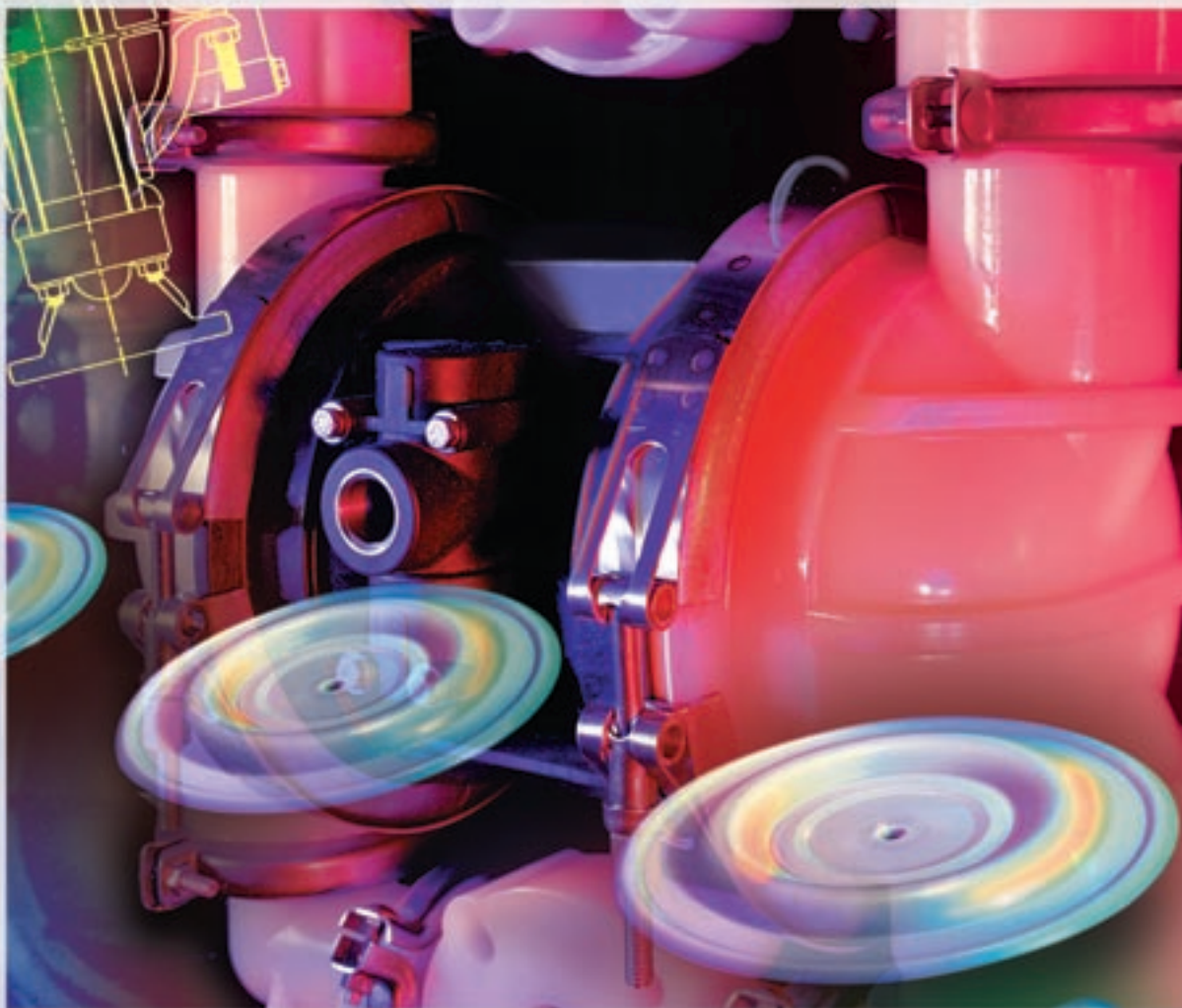


AIR-DRIVEN DOUBLE DIAPHRAGM PUMPS



ALL-FLO

ABOUT ALL-FLO

ALL-FLO is committed to the pursuit of designing and manufacturing the highest quality product available to industry. Since the beginning in 1986, ALL-FLO engineers have used their extensive knowledge of today's engineered materials, advanced air system logic and manufacturing techniques to develop the superior group of lube-free, air-operated diaphragm pumps found in this catalog. Every pump is performance engineered and quality built to provide trouble-free service under the toughest conditions.

SIMPLE OPERATION

Double diaphragm pumps are operated by compressed air or any non-flammable compressed gas. The pumping stroke begins as air is delivered by the air distribution system, putting pressure on one diaphragm and then the opposite diaphragm. The two diaphragms are linked together by a common rod. The pumping stroke on one side is simultaneously the suction stroke on the opposing diaphragm alternately drawing fluid in one side while discharging fluid from the other side.

PATENTED -
Covered by one or both:
Patent No. 5758563
Patent No. 5232352

ADVANTAGES...MAKE ALL-FLO FIRST CHOICE:

- Pumps Anything That Will Pour
- Wide Range of Pump Types and Sizes
- Patented Lube-Free Air System
- Will Not Stall at Slow Speeds
- 100% Tested Prior to Shipment
- Self-Priming
- Non-Electrical
- Runs Dry Without Damage
- Infinitely Variable Flow Rate
- Intermittent Operation or Continuous Duty
- Pumps Fluids Which Contain Particles
- Pumps High Viscosity Fluids
- Reduced Solvent Flash-Off
- Simple Modular Design
- Dual Manifold Capability for 1/4" to 1" Models
- Parts Interchangeable Between Models and Sizes



NO STALLOUTS DUE TO FREEZING

Stallout due to ice formation in the air system is virtually eliminated due to the insulating quality of all plastic construction plus the ability to slow air expansion and velocity without compromising performance.

NO VENT HOLES

There are no vent holes in the ALL-FLO air valve. Vent holes needed to prevent stalling in competitive pumps allow corrosive fumes to enter and destroy valuable components. Additionally, if a diaphragm ruptures fluid leakage cannot be routed to a safe containment zone. The sealed All-Flo air valve allows containment of fluid and prevents fumes from entering air system.

BAND CLAMP CONSTRUCTION...

makes maintenance easy and offers a positive continuous seal. Problems of bolted designs include uneven torque leading to leakage, torn diaphragms and maintenance intensive procedures. Less bolts to tighten during scheduled maintenance.



PERFORMANCE ENGINEERED TEFLON DESIGN

Superior Teflon overlay design does not require reduced diaphragm rod stroke, which in turn reduces pump capacity by 20%. All back-up diaphragms for Teflon overlays are Santoprene which offers a chemically resistant "second line of defense".

THERMOPLASTIC DIAPHRAGMS

offer superior chemical and abrasion resistance and increased cycle life. The wide range of applications that these materials can address also make ordering the correct pump much easier.



**PATENTED
LUBE-FREE,
NON-STALLING
AIR SYSTEM**

THE HEART OF THE PUMP...

gives reliable, trouble-free operation in all sizes of pumps.



