Pneumatic Diaphragm Pump

INSTRUCTION MANUAL



Model Significance

Fluid Contact Parts

Cast Steel	Nodular Cast Iron	Aluminum Alloy	Engineering Plastics	Stainless Steel 304	Stainless Steel 316	Stainless Steel 316L	PVDF
G	Q	L	S	P	P316	P316L	F

Diaphragm Materials

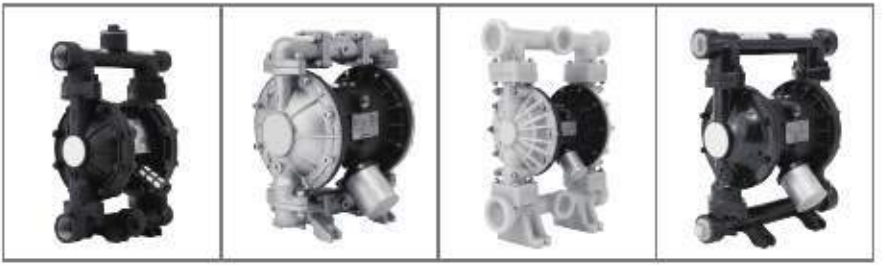
Butyronitrile	Santoprene	Polyether	Teflon	Super Teflon
D	A	M	T	C
Santoprene +Teflon	**Santoprene +Super Teflon**	**Polyether +Teflon**	**Polyether +Super Teflon**	
T	N	K	H	

Valve Ball

Butyronitrile	Santoprene	PTFE	Stainless Steel 304	Stainless Steel 316	Stainless Steel 316L	Engineering Plastics
D	A	F	P	P316	P316L	S

Valve Seat

Butyronitrile	Santoprene	PTFE	Stainless Steel 304	Stainless Steel 316	Stainless Steel 316L	Engineering Plastics
D	A	F	P	P316	P316L	S



Model Significance

Model performance parameters

Model.	Max. Flow (L/min)	Max. Head (m)	Max. Suction Height (m)	Max.discharge pressure (Mpa)	Caliber (mm)	Air Inlet Caliber (in)	Particle Diameter (mm)
QBY3-10	22	70	4.0	0.7	10	1/4	1.5
QBY3-15	22	70	4.0	0.7	15	1/4	1.5
QBY3-20	57	70	4.5	0.7	20	1/4	2.5
QBY3-25	57	70	4.5	0.7	25	1/4	2.5
QBY3-32	170	84	5.48	0.84	32	1/2	3.2
QBY3-40	170	84	5.48	0.84	40	1/2	3.2
QBY3-50	378.5	84	5.48	0.84	50	1/2	4.8
QBY3-65	378.5	84	5.48	0.84	65	1/2	4.8
QBY3-80	568	84	5.48	0.84	80	1/2	6.4
QBY3-100	568	84	5.48	0.84	100	1/2	6.4
QBY3-125	1041	84	2.4-7.6	0.84	125	3/4	9.4
BFQ-25	116	84	5.48	0.84	25	1/2	3.2
BFQ-40	378.5	84	5.48	0.84	40	1/2	4.8
BFQ-50	568	84	5.48	0.84	50	1/2	6.4
BFQ-80	1041	84	2.4-7.6	0.84	80	3/4	9.4
BFQ-125	2000	60	4.0	0.63	125	1	9.4



Product Overview

Ⅰ.Overview

Our company's pneumatic diaphragm pump is a new type of transportation equipment and the most innovative pump in China. Using compressed air as the power source, it can pump a variety of fluid drastically, no matter the liquid is corrosive, volatile, flammable or poisonous, or even fluid with particles or high viscosity. Our company's diaphragm pumps contain 11 kinds of specifications. Fluid inlet size are 3/8"(10mm), 1/2"(15mm), 3/4"(20mm), 1"(25mm), 1.25(32mm), 1.5"(40mm), 2"(50mm), 2.5"(65mm), 3"(80mm), 4"(100mm), 5"(125mm). The fluid contact parts material includes aluminum alloy, cast steel, nodular cast iron, plastic polypropylene, stainless steel, PVDF and diaphragm material includes butyronitrile, polyether, santoprene, teflon, super teflon and so on. All above are designed to meet the requirements of different liquid media.

