



Pump model and material code

Model = RP 25 AL - PP / TF / TF / PP

RP brand
RESINC

Pump Size:
06=1/4 inch
10=3/8 inch
15=1/2 inch
20=3/4 inch
25=1 inch
40=1.5 inch
50=2 inch
80=3 inch
100=4 inch

Center block:
AL=Aluminum
PP=Polypropylene
SS=Stainless steel

Pumpbody:
PP=Polypropylene
KV=PVDF
PM=POM
AL=Aluminum
SS=SS304
LL=SS316
AC=Cast iron
TF=Teflon

Diaphragm:
TF=Teflon
ST=Santoprene
HY=Hytrel
VT=Viton
BN=Buna-N
EP=EPDM
GE=Geolast
PU=Polyurethane

Valve ball:
TF=Teflon
ST=Santoprene
HY=Hytrel
VT=Viton
BN=Buna-N
EP=EPDM
SS=SS304
LL=SS316
CM=Ceramic

Valve seat:
TF=Teflon
ST=Santoprene
HY=Hytrel
VT=Viton
BN=Buna-N
EP=EPDM
SS=SS304
LL=SS316
PP=Polypropylene



General Characteristics

- ※ Without electricity, explosion-proof, can convey flammable fluid
- ※ No dynamic seals, even dry running without damage to the pump.
- ※ No impeller, low shear, 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

RP pump Characteristics

Manifold:

Center port design, low pulse. Three section manifold, flexible installation.

Four bolts 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

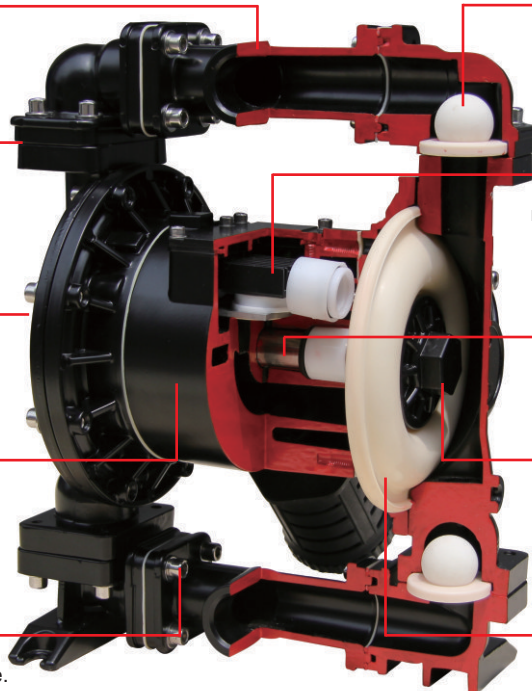
Material to be Ss321, excellent chemical resistance, wearing resistance, good self-lubricating.

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

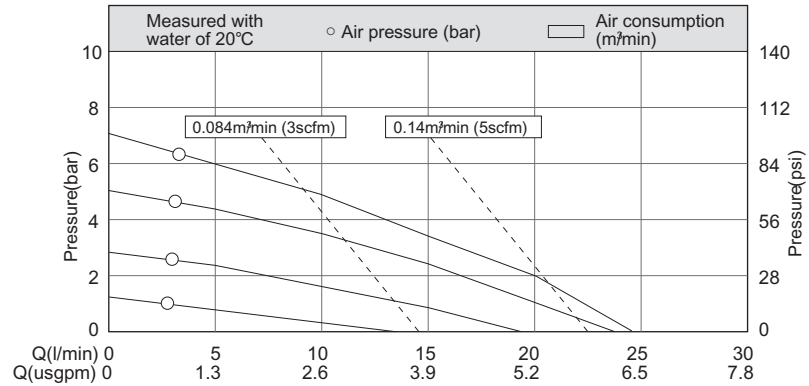
Diaphragm Material	Maximum	Minimum
Viton:excellent corrosion resistance, resistance to various acids (including the medianconcentration of oxidizing acid),alkali, salt, petroleum products, hydrocarbons, etc.	350π 176.6°C	-40 π -40°C
PTFE(Teflon): excellen corrosion resistance, almost resistant to all chemical media (including concentrated nitric acid and aqua regia). Except melting of lithium, potassium,sodium, chlorine trifluoride, high-temperature oxygen trifluoride, sulfur-speed liquid fluorine.	350π 176.6°C	40π 4.4°C
Santoprene: good abrasion resistance, chemical resistance and heat resistance, suitable for general acid and alkali, not suitable solvent. Can replace the EPDM/EPR material.	220π 104.4°C	-20 π - 28.9°C
Hytrel:good abrasion resistance, used in most of the neutral fluid. Can replace Bune-N materials.	220π 104.4°C	-20 π -28.9°C
EPDM:abrasion resistance, aging resistance, ozone resistance , suitable for general acid and alkali.	250π 121.6°C	-40 π 40°C
Buna-N: widely used in gasoline and other oil products. Suitable for use at room temperature.	212π 100°C	-40 π 40°C
GE: better abrasion resistance than Hytrel, the same chemical resistance as Buna-N.	220π 104.4°C	-20 π -28.9°C
Pumpbody material		
PP: Medium abrasion resistance, good chemical resistance, good versatility, especially for common acid-base.	150π 65.5°C	40π 4.4°C
POM: good solvent resistance, abrasion resistance. Low friction, low moisture absorption.	150π 65.5°C	40π 4.4°C
PVDF: strong chemical resistance, crush resistance, abrasion resistance. good corrosion resistance for acid,alkali and variety of organic solvents.	200π 93.3°C	40π 4.4°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, can not achieve maximum life

