



## USE AND MAINTENANCE INSTRUCTIONS

# PELLET STOVE WITH NATURAL DRAFT

## Lydia Natural

### SAVE THIS INSTRUCTIONS

**WARNING:** Please read this entire manual before installation and use of this pellet fuel-burning room heater.

Failure to follow these instructions could result in property damage, bodily injury or even death

**CAUTION:** Contact local building or fire official about restrictions and installation inspection requirement in your area

*Dear Customer, thank you for choosing one of our products, which is a result of technological expertise and our continuous quest for superior products in terms of safety, reliability and performance. This manual contains all the information and helpful tips for using your product with maximum safety and efficiency.*

## **IMPORTANT INFORMATION**

This manual has been prepared by the manufacturer and is an integral and essential part of the product. In the event of sale or transfer of the product, always ensure the presence of the manual as the information it contains is addressed to the purchaser and to all those various people involved in the installation, use and maintenance of the product. Carefully read the instructions and information contained in this manual before installation, operation and maintenance of the product. The instructions contained in this instruction manual guarantee the safety of persons and property and ensure efficient operation and a longer service life. The manufacturer declines all responsibility for damage caused by failure to observe instructions regarding installation, use and maintenance listed in the instruction manual, for unauthorised modifications or non-original replacement parts. Product installation and use must be carried out in accordance with the manufacturer's instructions and in compliance with European, national and local regulations. Installation, electrical connection, functional testing, maintenance and repairs are operations that must be performed by qualified and licensed personnel who must have appropriate knowledge of the product. Product installation must not be carried out close to walls made of wood or combustible material. For proper installation, you must observe the following "Safety distances" section. Verify the exact flatness of the floor where you will install the product. When handling the steel parts of the cladding, use clean cotton gloves to avoid leaving difficult to remove fingerprints for the first cleaning. Stove installation must be performed by at least two people. Connect the stove to the mains only after proper professional connection to the chimney flue. The power cable plug must remain accessible after installation of the stove. Only operate the stove with regulation wood pellets (refer to the "FUEL" chapter). Never use liquid fuels to operate the pellet stove or to stoke the embers present. Provide adequate ventilation in the installation area throughout the year. In the presence of operation failures, fuel supply will be interrupted. Re-start the unit after removing the cause of the failure. Discontinue use of the product in the event of failure or malfunction. Do not remove the safety guard located in the pellet tank. Any accumulated unburned pellets in the burner as a result of repeated "failed ignitions must be removed prior to ignition." Pellet stove operation can cause very hot heating of the handles, the chimney flue and glass surfaces. Only touch these parts during operation when wearing protective clothing or with adequate aids. Because of the creation of heat on the glass, make sure that no persons unfamiliar with stove operation stand in the installation area. Inform children of the precautions to be observed during product operation and of possible dangers. In the event of problems or misunderstanding of the instruction manual, contact your dealer. Placing objects which cannot withstand heat on the stove or within the minimum required safety range is prohibited. Do not open the door during operation or operate the stove with its glass broken. For product terms, limitations and exclusions, please refer to the warranty included with the product. In order to pursue a policy of constant product development and renewal, the manufacturer may make changes to it as deems appropriate without notice. This document is the property of the manufacturer and cannot be disclosed in whole or in part to any third party without the written consent of the company, which reserves all rights to the rigor of the law.

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# 1 GENERAL STANDARDS

## 1.1 Fireplace or Chimney flue

Each device must have a vertical duct, called a chimney flue, for outside release of combustion fumes produced by a natural draft.

The chimney flue must meet the following requirements:

- It should not be connected to any other fireplace, stove, boiler, or hood of any kind (Fig. 1).
- It must be properly spaced from combustible or flammable materials through an air gap or suitable insulating material.
- The internal section must be uniform, preferably circular: the square or rectangular sections must have rounded corners, curves must be regular and seamless, deviations from the axis no greater than 45° (Fig-2).
- Each device must have its own chimney flue with a section equal to or greater than the diameter of the fume exhaust pipe of the stove and a height no less than the one stated (see table 2).
- Never use two stoves, a fireplace and a stove, a stove and a wood stove, etc. in the same room since the draft of one could damage the draft of the other. In addition, collective ventilation ducts that can cause a vacuum in the installation environment are not permitted, even if installed in adjacent rooms and communicating with the installation room.
- Creating fixed or mobile apertures on the chimney flue to connect equipment other than auxiliary devices is prohibited.
- Passing other air supply channels and piping for utilities through the chimney flue, however large, is prohibited.
- The chimney flue should be equipped with a collection chamber for solid materials and any condensate, located below the mouth of the flue, so as to be easily opened and inspected from an airtight door.
- Whenever using parallel output chimneys, it is advisable to raise a bracing element. (Fig.3)

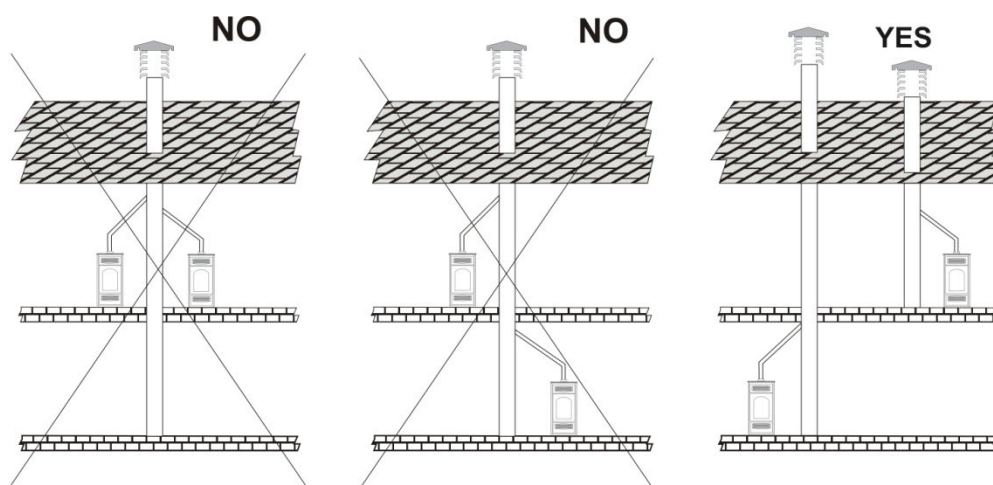


Fig 1

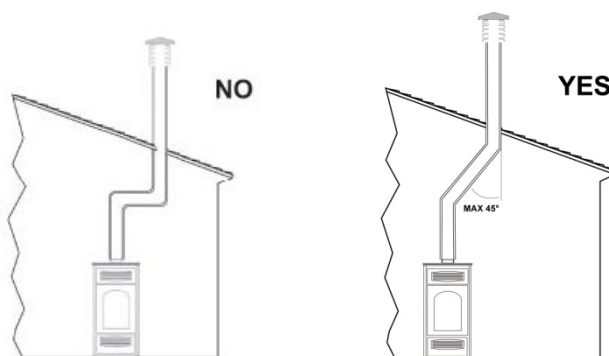


Fig 2

## 1.2 Chimney cap

The top of the chimney flue must be equipped with a device, called a chimney cap, which facilitates dispersion into the atmosphere of combustion products.

The chimney cap must meet the following requirements:

- Its internal section and shape must be equivalent to that of the chimney flue.
- Have a useful outlet section no less than double that of the chimney flue.
- Chimney caps that emerge from the roof or which remain in contact with the outside (for example in the case of an open loft), must be covered with brick elements and well isolated. It must be constructed so as to prevent penetration into the flue of rain, snow, or foreign bodies and so that, in the event of winds in any direction and at any angle, it assures the discharge of combustion products (windproof chimney cap).
- The chimney cap must be positioned so as to guarantee an adequate dispersion and dilution of combustion products and, in any case, outside the zone of reflux. This zone can be different sizes and shapes depending on the angle of slope of the roof, so it is necessary to adopt the minimum heights shown in Fig.3 and Fig.4.
- The chimney cap must be of windproof and exceed the height of the ridge, Fig.3 and Fig.4.
- Any buildings or other obstacles that exceed the height of the chimney cap must not be close to the chimney cap itself (Fig.3).

