

SOLID FUEL

THREE PASS MANUEL LOADING
BK MODEL

ASSEMBLY AND USAGE MANUAL

*COMFORT
series*



CONTENTS

CONTENTS

INTRODUCTION
WARRANTY AND SERVICE
WARRANTY CONDITIONS
CONDITIONS OUTSIDE TO SCOPE OF WARRANTY
PRECAUTIONS
PRODUCT GENERAL SPECIFICATIONS
MATERIALS SHIPPED WITH BOILER
SHIPPING AND INSTALLATION
CHIMNEY CONNECTION SCHEME
INSTALLATION CONNECTION DIAGRAM
ELECTRICAL CONNECTION DIAGRAM
CONTROL PANEL
PRINCIPLES OF CONTROL PANEL OPERATION
CONTROL PANEL SETTINGS
POINTS TO CONSIDER DURING FIRST START-UP AND AFTER
BOILER WATER - FEATURES
FIRST TIME BURNING
POINTS TO CONSIDER DURING BOILER SLEEP PROCEDURE
MAINTENANCE
WEEKLY MAINTENANCE
MONTHLY CARE
ANNUAL MAINTENANCE
ADJUSTING BOILER WATER TEMPERATURE AS PER EXTERIOR
TEMPERATURE WHAT TO DO IN THE EVENT OF POWER FAILURE
WHAT TO DO IN CASE OF AN EMERGENCY
EXPANSION TANK AND SAFETY PIPES
OPERATING PRESSURE OF BOILER
COAL CALCULATION
FUEL SELECTION
DETECTION AND FIXING OF ERRORS/MALFUNCTIONS

INTRODUCTION

INTRODUCTION

Dear customer, by choosing MIMSAN branded product, now you have joined the MIMSAN family.

One of the MIMSAN GROUP companies, HEATING TECHNOLOGY is the largest company in the Turkish market engaged in manufacturing heating devices with domestic capital with the MIMSAN brand. MIMSAN Heating Technology is among the leading companies in the sector with its experienced staff, product quality, customer-oriented design understanding and after-sales service.

In this manual prepared in relation to the MIMSAN-branded product you preferred, there are information available about usage and maintenance, but also introductory and technical data on the product, and summary information related to assembly and commissioning of the product.

In order for our product to meet your expectations ideally, please contact MIMSAN Authorized Services to carry out first commissioning process after expert technical teams complete the installation. You can consult with our MIMSAN Authorized Services, calling 444 00 499 or from our web site at www.mimsangrup.com.tr.

Keep this guide in order to refer when required.

WARRANTY AND SERVICE

On condition that principles, warnings and standards specified in the usage manual are obeyed, your device is under MIMSAN warranty against material and manufacturing defects for 2 (two) years.

Before commencing the assembly process, please read this manual carefully. Expert technical team is required for the assembly, please demand the required expert technical team from your authorized dealer. It is necessary to follow conditions written in this manual to conduct selecting assembly location, installation, chimney and electrical connections.

Warranty period begins with the commissioning of device, our Authorized Service commissioning the device will fill the Commissioning Form and sign the form. Do not forget to receive a copy of Commissioning Form by reading and signing and keep the form.

For such devices, expected usage life specified by the Ministry of Industry and Trade is 10 (ten) years. As required by applicable law, manufacturers and vendors during this period undertake to keep for spare parts required to fulfill the functions of devices and to provide maintenance services to the device.

