

PELLET BOILER

LAGUNA P 12-18-24-35



EN Installation, use and maintenance

 **Cerbos**

küttesüsteemid • müük • paigaldus • hooldus
tel +372 442 0222 / +372 434 1000 • info@cerbos.ee
Paide mnt 7, Pärnu 80042, Eesti • www.cerbos.ee

CONTENTS

Safety information	4
Technical data	5
Dimensions	7
Packaging	10
Optional Pellet-Loading Screw Feeder	12
Electrical Connections	13
Installation	14
Instructions for use	21
Maintenance	32
Troubleshooting	34

The undersigned company, EDILKAMIN S.p.A., with registered office in Via Vincenzo Monti 47 - 20123 Milan (Italy) - Italian Tax Code 00192220192

Hereby declares, under its sole responsibility, that:
The pellet boiler described below conforms to European Directive 2006/42/EC (Machinery Directive) and to the harmonised European standard EN 303-5:2012

PELLET BOILER, tradename EDILKAMIN, models
LAGUNA P 12-18-24-35
SERIAL NO.: Data plates
Declaration of Conformity
Rating plate reference

Moreover, the company hereby declares that:
the LAGUNA P 12-18-24-35 wood pellet stove satisfy the requirements of the following European directives:
2014/35/UE - Low Voltage Directive
2014/30/UE - Electromagnetic Compatibility Directive

Dear Sir/Madam

Congratulations on choosing our product. Before you use it, please read this manual carefully, to ensure you get the best performance from your new appliance in total safety.

This manual is an integral part of the product. We ask that you keep it for the entire lifetime of the product. If you lose it, you can request a copy or download it from www.edilkamin.com

After unpacking the product, check the condition and completeness of the contents.

In the event of error, immediately contact the retailer where the purchase was made, providing him with a copy of the warranty booklet and the sales receipt.

The product must be installed and used in compliance with all applicable local, national and European regulations. For the installation and other aspects not covered explicitly in this manual, refer to the local regulations of your country.

The diagrams provided in this manual are for illustration purposes only: they do not always strictly refer to your specific model, and are not binding in any way.

The product is uniquely identified by a number, the "counterfoil", which is on the warranty certificate.

Please keep:

- the warranty certificate accompanying the product
- the purchase receipt given to you by the retailer
- the declaration of conformity given to you by the installer.

The warranty conditions are given in the warranty certificate accompanying the product.

In Italy, commissioning by an authorised technician is required by UNI 10683, and is recommended in all countries to ensure best results from the product.

This consists in:

- checking the installation documents (declaration of conformity) and the quality of the installation itself;
- calibrating the product to suit its actual application
- explanation to the end user and issue of complementary documentation (commissioning certificate)

Having the appliance commissioned properly ensures that it will operate to best effect and in complete safety. Proper commissioning is required for activation of the Edilkamin warranty. The warranty is only valid in the country of sale of the product.

If the appliance is not commissioned by an authorised technician, Edilkamin will not provide warranty service. See the warranty booklet for details. The above terms do not affect the reseller's legal responsibility for the legal warranty.

The warranty covers only demonstrable manufacturing defects and not, for instance, problems resulting from improper installation or calibration.

MEANING OF SYMBOLS

In some parts of the manual the following symbols are used:



PLEASE NOTE:

carefully read and understand the message in question, since failure to follow the instructions in it could cause serious damage to the product and put the safety of those using it at risk.



INFORMATION:

failure to comply with these requirements will compromise product use.



OPERATING SEQUENCE:

follow the instructions for the operations described

- The product is not designed for use by people, including children, with limited physical, sensory and mental abilities.
- The appliance is designed for cooking purposes.
- The appliance is designed to burn UNI EN ISO 17225-2 category A1 wood pellets, in the amounts and manner described in this manual.
- The appliance is designed for indoor use and for environments with normal humidity conditions.
- Keep the product in a dry place out of the weather.
- For the legal and company warranties, refer to the warranty certificate inside the product: specifically, neither Edilkamin nor the reseller are liable for damage resulting from incorrect installation or maintenance.
- cleaning the fumes duct with cleaning products. **DO NOT CLEAN THE PRODUCT BY HAND WITH FLAMMABLE PRODUCTS.** Risk of fire or blowback.
- cleaning the hot glass pane with unsuitable cleaning products. **DO NOT CLEAN HOT GLASS WITH WATER. ONLY USE RECOMMENDED GLASS CLEANING PRODUCTS** Risk of cracking as well as irreparable damage to the glass.
- the storage of flammable materials at a distance which is less than the safe distances listed in this manual. **DO NOT REST LAUNDRY ON THE PRODUCT. DO NOT PLACE DRYING RACKS AT A DISTANCE WHICH IS LESS THAN THE SAFETY DISTANCES.** Keep flammable fluids away from the product. Risk of fire.
- blocking air ventilation openings or air inlets in the room. **DO NOT BLOCK THE AIR VENTILATION OPENINGS, OR THE FLUE.** Risk of smoke returning into the room with consequent damage and injury.
- use of the product as a support or ladder. **DO NOT CLIMB ONTO THE PRODUCT OR USE IT AS A SUPPORT.** Risk of damage and injury
- use of the boiler with the hearth open. **DO NOT USE THE PRODUCT WITH ITS DOOR OPEN.**
- incandescent material escaping from the open door. **DO NOT** throw incandescent material outside the appliance. Risk of fire.
- use of water in case of fire. **CALL THE AUTHORITIES** in the event of fire.
- If you have doubts, please do not take any action, but contact the retailer or the installer.
- **NEVER OPERATE THE BOILER WITHOUT WATER IN THE CIRCUIT.**
- **A "DRY" IGNITION COULD RESULT IN DAMAGE TO THE BOILER.**
- For reasons of safety, read the user instructions included in this manual.

Safety risks may be caused by:

- installation in unsuitable areas. In conditions where there is a particular risk of fire hazard. **DO NOT INSTALL THE PRODUCT IN AREAS SUBJECT TO THE RISK OF FIRE.**
- contact with fire and hot parts (e.g. glass panel and pipes). **DO NOT TOUCH HOT PARTS** and, when switched off and still hot, always wear the gloves supplied.
- contact with live electrical equipment (internal). **DO NOT ACCESS THE INTERNAL ELECTRICAL EQUIPMENT WHILE THE APPLIANCE IS POWERED ON.** Electrocutation hazard.
- the use of unsuitable ignition aids (e.g. alcohol). **DO NOT IGNITE OR BOOST THE FLAME WITH FLUID SPRAYS OR A FLAME TORCH.** Serious risk of burns, damage and injury.
- the use of fuel other than wood pellets. **DO NOT BURN WASTE MATTER, PLASTICS OR ANY MATERIALS OTHER THAN WOOD PELLETS IN THE HEARTH.** Risk. The product may be soiled, the flue may catch fire, and could cause damage to the environment.
- cleaning the hearth when hot. **NEVER VACUUM WHEN HOT.** This risks damage to the vacuum cleaner and smoke in the room.

TECHNICAL CHARACTERISTICS in accord. with EN 303-5					
	LAGUNA P12		LAGUNA P18		
	Nominal power	Reduced power	Nominal power	Reduced power	
Heat input	12,4	3,4	18,1	3,4	kW
Available power	11,4	3,1	16,5	3,1	kW
Efficiency	92	92,1	91,3	92,1	%
CO emissions at 10% O ₂	0,007	0,02	0,008	0,02	%
Fumes temperature	66	48	88	48	°C
Fuel consumption	2,6	0,7	3,8	0,7	kg/h
Tank capacity	60		60		kg
Draw	0,12-0,03		0,12-0,03		mbar
Loss of pressure	$\Delta T = 10 K = \Delta P 750 - \Delta T = 20 K = \Delta P 200$				
Water content	65		65		Litri
Maximum operating water pressure	2		2		bar
Maximum operating water temperature	90		90		°C
Autonomy	22	81	15	81	h
Heatable volume *	295		430		m ³
Fumes outlet diameter (male)	100		100		mm
Combustion air diameter (male)	50		50		mm
Weight including packaging	280		280		kg

* The heatable volume is calculated based on the assumption of a heating demand of 33 Kcal/m³ hour.

TECHNICAL DATA FOR RATING THE FLUE					
which must in any case satisfy the requirements of this sheet and the installation instructions for the product					
	LAGUNA P12		LAGUNA P18		
	Nominal power	Reduced power	Nominal power	Reduced power	
Available power	11,4	3,1	16,5	3,1	kW
Fumes temperature at outlet	80	58	106	58	°C
Minimum draw	0,01		0,01		Pa
Fumes flow rate	0,008	0,003	0,012	0,003	Kg/s

ELECTRICAL SPECIFICATIONS	
Power	230Vac +/- 10% 50 Hz
Power consumption in stand by	3 W
Mean absorbed power	150 W
Power absorption during ignition	400 W
Protection on mains power supply	Fuse 4 AT, 250 Vac 5x20
Logic board protection	Fuse 4 AF, 250 Vac 5x20

The above data are illustrative and are drawn from the certification by a notified body.
The manufacturer reserves the right to modify the product without notification in the interests of improvement.

TECHNICAL CHARACTERISTICS in accord. with EN 303-5					
	LAGUNA P24		LAGUNA P35		
	Nominal power	Reduced power	Nominal power	Reduced power	
Heat input	24,5	6,8	34,1	6,8	kW
Available power	22,2	6	30,8	6	kW
Efficiency	90,7	89,7	90,2	89,7	%
CO emissions at 10% O ₂	0,003	0,012	0,01	0,012	%
Fumes temperature	118	60	146	60	°C
Fuel consumption	5,1	1,4	7,1	1,4	kg/h
Tank capacity	100		100		kg
Draw	0,12-0,03		0,12-0,03		mbar
Loss of pressure	$\Delta T = 10 K = \Delta P 750 - \Delta T = 20 K = \Delta P 200$				
Water content	65		65		Liter
Maximum operating water pressure	2		2		bar
Maximum operating water temperature	90		90		°C
Autonomy	19	71	14	71	h
Heatable volume *	580		805		m ³
Fumes outlet diameter (male)	100		100		mm
Combustion air diameter (male)	60		60		mm
Weight including packaging	320		320		kg

* The heatable volume is calculated based on the assumption of a heating demand of 33 Kcal/m³ hour.

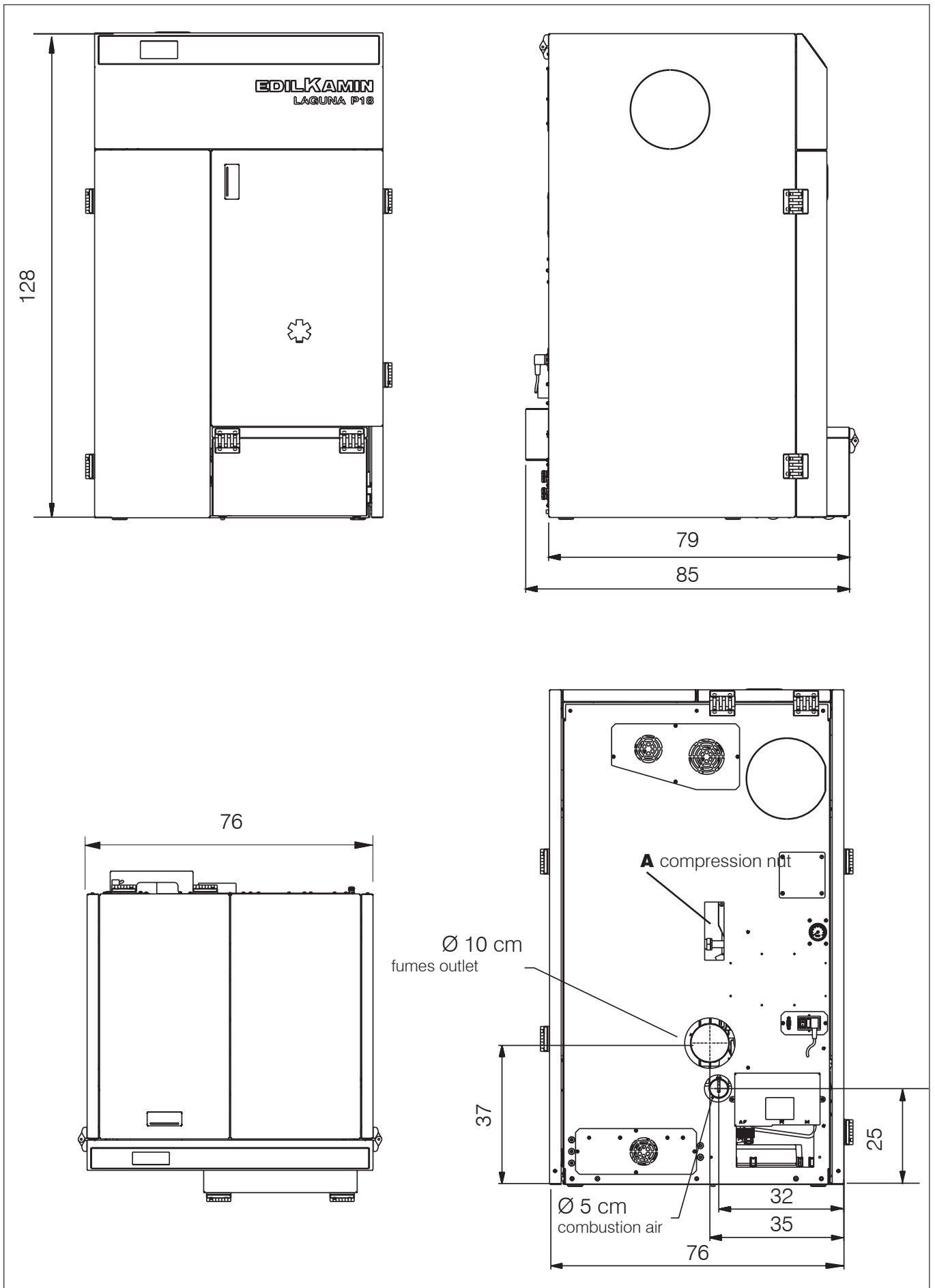
TECHNICAL DATA FOR RATING THE FLUE					
which must in any case satisfy the requirements of this sheet and the installation instructions for the product					
	LAGUNA P24		LAGUNA P35		
	Nominal power	Reduced power	Nominal power	Reduced power	
Available power	22,2	6	30,8	6	kW
Fumes temperature at outlet	142	73	175	73	°C
Minimum draw	0,01		0,01		Pa
Fumes flow rate	0,016	0,005	0,021	0,005	Kg/s

