

ΣΟΛΖΑΙΜΑ

SOLUÇÕES DE AQUECIMENTO A BIOMASSA

# Instruction Manual

**English**

## Water Central Heating Stoves

Models

**ACQUA ECO**

**ACQUA ECO PV**

**ECOFOGO ECO**

**MYTHO ECO**

**MYTHO ECO PV**

**ZAIMA ECO**

Please read the instructions carefully before installing, using and maintaining of equipment. The instruction manual is an integral part of the product.

## **Thank you for purchasing a SOLZAIMA equipment.**

Please read this Manual carefully and save it for future reference.

\* All products comply with the requirements of the Construction Products Directive (Reg. EU No. 305/2011), being approved with the CE conformity mark;

\* Water heat recuperators for central heating are tested according to EN 13229:2001 + EN 13229:2001/AC:2003 + EN 13229:2001/A1:2003 + EN 13229:2001/A2:2004 + EN 13229:2001/AC:2006 + EN 13229:2001/A2:2004/AC:2006 + EN 13229:2001/A2:2004/AC:2007;

\* SOLZAIMA is not responsible for any damage to the equipment when it is installed by unqualified personnel;

\* SOLZAIMA is not responsible for any damage to the equipment, when the rules of installation and use, indicated in this manual, are not respected;

\* All local regulations, including so-called national and European standards, must be respected in the installation, operation, and maintenance of the equipment;

\* Whenever you need assistance, you should contact the supplier or installer of your equipment. You must provide the serial number of your stove on the identification plate under the ash drawer;

\* Technical assistance must be carried out by your Installer or Solution Provider, except in special cases after evaluation by the installer or technician responsible for the service, who will contact SOLZAIMA if deemed necessary.

### **Contact for technical assistance:**

[www.solzaima.pt](http://www.solzaima.pt)

[apoio.cliente@solzaima.pt](mailto:apoio.cliente@solzaima.pt)

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## 1. Solzaima

Solzaima's innovative spirit has always been to rely on clean, renewable, and more economical energies. For this reason, we have been engaged in the manufacture of biomass heating systems and equipment for more than 45 years.

As a result of the persistence and unconditional support of its network of partners, Solzaima is today a leader in the production of biomass heating, whose best example is the water central heating recuperators and its range of *pellet* salamanders.

Every year we equip more than 20,000 homes with biomass heating solutions. A sign that consumers are paying attention to the greenest and most economical solutions. Today, wood is the most economical and sustainable way to heat your home.

Solzaima has ISO9001:2015 Quality certification and ISO14001:2015 Environmental certification.

## 2. Technical characteristics

**The Central Water Heating** stoves are equipment intended for space heating and water heating for use in central heating installations and for domestic use. For this, a pre-installation of central heating and an accumulator with heat exchanger are necessary if you want to heat sanitary water.

### **Technical characteristics transversal to this range:**

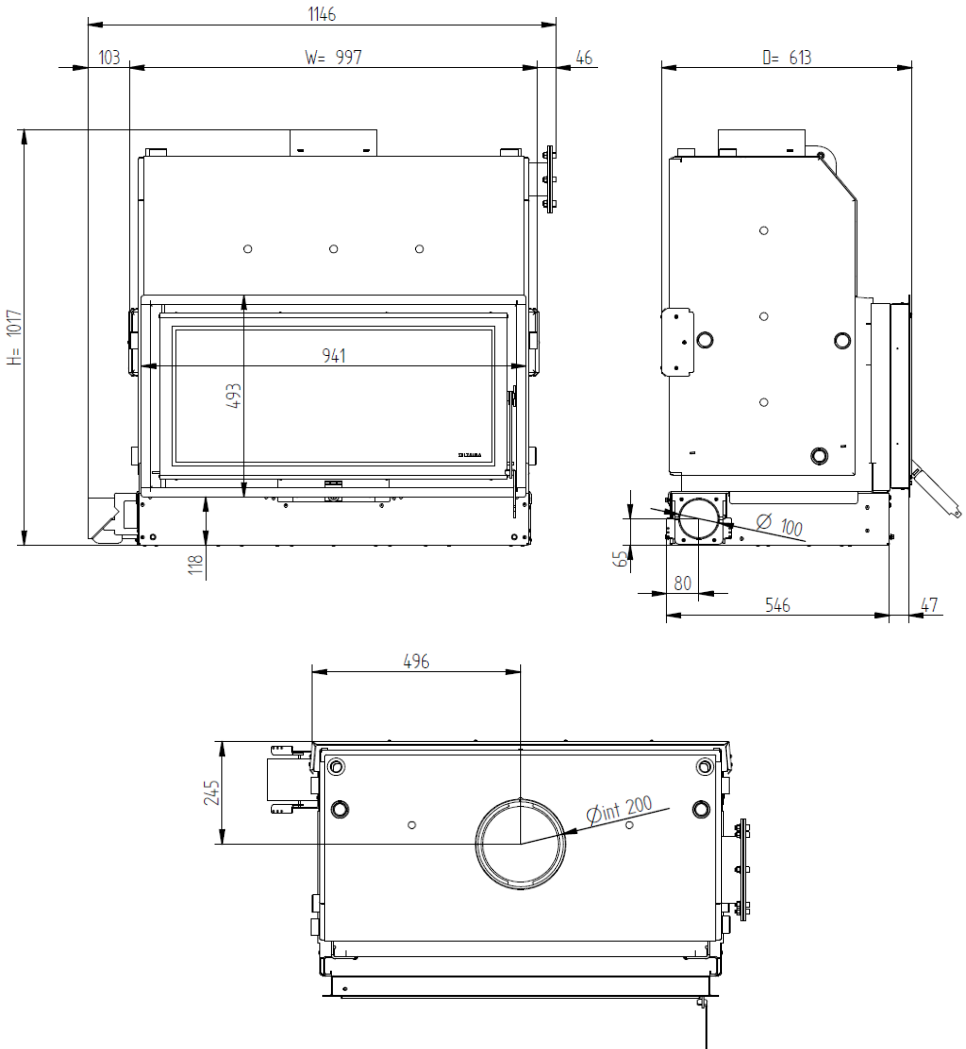
- \* EC type-approval
- \* Max pressure: 3 bar
- \* Recommended pressure: [0.5 to 2] bar
- \* Maximum service temperature: 90°C
- \* Average depression required: 12 Pa
- \* Average duration before refueling: 45 minutes
- \* Fuel: dry firewood
- \* Recommended fuel dimension: 500mm long
- \* Combustion chamber depth: 480mm

<b>Features</b>	<b>Acqua Echo</b>	<b>Acqua Eco PV</b>	<b>Ecofire Eco</b>	<b>Mytho Echo</b>	<b>Mytho Eco PV</b>	<b>Zaima Echo</b>	<b>Un</b>
Weight	245	275	225	225	265	245	Kg
Width	989	997	795	795	803	795	mm
Height	994	1200	994	994	1200	994	mm
Depth	612	683	605	605	677	600	mm
Diameter of the smoke discharge pipe	200	200	200	200	200	200	mm
Maximum heating volume	641	641	493	493	493	493	m <sup>3</sup>
Rated thermal input	28,2	28.2	21,7	21,7	2 1.7	21,7	kW
Air thermal power	9,5	9,5	6,3	6,3	6,3	6,3	kW
Thermal power water	18,7	18,7	15,4	15,4	15,4	15,4	kW
Fuel consumption	8,3	8,3	6,2	6,2	6,2	6,2	kg/h
Recommended firewood length	500	500	500	500	500	500	mm
Maximum firewood length	800	800	600	600	600	600	mm
Thermal efficiency at rated thermal input	80	80	80	80	80	80	%
Flue gas temperature	323	323	294	294	294	294	°C
CO emissions (13% O <sub>2</sub> )	0,068	0,068	0,066	0,066	0,066	0,066	%
CO <sub>2</sub> emissions	11,4	11,4	11,9	11,9	11,9	11,9	%
Particles (13% of O <sub>2</sub> )	31	31	11	11	11	11	mg/Nm <sup>3</sup>
OGC (13% of O <sub>2</sub> )	26	26	41	41	41	41	mg/Nm <sup>3</sup>
NO <sub>x</sub> (13% of O <sub>2</sub> )	103	103	88	88	88	88	mg/Nm <sup>3</sup>
Flue gas mass flow	21,6	21,6	15,3	15,3	15,3	15,3	g/s
Depression in the chimney	12	12	12	12	12	12	Pa

