



FOUNDED IN 1990



Technical Instructions for VOLCANO Central heating coal stove

Obadiah's · 406-300-1776

Dear customers,

Thank you and congratulations, because with this purchase you became a member of large family of satisfied customers of "ABC PROIZVOD". We expect that very soon you will become aware that you chose quality and economic product, which is the result of long tradition of our company in the production of boilers, stoves and fireplaces for central heating.

In case of any doubt, dilemma or question, feel free to contact us, regardless of the place or seller where you purchased our product, and we will assist you with our professional advice and technical assistance.

Yours sincerely,



Prior to the use of these fireplaces for central heating, read carefully this instruction, since it gives you important information regarding safe installation, use and maintenance of these devices.

INSTRUCTION CONTENT:

1. Purpose and specific characteristics of these fireplaces
2. Safety
3. Description and technical characteristics
4. Transport and storage
5. Installation
6. Operation-heating
7. Technical troubleshooting
8. Cleaning and maintenance
9. Dismantling and removal
10. Annex: a) Compliance with EU directives
b) Compliance with international standards
c) Warranty

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1. PURPOSE AND SPECIFIC CHARACTERISTICS OF FIREPLACES FOR CENTRAL HEATING

These fireplaces are intended for heating of rooms through installation of central heating, using solid fuel (coal).

Fireplace may be connected to installation with open or closed system for pressure maintenance, with water temperature up to 90°C and max. Working pressure 2.5 bars.

Fireplace construction enables ease heating with fuel and ash cleaning. Reliable operation is provided, as well as high level of energy usage, and long life with adherence to the recommendations for appropriate installation and exploitation, which we prove with given warranty period of 5 years.

All connections to the fireplace (entry-exit pipelines, funnel pipe, and etc) are of standard production, so they do not require special adaptation on connection. Fireplace has cast grate.

CAUTION: Fireplace door and ashtray must be closed during operation, since otherwise temperature may rise uncontrollably above allowed level, which may cause damage to the fireplace and installation. Also this may cause unjustifiably high fuel consumption.

2. SAFETY

2.1. Safety and reliability of fireplace operation

These fireplaces for central heating are so constructed and made to provide maximal safety during operation on condition that users in all matters adhere to this INSTRUCTION.

No liability is assumed for injury of people, animals, or damages of property, which is the consequence of failure to adhere to this instruction.

Any other use of fireplace is considered inappropriate and thus dangerous, such as:

-Change of use into fireplace on solid fuel, but without connection to the hot water installation.

2.2. Important safety warnings

1. Fireplace must be mounted and connected to the central heating installation by authorized professional installer-mechanic in compliance with this manufacturer's instruction. He will give to the user-operator of the fireplace basic explanation from this instruction.

2. This fireplace may be operated only by trained, competent and reasonable person. Operation is prohibited to children.

3. Keep away from hot surfaces and do not touch them. Take caution that children, disabled persons or persons with impaired reasoning capacity stay away from these surfaces.

4. Do not use and store flammable objects and liquids that evaporate near fireplace.

5. When using small household appliances near fireplace, take care that their electric cable is not touching hot fireplace surface.

3. DESCRIPTION AND TECHNICAL CHARACTERISTICS

Fireplace, for which this INSTRUCTION is made, is constructed for heating with solid fuel (coal).

It is made of certified boiler plate of guaranteed chemical composition and mechanical properties at high temperatures. It is welded using latest welding procedures.

Testing of the fireplace is done with water under 3 bar pressure.

The fireplace has cast grate.

Based on the place of connection to the chimney, fireplace is connected on the upper side.

Standard fireplace connection is Ø 145 mm. In case that this connection is not suitable for you our factor may offer to you in our assortment reductions which change existing condition to the following dimensions: Ø 120, Ø 130 or Ø 150.

