

Extraflame®

Riscaldamento a Pellet



LP30 USER MANUAL

ENGLISH/ INGLESE

We thank you for having chosen our company; our product is a great heating solution developed from the most advanced technology with top quality machining and modern design, aimed at making you enjoy the fantastic sensation that the heat of a flame gives, in complete safety.

Extraflame S. p. A.

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TECHNICAL FEATURES

FEATURES		LP 30
Weight	kg	333
Height	mm	1406
Width	mm	875
Depth	mm	772
Flue exhaust pipe diameter	mm	120
Air intake pipe diameter	mm	60
Max. global heat output	kW	33.8
Max. useful thermal power (to the water)	kW	31.1
Minimum global heat output	kW	10
Min. useful heat output	kW	8.6
Max. hourly fuel consumption	kg/h	7.0
Min. hourly fuel consumption	kg/h	2.0
Tank volume	l	~ 121
Recommended flue draught	mbar	~ 0.1
Nominal electric output	W	470
Nominal voltage	Vac	230
Nominal frequency	Hz	50
Water inlet/outlet pipe diameter	"	1
Automatic exhaust pipe diameter	"	1/2
Pump head	m	5
Max. working water pressure accepted	bar	2.5
Min. working water pressure accepted	bar	0.6
Flue gas temperature	°C	69.8 - 105.9
Flue gas flow rate	g/s	7.7 - 15.3
Boiler class		3
Combustion period	h	42 - 12
Water thermostat field of regulation	°C	65 - 80
Water return minimum temperature	°C	55
Dimensions of the feeding door	mm	576 L x 236 P
Yield	%	92.0

LP30		FLOW OF WATER (kg/h)	WATER SIDE RESISTANCE (mbar)
Corresponding temperature difference	$\Delta T = 10K$	2751.6	148
	$\Delta T = 20K$	1375.8	74

INTRODUCTION

The boilers produced in our establishment are built with attention to the individual components so as to protect both the user and the installer from any accidents. It is therefore recommended that after any intervention on the product, that authorised staff pay particular attention to the electric connections, especially the stripped parts of the wires. These must not escape from the terminal board in any situation, thus preventing possible contact with the live parts of the wire.

The instruction manual is an integral part of the product: make sure that it always accompanies the appliance, even if transferred to other owners or user or is transferred to another place. If it is damaged or lost, request another copy from the area technician. This boiler must be intended for the use it has been specifically made for. The manufacturer is exempt from any liability, contractual and extracontractual, for injury/damage caused to persons/animals and objects, due to installation, adjustment and maintenance errors and improper use.

INSTALLATION

Installation of the boiler and auxiliary equipment in relation to the heating system must comply with all current Standards and Regulations and to those envisioned by the law. Installation must be carried out by authorised staff, who must provide the buyer with a declaration of conformity for the system and will assume full responsibility for final installation and as a consequence the correct functioning of the installed product.

It is necessary to bear in mind all laws and national, regional, provincial and town council Standards present in the country the appliance has been installed.

Extraflame S.p.A. cannot be held responsible for the failure to comply with such precautions. It is recommended to wash all the pipes of the system well before installation to remove any residue that could compromise the correct operation of the appliance. During installation, inform the user regarding:

- a. If water leaks, he must close the water supply and promptly inform the after-sales technical service.
- b. The system working pressure must be checked periodically. If the boiler is not used for a long period of time, it is recommended to contact the after-sales technical service to carry out at least the following operations:
 - Set the master switch to position 0.
 - Close the water taps of both the heating system and the domestic hot water system.
 - Empty the heating system and the domestic hot water system if there is risk of freezing.

COMMISSIONING

After removing the packaging, ensure that the content is intact and complete.

Otherwise, contact the dealer where the appliance was purchased from.

When commissioning the product, verify that all safety and control devices that the boiler consists of work well. All electrical components that make up the boiler must be replaced with original spare parts exclusively by an authorised technical assistance centre, thereby guaranteeing correct operation.

Before leaving the system, the staff in charge of commissioning must monitor boiler operation for at least one complete work cycle. The boiler must be serviced at least once a year, programming it in advance with the technical assistance centre.

APPROVALS

The Extraflame boilers have been designed and realised in compliance with the following Directives:

- ♦ UNI EN 303-5 Boilers for central heating. Boilers for solid fuel, with manual and automatic feeding, with a nominal heat output of up to 300 kW
- ♦ Compliance with the Low Voltage Directive (73/23 EEC)
- ♦ Compliance with the EMC Directive (Electromagnetic compatibility 89/336 EEC)

FOR SAFETY

- ♦ It is forbidden for the boiler to be used by children or unassisted disabled persons.
- ♦ Do not touch the boiler when you are barefoot or when parts of the body are wet or humid.
- ♦ The safety and adjustment devices must not be modified without the authorisation or indications of the manufacturer.
- ♦ Do not pull, disconnect, twist electric cables leaving the boiler, even if disconnected from the electric power supply mains.
- ♦ Do not close or reduce the dimensions of the airing vents in the place of installation.
- ♦ The airing vents are indispensable for correct combustion.
- ♦ Do not leave the packaging elements within reach of children or unassisted disabled persons.
- ♦ The hearth door must always be closed during normal functioning of the product.
- ♦ Avoid direct contact with parts of the appliance that tend to heat up during functioning.
- ♦ Check for the presence of any obstructions before switching the appliance on following a prolonged standstill period.

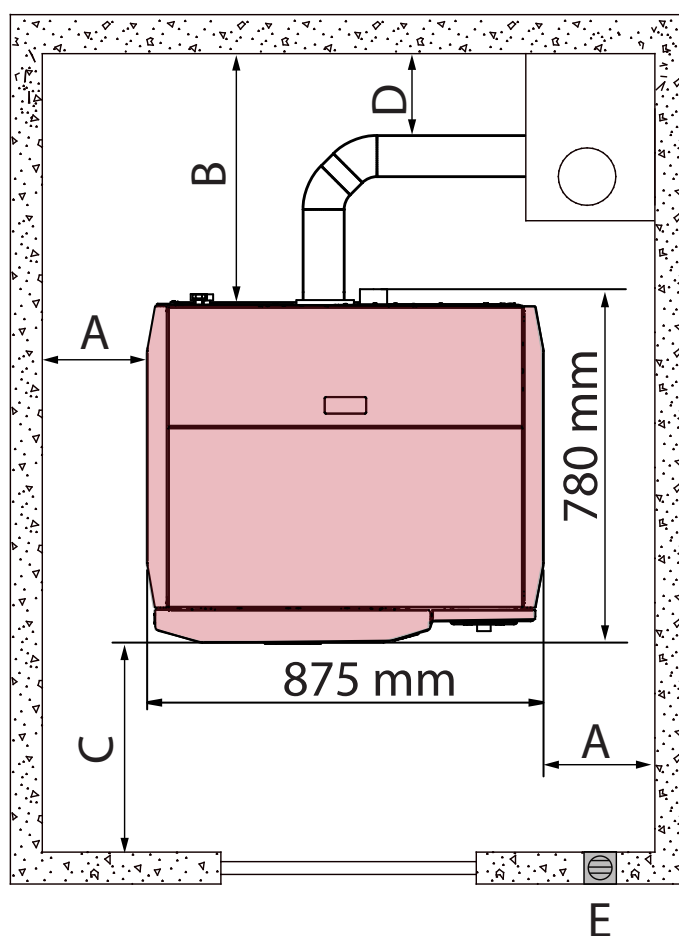
- ♦ The boiler has been designed to function in any climatic condition (also critical). In particularly adverse conditions (strong wind, freezing) safety systems may intervene that switch the boiler off.
- ♦ If this occurs, contact the technical after-sales service and always disable the safety system.
- ♦ If the flue should catch fire, be equipped with suitable systems for suffocating the flames or request help from the fire service.
- ♦ If the boiler should block, indicated by a signal on the display and that is not relative to lack of routine maintenance, contact the technical after-sales centre.



THESE BOILERS MUST BE USED TO HEAT WATER TO A TEMPERATURE THAT DOES NOT EXCEED BOILING POINT IN THE CONDITIONS OF INSTALLATION.

RECOMMENDED DISTANCES FOR THE BOILER COMPARTMENT

Below are a few images relative to the minimum distances required in the boiler room. The company recommends the following measurements to be complied with:



REFERENCES	NON-INFLAMMABLE OBJECTS	REFERENCES	NON-INFLAMMABLE OBJECTS
A	500 mm	D	300 mm
B	1,000 mm	E	> 80 cm ²
C	1,000mm	-	-

WARNINGS

The instruction manual is an integral part of the product: make sure that it always accompanies the appliance, even if transferred to another owner or user or if transferred to another place. If it is damaged or lost, request another copy from the area technician. This product must be intended for the use it has been specifically made for. The manufacturer is exempt from any liability, contractual and extracontractual, for injury/damage caused to persons/animals and objects, due to installation, adjustment and maintenance errors and improper use. **Installation must be performed by qualified staff, which assumes complete responsibility for the definitive installation and consequent good functioning of the product installed. It is necessary to bear in mind all laws and national, regional, provincial and town council Standards present in the country the appliance has been installed.**

Extraflame S.p.A. cannot be held responsible for the failure to comply with such precautions.

After removing the packaging, ensure that the content is intact and complete. Otherwise, contact the dealer where the appliance was purchased from.

All electric components that make up the product must be replaced with original spare parts exclusively by an authorised after-sales centre, thus guaranteeing correct functioning.

SAFETY

- ♦ The stove must not be used by persons (including children) with reduced physical, sensorial and mental capacities or who are unskilled, unless they are supervised and trained regarding use of the appliance by a person responsible for their safety.
- ♦ Children must be monitored to ensure they do not play with the appliance.
- ♦ Do not touch the stove when you are barefoot or when parts of the body are wet or humid.
- ♦ The safety and adjustment devices must not be modified without the authorisation or indications of the manufacturer.
- ♦ Do not pull, disconnect, twist electric cables leaving the stove, even if disconnected from the electric power supply mains.
- ♦ It is recommended to position the power supply cable in a way that it does not come into contact with hot parts of the appliance.
- ♦ The power supply plug must be accessible after installation.
- ♦ Do not close or reduce the dimensions of the airing vents in the place of installation. The airing vents are indispensable for correct combustion.
- ♦ Do not leave the packaging elements within reach of children or unassisted disabled persons.
- ♦ The hearth door must always be closed during normal functioning of the product.
- ♦ When the appliance is functioning and hot to the touch, especially all external surfaces, attention must be paid
- ♦ Check for the presence of any obstructions before switching the appliance on following a prolonged standstill period.
- ♦ The stove has been designed to function in any climatic condition (also critical). In particularly adverse conditions (strong wind, freezing) safety systems may intervene that switch the stove off. If this occurs, contact the technical after-sales service and always disable the safety system.
- ♦ If the flue should catch fire, be equipped with suitable systems for suffocating the flames or request help from the fire service.
- ♦ This appliance must not be used to burn waste
- ♦ Do not use any inflammable liquids for ignition
- ♦ During the filling phase do not allow the bag of pellets to come into contact with the product
- ♦ The majolicas are top quality artisan products and as such can have micro-dots, crackles and chromatic imperfections. These features highlight their valuable nature. Due to their different dilation coefficient, enamel and majolica produce crackling, which demonstrate their effective authenticity. To clean the majolicas, it is recommended to use a soft, dry cloth. If a detergent or liquid is used, the latter could penetrate the crackles, thereby making them show more.

ROUTINE MAINTENANCE

Based on the Decree 22 January 2008 n°37 art.2, routine maintenance means interventions aimed at reducing degradation from normal use, as well as dealing with accidental events entailing the need of first interventions, which however do not modify the structure of the system upon which one is intervening or its intended use according to the prescriptions foreseen by technical standards in force and by the manufacturer's use and maintenance booklet.

HYDRAULIC SYSTEM

Certain concepts referring to the Italian UNI 10412-2 (2009) Standard are described in this chapter.

As previously described, when installing, all national, regional, provincial and town council Standards in force provided by the country in which the appliance has been installed must be complied with.

SAFETY DEVICES	TABLE OF SAFETY DEVICES FOR CLOSED VESSEL SYSTEM AND NOT PRESENT IN THE PRODUCT	
CIRCUIT BOARD: Intervenes directly by sending the product into alarm conditions until complete cooling, in the case of: breakage of flue gas motor, pellet feed motor breakage, black out (if more than 10 seconds), no ignition	Safety valve	☒
FLOW SENSOR: In the event of inadequate flow, it takes the machine to alarm conditions	Pump control thermostat (it is managed by the water probe and the board program)	☒
F2.5 A 250V FUSE (STOVES): Protect the machine from violent current drops	Acoustic alarm activation thermostat	-
85°C CALIBRATED MECHANICAL BULB WITH MANUAL REARM: Intervenes by blocking fuel feed whenever the pellet tank t° reaches the limit of 85°C. Rearm must be performed by qualified staff and/or the manufacturer's technical after-sales assistance.	Water temperature indicator (display)	☒
100°C CALIBRATED MECHANICAL BULB WITH MANUAL REARM: Intervenes by blocking the fuel feed whenever the t° of the water inside the product is near to 100°. Rearm must be performed by qualified staff and/or the manufacturer's technical after-sales assistance.	Pressure indicator	-
MINIMUM AND MAXIMUM PRESSURE SWITCH: Intervenes in the event of inadequate water pressure. Rearm must be performed by qualified staff and/or the manufacturer's technical after-sales assistance.	Acoustic alarm	-
MECHANICAL AIR PRESSURE SWITCH: Blocks the pellet in the event of insufficient depression	Regulation automatic circuit breaker switch (managed by board program)	☒
	Minimum and maximum pressure pressure switch	☒
	Water overheating automatic circuit breaker switch (block thermostat)	☒
	Circulation system (pump)	☒
	Expansion system	☒

During installation of the stove it is MANDATORY to adjust the system with a manometer in order to display the water pressure.

INSTALLATION AND SAFETY DEVICES

The installation, relative system connections, commissioning and inspection of correct functioning must be carried out perfectly, in full compliance with Standards in force, national, regional and municipal, as well as these instructions.

For Italy, installation must be carried out by professionally authorised staff (Ministerial Decree dated 22.01.08 n°37).

Extraflame S.p.A. declines all responsibility for damage to objects and/or persons caused by the system.

SAFETY DEVICES FOR CLOSED VESSEL SYSTEM

According to the UNI 10412-2 (2009) Standard in force in Italy, the closed systems must have: safety valve, pump control thermostat, acoustic alarm activation thermostat, temperature indicator, pressure indicator, acoustic alarm, regulation automatic circuit breaker switch, automatic circuit breaker block switch (block thermostat), circulation system, expansion system, safety dissipation system incorporated with the generator with thermal safety valve (self-activated), whenever the appliance does not have a temperature self-adjustment system.

