

Instruction manual

VWR® Rotating Mixer XL with 3 tube rotisseries

EU cat. no 444-1343



CE

UK
CA

Legal address of Manufacturer

Europe

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Country of Origin

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Warning

The VWR® Rotating Mixer is for research use only. Not intended for medical, diagnostic, or therapeutic use, human or otherwise.

Safety Information

Avoiding Electrical Shock

Please follow the guidelines below and read this manual in its entirety to ensure safe operation of the unit.



To avoid electrical shock:

Always plug the instrument into a properly grounded AC outlet.

Ensure that your hands, work area, and instruments are clean and dry before plugging the instrument into an outlet.

Ensure that local voltage is within the voltage range of the instrument.



Avoiding Damage to the Instrument

Ensure there are no obstructions to the motion of the instrument prior to use.

Always place the instrument on a flat, level surface.

Ensure that any instrument operators are familiar with this manual prior to use

Package Contents

Description	Quantity
Rotating Mixer	1
1.5/2 ml tube rotisserie	1
15 ml tube rotisserie	1
50 ml tube rotisserie	1
UK plugged lead	1
EU plugged lead	1
Swiss plugged lead	1

Unpacking

Ensure all components are present prior to continuing. If any are missing, contact your VWR® representative.

Intended use

The VWR® Rotating Mixer is intended for thorough, complete mixing of various common tube types found in a laboratory setting. The Rotating Mixer features a variety of mixing modes, including alternating directions with an integrated pause for more vigorous mixing. Intended users include clinicians needing to mix blood tubes, scientists who require thorough mixing without significant agitation, and researchers preparing homogenous dispersions.

For research use only. Not intended for any animal or human therapeutic or diagnostic use.

Symbols and conventions

The following chart is an illustrated glossary of the symbols that are used in this manual.

	CAUTION This symbol indicates a potential risk and alerts you to proceed with caution
--	--

Product specifications

VWR® Rotating Mixer (444-1343)

Speed Range	1 to 40 RPM, Variable
Operating Temperature	4°C to 65°C ambient temperature
Tilt Angle Range	0° to 90° (vertical to horizontal)
Maximum Capacity	
1.5/2 ml tubes	48
15 ml tubes	20
50 ml tubes	12
Acceptable Tube Diameter Range	
1.5/2 ml tube rotisserie	10-14 mm
15 ml tube rotisserie	15-20 mm
50 ml tube rotisserie	25-35 mm
Timer	1 second to 99 hours 59 minutes, or continuous setting
Dimensions	21 x 27 x 32 cm
Weight	3.2 kg
Electrical	230V, 50-60 Hz
Warranty	2 Years

Overview

The VWR® Rotating Mixer mixes common laboratory samples gently, yet vigorously. The Rotating Mixer is provided with three rotisserie tube holders, which are each designed to accommodate the most common sample vessels found in a laboratory. These rotisseries are designed to accommodate 1.5/2.0 ml microcentrifuge tubes, 15 ml conical tubes, and 50 ml conical tubes respectively. Each individual tube holder is constructed of rubber coated steel which provides a secure grip, while remaining adjustable to accommodate other vessels of similar size.

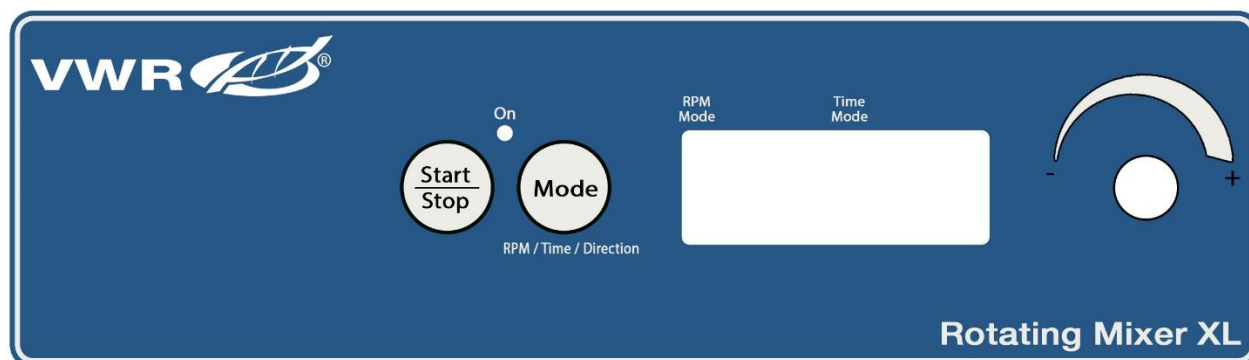
Speed and tilt angle are adjustable to accommodate a variety of applications, including mixing blood samples and the preparation of homogenous dispersions. The set speed is displayed digitally, and when coupled with the VWR® Rotating Mixer's digitally controlled integrated timer, provides accurate and repeatable mixing to ensure consistency when performing similar protocols frequently.

The VWR® Rotating Mixer features a reversing mode for samples which require more intense mixing. In this mode, the VWR® Rotating Mixer rotates 360° before stopping and rotating in the reverse direction. This motion continues until the set time has expired, or until the user stops the unit when set to continuous operation mode.

