

Cucine a Legna - Wood-burning cookers
Cuisinières à bois - Cocinas de leña
Holzherde - Houtfornuizen

STAR 90
STAR 90 PLUS
STAR 90 CLASSIC
STAR 90 COUNTRY
STAR 90 INOX

| | |
|--|-----------|
| ISTRUZIONI PER L'INSTALLAZIONE, L'USO E LA MANUTENZIONE | IT |
| INSTALLATION, USE AND MAINTENANCE INSTRUCTIONS | EN |
| INSTRUCTIONS D'INSTALLATION, UTILISATION ET ENTRETIEN | FR |
| INSTRUCCIONES PARA LA INSTALACIÓN, EL USO Y EL MANTENIMIENTO | ES |
| INSTALLATIONS-,BEDIENUNGS- UND WARTUNGSANLEITUNG | DE |
| INSTRUCTIES VOOR INSTALLATIE, GEBRUIK EN ONDERHOUD | NL |

Istruzioni originali - Translation of the original instructions
Traduction des instructions originales - Traducción de las instrucciones originales
Übersetzung der originalanleitung - Vertaling van de oorspronkelijke handleiding

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1 GENERAL PREAMBLE

1.1 SYMBOLS USED

The following symbols are used throughout this manual, each of which has a precise meaning.



Indicates particularly important and delicate operations that, if not carried out correctly, could damage the appliance and/or the materials.



Indicates operations that, if not carried out correctly, can lead to general injuries and cause malfunctions or damages to the appliance and/or to the materials it uses.



Refers to operations that must NOT be carried out.

1.2 INFORMATION ON THE INSTRUCTION MANUAL

1.2.1 SCOPE AND CONTENTS OF THE MANUAL

The aim of the manual is to provide fundamental information for the installation, use and maintenance of the appliance.

Observing the information given in this manual guarantees a high degree of safety and performance from the appliance.

Although the indications provided in this manual must be regarded as a general rule, all provisions of the local, national and European laws in force in the country where the appliance is installed must nonetheless be observed.

1.2.2 UPDATING OF THE MANUAL

This manual contains information relative to the appliance at the time of its introduction onto the market.

The manufacturer reserves the right to update the manual and implement the relevant changes without notifying the customer.


2 SAFETY


2.1 GENERAL SAFETY WARNINGS




This manual is the property of the appliance's manufacturer; it is forbidden to reproduce or transfer to third parties the contents of this document. All rights reserved. The manual is an integral part of the product; make sure that it always accompanies the appliance, even when the latter is sold/transferred to another owner, so that it can be consulted by the user or by personnel authorised to perform maintenance and repairs. The pictures and drawings are purely for example purposes; the manufacturer, in the ongoing effort to develop and upgrade the product, may make changes to the product without prior notice.


- Carefully read this manual before use to ensure that the appliance works safely.
- The manufacturer declines all liability for accidents deriving from failure to observe the specifications contained in this manual.
- Moreover, the manufacturer declines any liability arising from improper use of the product by the user, unauthorised modifications and/or repairs, as well as the use of non-original spare parts or parts not suitable for this type of product.
- To ensure the validity of the warranty, the user must comply with the instructions contained in this manual and, in particular, must:
 - use the appliance within its operating limits;
 - regularly perform all maintenance activities;
 - authorise expert and competent people to use the appliance.
- Failure to comply with the instructions contained in this manual shall automatically void the warranty.

 The installation, commissioning and maintenance of the appliance must be carried out by specialised personnel in accordance with the local, national and European regulations; moreover, said personnel shall be responsible for the correct installation and efficient operation of the appliance. The manufacture declines all liability if these indications are not observed.

 Only use original spare parts or parts approved by the manufacturer, so as to avoid any damages to the product.


 The appliance may be used by children no younger than 8 years of age and by people with reduced physical, sensory or mental capabilities, or who lack experience or knowledge of the appliance, as long as they are supervised or have been instructed on how to use the appliance safely and understand the hazards inherent to the appliance.

- Children must not be allowed to play with the appliance. User maintenance and cleaning operations must not be carried out by children.


 Keep children away from the appliance when it is running since they could get burned by touching its hot components.


2.2 PROHIBITIONS


 Do not make any unauthorised modifications to the appliance.

 Do not touch any hot parts of the appliance (glass-ceramic panel, flue, outer frame, etc.) during operation.


- NEVER open the appliance door during normal operation, except when wood is being loaded.


 During cooking and, in general, while using the appliance, do not wear clothing that can easily catch fire.

 It is forbidden to use any fuel other than wood.

 Do not perform cleaning with unsuitable detergents. Strictly avoid using cleaning products that are corrosive and flammable or contain substances hazardous to human health. Do not use substances used for cleaning and polishing silver, brass or other non-approved products.

 Do not leave flammable containers and substances in the room where the appliance is installed.

 Do not disperse packaging material in the environment or leave it within reach of children or unassisted people with reduced capabilities, as the packaging may be dangerous. It must therefore be disposed of according to the current legislation.

 Do not use fuels other than those for which the appliance was designed. Do not use liquid fuels.

- Do not use the appliance as an incinerator or for any use other than that for which it was designed.
- Do not use the appliance in ways other than those indicated in this user manual.

 Do not leave the appliance exposed to the elements.

3 PRESENTATION OF THE APPLIANCE

3.1 IDENTIFICATION

KLOVER products are identified by:

- **PRODUCT DATA PLATE** which shows the model (A), serial number (B) and performances of the product

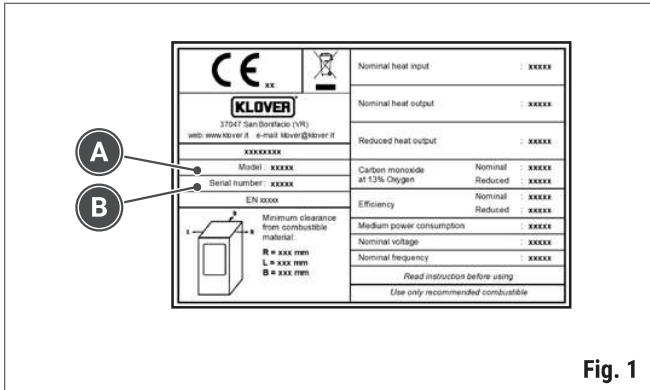


Fig. 1

The rating plate is positioned as shown below.

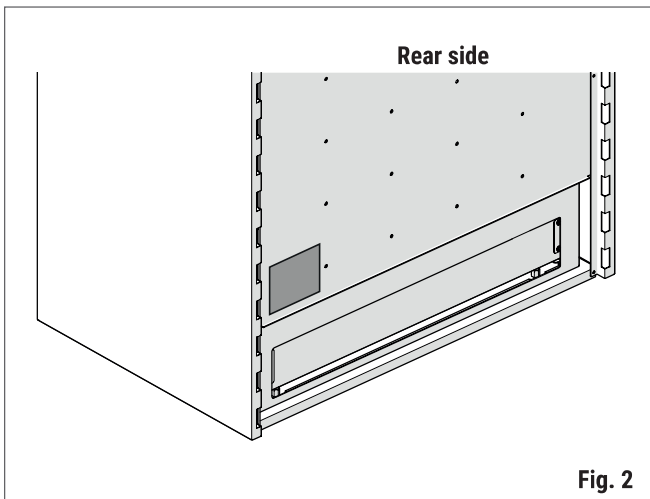


Fig. 2



If technical assistance and/or spare parts must be requested, always communicate this data to your trusted dealer or to an authorised technical assistance centre. KLOVER.

3.2 INTENDED USE

This product:

- works exclusively with wood and with the door closed
- must be installed and used solely in indoor environments
- is intended solely for the expressly specified use, and any other use is regarded as improper and thus dangerous.

3.3 GENERAL DESCRIPTION

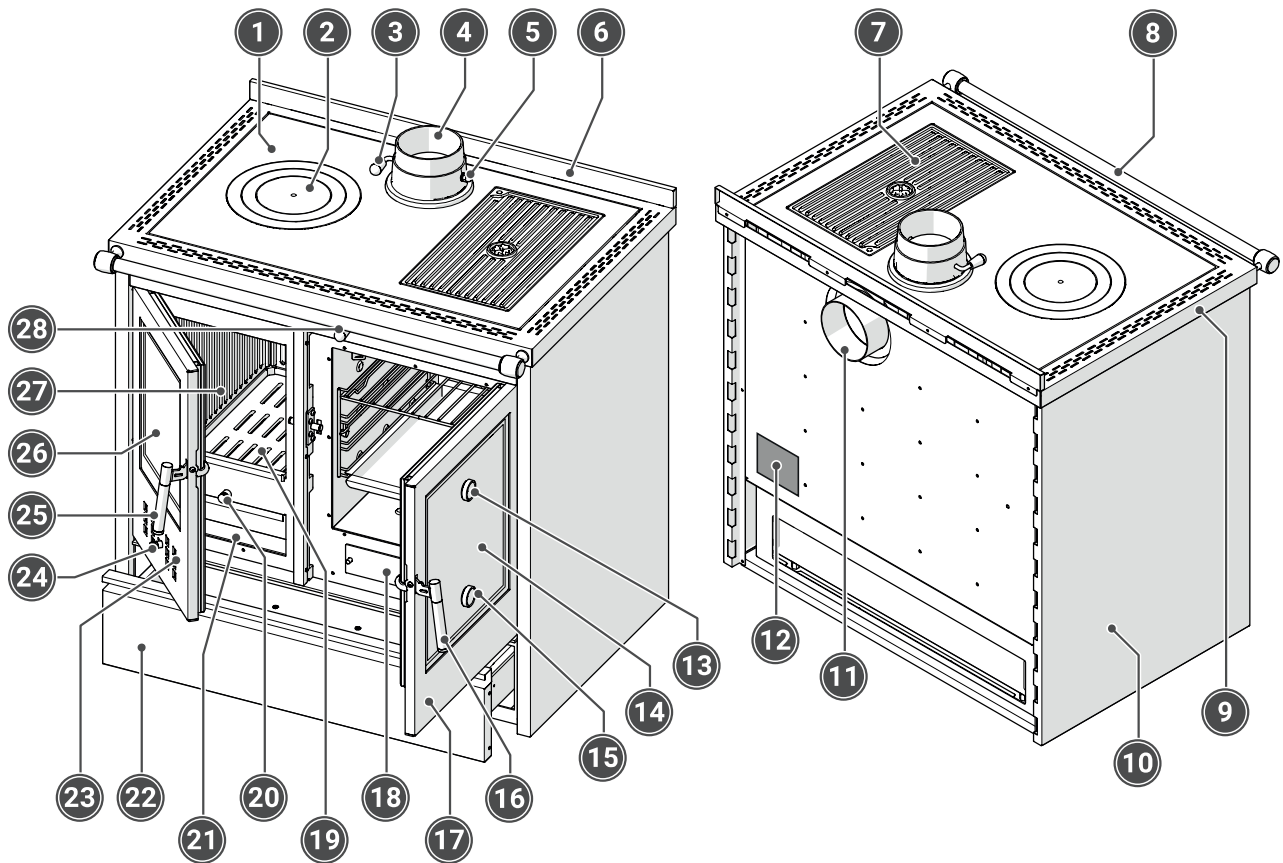
STAR 90 wood-burning cookers are designed and manufactured with solutions geared towards performance and design that reflect simplicity of use, safety and environmental protection in an innovative way. The use of wood, a fuel that is easy to find, use and store, makes the product even more practical to use.

