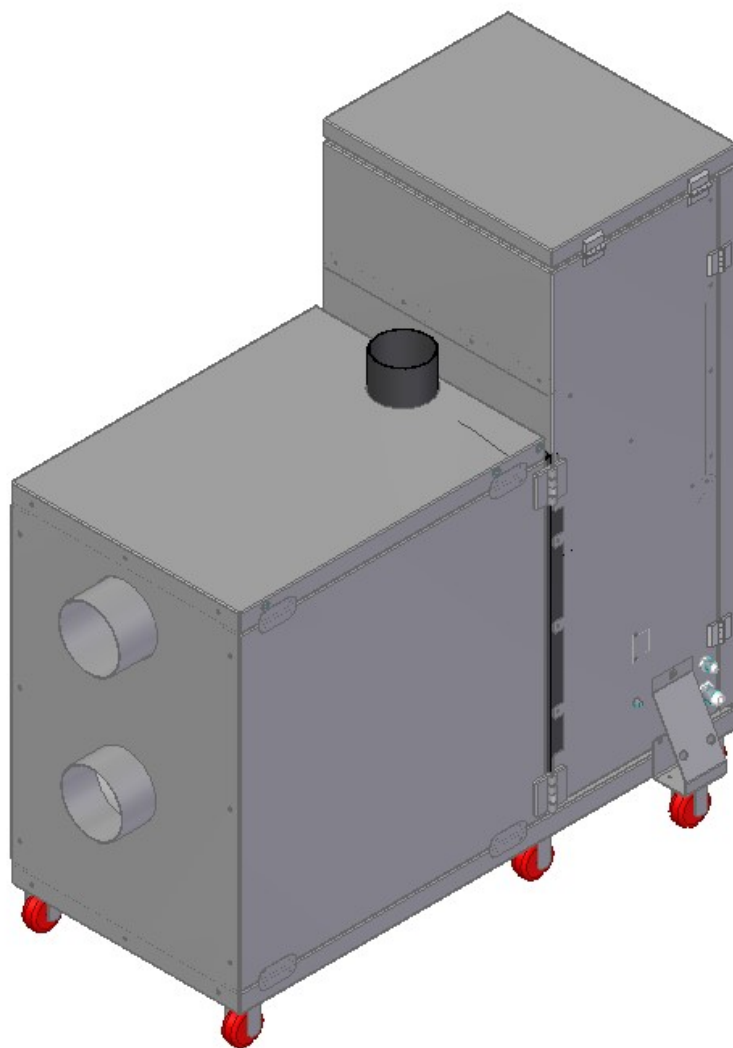




# **TURBOPELLET** **CS THERMOS**

**OUTDOOR HEAT GENERATOR**



**USE & MAINTENANCE MANUAL**

Dear Customer,

Thank you for choosing a **CS THERMOS** product and welcome you to our world of pellet heating.

We remind you that all our products are entirely built in Italy with high quality materials and are carefully tested in accordance with safety regulations.

In addition to this guarantee of quality and comfort, there is a strong innovation.

An electronic board is used to manage an automatic cleaning system that keeps the burner always clean, thus achieving great efficiency and reliability of use.

The modulation operation varies depending on the set room temperature and thus allows for optimal room heating. During the initial ignition phase (about 10 min) the burner is automatically filled with fuel while the heating elements overheat and ignite the flame. Subsequently, after the presence of flame has been detected through the combustion fume sensor, normal operation starts which, thanks to the microprocessor, allows the fuel supply to be varied, thus obtaining flame modulation.

The electronic board continuously monitors the temperature sensors, electric motors and safety devices and, in the event of any anomaly, blocks their operation by signalling it on the smart remote control (see paragraph alarm codes).





















The heating of the room is guaranteed by a variable air flow depending on the operating power.



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## 1. SAFETY WARNINGS

	<b>Turbopellet must be installed on the outside of any enclosed structure.</b>
	<b>When not in use, Turbopellet should be disconnected from the power supply and stored in a dry, closed place, with temperatures between 0 and 30 °C, and with an empty pellet tank.</b>
	<b>When Turbopellet is in operation, the outside temperature must vary between a minimum of -10°C and a maximum of 20°C.</b>
	<b>Before being unplugged and stored for end of use, Turbopellet must have been switched off for at least 3 hours.</b>
	<b>Turbopellet is a secondary, temporary heating system that cannot be installed as a replacement for the main heating system.</b>
	<b>DO NOT use fuels other than wood pellets class A1 and A2 DIN PLUS.</b>
	<b>DO NOT use any flammable liquid to ignite Turbopellet.</b>
	<b>DO NOT turn on the Turbopellet in case any component is damaged.</b>
	<b>DO NOT open the combustion chamber during operation for any reason.</b>
	<b>DO NOT disconnect the electrical power supply by unplugging it while the Turbopellet is operating.</b>
	<b>Use caution when Turbopellet is in operation – hot parts can cause burns. Keep out of reach of children.</b>
	<b>Disconnect the power supply before carrying out any maintenance or cleaning.</b>
	<b>DO NOT put your hands inside the tank during operation.</b>
	<b>During operation, all 4 lever locking systems of the appliance must always be closed.</b>
	<b>DO NOT throw unburned pellets into the tank – there is a risk of fire.</b>
	<b>DO NOT throw pellets into the crucible by hand, especially in the presence of embers or flames.</b>
	<b>Possible unpleasant odours during operation can be caused by the type of pellet.</b>
	<b>Possible noise during operation is normal, as it is a result of settling of the assembled parts.</b>
	<b>Clean the external surfaces of the Turbopellet when the appliance is cold, using a non-abrasive detergent (for glass) and a cotton cloth. Do not use pressure washers or water jets.</b>
	<b>Place a metal panel under the Turbopellet in case you need to protect the floor from soot that may fall from the chimney.</b>

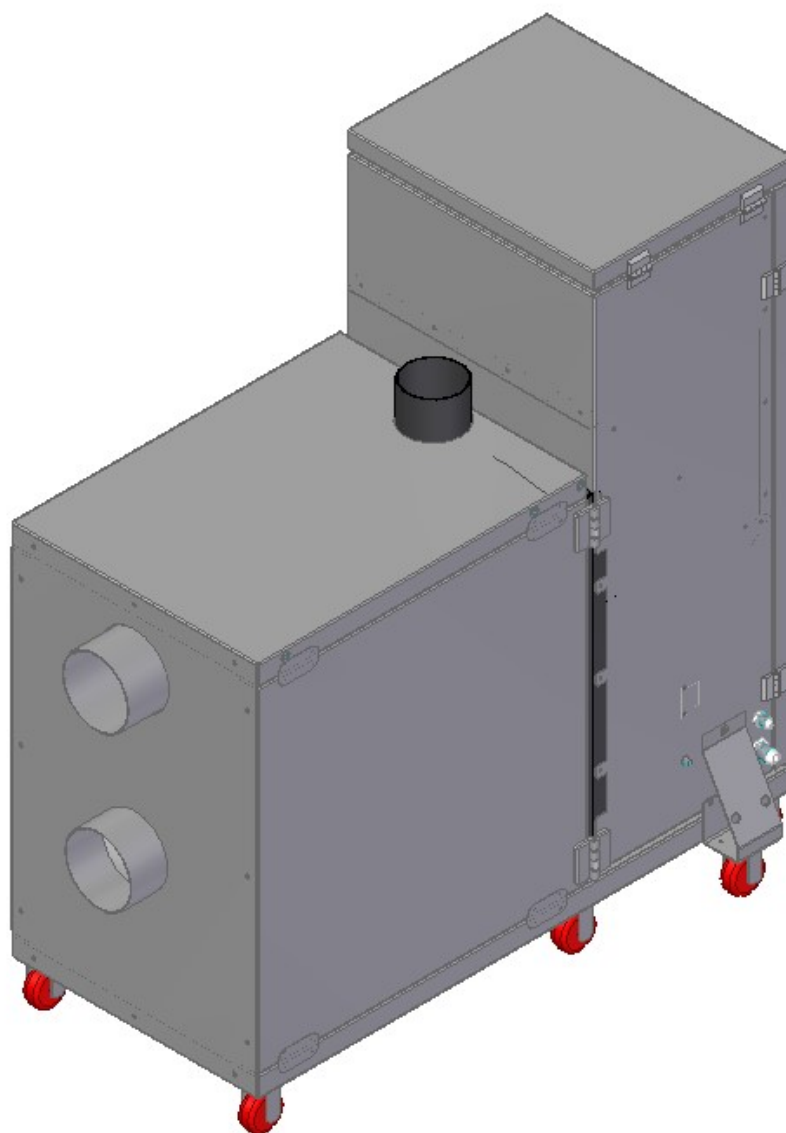
## 2. PRODUCT DESCRIPTION

Turbopellet is equipped with an electronic combustion operation and control board and can modulate the power according to the settings made through the smart remote control, to better adapt to the heat demands of the environment.

During the initial ignition phase (about 10 min) the crucible is automatically filled with fuel, while the two heating elements overheat and ignite it. Subsequently, after the presence of flame has been detected through the flue gas probe, normal operation starts which, thanks to the probe integrated in the remote control, allows the fuel supply to be varied, acting on the auger motor and obtaining flame modulation.

At any time, the electronic board controls the sensors and safety devices and, in the event of any anomaly, will block the operation by signalling it via the remote control (see paragraph on alarm codes).

The heating of the room is guaranteed by an air flow, which passes through the tube bundle of the heat exchangers, charging itself with its heat; the air flow varies depending on the operating power. Turbopellet is a watertight product, in which the recirculation of hot air has an independent path.



### 3. PRODUCT ACCESSORIES

Turbopellet has several accessories on request that can be supplied as a complement (highlighted in a darker tone in the drawings below).

Turbopellet and its accessories are all in RAL 7035 grey colour.

