INSTALLER MANUAL

Pellet Stove

EN

ATENA³ PLUS 12/14 - DUKE 12/14 AIRTIGHT- SABA 12/14
MITHOS³ PLUS 12/14

SUMMARY

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 REMOVING THE STOVE FROM THE PALLET

Proceed as follows:

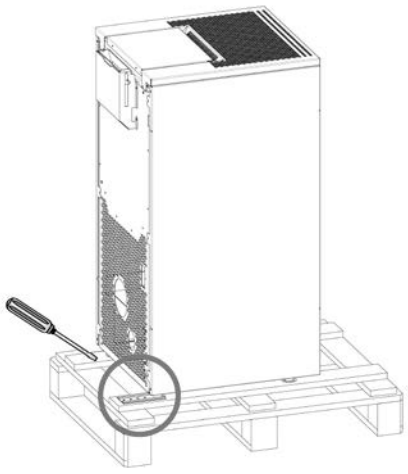

Fig. 1 - Bracket removal

- Remove the brackets which secure the feet of the stove (see **Fig. 1**). Then remove the stove from the pallet.

2.3 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 standards which the qualified manufacturer/installer should comply with.

3.2 CHIMNEY FLUE

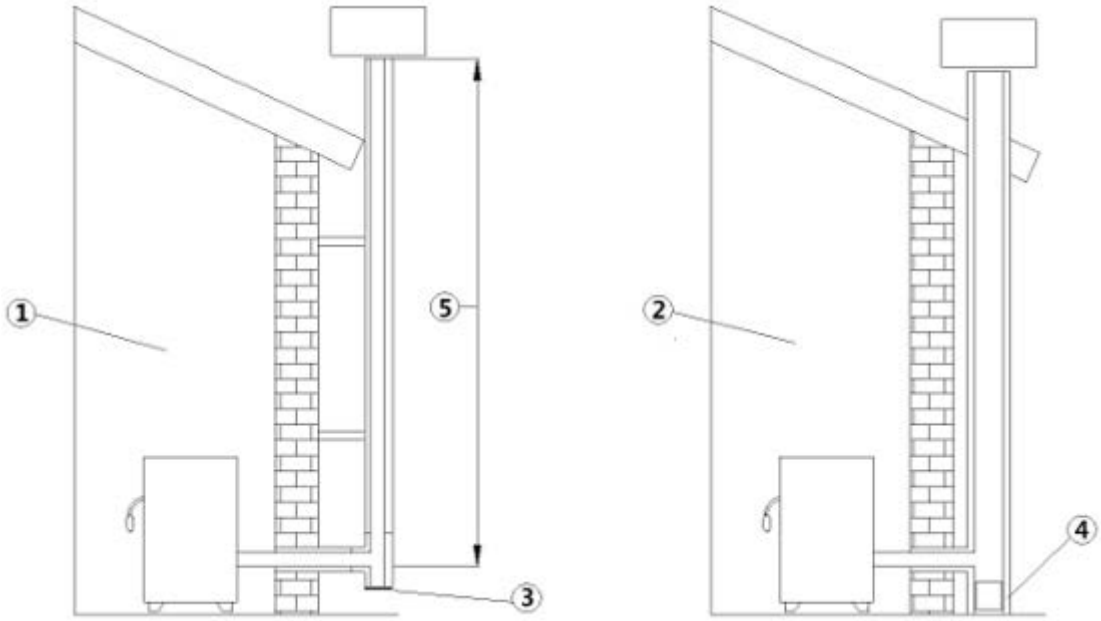

Fig. 2 - Chimney Flues

LEGEND	*Fig. 2*
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. 2**) 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

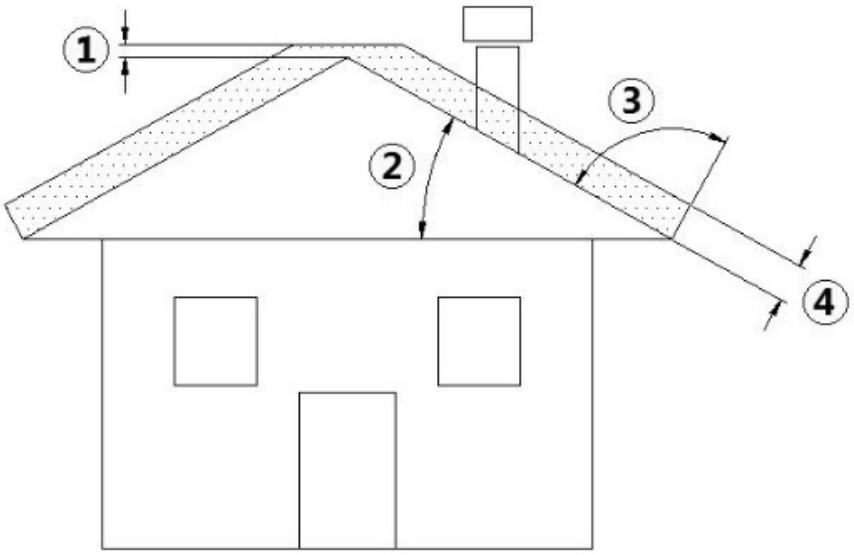

Fig. 3 - Inclined roof

LEGEND	*Fig. 3*
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:

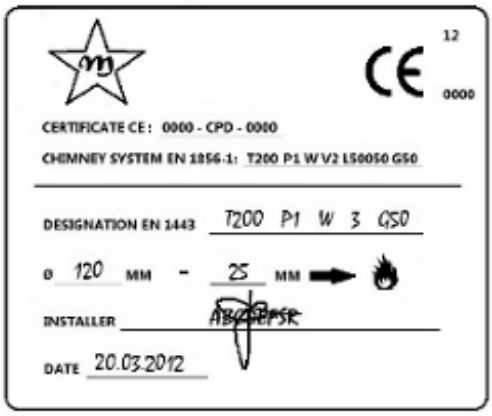

Fig. 4 - Example of label

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. 37**. 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

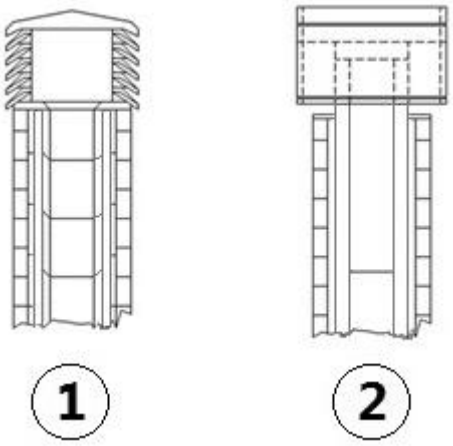

Fig. 5 - Anti-wind chimney pots

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

- We recommend using an anti-wind chimney pot, see **Fig. 5**.
- 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. 3**).