Competitive pumps claim lube-free operation, but operation manuals note that lubrication is always needed during "certain operating conditions." ALL-FLO's air system is truly lube-free and will not stall at slow speeds.

LUBE-FREE OPERATION...

throughout the life of the pump is achieved by using dissimilar plastic materials within the air system and a shuttle mechanism constructed of lubrication filled materials to maximize lubricity. Flatness and surface finishes are held to strict engineering tolerances which also reduce the coefficient of friction resulting in trouble-free operation and increased air efficiency.

NO AIR LOST...

when fluid discharge lines are closed. Air system seals completely and prevents air consumption when pump is not transferring fluid. The low coefficient of friction between the air system components also helps reduce air consumption.

ALL PLASTIC AIR SYSTEMS USED IN BOTH METALLIC AND PLASTIC...

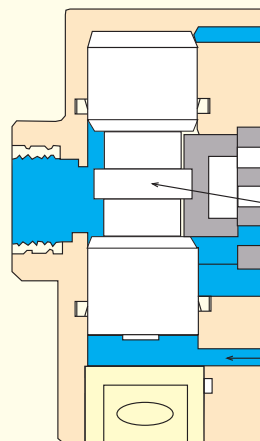
pumps are corrosion resistant and will not be destroyed in case of diaphragm rupture, spills or corrosive atmospheres.

STATE-OF-THE-ART SEAL TECHNOLOGY USED IN THE AIR SYSTEM...

is more tolerant of dirty and wet air supplies. Lip seals and high wear elastomers offer outstanding cycle life.

STALLING IS PREVENTED...

as the pilot supply air maintains a constant pressure against the air valve spool throughout the discharge stroke preventing the spool/shuttle combination from moving into a neutral or stall position. ALL-FLO pumps do not require reset buttons or magnets to insure continuous pump operation—*only air.*



Valve Spool

Pilot Supply Air Prevents Stalling

MAINTENANCE TIME REDUCED...

due to uniform product design. All models share the same design concept from 1/2" pumps to 2" pumps. The size of the components just get larger. If you know how to rebuild one size...you can easily rebuild any size.

INVENTORY REDUCTION...

because metallic and plastic pumps all share the same air systems, diaphragms, O-rings, balls and in some cases valve seats. To further help minimize inventory requirements, 1-1/2" and 2" models share the same air systems, diaphragms and valve seat components.

ALL PLASTIC AIR SYSTEMS...

in both metallic and plastic pumps prevent destruction of air system components from corrosive atmospheres or diaphragm ruptures. No brass or aluminum components are used within the air systems.

SIMPLE ORDERING CODES...

confused by complex ordering codes required by some manufactures—not with ALL-FLO. All models are easily associated with materials and have a simplified model number as shown on page 4.

FLANGE FITTINGS...

Unlike other pumps that have threaded pipe connections, ALL-FLO's 1-1/2" and 2" models are designed with flange fittings that reduce installation and service time. Threaded manifolds are also available.

LARGER CAPACITY...

per stroke than competitive models means less wear on moving parts.

BSP...



compatibility is accomplished through the use of slotted flanges on the 1-1/2" and 2" models and BSP compatible threads are available on other models when requested.

CE...

compliant design, documentation and quality control procedures.



Wetted Material	Air System	1/4" 0-4 GPM Page 6	1/2" 0-14 GPM Page 7	1" 0-40 GPM Page 8	1-1/2" 0-95 GPM Page 9	2" 0-150 GPM Page 10
Polypropylene w/Geolast* (Nitrile)	Polypropylene	NC-025	NC-5	NC-10	NC-15	NC-20
Polypropylene w/Teflon*	Polypropylene	BK-025	BK-5	BK-10	BK-15	BK-20
Polypropylene w/Santoprene* (EPDM)	Polypropylene	NC-025E	BK-5E	BK-10E	BK-15E	BK-20E
Polypropylene w/Viton*	Polypropylene		BK-5V	BK-10V		
Nylon w/Teflon	Nylon or Polypropylene	RD-025	RD-5	RD-10		RD-20
Conductive Nylon w/Teflon	Nylon or Polypropylene	CN-025	CN-5			
Conductive Nylon w/Geolast (Nitrile)	Nylon or Polypropylene	CN-025B	CN-5B			
PVDF w/Teflon	Polypropylene	KN-025	KN-5	KN-10	KN-15	KN-20
PVDF w/Santoprene (EPDM)	Polypropylene	KN-025E	KN-5E	KN-10E	KN-15E	KN-20E
PVDF w/Viton	Polypropylene		KN-5V	KN-10V		
Aluminum w/Geolast (Nitrile)/Polypro	Polypropylene		AL-5	AL-10	AL-15	AL-20
Aluminum w/Teflon/Nylon	Nylon or Polypropylene		AL-5T	AL-10T	AL-15T	AL-20T
Aluminum w/Santoprene (EPDM)/Polypro	Polypropylene		AL-5E	AL-10E	AL-15E	AL-20E
316 Stainless Steel w/Teflon	Polypropylene		ST-5	ST-10	ST-15	ST-20
316 Stainless Steel w/Santoprene (EPDM)	Polypropylene		ST-5E	ST-10E	ST-15E	ST-20E
316 Stainless Steel w/Geolast (Nitrile)	Polypropylene		ST-5B	ST-10B	ST-15B	ST-20B

* Note: For 2" Aluminum w/ Threaded Port Add -P28 to Model No.

FASTENER MATERIAL	NC Plated & 302-304 Stainless Steel	RD Plated & 302-304 Stainless Steel	KN 302-304 Stainless Steel
	AL Plated & 302-304 Stainless Steel	BK 302-304 Stainless Steel	
	ST 302-304 Stainless Steel	* Teflon Coated Fasteners Available	

NOTE: Always check chemical resistance guide for compatibility. Do not use aluminum with halogenated solvents. Chemical resistance values may vary for fiberglass reinforced plastic. See your distributor for material substitutions.

NC The NC Model is the most economical choice for all non-aggressive, water-based liquids and slurries. Water-based inks, paints, adhesives and ceramic slurries are some common applications. Polypropylene offers excellent abrasion resistance and zero water absorption.

BK The BK Model is often used in corrosive environments. Inorganic acids, bases, plating solutions, alcohols and most water-soluble chemicals. The 1" and larger polypropylene pumps have fiberglass reinforcement for structural integrity. Do not use with hydrofluoric acid or other fluids not recommended for use with fiberglass.

RD The RD Model is often used for lubricants, oils and fats (both animal and vegetable types) hydrocarbons. Nylon offers superior resistance to that of acetal in the area of solvents and solvent-based products. Groundable conductive nylon is also available for the transfer of flammable fluids.

KN PVDF used in the KN Model handles a wide range of chemicals, strong acids, bases, phenols, organic and inorganic chemicals at temperatures up to 200° F (93° C). PVDF complies with the FDA 3A material specifications.

AL The aluminum Model contains aluminum that is an A380 class material that does not require anodizing, impregnation or painting for appearance or wear characteristics. Do not use aluminum with halogenated solvents. Aluminum/Teflon models are built with nylon valve seats. Other aluminum models are built with polypropylene valve seats.

