

ALLFLO DIAPHRAGM PUMP



COMPANY INTRODUCTION

"ALLFLO" is the professional and well know diaphragm pump manufacturers in China. The company has professional design and development team, and established a perfect production management, quality control, and market development of the system. Through technical and management innovation to increase the competitiveness.

AF SERIES Diaphragm pump using the new design air valve, high efficient and durable, no need lubrication, no dead spots, the head up to 84 meters. ALLFLO committed to providing high quality products and services to fully meet customer and market needs. We sell the pumps to about 40 countries per year, glad to cooperate with you.

The main application of diaphragm pump



1. **Food industry** : Pumping peanut butter, pickles, mashed potatoes, small sausage, jam, apple syrup, chocolate, perfumeraw materials, hops and yeast slurry, syrup, molasses, etc.

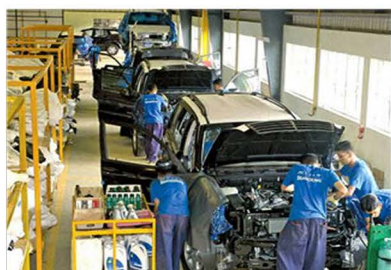
2. **Paint industry** : Pumping a variety of paints, resin etc.

3. **Adhesives and glues** Pumping all kinds Adhesives, glues etc.



4. **Ceramic industry** :
Pumping a variety of tile, porcelain, tiles and pottery glaze etc

5. **Mining industry** : After oil well drilling, pumping sediment Pumping the water or mud of mines, trenches, tunnels, mineral processing, slag, cement grout, mortar etc.



6. **Chemical industry** : Pumping a variety of emulsions and fillers, rubberpaste, all kinds of abrasive, oil and mud, grease, A variety of toxic, flammable, volatile liquid, a variety of acids, alkalis, strong corrosive liquids.

7. **Environmental protection, wastewater treatment industry** :
Filter pressure, pumping A variety of sewage, mud, slurry



8. **Shipping industry** :
Pumping a variety of sewage, oil for the oil tankers, barges etc.

9. Pumping a variety of high-temperature liquid, the max temperature up to 150

Pump model and material code

Model =											
AF		25	AL	-	PP	/	TF	/	TF	/	PP
<i>Allflo Brand</i>											
Pump size :		Center Block:		Pump Body:		Diaphragm:		Valve ball:		Valve seat:	
06=14 inch		AL=Aluminum		PP=Polypropylene		TF=Teflon		TF=Teflon		TF=Teflon	
10=38 inch		PP=Polypropylene		KV=PVDF		ST= Santoprene		ST= Santoprene		ST= Santoprene	
15=1/2 inch		SS=Stainless steel		PM=POM		HY=Hytrel		HY=Hytrel		HY=Hytrel	
20=3/4 inch				AL=Aluminum		VT-Viton		VT-Viton		VT-Viton	
25=1 inch				SS=SS304		BN=Buna-N		BN=Buna-N		BN=Buna-N	
40=1.5 inch				LL=SS316		EP=EPDM		EP=EPDM		EP=EPDM	
50=2 inch				AC=Cast iron		GE=Geolast		SS=SS304		SS=SS304	
80=3 inch				TF=Teflon		PU=Polyurethane		LL=SS316		LL=SS316	
100=4 inch								CM=Ceramic		PP=Polypropylene	

General Characteristic

- Without electricity, explosion-proof, can convey flammable fluid
- No dynamic seals, even dry running without damage age to the pump
- No impeller, low share, will not damage the material structure of fluid
- Submersible, mobile, flexible installation, easy maintenance
- Can convey high-thick, high-viscosity fluid
- Can convey acid, alkali strong organic solvents and other fluid.
- Changing the inlet air and pressure, to adjust the flow rate and head

Allflo's pump Characteristic

Mainfold :

Centerport design, low pulse. Three section manifold, flexible installation.

Fourbolts connection :

Good seal and excellent dry suction. No leakage.

Fluid chamber :

Enhanced the chamber strength, has long-term durability.

Air motor:

Can supply aluminum, stainless steel and plastic air motor.

Hardware :

Stainless steel hardware, can avoid rust and corrosion, easy maintenance.

Valve ball :

Adopt special grinding machine to process in high roundness and good seal.

Air valve:

Modular design, low air consumption, no dead spots and no need lubrication.

Diaphragm rod:

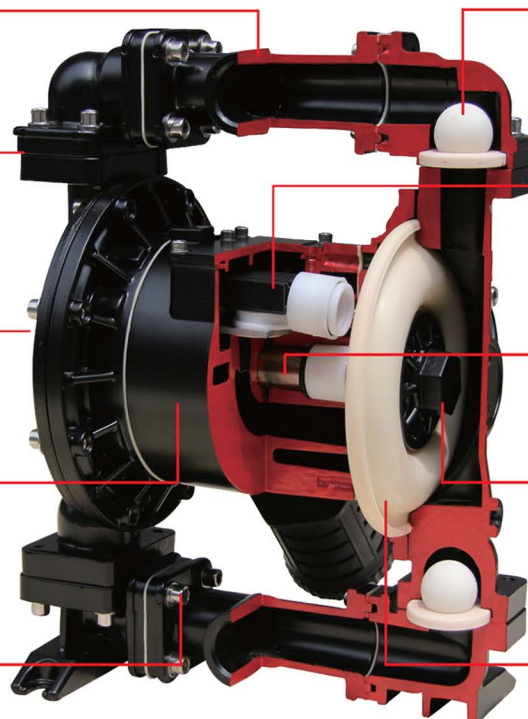
Material to be SS321, excellent chemical resistance, wearing resistance, good self-lubricating.

