



Air

INSTALLATION AND OPERATION MANUAL

Dear Customer!

We wish to thank you for choosing the UNGARO product!

Our pellet stoves represent continuous innovation in biomass heating. From design to production, every step of the manufacturing process is carried out entirely at our premises, including rigorous testing aimed at assessing and certifying the reliability and sustainability of each model, according to the most stringent European standards regulating emissions and safety.

Simple and elegant forms plus a variety of finishes make our product versatile for any interior design.

In order to get the best performance from your appliance please read carefully this manual before using the stove.

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1. Product Description

What is a pellet stove?

The Ungaro stove is a heat generator for domestic use running on wood pellet and mixed wood pellet and logs (Bory model) Ungaro stoves has one or two fans for better distribution of hot air.

Ungaro S.r.l. production line works according to the international standards ISO 9001:2008.

Fuel

Ungaro stoves burn wood pellet. Pellets are made by compacting finely processed sawdust at extremely high pressure, it is a purely mechanical process. Pellets have a low moisture content (6-10%) and a low ash content (approximately 0.5%). The efficiency and heating capacity of Ungaro stoves may change in relation to the type and quality of pellets used.

Please use pellets that meet requirements of the standard ISO 17225-2, class A1.

The logs should be dried so that the moisture content is no more than 20%. Their maximum dimensions must be 20 cm length and 5 cm diameter.

To ensure good combustion, pellet or wood logs must be stored in an area that is free

of humidity.

ATTENTION: The use of fuel of inferior quality or not conforming to the specification given above compromises the running of your appliance and can therefore lead to the termination of the guarantee and of the manufacturer's responsibility for the product.

The Ungaro's stoves efficiency may vary depending on the type and quality of the fuel.

2. General Information

All Ungaro products are built according to the directives:

- 2011/65/EU (RoHS)
- 2014/35 EU (LVD) Electrical safety
- 305/2011 construction materials
- 2014/30 EU (EMCD) compatibility

and according to the normes:

- EN 14785
- EN 13240
- EN 303-5
- EN 60335.2-102
- EN 62233, EN 50581
- EN 55014-1, EN 55014-2,
- EN 61000-3-2, EN 61000-3-3.



This warning sign indicates that the message to which it refers should be carefully read and understood, because failure to comply with what these notices say can cause serious damage to the stove and put the user's safety at risk.



This symbol is used to highlight information which is important for proper stove operation. Failure to comply with these provisions will compromise use of the stove and its operation will not be satisfactory.



In order to get the best performance from your appliance we recommend that you read this manual carefully before installing and lighting the appliance.

- Do not leave the packaging elements within reach of children or unassisted disabled persons;
- Incorrect installation or faulty maintenance (not conforming to the requirements set out in this manual) can cause harm to people, animals or property. In such cases Ungaro is absolved from any civil or criminal responsibility;
- Hopper lid must be easily accessible to fill the pellets;
- Do not block or reduce the primary air inlet, as this is essential for correct combustion. Failure to heed this warning will void the warranty, with the manufacturer declining all related

liability;

- Check the chimney for obstructions before lighting the appliance;
- The safety or control devices must not be modified without the specific authorisation of the manufacturer. Failure to heed this warning will void the warranty, with the manufacturer declining all related liability;
- This appliance can not be used by children and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved. Children shall not play with the appliance;
- Do not remove the protective grille from the pellet hopper;
- The appliance must not be used as an incinerator;
- Do not open the stove door during its operation;
- The stove must not be used as a cooking appliance.

2.1 Electrical Safety

- Make sure the power plug is accessible after installation of the appliance;
- The power cable must not be in contact with hot parts;
- Do not pull, twist or disconnect the electric cables of the stove even if power supply is disconnected;

- Do not wash the appliance with water. The water could get inside the unit and damage the electrical insulation and cause electric shocks;
- Variations in power supply voltage in excess of 10% of the rated value may affect the correct operation of the appliance and can lead to serious faults within stove electrical system;
- Use uninterruptible power supply with frequency 50Hz and pure sine wave or pseudo sine wave;
- The main switch is located on the back part of the stove (*fig. 1*);

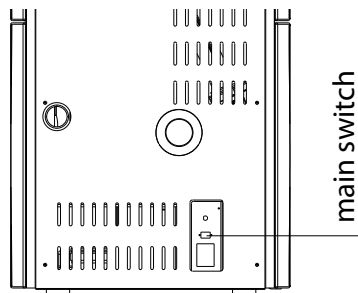


fig. 1 - Main switch

- In case of alarm don't shut the appliance down, turn it off only if signal "off" appears on the display.



The appliance must be connected to an electrical system which is equipped with an earth conductor, as laid down in directives 73/23 EEC and 93/98 EEC.

2.2 Operating Warnings

- Pellets must not be fed manually into the burning pot;
- Filling the hopper with pellet make sure that the plastic bag doesn't come into contact with the hot surfaces;
- Un-burnt pellets accumulated in the burning pot must be removed before re-lighting. Not observing this may cause detonation in the combustion chamber with harm to people, animals or property;
- Do not touch the stove with wet hands or bare feet in view of the fact that it is an electrical appliance;
- Avoid coming into contact with the hot parts of the appliance;
- Never expose plants or animals directly to the air flow;
- Do not light the appliance with flammable materials. If the ignition system breaks down, please contact the Technical Support in your area.



Do not stand for a long time in front of the hot air vent.



During the first two or three ignitions, the stove may send a bad odor; please vent the room several times.

2.3 Installation Considerations

After having removed the package, ensure the appliance integrity and that all the required components have been supplied. In case of non conformity, contact your dealer within 15 days from the date of receipt.

Only authorized Ungaro personnel may access to the electrical or mechanical parts of the appliance.



Please follow up local regulations and directives (es: regional building regulations, requirements for heating devices, technical regulations for air heating systems).

3. Installation

The installation must be carried out by specialized personnel. The Compliance Certificate must be issued under the responsibility of the installer.

Ungaro S.r.l. will not be held responsible for damage to persons or things in the event of failed or incorrect operation if the afore-

mentioned warnings are not complied with.

3.1 Regulations

Installation must be carried out with reference to the following standards:

UNI 10683

UNI 10412-2

The smoke duct must comply with:

UNI EN 13384-1 Thermal and dynamic fluid calculation methods for chimneys

UNI 7129 - 1...- 4 heating systems for domestic use

UNI EN 1443 chimneys: general requirements.

UNI EN 1457 Requirements and test methods for clay/ceramic flue terminals.

3.2 Additional documentation

At the end of installation, the installer must inform the user on how to use the heating system and provide technical documentation for the appliances used in the installation. The installer must fill in:

- Heating system booklet
- Documentation for the installation

The technical documentation includes:

- Reference to the current standards;
- Manufacturers installation indications;
- A rough description or scheme, or photographs of any system modifications made;

- Compliance Certificate;
- The date and the installer's signature.



A sign upon receipt of the technical documentation is requested from the user.

3.3 Installation Area

The stove should be positioned on the fire resistant floor. If the flooring is made of flammable material, provide a floor protection surface in compliance with current national standards. Respect the safety clearance as shown on *fig. 2*.

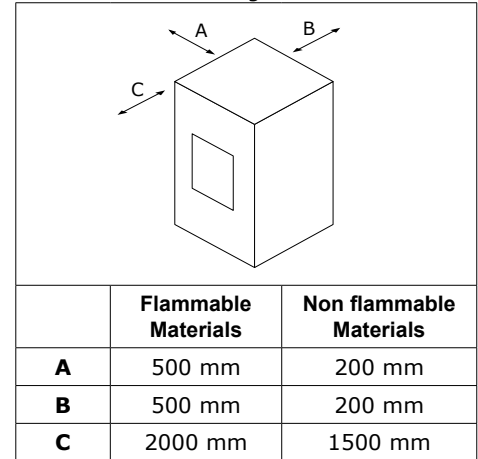


fig. 2 - Safety clearance



Ungaro S.r.l. will not accept any liability in case of fire for failure to comply with the safety clearance.

3.4 Flue Pipe (ref. UNI 10683)

The flue pipe must meet the following requirements:

- Twin wall steel flue, required diameter is 100 mm round;
- It must be resistant to heat, mechanical stress, heat, combustion residues and related condensate;
- It must be installed at a safe distance from eventual combustible materials;
- It must have draft between 11 and 15 Pa (UNI 10683).



The proper draught conditions in the flue is critical for the efficient working of pellet stove. All sections of the flue must be capable of inspection and removable to enable periodic internal cleaning.



The stove must be connected to a flue pipe or a vertical duct which can discharge the fumes at the highest point of the building, conforming to current national regulations (UNI 10683). Failure to comply can lead to the termination of the guarantee and of the manufacturer's responsibility for the product.

3.5 Flue gasses discharge

To discharge the flue gas outside, make a hole of an adequate size to the flue pipe.

A T-element with inspection cap and chimney cowl must be installed on the flue pipe run.

Maximum two accessible 90° bends are allowed on the flue pipe, each of them must have a T-fitting with inspection cap. Maximum permissible flue lengths are 3 meters with an upward slope of 3%.



Flue gasses discharge on the wall is not permitted by current regulations. Failure to comply can lead to the termination of the guarantee and of the manufacturer's responsibility for the product.

Smoke exhaust with existing flue

A chimney cleanout access door is required. Please control and periodically clean the chimney.

Chimney terminal position

For the installation of smoke exhaust ducts consult the technical regulations UNI 10683. As shown on the *fig. 3*, the terminal of the chimney over the roof must have the following quotes ($b > 10^\circ$):

- a = 500 mm

- c = 1300 mm

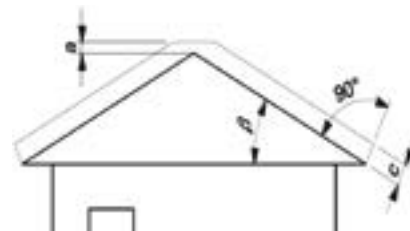


fig. 3 - Chimney

In the case of the flues close to each other, refer to *fig.4 e tab.1*.

