STOVE FOR FLOOR HEATING

ALFA TERM -20



INSTRUCTIONS FOR INSTALLATION, ADJUSTMENT AND USE

0. TECHNICAL DATA

HEATING POWER WITH GRATE IN LOWER POSITION:	
Rated heating power (wood/coal)	22,9 kW / 22,8 kW
Heating power of stove emission (wood/coal)	8,7 kW / 8,1 kW
Thermal power of delivered water (wood/coal)	14,2 kW / 14,7 kW
HEATING POWER WITH GRATE IN UPPER POSITION:	
Rated heating power (wood/coal)	16 kW / 20kW
Heating power of stove emission (wood/coal)	6 kW / 8 kW
Thermal power of delivered water (wood/coal)	10 kW / 12 kW
REQUIRED FLUE DRAFT	16Pa
DIAMETER OF FLUE EXTENSION	150 mm
HEIGHT FROM FLOOR TO AXIS OF FLUE EXTENSION	690 mm
STOVE DIMENSIONS:	
Width	900 mm
Height	850 mm
Depth	600 mm
OVEN DIMENSIONS:	
Width	460 mm
Height	260 mm
Depth	440 mm
FIREBOX DIMENSIONS:	
Width	265 mm
Height (min./max.)	264/452 mm
Depth	414 mm
OPENING OF FIREBOX DOOR (width/height)	175/200 mm
CONNECTIONS OF DISCHARGE AND RETURN LINE	R1″ RS
CONNECTIONS OF THERMO VALVE AND SAFETY VALVE	R1/2″ RU
CONNECTIONS OF COOLING PIPES	R1/2″ RS
BOILER VOLUME	16 (l)
HEATING VOLUME WITH GRATE IN LOWER POSITION:	280-380m^3 (total)
Heating volume of stove emission	100 -135 m^3
Heating volume of hot water (radiators)	180-230 m^3
HEATING VOLUME WITH GRATE IN UPPER POSITION:	190-250m^3 (total)
Heating volume of stove emission	70-95 m^3
Heating volume of hot water (radiators)	120-155m^3
MAXIMAL OPERATING PRESSURE	1,9 bar
MAXIMAL OPERATING TEMPERATURE	90 °C
WEIGHT (gross/net)	200/170 kg
FLUE GAS TEMPERATURE (wood/coal)	268 / 272 □C
CONTENT OF CO (13% O_2)	0,96 / 0,68 %
ENERGY EFFICIENCY	74 / 77 %

Note:
The heating power is shown for stoking dry beech wood with lower heating power Hd=4255W/kg and brown coal Hd=4926W/kg.

DEAR BUYERS!

Thank You for the trust you showed us buying our stove for floor heating. We assure You that You have chosen a quality and economic product that is a result of many years of experience of this factory in the production of stoves and furnaces for floor heating.

We hope that we fully met Your requirements in terms of design, as well as in terms of the surface of living area that you can heat.

Please carefully read these instructions before connecting the stove and adhere to every advice provided herein.

1. PURPOSE

The continually burning stove for floor heating with solid fuel is used for:

- cooking,
- baking,
- heating apartments, individual houses and offices,
- production of hot sanitary water.

It is mostly installed as a stove for floor heating, and it can also be installed for central heating.

2. APPEARANCE AND STRUCTURE OF A STOVE WITH A FLOOR HEATING BOILER (fig.1)

1. Stove cover
2. Cooking panel (hob)
3. Cooking panel extension
4. Butterfly knob for opening and closing
5. Oven door (oven)
6. Oven thermometer
7. Firebox door
8. Secondary air regulator knob
9. Ashtray door
10. Thermostat knob (combustion regulator)
11. Rod for shaking ash
12. Ashtray (ash box)
13. Ember holder
14. Drawer for wood
15. Cover for cleaning
16. Manometer
17. Thermometer
18. Hob cover
19. Thermostat flap (combustion regulator)
20. Flue extension
21. Cover of opening for cleaning
22. Handrail
23. Grate carrier
24. Additional cover
25. Rod bracket

3. SAFETY AND RELIABILITY IN STOVE OPERATION

The stove for floor heating is constructed so that it enables maximum safety during operation.
Safety during stove operation is provided in three ways:
- combustion regulator (thermostat) (fig. 1 pos.10), located in the ashtray door, which automatically closes the air intake in the stove firebox when the set water temperature in the boiler is reached,
- tube made of copper pipe built in the boiler which when connected to a thermo valve (fig. 7 pos.13) serves as a thermal fuse for possible stove overheating,
- safety valve (fig. 7 and 8 pos.5) which you must compulsorily set to the connection R1/2" (fig.4 pos.6).

WARNING:
The stove is not delivered with a thermal valve and a safety valve, while the thermostat is built in on the stove in the ashtray door.

4. STOVE PLACEMENT (INSTALLING)

- The stove may be installed in the kitchen part or at some other convenient spot.
- An inflammable pad should be put under the stove.
- If the pad is flammable (wood, plastic), place a tin plate that should protrude from the lateral sides with 10cm and 50cm from the front side.
- The furniture and objects located in front of or close to the stove must not be from flammable material. If they are from flammable material, then the minimal distance from the stove must be 20cm.