Diaphragm plate:

Enhance the structural strength. One-piece design, high pressure resistance, no leakage.

Diaphragm :

Accurately calculate the diaphragm moving distance to reduce the force to diaphragm, has excellent life time.



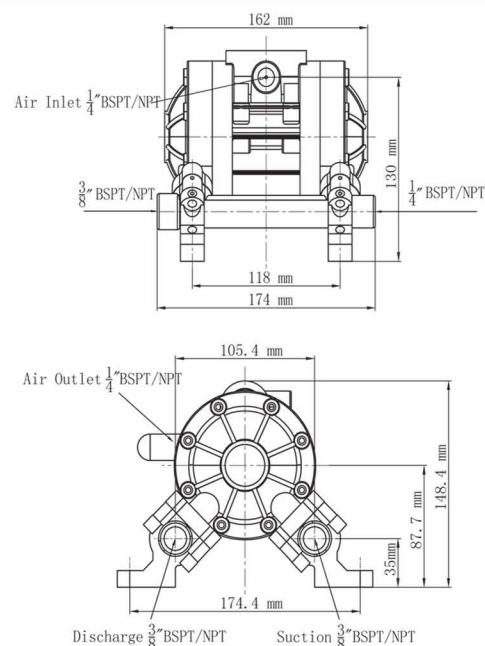
Operating temperature limitation

Diaphragm material	Maximum	Minimum
Viton excellent corrosion resistance, resistance to various acids (including the median concentration of oxidizing acid), a lkali, salt, petroleum products, hydrocarbons, etc.	176 °C	-40 °C
PTFE(Teflon) : excellent corrosion resistance, almost resistance to all chemical media(including concentrated nitric acid and aquaregia) Except melting of lithium, potassium, sodium, cholrine trifluoride, high-temperature oxygen trifluoride, sulfur-speed liquid fluorine.	176 °C	5 °C
Santoprene : good abrasion resistance, suitable for general acid and alkali, not suitable solvent. Can replace the EPDM /EPR material.	104 °C	29 °C
Hytrel : good abrasion resistance, used in most of the neutral fluid. Can replace Bune-N material	104 °C	29 °C
EPDM : abrasion resistance,aging resistance, ozone resistance, suitable for general acid and a lkali.	121 °C	40 °C
Buna-N : widely used in gasoline and other oil products. Suitable for use at room temperature.	100 °C	40 °C
GE : better abrasion resistance than Hytrel, the same chemical resistance as Buna-N	104 °C	29 °C

Pump body material		
PP : Medium abrasion resistance, good chemical resistance, good versatility, especially for common acid-base	65 °C	5 °C
POM : good solvent resistance,abrasion resistance, Low friction, low moisture absorption	65 °C	5 °C
PVDF : strong chemical resistance. Crush resistance, abrasion resistance, good corrosion resistance for acid, a lkali variety of organic solvents.	93 °C	5 °C

Note : The maximum and minimum temperature is the limited operating temperature of these materials. Temperature and pressure will affect the diaphragm life. Operating under the maximum or minimum temperature, cannot achieve maximum life.

AF 06



Technical parameters

Suction lift[mwc]	dry	2.5
	wet	4.4
Max particle diameter[mm]		1.5
Suction and discharge size[in]		1/4
Air inlet size[in]		1/4
Max flow[l/min]		18
Max head[m]		70
Max air inlet pressure[bar]		7