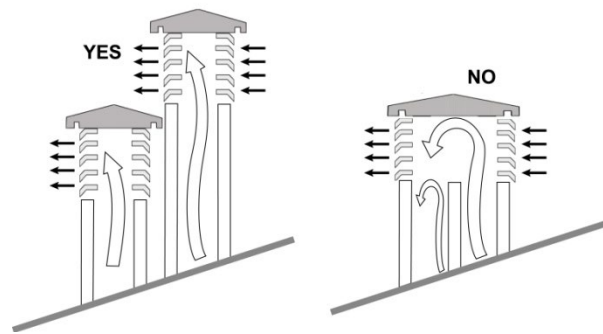


Fig.3

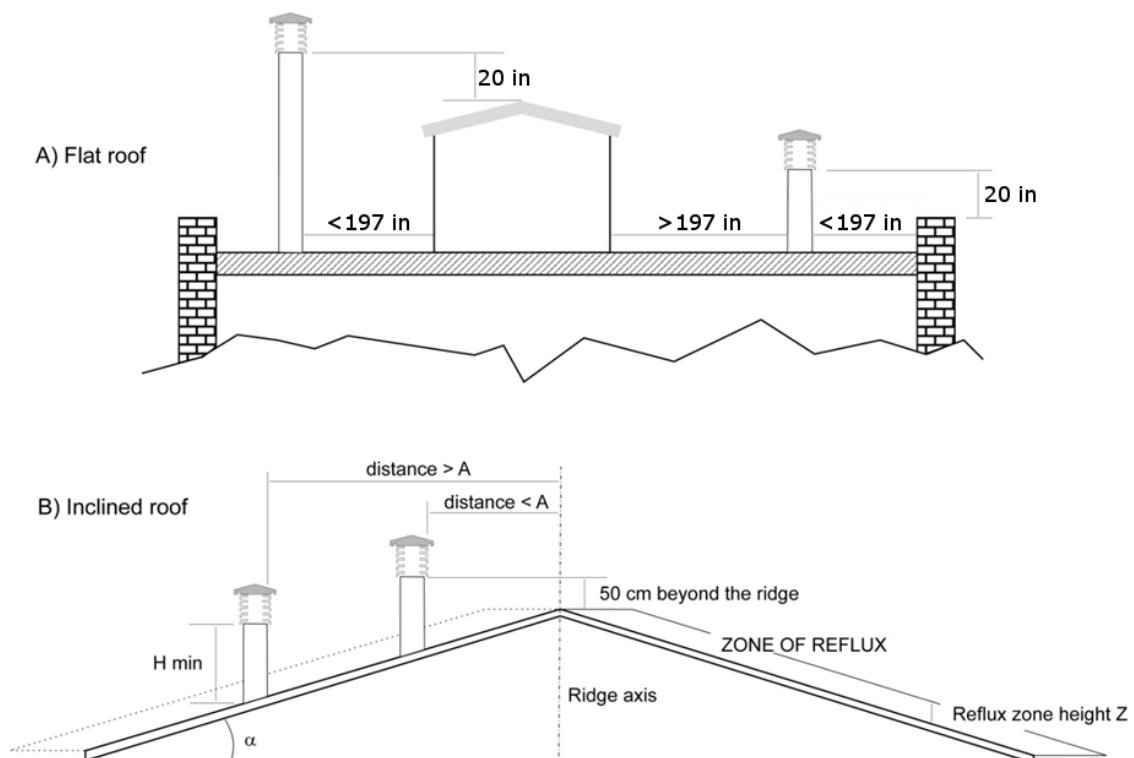


Fig.4

Roof pitch ? [°]	Horizontal width of the zone of reflux from the axis of the ridge A	Minimum height of the outlet from the roof	Height of the reflux zone Z
15	6 feet (1.85m)	3 feet (1.00m)	1 foot (0.50m)
30	5 feet (1.50m)	4 feet (1.30m)	2 feet (0.80m)
45	4 feet (1.30m)	6 feet (2.00m)	5 feet (1.50m)
60	4 feet (1.20m)	8 feet (2.60m)	7 feet (2.10m)

Table 2

### 1.3 External air intake vent

- The stove must have the air necessary to ensure smooth combustion operation and good environmental well-being.
- Make sure that the room where the stove is installed offers sufficient ventilation and install an air supply duct from the outside with the recommended minimum section of 15 in<sup>2</sup>.
- The air intake vent must communicate directly with the installation room of the stove, positioned so as to prevent it from being blocked and protected with a permanent non-lockable grid or other suitable protection provided that it does not reduce the minimum section.
- Air flow can also be obtained from a room adjacent to the installation room, provided that this flow can be carried out freely through permanent, non-closable openings communicating with the outside.
- With respect to the installation room, the adjacent room should not be put under vacuum with respect to the external environment as a result of a reverse draft caused by the presence in this space of another utility device or suction device. The room adjacent to the permanent openings must meet the requirements set out in the paragraphs above. The adjacent room cannot be used as a garage, for storage of combustible material or for activities involving a risk of fire.

### 1.4 Connection to the chimney flue

(See paragraph 4.5)

### 1.5 Preventing house fires

Installation and use of the stove must be in accordance with the manufacturer's instructions and with local habitability regulations.

CAUTION: when a fume exhaust pipe passes through a wall or ceiling, particular installation methods must be applied (protection, thermal insulation, distances from heat sensitive materials, etc.).

- The fireplace connecting tube must never pass through a combustible surface.
- Do not connect this unit to a chimney flue already being used by another device.
- It is also advisable to maintain all combustible elements or flammable material such as beams, wooden furniture, curtains, flammable liquids, etc. outside the radiation area of the furnace and at a distance of at least 3 feet from the heating block.
- In the event that the surrounding space has coverings in combustible or heat-sensitive material, a protective membrane made of non-combustible insulating material must be interposed. If the flooring is made of combustible material, a non-combustible protective material must be provided at the mouth of the furnace.
- For further information, refer to local requirements.

## 2 SPECIFICATIONS AND TECHNICAL DATA

### 2.1 Specifications

Stoves and pellet stoves are devices built to work with good quality wood pellets only (see par. 3 fuel).

### 2.2 Compliance status

The heaters described in this manual meet the 2020 U.S. Environmental Protection Agency's wood pellet emission limit for wood heaters sold after May 15<sup>th</sup> 2015.

	Emission Rate (g/hr)	Heating Efficiency (% Overall) *	1st hour Emission Rate (g/hr)	CO emission (gr/h)
Lydia Natural	1,3	79	4,9	4,8

\* Efficiency Calculated Per CSA B415.1

### 2.3 Technical data

Model of type	Lydia Natural
Pellet hourly consumption (min/max)	2,2-4,4 lb/h
Efficiency	79%
Hopper capacity	33 lb
Smoke outlet ø	5.9 in
Weight	330 lb
Dimension (DxWxH)	19,2x21,4x53 in

\*Pellet size may affect actual rate of fuel feed and burn times. Fuel feed rates may vary by as much as 20%. Follow Manufacturer instructions and Use PFI certified pellet fuels to maximize efficiency.

### 2.4 Product identification data

The technical label shows device data and performance. Tampering with, removing or lack of a technical label makes installation and maintenance operations difficult, due to the lack of product identification. In the event of damage, request a duplicate from our service centre. Given the importance of the data label, we recommend installing the stove at a distance at which it is always visible.

## 3 FUEL

### 3.1 General notes

**The pellet stove is designed to burn wood pellets only.**

*Wood pellets are a fuel obtained from the pressing of sawdust timber, extracted from the processing and transformation residues of dried wood material. The compactness of the product over time is guaranteed by a natural origin substance contained in the wood: lignin. The typical small cylinder form is obtained by extrusion.*

*Various types of pellets with quality and characteristics that vary depending on the processing and type of wood species used are available on the market.*

**CAUTION: Always use certified quality wood pellets: i.e. DIN, DIN PLUS, ÖM 7135, Pellet Gold, Catas etc. The company does not guarantee proper stove functioning with the use of low-quality pellets.**

Stoves and heating stoves are tested and programmed to ensure good performance and perfect quality operation with specific characteristic pellets:

components:	wood
length:	< 30 mm
diameter:	6-6.5 mm
lower calorific value:	≥ 4.8 kWh/kg (≥7500 BTU/lb)
humidity rate:	< 8 %
residual ash:	< 0.5 %

GOOD QUALITY pellets are smooth, shiny, slightly dusty and with regular length. LOW QUALITY pellets are of varied lengths, dusty with vertical and horizontal splits.

**Since pellet characteristics and quality greatly influence the autonomy, efficiency and proper operation of the stove, we recommend:**

AVOID using pellets with dimensions different from that described by the manufacturer.

AVOID using low quality pellets or pellets containing dispersed sawdust powder, resins or chemicals, additives or adhesives.

AVOID using moist pellets.

The use of unsuitable pellets causes:

- clogging of the brazier and fume discharge ducts
- increased consumption of fuel
- decreased efficiency
- no guarantee of normal stove operation
- dirtying of glass
- production of unburned granules and heavy ash

The presence of moisture in pellets increases the volume of the capsules and crumbles, causing

- feeding system malfunctions
- poor combustion

Pellets should be stored in a dry and sheltered place. Particular attention should be given to the handling of the bags to prevent their crushing, resulting in the formation of sawdust.

Stove operation parameters may have to be altered when using quality pellets with dimensional and calorific characteristics different from those indicated. Contact an authorised service centre if necessary.

**The use of poor-quality pellets not in accordance with manufacturer's instructions not only damage the stove and compromise performance but may result in forfeiture of the warranty and company liability.**

***Follow Manufacturer instructions and Use PFI certified pellet fuels to maximize efficiency.***

## 4 INSTALLATION

### 4.1 General notes

**WARNING:** DO NOT INSTALL IN SLEEPING ROOM

**CAUTION:** THE STRUCTURAL INTEGRITY OF THE MANUFACTURED HOME FLOOR, WALL, AND CEILING/ROOF MUST BE MAINTAINED

**The stove requires a UL listed pellet vent.** So the venting system shall be approved for pellet stoves by a certified testing Laboratory

#### 4.1.1 Installation in the presence of several appliances.

The presence of several appliances powered with different fuels, as well as hoods with or without extractor, must be evaluated during preventive checks and during the start up test in order to detect any variation compared to the design conditions or any aspect that cannot be detected during the design phase. The room must be well-ventilated according to the instructions of every single device. The external air intake vent must meet the requirements of paragraphs 1.3 and 4.4

The stove must not be used simultaneously with other generators that collect air from the environment even if installed in adjoining or communicating rooms

#### 4.1.2 Suitability of the installation rooms

- Installing the device inside garage, store for combustible materials or rooms at risk of fire is prohibited.
- If the flooring is made of wood, provide a floor protection surface in compliance with current national standards
- Outdoor installation is prohibited, as well as exposure to atmospheric agents or humid areas.
- Locating the stove in a room with an explosive atmosphere is prohibited

#### 4.1.3 Fume discharge system

Every device must be connected to a fume discharge system, which ensures dispersion of combustion products into the atmosphere.

The combustion products must be discharged from the roofs. Direct wall discharge or towards closed spaces, even in open air, is prohibited.