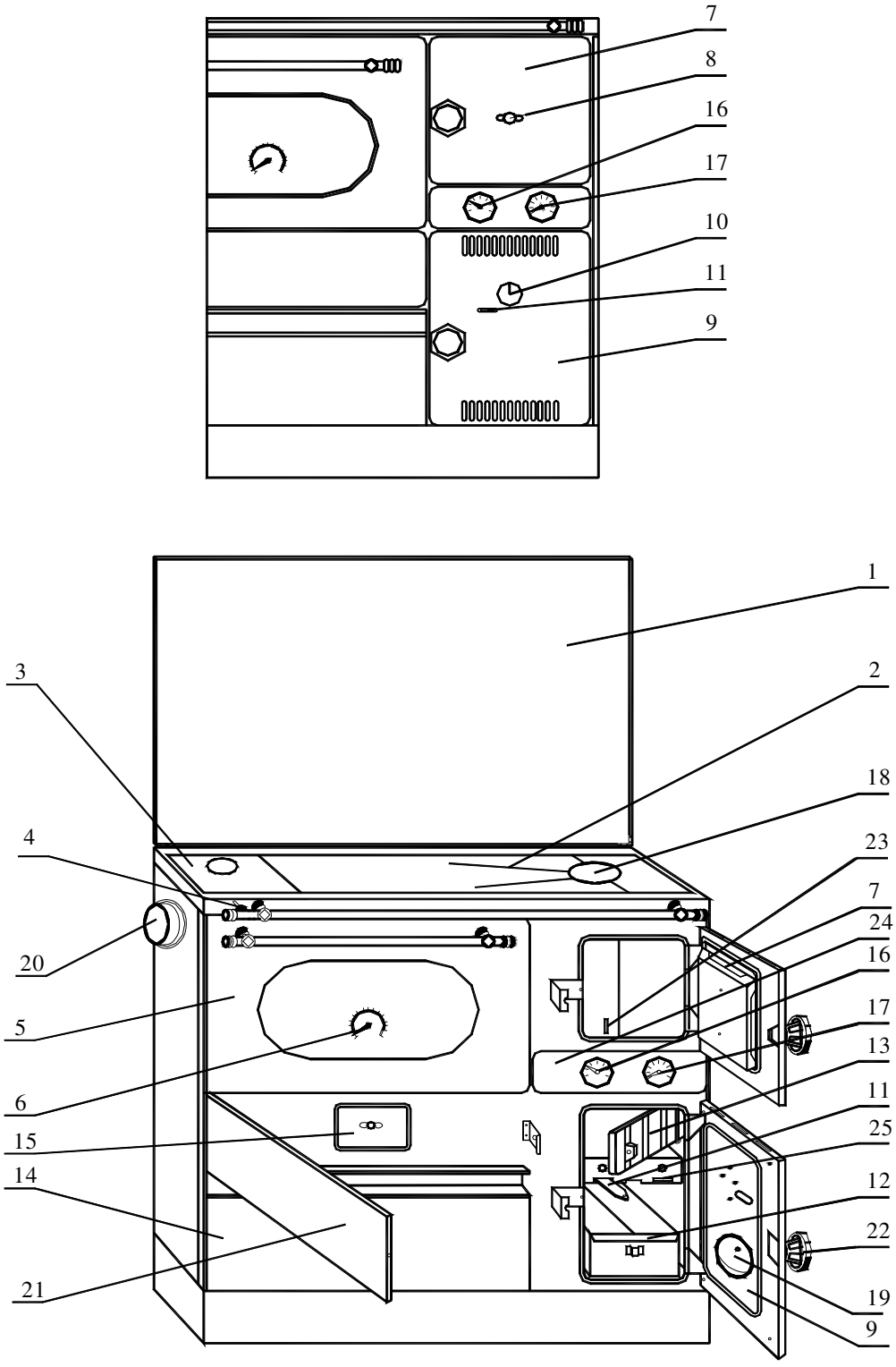


Figure 1

- If a cupboard is installed above the stove, the minimum distance between the stove hob and the cupboard should be at least 70cm.
- Flammable materials (for example wallpapers, frames, doors etc.) from the flue should be at a distance of at least 20cm. This distance may be reduced if thermal insulation is placed on the flue pipe and the temperature of the surrounding objects does not exceed 80°C.
- The stove should be installed in horizontal position or slightly elevated from the back side (3-4mm).

5. FLUE INSTALLING

Review the unpacked stove and become familiar with the parts of the stove and the accessories, and especially pay attention to the following:
- The special channels of the firebox door, the ashtray, the cover for cleaning and the hob frame should have pigtails with no asbestos that seal well and do not allow uncontrolled air intake.
- The combustion regulator (thermostat) with regulation knob (fig.1 pos.10) should properly open and close the regulator flap (fig.1 pos.19).
- The ember holder (fig.1 pos.13) should be properly placed in its bearing and should be easily open.

The flue connection (plug), that is delivered together with the stove and is placed in the drawer for wood, should be set and screwed on the openings of the plug carrier (hob) or on the opening on the lateral side. The existing cap must be previously removed and the same screws for connecting plugs should be used.
WARNING:
If Your flue is not the best or it is with suspicious quality, we recommend that You install a flue connection on the plug carrier (from the top), and not on the side.
The flue reaches its rated power if the flue draft is 20Pa. We recommend the following flue sizes with which this draft is obtained:

Stove Denotement	Rated heating power (kW)		Flue height (m)				
			6	7	8	9	10
ALFA TERM 20	Brown coal	wood	Dimensions of light surface (mm.)				
	22,8	22,9	145x200	145x145	145x145	145x145	145x145

- Proper flue and meeting other requirements set out in the material that follows are a prerequisite for flawless functioning of the stove.
- The flue connection should be installed with uplifting.
- Horizontal flue pipe pieces longer then 0,5m should have an uplifting of 10° towards the flue.
- The flue extension, flue pipes and the flue must not be narrowed.
- All connections as well as the flue must be well sealed, with no soot and grime in flue pipes.
- The flue should be protected from cold (it should be heat insulated). This especially applies for flues made of sheet metal and flues built on external walls.
- Flue pipes that do not have thermal insulation and do not stand vertically, must not be longer then 1,25m. Check of the draft strength is performed by using candles (fig. 2).

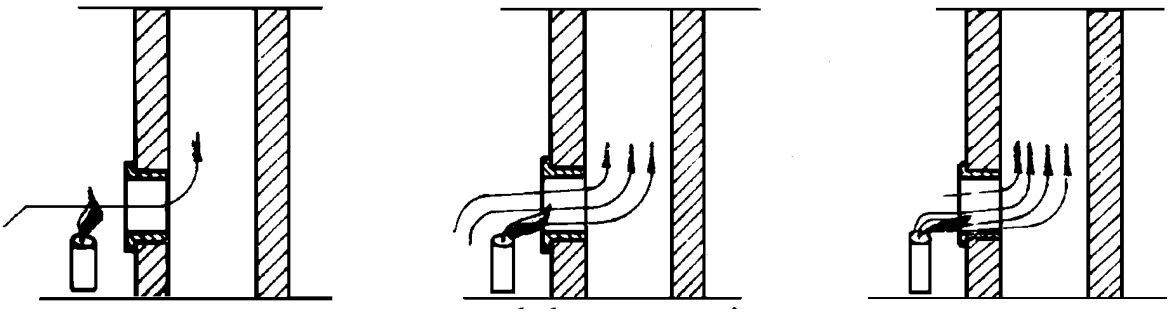


Figure 2

The flue is functioning well if it satisfies the following conditions (fig. 3):

- It protrudes above the roof top (ridge) at least 0,5m.
- It is higher than the neighboring house that is close to the flue, a tree or some other barrier.
- It is in the internal walls of the house or it is well insulated if it is in the external walls.
- The extension should be closely connected to the flue if it is being extended.
- The flue pipe should not be inserted deeply in the flue opening as this reduces the space for smoke output.
- All other unnecessary openings as well as the door for cleaning should be well closed (sealed) so that so called “false” air would not be created.

