



HOT AIR GENERATOR

INSTALLATION, OPERATION AND MAINTENANCE MANUAL



MAKTEK HOT AIR GENERATORS INSTALLATION, OPERATION AND MAINTENANCE INSTRUCTIONS

MAKTEK hot air generators are designed for high efficiency. With the help of the Cr-Ni material used for the body, the customers can benefit from the high efficiency heating for long lifetime.

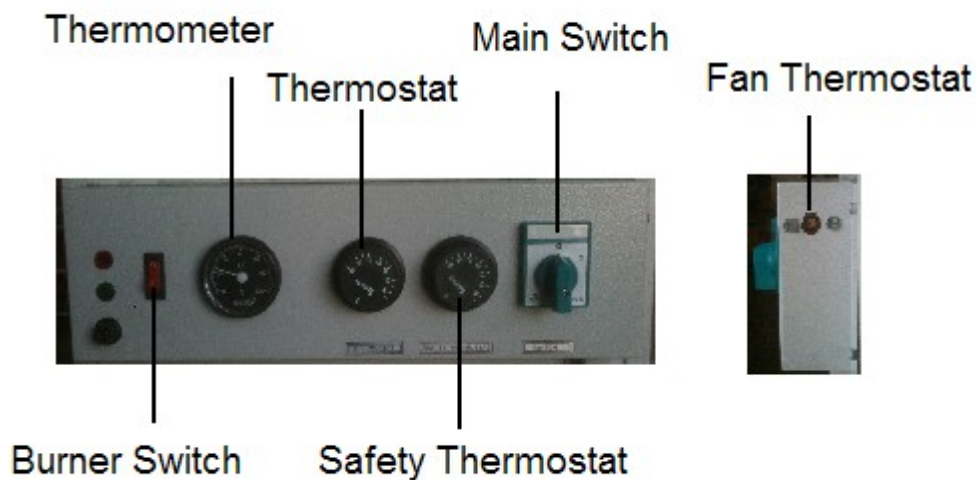
The burner used in MAKTEK hot air generators is a high-tech product with maximum burning efficiency, admired all around the world. The burner mixes the air and fuel ratio in a most effective way and provides high efficiency burning.

GENERAL INSTRUCTIONS

The important instructions which has to be obeyed by the user during operation and maintenance are mentioned in this manual. In order to benefit from the generators to its full capacity, the instructions and recommendations has to be obeyed.

First Time Operation Instructions:

- Place the generator according to the suggestion of the authorised personel.
- Make sure that you receive the generators with all of its components and fully functioning.
- Check that if there is any fuel inside the tank. In order to prevent any failure, do not let the fuel inside the tank to finish completely.
- Make sure that the valve on the fuel line is open.
- Make sure that the adjustable air outlet parts are open before starting operation.
- There are 3 thermostats on the generator. One of them is security thermostat, the other ones are fan and burner thermostats.
- Security thermostat adjusted value should be higher than the other two thermostats at all times.
- The fan thermostat is adjusted to 20°C and the burner thermostat is adjusted to 60°C (Factory configuration) When you switch on the button on the lower side, the burner will start operating. When the system temperature reaches 20°C the fan will start working. The burner continues operating until the temperature passes 60°C and then stops operation automatically. When the temperature level drops below 60°C, the burner again starts operation automatically. The automatic operation can be stopped by turning the main switch off at any desired time.

