



10611007
Aether 8 Eco
Vacuum Pump
User Manual

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For claims under the warranty please contact your local supplier. You may also send the instrument directly to manufacturer, enclosing the invoice copy and by giving reasons for the claim.

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II. Safety

IMPORTANT Safety Items to be Observed.

Safety Warnings

! DANGER (may cause serious damage to property and or casualties)

- Please carefully read this User Manual prior to operating the instrument and observe the instructions on safe operation.
- Ensure that only trained staff operate this instrument
- The power source must be grounded reliably and away from any sources of electromagnetic interference.
- Ensure that the instrument and its accessories are free of any potential defects.
- Confirm that the voltage and frequency of the power supply matches the specified voltage and frequency specified prior to use.
- Ensure the cover of the junction box is properly installed prior to operation.
- Always wear applicable PPE whilst operating the instrument.
- High Temperature Hazard; Do NOT touch the pump whilst in operation
- Avoid inhalation and contact with toxic liquids, gases, spatters, vapor, dust, biological or microbiological mediums as these may be harmful to the operator.
- Place the instrument on a stable, dry, clean, antiskid, and fireproof surface.
- Ensure there is sufficient ventilation gaps and spacing above and around the instrument
- Ensure the instrument is stable and level and will not move due to vibration upon start-up.
- The instrument must always be monitored whilst in operation.
- Gases, vapours, or other substances at the exhaust may be harmful.
- When moving the Pump ensure the Pump is switched 'OFF' and the Power Supply is disconnected.
- Ensure the lifting eye is securely tightened prior to lifting the pump.
- Ensure the pump is kept in normal operating orientation during transport. Failure to do so can cause pump damage and or oil spillage.

! WARNING (may cause property damage or personal injury)

- The working environment must be free of any flammable, explosive, volatile or corrosive substances. If long term storage is required, clean the pump and empty of all oil. Store the pump in a dry clean area at room temperature
- Ensure handling and disposal of used oil and other parts are compliant to local environmental laws and regulations
- Do not block the motor vent.
- Only accessories listed as 'optional accessories' for use, can guarantee operational safety.
- Ensure handling and disposal of packaging is compliant to local environmental laws and

regulations.

! ATTENTION (may affect operational performance or service life)

- The instrument is deenergised only when the power cable is disconnected from the power source.
- Ensure the instrument and its accessories are protected external vibration.
- The Company reserves the right to modify the design and technical data of the pump without notice.
- Only accredited and qualified professional repair technicians can open the instrument or conduct required repairs. Persons performing repairs on the instrument other than those selected or approved by the Company shall operate to void any warranty contained hereinabove for the product



2.1 After Sales Support

If problems are encountered or technical support is required when installing or using the instrument, please contact serviceusa@hollandgreenscience.com

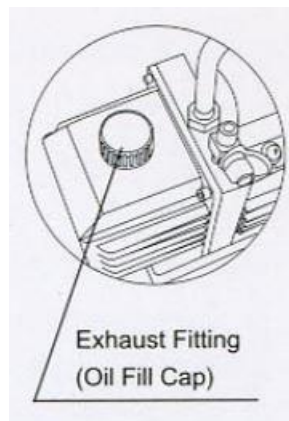
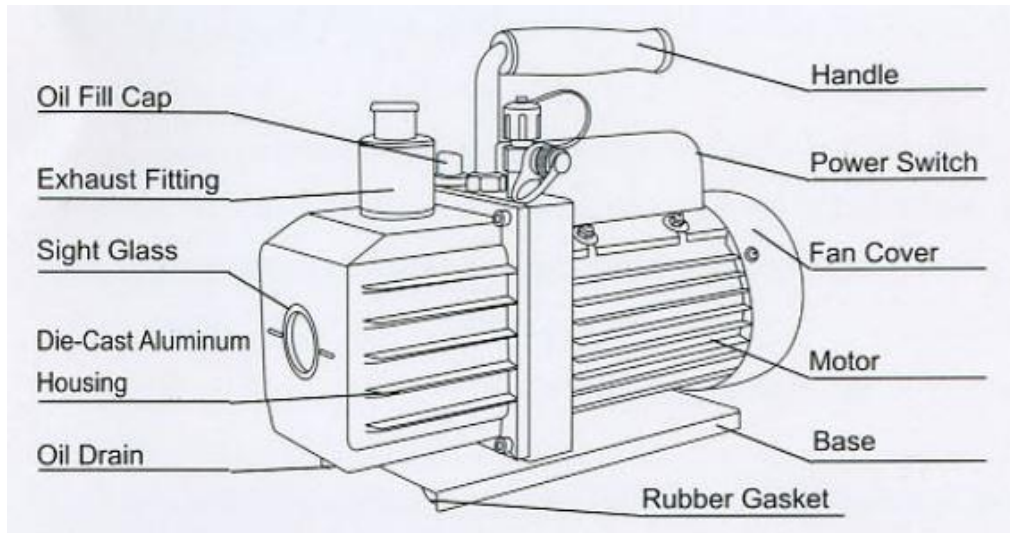
The company may provide technical assistance and information regarding the instrument or equipment or service without charge at its sole discretion. Buyer assumes sole responsibility for any reliance on or use of such assistance and information, and the company makes no warranty thereon.