DISTANCES OF SAFETY DEVICES ACCORDING TO THE STANDARD

The temperature safety sensors must be in place on the machine at a distance no greater than 30 cm from the flow connection. Whenever the generators lack a device, those missing can be installed on the generator flow pipe, within a distance no greater than 1m from the machine.

COMPONENT	DISTANCE
Temperature safety sensors	On the machine or not exceeding 30 cm
Missing devices because not as per standard	Not exceeding one metre, on the flow pipe

The domestic heating appliances with automatic feeding must: be supplied with a fuel block thermostat or be supplied with a cooling circuit set-up by the appliance manufacturer.

The cooling circuit must be activated by a heat safety valve such to guarantee that the limit temperature set by the Standard is not exceeded.

Connection between the power supply unit and the valve must be free from interceptions.

The pressure upstream from the cooling circuit must be at least 1.5 bar.

TYPE OF SYSTEM

There are two different types of system:

- ♦ Open vessel system and closed vessel system.

The product has been designed and realised to work with closed vessel systems.

CLOSED VESSEL SYSTEM

System in which the water it contains is not in direct or indirect communication with the atmosphere. Generally, the closed vessel system has one of the following expansion vessels:

- ♦ Pre-loaded closed expansion vessel with membrane impermeable to the passage of gases.
- ♦ Automatic closed expansion system with compressor and membrane impermeable to the passage of gases.
- ♦ Automatic closed expansion system with transfer pump and membrane impermeable to the passage of gases.
- ♦ Expansion system without diaphragm.

GENERILITY

The closed systems must have:

- ♦ Safety valve
- ♦ Pump control thermostat
- ♦ Acoustic alarm activation thermostat
- ♦ Temperature indicator
- ♦ Pressure indicator
- ♦ Acoustic alarm
- ♦ Adjustment automatic circuit breaker switch
- ♦ Automatic circuit breaker switch (block thermostat)
- ♦ Circulation system
- ♦ Expansion system
- ♦ Safety dissipation system incorporated with the generator with thermal safety valve (self-activated), whenever the appliance does not have a temperature self-adjustment system

SAFETY VALVES

The load capacity of the safety valve must allow the discharge of a quantity of vapour, not lower than: $Q / 0.58$ [kg/h] where: Q is the useful outlet power to the generator water expressed in kilowatt. The diameter of the minimum net transversal section of the valve inlet must not be lower than 15 mm. The valve load pressure, equal to the calibration pressure, increased by the overpressure, cannot exceed the maximum exercise pressure of the heat generator. The designer must check that the maximum pressure existing in every point of the system, does not exceed the maximum exercise pressure of its every component. The safety valve must be connected to the highest part of the heat generator or outlet pipes, immediately near the generator. The length of the pipes route included between the attachment to the generator and the safety valve must not be more than 1 m. The connection piping of the safety valve to the heat generator must not be traceable and must not present, in any point, a

smaller section than the inlet of the safety valve or the sum of the inlet sections in case of more valves heading a single pipe. The discharge piping of the safety valve must be realised in order not to prevent the regular functioning of the valves and not to cause damages to persons; the discharge must flow immediately near the safety valve and be accessible and visible. The diameter of the discharge piping must not however be lower than that of the outlet connection of the safety valve. For diameter of outlet connection it is intended the minimum internal diameter on the valve outlet upstream of the eventual internal threading.

CLOSED EXPANSION VESSEL

Warnings: check that the preload of the expansion vessel is set to 1.5 bar.

The vessel maximum exercise pressure must not be lower than the calibration pressure of the safety valve, increased by overpressures, characteristic of the same valve, bearing in mind the eventual level difference between vessel and valve and the pressure generated by the functioning of the pump. The capacity of the expansion vessel/s is evaluated depending on the total system capacity as results from the project. The closed expansion vessels must comply with the dispositions regarding the planning, manufacturing, evaluation of conformity and use for pressure appliances. Intercepting objects or section decreases must be inserted/practiced on the connection piping, which can be constituted by system portions. The insertion of a three-way intercepting valve which allows connection between the vessel and the atmosphere for maintenance operations, is allowed. Such device must be protected against accidental manoeuvres. The connection pipe must be realised in order not to present scales or deposits storage points. In case of more heat generators which feed the same system or the same secondary circuit, each heat generator must be connected directly to the expansion vessel or system expansion vessels unit, altogether dimensioned for the total volume of water contained in the same system or the same independent circuit. Where it is necessary to separate the individual heat generator from the expansion vessel or expansion vessels unit, a three-way tap must be applied on the connection piping between the generator and the vessel, in order to ensure, in every position, the connection of the generator with the expansion vessel or with the atmosphere. The expansion vessels, the connecting pipes, the bleed pipes and drain pipes must be protected from freezing, where this phenomenon occurs. The solution used for this purpose is described in the design.

COMMISSIONING CHECKS

Before connecting the boiler:

- a) wash all system piping in order to remove any residues which might compromise the correct functioning of certain system components (pumps, valves, etc.).
- b) check to verify that the flue has adequate draft, is not narrowed and that other appliances do not discharge into the flue. This is to prevent unexpected power increases. Only after this control can the flue fitting be mounted between the boiler and the flue. A check of the connections with pre-existing flues is recommended.

AUTOMATIC THERMOSTATIC MIXER VALVE (MANDATORY)

The automatic thermostatic mixing valve finds applications in solid fuel boilers as it prevents cold water return into the exchanger.

Routes 1 and 3 are always open and, together with the pump installed on the return, they guarantee water circulation inside the biomass boiler exchanger.

An elevated return temperature, allows efficiency improvement, reduces formation of combustion product condensation and prolongs the boiler life span.

Valves on the market have different calibrations. Extraflame advises use of 55°C model with 1" hydraulic connections.

Once the valve calibration temperature is reached, route 2 is opened and the boiler water goes to the system via the flow.

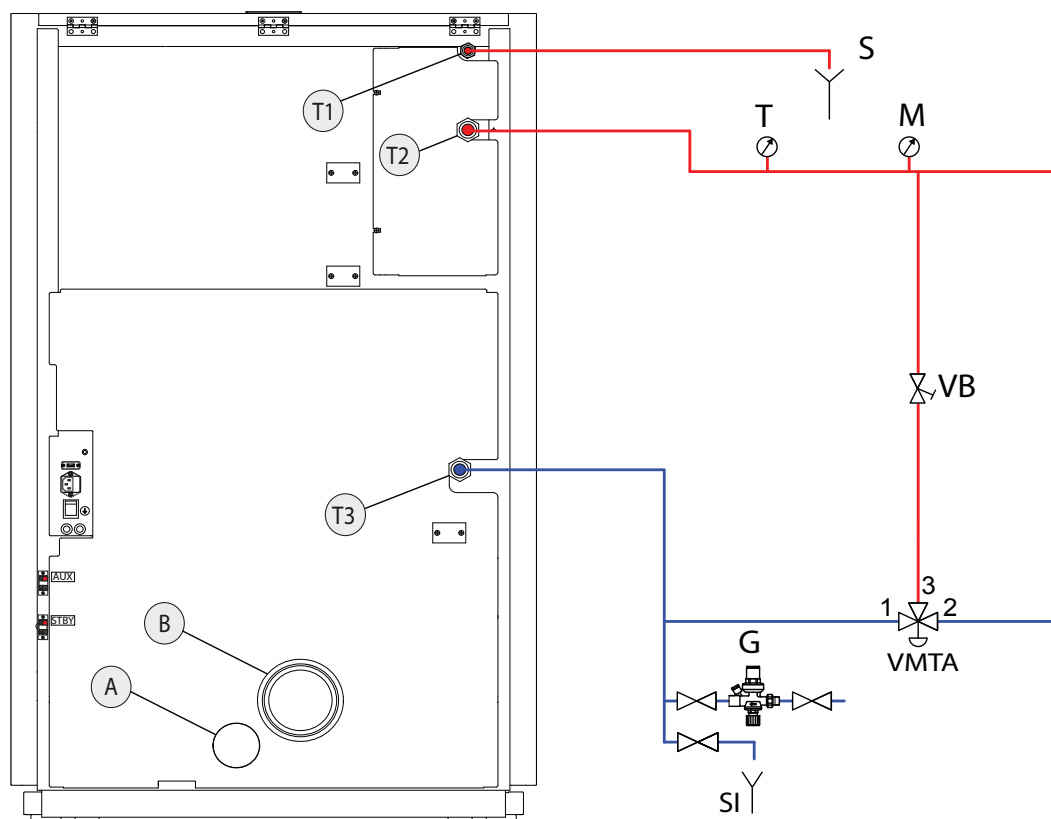


Valve sold as an accessory (optional)

HYDRAULIC SYSTEM BASIC LAYOUT

NOTA BENE:

the drawing in the figure is an example.



KEY		
A	Primary air inlet	Ø 60mm
B	Smoke exhaust outlet	Ø 120mm
C	Pump (in the models envisioned)	1/2 "
T1	3 bar safety drain	1/2 "
T2	Boiler flow/output	1"
T3	Boiler return/inlet	1"
M	Manometer	
T	Thermometer	
G	Filling system	
S	Safety valve discharge	
VB	Balance valve	
YES	System exhaust	
VMTA	Thermostatic mixer valve 55°C	



IT IS RECOMMENDED TO CONSULT THE TEMPLATES MANUAL AT FOR FURTHER INFORMATION RELATIVE TO THE HYDRAULIC CONNECTIONS, AIR INTAKE/FLUE EXHAUST AND DIMENSION SPECIFICATIONS OF THE PRODUCT IN QUESTION.

INSTANT DOMESTIC HOT WATER PRODUCTION KIT

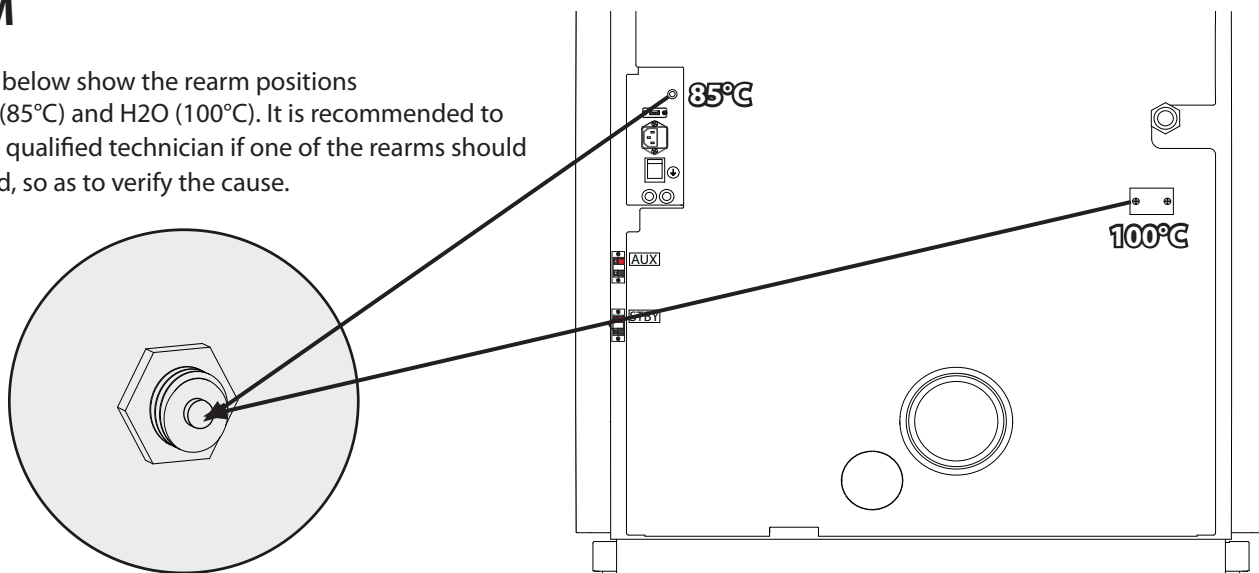
WARNINGS: if the instant hot water production kit is to be used, contact the company technical after-sales service.

STOVE POSITIONING

For correct product functioning, it is recommended to position it in a way that it is perfectly level, with the aid of a spirit level.

REARM

The figures below show the rearm positions of the tank (85°C) and H₂O (100°C). It is recommended to contact the qualified technician if one of the rearms should be triggered, so as to verify the cause.

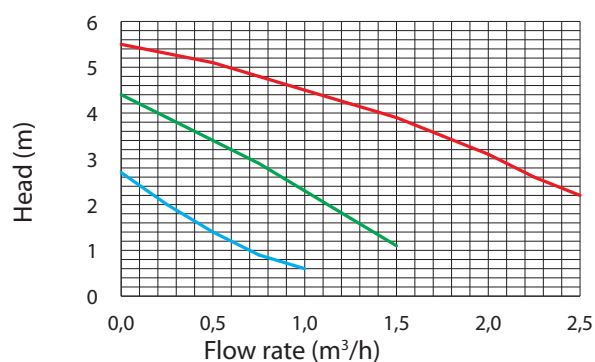


THERMO-PRODUCTS FEATURES

	LP30
Water content of the thermo product heat exchanger (l)	66
Volume of expansion vessel integrated into thermo-product (l)	12
Maximum content of water in the system for integrated expansion vessel (l)*	170
3 bar safety valve integrated into the thermo-product	YES
Minimum and maximum pressure switch integrated into the thermo-product	YES
Pump integrated into the thermo-product	YES
Pump max. head (m)	5

*Content of water in the system in addition to that of the thermo product that can be managed with the integrated expansion vessel. An additional expansion vessel must be installed for a higher content of water.

The diagram at the side illustrates the behaviour of the pump used on our thermo-products at the speeds that can be set.



SAFETY DEVICES

SAFETY DEVICES	STOVES
KEY: * = PRESENT, - = NOT PRESENT	
Circuit board: it intervenes directly sending the product into alarm conditions until it has fully cooled down, in the event of: fumes motor breakage, pellet feed motor breakage, black out (if above 10 seconds), failed ignition	*
Door micro switch: With the door open, the operation of the burn pot cleaning system is blocked	-
Electronic pressure switch: in the event of inadequate depression, it sends the machine in alarm conditions	*
F 2.5 A 250 V fuse (stoves): protects the machine from violent current surges	*
85°C calibrated mechanical bulb with manual rearm: intervenes by blocking fuel feed whenever the pellet tank t° reaches the limit of 85°C. Rearm must be performed by qualified staff and/or the manufacturer's technical after-sales assistance.	*
Pellet tank temperature control probe: if the tank overheats, the machine automatically modulates to return to normal temperature values (* in the applicable models)	*
Mechanical air pressure switch: blocks the pellet in the event of insufficient depression (in the relevant models)	*

REFERENCE STANDARDS

The installation must be in compliance with:

- ♦ **UNI 10683 (2012) heat generators fed with wood and other solid fuels: installation.**

The chimneys must be in compliance with:

- ♦ UNI EN 13063-1 and UNI EN 13063-2, UNI EN 1457, UNI EN 1806 in the event of non-metallic chimneys:
- ♦ EN 13384-1 (13384) chimneys. Thermal and fluid dynamic calculation methods.
- ♦ UNI EN 1443 (2005) chimneys: general requirements.
- ♦ UNI EN 1457 (2012) chimneys: clay/ceramic flue liners.
- ♦ UNI/TS 11278 (2008) Metal - chimneys/flue liners/flue ducts.
- ♦ UNI 7129 point 4.3.3 Fire Brigade provisions, local rules and regulations.