Material quality

Pumpbody : PP, PVDF, POM

Diaphragm : Santoprene, Hytrel, Teflon, Viton, EPDM, Buna-N

Check valve: PP, PVDF, POM

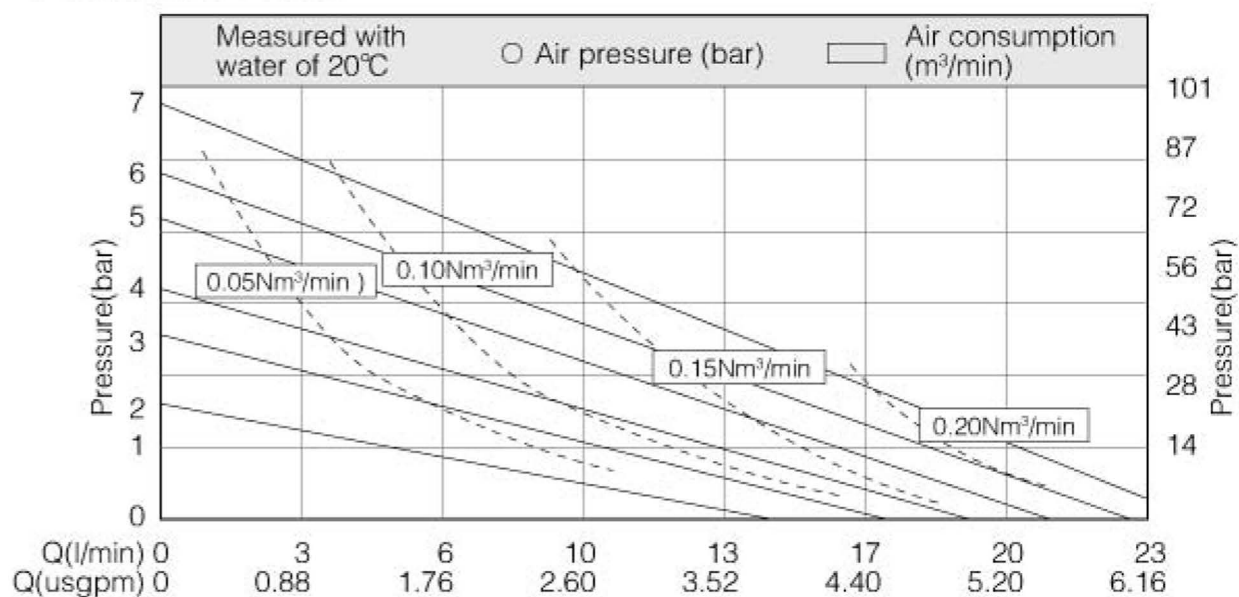
Center block: PP

Weight

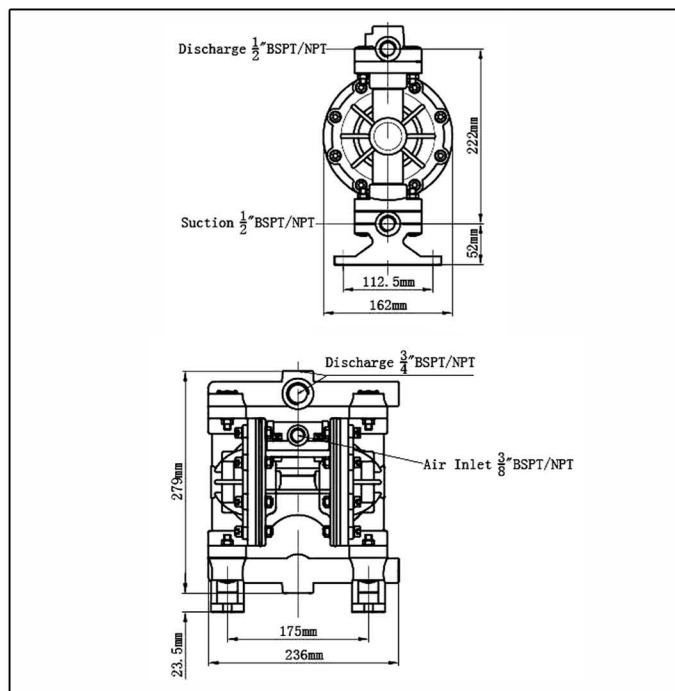
PP Pump / POM pump: 1.5 Kgs

PVDF pump: 2 Kgs

Performance curve



AF 10



Technical parameters

Suction lift[mwc]	dry	2.1
	wet	3.7~6.4
Max particle diameter[mm]		1.6
Suction and discharge size[in]		3/8
Air inlet size[in]		1/4
Max flow[l/min]		27
Max head[m]		70
Max air inlet pressure[bar]		7

