# Instruction Manual

**English**

**Firewood Round Stove**

# Round

FOGO MONTANHA

Mod. 934-B

**Thank you for purchasing a FOGO MONTANHA appliance.**
**Please read this manual carefully and retain it for future reference.**

* All products here detailed meet the requirements of the EU Construction Products Regulation (No. 305/2011) and bear the **EC** conformity marking;

* FOGO MONTANHA disclaims any responsibility for damage to the unit when installed by non-qualified personnel;

* FOGO MONTANHA disclaims any responsibility for damage to units not installed and operated in compliance with the instructions included in this manual;

* All local regulations, including but not limited to national and European standards, must be observed when installing, operating and servicing the unit;

* FOGO MONTANHA free standing fire units are tested and found to be in compliance with the EN 13240:2002 + EN 13240:2002/A2:2005 + EN 13240:2002/AC:2006 + EN 13240:2002/A2:2005/AC:2006 standards;

* Technical support is normally provided by FOGO MONTANHA, except in special cases to be determined by the installer or support technician;

**www.fogo-montanha.com**

## CERTIFICATE OF COMPLIANCE

FOGO MONTANHA, the manufacturer of free-standing fire units hereby represents that they are the sole responsible for the compliance of all models described hereunder with the general safety requirements. Any changes made to the product without the previous written consent from the manufacturer will void the above statement.

| | |
|---|---|
| **Manufacturer** | Fogo Montanha<br>Rua da Cova da Areia, E.M. 605, 695<br>3750-071 Aguada de Cima, Portugal<br>Tel: +351 234650650 Fax: +351 234650651 |
| **Classification** | Solid fuel heating appliance; Stove |
| **Standards and Regulations Compliance** | EN13240:2002 |

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# 1. Introduction

Thank you for choosing a FOGO MONTANHA free standing fire unit. In order to get the best performance from your unit, while complying with the applicable eco-standards, carefully follow the installation and operation instructions provided in this manual. **Any damage to the unit due to non-compliance with the instructions shall void the warranty.** Any changes to the free-standing fire unit are subject to the previous written consent from the manufacturer. Only original replacement parts may be used with this unit. Following are the applicable national legislation, local building codes and standards, and fire prevention regulations.

**HIGH TEMPERATURE HEATING APPLIANCE**

**FLAMMABLE MATERIALS MUST ALWAYS BE PLACED AT LEAST 1 METRE FROM THE STOVE**

**KEEP CHILDREN AWAY FROM THE STOVE**

READ THESE INSTRUCTIONS CAREFULLY BEFORE USING YOUR STOVE

# 2. Fogo Montanha

FOGO MONTANHA's vision has always been to provide clean, renewable and more cost-effective energy. This is why we have been manufacturing biomass units and heaters for the past 40 years.

As a result of the persistence and unconditional support from a network of partners, FOGO MONTANHA is currently the leading manufacturer of biomass heating units, especially with its range of central heating stoves with back boilers.

We provide approximately 20000 homes a year with biomass heating solutions. This market has been growing at annual rate of 20%, indicating that consumers are becoming increasingly aware of ecological and more cost-effective heating solutions.

FOGO MONTANHA is the only Portuguese manufacturing company to have obtained ISO 9001 International Quality Certification and ISO 14001 International Environmental Certification – because we believe in high standards and aim to lead by example.

## 3. Technical Specifications

FOGO MONTANHA's **free standing** fires are designed as interior heating appliances. These units are easy to install and do not require any kind of finishing, thus promoting their seamless integration with the room setting.

* Technical specifications across the free-standing fire range:
    * EC Approved
    * Fuel: Dry firewood
    * Type of equipment: intermittent

* The combustion chamber and external casing of all our free-standing fires are made of first-rate carbon steel plate, with thicknesses varying between 4 mm and 1,5 mm, respectively.

* Heat-resistant ceramic glass. Withstands continuous operation temperatures of up to 750°C.

* Coated with heat-resistant paint for temperature peaks up to 900°C and operating temperatures of around 600°C.

**Figure 1 - Equipment identification - Round**

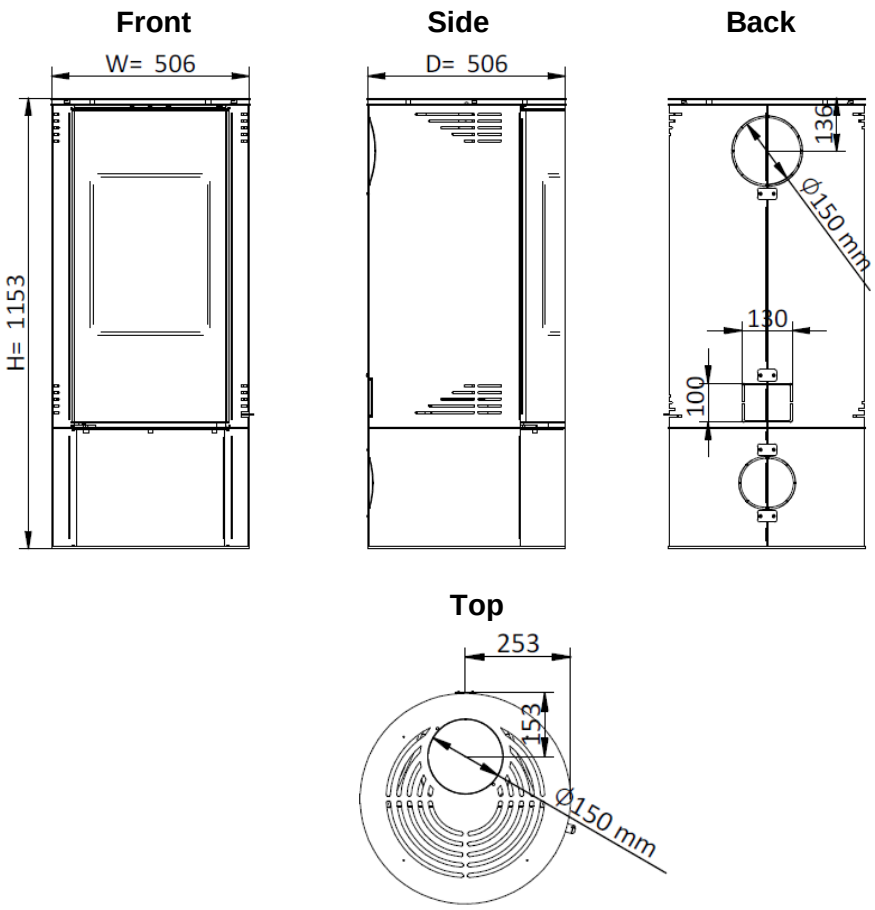



**Figure 2 - General dimensions of the Round**

| Features | Stove Round |
|---|---|
| Flue Ø (mm) | Ø 150 int. |
| Rated power (kW) | 7,3 |
| Performance (%) | 81 |
| CO emission (13%$O_2$) (%) | 0,073 |
| $CO_2$ emission (vol.-%) | 8,67 |
| Average temperature combustion products (°C) | 233 |
| Combustion flow (g/s) | 7 |
| Particles (mg/$Nm^3$13%$O_2$) | 13 |
| OCG (mg C/$m^3$) | 88 |
| NOX (mg/$m^3$) | 81 |
| Firewood consumption (kg/h) | 1,6 |
| Weight (kg) | 115 |
| Maximum heated volume ($m^3$) | 166 |
| Height (mm) | 1153 |
| Width (mm) | Ø 506 |
| Depth (mm) | Ø 506 |
| Firewood length (cm) | 30 |

