



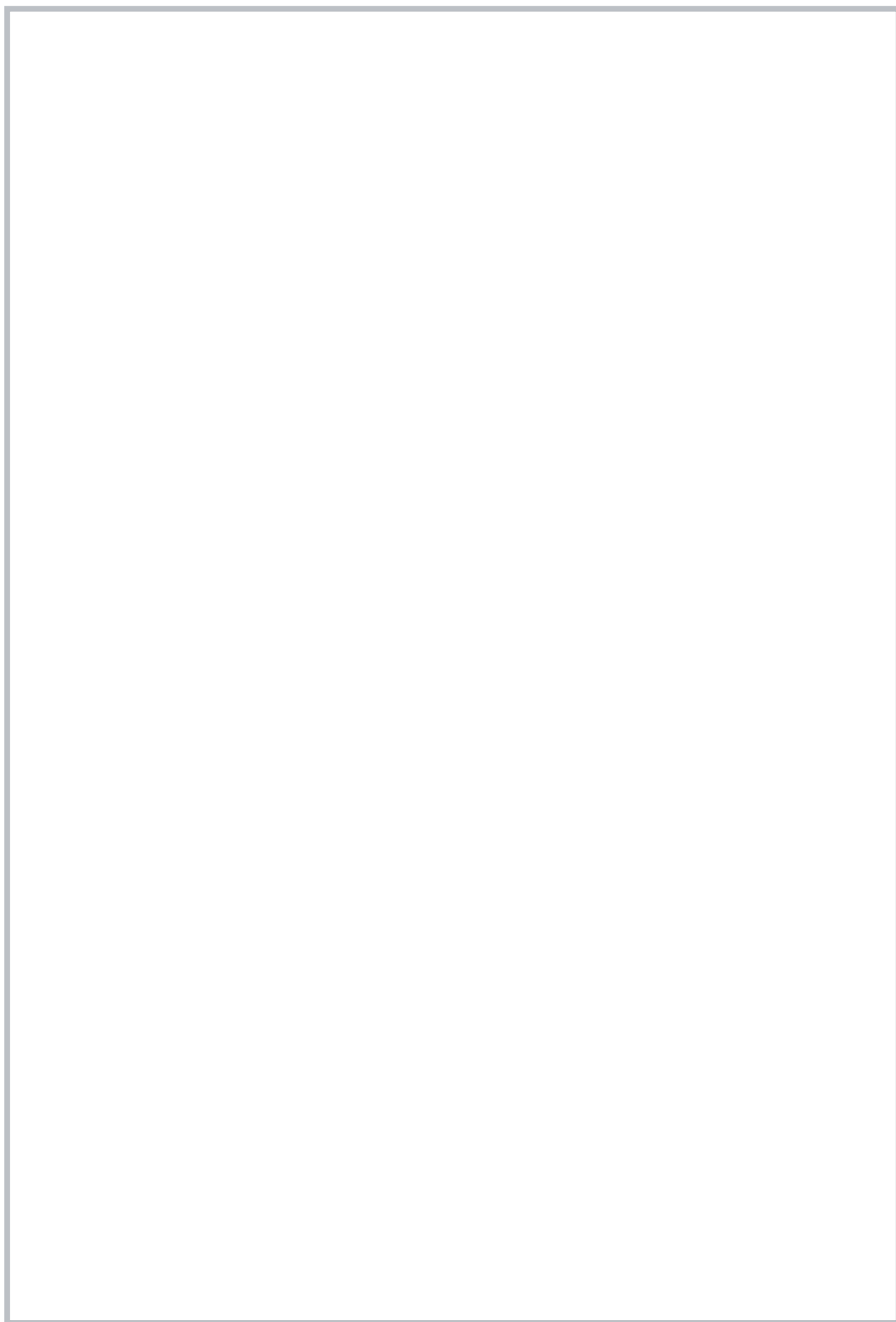
Riscalda la vita.



**WOOD PRODUCTS USER MANUAL**

**MADE IN ITALY**  
design & production

**SIERRA.16**





## ATTENTION



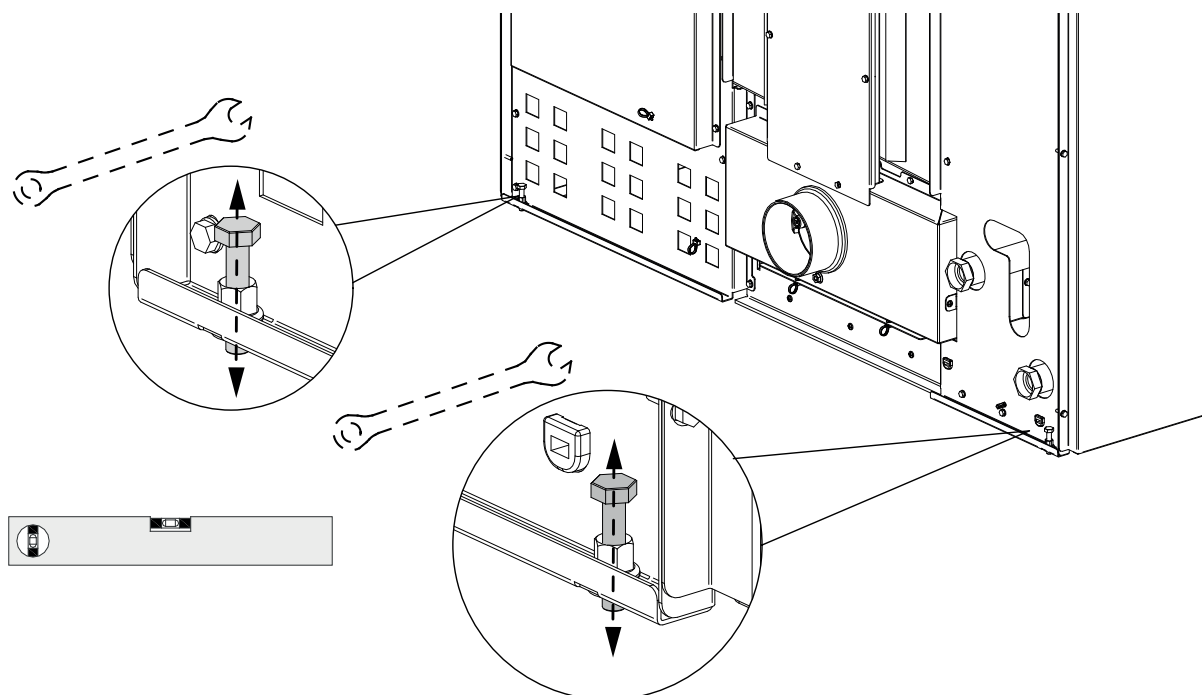
**SURFACES CAN BECOME VERY HOT!  
ALWAYS USE THE SAFETY GLOVE!**

*During combustion, thermal energy is released that significantly increases the heat of surfaces, doors, handles, controls, glass, exhaust pipes, and even the front of the appliance. Avoid contact with those elements if not wearing protective clothing (safety glove supplied). Make sure children are aware of the danger and keep them away from the stove during operation.*

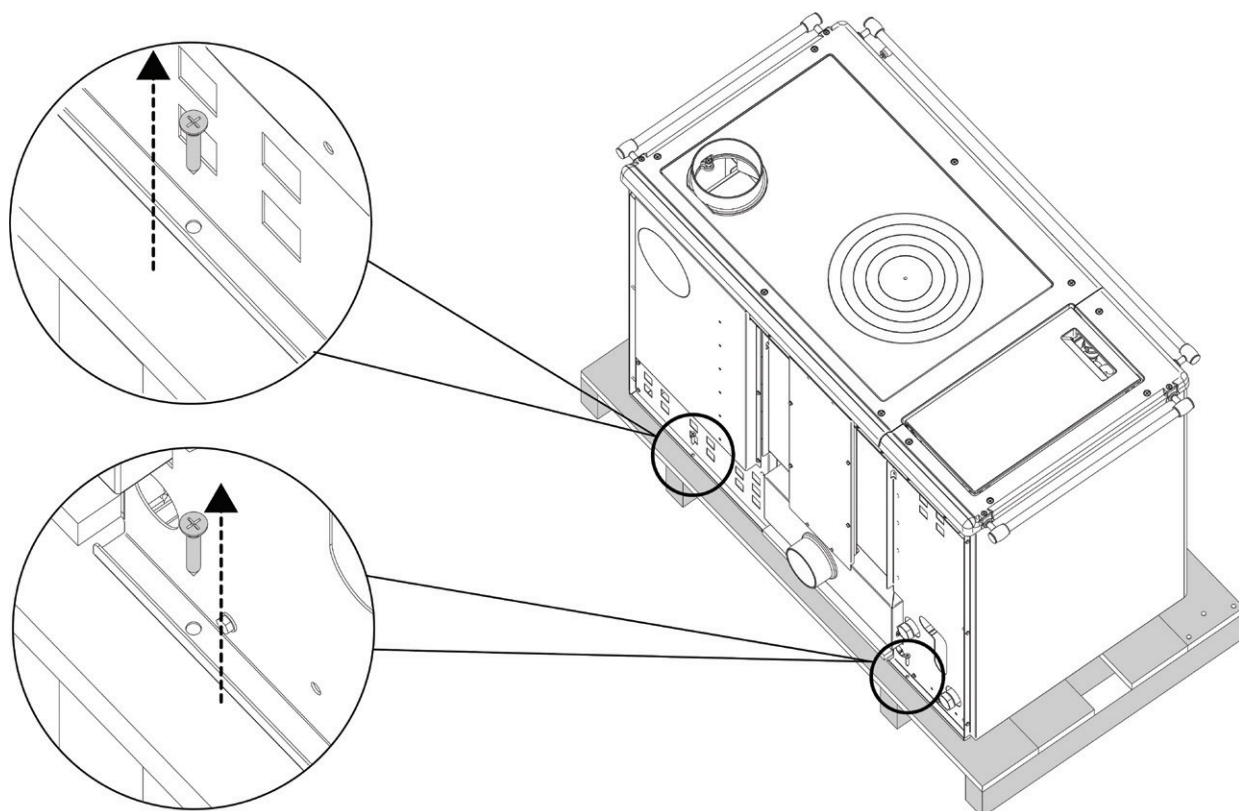
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**LIVELLAMENTO. LEVELLING. NIVELLIERUNG. NIVELLEMENT. NIVELACIÓN.**

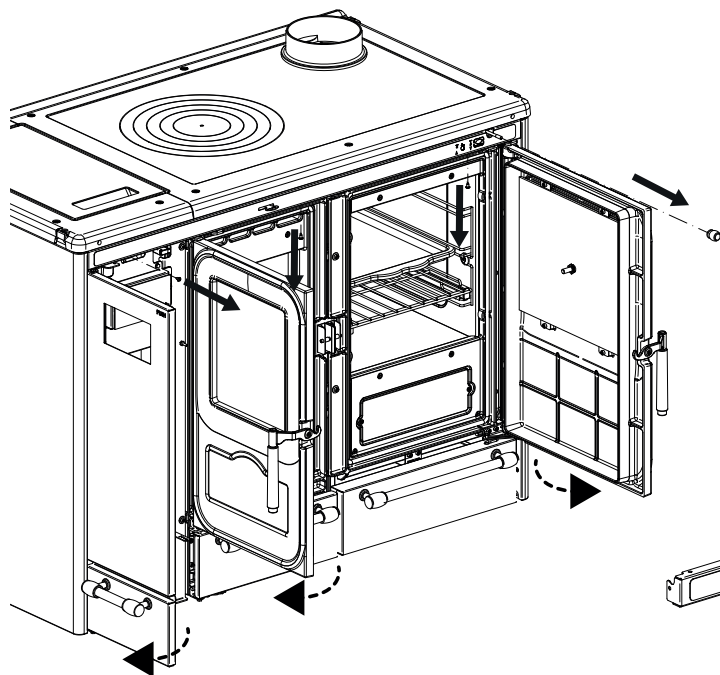


**MOVIMENTAZIONE E TRASPORTO. HANDLING AND TRANSPORT. HANDHABUNG UND TRANSPORT. MANUTENTION ET TRANSPORT. MANIPULACIÓN Y TRANSPORTE**



**MONTAGGIO CORRIMANO. HANDRAIL ASSEMBLY. MONTAGE DES HANDLAUFS  
ASSEMBLAGE DE LA MAIN COURANTE. MONTAJE DEL PASAMANOS**

**1**



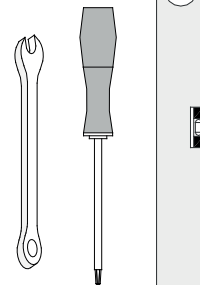
**NON FORNITO**

NOT SUPPLIED

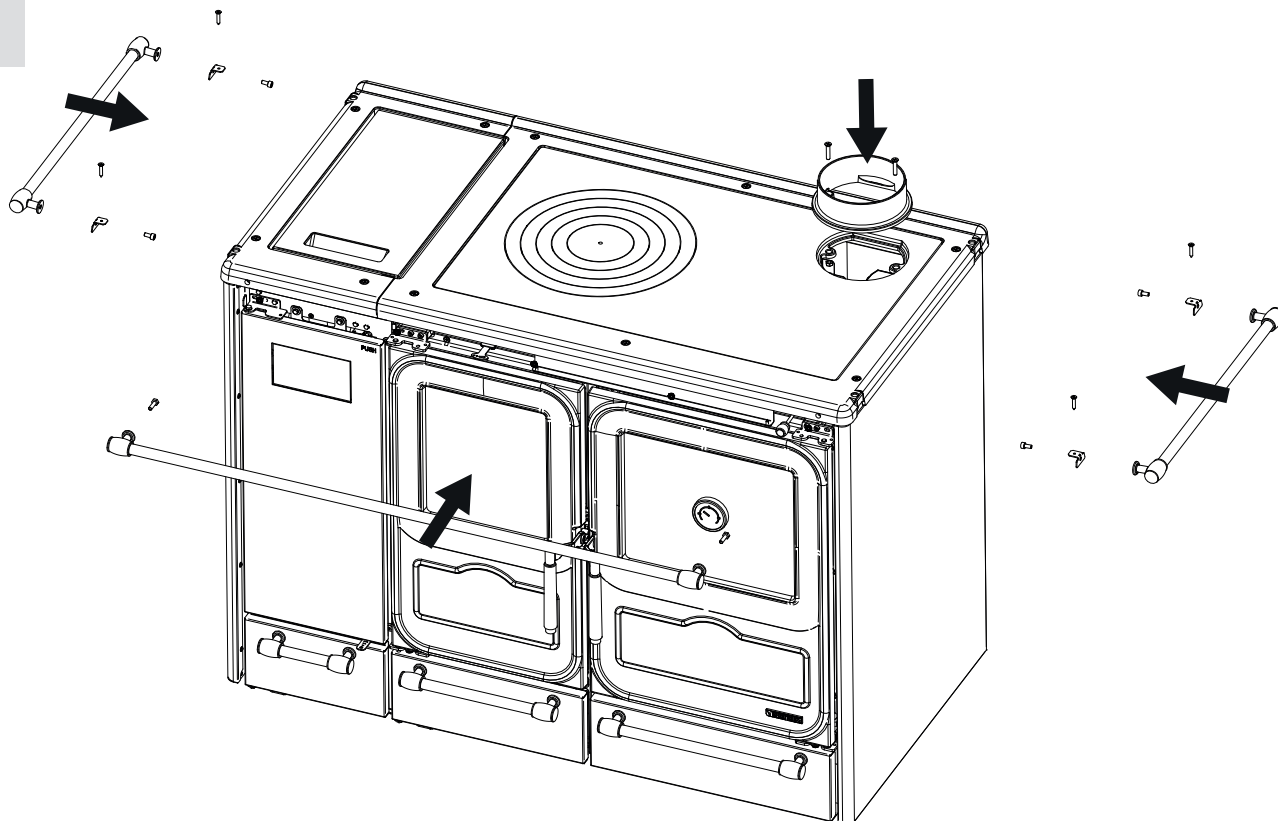
NICHT IM LIEFERUMFANG

PAS FOURNIS

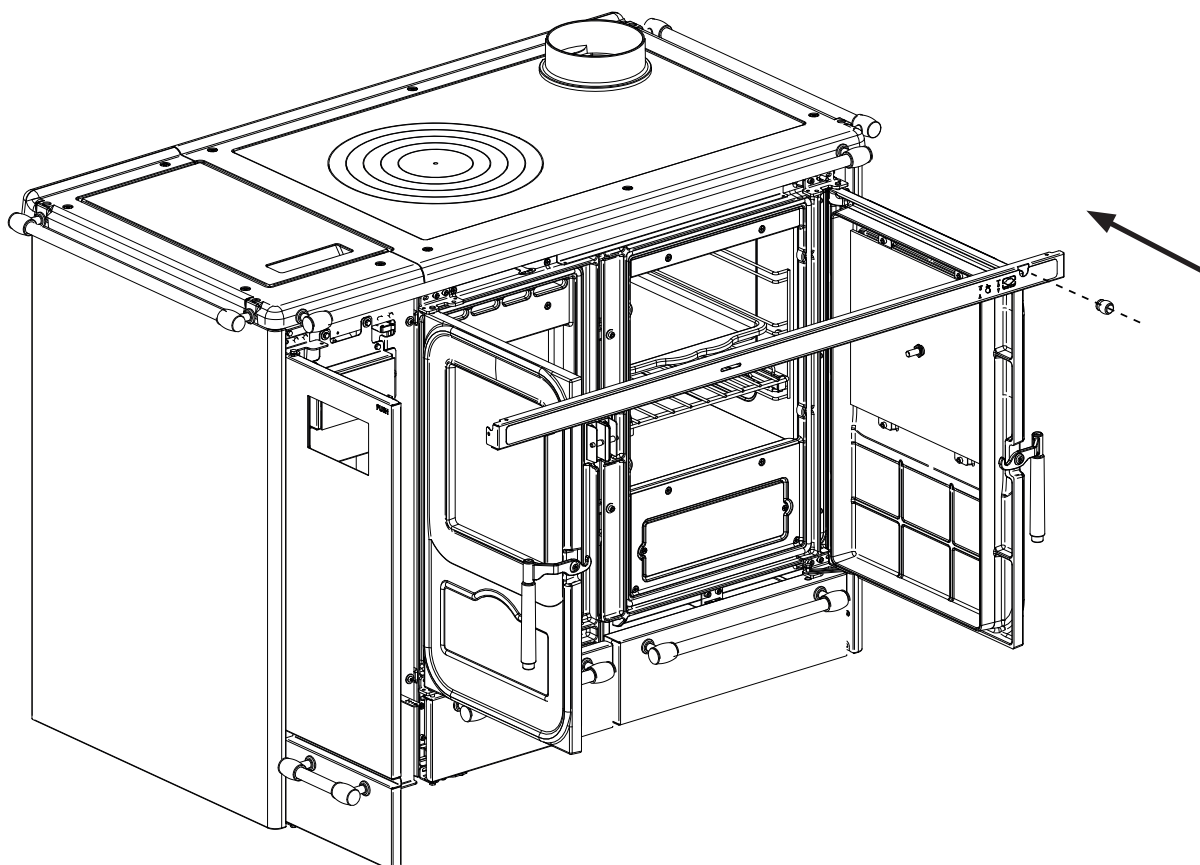
NO SUMINISTRADO



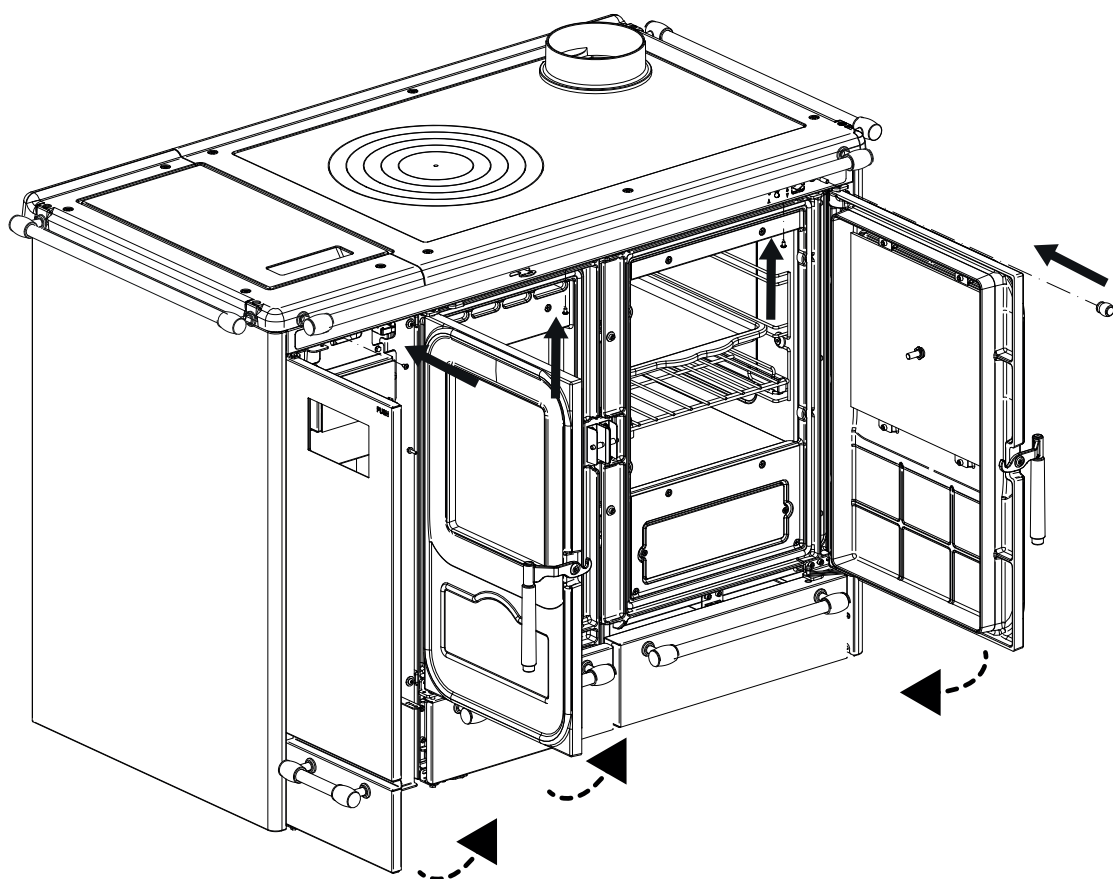
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**3**

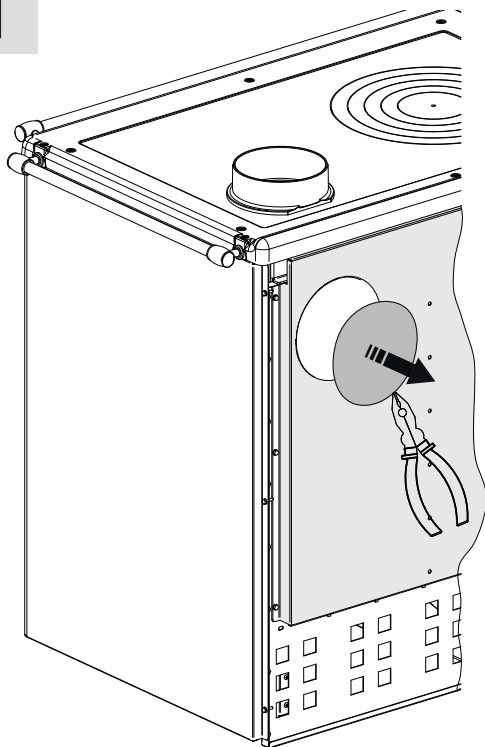


**4**

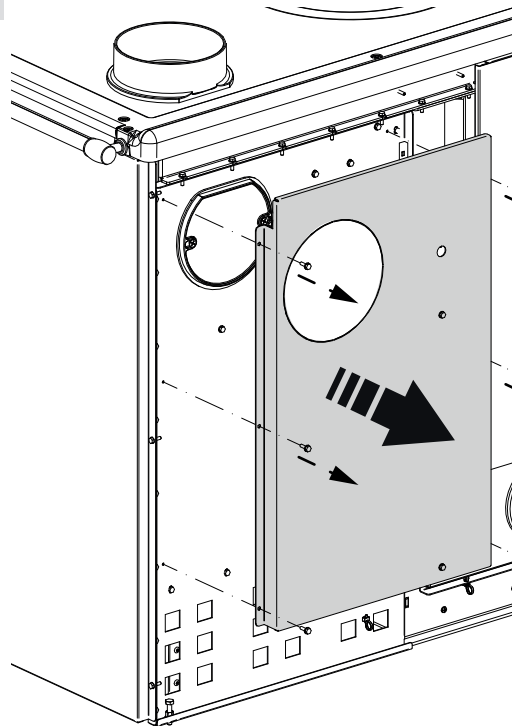


**SCARICO FUMI POSTERIORE. REAR SMOKE EXHAUST. RAUCHABZUG HINTEN  
ÉVACUATION DES FUMÉES POSTÉRIEURE. DESCARGA DE HUMOS POSTERIOR**