Upon contact the following information is required:

- Product serial number (located on the instrument nameplate)
- Description of issue or problem
- Method and or operating steps you have undertaken towards resolution.
- Your contact details inclusive of telephone number and email address.

III. Aether 8 Eco Vacuum Pump

3.1 Components



3.2 Before using the vacuum pump

- The vacuum pump's AC motor requires 110 V rms \pm 10 % .
- The voltage and frequency of the power outlet should match the specifications listed on the motor's decal. The ON-OFF switch should be in the OFF position before plugging the pump into a power outlet. Remove and discard the exhaust plug from the end of the pump's handle prior to operation.
- The pump is shipped without oil in the reservoir. Before operating the pump, remove the OIL FILL cap and fill the pump with oil until the oil level reaches the bottom of the viewing glass. The oil capacity of the pump is approximately 340 ml. After filling the reservoir, replace the OIL FILL cap.
- Remove the cap from one of the air inlet ports and then turn the motor switch to ON. When the pump starts to run smoothly (may take from 2 to 30 seconds depending on the ambient temperature), replace the cap on the air inlet port. After the pump runs for about 1 minute, check the viewing glass for the oil level. The oil level should be at the viewing glass OIL LEVEL line. Add more oil if needed.
- Note: the oil level should remain at the OIL LEVEL line when the pump is running. Underfilling the pump will cause inefficient operation and reduce the level of vacuum achievable. Overfilling the pump may result in oil in the pump's exhaust.

3.3 Post Processing Vacuum Pump Maintenance

After using the vacuum pump, it is recommended that you do the following steps to extend the lifespan of the pump:

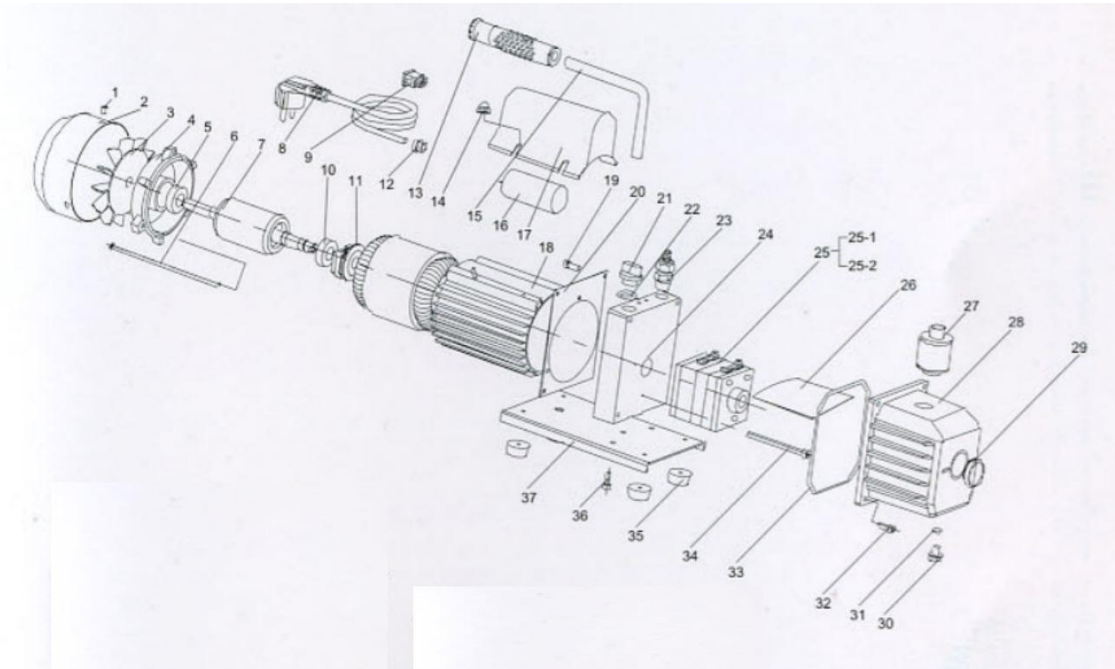
- Close the manifold valve between the pump and the system.
- Remove the vacuum hose from the pump inlet.
- Put a cap on the inlet port to prevent any contamination or loose particles from entering the port.

