SERVICE & OPERATING MANUAL
AIR OPERATED DOUBLE DIAPHRAGM PUMP

X06

X0601SS Metallic Series

This pump is Atex approved for use in potentially explosive atmospheres Group II category 2

Table of Contents

Service / Maintenance Log

Date	Details	Completed

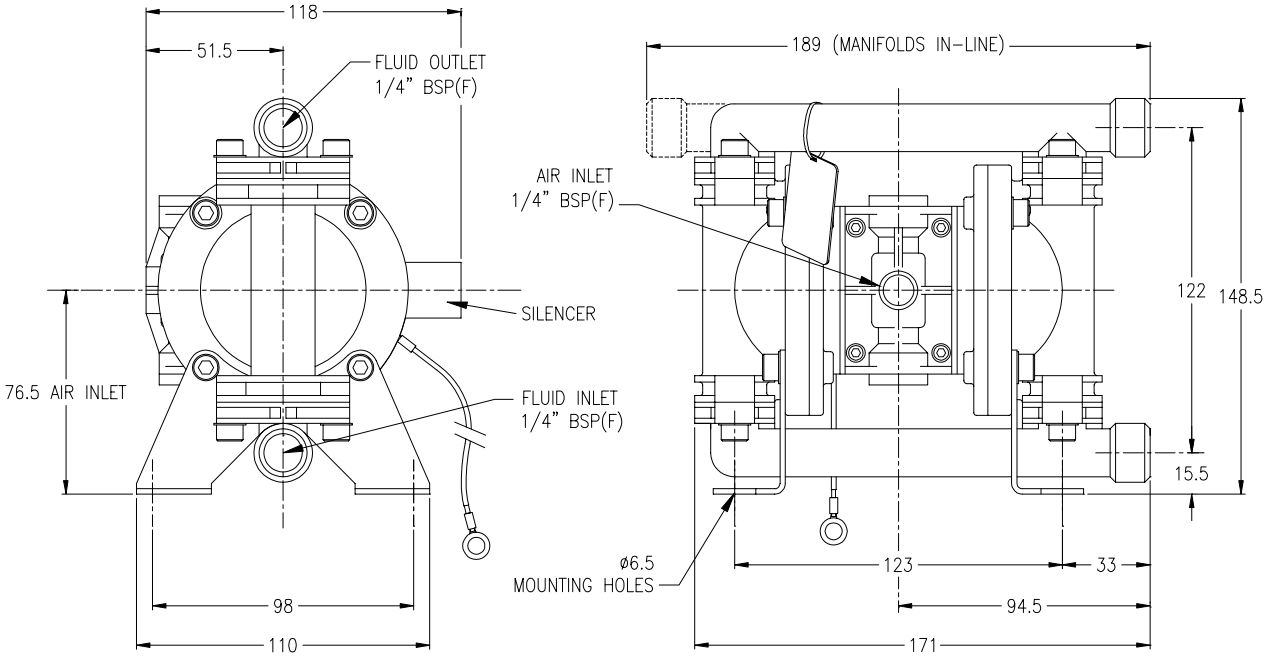
RECYCLING

Many components of BLAGDON air operated double diaphragm pumps are made of recyclable materials. We encourage pump users to recycle worn out parts and pumps whenever possible, after any hazardous pumped fluids are thoroughly flushed.

