

D SERIES INSTALLATION & MAINTENANCE MANUAL



**READ THIS MANUAL BEFORE INSTALLING, OPERATING OR SERVICING DIAPHRAGM PUMP
FAILURE TO FOLLOW INSTRUCTIONS MAY RESULT IN PUMP FAILURE & VOID WARRANTY**



Material Blank - Standard* CI - Cast Iron BR - Bronze SS - 316 Stainless	Drive S - Electric Single Phase 240V T - Electric Three Phase 415V E - Petrol Engine D - Diesel Engine	
Flow Rate Nom. M3 /Hr	Motor Rating EXE - Increase Safety EXD - Flameproof EXN - Non-Sparking	
		Size 25 32 38 50 76

* D25 Cast Iron, D32 - 76 Alum.

General

Install the pump in a level position and secure using mounting holes in base plate. **Remove vent plug from gear reducer oil filler cap**. Check oil is visible in the sight glass. Use high quality 460 grade gear oil. ASM Diaphragm pumps do not require priming and can run dry without damage. For start up ensure all valves are fully open before running the pump. With the pump delivering liquid check the motor current draw is below the full load current on the motor nameplate.

Electrical

Have the electrical connection installed by a qualified electrician. Connect motor as per the motor manufacturers instructions and fit a motor overload protection device. Ensure there is unobstructed airflow to the motor cooling fan and the motor is protected from the weather and water. The correct motor rotation is clockwise viewed from the fan end.



Warning
Incorrect rotation will damage the pump

Pipework

Correct pipe size is a critical factor affecting pump performance and service life. Refer to pipe selection chart below. Pipework should be airtight, adequately supported and as short and direct as possible. Use flexible connectors between pump and rigid pipe work. Fit an ASM Pulsation Dampener if rigid pipework exceeds 3m in length. For flexible installations use reinforced suction hose for suction and discharge.



Warning
Never restrict or dead head the pump damage will occur. Use of incorrect pipe sizes will void warranty

Engine Drives

Refer to manufacturers instructions for commissioning



Warning
Maximum pump speed must not exceed 40 strokes per min.

IMPORTANT INFORMATION FOR INSTALLERS					
INTERNAL PIPE SIZE FOR ASM DIAPHRAGM PUMPS					
FOR CLEAN LIQUIDS WITH SAME VISCOSITY AS WATER					
	SUCTION PIPE LENGTH M		DISCHARGE PIPE LENGTH M		
PUMP SIZE	0 - 5	5 - 10	0 - 5	5 - 10	10 - 20
D25	25	32	32	40	40
D32	32	40	40	50	50
D38	40	50	50	65	65
D50	50	80	65	80	80
D76	80	80	80	100	100
	SUCTION PIPE ID IN MM		DISCHARGE PIPE ID IN MM		

Maintenance

After 10 Hours operation check the oil level in the gear reducer and re-tension fasteners if required. After 100 Hours drain reducer, flush thoroughly with a light oil and replace with 460 grade gear oil. Replace gear reducer oil every 2500 Hours there after. The operator should not need to carry out further maintenance, rather inspect the pump on a regular basis and be aware of changes to the pumps normal operation. Diaphragm and valve assemblies are consumable items and will require replacement.

Diaphragm Fitting

Jog pump to take the diaphragm, Item 3 to the bottom of the stroke. Disconnect power supply. Remove the four clamping bolts holding the drive support housing, Item 12 to the bowl casing, Item 1 and lift the drive support and diaphragm assembly clear. Remove stainless bolt Item 9 for D25 and D32 or nut for D38, D50 and D76. Remove the washer set set Item 10 and diaphragm plate Item 2. Clean and inspect both diaphragm plates and replace washer set. Replace diaphragm. The correct orientation is with the writing up. See Fig.1 The top outer lip of the diaphragm should be 0 - 2mm from the drive support housing clamp face. See Fig.2 below. The diaphragm position will generally not require adjustment. If required, loosen and adjust the connecting rod nut/s. Mount the drive support and diaphragm assembly onto the bowl casing ensuring the diaphragm is central and located in the groove of the bowl and fit the four clamp bolts

