

This symbol appearing on a product or its packaging indicates that the product must not be considered as normal household waste, but must be taken to a special waste collection center for recycling electric and electronic appliances. Disposing of this product appropriately helps avoid any potentially negative consequences which could arise from its incorrect disposal. For more detailed information on recycling of this product, contact your local council, the local waste disposal service or the shop where you bought the product.



## DECLARATION OF CONFORMITY OF THE MANUFACTURER

**Object: Absence of asbestos and cadmium**

We declare that the materials used for the assembly of all our appliances are without asbestos parts or asbestos derivatives and that in the material used for welding, cadmium is not present, as prescribed in relevant norm.

**Object: CE n. 1935/2004 regulation.**

We declare that in all products we produce, the materials which will get in touch with food are suitable for alimentary use, according to the a.m. CE regulation.

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## 2. TECHNICAL DATA

|                                                                | ROSA Reverse                     |
|----------------------------------------------------------------|----------------------------------|
| Definition in accordance with                                  | EN 12815                         |
| Constructive system                                            | 2                                |
| Nominal power in kW                                            | 8,1                              |
| Efficiency in %                                                | 81,1                             |
| Smoke outlet diameter in mm                                    | 150                              |
| Chimney height $\geq$ (m) - dimension (mm)                     | 4 - 200x200 Ø200                 |
| Chimney draught in Pa (mm H <sub>2</sub> O)                    | 12 (1,2 mm H <sub>2</sub> O)     |
| Hourly wood consumption in kg / h (wood with Max 20% humidity) | 2,3                              |
| CO measured at 13% oxygen in %                                 | 00,7 - (910 mg/Nm <sup>3</sup> ) |
| Exhaust gas emission in g/s – wood                             | 7,8                              |
| Exhaust gas temperature in °C - wood                           | 237                              |
| Outer air inlet Ø in mm (minimum surface cm <sup>2</sup> )     | 120 (100 cm <sup>2</sup> )       |
| Hearth opening size in mm (W x H)                              | 349 x 235                        |
| Hearth size in mm (W x H x D)                                  | 374 x 290 x 320                  |
| Oven size in mm (W x H x D)                                    | 245 x 300 x 384                  |
| Type of grill                                                  | Movable - flat                   |
| Height in mm                                                   | 851                              |
| Width in mm                                                    | 1030                             |
| Depth in mm                                                    | 666                              |
| Weight in kg                                                   | 183                              |
| Fire prevention safety distances                               | Chapter FIRE SAFETY              |
| heatable m <sup>3</sup> (30 kcal/h x m <sup>3</sup> ) (# #)    | 232                              |

(# #) For those buildings in which the thermal insulation does not correspond to the instructions on heat protection, the heating volume of the product is: favourable type of building (30 kcal/h x m<sup>3</sup>); less favourable type of building (40 kcal/h x m<sup>3</sup>); unfavourable type of building (50 kcal/h x m<sup>3</sup>).

With thermal insulation in accordance with the regulations regarding energy saving, the heated volume is greater. With temporary heating, in the event of interruptions which last more than 8 hours, the heating capacity is reduced by about 25%.

## 3. GENERAL PRECAUTIONS

**La NORDICA S.p.A. responsibility is limited to the supply of the appliance.**

The installation must be carried out scrupulously according to the instructions provided in this manual and the rules of the profession. Installation must only be carried out by a qualified technician who works on behalf of companies suitable to assume the entire responsibility of the system as a whole. **La NORDICA S.p.A. declines any responsibility for the product that has been modified without written authorisation as well as for the use of non-original spare parts.**

**It is OBLIGATORY to respect the National and European rules, local regulations concerning building matter and also fireproof rules.**

**NO MODIFICATIONS CAN BE CARRIED OUT TO THE APPLIANCE.** La NORDICA S.p.A. cannot be held responsible for lack of respect for such precautions.

## 4. INSTALLATION REGULATIONS

Installation of the Product and auxiliary equipment in relation to the heating system must comply with all current Standards and Regulations and to those envisioned by the law.

The installation and the relating to the connections of the system, the commissioning and the check of the correct functioning must be carried out in compliance with the regulations in force by authorised professional personnel with the requisites required by the law, being national, regional, provincial or town council present in the country within which the appliance is installed, besides these present instructions.

Installation must be carried out by authorised personnel who must provide the buyer with a system declaration of conformity and will assume full responsibility for final installation and as a consequence the correct functioning of the installed product.

The Product, assembled and ready for the installation, must be connected with a junction to the existing flue of the house. The junction must be possibly short, straight, horizontal or positioned a little uphill. The connections must be tight.

Before installing the appliance, carry out the following checks:

- UPPER smoke output - REAR - LATERAL
- verify if your structure can support the weight of the appliance. In case of insufficient carrying capacity it is necessary to adopt appropriate measures, La NORDICA responsibility is limited to the supply of the appliance (See chapter *TECHNICAL DESCRIPTION*).

- Make sure that the floor can support the weight of the appliance (for ex. distributing weight plate), and if it is made of flammable material, provide suitable insulation (*DIMENSIONS ACCORDING TO REGIONAL REGULATIONS*).
- Make sure that there is adequate ventilation in the room where the appliance is to be installed, with particular attention to windows and doors with tight closing (seal ropes).
- Do not install the appliance in rooms containing collective ventilation ducts, hoods with or without extractor, type B gas appliances, heat pumps, or other appliances that, operating at the same time, can put the room in depression (ref. **UNI 10683 standard**).
- Make sure that the flue and the pipes to which the appliance will be connected are suitable for its operation. **It is NOT allowed the connection of various appliances to the same chimney.**
- The diameter of the opening for connection to the chimney must at least correspond to the diameter of the flue gas pipe. The opening must be equipped with a wall connection for the insertion of the exhaust pipe and a rosette.
- The unused flue gas exhaust stub pipe must be covered with its respective cap (see chapter DIMENSIONS).
- The installation must be appropriate and has to allow the cleaning and maintenance of the product and the flue.