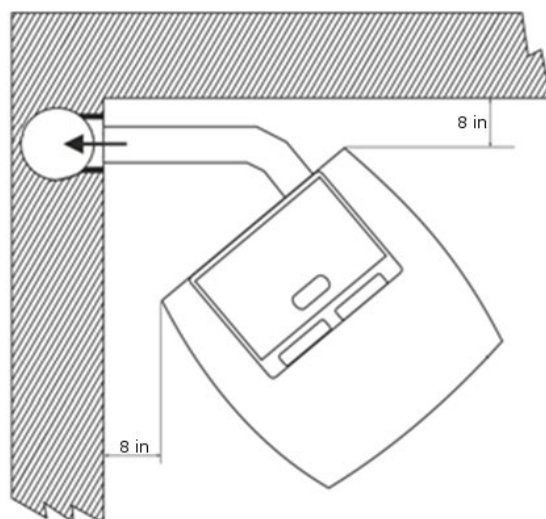
The components must be made of material with A1 fire reaction class. In particular, the use of metal extendible and flexible hoses is prohibited.

**CAUTION:** ensure that the plug for electrical connection remains accessible after the stove installation.

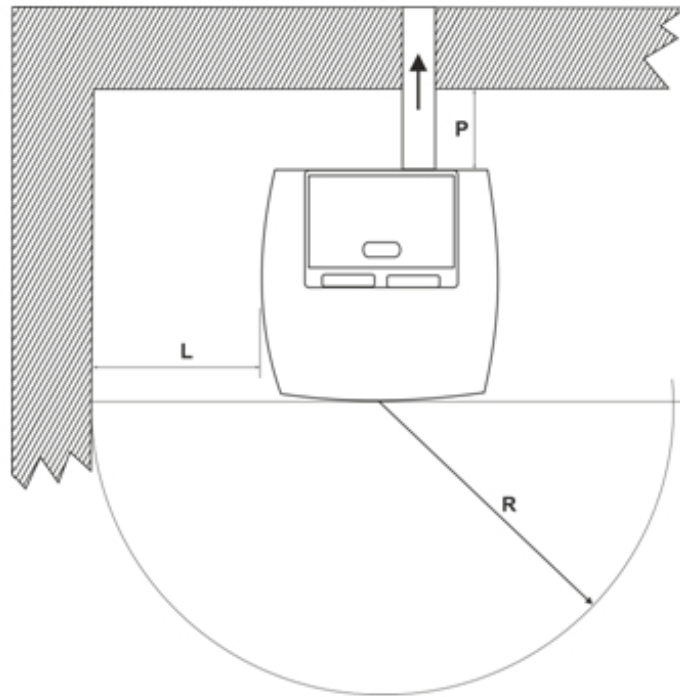
### 4.2 Minimum safety distances

The following figures show the minimum safety distances, which must always be guaranteed.

#### 4.2.1 Corner installation



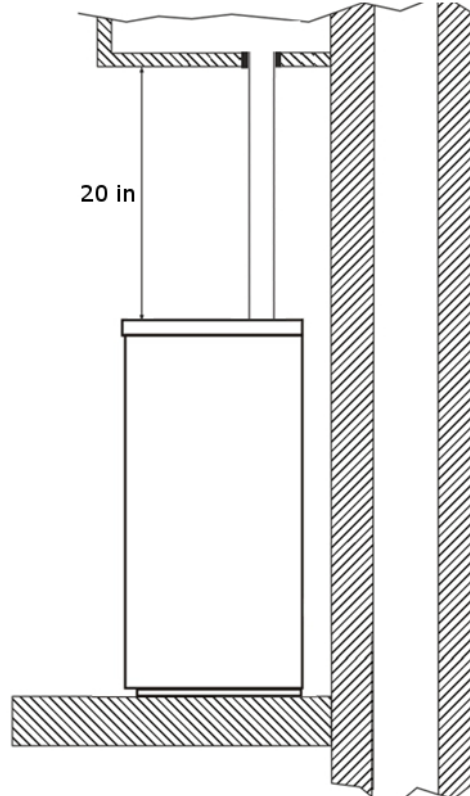
#### 4.2.2 Wall installation



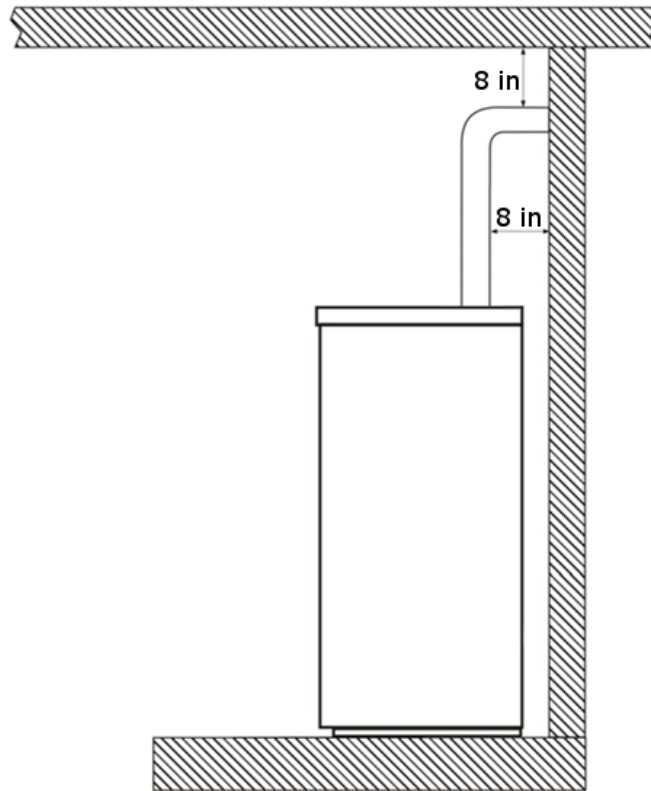
#### Safety distances from flammable material:

Minimum distance in air from the flammable rear wall	<b>P</b> = 8 in
Minimum distance in air from the flammable side wall	<b>L</b> = 8 in
Frontal distance from flammable material	<b>R</b> = 40 in

#### 4.2.3 Distance from flammable ceilings and false ceilings



#### 4.2.4 Distance of fume exhaust system from flammable walls



#### 4.3 Flooring protection

In the event of valuable flooring or flooring that is sensitive to heat, moisture or is flammable, a floor protection must be used (i.e. sheet steel, marble or tile slabs).

Whichever type of protection selected, it must protrude at least 12 in from the front, at least 6 in from the sides of the stove, must withstand the weight of the stove and have a thickness of at least 2 mm (Fig. 5 and 6).

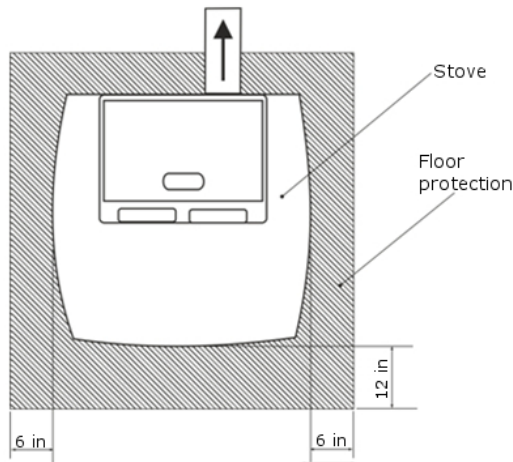


Fig. 5

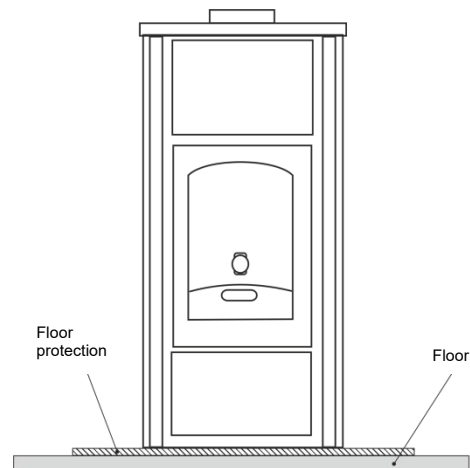


Fig. 6

#### 4.4 Minimum distances for positioning air intake vents

**Pellet stove combustion air intake vents cannot be connected to an air distribution system or directly to a wall-mounted air intake vent.**

Correct and safe positioning of the air intake vent must comply with the measures and requirements described in paragraph 1.3.

There are distances to be respected in order to avoid that combustion air be removed by another source; for example, a window opening can suck the air outside, making it miss the stove.

The air intake vent must be located at least:		
5 feet (1.5 m)	Under	Doors, windows, fume exhaust outlets, air gaps, etc.
5 feet (1.5 m)	Horizontally away	
1 foot (0.3 m)	Over	
5 feet (1.5 m)	Away from	Fume output

## 4.5 Vent exhaust duct

### 4.5.1 General notes

The stove requires a UL listed pellet vent, so the venting system shall be approved for pellet stoves by a certified testing Laboratory

**DO NOT CONNECT THIS UNIT TO A CHIMNEY FLUE SERVING ANOTHER APPLIANCE**

**INSTALL VENT AT CLEARANCES SPECIFIED BY THE VENT MANUFACTURER**

Construction of the exhaust duct must be done by specialised personnel or companies, as reported in the following manual. Always create the exhaust system so that periodic cleaning is assured without having to dismantle any parts.

**The chimney draft must be at least 6 Pa.** The measurement must always be carried out with the device warm (nominal heat output)

**If the draft exceeds 15 Pa, it is necessary to reduce it by installing a special device on the exhaust pipe or in the chimney, according to current regulations.**

### 4.5.2 Tubes and maximum usable lengths

Painted aluminised steel tubes, stainless steel tubes (Aisi 316) or porcelain tubes.

