



PIPseq Vortex Mixer

Operating Instructions

Document # 200064269 v00

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For Research Use Only. Not for use in diagnostic procedures.

PIPseq Vortex Mixer

Safety Instructions

For your protection, read the operating instructions in full before using the PIPseq™ Vortexer Mixer, and follow the following safety instructions:

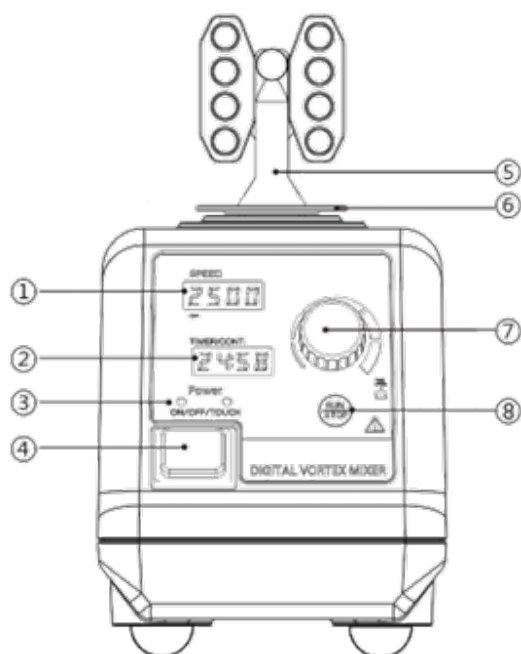
- Keep the operating instructions in an accessible place.
- Make sure that only trained staff work with the PIPseq Vortex Mixer unit.
- Follow the safety instructions and guidelines, along with relevant occupational health, safety, and accident prevention regulations.
- Wear your personal protective equipment in accordance with the hazard category of the media to be processed.
- Make sure that the gap cover is always installed before operating the vortexer. Otherwise, there is a risk from:
 - Splashing liquids
 - Projectile parts
 - Body parts, hair, clothing, and jewelry getting caught
- When operated manually:
 - Keep the sample container as vertical as possible.
 - Only exert the minimum pressure necessary for the mixing process.
 - Use attachments for multiple samples when there is a large number of samples.
- Set up the PIPseq Vortex Mixer unit in a spacious area on an even, stable, clean, non-slip, dry, and fireproof surface.
- The feet of the PIPseq Vortex Mixer unit must be clean and undamaged.
- If shaking or movement of the PIPseq Vortex Mixer unit occurs (ie, resonates), change the speed either faster or slower to avoid the shaking.
- Reduce the speed if:
 - The medium splashes out of the vessel because the speed is too high.
 - The PIPseq Vortex Mixer unit is not running smoothly.
- Firmly secure the accessories and vessels in place. Otherwise, the vessels being vortexed can be damaged or break loose.
- Before each use, check the PIPseq Vortex Mixer unit and accessories for damage. Do not use damaged components.

- Position one single shaking vessel in the center. If several shaking vessels are present, spread them out evenly.
- Beware of hazards due to:
 - Flammable materials
 - Glass breakage as a result of mechanical shaking power
- Only process material that does not react dangerously to the extra energy produced through vortexing. This safety instruction also applies to any extra energy produced in other ways, for example through light irradiation.
- Do not operate the PIPseq Vortex Mixer unit in explosive atmospheres, with hazardous substances, or underwater.
- Safe operation is only guaranteed with Fluent BioSciences accessories.
- Always disconnect the plug before fitting accessories.
- The PIPseq Vortex Mixer unit might heat up when in use.

Note for the protection of the equipment:

- Only use the 12 VDC power supply provided with the unit.
- Protect the PIPseq Vortex Mixer unit and accessories from bumps and impacts.
- Only Fluent BioSciences service staff can open and repair the PIPseq Vortex Mixer.

