keep these types of fluid away from the stove while it is running,
- Never turn the stove ON if the glass is damaged. Do not strike the glass or the door so that they do not get damaged,
- While the stove is ON, do not open the door to clean the glass. Clean the glass only when the stove is cold, using a cotton cloth or paper towel and a glass cleaner,
- Make sure the stove is secure to prevent any movement,
- Make sure that the ash box is inserted and that it is fully closed, so that the doors are leaning properly on the box,
- Make sure the stove door is firmly closed while the stove is ON,
- Use a vacuum cleaner to pull the ashes from the stove only when the stove is completely cool,
- Never use abrasive cleaners for cleaning the surface of the stove.

3.5. ROUTINE CLEANING AND MAINTENANCE DONE BY THE USER OF THE STOVE

Use a drum shaped vacuum cleaner that can facilitate cleaning the stove. The vacuum cleaner must have a filter that will prevent the sucked dust to go back into the room where the stove is located.

Before you get started with routine maintenance, including cleaning, take the following precautions:

- Turn off the stove from the power supply before you start doing anything,
- Before you start doing anything make sure the stove and the ash are cool,
- Use the vacuum cleaner to vacuum up the ash from the combustion chamber ***every day*,**
- Using the vacuum cleaner carefully clean the firebox ***every day*** (after each use and when the stove is cool)
- **Always make sure the stove and the ashes are cool.**

7. FURNACE CONTROL SYSTEM

The furnace is equipped with an advanced control system that enables safe, efficient, and reliable operation, as well as maximum functional utilization of the furnace.

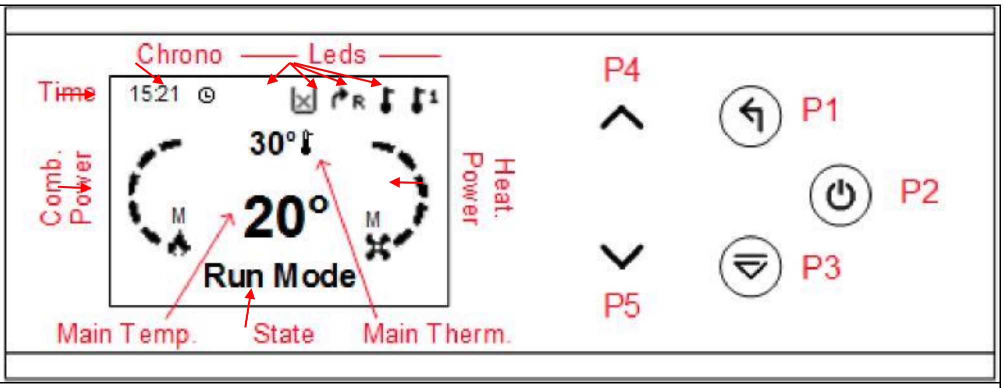
It is characterized by:

- easy setup and use,
- simple and direct user functions,
- reliable and flexible functional software specially developed for pellet furnaces,
- advanced functions available to installers for adapting various configurations and installations.

Always make sure that the furnace and the ash are cold.

7.1 The control panel (display): use and features

7.1.1 K100 display

The main frame shows: time and date, chrono activation, combustion energy, heat energy, functional state, current room temperature, set room temperature, LEDs	

Display	Meaning
Main Temp.	The current value of the room temperature
State	Functional state of the furnace
Main Therm.	Set room temperature
Comb. Power	Combustion power
Heat Power	Heating power
Time	Time
Chrono	Scheduled operation

Push button	Feature
P1	Exit menu/submenu
P2	Turning on and off (hold down for 3 seconds), reset errors (hold down for 3 seconds), chrono activation and deactivation
P3	Enter the user menu 1/submenu, enter the user menu 2 (hold down for 3 seconds), saving data
P4	Enter the visualization menu, maximizing
P5	Enter the visualization menu, minimizing

Led	Feature	Led	Feature
	Lack of pellets		Preset room temperature reached
R	The direction of air flow	1	Remote thermostat temperature reached (if connected to the remote thermostat)

7.1.2 Alarms

Description	System state	Code
Safety error - safety thermostat: signals when the system is off	Block	Er01
Safety error - pressure switch: signals only if the combustion fan is turned on	Block	Er02
Shutdown in case of flue gas temperatures lower than permissible	Block	Er03
Shutdown in case of flue gas temperatures exceeding the permissible temperatures	Block	Er05
The pellet thermostat is activated	Block	Er06
Encoder fan error: no encoder signal	Block	Er07
Encoder fan error: failed combustion fan regulation	Block	Er08
Date and time are not correct due to a prolonged power outage	Block	Er011
Ignition failed	Block	Er012
Power outage	Block	Er15
Communication error - display disconnected	Block	Er16
Air flux regulator error	Block	Er17
No more pellets	Block	Er18
Faulty air flux sensor	Block	Er39
The minimum air flux is not reached during the testing phase	Block	Er41
Maximum airflow reached (F40)	Block	Er42
Error: door open	Block	Er44
Auger encoder error: no encoder signal	Block	Er47
Auger encoder error: auger speed control failed	Block	Er48
Module error I/O 12C	Block	Er52
Service error. This informs that the planned period of operation has been reached (after preload): the system will stop when it goes into operation mode.	Block	Service

7.1.3 Other messages

Description	Code
Probe error when controlling during the testing phase	Prob
This informs that the planned period of operation has been reached. It is necessary to clean the furnace or boiler.	Clean
Door open	Door
The message appears if the system is turned off during ignition (after preload) by the external device:	Block ignition

the system will stop when it goes into operation mode.	
No communication between the motherboard and the display (keypad).	Link Error
Periodic cleaning is in progress.	Cleaning On

7.1.4 Visualizations

Pressing P4 and P5 opens the visualization menu.

Here you can see the value of the ambient temperature, flue gases, engine speed of flue gases, ON auger time*, etc, at all times. The following indicators of the furnace operation can be checked in the visualization menu:

Display		Description
Exhaust T. [ºC] 103		Flue gas temperature
Room T. [ºC]	25	Local room temperature
Rem. Room T. [ºC]	25	Remote room temperature; visible only if the remote thermostat is active
Air Flux	750	Air flux; visible if the primary air flux gauge is active
Fan Speed [rpm] 1250		The exhaust gas fan speed;
Auger [ºC]	1.2	ON auger time;
Cleaning [h]	450	Work time left before cleaning the furnace; visible only if the timer is active
Work time [h]	2985	Total furnace work time in the work mode, modulations and security
Ignitions [h]	106	Number of ignition attempts
Product Code: 494-	0000	Product code

7.2 User menu 1

Short press P3 to activate user menu 1.