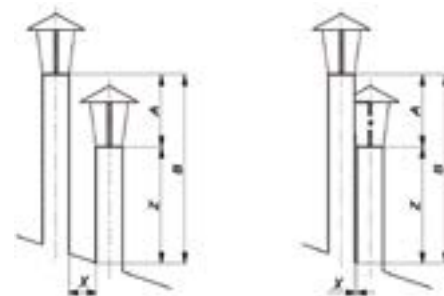


fig. 4 - Near Chimneys

Symbol	Description (mm)	Clearance (mm)
Z	Height	
B	$X \leq 500$	$Z + A$
B	$X \leq 500$	$Z + A (*)$
A	Height over an obstacle	500
<i>The symbol * means the useful terminal outlet section.</i>		
<i>tab. 1</i>		

Outdoor Chimney (fig. 5)

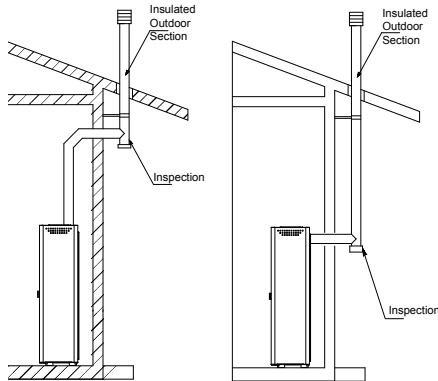


fig. 5 - Outdoor Chimney

Non-condensing insulated chimney system must be used for external applications. A chimney tee comprising a cap should be

placed at the bottom of the vertical section of the chimney.

Existing flue (fig. 6)

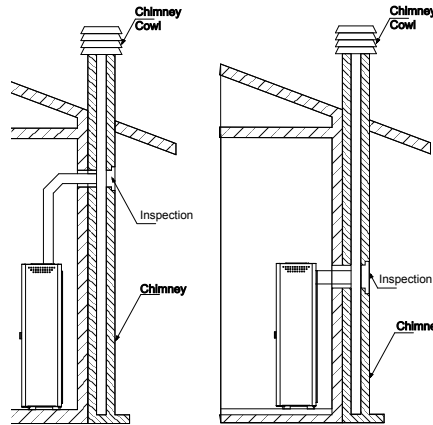


fig. 6 - Existing Flue

At the base of the flue is advisable to install a hermitically sealed cleanout access for collecting ash and condensate, in a position where it can be periodically inspected.



The first section should not be a 90° bend, as ash would block the discharge of flue gasses in a short time, causing draught problems.

3.6 Air intake

For proper functioning, the appliance should be positioned in a location where it is able to take in the air necessary for combustion. Provide an air intake hole Ø100 mm² close to the stove. Protect it with a grill grate from inside and outside (fig. 7).

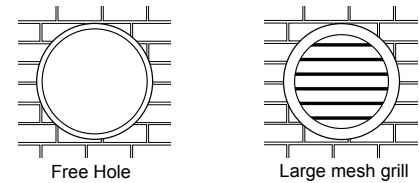


fig. 7 - Air Intake

The air intake must:

- Be in the installation room;
- Be protected with a metal grate;
- Be un-obstructed at all times as these allow air for combustion.



If the air inlet is direct from outside in the room of installation, its run should not have changes of direction and small mesh grill, as can be easily clogged.



Refer to the national installation regulations for pellet stoves.

4. Display (fig. 8)

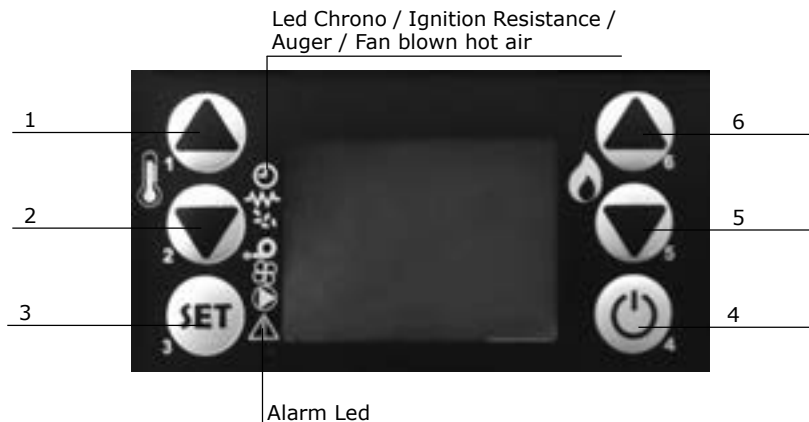


fig. 8 - Display

- The button **1** is used to set the ductable rooms thermostat
- The button **2** sets the room thermostat in the installation area
- The button **3** is for access in the various programming menu
- The button **4** is for ignition and extinguishing of the stove
- The button **5** is to set the ducted hot air power
- The button **6** is to set the combustion power of the stove
- The display shows the state, the power and the parameters of the stove



The indoor temperatures should be kept within certain limits. Please consult local regulations and directives.

5. Ignition

5.1 Getting started

Before ignition please check that:

- The pellet hopper is full;

- The combustion chamber and the burning pot are clean;
- The technical door and the glass door are closed;
- The ash pan and the inspection box are closed;
- The power cable is connected and the main switch is in the position 1;



Ensure to use pellets stored in an area that is free of humidity. The pellet diameter must be not more than 6 mm, the length in the range 5 to 25 mm.



A dirty burning pot can block the air flow and cause ignition failure with the code **"AL 5 ALAR AL 5 IGNITION FAILED"**. In this case empty and clean the burner and proceed with a new ignition. Un-burnt pellets accumulated in the burning pot may cause detonation in the combustion chamber with harm to people, animals or property.

5.2 Feeding pellet into Gally Insert

Open the door at the front top part of the insert, pull the load drawer (fig. 9), fill it with the pellet and push it back. Repeat till the hopper is filled (capacity approx. 15 kg).

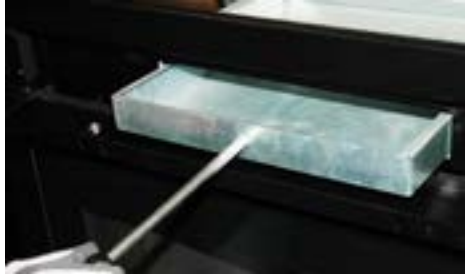


fig. 9 - Load drawer

5.3 Logs ignition for Bory model

- Open the door of the upper combustion chamber. Place medium size logs (max 20 cm length, 5 cm diameter), *fig. 10*, not more than 1 kilo at a time. In order to avoid sooting on the glass, it is important that the log is not placed adjacent to the glass on the product.
- The logs must be dry (humidity less than 20%). Crumple some newspaper (or birch bark) between these and add some kindling wood in a criss-cross pattern on top and light the newspaper. Light the fire. Close the door of combustion chamber. Regulate the rate of combustion to the desired level of heating by adjusting the air vent *fig. 11*.
- Stoke the stove frequently but only add small amounts of logs at a time. Pay attention to the fallout of unburnt pieces when opening the combustion chamber.



fig. 10 - Dimension of the logs

5.4 Secondary air (Bory)

The combustion chamber for wood logs (only model Bory) has secondary air inlets, *fig. 11*. For better combustion or if necessary, regulate the valve.

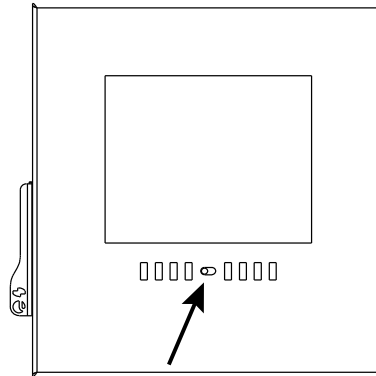


fig. 11 - Secondary air valve (Bory)

5.5 Ignition

To start the stove, hold the button **3** for few seconds. At the beginning of the ignition the display shows "**Ignite**" and the led ON/OFF blinks.

An eventual anomaly during this phase will be shown on the display with a relative code (see *chap. Notifications and Errors*).

5.6 Feeding pellet

After about 1 minute the pellet starts to fall into the burning pot. "**Feeding Pellet**" runs on the display and the led ON/OFF is intermittent.

5.7 Fire present

After the feeding phase the stove starts the ignition. The display will show "Fire present" and the led ON/OFF will blink. In case of an anomaly the stove interrupts the operation and shows the error state (see *chap. Notifications and Errors*).

5.8 Operation

In this phase the stove works in a normal mode. The display shows "**Work**" and the led ON/OFF is on.

Now the user can set the power pressing the button **2** and adjust the room temperature with the button **1**. As the temperature nears its set point, the hot air fan turns on.

The stove performs electronic cleaning of the burning pot. On the display appears **"Burner Cleaning"**.



Electronic cleaning of the burning pot absolutely does not substitute manual cleaning. Regular maintenance should be done as described in the chapter *Maintenance*.

5.9 Calorific power settings

During the normal operation is possible to modify the stove calorific power by pushing the button **6**. (*Led power set is on.*)

To increase the power, push again **6**, to reduce it push **5**. The power level is shown on the display.

To exit the setting menu, push **3**. Also the system goes back automatically to the main menu if you don't touch any button for 5 seconds.

5.10 Set room temperature

To set room temperature push the button **1**. The display shows the room temperature set (*Temperature SET*). Adjust it with the button **1** to reduce and with the button **2** to increase.

After 5 seconds the value is stored and the display goes back to the main screen.

For ducted heating temperature set push the button **2**, then to set the value follow the description below.

5.11 Modulation

As the room temperature nears its set point the stove calorific power automatically goes to the minimum. **"Modulate"** message appears on the display. If the room temperature falls below *Temperature Set*, the stove goes back to **"Work"** mode.

5.12 Stand-by

The stove goes in stand-by as soon as the room temperature is stable. **"Go-standby"** message with the minutes countdown.

At the end of **"Go-standby"**, **"Cooling waiting"** message appears. In this mode the auger is off, the hot air fan turns off as room temperature set is achieved, the led ON\OFF blinks. Then the stove goes in stand-by with a message **"Stop eco temp good"**. If the room temperature falls below the set, the stove turns on.

5.13 Shut Off

To shut off the stove off, hold the button **3** for few seconds. A message **"Clean-Final"** appears on the display.

The auger stops, the led ON\OFF blinks. The exchanger fan remains on till the exhaust gasses temperature falls below their set. After that the stove stops, on the display will appear **"Off"**.



Do not disconnect power supply until the stove is completely cooled down.