**Table 1 - Technical characteristics**

### 3. General measures

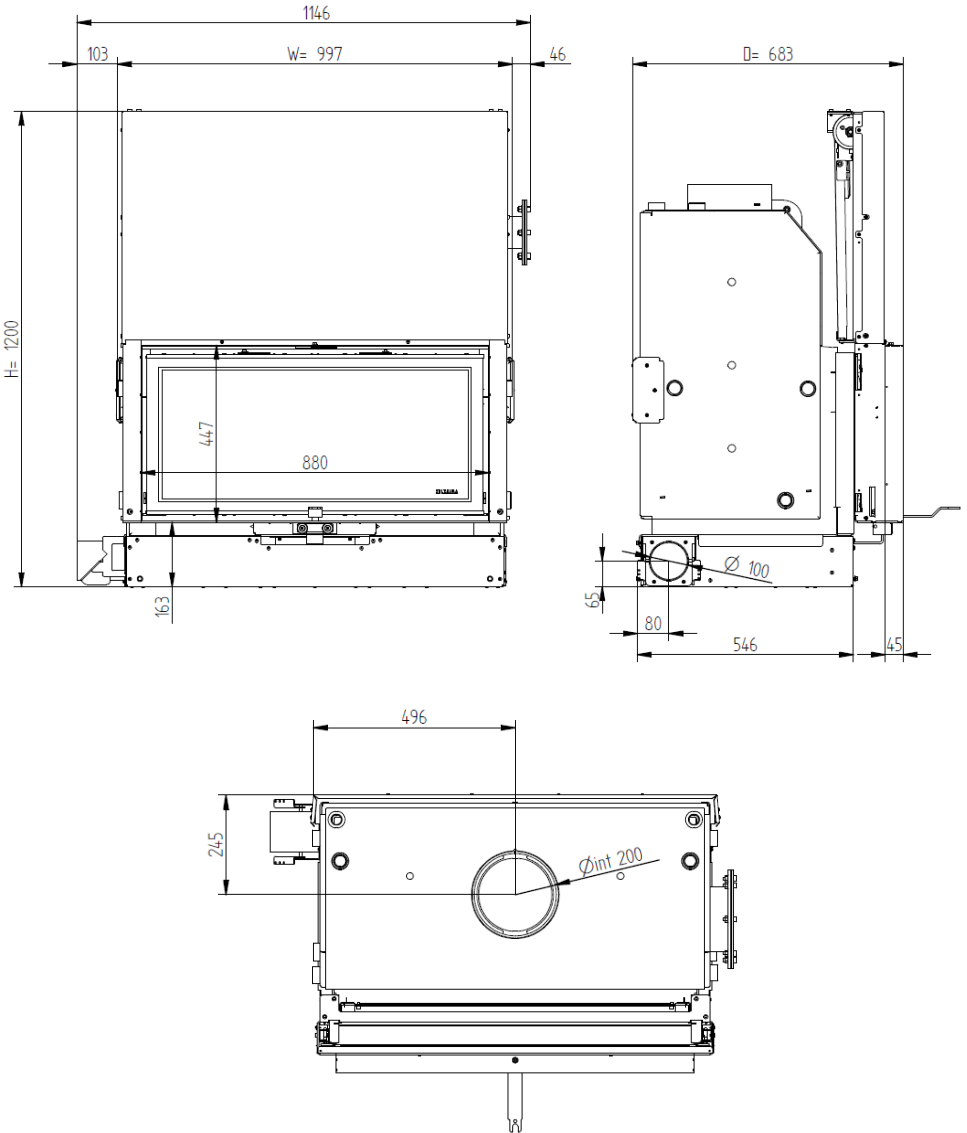
#### Acqua Eco



**Figure 1**

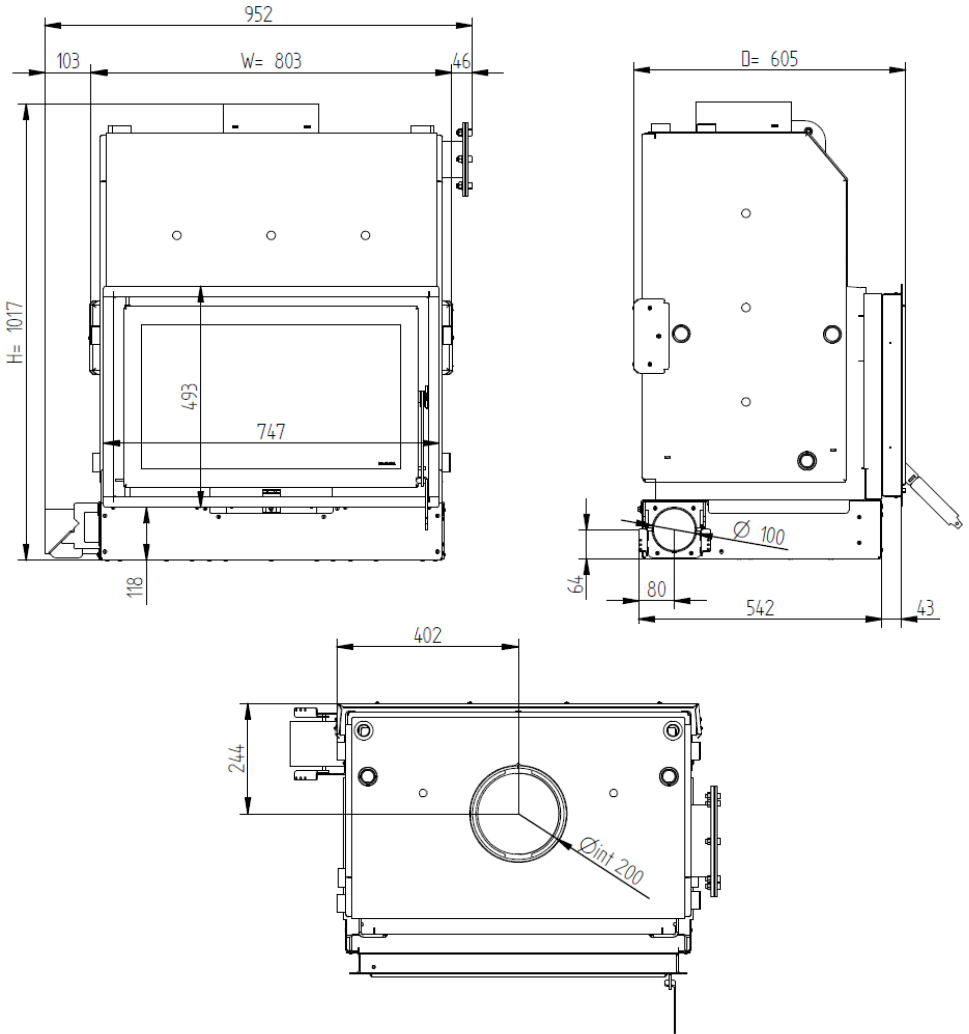


# Acqua Eco PV



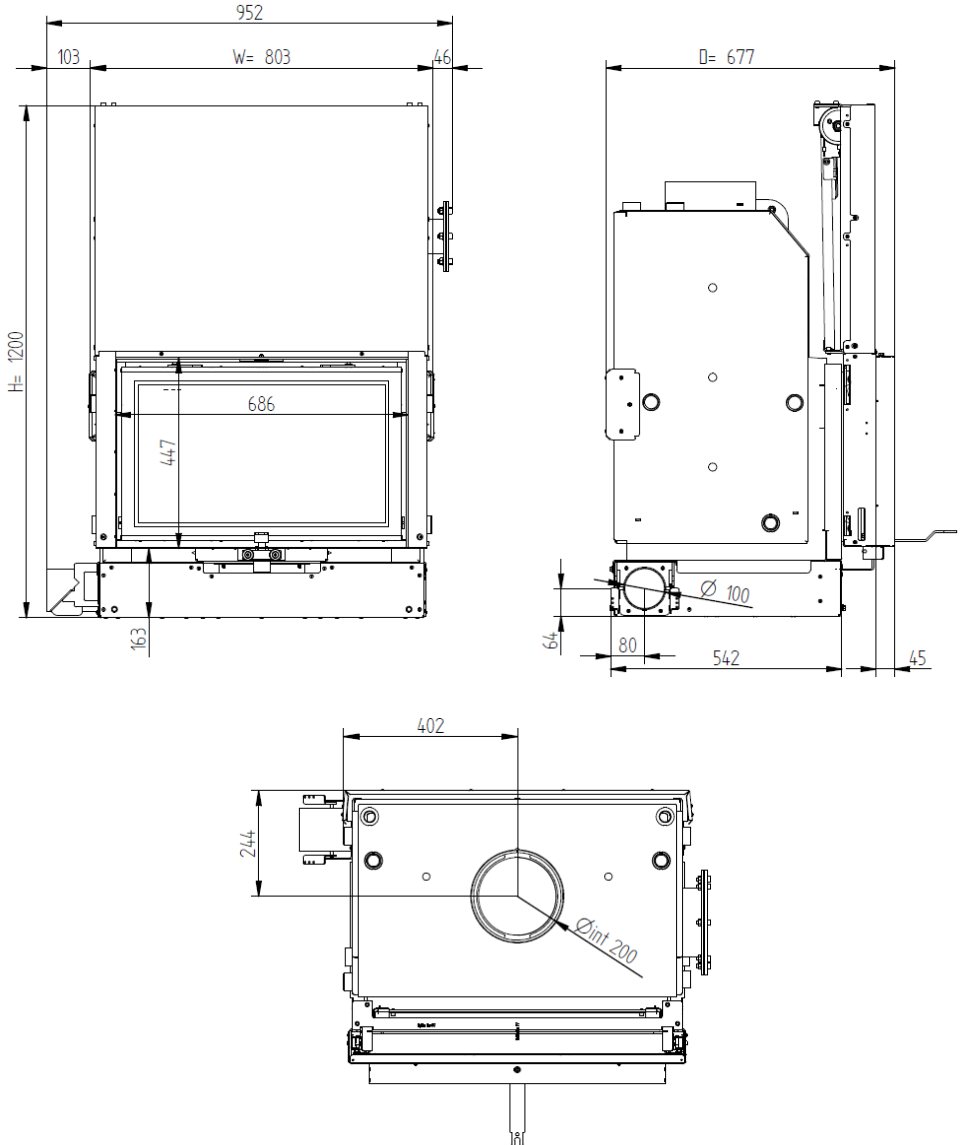
**Figure 2**

# Ecofogo Eco



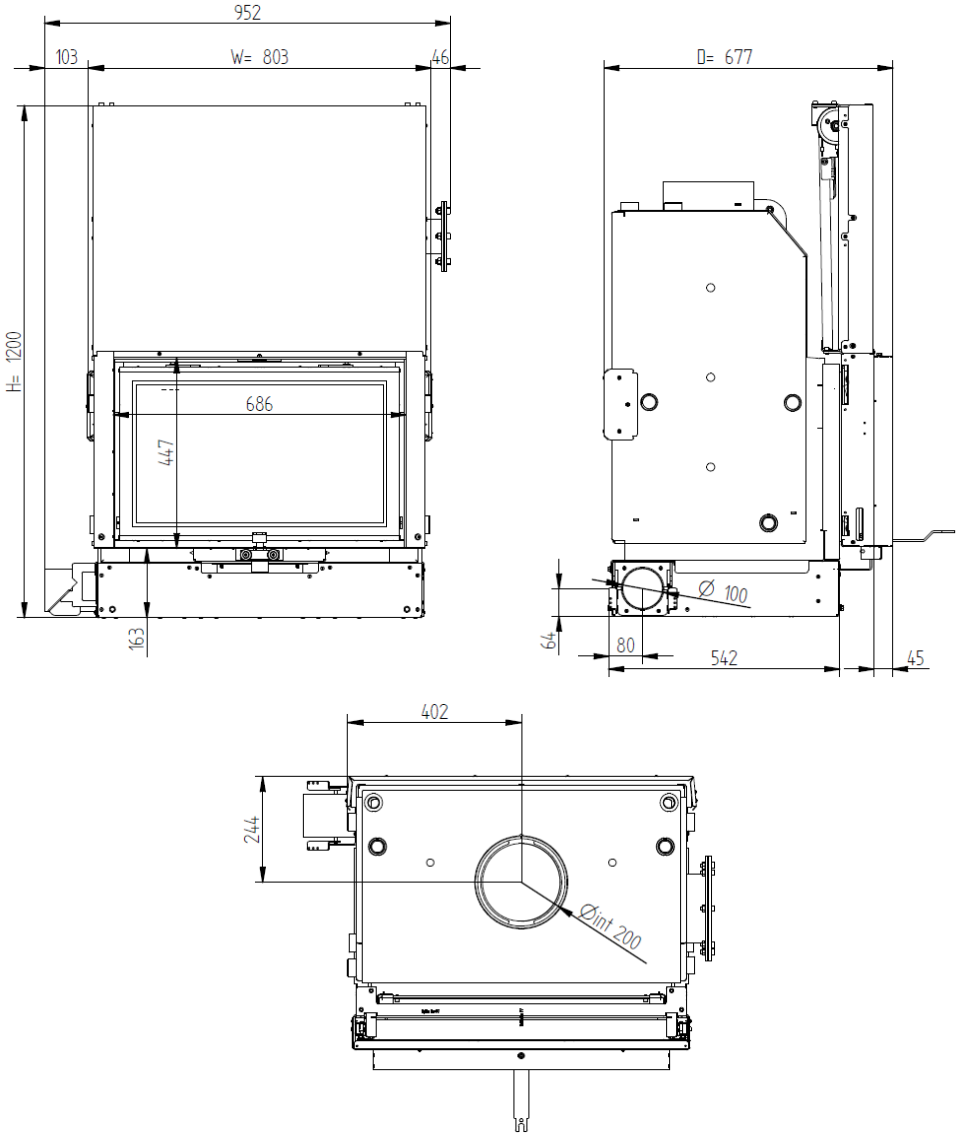
**Figure 3**

# Mytho Eco



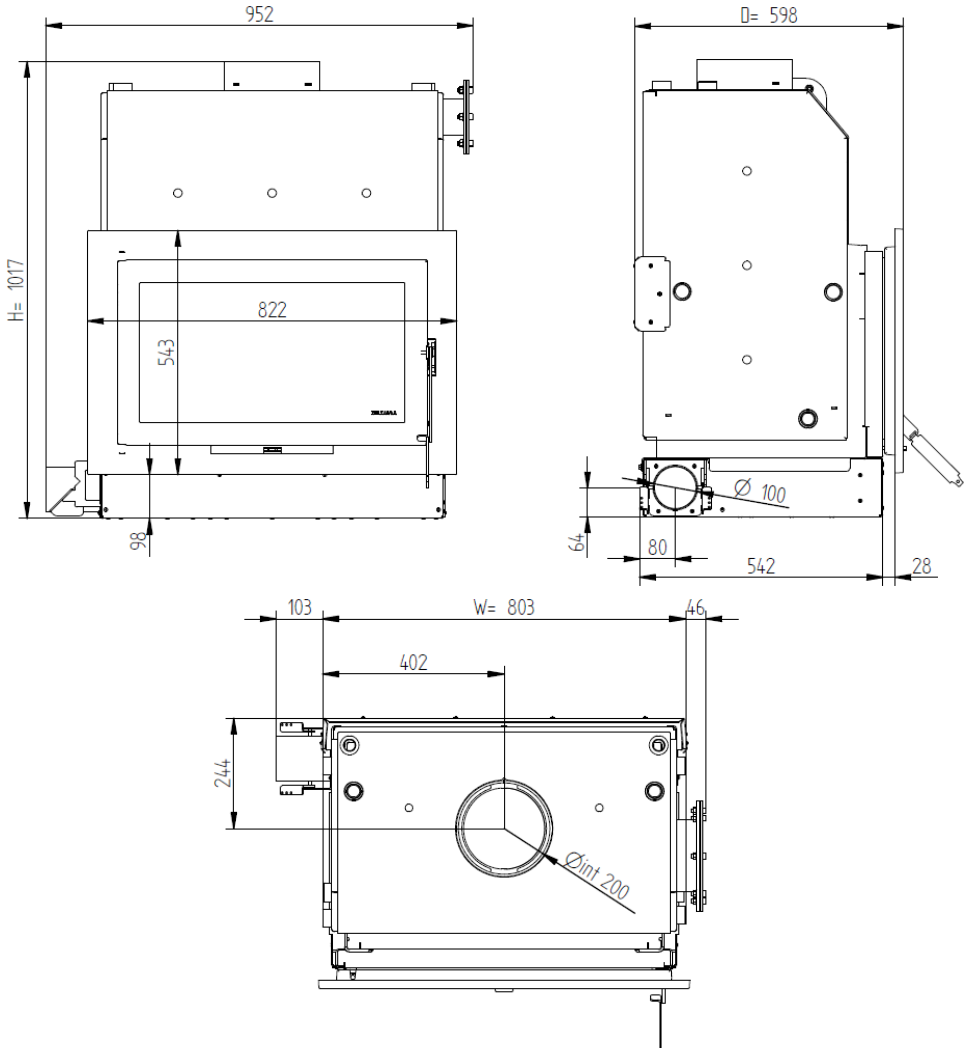
**Figure 4**

# Mytho Eco PV



**Figure 5**

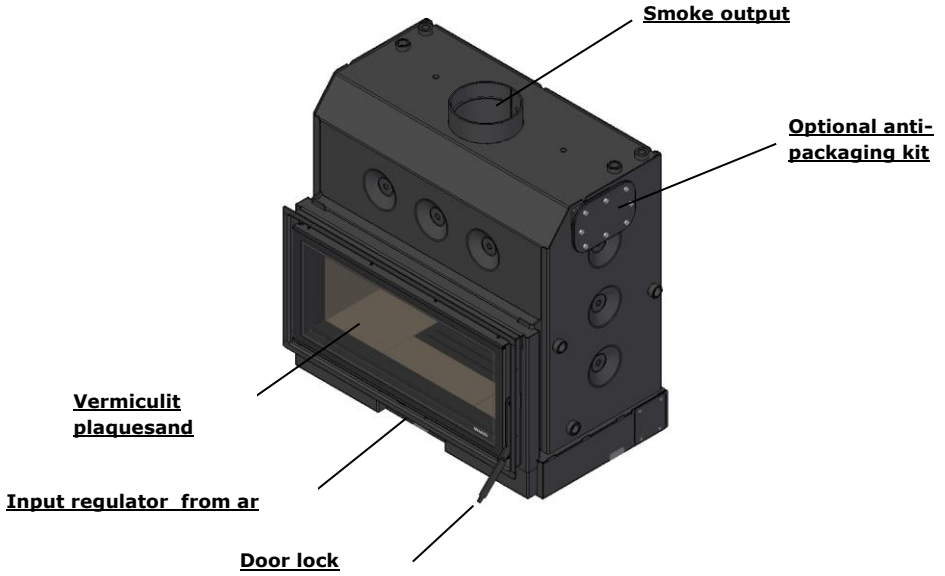
**Zaima Eco**



**Figure 6**

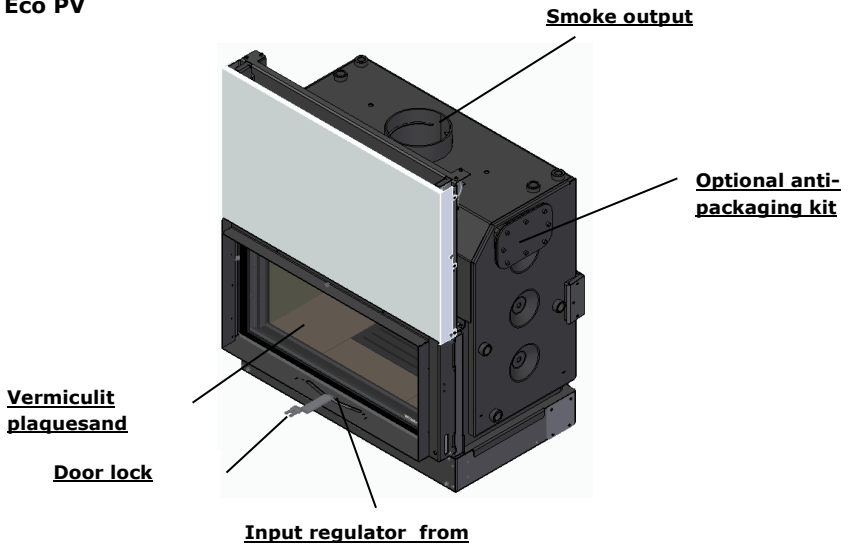
## 4. Know the equipment

### Acqua Eco



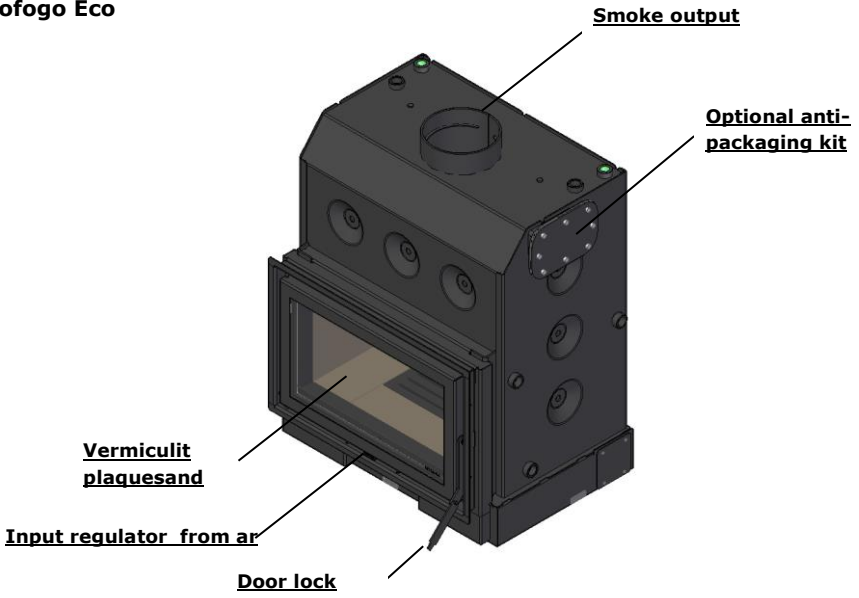
**Figure 7**

### Acqua Eco PV



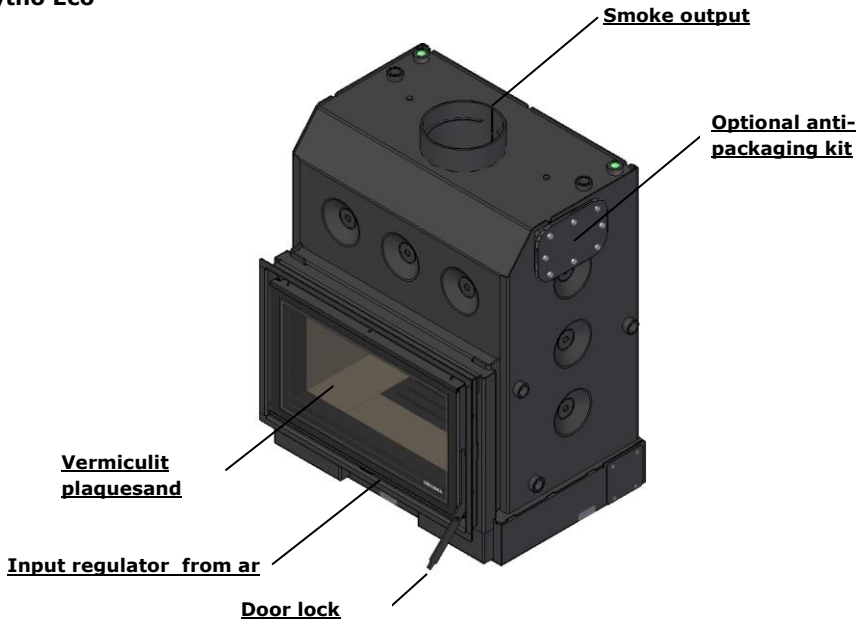
**Figure 8**

**Ecofogo Eco**



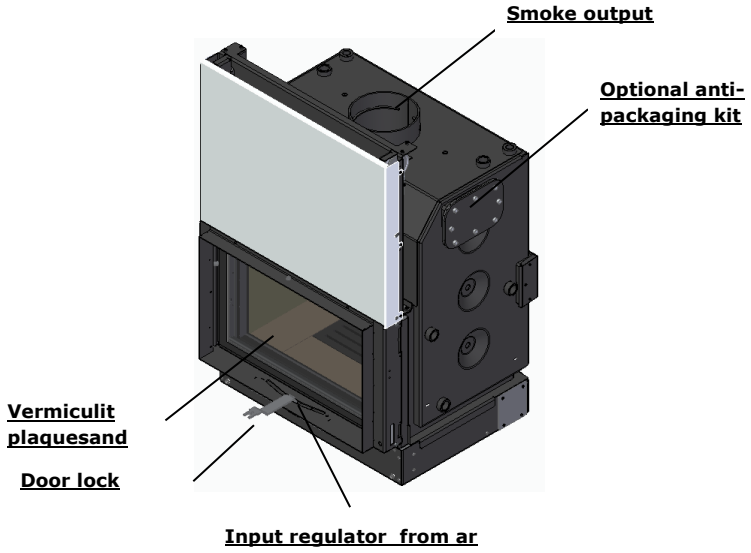
**Figure 9**

**Mytho Eco**



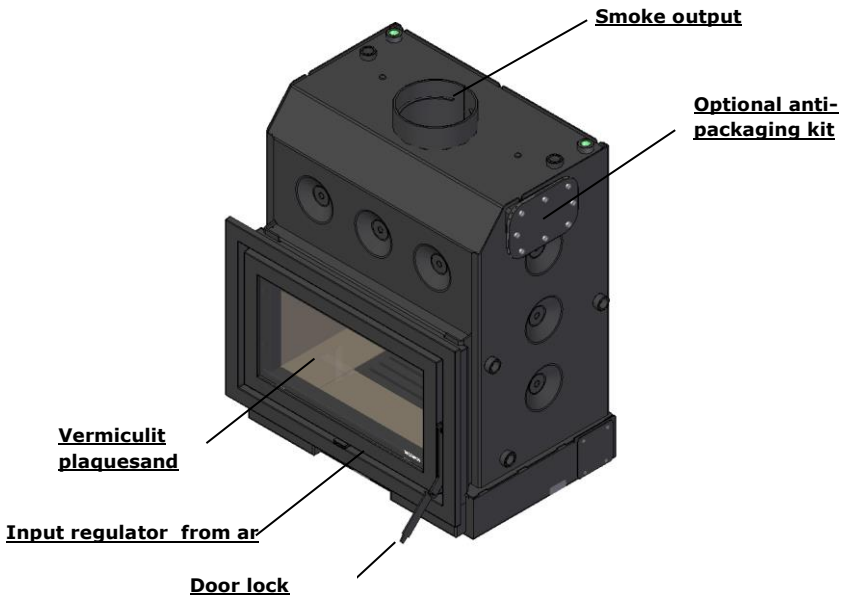
**Figure 10**

**Mytho Eco PV**



**Figure 11**

**Zaima Eco**



**Figure 12**



## 5. Materials of the recuperators

The interior of the combustion chamber of these recuperators is made of high-quality carbon steel sheet with a thickness of 5 mm;

In the ECOFOGO ECO, MYTHO ECO and ACQUA ECO models, the door is made of 2.5 mm plate, in the ACQUA ECO PV and MYTHO ECO PV models with 3.0 mm. In the ZAIMA ECO model, the door and rim are made of cast iron. The ash drawer on all models is 1.5mm. In the ACQUA ECO, ACQUA ECO PV, MYTHO ECO and MYTHO ECO PV models, the door has a screen-printed glass-ceramic glass on the outside;

The models ECOFOGO ECO, MYTHO ECO, MYTHO ECO PV, ZAIMA ECO, ACQUA ECO and ACQUA ECO PV have a heat-resistant glass-ceramic glass. This type of glass can withstand temperatures of up to 750°C in continuous use;

The hydraulic connections are made of steel, 4 1" female bonds and 2 3/4" female bonds;

The paint contains paint resistant to temperature peaks of up to 900°C, and to service temperatures of about 600°C;

In the ECOFOGO ECO, MYTHO ECO, MYTHO ECO PV, ZAIMA ECO, ACQUA ECO and ACQUA ECO PV models, the combustion chamber is coated with a heat-resistant material (vermiculite). The lateral insulation, the back, the bottom of the deflectors are of vermiculite, a material classified as a mineral of the hydro silicate group, resistant to temperatures of about 1,100 °C. Due to its insulating characteristics, vermiculite allows a better use of heat, an increase in temperature inside the chamber and cleaner combustion (with a lower proportion of CO), as well as greater protection of the steel plate from which the combustion chamber is made, thus prolonging the life of the recuperator;

The models ECOFOGO ECO, MYTHO ECO, MYTHO ECO PV, ZAIMA ECO, ACQUA ECO and ACQUA ECO PV have a side cover, which allows the installation of an anti-packaging kit (sold separately).

Installation instructions for this kit can be found in section 6.5 Installation of the anti-packaging kit.

The anti-packaging kit is a mechanical safety system that prevents the equipment from being damaged by an excess of temperature due to, for example: damaged pump, electric current cut, etc.

The kit consists of a copper coil welded to a cap that is bolted to the body by replacing the blind cap with 8 M8 screws. To ensure the tightness between the cap and the body, a silicone joint is applied, which will ensure that no leaks occur. A thermal discharge valve (not included in the kit) must be connected to the coil inlet and the outlet must be connected to the sewer. When the water inside the body reaches a temperature higher than  $97 \pm 3$  °C, the valve opens the water supply network. As water circulates through the coil, it absorbs excess heat from the water in the body, thereby reducing body temperature. The water that has passed through the coil absorbing excess heat is directed into the sewer.

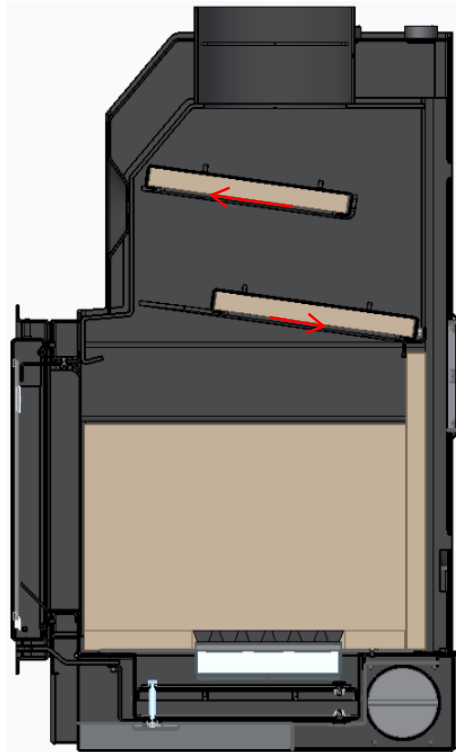
## 6. Installation

*Please note: all local regulations and standards must be complied with when installing this equipment.*

*Check, immediately upon receipt, that the product is complete and in good condition.*

**If there is any defect or malfunction, do not install the equipment and request the presence of the equipment supplier or a technician of the brand on site.**

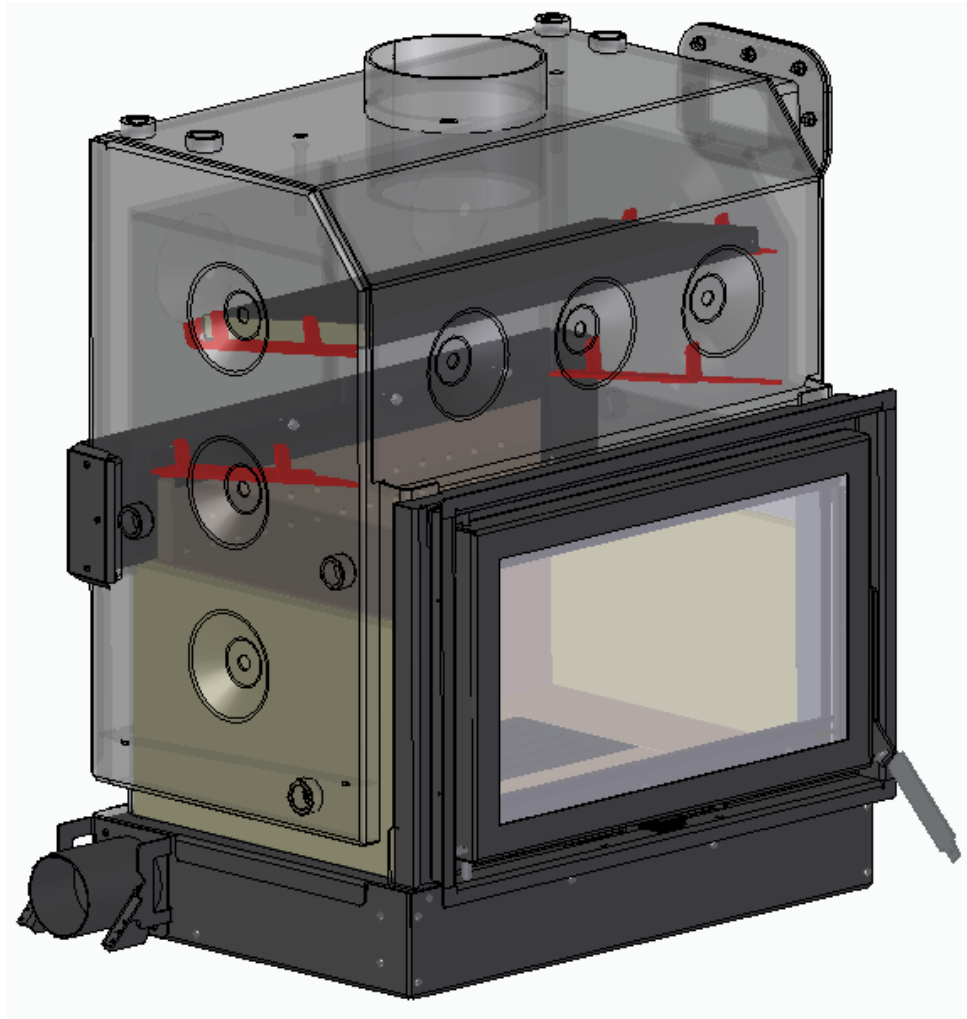
Check that the deflector plates are correctly placed and supported on the supports that are welded to the sides of the body, see the following image to understand their correct position;



**Figure 13**

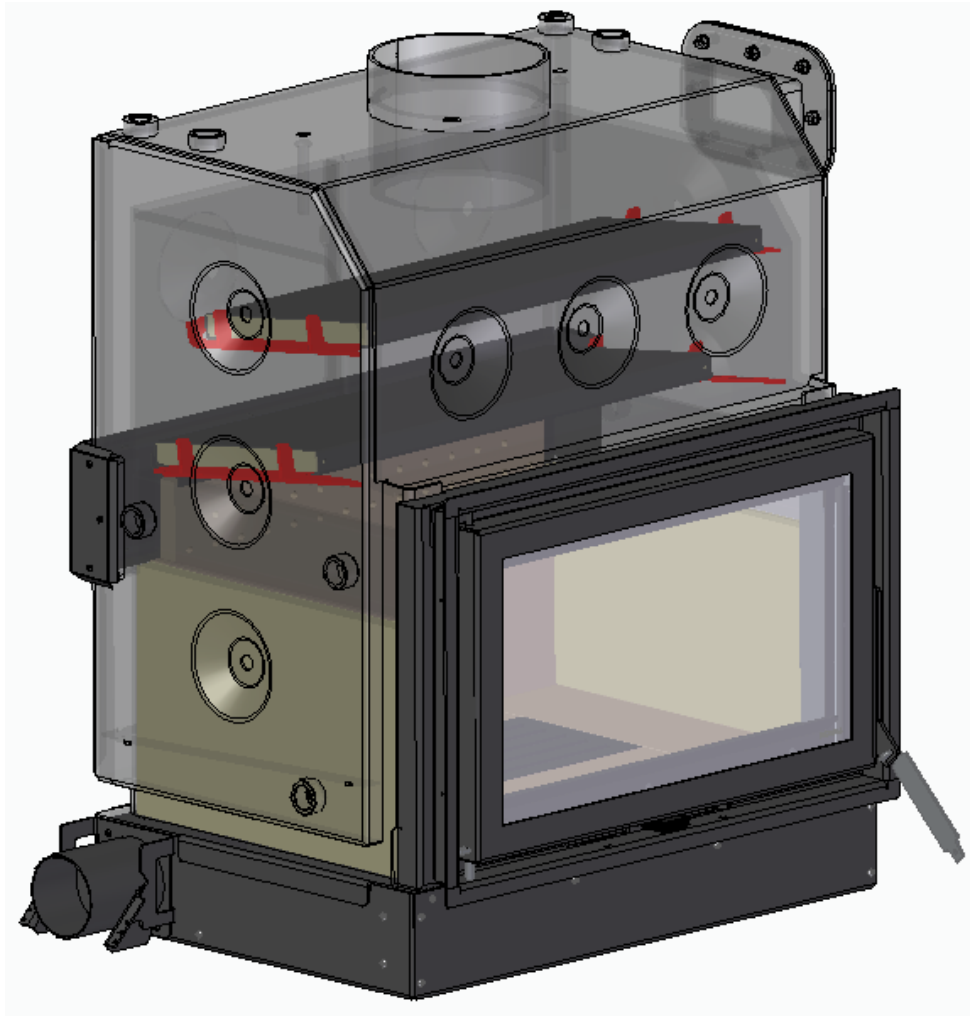
If they are not properly applied or if it is necessary to put them back on, you should proceed as follows:

- Insert the first deflector plate diagonally and place it on top of the upper brackets, place it horizontally and lower it slowly so that the plate is centered between the side brackets (red in the image) and leaning against the front of the body of the equipment



**Figure 14**

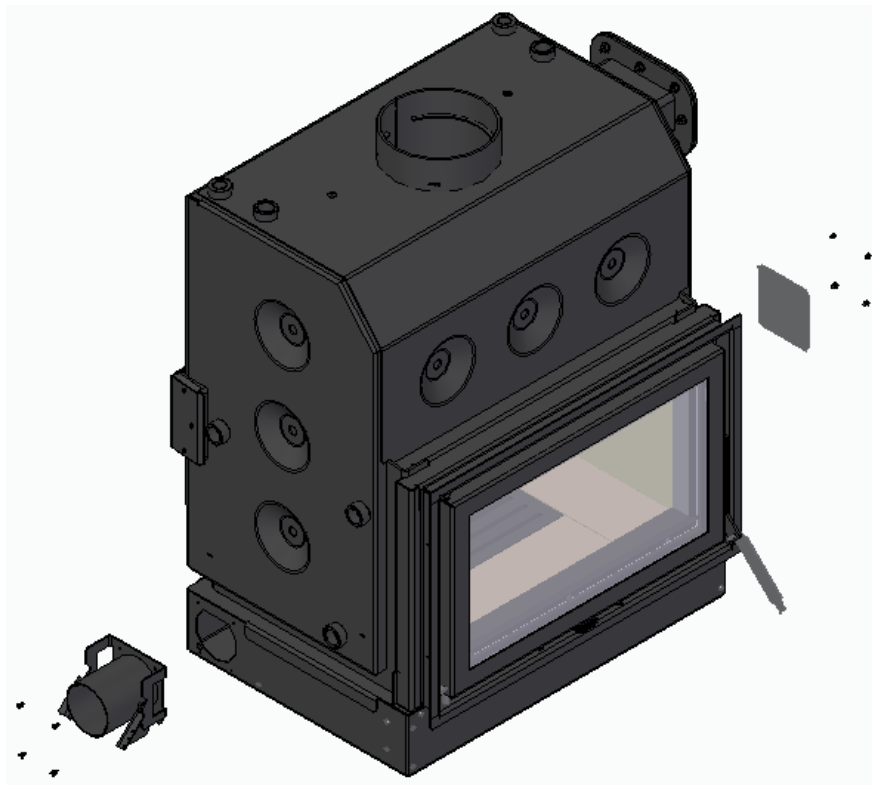
- Insert the second deflector plate in the same way as the first, up to the supports in red. Place it in a horizontal position and slowly lower the plate so that it is centered between the side supports (red in the image) and against the back of the combustion chamber.



**Figure 15**

- The air intake regulator can be installed on both the right and left side of the recycler. On the side where the air intake regulator is not installed, the cover should be placed. To

fix both the air intake regulator and the lid, we must use the screws that are in the bag inside the recuperator.



**Figure 16**

The air intake for combustion can be done in two distinct ways:

- a) Leaving the air intake regulator free and installing ventilation grilles to allow air to enter the space where the recuperator is installed. The air intake from outside the dwelling must always be guaranteed, it must have an area of at least 100 cm<sup>2</sup>, without obstacles, so that the air intake is sufficient for the proper functioning of the device.

If this is not possible, you should consider in your installation air intakes for combustion from inside the house, considering the degree of insulation of your home and the proximity of other appliances that consume air for its operation (for example kitchen or bathroom exhaust fans) and that may hinder the operation of

your stove at the level of combustion and draft. Always confirm that the depression one meter above the recuperator is at least 12Pa.

- b) Installing an air intake duct. A 100mm diameter pipe can be connected to the air control damper inlet and channeled to the outside of the house. The length of this pipe should be as short as possible and it should be ensured that the airflow is not blocked and that the air current measured at one meter above the unit is 12Pa or higher.

## **6.1. Circulation of air and flue gases**

### **6.1.1. Theoretical notions for the installation of chimneys**

There are some factors that you should consider in the installation of your chimney and that can cause significant changes in the depression created in your chimney and consequently in the smoke draw that you will have in your equipment.

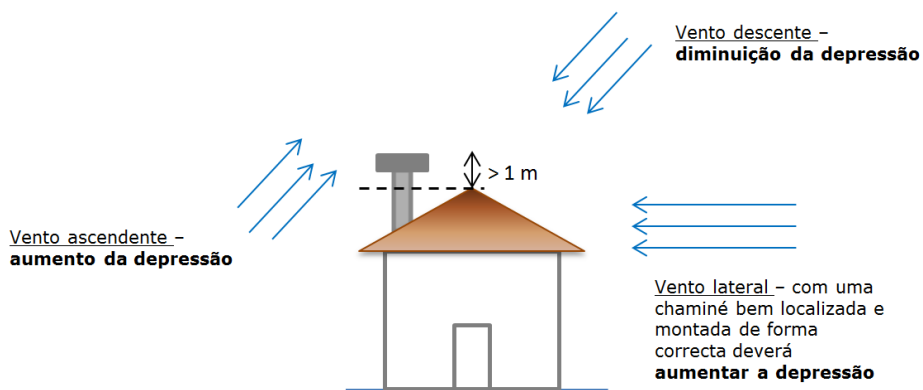
Generally, the combustion created in your recuperator greatly increases the temperature at the beginning of your chimney, compared to the outside ambient temperature. This fact causes inside your chimney a low pressure (next to the recuperator), which combined with a higher pressure in the air outside the chimney generates the force that causes a natural movement of gases through the chimney pipe, which we call natural extraction or chimney effect, and which also causes air entry necessary for combustion inside the recuperator. The higher the height of your chimney, the greater the difference in pressures and therefore the greater the natural extraction or chimney effect

This effect is based on a physical calculation that leads us to indicate that the minimum height of the chimneys, in relation to an average altitude of the terrain, the differences in average ambient temperatures and the average operating temperatures of the recuperators, should not be less than 4 meters. However, this measure is not binding, and there will be chimneys working well with less height and others with higher height working worse. The reasons for this phenomenon must be understood in order to set up efficient chimneys. In addition to the normal geographical factors (altitude, sun exposure, direction) and atmosphere (rain, fog, snow) that influence the drawing of a chimney and its depression, or even the ability to extract the fumes from the recuperator, there is still a decisive factor in many cases that must be taken into account – the WIND.

