

FLOJET

Model 4100 Industrial Series "Quad" Pump

Model 4100 Industrial Series

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.

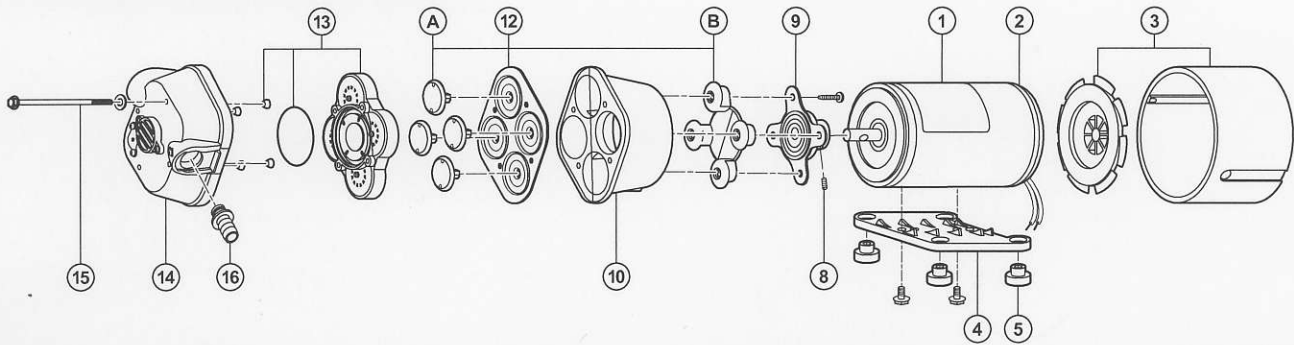
Pump Fails to Turn Off after Discharge Valves are Closed

- 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	20400-002 Cam Bearing Kit w/Set Screw	1			x
	20400-003	1	x	x	
10	20401-000 Bearing Cover P.P.	1	x	x	x
12	20403-040 Diaphragm Kit w/Pistons & Screws	1	x	x	x
	20403-050 Santoprene	1			
	20403-050 Geolast	1			

KEY PART NO.	DESCRIPTION	QTY	143	502	505
13	20407-010 Check Valve Assy Kit w/"O" Ring & Ferrules	1			
	Buna	1			
	20407-020 Viton®	1		x	x
	20407-030 EPDM	1	x		
14	20404-011 Upper Housing Assy E/S NO SW	1	x		
	20404-015 V/G NO SW	1		x	
	20404-019 V/G NO SW	1			x
15	20405-000 Pump Screw Kit w/Washer & Ferrules 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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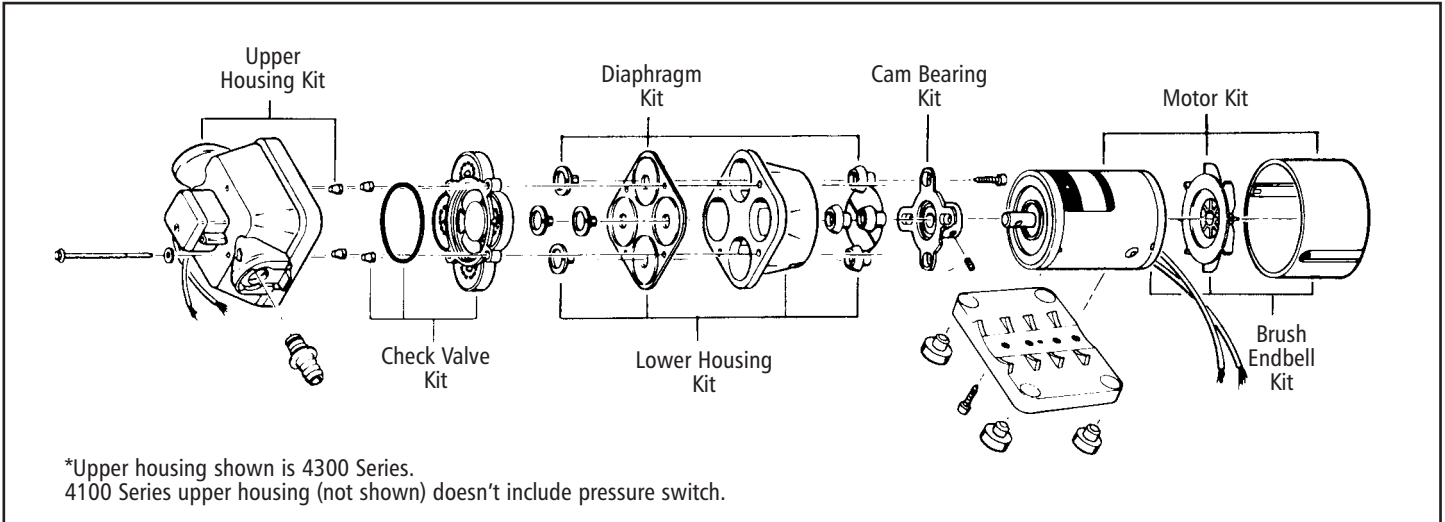
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SERVICE PARTS KIT LIST

