

# Operating Manual

## Vacuum Aspirator

### VAS-10



## Preface

Thank you for choosing a Phoenix device. Please read this operating manual carefully and pay special attention to the safety instructions.

## Warranty

We guarantee that this device is free from manufacturing and material defects and provide a warranty of 2 years (from the invoice date) for normal use and service. Any warranty claim is void if the device is tampered with outside our workshop or customer service.

## Service

If you need assistance, our workshop is always available to you. Send the device to your supplier or directly to us.

Please note the following:

- Ensure stable packaging
- Include a copy of the original invoice
- Provide accurate address, names, department, phone, and email
- Include a description of the issue

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## 1. Safety Instructions



Connect only to grounded sockets/outlets (Schuko!)



- Carefully read the operating manual
- Wear protective clothing/goggles as required
- Place the device on a stable and flat surface only
- Do not use the device in explosive atmospheres or underwater
- When working with pathogenic liquids, use closed containers
- Do not use damaged parts
- Disconnect the device from the power by pulling the plug
- The device should only be opened by professionals (electricians, etc.)
- Do not place near magnetic fields

## 2. Proper Use

This device is designed for suctioning liquids in professional settings such as universities or laboratories. It is not suitable for private or domestic use.

### **3. Inspections**

#### **3.1 Unpacking**

When unpacking, check the device for damages. If the outer packaging is damaged, inform/claim immediately with your carrier. If only the device is damaged, contact your supplier. Caution - do not connect a damaged device.

#### **3.2 Contents of Delivery**

The VAS-ECO comes with the following parts:

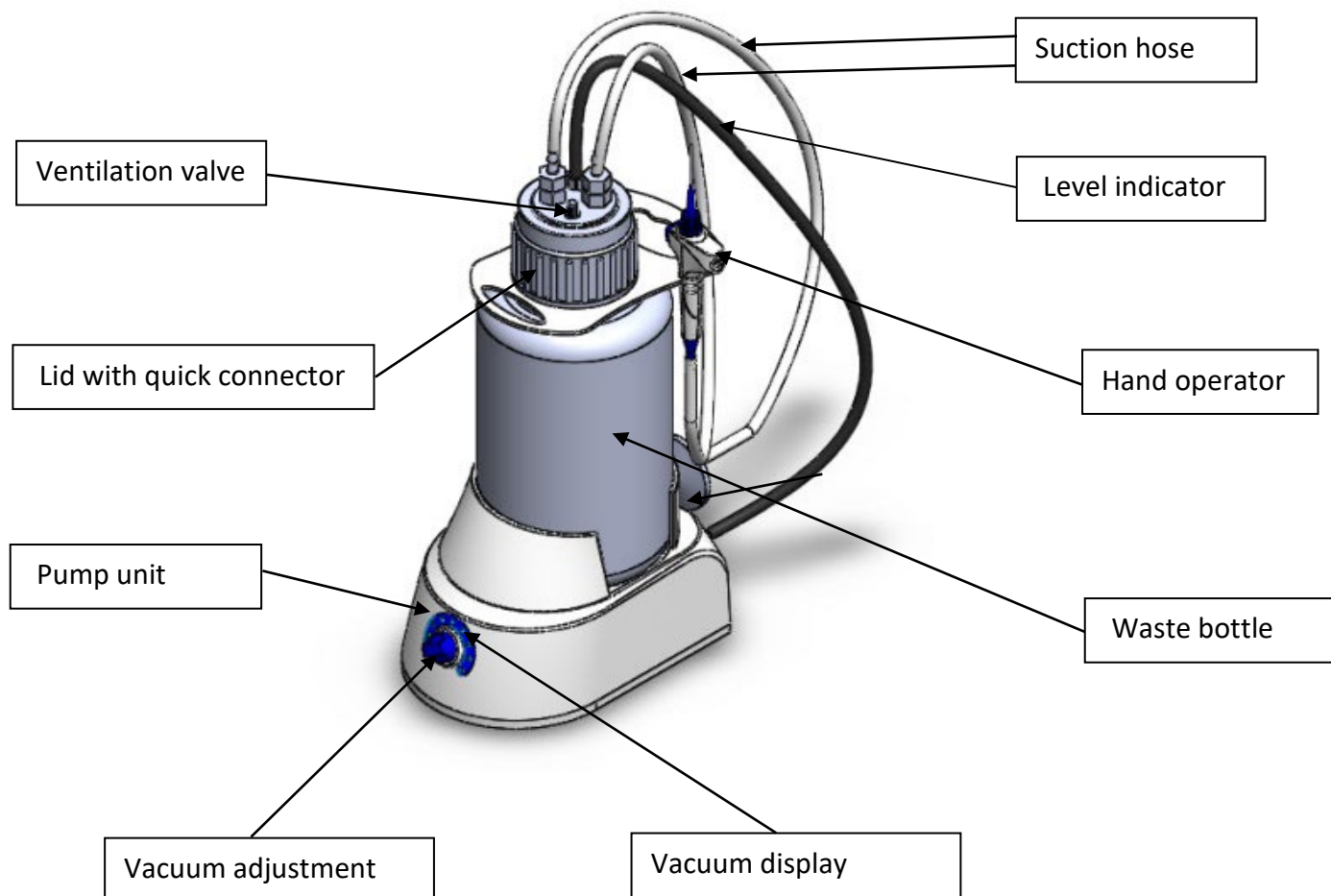
- 1 Main unit (vacuum pump)
- 1 Hand operator
- 1 single needle  $\Phi$ 1.5 mm, 40 mm
- 1 single needle  $\Phi$ 1.5 mm, 120 mm
- 1 single needle  $\Phi$ 2.5 mm, 40 mm
- 1 single needle  $\Phi$ 2.5 mm, 120 mm
- 1 8 channel needle  $\Phi$ 1.5 mm 1 Stück 200  $\mu$ l Tip Adapter
- 1 8 channel tip detrusion adapter 200  $\mu$ l tip
- 1 tip detrusion adapter 200  $\mu$ l tip
- 1 tip detrusion adapter 1 ml tip
- 1 8-channel tip detrusion adapter 200  $\mu$ l tip
- 1 Waste bottle 4 liter
- 1 Lid with quick-release connectors (not autoclavable)
- 1 power supply
- 1 user manual

