



**SOLID FUEL
RANGE COOKERS**

TYPE 9105

TYPE 9107

**OPERATION & MAINTENANCE
MANUAL
INSTALLATION MANUAL**

OPERATION & MAINTENANCE 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.

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.
- **The appliance should be installed by an authorised specialist. No claims are accepted in case of incorrect or amateur installation.**

Technical Specifications - TYPE 9105

The TYPE 9105 appliance has been designed for solid fuel combustion in periodic feed rates and it is intended for cooking and in households and/or for heating the space in which it is situated, according to the ČSN EN 12815:2002 Standard as amended 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 (Drawing 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 Characteristics

Nominal Heat Output – NHO

Efficiency at NHO

Average temperature of flue-gas at NHO

Mass flow rate of flue-gas at NHO

Average CO concentration at NHO ($O_2 = 13\%$)

Minimum chimney draught

Height of the worktop (distance from floor to hob top panel)

Width of the appliance

Depth of the appliance

Diameter of the exhaust flue

Distance from the floor to the centre of the flue socket

Area of the cooking range

Tested fuel

Average wood consumption

Weight

TYPE 9105

wood lignite

6 kW 6 kW

73 %

289 °C

8.2 g/s

0.11 %

12 Pa

850 mm (33.46 inches)

400 mm (15.75 inches)

630 mm (24.81 inches)

120 mm

700 ±0.5 mm (27.56 inches)

0.15 m²

wood (size 200 – 245 mm)

2 kg/h

100 kg

Dimensions of the Fire Box

Width x Height x Depth

Fire grate, Width x Depth

Stokehole, Width x Height

230 x 330 x 250 mm

140 x 240 mm

167 x 115 mm

Accessories

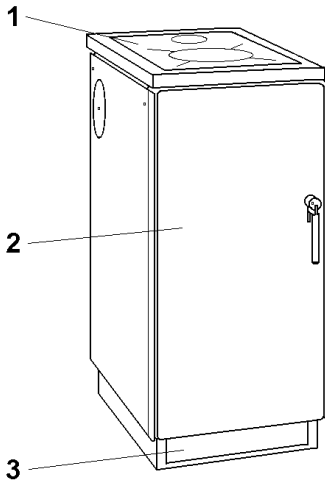
Poker

Blinding disc

1 pc.

1 set

Description - TYPE 9105



1. Hob Top
2. Front door
3. Fuel case

Drawing 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 fireclay.

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.

Technical Specifications - TYPE 9107

The TYPE 9107 appliance has been designed for solid fuel combustion in periodic feed rates and it is intended for cooking and in households and/or for heating the space in which it is situated, according to the ČSN EN 12815:2002 Standard as amended 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 (Drawing 2). 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 Characteristics

Nominal Heat Output – NHO

Efficiency at NHO

Average temperature of flue-gas at NHO

Mass flow rate of flue-gas at NHO

Average CO concentration at NHO ($O_2 = 13\%$)

Minimum chimney draught

Height of the worktop (distance from floor to hob top panel)

Width of the appliance

Depth of the appliance

Diameter of the exhaust flue

Distance from the floor to the centre of the flue socket

Area of the cooking range

Tested fuel

Average wood consumption

Weight

TYPE 9107

wood lignite

6 kW 6 kW

71.3 %

280 °C

8.8 g/s

0.11 %

12 Pa

850 mm (33.46 inches)

500 mm (19.69 inches)

630 mm (24.81 inches)

120 mm

700 ±0.5 mm (27.56 inches)

0.19 m²

wood (size 200 – 245 mm)

2 kg/h

110 kg

Dimensions of the Fire Box

Width x Height x Depth

Fire grate, Width x Depth

Stokehole, Width x Height

230 x 330 x 250 mm

140 x 240 mm

167 x 115 mm

Accessories

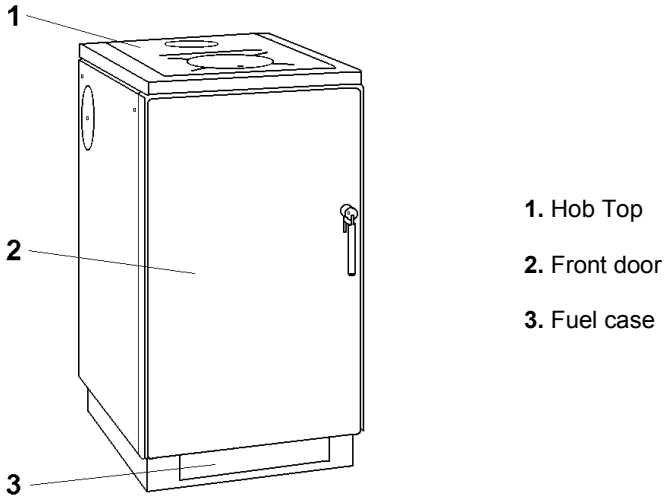
Poker

Blinding disc

1 pc.