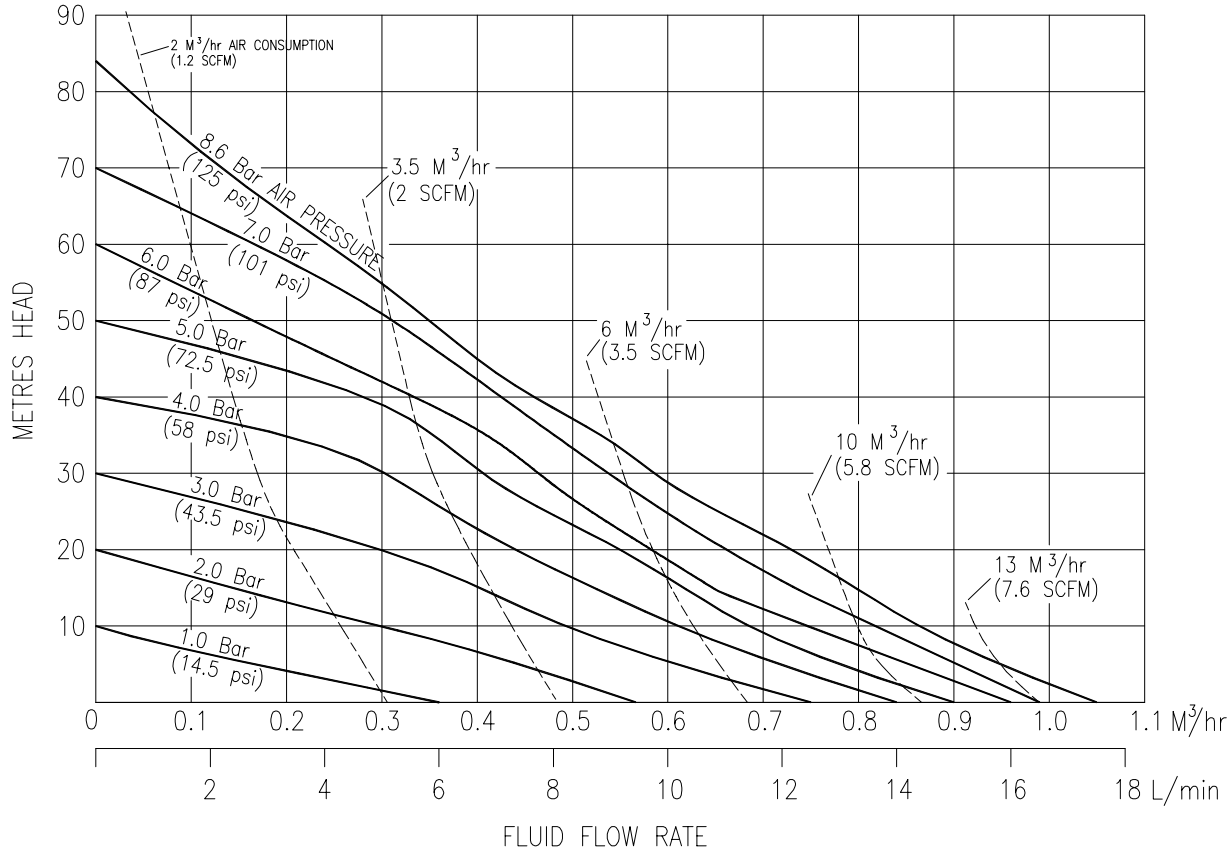
Contact Information

Contact	Phone / Fax No.

GA Drawing & Performance Curve



General Assembly :- X06 Metallic All St. Steel Pump, all dimensions +/- 1mm



X06 Metallic Pump Performance Curve

Performance based on water at ambient temperature

TECHNICAL DATA				
FLUID CONNECTIONS	**CAPACITY**	**MAX SOLIDS**	**MAX DISCHARGE HEAD**	**DISPLACEMENT/STROKE**
1/4" BSP	0 - 18 Litres/Minute (0 - 3.9 Gallons/Minute)	1 MM (1/16")	88 Meters (289 ft)	0.015 Litres (0.003 UK Gallons)
MAX. WORKING PRESSURE	**AIR INLET**	**TEMPERATURE LIMITS**		**PUMP WEIGHTS :-**
8.6 Bar (125 psi)	1/4" BSP (F)	Determined by Elastomers		SS :- 4.0 Kg

ⓘ **Caution -** *Operating temperature limitations are as follows:*	Operating Temperatures		
Materials	Maximum	Minimum	Optimum
Buna-n - General purpose, oil resistant. Shows good solvent, oil, water and hydraulic fluid resistance. Should not be used with highly polar solvents like acetone and MEK, ozone, chlorinated hydrocarbons and nitro hydrocarbons.	176°F 80°C	-18°F -28°C	50° to 140°F 10° to 60°C
EPDM - Shows very good water and chemical resistance. Has poor resistance to oils and solvents, but is fair on ketones and alcohols.	212°F 100°C	-11°F -24°C	50° to 212°F 10° to 100°C
Neoprene - All purpose. Resistant to vegetable oil. Generally not affected by moderate chemicals, fats greases and many oils and solvents. Generally attacked by strong oxidising acids, ketones, esters, nitro hydro carbons and chlorinated aromatic hydrocarbons.	212°F 100°C	-4°F -20°C	50° to 130°F 10° to 54°C
Santoprene® - Injection moulded thermoplastic elastomer with no fabric layer. Long mechanical flex life. Excellent abrasion resistance.	212°F 100°C	-10°F -23°C	50° to 212°F 10° to 100°C
Virgin PTFE - Chemically inert, virtually impervious. Very few chemicals are known to react chemically with PTFE : molten alkali metals, turbulent liquid or gaseous fluorine and a few fluoro-chemicals such as chlorine trifluoride or oxygen difluoride which readily liberate free fluorine at elevated temperatures.	356°F 180°C	32°F 0°C	50° to 212°F 10° to 100°C
Viton® - Shows good resistance to a wide range of oils and solvents : especially all alphatic, aromatic and halogenated hydrocarbons, acids, animal and vegetable oils.	356°F 180°C	0°F -18°C	75° to 212°F 24° to 100°C
Polypropylene - High strength, light weight, corrosion resistant polyolefin which easily withstands most chemicals, with no known solvent at room temperature.	158°F 70°C	-40°F -40°C	50° to 140°F 10° to 60°C

TYPICAL CODE = X06.01.S S. B B. V T S - L F

ATEX CAT. 2 CERTIFIED

MODEL - X06

DESIGN LEVEL

WETTED COMPONENTS
S : 316L STAINLESS STEEL

NON - WETTED COMPONENTS
S : 316L STAINLESS STEEL

VALVE TYPE
B : BALL

SUCTION ORIENTATION
B : BOTTOM

LUBE FREE

VALVE SEATS
S : 316L STAINLESS STEEL

VALVE BALLS
T : PTFE
V : VITON
S : 316 STAINLESS STEEL

DIAPHRAGMS
H : POLYESTER
R : SANTOPRENE
T : PTFE
V : VITON
E : EPDM

IMPORTANT

This pump should be used in accordance with the requirements of the Health and Safety at Work Act 1974.
All business conducted subject to Blagdon Pump. Terms and Conditions of Sale, available on request.

BLAGDON PUMP
A Unit of IDEX Corporation

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Web Site : www.blagdonpump.com
E-Mail : sales@blagdonpump.com

PRINCIPLE OF PUMP OPERATION

This ball valve type diaphragm pump is powered by compressed air and is a 1:1 ratio design. The inner side of one diaphragm chamber is alternately pressurised while simultaneously exhausting the other inner chamber. This causes the diaphragms, which are connected by a common shaft secured by plates to the centres of the diaphragms, to move in a reciprocating action. (As one diaphragm performs a discharge stroke the other diaphragm is pulled to perform the suction stroke in the opposite chamber.) Air pressure is applied over the entire inner surface of the diaphragm while liquid is discharged from the opposite side of the diaphragm. The diaphragm operates in a balanced condition during the discharge stroke which allows the pump to be operated at discharge heads of over 200 feet (61 meters) of water.

