

INSTALLER MANUAL

Pellet Stove



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GRACE³ - SPIRIT³ - MADISON - TABLA - ROXY - ATRIUM - SOLO 5

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1 MANUAL SIMBOLOGY

	USER
	AUTHORISED TECHNICIAN (ONLY to interpret or the Stove-manufacturer or the Authorized Technician of Technical Assistance Service approved by the Stove-manufacturer)
	SPECIALIZED STOVE-REPAIRER
	CAUTION: READ CAREFULLY THE NOTE
	CAUTION: DANGER OR IRREVERSIBLE DAMAGE POSSIBILITY

- The icons with the stylized figures indicates whom the subject dealt in the paragraph is addressed to (between the User and/or the Authorized Technician and/or the Specialized Stove-repairer).
- WARNING symbols indicates an important note.

2 PACKAGING AND HANDLING

2.1 PACKAGING

- The packaging is made up of recyclable cardboard boxes according to RESY standards, recyclable expanded polystyrene inserts and wooden pallets.
- All packaging materials can be re-used for a similar use or eventually discharged as waste assimilable to the municipal solid ones, in accordance with current regulations.
- After having removed the packaging please assure you about the integrity of the product.

2.2 STOVE HANDLING

Both whether the stove is packed or not it is necessary to observe the following instructions for handling and transporting the stove from its sale point to its installation point and for any future movements:

- The stove must be handled with idoneous means paying attention to the existing safety regulations;
- do not turn the stove upside down and/or upset it on one side, but keep it in vertical position or as accorded with the constructor instructions;
- if the stove is made up of ceramic, stone, glass or any particularly fragile material components, all must be moved with the utmost care.

3 CHIMNEY FLUE



3.1 INTRODUCTION

This chapter about the Chimney Flue has been drawn up in cooperation with Assocosma (www.assocosma.org) and is based on European Standards (EN 15287 - EN 13384 - EN 1856 - EN 1443) and UNI 10683:2012.

It provides instructions for a good and correct execution of the chimney flue but it does not absolutely replace the current stan-

dards which the qualified manufacturer/installer should comply with.

3.2 CHIMNEY FLUE

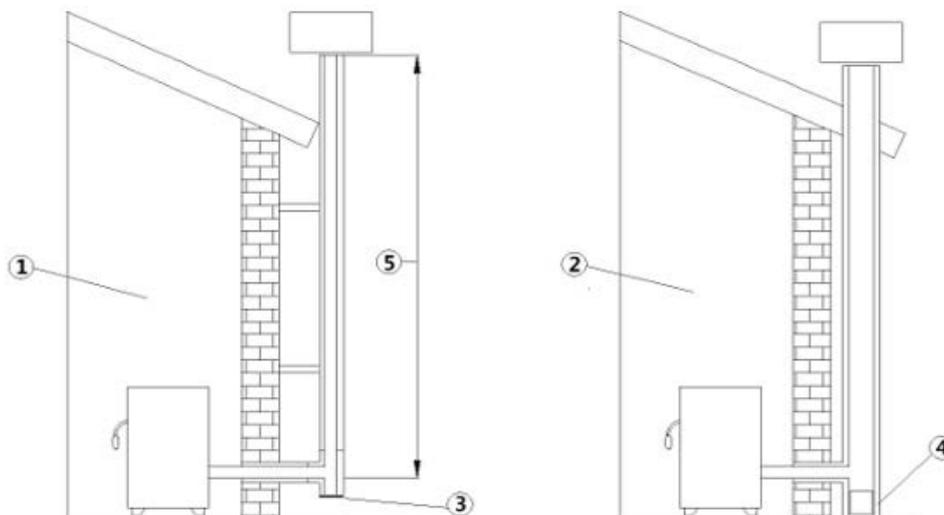


Fig. 1 - Chimney Flues

LEGEND	Fig. 1
1	Chimney flue with insulated stainless-steel pipes
2	Chimney flue on the existing chimney
3	Inspection plug
4	Inspection door
5	≥ 3,5 mt

- The chimney flue or chimney is of great importance for the correct running of the heating appliance.
- It is fundamental that the chimney flue is perfectly built and always maintained with a perfect efficiency.
- The chimney flue must be sole (see Fig. 1) with insulated stainless-steel pipes (1) or installed on the existing chimney flue (2).
- Both this solutions must be endowed with an inspection plug (3) and/or an inspection door (4).

3.3 TECHNICAL FEATURES

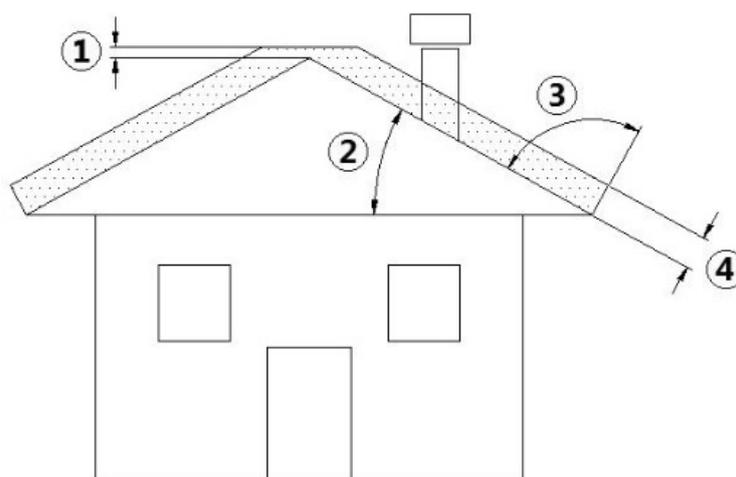


Fig. 2 - Inclined roof

LEGEND	Fig. 2
1	Height over the ridge of the roof = 0,5 mt
2	Roof inclination ≥ 10°
3	90°
4	Measured distance at 90° from the roof surface = 1,3 mt

- The chimney flue must be sealed from fumes.
- It must have a vertical run without narrowing. It must be realized with fume and condensation resistant materials with thermal insulation and able to last against usual mechanical stresses.



It must be insulated to avoid condensation and to reduce fume cooling effects.

- The stove must be spaced out from fuels or flammable materials with an air gap or with insulating materials. Check the distance with the chimney manufacturer.
- The chimney entrance must be placed in the same room where the appliance is installed or otherwise in the adjacent room and it must be provided with a solid and condensation collection chamber under the entrance, accessible through the sealed metal gate.
- Auxiliary exhaust fans cannot be installed neither along the chimney nor on the chimney pot.
- The inner section of the chimney flue can be round (the best one) or square and the jointed sides must have a minimum radius of 20 mm.
- The section dimension must be:
 - **minimun Ø100 mm**
 - **recommended max Ø180 mm**
- Made the efficiency of the chimney flue overhauled by an expert stove-repairer and if necessary cover the chimney flue with materials in compliance with current regulations.
- The flue system must be placed on the roof.
- The chimney flue must be provided CE in accordance with EN 1443 regulation. Please find attached an example of label:



Fig. 3 - Example of label

3.4 HEIGHT-DEPRESSION

The depression (draught) of a chimney flue depends also on its height. Check the depression with the values provided at **FEATURES a pag. 31**. Minimum height 3,5 meters.

3.5 MAINTENANCE

- The fumes extraction pipes (fumes conduit + chimney flue + chimney pot) must always be cleaned, scrubbed and checked by an expert stove-repairer, in compliance with current regulations, with the instructions of the stove-manufacturer and the directives of your insurance company.
- In case of doubts, please follow the most restrictive regulations.
- Have your chimney flue and chimney pot checked and cleaned by an expert chimney sweep at least once a week. The chimney sweep has to release a written declaration about the security of the system.
- Not cleaning compromise safety.

3.6 CHIMNEY POT

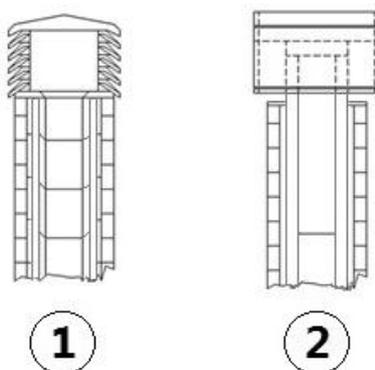


Fig. 4 - Anti-wind chimney pots

The chimney pot is important for the correct running of the heating appliance:

- We recommend using an anti-wind chimney pot, see **Fig. 4**.
- The hole width for fumes exhaust must be the double of the chimney flue width and fitted in a way that the fume exhaust is assured also in case of wind.
- It should prevent the infiltration of rain, snow and animals.
- The outlet height in the atmosphere must be away from the reflux area caused by the roof structure or by obstacles laying nearby (see **Fig. 2**).

3.7 CHIMNEY COMPONENTS

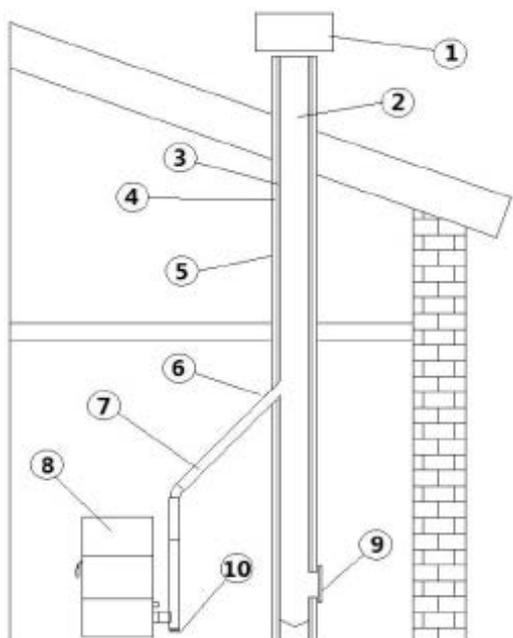


Fig. 5 - Chimney components

LEGEND	Fig. 5
1	Chimney pot
2	Fume outlet
3	Chimney flue
4	Thermal insulation
5	External wall
6	Chimney union
7	Fume pipe
8	Heat generator
9	Inspection door
10	T-union with inspection plug

3.8 CHIMNEY FLUE CONNECTION

Your pellet stove works through a fume draught forced by a fan. It is obligatory to check that all pipes are realized in compliance with the following regulation on material selection: EN 1856-1, EN 1856-2 e UNI/TS 11278. All must be effected by specialized personnel or companies as provided by UNI 10683:2012.

