

PUMP INSTALLATION

MOUNTING

Flojet 4100 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 1720/1740 Series 40 or 20 mesh strainer is available with various connections to fit most installations. For more information, request Form #F100-072. The use of check valves in the plumbing system may interfere with the priming ability of the pump. Check valves, if used, must have a cracking (opening) pressure of no more than 2 psi.

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 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. When liquid supply to pump is depleted pump will continue to operate. Running dry will not damage the pump. Turn off manually. Caution: The standard series pump is not equipped with a bypass or pressure switch. If allowed to run against a closed valve the excessive pressure developed by the pump will cause system or pump damage.

SPRAY TIP

In spraying applications the pressure generated by the pump is generally dependent upon the size of the spray nozzle. To maintain a smooth flow and prevent pump over pressurization, the smallest size spray nozzles that may be used are as follows:

MODEL	MINIMUM NOZZLE SIZE	
	Equiv. Orifice Diam.	Last 2 Digits*
4100-043	5/32"	40
4100-142	5/32"	40

*Ref. Spraying Systems Catalog

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

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.

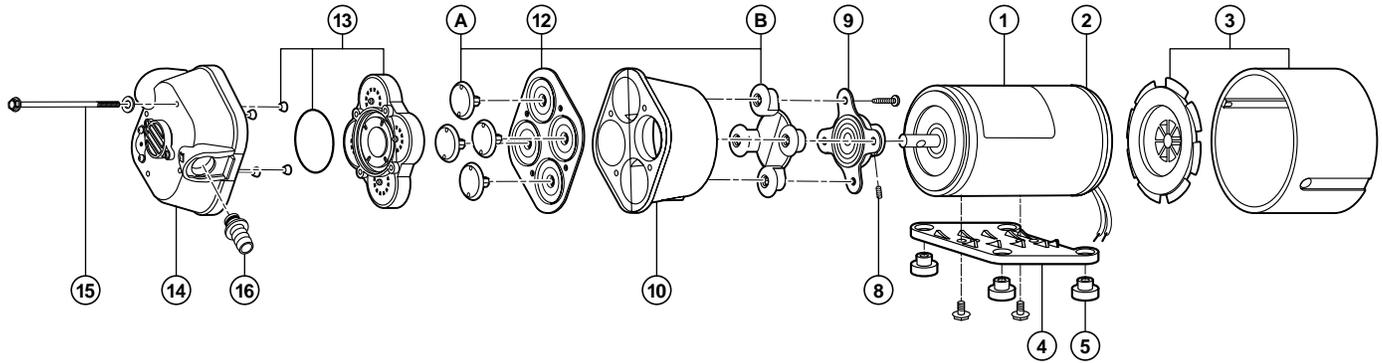
Pump Fails to Turn Off after Discharge Valves are Closed

- Depletion of available liquid supply.
- Punctured pump diaphragm.
- Discharge line leak.
- 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

PARTS LIST MODEL 4300 SERIES



KEY PART NO.	DESCRIPTION	QTY	143	502	505
1	02009-027 12V DC Mtr (TEFC)	1			x
	02009-037 12V DC Mtr (TEFC Thermo Pro)	1	x	x	
2	20115-213 Brush Endbell Assy DC wo/BRG	1			x
	20115-220 Brush Endbell Assy DC wo/BRG Thermo Pro	1	x	x	
3	20132-005 Fan/Shroud Kit	1	x	x	x
4	11028-101 Baseplate Assy. Plastic w/Grommet & Screws	1	x	x	x
5	20132-000 Grommet Kit	Set of 4	x	x	x
8	20552-000 Cam Bearing Set Screw	1	x	x	x
9	Cam Bearing Kit w/Set Screw				
	20400-002	1			x
	20400-003	1	x	x	
10	20401-000 Bearing Cover P.P.	1	x	x	x
12	Diaphragm Kit w/Pistons & Screws				
	20403-040 Santoprene	1	x	x	x
	20403-050 Geolast	1			

KEY PART NO.	DESCRIPTION	QTY	143	502	505
13	Check Valve Assy Kit w/"O" Ring & Ferrules				
	20407-010 Buna	1			
	20407-020 Viton®	1		x	x
	20407-030 EPDM	1	x		
14	Upper Housing Assy				
	20404-011 E/S NO SW	1		x	
	20404-015 V/G NO SW	1			x
	20404-019 V/G NO SW	1			x
15	Pump Screw Kit w/Washer & Ferrules				
	20405-000 Santoprene®	Set of 4	x		
	20405-002 Geolast®	Set of 4		x	x
16	20381-015 1/2" Port Kit Viton®	2			x
	20381-006 3/4" Port Kit EPDM	2		x	
	20381-014 3/4" Port Kit Viton®	2			x
	20406-011 Pump Head Assy	1	x		
	20406-018			x	
	20406-022				x

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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