TERMS OF WARRANTY

1. The warranty period starts from the date of delivery of the device, and is 2 years.
2. All parts of this heating device is covered by the warranty of our company for 2 years. Consumables on the device (gasket, suppositories, ceramic pipe etc.) are outside the scope of warranty.
3. In the event that the device malfunctions within the guarantee period, the guarantee period shall be extended at the rate of the period for such repairs. Device repair duration shall not exceed 20 business days. This duration shall start from the date of notification to the service station, and in the event of the absence of the service station, from the date of notification to one of device vendor, dealer, agent, representative, importer or manufacturer. Customer can inform the fault notification via phone, fax, e- mail, registered mail or any similar way. However, in the event of dispute, burden of proof belongs to the consumer. In the event that device's fault is not recovered within 20 days, manufacturer-producer or importer are obliged to assign another product with similar features to the consumer until the repair of device is completed.
4. In the event of any malfunctions because of either material or workmanship, or assembly errors to occur within the duration of warranty, repairs will be carried out without requesting any fees under the title of workmanship cost, changed part price or any other items.
5. Despite using consumer's usage of right to repair, if the device;
 - Malfunctions at least four times within a year falling within the warranty period as of the delivery to the customer or malfunctions at least six times during the warranty period specified by manufacturer-producer and/or importer, also if these failures make it impossible to make use of these devices,
 - Exceeding the maximum amount of time required to repair,
 - Consumer may request device replacement for free, the price discount or discount at amount of defective good price in the event that service station of the company is not available and it is not possible to repair the damage according to the report issued by one of seller, dealer, agent, importer-manufacturer, representative.
6. Defects arising from using the device against considerations contained in the manual are outside the scope of the guarantee.
7. For problems in relation to the Warranty Certificate, it is possible to consult to the General Director of Protecting Customer and Market Monitoring under Turkish Ministry of Custom and Trade.

CONDITIONS: OUTSIDE TO SCOPE OF WARRANTY

The product warranty provided by Mimsan Heating Technology does not cover faults arising from the use of device outside normal using conditions. Failures, problems and damages that may occur within conditions specified below shall be outside the scope of warranty.

1. Faults arising from neglecting responsibilities specified in the user manual and belonging to the customer, from conditions of commissioning, usage and maintenance.

2. Malfunctions and problems arising from failure to conduct first commissioning of the product by an Authorized Service, intervention to the device by unauthorized third parties (private service) other than Authorized Service Technicians or interference to service settings of the device by the consumer are outside to scope of warranty.

3. The product will not be covered by warranty if deformation is created by the consumer on the Warranty Certificate or if the original serial number on the product is deformed or changed.

4. Our products are provided as factory delivery. Transportation will be on customer's responsibility. After delivery of the product to the customer, any damages occurring during shipping shall be out of warranty.

5. Failures and damages occurring as a result of incorrect storage by the customer and environment conditions shall be outside the scope of warranty.

6. Failures due to hard water circulating in the installation, product exposure to freeze, rain water entering from chimney, waterless operation and continuous water addition to the system due to water leakage in the installation shall be outside the scope of warranty.

7. The device is not covered by the warranty if used with a closed expansion tank, instead of open expansion tank.

8. Device is not covered by warranty in case of improper electrical connection.

9. Failures that may occur on the product due to lack of maintenance and controls to be conducted by the consumer periodically shall be outside the scope of warranty.

10. Since parts on the devices such as gasket, cord etc. are consumable materials, they are outside the scope of warranty.

11. Gasket, wick, helix shaft, etc. on the device are, consumables and are not covered by warranty.

12. Any structural changes to be applied on the device will affect the strength calculation made at the smallest detail level and working under pressure and this will compromise your safety. In this case, your device shall be out of warranty.

13. Keeping the device without water for a long term by discharging the water inside the device will result in decay of boiler since boiler and plate are exposed to corrosion. Boiler water must not be changed frequently and boiler should not stay waterless. Defects that may occur in such cases shall be outside the scope of warranty.

CONDITIONS: OUTSIDE TO SCOPE OF WARRANTY

14. In the event that boiler water and/or return water temperature is less than 50 °C, defects that may occur due to condensation shall be outside the scope of warranty. To avoid this situation, it is recommended to use 3-way valve and compensation system etc.

15. Due to non-standard replacement of the boiler settings or lack of sufficient fuel in the bunker, deformations (melting of the helix shaft and fins resulting from falling off the fuel from the pot to the helix shaft) is not covered by the warranty.

16. Solid fuel boilers cannot be operated with a closed expansion tank. If the heat transfer to the boiler system is interrupted due to power outage or other reasons, the resulting pressure increase may cause the weakest equipment in the boiler or installation to explode.

PRECAUTIONS:



This Device is manufactured to feed heating installation as the heater and to prepare utility hot water. The device cannot be used to obtain clean water directly.

The manufacturer cannot be held responsible for damages that occur due to reasons such as improper uses, interventions made by unauthorized persons or user, faulty installation, wrong operations.

Connect open expansion tanks in accordance with standards. Observe the values given in this document for tank volumes and pipe diameters. Smaller capacities can cause the boiler to become dehydrated, resulting in overheating and nonrecoverable defects.

It is recommended that no plastic pipes be used in the installation. You must connect both safety pipe and return pipes. This connection should be made after boiler outlet, and there should be no valve on the line.

