



# Peristaltic Dosage Pumps

AQUARIUS TECHNOLOGIES PTY LTD



## Aquarius AP - Peristaltic Pumps

User Manual

Aug 2010 Rev 10

# Aquarius Technologies Pty Ltd

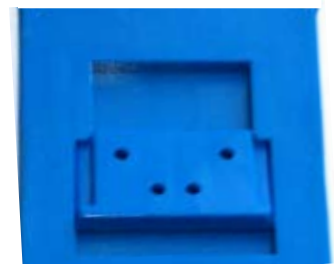
ON/OFF Control		
Model	AP_PERI1	AP_PERI3
Output	1 LPH	3 LPH
Rated Pressure	350 kPa.	350 kPa.
Motor Size & Power	16 Watt at 220 - 240 VAC	
IP Rating	Weatherproof to IP56	
Motor Speed	10 RPM	30 RPM
Squeeze Tube	NORPRENE	
Casing Materials	Glass Filled Polypropylene	
Tubing	6 x 4 mm PVC tubing	
Non-Return Valve	Viton sleeve on PVC	
Injection Valve	15 mm BSP male thread	
Roller Block	Tri-Roller polypropylene	
Power Lead	Plug-on appliance lead	
Wall Mounting	Snap On - Snap Off	
Specifications subject to change and development		

Variable Control		
Model	AP_PERI1_VAR	AP_PERI3_VAR
Output (Duty Cycle)	10-100% based on 1 min	
Rated Pressure	350 kPa.	350 kPa.
Motor Size & Power	16 Watt at 220 - 240 VAC	
IP Rating	Weatherproof to IP56	
Motor Speed	10 RPM	30 RPM
Squeeze Tube	NORPRENE	
Casing Materials	Glass Filled Polypropylene	
Tubing	6 x 4 mm PVC tubing	
Non-Return Valve	Viton sleeve on PVC	
Injection Valve	15 mm BSP male thread	
Roller Block	Tri-Roller polypropylene	
Power Lead	Plug-on appliance lead	
Wall Mounting	Snap On - Snap Off	
Specifications subject to change and development		

These pumps are designed to meet "dosage on demand requirements" using APL logic & where the duty cycle is varied to the system demand.

## Installation

The pump is intended for wall mounting using the bracket supplied which allows for snap on or snap off for ease of servicing. The bracket forms a simple template for drill holes position.



## Electrical Installation

When wall mounted as indicated opposite the pump is weatherproof to IP56 standards. The appliance connection lead fitted with an Australian 3 pin plug allows for easy disconnection for servicing of the unit. The unit requires a 220 - 240 Vac 50 Hz power supply.



## Tubing Connections

Items marked 5 and 6 on the opposite page are the suction tubing and drum weight for the chemical tank and are fitted to the left side pump inlet. Push tubing full up unto spigot and screw the tube nuts firmly with the fingers, no spanners are required, nor should be used. The clear tubing allows for vision of pump suction and positive dosage. Items marked 1 and 2 on page opposite are the black pump discharge tubing and injection fitting. Fit as suction tube above but to the right side pump outlet. Fit Teflon tape to the 15 mm BSP threads and fit into the intended dosage line to the system.

## Variable Dosage Option

It is easy to tune the dosing rate in our variable peristaltic pumps. Remove the nylon screw plug from the bottom of the pump. By using a fine screwdriver, insert it into the pot (as shown above). Turn clockwise to increase and anti-clockwise to decrease. Adjust till the required dosage rate is achieved. Our pump control allows for a variability of 10 - 100% of full dosage during a 1 min period.