Keys P4 and P5 list different submenus (combustion management, heating management ...); pressing the P3 key opens any selected submenu.

Combustion Management	Power In this submenu it is possible to modify the power of the combustion system. Keys P4 and P5 select between the 5 powers (Power 1, Power 2, Power 3, Power 4 and Power 5). When you select the desired power press the P3 key to confirm. Exit the submenu by pressing P1.
	Auger Calibration Allows modification of the set value for the duration of the ON auger time. The values range from -7 to 7. The default value is 0 (see Section 4.6.2)
	Fan Calibration Allows modification of the set value for the speed of the flue gas engine. The values range from -7 to 7. The default value is 0 (see Section 4.6.3)
Heating Management	Room Thermostat This menu allows modification of the set temperature value in the local room (the room where the furnace is assembled). The temperature value set up in this menu is a requirement for **furnace operation**. Namely, the furnace will work in the selected mode until it reaches the preset value of the room temperature. When the preset value is reached then the furnace goes into a modulation state or it works using minimum power. The furnace exits the modulation state and returns to the mode of normal operation as soon as the room temperature falls below the preset value. The temperature value is set up using the P4 and P5 keys and then the set value is confirmed by pressing P3. Exit the submenu by pressing P1.
	Remote Room Thermostat This menu allows you to modify the value of the thermostat in a distant room. It is visible only if the external thermostat is installed, while a heating plant that uses it is set up to use an external thermostat.
Remote Control	This menu allows turning the remote control options on and off.
Chrono	Chrono program It is used for scheduling operation of the furnace and for turning the furnace on and off in certain time periods.
Manual Load	This procedure activates the manual loading of pellets with the activation of the preset modality of the auger engine. Loading stops automatically after 600 seconds. The system must be turned off in order for the function to be activated.
Cleaning Reset	Menu for resetting the "System Maintenance 2" function. Visible only if the option "System Maintenance 2" is active.

7.2.1 Chrono

In order to adjust the programmed operation of the furnace it is necessary to access the Chrono menu.

The Chrono menu is accessed in the following manner:

- Short press P3 to activate user menu 1.
- Press P4 and P5 to list the submenus until you reach the Crono submenu.
- Press P3 once again and enter the Chrono submenu
- The following is shown on the display:

Chrono
Modality
Modality
Chrono program

Press P4 and P5 to select the Modality or Chrono program and then press P3 to enter one of the two submenus.

7.2.1.1 Modality

Allows selection of desired modality or disables all set programs.

- Programming is enabled or disabled by pressing **P2**
- Use P4 and P5 to select the desired way of programming the Daily, Weekly and Weekend furnace operation.
- Pressing **P3** confirms the selected way of programming furnace operation.
- Save your settings by pressing **P1**.

Disabled
Daily Weekly
Week End

7.2.1.2 Chrono Program

Chrono program provides three types of programming: daily, weekly and weekend programming.
The following is shown on the display in the Chrono Program:

Chrono
Daily
Weekly
Week-end

The system provides three types of programming: daily, weekly and weekend programming. Selection is made by pressing P4 and P5 after which the user enters the selected program by pressing P3.

1. Daily Programming

The following is shown on the display once the **Daily** submenu or the daily program is entered:

Monday
Tuesday
Wednesday
Thrusday
Friday

Days of the week are selected by pressing P4 and P5. When you select the date press P3.
Setting the activation and deactivation time of the program for the selected day is done as follows:

- Enter the change of time (the preset time is blinking) by pressing **P3**.
- Change the time by pressing **P4** or **P5.**
- Save by pressing **P3.**
- Activate ("●" appears) or deactivate the time period ("○" remains) by pressing **P2**.

Example: For example, select Monday and press P3. Then press P3 and *ON time* (time of turning on of the furnace) starts blinking. By pressing P4 and P5 you can set up the desired *ON time* and confirm it by pressing P3. In this way *ON time* can be set up to, for example, 9:30 AM. When *ON time* is set up press P5 and then the *OFF time* (time of turning off of the furnace) starts blinking. By pressing P4 and P5 you can set up the desired *OFF time* and confirm it by pressing P3. In this way *OFF time* can be set up to, for example, 11:15 AM. In the end press P2 in order to activate the program. The following is shown on the display:

Daily
Monday

	ON		OFF
●	09:30	-	11:1
○	00:00	-	00:0
○	00:00	-	00:0

This program schedules the furnace to turn on on Monday at 9:30 AM and turn off at 11:15 AM.
Save your settings by pressing **P1**.
For daily programming it is possible to switch the program from the previous day to the next day.
The procedure is as follows:
Select the day of the week for programming and setting up the turn on and turn off time.
Set the clock to ON on the previous day at the desired time: e.g., 8:30 PM.
Set the clock to OFF on the previous day at 11:59 PM.
Set the clock to ON on the next day at 12:00 AM.
Set the clock to OFF on the next day at the desired time: e.g., 6:30 AM.
The system will turn on at 8:30 AM on Tuesday and will turn off at 6:30 AM on Wednesday.

2. Weekly Programming

In terms of weekly programming, programs are the same for all days of the week.

The following is shown on the display once the **Weekly** submenu or the weekly

Weekly
Mon-Sun

	ON	OFF
○	00:00	00:00

program is entered. The programs are activated and deactivated in the same way as with the daily programming. 3. Weekend Programming In terms of weekend programming it is possible to choose between programs: - Mon-Fri - Sat-Sun Selected programs will be active from Monday to Friday or Saturday and Sunday. The programs are activated and deactivated in the same way as with the daily programming.	○ 00:00 - 00:00 ○ 00:00 - 00:00 Mon-Fri Sat-Sun Week-end Mon-Fri ON OFF ○ 00:00 00:00 ○ 00:00 - 00:00 ○ 00:00 - 00:00

7.3 User Menu 2

Long press P3 (3 seconds) to activate user menu 2.
Keys P4 and P5 list different submenus ((Keyboard Settings, Keyboard Menu ...); pressing P3 opens any selected submenu.