In fact, the prevailing wind (which often depends on the morphology of the land and the areas of implantation of the houses) can cause very relevant changes to the depression created in a chimney, that is, a wind with a predominantly updraft, causes an increase of depression in the chimney and this justifies better runs. On the contrary, a predominantly

downwind causes a decrease in the depression in the chimney, sometimes causing positive pressure effects, which means that it nullifies the capacity and extraction of the chimneys. A predominantly lateral wind has an effect that will depend on the way the chimney is mounted. To understand this effect, we can indicate that a downwind at 45 with a speed of 8 m/s (which on a beaufort scale of winds from 0 (ploughing) to 12 (hurricane), corresponds to a wind of 5 (cool breeze)) causes an effect of increasing the pressure by about 17 Pa, which can nullify the effect of a chimney that has for example a normal depression of 12 Pa.

In addition to the direction and strength of the wind and the morphology of the surrounding terrain, the location and way of placing the chimney in front of the dwelling is also a factor to be considered.

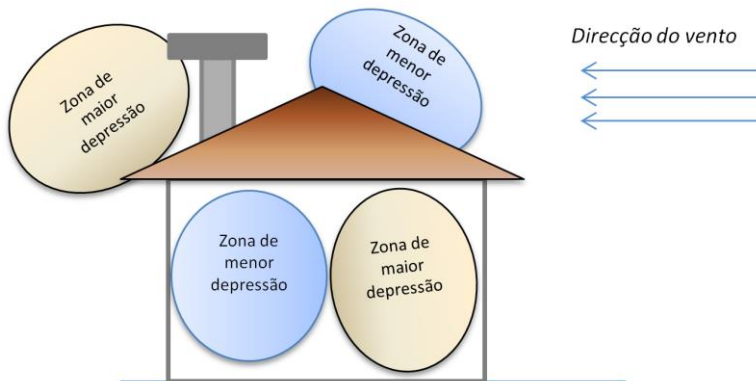


**Figure 17**

The depression differences caused by the outside wind are also felt inside the house and the placement of stoves in the area directly exposed to the wind can increase the depression created in the chimney, a fact that competes with the pressure caused by the wind outside the house, which works in an inversely proportional way, that is, the zone of lower depression will be the area directly exposed to the wind.

In most cases this is not a problem and the depression created by the height of the chimney nullifies this effect, but whenever this case occurs, it can be compensated by placing the chimney in the least exposed area, thus increasing the depression capacity of the chimney.





**Figure 18**

### **6.1.2. Installation advice**

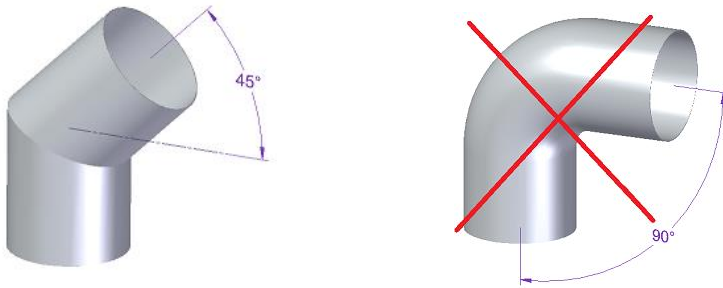
This appliance must be installed in a place where outside air can enter freely. Any air intake grates must be placed in a place that is not susceptible to blockage, so that there is sufficient air at the installation site, avoiding poor draught;

The combustion air enters the recuperator through a system controlling the intensity of the burning. No obstacles should be created to this flow;

Fans that draw air from the installation compartment shall not be used;

The use of this equipment, at the same time as other heating appliances requiring air supply, may require the existence of additional air intakes and the installer must assess the situation in the light of the overall air requirements;

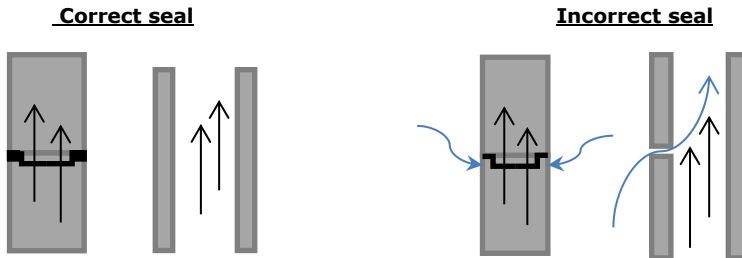
For your recuperator to operate under normal conditions, the flue gas draw must result in a depression of 12 Pa one meter above the chimney neck. If this is not achieved in your chimney, your stove may not work properly, such as throwing smoke outside or consuming too much firewood. To achieve a good installation, at least 2 meters of rigid chimney metal pipe with the same diameter as the smoke outlet of the recuperator should be applied vertically. Following this section, the use of piping elements with a maximum inclination of 45° is permissible (in this case it must ensure that the chimney is properly cleaned each year); The following figures show the correct and incorrect shape for the installation of curves, respectively.



**Figure 19**

A single-walled pipe, installed outside or in areas subject to thermal variations, gives rise to condensation of the water vapor present in the flue gases, so it is advisable to use an insulated double-walled pipe.

The joints of the pipes must be very well sealed so that possible cracks do not allow air to enter.



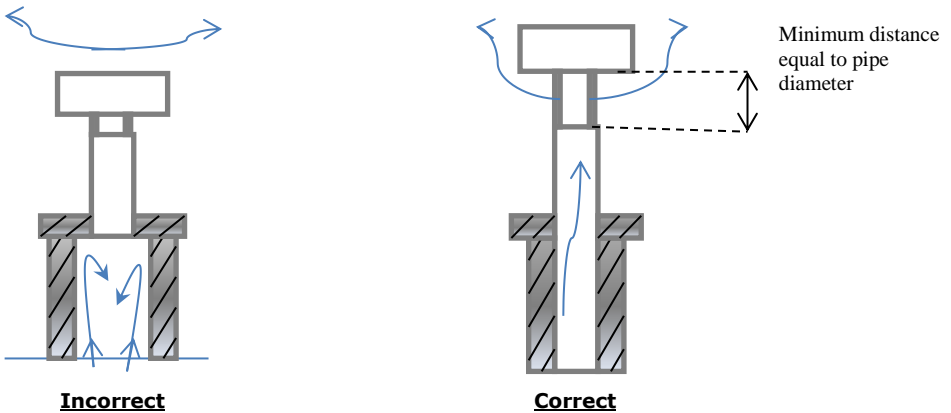
**Figure 20**

It is recommended to install an automatic draught regulator set to 12Pa. This mechanism will protect the recuperator from excess draught that can be produced by a chimney with too much run, specific weather conditions or at hotter points of the combustion cycles. Achieving stable control of the air stream will provide greater control over the burning speed and therefore over energy input and fuel savings.



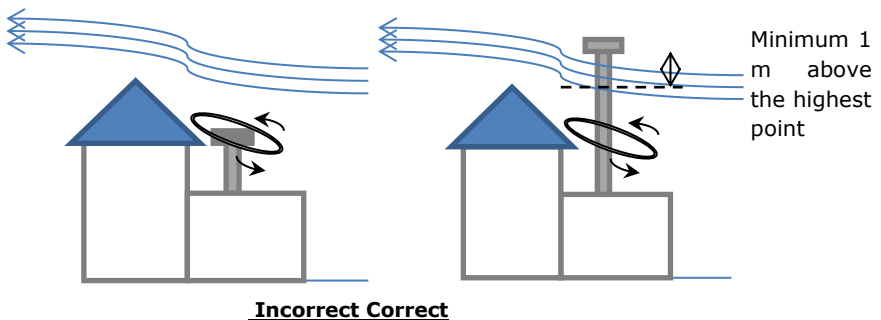
**Figure 21**

Pipe joints must not allow bottlenecks (reductions) and the inner walls must be perfectly smooth and free from obstacles; Hats should be placed in such a way that they do not hinder printing.



**Figure 22**

The dome of the chimney shall allow good air circulation and shall be placed at least 1 m above the summit or any other obstacle less than 3 m away; If you need to increase the circulation you should increase the height of the chimney.



**Figure 23**

The same chimney should not be used for more than one appliance or open fireplace. In the collective chimneys each one must reach the windows that must be at the same level, independently, so that the air circulation expels the gases out.

If the chimney is brick it should not be too wide, because the smoke when spreading cools and damages the draw. In case of difficulty in the draw, due to contrary winds, a hat should be applied, according to what is most favorable.

## **6.2. Installation location requirements**

The floor where the stove will be installed must allow a permanent load of 1 kg/cm<sup>2</sup>. If the load capacity of the floor is not sufficient, a rigid plate may be used for the distribution of the load over a surface greater than that of the support of the recuperator.

Near the walls of the recuperator cannot be used combustible materials.

The dimensions of the insertion space of the recuperator must comply:

- 15 cm between the side walls of the stove and the walls of the space.
- 5 cm between the back wall of the stove and the wall of the space.

If there are significant and undesirable heat exchanges through the walls of the insertion space, it is advisable to proceed with thermal insulation that minimizes losses. The nominal characteristics – power "water" and power "environment" are only verified in conditions of thermal insulation of the walls of the recuperator.

The ornamental stones must have a distance from the equipment of about 5 mm, to allow the expansion of the metallic material, as well as must be installed so that the recuperator can be removed, without damaging it, in case of any anomaly;

The materials present in front of the recuperator must be able to withstand heating by radiation effect through the glass of the equipment, and must not, therefore, have combustible characteristics.

In the sealing of the chimney should be applied a refractory material - refractory cement or other.

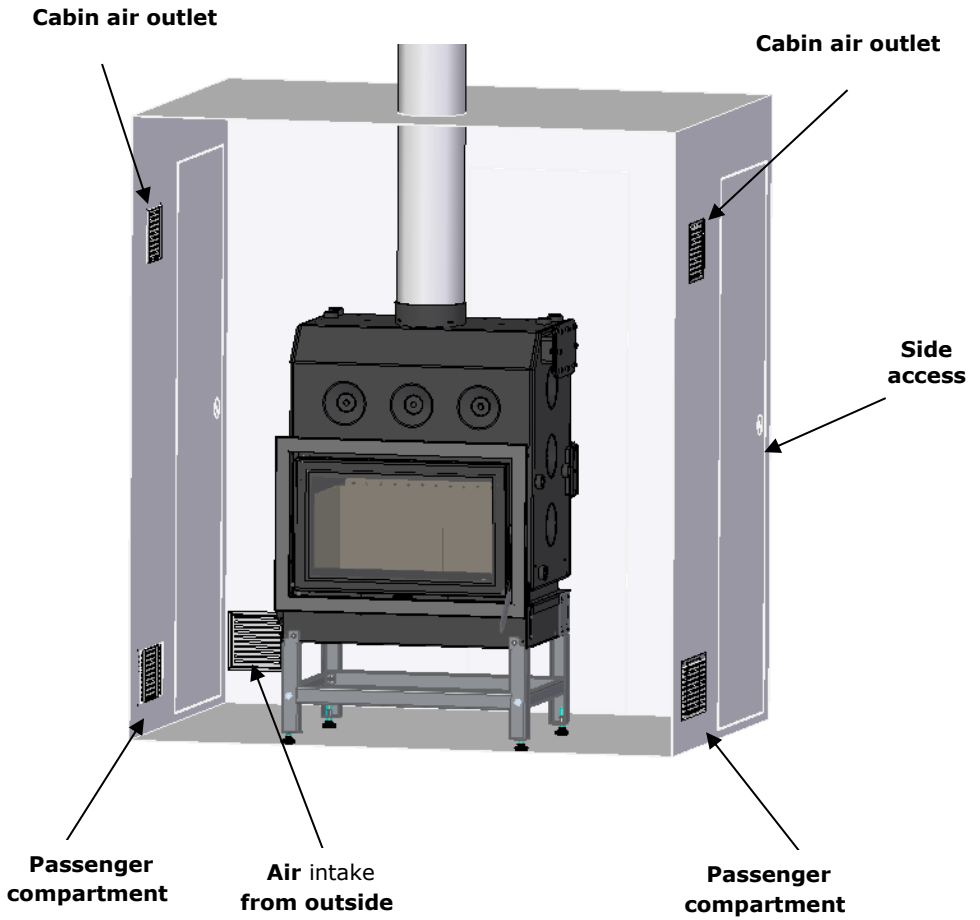
The use of wood in the finishes may have the inconvenience of fire risk, so we advise its proper insulation or its non-use.

In these recuperators, the intake of air for combustion can be carried out in two different ways:

- a) By means of ventilation grids. Installing air intake grids for the insertion area of the appliance, which must be done as shown in the following diagram, in order to ensure the proper functioning of the recuperator. The air intake from outside the dwelling must always be guaranteed and must have an area of at least 100 cm<sup>2</sup> and without obstacles, so that the air intake is sufficient for the proper functioning of the appliance.

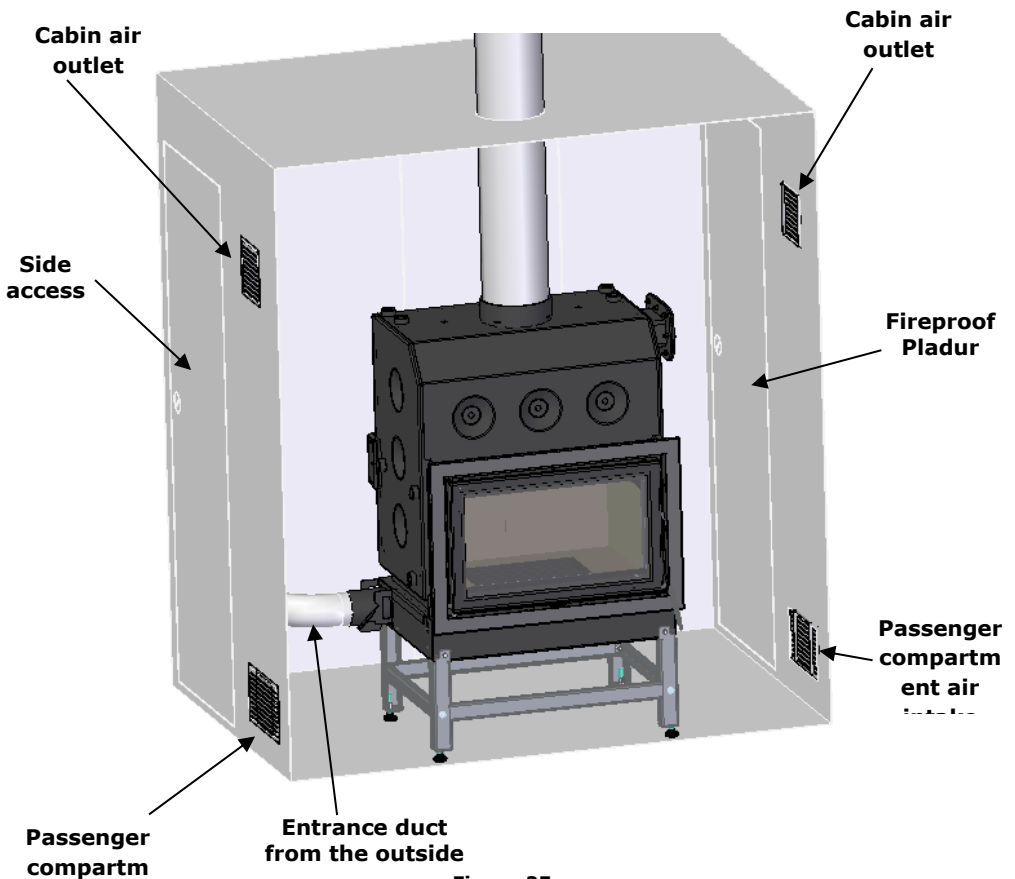
If this air intake is not possible, you should consider in your installation air intakes (minimum 100cm<sup>2</sup>) for the combustion of the interior of the house, considering the degree of insulation of your home and the proximity of other appliances that consume air for its operation (for example, kitchen or bathroom exhaust fans) and that may hinder the operation of your stove at the level of combustion and current of air.

The interior space where the stove is installed must also be ventilated so as not to accumulate excess heat. To do this, install 2 air intakes at the bottom and outlets at the top with minimum sections of 100cm<sup>2</sup>, as shown in the image.



**Figure 24**

b) Installing an air intake duct. A 100mm diameter pipe can be connected to the air control damper inlet and channeled to the outside of the house. The length of this pipe should be as short as possible and it should be ensured that the airflow is not blocked and that the air current measured at one meter above the unit is 12Pa or higher. This type of installation ensures that the combustion air always comes from outside the house, preventing the circulation of unwanted air through the house. This makes the installation airtight. As in the previous installation, holes (minimum 100cm<sup>2</sup>) will be required to ventilate the interior of the space where the recuperator is installed.



**Figure 25**

If possible, it is advisable to install access from both sides, so that maintenance can be carried out more easily in the future.

### 6.3. Hydraulic installation

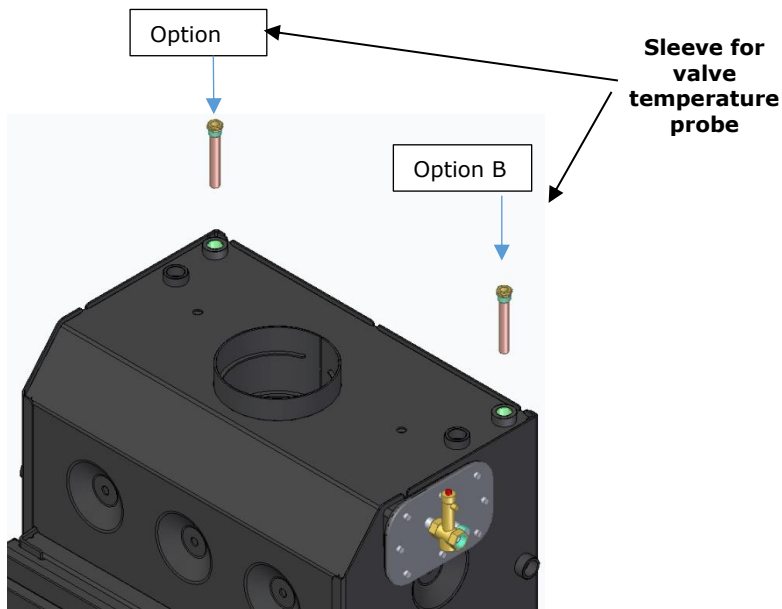
Chapter 12 "Installation Schemes" contains the possible connection schemes in the context of a central heating installation, with or without domestic water heating.

The minimum connection temperature of the circulation pump must be 60°C in order to avoid condensation inside the recuperator.

The pump must be applied in the return circuit of the radiators, where the temperature is lower.

The thermostat should be dipper, and like the combustion regulator, it should be applied to the outlet pipe for the radiators.

Fit the thermostatic valve sleeve into the free 3/4" outlet. This will depend on which side you have installed the automatic air intake regulator. You have option A if you placed it on the right and option B if you placed it on the left. Insert the thermostatic valve temperature probe into the thermostatic capsule and secure it.



**Figure 26**



If the installation option is by closed expansion vessel, this should not be less than 25 liters and the safety valves should be 3 bars (suitable for use up to 90°C). Additional placement of a pressure and temperature safety valve (3bar / 90°C) is advised.

For the purpose of emptying the appliance, a tap must be placed in one of the outlets provided for that purpose in the lower side of the appliance.

The heat transport fluid should be water with the addition of an anti-corrosion product, non-toxic and in the amount recommended by the manufacturer of the product.

The automatic combustion regulator prevents the temperature of the water inside the appliance from rising too high if the thermal input removed is lower than that produced. It does so by reducing the primary air intake and therefore slowing down the speed of combustion. This is an important safety and security mechanism, preventing water from boiling and/or pressure from increasing too much, making emergency safety devices work. The regulator must be placed in the thread indicated for this purpose in the diagram and must be adjusted to close the primary air intake door at 80°C – in **order to achieve the proper functioning of any of the equipment referred to in this manual, the automatic combustion regulator must always be installed.**

If there is a risk of freezing in the space where the recuperator is located or in the fluid ducts, the installer shall add to the circulating fluid an antifreeze in the proportion recommended by the respective manufacturer to avoid freezing at the expected absolute minimum temperature.

Never turn on the recuperator without the hydraulic circuit being full of fluid and in full operation.

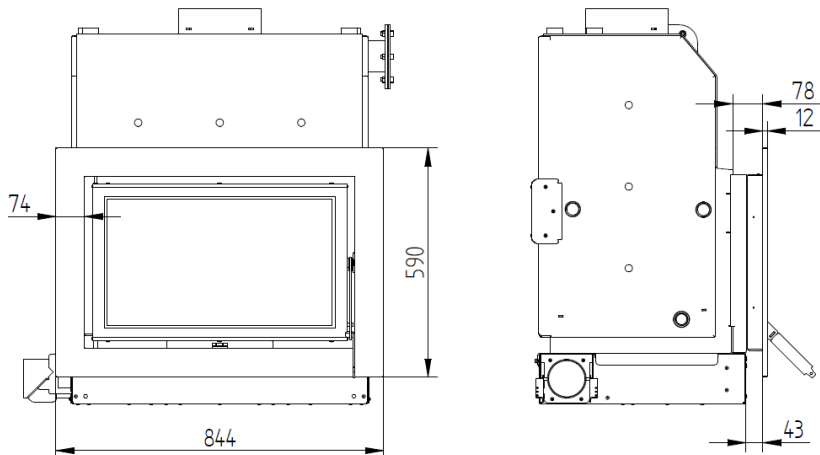
It is essential to be able to access the various components of your hydraulic installation during the life of your equipment, in order to be able to carry out its regular maintenance and intervene or replace the components that are necessary over time.

## 6.4. Optional trim rim

### 6.4.1. Trim hoop models

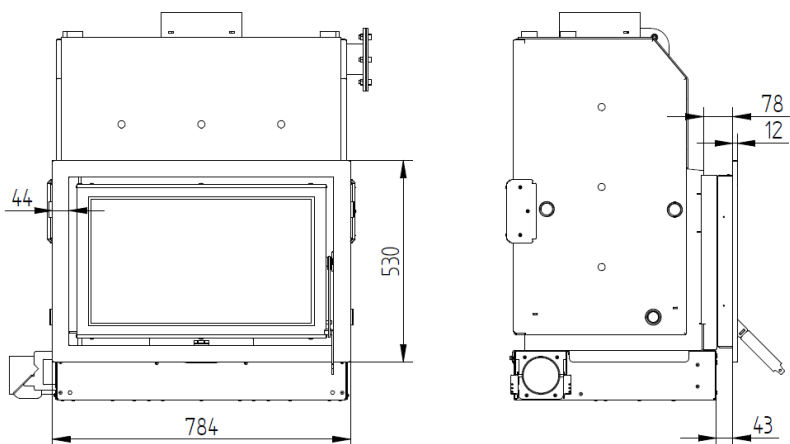
The finishing rim is an optional piece, which you can purchase to improve the aesthetics of the Ecofogo Eco, Mytho Eco, Mytho Eco PV, Acqua Eco and Acqua Eco PV recuperators. In the Zaima Eco model the rim is in casting and will be included in the equipment. You can choose between wide, narrow and narrow glass rims.

