

Operating Instructions

Roller Mixer

RM 5 / RM 10



Content

1	Scope of Delivery	3
2	User Instructions.....	3
2.1	Important Instructions for your safety	3
2.2	Danger symbols in this operating manual	4
2.2.1	Danger symbols:.....	4
2.2.2	Danger levels.....	4
3	General safety warnings and instructions	4
3.1	Warning signs on the device.....	5
4	General Information.....	6
5	Intended Use	6
6	Unpacking.....	6
7	Set-up	7
7.1	Electrical Connection	7
7.2	Operation (Mixing)	7
7.3	Removing and inserting of individual rolls	8
8	Cleaning and Maintenance.....	9
9	Dismantling, Transport and Storage.....	9
9.1	Dismantling	9
9.2	Transport and Storage.....	9
10	Warranty and Liability	9
11	Technical Data	10
12	Repairs.....	10
12.1	Repair Return Form	11

1 Scope of Delivery

Inspect the content of the package for damage or missing parts:

1 Roller Mixer RM 10	10 – 70 RPM	PN: 60207-0030 or
1 Roller Mixer RM 10	4 – 30 RPM	PN: 60207-0100 or
1 Roller Mixer RM 5	10 – 70 RPM	PN: 60207-0070 or
1 Roller Mixer RM 5	4 – 30 RPM	PN: 60207-0110
1 Instruction Manual		
1 Power Supply		
consisting of:		
Switching Power Supply 24V DC		PN: 40207-0011
Set of input plugs		PN: 30213-0057

Accessories (optional):

Central rotating rollers	PN: 40207-0020
--------------------------	----------------

2 User Instructions

2.1 Important Instructions for your safety









- Every user must read and understand this manual completely before use. Failure to do so can result in serious injury or death.
- Follow general instructions for hazard prevention and general safety instructions, e.g. wear protection clothing, eye protection and gloves.
- This operating manual is part of the product. Thus, it must always be easily accessible.
- Enclose this operating manual when transferring the device to another place.
- If this manual is lost, please request another one. Please contact your dealer or

Goldleaf Scientific
3300 Harrison st suite 2
Riverside, CA 92503
Tel.: 888-999-7875
www.goldleaflabs.com
support@goldleaflabs.com

2.2 Danger symbols in this operating manual

The safety instructions in this manual appear with the following danger symbols and danger levels:



2.2.1 Danger symbols:








	Hazard point		Bio hazard
	Risk of fire		Explosion
	Crushing		Material damage

2.2.2 Danger levels

DANGER	Will lead to severe injuries or death
WARNING	May lead to severe injuries or death
CAUTION	May lead to light to moderate injuries
NOTICE	May lead to material damage

3 General safety warnings and instructions

	<p>DANGER! Risk of explosion.</p> <ul style="list-style-type: none"> • Do not operate the device in the vicinity of highly flammable or explosive substances. The instrument is not explosion-proof. • Do not use this device for processing any substances which could generate an explosive atmosphere. • Do not use this device to process any explosive or highly reactive substances.
	<p>WARNING! Damages to health due to infectious liquids and pathogenic germs.</p> <ul style="list-style-type: none"> • When handling infectious liquids and pathogenic germs, observe the national regulations, the biological security level of your laboratory, the material safety data sheets and the manufacturer's application notes. • Wear personal protective equipment • For comprehensive regulations about handling germs or biological material of the risk group II or higher, please refer to the "Laboratory Biosafety Manual" in its respectively current valid version from the World Health Organisation