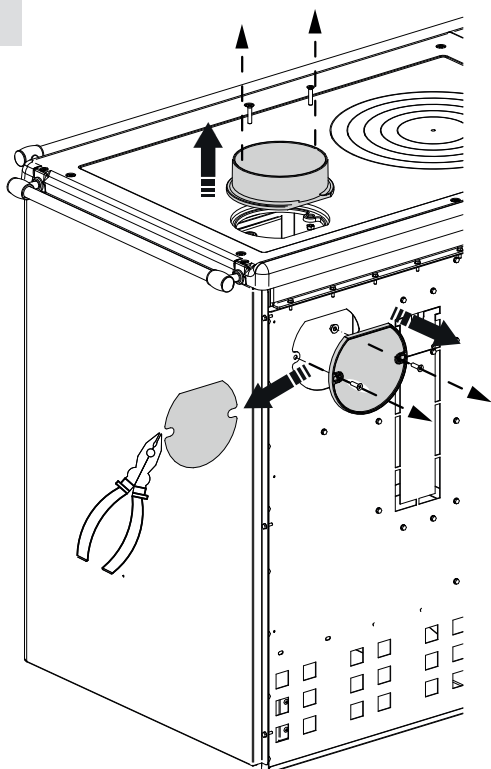
**1**



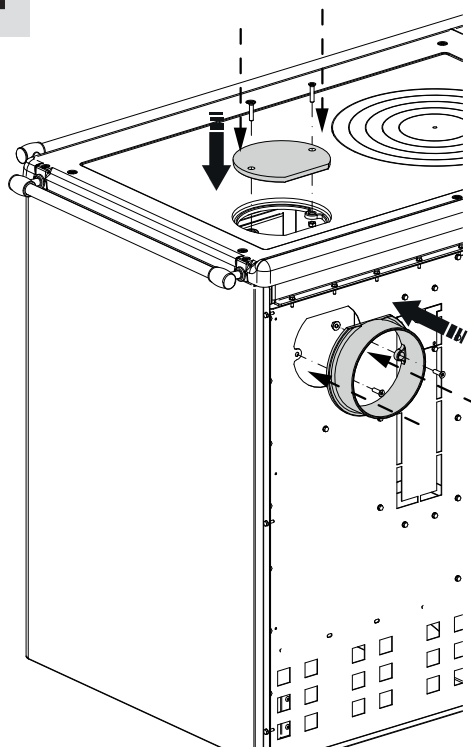
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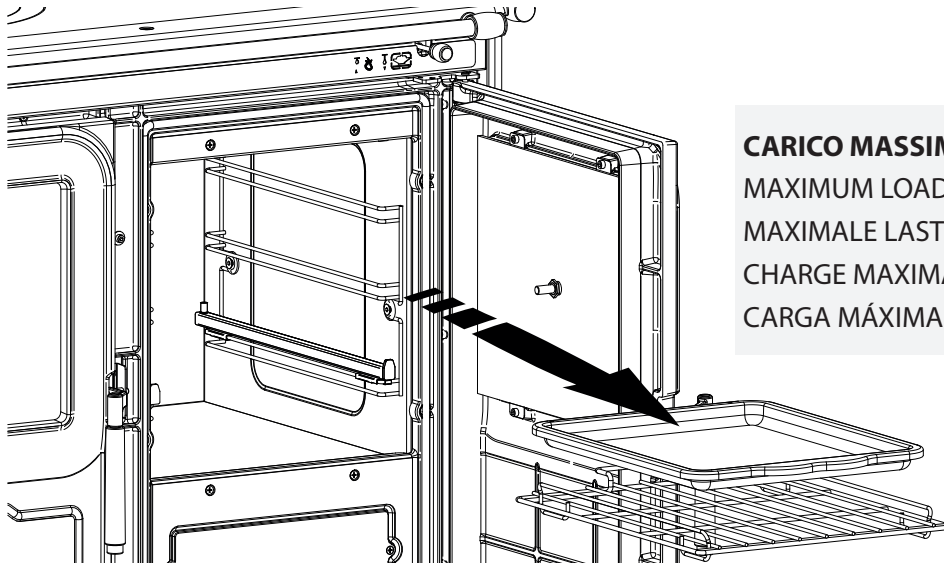


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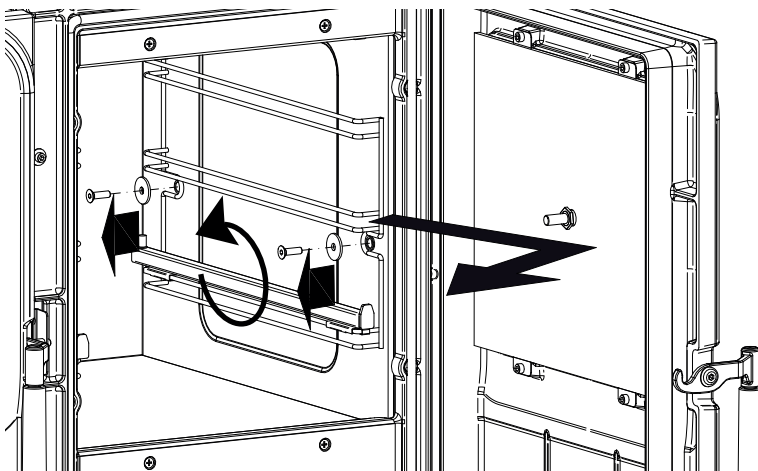
**GUIDE SCORRE VOLI PER GRIGLIA SCALDA VIVANDE - POSIZIONAMENTO**  
**SLIDING GUIDES FOR FOOD WARMER GRID - POSITIONING**  
**GLEITSCHIENEN FÜR GITTER DES WARMHALTEFACHS - POSITIONIERUNG**  
**GUIDES COULISSANTS POUR LA GRILLE DE CHAUFFE - PLAT - POSITIONNEMENT**  
**GUÍAS DESLIZANTES PARA REJILLA CALIENTAPLATOS - POSICIONAMIENTO**

**1**

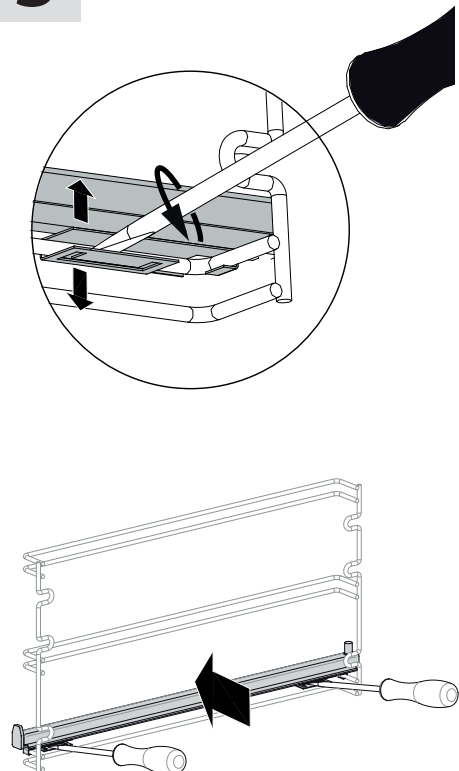


**CARICO MASSIMO 10 kg**  
 MAXIMUM LOAD 10 kg  
 MAXIMALE LAST 10 kg  
 CHARGE MAXIMALE 10 kg  
 CARGA MÁXIMA 10 kg

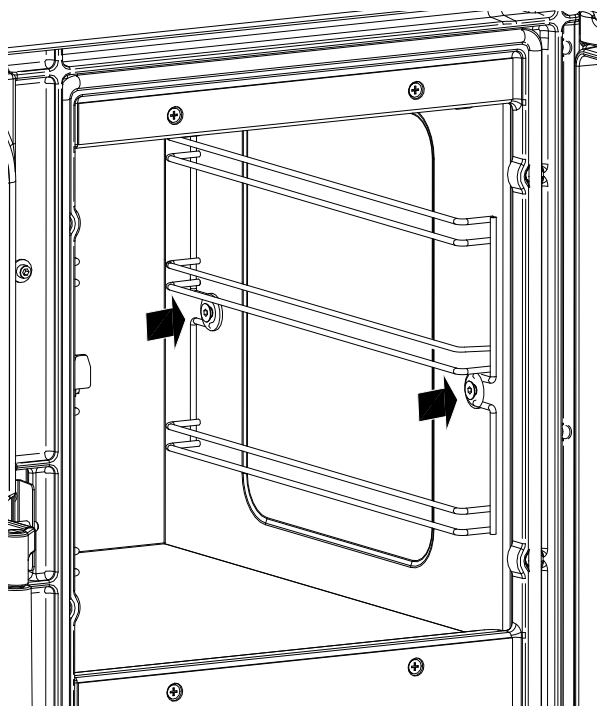
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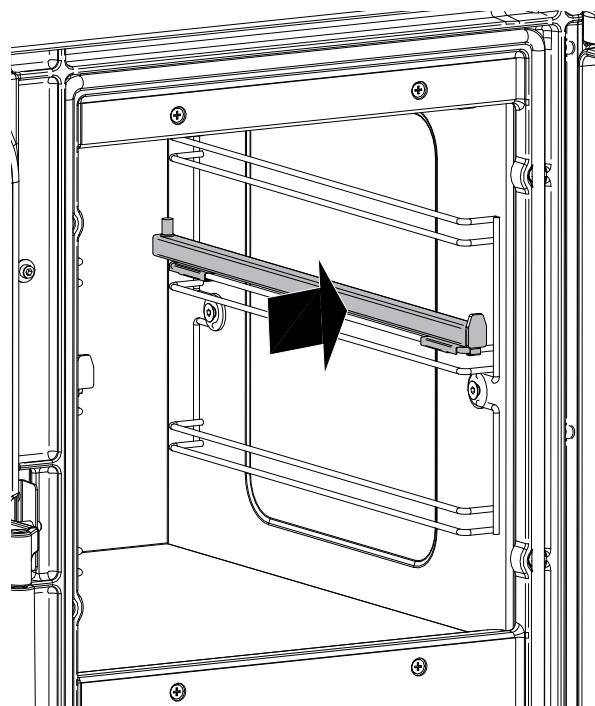
**3**



**4**

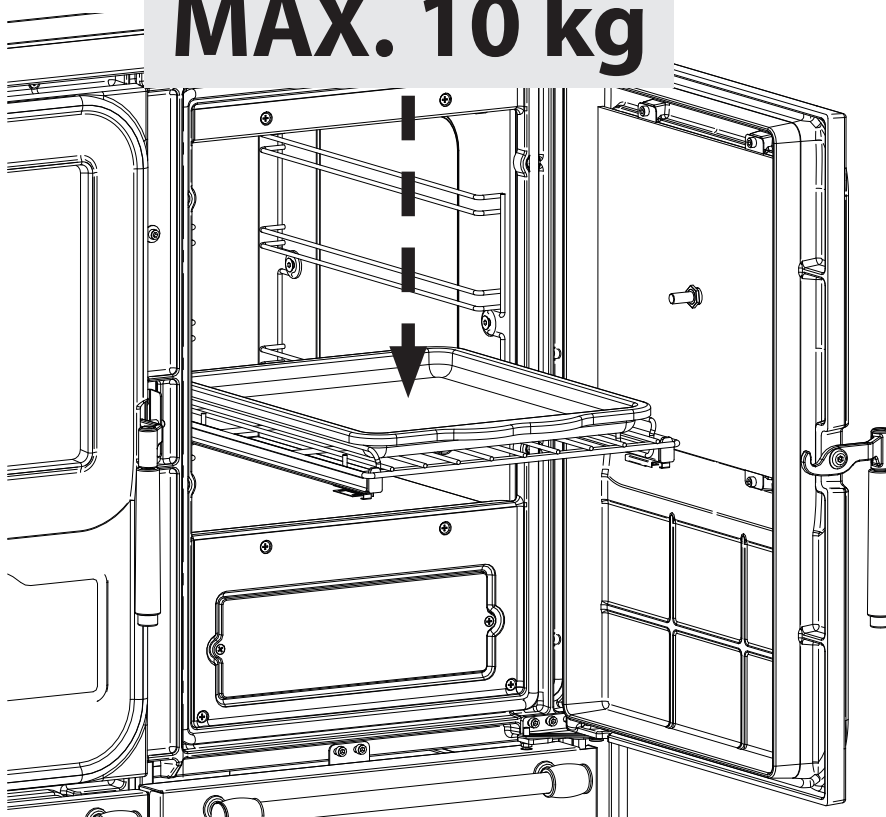


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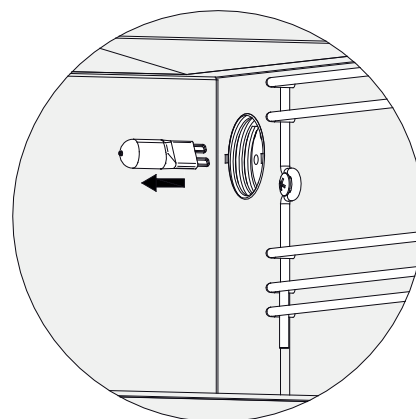
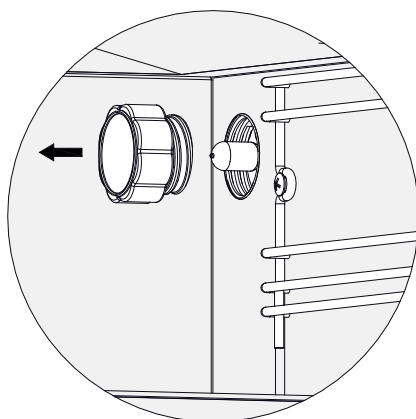
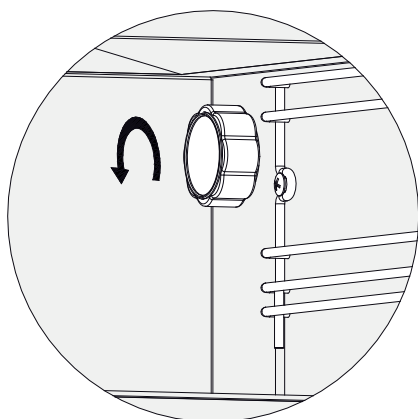
**6**

**MAX. 10 kg**

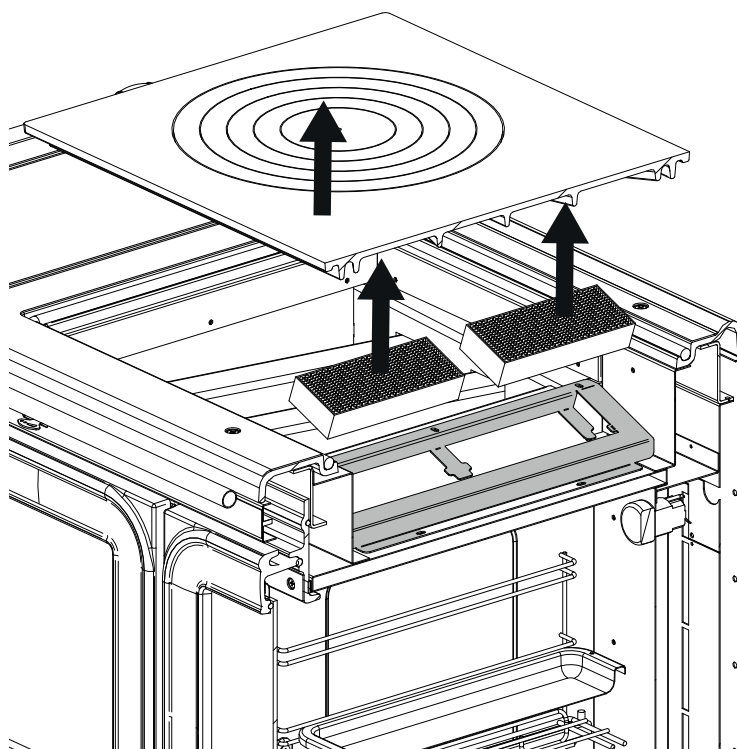


**SOSTITUZIONE LAMPADA SCALDAVIVANDE  
REPLACING THE FOOD WARMER LAMP  
REEMPLACEMENT DE LA LAMPE DU CHAUFFE-PLATS  
ERSATZ DER LAMPEN DES SPEISENWÄRMERS  
SUSTITUCIÓN DE LA LÁMPARA DEL CALENTADOR DE ALIMENTOS**

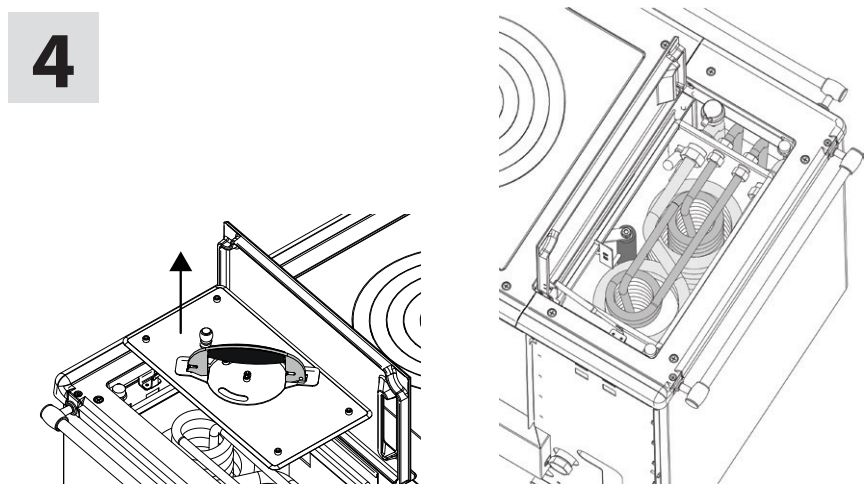
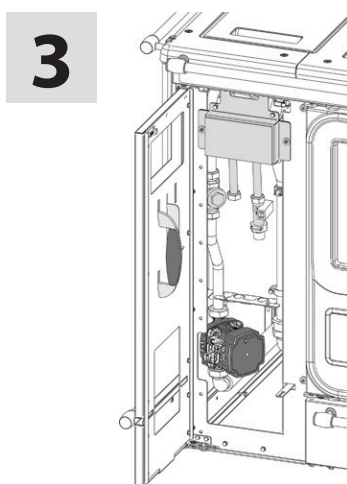
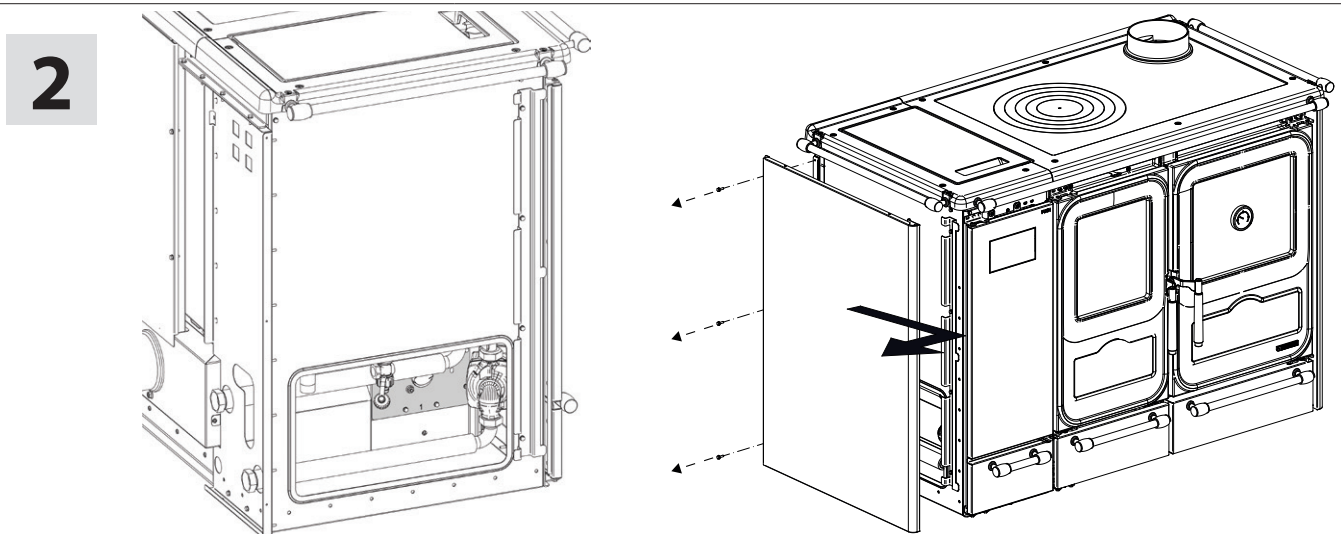
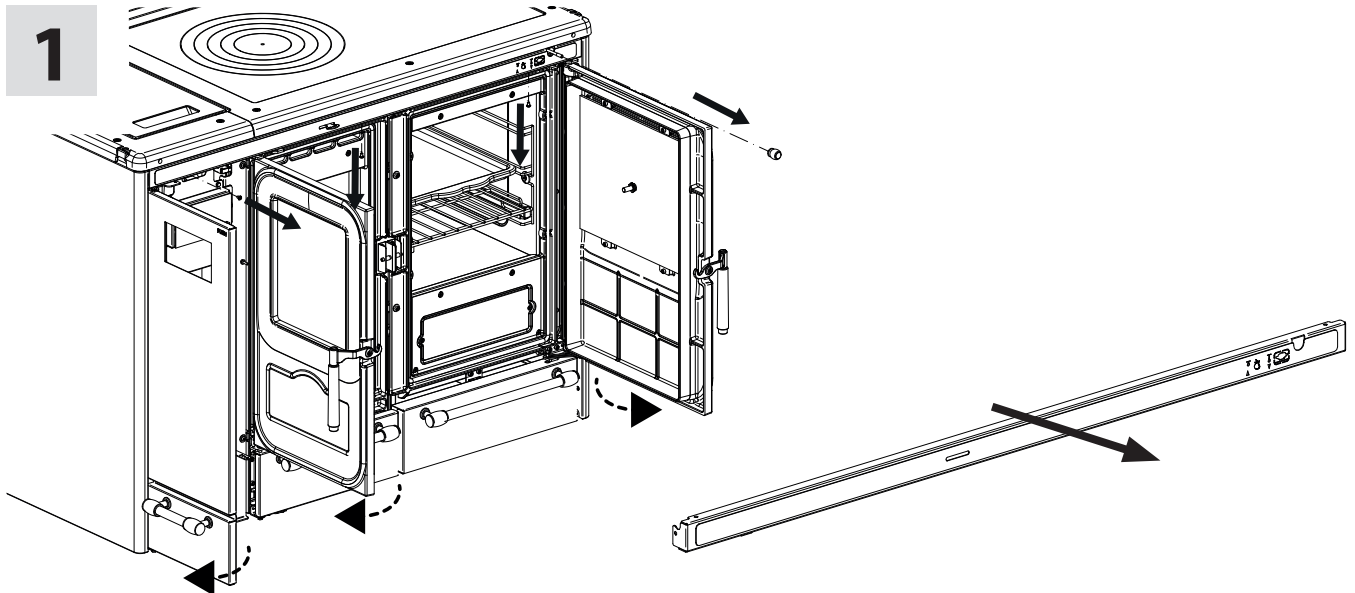
Lamp **G9**  
25W 230V



**PULIZIA FILTRI CATALITICI. CLEANING CATALYTIC FILTERS. NETTOYAGE DES  
FILTRES CATALYTIQUES. REINIGUNG VON KATALYSATORFILTERN. LIMPIEZA DE  
FILTROS CATALITICOS.**

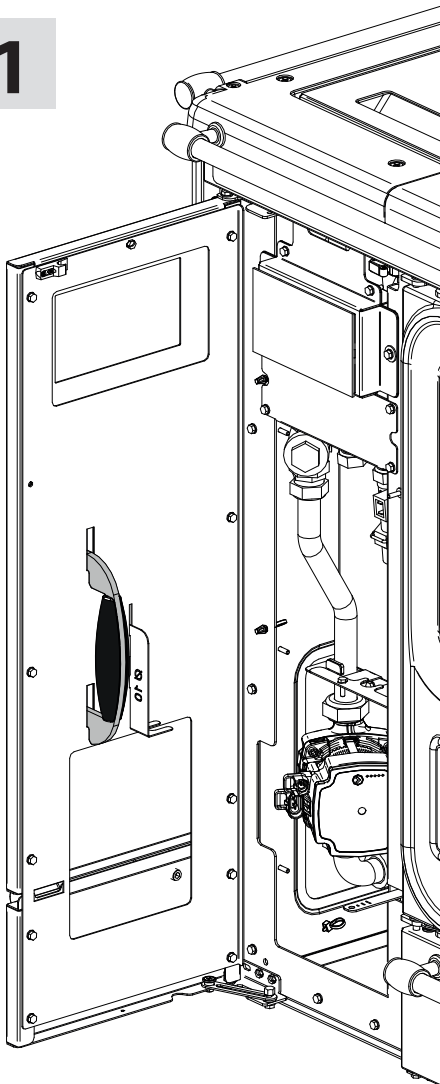


**COME ACCEDERE ALL'IMPIANTO IDRAULICO A BORDO MACCHINA**  
**HOW TO ACCESS THE HYDRAULIC SYSTEM ON THE MACHINE**  
**ZUGANG ZUR HYDRAULISCHEN ANLAGE AN BORD DER MASCHINE**  
**COMMENT ACCÉDER À L'INSTALLATION HYDRAULIQUE À BORD DE LA MACHINE**  
**CÓMO ACCEDER AL SISTEMA HIDRÁULICO EN LA MÁQUINA**

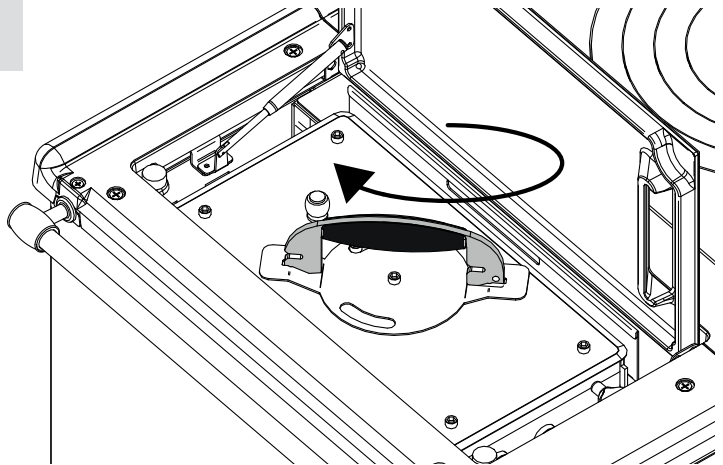


**VERIFICA STATO USURA ANODO. CHECK ANODE WEAR STATUS. ÜBERPRÜFUNG  
VERSCHLEISSZUSTAND ANODE. VÉRIFICATION DE L'ÉTAT D'USURE DE L'ANODE.  
COMPROBAR EL ESTADO DE DESGASTE DEL ÁNODO**