The materials used, the high thicknesses, the hermetic seal on the cooker's openable parts and the centralised oxygenation determine extremely high performances in terms of yield and emissions, as well as reduced energy wastage.

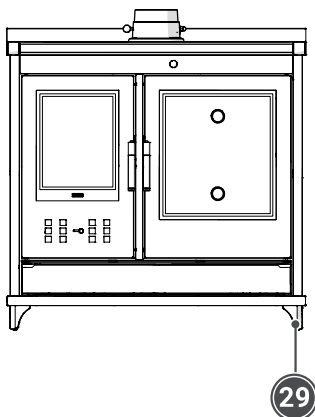
Special care was devoted to the safety of people who use our products; as a result, each product is subjected to rigorous suitability and tightness checks.

3.4 MAIN COMPONENTS

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- | | |
|--------------------------------|---|
| 1 Hotplate | 15 Oven door handle |
| 2 Fire point | 16 Oven door |
| 3 Draught regulation handle | 17 Inspection nozzle under the oven |
| 4 Upper fume exhaust | 18 Cast iron brazier |
| 5 Smoke damper | 19 Brazier shaker lever |
| 6 Upstand | 20 Ash tray |
| 7 Food-grade enamelled grille | 21 Storage compartment |
| 8 Handrail | 22 Combustion air intake |
| 9 Plate-holder frame | 23 Combustion air primary damper |
| 10 Side panel | 24 Firebox door handle |
| 11 Rear fume outlet (optional) | 25 Firebox glass-ceramic panel |
| 12 Upper oven thermometer | 26 Cast iron walls |
| 13 Glass-ceramic oven panel | 27 Internal smoke deflector |
| 14 Lower oven thermometer | 28 Feet ("CLASSIC" and "COUNTRY" models only) |

Fig. 3

3.5 TECHNICAL SPECIFICATIONS

| Description | Unit of measurement | STAR 90 |
|--|---------------------|------------------------|
| Nominal heat input | kW | 13,5 |
| Nominal heat output | kW | 11,5 |
| Yield | % | 85,1 |
| CO measured at 13% oxygen | % | 0,046 |
| Flue outlet diameter | mm | 130 |
| Minimum chimney effect | Pa | 12 |
| Combustion gases mass flow rate | g/s | 12 |
| Average flue gas temperature | °C | 201 |
| Hourly wood consumption | kg/h | 3,18 |
| Wood loading interval | min | 45 |
| External air intake (minimum useful cross-sectional area) | cm ² | 80 |
| Minimum safety distance from flammable materials (side/rear/top/front) | mm | 200 / 200 / 1500 / 800 |

Data measured in the laboratory in accordance with the product technical specifications.

The values in brackets (...) indicate the figures obtained in accordance with the EN 13240 standard.

The appliance heat output and consumption may vary depending on the type and degree of dryness of the wood used (an average value of 4,375 kWh/kg was considered).

3.6 DIMENSIONS AND CONNECTIONS

All the technical sheets for the dimensions and connections can be viewed by scanning the following QR Code from your smartphone.



<https://docs.klover.it/it/guide/help/cs-st90-tds-1>

4 FUEL

4.1 FUEL CHARACTERISTICS



It is forbidden to use any fuel other than wood.

- DO NOT USE wood that has is very humid, wet or seasoned for less than 2 years.
- DO NOT USE wood with a high resin content as this may shorten the appliance working life and require more frequent cleaning of the flue and of the appliance.

Since the characteristics and quality of the wood considerably influence product autonomy, yield and proper operation, the manufacturer suggests using well seasoned (at least 2 years) and dry wood, with humidity between 10÷15%.

Wood is divided into softwood (e.g. fir, pine, poplar, alder, chestnut, willow) and hardwood (beech, ash, hornbeam, locust and oak). Softwood ignites easily, burns quickly and has a long flame. Hardwood is more compact and burns more slowly with a short flame; it lasts longer and is more suitable for domestic heating systems.

Depending on the calorific value of the wood, its composition and consistency, and the flame duration, wood to burn can be classified into two categories: "good quality" and "poor quality".

Good-quality fuel

The following hardwoods are regarded as suitable: beech, ash, hornbeam, oak, locust, birch, maple and elm.

Poor-quality fuel

The following softwoods should not be used: willow, poplar and alder.



The use of poor-quality wood or any other material can damage the appliance functions and void the warranty, resulting in the manufacturer being exempted from all liability.

Indicative values referred to wood with uniform density and a residual humidity percentage between 10% and 15%

| Type of wood | Calorific value (kcal/kg) | Specific weight (kg/m ³) |
|----------------|---------------------------|--------------------------------------|
| White fir | 4650 | 440 |
| Red fir | 4857 | 450 |
| Maple | 4607 | 740 |
| Birch | 4968 | 650 |
| Hop-hornbeam | 4640 | 820 |
| Chestnut | 4599 | 580 |
| Turkey oak | 4648 | 900 |
| Cypress | 5920 | 620 |
| Beech | 4617 | 750 |
| Ash | 5350 | 720 |
| Larch | 4050 | 660 |
| European alder | 4700 | 530 |
| Cypress poplar | 4130 | 500 |
| Locust | 4500 | 790 |
| Downy oak | 4631 | 880 |

Size of the wood

The dimensions and arrangement of the wood logs also influence product performance. It is important that the wood:

- is cut into pieces adequate to the size and type of the firebox so that it does not rest against the walls or glass of the door
- is properly arranged on the brazier and above a layer of embers
- is in contact with the embers for a surface as large as possible, preferably free of bark.

For the dimensions and arrangement of the fuel, refer to the "Loading the fuel" chapter.

4.2 STORAGE



To ensure optimal combustion the wood must be stored in a dry and covered place, sufficiently far away from the appliance and from heat sources that may trigger combustion.



The room chosen to store the pellets must not be used as a warehouse for flammable substances or for activities subject to the risk of fire.

- The wood MUST be transported and stored strictly in a way that ensures it remains dry at all times.

5 CONFIGURATION FOR INSTALLATION

5.1 ROOM OF INSTALLATION



Rely on qualified personnel to choose the room of installation and to calculate the heating requirements of the rooms.

- Listed below are a few indications to be observed for correctly using the purchased product. Any local laws and regulations nonetheless take precedence over these indications.



The appliance cannot be installed and operated outdoors, but only indoors. Installing the product outdoors can lead to dangerous situations, health problems and operating anomalies.

The appliance must be installed in a room that guarantees easy and safe access during installation, use and any subsequent cleaning and maintenance interventions.

Moreover:

- the room of installation must guarantee an adequate supply of combustion air; consult the chapter "**Combustion air intake**"
- the room of installation and the environment to be heated must have the right size and characteristics in relation to the appliance's heating capacity; consult the chapter "**Technical Specifications**" to verify whether the appliance's power is suitable for the heating requirements of the relevant rooms
- the room of installation must allow for installing a flue for discharging the combustion fumes, as described in the chapter "**Fume exhaust**".



It is forbidden to install type A and B gas appliances in rooms containing wood-fired heat generators (or generators running on solid fuels in general) and in rooms connected to them (as per the UNI standards).

- The room of installation must not be used as a warehouse for flammable materials or for activities subject to the risk of fire.
- The volume of the room of installation must not be below that specified by the regulations and calculated by an HVAC technician.

Listed below are a few limitations for NON-sealed-type installations and installations where combustion air is not drawn from the outside.



Refer to the local regulations for further information and clarifications on any restrictions and special requirements.



The room of installation:

- must not be a bedroom or a studio flat, except when a sealed installation is used or the appliance has a closed firebox and the combustion air is drawn from the outside through a ducted system
- must not be a bathroom, shower room or similar
- must not be put in negative pressure with respect to the outdoor environment, due to the effect of contrary draught caused by the presence in the installation room of an additional appliance with an intake device (e.g. forced aeration systems or other heating systems with the use of ventilation for the change of air)).



In the room where the appliance is installed:

- It is forbidden to install appliances running on liquid fuel that operate continuously or discontinuously and draw the combustion air from the installation room
- It is forbidden to simultaneously use multiple appliances (two stoves, or a fireplace and a stove, etc.), except when:
 - the provisions provided by the manufacturer of each appliance have been observed
 - in the most demanding simultaneous operating condition, the negative pressure measured during use between the outdoor and indoor environments is lower than the value defined by the regulations (4 Pa).
- it is not allowed to install type-B gas appliances for space heating, with or without domestic hot water production
- only in rooms used as kitchens is it possible to use devices for cooking foods and hoods without extractor.



Multiple appliances can be present provided that this is allowed by the regulations and by the manufacturer of each single appliance.

- If multiple appliances are allowed, all the regulations provided by the manufacturer of each single appliance must be observed.
- In the room where the appliance is installed, type C gas-fired appliances are allowed (refer to the regulations in force).

5.2 MINIMUM SAFETY CLEARANCES

! The product must be installed by observing the appropriate specified distances from walls and adjacent objects. Failing to observe the indications provided could lead to fire.

- During the product's operation, any combustible or heat-sensitive material (such as wooden objects, tapestries, rugs, fabrics, clothing, ornaments, flammable liquids, etc.) should be kept, where not specified, at least one metre away.

The product's positioning within the room should also take into account, besides the observance of the regulations, the heating requirements and the shape of the installation and adjacent rooms, also the accessibility for installation, use and maintenance purposes.

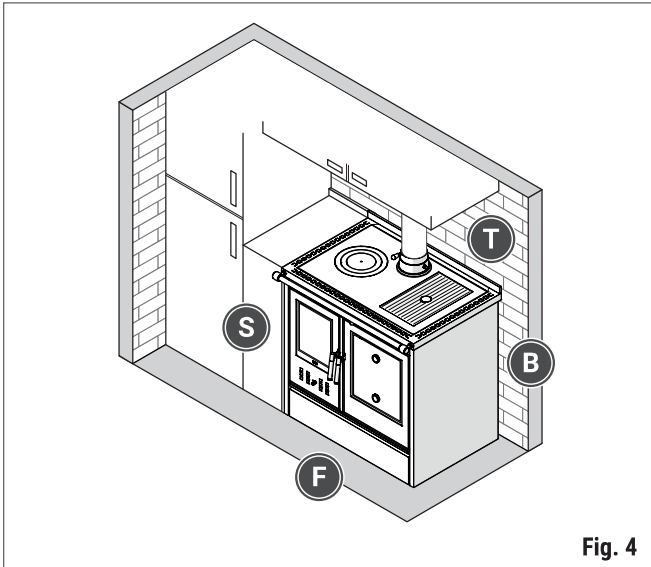


Fig. 4

Objects that are hard to remove situated near the product, the adjacent walls, the zone above and the support surface **MUST** be made with **NON-flammable** material and must be positioned at a minimum safety distance as shown in the table.

| Minimum safety clearances (mm) | | |
|--------------------------------|--|-----|
| S | Side (SIDE) | 500 |
| | Side (SIDE) with spacers for built-in installation | 300 |
| B | Back (BACK) | - |
| T | Top (TOP) | 600 |
| F | Front (FRONT) | 800 |

Any heat-sensitive or flammable materials **MUST** be positioned at a minimum safety distance from the side walls of the stove, as indicated in the product's technical sheet, accessible through the QR Code present in the chapter "**Dimensions and connections**".