3.7 CHIMNEY COMPONENTS

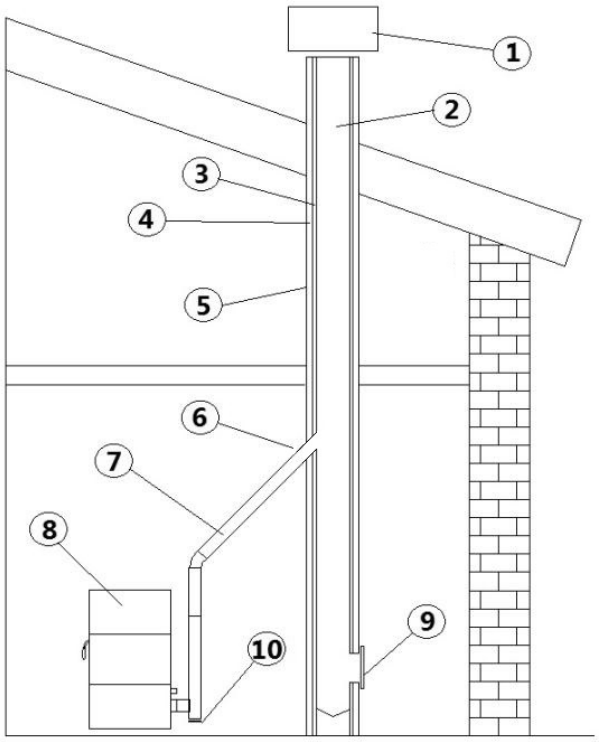

Fig. 6 - Chimney components

LEGEND	*Fig. 6*
1	*Chimney pot*
2	*Fume outlet*
3	*Chimney flue*
4	*Termal 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

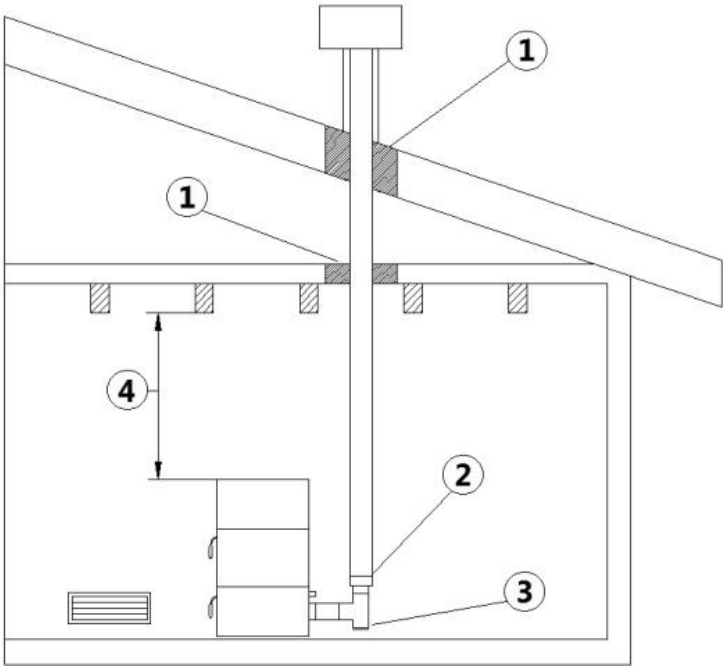

Fig. 7 - Example 1

LEGEND	***Fig. 7***
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.

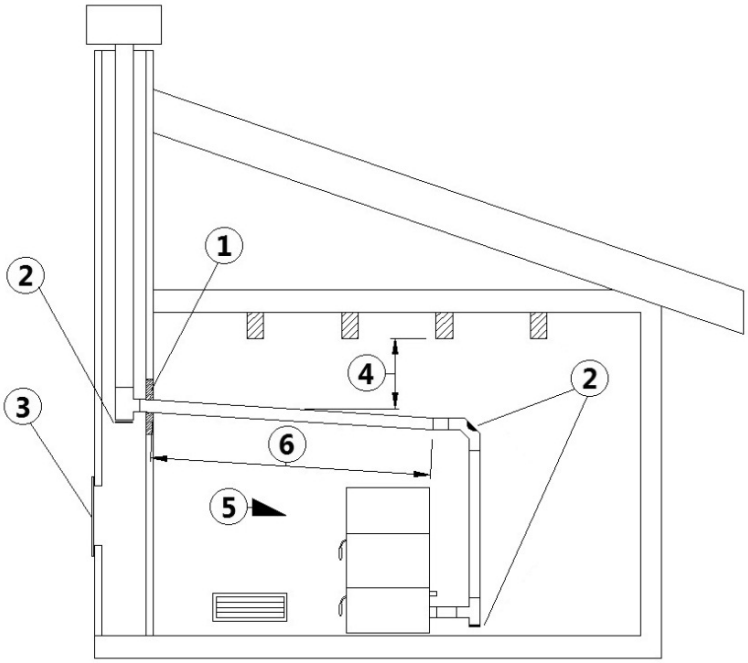

Fig. 8 - Example 2

LEGEND	*Fig. 8*
1	*Insulating material*
2	*Inspection plug*
3	*Chimney inspection entrance*
4	*Minimum safety distance = 0,5 mt*
5	*Inclination ≥ 3°*
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.

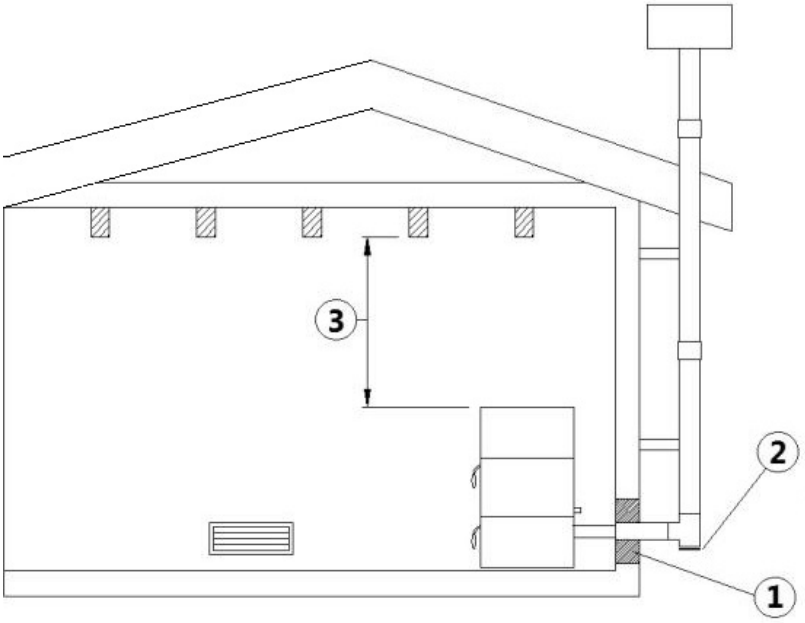

Fig. 9 - Example 3

LEGEND	*Fig. 9*
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. 5**).
- 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

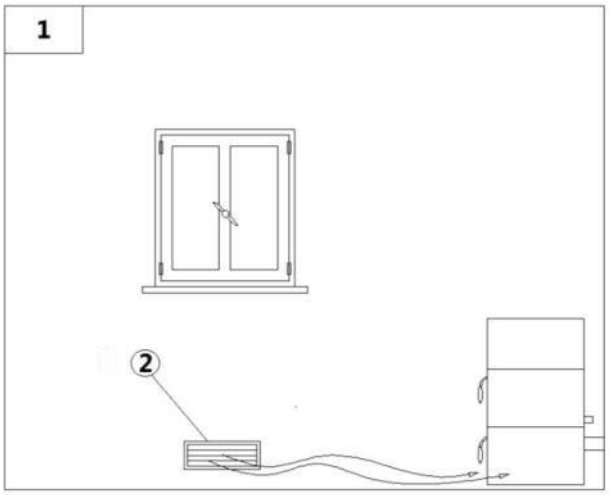

Fig. 10 - Direct air inflow

LEGEND	*Fig. 10*
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. 10**).
- Bedrooms, garages, and store of flammable materials are excluded.
- The air inlet should have a total net surface of 80 sqcm^2: 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

