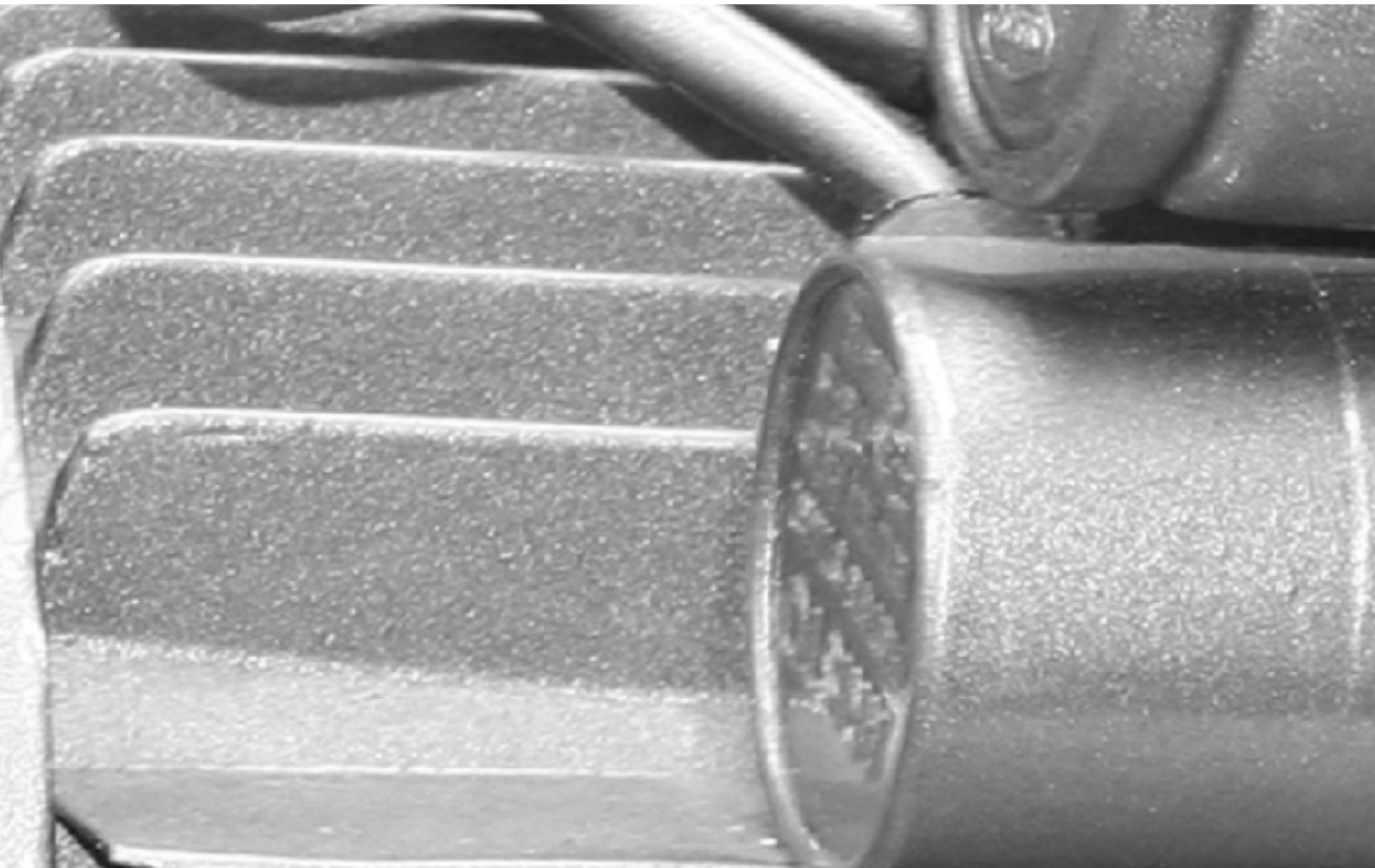




AN ISO 9001:2008 CERTIFIED COMPANY

USER MANUAL

Table-top Vacuum machine

260VTS



www.sevana.com

YOUR PACKAGING PARTNER

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1. FOREWORD

Thank you for choosing Sevana. You now belong to the Sevana family of over one million satisfied customers across the world. We are confident that you will have many years of complete satisfaction from this Sevana product.

We want you to derive maximum value from Sevana's reliable service and support infrastructure in India. We maintain Sevana's service mission of working continuously to provide customers with highest level of service, thereby ensuring mutually successful long term business association.

You can contact us through

Email	:	support@sevana.com	
Phone	:	+91-484-2680780	Monday to Saturday
Mobile	:	+91-9388180781	8.30 am – 5.00pm IST
Fax	:	+91-484-2680680	

We value your partnership

Yours sincerely

For Sevana Electrical Appliances Pvt. Ltd.

Manager in charge, Customer support

While contacting the support centre kindly provide the following information for a speedier support and service.

