



PUMP OPERATION & MAINTENANCE MANUAL



P300 High Density Polyethylene Air Diaphragm Pump

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CAUTIONS — READ FIRST!

READ THESE WARNINGS AND SAFETY PRECAUTIONS PRIOR TO INSTALLATION OR OPERATION. FAILURE TO COMPLY WITH THESE INSTRUCTIONS COULD RESULT IN PERSONAL INJURY AND OR PROPERTY DAMAGE. RETAIN THESE INSTRUCTIONS FOR FUTURE REFERENCE.

⚠ WARNING Pump, valves and all containers must be properly grounded prior to handling flammable fluids and/or whenever static electricity is a hazard.

⚠ WARNING Prior to servicing the pump, ensure that the air and fluid lines are closed and disconnected. While wearing personal protective equipment, flush, drain and process liquid from the pump in a safe manner.

⚠ CAUTION Do not connect a compressed air source to the exhaust port of the pump.

⚠ CAUTION Ensure that the muffler is properly installed prior to pump operation.

⚠ CAUTION Do not lubricate air supply.

⚠ CAUTION When selecting pump materials, be aware of the following temperature limitations:

Buna-N (Nitrile):	10°F to 180°F [-12C to 82C]
Geolast®:	10°F to 180°F [-12C to 82C]
EPDM:	-40°F to 280°F [-40C to 138C]
Santoprene®:	-40°F to 225°F [-40C to 107C]
Viton® (FKM):	-40°F to 350°F [-40C to 177C]
PTFE:	40°F to 220°F [4C to 104C]
Polyethylene:	32°F to 158°F [0C to 70C]
Polypropylene:	32°F to 180°F [0C to 82C]
PVDF:	0°F to 250°F [-18C to 181C]
Nylon:	0°F to 200°F [-18C to 93C]

Temperature limits are solely based upon mechanical stress and certain chemicals will reduce the maximum operating temperature. Consult a chemical resistance guide for chemical compatibility and a more precise safe temperature limit.

⚠ WARNING = Hazards or unsafe practices which could result in severe personal injury, death or substantial property damage

⚠ CAUTION = Hazards or unsafe practices which could result in minor personal injury, product or property damage.

⚠ CAUTION Do not exceed 120 psig (8.3 bar) air-inlet pressure.

⚠ CAUTION Ensure all wetted components are chemically compatible with the process fluid and the cleaning fluid.

⚠ CAUTION Ensure pump is thoroughly cleaned and flushed prior to installation into a process line.

⚠ CAUTION Always wear Personal Protective Equipment (PPE) when operating pump.

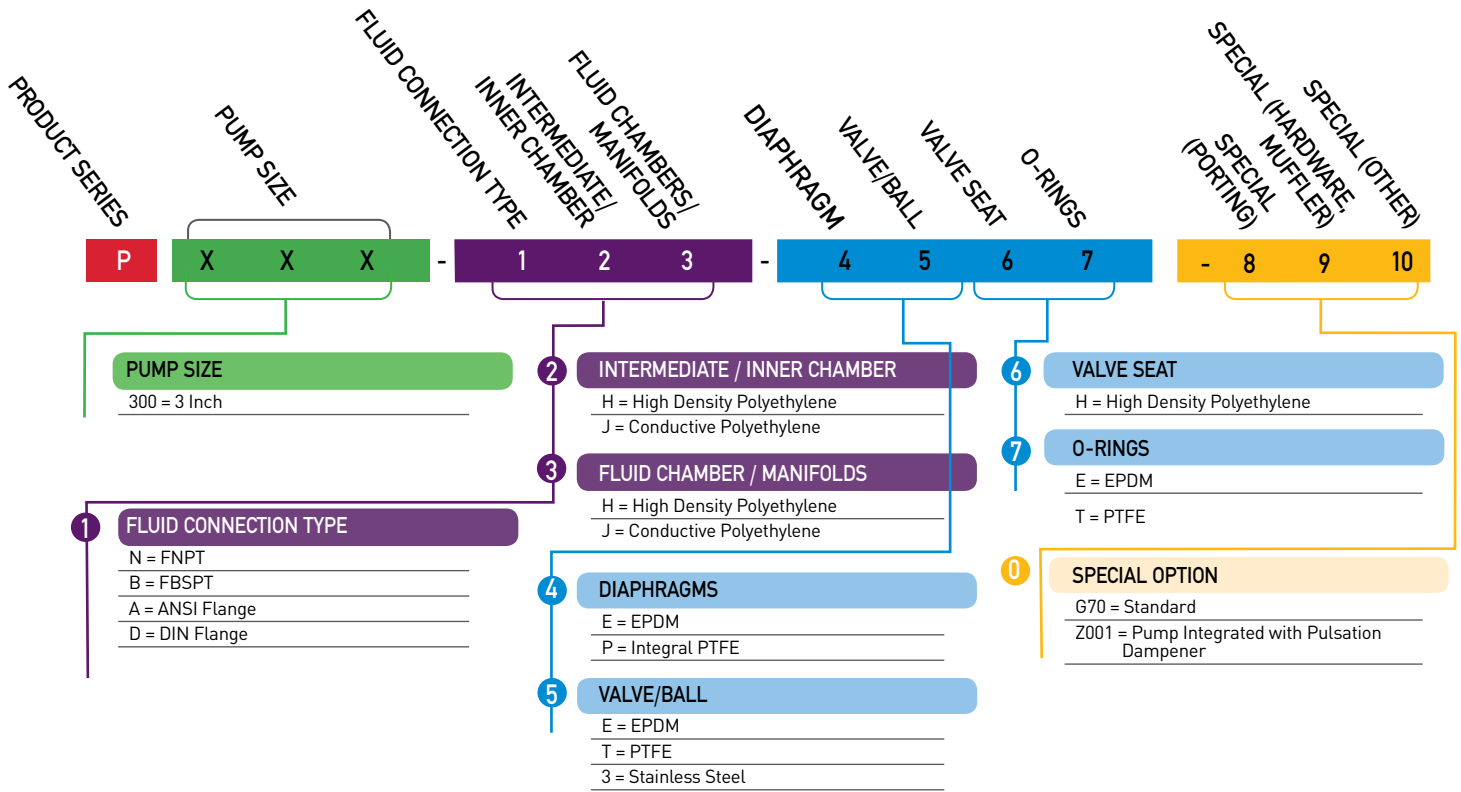
⚠ CAUTION Close and disconnect all compressed air and bleed all air from the pump prior to service. Remove all process fluid in a safe manner prior to service.

⚠ CAUTION Blow out all compressed air lines in order to remove any debris, prior to pump installation.

⚠ CAUTION Ensure air exhaust is piped to atmosphere prior to a submerged installation.

⚠ CAUTION Ensure all hardware is set to correct torque values prior to operation.

