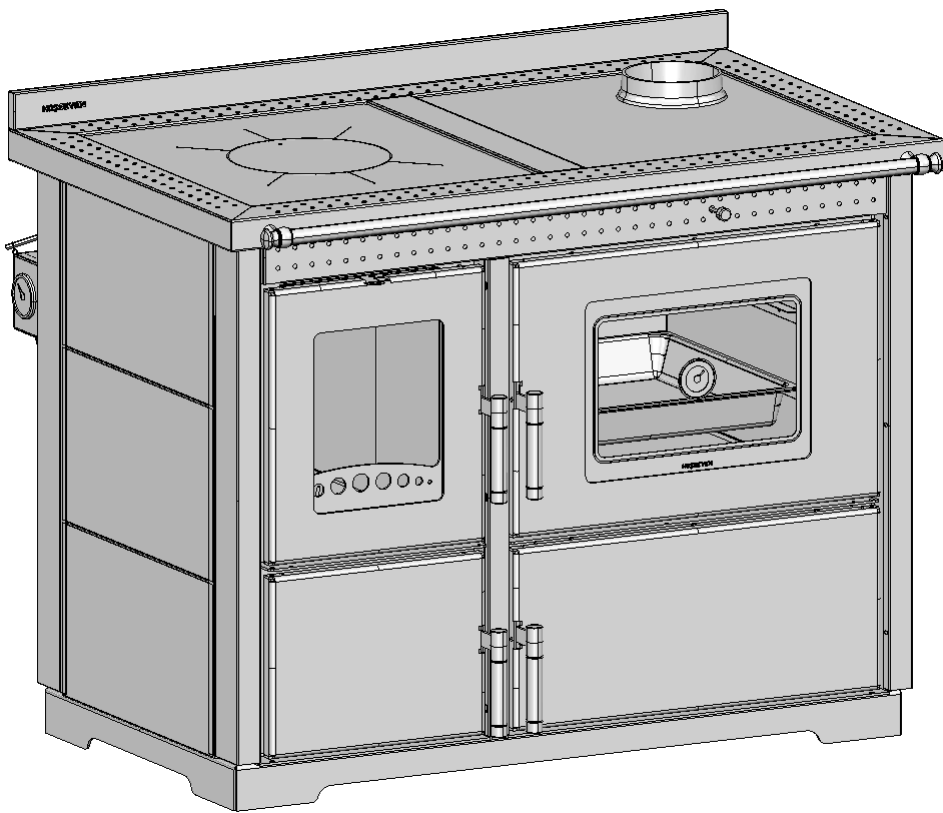




hoşseven



KH.2545

INSTRUCTIONS MANUAL

WARNINGS

This instructions manual is an integral part of the product: make sure that it always accompanies the appliance, even if transferred to another owner or user, or if transferred to another place. If it is damaged or lost, request another copy from the area technician. This product is intended for the use for which it has been expressly designed. The manufacturer is exempt from any liability, contractual and extracontractual, for injury/damage caused to persons/animals and objects, due to installation, adjustment and maintenance errors and improper use.

Installation must be performed by qualified staff, which assumes complete responsibility for the definitive installation and consequent good functioning of the product installed. One must also bear in mind all laws and national, regional, provincial and town council Standards present in the country in which the appliance has been installed, as well as the instructions contained in this manual.

The Manufacturer cannot be held responsible for the failure to comply with such precautions.

After removing the packaging, ensure that the content is intact and complete. Otherwise, contact the dealer where the appliance was purchased.

All electric components that make up the product must be replaced with original spare parts exclusively by an authorised after-sales centre, thus guaranteeing correct functioning.

SAFETY

- THE APPLIANCE MAY BE USED BY CHILDREN 8 YEARS OF AGE OR OLDER AND INDIVIDUALS WITH REDUCED PHYSICAL, SENSORY, OR MENTAL CAPACITIES OR WITHOUT EXPERIENCE OR THE NECESSARY KNOWLEDGE, PROVIDED THAT THEY ARE SUPERVISED OR HAVE RECEIVED INSTRUCTIONS ON SAFE USE OF THE APPLIANCE AND THAT THEY UNDERSTAND THE INHERENT DANGERS.
- THE GENERATOR MUST NOT BE USED BY PERSONS (INCLUDING CHILDREN) WITH REDUCED PHYSICAL, SENSORY AND MENTAL CAPACITIES OR WHO ARE UNSKILLED PERSONS, UNLESS THEY ARE SUPERVISED AND TRAINED REGARDING USE OF THE APPLIANCE BY A PERSON RESPONSIBLE FOR THEIR SAFETY.
- THE CLEANING AND MAINTENANCE REQUIRED BY THE USER MUST NOT BE PERFORMED BY CHILDREN WITHOUT SUPERVISION. CHILDREN MUST BE CHECKED TO ENSURE THAT THEY DO NOT PLAY WITH THE APPLIANCE.
- DO NOT TOUCH THE GENERATOR WHEN YOU ARE BAREFOOT OR WHEN PARTS OF THE BODY ARE WET OR DAMP.
- THE SAFETY AND ADJUSTMENT DEVICES MUST NOT BE MODIFIED WITHOUT THE AUTHORISATION OR INDICATIONS OF THE MANUFACTURER.
- DO NOT PULL, DISCONNECT, TWIST ELECTRIC CABLES LEAVING THE STOVE, EVEN IF DISCONNECTED FROM THE ELECTRIC POWER SUPPLY MAINS.
- IT IS ADVISED TO POSITION THE POWER SUPPLY CABLE SO THAT IT DOES NOT COME INTO CONTACT WITH HOT PARTS OF THE APPLIANCE.
- DO NOT CLOSE OR REDUCE THE DIMENSIONS OF THE AIRING VENTS IN THE PLACE OF INSTALLATION. THE AIRING VENTS ARE ESSENTIAL FOR CORRECT COMBUSTION.
- DO NOT LEAVE THE PACKAGING ELEMENTS WITHIN REACH OF CHILDREN OR UNASSISTED DISABLED PERSONS.
- THE HEARTH DOOR MUST ALWAYS BE CLOSED DURING NORMAL FUNCTIONING OF THE PRODUCT.
- WHEN THE APPLIANCE IS FUNCTIONING AND HOT TO THE TOUCH, ESPECIALLY ALL EXTERNAL SURFACES, ATTENTION MUST BE PAID CHECK FOR THE PRESENCE OF ANY OBSTRUCTIONS BEFORE SWITCHING THE APPLIANCE ON FOLLOWING A PROLONGED PERIOD OF INACTIVITY.
- THE GENERATOR HAS BEEN DESIGNED TO FUNCTION IN ANY CLIMATIC CONDITION. IN PARTICULARLY ADVERSE CONDITIONS (STRONG WIND, FREEZING) SAFETY SYSTEMS MAY INTERVENE THAT SWITCH THE GENERATOR OFF. IF THIS OCCURS, CONTACT THE TECHNICAL AFTER-SALES SERVICE AND ALWAYS DISABLE THE SAFETY SYSTEMS.
- IN THE EVENT THE FLUE CATCHES FIRE, USE SUITABLE SYSTEMS FOR SUFFOCATING THE FLAMES OR REQUEST HELP FROM THE FIRE BRIGADE.
- THIS APPLIANCE MUST NOT BE USED TO BURN WASTE DO NOT USE ANY FLAMMABLE LIQUIDS FOR IGNITION.

