

AMBIC[®]

Low & Medium Volume DC Peristaltic Pump Variable Speed



OPERATING INSTRUCTIONS

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Introduction

The Low & Medium-volume Variable-speed Peristaltic pump with metal gears is supplied as stand-alone pump. Pumps are supplied as either of two voltages: 12 & 24 V DC. The delivery output will be dependent upon the motor speed and the size of the tube size that is fitted to the pump, as well as the viscosity of the liquid being pumped. This pump uses one of four different Santoprene tube bore options, and one of five different speed motor options.

This pump is ideal for intermittent use.

Safety



CAUTION: *Wear protective clothing and eyewear when dispensing chemicals or any other materials. Observe safety handling instructions (MSDS) of chemical manufacturers.*



CAUTION: *To avoid severe or fatal shock, always disconnect main power when servicing the unit.*

Specifications

Pump delivery – These are **nominal** figures using Water at room temperature with a one metre suction and delivery tube:

Output	RPM	Delivery Rate ml/min			
		3.2mm Bore	4.6mm Bore	6.3mm Bore	8.0mm Bore
Variable	62	20-70	40-130	60-200	150-350
	94	25-110	60-230	90-320	200-500
	125	50-150	90-290	130-470	350-750
	156	60-190	110-340	170-560	350-800
	188	70-240	140-480	210-790	350-1100

Installation

Pump

The pump will turn clockwise during operation. Liquid intake (suction) is on the left-hand spigot and delivery (feed) is on the right-hand spigot. Ensure that the correct sized suction and delivery tubes are used. Secure the suction and feed tube with Jubilee clips.

Mounting

The pump is designed to be fitted to a suitable plastic, or metal enclosure with the correct cut out. If the pump is fitted with a mounting plate, fixing holes are provided for M4 screws. A speed control PCB is fitted to the back of the motor, DC power should be connected to the PCB using wire supplied.

Power

12/24V DC, with minimum of 2A start up current, is required. The pump should be connected to the supply voltage via a terminal block or push-on crimps, as per your requirements. Any loose wires inside the enclosure should be clamped to the solid surface. The red wire should be connected to the positive and the black wire connected to the negative of the DC supply.

Operation

The pump will run in response to application of a 12/24V DC supply at the speed that has been set, and stop on removal of the supply. There are no other controls.

Pump Maintenance

The peristaltic pump tube should be checked regularly for wear. It should also be kept clean and lubricated with silicone grease. We also recommend that the tube be changed at regular intervals, depending upon how long the pump has been in use and the type of fluid being pumped through it.

Replacing the peristaltic tube

WARNING: Face mask, gloves & other protective gear must be used for protection from chemical contact.

1. If possible, drain the chemical from the pump tube and run the pump with clean water to remove the chemical from the tube.
2. Switch the Pump OFF.
3. Remove the inlet (suction) and outlet (delivery) tube / hose. Warm the tube using a heat gun (if required), then twist and slowly pull back. Remove the screw holding the cover, gently pull the tube from the pump housing and discard safely.



Warning – A sudden pull on the tube may splash residual chemicals from the tube.

4. Turn the roller assembly so that it is at the 12 o' clock position. Apply a pea sized amount of silicone grease to the new tube before inserting in the pump block.
5. Fit the tube spigots to the pump block so that the spigot ridges are in the correct place.
6. Pinch the centre of tube and push it between the roller and pump housing at the 12 o'clock position.
7. Fit the cover and secure using the pozi pan head screw.
8. Fit the inlet (suction) and outlet (delivery) tube/ hose. Fit hose clips if required.

The information in this leaflet is for general information and guidance only. Ambic Equipment Ltd does not provide any warranty on the application of Pumps or Pump Assemblies. It is recommended that customers carry out life tests for their particular application to determine suitability prior to use. The information provided is given in good faith and believed to be current and correct at the time of publication. Ambic Equipment Ltd cannot accept responsibility for any errors or omissions contained in this document.

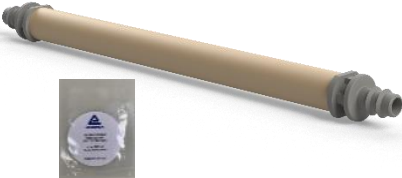
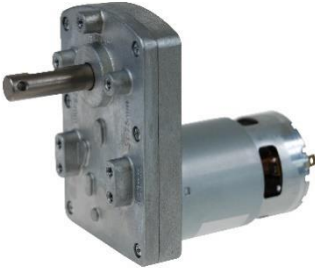
Troubleshooting

Fault	Cause	Remedy
Pump does not work	Pump is not connected to the supply. The supply is Switched OFF. Pump is drawing current but not running.	Check that pump is connected to supply voltage. Switch the supply ON. Check the power supply is capable of supplying the required current.
No pump output delivery	Pump is not running. Spinner assembly is running anticlockwise. Inlet tube is not connected to the left-hand spigot. Suction tube assembly is not properly inserted into chemical drum – use a suitable Non return valve. Stiffener not fitted to the suction tube. Kinks in the suction and/or delivery tube.	Connect the power to the pump. Reverse the supply connections. Connect the inlet (suction) tube to the left-hand spigot. Insert the suction tube into the drum. Fit a stiffener tube; this will help with keeping the suction tube to the bottom of the drum. Remove the kink and make sure it does not happen in the same place again.
Pump does not lift the liquid	Peristaltic tube needs replacing.	Replace the tube with correct size bore, spigot and shore hardness as supplied through the manufacturer or their recognized agent.
Chemical seems to lift and then drop back.	Peristaltic tube needs replacing. Air getting inside the tube.	Replace the tube with correct size bore, spigot and shore hardness, as supplied through the manufacturer or their recognized agent. Check if the suction and delivery tubes are fitted tightly onto the spigot and that a jubilee clip has been fitted.

Low & Medium-volume Metal Gear Peristaltic Pump (12/24V DC) - Variable Speed

Parts Listing

The following spare parts are available to order separately:

ALP/101-SA625-ATS Santoprene Peristaltic Tube	ALP/101-SI635-ATS Santoprene Peristaltic Tube
	
ALP/101-SA465-ATS Santoprene Peristaltic Tube	ALP/101-SA325-ATS Santoprene Peristaltic Tube
	
AMP/101-SA805 Santoprene Peristaltic Tube	
	
ALP/100-12, ALP/100-24 DC Motor (12 or 24V)	ALP/203-C & AMP/103-C Pump Block and Cover
	
Five different motor speeds	
ALP/102 & AMP/102 Roller Assembly	ALP/115 Silicone Grease
	

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