4000 SERIES INDUSTRIAL

FLOJET®



THE FOLLOWING KITS ARE AVAILABLE FOR THE 4000 SERIES

Upper Housing Kit

Motor

Lower Housing Kit

Cam/Bearing Kit

Brush Endbell Assembly

Check Valve Assembly

Diaphragm Kit

Pump Head Assembly (not shown) Includes:

**Cam, Bearing Cover, Inner/Outer Pistons, Diaphragm,
Check Valve Assembly and Upper Housing Assembly**

To find correct parts kits: Identify the pump model number in the left column and read across to the kit number required.

For individual parts not included in this list, please refer to your installation, operation and service instruction sheet for the particular pump model.

4000 QUAD PARTS KIT LIST - STANDARD PUMP

Part #	Upper Hsg Kit	Check Valve Kit	Diaphragm Kit	Cam Bearing Kit	Motor	Brush Endbell Kit	Pump Head Assy Kit
04100-113	20404-021	20407-010	20403-050	20400-003	02009-037A	20115-220	N/A
04100-143	20404-011	20407-030	20403-040	20400-003	02009-037A	20115-220	20406-004A
04100-343	20404-004	20407-030	20403-040	20400-003	02019-006A	20115-213	20406-004A
04100-500	20404-011	20407-030	20403-040	20400-002	02029-039A	20115-214	20406-074
04100-501	N/A	20407-030	20403-040	20400-002	02029-039A	20115-220	N/A
04100-502	20404-015	20407-020	20403-040	20400-003	02009-037A	20115-220	20406-018A
04100-503	20404-011	20407-030	20403-040	20400-003	02009-027A	20115-213	N/A
04100-505	20404-019	20407-020	20403-040	20400-002	02009-027A	20115-213	N/A
04100-506	N/A	20407-030	20403-040	20400-003	02009-037A	20115-220	20406-004A
04100-507	20404-004	20407-060	20403-040	20400-003	02009-037A	20115-220	N/A
04100-510	20404-011	20407-030	20403-040	20400-003	02009-027A	20115-213	N/A
04100-512	20404-015	20407-020	20403-040	20400-003	02029-037A	20115-220	20406-018A
04100-513	20404-015	20407-030	20403-040	20400-003	02029-058A		20406-018A
04100-514	20404-015	20407-030	20403-040	20400-003	02009-080A	20878-200A	20406-018A
04100-521	20404-015	20407-030	20403-040	20400-003	R2009-116		20406-018A

