

ARO[®]  *Ingersoll Rand.*

COMPACT & PRO SERIES DIAPHRAGM PUMPS

Product Overview



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AIR-OPERATED DIAPHRAGM PUMPS

ARO® Pro Series Air-Operated diaphragm pumps are ideal for general, industrial and OEM installation applications. They can easily pump clean, light viscosity fluids, and corrosive, abrasive medium viscosity fluids. They can transfer large particles, without damaging the pump. Due to the pumps pneumatic motors, their use in potentially explosive areas are permitted. Most of the ARO® diaphragm pumps are ATEX certified (CE Ex11 2GD X).

ARO® pumps offer the ability to vary the flow outlet, and discharge pressure as slow as 0.26 gallons (1liter) per minute. The larger size for up to 275 gallons (1040 liters) per minute. They also adjust the fluid pressure up to 123 PSI (8.5 bar), by using only an air filter / regulator and a needle valve.

Why ARO® Diaphragm Pumps?

- Seamless Design
- Low Material Shear
- Ease of Maintenance
- Dry running without damage
- Portable
- Self-Priming
- Easy-to-install

Find your opportunity



Train / Truck /
Tanker Unloading



Bulk Tank /
Tank Farm
Transfer



Waste Water
Treatment /
Fluid Filtration



Formulation



System Flush



Recirculation /
Reclamation



Chemical
Processing



Surface
Preparation



Basic Transfer /
Supply



Packaging /
Filling



Pharmaceuticals



Batching /
Blending



Entirely built and designed by ARO®. 'Authentic ARO® Parts' are replacement parts you can count on, to restore your ARO® equipment to their original performance and quality levels, while backing your warranty.

Though a part may look like an Authentic ARO® part, it must carry the 'Authentic ARO® Parts' name. If not bought from an Authorised Distributor, the part does not carry the ARO® promise and runs the risk of subpar chemical, metallurgical and mechanical properties.

Don't risk the downtime, use 'Authentic ARO® Parts'.

Smart Motor Design

Compact Series Pumps: 1/4" - 3/4"

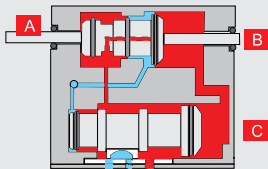
All ARO® Compact Series diaphragm pumps feature an unbalanced valve design, which eliminates valve centering and pump stall-out, even under low air inlet pressures.

“D” Valve

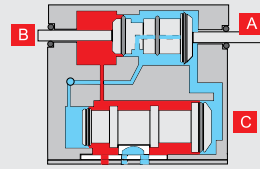
- Provides a positive seal.
- Helps ensure optimum energy efficiency, while avoiding costly air “blow-by.”
- Ceramic construction ensures long service life.

“SimulShift™” Valve

- Provides an ultra-positive, reliable shift signal that avoids stall-outs.
- Faster pump trip-over, with more flow.
- Less pulsation and superior laminar material flow.



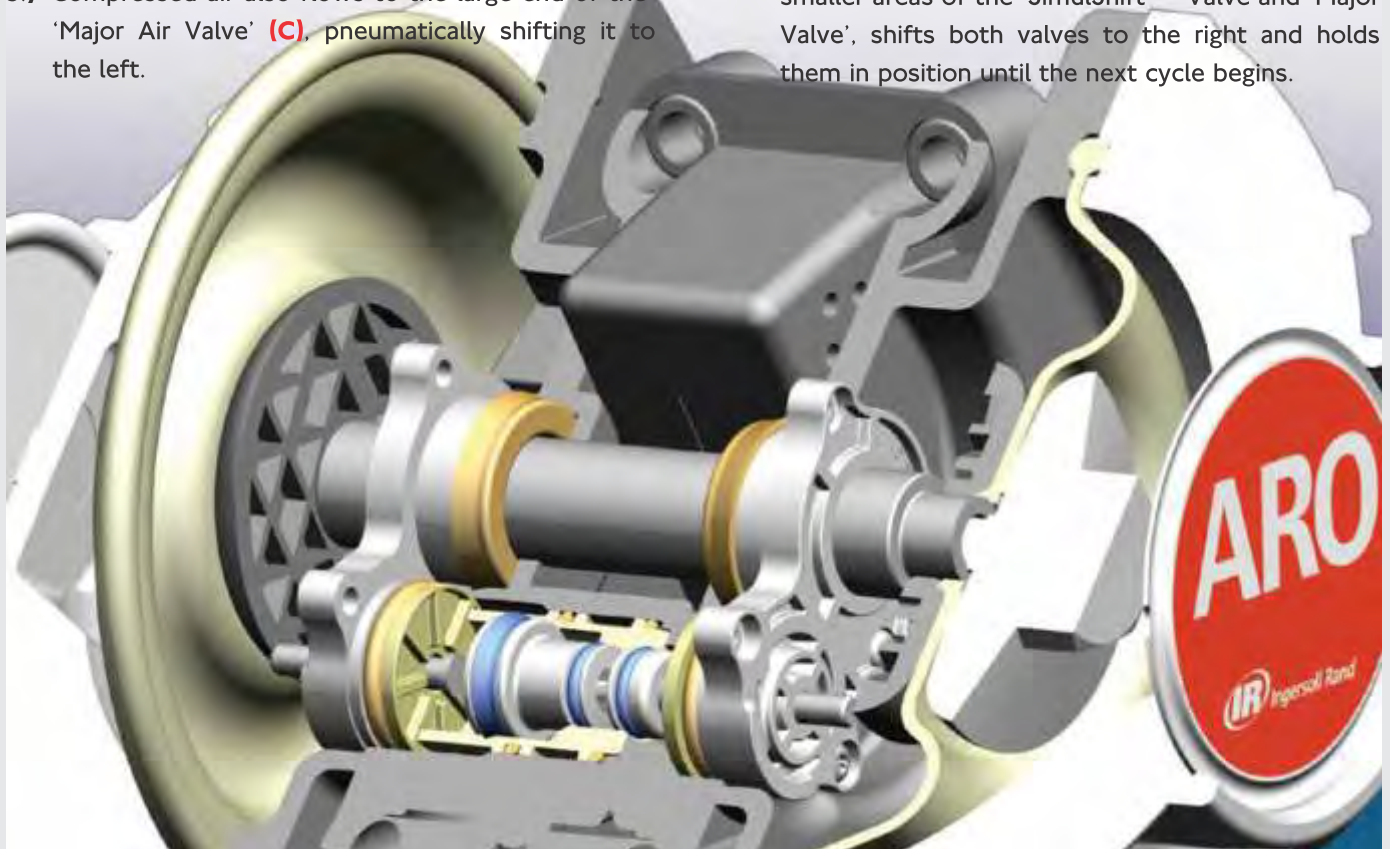
Diaphragm Moving Right to Left



Diaphragm Moving from Left to Right

- 1.) The diaphragm pushes the right ‘Actuator Pin’ (B) which automatically moves the ‘SimulShift Valve’ (A) to the left.
- 2.) Compressed air flows to the larger side of the ‘SimulShift™’ Valve, pneumatically moving the valve to the position shown above.
- 3.) Compressed air also flows to the large end of the ‘Major Air Valve’ (C), pneumatically shifting it to the left.

- 1.) The diaphragm pushes the ‘Actuator Pin’ (B) and ‘SimulShift™’ Valve (A) to the right.
- 2.) The larger ends of the ‘SimulShift™’ Valve (A) and the Major Valve (C) are vented, to exhaust pilot signal.
- 3.) Constant compressed air supply, acting on the smaller areas of the ‘SimulShift™’ Valve and ‘Major Valve’, shifts both valves to the right and holds them in position until the next cycle begins.











NON-METALLIC MODEL OVERVIEW



The ARO Non-Metallic offering consists of Polypropylene, Acetal and PDVF. All ARO pumps are available with convoluted diaphragms. Offering long lasting life and reduced maintenance.

