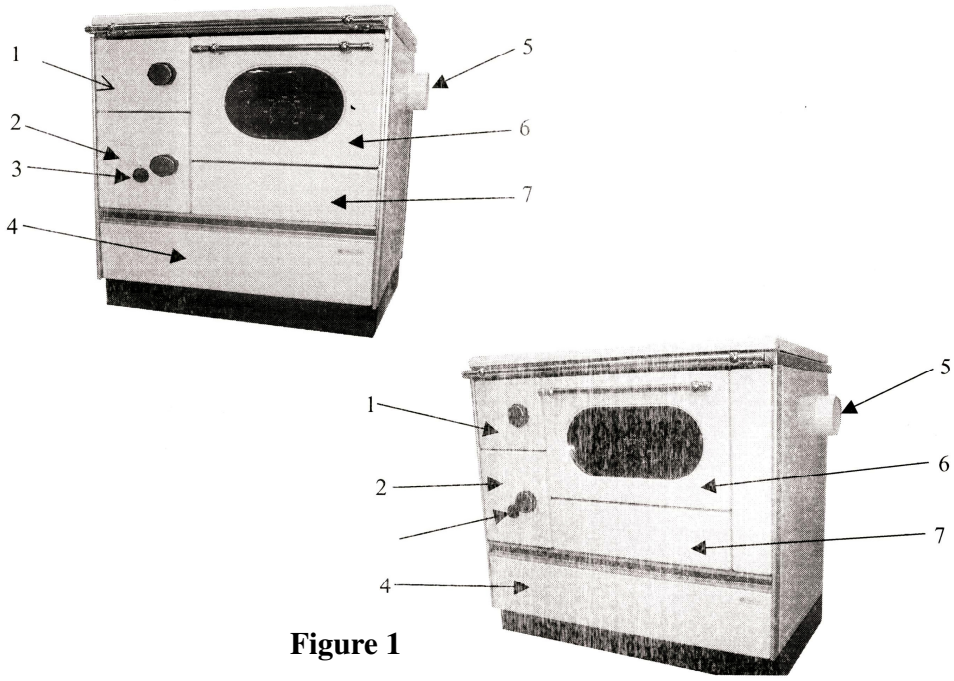


Figure 1

Solid fuel cook-stove KMŠ 70 and KVŠ 90H

1. Fire box door
2. Ash pan door
3. Air inlet control
4. Fuel drawer
5. Side flue gas connector
6. Oven door with double glass
7. Protective cover for cleaning opening (insulated)

INSTRUCTION FOR INSTALLATION, USE AND HANDLING

This instruction for installation, use and handling apply for the following types of cook-stoves:

KMŠ 70 FAVORIT, KMŠ 70 STANDARD, KMŠ 70 TERMO
KVŠ 90H FAVORIT, KVŠ 90H STANDARD, KVŠ 90H TERMO

Generally, regulations on firing must be observed, both local and applicable local, national and European norms and regulations.

Important before use

* In order to ensure proper functioning of your cook-stove, it is important to carefully read this manual and to precisely observe the instructions given herein.

* Use only recommended types of fuel: brown coal, beech wood.

* Required chimney pressure under normal operating load should be 12 Pa. Under loads higher than 15 Pa, a damper should be fitted into flue pipe.

* In the room where firing equipment is installed, sufficient supply of fresh air has to be ensured. If the windows and doors are properly sealed, or if some other air-reducing device such as steam aspirator, laundry dryer, fan etc. is present in the room where the cook-stove is fitted, in such circumstances, combustion air (fresh air) must be supplied from outside. **In any case, this has to be considered with chimney sweeper in charge before the cook-stove is installed.**

* Combustible materials must not be kept in ash pan. Charging height should not exceed the height of side walls of ash drawer.

