

## Series AODD PUMP



武汉捷恩斯实业有限公司  
WUHAN GIENS INDUSTRY CO.,LTD

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## COMPANY PROFILE

Giens located in High-tech development Zone Donghu Wuhan, it is a entity enterprise on development, manufacturer and sales for AODD pump, metering pump and packaged dosing system.

Our products depended on the advanced foreign pump technology as foundation and upgraded by ourself .So our AODD pump can replace of many famous pump brands. It is widely used in many fields such as :ceramics, coatings, chemical industry, optoelectronics, medicine, petroleum and natural gas, papermaking, etc. At the same time,Giens also opened the overseas market, the products are exported to Southeast Asia, Europe, the Middle East and other regions, and has been recognized and praised by customers.

The company insists on the market as a guide, to meet the request of customers as their own responsibility. upgrade product design and manufacturing to ensure that our products can meet complex industrial requirements increasingly.

We willing to work with you to create a better future together and provide you with a safe & guarantee for your industrial fluid transportation .

## Explanation of Pump Nomenclature

Pump Series	Pump Size	Wetted Material	Intermediate material options	Diaphragm	Check Ball Valve/Seat	Porting Options	Muffler Options
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### Pump Series

- A Pump
- B Pump

### Pump Size

- 02 1/4"
- 05 1/2"
- 1F 1"
- 15 1 1/2"
- 20 2"
- 30 3"

### Wetted Material

- A Aluminum
- I Cast Iron
- S Stainless Steel
- H Alloy C
- P Polypropylene
- V PVDF

### Intermediate material options

- A Aluminum
- I Cast Iron
- S Stainless Steel
- P Polypropylene

### Diaphragm

- 1 Santoprene
- 2 PTFE/Santoprene
- E EPDM/Santoprene
- N Neoprene
- N Neoprene/Neoprene
- H Hytrel
- V FKM

### Check Ball /Valve/Seat

- S Santoprene/Santoprene
- B Nitrile/Nitrile
- P PTFE/PTFE
- N Neoprene/Neoprene
- W Santoprene /Plattomer

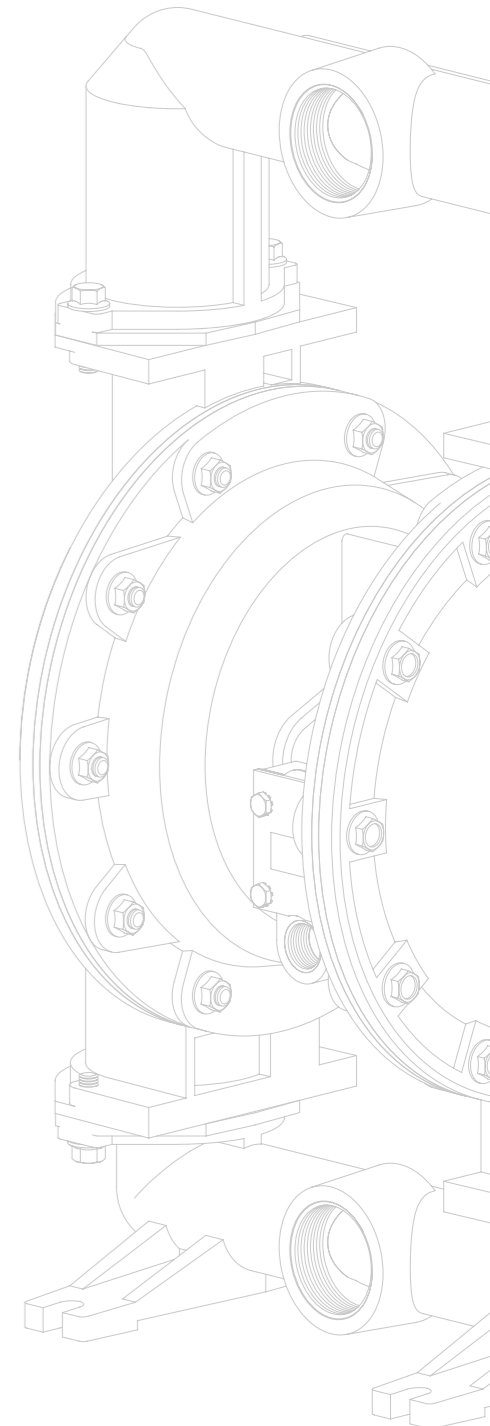
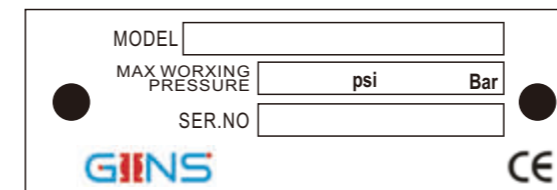
### Porting Options

- N NPT Threads
- B BSP (Tapered) Threads
- R Raised Face 150# Threaded ANSI Flange

### Muffler Options

- 00. None
- 1 Plastic Muffler
- 2 Mesh Muffler
- 3 Metal Muffler

### Product plate














### Why Choose AODD Pump

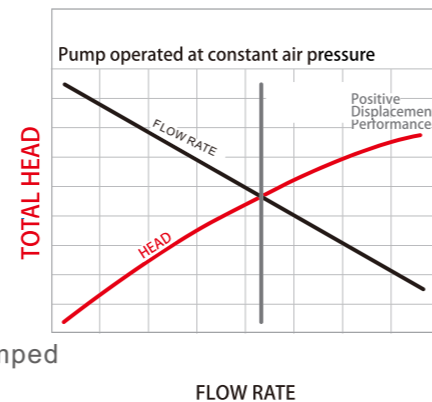
PERFORMING IN THE MOST CHALLENGING APPLICATIONS, AODD PUMPS DELIVER UNIQUE BENEFITS THAT ARE UNRIVALED BY OTHER PUMP TECHNOLOGIES

AODD pumps are air (or natural gas) operated displacement type pumps which uniquely differ from all other positive displacement pumps. As a result of air pressure acting on the entire surface of the diaphragm, the diaphragm is in a balanced condition while pumping. This measurably extends diaphragm life over that of mechanically operated diaphragm pumps. Because compressed air is limited, the maximum pressure developed by the pump is also safely limited. Thus, AODD pumps are appropriately selected for on-demand intermittent requirements.

### Features and Advantages

-  Dry-run without damaging the pump or system
-  Pumps solid laden uids without pump or product damage
-  Self-priming, works in suction lift applications
-  Deadheads safely, with no pump or product damage
-  Shear sensitive, does not shear or separate product being pumped
-  No electricity required, and can be fully grounded
-  Low initial purchase price compared to other technologies
-  Submersible, can be submerged completely without safety or performance issues
-  Sealless design, no expensive mechanical seals or packing are required
-  Variable ow and head pr essures, without sophisticated contr
-  Optional bottom discharge porting depending on fluid characteristics

### Unique Performance



Flow Principle							
AODD VS OTHERS	AODD	Centrifugal	Lobe	Gear	Progressive (Screw)	Peristaltic (Hose)	Piston/Plunger
Variable Flow & Head Control (inherently adjustable)	✓	✓	✓	✓	!	!	✓
Dry-Running	✓	!	!	!	!	!	!
Deadheads Safely(at zero energy consumption)	✓	✗	✗	✗	✗	✗	✗
Dry-Priming(lift installations)	✓	✗	✗	✓	✗	✗	!
No Installation Alignment Required	✓	✗	✗	✗	✗	✗	✗
No Electrical Installation Required	✓	✗	✗	✗	✗	✗	✗
Portability	✓	✓	!	!	!	✓	!
Submersible	✓	!	✗	✗	✗	✗	✗
Sealless(no packing or mechanical seals)	✓	!	!	!	!	!	!
No Slip(thin liquids)	✓	✓	!	!	!	✓	!
Cavitation Tolerance (low NPSHa)	✓	✗	!	!	✓	!	!
Low Shear & Degradation	✓	✗	✓	✓	!	!	!

✓ = (Suitable)      ! = (Limitations)      ✗ = (Not Recommended)

## Markets & Applications



### Automotive

Applications include oil transfer, fuel transfer, machine coolant, auto wash, auto lube and much more.



### Marine

Applications include oil transfer, fuel transfer, cargo cleanup, deck dewatering, cargo oil transfer, lubricants transfer and much more.

### Mining

Applications include oil transfer, fuel transfer, water evacuation, mine face dewatering, drift dewatering and much more.



### Ceramics

Applications include batching, mixing, casting machines, day tank transfer, mold filling / cleaning, glaze spray, slip transfer / recirculation and much more.



### Pharma / Personal Care

Applications include day tank transfer, batching, chemical feed, FDA compliant, personal hygienic / cosmetics and much more.



### Chemical

Applications include packaging, drum / tote, processing, injection, mixing and much more.



### Pulp & Paper

Applications include bulk transfer, day tank transfer, batching, bleaching, converter / packaging, adhesives / ink and much more.



### Coatings

Applications include pigment milling, paint filtration, mixing tanks, filling machines, tank transfer, low shear requirements and much more.



### Oil & Gas

Applications include natural gas fields, service rigs, offshore platform requirements, settling pond transfer, diesel fuel transfer, spill clean-up, salt water transfer / disposal, flare knockout and much more.



### Construction

Applications include portable utility, oil transfer, fuel transfer, site dewatering, seal coating, road striping, municipal utility and much more.



### Wastewater

Applications include municipal portable utility, neutralize wastewater, waste activated sludge, return activated sludge, thickened sludge, belt press feed and much more.



### Food Processing

Applications include food packaging, product transfer, wine tank over, FDA compliance, low degradation requirements, wine fermentation / pumpover and much more.



## A Series Air operated Diaphragm Pumps

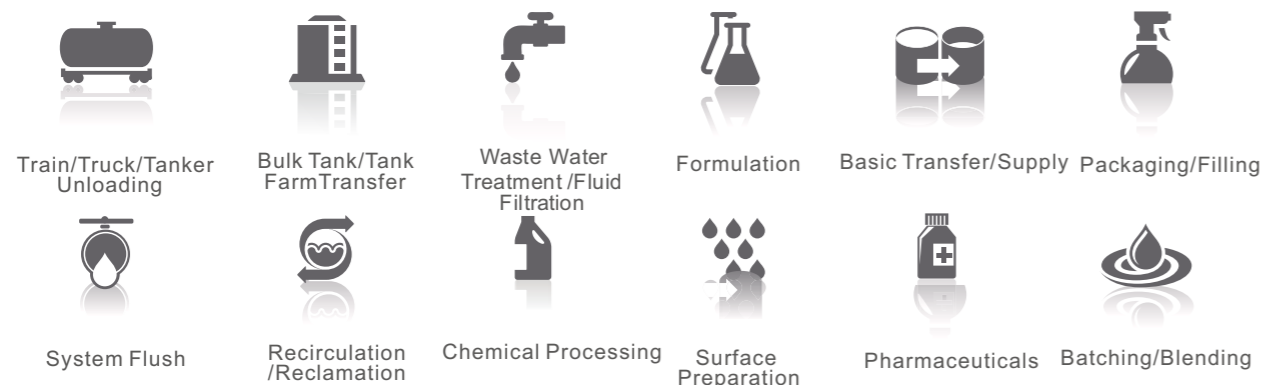
A Series air operated diaphragm pumps are ideal for general industrial and OEM installation applications. They can easily pump from clean, light viscosity fluids to corrosive, abrasive medium viscosity fluids and can transfer large particles without damage. Due to their pneumatic motor, they may be used in potentially explosive areas. Most of the A diaphragm pumps are ATEX certified (CE Ex11 2GD X).