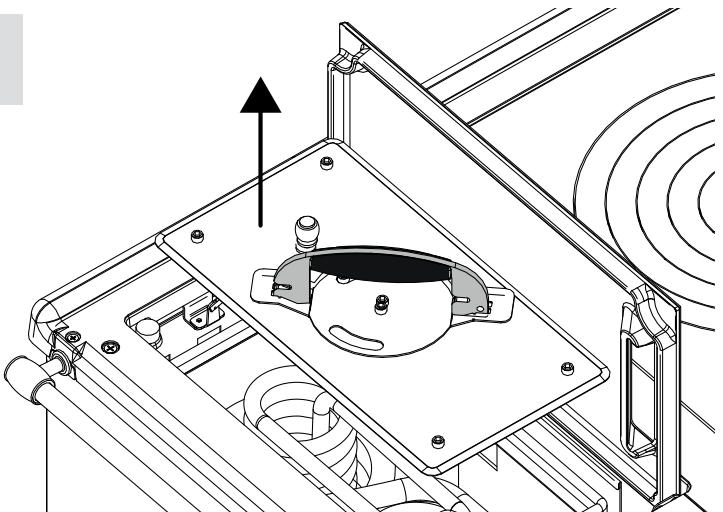
**1**



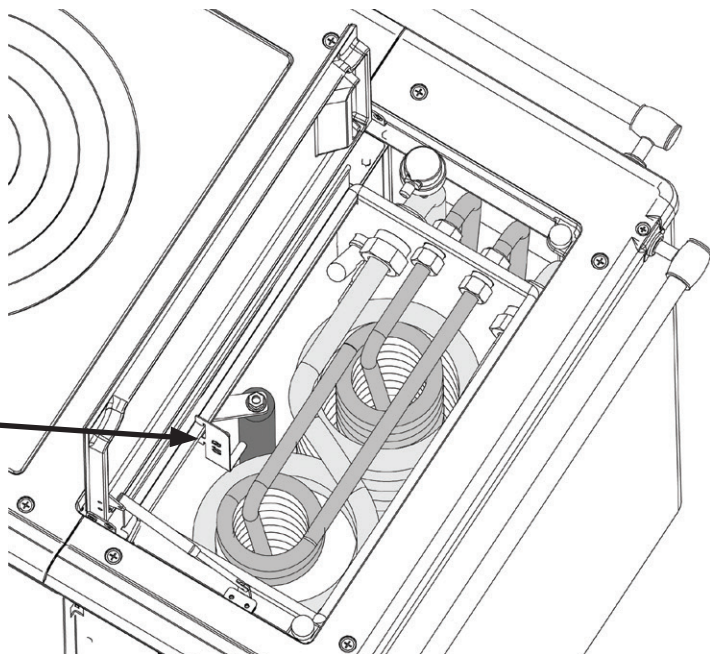
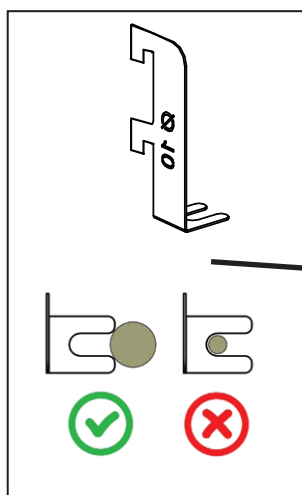
**2**



**3**



**4**



## MANUFACTURER'S DECLARATION OF CONFORMITY

### SUBJECT: ABSENCE OF ASBESTOS AND CADMIUM

IT IS HEREBY DECLARED THAT ALL APPLIANCES ARE ASSEMBLED USING MATERIALS THAT DO NOT CONTAIN ASBESTOS OR ASBESTOS DERIVATIVES AND THAT CADMIUM IS NOT PRESENT OR USED IN ANY FORM IN THE FILLER MATERIAL USED FOR WELDING, IN FULL COMPLIANCE WITH THE RELEVANT STANDARD.

## GENERAL NOTICES

**LA NORDICA S.p.A's LIABILITY IS LIMITED TO THE SUPPLY OF THE APPLIANCE.**

THE INSTALLATION MUST BE CARRIED OUT IN COMPLIANCE WITH INDUSTRY BEST PRACTICES, IN ACCORDANCE WITH THE PROVISIONS SET FORTH IN THESE INSTRUCTIONS AND PROFESSIONAL STANDARDS, BY QUALIFIED PERSONNEL ACTING ON BEHALF OF COMPANIES CAPABLE OF ASSUMING FULL RESPONSIBILITY FOR THE ENTIRE SYSTEM.

**LA NORDICA S.p.A. IS NOT RESPONSIBLE FOR ANY UNAUTHORISED MODIFICATIONS TO THE PRODUCT, NOR FOR THE USE OF NON-ORIGINAL SPARE PARTS.**

This appliance is not suitable for use by individuals (including children) with reduced physical, sensory or mental capabilities, or those lacking experience and knowledge, unless they are supervised and instructed in the use of the appliance by a responsible person ensuring their safety. Children must be supervised to ensure they do not play with the appliance (EN 60335-2-102 / 7.12).

**IT IS MANDATORY TO COMPLY WITH NATIONAL AND EUROPEAN STANDARDS, AS WELL AS LOCAL BUILDING REGULATIONS AND FIRE SAFETY REGULATIONS.**



**DO NOT PLACE FOOD DIRECTLY ON THE PRODUCT SURFACES OR ON THE ACCESSORIES SUPPLIED: ALWAYS PLACE SUITABLE MATERIALS FOR CONTACT WITH FOOD BETWEEN THE SURFACES AND THE FOOD.**



**NO MODIFICATIONS TO THE APPLIANCE ARE PERMITTED. LA NORDICA S.P.A. DISCLAIMS ALL LIABILITY FOR ANY FAILURE TO OBSERVE THESE PRECAUTIONS.**

THIS INSTRUCTION MANUAL FORMS AN INTEGRAL PART OF THE PRODUCT. ENSURE THAT IT REMAINS WITH THE APPLIANCE AT ALL TIMES, EVEN IN THE EVENT OF SALE, TRANSFER TO ANOTHER OWNER OR USER, OR RELOCATION TO ANOTHER PREMISES. IF IT IS LOST OR DAMAGED, REQUEST A REPLACEMENT FROM YOUR LOCAL TECHNICAL SERVICE PROVIDER. THIS PRODUCT MUST BE USED ONLY FOR ITS EXPRESSLY INTENDED PURPOSE. THE MANUFACTURER ACCEPTS NO CONTRACTUAL OR EXTRA-CONTRACTUAL LIABILITY FOR DAMAGES TO PERSONS, ANIMALS, OR PROPERTY CAUSED BY INCORRECT INSTALLATION, IMPROPER ADJUSTMENT OR MAINTENANCE, AND MISUSE OF THE APPLIANCE.

**INSTALLATION MUST BE CARRIED OUT BY QUALIFIED AND AUTHORISED PERSONNEL, WHO WILL ASSUME FULL RESPONSIBILITY FOR THE FINAL INSTALLATION AND PROPER OPERATION OF THE PRODUCT. ALL NATIONAL, REGIONAL, PROVINCIAL AND LOCAL LAWS AND REGULATIONS IN THE COUNTRY WHERE THE APPLIANCE IS INSTALLED, AS WELL AS THE INSTRUCTIONS IN THIS MANUAL, MUST BE CONSIDERED.**

**THE USE OF THE APPLIANCE MUST COMPLY WITH ALL LOCAL, REGIONAL, NATIONAL AND EUROPEAN REGULATIONS.**

**THE MANUFACTURER ACCEPTS NO LIABILITY IF THESE PRECAUTIONS ARE NOT FOLLOWED.**

AFTER UNPACKING, CHECK FOR ANY DAMAGE OR MISSING PARTS. IF THE APPLIANCE DOES NOT MEET EXPECTATIONS, CONTACT THE RETAILER WHERE IT WAS PURCHASED.

ALL ELECTRICAL COMPONENTS (WHERE PRESENT) COMPRISING THE PRODUCT, AND WHICH ARE ESSENTIAL FOR ITS PROPER FUNCTIONING, MUST ONLY BE REPLACED WITH ORIGINAL SPARE PARTS BY AN AUTHORISED TECHNICAL SERVICE CENTRE.

## SAFETY

- ♦ **THIS APPLIANCE MAY BE USED BY CHILDREN AGED 8 AND ABOVE, AS WELL AS INDIVIDUALS WITH REDUCED PHYSICAL, SENSORY OR MENTAL CAPABILITIES, OR THOSE WITHOUT EXPERIENCE OR KNOWLEDGE, PROVIDED THEY ARE SUPERVISED OR HAVE RECEIVED INSTRUCTIONS ON THE SAFE USE OF THE APPLIANCE AND**

**UNDERSTAND THE POTENTIAL HAZARDS. CHILDREN MUST BE SUPERVISED TO ENSURE THEY DO NOT PLAY WITH THE APPLIANCE. CLEANING AND MAINTENANCE INTENDED TO BE PERFORMED BY THE USER MUST NOT BE CARRIED OUT BY CHILDREN WITHOUT SUPERVISION.**

- ♦ **DO NOT TOUCH THE HEATER WITH BARE FEET OR WITH WET OR DAMP BODY PARTS.**
- ♦ **MODIFICATIONS TO THE APPLIANCE ARE STRICTLY PROHIBITED.**
- ♦ **DO NOT PULL, DISCONNECT OR TWIST THE ELECTRICAL CABLES PROTRUDING FROM THE APPLIANCE (IF PRESENT), EVEN WHEN THE UNIT IS UNPLUGGED.**
- ♦ **ENSURE THAT THE POWER CORD (IF PRESENT) IS POSITIONED SO THAT IT DOES NOT COME INTO CONTACT WITH HOT PARTS OF THE APPLIANCE.**
- ♦ **THE POWER PLUG MUST REMAIN ACCESSIBLE AFTER INSTALLATION.**
- ♦ **DO NOT CLOSE OR REDUCE THE SIZE OF THE AIRING VENTS IN THE INSTALLATION SITE, AS THESE ARE ESSENTIAL FOR PROPER COMBUSTION.**
- ♦ **DO NOT LEAVE PACKAGING ITEMS WITHIN REACH OF CHILDREN OR UNASSISTED INCAPACITATED PERSONS.**
- ♦ **THE COMBUSTION CHAMBER DOOR MUST ALWAYS REMAIN CLOSED DURING OPERATION AND SHOULD ONLY BE OPENED FOR FUEL LOADING, IGNITION AND CLEANING.**
- ♦ **WHEN THE APPLIANCE IS IN OPERATION, ALL EXTERNAL SURFACES BECOME HOT, THEREFORE, EXERCISE CAUTION**
- ♦ **BEFORE RESTARTING THE APPLIANCE AFTER A LONG PERIOD OF NON-USE, CHECK FOR OBSTRUCTIONS.**
- ♦ **IN THE EVENT OF A FLUE FIRE, USE APPROPRIATE FIRE SUPPRESSION METHODS OR CALL THE FIRE BRIGADE.**
- ♦ **THIS APPLIANCE MUST NOT BE USED AS A WASTE INCINERATOR**
- ♦ **NEVER USE PETROL, KEROSENE, LIGHTER FLUID, ETHANOL OR SIMILAR LIQUIDS TO START OR RESTART THE HEATER.**
- ♦ **MAJOLICA TILES (WHERE PRESENT) ARE HIGH-QUALITY HANDCRAFTED PRODUCTS AND MAY THEREFORE EXHIBIT MINOR SPECKLING, CRAZING OR SLIGHT COLOUR IMPERFECTIONS. THESE CHARACTERISTICS ATTEST TO ITS HIGH-QUALITY NATURE. DUE TO THE DIFFERENT EXPANSION COEFFICIENTS OF ENAMEL AND MAJOLICA, MICRO-CRACKS (CRAZING) MAY APPEAR, PROVING THEIR AUTHENTICITY. TO CLEAN MAJOLICA SURFACES, USE A SOFT, DRY CLOTH. IF ANY CLEANING AGENTS OR LIQUIDS ARE USED, THEY MAY PENETRATE THE MICRO-CRACKS, MAKING THEM MORE VISIBLE.**

## FIRE SAFETY

### MINIMUM CLEARANCES

Installation adjacent to combustible or heat-sensitive materials is permitted, **provided that suitable safety clearances are maintained**, as indicated in the CEMI (CE Marking Information), in the Declaration of Performance (DoP) and on the technical data plate affixed to the appliance.

**Note valid only for inserts and/or wood-fired fireplaces (EN 16510-2-2):** A copy of the technical data plate is also included in the documentation supplied with the appliance.

**ALL NATIONAL, REGIONAL, PROVINCIAL AND LOCAL LAWS AND REGULATIONS IN THE COUNTRY WHERE THE APPLIANCE IS INSTALLED, AS WELL AS THE INSTRUCTIONS IN THIS MANUAL, MUST BE CONSIDERED.**

DURING INSTALLATION, THE FOLLOWING SAFETY MEASURES MUST BE OBSERVED:

To ensure adequate thermal insulation, maintain the minimum safety distance at the rear ( $d_r$ ) and on both sides ( $d_s$ ) from flammable or heat-sensitive materials (e.g. furniture, wooden cladding, fabrics, etc.). **THESE DISTANCES MUST NOT FALL BELOW THE SPECIFIED VALUES;**

In front of the firebox door, within its radiation area, there must be no combustible or heat-sensitive objects or construction materials at a distance of less than  $d_p$ . This distance may be reduced to 400 mm if a rear-ventilated, heat-resistant protective screen is installed in front of the entire surface to be protected;

**IF THE PRODUCT IS INSTALLED ON A FLAMMABLE FLOOR** (such as carpet, parquet, cork, etc.), **THE FLOOR MUST BE PROTECTED WITH A NON-COMBUSTIBLE, HEAT-INSULATING MATERIAL.** The non-combustible, heat-insulating material must: cover the area beneath the appliance and extend forward by at least the distance specified as  $d_f$ ; sideward by at least the distance specified as  $d_s$ ; and rearward by at least the distance specified as  $d_r$ . These distances ensure effective and safe protection;

**ABOVE THE PRODUCT**, within the distance specified as  $d_c$ , **THERE MUST BE NO FLAMMABLE MATERIALS** (e.g. furniture, overhead cabinets);

**IF THE PRODUCT IS INSTALLED IN DIRECT CONTACT WITH A WALL MADE OF FLAMMABLE MATERIAL, THE AFFECTED SECTION OF THE WALL MUST BE PROTECTED WITH A LAYER OF NON-FLAMMABLE, HEAT-INSULATING MATERIAL.** The protection must cover the back part of the product and extend to the sides by at least the distance indicated as  $d_s$  and on the top by at least the distance indicated as  $d_c$ ;

For non-flammable materials, a minimum side and rear clearance must be maintained, as indicated by the distance marked  $d_{non}$ .

THE PRODUCT MUST OPERATE EXCLUSIVELY WITH THE ASH DRAWER INSERTED. THE SOLID COMBUSTION RESIDUE (ASHES) MUST BE COLLECTED IN AN AIRTIGHT, FIRE-RESISTANT CONTAINER. THE PRODUCT MUST NEVER BE IGNITED IN THE PRESENCE OF GASEOUS EMISSIONS OR VAPOURS (FOR EXAMPLE, LINOLEUM GLUE, PETROL, ETC.). DO NOT STORE FLAMMABLE MATERIALS NEAR THE PRODUCT.



**DURING COMBUSTION, THERMAL ENERGY IS RELEASED, CAUSING SIGNIFICANT HEATING OF THE SURFACES, DOORS, HANDLES, CONTROLS, GLASS, FLUE PIPE AND POTENTIALLY THE FRONT SECTION OF THE APPLIANCE. AVOID CONTACT WITH THESE COMPONENTS WITHOUT SUITABLE PROTECTIVE CLOTHING OR ACCESSORIES (HEAT-RESISTANT GLOVES, CONTROL DEVICES).**

**ENSURE THAT CHILDREN ARE AWARE OF THESE DANGERS AND KEEP THEM AWAY FROM THE FIREBOX DURING ITS OPERATION.**

WHEN USING INCORRECT OR OVERLY MOIST FUEL, TAR DEPOSITS (CREOSOTE) CAN FORM INSIDE THE FLUE, INCREASING THE RISK OF FIRE.

## IN CASE OF FAULTS

The steps to follow to safely switch off the appliance in the event of a malfunction are:

|                                                                |                                                                                                                                                                                               |
|----------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Broken glass door                                              | Discontinue use of the product and contact the authorised service centre                                                                                                                      |
| Overheating of certain parts of the appliance or the flue pipe | Immediately stop loading the firewood, do not open the door, close the air intake dampers until the fire extinguishes, contact the authorised service centre in case of repeated overheating. |

|                                        |                                                                                                                                      |
|----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|
| Broken internal baffles                | Discontinue use of the product and contact the authorised service centre                                                             |
| Weak and/or smothered flame            | Check the seals and ensure the firewood is not too damp, contact the authorised service centre                                       |
| In case of adverse weather conditions  | Monitor the combustion process                                                                                                       |
| Smoke escaping when the door is opened | Check the pressure difference between the rooms where the heater is installed and the outside; the value must always be $\geq -4$ Pa |

## FIRST-AID MEASURES

IF A FIRE OCCURS IN THE CONNECTION OR FLUE:

Close the loading door and the ash drawer.

## Close the combustion air dampers

Extinguish the fire using carbon dioxide (CO<sub>2</sub> powder) extinguishers

Immediately call the fire brigade



**DO NOT EXTINGUISH FIRE WITH WATER JETS.**

**WHEN THE FLUE STOPS BURNING, IT MUST BE INSPECTED BY A SPECIALIST TO IDENTIFY ANY CRACKS OR LEAKAGE POINTS.**

## INSTALLATION REGULATIONS

THE INSTALLATION OF THE PRODUCT AND ITS AUXILIARY EQUIPMENT RELATED TO THE HEATING SYSTEM, MUST COMPLY WITH ALL CURRENT STANDARDS AND REGULATIONS, AS WELL AS LEGAL REQUIREMENTS.

THE INSTALLATION, SYSTEM CONNECTIONS, COMMISSIONING AND OPERATIONAL TESTING MUST BE CARRIED OUT IN COMPLIANCE WITH BEST PRACTICES BY PROFESSIONAL, QUALIFIED PERSONNEL, ENSURING FULL ADHERENCE TO NATIONAL, REGIONAL, PROVINCIAL AND MUNICIPAL REGULATIONS IN THE COUNTRY WHERE THE APPLIANCE IS INSTALLED, AS WELL AS THESE INSTRUCTIONS.

THE INSTALLATION MUST BE CARRIED OUT BY AUTHORISED PERSONNEL, WHO MUST ISSUE THE PURCHASER WITH A DECLARATION OF CONFORMITY FOR THE SYSTEM, AND ASSUME FULL RESPONSIBILITY FOR THE FINAL INSTALLATION AND THE PROPER FUNCTIONING OF THE INSTALLED PRODUCT.



**CAUTION: UNDER NO CIRCUMSTANCES SHOULD THE HANDRAILS OR HANDLES BE USED TO MOVE OR LIFT THE PRODUCT.**

The Product is pre-assembled and ready for connection and must be connected via a duct to the pre-existing building flue. The duct should ideally be short, straight, horizontal or slightly inclined upwards. All connections must be airtight.

Before installation, perform the following checks:

- ♦ Hot air ducting (if present).
- ♦ Determine the type of ventilation (natural or forced – see chapter HOOD OR ADJACENT ROOM VENTILATION - if present)
- ♦ Check the load-bearing capacity of the structure to ensure it can support the weight of the appliance. If the load-bearing capacity is insufficient, appropriate measures must be taken. **LA NORDICA S.p.A.**'s responsibility is limited to supplying the appliance only (see technical data in the document "CE MARKING INFORMATION").
- ♦ Ensure that the floor can support the weight of the appliance; if made of flammable material, appropriate insulation must be provided.
- ♦ Check that the room where the appliance will be installed is suitably ventilated, paying attention in particular to airtight doors and windows (with sealing gaskets).
- ♦ AVOID INSTALLATION IN ROOMS WITH SHARED VENTILATION DUCTS, KITCHEN HOODS (WITH OR WITHOUT EXTRACTORS), TYPE B GAS APPLIANCES, HEAT PUMPS, OR ANY OTHER APPLIANCES WHOSE SIMULTANEOUS OPERATION COULD CREATE NEGATIVE PRESSURE IN THE ROOM (see **UNI 10683 Standard**). **Under all conditions, including the presence of extractor hoods and/or controlled forced ventilation systems, the pressure difference between the rooms where the heater is installed and the outside must always be  $\geq -4$  Pa (e.g. - 3 Pa is an acceptable value).**
- ♦ Check that the flue and pipes to which the appliance will be connected are suitable (see the technical data in the document "CE MARKING INFORMATION").
- ♦ The diameter of the opening for the connection to the chimney must at least correspond to the diameter of the flue pipe. The opening should be equipped with a wall connection for inserting the exhaust pipe and a rosette.
- ♦ The unused flue exhaust hole must be sealed with the appropriate cap (if present).
- ♦ The installation must allow access for cleaning and maintenance of both the product and the flue.
- ♦ Use a spirit level to ensure that the appliance is perfectly level, allowing for the proper movement of the door (if a sliding door is present). Adjust the levelling feet (if present).

### IMPORTANT:

- A) IT IS ADVISABLE TO INSTALL A RELIEF VALVE (MANUAL OR AUTOMATIC) TO ALLOW AIR TO BE BLED FROM THE SYSTEM.
- B) IN THE EVENT OF WATER LEAKS, SHUT OFF THE WATER SUPPLY AND PROMPTLY NOTIFY THE TECHNICAL SUPPORT SERVICE;
- C) THE SYSTEM OPERATING PRESSURE MUST BE PERIODICALLY CHECKED.
- D) IF THE BOILER IS NOT USED FOR A PROLONGED PERIOD, IT IS ADVISABLE FOR THE TECHNICAL SUPPORT SERVICE TO CARRY OUT AT LEAST THE FOLLOWING PROCEDURES: - SHUT OFF THE WATER TAPS FOR BOTH THE HEATING SYSTEM AND THE DOMESTIC WATER SUPPLY.



**LA NORDICA S.p.A. DISCLAIMS ALL LIABILITY FOR DAMAGE TO PROPERTY AND/OR PERSONS CAUSED BY THE INSTALLATION. FURTHERMORE, THE COMPANY IS NOT RESPONSIBLE FOR ANY UNAUTHORISED MODIFICATIONS TO THE PRODUCT, NOR FOR THE USE OF NON-ORIGINAL SPARE PARTS.**

## MAINTENANCE PROVISIONS

For non-routine maintenance of the product, it may be necessary to move it away from the adjacent walls. This procedure must be carried out by a qualified technician, authorised to disconnect and subsequently reconnect the exhaust ducts for combustion products. For heaters connected to a water system, the connection between the system and the product must be such as to allow a qualified technician to move the heater at least 1 metre away from adjacent walls during non-routine maintenance.

## VENTILATION AND AERATION OF THE INSTALLATION AREA

AS THESE PRODUCTS DRAW COMBUSTION AIR FROM THE INSTALLATION ROOM, IT IS **MANDATORY** TO ENSURE A SUFFICIENT SUPPLY OF FRESH AIR WITHIN THE ROOM ITSELF. IN THE CASE OF AIRTIGHT WINDOWS AND DOORS (E.G. ENERGY-EFFICIENT HOMES), THE SUPPLY OF FRESH AIR MAY NO LONGER BE GUARANTEED, WHICH CAN COMPROMISE THE APPLIANCE'S DRAUGHT, USER COMFORT AND SAFETY.

**IMPORTANT:** For improved air quality and proper oxygenation of the environment, combustion air can be drawn directly from the outside via a connection to a flexible hose. The connecting pipe (NOT supplied) must be smooth and have a minimum diameter as specified in **Figure 2**. Its maximum length must not exceed 3 m for STOVES and COOKERS and 4 m for FIREPLACES, with no more than three bends. If this hose is connected directly to the outside, it must be equipped with a windbreak.

**FOR PROPER OPERATION OF THE APPLIANCE, IT IS MANDATORY TO ENSURE AN ADEQUATE SUPPLY OF AIR IN THE INSTALLATION AREA, BOTH FOR COMBUSTION AND FOR RE-OXYGENATION OF THE ROOM.**

This means that, through dedicated openings communicating with the outside, combustion air must be able to circulate even when doors and windows are closed.

The air intakes must meet the following requirements:

- ♦ BE PROTECTED USING GRATES, WIRE MESH, ETC., WITHOUT REDUCING THE NET FREE SECTION;
- ♦ BE DESIGNED TO ALLOW FOR MAINTENANCE PROCEDURES;
- ♦ BE POSITIONED IN A WAY THAT PREVENTS OBSTRUCTION;
- ♦ IF THERE ARE INTAKE HOODS IN THE ROOM WHERE THE APPLIANCE IS INSTALLED, THEY MUST NOT BE OPERATED SIMULTANEOUSLY. These may cause smoke to escape into the room, even when the firebox door is closed.

