

# INSTALLER MANUAL

Pellet Stove



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**WALL<sup>3</sup> PLUS - TILE<sup>3</sup> PLUS - MOON - LEAN<sup>3</sup> PLUS**

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## 1 MANUAL SIMBOLOGY

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

- 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](http://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 standards which the qualified manufacturer/installer should comply with.

### 3.2 CHIMNEY FLUE

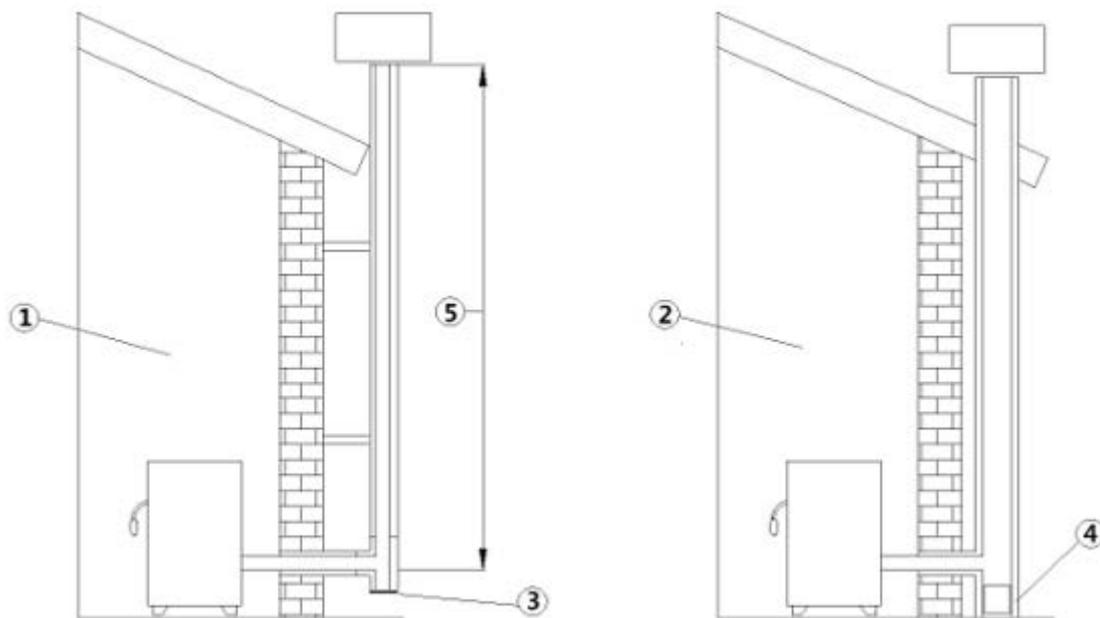


Fig. 1 - Chimney Flues

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

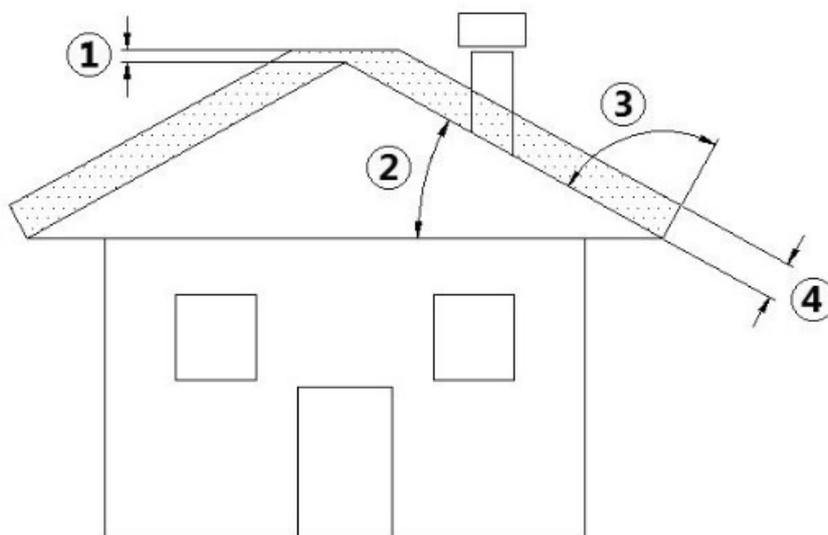


Fig. 2 - Inclined roof

LEGEND	Fig. 2
1	Height over the ridge of the roof = 0,5 mt
2	Roof inclination $\geq 10^\circ$
3	$90^\circ$
4	Measured distance at $90^\circ$ 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:
  - **minimum  $\varnothing 100$  mm**
  - **recommended max  $\varnothing 180$  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*

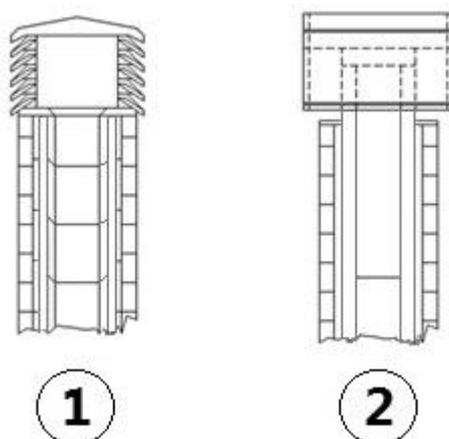
### 3.4 HEIGHT-DEPRESSION

The depression (draught) of a chimney flue depends also on its height. Check the depression with the values provided at **FEATURES a pag. 29**. 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

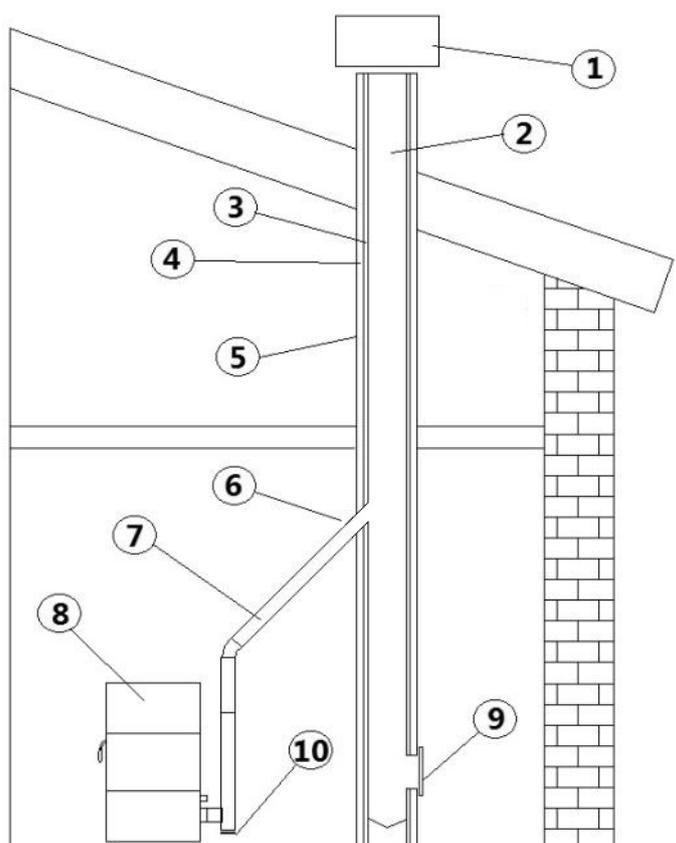


**Fig. 4 - Anti-wind chimney pots**

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

LEGEND	Fig. 5
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 cowling...) 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