GENERAL PRECAUTIONS

HOSSEVEN A.S. responsibility is limited to the supply of the appliance.

The installation must be carried out scrupulously according to the instructions provided in this manual and the rules of the profession.

Installation must only be carried out by a qualified technician who works on behalf of companies suitable to assume the entire responsibility of the system as a whole. **HOSSEVEN A.S. declines any responsibility for the product that has been modified without written authorisation as well as for the use of non-original spare parts.**

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



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

INSTALLATION REGULATIONS

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

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

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

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

Before installing the appliance, carry out the following checks:

- UPPER smoke output - REAR - LATERAL
- verify if your structure can support the weight of the appliance. In case of insufficient carrying capacity it is necessary to adopt appropriate measures, HOSSEVEN A.S. responsibility is limited to the supply of the appliance (See chapter *TECHNICAL DESCRIPTION*).
- Make sure that the floor can support the weight of the appliance (for ex. distributing weight plate), and if it is made of flammable material, provide suitable insulation (*DIMENSIONS ACCORDING TO REGIONAL REGULATIONS*).
- Make sure that there is adequate ventilation in the room where the appliance is to be installed, with particular attention to windows and doors with tight closing (seal ropes).
- Do not install the appliance in rooms containing collective ventilation ducts, hoods with or without extractor, type B gas appliances, heat pumps, or other appliances that, operating at the same time, can put the room in depression .
- Make sure that the flue and the pipes to which the appliance will be connected are suitable for its operation. **It is NOT allowed the connection of various appliances to the same chimney.**
- The installation must be appropriate and has to allow the cleaning and maintenance of the product and the flue.



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

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

FIRE SAFETY

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

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

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



During combustion, thermal energy is released which leads to considerable heating of the surfaces, doors, handles, controls, glass parts, the flue gas pipe and possibly the front part of the appliance. Avoid contact with these elements unless using suitable protective clothing or accessories (heat resistant gloves, control devices). Ensure children are aware of these dangers and keep them away from the furnace when it is on.

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

IN A EMERGENCY

If there is a fire in the flue connection :

- a) Close the loading door and the ash tray door
- b) Close the comburent air registers
- c) Use carbon dioxide (CO₂ powder) extinguishers to put out the fire
- d) Request the immediate intervention of the Fire Brigade



DO NOT PUT OUT THE FIRE WITH WATER.

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

TECHNICAL DATA	KH.2545
Definition in accordance with	EN 12815
Constructive system	2
Nominal power in kW	24
Efficiency in %	85
Water content in liter	30
Operating temperature max. in °C	90
Operating pressure max. in bar	2,5
Smoke outlet diameter in mm	130
Chimney height ≥ (m) - dimension (mm)	4 - 200x200 or Ø200
Chimney draught in Pa (mm H ₂ O)	12 (1,2 mm H ₂ O)
Hourly wood consumption in kg / h (wood with 20% humidity)	2,3
CO measured at 13% oxygen in %	0,08 - (1000 mg/Nm ³)
Exhaust gas emission in g/s – wood	7,5
Exhaust gas temperature in °C - wood	280
Hearth opening size in mm (W x H)	230 x 210
Hearth size in mm (W x H x D)	285 x 405 x 445
Oven size in mm (W x H x D)	440 x 290 x 440
Type of grill	Movable - flat
Height in mm	846
Width in mm	1044
Depth in mm	663
Net Weight in kg	220 ±%5
Fire prevention safety distances	Chapter FIRE SAFETY

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

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

TECHNICAL DESCRIPTION

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

The hearth is totally sheathed with single cast iron sheets and it is endowed with a pre-adjusted tertiary air for a better combustion. Inside there is a thick flat grate. The hearth is equipped with a panoramic door with ceramic glass (resistant up to 700 °C) and outside tempered. This allows a wonderful view on the burning flames. Furthermore, it is thus avoided the output of sparks and smoke.

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

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

CENTRAL HEATING SYSTEM

Adjust the draught thermostat (Picture-08 no.14) desired temperature (for example 50 °C..60 °C.), push the chimney flap (Picture.10 no.19) to close. Secondary air (Picture-06/09 no.5) must be open. Keep the draught thermostat primary air inlet open, keep the other air inlets closed position during central heating period.

SMOKES control (see Picture)

(Conversion of the cooker function to the cooker, bake oven and heating function).

The smokes control, in the style of a chromed pull push lever, can be found on the top right corner of the front side of the cooker, between the protection bar and the oven door. This control has two settings:

HOB COOKING: when the bar is pushed to the back of the cooker, the combustion gases flow around the oven and directly into the flue and up to the chimney. OVEN COOKING: when the control bar is pulled out, the combustion gases flow around the oven, heating it.

To ignite the flame follow the instructions below (see Cap. IGNITION) :

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

The control regulation **during the ignition phase** is the following :

SMOKE CONTROL FOR COOKING

Hob Cooking (Hot plate use)

Keep the draught thermostat adjusted position , pull the chimmy flap (Picture-10 no.19) to make full open position.

Oven Cooking

Push the chimmy flap to close position. If you like to cook top side of the meat ,you can make the chimmy flap (Picture-10 no.19) as open position (for this pull it). You can follow the oven temperature a thermometer installed on the oven glass door.

Slow Burning

Close primer and sconder air inlets and adjust the draught thermostat for minimum temperature value.(30°C)

Clean the ash tray from time to time not to obstruct to air inlet.



Essential requirements for correct appliance operation:

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

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

For the rectangular section, the maximum ratio between the sides must be ≤ 1.5 .

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

The following materials are **FORBIDDEN** and compromise the good operation of the appliance: asbestos cement, galvanised steel, rough and porous internal surfaces. **Picture 1** shows some example solutions.

The minimum section must be 4 dm² (for example 20x20 cm) for appliances whose pipe dimensions are less than 200 mm, or 6.25 dm² (for example 25x25 cm) for appliances with a diameter of more than 200 mm.