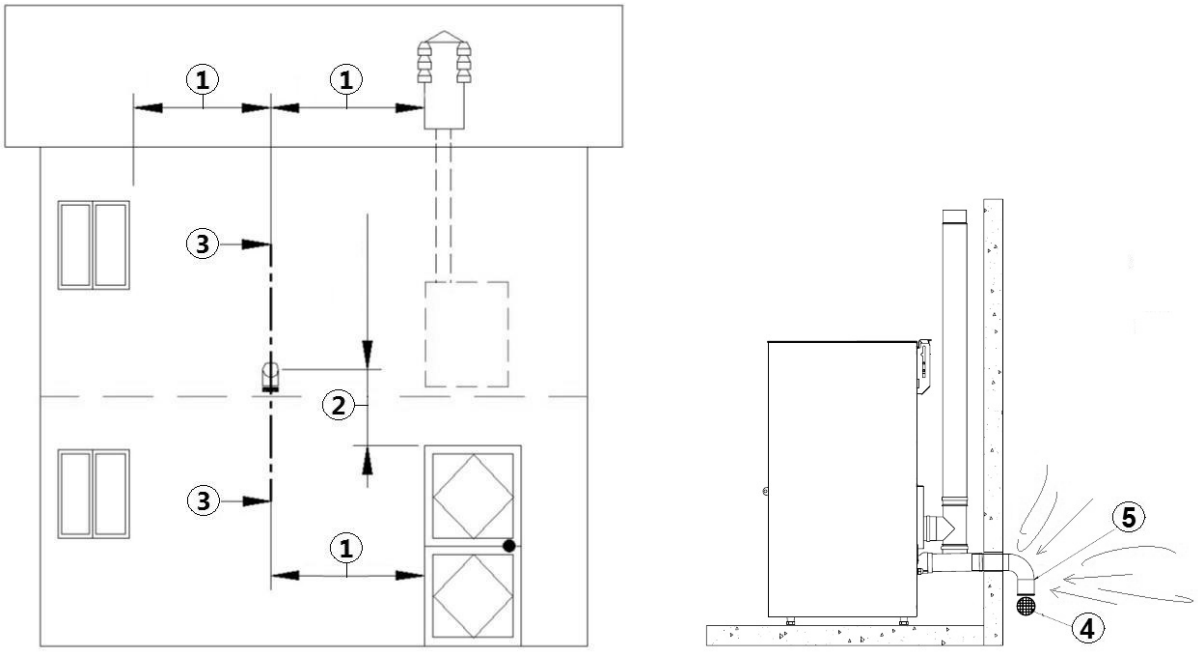

Fig. 11 - Air inlet for sealed-chamber installation

LEGEND	*Fig. 11*
1	*≥ 1,5 mt*
2	*≥ 0,3 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 Ø60 mm and maximum 2 meters lenght; 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. 11**.
- 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. 12 - Phase1

- Connect the air intake pipe to the combustion air pipe of the stove and tighten everything with a clamp (see [**Fig. 12**).

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 en easy access to the electric connection plug (see **ELECTRIC CONNECTION a pag. 28**).
- To install more appliances, the external air inlet must be correctly dimensioned (see **FEATURES a pag. 37**).

5.2 OVERALL DIMENSIONS

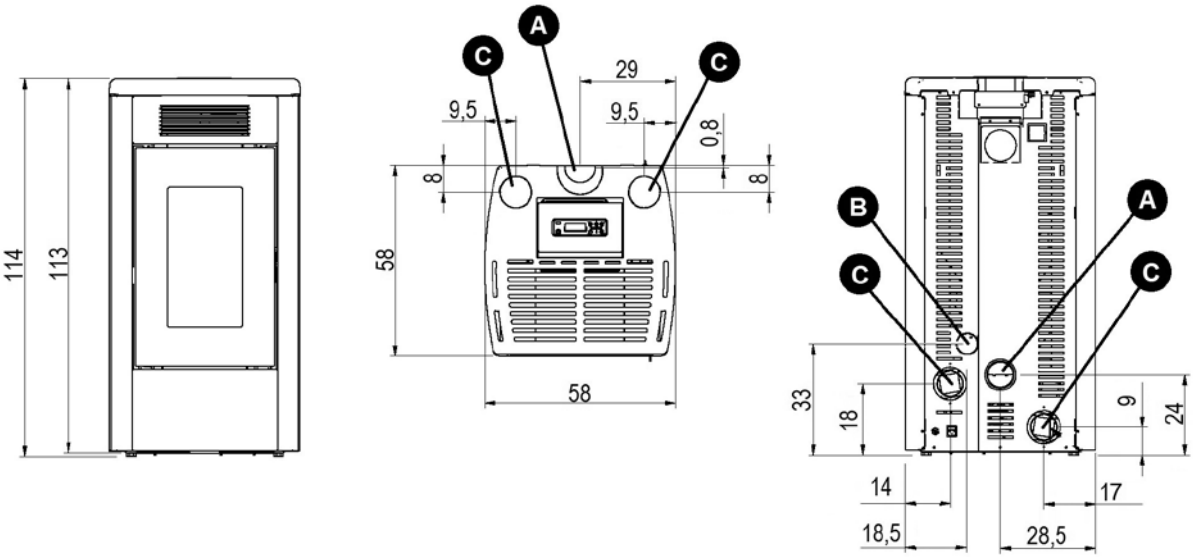

Fig. 13 - General dimensions: Atena³ Plus 12/14

LEGEND	*Fig. 13*
A	*Exhaust fumes d.8 cm*
B	*Hole combustion air inlet d.6 cm*
C	*Ducting outlet d.8 cm*

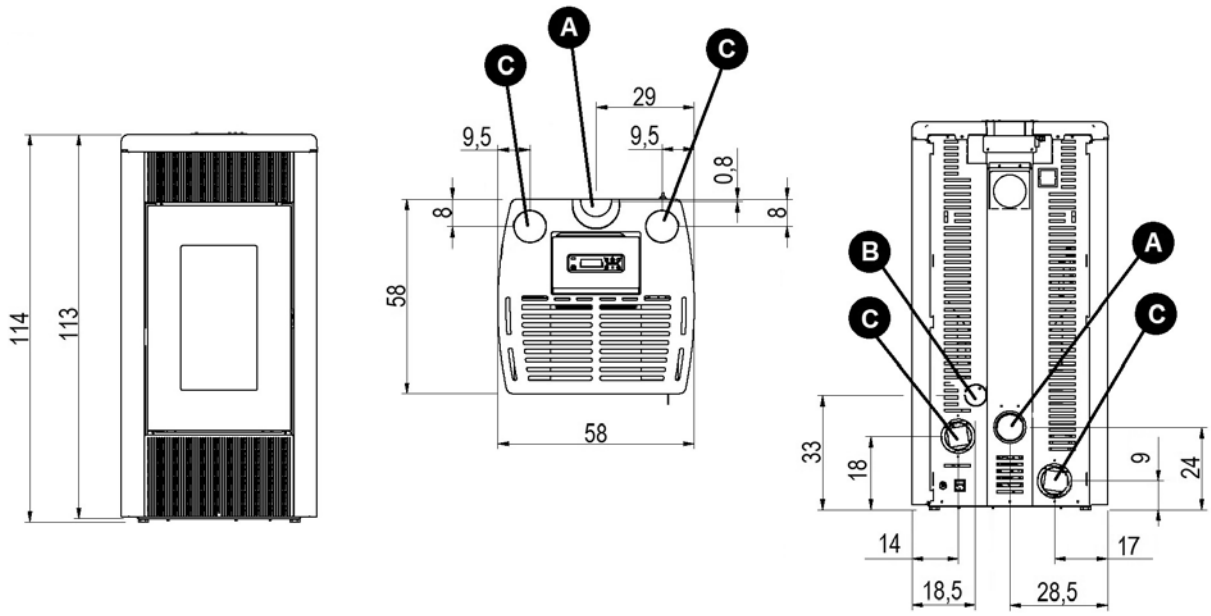

Fig. 14 - General dimensions: Duke 12/14 Airtight

LEGEND	*Fig. 14*
A	*Exhaust fumes d.8 cm*
B	*Hole combustion air inlet d.6 cm*
C	*Ducting outlet d.8 cm*

