



SOLID FUEL COOKING APPLIANCE

TYPE 9170

**OPERATION & MAINTENANCE
MANUAL
INSTALLATION MANUAL**

This product is not suitable as a main heat source for heating.

OPERATION & MAINTENANCE MANUAL

Dear customer

Thank you for purchasing the KVS MORAVIA appliance – solid-fuel range cooker. We believe that our product serves you well. Some important principles should be observed during its operation. Therefore, in your interest, carefully peruse this manual and operate the product according to the given instructions.

Important information, binding instructions and recommendations

- For the appliance to function correctly, ensure sufficient chimney draught.
- No flammable liquids should be used when lighting a fire, nor should they be used to increase the nominal output of the appliance.
- The appliance must not be used for waste incineration; recommended fuels may be used only.
- During operation, the ashtray door must be closed, and the firebox door should only be opened for lighting a fire or raking the grate in order to prevent flue gases from escaping.
- Ash must be put into non-flammable ash bins with covers! Be very careful when removing hot ash.
- Pay attention to fire safety!
- It is forbidden to use the appliance if it is damaged (unfit for operation)!
- Failure to observe the operating conditions may result in damage to some parts of the appliance. It is forbidden to overload the appliance in any way (a hot – red hob).
- **Noisy impacts (banging) that are due to the internal stress of metal plates may occur during operation. This occurrence will usually fade away completely after a certain period of time (it depends on the frequency of heating).**
- Any repair of the appliance, except cleaning and lining with fireclay, may only be done by an authorised worker.
- All 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 may only be operated by adults and during operation the appliance requires intermittent attendance and supervision.

Technical data – VSP 9170

The type 9170 appliance has been designed for combusting solid fuels in periodic charges and it is intended for cooking in households and for heating the space in which it is situated, according to ČSN EN 12815:2002 and Amendment A1:2005. The appliance complies with Commission Regulation (EU) 2015/1185 – eco design of solid-fuel local space heaters.

The appliance can be connected to a chimney from the top side through a hole in the hob or from the rear side.

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

Appliance

	VSP 9170
Energy efficiency class	A+
Nominal Heat Output (NHO)	6.6 kW
Direct heat output	6.6 kW
Indirect heating function	NO
Energy efficiency index	108
Efficiency at NHO	81.5%
(Seasonal efficiency)	71.5%)
Average temperature of flue gases at NHO	163 °C
Mass flow rate of flue gases at NHO	9.3 g/s
Emissions during heating of spaces at NHO (with O ₂ =13%):	
PM	38 mg/m ³
OGC	64 mg/m ³
CO	1182 mg/m ³
Nox	91 mg/m ³
Minimum chimney draught	12 Pa
Preferred fuel	wood briquettes (pressed wood with moisture content < 12%)
Consumption of preferred fuel	1.74 kg/h
Appliance weight	107 kg

Dimensions

Worktop height	850 mm
Appliance width	725 mm
Appliance depth	520 mm
Height to the centre of the exhaust flue	755 ± 5 mm
Diameter of the exhaust collar	120 mm
Hob area	0.3 m ²

Dimensions of firebox

Width x Height x Depth	185 x 250 x 350 mm
Fire grate, Width x Depth	160 x 290 mm
Stokehole, Width x Height	160 x 200 mm