Ⅱ. Working Principle

The pneumatic diaphragm pumps are based on the following working principle: two elastic diaphragms are fitted into two symmetrical chambers of the diaphragm pump severally and connected as a whole part by a connecting rod. The compressed air enters the central body through the air inlet and impels the diaphragms in two chambers to drive consequently. Then the connecting rod drives the diaphragms in the working chamber to do synchronous movement. At the same time, the gas in other working chamber is exhausted from the back of the diaphragm. When the piston reaches the end of the stroke, the air-distributing valve body automatically brings compressed air into the other working chamber, and drives diaphragm pump to rotate reversely, so that the two diaphragms are doing synchronized reciprocating movement. Two check ball valves are fitted in each working chamber together with reciprocating movement of diaphragm, which change the capability in the working chamber, and compels the two check ball valves to open and close alternately, so that the suction and discharging are completed continuously.

The most obvious difference for our pumps and other air operated double diaphragm pumps is the structure of air valve. The traditional O-rings and cylinder valve are replaced by the air-distributing valve of QBY3. It adopts three-way pilot, eliminates the phenomenon of the valve's dead point and pump down. It also provides correct and reliable signal to avoid downtime and faster changer to make the pump has greater flow rate. Delivery performance decreases the pulse and ensures the steady flow.

Product Overview

Our pneumatic diaphragm pump has a simple design and highly reliable air reversing valve, which can ensure non-stop operation and therefore reduces the expensive downtime cost. All parts of the valve can be replaced without disassembly. Aluminum parts have been specially processed, so it can resist the corrosion resulted from unclean air. The slide block made of plastic material is robust and anti-tampered, and need no lubrication. It also ensures a unobstructed air line and flexible reversing.

Ⅲ. Main Applications:

1. Chemical industry: acids, alkalis, solvents, suspended solids, decentralized series.
2. Petrochemical industry: crude oil, heavy oil, grease, slurry, sludge, etc.
3. Coatings industry: resins, solvents, coloring agent, paints, etc.
4. Cosmetic industry: detergent, shampoo, lotion, cream, emulsion, surface active agents.
5. Ceramics: slurry, slurry pottery, hydrated lime, clay slurry.
6. Mining industry: coal slurry, magma, mud, mortar and explosives, lubricant. etc.
7. Water treatment: hydrated lime, soft sediments, sewages, chemicals, waste water.
8. The food industry: liquid semi-solid, chocolate, salt water, vinegar, syrup, vegetable oil, soybean oil, honey, animal blood.
9. Beverage industry: yeast, syrup, concentrations, gas-liquid mixture, wine, fruit juice, corn pulp, etc.
10. Pharmaceutical industry: solvents, acids, alkalis, plant extract liquid, ointment, plasma and other liquid drugs.
11. Paper industry: adhesives, resins, paints, inks, pigments, hydrogen peroxide, etc.
12. Electronics industry: solvent, electroplating fluid, cleaning fluid, sulfuric acid, nitric acid, waste acid, corrosive acid, polishing liquid.
13. Textile solution: chemical dyes, dyes, resins, rubber, etc.
14. Construction industry: grout, ceramic tile adhesives, rock slurry, ceiling finish, etc.
15. Automotive industry: polishing emulsion, oil, coolant, automotive priming, oil emulsion paint, varnish, degreasing fluid, paint, etc.
16. Furniture industry: adhesives, varnishes, decentralized series, solvents, color agent, sapwood glue, epoxy resins, starch binder.
17. Metallurgy, casting and dyeing industry: metal slurry, hydroxides and carbide slurry, dust cleaning slurry, etc.