**Table 1 - Technical specifications of Round stove**

# 4. Unit Components

## 4.1 Components

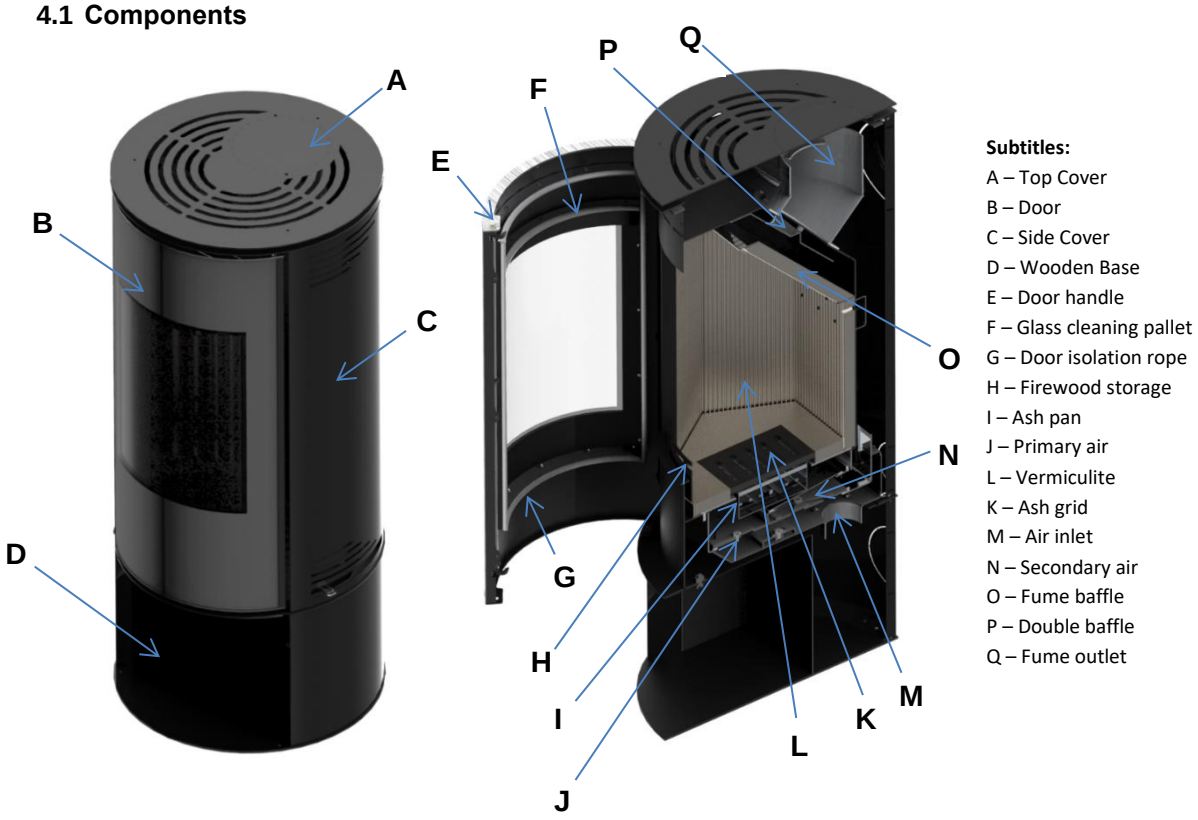



**Figure 3 A – Components of the Round stove**

**Figure 4 B – Components of the Round stove**

This key is a component that is shipped together with the equipment and has the functionality of opening the access door to the combustion chamber and removing the ash grate from the equipment for correct cleaning (Chapter 10).

To open the door correctly with the key, you must insert the opening area of the key into the pin on the upper right side of the door and turn it to the left.

An accessory - a stainless steel collar with a diameter of 152 mm - is placed in the neck for access to the smoke outlet.

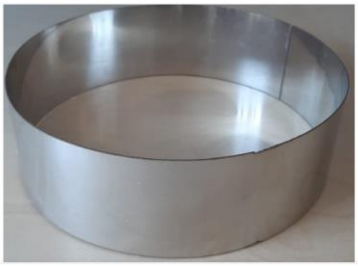


**Figure 3 C – Stainless steel neck**

### 4.2 Optional

#### 4.2.1 Fume outlet

The stove has the option of using the smoke outlet horizontally or vertically, the latter being the way in which the stove is prepared for the customer.

To convert the smoke outlet to horizontal mode, the vermiculite pieces must be removed from the combustion chamber, the double baffle must be removed by loosening the two screws that fix it, and the screws that fix the neck must be loosened. Then do the reverse process to reposition the parts you have removed.

In case of choosing the smoke outlet in the horizontal position and until the chimney is hot, depending on the depression generated by the chimney, there may be some smoke exit through the door when the equipment is turned on. For this reason, at this stage, it is recommended that with the air vent fully open, you place wood very dry and thin, closing the door of the stove until it is well lit. Then you can fully load the equipment.

#### 4.2.2 Connecting the external air inlet

If you wish to use the external air inlet, you should purchase this optional kit separately.

The purpose of this optional accessory is to establish a connection point between the equipment and the outside ambient air, thus installing a more suitable piping for this purpose. This optional accessory is intended to provide the connection of a tube that allows the equipment to be supplied with air from outside.

You can supply the equipment with outside air in the following ways:

## 1- From the back of the equipment in the lower area:

If it is at the rear of the equipment at the bottom of the side covers, as shown in Figure 5, the microdots of the side covers must be broken (M).


**Figure 5 – Rear view of the equipment; (M) section to remove for external air inlet**

Then remove the cover that blocks the external air inlet by loosening the 4 nuts as shown in Figure 6.

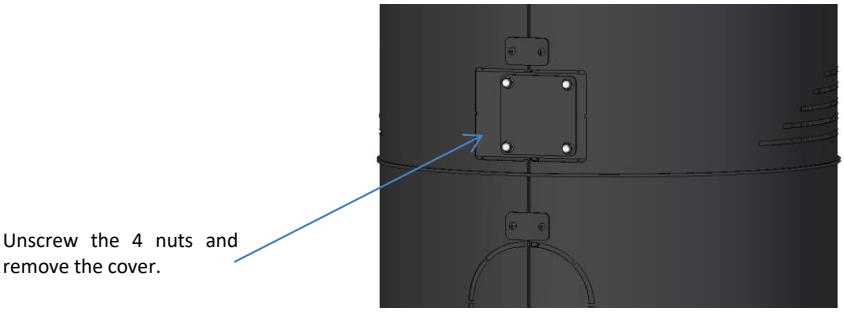



**Figure 6 – Rear view of the equipment; (M) section to remove for external air inlet**

After removing the cover, place the optional air inlet kit as shown in Figure 7, tightening the kit with the 4 nuts that come in the package.

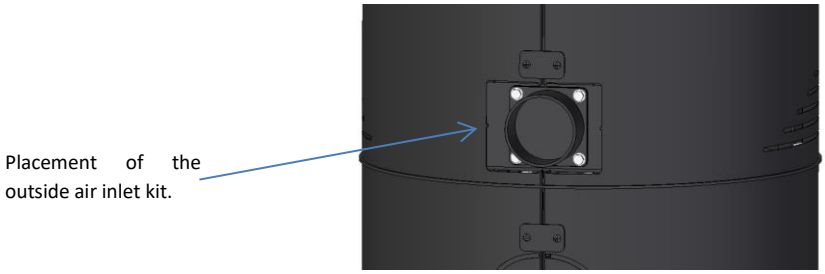
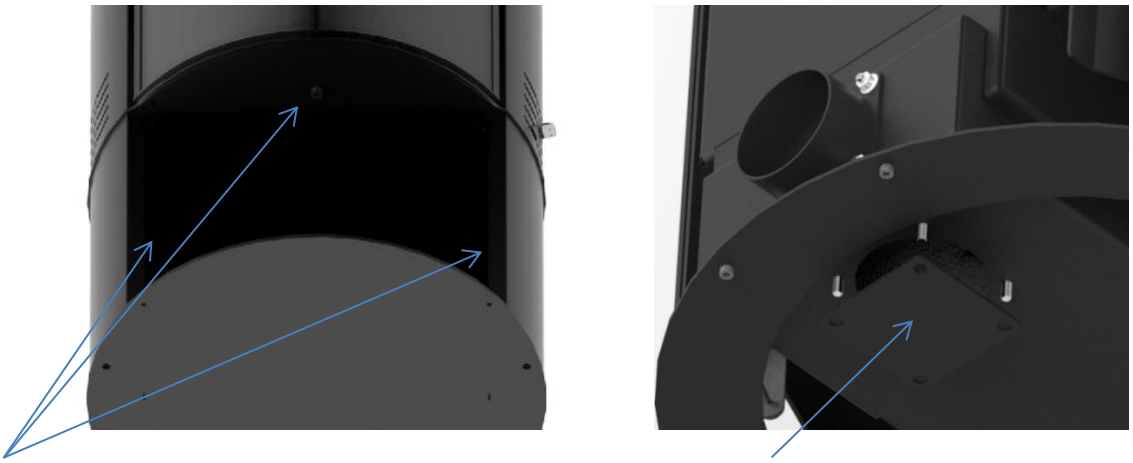



**Figure 7 – Rear view of the equipment; placement of the outside air inlet kit**

The cover that you removed to place the external air inlet kit must be placed in the lower part of the equipment, as shown in Figure 8, to do this you must loosen the 3 screws that fix the base to the equipment to have access to the place where you place the cover.

Then you must fix the cover with the 4 nuts that you removed from the rear of the equipment, thus covering the external air intake.



Loosen the 3 screws that fix the base to the equipment.

Fixing the cover, blocking the outside air intake.

**Figure 8 – Bottom view of the equipment, blocking the external air intake under the equipment**

## 2- From the base of the equipment:

If the installation of the air inlet kit is from the base of the equipment, you can choose from 2 installation zones, from the back of the base or from below the base as shown in Figure 9.

You must break the micro assemblies of the zone (M), using the option you chose to apply the kit.