Figure A: **METAL AIR GRILL** - item 1832474

Figure B: **FILTER FOR ROOM AIR PURIFICATION** – item 1905845

Figure A+A: Configuration with 2 air grills

Figure A+B: configuration with 1 air grill and 1 air purification filter

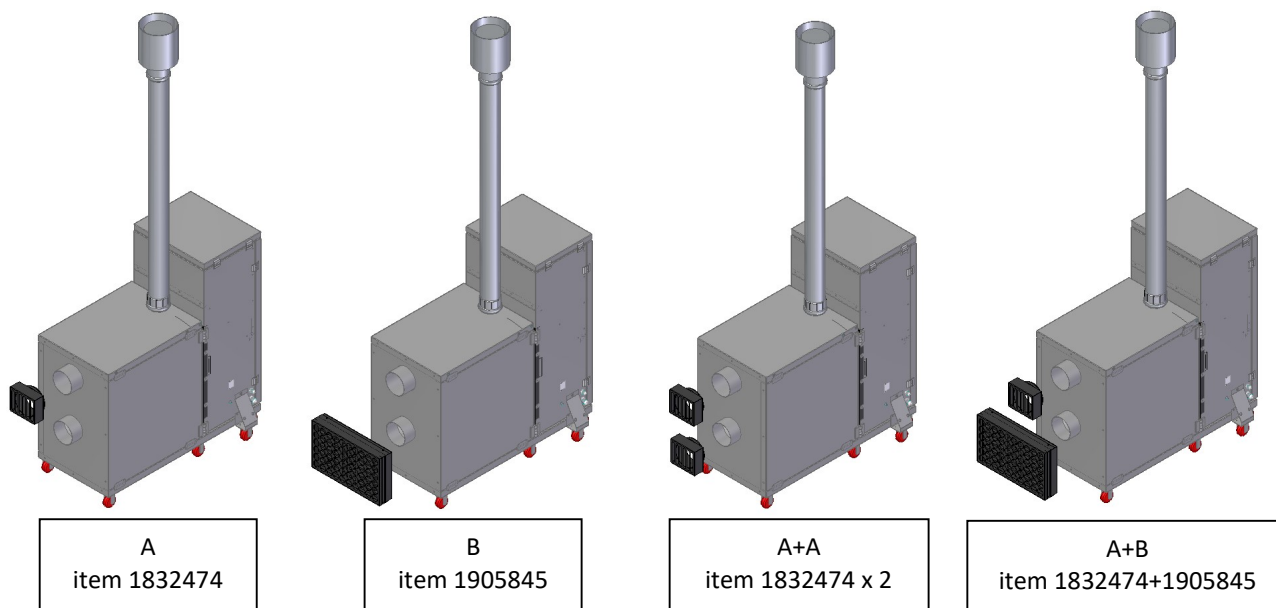
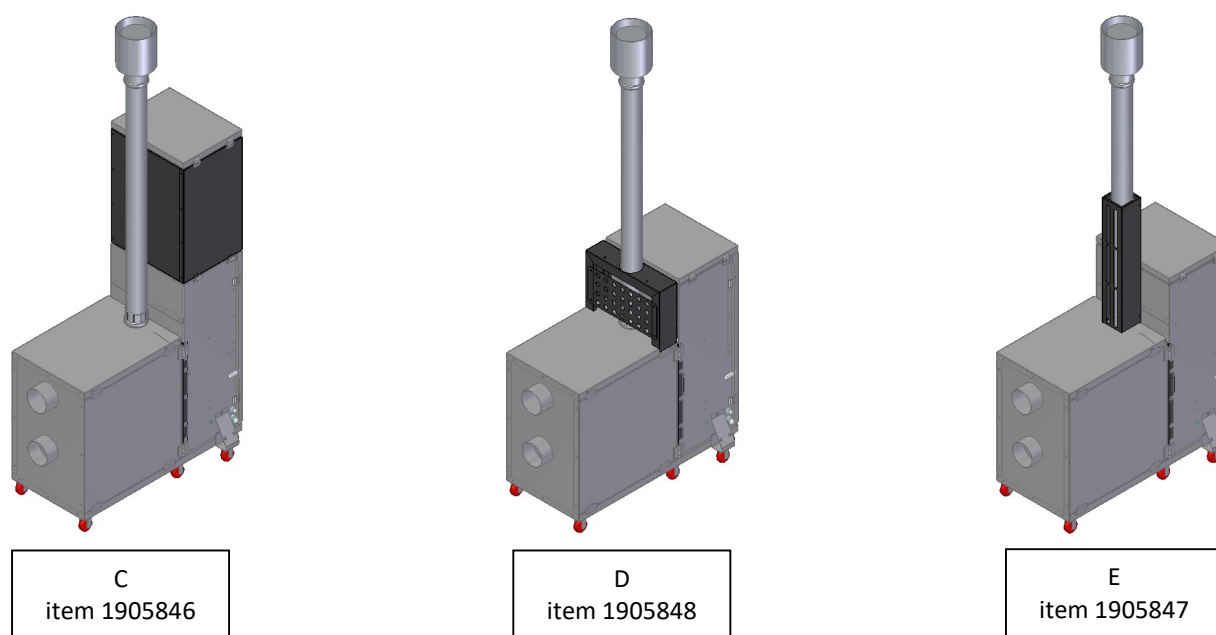


Figure C: **TANK EXTENSION** - item 1905846

Figure D: **FLUE GAS OUTLET SUPPORT** – item 1905848

Figure E: **ANTI-SCALD PIPE PROTECTION** – item 1905847



## Features of accessories on request

### 1 - METAL AIR GRILL – item 1832474

The air grill, to be placed in the HOT AIR OUTLET and COLD AIR INLET vents, is a metal grill that, in addition to being more durable than the plastic grills on the market, has been designed to allow optimal air passage.

### 2 - FILTER FOR ROOM AIR PURIFICATION – item 1905845

Thanks to this filter, it is possible to filter the air in the room, which will be purified from the dust that is normally present.

It will be possible, as often as you deem most appropriate, to remove the filter from its metal housing and clean it, using lukewarm water or compressed air.

Once cleaned, the filter can be repositioned, but only after it is completely dry.

It is important to keep the filter clean so as not to obstruct the passage of air.

### 3 - TANK EXTENSION – item 1905846

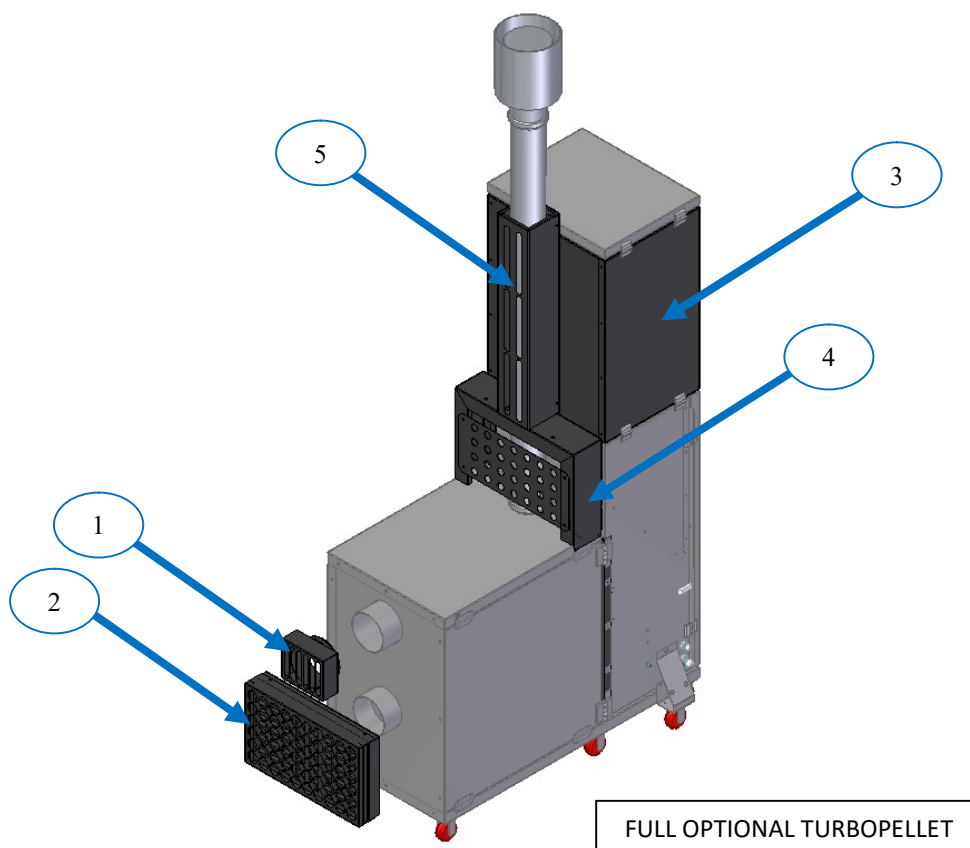
This extension of the standard tank allows an extension of the total capacity of the pellet tank from 18 to 50 kg total, thus increasing the operating autonomy of the product.

### 4 – FLUE GAS OUTLET SUPPORT – item 1905848

If the length of the flue gas pipe is more than 1 linear meter, it is a must to install this accessory to ensure optimal anchoring of the tube to its seat.

### 5 - ANTI-SCALD PIPE PROTECTION – item 1905847

This accessory is useful for encircling the flue gas pipe and ensuring protection from its heat, especially in the presence of children.



## 4. RECEIVING THE APPLIANCE

Upon receipt of the equipment, it is a good idea to check the complete integrity of the packaging that contains it. If there is any visible damage or if any parts are missing, do not proceed with the installation and notify the Manufacturer immediately.

If there are no anomalies in the product, you can safely proceed with the installation.

Handle the equipment according to the manufacturer's instructions on the packaging and in this manual. Always use personal safety protection.

The means and mode of transport must be chosen according to the weight and size of the equipment. Any type of handling must ensure the safety of the people directly involved in the installation.

## 5. TRANSPORT & HANDLING

### Lifting

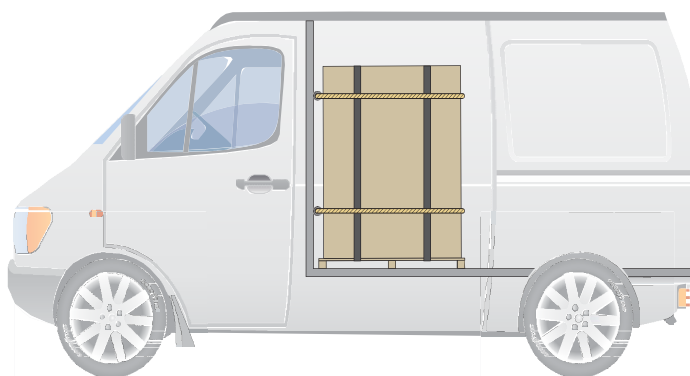
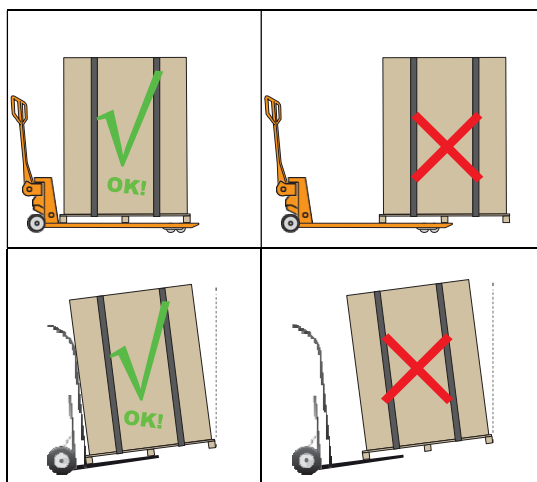
The equipment can be handled with a pallet truck or trolley of adequate capacity.

The area in which you operate must remain perfectly clear of objects or people who are not involved in the transport operation.

### Lifting by trolley or pallet truck

If the transport is carried out by pallet truck, make sure that the vehicle is suitable for the weight and size of the packaging. Insert the forks at the points intended for handling (usually in a central position) to keep a balanced centre of gravity of the load. Carry the equipment carefully, avoiding abrupt manoeuvring.

If you are transporting a trolley, make sure that the trolley is strong enough to support the weight of the equipment and that it can be transported safely to prevent it from falling.



### Transport

If the transport is carried out by means of a van, the equipment must be well secured inside it by securing it with ropes to prevent it from moving during handling.



## Unpacking

It is recommended to unpack the various equipment after transporting it to the place of its installation and only at the time of installation. This operation must be carried out using all possible personal protective equipment for the safety of people (gloves, safety shoes, etc.).

Do not leave the packaging unattended, it is potentially dangerous for children and animals (danger of suffocation).

Some packaging materials can be kept for future use (wooden crates, pallets, etc.), while non-reusable ones (e.g. polystyrene, strapping, etc.) must be properly disposed of, in accordance with the regulations in force in the country of installation: this will protect the environment!