NATIONAL, REGIONAL, PROVINCIAL AND TOWN COUNCIL REGULATIONS

One must also bear in mind all laws and national, regional, provincial and town council Standards present in the country in which the appliance has been installed.

TERMS AND DEFINITIONS

Aeration: Air renewal is required both for the disposal of the combustion products, and to prevent mixtures with a hazardous content of non-combusted gases.

Closed hearth appliance: Appliance designed for operation with closed combustion chamber.

Forced draught appliance: Appliance with ventilation in the fumes circuit and combustion with fumes flow at a positive pressure with respect to the environment.

Chimney: Structure consisting in one or several walls containing one or several outflow airways. The purpose of this predominantly vertical element is to expel the combustion products at a convenient height from the ground.

Smoke duct: Component or components that connect the outlet of the heat generator to the chimney.

Chimney cap: Device that placed on the chimney outlet allows the dispersion of the combustion products even in presence of adverse weather conditions.

Condensation: Liquid products which form when the fumes temperature is lower or equal to the water dew point.

Ducting pipe: Pipe made up of one or several predominantly vertical elements, specifically suitable for collecting and expelling the fumes, as well as to withstand the relative components and any condensate over time, suitable to be installed in a chimney, existing or new technical compartment, even in new buildings.

Sealed installation: Installation of an appliance with sealed operation, so that all the air required for combustion is taken from outside.

Maintenance: Set of procedures required to ensure and maintain safety and functionality over time and maintain the efficiency of the system within the prescribed parameters.

Chimney system: Chimney installed using a combination of compatible components, manufactured or specified by a sole manufacturer whose product liability covers the entire chimney.

Fumes exhaust system: Flue gas exhaust system, independent from the appliance made up of a smoke duct, chimney or individual flue and chimney cap.

Radiation area: Area immediately in front of the hearth in which the radiant heat caused by combustion is diffused.

Reflux area: Area beyond the extrados of the roof in which overpressure or depressions occur, which may affect the proper discharge of the combustion products.

FUNCTIONAL OPERATIONS DIAGRAM

State of the art installation and proper system operation include a series of activities:

1. Preliminary activities:

- ♦ verification of the suitability of the installation site,
- ♦ verification of the suitability of the fumes exhaust system,
- ♦ verification of the suitability of the outside air inlets;

2. Installation:

- ♦ implementation of ventilation and connection to the outer air inlets,
- ♦ implementation and connection to the fumes exhaust system,
- ♦ assembly and installation,
- ♦ electric and hydraulic connections,
- ♦ installation of insulation,
- ♦ ignition and operation test,
- ♦ installation of finishings and coverings;

3. Issue of complementary documentation;

4. Inspection and maintenance.

Other actions may be required in relation to specific requests of the competent authority.

PRELIMINARY ACTIVITIES

GENERAL

Verification of compatibility of the system, of any restrictions required by local administrative regulations, special or conventional requirements resulting from condominium regulations, constraints, laws or administration deeds must precede any other assembly or installation operation.

One must especially verify the suitability:

- ♦ of the installation premises, of the appliances already installed in the installation premises and in the adjacent and adjoining premises, also powered by different fuels, with particular reference to non-compliant installations.
- ♦ of the fumes exhaust system
- ♦ of the outside air inlets

SUITABILITY OF THE FUMES EXHAUST SYSTEM

Installation must be preceded by a compatibility test between the appliance and the fumes exhaust system, by verifying:

- ♦ the existence of documentation relating to the system;
- ♦ existence and content of the chimney plaque;
- ♦ suitability of the internal section of the chimney;
- ♦ absence of obstructions all along the chimney;
- ♦ predominantly vertical height and development of the chimney;
- ♦ existence and suitability of the chimney cap;
- ♦ distance of the outside wall of the chimney and of the smoke duct from
- ♦ combustible materials;
- ♦ chimney type and material;
- ♦ absence of other chimney connections.

INSTALLATION

Installation in premises with fire hazards is forbidden. Installation in residential premises (except for sealed operation appliances) is also forbidden:

- ♦ in which there are liquid fuel-operated appliances with continuous or intermittent operation, which draw the combustion air in the room in which they are installed, or
- ♦ in which there are type B gas appliances intended for room heating, with or without production of domestic hot water and in adjacent and adjoining premises, or
- ♦ in which, in any case, the depression measured during installation between the internal and external environment is greater than 4 Pa

Installations in bathrooms, bedrooms and studio flats

Installation in bathrooms, bedrooms and studio flats is only allowed for sealed or closed hearth appliances with ducted combustion air taken from the outside.

Installation premises requirements

The support surfaces and/or points must have a suitable load-bearing capacity to support the weight of the appliance, of the accessories and coatings.

The adjacent, side and rear walls and the supporting surface must be made of non-combustible material according to the table

REFERENCES	INFLAMMABLE OBJECTS	NON-INFLAMMABLE OBJECTS
A	200 mm	100 mm
B	1500 mm	750 mm
C	200 mm	100 mm

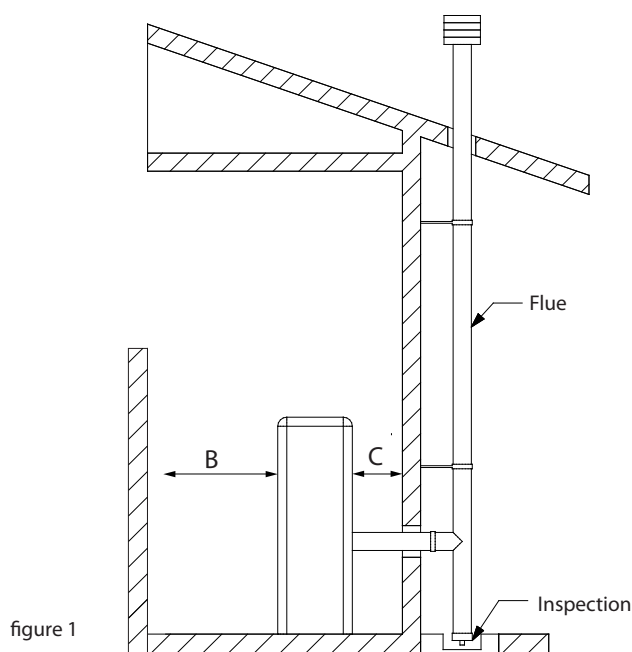


figure 1

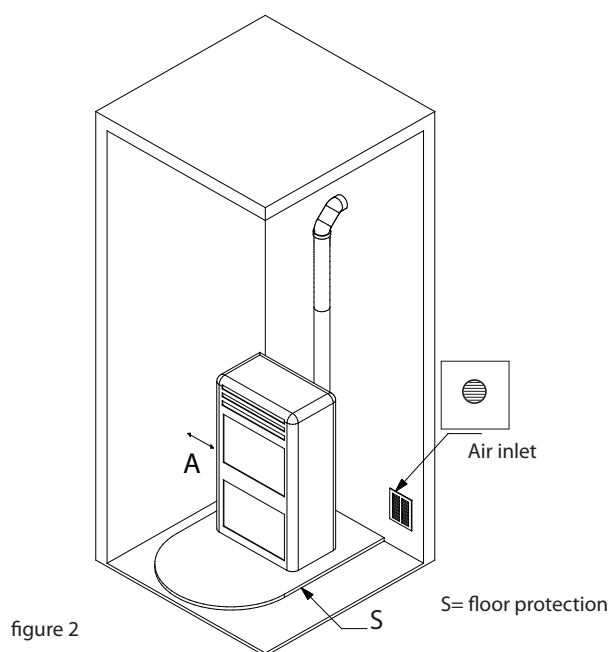


figure 2

In any case the temperature of the adjacent combustible materials must not reach a temperature equal to or greater than the room temperature increased by 65°C.

The minimum volume of the premises in which to install the appliance must be greater than 15 m³.

VENTILATION AND AERATION OF THE INSTALLATION PREMISES

Ventilation is deemed sufficient when the room is equipped with air inlets according to the table:

Air inlet

See figure 2

Appliance categories	Reference standard	Percentage of the net opening section with respect to the appliance fumes outlet section	Minimum net opening value of the ventilation duct
Boilers	UNI EN 303-5	50%	100 cm ²

In any case ventilation is deemed sufficient when the pressure difference between the external and internal environment is equal to or less than 4 Pa.

In the presence of type B gas appliances with intermittent operation not intended for heating, they must have their own aeration and/or ventilation opening. The air inlets must meet the following requirements:

- ♦ they must be protected with grids, metal mesh, etc., but without reducing the net useful section;
- ♦ they must be made so as to make the maintenance operations possible;
- ♦ positioned so that they cannot be obstructed;

The air flow can also be obtained from a room adjacent to that of installation (indirect aeration and ventilation), as long as the flow takes place freely through permanent openings communicating with the outside.

The adjacent room cannot be used as a garage, warehouse of combustible material or for any other activity with a fire hazard, bathroom, bedroom or common room of the building.

FUMES EXHAUST SYSTEM

GENERAL REQUIREMENTS

Each appliance must be connected to a suitable fumes exhaust system and ensure adequate dispersion of the combustion products into the atmosphere. The combustion products must be discharged above the roof. Direct discharge from the wall or towards closed spaces is forbidden, even with clear skies.

In particular, it is forbidden to use flexible and extendible metal pipes.

The chimney should only receive the exhaust of the smoke duct connected to the appliance; collective flues or conveying exhausts from hoods above cooking appliances of any kind, or exhausts from other generators into the chimney itself or smoke duct are not allowed.

The smoke duct and the chimney must be connected with a continuity solution, in order to prevent the chimney from resting on the appliance.

It is forbidden to have other air supply channels and pipes for plant engineering transit inside the fumes exhaust systems, especially if over-sized.

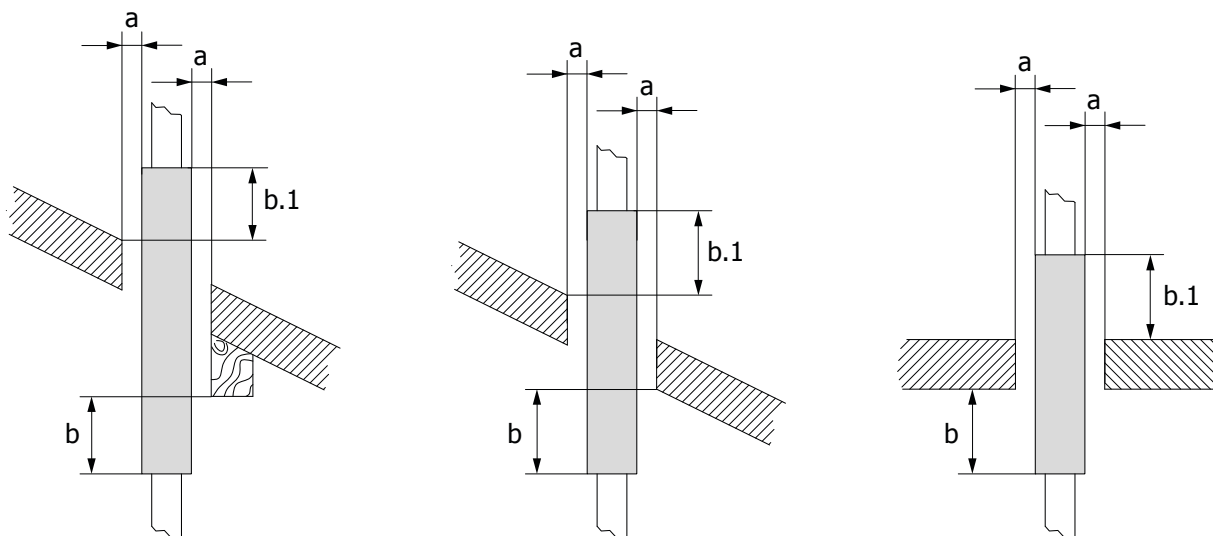
The components of the fumes exhaust system must be chosen in relation to the type of appliance to be installed in compliance with:

- ♦ in the event of metal chimneys, UNI/TS 11278, with particular attention to what is stated in the specification;
- ♦ in the event of non-metallic chimneys: UNI EN 13063-1 and UNI EN 13063-2, UNI EN 1457, -UNI EN 1806; considering especially:
 - ♦ temperature class;
 - ♦ pressure class (fumes seal) at least equal to the seal required for the appliance;
 - ♦ moisture resistance (resistance to condensation);
 - ♦ class or level of corrosion and specification of the materials constituting the inner wall in contact with the fumes.
 - ♦ soot fire resistance class;
 - ♦ minimum distance from combustible materials

The installer of the fumes exhaust system, once the installation is complete and the relevant checks and inspections have been made, must fix the chimney plaque supplied by the manufacturer with the product in a visible manner, near the fireplace, and which must be completed with the following information:

- ♦ nominal diameter;
- ♦ distance from combustible materials, indicated in millimetres, followed by the arrow and flame symbol;
- ♦ installer data and date of installation.

Every time one must cross combustible materials, the following indications must be complied with:



SYMBOL	DESCRIPTION	QUOTA[MM]
b	Minimum distance of combustible materials from the intrados of the framework/floor/wall	500
b.1	Minimum distance of combustible materials from the extrados of the framework/floor	500
a	Minimum distance from combustible materials defined by the manufacturer	G(xxx)

The single wall pipes are indicated in white.

The insulated double wall chimney systems are indicated in grey.