! It is possible to install heat-sensitive or flammable objects at a shorter distance compared to the safety clearances **ONLY** if a suitable insulating protection is inserted in between; for further information consult the chapter "**Verifying the support surface**".

5.3 VERIFYING THE SUPPORT SURFACE

The appliance must be installed on a floor or slab with adequate load-bearing capacity, capable of withstanding the weight of the product complete with its cladding, accessories, finishes and fuel. If the existing building does not fulfil this requirement, appropriate measures (e.g. steel plate, concrete base) must be taken to distribute the load.

! Consult a qualified technician to choose and implement the most appropriate solution.

! Floors built using flammable material such as, for example, wood, parquet, linoleum and laminate, or that are covered with rugs, must be protected with a fire-retardant base beneath the appliance that also protects the front part in case any combustion residues fall during cleaning.

5.4 COMBUSTION AIR INTAKE

To ensure regular and safe combustion, the appliance must be able to draw a sufficient amount of air.

The inflow of the necessary air can be obtained in the following ways:

- through direct drawing from the installation room or adjacent rooms, suitably equipped with an external air intake.

The external air intake must:

- guarantee a sufficient inflow of clean air for combustion with a total free cross-section equal to a larger than that specified in the chapter "**Technical Specifications**" and nonetheless equal to or larger than the cross-sectional area of the air inlet on the appliance
- be made at a height from the ground of roughly 20-30 cm
- be protected externally with a grille or suitable protection that reduces its minimum free cross-section and, in case of areas that are very windy or exposed to the elements, is equipped with an anti-rain and anti-wind protection
- be positioned in such a way that it cannot be obstructed and inspection and maintenance operations can be performed
- NOT be equipped with manual closing devices that reduce its minimum free cross-section.

! If the external air intake cannot be fitted in the same room where the appliance is installed, this hole can be made in an adjoining room as long as this room communicates permanently, by means of a transit hole (15 cm minimum diameter).

! It is forbidden to draw combustion air from potentially polluted areas such as garages and warehouses with combustible material or activities with fire risk, as indicated in the UNI 10683 standard.

! If there are other heating or extraction devices inside the room, the air vents must guarantee a sufficient amount of air for properly operating all the devices, in accordance with the regulations in force and the manufacturer's indications.

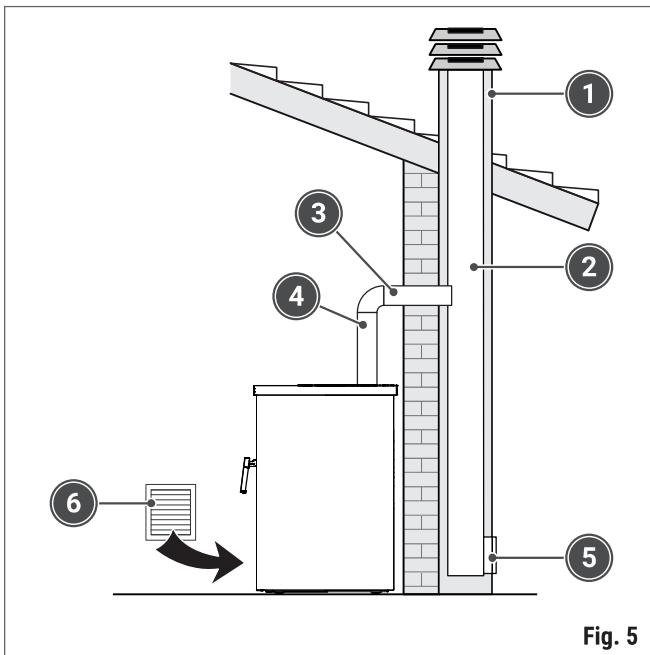
- Only sealed appliances (e.g. C-type gas appliances, according to the UNI 7129 standard) or appliances that do not cause a lower pressure compared with the external environment can pre-exist or be installed in the place where the wood-burning appliance is installed.

5.5 FUME EXHAUST

! The fume exhaust is an important function for the product's efficient operation. It must be made by qualified personnel and in accordance with the regulations in force, with regard to both its dimensions and the materials used to build it.

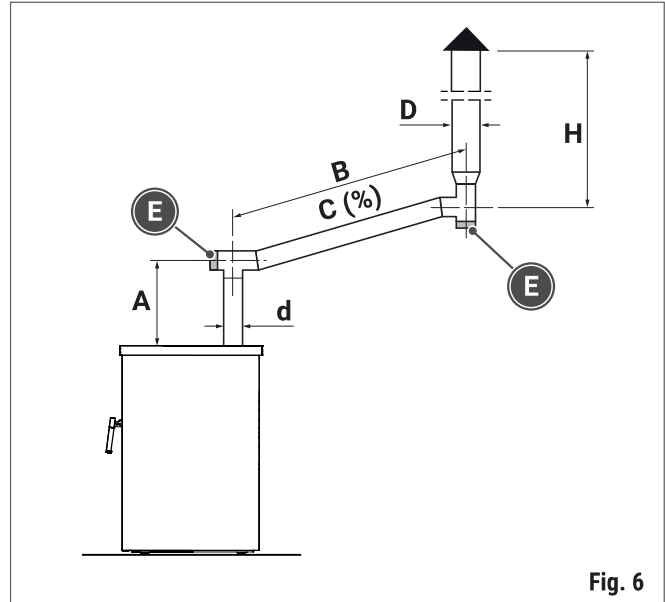
! The product works with the combustion chamber in negative pressure and the fume exhaust under pressure; it is essential that the fume exhaust duct is hermetically sealed.

For example purposes, we list below the main parts making it up; for detailed information on the various possible solutions, consult the successive chapters.



- 1 Chimney
- 2 Flue
- 3 Connection to the flue
- 4 Flue gas channel
- 5 Inspection for soot collection
- 6 External air intake

Listed below are the characteristics for creating a suitable outlet for discharging fumes.



| Measurement | Value |
|-------------|---|
| A | mm Initial vertical section ≥ 1000 |
| B | mm Horizontal section ≤ 2000 |
| C | % Slope ≥ 20 |
| d | mm Diameter of the flue gas duct – see technical sheet of the appliance |
| D | mm Diameter of the flue $\geq d$ |
| E | - Inspection cap |
| H | mm Effective height of the flue |

In making the fume discharge outlet, the following indications MUST be observed:

- the flue must have a minimum cross-section with a **diameter equal to or larger than the appliance's fume exhaust** as specified in the chapter "*Technical Specifications*"
- it is mandatory to have an **initial vertical section of at least 1000 mm** to ensure proper fume exhaustion
- it must go upwards, after the vertical section, for the entire remaining part, with a **minimum gradient of 20%**, the sub-horizontal section must not be longer than 1/4 of the effective height H of the chimney or flue, and nonetheless **must not be longer than 2000 mm**
- make **no more than 3 direction changes**, besides the one deriving from the rear connection of the appliance to the flue, using elbows with $45 \div 90^\circ$ angle or tee fittings
- always use a **tee fitting with inspection cap** at each horizontal or vertical variation in the fume exhaust path
- if they are not self-supporting, **anchor the pipes with appropriate collars to the wall**, so that their weight does not interfere with the proper exhaustion of the combustion fumes
- the pipes must guarantee the fume tightness indicated in the "*Technical Specifications*" chapter, and must nonetheless **withstand at least 400°C**
- **the pipes must have a double wall (thermally insulated)** or be suitably insulated with rock wool.

5.5.1 FLUE GAS CHANNEL

The flue gas channel consists of the various components that connect the appliance to the flue, and allows for adequately dispersing the combustion by-products into the atmosphere.



The flue gas channel must be made by qualified personnel in accordance with the regulations in force; in particular, it must guarantee the minimum draught specified by the appliance's manufacturer and be suitably sealed.

- The components making up the flue gas channel must be declared suitable for the specific operating conditions of the appliance to be installed and must be suitably sized in relation to it.



Refer to the manufacturer's indications and designation with regard to: the safety clearances, installation procedure, maintenance, safety and insulation of the elements used to make the flue gas channel.

- Be careful that the flue gas channel does not come into contact with heat-sensitive or combustible materials (for example fabrics, clothing, claddings, walls, wooden beams or ceilings, etc.).
- If wooden roofs or walls must be crossed, it is mandatory to use appropriate certified kits, available in retail stores.
- If there is a risk of accidental contact with the flue gas channel, adequately protect the external surface as indicated by the manufacturer of the flue gas channel elements and according to the regulations in force.



For detailed information on the position of your appliance's fume exhaust, consult the chapters "Technical Specifications" and "Connection to the fume exhaust".



The flue gas channel must not cross rooms where it is forbidden to install combustion appliances, nor other rooms with a risk of fire or that cannot be inspected.

- It is forbidden to install flexible pipes made of metal, fibre cement, aluminium or pipes without CE approval, and to use of counter-sloping elements.



The appliance must be connected to its own non-shared fume exhaust duct, therefore the flue gas channel MUST NOT be connected:

- to a flue used by other appliances such as boilers, stoves, fireplaces, etc.
- to air extraction systems, such as hoods or purge devices.

5.5.2 FLUE

Each product must be connected at a flue for discharging combustion by-products to the outside, via natural draught.



The flue must be made by qualified personnel and in accordance with the regulations in force, with regard to both its dimensions and the materials used to build it.

- The flue must be suited to the specific operating conditions of the appliance to be installed and must be suitably sized in relation to it; in particular, it must guarantee the minimum draught specified by the appliance manufacturer and must be appropriately sealed.



It is forbidden to make other flue gas or air extraction channels, or pipes connected to plants, pass inside the flue, unless otherwise specified by the manufacturer and allowed by the national standards and local regulations.

It is important to bear in mind that:

- the flue must be equipped with a chamber for collecting solid material and condensate; it must be situated under the fitting inlet, so that it can be easily opened and inspected through an airtight door (inspection for soot collection)
- if wooden roofs or walls must be crossed by piping, we recommend using appropriate certified kits, available in retail stores
- the flue must have a maximum operating temperature and soot fire resistance class corresponding to the type of fuel used and as indicated in the table.

| Fuel | Maximum operating temperature in °C | Soot fire resistance |
|---------|-------------------------------------|----------------------|
| Pellets | 200°C (T200) | Yes (G) |
| Wood | 400°C (T400) | Yes (G) |



Fumes can be discharged through the existing flue, after verifying that the flue has undergone proper maintenance.

- If the flue does not conform to the requirements, either because it is too old or too large, assess with qualified personnel whether to adapt it to the regulations, for example by burying the flue in a stainless steel pipe suitably insulated and sized according to the path. Moreover, the connection to the flue must be sealed.



The combustion by-products must be discharged through the roof.