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

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



ATTENTION: as far as concern the realisation of the flue connection and flammable materials please follow the requirements provided by related standard. The flue must be at a suitably distance from flammable or combustible material using suitable insulation or an air space. It is **FORBIDDEN** to pass system piping or air ducts inside the flue. It is also forbidden to create moveable or fixed openings on the flue itself, for the connection of further different appliances (See chapter **CONNECTING A FIREPLACE OR OPEN HEARTH TO THE FLUE**)

CHIMNEY POT

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

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

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

The chimney pot must meet the following requirements:

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



ATTENTION: as far as concern the realisation of the flue connection and flammable materials please follow the requirements provided by related standard. The flue must be properly spaced from any flammable materials or fuels through a proper insulation or an air cavity. Minimum distance safety 25 cm.

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

For correct appliance operation, it is essential that sufficient air for combustion is introduced into the place of installation.

CONNECTING A FIREPLACE OR OPEN HEARTH TO THE FLUE

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

- under no circumstances use a flue gas channel with a diameter less than that of the exhaust clamp with which the product is equipped;
- each meter of the horizontal stretch of the flue gas channel causes a slight loss of head which must be compensated if necessary by elevating the flue;
- the horizontal stretch must never exceed 2 meters.
- each bend of the flue gas channel slightly reduces the flue draught which must be compensated if necessary by elevating it suitably;
- Regulation requires that under no circumstances must there be more than 2 bends or variations in direction including the intake into the flue. (Picture-17-18)

AIR FLOW IN THE PLACE OF INSTALLATION DURING COMBUSTION

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

The intake of air for combustion in the place of installation must not be obstructed during operation of the product. It is absolutely essential that in environments in which products are operated with a natural chimney draught, as much air as is necessary for combustion is introduced, i.e. up to 20 (<11kW) m³/hour. The natural recirculation of air must be guaranteed by some fixed openings to the outside. Their size is established by regulations regarding the subject. Ask for information from a chimneys weep. The openings must be protected with grills and must never be blocked up. An extractor hood (suction) installed in the same room or in a neighbouring one causes a depression in the environment. This causes the leakage of burnt gas (dense smoke, smell); it is therefore necessary to ensure a greater flow of fresh air.



The depression of an extractor hood can, in the worst case scenario, transform the flue of the product into an external air inlet, re sucking the flue gases into the environment with very serious consequences for persons.

ALLOWED / NOT ALLOWED FUELS

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

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

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

Fresh wood contains about 60% of H₂O, therefore it is not suitable to be burnt.

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

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

Paper, cardboard and wax emmited paper must be used only to light the fire.

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

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

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



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

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

LIGHTING



WARNING: After the first ignition you can smell bad odours (owing to the drying of the glue used in the garnitures or of the paint) which disappear after a brief using of the appliance. It must be ensured, in any case, a good ventilation of the environment. Upon the first ignition we suggest loading a reduced quantity of fuel and slightly increasing the calorific value of the equipment. It is FORBIDDEN to use any liquid substance as for ex. alcohol, gasoline, oil and similar. Never switch on the device when there are combustible gases in the room.

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

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

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

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

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

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

Please always be present during this phase.



Never overload the appliance (see cap. TECHNICAL DESCRIPTION / hourly consumption). Too much fuel and too much air for combustion can cause overheating and therefore damage the appliance. The warranty does not cover the damages due to overheating of the equipment.

LOW EMISSION fire lighting

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

Place the logs in the hearth a certain distance apart. Arrange the largest at the bottom and the smallest at the top, or vertically in the case of tall narrow combustion chambers. Place the fire starter module on top of the pile, arranging the first logs in the module at right angles to the pile of wood.

Fire STARTER MODULE. This fire starter module replaces a paper or cardboard starter. Prepare four logs, 20 cm long with a cross section of 3 cm by 3 cm. Cross the four logs and place them on top of the pile of wood at right angles, with the fire lighter (wax impregnated wood fibre for example) in the middle. The fire can be lit with a match.

If you want, you can use thinner pieces of wood. In this case, you will need a larger quantity.

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

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


IMPORTANT:

- do not add further wood between one complete load and the next;
- do not suffocate the fire by closing the air intakes;
- regular cleaning by a chimney sweep reduces fine particle emissions.

NORMAL OPERATION

After having positioned the registers correctly, insert the indicated hourly wood load avoiding overloads that cause anomalous stresses and deformations (according to the instructions on paragraph TECHNICAL DESCRIPTION). **You should always use the product with the door closed in order to avoid damages due to overheating (forge effect). The inobservance of this rule makes the warranty expire.**


For safety reasons the door of the appliances with constructive system 1, must be opened only for the loading of the fuel or for removing the ashes, while during the operation and the rest, the door of the hearth must remain closed. The appliances with constructive system 2 must be connected to their own flue. The operating with open door is allowed under supervision.

 **IMPORTANT: For safety reasons the door of the hearth can be opened only for the loading of the fuel. The hearth door must always remain closed during operation or rest**

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

Never overload the appliance. Too much fuel and too much air for the combustion may cause overheating and then damage the stove. You should always use the appliance with the door closed in order to avoid damages due to overheating (forge effect). **The inobservance of this rule makes the warranty expire.** The adjustment of the registers necessary to reach the rated calorific yield with a depression at the stack of 12 Pa (1,2mm of column of water) is the following one: see chapter TECHNICAL DESCRIPTION. **The appliance works as an intermittent operating appliance.** Besides the adjustment of the air for the combustion, the intensity of the combustion and consequently the thermal performance of the device is influenced by the stack. A good draught of the stack requires a stricter adjustment of air for combustion, while a poor draught requires a more precise adjustment of air for combustion.

To verify the good combustion, check whether the smoke coming out from the stack is transparent. If it is white, it means that the device is not properly adjusted or the wood is too wet; if instead the smoke is gray or black, it signals that the combustion is not complete (it is necessary a greater quantity of secondary air).

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

USE OF THE OVEN

Thanks to the air flow for the combustion, the temperature of the oven may become remarkably affected. A sufficient flue of the chimney and of the channels, well cleaned for the flow of burning smokes around the oven are fundamental for a good cooking result.

Thick cakes and big roasts must be introduced in the lowest level. Flat cakes and biscuits must reach the medium level. The upper level may be used to heat or grill.

The oven pan and the chrome plated oven grille may be located on different plans (see chapter Technical Description - ACCESSORIES).

When cooking food with high humidity, cakes with fruit or fruit itself, water of condensation will be produced. During the cooking process some water vapour in the form of drops of condensed water can deposit onto the top and the side of the door. It is a physical phenomenon.

By opening the door briefly and carefully (1 or 2 times, or even often in case of longer cooking times) you can let out the steam from the cooking compartment and reduce condensation significantly.