Fresh, uncontaminated air intake can also be provided from an adjacent room (indirect ventilation and airing), provided the airflow is unobstructed through permanent openings connected to the outside.

THE ADJACENT ROOM MUST NOT BE USED AS A GARAGE, STORAGE AREA FOR COMBUSTIBLE MATERIALS, HIGH FIRE-RISK AREA, BATHROOM, BEDROOM OR SHARED/COMMON AREA OF THE BUILDING.

Ventilation is considered sufficient when the room is equipped with air intakes according to the table:

| Appliance categories | Reference standard | Percentage of the net opening section with respect to the flue gas section in the appliance | Minimum net opening size of the ventilation duct |
|----------------------|--------------------|---------------------------------------------------------------------------------------------|--------------------------------------------------|
| Fireplaces           | EN 16510-2-2       | 50 %                                                                                        | 200 cm <sup>2</sup>                              |
| Stoves               | EN 16510-2-1       | 50 %                                                                                        | 100 cm <sup>2</sup>                              |
| Cookers              | EN 16510-2-3       | 50 %                                                                                        | 100 cm <sup>2</sup>                              |



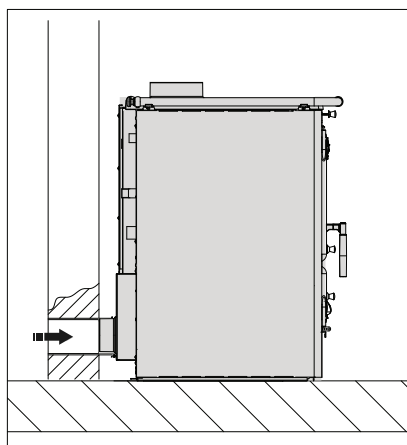
**INSTALLATION IS PROHIBITED IN ROOMS WITH A FIRE HAZARD. INSTALLATION IS ALSO PROHIBITED IN RESIDENTIAL ROOMS WHERE THE MEASURED PRESSURE DIFFERENCE BETWEEN THE INDOOR AND OUTDOOR ENVIRONMENT EXCEEDS 4 Pa – REFERENCE FOR ITALY ACCORDING TO UNI 10683 STANDARD.**

**UNDER ALL CONDITIONS, INCLUDING THE PRESENCE OF EXTRACTOR HOODS AND/OR CONTROLLED FORCED VENTILATION SYSTEMS, THE PRESSURE DIFFERENCE BETWEEN THE ROOMS WHERE THE HEATER IS INSTALLED AND THE OUTSIDE MUST ALWAYS BE  $\geq -4$  Pa (E.G. -3 Pa IS AN ACCEPTABLE VALUE).**

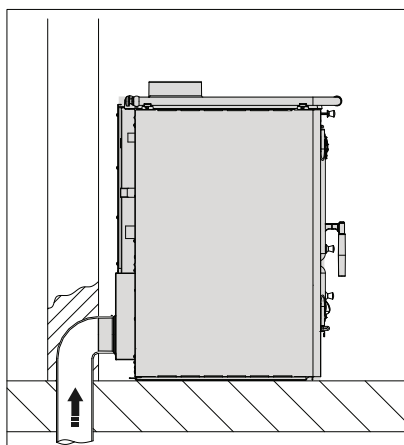
IT IS MANDATORY TO COMPLY WITH ALL NATIONAL, REGIONAL, PROVINCIAL AND LOCAL LAWS AND REGULATIONS IN THE COUNTRY WHERE THE APPLIANCE IS INSTALLED.

Figure 2

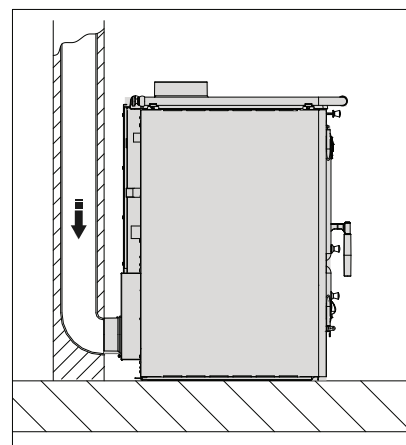
**FRESH AIR INTAKE**



Air supply from the rear  
Max. pipe length 3 m

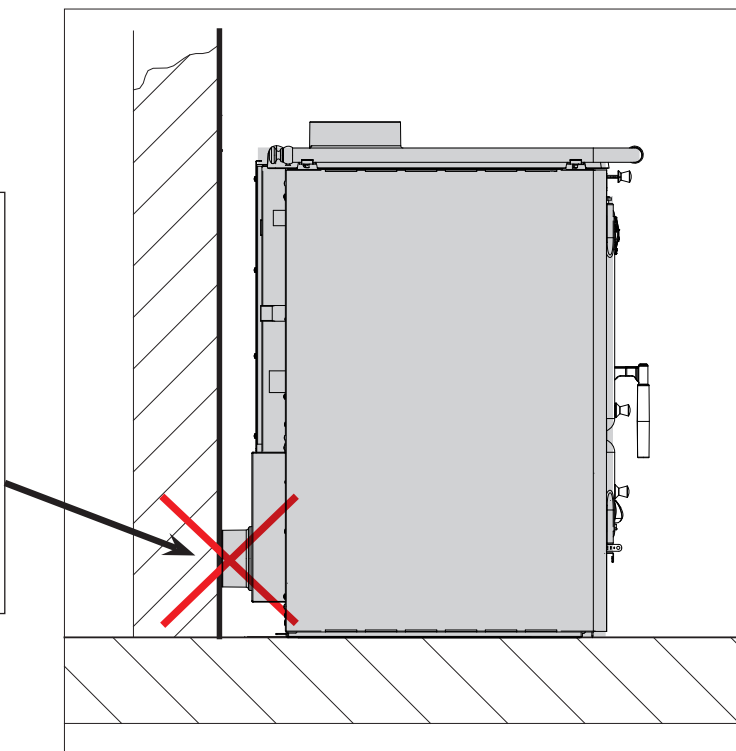
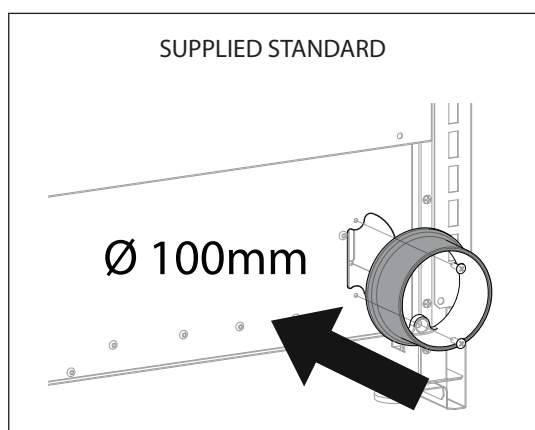


Air supply from below  
Max. pipe length 3 m



Air supply from above  
**ONLY with Certified System**

**FIREPROOF FLEXIBLE HOSE NOT SUPPLIED!**



**DO NOT PLACE THE STOVE AGAINST THE WALL WITH THE RING INSTALLED, OTHERWISE THE PRODUCT WILL NOT WORK.**

## SYSTEM CONNECTION AND FILLING

Indicative examples of the system layout are provided in the INSTALLATION DIAGRAM chapter, while the connections to the heating unit are shown in the DIMENSIONS chapter.



**CAUTION: SYSTEM FILLING MUST BE CARRIED OUT EXCLUSIVELY BY GRAVITY, ALLOWING WATER TO FLOW FROM THE OPEN EXPANSION VESSEL THROUGH THE FILLING PIPE. THIS PREVENTS EXCESSIVE MAINS WATER PRESSURE FROM DEFORMING OR EVEN RUPTURING THE BOILER BODY.**

During this process, open all radiator air vents to prevent the formation of air pockets, and monitor water outflow to avoid accidental flooding.

System pressure testing must be carried out with the open expansion vessel pressure.



**THE SYSTEM MUST BE KEPT CONSTANTLY FILLED WITH WATER, EVEN DURING PERIODS WHEN THE HEATING UNIT IS NOT IN USE. DURING THE WINTER PERIOD, ANY PROLONGED SHUTDOWN SHOULD BE MANAGED BY ADDING ANTIFREEZE SUBSTANCES ONLY INTO THE HEATING SYSTEM COIL AND NOT INTO THE TANK AND BOILER BODY.**

ON THE HEATING SYSTEM CIRCUIT (heating coil – see the DETAILS chapter), IT IS RECOMMENDED TO INSTALL AN OVERPRESSURE SAFETY VALVE SET TO **3 bar**, AND ON THE DOMESTIC HOT WATER HEATING CIRCUIT (domestic hot water coil – see the DETAILS chapter) AN OVERPRESSURE SAFETY VALVE SET TO **6 bar**.

Where large systems or storage tanks (boilers or puffers) are installed, it is essential to install a thermostatic bypass valve set to 55 °C, which operates as a bypass between the tank and the appliance. Alternatively, systems incorporating heat exchangers may be used. The use of a thermostatic bypass valve is recommended for all types of systems.

## ELECTRICAL CONNECTIONS

The electrical connection of the stove is required to supply power to the electronic control unit, the circulating pump and the food warmer light. **THE CONNECTION TO THE ELECTRICAL MAINS MUST BE MADE BY QUALIFIED PERSONNEL AND IN ACCORDANCE WITH THE APPLICABLE REGULATIONS. THE INSTALLER IS RESPONSIBLE FOR ENSURING A PROPER CONNECTION IN COMPLIANCE WITH SAFETY REGULATIONS.**



**CAUTION: THE CABLE MUST BE SUITABLY RATED FOR THE ELECTRICAL LOAD TO BE SUPPORTED AND MUST NOT COME INTO CONTACT WITH POINTS WHERE THE TEMPERATURE EXCEEDS 50 °C.**

### SAFETY REGULATIONS

Carefully read the safety notes set out below in order to prevent potential damage and risks to persons and property.

BEFORE CARRYING OUT ANY WORK ON THE SYSTEM, COMPLY WITH ACCIDENT-PREVENTION REGULATIONS, ENVIRONMENTAL PROTECTION REGULATIONS, THE REGULATIONS OF THE NATIONAL INSTITUTE FOR INSURANCE AGAINST ACCIDENTS AT WORK, AND ALL RECOGNISED SAFETY STANDARDS. THESE OPERATING INSTRUCTIONS ARE INTENDED EXCLUSIVELY FOR TECHNICAL PERSONNEL.

ALL ELECTRICAL WORK MUST BE CARRIED OUT ONLY BY QUALIFIED TECHNICIANS.

THE INITIAL COMMISSIONING OF THE SYSTEM MUST BE CARRIED OUT BY EXPERIENCED PERSONNEL, BY THE MANUFACTURER, OR BY A TECHNICIAN APPOINTED BY THE MANUFACTURER.

## CONTROL UNIT

### TECHNICAL SPECIFICATIONS - CONTROL UNIT

|                    |                                                                                                                  |
|--------------------|------------------------------------------------------------------------------------------------------------------|
| Power supply       | 230 Vac $\pm$ 10% ~50 Hz; Protective fuse T3, 15 A                                                               |
| Temperature probes | NTC sensor 10K@25°;<br>Operating limits 50°C/130°C Santoprene cable. Measuring limits: 0-99°C Accuracy $\pm$ 1°C |
| Outputs            | Contact rating: 5 A 250 Vac                                                                                      |
| Applied standards  | EN 60730-1 50081-1 EN 60730-1 50081-2                                                                            |

### OPERATING PRINCIPLE

The control unit manages the stove devices and, where present, external devices connected to the heating system. It measures the temperature of the boiler water and activates the connected devices when the programmed temperatures are reached.

The control unit also performs additional safety and control functions (see the CONTROL UNIT FUNCTIONS chapter).

**NOTE:** All factory default settings refer to the hydraulic layout shown in Diagram No. 1.

## CONTROL UNIT FUNCTIONS

The electronic control unit is primarily used to control the operation of the heating system and also incorporates several auxiliary safety and maintenance functions.

### PRIMARY FUNCTION

When the water temperature in the boiler exceeds the set value, the control unit activates the circulating pump of the heating system. When the temperature falls below the set value, the pump stops.

### SECONDARY FUNCTIONS

If the temperature exceeds the set values (**50°C** [THS101] T-Valve Enabling Thermostat; **45°C** [THS102] T-Boiler Integration Thermostat), the corresponding terminals (Diverter Valve; Boiler Integration) and any connected external devices are enabled, which are not necessarily essential to the normal operation of the stove.

### DOMESTIC HOT WATER FUNCTION

When domestic hot water production is requested, the circulating pump of the heating system stops in order to give priority to domestic hot water. The pump resumes operation when the temperature exceeds the value set as the safety limit.

### LEVEL SWITCH FUNCTION

If the water level in the boiler falls below the minimum level, an acoustic and visual alarm is activated. The display shows the flashing message **H2O** together with the flashing symbol  with a flashing exclamation mark (!). The alarm can be silenced for **5 minutes** by pressing any key. Water must be added to the tank to restore the correct level. **Alarm AL04 check the water level in the tank and top up to clear the alarm.**

### STANDBY FUNCTION

If the control unit is switched off and the temperature exceeds the safety value, the control unit is automatically activated and starts the pump.

### ANTI-ICE FUNCTION

When the temperature falls below the antifreeze safety value (preset at 3°C), the circulating pump operates intermittently (30 seconds). The display shows the flashing message **ICE** and a flashing exclamation mark (!) icon.

If the temperature is out of range on the low side, the display shows "**Low**" with the corresponding icon . **Alarm AL03.**

### PUMPS ANTI-BLOCK FUNCTION

After **96 hours** of inactivity, the circulating pump is activated for **30 seconds** to maintain system efficiency. The display shows the intermittent exclamation mark (!) and pump  icons.

### PUMP TEST FUNCTION

To activate the circulating pump test, press the P4 key for 2 seconds, then press and hold the P4 key for the entire duration of the test.

During the test, the pump icon  flashes on the display and the message "TEST P1" appears.

### FIREPLACE SAFETY FUNCTION

If the temperature exceeds the safety threshold (preset at 85°C), a flashing exclamation mark (!) icon appears on the display. **Alarm AL05.**

### ACOUSTIC ALARM FUNCTION

If the temperature continues to rise and exceeds the alarm threshold (factory preset at 90°C), in addition to the flashing exclamation mark (!) icon, the display shows the flashing message **HOT** and an acoustic warning is activated, which can be temporarily silenced (**5 minutes**) by pressing any key. **Alarm AL06 check the water level in the tank.**

If the temperature is out of range on the high side, the display shows "**High**" with the corresponding icon . **Alarm AL02.**

## USER FUNCTIONS

### SHOWER FUNCTION

This function is dedicated to the **SHOWER** function-related settings (Manual DHW Priority).

The function is enabled by pressing the P5 button:

- The display shows the duration of the domestic hot water priority (15 minutes, factory default);
- The P4 and P6 buttons can be used to increase/decrease the duration of the domestic hot water priority;
- Wait 5 seconds to save the programmed value and exit the setting.
- To exit without saving, press the P1 button.

For the entire duration of the activated shower function, the  'SHOWER' symbol appears on the display, giving priority to domestic hot water production depending on the system in use.

#### The function ends when:

- The set duration of the domestic hot water priority has elapsed;
- Or the P5 key is pressed again
- Or the temperature detected by Probe T1 exceeds the preset safety temperature (85°C, factory default).

### FOOD WARMER LIGHT FUNCTION

This function is dedicated to the FOOD WARMER LIGHT related settings.

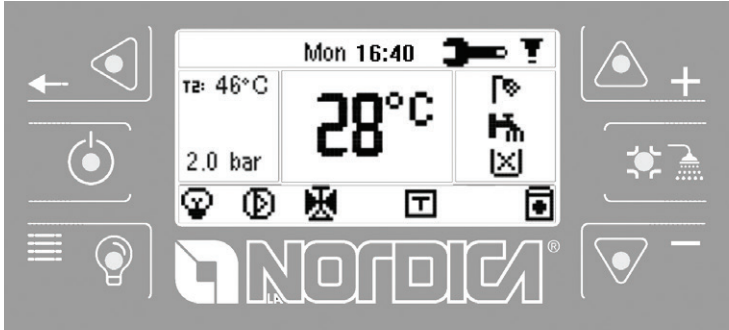
The function is enabled by pressing the P3 button:

- The corresponding  symbol appears on the display for the entire preset duration (**5 minutes**, factory default);

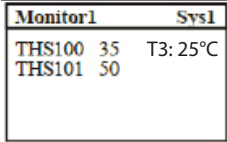
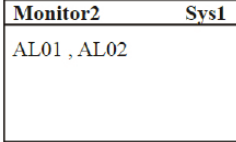
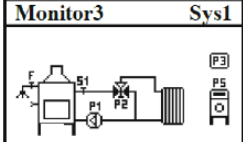
#### The function ends when:

- The factory preset duration has elapsed;
- The P3 key is pressed again;

## CONTROL PANEL

|                                    |    |                                                                                      |    |                                           |
|------------------------------------|----|--------------------------------------------------------------------------------------|----|-------------------------------------------|
| Grill Service ON/OFF<br>Close Menu | P1 |  | P4 | MONITOR/Scroll/<br>Increase<br>Pump1 Test |
| On/Off                             | P2 |                                                                                      | P5 | Shower button<br>Silence function         |
| Light button<br>Open Menu          | P3 |                                                                                      | P6 | MONITOR/Scroll/<br>Decrease<br>Pump2 Test |

|                                                                                     |                                                        |                                                                                     |                                           |                                                                                       |                         |
|-------------------------------------------------------------------------------------|--------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------|---------------------------------------------------------------------------------------|-------------------------|
| T2                                                                                  | Temperature Probe T2                                   | 28°C                                                                                | Temperature Probe T1                      |  | Boiler Integration: OFF |
|  | Pump:<br>ON if flashing                                |  | Flow Switch Open                          |  | Boiler Integration: ON  |
|  | Level Switch: flashes<br>if there is no water/material |  | Flow Switch Closed                        |  | Shower function Enabled |
|  | Valve:<br>Direct Flow                                  |  | Service P3 = Thermostat<br>ON if flashing |  | Light Enabled           |
|  | Valve:<br>Flow Diverted                                | 2.0 bar                                                                             | Water Pressure                            |  | Alarm                   |

| P4                                                          | Main Settings                                                                     | Active alarms                                                                      | System Diagram in use                                                               |
|-------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Press the P4 button to access the secondary screen displays |  |  |  |

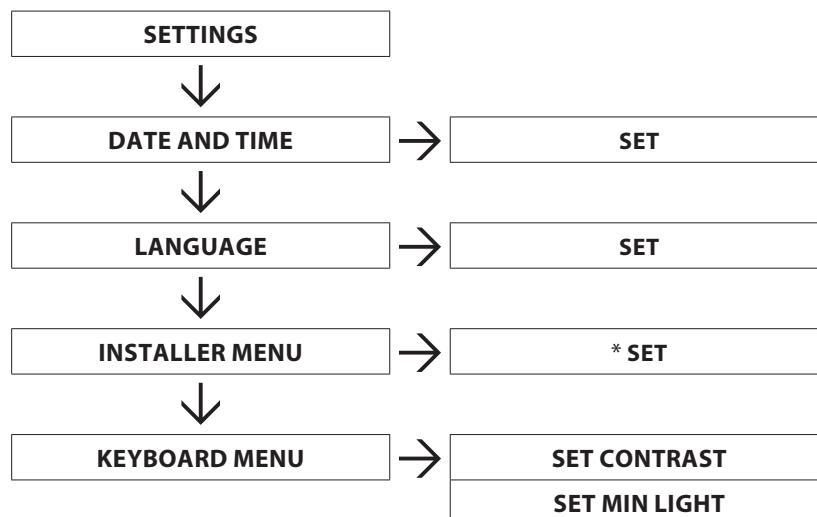
| Main screen                                                                              | MONITOR 2 | Description                             | Action                                                                       |
|------------------------------------------------------------------------------------------|-----------|-----------------------------------------|------------------------------------------------------------------------------|
| Low +   | AL01      | Probe reading out of range on low side  | ♦ Check the Probe and its proper connection                                  |
| High +  | AL02      | Probe reading out of range on high side | ♦ Check the Probe and its proper connection                                  |
| ICE +   | AL03      | ANTI-ICE function enabled               | ♦ No action                                                                  |
| H2O +   | AL04      | Level Switch function                   | ♦ Check the water level in the tank and top up to clear the alarm            |
|         | AL05      | Safety function enabled                 | ♦ No action                                                                  |
| HOT +   | AL06      | Overtemperature Probe T1 alarm          | ♦ Reduce the flame level<br>♦ Check the water level in the tank              |
|        | AL07      | Pressure alarm below the Minimum Value  | ♦ Check for Pressure losses<br>♦ Check the minimum pressure value set THS500 |
|       | AL08      | Pressure alarm above the Maximum Value  | ♦ Check the maximum pressure value set THS501                                |

## MAIN MENU

### ON/OFF

The control unit is switched **On/Off** by pressing and holding the **P2** button. When switched OFF, the display shows "OFF". Press and hold the **P3** key to open the **MAIN MENU**

- ♦ Use P4 and P6 to select the desired item
- ♦ Use P3 to confirm
- ♦ Use keys P4 and P6 to select/modify
- ♦ Use P3 to confirm
- ♦ Use P1 to return to the previous step



\* RESERVED FOR TECHNICIANS

| MAIN MENU      |                                                                                         |
|----------------|-----------------------------------------------------------------------------------------|
| SETTINGS **    | Parameter/Thermostat settings                                                           |
| DATE AND TIME  | Date and Time setting                                                                   |
| LANGUAGE       | Language setting (Italian- English- German- French- Spanish- Portuguese- Dutch)         |
| INSTALLER MENU | Menu with Password-Protected Access (RESERVED FOR TECHNICIANS)                          |
| KEYBOARD MENU  | LCD Display adjustments (set contrast to 15 (0–30) and minimum brightness to 20 (0–20)) |

\*\* CHANGES TO THE CONTROL UNIT SETTINGS ARE TO BE MADE EXCLUSIVELY BY AUTHORISED PERSONNEL. IT IS RECOMMENDED NOT TO MODIFY THE FACTORY DEFAULT VALUES UNLESS STRICTLY NECESSARY FOR THE CORRECT OPERATION OF THE HEATING SYSTEM.

| SETTINGS                 |                                               |                 |     |         |     |
|--------------------------|-----------------------------------------------|-----------------|-----|---------|-----|
| DISPLAYED PARAMETERS *** | DESCRIPTION                                   | Unit of measure | MIN | FACTORY | MAX |
| T-LIGHT                  | TIM008: Light enabling time                   | min             | 0   | 5       | 120 |
| T-PUMP1                  | THS100: T-Pump1 Enabling Thermostat           | °C              | 20  | 60      | 90  |
| T-PUMP2                  | THS105: T-PUMP2 Enabling Thermostat           | °C              | 20  | 50      | 90  |
| T-VALVE                  | THS101: Diverter T-Valve Enabling Thermostat  | °C              | 20  | 50      | 90  |
| T-SANITARY BOILER        | THS201: T-Sanitary Boiler Thermostat on T2    | °C              | 20  | 50      | 90  |
| T-BOILER INTEGRATION     | THS102: T-Boiler Integration Thermostat       | °C              | 20  | 45      | 90  |
| T-PUFFER INTEGRATION     | THS202: T-Puffer Integration Thermostat on T2 | °C              | 20  | 50      | 90  |
| T-SERVICE                | THS104: T-Service Enabling Thermostat         | °C              | 20  | 75      | 90  |
| T-DIFFERENTIAL S1-S2     | THD120: T-Differential Thermostat (T1-T2)     | °C              | 0   | 5       | 20  |

\*\*\* items displayed in the **SETTINGS** menu vary depending on the type of hydraulic system selected (diagram No.1-5).

## CONTROL UNIT ELECTRICAL CONNECTIONS



CAUTION! BEFORE MAKING ANY CHANGES TO THE ELECTRICAL SYSTEM OF THE STOVE OR TO THE CONNECTIONS OF THE CONTROL UNIT AND CIRCULATING PUMP, THE APPLIANCE MUST BE DISCONNECTED FROM THE ELECTRICAL MAINS.

The electronic control unit of the stove is supplied ready for use. Additional connections may be required to control external devices, such as a second heat generator, to be connected via P3 terminals with volt-free contacts (normally closed or normally open).

|         | Abbreviation | Terminals    | Device                                                | Specifications                                                                     |
|---------|--------------|--------------|-------------------------------------------------------|------------------------------------------------------------------------------------|
| INPUTS  | LINE         | 1-2          | Mains Power Supply                                    | 230 Vac 50 Hz $\pm$ 10%                                                            |
|         | T1           | 18 – 19      | Fireplace Temperature Probe                           | NTC10K; Operating Range:-50÷125 °C<br>Measurement Range: 0 ÷ 110 °C $\pm$ 1°C      |
|         | T2           | 20 – 21      | Boiler / Puffer Temperature Probe                     | NTC10K; Operating Range:-50÷125 °C<br>Measurement Range: 0 ÷ 110 °C $\pm$ 1°C      |
|         | T3           | 22 – 23      | System Flow Water Temperature Probe                   | NTC10K; Operating Range:-50÷80 °C<br>Measurement Range: 0 ÷ 110 °C $\pm$ 1°C       |
|         |              |              | Room Thermostat ON/OFF                                | ON/OFF contact                                                                     |
|         | FLUX/T4      | 24 – 25      | Flow Switch Enable                                    | ON/OFF contact                                                                     |
| OUTPUTS | IN PR        | 26 - 29 - 31 | Pressure sensor                                       | Signal 0 ÷ 3/5 Vdc<br>Measurement Range: 0.1 ÷ 3 bar                               |
|         | P1           | 3 – 4        | Pump 1                                                | 230 Vac 150W Max                                                                   |
|         | P2           | 5 – 6 – 7    | Pump 2 / Diverter Valve                               | 230 Vac 150W Max                                                                   |
|         | P3           | 8 – 9        | Service = Thermostat                                  | 230 Vac 150W Max                                                                   |
|         | P4           | 11 – 12      | - not used -                                          | 230 Vac 150W Max                                                                   |
|         | P5           | 13 – 14 – 15 | Auxiliary Boiler Integration Enable<br>Diverter Valve | Volt-free changeover contacts:<br>COM. (Diverter Valve 14) - N.O. (13) - N.C. (15) |
|         | P6           | 10 - 11      | Food warmer light                                     | 230 Vac 150W Max                                                                   |



All control Outputs and probe Inputs are automatically managed according to the selected System type/layout.  
For electrical connections, it is therefore **MANDATORY** to refer to the relevant chapter and the following sections of the Hydraulic System Diagrams.