**La NORDICA S.p.A. declines all responsibility for damage to things and/or persons caused by the system. In addition, it is not responsible for any product modified without authorisation and even less for the use of non original spare parts.**

Your regular local chimney sweep must be informed about the installation of the appliance so that he can check the correct connection to the chimney.

## 5. FIRE SAFETY

When installing the product, the following safety measures must be observed:

- In order to ensure sufficient thermal insulation, respect the minimum safety distance from objects or furnishing components flammable and sensitive to heat (furniture, wood sheathings, fabrics, etc.) and from materials with flammable structure (see **Picture 4 at page 66 - A**). **All the minimum safety distances are shown on the product data plate and lower values must not be used.**
- In front of the furnace door, in the radiation area there must be no flammable or heat-sensitive objects or material at a distance of less than **100 cm**. This distance can be reduced to 40 cm where a rear-ventilated, heat-resistant protection device is installed in front of the whole component to protect.
- If the product is installed on a non totally refractory floor, one must foresee a fireproof background. **The floors made of inflammable material**, such as moquette, parquet or cork etc., **must be covered** by a layer of no-inflammable material, for instance ceramic, stone, glass or steel etc. (size according to regional law). The base must extend at least **50 cm** at the front and at least **30 cm** at the sides, in addition to the opening of the loading door (see **Picture 4 at page 66 - B**).
- No flammable components (e.g. wall units) must be present above the product.

The Product must always operate exclusively with the ash drawer inserted. The solid combustion residues (ash) must be collected in a sealed, fire resistant container. The Product must never be on in the presence of gaseous emissions or vapours (for example glue for linoleum, petrol etc.). Never deposit flammable materials near the Product.

During combustion, thermal energy is released which leads to considerable heating of the surfaces, doors, handles, controls, glass parts, the flue gas pipe and possibly the front part of the appliance. **Avoid contact with these elements unless using suitable protective clothing or accessories** (heat resistant gloves, control devices).

**Ensure children are aware of these dangers and keep them away from the furnace when it is on.**

When using the wrong fuel or one which is too damp, due to deposits present in the flue, a flue fire is possible.

### 5.1. IN A EMERGENCY

If there is a fire in the flue connection :

- Close the loading door and the ash drawer door
- Close the comburent air registers
- Use carbon dioxide ( CO<sub>2</sub> powder ) extinguishers to put out the fire
- Request the immediate intervention of the Fire Brigade

**DO NOT PUT OUT THE FIRE WITH WATER.**

When the flue stops burning, have it checked by a specialist to identify any cracks or permeable points.

## 6. TECHNICAL DESCRIPTION

The fire cookers of La NORDICA are suitable to cook on the grill and on the oven and to heat living spaces for some periods or to support an insufficient centralized heating system. They are ideal for holiday apartments and weekend houses or as an auxiliary heating system during the whole year. As fuel, wood logs are used. **The appliance works as an intermittent operating appliance.**

The fire cooker is made of galvanized and enamelled steel sheets and enamelled cast iron (doors, front side, plate ).

The hearth is totally sheathed with single cast iron sheets. Inside there is a flat grate. The hearth is equipped with a panoramic door with ceramic glass (resistant up to 700 °C). This allows a wonderful view on the burning flames. Furthermore, it is thus avoided the output of sparks and smoke. **Heat resistant glove or fire hook already INCLUDED.**

As an **OPTIONAL** it is available also a chromium plated grate for the oven.

Under the oven door there is an food warmer holder,, with the related closing door: **NEVER introduce flammable objects or materials** (**Picture 6 at page 67 C**). Below the food warmer holder, there is an extractable wood drawer, with the related closing door (D).

**The heating of the environment is made by irradiation:** through the panoramic glass and the external hot surfaces of the cookers, the heat is radiated into the environment.

The cooker is equipped with controls of primary and secondary air by which it is adjusted the combustion air.

**1A - PRIMARY Air Register** (**Picture 6 at page 67** ).

With the lower register, the passage of primary air in the lower part of the cooker is regulated through the ash drawer and the grill in the direction of the fuel. The primary air is necessary for the combustion process. The ash drawer must be emptied regularly so that the ash

cannot block the primary air intake for combustion. The primary air also keeps the flame alive.

The primary air register must be almost completely closed during wood combustion, as otherwise the wood burns too quickly and the cooker may overheat.

#### 2A - SECONDARY Air Register (Picture 6 at page 67).

Over the door of the hearth there is the secondary air control. This regulator must be open (the lever must be moved to the right – see Table), especially for wood combustion, so that un-burnt carbon does not undergo a post-combustion. See chapter Normal operation. Through this register it is possible to adjust the power of the stove. Leaving it slightly open, according to the flue of the chimney, it is possible to keep the glass clean. **It is possible to get the air SECONDARY directly from outside** through a flexible tube (fireproof NOT furnished, see chapter AIR FLOW IN THE PLACE OF INSTALLATION DURING COMBUSTION).

#### B - FLUE GAS Register (Picture 6 at page 67)

(Conversion from the cooker **HOTPLATE USE** – **OVEN USE** function to the cooker **HEATING** function)

On the right of the front of the stove/cooker, between the protection rail and the oven door, is the smoke-register control lever, recognisable as a bronze knob. When the lever is pushed towards the back of the stove/cooker, the combustion gases flow above the oven directly towards the exhaust stub (cooker function – PLATE USE); when the lever is pulled towards you, the combustion gases flow all around the oven, so the internal temperature increases evenly (cooker – oven cooking and heating – OVEN USE).

