

# **User Instructions**

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# OPERATING AND SAFETY INSTRUCTIONS for PULSE VORTEX MIXER

Model: 099A PVM12, 2.0 amp, 120 volts, 60 Hz. 099A PVM24, 2.0 amp, 240 volts, 60 Hz.



Locate and identify parts shipped:

Mixer Unit Stabilizer bar (x2)

### **Specifications:**

Ambient Temperature: 77°F/25°C +/-5°

Operating Environment: 0 to 90% relative humidity

32 to 100°F/0 to 37°C

The Glas-Col laboratory mixer is a small pulse Vortexer designed to handle various types of laboratory glassware and well plates. The mixer has a variable speed drive and is adjustable from 0 to 2000 revolutions per minute.

# Mixer Set-Up:

Unpack the mixer and set it on the bench top where desired. The stabilizer bars hold the mixer securely in place.

Plug the power cord from the unit into a grounded outlet. The power switch for variable speed and power switch for pulsing are located on the front of the shaker. The circuit breaker and line cord is located on the left side of the shaker.

# Loading Mixer:

Position any vessel in the middle of the drive plate. Secure the vessel by securing destaco clamp in the down position. The unit is now ready for operation.

# **Operating the Unit:**

Make sure all vessels are secured before turning the speed control to the desired setting. Flip the switch under the speed control knob to energize the motor, make sure the knob is turned to the zero position. Observe the shaker speed and adjust to your desired setting. To begin the Pulsing feature, flip the switch below the frequency knob and adjust to desired setting. The pulse rate is variable between approximately 80 to 100 pulses per minute.

#### **Spare Parts:**

Spare parts for Glas-Col shakers are generally available from the factory. Consult Glas-Col for part numbers and pricing.

#### Maintenance:

Glas-Col shakers do not require regularly scheduled maintenance. However, regular inspection is recommended. Glas-Col shakers should be protected from chemical spillage, mechanical damage and corrosive atmospheres so far as possible. Contamination, overheating and general misuse will greatly reduce the life of a shaker. Inspect the motor brushed occasionally (with the power cord disconnected) to make sure they have not worn excessively.

# **Limited Warranty:**

Glas-Col warrants products of its manufacture to be free from defects in material and workmanship for one year and agrees to repair or replace without charge any products found defective upon examination at the factory. With proper care and operation, Glas-Col products will give long and efficient service. Chemical spillage, overloading and general misuse will greatly reduce the service life. Glas-Col is not responsible for damage to apparatus due to improper installation or through attempts to operate the apparatus beyond its rated capacity, intentional or otherwise.

#### **Limitations of Warranties:**

APART FROM SUCH WRITTEN STATEMENT OF WARRANTY, THERE ARE NO WARRANTIES, EXPRESSED, IMPLIED OR STATUTORY, WHICH EXTEND BEYOND THE DESCRIPTION OF THE PRODUCTS ON THE FACE HEREOF.

Glas-Col products are intended only for legal and legitimate purposes in commercial laboratory and industrial settings.

Glas-Col reserves the right to make product refinements without prior notice.

#### **Returns:**

Call or fax Customer Service for a Return Goods Authorization (RGA) number before returning a heating mantle. Reference the RGA number on the shipping box and on a written description of the problem. A 20% restocking charge of the net price is changed for all standard products returned to stock.

#### Glas-Col, LLC

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