RP06/10 Plastic pump



Performance curve



Technical parameters

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

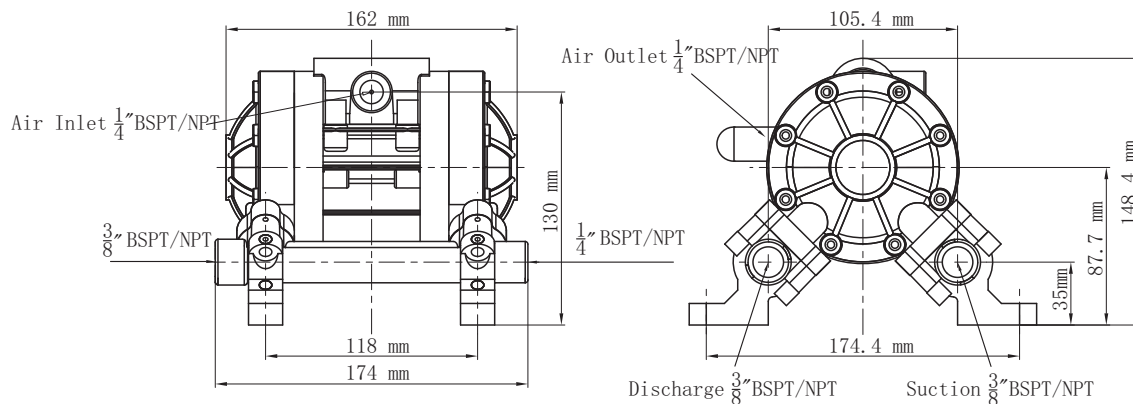
material quality

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

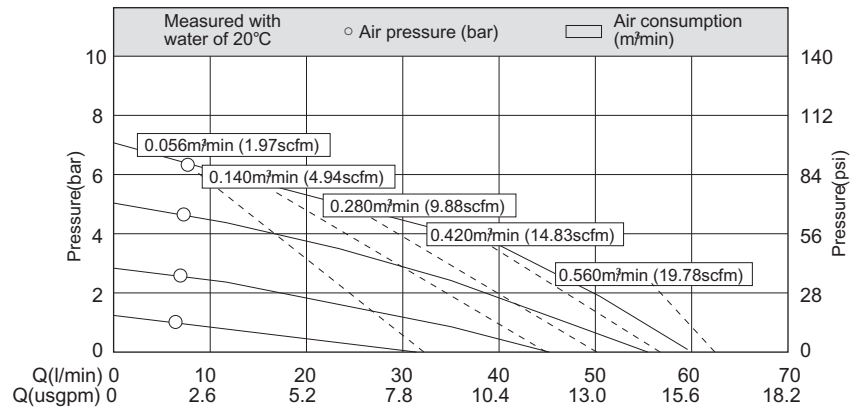
Installation size



RP15 Aluminum pump



Performance curve



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

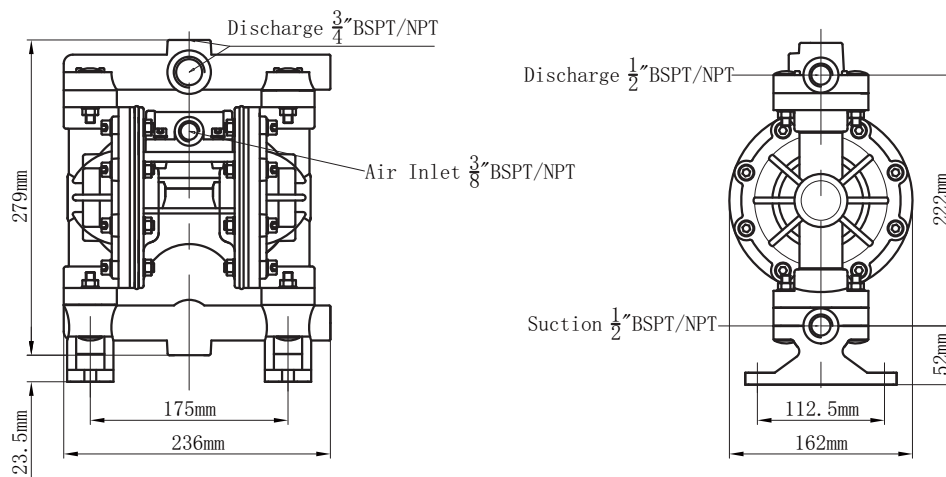
material quality

Pumpbody: Aluminum
 Diaphragm: Santoprene, Hytrel, Teflon, Viton, EPDM, Buna-N
 Valve ball: Teflon, Stainless steel, Santoprene
 Valve seat: SS304, SS316
 Center block: PP

Weight

Aluminum pump: 4.5 Kgs

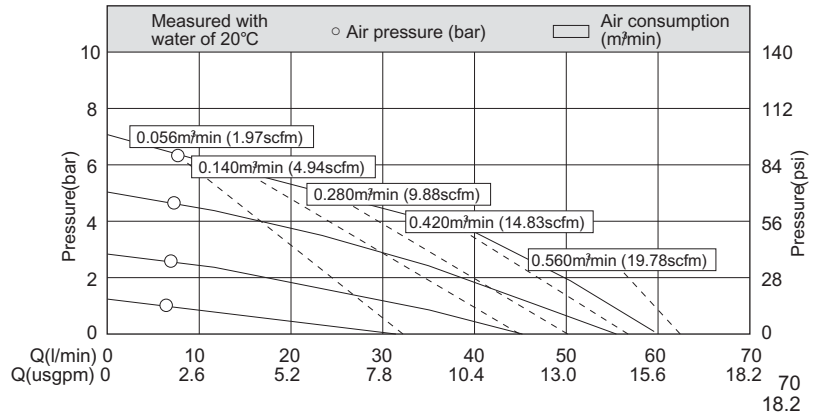
Installation size



RP15 Plastic pump

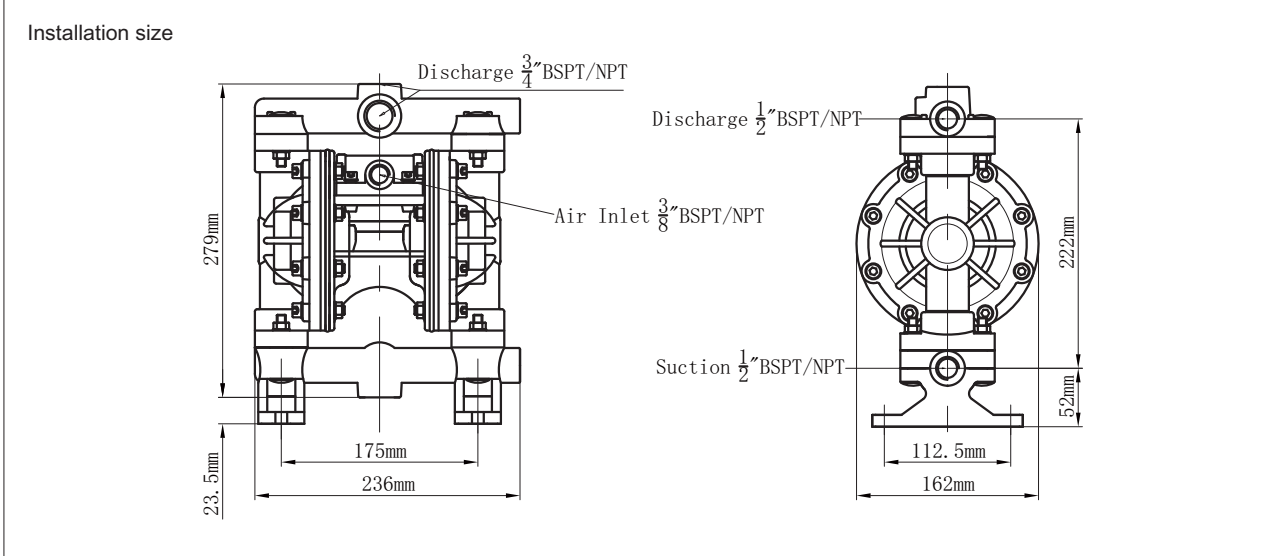


Performance curve



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:	PP, PVDF, POM
Diaphragm:	Santoprene, Hytel, Teflon, Viton, EPDM, Buna-N
Valve ball:	Teflon, Stainless steel, Santoprene
Valve seat:	PP, PVDF, POM
Center block:	PP
Weight	
PP pump / POM pump:	3.5 Kgs
PVDF pump:	4.5 Kgs

