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## INSTRUCTIONS FOR USE



**CONTINUOUSLY BURNING SOLID FUEL FIREPLACE  
FOR FLOOR HEATING WITH HOT WATER**

# **RUSTIKAL - ETAZ**

## 1. TECHNICAL DATA

|  |                          |
|--|--------------------------|
| 1. Product TYPE – RUSTIKAL - ETAZ                          |                          |
| 2. Rated heating power:                                    |                          |
| - brown coal .....   | 12,5 KW                  |
| - wood .....   | 14 KW                    |
| 3. Heating power through the fireplace:                    |                          |
| - brown coal .....   | 5,5 KW                   |
| - wood .....   | 7 KW                     |
| 4. Maximum operating pressure .....                        | 3 bar                    |
| 5. Maximum temperature of distributing water .....         | 90 °C                    |
| 6. Required flue draft .....                               | 15 Pa                    |
| 7. Content of water in the fireplace boiler .....          | 11 l                     |
| 8. Fireplace mass .....                                    | 133 kg                   |
| 9. Volume of ash box .....                                 | 9 dm <sup>3</sup>        |
| 10. Space heating capacity .....                           | 150 – 170 m <sup>3</sup> |
| 11. Fireplace dimensions:                                  |                          |
| -width .....   | 720 mm                   |
| -height .....  | 820 mm                   |
| -depth .....   | 440 mm                   |
| 12. Diameter of flue connection .....                      | 118 mm                   |
| 13. Height from floor to the axis of flue connection ..... | 652 mm                   |
| 14. Type of fuel: brown coal, lignite and wood.            |                          |

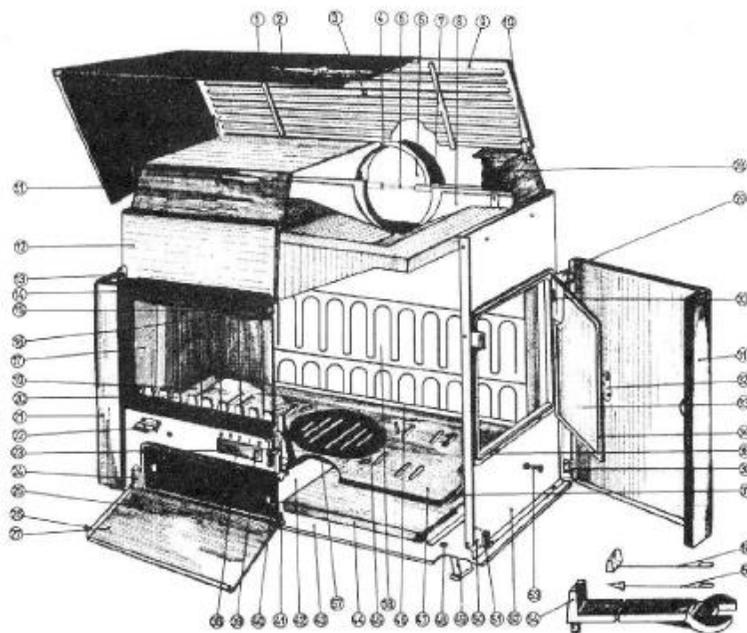


Fig. 1 RUSTIKAL - ETAZ

## 2. PURPOSE

Aesthetically very nicely shaped, continuously burning fireplace – solid fuel stove for floor heating, fits in the interior of living rooms and remaining free space of the apartment. It is used for heating rooms, cottages, individual houses, different premises etc. The stove provides direct heating in the room where it is located, so no heating bodies are required in that room since the large glass screen (fig. 1 pos. 15) on the front door, as well as the stove casing and the cast cover provide equal heating of rooms by emission and convection.

**Special characteristic of these stoves – furnaces is that they have built-in snake hose (copper pipe) which when connected to the thermal valve (fig. 7 and fig. 7a pos. 13) is used as a thermal fuse for eventual overheating of the stove – furnace.**

Installation of thermal valve in closed central heating system is **COMPULSORY**.

In an open central heating system, installation of thermal valve is not compulsory.

It is mainly installed as floor heating stove, but it can be installed for central heating as well.

In order that the stove operates to everyone's satisfaction, the user must adhere to all requirements of these instructions.

