SOLZAIMA

SOLUÇÕES DE AQUECIMENTO A BIOMASSA

Instruction Manual

English

Wood Stove

Models

TEK Round Eco
TEK System Eco
M1 Eco
K4 Eco
M20 Eco
M12F Eco

Please pay attention while reading the instructions before proceeding with the installation, use and maintenance of the equipment. The instruction manual is an integral part pf the product.

Mod. 1028-A

Thank you for purchasing a SOLZAIMA 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;

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

* SOLZAIMA 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;

* SOLZAIMA 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 SOLZAIMA, except in special cases to be determined by the installer or support technician;

* For assistance, please contact the unit's supplier or installer. Please provide the unit serial number, which can be found on the identification plate located on the back of the unit, as well as on the sticker posted on the back cover of this manual.

Contacts for technical assistance:
www.solzaima.pt
apoio.cliente@solzaima.pt
Address: Rua da Cova da Areia (E.M. 605), 695;
3750-071 Aguada de Cima
Águeda – Portugal

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1. Solzaima

Solzaima'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, Solzaima is currently the leading manufacturer of biomass heating units, especially with its range of central heating stoves with backboilers.

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.

Solzaima 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 exemple.

2. Tecnical Specifications

Solzaima's **wood stoves** 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:
    * CE 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;

Features	Tek Round Eco	Tek System Eco	M1 Eco	K4 Eco	M20 Eco	M12F Eco	Units
Weight	123	120	113	137	86	165	kg
Height	933	910	966	967	980	1298	mm
Width	496	477	554	860	510	679	mm
Depth	508	498	516	675	510	554	mm
Flue Ø (mm)	150	150	150	150	150	180	mm
Maximum heated volume	166	166	166	166	170	177	m³
Rated power	7,3	7,3	7,3	7,3	7,5	7,8	kW
Fuel consumption	2,0	2,0	2,0	2,0	2,0	2,1	kg / h
Firewood length	300	300	300	300	200	250	mm
Performance	81	81	81	81	81	88	%
Average temperature of combustion products	233	233	233	233	265	131	°C
CO emission (13%O2)	0,073	0,073	0,073	0,073	0,075	0.06	%
CO2 emissions	8,67	8,67	8,67	8,67	-	7,41	%
Particles (13% de O2)	13	13	13	13	7	11	mg/Nm³
OGC (13% de O2)	88	88	88	88	72	59	mg/Nm³
NOX (13% de O2)	81	81	81	81	108	78	mg/Nm³
Combustion flow	7	7	7	7	6	8,9	g/s
Chimney depression	12	12	12	12	12	12	Pa

Table 1 - Technical specifications of each wood stove model

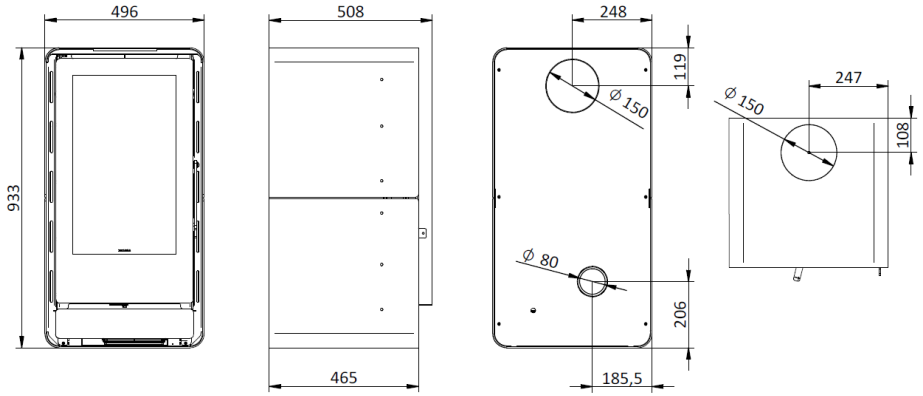


Figure 1 – Dimensions of the wood stove Tek Round Eco

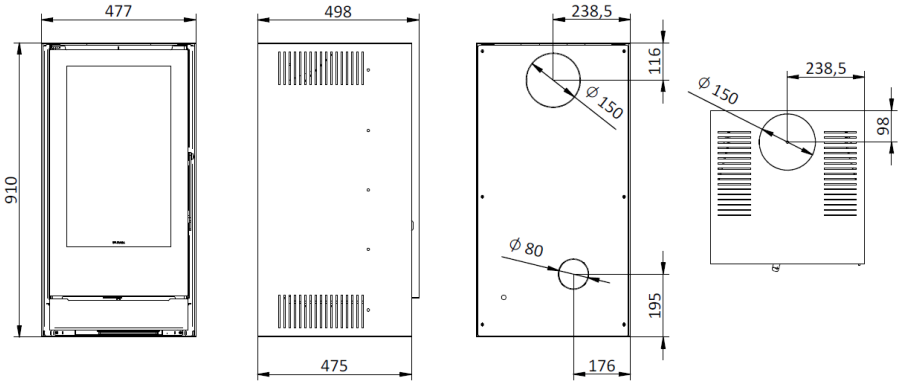


Figure 2 – Dimensions of the wood stove Tek System Eco

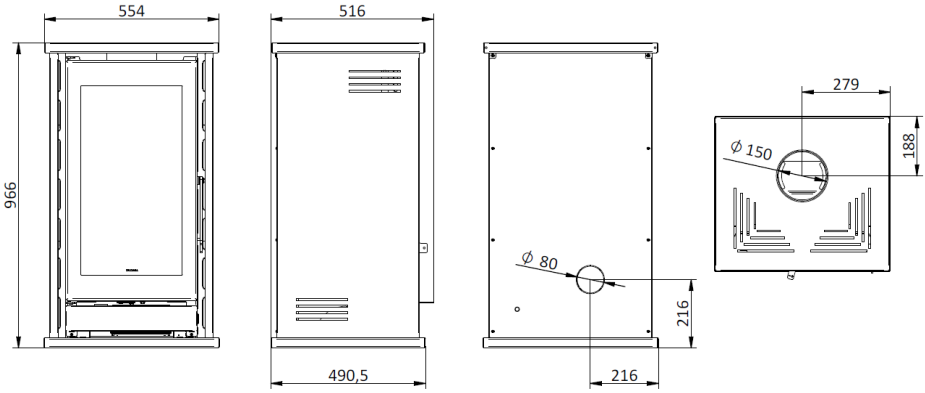


Figure 3 – Dimensions of the wood stove M1 Eco

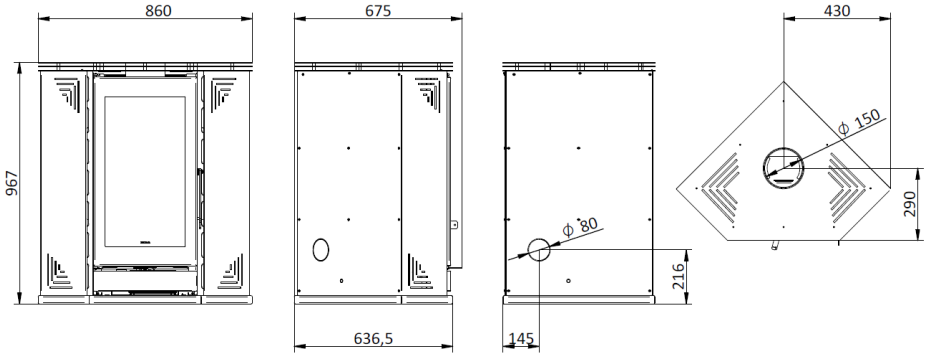


Figure 4 – Dimensions of the wood stove K4 Eco

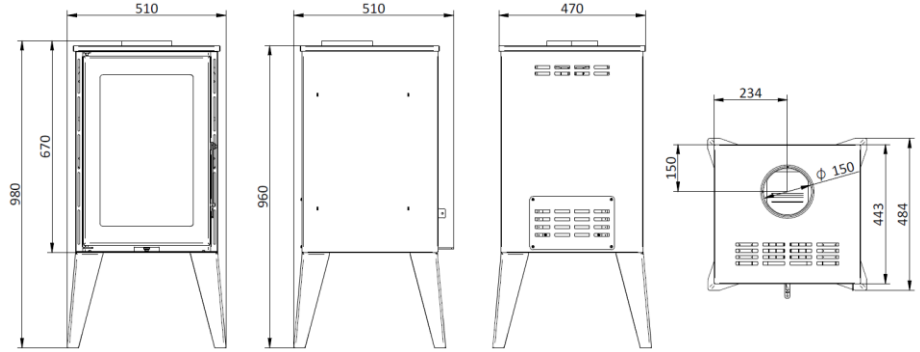


Figure 5 – Dimensions of the wood stove M20 Eco

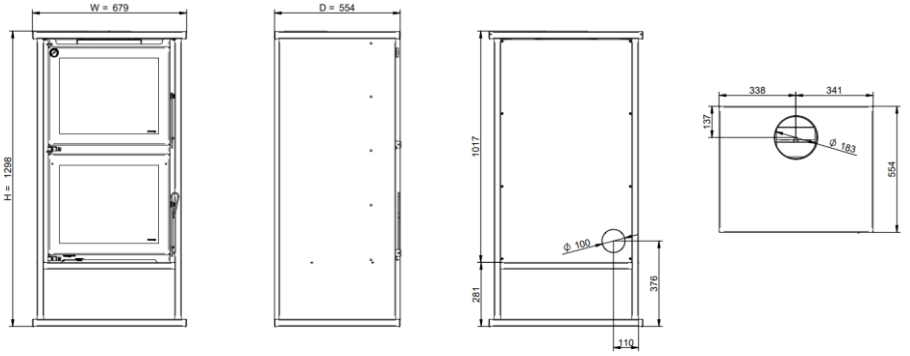
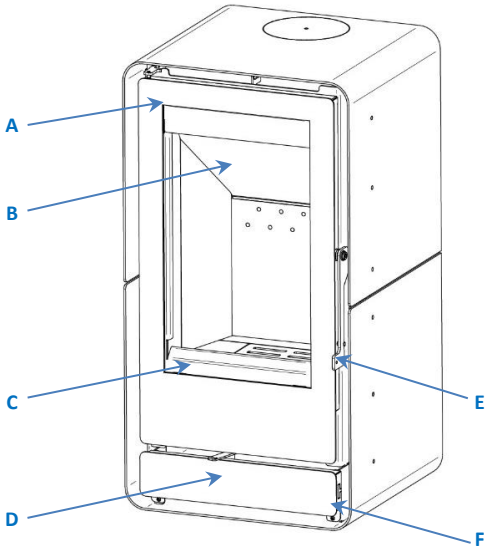