Material quality

Pumpbody : PP, PVDF, POM

Diaphragm : Santoprene, Hytrel, Teflon, Viton, EPDM, Buna-N

Check valve: PP, PVDF, POM

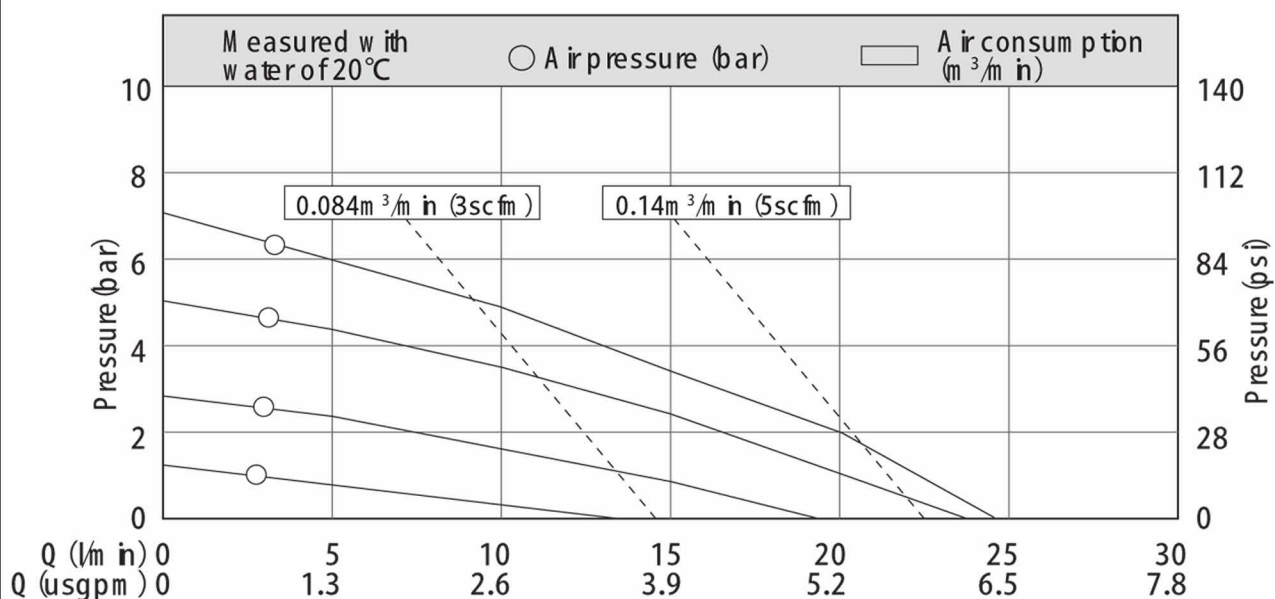
Center block: PP

Weight

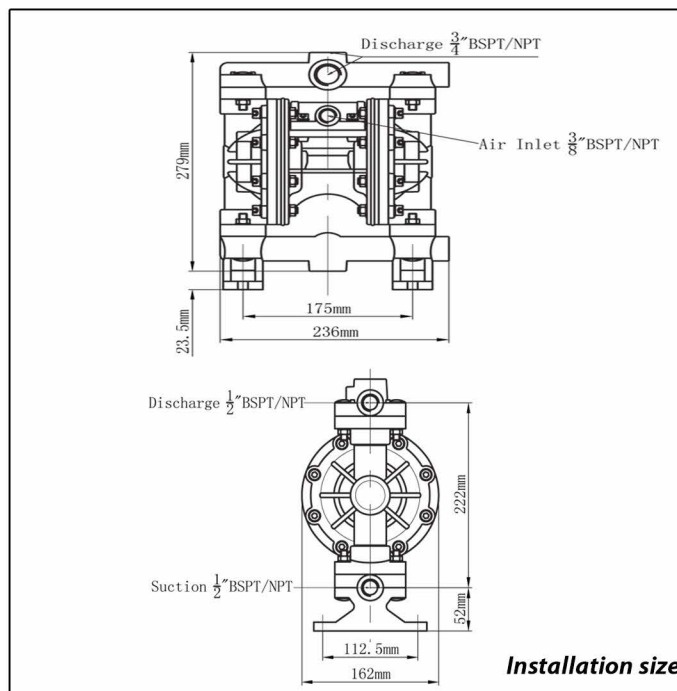
PP Pump / POM pump: 1.5 Kgs

PVDF pump: 2 Kgs

Performance curve



AF 15



Technical parameters

Suction lift[mwc]	dry	4
	wet	7.6
Max particle diameter[mm]		2.5
Suction and discharge size[in]		1/2 3/4
Air inlet size[in]		3/8
Max flow[l/min]		57
Max head[m]		84
Max air inlet pressure[bar]		8.4