4000 QUAD PARTS KIT LIST - DEMAND PUMP

Part #	Upper Hsg Kit	Check Valve Kit	Diaphragm Kit	Cam Bearing Kit	Motor	Brush Endbell Kit	Pump Head Assy Kit
04300-012	20404-016	20407-010	20403-040	20400-002	02029-039A	20115-214	20406-009A
04300-042	20404-018	20407-030	20403-040	20400-002	02029-039A	20115-214	20406-000A
04300-043	20404-018	20407-030	20403-040	20400-003	02029-039A	20115-214	20406-030A
04300-112	20404-010	20407-010	20403-040	20400-002	02009-027A	20115-213	20406-009A
04300-142	20404-001	20407-030	20403-040	20400-002	02009-027A	20115-213	20406-000A
04300-143	20404-001	20407-030	20403-040	20400-003	02009-027A	20115-213	20406-030A
04300-242	20404-020	20407-030	20403-040	20400-002	02039-027A	20115-214	20406-000A
04300-500	20404-007	20407-020	20403-040	20400-002	02009-027A	20115-213	20406-006A
04300-501	20404-017	20407-020	20403-040	20400-002	02009-027A	20115-213	20406-006A
04300-502	20404-003	20407-030	20403-040	20400-003	02009-027A	20115-213	20406-030A
04300-504	20404-017	20407-020	20403-040	20403-040	02009-027A	20115-213	N/A
04300-506	20404-010	20407-010	20403-050	20400-003	02009-027A	20115-213	N/A
04300-507	20404-001	20407-030	20403-040	20400-003	02029-039A	20115-214	N/A
04300-508	20404-001	20407-030	20403-040	20400-003	02009-027A	20115-213	N/A
04300-515	20404-017	20407-020	20403-040	20400-003	02009-027A	20115-213	N/A
04300-523	20404-018	20407-030	20403-040	20400-002	02029-130	20115-214	20406-000A
04300-524	20404-018	20407-030	20403-040	20400-003	02029-130	20115-214	20406-000A
04300-525	20404-017	20407-020	20403-040	20400-003	02029-055	20115-230	N/A
04300-528	20404-017	20407-020	20403-040	20400-003	02029-156	N/A	N/A
04300-529	20404-017	20407-020	20403-040	20400-003	R2029-125	N/A	N/A
04300-530	20404-017	20407-020	20403-040	20400-003	R2009-116	N/A	N/A
04300-531	20404-018	20407-030	20403-040	20400-003	R2029-125	N/A	20406-002A
04325-042	20404-018	20407-030	20403-040	20400-002	02029-091	N/A	20406-000A
04325-043	20404-018	20407-030	20403-040	20400-003	02029-091	N/A	20406-002A
04325-242	20404-018	20407-030	20403-040	20400-002	02039-087	N/A	20406-000A

4000 QUAD PARTS KIT LIST - NO CONTROLS “R” PARTIAL SUPPRESSION AND “RL” FULL SUPPRESSION

Part #	Upper Hsg Kit	Check Valve Kit	Diaphragm Kit	Cam Bearing Kit	Motor	Brush Endbell Kit	Pump Head Assy Kit
R4120-242	20404-011	20407-030	20403-040	20400-002	R2039-140	N/A	N/A
R4120-243	20404-011	20407-030	20403-040	20400-003	R2039-140	N/A	N/A
R4120-252	20404-015	20407-030	20403-040	20400-002	R2039-140	N/A	N/A
R4120-253	20404-015	20407-020	20403-040	20400-003	R2039-140	N/A	N/A
RL4120-242	20404-011	20407-030	20403-040	20400-002	R2039-141	20772-062A	N/A
RL4120-252	20404-015	20407-020	20403-040	20400-002	R2039-141	20772-062A	N/A
RL4120-253	20404-015	20407-020	20403-040	20400-003	R2039-141	20772-062A	N/A

4000 QUAD PARTS KIT LIST - DEMAND “R” PARTIAL SUPPRESSION AND “RL” FULL SUPPRESSION

Part #	Upper Hsg Kit	Check Valve Kit	Diaphragm Kit	Cam Bearing Kit	Motor	Brush Endbell Kit	Pump Head Assy Kit
R4300-519	20404-018	20407-030	20403-040	20400-002	R2009-123	20880-000A	20406-000A
R4300-520	20404-010	20407-010	20403-050	20400-002	R2009-123	20880-000A	20406-019A
R4320-242	20404-018	20407-030	20403-040	20400-002	R2039-139	N/A	20406-023A
R4320-243	20404-018	20407-030	20403-040	20400-003	R2039-139	N/A	N/A
R4320-252	N/A	20407-020	20403-040	20400-002	R2039-139	N/A	20406-036A
R4320-253	N/A	20407-020	20403-040	20400-003	R2039-139	N/A	20406-036A
R4400-503	20404-027	20407-020	20403-040	20400-003	R2009-157	N/A	N/A
R4400-504	20404-028	20407-020	20403-040	20400-003	R2009-158	N/A	N/A
RL4320-242	20404-008	20407-030	20403-040	20400-002	R2039-142	20772-064A	N/A
RL4320-243	20404-008	20407-030	20403-040	20400-003	R2039-142	20772-064A	N/A
RL4320-252	N/A	20407-020	20403-040	20400-002	R2039-142	20772-064A	20406-036A
RL4320-253	N/A	20407-020	20403-040	20400-003	R2039-142	20772-064A	20406-036A



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