Figure 6 – Dimensions of the wood stove M12F Eco

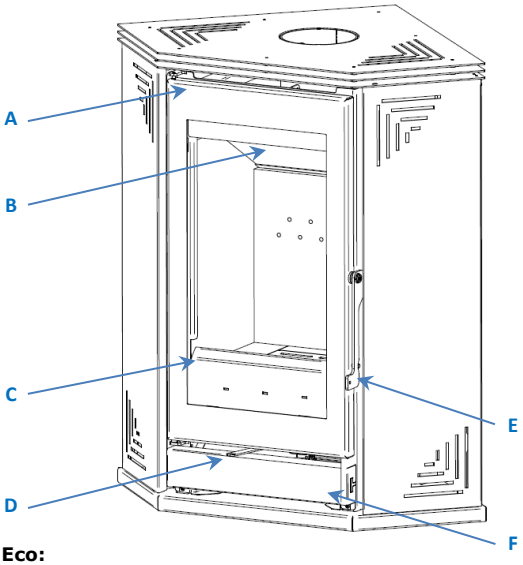
3. Unit components

3.1. Components



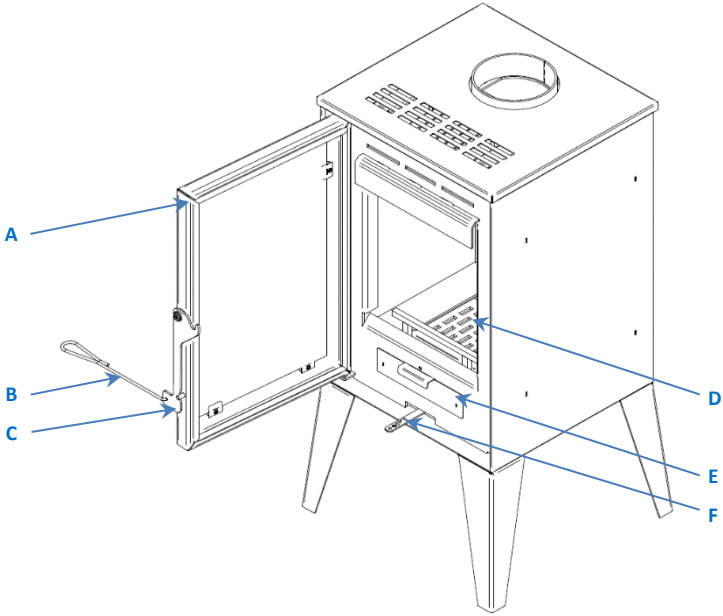
Legenda Tek Round Eco:

A – Door
B – Fume baffle
C – Ash baffle
D – Air inlet
E – Door handle
F – Front cover



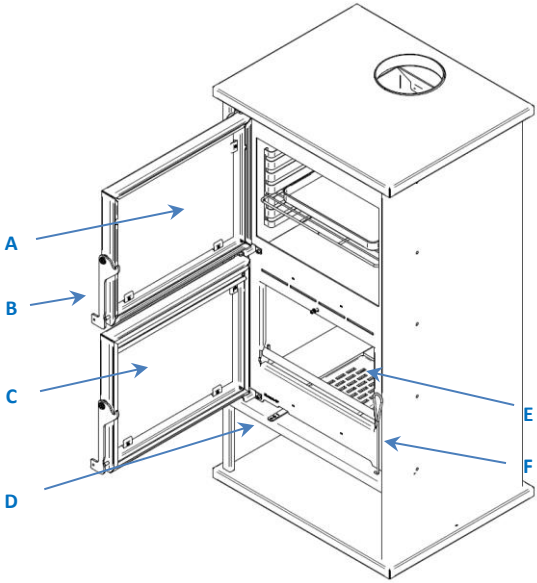
Legenda K4 Eco:

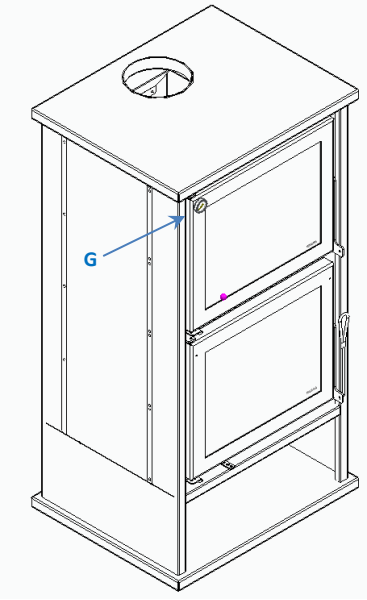
A – Door
B – Fume baffle
C – Ash baffle
D – Air inlet
E – Door handle
F – Front cover



Legenda M20 Eco:

A – Insulation cord
B – Door opening and air regulation tool
C – Door lock
D – Ash grate
E – Ashtray
F – Air control regulator





Legenda M12F Eco:

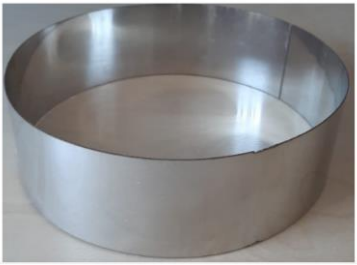
A – Oven access door
Dimensions of the oven:
(404 x 473 x 324,5)
B – Door lock
C – Combustion chamber door
D – Air control regulator
E – Ash grate
F – Door opening and air regulation tool
G - Thermometer

3.2. Package contents

The equipment's package has the following content:

- Wood stove model Tek Round Eco, Tek System Eco, M1 Eco, K4 Eco, M20 Eco or M12F Eco;
- Flyer for accesing the online instruction manual;
- Cleaning bar handle;
- Air inlet kit (except for model M20 Eco).
- Stainless steel neck 152 mm (TEK Round and TEK System only)

An accessory (TEK Round and TEK System only) - a stainless steel collar with a diameter of 152 mm (picture below) - is placed in the neck for access to the smoke outlet once it absorbs deviations or gaps in the smoke outlet pipes on the market.



3.3. Optionial features for Tek Round Eco and Tek System Eco

3.3.1. Vertical/horizontal fume outlet

All our wood stoves models can be provided with either a horizontal OR vertical fume outlet, at the client's choice. Please note that this unit comes pre-installed with the vertical option.

To change the fume outlet initial vertical position to the horizontal position, please follow these steps:

1. Remove the outer cover from the back of the stove, unscrew the 6 screws. Then lift it to release the supports at the bottom of the stove;

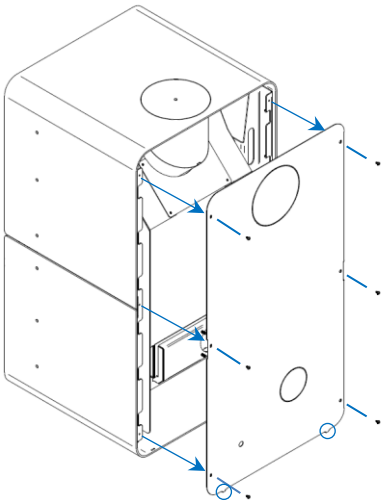


Figure 7 – Remove the outer cover from the back of the stove Tek Round Eco

2. On the back cover of the stove (previously removed) it is necessary to open the section corresponding to the horizontal smoke outlet. To do this, simply use a cutting pliers to eliminate the connection points of the respective section to the external cover of the equipment;

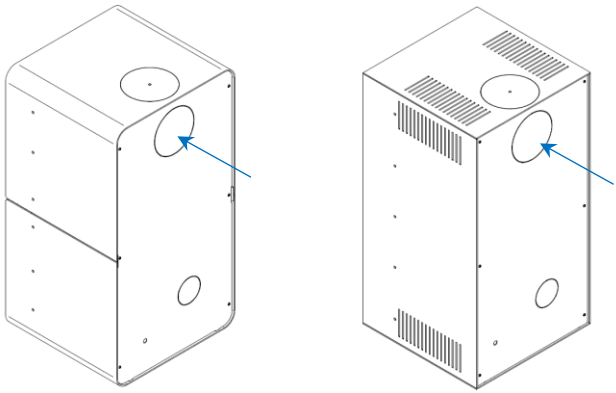


Figure 8 – Section to be deleted to convert the smoke output to horizontal mode

3. Remove the fume baffle (described in point 10.2 of the "Maintenance" section), taking special care not to damage any vermiculite plate;

4. On the inside top of the combustion chamber, unscrew the 4 screws in order to release the smoke outlet using an hex key;

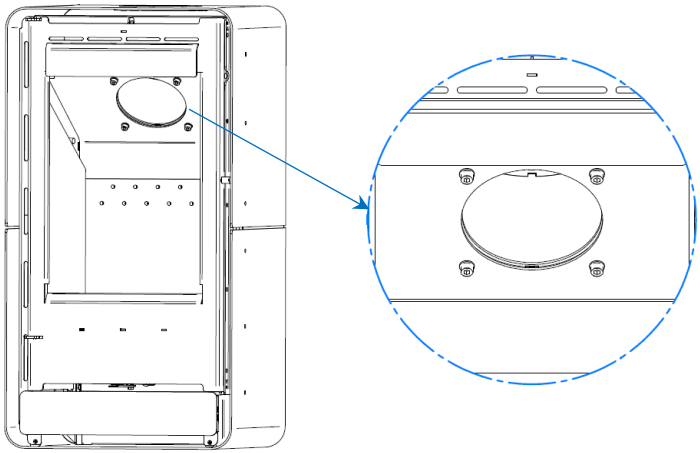


Figure 9 – Smoke outlet fixing screws

5. Reposition the Smoke outlet so that the outlet is horizontal;

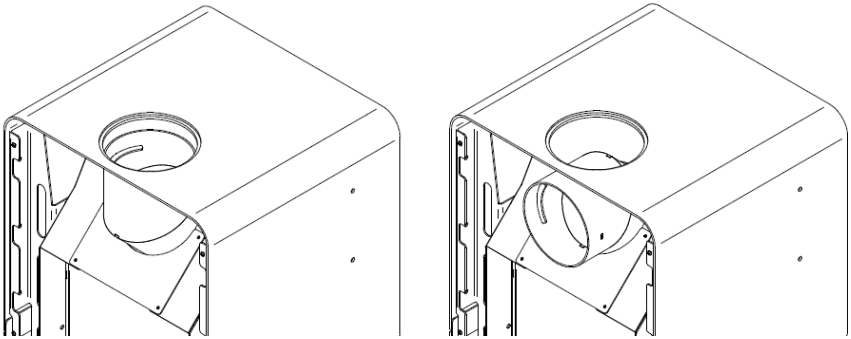


Figure 10 – Reposition the smoke outlet

6. Tighten the screws inside the chamber with the Smoke outlet in the previously defined position;

7. Replace the fume baffle in the reverse order to that explained in the respective point;

8. Reposition the back cover, first placing the supports in the lower area in the slots at the bottom of the stove. Then put the 6 screws removed previously;

9. Using the extra cover provided, cover the section left open on the stove top by changing the position of the smoke outlet.