# Aquarius Technologies Pty Ltd



Number	Description	Aquarius Part Number
1	Discharge Line Injector and Non-Return Valve 15 mm BSP male	AP_INJECT
2	Discharge Tubing Black 6 x 4 mm PVC tubing	TUBEDISCHARGE
3	Tri - Roller Block with 3 Rollers + Axles - assembled	AP_ROLLBLOCK
4	Electrical Lead and plug in adaptor - Australian 3 pin plug	LEAD_PUMP_INP
5	Suction Tubing Clear 6 x 4 mm PVC tubing	TUBESUCTION
6	Suction Tube Drum Weight for Chemical Tank	AP_DWEIGHT
7	AP peristaltic pump clear frontplate - Blue tint polypropylene	AP_PERI_LID
8	Norprene Squeeze Tube and Tube nuts	AP_TUBE4824
9	AP 1 LPH pump complete with tubing, injectors, and power lead	AP PERI 1 complete
9A	AP 3 LPH pump complete with tubing, injectors, and power lead	AP PERI 3 complete
10	Motor - 220 - 250 Vac 16 Watt - 10 RPM for 1 LPH pump	PUMP_MOTOR_10RPM
10A	Motor - 220 - 250 Vac 16 Watt - 30 RPM for 3 LPH pump	PUMP_MOTOR_30RPM

## Service Kits

### AP\_PERI\_S\_KIT – AP PERI SERVICE KIT

(Maximum service interval - 12 months)  
Included in this Kit are the following

- AP\_TUBE4824 - Number 8
- AP\_INJECT - Number 1
- TUBESUCTION - Number 5 - 2 metres
- TUBEDISCHARGE - Number 2 - 2 metres

### AP\_PERI\_O\_KIT – AP PERI OVERHAUL KIT

(Maximum service interval - 2 years)  
Included in this Kit are the following

- AP\_TUBE4824 - Number 8
- AP\_INJECT - Number 1
- AP\_ROLLBLOCK - Number 3
- AP\_DWEIGHT - Number 6
- AP\_PERI\_LID - Number 7
- TUBESUCTION - Number 5 - 2 metres
- TUBEDISCHARGE - Number 2 - 2 metres

## Warnings

Chemicals in use as part of the treatment program may be hazardous. Please refer to the full Material Safety Data Sheets (MSDS) provided by your chemical supplier and ensure all personnel involved are aware of the handling and safety procedures.

Please read and understand all safety warnings on chemical containers before servicing any dosing equipment.

Wear as a minimum - safety goggles and gloves when servicing the dosing equipment.

Do not mix concentrated acids and oxidising agents as explosion, and/or toxic and lethal gas may be evolved, and/or fire result.

Keep all chemical containers sealed and free from contamination.

## Regular Inspections and Maintenance

For optimum results and continued accuracy, the complete operation of the dosing system should be verified at least on a monthly service basis.

Injection non-return valves and pumps should be cleaned and checked at least annually.

Sodium Hypochlorite being highly alkaline may lead to scale formation on its dose injector and this may require acid cleaning on a frequent basis.

On the peristaltic dose pumps, the squeeze tubes and roller block should be checked at least annually and should be replaced every 12-24 months.

More regular maintenance may be required for the larger 3.0 l/hr pumps, due to increased pumping rates.

Chemical suction and discharge tubes should be inspected monthly

## Other Sales Bulletins from Aquarius

**KPI Intelligent Water Treatment Controllers**

**Cooling Water Treatment Controllers**

**Swimming Pool Disinfection Controllers**

**Trade Waste or Effluent Controllers**

**Potable Water Disinfection Controllers**

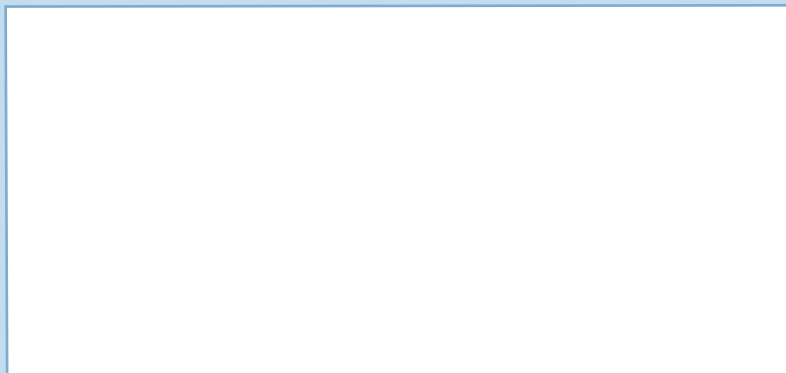
**AquaGuard 2 Water Management Software**

**for remote control interface from a PC**



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