OPERATION IN TRANSITION PERIODS

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

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


MAINTENANCE AND CARE

Check the external air intake, by cleaning it, at least once a year. The stack must be regularly swept by the chimney sweeper. Let your chimney sweeper in charge of your area check the regular installation of the device, the connection to the stack and the aeration.

 **IMPORTANT: THE MAINTENANCE MUST BE CARRIED OUT ONLY AND EXCLUSIVELY WITH COLD DEVICE. You should only use spare parts approved and supplied by HOSSEVEN A.S. Please contact your specialized retailer if you require spare parts. YOU MUST NOT MAKE ANY CHANGES TO THE DEVICE!!!**

GLASS CLEANING

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


 **IMPORTANT: The cleaning of the sight glass must be carried out only and exclusively with cold device to avoid the explosion of the same. For the cleaning, it is possible to use specific products or a wet newspaper paper ball passed in the ash to rub it. Do not use cloths, abrasive or chemically aggressive products by cleaning the hearth glass.**

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

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


CLEANING OUT THE ASHES

Device is equipped with two type grate and an ash tray for collection of the ashes. Round grate can be half turned with a handle to move back and forward. to drop ashes into ash try. (Picture-06) It is suggested to empty periodically to ash try and to avoid it fills completely in order to overheating the grate. You can remove all ashes with second handle to move back and forward.(Picture-06)

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

CLEANING THE FLUE


The correct lighting phase, the use of proper quantities and types of fuels, the correct position of the secondary air regulator, enough draught of the chimney-flue and the presence of combustion air are the essential elements for the optimal functioning of the appliance. The device should be completely cleaned at least once a year or every time it is needed (in case of bad working and low yield). An excessive deposit of soot can cause problems in the discharge of smokes and fire in the flue.

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

SUMMER STOP

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

We suggest performing the cleaning operation of the flue at least once per year; verifying in the meantime the actual status of the rope seals, which cannot ensure the good operation of the equipment if they are not in good condition and are not making a good seal! In this case the seals must be replaced. In presence of dampness in the room where the stove has been placed, we advise you to put absorbent salts into the hearth.

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

MAJOLICAS (If present)

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

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

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

PRODUCTS MADE OF NATURAL STONE (If present)

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

VARNISHED PRODUCTS (If present)

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

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

ENAMELLED PRODUCTS (If present)

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

CHROMIUM-COMPONENTS (If present)

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

CAST IRON COOKING PLATE AND RINGS

IMPORTANT: to avoid rust DO NOT forget pots or pans on the cold cooking plate. This would create rust rings, unpleasant to see and difficult to remove. The cast iron cooking plate and the cast iron rings needs to be periodically cleaned by using sandpaper (grain 150) **without touching the enamelled parts.**

MAINTENANCE OF THE OVEN (where existing)

To avoid the possible forming of rust it is recommended:

- To let the steam getting out of the oven to reduce the formation of any condensation by opening the door briefly and carefully (1 or 2 times, or more often in case of cooking food very humid and with longer cooking times);
- Remove the food from the oven once cooked. Letting the food to chill in the oven at a temperature below 150 °C results in the forming of condensation;
- After cooking, leave the oven door partially open to dry out any condensation;
- In case humidity formed inside the oven, we suggest you to treat with neutral vaseline the inside part of the cast iron door (where existing).
- Repeat the treatment with the neutral vaseline on the inside part of the cast iron door every 3-6 months, depending of the frequency of the use of the oven;
- In case of presence of rust on the inside part of the cast iron door, remove the rust by using abrasive material and then treat the cast iron surface with neutral vaseline.

*In order to ensure the quality of the foods that are cooked in the oven, the internal parts of the cast iron doors **have Not been treated with any product.***

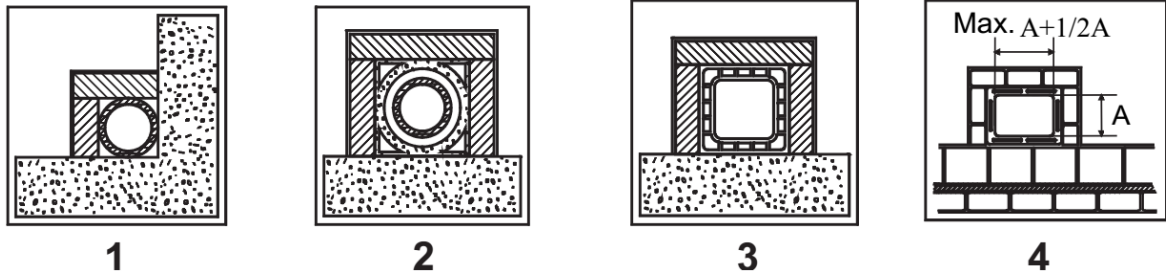
CALCULATION OF THE THERMAL POWER

There is not an absolute rule for calculating the correct necessary power. This power is given according to the space to be heated, but it depends also largely on the insulation. On an average, the calorific value necessary for a properly insulated room is **30 kcal/h per m³** (for an external temperature of 0°C).

Given that **1 kW corresponds to 860 kcal/h**, it is possible to adopt a value of **35 W/m³**.

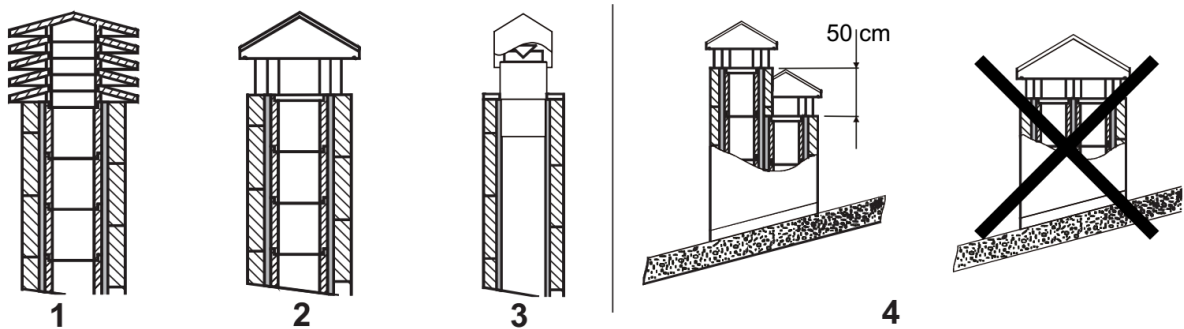
Let's suppose one wishes to heat a room of 150 m³ (10 x 6 x 2.5 m) in an insulated apartment. In this case, it is necessary to have 150 m³ x 35 W/m³ = 5250 W or 5,25 kW. As main heating, a 8 kW device is therefore sufficient