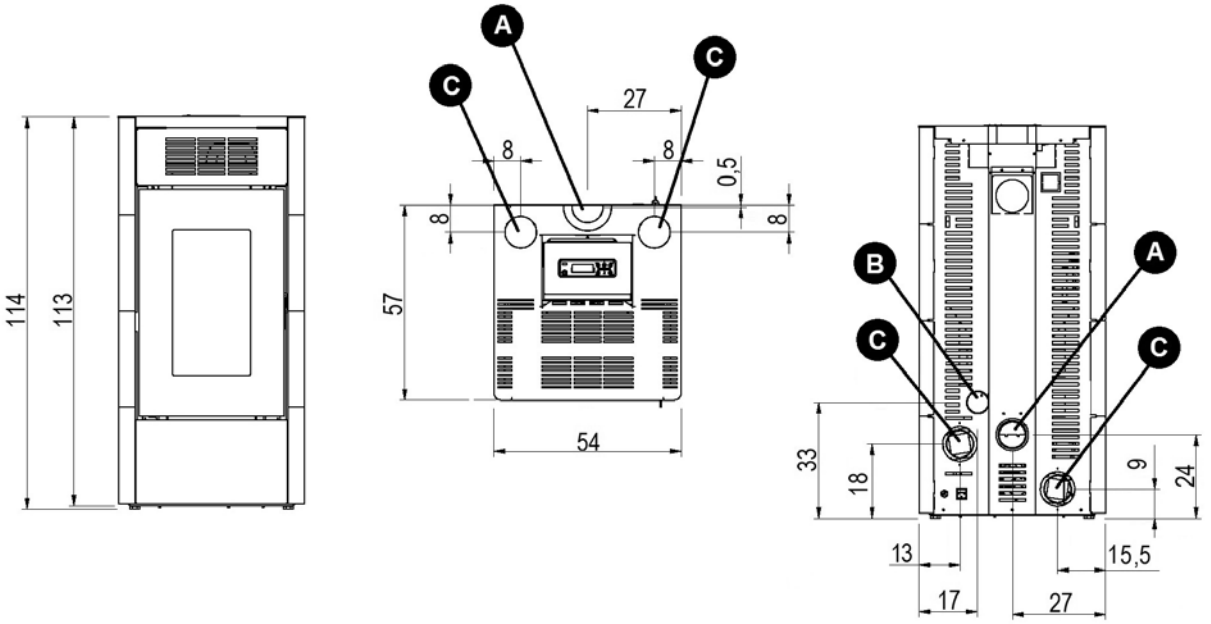

Fig. 15 - General dimensions: Saba 12/14

LEGEND	*Fig. 15*
A	*Exhaust fumes d.8 cm*
B	*Hole combustion air inlet d.6 cm*
C	*Ducting outlet d.8 cm*

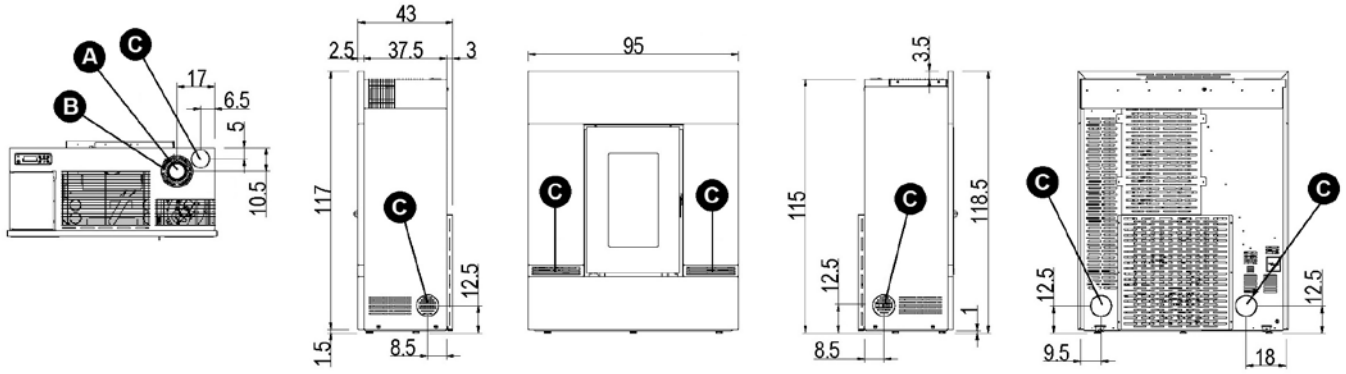

Fig. 16 - General dimensions: Mithos³ Plus 12/14

LEGEND	*Fig. 16*
A	*Exhaust fumes d.8 cm*
B	*Hole combustion air inlet d.6 cm*
C	*Ducting outlet d.8 cm*

5.3 GENERAL INSTALLATION

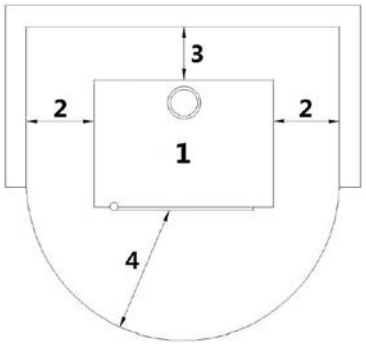

Fig. 17 - General installation

LEGEND	*Fig. 17*
1	*Stove*
2	*Minimum lateral distance = 300 mm*
3	*Minimum rear distance = 200 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 200 mm on the back, to enable an eficient appliance cooling and a good distribution of heat in the room (see **Fig. 17**).
If the walls are made up of flammable materials, check the safety distances (see **Fig. 17**).
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 masonring 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. 18**).
- Lift the door to allow the door pivots to slide out of the structure bracket (see **Fig. 19**).
- Keep the door in a safe place until next use.

Fig. 18 - Remove screws

Fig. 19 - 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 REMOVAL OF CAST IRON COVER AND CAPS (ATENA³ PLUS 12/14 - DUKE 12/14 AIRTIGHT)

ATTENTION: it takes 2 persons to lift the cover.

To remove the cast-iron cover, proceed as follows:

- Undo the 2 back screws (see).
- Lift the cast iron cover (see).

Fig. 20 - Remove the screws

Fig. 21 - Remove the cover

To remove the cast-iron caps, proceed as follows:

- Push on one side of the cap and remove it (see **Fig. 22**).

Fig. 22 - Remove cap

5.6 REMOVAL/ASSEMBLY OF SIDE PANELS (DUKE 12/14 AIRTIGHT - SABA 12/14)

To disassemble the side panels, proceed as follows:

- Undo the screws of the upper panel (see **Fig. 23**) and release the panel (see **Fig. 24**).
- Release the lower panel (see **Fig. 25**).

Fig. 23 - Remove the screws

Fig. 24 - Release upper panel

Fig. 25 - Release lower panel

- Undo the front screws of the side panel (see **Fig. 26**).
- Open the panel at the back (see **Fig. 27**).
- To assemble proceed in reverse order.

Fig. 26 - Remove screws

Fig. 27 - Release side panel

5.7 REMOVAL/ASSEMBLY OF BACK PANELS (ATENA³ PLUS 12/14)

To disassemble the back panels, proceed as follows:
- Remove the cast iron cover (see dedicated chapter).
- Undo the front screws of the black panel (see **Fig. 28**).
- Open the panel and release the rear teeth (see **Fig. 29**).
- To assemble proceed in reverse order.

Fig. 28 - Remove the screws

Fig. 29 - Remove the side panels

5.8 REMOVAL/ASSEMBLY OF METAL PROFILES (ATENA³ PLUS 12/14)

To disassemble the front profiles, proceed as follows:
- Remove the cast iron cover (see dedicated chapter).
- Release both front panels (see **Fig. 30**).
- Undo the front screws of the profile (see **Fig. 31** and **Fig. 32**).

Fig. 30 - Remove the front panels

Fig. 31 - Remove the screws

Fig. 32 - Remove the screws

- Open the side and release the panel (see **Fig. 33**).
- To assemble proceed in reverse order.

Fig. 33 - Release the panel

5.9 TILES ASSEMBLY (ATENA³ PLUS 12/14)

To disassemble the tiles, proceed as follows:

- Place the tiles on a worktop and set the tile support above it.
- Have the holes of the profile match those of the tiles and apply all the screws (see **Fig. 34**).
- For assembly on the stove, see the next chapter.

Fig. 34 - Tiles assembly

5.10 REMOVAL/ASSEMBLY OF TILE PROFILES (ATENA³ PLUS 12/14)

To disassemble the front profiles, proceed as follows:

- Remove the cast iron cover (see dedicated chapter).
- Push the panel with the tiles upwards and release it from the stove (see**Fig. 35**).
- To assemble proceed in reverse order.