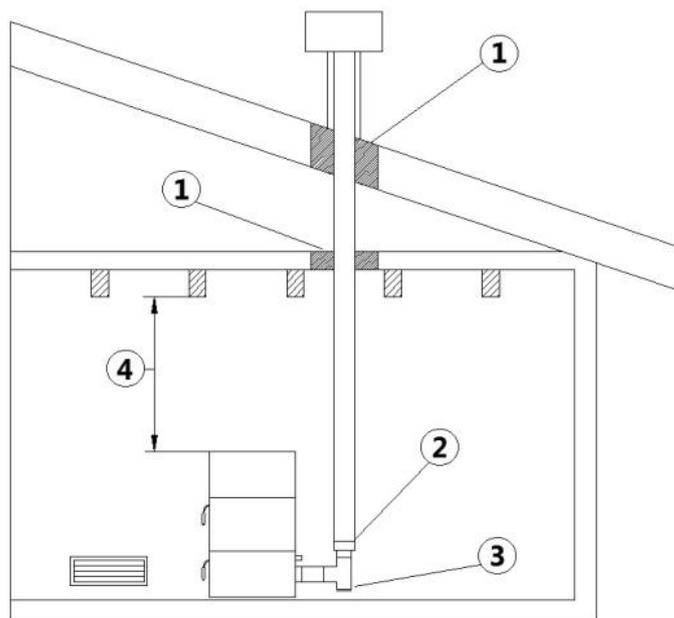


Fig. 6 - Example 1

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.

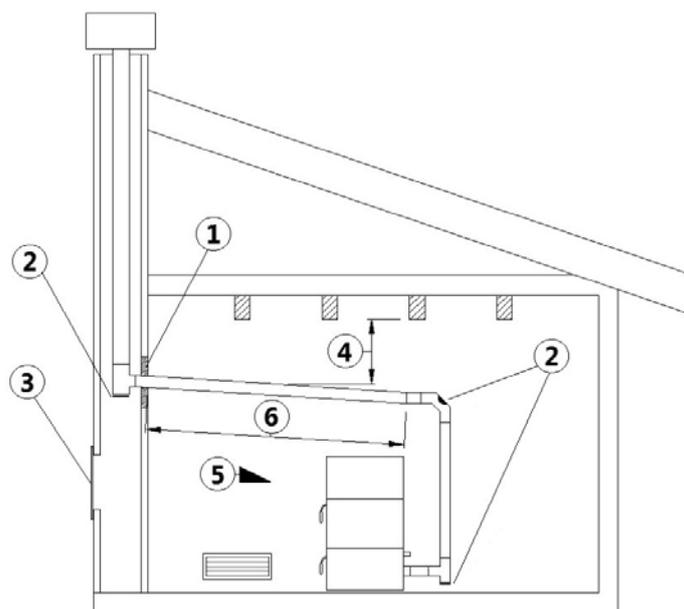
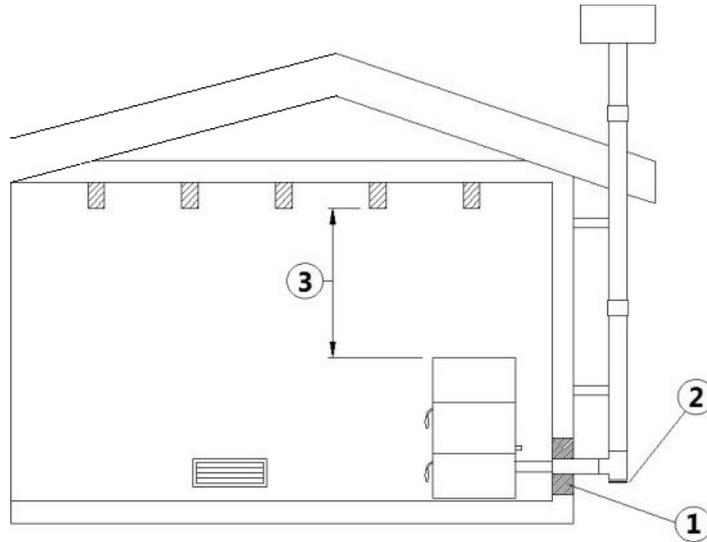


Fig. 7 - Example 2

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 $\leq 1$ 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

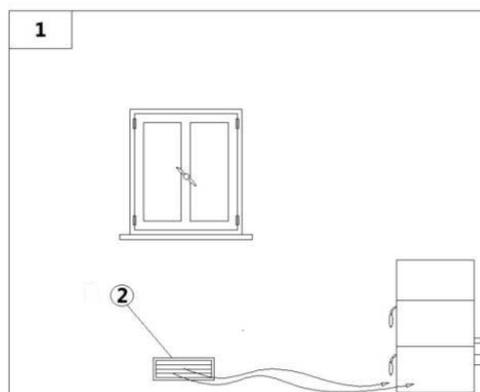
- External chimney flue entirely made up of insulated stainless steel pipes, i.e. with double wall of minimum  $\varnothing 100/120$  mm: all must be firmly attached to the wall. For chimney against wind effects please (see **Fig. 4**).
- Ducting system through T-unions which enables an easy cleaning 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 sqcm<sup>2</sup>: 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

Check **FEATURES a pag. 29** 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:

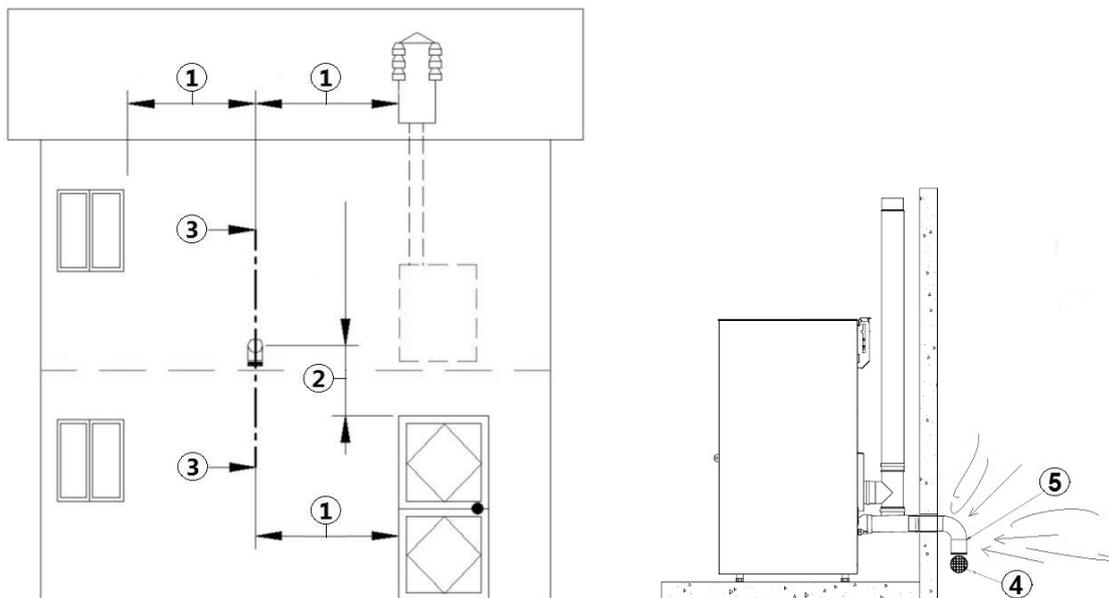
- It is necessary to extract the air for combustion directly from outside.
- Use a tube with minimum Ø60 mm and maximum 2 meters length; to connect see the back of the stove.
- French standards require installation in double-walled flues (concentric system). The combustion air is drawn from the cavity.
- During installation step is necessary to verify the minimum distances required for the combustibile air inlet as (for example) an open door or window causes a vortex which could remove the combustibile 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 combustibile 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 combustibile 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.*



**Fig. 10 - Air inlet for sealed-chamber installation**

LEGEND	Fig. 10
1	≥ 1,5 mt
2	≥ 0,3 mt
3-3	Sectional view
4	Shield grid
5	Curve inlet to turn downwards

- Remove the galvanised part near the combustion air pipe (see **Fig. 11**).

- Connect with a flexible or stiff hose with a 60 mm diameter and a maximum length of 2 metres (see **Fig. 12**).



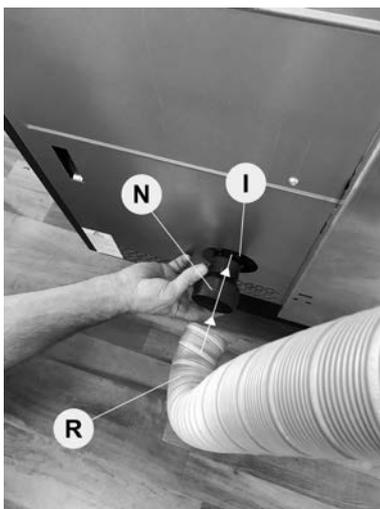
**Fig. 11 - Cut- Removal**



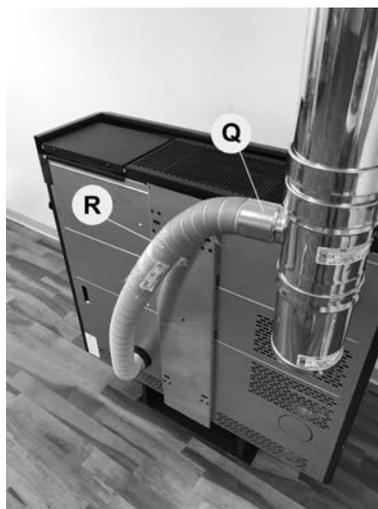
**Fig. 12 - Connections**

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

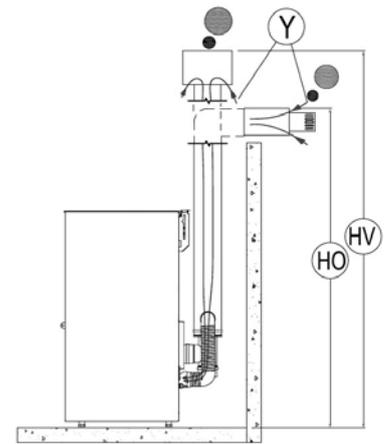
- Insert the N fitting into the I air intake pipe (see **Fig. 13** and **Fig. 14**). Connect N to Q using a flexible tube which can resist a temperature of 100°C (a flexible aluminium tube is recommended).
- Maximum height for the installation of a vertical exhaust flue (roof) HV = 6 mt (see **Fig. 15**).
- Maximum height for the installation of a horizontal exhaust flue (wall) HO = 2.6 mt (see **Fig. 15**).



**Fig. 13 - Flexible tube**



**Fig. 14 - Connections**



**Fig. 15 - Flue connections**

<b>LEGEND</b>	
<b>I</b>	Combustion air intake with a diameter of 40 mm
<b>N</b>	Rubber fitting with a diameter of 40/60 mm
<b>R</b>	Flexible aluminium tube
<b>Q</b>	Coaxial pipe air combustion connection
<b>Y</b>	Coaxial pipe air combustion intake
<b>HO</b>	Height of coaxial flue with wall/horizontal exhaust
<b>HV</b>	Height of coaxial flue with roof/vertical exhaust