## 3. STOVE COMPLETION

Check the unpacked stove and become familiar with the parts and accessories, and especially pay attention to the following:

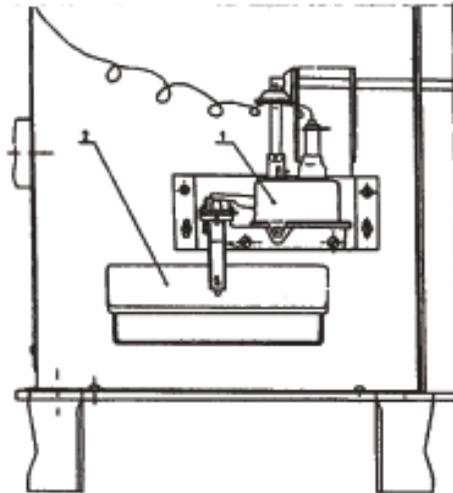
- the front door (fig. 1 pos. 14) and the stoking door (fig. pos.33) should be provided with asbestos tape according to their size on the lying part of the surface during sealing;
- the air regulator (fig. 4 pos. 1) through the command knob must easily open and close the butterfly of the opening for supply of air for combustion;
- well installed air regulator enables selection and automatic maintenance of water temperature in the stove;
- the remote thermometer for measuring the temperature in the boiler (fig. 1 pos. 16) is properly installed if its thermal probe is positioned in the special opening on the back side together with a thermal probe of the air regulator;
- the grate – grill (fig. 1 pos. 45) must be positioned in its bearing and connected to the grate shaker (fig.1 pos.45);
- the stove cap (fig. 1 pos. 1) can be kept in lifted position – by leaning on the brace (fig.1 pos. 28) on the cover of the combustion chamber (fig. 1 pos. 11).



**Fig. 2 Opening the door for stoking**



**Fig. 3 Pulling-out the ashtray**



**Fig. 4**  
**Position 1. Air regulator**  
**Position 2. Butterfly opening**

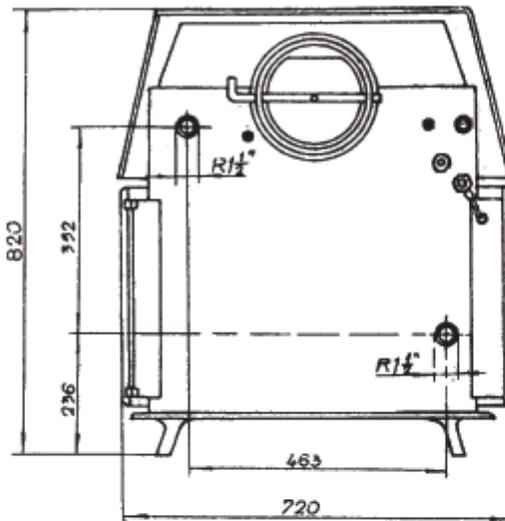


Fig. 5 Scheme of connection dimensions

#### 4. FLUE INSTALLATION

The stove reaches its rated power if draft in the flue is 15 Pa (1,5 mm BC). We recommend you the following flue sizes wherewith this draft is reached. (T.1).

| Rated heating power<br>KW | FLUE HEIGHT (m)                   |                  |   |   |   |    |   |
|---------------------------|-----------------------------------|------------------|---|---|---|----|---|
|                           | 5                                 | 6                | 7 | 8 | 9 | 10 |   |
|                           | DIMENSIONS OF LIGHT SURFACES (mm) |                  |   |   |   |    |   |
| - coal 12,5<br>- wood 14  | 145x145<br>(125)                  | 145x145<br>(125) | - | - | - | -  | - |

Special note:

- install a reducer on the flue connection (fig. 1 pos. 7) which is delivered separately packed together with the stove, thus reducing the flue connection from 210 to 118 mm;
- the flue connection should be installed upwards;
- the flue pipes and the flue must not be narrowed, otherwise the rated heating power is reduced;
- all connections and the flue must be well sealed with no soot and dirt in the flue channels.

The prescribed flue and other conditions (fig. 5) are an assumption for flawless stove operation.

When installing the stove, use the data for diameter of flue connection and height of the axis of flue connection from the table with technical data.

This stove may be installed in the living room or some other free space in the apartment. You must make sure that there is inflammable pad under the stove, and if it is parquet, a special metal sheet plate must be placed, which prevents pad damage or causing fire due to reckless handling.