IV. Technical Specifications

4.1 Specifications

Model		10611007
Product Name		Aether 8 Eco
Voltage		110V/60Hz
Free Air Displacement	CFM	5.0
	L/min	142
Ultimate Vacuum	Pa	3×10^{-1}
	Mbar	0.003
	Microns	25
Motor		1/2
Intake fitting		1/4" & 3/8" Flare
Oil Capacity(ml)		340
Dimensions(mm)		340x138x244
Net Weight (kg)		11.4

4.2 Expanded Drawing



1	Cross screw	20	Trestle cover board
2	Fan cover	21	Oil fill port
3	Fan	22	Seal
4	Motor cover	23	Inlet fitting
5	Bearing	24	Trestle
6	Cross screw	25	Pump body
7	Motor rotor	25-1	Rotary-vane
8	Power supply cords	25-2	Rotary-vane spring
9	Power switch	26	Cap board
10	Bearing	27	Exhaust fitting
11	Centrifugal switch	28	Die cast aluminum housing
12	Insulating bushing	29	Viewing glass
13	Handle slipcover	30	Oil cap
14	Nut	31	Seal
15	Handle	32	Screw
16	Capacitor	33	Seal
17	Junction box	34	Screw
18	Motor hull	35	Rubber foot
19	Screw	36	Screw
		37	Base

VI. Proper Use

The instrument is designed for non-residential use and to be used in conjunction only with accessories recommended within this manual and by the manufacturer.


VII. Inspection

Packing List

Unpack the equipment carefully and check for any damage which may have arisen during transport. In the event of identified damage, please contact serviceusa@hollandgreenscience.com

The package includes the following items

Item Description	Quantity
Main Unit	1
Quick Setup Card	1

	<p>CAUTION:</p> <p>If there is any visible damage to the instrument, please do not connect the instrument to a power supply.</p>	
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VIII. Maintenance

8.1 Vacuum pump oil

The type of oil used in the vacuum pump determines the ultimate vacuum the pump can reach. We recommend using “High Vacuum Pump Oil” for this vacuum pump. This oil is designed to maintain maximum viscosity at normal operation temperature. This oil is also suitable for cold weather conditions.

Oil change procedure

- Turn the vacuum pump on for several minutes and then turn it off.
- Remove the OIL DRAIN cap and drain the used oil into a container and dispose of it properly. Oil can be forced from the pump by opening the inlet and partially blocking the exhaust with a cloth while the pump is running. Do not operate the pump this way for more than 20 seconds.
- When the oil stops flowing out, tilt the pump forward to drain the remainder of the oil.
- Replace the OIL DRAIN cap. Remove the OIL FILL cap and fill the reservoir with new vacuum pump oil until the oil level reaches the bottom of the viewing glass. The oil capacity of the pump is approximately 340 ml.
- Check and make sure that the inlet ports are capped before turning on the pump. Let the pump run for one minute and then check the oil level. If the oil level is below the OIL LEVEL line on the viewing glass, add more oil slowly (with the pump running) until the oil level reaches the OIL LEVEL line. Replace the OIL FILL cap. Make sure that the inlet is capped, and the drain cap is on tight.
- If the oil is contaminated with sludge that forms when water is allowed to collect in the oil, remove the oil reservoir cover and wipe it out.
- Another way of dealing with contaminated oil is to force out the oil from the pump reservoir. To do this, let the pump run until it is warmed up. While the pump is still running, remove the oil drain cap and slightly restrict the exhaust. This will back-pressure the oil reservoir and force out the contaminated oil. When the oil stops flowing out, turn off the pump. Repeat this procedure until the contaminated oil is removed. Replace the OIL DRAIN cap and refill the reservoir with fresh pump oil to the proper level.

IX. Troubleshooting

If disassembling of the pump is required, please check your warranty first to ensure that the warranty will not be voided due to disassembling by unauthorized service personnel.

9.1 Failure to start

- Check the line voltage. The vacuum pump requires 110 Vrms $\pm 10\%$ (loaded) at 32 °F. Operating outside the recommended range may result in damage to the system.

9.2 Oil leakage

- The module cover gasket or the shaft seal may need to be replaced. If leakage occurs in the oil drain plug, reseal the plug using a commercial pipe thread sealer.

9.3 Failure to attain vacuum

- Make sure the connection of vacuum gauge is in good. Leakage can be confirmed by monitoring the vacuum with a thermistor gauge while applying vacuum pump oil at suspected leak points. The vacuum will improve briefly when the oil is sealing the leak.
- Make sure the pump oil is clean. A contaminated pump may require several oil flushes.
- For optimal pump efficiency, the oil level should reach the OIL LEVEL line on the viewing glass when the pump is running. Do not overfill. The heat generated while the pump is running will cause the oil to expand and appear at a higher level than when the pump is not running. To check the oil level, start the pump with the inlet capped. Check the oil level through the viewing glass. Add more oil if needed.