Do not operate boilers without water. Never feed cold water to a hot boiler. Cold water feeding can be done when the boiler temperature falls below 40 °C. Do not feed water to cool for any reason overheated boiler (above 90 °C). You may cause it to explode. The correct response to an overheated boiler is to take the burning coal out of the boiler. Efforts to extinguish the fire in the boiler are dangerous.

Do not use the boilers for other purposes. Our boilers are designed to provide hot water (max. 90 °C) to the open atmospheric radiator installation. Misuse of the device can cause dangerous situations for the device and the user.

PRECAUTIONS

Mimsan K / BK models manual loading boilers are not/will not work without fan.

When the boiler is switched on with natural air circulation by turning off the fan and opening the ash cover, the water circulation of the pump will stop in case of power failure. In this case, because the ash cover is open, the combustion of the boiler will continue with natural air circulation. There is a danger of explosion in the boiler or installation due to excessive heat rise which causes Steam generation due to boiling. The factory is not responsible for accidents resulting from the operation of the boilers in such a danger.

Do not attempt to repair yourself any malfunctions in the device.

In case of continuous water supply due to water leaks in the system and when the water lime ratio is high, a softening system should be used and leakage should be prevented urgently. Otherwise, the inside of the boiler will be coated with a lime furring. The end result is cracking and puncturing in sheets and pipes.

Alteration to be made in boiler, random structural changes and any similar changes are prohibited. Such changes can cause damage to the device and endanger people. When these considerations are not considered, the device guarantee expires!

The device must pass from the check once a year.

These controls must be performed only by MIMSAN authorized services.

Maintenance is not covered within the scope of warranty.

When you call 444 0 499 at MIMSAN center for service or technical support, we remind you to prepare the following information for providing better service to you.

Located on the aluminum sheet label on the device;

1. Year of manufacture and serial number of the device,
2. Your device model,
3. Supply dealer information for the device,
4. If the device is commissioned before, give authorized service information.

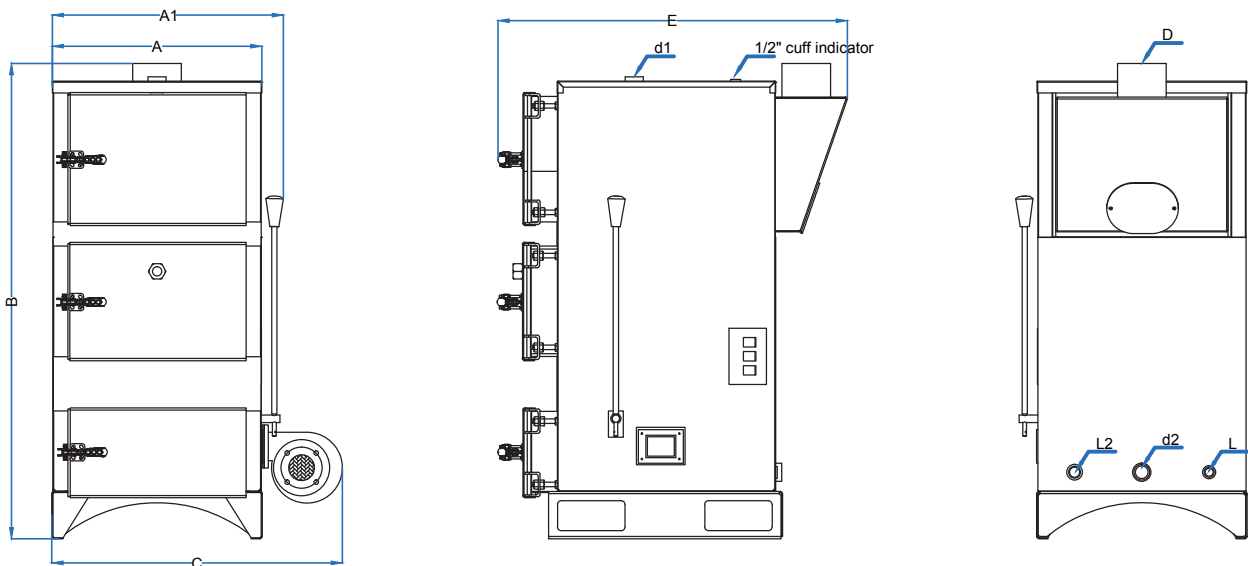
PRODUCT GENERAL SPECIFICATIONS

MİMSAN COMFORT series solid fuel manual load floor heaters are produced as half cylindrical and three pass.