* **Fire box door and ash pan door should be permanently closed (except during firing up the stove, additional fuel charging and ash removal) in order to prevent outlet of gases from fire.**

* **Cook-stove parts should not be replaced except with original and tested parts and accessories offered by our company or our service department.**

* **In the event that chimney fire occurs, cook-stove door should be kept closed and air inlet control should be set to zero. Never try to extinguish burning chimney with the use of water. Due to sudden formation of steam, chimney may break. If needed, call your local fire department.**

1. TECHNICAL CHARACTERISTICS

	UNIT	KMŠ 70	KVŠ 90H
Nominal heating capacity (kW)		6	6.5
Waste gas mass flow	(g/s)	10.7 for chopped wood 9.9 for brown coal briquette	10.2 for chopped wood 9.2 for brown coal briquette
Waste gas temperature	(° C)	210 for chopped wood 220 for brown coal briquette	190 for chopped wood 195 for brown coal briquette
Required chimney pressure (Pa)		13	13
C02 content	(%)	5.37 for chopped wood 5.88 for brown coal briquette	5.52 for chopped wood 5.98 for brown coal briquette
Cook-stove dimensions (width x depth x height)	(mm) mm	700x600x850	900x600x850
Dimensions of oven (width x depth x height)	mm	330x440x260	460x440x260
Diameter of chimney pot		120	120
Height from floor to the axis of chimney pot (mm)		rear side 432 lateral side 690	rear side 432 lateral side 690
Weight (Kg)		125	125
Connection		multiple	multiple

2. COOK-STOVE INSTALLATION

During the installation of the cook-stove, applicable building and fire-protection regulations and provisions must be observed.
Cook-stove should be installed by the experts.
Connecting of cook-stove to chimney is carried out on lateral side, rear side and on top left or right. Depending on what you have chosen - „left-hand“ or „right-hand“ cook-stove. Take care that the location of cook-stove is horizontal. If the floor is inflammable (wood, plastics, carpet ...), sheet metal should surround cook-stove exceeding its basic outline for at least 30 cm, and 50 cm at the handling side.
On all the sides, clearance requirements from the cook-stove to furniture made of wood or plastics should be no less than 20 cm, **and no less than 30 cm at lateral side**. The

distance of incorporated parts made of combustible materials from charging opening to lateral sides must be minimum 80 cm.
Safety clearance to objects that should be protected (combustible walls, walls containing combustible building blocks, kitchen closets and steel concrete bearing walls) should be no less than 20 cm, **and 30 cm laterally**.

Sufficient clearance should be ensured around the cook-stove in relation to combustible objects (objects with wooden sheathing, furniture, curtains and like).

When cook-stove steel plate is used, superstructures above the cook-stove are not allowed.

If pipes for exhaust gases are moved, minimum clearance of **40 cm** to combustible materials should be observed:

Before the cook-stove is connected to chimney, chimney-sweeper in charge for that area must be consulted.

Cook-stove shall be connected to the chimney with the use of appropriate connecting components according to JUS.M.R4.031 (DIN 1298. or DIN EN 1856-2).

Care should be taken that socket for connection to the chimney and chimney flue does not enter the cross-section of the chimney exhaust gas pipe and to be mutually sealed.

DIN 18 160 has to be generally observed.

For chimney gauges EN 13 384 applies.

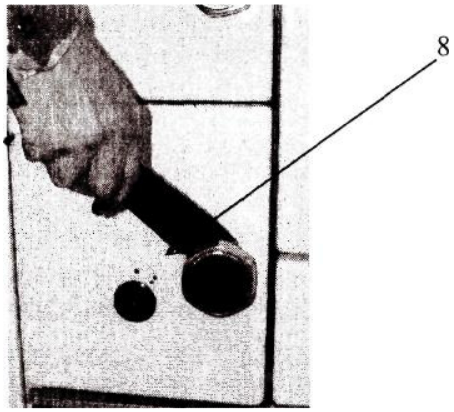
In order to achieve desired capacity, your cook-stove must be properly installed and first and foremost chimney has to function flawlessly.

In any case, existing chimney pressure should be tested before putting the cook-stove into operation.
The simplest method of chimney draught control is to hold lighted candle under the chimney opening. The draught is sufficient if candle flame bends towards the chimney opening.
Slight bending of candle flame means that the draught is weak.

If two firing facilities are installed on one floor and one masonry chimney (multiple loads), the distance between the connections can be no less than 50 cm.

3. HANDLING

FIRE DOOR HANDLE



In case that firebox door handle gets too hot, door closing and opening is only possible with special key from the existing accessories (Figure 2, Item 8).