ELECTRICAL SPECIFICATIONS	
Power	230Vac +/- 10% 50 Hz
Power consumption in stand by	3 W
Mean absorbed power	150 W
Power absorption during ignition	400 W
Protection on mains power supply	Fuse 4 AT, 250 Vac 5x20
Logic board protection	Fuse 4 AF, 250 Vac 5x20

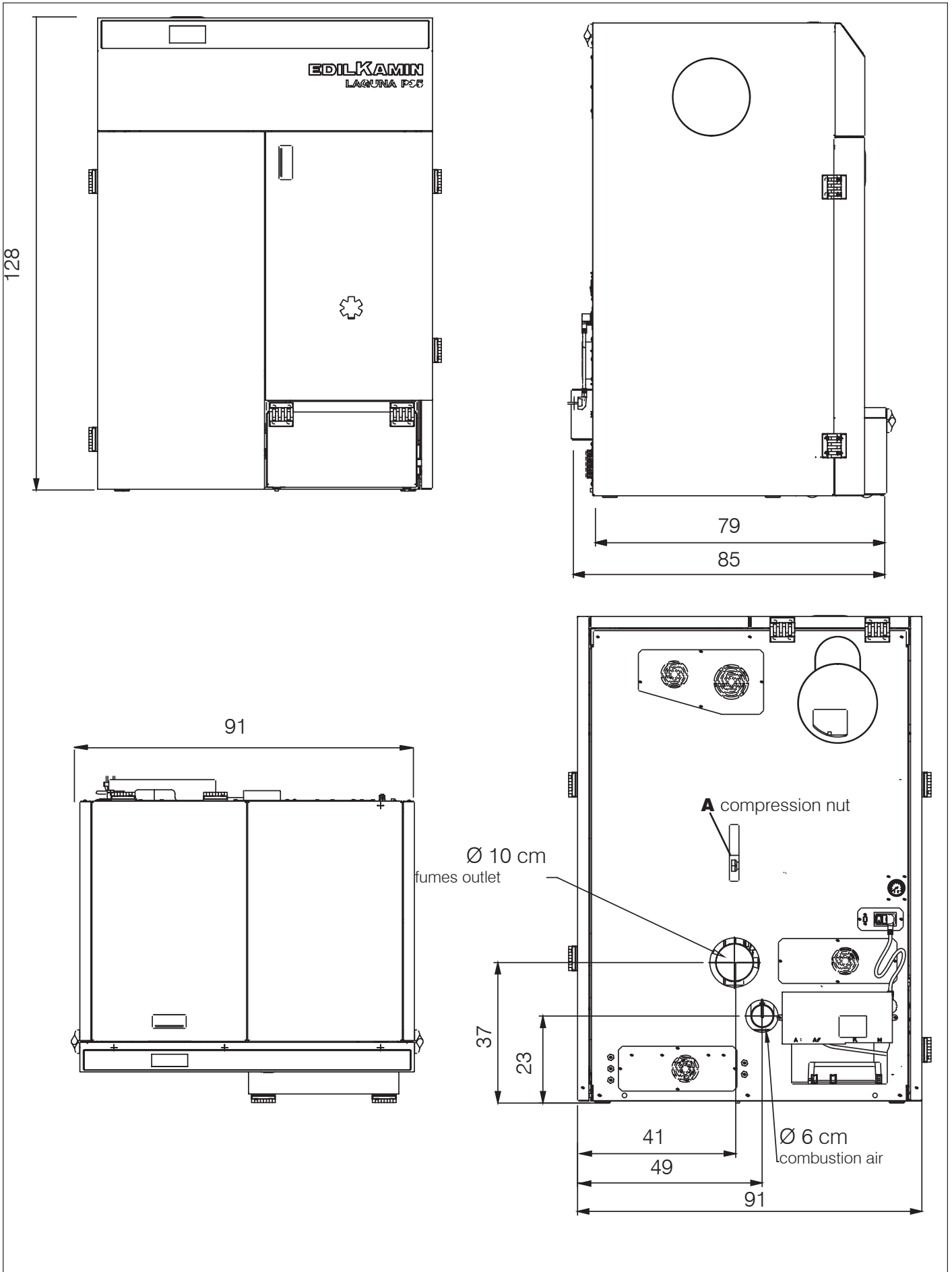
The above data are illustrative and are drawn from the certification by a notified body.

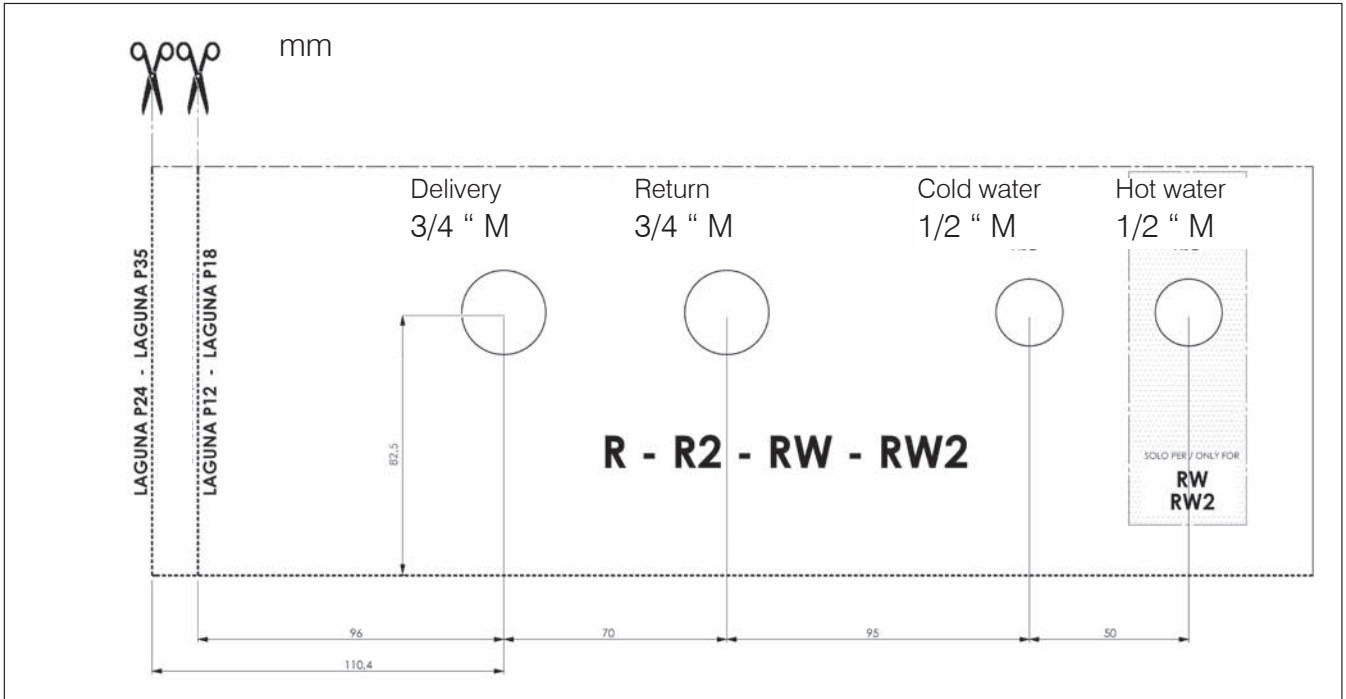
The manufacturer reserves the right to modify the product without notification in the interests of improvement.

Laguna P12 and 18 (dimensions - cm)



LAGUNA P 24 and P 35 (dimensions in cm)



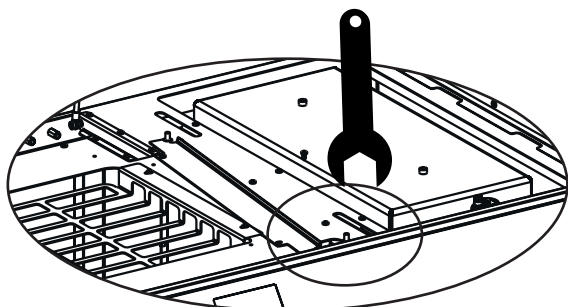
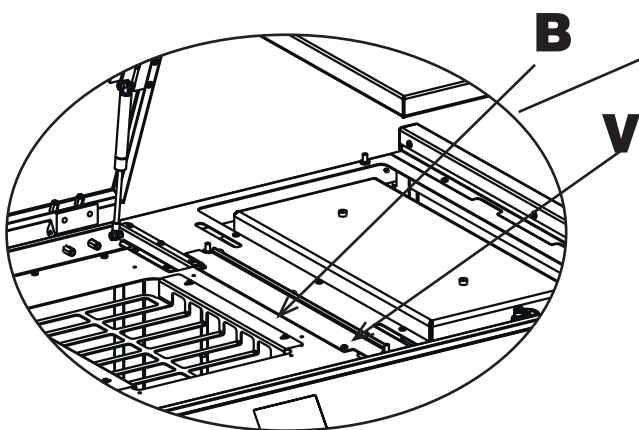
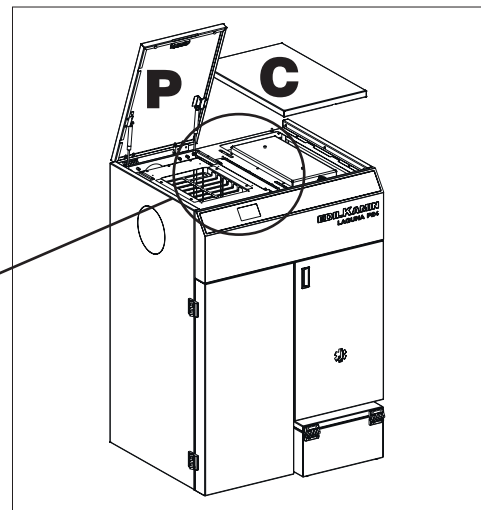


Please control the compression nut on the pipe (are closed) which must be tighten.

The compression nut of the return is accessible from the slot on the rear (A at pag 8)

To control the compression nut of the delivery:

- open the pellet trap doort and the cover beside (C)
- (for Laguna P 12 and 18) Remove the screw (V) in order to turn softly the bracket (B) and use the wrench to tighten the compression nut.



PREPARATION AND UNPACKING

The packaging materials are neither toxic nor noxious and do not require special disposal.

The user is responsible for storing, disposing or and recycling them in a regulatory fashion.



Always move the stove vertically with suitable equipment and in observance of safety regulations.

Do not turn the package over, and handle all parts requiring installation with care.



PLEASE REMOVE THE ASH DRAWER, BEFORE MOVING THE BOILER

The package contains:

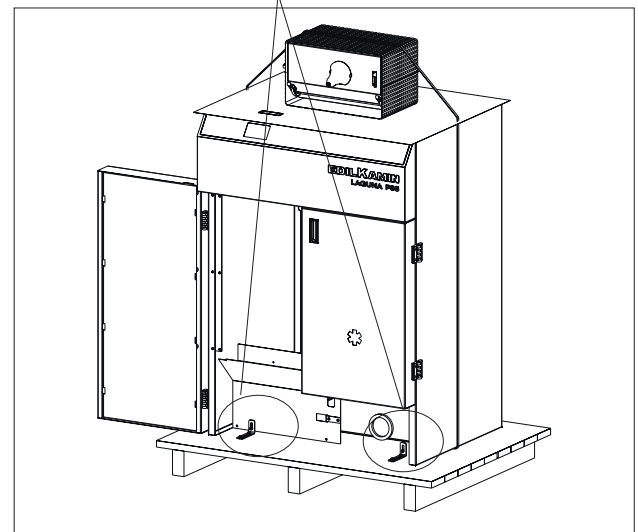
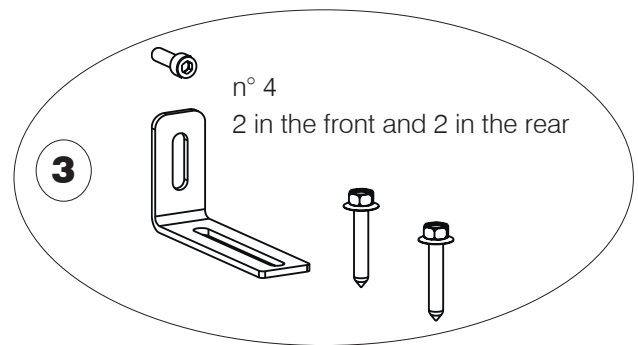
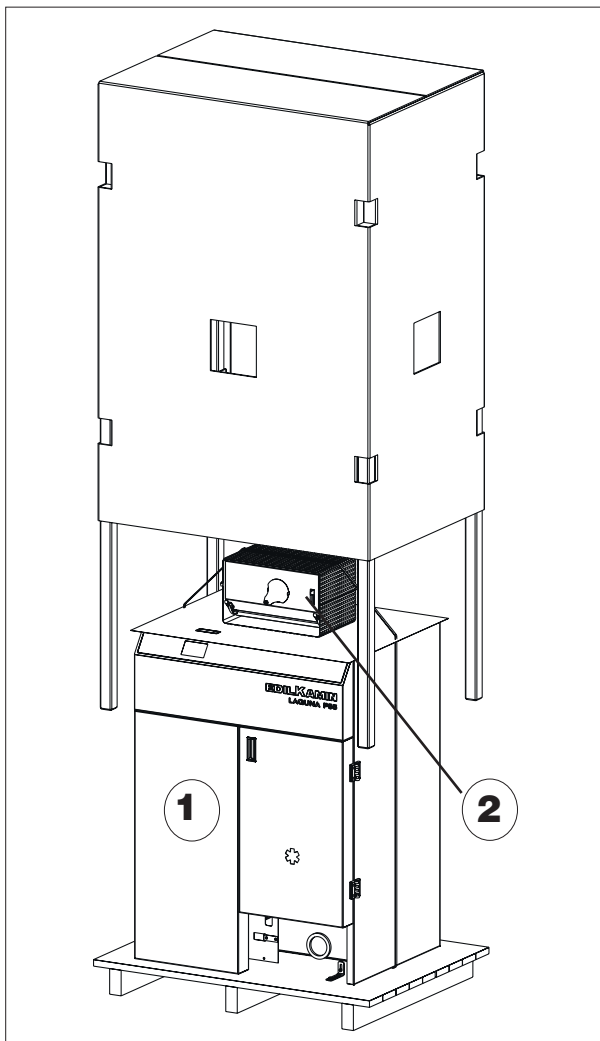
- The boiler **(1)**
- The ash drawer **(2)**

