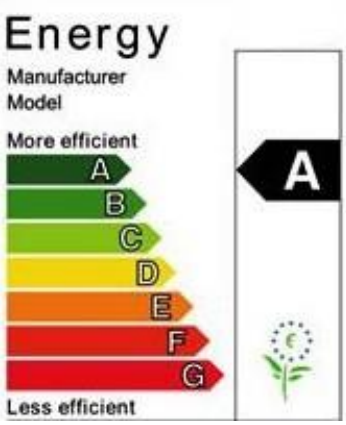
Meeting the
MG series



Dear clients,

Thank you for placing your confidence in our company and congratulations for your choice!

You have purchased one of the many products of **Gekas Metal** company, intended for the heating of private or public spaces with the use of solid fuels. You are able to choose, from our wide variety, a model that fits your needs and demands.

In this manual you will find information and instructions for the installation, operation and maintenance of this appliance. Read this manual carefully before starting using the heater, for proper use and operation. Store the manual for future reference, as it includes useful advices and suggestions that will make the installation and operation of your new appliance a pleasant experience. We offer our constant support and guidance to help you get the maximum benefit and pleasure from your appliance.

1. IMPORTANT INSTRUCTIONS

For the combustion, the use of solid fuels only is required, such as briquette and wood. Gasoline or other flammable liquids must never be used as fire starters or for fire rejuvenation.
Do not store or use gasoline or other flammable liquids around the area of the appliance. Do not burn waste or flammable liquids, such as gasoline, naphtha or motor oil.

The air within the room, where the heater is placed, must be refreshed, since fresh air is necessary for the combustion.

Do not touch the appliance while functioning, because of high temperature development that demands extreme caution during its operation. Do not let children or animals come in contact with the heater or play around it. Any contact could cause burns.

Never attempt to repair or replace any part of this appliance, unless instructions are given in this manual. Any other reparations must be made by a technical expert.

Do not make any kind of changes or modifications on the appliance. Such fact automatically cancels all guarantees.

The few first times you operate the heater, you may notice smoke coming out and the heater may emit a smell, because the paint dries out. This is normal and it happens because of the burning of paint, dust etc. The air within the room, where the heater is placed, must be sufficiently refreshed during the first time you operate the appliance.

Ashes should be disposed in a metal ash receptacle with air-lock lid. The receptacle should be put on non-flammable floor or outdoors, on the ground, away from flammable materials, until the final ash disposal. Ashes should be kept in the closed ash receptacle, until it is cold enough.

Don’t let any part of the heater be flamed.

During the ignition, use protective gloves before you touch the handle of the door or any receptacle.

2. DESCRIPTION OF THE APPLIANCE

The heaters of MG line are designed and constructed to the highest standards of the market, according to the European Standard EN 13240. After long-lasting testings in the labs of our company, we can, responsibly, guarantee the efficiency of our appliances, up to 79%, which belong to energy class A, resulting to some of the most **COST-EFFECTIVE** appliances for domestic or public heating.
For the construction of the heaters we use steel, 2.5mm to 6mm, the inside part is padded with firebricks, 30mm thickness, that guarantees the excellent thermal conductivity of the heater. The crystals are ceramic. Insulation is achieved with the use of glass rope on every unsafe part. All of our raw materials are certified with ISO 9001, as well as our whole production line is qualitatively insured with ISO 9001 - ISO 14001.

Parts of the heater - package:

1. Body of the heater
2. Ash drawer
3. Door with glass
4. Rack
5. Handles and waste gas valve and fumes moderator
6. Oven Thermometer
7. Technical description

3. INSTALLATION OF THE APPLIANCE

The installation, and counterpart connections, the activation and check of proper function must be followed faithfully, according to the rules of your country and the given instructions.

The placement of the appliance near wood, freezers, plastic parts of furniture and other flammable materials is FORBIDDEN, because of high temperatures development. The minimum distance between the heater and any other object should be 50cm, and between the heater and flammable materials 80cm.

In case the surface, where the heater is placed, is flammable (wood, parquet etc.), the existence of a metal plaque in between the heater and the floor is NECESSARY. The plaque should be extended by 10cm on each side of the heater and 50cm on the front side.

Air-conditioning and ventilation appliances that function in the room, where the heater is placed, may cause troubling with its function that should be arranged.

The diameter of the pipes must be equal to the diameter of the heater's exit. The heater must be connected to the chimney with stove pipes. The pipe shouldn't be placed too deep into The chimney, for prevention of the reduction of the flue outlet diameter. The horizontal pipes should have a slight upward inclination and the vertical pipes should be upright, although horizontal arrangement should be avoided for maximum efficiency of the appliance. The last pipe on the inside of the room, where the heater is placed, should be warm enough, for prevention of liquefaction of waste gas that may lead to fluid leakage in the house.