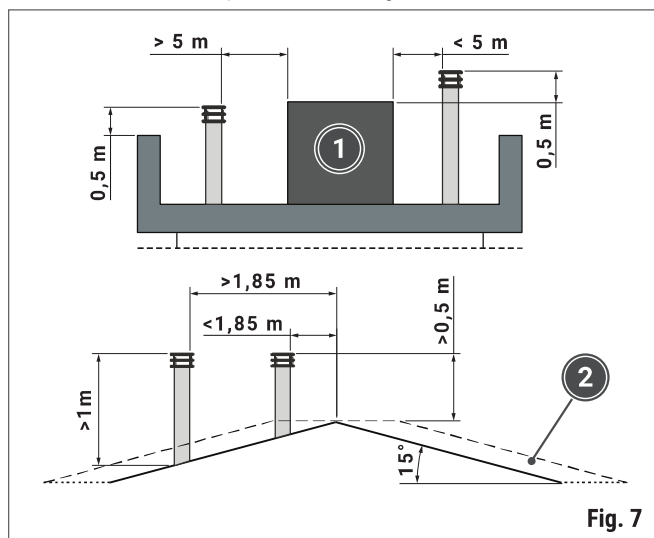
- For clarifications regarding any restrictions and special requirements in your area, refer to the local regulations.

5.5.3 CHIMNEY

The stack is the final part of the chimney/flue that emerges from the roof; its function is to disperse smoke and other combustion by-products in the air.

It is important to bear in mind that:

- it must have a suitably sized useful outlet cross-section and nonetheless not inferior to the double the area of the chimney/flue cross-section
- it must be built in such a way so as to prevent foreign bodies (rain, snow, birds and other) from penetrating inside it
- it must be built in such a way so as to ensure the dispersion of combustion by-products even in the event of winds from every direction and inclination
- it must be positioned outside the reflux zone, so as to prevent the formation of counter-pressures, which could hamper the free discharge into the atmosphere of combustion by-products
- it must be positioned by taking into account the roof pitch and must respect the proper distances from buildings, plants, antennae and other obstacles, as specified in the regulations.



- 1 Technical compartment
- 2 Reflux zone

6 INSTALLATION

- ⚠ The appliance **MUST** be installed by specialised personnel possessing adequate knowledge of the product itself, who must operate in accordance with the local, national and European regulations; moreover, said personnel shall be responsible for the correct installation and efficient operation of the appliance.
 - The installation **MUST** be made using adequate equipment and in accordance with the regulations on health and safety protection.
 - Adequate personal protective equipment **MUST** be worn (gloves, safety footwear, etc.).

📖 During appliance handling, lifting and unpacking operations, it is strictly necessary to keep the packaged product in the proper direction as shown by the pictograms and the indications on the packaging, so as to avoid damaging delicate parts, such as the glass-ceramic panel of the door.

6.1 RECEIVING THE PRODUCT

The product is supplied as a single item on a wooden pallet, covered with nylon wrapping and protected by polystyrene elements and a cardboard box.

The product is delivered with the following equipment:

- Instructions for installation, use and maintenance
- Stoker
- Warranty certificate

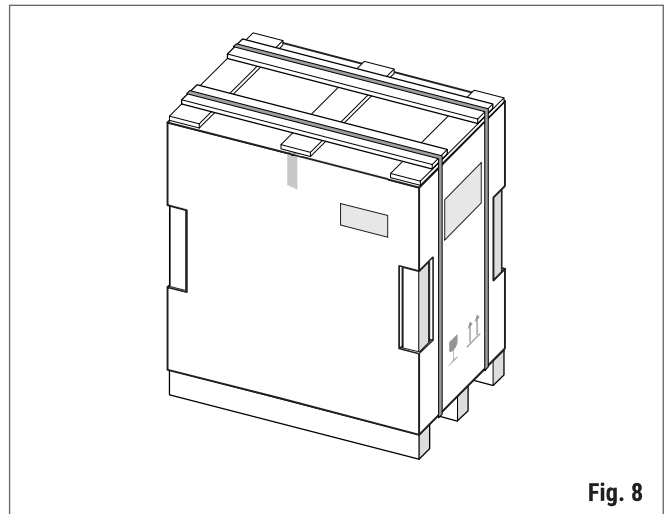


Fig. 8

📖 The manual is an integral part of the product. It therefore should be read before installing and commissioning the appliance and stored carefully for future reference or when the product is transferred to a new owner.

- ⚠ Upon receiving the product, check that the goods received match the order by comparing the data on the shipment document with that of the label on the packaging. In case of discrepancies, immediately contact the dealer.
 - Moreover, check that the packaging is intact and lacks any defects or breakages, dents and damaged parts; if any damages are found, **DO NOT USE** the product and contact the dealer immediately.

6.2 HANDLING

- !** Be careful when moving the appliance to avoid possible damages to it. The appliance should only be unpacked once it has reached the installation site.
- The appliance must be lifted and handled exclusively using suitable lifting equipment with adequate load-bearing capacity for the weight to be lifted; check the data of the label on the packaging.
 - Be careful since the appliance tends to unbalance, because its centre of gravity is shifted towards the front.
 - Adequately protect wooden or parquet flooring to prevent it from getting damaged.

In order to prevent accidents or damages to the product, strictly observe the following recommendations:

- when shifting the packaging, perform slow and continuous movements
- do not tilt the packaging too far so as to prevent the product from tipping over
- the area where the product will be handled must be carefully cleaned and free from any type of hindrance.

6.3 UNPACKING

- !** When removing the packaging, be careful to avoid scratching or damaging the product.
- Do not disperse packaging material in the environment or leave it within reach of children, as the packaging may be potentially dangerous. It must therefore be disposed of according to the current legislation.
 - Remove from the appliance the accessories and any polystyrene or cardboard parts used to secure the moving parts.
 - When handling any steel parts, we suggest wearing clean cotton gloves to avoid leaving fingerprints on the product which could be difficult to remove during cleaning.

To remove the appliance from its transport support (pallet):

- remove all systems anchoring the appliance to the pallet
- lift the appliance using equipment suited to its weight
- remove the transport support (pallet).

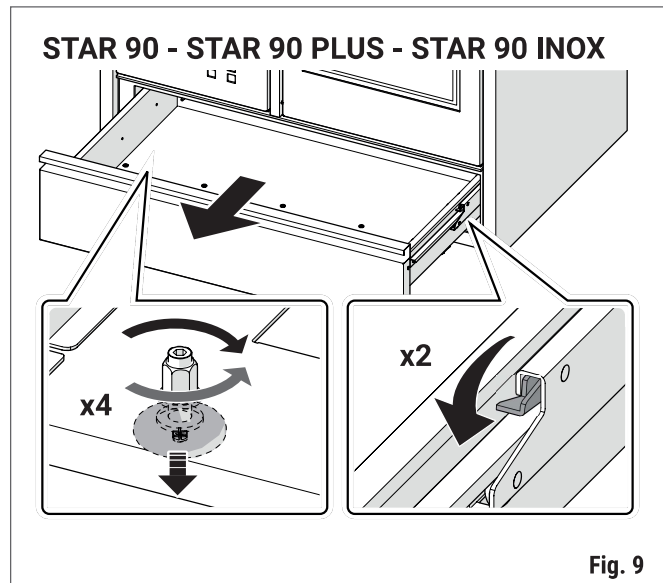
6.4 POSITIONING THE APPLIANCE

- !** Before positioning the appliance, make sure that the chosen site is suitable for the product's placement and operation; carefully read the information and specifications contained in the section "*Configuration for installation*".

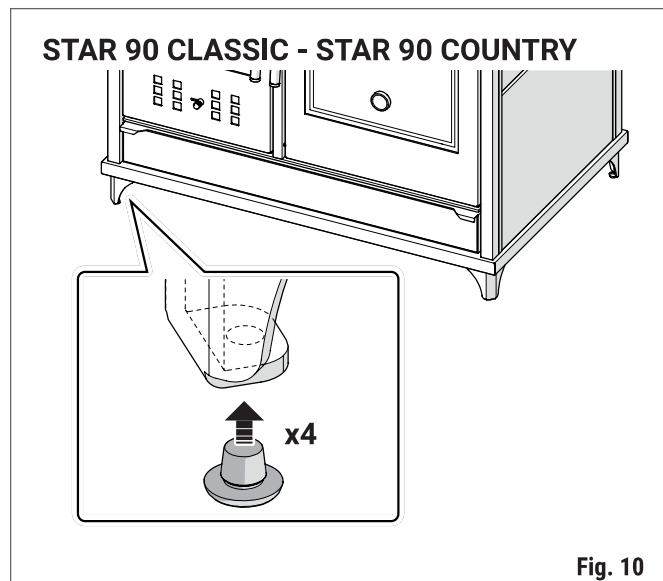
Once the packaging and the transport support (pallet) have been removed, position the appliance in its final destination.

Use a suitable lifting device with a load-bearing capacity adequate to the weight to be lifted and be careful not to ruin the floor; if necessary, protect the floor with suitable material.

Once the appliance has been positioned, it must be levelled with the aid of a spirit level by turning the adjustable feet present on the models equipped with them.



On models equipped with fixed feet, once the appliance has been positioned, it is necessary to insert the rubber support caps supplied with the product.



6.5 CONNECTION TO THE FUME EXHAUST

! We recommend carefully reading the chapters “Minimum safety clearances” and “Flue gas channel”.

The appliance is standard-configured with the fume exhaust on the top (**Su**).
The fume exhaust can be modified using the rear fume outlet (**Sb**) configured and present on the appliance.

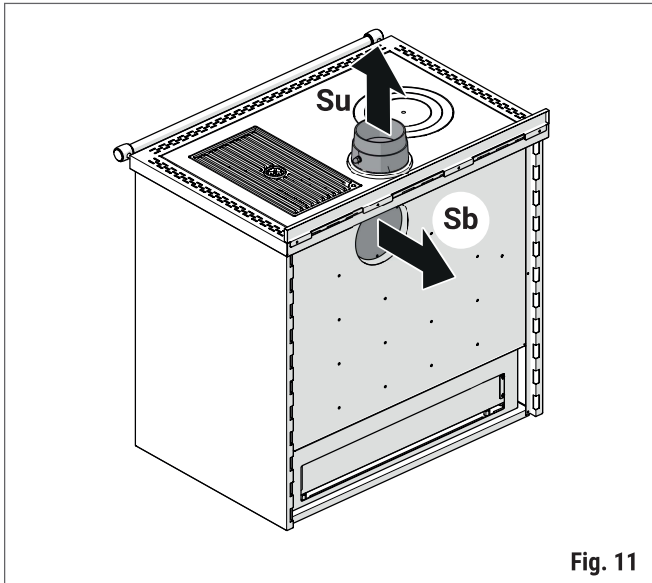


Fig. 11

- mount the outlet pipe of the rear fume exhaust (**Sb**) supplied with the kit
- mount the cover of the fume deflector supplied with the kit, tighten the screws removed previously
- mount the hotplate removed previously
- apply the cap supplied with the kit on the hotplate.

