

# **Extraflame**®

Riscaldamento a Pellet



**LP14 - 20 LCD 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.*

## ENGLISH

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## TECHNICAL FEATURES

FEATURES		LP 14	LP 20
Weight	kg	220	260
Height	mm	1327	1368
Width	mm	533	525
Depth	mm	663	941
Flue exhaust pipe diameter	mm	120	120
Air intake pipe diameter	mm	60	60
Max. global heat output	kW	15.7	22.3
Max. useful thermal power (to the water)	kW	14.7	20.9
Minimum global heat output	kW	4.2	4.2
Min. useful heat output	kW	3.9	3.9
Max. hourly fuel consumption	kg/h	3.3	4.6
Min. hourly fuel consumption	kg/h	0.9	0.9
Tank volume	l	~ 61	~ 100
Recommended flue draught	mbar	~ 0.1	~ 0.1
Nominal electric output	W	470	470
Nominal voltage	Vac	230	230
Nominal frequency	Hz	50	50
Water inlet/outlet pipe diameter	"	1	1
Automatic exhaust pipe diameter	"	1/2	1/2
Pump head	m	5	5
Max. working water pressure accepted	bar	2.5	2.5
Min. working water pressure accepted	bar	0.6	0.6
Flue gas temperature	°C	53.3 - 75.8	53.3 - 84.6
Flue gas flow rate	g/s	6.5 - 11.1	6.5 - 13.7
Boiler class		3	3
Combustion period	h	43 - 13	70 - 15
Water thermostat field of regulation	°C	65 - 80	65 - 80
Water return minimum temperature	°C	55	55
Dimensions of the feeding door	mm	286 L x 225 D	370 L x 360 D
Yield	%	93.4	93.7

LP14		FLOW OF WATER (kg/h)	WATER SIDE RESISTANCE (mbar)
Corresponding temperature difference	$\Delta T = 10K$	1264.2	72.7
	$\Delta T = 20K$	632.1	67.8

LP20		FLOW OF WATER (kg/h)	WATER SIDE RESISTANCE (mbar)
Corresponding temperature difference	$\Delta T = 10K$	1797.4	100
	$\Delta T = 20K$	898.7	88.6

## 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.

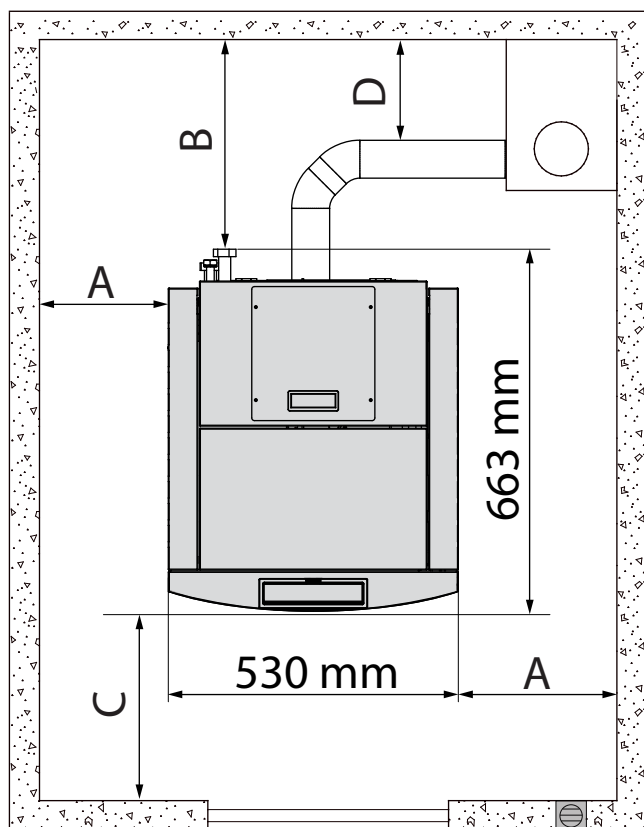
- ♦ The boiler has been designed to function in any climatic condition (also critical). In particularly adverse conditions (strong wind, freezing) safety systems may intervene that switch the boiler off.
- ♦ If this occurs, contact the technical after-sales service and always disable the safety system.
- ♦ 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.



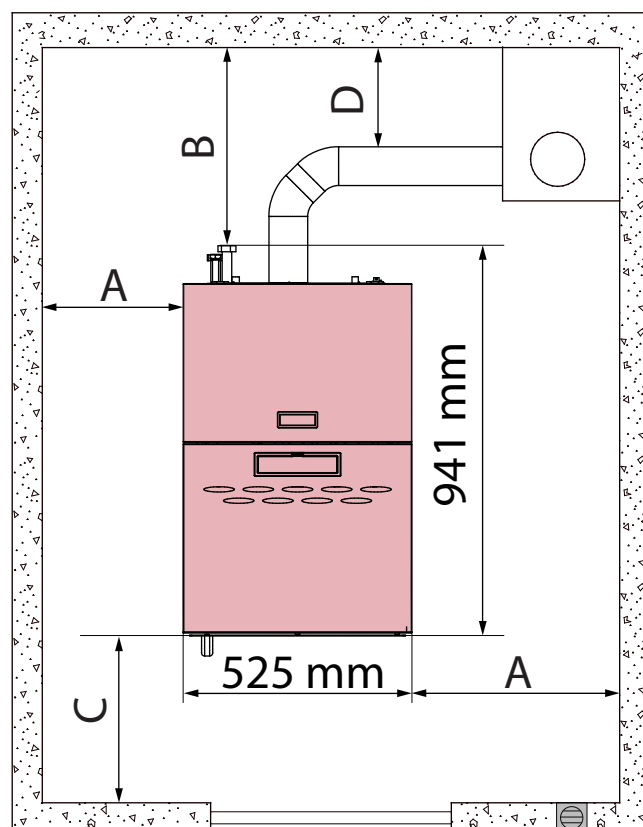
**THESE BOILERS MUST BE USED TO HEAT WATER TO A TEMPERATURE THAT DOES NOT EXCEED BOILING POINT IN THE CONDITIONS OF INSTALLATION.**

## 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:



**LP14**



**LP20**

REFERENCES	NON-INFLAMMABLE OBJECTS	REFERENCES	NON-INFLAMMABLE OBJECTS
<b>A</b>	500 mm	<b>D</b>	300 mm
<b>B</b>	1,000 mm	<b>E</b>	> 80 cm <sup>2</sup>
<b>C</b>	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	
<b>CIRCUIT BOARD:</b> 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	<input checked="" type="checkbox"/>
<b>FLOW SENSOR:</b> 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)	<input checked="" type="checkbox"/>
<b>F2.5 A 250V FUSE (STOVES):</b> Protect the machine from violent current drops	Acoustic alarm activation thermostat	-
<b>85 °C CALIBRATED MECHANICAL BULB WITH MANUAL REARM:</b> Intervenes by blocking fuel feed whenever the pellet tank t° reaches the limit of 85°C. <b>Rearm must be performed by qualified staff and/or the manufacturer's technical after-sales assistance.</b>	Water temperature indicator (display)	<input checked="" type="checkbox"/>
<b>100°C CALIBRATED MECHANICAL BULB WITH MANUAL REARM:</b> Intervenes by blocking the fuel feed whenever the t° of the water inside the product is near to 100°. <b>Rearm must be performed by qualified staff and/or the manufacturer's technical after-sales assistance.</b>	Pressure indicator	-
<b>MINIMUM AND MAXIMUM PRESSURE SWITCH:</b> Intervenes in the event of inadequate water pressure. <b>Rearm must be performed by qualified staff and/or the manufacturer's technical after-sales assistance.</b>	Acoustic alarm	-
<b>MECHANICAL AIR PRESSURE SWITCH:</b> Blocks the pellet in the event of insufficient depression	Regulation automatic circuit breaker switch (managed by board program)	<input checked="" type="checkbox"/>
	Minimum and maximum pressure pressure switch	<input checked="" type="checkbox"/>
	Water overheating automatic circuit breaker switch (block thermostat)	<input checked="" type="checkbox"/>
	Circulation system (pump)	<input checked="" type="checkbox"/>
	Expansion system	<input checked="" type="checkbox"/>

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.

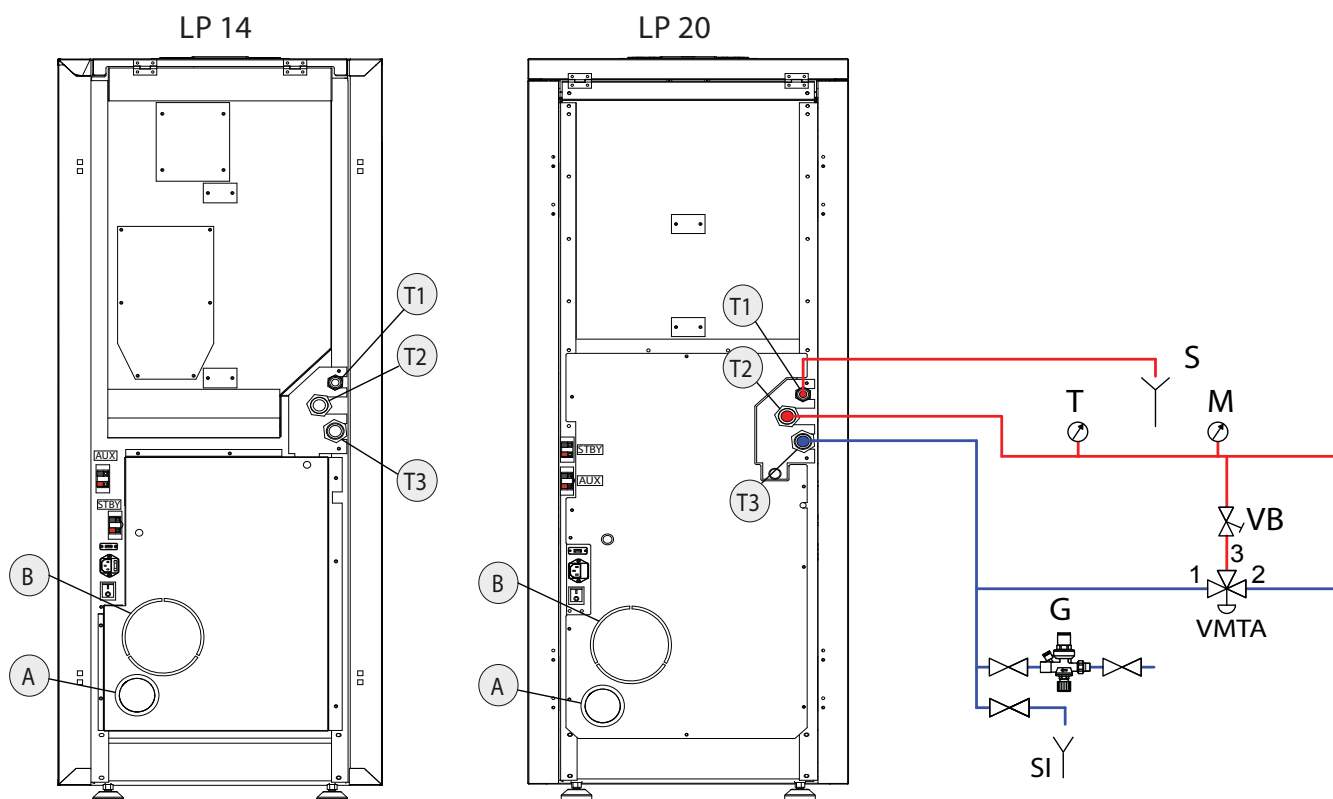


Valve sold as an accessory (optional)