Model Designation Matrix

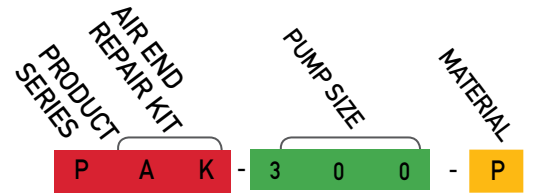
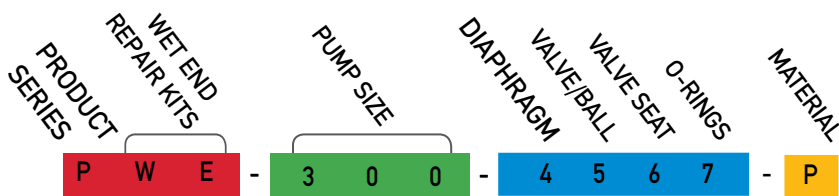


WET END REPAIR KIT

Wet end kits are available and consist of diaphragms, (back-up diaphragms if required), balls, seats and seat O-Rings. See matrix below.

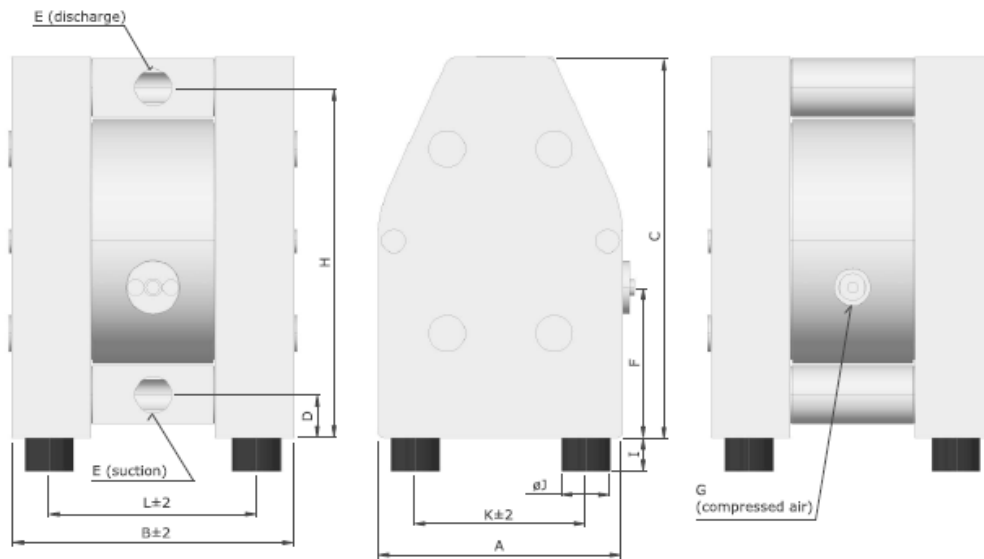
AIR END REPAIR KIT

Air end repair kit contains pilot sleeve assembly and main air valve.



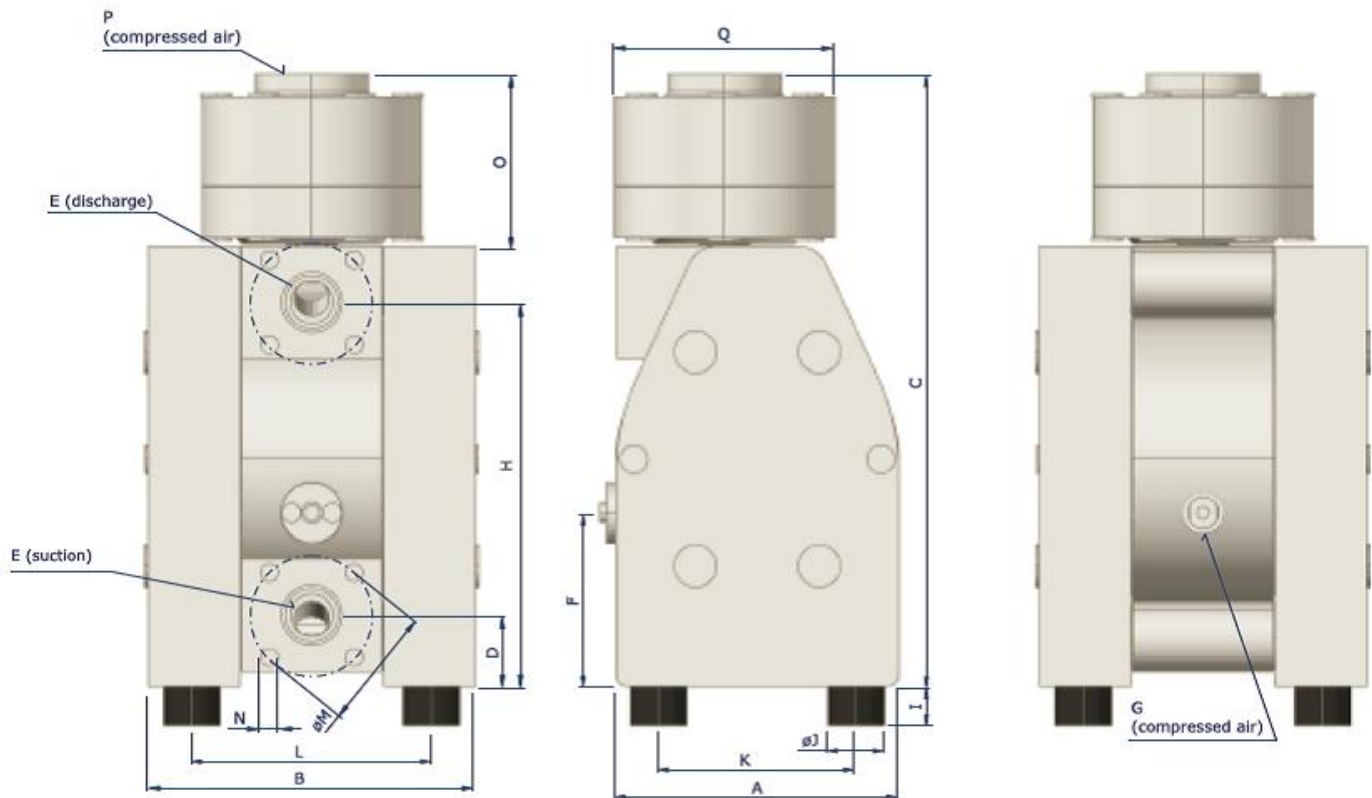
Bold indicates recommended options

Pump Dimensions



	A	B	C	D	F	H	I	J	K	L
P300	18.90"	22.83"	31.50"	3.94"	15.28"	27.17"	1.57"	2.95"	15.55"	19.49"
	(480 mm)	(580 mm)	(800 mm)	(100 mm)	(388 mm)	(690 mm)	(40 mm)	(75 mm)	(395 mm)	(495 mm)