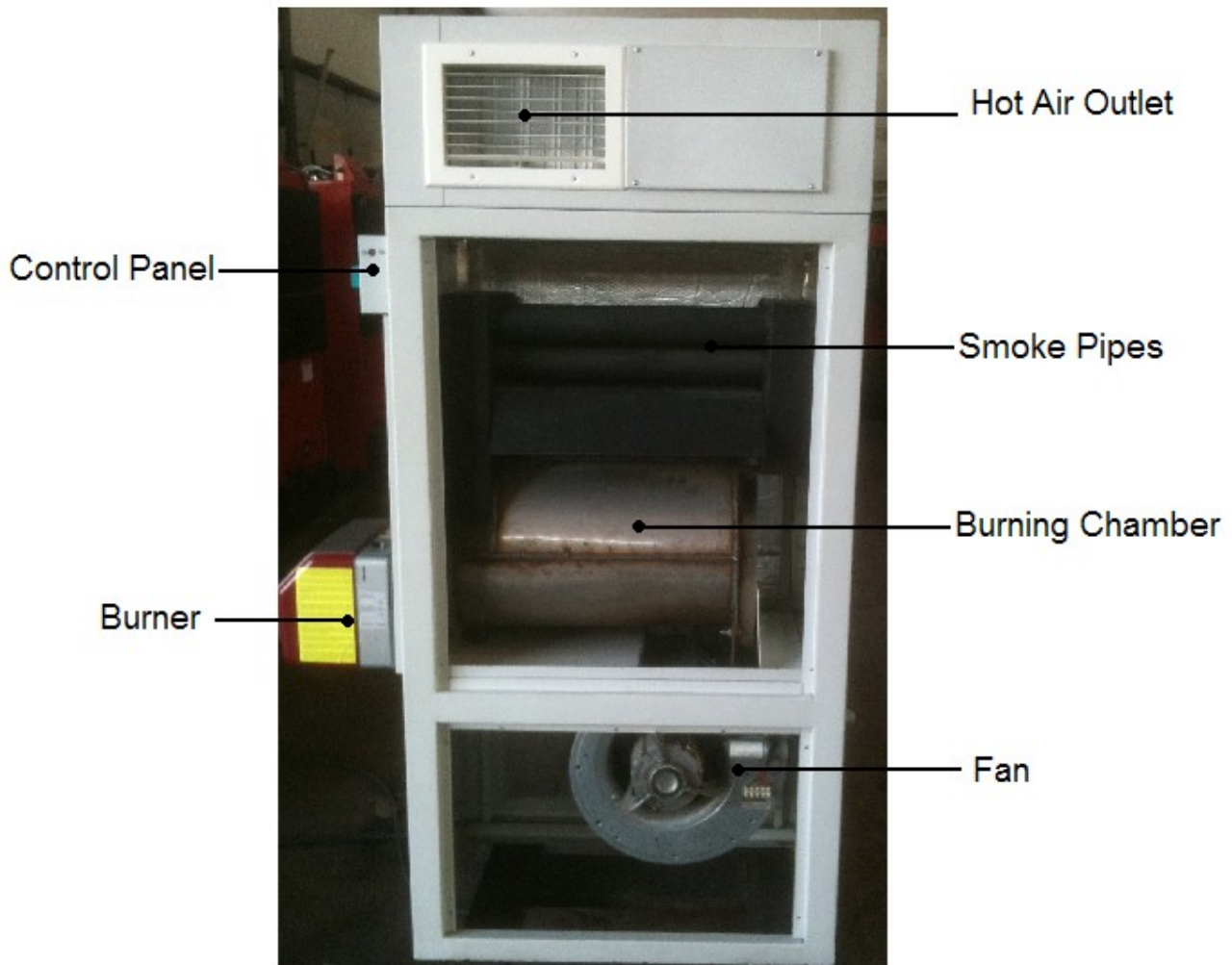


- During operation if the generator runs out of fuel, the burner will go into failure mode since there is no fuel available for burning. This is indicated by the red warning lamp on top of the switch.

General Maintenance Rules:

- While filling your fuel tank for the first time, keep the generator closed and wait for 1 hour before starting operation.
- Before starting operation open the valve on the bottom of the fuel tank and drain the water solvent collected on the bottom on the tank.
- Do not connect any other appliances to the chimney connection of the generator such as oven, furnace, water heater or any other appliance.
- There should be a chimney fully isolated chimney cleaning lid on the bottom part of the chimney connection.
- Horizontal chimney pipes should be installed with a tilt of minimum 5% from the groundline. The total horizontal chimney pipe length should not exceed 3 meters.
- The radial fan should be cleaned each month. The dust and particules which may be found on the working environment can go inside and cause malfunctions in the fan. In order to prevent this, the blades of the fan should be cleaned each month.
- The smoke pipes inside the generator should be checked each month. If there is any obstruction caused by the smoke deposits, then the smoke pipes should be cleaned by a long brush. The obstruction will cause the generator performance to drop.

- The exit of the chimney pipe should be covered to prevent rain water to go inside the chimney.



Burner Maintenance:

Burner used in MAKTEK Hot Air Generators is easy to install and dismount for easier maintenance.

1. In order to remove the protective lid, three plastic screws should be removed by hand. The lid can then be dismounted by pulling backwards. By this way the mechanic and electronic control elements are revealed.
2. In order to reach the turbulator, electrode, injector and fan propeller of the burner, the plastic screw found on the barrel axis has to be removed completely. Then the 3 butterfly nuts found on the burner body has to be removed. By this way the burner can be separated into two parts as the body and the barrel part with the lid.
3. Removing the Electrode, Injector and the Turbulator:

First of all the sockets of the cables for the double electrode is removed. Then the screw holding the

turbulator is loosened and the turbulator can be dismounted. The injector can be dismounted by using an open-end spanner. While re assembling these parts this operation is done backwards.

