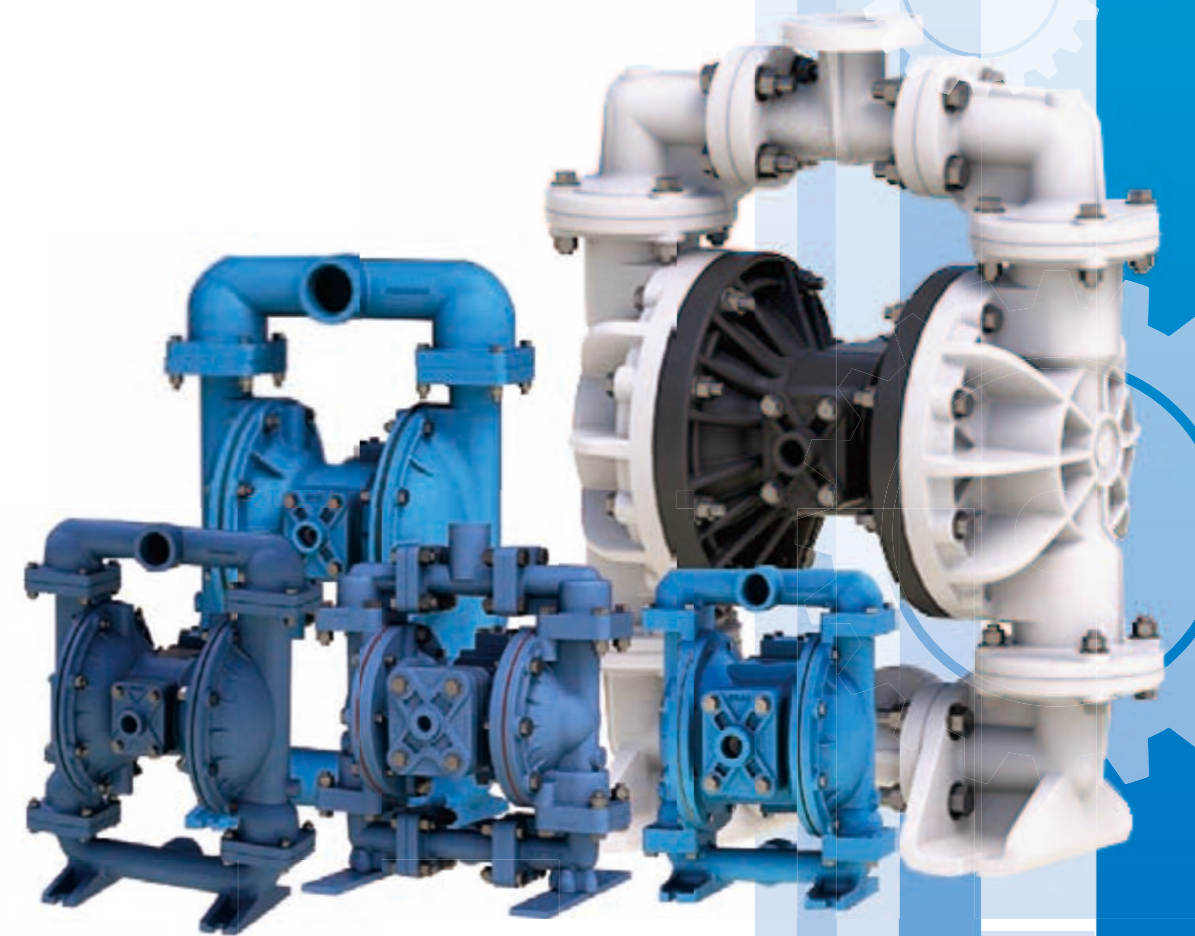


B Series AODD PUMP



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

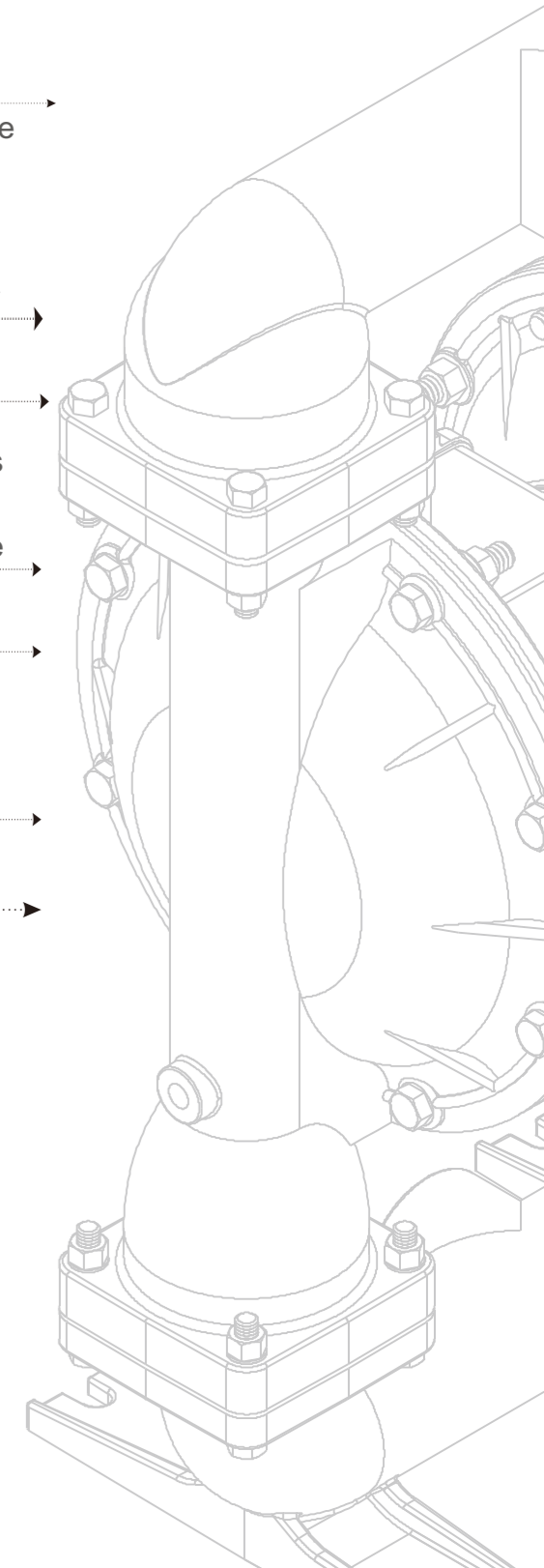
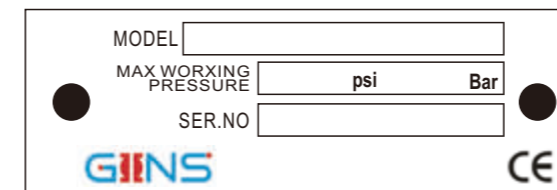
Porting Options

- 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

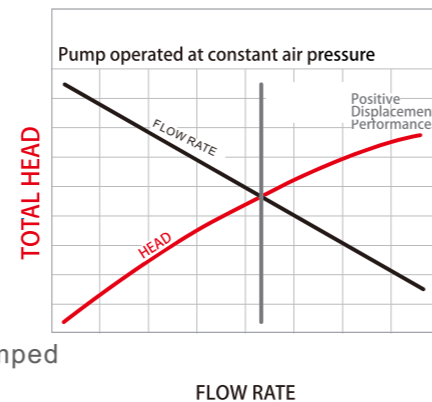
PERFORMING IN THE MOST CHALLENGING APPLICATIONS, AODD PUMPS DELIVER UNIQUE BENEFITS THAT ARE UNRIVALED BY OTHER PUMP TECHNOLOGIES

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 controls
-  Optional bottom discharge porting depending on fluid characteristics

Unique Performance



AODD VS OTHERS	Flow Principle						
	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)

AODD Pump Operation & Installation

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

AODD Pump Operation



=Compressed Air

=Pumped Fluid

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.

