VACUUM PUMP
Model VCP-8101

Thank you for choosing the LMS Model VCP-8101 Vacuum Pump.

Your Vacuum Pump is CE Certified and designed to be safe, reliable and easy to operate. Please read this thoroughly before operating the Vacuum Pump. Failure to observe the instructions may cause damage to the equipment.

Features

- Basic Vacuum Pump for laboratory applications
- Oil-less and low maintenance
- Low noise level (55dB to 60 dB) during operation
- Large rubber feet add stability and act as vibration dampers
- Easy replacement of moisture trap and filter
- Vacuum level adjustable up to 650 mm Hg
- High flow rate
- Convertible to pressure pump (with optional pressure kit)
- 2 years warranty against defects (excludes consumables)

APPLICATIONS

- Vacuum Filtration
- Vacuum Dessicators and Cabinets
- TLC Sprayers
- Vacuum Ovens (partial evacuation)

SPECIFICATIONS

Power	100VAC/60Hz	110VAC/60Hz	220VAC/50Hz
Vacuum*	650mmHg		
Max Flow Rate	28 l/min		23 l/min
Motor Power	1/8 HP		
Net Weight	4.1 kg		
Shipping Weight	5.1 kg		
Dimesion	272(W)x121(D)x164(H) mm		
Port Thread	1/8" NPT		
Noise Level	60 db		

* Based on evacuating a 2 liter Vacuum Dessicator
PS: 100mmHg=13.33kpa, 1L/min=0.035CFM

Pre-Operation Checks

1) Place and operate your Vacuum Pump on a clean, level surface, preferably in a well ventilated area.
2) Connect a vacuum tubing to the vacuum inlet of the Vacuum Pump. Clips are not required when the Pump is used for vacuum.
3) Loosen the Drain Valve to release any vacuum within the system and to drain any water in the moisture trap.
4) Connect the Power Cable to a grounded power outlet.

Operation

1) Turn on the power to the Vacuum Pump (if necessary).
2) Switch the Vacuum Pump on using the power switch located at the top of the unit.
3) Tighten the Drain Valve.
4) During operation, it is normal for the Vacuum Pump to become hot. Refrain from touching the metal parts during operation to avoid getting burnt.
5) The Vacuum Pump is not designed for prolonged periods of continuous use. A thermal switch cuts off power when the Vacuum Pump gets too hot to prevent internal damage.
6) The VCP-8101 Vacuum Pump is designed to evacuate air only. When operating as a vacuum source for liquid filtration, it must be used with a reservoir between the filter and the Vacuum Pump (see Figure 2).
7) Ensure that no liquid enters the pump. Liquid inside the pump voids the warranty.
8) When used to provide vacuum for acidic filtration, a suitable neutralizer must be placed between the reservoir and the Pump (see Figure 2).
9) The VCP-8101 is not designed to be used with corrosive and explosive media. Failure to heed this instruction may result in equipment damage and personnel injury.
10) Glassware and apparatus used in the setup must be designed for use with vacuum to prevent damage and injury caused by imploding glassware.
11) After operation, the power should be turned off and the Drain Valve opened.