Description of buttons and switches

Main View

VWR® Rotating Mixer



Operational controls

Key	Functions
	START STOP Key: Used to start instrument run, or to stop instrument run during use.
	MODE Key: Used to change between RPM set, Time set, and Direction set modes.
	Control knob: Rotate clockwise to increase speed, timer, or cycle between direction modes. Rotate counterclockwise to decrease speed, timer, or cycle between direction modes.

Getting Started

Installing the VWR® Rotating Mixer

Place the roller on a clean, flat, stable surface. Prior to connecting the unit to power, ensure the power cord plug located on the rear of the unit is dry and free of obstructions. Plug the rotating mixer into a properly grounded outlet at the correct voltage. Always ensure that there are no obstructions blocking the rotating motion of the platform.

To install the desired tube rotisserie, unscrew the black five-pointed thumb screw from the rotisserie holder. Remove the existing rotisserie if present. When installing a new rotisserie, ensure that the two prongs on either side of the threaded center prong line up with the two small holes on the rotisserie holder. Once the rotisserie is securely on the rotisserie holder, thread the thumb screw onto the threaded center prong until hand tight.

Operation

Load the rotisserie platform with tubes as desired. To set rotating speed, press the “MODE” key until the small LED indicator under “RPM Mode” is illuminated. Adjust speed from 1 to 40 rpm using the control knob.

To set time, press the “MODE” key until the small LED indicator under “Time Mode” is illuminated. Adjust the time from 1 second up to 9 hours using the control knob. The timer can also be set to run continuously by setting the time to “-- --”.

To set the rotating direction, press the “MODE” key until the LED under “Time Mode” or “RPM Mode” disappears. No small LED should be visible. Using the control knob, set the display to “C” for clockwise or “A” for anti-clockwise. For Alternating Direction Mixing, set the direction to a value of 120°, 180°, 240°, 300°, or 360°. The rotator will rotate the set degree value, stop, and rotate in the reverse direction, and repeat.

To begin operation, press the “Start/Stop” button. The rotator will continue until set time elapses, and the rotator will alarm. The rotator can be stopped at any time by pressing the “Start/Stop” button again.

Troubleshooting

Review the information in the table below to troubleshoot operating problems.

Problem	Cause	Solution
Unit not powering on	Faulty outlet	Check outlet with other electronics known to work
	Damaged or blown fuse	Replace fuse in fuse box located near power cord plug (1 spare included)
	Faulty power supply adapter	Return to manufacturer for service
Rotisserie falls off	Set screw loose	Tighten set screw on back of rotisserie holder
Rotating motion stops or is weak	Obstruction present	Clear obstruction
Issues with rotating motion	Faulty motor	Contact manufacturer for troubleshooting and service

Repair and maintenance of VWR® Rotating Mixer

Routine maintenance of this unit only involves keeping the unit clean. No other routine maintenance or repair is required. Cleaning can be done with a damp cloth. Avoid the use of solvents to avoid the risk of damage to the housing or rollers.

User replaceable accessories and spare parts

Description	Quantity	Cat. No.
Rotisserie for Rotating Mixer, 20 x 15 ml	1	444-1353
Rotisserie for Rotating Mixer, 48 x 1.5/2 ml	1	444-1354
Rotisserie for Rotating Mixer, 12 x 50 ml	1	444-1355
Rotisserie Clip for 15 ml tube	1	444-1356
Rotisserie Clip for 1.5/2 ml tube	1	444-1357
Rotisserie Clip for 50 ml tube	1	444-1358

Technical service

Web Resources

Visit the VWR website at www.vwr.com for:

- Complete technical service contact information
- Access to the VWR Online Catalogue, and information about accessories and related products
- Additional product information and special offers

Contact us For information or technical assistance contact your local VWR representative or visit. www.vwr.com.

Warranty

VWR warrants that this product will be free from defects in material and workmanship for a period of two (2) years from date of delivery. If a defect is present, VWR will, at its option and cost, repair, replace, or refund the purchase price of this product to the customer, provided it is returned during the warranty period. This warranty does not apply if the product has been damaged by accident, abuse, misuse, or misapplication, or from ordinary wear and tear. If the required maintenance and inspection services are not performed according to the manuals and any local regulations, such warranty turns invalid, except to the extent, the defect of the product is not due to such non-performance.

Items being returned must be insured by the customer against possible damage or loss. This warranty shall be limited to the aforementioned remedies. IT IS EXPRESSLY AGREED THAT THIS WARRANTY WILL BE IN LIEU OF ALL WARRANTIES OF FITNESS AND IN LIEU OF THE WARRANTY OF MERCHANTABILITY.

Compliance with local laws and regulations

The customer is responsible for applying for and obtaining the necessary regulatory approvals or other authorisations necessary to run or use the Product in its local environment. VWR will not be held liable for any related omission or for not obtaining the required approval or authorisation, unless any refusal is due to a defect of the product.

Equipment disposal



This equipment is marked with the crossed out wheeled bin symbol to indicate that this equipment must not be disposed of with unsorted waste.

Instead it's your responsibility to correctly dispose of your equipment at lifecycle -end by handling it over to an authorized facility for separate collection and recycling. It's also your responsibility to decontaminate the equipment in case of biological, chemical and/or radiological contamination, so as to protect from health hazards the persons involved in the disposal and recycling of the equipment.

For more information about where you can drop off your waste of equipment, please contact your local dealer from whom you originally purchased this equipment.

By doing so, you will help to conserve natural and environmental resources and you will ensure that your equipment is recycled in a manner that protects human health.

Thank you

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