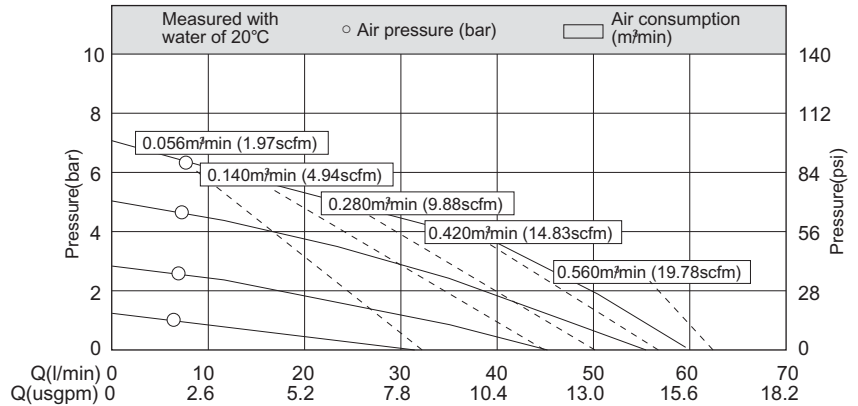




RP15 Stainless steel pump



Performance curve



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

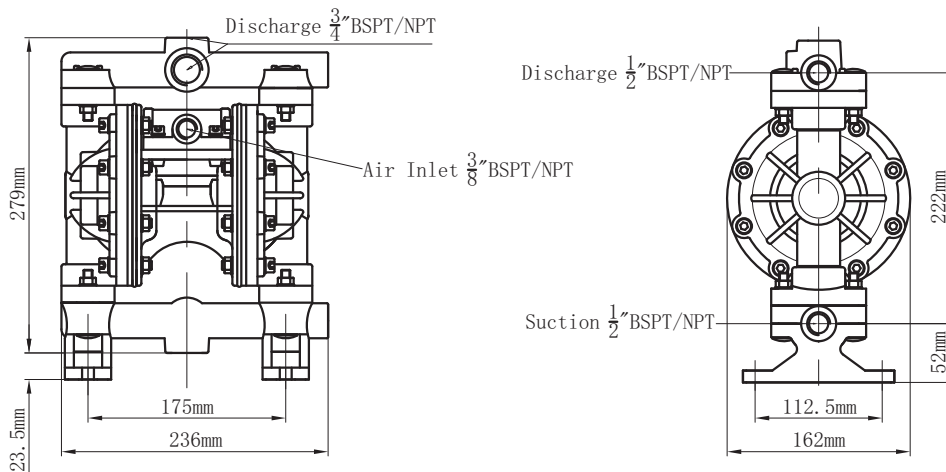
material quality

Pumpbody: SS304, SS316, SS316L
Diaphragm: Santoprene, Hytrel, Teflon, Viton, EPDM, Buna-N
Valve ball: Teflon, Stainless steel, Santoprene
Valve seat: SS304, SS316, SS316L
Center block: PP

Weight

SS304 Pump: 7.5 Kgs
SS316 pump: 7.5 Kgs

Installation size

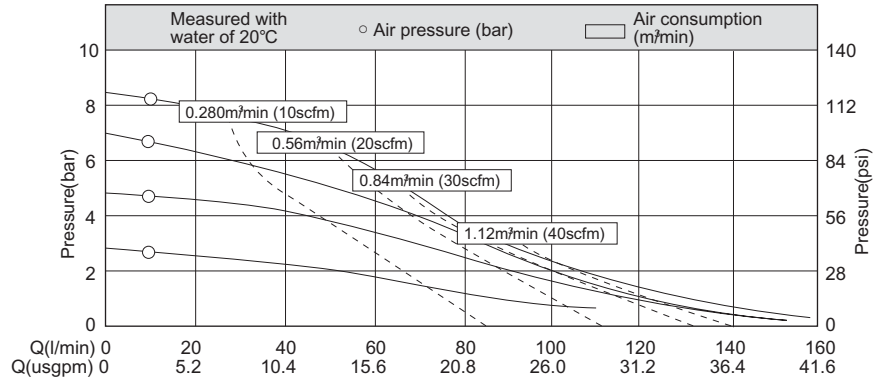




RP25 Aluminum /cast iron pump



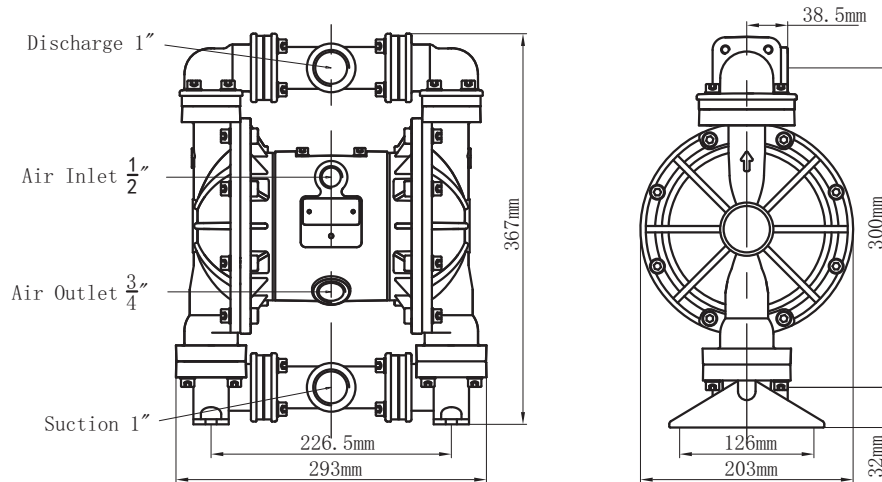
Performance curve



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
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	
Aluminum pump:	11 Kgs
Cast iron pump:	25 Kgs