Keyboard Settings	**Time and Date** Used for setting up the day, month, year and current time.
	Language Menu for changing the language
Keyboard Menu	**Learn Menu** Allows manual updating of the menu; access is protected by a four-digit password and the procedure cannot be stopped once it is started. In the event of a failed save or change of the menu, this procedure starts automatically.
	Set Contrast Menu used to regulate the contrast of the LCD screen.
	Set Minimum Light Menu used to regulate the brightness of the LCD screen when controls are not used.
	Keyboard Address This menu is password protected and is not available to the user.
	Node List This menu displays the following: table communication address, table typology, firmware code and firmware version. Data cannot be changed. Table typology that can be displayed are as follows: MSTR Master INP KEYB OUT *CMPS* composite *SENS* Sensor *COM* Communication
	Acoustic Alarm Allows enabling or disabling of the keyboard alarm.
System menu	Menu for entering the technical menu. This menu is password protected and is not available to the user.

7.4 Turning the furnace on and the state function

The furnace is turned on by long pressing P2 for 3 seconds. After that come the next function states of the furnace:

7.4.1. Check Up

During the check up phase the initial checks of the input signals or the probity of safety probes and pressure switches of the furnace are done. In this phase the flue gas engine runs at maximum speed while the auger and igniter are turned off. The check up phase lasts for a few seconds, and a successful check up is followed by the ignition phase.

7.4.2. Ignition

The ignition phase consists of four sub phases which alternate, and those are:
- Preheating phase
- Pellet preload phase
- Fixed ignition phase
- Variable ignition phase

The message IGNITION is displayed during the entire ignition phase. There are no special markings on the display for sub phases.

7.4.2.1 Ignition Preheating

At this stage there is warming of the igniter before dispensing of the pellets starts. In order for pellet burning to be as efficient as possible, it is desirable that the igniter is already preheated at the time when dispensing the pellets starts. At this stage the igniter is active and the auger is inactive. Flue gas engine runs on lower rpm in order to promote heating of the igniter.

7.4.2.2 Ignition Preload

In this phase there is the initial dispensing of pellets or the auger loads a certain amount of pellets necessary for ignition. In this phase the igniter, auger and flue gas engine are active.

7.4.2.3 Ignition – Fixed Phase

This phase is a fixed time period that lasts for 180 seconds and in case that the furnace ignition requirement is reached before the expiry of this phase it will always last until the end and only after the expiration of the fixed time period will the furnace move into stabilization phase. In this phase the igniter, auger and flue gas engine are active.

7.4.2.4 Ignition – Variable Phase

This phase occurs after the fixed ignition phase. The duration of this phase is a variable period that lasts until the moment of fulfillment of the ignition requirements or until the moment when the flue gas temperature of 50 °C is reached. In case the furnace ignition requirement is met before the expiry of the duration of this phase, it is stopped and the next phase follows, which is the stabilization phase. In this phase the igniter, auger and flue gas engine are active.

7.4.3. Stabilization

The stabilization phase is a transitional phase between the ignition phase and the run mode phase. This phase occurs when the ignition requirement is met, that is, when flue gas temperature reaches 50 °C. It lasts for three minutes and during that time the auger, flue gas engine and the igniter are active.

7.4.4. Normal – Run Mode

The normal run mode begins following the stabilization phase. In this phase there are five levels of power that can be set up as explained in the user menu 1. In this phase the igniter is turned off while the auger, flue gas engine and area engine are active and run with different intensity depending on the level of power of the furnace. The furnace runs on the given power until the modulation requirements are met.

7.4.5. Modulation

The furnace goes into the modulation phase when one of the two conditions are met:

1. When the furnace reaches the preset ambient temperature
2. When the flue gas temperature reaches a value greater than 250 °C

In the modulation phase the furnace runs on minimal power - power 1, until the moment when the temperature decreases below the threshold value.

7.4.6. Safety

The Safety status occurs when flue gas temperature exceeds 275 °C. In this phase dispensing the pellets stops until the temperature of flue gases decreases. If there is no decrease in temperature in the next 60 seconds the furnace goes into an alarm stage and displays the **Er05** message.

7.4.7. Extinguishing

The furnace is turned off by long pressing P2 for more than 3 seconds. The extinguishing phase occurs next during which dispensing of pellets stops and the flue gas engine and the ambient fan operate at maximum capacity in order for the furnace to cool down as soon as possible. Minimum duration of the extinguishing phase is 30 seconds and the requirement for the furnace to completely turn off is for the flue gas temperature to be less than 68 °C.

7.4.8. OFF

During this phase the furnace is turned off, that is, no furnace output (flue gas engine, ambient fan, igniter and auger) is active.

7.4.9. Block

The block state occurs in the event of a fault or alarm. In the block state the exhaust gas fan, auger and igniter are turned off. To exit press P2 for 3 seconds: if there is no more block and no cause for alarm the system will turn off.

7.4.10. Ignition Recovery

The furnace goes into this phase in two cases:

1. If there is a power failure in the operating mode and the flue gas temperature is greater than 50 °C.
2. By pressing the main switch at a time while the furnace is in the extinguishing phase.

7.5 Other functions

7.5.1. Management of the absence of power

In the absence of power, the system keeps the most important functional data. When the power is restored the system evaluates the saved data and:

- If the furnace is turned on and the temperature of exhaust. gases is greater than 50°C, the system enters the **recovery point**. Pressing P1 can lead to a sudden new system ignition.

- If the furnace is turned on but the temperature of exhaust. gases is lower than 50°C, the system enters the **shutdown point** with error **Er15**.
- If the furnace is turned off or in extinguish or block phase, the system returns to its previous state.
- In the absence of power for more than a week the system goes into **block** with an error message **Er11** indicating that the DATE/TIME values are incorrect. When P1 is enabled the TIME value starts to blink signaling the need for updating the TIME and DATE with the CLOCK function.

7.5.2. Management of pellet loading calibration

The user has the option to calibrate the dispensing of pellets in the user menu 1. Calibration ranges between -7 ÷ 7. 1=5%. Each calibration of dispensing the pellets is applied to all workforce in percentages. For example, if -1 is set up then the dispensing of pellets will be reduced by 5% in all operating modes (Power 1 - 5).