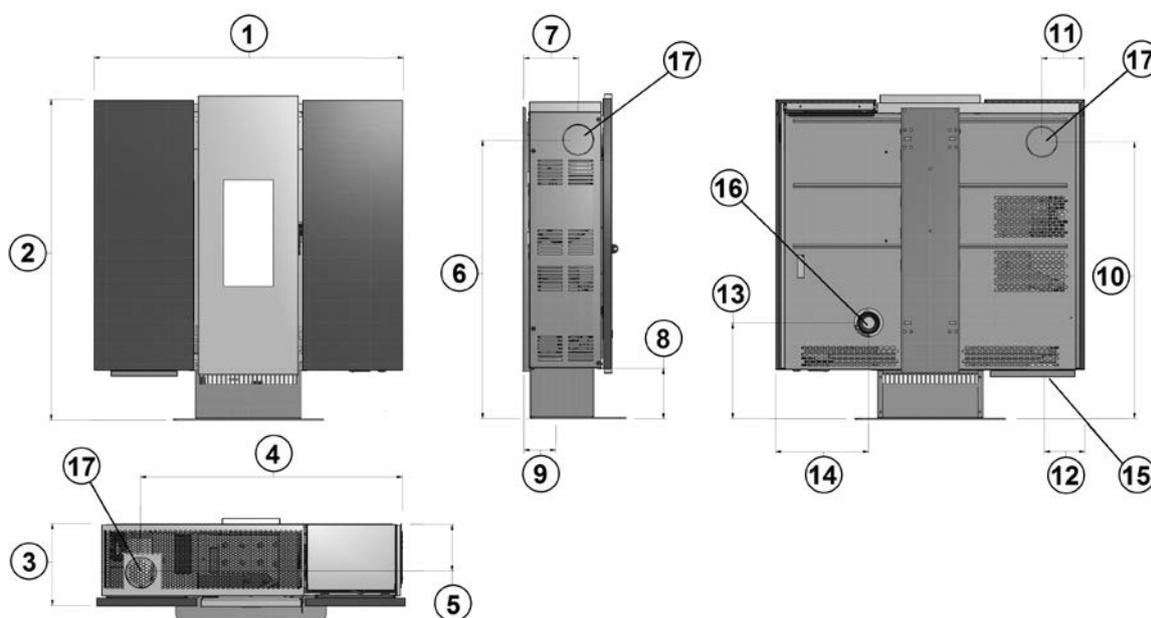
## 5 INSTALLATION

### 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,

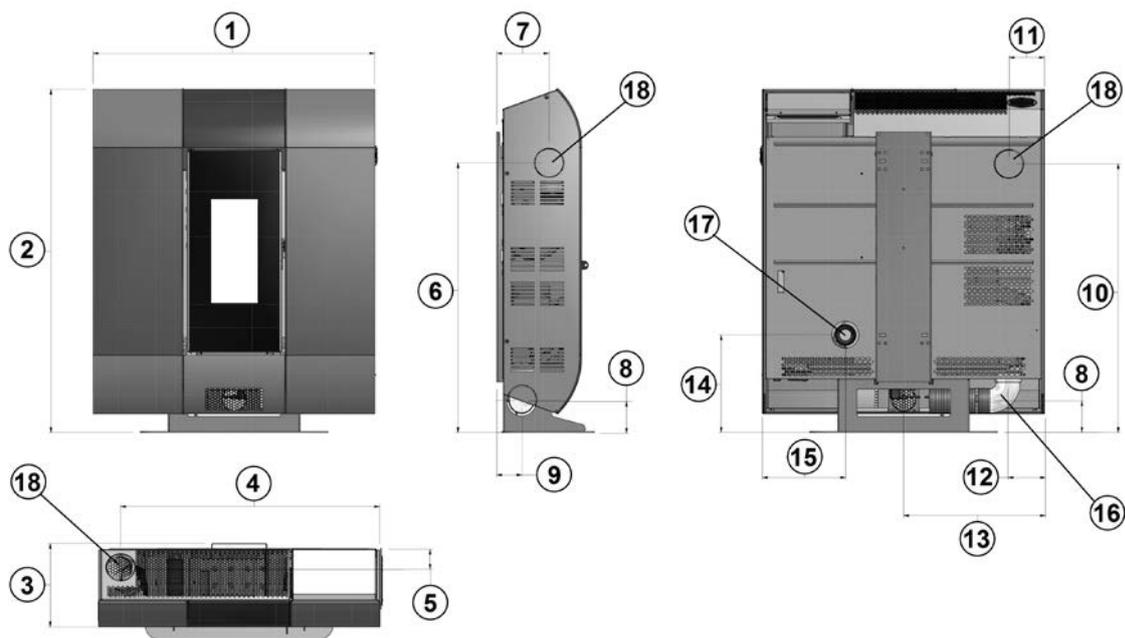
- fume exhaust system together with chimney flue and chimney pot.
- Check if there is the combustibile air inlet.
  - Check the probable presence of other stoves or appliances which could depress the room.
  - Check at switched on stove if there is the presence of CO in the room.
  - Check if the chimney 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. 22).
  - To install more appliances, the external air inlet must be correctly dimensioned (see **FEATURES** a pag. 29).

## 5.2 OVERALL DIMENSIONS



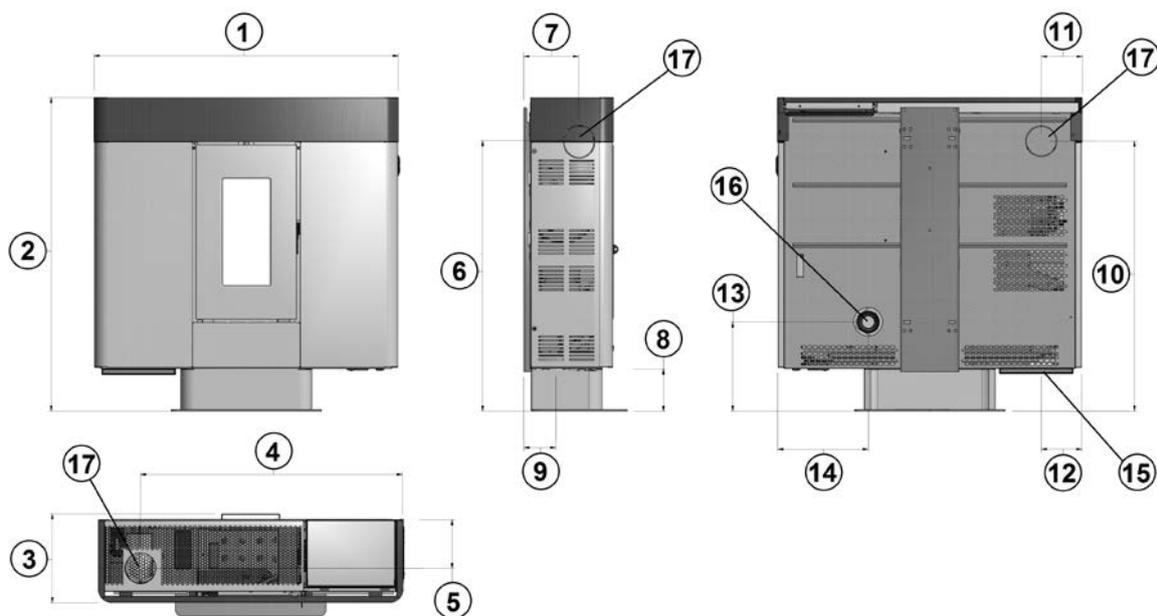
**Fig. 16 - General dimensions: Wall<sup>3</sup> Plus**

LEGEND	Fig. 16
1	96,3 cm
2	100,5 cm
3	27,7 cm
4	82,8 cm
5	17,2 cm
6	87,7 cm
7	17,1 cm
8	15,9 cm
9	8,3 cm
10	87,5 cm
11	13,5 cm
12	13,5 cm
13	30,5 cm
14	29 cm
15	Ducting outlet d.8 cm
16	Hole combustion air inlet d.6 cm
17	Exhaust fumes d.8 cm