Rims for Ecofogo Eco, Mytho Eco:



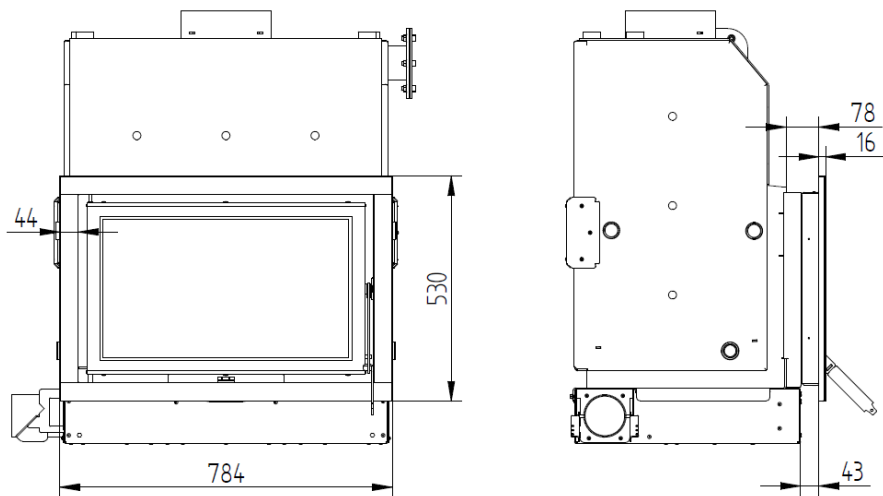
Rim 7,4cm P=4cm Black ref: MO1160P029

Rim 7,4cm P=4cm Grey ref: MO1160P025



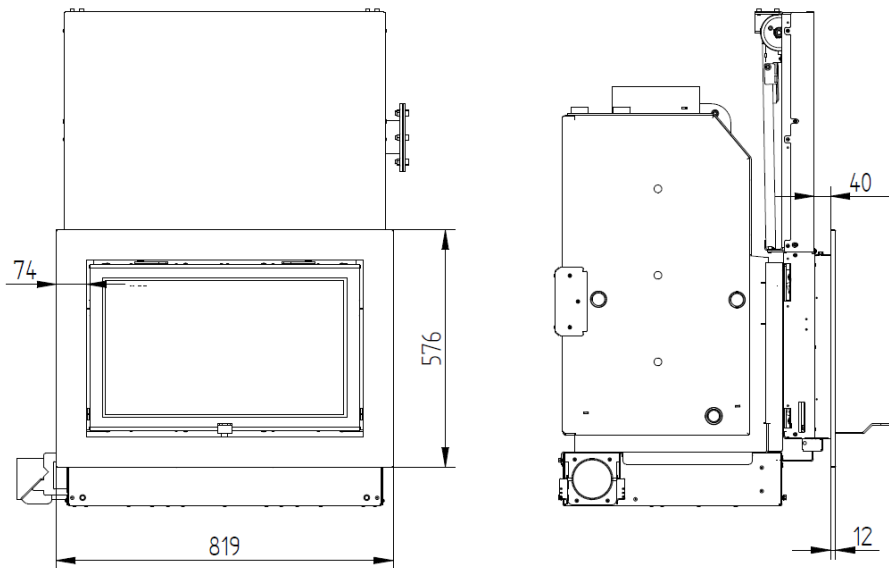
Rim 4,4cm P=4cm Black ref: MO1160P028

Rim 4,4cm P=4cm Grey ref: MO1160P024

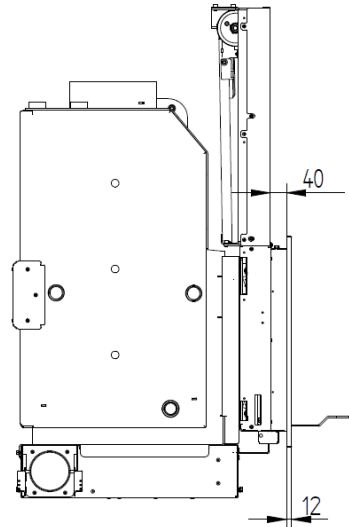
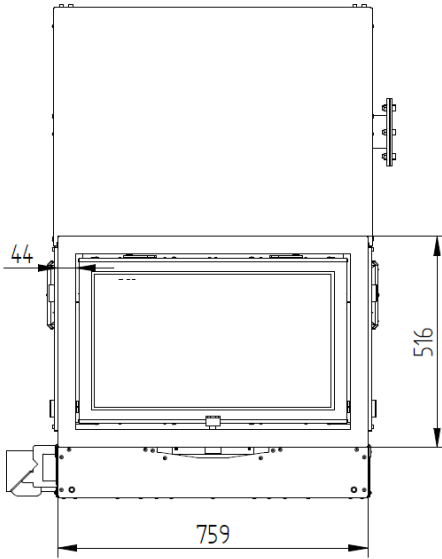


Rim 4,4cm P=4cm glass ref: MO1160P030

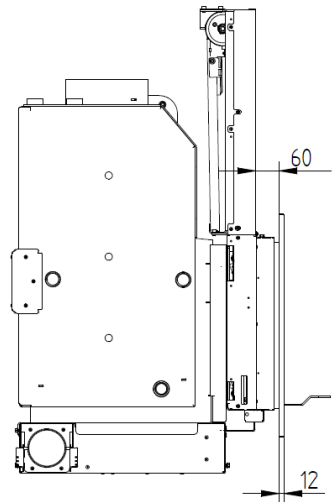
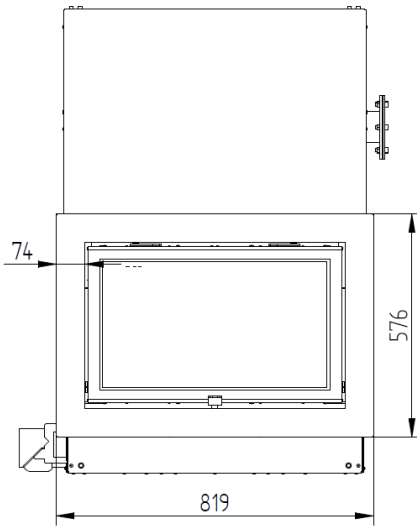
Rims for Mytho Eco PV:



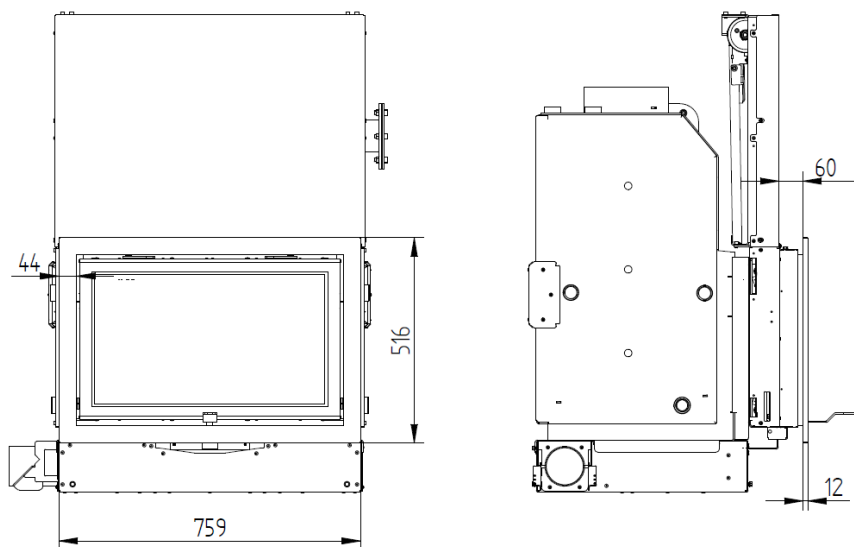
Rim 7,4cm P=4cm ref: MO1160P076



Rim 4.4cm P=4cm ref: MO1160P082

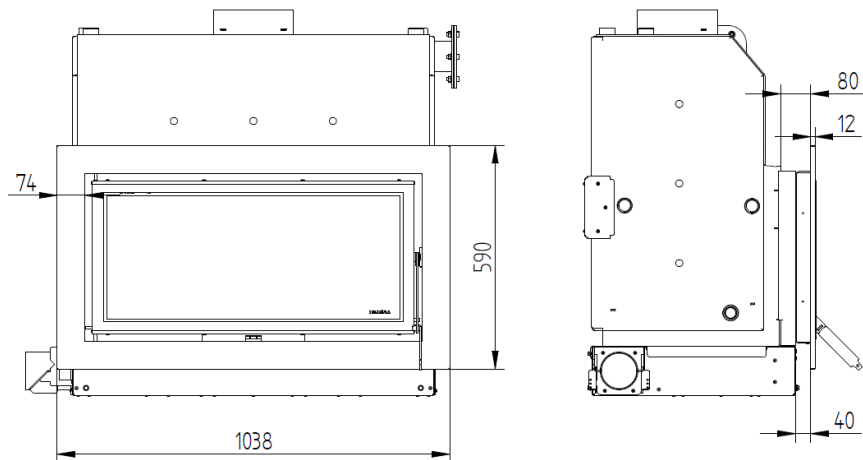


Rim 7,4cm P=6cm ref: MO1160P090

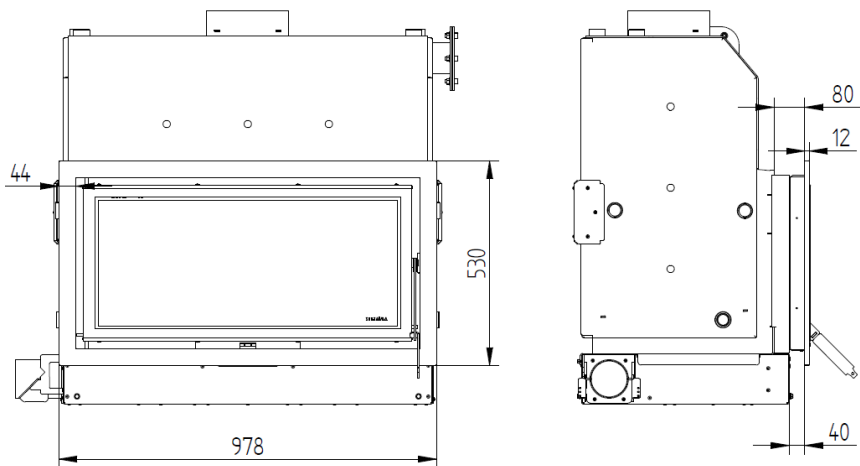


Rim 4,4cm P=6cm ref: MO1160P089

Rims for Acqua Eco:

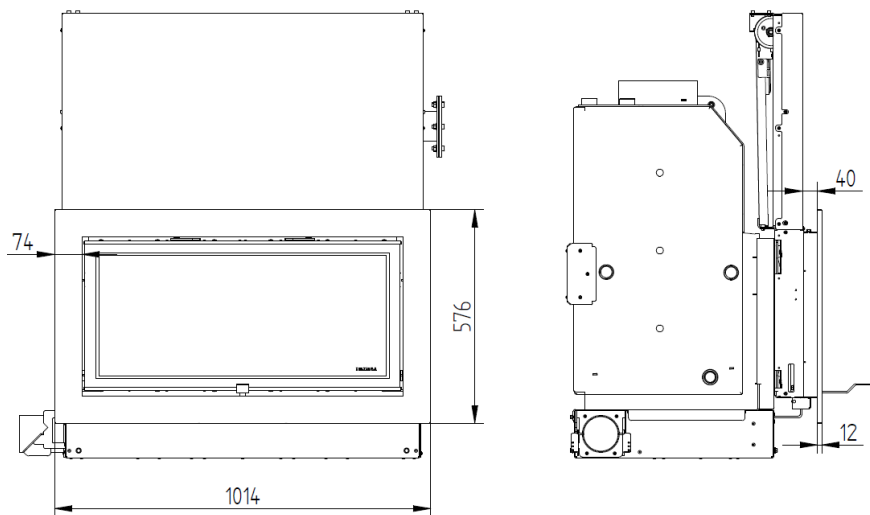


Rim 7,4cm P=4cm ref: MO01160G020

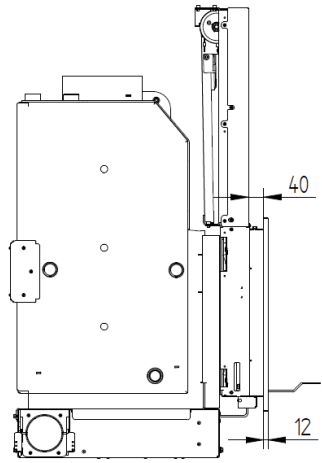
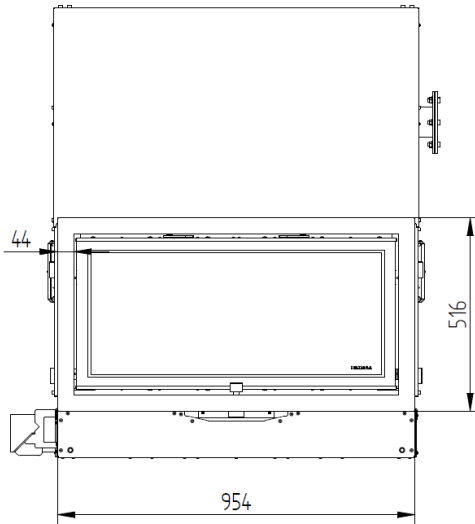


Rim 4,4cm P=4cm ref: MO01160G019

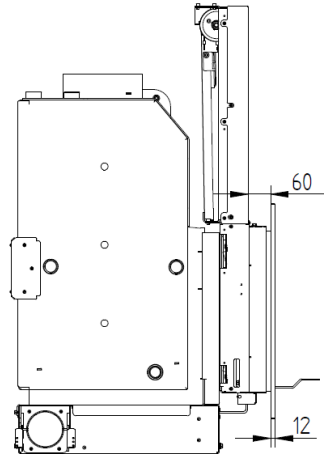
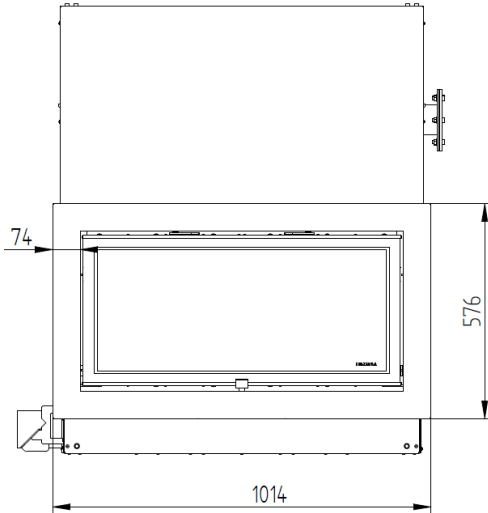
Rims for Acqua Eco PV:



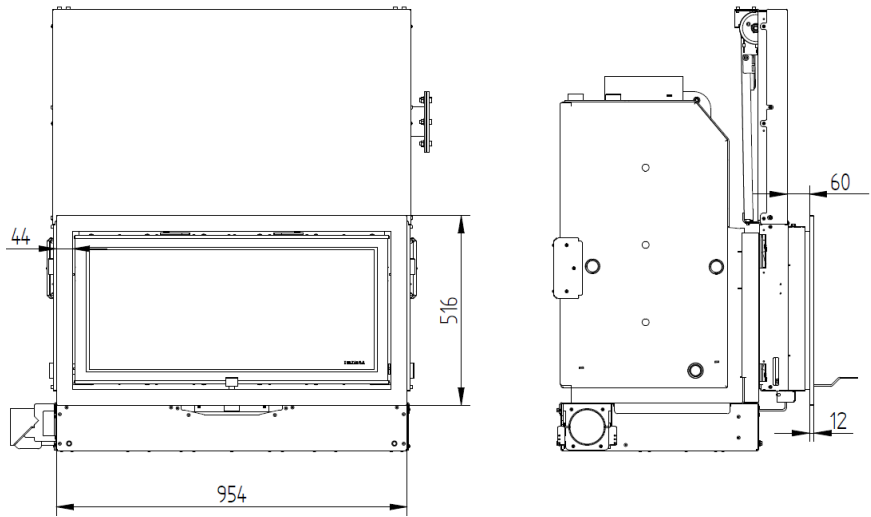
Rim 7,4cm P=4cm ref: MO01160P084



Rim 4.4cm P=4cm ref: MO1160P083



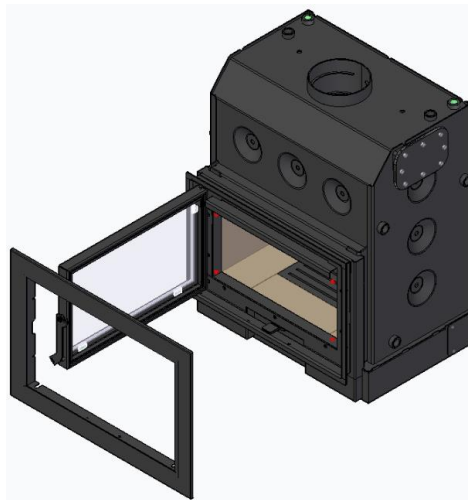
Rim 7,4cm P=6cm ref: MO1160P088



Rim 4,4cm P=6cm ref: MO01160P087

If you want to install the finishing hoops in the Ecofogo Eco, Mytho Eco, Mytho Eco PV, Acqua Eco and Acqua Eco PV recuperators , you must proceed as follows:

- a) Open the door.
- b) Place the 4 M4 screws supplied with the rim, but do not tighten them completely.
- c) Place the rim in the recuperator, until fully against the front wall.
- d) Tighten the screws until the rim is fixed in the desired position.



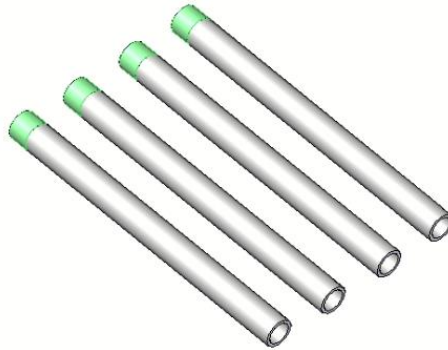
**Figure 27**



### **6.4.2. Transport bars**

The equipment is very heavy and bulky. In order to be able to move it more easily, we recommend that you buy the transport bar kit. This kit is an optional accessory that can be purchased separately. It consists of 4 steel rods painted black with a threaded end to attach very firmly to the body of the equipment. It can be purchased as an accessory with the following reference:

CA01080001 – It is common to all models



**Figure 28**

### **6.4.3. Transport wheels**

In order to move the equipment more easily, we recommend that you purchase the transport wheel kit. This kit is an optional accessory that can be purchased separately. It consists of 4 wheels with adapter plates that can be fixed directly to the base of the equipment. The 4 wheels can rotate on themselves, which will make it easier to maneuver the equipment until it is placed in its final location. It can be purchased as an accessory with the following reference:

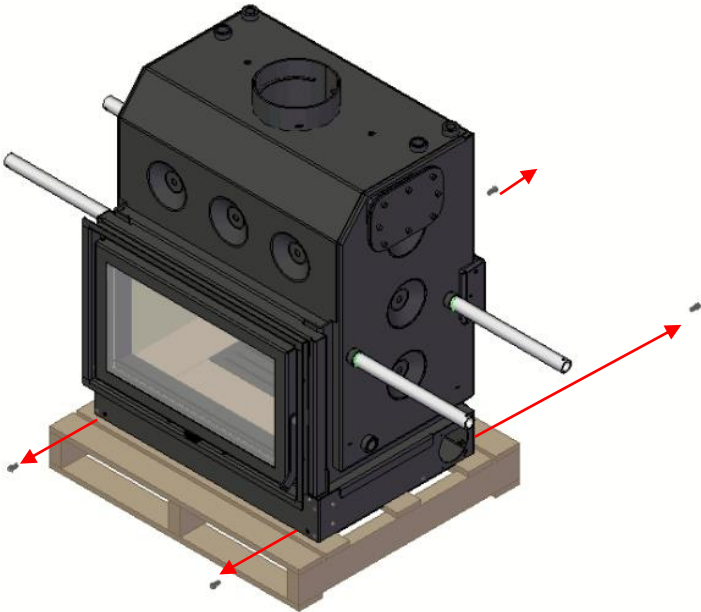
CA01080002 – It is common to all models

To install the wheels on the equipment, we recommend that you get the transport bar kit mentioned in the previous point to make the job easier.

Follow the assembly order presented below to make the operation as simple and safe as possible.

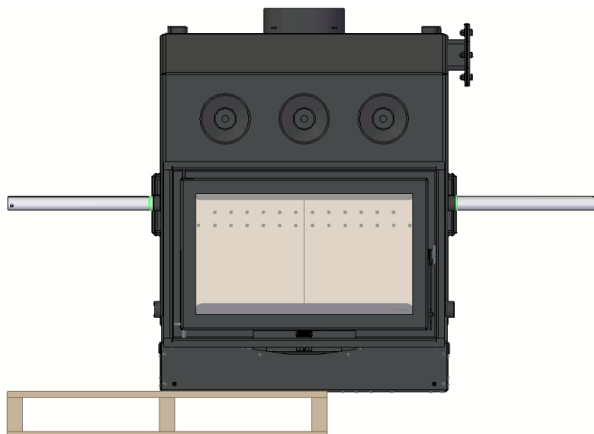
Remove all the packaging that surrounds the equipment and leave it on the pallet, remove the parts that are inside the combustion chamber, in this way you will avoid some

weight and bumps or damage. Remove the 4 screws DIN 6921 M6x20mm with the help of a 10mm wrench. If you have the carry bars, screw them until they are firm. You must have the equipment as shown in the following image.



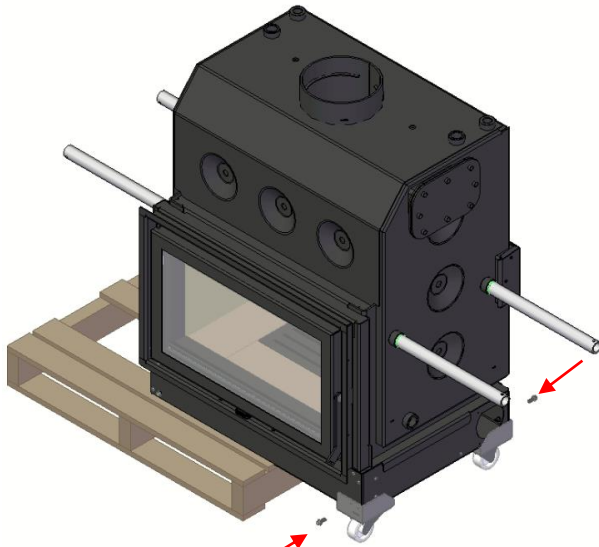
**Figure 29**

Move the equipment on the pallet so that one side of the equipment is in the air, do not go beyond the middle of the equipment so that it is stable on the pallet when it is at rest.



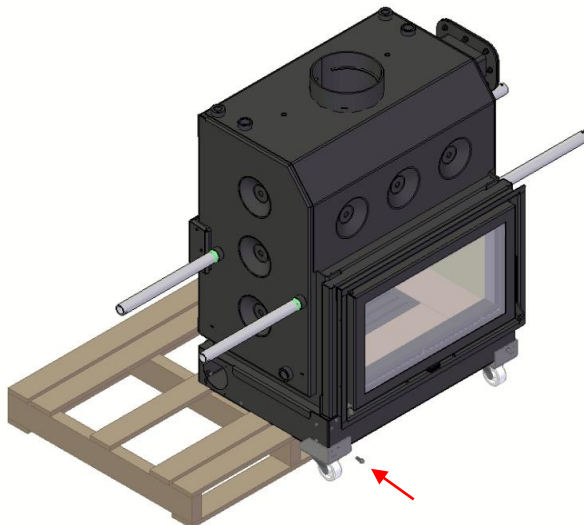
**Figure 30**

Put a wheel on the two corners that are in the air, note that there are 2 different types. Secure them to the base with the 2 screws you removed earlier.



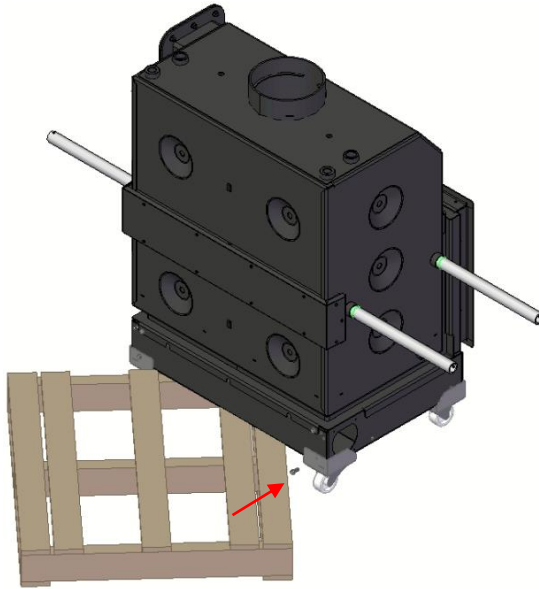
**Figure 31**

Move the equipment over the pallet, leaving the left front corner in the air, as shown in the image. Place the wheel and fix it with the screw, as was done with the previous wheels.



**Figure 32**

Move the equipment on the pallet leaving the left rear corner in the air, as shown in the image. Place the wheel and fix it with the screw, as was done with the previous wheels.



**Figure 33**

Lift the equipment from one side and completely remove the pallet. Now you can move the equipment easily and take it to your final location. To disassemble the wheels, you can make the same order, but in the reverse order to the one used to assemble them, if you do not have space to use the pallet at its destination you can use something that is strong, stable and of similar height. Remember to protect the floor if the place where you will perform the tasks is fragile.

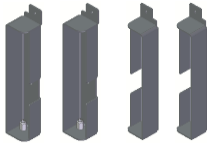
#### **6.4.4. Auxiliary leveling table**

The side table is recommended for any model, but especially in the case of the Mytho Eco PV and Acqua Eco PV, due to the door opening and closing system. The table assembly process is practically the same for all models, the only thing that changes is the size, but it is the same philosophy. It can be purchased as an accessory with the following reference:

PA1090G070 - For Ecofogo, Mytho Eco, Mytho Eco PV and Zaima Eco models

PA1090G071 – For Acqua Eco and Acqua Eco PV models

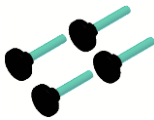
In the box you will find the following components:



4 vertical columns 2 front and rear side rails



2 left and right side rails 4 screws DIN 912 M10x20mm



4 ft M10 levelers.

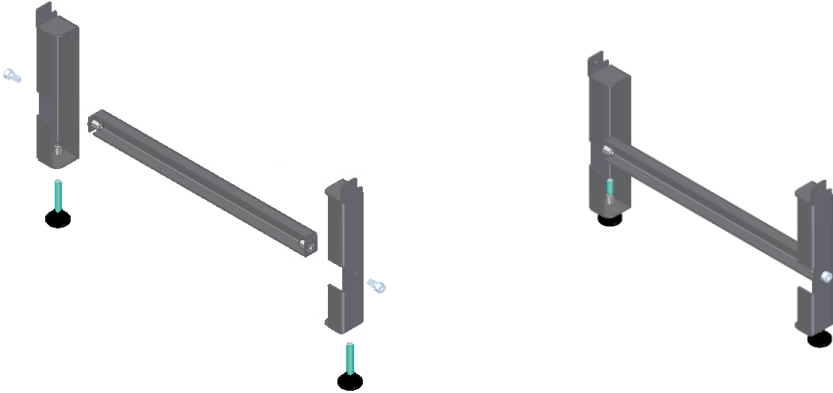
To assemble the leveling table, we recommend that you buy the transport bars shown above (optional accessory), which make it easier for you to handle the equipment.

Follow the assembly order to make assembly easier and safer.

If possible, transport the unit with the packaging to the installation site using a pallet truck. If this is not possible, we recommend that you purchase the transport wheel kit (optional accessory), which will be discussed in the following points.

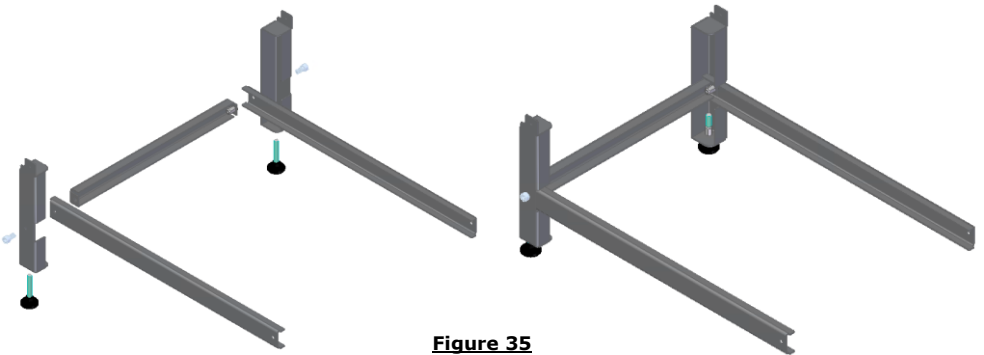
The equipment is very heavy, if it has no machinery, it needs to be handled by more than one person.