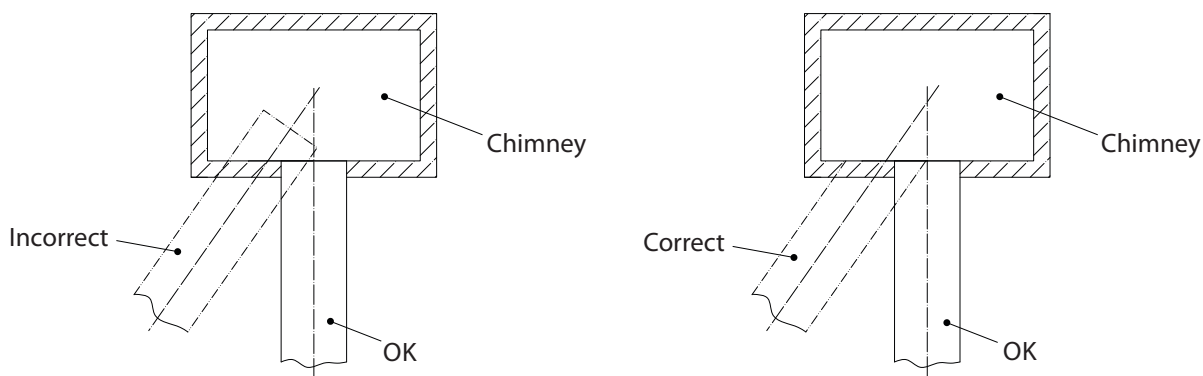
One can disregard the quota only in the event of using an appropriate heat protection screen (for example: wall plate) to protect the intrados of the framework/floor

SMOKE DUCT

General requirements

The smoke ducts must be installed in compliance with the following general requirements:

- ♦ they must be insulated if they cross through rooms that are not to be heated or outside the building;
- ♦ they must not cross rooms in which the installation of combustion appliances is forbidden, nor in other premises compartmentalised against fire or with a fire hazard, nor in rooms and/or areas that cannot be inspected;
- ♦ they must be installed so as to allow normal thermal expansion;
- ♦ they must be fitted to the opening of the chimney without protruding inwards;
- ♦ the use of flexible metal pipes to connect the appliance to the chimney is not allowed;



- ♦ counter-slope sections are not allowed;
- ♦ the smoke ducts must have, along their entire length, a diameter that is no less than that of the attachment of the appliance exhaust pipe; any section changes are allowed only on the inlet to the chimney;
- ♦ they must be installed so as to limit the formation of condensation and prevent their release from the joints;
- ♦ they must be positioned at a distance no less than that indicated in the product specifications from combustible materials;
- ♦ the smoke channel/duct must allow to collect the soot and to be cleaned using a swab and inspected after being disassembled, or through inspection openings when not accessible from inside the appliance.

ADDITIONAL REQUIREMENTS FOR APPLIANCES FITTED WITH AN ELECTRIC FAN FOR FUMES EXPULSION

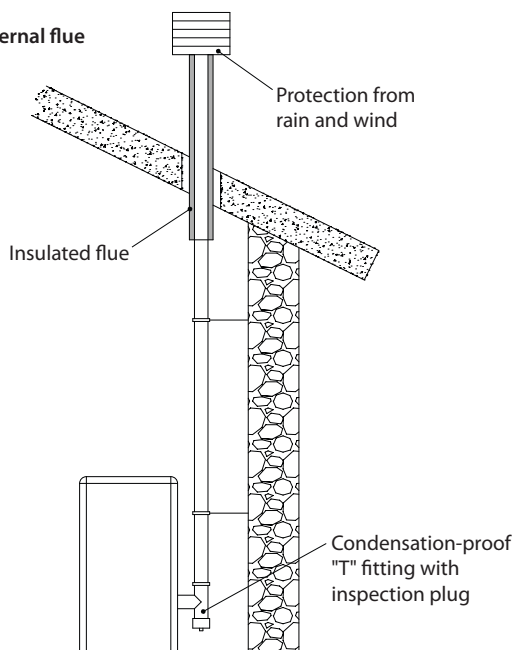
For the heat generator appliances equipped with electric fan for expelling fumes, the instructions below must be followed:

- ♦ The horizontal sections must have a minimum upward slope of 3%
- ♦ The length of the horizontal section must be minimal and, in any case, no longer than 3 metres
- ♦ The number of direction changes including the one due to the use of the "T" element must not be more than 4.

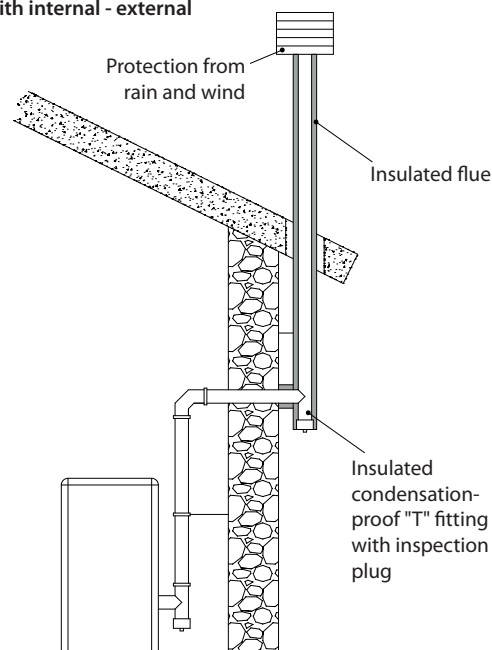


EXAMPLES OF CORRECT CONNECTION TO THE CHIMNEY

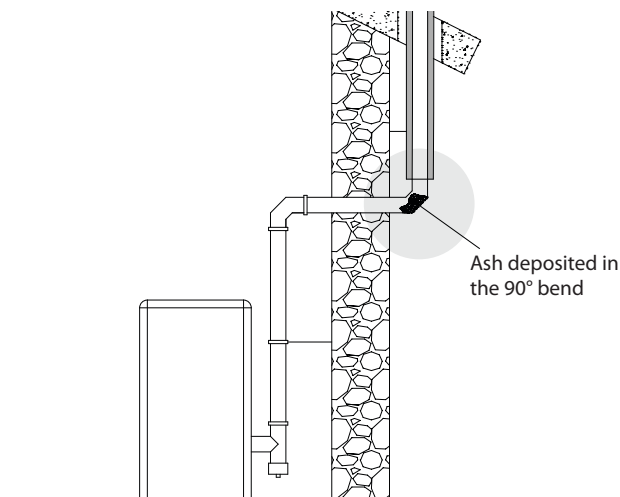
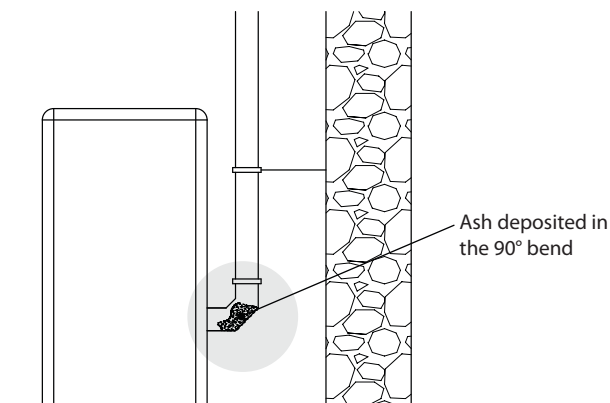
Installation with internal flue



Installation with internal - external flue

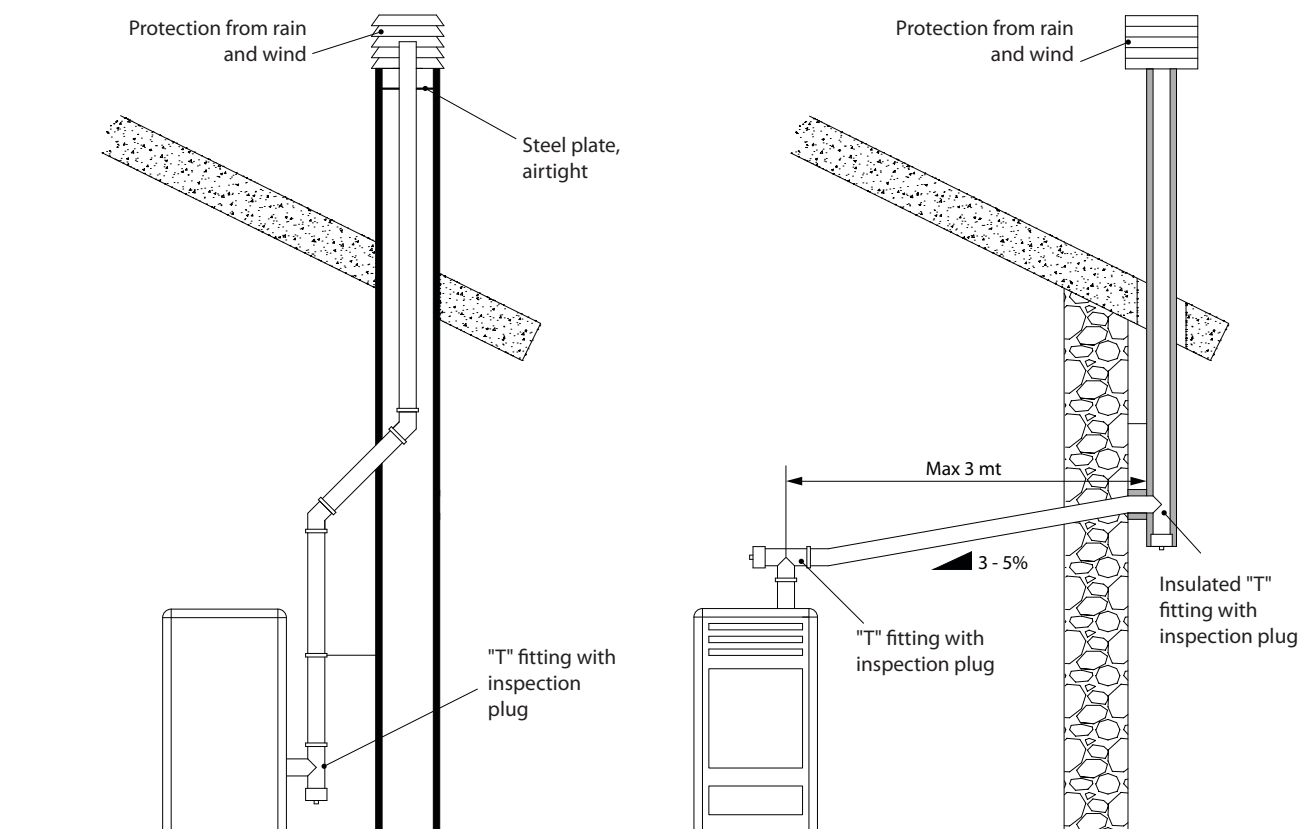


IT IS NOT RECOMMENDED TO INSTALL A 90° BEND AS THE FIRST INITIAL PART, SINCE THE ASH WOULD BLOCK THE PASSAGE OF THE FUMES IN A SHORT TIME, CAUSING PROBLEMS TO THE STOVE DRAUGHT. SEE FIGURES BELOW:





EXAMPLES OF CORRECT CONNECTION TO THE CHIMNEY



It is mandatory to use airtight pipes.

CHIMNEY

In addition to the general requirements, the chimneys for releasing combustion products into the atmosphere must:

- ♦ operate under negative pressure (operation under positive pressure is not allowed);
- ♦ have a preferably circular internal section; square or rectangular sections must have rounded corners with a radius of no less than 20 mm (hydraulically equivalent sections may be used, as long as the ratio between the longer side and the shorter side of the rectangle, which circumscribes the section, is in any case no greater than 1.5);
- ♦ be designed for fumes be designed for fumes expulsion;
- ♦ be predominantly vertical and have no narrowing along their entire length;
- ♦ have no more than two direction changes with a slope angle no greater than 45°;
- ♦ be fitted with, in the event of operating in damp conditions, a device for reflux drainage (condensation, rainwater);

Ducted system

A ducted system can be installed with one or more ducts, operating only with negative pressure with respect to the environment.

The flexible hose compliant with UNI EN 1856-2, with T400-G characteristics, meets the requirements.

CHIMNEY CAPS

The chimney caps must meet the following requirements:

- ♦ they must have a useful outlet section no less than double of that of the chimney/ducted system on which it is installed;
- ♦ they must be adapted in order to prevent the penetration of rain and snow in the chimney/ducted system;
- ♦ they must be built so that, in the event of winds coming from all directions and from any angle, the expulsion of combustion products is in any case ensured;
- ♦ they must be free from mechanical intake aids.

COMBUSTION PRODUCTS OUTLET QUOTA

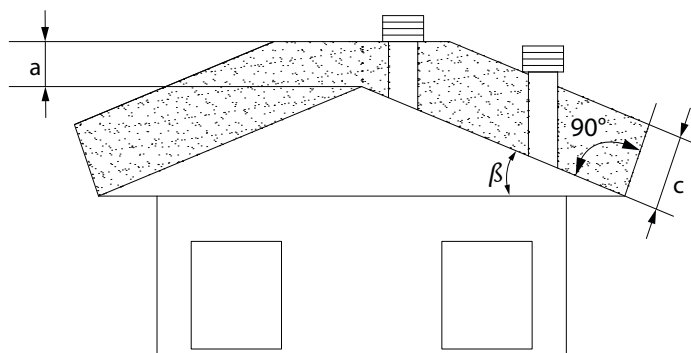
The outlet quota is determined by measuring the minimum height between the roof covering and the lower point of the fumes expulsion section into the atmosphere; this quota must be outside the reflux area and at an adequate distance from obstacles which hinder or make the expulsion of the combustion products difficult or from openings or accessible areas.

Reflux area

The outlet quota must be outside the reflux area calculated according to the indications below.

Near the ridge one considers the lowest between the two.

Buffer area for outlet quota



Clear area for outlet quota above the roof slope ($\beta > 10^\circ$)

REFERENCE	DESCRIPTION	CLEAR AREA (MM)
c	Distance measured at 90° from the roof surface	1300
a	Height above the ridge of the roof	500

The outlet of a chimney/ducted system must not be near obstacles that may create turbulence areas and/or prevent proper expulsion of combustion products and maintenance operations to be carried out on the roof.

Verify the presence of other chimney caps or skylights and dormers.

FUMES EXHAUST SYSTEM PRODUCT REQUIREMENTS

Temperature class

In the event of a pellet appliance, temperature classes below T200 are not allowed.

Soot fire resistance class

The fumes exhaust system interlocked with appliances supplied by solid fuels require soot fire resistance, and the specification must be indicated by the letter G followed by the distance from combustible materials in millimeters (XX) (in compliance with UNI EN 1443) .

In the event of pellet appliances, the fumes exhaust systems must be airtight; if double designation elements are used (G and O, with or without seal elastomer) for connecting the appliance to the chimney, one must comply with the minimum distance XX in millimeters, indicated for designation G; in the event of fire due to soot, one must ensure the restoration of the initial conditions (by replacing the gaskets and damaged items and cleaning those remaining in use).