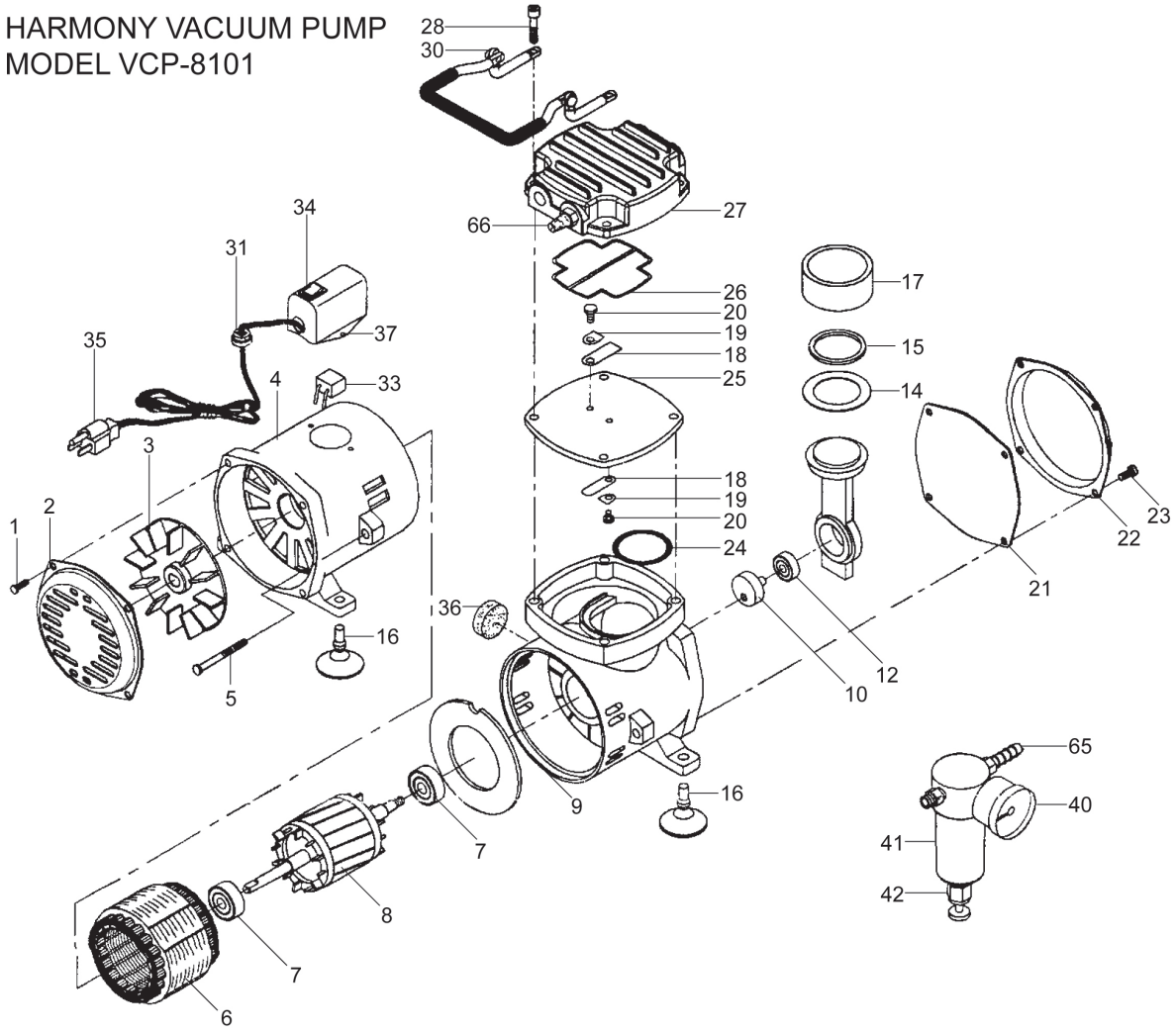
Pressure

1) While the VCP-8101 is designed primarily as a Vacuum Pump, it can be used to provide pressure with an optional Pressure Kit.
2) When used for pressure, the tubing ends must be securely clamped (Clips not supplied)
3) Glassware and apparatus used in the setup must be designed for use with pressure to prevent damage and injury caused by exploding glassware.