With the fan controlled combustion system, the rate of unburned coal is very low as all of the fuel comes into contact with air. This provides ideal combustion.

With the movable cast iron grate used in the combustion chamber, the accumulated ash can be easily discharged into the ash chamber. With the shaking feature, the burning efficiency is increased while at the same time the ease of cleaning is ensured. Boilers designed to burn lignite and hard coal and wood type fuels efficiently and environmentally, are produced in 5 different types in the capacity range of 25.000 Kcal / h (29 Kw) and 60.000 Kcal / h (70 Kw). Boilers are manufactured in TS-303/5 standarts have CE certificates according to 97/23 / CE pressure equipment directive H module.

With the LCD display digital control panel on the boiler, adjustments can be set precisely.



Model			BK 25	BK 40	BK 60
Capacity		Kcal/h	25.000	40.000	60.000
		kW	29	47	70
Width	A	mm	558	558	629
Width	A1	mm	625	625	688
Height	H	mm	1346	1346	1581
Lenght	L	mm	804	928	980
Chimney diameter	E	mm	130	170	170
Hot water flow/return	F	inch	1"	1 1/4"	1 1/2"
Water volume		Lt.	47	85	133
Weight without Water		kg.	210	260	340
Safety flow/return	S	inch	3/4"	3/4"	3/4"
Filling/Discharging	S1	inch	1/2"	1/2"	1/2"
Indicator Coupling	S2	inch	1/2"	1/2"	1/2"
Fan model			125/50	125/60	140/60
Fan flow		m ³	250	380	590

*Standard operating pressure is 2 bar.

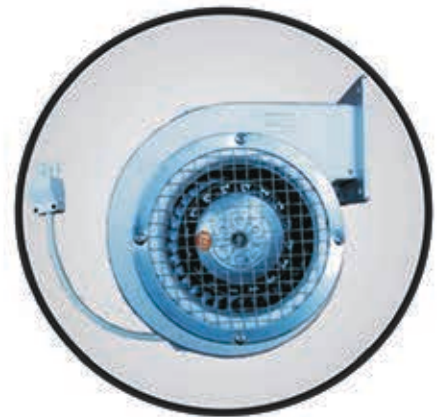
MATERIALS SHIPPED WITH THE BOILER



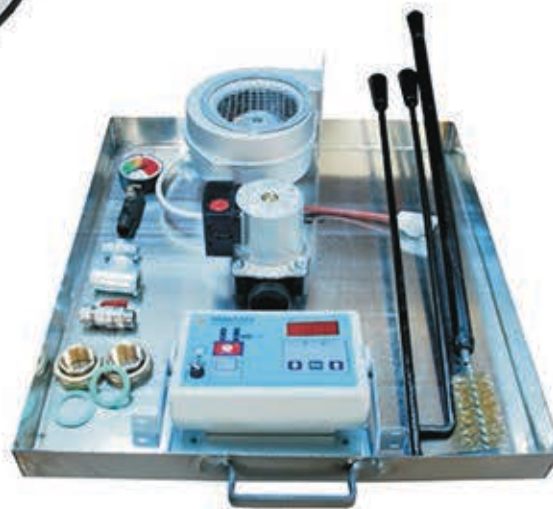
CONTROL PANEL



CIRCULATION PUMP



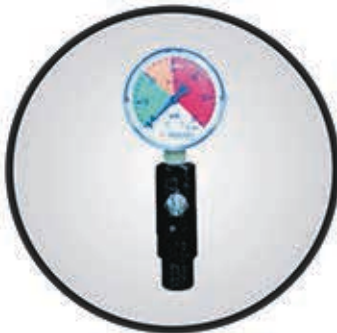
AIR FAN



1/2" VALVE



1/2" T CONNECTION



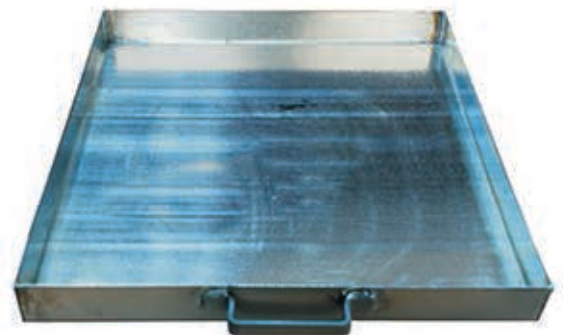
REKORD & GASKET



1/2" NİPEL



FIRE RAKE - SKEWER - BRUSH



ASH PAN

* Note: Pump is not included in K-80 and K-100 boilers.