Example	Before calibration	Power 1 = 2.0	Power 2 = 3.0	Power 3 = 4.0	Power 4 = 5.0	Power 5 = 6.0
	Step = -1	Power 1 = 1.9	Power 2 = 2.85	Power 3 = 3.8	Power 4 = 4.75	Power 5 = 5.7

Never calibrate dispensing of pellets without consulting with the service center first.

7.5.3. Management of flue gas engine correction

The user has the option to calibrate the rpm of the flue gas engine in the user menu 1. Calibration ranges between -7 ÷ 7. 1=5%. Each calibration is applied to all workforce in percentages. For example, if it is set up to 3 then the rpm of the flue gas engine will be increased by 15% (3x5%) in all operating modes (Power 1 - 5).

Example	Before calibration	Power 1 = 1000	Power 2 = 1200	Power 3 = 1400	Power 4 = 1600	Power 5 = 1800
	Step = +3	Power 1 = 1150	Power 2 = 1380	Power 3 = 1610	Power 4 = 1840	Power 4 = 2070

Never calibrate the rpm of the flue gas engine without consulting with the service center first.

7.5.4. Safety thermostat

In the event that the temperature in the pellet tank reaches the value higher than 90 °C, the safety thermostat activates in order to prevent the ignition of pellets in the tank. The system goes into block mode and there is an alarm message **Er01**.

7.5.5. Periodic cleaning of the furnace

When the system is stable after a specified time interval (every 45 minutes), the system automatically performs periodic cleaning which lasts for 30 seconds.

During the periodic cleaning, the flue gas engine works with increased intensity while dispensing of pellets stops.

7.5.6. Shutting down during the ignition phase

When the system shuts down during the ignition phase (after the preheating phase) through an external device or an internal chrono device, the system goes into shutdown mode when it enters running mode at the end of ignition phase. Message *Block ignition* is shown on the display.

If an error occurs, the system immediately goes into shutdown; if P2 is pressed, it is possible to immediately introduce the system into the turning on or off.

7.6Possible problems and solutions (Troubleshooting)

Message on the display	Description	Possible causes	Resetting errors	Possible solution of alarm causes
Er01	Activation of the safety thermostat	High temperature inside the furnace	Wait until the furnace has cooled and then unscrew the plastic cap on the thermostat and press the reset button	Check the heat sink and check that there is no obstacle for the hot air to get out
		Too high a temperature in the room where the furnace is assembled		Contact the service center
		Faulty thermostat		
Er02	Activation of the safety pressure switch	Obstruction of flue gas drain	Press and the P2 key for more than 3 seconds	Check contamination of flue pipes and funnel
		Incorrect funnel installation		Contact the service center
		Faulty pressure switch		
Er03	Shutting down due to very low flue gas temperatures	Poor combustion (too few or too many pellets remain in the combustion chamber)	Wait for the furnace to shut down and then press P2 for more than 3 seconds	Check the size of the pellet granules
				Check for contamination of the furnace chamber
		Empty pellet tank		Check the status of flue pipes
		Faulty flue gas probe		Contact the service center
Er05	Shutting down due to very high flue gas temperatures	The temperature of flue gases exceeds the limit	Wait for the furnace to shut down and then press P2 for more than 3 seconds	Insufficient heat transfer - contact the service center
		Obstruction of flue gas drain		Check contamination of the flue drain and funnel
		Faulty flue gas probe		

Er07	Encoder error	Missing encoder signal	Wait for the furnace to shut down and then press P2 for more than 3 seconds	Contact the service center
Er08	Encoder error	Flue gas engine is not responding Flue gas engine operates at a speed that is different from the set speed	Wait for the furnace to shut down and then press P2 for more than 3 seconds	Contact the service center
Er011	Clock error	Problems with the internal clock Insufficient capacity of the internal battery	Press and hold P2 for more than 3 seconds	Check the accuracy of the preset time Check the correctness of programming in the Chrono mode Contact the service center
Er012	Ignition failed	Ignition error During the ignition phase adequate temp. of flue gases is not reached Faulty flue gas probe	Wait for the furnace to shut down and then press P2 for more than 3 seconds	Check the state and quality of the used pellets Check contamination and draft of the flue drain Contact the service center
Er15	Interruption of power supply	Loss of power supply during furnace operation	Press and hold P2 for more than 3 seconds	Check to see if the system and installation are in order Contact the service center
Er16	Communication error between the electronics and the display	Interruption of the display cable Damage to the display cable connector	Press and hold P2 for more than 3 seconds	Check the cable and display cable connectors Contact the service center
Er17	Primary air flux meter error	Primary air flux meter does not adjust the operation of the furnace	The furnace continues to run without adjustment of primary air. Turn the furnace off to reactivate the air flux meter. Wait for the furnace to shut down and then press P2 for more than 3 seconds	Check pipe contamination for primary air inlet Check contamination and draft of the flue drain and funnel Contact the service center
Er39	Primary air flux meter sensor is damaged	Faulty sensor	The furnace continues to run without adjustment of primary air	Contact the service center
Er41	The minimum primary air flux is not reached during the testing stage	There is an obstacle or large contamination in the pipe for primary air inlet Obstruction of flue gas drain Doors not properly closed during the ignition phase	Wait for the furnace to shut down and then press P2 for more than 3 seconds	Check and clean the pipe for primary air inlet Check contamination and draft of the flue drain and funnel Check if the doors close well Contact the service center
Er42	Primary air flux is greater than the maximum permissible value	Too much air intake	Wait for the furnace to shut down and then press P2 for more than 3 seconds	Check the pipe for primary air inlet Check contamination and draft of the flue drain and funnel Contact the service center

Description	Possible solution of causes
The stove is not receiving electrical power (led indicator not lit)	The power cable could be damaged or else could be disconnected frok the electrical outlet The fuse inside the circuit board may have burnt out (in this case, request technical assistance)
Repeated failed ignitions take place	The combustion chamber may not have been subjected to regular maintenance (see section 5.1.3.4) The ignition heating element or smoke temperature sensor may have malfuncioned (in this case, request technical assistance)