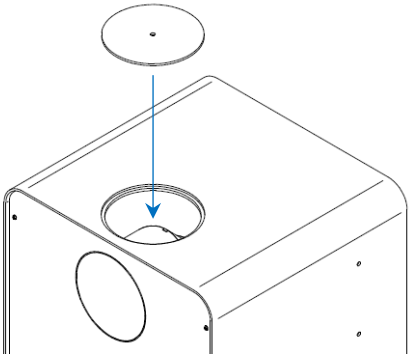


Figure 11 – Put extra cover

3.3.2. Optional Modules – Tek System

Lower Module with wood (Figure 12)

1. Place the module (A) in the desired location and position the stove in the upper area of the same, ensuring that the side and front of the equipment are aligned with the respective faces of the module;

2. Using the screws (B) and washers (C) provided, fix the module to the stove through the hole on the top of the module from the inside.

Lower Modue with Basket (Figure 13)

1. Place the module (A) in the desired location and position the stove in the upper area of the same, ensuring that the side and front of the equipment are aligned with the respective faces of the module;

2. Using the screws (B) and washers (C) provided, fix the module to the stove through the hole on the top of the module from the inside;

3. Remove the basket (B) from inside the module to access the place where the module screws are tightened.

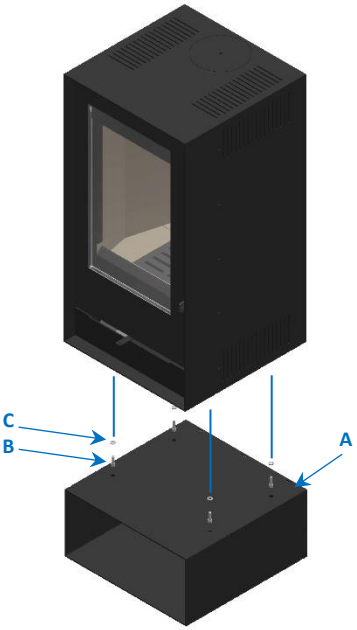


Figure 12 – Wood module fixing

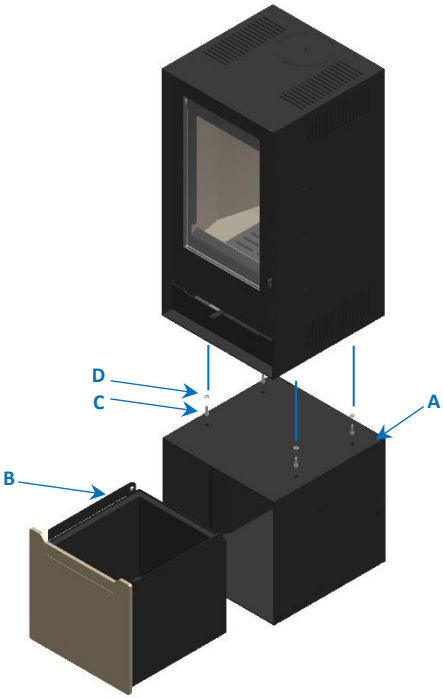


Figure 13 – Basket module fixing

3.4. Optionals Modules M1 Eco and K4 Eco

3.4.1. Stone top M1 Eco

If you want to aplly a stone top to the M1 Eco Stove, you must apply it, following the steps mentioned below:

1. Access the back of the equipment and remove the two screws that fix the lid to the back of the equipment, then move the lid upwards so that it releases from the tabs on the sides of the equipment;

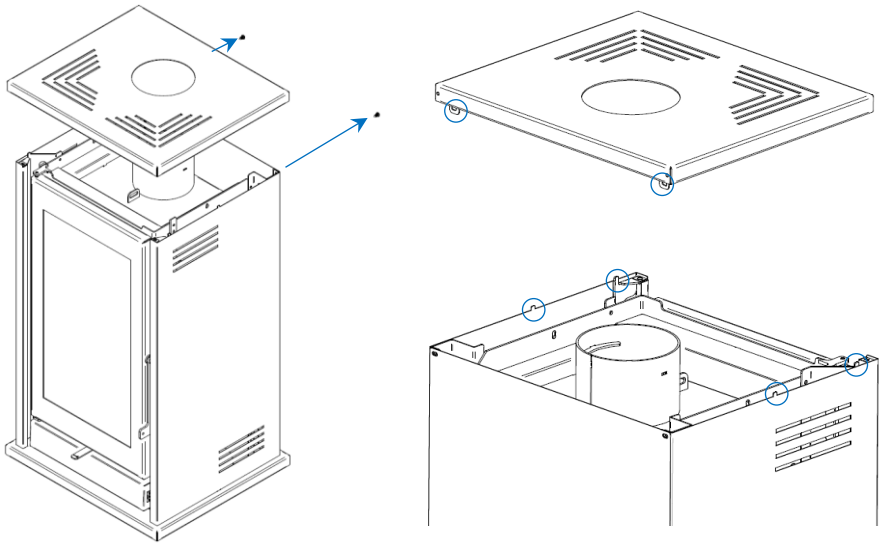


Figure 14 – Remove the sheet metal top from the M1 Eco stove

2. After removing the sheet metal top, cut the four legs with the aid pliers and then place the top on the equipment;

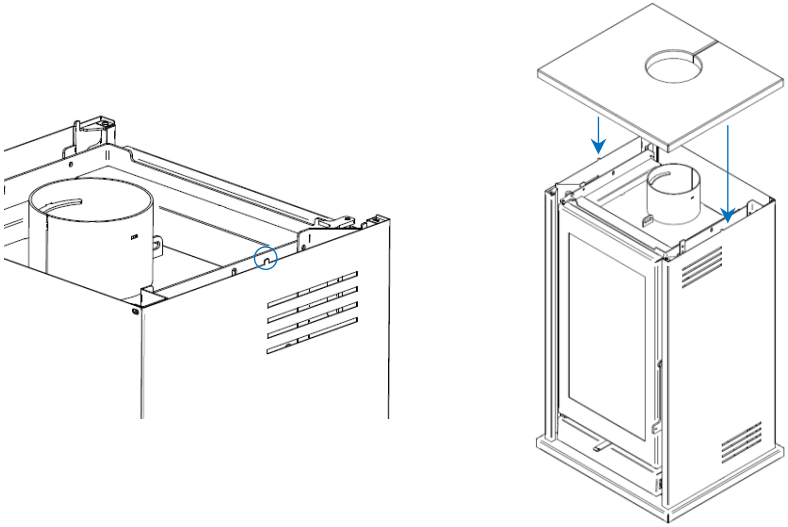


Figure 15 – Placement of the stone top on the M1 Eco Stove

3.4.2. K4 Eco stone top

If you want to aplly a stone top to the K4 Eco Stove, you must apply it, following the steps mentioned below:

1. Access the two rear sides of the equipment and remove the four screws that fix the top to the back of the equipment, it is not necessary to remove the screw that is in the center of each side. You must then move the lid upwards so that it is released from the tabs on the front of the equipment;

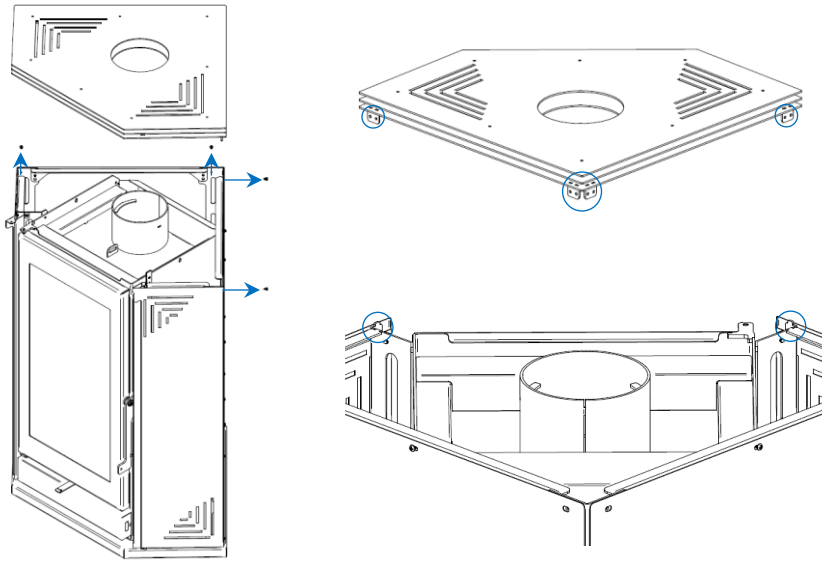


Figure 16 – Remove the sheet metal top from the K4 Eco stove

2. After removing the sheet metal top, cut the tablets with the aid pliers and then place the top on the equipment;

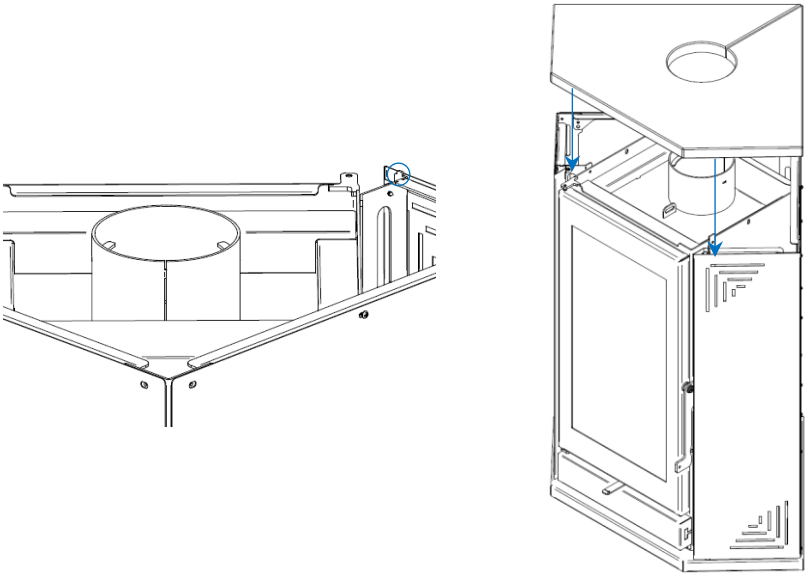


Figure 17 – Placement of the stone top on the M1 Eco stove

3.4.3. M1 Eco side covers

If you want to change the side covers of the stove M1 Eco, you must follow the steps mentioned below:

1. Access the back of the equipment and remove the two screws that secure the top of the back of the equipment. You must then remove the lid, moving it upwards;

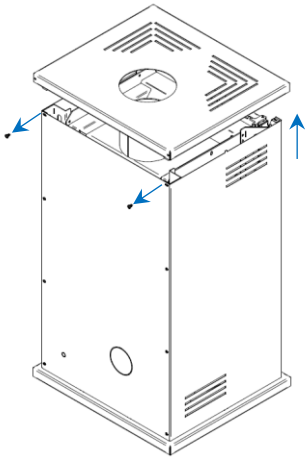


Figure 18 – Remove M1 Eco stove top

2. After removing the top, you must then remove the three screws on one of the sides of the rear area and the screw on the front area. Remove the side by moving it upwards so that the tab on the bottom is released;

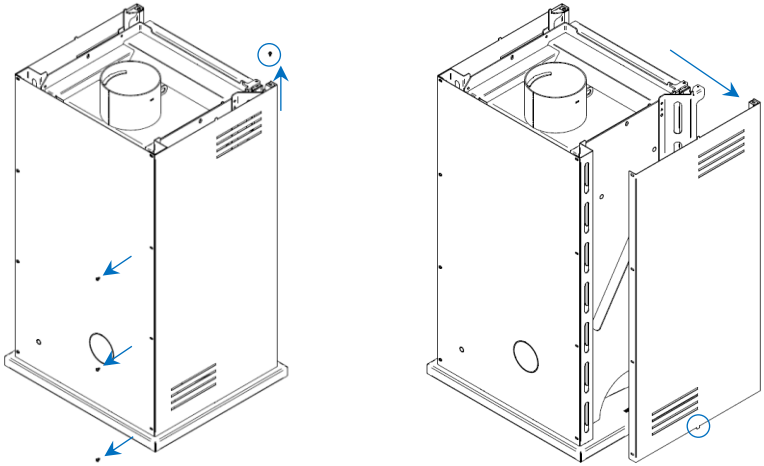


Figure 19 – Remove the side cover of the stove M1 Eco

3. To install a new side cover, proceed in reverse. First, fit the cover tab, mentioned above, in the slot in the base of the equipment and then apply the screws on the back and front. You must repeat this procedure for the other side, and finally, put the top back.

NOTE: You must apply one of the sides first and only then apply the second layer, so that back piece is supported.

3.4.4. K4 Eco side covers

If you want to change the side covers of the stove K4 Eco, you must follow the steps mentioned below:

1. Access the rear areas of the equipment and remove the four screws that secure the top to the back of the equipment. You must then move the lid upwards so that it is released from the tabs on the front of the equipment;

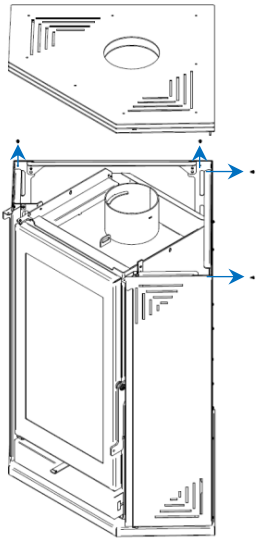


Figure 20 – Remove the K4 Eco stove top

2. After removing the top, you must then remove the three screws that join the back cover to the side cover and the screw on the front. Remove the side by moving it upwards so that the tab on the bottom is released;

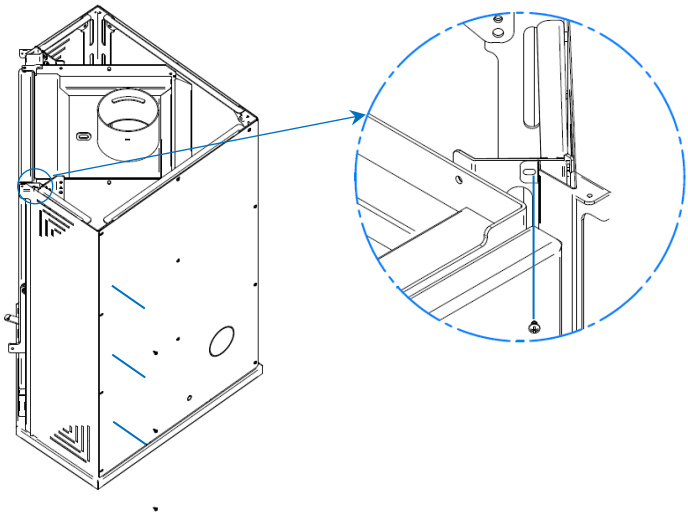


Figure 21 – Remove the side cover of the K4 Eco stove

3. Then remove the side by moving it upwards so that the tab on the bottom is released;

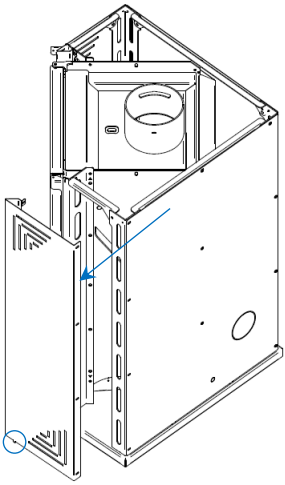


Figure 22 – Remove the side cover of the K4 Eco stove

4. To install a new side cover, proceed in reverse. First, fit the cover tab, mentioned above, in the slot in the base of the equipment and then apply the screws on the back and front. You must repeat this procedure for the other side, and finally, put the top back on.

3.5. Connecting the external air inlet

If you want to use the external air inlet, you must apply the kit provided, following the following steps (except M20 Eco):

1. Access the back of the equipment and remove the back cover (A);

2. Place the outsider air kit (C) on the stove, using the DIN 6923 M6 nuts supplied with the kit;

3. Break the micro connections in the lower area (B) of the back cover (A);

4. Replace the cover (A) on the stove;

5. Use this accessory as a connection point to the outsider ambient air, installing the most suitable piping for this purpose.

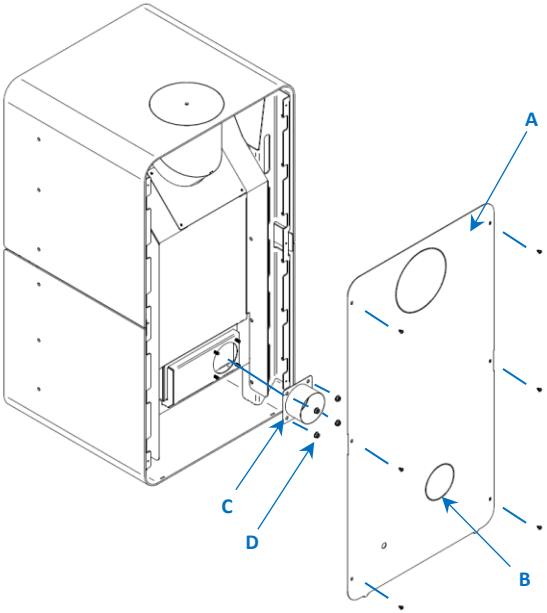


Figure 23 – Section to be eliminated (B) for placing the external air inlet (C)

4. Installation

*Warning: when installing this unit, be sure to follow **all** model-specific information, warnings, safety notices and local codes*

4.1. Combustion ai rand gas circulation

***** This heating appliance must be installed in a well-ventilated area. Any required air inlet vents must be installed where not prone to becoming blocked;

* The air for combustion goes into the unit through the combustion air inlet located at the bottom of the unit. This air flow should be kept clear of obstacles at all times;

* Additional air inlets may be needed if the unit is used concurrently with other appliances that require an air supply. The installer should assess this need, according to the existing appliances overall air flow requirements;

* The Tek units cannot be installed in areas where air extraction appliances, such as kitchen extractor fans, may operate simultaneously, as this may prevent the correct operation of the unit;

* Under rated operating conditions, the circulation of combustion gases should create a draught of 12 Pa about one metre above the chimney throat. For proper installation, at least 2 metres of metal flue tubing, with the same diameter as the unit's smoke outlet, should be fitted vertically above the unit. Additional lengths to this tubing may use piping sections with a max angle of 45°. Figures 29 and 30 illustrate the correct and incorrect angles for pipe elbows, should they need to be installed.

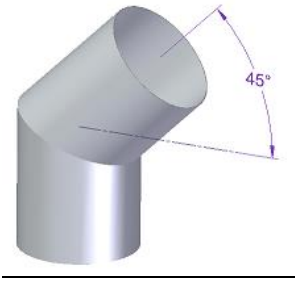


Figure 24 - Correct elbow angle

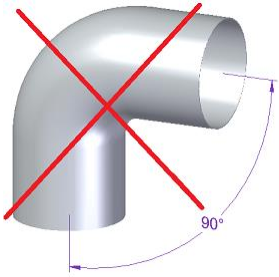


Figure 25 - Incorrect elbow angle

* Single-walled tubes installed on the exterior of a building results in the condensation of water vapour in the combustion gases. To prevent this, we recommend that you use a double-walled, insulated tube.