TO REMOVE THE BOILER FROM THE PALLET

- Open the door;
- remove the brackets (2 in the front and 2 in the rear) **(3)**

The product contains:

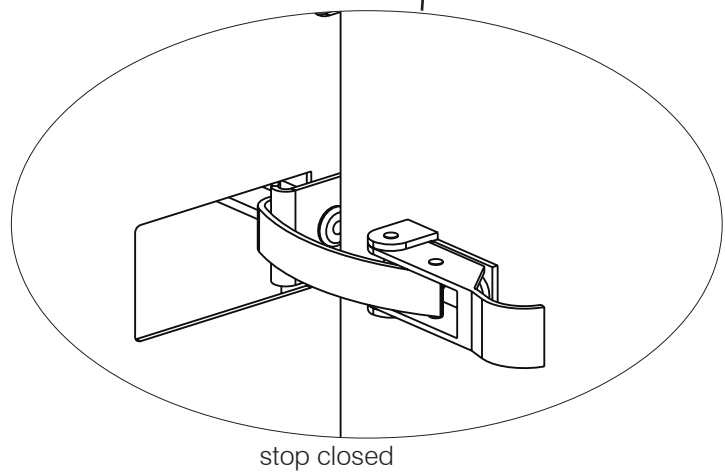
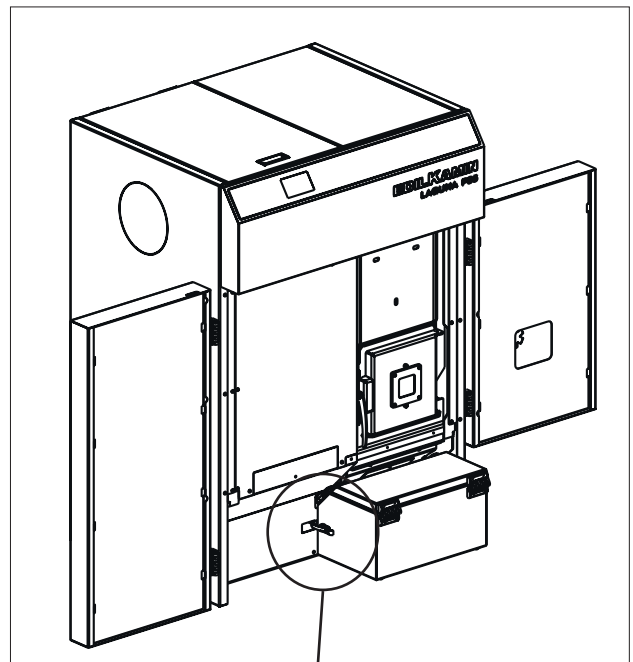
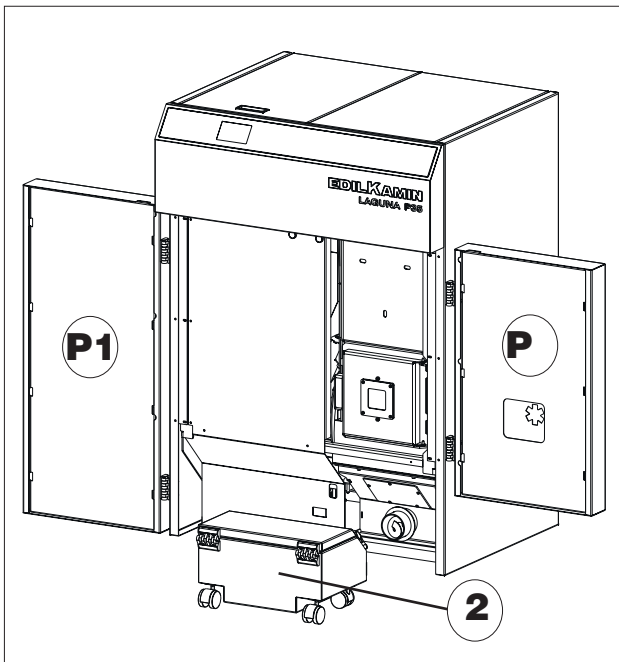
- warranty certificate,
- this manual,



TO INSTALL THE ASH DRAWER

- Open both front doors (**P** e **P1**)
- Insert the drawer (**2**)
- Please fasten the stop located on the left

We remind that a part of the ash drawer will be out of the boiler. DON'T TRY TO PUSH INSIDE MORE.



LOAD THE PELLETS USING THE SCREW FEEDER (optional)

The boiler is designed for use with a pellet-loading screw feeder system.

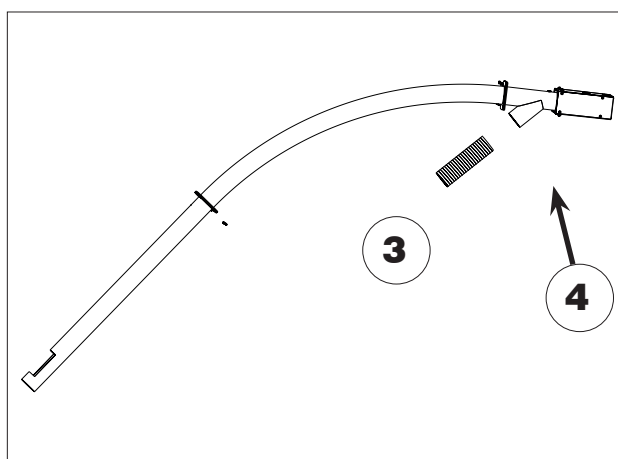
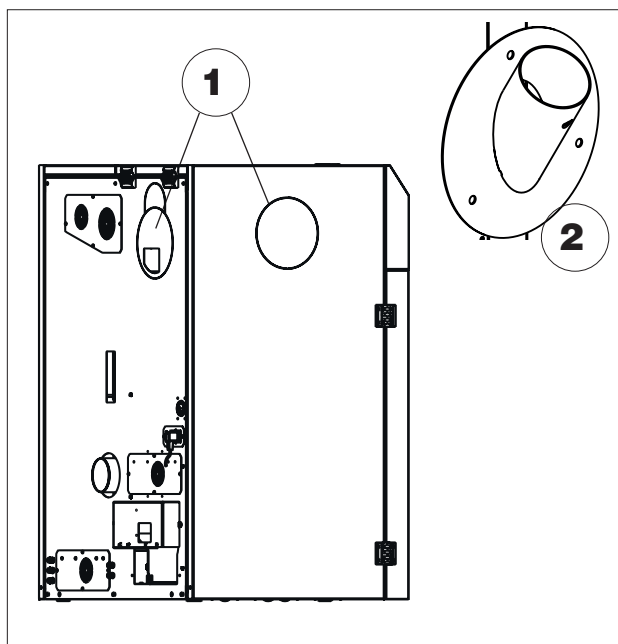


before proceeding, switch off the boiler and remove the electrical power cord.

Proceed as follows for installation:

- Remove the pre-cut cover on the back or on the side panel of the boiler **(1)**, loosen the screws securing the closing flange located beneath the pre-cut cover and replace it with the flange configured for attaching the flexible tube **(2)**
- Connect one end of the flexible tube **(3)** to the flange **(2)** on the boiler and the other end to the conveyor tube of the loader **(4)**.

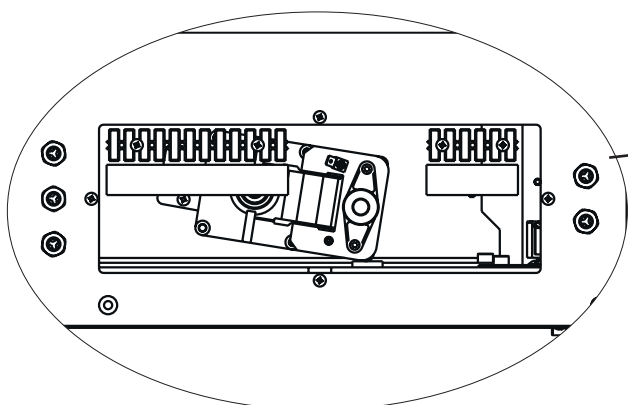
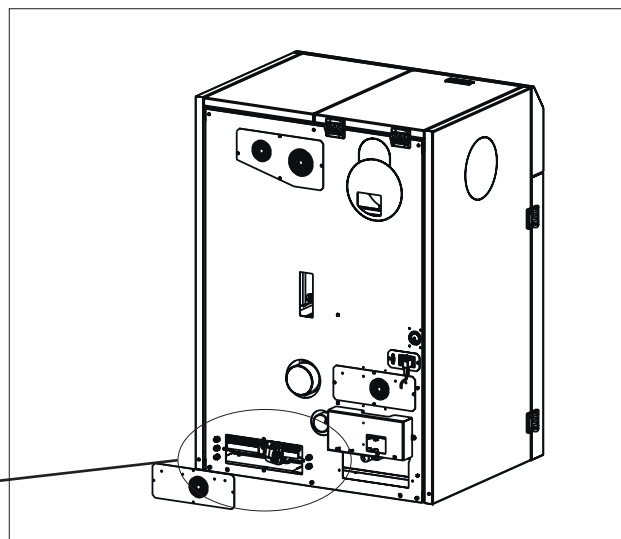
Note: the flexible tube (3) must be placed so as to channel the pellets in the tank without bottlenecks; check that the pellets move smoothly during the initial loading sequences and seal any dust leakages using silicone.



ELECTRICAL TERMINAL CONNECTIONS

On the back (with the protective cover removed), there is a bracket with two terminals and five cable glands. One terminal block (12 poles) is low voltage, the other (6 poles) is high voltage).

Below you can see the connection



upper terminal block (low voltage)

N° POLES	POSSIBLE CONNECTION	NOTES
1/2	Gas Boiler consent. This is a dry contact output	For each configuration. Remember that this a contact which is normally open. If you do not wish to remove consent with no power supplied to the boiler, the installer must fit a relay.
3/4	Home Automation Input. This is an input which receives all home automation contacts	A telephone dialler, for example
5/6	ntc sensor/local thermostat	the local thermostat is supplied as standard
7/8	ntc sensor/puffer or boiler thermostat	one common pole
9/10	AUX sensor, ntc analogue input	for example, for a second puffer or boiler
11/12	Domestic hot water inlet for boiler thermostat.	Set configuration 2

lower terminal block (high voltage)

N° POLES	POSSIBLE CONNECTION	NOTES
1/2/3	Thre way valve (Neutral and Line)	
4/5/6	External circulator electrical connection (Earth, Neutral, Line,)	

REMARKS ON INSTALLATION

Note that:

- installation must be carried out by authorised technical personnel.
- all local and national laws and European standards must be met in the installation and use of the product. In Italy, the standard of reference is UNI 10683
- If installed in a condominium, the appliance must be approved by the administrator.

We give some general instructions below, however these do not obviate the need to comply with local regulations and do not affect the installer's liability for the installation.

Checking the suitability of the installation space

- The floor must be able to bear the weight of the product and its accessories.
- Level the appliance
- The product may not be installed in bedrooms, bathrooms or in a room with any other product which draws air for combustion in the room itself, or in any area with an explosive atmosphere. Any extraction fans operating in the same room or area in which the product has been installed, may affect its draught.

In Italy, check the compatibility pursuant to UNI 10683 and UNI 7129 in the presence of gas fired products.