Pump Integrated with Pulsation Dampener Dimensions

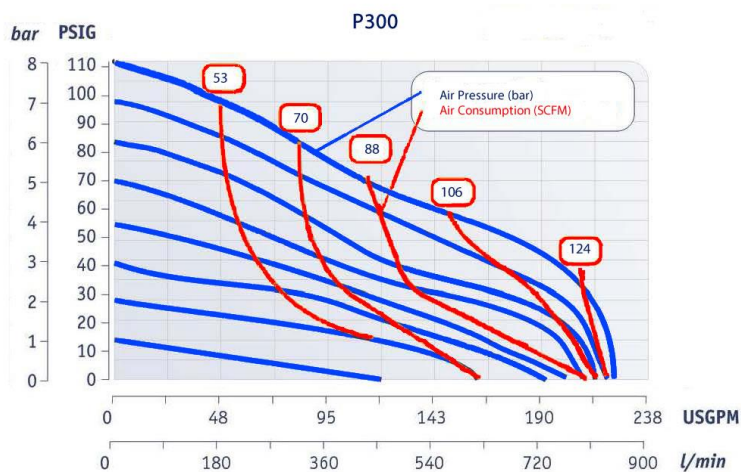


	P300
A	18.90" (480 mm)
B	22.83" (580 mm)
C	31.50" (800 mm)
D	3.94" (100 mm)
E	15.28" (388 mm)
F	3"
G	27.17" (690 mm)
H	3/4"
I	1.57" (40 mm)
ØJ	2.95" (75 mm)
K	15.55" (395 mm)
L	19.49" (495 mm)
M	6.30" (160 mm)
N	5/8"
O	10.28" (261 mm)
P	1/2"
Q	14.17" (360 mm)

Pump Specifications

		P300
Dimension		
Air Inlet	3/4"	
Liquid Inlet	3"	
Liquid Outlet	3"	
Weight	375 lbs	
	(170 kg)	
Performance		
Max capacity	211 gpm	
	(800 lpm)	
Max pressure	120 PSI (8.2 bar)	
Max Solids	9/16"	
	(12 mm)	
Suction lift dry	16.4 ft-H ₂ O	
	(5 m-H ₂ O)	
Suction lift wet	29.5 ft-H ₂ O (9.0 m-H ₂ O)	
Temperature limits	158 °F (70° C)	

Performance Curves



P300 Performance Specifications	
Max. Flow:	211 gpm (800 lpm)
Max. Air Pressure:	120 PSI (8.2 bar)
Max. Solids:	9/16" (15 mm)
Max. Suction Lift Dry:	16.4 ft-H ₂ O (5 m-H ₂ O)
Max. Suction Lift Wet:	29.5 ft-H ₂ O (9 m-H ₂ O)
Weight:	375 lbs (170 kg)
Air Inlet:	3/4"
Liquid Inlet:	3"
Liquid Outlet:	3"
Height:	33.07" (840 mm)
Width:	22.83" (580 mm)
Depth:	18.90" (450 mm)

Installation, Troubleshooting and Maintenance

Installation

Piping

Whenever possible ensure the pump is installed using the shortest possible pipe lengths with the minimum amount of pipe fittings. Ensure all piping is supported independent of the pump.

Suction and discharge piping should not be smaller than the connection size of the pump. When pumping liquids of high viscosity, larger piping may be used, in order to reduce frictional pipe loss.

Employ flexible hoses in order to eliminate the vibration caused by the pump. Mounting feet can also be used to reduce vibration effects.

All hoses should be reinforced, non-collapsible and be capable of high vacuum service. Ensure that all piping and hoses are chemically compatible with the process and cleaning fluid.

For processes where pulsation effects should be reduced, employ a pulsation dampener on the discharge side of the pump.

For self-priming applications, ensure all connections are airtight and the application is within the pumps dry-lift capability. Refer to product specifications for further details.

For flooded suction applications, install a gate valve on the suction piping in order to facilitate service. For unattended flooded suction operation, it is recommended to pipe the exhaust air above the liquid source. In the event of a diaphragm failure this will reduce or eliminate the possibility of liquid discharging through the exhaust onto the ground.

Location

Ensure that the pump is installed in an accessible location, in order to facilitate future service and maintenance.

Air

Ensure that the air supply is sufficient for the volume of air required by the pump. Refer to product specifications for further details. For reliable operation, install a 5 micron air filter, air-valve and pressure regulator. Do not exceed the pumps maximum operating pressure of 120 psig.

Remote Operation

Utilize a three way solenoid valve for remote operation. This ensures that air between the solenoid and the pump is allowed to “bleed off,” ensuring reliable operation. Liquid transfer volume is estimated by multiplying displacement per stroke times the number of strokes per minute

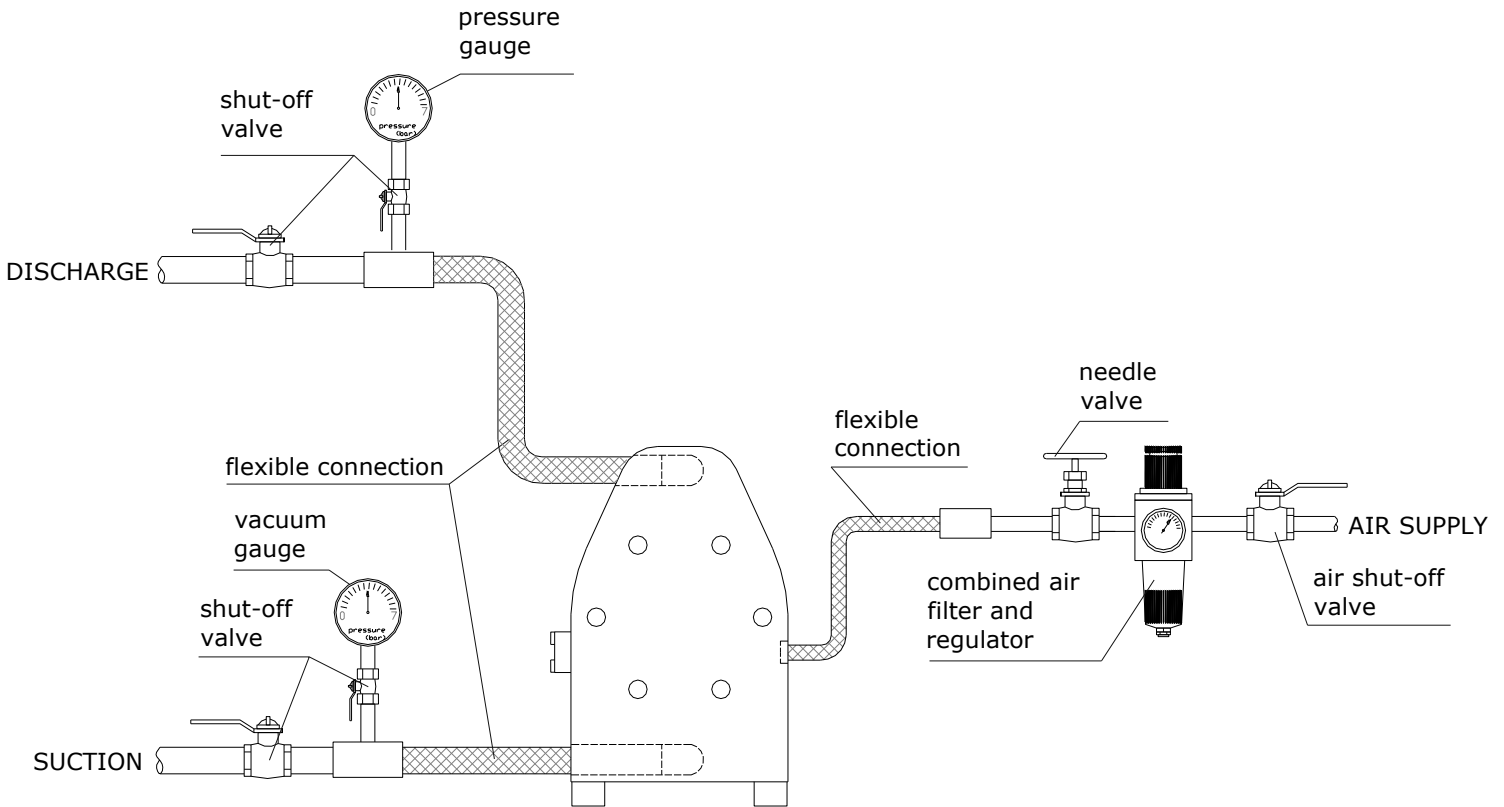
Noise

Correct installation of the muffler reduces sound levels. Refer to product specifications for further details.

