



**SOLID FUEL
RANGE COOKER**

TYPE 9101

**OPERATION & MAINTENANCE
MANUAL**

INSTALLATION MANUAL

OPERATION AND MAINTENACE MANUAL

Dear customer,

Thank you for purchasing of the appliance KVS MORAVIA - solid fuel range cooker. We trust that our product serves you well. Some important principles should be observed during its operation. Therefore, in your interest, carefully study this manual and operate the product according to the given instructions. The 9101 appliance has a manufacturer issued declaration of conformity according to Section 12, Article 3, of Law No. 22/1997 of the Czech Republic.

Important Information, Binding Instructions and Recommendations

- No flammable liquids should be used when lighting the fire, nor should they be used to increase the nominal output of the appliance.
- The appliance should not be used for waste incineration; only recommended fuels may be used.
- During operation, the ash tray door should be closed, and the fire door should only be opened for lighting the fire or raking the grate in order to prevent flue gas bleeding.
- Ash should be put into non-flammable ash bins with covers! Be very careful during the removal of hot ash.
- Pay attention to fire safety!
- It is forbidden to use the appliance if it is damaged (unfit for its function)!
- Any contravention of the operating conditions may cause damage to some parts of the appliance. It is recommended not to overload the appliance in any way.
- **Possible noisy impacts (popping) of the metal plates or chipping of the fired clay lining inside the appliance are not subject to repair or a claim procedure. The cause of these impacts is the internal stress of the metal plates, which will fade after a certain time (it depends on the firing frequency). These occurrences endanger neither the safety, nor the function of the appliance.**
- Any repair of the appliance, except cleaning and fired claying must only be made by an authorised worker.
- Local regulations, including those regulations related to national and European standards, shall be observed during the installation of the appliance.
- It is recommended that you only use spare parts approved by the manufacturer.
- Unauthorised modifications of the appliance are forbidden.
- The appliance must only be operated by adults, and during operation, the appliance requires intermittent attendance and supervision.

Technical Specifications

The TYPE 9101 appliance has been designed for solid fuel combustion in periodic feed rates and is intended for cooking in households and/or for heating the space in which it is situated, according to the ČSN EN 12815:2002 Standard as amended by A1:2005. The appliance can be connected to a chimney from the back, both sides or from the top by means of a hole in the hob-top (Figure 1).

The appliance is suitable for short operational periods, so it is not possible to set the permanent-heat process with a shortest interval of fuel supply of 10 hours.

Appliance

	TYPE 9101	
Nominal heat output (NHO)	wood	coal
• summer mode	6 kW	6 kW
• winter mode	6 kW	6 kW
Efficiency with NHO	73,3%	
Average flue gas temperature with NHO	275°C	
Flue gas mass flow rate with NHO	8,3 g/s	
Average concentration of CO with NHO (with O ₂ = 13%)	0,11 %	
Minimum chimney draught	12 Pa	
Working surface height (distance from floor to hob top panel)	850 mm	
Appliance width	325 mm	
Appliance depth	620 mm	
Exhaust branch diameter	120 mm	
Height to flue centre	700 ± 0.5 mm	
Hob-top panels area	0.12 m ²	
Tested fuel	wood: size 200-265 mm	
Average wood consumption	2 kg/h	
Weight	100 kg	

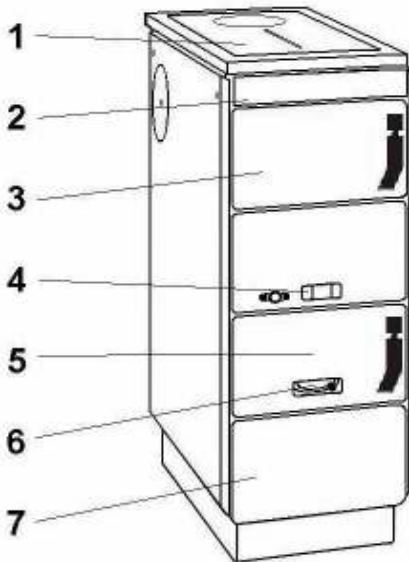
Dimensions of the Fire Box

Width x Height x Depth (summer regime)	190 x 220 x 270 mm
Width x Height x Depth (winter regime)	190 x 360 x 270 mm
Fire grate, Width x Depth (upper)	185 x 285 mm
Fire grate, Width x Depth (bottom)	140 x 240 mm
Stokehole, Width x Height	192 x 130 mm