For maximum diaphragm life, keep the pump as close to the liquid being pumped as possible. Positive suction head in excess of 10 feet of liquid (3.048 meters) may require a back pressure regulating device to maximize diaphragm life.

Alternate pressurising and exhausting of the diaphragm chamber is performed by an externally mounted, pilot operated, 2 way type distribution valve. When the spool shifts to one end of the valve block body, inlet pressure is applied to one chamber and the other diaphragm chamber exhausts. When the spool shifts to the opposite end of the valve body, the pressure to the chambers is reversed. This alternating movement of the spool inside the valve body is controlled by a pilot air pressure signal held against the diaphragm shaft, between seals in the diaphragm shaft bushes. This signal is released, triggering the movement of the spool, when pilot holes in the diaphragm shaft align with the held pilot signal, sending the signal to exhaust, which in-turn causes a pressure imbalance around the spool, sending it to the opposite end of the valve body. This simultaneously sends inlet pressure to the opposite chamber.

The chambers are connected by manifolds with a suction and discharge ball valve for each chamber, maintaining flow in one direction through the pump.

INSTALLATION

The typical installation shown in FIG. 1 is only a guide to selecting and installing system components. Your installation will depend on the type of fluid being pumped and your application needs. To reduce the risk of serious bodily injury and damage to property, never use fluids in this pump which are not compatible with the wetted components. Contact your local distributor or the manufacturer for system design assistance & compatibility if necessary.

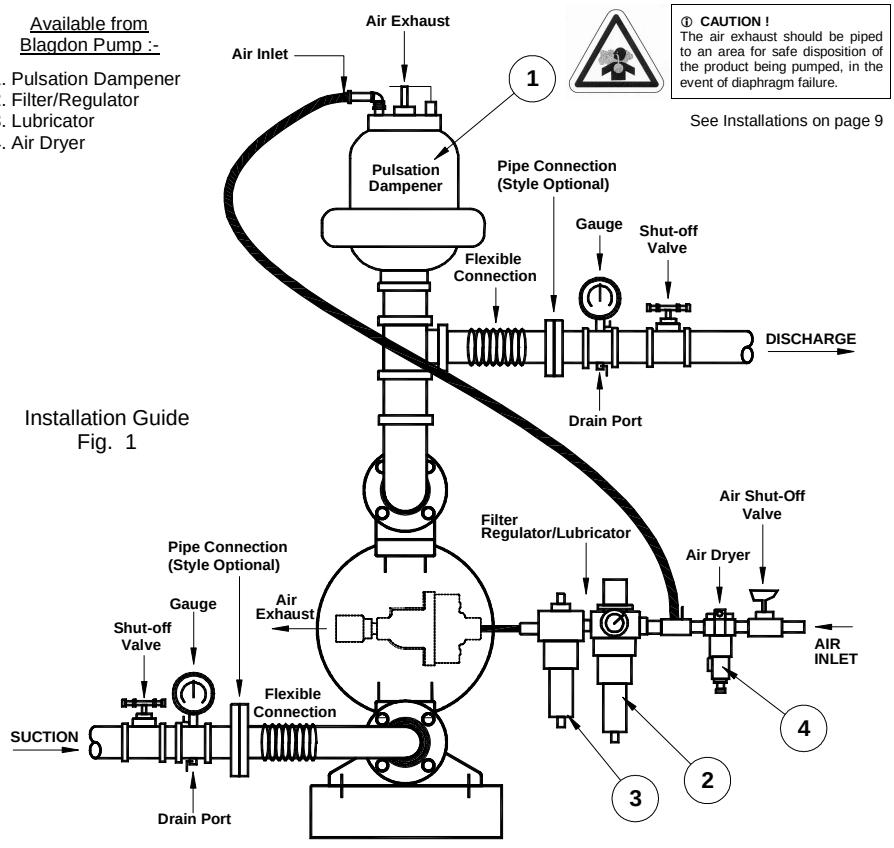
Mount the pump in an upright position. Failure to ensure an upright position may result in loss of or poor priming characteristics. Ensure the pump is securely mounted to avoid movement and possible risk of bodily injury.

PRESSURE The pump delivers the same pressure at the discharge outlet as the air pressure applied at the air inlet (unless pump is configured as a 2:1 ratio model).

NOTE: ***Pressure Regulator (H) should be installed where air supply could exceed 125 psi.***

Available from Blagdon Pump :-

1. Pulsation Dampener
2. Filter/Regulator
3. Lubricator
4. Air Dryer



Installation Guide
Fig. 1

① **CAUTION !**
The air exhaust should be piped to an area for safe disposition of the product being pumped, in the event of diaphragm failure.

See Installations on page 9

SAFETY

Your BLAGDON PUMP is a high performance unit capable of achieving high outputs at high efficiencies. However, as is common with pneumatic equipment, the pump efficiencies is reliant upon the air being clean, dry and filtered. Failure to comply with these requirements may lead to loss of performance and reduced component life and in extreme cases, permanent damage to the pump.