Material quality

Pumpbody: Aluminum, PP, PVDF, POM, SS304, SS316, SS316L

Diaphragm: Santoprene, Hytrel, Teflon, Viton, EPDM, Buna-N

Valve ball: Teflon, Stainless steel, Santoprene

Valve seat: PP, PVDF, POM, SS304, SS316

Center block: PP

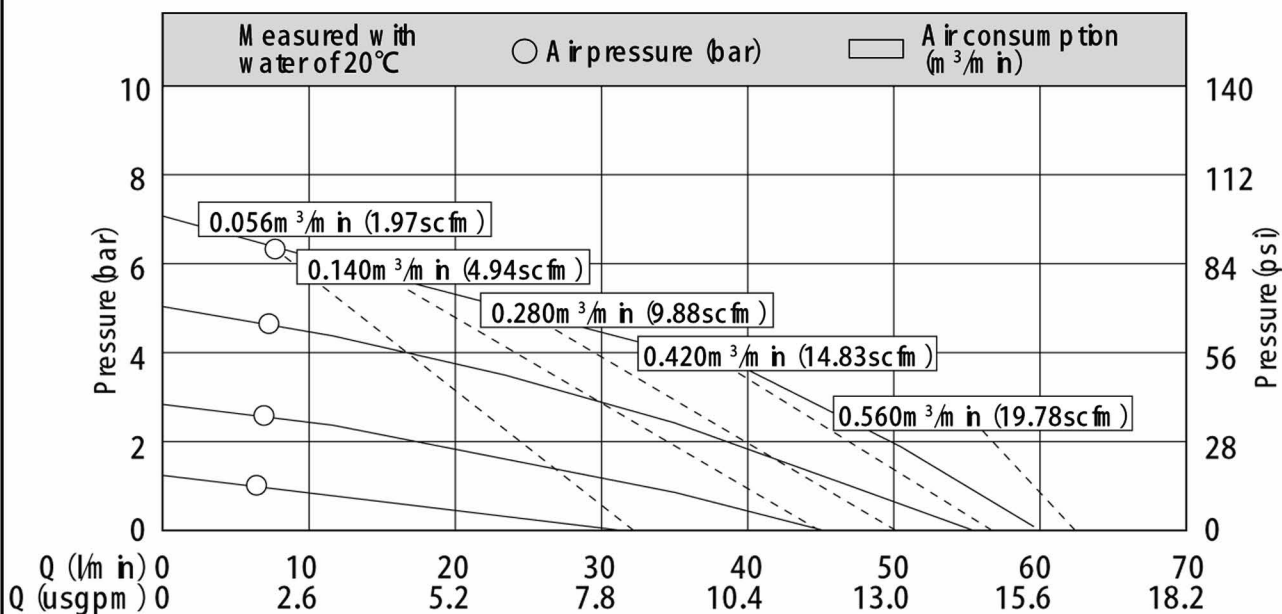
Weight

PP Pump / POM pump / PVDF pump: 3.5Kgs, 4.5 Kgs

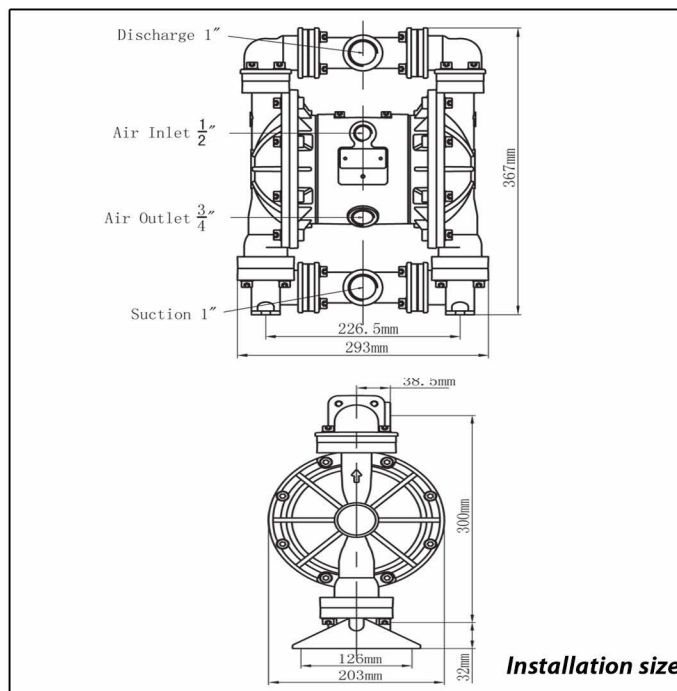
Aluminum pump: 4.5 Kgs

SS304 Pump , SS316 pump : 7.5 Kgs

Performance curve



AF 25



Technical parameters

Suction lift[mwc]	dry	4
	wet	8
Max particle diameter[mm]		4
Suction and discharge size[in]		1
Air inlet size[in]		1/2
Max flow[l/min]		157
Max head[m]		84
Max air inlet pressure[bar]		8.4

Material quality

Pumpbody: Aluminum, Cast Iron, PP, PVDF, POM, SS304, SS316, SS316L

Diaphragm: Santoprene, Hytrel, Teflon, Viton, EPDM, Buna-N

Valve ball: Teflon, Stainless steel, Santoprene

Valve seat: PP, PVDF, POM, SS304, SS316

Center block: PP

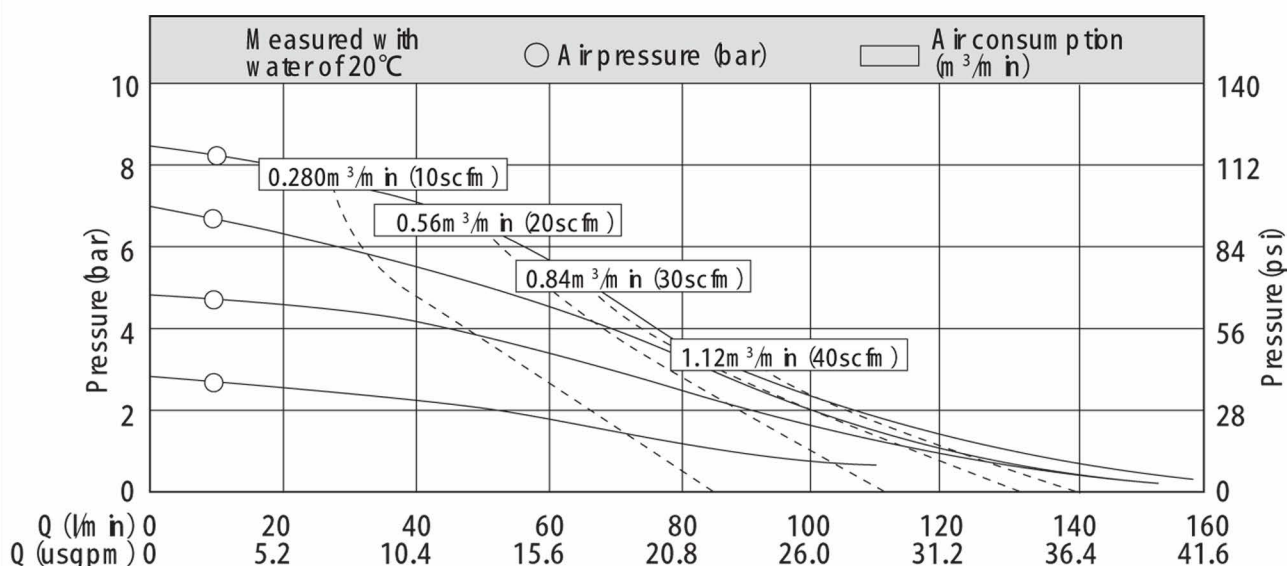
Weight

PP Pump / POM pump / PVDF pump: 9 Kgs, 12 Kgs

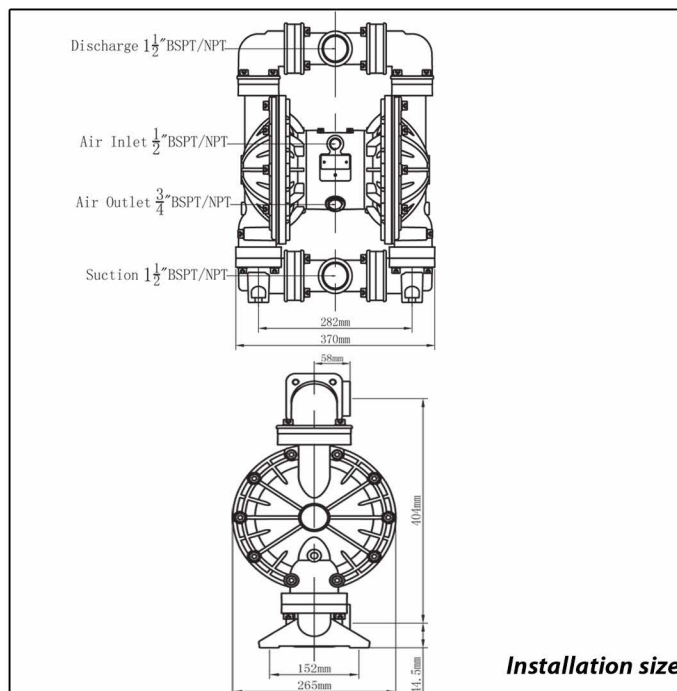
Aluminum pump, Cast Iron Pump: 11 Kgs, 25 Kgs.

