

PUMP INSTALLATION

MOUNTING

Flojet I Series is a self-priming pump. It may be located several feet from the tank, above or below the liquid level (It is not a submersible pump.) For vertical pump mounting be sure that the motor is located on top. This will prevent water from entering the motor chamber in event of a leak.

PLUMBING

For best performance, flexible hose is recommended instead of rigid piping at the pump. Flojet 4000 Series ports are a push in type retained by a “C” clip. To install the 4000 ports move “C” clips to rear of pump. Push the port until snug. Slide “C” clip forward to front of pump. Do not install pump such that plumbing causes excessive stress on either port.

It is essential that a 20 mesh strainer or filter be installed in the tank or in the pump inlet line to keep large foreign particles out of the system. The Flojet 1600 Series 40 or 20 mesh strainer is available with various connections to fit most installations. For more information, request Form No. 81000-072. The use of check valves in the plumbing system may interfere with the priming ability of the pump. Check valves, if used, must have cracking (opening) pressure of no more than 2 psi.

**PRODUCT WARRANTY IS VOID
IF INSTALLATION INSTRUCTIONS
ARE NOT FOLLOWED**

ELECTRICAL

On 115 and 230 Volt AC pumps a 6 foot cord with grounded plug is standard. This cord should be plugged into a ground fault interrupter receptacle. On 115 Volt AC

TROUBLESHOOTING

Motor operates, but no pump discharge (Failure to Prime)

- Restricted intake or discharge line. Open all line valves.
- Check for debris in check valves.
- Check for clogged inlet filter.
- Air leak in intake line.
- Punctured pump diaphragm.
- Defective pump check valve.
- Crack in pump housing.

Motor Fails to Turn On

- Pump or equipment not plugged in electrically.
- Loose wiring connection.
- Defective motor or rectifier.

pumps, the black wire lead is common, the white is neutral and green/yellow is ground. On 230 Volt AC pumps, the brown wire lead is common, the blue is neutral and the green/yellow is ground. Never connect the green (or green/yellow) wire to a live terminal. On 12 and 24 Volt DC pumps, match red (+) and black (-) power leads with red and black leads on motor or switch.

OPERATION

Allow pump to prime with discharge line (or spray valve) open, to avoid airlock. Built-in pressure switch will shutoff pump automatically when discharge valve is closed and will restart pump when valve is opened. When pump runs out of liquid, it will continue to operate. Running dry will not damage the pump. Turn off manually.

SPRAY TIP

In spraying applications the pressure generated by the pump is generally dependent upon the size of the spray nozzle. An undersized spray nozzle will cause the pump pressure switch to cycle on and off and create a pulsating flow from the pump. To maintain a smooth flow and constant operating pressure, the smallest size spray nozzles that may be used are as follows:

MODEL	MINIMUM NOZZLE SIZE	
	Equiv. Orifice Diam.	Last 2 Digits*
I 301050110	9/64”	30
I 301050101	9/64”	30
I 103050220	5/32”	40
I 103050230	5/32”	40

*Ref. Spraying Systems Catalog

Pump Fails to Turn Off after Discharge Valves are Closed

- Depletion of available liquid supply.
- Punctured pump diaphragm.
- Discharge line leak.
- Defective pressure switch.
- Insufficient voltage to pump.

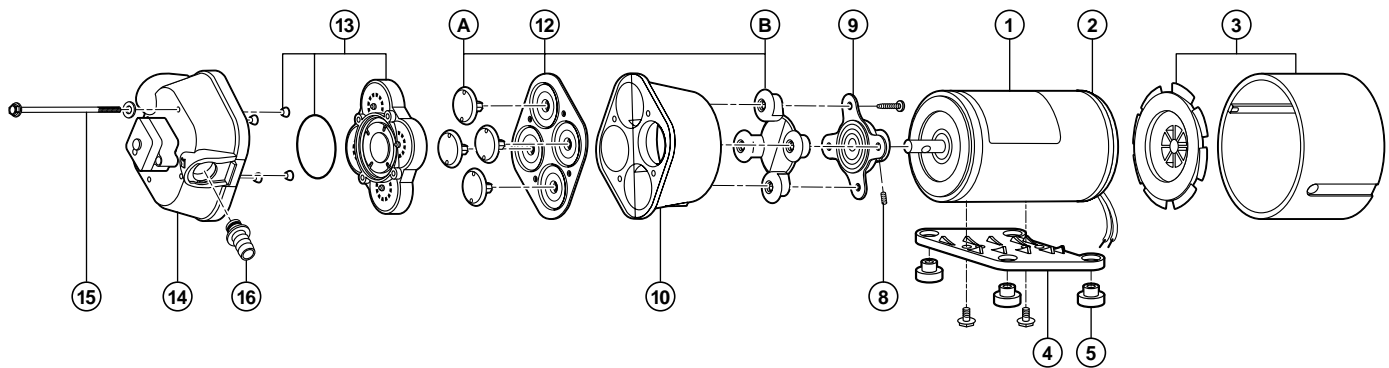
Low Flow and Pressure

- Air leak at pump intake.
- Accumulation of debris inside pump and plumbing.
- Worn pump bearing (excessive noise).
- Punctured pump diaphragm.
- Defective rectifier or motor