A Series and EXP Series pumps offer the ability to vary the flow outlet and discharge pressure as slow as 0.26 gallons (1liter) per minute up to 275 gallons (1040 liter) per minute for our larger sizes and adjust fluid pressure up to 125 p.si. (8.6 bar), by using just an air filter / regulator and a needle valve.

### Why A diaphragm pumps?

- Seamless Design
- Low Material Shear
- Ease of Maintenance
- Can Run Dry Without Damage
- Portable
- Self Priming
- Easy-to-Install

### Find your opportunity

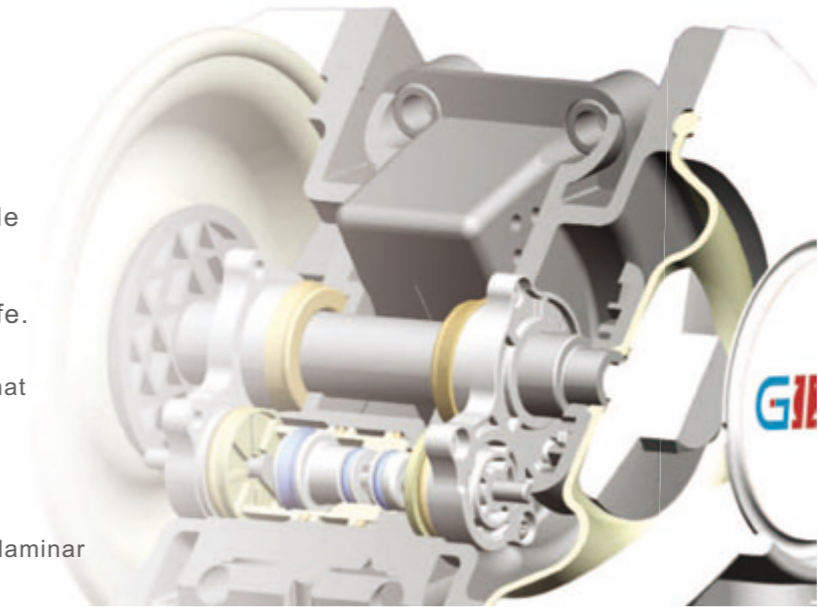


### Smart Motor Design – COMPACT SERIES PUMPS 1/4" - 3/4"

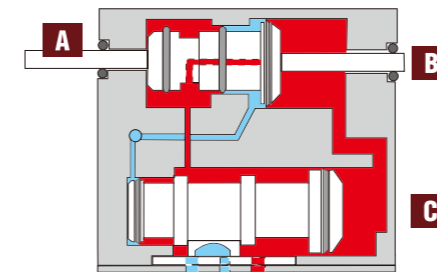
All A Compact Series diaphragm pumps feature an unbalanced valve design, which eliminates valve centering and pump stall-out-even under low air inlet pressures.

#### “D” Valve

- Provides a positive seal.
- Helps insure optimum energy efficiency while avoiding costly air “blow-by.”
- Ceramic construction insures long service life.
- Provides an ultra-positive, reliable shift signal that avoids stall-out.
- Provides faster pump trip-over with more flow.
- Faster trip-over with less pulsation and superior laminar material flow.

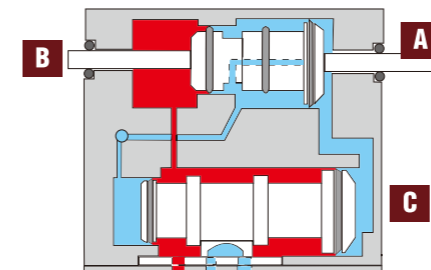


#### Diaphragm Moving Right to Left



- 1.) The diaphragm pushes the right Actuator Pin (B) mechanically moving the S Valve(A) to the left.
- 2.) Compressed air flows to the large side of the S Valve, pneumatically moving the valve to the position shown.
- 3.) Compressed air also flows to the large end of the Major Air Valve ©, pneumatically shifting it to the left.

#### Diaphragm Moving from Left to Right



- At end of stroke**
- 1.) Diaphragm pushes Pin (B) and S Valve (A) to the right.
  - 2.) Large ends of S Valve (A) and Major Valve (C) are vented to exhaust pilot signal.
  - 3.) Constant compressed air supply acting on the smaller areas of the S Valve and Major Valve shifts both valves to the right and holds them in position until the next cycle begins.

## AODD Pump Operation & Installation

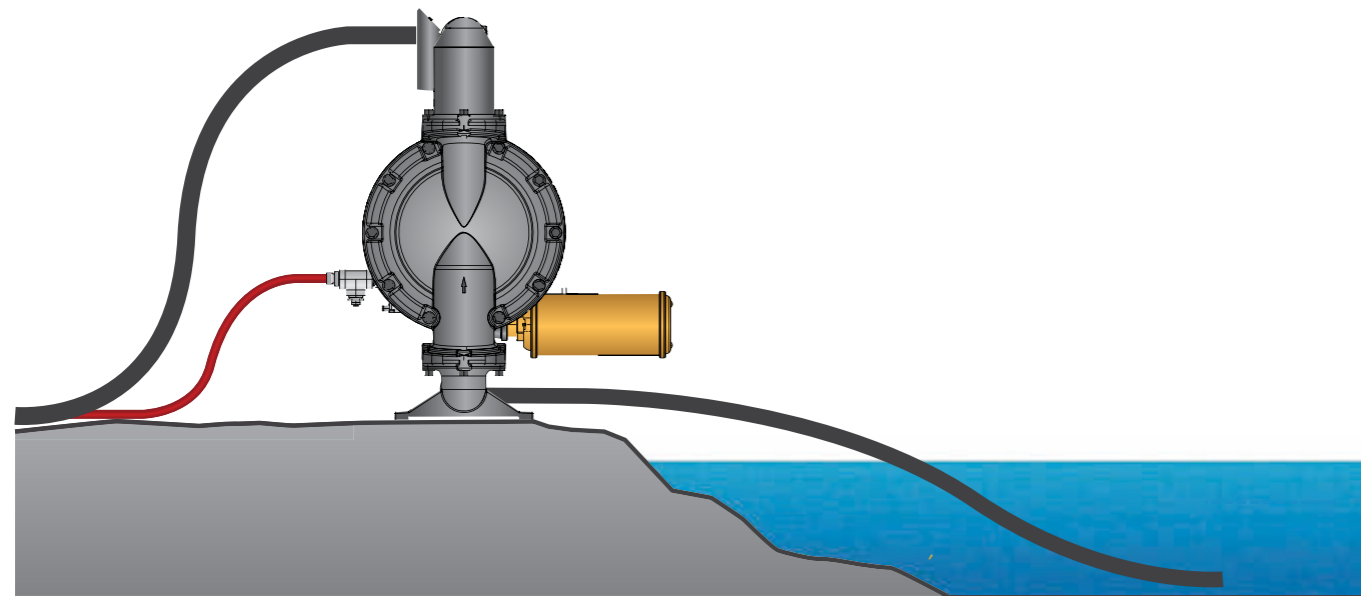
FIXED, MOUNTED OR PORTABLE SANDPIPER PUMPS ARE DESIGNED TO PERFORM IN THE MOST DIFFICULT CONDITIONS

### 1.Suction Cycle

Compressed air fills left inner chamber, causing the opposing diaphragm to create suction, lifting the lower valve ball, pulling in fluid at inlet. Simultaneously, the left chamber is in "Discharge" cycle.

### 2.Discharge Cycle

Compressed air fills right inner chamber, causing upper valve ball to open and discharge fluid. Simultaneously, the left chamber is in "Suction" cycle.



## Installation Versatility

All installations are run-dry capable. Electricity and heat generation are not required for optimum performance.



