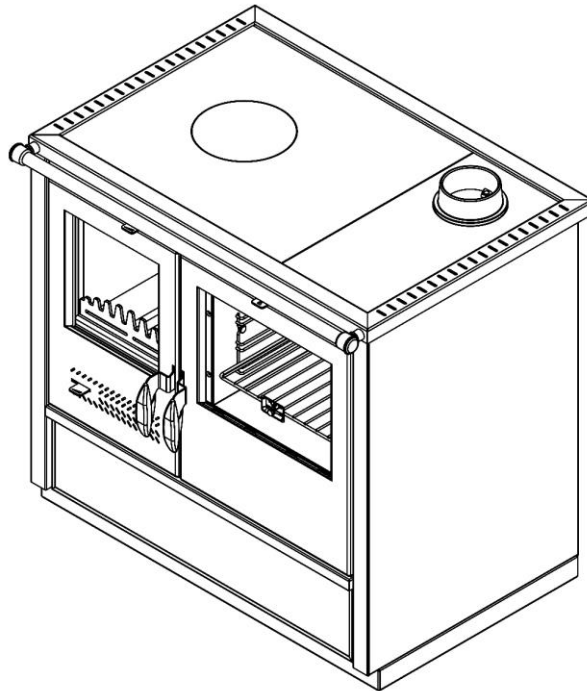




NORTH ECO
WOOD BURNING COOKER

Owners's manual

INSTALATION, ADJUSTMENT AND OPERATING INSTRUCTION



CE

EN 16510

NORTH ECO - WOOD BURNING COOKER

Dear Customer,

We appreciate your trust vested in us and decision to use "**TIM SISTEM**" product.

You have invested in energy-efficient and high-quality product – **NORTH ECO** wood burning cooker.

Your purchase will provide you long-term clean and comfortable heating with minimal maintenance.

Please read these instructions carefully and completely.

It's purpose is to inform you about the installation, operation and maintenance of your appliance. Keep it handy and refer to it as needed. You will find in it information that will be useful now and in the years to come.

Make sure that when installing the appliance all security standards have been respected and that all gas pipes, connections between tubes and pipes and walls are connected properly.

Failure to comply with these standards and carelessness during installation can result in damage to property or put your health and life in danger!

Set your cooker to a safe place, away from the frequent passages and doors, somewhere near chimney and chimney connection.

We wish you many pleasant moments with „**NORTH ECO**“.

„TIM SISTEM“ DOO

NORTH ECO - WOOD BURNING COOKER

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WARNING BEFORE USE

To keep your cooker working properly, it is important to read this manual and strictly stick to the instructions for use and handling.

For combustion use solid fuels such as wood and wood briquettes. It is forbidden putting explosive devices and materials combustion chamber or the limited thermal furnace. It is forbidden to keep flammable materials near the stove.

For proper combustion, in normal operating mode, draft in the chimney should be 10-12PA. If the draft is greater than 15 Pa, the valve should be installed in the chimney.

Room where the cooker is positioned must be vented regularly for the fresh air needed for combustion.

Some parts of cooker heat up during operation and it takes appropriate precaution when handling it. Do not allow children to handle and play near the cooker.

Only spare partes recomended and allowed by the manufacturershould be installed on the cooker. You must not make any changes on the cooker.

With first firing there might show a mild smoke, especially from the plate's surface. It is a common appearance that occurs due to combustion deposits on the plate's surface(corrosion protection, paint, dust,). **The room where the cooker is should be vented during the first firing.**

It's not reccomended connecting the cooker to the common chimney because it can adversely affect the required draft.

Device that uses gas as fuel must not be connected to same chimney.

During burning, use termoprotection gloves because the door handles and primary, secondary and flue gas regulator handles get heated.

National and local regulations for the installation of the cooker must be respected.

In a case of non-copliance with instructions given in this manual, manufacturer does not take any kind of responsability for caused damage.

Do not alow using and maintenance of the appliance to be carried by children.

WARNING: The appliance and its accessible parts become hot during use. Care should be taken to avoid touching heating elements.

This appliance must not be used by people (children included) with reduced mobility, psychological deseases or without experience and knowledge except in case of supervision or instruction about the use of the appliance by people responsible for their safety.

Children must be constantly supervised to ensure that they do not play with the appliance.

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During the regular work of the cooker, it is dangerous to keep the firebox door open to increase the air draft!

Do not put on the top of the stove, or inside the oven. It is forbidden to place pets inside the oven. Do not sit at the top plate in any circumstances.

Sealing elements are made of materials that do NOT contain asbestos.

Drawer: do not put flammable material in the drawer (paper, kindling cubes, textile cloths...)

DESCRIPTION OF THE COOKER

NORTH ECO wood burning cooker is used for heating rooms and it's manufactured and tested according to European standard **EN 16510**.

The top plate of the fireplace, firebox door and oven door is made of steel.

Firebox assembly are made of vermiculite. Connection for smoke drains being put on the plate and connected with screws (also made of gray cast iron). There is an option for a rear flue connection.

All the materials that NORTH ECO cooker is made can be recycled.

Wood cooker can be installed insuring that appliance obtained safety distances from combustible materials (see table with safety distances).

Kitchen version:

Wood cooker can be installed to fit between furniture. In that case additional insulated side panels **MUST** be added to the cooker. The side external coverings are equipped with a natural aeration system and act as an efficient fireproof protection.

The frame of the cooker is made of stainless steel. The air openings placed on both sides and rear side have to be kept always unobstructed to ensure the natural air circulation into the appliance. This avoid the risks of overheating of the appliance and furniture in-between it is installed.

ATTENTION DANGER OF FIRE: do not obstruct the air openings for the natural air circulation necessary to avoid overheating of the appliance and furniture in-between it is installed. the same applies to the air openings on the base.

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Parts of the COOKER:

1. Secondary air regulator – power adjusting	11. Oven door handle
2. Grid	12. Thermometer
3. Firebox glass	13. Oven door glass
4. Firebox door handle	14. Lateral side cladding (metal)
5. Firebox door	15. Small top plate
6. Ashtray	16. Flue collar D120
7. Drawer for NON combustibile materials	17. Oven rack
8. Oven	18. Oven regulator knob
9. Maintenance cover plate	19. Top plate cover
10. Oven door	20. Large top plate