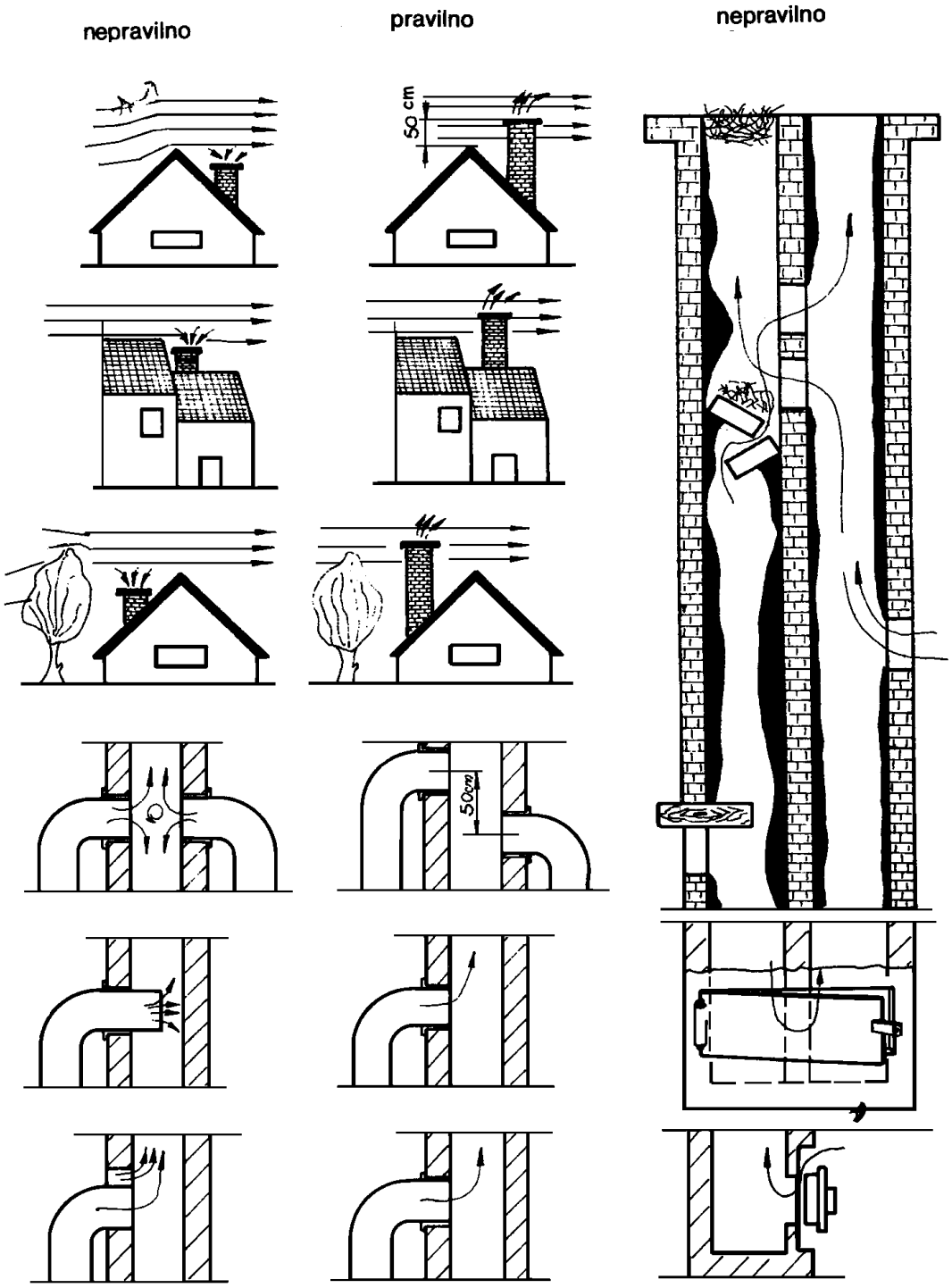


Figure 3

6. INSTALLING STOVE IN WATER HEATING SYSTEM

Installing of the stove should be performed by a qualified person according to the appropriate project.
The stove is intended for floor and central heating.
It can be installed in closed and open heating system. Adhere to the regulations JUS M.E7.201 and JUS M.E7.202. Diagrams of closed and open system are shown on fig.7 and fig.8.
The back side of the boiler with the connections is shown on fig. 4 where:

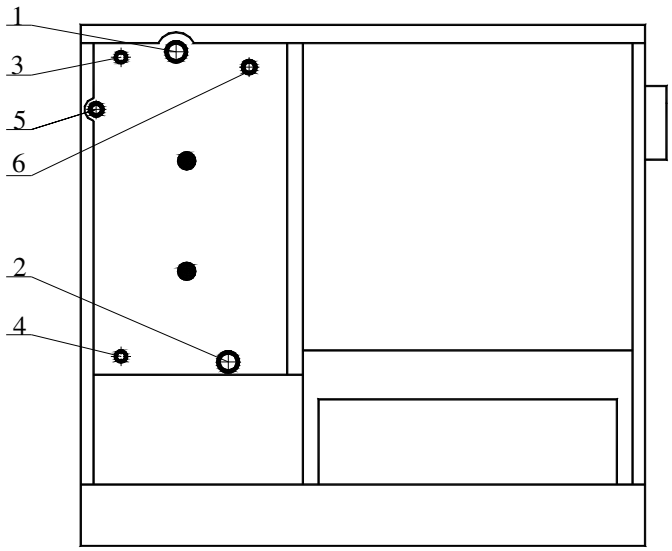


Figure 4

-Pos.1 is a connection with external thread R1" for discharge line,
-Pos.2 is a connection with external thread R1" for return line,
-Pos.3 and 4 are connections (pieces 2) with external thread R1/2". These are outlets of the cooling pipe and any of them can be intake, that is, outlet,
-Pos.5 is a connection with internal thread R1/2" for installing the thermal valve protective pipes,
-Pos.6 is a connection with internal thread R1/2" for installing the safety valve.