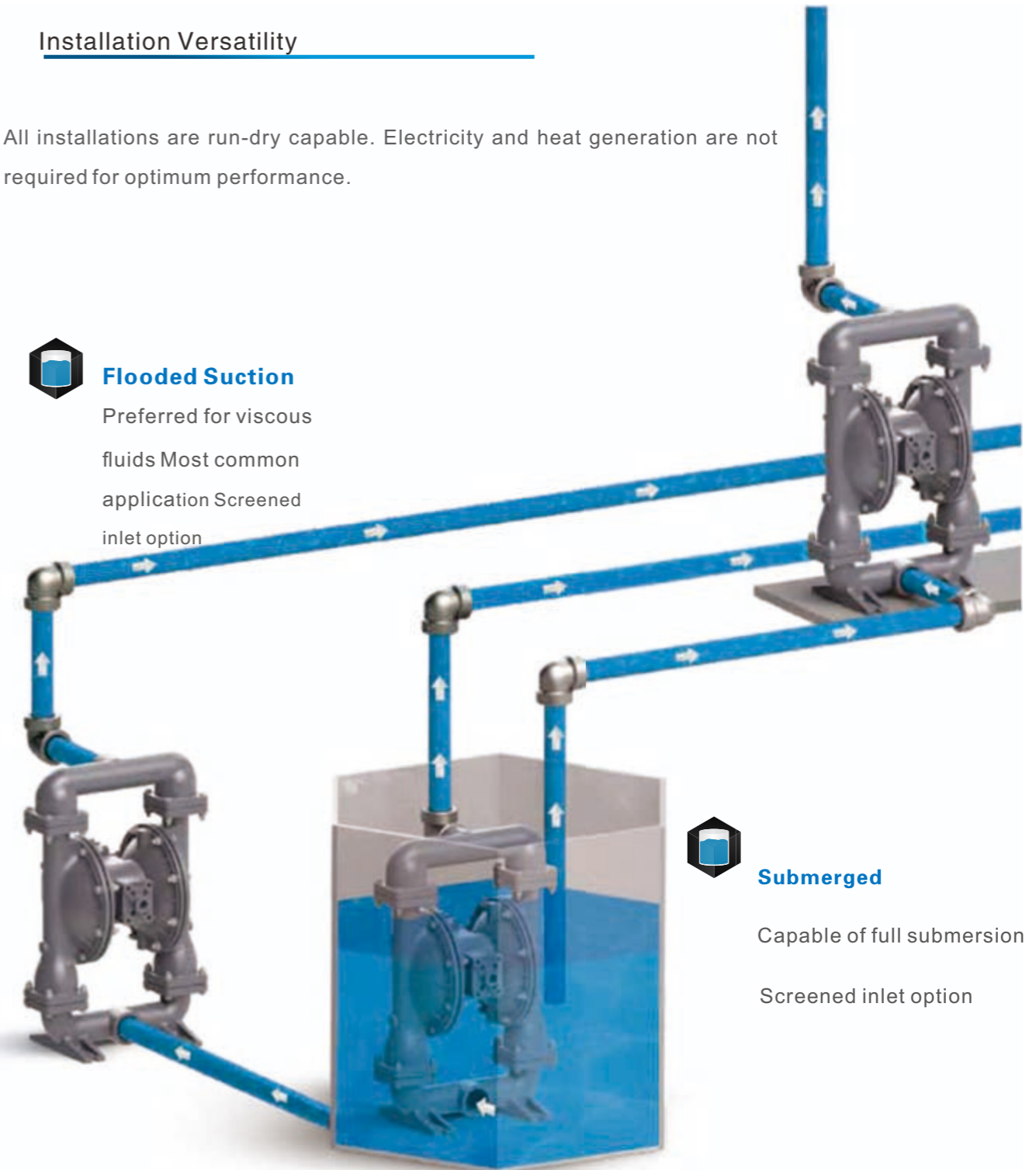
Installation Versatility

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



Flooded Suction

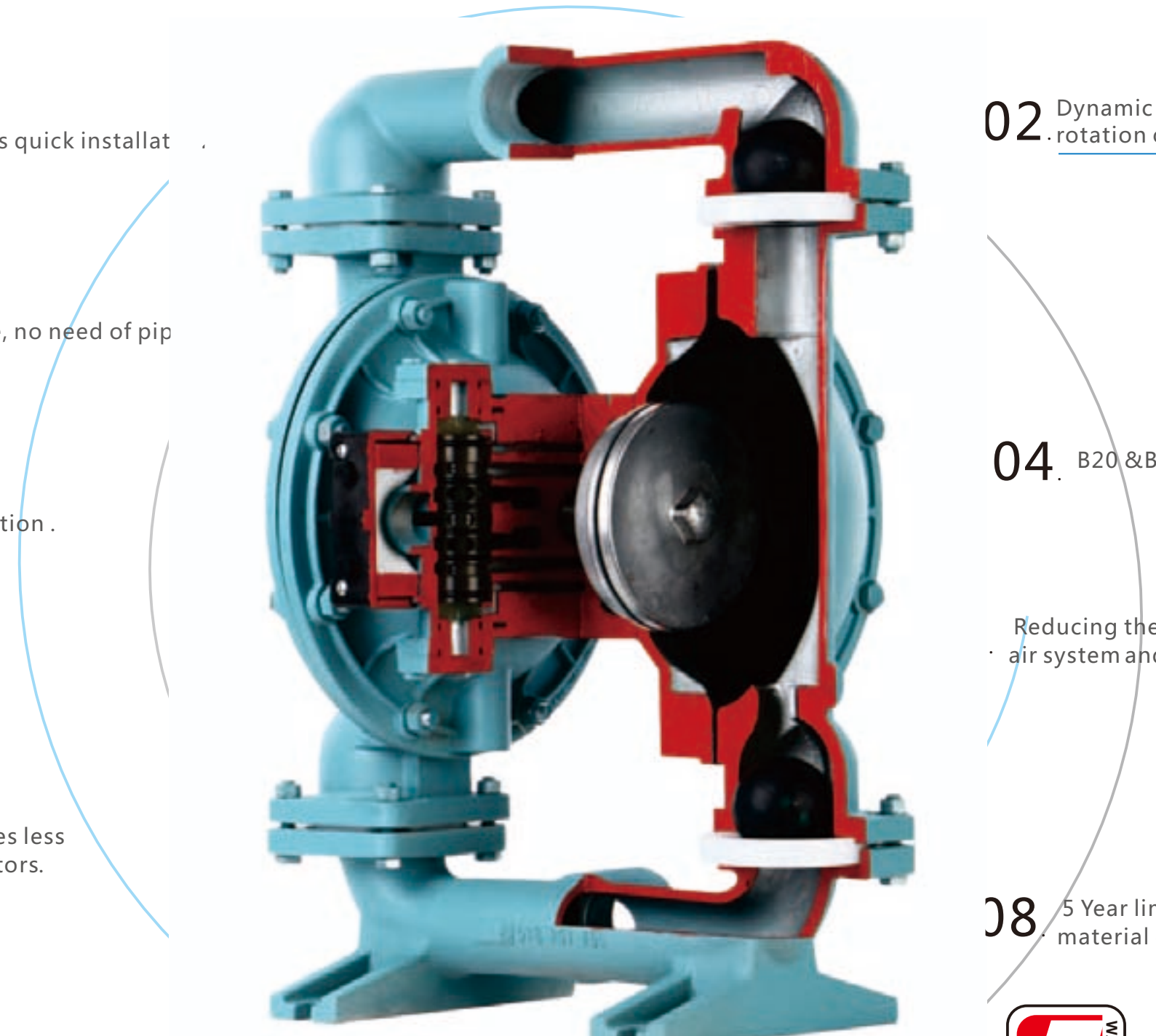
Preferred for viscous fluids Most common application Screened inlet option