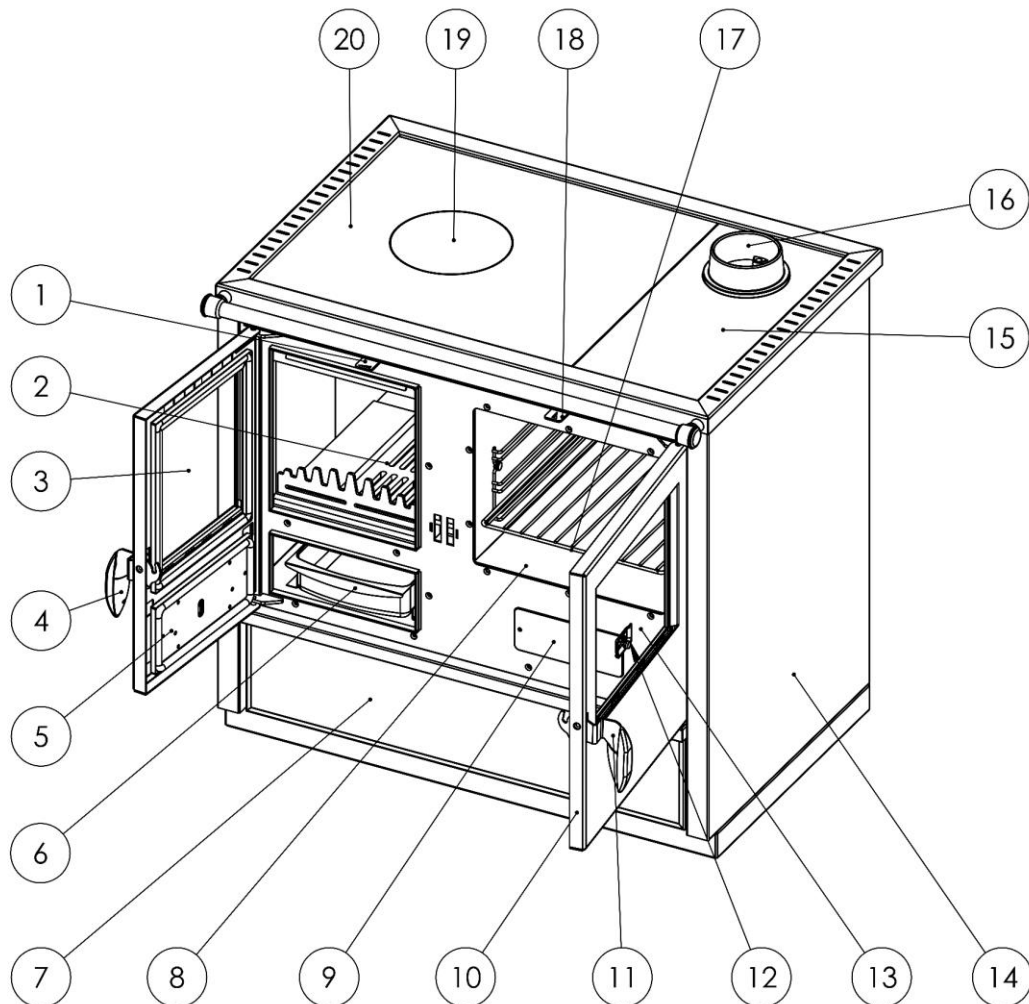


Figure 1.

NORTH ECO - WOOD BURNING COOKER

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

PRIMARY AIR CONTROL

On the below part of the door there is the primary air control. This register adjust the passage of air through the ash drawer and the grate in the fuel direction. the primary air is necessary for the combustion process. The ash drawer must be regularly emptied, so that the ash does not obstruct the primary air entry. through the primary air the fire is also kept alive. During wood combustion, the register of primary air must be opened only for a while, because otherwise the wood burns fast and the cooker may overheat (see chapter normal operation).

Handle of primary air regulator regulate amount of air passing to the wood thro grate. It has two positions: closed (left position) and maximum open (right position).

SECONDARY AIR CONTROL

On the over part of the door there is the secondary air control. also this register must be opened (then moved to the right), especially for wood combustion (see chapter normal operation).

The control regulation necessary in order to obtain **NOMINAL CALORIFIC OUTPUT** is the following (see cap. technical data):

	PRIMARY air	SECONDARY air	TERTIARY air	SMOKE/OVEN control
NORTH ECO	closed	1/2 open	Pre-adjusted	OVEN cooking function

SMOKES/OVEN CONTROL

Conversion of the cooker function lighting/plate to the oven cooking.

The smokes control can be found on the top right corner of the front side of the cooker. This control has two settings: lighting / plate when the control bar is pulled out, the combustion gases flow directly into the flue and up to the chimney; oven cooking when the bar is pushed to the back of the cooker, the combustion gases flow around the oven, heating it.

ATTENTION: the lighting valve must stay opened during the lighting phase only.

In case it remains opened during the normal functioning, it will cause overheating of the appliance and its components might get damaged. Moreover the fuel consumption will be higher.

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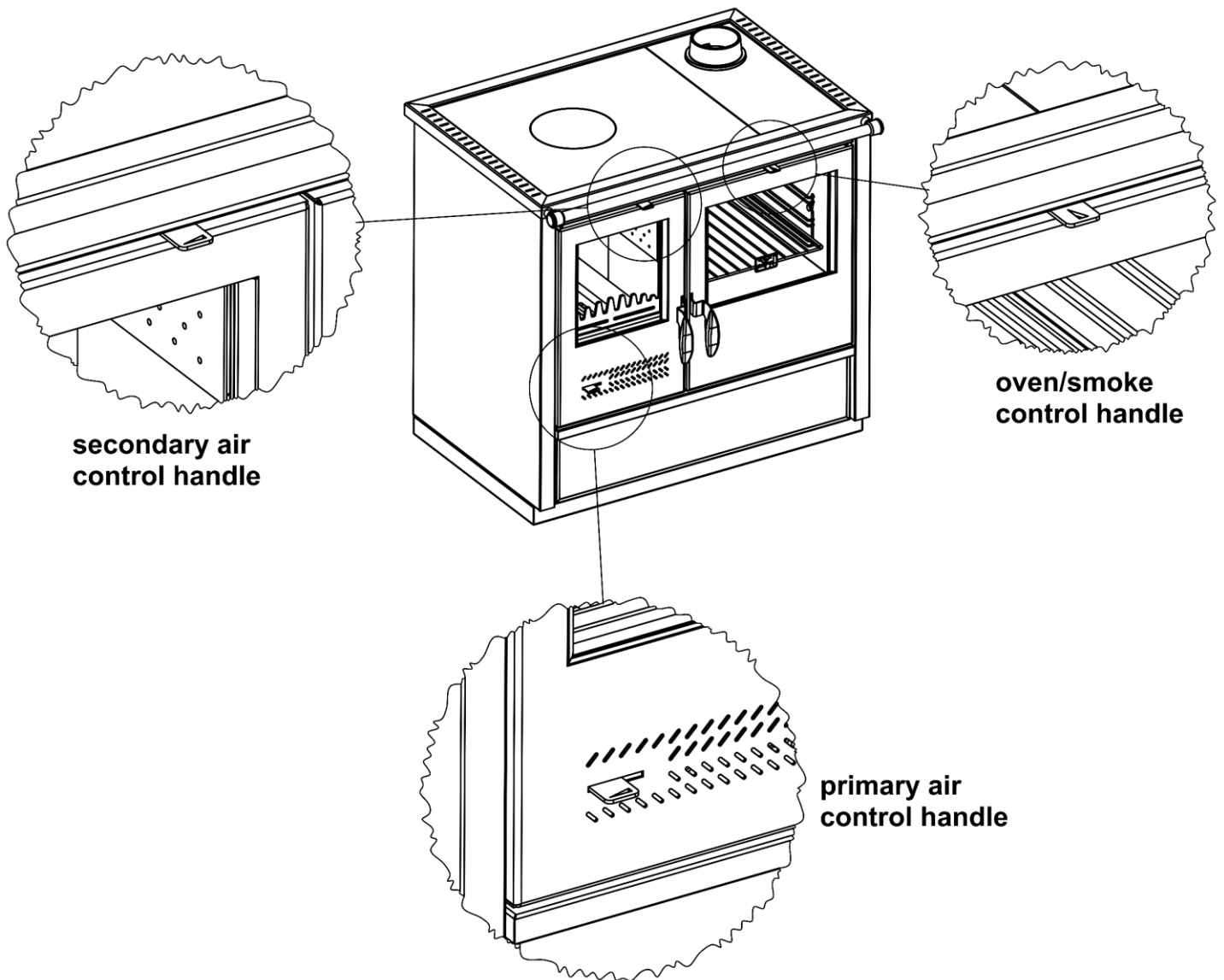


Figure 2. Air control

The special tool that came with the cooker must be used to move the air regulators. During normal operation, the temperature on the air control handles is high and may cause injuries if they are moved with the hands without this special tool. „F“ mark means flame control and it is for primary and secondary air regulator. „O“ mark is for oven regulator.

