## FRISTADEN LAB

Fristaden Lab.com support@fristaden IIc.com

### Owned and operated by Fristaden & Company, LLC 401 Ryland Street, Suite 200-A Reno NV, 89502 USA

# FL-VP10L Diaphragm Vacuum Pump

## User Manual

10 L/min Pumping Speed 0.075 Mpa 20W Motor



Made in China

## FRISTADEN LAB

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## **Company Information**

#### WARRANTY

The Fristaden Lab FL-VP10L has a 1 Year Manufacturer's Warranty. Please contact the Fristaden Lab's customer service department at support@fristadenllc.com for more information.

#### **ABOUT US**

Fristaden Lab is a lab and scientific equipment retailer established in 2013 in Chicago, Illinois.

We sell an array of popular products, including analytical balances, centrifuges, glassware, hematology counters, hot plates, magnetic stirrers, pH meters, pipettes and pressure pumps.

We stand behind all of our products, offering a 1-2 year warranty, 30-day returns, and a responsive customer service team committed to solving any questions or issues you may have.

#### CONTACT

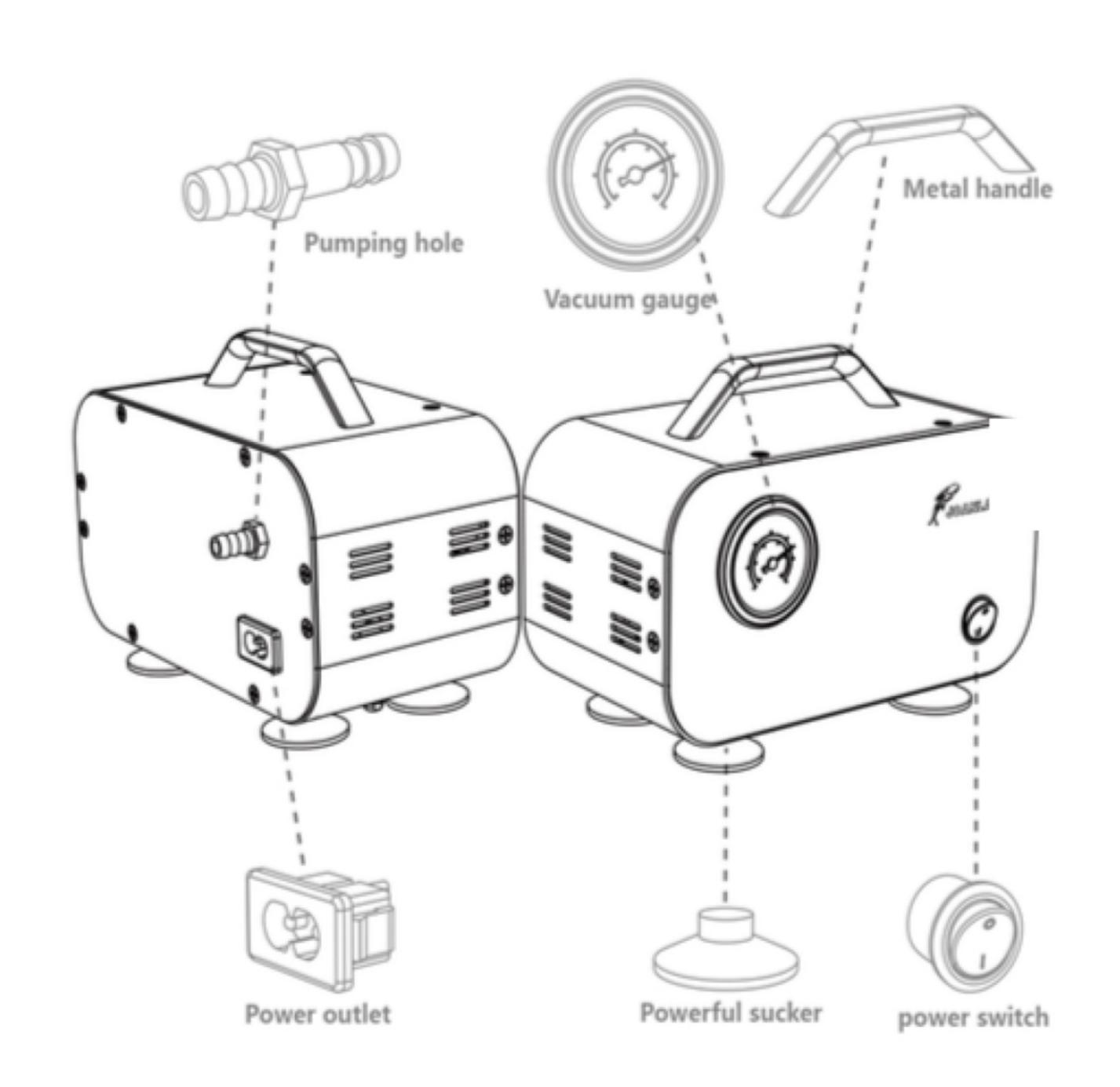
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## Operation