## HYDRAULIC SYSTEM BASIC LAYOUT

### NOTA BENE:

the drawing in the figure is an example.



### KEY

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

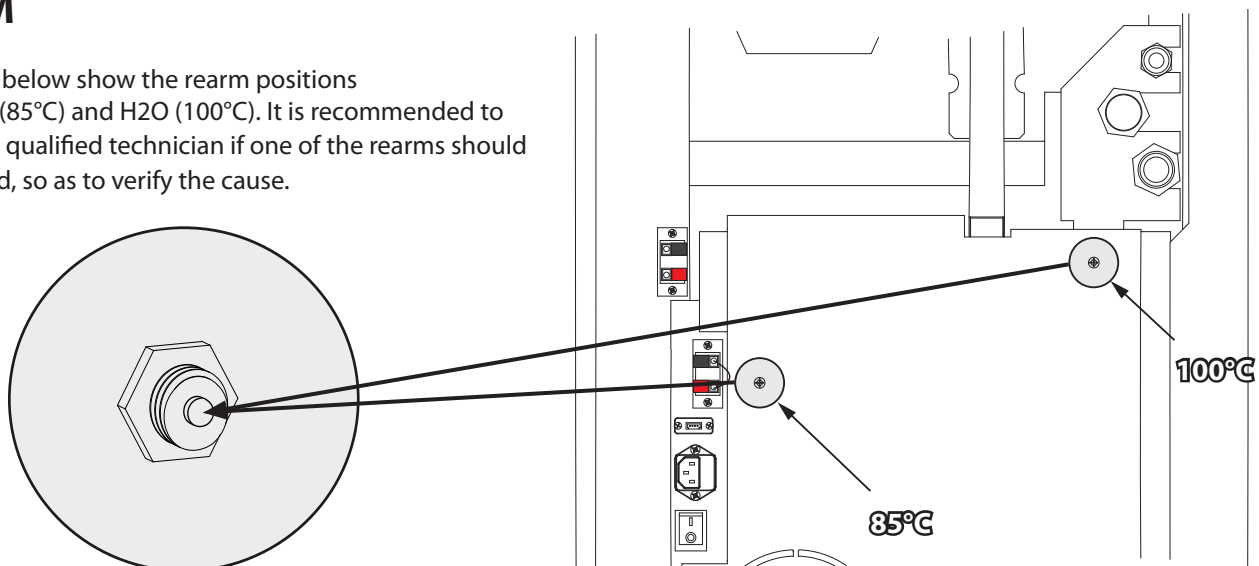
**WARNINGS:** if the instant hot water production kit is to be used, contact the company technical after-sales service.

### 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 H<sub>2</sub>O (100°C). It is recommended to contact the qualified technician if one of the rearms should be triggered, so as to verify the cause.

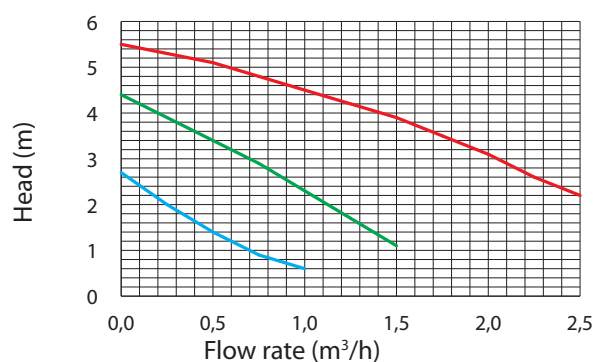


### THERMO-PRODUCTS FEATURES

	LP
Water content of the thermo product heat exchanger (l)	32
Volume of expansion vessel integrated into thermo-product (l)	6
Maximum content of water in the system for integrated expansion vessel (l)*	4
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	
<b>Circuit board:</b> 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	*
<b>Door micro switch:</b> With the door open, burn pot system operation is blocked	
<b>Electronic pressure switch:</b> in the event of inadequate depression, it takes the machine to alarm conditions	*
<b>F 2.5 A 250 V fuse (stoves):</b> protects the machine from violent current drops	*
<b>85°C calibrated mechanical bulb with manual rearm:</b> intervenes by blocking fuel feed whenever the pellet tank t° reaches the limit of 85°C. <b>Rearm must be performed by qualified staff and/or the manufacturer's technical after-sales assistance.</b>	*
<b>Pellet feed-box temperature control probe:</b> if the tank over-heats, the machine automatically modulates to return to normal temperature values (* in the models envisioned)	*
<b>Mechanical air pressure switch:</b> blocks the pellet in the event of insufficient depression (in the models envisioned)	*

## INSTALLATION

The installation must be in compliance with:

- ♦ **UNI 10683 (2005) heat generators fed with wood and other solid fuels: installation.**

The chimneys must be in compliance with:

- ♦ EN 13384 Thermal and fluid dynamic calculation methods.
- ♦ UNI 1443 (2005) chimneys: general requirements.
- ♦ UNI 1457 (2012) chimneys: clay/ceramic flue liners.
- ♦ UNI/TS 11278 (2008) Chimneys/smoke channels/pipes/flues/metal pipes.
- ♦ UNI 7129 point 4.3.3 Fire Department dispositions, local rules and prescriptions.

### NATIONAL, REGIONAL, PROVINCIAL AND TOWN COUNCIL REGULATIONS

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.

## GLOSSARY

### CLOSED HEARTH APPLIANCE

Heat generator which opening is only allowed through the loading of the fuel during use.

### BIOMASS

Biological material, excluding the material incorporated in geological formations and transformed into fossils.

### BIOFUEL

Fuel produced directly or indirectly by biomass.

### CHIMNEY

Vertical pipe with the aim of collecting and expelling the fuel products coming from only one appliance, at a convenient height from the ground.

### SMOKE CHANNEL OR FITTING

Pipe or connecting element between heat generator appliance and chimney to evacuate combustion products.

### INSULATION

Group of set-ups and materials used to prevent the transmission of heat through a wall that separates rooms with different temperatures.

### CHIMNEY CAP

Device positioned at chimney peak to ease the dispersion of combustion products into the atmosphere.

### CONDENSATE

Liquid products that form when the combustion gas temperature is lower or equal to the water dew point.

### HEAT GENERATORS

Appliance which allows to produce thermal energy (heat) through the rapid transformation, via combustion, of the chemical energy of the same fuel.

### GATE VALVE

Mechanism for modifying the combustion gas dynamic resistance.

### COMBUSTION PRODUCT EVACUATION SYSTEMS

Flue gas exhaust system independent from the appliance constituted by a fitting or smoke channel, chimney or individual flue and chimney cap.

### FORCED DRAUGHT

Air circulation by means of the fan activated by electric motor.

### NATURAL DRAUGHT

Draught which is determined in a chimney/flue for effect of the volume mass difference existing between smoke (hot) and surrounding atmosphere air, without any mechanical intake aid installed inside it or at its peak.

## RADIATION AREA

Area immediately near the hearth in which the heat caused by combustion is diffused, where no combustion materials must be present.

## REFLUX AREA

Area where leaking of the combustion products is verified, from the appliance towards the installation room.

The installation must be preceded by checking the chimneys, flues or unload terminals positioning of appliances similarly to:

- ♦ Installation prohibitions
- ♦ Legal distances
- ♦ Limitations disposed by local administrative regulations or particular authority prescriptions.
- ♦ Conventional limitations deriving from condominium regulations, constraints or contracts.

## INSTALLATIONS ALLOWED

Only appliances working in a sealed manner respect to the room or which do not place the room in depression respect to the external environment, can exist or be installed in the room where the heat generator will be installed.

Appliances for cooking food and relative hoods without extractor are only allowed in kitchens.

## INSTALLATIONS NOT ALLOWED

In the room where the heat generator will be installed the following must not pre-exist or be installed:

- ♦ hoods with extractor
- ♦ collective type ventilation pipes.

Should these appliances be in rooms adjacent, communicating with the installation room, the simultaneous use of the heat generator is forbidden, where a risk exists of one of the two rooms being placed in depression respect to the other.

## CONNECTION TO THE SMOKE EVACUATION SYSTEM

UNI 10683 (2005) Standard

## SMOKE CHANNEL OR FITTINGS

To mount the smoke channels, non-flammable elements will have to be used, ideal for resisting combustion products and their eventual condensing.

The use of flexible metal and asbestos cement pipes to connect the appliances to the flue is forbidden, even for pre-existing smoke channels.

There must be continuity between the smoke channel and the flue so that the flue does not lean on the generator. The smoke channels must not cross rooms where the installation of the combustion appliances is not allowed.