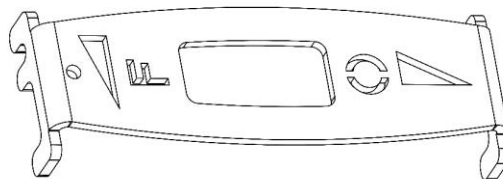


Figure 3. Tool for air regulators

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TECHNICAL DATA

Residential cooker fired by solid fuels		
Harmonised standard:		EN 16510-1, EN16510-2-3
Model:		NORTH ECO
TYPE OF THE APPLIANCE: B		
Overall dimensions (W x D x H)	mm	903x657x852
Fire safety / reaction to fire:		A1
Minimal distance from combustible materials	cm	Bottom dB=0 Floor in front dF = 40 Ceiling dC = 75 Rear dR = 30 Side radiation area dL = 20 Front dP = 75 Side dS = 30
Minimal distance from combustible materials for kitchen variant	cm	Side dS=0
Fuel – wood logs with moisture content ≤ 25 %	mm	2 x (80x80x250)
Exhaust pipe dimension	mm	Ø120
Draft nominal / reduced	Pa	12 / 8 ±2 Pa
Energy efficiency at nominal power	%	89,7
Seasonal space energy efficiency at nominal power	%	79.7
Nominal power heat	kW	8,3
Fuel consumption at rated power	Kg / h	2,1
Emission of CO (at 13% O ₂) at nominal power	mg/Nm ³	865
Emission of CO Dust (at 13% O ₂) at nominal power	mg/Nm ³	30
Emission of CO NO _x (at 13% O ₂) at nominal power	mg/Nm ³	87
Emission of CO OGC (at 13% O ₂) at nominal power	mg/m ³	85
Flue gas temperature at nominal power (oven is ON)	°C	142
Flue gas outlet temperature at NHO	°C	170
Oven dimension (W x D x H)	mm	351 x 468 x 351
Flue gas mass flow at nominal power	g/s	6,44
Energy efficiency index / Energy efficiency class	EEL	120 / A+
Serial number		0140001250001
Notified body: Strojirensky zkusebn ustav, s.p.Brno, Notified Body 1015		
Test report No.: 30-18188/TZ		

INSTALLING THE COOKER

Cooker must not be set up near the wooden parts, refrigeration parts, plastic furniture and other flammable materials because during operation (during fuel combustion) it achieves high operating temperature that is distributed on the outside of the furnace. Minimum distance between the stove and the surrounding elements is 35 cm, and the from flammable materials 60 cm (also minimum distance between front of cooker and surrounding elements).

If the ground on which you set the cooker is made of easily flammable material (wood, warm floor, laminate ...) you need to set under the cooker a protection sheet metal - lateral width of 10 cm and 50 cm in the front.

Because of its weight, the cooker must be installed on the appropriate base. If it does not satisfy necessary standard, you must take appropriate measures to make it possible (eg, weight distribution).

Connect the cooker to a chimney and flue pipes through the connector on top of the furnace, so as to ensure adequate tightness and flow of smoke from the stove to the chimney. Flue pipe must not be drawn too deeply into the chimney that would reduce the cross sectional area and thus undermined draft in the chimney. Do not use reducers which reduce the cross section of pipe smoke.

NORTH ECO cooker requires insertion of fresh air in the room where it is installed, with surface openings for insertion of fresh air should not be less than 100 cm². The unit for fresh air set outside the common room for ventilation, which must be insured by door and grille.

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.

Fans that work in the same room where the cooker is installed may make interference with the cooker. Also, all devices or ventilation that creates negative pressure in the room where the cooker is installed, must be set in the way that does not make decompression that prevents normal operation of the furnace.

It is not allowed the connection of various appliances to the same chimney.

Before installing the cooker, check the chimney drafts because it is a key factor in the proper functioning of the cooker. Draft depends on the proper operation of the chimney and meteorological conditions. One of the easiest ways to check the draft in the chimney is with a candle flame, as shown in Figure 4. Put a candle near the chimney connection drain. If the flame bends towards drain, the draft is satisfying (Figure 4b). If the flame doesn't bend or bends a little, that indicates poor draft (Figure 4a).

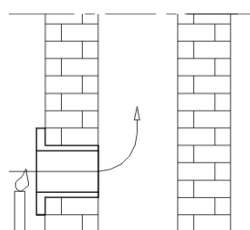


Figure 4a.

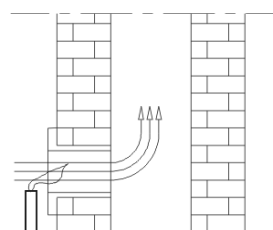


Figure 4b.

VENTILATION AND AERATION OF THE INSTALLATION PREMISES

As the product draws 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.

There must be a sufficient quantity of air for combustion and re-oxygenation of the room to ensure the device will work properly. There should therefore be vents letting air in from outside the building and enabling circulation of air for combustion even

When the doors and windows are closed the air inlets must meet the following requirements:

- they must be protected with grids, metal mesh, etc., but without reducing the net useful section;
- they must be made so as to make the maintenance operations possible;
- positioned so that they cannot be obstructed;
- any extractor hoods in the room where the device is installed must not operate at the same time as this could cause smoke to enter the room, even with the fireplace's door closed.

Minimum net opening value of the ventilation duct is 100 cm².

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. All the minimum safety distances are shown on the product data plate and lower values must not be used.

Kitchen variant:

When the cooker is intended to be positioned between kitchen elements, a special lateral panel (with insulation) must be assembled on the cooker. Those panels are not a regular part of the cooker; they must be ordered separately.

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

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 non-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

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d) no flammable components (e.g. Wall units) must be present above the product.

e) if the product is installed on a wall made of flammable material, it is necessary to replace that part of the wall with a non-flammable material layer, for instance ceramic, stone, glass or steel etc.

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

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

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

In a emergency If there is a fire in the flue connection :

- close the loading door and the ash drawer door
- close the comburent air registers
- use carbon dioxide (co2 powder) extinguishers to put out the fire
- request the immediate intervention of the fire brigade
- do not put out the fire with water
- do not pour water over the hot surfaces of the stove or chimney

Disadvantages of the chimney (Figure 5):

1. The chimney is lower than the top of the roof, a small cross section of the output;
2. Excessive slope;
3. A sudden change of direction of the flue channel;
4. Stove or some other device connected to the same flue channel;
5. Bulges in the flue channel;
6. Cracks;
7. Obstruction or accumulated grime;
8. Tube inserted too deeply;
9. Fan or other device that creates a vacuum in the room;
10. Unsealed or opened cleaning hole.

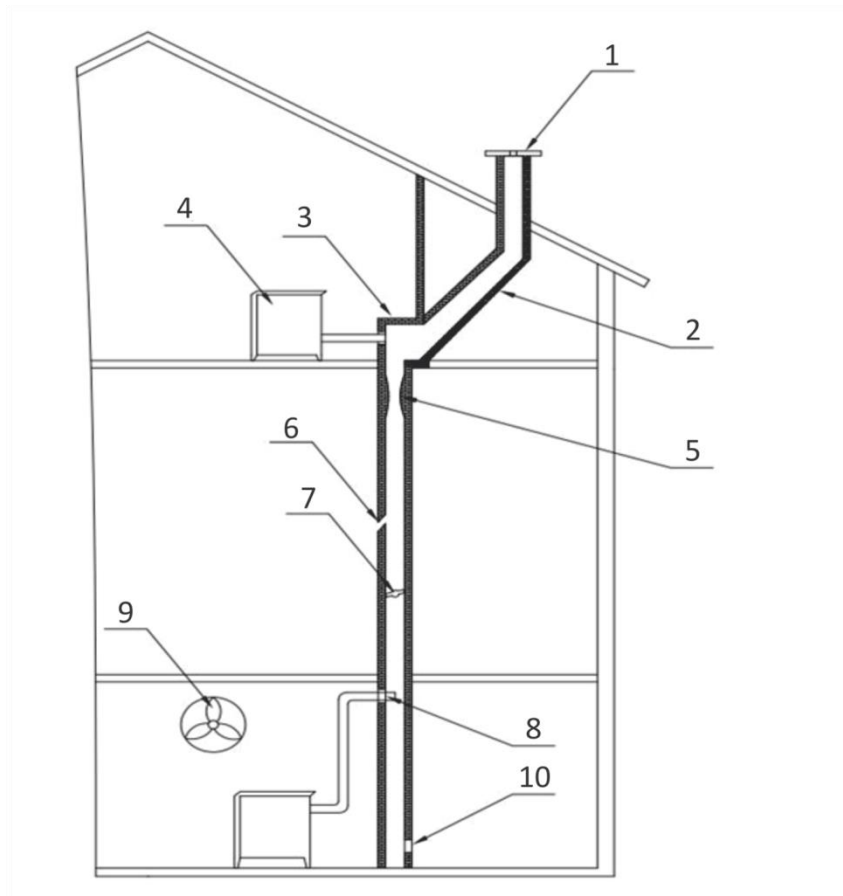


Figure 5.