SS304 Pump, SS316 pump : 16 Kgs

Performance curve



AF 40



Technical parameters

Suction lift[mwc]

dry

5

wet

8

Max particle diameter[mm]

5

Suction and discharge size[in]

1 1/2

Air inlet size[in]

1/2

Max flow[l/min]

358

Max head[m]

84

Max air inlet pressure[bar]

8.4

Material quality

Pumpbody: Aluminum, Cast Iron, PP, PVDF, SS304, SS316, SS316L

Diaphragm: Santoprene, Hytrel, Teflon, Viton, EPDM, Buna-N

Valve ball: Santoprene, Hytrel, Teflon, Viton, Stainless steel, Ceramic

Valve seat: Santoprene, Hytrel, Teflon, Viton, Stainless steel

Center block: PP, Aluminum, Stainless steel

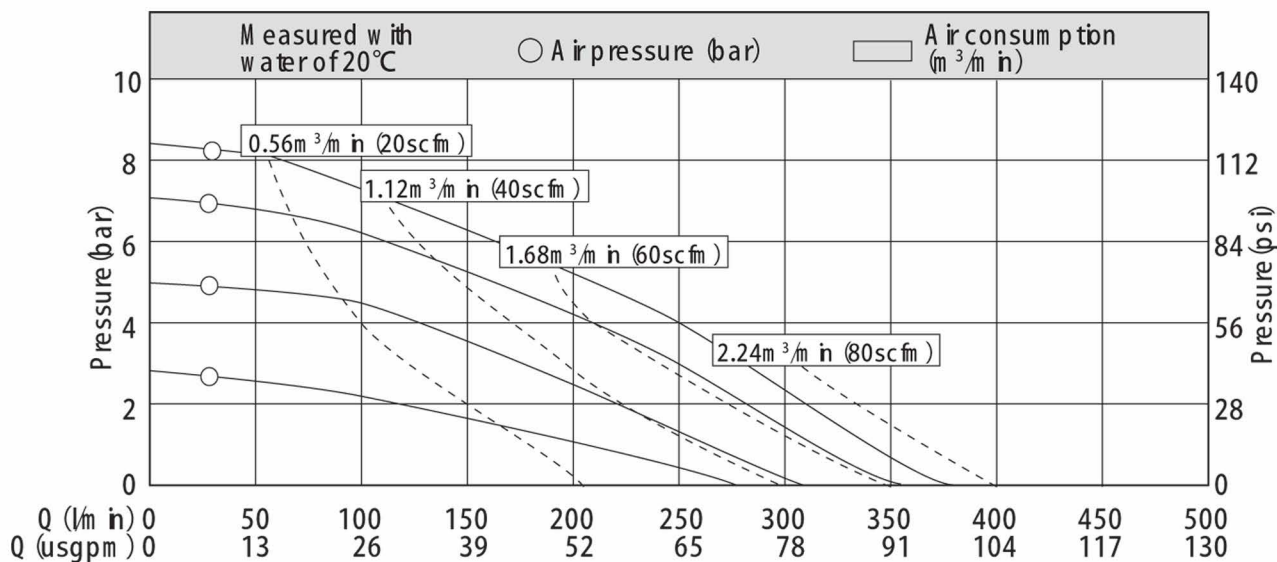
Weight

PP Pump / PVDF pump: 17 Kgs, 24 Kgs

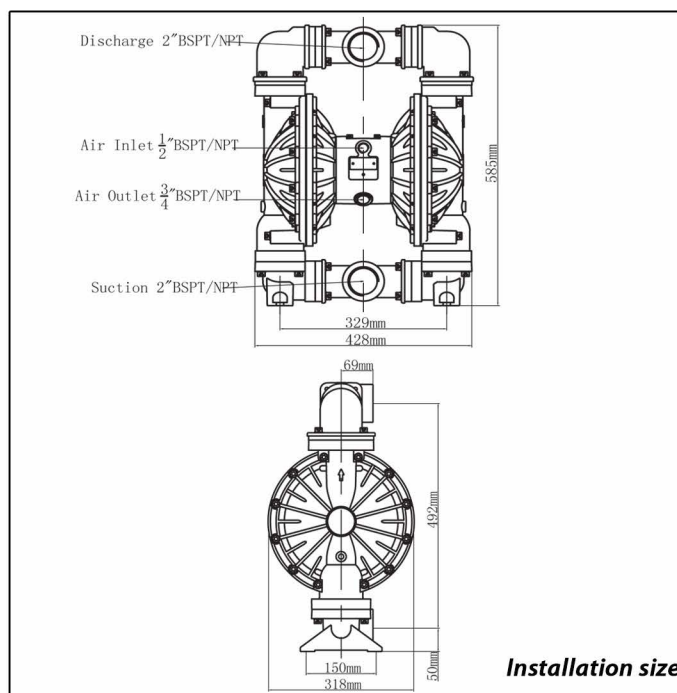
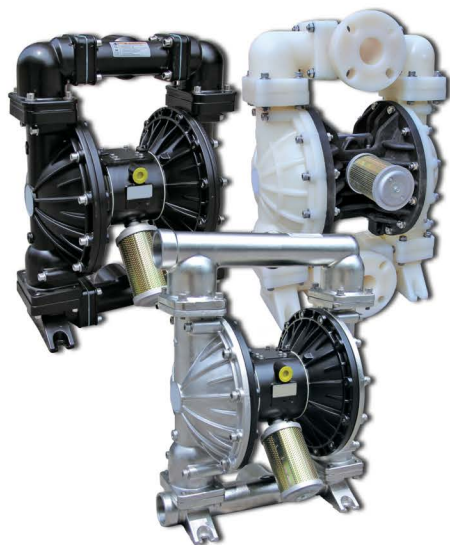
Aluminum pump, Cast Iron Pump: 20 Kgs, 50 Kgs.