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



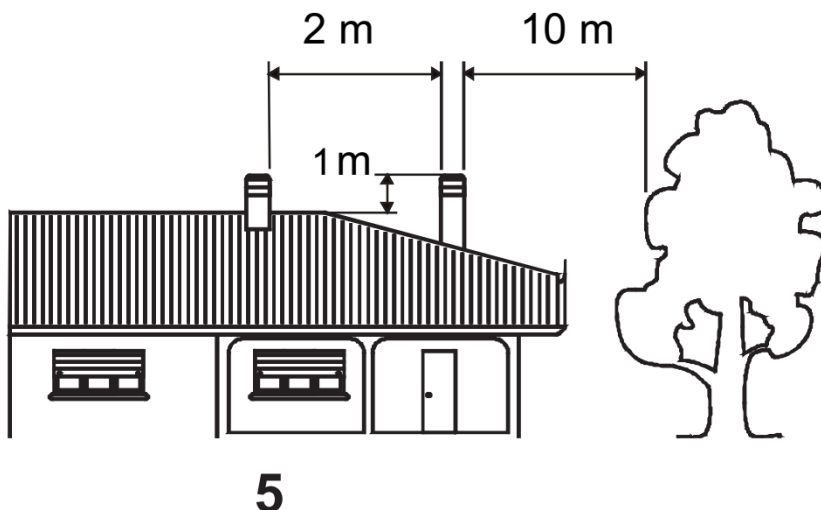
1. Steel flue with double chamber insulated with material resistant to 400°C. **Efficiency 100% excellent.**
2. Refractory flue with double insulated chamber and external coating in lightweight concrete. **Efficiency 100% excellent.**
3. Traditional clay flue square section with cavities. **Efficiency 80% good.**
4. Avoid flues with rectangular internal section whose ratio differs from the drawing. **Efficiency 40% poor**

PICTURE - 01



1. Industrial chimney cap with pre-fabricated elements – it allows an excellent discharge of the smokes.
2. Handcraft chimney cap. The right output section must be at least twice as big as the internal section of the flue (ideal value: 2.5 times).
3. Chimney cap for steel flue with internal cone deflector of smokes.
4. In case of flues side by side, a chimney cap must be higher than the other one of at least 50 cm in order to avoid pressure transfers between the flues themselves.

PICTURE - 02

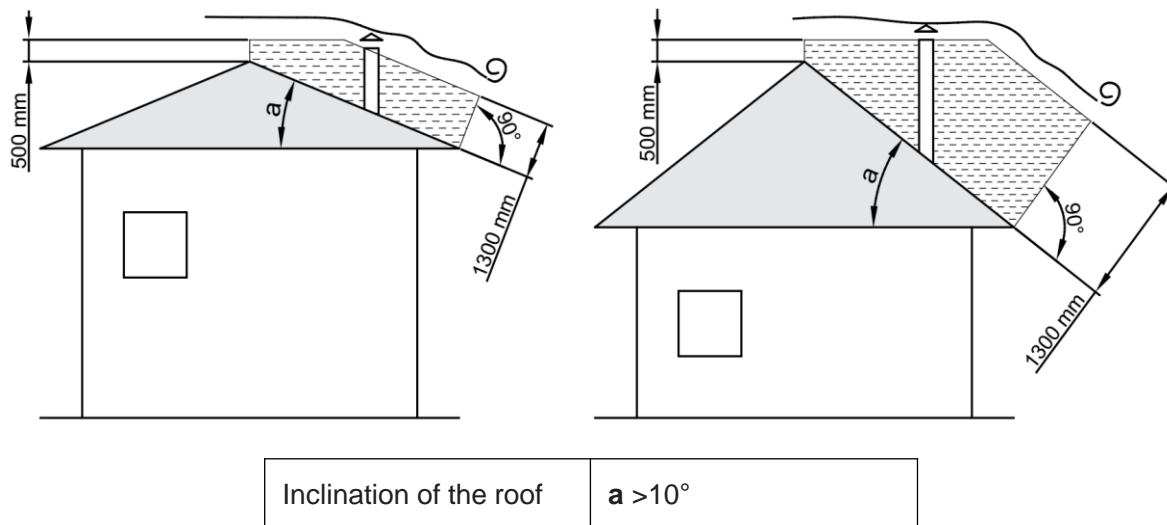


The chimney cap must not show hindrances within 10 m from walls, pitches and trees. Otherwise raise it of at least 1 m over the hindrance. The chimney cap must exceed the ridge of the roof of at least 1 m.