Accessories

Poker	1 piece
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Description and Dimensional Sketch



1. Hob-top
2. Cover strip
3. Combustion chamber – door
4. Grate lever (with a safety lock)*
5. Ash tray door
6. Air rose
7. Fuel case

* the lock is only in some versions of TYPE 9101 appliances.

Figure 1

The upper working surface comprises a hob-top. The appliance casing is made of enamelled steel plates. The thermally stressed parts of the appliance are made of cast iron and fired clay. The appliance can be connected to a chimney from the back, both sides or from the top by means of a hole in the Hob-Top (Fig.1 and 5).

The hotplate lid* is packaged separately behind the rear side of the appliance for ease of transportation. After the appliance has been unpacked, insert the hinge pins into the openings at the rear section of the hotplate frame. The springs in the hinges assist in keeping the lid in a vertical position.

***The hotplate lid is supplied upon the customer's request only.**

NOTE:

The manufacturer reserves the right to carry out small changes resulting from innovative or technical changes of the product that will have no detrimental affect on the function of the appliance.

Service Instructions

Fuel

The appliance has been designed for solid fuel combustion:

- wood (tested fuel),
- recommended fuels are brown coal, wood-base waste, lignite briquettes, common commercial fuels. Take care that the fuel used is dry. It is recommended that you avoid burning high-calorific fuels which reduce the service life of the appliance.

Fire grates

The appliance is equipped with two grates – the upper one (fixed) and the lower one (rotary). The upper grate is placed in a position which guarantees optimum fuel consumption in the summer. In winter this grate should be removed (Figure 2) and the advantage of increased room of the combustion chamber should be used. Combustion then takes place on the lower grate which can be handled using a lever (Figure 3).

Raking

Raking must be done so the unburned fuel falls to the ash tray below, increasing the combustion (primary) air supply to the fire again. This must be carried out by holding the grate lever and dragging it back and forth. Pieces too large to drop can be removed by turning the grate by means of the lever (Figure 3) after fire extinction. Intermittent raking should be done even during heating on the upper grate using the fire rake.

Note: Some versions are equipped with a rotary grate safety lock preventing spontaneous turn of the grate so it should be unlocked by pressing to the left (Figure 3) before turning the grate.

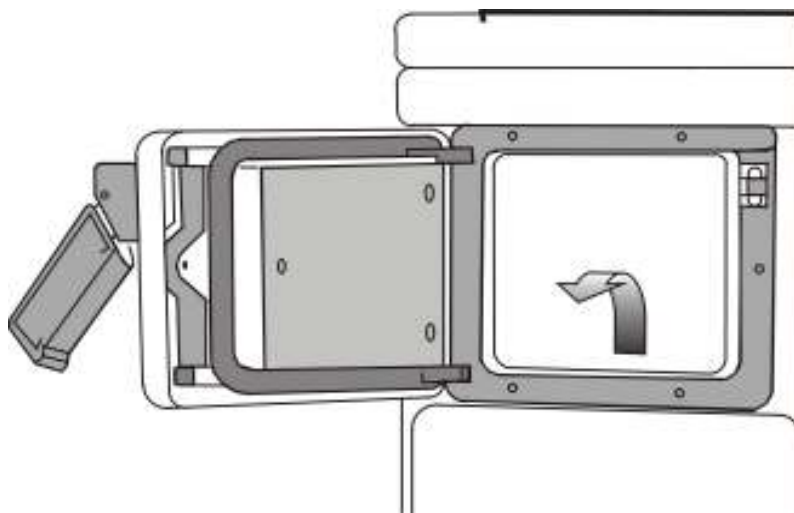


Figure 2

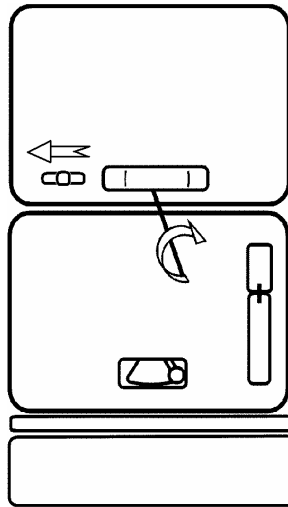


Figure 3

Air supply control (Figure 4)