After unpacking, check what you have received: each shipment is accompanied by a transport document that contains the list and description of the pieces sent. Then check the presence and integrity of all components, in case of problems contact the Manufacturer.

Pending installation, components and attached documents should be stored in an area with the following characteristics:

- be dedicated solely to the storage of components;
- be covered and sheltered from atmospheric agents (preferably prepare a closed area), with temperature values not lower than 0°C;
- be accessible only to assembly operators;
- have stable flooring and be able to support the weight of the equipment (check the load rating);
- be free of other components, especially if potentially explosive/incendiary/toxic.

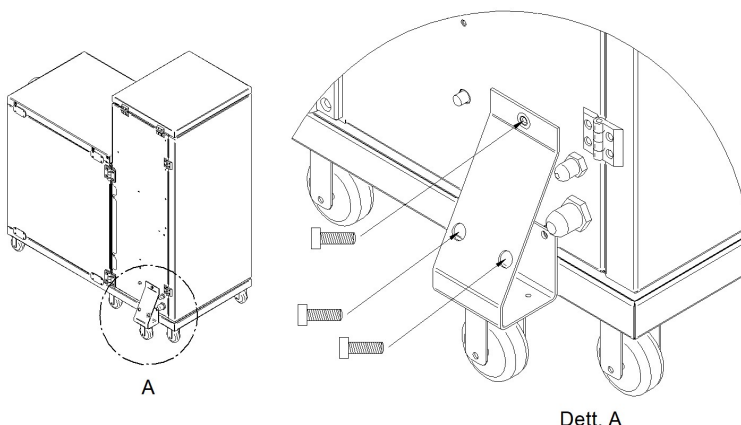
If it is not possible to proceed with the installation immediately, periodically check that the above conditions are guaranteed in relation to the storage area.

## Anti-tip wheel



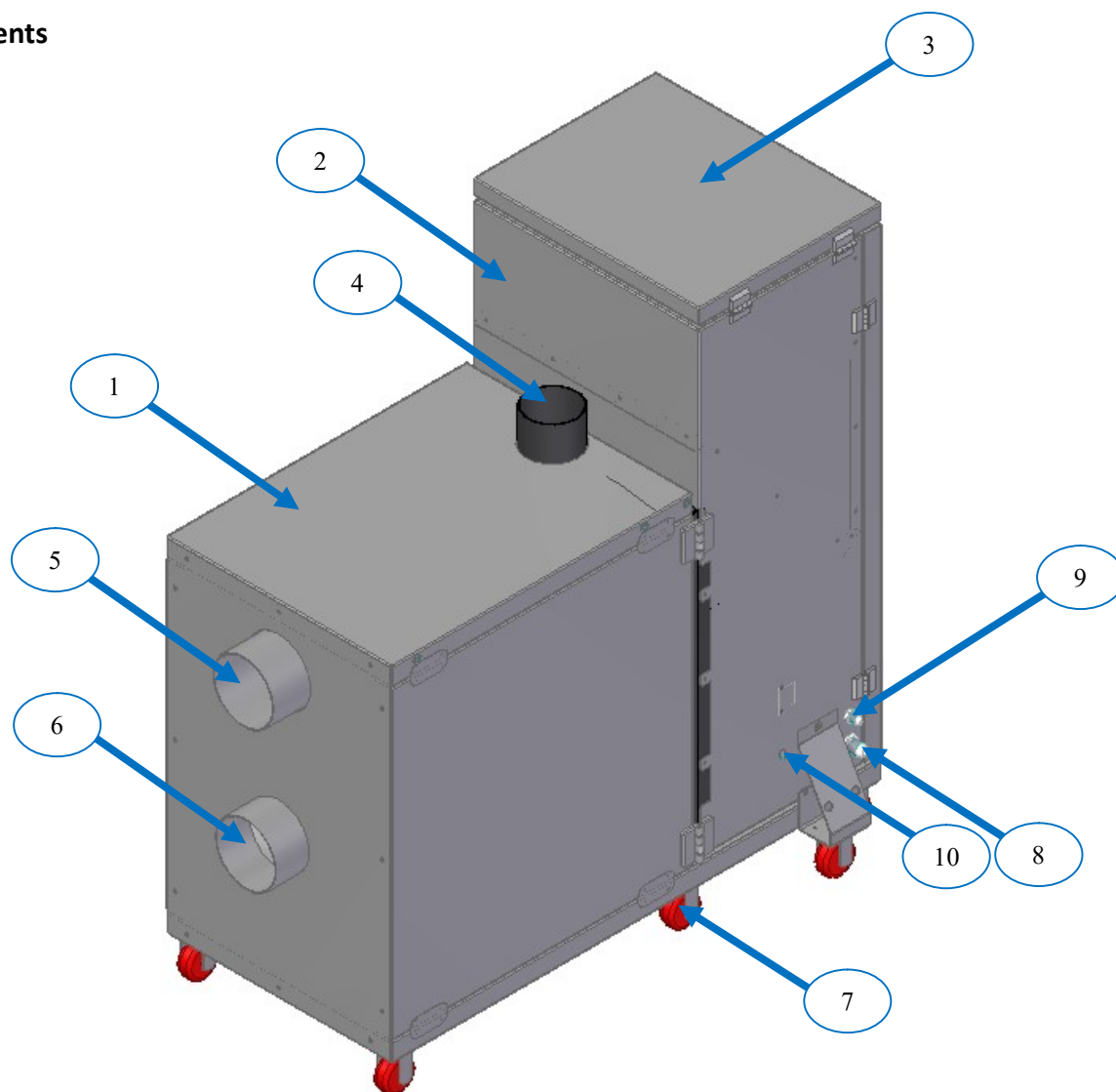
**An anti-tipping wheel is inserted as standard inside the pellet tank, which must be connected at the time of installation, following the instructions indicated in the drawing below.**

This wheel is useful for keeping the appliance on axis when the combustion chamber is opened to carry out routine cleaning and emptying of the ash pan.



## 6. PARTS DESCRIPTION

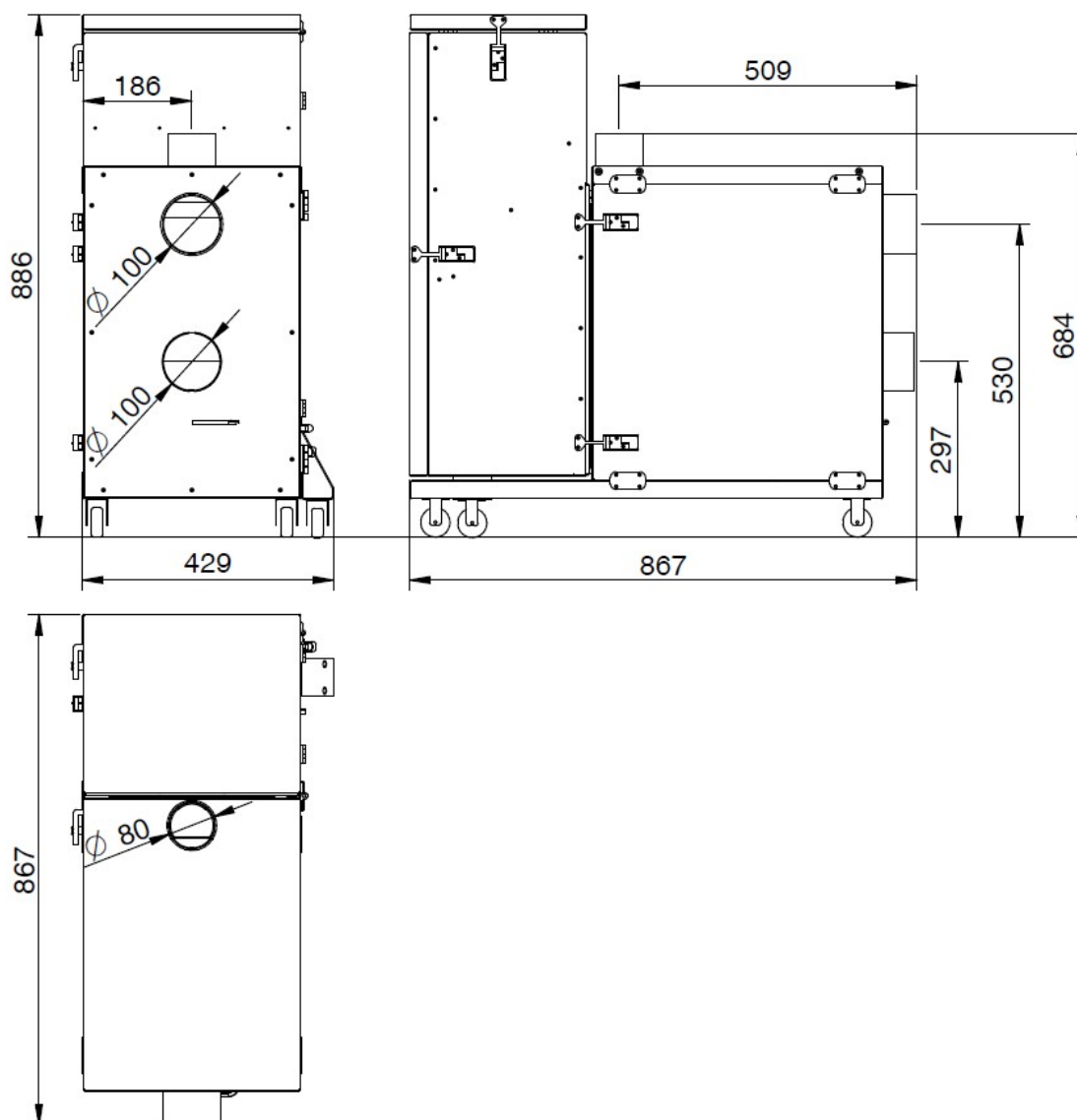
## Components



- 1=COMBUSTION CHAMBER
- 2=BURNER
- 3=PELLET TANK
- 4=FLUE GAS OUTLET
- 5=HOT AIR OUTLET
- 6=COLD AIR INLET
- 7=WHEELS
- 8=POWER SUPPLY
- 9=CABLE GLAND (thermostat/room probe predisposition)
- 10=SAFETY THERMAL

## 7. OVERALL DIMENSIONS

### Technical Drawings



## 8. TECHNICAL DATA

### Pellet tank

Turbopellet is equipped with an internal tank for charging pellets, protected by an airtight lid. To carry out the loading, it is necessary to unlock the lever closure of the lid, raise it and tip the pellets inside the tank. Once the pellets are loaded, you need to lock the tank lid again with its lever closure.



All the lever closures in the Turbopellet can be locked by a padlock, to prevent any tampering by unauthorized persons and children.






The capacity of the tank is 18Kg; if an optional accessory called "Tank Extension" is installed, the capacity of the tank reaches 50Kg.

## Data plate of the appliance

The data plate is located in the control compartment of the product. This provides important technical information: it is essential in the event of a request for maintenance or repair of the equipment. It is therefore recommended not to remove, damage or modify it.