NON-METALLIC MODEL OVERVIEW

Model	Compact Series					PRO Series		
								
Maximum Flow GPM (LPM)	5.3 (20)	10.6 (40.1)	14.4 (54.5)	13 (49.2)	14.8 (56)	47 (178)	100 (378.5)	145 (548.8)
Maximum Discharge Pressure PSI (BAR)	125 (8.6)	100 (6.9)	100 (6.9)	100 (6.9)	100 (6.9)	120 (8.3)	120 (8.3)	120 (8.3)
Fluid Ports Inlet / Outlet (BSP Available)	Q-1/4-1/8 PTF SAE SHORT	3/8" (F) - In / Out	1/2" (F) - In / Out	1/2-14 N.P.T.F.-1	3/4 - 14 N.P.T.F.-1 Rp 3/4 (3/4-14 BSP, parallel)	1" ANSI/DIN Flange 1" (F) Threaded	1-1/2" ANSI/DIN Flange	2" ANSI/DIN Flange
Materials of Construction	Polypropylene Groundable Acetal PVDF	Polypropylene Groundable Acetal PVDF	Polypropylene Groundable Acetal PVDF	Polypropylene Groundable Acetal PVDF	Polypropylene	Polypropylene	Polypropylene	Polypropylene
Pump Weight lbs. (kg.)	Poly 2.86 (1.3) PVDF 3.88 (1.76) Acetal 3.52 (1.6)	(1.9) PD03P-XDS-X (1.9) PD03P-XES-X (2.0) PD03P-XKS-X (2.1) PD03P-XLS-X (1.6) PD03P-XPS-X (1.6) PD03P-XRS-X	(2.9) PD05P-XDS-X-B (3.0) PD05P-XES-X-B (3.1) PD05P-XKS-X-B (3.3) PD05P-XLS-X-B (2.4) PD05P-XPS-X-B (2.5) PD05P-XRS-X-B	7.2 (3.3) Polypropylene 8.8 (4.0) Ground. Acetal 9.5 (4.3) Kynar PVDF	5.61 (2.54)	20.3 (9.2) Poly 28.8 (13.1) Poly w/ Cast Iron Center	62 (28.1) Poly 85 (38.5) Poly w/ Cast Iron Center	62 (28.1) Poly 85 (38.5) Poly w/ Cast Iron Center
Maximum Solids Inches (mm)	1/16 (1.6)	1/16 (1.6)	3/32 (2.4)	3/32 (2.4)	3/32 (2.4)	1/8 (3.2)	1/4 (6.4)	1/4 (6.4)
Best Selling Models (BSP Available)	PD01E-HDS-DAA-A PD01E-HDS-DTT-A PD01P-HKS-KTT-A PD01P-HPS-PAA-A PD01P-HPS-PGG-A PD01P-HPS-PTT-A	PD03P-ADS-DTT PD03P-AES-DCC PD03P-AES-DCC PD03P-AKS-KTT PD03P-APS-PAA PD03P-APS-PTT	PD05P-AKS-KTT-B PD05P-ALS-KTT-B PD05P-APS-PAA-B PD05P-APS-PTT-B PD05P-ARS-PAA-B PD05P-ARS-PGG-B PD05P-ARS-PTT-B PD05P-ARS-PUU-B	666053-0D2 666053-311 666053-344 666053-388 666053-3EB 66605J-344 66605J-388 66605J-3EB	PD07P-APS-PAA PD07P-APS-PCC PD07P-APS-PTT	6661A3-322-C 6661A3-344-C 6661A3-3EB-C 6661AJ-322-C 6661AJ-344-C 6661AJ-3EB-C 6661B3-344-C	6661T3-344-C 6661T3-3EB-C 6661T4-444-C 6661U3-344-C 6661U3-3EB-C	6662A3-244-C 6662A3-311-C 6662A3-344-C 6662A3-3EB-C 6662B3-344-C 6662B3-3EB-C
Recommended Filter/ Regulator	P39124-624	P39124-624	P39124-624	P39124-624	P39124-624	P39224-614	P39344-614	P39354-614
Air Line Kit	66073-1	66073-1	66073-1	66073-1	66073-1	66073-1	66084-1	66109

***PLEASE NOTE** "Rp" is the symbol used to indicate "British Standard Pipe Parallel"

1/4" NON-METALLIC MODELS

Part of the Compact Series of pumps, are the 1/4" pumps, which feature big performance in a compact package. They feature flow rates of up to 5.3 g.p.m. (20 l.p.m.), a wide range of material options, multi-port versions, and the unique hybrid male / female threaded fluid connections.

Ratio:	1:1
Maximum Flow:	5.3 g.p.m. (20) l.p.m.
Displacement per Cycle: (Liters)	0.019 Gallons (0.072)
Air Inlet (Female):	1/4 - 18 P.T.F. SAE Short
Fluid Inlet / Outlet Hybrid:	Internal Thread 1/4" N.P.T.F./B.S.P.T. External Thread 3/4" - 14 N.P.T.F./B.S.P.T.
Maximum Operating pressure PSI (bar):	125 (8.6)
Suspended solids Maximum Diameter:	1/16" (1.66)
Weight lbs (kg):	2.86 (1.3) Polypropylene 3.88 (1.76) PVDF 3.52 (1.60) Acetal
Maximum Dry Suction Lift ft (m):	15 (4.6)
Sound Level:	70 PSI; 60 Cycles/Min; 62.3 db (A)
Muffler:	Integral, Included



PD01P-HPS-PCC-A

Ordering

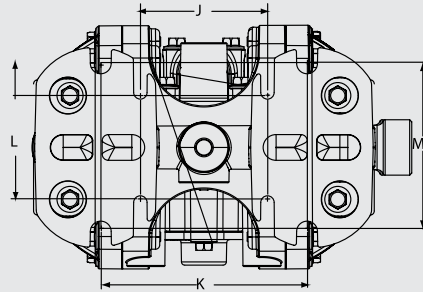
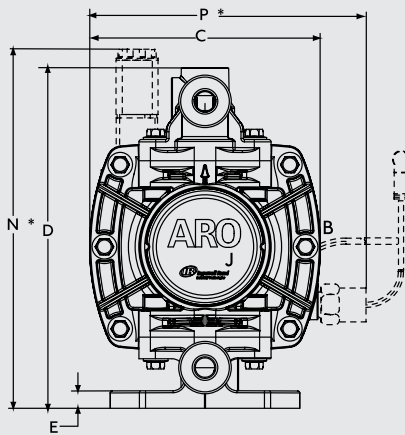
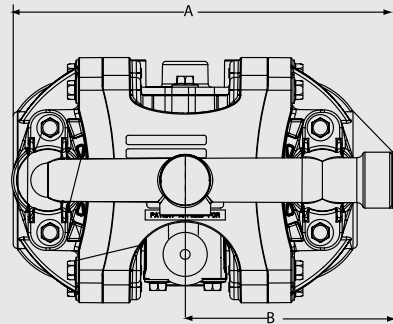
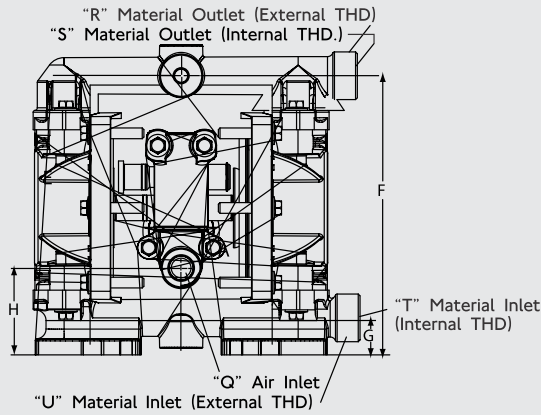
Position:	1	2		3	4	5		6	7	8		9		10	11
Example:	PX01	X	-	H	X	S	-	X	X	X	-	A	-	X	X