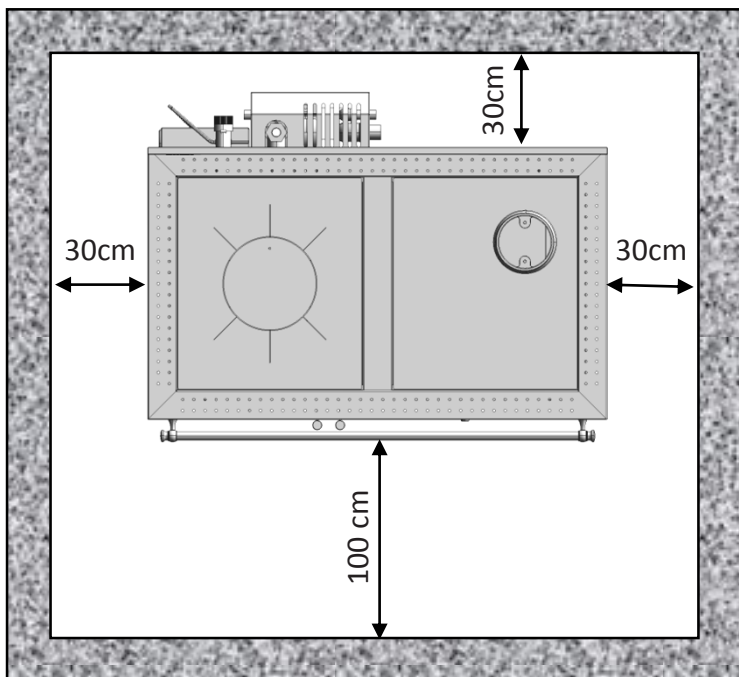
5

PICTURE - 03

CHIMNEY CAPS - DISTANCES AND POSITIONING

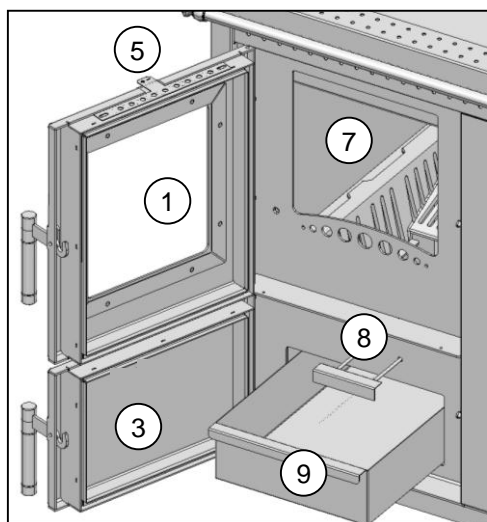


PICTURE - 04

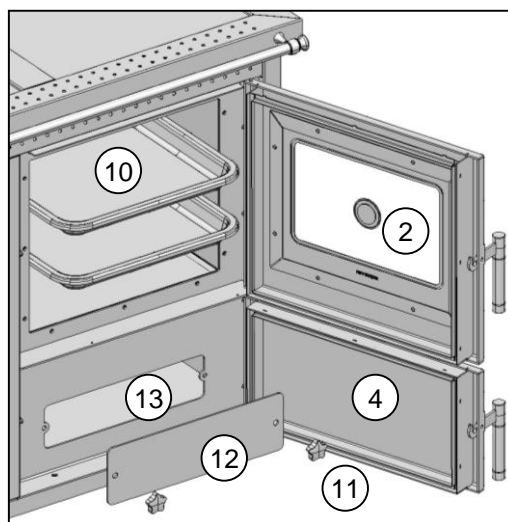


All the minimum safety distances (cm) are shown on the product data plate and lower values must not be used (See DECLARATION OF PERFORMANCE - CE MARKING INFORMATION).

PICTURE - 05

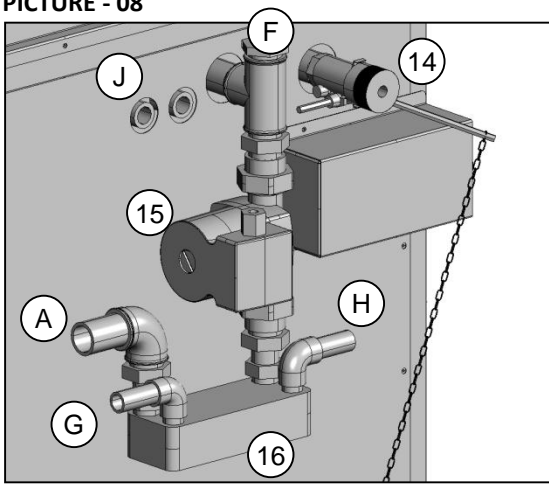


PICTURE - 06

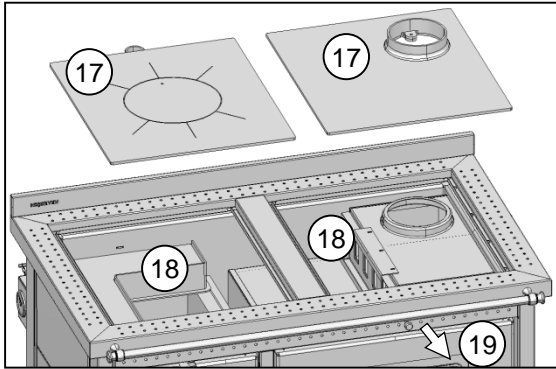
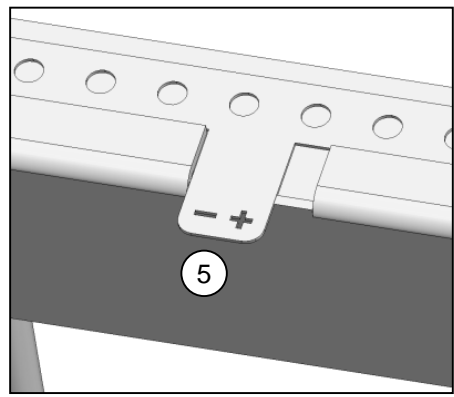


PICTURE - 07

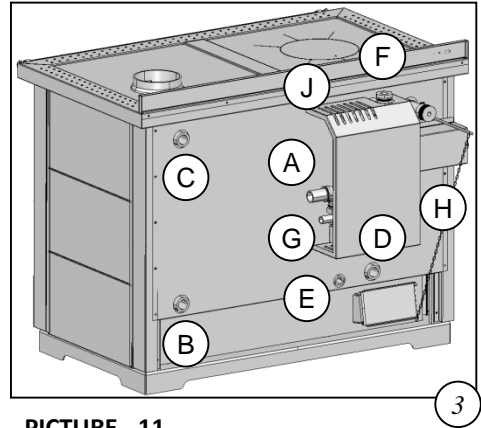
PICTURE - 08



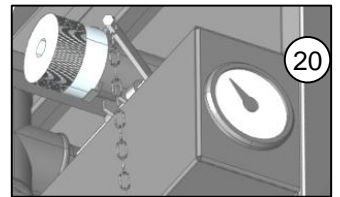
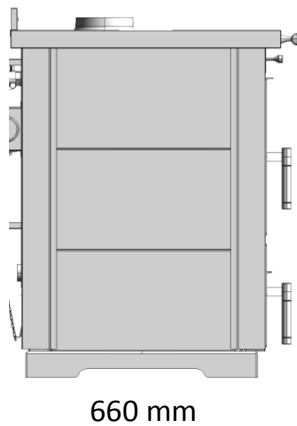
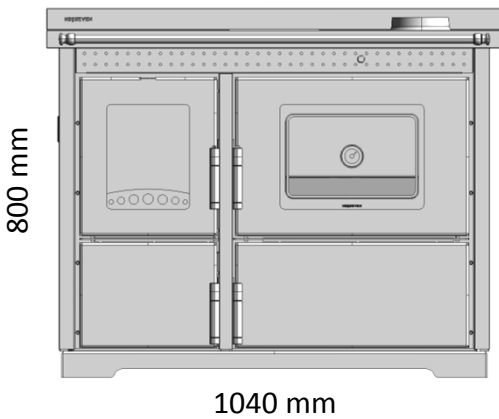
PICTURE - 09



