



AIR-OPERATED DOUBLE DIAPHRAGM PUMP USER'S MANUAL

Part No. JDI-DP1

FOR WARRANTY INFORMATION, PLEASE CALL 800-433-0708

DATE OF PURCHASE: _____

READ AND SAVE THIS MANUAL

FOR SERVICE ASSISTANCE, CALL 800-433-0708 OR VISIT JOHNDOW.COM



Important Safety Information

Read this manual and safety information before using this product.

WARNING

Indicates a hazardous situation that, if not avoided, could result in death or serious injury.

- Do not exceed the maximum inlet air pressure noted on the pump model plate.
- Spark can ignite from flammable material and vapors.
- You must ground the pumping system when in use. Ground the dispensing valve or device, containers, hoses and the object you are pumping to.
- Keep inflammables away from heat, open flames and sparks.
- Pump exhaust may contain contaminants. Pipe exhaust away from work area and people.
- Hazardous pressure can result in serious injury or property damage. Do not service or clean pump, hoses, or dispensing valve while the system is pressurized.
- Explosion Hazard. Models containing aluminum-wetted parts cannot be used with III-Trichloroethane, Methylene Chloride or other Halogenated Hydrocarbon solvents which may react and explode.
- Air pressure should not exceed 115 psi (8 BAR).

CAUTION

Indicates a hazardous situation that, if not avoided, could result in minor or moderate injury.

- Check all hoses for damage or wear.
- Ensure dispensing device is clean and in proper working condition.
- Use proper ventilation.
- Verify the chemical compatibility of the pump-wetted parts and the substance you are pumping, flushing, or recirculating.
- Do not use the pump for the structural support of the piping system. Ensure system components are supported properly to prevent stress on the pump.
- Prevent unnecessary damage to the pump. Do not allow pump to operate when out of material for long periods of time. Disconnect air line from pump when system sits idle for extended periods of time.

NOTICE

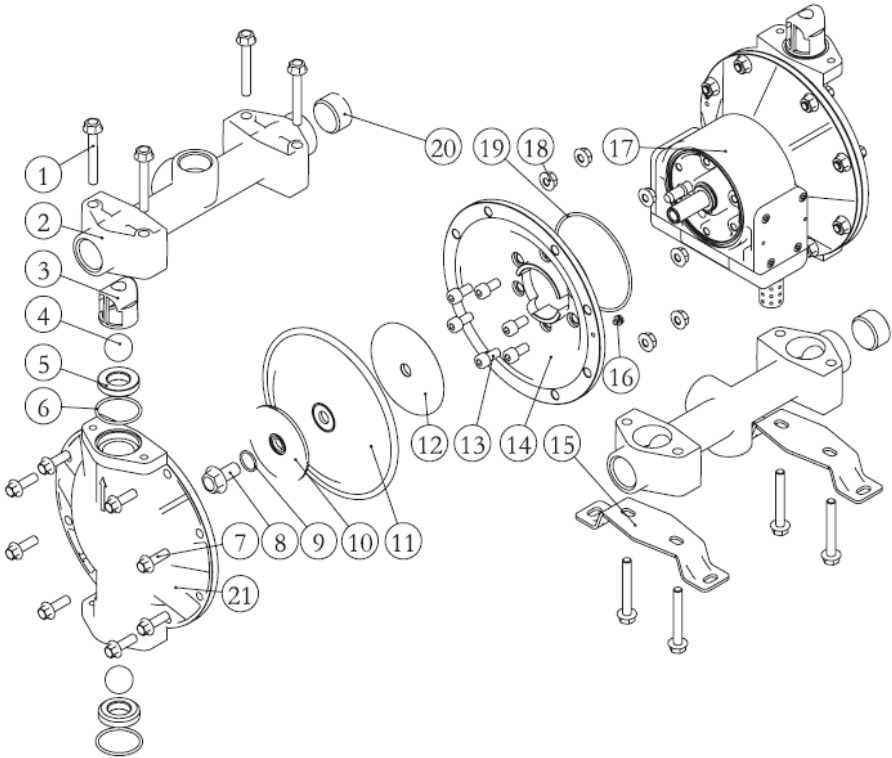
Indicates information considered important, but not hazard-related.

- The size of the air delivery pipe must be big enough for proper air delivery.
- Secure pump, connections and all contact points to avoid vibration and generation of contact or static spark.
- After grounding, periodically verify continuity of electrical path to ground. Test with an Ohmmeter for each component to ground to ensure continuity. Ohmmeter should show 1000 ohms or less.
- Keep tank closed when not in use.
- Consult local building codes and electrical codes for specific grounding requirements.
- Use a filter capable of filtering out particles larger than 50 microns on the air supply. There is no lubrication required other than the O-ring lubricant which is applied during assembly or repair.
- Confirm O-ring compatibility if lubricated air is present in the air motor pump section.

GETTING STARTED

This pump comes fully assembled and ready for use. If you notice any parts are missing or damaged per the contents list below, please contact us.

CONTENTS



Part No.	Description	Qty.
1	Hex-bolt	8
2	Discharge Manifold	2
3	Valve Cover	2
4	Valve Ball	4
5	Valve Seat	4
6	O-ring (37.77*2.62)	4
7	Hex-bolt	16
8	Hex-bolt	2
9	O-ring (17.17*1.78)	2
10	Liquid Chamber Plate	2
11	Diaphragm	2

Part No.	Description	Qty.
12	Air Chamber Plate	2
13	Screw	12
14	Air Chamber	2
15	Bracket	2
16	Screw	1
17	Air Motor Assembly	1
18	Nut	16
19	O-ring (94.92*2.62)	2
20	Plug	2
21	Pump Cover	2

TECHNICAL SPECIFICATIONS

Inlet/Outlet	1"
Air Inlet	1/4"
Flow Rate	24GPM/ 90LPM*
Maximum Air Inlet Pressure	115PSI/ 8BAR
Maximum Outlet Pressure	115PSI/ 8BAR
Max. Diameter Solid	1/8"
Pump Body	Aluminum
Membrane	Nitrile, Fluorin Rubber & EPDM is optional

*Flow rate will vary based on temperature, viscosity, purity of fluid, and type of fluid.

OPERATION RECOMMENDATIONS

1. Fix diaphragm pump to a horizontal surface.
2. Ensure supply tubing is not too small or restrictive. Do not use a hose that may collapse.
3. When using the diaphragm pump in a forced-feed (flooded inlet) scenario, install a "Check valve" at the air inlet.
4. The inlet is on the lower side and the outlet is on the top.

ONGOING MAINTENANCE

1. Always flush the pump with a solvent compatible with the pumped material if the material is subject to "setting up" when not in use for an extended period.
2. Disconnect the air supply from the pump when not in use.
3. Always use a clean work surface to protect sensitive internal moving parts from contamination from dirt and foreign matter during service disassembly and reassembly.
4. Keep good records of service activity and include pump in preventive maintenance program.
5. Before disassembling, empty captured material in the outlet manifold by turning the pump upside down and draining.

TROUBLESHOOTING

CONDITION	SOLUTION
Product discharged from exhaust outlet	Check for diaphragm rupture and check tightness of diaphragm
Air bubbles in product discharge	1. Check connections of suction plumbing 2. Check O-rings between intake manifold and fluid caps 3. Check tightness of diaphragm nut
Low output volume, erratic flow, or no flow	1. Check air supply 2. Check for plugged outlet hose 3. Check for kinked (restrictive) or collapsed inlet material hose 4. Check for connection leakage (these must be air tight) 5. Inspect the pump for solid objects lodged in the diaphragm chamber on the seat area