

GP-301-12L/24L Pumps

Installation / Operating Instructions

Installation

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

Care must be taken not to operate the pump with either the suction or discharge sides blocked. Insure that all system valves are open prior to pump operation. Do not substitute the adapters supplied with the pump with other fittings, except for our custom AN-8 fittings if you bought them from us.

Thread length is critical. The pump is provided with male 3/8" NPT (National Pipe Tapered) threaded adapters.

The thread size on the pump is custom length 3/8" BSPP

It is critical not to thread in a longer fitting that can deform the pump head and cause irreparable damage.

It is recommended that a screen or filter 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 20 - 30 PSI.*

Gear pumps can generate extremely high pressures, and could damage plumbing and the pump.

Electrical Connection



With correct polarity (RED + BLACK -) the flow will be left to right while facing the pump head.

Be sure that the power source and wire gauge used, matches the power requirements for this product model. AWG 16 size wire for runs up to 15 feet is recommended. Voltage drop may occur and the pump motor will overheat, or will not perform adequately. The pump is reversible and could operate in either direction without damage to the pump. Reversing the polarity of the power leads will reverse the flow direction. The pump can be used with a reversible switch if needed.

Speed Control

Do not use reduced Voltage to control the pump speed. It will overheat and damage the motor.

Correct way to control the pump speed is by installing a rated for 10A or more **PWM DC Motor speed controller**. Very inexpensive on eBay or Amazon

System Priming

To avoid unnecessary wear on the gears by running them dry, it is necessary to prime the pump before initial use. Follow the procedure below to prime the system.

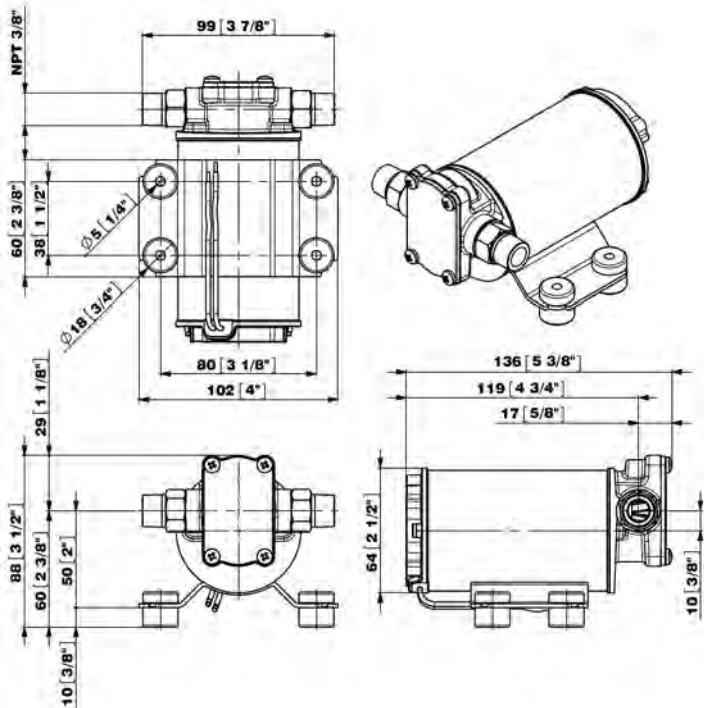
1. Pour a small amount of liquid to be pumped (about 3 oz) into the suction hose.
2. Operate the pump for a few seconds to draw this liquid into the pump.

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.

IMPORTANT NOTICE:

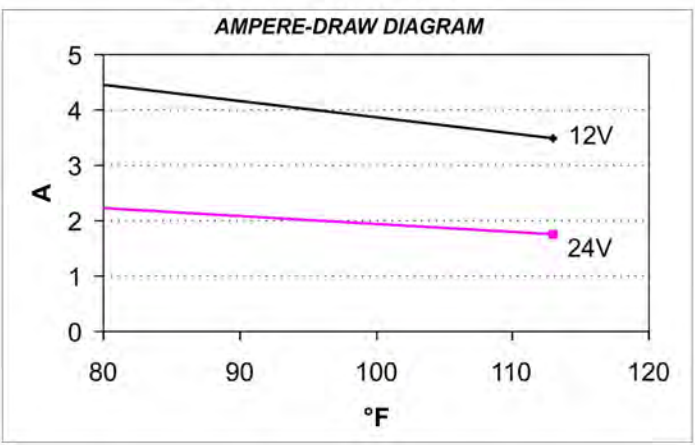
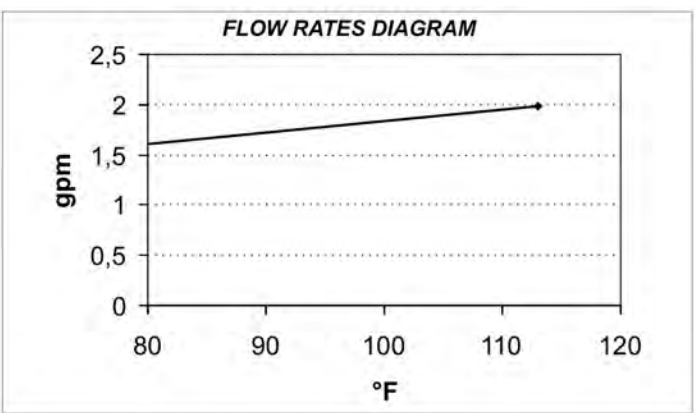
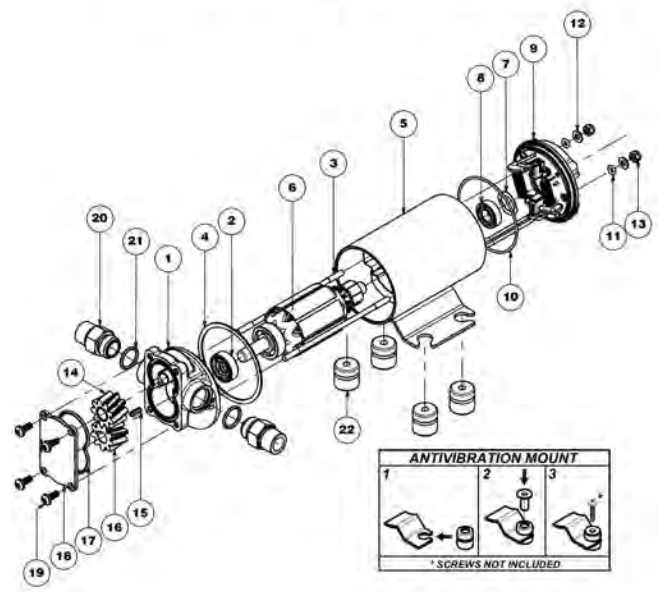
This pump is not designed to pump gasoline.

DIMENSIONS



EXPLODED VIEW

Pos.	Q.ty	Description	Pos.	Q.ty	Description
1	1	PUMP BODY	12	2	WASHER
2	1	SEAL	13	2	NUT
3	2	ROD	14	1	IDLE GEAR
4	1	GASKET	15	1	KEY
5	1	PUMP FRAME	16	1	DRIVING GEAR
6	1	ARMATURE	17	1	O-RING
7	1	COMPENSATION SPRING	18	1	TOP PLATE
8	1	BALL BEARING	19	4	SCREW
9	1	BRUSH HOLDER	20	2	TUBE OUTLET
10	1	O-RING	21	2	O-RING
11	2	O-RING	22	4	ANTIVIBRATION MOUNT



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