Submerged

Capable of full submersion
 Screened inlet option

Advantages of B series pump

- 
- 01. The full bolt structure enables quick installation and removal.
 - 02. Dynamic Manifold Connections 90° - 180° rotation options.
 - 03. No fear of pipe blockage, no need of pipe protection.
 - 04. B20 & B30 The leader in Max flow.
Reducing the load on your compressed air system and lowering operating costs.
 - 05. Air valve install outside on the pump, without oil lubrication operation.
 - 06. 5 Year limited product warranty for defects in material or workmanship)
 - 07. Serviceability: At least 28 minutes less maintenance time than competitors.
 - 08. 5 Year limited product warranty for defects in material or workmanship)



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.



PUMP SELECTION

A FUNDAMENTAL REVIEW OF FLUID CHARACTERISTICS, INTENDED INSTALLATION & DUTY REQUIREMENTS ARE RECOMMENDED FOR “BEST FIT” DESIGN SELECTIONS

Pump Characteristics

Whether measuring mean time between failures, repairs, changes or maintenance, this design selection best practice will ensure the longest pump life

(SIGNATURE CONFIGURATIONS)		(Metallic Pump)	Non-metallic Pump)
Specifications	Suction / Discharge Port Sizes	½" through 3"	½" through 3"
	Max Flow Rate Per Minut	285 Gal. (1079 L)	280 Gal. (1060 L)
	Max Discharge Heads	289' (88m)of water @125psi	231' (70m)of water @100psi
	Max Displacement Per Stroke	0.94 Gal. (3.56 L)	0.9 Gal. (3.41 L)
	Max Dry Prime)	20' (6m)	20' (6m)
	Max Solids Handling	.38" (10mm)	.71" (18mm)
Fluid Characteristics	Water	+	+
	Suspended Solids	+	✓
	Non-Suspended Solids	!	✗
	Line Size Solids	✗	✗
	Sludge / Slurry	✓	!
	High Viscosity (Flowable Fluids))	✓	✓
	Erosion / Abrasive Fluids	High	✓
Moderate		✓	!
Low		+	✓
Corrosion	✓	+	
Installation	Permanent	✓	✓
	Portable	+	+
	Containment / Prevention	!	!
	Flooded Suction	✓	✓
	Suction Lift	✓	✓
	Submerged	✓	!
Duty	Intermittent / On-Demand	+	✓
	Continuous	✓	+

+ =Best Type
 ✓ =Suitable
 ! = Limitations
 ✗ = Not Recommended

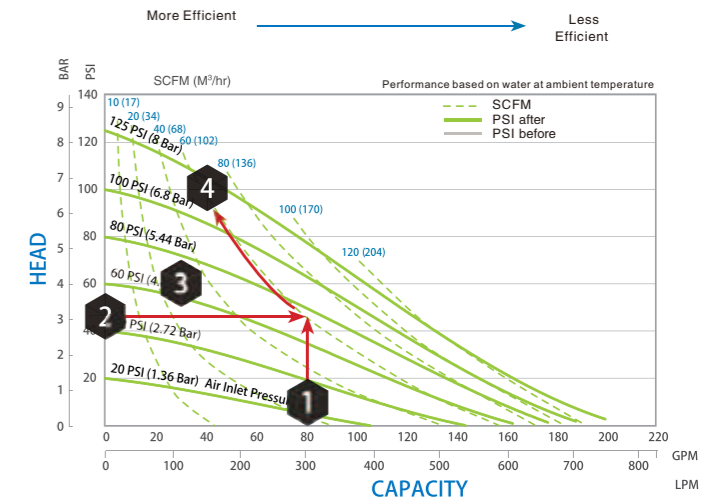
Pump Performance

- 1** Select Flow Rate (GPM) Example: 80 GPM
- 2** Determine Discharge Head (PSI) Example: 45 PSI
- 3** See Inlet Air Pressure (PSI) Example: 78 PSI
- 4** See Air Consumption (SCFM) Example: 60 SCFM

Selection Tip: Size-Up

the impact of sizing up your pump to increase energy savings and reduce wear on the pump to measurably reduce total cost of ownership

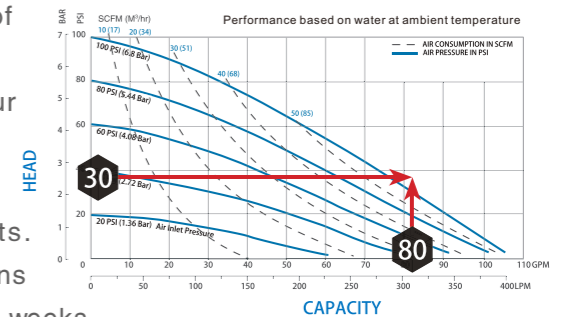
2" AODD (Curve Example): 80GPM, 45PSI=60SCFM.



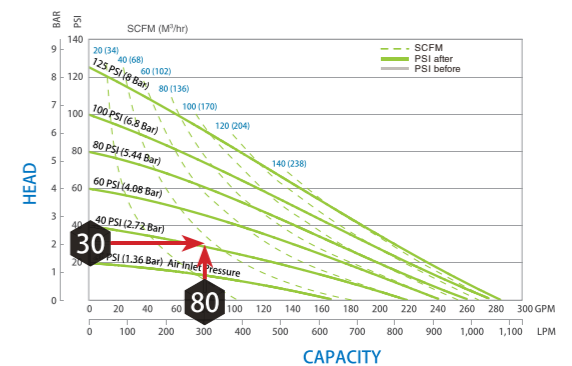
(MTBF) Size to Extend Mean Time Between Failures.

Pumping requirements (flow & head) for **1½" AODD**: 30 PSI, 80GPM=90SCFM

most applications can be met by multiple sizes of pumps. Talk to GIENS' s application engineers to assist you with a size selection which best fits your total cost of ownership budget. An appropriately sized-up pump will lower the consolidated initial investment, repair, labor and energy costs. This **BEST PRACTICE** ensures desirable returns on the initial investment frequently measurable in weeks.