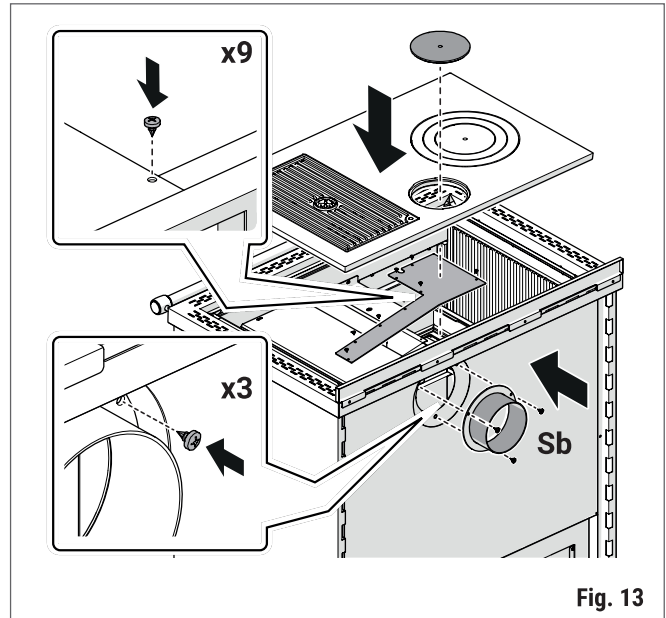


Fig. 13

Connection to the rear fume exhaust

! To modify the configuration of the fume exhaust, it is necessary to use the appropriate kit to be purchased separately.

Proceed as follows:

- remove the hotplate and the upper fume exhaust (**Su**)
- loosen the screws and remove the cover of the fume deflector
- remove the plug on the rear fume exhaust (**Sb**)

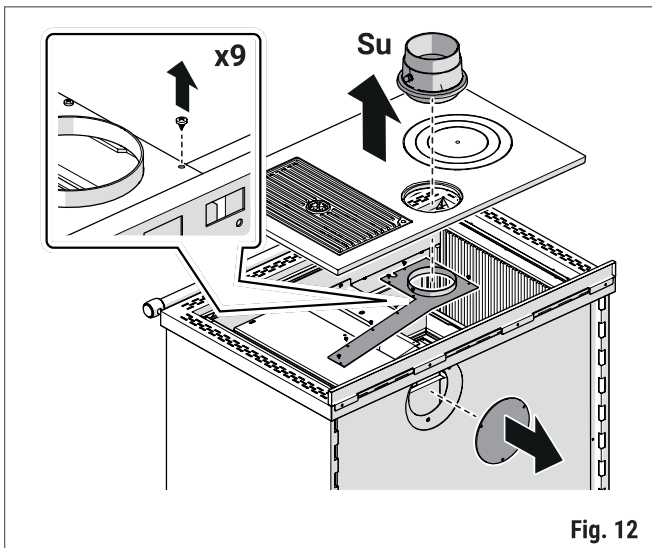
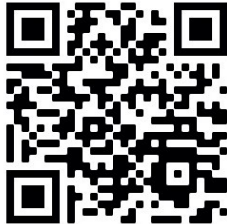


Fig. 12

7 INITIAL SETTINGS

7.1 REGISTERING THE PRODUCT

Once the product has been installed, the user must register it. The registration entitles the user to a 2-year warranty as well as promotions and specific services (for example: discounts on spare parts, facilitated conditions for testing or maintenance, etc.). Simply access the Web page shown below or scan the following QR Code using your smartphone.



https://garanzia.klover.it/registrazione_prodotto

8 COMMISSIONING

8.1 PRELIMINARY CHECKS



Before commissioning the appliance:

- carefully read all the documentation accompanying the product and any supplementary accessories
- make sure that all the indications provided by the manufacturer and specified in the regulations are observed
- make sure you have completed all the necessary cleaning and maintenance operations of the product and the system.



The commissioning must be **MUST BE** made by qualified personnel, who must:

- perform a switch-on and operation check to verify that the product and all associated and involved elements of the system work properly.

8.2 INITIAL START-UP

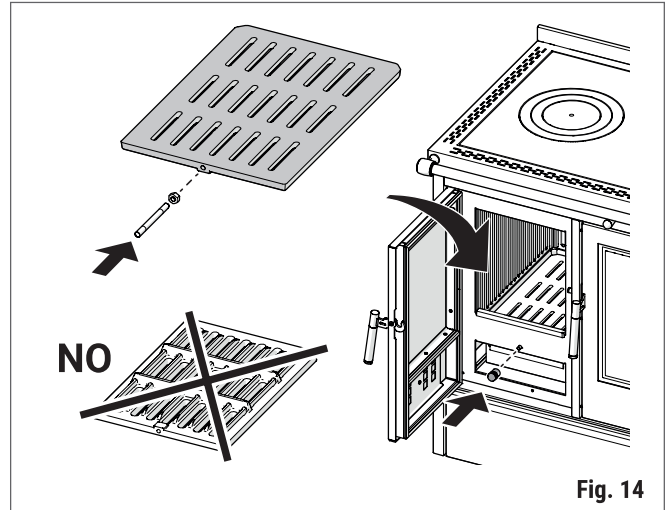


Before proceeding with the operations described below, consult the chapter "*Ignition*".



Before starting-up the product:

- remove any accessories supplied or combustible elements from the hotplate or from the ash tray and free the firebox from the locking elements used during transport, if present
- check that the brazier is positioned correctly in its seat inside the combustion chamber: the flat part must face upwards so that the ash can fall into the tray without any difficulty
- when igniting the appliance for the first time, use little wood chopped into small pieces and observe the instructions given under "*Loading the fuel*".



During the first ignition attempts, bad odours may be released due to the evaporation of the greases or oily liquids used to manufacture the product and contained in the paint:

- adequately ventilated the room where the appliance is installed
- avoid staying in the room for too long, as the vapours emitted could be hazardous to people and animals
- moreover, during the first few days of use, the appliance should be operated at minimum power.

The first ignition is necessary to verify that the appliance works properly but also to allow the product's body to settle and the greases or oily liquids used to manufacture it and present in the paint to evaporate fully. During the initial period it is advisable to use the product at minimum capacity, loading the firebox for the first day with 50% fuel. At the end of this procedure, greases or oily liquids will have evaporated, the paint will have stabilised and the product can be used normally. If necessary, the appliance can be used at maximum capacity until the substances that cause bad odours have disappeared entirely.

9 USE

9.1 LOADING THE FUEL

- ⊘ It is forbidden to use any fuel other than wood.
 - It is forbidden to use any highly flammable liquid or gaseous substance such as alcohol, petrol or similar.

 Before proceeding with the operations described below, consult the chapter "Fuel".

- ⚠ Before loading the fuel:
 - the firebox must be free of ash and residues from the previous combustion; if not, consult "Cleaning of the brazier"
 - check that the brazier is positioned correctly in its seat inside the combustion chamber: the flat part must face upwards so that the ash can fall into the tray without any difficulty.

To load the wood:

- open the firebox door
- arrange small slats of tender wood in the centre of the firebox, placing them on top of one another and leaving some space in between
- in between the slats add some easily combustible fuel, e.g. paper or other ignition material available in retail shops.

9.2 ADJUSTING THE COMBUSTION AIR

The combustion air is indispensable for determining flame development, the duration and quality of combustion and, consequently, the thermal yield of the appliance.

Since combustion varies in relation to several factors, for example the quality and quantity of fuel used, the characteristics of the system and the atmospheric and weather conditions, it is necessary to choose the most suitable adjustment of the combustion air.

- ⊘ Never load the firebox excessively with an insufficient supply of combustion air. This may cause a consistent formation of unburned gases/fumes which, in the absence of the flame, may jeopardise safety.

- ⚠ A significant presence of unburned gases or fumes inside the firebox may spark a sudden flame and, in some cases, may even cause the glass of the door to break.
 - An excessive supply of combustion air may cause quicker combustion resulting in greater wood consumption and a lower yield of the appliance.

The combustion air can be adjusted by shifting the combustion air primary damper as follows:

- to **reduce** the amount of incoming air, shift the device towards the right
- to **increase** the amount of combustion air, shift the device towards the left

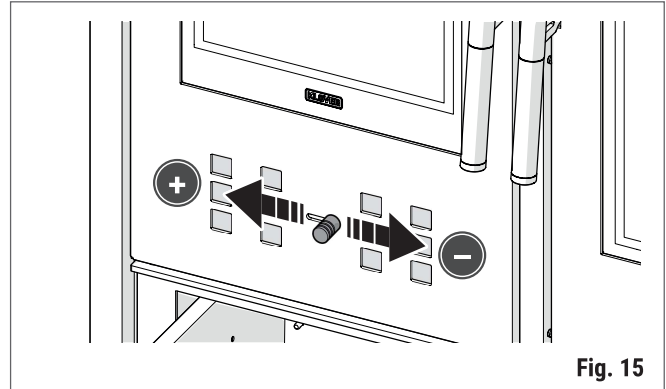



Fig. 15

9.3 IGNITION

 Verify that the firebox is not empty. If it is, fill it and perform the operations described in the paragraph *Loading the fuel*.

- ⊘ It is forbidden to use any fuel other than wood.
 - It is forbidden to use any highly flammable liquid or gaseous substance such as alcohol, petrol or similar.

Proceed as follows:

- open the firebox door
- open the fume damper, the internal fume deflector and the combustion air primary damper

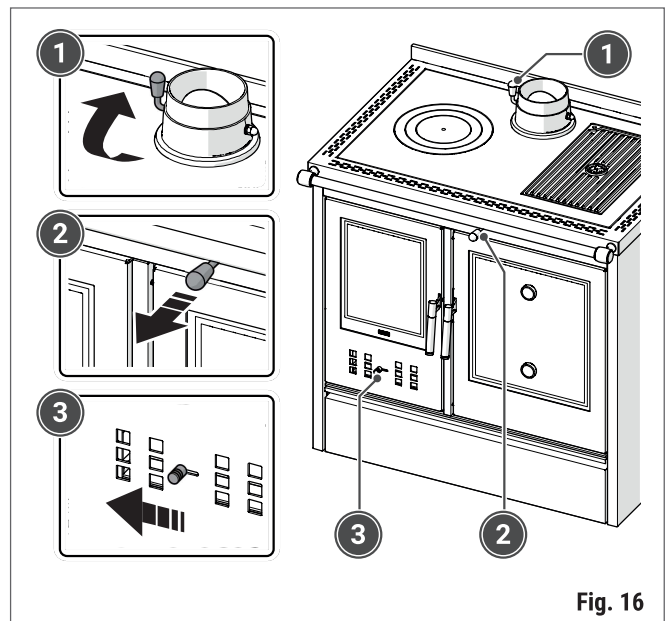


Fig. 16

- switch the fire on: if the wood struggles to ignite, leave the door ajar, while closely monitoring it, for the time necessary for the flames to develop fully
- close the firebox door
- wait for a lasting and constant flame to develop then close the combustion air primary damper
- close the internal smoke deflector to increase the appliance's yield and to have more heat inside the oven; if necessary, intervene on the fume damper to adjust the draught in the flue.



Any noises heard during the operating phases could be due to the expansion of the metal plates making up the boiler body. These noises can be more frequent during the appliance ignition and switch-off phases and must not be regarded as a manufacturing defect.

- Any perceived smell of smoke (especially during the ignition phase) should not be regarded as a manufacturing defect.



During ignition, combustion may be difficult to achieve until the flue gas pipes and the flue are not hot enough.