Flexible hoses are permitted if they fall within the limits prescribed by law (in stainless steel with smooth inner wall).

TYPE OF SYSTEM	WITH DOUBLE-WALL TUBE
Minimum length	10 feet (3 m)
Maximum length (with 3 90° curves)	26 feet (8 m)
Maximum number of curves	2

NOTE: load losses of a 90° curve can be equated with those of 1 metre of tube; the serviceable T-connection is to be considered as a 90° curve.

### 4.5.3 Holes for exhaust tube passage on walls or roof

Once the location of the stove has been decided (section 4.1), you will have to drill the hole for passage of the fume exhaust tube. This varies depending on the type of installation (therefore on the exhaust tube diameter, see 4.5.2) and on the type of wall or roof to be crossed (table 3).

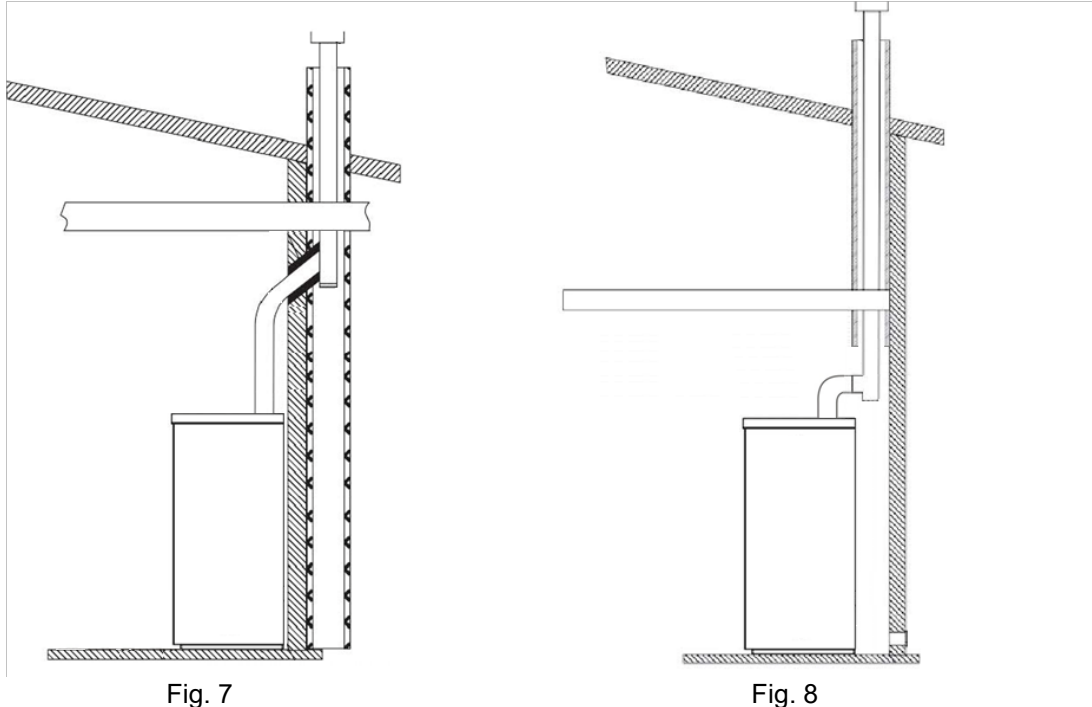
The insulator must be of mineral origin (rock wool, ceramic fibre) with a nominal density greater than 80 kg/m<sup>3</sup>.

	Insulation thickness	Diameter of holes to be created [mm]
Wooden wall, or wall which is flammable or has flammable parts	4 in	12 in
Concrete wall or roof	2 in	9 in
Brick wall or roof	1,5 in	7 in

#### 4.5.4 Using a traditional type chimney flue

If you wish to use an already existing chimney flue, it is advisable to have it checked by a professional chimney sweep to ensure that it is watertight. This is because fumes, being slightly pressurised, could infiltrate cracks in the chimney flue and invade living spaces. If an inspection finds that the chimney flue is not perfectly intact, it is advisable to intubate it with new material. If the existing chimney is large, we recommend inserting a tube with a maximum diameter of 6 in.

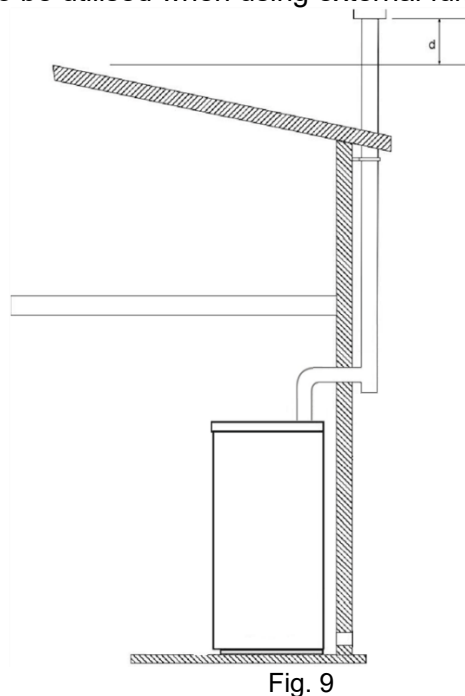
It is also advisable to insulate the vent exhaust duct. Figs. 7 and 8 demonstrate the solutions to adopt if you want to use an existing chimney flue.



#### 4.6 Using an external fume duct

An external fume duct can be used only if it meets the following requirements:

- Only insulated tubes (double wall) in stainless steel, secured to the building (Fig.9) should be used.
- An inspection area should be created at the base of the duct for performing periodic checks and maintenance.
- It should be equipped with a windproof chimney cap and observe the distance "d" from the ridge of the building as described in par. 1.2.
- Fig. 9 shows the solution to be utilised when using external fume ducts.



## **4.7 Mobile home installation**

- The stove must be installed in accordance with the: **Manufactured Home and Safety Standard (HUD), CFR 3280, part 24**
- The stove must be permanently screwed on floor
- Combustion air must come from the outside of the mobile home; the user must habitually inspect the point where air is taken to insure that is clear of leaves/debris and ice or snow
- PL Vent must be used for exhaust venting (Single vent is not allowed)
- Check any other local buildings codes or other codes that may apply
  
- **WARNING: Never install in a sleeping room**
  
- **CAUTION: Maintain structural integrity of the floor, walls, ceiling and roof**

# **5 ASSEMBLY**

## **5.1 General notes**

Here are some general recommendations to follow in order to prevent accidents or damage to the product:

- Unpacking and installation must be performed by at least two people.
- **All handling operations must be carried out using appropriate means and in full compliance with safety regulations.**
- The positioning of the packed product must be maintained in accordance with the guidelines supplied by pictograms and written on the packaging.
- If using ropes, straps, chains, etc., make sure they are suitable for the weight to be unloaded and are in good condition.
- When moving the package, move with slow and continuous movements to avoid tearing the ropes, chains, etc.
- Do not tilt excessively in order to avoid overturning.
- Do not stand within range of the loading/unloading means (forklifts, cranes, etc.).

## **5.2 Unpacking**

Unpack the product being careful not to damage or scratch it. Remove the accessory package and any pieces of polystyrene or cardboard used to block removable parts, etc. from the stove furnace. Also remember not to leave packaging components (plastic bags, polystyrene, etc.) within the reach of children, as they could be potential sources of danger. Dispose of them according to regulations.

## 6 USE

- All local regulations, must be observed when installing the unit.
- Improper installation or use of the device can result in forfeiture of the warranty.
- Do not use the unit as an incinerator or in any other way other than that for which it was designed. No other fuel besides wood pellets must be used.
- Do not use liquid fuels.
- The device, especially the external surfaces, gets very hot to the touch when in use. Handle with care to avoid burns.
- Do not make any unauthorised modifications to the device.
- Only use original replacement parts recommended by the manufacturer.
- This wood heater has a manufacturer-set minimum low burn rate that must not be altered. It is against federal regulation to alter this setting or otherwise operate this wood heater in a manner inconsistent with operating instruction in this manual.
- This wood heater needs periodic inspection and repair for proper operation. It is against federal regulations to operate this wood heater in a manner inconsistent with operating instruction in this manual.
- Flues gases contain carbon monoxide (CO), it is recommended to install smoke monitors and CO monitors for areas that are expected to generated CO. Inspect the the chimney to minimize visible emissions.
- Soot and Flyash: Formation and Need for Removal—The products of combustion will contain small particles of flyash. The flyash will collect in the exhaust venting system and restrict the flow of the flue gases. Incomplete combustion, such as occurs during startup, shutdown, or incorrect operation of the room heater will lead to some soot formation which will collect in the exhaust venting system. The exhaust venting system should be inspected at least once every year to determine if cleaning is necessary.