Ⅳ. Performance Introduction

Air operated diaphragm pump can not only pump fluid liquids and dry powders, but also can pump some other mediums which usually hard to flow. It takes advantages over some transportation machines, such as self-priming pump, submerged pump, shielding pump, slurry pump, and impurity pump.

1.No need to fill in water, suction lift up to 7m, pump head up to 84m, outlet pressure≤ 0.84Mpa.
2.Spacious flow and good passing performance; It allows particles up to 9.4mm in diameter to pass through; When pumping mud, impurities, pump wear is minimal.
3.The pump head and flow rate can be adjusted via the pressure of air source (between 0.1-0.84MPa).
4.Working environment temperature: 50-65℃; transmission medium temperature:-20-150℃.
5.The pump has no rotating parts and axis seals.The diaphragms separate the pumped medium from moving part and working medium absolutely, so that the pumped medium doesn't leak to outside. So there are no risks of environment pollution and personal injury while pumping poisonous, volatile or corrosive media.
6.It can work without electricity and be safe and reliable in inflammable and explosive conditions.
7.Can operate while immersed into the medium.
8.Easy to use and works reliably. When turn on/off the pump,just open and close the air valve. Even in case of unexpected long-term operation without medium or sudden shutdown,it will not be damaged. Once overloaded, it has self-protecting function and will shut down automatically.As long as the load goes back to normal, it starts up automatically again.
9.Simple structure, less wearing parts. Pump structure is simple, pump installation and maintenance is convenient. The pumped medium doesn't contact with moving parts such as air-distributing valve and connecting rod, so the performance will not go worse with the abrasion of rotors, pistons, gears and vanes as other types of pumps.
10.Can pump the viscous liquids (viscosity below 10,000 cps).
11.No need lubrication. There are no effects to the pump with idle operation. This is a key feature of the pump.

Marking Instructions

◆ Warning Symbol

⚠ Warning

This symbol alerts you to the possibility of serious injury or death if you do not follow the instructions.

◆ Caution Symbol

⚠ Caution

This symbol alerts you to the possibility of damage to or destruction of equipment if you do not follow the instructions.

⚠ Warning	
 GUIDE	EQUIPMENT MISUSE HAZARD Any misuse of the equipment can cause them to rupture and failure, and result in serious injury. ● The equipment is for professional use only. ● Be sure to read all instruction manuals, warning labels, and tags before you use the equipment. ● The equipment can be used for specified purpose only. Please contact with the distributor of if you are not sure about it. ● Never alter or modify any part of this equipment. Use only genuine parts and accessories. ● Check the equipment daily and repair or replace worn or damaged parts immediately. ● Do not exceed the maximum working pressure of the lowest rated component during the operation of your system.
 GUIDE	● This equipment has a maximum working pressure of 0.8Mpa while the maximum incoming air pressure is 0.8MPa. ● Be sure that all fluids and solvents used are chemically compatible with the wetted parts. Always read the content about technical data in equipment. instructions, and acquaint yourself with the warning of the manufacturer about relevant fluid or solvent. ● Never use 1.1.1–trichloroehtane, methylene chloride, other halogenated hydrocarbon solvents or fluids containing such solvents in aluminum pressure equipments. Such usage could result in a serious chemical reaction, with the possibility of explosion. ● Never use a hose to pull the equipment. ● The hose should be secured away from traffic areas, sharp edges and surface. ● Never move or lift a pump under pressure. ● Observe all relevant national regulations about fire, electrical and safety.

Marking Instructions

⚠ Warning



TOXIC FLUID HAZARDS

Improper handling of hazardous fluid or inhaling toxic vapors can cause extremely serious injury or death through contamination.

- Know all specific hazards of the fluid you are pumping.
- Store hazardous fluid in an appropriate, approved container. Dispose of it according to national guidelines.
- Always wear appropriate clothing and equipment, such as eye protection and breathing apparatus recommended by manufacturer of fluids and solvents.
- Pipe and dispose of the exhaust air safely, away from people, animals, and food handling areas. If the diaphragm fails, the fluid is exhausted along with the air. See Air Exhaust Ventilation on Page 13.