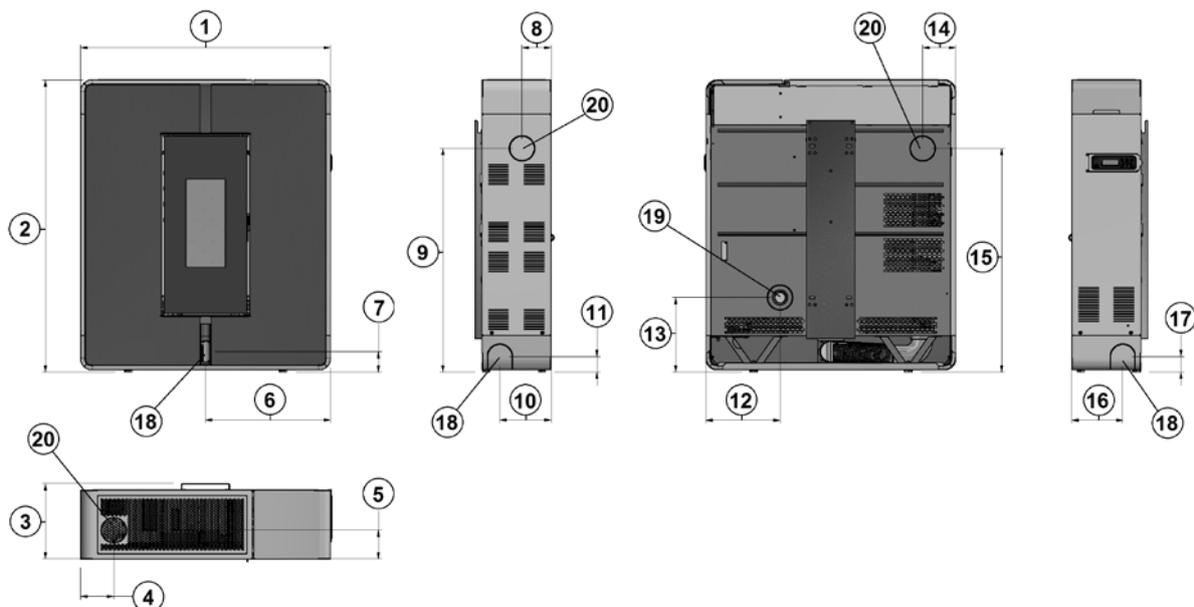
**Fig. 17 - General dimensions: Lean³ Plus**

<b>LEGEND</b>	<b>Fig. 17</b>
<b>1</b>	93 cm
<b>2</b>	117,5 cm
<b>3</b>	25 cm
<b>4</b>	85,5 cm
<b>5</b>	8 cm
<b>6</b>	89,5 cm
<b>7</b>	17,2 cm
<b>8</b>	10,5 cm
<b>9</b>	8,3 cm
<b>10</b>	89,5 cm
<b>11</b>	7,5 cm
<b>12</b>	7,5 cm
<b>13</b>	46,5 cm
<b>14</b>	32,5 cm
<b>15</b>	27,3 cm
<b>16</b>	Ducting outlet d.8 cm
<b>17</b>	Hole combustion air inlet d.6 cm
<b>18</b>	Exhaust fumes d.8 cm



**Fig. 18 - General dimensions: Moon**

<b>LEGEND</b>	<b>Fig. 18</b>
<b>1</b>	95,2 cm
<b>2</b>	99 cm
<b>3</b>	26,4 cm
<b>4</b>	82 cm
<b>5</b>	17,2 cm
<b>6</b>	85,3 cm
<b>7</b>	17,2 cm
<b>8</b>	13,4 cm
<b>9</b>	8,3 cm
<b>10</b>	85 cm
<b>11</b>	13,2 cm
<b>12</b>	13,2 cm
<b>13</b>	28 cm
<b>14</b>	28,4 cm
<b>15</b>	Ducting outlet d.8 cm
<b>16</b>	Hole combustion air inlet d.6 cm
<b>17</b>	Exhaust fumes d.8 cm



**Fig. 19 - General dimensions: Tile³ Plus**

LEGENDA	Fig. 19
1	94,8 cm
2	110,8 cm
3	28,8 cm
4	12,6 cm
5	11 cm
6	47,4 cm
7	7,9 cm
8	11 cm
9	85,5 cm
10	194 cm
11	6 cm
12	28,1 cm
13	28,5 cm
14	12,6 cm
15	85,5
16	19,4
17	5,9
18	Canalizzazione d.8 cm
19	Preso aria comburente d.6 cm
20	Scarico fumi d.8 cm

### 5.3 GENERAL INSTALLATION WITH PEDESTAL



**ONLY FOR THE LEAN3 PLUS MODEL:**

for the upper smoke exhaust (see **Fig. 20**), purchase 2 standard 45° elbows, d. 80 mm (see **Fig. 21**).  
The elbows are NOT supplied with the stove.



Fig. 20 - Upper exhaust

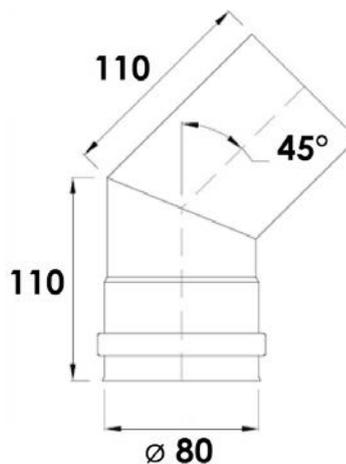


Fig. 21 - Curve at 45°

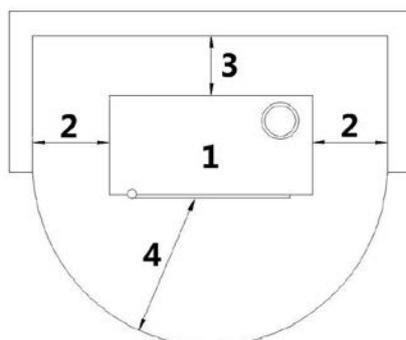


Fig. 22 - General installation with pedestal

LEGEND	Fig. 22
1	Stove
2	Minimum lateral distance = 300 mm
3	Minimum rear distance = 0 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 to enable an efficient appliance cooling and a good distribution of heat in the room (see Fig. 22).
- If the walls are made up of flammable materials, check the safety distances (see Fig. 22).
- 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 WALL MOUNTING

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.