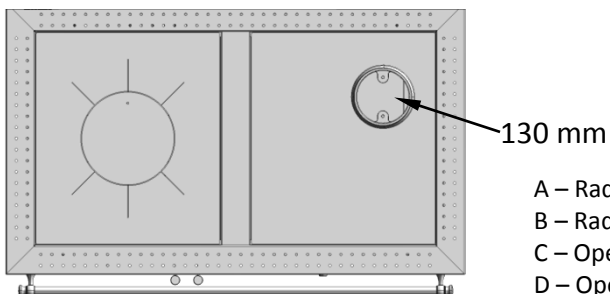
PICTURE - 10



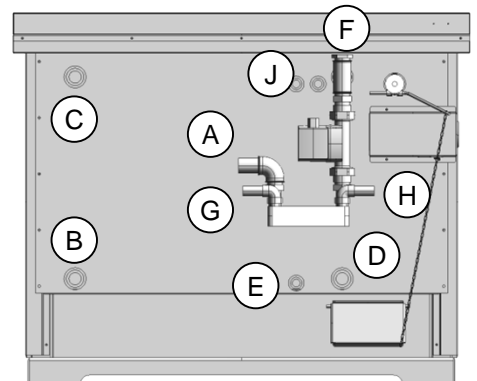
PICTURE - 11



PICTURE - 12

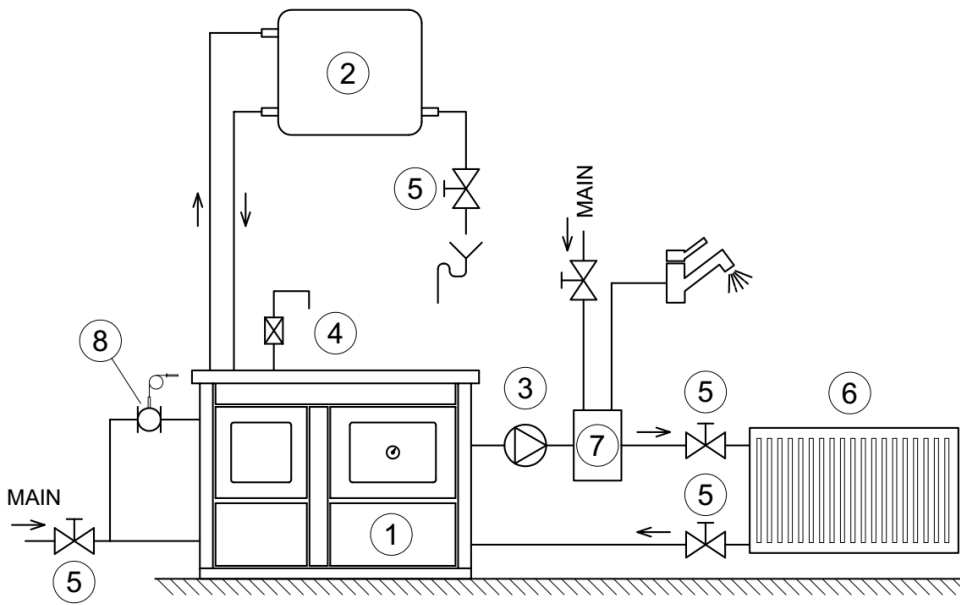


PICTURE - 13



PICTURE - 14

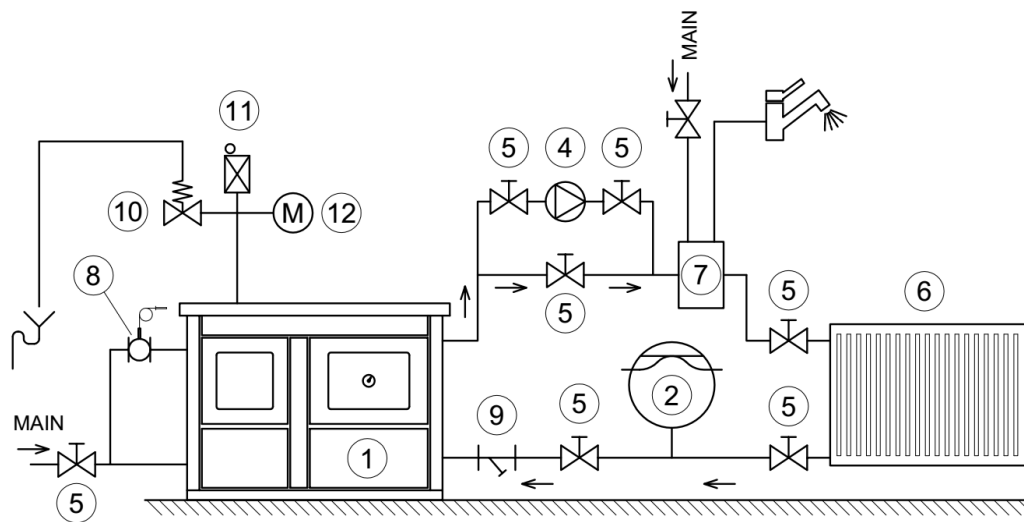
- A – Radiators flow 1"
- B – Radiators return 1"
- C – Open expansion tank flow 1"
- D – Open expansion tank return 1"
- E – Drain ½"
- F – Air ventile ½"
- G – Heat exchanger flow ½" (OPS.)
- H – Heat exchanger return ½" (OPS.)
- J – Safety valve (OPS.)



Opened expansion system

1. KH.2545
2. Opening expansion tank
3. Pump
4. Air ventile
5. Valve
6. Radiators
7. Heat exchanger(Optional)
8. Safety valve (Optional)