- The connection between the appliance and the chimney flue should be short in order to favor the draught and to avoid condensation in the pipes.
- The fume conduit should be equivalent or longer than the outlet joint ones (Ø 80 mm).
- Some stove models are endowed with a lateral and/or back exhaust. Check that the unused exhaust is sealed with the plug given with standard equipment.

SYSTEM TYPE	Ø80 mm PIPE	Ø100 mm PIPE
Minimum vertical length	1,5 mt	2 mt
Maximum length (with 1 union)	6,5 mt	10 mt
Maximum length (with 3 unions)	4,5 mt	8 mt
Maximum number of unions	3	3
Level section (minimum inclination 3%)	2 mt	2 mt
Installation at a height above 1200 m a.s.l.	NO	Obligatory

- Use a plate pipe for stoves of Ø80 mm or Ø100 mm depending on the type of system and with silicone gaskets.
- It is forbidden to use metal, fibre cement or aluminium flexible pipes.
- For change of direction it is obligatory always to use a union (with angle > 90°) with inspection plug which enables an easy periodic cleaning of the pipes.
- Please assure you that after the cleaning the inspection plugs are sealed with its efficient gasket.
- It is forbidden to exhaust flue gases directly from the wall towards the outside and closed spaces also at open top.
- The fume conduit must be placed at a distance of minimum 500 mm from flammable or heat-susceptible components.
- It is prohibited to connect more than one wood/pellet (*) or any other type of appliance (vent cowl...) to the same flue.

(*) unless there are national derogations (for instance in Germany), which under suitable conditions allow for the installation of several appliances in the same fireplace. In any case, strictly follow the product/installation requirements of the relative regulations/legislation in force in that country.

3.9 EXAMPLES OF CORRECT INSTALLATION

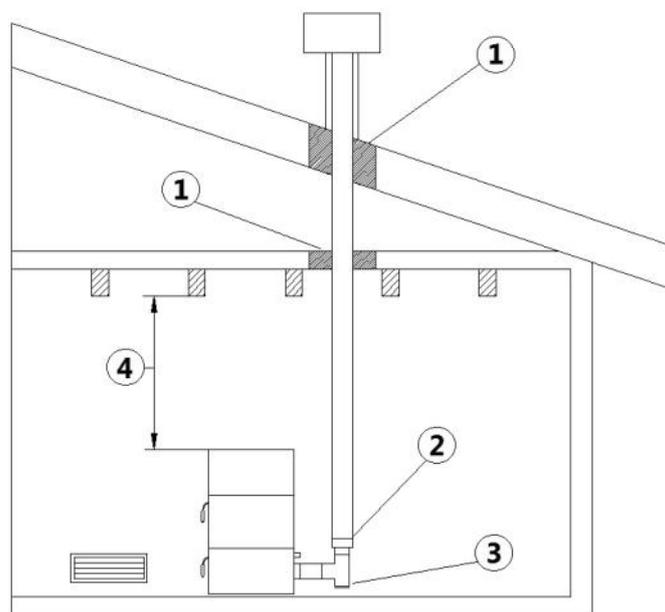


Fig. 6 - Example 1

LEGEND	Fig. 6
1	Insulating material
2	Reduction from Ø100 to Ø80 mm
3	Inspection plug
4	Minimum safety distance = 0,5 mt

- Chimney flue installation Ø100/120 mm with an enlarged drilling for pipe transit.

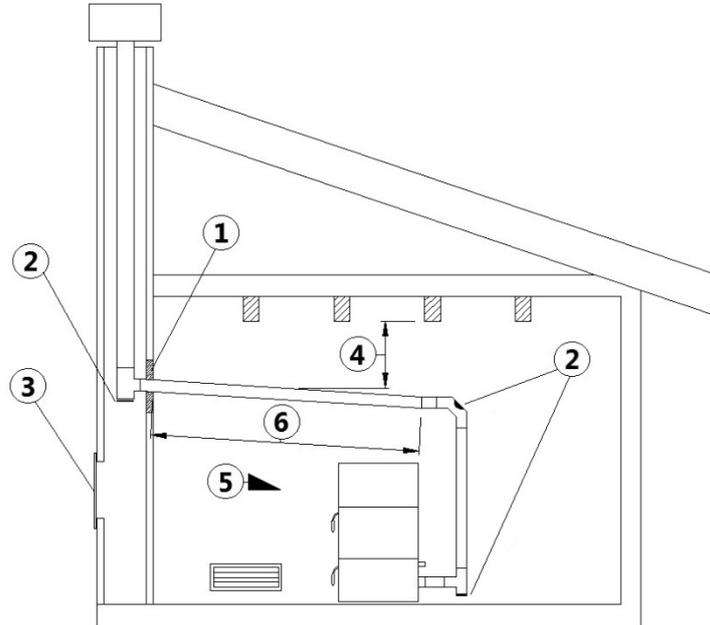


Fig. 7 - Example 2

LEGEND	Fig. 7
1	Insulating material
2	Inspection plug
3	Chimney inspection entrance
4	Minimum safety distance = 0,5 mt
5	Inclination $\geq 3^\circ$
6	Level section ≤ 1 mt

- Old chimney flue with an inserted pipe of minimum Ø100/120 mm and with an external door which enables the chimney cleaning.

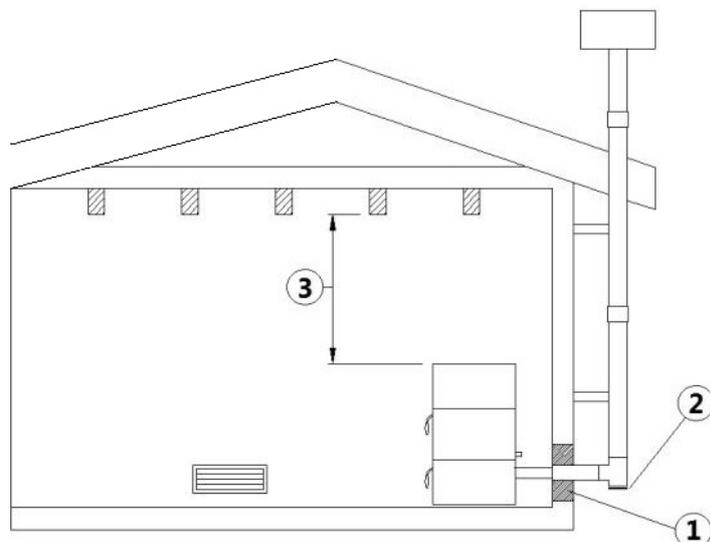


Fig. 8 - Example 3

LEGEND	Fig. 8
1	Insulating material
2	Inspection plug
3	Minimum safety distance = 0,5 mt

- External chimney flue entirely made up of insulated stainless steel pipes, i.e. with double wall of minimum Ø100/120 mm: all must be firmly attached to the wall. For chimney against wind effects please (see **Fig. 4**).
- Ducting system through T-unions which enables an easy cleaning without disassembling the pipes.



We recommend to check with your chimney flue manufacturer the safety distances which must be respected and the type of insulating material. The aforesaid regulations are valid also for holes made on the wall (EN 13501 - EN 13063 - EN 1856 - EN 1806 - EN 15827).

4 COMBUSTION AIR

4.1 EXTERNAL AIR INLET

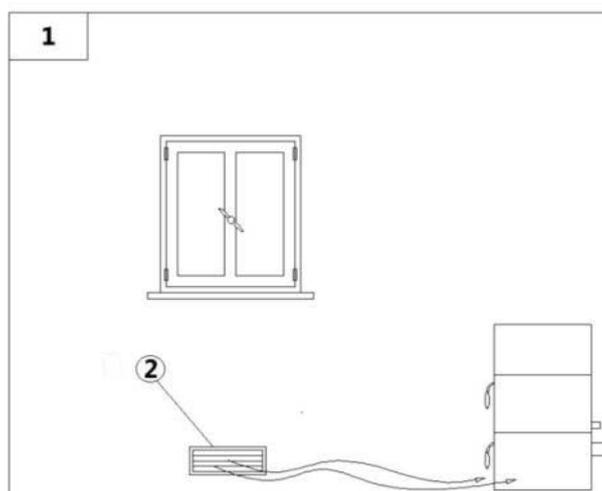


Fig. 9 - Direct air inflow

LEGEND	Fig. 9
1	Room to ventilate
2	External air inlet

- The room must be endowed with an external air recycling for a good climate in your ambient.
- The air inflow from outside to the inner occurs directly, through an opening on the external wall of the room (see **Fig. 9**).
- Bedrooms, garages, and store of flammable materials are excluded.
- The air inlet should have a total net surface of 80 sqcm²: the aforesaid surface is to widen if inside the room there are other activated appliances (for example: electric ventilators for foul air suction, cooker hoods, other stoves, etc...) which depress the environment.
- At switched on appliance it is necessary to check that the pressure fall between the room and the outside does not exceed 4,0 Pa value: if necessary widen the air inlet (EN 13384).
- The air inlet must be realized at a height close to the floor with an external grid against birds. In such a way it cannot be obstructed by any object.
- **In case of installation with sealed-chamber the air inlet is not necessary.**