Burner Fuel Filter Cleaning:

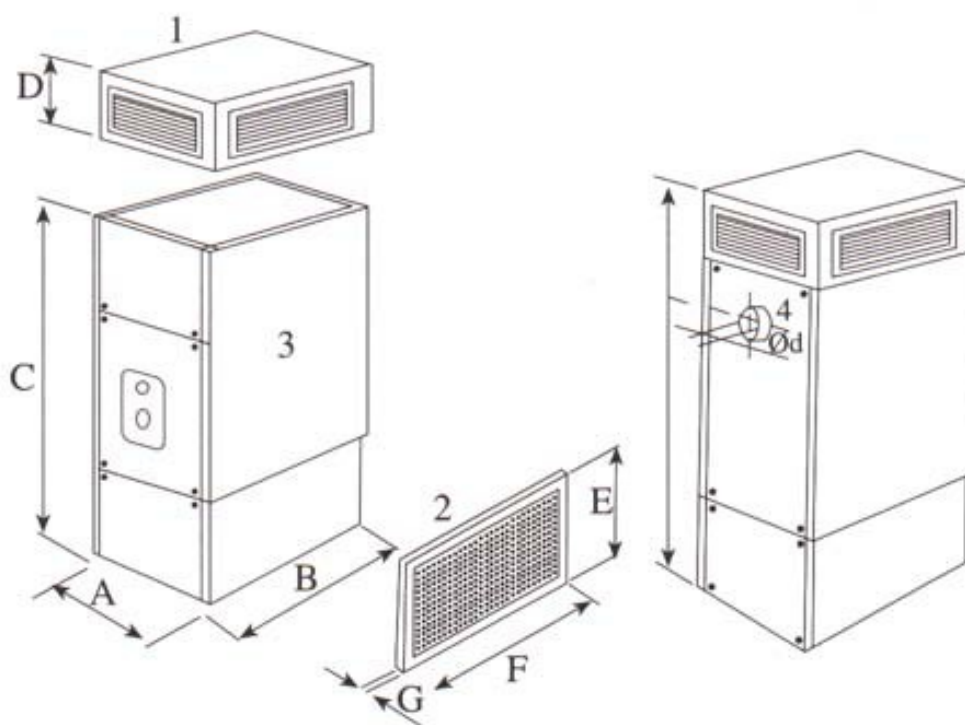
- Stop the generator operation.
- Close the valve in the fuel tank
- Remove the steel filter plate in the fuel filter and clean it with by washing the filter plate by fuel oil.
- Mount the filter back on.
- Open the fuel valve on the tank.
- Open the pump venting tap and remove the air trapped inside. Do this until fuel starts pouring from the tap than close the venting tap.
- Clean the filter with a clean piece of cloth and check for any leakage. Make sure the filter is perfectly sealed.

Photo-Cell Cleaning:

- Stop the operation of the generator.
- Remove the photo-cell by pulling backwards.
- Clean the glass part of the photo-cell with a dry clean piece of cloth and mount it back.

Electrode and Turbulator Cleaning:

- Stop the operation of the generator and unplug it. Wait for the generator to cool down for 10 minutes.
- Remove the screws holding the burner and pull the burner to dismount.
- Remove the screws holding the lid and separate the part of the lid with the barrel.
- Clean the electrode ceramic and tips of the electrodes by using a dry clean piece of cloth.
- Clean the turbulator by wiping with a piece of cloth. Make sure that the fins of the turbulator are clean.



TECHNICAL SPECIFICATIONS:					
Capacity	kcal/h	35000	50000	75000	100000
Air	m ³	2200	3200	4800	7000
Manothermic Blast Pressure	mmss	12	14	16	18
Engine Power	HP	0.33	0.33	0.5	1,5
Engine Power	watt	245	245	367	1100
A	mm	450	540	600	760
B	mm	750	880	960	1100
C	mm	1300	1450	1560	1700
D	mm	275	350	350	350
E	mm	405	410	510	555
F	mm	640	770	850	990
G	mm	18	18	18	18
H	mm	1575	1800	1910	2050
Chimney Exit / d	mm	130	130	160	160



MANUFACTURER:

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