NORTH ECO - WOOD BURNING COOKER

IGNITION A FIRE

Before the first igniting, wipe all painted surfaces with clean and dry cloth, in order to avoid burning impurity on the oven and creation of unpleasant smells.

Start the fire in the cooker by following order:

- open the firebox door;
- place the fuel into the fire place (chopped wood to non greasy wrinkled paper);
- pull out oven knob regulator so fume gasses can go directly to the chimney (Fig. 1, pos. 18);
- open primary and secondary air regulator to the max.
- light a fire;
- leave open firebox door a slightly until the flame gets stable and after having stabilized the flame, close the door.
- control burning intensity with secondary air regulator (Fig. 1, pos. 1);
- after fire get stabilised close the firebox door;
- after creating a basic fire bed insert larger pieces of wood or a small briquettes in the firebox, and close the firebox door. If you use briquettes as a fuel, you must wait that all briquettes are lit and then reduce the draft in half;
- when adding fuel, pull out oven knob, open the firebox door step by step wait for 4-5 seconds, and then slowly open it wide. After putting the wood log into firebox close the door and pull in oven knob.

Do not open the firebox door suddenly, when there's a strong flame in the combustion chamber, it may come to it's spreading into the room.

Regulating the draft in the cooker, you can regulate temperature, power and the combustion of fuel, and this is done by running secondary air regulator (Fig. 1, pos. 1).

Thee control regulation during the lighting phase is the following :

	PRIMARY air	SECONDARY air	SMOKE control
NORTH ECO	open	open	LIGHTING / PLATE position

Optimum combustion is obtained so that after the creation of good embers, wood (two approximately equal pieces of firewood with a total weight of approx. 2.1 kg and a length of approx. 25 cm each) is inserted into the firebox chamber at the middle of grate. After inserting the wood and closing the firebox door, the secondary air regulator should be opened at 100% value for the first 3 minutes. The secondary air regulator should be at 1/2 opened of the maximum capacity all the time the appliance is in use.

Recommended fuels are briquettes and wood.

You must not use gasoline and similar fuels, because by using liquid fuels you create conditions for damaging the cooker and to provoce an explosion.

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Attention!

- Do not use organic waste as fuel, food residue, plastic, tyre, combustible or explosive materials, which combustion disturbs the proper functioning of the cooker and may cause damage and environmental pollution;
- Increased ambient temperature can cause poor air circulation (drafts) in the chimney, and in that case is recommended more frequent firing in smaller quantities.
- Avoid using the cooker when there are bad weather conditions for the cooker and in the case of strong wind, because it reflects the required vacuum in the chimney. In these cases there may occur potential return of smoke in the room where the cooker is placed. Ignition is difficult then.

We recommend firing every 40 minutes with the amount of fuel in the combustion chamber up to 10cm high with parallel stacking wood for better airflow.

For correct cooker operation it takes:

- Regular cleaning of the cooker and chimney;
- Regular room ventilation for better combustion;
- Regular ashpan cleaning;
- Accumulated slag and unburned material regularly remove from the firebox chamber.

AIR SUPPLY AND OVEN HEATING REGULATION

Air Supply

The necessary air for combustion is supplied from the room where the cooker is installed. This air is then directed into the combustion chamber as secondary or tertiary air.

- **Secondary air** enters the combustion chamber through an opening located above the door. The amount of secondary air can be adjusted using the regulator handle. In addition to supporting combustion, this air serves as an internal glass cleaner, keeping the glass clean during operation
- **Tertiary Air:**
Tertiary air enters the combustion chamber through a dedicated channels with multiple openings, as well as through holes in the rear vermiculite brick. **The flow of tertiary air is constant and cannot be regulated.**

Oven Heating Regulation

The oven heating is controlled by adjusting the oven knob, which can be pushed in or pulled out.

- **Baking Mode (Knob pushed in):**
When the knob is pushed in, hot flue gases circulate around the oven, heating it from all sides. This mode provides optimal and even heating for baking.
- **Bypass Mode (Knob pulled out):**
When the knob is pulled out, the hot flue gases flow directly to the chimney along the shortest path, passing above the oven. This allows quicker startup and reduced oven heating.

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CONTROL OF AIR AND FLUE FUMES THROUGH THE COOKER

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

PRIMARY AIR CONTROL

On the below part of the door there is the primary air control (Figure 7.). This register adjust the passage of air through the ash drawer and the grate in the fuel direction. the primary air is necessary for the combustion process. The ash drawer must be regularly emptied, so that the ash does not obstruct the primary air entry. through the primary air the fire is also kept alive. During wood combustion, the register of primary air must be opened only for a while, because otherwise the wood burns fast and the cooker may overheat (see chapter normal operation).

Handle of primary air regulator regulate amount of air passing to the wood thro grate. It has two positions: closed (left position) and maximum open (right position).

SECONDARY AIR CONTROL

On the over part of the door there is the secondary air control (Figure 7.). also this register must be opened (then moved to the right), especially for wood combustion (see chapter normal operation).

The control regulation necessary in order to obtain **NOMINAL CALORIFIC OUTPUT** is the following (see cap. technical data):

	PRIMARY air	SECONDARY air	TERTIARY air	SMOKE/OVEN control
NORTH ECO	closed	1/2 open	Pre-adjusted	OVEN cooking function

SMOKES/OVEN CONTROL

Conversion of the cooker function lighting/plate to the oven cooking.

The smokes control can be found on the top right corner of the front side of the cooker (Figure 7.). This control has two settings: lighting / plate when the control bar is pulled out, the combustion gases flow directly into the flue and up to the chimney; oven cooking when the bar is pushed to the back of the cooker, the combustion gases flow around the oven, heating it.

ATTENTION: the lighting valve must stay opened during the lighting phase only.

In case it remains opened during the normal functioning, it will cause overheating of the appliance and its components might get damaged. Moreover the fuel consumption will be higher.

The special tool (Figure 6.) that came with the cooker must be used to move the air regulators. During normal operation, the temperature on the air control handles is high and may cause injuries if they are moved with the hands without this special tool. „F“ mark means flame control and it is for primary and secondary air regulator. „O“ mark is for oven regulator.