4.2 COMBUSTIBLE AIR INLET FOR SEALED-CHAMBER INSTALLATION

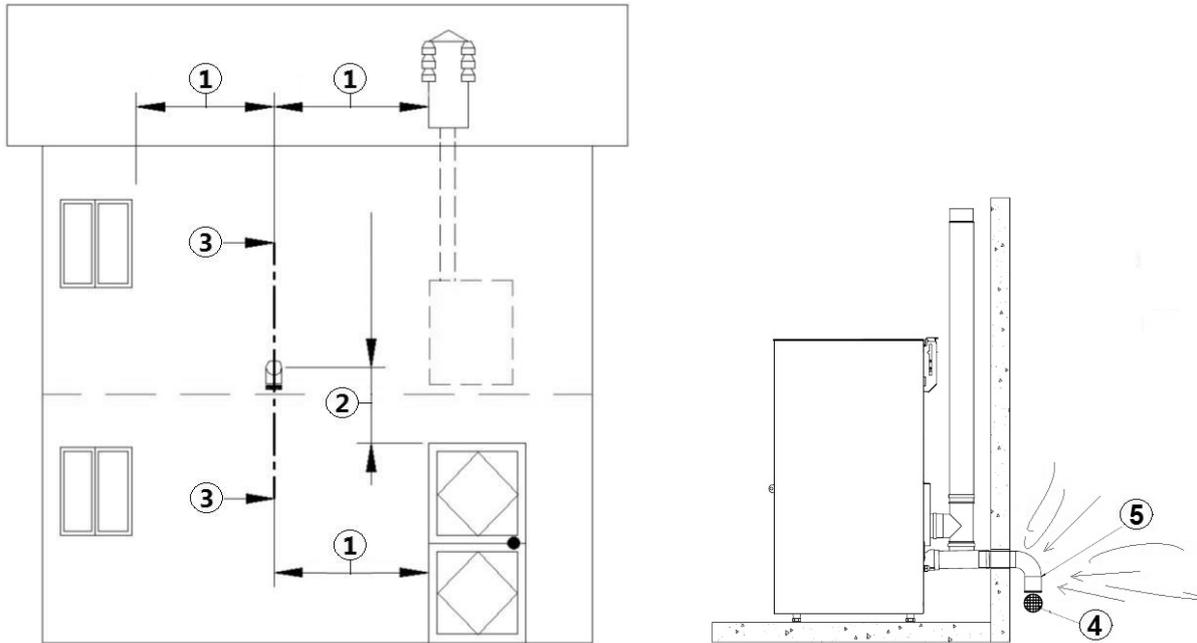


Fig. 10 - Air inlet for sealed-chamber installation

LEGEND	Fig. 10
1	$\geq 1,5 \text{ mt}$
2	$\geq 0,3 \text{ mt}$
3-3	Sectional view
4	Shield grid
5	Curve inlet to turn downwards

Check if the purchased stove has a sealed-chamber. If the stove is endowed with a sealed-chamber and you want also the whole installation with sealed chamber, please read the following instructions:

- It is necessary to extract the air for combustion directly from outside.
- Use a tube with minimum $\text{Ø}60 \text{ mm}$ and maximum 2 meters length; to connect see the back of the stove.
- French standards require installation in double-walled flues (concentric system). The combustion air is drawn from the cavity.
- During installation step is necessary to verify the minimum distances required for the combustible air inlet as (for example) an open door or window causes a vortex which could remove the combustible air necessary to the stove (see the underlying scheme).
- On the external wall it is necessary to install a curve at 90° to protect the combustible air inflow from wind effects: turn the curve inlet downwards, see **Fig. 10**.
- Endow the curve with an external shield grid against birds in such a way that it cannot be obstructed by any object.



Check with your local authorities if exists any restrictive regulation regarding the combustible air inlet: if present, they must be applied



In some countries and/or regions the installation with sealed-chamber is obligatory: in case of doubt, please follow the most restrictive regulations.

4.3 COMBUSTIBLE AIR INLET FOR SEALED-CHAMBER INSTALLATION

How to connect to the stove in the sealed chamber with concentric system:



Fig. 11 - Phase1

- Connect the air intake pipe to the combustion air pipe of the stove and tighten everything with a clamp (see [Fig. 11]).

5 INSTALLATION

5.1 INTRODUCTION

- The assembly position must be chosen depending on environment, outlet, chimney flue.
- Check with local authorities if there are any restrictive regulations which regard the combustible air inlet, room ventilation, fume exhaust system together with chimney flue and chimney pot.
- Check if there is the combustible air inlet.
- Check the probable presence of other stoves or appliances which could depress the room.
- Check at switched on stove if there is the presence of CO in the room.
- Check if the chimney has the necessary draught.
- Check if during the fume passage all has been executed in safety (probable fume losses and distances from flammable materials, etc...).
- The installation of the appliance must enable an easy access for appliance, fume exhaust pipes and chimney flue cleaning.
- The installation must enable an easy access to the electric connection plug (see **ELECTRIC CONNECTION** a pag. 23).
- To install more appliances, the external air inlet must be correctly dimensioned (see **FEATURES** a pag. 31).

5.2 OVERALL DIMENSIONS

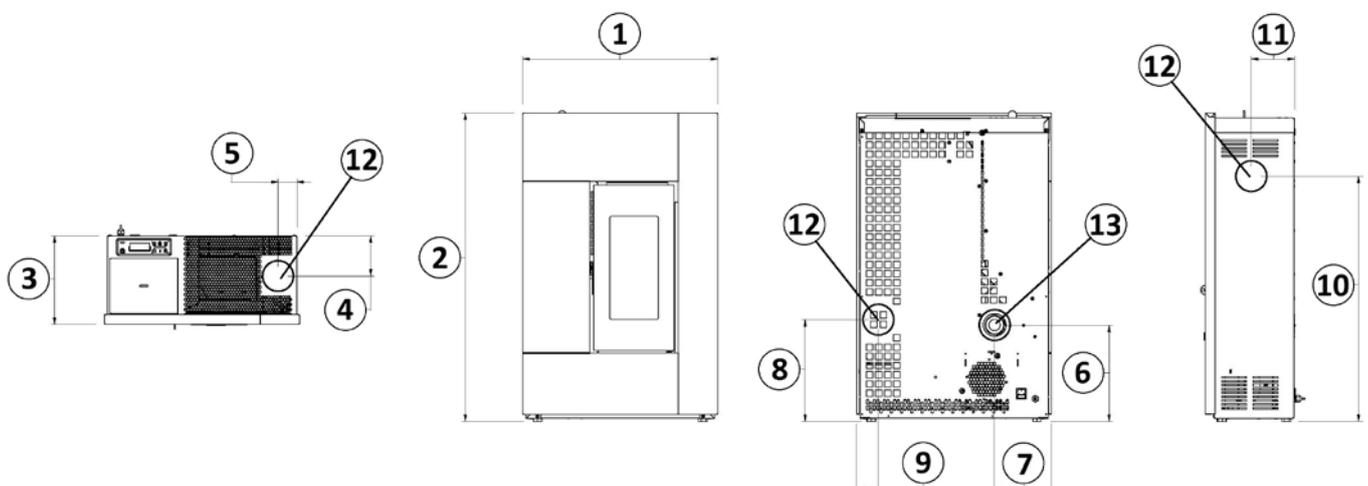


Fig. 12 - General dimensions: Spirit³

LEGEND	Fig. 12
1	60 cm
2	95,5 cm

LEGEND Fig. 12

3	27,5 cm
4	12,5 cm
5	5,9 cm
6	30,6 cm
7	17 cm
8	31,5 cm
9	6,6 cm
10	76 cm
11	13,2 cm
12	Exhaust fumes d.8 cm
13	Hole combustion air inlet d.6 cm

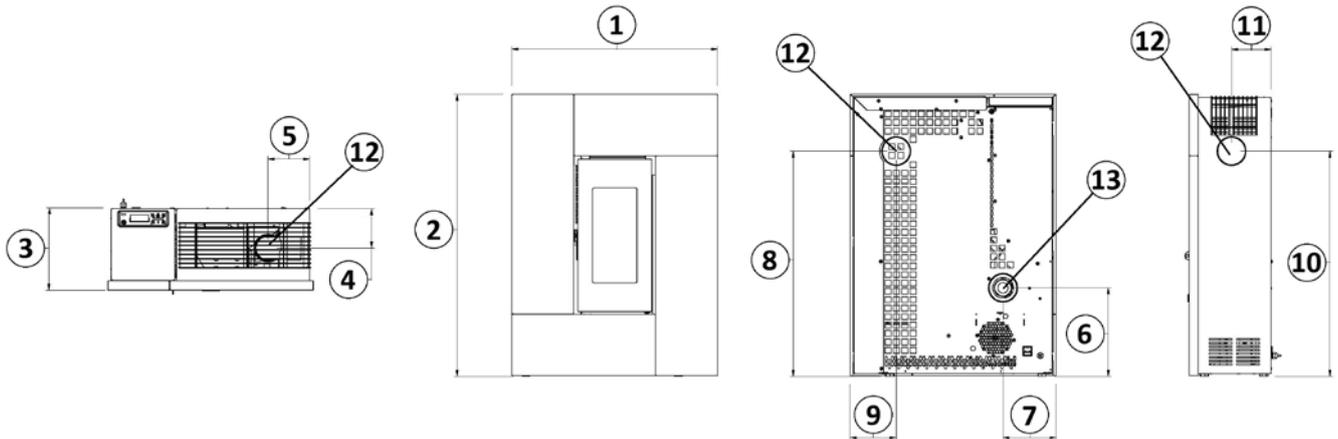


Fig. 13 - General dimensions: Grace³

LEGEND Fig. 13

1	69 cm
2	98,7 cm
3	27,5 cm
4	12,4 cm
5	14,4 cm
6	34,1 cm
7	17,3 cm
8	79,5 cm
9	6,6 cm
10	76 cm
11	13,2 cm
12	Exhaust fumes d.8 cm
13	Hole combustion air inlet d.6 cm