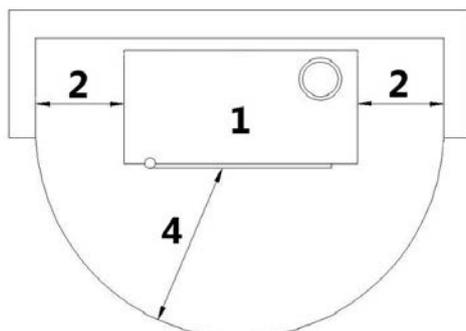


Fig. 23 - Wall mounting

LEGEND	Fig. 23
1	Stove
2	Minimum lateral distance = 300 mm
3	Minimum front distance = 1000 mm

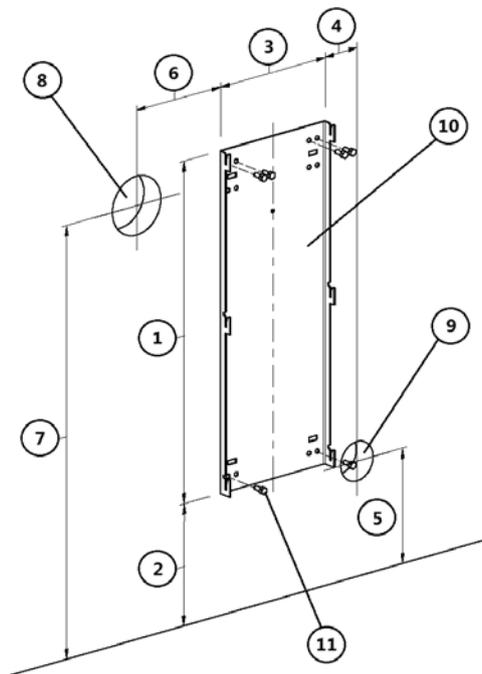
- It is obligatory to install the stove away from walls and/or pieces of furniture, with a minimum air flow of 300 mm on the sides to enable an efficient appliance cooling and a good distribution of heat in the room (see **Fig. 23**).



*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 (the support is provided with the stove).

- Call an expert to prepare the fumes outlet hole and the combustion air inlet hole.
- To fix the rear support to the wall with metal plugs suitable for the weight of the stove (see **Fig. 24**).

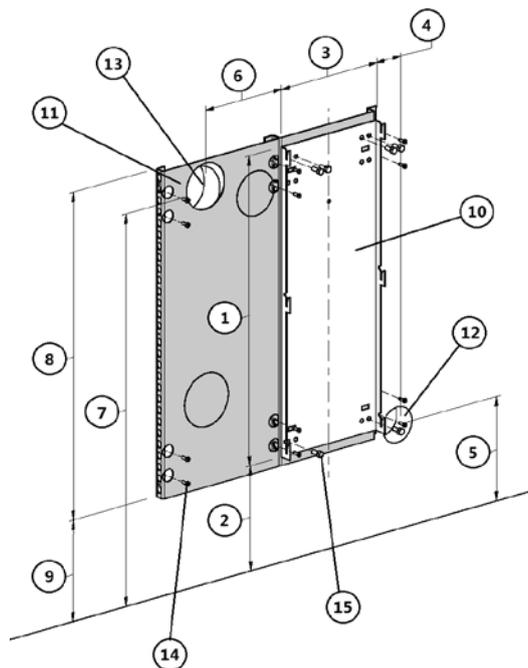


**Fig. 24 - Mounting on non-flammable wall**

LEGEND	WALL <sup>3</sup> PLUS	LEAN <sup>3</sup> PLUS	MOON
1	833 mm	833 mm	833 mm
2	148 mm	168 mm	124 mm
3	182 mm	182 mm	182 mm
4	101 mm	101 mm	101 mm
5	305 mm	325 mm	281 mm
6	257 mm	257 mm	257 mm
7	875 mm	895 mm	851 mm
8	Combustion air inlet hole d.80 mm	Combustion air inlet hole d.80 mm	Combustion air inlet hole d.80 mm
9	Fumes outlet hole d.120 mm	Fumes outlet hole d.120 mm	Fumes outlet hole d.120 mm
10	Metal plugs	Metal plugs	Metal plugs
11	M8x20 bolt	M8x20 bolt	M8x20 bolt

If the stove is to be fixed to an inflammable wall, it is compulsory to attach further support to the wall cod. 5013016 (the support is NOT provided with the stove).

- Call an expert to prepare the fumes outlet hole and the combustion air inlet hole.
- To fix the rear support to the wall with metal plugs suitable for the weight of the stove (see **Fig. 25**).



**Fig. 25 - Mounting on flammable wall**

LEGEND	WALL <sup>3</sup> PLUS	LEAN <sup>3</sup> PLUS	MOON
1	833 mm	833 mm	833 mm
2	148 mm	168 mm	124 mm
3	182 mm	182 mm	182 mm
4	101 mm	101 mm	101 mm
5	305 mm	325 mm	281 mm
6	257 mm	257 mm	257 mm
7	875 mm	895 mm	851 mm
8	735 mm	735 mm	735 mm
9	227 mm	247 mm	203 mm
10	Wall support	Wall support	Wall support
11	Spacer (5013016 code)	Spacer (5013016 code)	Spacer (5013016 code)
12	Combustion air inlet hole d.80 mm	Combustion air inlet hole d.80 mm	Combustion air inlet hole d.80 mm
13	Fumes outlet hole d.120 mm	Fumes outlet hole d.120 mm	Fumes outlet hole d.120 mm
14	Metal plugs	Metal plugs	Metal plugs
15	M8x20 bolt	M8x20 bolt	M8x20 bolt

## 5.5 SAFETY FIXING



*The appliance must be installed by an authorized technician!*

To avoid accidental tipping, fix the stove to the wall with two plugs see **Fig. 26**.



**Fig. 26 - Wall fixing**

## 5.6 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. 27**).
- Lift the door to allow the door pivots to slide out of the structure bracket (see **Fig. 28**).
- Keep the door in a safe place until next use.



**Fig. 27 - Remove screws**



**Fig. 28 - 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.

## 5.7 PANEL ASSEMBLY (WALL<sup>3</sup> PLUS MODEL)



*Assembly must be carried out by an authorised technician.*

For panels installation, proceed as follows:



**Fig. 29 - Panels assembly**



**Fig. 30 - Panels fixing**

- Insert the metal side panles from above, placing the two teeth on the special slots and pushing all the way down (see **Fig. 29**).
- Use no.8 wrench to tightenthe two screws under the panel (see **Fig. 30**).

## 5.8 PANEL ASSEMBLY (LEAN<sup>3</sup> PLUS MODEL)



*Assembly must be carried out by an authorised technician.*

For panels installation, proceed as follows:



**Fig. 31 - Panels assembly**



**Fig. 32 - Panels fixing**



**Fig. 33 - Panel lower fixing**

- Insert the side metal panels from above, introducing the teeth/screws in the appropriate slots and making them lower to the bottom (see **Fig. 31** and **Fig. 32**).
- Fix the lower part of the panels with the screws (see **Fig. 33**).