FIRE AND EXPLOSION HAZARDS

If the equipment is not properly grounded and ventilated, sparking may occur and cause a fire or explosion and serious injury.

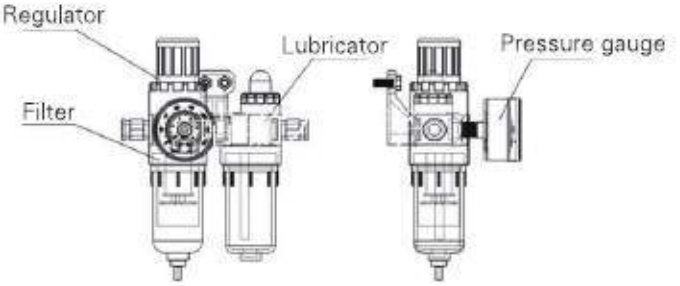
- Equipment must be grounded. Refer to Grounding Instructions on Page 68.
- If you experience any static sparking or even a slight shock while using this equipment, stop pumping immediately.Do not use the system again until problem has been identified and corrected.
- Provide ventilation of fresh air. Avoid accumulating flammable gases in solvents and fluids to be pumped.
- Pipe and dispose of the exhaust air safely, away from all sources of ignition.If the diaphragm fails, the fluid is exhausted along with the air. See Air Exhausted Ventilation on Page 13.
- Work area should be kept clean and free of any garbage, including solvents, rags and gasoline.
- Disconnect all equipment in working place from electrical Connection.
- Extinguish all lames and indicating lamps in working place.
- Do not smoke in the work area.
- Do not switch on and off any lamp switches during operation or if there exists flammable gases.
- Never use gasoline engine in working place.

Installation Instructions

Warning

Before installation,please inject oil into the lubricator.
Before use, make sure that the air inlet of the pneumatic diaphragm pump has been installed the pneumatic FRL.

Ⅰ.Technical Parameters



Type	QDSLJ-A	QDSLJ-B	QDSLJ-C	QDSLJ-D
Medium	Air			
Thread diameter	1/4"	3/8"	1/2"	1"
Filter accuracy	40μ			
Pressure limits	manual drainage：0.05~0.85MPa			
Max.adjustable pressure	0.95MPa			
Withstanding pressure	1.5MPa			
Temperature	5-60℃			
Capacity of filter cup	20ml	50ml	150ml	150ml
Capacity of oil cup	20ml	50ml	150ml	150ml
Recommended lubricant	ISO VG32 or equivalents			

Ⅱ. Installation Instructions

While installing,clean connecting pipes and fittings to avoid dirt into the gas line.
While installing, note whether the gas flow direction and the direction of the arrow on the body are the same (inlet marked IN.Note whether the connecting pipes and joints tooth type are correct.
Fixation of filter, regulator and lubricator: match the convex groove of the mounting bracket with the groove on the body, and then lock them with stator and screws.
Fixation of using a single regulator: rotate the locking ring to lock the attached special stator.

Installation Instructions

Ⅲ.Drainage of water (filter)

Two types of drainage: automatic pressure filter and manual drainage.

Manual drainage: Water must be drained before the water level reaches the bottom of the filter holder.

Ⅳ.Pressure regulation (regulator)

Pull first and rotate the rotary knob, and then push the rotary knob for positioning.

Rotate knob clockwise to increase outlet pressure, and rotate anticlockwise to lower outlet pressure.

Pressure should be gradually and evenly raised to the required value.

Pressure range: 0.5 – 8.5kg/cm². Working pressure <1.0MPa.

Ⅴ.Methods of oil and adjustments of oil mass (lubricator)

Use JIS K2213 transmission oil (ISO Vg32 or equivalents) for lubricator. Do not exceed the amount of eight full cups.