FIG. 1 FIREPLACE VULKAN FOR CENTRAL HEATING

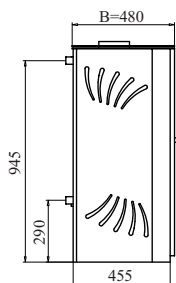
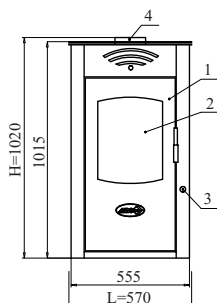
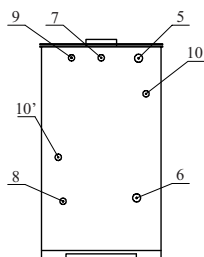


Fig. 1a The lowest water temperature in fireplace (button of drought regulator at number 1)



1. Hearth door
2. Door glass
3. Drought regulator
4. Smoke pipe
5. Pressure line R1"
6. Return line R1"
7. Connection R1/2" for safety valve
8. Connection R1/2" for filling and discharge
9. Connection R1/2" for thermal valve
- 10-10'. Connection R1/2" for heat exchanger (thermal protection)



Fig. 1b The highest water temperature in fireplace (button of drought regulator at number 9)

Tab. 1. Technical data for fireplace

TECHNICAL DATA	VULKAN FIREPLACE
Total power (kW)	24
Power transferred to water (kW)	21
Power given as radiation (kW)	3
Required drought (Pa)	10
Mass (total weight) (kg)	150
Water quantity (l)	30
Max. working temperature (°C)	90
Max. working pressure (bar)	2,5
Smoke pipe diameter (mm)	145
Width L (mm)	575
Height H (mm)	1015
Depth B (mm)	480

4. TRANSPORTATION AND STORAGE

Fireplace is protected by packaging which is not resistant to atmosphere influence. It should be stored in covered space. Transport to user is done as under contract. After you remove packaging off the fireplace, check for damages during transport and handling. In case of doubt that it is not operational, contact seller or directly factory "ABC PROIZVOD".

5. SETTING/INSTALLATION

Design, setting and installation of central heating is strictly done by a professional.

In case of poor system design and any defects on installation of system by such person, which further may cause defective operation of the fireplace, complete material liability and new expenses are solely born by the person entrusted with installation of heating system, not the manufacturer, representative or seller of fireplace.

Fireplace may be set in kitchen block or on some other appropriate place (living room), on condition to provide fireproof base, sufficient space for handling, aeration of the room and appropriate chimney.

During setting of the fireplace care must be taken of the following:

- a) Furniture and objects that are next to the fireplace must not be made of flammable materials, otherwise distance from the fireplace must be at least 100-150cm.
- b) In no case you should put shelves or similar wooden furniture above fireplace.
- c) Wall in contact with back of fireplace, must be made of heat resistant material.
- d) Curtains must not be placed directly behind fireplace, and on the side as far as possible.
- e) Flammable materials, e.g. door frames, wallpaper, must be away from smoke pipes at least 20cm. This may be decreased if smoke pipes have appropriate thermal insulation.
- f) Fireplace should be placed horizontally or you should elevate a little back side (2-4mm).

5.2. CONNECTION TO THE CHIMNEY

Being the very important element of the central heating system, chimney must be of appropriate cross section, regularly set, regularly installed above roof and insulated (Fig. 4).

Setting dimensions, check of the existing chimney is done by designer of central heating installation based on the fireplace capacity, fuel type and required draught for the fireplace.

Fireplace achieves stated power only if chimney has appropriate dimensions.

All connections of smoke pipes of the fireplace must be properly sealed (Fig. 3)

Chimney must be properly above the roof according to instructions (fig. 4) Avoid placing chimney caps if they have side blinds. For a potential placement of a chimney cap apply recommendation on fig. 4.