Dimensions of baking oven

Width x Height x Depth

300 x 250 x 420 mm

Accessories

baking sheet 1 item

oven grate 1 item

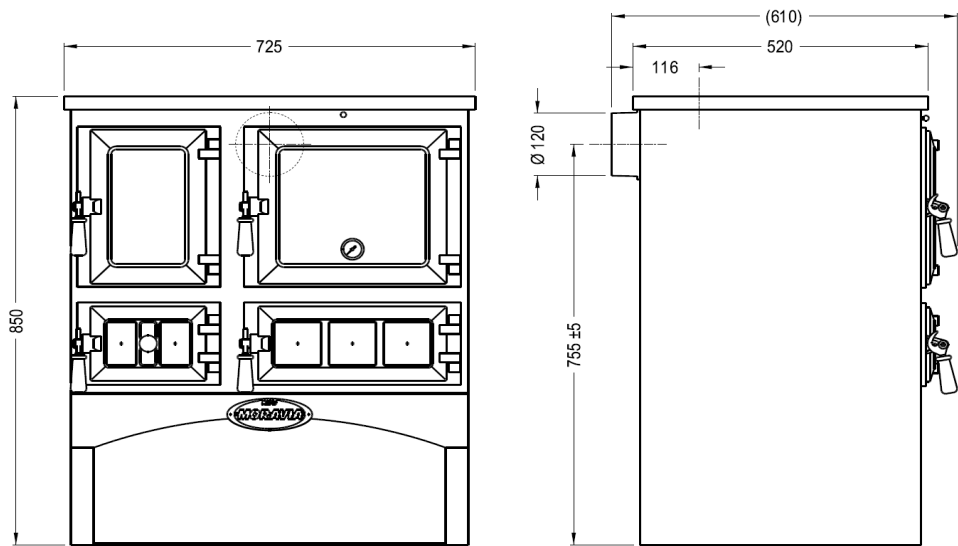
poker 1 item

gloves 1 item

VSP 9170



Dimensions's draft



NOTE:
The manufacturer reserves the right to make minor alterations arising from innovation or technological changes to the product that do not affect the function of the product.

Recommended fuel

- wood briquettes (diameter 90 mm), wood (max. diameter 190 mm, max. length 300 mm).
- Make sure that the fuel is dry. It is not recommended to burn high-calorific fuels, which reduce the service life of the appliance.

Grates

The appliance is equipped with one grate.

Grating

It is done by means of the poker in order to allow unburned fuel remains to fall through to the ashtray, which increases again the supply of combustion (primary) air to the firebox.



Air supply control

Controlling the supply of combustion air is enabled by means of an air rose, which is a part of the ashtray door. Turning the rose by means of the rose handle makes it possible to continuously control air supply, thereby acting on the speed of fuel combustion (appliance out-put).

Secondary air is continuously and independently supplied into the firebox through air holes in the bottom part of the firebox door.

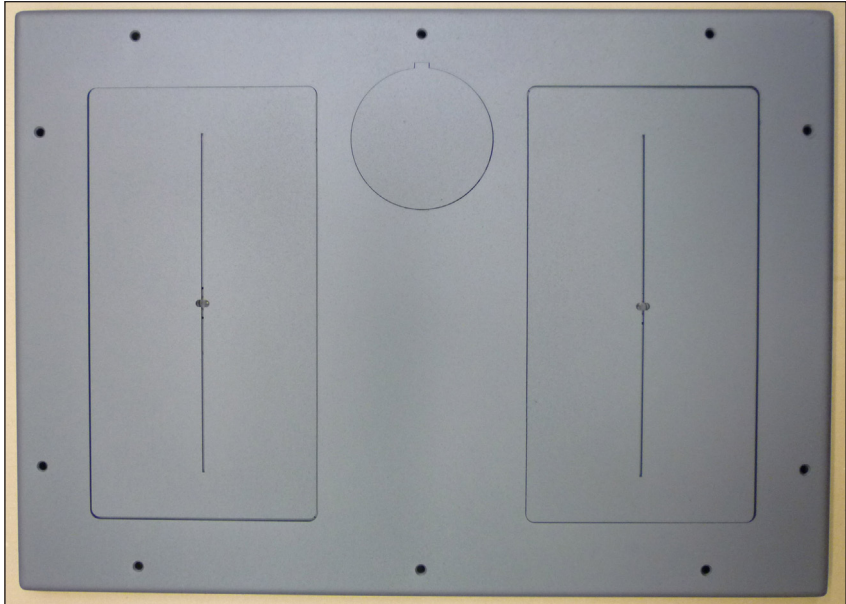
During the operation of the appliance, the supply of combustion air must be secured and the air supply inlet must not become blocked. Air exhausters must not be used in the room where the appliance is installed unless sufficient air supply is provided for ventilation.



Appliance hob

The hob consists of the base, fixed part and detachable (expansion) parts.

The hob above the firebox is intended for quick cooking, and the hob with lower temperature above the oven is suitable for slow cooking and keeping the foods warm.



Sweeping hole

Soot deposits in colder parts of the draught system (mainly when coal is used) after a certain time of operation of the appliance. This process causes deterioration of the appliance's draught, which results in lighting a fire being more difficult but also in deterioration of the economy of operation, especially when baking in the oven.

