FOGO MONTANHA

INSTRUCTION MANUAL

FREE STANDING FIRE
Versatile and Versatile Models

HIGH TEMPERATURE HEATING APPLIANCE

FLAMMABLE MATERIALS MUST BE KEPT AT A MINIMUM DISTANCE OF 1M AWAY FROM THE APPLIANCE

KEEP CHILDREN AWAY FROM THE FREE STANDING FIRE

CAREFULLY READ THESE INSTRUCTIONS BEFORE USING THE APPLIANCE

www.fogo-montanha.com

Mod. 382-A
CERTIFICATE OF COMPLIANCE

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

Manufacturer	Fogo Montanha (Solzaima, S.A.) Rua dos Outarelos, 111 3750-362 Belazaima do Chão, Portugal Tel: +351 234650650 Fax: +351 234650651	
Classification	Solid-fuel heating appliance	
Standards and regulations compliance	EN13229: 2001+ A1:2003 + A2:2003:2005	
Entity responsible for testing	Laboratório Recupera Algarve University Campus da Penha 8005-139 Faro	Laboratory K.V.B.G. – A.R.G.B Rodestraat 125 1630 Linkebeek, Belgium

CE

1. INTRODUCTION

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

2. TECHNICAL SPECIFICATIONS:

Model		**Versatile**	**Versatile H**
Efficiency rate	%	75	78
Firewood consumption	Kg/Hour	2,7	2,4
Maximum heated volume	m3	235	268
Power output	kW	5,6 – 10,4	6,4 - 11,8
CO Emissions (at 13% oxygen)	Vol.%	0,09	0,1
CO2 Emissions	Vol.%	10,2	9,7
Chimney diameter	mm	150	180
Rated output	kW	8,5	9,1
Safety distance	cm	100	100
Weight	Kg	114	131
Fuel		wood	wood
Maximum fuel humidity	%	20	20
Log maximum width	cm	40	40
Dimensions:			
Height	mm	523	665,5
Width	mm	576	576
Depth	mm	429,5	429,5

3. WOOD

This free standing fire unit operates exclusively on wood. We recommend that you use seasoned wood that has been chopped, stored, and conditioned in a covered area for at least one, but preferably two year(s) because:

- It produces substantially more heat than damp or green wood.
- It produces considerably less smoke and leaves less tar deposit in the unit, chimney, and glass panel, than damp or green wood.
- It is the only unit that prevents the emission of harmful substances during burning.
- Damp wood can damage and corrode the unit, originating rust within a short period of time.

You should use wood logs of medium size. Rule of thumb: the heavier the wood the better the performance. Never burn wood shreds, chips or sawdust, cork, laminated or treated wood. Do not burn small size wood logs as they burn too fast. Use them only for lighting the fire. Allow wide wood logs, of approximately 25 cm (9.8 in), to burn naturally. Wider logs should be chopped.

Note: Your free standing fire unit is not a waste incinerator. The environmental legislation expressly prohibits the use of domestic units for burning waste. Additionally to being harmful to the environment, the use a solid-fuel heating unit