### 3-WAY VALVE CONNECTION

For systems that use two heat generators for domestic hot water production, a 3-way valve can be installed, controlled by the control unit and powered by the dedicated terminals. The valve power supply can be configured in either the ON or OFF state.

## CONNECTION TO ANOTHER HEAT GENERATOR

If there is a second heat generator, it must be connected to the dedicated terminals of the control unit, if necessary via a room thermostat. Remove the front panel and the cable ties of the electrical wires to access the terminals.

[illegible]

## INSTALLATION DIAGRAM

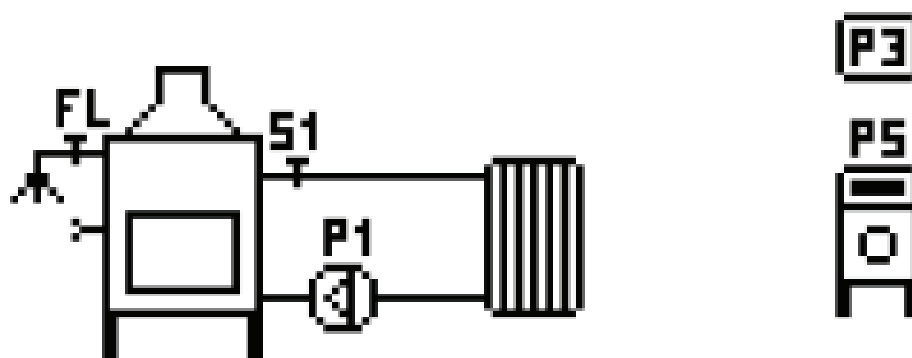
Our responsibility is limited solely to the supply of the appliance. Your system must be installed in a workmanlike manner, in full compliance with the instructions contained herein and with professional standards, by qualified personnel acting on behalf of companies able to assume full responsibility for the installation, as specified in the INSTALLATION REGULATIONS chapter.

The diagrams are purely indicative, therefore they do not have design value. Under the law, this documentation is strictly confidential and reserved. Its reproduction, use or disclosure to third parties is prohibited. Any disclosure without the prior authorisation of LA NORDICA S.p.A. will be subject to the penalties provided by law.

ALL FACTORY PRESET PARAMETERS IN THE CONTROL UNIT REFER TO THE HYDRAULIC SYSTEM TYPE SHOWN IN **DIAGRAM No. 1**.

**DIAGRAM No.1** - Connection of the stove to a direct heating system + instantaneous DHW (domestic hot water) system.

| Name                              | Abbreviation | Terminals    |
|-----------------------------------|--------------|--------------|
| Pump1                             | P1           | 3 - 4        |
| Service                           | P3           | 8 - 9        |
| Boiler Integration                | P5           | 13 - 14 - 15 |
| Food warmer light                 | P6           | 10 - 11      |
| Level Switch                      | Lvl          | 16 - 17      |
| Fireplace Probe - S1              | T1           | 18 - 19      |
| Flow Water Temperature Probe - S3 | T3           | 22 - 23      |
| Flow switch                       | FL           | 24 - 25      |
| Pressure Sensor                   | -            | 26 - 29 - 31 |

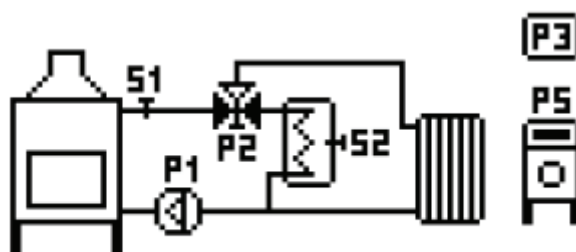


| USER MENU Parameters |                                 |    |      |      |     |
|----------------------|---------------------------------|----|------|------|-----|
| Code                 | Description                     | U. | Min. | Def. | Max |
| THS100               | T-Pump1 Enabling Thermostat     | °C | 20   | 60   | 90  |
| THS102               | T-Boiler Integration Thermostat | °C | 20   | 45   | 90  |
| THS104               | T-Service Enabling Thermostat   | °C | 20   | 75   | 90  |
| THS300               | T-Room Thermostat               | °C | 5    | 20   | 50  |

| Operating Principle                   |                                        |                          |        |        |
|---------------------------------------|----------------------------------------|--------------------------|--------|--------|
| T1                                    | Controls                               | Management               | Status | Output |
| T1 < 3° [THS107]                      |                                        | Anti-Ice                 | ON     | P1     |
| 3° < T1 < 60° [THS107 < T1 < THS100]  |                                        | Fireplace Off            | OFF    |        |
| 30° < T1 < 60° [THS100 < T1 < THS108] | FL= Open <b>and</b> Shower not Enabled | Heating                  | ON     |        |
|                                       | FL= Closed <b>or</b> Shower Enabled    | DHW                      | OFF    |        |
| T1 > 85° [THS108]                     |                                        | Safety                   | ON     |        |
| T1 > 45° [THS102]                     |                                        | Integration 14 - 15 OPEN | OFF    | P5     |

DIAGRAM No.2 - Connection of the stove to a direct heating system + DHW (domestic hot water) system with storage via a 3-way valve (NO DHW coil).

| Name                              | Abbreviation | Terminals    |
|-----------------------------------|--------------|--------------|
| Pump1                             | P1           | 3 - 4        |
| Diverter Valve                    | P2           | 5 - 6 - 7    |
| Service                           | P3           | 8 - 9        |
| Boiler Integration                | P5           | 13 - 14 - 15 |
| Food warmer light                 | P6           | 10 - 11      |
| Level Switch                      | Lvl          | 16 - 17      |
| Fireplace Probe - S1              | T1           | 18 - 19      |
| DHW Boiler Probe - S2             | T2           | 20 - 21      |
| Flow Water Temperature Probe - S3 | T3           | 22 - 23      |
| Pressure Sensor                   | -            | 26 - 29 - 31 |

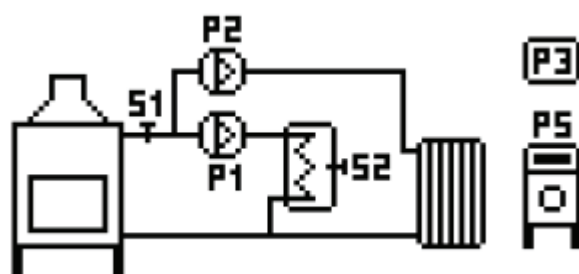


| USER MENU Parameters |                                      |    |      |      |     |
|----------------------|--------------------------------------|----|------|------|-----|
| Code                 | Description                          | U. | Min. | Def. | Max |
| THS100               | T-Pump1 Enabling Thermostat          | °C | 20   | 60   | 90  |
| THS101               | Diverter T-Valve Enabling Thermostat | °C | 20   | 50   | 90  |
| THS201               | T-Sanitary Boiler Thermostat on T2   | °C | 20   | 50   | 90  |
| THS102               | T-Boiler Integration Thermostat      | °C | 20   | 45   | 90  |
| THS104               | T-Service Enabling Thermostat        | °C | 20   | 75   | 90  |
| THD120               | T-Differential Thermostat Δ (T1-T2)  | °C | 0    | 5    | 20  |
| THS300               | T-Room Thermostat                    | °C | 5    | 20   | 50  |

| Operating Principle                      |                   |                 |                          |     |            |
|------------------------------------------|-------------------|-----------------|--------------------------|-----|------------|
| T1                                       | T2                | Δ (T1-T2)       | Management               | P1  | P2         |
| T1 < 3° [THS107]                         |                   |                 | Anti-Ice                 | ON  | OFF        |
| 3° < T1 < 60°<br>[THS107 < T1 < THS100]  |                   |                 | Fireplace<br>Off         | OFF | OFF        |
| 60° < T1 < 50°<br>[THS100 < T1 < THS101] | T2 < 50° [THS201] | Δ < 5° [THD120] |                          | OFF | OFF        |
|                                          | T2 > 50° [THS201] | Δ > 5° [THD120] | DHW                      | ON  | OFF        |
| 50° < T1 < 85°<br>[THS101 < T1 < THS108] | T2 < 50° [THS201] | Δ < 5° [THD120] | Priority<br>DHW          | OFF | OFF        |
|                                          | T2 > 50° [THS201] | Δ > 5° [THD120] |                          | ON  | OFF        |
| T1 > 85° [THS108]                        |                   |                 | Heating                  | ON  | ON         |
| T1 > 45° [THS102]                        |                   |                 | Safety                   | ON  | ON         |
|                                          |                   |                 | Integration 14 - 15 OPEN | OFF | <b>P15</b> |

DIAGRAM No.3 - Connection of the stove to a direct heating system + DHW (domestic hot water) system with storage via a dedicated pump (NO DHW coil).

| Name                              | Abbreviation | Terminals    |
|-----------------------------------|--------------|--------------|
| Pump1                             | P1           | 3 - 4        |
| Pump2                             | P2           | 5 - 6 - 7    |
| Service                           | P3           | 8 - 9        |
| Boiler Integration                | P5           | 13 - 14 - 15 |
| Food warmer light                 | P6           | 10 - 11      |
| Level Switch                      | Lvl          | 16 - 17      |
| Fireplace Probe - S1              | T1           | 18 - 19      |
| DHW Boiler Probe - S2             | T2           | 20 - 21      |
| Flow Water Temperature Probe - S3 | T3           | 22 - 23      |
| Pressure Sensor                   | -            | 26 - 29 - 31 |



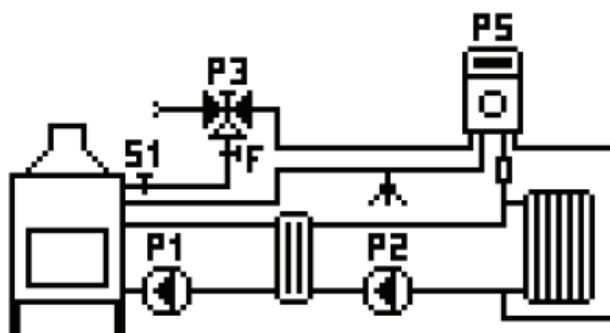
| USER MENU Parameters |                                     |    |      |      |     |
|----------------------|-------------------------------------|----|------|------|-----|
| Code                 | Description                         | U. | Min. | Def. | Max |
| THS100               | T-Pump1 Enabling Thermostat         | °C | 20   | 60   | 90  |
| THS105               | T-Pump2 Enabling Thermostat         | °C | 20   | 50   | 90  |
| THS201               | T-Sanitary Boiler Thermostat on T2  | °C | 20   | 50   | 90  |
| THS102               | T-Boiler Integration Thermostat     | °C | 20   | 45   | 90  |
| THS104               | T-Service Enabling Thermostat       | °C | 20   | 75   | 90  |
| THD120               | T-Differential Thermostat Δ (T1-T2) | °C | 0    | 5    | 20  |
| THS300               | T-Room Thermostat                   | °C | 5    | 20   | 50  |

| Operating Principle                      |                   |                 |                          |     |     |
|------------------------------------------|-------------------|-----------------|--------------------------|-----|-----|
| T1                                       | T2                | Δ (T1-T2)       | Management               | P1  | P2  |
| T1 < 3° [THS107]                         |                   |                 | Anti-Ice                 | ON  | OFF |
| 3° < T1 < 60°<br>[THS107 < T1 < THS100]  |                   |                 | Fireplace<br>Off         | OFF | OFF |
| 60° < T1 < 50°<br>[THS100 < T1 < THS101] | T2 < 50° [THS201] | Δ < 5° [THD120] |                          | OFF | OFF |
|                                          | T2 > 50° [THS201] | Δ > 5° [THD120] | DHW                      | ON  | OFF |
| 50° < T1 < 85°<br>[THS101 < T1 < THS108] | T2 < 50° [THS201] | Δ < 5° [THD120] | Priority<br>DHW          | OFF | OFF |
|                                          | T2 > 50° [THS201] | Δ > 5° [THD120] |                          | ON  | OFF |
| T1 > 85° [THS108]                        |                   |                 | Heating                  | OFF | ON  |
|                                          |                   |                 | Safety                   | ON  | ON  |
| T1 > 45° [THS102]                        |                   |                 | Integration 14 - 15 OPEN | OFF | P5  |



DIAGRAM No.5 - Connection of the stove to a system with hydraulic separator and another generator for heating + instantaneous DHW (domestic hot water) system.

| Name                              | Abbreviation | Terminals    |
|-----------------------------------|--------------|--------------|
| Pump1                             | P1           | 3 - 4        |
| Pump2                             | P2           | 5 - 6 - 7    |
| Diverter Valve                    | P3           | 8 - 9        |
| Boiler Integration                | P5           | 13 - 14 - 15 |
| Food warmer light                 | P6           | 10 - 11      |
| Level Switch                      | Lvl          | 16 - 17      |
| Fireplace Probe - S1              | T1           | 18 - 19      |
| Flow Water Temperature Probe - S3 | T3           | 22 - 23      |
| Flow switch                       | F            | 24 - 25      |
| Pressure Sensor                   | -            | 26 - 29 - 31 |



| USER MENU Parameters |                                      |    |      |      |     |
|----------------------|--------------------------------------|----|------|------|-----|
| Code                 | Description                          | U. | Min. | Def. | Max |
| THS100               | T-Pump1 Enabling Thermostat          | °C | 20   | 60   | 90  |
| THS101               | Diverter T-Valve Enabling Thermostat | °C | 20   | 50   | 90  |
| THS105               | T-Pump2 Enabling Thermostat          | °C | 20   | 50   | 90  |
| THS102               | T-Boiler Integration Thermostat      | °C | 20   | 45   | 90  |
| THS300               | T-Room Thermostat                    | °C | 5    | 20   | 50  |

| Operating Principle                                   |                                                                                                                                                                                                             |                          |     |     |
|-------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|-----|-----|
| T1                                                    | Controls                                                                                                                                                                                                    | Management               | P1  | P2  |
| $T1 < 3^{\circ}$ [THS107]                             |                                                                                                                                                                                                             | Anti-Ice                 | ON  | OFF |
| $3^{\circ} < T1 < 60^{\circ}$ [THS107 < T1 < THS100]  |                                                                                                                                                                                                             | Fireplace Off            | OFF | OFF |
| $60^{\circ} < T1 < 50^{\circ}$ [THS100 < T1 < THS105] |                                                                                                                                                                                                             | Recirculation            | ON  | OFF |
| $60^{\circ} < T1 < 85^{\circ}$ [THS100 < T1 < THS108] |  FL= Open <b>and</b> Shower not Enabled                                                                                  | Heating                  | ON  | ON  |
|                                                       |  FL= Closed <b>or</b> Shower Enabled  | DHW                      | OFF | OFF |
| $T1 > 85^{\circ}$ [THS108]                            |                                                                                                                                                                                                             | Safety                   | ON  | ON  |
| $T1 > 50^{\circ}$ [THS101]                            |                                                                                                                                                                                                             | DHW                      | ON  | P3  |
| $T1 > 45^{\circ}$ [THS102]                            |                                                                                                                                                                                                             | Integration 14 - 15 OPEN | OFF | P5  |

# CIRCULATING PUMP

## RECOMMENDATIONS

- Depending on the operating status of the pump or of the system (fluid temperature), the pump may become very hot. **RISK OF BURNS FROM CONTACT WITH THE PUMP!**
- Improper commissioning may cause injury and damage to property.
- Before carrying out any maintenance or repair work, disconnect the mains power supply and secure it against unauthorised reconnection.



**CAUTION! BEFORE MAKING ANY CHANGES TO THE ELECTRICAL SYSTEM OF THE STOVE OR TO THE CONNECTIONS OF THE CONTROL UNIT AND CIRCULATING PUMP, THE APPLIANCE MUST BE DISCONNECTED FROM THE ELECTRICAL MAINS.**

## DESCRIPTION

The pump consists of a hydraulic system, a wet-rotor motor with a permanent magnet, and an electronic control module with a frequency converter. It is designed for conveying clean, non-corrosive fluids. Use with high-viscosity fluids reduces its hydraulic performance.

## OPERATION

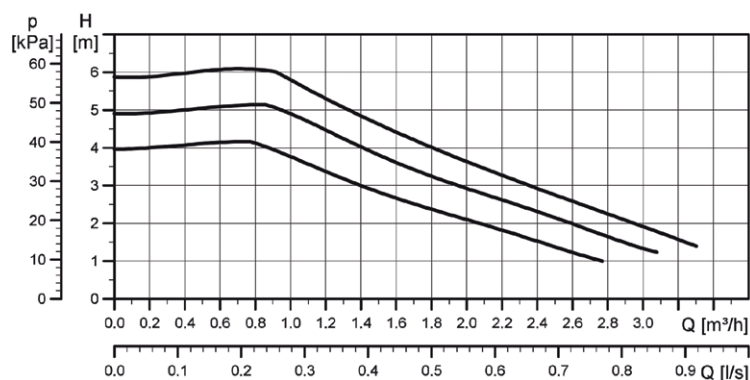
The pump operates at a fixed speed.

Using the control button , 3 different pump operating modes can be selected, each with different heads.

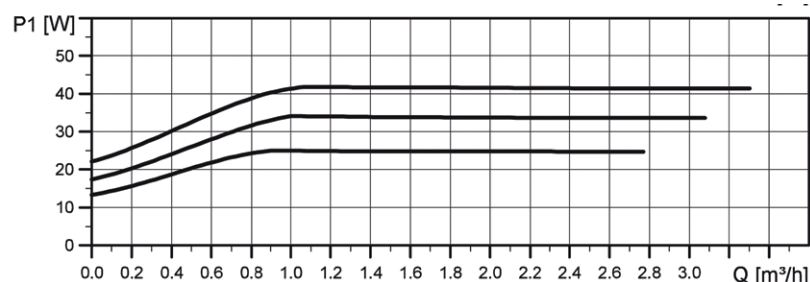
| LED indicator light | Head (H) |
|---------------------|----------|
| I                   | 4 m      |
| II                  | 5 m      |
| III                 | 6 m      |



Flow rate (Q) / head (H) graph



Flow rate (Q) / power (P) graph



|   | CONTROL PANEL                                                                     | CONTROL MODES          |
|---|-----------------------------------------------------------------------------------|------------------------|
| 0 |  | Constant curve speed 1 |
| 1 |  | Constant curve speed 2 |
| 2 |  | Constant curve speed 3 |

## FAULTS AND LED INDICATIONS



**CAUTION! FAULT REPAIRS AND WORK ON ELECTRICAL CONNECTIONS MUST BE CARRIED OUT EXCLUSIVELY BY SPECIALISED AND QUALIFIED ELECTRICIANS.**

| CIRCULATING PUMP LED                                                                | DESCRIPTION                     | DIAGNOSTICS                                                                                     | REMEDY                                                                                                                                                                                                                            |
|-------------------------------------------------------------------------------------|---------------------------------|-------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|    | 1 FLASH PER SECOND              | Normal operation                                                                                | -                                                                                                                                                                                                                                 |
|   | ALARM STATUS - SEIZED           | The circulating pump is unable to automatically restart due to a fault                          | Wait for the circulating pump to attempt automatic freeing, or manually free the motor by adjusting the screw (A) at the centre of the head. If the fault persists, replace the circulating pump. *                               |
|  | ALARM STATUS - LOW VOLTAGE      | Voltage out of range < 160 Vac                                                                  | Procedure to be carried out ONLY by AUTHORISED and QUALIFIED personnel in compliance with current regulations. Check the pump power supply system.                                                                                |
|  | ALARM STATUS - ELECTRICAL FAULT | The circulating pump has seized due to an excessively low power supply or a serious malfunction | Procedure to be carried out ONLY by AUTHORISED and QUALIFIED personnel in compliance with current regulations. Disconnect the appliance from the mains, isolate the pump from the hydraulic system and replace it with a new one. |

\* this condition generally occurs after a prolonged period of pump idleness. Manual freeing using a screwdriver is permitted for the user; attempt to free the pump impeller by repeatedly moving the screwdriver right and left.

## TECHNICAL SPECIFICATIONS

| Description                 | Values                   |
|-----------------------------|--------------------------|
| Power supply voltage        | 230 V+ 10%/-15%, 50/60Hz |
| Protection rating           | IP44                     |
| Energy Efficiency Index EEI | EEI ≤ 0.20               |
| Internal fluid temperature  | 2 °C ~ 110 °C            |
| Room temperature            | From 0 °C to +70 °C      |
| Max. operating pressure     | 10 bar (1 MPa)           |
| Max. head                   | 6 m                      |
| Max. flow rate (Qmax)       | 3.3 m³/h                 |
| Max. power consumption      | 42 W                     |
| Sound pressure level        | ≤ 32 dB                  |

## PERMITTED/NOT PERMITTED FUELS

Only logs may be used as fuel. Only dry logs (max. moisture content 20%) should be used.

**DO NOT EXCEED THE MAXIMUM FIREWOOD LOAD - SEE TECHNICAL DATA AND HOURLY CONSUMPTION IN THE DOCUMENT "CE MARKING INFORMATION".**

**NON-RESINOUS PRESSED WOOD LOGS MUST BE USED WITH CAUTION TO AVOID OVERHEATING THAT COULD DAMAGE THE APPLIANCE, AS THEY HAVE A HIGH HEATING VALUE.**

The firewood must have a moisture content of less than 20% and be stored in a dry location. Damp wood makes ignition more difficult, as more energy is required to evaporate the moisture present. The moisture content also creates the disadvantage that, as the temperature drops, the water condenses first in the firebox and then in the chimney, causing a considerable deposit of soot with the subsequent possible risk of fire.

Freshly cut wood contains about 60% H<sub>2</sub>O, making it unsuitable for burning. It must be stored in a dry, ventilated area (e.g. under a shelter) for at least two years before use.

**THE FOLLOWING MATERIALS MUST NOT BE BURNED: COAL, WOOD SCRAPS, BARK RESIDUE, WOOD PANELS, DAMP OR PAINTED WOOD, PLASTICS. USING THESE MATERIALS WILL VOID THE PRODUCT WARRANTY.**

PAPER AND CARDBOARD SHOULD ONLY BE USED FOR IGNITION.

**BURNING WASTE IS STRICTLY PROHIBITED** AS IT MAY DAMAGE THE APPLIANCE AND THE FLUE, CAUSE HEALTH RISKS AND LEAD TO COMPLAINTS FROM NEIGHBOURS DUE TO UNPLEASANT ODOURS.

Wood is not a long-burning fuel, meaning continuous heating throughout the night is not possible.

| Species      | kg/m <sup>3</sup> | kWh/kg 20% Moisture |
|--------------|-------------------|---------------------|
| Beech        | 750               | 4.0                 |
| Turkey 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                 |

\* UNSUITABLE RESINOUS WOODS



THE CONTINUOUS AND PROLONGED USE OF FIREWOOD THAT IS PARTICULARLY RICH IN AROMATIC OILS (E.G., EUCALYPTUS, MYRTLE, ETC.) CAUSES THE RAPID DETERIORATION (FLAKING) OF THE CAST-IRON COMPONENTS IN THE PRODUCT.

*The declared technical data were obtained using class "A1" beech wood in accordance with UNI EN ISO 17225-5, with a moisture content of less than 20%. The use of other wood types may require specific adjustments and could result in different product performance.*

## CALCULATION OF THE HEAT OUTPUT

**IMPORTANT:** THE OUTPUT OF THE CONNECTED HEATING SYSTEM MUST BE MATCHED TO THE HEAT TRANSFERRED TO THE WATER BY THE STOVE; AN UNDERSIZED LOAD WILL PREVENT THE CORRECT OPERATION OF THE FOOD WARMER, WHILE AN OVERSIZED LOAD WILL PREVENT ADEQUATE HEATING OF THE RADIATORS.

There is no absolute rule for calculating the correct power required. This power depends on the space to be heated, but is also largely influenced by the level of insulation.

On average, the heat output required for a properly insulated room will be 30 kcal/h per m<sup>3</sup> (for an outside temperature of 0°C).

Since 1 kW corresponds to 860 kcal/h, we can assume a value of 35 W/m<sup>3</sup>.