To avoid leaks, ensure that all fluid connections are tight. The use of PTFE thread tape correctly applied should be used to ensure 100% leak proof connections. **Failure to ensure 100% sealability of the suction connection could adversely affect suction performance.**

If you are pumping hazardous fluids, or operating the pump in an enclosed area, it is essential that the exhaust from the pump is piped away to a safe location. When pumping hazardous fluids the above instructions must be adhered to in order to ensure safe operating procedures. (Under certain operating conditions the failure of internal components can lead to the pumped fluid being exhausted via the pump exhaust outlet).

WARNING

NEVER ***place your hands over or near the pump suction inlet. Powerful suction could cause serious bodily injury.***

FLUSH THE PUMP This pump was tested with water containing an oil-based rust inhibitor. If this solution could contaminate or react with the fluid you are pumping, flush the pump thoroughly with a solvent/detergent to clean internal components. The solvent/ detergent must be compatible with the pump materials of construction. Care should be taken to flush the pump each time it is disassembled for maintenance or repair.

CAUTION Unless pump is configured as "Lube Free" ensure that only the recommended grade of lubricating oil is used. BLAGDON PUMPS require an SAE 10 lubricating oil. Other grades of oil may cause the Air Logic System to operate intermittently, thereby causing a loss of output and failure to operate.

If the pump accelerates or is running too fast due to a lack of fluid, then stop it immediately by shutting off the air supply. A dry pump will accelerate to a high speed causing wear to elastomers.

If the fluid you are pumping tends to dry up or set when it is not moving, then flush the pump as often as necessary to prevent the fluid from drying in the pump. Drain the pump thoroughly before storing.

If feasible, invert pump to allow any fluid to drain from the non-return valves.

Important Warnings and Safety Information

IMPORTANT

Read these safety warnings and instructions in this manual completely, before installation and start-up of the pump. It is the responsibility of the purchaser to retain this manual for reference. This manual must be kept with, and supplied with the pump at all times. Failure to comply with the recommendations stated in this manual will damage the pump, and void factory warranty. These instructions are available if required, in the language or languages of the country or countries in which the equipment is used. Please refer to the manufacturer for details.

IMPORTANT!

This pump is pressurized internally with air pressure during operation. Always make certain that all bolting is in good condition and that all of the correct bolting is reinstalled during assembly. End-user must ensure correct fitting of Inlet / Outlet connections. Crossed threads or over tightening of connections will result in leaks. Quick action/release connections are not recommended. If their use is unavoidable, the levers must be locked to avoid them being forced apart in a hazardous manner.

WARNING!

Before maintenance or repair, shut off the compressed air line, bleed the pressure, and disconnect the air line from the pump. The discharge line may be pressurized and must be bled of its pressure. End-user must ensure correct regulation of air supply pressure, as any increase in air pressure results in a similar increase in product pressure if stalled-out.

WARNING!

Before doing any maintenance on the pump, be certain all pressure is completely vented from the pump, suction, discharge, piping, and all other openings and connections. Be certain the air supply is locked out or made non-operational, so that it cannot be started while work is being done on the pump. Be certain that approved eye protection and protective clothing are worn at all times in the vicinity of the pump. Failure to follow these recommendations may result in serious injury or death.

WARNING!

Airborne particles and loud noise hazards. Wear ear and eye protection.

WARNING!

Take action to prevent static sparking. Fire or explosion can result, especially when handling flammable liquids. The pump, piping, valves, containers or other miscellaneous equipment must be grounded. Refer to exhaust safety instructions on page 9.

WARNING!

When used for toxic or aggressive fluids, the pump should always be flushed clean prior to disassembly. User must ensure chemical compatibility, and any pressure / temperature limits are not exceeded. These instructions include all the information for relevant diaphragm temperature limits. Pump temperature range can also be found on data-plate attached to the pump.
If pump is not used for more than 5 days, care must be taken when restarting. If in any doubt, remove pump from line and flush with a suitable cleaner. Solidified deposits within the pump may cause damage to the diaphragms.

CAUTION!

Before pump operation, inspect all gasketed fasteners for looseness caused by gasket creep. Re-torque loose fasteners to prevent leakage. Follow recommended torques stated in this manual. In cases of excess vibration, Blagdon recommend fitting a Pulsation Dampener to remove effects of pulse actions from pump operation. Flexible connections can be used, but must be kept to a minimum length necessary to avoid sharp flexing or straining movements.