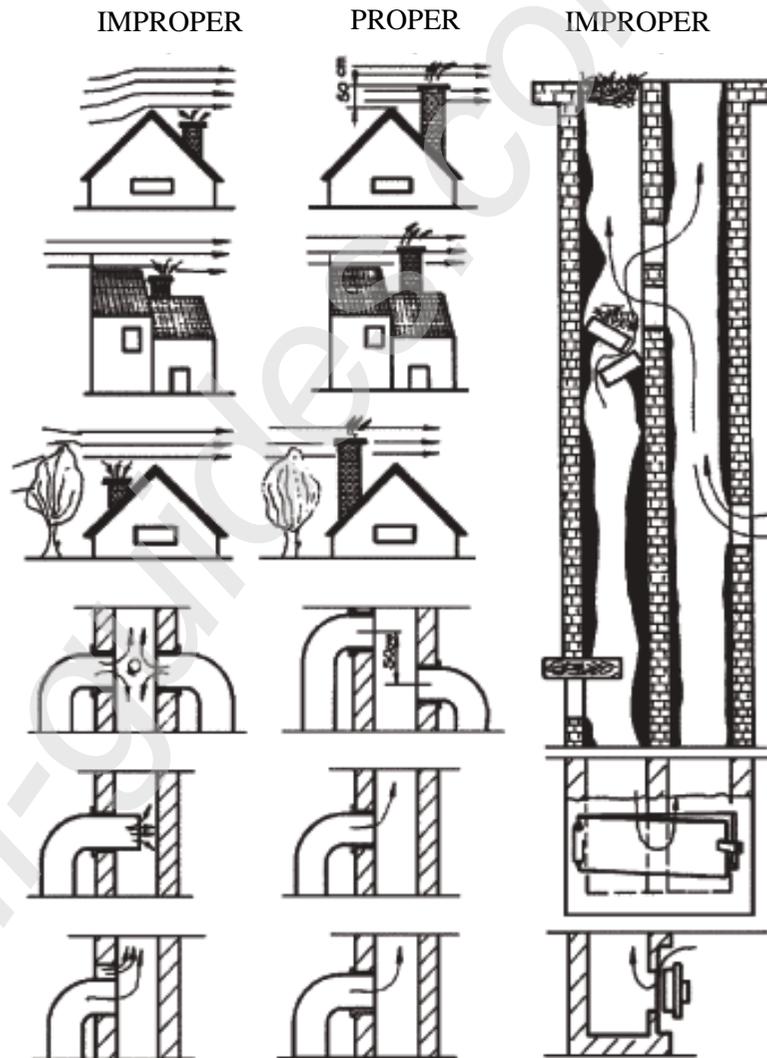


Fig. 6

## 5. INSTALLING THE STOVE IN THE WATER HEATING SYSTEM

The stove is initially intended for floor heating with hot water, and in exceptional cases it may be installed as central heating according to all regulations for this case pursuant to JUS.M.E7.210 and JUS.M.E7.202.

For the above reasons, further instructions contain connective measures and contextual schemes for installing the stove in the floor heating system.