Note: Nitrile (Buna-N) and EPDM valve seats are available for 1-1/2" and 2" models.

ST 316 Stainless Steel Models are used where the mechanical properties of 316 stainless steel are required.

DIAPHRAGM NOTES

Geolast is a nitrile based thermoplastic elastomer used in place of nitrile (Buna-N) or neoprene and urethane for non-aggressive water-based applications.

Santoprene is an EPDM-based thermoplastic elastomer and is resistant to mild acids, some solvents and bases.

Both Geolast and Santoprene offer superior cycle life, abrasion resistance and extended chemical resistance in comparison to cloth reinforced rubber diaphragms.

Teflon-stock models feature a two part diaphragm system.

Bonded single piece diaphragms are available.

**Santoprene and Geolast are registered trademarks of Advanced Elastomer Systems.*

Teflon and Viton are registered trademarks of DuPont Dow Elastomers.

ACCESSORIES

DRUM KITS



Drum pump kits are available for 1/4" 1/2" and 1" plastic pumps. The pumps are supplied with bung adapter and suction tube. Manifolds are prepositioned for immediate assembly.

AIR OPERATED PINCH VALVES



Pinch valves are ideal for any fluid that is abrasive or contains debris or large solid particles that would damage conventional valves. Available in 1/2" and 1" sizes in a complete range of engineered plastics.

Filter/Regulators and Surge Suppressors are available.

READING THE PUMP CURVE

You must know the following data:

1. Required discharge pressure.
2. Air pressure available at the air inlet of the pump.
3. Required flow rate.

TO OBTAIN DISCHARGE PRESSURE:

Using the performance chart for a 1/2" pump shown: If 80 psi is available at the air inlet and the required capacity of the pump is 6 GPM. Follow the blue concave curve at 80 psi **1** as it slopes to the right and intersects with the 6 GPM vertical line **2**. By tracking horizontally back to the left (Y) axis, the discharge pressure is ascertained--65 psi **3**. (Right axis converts PSI to feet/meters).

TO OBTAIN REQUIRED AIR INLET PRESSURE:

Reverse the steps above:

Choose required discharge pressure (65 psi) **3** on left (Y) axis, go directly across the graph to the intersection of the correct flow rate (6 GPM) **2**, then track up and back toward the left (Y) axis along the blue curve; and the correct required air pressure can be obtained (80 psi) **1**.

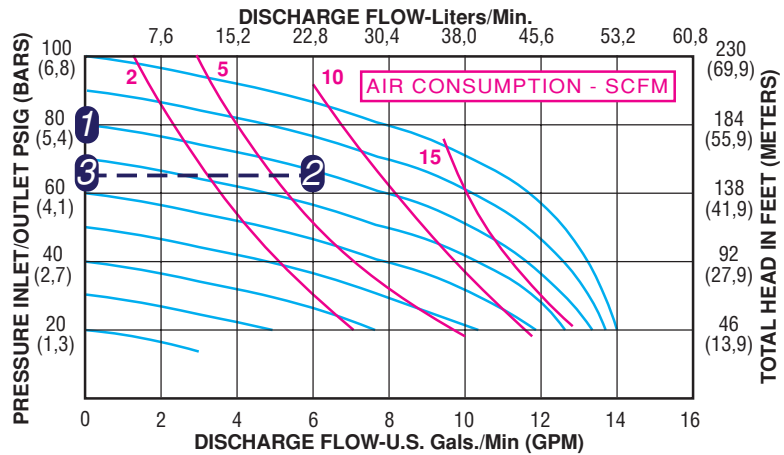
Note: If greater outlet pressure vs. air inlet pressure is required--select a larger pump.

TO OBTAIN AIR CONSUMPTION:

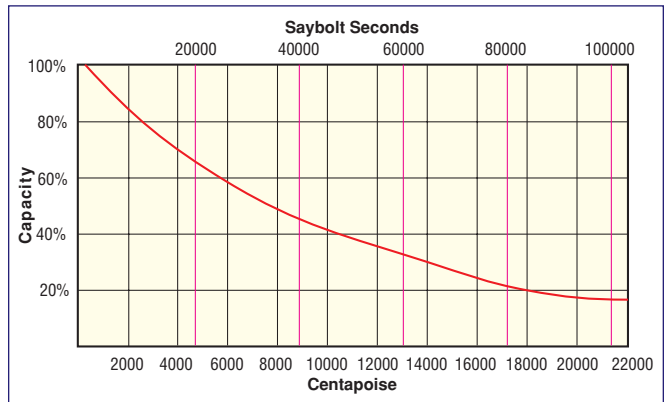
The convex red lines represent the air consumption (standard cubic feet per minute), and the closest red line to where the blue line and the flow rate intersect **2** represents the air capacity required. On our example, the air consumption would be approximately 6 SCFM.

To convert SCFM to m³/h (N) multiply by 1.7

Performance Chart



HIGH VISCOSITY APPLICATIONS



As you can see from the diagram above, as viscosities increase, the capacity of the pump decreases. Do not exceed 22,000 centipoise or 100,000 saybolt seconds on all 1/2" to 2" pumps. Do not exceed 10,000 centipoise or 50,000 saybolt seconds on 1/4" models.

Some points to remember when pumping high viscosities:

1. Position the pump close to or below the level of the fluid source.
2. Suction lines should be increased in size--up to three times the size of the pump manifold inlet. Dual manifolds may be used when available.
3. Start the pump slowly using a control valve on the air line.
4. Maximum air pressure required is reached when increasing the air pressure does not increase the flow rate.
5. If greater capacity is required, select a larger pump.

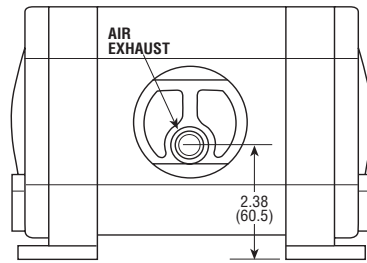
INSTALLATION

1. A lube-free, clean, dry compressed air source (or any non-flammable, compressed gas) is recommended. Use a filter that is capable of filtering out particles larger than 50 microns.
2. Pumps should be mounted in an upright position with the exception of the 1/4" models which may be rotated 360° to suit the application.
3. Install a particle fluid filter on the fluid suction line when particles in the fluid exceed the maximum particle size specification of the pump or particles are sharp enough to cut the diaphragms.
4. Never restrict fluid suction lines by means of a reduced pipe size (smaller than pump inlet size) or control the pump with valves on the fluid inlet side of the pump.
5. Limit fluid inlet pressure to 10 PSIG or (.68 BAR)

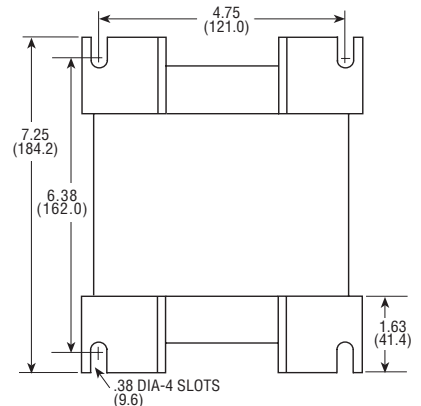
1/4"