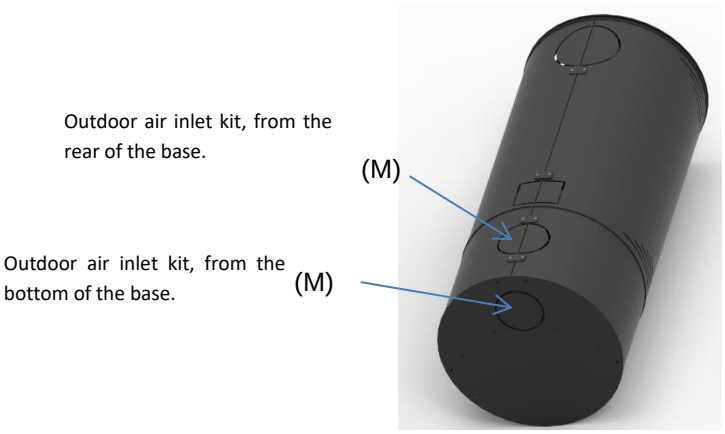
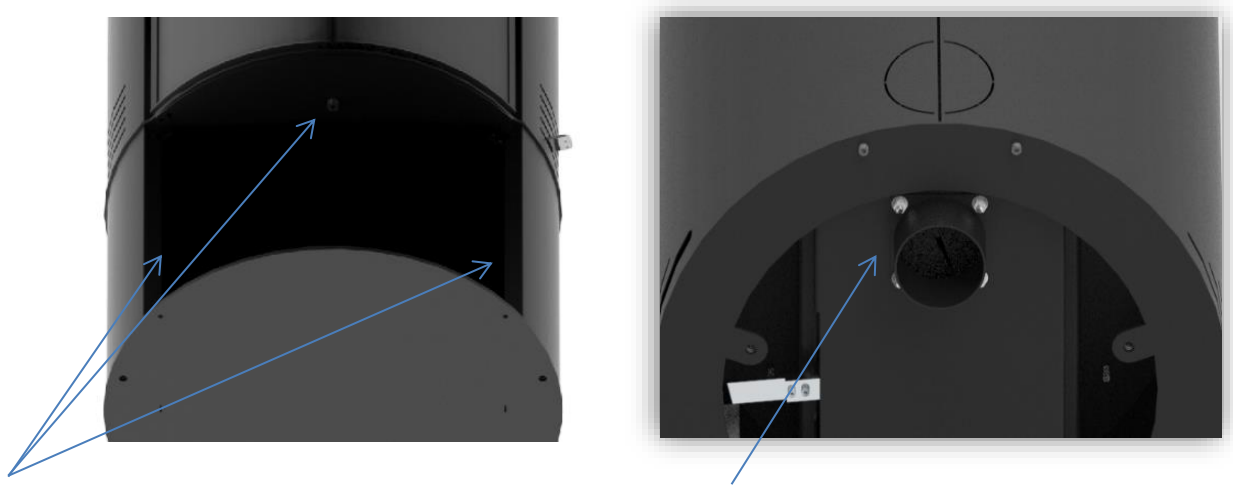



**Figure 9 – External air inlet, (M) section to be removed for external air inlet**

The external air inlet kit must be placed in the lower area of the equipment, as shown in Figure 10. To do this, loosen the 3 screws that fix the base to the equipment and apply the external air inlet kit with the 4 nuts that come in the package.



Loosen the 3 screws that fix the base to the equipment.

Attachment of the external air inlet kit.

**Figure 10 – Bottom view of the equipment, application of the external air inlet kit**

### 4.2.3 Firewood base door

If you want to put the door in the base of the equipment, you must purchase this accessory separately and must follow the following steps.

1- Using a key, carefully fold the tab on the right side of the base, so that it is perpendicular to the side, as shown in Figure 11.

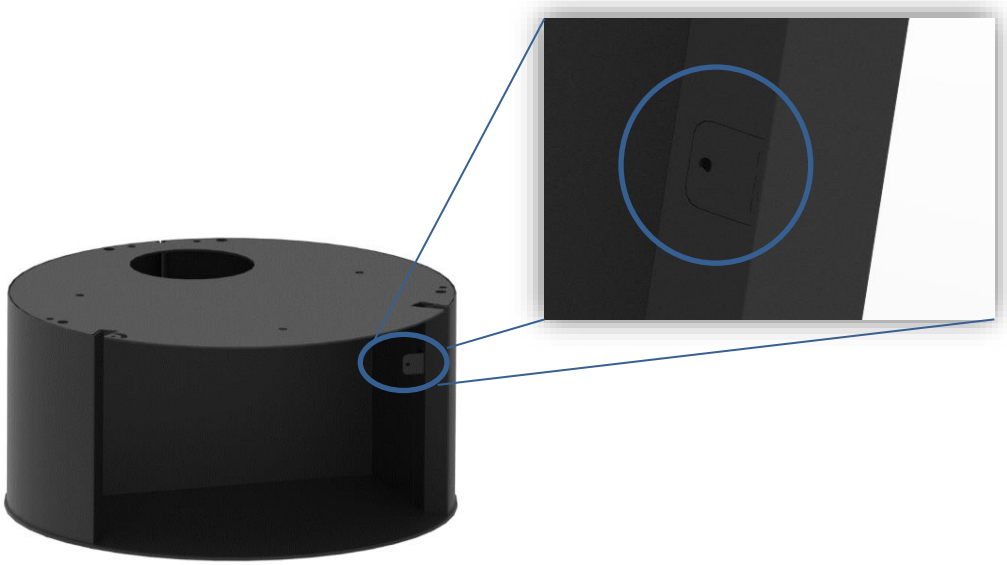


**Figure 11 – Preparation of the base of the equipment, to place the door**

2- Place the magnet on the bent tab and secure it with the nut. These accessories come with the door Figure 12.

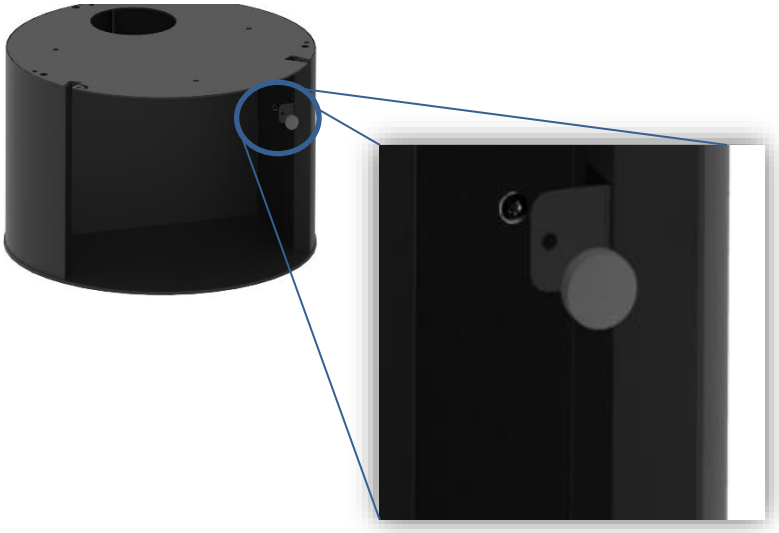
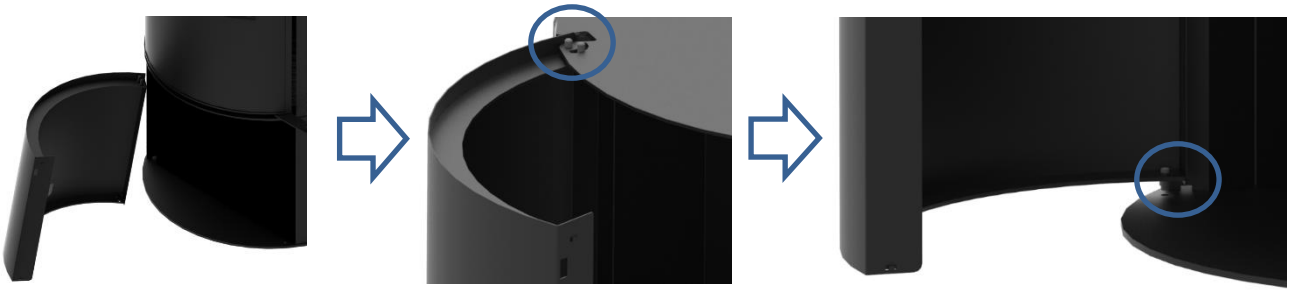


**Figure 12 – Preparation of the base of the equipment, to place the door**

3- Place the door on the base by first inserting the door axes in the upper hole of the base and then in the lower hole of the base, as shown in Figure 13.



Tilting to place the door on the base.

Place the upper axis of the door, on the upper axis of the base, with the door semi-open.

Place the lower axis of the door on the lower axis of the base.

**Figure 13 – Placing the door on the base of the equipment**

**NOTE:**

So that the door, once fitted to the base, aligns with the circumference of the equipment, you can do so by adjusting the door handle, giving more or less inclination.

You can also adjust the alignment of the door, by the tab of the base, also giving more or less inclination.

### 4.2.4 Top cover in stone

If you use the stone top in the equipment as an option, you must take into account the following situations.

**Vertical smoke outlet** - Simply fit the stone top, as shown in the following images. In this situation, you don't need the smaller piece of stone, as it will pass the pipe of the smoke outlet.

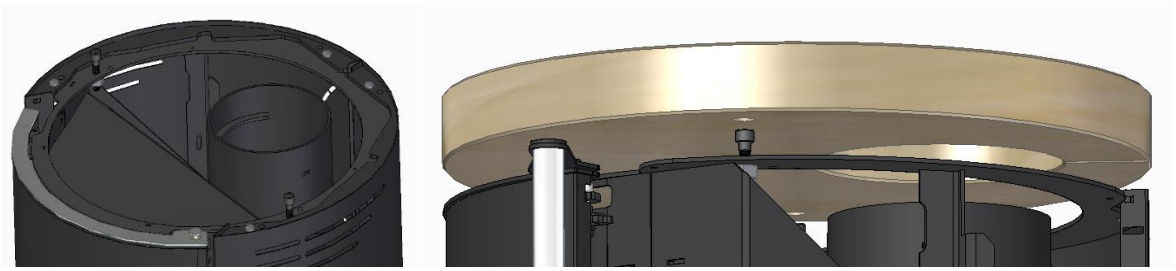


**Figure 14 – Placing the top cover on the equipment with vertical smoke outlet**

**Horizontal smoke outlet** - Place and fix the board that comes with the stone worktop with two screws.

**Figure 15 – Placing the top cover on the equipment with horizontal smoke outlet**

## 5. Assembly and Disassembly of Casings

If you need to remove the casings from the equipment, you should follow this procedure:

1- Remove the top, just lift it up, as shown in Figure 16.