The combustion air supply control is carried out by means of an air rose, which is a part of the ash tray door. By turning it with the lever it is possible to control the air supply and thus affect the burning rate of the fuel (appliance output). The graphic representation of the control is made using triangles and the lever under the ▲ symbol means slow burning (air supply is closed) and, contrariwise, the lever below the symbol ▲▲▲▲ means fast burning (air supply is completely open) (Figure 4). During the operation of the appliance, the combustion air supply should be ensured and the air supply hole should not be blocked. In the room where the appliance is situated, air exhausts should not be used unless an adequate air supply for venting is ensured

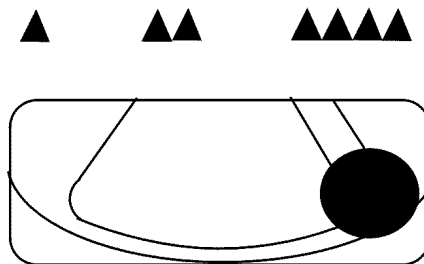


Figure 4

Appliance hob-top

The hob top panel is made from steel. The front of the hob-top (above the combustion chamber) is especially intended for fast cooking, while the rear part has a lower temperature and is suitable for slow cooking and keeping meals warm. You should always use pots with flat bases.

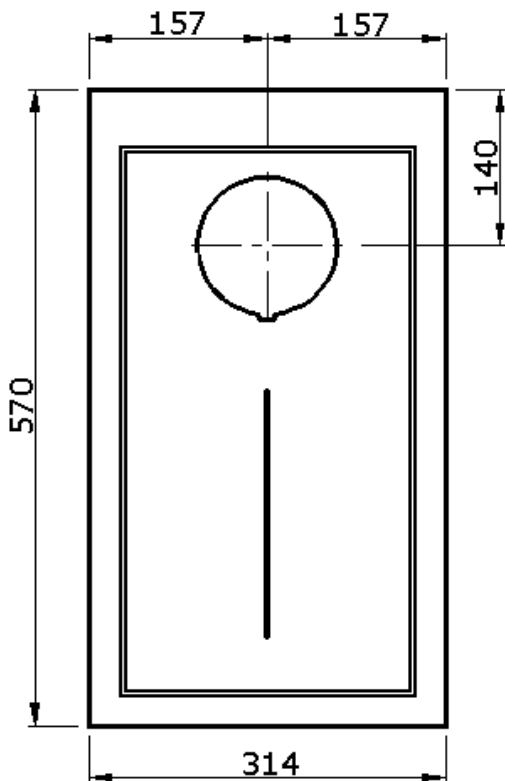


Fig. 5 (dimensions in mm)

Appliance Operation

When you are firing for the first time, foodstuffs should not be cooked. Ensure the room is well ventilated as the appliance will burn off its protective painting and fat residues.

Before beginning, open the fire place door and check whether the grate is clean. Use paper for the base of the fire, over which small kindling of soft dry wood should be spread. Larger pieces of dry wood should then be placed on top. Open the air supply under the grate through the air rose. After lighting, close the fire place door and when the fire has caught add more pieces of wood. When a burning bed of embers has formed you can stoke additional fuel. Be careful not to smother the fire by stoking a big amount of fuel too quickly. Gradually extend the ignition period (about 25 minutes for heating at the upper grate and 45 minutes for the lower one). Carry out refuelling by hand or by means of a suitable shovel.

The appliance output can be controlled by the air supply under the grate. From time to time, purge the grate using the fire rake. If the appliance emits fumes during fuelling, close the air intake.