During actual cleaning, first remove the detachable parts of the hob and clean the soot off the flue-gas ducts and the outer surfaces of the oven. Then open the sweeping hole and sweep all dirt out of the space under the oven.



Lighting flap – control by flap lever

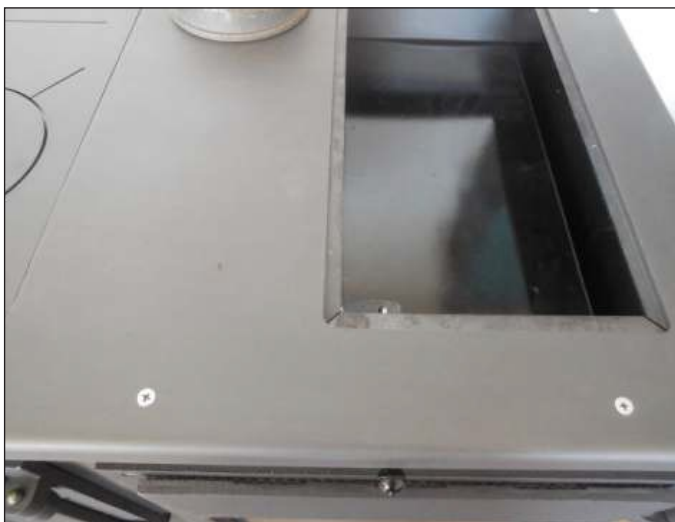
The flap lever is located above the oven.

It has two modes of operation:

- heating mode (flap opened, lever shifted out).



- the operation of baking in the oven and cooking on the hob (flap closed, lever shifted in towards the hob).



After the fire starts burning perfectly, close the lighting flap and operate the appliance with the lighting flap closed even though you will not be baking. In this way, you extend the flow of flue gases and increase the output and efficiency of the appliance.

INSTALLATION INSTRUCTIONS

Based on the structural design and the nature of use, this solid-fuel appliance must be installed into an environment defined by ČSN 33 2000-1:2009 as ordinary environment (ČSN 33 2000-1:2009 – Environment standard of the Czech Republic). Requirements for the supply of combustion air will be met provided that the appliance is installed in a room with a minimum volume of 20 m³. Ventilate in the room as needed, according to the appliance's operation or in the simultaneous operation of other heat equipment. In the event of danger of, for example, just temporary formation of combustible gases and during work with the possible danger of a fire (explosion), the appliance must be shut down in time before it (the fuel will be allowed to burn out on the grate with the firebox door closed).

Mounting the exhaust collar – rear outlet

Remove the blanking cap of the rear outlet.

Mount the exhaust collar on to the rear outlet. The mounting proper takes place in such a way that the ring is applied from the inside of the appliance and the exhaust collar is applied from the outside and by moving them in the opposite direction they are tightened.

Mounting the exhaust collar – top outlet

When you use the top outlet (through the hob), it is necessary to remove the blanking cap in the hob and put the exhaust collar on – with no ring.

First insert the collar with its groove obliquely into the hob and then use the groove in the hole for the hob and insert the collar in. Finish the mounting by circularly moving the collar.

- For transport reasons, the exhaust collar is packed separately.

Connecting the appliance to the chimney

- Before connecting the appliance check the chimney for sufficient chimney draught; the flame of ignited paper should be drawn into the chimney opening.
- Try to ensure that the connection of the appliance to the chimney is as short as possible.

Connection of the appliance to the chimney should comply with the individual national regulations at the place of installation and use (for example ČSN 73 4201:2010 Standard of the Czech Republic). The chimney shall be issued with a certificate (inspection report) given by a respective authority (chimney sweeping company). 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 appliance cannot be connected to a shared chimney. Chimneys and flue ducting to which solid fuel are connected should be swept 2 times or 3 times a year – seasonal or yearlong operation (for example according to the Czech government Decree No. 34/2016 Coll.).

Soot and tar deposit in the chimney in routine operation, especially due to damp fuel. If regular inspection and cleaning of the chimney are neglected, the probability of a fire in the chimney increases.