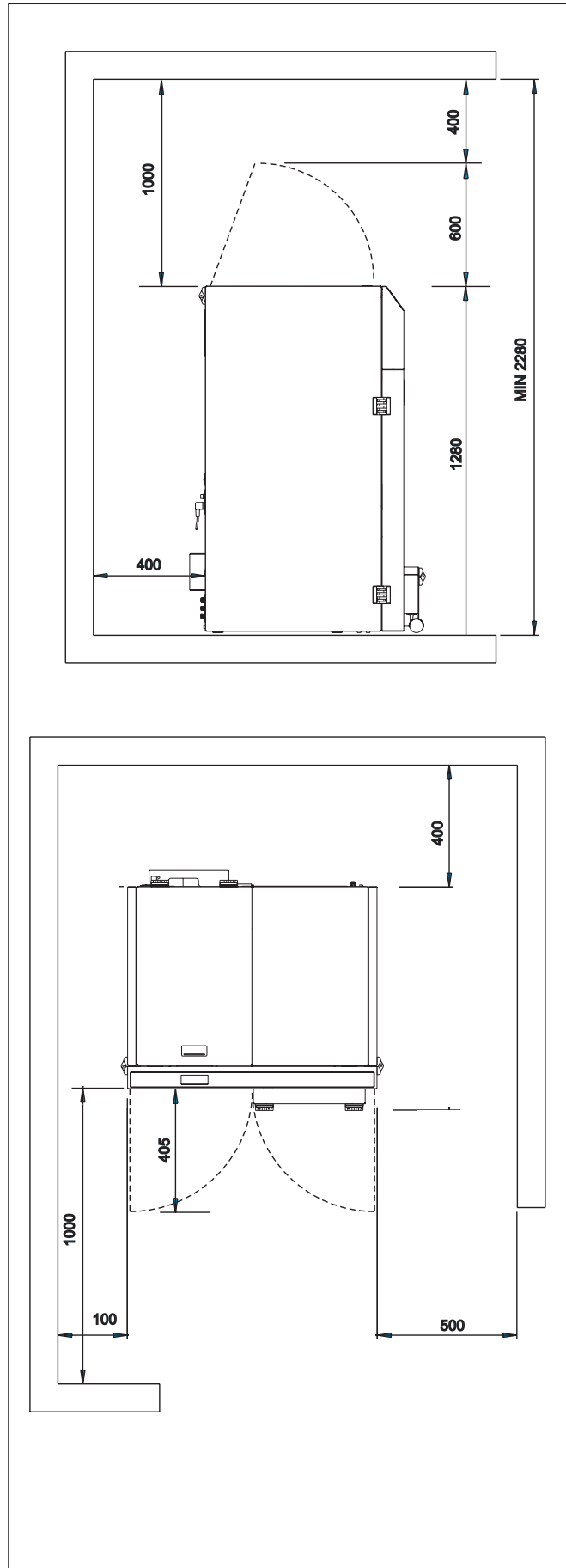
Protection from heat and safety clearances safety

The surfaces of the building adjacent to the product must be protected against overheating.

The insulation to be used will depend on the type of surface in question.

When positioning the product, remember to leave adequate space for the performance of maintenance and the loading of pellets

We remind you to observe the distances (in mm) shown in the diagram, also to facilitate maintenance and loading of the pellets into the tank.



CHECKING THE ELECTRICAL CONNECTIONS (the power socket must be located in an easy to access position)

The product is supplied with an electrical power cord for connection to a 230V 50 Hz socket, preferably one equipped with a circuit-breaker.

Voltage variations in voltage of greater than 10% can affect operation of the product.

The electrical system must be compliant; check the operation of the earth in particular.

Edilkamin is not responsible for malfunctions resulting from an improperly earthed system.

The power line must be of adequate section for the power of the appliance.

The power cord must not come into contact with the flue or other hot parts of the product.

FLUE SYSTEM (Fumes duct, flue and chimney pot)

This section has been drafted pursuant to European regulations EN 13384, EN 1443, EN 1856 and EN 1457. The installer must observe both these and any other local regulations. This manual should not in any way be considered as a replacement for existing regulations.

The product must be connected to a flue system which ensures that the fumes produced by combustion are exhausted in complete safety.

Before positioning the product, the installer must check that the flue is suitable.

FUMES DUCT, FLUE

The fumes duct (which connects the hearth's fumes outlet with the flue) and the flue itself must, among other regulatory requirements:

- receive the fumes from a single product (the outlets of multiple appliances may not be conveyed into a single flue)
- be routed vertically for the most part
- have no downwards sloping sections
- preferably have a circular internal cross section, or with a ratio of the sides of less than 1.5
- terminate at roof level with a proper chimney pot: the flue may not discharge directly on the wall or into an enclosed space, even if the space in question is open to the sky
- be made of material rated fire reaction class A1 per UNI EN 13501 or analogous national regulations.

- be certified, with a chimney plate if metal
- be of uniform cross section or vary in cross section only immediately after the outlet, not at some mid point of its length

THE FUMES DUCT

Further to the general requirements for the fumes duct and flue, the fumes duct:

- may not be made of flexible metal material
- must be insulated, if routed through unheated areas or outdoors
- must not be routed through rooms where the installation of combustion heat generators is prohibited, there is risk of fire, or which cannot be inspected.
- must enable the recovery of soot and be open for inspection
- have at most 3 bends with a maximum angle of 90°
- have a single horizontal section with a maximum length of 3 metres, depending on the draw. In any event, consider that long sections promote the accumulation of dirt and are harder to clean.

Positioning the product

The product is designed to operate in all climatic conditions. In the event of special circumstances, such as strong wind, the product may be switched OFF through the intervention of the safety systems.

Contact the authorised Edilkamin Technical Assistance Centre.

THE FLUE:

Further to the general prescriptions for the fumes duct and flue, the flue:

- must serve solely to exhaust fumes
- must be correctly sized to satisfy the requirements of fumes exhaust (EN 13384-1)
- should preferably be insulated, in steel with a circular internal section. If rectangular, the corners must have a radius of not less than 20 mm, with a ratio of the internal dimensions of <1.5
- must normally be at least 1.5 metres in vertical length
- must have a constant cross section
- must be waterproof and thermally insulated to ensure a good draw
- preferably provide a collection chamber for unburnt fuel and condensates.
- If pre-existing, must be clean, to prevent the fire hazard.
- in general, we recommend fitting a tube inside the existing masonry chimney if its diameter is greater than 150 mm.

INTUBATED SYSTEM:

Further to the general prescriptions for the fumes duct and flue, the intubated system:

- must operate in negative pressure;
- must be open to inspection
- must observe local regulations.

THE CHIMNEY POT

- must be windproof
- must have an internal cross section equivalent to that of the flue and a fumes outlet at least double that of the interior of the flue
- for dual flues (which should be spaced at least 2 m apart) the chimney pot receiving the fumes from the solid fuel appliance or that from the higher storey, must be at least 50 cm higher than the other
- it must extend beyond the back flow zone (in Italy, refer to UNI 10683 point 6.5.8.)
- it must allow for maintenance of the chimney

EXTERNAL AIR INTAKE

In general, we suggest two ways to ensure a proper flow of combustion air.

Indirect air intake

Install an air outlet at floor level with an effective surface area (net of the screen or other protections) of at least 80 cm² (10 cm in diameter).

To prevent draughts, we recommend installing the intake behind the stove or behind a radiator.

Installing it in front of the appliance will create unpleasant draughts.

Direct air intake

Install an air intake of effective area ((net of the mesh or other protective equipment) at least equal to that of the air intake at the back of the product.

Connect the air intake to the appliance's air intake with a tube (which may also be flexible).

A maximum length of 3 metres is recommended, with no more than 3 bends depending on the draft of the flue.

The air maybe drawn from an adjacent room only if:

- the flow is taken from permanent and unobstructed openings communicating with the outdoors;
- the air pressure in the adjacent room is never lower than that of the outdoor pressure;
- the adjacent room is not a garage. subject to fire hazard, a bathroom or bedroom
- the adjacent room is not a shared room in the condominium

In Italy, UNI 10683 requires that ventilation is sufficient even if it is guaranteed that the difference in pressure between the outdoor and indoor environment is equal to or less than 4 PA (UNI EN 13384-1). The installer who issues the declaration of conformity is responsible for ensuring these conditions are met..

HYDRAULIC CONNECTIONS

Located with the LAGUNA P are:

- a pressure gauge;
- a closed expansion vessel

If the expansion tank is built into the boiler, this does NOT ensure proper protection of the water in the entire system from thermal expansion.

Therefore, installers should assess whether an additional expansion tank is needed, depending on the type of system.

ALL OTHER HYDRAULIC COMPONENTS MAY BE INSTALLED WITHIN THE BOILER BY PURCHASING A KIT FROM EDILKAMIN OR IF PREPARED BY THE INSTALLER.

The hydraulic connection depends on the type of system.

However, there are some “general rules”:

- The hydraulic system must operate at a pressure between 1 and 1.5-2 bars at running temperature (hot) in a closed vessel circuit.
- N.B.: DO NOT, for example, install the boiler to replace a heat storage stove installed as an open vessel, without adapting the expansion system to closed vessel.
- The installation of a puffer (accumulation tank) is recommended, but is not essential. The advantage of a puffer is that it releases the boiler from “sudden” requests from the system and allows integration with other heat sources. The system consumes less fuel while efficiency is increased. Edilkamin suggest a puffer of 1.000 liter for LAGUNA P 35, 600 liter for LAGUNA P 24, 450 liter for Laguna P18 and 300 liter for Laguna P12.
- The return temperature of water to the boiler must be higher than 50-55° C to prevent the forming of condensation.
- Where the need exists to heat low-temperature radiant panels, a puffer (accumulation tank) should be installed as recommended by the panel manufacturer.
- The material used in the circuit must be suitable to withstand any overheating.
- The installer must determine, on the basis of the type of water and system if water conditioners are required. In Italy, refer to UNI 8065-1989 (water treatment in heating systems for civil use).
- Direct plumbing to radiators prevents proper operation, owing to the small diameter of their pipes.

PRESSURE GAUGE

placed on the boiler enables you to read the water pressure in the boiler.

Edilkamin offers four internal kits (optional)

- KIT R

for installing a single heat source without domestic hot water production

- KIT R2

For combined installation with a second boiler without domestic hot water production with system separator.

- KIT RW

For installing a single heat source with instantaneous domestic hot water production.

- KIT RW2

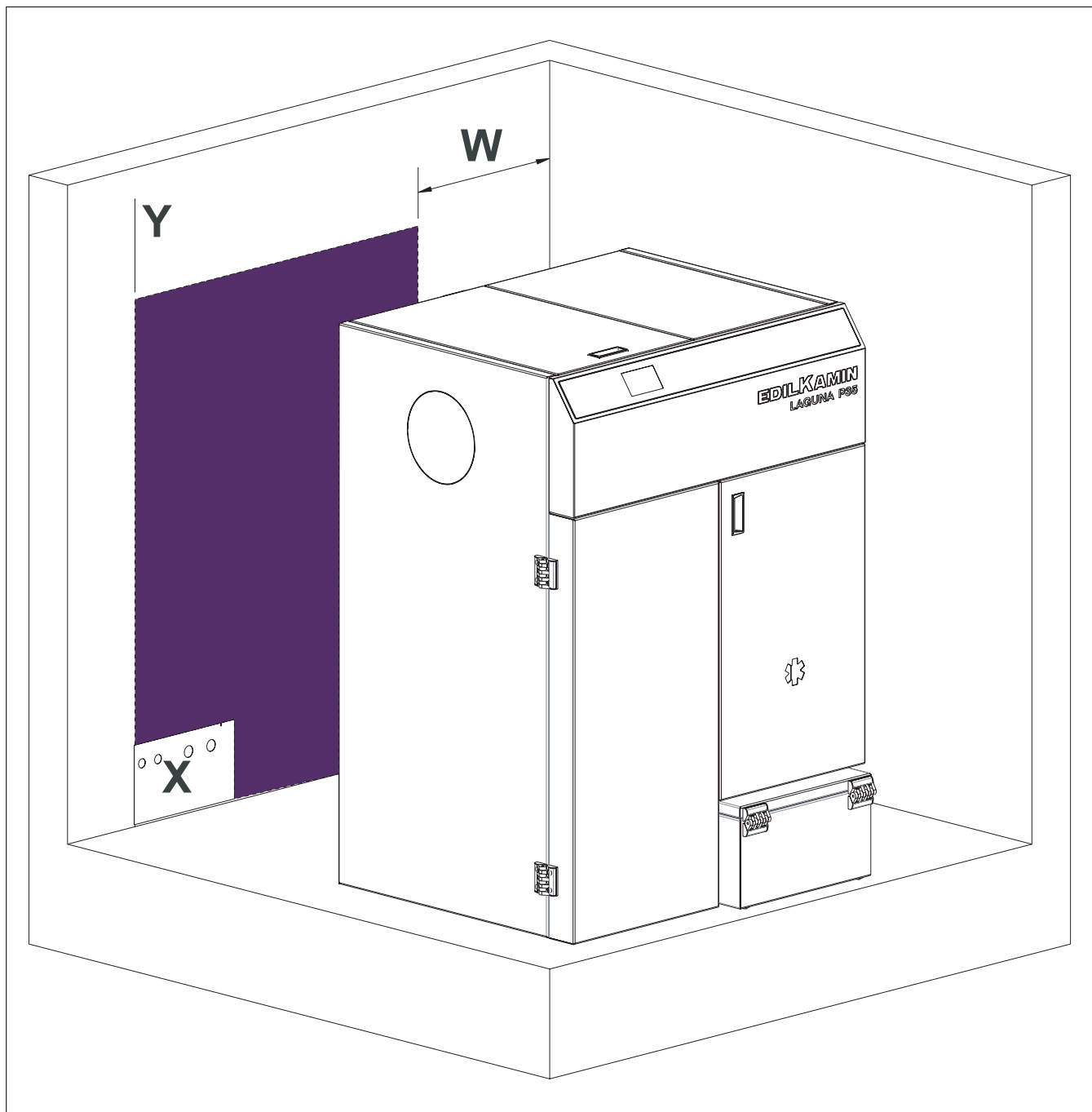
For combined installation with a second boiler with domestic hot water production and system separator.

INSTALLING AN OPTIONAL KIT All kits are supplied with instructions for their connection to the boiler. Edilkamin Service has a paper template to help position the water pipes to connect to the boiler. Please be careful to use the correct one

The correct position of the hydraulic couplings can be determined by taking into account the maximum overall dimensions of the boiler

As shown in the picture below, the template must be flush with the floor and aligned with the maximum footprint (Y) to the left side of the boiler.