* All tube bindings should be properly sealed to prevent the admission of air through any existing fissures;

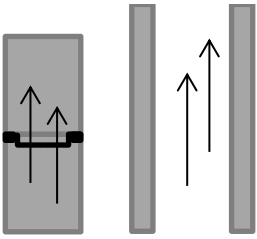


Figure 26 – Correct sealing

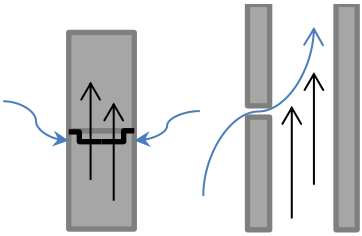


Figure 27 – Incorret sealing

* Ensure that the tube bindings do not strangle the tube (narrowing the flow), the inner tube walls are smooth and free of obstacles, and that the caps do not disturb the air circulation;

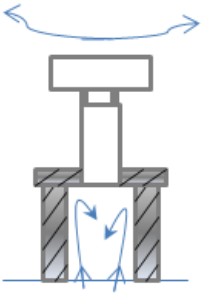


Figure 28 – Incorret binding

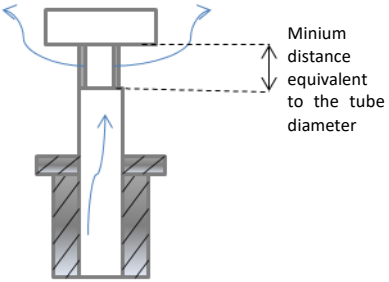


Figure 29 – Correct binding

* The chimney dome should allow proper air circulation and be placed at least 1 m above the roof peak or 3 m away from other obstacles. If you need to increase the air circulation, you should extend the height of the flue;

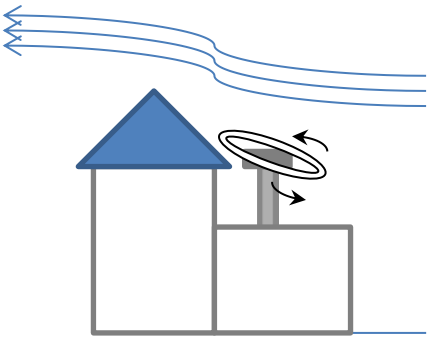


Figure 30 – Incorret chimney height

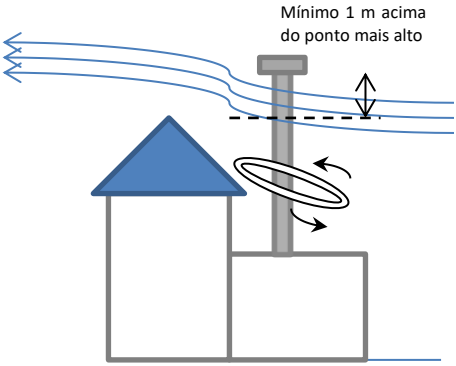


Figure 31 – Correct chimney height

* Never use the same chimney flue for more than one unit or open fireplace. For shared chimneys, each flue should individually reach the external outlets at the same level, to ensure that the air circulation adequately expels the exhaust fumes;

* If the chimney is made of brick, the flue should extend up to the very top, preferably in isolation. Otherwise, the fume temperature will drop, impairing air circulation. A suitable cap should be installed at the top of your chimney in accordance with its air circulation condition. Depending on atmospheric conditions, other types of chimney caps may be installed, such as the rooster cap.

4.2. 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 (Fig.31);

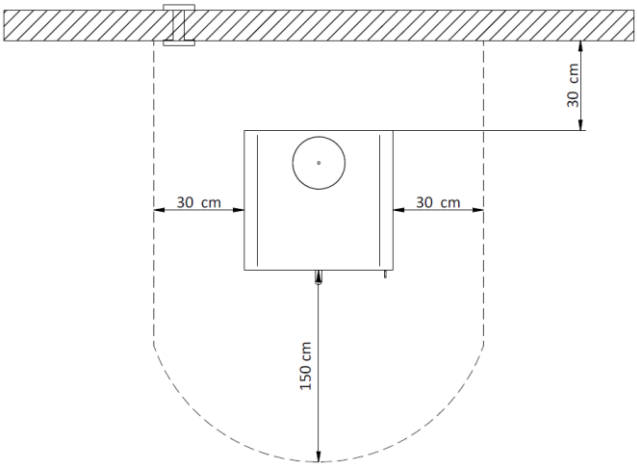


Figure 32 – Minimum safety distances

* 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.

5. Instructions for use

5.1. Fuel

* Only firewood should be used in this type of appliance. The unit cannot be used as an incinerator, nor should other materials such as coal, painted wood, varnishes, thinners, liquid fuels, glues or plastics be used as fuel. Also avoid burning common combustible materials, such as cardboard and straw;

* Do not use exotic firewood as fuel;

* The firewood used with this appliance should have low water content (less than 20%). We recommend that it should be placed under covered storage for around 2 years after felling, in order to ensure efficient combustion and avoid creosote build-up in the smoke duct, combustion chamber and on the glass. See the list in Table 2, for additional information on the types of wood that can be used in these units.

Table 2 - Types of firewood that may be used in SOLZAIMA heat exchanger appliances, their geographical distribution and respective calorific value/reactions

Common name	Sicentific name	Distribuiton (total: 18 districts)	Notes	Features				
				Smoke	Heat	Lighting	Combustion speed	Hardness
Pine	Pinus	Bragança, Castelo Branco, Coimbra, Guarda, Leiria, Viana do Castelo, Vila real e Viseu	Predominant species	Little	High	Easy	Fast	Soft
Cork Oak	Quercus suber	Évora, Faro, Portalegre, Santarém e Setúbal	Predominant species	Little	Very High	Easy	Regular	Hard
Eucalyptus	Eucalyptus	Aveiro, Porto e Lisboa	Predominant species	A lot	Regular	Difficult	Slow	Hard
Holm Oak	Quercus ilex	Beja e Évora	Predominant species	Little	Very High	Difficult	Slow	Hard
Olive tree	Olea	Entire country except mountainous regions	Less predominant than above	Little	Very High	Difficult	Slow	Hard
Oak	Quercus	*Entire country, with range of subspecies*	Less predominant than above	Little	High	Difficult	Slow	Hard
Ash	Fraxinus	*Riverbank areas (Lower Vouga)*	Small numbers distributed around the country	Regular	High	Difficult	Slow	Hard
Birch	Betula	*High ground (Serra da Estrela)*	Smaller numbers distributed around the country	Little	Very High	Easy	Fast	Soft
Beech	Fagus	*Cold, humid regions (North of Portugal – - Serra do Gerês)*	Smaller numbers distributed around the country	Little	High	Difficult	Slow	Hard
Maple	Acer	*Minho, Beira Litoral and Serra de Sintra*	Smaller numbers distributed around the country	Little	Regular	Regular	Slow	Soft
Poplar	Populus	*Entire country, but mainly in the Centre*	Smaller numbers distributed	Little	High	Easy	Fast	Soft

			around the country					
Chestnut	Castanea	*Northern and centre part of Portugal, and mountain regions*	Smaller numbers distributed around the country	Regular	High	Difficult	Slow	Hard

5.2. Power

* The power of your unit translates its heating capacity, i.e. the heat transfer your unit gets from the energy of the firewood used (usually measured in kW), which is directly dependent on the amount of firewood placed in the units.

* The rated power is measured for standard load of firewood when tested in laboratory conditions over a specific period of time.

5.3. Energetic efficiency and performance ratings

* The implementation of solutions promoting greater energy efficiency results in a substantial reduction in energy needs, which in turn helps reduce our current dependence on fossil fuels and other non-renewable sources of energy. Energy efficiency therefore encourages significant savings, both economically and environmentally speaking.

* Solzaima's commitment to developing energy efficient heating units results in products that can claim to have an efficiency rate equal or above 70%.
A 70% efficiency rate means that 70% of the energy contained in the firewood is used to warm your home or, in other words, you are able to produce the same amount of energy with much less firewood.
A Solzaima unit of 5kW with an efficiency rate of 75% is expected to consume approximately 1.6 kg (3.5 lbs) of firewood per hour to heat a 35 m2(377 sq ft) room.

* Generally, the efficiency rate of a traditional fireplace is only about 10%, which means it will need to consume approximately 12 kg (26.5 lbs) of firewood to produce the same 5kW required to warm the same 35 m2(377 sq ft) room.

FIREWOOD CONSUMED IN ONE HOUR TO HEAT A SPACE OF APPROXIMATELY 35 m² (377 sq ft) USING A 5 kW STOVE

A traditional fireplace with an efficiency rate of 10% consumes 26.5 pounds (12kg) of firewood

A fireplace fitted with a fire stove system that has an efficiency rate of 30%, will need to consume 4 kg (8.8 lbs) of firewood.

A fire stove with an efficiency rate of 50% will need to consume 2.4 kg (5.3 lbs) of firewood.

A Solzaima fire stove appliance with an efficiency rate of 75% only needs to consume 1.6 kg (3.5 lbs) of firewood.

6. 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.

7. 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.

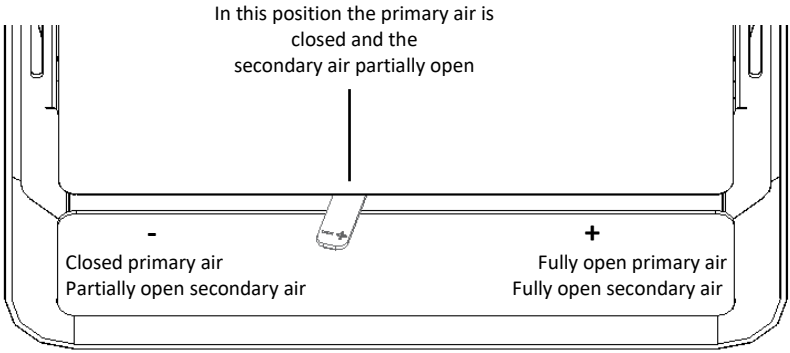


Figure 33 – Air regulator in the optimal firing point position (except M12F Eco and M20 Eco)

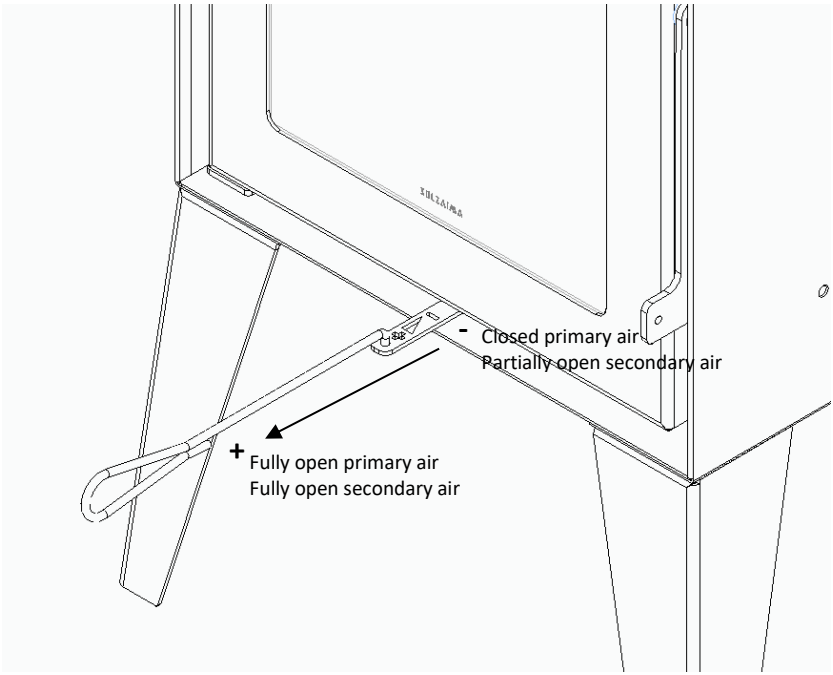


Figure 34 – Air regulator in the optimal firing point position M12F Eco and M20 Eco