Below is an example of a Serial Number plate and a description of the data reported:

  					
<b>1</b>	MODELLO	TURBOPELLET	NUMERO DI SERIE	BD-24-TUR	<b>8</b>
<b>2</b>	COMBUSTIBILE	PELLET	FREQUENZA NOMINALE	50 Hz	<b>9</b>
<b>3</b>	POTENZA MASSIMA AL BRACIERE	12,0 kW	TENSIONE NOMINALE	230V	<b>10</b>
<b>4</b>	POTENZA MINIMA AL BRACIERE	3,0 kW	ASSORBIMENTO IN ACCENSIONE	620 W	<b>11</b>
<b>5</b>	CONSUMO ORARIO (min/max)	0,9-2,4 Kg/h	ASSORBIMENTO IN FUNZIONAMENTO	90 W	<b>12</b>
<b>6</b>	CAPACITA' SERBATOIO PELLET	18,00 Kg	VOLUME RISCALDABILE m <sup>2</sup>	120 m <sup>2</sup>	<b>13</b>
<b>7</b>	PESO NETTO	70,80 Kg	VOLUME RISCALDABILE m <sup>3</sup>	80-350 m <sup>3</sup>	<b>14</b>
DISTANZA MINIMA DA MATERIALI INFIAMMABILI: 100cm SU TUTTI I LATI USARE SOLO I COMBUSTIBILI RACCOMANDATI - LEGGERE LE ISTRUZIONI D'USO					

- 1** Indicates the model of the appliance you have.
- 2** Indicates the type of fuel that can be used.
- 3** Indicates Kilowatts at maximum power.
- 4** Indicates Kilowatts at minimum power.
- 5** Indicates the minimum and maximum hourly consumption.
- 6** Indicates the capacity of the pellet tank.
- 7** Indicates the net weight of the appliance.
- 8** Indicate the Serial Number of your Turbopellet: period of year - year of manufacture - construction specifications.
- 9** Indicates the frequency of the current used by the product.
- 10** Indicates the operating electrical voltage of the product.
- 11** Indicates the power generated or absorbed during the ignition phase.
- 12** Indicates the power generated or absorbed during operation.
- 13** Indicates the volume that can be heated in square meters.
- 14** Indicates the volume that can be heated in cubic meters.

## Features

Turbopellet is a heating appliance to be installed outdoors only and is built to work exclusively with good quality wood pellets.

## Technical Data

Model or type: TURBOPELLET

Maximum power at the brazier: 12 kW

Minimum power at the brazier: 3 kW

Hourly consumption (min/max): 0.9 - 2.4 Kg/h

Pellet tank capacity: 18 Kg (extendable to 50 Kg)

Net weight: 70,80 Kg

Fuel: Beech or fir wood pellets class A1 DIN PLUS

Volume being heated: 80-350 m<sup>3</sup> / 120 m<sup>2</sup>

Flue gas outlet diameter: 80mm

Absorption during ignition: 620 W

Average absorption during operation: 90W

Power supply: V230~/50Hz



**This product can only be installed in open locations.**

## 9. FUELS

The characteristics of the wood pellets to be used are:

- Class A1 DIN PLUS
- Beech or fir wood
- Diameter 6÷8 mm, length approx. 5÷20 mm, moisture 8%
- Calorific value of 18200 kJ/kg.



**The Manufacturer assumes no responsibility for the use of pellets of inadequate quality and is not responsible for the consequent malfunction of the appliance.**



**Stack the pellet bags at a distance of at least 1 meter from the appliance, in a dry area sheltered from the elements.**

## 10. INSTALLATION

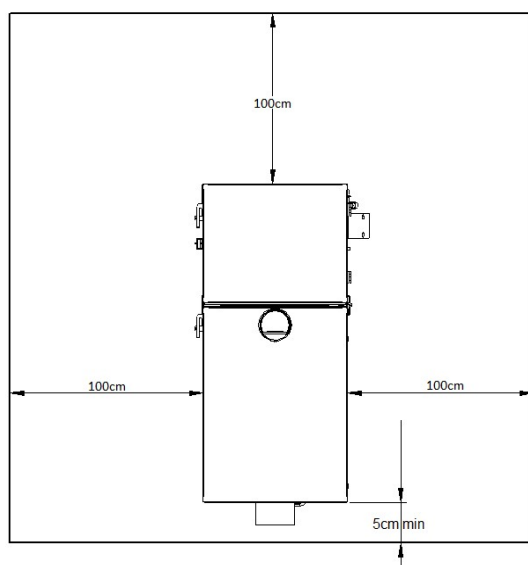
### Preinstallation



Before installing Turbopellet, it is a good idea to check that everything has been correctly arranged.

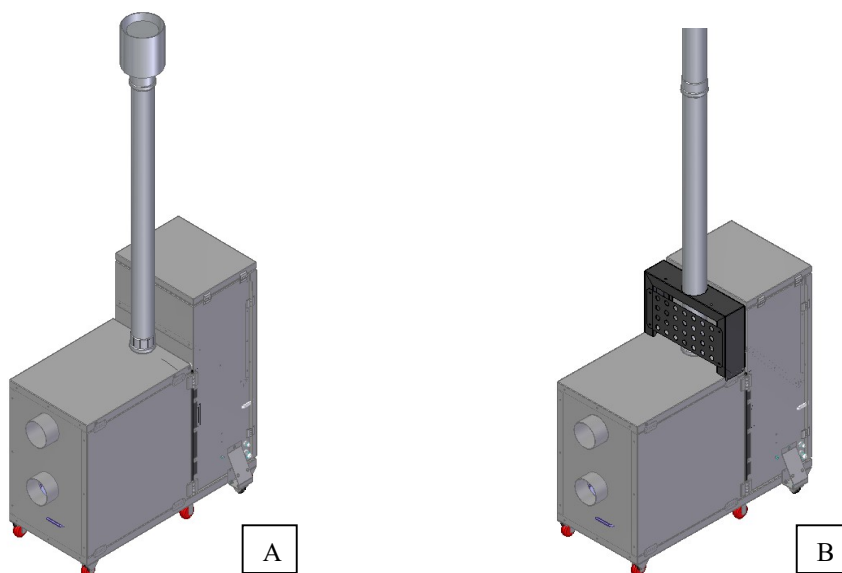
To this end, we indicate below the elements to check for a quick check during pre-installation:

- The support surface of the appliance must be level, heat-resistant and non-flammable.
- If the floor does not support the weight of the appliance, a sheet metal platform of the right size, 4 mm thick, must be placed on the bottom and a mineral-derived insulation (rock wool), with a nominal density greater than 80 kg/mc, must be applied to the floor.
- If Turbopellet is installed on a wooden floor or other flammable material, it is recommended to pre-insulate the base with a sheet metal with a thickness of 2 mm and dimensions greater than 100 mm all around the appliance.
- The flue gas outlet pipe must not be less than 80 mm in diameter.
- The installer must position the appliance taking into account the minimum height of respect from the walls or surrounding material; the surrounding spaces will also be used for easy access in case of maintenance (see figure below).
- Avoid installation near flammable walls or combustibles; in any case, keep a safety distance of at least 100 cm on both sides and at the rear.
- A thermal residual current circuit breaker must be set up upstream, which feeds the Turbopellet and intervenes in case of need.
- There is no flammable material around the installation area or under the Turbopellet.
- Turbopellet cannot be installed in closed and liveable areas, it must always be installed outside the home.
- Make sure that the expelled flue gas does not interfere with the surrounding houses: keep a distance of 10 meters.



### Free flue gas outlet (not fixed)

- It is necessary that the flue gas outlet consists of smooth pipes and fittings, assembled by means of suitable gaskets. Corrugated hoses must not be used.
- The smoke outlet must have a minimum length of 1 linear meter and a maximum of 3 linear meters; The drain must always be free and clean.
- For the terminal, use only a "barrel" windproof hat, as shown in figure (A) below.
- If the length of the flue gas pipe is greater than 1 linear meter, it is mandatory to install the accessory on request "flue gas outlet support" (figure B, item 1905848), to ensure optimal anchoring of the pipe to its seat.



### Connecting the air inlet and outlet pipes

To install the two inlet (cold air) and outlet (hot air) pipes, it is necessary to drill two holes in the wall with a minimum diameter of 110 mm, to allow easy passage of the 100 mm pipes.

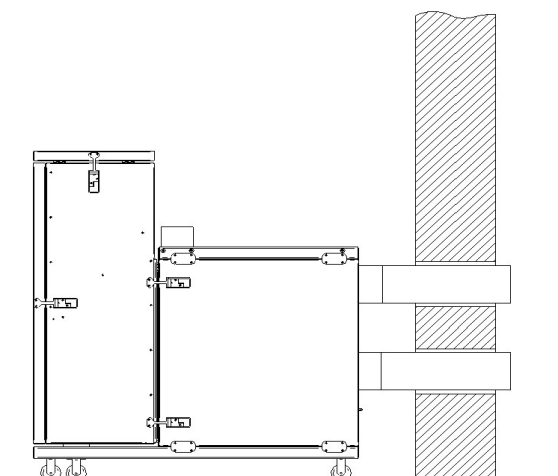


**Fireproof pipes with a diameter of not less than 100 mm must be used.**



**The wall where the two air holes are drilled must be made of fireproof material.**

To avoid heat loss, it is not recommended to extend the external pipe sections. On the other hand, it is recommended to install insulation both externally and internally, to improve the efficiency of the system.



## 11. ELECTRICAL CONNECTIONS

### Electrical connections

All appliances are equipped with an electrical power cable to be wired, i.e. without a plug: this allows, in case of special needs, to extend the power cable without having to cut the plug (a circumstance that would void the product warranty).

If the power cord needs to be replaced (e.g. if damaged), contact an authorized Technical Assistance Center (CAT).

Before making the electrical connection, make sure that:

- the electrical system is equipped with a 6A circuit breaker;
- the characteristics of the system are such as to satisfy what is indicated on the rating plate attached to the appliance (electrical power, nominal voltage, etc.);
- the system is equipped with an effective earthing connection in accordance with the standards and provisions of the law in force (earthing is mandatory by law);
- the power cord, at any point of it, must not reach an overtemperature of 50°C above the ambient temperature. If you want a direct connection to the mains, it is necessary to interpose an omnipolar switch, with a minimum opening of 3mm between the contacts, sized for the electrical load shown on the rating plate and complying with the standards in force. The yellow/green ground wire must not be interrupted by the switch. The omnipolar socket or switch must be within easy reach once the equipment has been installed;

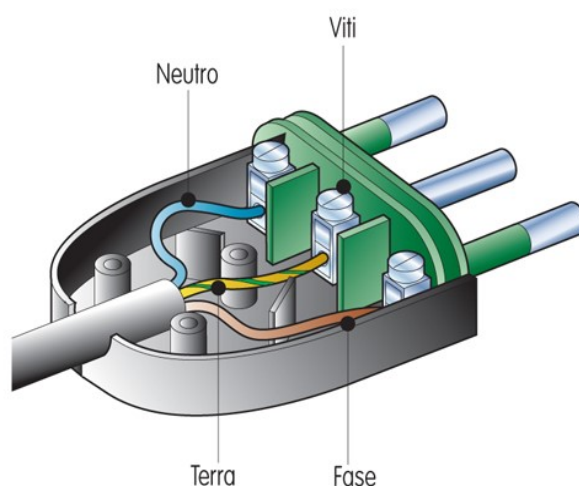
If the appliance is not to be used for a long time, disconnect the power supply.

The manufacturer declines all responsibility if the above described and the usual accident prevention regulations are not complied with.