3" AODD: 30PSI, 80GPM=38SCFM

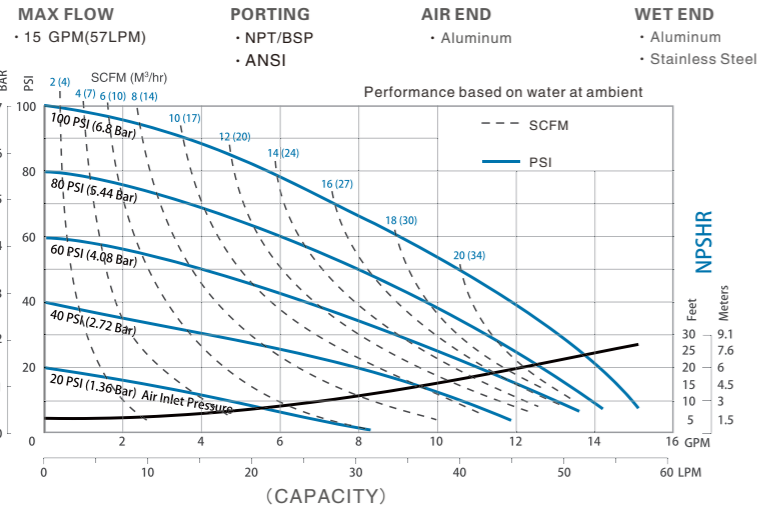


Experienced application engineers are available to help you determine the best fit pump size for your application. Call our factory or email: info@giens.cn