The ventilation is not working	The fan may be blocked or malfunctioning (in this case, request technical assistance
The burner is being filled with too many pellet (with pellet overflowing)	The door's seal may be worn or damaged
	The holes in teh burner may be blocked by deposits (see section 5.1.3.4)
	The stove may not have been subjected to regular maintenance (see sections 5.1.3 and 5.2)
	There may not be sufficient combustion air (if the problem still persists after cleaning the stove, request technical assistance)
	The smoke extractor's motor may not be working properly (in this case, request technical assistance)
	The fuel may be damp
	The combustion air intake could be obstructed
	The set pellet parameter may not be set to proper value and may need to be corrected (in this case, request technical assistance)
Presence of smoke in the room	The door's seal may be worn or damaged
	The stove may not have been subjected to regular maintenance (see sections 5.1.3 and 5.2)
	There may be another functional (stove, fireplace, wood burning range or fume hood) or non-functional (open fire) unit in the same room whose draught is limiting or impeding that of the pellet stove, or vice versa
	The smoke extraction duct (flue duct and chimney) may not be clean or may be nor airtight
	The point for inserting the flue duct into the chimnex may be flawed
	The size of theflue duct may not comply with the indications provided in this manual(see section 2.2)
	The room should be well ventilated during the first start up phases as the paint normally releases unpleasant odours
	There could be obstacles (trees, buildings, etc.) that exceed the height of the chimney and prevent the smoke from flowing out; the draught in the chimney may not be sufficient

NOTE: If the recommended troubleshooting does not eliminate the direct cause of alarm, YOU MUST CONTACT THE ALFA PLUM CALL CENTER.

8. MAINTENANCE

Routine maintenance

Proper and efficient operation of the stove requiresperiodical maintenance procedures.

Regular maintenance is carried out by the user.

To provide long and proper operation, the deviceis designed to apply the least possible number of movable parts that may endanger its operation byleading to uncontrolled air intake, which may be veryharmful for the combustion quality.

⚠ **CAUTION**: Cleaning procedures described belowmust be carried out only when the stove is completely cold and disconnected from the power supply.

⚠ **CAUTION**: The stove can be disconnected from its electrical supply by performing two simple procedures: the first consists of turning off the switch on the back of the stove, and the second consists of disconnecting the stove's electrical cable from the power outlet.

The combustion chamber (arrow A in Figure 11) is automatically cleaned during the stove extinguishing phase in order to provide proper flow of the combustion air in the combustion chamber. If there is pellet residues in the combustion chamber, remove it manually using a brush or avacuum cleaner.

⚠ **CAUTION**: However, it is recommended that you cleanthe lateral areas of the combustion chamber using a vacuum cleaner before you activate the device.

Do not make any changes on the combustion chamber.

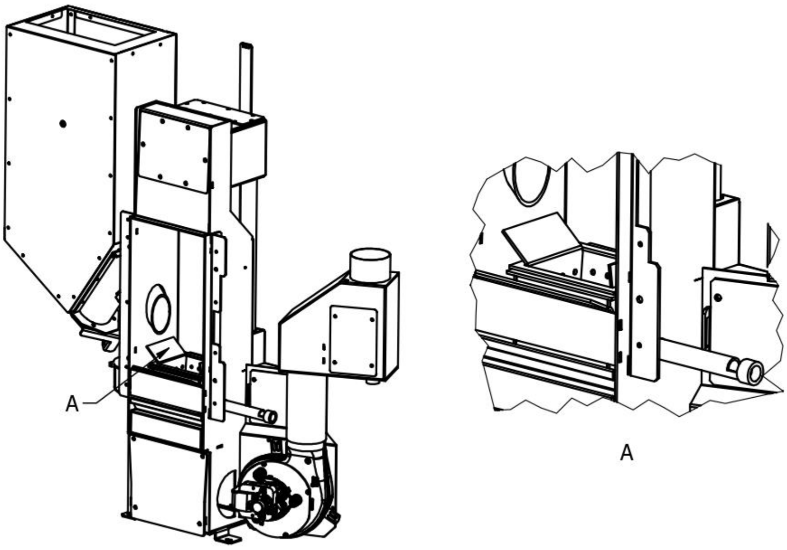


Figure 11: Combustion chamber

In the upper part of the chamber there is a cleaning cover attached with 6 nuts (shown by arrow A in the picture, picture 12). Unscrewing the nuts and removing the cover leads to the part inside the chamber (arrow B) where ash accumulates due to the burning of the pellets. Accumulated ash should be cleaned using a brush (which comes with the stove) and a vacuum cleaner.

⚠ **ATTENTION:** After cleaning, check whether the braid on the cleaning cover is in good condition, and after checking, the cover is tightened on the chamber using nuts. The tightening of the nuts should be strong enough, in order to achieve a seal between the cover and the stove, which is a condition for good operation of the stove and reducing the risk of malfunctions.

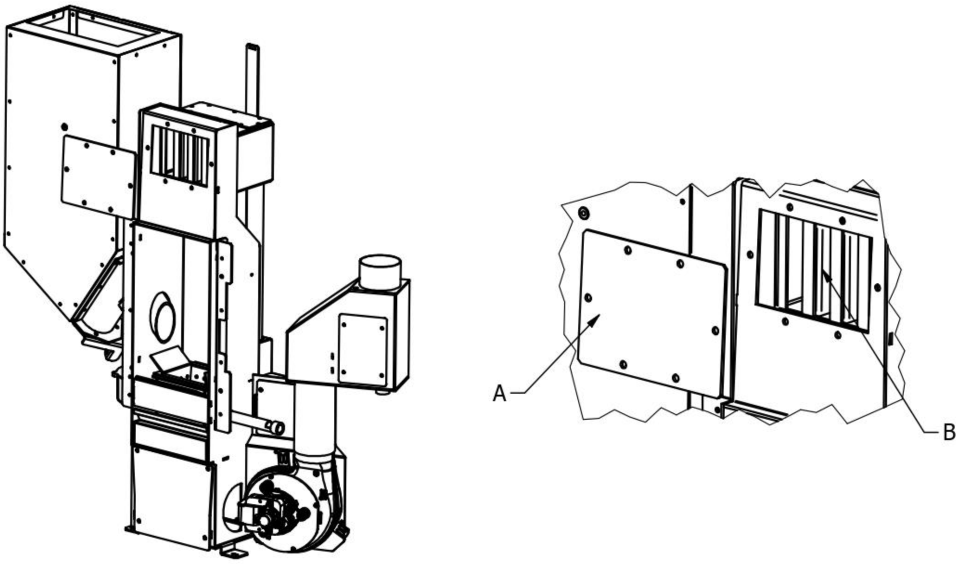


Figure 12: *Opening the cover for cleaning in the upper part of the chamber*

In the lower part of the chamber, directly above the smoke engine, there is a cleaning cover attached with two butterfly nuts (arrow A in Figure 13). Unscrewing these nuts and removing the cover leads to the space (arrow B in Figure 13) through which flue gases pass. Due to the burning of the pellets, there is an accumulation of ash, so it needs to be cleaned using a vacuum cleaner.