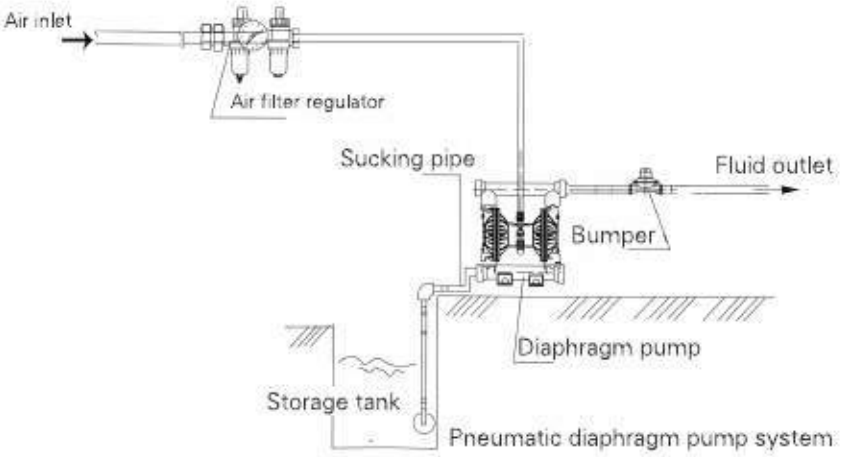
Ⅵ.Precautions

Some parts are made of PC (polycarbonate) material, which are forbidden being used close to or in an organic solvent environment. As to PC glass cleaning, please use a mild cleaning agent.

When using, the pressure should not exceed its range.

The filter should be replaced while the outlet air flow was significantly reduced.

Ⅶ.System assembly drawings



Installation Instructions

General Information

- The typical installation information shown in Fig. 2 is only used to guide you to select and install system components. If you want to plan a system to suit your need, please contact your distributor.
- Always use genuine parts and accessories of company.
- Hold the top cover to lift the pump safely.

⚠ Warning



TOXIC FLUID HAZARDS

Inbreathing toxic vapors, ingesting toxic liquids or splashing them in the eyes or on the skin may result in extremely serious injury or death.

❶ Read the Toxic Fluid Hazards on page 07 .

❷ Use fluids and solvents that compatible with the wetted parts in equipment. Refer to the content about technical data in equipment instructions, and acquaint yourself with the warning of the manufacturer about relevant fluid or solvent.

Tightening Screws before First Use

After unpacking the diaphragm pump, please check and re–torque all fasteners on the surface.

Adjust the torque of screws of left and right fluid covers first, and then the top/bottom fluid covers. In this way, pump is guaranteed not affected by the fastened fluid covers. For technical specifications of torques, refer to Maintenance section.

After the first day of operation, re–torque the fasteners. Although pump use varies, a general guideline is to re–torque fasteners every two months.

Installation Instructions

Grounding Instructions

Warning





FIRE AND EXPLOSIVE HAZARD

This pump must be grounded. Observe the following instruction to ground the system before you operate the pump. Read the instructions about Fire and Explosive Hazards.

To reduce electrostatic spark hazards, the pump and other equipment used or located in the pumping area should be grounded. Check your local electrical code for detailed grounding instructions for your area and type of equipment.

The equipment (pump) should be fully grounded

- Diaphragm pump should be connected to the ground wire. Loosen the ground screw, insert one end of the 1.5mm minimum ground wire to the ground screw, and tighten the ground screw. Truly connect the ground wire card-end to ground.
- Air and Fluid Hoses: Only use conductive hoses.
- Air Compressor: follow the manufacturer's recommendations.
- Special solvent drums should be used for washing, and only conductive iron drums should be used in accordance with relevant regulations. Do not place the drum on a non-conductive surface, such as paper or newspaper, which would interrupt the grounding path.
- The container supplying the fluid shall comply with the relevant regulations.

Installation Instructions

Installation Instructions

⚠ Warning

The pump exhaust air may contain contaminants. Ventilation distance should get further if contaminants affect the fluid supply. See relevant Air Exhaust Ventilation.