Installation size

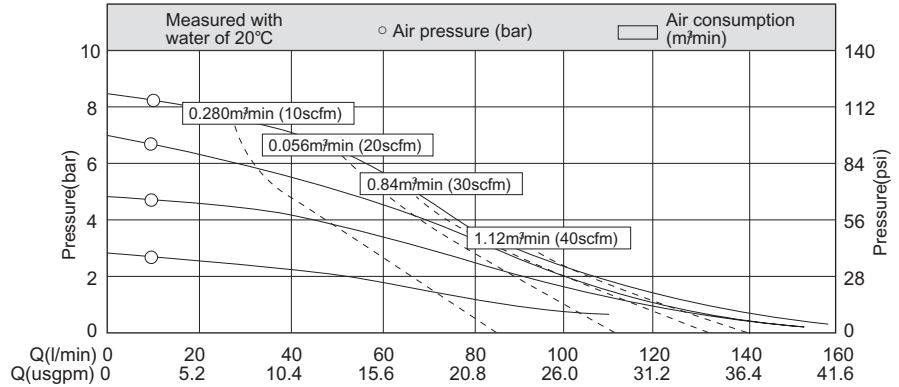




RP25 Plastic pump

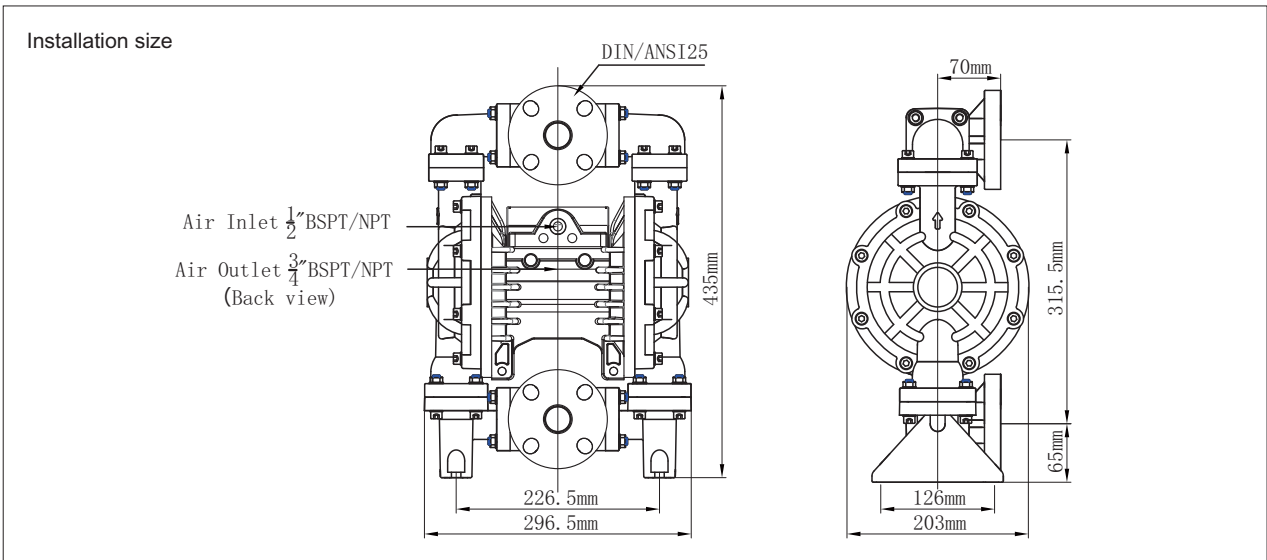


Performance curve



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

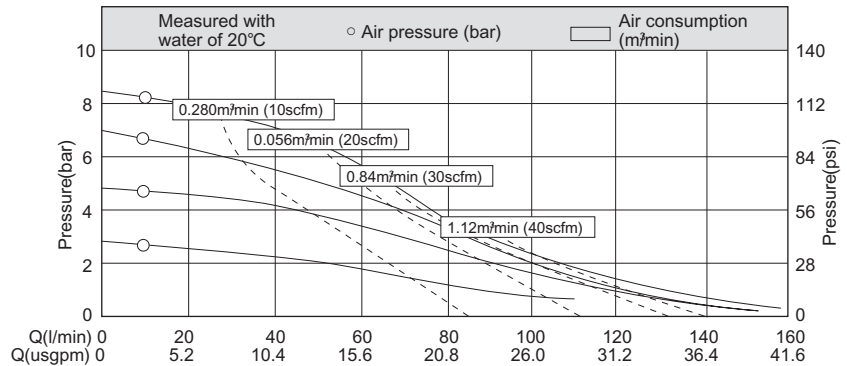
material quality
Pumpbody: PP, PVDF, POM
Diaphragm: Santoprene, Hytel, Teflon, Viton, EPDM, Buna-N
Valve ball: Teflon, Stainless steel, Santoprene, Hytel, Viton, Ceramic
Valve seat: Teflon, Santoprene, Hytel, Viton, PP
Center block: PP, Aluminum, Stainless steel
Weight
PP pump / POM pump: 9 Kgs
PVDF pump: 12 Kgs



RP25 Stainless steel pump

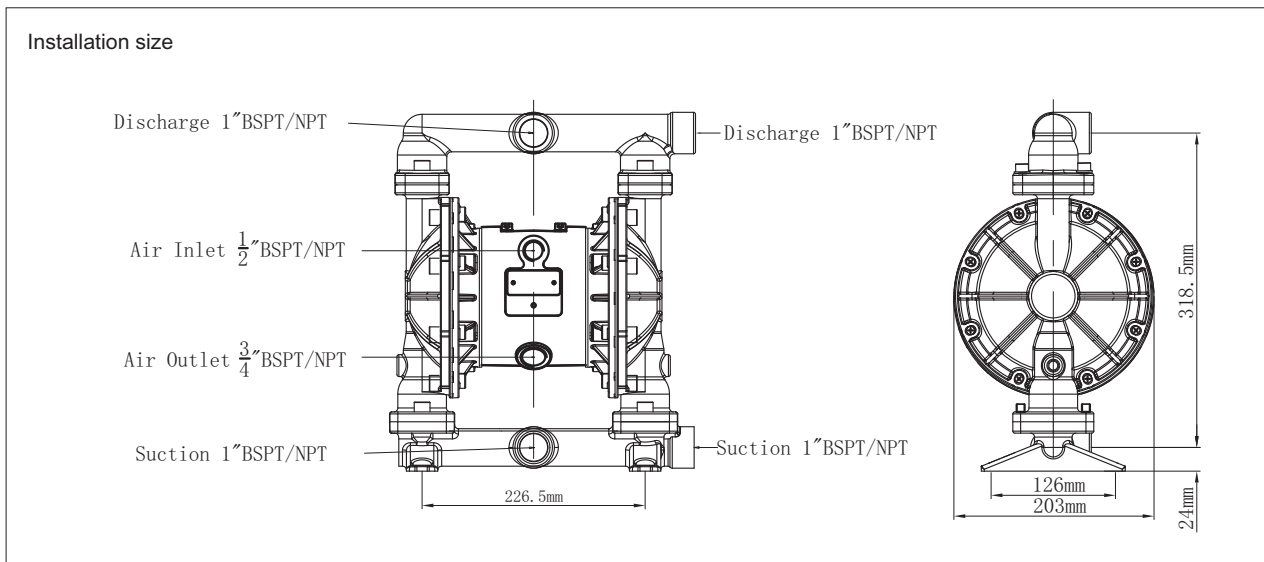


Performance curve



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: 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
SS304 Pump: 16 Kgs
SS316 pump: 16 Kgs

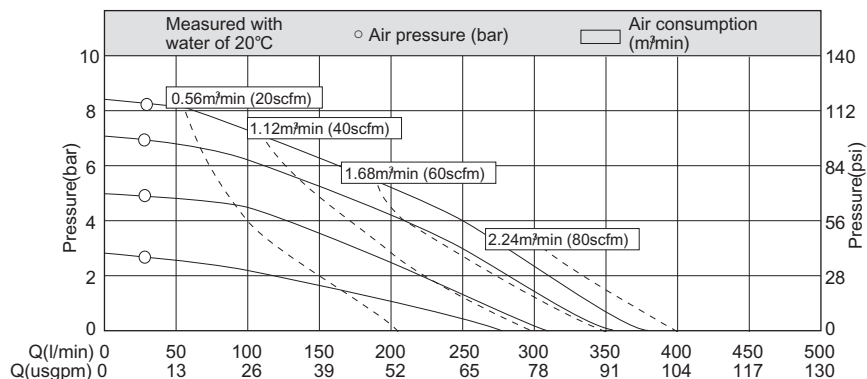




RP40 Aluminum /cast iron pump



Performance curve



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

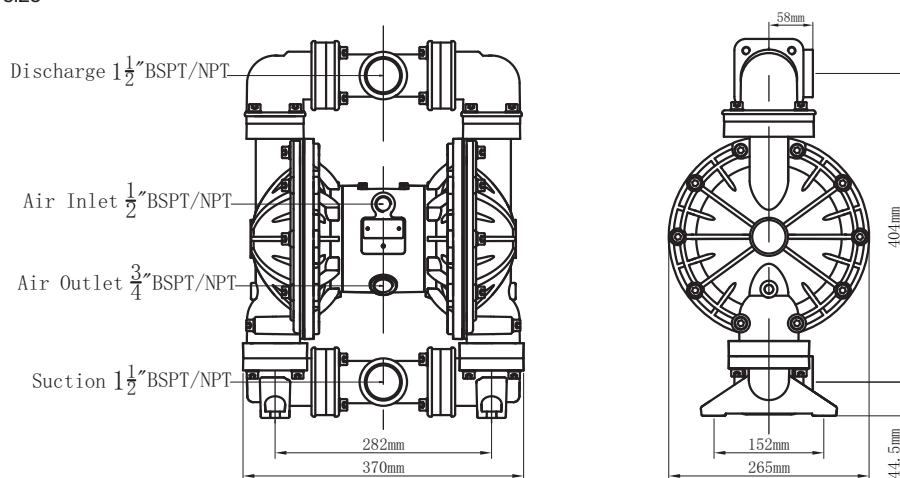
material quality

Pumpbody: Aluminum, Cast iron
 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

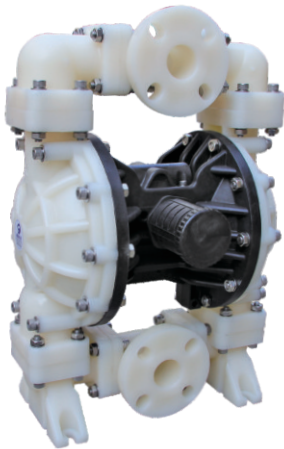
Aluminum pump: 20 Kgs
 Cast iron pump: 50 Kgs