Fig. 35 - Release the panel

5.11 FRAME ASSEMBLY (MITHOS3 PLUS 12/14)

To assemble the frame, proceed as follows:

- Fix the right and left panels with the screws (see **Fig. 36** e **Fig. 37**).
- Take the upper panel and fold the two tabs downwards (see **Fig. 38**).

Fig. 36 - Fix side panels

Fig. 37 - Fixed panels

Fig. 38 - Fold the tabs

- Fit the external hooks into the provided slots, taking care to match the head of the central screw with the hole in the panel (see **Fig. 39** e **Fig. 40**).
- To lock the upper panel, fix the previously folded tabs to the side panels with a screw (see **Fig. 41**).

Fig. 39 - Upper panel 1

Fig. 40 - Upper panel 2

Fig. 41 - Fix upper panel

- Take the lower panel and fold the 2 tabs upwards (see **Fig. 42**).
- Fit the external hooks into the provided slots (see **Fig. 43**).
- To lock the lower panel, fix the previously folded tabs to the air outlets (see **Fig. 44**).

Fig. 42 - Fold the tabs

Fig. 43 - Lower panel

Fig. 44 - Fix lower panel

5.12 REMOVAL OF SIDE PANELS (MITHOS3 PLUS 12/14)

5.13

To disassemble the side panels, proceed as follows:

- Remove the 2 screws of the side from the bottom of the panel (see **Fig. 45**).
- Unhook the side panel (see **Fig. 46**).
- To assemble, proceed in reverse order.

Fig. 45 - Screw removal

Fig. 46 - Removing the side panel

5.14 REAR OR UPPER FUME EXHAUST (ATENA³ PLUS 12/14 - DUKE 12/14 AIRTIGHT - SABA 12/14)

The connection of the fume exhaust can be at the back or on top.

REAR EXHAUST

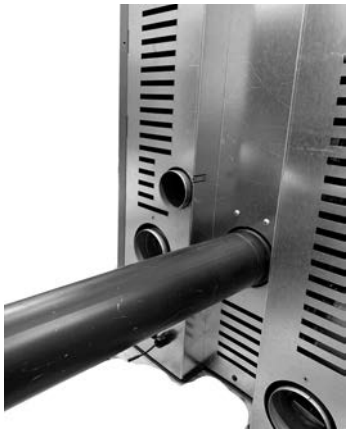

Fig. 47 - Connection of the fume exhaust

- Position the pipe as shown in **Fig. 47**.

UPPER EXHAUST

Fig. 48 - Remove the cap (Saba 14)

Fig. 49 - Remove the cap (Atena³ Plus 12/14 - Duke At)

Fig. 50 - Connect the Tee fitting

- Remove the cap at the back of the cover (see **Fig. 48** or **Fig. 49**).
- Connect a Tee fitting as shown in **Fig. 50**.

Fig. 51 - Lower the support

Fig. 52 - Connect the pipes

Fig. 53 - Rear fume exhaust mounted

- Bend the support at the back of the stove and insert the fume exhaust pipe (see**Fig. 51**).
- Connect the 2 pipes (see **Fig. 52** and secure it all with the clamp (see **Fig. 53**).

5.15 CONCENTRIC PIPE-KIT ASSEMBLY (ATENA³ PLUS 12/14 - DUKE 12/14 AIRTIGHT - SABA 12/14)

The stove is designed to be connected to a concentric pipe by means of a dedicated kit.
The upper exhaust with concentric pipe requires 1 kit code 5020004 (optional).
To assemble the kit, proceed as follows:

- Take the kit (see **Fig. 54**) and couple the pipe to the outlet of the fume exhaust of the stove (see **Fig. 55**).
- Insert the flexible pipe into the combustion air inlet pipe of the stove (see **Fig. 56**).

Fig. 54 - Concentric kit

Fig. 55 - Insert pipe d.80 mm

Fig. 56 - Insert combustion air pipe

- Secure the kit to the back of the stove with a clamp (see **Fig. 57**).
- The stove is ready to be connected to the flue (see **Fig. 58**).

Fig. 57 - Block with clamp

Fig. 58 - Position of the pipe

5.16 HOT AIR DUCTING SYSTEM (ATENA³ PLUS 12/14 - DUKE 12/14 AIRTIGHT - SABA 12/14)

The stove is fitted with 1 upper and 1 rear hot air outlets.

SOLUTION A: ducting with the rear hot air outlet (see **Fig. 59**).

Fig. 59 - Rear hot air outlet

- Position the 2 pipes as shown in (see **Fig. 59**).

SOLUTION B: ducting with the upper hot air outlet (see **Fig. 60**).

Top ducting requires 2 kits code 5020003 (optional).

Fig. 60 - Upper hot air outlet

Fig. 61 - Remove cap

Fig. 62 - Remove fan screws

Fig. 63 - Remove fan

- Remove the side panels and cover of the stove (see dedicated chapter).
- Remove the inspection door on the side near the ducting fans (see **Fig. 61**).
- Remove the screws of the fan (see **Fig. 62**).
- Turn the fan with the vent facing upwards and fix it (see **Fig. 63**).

Fig. 64 - Insert pipe

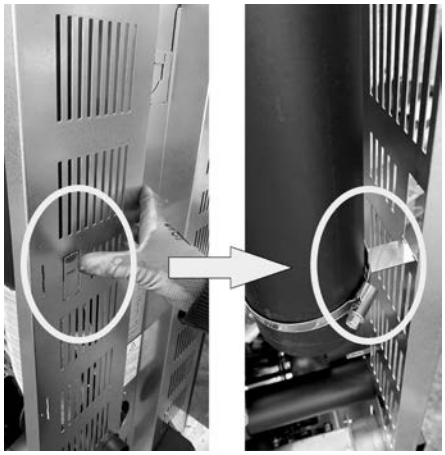

Fig. 65 - Fold the flap

Fig. 66 - Fix the pipes

- Insert the pipes in the specific seats and move it down until it is completely inserted (see **Fig. 64**).
- Bend the flap inwards with your hands (see **Fig. 65**).
- Using a flexible pipe, connect the fan vent and ducting pipe, securing them with the clamps (see **Fig. 66**).

SOLUTION C: ducting with the upper and rear hot air outlet (see **Fig. 67** and **Fig. 68**).
Top ducting requires 1 kit code 5020003 (optional).

Fig. 67 - Upper hot air outlet (right or left)

Fig. 68 - Rear hot air outlet (right or left)

- Position the pipes as described in **SOLUTION A** and **SOLUTION B**.

Fig. 69 - Ducting system example

- A stove with no ducting has a variable air flow rate from a minimum of 59 m^3/h to a maximum of 153 m^3/h, and an air temperature which varies from a minimum of 90°C to a maximum of 150°C; these data are valid for each of the 2 outputs and the fan of the central environment.
- In the case of ducting, it is recommended not to exceed 8 metres of pipe and 3 x 90° bends, otherwise the hot air loses its effectiveness.
- Use pipes with an 80 mm diameter with smooth internal walls.
- If the pipes pass through cold walls, insulate the pipe with insulating material.
- Place a protective grille with large mesh and a total minimum net surface area of 24 cm^2 over the outlet.
- There can be a variable air flow rate from a minimum of 35 m^3/h to a maximum of 80 m^3/h and an air temperature which varies from a minimum of 40°C to a maximum of 100°C after the 8 metres of pipe. (These values were recorded in the testing laboratory; there may be differences in flow and temperature in the installation room).
- If you wish to increase the air flow, install a small wall-mounted fan on the outlet with a flow rate of more than 80 m^3/h; this should be performed by an authorised technician.
- With the factory parameters, 26% of the heat produced by the stove is conveyed into the room where it is installed and the remaining 37% comes out from the ducting on the right and 37% from the left one.
- To get the best performance you need to balance the power with the air flow. This operation must be performed with the assistance of an authorised technician.
- The ductable fans cannot be deactivated, but they can be operated at a power value between 1 and 5 or in automatic mode.