### *In general*

- Make sure that the room where the stove is to be installed offers sufficient ventilation (see section 1.3 “External air intake vent”).
- Periodically check (or have someone check) the cleanliness of exhaust fumes.
- When the stove is in operation, remove the extractable handle and place it in the appropriate compartment located at the rear of the stove (fig.11)
- **CAUTION: keep all flammable products well away from the stove when it operating (MINIMUM: 40 feet from the front wall).**
- **CAUTION: to prevent the escape of fumes, the combustion chamber must be kept closed except during cleaning operations, to be carried out with the stove off.**
- **CAUTION: removing the safety guard inside the tank is strictly prohibited.**
- **CAUTION: in the event of pellet supply while the stove is on, make sure that pellets are not finished and that the flame remains present in the brazier. Also avoid the fuel sack from coming into contact with hot surfaces.**
- **CAUTION: remove any residue of unburned pellets caused by failed ignitions before you start the stove again.**
- **CAUTION: if during the ignition phase, the stove does not start and you notice a lot of smoke in the combustion chamber, immediately turn off the stove and replace pellets in use, as these may be too high in moisture. Forcing ignition could make your stove a hazard.**
- **CAUTION: if during cleaning, you find traces of spongy or hard (though not ash) pellets, replace the pellets being used as this residue may come from scraps of low-quality sawdust not usable in this type of stove. Forcing ignition can cause a fire or strong production of fumes in the chimney.**
- **CAUTION: monitor proper combustion of the pellets in the brazier. If you should detect accumulations of unburned pellets, IMMEDIATELY TURN OFF the stove and contact the service centre.**
- **CAUTION: exercise extreme caution in the presence of children, to prevent them from standing in front of the stove.**

## 6.1 Components

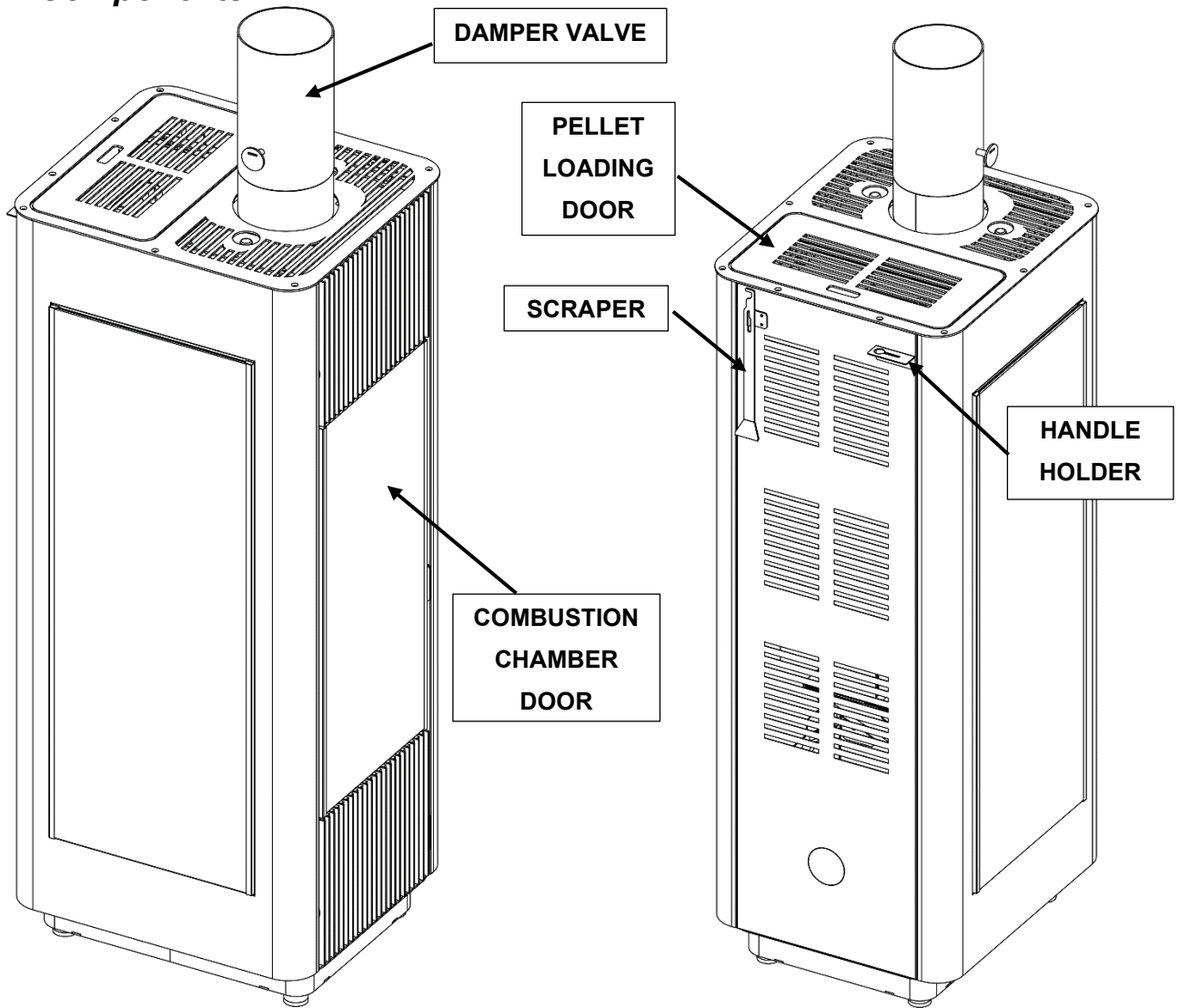


Fig.10

Fig.11

## 6.2 Filling up the tank

- Open the lid and move the pellet loading lever to the “Stop” position (fig. 12);
- Open the tank lid (fig. 13).

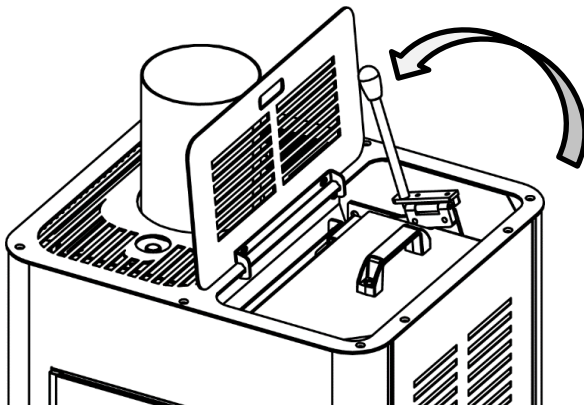


Fig. 12

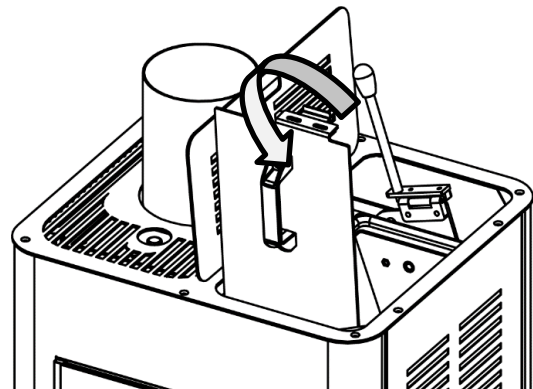


Fig. 13

***You can load pellet also when the stove is working.***

### 6.3 Ignition

Once the tank has been filled up, the stove is ready to be turned on. Put the lever in position “Go” and lower it to the rest position (*fig. 14*);

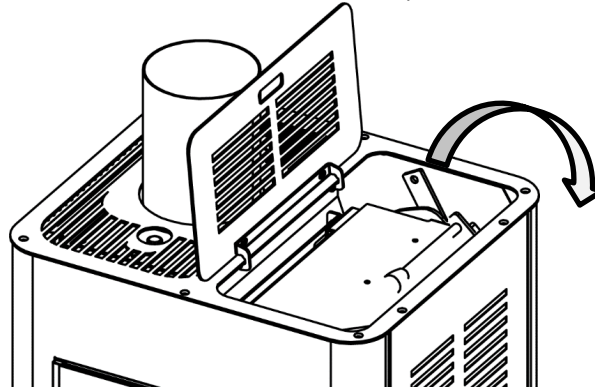


Fig. 14

The pellets will fall down until the brazier is full; now you can open the main door and position a solid or gel-like ignited on top of the pellets in the brazier and light it using a flame. Leave the door ajar for a couple of minutes or even longer (this depends on the room temperature and on the chimney flue). Close the door only when the flame reaches a minimum height of about 3 inches, so as to lick the holes located in the rear wall. Now the stove is turned on.

**The fire door is equipped with a return spring that prevents accidental maximum opening.**

**ATTENTION: do not touch the door with bare hands while the stove is working.**

**CAUTION:** *always clean the brazier prior to each ignition to avoid false starts, if there is little ash residue, clean it by means of the shaker (See paragraph 6.7); in case of hard-to-clean ash residue, take out the brazier and manually shake it.*

**CAUTION:** *always carry out this operation with the stove switched off and cooled down.*

**CAUTION: RISK OF BURNS.**

### 6.4 Combustion mode

Using the air adjustment lever positioned under the upper door, it is possible to vary the combustion air inlet and consequently the power of the stove.

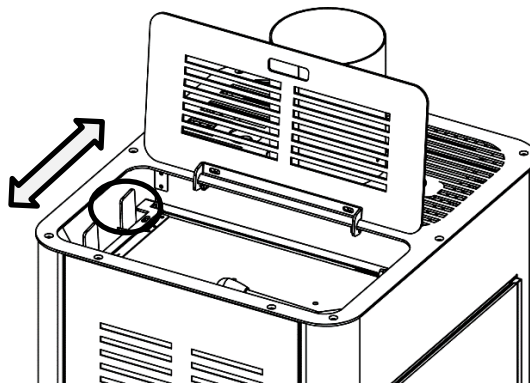


Fig. 15

**ATTENTION: The minimum power of the stove depends on the draft of the chimney flue**

## 6.5 Shutdown

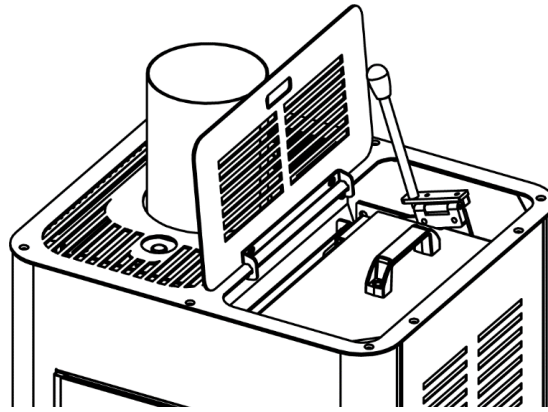


Fig. 16

By moving the lever in position “Stop” (fig. 16) the fall of pellet into the brazier will stop; combustion will continue for about 20 minutes, after which the stove will switch off.