Position 1 Model Series	Position 2 Center Section	Position 3 Fluid Connections	Position 4 Wetted Parts	Position 5 Hardware	Position 6 Seat Material	Position 7 Ball Material	Position 8 Diaphragm Material	Position 9 Revision	Position 10 & 11 Specialty Code
PD01 - Standard Pump PE01 - Electronic Interface Accessible Pump	E - Conductive Polypropylene F - Polypropylene with leak failure detection P - Polypropylene	H - 1/4" NPT BSP hybrid	D - Groundable Acetal E - Groundable Acetal (Multiple port) K - Kynar PVDF L - Kynar PVDF (Multiple port) P - Polypropylene R - Polypropylene (Multiple port)	S - Stainless Steel	D - Acetal K - PVDF P - Polypropylene 0 - Polypropylene (Flex-Check spacer)* 1 - Acetal (Flex-Check spacer)* 2 - PVDF (Flex-Check spacer)*	A - Santoprene® C - Hytrel® G - Nitrile J - Nitrile (Flex-Check only) K - EPR (Flex-Check only) L - Viton (Flex-Check only) N - Neoprene (Flex-Check only) T - PTFE	A - Santoprene® C - Hytrel® G - Nitrile T - PTFE	A - Revision 1	Fluid control options for pump with electronic interface (PE01 model).

Accessories

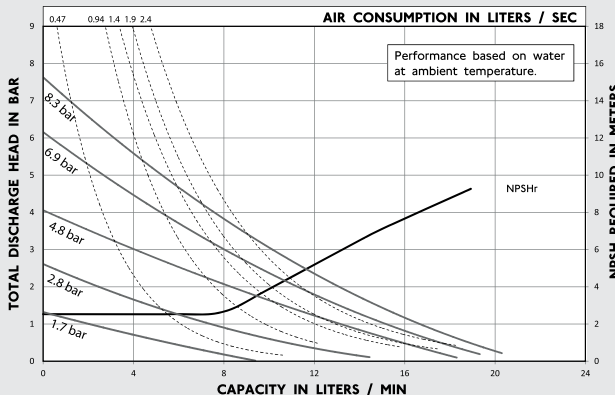
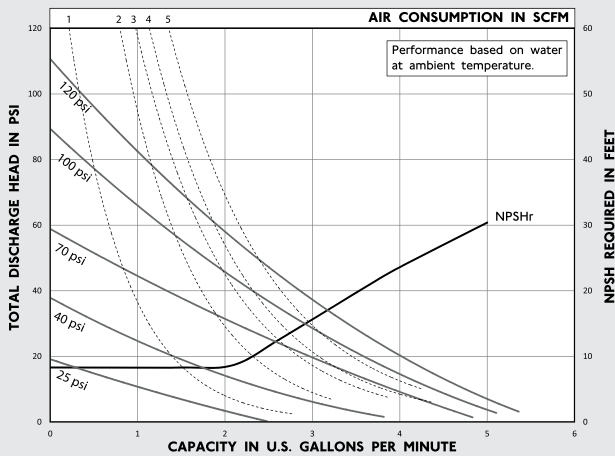
- Air Line Connection Kit | 66073-1
(Piggyback Filter / Regulator with gauge, pipe nipple and 5-foot air hose).

1/4" Non-Metallic Dimensions and Flow Charts



PERFORMANCE CURVES

PD01P-XXS-XXX 1/4" NON-METALLIC DIAPHRAGM PUMP



DIMENSIONS

A - 7.2" (182 mm)	H - 1.9" (48.6 mm)	Q - 1/4 - 18 PTF SAE Short
B - 3.9" (100.0 mm)	J - 2.4" (61 mm)	R - 3/4-14 NPTF
C - 4.6" (117.0 mm)	K - 3.9" (99 mm)	S - 1/4 NPTF / BSPT Hybrid
D - 6.8" (173.0 mm)	L - 2.1" (53 mm)	T - 1/4 NPTF / BSPT Hybrid
E - 0.3" (8.8 mm)	M - 3.2" (81 mm)	U - 3/4-14 NPTF
F - 6.1" (156 mm)	N - 7.2" (184 mm)	V - 1/4 NPTF
G - 0.8" (20.7 mm)	P - 5.6" (142.2 mm)	

Dimensions shown are for reference only, and are displayed in inches and millimeters (mm).

ORDERING POSITION 10

Specialty Code 1
(Blank if there is no specialty code)

A - Solenoid 120V AC	G - Solenoid 12V DC ATEX/IECex
B - Solenoid 12V DC	H - Solenoid 24V DC ATEX/IECex
C - Solenoid 240V AC	J - 120V AC NEC/CEC
D - Solenoid 24V DC	K - Solenoid 220V AC ATEX/IECex
E - 12V DC NEC/CEC	N - Solenoid with no coil
F - 24V DC NEC/CEC	0 - Standard Valve Block (No Solenoid)




ORDERING POSITION 11

Specialty Code 2
(Blank if there is no specialty code)

E - End of stroke feedback + Leak Detection	L - Leak Detection
F - End of stroke feedback	M - Leak Detection
G - End of Stroke ATEX/IECex/NEC/CEC	ATEX/IECex/NEC/CEC
H - End of Stroke / Leak Detection ATEX/IECex/NEC/CEC	0 - No Option

3/8" NON-METALLIC MODELS

Part of the Compact Series of pumps are the 3/8" pumps, which feature big performance, flow rates of up to 10.6 g.p.m. (40.1 l.p.m.) with a wide range of material and porting configurations.

Ratio:	1:1		 <p>PD03P-APS-PCC</p>  <p>PD03P-ADS-DT</p> 
Maximum Flow:	10.6 g.p.m. (40.1 l.p.m.) 8.7 (32.9) Flex check		
Displacement per Cycle:	0.022 Gallons (0.083 Liters) 0.018 (0.068) Flex check		
Air Inlet (Female):	1/4 - 18 P.T.F. SAE Short		
Fluid Inlet / Outlet:	3/8 - 18 N.P.T.F. - 1		
	Rp 3/8 (3/8 - 19 BSP, parallel)		
Maximum Operating Pressure:	100 PSI (6.9 bar)		
Suspended Solids Maximum Diameter:	1/16 in. (1.6 mm)	Flex check (Fibers)	
Weight: lbs (kg)	PD03P-XDS-XXX	4.2 (1.9)	
	PD03P-XES-XXX	4.3 (1.9)	
	PD03P-XKS-XXX	4.5 (2.0)	
	PD03P-XLS-XXX	4.6 (2.1)	
	PD03P-XPS-XXX	3.4 (1.6)	
	PD03P-XRS-XXX	3.5 (1.6)	
Maximum Dry Suction Lift ft (m):	9.25 (2.8)		
Sound Level:	70 PSI; 60 Cycles/Min; 72.7 db (A)		
Muffler:	Integral, Included		

Ordering

Position	1	2	3	4	5	6	7	8	9	10	11				
Example:	PX03	P	-	X	X	S	-	X	X	X	-	B	-	X	X

Position 1 Model Series	Position 2 Center Section	Position 3 Connections	Position 4 Manifold Material	Position 5 Hardware	Position 6 Seat Material	Position 7 Ball Material	Position 8 Diaphragm Material	Position 9
D - Standard E - Remote Actuation Capable	P - Polypropylene	A - 3/8" N.P.T. B - 3/8" BSP	D - Ground. Acetal (single port) E - Ground. Acetal (multiple port) K - PVDF (single port) L - PVDF (multiple port) P - Polypropylene (single port) R - Polypropylene (multiple port)	S - Stainless Steel	D - Acetal K - PVDF P - Polypropylene S - Stainless Steel O - Flex Check	A - Santoprene C - Hytrel* I - Nitrile N - Neoprene S - Stainless Steel T - PTFE V - Viton	A - Santoprene C - Hytrel* G - Nitrile T - PTFE / Santoprene V - Viton * Flex check models	Revision Level Position 10 & 11 Specialty Code Fluid control options for pump with electronic interface (PE03 model).