5.17 HOT AIR DUCTING (MITHOS3 PLUS 12/14)

Fig. 70 - Hot air outlet (default)

The stove is fitted with 2 hot air outlets and by default they are oriented in the 2 front outlets (see **Fig. 70**).
These 2 outlets can be oriented differently: up and/or side and/or rear.
To change the direction, proceed as follows:

SIDE DUCTING (RIGHT AND/OR LEFT)

- Remove the side panel (see **REMOVAL OF SIDE PANELS (MITHOS3 PLUS 12/14) a pag. 20**).
- Fold the tabs inwards (see **Fig. 71**).
- Remove the clamp and detach the hose from the vent of the grid (see **Fig. 72**).
- Rotate the hose towards the groove for the side outlet (see **Fig. 73**).

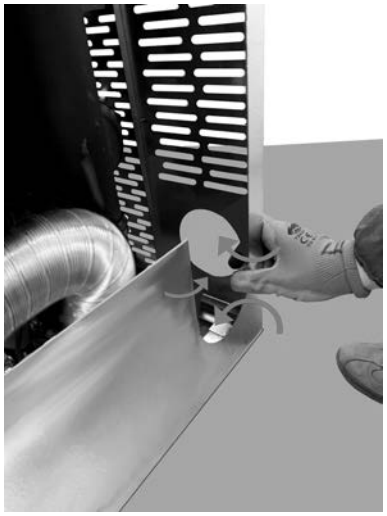

Fig. 71 - Fold the tabs

Fig. 72 - Detach the hose

Fig. 73 - Rotate the hose

- Take the side panel and remove the precut cap (see **Fig. 74**).
- Reposition the side panel on the stove (see **Fig. 75**).
- Connect a d.80 mm pipe to channel the air to another room (see **Fig. 76**).

Fig. 74 - Remove the cap

Fig. 75 - Position the side panel

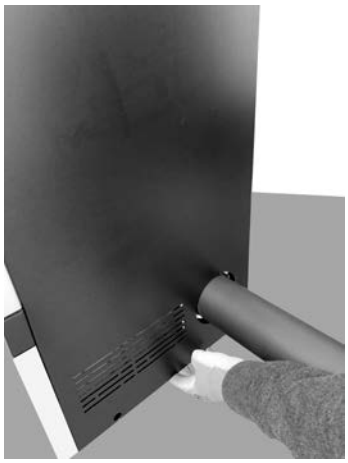

Fig. 76 - Connect ducting pipe

REAR DUCTING (RIGHT AND/OR LEFT)

- Remove the side panel (see **REMOVAL OF SIDE PANELS (MITHOS3 PLUS 12/14) a pag. 20**).
- Remove the clamps and the hose (see **Fig. 77**).
- Connect a d.80 mm pipe to channel the air to another room (see **Fig. 78**).
- Reposition the side panel on the stove.

Fig. 77 - Remove the hose

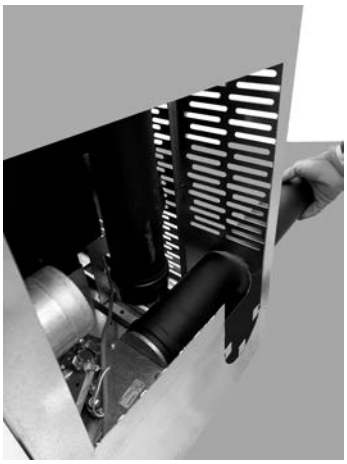

Fig. 78 - Connect the ducting pipe

TOP DUCTING

- Remove the side panel (see **REMOVAL OF SIDE PANELS (MITHOS3 PLUS 12/14) a pag. 20**).
- Remove the clamp and detach the hose from the vent of the grid (see **Fig. 79**).
- Rotate the hose towards the upper outlet (see **Fig. 80**).
- Remove the precut cap from the cover (see **Fig. 81**).

Fig. 79 - Detach the hose

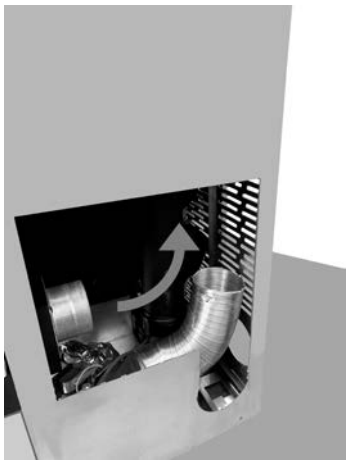

Fig. 80 - Rotate the hose

Fig. 81 - Remove the cap

Insert the d.80 mm pipe into the hole to channel the air to another room (see **Fig. 82**).
Lower the pipe until it engages the hose (see **Fig. 83**) and lock with a clamp.
Fold the tab located in the middle of the stove and, with a clamp, lock the vertical pipe (see **Fig. 84**).
Reposition the side panel on the stove.

Fig. 82 - Insert the ducting pipe

Fig. 83 - Connect the pipes

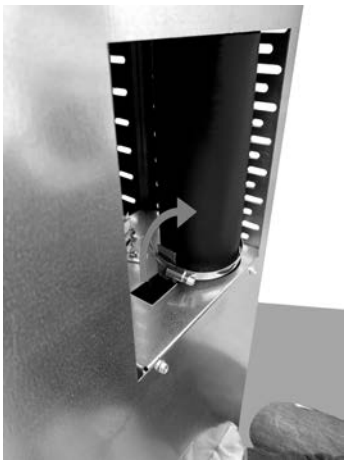

Fig. 84 - Lock the ducting pipe

Fig. 85 - Ducting system example

- A stove with no ducting has a variable air flow rate from a minimum of 59 m^3/h to a maximum of 153 m^3/h, and an air temperature which varies from a minimum of 90°C to a maximum of 150°C; these data are valid for each of the 2 outputs and the fan of the central environment.
- In the case of ducting, it is recommended not to exceed 8 metres of pipe and 3 x 90° bends, otherwise the hot air loses its effectiveness.
- Use pipes with an 80 mm diameter with smooth internal walls.
- If the pipes pass through cold walls, insulate the pipe with insulating material.
- Place a protective grille with large mesh and a total minimum net surface area of 24 cm^2 over the outlet.
- There can be a variable air flow rate from a minimum of 35 m^3/h to a maximum of 80 m^3/h and an air temperature which varies from a minimum of 40°C to a maximum of 100°C after the 8 metres of pipe. (These values were recorded in the testing laboratory; there may be differences in flow and temperature in the installation room).
- If you wish to increase the air flow, install a small wall-mounted fan on the outlet with a flow rate of more than 80 m^3/h; this should be performed by an authorised technician.
- With the factory parameters, 26% of the heat produced by the stove is conveyed into the room where it is installed and the remaining 37% comes out from the ducting on the right and 37% from the left one.
- To get the best performance you need to balance the power with the air flow. This operation must be performed with the assistance of an authorised technician.
- The ductable fans cannot be deactivated, but they can be operated at a power value between 1 and 5 or in automatic mode.

5.18 USING THE STOVE WITHOUT DUCTING (ATENA³ PLUS 12/14 - DUKE 12/14 AIRTIGHT - SABA 12/14)

The stove can be used without ducting the air to other environments.
In this case, assemble the environment diffuser in the stove's rear (where the ducting outlet is foreseen) (see **Fig. 86**).

Fig. 86 - Diffuser assembly

5.19 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.

5.20 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. 37**).
- 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. 87 Fig. 88**) and then at a wall electric socket.

Fig. 87 - Electric socket with master switch

Fig. 88 - 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.