#### To ignite the flame (see Cap. IGNITION) :

- Open the FLUE GAS Register (cooker function – PLATE USE) to aid flue gas exhaust. Position the register (any butterfly valve placed on the flue gas exhaust pipe must also be opened).
- Open the primary air register and secondary air register.
- After having started the fire with small pieces of wood and waited until it is well lit.
- Bring the flue gas register to the oven position.
- Close the any butterfly valve placed on the flue gas exhaust pipe must also be opened.

#### How to set the machine to BOIL WATER

- Keep the flue gas register on the cooker function – HOTPLATE USE.
- Primary air half open.
- Secondary air completely open.
- Load wood as described in the manual (hourly load).

#### How to set the machine to COOK BISCUITS

- Primary air register CLOSED
- Secondary air register POS.2 **Picture 6**.
- Bring the flue gas register to the cooker function – PLATE USE position. This keeps the oven temperature stable around 230 °C.
- Load wood as described in the manual (hourly load).
- Wait for 230 °C to be reached.
- Place the tray of biscuits in the low position for 25-30 minutes (slow cooking) or in the medium position for 15-20 minutes (quick cooking).
- Turn the tray halfway through cooking, if necessary.

The control regulation during the ignition phase is the following :

|                | PRIMARY air | SECONDARY air | SMOKES control  |
|----------------|-------------|---------------|-----------------|
| Ignition phase | OPEN        | OPEN          | Cooker function |

The register regulation necessary in order to obtain nominal calorific output is the following (see Cap. TECHNICAL DATA):

| Hourly wood consumption in kg/h<br>(wood with 20% Max humidity) | PRIMARY air | SECONDARY air          | TERTIARY air |
|-----------------------------------------------------------------|-------------|------------------------|--------------|
| 2,3                                                             | CLOSED      | POS.2 <b>Picture 6</b> | PRE-ADJUSTED |

| ACCESSORIES  | CHROME PLATED<br>OVEN GRILLE | POKER    | GLOVE    |  |
|--------------|------------------------------|----------|----------|--|
| ROSA REVERSE | OPTIONAL                     | INCLUDED | INCLUDED |  |

## 7. FLUE

Essential requirements for correct appliance operation:

- the internal section must preferably be circular;
- the appliance must be thermally insulated and impermeable and built with suitable materials which are resistant to heat, combustion products and any condensation;
- there must be no narrowing and vertical passages with deviations must not be greater than 45°;
- if already used, it must be clean;
- the technical data from the instruction manual must be respected;

If the flues are of a square or rectangular section, the internal edges must be rounded with a radius of not less than 20 mm.

For the rectangular section, the maximum ratio between the sides must be  $\leq 1.5$ .

A section which is too small causes a reduction in draught. A minimum height of 4 m is advisable.

The following materials are **FORBIDDEN** and compromise the good operation of the appliance: asbestos cement, galvanised steel, rough

and porous internal surfaces. **Picture 1 at page 64** shows some example solutions.

The minimum section must be 4 dm<sup>2</sup> (for example 20x20 cm) for appliances whose pipe dimensions are less than 200 mm, or 6.25 dm<sup>2</sup> (for example 25x25 cm) for appliances with a diameter of more than 200 mm.

The draught created by your flue must be sufficient but not excessive.

A section of the flue which is too large can present a volume which is too large to heat and therefore cause operating difficulties for the appliance; to avoid this, it is necessary to intubate the appliance for its entire height. A section which is too small causes a reduction in draught.

**The flue must be at a suitable distance from flammable or combustible material using suitable insulation or an air space.**

It is **FORBIDDEN** to pass system piping or air ducts inside the flue. It is also forbidden to create moveable or fixed openings on the flue itself, for the connection of further different appliances (See chapter **CONNECTING A FIREPLACE OR OPEN HEARTH TO THE FLUE**).

### 7.1. CHIMNEY POT

The flue draught depends on the suitability of the chimney pot.

It is therefore essential that, if built in a handcrafted way, the exit section is more than twice the internal section of the flue (**Picture 2 at page 64**).

As it must always go past the ridge of the roof, the chimney pot must ensure exhaust even in the presence of wind (**Picture 3 at page 65**).

The chimney pot must meet the following requirements:

- Have an internal section equivalent to that of the chimney.
- Have a useful exit section of double the internal section of the flue.
- Be built so as to prevent rain, snow or any foreign body entering the flue.
- Be easy to inspect, for any maintenance and cleaning operations.

### 7.2. CONNECTION TO THE CHIMNEY

Products with automatic door closing (type 1) must operate, for safety reasons, with the furnace door closed (except during the fuel loading or ash removal phases).

Products with non-automatic door closing (type 2) must be connected to their own flue.

Operation with doors open is only allowed when supervised.

The connection pipe to the flue must be as short as possible, straight horizontal and positioned slightly in ascent, and watertight.

Connection must be carried out with stable and robust pipes, comply with all current Standards and Regulations and to those envisioned by the law, and be hermetically secured to the flue. The internal diameter of the connection pipe must correspond to the external diameter of the appliance flue gas exhaust stub pipe (DIN 1298).

**ATTENTION:** as far as concern the realisation of the flue connection and flammable materials please follow the requirements provided by UNI 10683 standard. The flue must be properly spaced from any flammable materials or fuels through a proper insulation or an air cavity.