SS304 Pump, SS316 pump : 31 Kgs

Performance curve



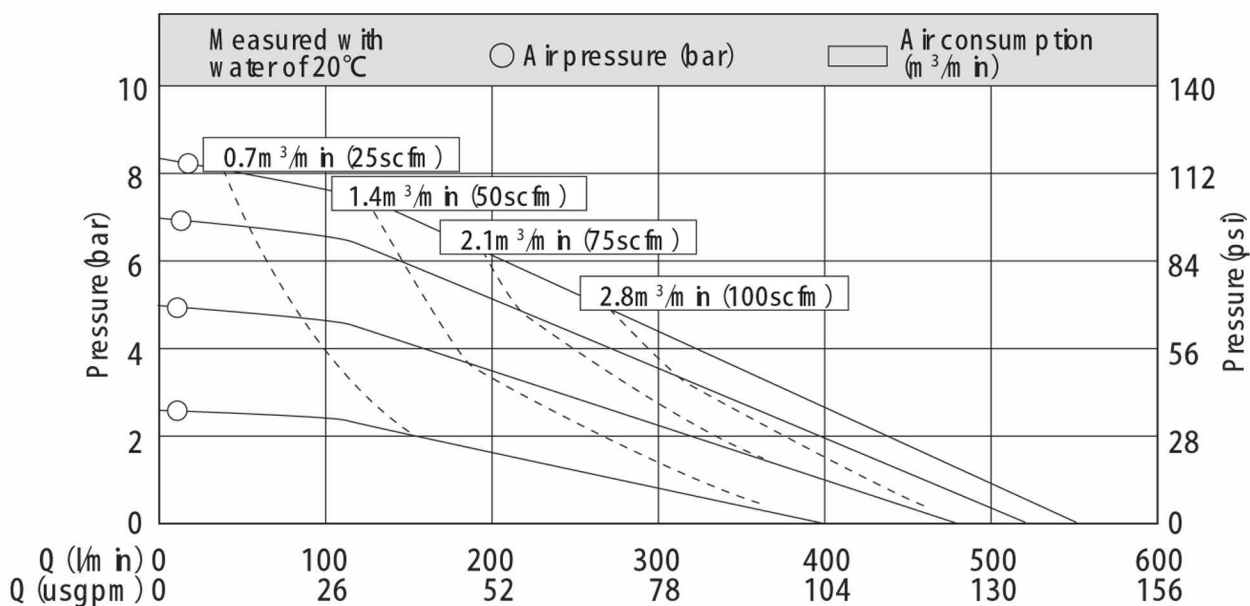
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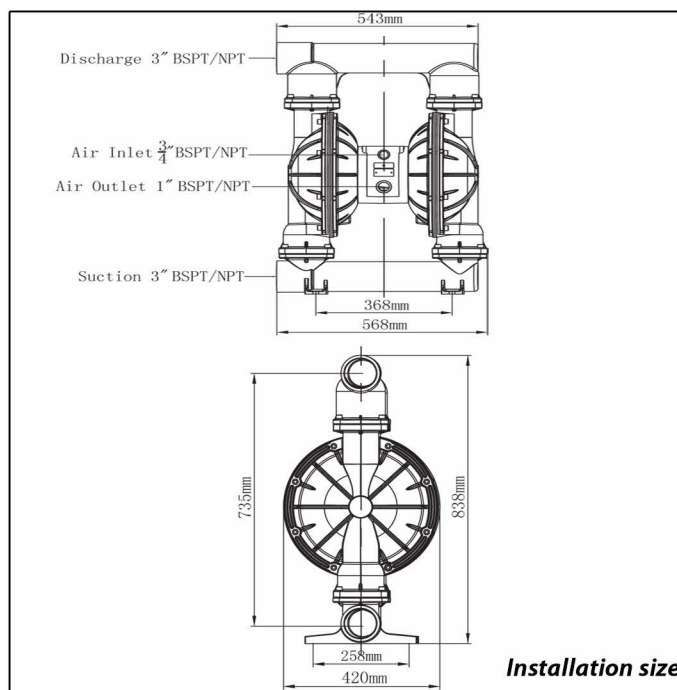
Technical parameters		
Suction lift[mwc]	dry	5
	wet	8
Max particle diameter[mm]	6	
Suction and discharge size[in]	2	
Air inlet size[in]	1/2	
Max flow[l/min]	587	
Max head[m]	84	
Max air inlet pressure[bar]	8.4	

Material quality	
Pumpbody: Aluminum, Cast Iron, PP, PVDF, SS304, SS316, SS316L	
Diaphragm: Santoprene, Hytrel, Teflon, Viton, EPDM, Buna-N	
Valve ball: Santoprene, Hytrel, Teflon, Viton, Stainless steel, Ceramic	
Valve seat: Santoprene, Hytrel, Teflon, Viton, Stainless steel	
Center block: PP, Aluminum, Stainless steel	
Weight	
PP Pump / PVDF pump: 25 Kgs, 34 Kgs	
Aluminum pump, Cast Iron Pump: 27 Kgs, 78 Kgs.	
SS304 Pump, SS316 pump : 48 Kgs	