Installation size

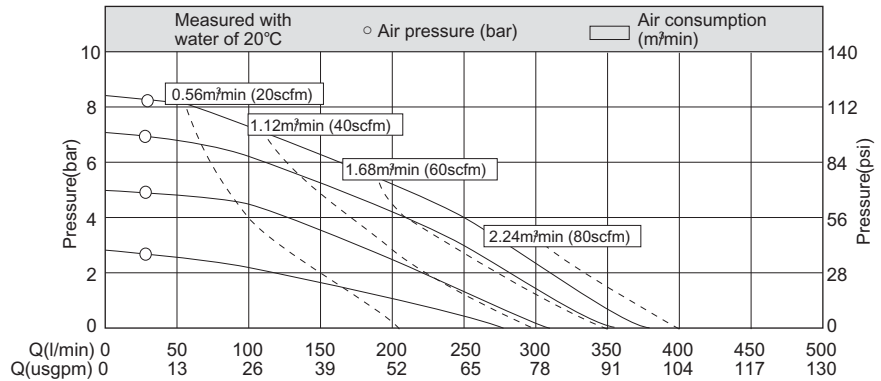




RP40 Plastic pump



Performance curve



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

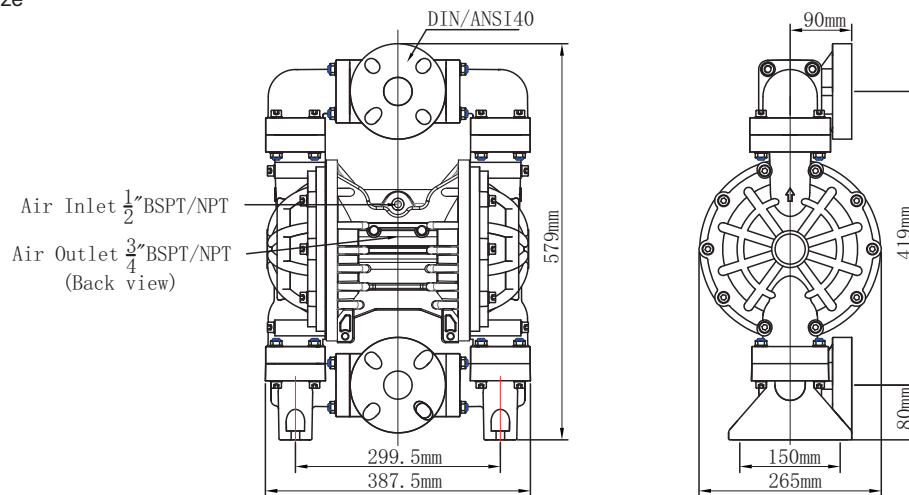
material quality

- Pumpbody: PP, PVDF
- Diaphragm: Santoprene, Hytel, Teflon, Viton, EPDM, Buna-N
- Valve ball: Teflon, Stainless steel, Santoprene, Hytel, Viton, Ceramic
- Valve seat: Teflon, Santoprene, Hytel, Viton, PP
- Center block: PP, Aluminum, Stainless steel

Weight

- PP pump: 17 Kgs
- PVDF pump: 24 Kgs

Installation size

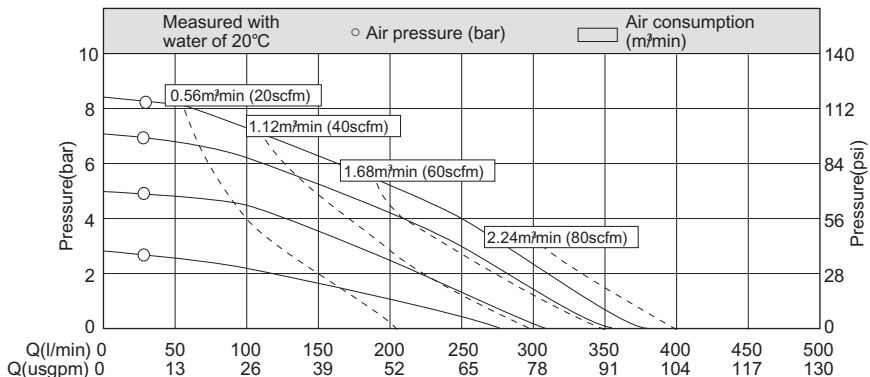




RP40 Stainless steel pump

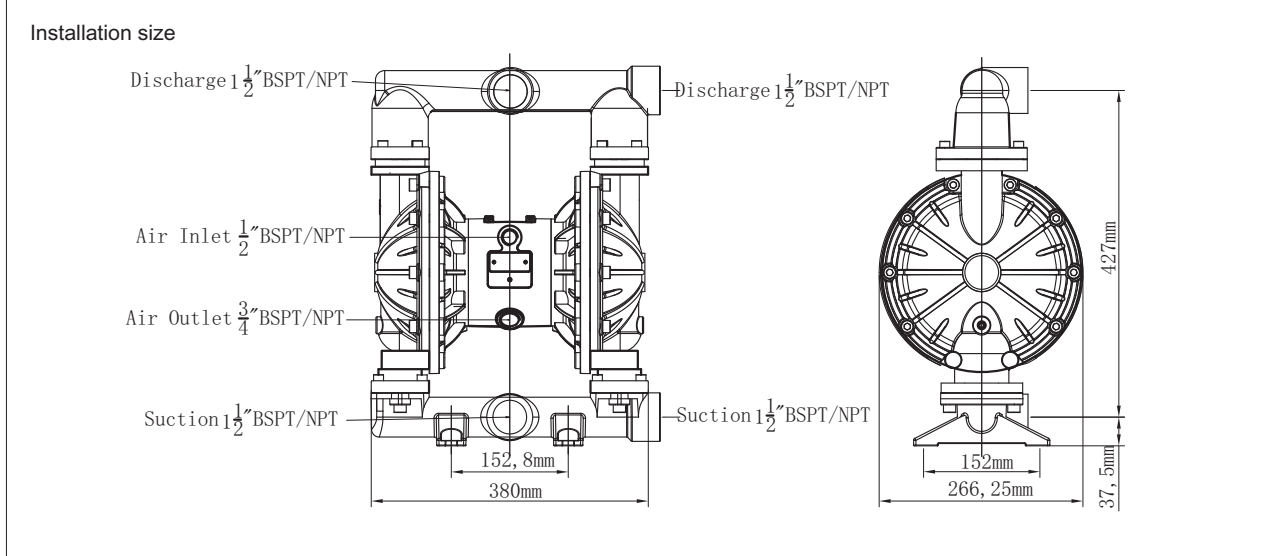


Performance curve



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

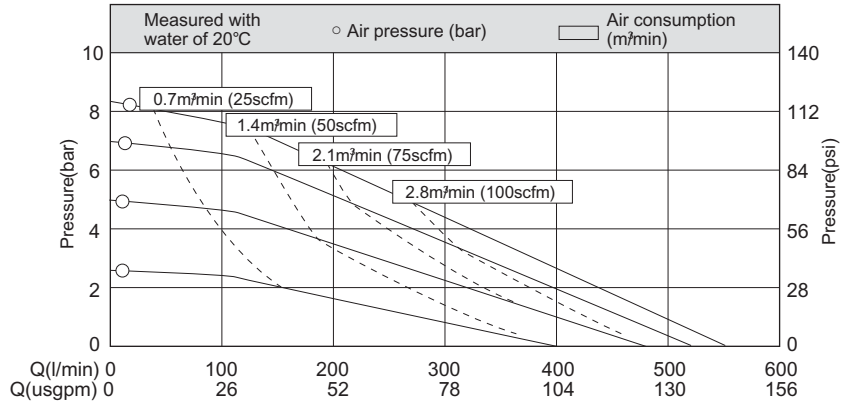
material quality	
Pumpbody:	SS304, SS316, SS316L
Diaphragm:	Santoprene, Hytrel, Teflon, Viton, EPDM, Buna-N
Valve ball:	Santoprene, Hytrel, Teflon, Viton, Stainless steel, Ceramic
Valve seat:	Santoprene, Hytrel, Teflon, Viton, Stainless steel
Center block:	PP, Aluminum, Stainless steel
Weight	
SS304 pump:	31 Kgs
SS316 pump:	31 Kgs