The entire area of the fire place can be used. Take care that the fuel does not fall out of the fire place. With poor draught conditions or with poor weather conditions you should use small dry pieces of wood for fuel.

Note: KVS EKODIVIZE Inc strongly recommends that their range cooker should be covered by the uninsulated lid only after the cooker ceased its operation!

That means when the food is being cooked on the hob, and fuel is still being added for heating purposes, or the burner is simply on, the lid must be kept in the raised position. It can be lowered to cover the hob only when the cooker is not in operation or finishing its operation (no fuel has been added, the cooker is cooling down and the fire in the burner is burning down).

Cleaning and Maintenance

Fire place and flue cleaning

In order to maintain the optimum working condition of the appliance, it is necessary to clean it regularly. The combustion chamber should always be cleaned when the appliance is out of service.

Before repeated ignition or after a longer service interruption, it is necessary to carry out an inspection of the flue ways, flue gas ducting and chimney. Regular maintenance should be performed by qualified service personnel annually.

Remove unburned waste from the upper grate by means of the shovel and the fire rake. Empty the lower grate into the ash tray by pushing out and turning the grate lever to the right (Figure 3). Remove the top-hob and sweep the soot from the dirty internal surfaces, remove the cover in the rear part of the grate bearing. From there the soot can be moved to the ash tray through a sweeping hole. Empty the ash tray.

After cleaning, restore the appliance to its original state. Take care of the fact that packing line is set correctly as well as the top-hob in its frame.

Outer surfaces cleaning

Clean the appliance after cooling.

- Enamelled surfaces should be cleaned with a damp cloth or sponge, and then polished to dryness. Never use abrasives which could affect the enamel surface. With higher pollution you can use detergents.
- It is important to protect the hob from water to avoid corrosion. Clean it only when it is dry. If you use a damp cloth with detergent when cleaning the hob, the hob should be dried when finished. From time to time we recommend greasing the hob with a thin layer of vegetable fat.

Trouble-Shooting

- | | |
|------------------------------|--|
| The appliance cannot be lit: | - inspect the flue ways, flue gas duct and chimney
- check the, air rose, fire place door and ash tray |
| Overheated appliance | - put out of service, do not stoke, close the air rose, let fire burn out |
| Fire in the chimney | - do not use water to extinguish the fire
- close all of the air intakes, cover the chimney if possible
- contact a qualified chimney sweep service to evaluate the chimney condition after the fire
- contact your supplier. |

Claims

Do not carry out repairs by yourself if faults occur during the guarantee period. File a claim in the shop where the product was bought or in a guarantee repair shop and support it with a duly completed guarantee card. Guarantee claim requests can be set up only in cases where all guarantee conditions are met.

Disposal of the Packaging

- | | |
|---------------------------------|--|
| Corrugated board, packing paper | - recycle |
| Wooden parts | - recycle or re-use |
| PVC strips, sacks, foils | - recycle if available, or dispose of sensibly |

Disposal of the Appliance after its Service Life

The appliance contains valuable materials that can be recycled. Your Local Authority or a licensed scrap firm can organise this for you.

INSTALLATION MANUAL

Based on the design solution and the use to which the appliance will be put, this solid fuel appliance must be installed into an environment which was defined as an ordinary environment (for example by ČSN 33 2000-3:1995 – Environment standard of the Czech Republic).

Requirements for combustion air supply will be met if the appliance is installed in a room with a minimum volume of 20 m³. According to need, the appliance operation or in combination with the contemporary operation of other heat equipment in the room, additional ventilation may be necessary. In cases where dangerous situations may arise, such as the temporary formation of combustible gases and works which may cause a fire to start (potentially explosive), the appliance should be put out of service (by closing the combustion chamber door the fuel will be allowed to burn out on the grate). If combustion, venting and heating air control louvers are used, it is necessary to place them in such a way that clogging cannot occur.

Appliance connection to the chimney

A flue (exhaust) branch is installed to an outlet on the appliance (rear, both sides, and top – through the hob-top). The installation is carried out in such a way that a ring is applied to the internal side of the appliance, which connects with the external flue branch, and they are mutually screwed together moving in the opposite direction.