### **Rely on an electrician for the following electrical socket connection operation**

On the side of the product there is a cable for the power supply. To supply electricity, simply connect the cable to a socket, as shown in the following image. The power supply must not be subjected to bad weather and must be connected in a dry place.



Before making the connection, make sure that the thermal differential switch is in the OFF position.



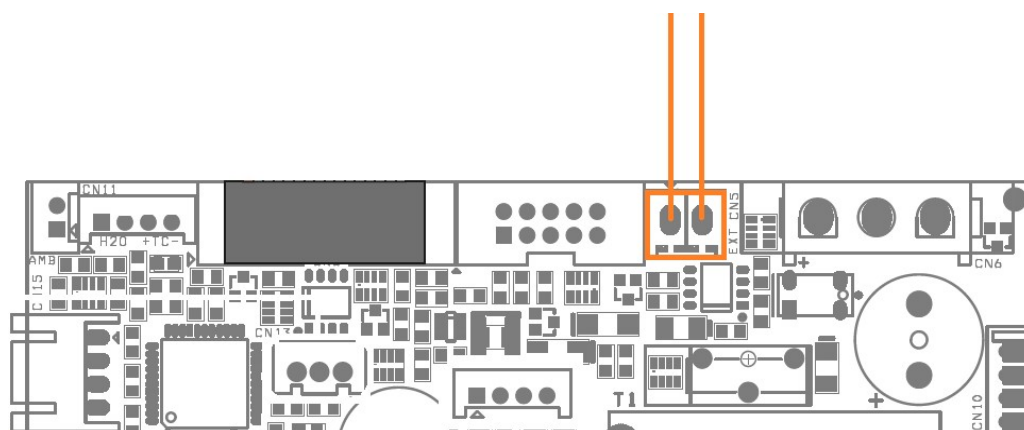
**⚠ Rely on an electrician for the following operation of connecting the room thermostat or room probe (optional)**

Before connecting the thermostat, make sure that the power supply has been disconnected (unplug).

It is possible to connect a room thermostat (optional), which detects the temperature in the area where the thermostat is installed, and which opens or closes the operating consent of the Turbopellet.

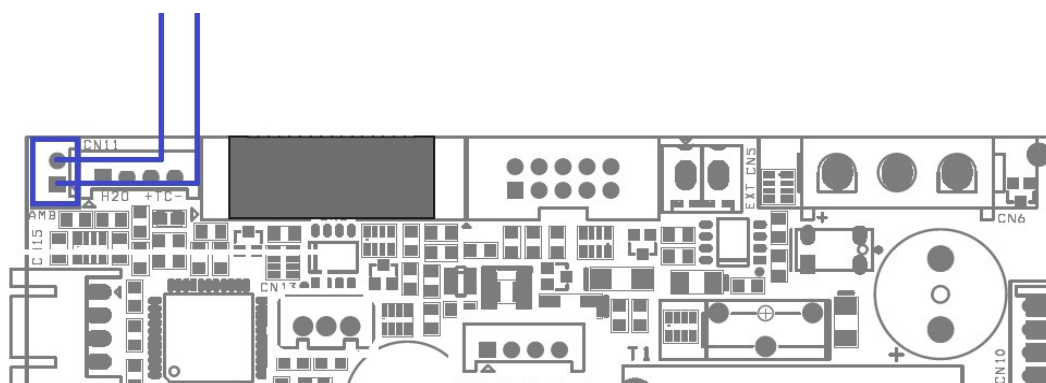
**⚠ Connect the room thermostat via a "dry contact" so as not to damage the electronic board.**

## ROOM THERMOSTAT CONTACT

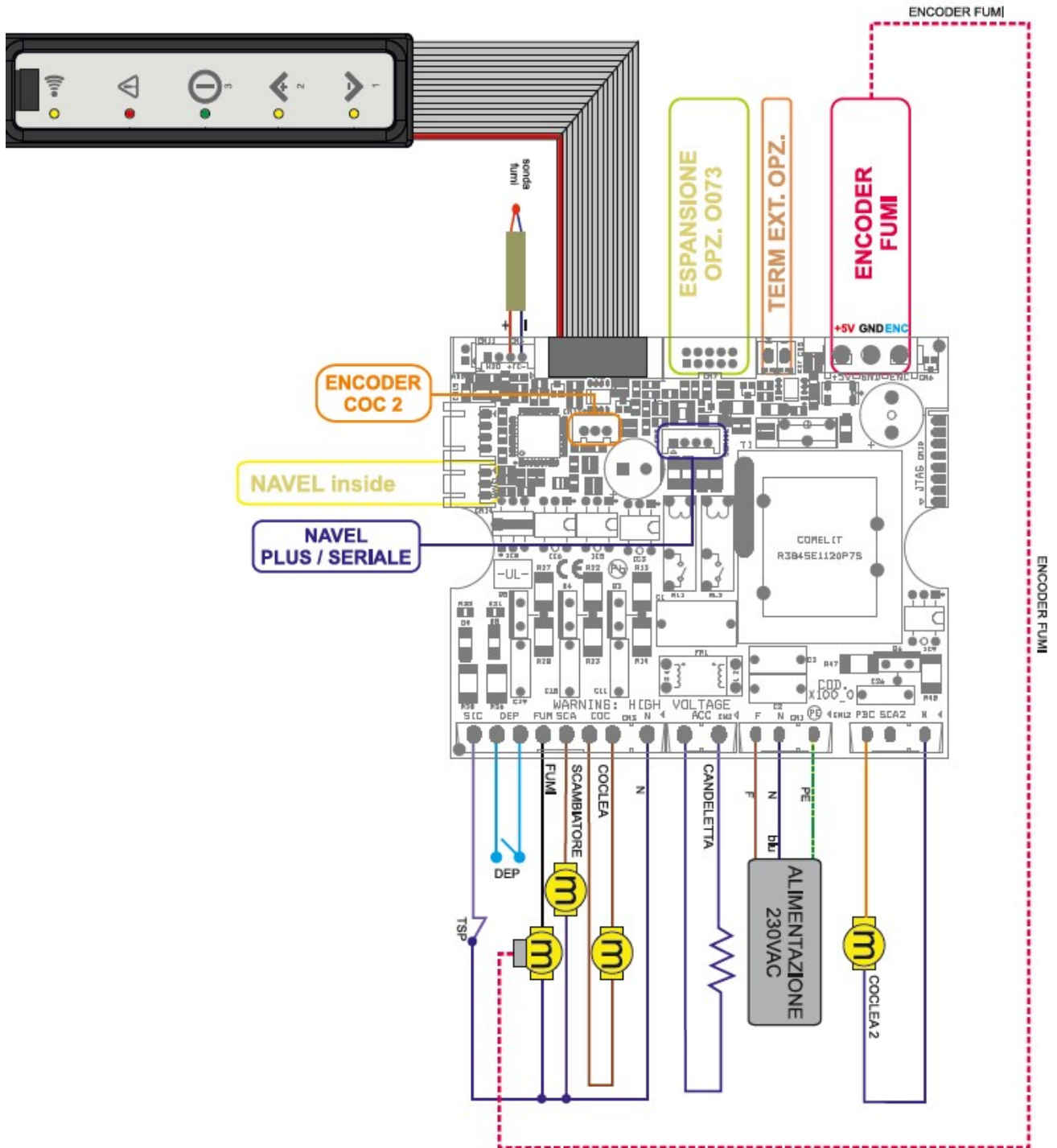


If, on the other hand, you are using the room probe, you must bring it inside the house.