Performance curve



AF 80



Technical parameters

Suction lift[mwc]	dry	5
	wet	8
Max particle diameter[mm]		9.4
Suction and discharge size[in]		3
Air inlet size[in]		3/4
Max flow[l/min]		1060
Max head[m]		84
Max air inlet pressure[bar]		8.4

Material quality

Pumpbody: Aluminum, PP, PVDF, SS304, SS316, SS316L

Diaphragm: Santoprene, Hytrel, Teflon, Viton, EPDM, Buna-N

Valve ball: Santoprene, Hytrel, Teflon, Viton, Stainless steel, Ceramic

Valve seat: Santoprene, Hytrel, Teflon, Viton, Stainless steel

Center block: PP, Aluminum, Stainless steel

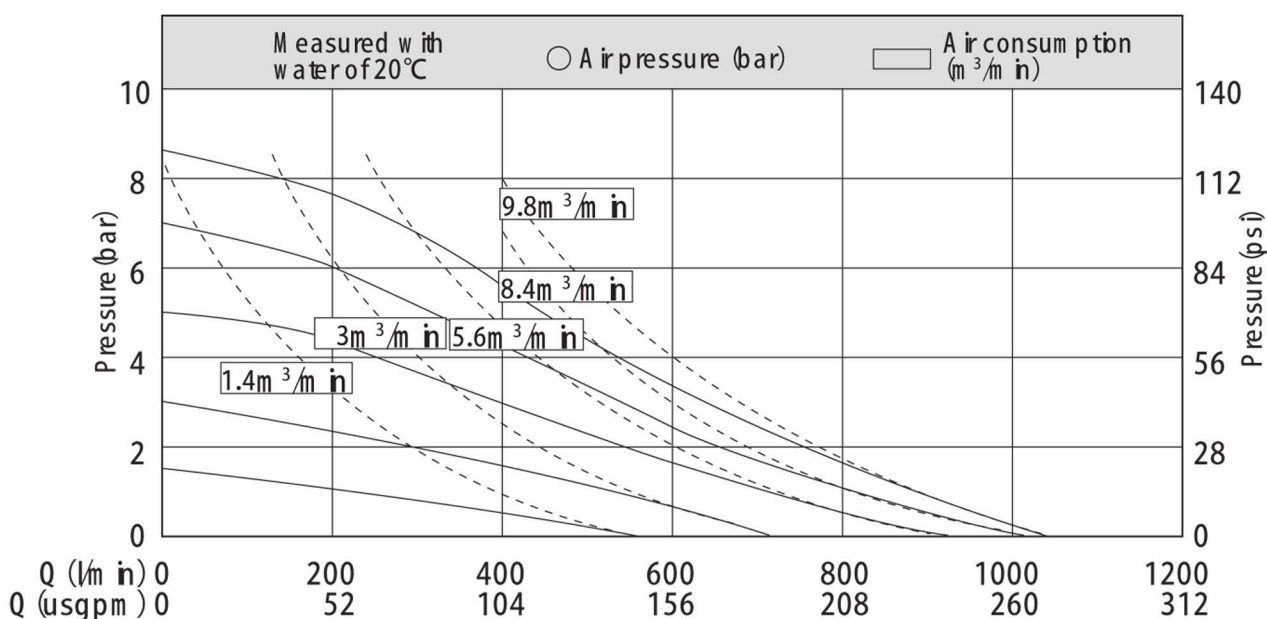
Weight

PP Pump / PVDF pump: 50 Kgs, 90 Kgs

Aluminum pump, : 58 Kgs,

SS304 Pump, SS316 pump : 120 Kgs

Performance curve





Flange

Diaphragm plate

Pulsation damper

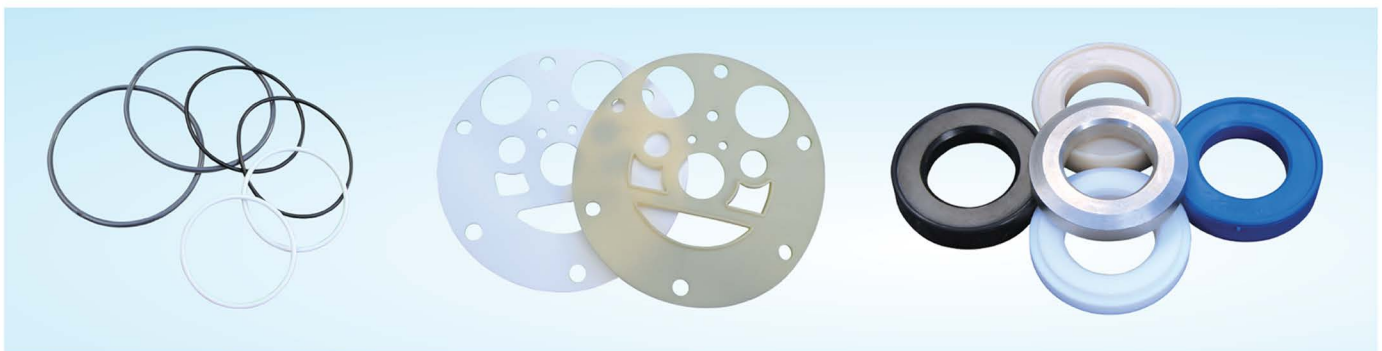
Valve plate



Diaphragm rod

Pulsation damper

Flow controller



Seat O-ring

Air Chamber gasket

Valve seat



valve ball

Diaphragm

Air reducing valve

Muffler



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