To switch it back on, move the lever in position 2, place a solid or gel-like igniter on top of the pellets and light it up with a flame

**CAUTION: to prevent burns wait at least 15 minutes before switching the stove back on.**

**CAUTION: RISK OF BURNS.**

**CAUTION: do not touch the brazier after switching off the stove.**

## 6.6 Cleaning the exchanger

Hook the handle on the pin (fig. 17) and lift it up repeatedly causing the internal springs to shake and consequently the ash to fall into the combustion chamber; repeat this operation on the other pin

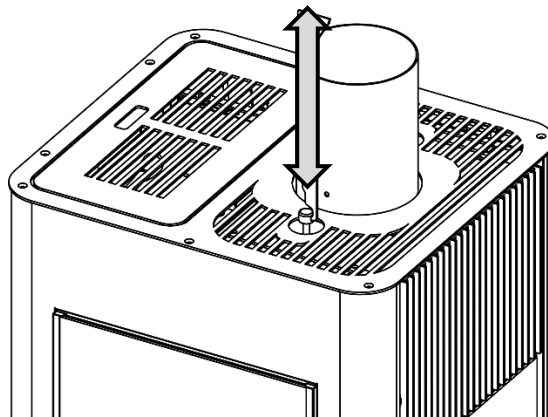


Fig. 17

The exchanger must be cleaned at least once a week; if the stove is used a lot (more than 8 hours a day), it is recommended to clean it every 3 days.

It is recommended to carry out this operation when the stove is cold to avoid getting burned; however, it can also be done while the stove is working, provided that utmost attention is paid to hot surfaces.

**Do not leave the handle hooked up to the pin after cleaning the stove while it is working; put it away in the special compartment.**

**CAUTION RISK OF BURNS.**

**CAUTION: Do not touch the pin with bare hands while the stove is working to avoid getting burned**

## 6.7 *Cleaning the brazier with the shaker*

To keep the flame always live and at maximum efficiency and avoid the formation of smoke, during operation it is necessary to clean the brazier using the specific shaker lever (*fig.18*), which drops the excess ash in the drawer (**no more than two or three blows**).

The frequency of this operation depends on the quality of the pellet used

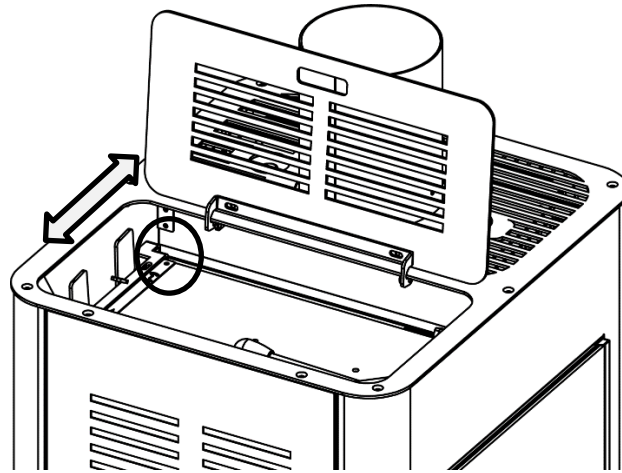


Fig. 18

**CAUTION RISK OF BURNS.**

## 7 WARNINGS AND MAINTENANCE



### WARNING

The maintenance and care must be carried out only with cold device.

You should only use spare parts approved and supplied by Laminox Idro Srl please contact your specialized retailer if you require spare parts. You must not make any changes to the device!!!

The periodic maintenance, as indicated in this Installation and Operating Instruction, must be performed with the utmost care after reading the instructions, procedures and frequency described in this manual. Check the external air intake, by cleaning it, at least once a year. The flue must be regularly swept by the chimney sweeper. Let your chimney sweeper in charge of your area check the regular installation of the device, the connection to the flue and the aeration.

All maintenance operations (cleaning, replacements, etc.) should be carried out when the fire is out and the stove is cold. In addition, do not use any abrasive substances.

#### CAUTION: FAILURE TO CLEAN AFFECTS SAFETY

### 7.1 Opening the door

The door must remain closed during operation. The door should be opened only with the stove off and cooled down to perform maintenance and routine cleaning.

### 7.2 Ashes cleaning and disposal

Check the ash drawer every two days to see if it needs emptying

The ash collection compartment must be emptied regularly so as to impede combustion residue from arriving at the brazier support.

**CAUTION: ashes keep embers on for a long time!!!**



### WARNING

Ashes should be placed in a metal container with a tight-fitting lid. The closed container of ashes should be placed on a non-combustible floor or on the ground, well away from all combustible materials, pending final disposal. If the ashes are disposed of by burial in soil or otherwise locally dispersed, they should be retained in the closed container until all cinders have thoroughly cooled.

### 7.3 Brazier cleaning

When the flame becomes a red colour or is weak accompanied by black smoke, it may mean that there are ash deposits or incrustations which are not allowing correct stove operation and which must be removed.

Every two days, remove the brazier by simply lifting it from its housing, then clean it of ash and any incrustations which could have formed, with particular attention to freeing clogged holes using a pointed tool.

This operation is necessary in particular the first few ignitions, especially when using different quality pellets. The timing of this operation is determined by the frequency of use and the choice of fuel. It is advisable to also check the brazier support, emptying it of any ashes.

**CAUTION: before igniting the stove, check that the brazier is properly inserted and pushed back toward**

## 7.4 Ash drawer cleaning

Check the ash drawer every two days to see if it needs emptying

The ash collection compartment must be emptied regularly so as to impede combustion residue from arriving at the brazier support.

**CAUTION: ashes keep embers on for a long time!!!**



## WARNING

Ashes should be placed in a metal container with a tight-fitting lid. The closed container of ashes should be placed on a non-combustible floor or on the ground, well away from all combustible materials, pending final disposal. If the ashes are disposed of by burial in soil or otherwise locally dispersed, they should be retained in the closed container until all cinders have thoroughly cooled.

## 7.5 Combustion chamber cleaning

Clean the combustion chamber weekly, removing ashes accumulated in the chamber using a vacuum cleaner.

**Note: Use a vacuum cleaner designed for the suction of ashes for this type of cleaning.**

Once a week, open the front grille and pull the cleaner rod knob towards you at least 3 times.

## 7.6 Smoke chamber cleaning

Generally, clean the smoke chamber once a year (preferably at the beginning of the season) for best stove operation. The frequency of this operation depends on the type of pellet used and the frequency of use. Contact a Technical Assistance Centre for this type of cleaning.

## 7.7 Exhaust system cleaning

Until you are reasonably experienced regarding operating conditions, it is advisable to perform this service at least monthly. Remove the T-fitting cap and proceed with duct cleaning. If necessary, at least the first few times, request assistance from a qualified technician.

## 7.8 Cleaning metal and ceramic parts

Use a soft cloth moistened with water to clean metal stove parts.

Never clean metal or ceramic parts with alcohol, thinners, petrol, ketones or other degreasers.

Use of these substances frees the company from all liability. Discolouration of metal parts can be the result of improper use of the stove.

## 7.9 Pellet slide cleaning

With the scraper (Fig. 19), clean the pellet slide (Fig. 20) from any incrustations that can slow down or block the pellets' descent to the brazier.

**It is recommended to do out this operation before each ignition in order to maintain the correct functioning.**



Fig. 19

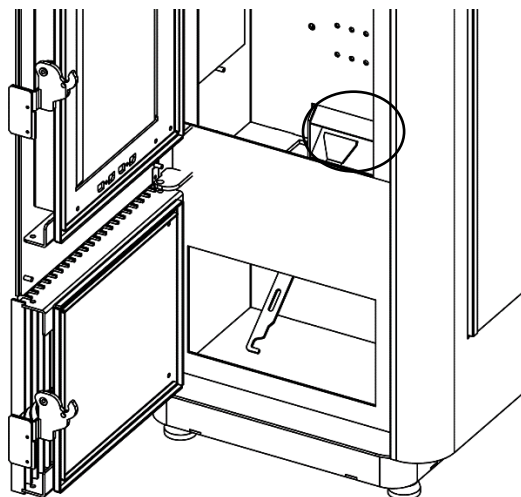


Fig. 20

## 7.10 Cleaning glass

Door glass must be clean (cold). Prevent corrosive substances from coming into contact with the paint on the stove as these can cause damage. Do not use any material that can scratch or damage the glass.



### WARNING

The cleaning of glass must be carried out only and exclusively with cold device to avoid the explosion of the same glass.

For the cleaning, it is possible to use specific products or a wet newspaper paper ball passed in the ash to rub it. Do not use cloths, abrasive or chemically aggressive products by cleaning the hearth glass

## 7.11 Broken glass

The stove is equipped with 5 mm ceramic glass that is resistant to a thermal shock of 1350°F. This glass can break only due to a strong impact or misuse. Do not slam the door or hit the glass. In case of breakage, replace with an original replacement part only. (See paragraph 7.15)



### WARNING

Break of glasses: ceramic-based glasses can resist up to a heat shock of 1350°F, therefore they are not affected by thermal shock issues. Their break can be caused by mechanic shocks, such as striking or slamming shut of the door. Therefore, their replacement is not included in the warranty

Do not operate this unit with broken glasses

Broken or damaged glass components shall be removed and reinstalled taking care about using proper gaskets, cushioning devices and other accessories, maintaining edge clearances (See paragraph 7.15)

Replace glass only with glass supplied from the manufacturer or distributor of this appliance

## 7.12 Stove inactivity

At the end of the season, perform the following operations:

- Remove all pellets from the tank and from the feed screw.
- Thoroughly clean the brazier, the support brazier, the combustion chamber and the ash drawer.
- Thoroughly clean the smoke exhaust system: contact a professional chimney sweep for this purpose.
- Clean all dust, spider webs, etc. from the area behind the panels of the inner cladding once a year.
- Clean fans thoroughly.