- In non-optimal weather conditions, for example with low pressure or strong wind, the fume exhaust draught may not work properly and thus generate excessive smoke in the firebox
- In all these cases, proceed using a limited fuel load to heat the fume pipes and the flue and then ignite the appliance normally.



During the ignition phase and normal operation of the appliance, keep at a safe distance from the appliance and do not remain standing in front of it. Some parts of the product (door, handle, dampers, glass parts, cooking plate and ceramic and/or stone parts) may reach very high temperatures. Be very careful: adopt the appropriate precautions and wear adequate personal protective equipment, especially if there are children, elderly and disabled people and animals.

- During the ignition phase and normal operation of the appliance, the door must ALWAYS remain closed and the glass must be intact.
- Keep any flammable products (e.g. wooden furniture, tapestries, rugs, fabrics, clothing, ornaments, flammable liquids, etc.) far away from the appliance.

9.4 FUEL REFILLING

Once the wood inside the firebox has burned and a sufficient quantity of embers has formed, the fuel can be refilled.

Proceed as follows:

- open the fume damper, the internal fume deflector and the combustion air primary damper

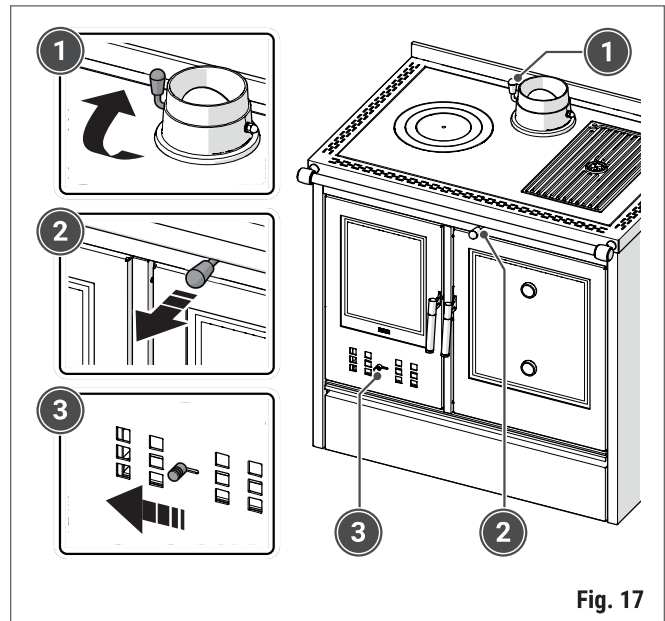


Fig. 17

- wait a few seconds then slowly open the firebox door to prevent smoke from escaping into the room
- if necessary, uniformly spread the embers using a stoker
- place above the embers 2 wooden logs each weighing 1,2 kg, preferably free of bark and in contact with the embers as much as possible

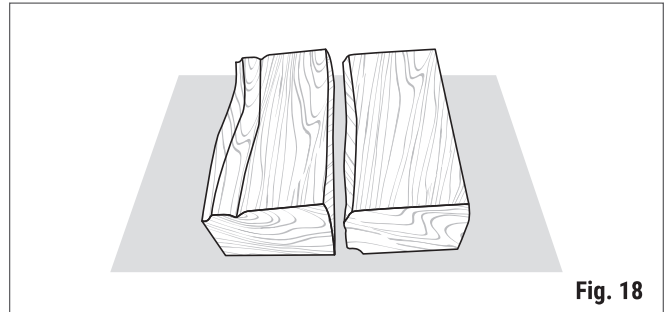


Fig. 18

- close the firebox door
- wait for a lasting and constant flame to develop then close the combustion air primary damper
- close the internal smoke deflector to increase the appliance's yield and to have more heat inside the oven; if necessary, intervene on the fume damper to adjust the draught in the flue.



To favour quicker ignition when there is a limited layer of embers, introduce into the firebox a limited fuel load and use small pieces of wood.

- After 45 minutes from the refill, it is advisable to check whether another refill is required.



Once the fuel has been loaded, monitor the appliance until the flame has developed completely.

- If a consistent amount of unburned gases/fumes forms, leave the firebox door ajar for the time required for the flames to develop fully. Close the door once the fire has properly developed.

9.5 OPERATION



Before using the product, make sure you have read and understood all the safety instructions, in particular the following chapters:

- "Fuel characteristics"
- "Loading the fuel"
- "Ignition"
- "Fuel refilling".



It is forbidden to use any fuel other than wood.

- It is forbidden to use any highly flammable liquid or gaseous substance such as alcohol, petrol or similar.



Do not use the product for drying laundry. Any drying racks must be kept at a safe distance as indicated in the chapter "*Minimum safety clearances*".



Any noises heard during the operating phases could be due to the expansion of the metal plates making up the boiler body. These noises can be more frequent during the appliance ignition and switch-off phases and must not be regarded as a manufacturing defect.

- Any perceived smell of smoke (especially during the ignition phase) should not be regarded as a manufacturing defect.



During the ignition phase and normal operation of the appliance, keep at a safe distance from the appliance and do not remain standing in front of it. Some parts of the product (door, handle, dampers, glass parts, cooking plate and ceramic and/or stone parts) may reach very high temperatures. Be very careful: adopt the appropriate precautions and wear adequate personal protective equipment, especially if there are children, elderly and disabled people and animals.

- During the ignition phase and normal operation of the appliance, the door must ALWAYS remain closed and the glass must be intact.
- Keep any flammable products (e.g. wooden furniture, tapestries, rugs, fabrics, clothing, ornaments, flammable liquids, etc.) far away from the appliance.

To optimise the performance of the appliance during normal operation, adjust the opening of all dampers (air and smoke) according to draught; once combustion is complete, close all smoke and combustion air dampers to retain heat for as long as possible.

9.6 COOKING ON THE HOTPLATE

The hotplate is expressly studied to favour simple and rapid cooking. The hottest part of the plate is near the circles: this is the most appropriate zone for placing a pot that must be heated rapidly. The outer parts of the plate are instead recommended for keeping food warm.



The plate is not suitable for cooking food directly.

- The plate must not be overheated nor burn red-hot to avoid impairing its integrity and performances.

9.7 COOKING ON THE GRILLE

The plate was built to be used on both surfaces. The grille side made of enamelled steel is ideal for cooking food directly, as the food-grade enamel allows food to be cooked safely. The smooth side, besides being used for direct cooking, is also suitable for placing pots, thus expanding the total available surface.



Before every use the grille should be cleaned with a damp cloth and slightly oiled with food oil. Ignite the cooker and heat the plate gradually.



The plate must not be overheated nor burn red-hot to avoid impairing its integrity and performances.

- Do not use the grille if the relative protective steel plate has been removed.
- Avoid using metal and sharp utensils to avoid damaging the enamel: silicone or wooden utensils should be used.

9.8 COOKING IN THE OVEN

The oven is heated by exploiting the heat of the exhaust fumes, the temperature inside it therefore depends on the combustion speed and on the quantity of fuel burned. In particular, by adjusting the primary air damper it is possible to obtain combustion that is as uniform as possible and avoid temperature shocks. Moreover, to heat the oven more uniformly it is necessary to close the internal fume deflector so that hot fumes can move all around the oven.

Cookers with an oven are equipped with two thermometers attached to the glass of the door: they provide information on the temperature in the upper and lower zones of the oven. The upper part is generally hotter and, being closer to the upper wall, is more suitable for browning foodstuffs. The central and lower parts are suitable for cooking food more uniformly.



We suggest stoking the wood to obtain a good flow of combustion air inside the combustion chamber and, consequently, keep the temperature in the oven as constant as possible.

- To achieve uniform cooking of foodstuffs, the tray or grille inside the oven should be rotated by 180°.

10 MAINTENANCE



For all maintenance operations in which the operator must work within the cladding or flue gas chamber, it is **MANDATORY** to contact an authorised KLOVER Technical Assistance Centre or qualified personnel. Prior to performing any maintenance operation, adopt the following precautions:

- make sure that the appliance is off and all its parts have cooled down completely
- make sure that the ashes are completely extinguished and cold
- use adequate personal protective equipment as set forth in the applicable regulations
- use adequate equipment (ash tray, spout cleaning brush, etc.) and comply with the occupational health and safety regulations.



At the end of the cleaning and maintenance operations:

- replace any worn or damaged parts with original spare parts
- reinstall all previously dismantled components and restore all the normal operating conditions of the appliance and system
- reinstall all the protections and re-enable all the safety devices
- perform an ignition and operation test to verify that the product works properly.



Any problem affecting the appliance caused by lack of cleaning will not be covered by the warranty. Failure to perform these operations could affect the safety of the product.

- Any waste generated with cleaning must be disposed of in accordance with the waste disposal regulations.



The boiler body is treated with anti-oxidant paint in order to protect it against oxidation in the event of long periods of inactivity. During normal operation, this paint no longer retains its original function and any wear of the paint inside the combustion chamber should not be regarded as a manufacturing defect.

10.1 SCHEDULED MAINTENANCE

Timely and systematic maintenance is an essential factor for the appliance's correct operation, optimal heat performance and long-lasting operation.



Scheduled maintenance operations must be carried out at least **ONCE A YEAR** and, nonetheless, before the appliance is started up after a prolonged period of inactivity.



The required cleaning frequency depends on the type and quality of the wood used. The times indicated below may therefore vary.

Recommended frequency

| Possible interventions by the user | |
|---|-----------------|
| Cleaning of the cooking hotplate and grille | after every use |
| Cleaning of the oven | after every use |
| Cleaning the glass door | Daily |
| Cleaning of the ash tray | every 2 days |
| Cleaning of the brazier | every 2 days |
| Cleaning of the combustion chamber | every 30 days |
| Filter or protective mesh of the combustion air intake (if present) | every 30 days |
| Cleaning of the flue gas passage | every 30 days |

Operations requiring the intervention of the TAC

| | |
|--|------------|
| Cleaning of the combustion chamber | every year |
| Full cleaning of the flue gas passage | every year |
| Cleaning of the flue gas channel | every year |
| Cleaning of the flue | every year |
| External air intake | every year |
| Tightness and state of wear of glass seals and of all elements subject to wear | every year |

10.2 CLEANING OF THE CLADDING

The ceramic cladding (if present) must be cleaned with a soft and dry cloth. In the event of more stubborn dirt, use cleaning products suited to ceramic or concentrated products for porcelain stoneware, capable of removing stains caused by oil, ink, coffee, wine, etc..



Avoid wetting the hot ceramic surface with cold water as the thermal shock could cause the ceramic to break.

10.3 CLEANING OF PAINTED METAL PARTS

To clean the outer parts made of painted metal, use a soft cloth dampened with water.



Do not clean metal parts with degreasing or abrasive substances such as methylated spirits, thinners, petrol or acetone.

- If these substances are used, the manufacturer declines all responsibility for any resulting damages.



Any shade variations of metal parts can be ascribable to improper use of the product.

10.4 CLEANING OF THE HOTPLATE



The hotplate requires regular maintenance, especially if residues or liquids have deposited on it after use.

- Clean the plate when it has cooled down completely.
- Colour change over time should not be considered a product defect, rather it is a peculiarity of the material used.



Do not clean using aggressive detergents or acids, such as methylated spirits, thinners, petrol or acetone.