**Minimum distance safety 25 cm.**

**IMPORTANT: the unused flue gas exhaust hole must be covered with its respective cap** (See chapter: DIMENSIONS).

The chimney pressure (DRAUGHT) must be at least 12 Pa Pascal (=1.2 mm of water column). The measurement must always be carried out when the appliance is hot (nominal calorific power). When the pressure exceeds 17 Pascal, it is necessary to reduce it through the installation of an additional draught regulator (false air valve) on the exhaust pipe or in the chimney, according to the regulations in force. For correct appliance operation, it is essential that sufficient air for combustion is introduced into the place of installation (see paragraph 8).

### 7.3. CONNECTING A FIREPLACE OR OPEN HEARTH TO THE FLUE

The flue gas channel is the stretch of piping which connects the product to the flue. In the connection, these simple but extremely important principles must be respected:

- under no circumstances use a flue gas channel with a diameter less than that of the exhaust clamp with which the product is equipped;
- each metre of the horizontal stretch of the flue gas channel causes a slight loss of head which must be compensated if necessary by elevating the flue;
- the horizontal stretch must never exceed 2 metres (UNI 10683);
- each bend of the flue gas channel slightly reduces the flue draught which must be compensated if necessary by elevating it suitably;
- The UNI 10683 – ITALY regulation requires that under no circumstances must there be more than 2 bends or variations in direction including the intake into the flue.

If the user wishes to use the flue as a fireplace or open hearth, it is necessary to seal the hood below the entrance point of the flue gas channel pos. **A** **Picture 5 at page 66**.

If the flue is then too big (e.g. 30x40cm or 40x50cm), it is necessary to intubate it with a stainless steel tube with a diameter of at least 200mm, pos. **B**, taking care to close the remaining spaces between the pipe and the flue immediately under the chimney pot pos. **C**.

## 8. AIR FLOW IN THE PLACE OF INSTALLATION DURING COMBUSTION

As the product draw their combustion air from the place of installation, it is **MANDATORY** that in the place itself, a sufficient quantity of air is introduced. If windows and doors are airtight (e.g. built according to energy saving criteria), it is possible that the fresh air intake is no longer guaranteed and this jeopardises the draught of the appliance and your health and safety. It is therefore necessary to guarantee a supply of fresh air through an external air inlet placed near the appliance or by placing piping for combustion air which leads outside or to a nearby airy place, **with the exception of the boiler room or garage (FORBIDDEN)**.

**IMPORTANT:** For a better comfort and corresponding oxygenation of environment, the air can be directly withdrawn at the outside. In order to do that, the stove can be connected to the external air socket by an junction (see Chap. DIMENSIONS and **Picture 10 a pagina 67**).

The connection pipe must be smooth with a minimum diameter of 100 mm. It must have a maximum length of 3 m and have no more than three bends. If it is directly connected to the outside, it must be equipped with a suitable windbreak.

The intake of air for combustion in the place of installation must not be obstructed during operation of the product. It is absolutely essential that in environments in which products are operated with a natural chimney draught, as much air as is necessary for combustion is introduced, i.e. up to 20 (<11kW) m<sup>3</sup>/hour. The natural recirculation of air must be guaranteed by some fixed openings to the outside. Their size is established by regulations regarding the subject. Ask for information from a chimneys weep. The openings must be protected with grills and must never be blocked up. An extractor hood (suction) installed in the same room or in a neighbouring one causes a depression in the environment. This causes the leakage of burnt gas (dense smoke, smell); it is therefore necessary to ensure a greater flow of fresh air. **The depression of an extractor hood can, in the worst case scenario, transform the flue of the product into an external air inlet, re sucking the flue gases into the environment with very serious consequences for persons.**

## 9. ALLOWED / NOT ALLOWED FUELS

Allowed fuels are logs. Use exclusively dry logs (max. content of water 20%). Maximum 3 logs should be loaded. The pieces of wood should have a length of ca. 20-30 cm and a maximum circumference of 30-35 cm.

**Compressed not worked-out wood briquettes must be used carefully to avoid overheating that may damage the device, since these have a very high calorific value.**

The wood used as fuel must have a humidity content lower than the 20% and must be stored in a dry place. Humid wood tends to burn less easily, since it is necessary a greater quantity of energy to let the existing water evaporate. Moreover, humid content involves the disadvantage that, when temperature decreases, the water condensates earlier in the hearth and therefore in the stack causing a remarkable deposit of soot with following possible risk of fire of the same.

Fresh wood contains about 60% of H<sub>2</sub>O, therefore it is not suitable to be burnt.

It is necessary to place this wood in a dry and ventilated place (for example under a roofing) for at least two years before using it.

**Besides others, it is not possible to burn: carbon, cuttings, waste of bark and panels, humid wood or wood treated with paints, plastic materials; in this case, the warranty on the device becomes void.**

Paper and cardboard must be used only to light the fire.

**The combustion of waste is FORBIDDEN** and would even damage the appliance and the flue, causing health damages and claims by the neighborhood owing to the bad smell.

The wood is not a fuel which allows a continuous operation of the appliance, as consequence the heating all over the night is not possible.

| Variety      | kg/mc | kWh/kg moistness 20% |
|--------------|-------|----------------------|
| Beech        | 750   | 4,0                  |
| Oak          | 900   | 4,2                  |
| Elm          | 640   | 4,1                  |
| Poplar       | 470   | 4,1                  |
| Larch*       | 660   | 4,4                  |
| Spruce*      | 450   | 4,5                  |
| Scots pine * | 550   | 4,4                  |

\* RESINOUS WOOD NOT SUITABLE FOR THE BURNING

**ATTENTION : the continuous and protracted use of aromatic wood (eucalyptus, myrtle etc.) quickly damages the cast iron parts (cleavage) of the product.**

*The declared technical data have been achieved by burning beech wood class "A1" according to the requirement UNI EN ISO 17225-5 and wood moisture content less than 20%. By burning a different kind of wood the efficiency of the product itself could change and some specific adjustments on the appliance could be needed.*