Operator Control



Item	Description	Function
1	Speed display	Displays the set speed in RPM.
2	Time display	Displays the countdown timer when set to timed running. The vortexer stops running when the timer reaches 00:00. Displays CONT when set to continuous mode (vortexer runs indefinitely).
3	Mode indicator light	When the ON/OFF light is on, the system is ready to be run by pressing Run. When the TOUCH light is on, the system is ready to be run when pressure is placed on the adapter
4	Mode switch	In the left setting, the vortexer is fully on. In this mode, the vortexer runs when Run is pressed. In the center setting, the vortexer is off. In the right setting, the vortexer is set to Touch mode. In this mode, the vortexer runs when the adapter is pressed down.
5	Adapter	Different adapters are used for various applications. Refer to instructions included with each adapter for how to remove or install.
6	Gap cover	Covers a gap in the vortexer to prevent fingers from being pinched during operation.

Item	Description	Function
7	Time/Speed knob	This knob is used to adjust the speed or the timer. Press the knob to change the speed. This causes the speed display to flash. The speed can be adjusted between 400–3000 RPM by rotating the knob. Press again to change the timer mode. When the time display is flashing, press the knob to change between continuous mode and timed mode. When in timer mode, rotate the knob to change the timer. The timer can be adjusted from 0 to 99 minutes and 59 seconds.
8	Run/Stop button	Starts and stops the vortexer unit. If the timer is set, the vortexer runs for that fixed time. If CONT is displayed, the vortexer runs indefinitely.

Unpacking

- Unpack the device carefully
- If damaged, notify Fluent BioSciences or its distributor
- Items included:
 - Vortex Mixer
 - Adapter
 - Gap cover
 - 12 VDC plug-in power supply (and barrel adapter if provided with power supply)
 - Operating instructions

Intended Use

- For mixing liquids and as indicated by the supplier.
- This device is suitable for industrial or laboratory use only. It is not intended for use in residential areas.

The safety of the user cannot be guaranteed if the PIPseq Vortex Mixer unit is operated with accessories that are not supplied or recommended by Fluent BioSciences or if the PIPseq Vortex Mixer unit is operated improperly contrary to the manufacturer's specifications.

Installation

- Install any adapters provided by Fluent BioSciences according to instructions in the applicable product documentation. Make sure the gap cover is in place when installing the adapter.
- Choose the working mode using the mode switch.
- Set the speed and time using the knob. In Touch mode, setting the time is not required.
 - Run the mixer using Run/Stop in the continuous mode.

- Turn off the mixer by setting the mode switch to the middle setting.

Maintenance

The PIPseq Vortex Mixer unit is maintenance-free.


Cleaning

- Only use water, water containing surfactant, or isopropyl alcohol. Do not use harsh chemicals for cleaning the vortex mixer. Do not allow moisture to get into the PIPseq Vortex Mixer unit when cleaning.
- Wear protective gloves during cleaning the devices.
- Before using a different cleaning method than the recommended method for cleaning or decontamination, confirm with the manufacturer that this method does not damage the instrument.
- The rubber pad of the attachment is a natural product, so talcum can discharge it. Hence, clean the rubber pad, if necessary, with glycerin.

Repair

- If you require services, return the PIPseq Vortex Mixer unit in its original packing to Fluent BioSciences.

Technical Data

Item	Specification
Elevation	Below 2000 m (6500 ft)
Intended environment	Indoor use only
Operation mode	Continuous/touch operation
Type of movement	Orbital
Orbital diameter	6 mm
Speed range	400–3000 rpm
Permissible ambient temperature	5–40°C
Permissible relative humidity	< 80%
Protection class according to DIN EN 60529	IP 21
Voltage	12 VDC 3A, Ø5.5 mm /2.1 mm barrel connector 
Power	36 Watts
Motor rating input	30 Watts

Item	Specification
Motor rating output	15 Watts
Dimensions (width × height × depth)	107 mm × 146 mm × 166 mm
Weight	2.62 kg

Revision History

Document	Date	Description of Change
Document # 200064269 v00	January 2025	Initial release.

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