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Accessories

- Air Line Connection Kit | 66073-1
(Piggyback Filter / Regulator with gauge, pipe nipple and 5-foot air hose)
- Cycle Counter Kit | 66975
- Wall Mount Bracket Kit | 67388
- Optional Muffler used with a 637428 Kit
- Service Repair Kits | 637428 (Air section)
- 637429-XX (Fluid section)

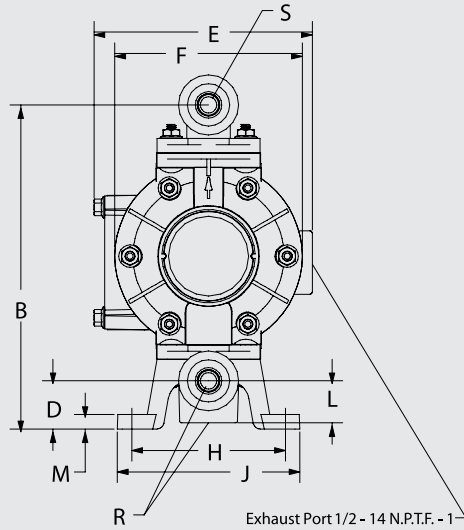
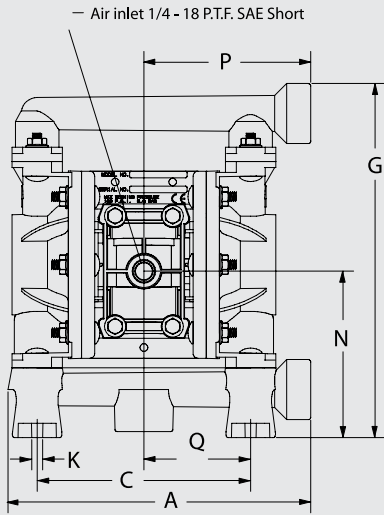


Air Line Connection Kit
66073-1

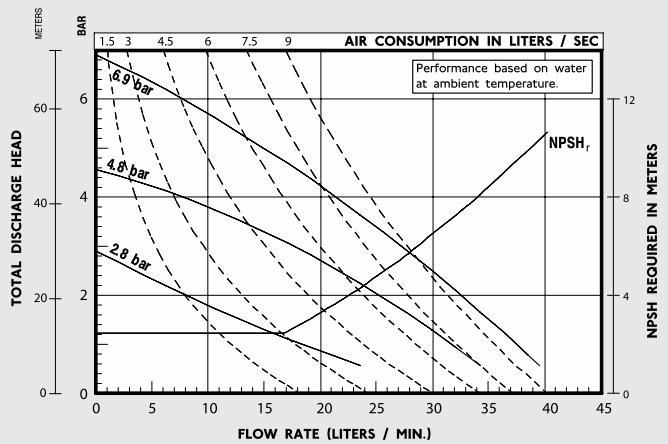
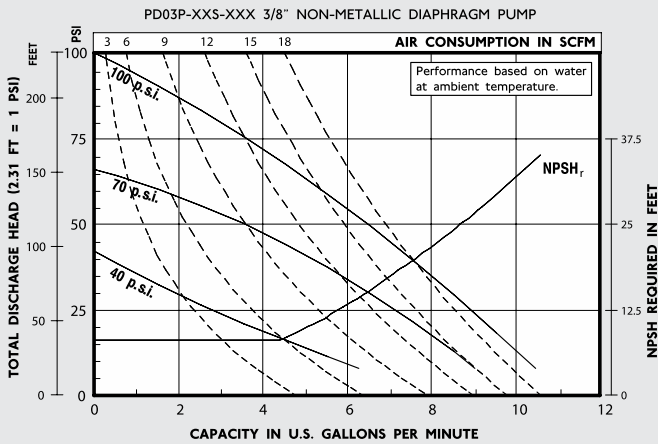


Wall Mount Bracket Kit
67388

3/8" Non-Metallic Dimensions and Flow Charts



PERFORMANCE CURVES



PE03P-APS-PAA-BOS
with 637442-1 Kit

- Dual Inlet/Outlet Kits:
 637442-1 (N.P.T. Poly)
 637442-4 (BSP Poly)
 637442-3 (N.P.T. PVDF)
 637442-6 (BSP PVDF)
 637442-2 (N.P.T. Acetal)
 637442-5 (BSP Acetal)

DIMENSIONS

A	7-29/32" (200.2 mm)	F	4-7/8" (123.9 mm)	L	1-3/32" (27.8 mm)
B	8-7/16" (214.3 mm)	G	9-7/32" (234.2 mm)	M	3/8" (9.5 mm)
C	5-9/16" (141.3 mm)	H	4" (101.6 mm)	N	4-11/32" (110.1 mm)
D	1-1/4" (31.8 mm)	J	4-3/4" (120.7 mm)	P	4 11/32" (110.3 mm)
E	5-23/32" (145.2 mm)	K	9/32" (7.1 mm)	Q	2-25/32" (70.6 mm)

ORDERING POSITION 10

Specialty Code 1
(Blank if there is no specialty code)

A - Solenoid 120V AC	G - Solenoid 12V DC ATEX/IECex
B - Solenoid 12V DC	H - Solenoid 24V DC ATEX/IECex
C - Solenoid 240V AC	J - 120V AC NEC/CEC
D - Solenoid 24V DC	K - Solenoid 220V AC ATEX/IECex
E - 12V DC NEC/CEC	N - Solenoid with no coil
F - 24V DC NEC/CEC	0 - Standard Valve Block (No Solenoid)

ORDERING POSITION 11


Specialty Code 1
(Blank if there is no specialty code)

E - End of stroke feedback + Leak Detection	L - Leak Detection
F - End of stroke feedback	M - Leak Detection
G - End of Stroke ATEX/IECex/NEC/CEC	ATEX/IECex/NEC/CEC
H - End of Stroke/Leak Detection ATEX/IECex/NEC/CEC	0 - No Option

MODEL	"R" MATERIAL INLET	"S" MATERIAL OUTLET
PD03P- <u>A</u> XS-XXX	3/8 18 N.P.T.F. - 1	3/8 18 N.P.T.F. - 1
PD03P- <u>B</u> XS-XXX	Rp 3/8 (3/8 - 19 BSP)	Rp 3/8 (3/8 - 19 BSP)

1/2" NON-METALLIC MODELS

Part of the Compact Series of pumps are the 1/2" compact pumps, which feature big performance, with flow rates of up to 14.4 g.p.m. (54.5 l.p.m.) with a wide range of material and porting configurations.