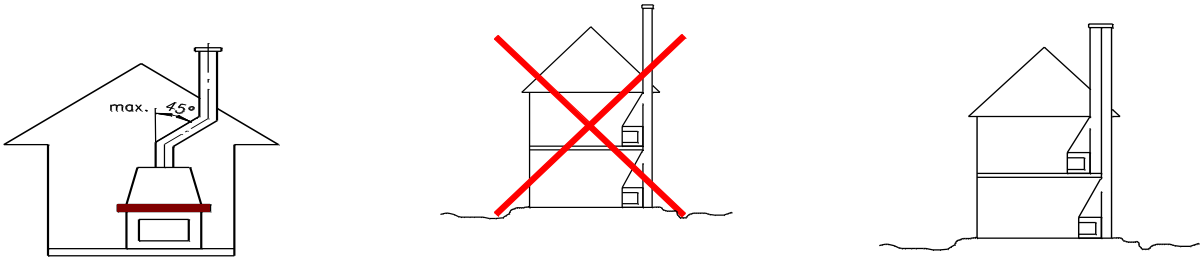
as a private incinerator for burning waste, chemically treated timber or paper constitutes a breach of gas emission regulations, punishable by law. This free standing fire unit is not designed to burn liquid fuel. Additionally to producing massive pollution, combustion products and hazardous waste also have a negative impact on the unit and chimney's operation and life cycle. Improper burning may result in several malfunctions and in corrosion of the unit, requiring it to be serviced or replaced. The burning of improper fuel may also cause fire which most likely will not be covered by the household insurance.
The free standing fire unit has been designed for a maximum wood consumption of 3kg/hour. A higher wood consumption may cause premature wearing of the unit.

4. INSTALLATION

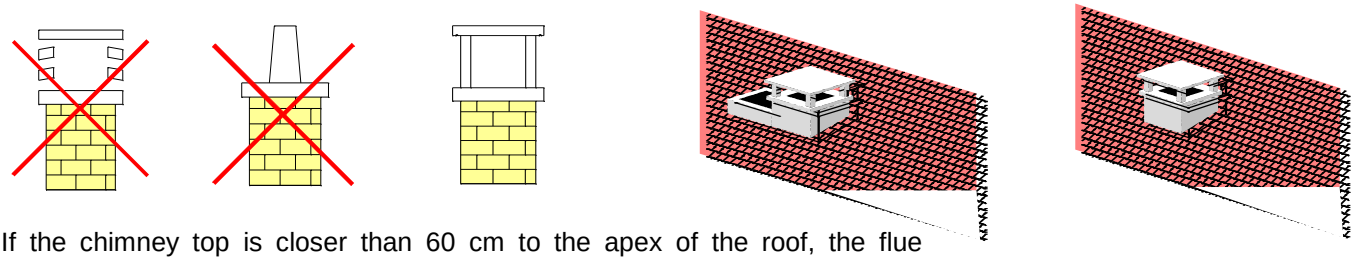
Pipes and chimney

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

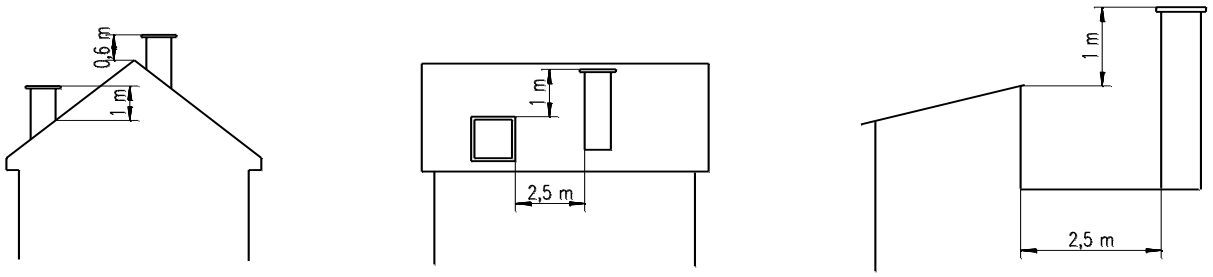
- Clean your chimney thoroughly before proceeding with the installation. If the chimney has been out of operation for a long time, you should have it checked by an expert.
- The chimney must have enough height to allow for fume exhaustion at 12-20 Pascal, minimum. The fume exhaustion can only be measured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



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



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



- The chimney should not be close to surrounding tall trees, walls or buildings as these could cause downdraughts.
- The chimney must be properly insulated. The chimney lining must be free of cracks or fissures and be made of refractory cement or other high temperature resistant material. If the chimney is not properly insulated, the flue must run all the way up the chimney.