	<p>WARNING! Risk of fire</p> <ul style="list-style-type: none"> • Do not use this device to process any highly flammable liquids
	<p>WARNING! Damage to health due to contaminated device and accessories</p> <p>In the following cases, sample material can be released:</p> <ul style="list-style-type: none"> - improperly sealed tubes - unstable tubes - high vapor pressure of the content so that the seal of the tubes can spring open - damaged sealing - smashed glass tubes <ul style="list-style-type: none"> • Only mix in closed tubes • Observe the nationally prescribed safety environment when working with hazardous, toxic and pathogenic samples. Pay particular attention to personal protective equipment (gloves, clothing, goggles, etc.), extraction, and the safety class of the lab. • Decontaminate the device and the accessories before storage and shipping.
	<p>CAUTION! Poor safety due to incorrect accessories and spare parts.</p> <p>The use of accessories and spare parts other than recommended by Goldleaf Scientific may impair the safety, function and precision of the device. Goldleaf Scientific cannot be held liable or accept any liability for damage resulting from the use of incorrect or non-recommended accessories and spare parts, or from the improper use of such equipment.</p> <ul style="list-style-type: none"> • Only use accessories and spare parts recommended by Goldleaf Scientific
	<p>CAUTION! Crush hazard due to moving parts</p> <ul style="list-style-type: none"> • Do not replace any consumables as long as the device is running. • Do not open the coverage as long as the device is running • Only switch-on the device with properly mounted rolls and completely closed coverage • Do not place hands or objects into the area under the rollers while the machine is running.
	<p>NOTICE! Damage to electronic components due to condensation</p> <p>Condensate can form in the device after it has been moved from a cool environment to a warmer environment.</p> <ul style="list-style-type: none"> • After installing the device, wait at last for 3 hours. Only then connect the device to the mains.
	<p>NOTICE! Damage to electronic components due to incorrect supply voltage</p> <p>Incorrect supply voltage may destroy electrical components.</p> <p>Only use a power supply with a 24 V DC, min. 600 mA output</p>
	<p>NOTICE! Damage from the use of aggressive chemicals.</p> <ul style="list-style-type: none"> • Do not use any aggressive chemicals on the device or its accessories such as strong or weak bases, acids, acetone formaldehyde, halogenated hydrocarbons or phenol. • If the device has been contaminated by aggressive chemicals, immediately clean it by means of a mild cleaning agent.

3.1 Warning signs on the device



WARNING!

This symbol indicates to read the instruction manual carefully prior to operation of the instrument. Please mark points which require special attention in your field of application so they are not overlooked. Disregarding of warnings may result in impairment of serviceability as well as impairment of the user.

4 General Information

The roller mixer RM 5 / RM 10 is designed in accordance with Safety Class III (EN 6114), and built and tested in accordance with DIN EN 61010.

According to these regulations, the units are designed to meet the requirements for safe and correct operations. To maintain the proper safety and operational functions of the instrument, the user should follow the instructions and safety guidelines in this manual.

5 Intended Use

The roller mixers are mainly used to mix hydrous solutions not containing inflammable parts in glass or plastic vessels. They are designed for use in chemical and biological laboratories of industrial enterprises, universities and pharmacies.

To ensure maximum service life, observe the specified ambient conditions (temperature and humidity) and ensure that the instrument is not exposed to a corrosive atmosphere.

6 Unpacking

Unpack the instrument carefully and check to see that it is not damaged. It is important that any damage incurred in transport be recognized at the time of unpacking. Notify your carrier or forwarding agent immediately in case of such damage.

▲WARNING

- Read this instruction manual carefully before operating the instrument. Should there be any additional questions, after reading these instructions, concerning the set-up, operation or warranty, please contact either your distributor, or the manufacturer.
- After reading and understanding the instruction manual you may now start operating the unit.
- Store the instruction manual in a place easily accessible to every user.

7 Set-up


▲ DANGER



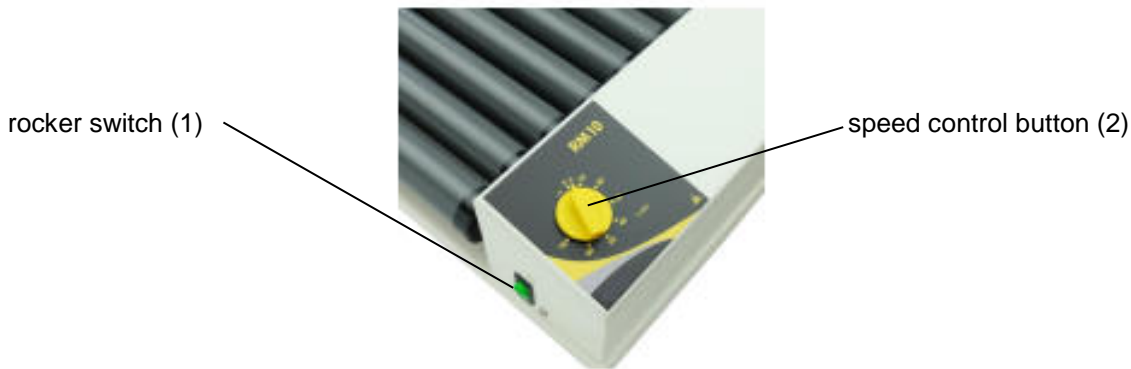
- The units are not to be used in rooms with danger of explosion.
- The unit is not to be used without supervision.