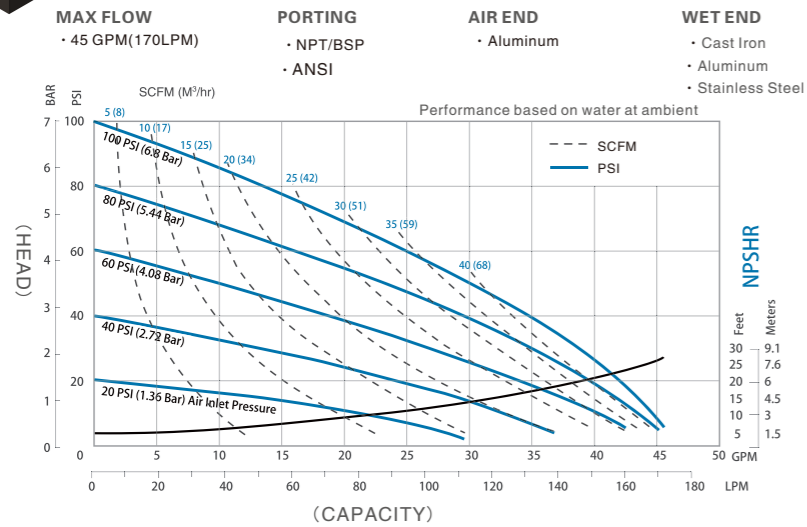
Metallic Pump

PERFORMANCE & SPECIFICATIONS

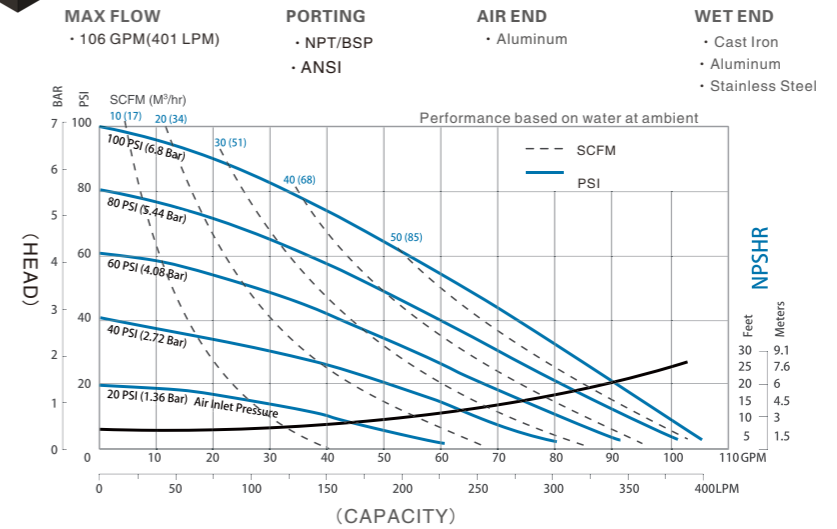
1/2" B05 Metallic Performance



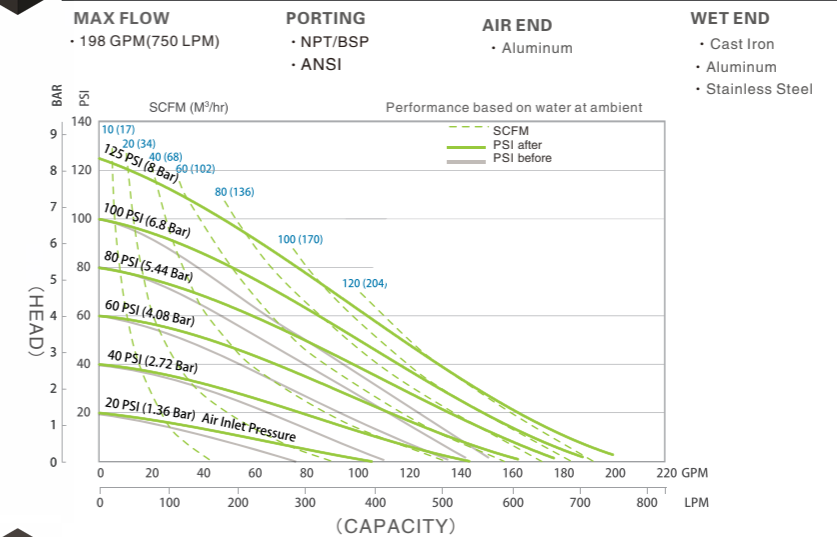
1" B1F Metallic Performance



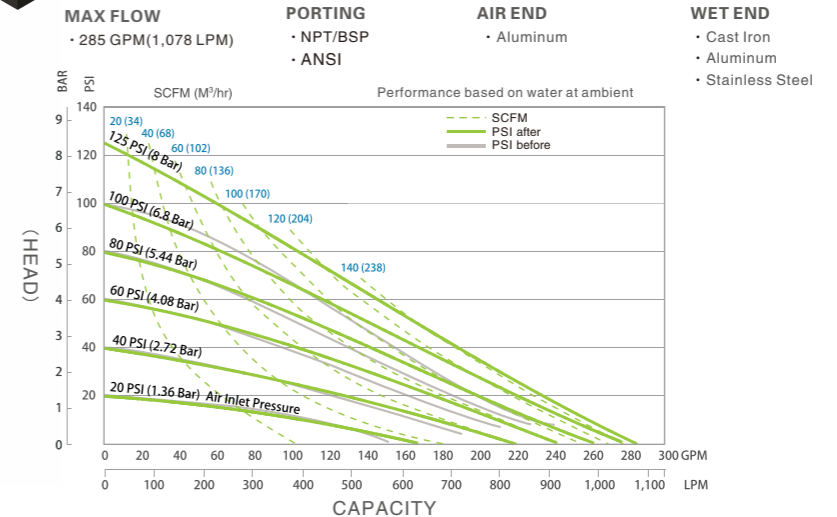
1 1/2" B15 Metallic Performance



2" B20 Metallic Performance



3" B30 Metallic Performance



Genuine Parts Service Kits

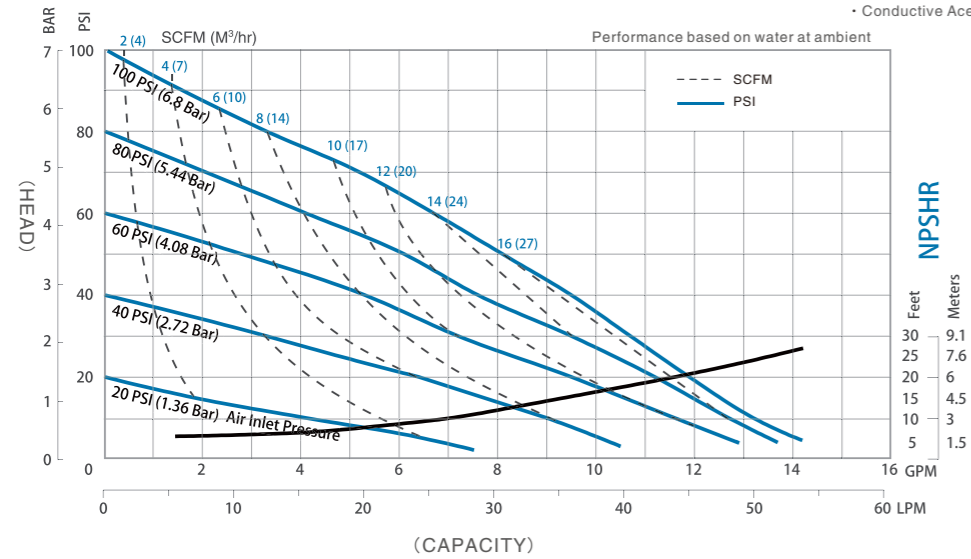
- Everything in One Place.
- Reduce Frequency of Repairs.
- Increase Uptime.
- Save Time and Money.

Non-Metallic Pump

PERFORMANCE & SPECIFICATIONS

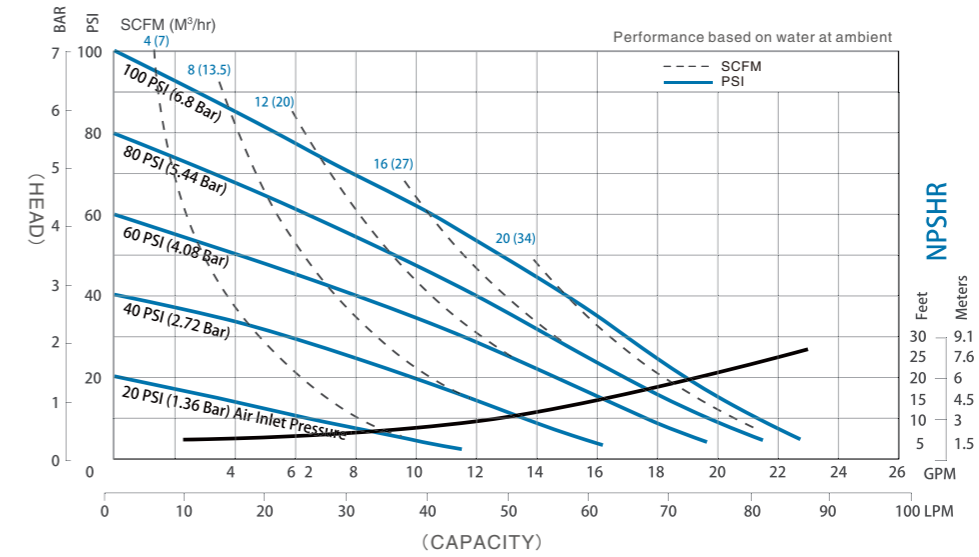
1/2" 12mm B05 Non-Metallic Performance

- MAX FLOW**
 • 14 GPM(52LPM)
- PORTING**
 • NPT/BSP
- AIR END**
 • Polypropylene
 • Conductive Polypropylene
- WET END**
 • Polypropylene / Conductive Polypropylene
 • Nylon
 • PVDF / Conductive PVDF
 • Conductive Acetal



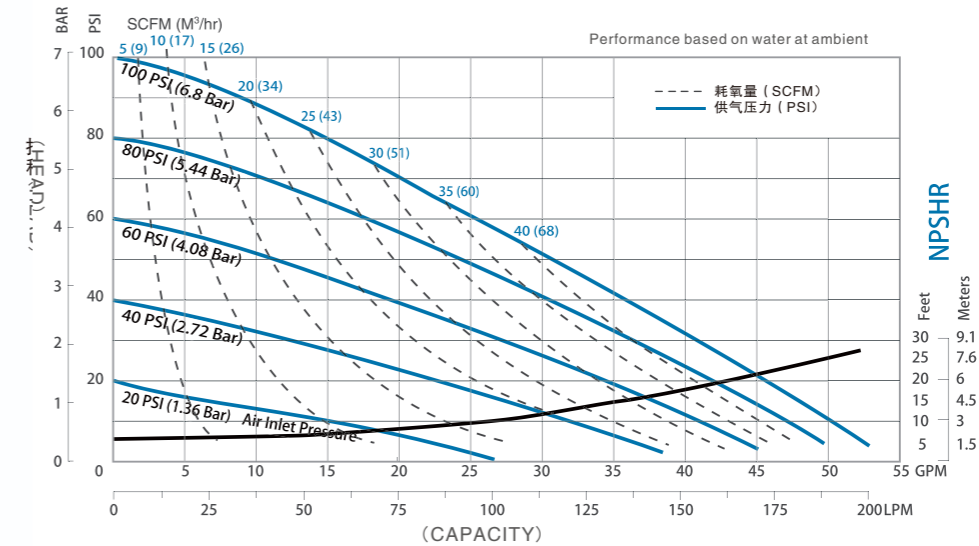
1" 25mm B10 Non-Metallic Performance

- MAX FLOW**
 • 23 GPM(87LPM)
- PORTING**
 • NPT/BSP
- AIR END**
 • ANSI
- WET END**
 • Polypropylene
 • Nylon
 • PVDF