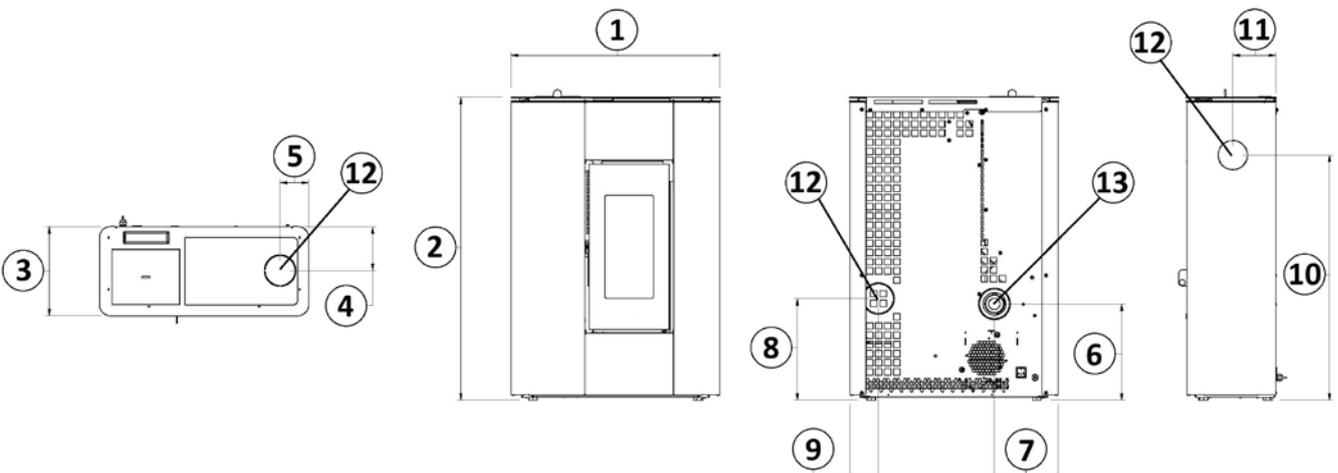


Fig. 14 - General dimensions: Atrium

LEGEND Fig. 14

1	64,5 cm
2	94 cm
3	27,7 cm
4	13,7 cm
5	8,8 cm
6	29,8 cm
7	19,7 cm
8	31,5 cm
9	8,8 cm
10	76 cm
11	13,2 cm
12	Exhaust fumes d.8 cm
13	Hole combustion air inlet d.6 cm

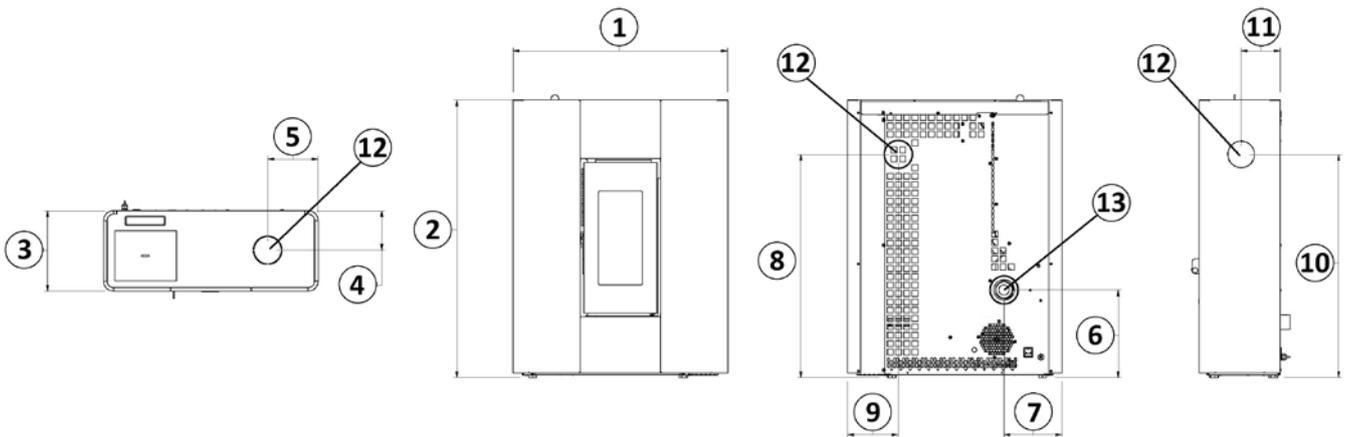


Fig. 15 - General dimensions: Roxy

LEGEND Fig. 15

1	72,7 cm
2	94,5 cm
3	27,4 cm
4	13,5 cm
5	17,1 cm
6	29,8 cm
7	19,7 cm
8	76 cm
9	17,3 cm
10	76 cm
11	13,2 cm
12	Exhaust fumes d.8 cm
13	Hole combustion air inlet d.6 cm

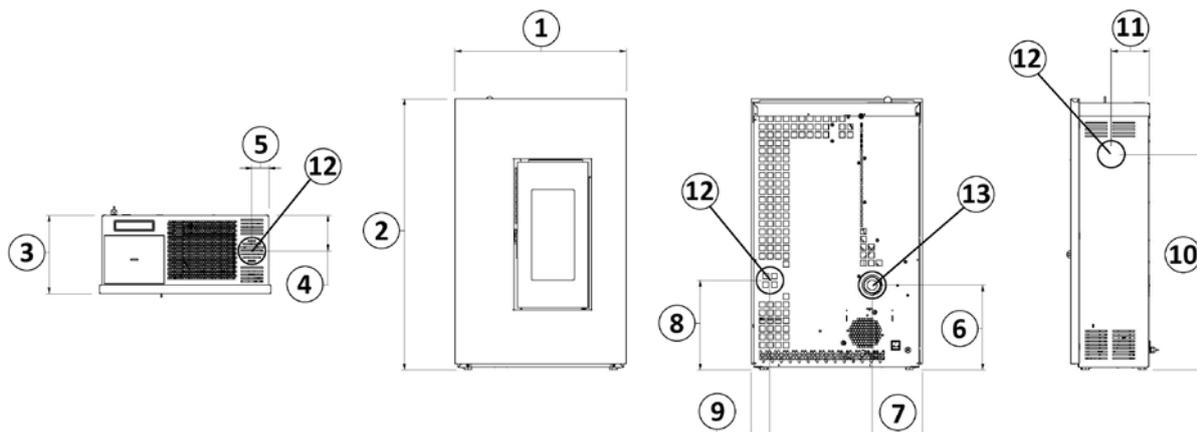


Fig. 16 - General dimensions: Madison

LEGEND	Fig. 16
1	60 cm
2	95,5 cm
3	27,5 cm
4	12,5 cm
5	6 cm
6	30 cm
7	17,5 cm
8	31,5 cm
9	6,5 cm
10	76 cm
11	13,2 cm
12	Exhaust fumes d.8 cm
13	Hole combustion air inlet d.6 cm

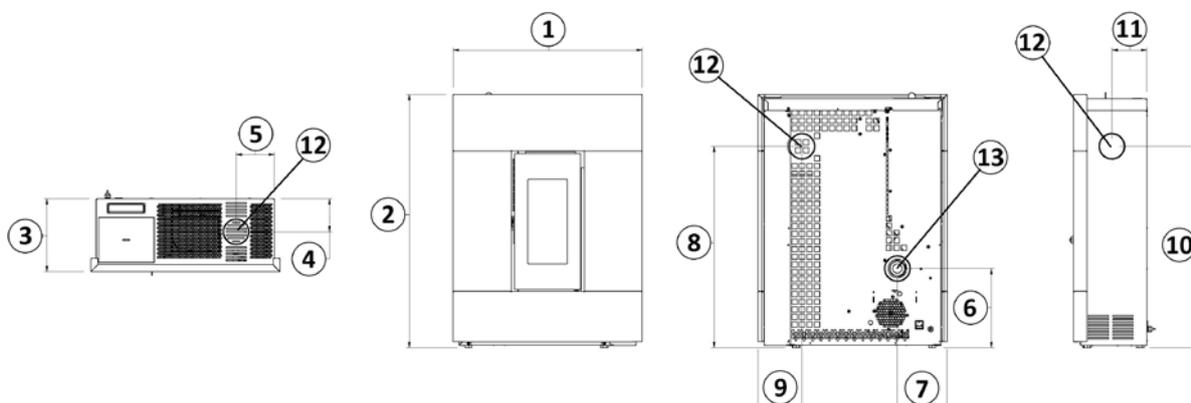


Fig. 17 - General dimensions: Tabla

LEGEND	Fig. 17
1	71 cm
2	95,5 cm
3	27,5 cm
4	12,5 cm
5	14,5 cm
6	30 cm
7	18,7 cm
8	76 cm
9	16,5 cm
10	76 cm
11	13,2 cm
12	Exhaust fumes d.8 cm
13	Hole combustion air inlet d.6 cm

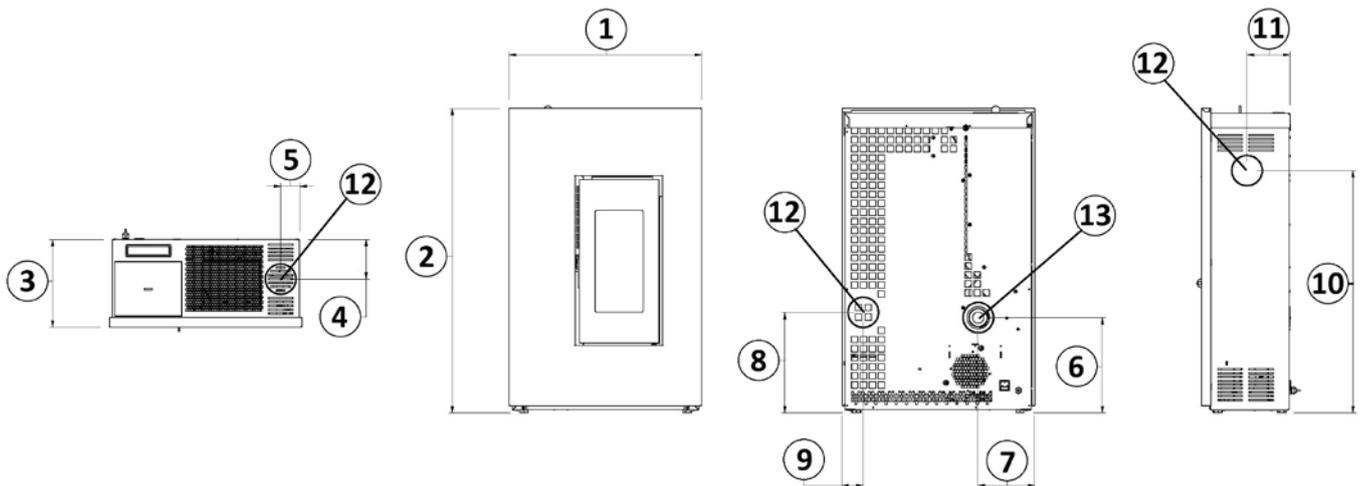


Fig. 18 - General dimensions: Solo 5

LEGEND	Fig. 18
1	60 cm
2	95,5 cm
3	27,5 cm
4	12,5 cm
5	6 cm
6	30 cm
7	17,5 cm
8	31,5 cm
9	6,5 cm
10	76 cm
11	13,2 cm
12	Exhaust fumes d.8 cm
13	Hole combustion air inlet d.6 cm

5.3 GENERAL INSTALLATION

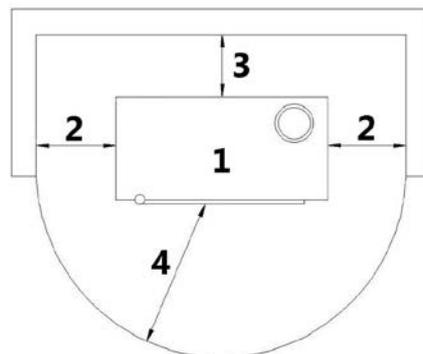


Fig. 19 - General installation

LEGEND	Fig. 19
1	Stove
2	Minimum lateral distance = 300 mm
3	Minimum rear distance = 40 mm
4	Minimum front distance = 1000 mm

- It is obligatory to install the stove away from walls and/or pieces of furniture, with a minimum air flow of 300 mm on the sides and 40 mm on the back, to enable an efficient appliance cooling and a good distribution of heat in the room (see **Fig. 19**).
- If the walls are made up of flammable materials, check the safety distances (see **Fig. 19**).
- At maximum power check that the wall temperature does not ever exceed 80°C. If it would be necessary please install a fire

- resistant plate on the concerned walls.
- In some countries also masonry load-bearing walls are considered flammable.