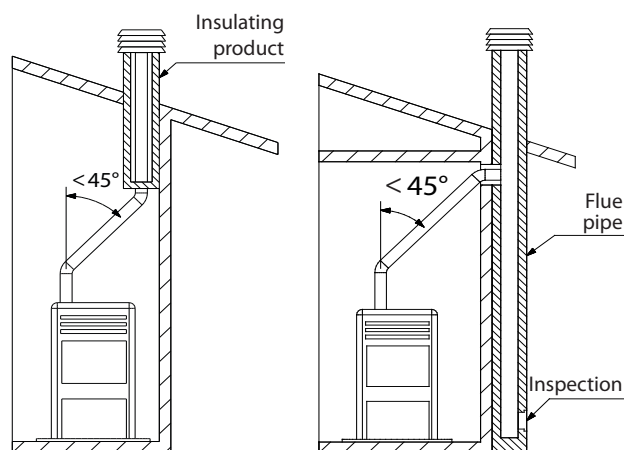
The mounting of the smoke channels must be carried out in order to guarantee smoke seal for the appliance functioning conditions, limit the forming of condensate and avoid it being transported towards the appliance.

The mounting of horizontal routes must be avoided.

For appliances where ceiling or wall non-coaxial discharges with respect to the appliance combustion product outlet have to be reached, the direction changes will have to be realised using open bends not greater than 45° (see figures below).

For the heat generator appliances equipped with electric fan

for expelling combustion products, the instructions below must be followed:



- ♦ The horizontal routes will have to have a minimum upward slope of 3%
- ♦ The length of the horizontal route must be minimal and, however, not longer than 3 metres
- ♦ The number of direction changes including the one for effect of using the "T" element must not be more than 4.

In any case, the smoke channels must seal the combustion and condensate products and be insulated if they pass outside the installation room.

The use of counterslope elements is forbidden.

The smoke channel must allow the recovery of soot or be brushable.

The smoke channel must have constant section. Any section changes are only allowed at the flue coupling.

It is forbidden to have other air supply channels and pipes for system engineering, especially if over-sized, transit inside the smoke channels. The mounting of manual draught adjustment devices on forced draught appliances is forbidden.

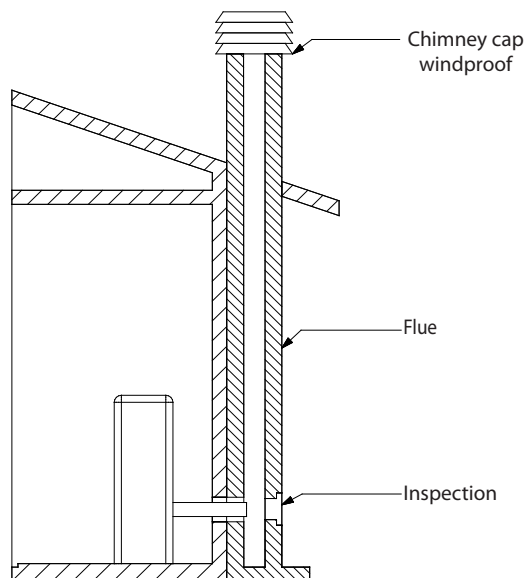
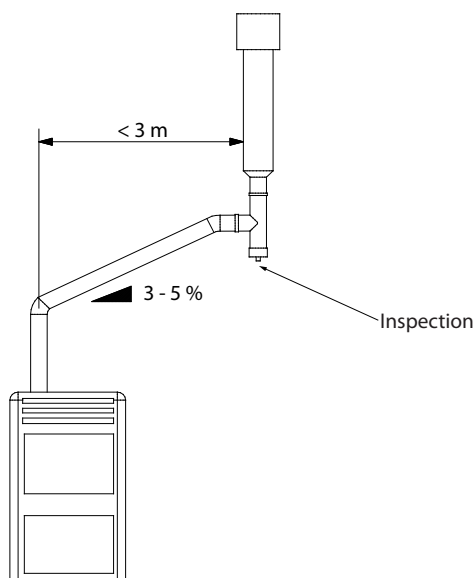
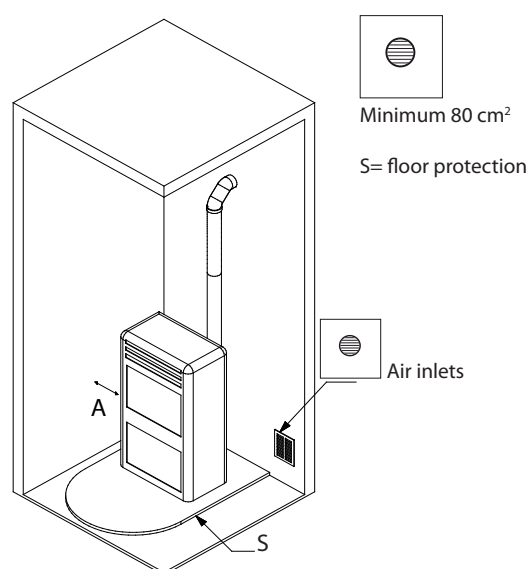
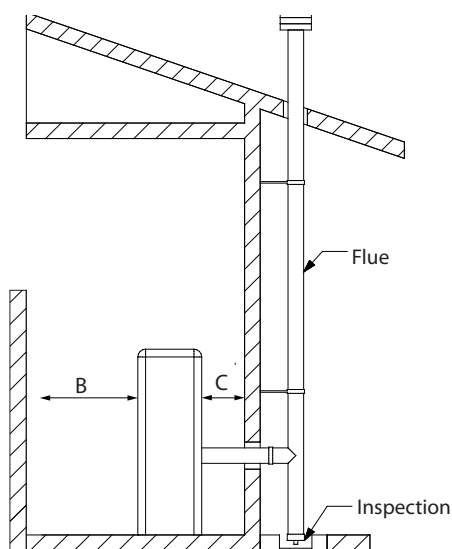
## CHIMNEY OR INDIVIDUAL FLUE

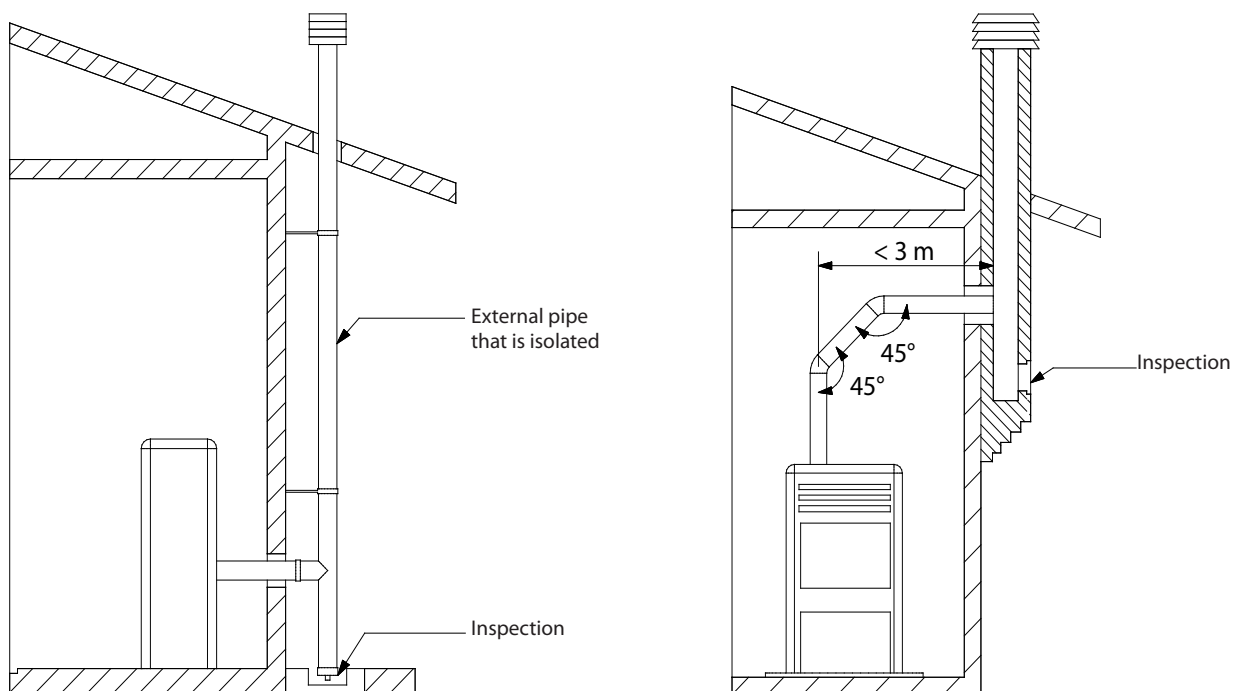
The chimney or individual flue must respond to the following requisites:

- ♦ seal the combustion products, be waterproof and adequately insulated in line with the use conditions;
- ♦ be realised with materials which resist the normal mechanical stress, heat, action of the combustion products and any condensate;
- ♦ have mainly vertical progress with deviations from the axis not higher than 45°;
- ♦ be adequately distanced from fuel or flammable materials through air space or opportune insulation;
- ♦ have preferably circular internal section: the square or rectangular sections must have round corners with a radius not lower than 20 mm;
- ♦ have constant internal section, free and independent;
- ♦ have rectangular section with max. ratio between the sides of 1.5.

It is recommended that the smoke pipe be equipped with a collection chamber for solid materials and any condensate situated under the smoke channel inlet, so that it can be easily opened and inspected from airtight door.

REFERENCES	INFLAMMABLE OBJECTS	NON-INFLAMMABLE OBJECTS
A	200 mm	100 mm
B	1,500 mm	750 mm
C	200 mm	100 mm





Appliance connection to the flue and combustion products evacuation

The flue must receive the discharge from only one heat generator.

Direct discharge towards closed spaces is forbidden, even with clear sky.