## 7.13 Routine and special maintenance

This pellet heater needs periodic inspection and repair for proper operation. It is against federal regulation to operate this pellet heater in a manner inconsistent with operating instructions in this manual

These operations should be programmed ANNUALLY with a Technical Assistance Centre and are necessary to ensure the maintenance of product efficiency and ensure safe operation.

- Thoroughly clean the combustion chamber and the heat exchanger.
- Smoke motor, dismantling and cleaning of the smoke exhaust duct, new silicone where required.
- Inspection and verification of gaskets, springs and replacement and application of the silicone where required
- Tank, emptying and cleaning.
- Check and replacement, if necessary, of components that are subject to wear: brazier, ash drawers, etc.

## 7.14 Routine maintenance performed by qualified technicians

Using wood as solid fuel, the generator requires annual routine maintenance, which must be performed by a qualified technician, using only original spare parts.

**Failure to comply can jeopardise the safety of the appliance and make the warranty null and void.**

Respecting the frequencies of cleaning reserved for the user described in the use and maintenance manual, the generator is guaranteed correct combustion over time, preventing any anomalies and/or malfunctioning that could require more interventions of the technician. Requests for routine maintenance are not contemplated in the product warranty.



### **WARNING**

**Routine maintenance must be performed at least once a year.**

**The annual routine maintenance must be performed by a qualified technician.**

**Using only original spare parts. Failure to comply can jeopardise the safety of the appliance and make the warranty null and void.**

## 7.15 Spare parts replacement

Use only ceramic type glass

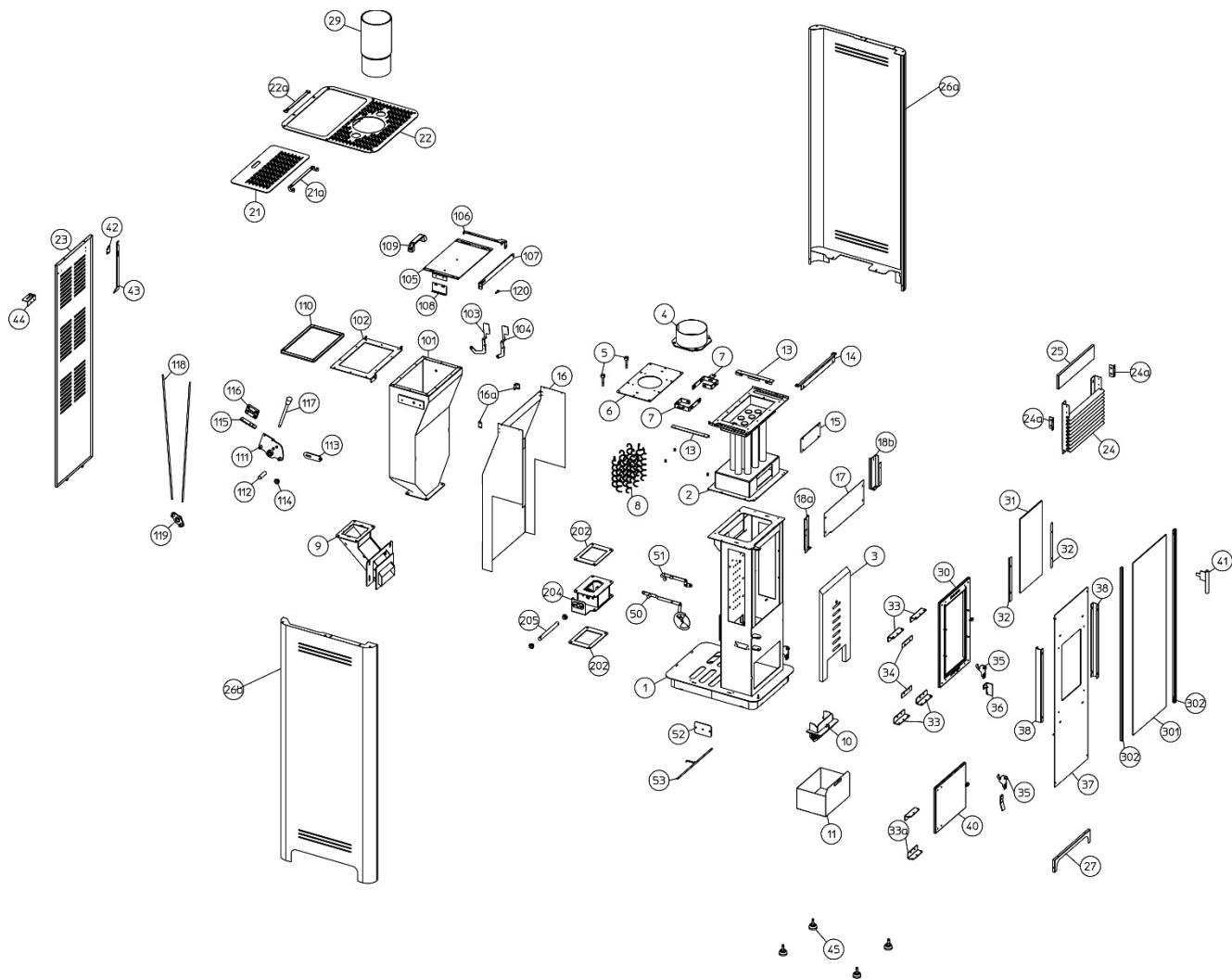
The gaskets guarantee the tightness of the product and its consequent good functioning. They must be controlled periodically. They must be replaced immediately if they are worn or damaged. These operations must be carried out by a qualified technician.

Ceramic Glass dimensions: 306 x239 mm (12" x 9,4"); Thickness 5 mm

Door tricovet gasket: *Diam.* 10 mm (0,39"); *L.* 1570 mm / (62")

For all other spare parts please contact your dealer using the list on the following pages as a reference.

**Spare parts replacement operations must always be carried out by a qualified technician**



Ref. Drawing	Product code	Laminox description	N° Per Kit
1	<b>LYD-STR</b>	structure	1
2	<b>PHX-GRF</b>	fumes circulation	1
3	<b>PHX-VCC</b>	Combustion chamber insulation	1
4	<b>PHX-UF150</b>	Smoke outlet	1
5	<b>JSN9-PMT</b>	Turbulators movement pin	2
6	<b>PHX-TIT</b>	Turbulators inspection cap	1
7	<b>PHX-PT</b>	Turbulator holder	2
8	<b>PHX-TM</b>	spring turbulator	8
9	<b>PHX-SPI</b>	pellet slide inox	1
10	<b>HS13-BRA</b>	Brazier	1
11	<b>PHX-CC</b>	ash drawer	1
13	<b>PHX-AOL</b>	lateral horizontal angle bracket	2
14	<b>PHX-AOF</b>	front horizontal angle bracket	1
15	<b>PHX-TIG</b>	fumes circulation inspection cap	1
16	<b>PHX-DPS</b>	tank heat shield diaphragm	1

16a	<b>PXH-SQC</b>	closure brackets heat buffer	1
17	<b>PHX-TRF</b>	finishing frontal plug	1
18a	<b>PHX-ANSX</b>	Left Angle bracket	1
18b	<b>PHX-ANDX</b>	Right angle bracket	1
50	<b>PHX-MOV-AR</b>	air movement	1
51	<b>PHX-MOV-SC</b>	shaker movement	1
52	<b>PHX-TSC</b>	shaker plug	1
53	<b>PHX-SCT</b>	shaker burner	1
43	<b>PHX-RAS</b>	Scraper water slide pellet	1
24b	<b>LYD-SCS</b>	Front panel support	2
--	<b>STP-VF-150</b>	Throttle	1
30	<b>PHX-PRT</b>	fire door (without glass and handle)	1
31	<b>PHX-VTR-IN</b>	Internal door glass	1
32	<b>PHX-SRV</b>	Glass holder brackets	2
33	<b>PHX-SPA</b>	front plate door support	4
34	<b>PHX-TAS</b>	explosion-proof plug door	2
35	<b>PHX-MIN</b>	interior handle	2
36	<b>PHX-MEX</b>	external handle	1
37	<b>LYD-PAS</b>	front door plate	1
38	<b>PHX-ANR</b>	reinforcement angle bracket	2
40	<b>LYD-PRC</b>	ash door	1
41	<b>STP-MCE</b>	removable handle	1
301	<b>LYD-VTR-EX</b>	External front glass	1
302	<b>LYD-GPV</b>	glass guide	2
--	<b>STP-GS10</b>	Door seal	1
--	<b>STP-GA2</b>	Adhesive glass seal	1
114	<b>STP-BRO</b>	Bushing	4
--	<b>PHX-SAS</b>	assembled tank	1
101	<b>PHX-SRB</b>	tank main body	1
102	<b>PHX-CS</b>	tank frame	1
103	<b>PHX-LRA</b>	air regulation lever	1
104	<b>PHX-LSC</b>	shaker lever	1
105	<b>PHX-CSP</b>	pellet tank cover	1
106	<b>PHX-CCS</b>	hinge tank cover	1
107	<b>PHX-ABC</b>	Tank locking rod	1
108	<b>PHX-BAP</b>	Tank opening lock	1
109	<b>PHX-MCS</b>	handle cover tank	1
110	<b>STP-GAS</b>	Pellet tank adhesive seal	1