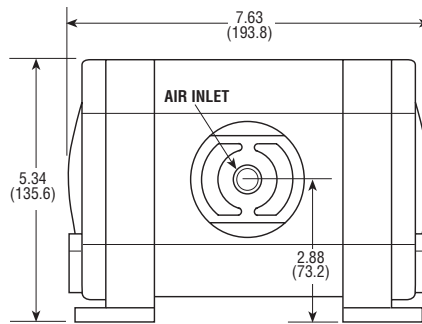
PLASTIC *Dimensions in inches and (mm).*



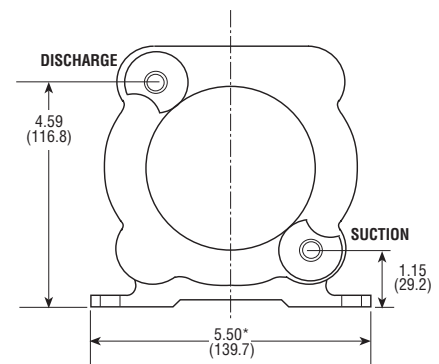
Rear View



Footprint



Front View



Side View

**Approximate Dimension with Muffler— 06.18 (157.0)*

PLASTIC MODELS:

NC-025 (Polypropylene/Geolast*)	5 lbs. (2,3 kg.)
BK-025 (Polypropylene/Teflon)	5 lbs. (2,3 kg.)
RD-025 (Nylon/Teflon)	5 lbs. (2,3 kg.)
KN-025 (PVDF/Teflon)	7 lbs. (3,2 kg.)

*Optional elastomers and conductive nylon are available.
* Geolast properties are similar to that of Nitrile (Buna-N)
See page 4 for complete model listing.*

SPECIFICATIONS:

Capacity:

Adjustable. 0 to 4.3 GPM (16,3 liters/min.)

Maximum Temperature:

KN-025 Model 200°F (93°C)
Other Models 150°F (66°C)

Maximum Air Pressure:

All Models 100 PSI (6,8 bars)

Minimum Air Pressure:

All Models 20 PSI (1,2 bars)

Dry Lift Capacity @ 100 PSI (6,8 bars):

Models w/Teflon Seats 17 ft. (5 meters)
Other Models 20 ft. (6 meters)

Maximum Solids: 1/16" or (1,6 mm)

Air Supply:

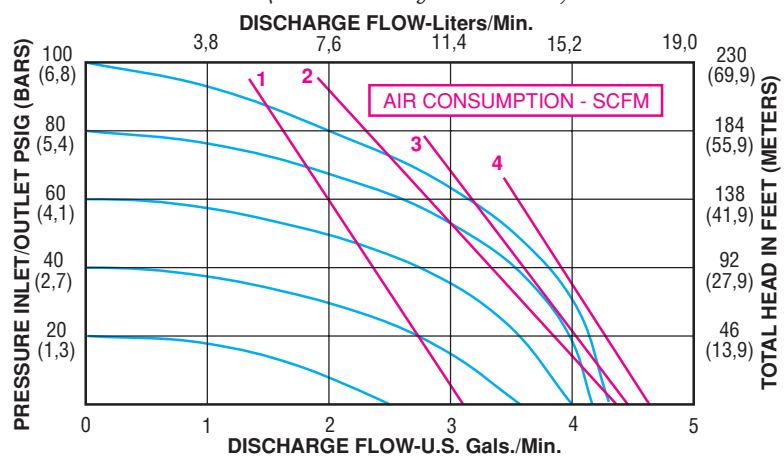
Inlet 1/4" NPT Female
Outlet 1/4" NPT Female
(Air flow control valve, 1/4" NPT Female)

Fluid Inlet/Discharge: 1/4" NPT

Footnotes:

- Muffler supplied with each pump
- BSP threads available upon request
- 1/4" pumps are not shipped with an air flow control valve.
- Dual manifold inlet/outlet capability may be ordered from the factory

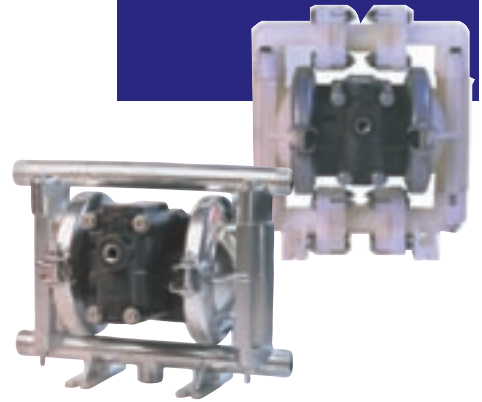
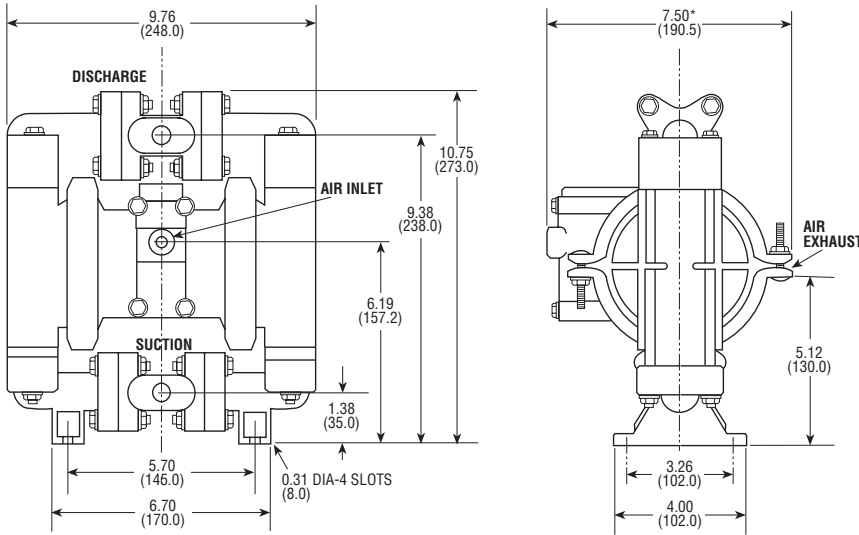
PERFORMANCE CURVE *(Based on water-flooded suction)*





1/2"