TROUBLE SHOOTING GUIDE

NOTE :- ***Check all solutions before dismantling the pump.***

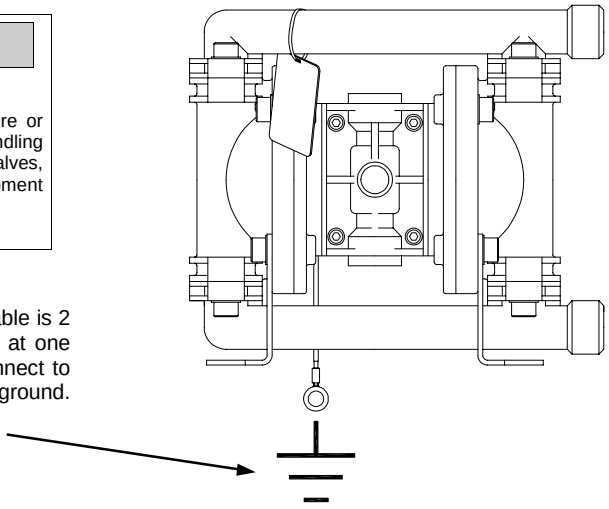
PROBLEM	CAUSE	SOLUTION
Pump will not start	Air valve assembly malfunction/Siezure Obstructed fluid line. Obstructed diaphragm chamber. Diaphragm failure causing fluid & excessive air to be expelled through the exhaust. Diaphragm seal failure. Air valve system malfunction. Air connected to exhaust.	Check carrier for freedom of movement. - Clean, oil & replace. Clean line or increase line size. Remove obstruction. Replace diaphragm. Replace shaft seals. Check all seals in valve chest assembly. Re-connect to air inlet.
Erratic flow	Diaphragm failure on one side. Valve ball not seating. Suction leakage. Diaphragm failure causing fluid & excessive air to be expelled through the exhaust. Diaphragm seal failure. Air valve system malfunction.	Replace diaphragm. Check and remove obstruction. Check and correct. Replace diaphragm. Replace shaft seals. Check all seals in valve chest assembly.
Pump strokes but will not discharge	Excessive suction lift. Suction line leakage. Valve ball not seating correctly or damaged. Suction line or strainer clogged. Diaphragm failure.	Shorten suction line. Check and correct. Check and remove obstruction / replace. Clear. Replace diaphragm.
Fluid discharged from air exhaust	Diaphragm Failure. Loose frontplate.	Replace diaphragm. Re-Torque to manual specifications.
Intermittent stroke rate	Over lubrication Diaphragm shaft seal failure. Air valve system malfunction. Valve ball not seating / partially obstructed.	Shut-down pump. Remove air connection into pump & introduce a small quantity of de-greasing agent into air valve and replace line. Run pump until clear. Replace seals. Check all seals in valve chest assembly. Clear obstruction.

Grounding the pump :-

WARNING!

Take action to prevent static sparking. Fire or explosion can result, especially when handling flammable liquids. The pump, piping, valves, containers or other miscellaneous equipment must be grounded.

This unit is supplied with a natural earth ground cable. This cable is 2 meters in length and permanently connected through a stud at one end to the pump centre casting. The other end is free to connect to the nearest available suitable point to provide a natural earth ground. This must be done to reduce the risk of electro-static sparking.



IMPORTANT!

Read these instructions completely, before installation and start-up. It is the responsibility of the purchaser to retain this manual for reference. Failure to comply with the recommendations stated in this manual will damage the pump, and void factory warranty.

SERVICE

The following sections give a general overview on how to service all models of BLAGDON Diaphragm Pumps. For details on individual part numbers, quantities, materials, etc., please consult the parts list supplied with the pump.

NOTE : ***Before commencing any service or maintenance work on the pump, ensure that the air supply has been disconnected or isolated.***

AIR VALVE SYSTEMS

PNEUMATIC TYPE Remove the 4 screws securing the valve block to the valve chest, together with any associated gaskets or seals.

Remove slide valve plate & slide valve from the valve block assembly. Clean all parts thoroughly and inspect for excessive wear, replacing where necessary.

The slide valve and valve plate contact faces should be flat and free from scratches. A light polishing on a flat surface with a fine abrasive paper will remove most scratches.

If excessive wear is suspected in the valve block bore or valve carrier, remove the valve block plugs and withdraw the valve carrier. Check valve block plug o-rings for wear or attack & replace where required.

Clean the valve carrier & valve block bore with white spirits to remove any oil films.

NOTE : ***The nominal diametrical clearance between the valve carrier and the valve block bore should be 0.05 - 0.09mm. A clearance in excess of this will cause the valve system to run erratically.***

Apply a light grease to the valve block plug O-rings when re-assembling into the valve block bore. Any damage to the O-ring may cause the valve system to malfunction.

Re-assemble the valve block assembly & re-torque in accordance to the settings shown in the parts list.

In the event of a complete air-side overhaul, the pump should be dis-assembled down to the centre section assembly as described later in the "Wet-Side Overhaul" section.

With the valve block assembly dismantled, remove the inner covers where appropriate.

A careful note of the position of all related seals and gaskets should be made to facilitate re-assembly.

Remove diaphragm shaft bushes, where appropriate, and check all seals and 'O' rings for wear or damage. If worn, replace immediately.

NOTE:- ***The integrity of the diaphragm shaft seals is essential for the correct functioning of all pneumatically actuated valve systems.***

Check the diaphragm shaft for excessive wear as this will result in premature seal failure. Replace as required. Lubricate all components and re-assemble as detailed above, in reverse order. Ensure the correct position of all components detailed in all sectional assembly drawings.

WET-SIDE OVERHAUL

REPLACING BALL VALVES
Remove discharge manifold from pump assembly together with associated valve balls, seats and 'O' rings.

NOTE :- ***The orientation of the valve seat relative to the valve ball should be noted as incorrect positioning may result in a performance loss.***

Turn pump through 180^{o} and remove the suction manifold. Clean and inspect the components. Check for any wear or damage and replace as required.

NOTE :- ***Ball or valve seat wear may result in loss of performance and suction lift.***

Re-assemble the valve balls/seats and ensure manifolds are adequately torqued to the settings shown in the parts list.

REPLACING DIAPHRAGMS
Remove both suction and discharge manifolds as detailed in the previous section, removing all ball valves, seats and 'O' rings.
Loosen and remove both outer covers from the pump assembly. The orientation of the covers should be noted so as to facilitate re-assembly.
Holding one of the frontplates in a vice, ('soft jaws' should be fitted), or with an adjustable spanner, loosen and remove the frontplate from the opposite end. Remove the diaphragm, backplate and bumpstop from diaphragm shaft.

Carefully withdraw the diaphragm shaft from the centre section and hold the free end in a vice, holding between the flats machined on the end. Loosen and remove the frontplate and remove the diaphragm together with backplate and bumpstop (where fitted).