Operation

Before lighting the appliance for the first time, check on the placement of the detachable parts of the hob.

Any heat treatment of food is forbidden when the appliance is being lit for the first time. Provide sufficient ventilation of the room as the protective coatings and fat residues tend to burn off.

Before lighting a fire open the firebox door and check if the grate is clean. As kindling use paper, on which you lay out small chips of dry soft wood, then put larger pieces of dry wood on the chips. Open the lighting flap before lighting a fire.

Open the air inlet to the maximum: primary air under the grate through the air rose on the ash-tray door.

After the fuel is lit close the firebox door and when the fuel burns through, stoke up. After a layer of burning embers is formed you can add more fuel. Make sure not to extinguish the fire by adding a large amount of fuel too quickly. Gradually prolong the intervals of stoking so that the final interval is once an hour. The average fuel consumption is about 2 kg of fuel per hour. Adding of fuel shall be carefully done manually or by means of a suitable trowel.

When operating the appliance at the rated heat output, it is necessary for the primary-air inlet to be open at about one third.

CAUTION: after stoking, the primary-air supply line must be opened to the maximum for about 2-3 minutes until the fuel ignites reliably, and then it must be pushed to.

The appliance output can be controlled by the amount of fuel supplied and by the supply of air. From time to time clean the grate by means of the poker. If the appliance is smoking when being stoked, close the air inlets and release the operating handle of the firebox door, open a mere slot and only after several seconds open the door fully. The entire space of the firebox can be used for combustion. Make sure that the fuel does not fall out of the firebox during stoking up.

If there are bad draught or bad weather conditions, you can open the ashtray door for a short period of time and use dried small wood logs as a fuel.

Combustion can be visually checked easily: no smoke can be seen rising from the chimney (except the time immediately after stoking up).

If you add half the amount of fuel every thirty minutes and perform grating at the same time, the combustion parameters will improve.

Cooking on the appliance hob

With the set operation described, 2 litres of water in a flat-bottom pot of a diameter of 18 cm with a lid should start boiling within 30 minutes. If intensive cooking is necessary, supply more layers of fuel so that the fuel being burnt is closer to the hob.

Use flat-bottom pots that adhere to the hob with their entire surface.

During cooking watch out for boiling over. If it happens, wipe off coarse particles immediately and after finishing the operation of the appliance clean the remainder using a damp towel, detergent and, finally, a dry towel. If particles bake in, it is very difficult to remove them later. From time to time (depending on the frequency of operation) grease the hob rings with vegetable oil.

Baking

If you want to use the appliance for baking, it must be sufficiently heated up and thermally stabilised.

To fire up the oven quickly, use smaller dry logs.

Set the lighting flap to the baking position and open the air inlet completely. The necessary temperature is reached in about 15 minutes.

However, we recommend that you start baking only after half an hour, when the appliance is heated evenly and the temperature in the oven no longer rises.

To ensure that baking is even, we recommend turning the baking tray approximately halfway through the baking.

If you want to increase the intensity of baking from above, set the lighting flap into the intermediate position.

If you want to decrease the intensity of baking from above, use an empty tray as shielding.

When taking the tray with a meal out you must not place it on a cooking hob. The cooking hob has substantially higher temperature than the temperature of the oven and the meal would easily boil over or get burnt.

The baking accessories of the appliance are intended for short-term contact with food. Short-term contact does not exceed 4 hours for beverages and 48 hours for food of solid or pasty consistency.



Cleaning and maintenance

Cleaning the firebox and flue ducts

To maintain good parameters of the appliance it is necessary to clean it regularly. Cleaning of the firebox must always be done with the appliance out of operation.

Before firing up the appliance after a prolonged period of interruption of operation, it is necessary to check that flue ducts, flue and chimneys are not blocked or obstructed. Regular maintenance should be carried out once a year by a service engineer.

Remove unburned residues from the grate by means of the trowel and poker. Sweep the ash into the ashtray.

Cleaning of the inner walls of the appliance and inner housing of the oven shall be done as follows:

Remove the detachable parts of the hob to get access to dirty surfaces inside, from which you can sweep the soot easily down to the bottom of the appliance.

From there you will then sweep them out through the sweeping hole. After cleaning, restore the original state of the appliance. Make sure that the individual parts fit tightly and seal perfectly and that the packing cord is placed on all doors.

