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WEST TUNE Laboratory Vacuum Filtration Pump (10L/min) Model WTVP-10B User Manual

Comprehensive instructions for safe and efficient operation.

1. INTRODUCTION

This manual provides essential information for the safe and effective use of your WEST TUNE Laboratory Vacuum Filtration Pump, Model WTVP-10B. Please read this manual thoroughly before operating the device and retain it for future reference. This oilless diaphragm pump is designed for various laboratory applications requiring a reliable vacuum source, such as solvent filtration, distillation, vacuum drying, and extraction.



Figure 1: WEST TUNE Laboratory Vacuum Filtration Pump WTP-10B. This image shows the compact design of the pump with its integrated vacuum meter and power switch on the front panel, and a metal handle on top for portability. Various accessories like a filter, connectors, and a rubber tube are also displayed.

2. SAFETY INSTRUCTIONS

Always follow these safety precautions to prevent injury and damage to the equipment:

- Ensure the power supply matches the pump's requirements (refer to specifications).
- Do not operate the pump in wet or hazardous environments.
- Keep the pump away from heat sources and direct sunlight.
- Do not block the heat dissipation holes during operation to prevent overheating.
- Always disconnect the power before performing any maintenance or cleaning.
- Avoid direct contact with moving parts during operation.
- This pump is designed for laboratory use. Do not use it for purposes other than those specified.
- In case of malfunction, switch off the pump immediately and consult the troubleshooting section or contact support.

Reliable Quality

A comprehensive protection mechanism allows you to use it safely and with confidence.



Over Temperature Protection



Short Circuit Protection



Figure 2: The pump features built-in safety mechanisms including over-temperature protection and short-circuit protection, ensuring reliable and safe operation. The image shows the side of the pump with an electrical cord being plugged in, highlighting the power input and safety icons.

3. PRODUCT OVERVIEW

3.1 Components

Component Introduction



Figure 3: Detailed view of the pump's components. The front panel includes a Vacuum Meter and a Metal Switch (power button). The top features a Metal Handle. The bottom has Shock-Absorbing Foot Pads. The rear panel shows the Gas Pipe connection, Muffler, Heat Dissipation Holes, and Power Input.

- **Metal Handle:** For easy portability.
- **Vacuum Meter:** Displays the current vacuum level.
- **Metal Switch:** Power ON/OFF button.
- **Shock-Absorbing Foot Pads:** Provide stability and reduce vibration during operation.
- **Gas Pipe Connection:** Point for connecting the vacuum tubing.
- **Muffler:** Reduces operational noise.
- **Heat Dissipation Holes:** Ensure proper cooling of the internal components.
- **Power Input:** Connection point for the power cord.

3.2 What's in the Box

- WEST TUNE Laboratory Vacuum Filtration Pump (Model WTP-10B)
- Power Cord
- Rubber Tube
- Filter

- Connectors (various types)

Specifications



Model	WTPV-10	Motor Power	15W	Suction Rate	10L/min
Type	Negative pressure	Short Circuit Protection	Yes	Valve Diaphragm Material	Premium rubber
Noise Level	<60dB	Overload Protection	Yes	Dimensions	8.66*5.12*6.69 in
Weight	6 lb	Over-Temperature Protection	Yes	Ultimate Vacuum	-0.08 MPa

Figure 4: The image displays the main vacuum pump unit along with its accessories: a power cord, a rubber tube, a filter, and various brass connectors, all essential for setting up and operating the pump.

4. SETUP

- Unpacking:** Carefully remove the pump and all accessories from the packaging. Inspect for any damage.
- Placement:** Place the pump on a stable, level surface. Ensure adequate ventilation around the unit, especially for the heat dissipation holes. The shock-absorbing foot pads should be in full contact with the surface.
- Connect Tubing:** Connect one end of the provided rubber tube to the Gas Pipe Connection on the pump. Secure it firmly.
- Connect to Application:** Connect the other end of the rubber tube to your laboratory apparatus (e.g., filtration flask, distillation setup) requiring a vacuum. Use appropriate connectors if necessary.
- Power Connection:** Insert the power cord into the Power Input on the pump, then plug the other end into a suitable electrical outlet.