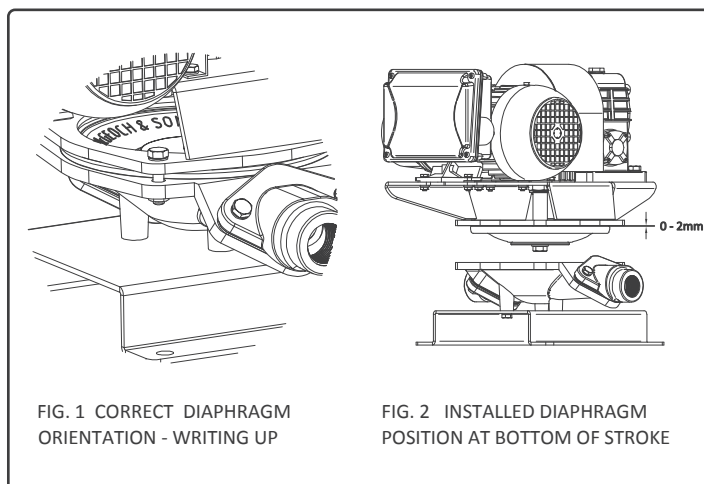


FIG. 1 CORRECT DIAPHRAGM ORIENTATION - WRITING UP

FIG. 2 INSTALLED DIAPHRAGM POSITION AT BOTTOM OF STROKE



Note
All installation, repair and maintenance work should be carried out by trained, qualified personnel.
For further information contact ASM PUMPS

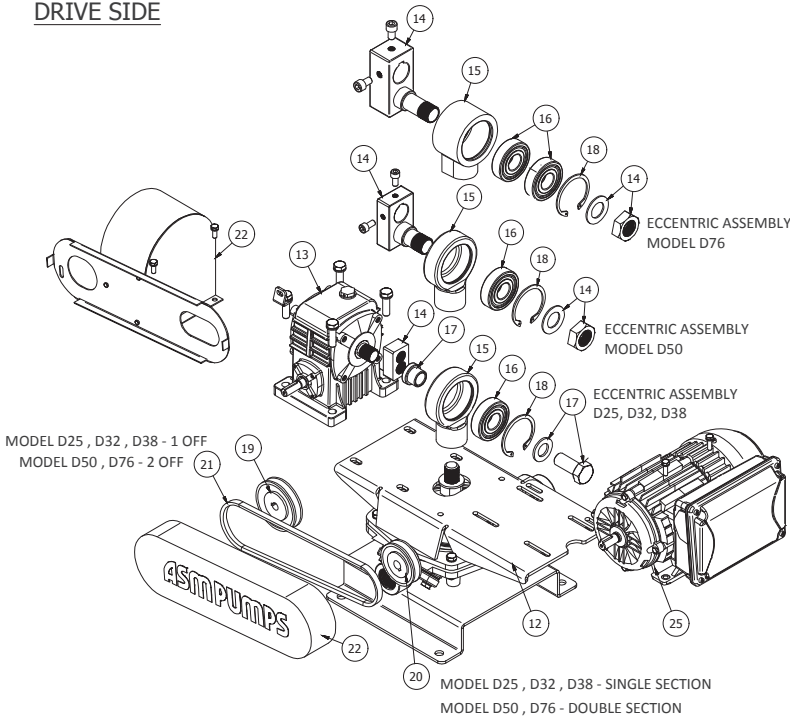


ASM PUMPS
14 Nicole Way, Dandenong South, Victoria, 3175
Ph: 03 9793 7577 Email: sales@asmpumps.com.au
www.asmpumps.com.au