#### **OPERATING THE MACHINE**

- Set the Vacuum Pump on a flat, solid, dry surface away from liquids and hazardous materials. Suction the feet to the surface.
- Connect the rubber connection tube to the vacuum pump and then to the filtration apparatus.
- Plug the power cord into the back of the machine.
  Plug the adapter into an outlet with the correct voltage.
- Turn on the power switch on the front the machine.
- To power off, press the power switch to off. Unplug the power cord when not in use and store the machine in a safe place. DO NOT unplug or plug in the machine when the power is turned on.



### Summary

#### **IMPORTANT!**

Read the User Manual carefully before use and follow all operating and safety instructions!

#### PRODUCT FEATURES

POWERFUL EFFICIENT MOTOR: The Fristaden Lab Diaphragm Vacuum Pump is designed to reduce filtration processing time in order to improve efficiency. It is built with a powerful, oilless 20W motor and can pump at a fast rate of 10 liters per minute.

COMPACT DESIGN: The vacuum pump has a small, compact design and can fit easily onto most desktops and workspaces. The hose easily connects to a vacuum filtration apparatus.

SAFETY FEATURES: The machine has the added safety features of overload protection, short circuit protection and over temperature protection. The base has four suction cup feet so the machine won't slip while in use.

LAB QUALITY: The American-brand Fristaden Lab Vacuum Pump is made from lab-quality materials designed to deliver you accurate results year after year.

#### **PACKING LIST**

- Fristaden Lab Vacuum Pump
- Rubber Connection Tube
- Power Cord
- User Manual

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## Safety

#### **IMPORTANT WARNINGS!**

- Ensure everyone operating the machine reads the user manual and understands the operating instructions, cautions and dangers associated with the machine.
   Only trained staff should operate the machine.
- Wear proper safety gear, including but not limited to protective eyewear, gloves, etc., to prevent injury from the liquids or gasses used with the vacuum filtration pump.
- Check the machine and accessories prior to each use for damage. Do not use the machine if the machine or any parts are broken. Contact the manufacturer and do not attempt to repair it yourself.
- Do not replace power cables, plugs or other parts unless they are directly from the manufacturer.
- Always supervise the machine while in use! Never leave the machine alone or unattended when it is operating..
- Before plugging the machine into an electrical outlet, make sure the voltage and frequency matches that of the machine. Do not plug in or unplug the machine if your hands have liquid on them.
- Operate the machine in a safe environment away from hazards including conductive dust and explosive and corrosive gas. Do not operate in a flammable or dangerous environment. Keep the machine away from pets, children and other hazards.
- Operate the machine in a safe, dry and well ventilated environment. The environment temperature should not exceed 5-40°C and have less than or equal to 80% relative humidity (continued on next page)..

## Safety

#### IMPORTANT WARNINGS! (CONTINUED)

- (continued) The altitude should not exceed 2000m.
- Place the machine on a flat, stable and spacious work surface away from vibrations and airflows.
- The machine is for indoor use only.
- Maintain a 10cm distance from other objects on all sides of the machine.
- Always power off and unplug the machine when not in use. Store it in a safe place away from hazards

## Specifications

#### **SPECIFICATIONS**

Туре	Negative Pressure
Pumping Speed (L/min)	70
Ultimate Pressure (Mpa)	0.075
Noise Level (dB)	<40
Motor Power (w)	20
Diaphragm & Valves	NBR
Overload Protection	Yes
Over Temperature	Yes
Protection	
Short Circuit Protection	Yes
Voltage	110-240V
Dimensions (mm)	192 x 100 x 135
Product Weight (kg)	1.58