- If these substances are used, the manufacturer declines all responsibility for any resulting damages.

Clean the plate using a soft cloth dampened with normal non-aggressive detergents.

10.5 CLEANING THE GRILLE



The hotplate requires regular maintenance, especially if residues or liquids have deposited on it after use.

- Clean the plate when it has cooled down completely.
- Colour change over time should not be considered a product defect, rather it is a peculiarity of the material used.



Do not clean using aggressive detergents or acids, such as methylated spirits, thinners, petrol or acetone.

- Do not use abrasive sponges or metal or sharp utensils.
- Do not wash in the dishwasher.
- If these substances are used, the manufacturer declines all responsibility for any resulting damages.

Clean the plate using a soft cloth dampened with water and normal non-aggressive detergents.

10.6 CLEANING OF THE OVEN



The oven requires regular maintenance, especially if residues or liquids have deposited on it after use.

- Clean the inside after every use. Grease or other food residues may catch fire. There is a higher risk for the tray.
- After every use, clean the accessories and allow them to dry thoroughly.
- Remove stubborn dirt used special oven detergents.



Do not clean using aggressive detergents or acids, such as methylated spirits, thinners, petrol or acetone.

- Do not use abrasive sponges or metal or sharp utensils.
- Do not wash in the dishwasher.
- If these substances are used, the manufacturer declines all responsibility for any resulting damages.

Clean the oven using a soft cloth dampened with lukewarm water and normal non-aggressive detergents.


Steam can be used to facilitate the removal of any grease and food residues from the oven:

- place a small container with water on the bottom of the oven
- ignite the cooker and heat the oven up to a temperature of 90°C for 30 minutes
- once they have cooled, clean the internal surfaces of the oven.



Before cleaning, make sure that the oven is cold to avoid potential burns.

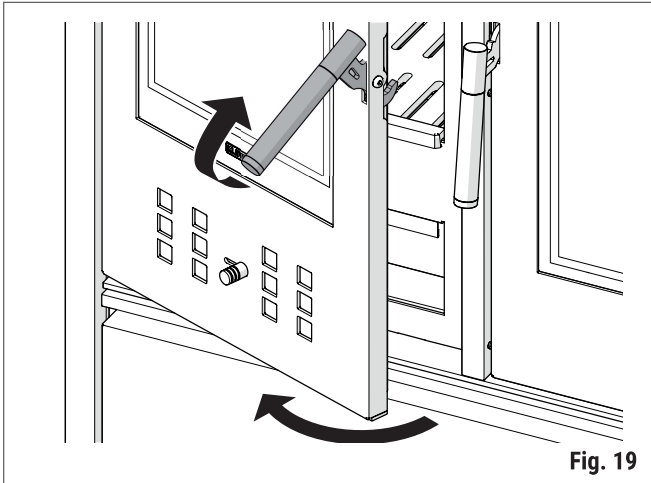
10.7 OPENING THE DOOR

 During normal operation of the appliance, the door must **ALWAYS** remain shut. It can only be opened once the appliance is switched off and has cooled down.

To open the appliance's door, proceed as follows:

- grip the handle and push it upwards
- open the door.


It will now be possible to clean the inside of the glass or perform cleaning and maintenance on the inner part of the appliance.



10.8 CLEANING THE GLASS DOOR


 Recommended cleaning frequency: consult the paragraph "*Scheduled maintenance*".

The glass panel of the door must be cleaned using a damp cloth or a detergent specifically formulated for glass-ceramic.

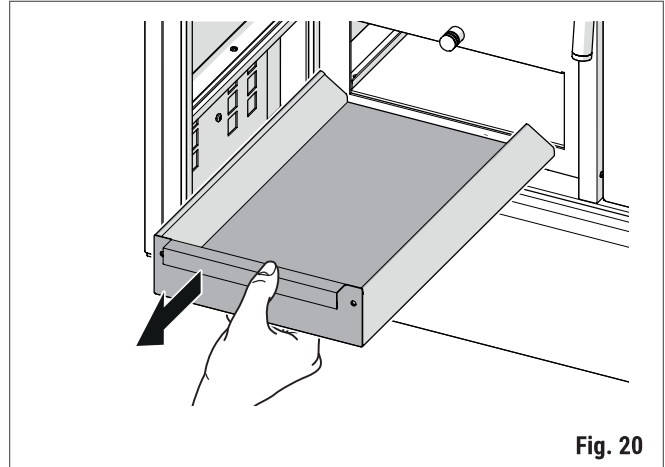
 Do not use abrasive sponges or materials that can scratch or ruin the glass, as any scratches could evolve into cracks or ruptures.

- Avoid wetting and cleaning the hot glass surface with cold water as the thermal shock could cause the glass to break.

10.9 CLEANING OF THE ASH TRAY

 Recommended cleaning frequency: consult the paragraph "*Scheduled maintenance*".

- Consult the paragraph "*Ash disposal*" to dispose of the ash.



To clean the ash tray, proceed as follows:

- open the door of the appliance –, consult the paragraph "*Opening the door*"
- remove the ash tray
- empty the tray of its contents
- put the ash tray back into the appliance.

10.10 CLEANING OF THE BRAZIER



Recommended cleaning frequency: consult the paragraph *"Scheduled maintenance"*.

- Before proceeding with the cleaning operations, any unburned pellets left in the brazier must be removed.
- Consult the paragraph *"Ash disposal"* to dispose of the ash.
- **TOOLS TO BE USED;** ash vacuum device equipped with a fine-mesh filter in order to prevent part of the ash from being blown into the room.

To clean the brazier, proceed as follows:

- open the door of the appliance –, consult the paragraph *"Opening the door"*
- use the brazier shaker lever a couple of times to let the ash drop into the tray and, if necessary, use the stoker to clear out the grooves in the brazier
- use a suitable suction device to remove combustion residues and any ash deposited inside and outside of the brazier.

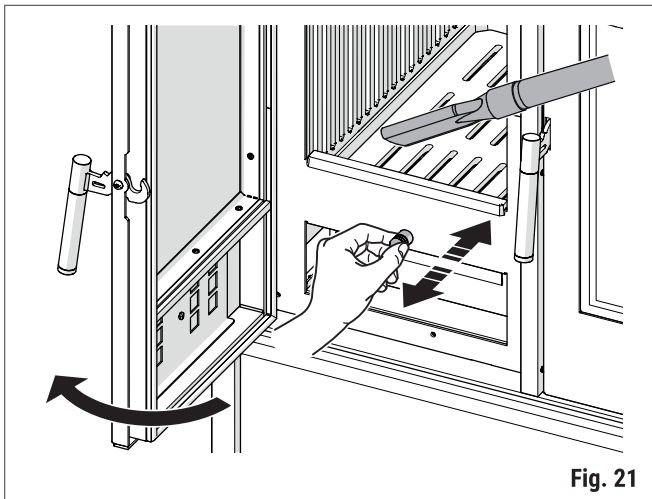


Fig. 21

10.11 CLEANING OF THE COMBUSTION CHAMBER



Recommended cleaning frequency: consult the paragraph *"Scheduled maintenance"*.

- Before proceeding with the cleaning operations, any unburned pellets left in the brazier must be removed.
- To dispose of any ash, consult the paragraph *"Ash disposal"*.
- **TOOLS TO BE USED;** brush with soft bristles (NOT supplied), ash vacuum device equipped with a fine-mesh filter in order to prevent part of the ash from being blown into the room.



Do not use abrasive sponges or wet cloths and do not place the surfaces in direct contact with the pipe of the ash suction device.

- Do not use water to clean the inside of the combustion chamber.

To clean the combustion chamber, proceed as follows:

- open the door of the appliance –, consult the paragraph *"Opening the door"*
- clean the brazier –, consult the paragraph *"Cleaning of the brazier"*
- clean the ash tray, consult the paragraph *"Cleaning of the ash tray"*
- remove the brazier and the ash tray

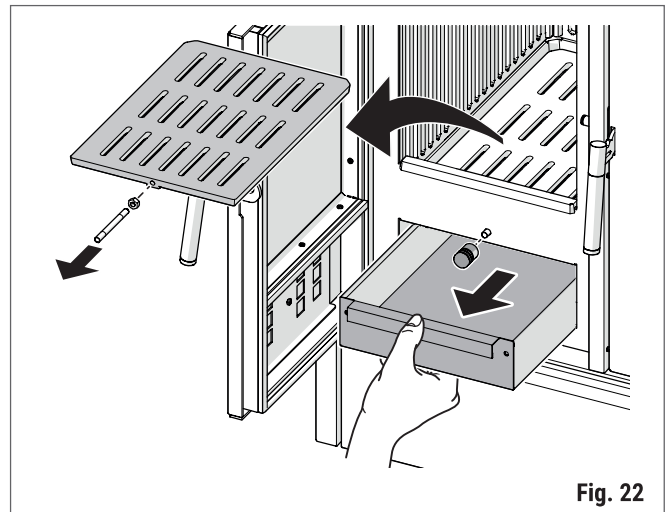


Fig. 22

- dust the surfaces of the combustion chamber gently using a brush
- use a suitable ash cleaner to suck up combustion residues.

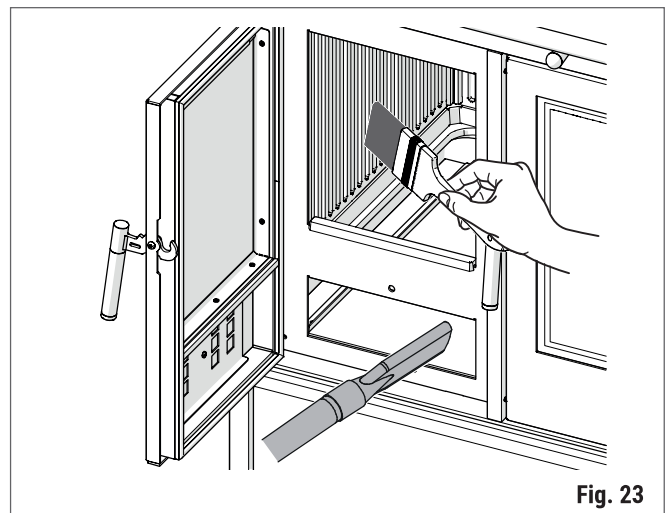


Fig. 23

10.12 CLEANING OF THE FLUE GAS PASSAGE



Recommended cleaning frequency: consult the paragraph "*Scheduled maintenance*".

- To dispose of any ash, consult the paragraph "*Ash disposal*".
- **TOOLS TO BE USED**; ash vacuum device equipped with a fine-mesh filter in order to prevent part of the ash from being blown into the room.

To be done by the user

To clean the fume passage above the oven, proceed as follows:

- remove the grill and the relative steel protective plate, consisting of two pieces, located under the grill
- suck up any ash residues above and around the oven.