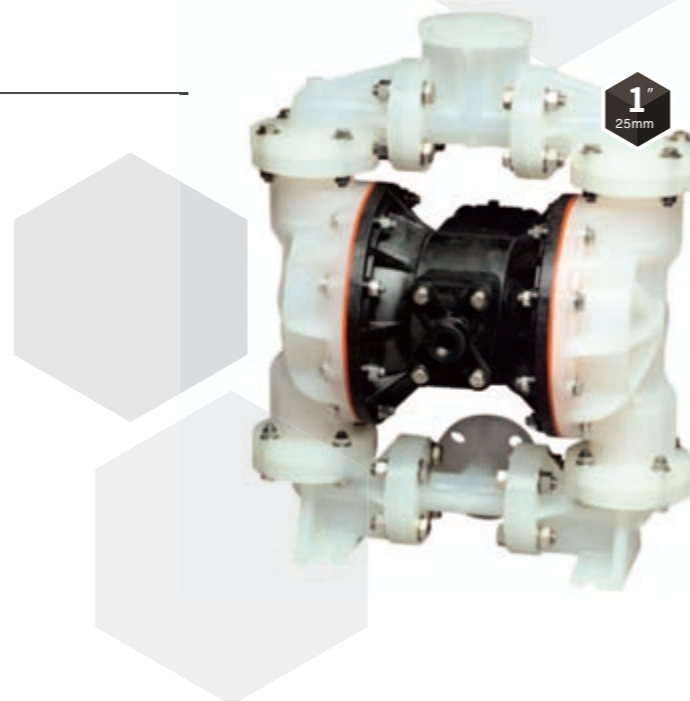
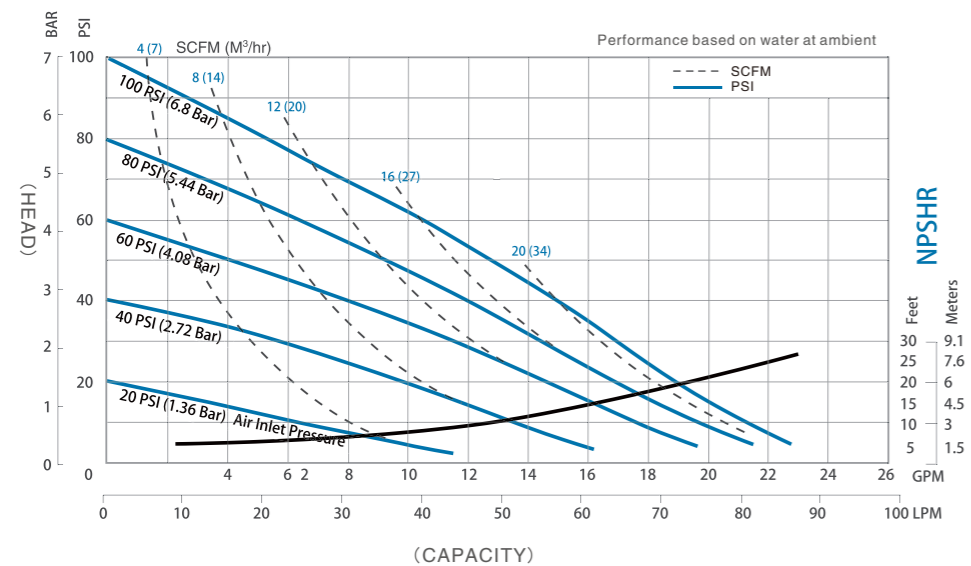
1" 25mm B1F Non-Metallic Performance

- MAX FLOW**
 • 53 GPM(200LPM)
- PORTING**
 • ANSI
 • DIN
 • NPT
- AIR END**
 • Polypropylene
 • 40% Glass Filled Polypropylene
 • Conductive Polypropylene
- WET END**
 • Polypropylene
 • PVDF
 • Conductive Polypropylene
 • Conductive PVDF



3/4" 19mm B07 Non-Metallic Performance

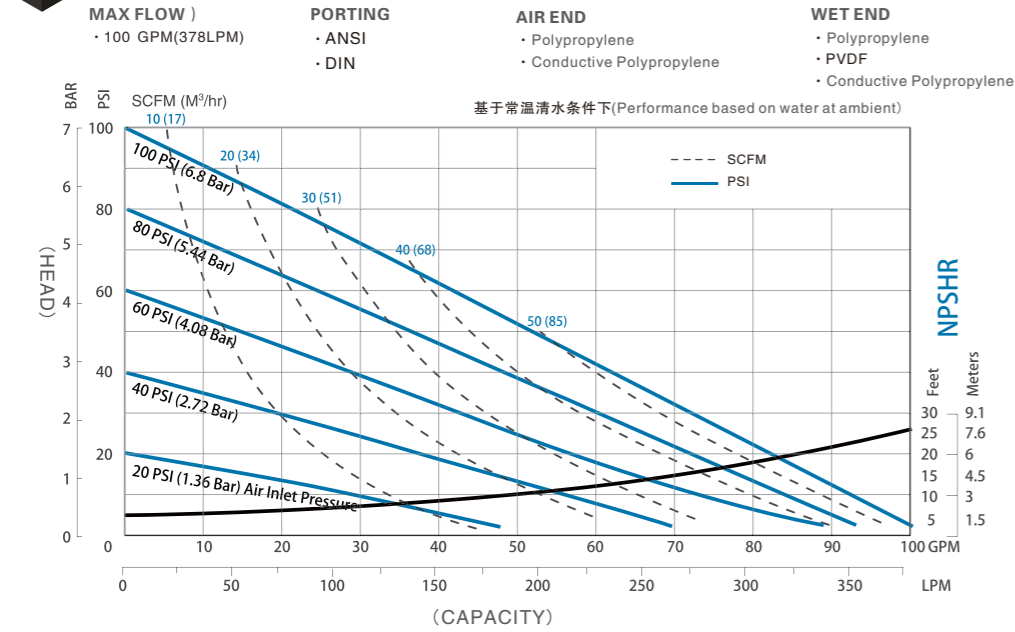
- MAX FLOW**
 • 23 GPM(87LPM)
- PORTING**
 • NPT/BSP
- AIR END**
 • Polypropylene
- WET END**
 • Polypropylene
 • Nylon
 • PVDF