5. OPERATING INSTRUCTIONS

1. **Preparation:** Ensure all connections are secure and the pump is placed correctly.
2. **Power On:** Press the Metal Switch (power button) on the front panel to turn on the pump. The indicator light on the switch will illuminate.
3. **Monitor Vacuum:** Observe the Vacuum Meter to monitor the vacuum level being generated. The pump will quickly reach its ultimate vacuum of approximately -0.08 MPa.
4. **Operation:** Allow the pump to operate for the duration required by your experimental procedure. The pump is designed for continuous operation for extended periods.
5. **Power Off:** Once your application is complete, press the Metal Switch again to turn off the pump.
6. **Disconnect:** Carefully disconnect the tubing from your apparatus and the pump.



Figure 5: This image highlights the pump's performance characteristics, including strong suction, low noise operation, and the ability to work continuously for 24 hours, making it suitable for demanding laboratory tasks.

6. MAINTENANCE

The WEST TUNE WTVP-10B pump is designed for low maintenance due to its oilless diaphragm technology.

- **Oil-Free Operation:** This pump does not require oil changes, oil monitoring, or oil treatment, simplifying maintenance and ensuring a cleaner laboratory environment.
- **Cleaning:** Periodically wipe the exterior of the pump with a soft, damp cloth. Do not use abrasive cleaners or solvents. Ensure no liquid enters the pump's internal components.
- **Filter Inspection:** Regularly inspect the inline filter (if used) for any blockages or contamination. Replace the filter as needed to maintain optimal performance.
- **Tubing:** Check the rubber tubing for cracks, kinks, or blockages. Replace damaged tubing to ensure proper vacuum integrity.
- **Storage:** When not in use for extended periods, store the pump in a clean, dry, and temperature-controlled environment.



Figure 6: This comparison highlights the key advantage of the WEST TUNE pump: its oil-free design requires no maintenance related to oil changes, unlike traditional oil-based pumps.

7. TROUBLESHOOTING

If you encounter issues with your pump, refer to the following table for common problems and solutions:

Problem	Possible Cause	Solution
Pump does not turn on.	No power supply; faulty power cord; pump switch off.	Check power outlet; ensure power cord is securely connected; press the power switch.
Low or no vacuum.	Loose tubing connections; clogged filter; damaged tubing; internal pump issue.	Check all tubing connections for leaks; inspect and clean/replace filter; replace damaged tubing; contact support if problem persists.
Unusual noise or vibration.	Pump not on a stable surface; internal component issue.	Ensure pump is on a flat, stable surface; check if shock-absorbing feet are intact. If noise persists, contact support.
Pump overheats and shuts off.	Blocked heat dissipation holes; prolonged operation in high ambient temperature.	Ensure heat dissipation holes are clear; allow pump to cool down; operate in a well-ventilated area.

8. SPECIFICATIONS

Feature	Detail
Model	WTVP-10B
Type	Oilless Diaphragm Vacuum Pump (Negative Pressure)
Motor Power	15W
Suction Rate	10 L/min
Ultimate Vacuum	-0.08 MPa
Noise Level	<60 dB
Weight	6 lbs (approximately 2.7 kg)
Dimensions (L x W x H)	8.66" x 5.12" x 6.69" (approximately 22 x 13 x 17 cm)
Valve Diaphragm Material	Premium Rubber
Safety Features	Short Circuit Protection, Overload Protection, Over-Temperature Protection

Specifications



Model	WTVP-10	Motor Power	15W	Suction Rate	10L/min
Type	Negative pressure	Short Circuit Protection	Yes	Valve Diaphragm Material	Premium rubber
Noise Level	<60dB	Overload Protection	Yes	Dimensions	8.66*5.12*6.69 in
Weight	6 lb	Over-Tempera-ture Protection	Yes	Ultimate Vacuum	-0.08 MPa

Figure 7: A visual representation of the pump's key specifications, including model number, power, suction rate, noise level, weight, dimensions, and safety features.

9. WARRANTY AND SUPPORT

Specific warranty details and direct support contact information are not provided within this manual. For warranty claims, technical assistance, or any questions regarding your WEST TUNE Laboratory Vacuum Filtration Pump, please refer to the product packaging, your purchase documentation, or contact the seller directly through the platform where the product was purchased.

You may also visit the official WEST TUNE store for general information: [WEST TUNE Store on Amazon](#).