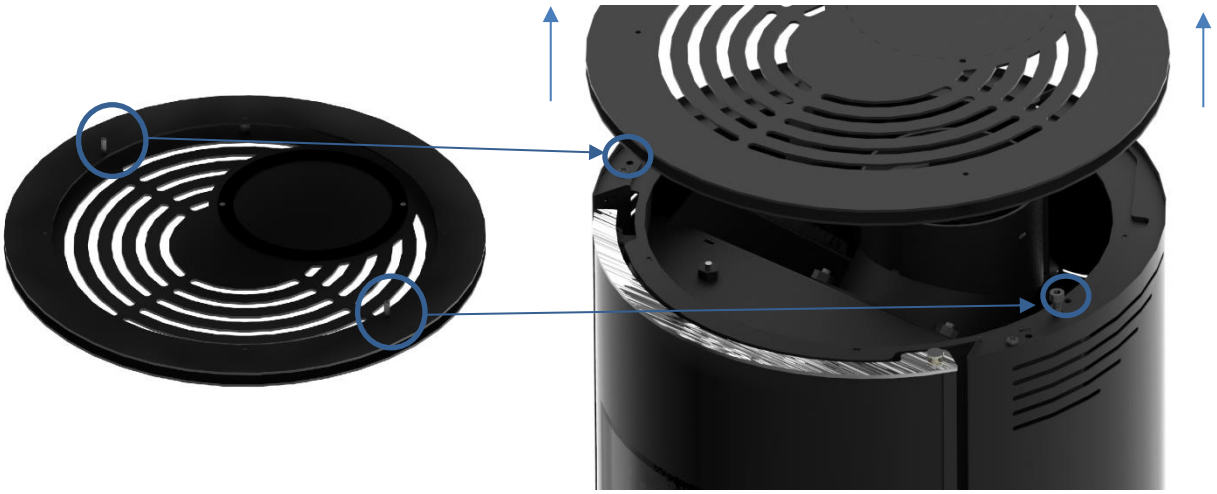


**Figure 16 – Disassemble the worktop in the equipment**

2- Loosen the screws on the upper part of the casings, as shown in Figure 17, so that the casings are free.

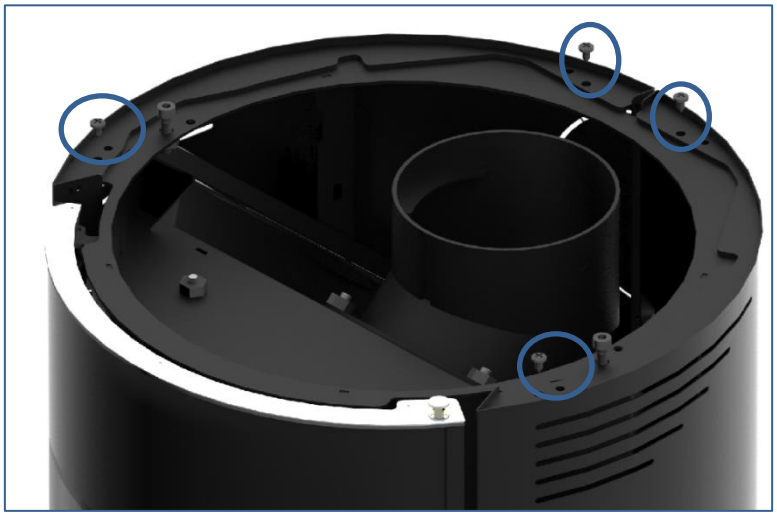


**Figure 17 – Disassembly of the side casings in the equipment**

3- Disassembly direction, to remove the casings, follow the direction of the arrows, as shown in Figure 18.

Dismantling direction of the left side casing.

Direction of disassembly of the right-side casing. Regulator side.

**Figure 18 – Disassembly of the side casings in the equipment**

4- When you are about to mount the side casings pay attention to the following, the lower area of the covers has 2 holes, these holes, must match the screws that come in the machine, you can see in Figure 19.

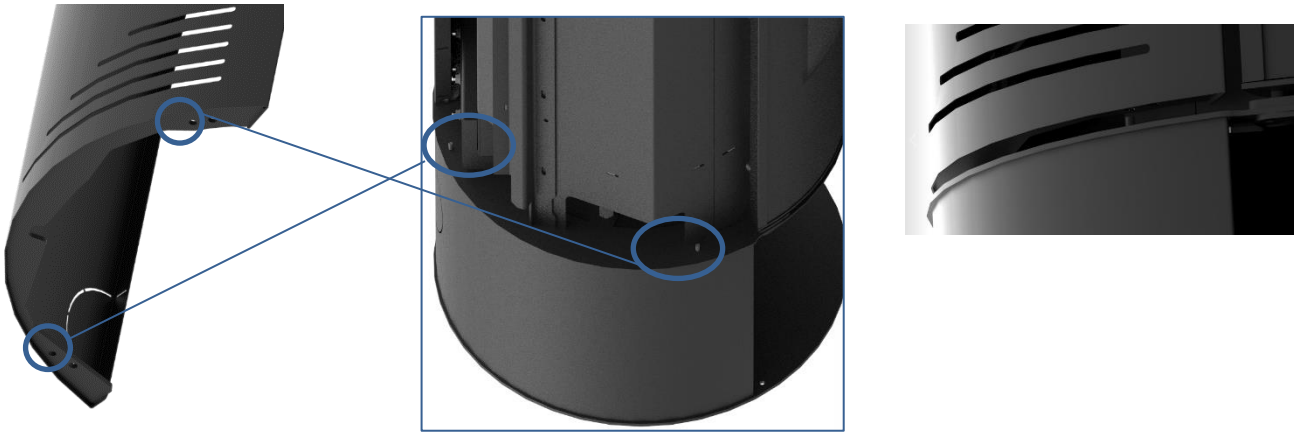


**Figure 19 – Centering of the side casing with the equipment**

5- Then, tighten the casings in the upper area of the equipment by tightening the screws as shown in Figure 20.

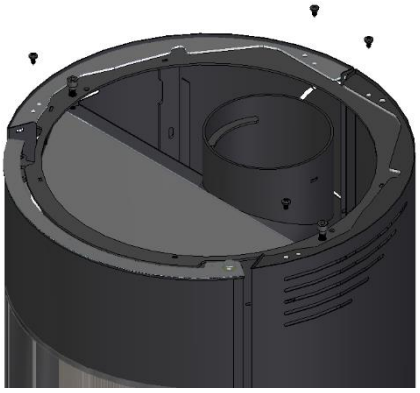


**Figure 20 – Assembly of the side casings in the equipment**

# 6. Installation

## 6.1 Pipes and chimney

The unit must be properly installed to ensure correct operation. Carefully read the following considerations, which are merely informative and cannot be deemed indispensable to the proper operation of the unit. Unfortunately, there are several aspects that determine the proper operation of a chimney and it may be difficult to address and resolve them overall.

- Clean your chimney thoroughly before proceeding with the installation. If the chimney has been out of operation for a long time, you should have it checked by an expert.
- The chimney must have enough height to allow for fume exhaustion at 12-20 Pascal, minimum. The fume exhaustion can only be measured during the unit operation. If the exhaustion is bad, you will need to raise the chimney and/or insulate it. If it is too strong, you must install a gauge.
- Ideally, the flue should be installed vertically, with a maximum angle of 45º at any incline if needed.
- Do not join flues together. The flues must run alongside throughout their length and have separate outputs.

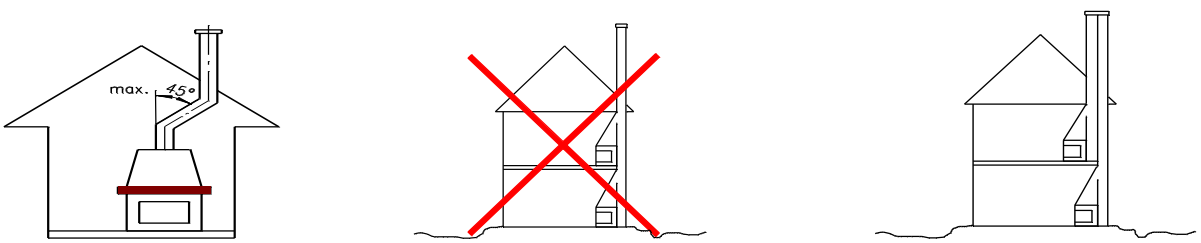



**Figure 21 – Piping and chimney installation**

- The flue must be free from obstructions, and preferably maintain the same round diameter all the way through, from the unit to the output. To ensure proper operation, the diameter must be compliant with each model specifications (refer to the catalogue).