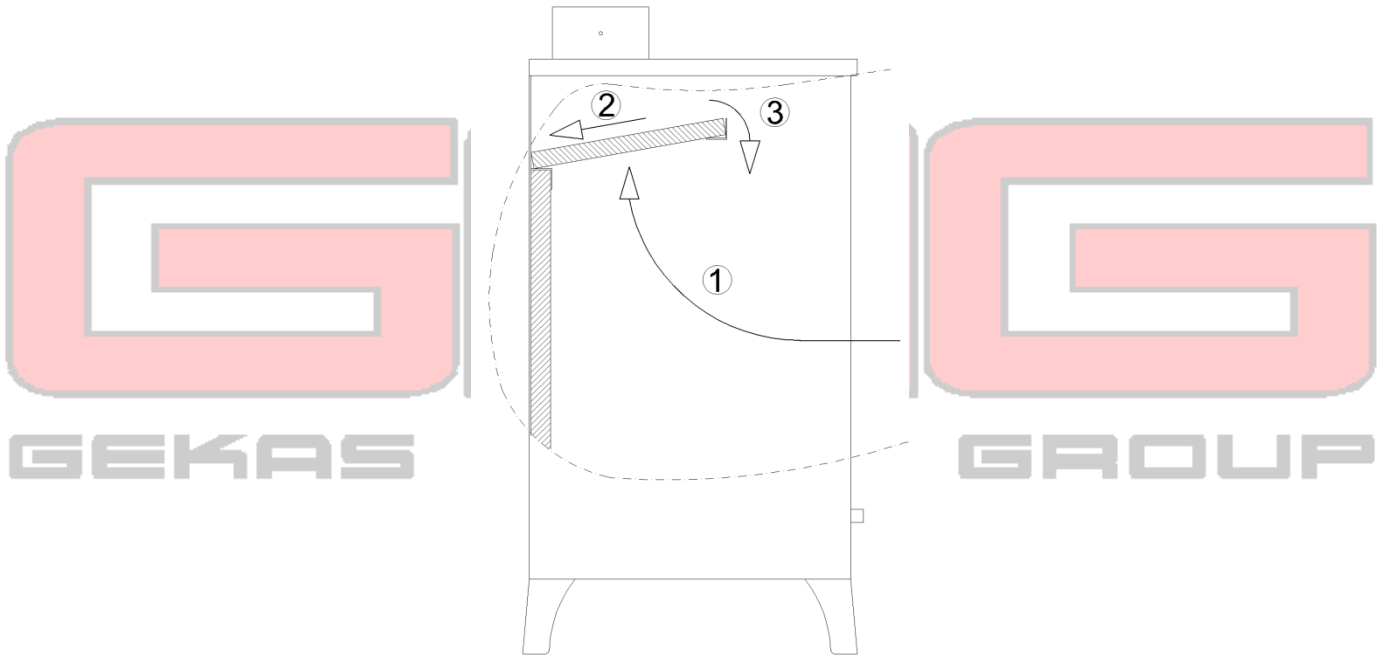
The external pipes and the chimney should be tightly fixed. The pipes should have a vertical finish and be higher than any other obstacle around. The existence of an H-shaped pipe at the end is necessary. The part of the pipe, which is on the outside of the house should be insulated for the maintenance of temperature and the prevention of liquefaction of waste gas. The temperature of the waste gas is 240° C. The waste gases contain liquid elements with different chemical composition and density, depending on the

type of the fuel. These liquid elements cause liquefaction on the inside of the chimney. In case of wood combustion, what is formed is creosote which is non-toxic, but there is the danger of ignition.

4. FUNCTION OF THE APPLIANCE

The proven heat power was determined after research and development in the laboratories of **Gekas Metal.** It was relied on mathematical models and confirmed by TTC ltd (European certificate center). To be achieved important factors are, carefully selected fuels with the necessary efficiency and humidity, constant refilling, primary and secondary air moderation, as well as traction.

For the models **MG200, MG250, MG300, MG450, MG600,** in the ash drawer you will find 2 bricks which must be placed on the upper part of the burner, these bricks are simple to be placed, initially on the one side and then on the other side (like alluminum window). You place them, either united (**reccommended)** or by leaving some space between them, depending on the suction of your chimney.



Installation of roof's brick

Start with the lighting, by placing twigs (tinder) in the combustion chamber, starting a small fire for the prevention of thermal shock. The primary and the secondary air moderators are open. To add more fuels in the heater make sure that the previous amount of fuels has been burned. Close the two air moderators. Do not let the rack clog from remains and unburned substances. Clean the rack regularly. Open the door slowly, carefully and not abruptly, allowing the equalization of pressures in the combustion area and the room, otherwise fumes may leak out. The heater is designed for functioning with the door of the combustion area constantly closed, unless when fuels are added. Do not open the door unnecessarily. For maximum efficiency, the wood should have 20% maximum humidity, otherwise tar and fumes are developed, which create creosote.