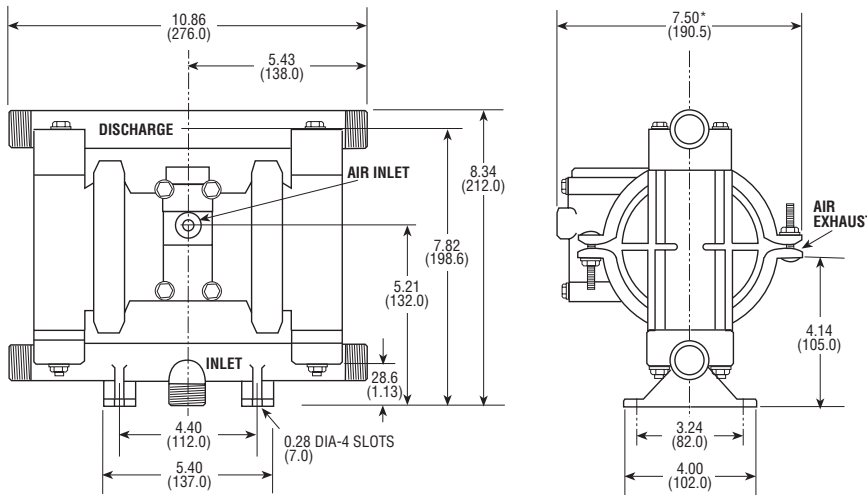
PLASTIC *Dimensions in inches and (mm). Ports shown facing front for dimensional purposes.*



PLASTIC MODELS:

NC-5 (Polypropylene/Geolast*)	8 lbs. (3,6 kg.)
BK-5 (Polypropylene/Teflon)	8 lbs. (3,6 kg.)
RD-5 (Nylon/Teflon)	8 lbs. (3,6 kg.)
SL-5 (Acetal/Geolast)	8 lbs. (3,6 kg.)
KN-5 (PVDF/Teflon)	11 lbs. (4,9 kg.)

METALLIC



*Approximate Dimension with Muffler— 8.00 (203.2)

METALLIC MODELS:

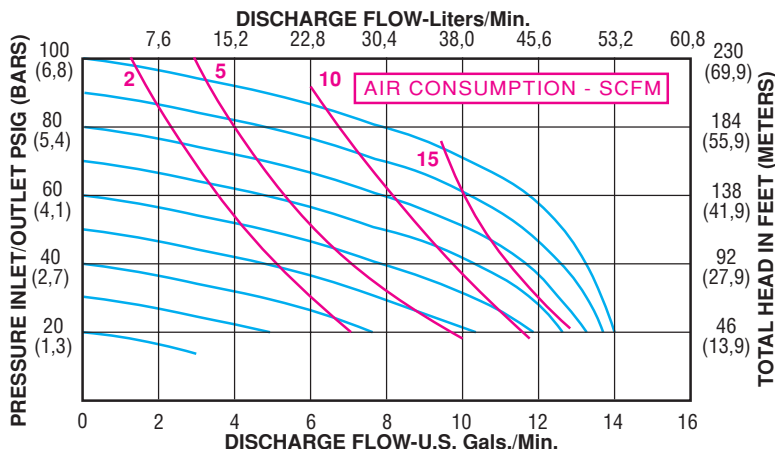
AL-5 (Aluminum)	8.5 lbs. (3,8 kg.)
ST-5 (316 Stainless Steel)	16 lbs. (7,2 kg.)

*Optional elastomers and conductive nylon available.
* Geolast properties are similar to that of Nitrile (Buna-N)
See page 4 for complete model listing.*

SPECIFICATIONS:

- Capacity:
Adjustable 0 to 14 GPM (53,2 liters/min.)
- Maximum Temperature:
KN-5 Model 200°F (93°C)
Other Plastic Models 150°F (66°C)
Metallic Models 200°F (93°C)
- Maximum Air Pressure:
All Models 100 PSI (6,8 bars)
- Minimum Air Pressure:
All Models 20 PSI (1,2 bars)
- Dry Lift Capacity @ 100 PSI (6,8 bars):
Models w/Teflon Balls 10 ft. (3 meters)
Other Models 15 ft. (4,5 meters)
- Maximum Solids: 1/8" or (3,1 mm)

PERFORMANCE CURVE *(Based on water-flooded suction)*



- Air Supply:
Inlet 1/4" NPT Female
Outlet 3/8" NPT Female
(Air flow control valve, 1/4" NPT or 1/2" BSP Female)
- Fluid Inlet/Discharge:
Plastic Models 1/2" NPS Female
Metallic Models 1/2" NPS Female & 3/4" NPS Male
(BSP or NPT Compatible)

Footnotes:

- Muffler supplied with each pump
- Air flow control valve supplied with each pump
- Dual manifold inlet/outlet capability

1"



PLASTIC MODELS:

NC-10 (Polypropylene/Geolast*)	19 lbs. (8,6 kg.)
BK-10 (Polypropylene/Teflon)	19 lbs. (8,6 kg.)
RD-10 (Nylon/Teflon)	19 lbs. (8,6 kg.)
SL-10 (Acetal/Geolast)	19 lbs. (8,6 kg.)
KN-10 (PVDF/Teflon)	22 lbs. (9,9 kg.)

METALLIC MODELS:

AL-10 (Aluminum)	19 lbs. (8,6 kg.)
ST-10 (316 Stainless Steel)	42 lbs. (19,1 kg.)

Optional elastomers available.

* Geolast properties are similar to that of Nitrile (Buna-N)

See page 4 for complete model listing.

SPECIFICATIONS:

Capacity:

Adjustable. 0 to 40 GPM (152 liters/min.)

Maximum Temperature:

KN-10 Model	200°F (93°C)
Other Plastic Models	150°F (66°C)
Metallic Models	200°F (93°C)

Maximum Air Pressure:

KN-10 Model	70 PSI (4,8 bars)
Other Models	100 PSI (6,8 bars)

Minimum Air Pressure:

All Models 20 PSI (1,2 bars)

Dry Lift Capacity @ 100 PSI (6,8 bars):

Models w/Teflon Balls	10 ft. (3 meters)
Other Models	15 ft. (4,5 meters)

Maximum Solids: 1/4" or (6,4 mm)

Air Supply:

Inlet	1/4" NPT Female
Outlet	3/4" NPT Female (Air flow control valve, 1/4" NPT or 1/2" BSP Female)

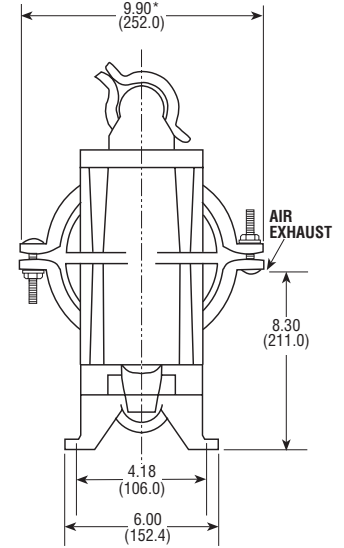
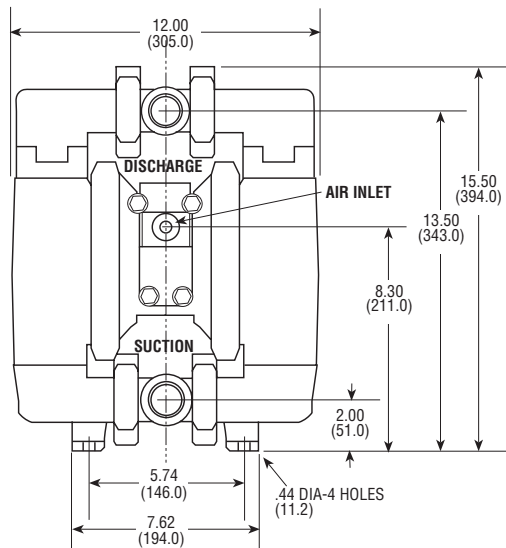
Fluid Inlet/Discharge: 1" NPT