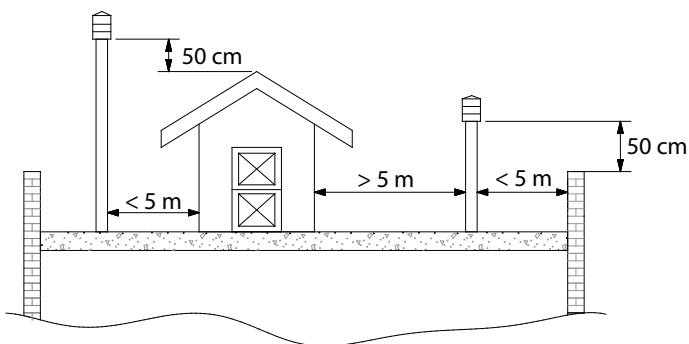
The direct discharge of the combustion products must be at roof and the smoke pipe must have the features provided in the "Chimney or individual flue" section.

## CHIMNEY CAP

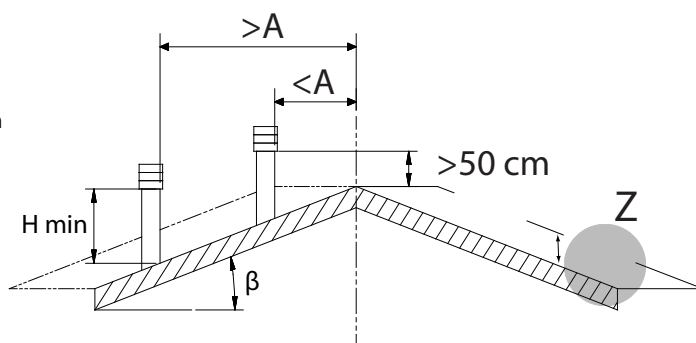
The chimney cap must comply with the following requisites:

- ♦ have an internal section equivalent to that of the chimney;
- ♦ have useful outlet section not lower than double the chimney internal section;
- ♦ be built in order to avoid rain, snow, foreign bodies penetrating the chimney and so that, in the event of winds in any direction and inclination, the discharge of the combustion products is assured.
- ♦ be positioned in a way to guarantee an adequate dispersion and dilution of the combustion products and, however, outside the reflux area in which the formation of counterpressures occurs. Such area has different dimensions and configuration depending on the covering inclination angle. It is therefore necessary to adopt the minimum heights indicated in the figure layouts below.
- ♦ The chimney cap must not have mechanical intake means.

FLAT ROOF



SLOPING ROOF



Z=REFLUX AREA

## CONNECTION TO EXTERNAL AIR INLETS

The appliance must be able to use the necessary air to guarantee regular functioning through external air inlet. The air inlets must comply with the following requisites:

- have a total free section of at least 80 cm<sup>2</sup>.
- must be protected by grates, metal net or suitable protections as long as they do not reduce the minimum section stated in the previous point and positioned in order to avoid them being obstructed.

If the combustion agent air is withdrawn directly from outside through a pipe, a downward bend must be mounted outside or a protection against the wind and no grates or similar must be positioned, (it is recommended that the air vent always communicates directly with the installation room even if the air is withdrawn from outside through a pipe). The air flow can also be obtained from an adjacent room, as long as the flow takes place freely through permanent openings communicating with the outside.

The adjacent room, with respect to the installation room, must not be put in depression with respect to the external environment by means of reverse draught caused by the presence of another used appliance or intake device in such room. The permanent openings in the adjacent room must comply with the above-described requisites. The adjacent room cannot be set up as garage, storage for combustion material or activity with danger of fire.

## INSULATION, FINISHINGS, COVERING AND SAFETY RECOMMENDATIONS

The coverings, independently from the materials from which they are made, must constitute a self-supporting construction with respect to the heating block and not be in contact with it.

The cross members and finishings in wood or combustion materials must be positioned outside the hearth radiation area or adequately insulated.

If coverings in combustion material or sensitive to heat exist in the space above the generator, an insulating and non combustible protection diaphragm must be inserted.

Elements in combustible or inflammable material like wooden furniture, curtains, etc. directly exposed to the hearth radiation, must be positioned at a safe distance. The appliance installation must guarantee easy access for cleaning the appliance itself, discharge gas pipe and flue.

CHIMNEY CAPS, DISTANCES AND POSITIONING		
Roof inclination	Distance between the ridge and the chimney	Minimum chimney height (measured from outlet)
$\beta$	A (m)	H (m)
15°	< 1,85	0.50 m over the ridge
	> 1,85	1.00 m from roof
30°	< 1,50	0.50 m over the ridge
	> 1,50	1.30 m from roof
45°	< 1,30	0.50 m over the ridge
	> 1,30	2.00 m from roof
60°	< 1,20	0.50 m over the ridge
	> 1,20	2.60 m from roof

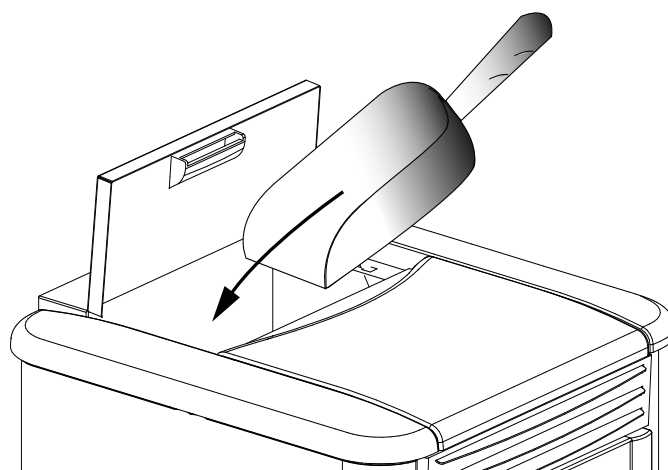
## PELLETS AND FEEDING

The pellets used must comply with the features described by the Standard:

- Ö-norm M 7135
- DIN plus 51731
- UNI CEN/TS 14961

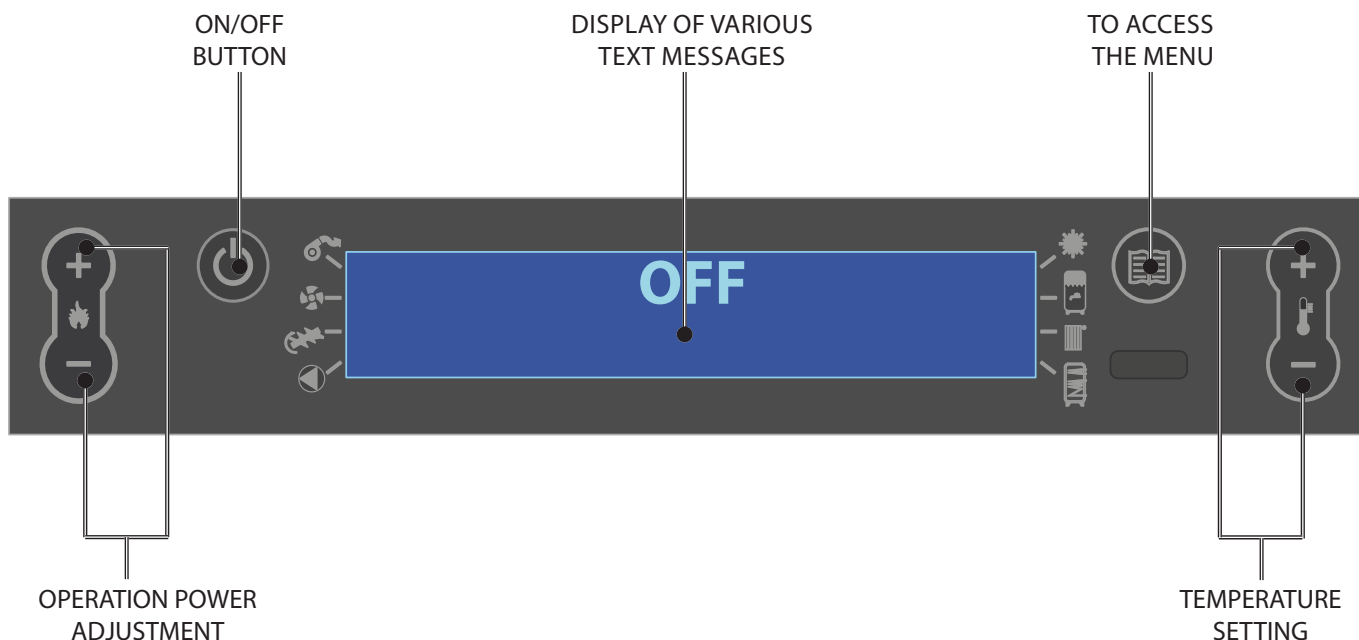
Extraflame recommends the use of pellets with use pellet having a 6 mm diameter.

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



**THE USE OF BAD QUALITY PELLETS OR ANY OTHER MATERIAL CAN DAMAGE YOUR STOVE AND WILL MAKE THE WARRANTY NULL AND VOID, RELEASING THE MANUFACTURER FROM ANY LIABILITY.**