6.1 DISCHARGE AND RETURN LINE (fig.4 pos.1 and 2 and fig.7 and fig.8 pos.3 and 10)

The outlets of the discharge and return water of the boiler are 1" and they must not be reduced, that is, narrowed up to the first bifurcations. Use steel pipe 1" or copper pipe with external diameter F28mm. (or bigger diameter).
When performing the installation, strictly pay attention to the pipe slopes which should be 0,5% (5mm. per meter of pipe) and to the system venting (boiler, pipes, radiators).
On the discharge line you may set thermal-manometer although thermometer and manometer are mounted on the front side.
Set a “by-pass” on the return line with a pump, expansion vessel and valve for filling and draining the system. When mounting the pump, pay attention to the pump direction.
Warning:
Make a "by-pass" only if there are conditions for so called gravitational heating.

6.2 THERMAL VALVE (fig. 7 pos. 13)

The installation of a thermal valve in the closed central heating system is COMPULSORY. This especially applies to a closed system when the radiators are submerged where in case of termination of the pump operation for any reason, the water temperature in the boiler is growing rapidly and overheating occurs quickly.
The installation of a thermal valve in the open central heating system is not compulsory.

You can connect the thermal valve on the upper or the lower connection R1/2" depending on the available space, but you should take into account the direction of the water intake and outlet which is clearly indicated on the thermal valve body.
You should mount the protective pipe of the banana thermal valve in the opening of the thermal valve connection (fig.4 pos.5 and fig.7 pos.18).
Perform sealing by using hemp or some other sealing asset by tightening.
Fig.7 shows a diagram of thermal valve connections.

6.3 SAFETY VALVE (fig. 7 and 8 pos. 5 and fig. 4 pos. 6)

On the back side of the boiler under the hob, a connection R1/2" is welded (fig.4 pos.6) in which you are OBLIGED to set a safety valve. The safety valve should be between 2,5 to 3 bar. It can be installed directly on the terminal or at a distance from the stove of 1m the most, provided that there is no block valve between the boiler and the safety valve.
In an open heating system, the safety valve is not put normally, but we advise that you put it as one more type of insurance of the boiler and the system (due to unforeseen circumstances).
WARNING:
If the safety valve is not set as previously explained, the guarantee ceases.

6.4 THERMOMETER AND MANOMETER (fig. 1 pos. 16 and 17 and fig. 5)

On the stove itself, on the additional cover (fig.1 pos.24) between the firebox door and the ashtray door, thermometer and manometer are mounted (fig.1 pos.16 and pos.17, and fig.5) so they do not have to be placed on the installation.
The thermometer pos. 17 shows the temperature of water in the boiler (operating temperature) in °C.
The manometer pos. 16 shows the water pressure in the boiler, that is, in the system, in bars.

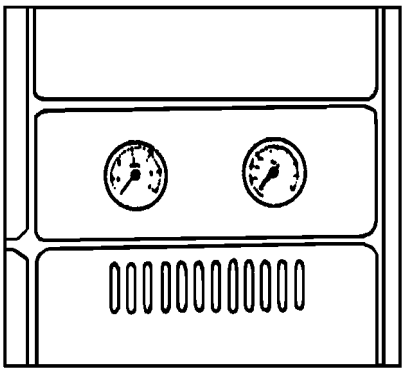


Figure 5

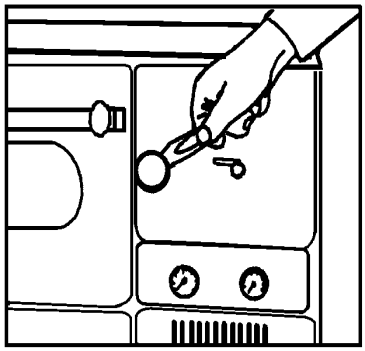


Figure 6

7. PRACTICAL INSTRUCTIONS AND ADVICE FOR HEATING SYSTEM USE

- We recommend that you choose a closed system due to the risk of corrosion in an open heating system.
- All connections must be well sealed and fastened.
- Before commissioning, the complete installation should be examined with water with pressure of 2,4 bar.
- It is desirable that water is drained out from the system at least once because of the grime located in the system.
- For an installation in which only a stove “alfa term 20” is connected, we recommend expansion vessel from 18 (l) but not less than 12(l) which would be placed on returning water, as close as possible to the boiler, and no block valve should be set between the boiler and the expansion vessel.