⚠ **ATTENTION:** After cleaning, check whether the braid on the cleaning cover is in good condition, and after checking, the cover is tightened on the chamber using nuts. The tightening of the nuts should be strong enough, in order to achieve a seal between the cover and the stove, which is a condition for good operation of the stove and reducing the risk of malfunctions.

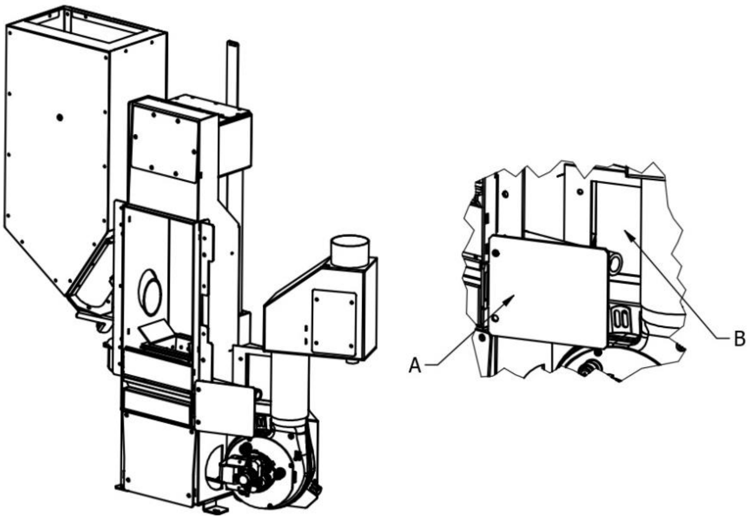
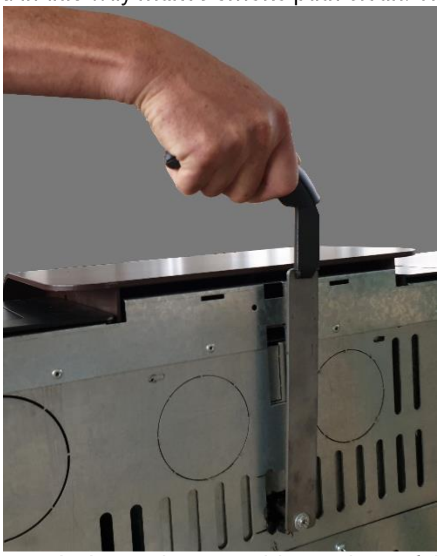


Figure 13: *Opening the cover for cleaning in the lower part of the chamber*

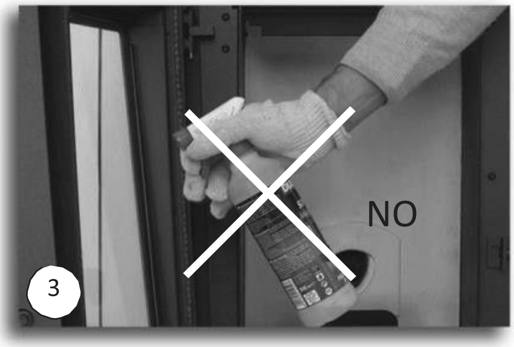
⚠ **CAUTION:** Cleaning procedures may be carried out only when the stove is completely cold.
⚠ **CAUTION:** Disconnect the power cord from the power socket.

- By using a special handle delivered with the stove, the customer has to move left and right a laver at the back side of the stove at least once per day. Moving the laver left and right, activates special mechanism which cleans smoke pipes integrated inside of combustion chamber and in this way makes smoke path clean. The operation is shown in the photo below.



- The glass may be cleaned more frequently due to the inevitable residues of the combustion that will accumulate on it. The frequency of this physical phenomenon depends onthe nature and the quantity of used fuel.

Clean the glass when it is completely cold by using nonabrasive detergents.



After the winter, it is recommended that you empty all remaining pellets from the tank and store it in accordance with the notes given in the first section.

Flue pipes and chimney should be thoroughly cleaned (at least once during the season of use) to prevent the risk of fire.

You are recommended to check the gaskets of the combustion chamber, since their excessive wearing may lead to the disruption of the combustion process. Open the door and check if the combustion chamber gasket is whole.

Cleaning of condensate and ash collectors

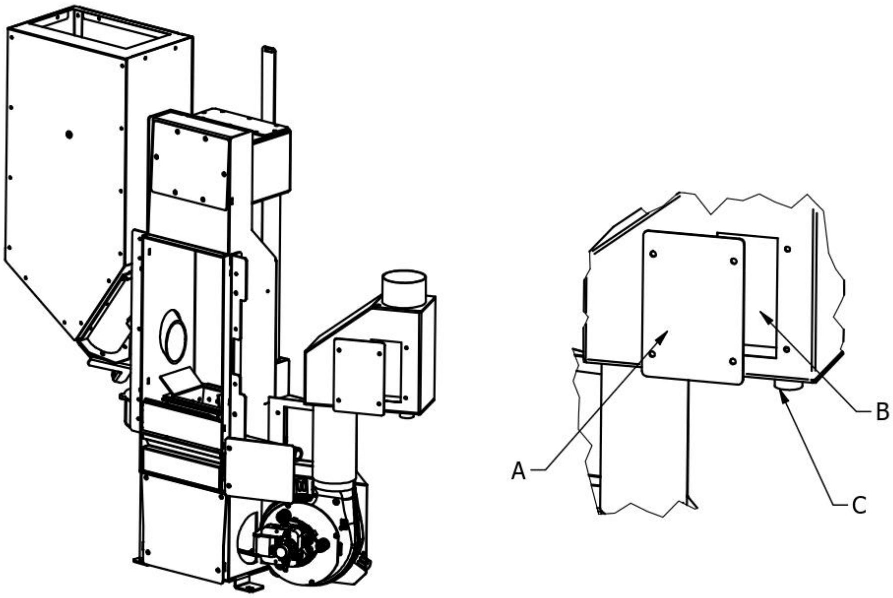


Figure 14: *Opening the cover for cleaning in the lower part of the chamber*

At the outlet of the smoke engine pipe, a condensate and ash collector is mounted, which has a cleaning cover (arrow A in Figure 14) and is attached to the collector by means of 4 nuts. By unscrewing the nuts and removing the cover, you get to the inside of the collector (arrow B), where the ash from pellet combustion settles and which needs to be cleaned using a vacuum cleaner. By unscrewing the galvanized plug (arrow C) from the collector, you can also remove the liquid that may have formed due to condensation.