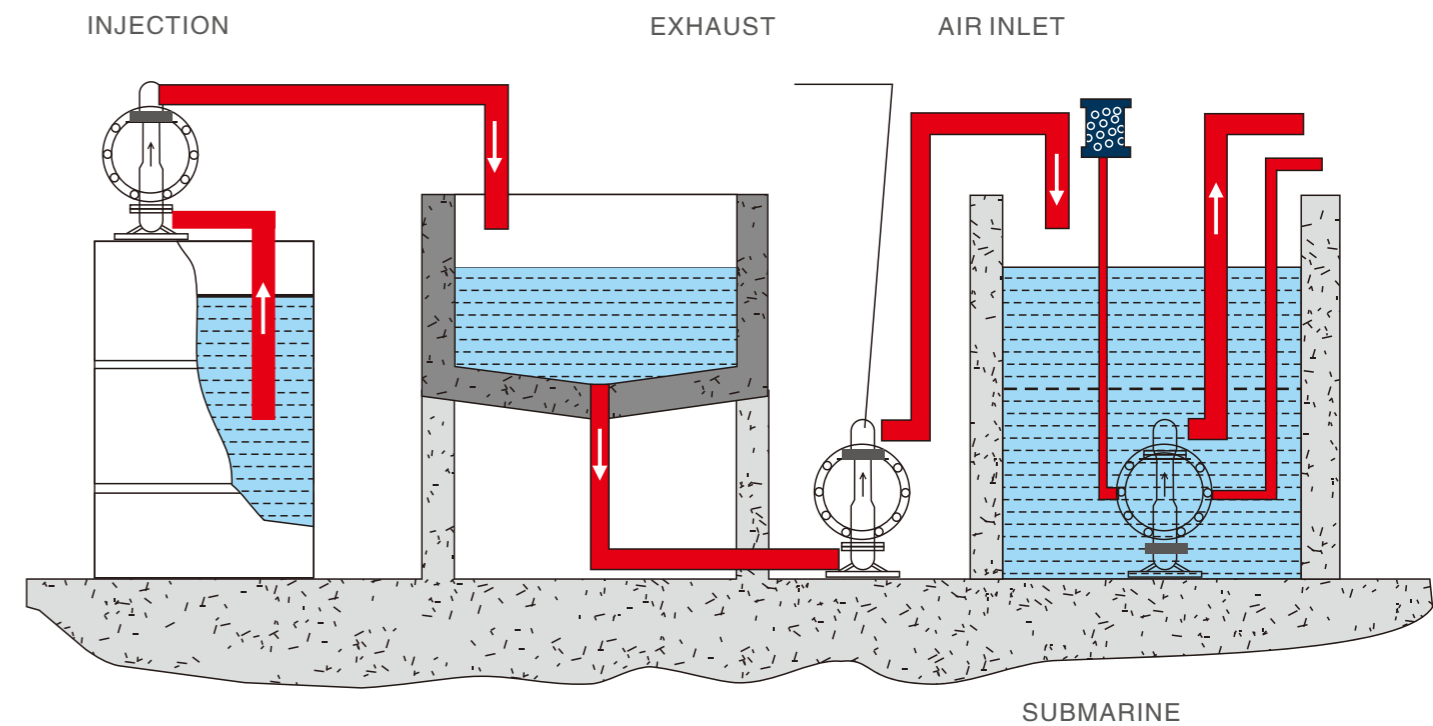
### Flooded Suction

Preferred for viscous fluids Most common application Screened inlet option



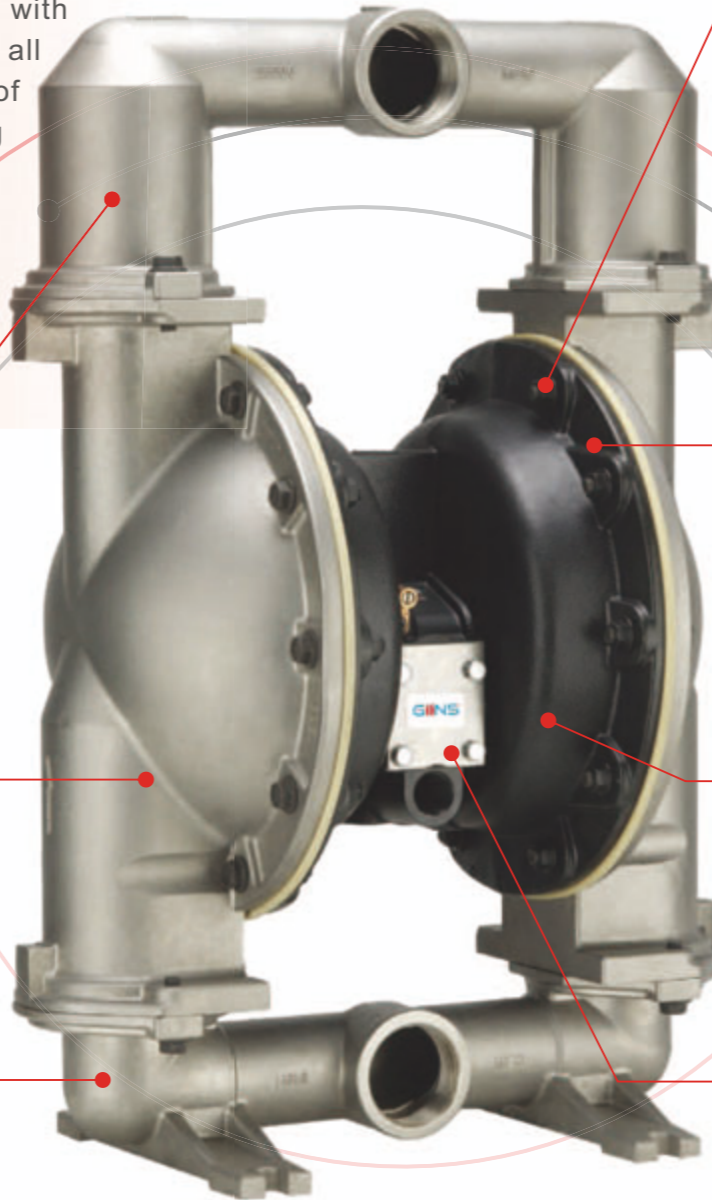
### Submerged

Capable of full submersion Screened inlet option



### Advantages of A series pump

AODD pumps have been favored by process professionals around the world since they started as a utility drain pump/sewage pump. Through various design evolution stages, diaphragm pumps have been favored by process professionals around the world because of their simplicity. Our engineers integrate this basic characteristic with engineering design, production efficiency, compatibility and economy into all aspects of the A series pneumatic diaphragm pump. Economy in the form of fewer parts to repair and fewer labor needs; Economy is embodied in saving energy; Economy is reflected in superior performance. Do you want to reduce the downtime of the pump plug repair, and at the same time to increase productivity? Then, use the B series diaphragm pump!



#### Pump structure

Pump structure materials are aluminum cast iron, stainless steel. Overall durability and corrosion resistance in extremely dirty process applications and environments.

#### inlet/outlet

316SS, Aluminum, cast iron of pump have NPT, BSP or ANSI flange

**durable diaphragm**  
Various diaphragms are available by users

#### The bolt structure .

The full bolt structure enables quick installation and removal .

#### Deadheads safely ,unfrozen.

Internally installed air valve

#### The pump material

We use qualified materials from excellent suppliers.

#### Motor body material options

Choose polypropylene, aluminum or stainless steel motor bodies for best corrosion resistance and compatibility





PERFORMANCE & SPECIFICATIONS

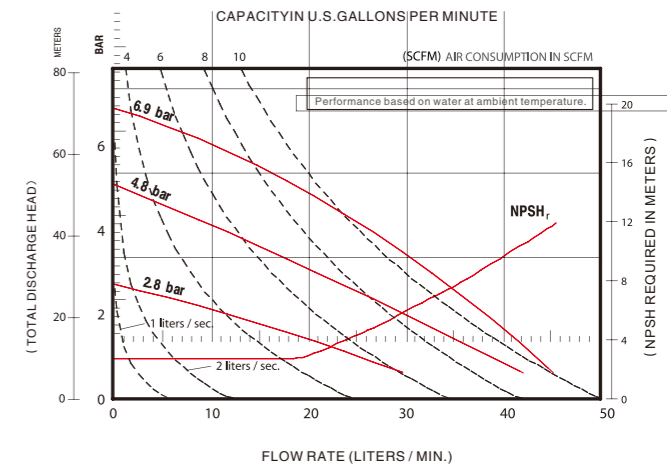
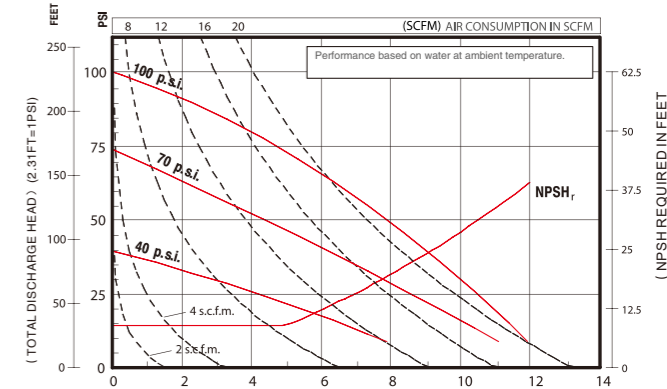
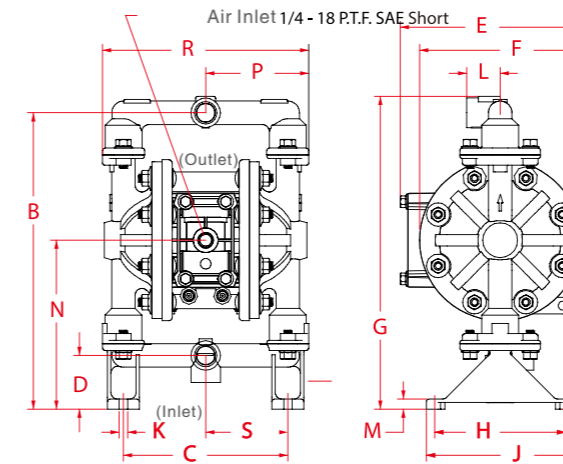
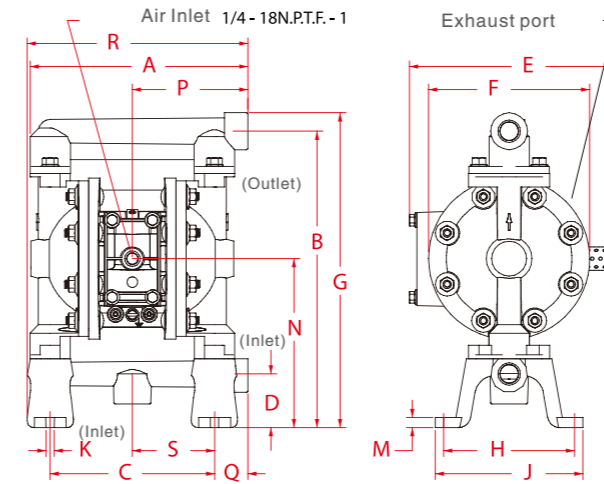
**1/2" Metallic Models—COMPACT SERIES PUMPS**

A Series 1/2" metallic pumps feature big performance in a small package. With flow rates up to 14.4 GPM (54.5 LPM) and a wide range of material and porting configurations.

Ratio	1:1
Maximum Flow gpm (lpm)	12.0 (45.4)
Displacement per cycle gal (l)	.039 (.15)
Air Inlet (Female)	1/4 – 18 P.T.F.SAE Short 1/4 – 18 N.P.T.F-1
Fluid Inlet/Outlet	1/2 – 14 N.P.T.F.-1 Rp 1/2 (1/2 – 14 BSP )
Max. operating pressure psi (bar)	100-psi (6.9-bar)
Suspended solids max. dia in (mm)	3/32-in. (2.4-mm)
Weight (kg)	Aluminum 4.7 316SS(Stainless Steel) 7.5
Maximum dry suction lift ft (m)	ft (m) 15 (4.5)
Sound Level	70 PSI 60 / 75 db(A)



1/2" Metallic Dimensions and Flow Charts



Pump Model	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R	S
	mm inches	mm inches	mm inches	mm inches	mm inches	mm inches	mm inches	mm inches	mm inches	mm inches	mm inches	mm inches	mm inches	mm inches	mm inches	mm inches	mm inches
GA05A	206.0 8-1/8"	280.4 11-1/16"	155.6 6-1/8"	50.8 2"	205.5 8-3/32"	152.4 6"	297.9 11-3/4"	123.8 4-7/8"	139.7 5-1/2"	8.0 5/16"	31.8 1-1/4"	9.5 3/8"	159.9 6-5/16"	109.3 4-5/16"	31.6 1-1/4"	208.5 8-7/32"	77.8 3-1/16"
GA05R	206.0 8-1/8"	280.4 11-1/16"	155.6 6-1/8"	50.8 2"	170.6	152.4 6"	296.0	123.8 4-7/8"	139.7 5-1/2"	8.0 5/16"	31.8 1-1/4"	9.5 3/8"	159.9 6-5/16"	97.4 3-27/32"	31.6 1-1/4"	194.9	77.8 3-1/16"