Ignition tests

Operation of the appliance must be verified with an ignition test, i.e.:

- ♦ for mechanical feed appliances, one must complete the ignition test, verify proper operation for at least the next 15 minutes and adjust the switch-off;

For appliances installed in a hot water heating system (closed fireplaces, thermo-stoves), testing must also extend to the entire hydraulic circuit.

Coverings and finishings

The coverings and finishings must only be applied after having verified the proper operation of the appliance according to the indicated modalities

TECHNICAL INSTALLATION DOCUMENTATION

When installation is complete, the installer must provide the owner or person acting for him, according to the legislation in force, with the declaration of conformity, supplied with:

- 1) the use and maintenance manual of the appliance and of the system components (such as for example, the smoke ducts, chimney, etc.);
- 2) photocopy or photograph of the chimney plaque;
- 3) system booklet (where applicable).

The installer must ask to be issued with a receipt stating that the documentation has been provided, and must keep it with a copy of the technical documentation relating to the installation.

Installation performed by several parties

If the individual installation steps are carried out by different parties, each must document the work carried out for the customer and the for the operator working on the next step.

INSPECTION AND MAINTENANCE

Frequency of operations

Maintenance of the heating system and of the appliance must be carried out on a regular basis according to the table below:

TYPE OF APPLIANCE INSTALLED	<15kW	(15- 35) kW
Pellet operated appliance	1 year	1 year
Water operated appliances (closed fireplaces, thermo-stoves, thermo-kitchens)	1 year	1 year
Boilers	1 year	1 year
Fumes exhaust system	4 t of fuel used	4 t of fuel used

For further details refer to the "cleaning and maintenance" chapter.

Inspection and maintenance report

At the end of the inspection and/or maintenance operations, a report must be issued and released to the owner, or person acting for him, who must confirm its receipt in writing. The report must indicate the situations encountered, the action taken, any components replaced or installed and any comments, recommendations and requirements. The report must be kept with the relative documentation.

In the inspection and maintenance report one must mention:

- ♦ anomalies detected that cannot be removed, which pose a risk to the safety of the user or serious damage to building;
- ♦ components that have been tampered with.

If anomalies as per above were detected, the owner, or person acting for him, must be warned in writing, in the maintenance report, to refrain from using the system until the safety conditions have been fully restored.

The inspection and maintenance report must include the main information of the technician or company who performed the inspection and/or maintenance operations, with their contact details, date of intervention and the signature of the operator.

PELLETS AND FEEDING

Pellets are made by subjecting wood shavings i.e. the rejects of pure wood (without paint) sawmill, carpenter products and products from other activities connected to working and transforming wood, to very high pressures.

This type of fuel is fully ecological as no glues are used to hold it together. In fact, the compactness of the pellets is guaranteed over time by a natural substance that is found in wood: lignin.

As well as being an ecological fuel, as wood residues are made the most of, the pellet also has technical advantages.

While wood has a calorific value of 4.4 kW/kg. (with 15% humidity, therefore after about 18 months seasoning), that of the pellet is 5 kW/kg.

Pellet density is about 650 kg/m³ and water content is equal to 8% of its weight. For this reason the pellets do not need to be seasoned in order to obtain a sufficiently adequate heat yield.

The pellet used must comply with the features described by Standards:

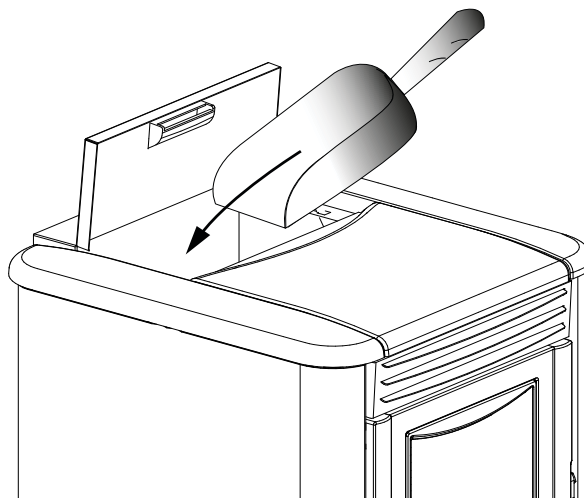
- ♦ **EN PLUS - UNI EN 16961 - 2 class A1 or A2**
- ♦ **Ö-NORM M 7135**
- ♦ **DIN PLUS 51731**

Extraflame recommends using pellets with a diameter of 6mm with its products.

PELLET STORAGE

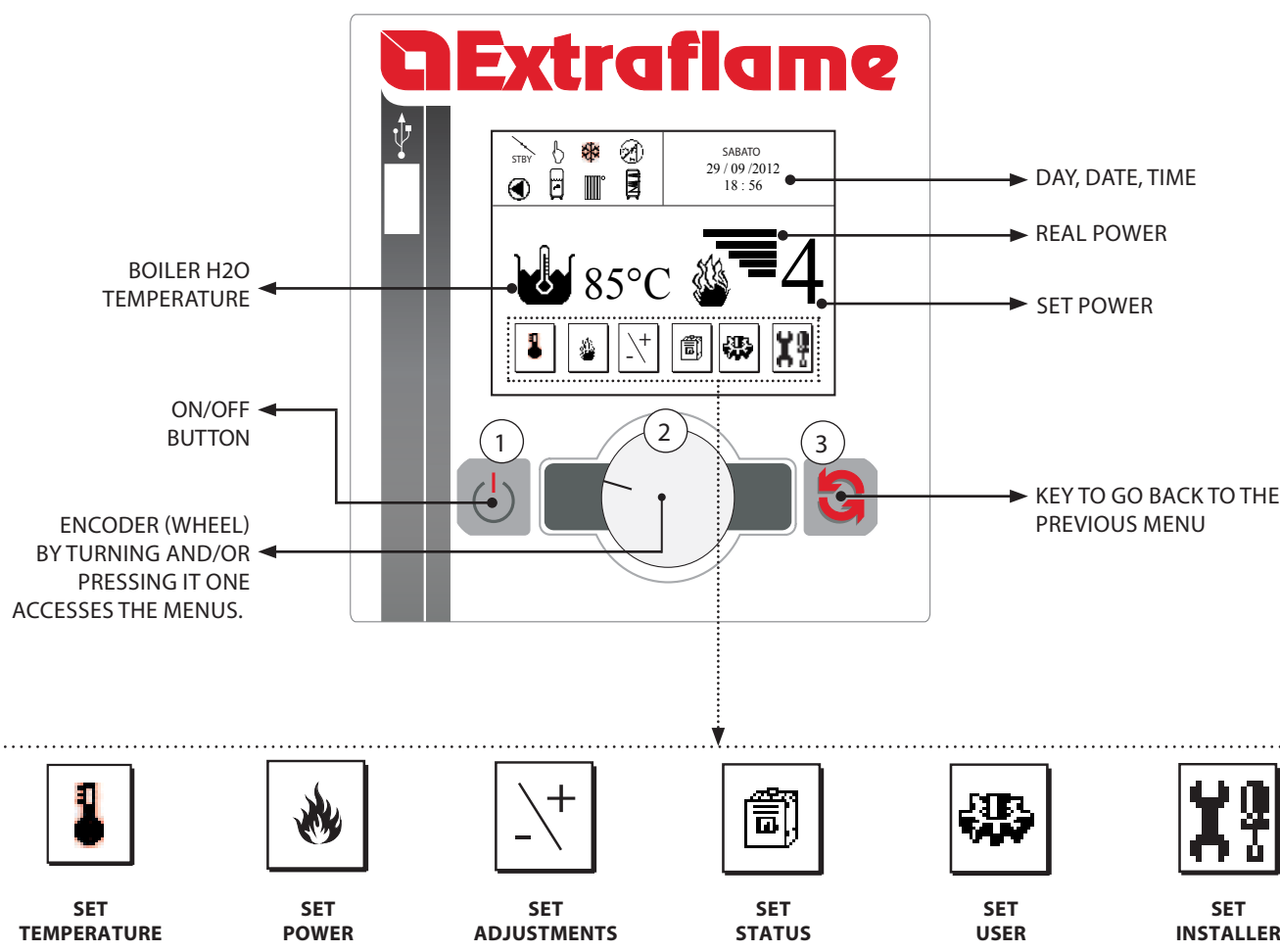
To guarantee combustion without problems, the pellets must be kept in a dry place.

Open the tank lid and load the pellets using a scoop.



THE USE OF POOR QUALITY PELLETS OR ANY OTHER MATERIAL DAMAGES THE FUNCTIONS OF YOUR STOVE AND CAN VOID THE WARRANTY AND THE ANNEXED RESPONSIBILITY OF THE MANUFACTURER.

CONTROL BOARD



DISPLAY ICONS KEY

	It indicates weekly programming operation Hand indicator = weekly programming disabled		Chrono indicator = weekly programming active
	It indicates pump operation Off = pump deactivated On = pump active Flashing = the safety device is active (H2O temperature > 85°C)		Indicates the contact of the external additional thermostat Closed contact = the contact of the external additional thermostat is closed. Open contact: the contact of the external additional thermostat is open.

Extraflame has an optional additional board that allows the boiler the following further functions when managing the system.

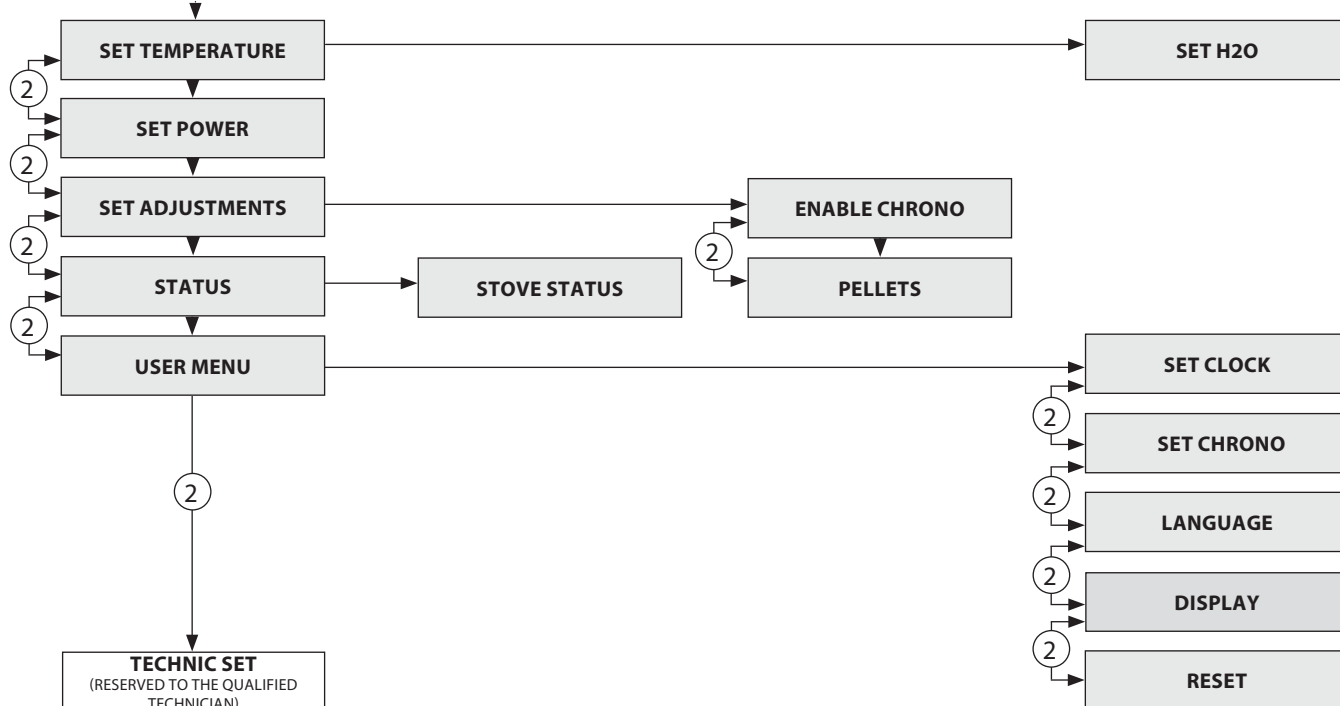
The table below indicates the various possibilities that the optional can offer.

DHW Storage Management	*
Puffer Management	*
3 heating areas	*
Instant DHW option	*
Puffer pump or 4th heating area management	*
Anti-legionella management for DHW storage	*
DHW storage chrono management	*
Auxiliary output management and control	*

GENERAL MENU



- 1 ON/OFF - MENU EXIT.
- 2 PRESS TO ACCESS THE MENU.
TURN TO: SELECT, ACCESS, MODIFY.
PRESS TO MEMORISE.
- 3 GO BACK TO THE PREVIOUS MENU.



BASIC INSTRUCTIONS

The following recommendations must be followed the first times the stove is ignited:

- ♦ It is possible that slight odours are produced due to the drying of the paints and silicones used. Do not remain in the environment for long periods.
- ♦ Do not touch the surfaces as they could still be unstable.
- ♦ Air the room well several times.
- ♦ The hardening of the surfaces is terminated after several heating processes.
- ♦ This appliance must not be used to burn waste.

Before lighting the stove, the following points must be verified:

- ♦ The hydraulic system must be completed in compliance with the guidelines of the regulations and the manual.
- ♦ The tank must be full of pellets
- ♦ The combustion chamber must be clean
- ♦ The burn pot must be completely free and clean
- ♦ Check the hermetic closure of the fire door and the ash drawer
- ♦ Check that the power supply cable is connected correctly
- ♦ The bipolar switch in the rear right part must be positioned on 1.



DO NOT USE ANY INFLAMMABLE LIQUIDS FOR IGNITION!

**DO NOT ALLOW THE BAG OF PELLETS TO COME INTO CONTACT WITH THE BOILING HOT STOVE DURING THE FILLING PHASE!
IN THE EVENT OF CONTINUOUS NO IGNITION, CONTACT AN AUTHORISED TECHNICIAN.**

COMMISSIONING SETTINGS

Once the power cable at the back of the stove has been connected, move the switch, also located on the back, to (I).
The switch at the back of the stove powers the stove board.
The stove remains off and a first screen appears on the panel reading OFF .