If there is a combustion anomaly, for example:

- Un-burnt pellets accumulated in the burning pot;
- Turning of at calorific power 1

please adjust pellet feeding and primary air aspiration - contact Seller for customer support.

6. Menu

Hold the button **1** to access in the menu. It is divided in various programming levels.

Level 1	Level 2	Level 3	Value
M1 - Set Clock			
	01- Day of week		L-M-M-G-V-S-D
	02- Hour		0-23
	03 - Minute		0-59
	04 - Day		1-31
	05 - Month		1-12
	06 - Year		00-99
M2 - Set Chrono			
	M2-1 - Enable chrono		
		01 - Enable Chrono	on/off
	M2-2 - Daily Program		
		01 - Day Chrono	on/off
		02 - Start 1 Day	OFF-0-23:50
		03 - Stop 1 Day	OFF-0-23:50
		04 - Start 2 Day	OFF-0-23:50
		05 - Stop 2 Day	OFF-0-23:50
	M2-3 - Weekly Program		
		01 - Chrono Week	on/off
		02 - Start Prg 1	OFF-0-23:50
		03 - Stop Prg 1	OFF-0-23:50
Level 1	Level 2	Level 3	Value
		04 - Monday Prg1	on/off
		05 - Tuesday Prg 1	on/off

		06 - Wednesday Prg 1	on/off
		07 - Thursday Prg1	on/off
		08 - Friday Prg 1	on/off
		09 - Saturday Prg 1	on/off
		10 - Sunday Prg 1	on/off
		11 - Start Prg 2	OFF-0-23:50
		12 - Stop Prg 2	OFF-0-23:50
		13 - Monday Prg2	on/off
		14 - Tuesday Prg 2	on/off
		15 - Wednesday Prg 2	on/off
		16 - Thursday Prg 2	on/off
		17 - Friday Prg 2	on/off
		18 - Saturday Prg 2	on/off
		19 - Sunday Prg 2	on/off
		20 - Start Prg 3	OFF-0-23:50
		21 - Stop Prg 3	OFF-0-23:50
		22 - Monday Prg 3	on/off
		23 - Tuesday Prg 3	on/off
		24 - Wednesday Prg 3	on/off
		25 - Thursday Prg 3	on/off
Level 1	Level 2	Level 3	Value
		26 - Friday Prg 3	on/off
		27 - Saturday Prg 3	on/off
		28 - Sunday Prg 3	on/off

		29 - Start Prg 4	OFF-0-23:50
		30 - Stop Prg 4	OFF-0-23:50
		31 - Monday Prg 4	on/off
		32 - Tuesday Prg 4	on/off
		33 - Wednesday Prg 4	on/off
		34 - Thursday Prg 4	on/off
		35 - Friday Prg 4	on/off
		36 - Saturday Prg 4	on/off
		37 - Sunday Prg 4	on/off
	M2-4 - Program Week end		
		01 - Chrono Week end	on/off
		02 - Start Week end 1	OFF-0-23:50
		03 - Stop Week end 1	OFF-0-23:50
		04 - Start Week end 2	OFF-0-23:50
		05 - Stop Week end 2	OFF-0-23:50
	M2-5 - Exit		set
M3 - Choose lang.			
	01 - Italiano		set
	02 - English		set
	03 - Français		set
Level 1	Level 2	Level 3	Value
	04 - Deutsch		set
M4 - Stand-by			
	01 - Stand-by		On/off

M5- Buzzer			
	01- Buzzer		On/off
M6 - First Feeding			
	01 - First Feeding		90"
M7 - Stove State			
		01 - Auger State	info
		02 - T minutes	info
		03 - Thermostat	info
		04 - Exhaust gasses	info
		05 - Exhaust Fan speed RPM	info
M8 - Calibration			
	01 - Access		set
M9 - Exit			
	01 - Exit		set
M10 -Choose mode	Logs only		
	Pellet only		
	Logs and pellet		

6.1 Menu M1 - Set Clock

Set current time and date. The motherboard has a real time clock's lithium battery durable 3/5 years.

To access to the main menu programming, hold the button **1** for 2 seconds. Push the button **1** or **2** to select **M1**, than scroll to find "**M1 Set Clock**". Choose the day

and confirm with the button **3**. With the button **1** and **2** choose the settings of hour, minute, day, month and year. Confirm with the button **3**.

6.2 Menu M2 - Set Chrono

1-Enable Chrono

The menu "**M2 Set Chrono**" enables or di-

sables all the functions of the chronothermostat. To enable push the button **3**, then **1** or **2** to choose **On** or **Off**. Confirm with the button **3**.

2 - Program Day

Choose the menu "**M2-2 Program Day**", with the button **3** scroll the programming options, including **Program Day**.

It's possible to set two time slots, the first with the **"START1 Day"** and **"STOP1 Day"**, the second with **START2 Day** and **STOP2 Day**. Follow the description in the table. Use buttons **1** and **2** to change and **3** to confirm.

PROGRAM DAY			
Menu	Select	Action	Setting
M2-2-01	CHRONO DAY	Enable Daily Chrono	ON/OFF
M2-2-02	START 1 Day	Activation Hour	OFF 0-23:50
M2-2-03	STOP 1 Day	Disactivation Hour	OFF 0-23:50
M2-2-04	START 2 Day	Activation Hour	OFF 0-23:50
M2-2-05	STOP 2 Day	Disactivation Hour	OFF 0-23:50

3 - Weekly Program

The menu **"M2-3 Weekly Program"**, enables/disables and sets weekly chrono-thermostat function. Weekly function has four independent programs. If in the field

of hour is set **OFF**, the clock will ignore the comand. The following tables explain weekly program function. To confirm and to go to the next function push the button **3**. To exit push **3** again.

ENABLE WEEKLY CHRONO			
Menu	Select	Action	Setting
M2-3-01	WEEKLY CHRONO	Enable Weekly Chrono	ON/OFF
PROGRAM 1			

Menu	Select	Action	Setting
M2-3-02	START PRG 1	Activation Hour	OFF 0-23:50
M2-3-03	STOP PRG 1	Disactivation Hour	OFF 0-23:50
M2-3-04	MONDAY PRG 1	Day of reference	on/off
M2-3-05	TUESDAY PRG 1		on/off
M2-3-06	WEDNESDAY PRG 1		on/off
M2-3-07	THURSDAY PRG 1		on/off
M2-3-08	FRIDAY PRG 1		on/off
M2-3-09	SATURDAY PRG 1		on/off
M2-3-10	SUNDAY PRG 1		on/off

PROGRAM 2			
Menu	Select	Action	Setting
M2-3-11	START PRG 2	Activation Hour	OFF 0-23:50
M2-3-12	STOP PRG 2	Disactivation Hour	OFF 0-23:50
M2-3-13	MONDAY PRG 2	Day of reference	on/off
M2-3-14	TUESDAY PRG 2		on/off
M2-3-15	MERCOLEDI PRG 2		on/off
M2-3-16	THURSDAY PRG 2		on/off
M2-3-17	FRIDAY PRG 2		on/off
M2-3-18	SATURDAY PRG 2		on/off
M2-3-19	SUNDAY PROG 2		on/off

PROGRAM 3			
Menu	Select	Action	Setting
M2-3-20	START PRG 3	Activation Hour	OFF 0-23:50
M2-3-21	STOP PRG 3	Disactivation Hour	OFF 0-23:50
M2-3-22	MONDAY PRG 3	Day of reference	on/off
M2-3-23	TUESDAY PRG 3		on/off
M2-3-24	WEDNESDAY PRG 3		on/off
M2-3-25	THURSDAY PRG 3		on/off
M2-3-26	FRIDAY PRG 3		on/off
M2-3-27	SATURDAY PRG 3		on/off
M2-3-28	SUNDAY PROG 3		on/off

PROGRAM 4			
Menu	Select	Action	Setting
M2-3-29	START PRG 4	Activation Hour	OFF 0-23:50
M2-3-30	STOP PRG 4	Disactivation Hour	OFF 0-23:50
M2-3-31	MONDAY PRG 4	Day of reference	on/off
M2-3-32	TUESDAY PRG 4		on/off
M2-3-33	WEDNESDAY PRG 4		on/off
M2-3-34	THURSDAY PRG 4		on/off
M2-3-35	FRIDAY PRG 4		on/off
M2-3-36	SATURDAY PRG 4		on/off
M2-3-37	SUNDAY PROG 4		on/off

4 - Week end Program

The menu enables/disables and sets week end chronothermostat function (days 6 and 7). To enable push **3** and set "**On**" for "**Chrono Week End**" with the button **1** or **2**. Setting time in "**Start 1 Week End**" and "**Stop 1 Week End**" the user chooses operation time slot for **Saturday**. The menus "**Start 2 Week End**" and "**Stop 2 Week End**" are to program operation cycle for **Sunday**.

PROGRAM 2			
Menu	Select	Action	Setting
M2-4-01	CHRONO WEEK END	Enable week end chrono	OFF 0-23:50
M2-4-02	START 1 WEEK END	Activation Hour	OFF 0-23:50
M2-4-03	STOP 1 WEEK END	Disactivation Hour	on/off
M2-4-04	START 1 WEEK END	Activation Hour	on/off
M2-4-05	STOP 1 WEEK END	Disactivation Hour	on/off

6.3 Menu M3 - Choose Language

To set display language, select menu **M3** with the button **3**, choose language with the button **1** or **2** and confirm with **3**.

6.4 Menu M4 - Stand-by

enables or disables Stand-by mode. Choose menu **M4** with the button **3**, push the button **1** or **2** to select **ON** or **OFF**. This function is described in chapter **5.9**.

6.5 Menu M5 - Buzzer

enables or disables the buzzer in the state of alarm. Use the buttons **1** or **2** to set, confirm with **3**.

6.6 Menu M6 - First Feeding

This function is available only if the stove is **OFF**, it starts auger before stove ignition. Select the menu **M6**, find "**Press Plus**". Push the button **2**. The exhaust fan turns on, the auger starts working, both remain on during the time indicated on the display or till you press the button **3**.

6.7 Menu M7 - Stove State

Enter in the menu **M7** using the button **3**, you will see on the display the stove operation states. Please find their explanation in the following table.