NORTH ECO - WOOD BURNING COOKER

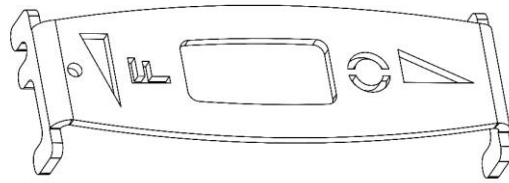


Figure 6. Tool for air regulators

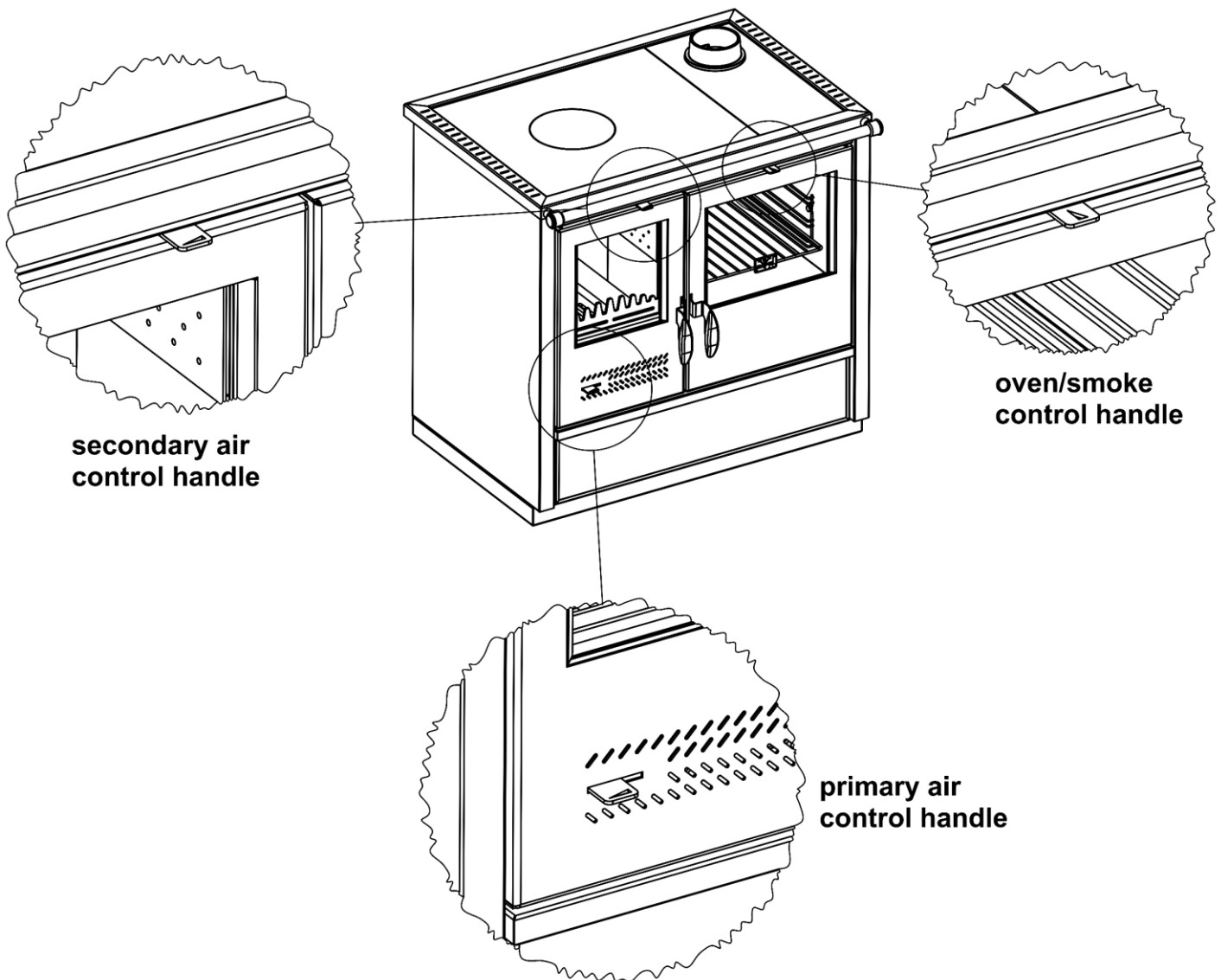


Figure 7. Air control

WORKING REGIMES

There are four working regimes, which could be selected by adjusting the draught in the cooker:

1. **Combined operation mode** - operation mode in which you can cook in the oven, cook on top of the stove and heat the room at the same time. It is necessary to push the handle of the flue gas regulator towards the inside of the stove (oven/smoke control knob), adjust the secondary air regulators as described in the description of optimum combustion on the previous page.
2. **Quick cooking** - during this process it is the hotplate heats up intensively and to be able to do that with small quantity of fuel, draw flue gas regulator handle completely outside, oven door should be shut and move secondary air regulator to the half to create medium inlet of the air.
3. **Heating** - for this regime it would be recommended to use wood or briquettes. Push the flue gas regulator handle towards the inside of the cooker, move secondary air regulator to create medium inlet of the air and the oven's door closed.
4. **Baking** - for this regime push the flue gas regulator (oven knob) handle towards the inside of the cooker, move secondary air regulator to 1/2 open to create medium inlet of the air and the oven's door closed after putting the baking pan inside.

HANDLING THE COOKER OPERATION

Start a fire with a moderate flame in order to avoid thermal shocks.

The following amounts of wood are inserted only after the previous volume burn.

Do not allow that ashes and unburned wood accumulate on the firebox grate. Clean the firebox grate.

Open the door slowly and carefully, allowing that way equalization of pressure in the firebox and in the room, otherwise it might cause the smoke in the room.

The cooker is designed and intended for use with firebox door constantly closed, except during refueling. Do not open the door with no need.

The wood must be a maximum of 20% moisture content for maximum fire effect. Otherwise the tar gets separated which with water steam may create creosote. If that happens in some bigger quantity, it may lead to a chimney fire. You will most easily recognize chimney fire by: the characteristic sound that comes out of the chimney like loud roaring, visible flames coming out of the chimney, high ambient temperatures of surrounding walls and the characteristic smell of burning.

If there comes to the fire do the following:

- Immediately call the fire squad;
- Muffle oxygen supply to the chimney and turn off the cooker;
- Do not insert anything into the chimney and make sure that the fire does not spread to the wooden construction or other combustible materials in its nearby;
- DO NOT pour water into the cooker or chimney;

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- A fire in the chimney can be extinct only with dry powder;
- Water can extinguish only a surrounding material;
- Do not cool the surrounding walls with water.

Note:

If the fire in the cooker for some reason becomes dangerously strong take the following measures: close air dampers that provide air for combustion. If it is necessary put in the firebox specially prepared sand for this purpose or non-combustible fire blanket. It would be good to have a fire extinguisher.

Before the second charging, clean the grid in order to provide the fresh air.

Regularly clean the ash pan making sure that there is always a place for ashes.

The cooker is designed to operate in periodic mode. To maintain the required nominal power, combustion chamber is periodically filled with prestabled amount of fuel.

Cooker is not designed to operate in continuous mode of heating or in accumulating temperature mode.

CLEANING AND MAINTENANCE

Regular and proper cleaning allows proper operation and long life of the cooker. All cleaning the interior or exterior surfaces are always performed in a cold cooker.

Cleaning exterior surfaces - is done with a soft cloth that will not damage the surface of the stove. Cleaners of chemical origin can damage the surface of the cooker and cannot be used. Painted surfaces must not be cleaned with abrasive products.

Cleaning inter surfaces –when cleaning use protective gloves.

Clean the bottom of the oven from accumulated ash and pick up small unburned pieces of the grid, clean the ashtray and ash accumulated in the interior of the fireplace.

Cleaning glass surfaces - glass on the firebox may get dirty during the operation.. For cleaning use a mild detergent. Do not use abrasive cleaners because they can damage the surface of the glass. Clean the glass only when cooker is cold.

Cleaning and maintenance of the chimney - chimney cleaning and control is recommended at least once a year and after a long downtime. Regular maintenance and control of the chimney will prevent the occurrence of fire and poor operation of the stove. We recommend that chimney cleaning and maintenance be performed by authorized and trained persons - companies.

NORTH ECO - WOOD BURNING COOKER

MALFUNCTIONS - RECOMMENDATIONS FOR THEIR ELIMINATIONS

The following table shows the most common defects and recommendations for their removal.

Table: Showing the most common malfunctions, possible causes and ways of eliminating it.