1 set

Description TYPE 9107



Drawing 2

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 fireclay.

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 6).

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), wooden briquettes, brown coal (lignite), lignite briquettes. 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.

Grate

This appliance has one rotary grate. The grate lever is behind of the ash door.

Raking

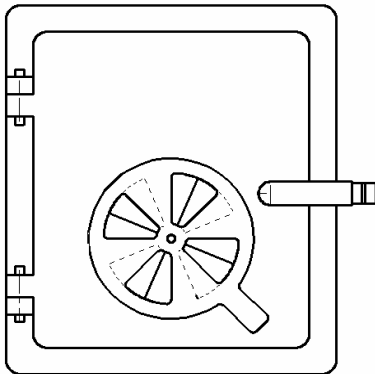
The purpose of the raking is allowing the burned fuel to fall to the ashtray, which increases the supply of combustion (primary) air to the combustion chamber. It is done by means of the poker with the combustion chamber door open. This must be carried out by holding the grate lever and dragging it back and forth. Pieces too large to drop can be removed by turning the grate by means of the lever after fire extinction.

Air Supply Control

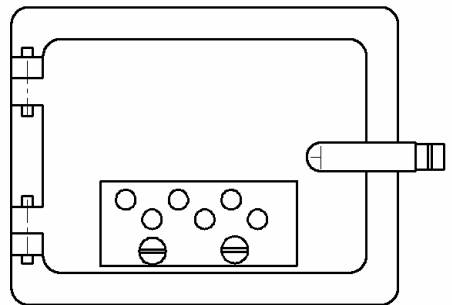
Controlling the supply of primary combustion air is enabled by means of the air rose, which is a part of the ashtray door (Drawing 3) and the sliding shutter on the firebox door (Drawing 4).

By handling the rose and shutter it is possible to precise control the air supply and thus affects the burning rate of the fuel (appliance output).

During the operation of the appliance the supply of the combustion air must be maintained, the air supply inlet must not become blocked. Mechanical ventilation/ air extraction must not be used in the room where the appliance is placed, unless there is provided sufficient air supply for ventilation (danger of overheating). Ventilation levels are provided in your local building regulations. It is advised to check ventilation issues with your local building control office to ensure trouble free operation.



Drawing 3

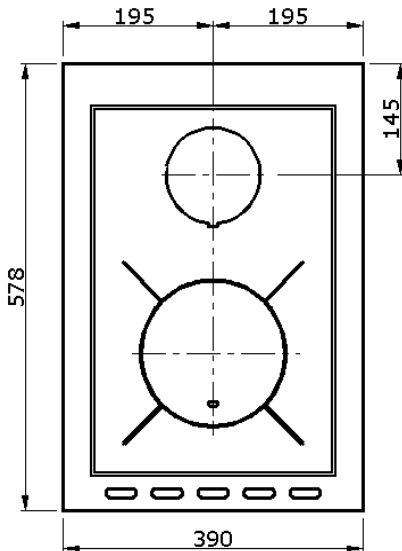


Drawing 4

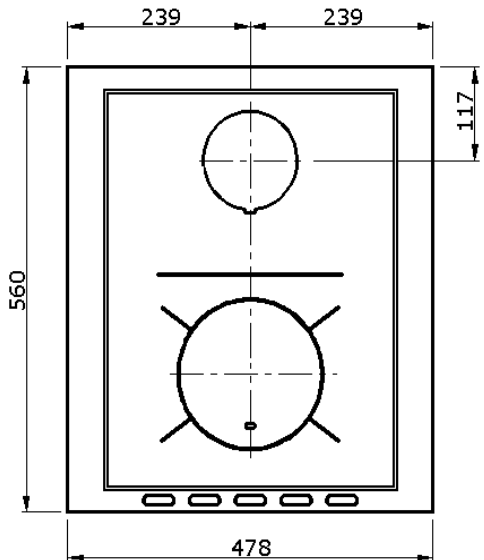
Appliance Hob Top

The hob top panels are made from steel (Drawings 5 and 6). 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.



