

# Single-head Vortex Mixer **USER MANUAL**

**Product Code: VMI-001** 



Klipspringer's Single-head Vortex Mixer is a compact, high-performance solution for rapid and efficient mixing of test tube samples.

### 1. Warranty

This instrument is warranted under normal use for a period of 24 months from the date of purchase.

The warranty is valid only if the product is in its original condition. It does not apply to any product or parts of it that have been damaged due to incorrect installation, improper connections, improper use, accident or abnormal conditions of operation.

The manufacturer declines all responsibility for damage caused by failure to follow instructions, lack of maintenance and any unauthorised modification.

### 2. Safety Instructions

Icon	Meaning	
$\triangle$	<ul> <li>Read the instructions carefully before use.</li> <li>Ensure that only qualified personnel use this tool.</li> <li>Do not heat flammable or highly volatile substances.</li> </ul>	
	Before use, make sure the instrument is connected to an outlet with a ground connection.	

- At work, employees shall prevent the risk of:
  - Spillage of liquids.
  - Mechanical vibrations that may cause breakage of glass containers.
- Place the instrument in a suitable area, on a stable, clean, non-slip, dry and fireproof surface.
- Do not use the tool in explosive atmospheres, containing hazardous substances or under running water.
- Gradually increase the stirring speed and reduce immediately if:
  - The sample comes out of the tube because the speed is set too high.
  - The tool does not behave properly or moves on the ground.
- The instrument is only guaranteed when used with appropriate accessories.
- The accessories must be firmly attached to the instrument.
- Check the condition of the instrument and accessories before every use. Do not use if damaged.
- Connect the equipment into an outlet having the characteristics of voltage and frequency indicated and ground safety.
- Protect the unit from dropping or knocks.
- Do not attempt to open the instrument. It can only be opened by qualified personnel.

### 3. Proper Use

The instrument has been designed to mix liquid in school labs, chemical, pharmaceutical, industrial etc. This device is not suitable for use in domestic environments.

### 4. Inspection

Open the instrument and check that the instrument and accessories are all perfectly intact and show no signs of tampering or damage.

**NOTE:** If there are signs of damage, do not connect and/or use the tool. Contact your supplier.

#### List of items

Item	Quantity
Instrument	1
Power cable	1
User manual	1

#### 5. Commands



Head shaking

Power on LED

**Adjustment knob** 

#### Power ON/OFF

1 - Mode "touch"

0 - Switch

#### OFF

2 - Mode "continuous"

#### **5.1 Operating Mode "Continuous"**

- Ensure that the knob for adjusting the speed of agitation is positioned to a minimum.
- Place the instrument on a stable surface and connect it to the mains.
- Set the main switch to the ON position to the left. The Power LED lights up and the unit begins to operate in "continuous" mode.
- Turn the control knob until the desired speed is set.
- To switch off, switch the master switch in the middle position (OFF). The LED turns off and the power is off.

#### 5.2 Operating Mode "Touch"

- Make sure that the knob for adjusting the speed of agitation is positioned to a minimum.
- Place the instrument on a stable surface and connect it to the mains.
- Set the main switch to the TOUCH position to the right.
- Turn the control knob until the desired speed is set.
- If a tube is pushed vertically on the head rotation, it starts to work and the power LED lights up.
- To switch off, switch the master switch in the middle position (OFF). The LED turns off and the power is off.





# 6. Cleaning and Maintenance

- Proper maintenance of the instrument guarantees its longevity.
- Disconnect the power supply cable during maintenance.
- Do not spray cleaner inside the instrument.
- Use only mild detergent and non-abrasive cleaners.
- Ensure cleaning/decontamination methods do not damage the instrument.
- Wear suitable protection when cleaning with chemicals.
- If the instrument must be returned for service, ensure proper cleaning and possible decontamination. Return in original packaging.

### 7. Reference Standards

Construction in accordance with the following safety standards:

EN 61010-1, UL 3101-1, CAN/CSA C22.2(1010-1), EN 61010-2-10

Construction in accordance with the following EMC standards:

EN 61326-1

Associated EU guidelines:

EMC-guidelines: 89/336/EWG Machine guidelines: 73/023/EWG





### 8. Technical features

Feature	Description
Voltage frequency	220V – 50/60Hz
Power	60 W
Motor	Eccentric
Stirring speed	0 2.500 rpm
Speed indication	Analogic at scale
Operating mode	"Continuous" or "touch"
Dimensions (L x D x H)	127 × 130 × 160 mm
Weight	3.5 kg
Use temperature	5 - 40 °C
Use relative humidity	Max 80%
IP class	IP21

# 9. Disposal of electronic equipment



Electrical and electronic equipment marked with the symbol shown may not be disposed in

In accordance with EU Directive 2002/96/EC, European users of electrical and electronic equipment have the opportunity to return used equipment to the distributor or manufacturer upon purchase of a new one.

Illegal disposal is punishable by an administrative fine.