Fig. 3 CONNECTION TO CHIMNEY

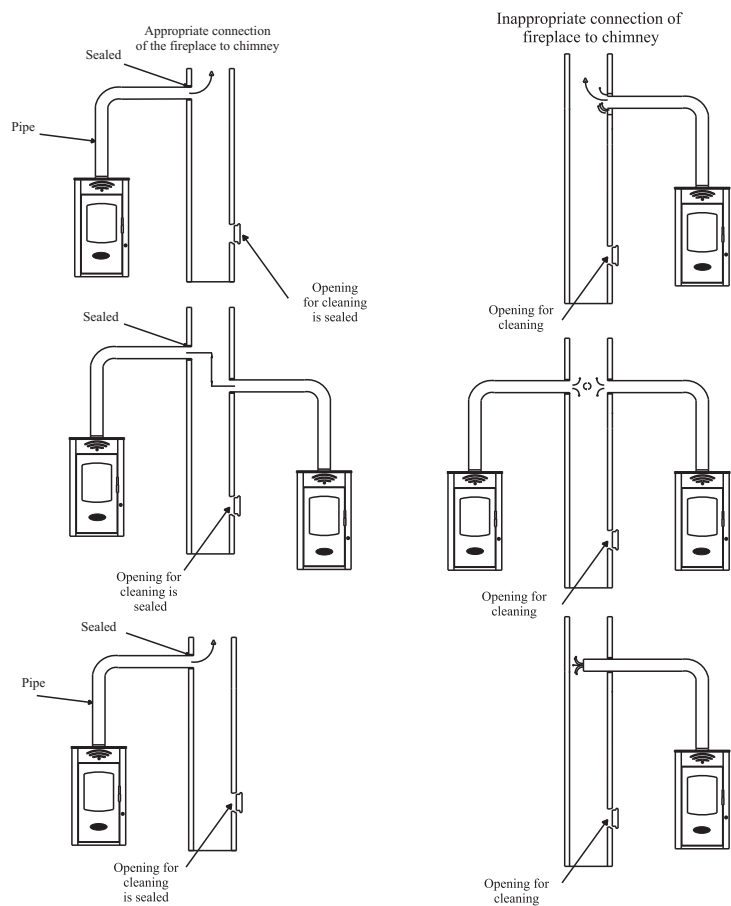
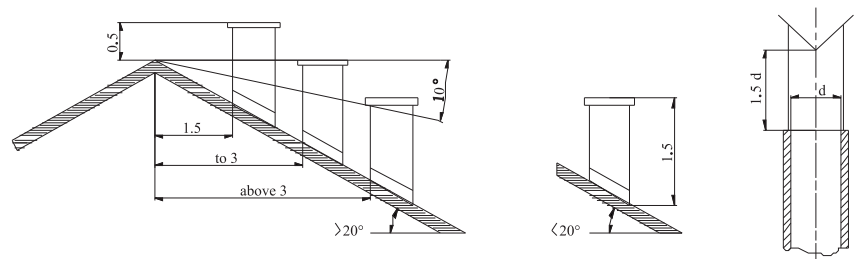


Fig. 4 Setting chimney above roof and setting smoke cap



5.3. INSTALLATION

Fireplace for central heating may be connected to open system (Fig. 5) and closed system (Fig. 6) of central heating installation, since this has built-in thermal protection – heat exchanger. Thermal valve is not in the basic equipment of the fireplace.

It is advisable to install fireplace onto central heating open system, and in any case, it is compulsory to install thermal valve with the probe onto the fireplace and connection of the heat exchanger to the water system.

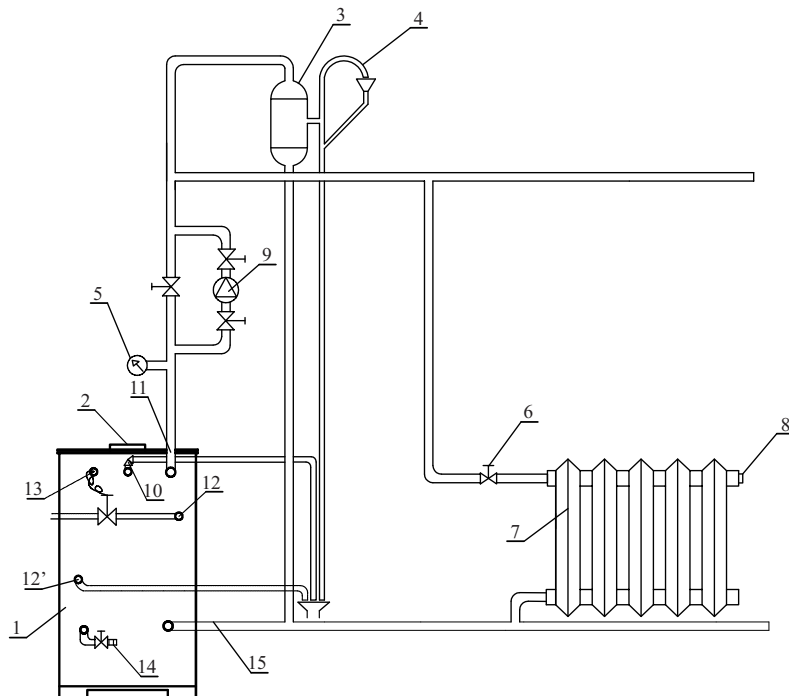
Without installation of thermal valve, guarantee is null.