State	Meaning
3,1"	Auger State
52'	Time out
Toff	Thermostat State
106°	Exhaust Temperature
1490	Exhaust Fan Speed

6.8 Menu M9 - Exit

Select **Exit** with the button **3**, to exit from the menu and go back to the previous screen.

6.9 Menu M10 Choose mode

Choose the operating mode of the model Bory in this menu by pressing the key 3.

Choose mode
Logs only
Pellet only
Logs and pellet

fig. 12 - Menu Choose mode (mod.Bory)

If hot air of the stove Bory is ducted in other room, place air temperature sonde of the stove in the room with ducted air. With the ducted hot air, choose the operation mode "Logs and pellet" in the menu 10. The pellet combustion chamber must operate in this mode.

7. Alarms

If a fault occurs on the stove, an error code will be shown on the display with an alarm led and acoustic signal on.



Any alarm shuts the stove down immediately.

Once there is an operation anomaly, after a fixed time an alarm appears, except for the **BLACK-OUT ALARM**. To reset an alarm hold the button **3** for a while. Every time an alarm is reset, the stove turns off for security reasons. If an alarm is not cleaned, the stove turns off with the error code shown on the display.

7.1 Black-Out

If a short power-cut occurs during the stove operation, the stove re-starts in the mode "Work". If the lack of power is long, on the display runs the message "**Al 1 alar al 1 Blac-out**" and the stove turns off.

7.2 Exhaust Probe Alarm

It occurs if the exhaust probe is faulty. The message "**Al 2 alar al 2 Exhaust Probe**" runs on the display and the stove turns off.

7.3 Exhaust Over-temperature Alarm

turns off.

If the exhaust probe detects overtemperature, on the display appears "**Al 3 alar al 3 Hot Fumes**" and the stove turns off.

7.4 Faulty Exhaust Fan Alarm

If the exhaust fan does not work properly, the stove turns off with an alarm "**Al 4 alar al 4 Aspirat- faulty**".

7.5 Failed Ignition Alarm

If ignition fails accidentally, "**Al 5 alar al 5 Failed Ignition**" appears on the display and the stove turns off.

7.6 Alarm Lack of Pellet

If during the stove operation the pellet runs out, on the display appears "**Al 6 alar al 6 Lack of Pellet**" and the stove stops.

7.7 Over-temperature Alarm

If the temperature raises over the secure level, the thermostats blocks the stove operation. An alarm "**Al 7 alar al 7 Secur - therm**" appears and the stove turns off.

7.8 Lack Vacuum Pressure Alarm

If the vacuum pressure is low, the auger stops, an alarm "**Al 8 alar al 8 Lack Vacuum Pressure**" appears and the stove

7.9 Troubleshooting

Error	Cause	Solution
Al 1 Alar al 1 Blac-out	Power supply interrupted in phase of operation	Empty the burner pot and re-start the stove
Al 2 Alar al 2 Exhaust Probe	Exhaust Probe Alarm	Contact Customer Support
Al 3 Alar al 3 Hot fumes	Exhaust over-temperature	Check the flue pipe. If the error persists, contact Customer Support.
Al 4 Alar al 4 Aspirat-faulty	Faulty Exhaust Fan	Contact Customer Support
Al 5 Alar al 5 Failed Ignition	Failed Ignition	Check if pellet is run out; check the flue pipe, clean the burning pot. If the error persists, contact Customer Support.
Al 6 Alar al 6 Pellet Lack	Exhaust low temperature	Refill pellet hopper. If the error persists, contact Customer Support.
Al 7 Alar al 7 Thermic-Securit	Structure Overheat	Contact Customer Support
Al 8 Alar al 8 Lack Vacuum Pressure	No draft in the flue pipe	Check the flue pipe, clean the stove. If the error persists, contact Customer Support.

ve re-starts normal work. Please remember that manual burner cleaning is absolutely necessary before each ignition.



Faulty stove and flue pipe maintenance can alternate proper functioning and void the warranty, with the manufacturer declining all related liability;
Maintenance should be performed only on a stove shut down and cooled;
Don't clean the glass when it is hot.

8.2 Burning Pot Manual Cleaning

Remove, empty and clean the burning pot every day or at each ignition. (fig. 13, 14, 15). If the stove maintenance and ash removal procedures are not performed regularly, it can cause:

- Poor combustion;
- Glass smoke up;
- Accumulation of ash and unburnt pellets in the burning pot;
- Ash residue depositing on the heat exchanger and its poor efficiency as result.

8. Maintenance

To ensure smooth operation and maintain high performance, clean the stove regularly. The frequency of cleaning is determined by the length of time the stove has been running and by the type of pellet. *(The poorer*

the quality of the fuel, the more frequently will intervention be necessary for cleaning.)

8.1 Burning Pot Electronic Cleaning

The stove performs electronic cleaning of the burning pot. The display shows "**Burner-clean**" and after few seconds the sto-



Collect ash in an airtight container made of non-flammable material. Consult local waste management regulations for ashes disposal.



fig. 13 - Burning pot TAF

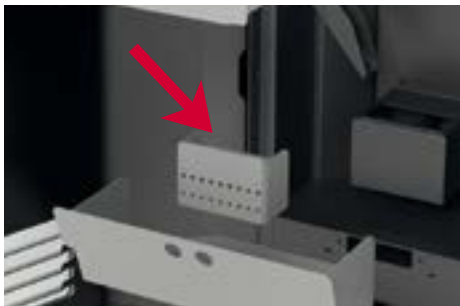


fig. 15 - Burning pot Bory



fig. 17 - Ash box TAF



fig. 14 - Burning pot ARZ, Gally

8.3 Ash Box Cleaning

Empty the ash box when it is full or each 15 days. Carefully replace the box (*fig. 16,17,18,19*) and fix with the screws.



fig. 16 - Ash box ARZ

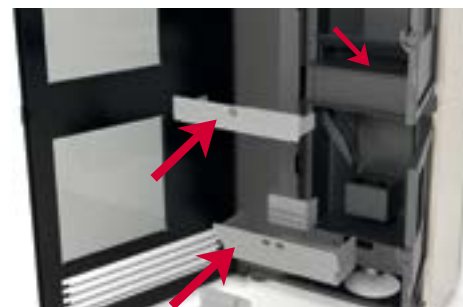


fig. 18 - Ash boxes Bory

To clean the ashes with a vacuum in the pellet stove insert Gally remove the grille (*fig. 19*).



fig. 19 - Gally Ash collectors

8.4 Inspection Cleaning

Clean the inspection compartment when it is full or each 20 days. Remove the lid, empty the inspection with an ash vacuum (fig. 20, 21, 22, 23), close the lid.



fig. 20 - TAF Inspection tube



fig. 21 - AR7 Inspection tube



fig. 22 - Gally Inspection





fig. 23 - Bory Inspection



Close tightly the inspection compartment to ensure a good combustion.

8.5 Combustion chamber of AR7 models and Bory

Once a year clean the top part of the combustion chamber, removing the deflector as shown on fig. 24, 25.



fig. 24 - Exhaust gas deflector of AR7



fig. 25 - Exhaust gas deflector of Bory

8.6 Hopper Cleaning

Saw residues may block the auger. Therefore, pellet hopper must be emptied and

cleaned each 10/20 refills, depends on the quantity of dust in the pellets. Faulty hopper cleaning can void the warranty, with the manufacturer declining all related liability.

8.7 Annual service

Annually contact the local Technical Support to perform annual service:

- Door gaskets control;
- Ash box gaskets control;
- Exchanger gaskets control;
- Tube bundle silicone gaskets control;
- Tube bundle cleaning;
- Pellet hopper cleaning;
- Stove interspace cleaning;
- Air pipeline cleaning;
- Exhaust fan base cleaning;
- Motherboard cleaning;
- Glass hearth cleaning (if applicable);
- Hot air tangential fan cleaning;
- Components control;
- Ignition resistance control;
- Burning pot integrity control;
- Gearmotor integrity control;
- Bushings control.

At the end of the maintenance the technician must fill the user's heating system maintenance booklet, it is required to maintain the guarantee.



Lack of annual maintenance voids the factory stove warranty. The annual maintenance is responsibility of the customer.

9. After Sale Service

For any information or problem please contact your Seller.

9.1 Technical intervention

Please read this manual carefully before asking for a technical intervention. Before-calling Customer Support provide the following data:

1. Dealer/Retailer contact data;
2. Purchase receipt or invoice;
3. Stove serial number (you can find it on the rear panel *fig.26*);



fig. 26 - Serial Number

If the issue can not be solved by the phone, the retailer will forward the claim to Ungaro's technical assistance service.

9.2 Documents to show by customer

In case of intervention provide these documents:

1. Purchase receipt;
2. Invoice;
3. Heating system Booklet;
4. Electrical Certificate of Compliance;
5. Declaration of Chimney Conformity.

9.3 Documents to ask to Authorized Technician

At the end of intervention the technician will give:

1. Service Log signed;
2. Invoice for the used spare parts for out of warranty interventions.

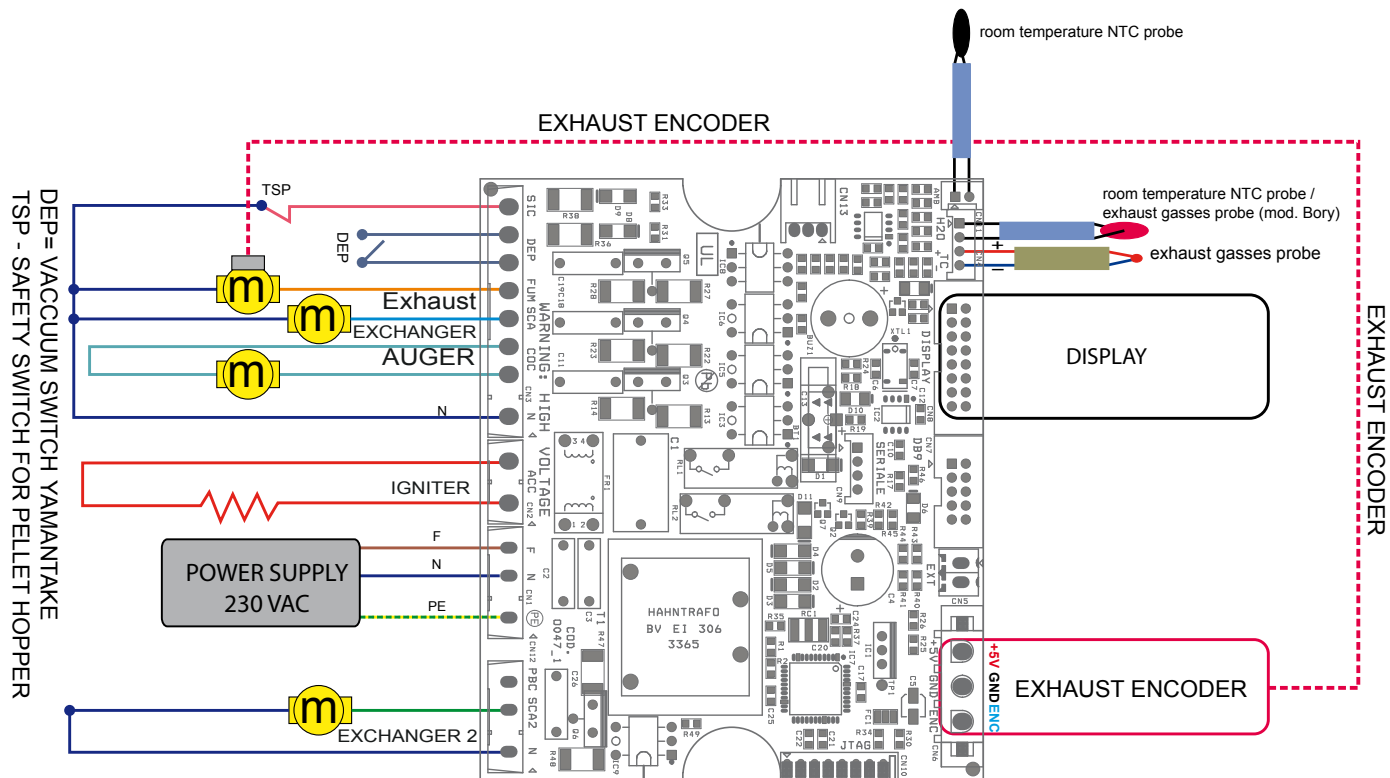


Ungaro S.r.l. reminds that the manufacturer is the holder of the rights provided by Leg. D. 02/06/2002 and the guarantee does not affect these rights.

10. Technical Data

Model			TAF9	TAF12	V serie	
Heat Input	Max	kW	9,3	11,5	9,4	
	Min	kW	2,7	3,4	3,1	
Air Heat Output	Max	kW	8,3	10,4	8,3	
	Min	kW	2,5	3,1	2,8	
Efficiency	P.max	%	89,2	89,9	88,4	
	P.min	%	93,2	92,2	90,8	
Con- sumption	P.max	kg/h	1,9	2,4	1,9	
	P.min	kg/h	0,6	0,7	0,6	
Pellet hopper		kg	22	22	13	
Model			AR7	UC10	Bory	
					pellet	logs
Heat Input	Max	kW	8,4	9,7	9,4	6,8
	Min	kW	3,4	4,2	3,3	
Air Heat Output	Max	kW	7,5	8,7	8,2	4,8
	Min	kW	3,1	3,9	2,9	
Efficiency	P.max	%	89,7	89,4	87,7	
	P.min	%	92,2	93,3	88	85,2
Con- sumption	P.max	kg/h	1,7	2	1,9	1,3
	P.min	kg/h	0,7	0,9	0,7	
Pellet hopper		kg	12	15	15	

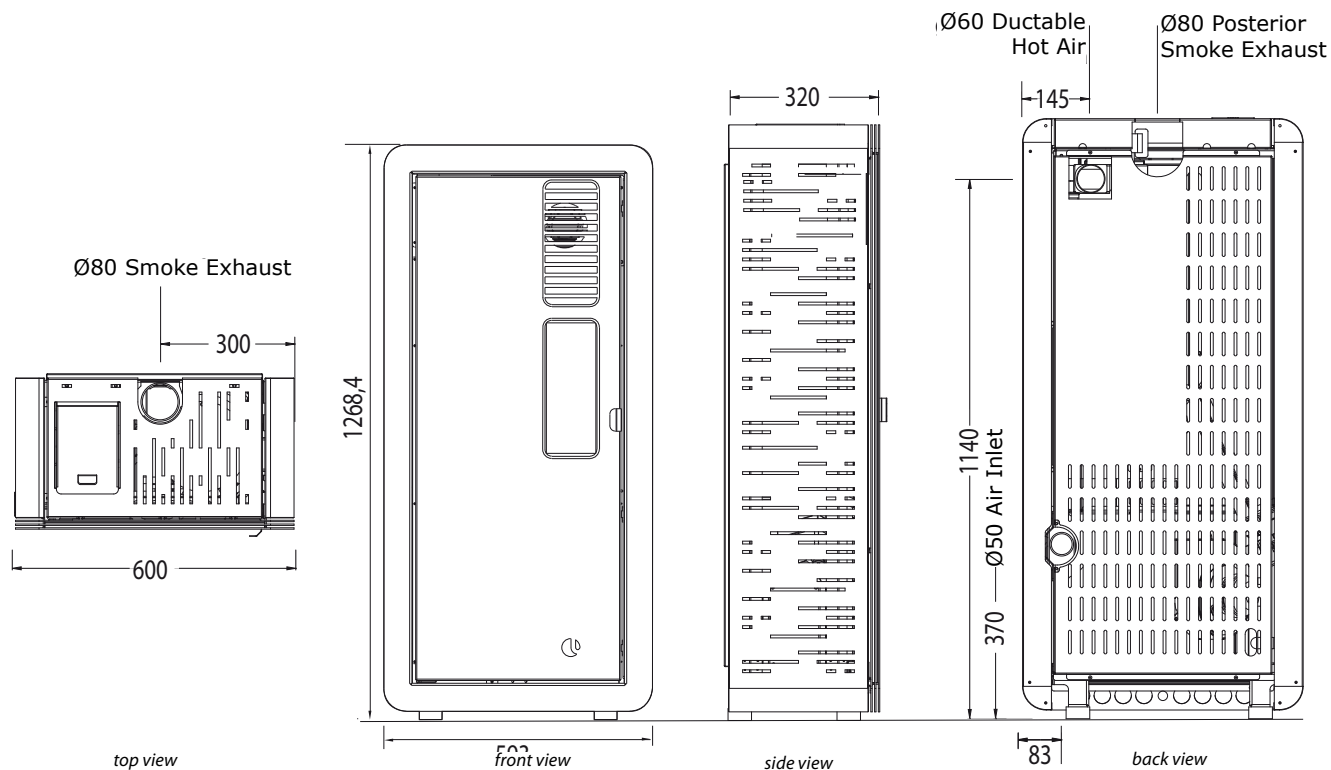
11. Motherboard



11.1. Motherboard Pinouts

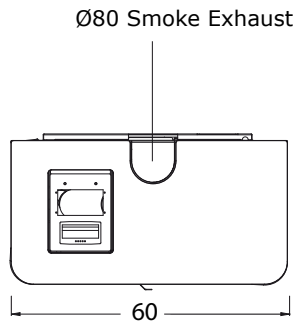
Con.	N° PIN	Corresp.	Description
CN1	1	PE	GROUNDING
	2	N	NEUTRAL
	3	F	PHASE
CN2	1	COM	NEUTRAL
	2	ACC	IGNITION RESISTANCE
CN3	1	N	NEUTRAL
	2-3	COC.	AUGER
	4	SCA.	EXCHANGER
	5	FUM	EXHAUST
	6-7	DEP	VACUUM PRESSURE
	8	SIC	THERMAL SAFETY
CN4			
	3	TC+	EXHAUST PROBE +
	4	TC-	EXHAUST PROBE -
CN5	1-2	EXT	EXTERNAL THERMOSTAT OPTIONAL
CN6	1	+5V	EXHAUST ENCODER POWER
	2	GND	GND EXHAUST ENCODER
	3	ENC	EXHAUST ENCODER SIGNAL
CN7	1, ..., 16	DB9	SERIAL + EXTERNAL THERMOSTAT
CN8	1, ..., 4	DISPLAY	Consol
CN11		AMB	AMBIENT PROBE
CN12			EXCHANGER 2

12. Technical Drawings

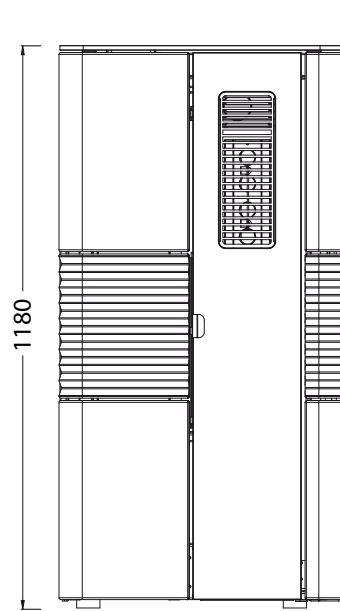


ORCHIDEA (TF9-TF12)

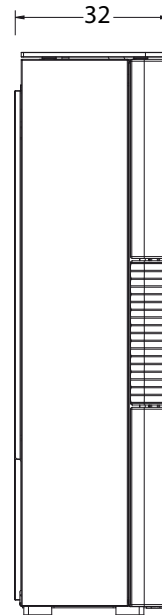
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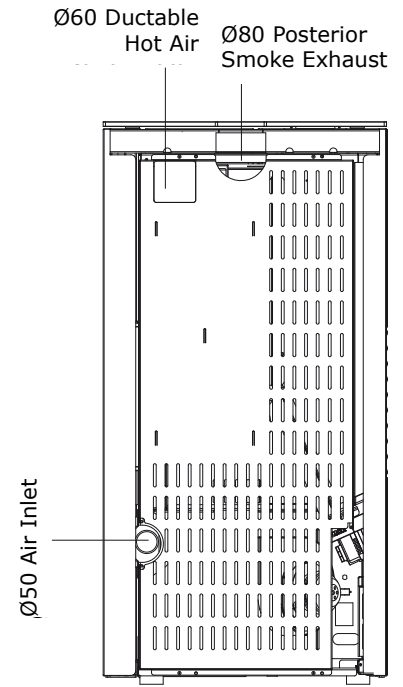
top view



front view



side view

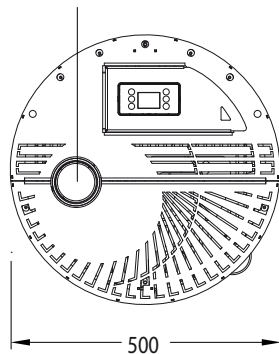


back view

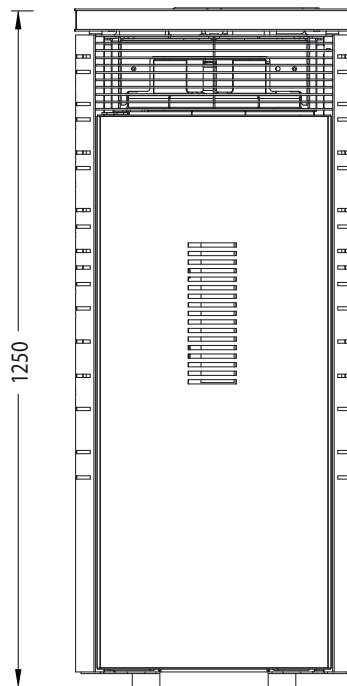
MARIQUITA (TF9-TF12)