Ratio:	1:1	 <p style="text-align: center;">PD05P-ARS-PAA</p>
Maximum Flow:	14.4 g.p.m. (54.5 l.p.m.)	
Displacement per Cycle:	0.039 Gallons (.15 Liters)	
Air Inlet (Female):	1/4 - 18 P.T.F. SAE Short	
Fluid Inlet / Outlet:	1/2 - 14 N.P.T.F. - 1 Rp 1/2 (1/2 -14 BSP, parallel)	
Maximum Operating Pressure:	100 PSI (6.9 bar)	
Suspended Solids Maximum Diameter:	3/32" (2.4 mm)	
Weight lbs (kg):	PD05P-XDS-XXX-B 6.3 (2.9)	
	PD05P-XES-XXX-B 6.7 (3.0)	
	PD05P-XKS-XXX-B 6.8 (3.1)	
	PD05P-XLS-XXX-B 7.2 (3.3)	
	PD05P-XPS-XXX-B 5.2 (2.4)	
	PD05P-XRS-XXX-B 5.4 (2.5)	
Maximum Dry Suction Lift ft (m):	ft (m) 15.0 (4.5)	
Sound Level:	70 PSI; 60 Cycles/Min; 75.0 db (A)	
Muffler:	Integral, Included	

Ordering

Position	1	2		3	4	5		6	7	8		9		10	11
Example:	PX05	P	-	X	X	S	-	X	X	X	-	B	-	X	X

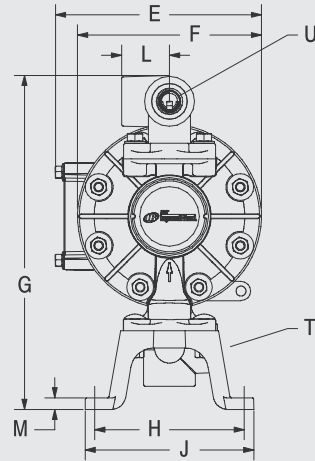
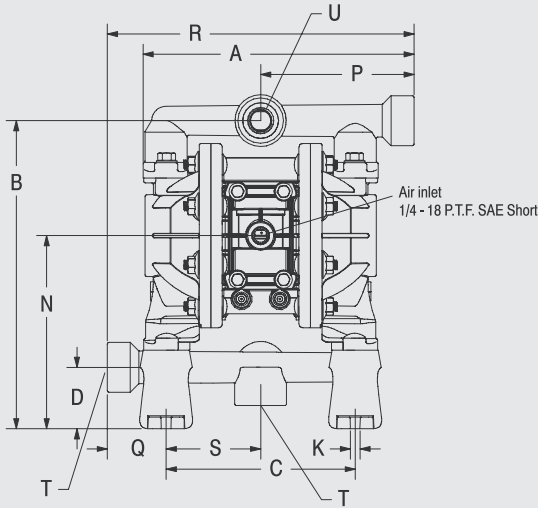
Position 1 Model Series	Position 2 Center Section	Position 3 Connections	Position 4 Manifold Material	Position 5 Hardware	Position 6 Seat Material	Position 7 Ball Material	Position 8 Diaphragm Material	Position 9
D - Standard E - Remote Actuation Capable	P - Polypropylene	A - 1/2 - 14 N.P.T.F. - 1 B - Rp 1/2 (1/2 - 14 BSP, parallel)	D - Ground, Acetal (Single port) E - Ground, Acetal (Multiple port) K - PVDF (Single port) L - PVDF (Multiple port) P - Polypropylene (Single port) R - Polypropylene (Multiple port)	S - Stainless Steel	D - Acetal K - PVDF P - Polypropylene S - Stainless Steel	A - Santoprene C - Hytrel* G - Nitrile S - Stainless Steel T - PTFE U - Polyurethane V - Viton	A - Santoprene C - Hytrel* G - Nitrile L - Long-Life PTFE T - PTFE / Santoprene U - Polyurethane V - Viton	Revision Level Position 10 & 11 Specialty Code Fluid control options for pump with electronic interface (PE05 model).

Accessories

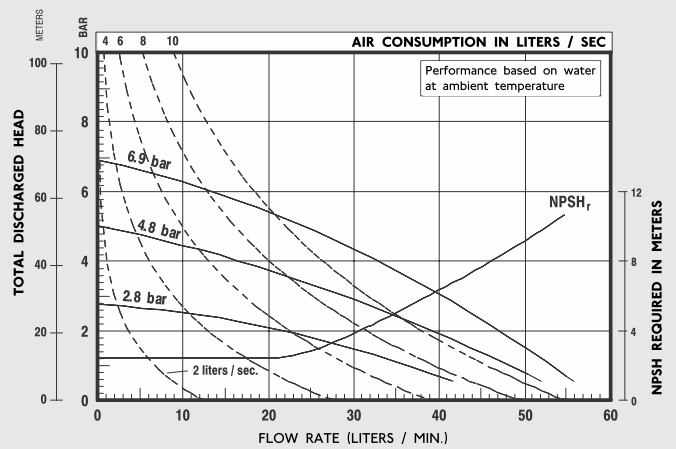
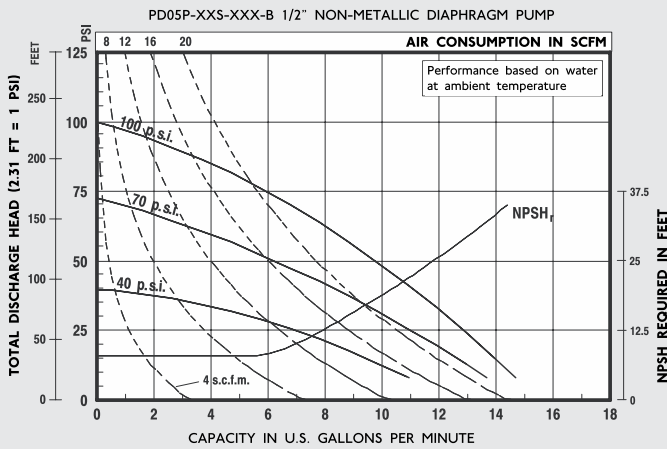
- Air Line Connection Kit | 66073-1 (Piggyback Filter / Regulator with gauge, pipe nipple and 5-foot air hose)
- Cycle Counter Kit | 66975
- Wall Mount Bracket Kit | 76763
- Optional Muffler | 93110 used with a 637438 Kit
- Service Repair Kits | 637428 (Air section)
- 637427-XX (Fluid section)



1/2" Non-Metallic Dimensions and Flow Charts



PERFORMANCE CURVES



DIMENSIONS

A 8-27/32" (224.3 mm)	G 10-7/8" (275.7 mm)	N 6-5/16" (159.9 mm)
B 10-1/16" (255.0 mm)	H 4-7/8" (123.8 mm)	P 5" (127.0 mm)
C 6.164" (156.6 mm)	J 5-1/2" (139.7 mm)	Q 1-59/64" (48.8 mm)
D 2" (50.8 mm)	K 5/16" (8.0 mm)	R 10" (254.0 mm)
E 6-23/32" (170.6 mm)	L 1-9/16" (39.7 mm)	S 3-3/32" (78.3 mm)
F 6" (152.4 mm)	M 3/8" (9.5 mm)	-

ORDERING POSITION 10

Specialty Code 1
(Blank if there is no specialty code)

A - Solenoid 120V AC	G - Solenoid 12V DC ATEX/IECex
B - Solenoid 12V DC	H - Solenoid 24V DC ATEX/IECex
C - Solenoid 240V AC	J - 120V AC NEC/CEC
D - Solenoid 24V DC	K - Solenoid 220V AC ATEX/IECex
E - 12V DC NEC/CEC	N - Solenoid with no coil
F - 24V DC NEC/CEC	0 - Standard Valve Block (No Solenoid)

MODEL "T" MATERIAL INLET "U" MATERIAL OUTLET

PD05P-AXS-XXX-B	1/2 - 14 N.P.T.F - 1	1/2 - 14 N.P.T.F - 1
PD05P-BXS-XXX-B	Rp 1/2 (1/2 - 14 BSP)	Rp 1/2 (1/2 - 14 BSP)



PE05P-APS-PAA-B0S
with 637440-1 Kit

Dual Inlet / Outlet Kits:
637440-1 (N.P.T. Poly)
637440-4 (BSP Poly)
637440-2 (N.P.T. Acetal)
637440-5 (BSP Acetal)
637440-3 (N.P.T. PVDF)
637440-6 (BSP PVDF)


ORDERING POSITION 11

Specialty Code 2
(Blank if there is no specialty code)

E - End of stroke feedback + Leak Detection	L - Leak Detection
F - End of stroke feedback	M - Leak Detection
G - End of Stroke ATEX/IECex/NEC/CEC	ATEX/IECex/NEC/CEC
H - End of Stroke / Leak Detection ATEX/IECex/NEC/CEC	0 - No Option

1/2" CLASSIC STYLE NON-METALLIC MODELS

Part of the Compact Series of pumps are the 1/2" classic pumps, which feature big performance, with flow rates of up to 13 g.p.m. (49.2 l.p.m.) with a wide range of material and porting configurations.