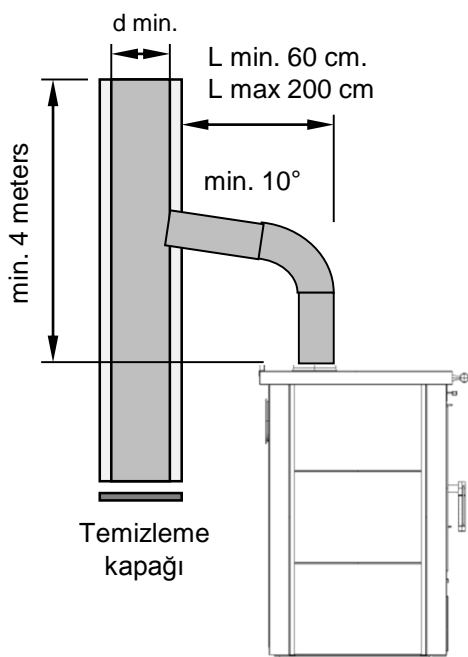
PICTURE - 15



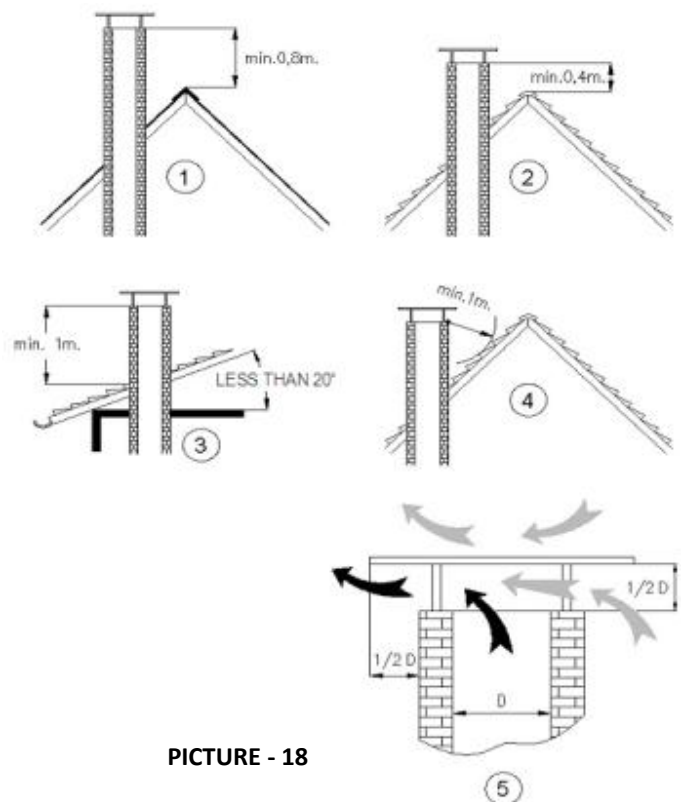
Closed expansion system

1. KH.2545
2. Closed expansion tank
3. Pump
4. Air ventile
5. Valve
6. Radiators
7. Heat exchanger(Optional)
8. Safety valve (Optional)
9. Slit trap
10. Relief valve
11. Automatic air ventile
12. Manometer

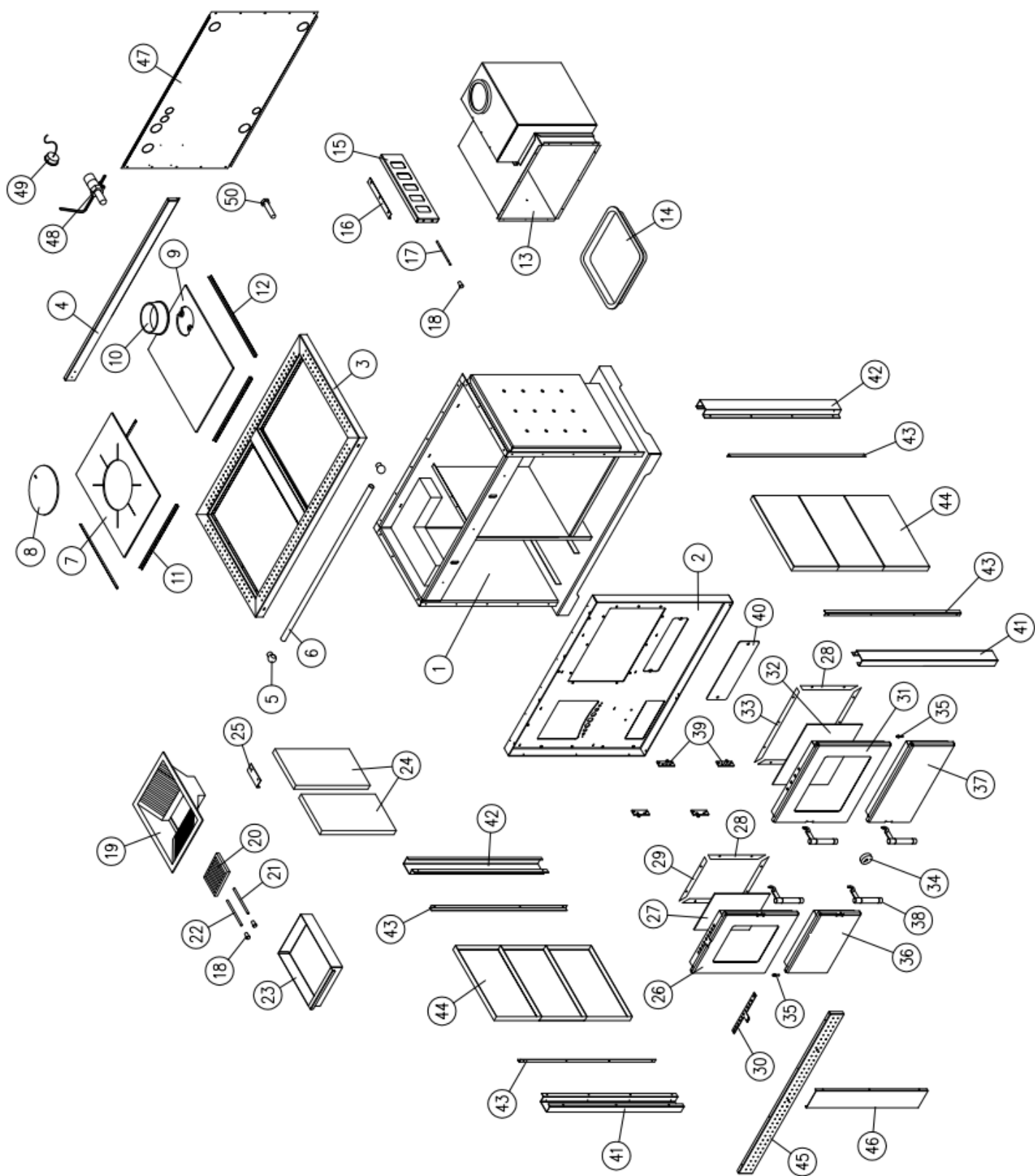
PICTURE - 16



PICTURE - 17



PICTURE - 18



PICTURE - 19

Nr.	Code	Nr.	Code
1	KH.2545 (Boiler body)	26	03.HKZ.2300
2	03.HKZ.2200	27	03.HKZ.2350
3	03.HKZ.3000	28	03.HKZ.2310
4	03.HKZ.3300	29	03.HKZ.2320
5	03.HKZ.2970	30	01.HKZ.2330
6	03.HKZ.3900	31	03.HKZ.2400
7	03.HKZ.3400	32	01.HKZ.2450
8	03.HKZ.3600	33	03.HKZ.2410
9	03.HKZ.3500	34	OVEN THERMOMETER
10	CHIMNEY OUTLET Ø130	35	03.HKZ.2910
11	03.HKZ.3010	36	03.HKZ.2500
12	03.HKZ.3020	37	03.HKZ.2600
13	OVEN	38	03.HKZ.2950
14	OVEN TRAY	39	03.HKZ.2950
15	03.HKZ.2800	40	03.HKZ.3700
16	CHIMNEY FLAP FIXED PART	41	03.HKZ.4000
17	03.HKZ.2810	42	03.HKZ.4010
18	CHIMNEY FLAP HANDLE	43	03.HKZ.4030
19	CAST IRON GRILL	44	03.HKZ.4020
20	CAST IRON MOVEBLE GRILL	45	03.HKZ.4100
21	03.HKZ.2850	46	03.HKZ.4200
22	03.HKZ.2860	47	03.HKZ.4300
23	03.HKZ.4400	48	DRAUGHT REGULATOR
24	FIRE BRACKET	49	THERMOMETER 0-120°C
25	01.HKZ.1710	50	THERMOMETER BULB HOLE



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