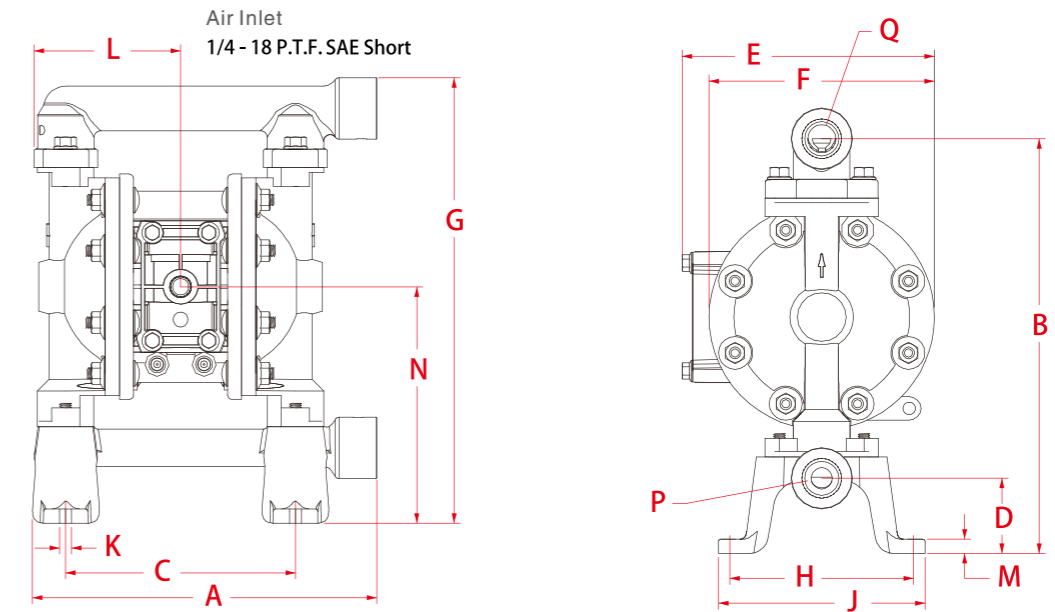
**3/4" Metallic Models—COMPACT SERIES PUMPS**

A Series 3/4" metallic pumps feature big performance in a small package. With flow rates up to 14.8GPM (56LPM), and a wide range of material and porting configurations.

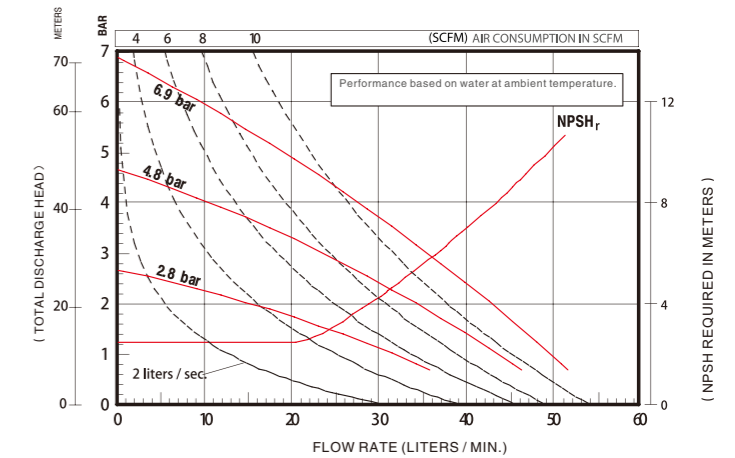
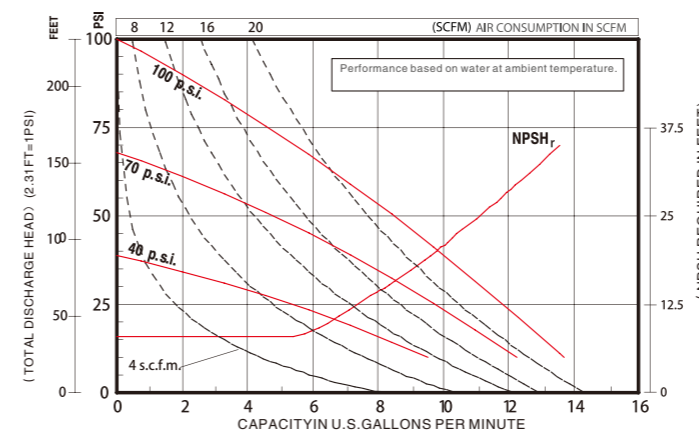


Ratio	1:1
Maximum Flow gpm (lpm)	13.6 (51.5)
Displacement per cycle gal (l)	.030 (.11)
Air Inlet (Female)	1/4 - 18 PTF SAE Short
Fluid Inlet/Outlet	3/4 - 14 N.P.T.F.-2 Rp 3/4 (3/4 - 14 BSP)
Max. operating pressure psi (bar)	100-psi (6.9-bar)
Suspended solids max. dia in (mm)	3/32" (2.4-mm)
Weight (kg)	Aluminum 3.96
Maximum dry suction lift ft (m)	15 (4.5)

**3/4" Metallic Dimensions and Flow Charts**



Pump Model	A	B	C	D	E	F	G	H	J	K	L	M	N
	mm inches	mm inches	mm inches	mm inches	mm inches	mm inches	mm inches	mm inches	mm inches	mm inches	mm inches	mm inches	mm inches
GA10	235.3 9-9/32"	280.4 11-1/16"	155.6 6-1/8"	50.8 2"	170.6 6-23/32"	152.4 6"	301.2 11-7/8"	124.2 4-29/32"	139.7 5-1/2"	8.0 5/16"	99.2 3-29/32"	9.5 3/8"	159.9 6-5/16"
P (Material Inlet)			mm inches		3/4 - 14 N.P.T.F. - 2		Rp 3/4 (3/4 - 14 BSP)						
Q (Material Outlet)			mm inches		3/4 - 14 N.P.T.F. - 2		Rp 3/4 (3/4 - 14 BSP)						



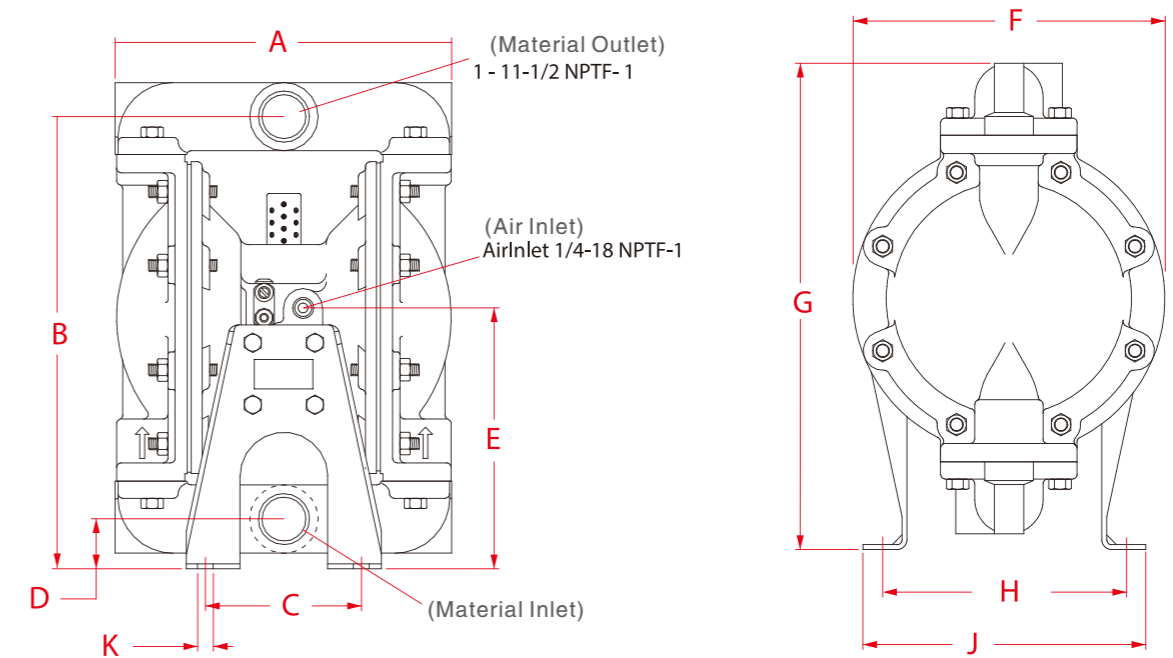
**1" Metallic Models**

A Series 1" metallic diaphragm pumps achieve flow rates of up to 35 GPM (133 LPM) and offer a wide array of material and porting configurations. These pumps are often used for transfer, filling, recirculation and batching in Industrial, Mining, Construction, Chemical and Petrochemical markets.

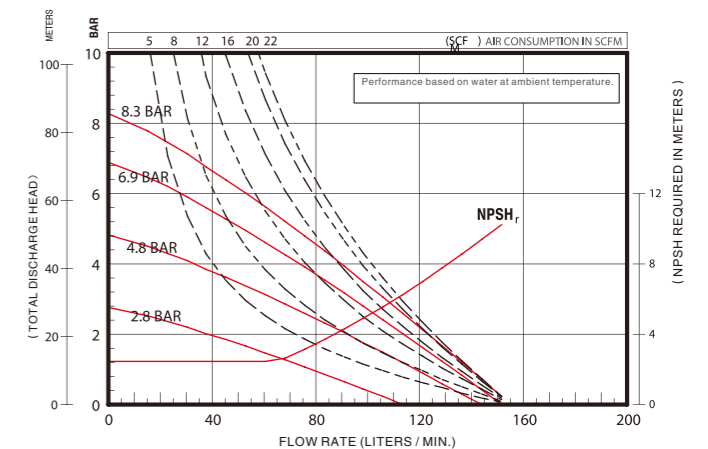
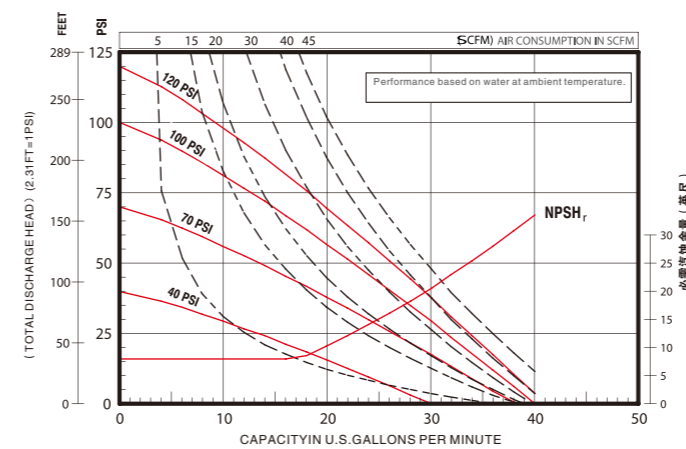
Ratio	1:1	
Maximum Flow gpm (lpm)	35 (133)	
Displacement per cycle gal (l)	.16 (.60)	
Air Inlet (Female)	1/4 -18 NPTF-1	
Fluid Inlet/Outlet	1-11-1/2 NPTF- 1 Rp 1 ( 1-11 BSP )	
Max. operating pressure psi (bar)	120-psi (8.3-bar)	
Suspended solids max. dia in (mm)	1/8-in. (3.2-mm)	
Weight (kg)	Aluminum	8.6
	316SS(Stainless Steel)	16.3
	cast iron	14.1
Note: Add 8 (3.63) for cast iron air motor section		
(Maximum dry suction lift ft (m))	ft (m) 20 (6.1)	