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

EN 12446: 2003 - Chimneys – Components - Concrete outer wall elements
EN 1443: 2003 - Chimneys – General requirements
EN1856-1: 2003 - Chimneys – Requirements for metal chimneys - Part 1: System chimney products
EN1856-2: 2004 - Chimneys – Requirements for metal chimneys - Part 2: Flue and joints
EN13384-1: 2003 - Chimneys – Thermal and fluid dynamic calculation methods - Part 1:
EN 2006 - Chimneys serving one appliance
EN1857: 2003 - Chimneys – Components - Flues
EN1457: 1999 and Clay/ceramic flue liners - Requirements and test methods
EN 2002
EN 1806: 2006 - Chimneys – Clay/ceramic flue blocks for single wall chimneys - Requirements and test methods
EN13069: 2005 - Chimneys – Clay/ceramic outer walls for system chimneys - Requirements and test methods
EN 13063: 2006 - System chimneys with clay/ceramic flue liners - Part 1: Requirements and test methods for soot resistance

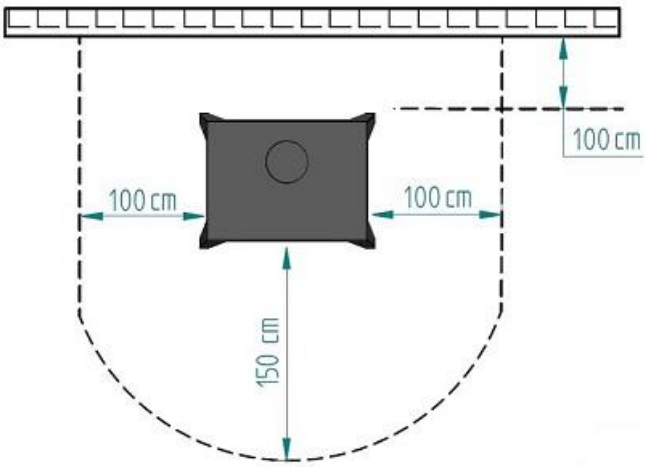
Note: The flue must be safely and securely connected to the outlet pipe of the unit and the chimney must be swept at least once a year in accordance with local regulations.

Only an appliance fitted by a professional installer guarantees compliance with building codes and safety regulations. Compliance with the above rules is mandatory to ensure the appliance's proper and safe operation. The chimney is an extremely important element when installing the unit. Before installing, be sure to check compliance with local building codes with authorised specialists. Please keep in mind the following considerations:

- The door of the appliance must be closed at all times, irrespective of the appliance's operating status (on/off).
- The household must allow for a proper air venting when the appliance is in use.
- The safety distances listed in the technical specifications table concerning combustible or high temperature sensitive objects must be observed.

Safety distances

When installing the free standing fire unit, you must consider the specified safety distances between the unit and any existing combustible materials. The figure below shows the safety distances that should be observed while installing the free standing fire unit:



5. COMBUSTION AIR

Unlike a normal fireplace, this unit uses a low quantity of combustion air. In most households, the admission of fresh air through existing gaps in doors and windows is enough to provide combustion air. However, in air tight households the admission of combustion air may not be enough. Should this be the case, a vent grid must be installed on an outside wall near the free standing fire unit, to provide for a positive source of outside air. Please also take into consideration the registers of other heating systems or exhaust fans installed in the proximity of the unit or combustion air connection. You might want to estimate the total amount of combustion air required for all the appliances. If 15 minutes upon lighting the fire there is still a reverse draught of air due to weather conditions (i.e. fog or storm) stop the burning until the weather improves.
Note: be sure to take into account any exhaust vents in the proximity of the free standing fire unit that may cause negative pressure, thus disturbing the supply of combustion air. Any leak of combustion toxic gases is potentially hazardous and can cause damage to the health of the occupants of the household.