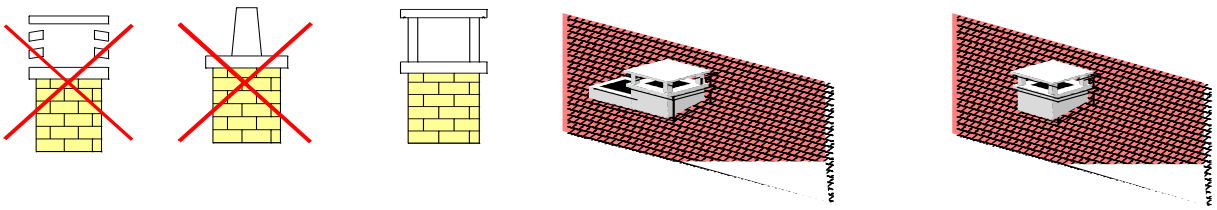


**Figure 22 – Piping and chimney installation**

- If the chimney top is closer than 60 cm to the apex of the roof, the flue termination must be at least 60 cm above the roof apex. If the chimney top is further from the roof, the chimney should rise 1 m above the roof level, measured from the output.

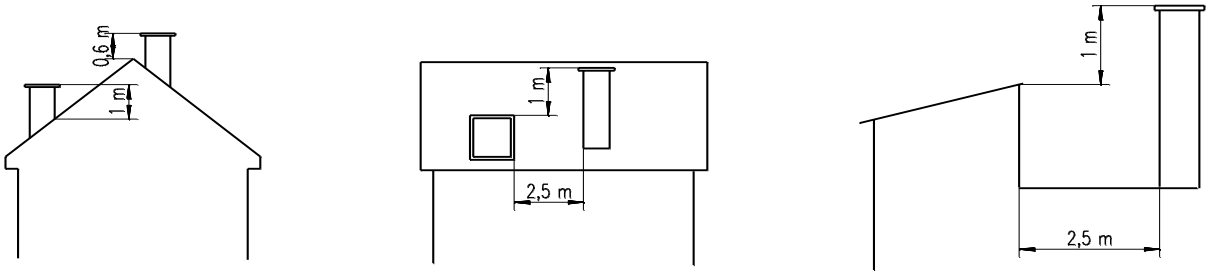



**Figure 23 – Piping and chimney installation**

- The chimney should not be close to surrounding tall trees, walls or buildings as these could cause downdraughts.

- The chimney must be properly insulated. The chimney lining must be free of cracks or fissures and be made of refractory cement or other high temperature resistant material. If the chimney is not properly insulated, the flue must run all the way up the chimney.

**Installing the flue through the chimney**

European standards must be followed when installing the flue through the chimney. Due to the technical nature of these standards they are mostly intended for professional installers. Following is a list of the relevant European standards:

EN 12446: 2003 - Chimneys – Components – Concrete outer Wall elements

EN 1443: 2003 - Chimneys – General requirements

EN1856-1: 2003 - Chimneys – Requirements for metal chimneys - Part 1: System chimney products

EN1856-2: 2004 - Chimneys – Requirements for metal chimneys - Part 2: Flue and joints

EN13384-1: 2003 - Chimneys – Thermal and fluid dynamic calculation methods - Part 1:

EN 2006 - Chimneys serving one appliance

EN1857: 2003 - Chimneys – Components - Flues

EN1457: 1999 and Clay/ceramic flue liners - Requirements and test methods

EN 2002

EN 1806: 2006 - Chimneys – Clay/ceramic flue blocks for single wall chimneys - Requirements and test methods

EN13069: 2005 - Chimneys – Clay/ceramic outer walls for system chimneys - Requirements and test methods

EN 13063: 2006 - System chimneys with clay/ceramic flue liners - Part 1: Requirements and test methods for soot resistance

**NOTE:**

The flue must be safely and securely connected to the outlet pipe of the unit and the chimney must be swept at least once a year in accordance with local regulations.

### 6.2 Installation space requirements

* The unit should stand on a masonry hearth made of refractory bricks or other type of non-combustible material;
* Keep any combustible materials away from this appliance. For safety reasons, you should maintain a minimum clearance distance around the unit of 20 cm from the back, 30 cm from the sides and 120 cm from the front (Figure 24);

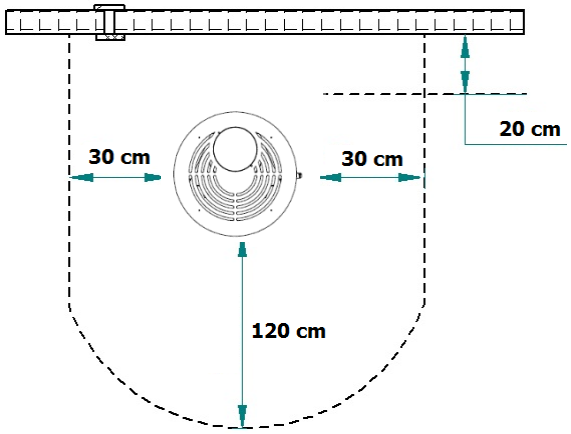



**Figure 24 – Minimum safety distances**

* The floor on which the unit will stand must be capable of supporting a permanent load of 1 kg (2,2 lbs)/cm². If the floor's bearing capacity is insufficient, a solid plate may be used to distribute the load over an area larger than the base of the unit;

* Before proceeding with the installation, please check whether the intended location allows an easy access to the unit, to facilitate any cleaning procedures as well as the inspection of the fume outlet connection;

* Please make sure the air intake vents from the building are not obstructed;

* Ensure that the structure built into the wall is of an appropriate size to house the unit;

* Any materials/objects placed near the unit should be capable of withstanding the heat radiated through the glass and walls of the appliance, so no combustible materials are allowed;

* A refractory material - refractory cement or other - should be applied around the chimney gasket.

* The use of wood in the finishing may increase the risk of fire. We therefore recommend that any wood used be adequately insulated, or that no wood be used at all.

# 7. Instructions for Use

## 7.1 Fuel

The stove only burns wood. It will give the best results if you use dry firewood with 12% to 16% humidity. Always use firewood with a moisture content below 20%. The cut firewood should be kept and ventilated in a covered place for at least 1 year and preferably for 2 years.

It produces considerably more heat than damp or green wood.

It produces much less smoke and deposits less tar on the stove, chimney and glass panel than damp or green wood.

It is the only one that, during burning, prevents the emission of harmful substances.

A stove in full load will generate more heat for a longer period of time. The logs should not be too big and, as a general rule, the heavier the firewood, the better. Never burn waste, splinters or sawdust from wood, cork, laminated wood or with the surface treated. Do not burn wood logs that are too small as they burn too fast and are only suitable for lighting the Stove. Let large logs about 25 cm wide burn naturally. The larger pieces should be cut.

**NOTE:**

The stove is not a garbage incinerator. Environmental legislation expressly forbids the burning of garbage on home stoves. Besides being environmentally incorrect to use a solid fuel stove to burn garbage, chemically treated wood or paper, as if it were a private incinerator, it is also a violation of the legally punishable gas emission laws. Stove is also not designed to burn liquid fuels.

Besides creating excessive pollution, combustion products and hazardous waste have quite negative effects on the good functioning and durability of the stove and chimney. Any kind of improper burning can lead to several defects and a great wear of the appliance, leading to repairs or even to its replacement. The burning of improper fuels may even cause a fire in the house, which will not be covered by the property's insurance.

## 7.2 Combustion principles

The stove is designed to be a slow-burning device. With a maximum wood charge and a gentle flame, it will heat up with maximum efficiency for several hours. The stove may burn very slowly with a low flame for a

few hours. However, we do not recommend this procedure because incomplete combustion creates smoke which, when condensed, deposits tar in the stove, chimney and glass panel. An accumulation of tar becomes unpleasant to the eye and also requires more frequent chimney cleaning to prevent possible fires in the chimney. If you are using wet or green firewood, the combustion control should always be more open to ensure proper combustion.

**Radiant heating**

It is emitted by the embers, the steel plate and the vermiculite plates on the back of the stove. The radiant heating is also transmitted through the glass to the compartment and heats the area in front of the stove.

**Convection heating**

Cold air passes through the crankcase from the bottom, running across the back and top of the equipment, expelling hot air from the front of the equipment.

This convective hot air reaches the far corners of the room.