1. Be sure the mounting surface can support the weight of the pump, hoses, and accessories, as well as the stress during operation progress.
2. During installation, should ensure that the screw bolt has directly fixed the pump with the mounting surface.
3. In order to facilitate the operation and maintenance, the maintenance space should be enough during installing the pump.
4. While fastening the pump, rubber pad can be padded to reduce the noise and vibration during operation.

Air Inlet Pipe Instructions

⚠ Warning

You need to install the main valve with absorbing type (B), in order to avoid air existing between the valve and pump. Because entrained air can cause pump to produce abnormal cycle of operation, and then result in serious injury, including fluid splashing into the eyes or skin, and harm caused by moving parts or hazardous fluid contaminants, please see Figure 2.

1.The accessories of inlet pipe should be installed as shown in Figure 2. All such accessories should be fixed on the wall or bracket. Ensure that the accessories have been grounded.
a.Install the air pressure regulator for controlling the fluid pressure(C). The output pressure of fluid should be equal to setting data of air pressure regulator.
b.One of the copper ball valve (B) should be installed near the pump and use it to relieve trapped air.See the WARNING above. Another copper ball valve (B) should be located above all air pipe accessories, and be used to isolate the accessories during cleaning and repair.
c.The air regulator (C) can be used to get rid of harmful dirt and moisture in the air.
2.Install a flexible air hose between accessories and 1/2 npt air inlet of the pump. The air hose with minimum inner diameter of 1/2" (13mm) should be used. Screw the air pipe connector (D) at the end of the air hose (A), and the corresponding pipe joint should be fixed on the connecting column of the air inlet with screws. Before operating the pump,do not connect the pipe joint to connector (D).

Installation Instructions

Fluid Suction Pipeline Instructions

1.Use grounded fluid hose. Before fluid input, the fluid hose joint shall be fastened to the pump inlet with screws.

2.If the inlet pressure of the pump is 25 percent more than the outlet working pressure, the ball check valves do not close fast, which results in inefficient pump operation.

3.When input fluid pressure over 0.1Mpa, diaphragm life will be shortened.

4.About the max suction height (Wet &dry), refer to the technical data on P02.

Exhaust Ventilation Instructions

⚠ Warning



FIRE OR EXPLOSION HAZARD

- Be sure to read and follow the TOXIC FLUID HAZARDS and FIRE OR EXPLOSION HAZARD warning on Page 07 before you operate the pump.
- Make sure the installed system is well ventilated. When pumping combustible gases or hazardous fluids, exhaust gases must be discharged to a safe area away from people, animals, food processing areas and sources of ignition.
- Diaphragm failure can cause pumped fluid to contain air when discharged. A suitable receptacle should be provided at the end of the exhaust line to hold the fluid.