NOTE :- ***Care should be taken with all plastic, coated and hygienic pumps, so that the surface of the frontplate is not damaged.***

Thoroughly clean all parts and check for wear, damage, swelling, cracking, delamination and chemical attack.
Replace components where required.

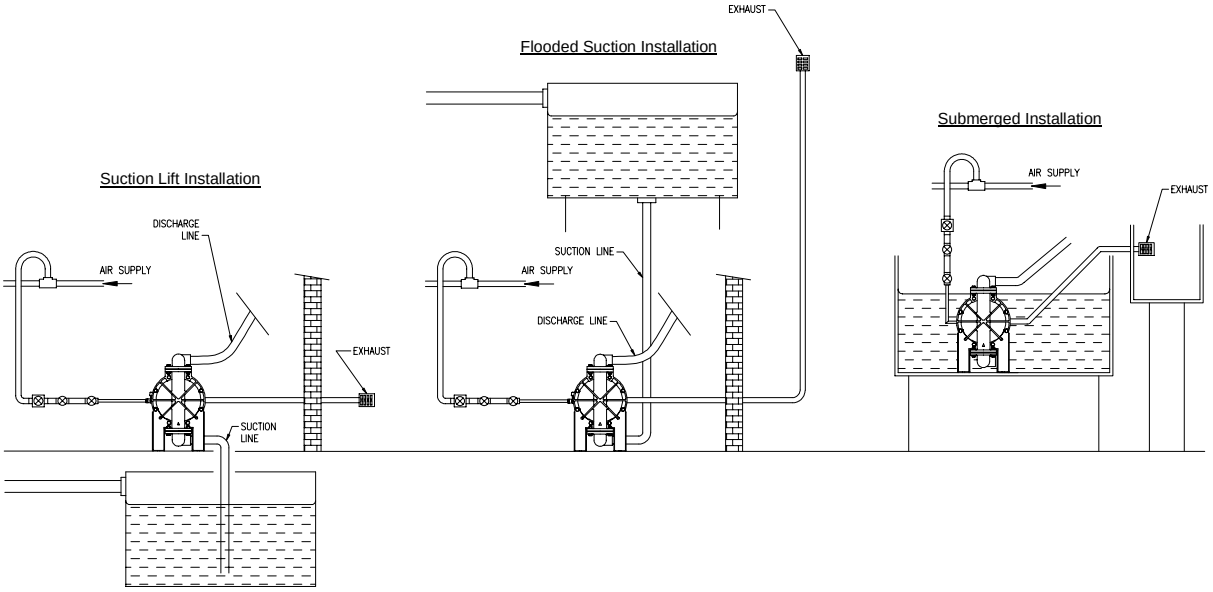
NOTE :- ***Rubber diaphragms should be replaced if they are worn to such an extent that the fabric re-enforcing is evident on the surface of the diaphragm.***

For pumps fitted with PTFE diaphragms, a light coating of grease should be applied to the back-up diaphragm prior to re-assembly.
Before re-assembly, it is advisable to check the condition of the diaphragm shaft seal/'O' rings for wear or attack. If either is evident, it is recommended that they be replaced.
Assemble the diaphragms onto the shaft in a reverse sequence to their removal. Care should be taken as to the orientation of the diaphragm relative to the front and back plates. All diaphragms have "AIR SIDE" moulded onto one side. The backplate must be fitted adjacent to the AIR SIDE of the diaphragm.

EXHAUST SAFETY WHEN PUMPING HAZARDOUS LIQUIDS

WARNING!

In the event of diaphragm rupture, pumped material may enter the air end of the pump, and be discharged into the atmosphere. If pumping a product which is hazardous or toxic, the air exhaust must be piped to an appropriate area for safe disposition.



Exhaust Safety :-

When a diaphragm fails during operation, pumped liquid can enter and contaminate the air side of the pump. If diaphragm failure is not severe, i.e. a small split or hole, then the pump can continue to run, with air being forced into the product being pumped. If however the failure is more serious, then the pump may stop, with fluid or fumes being expelled through the exhaust. Under these conditions it is recommended that the exhaust is piped away to a safe area. In standard suction lift conditions this can simply be done by piping from the exhaust connection to a safe area. Multiple installations can be piped to a common connection, then to a safe area. In flooded suction conditions the exhaust must be taken to a point higher than the fluid level to prevent any siphoning away. In submerged conditions ensure exhaust is piped away above fluid level.

In all conditions ensure exhaust outlet is not expelling across a non-conductive surface. The exhaust must not be placed less than 100mm from any non-conductive surface, as this may generate a propagating brush discharge resulting in a possible ignition source.

HIGH TEMPERATURE INSTALLATIONS

In situations where the temperature of the fluid to be pumped is likely to exceed 80°C, a high temperature pump code must be specified. This is signified using an 'X' in the last part of the pump code as shown.

"XTS" in place of "TTS".

This indicates the following specification amendments :-

All seals and o-rings will be changed from Buna-N to Viton. Any gaskets will be changed to a higher temperature spec. Diaphragm shaft bushes will be changed from plastic to metal, back-up diaphragms and any bumpstops will be changed to Viton.