In case you use a side outlet, it is first necessary to unscrew the side part, from which we dismantle the top cover of the hole, apply the blanking cap to close the rear outlet, replace the side part and screw it closed.

With the use of the top outlet (through the hob-top) it is necessary to remove the blanking cap and to attach the flue branch – without the ring, and use the delivered blank cover to close the rear outlet.

A chimney with a sufficient draught is absolutely essential for correct appliance operation. **We recommend the chimney with height of 5 meters and diameter of 160 mm.** Try to connect the appliance using the shortest route. Flue gas ducting made of sheet-metal tubes consists of several sections and if longer than 2,000 mm, shall be firmly anchored. The entire set shall be mutually, firmly and tightly connected in the draught direction (individual overlaps must be a minimum of 80 mm). An existing chimney flue shall be provided with an approved metal liner flue that corresponds to the exhaust flue diameter. The appliance should be installed in such a way that adequate access can be provided for cleaning of the flue ducting and the chimney.

Connection of the appliance to the chimney should comply with the individual national regulations at place of installation and use (for example ČSN 73 4201:2008 Standard of the Czech Republic). The chimney shall be issued with a certificate (revision report) given by a respective authority (chimney sweeping agency). The appliance should be installed in such a way that adequate access can be provided for cleaning of the flue ducting and the chimney. In assembly, it is necessary to observe the principles of fire safety (for example according to the ČSN 06 1008:1998 Standard of the Czech Republic). The cooker can be connected to a shared chimney (Fig. 6).

Chimneys and flue ducting to which solid fuel are connected shall be swept 6 times a year (for example according to the Department of the Interior Czech Decree No. 111/82 Coll.). Routine operation, especially due to damp fuel, soot and tar creates deposits in the chimney. If regular inspection and chimney cleaning are omitted, the probability of a fire in the chimney increases.

Safety instructions

The minimum safe distance from flammable matters with a combustibility grade of B, C₁, C₂ is a minimum 750 mm forward of the appliance and 200 mm to the sides and. For flammable matters with C₃ combustibility grade and/ or with an unproven combustibility grade, the distance should be doubled. No flammable objects should be laid on the appliance and should be kept at a safe distance from it. When the appliance is situated on a floor made of a flammable material, it should be set on a fireproof, thermo-insulating plate overlapping its section plan:

- not less than 600 mm at the front (before the stoke hole)
- not less than 300 mm from the lateral side of the stoke hole.

A protective baffle plate is used in cases where, due to space reasons, the prescribed safe distance cannot be kept. The protective baffle plate shall have a constant position between the appliance and the protected material in a distance of 30 ±5 mm from the protected material. The protective baffle plate shall overlap the protected material up to the nearest wall (ceiling) made of a fireproof material, however not less than 300 mm at the upper side and 150 mm at the lateral sides. **We recommend that your installer check this reduced dimension with your local building control department.**

Description of materials type for flammable classification in cookers manuals (in accordance with Czech and EU standard No.73 0823):

Flammable level	Rating	Materials
A.	Non-flammable	asbestos, brick, ceramic wall tile, chamotte, plaster mixture (without organic enclosure).
B.	Uneasy-flammable	building wall panels (for example a gypsum wallboard), VELOX, IGNOS, touchstone felt panels, fibreglass panels).
C ₁ .	Flammable with difficulty	beech wood, HORBEX board, wood multi-layer board, WERZALIT, Formica, felt boards.
C ₂ .	Moderately flammable	pine tree wood, larch wood, spruce wood, wood chip boards.
C ₃ .	Easily flammable	sarking felt, cellulose boards, tar panels, wood-pulp fibre, phellem, polyurethane, polystyrene, polypropylene, polyethylene.