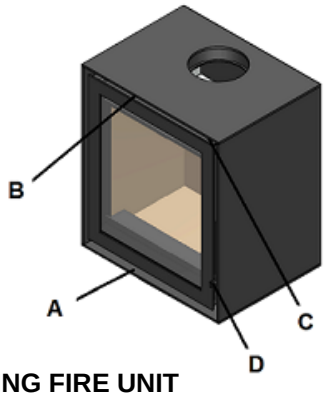
6. OPERATING YOUR UNIT

It is important that you use your stove moderately. The first fires should be made with a small amount of wood and a gentle flame. This allows the dissipation of stresses in the metal and drying of the entire installation.

Do not touch the paint during the first hours of burning, because the ink is in the healing process and may stain the paint if you handle or clean during this process. During the first hours of burning may be releasing smoke and smell through the paint curing. The area where the stove is installed must be ventilated to be correctly during the first hours of burning in order to dispel smoke and smell.
Even after using the stove often never make intense and prolonged fires. The extra yield obtained is reduced and you risk damaging your equipment

7. DIAGRAM

A. Cold air intake
B. Hot air output
C. Aeration control
D. Door lock



8. OPENING AND CLOSING THE DOOR OF THE FREE STANDING FIRE UNIT

Place the handle into the hole on the door lock (D). Pull the handle towards you to open the door and push it away from you to close it**.** The surfaces of the unit may become very hot. Wear heat resistant gloves at all times when operating the unit.

9. STARTING COMBUSTION

The free standing fire unit has been designed as a slow combustion appliance. Loaded with wood and with a soft flame, the unit will operate at its maximum thermal efficiency for several hours.
The unit is designed for an overnight slow burn either with a soft flame or with no flame at all. However, we advise against this procedure because incomplete combustion causes smoke, which upon condensation causes the build up of tar onto the combustion chamber, chimney and glass panel. A tar build up not only is unpleasant to the eye but it also requires regular chimney cleaning to prevent chimney fires. If you are using damp or green wood (not covered by your warranty) you should maintain the aeration control in the open position to ensure a slower and softer flame.

- **Radiated heat**

It is the heat radiated by embers, the metal sheet and the vermiculite back panels. It is also the heat emitted through the glass panel into the room, heating the area in front of the free standing fire unit.

- **Convection heat**

Cool air is admitted through the cold air intake (A). The air flows through the base towards the back of the unit and then up, exiting through the primary hot air output (B). This convection hot air reaches the farthest corners of the room.

10. CONTROLS

Aeration control (C)
It controls the amount of combustion air entering the unit thereby controlling the heat output. It is located on the top right corner of the door.

- To open - Push the slider to the right for a higher efficiency rate, wood consumption, and cleaner glass;
- To close - Push the slider to the left for a lower efficiency rate, wood consumption, and possibly dirtier glass;

11. LIGHTING THE FREE STANDING FIRE UNIT

You can use two methods to light up the free standing fire unit:
- Traditional method: first, make a bed with paper and then cover with wood shavings followed by kindling wood. The free standing fire unit is now ready to start the fire. Once the fire is started, load only large blocks of wood.
- Top-down method: place the large logs first, and then the kindling wood, paper, and finally the wood shavings. In this case, combustion starts from top to bottom.

This method provides higher heat efficiency.

Cold start
1. Slide the aeration control to the full open position.
2. Open the door.
3. Carefully place the large logs on the vermiculite surface.
4. Cover the logs with kindling wood, paper with the wood shavings on top.
5. Set fire to the paper and close the door.
6. Allow to burn ablaze until the wood is burning and the ashes glow.
7. Allow the fire to reach its maximum heat and then choose a control setting.

Rekindle and reload
1. Slide the aeration control to the full open position.
2. Open the door slowly.
3. Use the fire-poker to rake the embers evenly on the vermiculite surface.
4. Load fresh wood onto the embers followed by the larger logs.
5. Close the door and allow the fire to burn ablaze to heat the appliance and get the ashes glowing.
6. Choose a control setting.