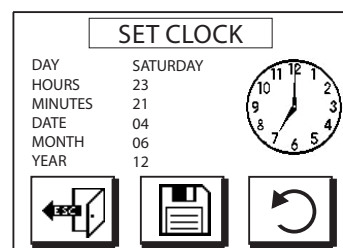


ADJUSTING TIME, DAY, MONTH AND YEAR

Set clock allows to adjust the time and date

CONTROLS PROCEDURE

- ♦ From the main screen, turn P2 to select the icon
- ♦ Press P2 to confirm
- ♦ Turn P2 to select **"SET CLOCK"**
- ♦ Confirm, pressing P2
- ♦ Turn P2 to select the desired parameter
- ♦ Press P2 to enter modification mode
- ♦ Turn P2 to modify the value
- ♦ Press P2 to confirm and exit
- ♦ If you wish to exit without memorising, press key P1

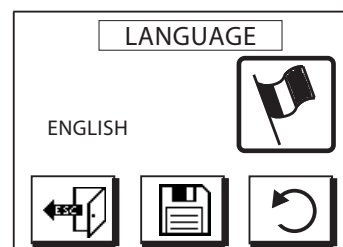


ADJUSTING LANGUAGE

The boiler allows to set the following languages: Italian, English, French, German and Spanish
ITALIAN is the default setting

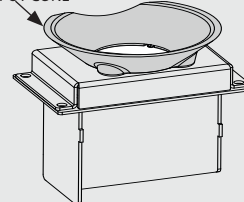
CONTROLS PROCEDURE

- ♦ Turn P2 to select the icon
- ♦ Press P2 to confirm
- ♦ Turn P2 to select **"LANGUAGE"**
- ♦ Confirm, pressing P2
- ♦ Turn P2 to select the desired parameter
- ♦ Press P2 to enter modification mode
- ♦ Turn P2 to modify the value
- ♦ Press P2 to confirm and exit
- ♦ If you wish to exit without memorising, press key P1



IT IS PROHIBITED TO USE THE APPLIANCE WITHOUT THE BURN POT CONE (SEE FIGURE TO THE SIDE). IN THE CASE OF WEAR OR DETERIORATION REQUEST AFTER-SALES ASSISTANCE FOR REPLACEMENT OF THE PART (REPLACEMENT THAT IS NOT UNDER GUARANTEE AS THE COMPONENT IS SUBJECT TO WEAR).

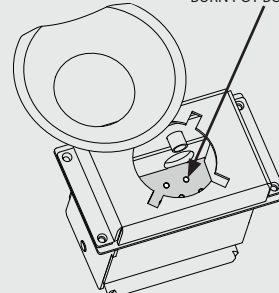
BURN POT CONE



CLEAN CHECK UP 1 - 2

SHOULD THE "CLEAN CHECK UP" ALARM BE TRIGGERED, MAKE SURE THAT THE BOTTOM OF THE BURN POT IS FREE OF RESIDUES OR SCALES. THE HOLES AT THE BOTTOM MUST BE COMPLETELY FREE TO GUARANTEE CORRECT COMBUSTION. (SEE CHAPTER "CLEANING CARRIED OUT BY THE USER") ONE CAN USE THE FUNCTION "PELLET FEED ADJUSTMENT" TO ADJUST COMBUSTION ACCORDING TO THE DESCRIBED REQUIREMENTS. IF THE ALARM PERSISTS AND THE ABOVE LISTED CONDITIONS HAVE BEEN CHECKED, CONTACT THE QUALIFIED AFTER-SALES ASSISTANCE CENTRE.

BURN POT BOTTOM



OPERATION AND LOGIC

IGNITION

Once the points listed previously have been checked, press key 1 for three seconds to ignite the stove.

15 minutes are available for the ignition phase. After ignition and having reached the control temperature, the stove interrupts the ignition phase and passes to STARTING.

STARTING

During the start-up phase, the stove stabilises combustion, increasing it progressively, to then start ventilation and pass on to WORK.

WORK

During the work phase, the stove reaches the set power; see following item.

ADJUSTING POWER SETTING

Set the operating power (from 1 to 5) .

Power 1 = minimum level - Power 5 = maximum level.

H2O TEMPERATURE SET ADJUSTMENT

Set the boiler temperature from 65 - 80°C .

PUMP OPERATION

The pump activates water circulation when the t° of the water inside the stove reaches 60°C. As the pump always functions above 60°, an always open heating area is recommended to make product functioning homogenous, preventing overheating blocks. Normally this area is defined "Safety zone".

BURN POT CLEANING

At pre-set intervals the stove performs burn pot cleaning, switching the machine off.

When the cleaning phase is finished, the stove will re-start automatically and continue its work going back to the selected power level.

MODULATION and H-OFF

As the water temperature approaches the set point, the boiler starts to modulate automatically bringing itself to the minimum power.

If the temperature increases beyond the set point, it will automatically switch off indicating **H-OFF** and will automatically go back on when the temperature drops below the set point.

SWITCH-OFF

Press key 1 for three seconds.

When the operation has been performed, the appliance automatically enters the switch- off phase, blocking the supply of pellets.

The flue gas exhaust motor will remain on until the stove temperature has dropped below the factory parameters.

RE-IGNITION

The stove can only be re-ignited automatically or manually when the cooling cycle conditions and the preset timer have been satisfied.

NO IGNITION

FIRST IGNITION COULD EVEN FAIL AS THE AUGER IS EMPTY AND IS NOT ALWAYS ABLE TO LOAD THE BURN POT WITH THE REQUIRED AMOUNT OF PELLETS ON TIME TO REGULARLY START THE FLAME.

- ♦ **WAIT FOR THE MACHINE TO COOL DOWN (GREEN SCREEN)**
- ♦ **PRESS KEY 1 FOR 3 SECONDS**

IF THE PROBLEM OCCURS AFTER ONLY A FEW MONTHS WORKING, CHECK THAT ROUTINE CLEANING STATED IN THE STOVE BOOKLET, HAS BEEN CARRIED OUT CORRECTLY.



ADDITIONAL THERMOSTAT

There is a possibility to thermostat a room adjacent to the room where the stove is positioned: just connect a thermostat following the procedure described in the next step (it is recommended to position the optional mechanical thermostat at a height of 1.50 m from the floor) .

The default STBY function is always active (it cannot be disabled) and the STBY clamp is jumpered (contact closed).

ADDITIONAL THERMOSTAT FUNCTIONING WITH STBY ACTIVE

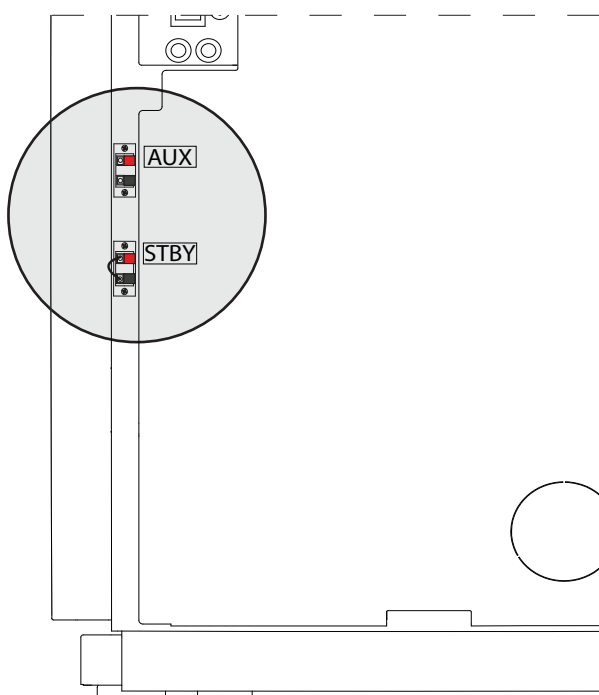
When the contact or external thermostat is not satisfied (open contact =temperature reached), the stove will switch off. As soon as the contact or external thermostat switches to the "not satisfied" status (closed contact = temperature to be reached) it will re-ignite, after the boiler has cooled down.

N.B.: stove operation depends on the temperature of the water inside the stove and relative factory setting restrictions. If stove is in H OFF (water temperature reached), any additional contact or thermostat request will be ignored.

ADDITIONAL THERMOSTAT INSTALLATION

- ♦ Switch the appliance off using the master switch positioned on the rear of the stove.
- ♦ Remove the plug from the socket.
- ♦ Refer to the electrical diagram to connect the two thermostat cables onto the relative clamps positioned on the rear of the machine, one is red and the other one is black (STBY clamp).

The image is given as an example.



AUX

Connection reserved for Extraflame conveyed waves accessories.
Contact the dealer for further details



THE STBY AND AUX CLAMPS, FOUND AT THE BACK OF THE STOVE CAN BE NOTED IN THE DIAGRAM AT THE SIDE



ATTENTION:
THE CLAMP MUST BE FITTED WITH A "DRY" TYPE CONTACT
(INPUT WITH DRY CONTACT, POTENTIAL-FREE)



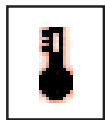
N.B. : INSTALLATION MUST BE PERFORMED BY AN AUTHORISED TECHNICIAN

MENU STRUCTURE



- 1 ON/OFF - MENU EXIT.
- 2 PRESS TO ACCESS THE MENU.
TURN TO: SELECT, ACCESS, MODIFY.
PRESS TO MEMORISE.
- 3 GO BACK TO THE PREVIOUS MENU.

MENU		TEXT	VALUE	FUNCTION
2	SET TEMPERATURE	SET H2O	65 - 80°C	Selection of the boiler temperature set-point
	SET POWER	POWER	01 - 05	Selecting the power
	SET ADJUSTMENTS	ENABLE CHRONO	ON - OFF	Activation / deactivation weekly programmer
		PELLETS	-30... +20%	Selecting the percentage of pellet feed
2	STATUS 1 AND 2		References reserved to the technician	
	USER MENU	DAY	MON...SUN	Setting the day of the week
		HOURS	00...24	Adjustment of the hour
		MINUTES	00...59	Adjustment of the minutes
		DATE	1...31	Adjustment of the date
		MONTH	1...12	Adjustment of the month
		YEAR	00...99	Adjustment of the year
		ENABLE CHRONO	OFF	Activation/deactivation of the weekly programmer
		START - PRG1	OFF - 00:00	1 st ignition time
		STOP - PRG1	OFF - 00:00	1 st switch-off time
		MONDAY PRG1 OFF SUNDAY PRG1 OFF	ON / OFF	Ignition/switch-off consents for various days
		SET PRG1	65 - 80°C	Temperature setting for the 1 st time span
		START - PRG2 00:10	OFF - 00:00	2 nd ignition time
		STOP - PRG2 00:10	OFF - 00:00	Time 2 nd switch-off time
		MONDAY PRG2 OFF SUNDAY PRG2 OFF	ON / OFF	Ignition/switch-off consents for various days
		SET PRG2	65 - 80°C	Setting room temperature for the 2 nd time slot
		START - PRG3 00:10	OFF - 00:00	3 rd ignition time
		STOP - PRG3 00:10	OFF - 00:00	3 rd switch-off time
		MONDAY PRG3 OFF ...SUNDAY PRG3 OFF	ON / OFF	Ignition/switch-off consents for various days
		SET PRG3	65 - 80°C	Setting room temperature for the 3 rd time slot
		START - PRG4 00:10	OFF - 00:00	4 th ignition time
		STOP - PRG4 00:10	OFF - 00:00	4 th switch-off time
		MONDAY PRG4 OFF ...SUNDAY PRG4 OFF	ON / OFF	Ignition/switch-off consents for various days
		SET PRG4	65 - 80 °C	Setting room temperature for the 4 th time slot
	LANGUAGE	ITAL - ENGL - DEUT - FRAN - ESPA		Selecting the language
	DISPLAY	DISPLAY	OFF - ON	Delayed switch off of the backlighting
	RESET	RESET	ON / OFF	Resets the values modifiable by the user back to the default values.

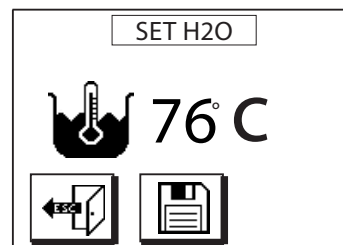


SET TEMPERATURE

The following menu allows the boiler temperature to be set
The possible settings are: 65 - 80°C.

CONTROLS PROCEDURE

- ♦ From the main screen, turn P2 to select the **SET TEMPERATURE** icon
- ♦ Press P2 to confirm
- ♦ Turn P2 to adjust the **TEMPERATURE**
- ♦ Confirm and memorising by pressing P2
- ♦ To exit without memorising, press key P1



SET POWER

The following menu allows to set the power. Minimum power 1, maximum power 5.

CONTROLS PROCEDURE

- ♦ From the main screen, turn P2 to select the **SET TEMPERATURE** icon
- ♦ Press P2 to confirm
- ♦ Turn P2 to adjust the **POWER**
- ♦ Confirm and memorising by pressing P2
- ♦ To exit without memorising, press key P1



SET ADJUSTMENTS

The set user menu offers the following possibilities

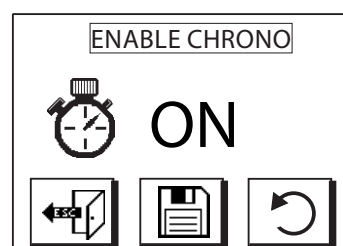
- ♦ automatic/manual mode: allows enabling/disabling the chrono inside the boiler
- ♦ pellet adjustment: allows pellet adjustment

ENABLE CHRONO

The boiler chrono can be enables/disables from this menu

CONTROLS PROCEDURE

- ♦ From the main screen, turn P2 to select the **SET ADJUSTMENTS** icon
- ♦ Press P2 to confirm
- ♦ Turn P2 to take **CHRONO ENABLING** to ON
- ♦ Confirm and memorising by pressing P2
- ♦ To exit without memorising, press key P1



PELLET ADJUSTMENT

The following menu allows to adjust the percentage of pellet feed. If the stove has functioning problems owing to the quantity of pellets, adjust pellet feeding directly from the control board.

The problems correlated to the amount of fuel can be divided into 2 categories:

NO FUEL:

- ♦ the stove can never develop a suitable flame, tending to remain very low even at high powers.
- ♦ at minimum power the stove tends to almost switch-off taking the stove into **"NO PELLETS"** alarm condition.
- ♦ when the stove displays the **"NO PELLETS"** alarm, there may be non-burned pellets inside the burn pot.

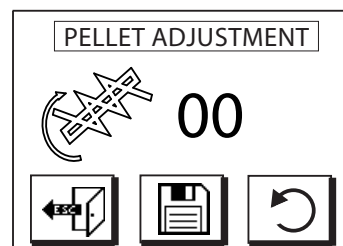
EXCESS FUEL:

- ♦ the stove develops a very high flame even at low power.
- ♦ the panoramic glass is very dirty, obscuring it almost totally.
- ♦ the burn pot tends to become encrusted, blocking the holes for air intake due to the excessive pellet feed, as it is only burned partially.

The adjustment to be performed is in percentage. Therefore a modification of this parameter will lead to a proportional variation of all stove feeding speeds. Feeding is from -30% to +20%.