## 10. LIGHTING

**WARNING:** After the first ignition you can smell bad odours (owing to the drying of the glue used in the garnitures or of the paint) which disappear after a brief using of the appliance. **It must be ensured, in any case, a good ventilation of the environment.** Upon the first ignition we suggest loading a reduced quantity of fuel and slightly increasing the calorific value of the equipment

To perform a correct first lighting of the products treated with paints for high temperature, it is necessary to know the following information:

- the construction materials of the involved products are not homogeneous, in fact there are simultaneously parts in cast iron, steel, refractory material and majolica;
- the temperature to which the body of the product is subject is not homogeneous: from area to area, variable temperatures within the range of 300°C - 500°C are detected;
- during its life, the product is subject to alternated lighting and extinguishing cycles in the same day, as well as to cycles of intense use or of absolute standstill when season changes;
- the new appliance, before being considered seasoned has to be subject to many start cycles to allow all materials and paints to complete the various elastic stresses;
- in detail, initially it is possible to remark the emission of smells typical of metals subject to great thermal stress, as well as of wet paint. This paint, although during the manufacture it is backed at 250 °C for some hours, must exceed many times and for a given period of time the temperature of 350 °C before becoming completely embedded in the metallic surfaces.

Therefore, it is extremely relevant to take these easy steps during the lighting:

1. Make sure that a strong air change is assured in the room where the appliance is installed.
2. During the first starts, do not load excessively the combustion chamber (about half the quantity indicated in the instructions manual) and keep the product continuously ON for at least 6-10 hours with the registers less open than the value indicated in the instructions manual.
3. Repeat this operation for at least 4-5 or more times, according to your possibilities.
4. Then load more and more fuel (following in any case the provisions contained in the installation booklet concerning maximum load) and, if possible, keep the lighting periods long avoiding, at least in this initial phase, short ON/OFF cycles.
5. **During the first starts, no object should be leaned on the appliance and in detail on enameled surfaces. Enameled surfaces must not be touched during heating.**
6. Once the «break-in» has been completed, it is possible to use the product as the motor of a car, avoiding abrupt heating with excessive loads.

To light the fire, it is suggested to use small wood pieces together with paper or other traded lighting means.

**It is FORBIDDEN to use any liquid substance as for ex. alcohol, gasoline, oil and similar.**

The openings for air (primary and secondary) must be opened together (you must open the eventual Ignition control, and butterfly valve placed on the pipe of smokes exhaust). When the wood starts burning, you may load other fuels and adjust the air for combustion according to the instructions on paragraph TECHNICAL DESCRIPTION.

**Please always be present during this phase.**

**Never overload the appliance** (see the technical table - max quantity of fuel that can be loaded / hourly consumption). Too much fuel and too much air for combustion can cause overheating and therefore damage the appliance. **The warranty does not cover the damages due to overheating of the equipment.**

**Never switch on the device when there are combustible gases in the room.**

### 10.1. LOW EMISSION fire lighting

Smokeless combustion is a way of lighting a fire able to significantly reduce the emission of harmful substances. The wood burns gradually from the top downwards, so combustion is slower and more controlled. Burnt gases pass through the high temperatures of the flame and therefore burn almost completely.

Place the logs in the hearth a certain distance apart as shown in the [Picture 7 at page 67](#). Arrange the largest at the bottom and the smallest at the top, or vertically in the case of tall narrow combustion chambers. Place the fire starter module on top of the pile, arranging the first logs in the module at right angles to the pile of wood.

**Fire STARTER MODULE.** This fire starter module replaces a paper or cardboard starter.

Prepare four logs, 20 cm long with a cross section of 3 cm by 3 cm [Picture 7 at page 67](#). Cross the four logs and place them on top of the pile of wood at right angles, with the fire lighter (wax impregnated wood fibre for example) in the middle. The fire can be lit with a match. If you want, you can use thinner pieces of wood. In this case, you will need a larger quantity.

Keep the flue gas exhaust valve and combustion air regulator open.

After lighting the fire, leave the combustion air regulator open in the position shown in according to the instructions on paragraph TECHNICAL DESCRIPTION

| FUEL | PRIMARY Air | SECONDARY Air | TERTIARY air |
|------|-------------|---------------|--------------|
| Wood | CLOSED      | 1/2 OPEN      | PRE-ADJUSTED |

**IMPORTANT:**

- do not add further wood between one complete load and the next;
- do not suffocate the fire by closing the air intakes;
- regular cleaning by a chimney sweep reduces fine particle emissions.
- These instructions are backed by ENERGIA Legno SVIZZERA [www.energia-legno.ch](http://www.energia-legno.ch)

## 11. NORMAL OPERATION

After having positioned the registers correctly, insert the indicated hourly wood load avoiding overloads that cause anomalous stresses and deformations (according to the instructions on paragraph TECHNICAL DESCRIPTION). **You should always use the product with the door closed in order to avoid damages due to overheating (forge effect). The inobservance of this rule makes the warranty expire.** For safety reasons the door of the appliances with constructive system 1, must be opened only for the loading of the fuel or for removing the ashes, while during the operation and the rest, the door of the hearth must remain closed. The appliances with constructive system 2 must be connected to their own flue. The operating with open door is allowed under supervision. **IMPORTANT: For safety reasons the door of the hearth can be opened only for the loading of the fuel. The hearth door must always remain closed during operation or rest.**

With the controls positioned on the front of the appliance it is possible to adjust the heat emission of the hearth. They have to be opened according to the calorific need. The best combustion (with minimum emissions) is reached when, by loading the wood, most part of the air for combustion flows through the secondary air register.