Remember to respect the safe distances for installation

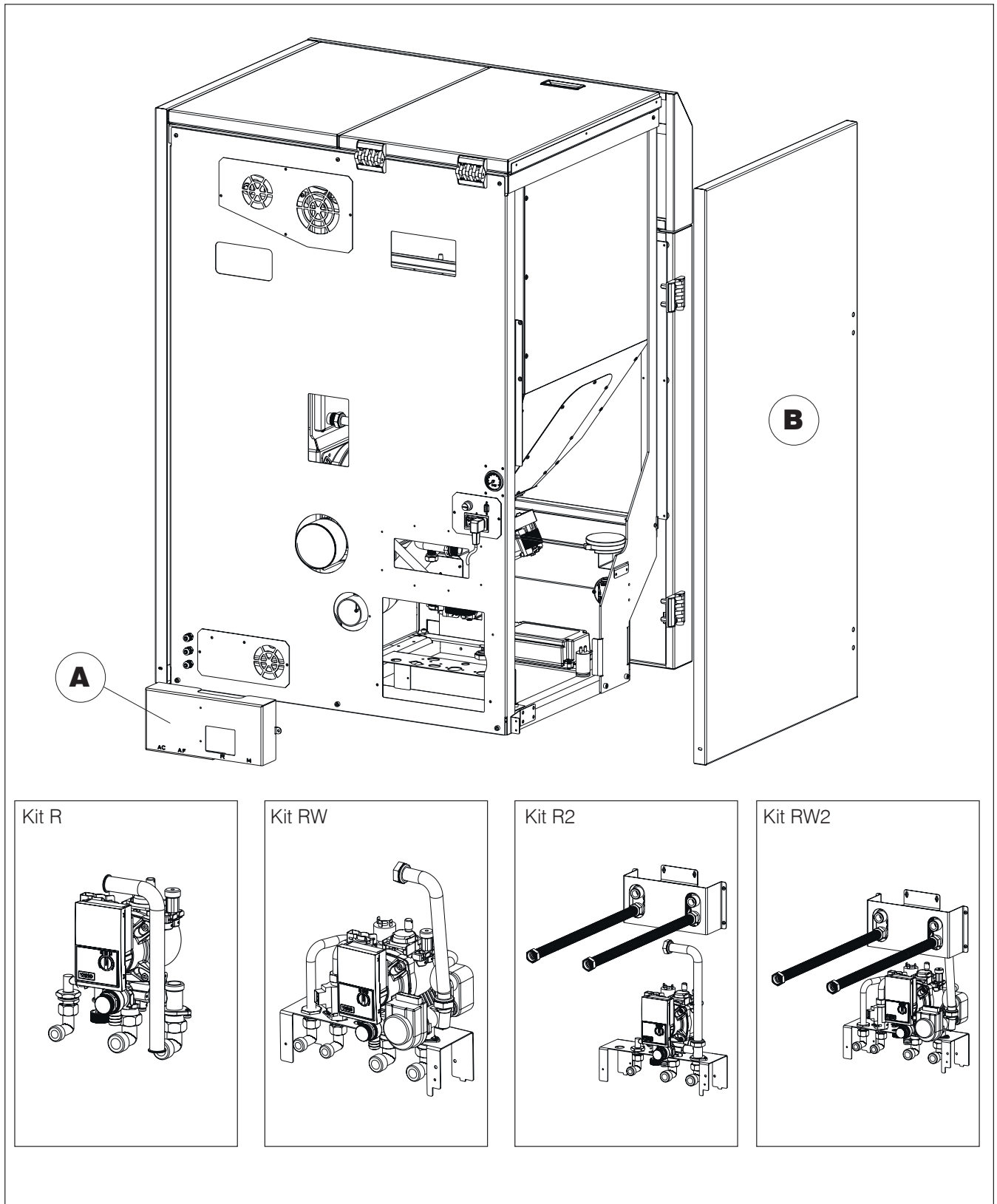


To install one of the kits described above:

- remove the back cover (A), first removing the screws which fasten it to the boiler;
- remove the metal side panel (B), first removing the screws which fasten it to the boiler.

At this point, proceed with the installation of the chosen kit following the instructions provided, taking care to:

- all work must be done with the electrical power disconnected;
- always ensure that the couplings have been tightened before charging the boiler.

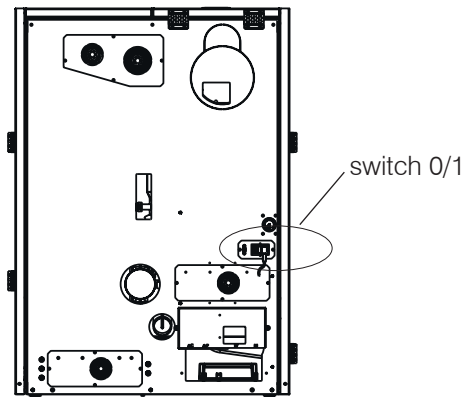


First ignition procedure

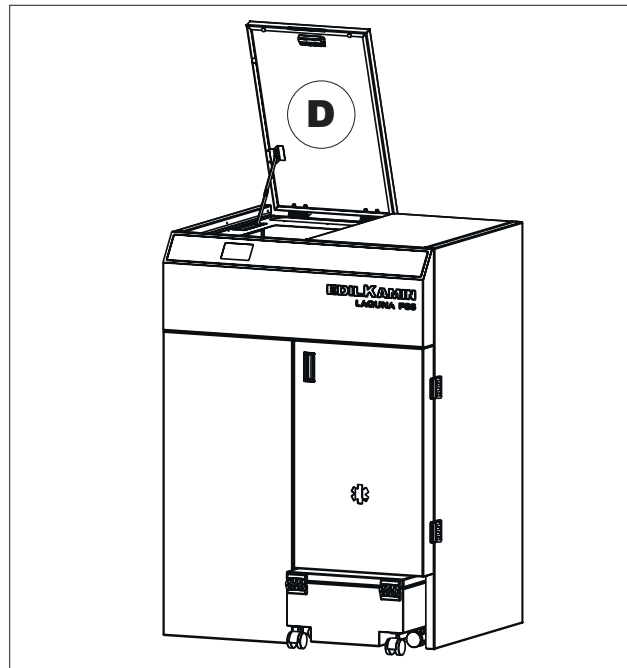
- Make sure you have read and understood this manual
- Remove all flammable materials from the appliance (manuals, labels, etc).
- Power is supplied to the product by switching the circuit breaker from 0 to 1



On first ignition, there may be a slight smell of paint, which will disappear in a short time.



To load pellets (if the additional tank described above is not used), open the cover **(D)** using the special recess to lift it, and insert the pellets

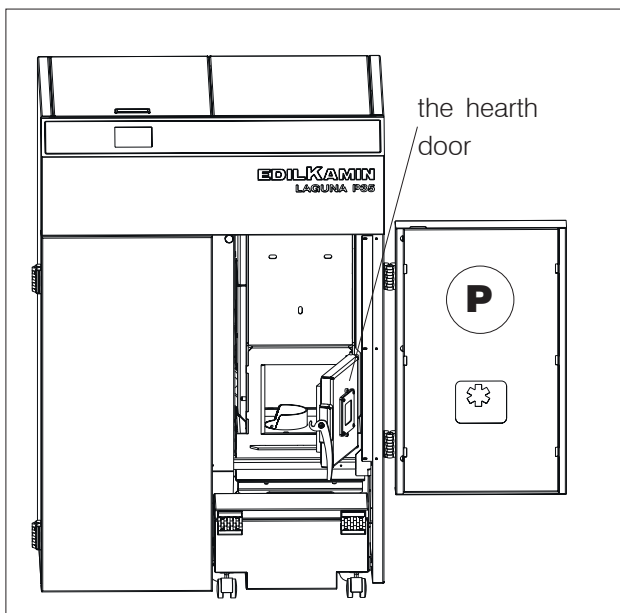


VENT

The system may have to be vented using the circulator during its first days of operation (fig. 2/a) using the circulator to release all the air that may be present in the system.

Opening the hearth door: the first time and for cleaning

To open the door (after the boiler has cooled), first open the right-hand (A) forward facing door, followed by the hearth door.



Loading Pellets and notes on fuel

Use UNI EN ISO 17225-2 category A1 wood pellets or similar regulatory products with the following characteristics.

- diameter 6 mm;
- length 3-4 cm
- humidity <10 %

For reasons of safety and respect for the environment, **DO NOT** burn: plastics, painted wood, coal or waste bark or other unsuitable material.

Do not use the product as an incinerator.



Caution

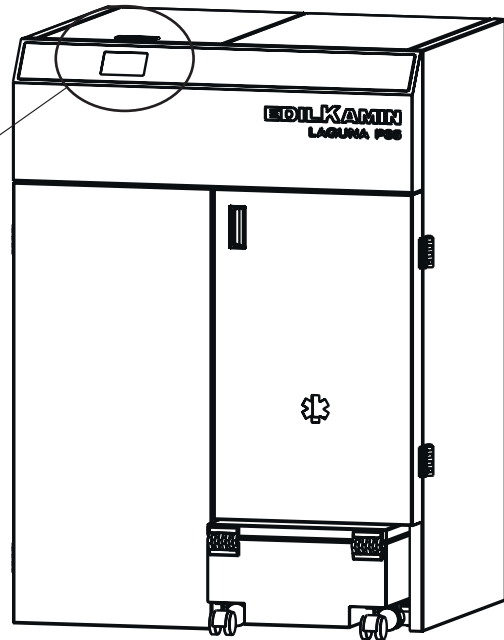
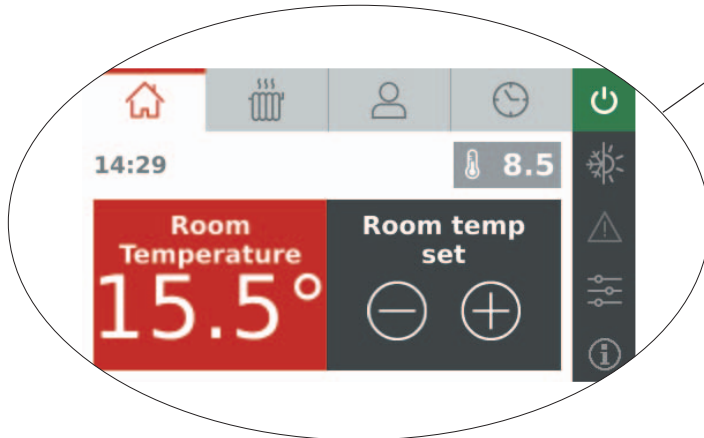
Using fuels other than those specified can damage the appliance

INTERFACE

The only interface is the touch display located on the boiler (a side panel, for example)

There is no optional device for remote operation

the views display the functions and are described in the following sections



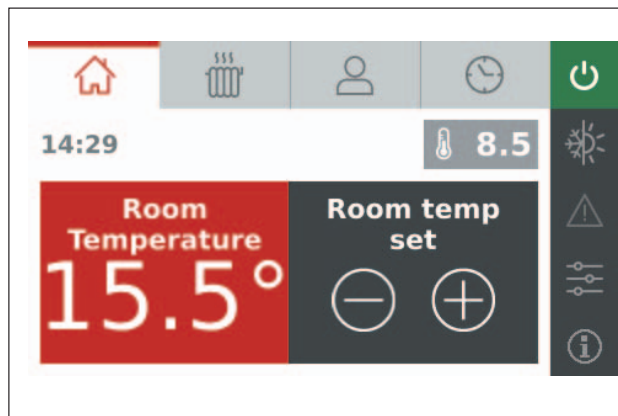
MODES OF OPERATION (details on the following pages)










Once the technician (Edilkamin Technical Assistance Centre) has input the “system configuration” (5 configurations are available in the table), the following adjustments may be accessed.

The first operation is pressing the ON/OFF key to bring the boiler to the ON state and ready for any demands for heat.

Mode	Parameters	Result on boiler operation
SUMMER /WINTER	Summer or Winter mode of operation	In the appropriate configurations input by the technician, avoid the radiators becoming hot, allowing only heating
AUTOMATIC	desired temperature room	the boiler operates with the aim of achieving the desired room temperature and operates on minimum power once the desired room temperature has been achieved
STAND BY	desired temperature room	the boiler operates with the aim of achieving the desired room temperature. The boiler switches OFF once this temperature has been achieved, and after operating on minimum power for the number of set minutes has ended (modifiable)
PROGRAMMING THE TIMER	desired room temperature, selected per day of the week	the boiler responds to the demands for heat according the timer settings

**Description of the display
(example at the side)**



Reference figure	in	Parameters which can be read or modified (details provided in the diagrams on the following pages)	NOTES
		Adjusting room temperature	
		Display of the system configuration and temperature setting (e.g.: water in the boiler, puffer, etc.)	
		Adjusting user settings: <ul style="list-style-type: none"> • date and time • display • acoustic warnings • language • time to clean the screen • display of firmware version 	
		Programming the timer	
		ON/OFF switch the boiler ON, so it is ready for any demands for heat.	
		Adjusting operation in summer /winter	
		Alarms display	
		Technical menu (not password protected; the technician can only download the installation and use manual)	
		Information	

	Configuration	Sensor can be connected by the installer and managed by the configuration
1	heating controlled by the room sensor/room thermostat	Ntc room sensor or external room thermostat
2	heating controlled by the room sensor/room thermostat + instantaneous ACS + accumulation (optional)	Ntc room sensor or external room thermostat
2	heating controlled by room/thermostat sensor + ACS boiler (coil) with a thermostat (connected like a flow meter)	Ntc room sensor or external room thermostat Flow meter
3	heating stove and room/thermostat sensor + ACS boiler (coil) with an ntc sensor	Ntc room sensor or external room thermostat Boiler ntc sensor
4	heating with Puffer and thermostat and booster pump with a room sensor/room thermostat	Puffer external thermostat
5	heating with Puffer and ntc sensor booster pump with a room sensor/room thermostat	Puffer ntc sensor

LAGUNA P leaves the factory in configuration 1

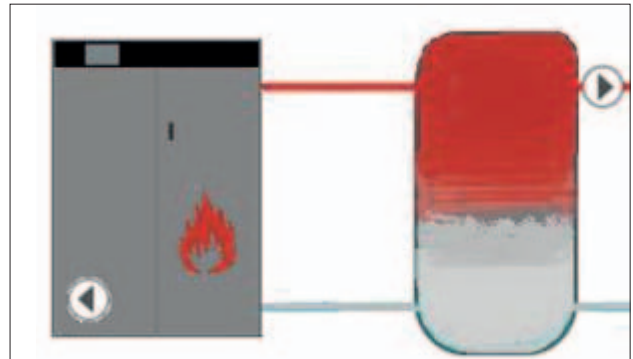
POSSIBLE KITS AND CONFIGURATION PAIRINGS