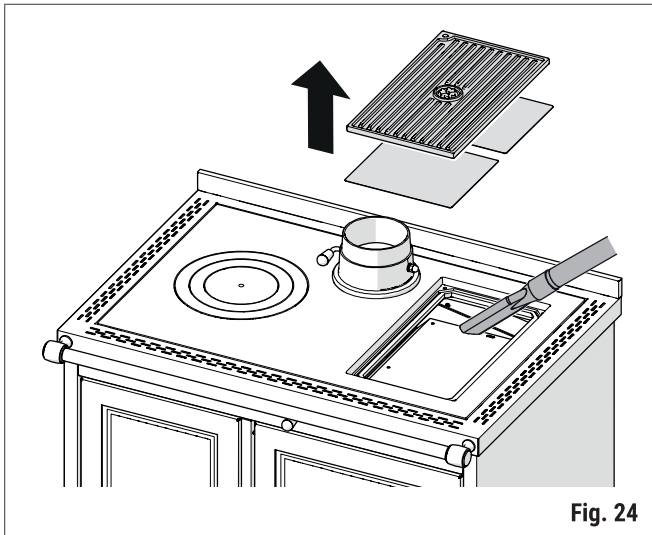


Fig. 24

To clean the fume passage under the oven, proceed as follows:

- open the door of the appliance –, consult the paragraph "*Opening the door*"
- remove the lower fume passage inspection nozzle
- use a suitable ash suction machine to suck up the residues inside the fume passage.

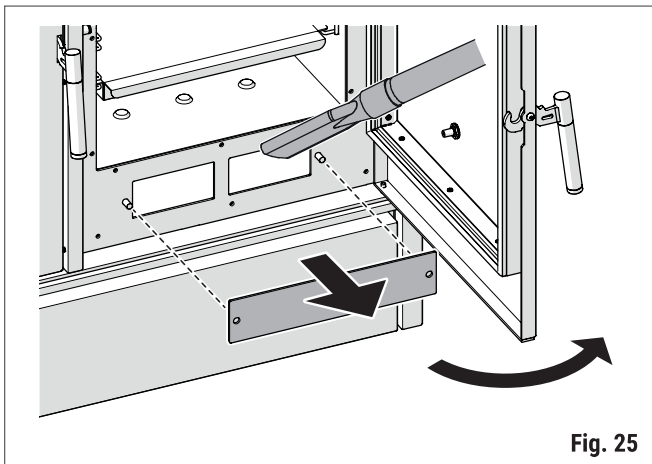


Fig. 25

Operation requiring the intervention of the Technical Assistance Centre

To fully clean the fume passage, proceed as follows:

- remove the smoke pipes connecting the appliance to the flue and clean them if necessary
- after removing the fume damper, use the stoke to remove the circles, the grille and the two-piece steel plate situated under the grille
- remove the hotplate
- vacuum any ash deposited above the combustion chamber, above and around the oven
- vacuum any ash inside the fume deflectors and under the plate above the oven.

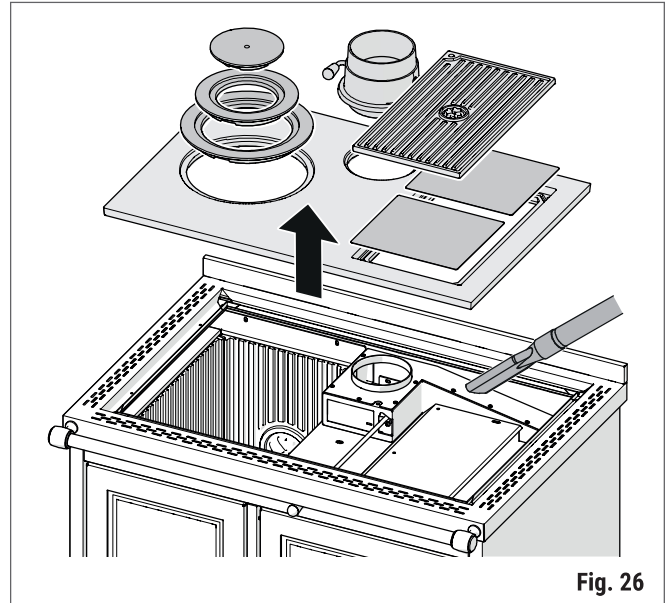


Fig. 26

10.13 CLEANING THE FLUE GAS CHANNEL

The flue gas channel must be cleaned depending on how frequently the fume exhaust system tends to accumulate dirt, but nonetheless ALWAYS at the start of the winter season, and whenever necessary. The flue gas channel MUST be cleaned at least once a year.



Recommended cleaning frequency: consult the paragraph *"Scheduled maintenance"*.

- Before proceeding, carefully read the chapter *"Flue gas channel"*.
- Consult the paragraph *"Ash disposal"* to dispose of the ash.



Cleaning must be performed **ONLY** by an authorised KLOVER Technical Assistance Centre or by qualified personnel.



It is also important to check for any obstructions in the flue before switching the appliance on following long periods of inactivity. If the flue is not cleaned, the operation of the appliance and of its components could be hampered.

Flue gas channel with tee fitting

To clean the flue gas channel equipped with a tee fitting, proceed as follows:

- remove the cap of the tee fitting and clean the pipes.

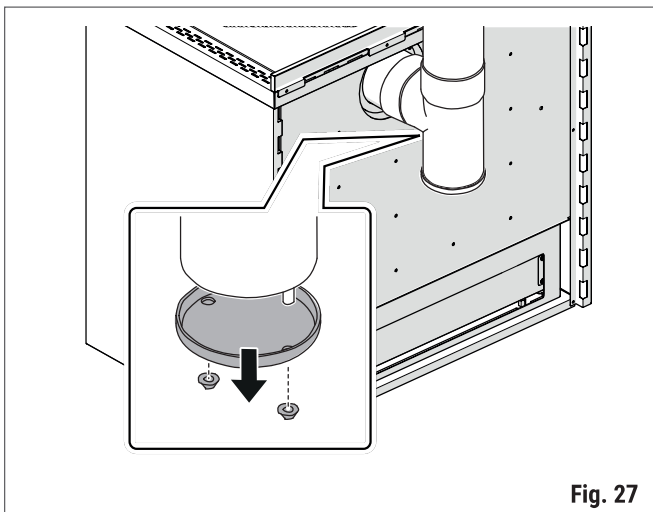


Fig. 27

10.14 ASH DISPOSAL

The ash generated through the combustion of natural wood (untreated) can be used as fertiliser for plants, taking care not to exceed 2.6 kg/10 m² per year.



- The ash must be placed in a metal container with a sealed lid. Until the embers definitively extinguish, the closed container must be placed on a non-combustible base well away from combustible materials.
- Only once the ash has extinguished may it be disposed of together with organic waste, while making sure that there are no inorganic materials in it.



Do not throw burning ash into the waste bin.

11 ALARMS - ANOMALIES - USEFUL TIPS

Anomalies, causes and possible remedies

| Anomaly | Causes | Possible solution |
|---|--|--|
| Ignition difficulties | Insufficient combustion air | Increase the combustion air intake (see "Adjusting the combustion air"). |
| | Non-conforming quality, size and quantity of fuel | Use fuel conforming to the indications given under the chapter "Fuel". |
| | Insufficient draught | Open the internal fume deflector, the fume damper and the combustion air primary damper. |
| | | Clean the brazier (see "Cleaning the brazier"). |
| | | Clean the ash tray (see "Cleaning the ash tray"). |
| | External air intake not present or with insufficient cross-sectional size | Clean the fume passage (see "Cleaning the combustion chamber"). |
| | Fume discharge system clogged or not made correctly | Contact the authorised KLOVER Technical Assistance Centre. |
| Presence of smoke and soot in the room | Loss of smoke from piping | Contact the authorised KLOVER Technical Assistance Centre. |
| | Insufficient draught | Check the tightness of the fume pipe. |
| | | Adjust the fume damper. |
| | | Clean the brazier (see "Cleaning the brazier"). |
| | Clean the ash tray (see "Cleaning the ash tray"). | |
| Clean the fume passage (see "Cleaning the combustion chamber"). | | |
| Fume discharge system clogged or not made correctly | Contact the authorised KLOVER Technical Assistance Centre. | |
| The glass dirties very quickly | Non-conforming quality, size and quantity of fuel | Contact the authorised KLOVER Technical Assistance Centre. |
| | Insufficient draught | Use fuel conforming to the indications given under the chapter "Fuel". |
| | | Adjust the fume damper. |
| | | Clean the brazier (see "Cleaning the brazier"). |
| | Clean the ash tray (see "Cleaning the ash tray"). | |
| Clean the fume passage (see "Cleaning the combustion chamber"). | | |
| Fume discharge system clogged or not made correctly | Contact the authorised KLOVER Technical Assistance Centre. | |
| Condensate build-up | Slow combustion and thus excessively low fume temperature | Contact the authorised KLOVER Technical Assistance Centre. |
| | Fume discharge system and condensate collection chamber not made correctly | Increase the combustion air intake (see "Adjusting the combustion air"). |
| Presence of water in the firebox and in the ash tray | Use smaller-size and more seasoned wood (see "Fuel"). | |
| | Fume discharge system not made correctly | Contact the authorised KLOVER Technical Assistance Centre. |
| Difficulty heating the plate and the oven | Insufficient combustion air | Contact the authorised KLOVER Technical Assistance Centre. |
| | Non-conforming quality, size and quantity of fuel | Increase the combustion air intake (see "Adjusting the combustion air"). |
| | Excessive draught | Use fuel conforming to the indications given under the chapter "Fuel". |
| | | Adjust the fume damper and the internal fume deflector |

12 STANDARD WARRANTY CONDITIONS

The standard warranty conditions can be viewed by scanning the following QR Code from your smartphone.



<https://docs.klover.it/it/guide/help/cs-cgc-1>

13 INACTIVITY OF THE PRODUCT

At the end of every season, or before a long period of inactivity of the product, it is necessary to:

- remove all the unburned wood from the combustion chamber
- perform all the cleaning and maintenance operations specified in the paragraph **"Maintenance"**
- at the end of all cleaning and maintenance operations, apply some non-acidic oil on the plate using a damp cloth
- entrust specialised and qualified personnel to check, clean and service the product and the entire system (the fume exhaust pipes, combustion air intake pipes, the external air intake, any hot air ducts, etc.).



Excessive humidity and excessively long periods of non-use may cause rust to form on certain uncoated parts inside the product.

- **This is a natural occurrence that does not hamper the efficiency and durability of the products, and must not be regarded as a defect.**



After the product has not been used for a long time, the materials may expand again and smelly vapours may recur. Consult the paragraph **"Initial start-up".**

14 END-OF-LIFE DISPOSAL

The product must be disposed of exclusively by the owner, who is responsible thereof and who must act in conformity to the regulations in force concerning safety and environmental protection.

Contact the competent authorities for information on the relevant local regulations.

Entrust a qualified technician to permanently decommission the product.

Before dismantling the product:

- disconnect the power supply (for appliances powered electrically)
- put all the system's components and connections in safe conditions.



When this symbol appears on the appliance or accessories, or on their packaging or documentation, it means that the appliance, accessories, batteries/accumulators and relative electrical and electronic components must NOT be regarded and disposed of as normal household waste but must be delivered to an appropriate waste collection facility for the recycling of waste electrical and electronic equipment.

Incorrect disposal can be harmful to human health and to the environment.

It is possible to ask the dealer to collect waste electrical and electronic equipment under the conditions and with the procedures specified in the national regulations that transpose Directive 2012/19/EU (for Italy see Legislative Decree 49/2014).

Contact the competent authorities for information on the relevant local regulations.