All connections on fireplace must be well sealed, which should be visually checked prior to commissioning.

Mounting procedure is finished with water filling of entire fireplace and entire installation up to the necessary pressure.

FIREPLACE MAY NOT BE USED WITHOUT WATER.

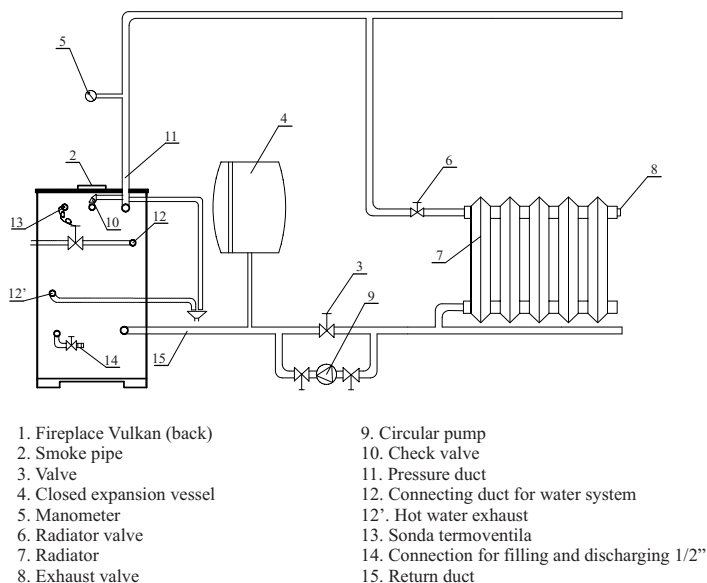
Fig. 5 Diagram of the connection of fireplace to central heating open system



- 1. Fireplace Vulkan (back)
- 2. Smoke pipe
- 3. Open expansion vessel
- 4. Conductive pipe
- 5. Manometer
- 6. Radiator valve
- 7. Radiator
- 8. Exhaust valve
- 9. Circular pump

- 10. Check valve
- 11. Pressure duct
- 12. Connecting duct for water system
- 12'. Hot water exhaust
- 13. Thermal valve probe
- 14. Connection for filling and discharging 1/2"
- 15. Return duct

Fig. 6 Diagram of the connection of fireplace to central heating closed system



6. OPERATION – FIRING

Solid fuel must be physically separated from the fireplace with some space and physical barrier. Ashtray vessel must be made of non-combustible materials and located out of the place with stored fuel.

6.1. FIRST FIRING

At the first firing, following conditions must be observed:

- chimney must be cleaned and properly connected to the fireplace,
- fireplace and heating installation must have installed all safety devices,
- system must be filled with water and vented,
- within the operating mode of the fireplace, burner door must be closed, and ashtray positioned into the position behind the limiter – completely closed
- automatic draught regulator button must be set to desired value,
- maximal fireplace operating temperature is 90° C.

IMPORTANT NOTE: At the first firing, some condensation may occur – water dripping and occurrence of humidity within the ashtray. In such case, gradually increase temperature in fireplace and this will stop.

6.2. OPERATION

Fireplace is fired as all continually heated solid fuel boilers. When you open the burner door of the fireplace, put some paper on the grate, wood, cut in pieces and fire it up. Then, gradually put heating material until fire becomes larger. After that, fill in the burner, position ashtray behind limiter, close fireplace door and set draught regulator to the desired temperature.

6.3. TEMPERATURE REGULATION

On the fireplace casing, Fig. 1 pos. 3 there is installed draught regulator, which has the function to set desired temperature and is consisted of numerically marked wheel from 0 - 9, regulator flap and capillary. Draught regulator is capillary connected with probe whereat it collects data about water temperature in the fireplace. Temperature in fireplace is the lowest

when draught regulator button (fig. 1. pos. 3) on number 1 (fig. 1a), and the highest on number 9 (fig. 1 b). When temperature begins to drop, regulator flap automatically opens 3-5 mm, which enables flow of secondary draught (air) and better combustion up to the desired temperature. Setting of draught regulator depends on desired ambient temperature.