* 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 between 26 and 30 cms. This will allow you to place the firewood longitudinally or transversely in relation to the base of the combustion chamber;

8. Forced ventilation Kit (Optitional)

* In models Tek Round Eco, Tek System Eco, M1 Eco e K4 Eco can be installed one tangential fan with power of 38 W and a min and max air flow of about 60 m3/h and 165 m3/h respectively, connected in parallel with a thermostat, according to the following diagram:

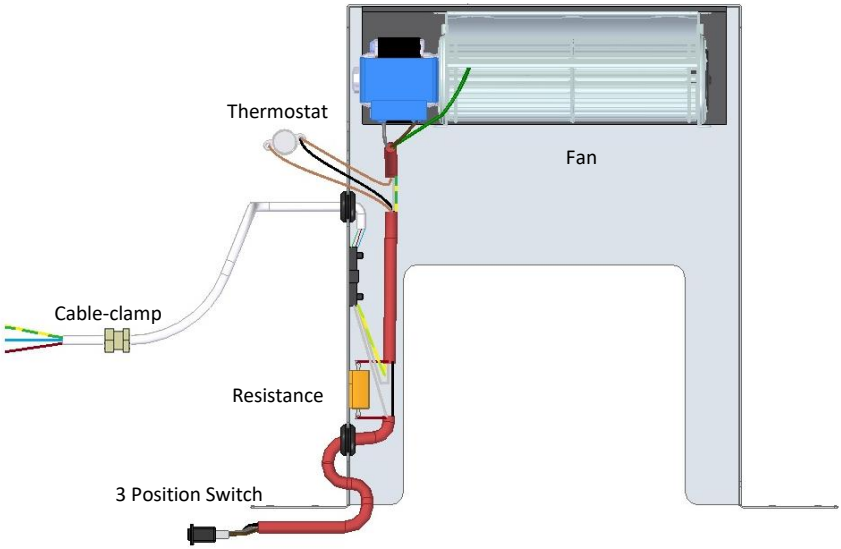


Figure 35 – Fan Ventilation kit

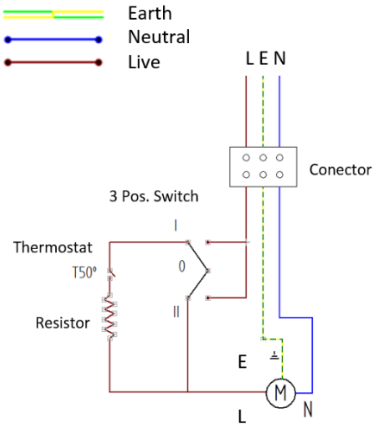


Figure 36 – Electric scheme

* Remove front cover and introducing ventilation kit (figure 37);

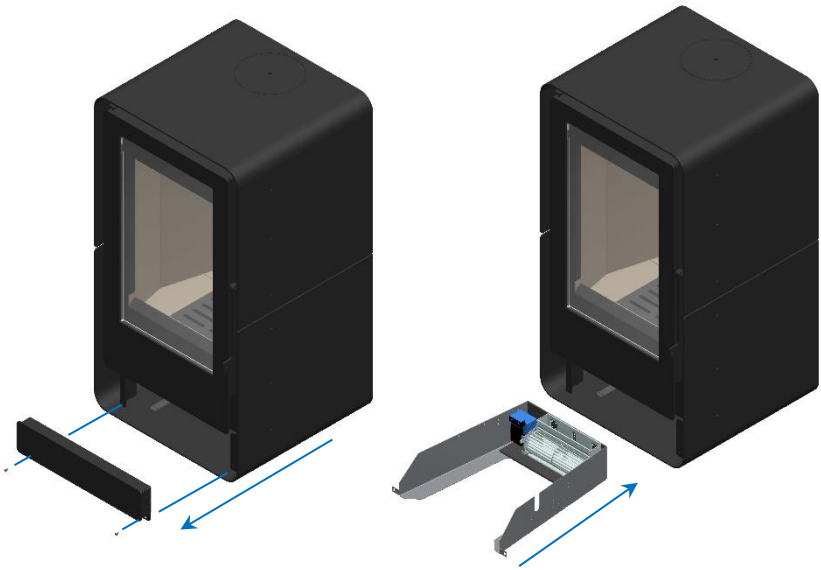


Figure 37 – Installation of the ventilation kit on the Tek Round Eco stove

* Pass the electric cable through the hole and tighten the wire passes (figure 38);

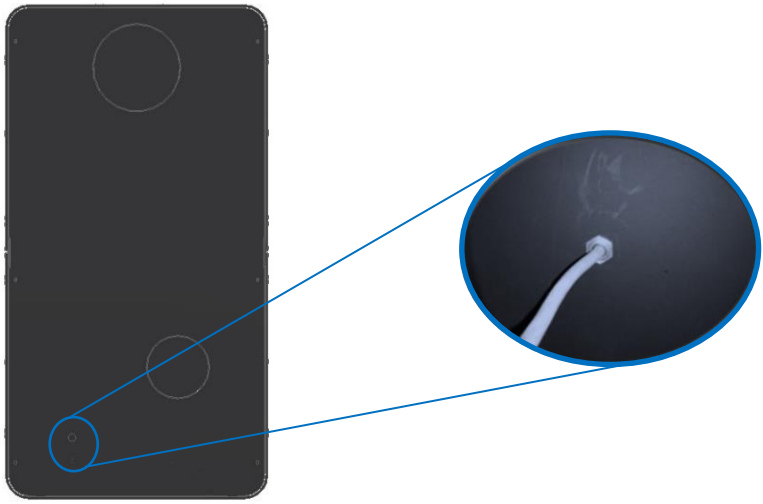


Figure 38 – Cable routing for the ventilation kit

* Fix the ventilation kit (figure 39);

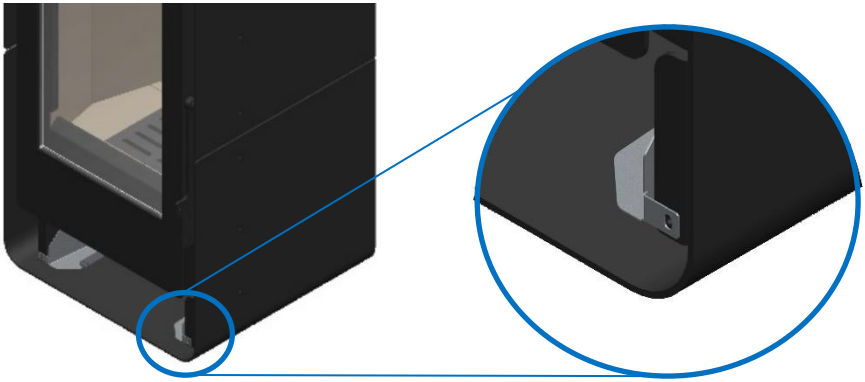


Figure 39 – Fixing the ventilation kit to the Tek Round Eco stove

* Fix the ventilation kit thermostat (figure 40);

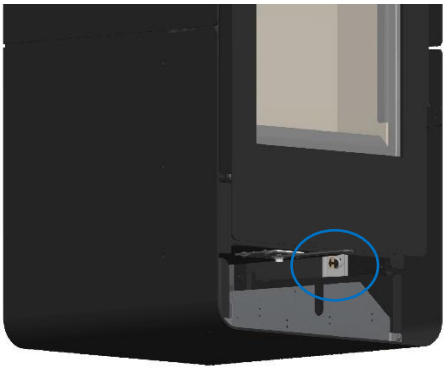


Figure 40 – Fixing the ventilation kit thermostat

* Before placing the front cover in place the Switch button (figure 41).

Figure 41 – Attaching the switch to the front cover

Position I – Tangential fan automatically turns on with an air flow of 60m3/h when the thermostat reaches 50 °C.

Position 0 – Tangential fan keeps inactive.

Position II – Tangential fan is activated manually with an air flow of 165m3/h.

Figure 42 - 3 Position Switch

Attention: all three wires in the power feed cable – earth, neutral and live – should be connected. We take no responsibility for any damage resulting from non-compliance with this warning.

* The electrical components should always be connected to the power supply;

* The cable used for the electrical connection should be silicon-coated and heat-resistant to 356°F (180°C). If the power feed cable is damaged, it should only be replaced by a qualified technician;

*** You should take care to not lay the cable where it may be crushed;**

* The electrical installation should incorporate means to switch the unit off, with a minimum separation of 0.118 inches (3mm) between the contacts, pursuant to the applicable legislation in force.[1]

9. 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 does not heat beyond 45°C, but 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 – (SOLZAIMA).

[1] We recommend the use of a 30 mA differential switch and a 0.5 A circuit breaker for the unit's electrical installation.