All dimensions are in millimeters

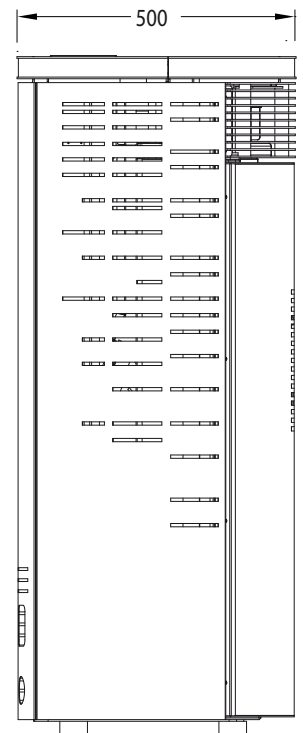
Ø80 Smoke Exhaust



top view



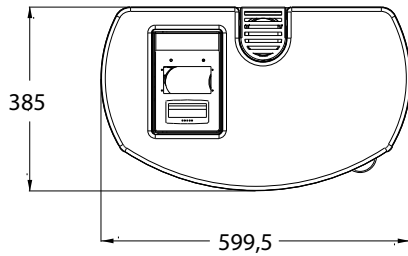
front view



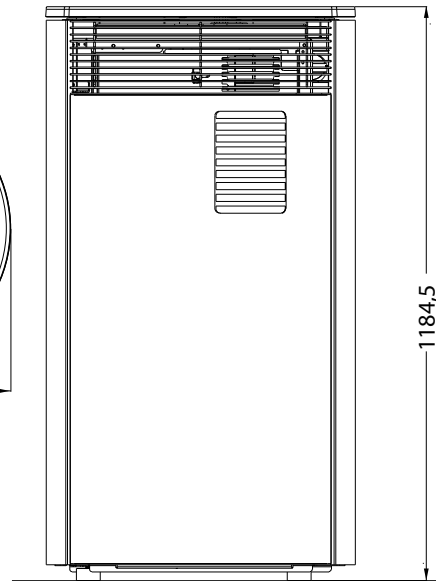
side view

LA TONDA (TF9)

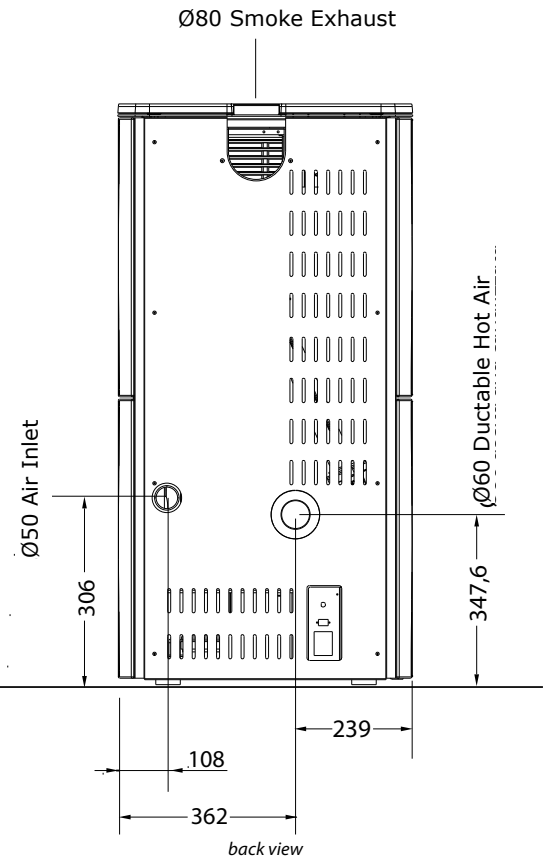
All dimensions are in millimeters



top view



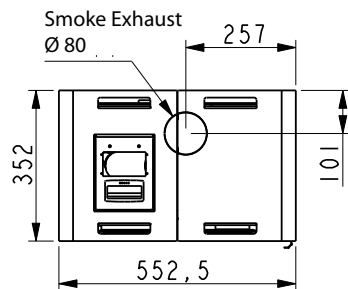
front view



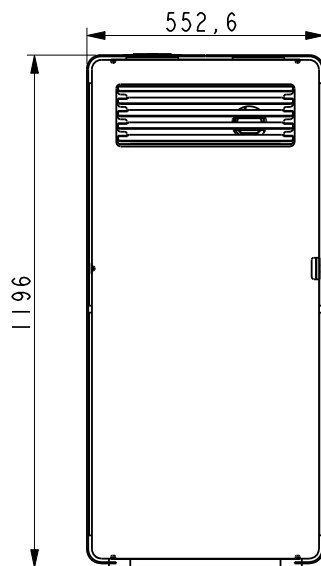
back view

FAGIOLO ARIA (TF9-TF12)

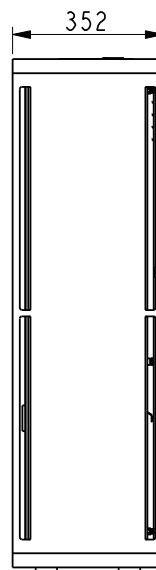
All dimensions are in millimeters



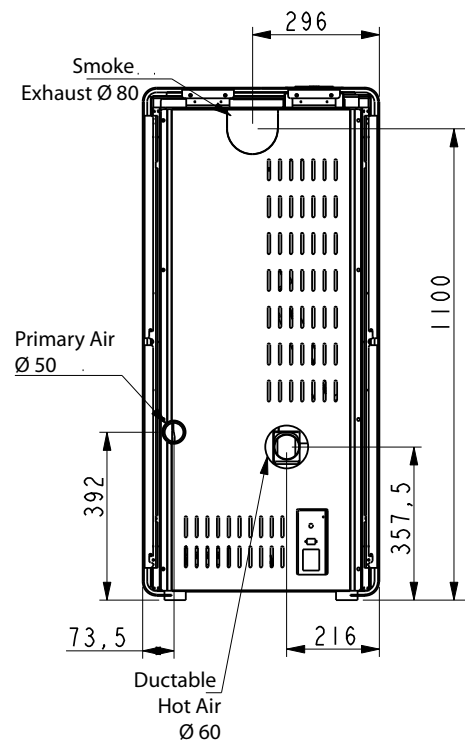
top view



front view



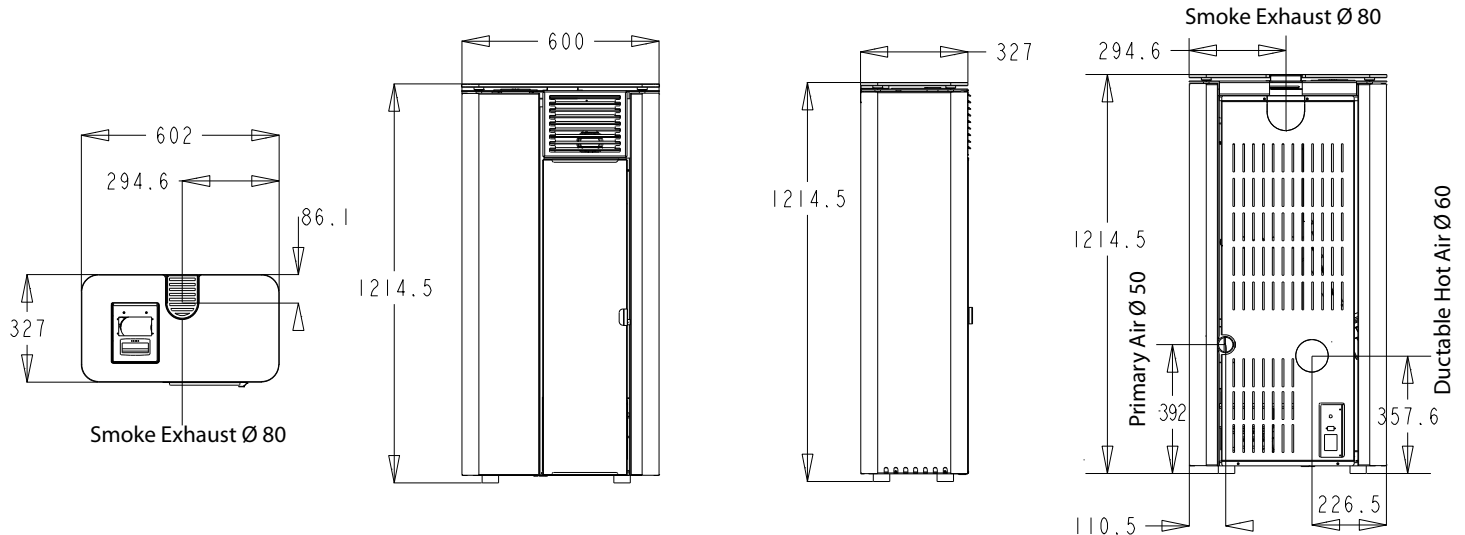
side view



back view

All dimensions are in millimeters

ZEFY (TF9-TF12)



top view

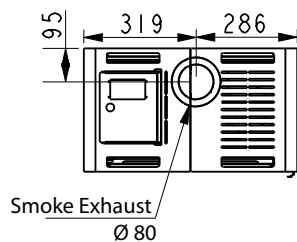
front view

side view

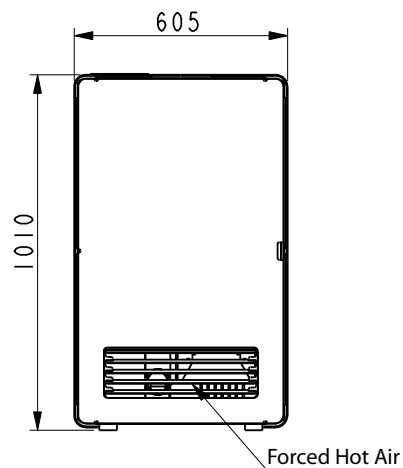
back view

OSTRY (TF9-TF12)