Assuming you wish to heat a 150 m<sup>3</sup> (10 x 6 x 2.5 m) room in an insulated house, you will need 150 m<sup>3</sup> x 35 W/m<sup>3</sup> = 5250 W or 5.25 kW. As a primary heating source, an 8 kW appliance should be sufficient.

| Fuel                    | Unit           | Indicative combustion value |     | Required quantity in relation to 1 kg of dry wood |
|-------------------------|----------------|-----------------------------|-----|---------------------------------------------------|
|                         |                | kcal/h                      | kW  |                                                   |
| Dry wood (15% moisture) | kg             | 3600                        | 4.2 | 1.00                                              |
| Wet wood (50% moisture) | 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             | kWh            | 860                         | 1.0 | 4.19                                              |

## FLUE EXHAUST

### FLUE PIPE

THE COMPONENTS OF THE COMBUSTION GAS EVACUATION SYSTEM MUST BE SELECTED AND RATED IN ACCORDANCE WITH CURRENT REGULATIONS, CONSIDERING THE SPECIFIC INSTALLATION CONDITIONS.

The following checks are recommended:

- ♦ The chimney system must be assessed in accordance with the following technical standards (where applicable): EN 15287-1, EN 15287-2, EN 13063-1, EN 13063-2, EN 1457, EN 1806, EN 1856-1, EN 1856-2, and EN 13384-1;
- ♦ The proper operation of the chimney system must be verified in accordance with EN 13384-2, based on the specific installation conditions;
- ♦ The number of directional changes, including those caused by the use of T-joints, must not exceed four;
- ♦ A T-joint with a condensate collection cap must be installed at the base of the vertical section;
- ♦ The vertical duct may be located either inside or outside the building. If the flue pipe is connected to an existing flue, it must be certified for solid fuels;
- ♦ The flue pipe must include at least one airtight port for potential flue gas sampling;
- ♦ All sections of the flue pipe must be accessible for inspection;
- ♦ Inspection openings must be provided for cleaning;

When using metal pipes, the following requirements (EN 1856-1 and EN 1856-2) must be met:

**FLUE** - Temperature class, at least T 600 G (as stated in the technical data sheet), soot-fire resistant.

**FLUE PIPE** - Temperature class, at least T 600 G (as stated in the technical data sheet), soot-fire resistant.

The flue pipe is the section of piping that connects the appliance to the flue. When connecting it, the following simple but crucial principles must be observed:

- ♦ Under no circumstances should the flue pipe have a diameter smaller than that of the appliance's outlet collar. The internal diameter of the connecting pipe must match the external diameter of the appliance's flue exhaust stub (DIN 1298);
- ♦ Each metre of horizontal flue pipe travelled causes a significant pressure loss, which must be compensated for by increasing the flue pipe height if necessary;
- ♦ Each bend in the flue pipe significantly reduces the flue draught, which must be offset by an adequate increase in height;
- ♦ A maximum of three direction changes of no more than 90° each is allowed, including the connection from the appliance to the chimney (UNI 10683). These must be easily inspectable;
- ♦ The horizontal length of the flue pipe must be kept to a minimum, and its total horizontal projection must not exceed 4 metres (UNI 10683);
- ♦ Horizontal sections must have a minimum upward slope of 3%;
- ♦ The use of flexible metal pipes, fibre cement pipes or aluminium pipes is strictly prohibited.
- ♦ The connection must be made with stable and robust pipes that comply with all current standards, regulations and legal requirements. The connection to the flue must also be airtight.



**CAUTION: WHEN MAKING THE FLUE CONNECTION AND WORKING NEAR FLAMMABLE MATERIALS, FOLLOW THE REQUIREMENTS OF UNI 10683. THE FLUE MUST BE PROPERLY DISTANCED FROM FLAMMABLE OR COMBUSTIBLE MATERIALS USING SUITABLE INSULATION OR AN AIR GAP. MINIMUM CLEARANCE: 25 CM.**



**IMPORTANT: THE UNUSED FLUE EXHAUST HOLE MUST BE SEALED WITH THE RELATIVE CAP (SEE DETAILS CHAPTER).**

### FLUE

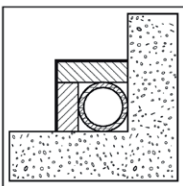
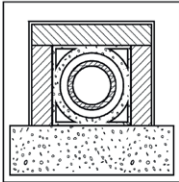
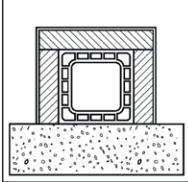
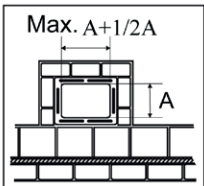
ESSENTIAL REQUIREMENTS FOR PROPER OPERATION OF APPLIANCE:

- ♦ The internal cross-section should preferably be circular;
- ♦ **It must be thermally insulated, waterproof and made of materials resistant to heat, combustion by-products and potential condensates;**
- ♦ It must be free of constrictions and have a predominantly vertical layout, with deviations not exceeding 45°;
- ♦ If previously used, it must be cleaned;
- ♦ All sections of the flue pipe must be accessible for inspection;
- ♦ Inspection openings must be provided for cleaning;
- ♦ Comply with the technical specifications outlined in the instruction manual;

IF THE FLUE HAS A SQUARE OR RECTANGULAR CROSS-SECTION, THE INTERNAL CORNERS MUST BE ROUNDED WITH A RADIUS OF NO LESS THAN 20 MM. FOR RECTANGULAR CROSS-SECTIONS, THE MAXIMUM SIDE RATIO MUST BE  $\leq 1.5$ .

A cross-section that is too small will reduce the draught. A minimum height of 4 metres is recommended.

The following materials are **PROHIBITED**, as they compromise the proper functioning of the appliance: fibre cement, galvanised steel, rough or porous internal surfaces. **Figure 3** illustrates several possible solutions.

| Figure 3 |                                               |  |  |  |
|----------|--------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| 1*       | Steel flue with insulated double chamber using material resistant to 400°C. <b>Efficiency 100% excellent.</b>                  |                                                                                   |                                                                                    |                                                                                     |
| 2*       | Refractory flue with insulated double chamber and external cladding in lightweight concrete. <b>Efficiency 100% excellent.</b> |                                                                                   |                                                                                    |                                                                                     |
| 3*       | Traditional clay flue with square cross-section and air gaps. <b>Efficiency 80% good.</b>                                      |                                                                                   |                                                                                    |                                                                                     |
| 4        | Avoid flues with rectangular internal cross-section whose ratio differs from the design. <b>Efficiency 40% poor.</b>           |                                                                                   |                                                                                    |                                                                                     |

\*- Material compliant with current Standards and Regulations, as well as legal requirements.



**FOR CORRECT INSTALLATION, THE FLUE DIMENSIONS MUST COMPLY WITH THE CE MARKING INFORMATION. FOR INSTALLATIONS WITH DIFFERENT DIMENSIONS, THE FLUE MUST BE SIZED IN ACCORDANCE WITH STANDARD EN13384-1.**

A flue with an excessively large cross-section may generate a volume too large to be heated, thus causing operational difficulties for the appliance. To prevent this, it should be lined along its entire height. A cross-section that is too small will reduce the draught.



**IT IS STRICTLY PROHIBITED TO ROUTE ANY OTHER SYSTEM PIPES OR AIR SUPPLY DUCTS INSIDE THE FLUE. ADDITIONALLY, IT IS PROHIBITED TO CREATE FIXED OR MOVABLE OPENINGS IN THE FLUE FOR THE CONNECTION OF ADDITIONAL UNRELATED APPLIANCES (SEE THE CHAPTER ON CONNECTING AN OPEN FIREPLACE OR FIREBOX TO THE FLUE).**

THE DRAUGHT GENERATED BY YOUR FLUE MUST BE SUFFICIENT BUT NOT EXCESSIVE.

Measurements must always be taken when the appliance is hot (rated heat output).

If the negative pressure exceeds 17 Pa (= 1.7 mm water column), it must be reduced by installing an additional draught regulator on the exhaust pipe or inside the chimney, in accordance with current regulations.



**FOR BEST PERFORMANCE OF THE APPLIANCE, THERE MUST BE A SUFFICIENT SUPPLY OF COMBUSTION AIR TO THE INSTALLATION AREA (see the chapter on VENTILATION AND AIRING OF INSTALLATION ROOMS).**

## SHARED CHIMNEY FLUE

Check on the CE Technical Data Sheet whether the product is suitable for installation in a shared chimney flue (i.e. with multiple connection).

Suitable devices can be installed in shared flue systems provided that:

- ♦ installation in a shared chimney flue (i.e. with multiple connection) is allowed in the place of installation;
- ♦ the requirements of national and regional Standards are strictly complied with [for GERMANY, for example, DIN EN 13384-2, DIN V 18160-1, DIN 18896 and MFeuV-2007 (Muster-Feuerungsverordnung)];
- ♦ the installer or district chimney sweep has inspected and approved the installation conditions.

Please also remember the following indications, which the end user must comply with:

- ♦ The device can be operated only with the doors closed.
- ♦ The doors and all setting devices must remain closed when the device is not on (except for cleaning and maintenance operations).

## FLUE FOR AN OPEN FIREPLACE OR FIREBOX

When using the flue of an open fireplace or firebox, the hood must be airtight below the connection point of the flue pipe (Pos. **A** **Figure 4**.

If the flue is too large (e.g. 30x40 cm or 40x50 cm), it must be lined with a stainless steel pipe with a minimum diameter of 200 mm (Pos. **B**), ensuring that the remaining space between the pipe and the flue is completely sealed immediately below the chimney pot (Pos. **C**.

|                 |                                      |  |
|-----------------|--------------------------------------|--|
| <b>Figure 4</b> | Images are for illustrative purposes |  |
| <b>A</b>        | Airtight closure                     |  |
| <b>B</b>        | Stainless steel                      |  |
| <b>C</b>        | Sealing                              |  |
| <b>D</b>        | Inspection hatch                     |  |

## CHIMNEY POT

**THE FLUE DRAUGHT ALSO DEPENDS ON THE SUITABILITY OF THE CHIMNEY POT.**

IT IS THEREFORE ESSENTIAL THAT, IF THE POT IS CUSTOM-BUILT, THE OUTLET CROSS-SECTION BE AT LEAST TWICE THE INTERNAL CROSS-SECTION OF THE FLUE (**Figure 5**).

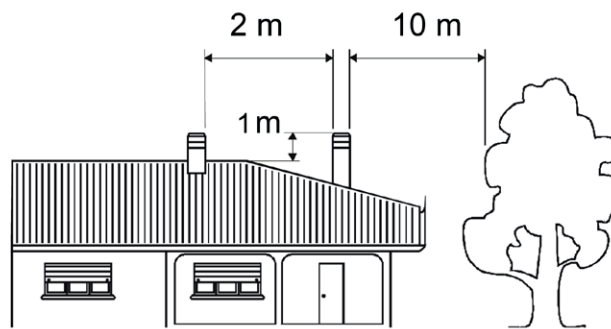
Since the chimney pot must always extend beyond the roof ridge, it must also ensure proper exhaust even in windy conditions (**Figure 6**).

The chimney pot must meet the following requirements:

- ♦ Have an internal cross-section equivalent to that of the chimney.
- ♦ Have an effective outlet cross-section twice the internal cross-section of the flue.
- ♦ Be designed to prevent the infiltration of rain, snow or any foreign objects into the flue.
- ♦ Be easy to inspect, allowing for maintenance and cleaning operations.

|                 |                                                                                                                                                  |
|-----------------|--------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Figure 5</b> |                                                                                                                                                  |
| <b>1</b>        | Prefabricated industrial chimney pot, ensuring excellent smoke dispersion.                                                                       |
| <b>2</b>        | Custom-built chimney pot. The minimum outlet cross-section must be at least twice, and ideally 2.5 times the internal cross-section of the flue. |
| <b>3</b>        | Chimney pot for steel flue, featuring an internal smoke baffle cone.                                                                             |
| <b>4</b>        | For adjacent flues, one chimney pot must be positioned at least 50 cm higher than the other to prevent pressure transfer between the flues.      |

**Figure 6**



The pictures are for illustrative purposes only.

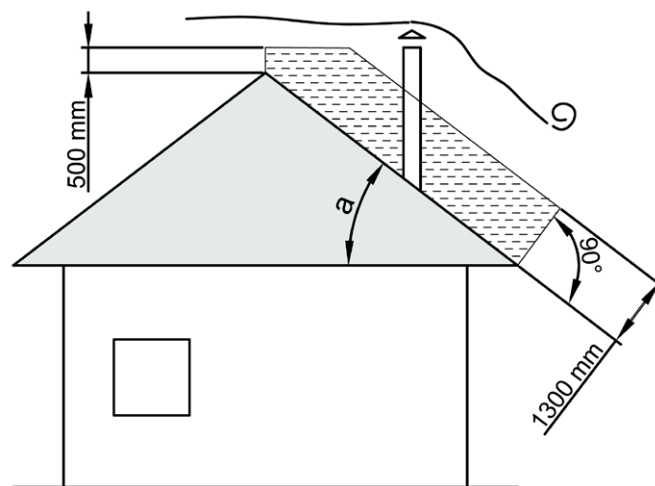
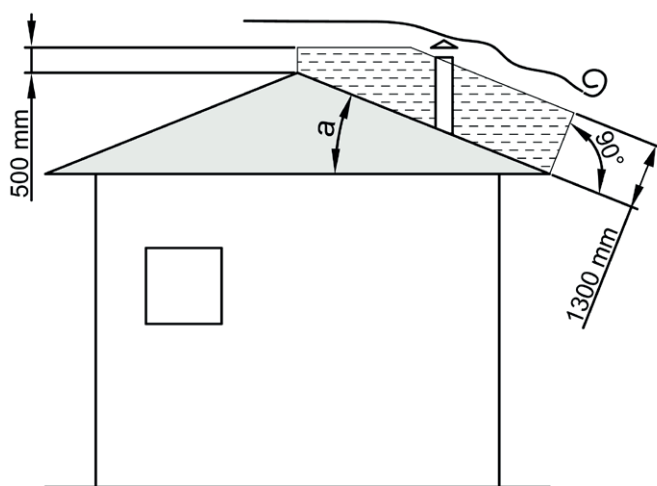
The chimney pot must not have any obstructions within 10 m, such as walls, roof slopes or trees. Otherwise, it must be raised by at least 1 m above the highest obstacle. The chimney pot must extend at least 1 m above the roof ridge.

### CHIMNEY POT DISTANCES AND POSITIONING (UNI 10683)

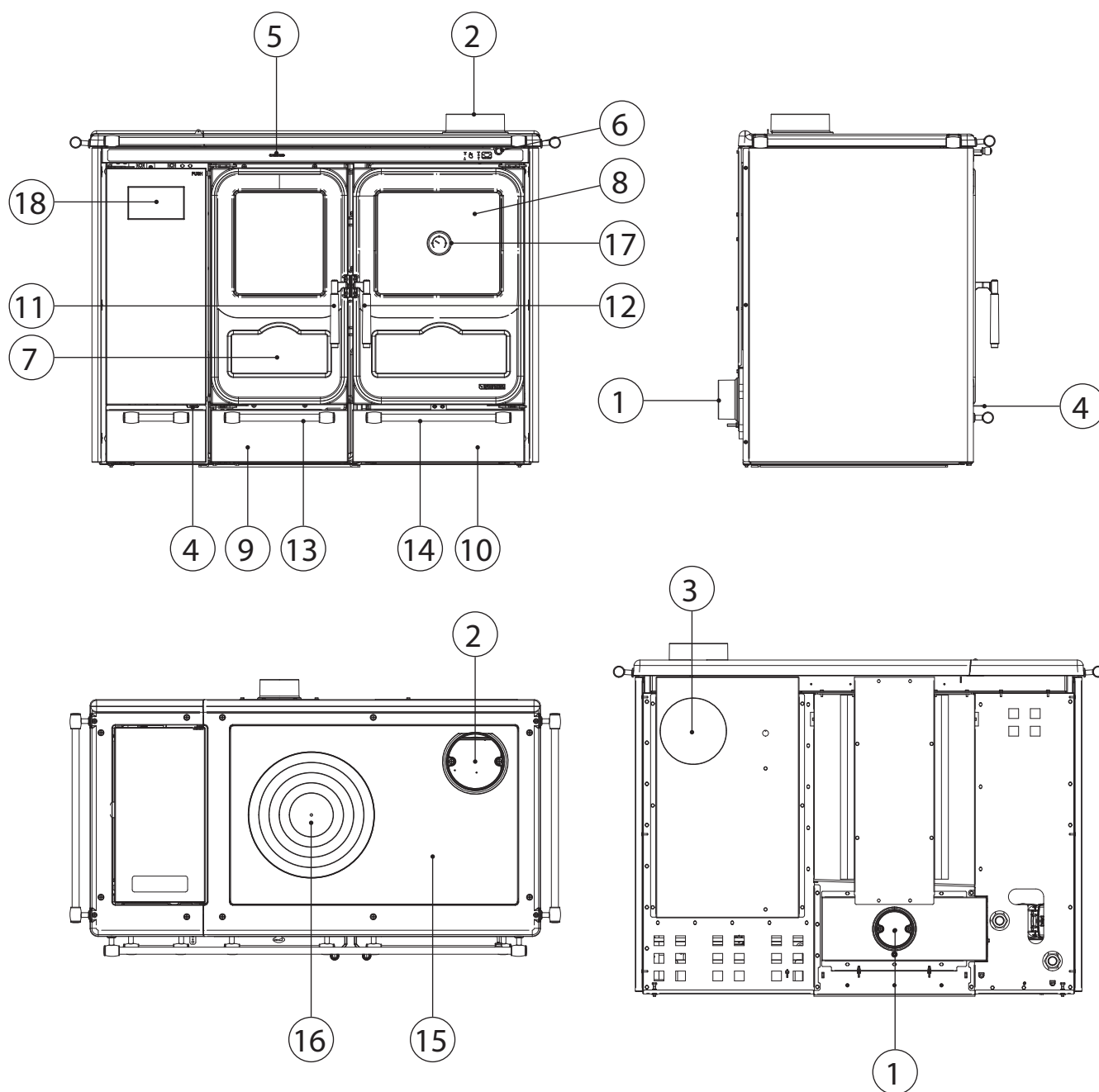
Roof inclination

>10°

The pictures are for illustrative purposes only.

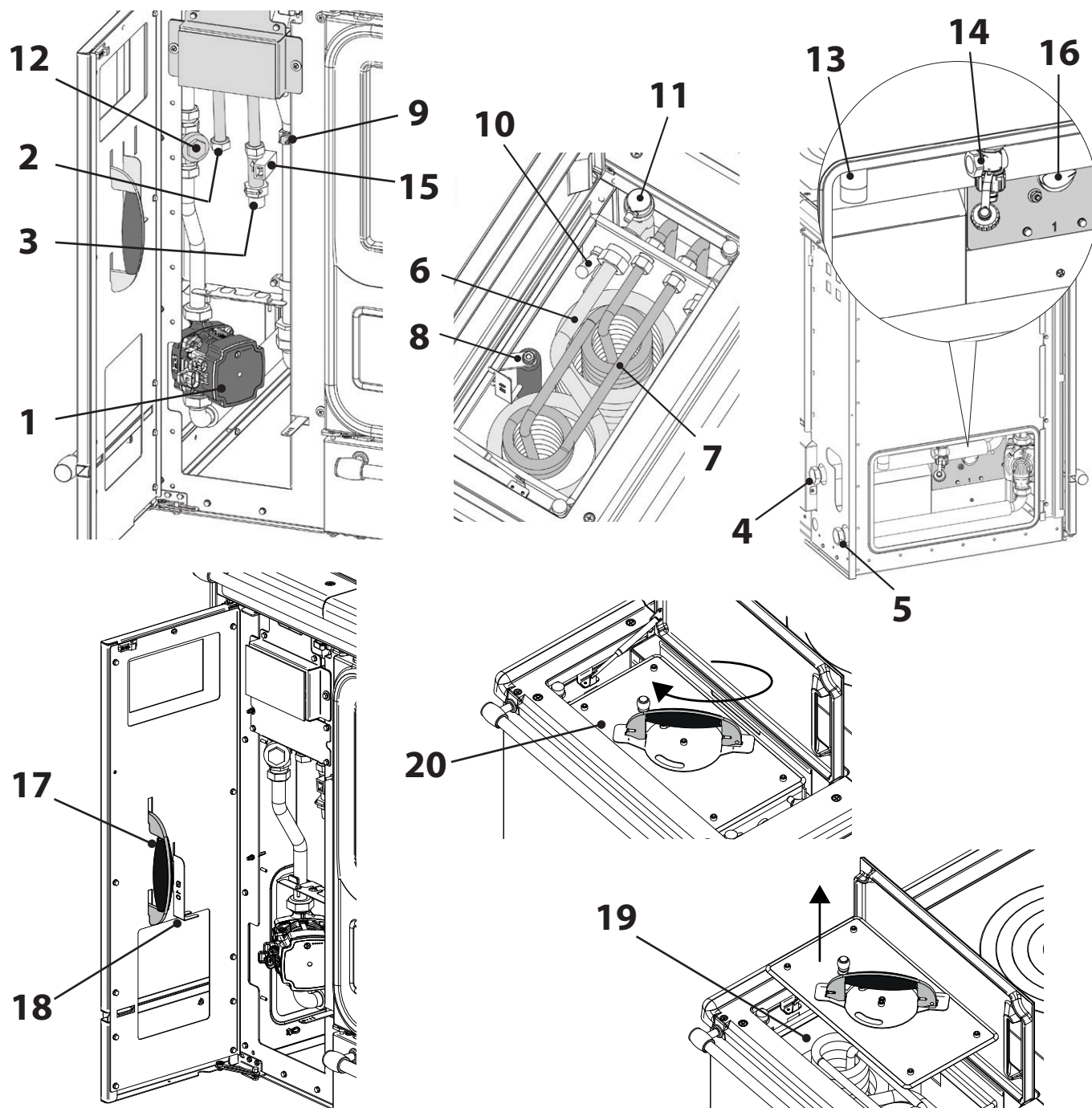


## DETAILS SIERRA.16



|          |                          |           |                     |           |                         |
|----------|--------------------------|-----------|---------------------|-----------|-------------------------|
| <b>1</b> | Rear external air intake | <b>7</b>  | Firebox door        | <b>13</b> | Ash drawer handle       |
| <b>2</b> | Upper flue gas outlet    | <b>8</b>  | Food warmer         | <b>14</b> | Pull-out drawer handle  |
| <b>3</b> | Rear flue gas outlet     | <b>9</b>  | Ash drawer          | <b>15</b> | Cast iron centre plate  |
| <b>4</b> | Primary air damper       | <b>10</b> | Removable drawer    | <b>16</b> | Cast iron rings         |
| <b>5</b> | Secondary air damper     | <b>11</b> | Firebox door handle | <b>17</b> | Food warmer thermometer |
| <b>6</b> | Ignition damper          | <b>12</b> | Food warmer handle  | <b>18</b> | Electronic control unit |

## DETAILS SIERRA.16



|   |                                                   |    |                             |    |                               |
|---|---------------------------------------------------|----|-----------------------------|----|-------------------------------|
| 1 | Hydraulic circulating pump                        | 8  | Anode                       | 15 | Flow switch                   |
| 2 | 1/2" female gas connection<br>DHW system          | 9  | Temperature sensor          | 16 | Automatic thermostat          |
| 3 | 1/2" male gas return connection<br>DHW system     | 10 | Level Switch                | 17 | Water tank lid opening handle |
| 4 | 1" female gas connection<br>Heating system        | 11 | Automatic relief valve      | 18 | Anode status inspection gauge |
| 5 | 1" female gas return connection<br>Heating system | 12 | Non-return valve            | 19 | Water tank                    |
| 6 | Heating system coil - Max 3 bar                   | 13 | 3/4" male gas safety outlet | 20 | Water tank lid                |
| 7 | DHW heating coil - Max 6 bar                      | 14 | Tank drain/filling tap      |    |                               |

## TECHNICAL DESCRIPTION

La NORDICA wood-burning products can be used to heat living spaces for limited periods or to support an insufficient central heating system. They are ideal for holiday apartments, homes used at the weekend, or for use as auxiliary heating throughout the year. Logs are used as fuel.