**Never overload the appliance** (see the hourly wood load in the table here below). Too much fuel and too much air for the combustion may cause overheating and then damage the stove. You should always use the appliance with the door closed in order to avoid damages due to overheating (forge effect). **The inobservance of this rule makes the warranty expire.**

The adjustment of the registers necessary to reach the rated calorific yield with a depression at the stack of 12 Pa (1,2mm of column of water) is the following one: see chapter TECHNICAL DESCRIPTION. **The appliance works as an intermittent operating appliance.** Besides the adjustment of the air for the combustion, the intensity of the combustion and consequently the thermal performance of the device is influenced by the stack. A good draught of the stack requires a stricter adjustment of air for combustion, while a poor draught requires a more precise adjustment of air for combustion.

To verify the good combustion, check whether the smoke coming out from the stack is transparent.

If it is white, it means that the device is not properly adjusted or the wood is too wet; if instead the smoke is gray or black, it signals that the combustion is not complete (it is necessary a greater quantity of secondary air).

**WARNING:** When fuel is added onto the embers in the absence of a flame, a considerable amount of fumes may develop. Should this happen, an explosive mixture of gas and air may form, and in extreme cases an explosion may occur. For safety reasons it is advisable to perform a new lighting procedure with the use of small strips.

### 11.1. USE OF THE OVEN (If present)

Thanks to the air flow for the combustion, the temperature of the oven may become remarkably affected. A sufficient flue of the chimney and of the channels, well cleaned for the flow of burning smokes around the oven are fundamental for a good cooking result. Thick cakes and big roasts must be introduced in the lowest level. Flat cakes and biscuits must reach the medium level. The upper level may be used to heat or grill.

The oven pan and the chrome plated oven grille may be located on different plans (see chapter Technical Description - ACCESSORIES). **When cooking food with high humidity**, cakes with fruit or fruit itself, water of condensation will be produced. During the cooking process some water vapour in the form of drops of condensed water can deposit onto the top and the side of the door. It is a physical phenomenon. By opening the door briefly and carefully (1 or 2 times, or even often in case of longer cooking times) you can let out the steam from the cooking compartment and reduce condensation significantly.

### 11.2. OPERATION IN TRANSITION PERIODS

During transition periods when the external temperatures are higher, if there is a sudden increase of temperature it can happen that the combustion gases inside the flue cannot be completely sucked up.

The exhaust gases do not come out completely (intense smell of gas). In this case, shake the grating more frequently and increase the air for the combustion. Then, load a reduced quantity of fuel in order to permit a rapid burning (growing up of the flames) and the stabilization of the draught. Then, check that all openings for the cleaning and the connections to the stack are air-tight.

**In case of doubt, do not operate the product.**

## 12. SUMMER STOP

After cleaning the hearth, chimney and hood, totally eliminating the ash and other eventual residues, close all the doors of the hearth and the relevant registers; in case you disconnect the appliance from the chimney you must close its openings in order to let work others possible appliances connected to the same flue.

We suggest performing the cleaning operation of the flue at least once per year; verifying in the meantime the actual status of the rope seals, which cannot ensure the good operation of the equipment if they are not in good condition and are not making a good seal! In this case the seals must be replaced.

In presence of dampness in the room where the stove has been placed, we advise you to put absorbent salts into the hearth.

If you want to keep for long the aesthetic look of the cooker it is important to protect its internal walls in row cast iron with neutral Vaseline.

### 13. MAINTENANCE AND CARE

Check the external air intake, by cleaning it, at least once a year. The stack 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 stack and the aeration. **IMPORTANT: The maintenance must be carried out only and exclusively with cold device.** You should only use spare parts approved and supplied by La NORDICA. Please contact your specialized retailer if you require spare parts. **YOU MUST NOT MAKE ANY CHANGES TO THE DEVICE!!!**

#### 13.1. GLASS CLEANING

Thanks to a specific inlet of secondary air, the accumulation of dirty sediments on the glass-door is reduced with efficacy. Nevertheless this can never be avoided by using solid fuels ( particularly wet wood ) and it has not to be understood as a defect of the appliance.

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

The correct lighting phase, the use of proper quantities and types of fuels, the correct position of the secondary air regulator, enough draught of the chimney-flue and the presence of combustion air are the essential elements for the optimal functioning of the appliance and for the cleaning of the glass.

**BREAK OF GLASSES:** Given that the glass-ceramic glasses resist up to a heat shock of 750°C, they are not subject to thermal shocks. Their break can be caused only by mechanic shocks (bumps or violent closure of the door, etc.). Therefore, their replacement is not included in the warranty.

#### 13.2. CLEANING OUT THE ASHES

All the devices are equipped with a hearth grating and an ash drawer for the collection of the ashes [Picture 8 at page 67](#). It is suggested to empty periodically the ash drawer and to avoid it fills completely in order not to overheat the grating. Moreover, it is suggested to leave always 3-4 cm of ash in the hearth.

**CAUTION: The ashes removed from the hearth have to be stored in a container made of fire-resistant material equipped with an air-tight cover. The container has to be placed on a fire-resistant floor, far from flammable materials up to the switching off and complete cooling.**

#### 13.3. CLEANING THE FLUE

The correct lighting phase, the use of proper quantities and types of fuels, the correct position of the secondary air regulator, enough draught of the chimney-flue and the presence of combustion air are the essential elements for the optimal functioning of the appliance.

The device should be completely cleaned at least once a year or every time it is needed (in case of bad working and low yield). An excessive deposit of soot can cause problems in the discharge of smokes and fire in the flue.

**The cleaning must be carried out exclusively with cold equipment.** This operation should be carried out by a chimney sweeper who can simultaneously perform an audit of the flue (checking of possible deposits).