See table below for parts effected :- (refer to main table for quantities / pump)

HIGH TEMPERATURE SPECIFICATION										
REF. NO	3	9	10	33	34	35	36	37	38	40
DESCRIPTION / MATERIAL	O-RING	PLATE SEAL	PORT SEAL	SHAFT SEAL	DIAPHRAGM SHAFT BUSH 'A'	O-RING	O-RING	DIAPHRAGM SHAFT BUSH 'B'	O-RING	SUPPORT DIAPHRAGM
VITON	G525	06-182	06-181	06-183	-	G526	G527	-	G528	06-060
PHOSHOR BRONZE	-	-		-	06-205	-	-	06-206	-	-

PARTS LIST

REF.	PART No.	DESCRIPTION		QTY
1	06-207	BASE LEG		2
2	D274	SKT C'SUNK SCREW M3 x 10		6
3	G258	O-RING	□	2
4	06-007	VALVE BLOCK PLUG		2
5	06-097	VALVE BLOCK		1
6	06-005	VALVE CARRIER		1
7	06-004	SLIDE VALVE		1
8	06-003	SLIDE VALVE PLATE		1
9	06-059	PLATE SEAL	□	1
10	06-002	PORT SEAL	□	1
11	06-204	CENTRE SECTION		1
12	D215	SKT CAP SCREW M6 x 20		16
13	15-258	SILENCER		1
14	SA10289	GROUNDING LEAD ASSEMBLY		1
15	06-139	OUTER COVER		2
16	C048	WASHER M6		14
17	SP467	ATEX I/D TAG		1
18	SP472	TIE-LOK TIE		1
19	D322	SKT CAP SCREW M4 x 10		4
20	06-167	MANIFOLD		2
21	SEE TABLE	O-RING - MANIFOLD	◆	4
22	06-161	BALL CAGE		2
23	SEE TABLE	VALVE BALL - DISCHARGE	◆	2
24	06-163	VALVE SEAT - DISCHARGE	◆	2
25	G259	O-RING - VALVE SEAT	◆	2
26	SEE TABLE	DIAPHRAGM	◆	2
27	06-009	BACKPLATE		2
28	SA10160	FRONTPLATE ASSY		2
29	SEE TABLE	VALVE BALL - SUCTION	◆	2
30	06-142	VALVE SEAT - SUCTION	◆	2
31	H280	CIRCLIP		2
32	06-132	DIAPHRAGM SHAFT		1
33	06-044	SHAFT SEAL	□	2
34	06-047	DIAPHRAGM SHAFT BUSH - 'A'		2
35	G257	O-RING	□	4
36	G279	O-RING	□	2
37	06-048	DIAPHRAGM SHAFT BUSH - 'B'		2

PARTS LIST

REF.	PART No.	DESCRIPTION		QTY
38	G264	O-RING	□	2
39	06-141	DIAPHRAGM – PTFE	◆	2
40	06-147	DIAPHRAGM SUPPORT	◆	2

ELASTOMER TABLE						
REF No.	DESCRIPTION	PTFE	VITON	EPDM	STAINLESS STEEL	QTY
21	O-RING	G256	G336	G333	-	4
23	VALVE BALL - DISCHARGE	06-145	06-151	-	06-146	2
29	VALVE BALL - SUCTION	06-108	06-109	-	06-110	2
26	DIAPHRAGM	SEE 39 & 40	06-060	06-070	-	2

ELASTOMER TABLE					
REF No.	DESCRIPTION	POLYESTER		SANTOPRENE®	QTY
26	DIAPHRAGM	06-010		06-147	2

◆ - These items are available in a recommended spares kit. Please refer to your local stockist / distributor for details.

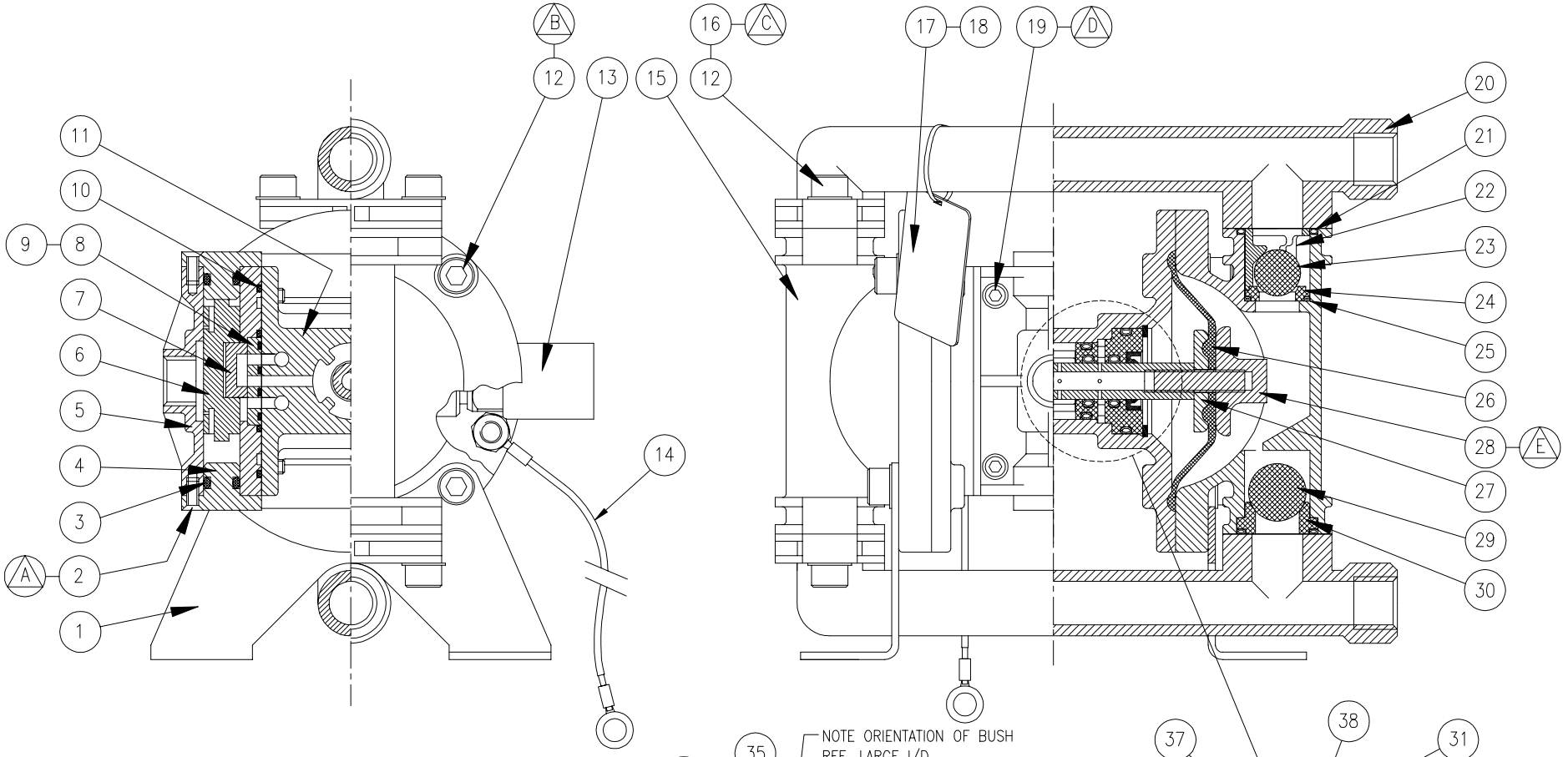
□ - These items are available in a recommended spares kit - SA10440 - Air side Kit.
Lube Free Air Side Kit - SA10462