## ROOM PROBE



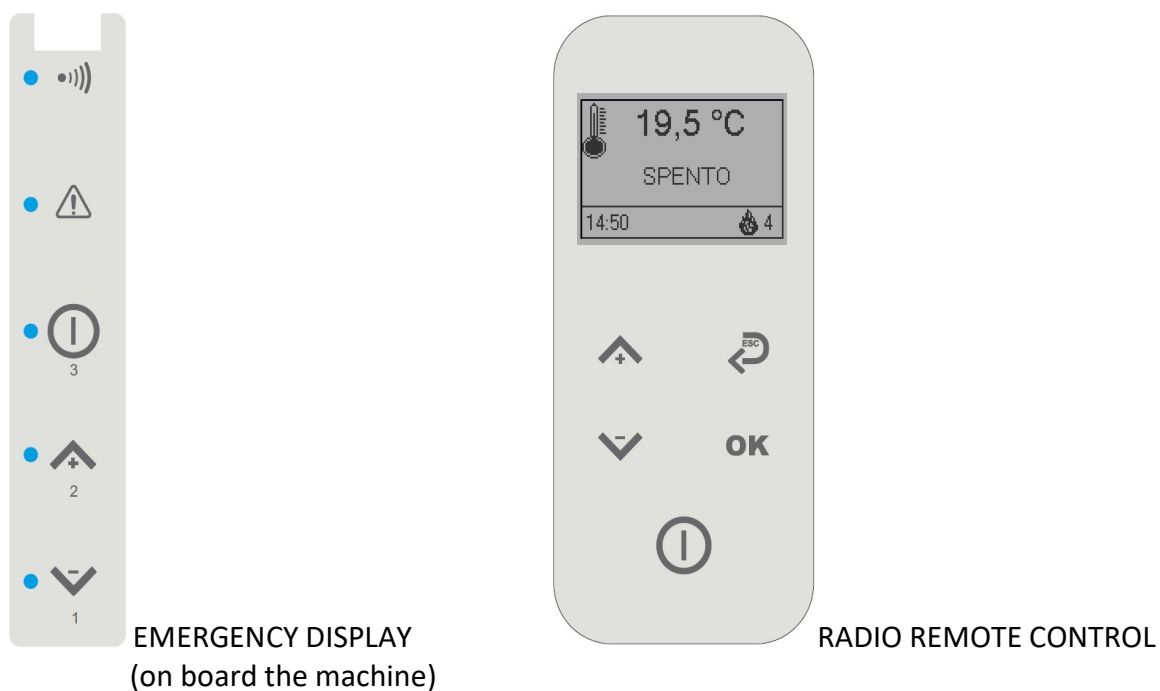
Electronic board



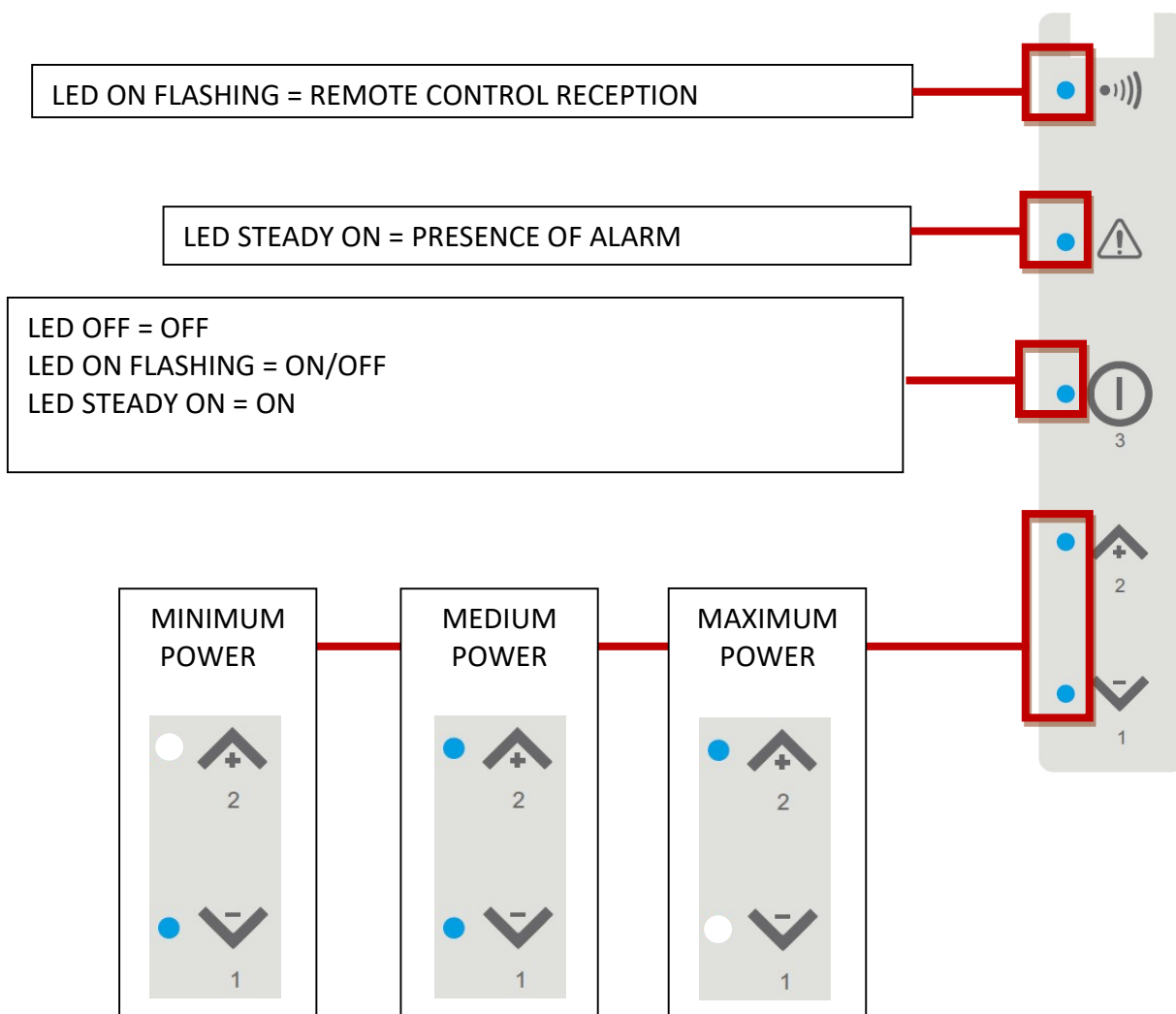
"NAVEL PLUS / SERIAL" is the connection to the Wi-Fi system (optional).

12. PROGRAMMING AND USE

Display



Led lights meaning of the emergency display



## Description of the radio remote control display button panel

**ON/OFF** = Start/stop (button must be pressed for approximately 1 second)

**+** = Increase value

**-** = Decrease value

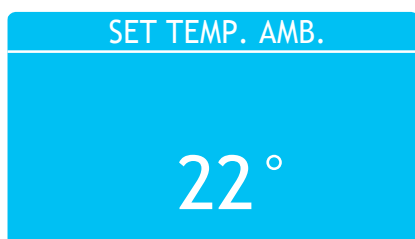
**OK** = Confirm

**ESC** = Exit



### Room temperature adjustment

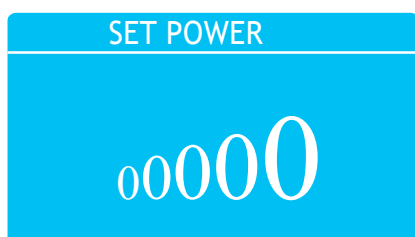
Press the + key to access this screen.



Using the +/- keys it is possible to select the desired temperature; to confirm the temperature press the OK button.

### Power Adjustment

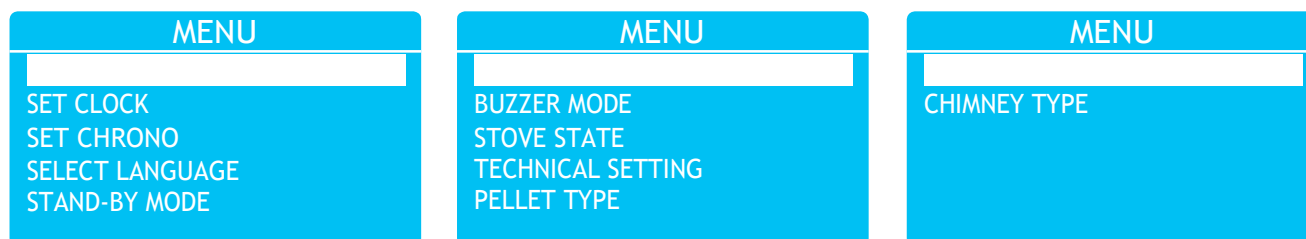
Press the - key to access this screen.



Using the +/- keys it is possible to select the desired power from 1 to 5; press the OK button to confirm the power.

## General Settings

Press the OK key to enter this screen.

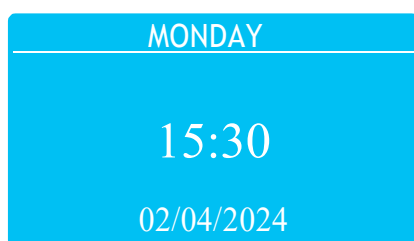


Using the +/- keys you can scroll through the various items; to select one, press the OK button.

Let's see them in detail below, in the order of appearance:

### Clock Set

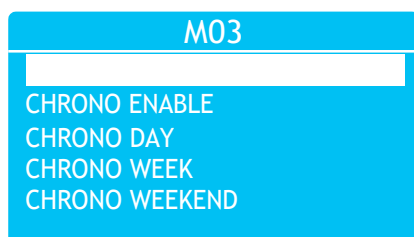
Scroll through the fields with the OK button, with +/- change the values; confirm and exit with the ON/OFF button.



Press ON/OFF to exit and return to the main screen.

### Chrono Set: Menu M03 - Chrono Set

Scroll through the fields with the OK button, with +/- keys change the values, confirm and exit with the ON/OFF button.



Using the +/- keys you can scroll through the various items; to select one, press the OK button.

Let's see them in detail below, in the order of appearance:

### Submenu M03-01 - Enable Chrono

The menu shown on the " **M03 chrono set**" display allows you to enable and disable all programmable thermostat functions globally.

To enable, press the OK button, and then press + or - to select ON or OFF. Confirm with the OK button.

### Submenu M03-02 - Daily Program

Once the "M03-02 daily program" menu has been selected, the + button scrolls through the various programming parameters of the daily chrono, including how to enable it.

It is possible to set two operating bands, the first with **START1 Day** and **STOP1 Day**, the second with **START2 Day** and **STOP2 Day**: the two bands are delimited by the times set according to the following table, where the OFF setting tells the clock to ignore the command. To change, use the - (**decrease**) and + (**increase**) keys, while to confirm press OK.

<b>PROGRAM DAY</b>			
<i>menu level</i>	<i>selection</i>	<i>meaning</i>	<i>possibles values</i>
M03-02-01	DAILY CHRONO	enable the daily chrono	ON/OFF
M03-02-02	START 1 Day	activation time	OFF-0-23:50
M03-02-03	STOP 1 Day	deactivation time	OFF-0-23:50
M03-02-04	START 2 Day	activation time	OFF-0-23:50
M03-02-05	STOP 2 Day	deactivation time	OFF-0-23:50

### Submenu M03-03 - Weekly program

The "**M03-03 Program Week**" menu allows you to enable/disable and set the weekly programmable thermostat functions. The weekly function has 4 independent programs. If you set OFF in the time field, the clock ignores the corresponding command.

The tables below summarize the **weekly program** function. To enter the next function and confirm the value, press the OK button. You can exit the menu by pressing the ON/OFF touch button.



**Carry out programming carefully, avoiding overlapping the activation and/or deactivation hours on the same day but in different programs.**

<b>WEEKLY CHRONO ENABLING</b>			
<i>menu level</i>	<i>selection</i>	<i>meaning</i>	<i>possibles values</i>
M03-03-01	WEEKLY CHRONO	Enable the weekly chrono	ON/OFF

<b>PROGRAM 1</b>			
<b>menu level</b>	<b>selection</b>	<b>meaning</b>	<b>possibles values</b>
M03-03-02	START PRG 1	activation time	OFF-0-23:50
M03-03-03	STOP PRG 1	deactivation time	OFF-0-23:50
M03-03-04	MONDAY PRG 1		on/off
M03-03-05	TUESDAY PRG 1		on/off
M03-03-06	WEDNESDAY PRG 1		on/off
M03-03-07	THURSDAY PRG 1		on/off
M03-03-08	FRIDAY PRG 1		on/off
M03-03-09	SATURDAY PRG 1		on/off
M03-03-10	SUNDAY PROG 1		on/off

<b>PROGRAM 2</b>			
<b>menu level</b>	<b>selection</b>	<b>meaning</b>	<b>possibles values</b>
M03-03-11	START PRG 2	activation time	OFF-0-23:50
M03-03-12	STOP PRG 2	deactivation time	OFF-0-23:50
M03-03-13	MONDAY PRG 2		on/off
M03-03-14	TUESDAY PRG 2		on/off
M03-03-15	WEDNESDAY PRG 2		on/off
M03-03-16	THURSDAY PRG 2		on/off
M03-03-17	FRIDAY PRG 2		on/off
M03-03-18	SATURDAY PRG 2		on/off
M03-03-19	SUNDAY PROG 2		on/off

<b>PROGRAM 3</b>			
<b>menu level</b>	<b>selection</b>	<b>meaning</b>	<b>possibles values</b>
M03-03-20	START PRG 3	activation time	OFF-0-23:50
M03-03-21	STOP PRG 3	deactivation time	OFF-0-23:50
M03-03-22	MONDAY PRG 3		on/off
M03-03-23	TUESDAY PRG 3		on/off
M03-03-24	WEDNESDAY PRG 3		on/off
M03-03-25	THURSDAY PRG 3		on/off
M03-03-26	FRIDAY PRG 3		on/off
M03-03-27	SATURDAY PRG 3		on/off
M03-03-28	SUNDAY PROG 3		on/off

<b>PROGRAM 4</b>			
<i>menu level</i>	<i>selection</i>	<i>meaning</i>	<i>possibles values</i>
M03-03-29	START PRG 4	activation time	OFF-0-23:50
M03-03-30	STOP PRG 4	deactivation time	OFF-0-23:50
M03-03-31	MONDAY PRG 4		on/off
M03-03-32	TUESDAY PRG 4		on/off
M03-03-33	WEDNESDAY PRG 4		on/off
M03-03-34	THURSDAY PRG 4		on/off
M03-03-35	FRIDAY PRG 4		on/off
M03-03-36	SATURDAY PRG 4		on/off
M03-03-37	SUNDAY PROG 4		on/off

### Submenu M03-04 - Weekend Program

It allows you to enable/disable and set the programmable thermostat functions on weekends (days 6 and 7, i.e. Saturday and Sunday).

To enable, press the OK button under "**chrono weekend**" and set "ON" via the - (decrease) or + (increase) button.