**THIS IS AN INTERMITTENT COMBUSTION APPLIANCE.**

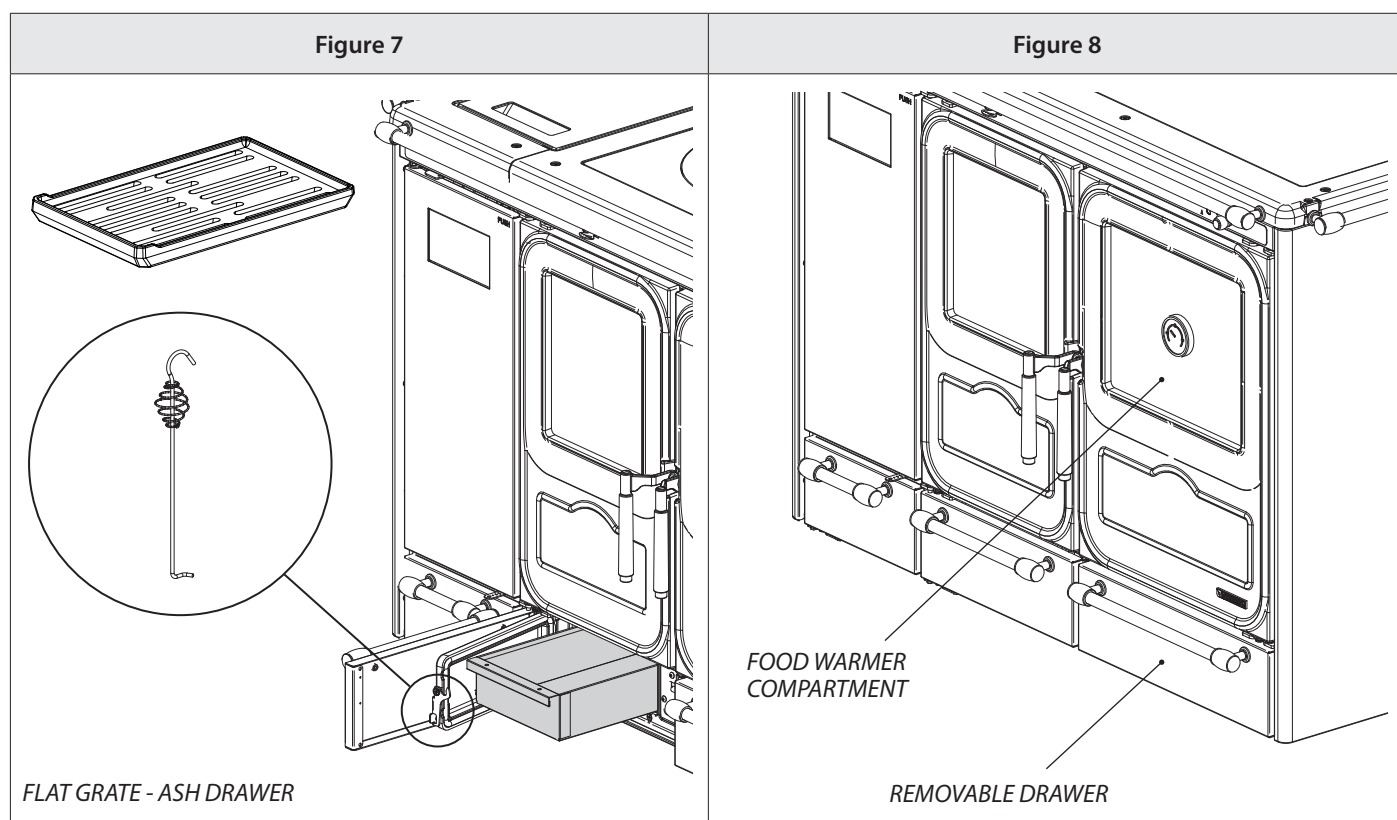
The stove is designed as a solid-fuel heat generator with a naturally circulating primary circuit, an open expansion vessel, and heat-exchange systems for two secondary circuits separated from the primary one, for heating and domestic hot water. Thanks to these features, the stove can be safely installed in compliance with regulations for open-vessel systems and is already equipped with safety devices such as an open expansion vessel, thermometer and acoustic alarm.

The stove is made of galvanised sheet steel panels and enamelled cast iron. The firebox is located inside the boiler, constructed from 5 mm thick steel and reinforced with welded studs.

A flat grate is located inside the firebox; an easily removable ash drawer is located under the firebox grate (see **Figure 7**).

The firebox features a panoramic door made of ceramic glass (resistant up to 700°C). This allows for a captivating view of the burning flames. This also prevents any possible escape of sparks and smoke.

On the right-hand side of the stove there is a food warmer with a panoramic glass door and a temperature control thermometer (see **Figure 8**).



**A REMOVABLE DRAWER IS LOCATED UNDER THE FOOD WARMER DOOR. NEVER INSERT FLAMMABLE MATERIAL.**

THE ROOM IS HEATED:

- A) BY RADIATION:** heat is radiated into the room through the panoramic glass and the hot external surfaces of the heating unit.
- B) BY CONDUCTION:** through the radiators or convectors of the central heating system powered by the hot water generated by the heating unit.

THE APPLIANCE IS EQUIPPED WITH:

- ♦ A MANUAL SYSTEM to adjust the COMBUSTION AIR.
- ♦ An IGNITION DAMPER to improve smoke disposal during the product heating phase.
- ♦ An AUTOMATIC THERMOSTAT that controls the supply of combustion air to the product.

## 1A - PRIMARY Air Damper (Figure 9).

With the damper on the lower left side of the firebox door, the flow of primary air through the ash drawer and grate in the direction of the fuel is adjusted. Primary air is essential for the combustion process. The ash drawer must be regularly emptied to prevent ash from blocking the intake of combustion air. The primary air also keeps the fire burning.

THE PRIMARY AIR DAMPER MUST BE ALMOST FULLY CLOSED DURING COMBUSTION OF THE WOOD, WHICH WOULD OTHERWISE BURN TOO QUICKLY AND POTENTIALLY OVERHEAT THE STOVE.

## 2A - SECONDARY Air Damper (Figure 9).

The secondary air damper is located above the firebox door. This damper must be opened (therefore the lever moved to the right) especially during wood combustion, so that the unburnt carbon can undergo post-combustion, which increases performance and keeps the glass clean (see the OPERATION paragraph).

## B - IGNITION Damper (Figure 9).

The control lever for the ignition damper is located on the front of the stove, at the top right under the protective handrail, identifiable by a chrome knob. THIS DAMPER MUST BE USED ONLY TO FACILITATE IGNITION OF THE FUEL IN THE COMBUSTION CHAMBER. WITH THE LEVER PULLED OUT, THE DAMPER IS CLOSED (FOOD WARMER), WITH THE LEVER PUSHED IN, THE DAMPER IS OPEN (IGNITION).

**IMPORTANT:** during normal operation of the stove, the damper lever must be fully pulled out (outwards, away from the stove) to prevent excessive fuel consumption and poor performance of the stove.

## D - AUTOMATIC THERMOSTAT (Figure 9)

INSIDE THE TECHNICAL COMPARTMENT, IN THE BOTTOM SECTION, THERE IS A THERMOSTAT USED TO AUTOMATICALLY INCREASE OR REDUCE COMBUSTION.

Depending on the selected position, the thermostat acts on the valve that regulates the intake of combustion air into the product. Turn clockwise from 0 to 3 to revive the fire, and counter-clockwise from 3 to 0 to reduce combustion. AS THIS IS A HIGH-PRECISION DEVICE, IT MUST BE TURNED CAREFULLY, WITHOUT EVER FORCING THE KNOB.

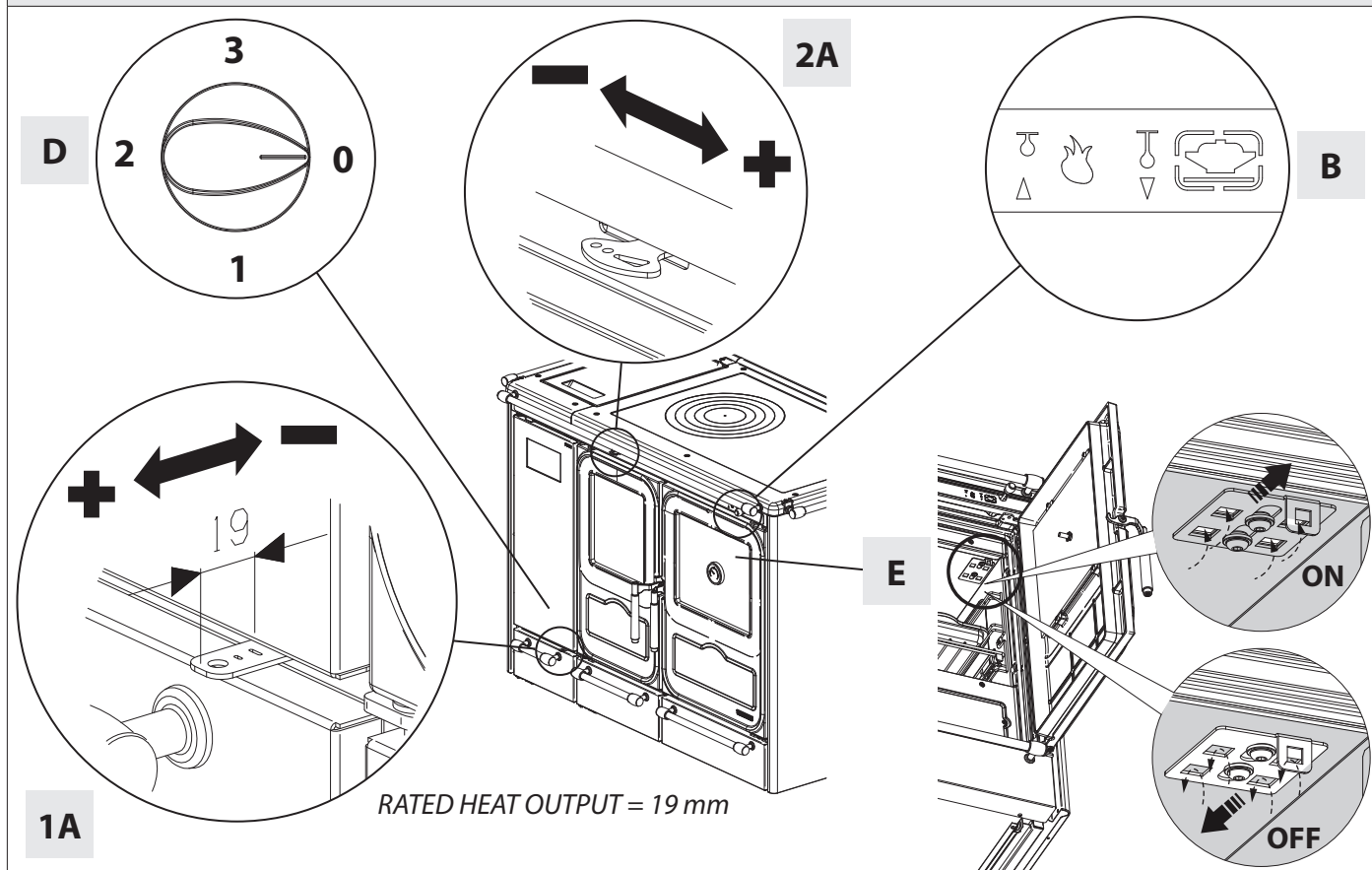
## E - STEAM RELIEF VALVE (Figure 9)

The food warmer is equipped with an internal valve that releases excess steam, which may build up when cooking very moist foods or during extended cooking times.



TO AVOID POSSIBLE SCALDING, OPERATE THE STEAM RELIEF VALVE BEFORE LIGHTING THE PRODUCT.

Figure 9



## IGNITION



UNDER NO CIRCUMSTANCES SHOULD THE FIRE BE LIT BEFORE THE SYSTEM HAS BEEN COMPLETELY FILLED WITH WATER; DOING SO WOULD CAUSE VERY SERIOUS DAMAGE TO THE ENTIRE STRUCTURE. IF THERE IS A TOTAL OR PARTIAL LACK OF WATER, NEVER IGNITE THE FIRE IN THE HEATING UNIT (NOT EVEN FOR TESTING), AS THIS COULD CAUSE IRREPARABLE DAMAGE TO THE APPLIANCE AND IT WILL VOID THE WARRANTY.

Before use, remove all packaging, labels and protective films, and clean the surface with a dry cloth.



AT THE FIRST IGNITION, AN UNPLEASANT ODOUR WILL INEVITABLY BE PRODUCED (DUE TO THE DRYING OF THE ADHESIVES IN THE SEALING GASKET OR THE PROTECTIVE VARNISH), WHICH DISAPPEARS AFTER A SHORT PERIOD OF USE. HOWEVER, GOOD VENTILATION OF THE ROOM MUST BE ENSURED.

WHEN IGNITING FOR THE FIRST TIME, IT IS RECOMMENDED TO LOAD A SMALL AMOUNT OF FUEL AND GRADUALLY INCREASE THE APPLIANCE'S THERMAL POWER; DURING THE INITIAL IGNITIONS, SIGNIFICANT CONDENSATION OF THE FLUE GASES MAY OCCUR, WITH A SMALL AMOUNT OF WATER COMING OUT OF THE HEATING UNIT; THIS IS NORMAL AND IT WILL SOON STOP; IF IT PERSISTS, THE FLUE DRAUGHT SHOULD BE CHECKED.

IT IS PROHIBITED TO USE LIQUIDS SUCH AS ALCOHOL, PETROL, PETROLEUM AND THE LIKE. NEVER SWITCH ON THE APPLIANCE WHEN THERE ARE COMBUSTIBLE GASES IN THE ROOM.

## SETTLING-IN

During the first firings, it is normal for slight noises and minor frame deformation to occur due to temperature fluctuations. These phenomena do not affect the operation or service life of the appliance and tend to decrease with use.

**When first igniting products treated with high-temperature paint, it is important to consider the following:**

- ♦ the construction materials of the products in question are not homogeneous, in fact cast iron and steel parts coexist.
- ♦ the temperature distribution across the product's body is not uniform: different areas may reach temperatures ranging from 300°C to 500°C;
- ♦ over its lifetime, the product undergoes alternating cycles of ignition and shutdown within the same day, as well as periods of intense use or complete inactivity depending on the season;
- ♦ before being considered fully "broken in", a new product must go through several ignition cycles to allow all materials and the paint to adapt to thermal stress;
- ♦ during the initial ignitions, odours typical of metals exposed to high thermal stress and fresh paint curing, may be emitted.

Therefore, it is extremely important that the following precautions be taken during ignition:

1. Ensure a strong exchange of air in the room where the appliance is installed.
2. On first ignitions, do not overload the combustion chamber (about half the amount indicated in the instruction manual) and keep the product running for at least 6–10 hours continuously, with the dampers less open than indicated in the instruction manual.
3. Repeat this ignition procedure at least 4–5 times or more, depending on your availability.
4. Gradually increase the load (while adhering to the maximum load recommendations in the instruction manual) and aim for longer ignition periods. Avoid short ignition-shutdown cycles during this initial phase.
5. **During operation, no objects must be placed on the appliance, especially on the lacquered surfaces. The lacquered surfaces must not be touched during heating.**
6. Once the breaking-in period is complete, the product can be used like a car engine, avoiding sudden overheating with excessive loads.

## PREPARING FOR IGNITION

To light the fire, we recommend using small wooden sticks and commercially available fire starters.



**NEVER LEAVE THE FIREBOX UNATTENDED DURING THIS PROCEDURE.**

## LIGHT THE FIRE USING THE TRADITIONAL METHOD

- ♦ Open the throttle valve, if present, on the flue pipe.
- ♦ Open the (IGNITION DAMPER B) by pushing the lever inwards, into the stove.
- ♦ Turn the (AUTOMATIC THERMOSTAT D) knob to position 3.
- ♦ Open the (PRIMARY AIR DAMPER 1A).
- ♦ Open the (SECONDARY AIR DAMPER 2A).
- ♦ After igniting the fire with small pieces of firewood and waiting for it to be well lit:
  - ♦ Turn the (AUTOMATIC THERMOSTAT D) to the position corresponding to the desired heat level (0-3).

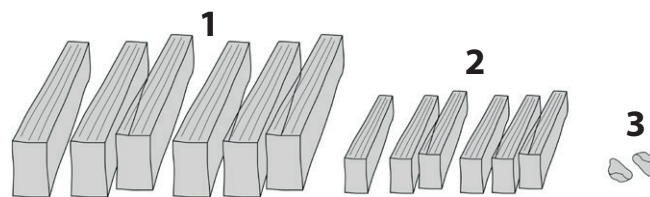
The dampers must be adjusted during ignition as follows:

|                 | 1A - PRIMARY AIR | 2A - SECONDARY AIR | B - IGNITION DAMPER | D - AUTOMATIC THERMOSTAT |
|-----------------|------------------|--------------------|---------------------|--------------------------|
| <b>Figure 9</b> | OPEN             | OPEN               | OPEN                | POSITION 3               |

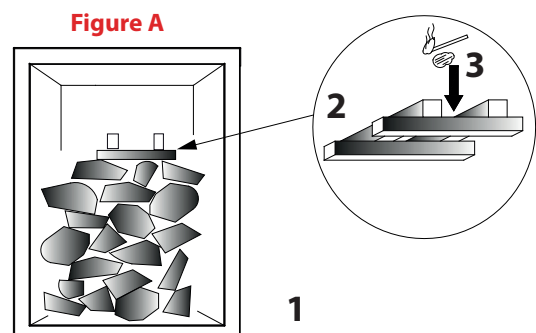
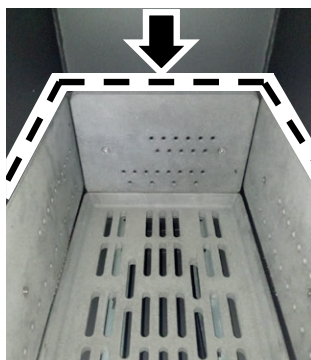
## LIGHT THE FIRE USING THE METHOD FROM ABOVE (RECOMMENDED)

See **Figure A:**

- To light the fire, place the larger pieces of wood (1) at the bottom;
- On top of the larger pieces (1), arrange smaller pieces of wood (2);
- Place the FIRE STARTER (3) on the top of the stack of wood - this can be, for example, wax-coated wood wool;
- Light the fire starter (3). One match is enough to light the fire.



**MAXIMUM PERMISSIBLE LOAD**



After lighting the fire, position the dampers as indicated in the following table:

|                 | 1A - PRIMARY AIR | 2A - SECONDARY AIR | B - IGNITION DAMPER | D - AUTOMATIC THERMOSTAT |
|-----------------|------------------|--------------------|---------------------|--------------------------|
| <b>Figure 9</b> | CLOSED           | OPEN               | OPEN                | POSITION 0               |

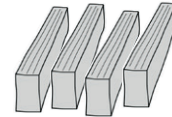
## PROCEDURE TO ACHIEVE THE RATED HEAT OUTPUT

### PREPARING THE BED OF EMBERS

#### FIRST LOAD:

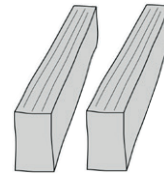
Use medium-sized pieces of wood (2) according to the hourly consumption specified in the document "CE MARKING INFORMATION".

Reload only when the flame is nearly extinguished.



#### SECOND LOAD:

Use large pieces of wood (1) according to the hourly consumption specified in the document "CE MARKING INFORMATION".



**TO AVOID ESCAPING SMOKE, THERE SHOULD BE ONLY EMBERS WHEN THE FIREWOOD IS LOADED.**



**NEVER OVERLOAD THE APPLIANCE. TOO MUCH FUEL AND COMBUSTION AIR CAN CAUSE OVERHEATING AND THUS DAMAGE THE APPLIANCE. THE WARRANTY DOES NOT COVER DAMAGE DUE TO OVERHEATING OF THE APPLIANCE.**



**CAUTION: DO NOT EXCEED THE MAXIMUM FIREWOOD LOAD - SEE TECHNICAL DATA AND HOURLY CONSUMPTION IN THE DOCUMENT "CE MARKING INFORMATION".**

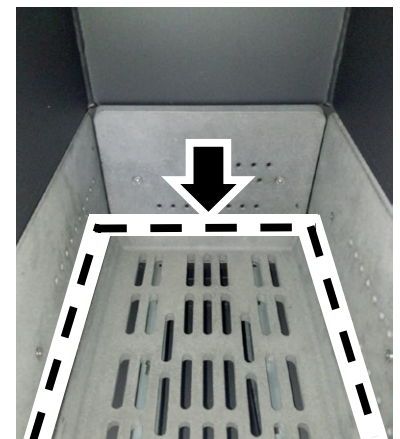


**IF THE WATER TEMPERATURE EXCEEDS THE SAFETY INTERVENTION LIMIT, IMMEDIATELY STOP ADDING WOOD AND CHECK THAT THE WATER TEMPERATURE AND FLAME DECREASE, ELIMINATING THE CAUSE OF OVERHEATING. CLOSE THE PRIMARY (1A) AND SECONDARY (2A) AIR DAMPERS. TURN THE (AUTOMATIC THERMOSTAT D) TO POSITION 0. PUSH THE (IGNITION DAMPER B) LEVER ALL THE WAY IN, DAMPER OPEN. IF THE HEATING UNIT IS CONNECTED TO A DOMESTIC HOT WATER SYSTEM, THE HOT WATER TAP CAN BE OPENED TO MAKE THE APPLIANCE COOL DOWN FASTER.**

To achieve nominal operation, a bed of embers approximately 3cm high (20-25% of the nominal load) is required.

If the ember bed is excessive, first stir it with the poker to allow the ash to fall into the ash drawer, then use a metal shovel to remove the excess embers.

The embers must not exceed the reference shown in the figure opposite.



Before placing the firewood, fully open the primary air damper and, using the supplied poker, stir the embers to reignite them. Position the firewood in the combustion chamber (see LOADING INSTRUCTIONS), close the door and wait up to 3 minutes for the flame to ignite, then adjust the dampers to achieve the rated heat output. Loading takes approximately 45 minutes.

## LOADING INSTRUCTIONS TO ACHIEVE THE RATED HEAT OUTPUT

|                                                   |                                   |
|---------------------------------------------------|-----------------------------------|
| No. logs                                          | 3                                 |
| Nominal load weight                               | 3 kg                              |
| Log length                                        | 29 cm                             |
| Positioning of the logs in the combustion chamber | Centrally (see <b>Figure 10</b> ) |
| Log shape                                         | (see <b>Figure 10</b> )           |

THE DAMPER ADJUSTMENT REQUIRED TO ACHIEVE THE RATED HEAT OUTPUT IS THE FOLLOWING:

|                 | 1A - PRIMARY AIR | 2A - SECONDARY AIR | B - IGNITION DAMPER | D - AUTOMATIC THERMOSTAT |
|-----------------|------------------|--------------------|---------------------|--------------------------|
| <b>Figure 9</b> | 19mm OPEN        | OPEN               | CLOSED              | POSITION 0               |

Loading is complete when, after loading, the combined weight of the ember and ash bed does not differ by more than 100g from the weight of the previous load.

THE USE OF THERMAL INSULATION ACCORDING TO ENERGY-SAVING REGULATIONS INCREASES THE HEATED VOLUME. IN THE CASE OF TEMPORARY HEATING WITH INTERRUPTIONS OF MORE THAN 8 H, THE HEATING CAPACITY DECREASES BY APPROXIMATELY 25%.

*THE TECHNICAL DATA DECLARED IN THE DOCUMENT "CE MARKING INFORMATION" WERE OBTAINED USING BEECH WOOD OF CLASS "A1" AS PER STANDARD UNI EN ISO 17225-5 AND WITH HUMIDITY BELOW 20%. THE USE OF OTHER WOOD TYPES MAY REQUIRE SPECIFIC ADJUSTMENTS AND COULD RESULT IN DIFFERENT PRODUCT PERFORMANCE.*

SHAPE AND POSITION OF LOGS  
RATED HEAT OUTPUT



**Figure 10**

**ALWAYS USE THE PRODUCT WITH THE DOOR CLOSED TO AVOID DAMAGE DUE TO OVERHEATING (FORGING EFFECT). FAILURE TO DO SO WILL INVALIDATE THE WARRANTY.**



**FOR SAFETY REASONS, THE FIREBOX DOOR MAY ONLY BE OPENED DURING FUEL LOADING. THE FIREBOX MUST REMAIN CLOSED DURING OPERATION AND PERIODS OF NON-USE.**

**OVERLOADING THE STOVE WITH WOOD MAY RESULT IN THE OVERHEATING OF THE INTERNAL COMPONENTS AND GENERATE NOISES DUE TO THE METAL PARTS EXPANDING.**

IN ADDITION TO THE COMBUSTION AIR ADJUSTMENT, THE COMBUSTION INTENSITY AND THEREFORE THE HEAT OUTPUT IS AFFECTED BY THE CHIMNEY. A HIGH CHIMNEY DRAUGHT REQUIRES LESS COMBUSTION AIR, WHILE A LOW DRAUGHT REQUIRES MORE COMBUSTION AIR.

To check for efficient combustion, observe the smoke coming from the chimney – it should be clear. If it is white, it means that the appliance is not properly adjusted or the firewood is too wet; if, on the other hand, the smoke is grey or black, it is a sign that combustion is not complete (more secondary air is needed).



**WHEN ADDING FUEL ONTO EMBERS IN THE ABSENCE OF FLAMES, A HIGH LEVEL OF SMOKE MAY BE PRODUCED. IF THIS OCCURS, AN EXPLOSIVE MIXTURE OF GAS MAY FORM, WHICH, IN EXTREME CASES, COULD LEAD TO AN EXPLOSION. FOR SAFETY REASONS, A NEW IGNITION PROCEDURE SHOULD BE PERFORMED USING SMALL STRIPS.**

## USING THE FOOD WARMER (WHERE PRESENT)

THE IGNITION DAMPER "B" MUST BE SET TO THE CLOSED POSITION (FOOD WARMER).

The temperature of the food warmer can be significantly affected by the intake of combustion air. Sufficient chimney draught and well-cleaned ducts for the flow of hot fumes around the food warmer are essential for optimal heating performance.

Thick cakes and large roasts must be inserted on the bottom level. Flat cakes and biscuits go on the middle level. The top level can be used for heating or browning.

The food warmer pan and the grill can be placed on different levels.

**WHEN WARMING UP VERY MOIST FOODS, CAKES WITH FRUIT OR FRUIT ITSELF, CONDENSATE IS PRODUCED.**

DURING THIS PHASE, AQUEOUS VAPOUR MAY FORM, WHICH IS THEN DEPOSITED ON THE TOP OR SIDE OF THE DOOR, FORMING CONDENSATE DROPLETS. THIS IS A NATURAL PHENOMENON.

By briefly and carefully opening the door (once or twice, more often if the heating times are longer), the vapour can be released from the food warmer, significantly reducing the formation of condensate.

USE THE STEAM VALVE "E" WHERE NECESSARY.

## POWER FAILURE

In the event of a sudden power outage during normal system operation, it will be necessary to perform the following simple operations to prevent the heating unit from boiling due to the pump not working.

1. Close the primary air (1A) and secondary air (2A) dampers.
2. Turn the (AUTOMATIC THERMOSTAT D) to position 0.
3. Push the (IGNITION damper B) all the way in (IGNITION), damper open.
4. Lift the movable firebox grate to its highest position (where fitted) to reduce the heat-exchange surface exposed to the flame.
5. Open the food warmer door (where fitted) to promote dissipation of the internal heat.