Suggestions to make installation easier

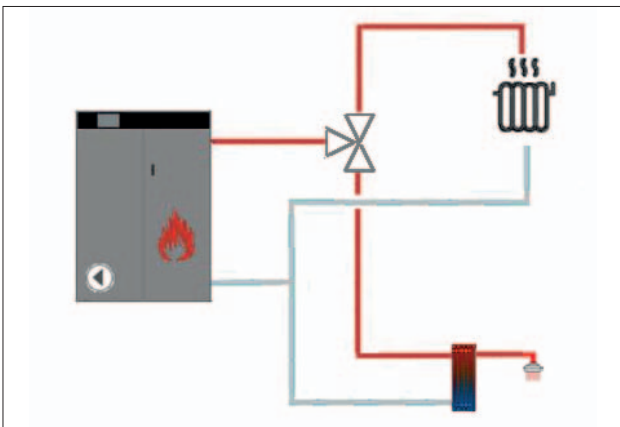
Edilkamin Kit	Configuration on the Laguna P circuit board	NOTES
Kit R	1 / 3* / 4 / 5	* an external three-way valve (not supplied) is required for electrical connection
Kit RW	2	
Kit R2	1	
Kit RW2	2	



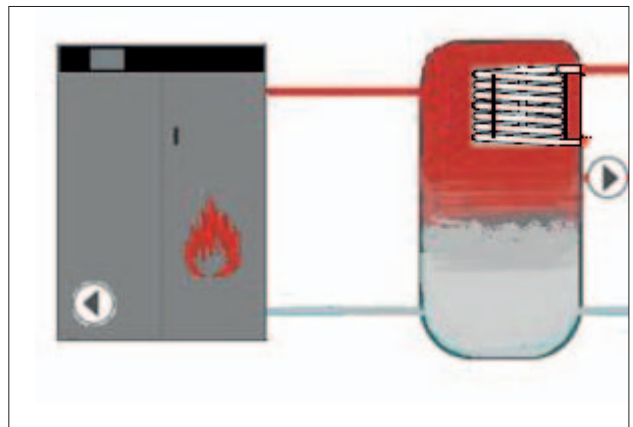
Configuration 1



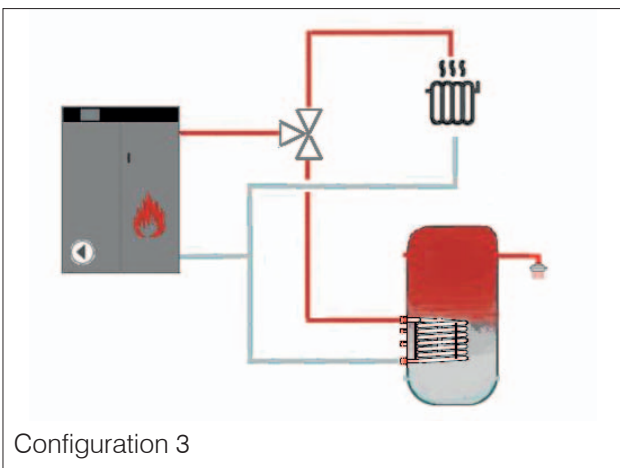
Configuration 4/5



Configuration 2



Configuration 4/5



Configuration 3

METHOD OF USE

The views display the functions and are described in the following sections.

The Laguna P logic calculates on the Boards which then “open” on one or more screens (the numbers refer to those used in the description of the panel):

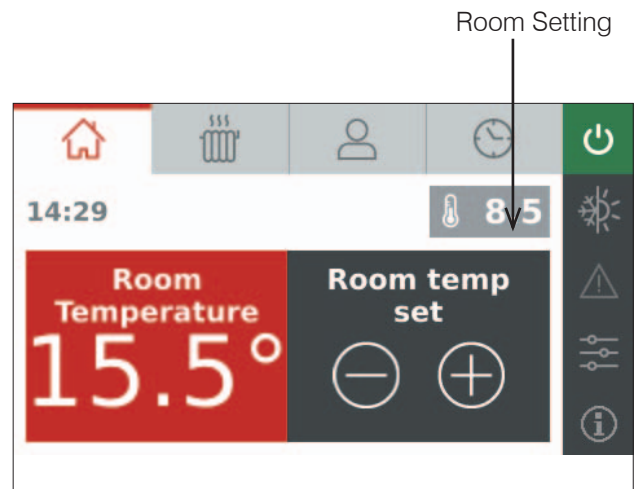
1. Room Tab (a screen);
2. System Tab (a screen);
3. User Settings Tab (five successive screens);
4. Timer Programming Tab (a screen).



We describe the procedures below.

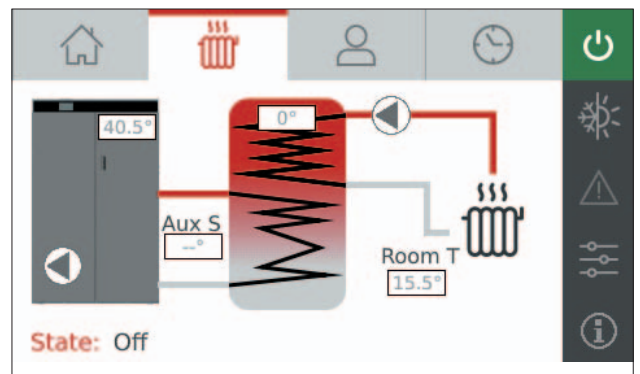
1. Environmental Tab (a screen)

Allows the desired room temperature to be input (if connected to an ntc sensor), and displays the current temperature



2. System Data (a screen)

Allows the configuration setting to be viewed, and the temperature of the water in the boiler, puffer, etc. to be viewed and modified




3. User Settings Tab (five successive screens)

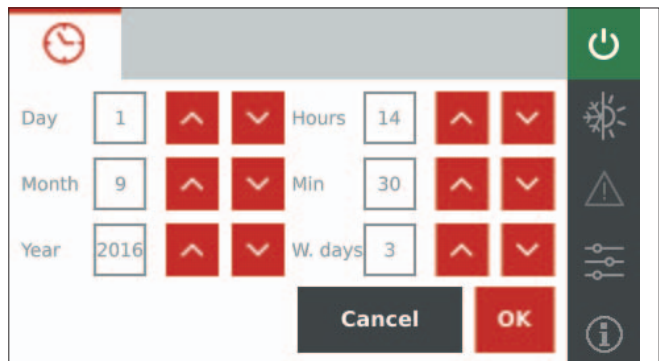
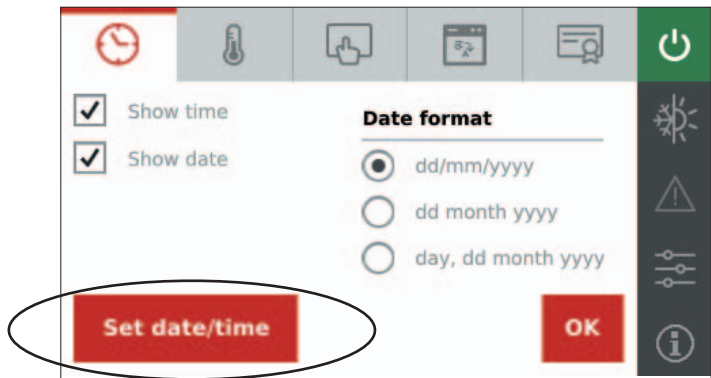
Allows the following to be viewed and input:

- 3.1 date and time
- 3.2 emperature hysteresis (lag)
- 3.3 display specifications
- 3.4 language
- 3.5 display of firmware version

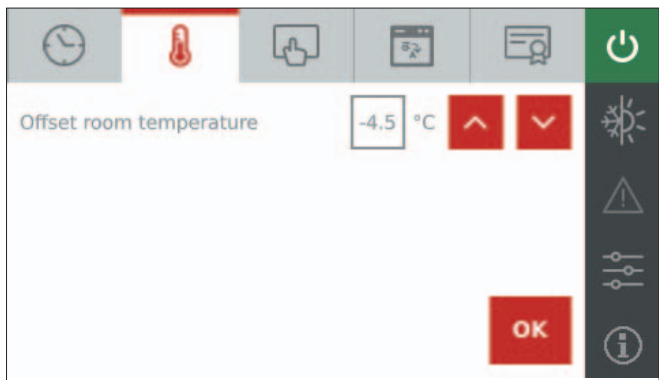
To modify a field, select it by touching the touch-screen corresponding to the field to be modified. Modify the settings by touching the increase/decrease symbols.

3.1 Date and time screens

Touching  , appears the picture below



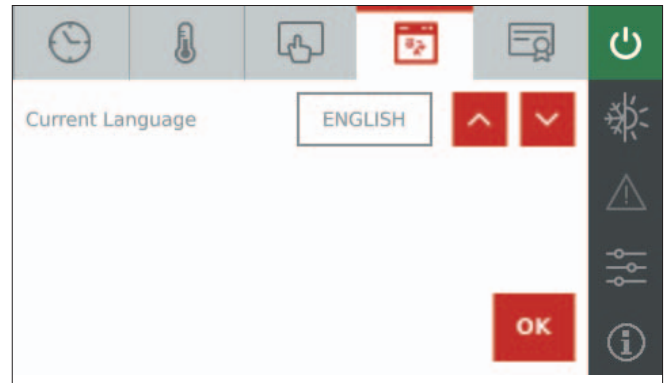
3.2 Temperature Hysteresis (lag) Screens



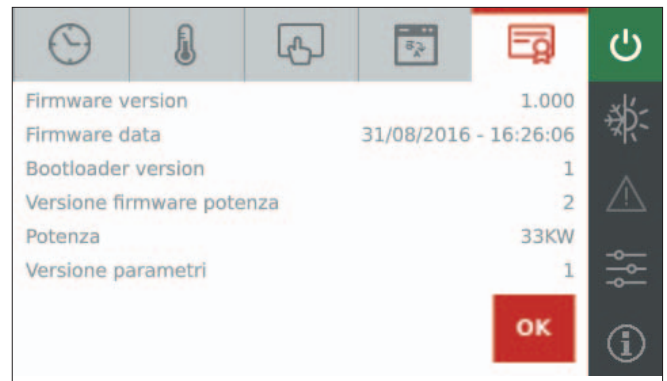
3.3 Characteristic display screens (text colour and down-time for cleaning); acoustic warnings;



3.4 Choose language screen

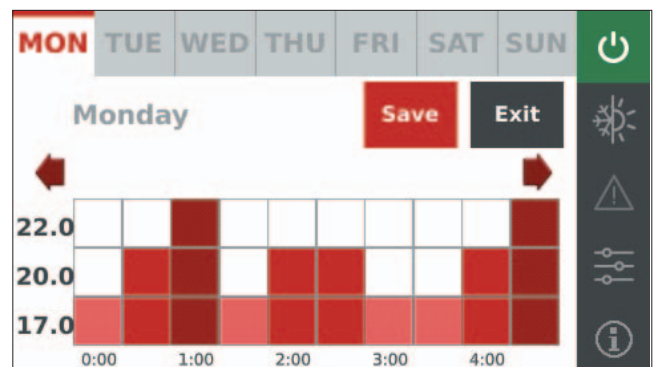


3.5 Firmware version display screens



4. Timer Programming Tab (a screen)






Allows the daily temperature profile to be input. Can be modified by moving a finger over the profile.

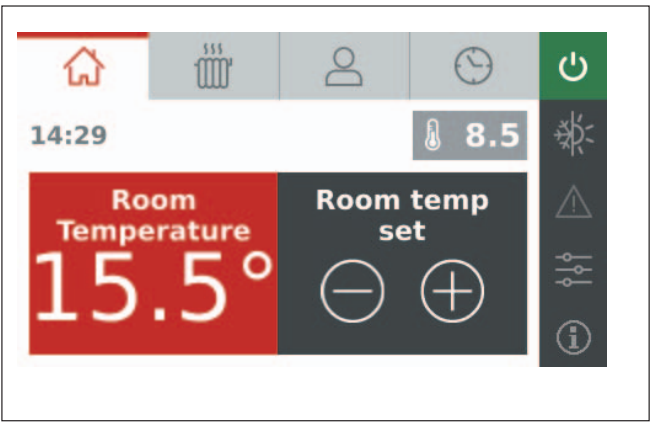


METHOD OF USE

The views display the functions and are described in the following sections.

The outer keys are used to adjust or display the following:

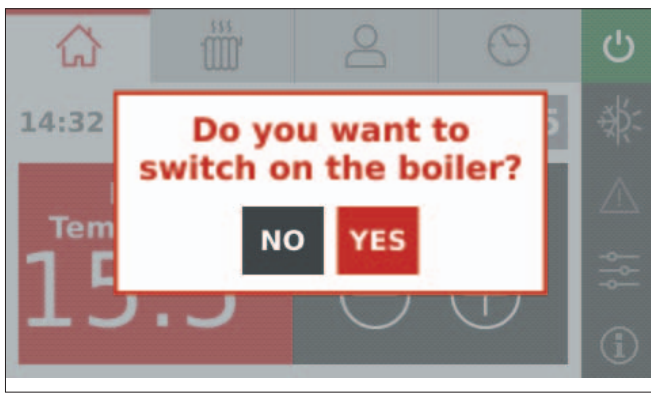
- 5. **Boiler ON OFF** 
- 6. **Summer /Winter** 
- 7. **List of Alarms** 
- 8. **Technical menu** 
- 9. **Information menu** 



The numbering is a continuation of the previous sections.