⚠ **ATTENTION**: After cleaning, it is checked whether the braid on the cleaning cover is in good condition, and after checking, the cover is tightened on the collector using nuts. The tightening of the nuts should be strong enough, in order to achieve a seal between the lid and the collector, which is a condition for good operation of the furnace and reducing the risk of malfunctions.

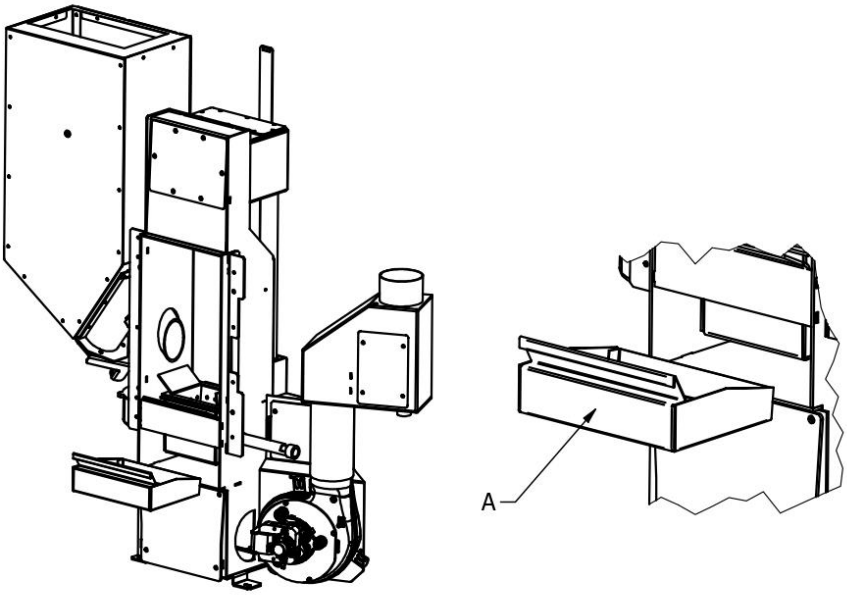


Figure 15: *Cleaning the ashtray*

Under the burner support there is an ashtray box (arrow A in Figure 15) that collects ash as a combustion product as some particles of unburned pellets. The ashtray is easily accessible by opening the oven door. It is simply pulled back using its handle and the accumulated ash is released.

⚠ **ATTENTION:** This cleaning is done daily, it is done when the stove has cooled down and before it is turned on. In this case, the remains of the unburned pellet will be completely burned and the possible ignition of the combustible material in the ash delivery container will be avoided. If the user is impatient and wants to empty the ashtray immediately after turning off the stove, it is MANDATORY to deliver the ashes in a special metal container containing water in order to extinguish the remains of unburned pellets.

8.1. Special maintenance

This section is intended only for technicians and specialized staff when they are called to make an intervention on our product or to provide useful notes for carrying out procedures that are necessary forthe device to be maintained in excellent operational condition.

Detailed equipment maintenance is recommended every season.

⚠ **ATTENTION:** Detailed maintenance procedures can only be carried out by authorized persons, while the stove is completely cold and disconnected from the electrical supply.

⚠ **ATTENTION:** The stove can be disconnected from its electrical supply by performing two simple procedures: the first consists of turning off the switch on the back of the stove, and the second consists of) disconnecting the stove's electrical cable from the power supply.

In the event that the maintenance procedures described in the previous points prove to be insufficient (poor operation of the device, poor yield, excessive fuel burning, etc.), as well as every two years regardless of everything, an authorized person must be invited to perform a more thorough cleaning of the device components that are in direct contact with highly heated exhaust gases).

The product has an upper opening for cleaning (arrow A in Figure 16) of the exchanger (tubes), which is done 1-2 times per season, but this frequency may depend on the conditions of use of the stove.

The opening can be accessed only after removing the jacket of the stove's heat chamber made of galvanized sheet.

When you remove the cover, unscrew the cover fixing screws (There are 8 of them) to access the exchanger - pipes. Next, removing the appropriate screws and split, separate the roast shaker lever (arrow B) and roast shaker shaft (arrow C) from the turbulator support (arrow D). Remove the turbulator holder together with 4 turbulators (arrow D) from the exchanger (tube).

It is now possible to start cleaning using a cleaning brush and a vacuum cleaner. After cleaning, return all parts to their original position.

⚠ **ATTENTION:** After cleaning, check whether the braid on the cleaning cover is in good condition, and after checking, the cover is tightened on the chamber using screws. The tightening of the screws should be strong enough, in order to achieve a seal between the lid and the stove, which is a condition for good operation of the stove and reducing the risk of malfunctions.