INSTALLATION DIAGRAM OF CLOSED SYSTEM OF STOVE FOR FLOOR HEATING ALFA TERM 20

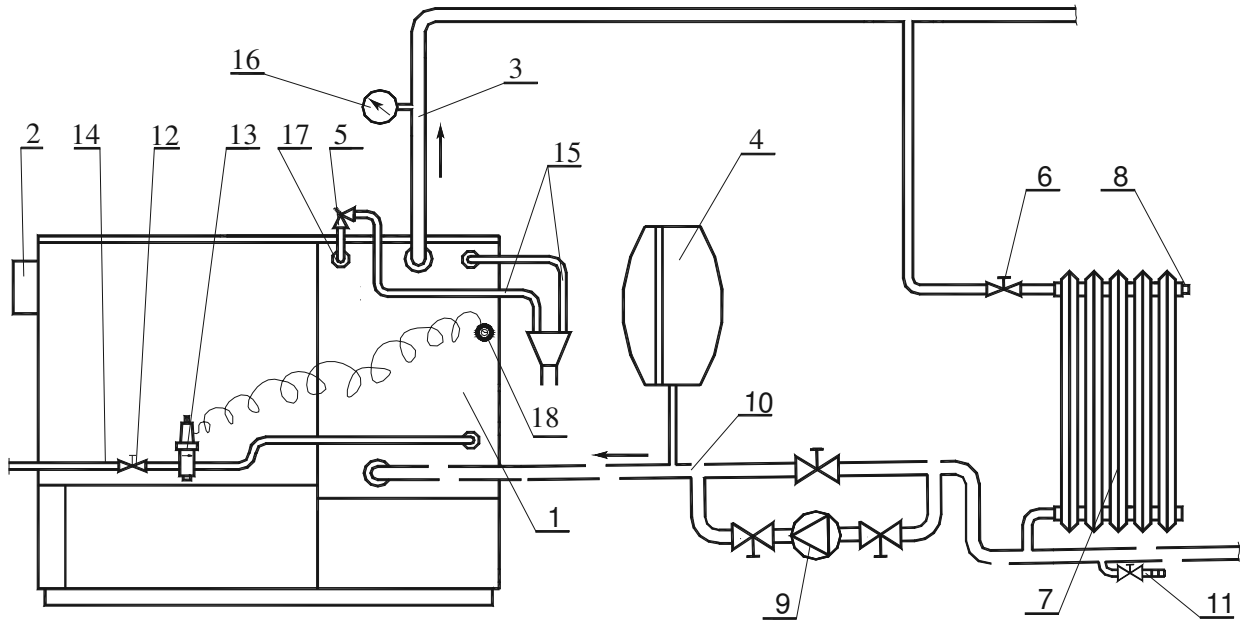


Figure 7

1. Hot water boiler
2. Flue extension
3 Distribution line
4. Closed expansion vessel
5. Safety valve
6. Radiator valve
7. Radiator
8. Air vent
9. Circulation pump
10. Return line
11. Filling and emptying tap
12. Regulation valve
13. Thermo valve
14. Connection line for water system.
15. Hot water outlet
16. Manometer
17. Safety valve connection
18. Thermo valve connection

INSTALLATION DIAGRAM OF OPEN SYSTEM OF STOVE FOR FLOOR HEATING ALFA TERM 20

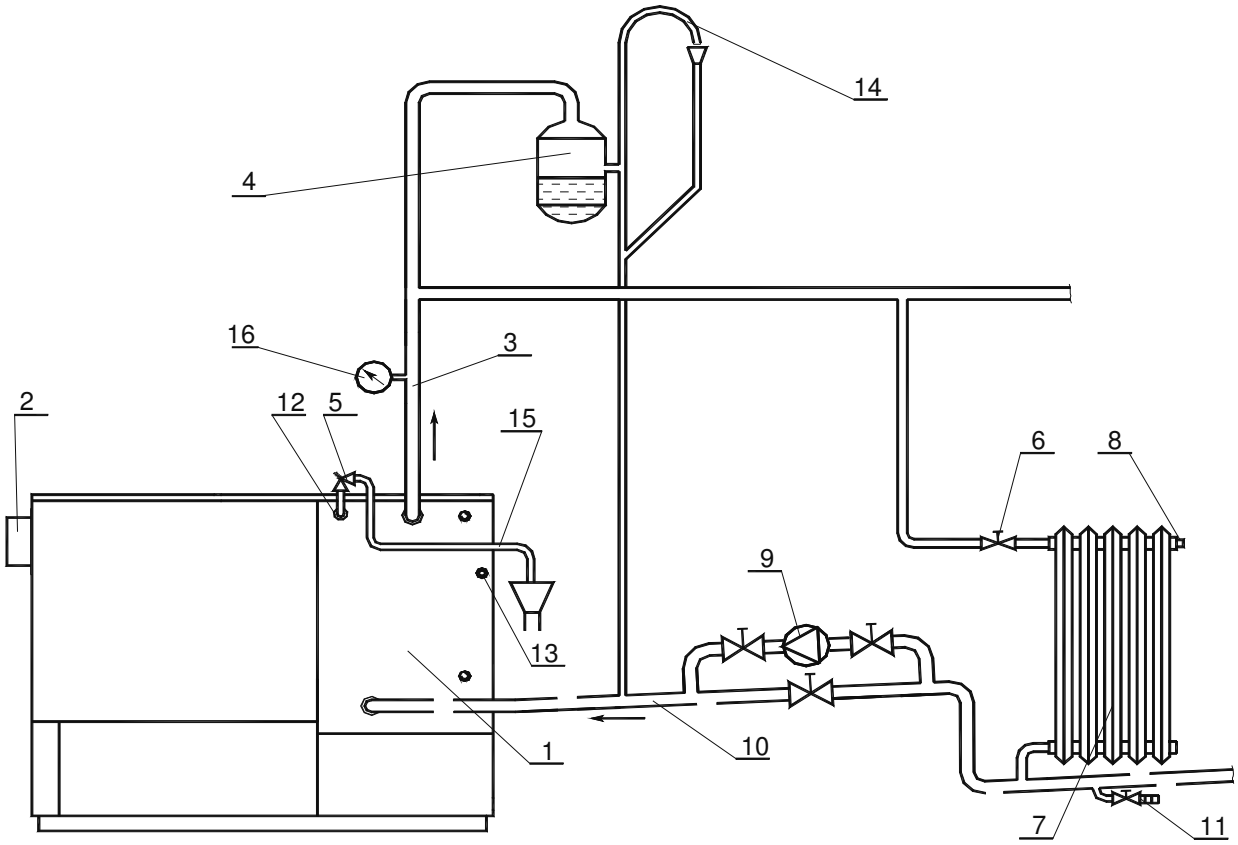


Figure 8

1. Hot water boiler
2. Flue extension
3. Distribution line
4. Open expansional vessel
5. Safety valve
6. Radiator valve
7. Radiator
8. Air vent
9. Circulation pump
10. Return line
11. Filling and emptying tap
12. Safey valve connection
13. Thermo valve connection
14. Vent pipe
15. Hot water outlet
16. Manometer

- It is desirable to insert a pump R1" for more speed whose flow capacity is always appropriate for the current need of the system. Directly in front and behind the pump, install shut-off valves so that displacement of the pump could be performed for repairs, changes etc., without releasing water.
- Mount a tap for the filling and draining the system at the lowest system point.
- Before commissioning the system should be filled with water as follows:

a) If the system is open, fill the system through the tap for filling and draining until water starts to leak from the overflow pipe of the expansion vessel,
b) If the system is closed, the system pressure (working pressure) should be 1÷1,5 bar.

In both cases, fill the system slowly so that air can come out through the air releasing valves. If the valves do not open themselves, they should be manually open until water starts to leak, than close them.
- The water from the heating system should not be drained in summer neither since it protects the internal side of the system from spreading oxidation (corrosion).
- If you don't use the boiler for a longer period in winter, and there is not antifreeze asset in the system, it is best to drain the water from the system. At the same time open the valves on the radiators, the combined valves and the other shut-off elements in the system.
- Fire must not be kindled if the water in the boiler is frozen, neither if there is not enough water in the boiler.