1" Metallic Dimensions and Flow Charts



Pump Model	A	B	C	D	E	F	G	H	J	K
	mm inches	mm inches	mm inches	mm inches	mm inches	mm inches	mm inches	mm inches	mm inches	mm inches
GA1F	217.5 8-9/16"	294 11-9/16"	102 4"	32 1-1/4"	165 6-1/2"	203 8"	318 12-1/2"	159 6-1/4"	186 7-5/16"	10 13/32"



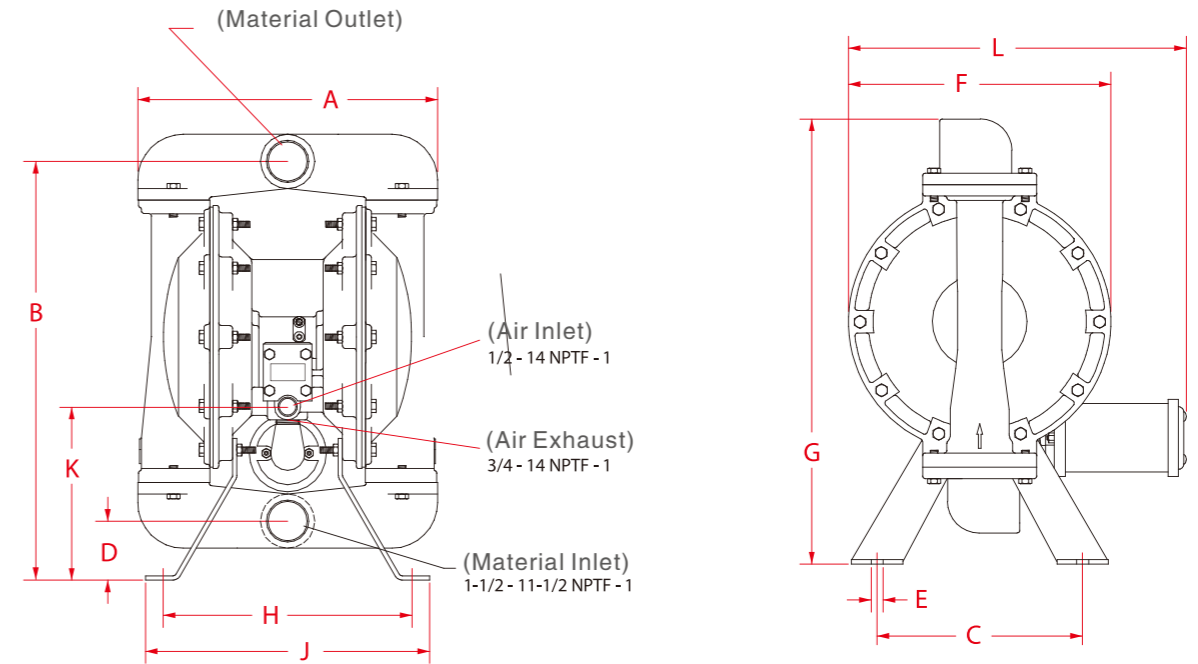
**1-1/2" Metallic Models**

A Series 1-1/2" metallic diaphragm pumps achieve flow rates of up to 90 GPM (340.7 LPM) and offer a wide array of material and porting configurations. These pumps are often used for transfer, filling, recirculation and batching in Paint, Oil & Gas, Mining, Construction, Chemical and Petrochemical markets.

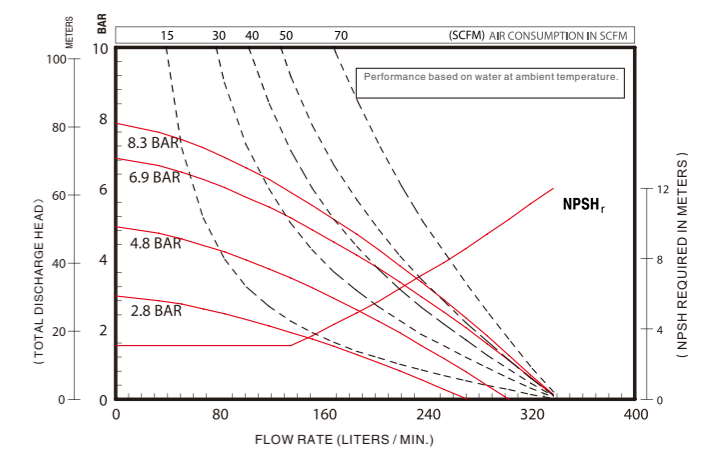
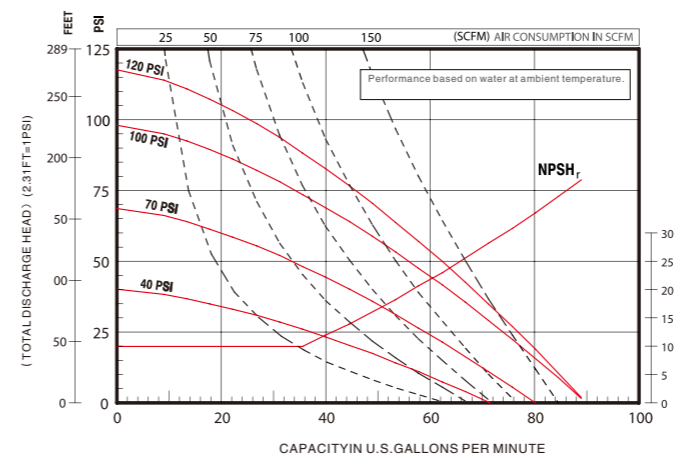
Ratio	1:1	
Maximum Flow gpm (lpm)	90 (340.7)	
Displacement per cycle gal (l)	.64 (2.4)	
Air Inlet (Female)	1/2-14 NPTF-1	
Fluid Inlet/Outlet	1-1/2 11-1/2 NPTF - 1	
Max. operating pressure psi (bar)	120-psi (8.3-bar)	
Suspended solids max. dia in (mm)	1/4-inch (6.4-mm)	
Weight (kg)	Aluminum	23.4
	316SS(Stainless Steel)	38.3
	cast iron	36.1
Note: Add 23 (10.4) for cast iron air motor section		
(Maximum dry suction lift ft (m))	ft (m) 19 (5.8)	



1-1/2" Metallic Dimensions and Flow Charts



Pump Model	A	B	C	D	E	F	G	H	J	K	L
	mm inches	mm inches	mm inches	mm inches	mm inches	mm inches	mm inches	mm inches	mm inches	mm inches	mm inches
GA15	333 13-1/8"	467 18-3/8"	229 9"	70 2-3/4"	14 1/2"	292 11-1/2"	498 19-5/8"	273 10-3/4"	305 12"	194 7-5/8"	376 14-13/16"



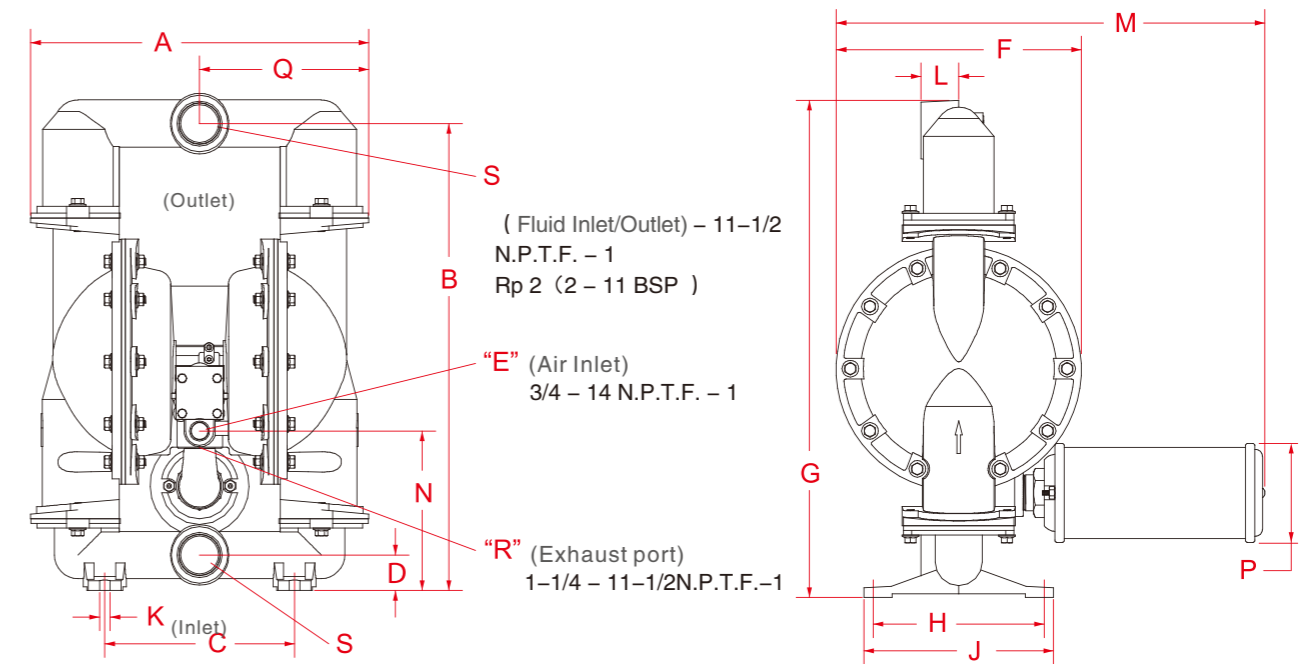
**2" Metallic Models**

A Series 2" metallic pumps achieve flow rates of up to 172 GPM (651 LPM) and offer a wide array of material and porting configurations. These pumps are often used for transfer, filling, recirculation and batching in Ceramic, Paint, Oil and Gas, Mining, Construction, Chemical and Petrochemical markets.