10. Cleaning and Maintenance

10.1. Cleaning

* Ash build up should be regularly removed from the chamber (but only after turning off the unit and allowing it to cool down). For cleaning, you must first remove the ash grid and then the drawer;

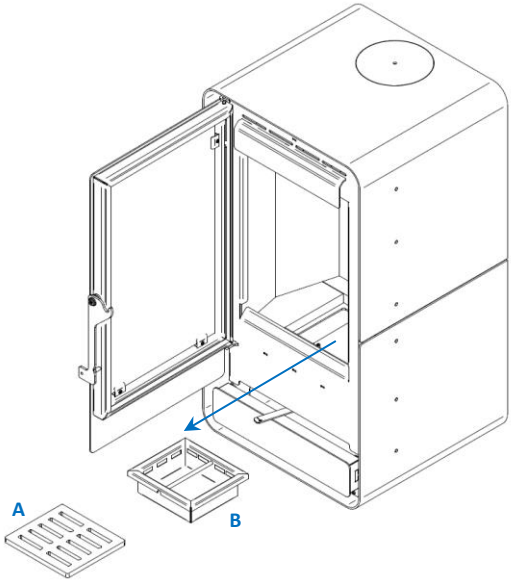


Figure 43 – Ash drawer removal

* The glass should always be cleaned with an appropriate product2, 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;

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

* 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;

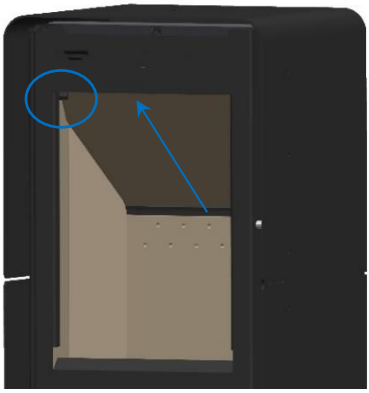
* We recommend regular inspections of the unit and its fume outlet by an expert technician.

10.2. Removing the fume baffle (except M12F Eco and M20 Eco)

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 (see Fig.44-[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 (see Fig.44-[B]);



[A]

[B]

3. Using this gap, rotate the baffle plate sideways and downwards (see Fig. 44-[C]);

4. Remove the baffle plate away from the unit (see Fig.44-[D]);

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

[C] [D]

Figure 44 – Sequence that must be followed to remove the fume baffle (except M12F Eco and M20 Eco)

10.3. Removing the fume baffle - M12F Eco and M20 Eco

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 (see Fig.42-[A]);

2. Lift the baffle a little so that it is free from the upper baffle support. After it is free from the supports, you should remove the baffle by moving it downward, Figure 45 [A] and [B];

3. With the gap created previously, rotate the baffle relative to the side and in the downward direction, Figure 45 [C], and remove it through the door;

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

[A] [B]

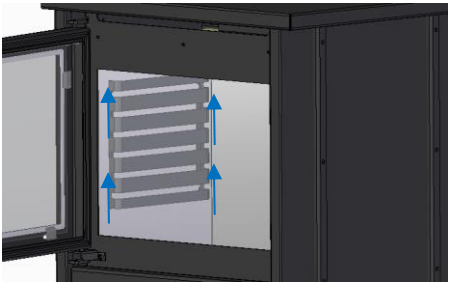
[C]

Figure 45 – Sequence that must be followed to remove the fume baffle - M12F Eco and M20 Eco

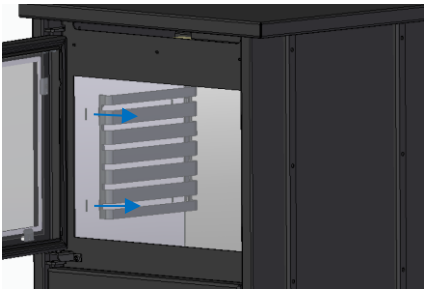
10.4. Cleaning the oven – M12F Eco

To clean the inside of the oven of the M12F Eco and its side racks it is necessary:

Remove the side support grids (right and left). These side grids are interlocking, and to remove them, pull the grid upward (Figure 46 [A]) and then pull it outward (Figure 46 [B]).



[A]



[B]

Figure 46 - Remove side racks for oven cleaning

NOTE: the oven must be cool when cleaning and soft, non-abrasive cleaning products should be used

11. Troubleshooting

Problema	Soluções
Glass gets dirty quickly	. Check moisture level of firewood . Check for any obstructions in the fume outlet /Check installation (insufficient draught)
	. Increase the intensity of the burn by opening the primary air intake regulator
Excessive draft	. Verify whether the combustion air inlets are at their maximum if they are readjusting to reduce the intensity of the burn . If necessary, install a draught stabilizer . Contact the installer
Weak draught, causing Smoke to be expelled into the room	. Check that the flue is clear of any obstructions . Clean the flue . Check that the fume outlet pipe reaches up to the very top of the chimney flue . Check that the pipe is correctly sealed from the chimney . Check whether the existing chimney cap is appropriate and whether it is sufficiently open . May be due to exceptional weather conditions
Weak fire	. Check moisture level of firewood . Regulate the unit's air controls to increase the intensity of the burn . Check whether air is entering the compartment
Problems associated with the weather	. Contact the installer

Table 3 – Identifying potential problems and their respective solutions

12. End-of-life units

* Around 90% of the materials used in the manufacture of these Solzaima units are recyclable, contributing towards a reduced environmental impact and a more sustainable planet;

* End-of-life units should be taken to licensed waste operators. We advise contacting your local council to ensure their correct collection.

13. Sustainability

* Solzaima designs and manufactures biomass heating solutions and appliances. This is our contribution towards promoting a more sustainable planet - – an economically-viable and environmentally-friendly alternative that safeguards the best environmental management practices to ensure effective carbon cycle management.

* Solzaima seeks to discover and study Portugal's forested areas, efficiently responding to energy demands while safeguarding biodiversity and natural wealth, which are fundamental to preserving our planet's quality of life.

* SOLZAIMA is a member of the Sociedade Ponto Verde, which manages waste packaging from products placed on the market by member companies; as such, the packaging that comes with your unit (i.e. plastic and cardboard) can be taken to your nearest recycling point.

* SOLZAIMA also participates in the Amb3E project, responsible for collecting waste electrical and electronic equipment (WEEE); as such, end-of-life heating units with forced ventilation systems must be taken to an appropriate WEEE processing facility. When disassembling your end-of-life unit, keep its electrical components to be delivered at your nearest WEEE collection point. For more information, visit: www.amb3e.pt

14. Glossary

* **cal** (Calories): the amount of heat required to increase the temperature of one gramme of water by one degree centigrade.
* **cms**(centimetres): unit of measurement.
* **CO** (carbon monoxide): A lightly flammable, colourless, odourless gas that is very dangerous due to its high toxicity.
* **CO_2**(carbon dioxide): Gas needed by plants for photosynthesis on the one hand, and emitted into the atmosphere on the other, contributing to the greenhouse effect.
* **Combustion**: a process for obtaining energy. Combustion is basically a chemical reaction that requires three items in order to take place: fuel, oxidant and ignition temperature.
* **Combustion agent**: chemical substance that fuels combustion (essentially oxygen) and which is fundamental to the process.
* **Fue**l: anything that can undergo combustion, in this case referring to wood.
* **Creosote**: chemical compound created by combustion. This compound is sometimes deposited on the glass and shaft of the heating recovery unit.
* **Energy efficiency**: capacity to generate large quantities of heat with the least amount of energy possible, causing the least environmental impact and reducing the energy budget.
* **CO emissions**: emission of carbon monoxide gas into the atmosphere.
* **CO emissions (13% of O2):** carbon monoxide content corrected for 13% of O2.
* **kcal (Kilocalorie**): multiple unit of measurement of calories. Equivalent to 1000 calories.
* **kW (Kilowatt):** unit of measurement equal to 1,000 watts.
* **mm (millimetres):** unit of measurement.
* **Pa (pascal):** standard IS unit of pressure and tension. This unit is named after Blaise Pascal, an eminent French mathematician, physicist and philosopher.
* **Calorific value:** also known as specific combustion heat. It represents the amount of heat released when a certain amount of fuel is completely burned. Calorific value is expressed in calories (or kilocalories) per unit of weight of fuel.
* **Rated calorific power:** heating capacity or, in other words, the calorific transfer extracted by the unit from the energy of the firewood– measured for a standard wood load at a given period of time.
* **Operating power:** manufacturer's recommendation based on tests performed on the heating units using firewood loads within a reasonable operating range. This

power range, from minimum to maximum, will present different levels of firewood consumption per hour.

* **Performance:** expressed as a 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 enter into combustion.

* **Heat-resistant:** resistant to high temperatures and thermal shock.

* **Glass ceramic:** highly resistant ceramic material produced from the controlled crystallisation of vitreous materials. Widely used in industry.

15. Warranty

15.1. Specific conditions of units

This model requires its configuretion as a procedure for guaranteeing the guarantee. The configuretion service can only be authorized by technical services at the factory. This must be made mandatory up to 100 hours of service. The startup service will be an end-user load.

To activate the guarantee it is necessary to send the duly filled configuretion form to the following email: **apoio.cliente@solzaima.pt.**

15.2. General warranty conditions

1. Social name and address of the producer and object

Solzaima, S.A.
www.solzaima.pt
apoio.cliente@solzaima.pt
Rua dos Outarelos, 111
3750-362 Belazaima do Chão

This document does not substantiate the provision by Solzaima S.A. of a voluntary warranty on it's 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 Solzaima, SA, 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. Conditions of products warranty

3.1 Solzaima, SA replies towards the Buyer for the lack of product's conformity with their purchase and sale agreement, on the following deadlines:

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;

3.1.2 A period of 6 months from the date of delivery of the good, in the

case of professional use of the Product – Solzaima understands by professional, industrial, or intensive use all products installed in industrial or commercial spaces, or whose use exceeds 1500 hours per calendar year;

3.2 A functional testo f the product must be carried out before finishing the installation (plasterboard, masonry, coatings, paintings, among others);

3.3 No equipment can be replaced after the first firing without express authorization from the producer;

3.4 Each and every product must be repaired at the place of installation without causing serious inconvenience to the parties, except if this proves to be impossible or disproportionate;

3.5 To exercise their rights, and provided that the deadlines specified in the preceding paragraph are not exceeded, the Buyer must report in writing to Solzaima, SA the lack of the Product conformity within a maximum of:

3.5.1 Sixty (60) days from the date in which these have been detected, in the case of domestic use of the product;

3.5.2 Thirty (30) days from the date in which these have been detected, in the case of professional use of the product.

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

3.7 During the warranty period referred to in paragraph 3.1 above (and for it to remain valid), the repairs to the Product must only be carried out by Official Technical Services of the brand. All services provided under this warranty, will be held from Monday to Friday within the legal work schedule established in each region.

3.8 All requests for assistance must be submitted to support service Customer of Solzaima, SA, via e-mail: apoio.cliente@solzaima.pt or at the site www.solzaima.pt. At the moment of technical assistance to the Product, the Purchaser shall provide, as documentary evidence of Product Warranty, the invoice or other document demonstrating the purchase. In any case, the proof of purchase of the product shall include the reference (as referred in point 2 above) and date of purchase. Alternatively,

and in order to validate the Product Warranty the PSR - evidence of the machine start-up (if applicable) - may be used.