Submerged Operation

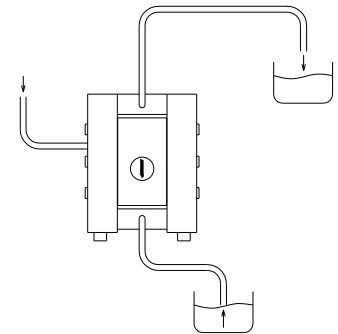
For submersible operation, pipe the air exhaust to atmosphere

Suggested Installation and Connection



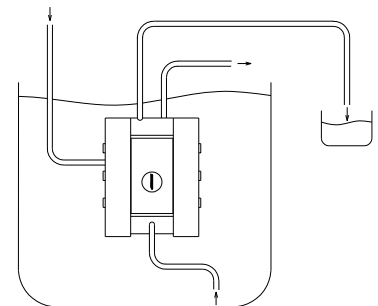
SELF PRIMING APPLICATION

Suction lift capability may vary depending on the construction materials and application parameters. The range is from 16.4 feet dry to 30 feet in a primed condition (values calculated for pumping water at 68 degrees Fahrenheit).



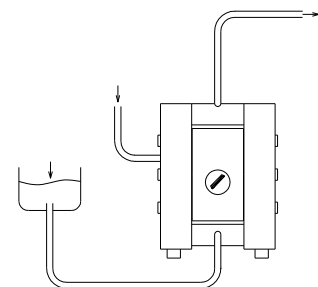
SUBMERGED OPERATION

All pumps may operate in full submersion. Construction materials must be compatible with surrounding liquid and the air exhaust must be placed above the liquid level.



POSITIVE SUCTION HEAD

Common as a method of drawing off the bottoms of holding tanks and clarifiers. Optimum inlet pressure should be kept at 14.5 PSI.



Troubleshooting

PROBLEM

EFFECT/SOLUTION

Pump Will Not Cycle

Discharge line closed or plugged
Discharge filter blocked
Check valve stuck
Air filter blocked
Air supply valve closed
Air supply hooked up to muffler side of pump
Compressor not producing air or turned off
Muffler iced or blinded
Diaphragm ruptured
Plant air supply line ruptured
Air valve wear/debris
Pilot sleeve wear/debris
Diaphragm rod broken
Diaphragm plate loose

Pumped Fluid Coming Out of Muffler

Diaphragm ruptured
Diaphragm plate loose
Inlet liquid pressure excessive (above 10 psig)

Pump Cycles but no Flow

Inlet strainer clogged
Suction valve closed
Suction line plugged
No liquid in the suction tank
Suction lift excessive
Debris stuck in valves
Excessive wear of check valves
Air leak on suction side with suction lift

Pump Cycles with Closed Discharge Valve

Debris stuck in check valve
Excessive wear of check valves

Pump Running Slowly/Not Steady

Air compressor undersized
Leak in air supply
Air-line, filter regulator or needle valve undersized
Muffler partially iced or blinded
Air valve gasket leak or misalignment
Air valve wear/debris
Pilot sleeve wear/debris
Liquid fluid filter blocked
Pump may be cavitating, reduce speed of operation
Suction strainer clogged

Pump Will Not Prime

Air leak in suction pipe
Air leak in pump manifold connections
Suction strainer and lines clogged
Excessive lift conditions
Check valve wear
Debris in check valve

If any of the above mentioned causes do not apply to your problem, contact your All-Flo authorized distributor.

Operation



CAUTION

- ! Before starting the pump, check that all piping is properly connected.
- ! Before starting the pump, check that **all the bolts are securely tightened**.
- ! Check that the regulator and the drain valve on the discharge side are closed and that the valve on the suction side is opened if applicable.

- 1) Start the air compressor.
- 2) Open the air valve. Using a regulator to adjust the supply air pressure within the permissible range.
- 3) Open the flow valve on the discharge side.
- 4) First, check that fluid is flowing inside the piping and is being pumped to the discharge side, and then fully open the air valve.

Flow Adjustment

Adjust the flow valve on the discharge side, or adjust the supply air pressure.



CAUTION

- ! The supply air pressure may initially rise during closing the flow valve. Make sure that the pressure is kept within the normal operating range.
- ! The permissible suction flow speed can vary depending upon the viscosity and specific gravity of the fluid, the suction stroke and other factors. However in case of a rapid growth of the pump speed (flow speed of fluid), cavitations will occur. This will reduce pump performance and may cause a malfunction. In order to prevent cavitations, adjust the supply air pressure and the flow.
- ! If fluid is not discharged after you start the pump, or if you hear an abnormal noise or notice any irregularity, shut down the pump immediately.

Maintenance

Cleaning the Pump



WARNING



Make sure that compressed air is not supplied to the pump BEFORE you start cleaning the pump.



Make sure that the pump is not pressurized BEFORE you start cleaning the pump.

- 1) Remove the hose from the suction side of the pump.
- 2) Close the flow valve on the discharge side and open the drain valve. Then start air pressure for a while to discharge possibly much fluid remaining inside the pump.
- 3) Remove the hose from the discharge side, and attach different hoses to the suction side and the discharge side for cleaning.
- 4) Be ready with a vessel with cleaning solution, the kind appropriate for the type of fluid pumped. Next connect the suction-side and the discharge-side hoses of the pump.
- 5) Start the pump air pressure slowly, and let the cleaning solution circulate for sufficient cleaning.
- 6) Flush with clean water.
- 7) Remove the hose from the suction side of the pump, run the pump for a while to purge the pump of remaining fluid as much as possible.



CAUTION



Be extremely careful when removing piping - the fluid will run/flow out.



After cleaning with clean water, turn the pump upside-down to let the water flow out.

Shutdown

Close the air valve of the pump and shut off the supply air.



- ! The pump can be shut down with the flow valve closed while air is being supplied. However DO NOT leave the pump in this condition for many hours without supervision - there is a risk of a leak from the pump or piping, and fluid may continue flowing out of the position of leakage.
- ! When the pump is shut down while pumping slurry, particulate matter contained in the slurry will be deposited and get stuck inside the out chamber. Therefore after finishing work the pump must be cleared of the remaining fluid. Otherwise when starting the pump again, the diaphragm may get damaged and the center rod may bend.



- ! Keep a vessel below the relief valve for any drain off.
- ! Be careful! - Fluid under pressure will gush out the moment you open the valve.
- ! If the pump is unused for a prolonged period, purge and clean it.