RP50 Aluminum /cast iron pump

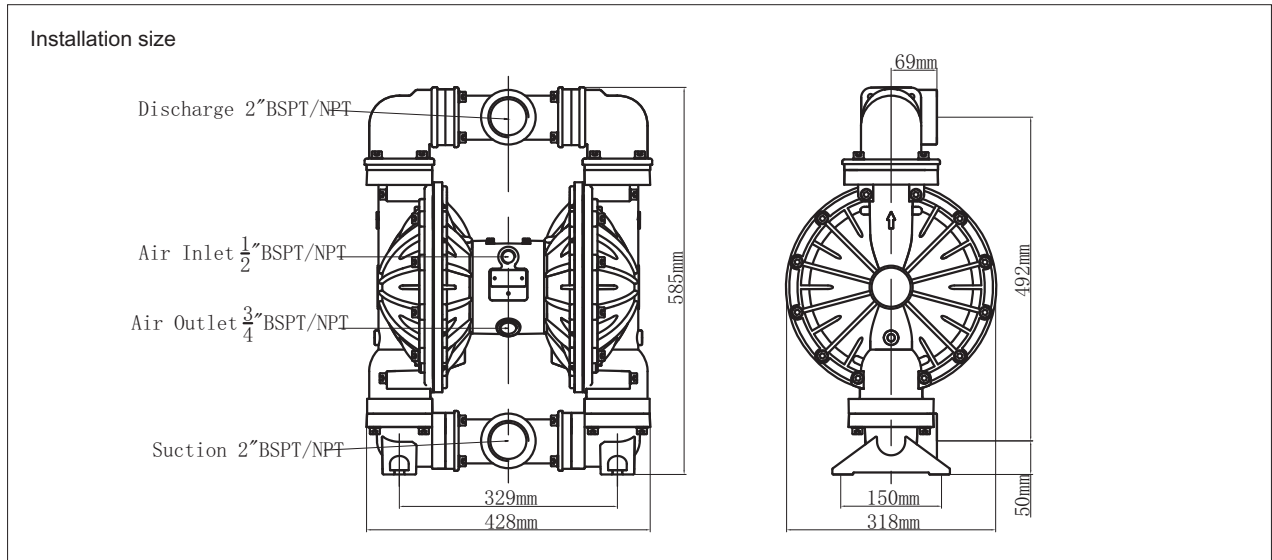


Performance curve



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
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	
Aluminum pump:	27 Kgs
Cast iron pump:	78 Kgs

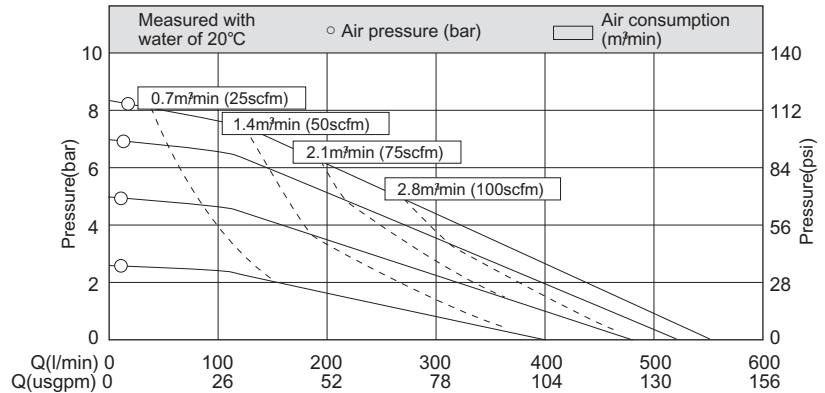




RP50 Plastic pump



Performance curve



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

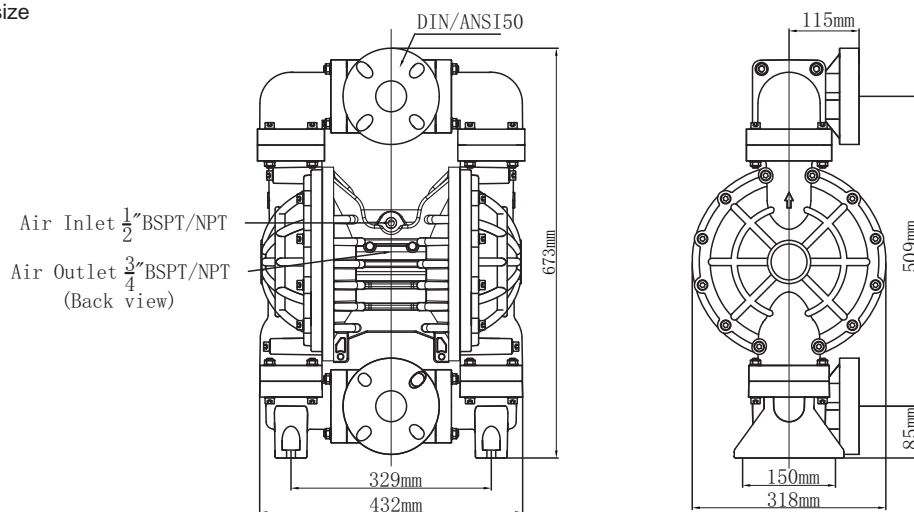
material quality

Pumpbody: PP, PVDF
 Diaphragm: Santoprene, Hytel, Teflon, Viton, EPDM, Buna-N
 Valve ball: Teflon, Stainless steel, Santoprene, Hytel, Viton, Ceramic
 Valve seat: Teflon, Santoprene, Hytel, Viton, PP
 Center block: PP, Aluminum, Stainless steel

