

### PUMP INSTALLATION

#### MOUNTING

Flojet 5100 is a self priming pump. It may be located several feet from the tank, above or below the fluid level. (It is not a submersible pump.) The pump must be mounted with ports facing down. Fasten the mounting brackets securely.

#### Hose Connections.

**Product “in,”** use 3/8” reinforced hose or equivalent. Secure with Oetiker 17.5 gear clamp or worm gear clamp with 360° uniform clamping band. Avoid sharp bends that could restrict flow or cause hose to collapse under vacuum.

**Product “out,”** use reinforced 3/8” I.D. hose for discharge tube.

**Gas “in,”** make sure CO<sub>2</sub> regulator is set at zero. Use reinforced 1/4” hose, connect gas “in” to gas supply fitting on regulator. If pumps are installed in an enclosed area, it is recommended to connect a hose to the gas discharge port (exhaust) and vent CO<sub>2</sub> to atmosphere.

#### OPERATION

To start operation, regulate gas pressure to desired setting. For most installations, 40 to 50 P.S.I. will be adequate. Pump will operate automatically by starting and stopping on demand. Flow and pressure can be adjusted by increasing or decreasing gas pressure to accommodate varying product viscosities, length of lines or other installation conditions. If pump is to be used in high flow, low pressure applications, adjust gas pressure to 20 P.S.I. above discharge pressure.

**CAUTION: Do not exceed 80 P.S.I. gas pressure.**

#### TROUBLESHOOTING

##### 1. Pump does not operate when valve is opened.

- No gas pressure or obstruction in gas line.
- Obstruction in product discharge line.
- Air leak in intake line.
- Punctured pump diaphragm.
- Crack in pump housing.

##### Pump operates but no flow.

- Leak or break in product inlet or discharge line.
- Faulty pump.

##### 3. Low pressure in discharge system.

- Excessive line restriction due to undersize tubing or fittings.
- Gas pressure set too low.

##### 4. Pump fails to stop when valve is closed.

- Leak in discharge line.
- Faulty pump.

#### SERVICE TIPS

Remove all gas lines and suction/discharge fittings from pump. This is accomplished by using a flatbladed screwdriver. Slide the retaining clips away from the gas “in,” suction and discharge fittings. Then pull the fitting away from pump body.

Using a 5/16” socket, remove the 4 nuts and washers and pull out the body bolts.

The cylinder end caps, mounting brackets and body “O” rings will separate from the pump. Grab a piston in each hand and twist each side counterclockwise. Remove the pistons, diaphragm, piston seal and retaining washer from the drive shaft.

Place drive shaft into a vise with wood block jaws and rotate counterclockwise to release old diaphragm. Install new diaphragm and hand tighten.

Using a razor blade or sharp knife, cut label on the front of the pump along the seam in center of body.

With pump label facing you, slowly pull body apart. Disconnect exhaust hose from muffler and pull spool valve stem from body. Discard body gasket and old spool valve subassembly.

To assemble new spool valve subassembly, insert internal exhaust hose spring into exhaust hose. Connect hose to spool valve. Mount “U” spring into spool valve straight side first. Push “U” springs through spool valve to bent/hook end. Lubricate spool valve stem and insert stem into left side of pump body making sure U-springs are positioned in retaining niches. Carefully push spool valve into pump until “U” springs snap inward and lock into place. Reconnect exhaust hose to muffler fitting.

