

# WATER DISTILLER

## MSD SERIES



## USER MANUAL

**Dear user,**

**Thank you for preferring MikroTest product. This user manual describes the construction, function, transport and operation of the Water distiller which has been designed with function, reliability, and safety in mind. This user manual contains important operating and safety information. You must carefully read and understand the contents of this user manual prior to the use of this device. Place this user manual in a safe place for future reference. Please observe the following precautions:**

- **Do not throw the packaging until you are sure that the device you bought is not damaged and functioning properly. It is your responsibility to report about the damaged device at the delivery stage; do not forget!**
  - **Do not use the damaged device,**
  - **Do not use the device with a damaged power cable,**
  - **Do not move the device while it is working.**

**If you face a problem, please contact THE COMPANY Service.**

**The warranty period for the device depends on the use and warnings described in this user manual.**

**MİKROTEST LABORATUVAR CİHAZLARI LTD. ŞTİ. reserves the right to develop and modify its products without prior notice.**



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**The warranty period for the device depends on the use and warnings described in this user manual.**

#### **WARRANTY TERMS**

1. The warranty period begins from the date of delivery of the goods and valid for one year.
2. All parts of the device are covered by the warranty.
3. In case of fault within the warranty period of the device, the time spent on repair is adding to the warranty period. The repair time of the device is not more than thirty (30) working days. The warranty period starts from the date of notification to one of the seller, dealer, agency, representative, importer or manufacturer of the good.
4. During the warranty period, in the event of a malfunction of the device due to the material, manufacture or assembly, it will be repaired free of charge.
5. Despite the consumer's use of the right to repair, the product;
  - The fact that the same malfunction is repeated more than twice within a year from the date of delivery to the consumer, or that different malfunctions occur more than four times, or that the sum of various malfunctions exceeds six during the specified warranty period, all these shortcomings do not allow the use of the device properly
  - Exceeding the maximum time required for repair
  - In the event that the service station of the company or the service station is not available, the consumer, dealer, agent, representative, importer, or manufacturer of the company, in case it is determined that the repair of the malfunction is not possible with the report to be issued, the consumer may request free replacement of the device, refund or a discount rate.
6. The warranty does not cover defects resulting from the use of the product contrary to the terms of the user manual.
7. For questions that may arise in connection with the warranty certificate, you can contact the Main Department for Consumer Protection and the Ministry of Industry and Trade.

#### **EXCLUSIONS AND LIMITATIONS ABOUT WARRANTY**

The warranty does not apply to the conditions described below:

1. Malfunctions related to the use of the device other than its normal use,
2. Failures caused by exposure to substances with physical or chemical effects,
3. Damages and malfunctions that occur in case of non-compliance with the points of the user manual,
4. Damage due to low or excessive voltage, improper installation or use of a voltage other than the voltage indicated on the device label,
5. The customer is responsible for damages that may occur during loading, unloading and transportation,
6. The device was disassembled for various reasons or its functions were changed not only by employees of the service, but also by other persons,

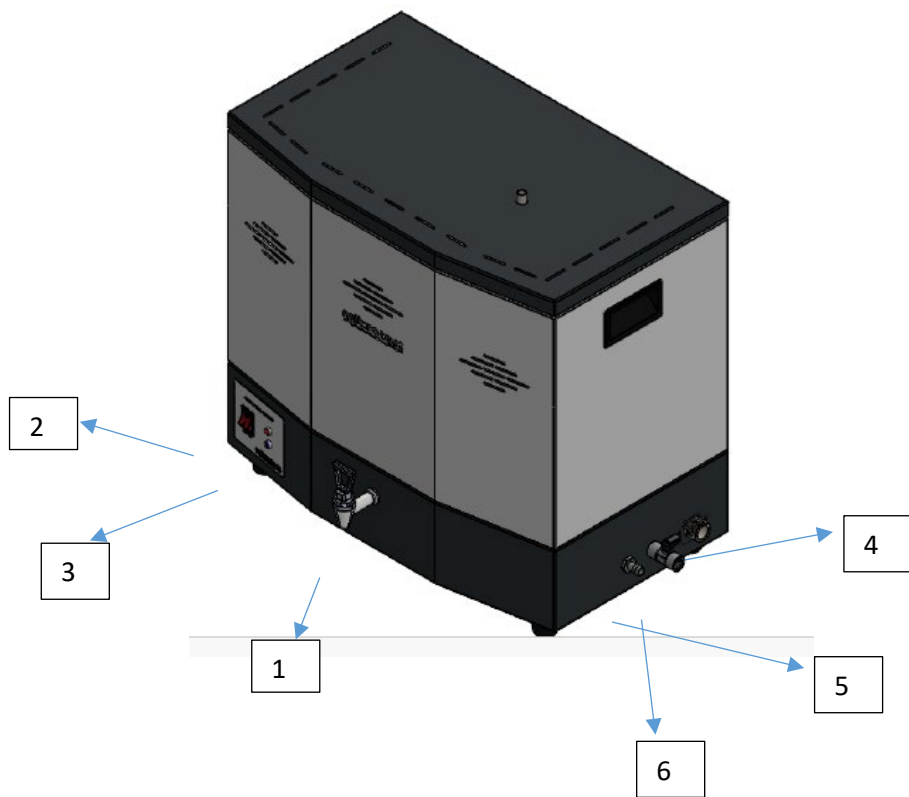
#### **INTENDED USE OF THE DEVICE:**

Water distiller is a machine which is used to purify water using distillation process, which is related to first boiling impure water after that collecting condensed water in a separate container. This distilled water is used in laboratory, organic chemistry lab, clinic, fermentation and medical industry etc. Distiller is made of stainless steel which do not absorb impurities from water and are easy to clean, with excellent corrosion resistance and rust-free.