Ratio:	1:1	 <p>66605J-3EB</p>
Maximum Flow:	(Ball) 13 g.p.m. (49.2 l.p.m.) (Duckbill) 10 g.p.m. (37.9 l.p.m.)	
Displacement per Cycle:	(Ball) 0.04 g.p.m. (.15 l.p.m.) (Duckbill) 0.032 g.p.m. (0.12 l.p.m.)	
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:	100 PSI (6.9 bar)	
Suspended Solids Maximum Diameter:	(Ball) 3/32" (2.4-mm) (Duckbill) fibers	
Weight lbs (kg):	Polypropylene 7.2 (3.3)	
	Groundable Acetal 8.8 (4.0)	
	Kynar PVDF 9.5 (4.3)	
Sound Level:	70 PSI; 60 Cycles / Min; 71.1 db (A)	
Muffler:	Integral, Included	

Ordering

Position	1	2		3	4	5		6
Example:	66605	X	-	X	X	X	-	04

Position 1 Model Series	Position 2 Fluid Caps and Manifold Material	Position 3 Seat Section	Position 4 Ball Material	Position 5 Diaphragm Material	Position 6 Cone Check Flow
Base Model	3 - Polypropylene 6 - Groundable Acetal 7 - Pure PVDF J - Polypropylene* H - Groundable Acetal* K - Pure PVDF* *Single piece manifold	0 - Duckbill 2 - Stainless Steel 3 - Polypropylene 4 - PVDF 6 - Acetal	1 - Neoprene 2 - Nitrile 3 - Viton 4 - PTFE 8 - Polyurethane A - Stainless Steel C - Neoprene** D - Nitrile** E - Santoprene **Duckbill models	1 - Neoprene 2 - Nitrile 3 - Viton 4 - PTFE / Santoprene 8 - Polyurethane 9 - Hytrel B - Santoprene L - Long-Life PTFE	04 - Top Discharge

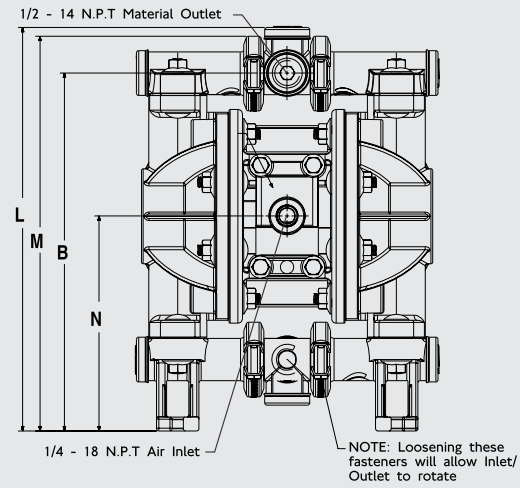
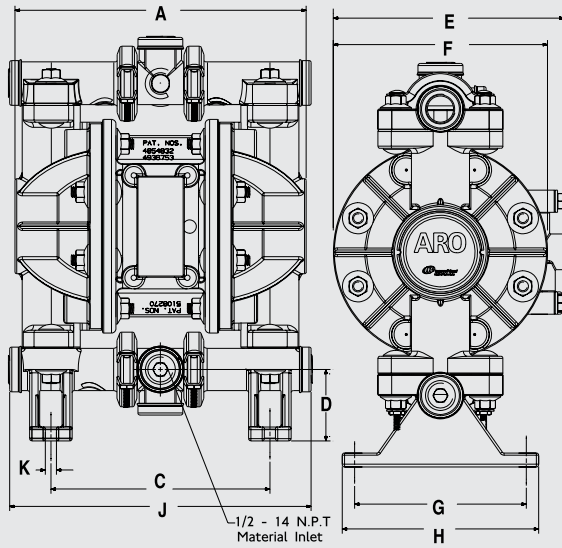
Accessories

- Air Line Connection Kit | 66073-1
(Piggyback Filter / Regulator with gauge, pipe nipple and 5-foot air hose)
- Cycle Counter Kit | 66975
- Optional Muffler | 93110 used with a 637438 Kit
- Service Repair Kits | 637141 (Air section)
- 637140-XX (Fluid section)



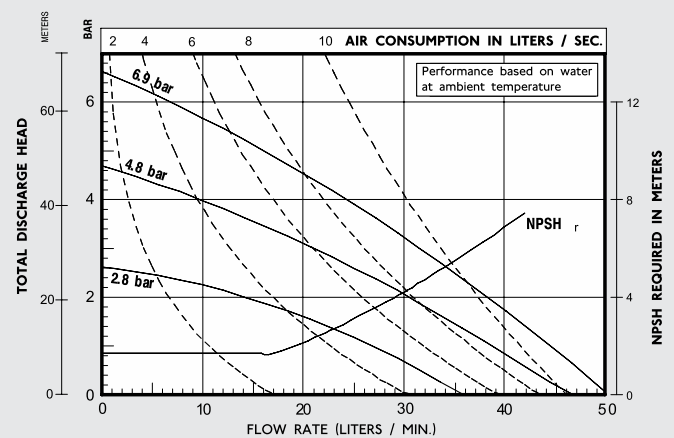
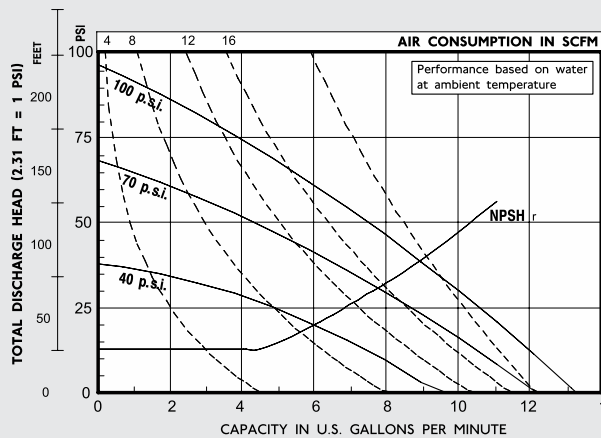
1/2" CLASSIC STYLE NON-METALLIC MODELS

1/2" Non-Metallic Dimensions and Flow Charts



NOTE: Dimensions are shown in inches and (mm), and are supplied for reference only.

PERFORMANCE CURVES




DIMENSIONS

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

3/4" NON-METALLIC MODELS

Part of the Compact Series of pumps are the 3/4" pumps, which feature big performance, with flow rates of up to 14.8 g.p.m. (56 l.p.m.) with a wide range of material and porting configurations.

Ratio:	1:1	
Maximum Flow:	14.8 g.p.m. (56 l.p.m.)	
Displacement per Cycle:	0.032 Gallons (0.12 Liters)	
Air Inlet (female):	1/4 - 18 P.T.F. SAE Short	
Fluid Inlet / Outlet:	3/4 - 14 N.P.T.F. - 1 Rp 3/4 (3/4 -14 BSP, parallel)	
Maximum Operating Pressure:	100 PSI (6.9 bar)	
Suspended Solids Maximum Diameter:	3/32" (2.4 mm)	
Weight lbs (kg):	5.61 (2.54)	
Maximum Dry Suction Lift ft (m):	15.0 (4.5)	
Sound Level:	70 PSI; 60 Cycles/Min; 75.0 db (A)	

Ordering

Position	1	2		3	4	5		6	7	8		9		10	11
Example:	PD07	P	-	X	X	S	-	X	X	X	-	B	-	X	X

Position 1 Model Series	Position 2 Center Section	Position 3 Connections	Position 4 Manifold Material	Position 5 Hardware	Position 6 Seat Material	Position 7 Ball Material	Position 8 Diaphragm Material	Position 9
PD07 - Standard Pump PE07 - Remote Actuation Capable	P - Polypropylene	A - 3/4" - 14 N.P.T.F.-1 B - Rp 3/4 (3/4 - 14 BSP, parallel)	P - Polypropylene (Single Port)	S - SS	P - Polypropylene	A - Santoprene C - Hytrel T - PTFE	A - Santoprene C - Hytrel L - Long-Life PTFE T - PTFE	Revision Level Position 10 & 11 Specialty Code Fluid control options for pump with electronic interface (PE07 model).