The first step is to assemble a series of parts so that they are ready before you start moving the equipment. Place the 4 feet levelers on the 4 vertical columns, screwing them to the bottom. With the help of an Allen wrench No. 6, mount 1 vertical column with its symmetrical by means of 1 side rail (the shortest) using 2 screws DIN 912 M10x20mm. You will get a subset like the one in the following figure, it is not necessary to tighten the screws well, since you will have to remove them later.



**Figure 34**

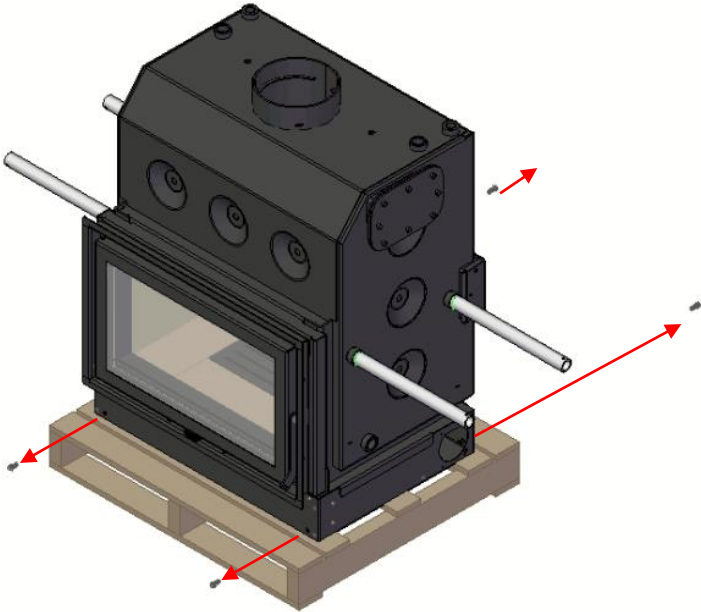
To tighten the 2 screws DIN 912 M10x20mm you will have to use the Allen key n°6 the process is very similar to the previous step, but in this case you will have to place the front and rear rails (the longest ones) between the vertical columns and the side beam. Tighten the screws but do not tighten them to allow the subassembly to fit the equipment.



**Figure 35**

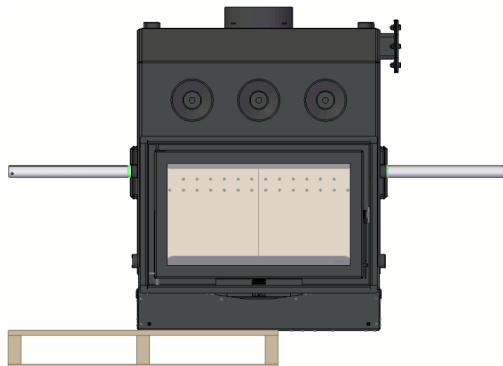
Remove all the packaging that surrounds the equipment and leave it alone on the pallet, remove the parts that are inside the combustion chamber, in this way will avoid some weight and bumps or damage. Remove the 4 screws DIN 6921 M6x20mm with the

help of a 10mm wrench. If you have the carry bars, screw them until they are firm. You must have the equipment as shown in the following image.



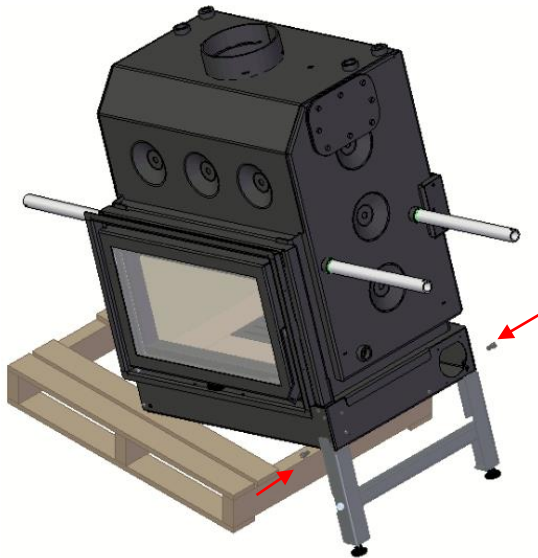
**Figure 36**

Move the equipment on the pallet so that one side of the equipment is in the air, do not go beyond the middle of the equipment so that it is stable on the pallet when it is at rest.



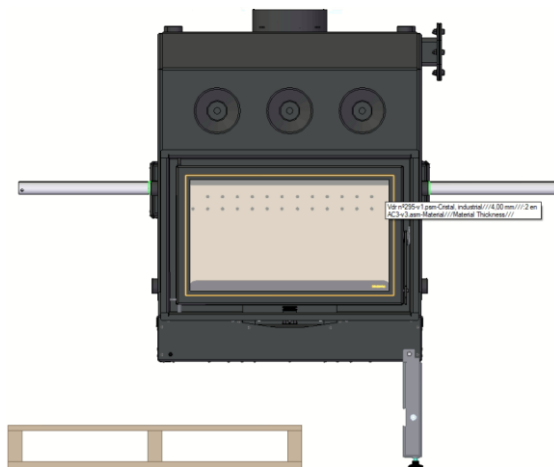
**Figure 37**

Tilt the equipment using the transport bars, to gain the necessary space and place the first subset that we have assembled. Fix the subassembly by placing two of the screws we removed earlier (DIN 6921 M6x20mm) and secure them tightly.



**Figure 38**

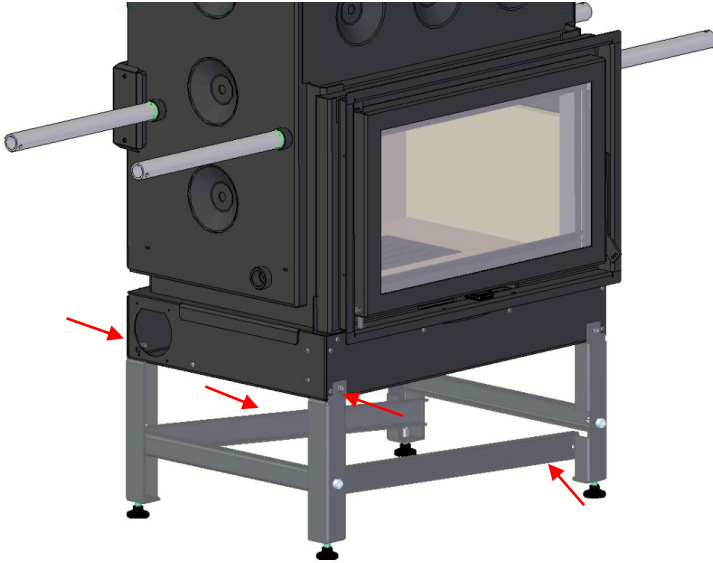
With the help of the transport bars, lift the equipment so that the pallet can be removed. Do this carefully, as the structure of the table is not yet very stable, since it is not yet complete.



**Figure 39**

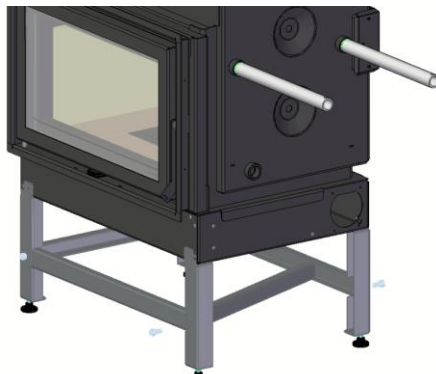


Place the second subassembly in the position you can see in the following image, use the other 2 screws removed earlier (DIN 6921 M6x20mm) to attach the subassembly to the equipment. Pay special attention to the position of the front and rear rails, as you can see in the image below, they should be inside the vertical columns of the subassembly. If you do not, you won't be able to put them in their place afterwards.



**Figure 40**

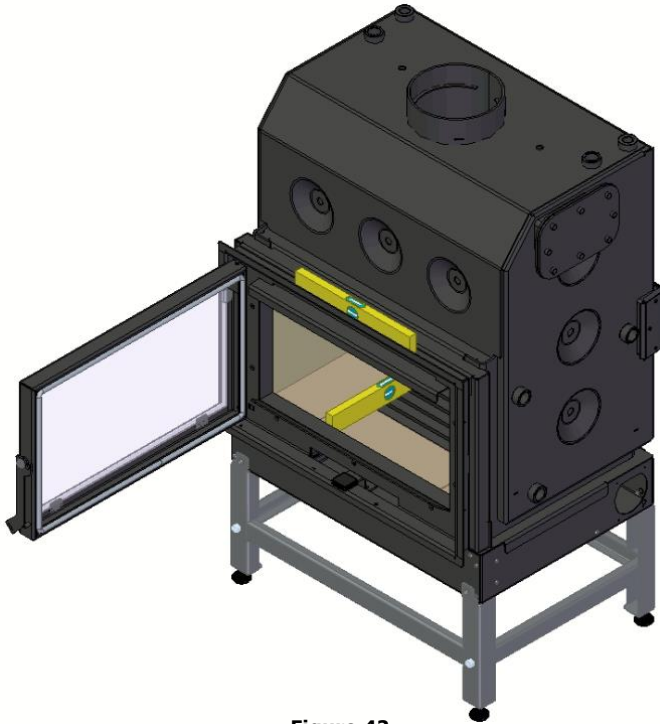
Remove the screws and the side member from the first sub-assembly, put the front and rear limbs in place and replace, this time within the front and rear limbs, the lateral limb. Fix it again with the screws. Before tightening all the screws well, carefully check the position of all the parts for maximum perpendicular to each other.



**Figure 41**

With the machine in its final position, perform the leveling using the 4 feet of leveling and a level that we recommend to place on the door rim to level the left right position and inside the combustion chamber to level the front and back. Remember to check again when you have finished both positions, as changing one level may affect the other.

Remove the transport bars and continue with the installation of the equipment.



**Figure 42**

### 6.4.5. Anti-packaging kit

On the right side of the recuperator there is the possibility of installing an anti-packaging kit. This kit is an optional accessory that you can purchase separately.

You can buy as an accessory with the following reference:

PA1026P019 – It is common to all models

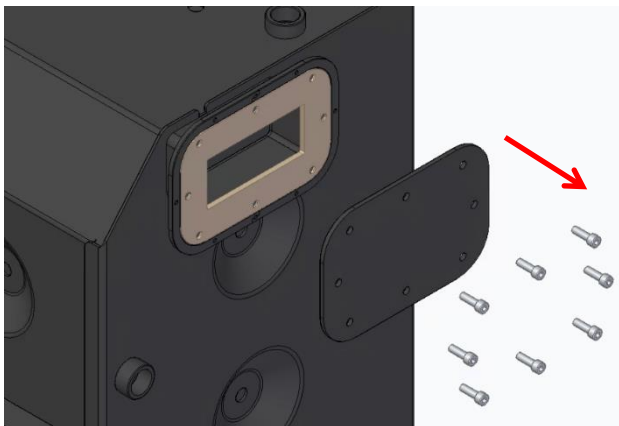
In the kit you will find the following, a copper coil connected to threaded sockets to connect the heat sink.



**Figure 43**

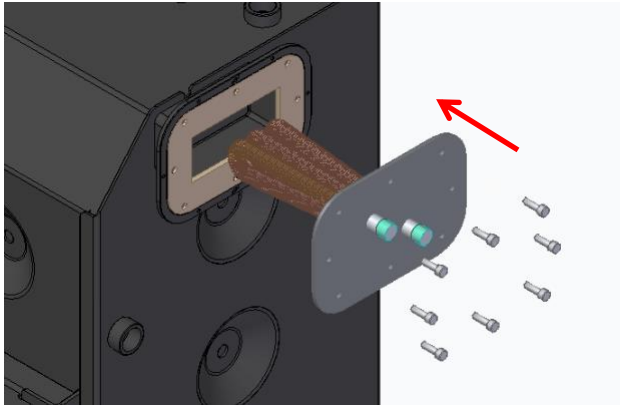
For the installation of the anti-packaging kit, you must proceed as illustrated in the following steps:

Remove the screws and nuts in order to remove the side cover.



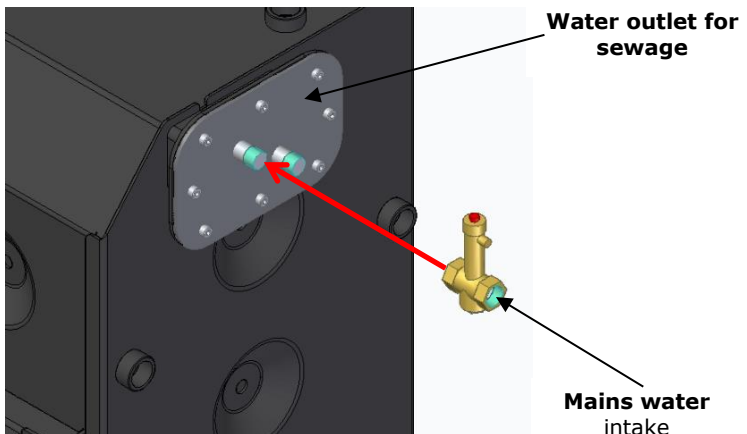
**Figure 44**

Place the kit in the same position as the cap, making sure that the silicone gasket is centered in relation to the holes. Place the screws without tightening them completely and after verifying that everything is correctly positioned, tighten them alternately to ensure correct tightness.



**Figure 45**

Finally, you must install the 97°C thermostatic valve (not provided in the kit) in the top connection of the anti-packaging kit. This valve must be connected to the water network of the public network, with a minimum pressure of 3 bar and the water temperature must be  $10 \pm 5^\circ\text{C}$ . The other connection of the kit must be connected directly to the sewer.



**Figure 46**

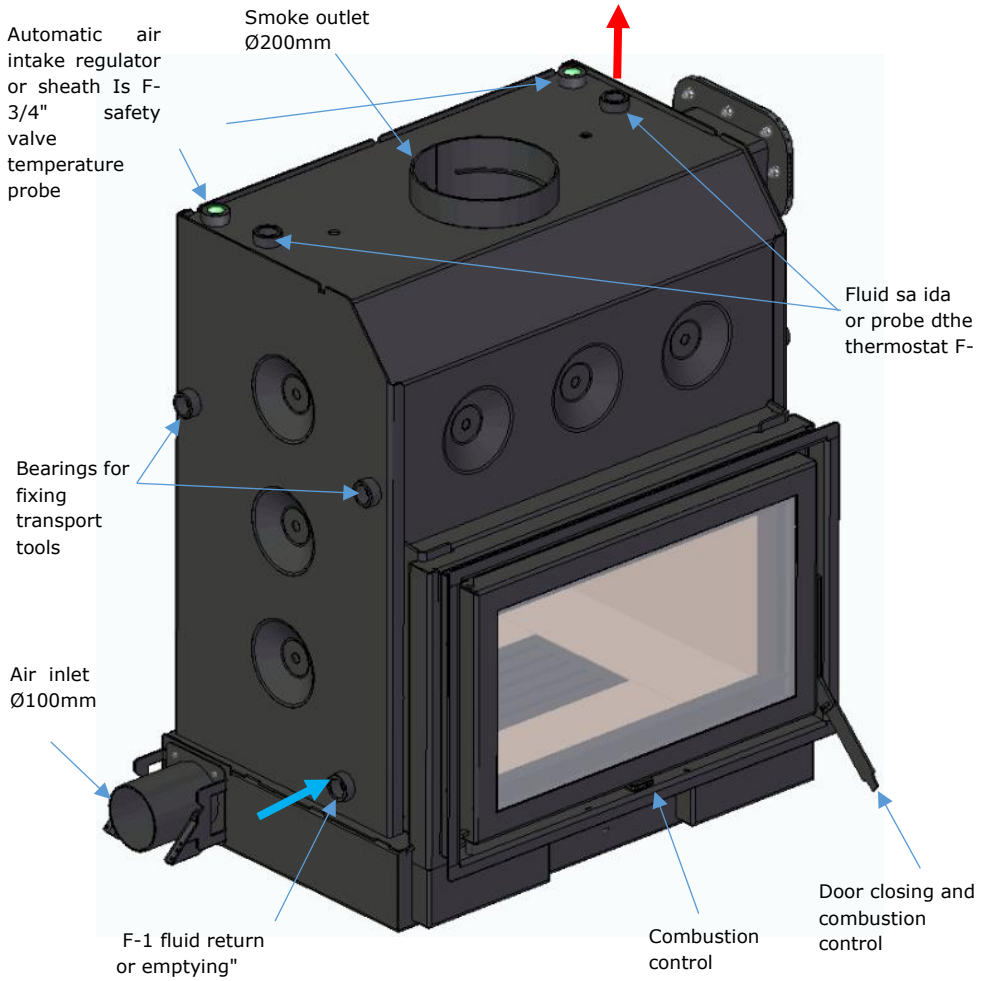
- ⚠ Note: Do not connect the anti-packaging kit to a water supply that relies on electricity for service, e.g., well water.
- ⚠ The circuit that supplies the anti-packaging kit must be independent of the heating circuit to which the recuperator is connected.
- ⚠ Before connecting the thermal discharge valve, check the direction of circulation of the water, as a rule, indicated with an arrow on the valve body.



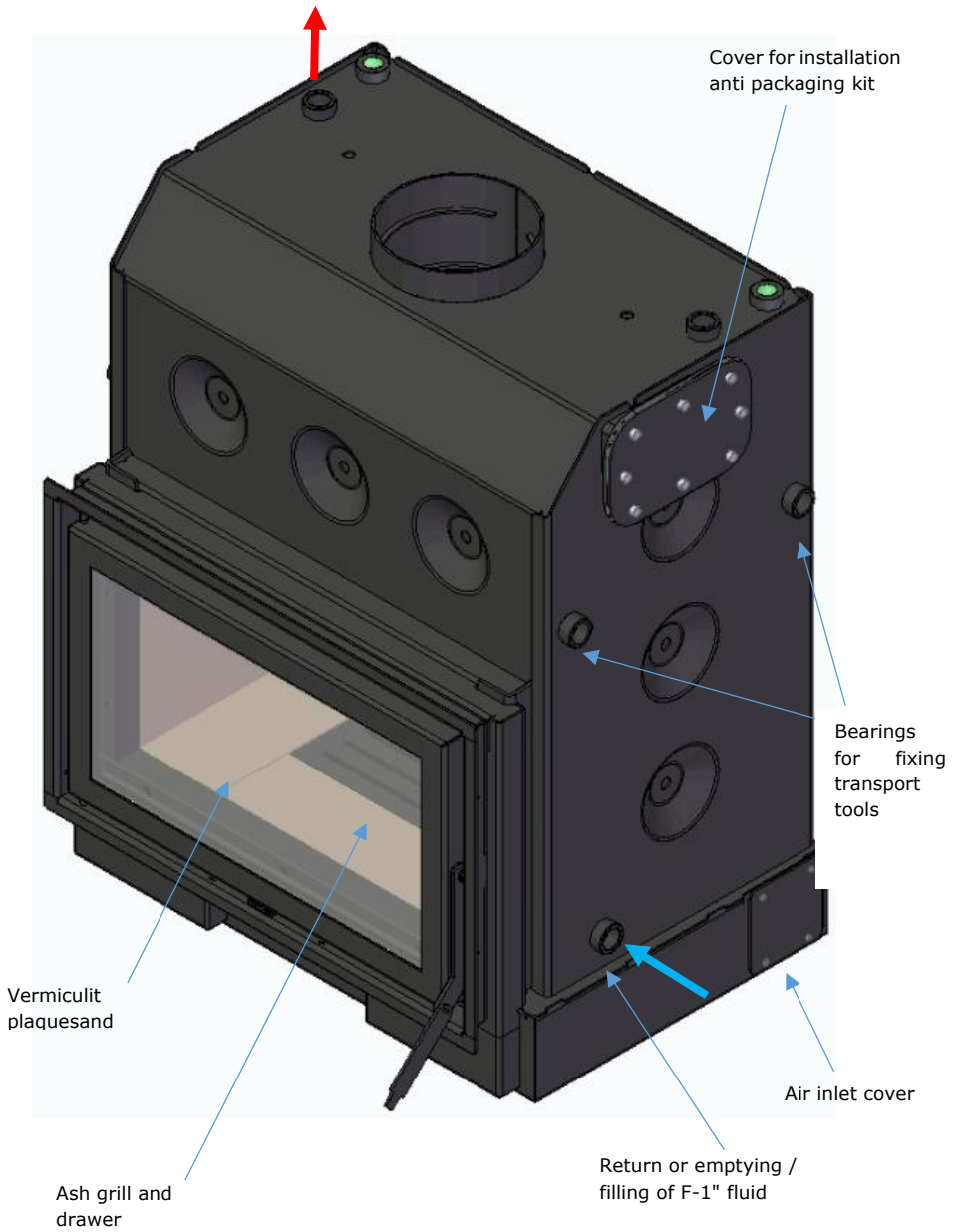
**Figure 47**

- ⚠ **At the end of the installation of the anti-packaging kit and before starting the operation of the equipment, you should test the installation verifying that there are no leaks.**

## 7. Main parts of the recuperator



**Figure 48**



**Figure 49**

## 8. Instructions for use

Please note: **all** regulations and standards must be complied with when installing this equipment.

### 8.1. Fuel

In this type of equipment should be used only dry firewood. It cannot be used as an incinerator and other materials such as coal, wood with paints, varnishes, thinners, liquid fuels, glues, and plastics must be excluded. Also avoid burning common combustible materials such as cardboard and straw. Firewood must have a low moisture content (less than 20%) to achieve efficient combustion, avoid creosote deposit in the smoke pipe and glass and minimize the oxidation of the equipment.

**Table 2 - List of the Type of Firewood that can be used in a SOLZAIMA Heat Recovery Unit, its Geographical Distribution and Calorific Value/Reactions**

Common Name	Scientific Name	Distribution (total: 18 districts)	Features				
			Smoke	Heat	Firing	Combustion Speed	Hardness
Pine	Pinus	Bragança, Castelo Branco, Coimbra, Guarda, Leiria, Viana do Castelo, Vila Real and Viseu	Little	Strong	Easy	Fast	Soft
Cork oak (+)	Quercus suber	Évora, Faro, Portalegre, Santarém and Setúbal	Little	Very strong	Easy	Medium	Hard
Eucalyptus	Eucalyptus	Aveiro, Porto and Lisbon	Very much	Medium	Difficult	Slow	Hard
Holm Oak (+)	Quercus ilex	Beja and Évora	Little	Very strong	Difficult	Slow	Hard
Olive tree	Olea	All country except Alpine areas	Little	Very strong	Difficult	Slow	Hard
Oak	Quercus	<i>The whole country with subspecies variation</i>	Little	Strong	Difficult	Slow	Hard
Ash	Fraxinus	<i>Riverside areas (Baixo Vouga)</i>	Medium	Strong	Difficult	Slow	Hard
Birch / Birch	Birch	<i>Highlands (Serra da Estrela)</i>	Little	Very strong	Easy	Fast	Soft
Beech	Fagus	<i>Regions with cold climate and high humidity (North of Portugal – Serra do Gerês)</i>	Little	Strong	Difficult	Slow	Hard
Elm	Ulmus	<i>All country except Alpine areas (wetlands)</i>	Medium	Strong	Difficult	Slow	Hard
Maple / False Maple	Acer	<i>Minho, Beira Litoral and Serra de Sintra</i>	Little	Medium	Medium	Slow	Soft



Poplar	Populus	<i>The whole country with predominance in the Center</i>	Little	Strong	Easy	Fast	Soft
Chestnut tree	Castanea	<i>North and Central Portugal and mountains</i>	Medium	Strong	Difficult	Slow	Hard

### **8.1.1. Power**

The power of your stove indicates the heating capacity, that is, the heat transfer that your equipment will make of the energy of the firewood to your home, usually measured in kW, and directly depends on the amount of firewood that you put in the equipment.

Rated power is the power produced by the combustion of a controlled load of wood at a given time. This value is obtained in tests carried out in a laboratory accredited according to the standard.

The power of use is a recommendation of the manufacturer testing the equipment with loads of firewood within the reasonable parameters of minimum and maximum operation of the equipment. This minimum and maximum power of use will have different firewood consumption per hour.

### **8.1.2. Energy efficiency**

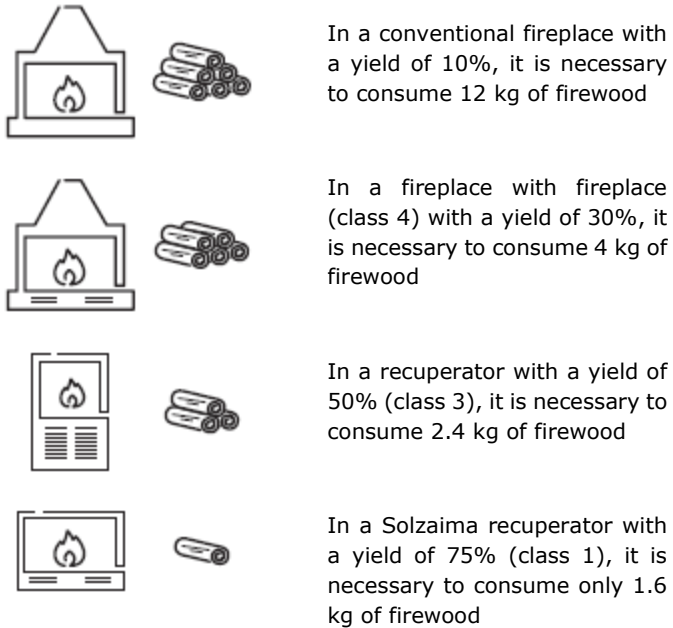
When it comes to the energy required to air condition a home, two main parts must be defined. The insulation of the house, which will affect the heat loss of the house, making it necessary the entry of heat to maintain the same temperature, and the performance of the stove that generates the heat, which will require more or less wood to produce the same amount of heat. The combination of these two parts primarily defines energy efficiency. Greater energy efficiency allows for a significant reduction in energy needs, thereby reducing global dependence on fossil fuels and other non-renewable energy resources.

In this way, energy efficiency alone can lead to significant economic and environmental savings.

The Ecofogo ECO, Mytho Eco, Mytho Eco PV, Acqua Eco, Acqua Eco PV and Zaima Eco recuperators have an efficiency of 80%, being well above what the standard requires and making the energy efficiency of your home significantly better.