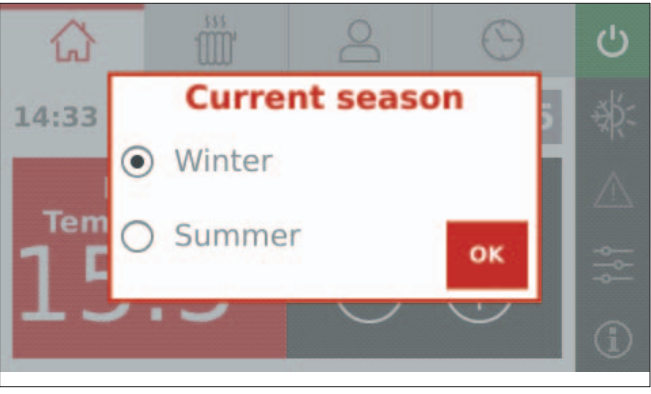
5. Boiler ON/OFF

It is used to switch the boiler ON, so it is ready for any demands for heat, or switch the boiler OFF



6. Summer /Winter

active in configurations 2,3,4,5
 Enabling the “summer” function in configurations 2 and 3, the deviation of the 3-way valve in the direction of the heating system is inhibited so the radiators do not heat up. Therefore, the flow is always directed towards the domestic water system.
 When the “summer” option is active, the auto-eco function is automatically enabled (cannot be deactivated). The external room/thermostat sensor isolated (even if the external thermostat is enabled).
 In “summer”, the pump is inhibited in configurations 4 and 5 after the puffer.



7. List of boiler alarms

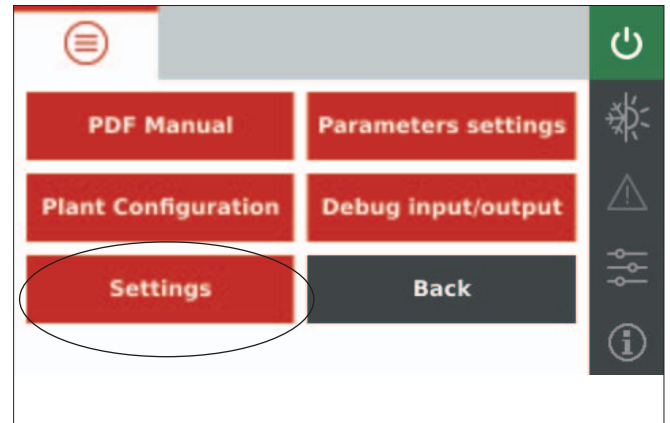
Allows the boiler alarms to be read



8. Technical menu of the boiler

Allows the following:

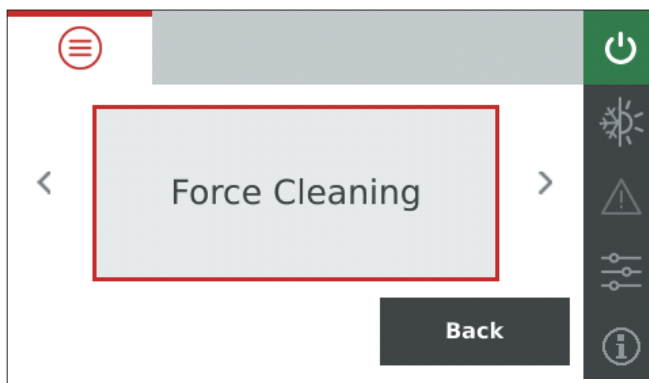
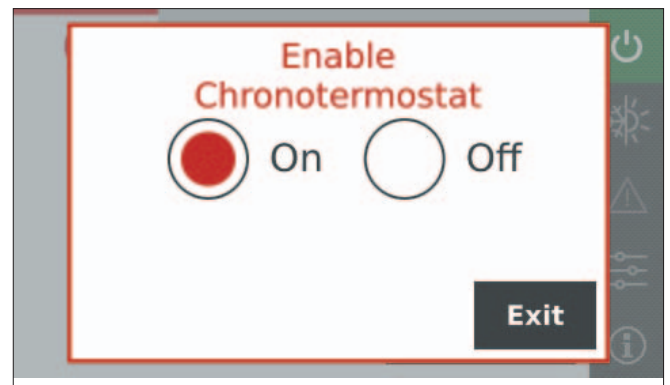
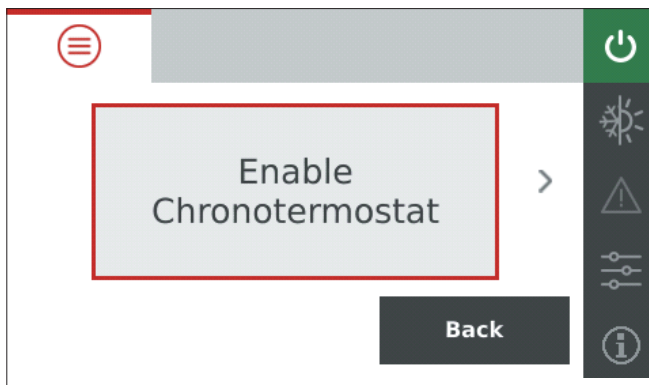
- the user manual to be downloaded
- some operational parameters to be set
- the technician (only) to access regulation parameters

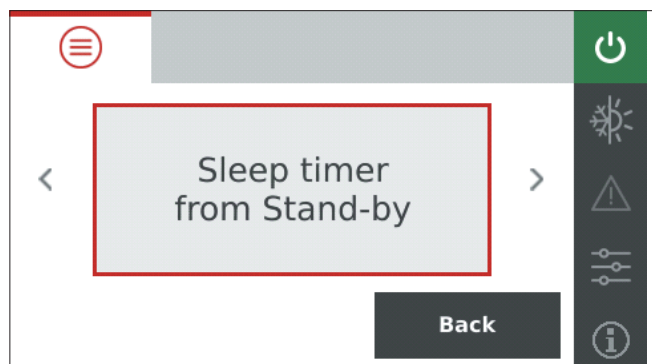
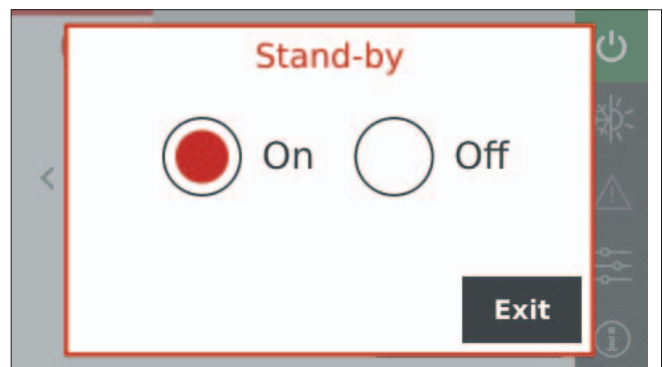
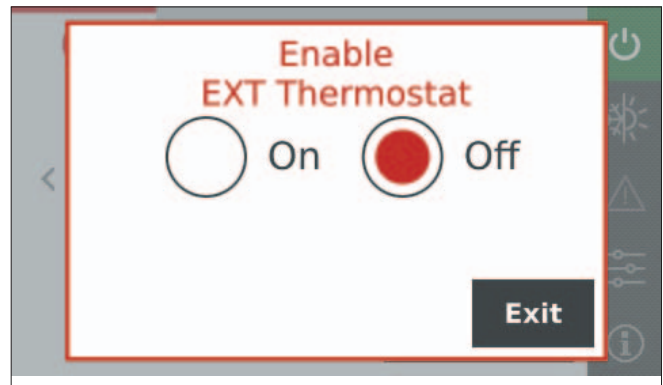
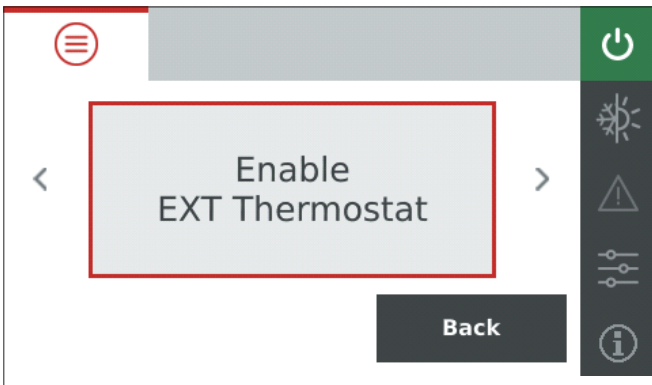
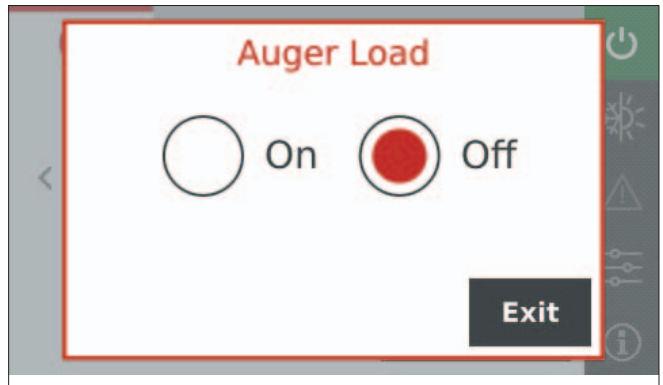
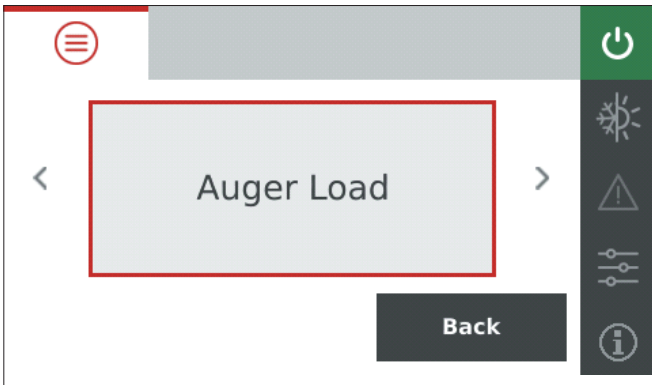


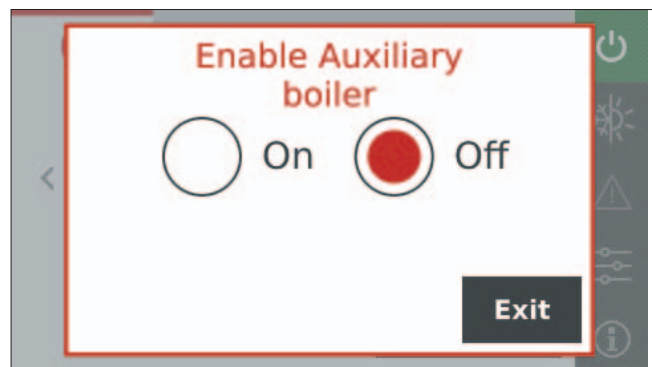
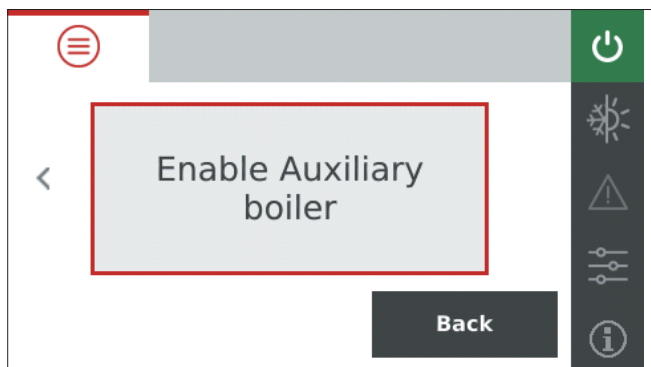
8. Technical menu of the boiler

Settings:

- Enable Chronothermostat
- Forced Cleaning: clean the boiler when switched OFF
- Load Screw/Auger Feeder: load the screw feeder with the boiler OFF (On/Off)
- Enable External Thermostat (On/Off)
- Stand By (On/Off)
- Timer Switch-off by Stand by (in minutes)
- Auxiliary boiler present (On/Off)

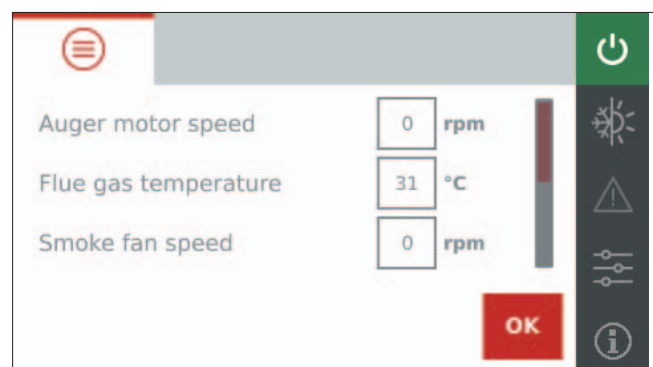






5. Information Menu

Operational information for the technician.



SPECIFIC AUTOMATIC FUNCTIONS

ANTIFREEZE: when the sensor detects a temperature water below 5°C, the circuit board actuates the circulator in continuous mode to stop the water freezing

ANTIBLOCKAGE: when the boiler is connected to the mains but is switched OFF, the circuit board actuates the circulator for 1 minute every 24 hours to impede the formation of encrustation.

LAGUNA P is an automatic boiler

- the brazier is self-cleaning
- the turbolators for cleaning the exchanger tubes are automatic

The boiler switches OFF after every 8 hours of operation (if there is no request for Domestic Hot Water) to ensure the braziers are clean.

Thanks to the above, the product requires only a monthly inspection



MAINTENANCE WARNINGS

- **Before doing any maintenance, disconnect the appliance from the mains.**
- **Regular maintenance is essential to keeping the appliance in good working order.**
- **Failure to service the product properly will prevent it from working properly.**
- **Any problems due to failure to service the stove will void the warranty.**
- **Do not dump the cleaning residue into the pellet tank.**
- **Do not make unauthorised modifications.**
- **Use original spare parts. Using non-original parts voids the warranty.**
- **Do not vacuum up hot ash; this damages the vacuum cleaner and may cause a fire.**

SEASONAL MAINTENANCE

(to be carried out by the technical assistance centre)

This consists in cleaning the stove inside and out.