Malfunction	Possible cause	Howe to remove it
Oven heats poorly	Improper handling; Faulty chimney	Read carefully and follow the instructions. In the case that despite all instructions have been respected, malfunctions are still not removed, call the customer service.
Difficulties in lighting fire	Closed regulator of air supply; Wet wood; Lack of oxygene.	Open the regulator of air supply and provide a supply of a primary air; Use a dry wood; Ventilate a room in order to provide a supply of fresh air.
Smoke reenters into a room	Closed regulator of air supply, Insufficient draft, Remainings of ashes on a grid	Open the regulator of air supply and provide a supply of a primary air; Read carefully the instructions and apply advices how to provide a draft; Clean the grid.
Glass on a firebox door are getting sooty for a while	Wet wood; Too much fuel; Insufficient draft; Closed intake of secondary air	Use a dry wood; Check a suggested quantity of a fuel provided in a user's manual; Check a connection with a chimney; Read carefully the instructions and apply advices how to provide secondary air.

GENERAL RECOMMANDATION

If all the recommendations for installation, operation regulation and cleaning, given in this manual, are met, the stove is a tested and safe appliance for household use.

Before installing the stove, remove the package. Be aware of potential injuries because the wooden slats are connected with nails. Dispose a plastic bag in accordance with the regulations. Old stove you do not want to use anymore, dispose to designated areas in accordance with the regulations.

All complaints, perceived failure or malfunctioning stoves, should be reported to the factory or authorized service center by telephone or in written, only with fiscal receipt. All contact information provided at the end of this guide.

Any malfunction of the cooker, must be removed by the manufacturer's service only.

If unauthorized persons carry out any servicing or repairs and alterations to the stove, the owner loses the right to the manufacturer's warranty.

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Supply of spare parts has to be done via manufacturer's service, based on the position and image of this manual.

The manufacturer does not assume any responsibility if the buyer fails to comply with the instructions for use and installation of the cooker.

ADVICES FOR ENVIRONMENT PROTECTION

PACKAGING

Packaging material is 100% recyclable.

For a waste disposal of, act in accordance with local regulations.

Packaging material (plastic bags, polystyrene parts-polystyrene, etc.) should be kept away from children, as a potential source of danger.

Take care of safe removing and disposing of wooden boards because they are connected with nails.

PRODUCT

The device is made of materials that can be recycled. When disposing the waste, act in accordance with environmental laws in effect.

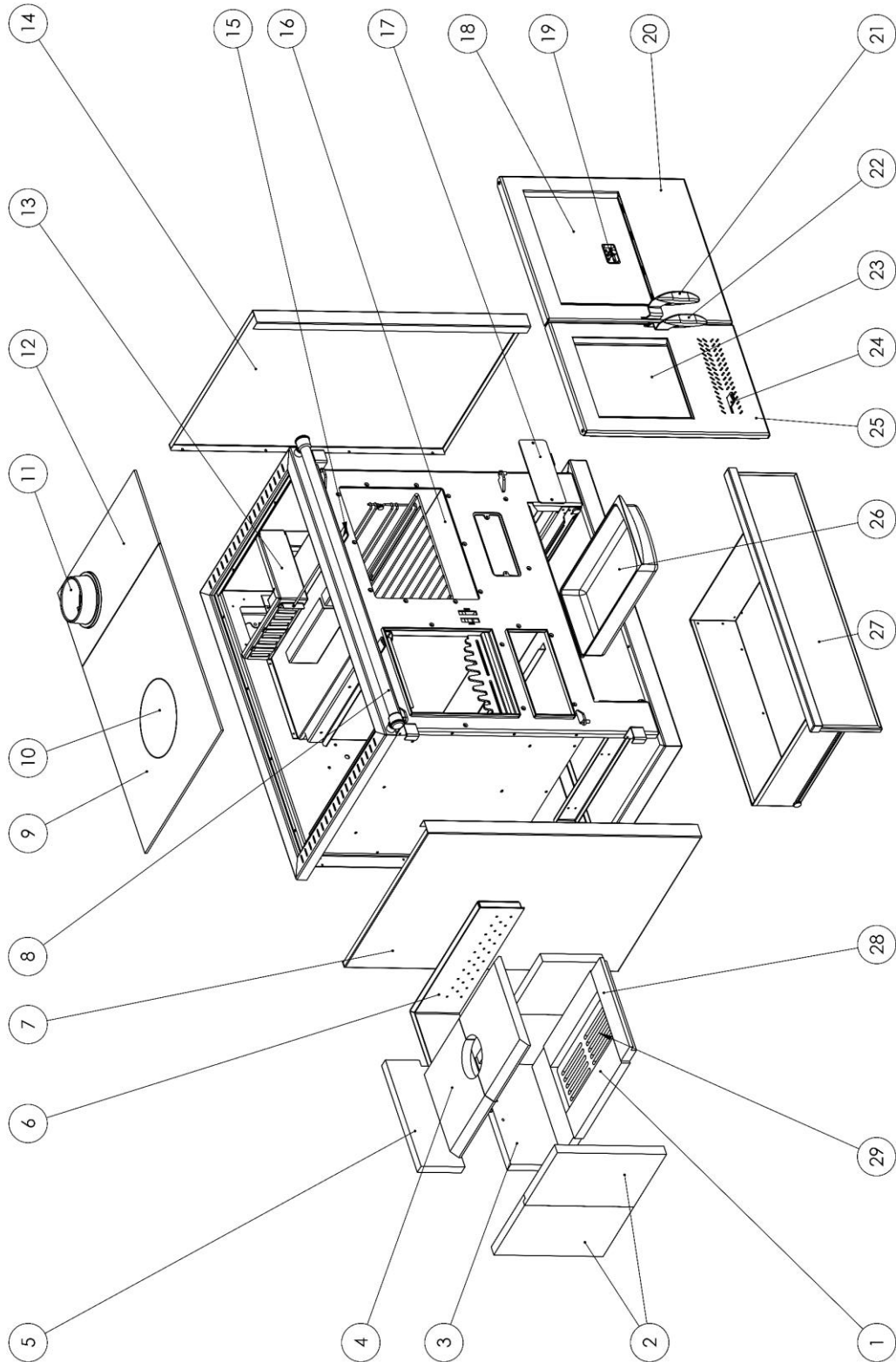
Use only the recommended fuel.

It is forbidden burning an inorganic and organic materials (plastics, tyres, plywood, textile, oiled wood, etc..), because the combustion releases carcinogenic materials and other toxics.

