

Product Manual

Vacuum Pump, Oil-Free, Double Head & Gauge

Code 663-833

PLEASE READ THESE INSTRUCTIONS BEFORE USE.

1. Product Description

1.1 Introduction

Westlab's Vacuum Pump is designed for efficient and hassle-free operation.

Utilising a piston, this advanced pump eliminates the need for regular lubrication, oil changes, or maintenance, making it a low-maintenance solution for your laboratory needs.

Equipped with Prote™ overflow protection, this pump can prevent a large amount of liquid from entering the unit, ensuring reliable and safe operation. To further extend the lifespan of the product, a filter cartridge is fitted at the air inlet, effectively filtering out particles and moisture.

Safety is a top priority with the Vacuum Pump. The motor is fitted with a built-in thermal protection device, which automatically shuts off the pump in case of overheating. It resumes operation once the temperature has cooled, protecting the motor from damage, and ensuring uninterrupted operation.

1.2 Intended Use

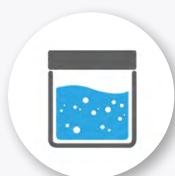
With its versatile capabilities, the Vacuum Pump is suitable for a wide range of applications including filtration for microbiology tests, air sampling, suspended solid tests, and vacuum filtration.



Air Sampling



Microbiological Tests



Total Suspended Solids



Vacuum Filtration

1.3 Features

- Piston-Driven, Oil-Free Vacuum Pump
- Air Inlet Protection & Vacuum Regulator
- Integrated Thermal Protection Safety
- Prote™ Overflow Protection
- Manufactured In Taiwan
- No Air Pollution

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PRODUCT CODE

663-833

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1.4 Optional Accessories

The below accessories are available separately.

Code	664-330
Description	Air Outlet
Muffler Type	Copper

Code	664-331
Description	Cross Type O-Ring

Code	664-332
Description	PPS Cylinder Block

Code	664-333
Description	Valve Plate, FKM Rubber

Code	664-334
Description	Prote Filter Cartridge, Overflow Protection
Material	Polyethylene
Pore Size	20µm
Safety	Yes, Prote™ Overflow Protection

Code	664-335
Description	Moisture Trap & Vacuum Regulator
Material	Polycarbonate

Code	664-336
Description	Moisture Trap & Drain Valve

Code	664-337
Description	Piston Set

2. Technical Specification

Performance Information

Vacuum	99 mbar abs. maximum*	
Flow Rate	37L/min at 60 Hz	34L/min at 50 Hz
Hose Barb Type	Straight Hose Barb	
Hose Barb Details	Inner Diameter of 8mm, ID8. The optimal tubing should have an inner diameter of 6mm.	
Noise Level	52 dB	

* The mbar value corresponds to the remaining gas particles within the system, and a lower particle count indicates a higher level of vacuum.

Electrical Information

Voltage	110V	220V
Frequency	50 Hz	60 Hz
Power	110W (1/6 HP) max.	80W (1/6 HP) max.
Current	1.0 A max.	0.4 A max.

General Information

Type	Piston
Oil-Free	Yes
Vacuum Regulator	Yes
Overflow Protection	Yes
Filter Cartridge	Yes
Overheat Protection	Yes
Feet	Rubber for low vibration
Unit Dimensions	310mm L x 140mm W x 200mm H
Unit Weight	5.2kg
Protection Class	IP 30
Country of Origin	Taiwan
Standards Conformity	CE Certification CSA Certification IP 30 Certification RoHS Certification UKCA Certification