Weight

PP pump: 25 Kgs
 PVDF pump: 34 Kgs

Installation size

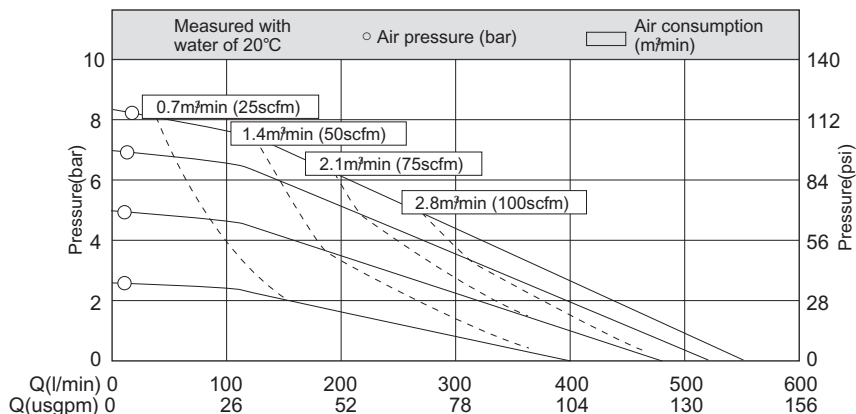




RP50 Stainless steel pump

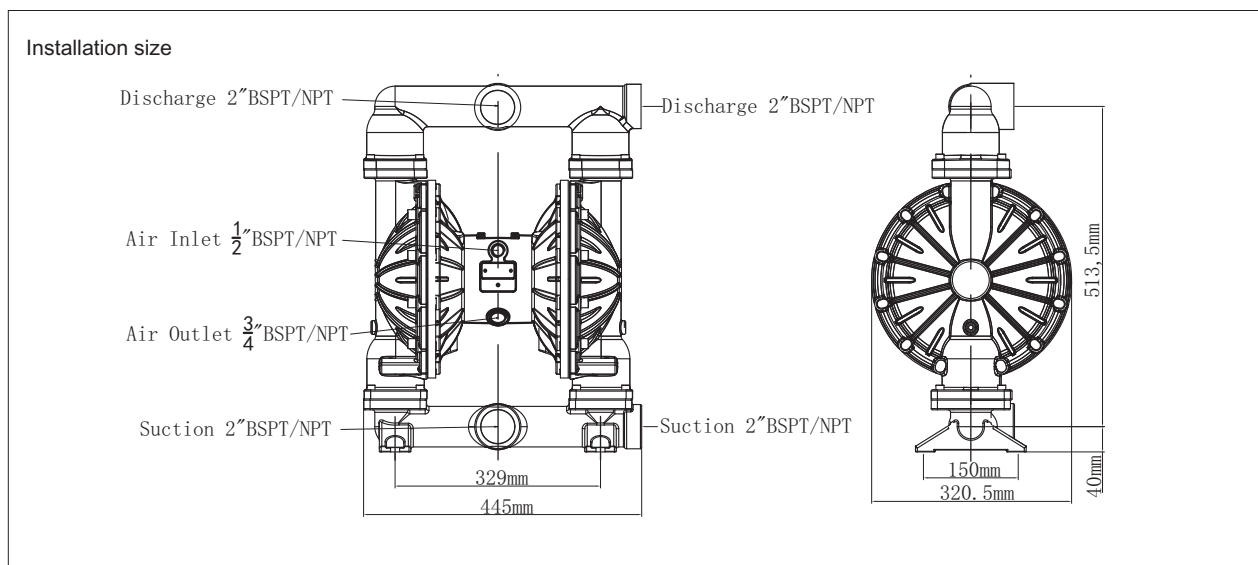


Performance curve



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:	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	
SS304 Pump:	48 Kgs
SS316 pump:	48 Kgs

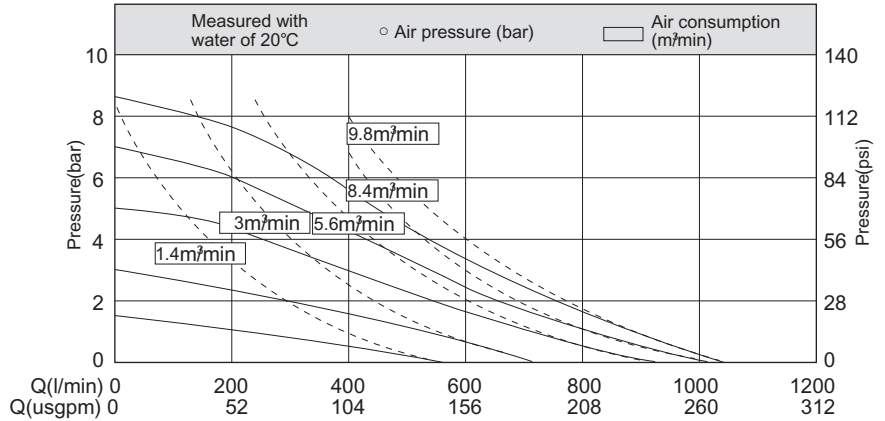




RP80 Aluminum pump

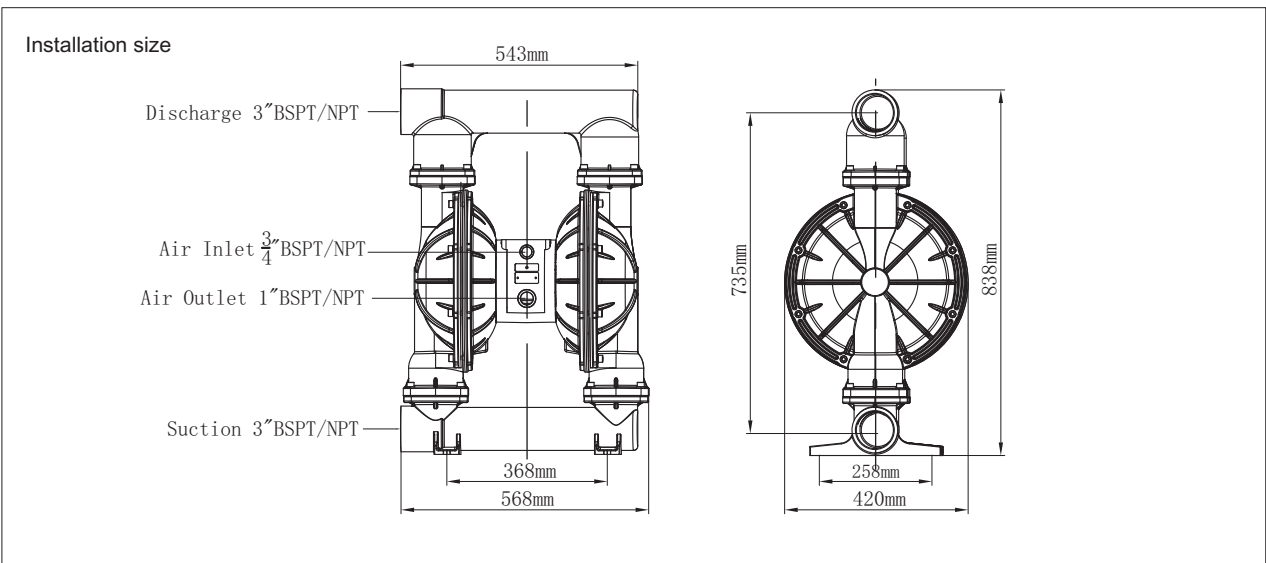


Performance curve



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
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
Aluminum pump: 50 Kgs