5.4 STOVE DOOR REMOVAL/INSTALLATION

DOOR REMOVAL

For some operations (e.g.: side panel assembly and cleaning) you must remove the stove door.

To remove the door:

- Open the door.
- Use a screwdriver to rotate the lever in the direction of the arrow (vedi **Fig. 20**).
- Lift the door to allow the door pivots to slide out of the structure bracket (see **Fig. 21**).
- Keep the door in a safe place until next use.



Fig. 20 - Remove screws



Fig. 21 - Door removal

DOOR ASSEMBLY

To assemble the door you must centre the pivots fixed to the door, on the structure bracket. After having mounted the door with the screwdriver, lift the lever so that the door is locked.

5.5 GRACE³ FRAME ASSEMBLING

METAL

- Remove the door (see the dedicated chapter).
- Place the coloured panels on a top (see **Fig. 22**).
- Fix the 4 panels together using the supplied screws (see **Fig. 23** and **Fig. 24**).



Fig. 22 - Panels on top



Fig. 23 - Panel 1 fixing

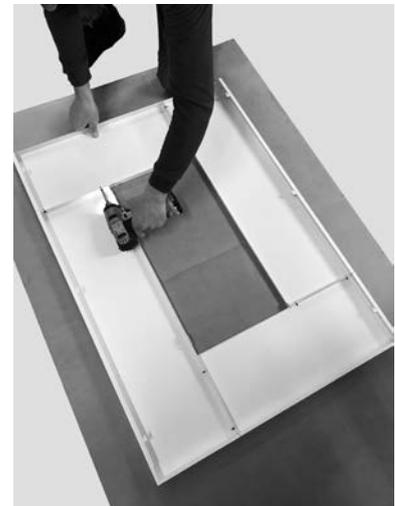


Fig. 24 - Panel 2 fixing

- Once the frame is made (see **Fig. 25**), hook it to the stove using the special teeth (see **Fig. 26**).
- Lock the frame with 2 screws (see **Fig. 27**).

- Follow the procedure in reverse order to remove.



Fig. 25 - Completed frame



Fig. 26 - Frame fixing to the stove



Fig. 27 - Screw tightening

STONE

- Fix the lower brackets (see **Fig. 28**) and the upper brackets (see **Fig. 29**) supporting the stone.

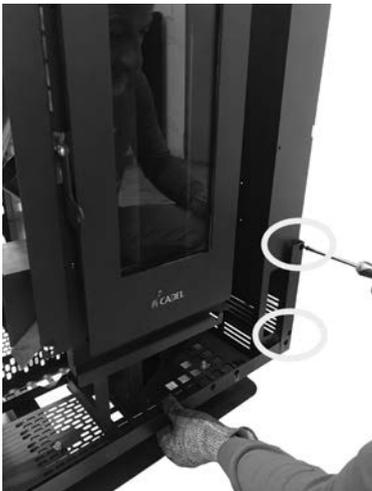


Fig. 28 - Lower bracket fixing



Fig. 29 - Upper bracket fixing

- Tighten the screws to the stone (see **Fig. 30**), the screw head must protrude about 1.5 mm (see **Fig. 31**).

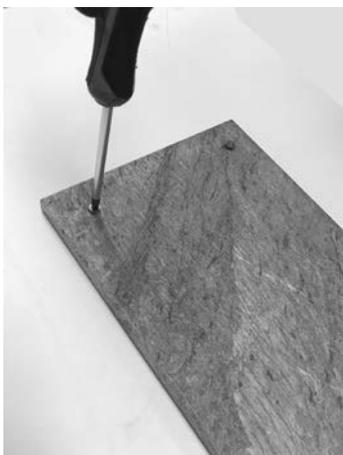


Fig. 30 - Tighten the screws

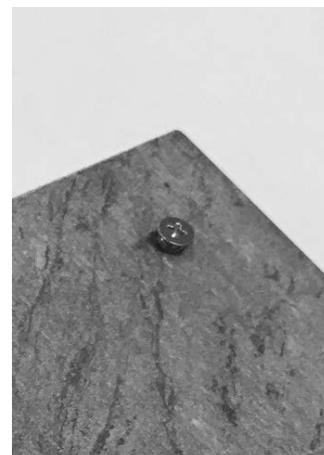


Fig. 31 - The screw must protrude

- Take the stone and fit the screw head in the appropriate hole in the brackets (see **Fig. 32** and **Fig. 33**).
- Proceed in the same way for all the stones (see **Fig. 34**).
- Follow the procedure in reverse order to remove.



Fig. 32 - Hook the stone

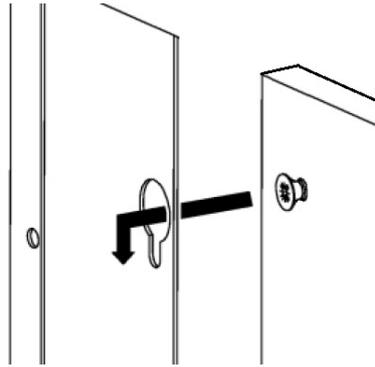


Fig. 33 - Detail of the hooking



Fig. 34 - Hook all the stones

GLASS

- Fix the lower brackets (see **Fig. 35**) and the upper brackets (see **Fig. 36**) supporting the glass.



Fig. 35 - Lower bracket fixing



Fig. 36 - Upper bracket fixing

- Tighten the screws to the glass (see **Fig. 37**), the screw head must protrude about 1.5 mm (see **Fig. 38**).



Fig. 37 - Tighten the screws



Fig. 38 - The screw must protrude

- Take the glasses and fit the screw head in the appropriate hole in the brackets (see **Fig. 39** and **Fig. 40**).
- Proceed in the same way for all the glasses (see **Fig. 41**).
- Follow the procedure in reverse order to remove.



Fig. 39 - Hook the glass

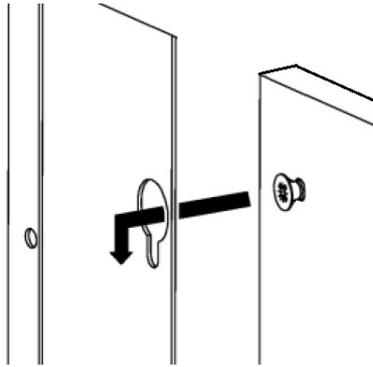


Fig. 40 - Detail of the hooking



Fig. 41 - Hook all the glasses

5.6 FRAME DISASSEMBLY SPIRIT³ - MADISON - SOLO 5 - TABLA

- Remove the door (see the dedicated chapter).
- Loosen the 2 screws that fix the frame to the structure (see **Fig. 42**).
- Release the frame (see **Fig. 43**).
- To assemble proceed in reverse order.



Fig. 42 - Remove the screws



Fig. 43 - Unhook frame

5.7 ROXY - ATRIUM PANEL DISASSEMBLY

- Remove the door (see the dedicated chapter).
- Remove the 2 screws of the faceplates located under and above the door (see **Fig. 44** and **Fig. 45**) and then take them out (see **Fig. 46**).



Fig. 44 - Screw removal 1



Fig. 45 - Screw removal 2



Fig. 46 - Faceplates removal

- Loosen the 3 screws that fix the frame to the structure (see **Fig. 47**).
- Loosen the 3 screws behind the stove (see **Fig. 48**) and remove the panel (see **Fig. 49**).
- To assemble proceed in reverse order.



Fig. 47 - Screw removal 3



Fig. 48 - Screw removal 4



Fig. 49 - Panel removal

5.8 UPPER EXHAUST GRACE³

Proceed as follows to install the Grace³ with the upper smoke exhaust:

- With the help of clamps, break the grid near the exhaust (see **Fig. 50**). There are precuts under the grid that facilitate its removal.
- Once the passage is open, insert the d.80 mm pipe of the smoke exhaust (see **Fig. 51**).



Fig. 50 - Remove grid



Fig. 51 - Insert pipe

5.9 ASSEMBLY OF THE GRACE PEDESTAL³ (OPTIONAL) AND ROXY STAND

Proceed as follows to assemble the pedestal:

- Lay the stove down on its back.
- Match the pedestal holes to those on the stove base (see **Fig. 52**).
- With the 2 hexagonal screws and relative bolts (see **Fig. 53**), lock the pedestal to the base (see **Fig. 54**).



Fig. 52 - Position the stand



Fig. 53 - Hexagonal screw and bolt



Fig. 54 - Lock screws

- Stand the stove up and with 2 screws lock the pedestal to the back (see **Fig. 55**).



Fig. 55 - Secure the screws

5.10 GRACE³ WALL MOUNTING (OPTIONAL)

The stove is suitable for wall mounting. The can be attached to a load-bearing wall in masonry (NOT plasterboard, wood, etc...) suitable for the entire weight of the stove.