An efficiency of 80% means that the stove can use 80% of the energy contained in the wood to heat the house.

As an example, see the following comparison of wood consumption in 1 hour to heat a room of approximately 35m<sup>2</sup> with a 5kW appliance.



**Figure 50**

## 8.2. First use

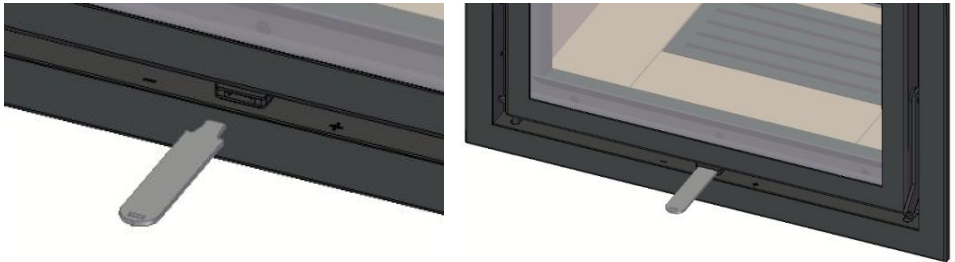
Request the installer to start the equipment after verifying the operability of the installation;

In the first use of the heat recuperator the paint is cured, which can give rise to the production of additional fumes. If this is the case, you should air the compartment, opening the windows and doors to the outside.

### 8.3. Instructions for use of the recuperator

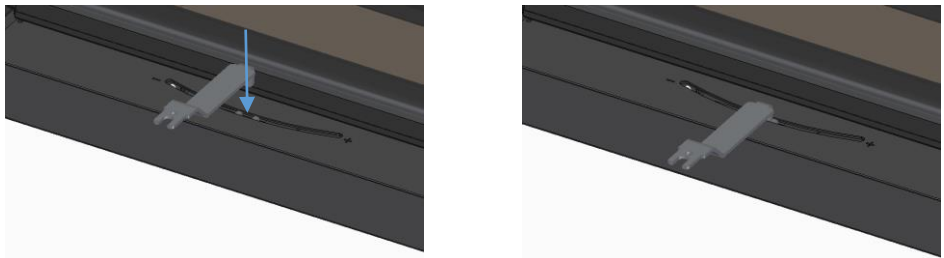
#### 8.3.1. Adjustment of combustion control

In the central part under the door, you will find the hole to fit the tool in order to move the combustion control safely. In the Ecofogo Eco, Mytho Eco, Zaima Eco and Acqua Eco models, the tool is inserted horizontally into the hole, as can be seen in the following images.



**Figure 51**

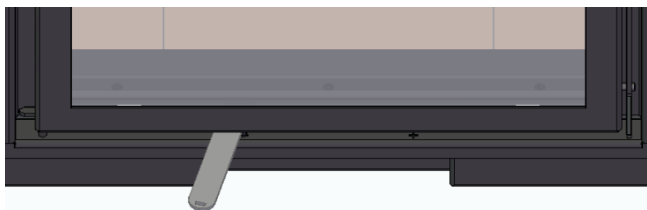
In the Mytho Eco PV and Acqua PV models the tool inserts itself into the hole vertically, as shown in the following images.



**Figure 52**

In the leftmost position, both the primary and secondary air inlet are closed, only a small secondary air flow is allowed for safety reasons, to avoid possible gas concentrations.

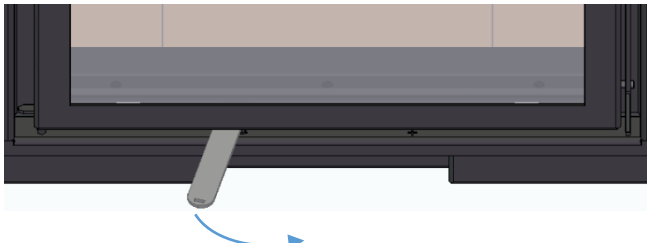
→ This position is used when the recuperator is turned off.



**Figure 53**

When the control is moved to the central zone, the secondary air is opened until it reaches 100% at the central point. The primary air remains closed.

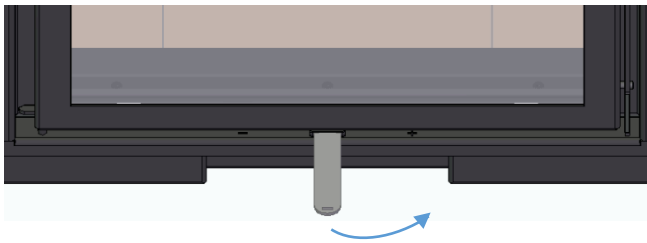
→This combustion control interval is used when the recuperator is burning stably and we want to control the speed and power of combustion. The closer we get to the central point, the more speed and power we will get, but always with a high efficiency.



**Figure 54**

From the central point of the control to the rightmost position, the primary air is progressively opened while the secondary air remains 100% open in this zone.

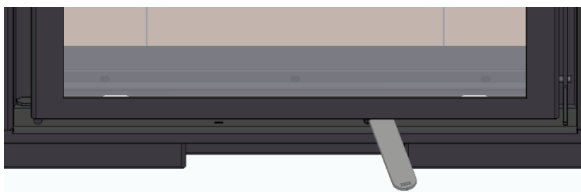
→This range is used to increase the speed and power of combustion. By accelerating combustion, you get more power, but this is at the expense of performance.



**Figure 55**

When the control is fully on the right, both the primary and secondary air will be 100% open.

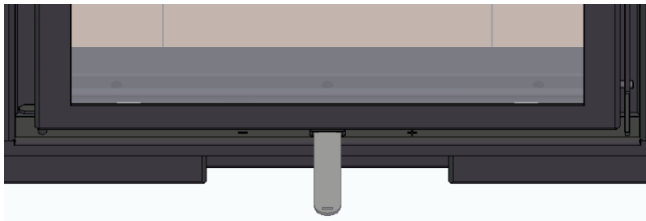
→This position is for the initial ignition or to rekindle the fire when refueling is performed. This position is usually only used for a few minutes, since the burning rate is very high in this position.



**Figure 56**

### 8.3.2. Firing

- a) fully open the combustion control (completely on the right);
- b) Place pine cones (preferably) or lighters, on the ash grid;
- c) Place small firewood, stacked horizontally;
- d) To facilitate ignition and avoid condensation as much as possible, leave the door open 2 or 3 fingers to maximize air intake. **Never leave the stove with the door open unattended.**
- e) The firing time ends when the load of wood is seen to burn continuously, there is no possibility of extinction and the recuperator has reached a working temperature free of condensation. At this point, the combustion control must be moved to the central position (this position may depend on the quality and quantity of wood).

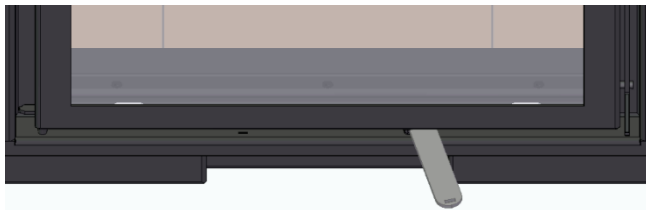


**Figure 57**

The main air intake will be regulated automatically depending on the temperature of the recuperator, by the action of the automatic air intake regulator, as we saw in point 6.3 Hydraulic Installation.

### 8.3.3. Refuel

- a) Open the door with the help of a tool as much as necessary so that there is no danger of burning, try to join the embers in the central part of the chamber, remember that the air must pass through them to facilitate the ignition.
- b) Place the logs horizontally and parallel to the rear wall. Always try to leave about 3 to 5 cm between the trunks and the walls so that the air can circulate properly.
- c) Close the door and open the combustion control to the maximum (completely on the right), this allows the entry of primary air and facilitates combustion for the time necessary to ensure that the logs are burning (between 1 and 5 minutes, depending on the quality of the wood and embers). If necessary, you can open the door a few inches to set the fire and then close it again. **Remember never to leave the stove unattended with the door open.**



**Figure 58**

d) If you do not get an active flame, the number of gases that accumulate in the combustion chamber can concentrate and explode, so it is very important to ensure that there is always an active flame.

e) When the fire is well established, place the regulator in the central position.

If you have not installed the piped air duct to draw in the outside air, the combustion air will be drawn out of the room where the recuperator is located, thus consuming oxygen from this room. If this is the case, it must be ensured that the openings or other devices allowing outside air to enter are not obstructed.

The use of this equipment simultaneously with other appliances that require air supply (e.g. gas equipment, braziers, among others), may require the existence of additional air intakes, and the user must make sure that there are no obstacles to the necessary ventilation for all appliances in operation, such as smoke extractors or kitchen.

The door should open only during refueling. The normal conditions of use of the equipment mean that the door remains closed.

When refueling, we recommend that you use a load of 4.8kg for the ECOFOGO ECO, MYTHO ECO, ACQUA ECO, ACQUA ECO PV and ZAIMA ECO models. Refill the recuperator before the previous load is completely burned, to facilitate the continuation of combustion.

In the conditions of the previous point, the nominal power is an average value in the context of a variation that can reach 30% of the nominal value. Lower variations can be achieved with more frequent replenishments of smaller quantities of firewood.

When the atmospheric conditions are so adverse as to cause a severe disturbance in the smoke draw of the recuperator (in particular very strong winds), it is advisable not to use the recuperator.

## 8.4. Safety

The metal parts, accessible to the user, reach high temperatures. Avoid contact with the warmer parts.

Whenever you need to put firewood or meet the equipment when it is in operation, you should wear a heat-resistant glove or any other protection that prevents the transmission of heat.

In case of **fire in the chimney, immediately close the equipment door and the combustion control.**

In order to prevent the activation of the safety devices, the power removed from the apparatus must be, on average, identical to that produced. If the equipment is used **only for heating domestic water, a quantity of firewood compatible with the power removed must be used. An amount of firewood not exceeding 0.5 kg/h per kW of "water" power removed is recommended.**

If the power removed from the appliance ceases in full combustion (for example, due to lack of electricity to supply the circulation pumps), the automatic air intake regulator acts first, closing the main air intake.

If the optional anti-packaging kit has been installed, it will act when the safety temperature is reached and in case of overpressure, the 3-bar safety valve, which must be present in the installation (if it is not an open vessel installation), will release the excess pressure. Although a malfunction in these safety mechanisms is quite unlikely, it could happen, in this case it would be recommended to remove the firewood (if possible) or even extinguish the flame with a small fire extinguisher.

## 8.5. Cleaning and maintenance

You should not clean with detergent or water the parts in cast iron or plate, they should be cleaned only with a dry cloth to remove the dust, otherwise it will cause the oxidation of the metallic elements. You can, if you find it necessary, treat the casting parts with your own grease (consult your supplier or installer).

If the equipment is not used for a prolonged period, you must ensure that there is no blockage in the chimney pipes before ignition and that the hydraulic circuit and the safety mechanisms of the hydraulic circuit are checked.

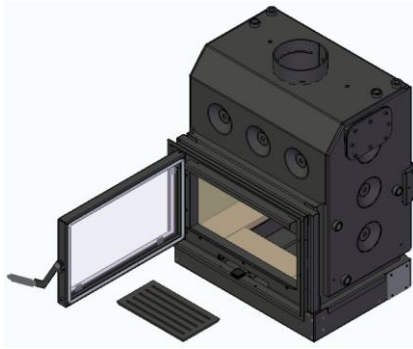
### **8.5.1. Daily cleaning**

The routine cleaning that will have to be done by the user will depend on the amount of firewood burned, the quality of the wood and the temperature reached in the recuperator. We recommend that this cleaning be done the day after the use of the recuperator. In this way, the recuperator will be cold and it is guaranteed that, in the next ignition, everything will be in perfect condition for its use.

Routine cleaning should include two phases:

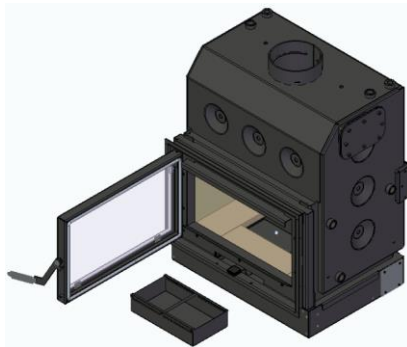
- ➔ Cleaning the glass: You should clean only when it is completely cold, use a suitable product to clean the glass (consult your supplier or installer), follow the instructions for use and avoid contact between the product and the insulation cord and the painted metal parts, as oxidation may occur. The insulation cord is glued, so you should not wet it with water or cleaning products. If it comes loose, you should clean the cavity with a fine sandpaper and then glue it again with silicone at high temperature.
- ➔ Cleaning of the recuperator: For the combustion air not to find obstruction in its entrance through the ash grate, the ashes should be removed regularly from the inside of the chamber and the ash drawer. This operation should always be performed when the recuperator is cold and wearing gloves that protect from high temperatures. Remember that the interior of the chamber reaches very high temperatures and is made of materials that retain a lot of heat, so be sure to give enough time for the recuperator to cool completely. Also keep in mind that if there is a large amount of ash, inside these, small isolated embers can remain, which are able to remain warm for a long time. To perform this cleaning, proceed as follows:
  - Open the door with the help of a tool.
  - Remove the ashes inside the chamber. This can be done with the help of metal cleaning tools designed for this purpose or with an ash vacuum cleaner, we recommend the vacuum cleaner because it makes the job easier and cleaner.
  - Lift and remove the grille from the base of the combustion chamber. Be careful, as it is a cast iron piece and is quite heavy.





**Figure 59**

- Pull up the iron bar from the ash drawer to remove it and empty the contents in a safe place, remember that it may contain hot embers among the ashes. If when removing the ash drawer you see any ash residue inside, you should also remove it.



**Figure 60**

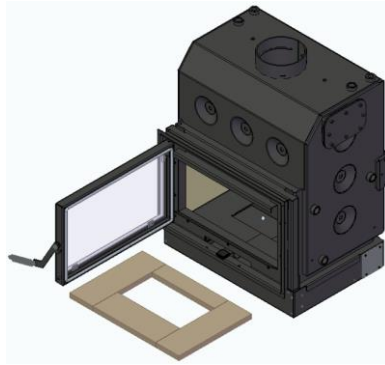
- Put the drawer back in place, making sure it is well positioned. It should be centered and lowered to 1.5 cm from the vermiculites that surround it.
- Put the casting back in place.

### **8.5.2. Additional cleaning**

We recommend that this cleaning be carried out by a qualified technician. The frequency with which this cleaning should be carried out depends on the amount of firewood burned, the quality of the wood and the temperature reached in the recuperator. The minimum is a full annual review. Failure to perform this cleaning can lead to table burns and fires in the chimney. At the same time as cleaning the stove, the sections that make

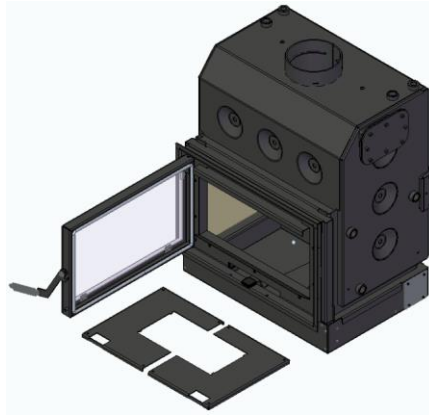
up the chimney or the places where smoke circulates and dirt can accumulate must also be cleaned.

- ➔ Disassemble the deflector plates. It is recommended to start by removing the deflector plates from the inside of the recuperator. To remove them, you must follow the opposite steps described in section 6: Installation.
- ➔ Cleaning of the ducts. The cleaning of the sections that make up the chimney will depend on each installation, as the deflector plates removed, the dirt that reaches the recuperator will fall directly to the base of the combustion chamber.
- ➔ Cleaning of the interior of the chamber and ash drawer. It should be carried out in the same way as for routine cleaning, but *without* putting them back on the equipment.
- ➔ Removal of vermiculite plaques. Vermiculite plates from the combustion chamber must be removed in a specific order and handled very carefully, since they are subject to many cycles of high temperatures, and become more fragile and can break. First, you must remove the 4 plates from the base.



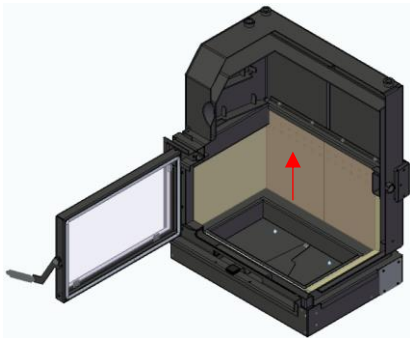
**Figure 61**

- ➔ Remove the 2 plates that form the false bottom on which the vermiculite was supported.

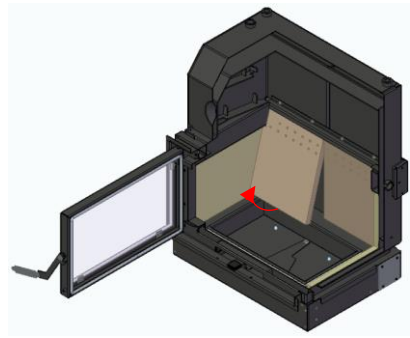


**Figure 62**

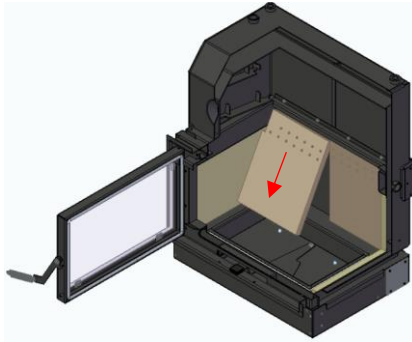
- Remove the 2 vermiculite plates from the back of the chamber, to remove these plates first move them upwards about 10mm and then pull the bottom towards the door so that it rotates at its top, then let it go down so that it is free of the plate that fixed it. Remove the plate and repeat the operation with the other plate later.



**Figure 63**

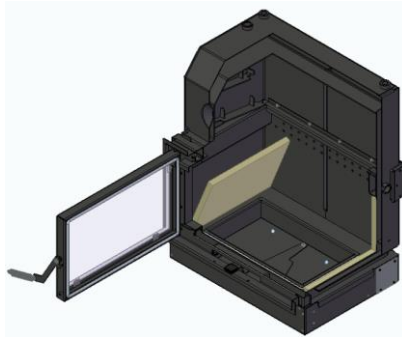


**Figure 64**



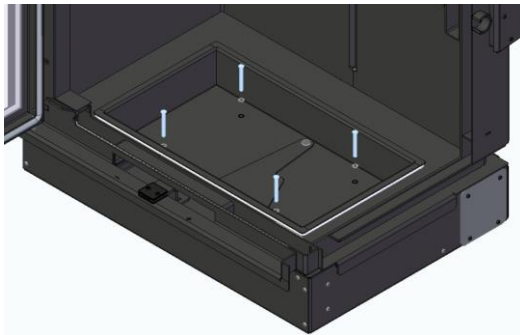
**Figure 65**

- Remove the 2 vermiculite plaques from the sides of the chamber, these plates are unimpeded when removing the previous ones.



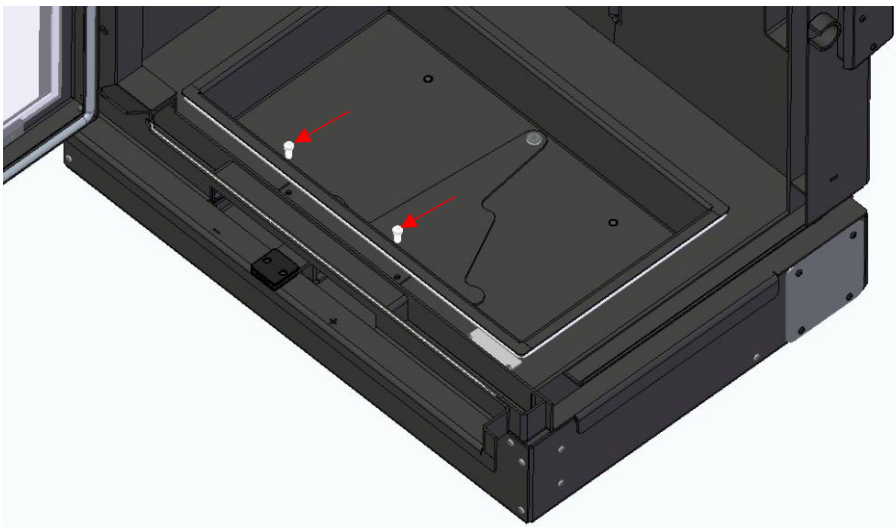
**Figure 66**

- In the next step you will have to use an Allen No. 5 wrench to remove the 4 screws (DIN 912 M6x55mm) that secure the air control.



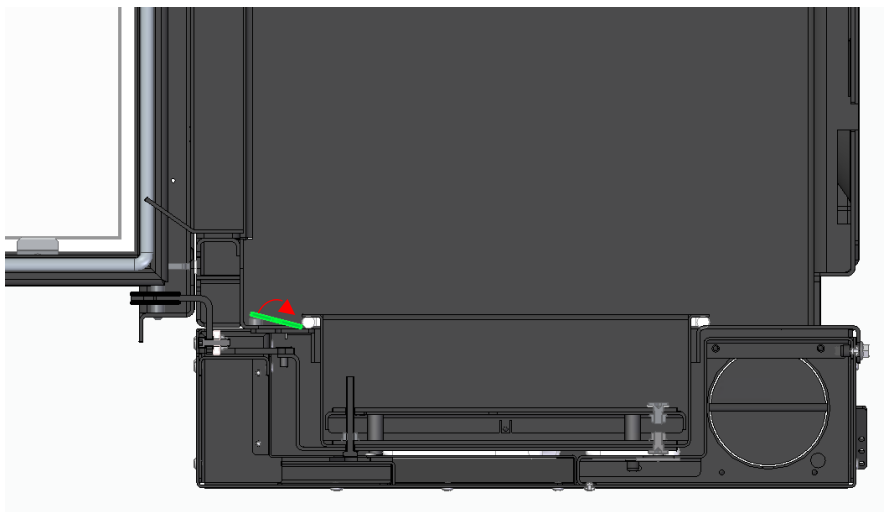
**Figure 67**

- Remove the 2 screws (DIN 912 M6x14) with an Allen No. 5 wrench that secure the plate in order to separate the air control connection.



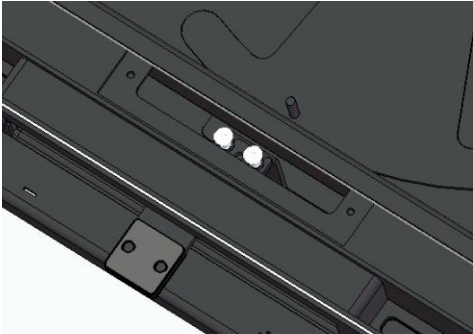
**Figure 68**

- Remove the sheet metal by lifting it from the side closest to the front panel using a screwdriver, as shown in the following image.

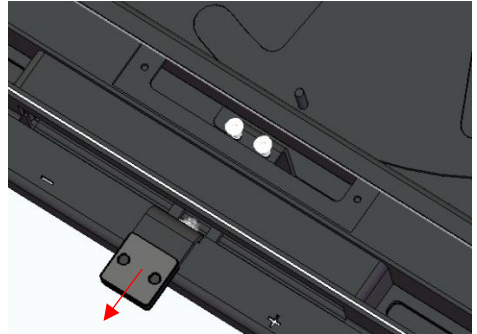


**Figure 69**

- In order to remove the combustion control, it is necessary to remove the part where the tool we use to adjust the position of the combustion control is mounted. This part is fixed by means of 2 screws, unscrew these 2 screws about 5mm (do not remove them completely, so that it is easier to assemble the system later) and remove this part.

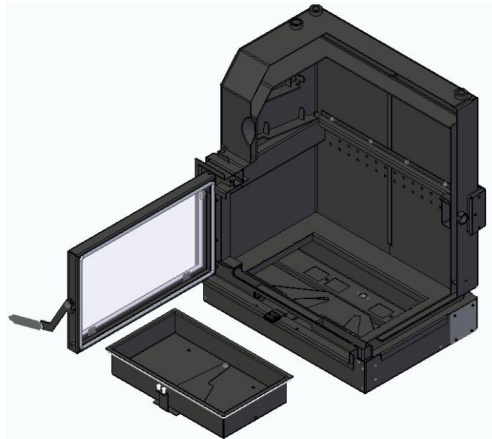


**Figure 70**



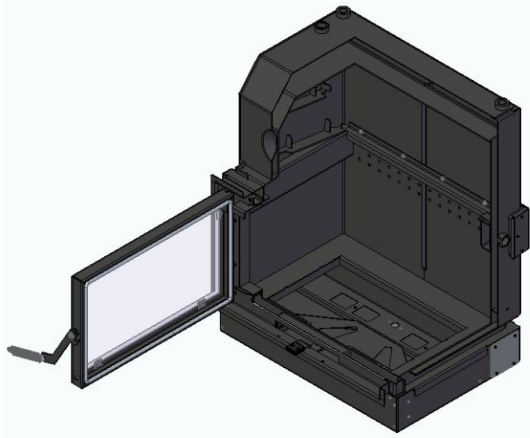
**Figure 71**

- Remove the combustion control by pulling it up and then pulling it out through the door. Be careful when removing it, as several fiberglass cords are glued to the bottom of the control to ensure that the joints between the parts are watertight.



**Figure 72**

- With all the interior free you can clean the recuperator in a simple way. We recommend cleaning from top to bottom using a brush and an ash cleaner. As a lot of dust will be created, you should use all the necessary protections, such as a mask, goggles, etc.