5.21 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:

- Unscrew nut "D" on the rear of the stove and connect a digital pressure switch with a tube to detect the negative pressure (see **Fig. 89** or **Fig. 90**).
- 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. 89 - Digital pressure switch connection (Atena³ Plus12/14 - Duke 12/14 At - Saba 12/14)

DATA	P1	P2	P3	P4	P5
Stove depression - temperature 12 kW	20 Pa - 105°C	32 Pa - 135°C	45 Pa - 165°C	63 Pa - 195°C	73 Pa - 215°C
Stove depression - temperature 14 kW	20 Pa - 105°C	32 Pa - 140°C	40 Pa - 170°C	52 Pa - 205°C	63 Pa - 225°C

Fig. 90 - Digital pressure switch connection (Mithos³ Plus12/14)

DATA	P1	P2	P3	P4	P5
Stove depression - temperature 12 kW	17 Pa - 95°C	28 Pa - 130°C	37 Pa - 155°C	52 Pa - 180°C	58 Pa - 220°C
Stove depression - temperature 14 kW	17 Pa - 95°C	26 Pa - 140°C	45 Pa - 175°C	55 Pa - 220°C	68 Pa - 240°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 paragrafs.

- 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 electronical elements checked at least once a year.

All these operations must be planned in time with your Autorized 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 Autorized Retailer.

6.2 FUME CHAMBER CLEANING

Every end-of-season (or every 2000 hours of operation) it is necessary to clean the fume chamber.

- Open the door and release the panel below the door (see dedicated chapter).
- Remove the burning pot (see **Fig. 91**) from its seat and empty all ash.
- Clean and vacuum the burning pot compartment of any ash accumulated inside (see **Fig. 92**).
- Remove the inspection cap (see **Fig. 93**).

Fig. 91 - Remove the burning pot

Fig. 92 - Vacuum out the ash

Fig. 93 - Remove the cap

- Clean with a pipe cleaner and suction any ash accumulated inside (see **Fig. 94** and **Fig. 95**).
- After cleaning, repeat the operation in reverse making sure the gasket is intact and efficient: if necessary, have it replaced by an authorised technician.

Fig. 94 - Clean with pipe cleaner

Fig. 95 - Vacuum out the ash

6.3 FUME PASSAGE CLEANING

Every end-of-season (or every 2000 hours of operation) it is necessary to clean the fume passages.

- Remove the door (see the dedicated chapter).
- Undo the screws of the door deflector (see **Fig. 96**) and remove it.
- Undo the hex head screws that block the cast-iron tiles of the hearth, on both sides (see **Fig. 97**).
- Push the head of the firebox up (see **Fig. 98**), tilt the piece and pull it out (see **Fig. 99**).

Fig. 96 - Remove the deflector

Fig. 97 - Remove the hex screws

Fig. 98 - Remove the head of the firebox 1

- Then remove the side walls of the firebox (see **Fig. 100**).
- Lastly remove the back panel of the firebox (see **Fig. 101**).

Fig. 99 - Remove the head of the firebox 2

Fig. 100 - Remove the side walls

Fig. 101 - Remove the back panel of the firebox

- Clean with a pipe cleaner and suction any ash accumulated inside (see **Fig. 102**).
- Part of the ash will fall into the compartment below the firebox (see **Fig. 103**). See the previous chapter for the cleaning operation.

Fig. 102 - Clean with pipe cleaner

Fig. 103 - Vacuum out the ash

6.4 FUME FAN CLEANING

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

- Open the door and release the panel under the door (see dedicated chapter).
- Remove the inspection cap (see **Fig. 104**).
- Unscrew the 2 screws of the smoke deflector inside (see **Fig. 105**) and remove it (see **Fig. 106**).

Fig. 104 - Remove the cap

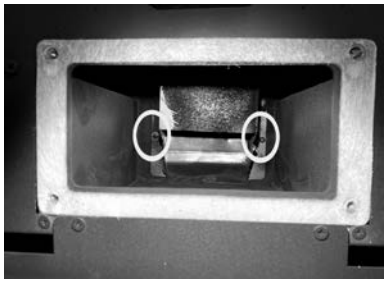

Fig. 105 - Unscrew the screws

Fig. 106 - Remove the fume diverter

- Vacuum the blades of the fume extraction fan (see**Fig. 107**).
- After cleaning, repeat the operation in reverse making sure the gasket is intact and efficient: if necessary, have it replaced by an authorised technician.

Fig. 107 - Vacuum out the ash

6.5 ROOM FAN CLEANING

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

Fig. 108 - Room fan cleaning (Atena³ Plus 12/14 - Duke 12/14 At - Saba 12/14)

Fig. 109 - Room fan cleaning (Mithos³ Plus 12/14)

- Remove the sides.
- Remove dust build-up using a brush or a vacuum cleaner (see **Fig. 108**).

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 avoi 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.	

PROBLEM	CAUSE	SOLUTION	INTERVENTION
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.	
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.	

PROBLEM	CAUSE	SOLUTION	INTERVENTION
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 obsturcted. 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.	
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 Overtepe-rature"	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.	

PROBLEM	CAUSE	SOLUTION	INTERVENTION
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.	
"Pellet reserve enabling" activates with the tank full	Failure to reach the threshold temperature, large or poor quality pellet, clogged fume passage	Increase pellet with "Pellet Recipe" or clean the combustion chamber	

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. 110**).

Fig. 110 - 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 replacemente of the auger it is necessary to unscrew the three bolt of the geared motor and to extract it, unscrew the two screws lying under the geared motor (vedi **Fig. 111**), of the auger, remove the hand rejector inside the hopper and then unscrew the inner bolt of the auger. (vedi **Fig. 112**).To assembly proceed at the contrary.

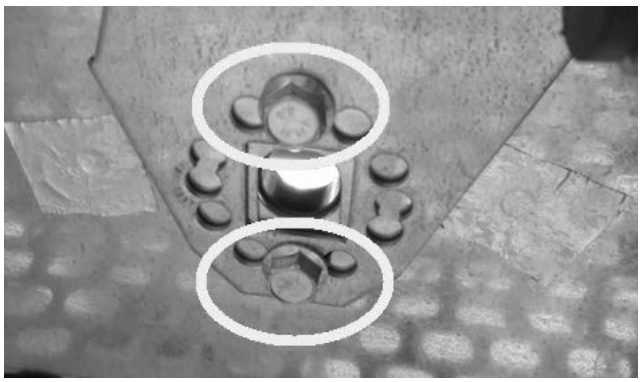

Fig. 111 - Remove the screws

Fig. 112 - Remove the screw

9 FEATURES

DESCRIPTION	ATENA³ PLUS 12	DUKE 12 AI-RTIGHT	SABA 12
WIDTH	58 cm	58 cm	54 cm
DEPTH	58 cm	58 cm	57 cm
HEIGHT	114 cm	114 cm	114 cm
WEIGHT	152 - 160 kg	155 kg	138 kg
INTRODUCED THERMAL POWER (Min/Max)	4 - 13,3 kW	4 - 13,3 kW	4 - 13,3 kW
NOMINAL THERMAL POWER (Min/Max)	3,8 - 12 kW	3,8 - 12 kW	3,8 - 12 kW
EFFICIENCY (Min/Max)	93,5 - 90 %	93,5 - 90 %	93,5 - 90 %
FLUE GAS TEMPERATURE (Min/Max)	81 - 185 °C	81 - 185 °C	81 - 185 °C
MAXIMUM FLUE GAS FLOW RATE (Min/Max)	3,9 - 8,1 g/s	3,9 - 8,1 g/s	3,9 - 8,1 g/s
CO EMISSIONS (13% O2) (Min/Max)	0,0149 - 0,0142 %	0,0149 - 0,0142 %	0,0149 - 0,0142 %
OGC EMISSIONS (13% O_2) (Min/Max)	3 - 3 mg/Nm3	3 - 3 mg/Nm3	3 - 3 mg/Nm3
NOX EMISSIONS (13% O_2) (Min/Max)	109 - 114 mg/Nm3	109 - 114 mg/Nm3	109 - 114 mg/Nm3
Average CO CONTENT at 13% O_2 (Min/Max)	186 - 177 mg/Nm3	186 - 177 mg/Nm3	186 - 177 mg/Nm3
Average DUST CONTENT at 13% O_2 (Min/Max)	19 - 14 mg/Nm3	19 - 14 mg/Nm3	19 - 14 mg/Nm3
FLUE NEGATIVE PRESSURE (Min/Max)	11 - 10 Pa	11 - 10 Pa	11 - 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)	91 - 288 m3	91 - 288 m3	91 - 288 m3
HOURLY CONSUMPTION (Min/Max)	0,86 - 3 kg/h	0,86 - 3 kg/h	0,86 - 3 kg/h
HOPPER CAPACITY	23 kg	23 kg	23 kg
RANGE (Min/Max)	8 - 27 h	8 - 27 h	8 - 27 h
POWER SUPPLY	230 V - 50 Hz	230 V - 50 Hz	230 V - 50 Hz
ABSORBED POWER (Max)	151 kW	151 kW	151 kW
STARTER RESISTANCE ABSORBED POWER	300 W	300 W	300 W
MINIMUM EXTERNAL AIR VENT (final cross-section)	80 cm2	80 cm2	80 cm2
SEALED CHAMBER STOVE	YES	YES	YES
EXTERNAL AIR VENT FOR SEALED CHAMBER	60 mm	60 mm	60 mm
DISTANCE FROM COMBUSTIBLE MATERIAL (back/side/bottom)	300 / 200 / 0 mm	300 / 200 / 0 mm	300 / 200 / 0 mm
DISTANCE FROM COMBUSTIBLE MATERIAL (ceiling/front)	- / 1000 mm	- / 1000 mm	- / 1000 mm