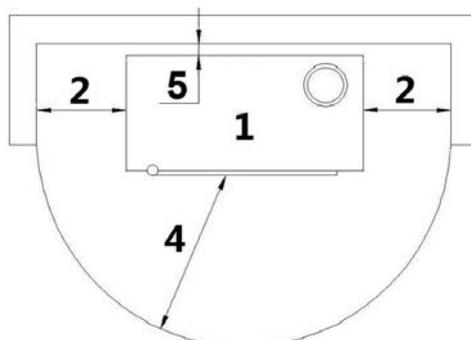


Fig. 56 - Wall mounting

LEGEND	Fig. 56
1	Stove
2	Minimum lateral distance = 300 mm
4	Minimum front distance = 1000 mm
5	Support distance = 40 mm

- It is obligatory to install the stove away from walls and/or pieces of furniture, with a minimum air flow of 300 mm on the sides to enable an efficient appliance cooling and a good distribution of heat in the room (see **Fig. 56**).



In some countries also masonry load-bearing walls are considered flammable.

If you want to fix the stove to a non-flammable material wall, you need to fix the support to the wall (optional cod. 5019009). Call an expert to prepare the fumes outlet hole and the combustion air inlet hole.

EXAMPLE OF INSTALLATION OF THE STOVE AT 8 CM FROM THE GROUND:

- Drill the holes in the wall for fumes extraction (ref. 1) and the combustion air (ref. 2) as indicated in **Fig. 57**.
- Fix the support to the wall (ref. 3) using metal dowels (ref. 4) suitable for bearing the stove weight.
- Secure the clamping bracket (ref. 5) on the back of the stove. Use the screws already present on the back (see **Fig. 58**).
- Lift the stove and hook it to the support (see **Fig. 59**). At this stage, also connect fumes and air combustion tubes.
- Secure everything with the screw (ref. 6).
- Follow the procedure in reverse order to remove.

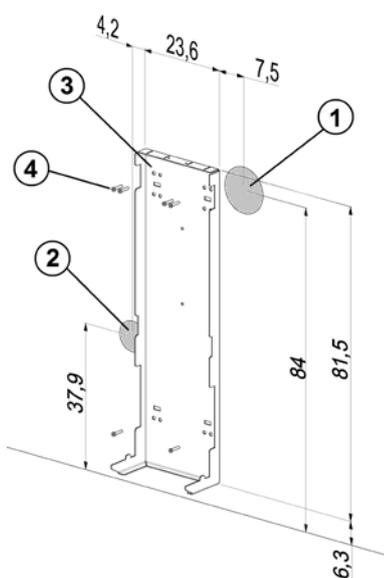


Fig. 57 - Step 1

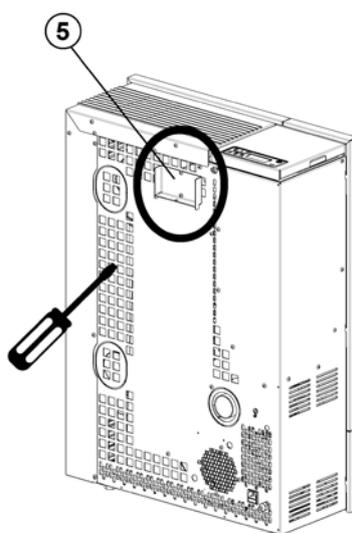


Fig. 58 - Step 2

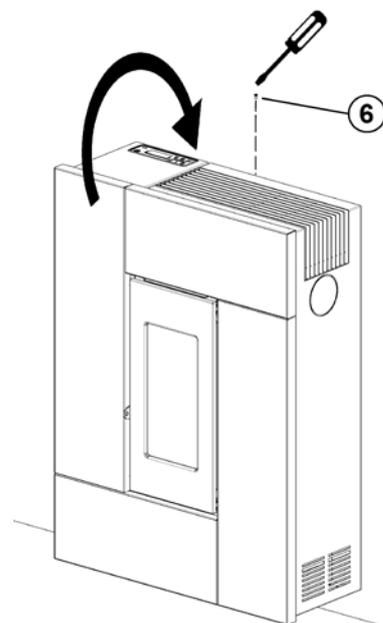


Fig. 59 - Step 3

RIF.	GRACE ³	
1	Hole d.120 mm for fumes extraction	
2	Hole d.80 mm for combustion air inlet	
3	Wall support	
4	Metal dowels	
5	Clamping bracket	
6	Screw	

5.11 ELECTRIC CONNECTION



Warning: the appliance must be installed by an authorized technician!

- The electric connection occurs through a cable with plug put in an electric socket which is able to support charge and tension specific of every model, as described in the technical datas table (see **FEATURES a pag. 31**).
- The plug must be easily accessible when the appliance is installed.
- Please further assure you that your network is endowed with an efficient earth connection: if it does not exist or if it is not efficient, please endow you with one in compliance with the law.
- Connect the supply cable first on the back of the stove (see **Fig. 60 Fig. 61**) and then at a wall electric socket.



Fig. 60 - Electric socket with master switch



Fig. 61 - Plug connected

- Do not use extension cables.
- If the feeder cable is damaged, it must be replaced by an authorized technician.
- When the stove is not going to be used for a long period of time, it advisable to remove the plug from the socket on the wall.

5.12 CONNECTION TO THE EXTERNAL THERMOSTAT (ATRIUM - ROXY - MADISON - TABLA - SOLO 5)

The stove works through a thermostat probe placed in its inner. If you desire, the stove can be connected to an external room thermostat. This operation must be executed by an authorized technician.

Connect the wires from the external thermostat to the "Term opt" terminal on the stove board. Activate the external thermostat (default setting OFF) as indicated below:

- Press the menu key for a few seconds (1).
- Repeatedly press the P2 key until **M8 - Technical settings** "M8-SEt tEChnic" appears.
- Select by pressing the P3 key.
- Set the password with keys P1 or P2 (keeping the key pressed accelerates the setting).
- Confirm by pressing the P3 key.
- Press the P1 or P2 keys until **M8 - 2 General settings** "M8-2 SEt GEnErAL" appears.
- Confirm with P3.
- Scroll with the P3 key up to: **Pr46 Enable Remote** "Pr46 rEMoto EnAbLEd".
- Press the P1 or P2 key to modify the status.
- Confirm with the P3 key.
- Scroll to **MB Output** "Mb ESCAPE" with key P1 or P2.
- Confirm with P3 key.
-
- Press P1 (temperature setting) and set **t-e** "t-e" value. The external thermostat is now enabled.

5.13 CONNECTION TO THE EXTERNAL THERMOSTAT (SPIRIT³ - GRACE³)

The stove works through a thermostat probe placed in its inner. If you desire, the stove can be connected to an external room thermostat. This operation must be executed by an authorized technician.

Connect the wires from the external thermostat to the "Term opt" terminal on the stove board. Activate the external thermostat (default setting OFF) as indicated below:

- Press the **"menu"** button.
- Scroll with the arrows to **"Settings"**.
- Select by pressing **"menu"**.
- Scroll with the arrows again to **"Ext.Thermostat"**.
- Select by pressing **"menu"**.

- Press the - + buttons.
- To activate the external thermostat select "on".
- Press the "menu" button to confirm.

5.14 STOVE CALIBRATION AND DEPRESSION MEASUREMENT

This stove has a pickup point positioned on the tank in order to measure the depression of the combustion chamber and verify its proper operation.

To do this, proceed as follows:

- The depression detection point is located behind the pellet tank.
- Connect a digital pressure switch with a tube to detect the depression (see Fig. 62).
- Load the feed screw via appropriate function.
- Start the stove and set "Fire" at power 1 (the start of this stove lasts from 8 to 10 minutes to ensure minimum draught).
- Compare the read values with those on the table.
- Change power every 10 minutes and wait for it to stabilise.
- Access the user menu and, if necessary, change the parameters.



Fig. 62 - Connecting the digital pressure switch

DATA	P1	P2	P3	P4	P5
Stove depression - temperature 4,9 kW	20 Pa - 160°C	22 Pa - 170°C	24 Pa - 190°C	29 Pa - 195°C	33 Pa - 210°C
Stove depression - temperature 7 kW	20 Pa - 160°C	26 Pa - 185°C	31 Pa - 200°C	40 Pa - 230°C	48 Pa - 250°C

NB: for good combustion, the depression values must be between + -5 Pa and the temperature values between + - 10°C.

6 SPECIAL MAINTENANCE

6.1 INTRODUCTION

For a long working life of the stove, have a periodic cleaning of the stove as described in the following paragraphs.

- Fume outlet pipes (fume conduit + chimney flue + chimney pot) must always be cleaned, scrubbed and checked by an authorized technician in compliance with local regulations, with the instructions of the manufacturer and those of your insurance company.
- It is also necessary to have the combustion chamber, motors and fans cleaned and to have the gaskets and the electrical elements checked at least once a year.



All these operations must be planned in time with your Authorized Technical Assistance Service.

- After a long ineffective time, before turning on the stove check if there are obstructions in the fume exhaust.

- If the stove had been using continuously and intensely, the whole system (chimney included), must be cleaned and checked more frequently.
- In case of replacement of damaged pieces please ask for the original spare part at the Authorized Retailer.

6.2 FUME CONDUIT CLEANING

The exhaust system must be cleaned every month.



Fig. 63 - Fume conduit cleaning

- Remove the inspection lid of the T-union (see **Fig. 63**).
- Extract the ash which has accumulated in the inner.
- After cleaning repeat the operation in reverse order, checking the condition and efficiency of the gasket, and if necessary replace it.



It is important to sealed the cap othwise noxious fumes will propagate among the room.

6.3 FUME PASSAGES CLEANING

Clean the fume passages every year.



Fig. 64 - Remove the inspection cap



Fig. 65 - Vacuum out the ash

- Remove the door and the front coating (see dedicated chapters).
- Loosen the screws and remove the inspection cap (see **Fig. 64**).
- Vacuum the ash accumulated inside (see **Fig. 65**).