Note: Do not load wood above the metal strip on the back of the unit's combustion chamber.

12. MANAGING THE FREE STANDING FIRE UNIT

There are three settings to choose from:

A. Very high radiant and convection heat output – Very high wood consumption. Fully open the aeration control to create a fast burning flame. This setting should only be used to light the unit. Once the appliance is hot, you should select another setting - (B) or (C).

B. High radiant and convection heat output – Low wood consumption with minimum pollution and maximum efficiency. Gradually close the aeration control to create a slow and soft flame. In this setting, a free standing fire unit full of wood should burn all night while maintaining a high convection heat output.

C. Medium radiant and convection heat output – Very low wood consumption. Fully close the aeration control to lower the flame. The free standing fire unit will burn all night but the glass will probably become dirty because the unit will not be operating at its full efficiency rate.
Whichever setting you choose depends on how much heat output you want and how long you want the wood to last. Remember, the more open the aeration control, the greater the radiant heat output, with no improvement in convection heat output but with a much higher wood consumption.
Note: For maximum heat and efficiency, you should choose setting B.

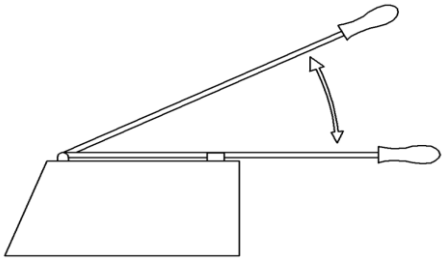
13. CLEANING

The cleaning operation must only be performed on a non-operating and cool down free standing fire unit.

Glass
The especially designed hot air glass washing system and vermiculite insulation helps to keep the glass clean for most of the operating conditions. However, if the glass becomes dirty:
1. Open the door;
2. Apply a spray or gel type glass cleaner onto a clean cloth or kitchen paper and gently rub the glass surface. Use with caution as most of the glass cleaners are corrosive; the direct application of the glass cleaner may stain other surfaces.
3. Never spill the glass cleaner liquid over the unit's metal surfaces; the cleaner may damage or corrode these surfaces causing rust (oxidation). The same caution applies to the sealing rope and other components, which may be damaged if in contact with these products;
4. Allow the cleaner to work;
5. Wipe off tar deposits using a slightly damp cloth. Polish with a dry cloth or paper.

DO NOT USE ABRASIVE PRODUCTS.

Cleaning the ashes
The unit is equipped with a fixed ash tray. You should clean it daily with the scoop provided. Lock the handle horizontally to use it as a shovel. Release the handle vertically to use it as a small bucket.
1. Open the door.
2. Rake the embers to one side of the firebox so that they can be used to re-start the fire.
3. Rake the ashes to the other side of the firebox and to the rear of the unit.
4. With the foldable scoop locked horizontally, insert it into the combustion chamber in a front to back direction and shovel up the ashes. Leave approximately 1 cm of ash in order to protect the vermiculite surface.



Release and move forward the handle of the scoop to remove it. Discard the contents on the ash deposit.
5. Spread the embers over the vermiculite surface.
6. Place fresh wood onto the embers.

Note: Always leave 1-2 cm of ash on the vermiculite surface inside the unit. The ash helps to insulate the hot embers and protects the vermiculite surface. Place fire lighters over the ash and not directly on the vermiculite surface.

Painted surfaces

Wipe off any ash deposits that may have built up on the paint with a soft haired brush, cotton cloth, or the suction brush attachment of a vacuum cleaner. Do not wash the free standing fire unit.

14. MAINTENANCE

Painted surfaces

Repaint the unit using high temperature *spray* paint. Allow the free standing fire unit to cool down completely before repainting. Before spraying, be sure to cover all surfaces of the unit that do not allow painting, such as the glass, and carefully clean the intended surface before repainting. Carefully follow the instructions written on the spray can.