- i. Model
- ii. Serial no.
- iii. The nature of problem

2. HOW TO USE THIS MANUAL

- ❖ Please read this manual carefully before installing and commissioning the machine.
- ❖ Please keep a copy of this manual for reference near the machine.

The information in this document is believed to be accurate and reliable. However, Sevana Electrical Appliances Pvt Ltd, cannot accept any financial or other responsibilities that may result from the use of this information. No warranties are granted or extended by this document.

Sevana Electrical Appliances reserves the right to change any or all information contained herein without prior written notice. Revisions may be issued at the time of such changes and/or deletions.

3. SAFETY PRECAUTIONS

❖ Introduction

Machines of Sevana have been designed to provide extremely safe and dependable operation when properly used. Safety precautions must be observed during normal operation and when servicing the machines of Sevana.

❖ Warning

A warning describes safety hazards or unsafe practices which could result in personal injury or loss of life. A warning message is accompanied by a symbol as described in the following paragraphs and is also surrounded by a box to attract your attention.



Open the back cover of the machine only
after isolating the power supply



Check oil level of vacuum pump regularly

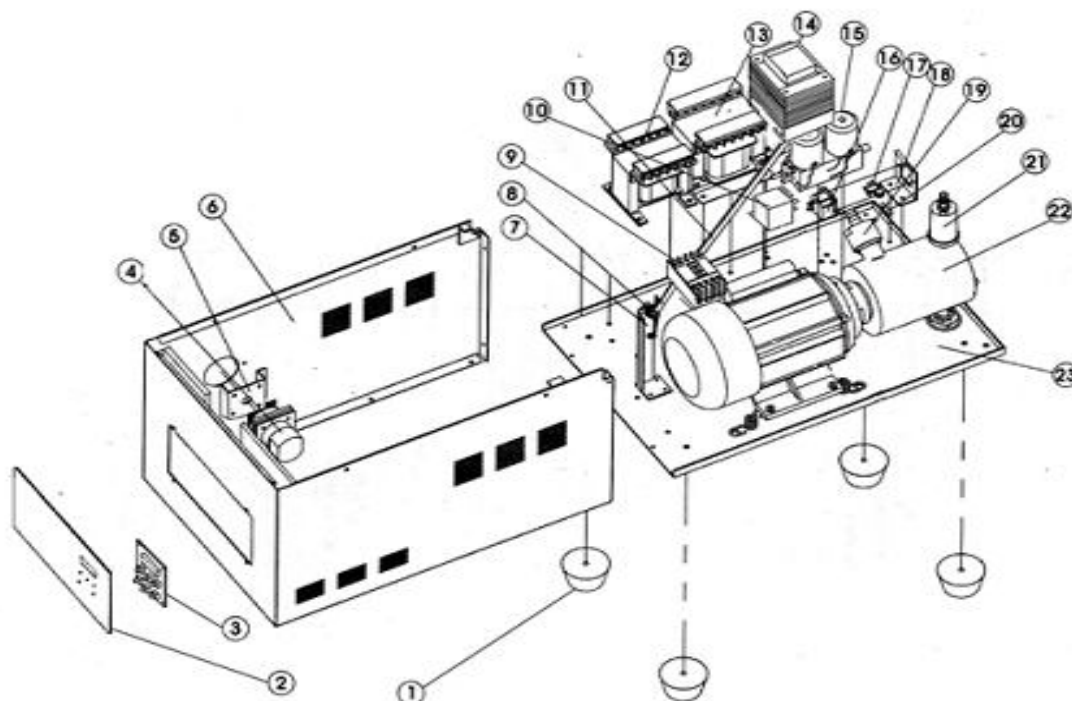
4. PACKING SLIP

Name	Quantity
User manual	1
Warranty card	1
Vacuum pump oil	500ml /pump

5. TECHNICAL SPECIFICATIONS

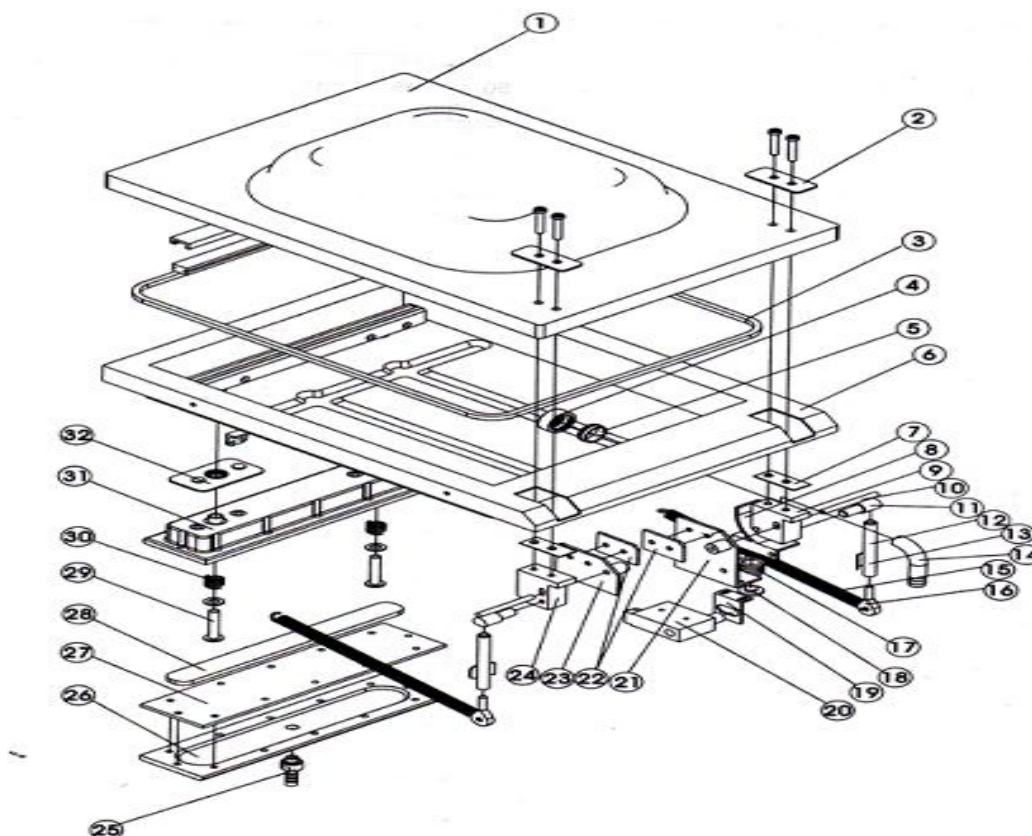
Machine's dimensions (L x W x H)	330mm x 480mm x 300mm
Chamber dimensions (L x W x H)	385mm x 280mm x 90mm
Sealing dimensions (L x W)	260mm x 5mm x 0.2mm
Voltage/frequency	240V/50Hz
Power	400W
Pump capacity	8m ³ /h

6. LIST OF PARTS



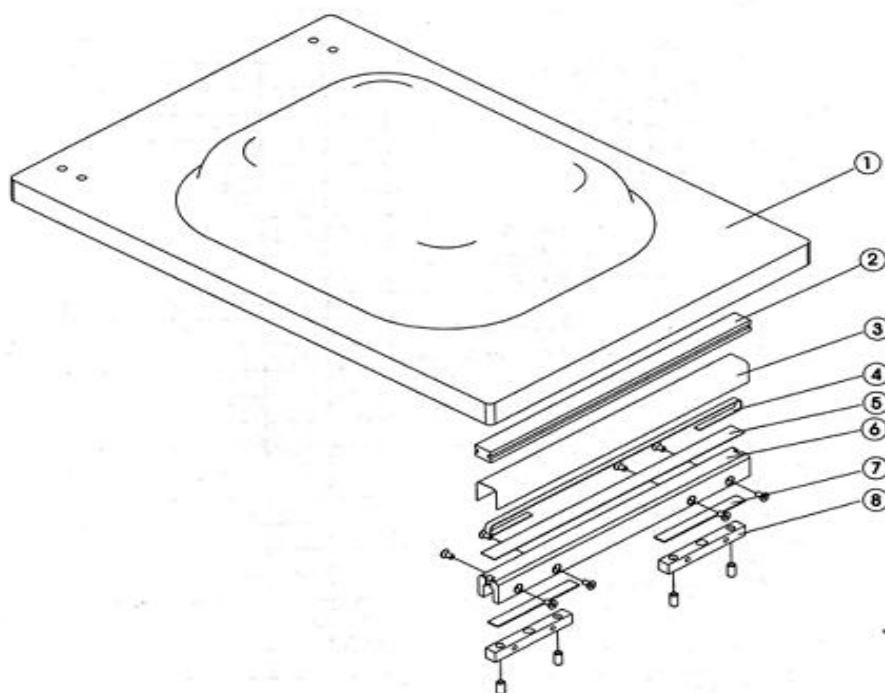
Sl no.	Name	Item code
1	Rubber bush	1060027
2	Panel board	1032079
3	Display board	1033034
4	Power switch	1060028
5	Power switch support	1060029
6	Chassis cover	1060030
7	Lever mounting bracket	1060031
8	Torsion spring	1060032
9	Contactor(9A)	1020008
10	CC2 relay	1023155
11	Chamber support rod	1060033
12	Control transformer(24V)	1060034
13	Power transformer(28V)	1060035
14	Control transformer(17V)	1049025
15	Solenoid valve assembly	1060036
16	Fuse holder	1060037
17	Fuse mounting bracket	1060038
18	Fuse holder mounting bracket	1060039