Daily check

Before starting pump operation, conduct the following check procedures every day. In case there appears any irregularity, do NOT start running the pump until the cause of the irregularity has been determined and corrective measures have been taken.

- a) Make sure that there is no leakage of fluid from any connection part or the pump.
- b) Make sure that there are no cracks in the pump casing or piping.
- c) Check the tightness of every bolt of the pump.
- d) Make sure that the connection parts of the piping and peripheral equipment are not loose.
- e) Make sure that any parts of the pump that are to be replaced at regular intervals have been changed.

Maximum Torque Specifications

Torque Values for Housing Bolts

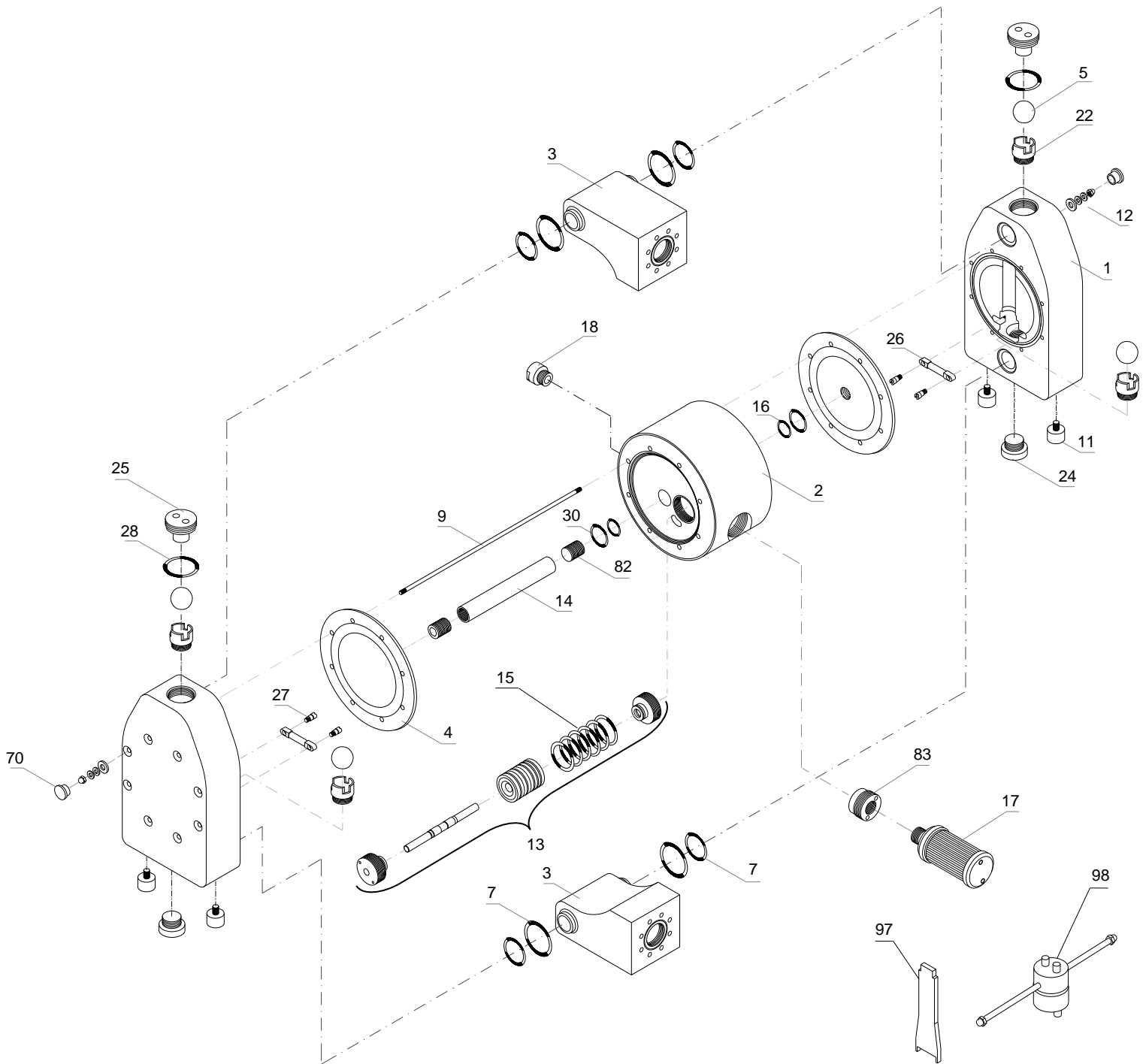
Pump Size

P300

212in-lbs. (24 N-m)

Exploded View & Parts List

P300



Parts List for P300

				P300
1	2	Pump housing	PE	HP-2 80 01 20
			PE conductive	HP-2 80 01 21
2	1	Center housing	PE	HP-1 80 10 20
			PE conductive	HP-1 80 10 21
3	1	Suction port	PE	HP-2 80 25 20
			PE conductive	HP-2 80 25 21
	1	Discharge port	PE	HP-2 80 025 20
			PE conductive	HP-2 80 025 21
4	2	Diaphragm	TFM/PTFE	HP-1 80 50 05
			EPDM	HP-1 80 50 08
			NBR	HP-1 80 50 10
5	4	Valve balls	PTFE	HP-1 80 60 23
			EPDM	HP-1 80 60 08
			NBR	HP-1 80 60 10
7	4	Sealing inlet/outlet - SET	EPDM/EPDM	HP-2 80 70 08
			PTFE/FPM	HP-2 80 73 14
			PTFE/EPDM	HP-2 80 73 15
			PTFE-c./FPM	HP-2 80 73 16
			PTFE-c./EPDM	HP-2 80 73 17
9	8	Housing bolt	AISI 304	HP-2 80 042 50
11	4	Shock absorber	NR/St37	HP-1 80 69 06
12	16	Nut with washer, cpl.	AISI 304	HP-2 80 045 50
13	1	Air valve	PET/NBR	HP-1 80 020 31
			PET/FPM	HP-1 80 020 32
14	1	Shaft	AISI 304	HP-1 80 40 50
15	6	O-ring	NBR	HP-1 40 87 10
			FPM	HP-1 40 87 09
16	2	Center housing seal	PE	HP-1 80 85 22
17	1	Muffler	Diverse	HP-1 80 99 00
18	1	Air adapter	PP	HP-1 80 46 28
22	4	Valve seat	PE	HP-2 80 54 20
			PE-conductive	HP-2 80 54 21
24	2	Plug lower	PE	HP-2 80 59 20
			PE-conductive	HP-2 80 59 21
25	2	Plug upper	PE	HP-2 80 55 20
			PE conductive	HP-2 80 55 21
26	2	Valve stopper	PE	HP-2 80 39 20
			PE conductive	HP-2 80 39 21
27	4	Bolt	PE	HP-2 80 38 20
			PE conductive	HP-2 80 38 21
28	2	Plug upper sealing	FEP/FPM	HP-2 80 78 04
			EPDM	HP-2 80 78 08
			NBR	HP-2 80 78 10
30	2	O-ring for center housing seal	NBR	HP-1 80 85 10
35	1	Center housing complete	PE	HP-1 80 11 20
			PE conductive	HP-1 80 11 21
70	16	Pump housing plug	PE	HP-2 80 058 20
82	2	Shaft allen pin screw	AISI 304	HP-1 80 540 50
83	1	Muffler adapter	PE	HP-1 80 299 20
97	1	Valve seat key	AISI 304	HP-1 80 254 50
98	1	Upper/lower plugs key (SK5)	diverse	HP-1 80 158 00
99	1	Air valve (SK4)	diverse	HP-1 08 58 00

16.7 High Pressure System (option code HP)

All-Flo diaphragm pumps can be fitted with High Pressure option. It is a very compact unit that can be mounted directly to the filter press. It has been designed for charging filter presses with chemical wastes and special sludge. An external pressure booster doubles or quadruples the delivery pressure.