CONTROLS PROCEDURE

- ♦ From the main screen, turn P2 to select the **SET ADJUSTMENTS** icon
- ♦ Press P2 to confirm and successively press P2 again to select **PELLET REGULATION**
- ♦ Turn P2 to modify the parameter as a percentage (-30/+20)
- ♦ Confirm and memorising by pressing P2
- ♦ to exit without memorising, press key P1



USER MENU

SET CLOCK

- ♦ see chapter: commissioning settings

CHRONO

The chrono allows to program 4 time spans within a day to use every day of the week.

The switch-on and switch-off time can be set in every time slot, along with the days of use of the programmed time slot and the desired water temperature (65 - 80°C).

RECOMMENDATIONS

The ignition and switch-off times must be within the space of one day, from 0 to 24 and not over several days:
Before using the chrono function, set the current day and time. Then check that the points listed in the "SET CLOCK" sub-chapter have been followed, so that the chrono function works. Aside from programming it, activate it as well.

EXAMPLE

Switch-on time 07:00
Switch-off time 18:00 **CORRECT**

Switch-on time 22:00
Switch-off time 05:00 **INCORRECT**



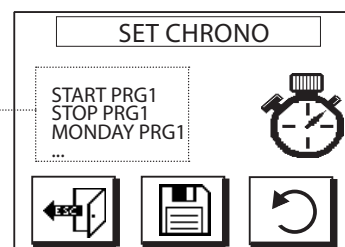
TO ENABLE THE CHRONO FOLLOW THE INSTRUCTIONS AS DESCRIBED IN THE "ENABLE CHRONO" CHAPTER. WHEN THE WEEKLY PROGRAMMER IS ACTIVE, THE RELEVANT ICON WILL LIGHT UP ON THE CONTROL PANEL



SCREEN ENTRY AND EXPLANATION

CONTROLS PROCEDURE

- ♦ Turn P2 to select the icon
- ♦ Press P2 to confirm
- ♦ Turn P2 to select "**SET CHRONO**"
- ♦ Confirm, pressing P2
- ♦ Turn P2 to select the desired parameter
- ♦ Press P2 to enter modification mode
- ♦ Turn P2 to modify the value
- ♦ Press P2 to confirm and exit
- ♦ If you wish to exit without memorising, press key P1



SCREEN

EXPLANATION

START PRG1	00:00 ●	First time slot ignition time
STOP PRG1	00:00 ●	First time slot switch-off time
MONDAY PRG1	ON ●	Day allowed or not (on - off)
TUESDAY PRG1	OFF ●	Day allowed or not (on - off)
WEDNESDAY PRG1	OFF ●	Day allowed or not (on - off)
THURSDAY PRG1	OFF ●	Day allowed or not (on - off)
FRIDAY PRG1	OFF ●	Day allowed or not (on - off)
SATURDAY PRG1	OFF ●	Day allowed or not (on - off)
SUNDAY PRG1	OFF ●	Day allowed or not (on - off)
SET PRG1	75°C ●	Setting water t°

ADJUSTING LANGUAGE

- see chapter: commissioning settings

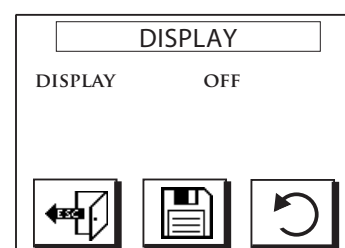
DISPLAY

Activating OFF, the back light of the display will go off after a preset delay.

The back light will go on as soon as a key is pressed or if an alarm should be triggered in the machine.

CONTROLS PROCEDURE

- ♦ Turn P2 to select the icon
- ♦ Press P2 to confirm
- ♦ Turn 2 to select "**DISPLAY**"
- ♦ Confirm, pressing P2
- ♦ Turn 2 to select **ON - OFF**
- ♦ Press P2 to confirm and exit
- ♦ If you wish to exit without memorising, press key P1

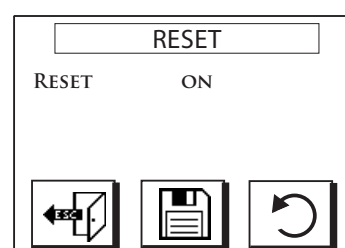


RESET

Allows to reset all values modifiable by the user to the default values.

CONTROLS PROCEDURE

- ♦ Turn P2 to select the icon
- ♦ Press P2 to confirm
- ♦ Turn 2 to select "**RESET**"
- ♦ Confirm, pressing P2
- ♦ Turn 2 to select **ON**
- ♦ Press P2 to confirm
- ♦ The display will show "**DONE**" to confirm the command.



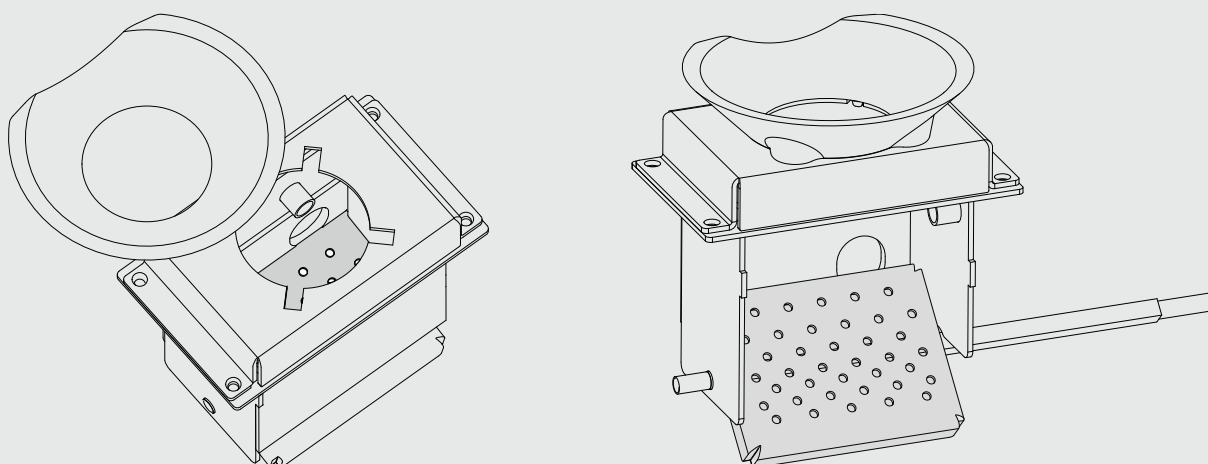
CLEANING UNDER USER'S RESPONSIBILITY

Some images could be offset from the original model.

DAILY

Burn pot:

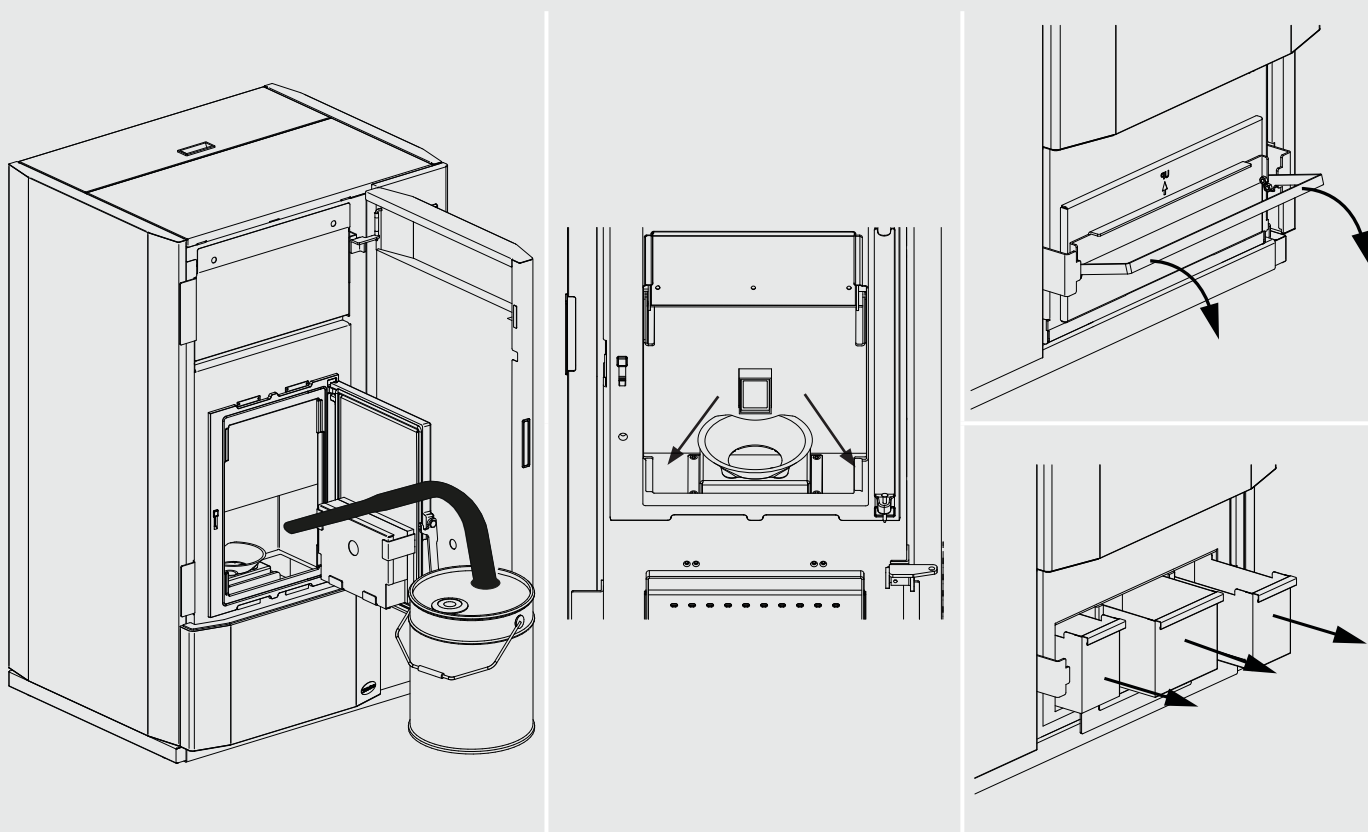
The burn pot is cleaned via a mechanical system at pre-fixed intervals automatically by the boiler. The figure below shows the burn pot with underlying opening. The company recommends the removal of ash deposits using a suction device at least once every two days, or however, on the basis of use of the product.



WEEKLY

Cleaning the ash drawer:

Empty the ash drawer every week or when required. It is therefore recommended to remove the ash in the combustion chamber at least once a week using a suitable suction device.



ROUTINE MAINTENANCE

In order to guarantee proper functioning and safety of the device, the operations indicated below must be performed every season or more often when necessary.

DOOR, ASH DRAWER AND BURN POT GASKETS

The gaskets guarantee the tightness of the stove and its consequent good functioning. These must be checked regularly: if they should be worn or damaged they must be replaced immediately. These operations must be carried out by a qualified technician.

CONNECTION TO THE FLUE

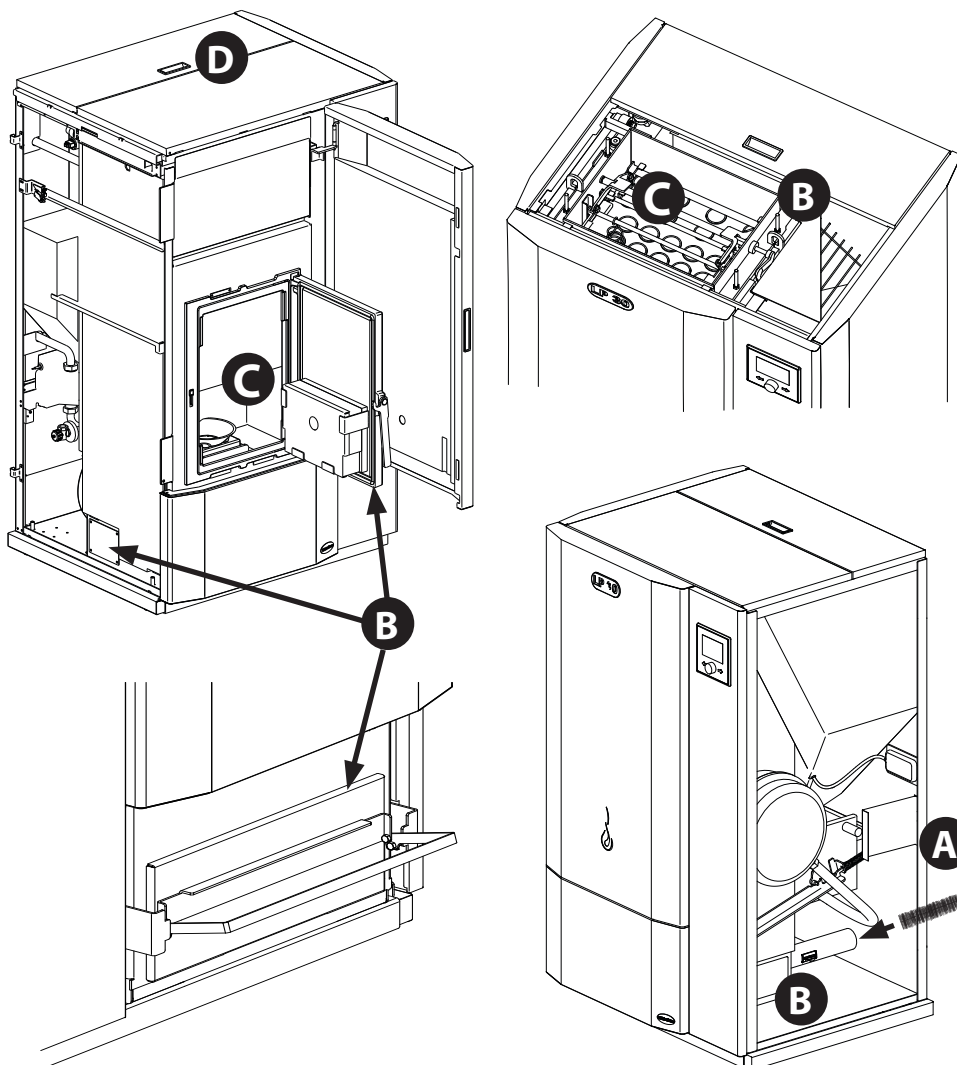
Suck and clean the pipe that leads to the flue yearly or anytime that it is necessary. If there are horizontal tracts the residues must be removed before they can obstruct flue passage.

NON-CLEANING JEOPARDISES SAFETY.

IF THE POWER SUPPLY CABLE IS DAMAGED, IT MUST BE REPLACED BY THE AFTER-SALES SERVICE OR BY A SIMILARLY QUALIFIED PERSON, SO AS TO AVOID ALL RISKS.

FOR CORRECT FUNCTIONING, THE STOVE MUST UNDERGO ROUTINE MAINTENANCE BY A QUALIFIED TECHNICIAN, AT LEAST ONCE A YEAR.