8. COMMISSIONING AND STOKING

Before stoking, the entire system for floor (central) heating should be filled with water, well vented and the stove should be properly connected to the flue as explained in the previous paragraphs.

WARNING:
The stove must not be used without water. It must be connected to an installation on which consumers (radiators) are connected with a minimum power of 8 kW.

When the system is cold, the flap of the power regulator (combustion regulator, thermostat) located in the ashtray door (fig.1 pos.10 and pos.19) should be open. Pull ahead the butterfly knob for opening and closing (fig. 1 pos.4 and fig. 16). That way the butterfly knob is open and kindling is enabled. Later when the stove is inflamed, we adjust the regulator flap on the appropriate position that depends on the pulling power of the flue and the desired power, and the butterfly knob should be pushed back. Then the butterfly knob is closed and full use of the combustion is enabled, thus better heating, cooking and baking. During this, the door of the firebox and the ashtray (fig. 1 pos. 7 and pos. 9) must be closed if we want regulated combustion. The butterfly knob for kindling is open only during the kindling of the stove (10 to 15 minutes).
The firebox and ashtray doors can be open and closed manually, as well as with the bent wrench as shown on figure 6.
We stoke the stove as all permanently burning stoves on solid fuels. When the grade is in lower position, we perform kindling through the open door of the ashtray and the ember holder (fig.9 and fig.10). We open the ember holder (fig.1 pos.13 and fig.9) by raising and pulling. When the grate is in upper position through the open door of the firebox (fig.11) on the grate we put paper, small pieces of chopped wood and kindle. When everything is burning well, we can fill the stove with wood or coal if the grate is in upper position. If the grate is in lower position, do not put at once all the needed heating material for full firebox, but divide it on two or three parts and put it in the firebox at intervals of 10-15 minutes on flaming heating material. The stove filled in this manner burns from 1 to 6 hours, depending on the intensity of combustion in the stove and the adjusted power regulator (thermostat).

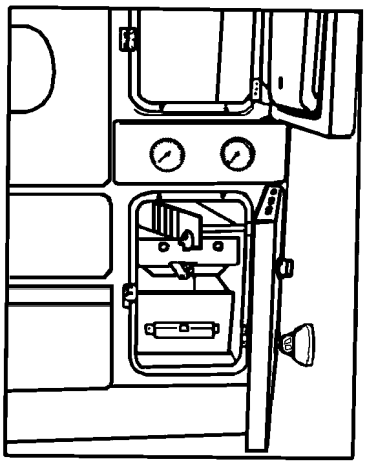


Figure 9

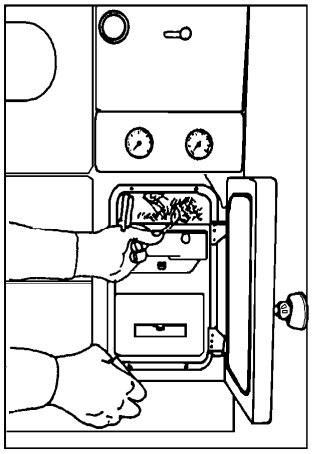


Figure10

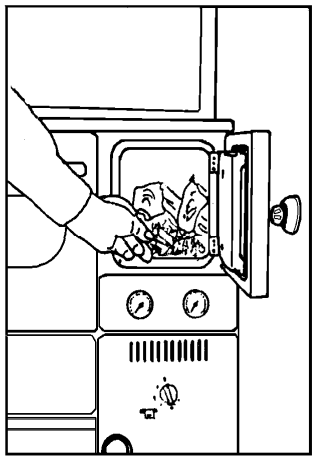


Figure 11

The firebox can be filled from the upper side as well (fig.12). The cover is lifted by using a wrench and firewood is put. It is not recommended to put some organic waste in the stove (plastic bags, bones etc.) because in this case tar collects on the walls of the flue channel and this can cause a fire.
After every filling it is recommended that the stove burns with maximum power for at least half an hour since in the beginning all volatile compounds in the fuel burn, which are actually the main causes for condensate creation in the stove.
Insert the coal when there is good (strong) ember in the firebox, two to three times at intervals of 15 minutes.

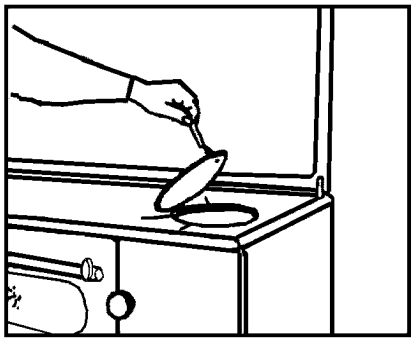


Figure 12

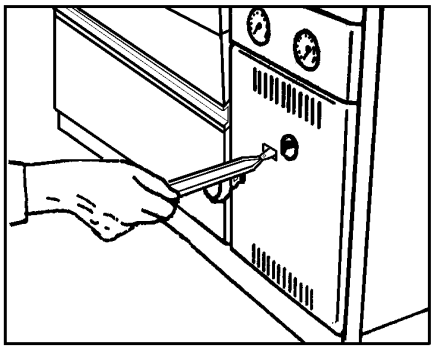


Figure 13

9. GRATE USE IN UPPER AND LOWER POSITION

For cooking, baking and frying in the transit period, the upper grate position is used (fig.11) so that the flame could directly reach the hob thus saving the costs for cooking, baking and heating.
The stove is delivered with a grate in lower position. In order to move the grate from the lower to the upper position, it is necessary to do the following:
- Remove the hob from the stove and open the door of the firebox and the ashtray.
- The grate should be pushed completely back with a rod for shaking the grate and then through an opening of the ashtray door and the space for ash and the front part of the grate should be lifted by hand and should be pulled out from its bearing (position). After this, the carrier of the grate is lifted and pulled out.
- The placement of the grate in upper position is performed in reverse order. The grate carrier is placed on the grate holders (pieces 4) welded in the boiler firebox in front and on the back side (pieces 2+2) (fig.1 pos.23). In the grate carrier bearing insert the grate under an angle (aslant) so that the back part of the grate enters first and then put down the front part of the grate. Move the grate forward and backward so that it lies well in the grate carrier bearing. Put the hob in the carrier bearing of the hob frame.
- Placement of the grate in lower position (fig.9 and 10) is performed in the same manner as the upper position, provided that in the end the front part of the grate is lifted a little and through the rectangular opening of the rod carrier (fig.1 post.25) the rod for shaking the grate should be inserted. The grate is slowly put down so that the grate notch falls in the opening of the rod for shaking the grate.