Installation Instructions

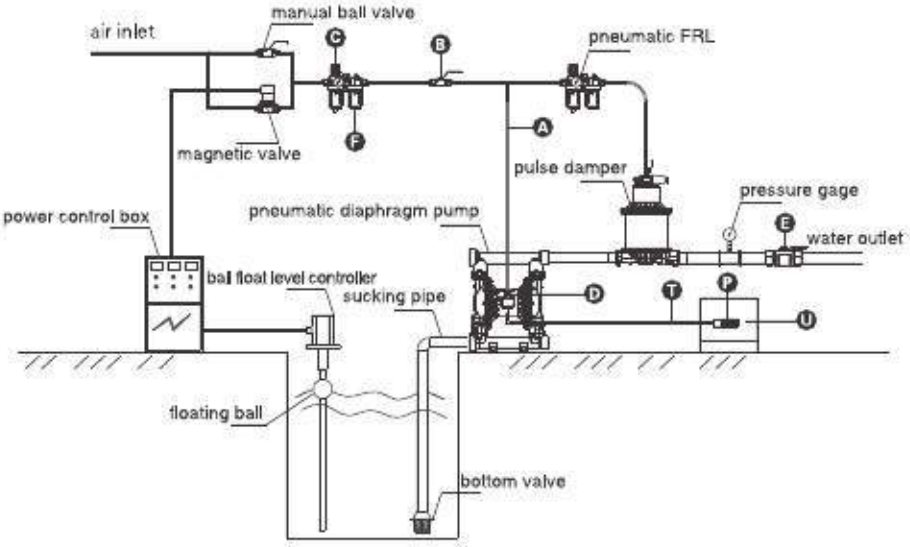
Exhaust Gas Emission Instructions

The size of air exhaust port is 3/4 npt. Do not restrict the air exhaust port. Excessive restriction can cause pump working unstably.

When Need Remote Control Emissions:

1. Remove the muffler (P) from the pump's air exhaust port.
2. Install a grounded air exhaust hose (T) and connect the muffler (P) to the other side of the hose. The minimum inside diameter size of the air exhaust hose is 3/4 inch (19mm). If hose is longer than 15 feet (5.47 meters), a larger diameter hose is required. Avoid sharp bends or kinks in the hose. See Figure 5.
3. Place a container (U) at the end of air exhaust line to fill fluid in case of diaphragm ruptures.

PNEUMATIC DIAPHRAGM PUMP SYSTEM



A Air supply line B Copper ball valve C Air regulator
D Air pipe quick connector E Leak–type cooper ball valve F Air filter
P Muffler T Air exhaust hose U Container for air exhaust

Operating Instructions

Pressure Relief Procedure

⚠ Warning

Before manually pressure relief, the equipment is in the state with pressure.

In order to reduce the risk of extremely serious injury from pressure fluid, spray gun or splashing fluid, specified procedures should be observed during the following operation:

- Request to relieve pressure
- Stop pumping
- Check, clean and repair any system equipment
- Install or clean the fluid nozzle

1. Shut off the air to the pump.
2. Open the dispensing valves if using.
3. Open fluid drain valve to relieve fluid pressure, and prepare the container for discharged fluid.

Operating Instructions

Start–up and Adjustment of Pump

⚠ Warning



TOXIC FLUID HAZATDS

To reduce the risk of serious injury, fluid splashing into eyes or skin, and toxic fluid leakage, do not move or transport a pressurized pump. If the pump drops, fluid parts may break. Always follow the above Pressure Relief Procedure before transport.

1.Be sure the pump is completely grounded. Refer to Grounding Instructions on page 11

2.Check all joints and make sure they are tight. Be sure to use a compatible liquid thread sealant on all male threads. Make sure the joints at inlet and outlet are reliably secured.

3.Place the suction tube (if used) in the fluid to be pumped. Note: If inlet pressure of the pump is 25% more than outlet pressure, the ball check valve will not be closed fast, resulting in inefficient pump operation.

4.Place the end of the outlet hose (L) into an appropriate container.

5.Close the fluid drain valve, refer to Figure 2.

6.With the air regulator (C) closed, open the suction–type main air valve (B).

7.If the outlet hose has a dispensing device, hold it open while continuing with following step.

8.Slowly open the regulator (C) until the pump starts operating. Allow the pump to operate slowly until all air is pushed out of the line and the pump is primed. If you are flushing, run the pump long enough to thoroughly clean the pump and hoses. Close the air regulator, and remove the suction hose from the solvent and place it into the fluid to be pumped.

Maintenance Instructions

Lubrication Instructions

The air valve is designed to operate without lubrication. If lubrication is desired, every 500 operation hours (or monthly), just add several drops of lubricating oil in the oil cup of the pneumatic FRL.

⚠ Warning

Do not over-lubricate the pump. Excess oil will be exhausted through the muffler, which could contaminate your fluid or other equipment. Over lubrication may also result in operation failure.

Flushing and Storage Instructions

⚠ Warning

To reduce the risk of serious injury whenever you are instructed to relieving pressure procedure, always follow the listed Pressure Relief Procedure.