Fig. 66 - Remove screw 1



Fig. 67 - Remove screw 2



Fig. 68 - Clean with pipe cleaner

- To clean the smoke passage inside the combustion chamber, loosen the 2 screws (see **Fig. 66** and **Fig. 67**) and move the right wall enough to have access with a pipe cleaner (see **Fig. 68**).
- Clean and vacuum any ash accumulated inside.
- After cleaning, repeat the operation in reverse making sure the gasket is intact and efficient: if necessary, provide for the replacement with original spare parts.

6.4 HOW TO CLEAN THE ROOM FAN

Clean every the year the room fan from ash or dust which can cause a blade unbalance and a greater noise.

MODELS (SPIRIT3 - ATRIUM - MADISON - SOLO 5)

- Remove the door and the front coating (see dedicated chapters).
- Vacuum the ash and dust accumulated in the fan (see **Fig. 69**).



Fig. 69 - Room fan cleaning

MODELS (GRACE3 - ROXY - TABLA)

- Remove the door and the front coating (see dedicated chapters).
- The room fan is fixed to the back of the stove, to remove it loosen the 4 screws behind the stove (see **Fig. 70**).
- Remove the fan and vacuum the ash and dust accumulated in the fan (see **Fig. 71**).



Fig. 70 - Remove the screws



Fig. 71 - Room fan cleaning

6.5 FUME PIPES ANNUAL CLEANING

Clean annually from soot with brushes.

The cleaning operation must be executed by a specialized stove-repairer who will provide for the cleaning of fume pipe, chimney flue and chimney pot. He will also check their efficiency and will release a written declaration of the safety of the appliance. This operation must be executed at least once a year.

6.6 GASKET REPLACEMENT

In case of deterioration of fire door, hopper or fume chamber gaskets, it is necessary to replace them by an authorized technician in order to guarantee the good running of the stove.



Use exclusively original spare parts.

7 IN CASE OF ANOMALY

7.1 PROBLEM SOLVING



Before of every Authorized Technician intervention, the same Technician has the duty to check if the parameters of the mother board correspond to those of the table you own.



In case of doubts regarding the use of the stove, please contact ALWAYS the Authorized Technician on order to avoid irreparable damages!

PROBLEM	CAUSE	SOLUTION	INTERVENTION
The control display does not switch on	The stove is without power supply	Check if the plug is connected.	
	Burned protection fuse in the electric socket	Replace the protection fuses in the electric socket (3.15A-250V).	
	Faulty control display	Replace the control display.	
	Faulty flat cable	Replace the flat cable.	
	Faulty electronic board	Replace the mother board.	
Pellets do not reach the combustion chamber	Empty hopper	Full the hopper.	
	Open fire door or open pellet door	Close fire door and pellet door and check that there are no pellet grains at the gasket level.	
	Clogged stove	Fume chamber cleaning	
	Auger blocked by a foreign object (for example nails)	Clean the auger.	
	The auger geared motor is out of order	Replace the geared motor.	
	Check if on the display there is an "ACTIVE ALARM"	Have the stove checked.	

PROBLEM	CAUSE	SOLUTION	INTERVENTION
The fire extinguish and the stove stops	Empty hopper	Full the hopper.	
	Auger blocked by a foreign object (for example nails)	Clean the auger.	
	Bad quality pellets	Try other types of pellets.	
	Pellet drop value too low "phase 1"	Adjust the pellet loading.	
	Check if on the display there is an "ACTIVE ALARM"	Have the stove checked.	
Flames are weak and orange coloured, pellets do not burn properly and the glass blackens	Not sufficient combustion air	Check as following: probable obstructions of the combustible air inlet from the back or from the bottom of the stove; burning pot obstructed holes with too ash remains. Have the fan blades and auger cleaned.	
	Obstructed exhaust	The exhaust chimney is partially or totally obstructed. Contact an expert stove-repairer who checks the stove from the exhaust up to the chimney pot. Provide immediately for stove cleaning.	
	Obstructed stove	Provide immediately at the inner cleaning of the stove.	
	The fume fan is out of order	The pellets can burn also thanks to chimney flue depression without the aid of the fume fan. Have the fume fan immediately replaced. It can be noxious to health to let the stove running without fume fan.	
The exchanger fan continues to turn even though the stove has just cooled	Faulty fume temperature probe	Replace the fume probe.	
	Faulty mother board	Replace the mother board.	
Ash remains along the stove	Faulty or out of order door gaskets	Replace the gaskets.	
	Not sealed fume pipes	Contact an expert stove-repairer who will immediately provide for sealing the junctions with high-temperature silicone and/or for replacing pipes with those in compliance to current regulations. A not sealed fume channelisation can be noxious to health.	

PROBLEM	CAUSE	SOLUTION	INTERVENTION
The stove is at its highest power but does not heat up.	Ambient temperature reached.	The stove is at its minimum value. Increase the desired ambient temperature.	
Stove running and display showing "Smoke Overtemperature"	Reached fume outlet limit temperature	The stove runs at minimum. NO PROBLEM!	
The stove's smoke duct produces condensation	Low smoke temperature	Check that the flue is not clogged.	
		Increase stove power to minimum (pellet drop and fan revs).	
		Install condensation collection cup.	
Stove running and display showing "SERVICE"	Routine maintenance alert (it does not block the system)	When this flashing message appears upon start-up, it means that the preset operating hours have elapsed before maintenance. Contact the service centre.	

8 TECHNICAL DATAS

8.1 REPAIR INFORMATION

Now we give some instructions for the Authorized Technician to take into consideration to have access to stove mechanical components.

- For fuse replacement in the electric socket which stands on the back of the stove, extract the fuses to change with the aid of a screwdriver for opening the shutter (see **Fig. 72**).



Fig. 72 - Shutter with fuses to remove

Proceed as follows:

- Remove the frame (see the dedicated chapters).
- After these operations you can have access at the following components: geared motor, ignition plug, ambient fan, fume fan, ambient probe, fume probe, thermostat, electronic board, pressostat.
- For cleaning or replacement of the auger it is necessary to unscrew the three bolts of the geared motor and to extract it, unscrew the two screws lying under the geared motor (vedi **Fig. 73**), of the auger, remove the hand rejector inside the hopper and then unscrew the inner bolt of the auger. (vedi **Fig. 74**). To assembly proceed at the contrary.

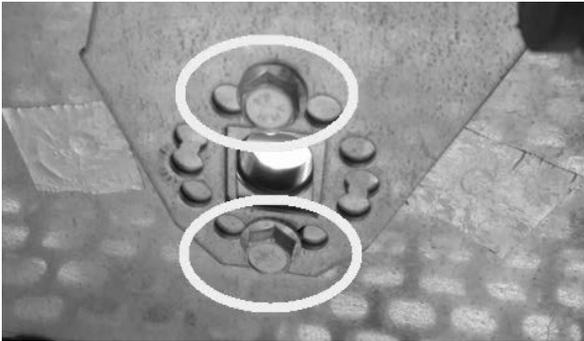


Fig. 73 - Remove the screws



Fig. 74 - Remove the screw

9 FEATURES

DESCRIPTION	SPIRIT ³	ATRIUM	MADISON
WIDTH	60 cm	64,5 cm	60 cm
DEPTH	27,5 cm	27,7 cm	27,5 cm
HEIGHT	95,8 cm	94 cm	95,5 cm
WEIGHT	55 kg	59 kg	55 kg
INTRODUCED THERMIC POWER (Min/Max)	2,8 - 5,5 kW	2,8 - 5,5 kW	2,8 - 5,5 kW
NOMINAL THERMIC POWER (Min/Max)	2,5 - 4,9 kW	2,5 - 4,9 kW	2,5 - 4,9 kW
EFICIENCY (Min/Max)	91,5 - 90 %	91,5 - 90 %	91,5 - 90 %
FUME TEMPERATURE (Min/Max)	105 - 156 °C	105 - 156 °C	105 - 156 °C
FUME MAXIMUM LOADING CAPACITY (Min/Max)	2,7 - 4,0 g/s	2,7 - 4,0 g/s	2,7 - 4,0 g/s
CO EMISSIONS (13% O ₂) (Min/Max)	0,0188 - 0,0053 %	0,0188 - 0,0053 %	0,0188 - 0,0053 %
OGC EMISSIONS (13% O ₂) (Min/Max)	7 - 4 mg/Nm ³	7 - 4 mg/Nm ³	7 - 4 mg/Nm ³
NO _x EMISSIONS (13% O ₂) (Max)	130 mg/Nm ³	130 mg/Nm ³	130 mg/Nm ³
Medium CO CONTENTS at 13% O ₂ (Min/Max)	235 - 67 mg/Nm ³	235 - 67 mg/Nm ³	235 - 67 mg/Nm ³
Medium POWDER CONTENTS at 13% O ₂ (Max)	18 mg/Nm ³	18 mg/Nm ³	18 mg/Nm ³
CHIMNEY DEPRESSION (Max)	11 Pa	11 Pa	11 Pa
ON SHARED CHIMNEY FLUE	NO	NO	NO
FUME OUTLET DIAMETER	Ø80 mm	Ø80 mm	Ø80 mm
COMBUSTIBLE	Pellet Ø6-7 mm	Pellet Ø6-7 mm	Pellet Ø6-7 mm
PELLETS HEATING VALUE	5 kWh/kg	5 kWh/kg	5 kWh/kg
PELLETS HUMIDITY	≤ 10%	≤ 10%	≤ 10%
HEATING VOLUME 18/20°C Coeff. 0,045 kW (Min/Max)	60 - 118 m ³	60 - 118 m ³	60 - 118 m ³
HOURLY CONSUMPTION (Min/Max)	0,57 - 1,17 kg/h	0,57 - 1,17 kg/h	0,57 - 1,17 kg/h
HOPPER CAPACITY	12 kg	12 kg	12 kg
RANGE (Min/Max)	21,1 - 10,3 h	21,1 - 10,3 h	21,1 - 10,3 h
SUPPLY	230 V - 50 Hz	230 V - 50 Hz	230 V - 50 Hz
POWER INPUT (Max)	345 W	345 W	345 W
INGNITER RESISTANCE POWER INPUT	300 W	300 W	300 W
MINIMUM EXTERNAL AIR INLET (last effective area)	80 cm ²	80 cm ²	80 cm ²
STOVE WITH SEALED CHAMBER	SI	SI	SI
EXTERNAL AIR INLET FOR SEALED CHAMBER	60 mm	60 mm	60 mm
DISTANCE FROM COMBUSTIBLE MATERIAL (back/side/bottom)	40 / 300 / 0 mm	40 / 300 / 0 mm	40 / 300 / 0 mm
DISTANCE FROM COMBUSTIBLE MATERIAL (ceiling/front)	- / 1000 mm	- / 1000 mm	- / 1000 mm