3.9 The product must be installed by a qualified professional, according to the regulations in force in each geographical area, for installation of these products and complying with all regulations in force, in particular concerning chimneys and other regulations applicable to aspects such as water supply, electricity and / or other related equipment or sector and as described in the instruction manual.

A product installation not in accordance with the manufacturer's specifications and / or does not comply with legal regulations on this matter, will not lead to the application of this warranty. When a product is installed outdoors, it must be protected from weather effects including rain and winds. In these cases, the device protection may be required by use of a cabinet, or a protective case properly ventilated.
Devices should not be installed in locations containing chemicals in its atmosphere, saline or with high moisture content environments, because it's mixture with air can promote the combustion chamber rapid corrosion. In this type of environment, it is especially recommended that the unit is protected with anti-corrosion products for the purpose, especially between working periods. As a suggestion we advise the application of graphited greases suitable for high temperature lubrication function and anti-corrosion protection.

3.10 In the Products belonging to the pellet range, in addition to the daily and weekly maintenance detailed in the instruction manual, it's also required to clean its interior and the respective fume extraction chimney. These tasks must be performed every 600-800 kg of pellets consumed in the case of pellet stoves (air and water) and compact boilers, and every 2000-3000 kg of pellets consumed in the case of automatic boilers. In case these quantities are not consumed, at least a systematic preventive maintenance on an annual basis must be done.

3.11 It is up to the Buyer to ensure that periodic maintenances are performed as indicated in the manuals and handling instructions 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 registering them in the instruction manual in the dedicated section.

3.12 To prevent damage to the equipment due to overpressure, it must be assured, in the installation, safety elements such as pressure relief valves or temperature pressure, if applicable, as well as expansion tank adjusted to the installation, to assure its proper operation. Please note that: the referenced valves should have a value equal to or less than the pressure supported by the equipment; there may not be any shut-off valve between the equipment and the respective safety valve; a preventive maintenance plan should be provided to certify the correct functioning of these security features; regardless of device type, all safety valves should be channeled into sewer siphon, to prevent damage to housing by discharges of water. The Product Warranty does not cover damage caused by improper channeling water discharged by the valves.

3.13 To prevent damage by galvanic corrosion to the equipment and the attached piping, it is recommended the use of dielectric tabs (cuffs) on connections between the device and metal tubes, whose characteristics potentiate this kind of corrosion. The product warranty does not cover damages caused by the non-use of such dielectric spacers.

3.14 The water or thermal fluid used in the heating system (Hydro stoves, boilers, fireplaces central heating. Etc.) must comply with the legal requirements and ensure the following physical-chemical characteristics: absence of suspended solids; low conductivity; residual hardness of 5 to 7 (ºF) French degrees; neutral pH close to 7; low concentration chlorides and iron; no air inlets by depression or other. If the installation enhances a water automatic make-up it should consider upstream, a preventive treatment system consisting of filtration, water softening and preventive dosage of polyphosphates (fouling and corrosion) as well as a deaeration step, in case this is necessary. If in some circumstances some of these indicators' present values outside the recommended, the warranty will cease its effect.

3.15 Except as expressly provided by law, an intervention in warranty does not renew the Product warranty period. The rights of warranty are not transferable to the purchaser of the product.

3.16 The equipment must be installed in accessible local and without risk to the technician. The means necessary for access to the equipment will be provided by the Buyer, as well as all the charges resulting from the process.

3.17 Guarantee is valid for products and equipment sold by Solzaima SA only and exclusively within the geographical and territorial area of the country where the Product was sold by Solzaima..

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

The following cases are excluded from Warranty, being the total cost of the reparation payable by Buyer:

4.1. Products with more than 2000 operating hours;

4.2. Refurbished and resold products.

4.3. Maintenance operations, tuning 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, baffle or protection plates, vermiculite, sealing cords, burners, ash pans, trim wood, smoke regulators, ash grid, whose wear is directly related to the operating conditions.
Paint degradation, as well as its degradation by corrosion due to fuel excess charge, open drawer uses or excessive draft of the chimney installation. The glass breakage by improper handling or other reasons unrelated with the conformity of the product. In the pellets family equipment's, the combustion igniter it's a wearing part, for that reason this component only as 6 moth of warranty or 1000 fireplace lighting;

4.5. Wear components such as bearings;

4.6. Deficiencies of components external to the product that may affect its correct functioning, as well as property damage or other (eg. Tiles, roofs, waterproof covers, pipes, or damage caused by the user) originated by misuse of materials in the facility or the non-implementation of installation according to the rules of installation of the Product, the applicable regulations or good construction rules, especially when it has not promoted the application of appropriate piping temperature in use, expansion tanks, anti-return valves, safety valves or anti-condensation valves, among others;

4.7. Products whose operation has been affected by faults or deficiencies of external components or inappropriate dimensioning;

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

4.9. Defects that are caused by the not following of the instruction manual and operation instructions, the use of applications non-compliant with the product application, abnormal climatic factors, abnormal operating conditions, overload or improper maintenance and cleaning;

4.10. Products that have been modified or manipulated by unauthorized personnel and therefore without explicit permission from Solzaima, SA.;

4.11. Damage caused by external agents (rodents, birds, spiders, etc.), atmospheric phenomena and / or geological (earthquakes, storms, frost, hail, lightning, rain, etc.), wet, humid or saline environments (eg proximity of sea or river), as well as those derived from excessive water pressure, inadequate power supply (voltage with variations greater than 10% over the nominal value of 230V), pressure or inadequate supply of circuits, vandalism, urban confrontations and armed conflicts of any kind, as well as derivatives;

4.12. Failure to use fuel recommended by the manufacturer is reason to warranty exclusion.

Note: For pellet devices the fuel used must be certified by EN 14961-2 grade A1. Also, before buying large quantities, the user should test the fuel to see how it behaves. In wood devices the fuel must have a moisture content below 20%.

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

4.14. All products or components damaged in transport or installation;

4.15. Cleaning operations performed to the device or components caused by condensation, fuel quality, bad adjustment or other circumstances arising from the place of installation. Interventions for decalcification of the product (the elimination of calcium carbonate or other materials deposited inside the device and produced by the

quality of water supply) are excluded from warranty. Circuit purge operations or unlocking of Circulator pumps are also excluded from warranty.

4.16. The installation of the product(s) supplied by Solzaima, SA must consider the possibility of its easy removal, as well as points of access to mechanical, hydraulic and electronic equipment and to the installation. When the installation does not allow immediate and secure access to the equipment, the additional costs of access and security measures will be Buyer responsibility. The cost of dismantling and assembling boxes of plasterboard or masonry walls, insulation or other elements such as chimneys and plumbing connections preventing free access to the product (if the product is installed inside a crate of plasterboard, masonry wall or other dedicated space it must follow the dimensions and characteristics indicated in the manual and operating instructions accompanying the product).

4.17. Information or clarification interventions done to domicile about how to operate the heating system, programming and/or reprogramming of regulation and control elements, such as thermostats, regulators, programmable devices, among others;

4.18. Fuel adjustment interventions in pellet devices, cleaning, detection of water leaks in device's external piping, damages due to the lack of cleaning of the Product or the fume extraction chimneys;

4.19. Emergency interventions are not covered by Warranty: weekend and holiday interventions; these could be performed with an additional charge, and will only be performed under the express request from the buyer and conditioned to availability of authorized technical personnel.

5. Inclusion of Warranty

Solzaima, SA will fix at no charge to the Buyer, the defects covered by the warranty by repairing the product. Products or components replaced will become the property of Solzaima, SA.

6. Responsability Solzaima, S.A.

Without prejudice to legal provisions, the responsibility of Solzaima, SA, concerning warranty is limited to the established in these warranty conditions.

7. Tariff Services carried out under warranty

Interventions outside the scope of the warranty are subject to the application of tariffs in force.

8. Warranty services perfomed outsider the scope of warranty

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

9. Warranty Spare Parts provided by Solzaima

Parts supplied by Solzaima, within the scope of the commercial sale of spare parts, that is, not incorporated in the equipment, are not guaranteed.

10. Replaced Parts scope of Technical Assistance Service

Used partes 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 tio a licensed entity that carries out the appropriate waste management operations under the terms of the law and is therefore prevented from giving it any other destination, whatever it may be. Therfore, the customer will be able to view the used parts resulting from the assistance, but he will not be able to keep them in his possession.

11. Administrative Expenses

In case invoices related to services performed are not paid within the agreed payment term, interests will be applied at the maximum legal rate.

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 Águeda, with express waiver of any other.

16. Declaração de desempenho

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

Nº DD-074

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

TEK SYSTEM ECO– EAN 05600990471818

TEK ROUND ECO – EAN 05600990471801

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

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 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
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 superficie | 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 | 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** 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. 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
Belazaima do Chão, 19/05/2021

Nuno Sequeira (Director Geral | CEO)

Nº DD-080

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

M1 ECO – EAN 05600990425347

M1 ECO BRANCO – EAN 05600990471931

K4 ECO – EAN 05600990472143

K4 ECO BRANCO – EAN 05600990472150

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

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 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
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 | 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** 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. 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
Belazaima do Chão, 26/05/2021

Nuno Sequeira (Director Geral | CEO)

Nº DD-091

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

M20 Eco – EAN 05600990487550

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

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 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

CENTRO DE APOIO TECNOLÓGICO À INDÚSTRIA METALOMECÂNICA

NB 0464

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

20214000918/10

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 **20214000918/10**	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: 0,075%**	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 **20214000918/10**	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 **20214000918/10**	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 | 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 **20214000918/10**	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 **20214000918/10** 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. 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
Belazaima do Chão, 07/12/2021

Nuno Sequeira (Director Geral | CEO)

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

Nº DD-090

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

M12F ECO – EAN 05600990471955

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

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 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
NB: 1722

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

CEE-0064/22-1

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-0064/22-1**	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: 0,06%**	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-0064/22-1**	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-0064/22-1**	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 | 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-0064/22-1**	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-0064/22-1** 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. **88%**	**≥ 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
Belazaima do Chão, 01/09/2022
Nuno Sequeira (Director Geral | CEO)

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

All Solzaima products come with a 2-year warranty.

SOLZAIMA

SOLUÇÕES DE AQUECIMENTO A BIOMASSA

APPROVED PRODUCT