



elmi Ltd.
laboratory equipment

Magnetic stirrer MS-01



User's manual



Certificate of approval

Magnetic Stirrer MS-01__N_____Has been inspected for the technical conditions and it meet all regulations necessary for such class of device.

Quality control person_____.
Name signature

Date of manufacture_____.

Place for the stamp.

Certificate of sale

Name of the company_____

Address_____

Phone_____

Vendor_____.
Name signature

Date of sale_____.

Manufacturers' address.
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DEAR USERS!

Magnetic stirrer MS-01 is very handy and reliable device. Observing the main rules of exploitation of the machine you can ensure the durable and faultless operation.

General information

Magnetic Stirrer MS-01 is designed for mixing any kind of liquid media with magnetic bars inside the various types of laboratory flasks.
Machine is perfectly suitable in microbiology, chemistry, medicine etc.

Technical specifications

Speed range, RPM	from 1 to 2200
Number of mixing places	4
Power supply adapter 	12 V, 1,5 A
Power consumption, W	up to 6
Maximal diameter of the bottom of the flask, mm	125
Maximal weight on the platform, kg	15
External dimensions, mm (length x width x height)	260 x 260 x 40
Weight with power supply.	1,5

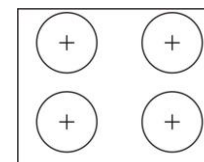
Delivery package

Item	Quantity
Magnetic stirrer MS-01	1
Power supply adapter 12 V, 1,5A	1
User's manual.....	1
Original packaging	1

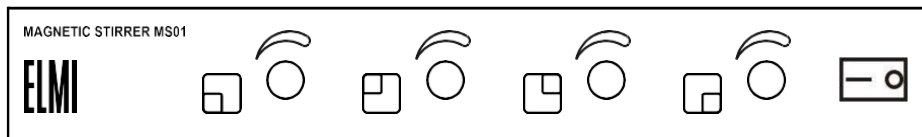
! – Notice: magnetic mixing bars are not included in the delivery package.






Main components description

Magnetic Stirrer MS-01 consists of the single block casing with the mixing positions marked on it.



On the front panel of the machine are the following controls: Power switch, power supply indicator and mixing speed regulators.



-  - Power Switch.
-  - Speed control handle for the bottom-left mixing position.
-  - Speed control handle for the top-left mixing position.
-  - Speed control handle for the top-right mixing position.
-  - Speed control handle for the bottom-right mixing position.

Getting started

- Unpack the device.
- Make sure the delivery package is complete.
- Locate the machine on the desktop.
- Make sure there is no visible damage to the device and power supply adapter.
- Plug the power supply adapter of the device to the power supply socket corresponding to the configuration of the power supply.
- Plug in the power supply output cord to the DC-IN connection on the back of the machine.

! – Notice: If the machine is damaged or the power supply is damaged, do not plug in the power supply without the inspection of the specialist.

Using the magnetic stirrer

- Before you start turn the speed regulation handles counterclockwise until the end.
- Place a flask on the platform according to the places marking and make sure the center of the flask is matching the center of marking.
- Put the magnetic mixing bars inside the flask.
- Turning the speed control handle clockwise choose the most suitable mixing intensity for the media.
- When finished using the device, turn the speed regulation handles clockwise until the end or put the power switch to off position.
- When turning the machine on with speed control handles set on certain mixing speed, electronics provide smooth automatic start.

! – Notice: Be careful while mixing low profile flasks. Do not set mixing speed too high to avoid the liquid overflow the edges of the flask.

Cleaning

- Before cleaning make sure the power supply adapter is unplugged from the outlet.
- Use only neutral unaggressive liquids for cleaning the device to avoid damage to the surface.
- Wipe the surface of the machine with a soft dry cloth.

Safety features

It is prohibited to:

- Plug the machine to a power outlet configuration different from the power adapters' plug configuration.
- Plug the power adapter in to the outlet if the adapter is damaged.
- Work with aggressive media when the flask is not closed tight.

Transportation and storage

To ensure safety during the transportation, transported equipment should be packed in the original manufacturers' packaging or similar packaging substitute.

Equipment can be transported by any kind of closed transport so that equipment is tightly fixed and transportation runs accordingly to regulations applied to this way transport.

Equipment should be stored in original manufacturers packaging in dry room with humidity not more than 80% and temperature range from +10 °C up to +45 °C.

It is not recommended to store the equipment more than 36 month.

Warranty statements

- Warranty applies to 24-month period from the date of purchasing.
- Those malfunctions arisen through the fault of producer in the course of this period, are removed free of charge.
- Guaranty is not valid in the following cases:
 - If the serial number on label of the manufacturer is damaged.
 - If damages appear as a result of the incorrect operation, transportation or storage.
- These documents are necessary for applying for warranty repair:
 - User manual with serial number of the machine.
 - Officially signed report, describing the reasons and conditions of equipment malfunction.
- **Warranty repair could be performed only if the equipment is delivered in the original manufacturers packaging or equally safe packaging.** Therefore, please keep the transportation packaging after unpacking the device.
- If the above warranty requirements are disturbed, repair charges are applied to the consumer.

For all further questions concerning exploitation and maintenance please contact manufacturer or product vendor.