19	Hose holder	1060040
20	Fuse	1060041
21	Vacuum pump filter	1060042
22	Vacuum pump	1060043
23	Chassis	1060044

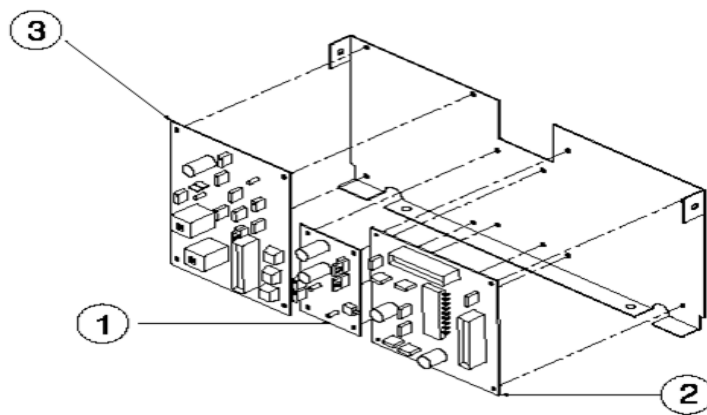


Sl no	Name	Item code
1	Acrylic lid 260vt	1060045
2	Upper press plate	1060046
3	Lid gasket	1060047
4	Extracting hole cover	1060048
5	Extracting hole ring	1060049
6	Vacuum chamber	1060050
7	Lower pressure plate	1060051
8	Damping sheet	1060052
9	Hinge block(right)	1060053
10	Hinge block pivot	1060054
11	Hinge pin	1060055
12	Hinge link	1060056

13	Switch pressure plate	1060057
14	Extracting pipe	1060058
15	Lid opening spring	1060059
16	Joint ball bearing	1060060
17	Damping spring	1060062
18	Pressure adjusting plate	1060063
19	Switch plate	1060064
20	Limit switch	1060065
21	Right support plate	1060066
22	Installation support plate	1060067
23	Left support plate	1060068
24	Hinge block(left)	1060069
25	Air inlet holder	1060070
26	Actuator cover	1060071
27	Fire hose	1060072
28	Actuator	1060073
29	Copper guide pole	1060074
30	Sealing guide pole spring	1060075
31	Jaw chamber	1060076
32	Sealing ring	1060077



Sl no	Name	Item code
1	Acrylic lid 260vt	1060045
2	Silicon rubber	1060061
3	Teflon tape	1050129
4	Heating element	1060078
5	Tetrafluro strip	1060079
6	Heating plate	1060080
7	Copper sheet	1060081
8	Sealing guide pole fixed plate	1060082



Sl no	Name	Item code
1	Transducer board	1052081
2	Relay board	1033079
3	Micro controller board	1033007

7. INSTALLATION

- ❖ No inflammable and explosive gases around
- ❖ Temperature : 5 - 40°C
- ❖ Environmental pressure: standard atmospheric pressure
- ❖ Make sure that the supply voltage meet the requirement
- ❖ Make sure that the machine is stable.
- ❖ Make sure that the machine is placed in a horizontal position, which is essential for trouble free operation.

8. CONTROL PANEL

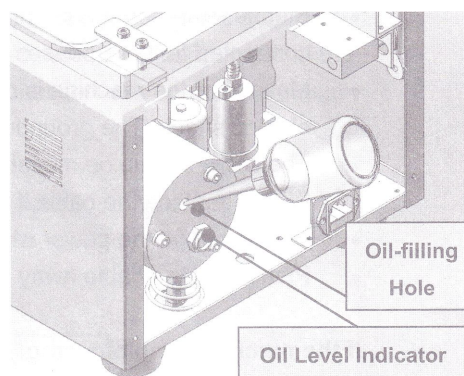
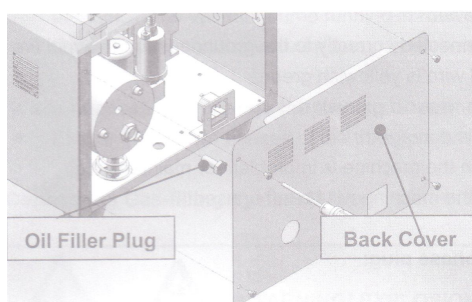


- ❖ LCD display
- ❖ Control buttons
- ❖ Power LED

9. FILLING VACUUM PUMP WITH OIL

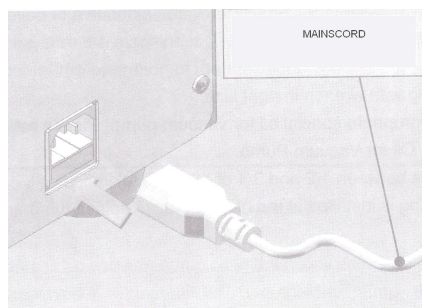
There is no vacuum pump oil in the newly delivered machine. If the vacuum pump works without oil it will damage the pump, even in a short time. Please make sure that the vacuum pump has been filled with the oil up to the mark before the start-up.

1. Open the back cover.
2. Fill the machine with Sevol V/equivalent vacuum pump oil(500ml).
3. Make sure the oil level is between 1/2 and 3/4 of the oil level indicator.
4. Close the oil filler plug.
5. Wait for 3 minutes.
6. Check the oil level is between 1/2 and 3/4 of the oil level indicator. If it is less than 1/2 please add more.
7. If the oil level is between 1/2 and 3/4 of the oil level indicator fix the back door.