Cleaning the chimney

It is important to have your chimney cleaned once a year. To do this, remove the smoke damper (Fig.1) from the unit. To remove the smoke damper, follow the steps below:

1. Open the door to remove the smoke deflector (Fig. 2). To do this, place a hand on the smoke deflector clamp (Fig. 3) and push the back of the clamp upwards. The clamp is released allowing you to remove it from the unit (Fig. 4 to 6). While removing the clamp (Fig. 3) hold the smoke deflector (Fig. 2) firmly with one hand to avoid sudden moves that could damage the vermiculite surface (Fig. 6).

Note: The clamp (Fig. 3) and the deflector (Fig. 2) have a front (A) and a back (B). You should be aware of this when re-assembling the smoke damper.

2. You can now remove the smoke deflector (Fig. 2) by lifting the left hand side and lowering the right hand side, to remove the plate diagonally (Fig. 7 and 8).
3. The smoke damper (Fig. 1) is removed by sliding it backwards and then downwards (Fig. 9)
4. To re-assemble the smoke damper, please perform the steps above in the reverse order. Be sure to first insert the smoke damper rod (F - Fig. 1) in the corresponding hole (G - Fig. 10) so that it sticks out, before fitting the grooves of the smoke damper (Fig. 1) into the fixed parts existing in the upper inner part of the unit (Fig. 11). Then push the smoke damper forward to fit it into place.

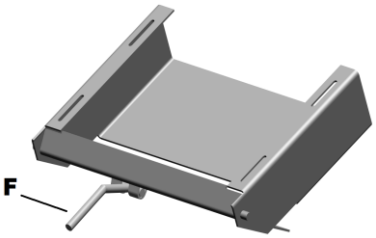


Fig. 1

Fig. 2

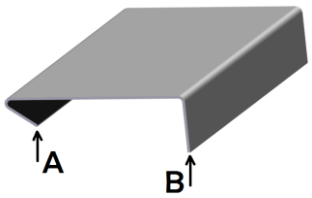


Fig. 3

Fig. 4

Fig. 5

Fig. 6

Fig. 7

Fig. 8

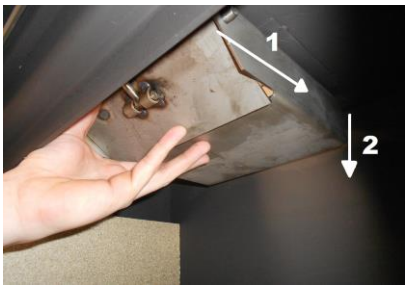


Fig. 9

Fig. 10

Fig. 11

Glass break

The glass panel is heat resistant and very strong. However, it can break with just a slight blow. The following cautions will prevent the occurrence of any damage:

- Never leave wood sticking out in the front part of the unit. Any wood left protruding may break the glass when closing the door;
- Load wood into the free standing fire using caution, observing the recommended quantity for maximum consumption; be careful when loading the wood, to prevent it from falling and breaking the glass.
- Do not apply excessive pressure when cleaning the glass.

Replacing a broken glass

Order a glass replacement kit specific to your unit model and size from your local representative. The replacement kit consists of a glass panel framed by insulating aluminium rails. To replace the glass, follow these steps:

1. Remove the broken glass.
2. Carefully hold the replacement glass leaning the upper end against the top part of the door; the bottom end will slide into place.
3. Slide the glass downwards towards the bottom of the door to fit the upper end into place.

It may be necessary to replace the 12mm fibreglass bundle that protects the bottom and both sides of the glass. The bundle is available from your local representative and it prevents the air from leaking from inside the unit and through the glass. The bundle must therefore be fitted snugly.

Installing the free standing fire unit support base

To install the free standing fire unit support base, tighten the screws and washers provided with the support base to secure the unit. Except for the table, all support bases are fitted with 4 screws and 4 washers.
Follow these steps for a correct installation:

1. Align the free standing fire unit with the selected support base so that the screws can be fitted from the bottom;
2. Tighten the screws into their corresponding positions (H - Fig. 12).