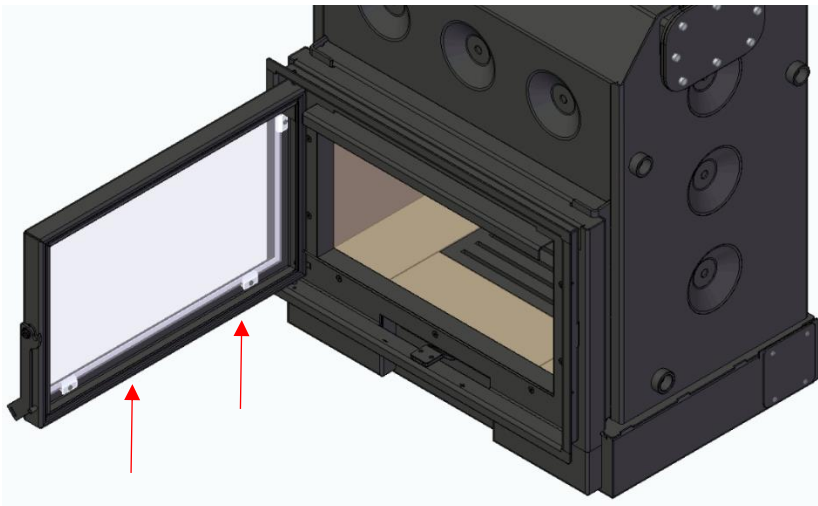


**Figure 73**

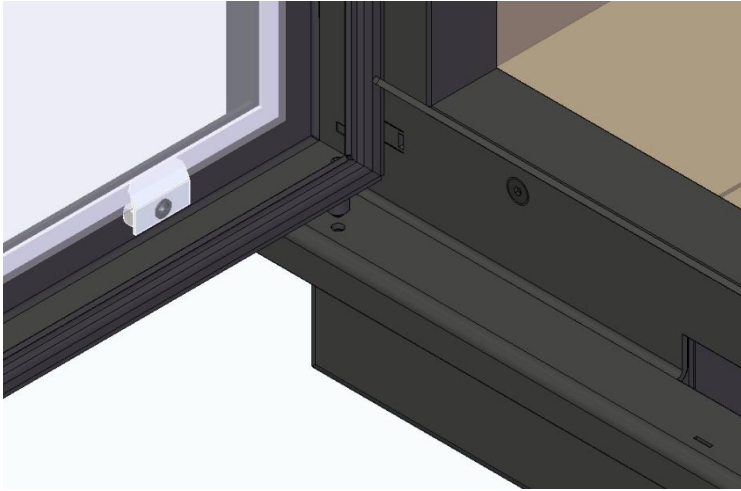
### **8.5.3. Remove the door**

To remove the door from the recuperator, you must:

- Open the door;
- Move the door upwards until the lower shaft is free.

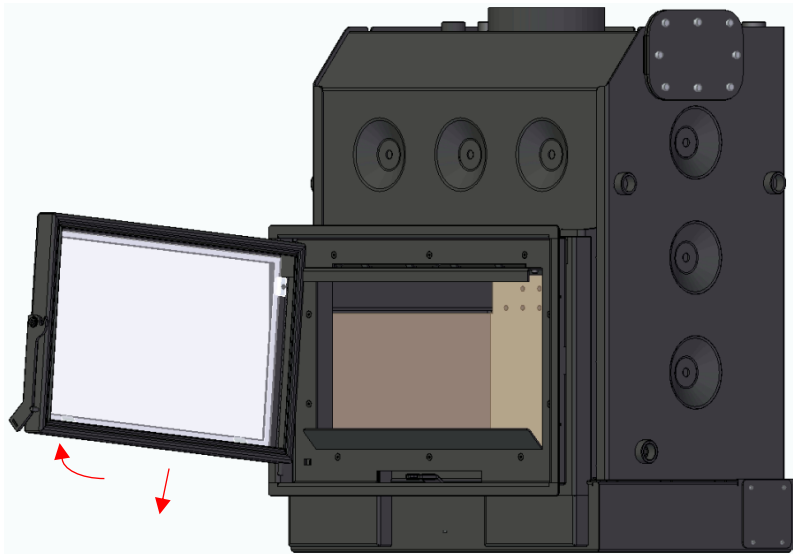


**Figure 74**



**Figure 75**

- Rotate the door slightly so that the bottom of the door is off the rim.
- Lower the door so that it can be removed from the body.



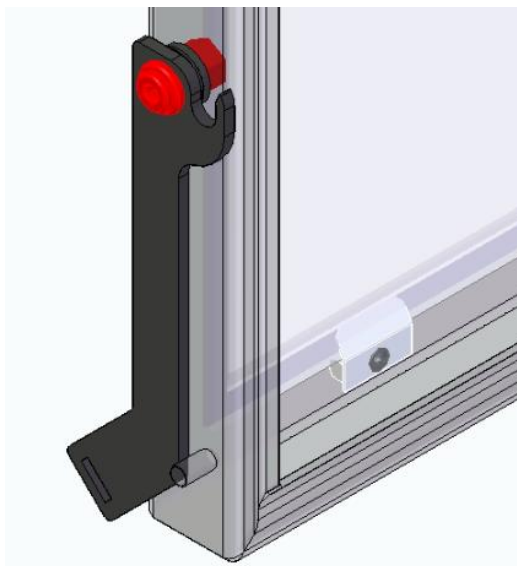
**Figure 76**



#### 8.5.4. Adjust the port

With use and over time, the cord that seals the door to the rim of the body wears out and loses qualities. To ensure that the cord continues to have the necessary pressure to ensure the tightness of the stove, the space between the door and the rim can be adjusted as follows:

- Open the door.
- The part that acts as a lock on the door is fixed by two threaded parts, one on the outside and the other on the inside of the door. In image 54 you can see them in red.
- By unscrewing these parts, you can move this mount back and forth relative to the door. Choose the desired position and re-tighten these pieces to reattach the clasp.



**Figure 77**

## 9. Troubleshooting some issues

<b>Problem</b>	<b>Solutions</b>
The glass gets dirty	<ul style="list-style-type: none"><li>. Check the humidity of the firewood (it will have to be less than 20%).</li><li>. Increase the intensity of the burning by opening the secondary air regulator a little more.</li></ul>
Excessive print run	<ul style="list-style-type: none"><li>. Reduce the intensity of combustion. To do this, close the combustion control a little more.</li><li>. Contact the installer.</li></ul>
Too poor a print, possibly spewing smoke into the room	<ul style="list-style-type: none"><li>. Check for any obstruction of the chimney.</li><li>. Clean the chimney.</li><li>. Possibility of special weather conditions.</li><li>. Contact the installer.</li></ul>
Low intensity fire	<ul style="list-style-type: none"><li>. Check the humidity of the firewood.</li><li>. Check the air intake.</li><li>. Increase the intensity of combustion. To do this, open up the combustion control a little more.</li></ul>

## 10. End of life of a recuperator

About 90% of the materials used in the manufacture of heat recuperators are recyclable, thus contributing to lower environmental impacts and contributing to the sustainable development of the Planet.

Thus, end-of-life equipment should be forwarded to licensed waste operators, so it is advisable to contact your municipality to proceed with the correct collection.

## 11. Sustainability

Solzaima conceives and designs solutions and equipment "moved" by biomass as a primary source of energy. It is our contribution to the sustainability of the planet – an economically viable and environmentally friendly alternative, safeguarding good environmental management practices in order to ensure efficient management of the carbon cycle.

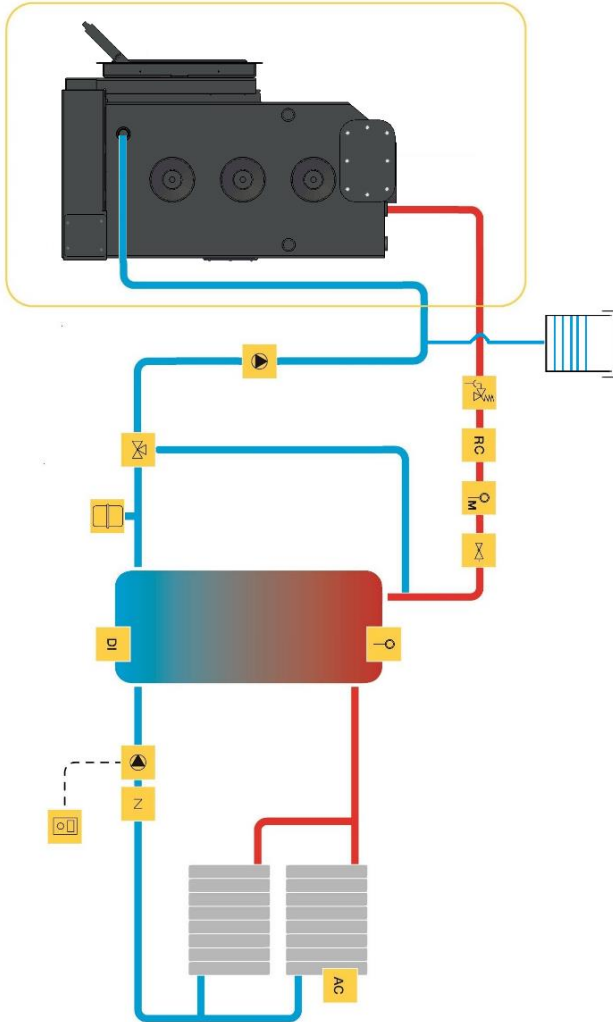
Solzaima seeks to know and study the national forest park, responding efficiently to energy requirements always with the care to safeguard biodiversity and natural wealth, essential for the quality of life of the Planet.

Solzaima is a member of Sociedade **Ponto Verde**, which manages the packaging waste of the products that the company places on the market, so you can place the packaging waste of your equipment, such as plastic and cardboard, in the ecoponto closest to your home.

## 12. Installation Schemas

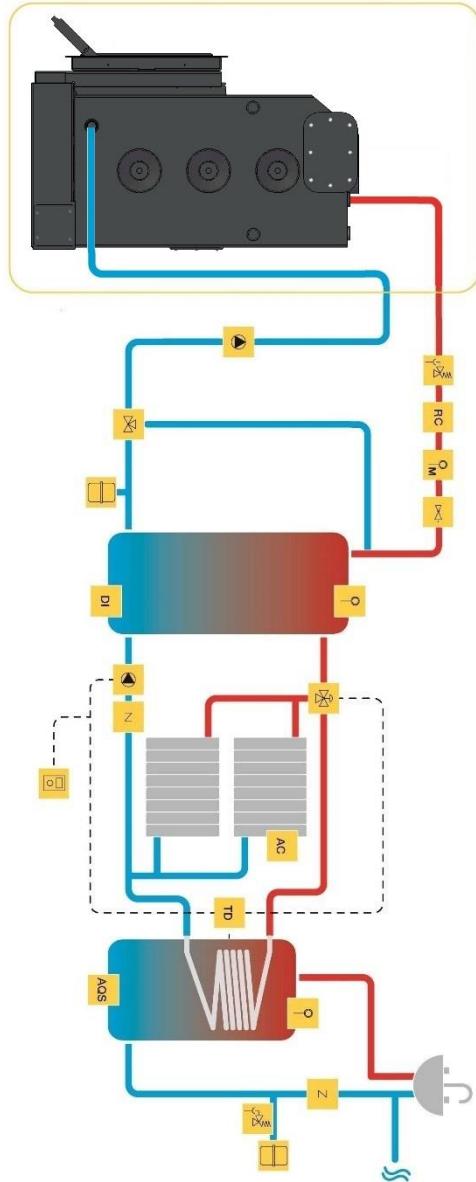
The installations illustrated below are valid for all models in this manual.

### Scheme 1 – Installation for central heating (AC).

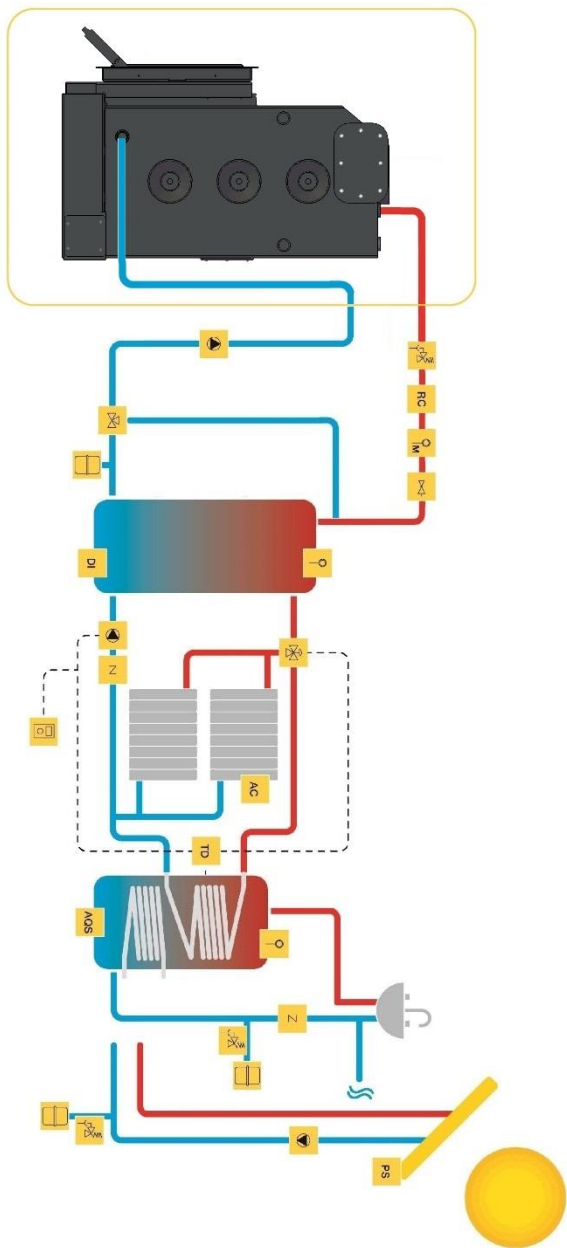


Note: in the case of installing with closed vessel put pressure and temperature discharge valve.

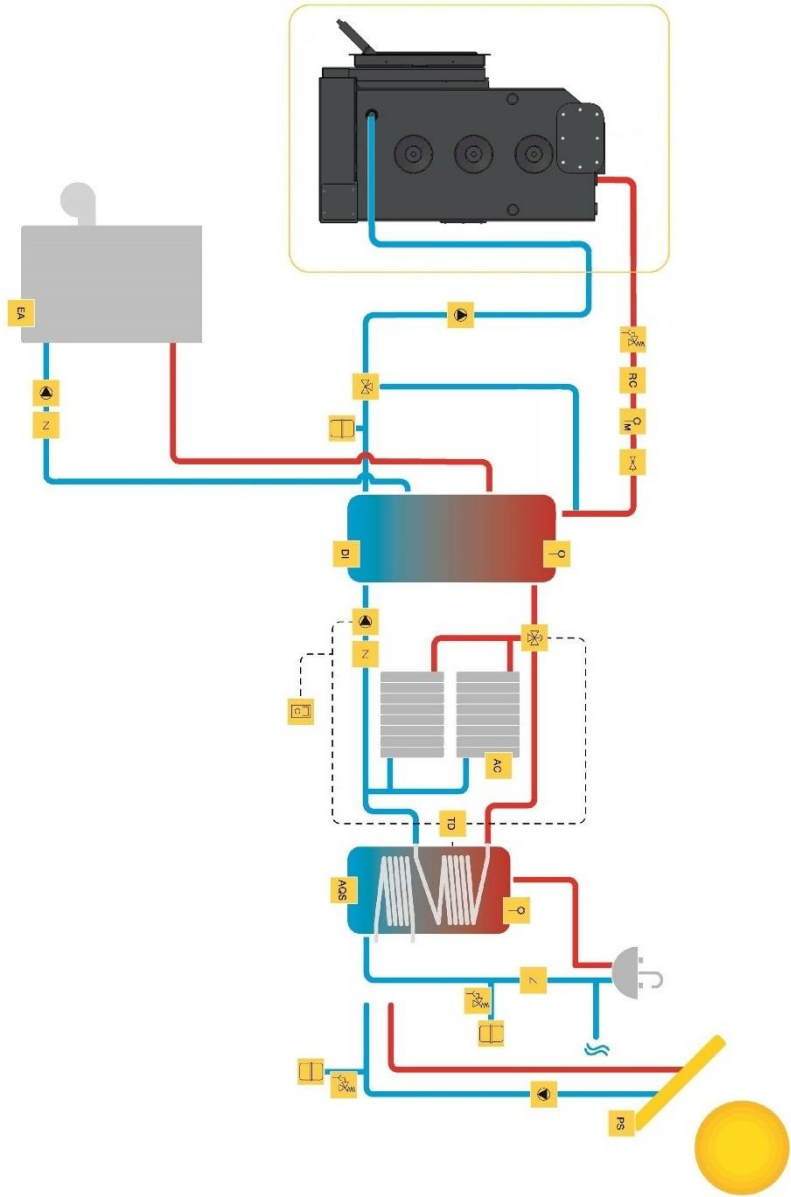
### Scheme 2 – Installation for central heating (AC) and Sanitary Hot Water (ACS)



**Scheme 3 – Installation for central heating (AC) and Sanitary Hot Water (ACS) with solar panel**



**Scheme 4 – Installtion towards heating central (AC) e ÁWaters Hot Sanitárias (ACS) com Paisolar nel e thePoio of syrupira a pellets**



## Symbology

<b>EA</b>	Equipamento de Apoio (gás, gasóleo)	<b>Z</b>	Válvula Anti-Retorno		Válvula Segurança Térmica
<b>DI</b>	Depósito de Inércia		Bomba Circulação		Válvula Segurança Pressão
<b>AQS</b>	Águas Quentes Sanitárias		Válvula 3 Vias Motorizada		Controlador Piso Radiante
<b>PS</b>	Painel Solar		Purgador Automático		Termostato Ambiente
<b>AC</b>	Aquecimento Central		Purgador Manual		Água Quente
<b>P</b>	Sensor de Pressão		Vaso Expansão Fechado		Água Fria
<b>TD</b>	Termostato Diferencial		Válvula de Esvaziar		Ligações Eléctricas
<b>PR</b>	Piso Radiante		Válvula Misturadora		Open expansion
<b>RC</b>	Regulador de Combustão		Válvula Anti-Condensação		



### 13. Glossary

- \* **bar**: unit of pressure and equals exactly 100,000 Pa. This pressure value is very close to that of the standard atmospheric pressure.
- \* **lime** (Calorie): is expressed by the amount of heat necessary to increase one degree centigrade the temperature of one gram of water.
- \* **Cava**: place where the sealing cord is placed.
- \* cm (cm): unit of measurement.
- \* **CO** (carbon monoxide): It is a slightly flammable, colorless, odorless and very dangerous gas due to its great toxicity.
- \* **CO<sub>2</sub>** (carbon dioxide): Gas on the one hand necessary for plants for photosynthesis and on the other emitted into the atmosphere, contributing to the greenhouse effect.
- \* **Combustion**: is a process of obtaining energy. Combustion is basically a chemical reaction, and for this to take place it is fundamental the existence of three elements: fuel, oxidizing and ignition temperature.
- \* **Oxidizing**: is the chemical that fuels combustion (essentially oxygen), fundamental in the combustion process.
- \* **Fuel**: it is everything that is likely to combust, in this specific case we refer to wood.
- \* **Creosote**: chemical compound processed through combustion. This compound is sometimes deposited in the glass and chimney of the recuperator.
- \* **Energy Efficiency**: ability to generate high amounts of heat with the lowest possible energy - causes less environmental impact and reduction in the energy budget.
- \* **COemissions**: emission of carbon monoxide gas into the atmosphere.
- \* **CO emissions (13% of O<sub>2</sub>)**: carbon monoxide content emitted into the atmosphere.
- \* **kcal** (Kilocalorie): multiple unit of measurement of the calorie. Equivalent to 1,000 calories.
- \* **kW** (Kilowatt): Unit of measurement corresponding to 1,000 watts.
- \* **L/h**: liters per hour.
- \* mm (mm): unit of measurement.
- \* **Pa (Pascal)**: standard unit of pressure and voltage in the International System (SI). The unit is named after Blaise Pascal, an eminent French mathematician, physicist and philosopher.

- \* **Calorific Value:** also called specific heat of combustion. It represents the amount of heat released when a given amount of fuel is burned completely. The calorific value is expressed as calories (or kilocalories) per unit weight of fuel.
- \* **Polegada:** unit of length used in the British imperial system of measurements. One inch is 2.54 centimeters or 25.4 millimeters.
- \* **Rated power:** Electrical power consumed from the power source. It is indicated in watts.
- \* **Nominal heat output:** heating capacity, i.e. the heat transfer that the equipment will make of the energy of the firewood – is measured for a standard firewood load in a given period of time.
- \* **Power of use:** it is a recommendation of the manufacturer testing the equipment with loads of firewood within the reasonable parameters of minimum and maximum operation of the equipment. This minimum and maximum power of use will have different firewood consumption per hour.
- \* **Yield:** is expressed as the percentage of "useful energy" that can be extracted from a given system, taking into account the "total energy" of the fuel used.
- \* **Ignition** temperature: temperature above which the fuel can combust.
- \* **Thermo-resistant:** resistant to high temperatures and thermal shock.
- \* **Vitroc ceramic:** high strength ceramic material produced from the controlled crystallization of glassy materials. Widely used for industrial applications.
- \* **W** (Watt): the International System (SI) unit for power.

## **14. Warranty**

### **1. Corporate name and address of the Producer and Object**

Solzaima, S.A.

Outarelos Street, 111

3750-362 Belazaima do Chao

This document does not constitute the provision by Solzaima, S.A. of a voluntary guarantee on the products produced and marketed by it (hereinafter "Product(s)"), but rather a guide, which is intended to enlighten, for the effective activation of the legal guarantee that consumers benefit from the Products (hereinafter "Guarantee"). Of course, this document does not affect the Buyer's statutory warranty rights arising from a contract of sale having as its object the Products.

### **2. Identification of the Product on which the Warranty falls**

The activation of the Warranty presupposes the prior and correct identification of the Product object of the same with Solzaima, S.A., to be promoted through the indication of the data of the packaging of the Product contained either in the respective purchase invoice, or in the plate of characteristics of the Product (model and serial number).

### **3. Product Warranty Conditions**

3.1 Solzaima, S.A. is liable to the Buyer for the lack of conformity of the Product with the respective contract of purchase and sale, within the following periods:

3.1.1 Within a period of 24 months from the date of delivery of the good, in the case of domestic use of the product, save the provisions of the following paragraph regarding intensive use;

3.1.2 A period of 6 months from the date of delivery of the goods, in the case of professional, or industrial, or intensive use of the products. Solzaima understands professional or industrial or intensive use as all products installed in industrial or commercial spaces, or whose use exceeds 1500 hours per calendar year;

3.2 A functional test of the product must be carried out before finishing the installation (pladur, masonry, coatings, paintings, among others);

3.3 No equipment can be replaced after the 1st Burning without the express authorization of the producer;

3.4 Any and all products must be repaired at the place of installation without causing serious inconvenience to the parties, save if this proves impossible, or disproportionate;

3.5 In order to exercise its rights, and provided that the deadline indicated in 3.1 is not exceeded, the Buyer must report in writing to Solzaima, S.A. the lack of conformity of the Product within a maximum period of:

3.5.160 (sixty) days from the date on which it has detected it, in the case of domestic use of the product;

3.5.230 (thirty) days from the date on which you have detected it, in the case of professional use of the Product.

3.6 In the equipment of the *pellet* family, the start-up service is required to activate the warranty. This must be recorded up to 3 months from the invoice date, or, 100 hours of work of the product (whichever occurs first);

3.7 During the Warranty period referred to in paragraph 3.1 above (and in order for it to remain valid), repairs to the Product must be exclusively carried out by the Official Technical Services of the Brand. All services provided under this Guarantee will be performed from Monday to Friday within the hours and work schedule legally established in each region.

3.8 All requests for assistance must be submitted to the Customer Service of Solzaima, S.A., through the form present on the [www.solzaima.pt](http://www.solzaima.pt) Website, or, e-mail: [apoio.cliente@solzaima.pt](mailto:apoio.cliente@solzaima.pt). At the time of performing the technical assistance to the Product, the Buyer must present, as a document proving the Product Warranty, the purchase invoice of the same or another document demonstrating its acquisition. In any case, the document proving the purchase of the Product must contain the identification of the same (as referred to in 2 above) and its date of acquisition. Alternatively and in order to validate the Product Warranty may be used the PSR - document proving the start of the machine (when applicable).

3.9 The Product must be installed by a qualified professional for this purpose, in accordance with the regulations in force in each geographical area, for installation of these Products and complying with all regulations in force, namely those concerning chimneys, as well as other applicable regulations for aspects such as water supply, electricity and / or others related to the equipment or sector and as described in the instruction manual.

An installation of a Product that does not comply with the manufacturer's specifications and/or that does not comply with the legal regulations on this matter, will not give rise to the application of this Warranty. Whenever a Product is installed outside, it must be protected against meteorological effects, namely rain and winds. In these cases, it may be necessary to protect the appliance by means of a cabinet, or, properly ventilated protective box.

Appliances should not be installed in places containing chemicals in their atmosphere, saline environments or with high humidity contents, as the mixture of these with the air can produce rapid corrosion in the combustion chamber. In this type of environment it is especially recommended that the appliance be protected with anticorrosive products for this purpose, especially between operating seasons. As a suggestion, it is indicated the application of graphite greases indicated for high temperatures with lubrication function and anti-corrosion protection.

3.10 In the equipment belonging to the *pellet* family, in addition to the daily and weekly maintenance that is contained in the instruction manual, it is also mandatory to carry out the cleaning, inside and its smoke evacuation chimney. These tasks should be carried out for every 600-800 kg of pellets consumed, in the case of salamanders (air and water) and compact boilers, and for every 2000-3000 kg of *pellets* consumed, in the case of automatic boilers. If these quantities are not consumed, at least systematic preventive maintenance shall be carried out on an annual basis.

3.11 It is the Buyer's responsibility to ensure that periodic maintenance is carried out, as indicated in the instruction and handling manuals accompanying the Product. Whenever requested, it must be proven by the presentation of the technical report of the entity responsible for it, or, alternatively, by the registration of the same in the instruction manual in the dedicated section.