10. POWER CONNECTION

- ❖ Check whether the supply voltage is as per the specification.
- ❖ Please replace the cable if it is damaged
- ❖ Please isolate the power supply during maintenance
- ❖ Please put the cable away if the machine will be left unused
- ❖ Connect the other side of the power cord to the wall power socket



11. PROGRAM MODES

Sevana's micro-processor based vacuum machine has 4 preset modes or programs. Each program can be set with different parameters. Variable parameters in each mode are

PARAMETER	RANGE
Vacuum level	0-760mm Hg(Vacuum level in the chamber)
Sealing time	0.0 - 6.0 sec(Depending up on the pouch material)
Cooling time	1 - 9 sec

Vacuum levels represents in millimeter mercury up to vacuum has to be achieved (760mmHg absolute vacuum, 0 is normal atmospheric pressure).

TO PRESET PROGRAM MODES :

Select the mode by pressing "MODE" button. To set the parameters press "SET" button.

MODE: 4
VACUUM: 760mmHg

To change the vacuum press the "UP" or "DOWN" button continuously till the required value is displayed.

To select the next parameter and save the preset value press SET again

MODE: 4
SEALING: 3S

MODE: 4
COOLING: 8SEC

MODE: 4
VACUUM ERROR: OFF

MODE: 4
READY MODE

If again presses SET, machine will go to READY MODE.

12. STARTING THE MACHINE

Connect the machine to appropriate power supply. Turn on the power switch to start the machine. The power switch locates at the right side of the machine. Turn the power switch to the position 1 to start-up. Then press the power button in the control panel

CONTROL BUTTONS:

- | | |
|---------|--------------|
| ❖ Power | ❖ Stop/Reset |
| ❖ Mode | ❖ Set |
| ❖ Up | ❖ Down |

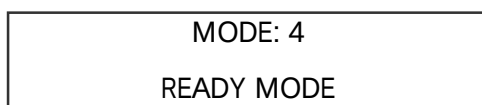
A LCD check function is done first. Version of the software is displayed.



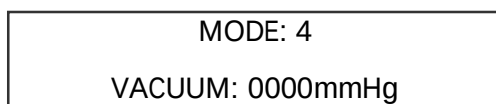
The machine has four (4) modes/program presets. Each mode preset parameters are

- ❖ VACUUM LEVEL
- ❖ SEALING TIME
- ❖ COOLING TIME

These parameters can be modified by the operator if required. The machine will automatically go to the previously used mode after initializing.

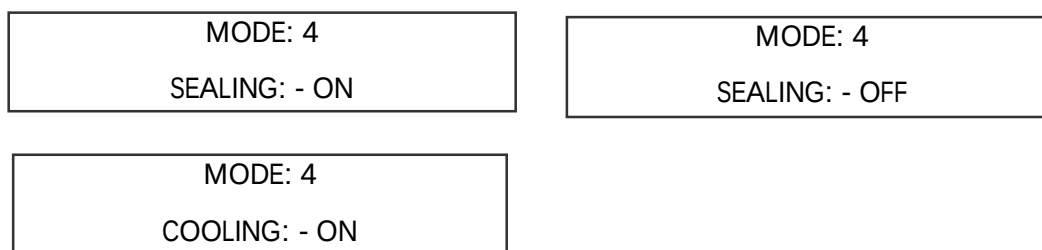


Now the lid is closed, then vacuum increases up to the preset level.

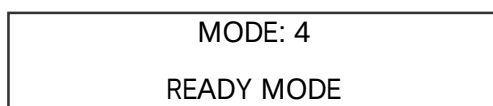


When the preset level pressure value reached, sealing will be ON.

After sealing cooling ON

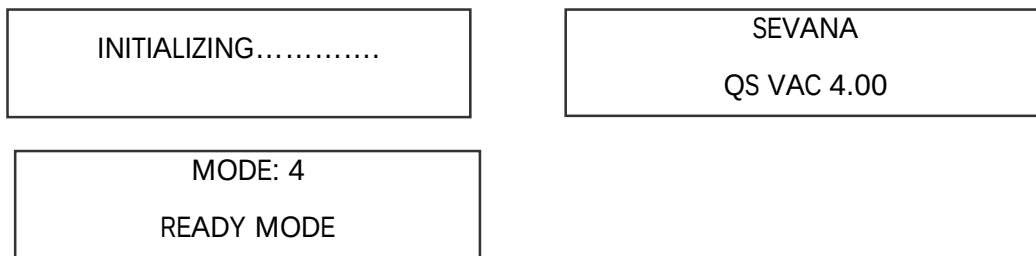


After that the lid open automatically and the display changes to "ready mode"



TO RESTART THE MACHINE:

Press the “STOP” button for 1 second.