Pulsating Flow- Pump Cycles on and off

- Restricted pump delivery. Check discharge lines, fittings, valves and spray nozzles for clogging or undersizing.

PARTS LIST I SERIES



KEY	PART NO.	DESCRIPTION	QTY.
1	02009-027	Motor 12 Volt DC TEFC I 301050101 For: I 301030101 MPU	1
	02009-037	Motor 12 Volt DC TEFC Therm. Prot. I 103050230 For: I 103030230 MPU	1
	02029-055	Motor 115 Volt AC TEFC 6'Cord I 301050110 For: I 301030110 MPU	1
2	20115-113	Brush Endbell Assy. 12 Volt DC	1
	20115-230	Brush Endbell/Rect. Assy. 115 Volt AC 6'Cord Cam/Bearing Kit with Set Screw	1
3	20132-005	Fan/Shroud Kit	1
4	11028-101	Plastic Baseplate Assy. with Grommet & Screws	1
5	20132-000	Grommet Kit	Set of 4
8	91008-000	Cam/Bearing Set Screw	1
9	21033-002	Cam/Bearing Kit with Set Screw I 301010110	1

KEY	PART NO.	DESCRIPTION	QTY.
		I 301030110	1
		I 301050101	1
		I 301030101	1
	20400-003	I 103050220	1
		I 103030220	1
		I 103050230	1
		I 103030230	1
10	20401-000	Bearing Cover	1
12	20403-040	Diaphragm Kit Santo with Piston & Screws	1
13	20407-030	Check Valve Assy. Kit, EPDM with "O" Ring & Ferrules	1
	20407-020	Check Valve Assy. Kit, Viton with "O" Ring & Ferrules	1
14	20404-001	Upper Housing, Switch Assy. Kit	1
	20404-011	Upper Housing, No Switch Kit	1
15	20405-000	Pump Screw Kit with Washer & Ferrules	Set of 4
16	20381-002	1/2" Port Kit	2
	20381-003	5/8" Port Kit	2
	20381-006	3/4" Port Kit	2

SERVICE TIPS

DISASSEMBLY Remove four pump head screws (15). Rotate bearing cover (10) so drain notch is aligned with cam/bearing assembly set screw (8). Loosen set screw with 1/8" allen wrench and slide pump head off shaft. *Always* use complete FLOJET repair kits upon reassembly.

ASSEMBLY Install new single-piece outer piston (B) into lower housing (10) with piston tops pointing away from motor. Slightly bend outer piston (B) along premolded crease to aid assembly. Place diaphragm in lower housing (10) with the molded o-ring seals facing away from motor. Insert each inner piston (A) through diaphragm into outer piston. Turn each piston until fully seated. Align cam/bearing assembly (9) with outer piston (B). Secure with cam/piston screws using 18 inch pounds of torque. Reassemble lower housing (9, 10, 12) to motor. Set screw **MUST** be positioned over shaft indentation and secured tightly.

Reassemble pump upper housing (13-16). Check that ferrules are installed in upper housing and O-ring is properly seated before inserting check valve assembly (13) into upper housing (14). Align pump assembly to motor and tighten pump head screws evenly with 25 inch pounds of torque.

WARRANTY

FLOJET warrants this product to be free of defects in material and/or workmanship for a period of one year after purchase by the customer from FLOJET. During this one year warranty period, FLOJET will at its option, at no charge to the customer, repair or replace this product if found defective, with a new or reconditioned product, but not to include costs of removal or installation. No product will be accepted for return without a return material authorization number. All return goods must be shipped with transportation charges prepaid. This is only a summary of our Limited Warranty. For a copy of our complete warranty, please request Form No. 100-101.

RETURN PROCEDURE

Prior to returning any product to FLOJET, call customer service for an authorization number. This number must be written on the outside of the shipping package. Place a note inside the package with an explanation regarding the reason for return as well as the authorization number. Include your name, address and phone number.

Flojet



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