**CAUTION: if exhaust hose is not reconnected to muffler fitting, pump will not operate.**

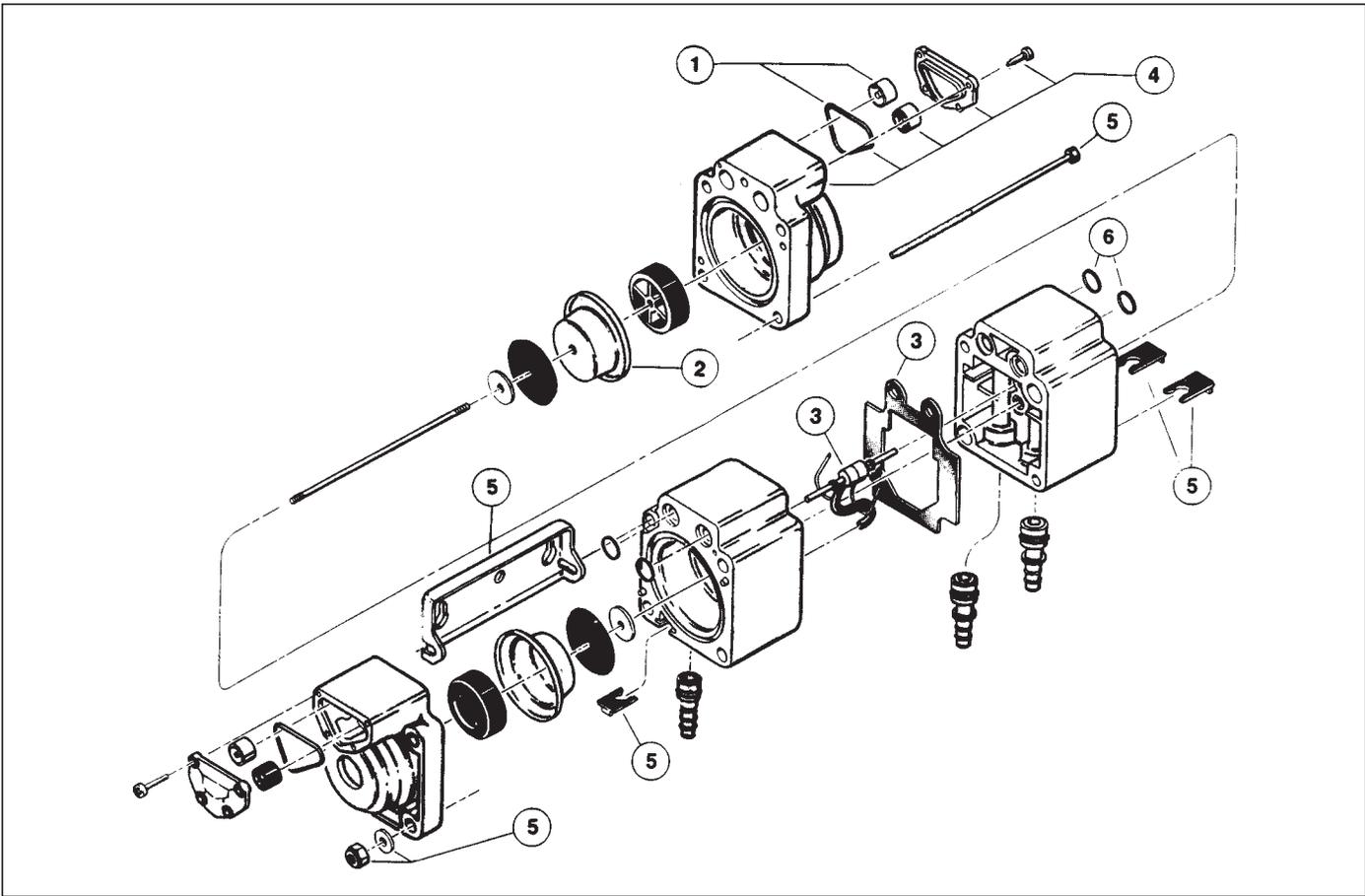
Position new body gasket and press pump body together. Reinsert gas “in” fitting, discharge and suction fitting into pump and slide retainer clips over fittings until they snap into place. This will help hold the pump together during assembly. Remove and discard old body “O” rings. These are located in outside top part of the pump body on the cylinder side. Lubricate new body “O” rings and install into pump body.

Lubricate and carefully reinsert the drive shaft through the pump body. Install new diaphragm and piston assembly onto drive shaft and hand tighten. Note positioning and direction each part is facing.

Position cylinder end caps onto pump body. Insert pump body bolts and hand start washer and hex nuts on each bolt.

Note: Remember to reinsert mounting bracket into niches between body and cylinder end caps before inserting top rear body bolt.

With a 5/16” nut driver, alternately tighten each body bolt maintaining even pressure around pump body. Using a 5/16” torque wrench tighten body bolts to 20 inch lbs.



KEY	PART NO.	DESCRIPTION	QTY.
1		Kit Check Valve Assembly	4
	20467-001	Buna	
	20467-002	Viton®	
	20467-003	Santo	
	20467-004	Geolast	
2		Kit Diaphragm (incl. pistons)	2
	20466-001	Buna	
	20466-002	Viton®	
	20466-003	Santo	
	20466-004	Geolast®	

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### 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.

KEY	PART NO.	DESCRIPTION	QTY.
3		Kit Spool Valve & "U" Spring	1
	20469-000	Santo	
	20469-001	Buna	
	20469-002	Viton®	
	20469-004	Geolast®	
4		Kit Cylinder End Covers	2
	20468-001	Santo	
	20468-002	Buna	
	20468-003	Viton®	
	20468-004	Geolast®	
5	20465-000	Hardware Kit	1
6		(included in Diaphragm Kit)	

### 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.

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