Cleaning the outer surfaces

Clean the appliance only after it has cooled down.

- Clean the enamelled surface with a damp cloth or sponge and then polish it dry. Never use abrasive agents that would disrupt the structure of the enamel. If fouling is rather considerable, use detergents.
- If possible, protect the hob rings from contact with water to avoid corrosion. Clean them only when they are dry. If you use a damp cloth with a detergent when cleaning a hob ring, the hob rings should be dried when finished. We recommend greasing the hob rings with a thin layer of vegetable fat from time to time; do it also before lighting the appliance for the first time.
- When cleaning the oven, do not remove food remains with sharp objects but disrupt them when immersed with a brush and wipe the oven with a cloth or, where appropriate, use a suitable cleaning agent for the removal of coarse impurities and burnt food remains adhering to the surface.

Fault conditions

- | | |
|----------------------------------|--|
| The appliance cannot be fired up | - Inspect the flue ducts, flue and chimney. |
| | - Check on the setting of the lighting flap, air rose, firebox door and ash tray. |
| Overheated appliance | - Put it out of service – do not stoke, close the air rose, let the fire burn out. |
| Fire in the chimney | - Do not use water to extinguish the fire in any case. |
| | - Close all of the air inlets for burning and cover the chimney if possible. |
| | - Contact a chimney sweeping service to assess the chimney's condition following the fire. |
| | - Contact your supplier. |

Method of utilisation and disposal of packaging

- | | |
|-----------------------------------|--|
| Corrugated cardboard, wrap. paper | - Sell them to a waste collection point. |
| | - Put them into scrap-paper collection containers. |
| Wooden parts | - Burn them in accordance with the instructions. |
| | - Put them in a place designated by the municipality for waste deposition. |
| PVC bands, bags, plastic sheets | - Put them into plastic collection containers |

Disposal of the appliance after the end of its lifetime

The appliance contains valuable materials that should be reused. Hand the appliance to a waste collection point or to a place designated by the municipality for waste deposition.

Complaints

If a fault occurs during the warranty period, never repair it by yourselves. Lodge a complaint in the shop where the product was purchased. A claim may only be made if all the warranty conditions have been observed.

Safety instructions

Safety instructions

The minimum safe distance from flammable matters with combustibility grades B, C1, C2 is 750 mm in the direction perpendicular to the openable wall and 200 mm in the other directions. For flammable matters with C3 combustibility grade and with an unproven combustibility grade, the distance should be doubled. No objects made from flammable materials should be placed on the appliance and at a distance less than the safe distance from it. When the appliance is being placed on a floor made of a flammable material, it should be set on a fireproof, heat-insulating plate overlapping its footprint:

- not less than 600 mm in front of the stokehole
- not less than 400 mm from the lateral side of the stokehole.

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 should 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 cooker manuals (in accordance with Czech and EU standard No. 13501-1+A1:2010):

Flammable level	Rating	Materials
A.	Non-flammable	asbestos, brick, ceramic wall tile, chamotte, plaster mixture (without organic enclosure).
B.	Uneasily-flammable	building wall panels (for example a gypsum wallboard), VELOX, IGNOS, touchstone felt panels, fibreglass panels.
C1.	Flammable with difficulty	beech wood, HORBEX board, wood multi-layer board, WERZALIT, Formica, felt boards.
C2.	Moderately flammable	pine tree wood, larch wood, spruce wood, wood chip boards.
C3.	Easily flammable	sarking felt, cellulose boards, tar panels, wood-pulp fibre, phellem, polyurethane, polystyrene, polypropylene, polyethylene.

Warning about places where burns can occur:

- hob, hob frame
- firebox door
- inner walls of the oven
- control handles
- smoke flue
- **Ensure that your children are made aware of the danger of burns.**

The manufacturer is only liable for manufacturing defects.

The warranty does not cover damage due to improper installation, the use of improper fuel and overloading of the appliance.

Pursuant to safety regulations for construction products, the buyer and the operator shall familiarise themselves with correct operation as described in the operation manual.

Important Notice

1. Production standards

KVS MORAVIA solid fuel appliances are produced in accordance with the 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 with individual national regulations at the 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!

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