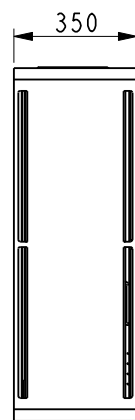
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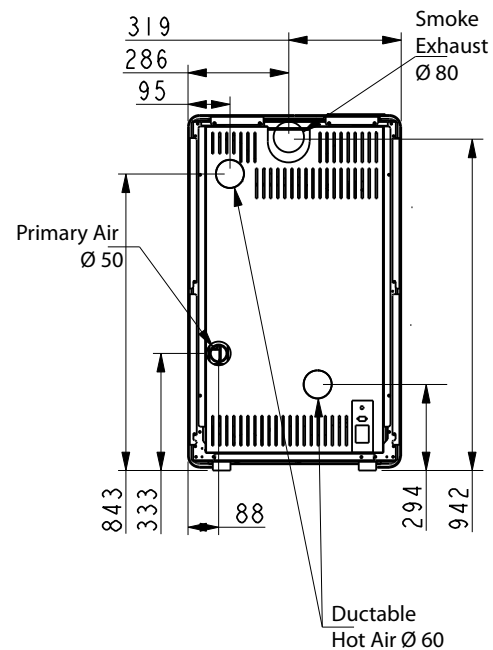
top view



front view



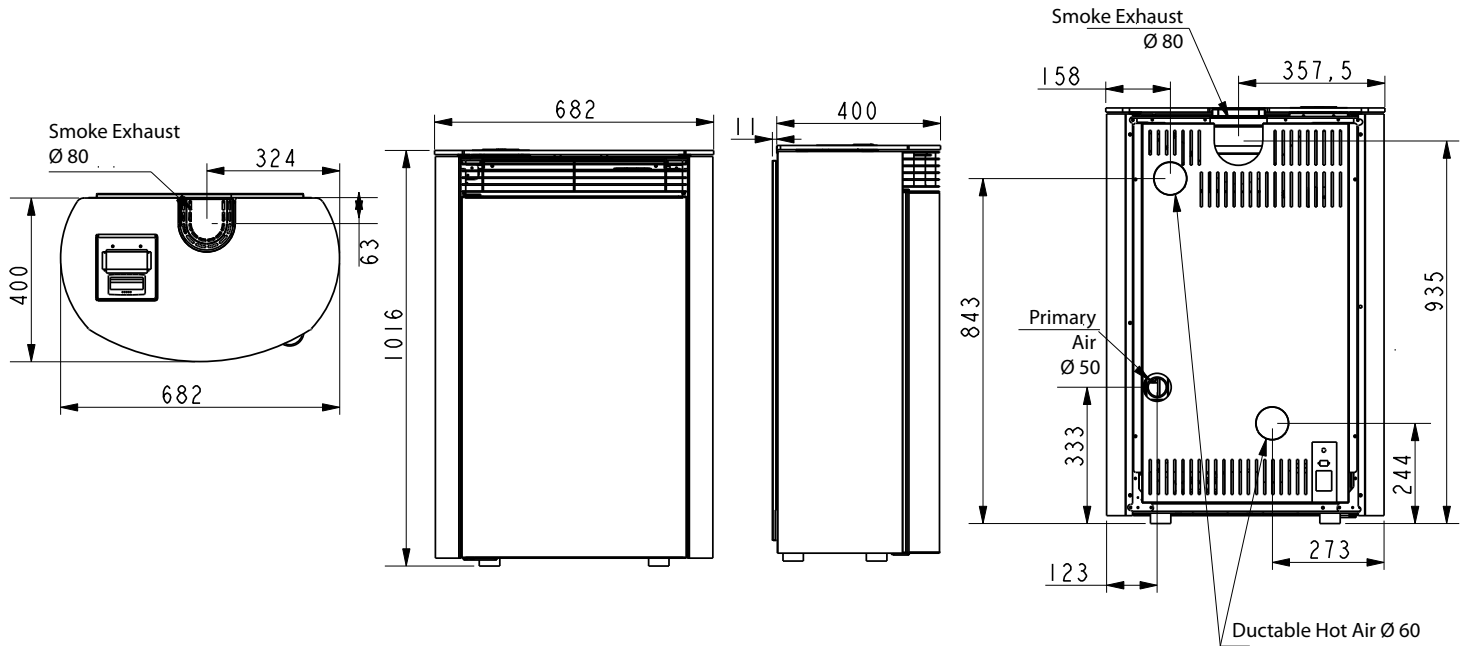
side view



back view

LIBY (AR7)

All dimensions are in millimeters



top view

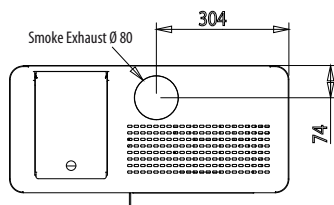
front view

side view

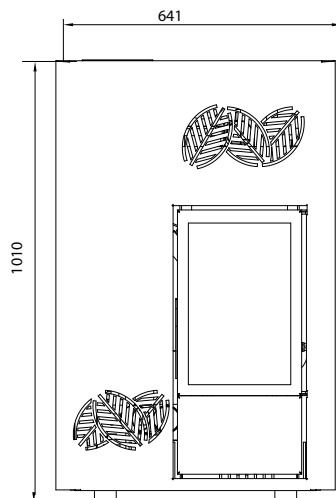
back view

SOLE (AR7)

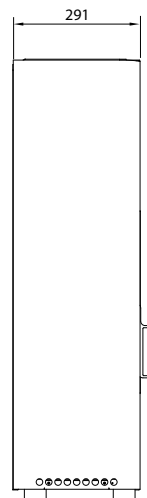
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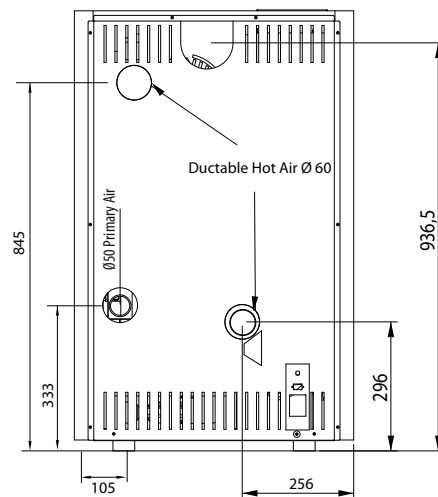
top view



front view



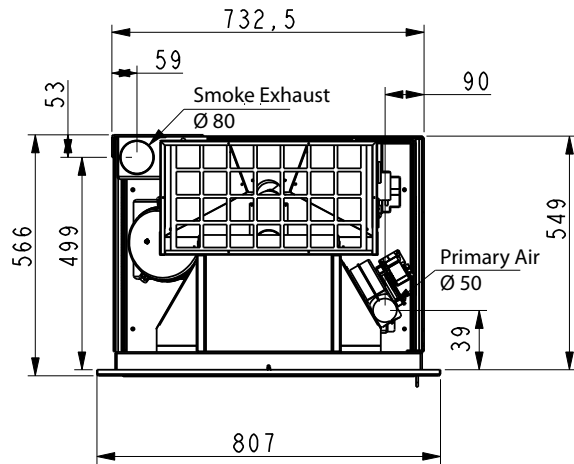
side view



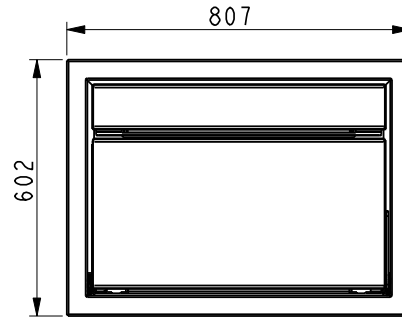
back view

FOGLIA (AR7)

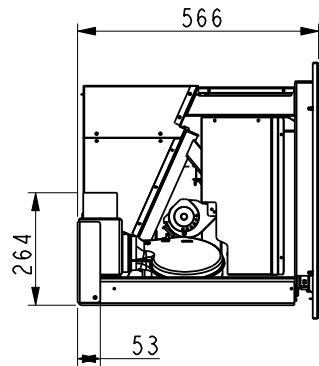
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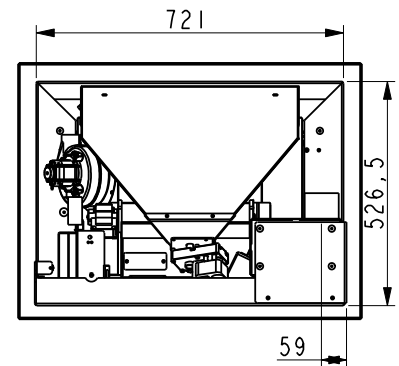
top view