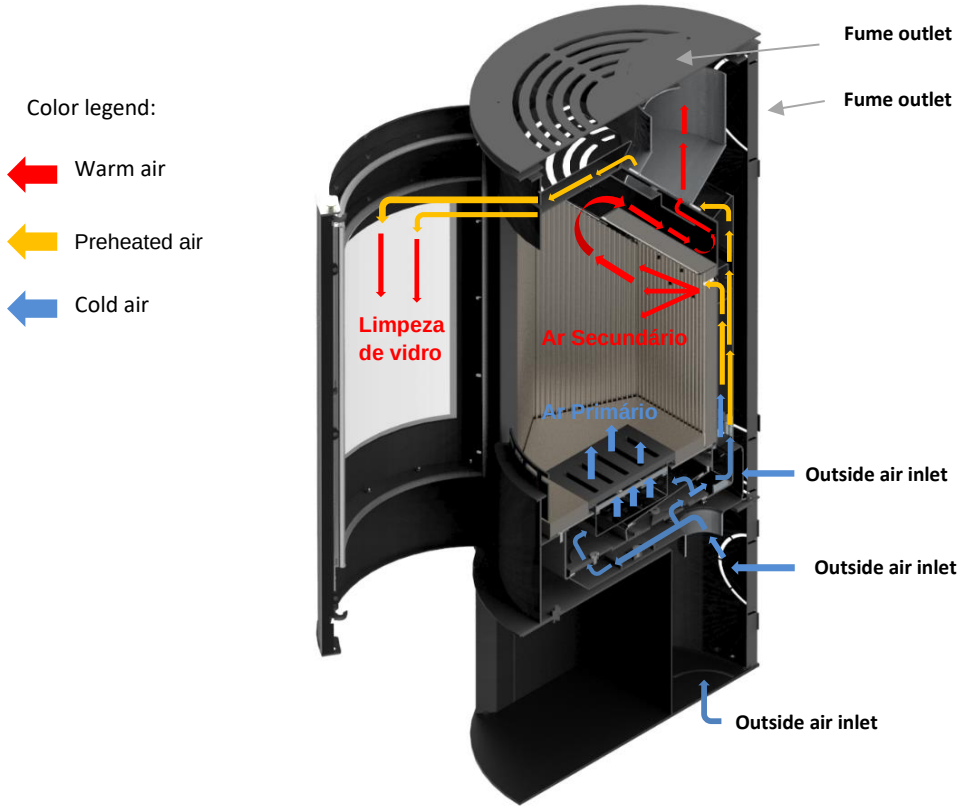



Figure 25 – Convection circuit represented in the stove

### 7.3 Air control

**Combustion air control**

The combustion air regulator is shown in
Figure 26. It controls the amount of air entering the stove, thus controlling the burning of the fuel. On the side of the stove there is 1 regulator that regulates the primary and secondary air at the same time.

The primary air must be open during starting, until the wood is properly started, i.e., all the regulator is in the (+) position. On the side cover, there is a mark indicating the point from which the primary air is completely closed and part of the secondary air is open.

After igniting, and for good combustion, the regulator should be between the markings, as you can see in Figure 26.

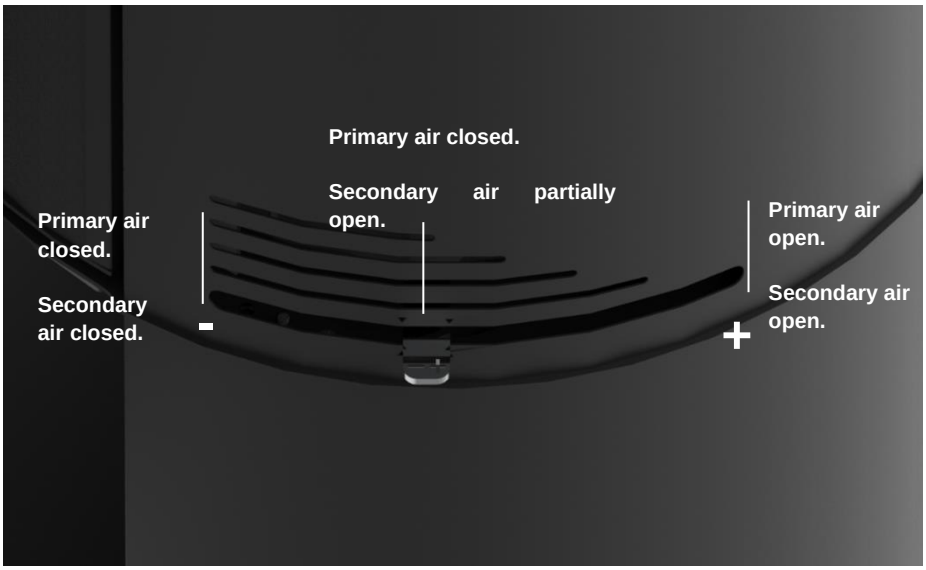



**Figure 26 – Air regulator in equilibrium point position**

The secondary air also has the function of cleaning the glass, creating a sweeping effect through the passage of preheated air over the entire interior surface of the glass, helping to keep the glass cleaner for longer.

## 8. Using the Unit for the First Time

* Ask the installation technician to turn on and start-up the unit to check its proper operation;

* The first time the unit is used, the paint finish is cured by the heat, which may generate additional fumes. If this happens, ventilate the room by opening windows and any doors leading to the exterior;

* Avoid touching the unit during its first burn to prevent leaving permanent marks on the paint. The paint goes through a more plastic phase during the curing process. The curing of the paint occurs at approximately 300ºC and for 30 minutes.

## 9. Normal Usage

* Lighting:

1 - Fully open the door of the unit;

2 - Place pine cones (preferentially) on the vermiculite plates at the base of the combustion chamber;

3 - Place kindling on top of the pine cones, piled horizontally;

4 - Open the primary and secondary controls to allow the admission of combustion air, leaving the door ajar for more rapid lighting;

5 - The lighting period is completed when the unit chassis reaches a stable temperature. At this point, close the door and adjust the admission flow of combustion air to ensure a slow burn;

6 - If, while the door is ajar, there is smoke leakage from the unit, this means that you have insufficient chimney draught or that the firewood used has a high moisture content.

* You MUST make sure the room where the unit is installed is adequately ventilated; otherwise, the unit will not work properly. For this reason, it is important to also check whether any other air-consuming heating appliance is present in the room (e.g. gas-fuelled heating appliances, braziers, among others). We recommend that you do not operate these devices concurrently;

* Before refuelling the stove, please verify whether the previous load is completely burned down. If the firewood has burned down, only embers should remain. These will help to ignite the fresh load of firewood. As such, do not allow the embers to die down to mere ash, seeing as it will not produce sufficient heat to ignite the new load. Next, slowly open the door of the unit, leaving it slightly ajar for a few seconds. Wait a while to ensure that the fumes are being exhausted before opening the door completely and slowly to prevent smoke from entering the room;

* The door of the unit should only be opened during the reloading process. Under normal operating conditions, the door must remain closed;

* Remember to reload the unit before the previous load has burned down to ash, in order to ensure continuous combustion;

* We do not recommend that you use the unit during adverse weather conditions that may seriously affect the fume draught (especially under strong wind conditions);

* We recommend that you use logs of firewood with a length of 26-30 cm. This will allow you to place the firewood longitudinally or transversely in relation to the base of the combustion chamber.

## 10. Safety

* Please note that the exposed metallic parts of the unit reach very high temperatures > 100°C on the door and > 60°C along the external casing. The door latch **also** reaches temperatures above 60°C. Avoid any contact with other parts that may be hot;

* If any contact with the unit is necessary while it is in operation, remember to use a glove or other form of protection;

* In case of **fire in the chimney, immediately close the door of the unit, as well as the primary and secondary air inlets;**

* We recommend that you use only spare parts supplied by the manufacturer – FOGO MONTANHA.

# 11. Cleaning and Maintenance

### 11.1 Cleaning

- Ash build up should be regularly removed from the chamber (but only after turning off the unit and allowing it to cool down);

- The glass should always be cleaned with an appropriate product[1], following the instructions for use and avoiding any contact of the cleaning product with the window rope gasket OR any painted metal parts, – which can lead to oxidation. To ensure this, only apply the cleaning product on a cloth, never directly on the glass. The rope gasket is glued on to the glass, so do not expose it to the direct contact with water or any other liquids. If the rope gasket eventually becomes unglued, you can reattach it using high temperature silicone sealant or refractory glue, but only after having carefully cleaned the groove using fine sandpaper; it is recommended to use gloves to clean the glass or other protective equipment.

- Do not use detergent to clean the metallic parts of the unit. These should be cleaned using a dry cloth to remove any accumulated dust;

- We recommend cleaning the chimney flue and its throat (located at the outlet of the unit) at least once a year. This can be done by removing the fume baffle (removable plate located in the ceiling of the combustion chamber);

- If the unit has not been used for a long time, check whether the flue pipes are free of any blockage before lighting the stove;

- We recommend regular inspections of the unit and its fume outlet by an expert technician.

### 11.2 Removing the fume baffles

To remove the fume baffle, please follow the steps below:

1 - Hold the fume baffle using both hands, one placed under and the other above the plate (Figure 27- [A]);

2 - Gently push up the baffle to release it from its lower support (the rear vermiculite plate) and upper brackets (steel rods). Once you release the plate, lift and pull it forward to create a proper gap between the baffle and the rear vermiculite plate (Figure 27 - [B]);

3 - Using this gap, rotate the baffle plate sideways and downwards (Figure 27 - [C], remove the baffle plate away from the unit (Figure 27 - [D]);

4 - Be careful not to damage any of the unit's vermiculite plates (side, rear and back) when removing the baffle plate.

[1] For more information, contact the unit's installer.