Important note:

In order to make draught regulator work properly, it is necessary to connected fireplace to the chimney of proper dimensions.

Space between regulator flap and opening for airflow must be cleaned from time to time and to remove residual ash and other combustion products. Avoid low water temperatures in the fireplace, 50-60°C, because it may lead to condensation. If you notice any water collection in the ashtray, just increase fireplace operating temperature.

IMPORTANT: Do not leave product with open door unattended and ashtray must be in the position behind limiter – completely closed, since it may lead to uncontrolled increase of temperature above allowed level.

7. TECHNICAL TROUBLESHOOTING

Technical problems may occur due to following reasons:

- a) Due to possible factory-based defects – in such case, contact the manufacturer „ABC PROIZVOD“;
- b) Due to defects at installation and connecting – in such case, contact the technician,
- c) As the consequence of improper handling, non-observance of proper heating mode and fireplace maintenance by the user – in such case, please read again this manual and proceed properly,

If after all above mentioned problem persists, contact the factory „ABC PROIZVOD“ for advice/intervention.

8. CLEANING AND MAINTENANCE

Due to longer life of fireplace and its proper operation, it is necessary to properly maintain fireplace, both during firing and after that.

Space for ash and opening for airflow below regulator flap (when removed ashtray, opening is located on the right hand side) must be regularly cleaned. Fireplace must be cleaned from time to time against grime, at least once a month, because grime and tar that settle during combustion on internal surfaces of the burner increase consumption of fuel and reduce utilization degree. Manufacturer recommends usage of chemical agent ASTRATHERM,, which facilitates mechanical removal of residual combustion products.

Do not clean external fireplace surfaces with abrasive sponge, because it may damage protection, but with damp cloth with usage of soft cleaning agent.

It is not allowed to cool down the fireplace using by damping the burner.

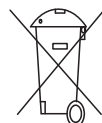
After cessation of heating season, you must carry on with complete fireplace cleaning. Water should be exhausted only in the case if it is necessary to carry out some installation repair.

After heating season, manufacturer recommends to hang linen bag into the burner space, filled with 1-2 kg of chopped limestone.

9. DISMANTLING AND REMOVAL

After finalization of working validity of this product, it is necessary to release the product from mains connections, water connections and heating installation, exhaust the water and had it over to the companies involved in waste collection/ recycling.

Symbol „recycle bin with strikethrough“ (on figure) according to European directives, warns you about your obligation to deal with inapplicable products with care.



10. ADDITION

a) COMPLIANCE WITH EU DIRECTIVES

THESE BOILERS ARE IN COMPLIANCE WITH FOLLOWING EU DIRECTIVES:

97/23/EC - Equipment under pressure

92/42/EEC- Heaters for hot water

93/68/EEC- Heaters for hot water



b) CE STATEMENT OF COMPLIANCE

Quality Management System of the "ABC PROIZVOD" factory complies with the standards SRPS and ISO 9001/ 2008 and is certified by an authorized industry. Fireplace is manufactured and written in accordance with standards relating to boilers with mandatory application for the field use.



WARRANTY

"ABC PRODUCT" factory gives for these products 5 years warranty. Dear customers, if you are not satisfied with our products before you decide to get in touch with us for the of our service intervention at your place, please check the following:

1. Did you by installing these products act in accordance of instructions in terms of:
 - selection of fire power compared to the calculated and projected heat capacity
 - height, cross section, the insulation of the chimney especially if the chimney is embedded to the building
 - proper use of the rest of the heating installation which can effect the work of the fire-place
 - security in the event of interruption of electricity supply
2. Do you follow the prescribed regimen and maintenance of heating fireplace temperature in terms of:
 - the appropriate choice of fuel
 - gradual heating
 - mandatory set of the ashtray at the position behind the border line - fully closed
 - mandatory closing the fireplace
3. Do you properly maintain the product in terms of cleaning soot and tar from the inside of fireplace and chimney
4. Do you make a self-initiated modifications to your product

All the foregoing may affect the exercise of your right to warranty, life of the fireplace and the installation and exposure to unnecessary costs in case of unjustified arrival of the staff of our service at your call.



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