## 5.9 PANEL ASSEMBLY (MOON MODEL)



*Assembly must be carried out by an authorised technician.*

Proceed as follows to assemble the panel:



**Fig. 34 - Slide the panel on**



**Fig. 35 - Secure the screws**

- Slide the coloured panel on from the top, wedging the teeth into the specific slots (see **Fig. 34**).
- Secure the panel on the back with 4 screws (see **Fig. 35**).

## 5.10 PANEL ASSEMBLY (TILE<sup>3</sup> PLUS MODEL)



*Assembly must be carried out by an authorised technician.*

Proceed as follows to assemble the panel:



**Fig. 36 - Disassembly of the upper bracket**



**Fig. 37 - Release of the lower bracket**



**Fig. 38 - Panels fixing**

- Loosen 2 screws and remove the upper bracket.
- Unhook the upper and lower coating union brackets from the magnets.
- Compose the coating by fixing the 2 coloured panels to the 2 union brackets.



**Fig. 39 - Teeth bending**



**Fig. 40 - Panels assembly**



**Fig. 41 - Coating fixing**

- Lift and bend the 2 teeth/levers using a screwdriver.
- Insert the coating from the top, fitting the teeth in the appropriate slots and re-tightening the 2 screws (see fig.6207).

## 5.11 CONNECTION TO THE EXTERNAL THERMOSTAT

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:

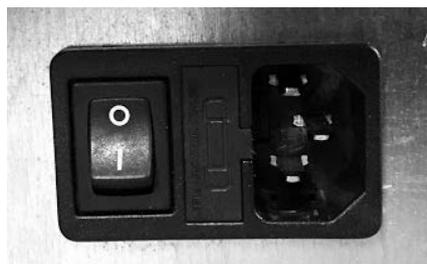
- Press the "menu" button.
- Scroll with the arrows to "Settings".
- Select by pressing "menu".
- Scroll with the arrows again to "Ext.Thermostat".
- Select by pressing "menu".
- Press the - + buttons.
- To activate the external thermostat select "on".
- Press the "menu" button to confirm.

## 5.12 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. 29**).
- 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. 42**) and then at a wall electric socket.



**Fig. 42 - Electric socket with master switch**

- The master switch 0/I (see **Fig. 42**) is to open only to switch the stove on, otherwise it is advisable to keep it off.

- 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 is advisable to remove the plug from the socket on the wall.

### 5.13 HOT AIR DUCTING SYSTEM

The stove has 1 hot air outlet that can be ducted to other rooms.  
The duct pipe can be directed as follows:



**Fig. 43 - Ducting 1**



**Fig. 44 - Ducting 2**



**Fig. 45 - Ducting 3**

- The pipe can be directed to the left (see **Fig. 43**).
- The pipe can be directed to the right (see **Fig. 44**). For this solution, the pipe can run through the pedestal, removing the pre-cut caps.
- The pipe can be directed towards the back of the stove (see **Fig. 45**).



**Fig. 46 - Ducting system example**

- If the stove is not fitted with ducting system, it provides a hot air capacity ranging from a minimum of 60 m<sup>3</sup>/h to a maximum of 130 m<sup>3</sup>/h with a temperature ranging between 90°C and 170°C.
- For the ducting system, we recommend using a pipe with a maximum length of 6 m and up to three 90° elbows in order to maintain hot air temperature.
- Use pipes with smooth internal surface and a diameter of 80 mm.
- Fit the pipe with insulating material if it passes through a cold wall.
- The outlet must be protected by a grid with wide mesh and a minimum total surface area of 40 cm<sup>2</sup>.
- If the pipes used are longer than 6 m, the air capacity ranges from a minimum of 58 m<sup>3</sup>/h to a maximum of 90 m<sup>3</sup>/h and the

temperature from 65°C to 130°C. (These values refer to the laboratory used for the tests. The room where the stove is installed may register different values both in terms of capacity and temperature).

- If you wish to increase air capacity, install at the end of the pipe a small wall-mounted fan with a capacity exceeding 130 m<sup>3</sup>/h. The installation must be carried out by an authorised technician.
- According to the factory parameters, 1/2 of the generated heat is conveyed into the room where the stove is installed, while the remaining 1/2 are conveyed through the left ducting pipe system.
- Balance heat output with air capacity to obtain the best performance (see USER MANUAL). The operation above must be carried out by an authorised technician.

## 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:

- Loosen nut "D" from the bottom of the stove, near the pressure switch (see **Fig. 47.**)
- Connect a digital pressure switch with a tube to detect the negative pressure (see **Fig. 48.**)
- Load the feed screw via appropriate function.
- Start the stove and set "Set\_Flame" to power 1 (the start-up time of this stove lasts between 8 and 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. 47 - Casing removal**



**Fig. 48 - Digital pressure switch connection**

DATA	P1	P2	P3	P4	P5
Stove depression - temperature 10 kW	22/24 Pa - 170°C	28/30 Pa - 128°C	40/42 Pa - 148°C	49/51 Pa - 164°C	56/58 Pa - 190°C

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

## 6 IN CASE OF ANOMALY

### 6.1 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.	

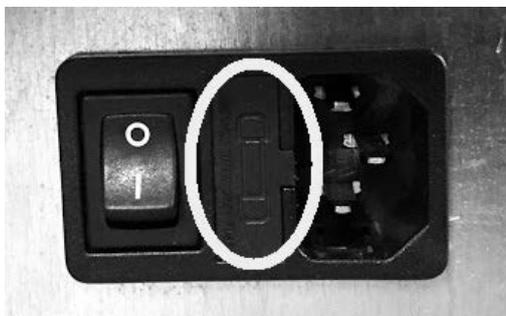
PROBLEM	CAUSE	SOLUTION	INTERVENTION
The stove is at its highest power but does not heat up.	Ambient temperature reached.	The stove is at its minimum value. Increase the desired ambient temperature.	
Stove running and display showing "Smoke Overtemperature"	Reached fume outlet limit temperature	The stove 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.	

## 7 TECHNICAL DATAS

### 7.1 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. 49**).



*Fig. 49 - Shutter with fuses to remove*

Proceed as follows:

- Unscrew the cover. Unhook the right and left side panels and pull them out of their seats.
- After these operations you can access the following parts: gear motor, spark plug, room fan, fume aspirator, room probe, fume probe, thermostat, electronic board, pressure switch.
- To replace and/or clean the loading feed screw, you must loosen the three motor gear bolts and pull the motor gear out, loosen the two screws underneath the feed screw motor gear, remove the hand protection inside the tank, then loosen the bolt inside the feed screw. To reassemble proceed in reverse order.

### 7.2 CE MARKING

The CE marking with the stove information is located under the stove's right side panel (see **Fig. 50**).