Figure 2

AIR FLOW CONTROL

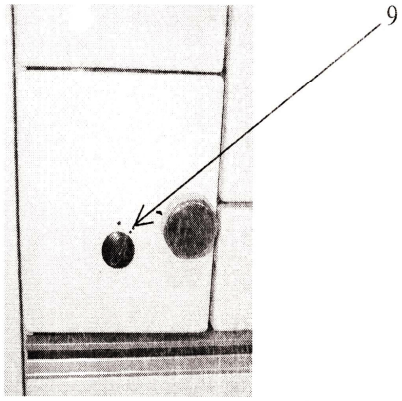


Figure 3

PRIMARY AIR

Primary air for combustion, and thereby heating capacity of cook-stove, is determined with primary combustion air. This air is regulated by primary air control located on the ash pan door (Figure 3, Item 9). Button on the ash pan door (Figure 3, Item 9) shows the direction of slide-door opening and closing. When the cook-stove is lighted, air control should be maximally opened (button to be placed in position no. 3).

Note: In order to prevent cook-stove overheating, quantity of fuel must not be larger than **1.8 kg** of dry wood or **1.7 kg of brown coal briquette** per hour with corresponding combustion air setting.

3.2.2 SECONDARY AIR

With secondary air supply (Figure 4, from above, over the fuel, flow of combustion air) to the fuel which is used, combustion with minimum harmless substances is achieved.

Secondary air control is shown in Figure 4, Item 10. Secondary air is regulated with a lever located on inner side of firebox door. On inner side of firebox door, designation 0-1 is visible. If the lever is moved in the direction of "0", volume of secondary air is decreased, while in the direction of "1" it is increased.

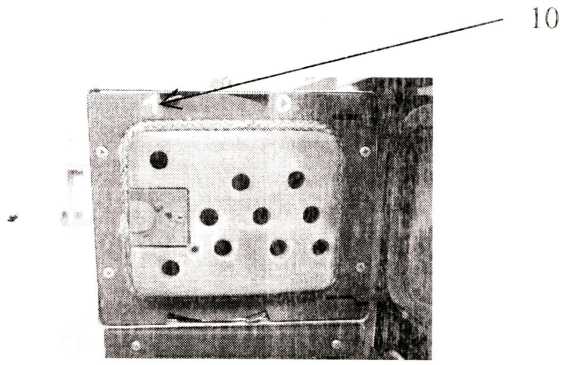


Figure 4

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HEATING FLAP

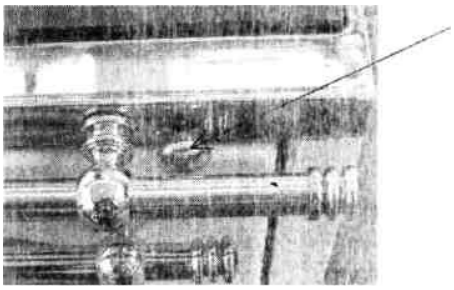

Figure 5

Heating flap is operated when button (Figure 5, Item 11) located above the oven door is actuated. This button is used to shorten the ways of flue gases during firing.
Heating flap should be opened only in the stage of stove kindling.
During firing, open heating flap causes stove overheating and hence the damages of stove parts.
Besides, open heating flap results in higher consumption of fuel.

Button not pressed = heating flap open
Button pressed = heating flap closed

3.4 OVEN DOOR (Figure 1, Item 6)

Oven door can be set in one of two positions, by choice, depending on desired heat in the room.

Oven door open: higher radiation of heat for heating the room.

Oven door closed: lower radiation of heat for heating the room.

Oven door can be removed without tools: handle of slightly opened door should be gripped and the door pulled upwards. Reinstallation of the door is carried out by introducing the both hinges into corresponding openings, on the oven front, while the pressure is applied with knee on the lower door edge, along with simultaneous light pulling the handle upwards.
When the cook-stove is in operation, oven door must be installed.

Fuel drawer (Figure 1, Item 4)

In the lower part of the cook-stove, fuel compartment is located having sliding guides which enable easy movement thereof.

Attention: Easily inflammable materials should not be stored in that compartment, such as paper etc.
When filling, take care of height.

4. PUTTING THE COOK-STOVE INTO OPERATION

Before the first time the stove is lighted and fired, enameled surfaces have to be erased with soft dry cloth in order to prevent stain formation.