Please put the unit on to a fire-proof respectively non-combustible even surface.

7.1 Electrical Connection

The roller mixers RM 5 / RM 10 are powered by a 24 Volt DC power supply with an angled hollow plug 5.5/2.1 mm 

The input socket is located on the bottom of the housing, the On/Off switch (1) on the side of the housing. The speed is set with the speed control button (2).

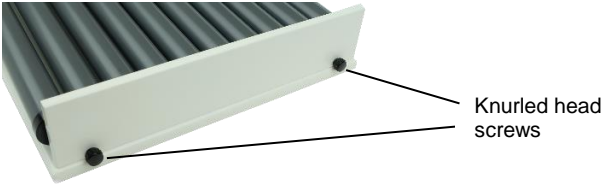


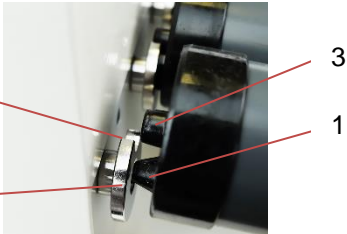




7.2 Operation (Mixing)

Ten synchronised rotating PVC rollers form a homogeneous reel roller bearing for the use of **closed** test tubes. The tubes are both, simultaneously rotated along their longitudinal axis and rocked back and forth on their bearings.

- Place the samples to be mixed between the rollers
- Start mixing function with rocker switch (1)
- Set the mixing speed at the control button (2).

7.3 Removing and inserting of individual rolls

	<p>a. Switch off unit</p> <p>b. Turn the rollers in direction of the rotation until the driving pins (see item g. (3)) are in the upper position. This is helpful to prevent the rollers from slipping out of the cone (points e - g). Eventually raise / lower the device on side of bearing cover.</p> <p>c. <u>RM 10</u>: Loosen the 2 knurled head screws by 4 rotations to the left. <u>RM 5</u>: Loosen the knurled head screw by 4 rotations to the left.</p> <p>d. Do not remove it completely.</p>
	<p>e. The coverage opens</p>
	<p>f. The exchange of the rolls may be carried out optionally. Lift the rolls carefully out of the bearing bar. The roll now can be removed axially. Thereafter close the coverage again.</p>
	<p>g. When replacing the rolls please follow steps a-c.</p> <p>h. Then push the conical part of the roll (1) into the borehole of the drive disk (2). Then rotate the roll axial, till the drive pin (3) clicks into the slot of the drive disk (4).</p>
	<p>g. Take care that the rolls are completely inserted into the drive disk.</p>
	<p>h. Close the coverage with the knurled head screw. Take care that the coverage is completely closed.</p>

8 Cleaning and Maintenance

The housing and the 5 or 10 PVC-rollers are acid-resistance covered for long lasting use and easy cleaning with warm water and dish washing liquid. Do not use steel wool or a similar scratching sponge to clean the units.

The device is maintenance-free.

NOTICE!

- Should repairs become necessary, only trained and authorized service personnel may open and repair the instrument.
- Unplug the power supply before opening the housing.

9 Dismantling, Transport and Storage

9.1 Dismantling

1. Switch off the unit by using switching the rocker switch (1) to the „OFF“-Position.
2. Disconnect the unit from the power supply.
3. Now you may remove the instrument from the working area.

9.2 Transport and Storage

Prior to transport:

- Decontaminate the device and the accessories before storage and shipping.
- Switch the instrument off and unplug the power supply.
- Place the instrument and its parts in its original packaging or another suitable container to protect it during transport. Close the packaging with adhesive tape.
- Store the instrument in a dry environment. Please observe the specified conditions of the ambient (temperature and humidity).
- Do not subject the instrument to mechanical shocks or vibration during transporting it.