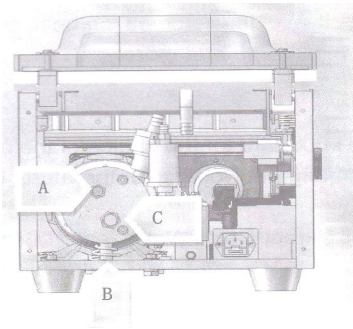
13. OPERATION

- ❖ Switch on the supply
- ❖ Adjust the vacuum and other parameters
- ❖ Select the required mode
- ❖ Keep the product having filled in a barrier/high barrier film pouch, in such a way that the mouth part of the pouch is on the sealing head, leaving sufficient margin. (High barrier film does not allow entry of air or exit of aroma from the pouch once sealed).
- ❖ Close the acrylic lid and press gently, the vacuum pump starts automatically evacuating the whole chamber till the set pressure is reached
- ❖ The sealing jaw is actuated and seals the pouch
- ❖ After sealing operation fresh air is let to the chamber, and when the inside and outside pressures are equal, lid opens automatically. All operations will be displayed on the display when they take place.
- ❖ During the air intake in to the chamber, one could see, the pouch getting shrunk, due to higher atmospheric pressure outside and inside the pouch. In wet products this shrinking will be seen initially but will disappear later due to evaporation of liquid inside the pouch.
- ❖ Now the machine is ready for next cycle

14. MAINTENANCE

Caution: Isolate electric power supply before doing the maintenance.

REPLACING OIL:

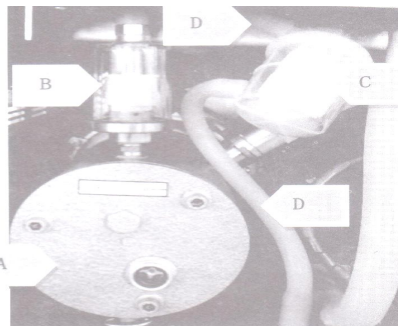


A. Oil-filling hole

B. Oil-drain hole

1. Open the back cover
2. Place a basin for oil under the drain hole
3. Unscrew the oil drain plug with wrench in correct size
4. Drain the oil
5. Put the oil drain plug back after oil drain
6. Dispose the waste oil as the environmental protection law regulates

REPLACING FILTER:



A. Vacuum pump

B. Purolator

C. Oil-mist filter

There are one or more filters in the vacuum pump, which is used to absorb and filter the oil mist. The filter will turn wet (saturated) and need replacement. The machine can't reach to the maximum vacuum level if the filter is saturated.

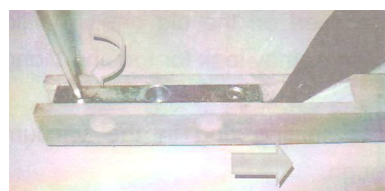
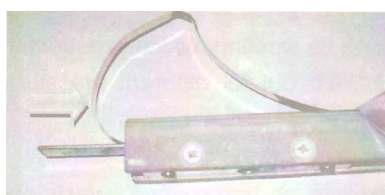
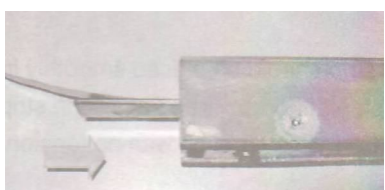
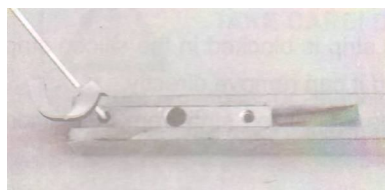
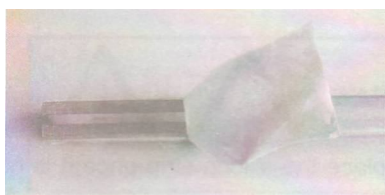
It is suggested to replace the filter at the same with the vacuum pump oil. The filter locates at the way of the vacuum exhaust pipe.

The normal maintenance cycle of the oil mist filter is between 6-12 months.

REPLACING OIL MIST FILTER:

- Open the back cover of the machine and find the oil mist filter
- Pull up 2 silicon pipes connected to the filter
- Replace the old one with the new one
- Do not interchange the inlet and outlet pipes of the oil mist filter
- Install the back cover

REPLACING TEFLON CLOTH AND HEATING ELEMENT:



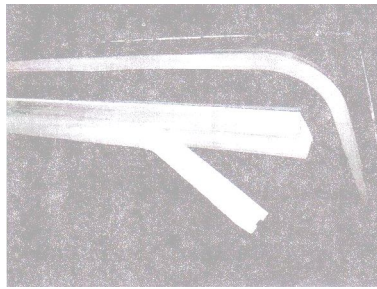
- ❖ Remove the heating plate.
- ❖ Remove the Teflon cloth on the heating plate.
- ❖ If it is for replacing only the Teflon cloth, wipe the grease away with a clean cloth, then stick the new Teflon cloth to the heating plate.
- ❖ Unscrew the bolt of the fixing block.
- ❖ Unscrew the bolt of the fixing block.
- ❖ Pull out the copper sheet and the heating
- ❖ Wire.
- ❖ Remove two sides of the heating plate with the same method.
- ❖ Remove the old Tetrafluoro strip under the heating element.
- ❖ Wipe away the grease on the heating plate with a clean cloth.
- ❖ Stick the new Tetrafluoro strip to the heating plate.
- ❖ Cut a new segment of flat heating element, whose length is 25cm more than the heating plate.
- ❖ Insert one side of the flat heating element through the trough of the heating plate, reinsert the copper sheet and fasten the bolt.
- ❖ Pull the other side of the flat heating element out from the trough on the other side of the heating plate.
- ❖ Fasten the flat heating element with a nipper and simultaneously, insert the copper sheet and screw the bolt. Make sure the flat element is fastened straight before screwing the bolt.
- ❖ Cut out the unnecessary flat heating wire of the copper sheet.
- ❖ Stick a new segment of Teflon cloth to the new flat heating wire smoothly.
- ❖ Put the heating plate back to the machine.