Filter presses with All-Flo P300 pump

Automatic adaptation

When slurry is transferred to a chamber filter press, first the chambers get filled while the pressure tends to zero. Under the increasing filling-level the solids assemble at the filter cloths. This requires a pressure that continuously rises with the increasing content of solids. Under a constant flow quantity the pressure would rise extremely fast.

The drive of the HP pump by compressed air causes a diminution of the flow quantity according to the increasing counter-pressure in the filter press. This produces a soft filtration curve, automatically self-regulating according to the filling level of the filter press. This is independent from the properties of the slurry. No pressure tank nor pressure transmitter nor speed control are required. The complete HP pump works without electric energy.

End of filtration process

When the filter press is filled with the solids so far that no more slurry can be taken up, the pressing period is terminated. The air operation of the All-Flo pumps then reduces the flow rate to zero while the outlet pressure holds the required level compressing the filter cake. Excellent results in drying are obtained. At the end of the pressing period the pump simply stops.

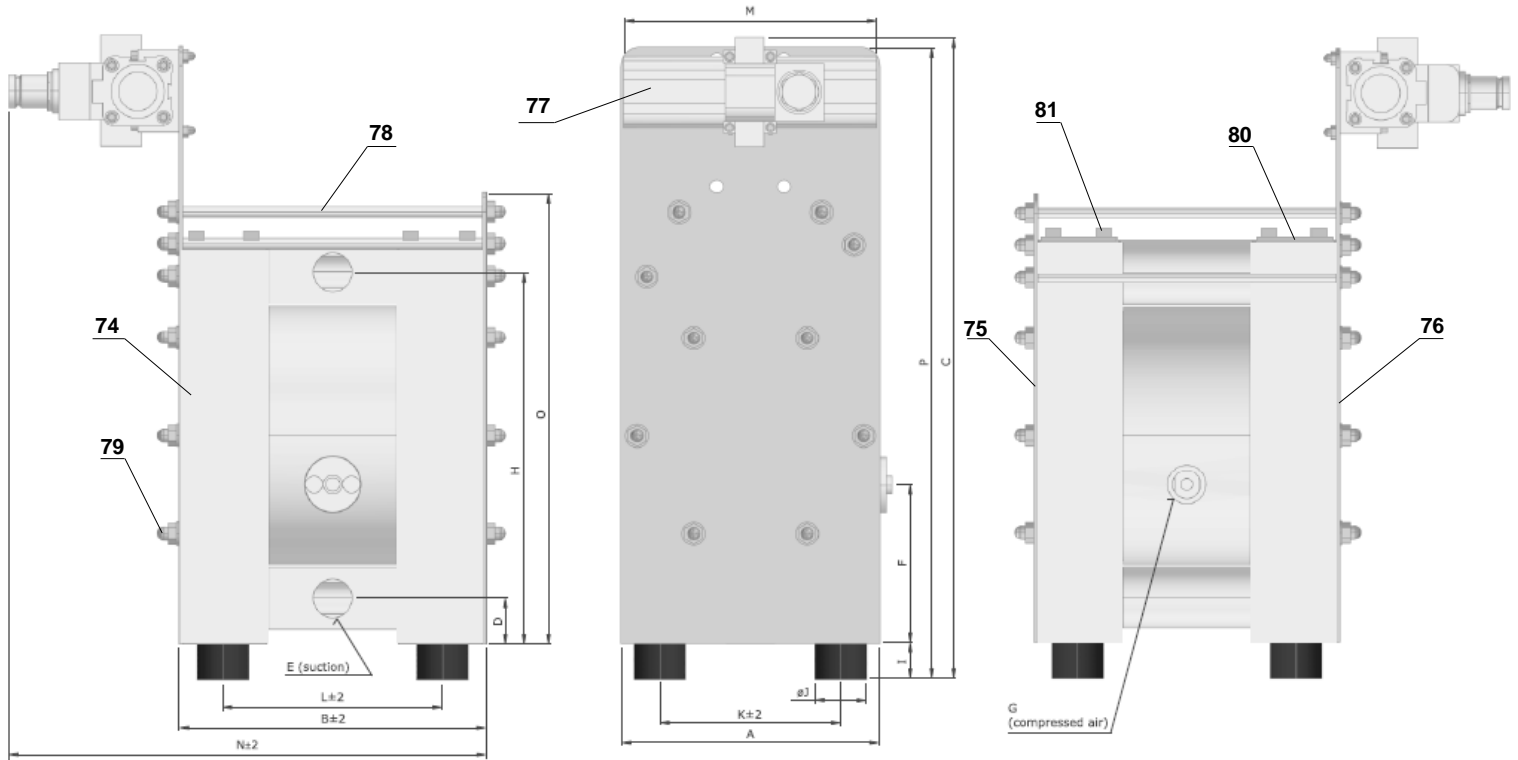
Pressure adjustment

The required pressure in the filter press is comfortably adjusted by the height of the air pressure supplying the charging station. For a required pressure of 12 bar the HP pump has to be supplied with 6 bar when the pump with a pressure transmission of 1:2 is applied. In the case that higher pressures are necessary or there is only a lower air pressure available, the HP pump with 1:4 transmission is applied.

Low air consumption

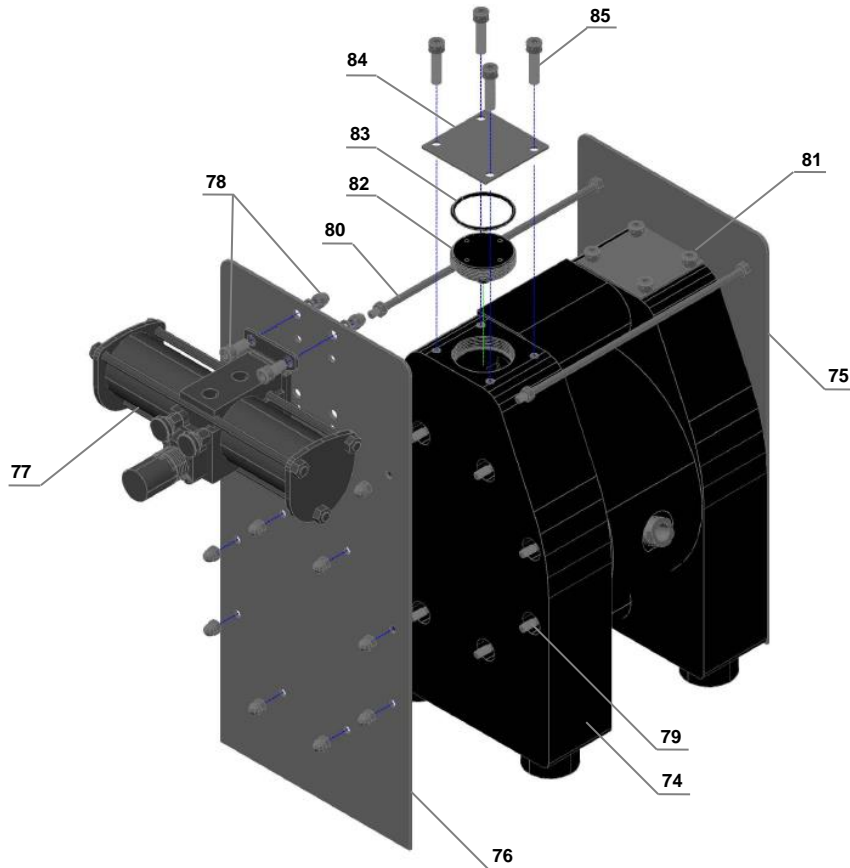
The charging stations needs the maximum air quantity only during the filling period. The more the press is filled, the more slowly the pump works. So the air consumption slowly reaches zero during progressing filtration.