### SCHEME OF CLOSED SYSTEM INSTALLATION

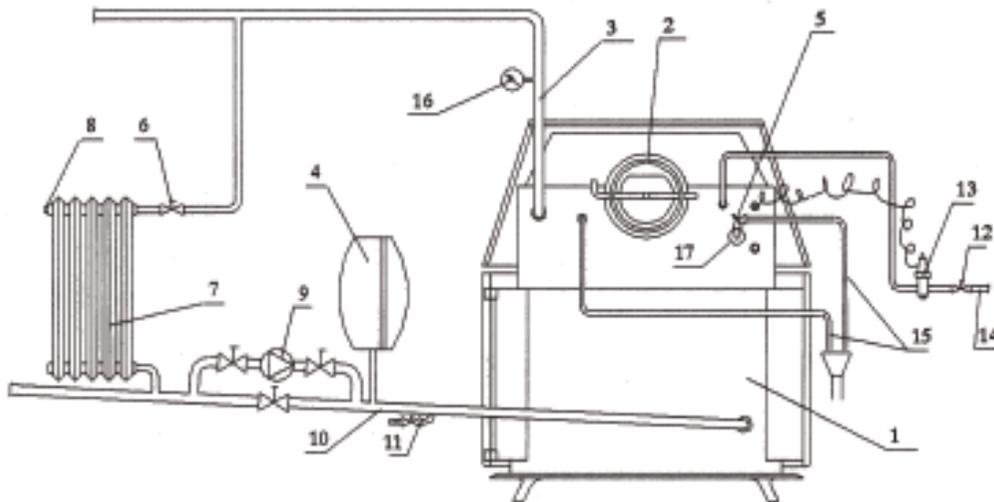


Fig. 7

1. Hot water boiler
2. Flue connection
3. Distributing line
4. Expansion tank
5. Safety valve
6. Radiator valve
7. Radiator
8. Air vent
9. Circulation pump
10. Returning line
11. Fill and drain tap
12. Regulating valve
13. Thermal valve
14. Connecting line for water supply network
15. Hot water drain
16. Manometer
17. Safety valve connection
18. Thermal valve connection

## SCHEME OF OPEN SYSTEM INSTALLATION

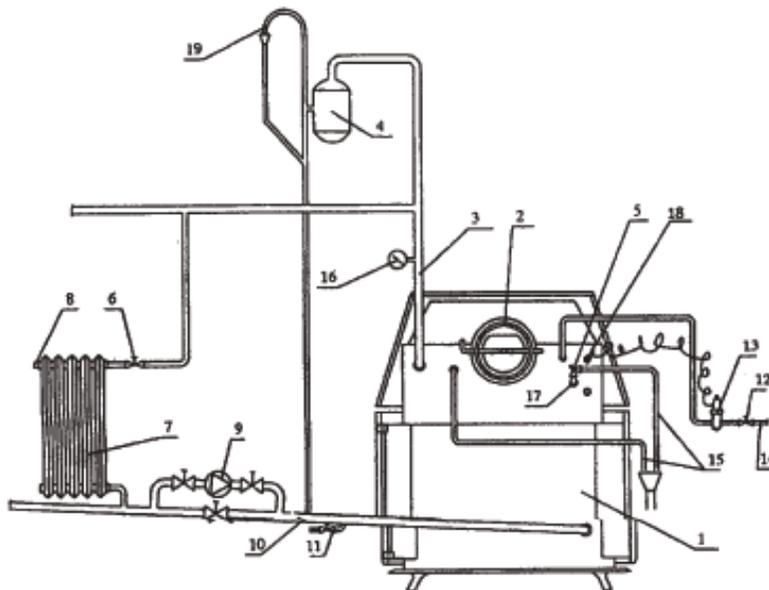


Fig. 8

1. Hot water boiler
2. Flue connection
3. Distributing line
4. Open expansion tank
5. Safety valve
6. Radiator valve
7. Radiator
8. Air vent
9. Circulation pump
10. Returning line
11. Fill and drain tap
12. Regulating valve
13. Thermal valve
14. Connecting line for water supply network
15. Hot water drain
16. Manometer
17. Safety valve connection
18. Thermal valve connection
19. Air vent

### **IMPORTANT:**

Installation of the stove should be performed by an expert according to the appropriate project:

- when performing the installation, follow our recommended scheme, Yugoslav regulations JUS.M.E7.210 and JUS.M.E7.202.

## 6. STOVE COMMISSIONING AND REGULAR CONTROL

Fill the stove and the installation with water and release air from the installation. Before commissioning, check whether the stove and the heating installation are functional, and whether all gate valves, valves, measuring and regulation instruments are set.

At pump heating, activate the circulation pump. If the flue is new, the stove must not always be under full load until the flue is completely dry.

### **IMPORTANT:**

Before and during operation, follow the instructions provided by the manufacturer:

- prior to stove ignition, the damper (fig.1 pos. 6) should be set on position "0".
- after checking the functionality of the stove and installation, completely open the door for stoking (fig.1 pos. 33), spread paper for setting fire and wood on the grate for stoking (fig.1 pos. 47), ignite and wait for the ignited fuel to inflame;
  - insert small quantity of coal or wood and let it inflame completely. Close the stoking door and set the air regulating thermostat on the position 7-9'.
  - fill the stove with fuel up to 1/3 of the height of stoking space and let it inflame completely until the upper layer of coal or wood becomes ember. Set the thermostat on the desired temperature;
  - in order to use to stove economically, it should be filled with coal or wood up to the height of the front grate (fig.1 pos.20);
  - Additional filling (supplementing) is performed when the fuel in the stove has burned up to 1/4 or 1/3 of the height of stoking space.
  - Prior to supplementing, shaking of the grating should be performed (fig. 1 pos. 45) by moving the crank (fig.1 pos. 53) back and forth. After shaking, supplement fuel.
  - Continuous combustion when using coal is regulated by leaving the completely filled fireplace to burn up to 1/2x with thermostat set from 6 to 9 and afterwards the thermostat knob should be set to position 4-5.