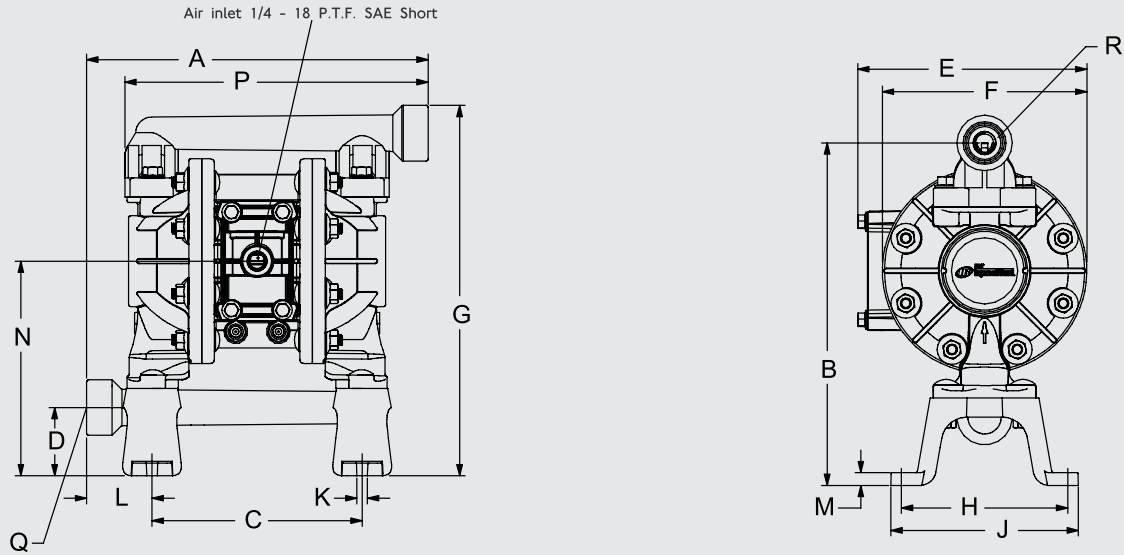
Accessories

- Air Line Connection Kit | 66073-1 (Piggyback Filter / Regulator with gauge, pipe nipple and 5-foot air hose)
- Cycle Counter Kit | 66975
- Muffler Kit | 637438 (Ported exhaust) 3/8" NPT
- Service Repair Kits | 637428 (Air section)
- 637427-XX (Fluid section)

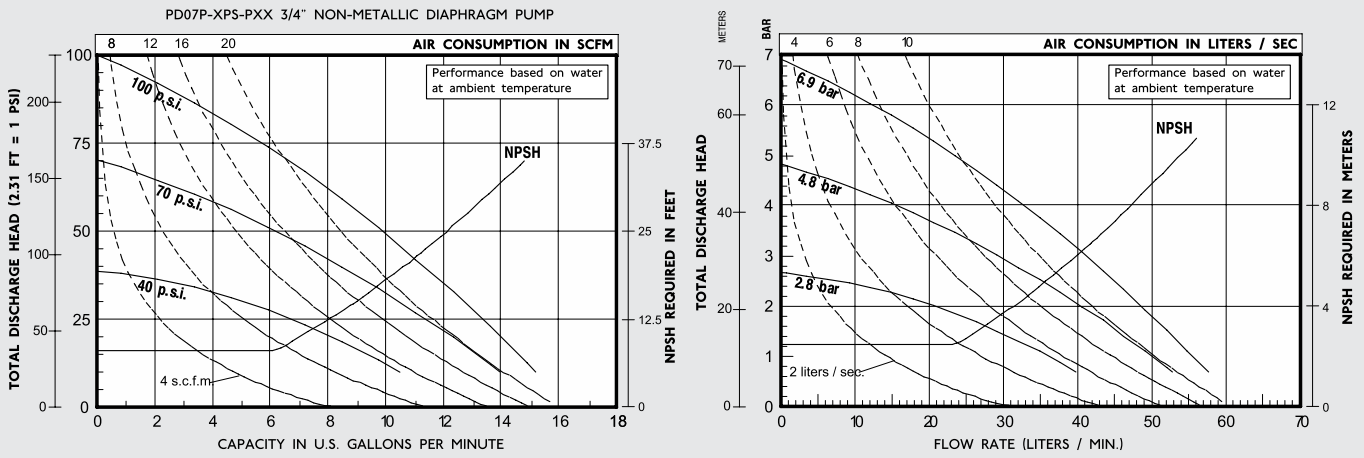


Air Line Connection Kit
66073-1

3/4" Non-Metallic Dimensions and Flow Charts



PERFORMANCE CURVES



DIMENSIONS		
A - 10" (254.2 mm)	F - 6-1/32" (153.1 mm)	L - 1-15/16" (48.9 mm)
B - 10-3/32" (256.1 mm)	G - 10-29/32" (276.8 mm)	M - 3/8" (9.6 mm)
C - 6-3/16" (157.1 mm)	H - 4-29/32" (124.2 mm)	N - 6-5/16" (160.5 mm)
D - 2" (51.0 mm)	J - 5-17/32" (140.2 mm)	P - 8-7/8" (225.3 mm)
E - 6-3/4" (171.0 mm)	K - 5/16" (8.0 mm)	-

MODEL	"Q" MATERIAL INLET	"R" MATERIAL OUTLET
PD07P-APS-PXX	3/4 - 14 N.P.T.F. - 1	3/4 - 14 N.P.T.F. - 1
PD07P-BPS-PXX	Rp 3/4 (1/4 - 14 BSP)	Rp 3/4 (3/4 - 14 BSP)

ORDERING POSITION 10	
Specialty Code 1 (Blank if there is no specialty code)	
A - Solenoid 120V AC	G - Solenoid 12V DC ATEX/IECex
B - Solenoid 12V DC	H - Solenoid 24V DC ATEX/IECex
C - Solenoid 240V AC	J - 120V AC NEC/CEC
D - Solenoid 24V DC	K - Solenoid 220V AC ATEX/IECex
E - 12V DC NEC/CEC	N - Solenoid with no coil
F - 24V DC NEC/CEC	0 - Standard Valve Block (No Solenoid)

ORDERING POSITION 11	
Specialty Code 2 (Blank if there is no specialty code)	
E - End of stroke feedback + Leak Detection	L - Leak Detection
F - End of stroke feedback	M - Leak Detection
G - End of Stroke ATEX/IECex/NEC/CEC	ATEX/IECex/NEC/CEC
H - End of Stroke / Leak Detection ATEX/IECex/NEC/CEC	0 - No Option

1" NON-METALLIC MODELS

ARO® PRO 1" Non-Metallic Diaphragm pumps are a versatile solution for numerous applications. The PRO 1" models achieve flow rates of up to 47 g.p.m. (178 l.p.m.) with a wide array of material and porting configurations. These pumps are often used for transfers, filling, recirculation and supply in the Chemical, Industrial and Water / Wastewater Treatment industries.