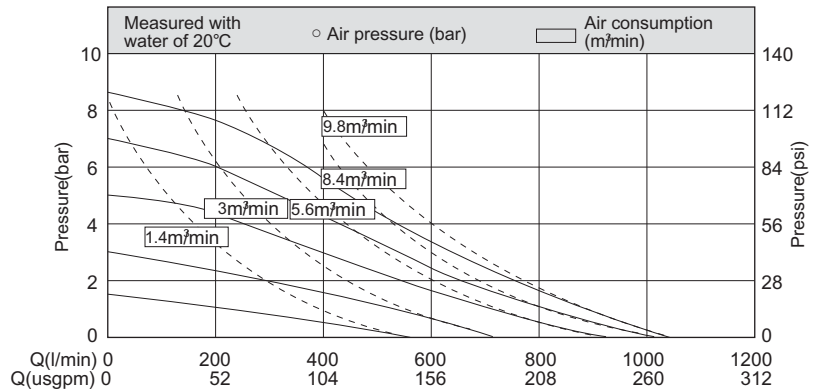




RP80 Plastic pump

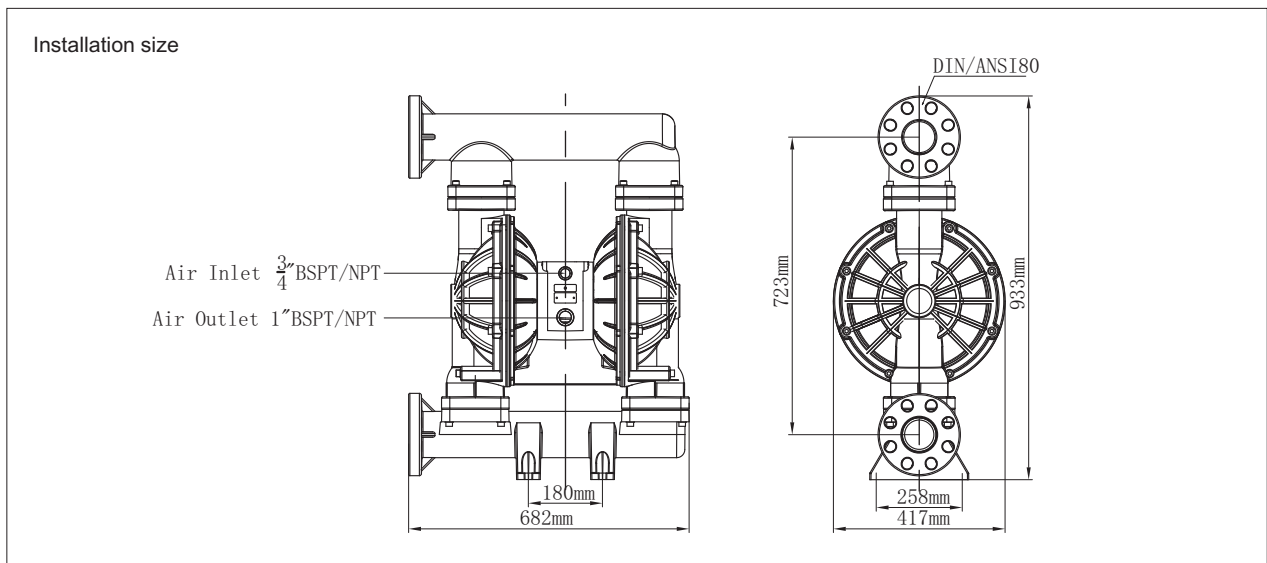


Performance curve



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 presure[bar]		8.4

material quality
Pumpbody: PP, PVDF
Diaphragm: Santoprene, Hytel, Teflon, Viton, EPDM, Buna-N
Valve ball: Teflon, Stainless steel, Santoprene, Hytel, Viton, Ceramic
Valve seat: Teflon, Santoprene, Hytel, Viton, PP
Center block: PP, Aluminum, Stainless steel
Weight
PP pump: 50 Kgs
PVDF pump: 90 Kgs

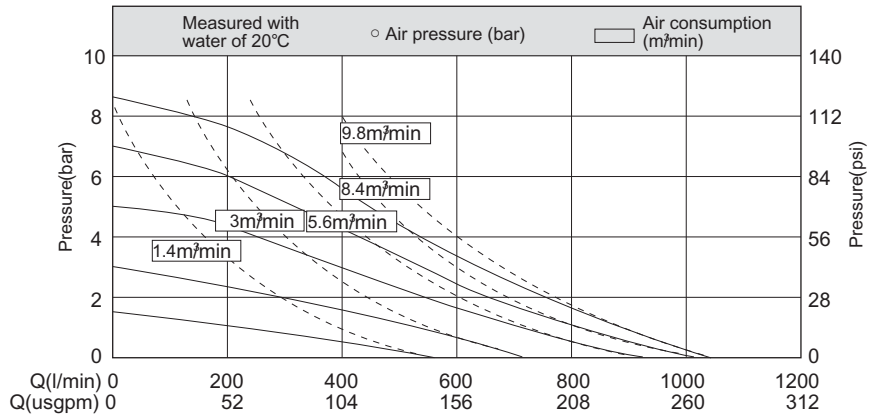




RP80 Stainless steel pump



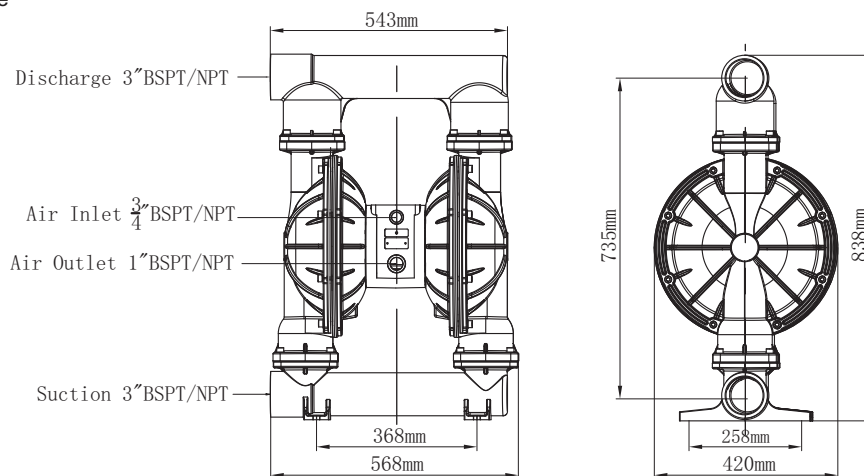
Performance curve



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

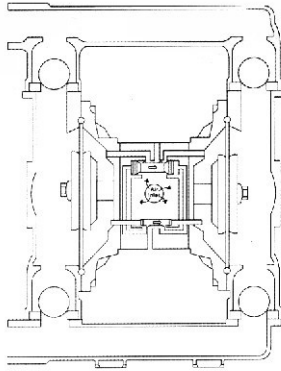
material quality
Pumpbody: SS304, SS316, SS316L
Diaphragm: Santoprene, Hytrel, Teflon, Viton, EPDM, Buna-N
Valve ball: Santoprene, Hytrel, Teflon, Viton, Stainless steel, Ceramic
Valve seat: Santoprene, Hytrel, Teflon, Viton, Stainless steel
Center block: PP, Aluminum, Stainless steel
Weight
SS304 Pump: 120 Kgs
SS316 pump: 120 Kgs

Installation size



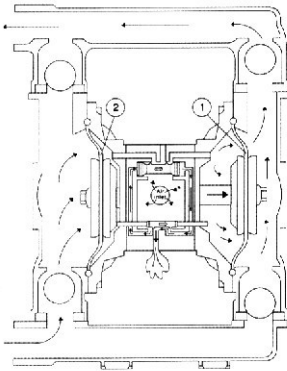
Operating principle

1



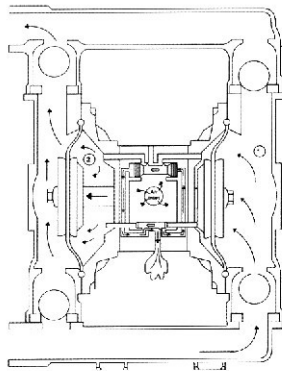
After connecting the compressed air, air valve control the compressed air impels diaphragm 1 moves toward right, meanwhile, the diaphragm 1 also extrude medium and cause it out of chamber. Diaphragm not only convey medium, also isolate compressed air and medium in the pump chamber. When one diaphragm is pushed away from the center body, another diaphragm will moves toward center body for these two diaphragms are connected by one rod. When diaphragm 2 moves toward center body, the following high pressure compressed air will be discharged out through the muffler, meanwhile, the pump inlet side will creates a vacuum, then atmospheric pressure will push the medium into suction pipeline. The pump entry valve ball will be raised and leaves the valve seat, the medium will enter into pump chamber.

2



When the diaphragm 1 under high pressure, will slowly move to maximum position of the stroke. Meanwhile, the compressed air will slowly enter into diaphragm 2 following space and impels the diaphragm 2 away the center body. The diaphragm 1 also will moves toward center body for these two diaphragms are connected by one rod. The diaphragm 2 will extrude the medium and function on entry valve ball and seal up the suction pipeline through the water power. The water power also will function on exit valve ball and open the discharge pipeline. Meanwhile, exit valve ball of pump another side will shut down for pressure function, entry valve ball will open, then the medium will enter into the pump chamber.

3



When one stroke finish. The compressed air will enter into diaphragm 1 following space again through reversing valve. simultaneously the diaphragm 2 following compressed air will discharge out through muffler.