front view



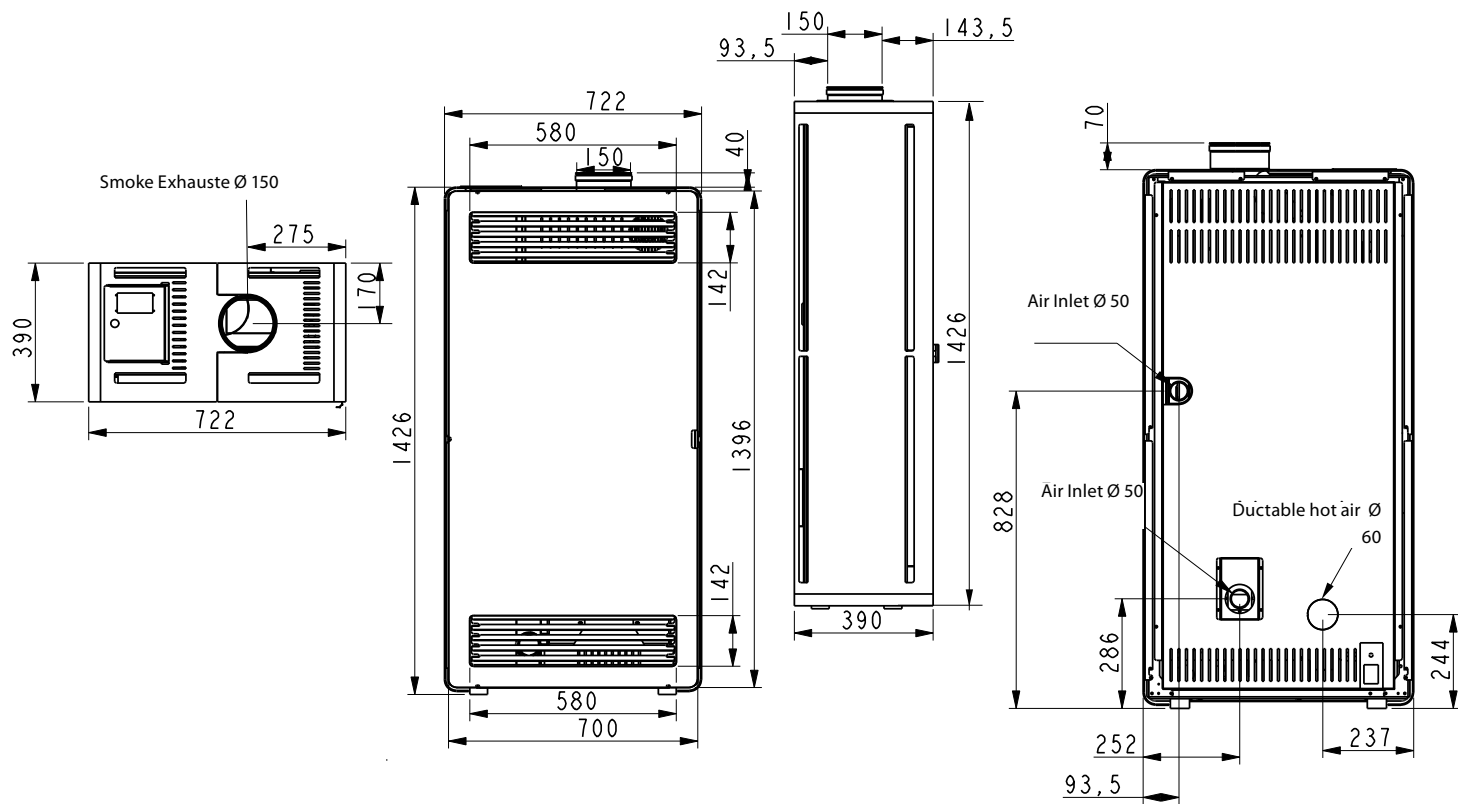
side view



back view

GALLY (UC10)

All dimensions are in millimeters



top view

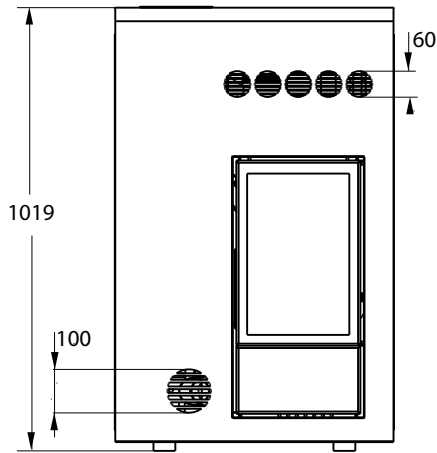
front view

side view

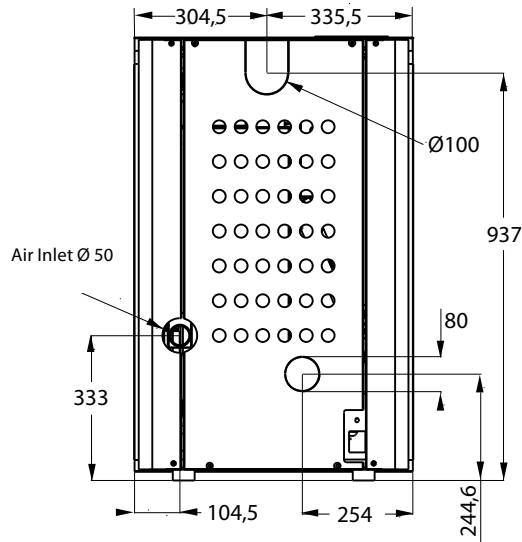
back view

BORY

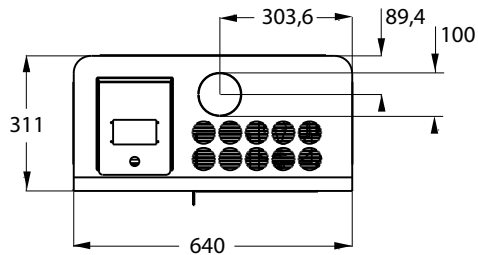
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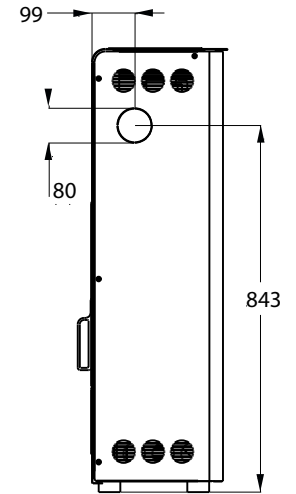
front view



back view



top view



side view

V Serie

All dimensions are in millimeters

Guarantee

Ungaro S.r.l. declares that the the product purchased is in perfect condition and there are no manufacturing defects.

All Ungaro products are singularly tested and covered by guarantee for 24 months.

The guarantee is conditional on the following documents being filled in and returned to the Manufacturer within 8 days from the date of purchase:

- Warranty registration card completed;
- Copy of Heating System Compliance Certificate;
- Copy of a proof of purchase (invoice or receipt) that shows the name of the retailer and the date of purchase.

The term "guarantee" is to be understood to denote the free of charge replacement by qualified personnel or repair of parts recognised to have been defective at the start by reason of manufacturing defects.

The warranty is valid under conditions:

- If all the requirements described in this manual are followed;
- If the appliance is installed by qualified personnel and the warranty registration card is completed and sent to the Manufacturer;
- If the Customer has Heating System Compliance Certificate and Electrical Certificate of Compliance;
- If the appliance is used and serviced as described in this manual;
- **If the appliance is serviced annually by an authorized Ungaro technician;**
- If the flue pipe is installed and serviced as described in this manual and in accordance with the regulations in force in your local area, region and country;
- If used certified pellet conforming to the specification given in this manual;

- If the Customer keeps the warranty registration card filled out, with the receipt of purchase. This document must be shown to the technician in case of intervention

Exclusions:

The guarantee will be invalidated in the event of damage caused by tampering with the appliance, atmospheric chemical agents, natural disasters, electrical discharges, fire, defects in the electrical system, and caused by lack of, or incorrect, maintenance in terms of the manufacturer's instructions.

The guarantee will be invalidated in case of overheating, combustion of non-conforming materials.

The above guarantee does not cover parts subject to normal wear such as gaskets, fibre board on doors, burner pot, ignition resistance, combustion chamber lining, ceramic glass, painted finishes and other external finishes.

The Customer is in charge of eventual costs (repair, transport) arising from improper exercise of warranty rights.

Ungaro S.r.l. is not responsible for damages during transportation and/or handling, please inspect your order immediately upon receipt and contact your retailer for any claims.

This guarantee is valid only for the buyer and cannot be transferred. The replacement of the entire system or the repair of one of its components does not extend the guarantee period.

Expenses incurred from incorrect boiler/thermostove installation, ash accumulated, lack of maintenance or unsuitable cleaning are not covered by the guarantee.

The Manufacturer declines all liability for any damage which may be caused, directly or indirectly,

due to the use of the product.

The product installation must comply with all applicable laws and regulations (L.n. 37/08 ex.46/90; dpr n 412/93; norms UNI-CIG; prescriptions VV.FF.; ecc.).

The guarantee is not valid if:

- The electric installation is not provided with an earth connection or has no certificate of compliance;
- There is rust or any other corrosion caused by placing the product in a damp site;
- Damages caused by overvoltage, electrical discharges, stray currents;
- Damages caused by use of non original spare parts or intervention of non authorized personnel;
- There was a misuse of the product or sabotage.

Any technical interventions at the end of the guarantee period are to be paid by the Customer, including travel costs.

This is the only guarantee Ungaro S.r.l. gives for the product. No one else may give any guarantee, warranty, or condition on Ungaro's behalf.

Ungaro s.r.l. declines all liability for any damage which may be caused, directly or indirectly, to persons, animals or objects as a consequence of non compliance with any prescription specified in the manual, especially warnings regarding installation, use and maintenance of the appliance.

In order to improve the product, to keep this publication up to date Ungaro S.r.l reserves the right to make modifications without any advance notice.

Purchase Date

Installation Date

Seller

Installer

Stove Data

Last Name

First Name

Street

n°

ZIP

City

Prov.

Telephone

e-mail

Purchase Date

Seller

Installer

Stove Data

The customer declares that he/she has read the guaranty and the user manual.

Date _____ Signature _____

By signing this consent form, I confirm that pursuant to the provision of Art.13 and 23 L.196/2003 on Personal Data Protection, Ungaro S.r.l. personal data above for the purposes of sending marketing communication, and information of commercial and advertising nature and make such data available to a data processor under the terms and conditions set out by the Personal Data Protection Act. I acknowledge my right to access the personal data, edit it, and to withdraw this consent at any time in a written notice delivered to: Ungaro S.r.l. - Via S. Mango 2 - 88040 S. Mango D'Aquino - CZ. Providing my personal data is voluntary; in the lack of them Ungaro S.r.l. cannot provide services mentioned above. *By signing below I express my consent to personal data processing.*

Date _____ Signature _____

To cut and to send to Ungaro S.r.l. within 8 days of the date of purchase. Fill in all the fields in readable form.



Ungaro S.r.l.

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