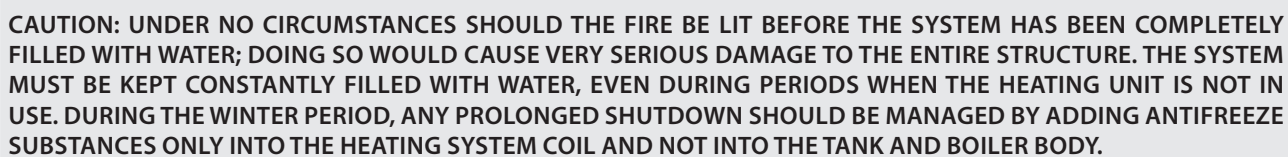
## OPERATION AT HIGH OUTSIDE TEMPERATURES

If the outside temperature is significantly higher than that of the installation room, the draught may be insufficient to fully expel the fumes, potentially resulting in a strong gas odour.

In this case, try reducing the fuel load to promote faster combustion (flame development) and restore proper draught.



**ALSO CHECK THE AIRTIGHTNESS OF ALL OPENINGS FOR FLUE CLEANING AND CONNECTIONS. IN IN DOUBT, DO NOT OPERATE THE PRODUCT.**



If the pump fails to circulate, or, for any reason, the water temperature reaches boiling point, the steam generated is discharged through the safety outlet.

[illegible]

TO FIND OUT WHERE YOUR NEAREST SERVICE CENTRE IS, CONTACT YOUR DEALER OR VISIT THE WEBSITE:  
WWW.LANORDICA-EXTRAFLAME.COM

## MAINTENANCE AND CARE

### FOLLOW ALL THE INSTRUCTIONS WITH MAXIMUM SAFETY!

- ♦ ENSURE THE POWER CORD (WHERE PRESENT) IS UNPLUGGED.
- ♦ THAT THE HEATER AND ALL ITS PARTS HAVE COOLED.
- ♦ THAT THE ASHES HAVE FULLY COOLED.
- ♦ ENSURE EFFICIENT AIR EXCHANGE IN THE ROOM WHEN CLEANING THE PRODUCT.
- ♦ POOR CLEANING NEGATIVELY AFFECTS THE PERFORMANCE AND SAFETY OF THE PRODUCT!

### REGULAR CLEANING UNDER THE USER'S RESPONSIBILITY

The periodic cleaning operations, as indicated in this use and maintenance manual, must be performed with the utmost care after reading the instructions, procedures and regularity described herein.

CHECK AND CLEAN THE FRESH AIR INTAKE AT LEAST ONCE A YEAR. THE CHIMNEY MUST BE REGULARLY SWEEPED BY THE CHIMNEY SWEEP. HAVE YOUR LOCAL CHIMNEY SWEEP CHECK THE PROPER INSTALLATION OF THE PRODUCT, THE CONNECTION TO THE CHIMNEY AND AIRING



CLEANING AND MAINTENANCE MUST ONLY BE PERFORMED WHEN THE APPLIANCE IS COLD. USE ONLY SPARE PARTS EXPRESSLY AUTHORISED AND SUPPLIED BY LA NORDICA S.P.A. IF NECESSARY, PLEASE CONTACT YOUR SPECIALISED RETAILER. NO CHANGES MUST BE MADE TO THE APPLIANCE!!!

### CLEANING THE GLASS

A specific secondary air inlet effectively slows down the formation of dirt deposits on the door glass. However, such deposits can never be avoided with the use of solid fuels (e.g. damp firewood) and are not to be regarded as a defect of the appliance.



THE PANORAMIC GLASS MUST ONLY BE CLEANED WHEN THE APPLIANCE IS COLD TO PREVENT IT FROM EXPLODING. FOR CLEANING, SPECIFIC PRODUCTS CAN BE USED OR, IT IS POSSIBLE TO USE A SCRUNCHED UP BALL OF NEWSPAPER (NON-COATED PAPER) SLIGHTLY MOISTENED AND DIPPED IN THE ASH. HOWEVER, DO NOT USE ABRASIVE OR CHEMICALLY AGGRESSIVE CLOTHS OR PRODUCTS.

Proper ignition, the right type and amount of fuel, the correct setting of the secondary air damper, a suitable chimney draught and steady supply of combustion air are all essential for the optimal performance of the appliance and in keeping the glass clean.



**GLASS BREAKAGE:** THE GLASS PANELS INSTALLED ARE MADE OF GLASS-CERAMIC, DESIGNED TO WITHSTAND TEMPERATURES UP TO 750°C.

THANKS TO THESE CHARACTERISTICS, THEY ARE NOT SUBJECT TO BREAKAGE CAUSED BY THERMAL SHOCK DURING THE NORMAL OPERATION OF THE APPLIANCE.

ANY BREAKAGE CAN OCCUR ONLY AS A RESULT OF MECHANICAL IMPACTS, SUCH AS, FOR EXAMPLE: DIRECT IMPACTS ON THE GLASS, SLAMMING THE DOOR VIOLENTLY, ETC.

PLEASE NOTE THAT THIS KIND OF DAMAGE IS NOT COVERED BY THE WARRANTY.

### CLEANING THE ASH DRAWER

All products have a firebox grate and ash drawer (**Figure 11**). We recommend that you periodically empty the ash drawer and avoid filling it completely, so as not to overheat the grate. Moreover, it is suggested to always leave 3-4 cm of ash in the firebox.



**CAUTION:** THE ASHES REMOVED FROM THE FIREBOX MUST BE STORED IN A CONTAINER MADE OF FIREPROOF MATERIAL FITTED WITH AN AIRTIGHT COVER. THE CONTAINER MUST BE PLACED ON A FIREPROOF FLOOR, AWAY FROM FLAMMABLE MATERIALS UNTIL THE ASH IS EXTINGUISHED AND FULLY COOLED.

## CLEANING THE FLUE

THE APPLIANCE SHOULD BE THOROUGHLY CLEANED AT LEAST ONCE A YEAR OR WHENEVER REQUIRED (IN CASE OF POOR PERFORMANCE AND LOW OUTPUT). EXCESSIVE SOOT (CREOSOTE) DEPOSITS CAN LEAD TO PROBLEMS IN THE FLUE EXHAUST AND TO FLUE FIRES.

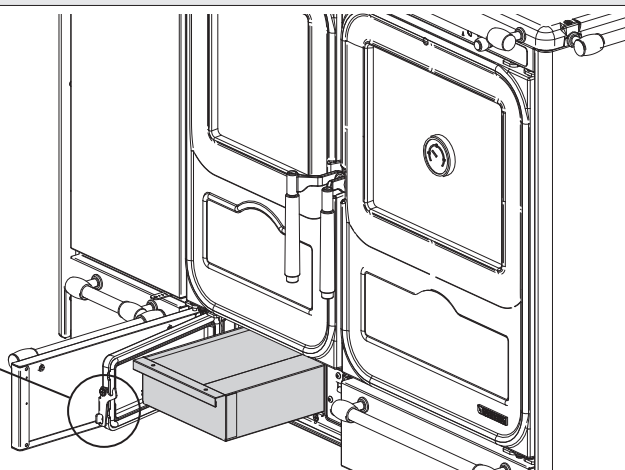
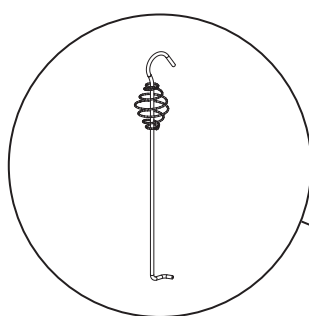


CLEANING MUST ONLY BE CARRIED OUT WHEN THE APPLIANCE IS COLD. THIS PROCEDURE SHOULD BE CARRIED OUT BY A CHIMNEY SWEEP, WHO CAN PERFORM AN INSPECTION AT THE SAME TIME.

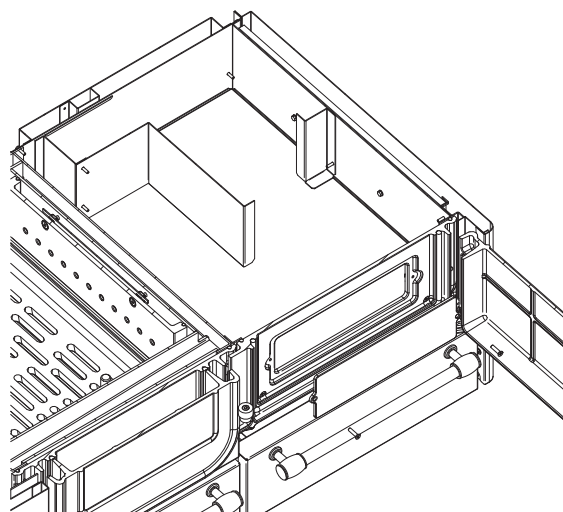
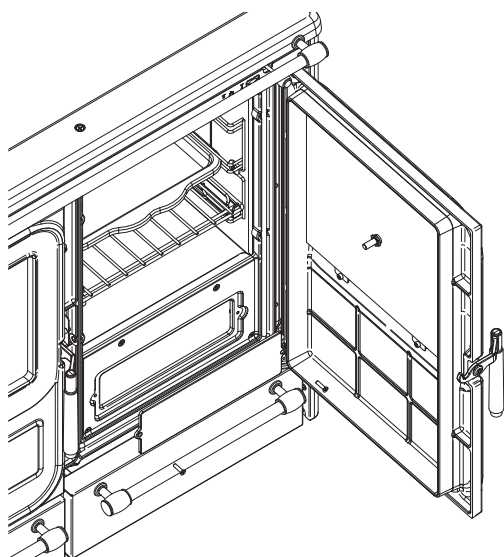
When cleaning, it is necessary to remove the ash drawer (1) (**Figure 11**) to allow for proper soot removal.

Figure 11

1 - ASH DRAWER



2 - FOOD WARMER FLUE COLLECTION COMPARTMENT



THE ABSENCE OF THE SMOKE BAFFLE CAUSES A STRONG VACUUM WITH EXCESSIVELY RAPID COMBUSTION, EXCESSIVE FIREWOOD CONSUMPTION AND RELATIVE OVERHEATING OF THE APPLIANCE.

## CLEANING THE CATALYTIC FILTER

The filter should be cleaned once a month under normal conditions of use. In any case, it must be cleaned whenever necessary, depending on the frequency of use and the type of fuel used.

See the INSTALLATION section for instructions on how to remove the filter and clean it using only a soft brush.

**Do not use any other tools or cleaning methods, to avoid damaging the filter.**

**CAUTION:** after cleaning, all disassembled parts must be reassembled **CORRECTLY**.

## MAJOLICA (IF PRESENT)

LA NORDICA S.p.A. majolica tiles are the result of high-quality craftsmanship and as such may present micro-crackling, crazing or colour imperfections. These characteristics attest to its high-quality nature. Enamel and majolica, due to their varying expansion coefficients, produce micro-crackling (crazing) that demonstrate their authenticity.



**WHEN CLEANING THE TILES, IT IS RECOMMENDED TO USE A SOFT, DRY CLOTH; IF ANY DETERGENT OR LIQUID IS USED, THIS MAY PENETRATE INTO THE CAVITIES AND PERMANENTLY EXPOSE THEM.**

## NATURAL STONE PRODUCTS (IF PRESENT)

NATURAL STONE IS CLEANED WITH VERY FINE SANDPAPER OR AN ABRASIVE SPONGE. **DO NOT** USE DETERGENTS OR LIQUIDS.

## PAINTED PRODUCTS (IF PRESENT)

After years of using the product, colour changes of painted parts is a completely natural phenomenon. This phenomenon is due to the considerable temperature variations to which the product is subject when it is in operation and to the ageing of the paint itself over time.



**BEFORE THE APPLICATION OF NEW PAINT, ANY RESIDUE MUST BE CLEANED AND REMOVED FROM THE SURFACE TO BE PAINTED.**

## ENAMELLED PRODUCTS (IF PRESENT)

To clean the enamelled parts, use soapy water or a neutral, **NON-ABRASIVE, NON-CHEMICALLY AGGRESSIVE DETERGENT**, at a cold temperature.



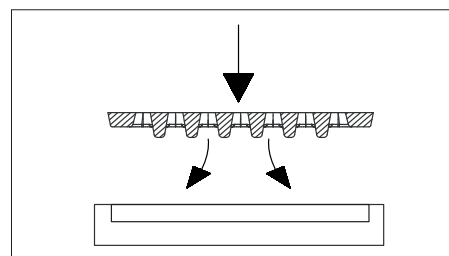
**AFTER CLEANING, DO NOT LEAVE THE SOAPY WATER OR DETERGENT TO DRY – REMOVE THEM IMMEDIATELY. DO NOT USE SANDPAPER OR STEEL WOOL.**

## CHROME-PLATED COMPONENTS (IF PRESENT)

If the chrome-plated components turn bluish due to overheating, this can be resolved using a suitable cleaning product.

## CLEANING THE FIREBOX GRATE

**IMPORTANT:** If for any reason the grate is removed from the firebox, it is **IMPORTANT**, when replacing it, that the flat part with the narrower ash passages be facing upwards; failure to do so would make it difficult to remove the ash from the grate (see figure opposite).



## SIDE HANDRAIL (IF PRESENT)

The handles, handrail and water tray (stoves) must be cleaned with a soft cloth and some alcohol, when cooled. **DO NOT** use abrasives or thinners.

## CAST IRON CENTRE PLATE AND RINGS



**IMPORTANT:** TO PREVENT THE FORMATION OF RUST, DO NOT LEAVE POTS AND PANS ON THE COLD COOKING PLATE. THIS COULD CAUSE UNSIGHTLY AND HARD-TO-REMOVE RUST STAINS! THE CAST IRON CENTRE PLATE (CAST IRON COOKING PLATE) AND THE CAST IRON RINGS MUST BE PERIODICALLY SANDED WITH 150-GRIT SANDPAPER. **CAUTION:** DO NOT SAND THE ENAMELLED PARTS.



CAUTION AFTER CLEANING, ALL DISASSEMBLED PARTS MUST BE REASSEMBLED IN AN AIRTIGHT MANNER.

## STAINLESS STEEL FRAME (IF PRESENT)

When repositioning the cast iron cooking plate, check that there is always a 3 mm gap between it and the stainless steel frame to allow for different thermal expansions and to prevent colour alterations to the stainless steel frame during heating.

## PERFORMING MAINTENANCE ON THE FOOD WARMER (IF PRESENT)

TO PREVENT THE FORMATION OF RUST, IT IS RECOMMENDED TO:

- Release the steam from the food warmer to reduce the formation of any condensate, briefly and carefully opening the door;
- Remove the food from the food warmer once heated. Leaving the food to cool inside the food warmer may result in the formation of condensate;
- Leave the food warmer door open to dry up any condensate;
- If moisture forms inside the food warmer, it is advisable to apply neutral petroleum jelly to the inside of the cast iron door (**where present**).
- If rust has formed on the inner side of the cast iron door, remove it using an abrasive material (150-grit sandpaper), then treat the cast iron surface with neutral petroleum jelly.
- Repeat the neutral petroleum jelly treatment on the inside of the cast iron door every 3–6 months depending on how often the food warmer is used;

## CLEANING THE FOOD WARMER FLUE COLLECTION COMPARTMENT

The flue collection compartment can be cleaned through the door located under the food warmer (**Figure 11 pos.2**).

To clean the flue collection compartment in the top part of the food warmer, remove the rings and, if necessary, also remove the centre plate, after dismantling the flue gas exhaust stub.

Cleaning can be performed using a brush and vacuum cleaner.



IMPORTANT: CHECK THAT THE SMOKE BAFFLE IS POSITIONED AS SHOWN IN THE FIGURE.



CAUTION: AFTER CLEANING, ALL DISASSEMBLED PARTS MUST BE REASSEMBLED IN AN AIRTIGHT MANNER.

## FOOD WARMER LIGHT

If the food warmer light should break, replace it using a lamp with the specified technical characteristics (see the INSTALLATION chapter).

AFTER DISCONNECTING THE ELECTRICAL POWER SUPPLY, REPLACE THE LAMP FROM INSIDE THE FOOD WARMER AS INDICATED (see the INSTALLATION chapter).

## HYDRAULIC SYSTEM MAINTENANCE



AN EXCESSIVE BUILD-UP OF DEPOSITS ON THE INTERNAL WALLS OF THE FIREBOX SIGNIFICANTLY REDUCES THE EFFICIENCY OF HEAT EXCHANGE; THEREFORE, WHEN NECESSARY, ANY DEPOSITS SHOULD BE REMOVED USING A STEEL SPATULA.  
NEVER USE CORROSIVE SUBSTANCES THAT COULD DAMAGE THE HEATING UNIT AND THE BOILER.

WITH THE SYSTEM SWITCHED OFF, ONCE A YEAR, CARRY OUT THE FOLLOWING CHECKS:

- ♦ Check the functionality and efficiency of the thermal relief and safety valves. IF THEY ARE FAULTY, CONTACT THE AUTHORISED INSTALLER. **IT IS STRICTLY PROHIBITED TO REMOVE OR TAMPER WITH THESE SAFETY DEVICES.**
- ♦ Check the thermal insulation of the filling pipe and the safety pipe.
- ♦ Ensure that the system is filled and pressurised. Check the water level inside the tank and test its functionality, also ensuring the efficiency of the safety pipe.

After prolonged use of the product, it may be necessary to service the coils if limescale deposits have formed on their surfaces. In this case, after draining the system, remove the coils and proceed with mechanical cleaning.

## SUMMER SHUTDOWN

After cleaning the firebox, chimney and flue, ensuring that all ash and any other residue have been removed, all doors and relative firebox dampers should be closed. If the appliance is disconnected from the chimney, the outlet hole should be closed.

IT IS ADVISABLE TO CLEAN THE FLUE AT LEAST ONCE A YEAR; AT THE SAME TIME CHECK THE ACTUAL CONDITION OF THE GASKETS, WHICH, IF NOT PERFECTLY INTACT - I.E. NO LONGER ADHERING TO THE PRODUCT - WOULD NOT GUARANTEE THE PROPER FUNCTIONING OF THE APPLIANCE! REPLACEMENT WOULD THEREFORE BE NECESSARY.



**IF THE APPLIANCE IS INSTALLED IN A DAMP ROOM, PLACE ABSORBENT SALTS INSIDE THE FIREBOX. TO PRESERVE THE APPEARANCE OF THE APPLIANCE OVER TIME, PROTECT CAST-IRON PARTS WITH NEUTRAL VASELINE.**

CHECK THE WATER LEVEL IN THE EXPANSION VESSEL AND RELEASE ANY AIR FROM THE SYSTEM BY BLEEDING THE RADIATORS. ALSO CHECK THE FUNCTIONALITY OF THE HYDRAULIC AND ELECTRICAL ACCESSORIES (CONTROL UNIT, CIRCULATING PUMP).



**CAUTION: UNDER NO CIRCUMSTANCES SHOULD THE FIRE BE LIT BEFORE THE SYSTEM HAS BEEN COMPLETELY FILLED WITH WATER; DOING SO WOULD CAUSE VERY SERIOUS DAMAGE TO THE ENTIRE STRUCTURE. THE SYSTEM MUST BE KEPT CONSTANTLY FILLED WITH WATER, EVEN DURING PERIODS WHEN THE HEATING UNIT IS NOT IN USE.**

**TO FIND OUT WHERE YOUR NEAREST SERVICE CENTRE IS, CONTACT YOUR DEALER OR VISIT THE WEBSITE:**

**[WWW.LANORDICA-EXTRAFLAME.COM](http://WWW.LANORDICA-EXTRAFLAME.COM)**

## ROUTINE MAINTENANCE PERFORMED BY QUALIFIED TECHNICIANS

ROUTINE MAINTENANCE MUST BE PERFORMED AT LEAST ONCE A YEAR.

SINCE THE HEATER USES FIREWOOD AS A SOLID FUEL, ANNUAL ROUTINE MAINTENANCE IS REQUIRED, WHICH MUST BE CARRIED OUT BY A QUALIFIED TECHNICIAN, USING ONLY ORIGINAL SPARE PARTS.

**FAILURE TO COMPLY MAY JEOPARDISE SAFETY OF THE APPLIANCE AND INVALIDATE THE WARRANTY CONDITIONS.**

Observing the cleaning frequencies reserved for the user as described in the use and maintenance manual will ensure the heater's proper combustion over time, avoiding any anomalies and/or malfunctions that could require additional call-outs.

**REQUESTS FOR ROUTINE MAINTENANCE ARE NOT COVERED BY THE PRODUCT WARRANTY.**

## GASKETS

The gaskets ensure the airtightness and proper functioning of the product.

**THEY MUST BE REGULARLY CHECKED. THEY MUST BE REPLACED IMMEDIATELY IF THEY ARE WORN OR DAMAGED.**

**THESE PROCEDURES MUST BE PERFORMED BY A QUALIFIED TECHNICIAN.**

## CONNECTION TO THE CHIMNEY

ANNUALLY, OR WHENEVER THE DUCT LEADING TO THE CHIMNEY NEEDS TO BE VACUUMED AND CLEANED. IF THERE ARE HORIZONTAL SECTIONS, REMOVE ANY RESIDUE BEFORE IT OBSTRUCTS THE PASSAGE OF SMOKE.

| EN 16510-1<br>Symbol                                                                | EXPLANATION                                                         |
|-------------------------------------------------------------------------------------|---------------------------------------------------------------------|
| <i>nom</i>                                                                          | Nominal heat output                                                 |
| <i>part</i>                                                                         | Part load heat output                                               |
| <i>CON / INT</i>                                                                    | Appliance operation, Continuous (CON) or Intermittent (INT)         |
| $CO_{2\text{ nom}} / CO_{2\text{ part}}$                                            | Carbon dioxide emission                                             |
| $CO_{\text{ nom}} / CO_{\text{ part}}$                                              | Carbon monoxide emission                                            |
| $d_B$                                                                               | Minimum distances to combustible materials - bottom                 |
| $d_C$                                                                               | Minimum distances to combustible materials - ceiling                |
| $d_F$                                                                               | Minimum distances to combustible materials - floor in front         |
| $d_L$                                                                               | Minimum distances to combustible materials - side radiation area    |
| $d_{\text{non}}$                                                                    | Minimum distances to non-combustible walls                          |
| $d_{\text{out}}$                                                                    | Flue gas exhaust pipe                                               |
| $d_p$                                                                               | Minimum distances to adjacent combustible materials - front         |
| $d_R$                                                                               | Minimum distances to combustible materials - rear                   |
| $d_s$                                                                               | Minimum distances to combustible materials - side                   |
| <i>E, f</i>                                                                         | Power supply voltage, frequency                                     |
| <i>EEl</i>                                                                          | Energy Efficiency Index                                             |
| $el_{\text{max}}$                                                                   | Consumption of electrical auxiliary energy at nominal heat output   |
| $el_{\text{min}}$                                                                   | Consumption of electrical auxiliary energy at part load heat output |
| $el_{\text{SB}}$                                                                    | Consumption of electrical auxiliary energy at standby               |
| <i>H</i>                                                                            | Appliance height overall                                            |
| <i>L</i>                                                                            | Appliance depth overall                                             |
| <i>m</i>                                                                            | Net weight                                                          |
| $m_{\text{chim}}$                                                                   | Maximum load of a chimney the appliance max carry                   |
| $m_{h\text{ nom}} / m_{h\text{ part}}$                                              | Hourly consumption                                                  |
| $NO_{x\text{ nom}} / NO_{x\text{ part}}$                                            | Nitrogen oxides emission                                            |
| $OGC_{\text{ nom}} / OGC_{\text{ part}}$                                            | Emission of organic gaseous carbon                                  |
| $PM_{\text{ nom}} / PM_{\text{ part}}$                                              | Particulate matter emissions                                        |
| $P_{\text{ nom}} / P_{\text{ part}}$                                                | Heat output                                                         |
| $P_{\text{ nom}} / P_{\text{ part}}$                                                | Minimum flue draught                                                |
| $P_{\text{SH nom}} / P_{\text{SH part}}$                                            | Space heat output                                                   |
| $P_W$                                                                               | Permissible maximum water operating pressure                        |
| $P_{W\text{ nom}} / P_{W\text{ part}}$                                              | Water heat output                                                   |
| <i>s</i>                                                                            | Thickness of the protective insulation material                     |
| $T_{\text{class}}$                                                                  | Chimney designation                                                 |
| $T_{f,g\text{ nom}} / T_{f,g\text{ part}}$                                          | Mean flue gas temperature                                           |
| $T_{s\text{ nom}} / T_{s\text{ part}}$                                              | Flue gas outlet temperature                                         |
| <i>W</i>                                                                            | Appliance width overall                                             |
| $W_{\text{max}}$                                                                    | Maximum electric power input                                        |
| $\eta_{\text{ nom}} / \eta_{\text{ part}}$                                          | Efficiency                                                          |
| $\eta_s$                                                                            | Seasonal space heating efficiency at nominal heat output            |
| $\Phi_{f,g\text{ nom}} / \Phi_{f,g\text{ part}}$                                    | Flue gas mass flow                                                  |
| <i>Wood Pellet (L)</i>                                                              | Wood Pellet                                                         |
| <i>Wood Logs (l)</i>                                                                | Wood Logs                                                           |
|  | Read and follow the user operating instructions                     |







Riscalda la vita.

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**MADE IN ITALY**  
design & production

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The manufacturer reserves the right to vary the characteristics and the data reported in this pamphlet at any moment and without notice, in order to improve its products.