Drawing 5 – Type 9105



Drawing 6 – Type 9107

(all of this dimensions are in mm)

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 ordinary environment (for example by standard ČSN 33 2000-1:2009 – 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).

Installing the flue socket:

Every of this appliances can be connected to a chimney from the back, both sides or from the top by means of a hole in the Hob-Top. The flue socket is mounted at the rear side of the appliance by default.

- The flue socket installation itself involves putting a ring (with cut-outs) onto the inner side of the appliance while putting the flue socket (provided with clamps) onto the outer side and tightening these two together with countermovement.

Installing the flue pipe from the side:

- Dismount the flue socket and the ring off of the rear part of the appliance.
- Unscrew the side plate and remove the enamelled lid.
- Take the blanking plugs off of the inner coating of the stove and use them to blank the opening in the rear part.
- Perform the flue socket installation (see paragraph 1), followed by installing the side plates.

Installing the flue pipe at the hob:

- Dismount the flue socket and the ring off of the rear part of the appliance.
- Cover the rear opening using blanking plugs (see accessories).
- Take the flue pipe lid off of the hob
- Use circular motion to mount the flue socket itself into the opening in the hob.

Connecting the appliance to the chimney:

- Prior to connecting the appliance, make sure that the chimney has sufficient draught of 12Pa, When a paper is set on fire, its flame should be drawn into the chimney opening.
- Try to make the connection of the appliance to the chimney as short as possible.
- Correct and incorrect connection of the appliance to the chimney is illustrated on fig. 7.

Connection of the appliance to the chimney should comply with the individual national regulations at place of installation and use (for example ČSN 73 4201:2010 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't be connected to a shared chimney.

Chimneys and flue ducting to which solid fuel are connected shall be swept 2 times or 3 times a year – seasonal or yearlong operation (for example according to the Czech governments Decree No. 91/2010 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. ČSN EN 13501-1+A:2010):

Flammable level	Rating	Materials (for complete list see Standard)
A.	Non-flammable	asbestos, brick, ceramic wall and floor tiles, chamotte, mortars, plasters, glass, natural building stone, building steel constructions, cement-fiber board CEMVIN ..
B.	Uneasy-flammable	plasterboards, HERAKLIT, VELOX, LIGNOS, touchstone felt panels, fibreglass panels ..
C ₁ .	Flammable with difficulty	beech wood, HORBEX board, SIRKOLIT, wood multi-layer board, WERZALIT, FORMICA, hardened paper, felt boards ..
C ₂ .	Moderately flammable	pine tree wood, larch wood, spruce wood, wood chip boards, PIOPLAT, corkboards ..
C ₃ .	Easily flammable	sarking felt, cellulose boards, tar panels, wood-pulp fibre, BA corkboards, rubber, polyurethane, polystyrene, polypropylene, polyethylene, textile, organic glass ..

Warning for places where burns can occur:

- hob-top, hob frame
- combustion chamber door

Appliance Operation

Before firing the appliance for the first time, take off the hob top and check the insulation cord in the frame of the hob top, after that pass the hob top back. When you are firing the appliance for the first time, ensure sufficient ventilation of the room, until the protective coatings have completely burned off. Once satisfied that that the coatings are no longer present the cooker is safe to use for the purpose of cooking food.

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 45 minutes). Carry out refuelling by hand or by means of a suitable shovel.

Full combustion can be visually easily checked: **no heavy 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 performance will improve.

The appliance output can be controlled by the air supply under and over the grate. For manipulation with the firebox and ashtray doors, the air rose and the sliding shutter to use the enclosed tool. 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).

Cooking on the Appliance Hob Top

With the described set operation, 2 litres of water in a pot with flat bottom of a diameter of 180 cm with a lid should start boiling in 15 minutes. Use pots with a flat bottom for best results.

During cooking watch out for boiling over. If it happens, remove as much of the spillage immediately and when finished cooking clean the remainder using a damp towel, detergent and finally using a dry towel. If the dirt bakes in, it is more difficult to remove later. From time to time (depending on the frequency of operation) wipe the range down with vegetable oil.