SHIPPING AND INSTALLATION

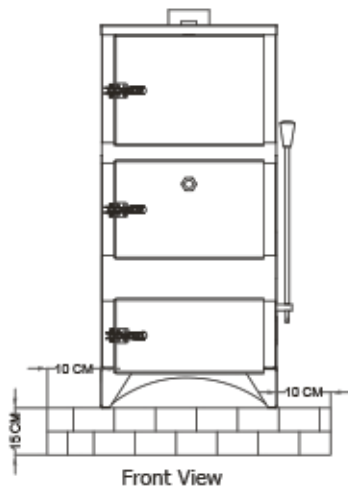


Figure - 3A

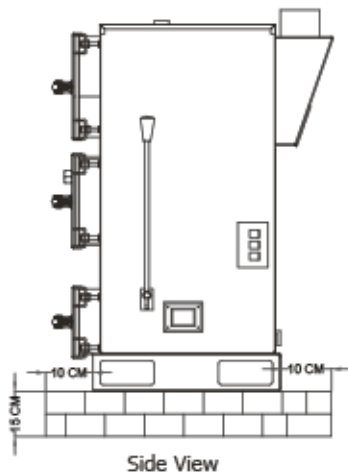
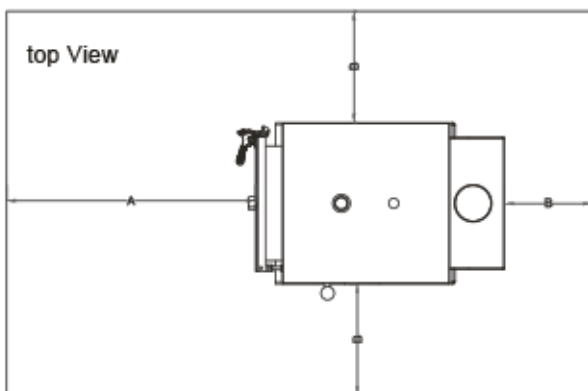


Figure-3B

Boiler Room Layout Plan
(Top View)



A = Distances up to a Boiler.
B = Distance to the width of a Boiler.

Figure - 3C

Shipped products will be delivered in shrink plastic packaging in a way to get affected from external weather conditions minimally.

Fan and control panel taken from the package without mounted will be installed by your authorized service.

While receiving your device, check;

The model you ordered with incoming delivery,
Whether there are any damages during shipment.

Determine any damaged devices or missing parts to be sent with the device and inform our authorized dealer.

MIMSAN-branded products are heavy products, so care should be taken while moving the product to install in the place. You can find information about weight of the product you purchased in boiler weight table (Page 11 - Table 1). You can lower the device with a vehicle suitable for tonnage of the product (crane and/or fork-lift trucks).

DETERMINATION OF THE PLACE OF DEVICE ASSEMBLY

From the point of safety of you and your environment, never install the device in daily life sections (kitchen, bathroom, hallway etc.), open spaces and balconies, places where explosive and easily flammable materials exist. Boiler problems that may arise during use or toxic waste, gas leakages due to return of flue gas after the blockage of the chimney may arise. For this reason, boilers should be installed in places outside residents and places with continuously ventilation.

The place where the device will be installed must have vents connected directly to external environment and that allow fresh air entrance. Vents that should always be kept open must be at least in 40 cm x 40 cm dimensions in upper and lower sections of boiler room.

The fuel storage area to be used in the device and the device must be in separate locations. In places where it is not possible to place in separate locations, it should be separated by isolating the two parts with non-combustible material.

For better ventilation of device and protection against decays caused by water accumulation, the boiler must be placed onto a platform of 15 cm height. Based on boiler dimensions, dimensions of the platform that will be made of concrete material are given in Figure-3A and Figure-3B.

A place must be selected with adequate space for carrying out device installation, combustion and necessary maintenances. In the field shown in Figure- 3C, no other devices, fuel or materials cannot be found that may prevent casual work and safety.