DESCRIPTION	ATENA³ PLUS 14	DUKE 14 AI-RTIGHT	SABA 14
WIDTH	58 cm	58 cm	54 cm
DEPTH	58 cm	58 cm	57 cm
HEIGHT	114 cm	114 cm	114 cm
WEIGHT	152 - 160 kg	155 kg	138 kg
INTRODUCED THERMAL POWER (Min/Max)	4 - 15,7 KW	4 - 15,7 KW	4 - 15,7 KW
NOMINAL THERMAL POWER (Min/Max)	3,8 - 14 kW	3,8 - 14 kW	3,8 - 14 kW
EFFICIENCY (Min/Max)	93,5 - 89 %	93,5 - 89 %	93,5 - 89 %
FLUE GAS TEMPERATURE (Min/Max)	81 - 210 °C	81 - 210 °C	81 - 210 °C
MAXIMUM FLUE GAS FLOW RATE (Min/Max)	3,9 - 9,2 g/s	3,9 - 9,2 g/s	3,9 - 9,2 g/s
CO EMISSIONS (13% O2) (Min/Max)	0,0149 - 0,0197 %	0,0149 - 0,0197 %	0,0149 - 0,0197 %
OGC EMISSIONS (13% O_2) (Min/Max)	3 - 3 mg/Nm3	3 - 3 mg/Nm3	3 - 3 mg/Nm3
NOX EMISSIONS (13% O_2) (Min/Max)	109 - 114 mg/Nm3	109 - 114 mg/Nm3	109 - 114 mg/Nm3
Average CO CONTENT at 13% O_2 (Min/Max)	186 - 247 mg/Nm3	186 - 247 mg/Nm3	186 - 247 mg/Nm3
Average DUST CONTENT at 13% O_2 (Min/Max)	19 - 15 mg/Nm3	19 - 15 mg/Nm3	19 - 15 mg/Nm3
FLUE NEGATIVE PRESSURE (Min/Max)	11 - 13 Pa	11 - 13 Pa	11 - 13 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)	91 - 336 m3	91 - 336 m3	91 - 336 m3
HOURLY CONSUMPTION (Min/Max)	0,86 - 3,5 kg/h	0,86 - 3,5 kg/h	0,86 - 3,5 kg/h
HOPPER CAPACITY	23 kg	23 kg	23 kg
RANGE (Min/Max)	7 - 27 h	7 - 27 h	7 - 27 h
POWER SUPPLY	230 V - 50 Hz	230 V - 50 Hz	230 V - 50 Hz
ABSORBED POWER (Max)	153 kW	153 kW	153 kW
STARTER RESISTANCE ABSORBED POWER	300 W	300 W	300 W
MINIMUM EXTERNAL AIR VENT (final cross-section)	80 cm2	80 cm2	80 cm2
SEALED CHAMBER STOVE	YES	YES	YES
EXTERNAL AIR VENT FOR SEALED CHAMBER	60 mm	60 mm	60 mm
DISTANCE FROM COMBUSTIBLE MATERIAL (back/side/bottom)	300 / 200 / 0 mm	300 / 200 / 0 mm	300 / 200 / 0 mm
DISTANCE FROM COMBUSTIBLE MATERIAL (ceiling/front)	- / 1000 mm	- / 1000 mm	- / 1000 mm

DESCRIPTION	MITHOS³ PLUS 12	MITHOS³ PLUS 14	.
WIDTH	95 cm	95 cm	
DEPTH	43 cm	43 cm	
HEIGHT	118,5 cm	118,5 cm	
WEIGHT	165 kg	165 kg	
INTRODUCED THERMAL POWER (Min/Max)	4 - 13,3 kW	4 - 15,7 KW	
NOMINAL THERMAL POWER (Min/Max)	3,8 - 12 kW	3,8 - 14 kW	
EFFICIENCY (Min/Max)	93,5 - 90 %	93,5 - 89 %	
FLUE GAS TEMPERATURE (Min/Max)	81 - 185 °C	81 - 210 °C	
MAXIMUM FLUE GAS FLOW RATE (Min/Max)	3,9 - 8,1 g/s	3,9 - 9,2 g/s	
CO EMISSIONS (13% 02) (Min/Max)	0,0149 - 0,0142 %	0,0149 - 0,0197 %	
OGC EMISSIONS (13% O_2) (Min/Max)	3 - 3 mg/Nm3	3 - 3 mg/Nm3	
NOX EMISSIONS (13% O_2) (Min/Max)	109 - 114 mg/Nm3	109 - 114 mg/Nm3	
Average CO CONTENT at 13% O_2 (Min/Max)	186 - 177 mg/Nm3	186 - 247 mg/Nm3	
Average DUST CONTENT at 13% O_2 (Min/Max)	19 - 14 mg/Nm3	19 - 15 mg/Nm3	
FLUE NEGATIVE PRESSURE (Min/Max)	11 - 10 Pa	11 - 13 Pa	
ON SHARED FLUE	NO	NO	
FLUE GAS EXHAUST DIAMETER	Ø80 mm	Ø80 mm	
FUEL	Pellet Ø6-7 mm	Pellet Ø6-7 mm	
PELLET HEATING CAPACITY	5 kWh/kg	5 kWh/kg	
PELLET HUMIDITY	≤ 10%	≤ 10%	
HEATABLE VOLUME 18/20°C Coeff. 0.045 kW (Min/Max)	91 - 288 m3	91 - 336 m3	
HOURLY CONSUMPTION (Min/Max)	0,86 - 3 kg/h	0,86 - 3,5 kg/h	
HOPPER CAPACITY	23 kg	23 kg	
RANGE (Min/Max)	8 - 27 h	7 - 27 h	
POWER SUPPLY	230 V - 50 Hz	230 V - 50 Hz	
ABSORBED POWER (Max)	151 kW	153 kW	
STARTER RESISTANCE ABSORBED POWER	300 W	300 W	
MINIMUM EXTERNAL AIR VENT (final cross-section)	80 cm2	80 cm2	
SEALED CHAMBER STOVE	YES	YES	
EXTERNAL AIR VENT FOR SEALED CHAMBER	60 mm	60 mm	
DISTANCE FROM COMBUSTIBLE MATERIAL (back/side/bottom)	300 / 200 / 0 mm	300 / 200 / 0 mm	
DISTANCE FROM COMBUSTIBLE MATERIAL (ceiling/front)	- / 1000 mm	- / 1000 mm	

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