



## MAX AIR AERATION PUMP



## INSTRUCTION MANUAL



**AQUATEC**  
EQUIPMENT

1300 552 202  
[www.aquatecequipment.com](http://www.aquatecequipment.com)



## MAX AIR AERATION PUMP

	PA40	PA80
<b>MAXIMUM FLOW (L/M)</b>	45	82
<b>NORMAL PUMPING DEPTH (m)</b>	1.32	1.53
<b>MAXIMUM PUMPING DEPTH (m)</b>	3.87	5.5
<b>NORMAL PRESSURE (psi)</b>	1.85	2.13
<b>CLOSED PRESSURE(psi)</b>	5.5	7.8
<b>POWER (W)</b>	40	85
<b>NOICES LEVEL (db)</b>	35	38
<b>WEIGHT (kg)</b>	5.4	6.3

### PRECAUTIONS



#### WARNING

**To avoid electrical shock, special care should be taken when the aerator is on operation. For each of the following situations, do not attempt to repair yourself. Return the unit to an authorised service facility for servicing, or discard it.**

- If the unit falls into water, **DO NOT REACH FOR IT**, first unplug the unit, and then retrieve it. If any electrical component gets wet, unplug the unit immediately.
- Carefully examine the unit after installation. It should not be plugged in if there is water on parts that are not intended to be wet.
- Do not operate if the power cable or plug is damaged, or if the unit is malfunctioning, dropped, or damaged in any way.
- A drip loop shown in the Figure 1, should be arranged for each. The drip loop is that a part of cable below the level of the power outlet or connector is simply hung. The drip loop prevents water traveling along the cable coming into outlet. If the electric plug on the power cable gets wet, **DO NOT UNPLUG THE UNIT.**

- Disconnect the fuse or circuit breaker supplying power to the aerator. Then unplug and examine for the presence of water in the outlet.
- Do not use the aerator near a flammable liquid such as, gasoline, thinner, etc. as this creates the possibility of explosion

### CAUTIONS FOR USE

- Close supervision is necessary when this aerator is used near children.
- This aerator is designed to handle air only. Do not, under any circumstances, attempt to handle water or other liquids. This may damage the unit.
- The ambient operating temperature for the aerator is between 5 °C and 40 °C. Operation of the unit outside of this range may result in malfunction or severely shorten the service life.
- The aerator must have a sufficient room to allow for heat dissipation. Under an extreme operating temperature conditions which may be caused by failure to observe the above., the aerator will automatically switch off until it cools down.
- Always unplug the unit prior to servicing or maintenance. Grasp plug to remove cable from outlet. **DO NOT REMOVE BY PULLING ON POWER CABLE.**

- Do not use the aerator for any other purpose different from its original use.
- Do not store the aerator under freezing condition.
- Ensure that the aerator is securely mounted prior to operation.
- Ensure that an extension cable (if required) has the correct and higher power rating.

### INSTALLATION

- Inspect the units for any damage during shipment. Ensure that no parts are missing.
- Do not expose the aerator to excessive weathering or to high moisture concentration.
- Ensure that the location is dry and free from excessive dust or debris. Dust protection around the entire unit may be constructed by furnace filters. Ensure that the air circulation is maintained all the time.
- For aeration applications, ensure the unit is placed higher than the surface level of the liquid, otherwise the liquid may run back into the aerator when the power is turned off. A properly installed, low air resistance check valve will prevent back flow and allow placement of the aerator below water surface level.
- Ensure that the aerator is placed horizontally on a strongly built place.
- The aerator should be attached to a permanent pipe assembly of the same diameter of the aerator's outlet. Rigid plastic pipe is preferable over flexible hosing for valve attachment.
- A hose can be directly attached for straight line installation, or an elbow can be used if a corner is required.

### POWER CONNECTION & GROUNDING

- The aerator must be grounded to minimize the possibility of electric shock.
- This aerator is equipped with a power cable having a grounding conductor and a groundin type plug. The plug must be plugged into an outlet that is properly installed and grounded in accordance with all appropriate codes and ordinances.

### WARNING



**Improper installation of the grounding plug can result in a risk of electric shock. If repair or replacement of the cable or plug is necessary, do not connect the grounding wire to either flat blade terminal. The wire with insulation having other surface that is green with or without yellow stripes is the grounding wire.**

- Check with a qualified electrician or serviceman if the grounding instructions are not completely understood, or if in doubt as to whether the product is properly grounded.
- Do not modify the plug provided; if it will not fit the outlet, have the proper outlet installed by a qualified electrician.
- This aerator is for use on the voltage indicated on the nameplate sticker. Check to be certain that the voltage agrees with your voltage.

### OPERATION

When the aerator is connected to a proper receptacle, the aerator will operate. The filter must be periodically cleaned or replaced. The aerator has no sliding parts and therefore no need for lubrication. Also the exhausted air is always clean.

- Do not block or restrict the aerator's discharge line.
- If the aerator produces more air than required, bleed excess air volume into atmosphere with a valve. Excessive backpressure will prematurely damage the diaphragm.

### MAINTENANCE

Periodic maintenance is required for reliable continuous operation. Any maintenance of the pump other than those described in this manual must be performed by an authorised service facility. Major maintenance works for the equipment are mainly:

- Checking the discharge piping as required, and
- Cleaning or changing the filter every 6 months.

Besides the regular maintenance works, Customer may inspect and replace the diaphragm and the diaphragm housing.

## CLEANING OR CHANGING THE FILTER PAD

- Unscrew the top cover screw, and remove the top cover.
  - Take the filter pad out. Change it with a new filter pad if necessary.
  - Gently dust the filter pad then wash in mild, soapy water and dry.
  - Replace the filter pad and the top cover.
- Secure with the top cover screw.

## CHANGING THE DIAPHRAGM AND DIAPHRAGM HOUSING

- Place the unit upside down, and unscrew the four (4) screws that are securing the upper housing to the lower housing.
- Return the unit to the upright position, and remove the upper housing gently from the lower housing.

- Unscrew the screws that are securing the diaphragm housing to the coil frame. The diaphragm housing can be removed after disconnecting the Outlet Elbow.
- Carefully unscrew the Outlet Elbow located in the center of the diaphragm. The screw is covered with an anti-loosening adhesive.
- Replace it with a new diaphragm frame and a new diaphragm housing, and ensure all screws are tightly fastened.

Note: All models up to PA40/PA60 have two (2) diaphragm blocks, and the other models including and over PA40/PA60 have four (4) diaphragm blocks. It is recommended to replace all diaphragm blocks once a year.