Footnotes:

- Muffler supplied with each pump
- Air flow control valve supplied with each pump
- Dual manifold inlet/outlet capability – Plastic models only
- BSP threads available upon request

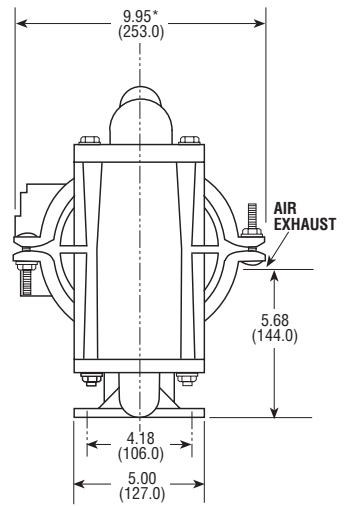
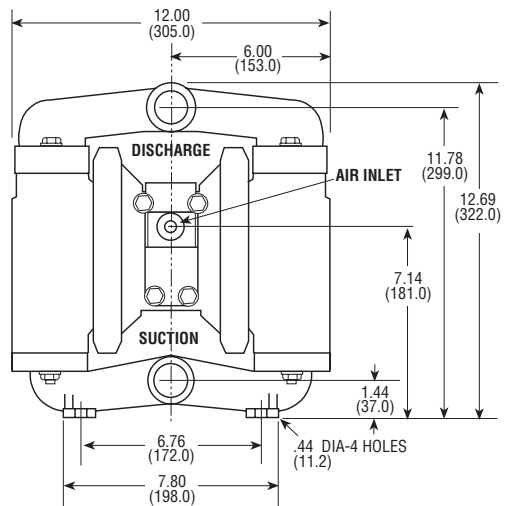
PLASTIC

Dimensions in inches and (mm). Ports shown facing front for dimensional purposes.



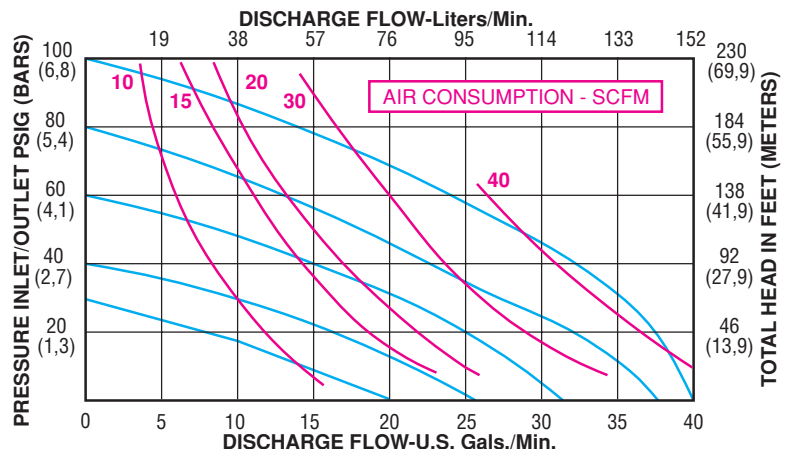
*Approximate Dimension with Muffler— 11.57 (293.9)

METALLIC



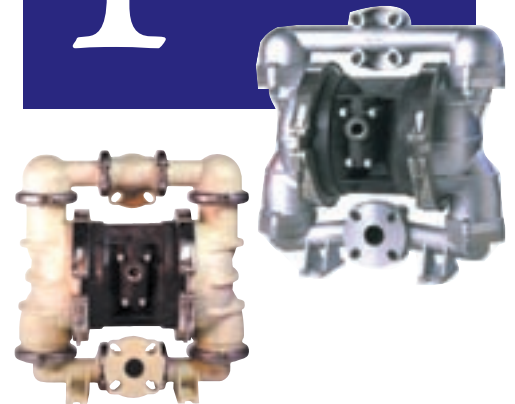
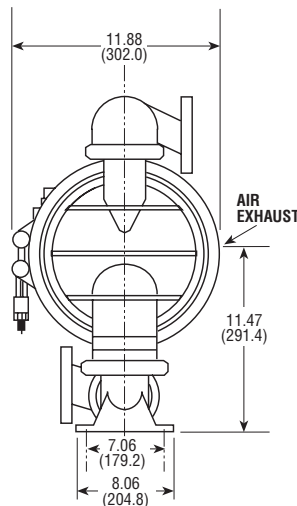
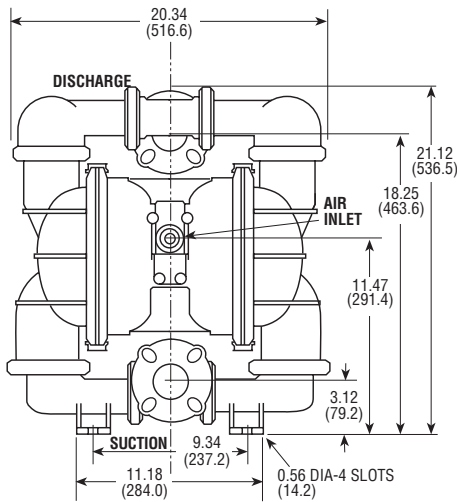
*Approximate Dimension with Muffler— 11.57 (293.9)

PERFORMANCE CURVE



1 1/2"

PLASTIC Dimensions in inches and (mm.). Ports shown facing front for dimensional purposes.



PLASTIC MODELS:

- NC-15 (Polypropylene/Geolast*) 52 lbs. (23,6 kg.)
- BK-15 (Polypropylene/Teflon) 52 lbs. (23,6 kg.)
- KN-15 (PVDF/Teflon) 66 lbs. (30 kg.)

METALLIC MODELS:

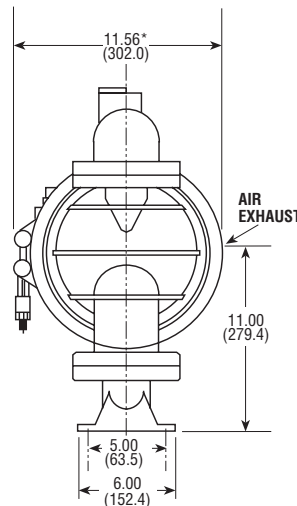
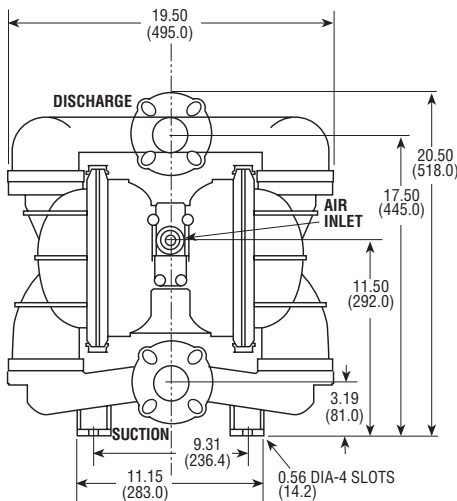
- AL-15 (Aluminum) 61 lbs. (27,7 kg.)
- ST-15 (316 Stainless Steel) 131 lbs. (59 kg.)