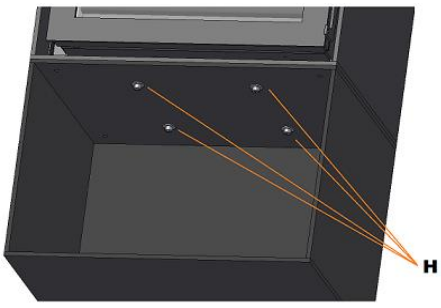
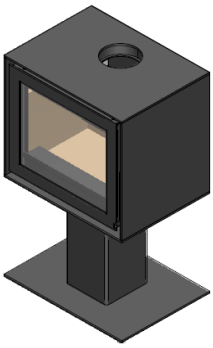
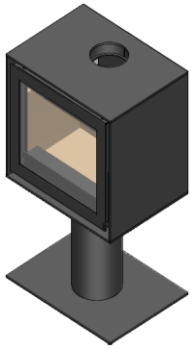


Fig. 12

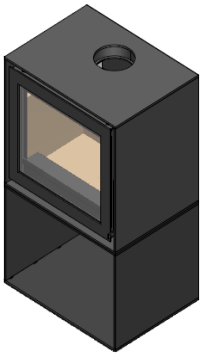


Square



Round

Spider



Cube

Cube x2
This assembly comprises two support bases. One is to be attached to the free standing fire unit, as a Cube support base; and the second one holding the glass is to be attached to the assembly.

To install the glass onto the base, insert the metal supports into their corresponding positions using the provided screws and washers to secure the assembly. Then place the glass on the top of the metal brackets and level with the base.

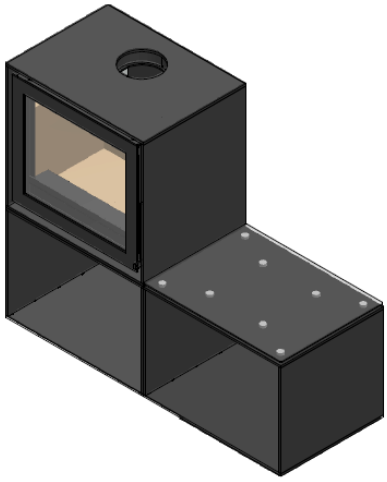
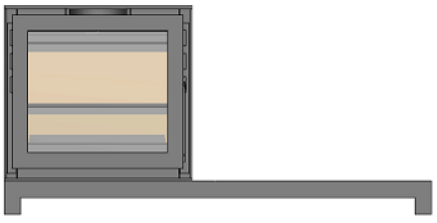
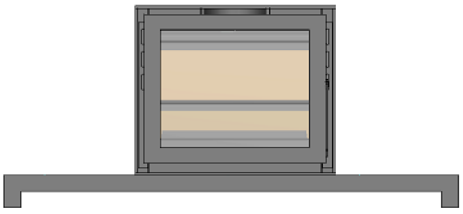


Table
This base can be mounted in three different positions:

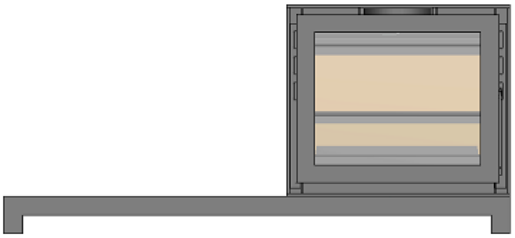
Position A – Left hand side
Position B – Central
Position C – Right hand side