In case you do not use the original packaging please mark the box with the following notes:

- Glass symbol (handle with care, fragile)
- Umbrella (keep dry)
- Content (list of content)



Please dispose of used instruments and defective components at your local recycling collection point. Prior to disposal, please sort according to materials: metal, glass, plastic, etc. Also be sure to dispose of the packing material in an environmental-friendly manner.

10 Warranty and Liability

The manufacturer agrees to correct for the original user of this product, either by repair, or at the manufacturer's election, by replacement, any defects in material or workmanship which develop within 24 months after delivery of this product to the original user. In the event of replacement, the replacement unit will be warranted for the remainder of the original twenty-four (24) month period of ninety (90) days, whichever is longer.

If this product should require service, contact your distributor or manufacturer for necessary instructions.

This warranty shall not apply if the defect or malfunction was caused by accident, neglect, unreasonable use, improper service, or other causes not arising out of defects in material or workmanship.

There are no warranties, expressed or implied, including, but not limited to, those of merchantability or fitness for a particular purpose, which extended beyond the description and period set forth herein.

The manufacturer's sole obligation under this warranty is limited to the repair or replacement of a defective product and the manufacturer shall not, in any event, be liable for any incidental or consequential damages of any kind resulting from use or possession of the product.

11 Technical Data

Model	Part. No.	Power	Speed (RPM)	usable Roll Length (mm)	Roll Dia. (mm)	Distance from roll to roll (mm)	Overall Dimension (WxDxH) (mm)	Weight (Kg)	Max. Payload (kg)
RM 10	60207-0030	15 W	10-70	330	32	36	360x480x113	6,5	5
RM 10	60207-0100	15 W	4-30	330	32	36	360x480x113	6,5	5
RM 5	60207-0070	15 W	10-70	330	32	36	180x480x113	3,7	5
RM 5	60207-0110	15 W	4-30	330	32	36	180x480x113	3,7	5

Power Supply: 24 V DC, min. 600 mA

Condition of Surrounding:

Permissible ambient temperature : +5 °C to + 40 °C
Permissible ambient temperature : max 80% relative humidity

12 Repairs

▲WARNING

When returning instruments for repair, which had contact with hazardous substances:

- Decontaminate the device and the accessories before shipping.
- Provide precise information on the relevant medium
- Take protective measures to ensure the safety of our receiving and maintenance personnel
- Mark the package as appropriate for hazardous materials.

12.1 Repair Return Form

CONTACT/USER INFORMATION	
Contact:	Phone No.
Fax No.	Email:
Billing:	Shipping:
Company	Company
Address	Address

INSTRUMENT INFORMATION	
Model	Serial No.
Please describe all problems/malfunctions	

Operating Conditions (please fill in if applicable)		
Ambient Temp.	Humidity	Speed
Load	Volume	Viscosity
Temperature in °C	Sample Temperature	Operating Time
Sample Description*		

*NOTE: If the instrument was exposed to hazardous material, it must be decontaminated BEFORE returning it to Goldleaf Scientific and an MSDS for hazardous material must be included with the instrument.

RETURN SHIPPING

UPS <input type="checkbox"/>	Air Parcel Post <input type="checkbox"/>	Collect** <input type="checkbox"/>	Other** <input type="checkbox"/>
------------------------------	--	------------------------------------	----------------------------------

**Your account number is required for UPS collect respectively the address and contact of your preferred forwarder if you choose any other transport means.

PACKAGING INSTRUCTIONS TO RETURN AN INSTRUMENT FOR REPAIR

- ✓ Remove all accessories from the instrument
- ✓ Clean excess testing material off the instrument/accessory
- ✓ Include MSDS sheets for all hazardous materials used with this instrument
- ✓ Pack the instrument in its original box. If the box is not available, take care to wrap the instrument and accessories with enough material to support them.
- ✓ DO NOT send pedestal stand unless there is a problem with the upright rod, clamp or base. If there is a problem with the stand remove the upright rod from the base and individually wrap each item to avoid contact with the instrument. (Applicable for overhead stirrers and homogenisers.)
- ✓ Pack the instrument and related items in a strong box for shipping. Mark the outside of the box with handling instructions.

Example: "Handle with care" or "Fragile- Delicate Instrument" and send to:

Goldleaf Scientific
Service Department
3300 Harrison st suite 2
Riverside, CA 92503