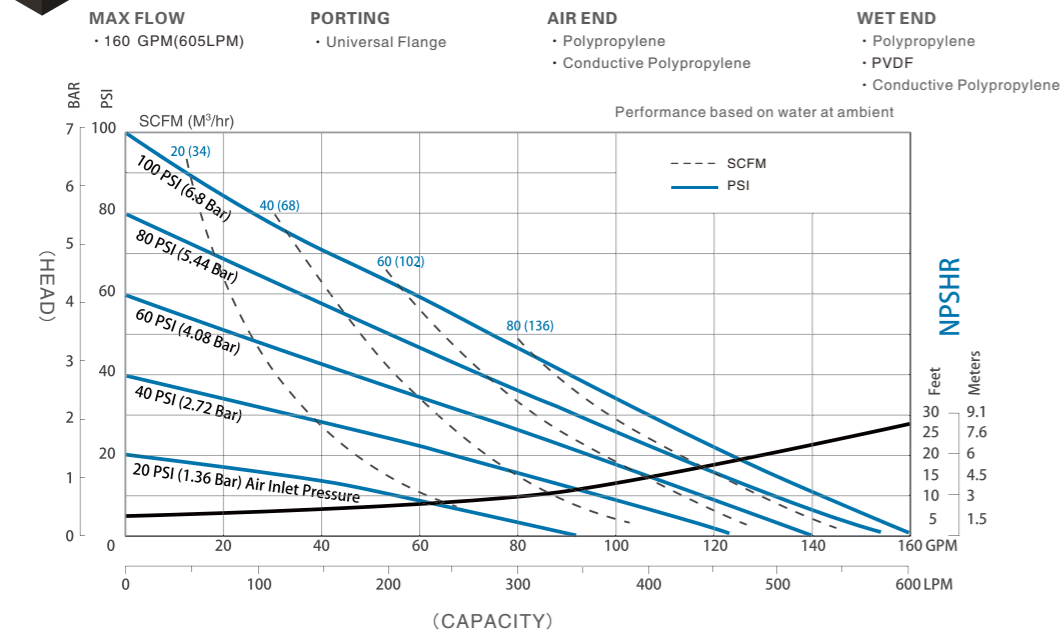
Non-Metallic Pump

PERFORMANCE & SPECIFICATIONS

1 1/2" B15 Non-Metallic Performance

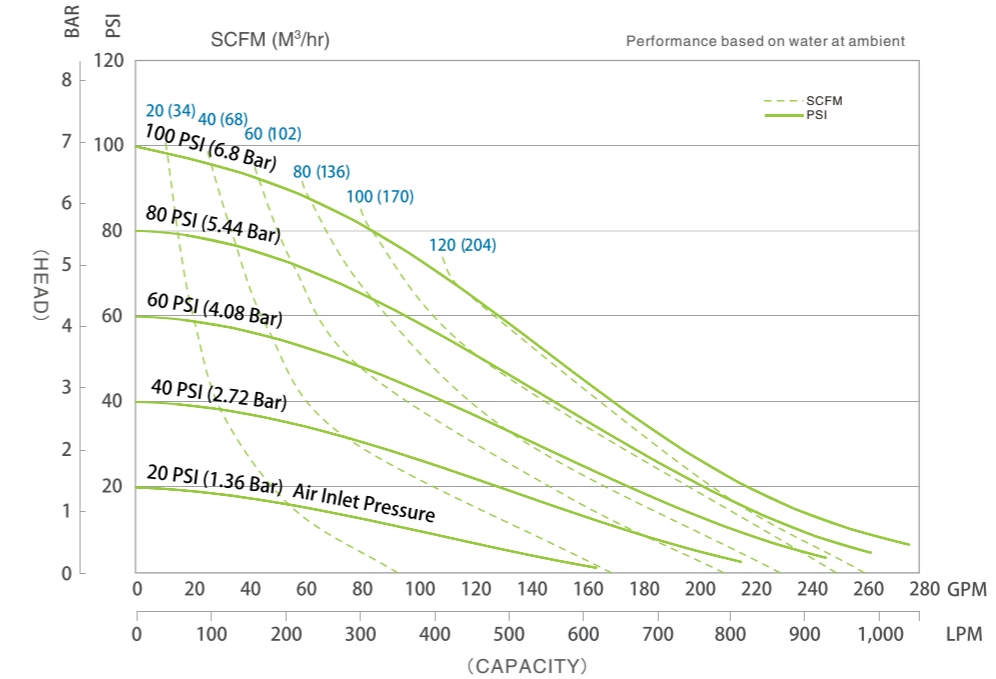


2" B20 Non-Metallic Performance



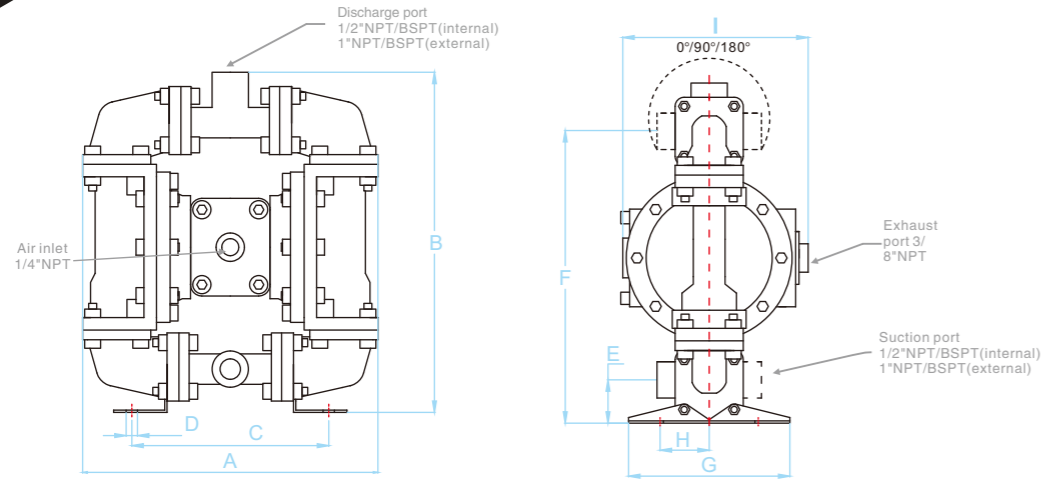
3" B30 Non-Metallic Performance

MAX FLOW : 280 GPM(1,061LPM)
PORTING : ANSI, DIN
AIR END : Polypropylene
WET END : Polypropylene, PVDF