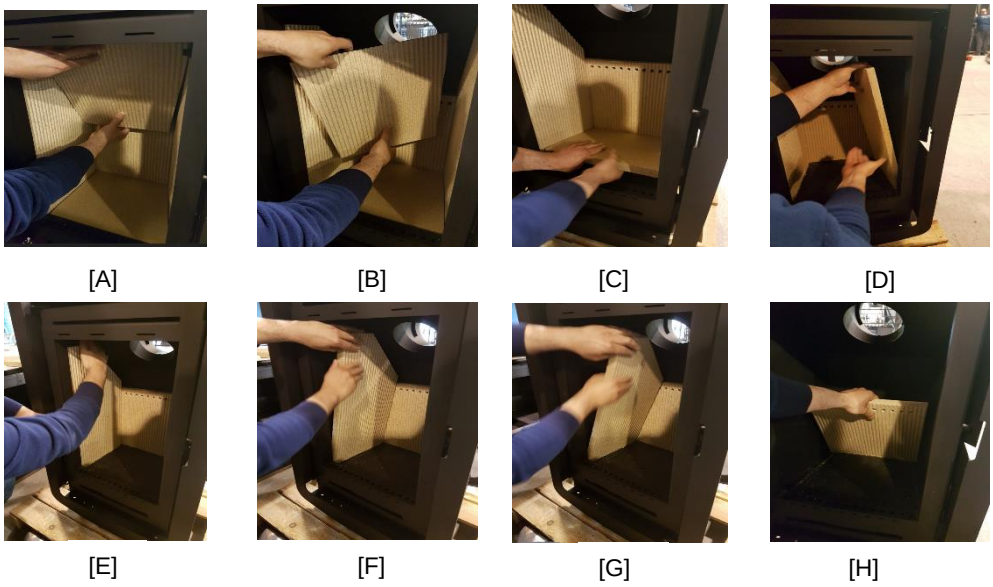



**Figure 27 – Sequence that must be followed to remove vermiculite**

## 12. Troubleshooting

The apparent malfunction is often caused by misuse. If you think something is wrong with your Stove, see the points below. If the incident is not cleared up after checking these points, you should contact your area representative for assistance.

**Table 2 - Identifying potential problems and their respective solutions**

| Problem | Possible cause | Solution |
|---|---|---|
| The unit produces a lot of smoke. | 1. Damp or green wood.<br>2. Chimney needs cleaning. | 1. Use seasoned dry wood.<br>2. Have the chimney cleaned. |
| The unit is taking too long to heat. | 1. Damp or green wood.<br>2. Chimney needs cleaning. | 1. Use seasoned dry wood.<br>2. Have the chimney cleaned. |
| The fire does is not burning overnight. | 1. Insufficient wood.<br>2. The wood is too soft (pinewood).<br>3. Door not properly sealed.<br>4. Very open combustion air. | 1. Load more wood.<br>2. Use harder wood.<br>3. Replace the fibreglass bundle.<br>4. Better regulate the air intake. |
| The fire quenches. | 1. Damp or green wood.<br>2. The unit is not up to operating temperature.<br>3. It has the combustion air regulators closed. | 1. Burn dry wood or open the aeration control.<br>2. Make sure the unit is hot enough before closing the aeration control.<br>3. Open up the regulators more. |
| The glass becomes dirty. | 1. The fire is not achieving a soft flame.<br>2. Damp or green wood.<br>3. Low draw in the chimney | 1. Open the aeration control further.<br>2. Use seasoned dry wood.<br>3. Increase the depression in the chimney, increasing the height. |

# 13. Warranty

**1. Social name and address of the producer and Object**

Fogo Montanha

Rua dos Outarelos, 111

3750-362 Belazaima do Chão

This document does not substantiate the provision by Fogo Montanha of a voluntary warranty on its produced and marketed products (from now on mentioned as "Product (s)"), but rather a guide, intended to be enlightening for the effective activation of the legal warranty that benefits consumers (from now on mentioned as "Warranty"). This document does not affect the legal rights of warranty, emerging from the purchase agreement whose purpose is the Product(s).

**2. Product identification on which rests the warranty**

The activation of the warranty presupposes prior and correct identification of the product object towards Fogo Montanha, being promoted by providing the Product ´s packing data indicated in the purchase invoice or in the product characteristics plate (model and serial number).

**3. Product warranty terms**

3.1 Fogo Montanha, responds to the Buyer, for the lack of conformity of the Product with the respective contract of sale, within the following periods:

3.1.1 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 number regarding the intensive use;

3.1.2 A term of 6 months from the date of delivery of the goods, in the case of professional, or industrial, or intensive use of the products – Fogo Montanha means by professional, industrial or intensive use of all products installed in industrial spaces, commercial, or whose use exceeds 1500 hours per calendar year;

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

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

3.4 Any product must be repaired on the site 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 term indicated in 3.1 is not exceeded, the Buyer must report in writing to Fogo Montanha, the lack of conformity of the Product within a maximum period of:

3.5.1 60 (sixty) days after the date on which it has detected it in the case of domestic use of the product;

3.5.2 Thirty (30) days from the date of its detection, in the case of professional use of the Product.

3.6 In the pellet range equipment's, the commissioning service is required to activate the warranty. It must be registered up to 3 months after the date of invoice, or, 100 hours of work of the product (whichever occurs first);

3.7 During the Warranty period referred to in paragraph 3.1 (and for this to remain valid), repairs to the Product must be performed exclusively by the Official Technical Services of the Brand. All services provided under this Guarantee will be performed Monday through Friday within the working time and calendar legally established in each region.

3.8 All requests for assistance must be submitted to the Fogo Montanha Customer support service, by means of a proper form present on the Website www.fogo-montanha.com, or, e-mail: apoio.cliente@fogo-montanha.com. At the time of the technical assistance to the Product, the Buyer must present, as proof of the Product Warranty, the purchase invoice of the same or another document demonstrating its acquisition. In any case, the document proving the acquisition of the Product must contain the identification of the Product (as mentioned in point 2 above) and its date of acquisition. Alternatively, and in order to validate the Product Warranty, the PSR - document certifying the commissioning of the machine (when applicable)).

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

A product installation that does not conform to the manufacturer's specifications and / or does not comply with the legal regulations on this subject will not give rise to the application of this Warranty. Whenever a product is installed outdoors, it must be protected against weather effects such as rain and wind. In these cases, it may be necessary to protect the appliance by means of a cabinet, or a properly ventilated protective caseAppliances should not be installed in places that contain chemicals in their atmosphere, in saline or high humidity environments, as mixing them with air may produce rapid corrosion in the combustion chamber. In this type of environment, it is especially recommended that the appliance be protected with anti-corrosion products for this purpose, especially during times of operation. As a suggestion it is indicated the application of graphite greases indicated for high temperatures with function of lubrication and anti-corrosion protection.

3.10 In equipment belonging to the pellet family, in addition to the daily and weekly maintenance contained in the instruction manual, it is also obligatory to carry out the cleaning inside and in the respective chimney for the evacuation of fumes. These tasks should be carried out every 600-800 kg of pellets consumed, in the case of stoves (air and water) and compact boilers, and every 2000-3000 kg of pellets consumed in the case of automatic boilers. In the event that these quantities are not consumed, at least one systematic preventive maintenance must be carried out annually.

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 proved by submitting the technical report of the entity responsible for it, or alternatively by registering them in the instruction manual in the dedicated section.

3.12 In order to avoid damage to the equipment caused by overpressure, safety elements such as pressure relief valves and / or thermal discharge valves, if applicable, as well as an expansion vessel fitted to the installation, shall be ensured at the time of installation and its correct functioning must 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 cut-off valve between the equipment and its safety valve; provision should be made for a systematic preventive maintenance plan to attest to the correct functioning of the said safety features; irrespective of the type of appliance, all safety valves shall be channelled to drained sewage to prevent damage to the dwelling by water discharges. Product Warranty does not include damages caused by non-channelling of water discharged by said valve.

3.13 In order to avoid damage to the equipment and attached pipes by galvanic corrosion, it is advisable to use dielectric separators in the connection of the equipment to metal pipes whose characteristics of the materials applied to this type of corrosion. Product Warranty does not include damages caused by non-use of such dielectric separators.

3.14 The water or thermofluid used in the heating system (hydro toves, boilers, central heating stoves, among others) must comply with the legal requirements in force, as well as guarantee the following physical and chemical characteristics: absence of solid particles in suspension; low level of conductivity; residual hardness of 5 to 7 degrees; neutral pH, close to 7; low concentration of chlorides and iron; and absence of air inlets by depression or others. In case the installation enhances automatic water make-up, it should consider upstream a preventive treatment system composed of filtration, decalcification and preventive dosing of polyphosphates (scale and corrosion), as well as a degassing step, if necessary. If in any circumstance any of these indicators show values that are not recommended, the Warranty will cease to have effect. It is also compulsory to place a non-return valve between the automatic filling valve and the mains water supply, and that said supply always has constant pressure, even with a lack of electricity, not depending on lift pumps, autoclaves, or others.

3.15 Except as expressly provided 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 shall be made available by the Buyer, and the Buyer shall be responsible for any charges arising therefrom.

3.17 The Warranty is valid for the Products and equipment sold by Fogo Montanha solely and exclusively within the geographical and territorial zone of the country where the Product was sold by Fogo Montanha.

