

GP-303 12/24V PUMPS

Installation / Operating Instructions

Do not substitute other fittings for the ones supplied with the pump, except for our custom AN-8 fittings if you bought them from us. They can damage the pump and void warranty.

The pump can be installed in any orientation. Vertical preferred, pump DN.

Pump is supplied with **3/8 BSPP to 1/2" hose barb** custom adapters. The length of the BSPP part is critical. It is recommended that the screen filter provided be installed on the suction side of the pump, to prevent debris from entering the gears and stalling the motor. Care must be taken not to operate the pump with either the suction or discharge sides closed. Ensure that all system valves are open prior to pump operation. *Use a minimum of 1/2" ID hose for all suction and discharge plumbing.*

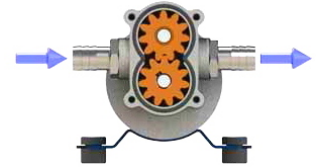
Do Not Operate the pump above its maximum rated pressure of 101 PSI. Gear pumps can generate extremely high pressures when outlet is restricted, and could damage plumbing and the pump.

Electrical Connection

With the Red wire connected to **+** and Black to **-**,

the fluid will run left to right when facing the pump head (illustration on the right)

Make sure that the power source and wire gauge used, matches the power requirements for this product model. On longer wire runs, if the wire used is of very light gauge, voltage drop may occur and the pump motor will overheat, or will not perform adequately. AWG 12 or AWG 10 is a safe bet. Recommended (slow blow type) fuse **12V-25A / 24V-20A**.



GP-303 is reversible by switching the polarity of the wires and can operate in both directions without negative effect on the pump, or can be connected to a reversing switch.

Pump Speed Control

In case you need to control the speed of the electric motor, the recommended method is to use a PWM DC Motor Speed Controller with appropriate Amp rating. They are very inexpensive on eBay or Amazon.

DO NOT try to control the speed of the motor by reducing the Voltage. It will overheat and burn up the motor.

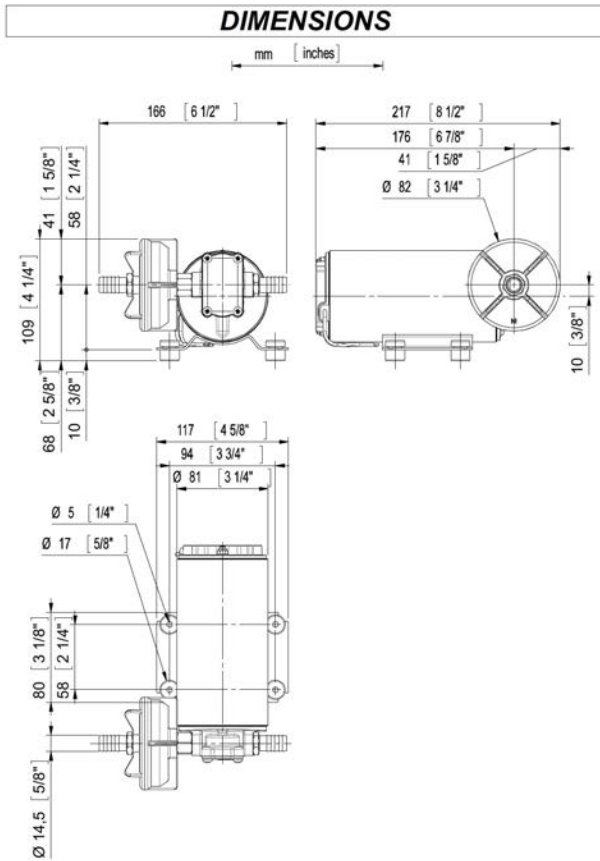
System Priming

To avoid unnecessary wear on the gears by running them dry for more than 30 minutes. It is necessary to prime the pump before initial use. Follow the procedure below to prime the system:

1. Pour a small amount of liquid to be pumped (about 3 oz) into the suction hose.
2. Operate the pump for a few seconds to draw this liquid into the pump.

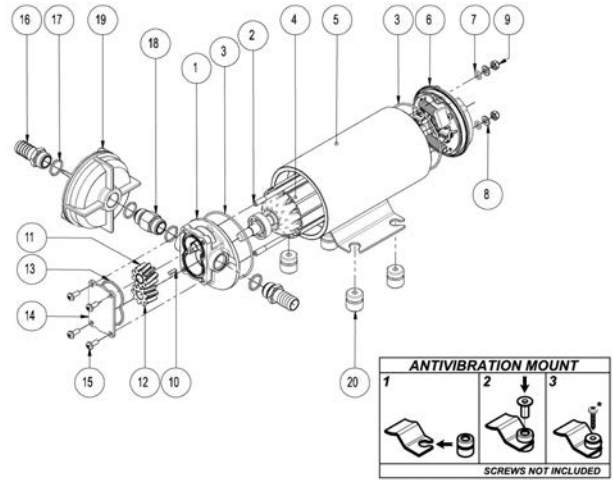
Once the system is primed, this procedure does not have to be repeated again. The residual oil in the lines is sufficient to lubricate the gears for subsequent use.

Operating cycle: The pump can operate on continuous cycle with pressures not exceeding 50 psi.

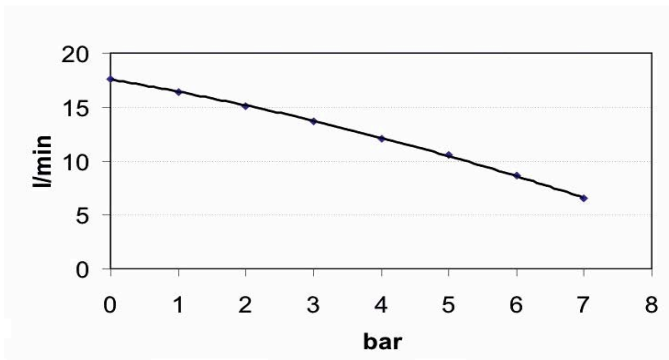


EXPLODED VIEW

DESCRIPTION
PUMP BODY
ROD
O-RING
ARMATURE
PUMP FRAME
BRUSH HOLDER
O-RING
WASHER
NUT
KEY
DIE GEAR
DRIVING GEAR
O-RING
TOP PLATE
SCREW
TUBE OUTLET
O-RING
NIPPLE
FILTER
ANTIVIBRATION MOUNT

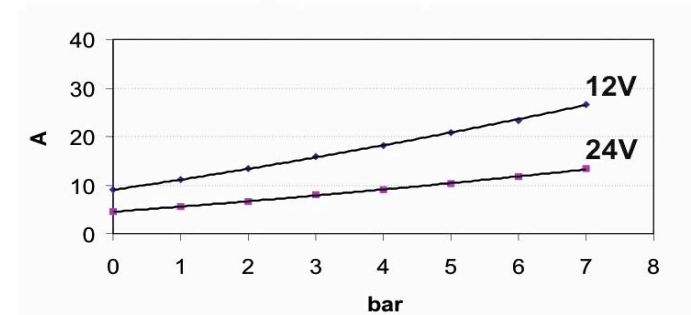


FLOW RATE DIAGRAM



* Flow rates are for 30 weight motor oil at 70F

AMP DRAW DIAGRAM



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