Using "**START 1 weekend**" and "**STOP 1 weekend**" you set the operating period for the day **Saturday**, while with "**START 2 weekend**" and "**STOP 2 weekend**" you set the operating period of the appliance for the day of **Sunday**.

<b>PROGRAM WEEKEND</b>			
<i>menu level</i>	<i>selection</i>	<i>meaning</i>	<i>possibles values</i>
M03-04-01	CHRONO WEEKEND	Enable the weekend chrono	ON/OFF
M03-04-02	STAR 1 WEEKEND	activation time	OFF-0-23:50
M03-04-03	STOP 1 WEEKEND	deactivation time	OFF-0-23:50
M03-04-04	STAR 2 WEEKEND	activation time	OFF-0-23:50
M03-04-05	STOP 2 WEEKEND	deactivation time	OFF-0-23:50

**TIP: To avoid confusion and unwanted startup and shutdown, run only one program at a time if you don't know exactly what you want to achieve.**

**Turn off the daily schedule if you want to use the weekly schedule.**

**Always keep the weekend schedule off if you are using the weekly schedule in programs 1, 2, 3, and 4.**

**Activate the weekend schedule only after you have turned off the weekly schedule.**



### Choose the language

It allows you to choose the dialogue language among those present in the system. Press the +/- buttons to change the set, confirm and exit with **OK**.

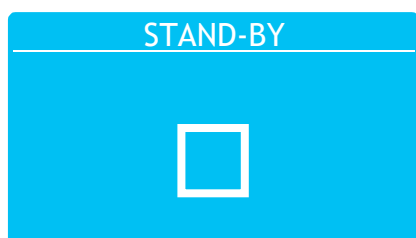


Press **ON/OFF** to exit and return to the main screen.

### Stand-by mode (modulation on)

With **modulation activated** (standard), when the required room temperature is reached, the appliance remains switched on at minimum power.

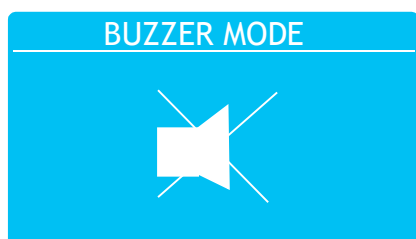
On the contrary, with **modulation deactivated** (tick on the square ) , if the room temperature exceeds the required set by 1°C, the appliance switches off, and then switches on again when the room temperature reaches -2°C compared to the set temperature ( $\Delta$ -2°C). The STAND-BY screen will appear in the remote control display.



Press the +/- keys to check or uncheck, confirm and exit with **OK**. Press **ON/OFF** to exit without saving and return to the main screen.

### Buzzer Mode

It allows you to enable or disable the acoustic signal that is produced every time a key is pressed.



Once you have selected the buzzer mode with the OK button, press the +/- keys to change the set, confirm and exit with **OK**. Press **ON/OFF** to exit without saving and return to the main screen.

## Stove state

Here we can see the operating data of the various components.

Press the +/- keys to scroll the pages. Press **ON/OFF** to exit.

STOVE STATE		STOVE STATE	
T.FUMI	99.8 °C	RPM FUMI	2500
T.AMB	21.4 °C	V.AMB.	100V
ON-COC	00"	TIMEOUT	00'
RPM COC-ORIZ	2790	RIT.ALL.	60''
		SERVICE	OFF

## Technician calibrations

ATTENTION: Interface exclusively dedicated to an Authorized CS Thermos Technician.

ACCESS KEY
00

Press **ON/OFF** to exit and return to the main screen.

## Pellet type

It allows you to vary the amount of fuel that falls into the crucible.

It is divided into 9 levels of increase (+) and 9 levels of decrease (-) of the auger setting. This variation, of about 3% at each level, remains permanently in memory and is associated simultaneously with all 5 operating powers.

Press the +/- keys to change the set, confirm and exit with **OK**.

PELLET LOAD
00

Press **ON/OFF** to exit and return to the main screen.

## Chimney type

It allows you to vary the speed of the flue gas fan.

It is divided into 9 levels of increase (+) and 9 levels of decrease (-) of the flue gas fan setting. This variation, of about 5% at each level, remains permanently in memory and is associated simultaneously with all 5 operating powers.

Press the +/- keys to change the set, confirm and exit with **OK**.



Press **ON/OFF** to exit and return to the main screen.

## Operation phases

DISPLAY MESSAGE	MEANING
<b>Ignition</b>	To turn on the Turbopellet, press ON/OFF for a few seconds. The power on is indicated in the display with the word "ON".  In these conditions, Turbopellet is placed in the preheating state, the heating elements and the flue gas fan are switched on.
<b>Preheating waiting</b>	Phase that lasts for the time in which the heating elements heat up and go into full capacity. The flue gas fan remains on.
<b>Pellet Loading</b>	The loading auger always remains on in order to preload.
<b>Flame Waiting</b>	This is the phase where, after the pellet is loaded, the auger shuts down and you wait for the pellet to be ignited.  If the temperature of the flue gas exceeds the limit set by the MINIMUM THRESHOLD parameter, the appliance switches directly to the FIRE PRESENT phase.
<b>Fire Present</b>	After the flue gas temperature has reached and exceeded the value of the MINIMUM THRESHOLD parameter, the system switches to Ignition Mode by showing the word "FIRE PRESENT" on the display.  In this phase, it is verified that the temperature remains stable, the auger turns on again and the heating elements go out. Any anomalies stop the electronic board, which signals the error status.
<b>On</b>	After the flue gas temperature has reached and exceeded the MINIMUM THRESHOLD value and has maintained it for a specified time, the appliance switches to WORK MODE, which is the normal operating mode. The display shows the word "ON".
<b>Final cleaning</b>	To switch off the appliance, simply press and hold on the ON/OFF button. The message "FINAL CLEANING" appears on the display.
<b>Off</b>	Status OFF until further heat demand.
<b>Stand-by</b>	If enabled in the menu, it allows you to turn off the appliance once the conditions explained in the Stand-by Mode are met.



**In the event of an alarm, wait until the end of the shutdown phase.**



**Never disconnect the electrical plug when the appliance is operating or switching off.**



**The plug can only be disconnected when the message "OFF" appears on the display.**

## Alarm Code List

For your safety, do not tamper with or modify any component of the appliance: in this case, the manufacturer cannot guarantee its normal operation, which could be very dangerous.

In the event of a malfunction, difficulty, or if a safety device is triggered, it is important to call authorized personnel. In any case, all operations must be carried out with the burner off and cold, in the absence of electrical voltage.

When it is in an error state, the system indicates the number and name of the alarm on the display and initiates a system safety operation, namely:

- at high flue gas temperature, the flue gas fan moves to "shutdown speed" to extinguish the flame;
- with flue gas temperature lower than the "start temperature", the flue gas fan switches to "cooling speed". After a further two minutes, the flue gas fan switches off completely.

Origin of the alarm	Display view
Energy blackout	<b>AL 1 BLACK OUT</b>
Flue gas temperature probe	<b>AL 2 FLUE GAS PROBE</b>
Flue gas overtemperature	<b>AL 3 HOT FLUE GAS</b>
Flue gas encoder out of order	<b>AL 4 FLUE GAS FAN FAILURE</b>
Ignition failure	<b>AL 5 IGNITION FAILURE</b>
Pellets lacking	<b>AL 6 PELLETS LACKING</b>
Thermal safety overtemperature	<b>AL 7 THERMAL SAFETY</b>
Pressure lacking	<b>AL 8 PRESSURE LACKING</b>
Horizontal auger motor encoder out of order	<b>AL 9 HORIZONTAL AUGER</b>

Unlocking from an alarm condition is done by sending a shutdown command to the system, i.e. by pressing the ON/OFF button.

To restore operation of the Turbopellet, press and hold the (  ) button for 3 seconds.

For optimal performance of the appliance, thorough cleaning is recommended at least once a week.



**The Manufacturer assumes no responsibility for the use of FUELS OTHER THAN THOSE INDICATED and is not responsible for the consequent malfunction of the appliance.**

## Frequency interference

If two Turbopellet appliances are installed close together, within a distance of 30 meters from each other, it is advisable that each of them has its own specific frequency (MHz) to avoid interference problems.

Frequency interference may result in the following malfunction situations:

- the appliance does not communicate with the remote control
- the appliance indicates false alarms


In these cases, you need to change the frequency (MHz) of your Turbopellet by changing the frequency channel.

Turbopellet has 63 channels:

1. from channel 0 to 31 it works at 868 MHz
2. from channel 32 to 63 it works at 869 MHz

By default, the unit leaves the factory with channel "0" (zero).

If there are no interference problems at the installation location, there is no need to carry out any frequency channel change operation - the remote control will automatically connect to the appliance without the need for any other settings.

To change the frequency, press the ON/OFF button (  ) and the OK button at the same time for 10 seconds.

At this point, the word "NEW" will appear in the remote-control display.

Then press the OK button and, with the arrow keys, go to select the desired channel, from 1 to 63.

Before confirming the channel with the OK button, I have two options:

- Turn off the power supply and then turn it back on. Once this is done, press OK.

or

- Long press the down arrow (V) of the emergency display (on the machine) until the LEDs of the emergency display go out. Once this is done, press OK (in the remote control).

## 13. CLEANING

### Cleaning external parts

To clean the external parts, use:

- soft cloths
- neutral products suitable for painted or plastic surfaces. Follow the instructions for use indicated on the product label.

Always finish with a perfect drying, preferably with a soft, dry cloth.

### Do not use:

- abrasive or powder cleaners;
- aggressive or corrosive detergents (e.g. hydrochloric/muriatic or sulphuric acid). Attention! Do not use these substances even to clean the floor surrounding the equipment;
- abrasive or pointed tools (e.g. abrasive sponges, scrapers, steel brushes, etc.)
- water jets.

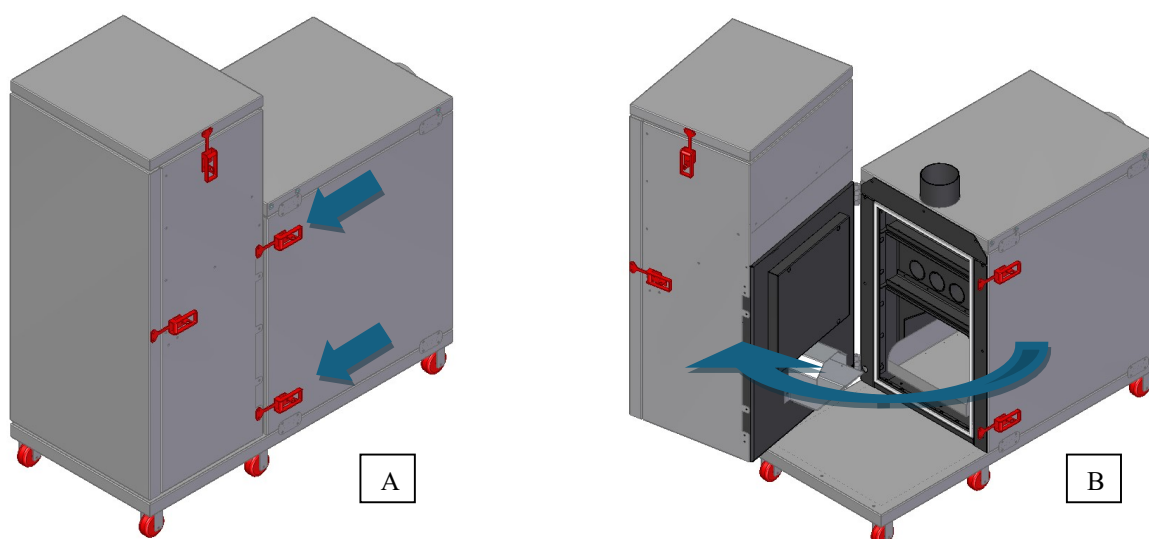
### Cleaning of internal parts

Clean the burner and combustion chamber every 1 to 7 days, depending on the quality and quantity of the fuel used.