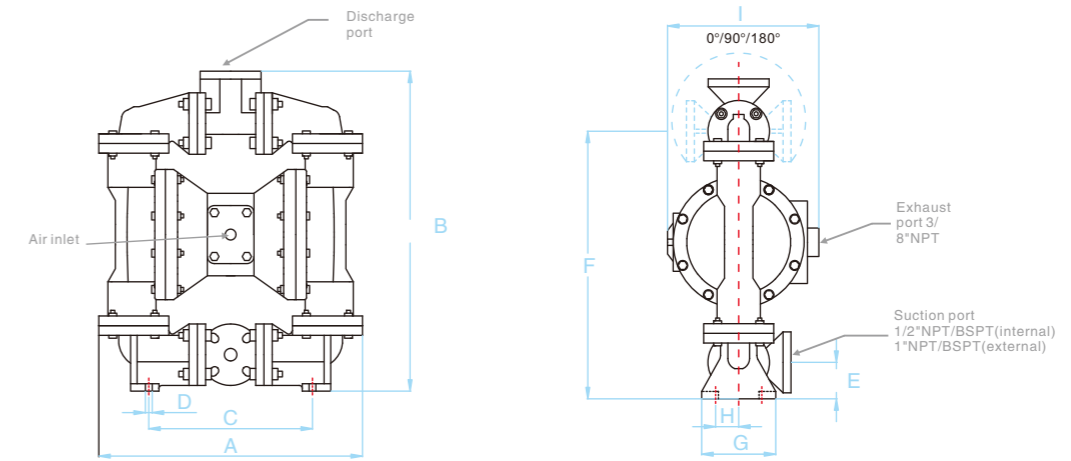
B Series Pump Dimensional Drawing

B05 Non-Metallic Pumps



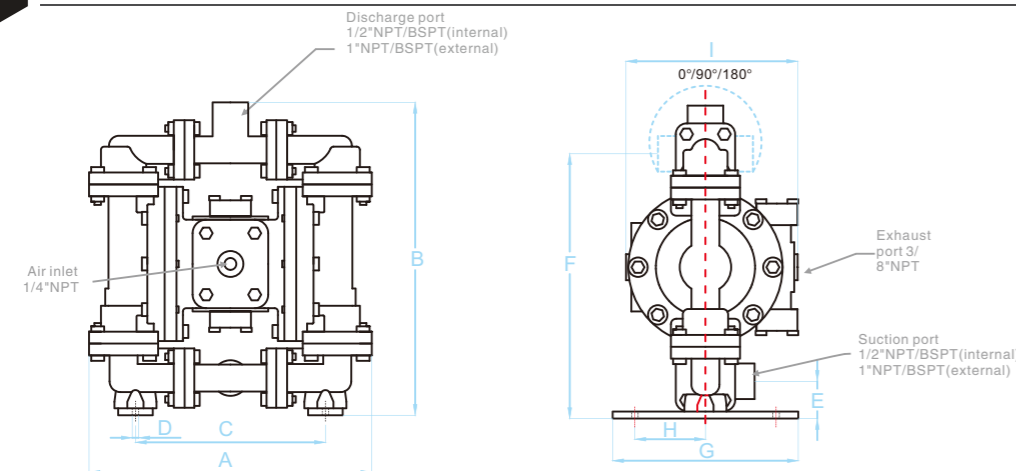
Pump Model	Port Size		Air Inlet Size	Exhaust Port Size	A	B	C	D	E	F	G	H	I		Weight(lb)		
	inches	mm			inches	mm	inches	mm	inches	mm	inches	mm	inches	mm		standard muffler	metal muffler
																mm	mm
B05NM	1/2"NPT/BSPT(internal) 1"NPT/BSPT(external)	inches 1/4"NPT	inches 3/8"NPT	257 10.1"	293 11.5"	166 6.6"	9 0.36"	36 1.4"	250 9.8"	142 5.6"	92 3.6"	181 7.1"	224 8.8"	PP:11.2 PVDF:13			

B1F, B15, B20 Non-Metallic Pumps



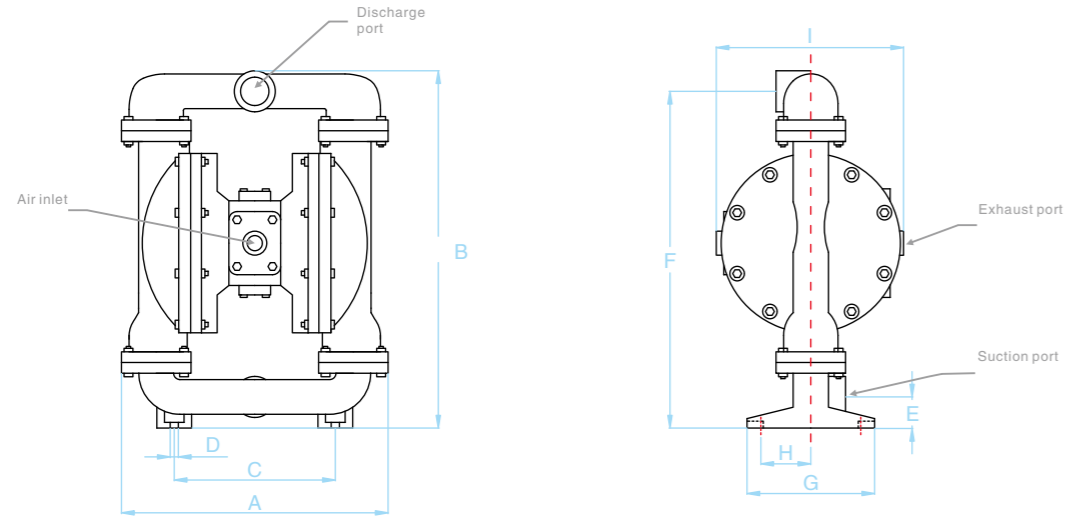
Pump Model	Port Size	Air Inlet Size	Exhaust Port Size	A	B	C	D	E	F	G	H	I		(lb) Weight		
				mm inches	mm inches	mm inches	mm inches	mm inches	mm inches	mm inches	mm inches	mm inches	mm inches		standard muffler	metal muffler
															mm	mm
B1FNM	1"150#Flange	1/2"NPT	1"NPT	433 17"	527 20.75"	259 10.2"	11 0.44"	63 2.5"	433 17"	130 5.1"	112 4"	300 11.8"	343 13.5"	PP:40.6 PVDF:49.8		
B15NM	1.5"150#Flange	3/4"NPT	1"NPT	584 23"	730 28.75"	287 11.3"	16 0.63"	89 3.5"	640 25.2"	228 9"	172 6.8"	330 13"	384 15.1"	PP:87.1		
B20NM	2"150#Flange	3/4"NPT	1"NPT	605 23.8"	819 32.25"	289 11.4"	16 0.63"	97 3.8"	716 28.2"	292 11.5"	236 9.2"	330 13"	384 15.1"	PP:92.6		

B05, B1F Metallic Performance



Pump Model	Port Size		Air Inlet Size	Exhaust Port Size	A	B	C	D	E	F	G	H	I		Weight (lb)		
	inches	mm			inches	mm	inches	mm	inches	mm	inches	mm	inches	mm		standard muffler	metal muffler
																mm	mm
B05AL	1/2"NPT/BSPT(internal)	inches	inches	260	292	184	8	34	247	172	140	186	219	17.6			
B1FAL	1"NPT/BSPT(external)	1/4"NPT	3/8"NPT	10.25"	11.5"	7.3"	0.3"	1.3"	9.7"	6.75"	5.5"	7.3"	8.6"				

B15, B20, B30 Metallic Performance



Pump Model		B15	B20	B30	
Port Size		1.5"NPT/BSP	2"NPT/BSP	3"NPT/BSP	
Air Inlet Size		3/4"NPT	3/4"NPT	3/4"NPT	
Exhaust Port Size		1"NPT	1"NPT	1"NPT	
A	mm inches	423 16.7"	428 16.9"	499 19.6"	
B	mm inches	559 22"	669 26.3"	815 32.1"	
C	mm inches	251 9.9"	256 10.1"	305 12"	
D	mm inches	13 0.5"	13 0.5"	17 0.66"	
E	mm inches	54 2.1"	51 2"	60 2.4"	
F	mm inches	526 20.7"	631 24.8"	761 30.0"	
G	mm inches	203 8"	254 10"	298 11.7"	
H	mm inches	178 7.0"	228 9.0"	258 10.2"	
I	standard muffler	mm inches	314 12.4"	320 12.6"	400 15.75"
	Metal muffler	mm inches	368 14.5"	373 14.7"	425 16.75"
Weight (lb)		AL:60.4 Cl:105.8 SS:103.6	AL:70.5 Cl:134.4 SS:123.5	AL:121.3 Cl:224.9 SS:216.1	

Chemical Chart of Materials

Material Name	Working Temperature Limited (°C)	Level1-5(Level5isthebest)		
		Chemical Resistance	Wear Resistance	Flexibility
Nuna-N	-10(-23)~190(88)	1	2	3
PTFE-Diaphragm	-35(-37)~220(104)	5	2	-
EPDM	-40(-40)~280(138)	4	4	4
Viton	-40(-40)~350(177)	4	2	1
Neoprene	-10(-23)~200(93)	1	3	3
PP	+35(2)~175(79)	4	2	-
Santoprene	-40(-40)~275(135)	4	5	5
PVDF	+10(-12)~200(93)	5	2	-
TPO	-40(-40)~239(115)	4	5	3



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

MATERIAL SELECTION GUIDE



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.