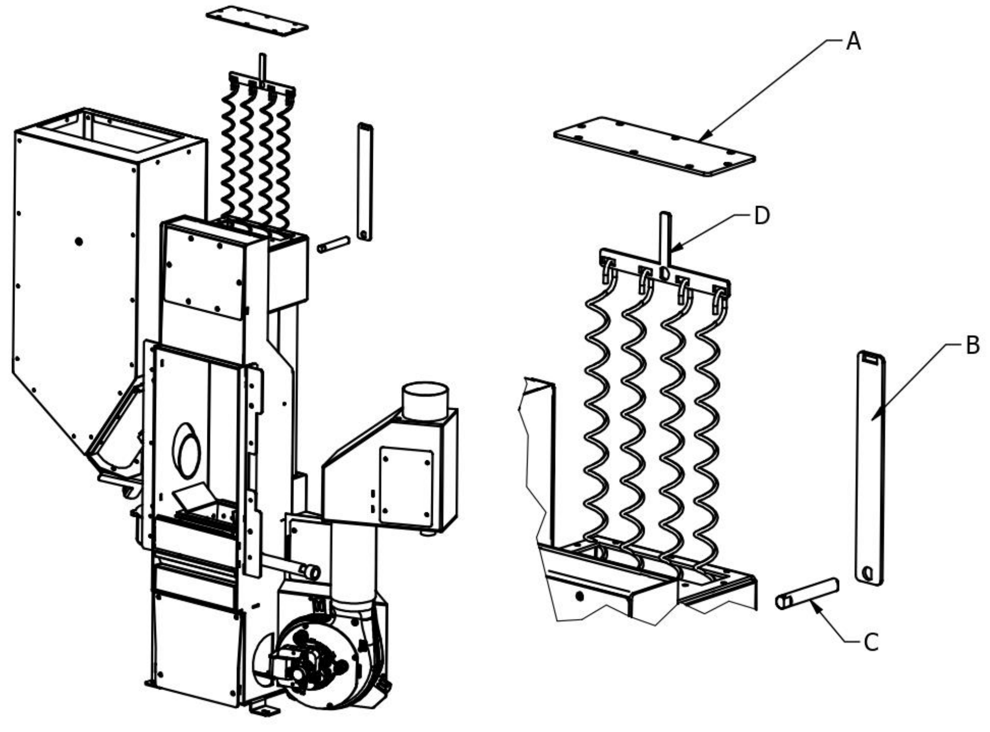


Figure 16: *Access to the exchanger (tube)*

The smoke engine with housing (arrow A in Figure 17) must be cleaned at least once every two years. After removing the condensate collector (arrow B) from the exhaust pipe of the smoke engine housing, it is necessary to unscrew the 3 nuts with which the motor housing is attached to the furnace chamber. After that, the smoke engine can be thoroughly cleaned together with the housing, from residual ash as a product of pellet combustion. In the chamber space behind the motor housing (arrow C) residual ash can be cleaned using a vacuum cleaner. In the factory, the seal between the engine housing and the flame chamber is achieved with a circular ceramic felt (arrow D). When disassembling the motor housing from the motor, damage will inevitably occur and, therefore, the ceramic felt will remain unusable. Therefore, when returning the motor housing and attaching it to the chamber, it is best to achieve a seal between them using temperature-resistant silicone.

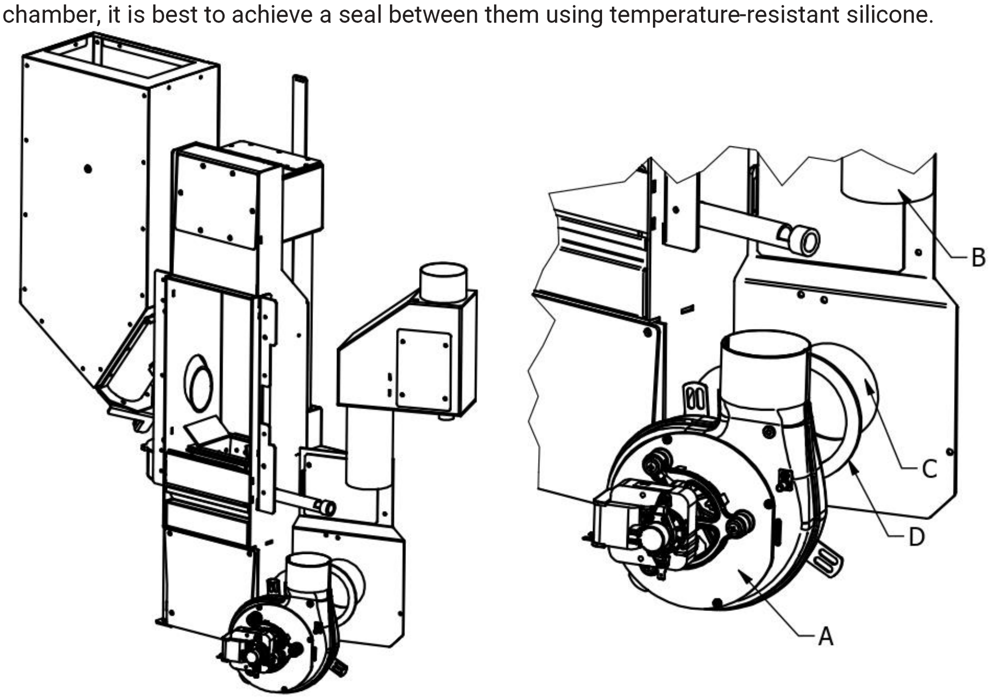


Figure 17: *Smoke engine with housing*

You are recommended to refer to the support centre of the manufacturer in order to obtain additional informationand advice that refer to ordering of spare parts for the purchased products.

9. INFORMATION ON DISPOSAL (THROWING AWAY) AND DISMANTLING (PULLING APART) THE STOVE

Dismantling and throwing away, or disposing of an old used stove is the sole responsibility of the owner.

The owner of the stove must abide by the regulations in his/her country related to the safety and environment protection. Dismantling and disposing of the stove may be left to a third party to do if the third party is a company authorized to collect and dispose of such materials.

NOTICE: *In all cases you must abide by the applicable regulations of the country where the stove is installed regarding disposal of such materials (things) and, if necessary, report the disposal of such items.*

ATTENTION

Dismantling the stove must be done only when the chamber of the stove is not working and when the stove is unplugged from power (no power supply).

- *pull out all electric parts,*
- *throw away the battery and electronic cards in the proper garbage cans in accordance with the standards.*
- *separate the batteries you are keeping from the electric cards,*
- *dismantle the stove with the help from an authorized company*

ATTENTION

Disposing of the stove in public places poses a serious risk for people and animals. In such cases it is always the responsibility of the owner if a person or an animal gets hurt.

When the stove is dismantled, this manual and all other documents related to the stove must be destroyed.

10. QUALITY CONTROL

ALFA PLAM a.d. reserves the right to amend this Manual any time and without prior notice, with the only purpose to improve the product. ALFA PLAM a.d. shall not be held responsible in any case for any faults orinaccuracy in the content of this Manual. Any full or partial reproduction of this Manual without a written permission of ALFA PLAM a.d. is strictly forbidden.

Violators will be prosecuted. Data and measures are given as indications.