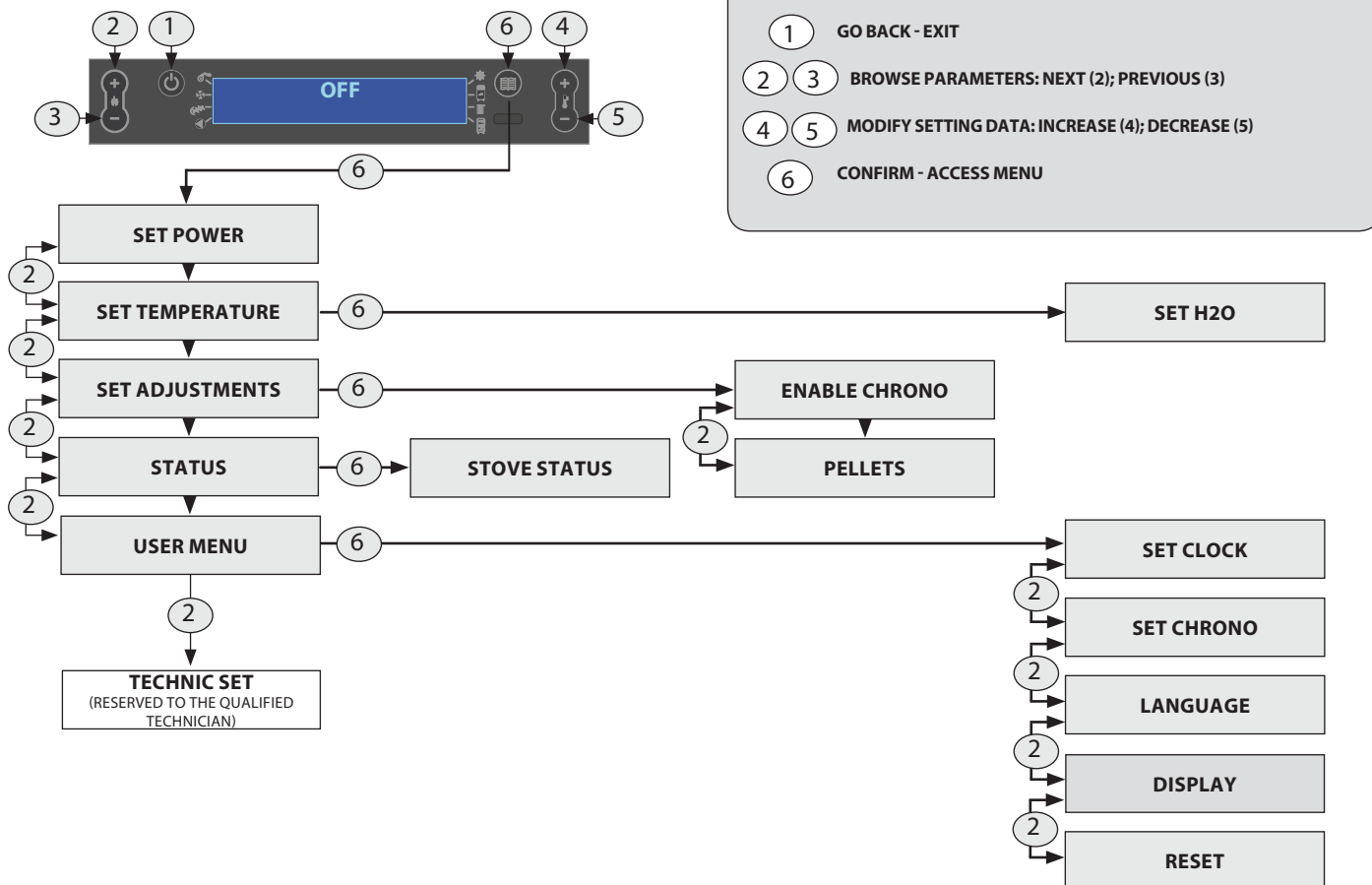
## CONTROL BOARD



### DISPLAY ICONS KEY

	Indicates the receipt of the radio signal On = during radio communication Off = no radio communication Flashing = excluded serial port		Indicates the stove modulation On = the stove is working at the set power Flashing = the power at which the stove is working is different to the power set, the stove is modulating (for various reasons)
	Indicates the presence of an alarm. On: indicates the presence of an alarm Off: indicates the absence of alarms Flashing: indicates the deactivation of the depression sensor.		It indicates weekly programming functioning Indicator on = Weekly programming active Indicator off = Weekly programming not active
	Indicates the water temperature status Off = the T° read by the probe is over the set temperature set On = the T° read by the probe is below the set temperature set		Indicates the contact of the external additional thermostat Contact closed: the contact of the external additional thermostat is closed. Contact open: the contact of the external additional thermostat is open. Flashing with closed contact: the contact of the external additional thermostat is closed and the STBY function is activated Flashing with open contact: the contact of the external additional thermostat is open and the STBY function is activated
	It indicates functioning of the fumes motor. Off = flue gas motor deactivated On = flue gas motor active Flashing = breakdown (contact technical after-sales service)		It indicates the summer / winter function (with an additional board) Off: Activates the winter function On: Activates the summer function
	Not used		It indicates the boiler request (with an additional board) Off: DHW satisfied, pump off Flashing: the DHW request exists but the work conditions are not satisfied, pump off On: the DHW is in request mode and the work conditions are satisfied, pump on
	It indicates functioning of the pellet feed motor. Off = pellet feed motor deactivated On = pellet feed motor active.		It indicates the heating request (with an additional board) Off: heating satisfied, pump off Flashing: the heating request exists but the work conditions are not satisfied, pump off On: the heating is in request mode and the work conditions are satisfied, pump on
	It indicates pump functioning Off = pump deactivated On = pump active Flashing = the safety device is active (H2O temperature > 85°C)		It indicates the puffer request (with an additional board) Off: puffer satisfied, pump off Flashing: the puffer request exists but the work conditions are not satisfied, pump off On: the puffer is in request mode and the work conditions are satisfied, pump on

## GENERAL 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 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.**

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	*

## 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 THE TIME, DAY, MONTH AND YEAR

Set clock allows to adjust the time and date

#### CONTROLS PROCEDURE

- ◆ Press P6 and **SET POWER** will appear
- ◆ Press key 2 several times until **USER MENU** is displayed
- ◆ Confirm using key 6
- ◆ **SET CLOCK** will appear
- ◆ Confirm using key 6
- ◆ Use key 4 or 5 to assign the day
- ◆ Proceed by pressing key 2
- ◆ Use the same procedure: 4 or 5 to set and key 2 to move forward; to adjust the hours, minutes, day, month and year
- ◆ Press key 1 several times to confirm and exit the Menu

SET CLOCK	
DAY	MON,TUE,WED,...SUN
HOUR	0...23
MINUTES	00...59
DATE	1...31
MONTH	1...12
YEAR	00...99

### ADJUSTING THE LANGUAGE

It is possible to select the preferred language to display the various messages.

#### CONTROLS PROCEDURE

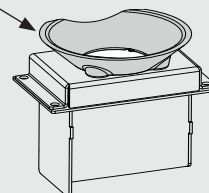
- ◆ Press P6 and **SET POWER** will appear
- ◆ Press key 2 several times until **USER MENU** is displayed
- ◆ Confirm using key 6
- ◆ **SET CLOCK** will appear
- ◆ Press key 2 until **SET LANGUAGE**
- ◆ Confirm using key 6
- ◆ Select the language using key 4 or 5.
- ◆ Press key 1 several times to confirm and exit the Menu

SET LANGUAGE	
LANGUAGE	ITALIAN
	ENGLISH
	GERMAN
	FRENCH
	SPANISH



**IT IS FORBIDDEN TO USE THE APPLIANCE WITHOUT THE UPPER BURN POT (SEE THE FIGURE AT THE SIDE). ITS REMOVAL JEOPARDISES THE SAFETY OF THE PRODUCT AND IMMEDIATELY RENDERS THE WARRANTY PERIOD NULL AND VOID. 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).**

UPPER BURN POT - KEEP THE CORRECT POSITION AS INDICATED IN THE FIGURE

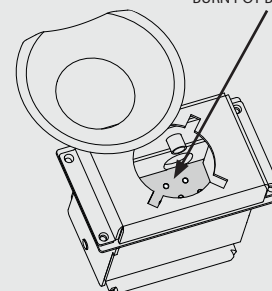


#### CLEAN CHECK UP 1 - 2

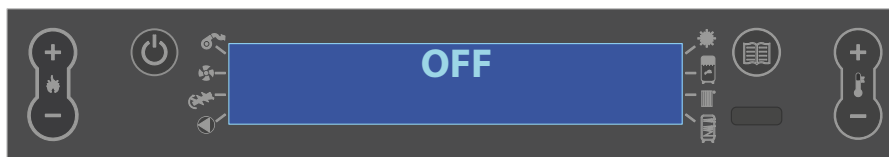
**SHOULD THE "CLEAN CHECK UP" ALARM BE TRIGGERED, MAKE SURE THAT THE BOTTOM OF THE BURN POT IS FREE OF RESIDUES OR SCALES. THE HOLES AT THE BOTTOM MUST BE COMPLETELY FREE TO GUARANTEE CORRECT COMBUSTION. (SEE CHAPTER "CLEANING CARRIED OUT BY THE USER")**

**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 starting 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 THE POWER SETTING

Set the functioning power from 1 to 5 (settable using keys 2 - 3).

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

### H2O TEMPERATURE SET ADJUSTMENT

Set the boiler temperature from 65 - 80°C (settable using keys 4 - 5).

### PUMP OPERATION

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

### ENVIRONMENTAL TEMPERATURE (in the models envisioned)

The front ventilation can be activated/deactivated and the room temperature controlled by means of the room probe (as per standard). (See the "enable fan" chapter on the following pages.)

### BURN POT CLEANING

While working, the stove has an internal counter which cleans the burn pot after a set amount of time.

This phase will be shown on the display, it will bring the stove to a lower power level and will increase the flue gas motor for a programmed amount of time. When the cleaning phase is finished, the stove will continue 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 exhaust motor and the hot air ventilation motor will remain on until the temperature of the stove 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. 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

**N.B. : Installation must be performed by an authorised technician**

It is possible to thermostat a room adjacent to the room where the stove is positioned: just connect a thermostat following the procedure described in the next point (it is recommended to position the optional mechanical thermostat at a height of 1.50m from the ground). Stove functioning with the external thermostat connected in the STBY clamp can be different on the basis of the activation or deactivation of the STBY function.