After getting acquainted with cook-stove operation, you can light the cook-stove for the first time. The first time the cook-stove is operated, windows are to be open because

corrosion protection coating may develop obnoxious but insignificant smoke. This is normal and disappears after short time.

Take into consideration that some integral parts of the cook-stove (exhaust gas pipe, charging door etc.), when the cook-stove is lit, may be hot and present danger of burns. Special attention to safety should be paid, especially where children are present.
The first two or three times you light the cook-stove, the fire should be moderate, so that the fire-clay would not crack.

4.1. FIRING

* Pull out the button of heating flap. Flap should remain open.
* Open primary air control so as to enable maximum primary air supply (Figure 3, Item 9).
* Open firebox door.
* Put secondary air control (Figure 4, Item 10) into position 1.
* Put in wood wool, wood sawdust or paper.
* Put 2 or 3 small pieces of wood on top of it.
* Light the fire.
* Close the firebox door.
* Leave the wood to burn lively.
* Press in heating flap button, kindling flap is closed.

4.2 REFUELLING

After the basic firebed is established, add the fuel into charging opening.
Set air control to corresponding designated position (put the button into position 1-3).
When refueling, you should slightly open firebox door in order to ensure withdrawal of flue gases and avoid flue gases in the room.

You will achieve nominal heating capacity when you use the following fuel quantities and set the following:

For KMŠ 70 cook-stove:

Fuel	Fuel quantity	Burning time	Primary air setting	Secondary air setting
Chopped wood	1.8 kg 2 short wood logs	1.0 h	Rate 1	1
Brown coal briquette	3.3 kg 6 whole briquettes	2.0 h	Rate 1.5	0.5

For KVŠ 90H cook-stove:

Fuel	Fuel quantity	Burning time	Primary air setting	Secondary air setting
Chopped wood	1.8 kg 2 short wood logs	1.0 h	Rate 1	1
Brown coal briquette	3.3 kg 6 whole briquettes	2.0 h	Rate 1.5	1

Take care not to feed more wood or brown coal briquette than needed for nominal heating capacity.

The abovementioned fuel quantity must not be exceeded or else the cook-stove may overheat.

Only naturally dried wood or brown coal briquette can be used according to the Regulation on Emission Protection.

The wood that is used must be dry (moisture content less than 20%). That is usually the case when wood is stored for two years in dry place with good ventilation. Wet wood has small calorific value and causes formation of soot deposits in flueways and chimney.

Wood with surface treatment (lacquered, painted, veneered or impregnated, plywood, waste of any kind, like packaging waste, plastic, newspaper, rubber, leather, fabric etc.) must not be fired.

Combustion of such materials contaminates the environment and therefore it is forbidden by law. Moreover, masonry chimney may be damaged. In such case, all kinds of warranties given by the manufacturer shall be cancelled.

Under the adverse chimney draught conditions, disturbances may occur so that flue gases are not completely discharged. In such case, fire shall be made as a “decoy” to masonry chimney. If this does not help to establish chimney draught, than the operation of cook-stove is forbidden for safety reasons.

Note: Better efficiency of fuel and hence better space heating is achieved by opening the oven door, slightly or completely.

4.3 COOKING

Cook-stove is equipped with grate for winter and summer operation.
The grate is to be pushed back and lifted in order to be moved from lower to upper position.

In inclined position, shaking grate arm is removed and after that shaking grate is pulled out through the charging opening.

Then shaking grate support is lifted and pulled out. After that, integral parts of the grate can be positioned, in reverse order, in the upper position. In the upper recess, shaking grate arm shall be moved to the cook-stove front and lifted through ash compartment in such a way that grate tooth is locked in the opening on shaking grate arm.

4.2 SUMMER COOKING

During warm days, solid fuel cook-stove is mainly used for cooking.
Oven door is kept closed. It is best to use a pot with thick bottom and appropriate lids.

4.3 WINTER COOKING

During colder days, solid fuel cook-stove is mainly used for space heating. In order to cook more quickly, use dry wood.

Heating flap must be closed and air control maximally opened. After the cooking is completed, air control shall be positioned at location designated for the nominal heat capacity.

4.4 BAKING CAKES AND ROASTING MEAT

For baking the cakes and roasting the meat, uniform distribution of heat is required. In order to achieve this uniformity and sufficiently high temperature, the oven must be closed, as well as heating flap, depending on the type of baking. In addition, oven should be preheated. If the cook-stove is heated to desired temperature, put whatever you want to bake into oven.