#### 13.4. MAJOLICAS

La NORDICA has chosen majolica tiles, which are the result of high-quality artisan work. As they are completely carried out by hand, the majolica may present crackles, speckles, and shadings. These characteristics certify their precious origin.

Enamel and majolica, due to their different coefficient of dilatation, produce microcrackles, which show their authentic feature.

For the cleaning of the majolica we suggest you to use a soft and dry cloth; **if you use a detergent or liquid, the latter might soak in and highlight the crackles permanently.**

#### 13.5. PRODUCTS MADE OF NATURAL STONE

Natural stone has to be cleaned with very thin abrasive paper or with an abrasive sponge. **Do NOT use** any cleanser or fluid.

#### 13.6. VARNISHED PRODUCTS

After some years of product use a change in the varnished details colour is totally normal. This is due to the considerable temperature range the product is subject to whenever in use and to the varnish ageing of time passing by.

**ATTENTION:** before any possible application of the new varnish, do clean and remove all the traces from the surface which has to be varnished.

#### 13.7. ENAMELLED PRODUCTS

For the cleaning of enamelled surfaces use soap water or not aggressive and not chemically abrasive detergents. After the cleaning **do NOT** let soapy water or any cleanser dry but remove them immediately.

**DO NOT use sandpaper or steel wool.**

#### 13.8. CHROMIUM-COMPONENTS

If the components become bluish due to overheating, this can be solved with a suitable product for cleaning. **DO NOT use** abrasives or solvents.

#### 13.9. CAST IRON COOKING PLATE AND RINGS

**IMPORTANT: to avoid rust DO NOT forget** pots or pans on the cold cooking plate. This would create rust rings, unpleasant to see and difficult to remove.

The cast iron cooking plate (*cookers*) and the cast iron rings (*cookers - stoves*) needs to be periodically cleaned by using sandpaper (grain 150) **without touching the enamelled parts.**

- (*Cookers*) To carry out the cleaning operation remove the smoke outlet spigot and the smoke pipe. The smoke compartment can be

cleaned from the front side of the oven (see chap. CLEANING SMOKE COMPARTMENT COOKERS) or from the top. In this case remove the cast iron rings and the cooking plate, as well the smoke outlet spigot and the smoke pipe. The cleaning can be carried out by using a brush and a Hoover.

- (STAINLESS STEEL frame) Once you have placed the cast iron cooking plate, make sure to have always 3 mm in-between the cooking plate and the STAINLESS STEEL frame. This gap is important because of the thermal expansions and to avoid chromatic changes of the STAINLESS STEEL frame when hot.

**ATTENTION: once the cleaning operations are terminated all the parts have to be re-assembled hermetically.**

### 13.10. CLEANING OF THE COLLECTION CASING COOKING through the oven

The smokes collection casing can be cleaned either through the oven (remove the horizontal sheet metal which is the base of the oven See [Picture 9 at page 67](#)) the cooker or from the top.

To this purpose remove the circles of the cooking plate and disassemble the smokes pipe from the exhaust small trunk. Cleaning can be made with a brush and a vacuum cleaner.

**IMPORTANT:** please verify that the deflectors are set as indicated in the Picture.

**Pay ATTENTION that after cleaning all dismounted parts are reinstalled hermetically.**

### 13.11. LATERAL HANDRAIL

The handles, the handrail and the tank water (cookers) should be cleaned to cold with a soft cloth and alcohol . DO NOT use abrasives or solvents.

### 13.12. CLEANING OF THE HEARTH GRATE

**IMPORTANT:** if for whatever reason the grill is removed from the furnace, take care to reassemble it with the wider part of the slit facing downwards (See [Picture 8 at page 67](#)). This is to aid furnace cleaning.

## 14. CALCULATION OF THE THERMAL POWER

There is not an absolute rule for calculating the correct necessary power. This power is given according to the space to be heated, but it depends also largely on the insulation. On an average, the calorific value necessary for a properly insulated room is **30 kcal/h per m<sup>3</sup>** (for an external temperature of 0°C).

Given that **1 kW corresponds to 860 kcal/h**, it is possible to adopt a value of **38 W/m<sup>3</sup>**.

Let's suppose one wishes to heat a room of 150 m<sup>3</sup> (10 x 6 x 2.5 m) in an insulated apartment. In this case, it is necessary to have 150 m<sup>3</sup> x 38 W/m<sup>3</sup> = 5700 W or 5,7 kW. As main heating, a 8 kW device is therefore sufficient.

| Fuel                    | Unit           | Approximate combustion value |     | Required quantity in relation to 1 kg of dry wood |
|-------------------------|----------------|------------------------------|-----|---------------------------------------------------|
|                         |                | kcal/h                       | kW  |                                                   |
| Dry wood (15% humidity) | kg             | 3600                         | 4.2 | 1,00                                              |
| Wet wood (50% humidity) | kg             | 1850                         | 2.2 | 1,95                                              |
| Wood briquettes         | kg             | 4000                         | 5.0 | 0,84                                              |
| Brown coal briquettes   | kg             | 4800                         | 5.6 | 0,75                                              |
| Normal anthracite       | kg             | 7700                         | 8.9 | 0,47                                              |
| Coke                    | kg             | 6780                         | 7.9 | 0,53                                              |
| Natural gas             | m <sup>3</sup> | 7800                         | 9.1 | 0,46                                              |
| Naphtha                 | L              | 8500                         | 9.9 | 0,42                                              |
| Electricity             | kW/h           | 860                          | 1.0 | 4,19                                              |

## GUARANTEE TERMS

**1.** La Nordica S.p.A. products are guaranteed, within the European community, for 24 months from the date of purchase. Purchase has to be proved by means of a valid fiscal document issued by the seller (receipt, invoice or shipment document) identifying the purchased product and its purchase and/or delivery date.