**The STBY clamp leaves the factory jumpered, therefore it is always with closed contact (on request).**

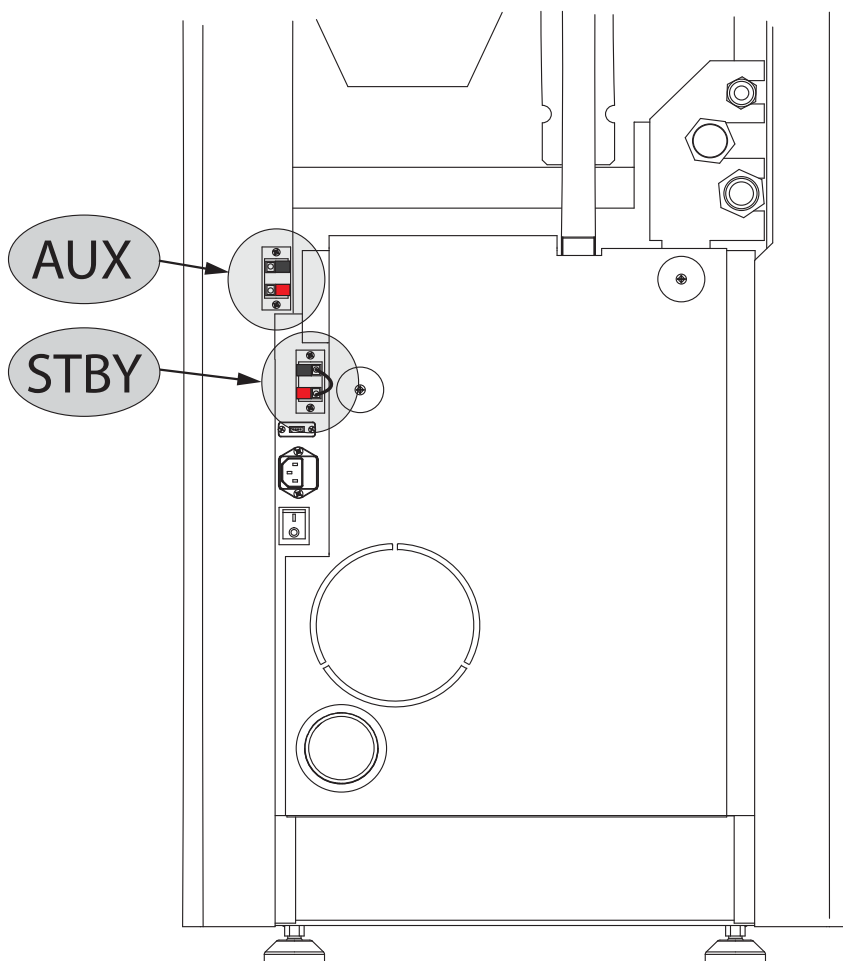
### ADDITIONAL THERMOSTAT FUNCTIONING WITH STBY ACTIVE

When the STBY function is activated, the  LED flashes. 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 passes to the "not satisfied" status (closed contact/temperature to reach) it will re-ignite.

**Note: stove functioning depends on the temperature of the water inside the same and relative factory restrictions set. If the stove is in H OFF (water temperature reached), any additional contact or thermostat request will be ignored.**

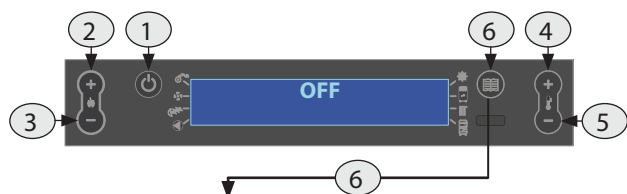
### ADDITIONAL THERMOSTAT INSTALLATION

- ♦ 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 layout to connect the two thermostat cables onto the relative clamps positioned don the rear of the machine, one is red and the other black (STBY clamp). **Every model can have a different position of the relative clamps in the rear of the machine. The image is given as an example.**



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

## MENU STRUCTURE



- 1 GO BACK - EXIT
- 2 3 BROWSE PARAMETERS: NEXT (2); PREVIOUS (3)
- 4 5 MODIFY SETTING DATA: INCREASE (4); DECREASE (5)
- 6 CONFIRM - ACCESS MENU

MENU	TEXT	VALUE	FUNCTION	
2 SET POWER	POWER	01 - 05	Selecting the power	
2 SET TEMPERATURE	SET H2O	65 - 80°C	Selection of the boiler temperature set-point	
2 SET ADJUSTMENTS	ENABLE CHRONO	ON-OFF	Activation / deactivation weekly programmer	
	PELLETS	-30... +20%	Selecting the percentage of pellet feed	
2 STATUS	STATUS ST 0	References reserved to the technician		
	STATUS ST 1			
	STATUS ST 2			
	STATUS ST 3			
	STATUS ST 4			
	STATUS ST 5			
	STATUS ST 6			
	STATUS ST 7			
	STATUS ST 8			
	STATUS ST 9			
2 STATUS ST A				
2 USER MENU	SET CLOCK	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
	SET CHRONO	ENABLE CHRONO	OFF	Activation/deactivation of the weekly programmer
		START - PRG1	OFF - 00:00	Time 1 <sup>st</sup> ignition
		STOP - PRG1	OFF - 00:00	Time 1 <sup>st</sup> switch-off
		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 <sup>st</sup> time span
		START - PRG2 00:10	OFF - 00:00	Time 2 <sup>st</sup> ignition
		STOP - PRG2 00:10	OFF - 00:00	Time 2 <sup>st</sup> switch-off
		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 <sup>st</sup> time span
		START - PRG3 00:10	OFF - 00:00	Time 3 <sup>st</sup> ignition
		STOP - PRG3 00:10	OFF - 00:00	Time 3 <sup>st</sup> switch-off
		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 <sup>st</sup> time span
		START - PRG4 00:10	OFF - 00:00	Time 4 <sup>st</sup> ignition
		STOP - PRG4 00:10	OFF - 00:00	Time 4 <sup>st</sup> switch-off
		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 <sup>st</sup> time span
	LANGUAGE	ITAL - ENGL - DEUT - FRAN - ESPA		Selecting the language
	DISPLAY	DISPLAY	OFF - 10...31	Selecting display brightness
	RESET	RESET	ON/OFF	Resets the values modifiable by the user back to the default values.

## SET POWER

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

### CONTROLS PROCEDURE

- ◆ Press key 6 and **SET POWER** will appear
- ◆ Press key 6 to access and key 2 to proceed
- ◆ **SET TEMPERATURE** will appear.
- ◆ Press 4 to increase the set and 5 to decrease it.
- ◆ Press key 6 to confirm and key 1 to return to the previous menus up to the initial status



## SET TEMPERATURE

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

### CONTROLS PROCEDURE

- ◆ Press key 6 and **SET POWER** will appear
- ◆ Press key 2 several times until **SET TEMPERATURE** is displayed
- ◆ Press 6 to access
- ◆ Press 4 to increase the set and 5 to decrease it.
- ◆ Press key 6 to confirm and key 1 to return to the previous menus up to the initial status



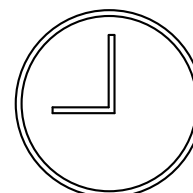
## SET ADJUSTMENTS

### ENABLE CHRONO

The boiler chrono can be enables/disables from this menu

### CONTROLS PROCEDURE

- ◆ Press key 6 and **SET POWER** will appear
- ◆ Press key 2 several times until **SET ADJUSTMENTS** is displayed
- ◆ Press key 6
- ◆ **ENABLE CHRONO** will be displayed
- ◆ Use keys 4 or 5 to activate and set to "ON"
- ◆ Press key 6 to confirm and key 1 to return to the previous menus up to the initial status



## PELLET REGULATION

The following menu allows the adjustment of pellet feed as a percentage.  
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 regulation to be performed is a percentage. Therefore a modification of this parameter will lead to a proportional variation of all stove feeding speeds.

Feeding is from -30% to +20%.

Follow the procedure on the display to perform this adjustment:

### CONTROLS PROCEDURE

- ♦ Press key 6 and **SET POWER** will appear
- ♦ Press key 2 several times until **SET ADJUSTMENTS** is displayed
- ♦ Confirm using key 6
- ♦ Press key 2 until pellet **IS DISPLAYED**
- ♦ Press 4 to increase the load and 5 to decrease it
- ♦ Press key 6 to confirm and key 1 to return to the previous menus up to the initial status

## USER MENU

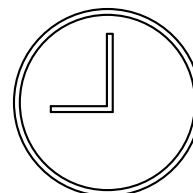
### SET CLOCK

- ♦ see chapter: first ignition 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 span, along with the days of use of the programmed time span and the desired water temperature (65 - 80°C).**



### RECOMMENDATIONS

The ignition and switch-off times must be within the arc of one day, from 0 to 24 and not over several days.

Before using the chrono function, set the current day and time. Therefore 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**

## PROGRAMMING EXAMPLE

Let's suppose that the weekly programmer function is to be used and 4 time periods are to be used in the following way:

**1st time period: from 08:00 to 12:00 every day of the week excluding Saturday and Sunday**

**2nd time period: from 15:00 to 22:00 only Saturday and Sunday with both times having a water temperature set of 75°C**

### CONTROLS PROCEDURE:

Press key 6 once and **SET POWER** will appear

**SET  
USER**

Press key 2 until **USER SET**

### 1ST TIME PERIOD SWITCH-OFF

Use keys 4 - 5 to enter the time "**12:00**", which corresponds to the switch-off time of the 1st time period.

**STOP PRG1  
OFF**

...

**STOP PRG1  
12:00**

To confirm and continue programming, press button 6. Press button 3 to go back to the previous parameter.

Press key 6 to confirm  
**SET CLOCK** will appear

**SET CHRONO**

Press key 2 until **CHRONO SET**

### ENABLE 1ST TIME PERIOD DAYS

Use keys 4 and 5 to enable **ON**/disable **OFF** the days

**MONDAY..PRG1  
ON**

...

**FRIDAY..PRG1  
ON**

Keys 2 and 3 to scroll the various days, select from Monday to Friday on **ON**, excluding Saturday and Sunday (**OFF**)  
To confirm and proceed press key 6

Press key 6 to confirm and continue programming.

**START PRG1  
OFF**

**START PRG1 OFF** appears

### H2O TEMPERATURE SET 1ST TIME PERIOD

Using buttons 4 and 5 select the desired **H2O** temperature (65-80°C)

**SET PRG1  
75°C**

To confirm and proceed press key 6

### 1ST TIME PERIOD SWITCH-ON

Use keys 4 - 5 to enter the time "**08:00**", which corresponds to the switch-on time of the 1st time period.

**START PRG1  
08:00**

To confirm and continue programming, press button 6. Press button 3 to go back to the previous parameter.

### 2ND TIME PERIOD SWITCH-ON\*

At this point, the second time period must be programmed.

**START PRG2  
OFF**

The sequence to be followed is the same and is repeated as for the 1ST TIME PERIOD switch-on.

### \*2ND TIME PERIOD SWITCH-ON

At this point, the second time period must be programmed. The sequence to be followed is the same and is repeated as for the 1ST TIME PERIOD SWITCH-ON. On this occasion it is only necessary to enter the time, for example start at 15:00 and Stop at 22:00 and to activate the days Saturday and Sunday by setting them at "ON".