Also, it should be mentioned that the appearance of large or smaller cracks on the firebricks is absolutely normal, even after the first use of the heater. This is caused by the phase difference of the materials' expansion (metal-firebrick) and it doesn't affect the efficiency and function of the product. The firebricks endure up to seven (7) years, if they remain in their place, despite the cracks they may develop.

Traction is the basic principle for proper function of the heater. It is achieved by the difference between atmospheric pressure and pressure of the combustion point. The better the traction of the chimney is, the bigger the dimensions of the door can be. In cases of lower traction, such as when we have more horizontal pipes than vertical, we are facing the problem with the burning of twigs or paper, in order to achieve the heating of the chimney, i.e. gradual increase of atmospheric pressure. The waste gas valve should remain open during the heating of the chimney, while you can close it after that for cost-effectiveness.

Common reasons of low suction

- Layers of soot (ash) in the chimney, which reduce its diameter.
- Cracks in the walls of the chimney.
- Loose pipes or pipes that have been placed too deep reduce beneficial section of the chimney.
- Common chimney for many heaters.
- In case of strong wind on the chimney that results to high pressure.
- In case there are open windows on the last floor apartment or the chimney isn't air-locked the result is reversed traction.
- In case of rapid increase of temperature.

5. CLEANING AND MAINTENANCE

Regular cleaning allows the proper function and long life of the heater. The cleaning of the internal or external surfaces must, always, be done when the heater is cold.

Cleaning of the external surfaces should be done with a soft cloth which will not ruin the surfaces of the heater. Chemical cleaning products can be used without ruining the heater. Do not clean the painted or enamel surfaces with abrasive products.

Cleaning of the internal surfaces should be done when the surfaces are cold and with the use of protective gloves. Clean the interior walls of the combustion area from soot and remains of unburned substances, clean the ash receptacle, as well as the remaining ash in the heater.

Cleaning of glass surfaces. The glass door of the heater gets dirty during the function of the appliance because of soot. For its cleaning use mild cleaning products. Do not use abrasive products which may ruin the glass surface. Clean the glass surface when it is cold.

Cleaning and maintenance of the chimney must be done at least once every year, as well as after a long period of non-use. Regular maintenance and check of the chimney prevent the possibility of fire and weak function of the appliance.

The **MG400, MG450, MG500** models have a cleaning port for the cleaning of the external surfaces of the furnace which you can find on the upper part of the heater. Unscrew the distinctive screw, clean it and screw again tightly.

6. COMBUSTIBLE MATERIALS ALLOWED

As mentioned above, the use of solid fuels, only, is required for the combustion, such as briquette and wood. The important factors that affect the thermal efficiency of wood are humidity, storage manner and type of wood.
The wood needs to have dried out within a period of, at least, two years before the burning. The ideal moisture content in wood ranges between 12%-15% and not higher.
The wood storage should be achieved in the following way:
The storage should be achieved in such way, that it allows air circulation among the woods, for understandable reasons. Protection from rain and snow should be insured. The lower layer of the woods shouldn't be in direct contact with the ground. If the woods are storaged in a closed room, make sure that there is no humidity in the room and refresh the air in the room regularly.

Wood types	Heat value of dry wood (Kcal/Kg)
Fir	4894
Rough Pine	4892
Black Pine	4860
Sea Pine	4856
Aleppo Pine	4831
Red Fir	4590
Cedar	4514
Broad-leaved Oak	4694
Sessile Oak	4698
Pubescent Oak	4681
Beech	4701
Acacia	4624
Chestnut	4568
Hickory	4725

7. GUARANTEE OF THE APPLIANCE

Your new heater is accompanied by a two-year guarantee, which is substantiated with the receipt or the invoice of payment, and it is valid for your heater, if following have been done:
- it has not undergone any modification or permanent impairment
- the installation and operation of the heater is achieved, according to the given instructions,
- protection from overheating,
- regular maintenance / cleaning (yearly),

- the heater is used, only, by individuals who have sufficient abilities and proper training.
The guarantee is **NOT** valid, when the appliance has been misused, due to incorrect operation by the user, non-professional modifications and/or repairments, or because of the use of unauthentic or improper replacements for the particular heater.
The incompliance to the instructions given in this manual entail immediate cancellation of the guarantee.
From the guarantee are, also, **EXCLUDED** the parts of the appliance that have undergone impairment, such as glass rope, firebricks and glass.