If the product is used intensively, we recommend cleaning the fumes duct and flue every 3 months.

You should clean the chimney system at least once a year (check local regulations for details).

If you fail to regularly clean and inspect the system, there is an increased risk of the chimney pot catching fire.

SUMMER SHUTDOWN

During the period of disuse, keep the boiler doors, hatches and covers closed.

We recommend emptying out the pellet tank.

SPARE PARTS

for any spare parts, contact your reseller or technician. Using non-original spare parts may damage the appliance and relieves Edilkamin of all liability for damage resulting therefrom.

DISPOSAL

At the end of its service life, dispose of the product in accordance with applicable regulations.

MONTHLY CHECK

Open the hatch and ensure:

- the level in the ash and empty if necessary;
- cleaning the burner

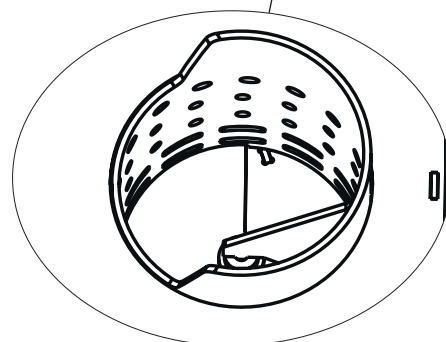
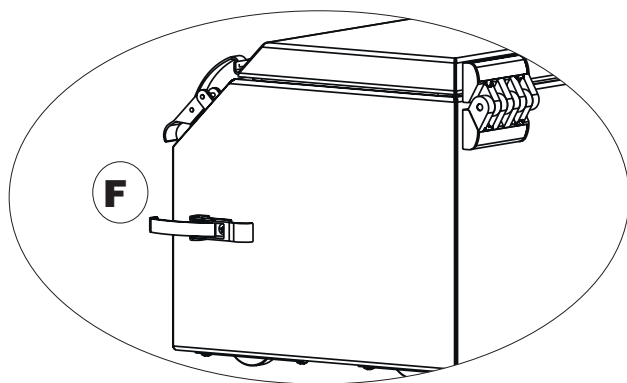
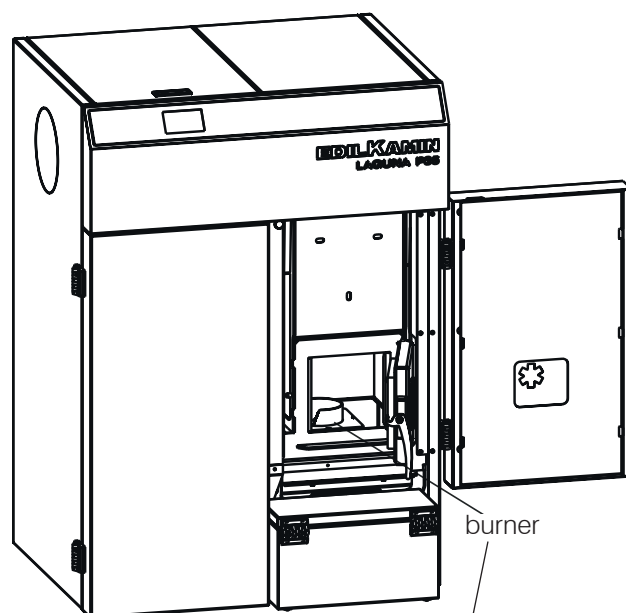
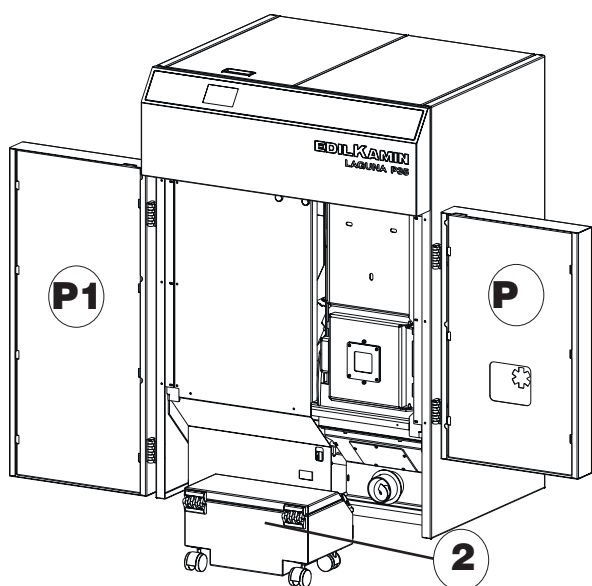
The single internal refractor is the upper deflector which must not in any way be handled, unless it is by the technician at the end of the season.

TO REMOVE THE ASH PAN:

- open both front doors (**P e P1**)
- unhook the stop (**F**) located to the left of the pan (facing the front of the product);
- remove the ash pan (**2**)

TO CHECK THE CONDITION OF THE BURNER:

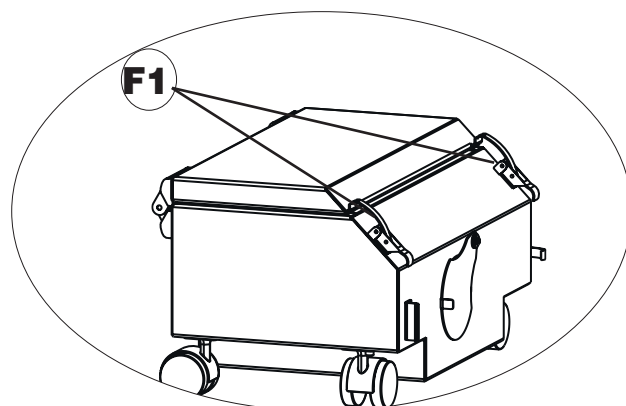
- Open the doors (**P**);
- BEFORE opening the burner, please control the condition



If the pan is not properly reinserted, the boiler will not operate, thanks to a micro switch which detects the position of the pan.

To open the ash pan:

- unhook the two upper stops (F1)



If problems occur, the product shuts itself off automatically.

The display will show the reason (see below).

Do not disconnect from the power supply.

To start the product up again, allow the shut-down procedure to complete, then press the ON/OFF key on the panel.

Before starting the product up again, check the reason for the shut-down and CLEAN the furnace.

SHUTDOWN MESSAGES AND THEIR SOLUTIONS:

MESSAGE	PROBLEM	SOLUTION
H01	displays when the combustion air intake is below the set level	<ul style="list-style-type: none"> • Ensure the furnace door is closed • Check that the stove, flue and combustion air conduit are clean.
H02	displays when the logic board is not detecting the right fumes fan speed	<ul style="list-style-type: none"> • Contact the technician
H03	displays when the thermocouple detects a fume temperature lower than the set value and interprets this as the absence of flame	<ul style="list-style-type: none"> • Check that there are pellets in the tank • Contact the technician
H04	displays when ignition times out unsuccessfully	<p>There are two possibilities:</p> <p>NO flame:</p> <ul style="list-style-type: none"> • Check that the brazier is properly seated and clean • Check that there are pellets in the reservoir and in the brazier • Use a bit of solid paraffin to ignite the stove (contact the technician first) <p>Flame present:</p> <ul style="list-style-type: none"> • Contact the technician
H05	Shut down due to exceeding water temperature	<ul style="list-style-type: none"> • Please check any black out and in case contact the technician
H06	displays when the logic board determines that the fumes thermocouple is broken or disconnected	Contact the technician
H07	Shut-down due to exceeding maximum fumes temperature.	<ul style="list-style-type: none"> • Check the type of pellet (contact the technician if in doubt) • contact the technician
H08	Switching OFF due to excessive overheating of the product	<ul style="list-style-type: none"> • check the ash box is positioned correctly • contact the technician

MESSAGE	PROBLEM	SOLUTION
H09	Shut-down due to gearmotor failure.	<ul style="list-style-type: none"> Contact the technician
H10	Switching OFF due to the intervention of the safety pressure switch.	<ul style="list-style-type: none"> Ensure the stove and flue are clean. Contact the technician
H11	Switching OFF due to circuit board overheating	<ul style="list-style-type: none"> Contact the technician
H12	Room temperature sensor failure.	<ul style="list-style-type: none"> Contact the technician
H13	Boiler temperature sensor reading failure	<ul style="list-style-type: none"> Contact the technician
H14	Puffer temperature sensor reading failure	<ul style="list-style-type: none"> Contact the technician
H15	Switching OFF due to the intervention of the water safety thermostat	<ul style="list-style-type: none"> Contact the technician
H16	Switching OFF due to the intervention of the water side pressure switch	<ul style="list-style-type: none"> Ensure the boiler contains water under pressure, read the pressure gauge Contact the technician
H17	Shut down due to an error in the cleaning of the burner	<ul style="list-style-type: none"> Please check and in case contact the technician

In the event of a black out:

Condition	Behaviour of the boiler when power is restored
Black Out Duration < 10 secondes	resumption of operation in progress
Black Out Duration > 10 secondes with boiler ON or in the ignition stage	Restarts the current operation after having completed the shut-down cycle
Black Out Duration > 10 secondes with boiler in process of switching OFF	resumption of process of switching OFF

If automatic cleaning does not start:

- check that the furnace door is closed

MESSAGES WHICH DO NOT SHUT THE STOVE DOWN, BUT ARE SIMPLY WARNINGS

Service	Appears within the first twenty seconds of ignition, after the product has burned the number of kg input by the technician during first ignition.	<ul style="list-style-type: none"> Contact the technician
Red icon near Fault List	It appears in case of problem in automatic cleaning	<ul style="list-style-type: none"> Contact the technician

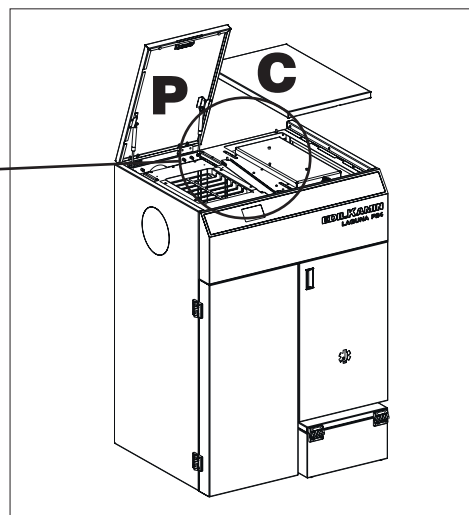
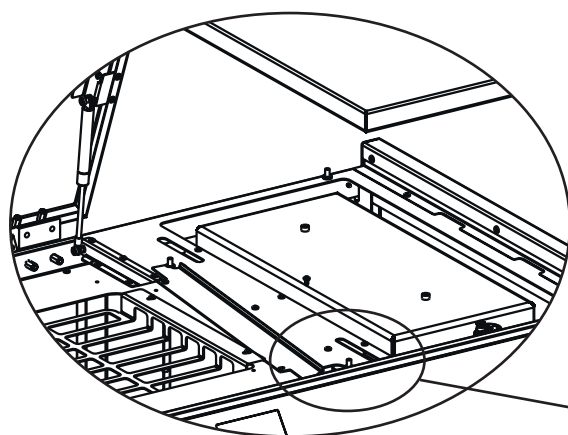
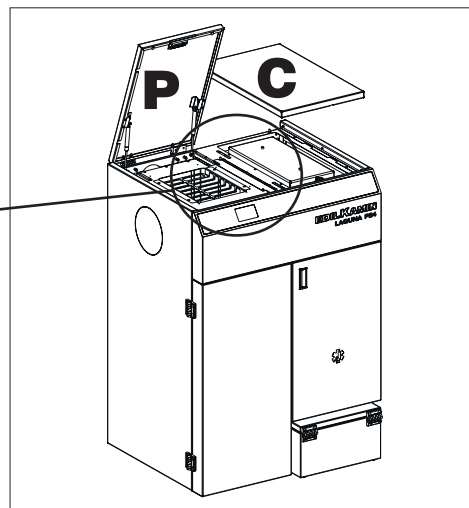
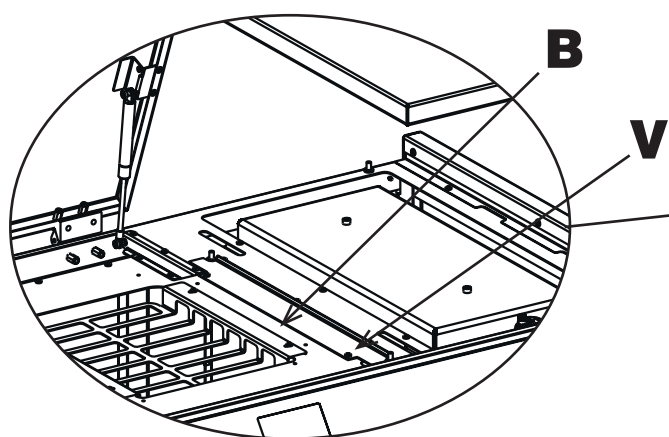
SAFETY THERMOSTAT

If pellet loading fails, especially after a power failure, check whether the safety thermostat has intervened **(A)**. If the temperature is too high, it switches OFF the product by cutting off the power supply to the gear motor.

To get to the thermostat:

- open the pellet trap door and the cover beside (C)
- Remove the screw (V) in order to turn softly the bracket (B)

If the thermostat is activated, it must be reset pressing softly with a thin object.





küttesüsteemid • müük • paigaldus • hooldus
tel +372 442 0222 / +372 434 1000 • info@cerbos.ee
Paide mnt 7, Pärnu 80042, Eesti • www.cerbos.ee



www.edilkamin.com

cod. 941309-GB 12.16/G