Do not let creation of very strongly glowing embers. Instead, continuously add small quantities of fuel.

High cooking utensils should be placed in lower compartment (rack) of the oven. All the cakes having that shape should be baked at moderate temperatures.

When baking flat cakes and baked goods, both compartments can be used. In such case, somewhat higher oven temperature is recommended.

For roasting meat, significantly higher temperature is required than in tha case of baking cakes. Therefore, preparation time (preheating) is somewhat longer than when baking cakes.

4.5 FIRING IN TRANSITIONAL PERIODS

At outside temperatures above 15°C, due to small transport pressure, small fire occurs in chimney thus creating more soot in cook-stove flueways and masonry chimney. Increase primary air supply, stoke fire more often, and add smaller pieces of chopped wood more often in order to decrease soot formation in transitional periods.

5. MAINTENANCE AND CLEANING THE COOK-STOVE

Regular maintenance and care such as the cleaning of cook-stove, flueways and chimney pots are especially important for safe operation, economy and preserving the value of cook-stove.

Maintenance of enameled cook-stove surfaces is only recommended in cold state. Cook-stove should be cleaned with clean water and soft cloth, and in special cases with soapsuds.

Cleaning intervals mainly depend on the usage of fuel, time of cook-stove use, and the way of use thereof.

Unnecessary formation of dust can be avoided if the following cleaning schedule is observed.

* Removal of cooking plate and thorough cleaning thereof.
* Cleaning from soot and deposits on the top side of oven and at locations where heating gases pass.
* Placing the plate.
* Opening the protective cover (under oven door) and removal thereof for cleaning.
* Removal of soot and ashes from partition sheet metal.
* Removal of soot and ashes from cook-stove bottom.
* Fixing the protective cover at the front and reclosing thereof.

5.1. CLEANING OPENING

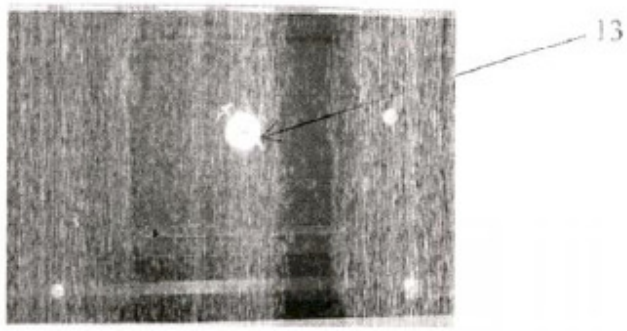

Figure 6

A cover is located behind the protective cover of cleaning opening (Figure 6, Item 12). It is fixed with one thumb-lock on the front of the stove and must be removed in order to enable cleaning the cook-stove interior.

Before the cover is again fixed with screws, sealing braid located at the cover should be checked for good sealing and, if needed, replaced.

5.2 MAINTENANCE AND CLEANING OF COOKING PLATE

For the cleaning of cooking plate, fine sandpaper or abrasive detergent should be used. After cleaning, the plate should be erased with half-wet cloth and at the end with dry cloth.

Take care that that expansion grooves around the plate are free, without crust in order to enable expansion of the plate under the influence of heat.

Baked food residues or slag pieces in expansion grooves may cause cooking plate deformation.

Do not leave pots or pans on cold cooking plates.
Corrosion edges can form which are difficult to remove.

5.3 SLAG AND ASH REMOVAL

Slag is removed with accessories which are delivered with stove, i.e. ashes removal device – slider.

Ash pan should be regularly emptied before each lighting the cook-stove.

1 – 2 times a week, grate should be cleaned. If air vents are blocked with slag, baked crust or other burnt residues, the grate should be completely removed and cleaned.

5.4 GENERAL NOTES

If you observe the instructions for use and handling, cook-stove shall be a safe domestic appliance.

All the defects of your cook-stove can be remedied by our Service Department.
In case of complaints with regard to faults that can occur, or defects related to functionality, contact our Service Department.

In addition, our Service Department can help you to procure spare parts (only original spare parts should be used).

The whole firing facility must be regularly controlled by the experts.