

**SDI Sprayer, Model
No. 30-2E**

PI247/1202jj

Sprayer, Model No. 30-2E

Item Number	Part Number	Description	Qty
1	15-030WH	Tank, 30 Gallon, White	1
2	15-046	Lid, 8" Threaded	1
3	83-375C	Hose 3/8" ID, Clear, Per Foot	Specify
4	24-106	Hose Clamp #6	5
5	53-090	Adapter 1/2" MPT x 3/8" HB	2
6	53-823	Tee 1/2" PVC	1
7	53-901	Close Nipple 1/2" Poly	3
8	60-220	Ball Valve 1/2" PVC	1
9	53-812	Street Elbow 1/2" PVC	1
10	16-109	Tank Fitting 1/2" Poly	1
11	11-693	Hose Hanger	1
12	72-091	Switch Box	1
12	72-120	Switch	1
13	20-088	Pump, Electric Motor, 1,6 GPM, 60 PSI	1
14	NPN	Elbow Adapter 3/8" MPT x 3/8" HB	3
15	53-114	Close Nipple 3/8" PVC	1
16	57-075	Strainer 3/8" FPT Flo Jet Assembly	1
17	NPN	Pipe Nipple 1/2" x 12" PC	1
18	52-279	Elbow 1/2" PVC	1
20	16-121	Tank Fitting 3/8" DT, Poly	1
21	NPN	Tank Stand	4
22	52-111	Elbow Adapter 1/2" FPT x 1/2" HB	1
23	64-581	Agitation Tip DCER10	1
24	16-050	Venturi Jet Agitator	1
25	16-112	Tank Fitting 1/4" DT, Poly	1
26	50-280SS	Pipe Plug 1/4" SST	1

**Installation for
MODEL 4300
INDUSTRIAL SERIES
"QUAD" DEMAND PUMP**

FLOJET

PUMP INSTALLATION

Mounting

Flojet 4300 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 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. Built-in pressure switch will shut off 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 *
4300-042	9/64"	30
4300-142	9/64"	30

* Ref. Spraying Systems Catalog

TROUBLE SHOOTING

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.
- Defective pressure switch.
- Insufficient voltage to pump.

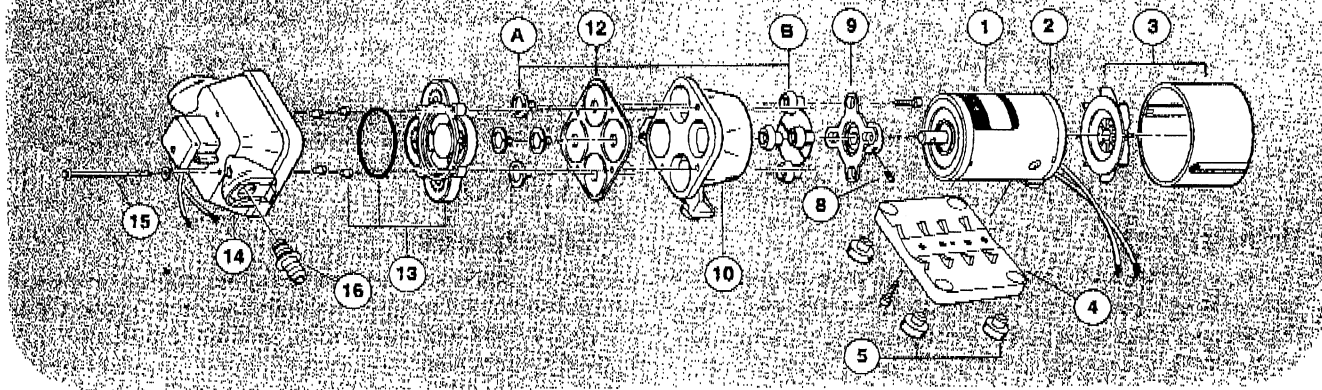
Low Flow and Pressure

- 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 Cycling on and off

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

PARTS LIST MODEL 4300 SERIES



4300 SERIES DASH NO.

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KEY	PART NO.	DESCRIPTION	QTY	-042	-142	-242	-500	-501	-502	KEY	PART NO.	DESCRIPTION	QTY	-042	-142	-242	-500	-501	-502
1	02009-027	12V DC Mtr (TEFC)	1		X		X		X	13		Check Valve Kit w/"O" Ring & Ferrules							
	02029-039	115V AC Mtr (TEFC)	1	X				X			20407-020	Viton ®	1				X	X	
	02039-027	230V AC Mtr (TEFC)	1			X					20407-030	EPDM	1	X	X	X			X
2	20115-114	Brush Endbell/Rect. Assy. (AC) w/BRG	1	X				X		14	20404-018	Upper Housing Assy Kit	1	X					
	20115-219	Brush Endbell/Rect. Assy. (AC) wo/BRG	1	X				X			20404-017	E/S SW45	1						
	20115-213	Brush Endbell Assy. (DC) wo/BRG	1		X		X		X		20404-001	V/G SW45	1		X			X	
	20115-113	Brush Endbell Assy. (DC) w/BRG	1		X		X		X		20404-007	V/G SW45	1				X		
3	20132-005	Fan/Shroud Kit	1	X	X	X	X	X	X	15	20404-020	E/S SW30	1			X			
4	11028-101	Plastic Baseplate Assy. with Grommet & Screws	1	X	X	X	X	X	X		20404-003	E/S SW45	1						X
5	20132-000	Grommet Kit	Set of 4	X	X	X	X	X	X	16	20405-000	Pump Screw Kit w/Washer & Ferrules	1	X	X	X			X
8	20552-000	Cam/Bearing Set Screw	1	X	X	X	X	X	X		20405-002	Geolast ®	1				X	X	
9		Cam/Bearing Kit w/Set Screw	1	X	X	X	X	X	X		20381-002	1/2" Port Kit EPDM	2	X	X	X			
	20400-002		1	X	X	X	X	X			20381-015	1/4" Port Kit Viton ®	2				X	X	
	20400-003		1						X		20381-006	3/4" Port Kit EPDM	2						X
10	20401-000	Bearing Cover P.P.	1	X	X	X	X	X	X		20381-007	Garden Hose Port Kit	2						X
12		Diaphragm Kit w/Pistons & Screws	1	X	X	X	X	X	X		20406-020A	Pump Head Assy	1	X					
	20403-040	Santoprene ®	1	X	X	X	X	X	X		20406-021A		1				X		
	20403-050	Geolast	1								20406-000A		1		X				
											20406-005A		1				X		
											20406-023A		1			X			
											20406-002A		1						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.

PRODUCT 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, 20 Icon, Foothill Ranch, CA 92610-3000
Tel: (949) 859-4945 • (800) 235-6538 • Fax: (949) 859-1153
E-mail: sales@flojet.com • Website: www.flojet.com
ISO 9001 Certified

FLOJET, Unit 1, Avant Business Centre
Denbigh West Industrial Estate
Milton Keynes, Bucks, England MK1 1DL
Tel: 44-1908-370088
Fax: 44-1908-373731

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