### **4. Installation:**

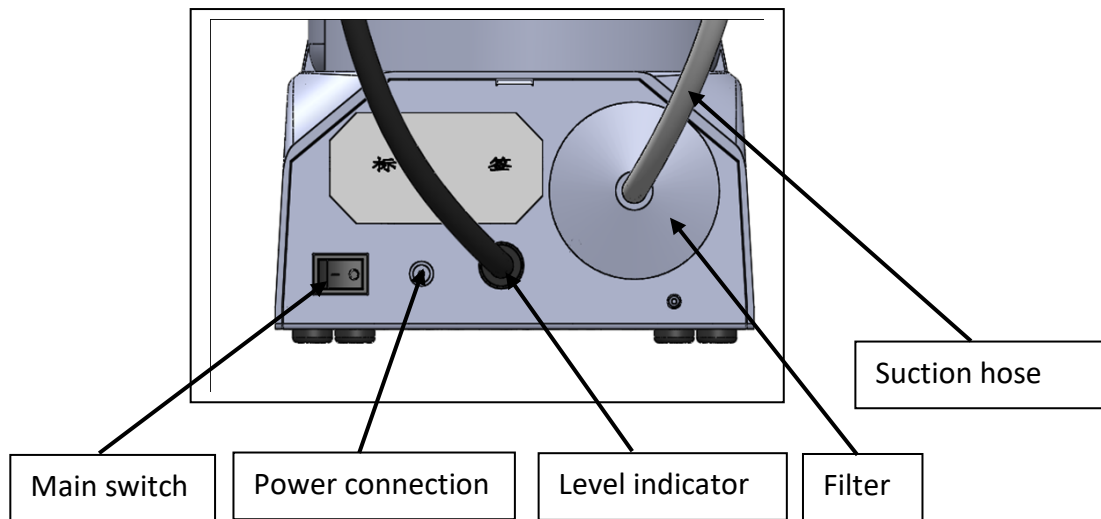
Please place the extraction system on a flat work surface.  
The minimum distance to the wall should be 100 mm.

## 5. Operation

### 5.1 Operating elements



Ventilation valve	Ventilate the bottle
Lid	Lid with quick connector, connector for level indicator and ventilation valve (not autoclavable)
Pump unit	The built-in pump generates the vacuum
Vacuum adjustment	Set the desired vacuum
Vacuum display	Shows the achieved vacuum
Waste bottle	Collects the suctioned liquid
Hand operator	Press the button to suction liquid
Level indicator	The sensor switches the pump off automatically as soon as the max. fill level is reached
Suction hose	Connects the handpiece to the waste bottle and the latter to the main unit



Suction hose	Connects the handpiece to the waste bottle and this to the main unit
Filter	The filter is installed between the waste bottle and the main unit and protects the pump from liquid
Level indicator	The sensor switches the pump off automatically as soon as the max. fill level is reached
Main switch	Switches the machine on and off
Power connection	Connect the power supply unit to the mains connector

## 5.2 Operation

1. Connect all hoses to the extraction system
2. Connect the level sensor to the back of the pump unit and to the lid of the waste bottle by using the cable.
3. Make sure the ventilation valve is closed
4. Turn on the extraction system using the main switch
5. Set the desired vacuum using the vacuum adjustment
6. Start the suction process by pressing the button on the handpiece

## 5.3 Continuous Suction

The button on the handle bracket can be locked in two positions using the locking bracket



Position 1



Position 2, 30% increase in liquid absorption rate

## 6. Installation conditions

Power Supply	100-240 V 50/60Hz
Ambient Temperature	4 – 40° C
Relative Humidity	< 80%

## 7. Technical data

<b>Model</b>	<b>VAS-Eco</b>
Voltage/Frequency	100-240 V - 50/60Hz
Vacuum range	-300 bis -600 mbar
Air suction volume	15 l/min
Liquid suction volume	17 ml/s
Waste bottle	4 Liter PP, autoclavable (Lid with quick-release lock not autoclavable)
Weight (kg)	3,4 kg
Dimensions (WxDxH)	180 x 240 x 450 mm

## 8. Standards

The device was designed and manufactured considering the following standards and regulations:

2014/35/EU	Low Voltage Directive
2014/30/EU	Electromagnetic Compatibility Directive
2015/863/EU	RoHS Directive
EN 61010-1	Safety Requirements for Electrical Equipment for Measurement Control, and Laboratory Use – Part 1: General Requirements
EN 61326-1	Electrical equipment for measurement, control and laboratory EMC requirements - Part 1: General requirements
EN 61000-3-2	Electromagnetic compatibility (EMC) - Part 3-2: Limits - Limits for harmonic current emissions
EN 61000-3-3	Electromagnetic compatibility (EMC) - Part 3-3: Limits - Limitation of voltage changes, voltage fluctuations and flicker



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