The instructions for stoking are projected as guidelines and they depend on the circumstances in setting the strength of flue draft, the fuel and outside temperature.

### **IMPORTANT:**

Perform regular control of the stove sealing (boiler lute and asbestos). Pay special attention to filling of the water installation, if the installation is not properly filled, the functioning of the heating system and the thermal valve will be disrupted. When this type of disruptions occurs, the water installation should always be supplemented with water only when the boiler is in cold condition.

## 7. REGULATION

Perform such regulation that provides nominal capacity and utilization rate of the stove with the recommended elements of the operating mode. The desired water temperature in the stove is set with the regulator (thermostat) (fig.4 pos. 1). The knob for setting the air regulator (thermostat) has positions shown in table no. 2.

Table 2.

|                                    |                  |    |    |    |    |    |    |    |
|------------------------------------|------------------|----|----|----|----|----|----|----|
| Position of regulator knob         | 0                | 3  | 4  | 5  | 6  | 7  | 8  | 9  |
| Water temperature in the boiler °C | Closed regulator | 30 | 40 | 50 | 60 | 70 | 80 | 90 |

The cover (flap) for air within the air regulator (thermostat) completely regulates the intake of combustion air, if the remaining openings are closed.

The functioning of the air cover (flap) is automatic and depends on the selected temperature on the knob as well as the water temperature in the boiler, which gives signals through sensitive thermostat probes.

The guideline values for adjusting the air regulator (thermostat) depending on the outside air temperature are shown in table no.3.

Table 3.

|                                   |            |           |          |
|-----------------------------------|------------|-----------|----------|
| Outside air temperature °C        | -20 to -10 | -10 to -0 | 0 to +15 |
| Position of the regulator knob    | 9          | 8         | 7        |
| Water temperature in the stove °C | 90         | 80        | 70       |

### **IMPORTANT:**

Water temperature in the stove boiler should not decline below 70°C while stoking wood, brown coal and lignite, since in this way sweating and corrosion of the stove are prevented.

## 8. NIGHT OPERATION

Clean the grate – grill from slag and ash and supplement fuel in the fireplace according to the previously described manner. If stoking is performed with fuel rich with volatile gases, the regulation for night operation should be performed after the gaseous substances have come out of the fuel (burnt away) and then the air regulator - thermostat for continuous heating should be adjusted on position 4-5.

### **IMPORTANT:**

It is forbidden to fill the firebox with fuel that develops lots of gases, and then to close the air regulator – thermostat.

## 9. MAINTENANCE

Prior to every filling with fuel, the existing ember should be stirred through the grate shaker.

When the doors are closed, shake the grate through the grate shaker, so that the ash from the grate could fall in the ashtray. At least once a day the ash from the ashtray should be removed, and the bigger residues (slag) should be removed by opening the door for stoking and the ashtray.

All stove surfaces that are in contact with flue gases should be regularly maintained and cleaned by using a spade for cleaning. The clean heating surfaces ensure economical operation of the stove.

Cleaning of the stove at least once a month is recommended, and in case of more dirt of the internal surfaces, the stove should be cleaned more frequently.

## 10. EXTERNAL MAINTENANCE OF THE STOVE

The enameled surfaces of the stove should be cleaned with a damp cloth, and the remaining surfaces with a dry cloth. Make sure that the fireproof glass does not get into contact with water while the stove is burning, since it will burst.

### **IMPORTANT:**

It is forbidden to cool the stove with unnatural draft after stoking termination.

Do not wet the firebox with water in order to cool it.

## 11. STOVE STORAGE

After ending the season and stoking, the stove should be cleaned from ash and soot, and the installation should be supplemented with water.

Water should be released only in case when it is necessary to perform some repair of the installation.

If the installation is not being used during heating season, water should be replaced with some anti-freeze liquid or it should be released as prevention from freezing.