DESCRIPTION	GRACE ³	ROXY	TABLA
WIDTH	69 cm	72,7 cm	71 cm
DEPTH	27,5 cm	27,4 cm	27,5 cm
HEIGHT	98,7 cm	94,5 cm	95,5 cm
WEIGHT	63,5 - 80 kg	63 kg	60 kg
INTRODUCED THERMIC POWER (Min/Max)	2,8 - 7,82 kW	2,8 - 7,82 kW	2,8 - 7,82 kW
NOMINAL THERMIC POWER (Min/Max)	2,7 - 7 kW	2,7 - 7 kW	2,7 - 7 kW
EFICIENCY (Min/Max)	93 - 89,5 %	93 - 89,5 %	93 - 89,5 %
FUME TEMPERATURE (Min/Max)	87 - 182 °C	87 - 182 °C	87 - 182 °C
FUME MAXIMUM LOADING CAPACITY (Min/Max)	3 - 4,9 g/s	3 - 4,9 g/s	3 - 4,9 g/s
CO EMISSIONS (13% O ₂) (Min/Max)	0,0146 - 0,0103 %	0,0146 - 0,0103 %	0,0146 - 0,0103 %
OGC EMISSIONS (13% O ₂) (Min/Max)	7 - 4 mg/Nm ³	7 - 4 mg/Nm ³	7 - 4 mg/Nm ³
NO _x EMISSIONS (13% O ₂) (Max)	116 mg/Nm ³	116 mg/Nm ³	116 mg/Nm ³
Medium CO CONTENTS at 13% O ₂ (Min/Max)	183 - 129 mg/Nm ³	183 - 129 mg/Nm ³	183 - 129 mg/Nm ³
Medium POWDER CONTENTS at 13% O ₂ (Max)	14 mg/Nm ³	14 mg/Nm ³	14 mg/Nm ³
CHIMNEY DEPRESSION (Max)	11 Pa	11 Pa	11 Pa
ON SHARED CHIMNEY FLUE	NO	NO	NO
FUME OUTLET DIAMETER	Ø80 mm	Ø80 mm	Ø80 mm
COMBUSTIBLE	Pellet Ø6-7 mm	Pellet Ø6-7 mm	Pellet Ø6-7 mm
PELLETS HEATING VALUE	5 kWh/kg	5 kWh/kg	5 kWh/kg
PELLETS HUMIDITY	≤ 10%	≤ 10%	≤ 10%
HEATING VOLUME 18/20°C Coeff. 0,045 kW (Min/Max)	65 - 168 m ³	65 - 168 m ³	65 - 168 m ³
HOURLY CONSUMPTION (Min/Max)	0,61 - 1,7 kg/h	0,61 - 1,7 kg/h	0,61 - 1,7 kg/h
HOPPER CAPACITY	12 kg	12 kg	12 kg
RANGE (Min/Max)	19,7 - 7,1 h	19,7 - 7,1 h	19,7 - 7,1 h
SUPPLY	230 V - 50 Hz	230 V - 50 Hz	230 V - 50 Hz
POWER INPUT (Max)	345 W	345 W	345 W
IGNITER RESISTANCE POWER INPUT	300 W	300 W	300 W
MINIMUM EXTERNAL AIR INLET (last effective area)	80 cm ²	80 cm ²	80 cm ²
STOVE WITH SEALED CHAMBER	SI	SI	SI
EXTERNAL AIR INLET FOR SEALED CHAMBER	60 mm	60 mm	60 mm
DISTANCE FROM COMBUSTIBLE MATERIAL (back/side/bottom)	40 / 300 / 0 mm	40 / 300 / 0 mm	40 / 300 / 0 mm
DISTANCE FROM COMBUSTIBLE MATERIAL (ceiling/front)	- / 1000 mm	- / 1000 mm	- / 1000 mm

DESCRIPTION	SPIRIT ³ - 5kW	ATRIUM 5 AT	MADISON 5
WIDTH	60 cm	64,5 cm	60 cm
DEPTH	27,5 cm	27,7 cm	27,5 cm
HEIGHT	95,8 cm	94 cm	95,5 cm
WEIGHT	55 kg	59 kg	55 kg
INTRODUCED THERMIC POWER (Min/Max)	2,9 - 5,8 kW	2,9 - 5,8 kW	2,9 - 5,8 kW
NOMINAL THERMIC POWER (Min/Max)	2,5 - 5,2 kW	2,5 - 5,2 kW	2,5 - 5,2 kW
EFICIENCY (Min/Max)	91,5 - 89,5 %	91,5 - 89,5 %	91,5 - 89,5 %
FUME TEMPERATURE (Min/Max)	105 - 166 °C	105 - 166 °C	105 - 166 °C
FUME MAXIMUM LOADING CAPACITY (Min/Max)	2,7 - 4,1 g/s	2,7 - 4,1 g/s	2,7 - 4,1 g/s
CO EMISSIONS (13% O ₂) (Min/Max)	0,0188 - 0,0113 %	0,0188 - 0,0113 %	0,0188 - 0,0113 %
OGC EMISSIONS (13% O ₂) (Min/Max)	7 - 4 mg/Nm ³	7 - 4 mg/Nm ³	7 - 4 mg/Nm ³
NO _x EMISSIONS (13% O ₂) (Max)	123 mg/Nm ³	123 mg/Nm ³	123 mg/Nm ³
Medium CO CONTENTS at 13% O ₂ (Min/Max)	248 - 141 mg/Nm ³	248 - 141 mg/Nm ³	248 - 141 mg/Nm ³
Medium POWDER CONTENTS at 13% O ₂ (Max)	17 mg/Nm ³	17 mg/Nm ³	17 mg/Nm ³
CHIMNEY DEPRESSION (Max)	10 Pa	10 Pa	10 Pa
ON SHARED CHIMNEY FLUE	NO	NO	NO
FUME OUTLET DIAMETER	Ø80 mm	Ø80 mm	Ø80 mm
COMBUSTIBLE	Pellet Ø6-7 mm	Pellet Ø6-7 mm	Pellet Ø6-7 mm
PELLETS HEATING VALUE	5 kWh/kg	5 kWh/kg	5 kWh/kg
PELLETS HUMIDITY	≤ 10%	≤ 10%	≤ 10%
HEATING VOLUME 18/20°C Coeff. 0,045 kW (Min/Max)	60 - 125 m ³	60 - 125 m ³	60 - 125 m ³
HOURLY CONSUMPTION (Min/Max)	0,62 - 1,24 kg/h	0,62 - 1,24 kg/h	0,62 - 1,24 kg/h
HOPPER CAPACITY	12 kg	12 kg	12 kg
RANGE (Min/Max)	19,4 - 9,7 h	19,4 - 9,7 h	19,4 - 9,7 h
SUPPLY	230 V - 50 Hz	230 V - 50 Hz	230 V - 50 Hz
POWER INPUT (Max)	345 W	345 W	345 W
IGNITER RESISTANCE POWER INPUT	300 W	300 W	300 W
MINIMUM EXTERNAL AIR INLET (last effective area)	80 cm ²	80 cm ²	80 cm ²
STOVE WITH SEALED CHAMBER	SI	SI	SI
EXTERNAL AIR INLET FOR SEALED CHAMBER	60 mm	60 mm	60 mm
DISTANCE FROM COMBUSTIBLE MATERIAL (back/side/bottom)	40 / 300 / 0 mm	40 / 300 / 0 mm	40 / 300 / 0 mm
DISTANCE FROM COMBUSTIBLE MATERIAL (ceiling/front)	- / 1000 mm	- / 1000 mm	- / 1000 mm

DESCRIPTION	SOLO 5
WIDTH	60 cm
DEPTH	27,5 cm
HEIGHT	95,5 cm
WEIGHT	55 kg
INTRODUCED THERMIC POWER (Min/Max)	2,9 - 5,8 kW
NOMINAL THERMIC POWER (Min/Max)	2,5 - 5,2 kW
EFICIENCY (Min/Max)	91,5 - 89,5 %
FUME TEMPERATURE (Min/Max)	105 - 166 °C
FUME MAXIMUM LOADING CAPACITY (Min/Max)	2,7 - 4,1 g/s
CO EMISSIONS (13% O ₂) (Min/Max)	0,0188 - 0,0113 %
OGC EMISSIONS (13% O ₂) (Min/Max)	7 - 4 mg/Nm ³
NO _x EMISSIONS (13% O ₂) (Max)	123 mg/Nm ³
Medium CO CONTENTS at 13% O ₂ (Min/Max)	248 - 141 mg/Nm ³
Medium POWDER CONTENTS at 13% O ₂ (Max)	17 mg/Nm ³
CHIMNEY DEPRESSION (Max)	10 Pa
ON SHARED CHIMNEY FLUE	NO
FUME OUTLET DIAMETER	Ø80 mm
COMBUSTIBLE	Pellet Ø6-7 mm
PELLETS HEATING VALUE	5 kWh/kg
PELLETS HUMIDITY	≤ 10%
HEATING VOLUME 18/20°C Coeff. 0,045 kW (Min/Max)	60 - 125 m ³
HOURLY CONSUMPTION (Min/Max)	0,62 - 1,24 kg/h
HOPPER CAPACITY	12 kg
RANGE (Min/Max)	19,4 - 9,7 h
SUPPLY	230 V - 50 Hz
POWER INPUT (Max)	345 W
IGNITER RESISTANCE POWER INPUT	300 W
MINIMUM EXTERNAL AIR INLET (last effective area)	80 cm ²
STOVE WITH SEALED CHAMBER	SI
EXTERNAL AIR INLET FOR SEALED CHAMBER	60 mm
DISTANCE FROM COMBUSTIBLE MATERIAL (back/side/bottom)	40 / 300 / 0 mm
DISTANCE FROM COMBUSTIBLE MATERIAL (ceiling/front)	- / 1000 mm



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