Position A

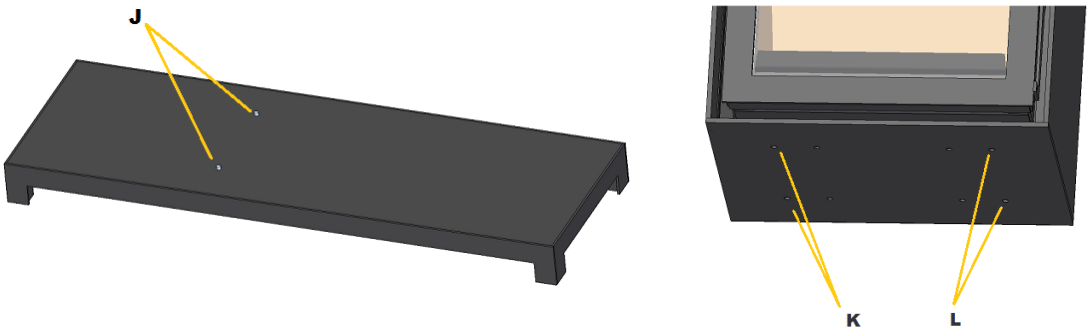


Position B



Position C

To mount the base, set it on the desired location and then place the unit in the selected position. Place the free standing fire unit on the supporting base, carefully matching the screw holes on the bottom relative to the intended position (K and L) with the guide pins (J) on the supporting base.



15. TROUBLESHOOTING

Apparent malfunctions are often caused by misuse. If you suspect there is a problem with your free standing fire unit, perform the following checks. If the problem persists after you perform the recommended checks, please contact your local representative to have the unit serviced.

Problem	Possible Cause	Solution
The unit produces a lot of smoke.	1. Damp or green wood. 2. Chimney needs cleaning.	1. Use seasoned dry wood. 2. Have the chimney cleaned.
The unit is taking too long to heat.	1. Damp or green wood. 2. Chimney needs cleaning.	1. Use seasoned dry wood. 2. Have the chimney cleaned.
The fire does is not burning overnight.	1. Insufficient wood. 2. The wood is too soft (pinewood). 3. Door not properly sealed.	1. Load more wood. 2. Use harder wood. 3. Replace the fibreglass bundle.
The fire quenches.	1. Damp or green wood. 2. The unit is not up to operating temperature.	1. Burn dry wood or open the aeration control. 2. Make sure the unit is hot enough before closing the aeration control.
The glass becomes dirty.	1. The fire is not achieving a soft flame. 2. Damp or green wood.	1. Open the aeration control further. 2. Use seasoned dry wood.

16. WARRANTY

Your FOGO MONTANHA free standing fire unit is covered by a 2-year warranty against manufacture defects as of the date the invoice. For your warranty to be valid, you must keep the invoice or proof of purchase throughout the warranty period. The type of fuel used and the handling of the unit are beyond FOGO MONTANHA's control, so parts in direct contact with the flame are not covered by this warranty (for instance, glass, sealing bundles, and vermiculite).

Notes:
- This warranty is limited to replacement or repair of any faulty parts by FOGO MONTANHA personnel or authorised representative, and excluded any type of compensation for damages. Parts to be replaced must be returned to the factory;
- The installer is solely responsible for any problems and/or defects arising from the installation process;
- Any costs incurred with moving, transport, labour, packaging, disassembling and immobilisation resulting from servicing the unit during the warranty period are the responsibility of the buyer;
- Any malfunction caused by mechanical or electrical parts not supplied by FOGO MONTANHA that are not specified in the instruction manual for heating appliances are not covered by this warranty;

The warranty period is effective as of the date of purchase and is only effective subject to the following conditions:
1. The product has been purchased from a FOGO MONTANHA authorised representative;
2. The claimed has first been verified by the FOGO MONTANHA authorised representative;
3. Both the authorised representative and FOGO MONTANHA are convinced that the installation, operation and maintenance of the appliance is in compliance to the instructions provided with the unit;
4. Only FOGO MONTANHA accessories have been used and only dry wood has been burnt.
5. No modifications have been made to the product without prior written consent of FOGO MONTANHA;