**FOLLOW THE INSTRUCTIONS DESCRIBED IN THE "ENABLE CHRONO" CHAPTER TO ENABLE THE CHRONO WHEN THE WEEKLY PROGRAMMER IS ACTIVE, A RELATIVE ICON WILL LIGHT UP ON THE CONTROL BOARD**



## ADJUSTING LANGUAGE

- see chapter: first ignition settings

## DISPLAY

This menu allows to regulate the brightness of the display. The possible settings range from OFF - 10 to 31. 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

- ♦ Press key 6 and **SET POWER** will appear.
- ♦ Press key 2 several times until **USER** is displayed.
- ♦ Press key 2 until **DISPLAY**.
- ♦ Press keys 4-5 to select the brightness
- ♦ Press key 6 to confirm and key 1 to return to the previous menus up to the initial status.



## RESET

Allows to reset all values modifiable by the user back to the default values. The data are:

### CONTROLS PROCEDURE

- ♦
- ♦ Press key 6 and **SET POWER** will appear.
- ♦ Press key 2 several times until **USER IS DISPLAYED**.
- ♦ Press key 2 until **RESET**.
- ♦ Press keys 4-5 to select **ON** and press key 6.
- ♦ **"DONE"** will appear on the display to confirm the command

- ♦ SET H2O = 75°C
- ♦ SET POWER = 5
- ♦ ENABLE CHRONO = OFF
- ♦ START PRG1=OFF
- ♦ STOP PRG1 = OFF
- ♦ MONDAY PRG1 = OFF
- ♦ .....all chrono parameters OFF
- ♦ PELLET = 00%
- ♦ STAND BY = OFF

## OTHER FUNCTIONS

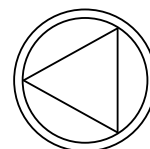
### AIR DISCHARGE

This function allows to bleed any air in the stove. Activates the function:

The pump indicator lights on the display will go on (the pumps will be powered for 15 minutes and 30 seconds and will then stop for 30 seconds; cut the power to interrupt)

### CONTROLS PROCEDURE

- ♦ Press key 1 and 4 simultaneously.
- ♦ The password will be required.
- ♦ Enter the code "77" via key 4
- ♦ Confirm using key 6.



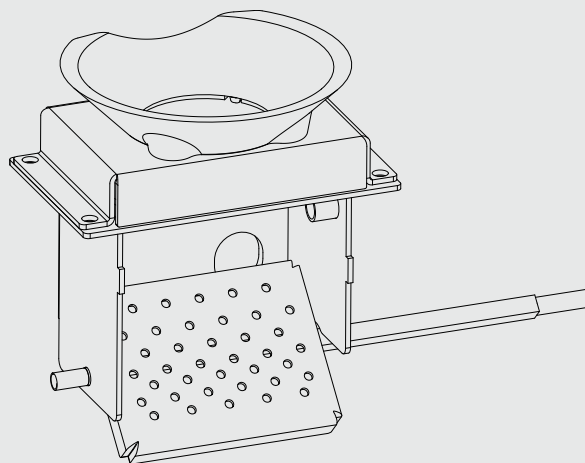
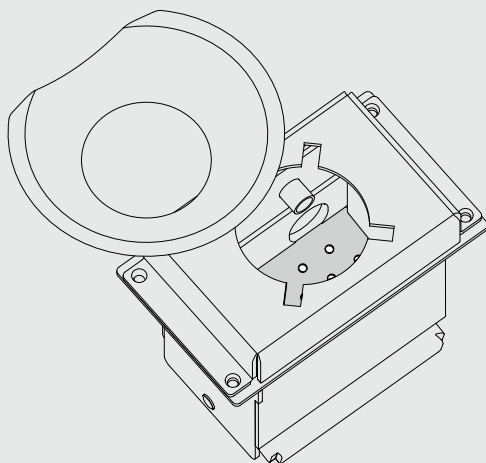
## CLEANING UNDER USER'S RESPONSIBILITY

Some images could be offset from the original model.

### DAILY

#### Burn pot:

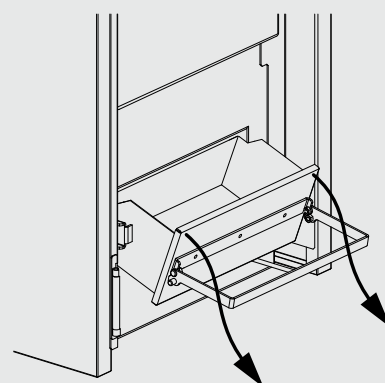
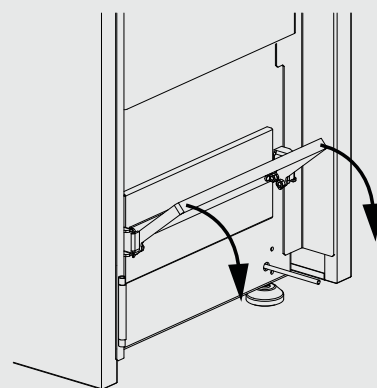
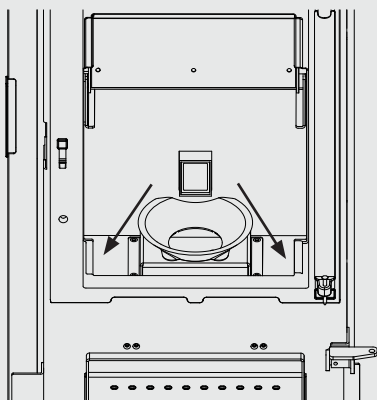
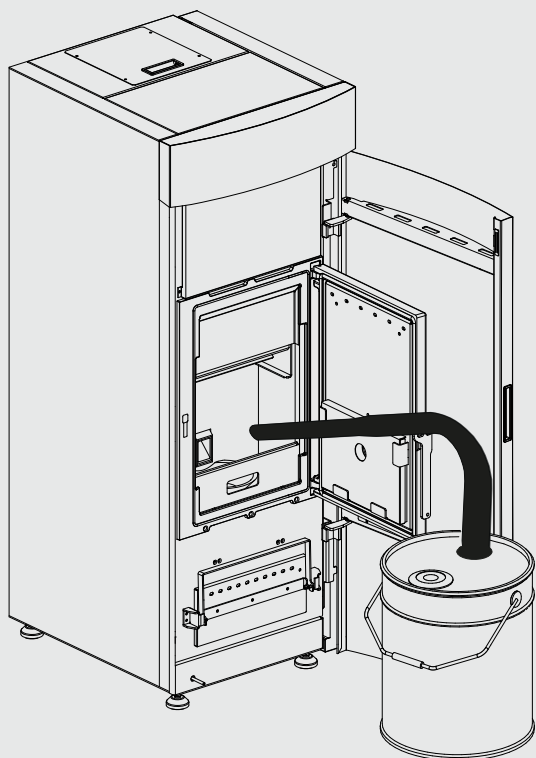
The burn pot is cleaned via a mechanical system at pre-fixed intervals automatically by the boiler. The figure below shows the burn pot with underlying opening. **The company recommends the removal of ash deposits using a suction device at least once every two days, or however, on the basis of use of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



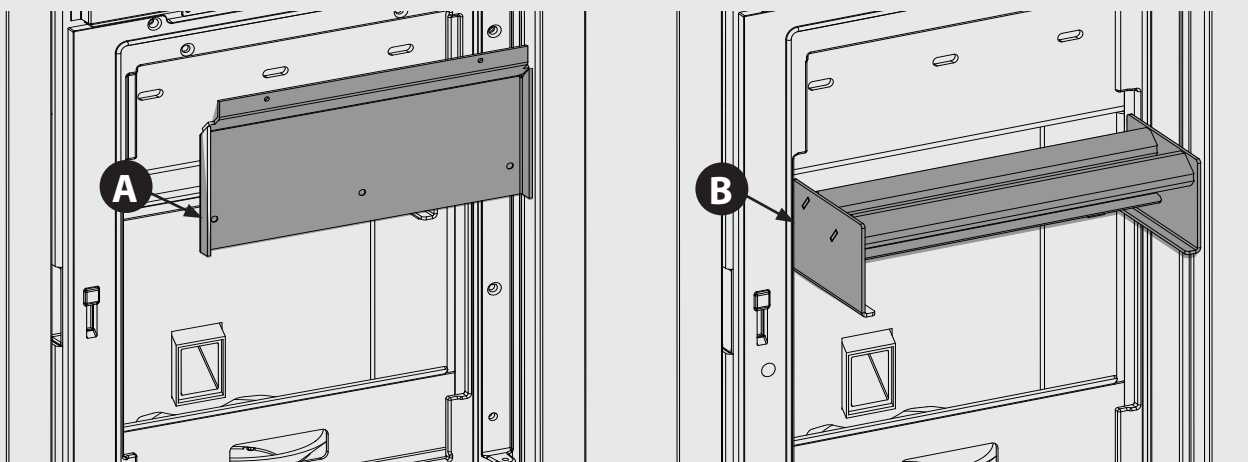
## CLEANING UNDER USER'S RESPONSIBILITY

Some images could be offset from the original model.

### MONTHLY

#### Cleaning the deflector:

The smoke deflector located under the cleaning springs of the heat exchanger must be removed every month. Move it as follows: remove part A of the door upper deflector fixed with 3 screws, remove part B of the door upper deflector fixed with 2 screws and remove the smoke central deflector as if it were a drawer.