**4. Circumstances that exclude the application of the Warranty**

Excluded from the Warranty, being the total cost of the repair borne by the Buyer, the following cases:

4.1. Products with more than 2000 operating hours;

4.2. Refurbished and resold products.

4.3. Maintenance operations, Product settings, commissioning, cleaning, elimination of errors or anomalies that are not related to deficiencies of equipment components and replacement of the batteries

4.4. Components in direct contact with fire such as: vermiculite supports, deflector or protective plates, vermiculite, sealing lanyards, burners, ash drawers, wood chips, smoke registers, ash grates, whose wear is directly related to the conditions of use. Degradation of the paint, as well as corrosion due to degradation of the paint, due to overloading of fuel, use of an open drawer or excessive drainage of the installation chimney (the chimney must respect the drawing recommended in the Product Technical Data Sheet). Glass breakage due to improper handling or other reason not related to Product deficiency. In the pellet family, the ignitors are aware part, so they are only guaranteed for 6 months, or 1000 ignitions (whichever comes first);

4.5. Wear considered components, such as bearings and bushes;

4.6. Deficiencies of components external to the Product that may affect its correct functioning, as well as material or other damages (e.g. tiles, roofing, waterproofing, pipes, or personal injury) caused by improper use of materials in the installation or by non-execution of the product installation in accordance with the rules for the installation, applicable regulations or rules of good art, in particular when the application of suitable piping to the temperature in use, expansion vessels, non-return valves, safety valves , anti-condensation valves, among others;

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 Fogo Montanha;

4.9. Defects arising from non-compliance with the installation, use and operation instructions or applications not conforming to the intended use of the Product, or from abnormal climatic factors, unusual operating conditions, overload or maintenance or cleaning performed improperly;

4.10. The Products that have been modified or manipulated by people outside the Official Technical Services of the brand and consequently without the explicit authorization of Fogo Montanha;

4.11. Damage caused by external agents (rodents, birds, spiders, etc.), atmospheric and / or geological phenomena (earthquakes, storms, frost, hailstorms, thunderstorms, etc.), humid or saline aggressive environments such as proximity of the sea or river, as well as those derived from excessive water pressure, inadequate power supply (voltage with variations greater than 10%, with a nominal value of 230V, or, neutral voltage greater than 5V, or absence of earth protection); pressure or supply of inadequate circuits, acts of vandalism, urban confrontation and armed conflict of any kind, as well as derivatives;

4.12. Failure to use the fuel recommended by the manufacturer is a condition of exclusion from the Warranty.;

Explanatory note: In the case of pellet appliances the used fuel must be certified by EN 14961-2 grade A1. Also, before buying large quantity you should test the fuel to see how it behaves. In wood equipment, this moisture content must be of less than 20%.

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

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

4.15. Cleaning operations carried out on the appliance or its components due to condensation, fuel quality, bad settings or other circumstances of the installation location. Also excluded from the Warranty are interventions for the descalsification of the Product (the removal of limestone or other materials deposited inside the apparatus and produced by the quality of the water supply). Also excluded from this warranty are air bleeding interventions of the circuit or unblocking of circulating pumps.

4.16. The installation of the equipment supplied by Fogo Montanha should contemplate the possibility of their easy removal, as well as points of access 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 cost of access and security will always be borne by the Buyer. The cost of disassembling and assembling boxes of plasterboard 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 carton of plasterboard, masonry or other dedicated space must comply with the dimensions and characteristics indicated in the instruction manual and use accompanying the appliance).

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

4.18. Interventions for the adjustment of fuel receipes in pellet devices, cleaning, detection of water leaks in pipes external to the apparatus, damage caused due to the need to clean the gas evacuation machinery or flues;

4.19. Urgency interventions not included in the provision of Warranty i.e., weekend and holiday interventions because they are special interventions not included in the Guarantee coverage and which therefore have an additional cost, will be carried out exclusively on request expressed by the Buyer and upon the availability of the Producer.

**5. Warranty Inclusion**

Fogo Montanha will correct without any charge to the Buyer the defects covered by the Warranty through the repair of the Product. The replaced Products or Components shall become the property of Fogo Montanha.

**6. Responsibility of Fogo Montanha**

Notwithstanding legally established, Fogo Montanha, liability in respect of warranty is limited to that established in the present warranty conditions.

**7. Cost of Services performed outside the scope of the warranty**

The interventions carried out outside the scope of the warranty are subject to the application of the current tariff.

**8. Warranty Services performed out of scope Warranty**

The interventions carried out outside the scope of the Warranty and carried out by the official technical assistance service of Fogo Montanha have a 6-month guarantee.

**9. Warranty Spare Parts provided by Fogo Montanha**

The parts supplied by Fogo Montanha, in the scope of the commercial sale of spare parts, that is to say, not incorporated in the equipment do not have a guarantee.

**10. Replaced Parts under the of Scope Technical Service**

From the moment they are removed from the equipment, the Parts used are considered as waste. Fogo Montanha as a producer of waste in the scope of its activity is obliged by the legislation in force to deliver them to a licensed entity that performs the proper waste management operations under the law and therefore is prevented from giving them another destination, whatever. Therefore, the customer will be able to see the used parts resulting from the assistance, but cannot keep them in their possession.

**11. Administrative expenses**

In the case of invoices for services rendered, they are not processed in any stipulated period with default interest at the maximum legal rate in force.

**12. Competent court**

For the resolution of any dispute arising from the purchase and sale agreement having as object the products covered by the warranty, the contracting parties attribute exclusive jurisdiction to the courts of the district of Águeda, with express waiver of any other.

# 14. Statement of Performance

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

*Nº DD-042*

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

*SR 500 P. VIDRO – EAN 05600990449435*
*SR 500 – EAN 05600990454545*

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 | CALEFACCIÓN DE EDIFICIOS RESIDENCIALES | HEATING OF RESIDENTIAL BUILDINGS | CHAUFFAGE DE BATIMENTS RESIDENTIELS | RISCALDAMENTO DEGLI EDIFICI RESIDENZIALI*

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

*FOGO MONTANHA*
*RUA DA COVA DA EIRA (E.M. 605),695*
*3750-071 AGUADA DE CIMA – 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 prodott

*SISTEMA 3*

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

*EN 13240*

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/0178/17-1*

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 incêndios \| Fire safety \| Sécurité incendie \| Sicurezza antincendio | **OK (A1).** De acordo com relatório de ensaio \| De acuerdo com informe de la prueba \| According to the test report \| Selons le rapport d'essai \| Secondo i rapporto di prova **CEE/0178/17-1** | De acordo com os requisitos \| De acuerdo con los requisitos \| According to the requirements \| Selons les exigences \| Secondo i requisiti 4.2.1, 4.2.3, 4.2.4, 4.2.6, 4.2.7, 4.2.8, 4.2.10, 4.2.12, 5.2, 5.4, 5.6, 6.1 (EN13240) |
| Emissão de produtos da combustão \| La emisión de produtos de combustión \| Emission of combustion products \| Emission des produits de combustion \| Emissione dei prodotti di combustione | **OK.** Caudal térmico nominal \| Caudal térmico nominale \| Nominal heat output \| Le débit calorifique nominal \| Nominal heat output \| Flusso termico nominale – **CO: 0,073%** | Caudal térmico nominal \| Caudal térmico nominale \| Nominal heat output \| Le débit calorifique nominal \| Nominal heat output \| Flusso termico nominale –**CO < 1,0%** |
| Libertação de substâncias perigosas \| Emisión de sustâncias peligrosas \| Release of dangerous substances \| Dégagement de substances \| Rilascio di sostanze pericolose | **OK.** De acordo com relatório de ensaio \| De acuerdo com informe de la prueba \| According to the test report \| Selons le rapport d'essai \| Secondo i rapporto di prova **CEE/0178/17-1** | De acordo com o Anexo ZA.1 (EN13240) \| De acuerdo con lo Anexo ZA.1 (EN13240) \| According to the Annex ZA.1 (EN13240) \| Selons le Annexe ZA.1 (EN13240) \| Secondo l'allegato ZA.1 (EN13240) |
| Temperatura de superfície \| Temperatura de la superfície \| Surface temperature \| La température de surface \| Temperatura superficiale | **OK.** De acordo com relatório de ensaio \| De acuerdo com informe de la prueba \| According to the test report \| Selons le rapport d'essai \| Secondo i rapporto di prova **CEE/0178/17-1** | De acordo com os requisitos \| De acuerdo con los requisitos \| According to the requirements \| Selons les exigences \| Secondo i requisiti 4.2.1, 5.4, 5.5, 5.6 (EN13240) |
| Segurança eléctrica \| Seguridad eléctrica \| Electrical safety \| Sécurité électrique I sicurezza elettrica | **OK.** De acordo com relatório de ensaio \| De acuerdo com informe de la prueba \| According to the test report \| Selons le rapport d'essai \| Secondo i rapporto di prova **CEE/0178/17-1** | De acordo com os requisitos \| De acuerdo con los requisitos \| According to the requirements \| Selons les exigences \| Secondo i requisiti 5.8 (EN13240) |
| Resistência mecânica \| Resistencia mecânica \| Mechanical strength \| résistance \| Resistenza meccanico | **OK.** De acordo com relatório de ensaio \| De acuerdo com informe de la prueba \| According to the test report \| Selons le rapport d'essai \| Secondo i rapporto di prova **CEE/0178/17-1**<br>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 doit être placé un support de charge \| ogni 10 m della canna fumaria deve essere posto un supporto di carico | De acordo com os requisitos \| De acuerdo con los requisitos \| According to the requirements \| Selons les exigences \| Secondo i requisiti 4.2.1, 4.2.4 (EN13240) |
| Rendimento energético \| Eficiencia energética \| Energy efficiency \| L'efficacité énergétique \| Efficienza energetica | **OK.**<br>**81%** | **≥ 50%** para potência térmica nominal \| de potencia térmica nominal \| for rated termal 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 funcionamento 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 responsabilidade 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 — Aguada de Cima, 06/06/2018

Nuno Sequeira (Director Geral | CEO)

**Please read this Instruction Manual carefully and keep it for future reference.**

**All Fogo Montanha products come with a 2-year warranty.**

FOGO MONTANHA

APPROVED PRODUCT