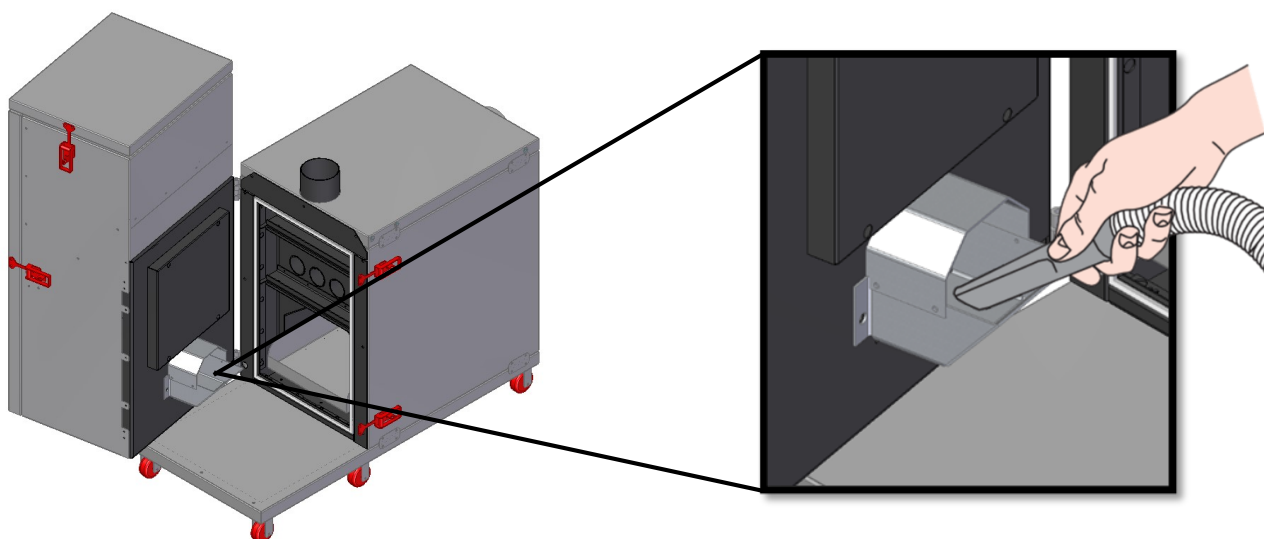
Never open the combustion chamber lock before the appliance has completely cooled down (approx. 3 hours): there may be a danger of burns.

Before carrying out any type of operation on the burner, disconnect the electrical voltage to the appliance and turn OFF its electrical differential located on the main panel.

Once the two lever closures shown in figure A have been opened, you have full access to the burner and combustion chamber (figure B).



## Burner cleaning



To clean the burner use:

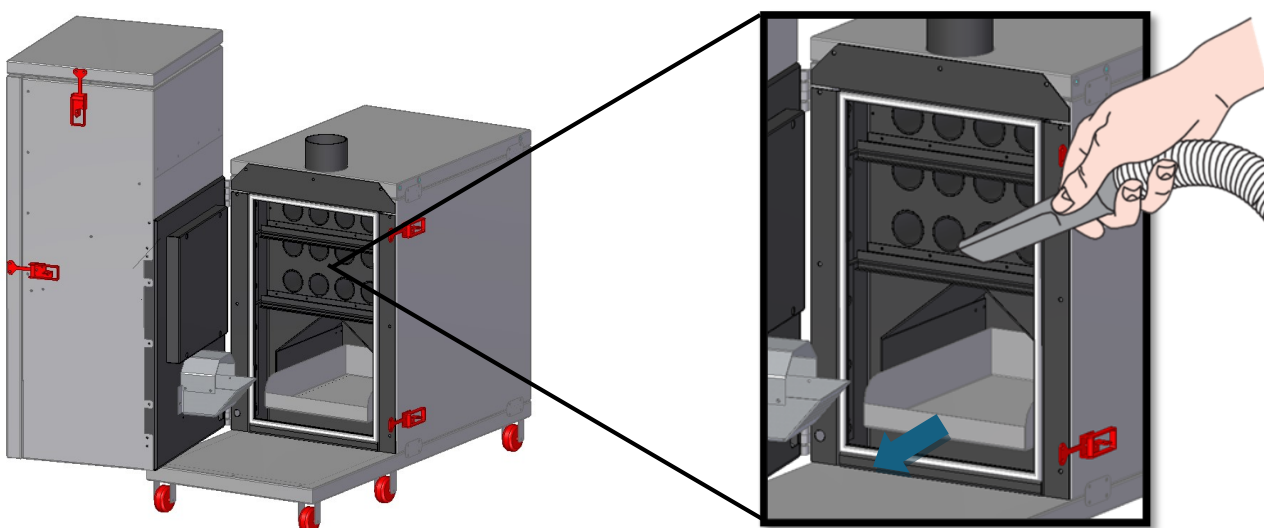
- steel brush
- ash vacuuming
- scraper (to remove stubborn residues)

**Do not use:**

- aggressive or corrosive detergents (e.g. hydrochloric/muriatic or sulfuric acid)
- water jets

## Cleaning the combustion chamber and ash tray

Once the burner has been cleaned, it will be possible to clean the combustion chamber, sucking up the residues from the tube bundle, and the ash tray, extracting and emptying it.



When cleaning is complete, be sure to replace the ash tray correctly and then close the appliance again with the two lever closures. Only after this has been done, will it be possible to restore power to the appliance.



## Cleaning and maintenance of other parts

<b>By the user</b>
Every two months clean the fuel tank from any dust deposited on the bottom.
Check the integrity of the entire structure of the equipment.
Check the integrity of the combustion chamber and the burner.
Check that the seals are in good condition and that they show no signs of wear.
At least once a month, inspect the combustion air inlet located under the appliance. If necessary, remove dirt.

<b>CS THERMOS maintenance technician (annual cleaning)</b>
Check the correct functioning of all mechanical components.
Check and clean the flue gas outlet.
Check and clean the pellet discharge duct.
Check the integrity of the sheaths, gaskets and electrical cables.
Check and clean the flue gas fan and its housing.
Check and if necessary lubricate the bushings of the fuel loading auger and the burner.
Check and clean the heating fan if necessary.



**For any other work not listed in this list, please contact the CS THERMOS Authorised Technical Assistance Centre exclusively.**



**Should the user notice any anomalies during cleaning, he must immediately contact the CS THERMOS Authorized Technical Assistance Centre and must not operate or use the equipment under any circumstances.**

## 14. DISPOSAL

### WARNINGS FOR PROPER DISPOSAL OF THE PRODUCT

Disposal of waste electrical and electronic equipment (WEEE) pursuant to Decr. Legisl. 49/2014 implementing Directive 2012/19/EU.



At the end of its useful life, the product must not be disposed of together with municipal waste but must be delivered to the appropriate separate collection centres or to retailers who provide this service.

Disposing of the appliance separately avoids possible negative consequences for the environment and health resulting from its inappropriate disposal and promotes the recycling of the materials of which it is composed.

To underline the obligation to dispose of the appliances separately, the crossed-out mobile rubbish container mark is shown on the product.

Every effort has been made to ensure the accuracy of this manual.

The Manufacturer reserves the right to make improvements to the equipment or documentation at any time, without prior notice.

There may be minor differences between this manual and the product you receive, and we apologize for any inconvenience that may arise.

Reproduction of all or part of this manual without the consent of the Manufacturer is prohibited. The measurements provided are indicative and non-binding.

The original language of writing is Italian: the Manufacturer is not responsible for any translation/interpretation errors.

## 15. GUARANTEE

For the lack of conformity that occurs in the first 6 months of the product's life, the consumer has the right to have the defect repaired free of charge. From the seventh to the twenty-fourth month, if a lack of conformity has been accepted, the consumer will have to bear the cost of the call while the seller will continue to bear the cost of labour and any functional spare parts used.

If the defect found is attributable to external conditions and/or events such as, by way of example but not limited to, insufficient capacity of the systems, incorrect installation and/or maintenance carried out by persons who do not meet the requirements provided for by the laws in force in the consumer's country of residence; negligence, inability to use and poor maintenance on the part of the consumer, with respect to what is reported and recommended and recommended in the product instruction booklet, which forms an integral part of the sales contract, this warranty is void. This warranty also does not cover damage to the product in the absence of proven causes due to manufacturing defects.

In the same way, defects attributable to the incorrect functioning of the chimney, in accordance with the legislation in force in the country at the time of purchase, are excluded from this warranty, as well as all defects in the product due to negligence, accidental breakage, tampering and/or damage during transport (scratches, dents, etc.), interventions carried out by unauthorized personnel and further damage caused by erroneous interventions by the consumer in an attempt to remedy for the initial failure.

The following consumables are excluded from the warranty: gaskets, ceramic or tempered glass, glow plugs. In addition, all defects or malfunctions on electrical components due to force majeure not foreseeable by the manufacturer are excluded from the warranty: power surges, lightning, proximity to high-voltage pylons, other devices inside the installation environment that can give rise to magnetic fields. The warranty can only be applied to defective parts, while end-of-season labour expenses or the technician's travel expenses will not be included in the warranty. Not covered by the warranty are calls for parameter adjustment, problems due to the chimney, the type of pellet used, the use of improper or non-compliant material or the negligence of the customer.

After the 24-month warranty period, any repair work will be at the consumer's expense.

### **ADDITIONAL CAUTION**

Only use the fuel recommended by the manufacturer, pellets in accordance with Din Plus.

The product should not be used as an incinerator. Do not use the product as a ladder or support structure.

Do not dry laundry on the appliance. Any drying rack or similar must be kept at a special distance from it. Risk of fire and damage to the coating. Any liability for improper use of the product is fully borne by the user and relieves the manufacturer from any civil and criminal liability. Any type of tampering or unauthorized replacement of non-original parts of the appliance can be dangerous for the safety of the operator and relieves the company of any civil and criminal liability. A large part of the surface of the appliance is very hot (smoke outlet pipes, etc.). It is therefore necessary to avoid coming into contact with these parts without appropriate protective clothing or special means such as, for example, thermal protection gloves. It is forbidden to operate the product with the door open. The appliance must be electrically connected to a system equipped with an effective earthing system. Switch off the appliance in the event of a fault or malfunction. The build-up of unburned pellets in the burner after each "misfire" must be removed before proceeding with a new ignition. Check that the burner is clean and well seated before relighting. Do not wash the appliance with running water, which may penetrate the interior and damage the electrical insulation, causing electric shock. Installations that do not comply with current standards will void the product warranty, as will improper use and lack of maintenance as required by the Manufacturer.

If the appliance needs to be repaired, it must be unplugged and taken to the authorised Technical Assistance Centre for inspection and restoration of operation.



**[www.csthermos.it](http://www.csthermos.it)**  
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