Warning for places where burns can occur:

- hob-top, hob frame
- combustion chamber door

Flue gas ducting connection to the chimney
(valid for Czech Republic)

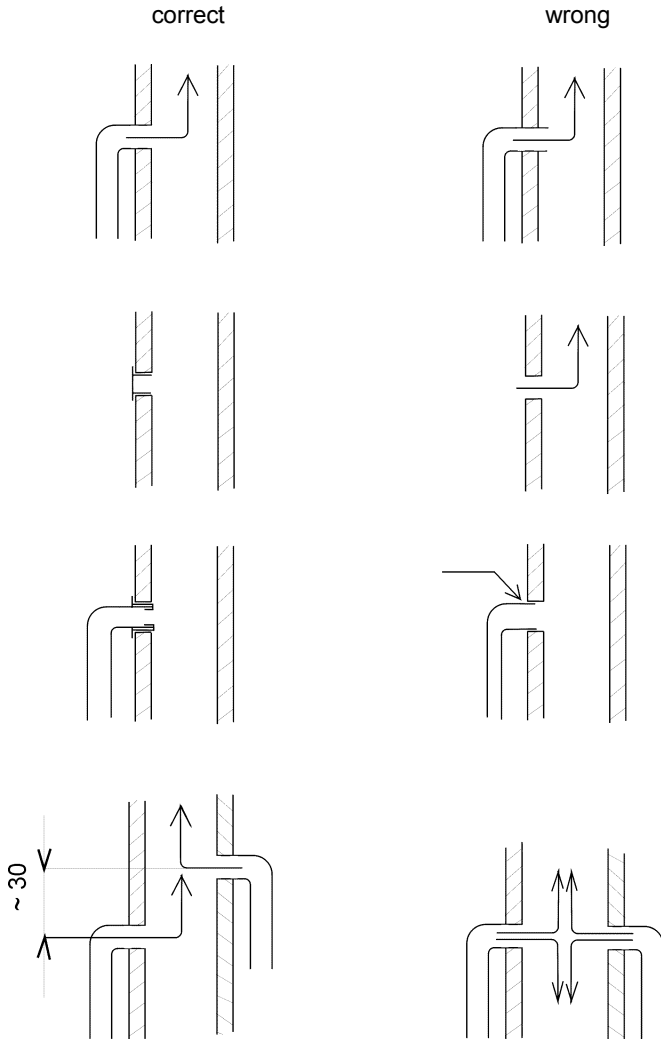


Figure 6

Important notice

1. Production standards

KVS MORAVIA solid fuel appliances are produced in accordance ČSN EN12815:2002 Standard with amended A1:2005, which is valid for the Czech Republic and European Union.

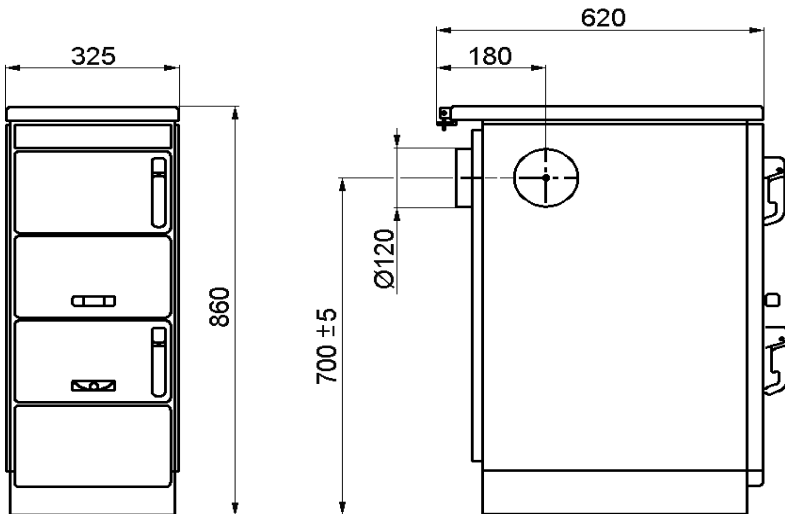
2. Installation and operation standards

All the above installation and operation instructions for the appliances primarily comply with the Czech regulations, and may not comply fully to individual national regulations at place of installation and use!

The buyer should consult their installer or specialised officials on all of the local installation and operation regulations for this appliance or similar appliances!

Dimensional Sketch of the appliance

Type 9101



(All of dimensions are in mm)

Producer:



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