The average maintenance cycle of the heating element and Teflon cloth is at least once every three month.

REPLACING SILICONE STRIP:

Check weekly whether the silicon strips is coarse. Replace the silicon strip once it is not flat.

The average maintenance cycle of the silicon is at least once every 6 months.



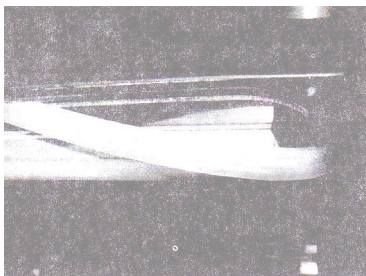
- The silicon strip is blocked in the silicon strip support and it can remove directly.
- Remove the old silicon strip from the silicon strip support.
- Cut a new silicon strip in the same length with the old one.
- Put the new silicon strip in the silicon strip support.
- The silicon strip should be placed smoothly in the silicon strip support. The flat silicon strip is important, which should be with no tension.

Note: One side of the silicon strip is reticulated pattern, and the other is reticulated pattern with fixed holes. It can be installed with character, which is used to print label. Choose the side as your needs.

REPLACING SEALING RING:

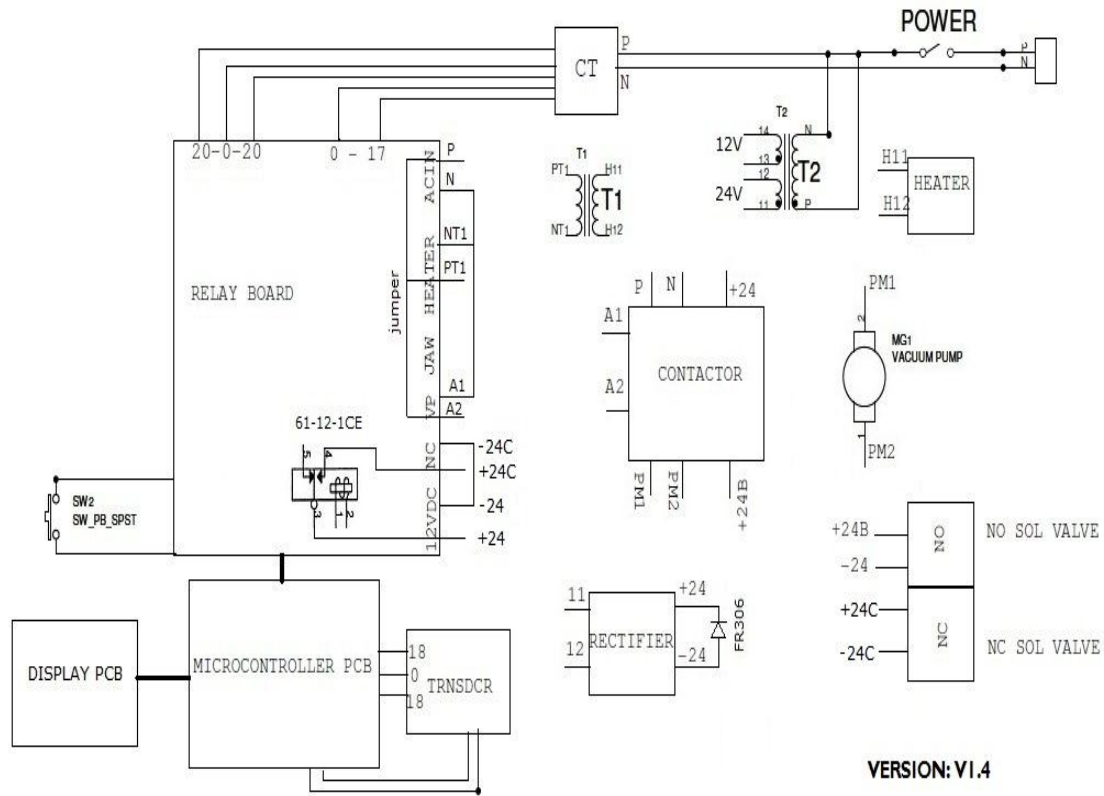
The sealing ring keeps the vacuum chamber sealed during its working, which is essential to get the needed vacuum level. The sealing ring will wear out for different pressure. Please replace it at regular intervals.