Cleaning and Maintenance

Cleaning of the Furnace and Flue Paths

To maintain optimum, problem-free performance of the appliance it is necessary to clean it regularly. Cleaning of the fire box must always be done with the appliance out of operation.

If igniting the combustion chamber after a longer interruption of operation, it is necessary to check that flue paths, flue ducts and chimneys are not blocked and no obstructions are present. Regular maintenance should be carried out once a year by a service engineer.

Remove unburned remnants from the grate by means of the trowel and poker.

Cleaning of the inner walls of the appliance (draught system) and inner housing of the oven shall be done as follows:

Remove the range hob to get access to the dirty surfaces inside, from which you can sweep the soot easily down to the bottom of the appliance. From there you can sweep them into the ashtray through the sweeping hole. Once clean put the range hob back ensuring that individual parts fit tightly and seal perfectly.

Outer surfaces cleaning

Clean the appliance after cooling.

- Enamelled surfaces should be cleaned with a damp cloth or sponge, and then polished to dryness. With higher pollution you can use detergents.
- It is important to protect the hob from water to avoid corrosion. Clean them only when they are 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 Ignition flap, circular air grid, fire place door and ash tray
Overheated appliance	-put out of service, do not stoke, close the air grid, 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 -contact the manufacturer or 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 Packaging

Corrugated cardboard, wrap. paper - can be used to light fire

- recycle

Wooden parts

- can be used as fuel

- recycle

PVC bands, bags, plastic sheets

- recycle if available, or dispose of sensible

Metal bands, nails

- recycle

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.

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.

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



Drawing 7

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

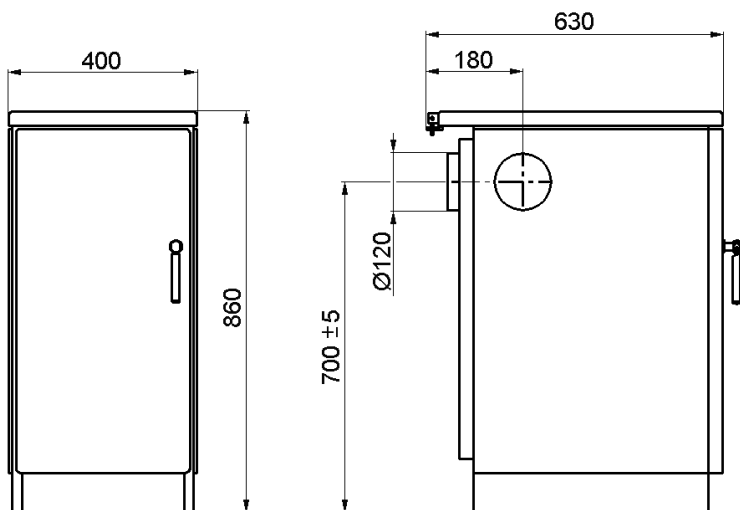
All the above installation and operation instructions for the appliances primarily comply with the Czech regulations, and may not comply fully to individual national regulations at place of installation and use!

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

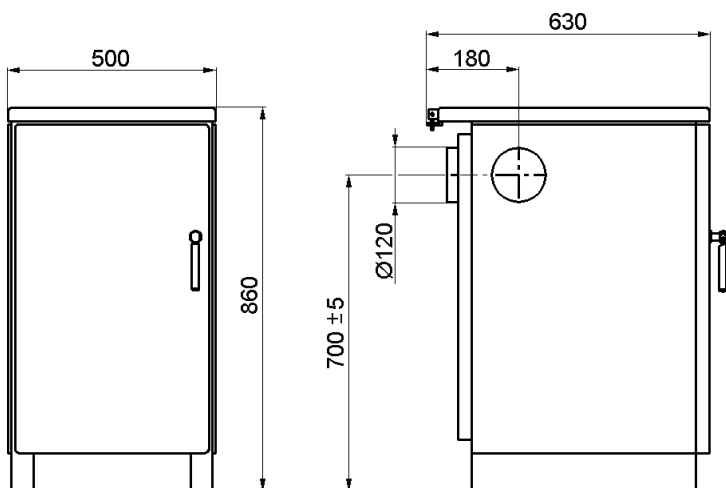
Dimensional Sketch of the appliance

(all of dimensions are in mm)

TYPE 9105



TYPE 9107



Producer:



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