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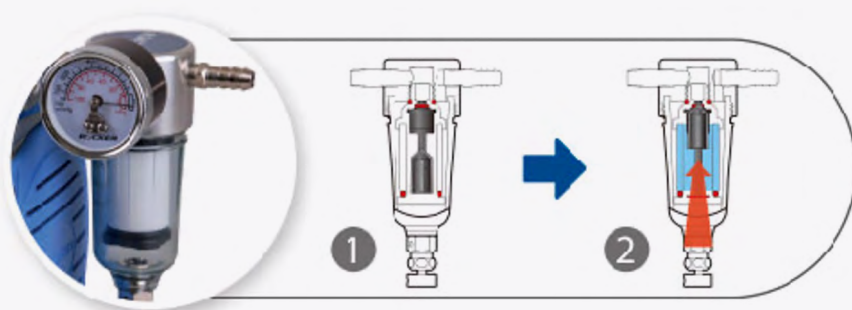
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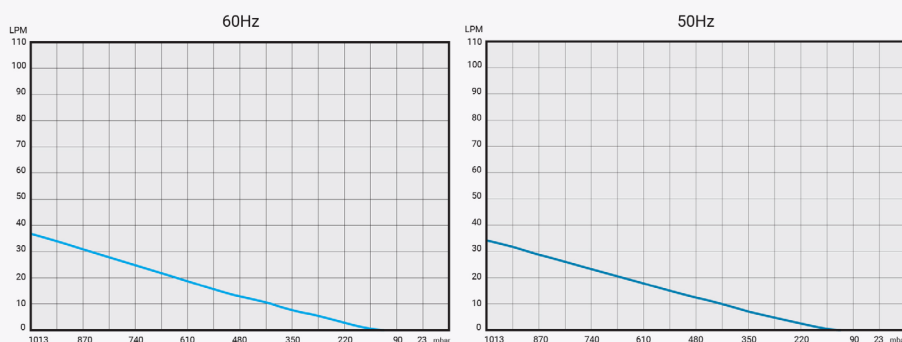
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Prote™ Overflow Regulation



Pumping Speed



3. Safety Precautions

Read the following safety precautions prior to using the vacuum pump. Never use the unit in any manner not specified in this manual. This unit is designed for laboratory use only.

- Wear personal protective equipment during the operation of the unit.
- Do not use without appropriate training. Always follow the installation instructions. Never touch moving parts.
- The unit is not to be operated in a hazardous, explosive, or flammable environment and not to be used to mix explosive or highly reactive material. Do not use the unit under water.
- The pump is not corrosion-proof. Avoid operating with corrosive gases.
- Do not use the vacuum pump if it shows signs of electrical or mechanical damage. If any damage is found, contact your supplier immediately.
- Ensure that the electrical standards of the connected power source complies with the voltage and operating frequency of the vacuum pump.
- Use the original power supply only. Always unplug the power adaptor before cleaning the unit.
- Ensure that the attachments are secured properly prior to operation.

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- Always install the unit on a flat, stable, and non-slippery surface. Do not move the unit during operation.
- The Prote™ filter cartridge can prevent a large amount of liquid from overflowing into the pump. Ensure that the liquid level of the flask does not exceed the safety level. Failure to comply can cause serious damage to the pump and void the warranty. If it occurs, please contact Westlab Pty Ltd immediately.
- The filter cartridge serves to absorb moisture and dust. To maintain optimal pumping efficiency, please replace the cartridge when it becomes saturated.
- To avoid damage to the pump, vent the unit prior to operating.
- To avoid blocking the air inlet of the Prote™ filter cartridge, do not tilt the pump during operation.
- Be aware that the surface of the pump can become extremely hot during and after operation. To avoid burns, refrain from touching.
- Using any lubricant on the pump is not recommended, as it may cause damage. Avoid flammable or toxic materials.
- The pump is not designed to start against applied vacuum. To prevent damage, verify that the pump inlet is at atmospheric pressure before each start. If necessary, the inlet can be vented to atmosphere by partially unscrewing the vacuum regulator knob.
- The pump is not intended to start when there is applied vacuum. To avoid any damage, please ensure that the pump inlet is at atmospheric pressure before starting. If needed, the inlet can be vented to the atmosphere by partially unscrewing the vacuum regulator knob.

The safety of the user cannot be guaranteed if the unit:

- Is operated with accessories that are not supplied with the unit
- Is operated with accessories that are not supplied or recommended by the manufacturer
- Is operated improperly or contrary to the manufacturer's specifications

4. Maintenance & Cleaning

- Always unplug the power adaptor before cleaning the unit.
- Wear protective gloves and safety glasses while cleaning the unit.
- After cleaning, ensure that all the parts are dried.
- If repairs are performed by unauthorised personnel, the product warranty may become void.
- The filter cartridge serves to absorb moisture and dust. To maintain optimal pumping efficiency, please replace the cartridge when it becomes saturated.
- After each use, it is important to remove any liquid in the moisture trap by pumping air through the system for a minimum of two minutes to eliminate any residual steam.