Appearance and dimensions of high pressure system (pump with HP option)



	A	B	C	D	E	F	G	H	I	ØJ	K	L	M	N	O	P
DM 15/55	6.02 in. (153 mm)	7.15 in. (182 mm)	14.64 in. (372 mm)	.98 in. (25 mm)	1/2"	3.42 in. (87 mm)	1/4"	8.54 in. (217 mm)	.708 in. (18 mm)	1.18 in. (30 mm)	4.40 in. (112 mm)	5.35 in. (136 mm)	7.67 in. (195 mm)	12.63 in. (321 mm)	9.96 in. (253 mm)	13.11 in. (333 mm)
DM 25/125	7.87 in. (200 mm)	9.37 in. (238 mm)	-	1.37 in. (35 mm)	1"	4.84 in. (123 mm)	1/4"	11.29 in. (287 mm)	1.102 in. (28 mm)	1.57 in. (40 mm)	5.51 in. (140 mm)	6.69 in. (170 mm)	11.45 in. (291 mm)	16.61 in. (422 mm)	13.74 in. (349 mm)	18.18 in. (462 mm)
DM 40/315	10.62 in. (270 mm)	12.51 in. (318 mm)	-	1.65 in. (42 mm)	1-1/2"	4.29 in. (109 mm)	1/2"	15.27 in. (388 mm)	1.18 in. (30 mm)	2.36 in. (60 mm)	7.48 in. (190 mm)	8.93 in. (227 mm)	11.45 in. (291 mm)	20.82 in. (529 mm)	19.68 in. (500 mm)	23.62 in. (600 mm)
DM 50/565	13.77 in. (350 mm)	15.47 in. (393 mm)	-	1.77 in. (45 mm)	2"	6.22 in. (158 mm)	1/2"	19.09 in. (485 mm)	1.18 in. (30 mm)	2.36 in. (60 mm)	10.62 in. (270 mm)	11.10 in. (282 mm)	15.90 in. (404 mm)	24.17 in. (614 mm)	22.04 in. (560 mm)	27.16 in. (690 mm)

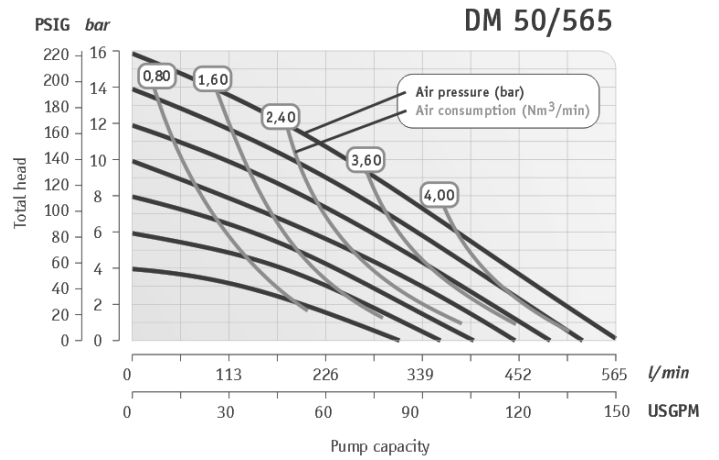
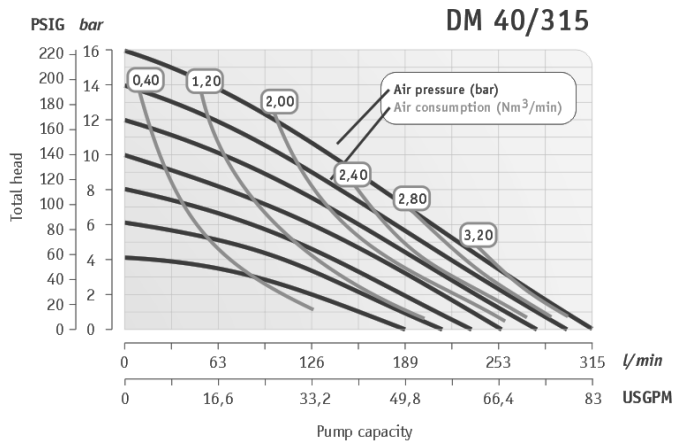
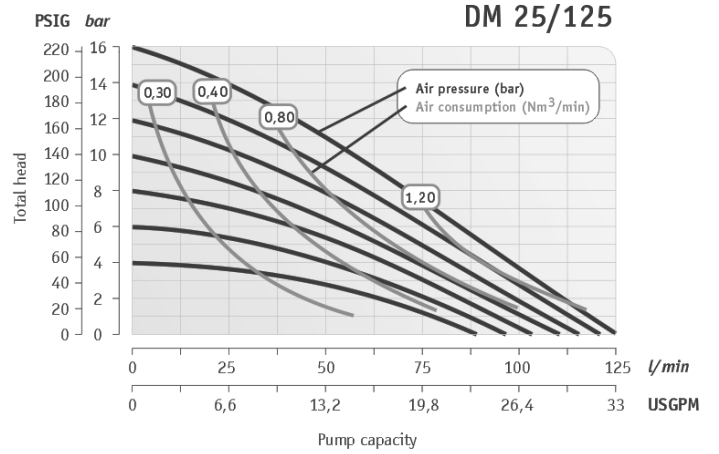
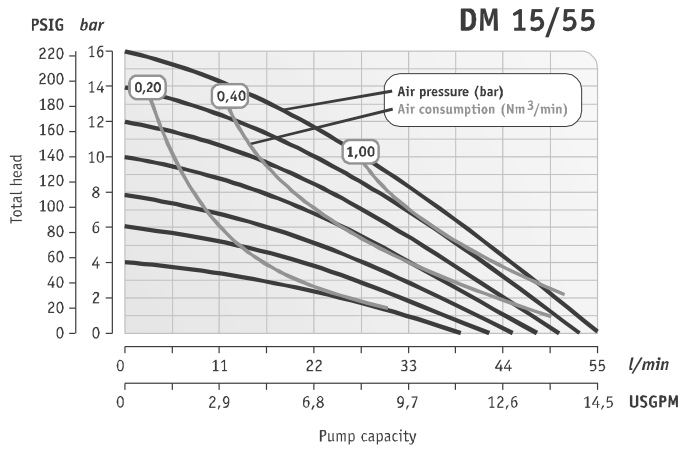
High pressure system (pump with HP option) – exploded view