Always flush the pump to prevent the fluid you are pumping from drying and adhering in the pump, which may cause pump damage. The fluid for flushing should be compatible with pumped fluid, and doesn't affect the wetted parts. For recommendation on flushing fluids and periods, please contact the provider and manufacturer.Please flush the pump and relieve the pressure before storing it for a long time.

Maintenance Instructions

Troubleshooting Instructions

⚠ Warning

To reduce the risk of serious injury whenever you are instructed to relieve pressure, must always follow the Pressure Relief Procedure.

- Be sure to relief pressure before checking and repairing equipment.
- Check all possible problems and causes before you disassemble the pump.

Problem	Cause	Solution
Outlet cannot hold pressure	Check abrasion of valve balls, seats, or O-rings	Replace
Pump stops operating or cycles once and stops	Air valve is stuck or dirty	Remove and clean air valve, and use filtered air
	Valve ball or ball seat is badly worn, or valve ball is embedded in ball seat, outlet manifold or inlet manifold	Replace valve ball and seat
	Valve ball is embedded in ball seat due to overpressure	Install pressure relief valve
	Dispensing valve is stuck	Relieve pressure and clean valve
Pump operates irregularly	Suction line is blocked	Check and clean
	Valve ball is adhered or leaking	Clean or replace
	Diaphragm is ruptured	Replace
	Restricted discharge	Remove restriction

Maintenance Instructions

Problem	Cause	Solution
Air bubbles in the fluid	Suction line is loose	Fasten
	Diaphragm is ruptured	Clean and replace
	The outlet and inlet manifolds are loose or the ball seat O–ring is damaged	Fasten the bolt of inlet manifold, or replace ball seat O–ring
	Splint screw is loose	Fasten or replace
	Splint O–ring is damaged	Replace
Fluid in exhaust air	Diaphragm is ruptured	Replace
	Central axis bolt is loose	Fasten or replace
	Splint screw is loose	Replace
Excessive gas exhausts when pump stops operating	V–ring, booster power lever O–ring, slider and boot block wear	Check or replace
	Connecting rod axis sleeve, piston sleeve and booster power lever sleeve wear	Replace
Pump leaks air externally	Air valve cover (F) or its screws are loose	Fasten screws
	Air valve chamber washer or splint O–ring is damaged	Check or replace
	Inner splint screws are loose	Fasten screws
The fluid is leaking from ball check valve	Outlet and inlet manifolds are loose, seals between ball seats are damaged, O–ring is damaged	Fasten manifold bolts, or replace ball seat or O–ring

The Sequence Table for Selection of Washing and Storing Pump

Model of the pump is marked on the tag, which is composed of letters and numbers. When you order replaced parts, should look at the parts list. The following table is the contrast table of letters and numbers.

Diaphragm Pump	Pneumatic Diaphragm Pump
Fluid inlet & outlet size	10mm= 3/8inch(Dia.) 15mm= 1/2inch(Dia.) 20mm= 3/4inch(Dia.) 25mm= 1inch(Dia.) 32mm= 1 1/4inch(Dia.) 40mm= 1 1/2inch(Dia.) 50mm= 2inch(Dia.) 65mm= 2 1/2inch(Dia.) 80mm= 3inch(Dia.) 100mm= 4inch(Dia.) 125mm= 5inch(Dia.)
Material of wetted parts	G= cast steel L= aluminum alloy S= engineering plastic P= stainless steel 304 P316= stainless steel 316 Q= nodular cast iron P316L= stainless steel 316L F= PVDF
Material of valve ball	D= butyronitrile A= santoprene F= PTFE S= engineering plastics P= stainless steel 304 P316= stainless steel 316 P316L= stainless steel 316L
Material of valve seat	D= butyronitrile A= santoprene F= PTFE S= engineering plastics P= stainless steel 304 P316= stainless steel 316 P316L= stainless steel 316L
Material of diaphragm	D= butyronitrile A= santoprene M= polyether N= super teflon T= teflon T= santoprene+teflon N= santoprene+super teflon K= polyether+teflon H= polyether+super teflon