Optional elastomers available.
* Geolast properties are similar to that of Nitrile (Buna-N)
See page 4 for complete model listing.

SPECIFICATIONS:

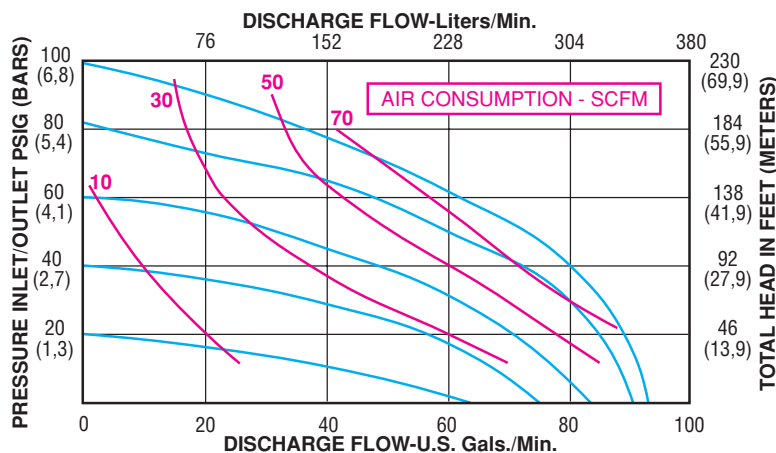
- Capacity: Adjustable 0 to 150 GPM (569 liters/min.)
- Maximum Temperature:
 - KN-15 Model 200°F (93°C)
 - Other Plastic Models 150°F (66°C)
 - Metallic Models 200°F (93°C)
- Maximum Air Pressure:
 - KN-15 Model 70 PSI (4,8 bars)
 - Other Models 100 PSI (6,8 bars)
- Minimum Air Pressure: All Models 20 PSI (1,2 bars)
- Dry Lift Capacity @ 100 PSI (6,8 bars):
 - Models w/Teflon Balls 10 ft. (3 meters)
 - Other Models 15 ft. (4,5 meters)

METALLIC



*Approximate Dimension with Muffler—14.88 (378.0)

PERFORMANCE CURVE



- Air Supply:
 - Inlet 3/4" NPT Female
 - Outlet 3/4" NPT Female
 - (Air flow control valve, 3/4" NPT or BSP Female)

- Footnotes:
- Muffler supplied with each pump
 - Air flow control valve supplied with each pump
 - Flanges are ANSI and DIN compatible
 - Flange mounting requires (4) bolts: 5/8"x 4-1/2"
 - Threaded companion flanges available

2"



PLASTIC MODELS:

- NC-20 (Polypropylene/Geolast*) 54 lbs. (23,6 kg.)
- BK-20 (Polypropylene/Teflon) 54 lbs. (23,6 kg.)
- RD-20 (Nylon/Teflon) 54 lbs. (23,6 kg.)
- KN-20 (PVDF/Teflon) 68 lbs. (30 kg.)

METALLIC MODELS:

- AL-20 (Aluminum) 61 lbs. (27,7 kg.)
- ST-20 (316 Stainless Steel) 131 lbs. (59 kg.)

Optional elastomers available.

* Geolast properties are similar to that of Nitrile (Buna-N)

See page 4 for complete model listing.

SPECIFICATIONS:

Capacity:

Adjustable 0 to 150 GPM (569 liters/min.)

Maximum Temperature:

- KN-20 Model 200°F (93°C)
- Other Plastic Models 150°F (66°C)
- Metallic Models 200°F (93°C)

Maximum Air Pressure:

- KN-20 Model 70 PSI (4,8 bars)
- Other Models 100 PSI (6,8 bars)

Minimum Air Pressure:

All Models 20 PSI (1,2 bars)

Dry Lift Capacity @ 100 PSI (6,8 bars):

- Models w/Teflon Balls 10 ft. (3 meters)
- Other Models 15 ft. (4,5 meters)

Maximum Solids: 1/4" or (6,4 mm)

Air Supply:

- Inlet 3/4" NPT Female
- Outlet 3/4" NPT Female
- (Air flow control valve, 3/4" NPT or 3/4" BSP Female)
- Add -P28 to Model No. for 2"(51mm) NPT Female

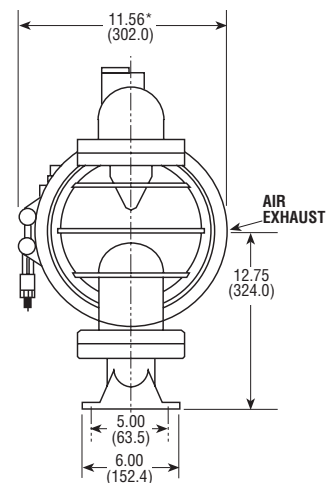
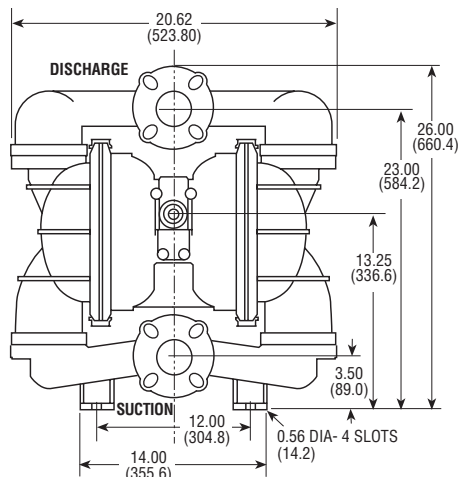
Fluid Inlet/Discharge: 2" (51mm) Flange

Footnotes:

- Muffler supplied with each pump
- Air flow control valve supplied with each pump
- Flanges are ANSI and DIN compatible
- Flange mounting requires (4) bolts: 5/8" x 4-1/2"
- Threaded companion flanges available

PLASTIC

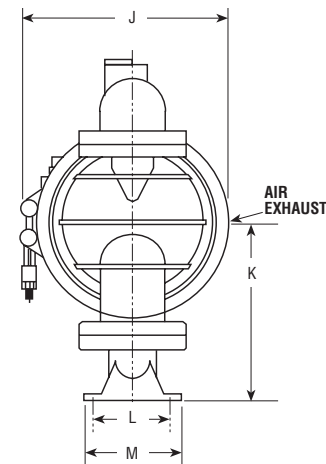
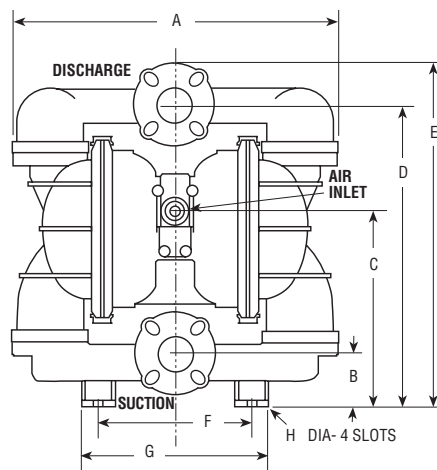
Dimensions in inches and (mm). Ports shown facing front for dimensional purposes.