## TECHNICAL SPECIFICATION:

		MSD-8000
CAPACITY		4 LT / HOUR + 8 LT STORAGE TANK BUILT-IN
HIGH PURITY DISTILLED WATER		pH range 5.0 – 7.0
HEATER POWER CONSUMPTION		3 KW
COOLING WATER		40 LT
EXTERNAL DIMENSION		530x400x520 MM
SURFACE	INTERNAL SURFACE	STAINLESS STEEL
	EXTERNAL SURFACE	ELECTROSTATIC POWDER COATED STAINLESS STEEL
SAFETY DEVICE		AUTOMATIC THERMOSTATIC CUT-OFF
		AUTOMATIC POWER CUT-OFF, IN CASE OF LOW WATER, TO PROTECT THE HEATING ELEMENT AUTOMATIC START WHEN THE WATER AT SUFFICIENT LEVEL IN THE EVAPORATOR TANK
POWER SUPPLY (VOLTAGE)		220 V / 50...60 Hz
ELECTRONIC LEVEL SWITCH		STOP AUTOMATICALLY IN CASE OF WATER LEVEL IN STORAGE TANK IS FULL START AUTOMATICALLY WHEN DISTILLATE WATER IS WITHDRAWN FROM STORAGE TANK
WATER SUPPLY		SOLENOID VALVE BUILT-IN CONNECTION FOR EVAPORATOR AND CONDENSER AUTOMATIC SOLENOID VALVE SWITCHING ON IN CASE OF LOW WATER LEVEL ON EVAPORATOR TANK AUTOMATIC SOLENOID VALVE SWITCHING OFF IN CASE OF HIGH WATER LEVEL ON EVAPORATOR TANK

### PARTS AND FUNCTIONS:



1. DISTILLED WATER DISPENSER (WITHDRAWAL)
2. MAIN POWER SWITCH
3. HEATING LAMP
4. TAP WATER SUPPLY INLET
5. COOLING WATER OUTLET
6. BOILER DRAIN VALVE

## **SETTING UP THE DEVICE:**

### **UNPACKING**

Remove the cardboard packaging by pulling it upwards or carefully cutting along an edge and remove the nylon packaging on it. Scope of delivery, check:

- 1 User Manual
- 1pc hose (distilled water dispenser)
- 1pc hose (cooling water outlet)
- Water valve

### **INSTALLATION SITE**

- Check the device for damage.
- Check that the location is suitable for users.
- Make sure that other devices around it do not affect the device.

### **CONDITIONS FOR EFFECTIVE USE OF DEVICE**

- Heating 5°C / 90°C
- Maximum 80% humidity up to 22°C
- Maximum altitude 2000 meters
- The temperature range at which maximum performance will be achieved is 15°C / 25°C

### **PLACEMENT OF THE DEVICE**

- Determine a working place where water and electricity needs can be supplied at the same time.
- The device is suitable for bench top use or could be mounted on a wall. For wall mounting of the device, use 2 dowels and 2 hooks.
- Hang the device on hooks attached to the wall. It is important that the suspended device is parallel to the ground. Make sure the length of the hanging nail is the same as that of the stopper, otherwise the distilled water will not come out.
- Connect one end of the transparent hose supplied with the device to tap water and the other end to the TAP WATER SUPPLY INLET (4). Be sure to connect tightly prevent water leakage.
- If the hose is longer than necessary, shorten the hose by cutting it off. Make sure the hose is not kinked.
- Connect the silicone hose supplied with the device to the distilled water dispenser (1).
- Connect the other silicone hose supplied with the device to the cooling water outlet (5).
- The other end of the hose connects to the drain line.

### **PREPARING FOR WORK**

- Check your electrical line according to the power of the device. If not enough, draw a new line.
- A qualified electrician must connect the plugs and sockets.
- Insert the power cable of the device into a grounded outlet.

### **MATTERS THAT REQUIRE ATTENTION**

- A small amount of steam leakage will not harm the environment
- There should be no blockage in the drain where the waste water hose is connected.
- No risk of overfilling the distilled water storage tank
- Make sure that the boiler drain valve is closed

## OPERATING

- Gently open the stop valves of the Tap Water supply and control water flow rate
- About 10-15 minutes after the water supply, you need to wait. Do not use the first distilled water
- Power the device with the main power switch button. See that the lamp of the button is on
- Wait for the distilled water to come out. (Approximately 10-15 min.)

## COMPLETING THE WORK

- After the operation, turn off the device with a main power switch.
- Close the tap water supply inlet (4)
- Open the boiler drain valve (6). Always drain the water from the boiler while it is hot, to avoid the formation of scale. The scale formed in the boiling chamber may reduce purity of the distilled water. Scale formed on the surface of heating element may cause damage to the heating element.
- Close the boiler drain valve when the boiler will become completely empty.

## SERVICING AND MAINTENANCE

- Be sure to empty the boiling kettle as a result of your daily work.
- Wash the boiling kettle with water at least once a month. Make sure that there is no scale on the metal surfaces. You can use a commercial de-scaling agent for cleaning.
- You can clean the dirt and dust with a damp cloth
- You can use a detergent against hard-to-remove stains
- Learn about the undesirable effects of detergent on the device before using it.

## UNEXPECTED SITUATIONS

If device not working:

- The main power switch is on
- Make sure the fuse of the device is working properly
- The plug is fully inserted into the socket
- The socket is working properly
- The fuse to which the socket is connected is in working properly
- Make sure in the main electric supply/voltage

Check it out!

If the device does not produce enough distilled water or does not produce it at all:

- Make sure tap water is enough
- Make sure that there is enough water in the boiling kettle
- Make sure the electric supply is AC 220V, 50Hz

Check it out!