Warning:
- By using a rod for shaking the grate (fig.13), the grate may be shaked only in lower position. The shaking of the grate may be done manually or with a wrench as shown on figure 13. There is no shaking of the grate in the upper position of the grate with the shaking rod, instead, shaking of the ash, that is, cleaning may be performed with a cleaning spade or some other object.
- In the lower grate position, the heating of water is better, larger number of radiators can be heated and bigger surface of living space, but cooking is more difficult.
- In the upper grate position, the heating of water is weaker, small number of radiators can be heated and small surface of living space, but cooking is much easier.
- In both grate positions baking is the same (it is not impeded).

10. AUTOMATIC REGULATION

The stove power is adjusted with a thermostat (power regulator, combustion regulator) located in the ashtray door and which automatically adjusts the lapse of the regulator flap depending on the adjustment of the regulating knob (fig.1 pos.10 and pos.19) and the height of water temperature in the stove heater. The regulation knob has many positions written on the knob and this is shown in table 1 as follows:

Table 1

Position of regulator knob	0	3	4	5	7	9
Water temperature in the stove (°C)	Closed regulator	30	40	50	70	90

The cover (flap) for air in the power regulator system completely regulates the air intake for combustion it he remaining openings are closed.

11. SECUNDARY AIR REGULATOR

A secondary air regulator is placed in the firebox door (fig.1 pos.8 and fig.14). It is used for regulating the subsequent ignition and combustion of unburned gases. Its opening and closing is performed manually through a knob positioned on the firebox door.
Leave the secondary air regulator open when the grate is in lower position while stove usage. Close the secondary air regulator when the grate is in upper position.

12. COOKING, BAKING AND FRYING

The stove is mainly used for heating during the heating season. For this purpose the grate is placed in lower position. For quicker baking, cooking and frying use dry wood for stoking.
The butterfly knob for stoking must be closed, and the power regulator must be open. After baking, cooking and frying is completed, put the power regulator on the green position.
When baking, the water temperature should be increased to at least 60°C, if necessary by closing some radiators while baking, and adjust the stove temperature according to the food that is baked.

13. HEATING MATERIAL

The heating material can be kept in the heating material drawer (fig.15). The drawer moves on rails. If we want to take out the drawer from the stove we must lift it up so that it would fall out from the rails.
Use heating material that is shown in the table 2 which will ensure that the boiler has rated thermal power of a flue draft of 20 mbar (20Pa).
Do not burn coal dust, sawdust and waste that releases smoke intensively!

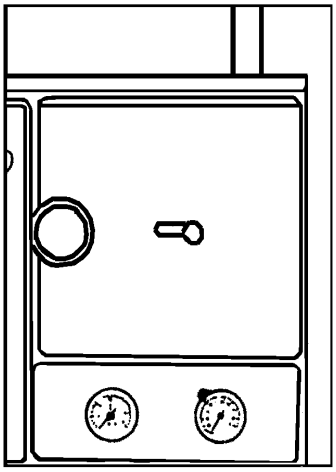


Figure 14

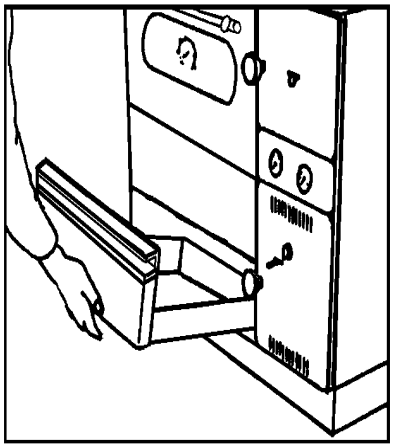


Figure 15

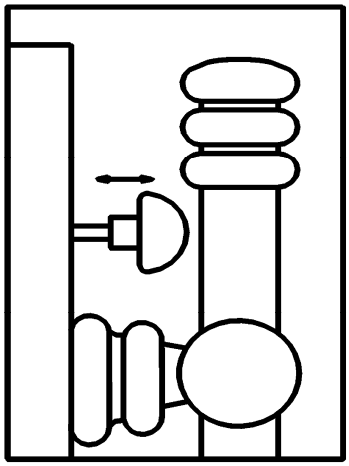


Figure 16

Table 2

Heating material	Heating power (kJ/kg.)
Brown coal	15000 – 19000
Dry beech firewood	15300

WARNING:
In order to get rated heating power and as higher rate of usage, we recommend that you use dry beech wood cut with a length of L=33cm as a heating material.

14. CLEANING AND MAINTENACE

Before every filling with fuel, the stove grate must be cleaned with a spade by opening the ember holders or through the open door of the firebox. The ash from the ashtray should be removed at least once a day and larger residues (slag) should be removed by opening the door of the ashtray and the ember holder. The clean heating surfaces guarantee economic operation of the stove. Cleaning of the stove once a month is recommended, and if necessary more frequently as well.
Do not clean enameled surfaces of the stove and the stove frame with a wire brush and wire sponge since the enamel and the protection may be damaged, instead, use a damp cloth and cleaning assets and fine detergents. Clean the oven after every use while it is still warm. Leave the oven door open after cleaning for couple of minutes so that unpleasant odor would not be sensed during the next warming up.
Temporarily clean the stove hob with fine sandpaper and in case of longer brakes it should be greased with oil that does not contain acids (vegetable oil). Remove burnt things from the hob by using a palette knife or a knife and eventually treat it with graphite or ash from the ash box or with oil.
It is forbidden to artificially cool the stove with unnatural draft and soaking the firebox with water so that it gets cold.

15. STOVE STORAGE

After finishing the stoking season, the stove should be cleaned from ash and smoke. Water should be released only in case when some repair of the installation should be performed. If the installation is not used in the heating season, pour a certain quantity of some antifreeze liquid or release the water from the installation as a protection from freezing.