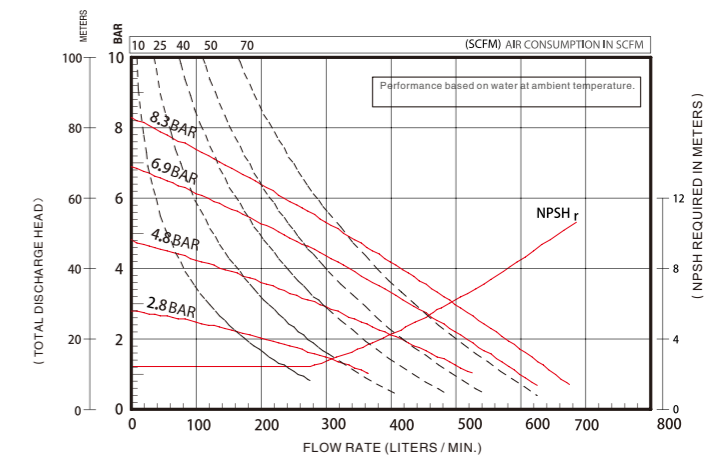
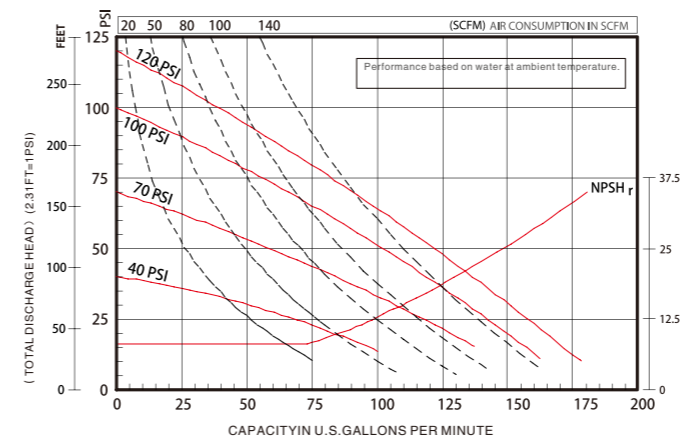
Ratio	1:1	
Maximum Flow gpm (lpm)	172 (651)	
Displacement per cycle gal (l)	1.4 (5.3)	
Air Inlet (Female)	3/4-14 NPTF2	
Fluid Inlet/Outlet	2-11-12 NPTF-1	
Max. operating pressure psi (bar)	120-psi (8.3-bar)	
Suspended solids max. dia in (mm)	1/4-inch (6.4-mm)	
Weight (kg)	Aluminum	29.6
	316SS (Stainless Steel)	58.9
	cast iron	58.9
Maximum dry suction lift ft (m)	ft (m) 27.2 (8.3)	



2" Metallic Dimensions and Flow Charts



Pump Model	A	B	C	D	F	G	H	J	K	L	M	N	P	Q
	mm inches	mm inches	mm inches	mm inches	mm inches	mm inches	mm inches	mm inches	mm inches	mm inches	mm inches	mm inches	mm inches	mm inches
GA20	455.1 17-15/16"	628.7 24-3/4"	255.6 10-1/16"	47.6 1-7/8"	330.2 13"	669.5 26-3/8"	230.2 9-1/16"	255.6 10-1/16"	143.3 9/16"	50.8 2"	577.3 22-3/4"	214.6 8-15/32"	133.4 5-1/4"	227.6 8-13/32"



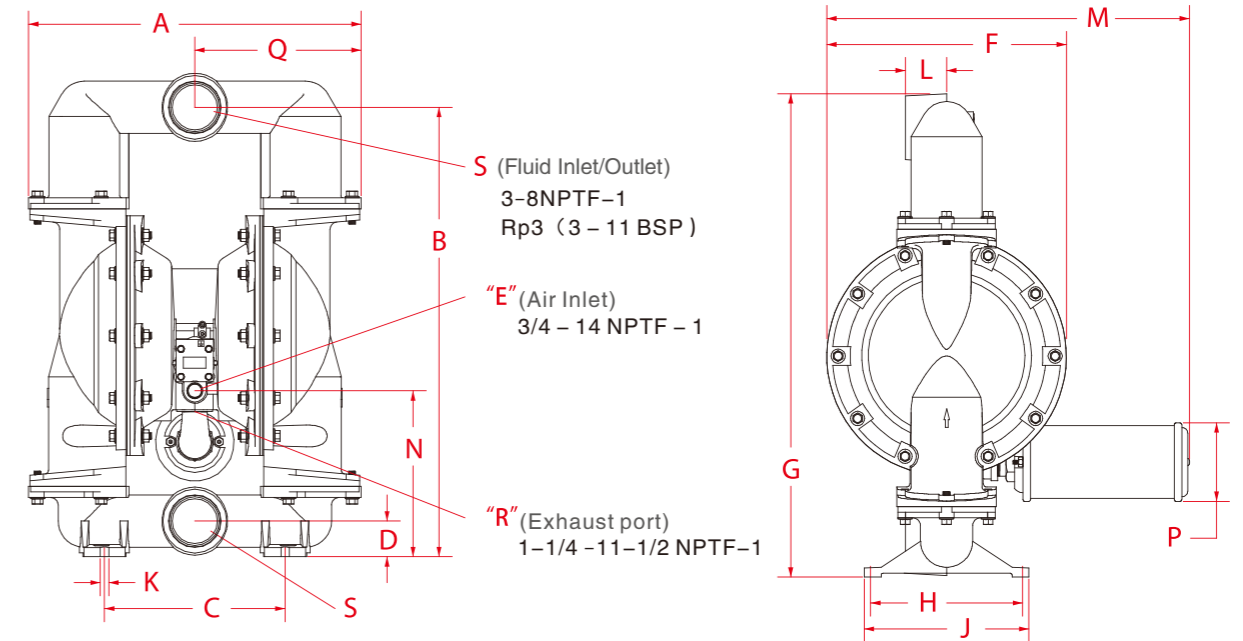
**3" Metallic Models**

A Series 3" metallic diaphragm pumps achieve flow rates of up to 237 GPM (897 LPM) and offer a wide array of material and porting configurations. These pumps are often used for transfer, filling, recirculation and batching in Ceramic, Paint, Oil & Gas, Mining, Construction, Chemical and Petrochemical markets

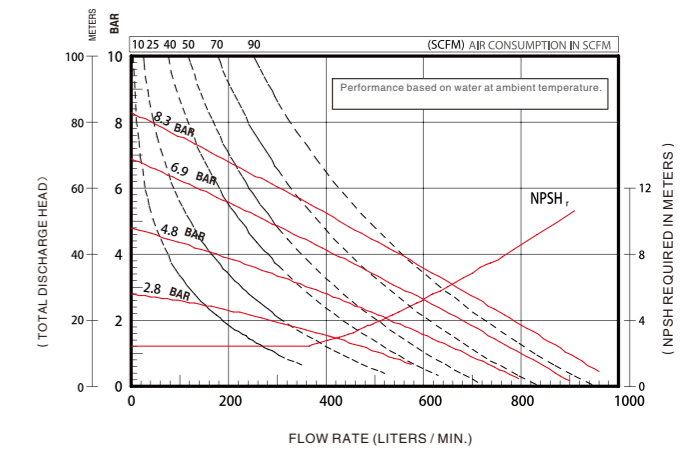
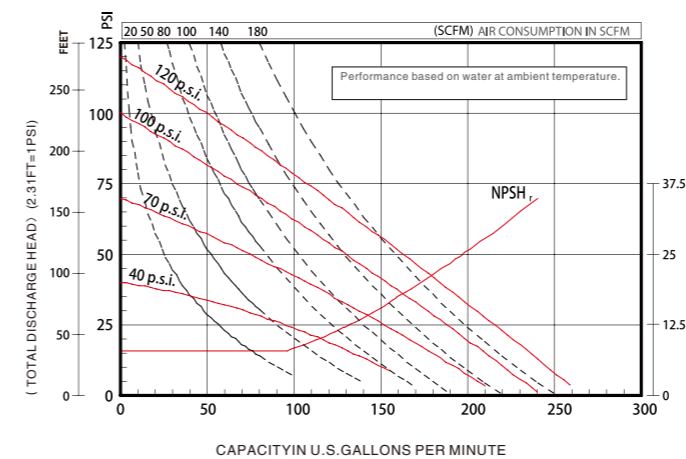
Ratio	1:1	
Maximum Flow gpm (lpm)	237 (897)	
Displacement per cycle gal (l)	2.65 (10.03)	
Air Inlet (Female)	3/4-14 NPTF2	
Fluid Inlet/Outlet	3 - 8 NPTF - 1 Rp3 (3 - 11 BSP )	
Max. operating pressure psi (bar)	120-psi (8.3-bar)	
Suspended solids max. dia in (mm)	3/8-in. (9.5-mm)	
Weight (kg)	Aluminum	49.8
	316SS(Stainless Steel)	100.8
	cast iron	96.7
Maximum dry suction lift ft (m)	ft (m) 17.6 (5.4)	



3" Metallic Dimensions and Flow Charts



Pump Model	A	B	C	D	F	G	H	J	K	L	M	N	P	Q
	mm inches	mm inches	mm inches	mm inches	mm inches	mm inches	mm inches	mm inches	mm inches	mm inches	mm inches	mm inches	mm inches	mm inches
GA30	563.9 22-7/32"	762. 30"	306.4 12-1/16"	60.3 2-3/8"	406.4 16"	819.8	258.0 10-5/32"	279.4 11"	14.3 9/16"	69.9 2-3/4"	620.7 24-7/16"	281.4 11-3/3"	133.4 5-1/4"	281.9 11-1/8"



**PERFORMANCE & SPECIFICATIONS**

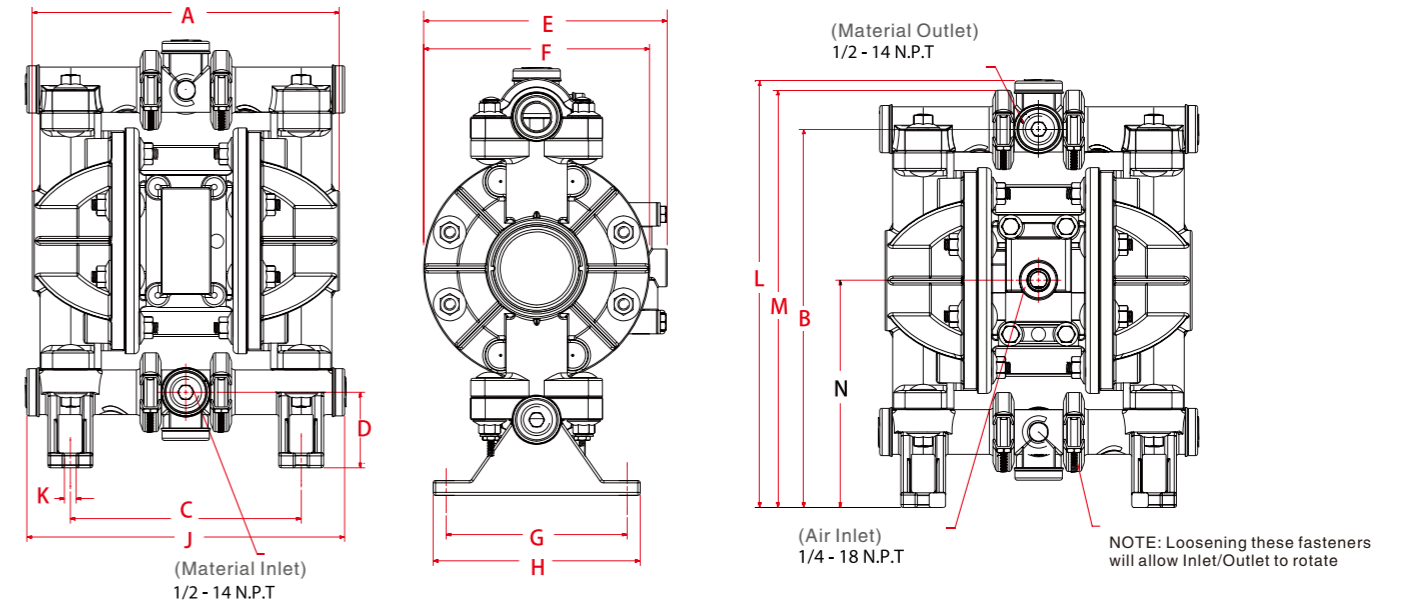
**1/2" Non-Metallic Models—COMPACT SERIES PUMPS**

A Series 1/2" classic pumps feature big performance in a small package. With flow rates up to 13 GPM (49.2 LPM) and a wide range of material and porting configurations.