NORTH ECO - WOOD BURNING COOKER

TECHNICAL DRAWINGS AND LIST OF MATERIALS

WOOD BURNING COOKER "NORTH ECO" – Specification of elements

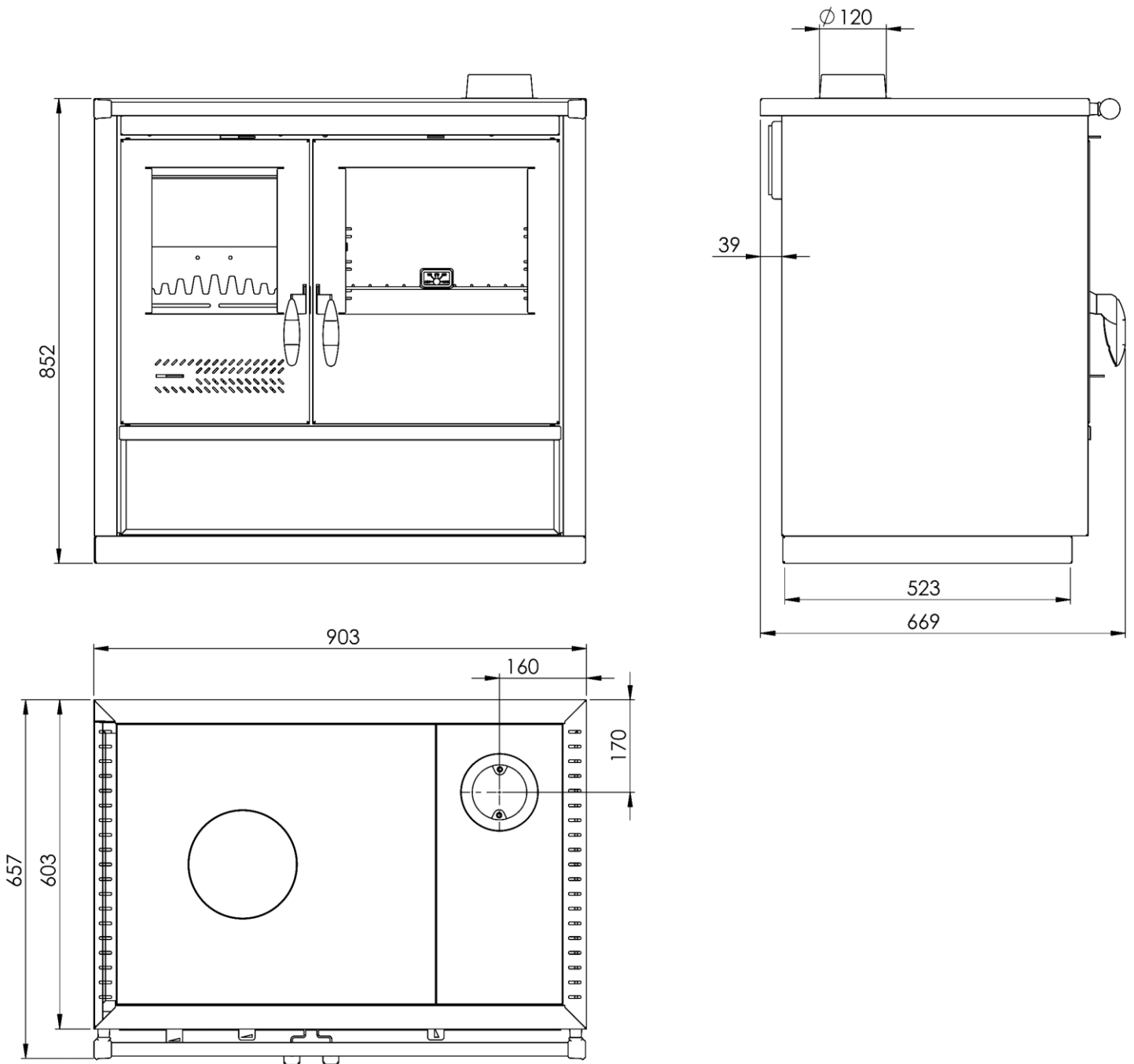


NORTH ECO - WOOD BURNING COOKER

Specification of part elements for wood cooker NORTH ECO				
Item	Component name	Qty	Material	Finish
1	Bottom vermiculite brick	1	vermiculite	/
2	Lateral side vermiculite brick	2	vermiculite	/
3	Rear bottom vermiculite brick	1	vermiculite	/
4	Top vermiculite brick	2	vermiculite	/
5	Rear upper vermiculite brick	1	vermiculite	/
6	Tertiary air chanel	1	steel	painted
7	Lateral left side	1	stainless steel	/
8	Cooker decorative bar	1	stainless steel	/
9	Top plate	1	steel	painted
10	Top plate cover	1	steel	painted
11	Flue collar	1	cast iron	painted
12	Top plate - small	1	steel	painted
13	Flue gas path divider	1	steel	painted
14	Lateral right side	1	stainless steel	/
15	Flue gas regulator (oven regulator)	1	steel	painted
16	Oven	1	stainless steel	/
17	Maintenance cover	1	steel	painted
18	Oven door glass	1	glass	/
19	Oven door temperature meter	1	steel	/
20	Oven door assembly	1	steel	painted
21	Oven door handle	1	steel, bakelite	painted
22	Burning chamber door handle	1	steel, bakelite	painted
23	Burning chamber door glass	1	heat res. Glass	/
24	Primary air regulator	1	steel	painted
25	Burning chamber door assembly	1	steel	painted
26	Ashtray	1	galvanized steel	/
27	Drawer for notcombustible material	1	steel	painted
28	Vermiculite bottom front brick	1	vermiculite	/
29	Grid	1	cast iron	painted

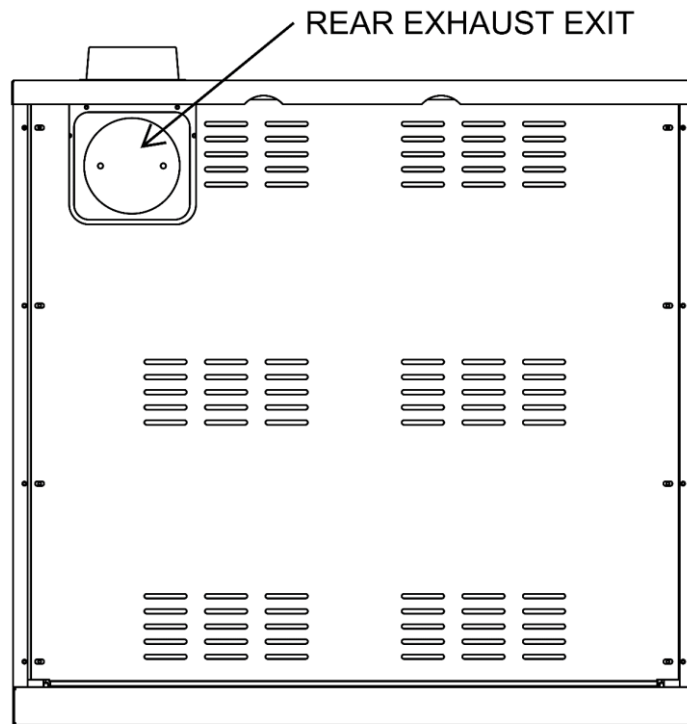
NORTH ECO - WOOD BURNING COOKER

DIMENSIONS OF THE COOKER



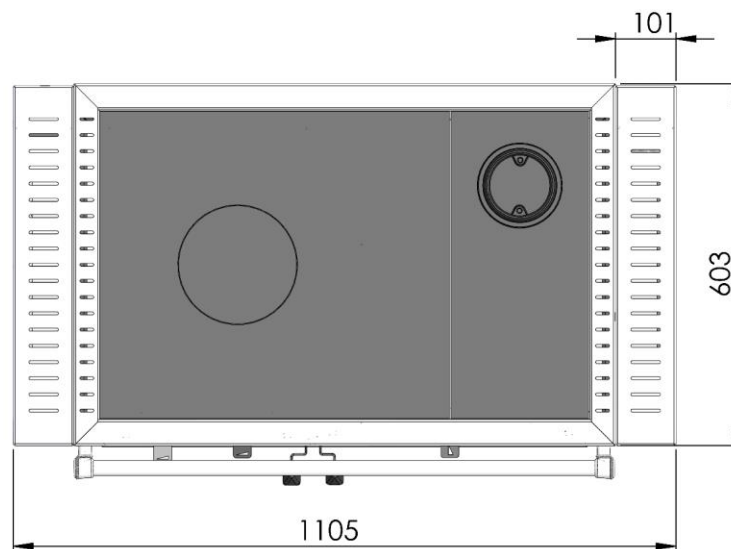
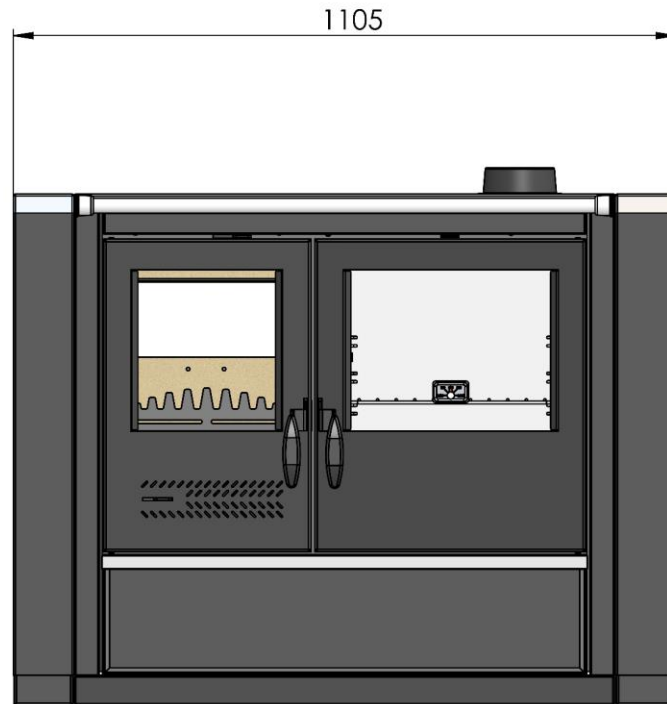
NORTH ECO - WOOD BURNING COOKER