**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.**

## 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.

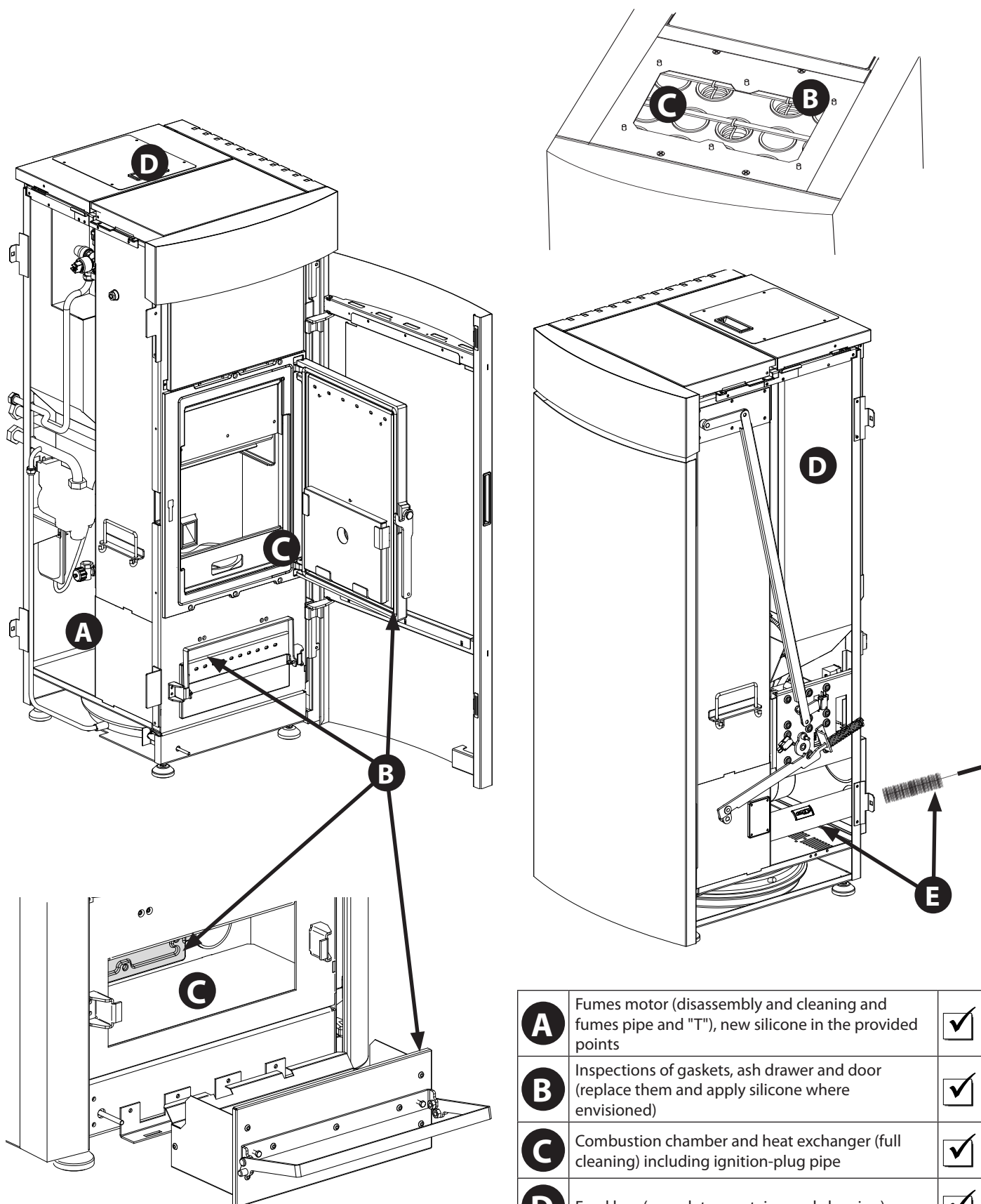


**IF THE POWER SUPPLY CABLE IS DAMAGED, IT MUST BE REPLACED BY THE AFTER-SALES SERVICE OR BY A SIMILARLY QUALIFIED PERSON, SO AS TO AVOID ALL RISKS.**

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

## ROUTINE MAINTENANCE

Some images could be offset from the original model.



<b>A</b>	Fumes motor (disassembly and cleaning and fumes pipe and "T"), new silicone in the provided points	✓
<b>B</b>	Inspections of gaskets, ash drawer and door (replace them and apply silicone where envisioned)	✓
<b>C</b>	Combustion chamber and heat exchanger (full cleaning) including ignition-plug pipe	✓
<b>D</b>	Feed box (complete emptying and cleaning).	✓
<b>E</b>	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 <sub>2</sub> 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

<b>ALARMS</b>		
<b>DISPLAY</b>	<b>EXPLANATION</b>	<b>SOLUTION</b>
	Indicates the presence of an alarm.	On: indicates the presence of an alarm Flashing: indicates the deactivation of the depression sensor. The alarm can be reset by pressing key 1 for 3 seconds only if the fumes motor has stopped and if 15 minutes have passed from when the alarm was displayed.
<b>ASPIRATION FAULT</b>	Fumes motor fault	Contact after-sales centre
<b>FUMES PROBE</b>	Fumes probe failure.	Contact after-sales centre
<b>HOT FUMES</b>	High flue gas temperature	Check pellet feed (see "Pellet feed adjustment"). If the problem cannot be solved, contact an authorised technician.
<b>CLEAN CHECK UP 1 - 2</b> (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.
<b>NO IGNITION</b>	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.
<b>NO IGNITION BLACK OUT</b>	No current during the ignition phase.	Take the stove to OFF conditions using key 1 and repeat the procedure described in the "Ignition" chapter.
<b>NO PELLETS</b>	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").
<b>DEPR ALARM</b>	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.
<b>DEBIMETER FAULT</b>	Flow sensor faulty. Sensor disconnected	Contact after-sales centre
<b>H2O OVERTEMP</b>	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
<b>TRAPDOOR FAULTY</b>	The automatic cleaning of the burn pot is blocked.	Contact after-sales centre
<b>MINIMUM PRESSURE ALARM</b>	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
<b>H2O PROBE ALARM</b>	H2O probe failure	Contact after-sales centre
<b>MAX H2O PRESSURE ALARM</b>	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.

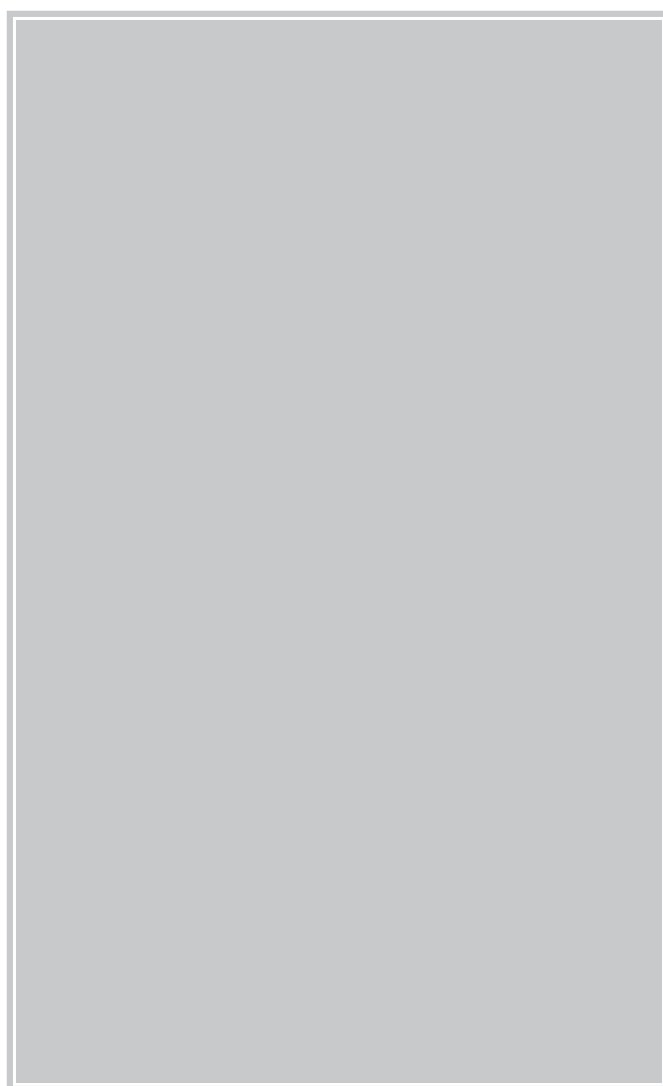
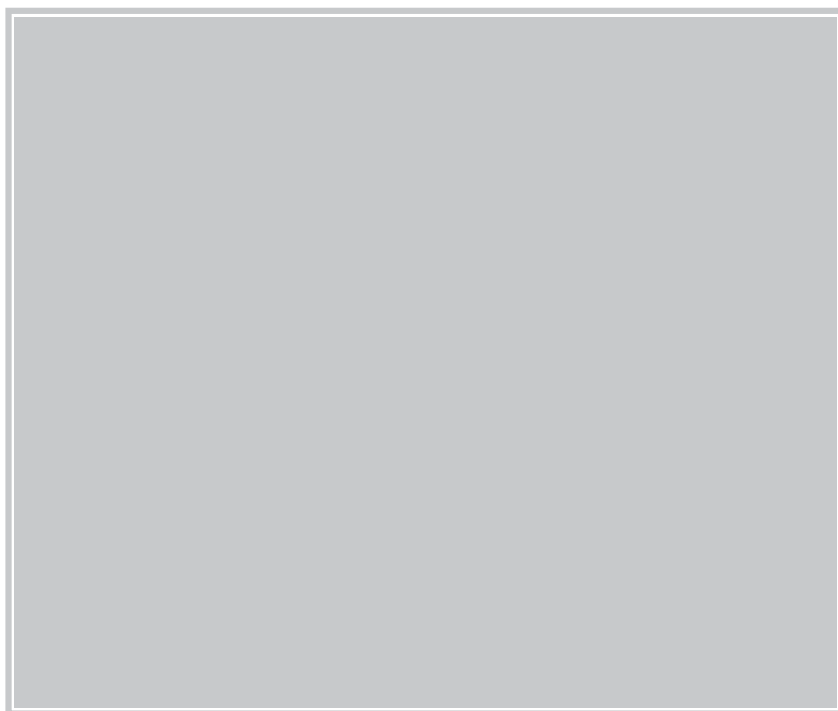
**LAW COURT**

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









# Extraflame®

## Riscaldamento a Pellet

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Extraflame reserves the right to vary the features and data shown in this booklet at any time and without prior notice, in order to improve its products.  
This manual cannot be considered as a contract for third parties.

This document is available at [www.extraflame.it/support](http://www.extraflame.it/support)