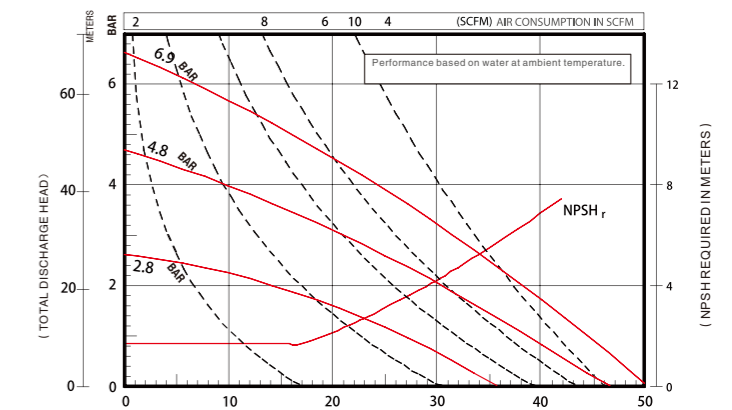
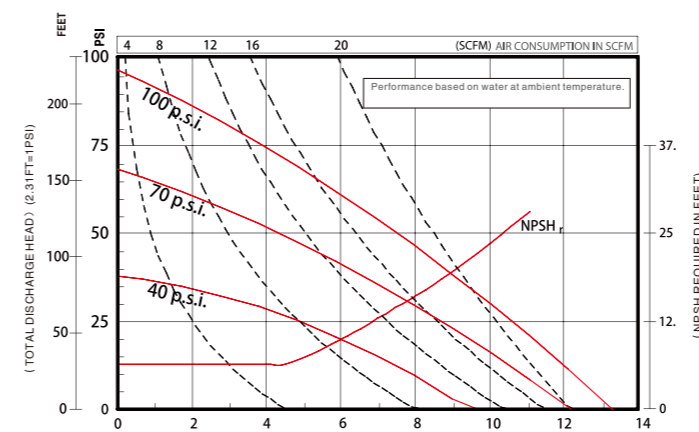
Ratio	1:1	
Maximum Flow gpm (lpm)	ball 13(49.2)	duckbill10(37.9)
Displacement per cycle gal (l)	ball.04 (.15)	duckbill032 (0.12)
Air Inlet (Female)	1/4 - 18 N.P.T.F.- 1	
(Fluid Inlet/Outlet)	1/2 - 14 N.P.T.F.- 1	
Max. operating pressure psi (bar)	100-psi (6.9-bar)	
Suspended solids max. dia in (mm)	3/32-in. (2.4-mm) duckbill fibers	
Weight (kg)	Polypropylene	3.3
	Groundable Acetal	4.0
	Kynar PVDF)	4.3
Maximum dry suction lift ft (m)	ft (m) 15 (4.5)	
Muffler	Integral, Included	



1/2" Non-Metallic Dimensions and Flow Charts



Pump Model	A	B	C	D	E	F	G	H	J	K	L	M	N
	mm inches	mm inches	mm inches	mm inches	mm inches	mm inches	mm inches	mm inches	mm inches	mm inches	mm inches	mm inches	mm inches
GA05	207.1 8.155"	255 10.051"	155.8 6.135"	51 2.005"	164 6.467"	152 6.000"	122.2 4.812"	140 5.500"	215 8.445"	8 0.312"	288 11.331"	282 11.084"	153 6.040"



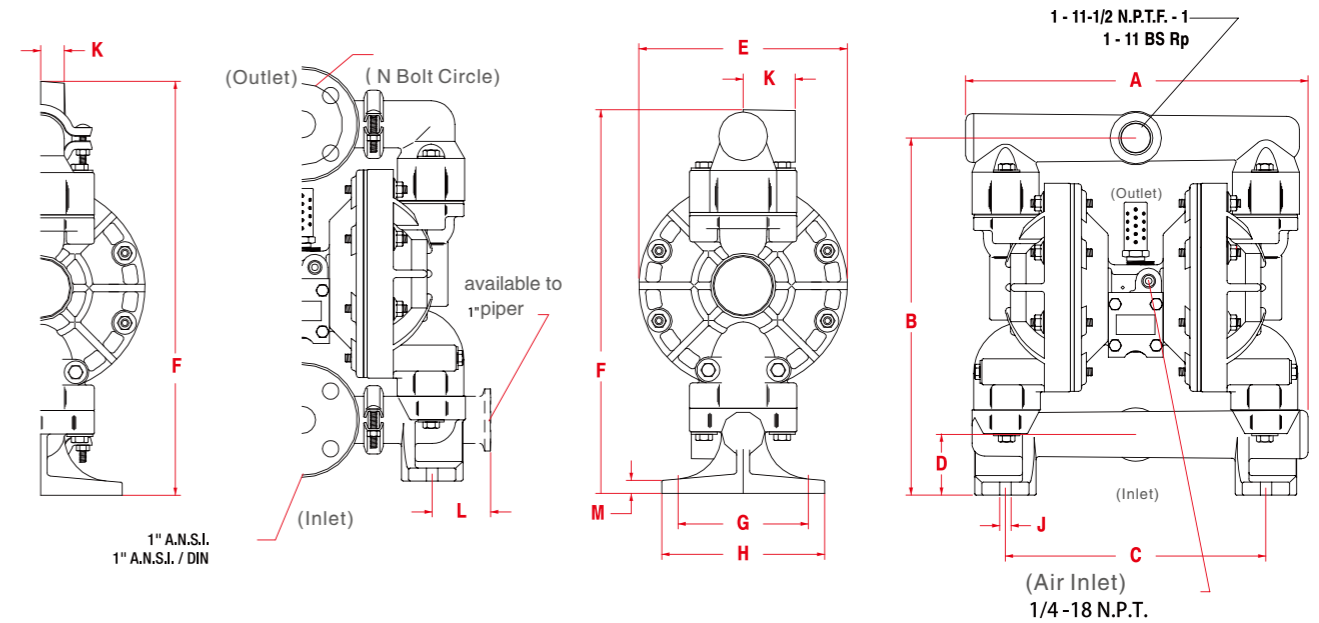
**1" Non-Metallic Models**

A Series 1" non-metallic diaphragm pumps are a versatile solution for numerous applications. Our PRO 1" models achieve flow rates of up to 47 GPM (178 LPM) and offer a wide array of material and porting configurations. These pumps are often used for transfer, filling, recirculation and supply in Chemical, Industrial and Water/Wastewater treatment markets.

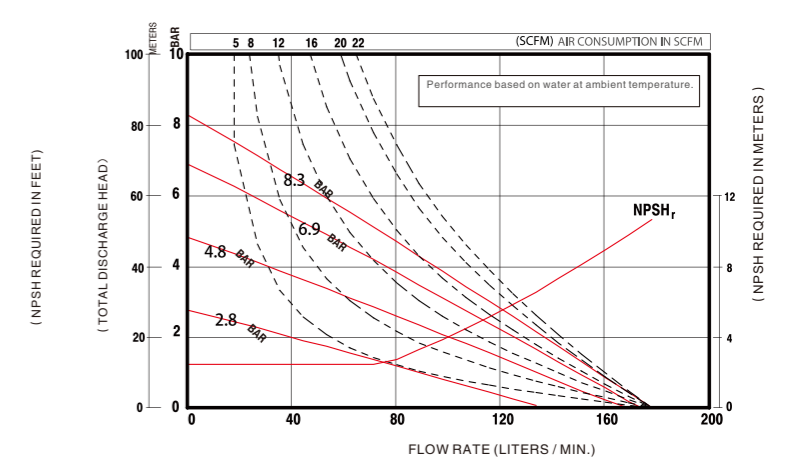
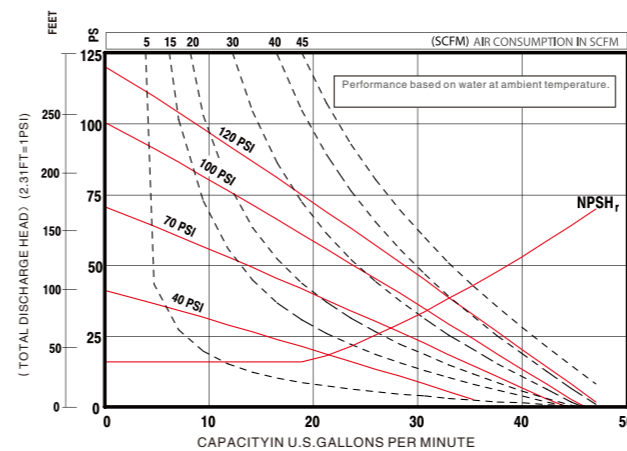
Ratio	1:1
Maximum Flow gpm (lpm)	47 (177.9)
Displacement per cycle gal (l)	.17 (0.64)
Air Inlet (Female)	1/4 - 18 NPT
Fluid Inlet/Outlet	1 - 11-1/2 N.P.T.F. - 1 Rp 1 ( 1 - 11 BSP )" ANSI/DIN
Max. operating pressure psi (bar)	120-psi (8.3-bar)
Suspended solids max. dia in (mm)	1/8-inch (3.2-mm)
(Weight (kg)	1AF-, 1AJ-, 1AL- 9.2 1BF-, 1BJ-, 1BL- 13.1
Maximum dry suction lift ft (m)	ft (m) 15 (4.6)



1" Non-Metallic Dimensions and Flow Charts



Pump Model	A	B	C	D	E	F	G	H	J	K	L	M	N
	mm inches	mm inches	mm inches	mm inches	mm inches	mm inches	mm inches	mm inches	mm inches	mm inches	mm inches	mm inches	mm inches
GA1F	321 12-21/32"	349 13-25/32"	255 10-1/16"	60 2-3/8"	204 8-1/16"	406 16"	128 5-1/32"	160 6-9/32"	11 7/16"	23 15/16"	57 2-9/32"	13 1/2"	80 3.140"
	334 13-5/32"	350 13-25/32"	255 10-1/16"	59 2-11/32"	204 8-1/16"	376 14-13/16"	128 5-1/32"	160 6-9/32"	11 7/16"	51 2"		13 1/2"	
	334 13-5/32"	350 13-25/32"	255 10-1/16"	59 2-11/32"	204 8-1/16"	406 16"	128 5-1/32"	160 6-9/32"	11 7/16"	26 1-1/32"		13 1/2"	80 3.140"