REAR FLUE EXHAUST POSSIBILITY

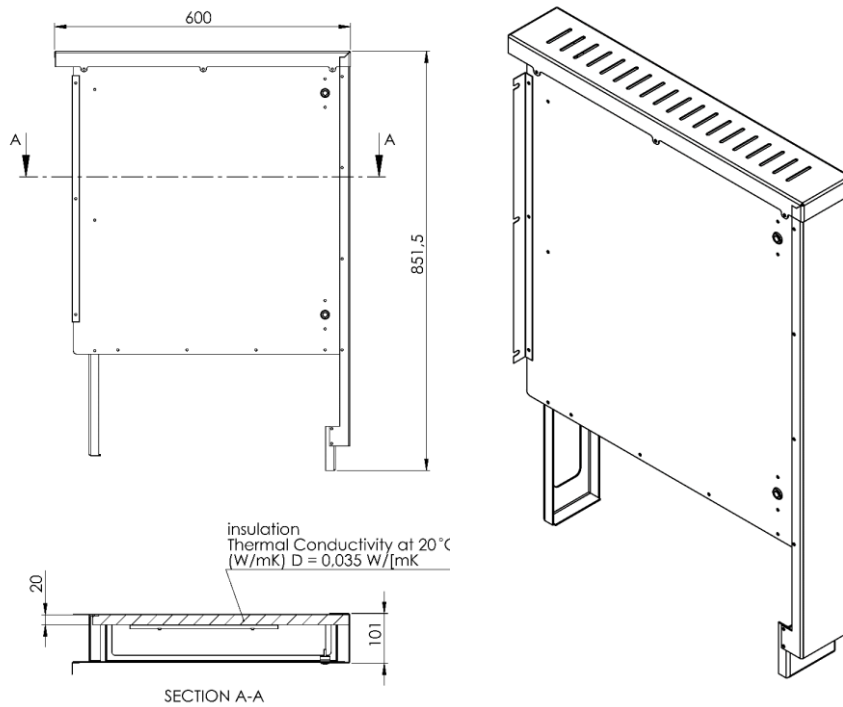
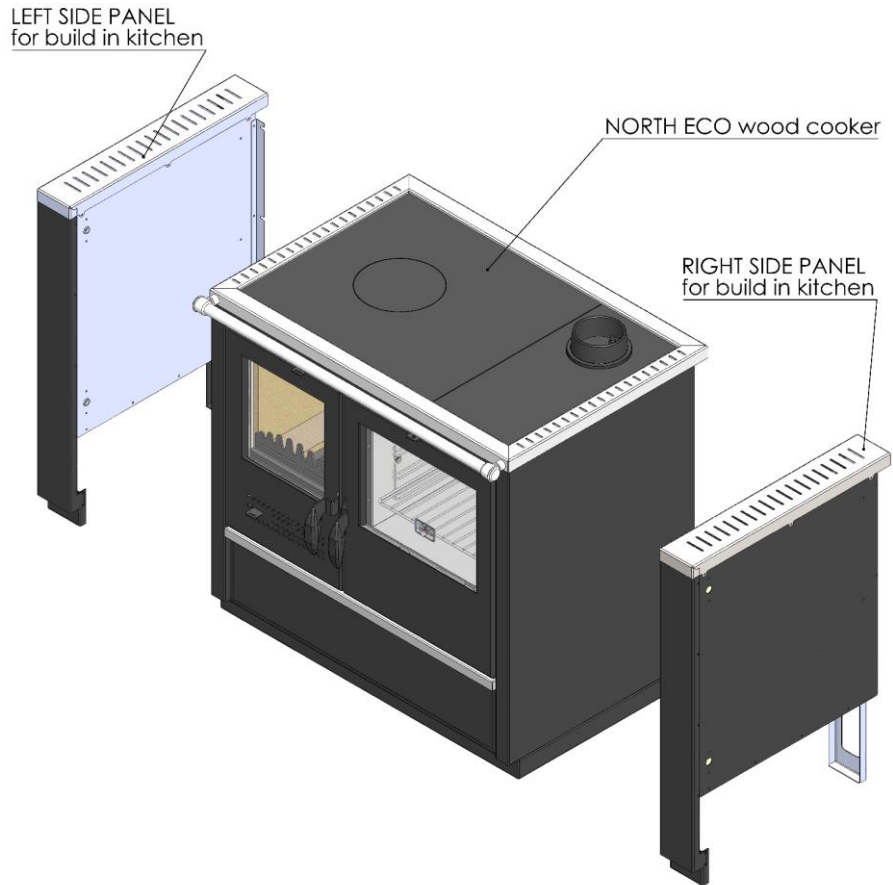


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KITCHEN VARIANT : NORTH ECO between kitchen elements



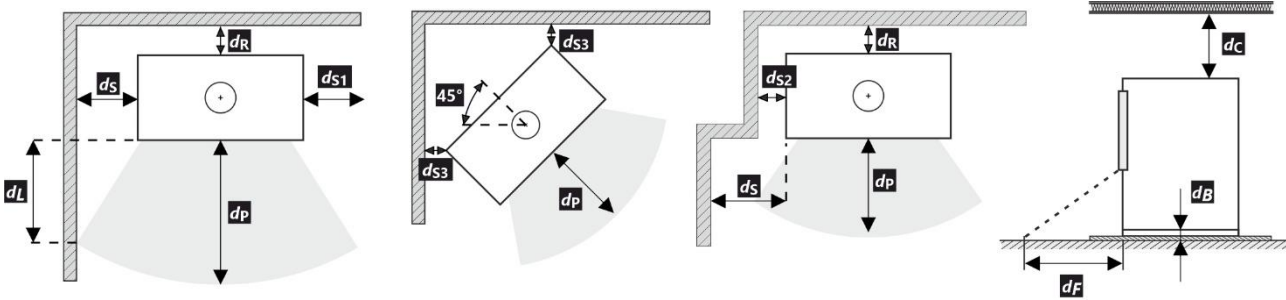
NORTH ECO - WOOD BURNING COOKER



NOTE: Note: side panels with insulation are not a regular part of the cooker and must be ordered separately. ONLY panels which are ordered through the distributor network with a producer marking may be installed.

MINIMUM DISTANCE TO COMBUSTIBLE MATERIALS

Minimum distances to combustable materials, in mm		
	NORT ECO	NORT ECO – kitchen variant with side panels
bottom (d_B)	0	0
floor in front (d_F) ^{*)}	400	400
ceiling (d_C)	>750	>750
rear (d_R)	300	300
side (d_S)	300	0
side radiation area (d_L) ^{*)}	200	200
adjacent combustable materials (e.g. furniture) (d_P)	750	750
material type and thickness of protective insulation material (s), (if any)	-	SIDE PANELS W=100 (page 27)



OBLIGATORY!

READ MANUAL BEFORE STARTING THE COOKER.

NORTH ECO - WOOD BURNING COOKER



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