Spare part list, high pressure system

Pump size					DM 15/55	DM 25/125	DM 40/315	DM 50/565
Code	Item	Pc	Description	Material	Part no.	Part no.	Part no.	Part no.
HPS HPM	74	2	Pump housing for HP option	PE	HP-2 15 601 20	HP-2 25 601 20	HP-2 40 601 20	HP-2 50 601 20
				PTFE	HP-2 15 601 23	HP-2 25 601 23	HP-2 40 601 23	HP-2 50 601 23
				PE conductive	HP-2 15 601 21	HP-2 25 601 21	HP-2 40 601 21	HP-2 50 601 21
				PTFE conductive	HP-2 15 601 24	HP-2 25 601 24	HP- 40 601 24	HP-2 50 601 24
	75	1	Distance plate short	AISI 304	HP-2 15 164 50	HP-2 25 164 50	HP- 2 40 164 50	HP-2 50 164 50
	76	1	Distance plate long	AISI 304	HP-2 15 264 50	HP-2 25 264 50	HP-2 40 264 50	HP-2 50 264 50
	77	1/2*	Air pressure booster SMC	Diverse	HP-9 15 64 00	HP-9 15 64 00	HP-9 40 64 00	HP-9 50 64 00
			Air pressure booster MetalWork	Diverse	HP-9 15 964 00	HP-9 15 964 00	HP-9 40 964 00	HP-9 50 964 00
	78	1	Mounting set for booster SMC (HPS)	AISI 304	HP-9 15 S42 50	HP-9 15 S42 50	HP-9 40 S42 50	HP- 9 50 S42 50
			Mounting set for booster MetalWork (HPM)	AISI 304	HP-9 15 M42 50	HP-9 15 M42 50	HP-9 40 M42 50	HP-9 50 M42 50
	79	6 / 8*	Housing bolt	AISI 304	HP-2 15 142 50	HP-2 25 142 50	HP- 2 40 142 50*	HP-2 50 142 50*
	80	2	Distance plate bolt, cpl.	AISI 304	HP-2 15 942 50	HP-2 25 942 50	HP-2 40 942 50	HP-2 50 942 50
	82		Upper plug for HP option	PE	HP-2 15 655 20	HP-2 25 655 20	HP-2 40 655 20	HP-2 50 655 20
				PTFE	HP-2 15 655 23	HP-2 25 655 23	HP-2 40 655 23	HP-2 50 655 23
				PE conductive	HP-2 15 655 21	HP-2 25 655 21	HP-2 40 655 21	HP-2 50 655 21
				PTFE conductive	HP-2 15 655 24	HP- 25 655 24	HP-2 40 655 24	HP-2 50 655 24
	83	2/4**	Upper plug O-ring external	NBR	HP-2 15 278 10	HP-2 25 278 10	HP- 40 278 10**	HP-50 278 10
				EPDM	HP-2 15 278 08	HP-2 25 278 08	HP-2 40 278 08**	HP-50 278 08
84	2	Plate for upper plug	AISI 304	HP-1 15 464 50	HP-1 25 464 50	HP-1 40 464 50	HP-1 50 464 50	
85	8	Upper plug plate screw	AISI 304	HP-1 15 564 50	HP- 25 564 50	HP-1 40 564 50	HP-1 50 564 50	

Performance curves



Warranty

WARRANTY. All All-Flo products shall be covered by the standard All-Flo Limited Warranty in effect at the time of shipment. This warranty (which may be modified by All-Flo at any time) provides:

MATERIALS SOLD ARE WARRANTED TO THE ORIGINAL USER AGAINST DEFECTS IN WORKMANSHIP OR MATERIALS UNDER NORMAL USE (RENTAL USE EXCLUDED) FOR FIVE YEARS AFTER PURCHASE DATE. ANY PUMP WHICH IS DETERMINED TO BE DEFECTIVE IN MATERIAL AND WORKMANSHIP AND RETURNED TO ALL-FLO, SHIPPING COSTS PREPAID, WILL BE REPAIRED OR REPLACED AT ALL-FLO'S OPTION. CUSTOMER SHALL NOTIFY ALL-FLO IN WRITING WITHIN 30 DAYS OF ANY CLAIMED DEFECTS. NO MATERIALS CAN BE RETURNED WITHOUT THE PRIOR CONSENT OF ALL-FLO, AND IF APPROVED SHALL BE RETURNED TO ALL-FLO FREIGHT PREPAID. ALL-FLO'S LIABILITY FOR ANY BREACH OF THIS WARRANTY SHALL BE LIMITED TO EITHER REPLACEMENT OF THE MATERIALS OR, AT ALL-FLO'S SOLE OPTION, THE REFUND OF THE PURCHASE PRICE. ALL-FLO SHALL NOT BE HELD LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES CAUSED BY BREACH OF THIS WARRANTY. THIS EXCLUSION APPLIES WHETHER SUCH DAMAGES WERE SOUGHT BASED ON BREACH OF WARRANTY, BREACH OF CONTRACT, NEGLIGENCE, STRICT LIABILITY IN TORT, OR ANY OTHER LEGAL THEORY. FURTHER, ALL-FLO SHALL NOT BE LIABLE FOR LOSSES, DELAYS, LABOR COSTS, OR ANY OTHER COST OR EXPENSE DIRECTLY OR INDIRECTLY ARISING FROM THE USE OF MATERIALS. ALL-FLO'S LIABILITY IS EXPRESSLY LIMITED TO THE REPLACEMENT OR REPAIR OF DEFECTIVE GOODS, OR THE TOTAL VALUE OF SUCH GOODS. THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, WHETHER EXPRESS, IMPLIED, OR ORAL INCLUDING THE IMPLIED WARRANTY OF MERCHANTABILITY, ANY IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE, AND ANY IMPLIED WARRANTIES OTHERWISE ARISING FROM A COURSE OF DEALING OR TRADE. All-Flo will not, in ANY event, be liable for any loss of profit, interruption of business or any other special, consequential or incidental damages suffered or sustained by Customer. All-Flo's total maximum liability to the customer in respect of sale of materials or services rendered by All-Flo is limited to the total monies received by All-Flo from the customer for the particular. Materials described in Customer's order.

All-Flo does not warrant any part or component that it does not manufacture, but will assign to the original end-user purchaser of any warranty received by it from the manufacturer, to extent such pass through is permitted by the manufacturer.



REGISTRATION FORM

Pump Model _____ Pump Serial Number _____

Company Name _____

Name _____ Email _____

Phone # _____ City _____ State _____ Zip _____

Qty of Pumps _____ Fluid Pumping _____

How did you hear about us? Existing All-Flo user,
Web, Distributor, Magazine...

MAIL TO: All-Flo Pump Co. | Attn: Product Registration
PO BOX 1870 | Mentor, OH 44061



Scan QR code and
complete form
on mobile phone
or visit

www.all-flo.com/registration-form.html

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