*Fig. 50 - CE marking position*

## 7.3 FEATURES

DESCRIPTION	WALL <sup>3</sup> PLUS	LEAN <sup>3</sup> PLUS	MOON
WIDTH	96,4 cm	93 cm	95,2 cm
DEPTH	25 cm	25 cm	26,4 cm
HEIGHT	102 cm	117,5 cm	99 cm
WEIGHT	103 - 133 kg	115 kg	103 kg
INTRODUCED THERMAL POWER (Min/Max)	3,16 - 11 kW	3,16 - 11 kW	3,16 - 11 kW
NOMINAL THERMAL POWER (Min/Max)	3 - 10 kW	3 - 10 kW	3 - 10 kW
EFFICIENCY (Min/Max)	94,5 - 91 %	94,5 - 91 %	94,5 - 91 %
FLUE GAS TEMPERATURE (Min/Max)	111 - 215 °C	111 - 215 °C	111 - 215 °C
MAXIMUM FLUE GAS FLOW RATE (Min/Max)	2,5 - 5,6 g/s	2,5 - 5,6 g/s	2,5 - 5,6 g/s
CO EMISSIONS (13% O <sub>2</sub> ) (Min/Max)	0,0139 - 0,0095 %	0,0139 - 0,0095 %	0,0139 - 0,0095 %
OGC EMISSIONS (13% O <sub>2</sub> ) (Min/Max)	5 - 4 mg/Nm <sup>3</sup>	5 - 4 mg/Nm <sup>3</sup>	5 - 4 mg/Nm <sup>3</sup>
NOX EMISSIONS (13% O <sub>2</sub> ) (Min/Max)	108 - 104 mg/Nm <sup>3</sup>	108 - 104 mg/Nm <sup>3</sup>	108 - 104 mg/Nm <sup>3</sup>
Average CO CONTENT at 13% O <sub>2</sub> (Min/Max)	174 - 119 mg/Nm <sup>3</sup>	174 - 119 mg/Nm <sup>3</sup>	174 - 119 mg/Nm <sup>3</sup>
Average DUST CONTENT at 13% O <sub>2</sub> (Min/Max)	9,9 - 16,5 mg/Nm <sup>3</sup>	9,9 - 16,5 mg/Nm <sup>3</sup>	9,9 - 16,5 mg/Nm <sup>3</sup>
FLUE NEGATIVE PRESSURE (Max)	10 Pa	10 Pa	10 Pa
ON SHARED FLUE	NO	NO	NO
FLUE GAS EXHAUST DIAMETER	Ø80 mm	Ø80 mm	Ø80 mm
FUEL	Pellet Ø6-7 mm	Pellet Ø6-7 mm	Pellet Ø6-7 mm
PELLET HEATING CAPACITY	5 kWh/kg	5 kWh/kg	5 kWh/kg
PELLET HUMIDITY	≤ 10%	≤ 10%	≤ 10%
HEATABLE VOLUME 18/20°C Coeff. 0.045 kW (Min/Max)	72 - 240 m <sup>3</sup>	72 - 240 m <sup>3</sup>	72 - 240 m <sup>3</sup>
HOURLY CONSUMPTION (Min/Max)	0,66 - 2,24 kg/h	0,66 - 2,24 kg/h	0,66 - 2,24 kg/h
HOPPER CAPACITY	15 kg	17 kg	15 kg
RANGE (Min/Max)	6,7 - 22,7 h	7,8 - 26,5 h	6,7 - 22,7 h
POWER SUPPLY	230 V - 50 Hz	230 V - 50 Hz	230 V - 50 Hz
ABSORBED POWER (Max)	350 W	350 W	350 W
STARTER RESISTANCE ABSORBED POWER	300 W	300 W	300 W
MINIMUM EXTERNAL AIR VENT (final cross-section)	80 cm <sup>2</sup>	80 cm <sup>2</sup>	80 cm <sup>2</sup>
SEALED CHAMBER STOVE	SI	SI	SI
EXTERNAL AIR VENT FOR SEALED CHAMBER	60 mm	60 mm	60 mm
DISTANCE FROM COMBUSTIBLE MATERIAL (back/side/bottom)	0 / 300 / 0 mm	0 / 300 / 0 mm	0 / 300 / 0 mm
DISTANCE FROM COMBUSTIBLE MATERIAL (ceiling/front)	750 / 1000 mm	750 / 1000 mm	750 / 1000 mm

DESCRIPTION	TILE <sup>3</sup> PLUS		
WIDTH	94,8 cm		
DEPTH	28,8 cm		
HEIGHT	110,8 cm		
WEIGHT	125 kg		
INTRODUCED THERMAL POWER (Min/Max)	3,16 - 11 kW		
NOMINAL THERMAL POWER (Min/Max)	3 - 10 kW		
EFFICIENCY (Min/Max)	94,5 - 91 %		
FLUE GAS TEMPERATURE (Min/Max)	111 - 215 °C		
MAXIMUM FLUE GAS FLOW RATE (Min/Max)	2,5 - 5,6 g/s		
CO EMISSIONS (13% O <sub>2</sub> ) (Min/Max)	0,0139 - 0,0095 %		
OGC EMISSIONS (13% O <sub>2</sub> ) (Min/Max)	5 - 4 mg/Nm <sup>3</sup>		
NOX EMISSIONS (13% O <sub>2</sub> ) (Min/Max)	108 - 104 mg/Nm <sup>3</sup>		
Average CO CONTENT at 13% O <sub>2</sub> (Min/Max)	174 - 119 mg/Nm <sup>3</sup>		
Average DUST CONTENT at 13% O <sub>2</sub> (Min/Max)	9,9 - 16,5 mg/Nm <sup>3</sup>		
FLUE NEGATIVE PRESSURE (Max)	10 Pa		
ON SHARED FLUE	NO		
FLUE GAS EXHAUST DIAMETER	Ø80 mm		
FUEL	Pellet Ø6-7 mm		
PELLET HEATING CAPACITY	5 kWh/kg		
PELLET HUMIDITY	≤ 10%		
HEATABLE VOLUME 18/20°C Coeff. 0.045 kW (Min/Max)	72 - 240 m <sup>3</sup>		
HOURLY CONSUMPTION (Min/Max)	0,66 - 2,24 kg/h		
HOPPER CAPACITY	18 kg		
RANGE (Min/Max)	8 - 27 h		
POWER SUPPLY	230 V - 50 Hz		
ABSORBED POWER (Max)	350 W		
STARTER RESISTANCE ABSORBED POWER	300 W		
MINIMUM EXTERNAL AIR VENT (final cross-section)	80 cm <sup>2</sup>		
SEALED CHAMBER STOVE	SI		
EXTERNAL AIR VENT FOR SEALED CHAMBER	60 mm		
DISTANCE FROM COMBUSTIBLE MATERIAL (back/side/bottom)	0 / 300 / 0 mm		
DISTANCE FROM COMBUSTIBLE MATERIAL (ceiling/front)	750 / 1000 mm		





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