Santoprene is a registered trade name of Monsanto Corp.

Note ! For High Temperature Air Side Kits, refer to manufacturer.

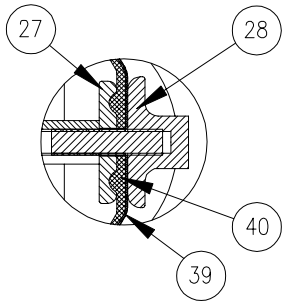
LUBE FREE SEAL OPTIONS (See Drg. for seal orientation)			
REF. No.	PART No.	DESCRIPTION	QTY
29	06-152	DIAPHRAGM SHAFT BUSH 'A'	2
32	06-153	DIAPHRAGM SHAFT BUSH 'B'	2
30	15-098	U-CUP SEAL	4

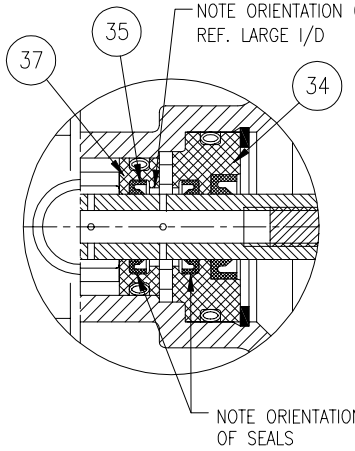
NOTES



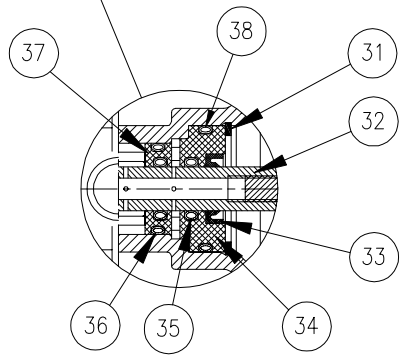
TORQUE SETTINGS

A – 3–4NM (2–3lbs/ft)
B – 16NM (12 lbs/ft)
C – 18–20NM (13–15lbs/ft)
D – 4–5NM (3–4lbs/ft)
E – 10–12NM (7.5–9 lbs/ft)





PART VIEW SHOWING
LUBE FREE SEAL OPTION



Sectional General Assembly :- X06 Metallic Pump
Refer to page 10 - Parts List table for item Ref. Nos.
Refer to page 9 for any high temperature parts.

EC Declaration of Conformity Atex 100a

Manufactured by :-

BLAGDON PUMP
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TYNE & WEAR NE37 1QP
ENGLAND.
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Web Site : www.blagdonpump.com
E-Mail : sales@blagdonpump.com

BLAGDON PUMP
A Unit of IDEX Corporation

II 2 GD c

Sira 03ATEX9347X

This declaration applies to all standard metallic Blagdon Air Operated Double Diaphragm pumps.

Blagdon Pump declares under our sole responsibility that the product listed below conforms with the relevant provisions of EC directive 94/9/EC of 23 March 1994 for equipment and protective systems intended for use in potentially explosive atmospheres, and is certified for safe use in Group 2 category 2 area's.

Pump Model	**Serial No.**

This product has used the following harmonized standards to verify conformance :

Non-electrical equipment for potentially explosive atmospheres : EN13463-1 : 2001
Internal control of production.

Non-electrical equipment intended for use in potentially explosive atmospheres - Part 5 :
Protection by constructional safety "c"

Safety requirements for fluid power systems and their components - Pneumatics :
BS EN 983 : 1996

Machinery Safety Directive : 98/37/EC of 22 June 1998

Pumps & Pump units for liquids : EN 809

This product must not be used in area's other than specified above. If in doubt consult an authorised distributor, or refer to the manufacturer Blagdon Pump.

Approved by : M. Johnson

Michael Johnson , General Manager

Date : 1st July 2003