*Approximate Dimension with Muffler— 14.88 (378.0)

METALLIC

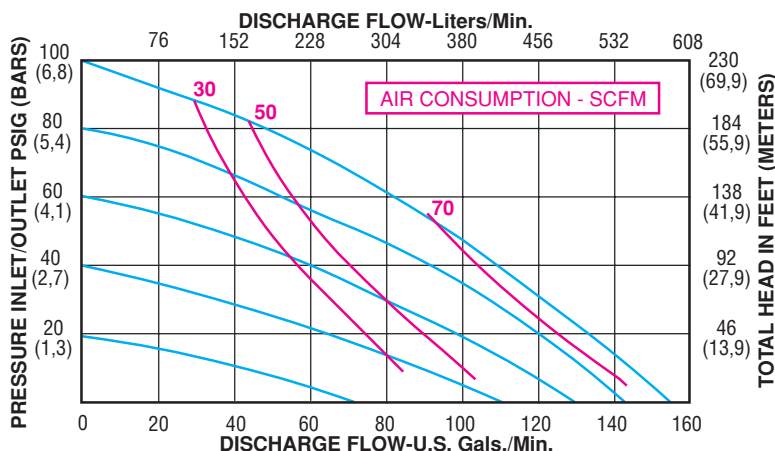
flange or threaded



*Approximate Dimension with Muffler— 14.88 (378.0)

MODEL	DIMENSIONS Inches / (mm)											
SIZE (Inlet/Outlet)	A	B	C	D	E	F	G	H	J	K	L	M
AL-20 Flanged	19.50	3.50	13.25	21.62	24.62	12.00	13.85	0.56	11.88	12.75	5.00	6.00
2" Flange 2" Flange	(495.0)	(89.0)	(336.6)	(549.2)	(625.3)	(304.8)	(351.5)	(14.2)	(301.8)	(324.0)	(63.5)	(152.4)
AL-20-P28 Threaded	19.50	1.88	13.25	24.75	26.10	10.06	12.00	0.56	11.88	12.75	5.00	6.00
2" NPT 2" NPT	(495.0)	(47.6)	(336.6)	(629.0)	(663.0)	(255.5)	(304.8)	(14.2)	(301.8)	(324.0)	(63.5)	(152.4)

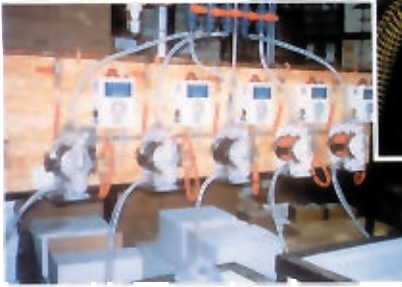
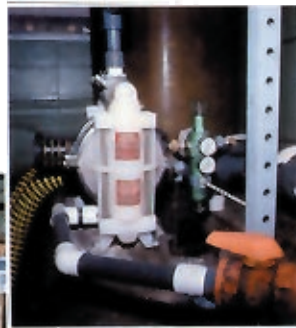
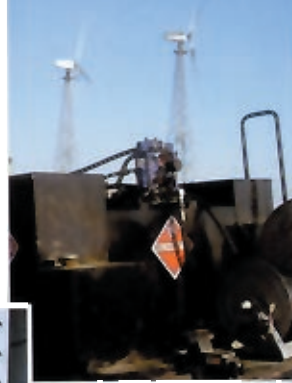
PERFORMANCE CURVE





**BUILT FOR THE
REAL WORLD**

Thousands of ALL-FLO pumps are providing trouble-free service on all types of applications throughout industry. Whatever the application, industry or operating environment, your ALL-FLO distributor is ready to help you select the right pump for your application and work with you to ensure trouble-free operation.



EACH ALL-FLO PUMP IS BACKED BY A 5-YEAR WARRANTY AND TESTED BEFORE SHIPMENT.

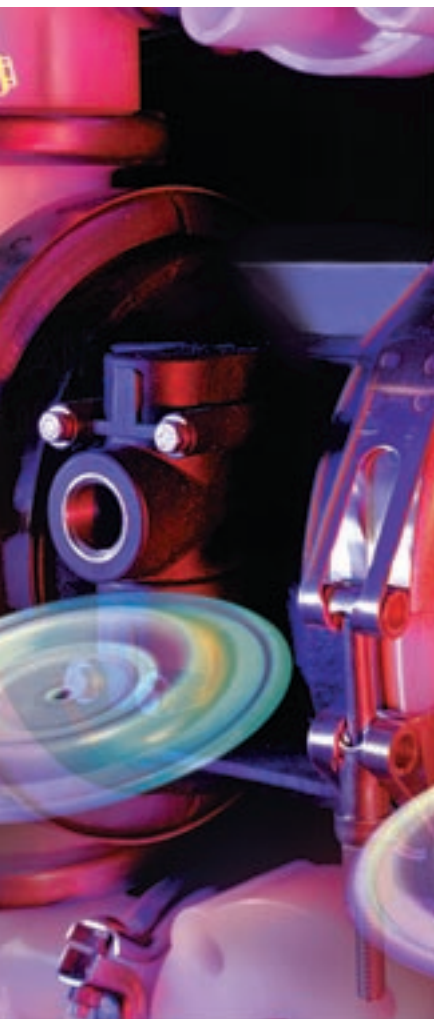
Your All-Flo Double Diaphragm Pump is warranted to the original user against defects in workmanship or materials under normal use (rental use excluded) for five years after purchase date. Any pump which is determined to be defective in material and workmanship and returned to All-Flo Pump Co., shipping costs prepaid, will be repaired or replaced at All-Flo's option.

This warranty does not cover failure of parts or components due to normal wear or damage or failure which in the judgment of All-Flo arises from misuse, abrasion, corrosion, negligence, accidental damage, faulty installation or tampering. If All-Flo inspection discloses no defect in material or workmanship, repair or replacement and return will be made at customary charges.

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Purchaser shall give written notice of any claim to All-Flo within ten days after discovery of any alleged defect. ALL-FLO SHALL NOT BE LIABLE FOR CONSEQUENTIAL DAMAGES, LOSSES, DELAYS, LABOR COSTS OR ANY OTHER EXPENSE DIRECTLY OR INDIRECTLY ARISING FROM USE OF THE PUMP, ITS LIABILITY BEING EXPRESSLY LIMITED TO THE REPLACEMENT OR REPAIR OF ANY DEFECTIVE PUMP OR AN ALLOWANCE OF CREDIT THEREFORE. THE REMEDY AND RECOVERY OF THE PURCHASER ON ANY CLAIM AGAINST ALL-FLO, WHETHER BASED ON CONTRACT, THIS WARRANTY OR ANY ALLEGED NEGLIGENCE SHALL BE AS STATED AND LIMITED HEREIN AND SHALL BE EXCLUSIVE.





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