16. FAULTS

Table 3

RB	Faults	Possible cause	Elimination
1	Water pressure in installation is slowly decreasing	The installation does not seal	Check the sealing of welded connections, threaded fasteners, nuts etc.
2	Cold radiators on the highest installation point and a sound is heard	Air in the installation and low pressure in the installation	Increase pressure in the installation and release air from the installation and from radiators
3	The radiators do not heat along the entire length	Air in radiators	Release air from radiators through the vent valve
4	The safety valve drains water from the installation, and the pressure is less than 3 (2,5) bar	Safety valve failure	Replace safety valve
5	The pressure in the installation is more than 3 (2,5) bar and the safety valve does not drain water from the installation	Safety valve failure	Replace safety valve
6	Sudden water temperate increase in the installation	Air in the installation	Perform radiator venting
		Closed valves towards radiators	Open all valves in the heating system and provide normal water circulation in the installation
		Circulation pump failure	The circulation pump should be repaired or replace it thereby allowing operation of the heating system
		Electrical power loss	You should open all valves that reduced the heating system. This mostly refers to the “by-pass” valve. Stop or reduce stoking with strong control so that the water temperature in the system would not exceed 90°C until electricity arrives.
7	Sudden pressure increase in the installation while water temperature increase	Decreased pressure in the expansion vessel or completely empty. Remove the cover or the vessel valve cap and release some air through the valve. If the membrane is destroyed, water shall leak from the valve, and if it is only half-empty, only air will come out	If water is leaking from the valve, replace the expansion vessel. If only air comes out from the valve, remove the installation vessel and pump it. The pressure in the vessel must be equal to or greater than height difference of the highest and lowest installation point. Example: For height difference of 5m. the pressure is Pmin.≥0,5 bar.
		Air in the installation	Perform venting of the installation

8	The circulation pump does not switch on or blow a fuse	No power on the electrical connection. Loose connectors.	Check and tighten the screws at the connection spots. Check and if necessary, replace the fuses, eliminate the malfunction of the motor or installation connection
		Capacitor failure	Replace the capacitor
		Rotor blockage	Before the start of each heating, examine the easy rotor turning. Hot water deposition may lead to rotor blockage. Turn around the motor shaft with a wrench until free turning of the rotor is enabled.
		The pump is blocked due to sediment	Disassemble and clean the pump.
9	The thermometer or manometer does not show the amount of temperature or water pressure in the installation	Thermometer or manometer failure	Replace the thermometer or manometer
10	Noise (sounds) from the eating system	Defective pump. Great clearance between the rotor shaft and bushings	Reduce pump speed. Replace the pump envelopes or the entire pump
		The pump is functioning at too high speed	Select low speed.
		Air in installation	Release air from the heating system
		Loose knobs or some screw on the stove	Tighten knobs and screws
11	Sounds in the pump	The pressure at the pump suction part is to low	Increase system pressure or check the expansion vessel.
12	A thermal fuse for cooling is activated (thermal valve) because the water temperature was increased over 95°C due to:	- loss of electricity	This is proper and do not touch anything. When the system gets cold, the thermal valve will close by itself.
		- open ashtray door and no regulated combustion	Close the ashtray door and through the knob on the cover of the ashtray door and thermostat, reduce the water temperature in the system.
		- the grate is in lower position and small number of radiators are switched on	Transfer the grate to upper position or switch on some other radiator. Keep the ashtray door closed.

13	Water condensate in the boiler	Damp heating material	Change heating material
		Too low temperature of returning water from the heating system	Insert combined valve or switch off some radiator from the heating system
14	Outlet water temperature is not appropriate (low)	Non-calorific heating material	Change heating material
		Heating system is oversized (a large number of radiators)	Switch of some radiators
		Little heating material is inserted in the firebox	Increase the quantity of heating material in the firebox
15	Fire does not burn regularly	Weak flue draft	Make a new flue or repair the old one
		Flue pipe connections do not seal. The doors on the stove and the flue do not seal. The flue draws “false air”.	Seal all connecting spots so that “false air” would not occur
16	There is not enough heat in baking, cooking	The thermostat is set to a lower temperature	Increase water temperature through a thermostat or shortly open the ashtray door
17	There is too much heat in baking, cooking	The thermostat is set to a high temperature	Reduce water temperature through the thermostat or stoke moderately
18	The boiler-stove releases smoke during initial startup	Combustion and heating of the stove and flue	It is normal for the stove to release some smoke during initial startup, and this stops after some time.
19	The boiler-stove releases smoke during regular use	Uncleaned flue, flue pipes and stove	Clean the internal part of the flue, the flue pipe and stove.
		Damp heating materials of the heating materials you use intensively release smoke	Change heating material. Use dry hating material and heating material that does not release smoke
		Overloaded firebox	Fill the firebox slowly, gradually, in a couple of times
		Bad flue	Repair or make a new flue
20	The grate is stuck when cleaning is performed	Some spike is stuck, slag or something else on the grate	Clean the grate of undesirable objects

17. TIME OF GUARANTEED SERVICING

This implies the period during which we guarantee the service, accessories and space parts, starting from the day of purchase of the device.
The time of guaranteed servicing is in accordance with the valid legal regulations.
In case of change of the model and the design of the device, the term for change of parts that have modified design is within the legal term.
After this term we provide the modified parts in the new designs.

17.1 CONDITIONS OF THE GUARANTEE

The guarantee of the product is valid within the legally defined term.
The guarantee is not valid for the glass, the glass-ceramic panel and the physical damages that have occurred after purchase.

THE MANUFACTURER RETAINS ALL THE RIGHTS TO MAKE CHANGES.
The device will properly function within the guaranteed term only if it is used in accordance with these guidelines for connection and application.
The guarantee cases to apply if it is determined that:
-the connection or the repair of the product was performed by an unauthorized person, that is, if unoriginal parts have been embedded,
- if the device has not been properly used in accordance with these guidelines,
- if some mechanical damaging of the device occurred during usage,
- if the repairs of defects were performed by an unauthorized person,
- if the device has been used for commercial purposes,
- if the damage has occurred during transportation after the device was sold,
- if the defects occurred due to improper mounting, improper maintenance or mechanical damaging by the buyer,
- if the defect occurred after too strong or insufficient power, as well due to force major.
We can repair the defects of Your device also outside the guaranteed period, with original spare parts for which we also provide a guarantee under the same conditions.
This guarantee does not exclude or affect the rights of the customer in regard to the conformity of the goods pursuant to the legal regulations. If the delivered product does not conform to the agreement, the customer has the right to ask the seller to repair that lack of conformity without any reimbursement, by repair or change of the product in accordance with the valid legal regulations.

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Overall dimensions of stove ALFA TERM 20