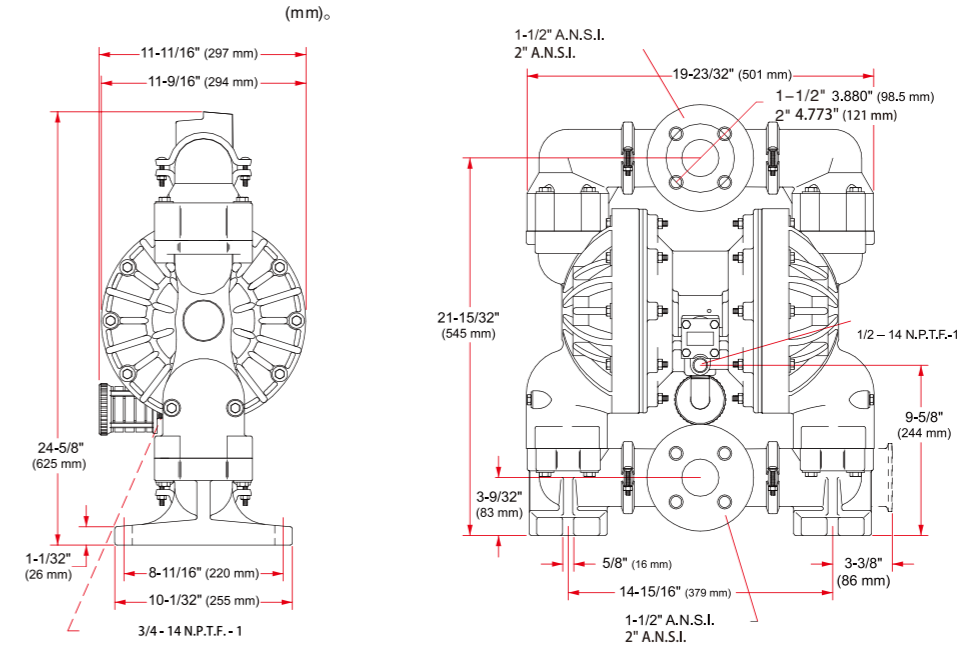


**1-1/2"、2"Non-Metallic Models**

A Series 1-1/2"、2" non-metallic diaphragm pumps are frequently used in transfer, filling, recirculation and supply in Chemical, Industrial and Water/Wastewater treatment markets. Our 1-1/2" models achieve flow rates of up to 100 GPM (378.5 LPM) and 2" non-metallic pumps achieve flow rates of up to 145 GPM (548.8 LPM).

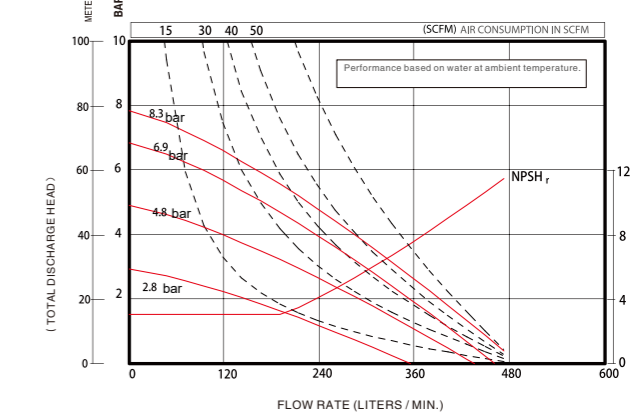
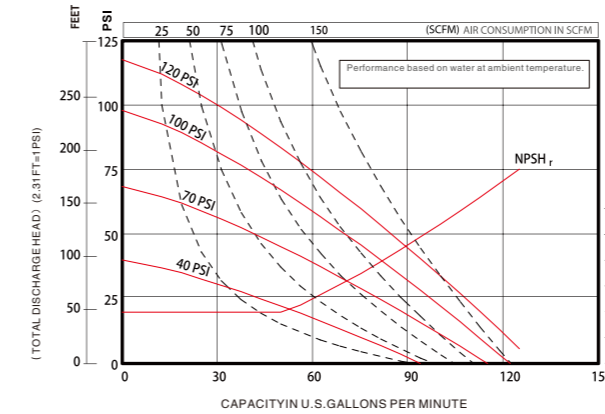


**1-1/2"、2"Non-Metallic Dimensions and Flow Charts**

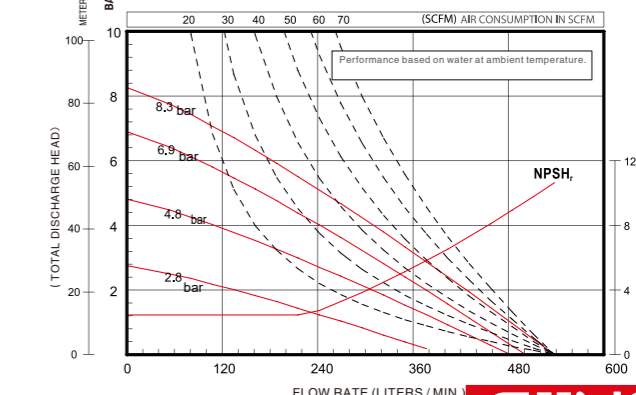
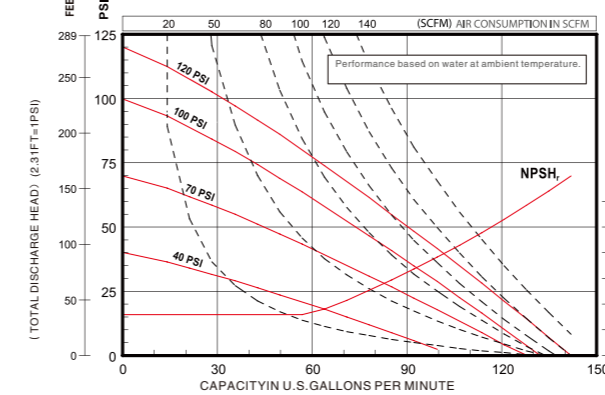


Ratio	1:1	1:1
Maximum Flow gpm (lpm)	100 (378.5)	145 (548.8)
Displacement per cycle gal (l)	.67 (2.54)	.72 (2.7)
Air Inlet (Female)	1/2 - 14 NPTF - 1	1/2 - 14 NPTF - 1
Fluid Inlet/Outlet	1-1/2" ANSI/DIN	2" ANSI/DIN
Max. operating pressure psi (bar)	120-psi (8.3-bar)	120-psi (8.3-bar)
Suspended solids max. dia in (mm)	1/4-in. (6.4-mm)	1/4-in. (6.4-mm)
(Weight (kg)	28.1Note: Add 23 (10.4) for cast iron air motor section	28.1Note: Add 23 (10.4) for cast iron air motor section
Maximum dry suction lift ft (	ft (m) 14 (4.27)	ft (m) 14 (4.27)

**1-1/2"Non-Metallic Models**



**2"Non-Metallic Models**

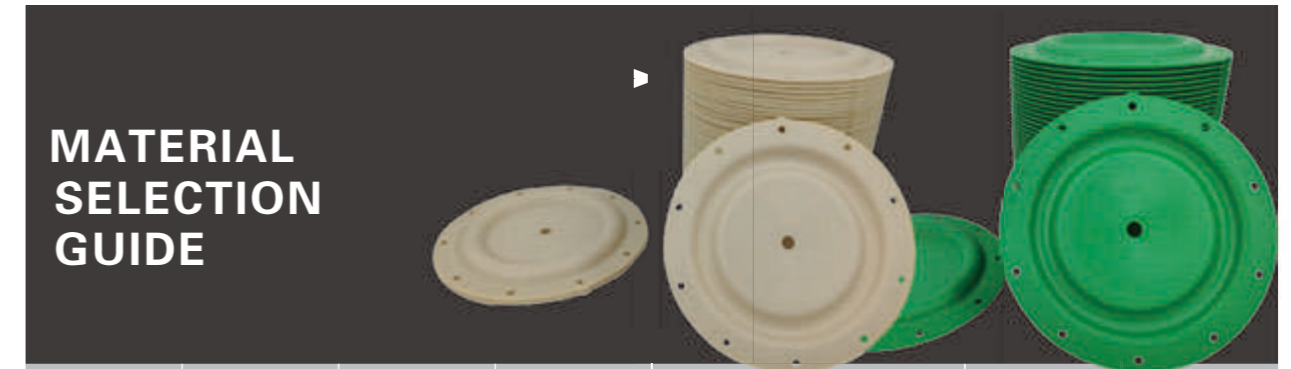


**DIAPHRAGM SELECTION**

GET THE MAXIMUM LONGEVITY OUT OF YOUR PUMP BY SELECTING THE APPROPRIATE DIAPHRAGM FOR YOUR APPLICATION

Diaphragm Material

Material	Material Profile	Operating Temp	
		(MIN)	(MAX)
EPDM	Very good water and chemical resistance. Has poor resistance to oils and solvents, but is fair in ketones and alcohols.	280° F 138° C	-40° F -40° C
FKM	Shows good resistance to a wide range of oils and solvents; especially all aliphatic, aromatic and halogenated hydrocarbons, acids, animal and vegetable oils. Hot water or hot aqueous solutions (over 70° F) will attack FKM.	350° F 177° C	-40° F -40° C
Hytrell	Good on acids, bases, amines and glycols at room temperatures only.	220° F 104° C	-20° F -29° C
Neoprene	All purpose. Resistance to vegetable oils. Generally not affected by moderate chemicals, fats, greases and many oils and solvents. Generally attacked by strong oxidizing acids, ketones, esters and nitro hydrocarbons and chlorinated aromatic hydrocarbons.	200° F 93° C	-10° F -23° C
Nitrile	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.	190° F 88° C	-10° F -23° C
Nylon	6/6 High strength and toughness over a wide temperature range. Moderate to good resistance to fuels, oils and chemicals.	180° F 82° C	32° F 0° C
Santoprene	Injection molded thermoplastic elastomer with no fabric layer. Long mechanical flex life. Excellent abrasion resistance.	275° F 135° C	-40° F -40° C
PTFE	Chemically inert, virtually impervious. Very few chemicals are known to chemically react 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 temp.	220° F 104° C	-35° F -37° C



Diaphragm Material	Purchase Price	Flex Life	Abrasion Resistance	Chemical Resistance	Temp. Limitations	Temp. Max. Operating	Temp. Min. Operating
EPDM	✓	✓	✓	✓	+	280F/138C	-40F/-40C
FKM	!	X	!	+	+	350F/177C	-40F/-40C
Hytrell®	✓	+	+	✓	✓	220F/104C	-20F/-29C
Neoprene	+	+	✓	X	✓	200F/93C	-10F/-23C
NBR	+	+	✓	!	✓	190F/88C	-10F/-23C
Santoprene®	+	+	+	+	+	275F/135C	-40F/-40C
Urethane	+	✓	!	X	!	150F/66C	32F/0C
PTFE	!	✓	!	+	!	176F/80C	14F/-10C
PTFE	!	!	X	+	✓	220F/104C	-35F/-37C

+=(Best Type)     
 ✓=(Suitable)     
 !=(Limitations)     
 X=(Not Recommended)

Santoprene is a registered tradename of Exxon Mobil Corp. Hytrell is a registered tradename of E. A. DuPont.

For reference only, consult distributor.