The average maintenance cycle of the silicon strip is at least once every six months.



- The sealing ring is blocked in the vacuum chamber trough and it can be remove directly.
- Please measure the length of the new sealing ring based on the old one. The lid can't be closed or may leak for too short/long ring.
- Put the new sealing ring in the vacuum chamber trough.
- The sealing ring should be placed smoothly without any tension.

15. ELECTRICAL SCHEMATIC



15. TROUBLESHOOTING

No.	Complaint	Reasons	Remedy
1	Machine does not work; power switch does not light up at switch on position.	1.No AC supply. 2.Fuse blown/MCB tripped. 3.Mains cord failure. 4.Power switch failure.	1.Restore AC supply. 2.Check for any short circuit or replace the fuse/reset the MCB. 3.Replace mains cord. 4.Replace the switch or board.
2	Vacuum pump does not work when lid is closed and vacuum level is always displayed	1.Micro switch does not operate. 2.Defective micro switch. 3.Defective contactor (coil open or contact burned out). 4.Defective relay. 5.Defective motor.	1. Adjust switch operating lever screw suitably to operate the switch when lid is closed. 2.Replace the micro switch. 3.Replace the contactor. 4.Replace the relay board. 5.Replace or rectify the motor.
3	The lid does not remain closed even after vacuum pump starts	1.Lid gasket does not touch the chamber face uniformly.	a.Press the lid with both the hands at the corner of lid. b.Check the gasket for any damage and replace if necessary. c.Check the height of lid hinge. If the hinge height is optimum, the lid can be closed easily and the gasket touches the chamber uniformly.
4	Insufficient Vacuum Reading	1.Low vacuum setting 2.Solenoid valve leaks: atmospheric air enters in to the chamber through the solenoid valve due to, a)Defective solenoid valve. b)Defective relay. 3.Low oil level in the vacuum pump. 4.Moister contaminated oil. 5.Vacuum leaks through lid gasket/bolt holes on the lid/pipe joints/bushes at cable entry. 6.Wear and tear of vanes of vacuum pump. 7.Defective transducer Board or twisted cable to transducer board.	1.Increase the vacuum setting. 2. a)Replace the solenoid valve. b)Replace relay board. 3.Keep the required oil qty in the vacuum pump. 4.Drain the oil completely and refill. 5.Identify the location of leakage and replace the defective components or rectify the problem by tightening the joints. 6.Overhaul /replace the pump. 7.Replace the defective.
5	Sealing head operate but sealing does not takes place	1.Low sealing time setting. 2.heating element failure. 3.Defective sealing transformers.	1.Increase sealing time. 2.Replace heating element. 3.Replace defective sealing transformers.
6	Machine halts after sealing	1.Defective relay. 2.Defective air inlet solenoid valve.	1.Replace the relay board. 2.Replace solenoid valve.
7	Pouch expands during vacuum time	1.Low gap between sealing head and pad holder assembly.	1.Increase the gap by adjusting the pad holder assembly.

8	Nonuniform sealing	1.High gap between sealing head and pad holder assembly. 2.Sealing head and pad holder not align properly. 3.Burnt Teflon fabric.	1.Reduce the gap. 2.Align sealing head and pad holder. 3.Replace the Teflon fabric.
9	Machines works fine, but blank/garbage display	1.Defective display. 2.FRC cable of display or its connector defective. 3.EMI issue	1. Replace display board. 2.Replace cable and connector. 3.Give 103 disc capacitor between 1 st & 2 nd , 15 th & 16 th pins of LCD.
10	The Microcontroller does not responding to push button pressing.	1.Defective switches. 2.Defective FRC Cable of Display PCB	1.Replace display board. 2.Replace cable and connector.
11	System hangs during operation	1.Temporary bug in program due to noise. 2.Defective micro controller board.	1.Switch off and restart the machine. 2.Replace Microcontroller board.
12	Overheating of Heating element/Transformer	1.Short circuit with body of machine. 2.Defective Relay/IRF 540 of heater in Relay PCB	1.Make proper wire connections. 2.Replace Relay PCB.
13	Machine trips while pump starts working or abnormal sound of pump.	1.Winding short with body. 2.Defective centrifugal switch. 3.Defective love jaw coupling bush.	1.Rewind or replace the pump. 2.Replace the switch or pump. 3.Replace the bush or pump.
14	Lid doesn't open after completing the operation.	1.Defective relay in the relay board. 2.Solenoid coil burned out.	1.Replace it. 2.Replace the coil.
15	Display shows fresh air always	1.Misalignment of micro switch. 2.Defective micro switch.	1.Correct the position. 2.Replace the switch.
16	Fuse blown out when machine is switched on	1.Short circuit of any part with machine body.	1.Check and correct it.
17	24V Transformer Fuse blown out.	1. Solenoid coil burned out.	1.Replace it.

16. SERVICE LOG

[illegible]