MAKE SURE THAT THE ASH IS COMPLETELY COLD BEFORE EMPTYING IT INTO A SUITABLE CONTAINER. * THE "CHIMNEY SWEEP" BIN IS AN ACCESSORY AVAILABLE FROM THE COMPANY.

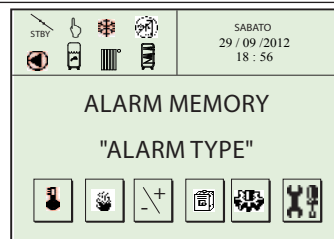


A	Fumes motor (disassembly and cleaning and fumes pipe and "T"), new silicone in the provided points	☒
B	Inspections of gaskets, ash drawer and door (replace them and apply silicone where envisioned)	☒
C	Combustion chamber and heat exchanger (full cleaning) including ignition-plug pipe	☒
D	Feed box (complete emptying and cleaning).	☒
E	Check air intake pipe and cleaning of the flow sensor	☒

DISPLAYS	
DISPLAY	REASON
OFF	Stove off
START	The start-up phase is in progress
PELLET FEEDING	Continuous pellet feeding is in progress during the ignition phase
IGNITION	The ignition phase is in progress
START-UP	The start-up phase is in progress
WORK	The normal work phase is in progress
MODULATION	The stove is working at minimum
BURN POT CLEANING	Automatic burn pot cleaning is in progress
FINAL CLEANING	The final cleaning is in progress
STAND-BY	Stove off waiting for re-ignition due to an external thermostat The stove will only re-start when the external thermostat makes a request
COOLING STAND-BY	A new ignition is attempted when the stove has just been switched off. When the stove switches off, one must wait for the complete shutdown of the fumes motor, then clean the burn pot. The stove can only be re-ignited when these operations have been performed.
HOFF	Stove off due to water temperature over set As soon as the water temperature drops below the pre-set parameters, the stove will switch back on
BLACK OUT STAND-BY	The stove is cooling after a power cut. Once cooling is completed it will re-start automatically
ANTI-FREEZE	The anti-freeze function is in progress as the H ₂ O t° is below the factory set threshold the pump is active until the water reaches the pre-set factory parameter +2°C
ANTILOCK	The pump antilock function is in progress (only if the stove has been in an OFF state for at least 96 hours); the pump is activated for the time pre-set by the manufacturer, in order to prevent it from blocking
AUTO BLOW	The automatic blow is active
EXCHANGER BLOCK	Automatic exchanger cleaning is blocked

ALARMS

When the boiler goes into alarm mode, the screen becomes red and does not accept commands outside the display. When the screen turns green, "ALARMS MEMORY" will be displayed with the type of alarm and the boiler can respond to external controls. If the alarm can be solved by the user, once this has been performed the boiler can be re-ignited by pressing key 1. In the event of a more complex alarm, contact the after-sales assistance.



ASPIRATION FAULT	Fumes motor fault	Contact after-sales centre
FUMES PROBE	Fumes probe failure.	Contact after-sales centre
HOT FUMES	High flue gas temperature	Check pellet feed (see "Pellet feed adjustment"). If the problem cannot be solved, contact an authorised technician.
CLEAN CHECK UP 1 - 2 (1 = START-UP PHASE) (2= WORK PHASE)	The door is not closed correctly. The ash drawer is not closed correctly. The combustion chamber is dirty. The flue exhaust pipe is blocked.	Check hermetic door closure. Check hermetic closure of the ash drawer. Check cleanliness of the fumes pipe, of the sensor in the primary air channel and the combustion chamber.
NO IGNITION	The pellet feed-box is empty. Pellet feed calibration inadequate.	Check for the presence of pellets in the feed-box. Adjust pellet flow (see "Pellet feed adjustment"). Check the procedures described in the "Ignition" chapter.
NO IGNITION BLACK OUT	No current during the ignition phase.	Take the stove to OFF conditions using key 1 and repeat the procedure described in the "Ignition" chapter.
NO PELLETS	The pellet feed-box is empty. No pellet feed. The motor reducer does not feed pellets.	Check for the presence of pellets in the feed-box. Adjust the pellet flow (see "Pellet feed adjustment").
DEPR ALARM	The door is not closed correctly. The ash drawer is not closed correctly. The combustion chamber is dirty. The flue exhaust pipe is blocked	Check hermetic door closure. Check hermetic closure of the ash drawer. Check cleanliness of the fumes pipe and the combustion chamber.
DEBIMETER FAULT	Flow sensor faulty. Sensor disconnected	Contact after-sales centre
H2O OVERTEMP	The water in the stove has exceeded 95°C. Possible air in the system. Lack of adequate circulation. Lack of or inadequate safety zone. Possible circulator anomaly.	Contact after-sales centre
TRAPDOOR FAULTY	The automatic cleaning of the burn pot is blocked.	Contact after-sales centre
MINIMUM PRESSURE ALARM	The system pressure read by the pressure switch is too low. Possible presence of air in the system. Possible lack of water or leaks due to anomalies in some system component.	Contact after-sales centre
H2O PROBE ALARM	H2O probe failure	Contact after-sales centre
MAX H2O PRESSURE ALARM	The pressure of the water has exceeded the max threshold	Check that the expansion vessels are not damaged or under-dimensioned Check that the cold system is loaded at the correct pressure

WARRANTY CONDITIONS

EXTRAFLAME S.p.A., with offices in via dell'Artigianato 12 Montecchio Precalcino (VI), guarantees this product for 2 (two) YEARS from purchase date for manufacturer and material faults. The warranty becomes void in case the defect of conformity is not filed with the dealer within two months from date of its finding.

The responsibility of EXTRAFLAME S.p.A. is limited to the supply of the appliance, which must be perfectly installed, following the indications contained in the appropriate manuals and books provided with the purchased product and in compliance with the laws in force. **Installation must be performed by qualified staff, under the responsibility of the person entrusting him, who will assume complete responsibility for the definitive installation and consequent good functioning of the product installed. EXTRAFLAME S.p.A. cannot be held responsible for the failure to comply with such precautions.**

WARNING

THE WARRANTY IS VALIDATED ON THE CONDITION THAT:

The installation and relative connections of the plant have been carried out by professionally authorised staff in total compliance with the Standard in force (M.D. n.37 dated 22 January 2008), in compliance with the Standards in force, both national and regional, as well as these instructions.

Testing has been carried out by a qualified technician, who assumes the entire responsibility to have verified that the plant has been realised in compliance with the Standard in force, by professionally qualified staff, in compliance with the Standards in force and to have checked the good functioning of the installed product. Once this has been verified, the after-sales centre will supply all the information for its correct use, filling in and delivering a copy of the document which certifies the warranty, undersigned by the client.

EXTRAFLAME S.p.A. assures that all its products are manufactured with top quality materials and with manufacturing techniques which guarantee total efficiency. If during normal use of the product, defective or badly working particulars should be detected, the replacement of such particulars will be free of charge, ex dealer who made the sale.

TERRITORIAL EXTENSION OF THE WARRANTY:

Italian territory

VALIDITY

THE WARRANTY IS CONSIDERED VALID ON THE CONDITION THAT:

1. The purchaser forwards the **inspection report and warranty validation (copy 2)** filled-in completely, within 8 days from the date of validation of the warranty. The purchase date must be validated by the possession of a valid fiscal document issued by the dealer.
2. The appliance is used as prescribed in the instructions manual provided with all products.
3. The boiler is installed, in compliance with the Standards in force with regard to the prescriptions contained in the installation, use and maintenance manual relating to the product, by qualified staff in possession of the legal requisites (M.D. n.37 dated 22 January 2008);
4. The client is in possession of the documentation which certifies its eligibility, filled-in in all its parts:
 - A. INSTALLATION REPORT: filled-in by the installer
 - B. INSPECTION REPORT AND VALIDATION OF THE WARRANTY:

Filled out by the client, dealer and a qualified technical assistance centre.

5. The warranty document, filled-in and accompanied by the purchase fiscal document issued by the dealer, must be kept and shown to the authorised technician in the event of intervention.

THE WARRANTY IS NOT CONSIDERED VALID IN THE FOLLOWING CASES

1. The warranty conditions described above have not been respected.
 2. Installation has not been performed with respect to the Standards in force regarding the provisions described in the manual/book provided with the appliance.
 3. Negligence of the customer due to lack of or incorrect maintenance of the product.
 4. Presence of electric and/or hydraulic plants that do not comply with the standards in force.
 5. Damages deriving from atmospheric, chemical, electro-chemical agents, improper use of the product, modifications and tampering with the product, inefficacy and/or unsuitability of the flue and/or other causes not deriving from the manufacture of the product.
 6. Combustion of materials not compliant with the types and quantities indicated in the manual/book supplied
 7. All damages caused by transport. It is therefore recommended to carefully check the goods on receipt, immediately informing the dealer of any damage, making a note on the transport document and on the carrier's copy.
- EXTRAFLAME S.p.A. is not liable for any damage that can, directly or indirectly, affect persons, objects and pets as a consequence

of failure to comply with the prescriptions indicated in this manual/book.

ALL PARTICULARS SUBJECT TO NORMAL WEAR ARE NOT COVERED BY WARRANTY:

This category includes:

- ♦ The gaskets, all ceramic or toughened glass, coverings and cast iron or Ironker grids, the painted, chrome or gold-plated details, the majolica, the handles and the electric cables.
- ♦ Colour variations, crackles and slight size differences of the majolica parts are not a reason for claims, as they are natural features of the materials themselves.
- ♦ Parts in refractory material
- ♦ Masonry work
- ♦ The system particulars for the production of domestic hot water not supplied by EXTRAFLAME S.p.A. (water products only).
- ♦ The heat exchanger is excluded from the warranty unless an adequate anti-condensate circuit is realised, which guarantees a minimum return temperature of the appliance of at least 55°C (only water products).

FURTHER CLAUSES:

The warranty also excludes any calibration or regulation interventions of the product in relation to the type of fuel or the type of installation.

The warranty is not extended if particulars are replaced.

No compensation will be paid for the time the product is inefficient.

This warranty is valid only for the purchaser and cannot be transferred.

WARRANTY INTERVENTIONS

The request for intervention must be sent to the dealer or after sales assistance Centre.

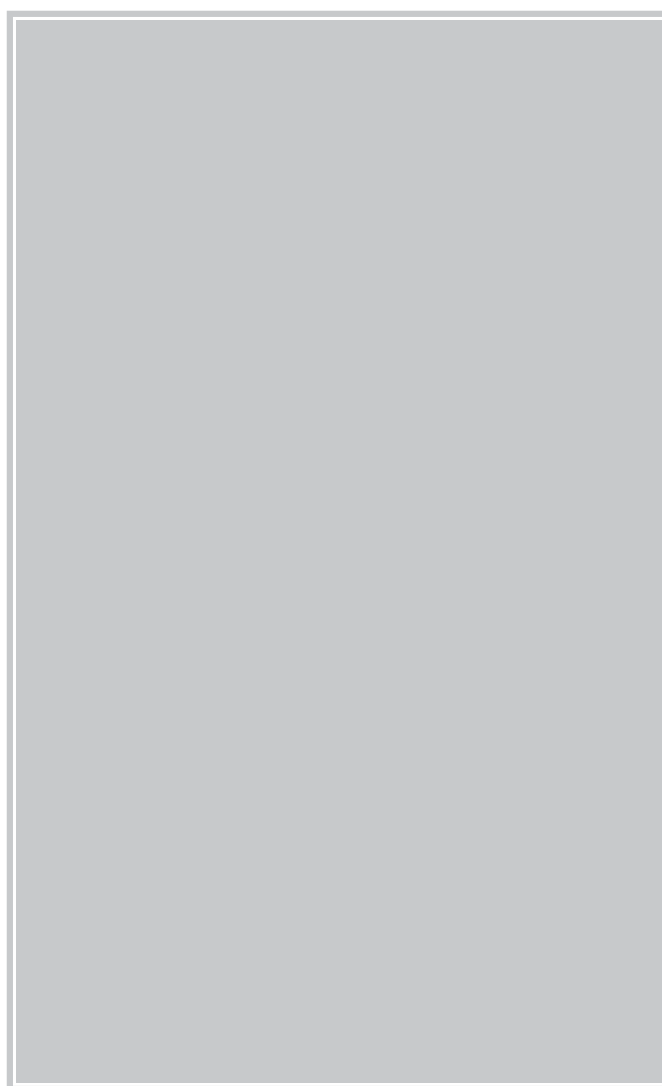
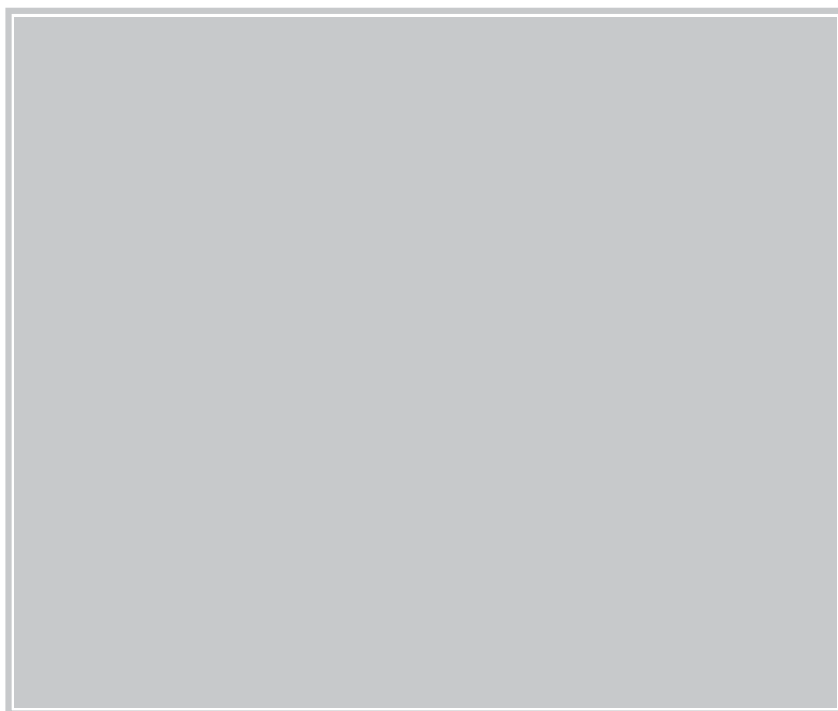
The warranty intervention envisions the repair of the appliance without any charge, as provided by the law in force.

LIABILITY

EXTRAFLAME S.p.A. does not grant any compensation for direct or indirect damage caused or depending on the product.

LAW COURT

The Vicenza Law Court is elected as the competent court for any disputes.



Extraflame®

Riscaldamento a Pellet

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This manual cannot be considered as a contract for third parties.

This document is available at www.extraflame.it/support