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DRIVE SIDE

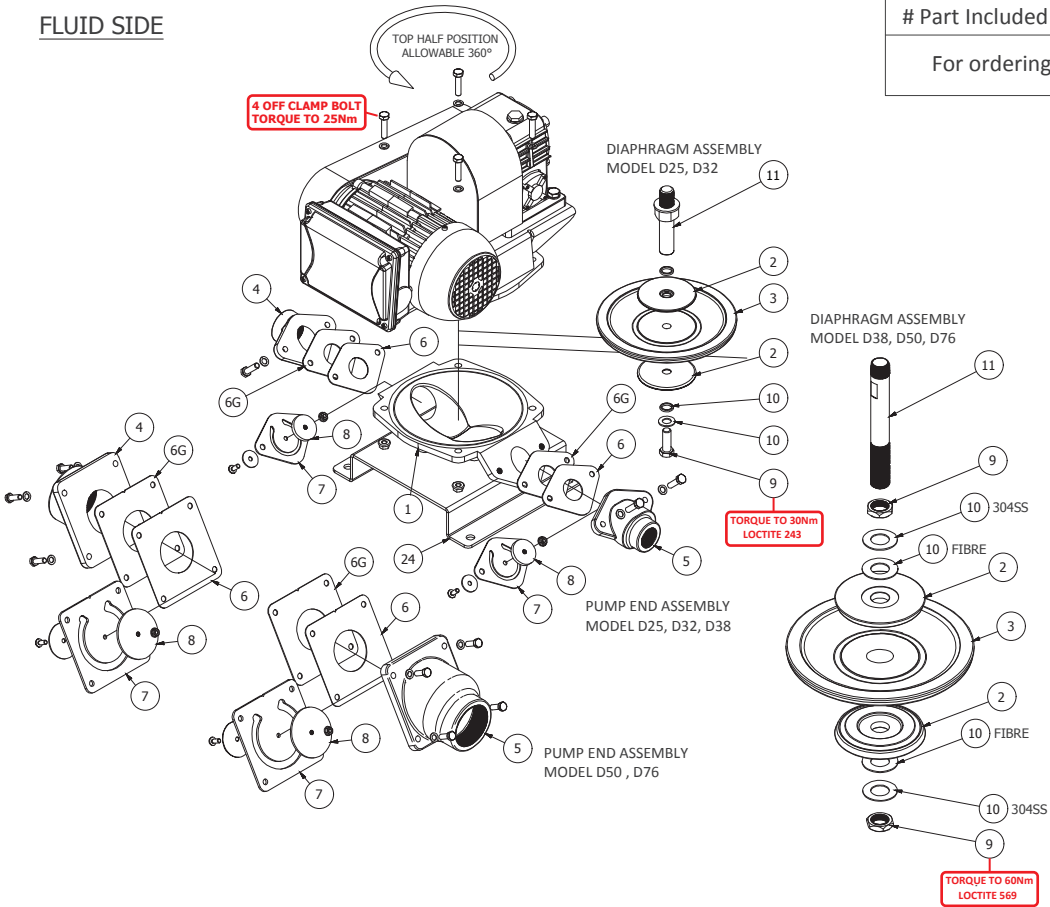


D SERIES PUMP PARTS LIST		
ITEM	DESCRIPTION	QTY.
1	Bowl Casing	1
2	Diaphragm Plate	2
3 *	Diaphragm	1
4	Suction Valve Body	1
5	Discharge Valve Body	1
6 * #	Valve Seat - Stainless	2
6G * #	Valve Seat Gasket - Rubber	2
7 * #	Flap Valve	2
8 * #	Flap Valve Weight Set	2
9	SS Bolt / Nut	1 / 2
10 *	Washer Set	1
11	Connecting Rod	1
12	Drive Support Housing	1
13	Gear Reducer	1
14	Eccentric Block Assembly	1
15	Eccentric Housing	1
16	Eccentric Bearing	1 OR 2
17	Eccentric Bolt & Spacer	1
18	Circlip	1
19	Gear Reducer Pulley	1
20	Motor Pulley	1
21 *	V-Belt	1 OR 2
22	Gaurd Assembly	1
23	Carry Frame	OPT.
24	Base Plate	1
25	Motor	1
VA	Valve Assembly	2
K1	Service Kit	1

* Part Included in K1 Service Kit
Part Included in VA Valve Assembly

For ordering Part No. = Model - Item No.

FLUID SIDE



PD1 & PD2 PULSATION DAMPENER PARTS LIST	
ITEM	DESCRIPTION
1	Top Half
2	Bottom Half
3	Diaphragm

DIAPHRAGM ORIENTATION
Discharge - Concave (as shown)
Suction - Convex



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