**WARNING:** *This conventional guarantee does not replace the guarantee regulated by the European legislation on consumer rights.*

The conventional guarantee is only applicable to the Italian region and to those areas, within the European Community, where the Authorised Technical Assistance Centres are active (see the [www.lanordica-extraflame.com](http://www.lanordica-extraflame.com) website)

It is also limited to the state of residence of the consumer, which must coincide with the premises and/or registered office of the seller of the La Nordica S.p.A. product

These regulations do not apply if the product is purchased within commercial, entrepreneurial, or professional circumstances. In these cases the product guarantee will be limited to a period of 12 months from the date of purchase.

### ITALIAN GUARANTEE

What must be done if there is a product malfunction:

Consult the instructions manual to make sure the malfunction cannot be solved by using the product correctly. Make sure the malfunction is included in those covered by the guarantee; otherwise the cost of the intervention will be borne entirely by the consumer. When requesting the intervention of the Assistance service at the Authorised Assistance Centre, always specify: - type of malfunction - model of the appliance - complete address - phone number

### EUROPEAN GUARANTEE

What must be done if there is a product malfunction:

Consult the instructions manual to make sure the malfunction cannot be solved by using the product correctly. Make sure the malfunction is included in those covered by the guarantee; otherwise the cost of the intervention will be borne entirely by the consumer. Request the intervention of the Assistance service or the address of the Authorised Technical Assistance Centre to the seller; always specify: type of malfunction, model of the appliance, complete address and phone number

***If the malfunction arises in the first 6 months of the product's life, the consumer has the right to have the product repaired with no expense.***

***From the seventh to the twenty-fourth month, if a malfunction arises, the consumer will bear the cost of the call, while the seller will pay for the manpower and for any spare parts used.***

**2.** If the malfunction is linked to external events and/or conditions such as, including but not limited to, insufficient capacity of the systems; wrong installation and/or maintenance by the personnel which hasn't got the skills prescribed by the laws of the country of residence of the consumer; negligence; inability to use the product and wrong maintenance by the consumer, with respect to what is reported and recommended by the instructions manual of the product, which is part of the sales contract, this guarantee will be void.

Damage to the product that cannot be related to manufacturing defects are also not included in this guarantee. Similarly are excluded defects related to incorrect operation of the flue, according to the legislation in force in the country at the moment of purchase. Other exclusions include all product defects due to carelessness, accidental breakdown, tampering and/or damage during transport (scratches, dents, etc.), interventions carried out by unauthorised personnel and further damage caused by incorrect interventions by the consumer trying to arrange the initial malfunction.

The following consumables are excluded by the guarantee: gaskets, ceramic or tempered glasses, cast iron grilles or coatings, refractory materials (e.g. Nordiker or others), painted, chrome-plated or golden parts, majolica ware, handles, the brazier and its related components. For Idro products the heat exchanger is not covered by the guarantee if a suitable condensation-proof circuit is not set up to ensure a return temperature of the device of at least 55°C. The guarantee excludes all the external components on which the consumer can directly operate during use and/or maintenance or that can be subject to wear and/or rust and stains on steel due to aggressive detergents.

If malfunctions are signalled which are not later confirmed during check by an authorised technician, the cost of the intervention will be borne entirely by the consumer.

**3.** If it is not possible to restore product conformity by repairing it, the product/component will be replaced, the guarantee expiration date and conditions will remain the same established when the product/component to be replaced has been purchased.

**4.** La Nordica S.p.A. cannot be held liable for injury or damage which may - either directly or indirectly - be caused to persons, animals and property ensuing from failure to observe all the instructions provided in the relevant instruction manual and the warnings regarding installation, use and maintenance of the product, that can also be downloaded on the website.

**5.** Interventions for adjusting and/or regulating the product for the type of fuel or other reasons are excluded by the guarantee.

**6.** If the product is repaired in one of the Authorised Technical Assistance Centres indicated by La Nordica S.p.A. and if the product is replaced, transport will be free of charge. If the technician can repair the product at the user's place of residence and they refuse, transport to the workshop and redelivery will be paid by the consumer.

7. After the 24 months of the guarantee have elapsed any repair intervention cost will be completely borne by the consumer.
8. In the case of disputes the only competent court is that of the La Nordica S.p.A. registered office - (Vicenza-Italy)

#### ADDITIONAL WARNINGS

- Only use the fuel recommended by the manufacturer. The product must not be used as an incinerator.
- Do not use the product as a ladder or supporting structure.
- Do not place laundry on the product to dry it. Any clothes-horse or similar objects must be kept at due distance from the product. Danger of fire or damage to the coating.
- The user is fully liable for any incorrect use of the product. The manufacturer bears no civil or criminal liability for incorrect use.
- Unauthorised tampering of any nature or replacement of spare parts of the product with non-original parts may endanger the operator and the manufacturer bears no civil or criminal liability for this.
- Large parts of the surface of the product can get very hot (door, handle, glass, smoke outlet pipes, etc.). Please therefore avoid coming into contact with these parts without wearing suitable protective clothing or using appropriate measures, such as heat protective gloves.
- DO NOT use the product with the door open or if the glass is broken.
- The product must be electrically connected to a system equipped with an operational earthing system.
- Turn off the product in the event of a failure or malfunctioning.
- Do not wash the product with water. Water may penetrate into the unit and cause faults in the electrical insulation. This can cause electric shocks.
- Installations not complying with the regulations in force, as well as incorrect use and failure to comply with the maintenance scheduled by the manufacturer, will invalidate the guarantee.



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16. SCHEDA TECNICA · TECHNICAL DATA SHEET · TECHNISCHE PROTOKOLLE · FICHE TECHNIQUE

FICHAS TÉCNICAS