Maintenance

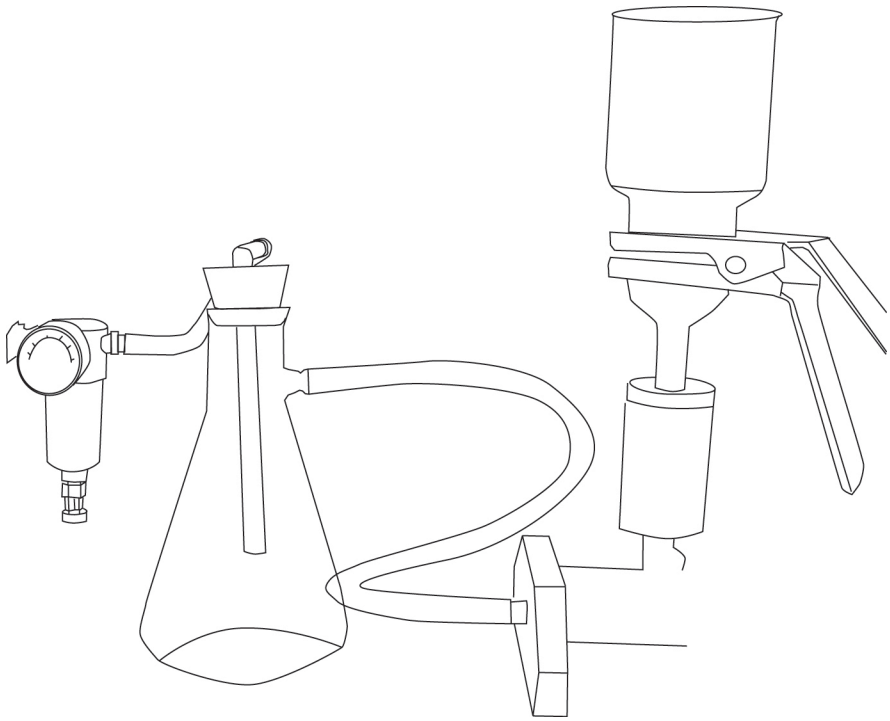
1) This is an Oil-less Vacuum pump. The use of lubricants can cause damage to the pump and voids the warranty.
2) The Pump should be routinely cleaned with a clean and damp cloth. Do not use chemical and abrasive cleaners on the pump.
3) Check the condition of the Moisture Trap, Filter and Power Cord regularly.

Figure 1: Parts of the Vacuum Pump



Index	Description	Q'ty	Index	Description	Q'ty	Index	Description	Q'ty
1	Set screw	4	17	Cylinder	1	33	Condenser	
2	Fan cover	1	18	Valve plate	2	34	On/Off Switch	1
3	Cooling fan	1	19	Valve plate lock	2	35	Plug	1
4	Rear body	1	20	Set screw	2	36	Air intake filter	1
5	Set screw	2	21	Paper pad	1	37	Condenser cover	1
6	Stationary motor	1	22	Front body lid	1	39	Connecting Rod	1
7	Bearing	2	23	Set screw	4	40	Pressure gauge	1
8	Rotary Motor	1	24	O-ring	1	41	Moisture trap	1
9	Front Body	1	25	Cylinder block	1	42	Drain valve	1
10	Counterweight	1	26	O-ring	1	48	Isolation	1
12	Bearing	1	27	Cylinder head	1	65	Tier connector	1
14	Compressing ring	1	28	Set screw	4	66	Airfilter (air inlet)	1
15	Lock plate	1	30	Handle	1			
16	Rubber stand	4	31	Cable protector	1			

Figure 2: Pump connected to Filtration Device with Reservoir and Neutralizer



Warranty Statement

LMS guarantees that the device is free from manufacturing defects when shipped from the factory. Should there be any manufacturing defects, LMS will replace the device or repair the defect within 12 months from the date of purchase.

Warranty does not cover units with damaged manufacturer's label, damaged seals, damage through improper use and improper storage. Warranty does not cover parts damaged through normal wear and tear.

No service manual is available. If the unit is dismantled for any reason, except by the manufacturer or personnel authorized by the manufacturer, all warranties are null and void.

Warranty claims and service requests must be made through the distributor from whom you purchased the unit.

Name of Distributor	
Address	
Model Number	
Description	
Serial Number	
Date of Sale	

LMS CO., LTD. Tanaka Bldg., 3-6-7, Hongo, Bunkyo-ku,
Tokyo, JAPAN
Tel: +813-5842-4171 Fax: +813-5842-4180
E-mail: info@group-lms.com