3.12 To avoid damage to equipment caused by overpressure, safety elements such as pressure safety valves and/or thermal discharge valves, if applicable, as well as an expansion vessel adjusted to the installation must be ensured at the time of installation, and its correct functioning must also be ensured. It should be noted that: the valves referenced must have a value equal to or less than the pressure supported by the equipment; there shall be no shut-off valve between the equipment and the respective safety valve; a systematic preventive maintenance plan should be provided for to attest

to the proper functioning of those security features; Regardless of the type of appliance, all safety valves should be piped to siphoned sewer to prevent damage to the dwelling by water discharges. The Product Warranty does not include damage caused by the non-channeling of the water discharged by said valve.

3.13 To avoid damage to the equipment and attached piping by galvanic corrosion, it is advisable to use dielectric separators (cuffs) in the connection of the equipment to metal pipes whose characteristics of the applied materials potentiate this type of corrosion. The Product Warranty does not include damage caused by the non-use of such dielectric separators.

3.14 The water or thermofluid used in the heating system (Hydro salamanders, boilers, central heating recuperators, among others) must comply with the current legal requirements, as well as ensure the following physical-chemical characteristics: absence of solid particles in suspension; low level of conductivity; residual hardness of 5 to 7 French degrees; neutral pH, close to 7; low concentration of chlorides and iron; and absence of air intakes due to depression or others. If the installation enhances an automatic water make-up, it must consider upstream a preventive treatment system composed of filtration, descaling and preventive dosing of polyphosphates (scale and corrosion), as well as a degassing step, if necessary. If under any circumstances any of these indicators presents values outside the recommended, the Guarantee will cease to have effect. It is also mandatory to place a non-return valve between the automatic filling valve and the mains water supply, as well as that the said supply always has constant pressure, even with lack of electricity, not depending on lifting pumps, autoclaves, or others.

3.15 Except in the cases expressly provided for by law, a warranty intervention does not renew the warranty period of the Product. The rights arising from the Warranty are not transferable to the purchaser of the Product.

3.16 The equipment must be installed in accessible places and without risk to the technician. The means necessary for access to them will be made available by the Buyer, being in charge of any charges arising therefrom.

3.17 The Warranty is valid for the Products and equipment sold by Solzaima SA only and exclusively within the geographical and territorial area of the country where the sale of the Product was made by Solzaima.

#### **4.Circumstances excluding the application of the Guarantee**

The following cases are excluded from the Warranty, and the total cost of the repair shall be borne by the Buyer:

4.1.Products with more than 2000 operating hours;

4.2.Refurbished and resold products.

4.3.Maintenance operations, adjustments of the Product, start-ups, cleaning, elimination of errors or anomalies that are not related to deficiencies of equipment components and replacement of batteries;

4.4.Components in direct contact with fire such as: vermiculite supports, deflector or protective plates, vermiculite, sealing beads, burners, ash drawers, wood trimming, smoke registers, ash grates, the wear of which is directly related to the conditions of use.

Degradation of the paint, as well as the appearance of corrosion due to its degradation, due to excess fuel load, use of open drawer or excessive drawing of the chimney of the installation (the chimney must respect the draught advised in the Technical Sheet-SFT of the Product). The breaking of the glass by improper handling or other reason unrelated to deficiency of the Product. In the *pellet* family equipment the ignition resistances are a wear piece, so they only have a warranty of 6 months, or 1000 lights (whichever occurs first);

4.5.Components considered to be wearable, such as bearings, bearings and bearings;

4.6.Deficiencies of components external to the Product that may affect its correct functioning, as well as material or other damage (e.g. tiles, roofs, waterproofed roofs, piping, or, personal injury) caused by the improper use of materials in the installation or by the non-execution of the installation in accordance with the rules of installation of the Product, applicable regulations or rules of good art, in particular, when the application of piping appropriate to the temperature in use, expansion vessels, non-return valves, safety valves, anti-condensation valves, among others, has not been promoted;

4.7.Products whose operation has been affected by failures or deficiencies of external components or by poor sizing;

4.8. Defects caused by the use of accessories or replacement components other than those determined by Solzaima, S.A.;

4.9. Defects arising from non-compliance with the instructions for installation, use and operation or from applications that do not conform to the use for which the Product is intended, or from abnormal climatic factors, from extraneous operating conditions, overload or from improperly performed maintenance or cleaning;

4.10. Products that have been modified or handled by persons outside the Official Technical Services of the brand and consequently without explicit authorization from Solzaima, S.A.;

4.11. As breakdowns caused by external agents (rodents, birds, spiders, etc.), atmospheric and/or geological phenomena (earthquakes, storms, frosts, hail, thunderstorms, rains, etc.), aggressive humid or saline environments (e.g. proximity to the sea or river), as well as those derived from excessive water pressure, inadequate electrical supply (voltage with variations greater than 10%, compared to the nominal value of 230V, or, voltage in neutral greater than 5V, or, absence of ground protection), pressure or supply of inadequate circuits, acts of vandalism, urban clashes and armed conflicts of any kind, as well as derivatives;

4.12. The non-use of fuel recommended by the manufacturer is a condition of exclusion from the Warranty;

Explanatory note: In the case of *pellet* appliances the spent fuel must be certified by EN 14961-2 grade A1. Also, before buying large quantities you should test the fuel to see how it behaves.

In firewood equipment this must have a moisture content of less than 20 %.

4.13. the appearance of condensation, either by poor installation or by the use of fuels other than virgin firewood (such as pallets or wood impregnated with paints or varnishes, salt or other components), which may contribute to the accelerated degradation of the equipment, especially its combustion chamber;

4.14. All Products, Components or components damaged in transport or installation;

4.15. As cleaning operations carried out on the appliance or its components, caused by condensation, fuel quality, poor fit or other circumstances of the place where it is installed.



Likewise, interventions for the decalcification of the Product (the elimination of limestone or other materials deposited inside the appliance and produced by the quality of the water supply) are excluded from the Guarantee. Likewise, interventions to purge air from the circuit or unlock circulator pumps are excluded from this Warranty.

4.16. The installation of the equipment supplied by Solzaima, S.A. must include the possibility of easy removal of the same, as well as access points to the mechanical, hydraulic and electronic components of the equipment and the installation. When the installation does not allow immediate and safe access to the equipment, the additional costs of means of access and security will always be borne by the Buyer. The cost of disassembling and assembling crates of plasterboard boards or masonry walls, insulation or other elements such as chimneys and hydraulic connections that prevent free access to the Product (if the Product is installed inside a plasterboard, masonry or other dedicated space must respect the dimensions and characteristics indicated in the instruction and use manual accompanying the appliance).

4.17. Interventions of information or clarification to the home on the use of its heating system, programming and/or reprogramming of regulation and control elements, such as thermostats, regulators, programmers, etc.;

4.18. Fuel adjustment interventions in *pellet* appliances, cleaning, detection of water leakage in pipes external to the appliance, damage caused by the need to clean the machines or chimneys for the evacuation of gases;

4.19. Emergency interventions not included in the provision of the Guarantee, i.e., interventions of weekends and holidays because they are special interventions not included in the coverage of the Guarantee and that therefore have an additional cost, will be carried out exclusively at the express request of the Buyer and upon availability of the Producer.

## **5. Inclusion of the Warranty**

Solzaima, S.A. will correct, at no charge to the Buyer, the defects covered by the Warranty, by repairing the Product. The replaced Products or Components will become the property of Solzaima, S.A.

## **6. Responsibility of Solzaima, S.A.**

Without prejudice to what is legally established, the liability of Solzaima, S.A., in terms of warranty, is limited to that established in these Warranty conditions.

### **7. Tariff Services performed outside the scope of Warranty**

Interventions carried out outside the scope of the Guarantee are subject to the application of the tariff in force.

### **8. Warranty Services performed outside scope Warranty**

Interventions carried out outside the scope of the Warranty carried out by Solzaima's official technical assistance service have a 6-month warranty.

### **9. Warranty Spare Parts supplied by Solzaima**

The Parts supplied by Solzaima, in the scope of the commercial sale of spare parts, that is, not incorporated in the equipment do not have a warranty.

### **10. Replaced Parts scope Technical Assistance Service**

Used Parts from the moment they are removed from the equipment set acquire the status of waste. Solzaima, as a producer of waste within the scope of its activity, is obliged by the legislation in force to deliver it to a licensed entity that carries out the necessary waste management operations in accordance with the law and therefore prevented from giving them another destination, whatever it may be. Therefore, the customer will be able to view the used parts resulting from the service, but will not be able to keep them in his possession.

### **11. Administrative Expenditure**

In the case of invoices for services developed whose payment is not made within the stipulated period, default interest will be added at the maximum legal rate in force.

### **12. Competent Court**

For the resolution of any dispute arising from the contract of sale having as its object the Products covered by the Guarantee, the Contractors assign exclusive jurisdiction to the jurisdiction of the district of Águeda, with express waiver of any other.

## 15. Declaration of Performance

DECLARAÇÃO DE DESEMPENHO | DECLARACIÓN PRESTACIONES | DECLARATION OF PERFORMANCE |  
DÉCLARATION DE PERFORMANCE | DICHIARAZIONE DELLE PRESTAZIONI

Nº DD-078

1. Código de identificação único do produto-tipo | Código de identificación único del tipo de producto  
| Unique identification code of the product type | Le code d'identification unique du type de produit |  
Codice unico di identificazione del tipo di prodotto

ECOFOGO ECO PRETO – EAN 05600990471924  
ECOFOGO ECO CINZA – EAN 05600990471926  
MYTHO ECO – EAN 05600990468634  
MYTHO ECO - PORTA VERTICAL – EAN 05600990471733  
ZAIMA ECO PRETO – EAN 05600990471764  
ZAIMA ECO CINZA – EAN 05600990471771

2. Número do tipo, lote ou série do produto | Número de tipo, lote o serie del producto | Number of  
type, batch or serial product | Nombre de type, de lot ou de série du produit | Numero di tipo, di lotto,  
di serie del prodotto

3. Utilização prevista | Uso previsto | Intended use | Utilisation prévue | Destinazione d'uso

AQUECIMENTO DE EDIFÍCIOS DE HABITAÇÃO COM POSSIBILIDADE DE FORNECIMENTO DE ÁGUA QUENTE | CALEFACCIÓN DE EDIFICIOS  
RESIDENCIALES COM POSIBILIDAD DE SUMINISTRO DE AGUA CALIENTE | HEATING OF RESIDENTIAL BUILDINGS WITH POSSIBILITY OF HOT  
WATER SUPPLY | CHAUFFAGE DE BATIMENTS RESIDENTIELS AVEC LA POSSIBILITE DE L'APPROVISIONNEMENT EN EAU CHAUDE |  
RISCALDAMENTO DEGLI EDIFICI RESIDENZIALI CON POSSIBILITÀ DI ACQUA CALDA

4. Nome, designação comercial registada e endereço de contacto do fabricante | Nombre, marca  
registrada y la dirección de contacto de lo fabricante | Name, registered trade name and contact  
address of the manufacturer | Nom, marque déposée et l'adresse de contact du fabricant | Nome,  
denominazione commerciale registrata e Indirizzo del costruttore

SOLZAIMA, SA  
RUA DOS OUTARELOS, Nº111  
3750-362 BELAZAIMA DO CHÃO – ÁGUEDA – PORTUGAL

5. Sistema de avaliação e verificação da regularidade do desempenho do produto | Sistema de  
evaluación y verificación de constancia de las prestaciones del prodoto | System of assessment and  
verification of constancy of the product | Système d'évaluation et de vérification de la Constance des  
performances du produit | Sistema di valutazione e verifica della costanza della prestazione del prodotto

SISTEMA 3

6. Norma Harmonizada | Estandár armonizado | Harmonized standard | Norme harmoisée | Standard  
armonizzata

EN 13229

7. Nome e número de identificação do organismo notificado | Nombre y número de identificación del  
organismo notificado | Name and identification number of the notified body | Nom et numéro  
d'identification de l'organisme notifié | Nome e numero di identificazione dell'organismo notificato

CEIS – CENTRO DE ENSAYOS INOVACION Y SERVICIOS  
NB: 1722

8. Relatório de ensaio | Informe de la prueba | Test report | Rapport d'essai | Rapporto di prova

CEE/0026/21-1

9. Desempenho declarado | Desempeño declarado | Declared performance | Performance déclarée | Dichiarazione di prestazione

<p>Características essenciais   Características esenciales   Essencial characteristics   Caractéristiques essentielles   Caratteristiche essenziali</p>	<p>Desempenho   Desempeño   Performance   Prestazione</p>	<p>Especificações técnicas harmonizadas   Especificaciones técnicas armonizadas   Harmonized technical specifications   Spécifications techniques harmonisées   Specifiche tecniche armonizzate</p>
<p>Segurança contra incêndio   Seguridad contra incendios   Fire safety   Sécurité incendie   Sicurezza antincendio</p>	<p><b>OK.</b> De acordo com relatório de ensaio   De acuerdo con informe de la prueba   According to the test report   Selons le rapport d'essai   Secondo i rapporto di prova <b>CEE/0026/21-1</b></p>	<p>De acordo com os requisitos   De acuerdo con los requisitos   According to the requirements   Selons les exigences   Secondo i requisiti 4.2, 4.3, 4.7, 4.8, 4.10, 4.11,4.15, 5.2, 5.5, 5.6, 5.9, 5.10, 6.11 (EN13229)</p>
<p>Emissão de produtos da combustão   La emisión de productos de combustión   Emission of combustion products   Emission des produits de combustion   Emissione dei prodotti di combustione</p>	<p><b>OK.</b> Caudal térmico nominal   Caudal térmico nominale   Nominal heat output   Le débit calorifique nominal   Nominal heat output   Flusso termico nominale <b>-CO: 0,0668%</b></p>	<p>Caudal térmico nominal   Caudal térmico nominale   Nominal heat output   Le débit calorifique nominal   Nominal heat output   Flusso termico nominale <b>-CO &lt; 1%</b></p>
<p>Libertação de substâncias perigosas   Emisión de sustancias peligrosas   Release of dangerous substances   Dégagement de substances   Rilascio di sostanze pericolose</p>	<p><b>OK.</b> De acordo com relatório de ensaio   De acuerdo con informe de la prueba   According to the test report   Selons le rapport d'essai   Secondo i rapporto di prova <b>CEE/0026/21-1</b></p>	<p>De acordo com o Anexo ZA.1 (EN13229)   De acuerdo con lo Anexo ZA.1 (EN13229)   According to the Annex ZA.1 (EN13229)   Selons le Annexe ZA.1 (EN13229)   Secondo l'allegato ZA.1 (EN13229)</p>
<p>Temperatura de superfície   Temperatura de la superficie   Surface temperature   La température de surface   Temperatura superficiale</p>	<p><b>OK.</b> De acordo com relatório de ensaio   De acuerdo con informe de la prueba   According to the test report   Selons le rapport d'essai   Secondo i rapporto di prova <b>CEE/0026/21-1</b></p>	<p>De acordo com os requisitos   De acuerdo con los requisitos   According to the requirements   Selons les exigences   Secondo i requisiti 4.2, 4.13, 5.2, 5.3, 5.6, 5.10 (EN3229)</p>
<p>Pressão máxima de serviço   Presión máxima de trabajo   Maximum working pressure   Pression de service maximale   Pressione massima di esercizio</p>	<p><b>OK.</b>  <b>3 bar</b></p>	<p>De acordo com os requisitos   De acuerdo con los requisitos   According to the requirements   Selons les exigences   Secondo i requisiti 4.2, 5.7,5.8 (EN13229)</p>
<p>Resistência mecânica   Resistencia mecánica   Mechanical strength   résistance   Resistenza meccanico</p>	<p><b>OK.</b> De acordo com relatório de ensaio   De acuerdo con informe de la prueba   According to the test report   Selons le rapport d'essai   Secondo i rapporto di prova <b>CEE/0026/21-1</b> A cada 10 m de conduta de fumos deve ser colocado um suporte de carga   cada 10 m de la salida de humos se debe colocar un soporte de carga   every 10 m of the flue should be placed a load support   tous les 10 m de conduit de fumée</p>	<p>De acordo com os requisitos   De acuerdo con los requisitos   According to the requirements   Selons les exigences   Secondo i requisitos 4.2, 4.3(EN13229)</p>

	doit être placé un support de charge   ogni 10 m della canna fumaria deve essere posto un supporto di carico	
Rendimento energético   Eficiencia energética   Energy efficiency   L'efficacité énergétique   Efficienza energetica	<b>OK.</b>  <b>80%</b>	<b>≥ 30%</b> para potência térmica nominal   de potencia térmica nominal   for rated thermal input   Pour puissance thermique nominale   di potenza termica nominale

10. O desempenho do produto declarado nos pontos 1 e 2 é conforme com o desempenho declarado no ponto 9. A presente declaração de desempenho é emitida sob exclusiva responsabilidade do fabricante identificado no ponto 4. | El funcionamiento del producto se indica en los puntos 1 y 2 es compatible con las prestaciones declaradas en el punto 9. La presente declaración se expide bajo la exclusiva responsabilidad del fabricante identificado en lo punto 4. | Performance of the product stated in points 1 and 2 is consistent with the declared performance in point 9. This declaration of performance is issued under the sole responsibility of the manufacturer identified in point 4. | Les performances du produit indiqué dans les points 1 et 2 est compatible avec les performances declares au point 9. Cette declaration de performance est établie sous la seule responsabilité du fabricant identifié dans le point 4. | Le prestazioni dei prodotti indicati ai punti 1 e 2 è conforme alla prestazione dichiarata al punto 9. Questa dichiarazione di prestazione è rilasciata sotto l'esclusiva responsabilità del fabbricante di cui al punto 4.

Nome e cargo | Nombre y cargo | Name and title | Nom et titre | Nome e titolo Belazaima do Chão, 25/05/2021  
Nuno Sequeira (Director Geral | CEO)

DECLARAÇÃO DE DESEMPENHO | DECLARACIÓN PRESTACIONES | DECLARATION OF PERFORMANCE |  
DÉCLARATION DE PERFORMANCE | DICHIARAZIONE DELLE PRESTAZIONI

Nº DD-079

1. Código de identificação único do produto-tipo | Código de identificación único del tipo de producto  
| Unique identification code of the product type | Le code d'identification unique du type de produit |  
Codice unico di identificazione del tipo di prodotto

ACQUA ECO – EAN 05600990471740

ACQUA ECO – PORTA VERTICAL – EAN 05600990471757

2. Número do tipo, lote ou série do produto | Número de tipo, lote o serie del producto | Number of  
type, batch or serial product | Nombre de type, de lot ou de série du produit | Numero di tipo, di lotto,  
di serie del prodotto

3. Utilização prevista | Uso previsto | Intended use | Utilisation prévue | Destinazione d'uso

aquecimento de edifícios de habitação com possibilidade de fornecimento de água quente |  
CALEFACCIÓN DE EDIFICIOS RESIDENCIALES COM POSIBILIDAD DE SUMINISTRO DE AGUA CALIENTE | HEATING OF  
RESIDENTIAL BUILDINGS WITH POSSIBILITY OF HOT WATER SUPPLY | CHAUFFAGE DE BATIMENTS RESIDENTIELS  
AVEC LA POSSIBILITÉ DE L'APPROVISIONNEMENT EN EAU CHAUDE | RISCALDAMENTO DEGLI EDIFICI RESIDENZIALI  
CON POSSIBILITÀ DI ACQUA CALDA

4. Nome, designação comercial registada e endereço de contacto do fabricante | Nombre, marca  
registrada y la dirección de contacto de lo fabricante | Name, registered trade name and contact  
address of the manufacturer | Nom, marque déposée et l'adresse de contact du fabricant | Nome,  
denominazione commerciale registrata e Indirizzo del costruttore

SOLZAIMA, SA

RUA DOS OUTARELOS, Nº 111

3750-362 BELAZAIMA DO CHÃO – ÁGUEDA – PORTUGAL

5. Sistema de avaliação e verificação da regularidade do desempenho do produto | Sistema de  
evaluación y verificación de constancia de las prestaciones del producto | System of assessment and  
verification of constancy of the product | Système d'évaluation et de vérification de la Constance des  
performances du produit | Sistema di valutazione e verifica della costanza della prestazione del prodotto

SISTEMA 3

6. Norma Harmonizada | Estandár armonizado | Harmonized standard | Norme harmoisée | Standard  
armonizzata

EN 13229

7. Nome e número de identificação do organismo notificado | Nombre y número de identificación del  
organismo notificado | Name and identification number of the notified body | Nom et numéro  
d'identification de l'organisme notifié | Nome e numero di identificazione dell'organismo notificato

CEIS – CENTRO DE ENSAYOS INOVACION Y SERVICIOS

NB: 1722

8. Relatório de ensaio | Informe de la prueba | Test report | Rapport d'essai | Rapporto di prova

9. Desempenho declarado | Desempeño declarado | Declared performance | Performance déclarée | Dichiarazione di prestazione

Características essenciais   Características esenciales   Essencial characteristics   Caractéristiques essentielles   Caratteristiche essenziali	Desempenho   Desempeño   Performance   Prestazione	Especificações técnicas harmonizadas   Especificaciones técnicas armonizadas   Harmonized technical specifications   Spécifications techniques harmonisées   Specifiche tecniche armonizzate
Segurança contra incêndio   Seguridad contra incendios   Fire safety   Sécurité incendie   Sicurezza antincendio	<b>OK.</b> De acordo com relatório de ensaio   De acuerdo con informe de la prueba   According to the test report   Selons le rapport d'essai   Secondo i rapporto di prova <b>CEE/0027/21-1</b>	De acordo com os requisitos   De acuerdo con los requisitos   According to the requirements   Selons les exigences   Secondo i requisiti 4.2, 4.3, 4.7, 4.8, 4.10, 4.11,4.15, 5.2, 5.5, 5.6, 5.9, 5.10, 6.11 (EN13229)
Emissão de produtos da combustão   La emisión de productos de combustión   Emission of combustion products   Emission des produits de combustion   Emissione dei prodotti di combustione	<b>OK.</b> Caudal térmico nominal   Caudal térmico nominale   Nominal heat output   Le débit calorifique nominal   Nominal heat output   Flusso termico nominale – <b>CO: 0,0636%</b>	Caudal térmico nominal   Caudal térmico nominale   Nominal heat output   Le débit calorifique nominal   Nominal heat output   Flusso termico nominale – <b>CO &lt; 1%</b>
Libertação de substâncias perigosas   Emisión de substâncias peligrosas   Release of dangerous substances   Dégagement de substances   Rilascio di sostanze pericolose	<b>OK.</b> De acordo com relatório de ensaio   De acuerdo con informe de la prueba   According to the test report   Selons le rapport d'essai   Secondo i rapporto di prova <b>CEE/0027/21-1</b>	De acordo com o Anexo ZA.1 (EN13229)   De acuerdo con lo Anexo ZA.1 (EN13229)   According to the Annex ZA.1 (EN13229)   Selons le Annexe ZA.1 (EN13229)   Secondo l'allegato ZA.1 (EN13229)
Temperatura de superfície   Temperatura de la superficie   Surface temperature   La température de surface   Temperatura superficiale	<b>OK.</b> De acordo com relatório de ensaio   De acuerdo con informe de la prueba   According to the test report   Selons le rapport d'essai   Secondo i rapporto di prova <b>CEE/0027/21-1</b>	De acordo com os requisitos   De acuerdo con los requisitos   According to the requirements   Selons les exigences   Secondo i requisiti 4.2, 4.13, 5.2, 5.3, 5.6, 5.10 (EN3229)
Pressão máxima de serviço   Presión máxima de trabajo   Maximum working pressure   Pression de service maximale   Pressione massima di esercizio	<b>OK.</b> <p align="center"><b>3 bar</b></p>	De acordo com os requisitos   De acuerdo con los requisitos   According to the requirements   Selons les exigences   Secondo i requisiti 4.2, 5.7,5.8 (EN13229)
Resistência mecânica   Resistencia mecânica   Mechanical strength   résistance   Resistenza meccanico	<b>OK.</b> De acordo com relatório de ensaio   De acuerdo con informe de la prueba   According to the test report   Selons le rapport d'essai   Secondo i rapporto di prova <b>CEE/0027/21-1</b> A cada 10 m de conduta de fumos deve ser colocado um suporte de carga   cada 10 m de la salida de humos se debe colocar un soporte	De acordo com os requisitos   De acuerdo con los requisitos   According to the requirements   Selons les exigences   Secondo i requisiti 4.2, 4.3(EN13229)

	de carga   every 10 m of the flue should be placed a load support   tous les 10 m de conduit de fumée doit être placé un support de charge   ogni 10 m della canna fumaria deve essere posto un supporto di carico	
Rendimento energético   Eficiencia energética   Energy efficiency   L'efficacité énergétique   Efficienza energetica	<b>OK.</b>  <b>80%</b>	<b>≥ 30%</b> para potência térmica nominal   de potencia térmica nominal   for rated thermal input   Pour puissance thermique nominale   di potenza termica nominale

10. O desempenho do produto declarado nos pontos 1 e 2 é conforme com o desempenho declarado no ponto 9. A presente declaração de desempenho é emitida sob exclusiva responsabilidade do fabricante identificado no ponto 4. | El funcionamiento del producto se indica en los puntos 1 y 2 es compatible con las prestaciones declaradas en el punto 9. La presente declaración se expide bajo la exclusiva responsabilidad del fabricante identificado en lo punto 4. | Performance of the product stated in points 1 and 2 is consistent with the declared performance in point 9. This declaration of performance is issued under the sole responsibility of the manufacturer identified in point 4. | Les performances du produit indiqué dans les points 1 et 2 est compatible avec les performances declares au point 9. Cette declaration de performance est établie sous la seule responsabilité du fabricant identifié dans le point 4. | Le prestazioni dei prodotti indicati ai punti 1 e 2 è conforme alla prestazione dichiarata al punto 9. Questa dichiarazione di prestazione è rilasciata sotto l'esclusiva responsabilità del fabbricante di cui al punto 4

Nome e cargo | Nombre y cargo | Name and title | Nom et titre | Nome e titolo Belazaima do Chão, 25/05/2021  
 Nuno Sequeira (Director Geral | CEO)



**Always read your Instruction Manual and save it for future reference**

**All Solzaima wood products have a 2-year warranty.**

**SOLZAIMA**

SOLUÇÕES DE AQUECIMENTO A BIOMASSA

**APPROVED PRODUCT**