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5. Installation

1. Open the packaging and gently remove the vacuum pump from the box.
2. Place the unit gently onto a firm and levelled surface.
3. Unpack every individual component.
4. Assemble the components as instructed in this manual for optimal performance.

ATTENTION! The manual should be kept with the device and all the packaging should be kept in safe storage for at least two years for warranty purposes.

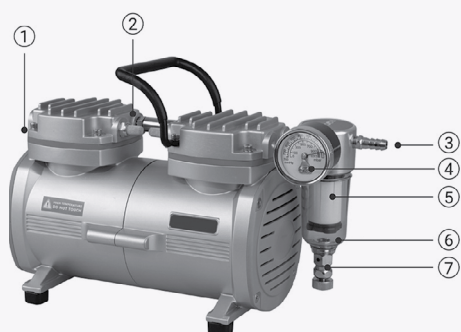
ATTENTION! If the unit is damaged on unpacking, please contact Westlab Pty Ltd immediately.

Location and mounting

Place the vacuum pump on a flat, solid, and levelled surface. Ensure that all four feet stand on the surface firmly. Avoid installing on a slippery surface or a bench prone to vibration.

- Do not place the unit in direct sunlight.
- Keep a minimum clearance of 300mm from all directions to guarantee safe operation.
- Keep the unit away from heat to avoid sample temperature errors.
- Do not place the vacuum pump in an area that makes it difficult to operate the unit.
- Use in a well-ventilated area. Ensure operation in a clean, dust-free environment with a temperature below 40°C.

6. Operation



Number	Name
1	ON/OFF Switch
2	Muffler, Air Outlet
3	Air Inlet
4	Vacuum Gauge
5	Prote™ Filter Cartridge
6	Moisture Trap
7	Drain Valve, Regulator

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Operating the vacuum pump

1. Ensure that the tubing and accessories are connected correctly.
2. Press the ON/OFF button to activate the pump.
3. Adjust the regulator.

ATTENTION! When the pump is used for water filtration, ensure that the liquid level of flask does not exceed the safety level. Failure to comply can cause serious damage to the pump and void the warranty. If it occurs, please contact Westlab Pty Ltd immediately.

Post-Operation

After each use, it is important to remove any liquid in the moisture trap by pumping air through the system for a minimum of two minutes to eliminate any residual steam.

Reset the Prote™ cartridge

1. Remove the moisture trap by rotating clockwise.
2. Remove the filter cartridge by rotating clockwise.
3. Disassemble the filter cartridge to ensure that the buoy is open.
4. Reassemble the filter cartridge.
5. Reinstall the filter cartridge and the moisture trap.

Replace the Prote™ cartridge

The Prote™ filter cartridge serves to absorb moisture and dust. To maintain optimal pumping efficiency, please replace the cartridge when it becomes saturated.

1. Remove the moisture trap by rotating in a clockwise direction.
2. Remove the Prote™ filter cartridge by rotating in a clockwise direction.
3. Replace with a new Prote™ filter cartridge by rotating in a counter-clockwise direction.
4. Reassemble the moisture trap by rotating in a counter-clockwise direction.

Changing a broken connector

1. Remove the connector.



2. If the connector is too hard to remove, replace the cylinder head.



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7. Troubleshooting

Please contact our technical support team on 1800 358 101.

Issue	Solution
Pump is operating but there is no vacuum at the inlet hose barb	<p>The Prote protection device within the inlet filter may have closed inadvertently. This commonly occurs if the pump was not level, or was moved, while operating.</p> <p>To reset the Prote protection device to the open position, the inlet filter bowl and filter must be removed so that the Prote float can be lowered to the open position.</p> <p>Once the Prote float is in the open position, the filter and bowl can be reinstalled.</p>

8. Product Recycling

In the case that the product is to be disposed of, the relevant legal regulations are to be observed.



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