111	<b>PHX-SLC</b>	support locking lever	1
112	<b>PHX-AMC</b>	shaft opening mechanism	1
113	<b>PHX-BAS</b>	Safety rod lock	1
115	<b>PHX-SPC</b>	hinge support	1
116	<b>PHX-CRN</b>	snap hinge	1
117	<b>PHX-LCV</b>	closing lever pellet valve	1
118	<b>PHX-AMB</b>	Balance movement rod	2
119	<b>PHX-FAB</b>	fulcrum locking rod	1
21	<b>LYD-CP</b>	Top cover	1
21a	<b>PHX-CM</b>	mobile hinge	1
22	<b>LYD-TS</b>	Top	1
22a	<b>PHX-CF</b>	fixed hinge	1
23	<b>PHX-DP</b>	back diaphragm	1
24	<b>LYD-GS</b>	Lydia grid	1
25	<b>LYD-CS</b>	Front panel	1
26a	<b>LYD-FDX</b>	Lydia right side panel	1
26b	<b>LYD-FSX</b>	Lydia left side panel	1
29	<b>PHX-DAM</b>	Damper valve	1
27	<b>LYD-ZRF</b>	Finishing plinth	1
45	<b>STP-PIE</b>	Adjustable foot	4
42	<b>PHX-GR</b>	scraper hook	1
44	<b>PHX-SP</b>	handle support	1
202	<b>LMX-GA2</b>	silicone seal	2
204	<b>PHX-CVP</b>	valve body pellet	1
205	<b>PHX-BR</b>	rotation shaft	1

## 8 WARRANTY

### 8.1 Certificate of warranty

The purchaser is invited to:

- Examine the instructions for the installation, use and maintenance of the stove.
- Examine the conditions of warranty shown below and the "*Limited Warranty certificate*" included in this manual

### 8.2 Condition of warranty

The limited warranty covers defects of manufacturing materials, on condition that the product has not been broken due to an incorrect use, carelessness, wrong connections or errors of installation.

The following are not covered by guarantee:

- *vermiculite (Firex 600)*;
- *the glass of the door*;
- *the fibre gaskets*;
- *the painting*;
- *the fire pot*;
- *the cast majolica*;
- *any damage caused by inappropriate installation and/or handling of the stove and/or shortcomings by the consumer*

*. The use of poor-quality pellets or of any other material could damage components of the stove causing the termination of their guarantee and the annexed responsibility of the manufacturer.*

*The pellets which meet the requisites listed in the chapter on them should be used.*

All damage caused by transport are not acknowledged, therefore please carefully check the goods on receipt, immediately advising the dealer of any damage.

All the manufacturer's guarantees are shown here and no complaint may be made to the manufacturer according to any other guarantee, report or request.

For warranty claims and instructions for return shipments please refer to your local dealer.

### 8.3 Information and problems

For any information or problems, please contact your dealer or service centre, the only people who can meet any request you may have end, if necessary, who can intervene directly

## **Limited Warranty certificate**

### **Subject matter**

Laminox Srl, provides a warranty on all product marketed under the *Laminox Idro* brand and installed professionally by authorized personnel within the North American territory: subject to limitations set out below mentioned.

The manufacturer's warranty allows customers to request the free of charge replacement or repair of product parts solely, in case where non-conformance due to manufacturing defects is detected and acknowledged by trained personnel.

During the warranty period, Laminox undertakes to correct defects caused by manufacturing defects, at no cost to the Customer, through its network of customer services, which the Customer can contact by contacting the dealer. In any case, Laminox points out that the appliance must be installed in an easily accessible place in accordance with current legislation. Otherwise, the costs necessary to intervene will be entirely borne by the Customer.

### **Warranty period**

Laminox S.r.l. guarantees its products for 24 months (two years) from the date of purchase by the end customer (hereinafter Customer), proven by a valid fiscal document issued by the authorized reseller (receipt, invoice) that identifies the product purchased and the date of purchase and/or delivery of the same.

### **Validity**

This warranty is valid exclusively for products installed in North America

The warranty includes the free repair or replacement of the component parts of the appliance which are defective at the origin due to manufacturing defects, with the exception of the hypotheses listed in the "Exclusions" paragraph.

The right to the guarantee will be proven by this original certificate, from which the model, the serial number of the product, the date of purchase and the company name of the retailer can be deduced and by a document valid for tax purposes, issued by the retailer at the time of purchase.

The warranty is recognized as valid provided that:

- 1) The appliance has been installed by qualified personnel in compliance with the regulations in force on the matter, respecting the instructions contained in this use and maintenance instructions;
- 2) The appliance is used according to the methods described in this use and maintenance instructions;
- 3) The lack of conformity is reported;
- 4) This certificate is accompanied by a purchase document certifying payment for the goods and showing the retailer's company name, model and purchase price.

### **Exclusions**

The warranty is not recognized in the following cases:

- 1) The terms of validity have not been respected;
- 2) The installation has not been carried out in compliance with the regulations in force on the matter, respecting the prescriptions contained in this use and maintenance instructions. Installations that do not comply with current standards will void the product warranty, as will improper use and lack of maintenance as foreseen by the manufacturer;
- 3) It is found by the customer service that conditions external to the functioning of the product have caused it;
- 4) For interventions aimed at explaining the functioning of the product, periodic checks and maintenance and all that, at the time of sale, had been brought to the attention of the Customer or that the latter could not reasonably ignore;
- 5) Negligence in maintenance, carelessness, tampering, accidental breakage, damage in transport,

- incorrect handling, as well as improper use and maintenance by the Customer is found;
- 6) Combustion of materials that do not comply with the types indicated in the use and maintenance manual;
  - 7) Damage caused to the equipment by atmospheric and natural events (such as lightning, floods, fires, earthquakes) or by acts of vandalism;
  - 8) Operational alterations due to climatic, atmospheric, environmental or other conditions;
  - 9) Acknowledgment by the customer service of the presence of non-compliant electrical and/or hydraulic systems or fume ducts;
  - 10) For which an insufficient or non-compliant flow rate of the electrical systems is found;
  - 11) No defect has been found, as reported by the Customer, or for generic operating problems deriving from a wrong impression by the user (problems with noise, heating, timer programming, etc.);
  - 12) Interventions for calibration or adjustment of the product in relation to the type of fuel used or the particularities of the installation;
  - 13) Transport damage not dependent on the manufacturer. In this regard, it is recommended to carefully check the material upon receipt, immediately notifying the retailer and reporting the annotation both in the transport document and on the carrier's copy.

Laminox S.r.l. declines all responsibility for any damage that may directly or indirectly be caused to people, things or animals as a result of failure to observe all the instructions indicated in the specific instruction booklet and concerning installation, use, operation and maintenance of the appliance.

For the period of inefficiency and for direct or indirect damage due to or dependence on the product, no compensation is recognized.

The interventions carried out for the replacement of components subject to wear and/or removable are also excluded from the guarantee, unless their breakage and/or their malfunctioning are not attributable to original defects: - *vermiculite (Firex 600)*;

- *the glass of the door*;
- *the fibre gaskets*;
- *the painting*;
- *the fire pot*;
- *the cast majolica*;
- *any damage caused by inappropriate installation and/or handling of the stove and/or shortcomings by the consumer*

### **First ignition test (for a fee)**

This product requires first start-up testing by an authorized customer service which will regulate the operating parameters and provide all the information for correct use.

It is essential to have the product function tested before completing any wall finishes (smoke duct covers, coverings, painting, etc.). The company assumes no responsibility for any damage and consequent costs of restoring the finishes mentioned even if they were to result from the replacement or repair of non-functioning parts.

### **Downtime period**

In case of product malfunction, the customer service shall arrange to repair the product as quickly as possible, without prejudice to the fact that no compensation will be granted for the downtime period

**Important:** The assistance interventions must be carried out by the customer service, in total safety according to the current provisions of the law on the subject. The means necessary for the safe execution of the assignment (scaffolding, handling equipment, etc.) will be procured by the Client and the consequent expenses will be borne exclusively by him. If the technician recognizes the defect as prescribed by the laws in force regarding safety. He may legitimately refuse to carry out the requested intervention. by charging the Client the cost of the exit.

1. The technician has the task of restoring the conformity of the product on the basis of the provisions of the guarantee conditions;
2. The technician is the only person competent to establish the correct functionality of the product and evaluate its possible irreparability on site. In this second hypothesis, the product must be sent, with suitable packaging, to the Laminox company for repair and general testing with costs to be borne by the customer. In cases of irreparability, the replacement can be carried out only following the written consent of the manufacturer, leaving unchanged the expiry date and the terms of guarantee acquired at the time of purchase of the product;
3. The technician will process requests for intervention for repairs under warranty promptly, compatibly with organizational requirements. In any case, however, the manufacturer cannot be held responsible for any inconvenience caused by any delays in carrying out the intervention.

Once the warranty period stipulated in the contract has expired, the costs for any restoration work must be borne by the Customer. In this case, the Customer can contact the TAC network, from which he can obtain, in addition to a high professional service, original, tested and guaranteed spare parts.1.

#### **REFERENCES STANDARDS:**

ASTM E1509  
UL 1482  
ULC S627  
UL 181  
UL 641  
ULC S609  
Manufactured home and safety standard (HUD), cfr 3280, part 24  
NFDA (Fire) 211

Laminox S.r.l. reserves the right to change the characteristics and data reported in the following document at any time and without warning in order to improve their products. This manual, therefore, cannot be considered as a contract with third parties.

Updated manuals and drawings are available at website [www.laminox.com](http://www.laminox.com).



**PLEASE CONTACT YOUR DEALER FOR ANY SERVICE OR QUESTION**

**Appliance information:**

**SERIAL NUMBER** \_\_\_\_\_

**DATE PURCHASED** \_\_\_\_\_

**DATE INSTALLED** \_\_\_\_\_



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