Ratio:	1:1
Maximum Flow:	47 g.p.m. (177.9 l.p.m.)
Displacement per Cycle:	0.17 Gallons (0.64 Liters)
Air Inlet (Female):	1/4 - 18 N.P.T.
Fluid Inlet / Outlet:	1 - 11-1/2 N.P.T.F. - 1 Rp 1 (1 - 11 BSP, parallel) 1" ANSI/DIN Flange
Maximum Operating Pressure:	120 PSI (8.3 bar)
Suspended Solids Maximum Diameter:	1/8 inch (3.2 mm)
Weight lbs (kg):	6661A3, 1AF, 1AJ, 1AL, 20.3 (9.2) 6661B3, 1BF, 1BJ, 1BL, 28.8 (13.1)
Maximum Dry Suction Lift ft (m):	15 (4.6)
Sound Level:	70 PSI; 60 Cycles/Min; 64.5 db (A)



Ordering

Position	1	2		3	4	5		6
Example:	6661X	X	-	X	X	X	-	C

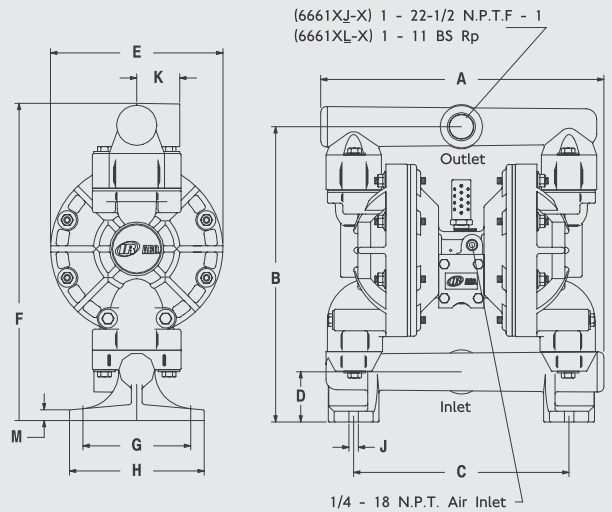
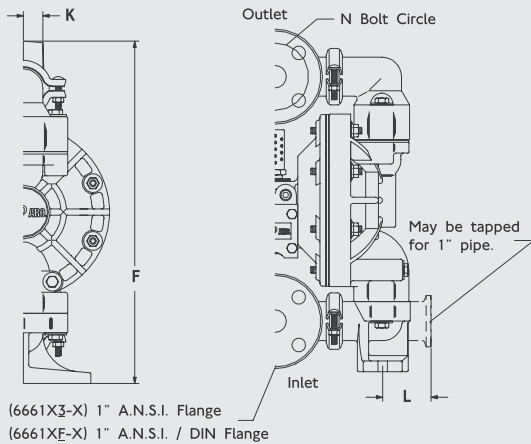
Position 1 Center Body	Position 2 Fluid Caps Manifold Mat.	Position 3 Seat Material	Position 4 Ball Check Material	Position 5 Diaphragm Material
A - Aluminum B - Cast Iron	3 - Polypropylene Flange (3-piece manifold) F - Polypropylene Flange (one-piece manifold) J - Polypropylene N.P.T. threads (one piece manifold) L - Polypropylene BSP threads (one-piece manifold)	2 - 316 Stainless Steel 3 - Polypropylene 4 - PVDF (Kynar) 8 - Hard 400 Stainless Steel	1 - Neoprene 2 - Nitrile 4 - PTFE 5 - E.P.R. 8 - Polyurethane A - 316 Stainless Steel C - Hytrel E - Santoprene M - Medical Grade Santoprene	1 - Neoprene 2 - Nitrile 4 - PTFE / Santoprene 5 - E.P.R. 6 - Composite PTFE B - Santoprene M - Medical Grade Santoprene

Accessories

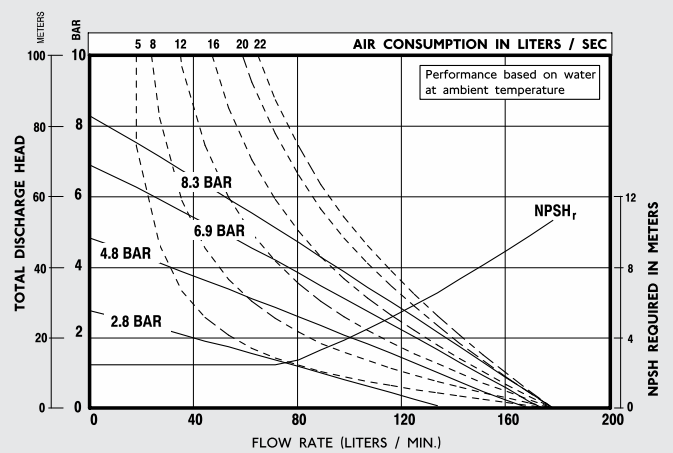
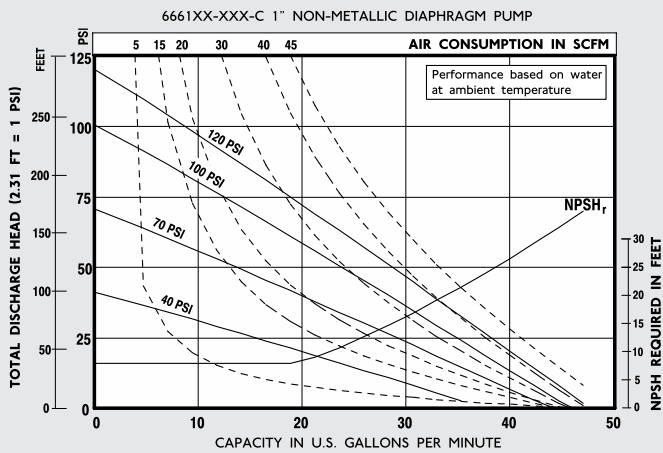
- Air Line Connection Kit | 66073-2
(Piggyback Filter / Regulator with gauge, pipe nipple and 5-foot air hose)
- Cycle Counter Kit | 66975
- Service Repair Kits | 637118-C (Air section)
- 637161-XX-C (Fluid section)
- Flange Connection Kit | 67078 - (Kit meets ANSI specifications).
- Flanges are constructed of glass-filled Polypropylene. Bolts, washers and nuts are Stainless Steel. The gasket is made off 4401 Klinger synthetic fiber Nitrile binder.



1" Non-Metallic Dimensions and Flow Charts



PERFORMANCE CURVES




DIMENSIONS

	6661X3-X	6661XJ-X 6661XL-X	6661XF-X
A	12-21/32" (321 mm)	12-21/32" (334 mm)	A 13-65/32" (334 mm)
B	13-25/32" (349 mm)	13-25/32" (350 mm)	B 13-25/32" (350 mm)
C	10-1/16" (255 mm)	10-1/16" (255 mm)	C 10-1/16" (255 mm)
D	2-3/8" (60 mm)	2-11/32" (59 mm)	D 2-11/32" (59 mm)
E	8-1/16" (204 mm)	8-1/16" (204 mm)	E 8-1/16" (204 mm)
F	16" (406 mm)	14-13/16" (376 mm)	F 16" (406 mm)
H	5-1/32" (128 mm)	5-1/32" (128 mm)	G 5-1/32" (128 mm)
G	6-9/32" (160 mm)	6-9/32" (160 mm)	H 6-9/32" (160 mm)
J	7-16" (11 mm)	7/16" (11 mm)	J 7/16" (11 mm)
K	15/16" (23 mm)	2" (51 mm)	K 1-1/32" (26 mm)
L	2-9/32" (57 mm)		L
M	1/2" (13 mm)	1/2" (13 mm)	M 1/2" (13 mm)
N	3.140" (80 mm)	-	N 3.140" (80 mm)
	6661XK-X	-	-
	6661XN-X	-	-

1-1/2" NON-METALLIC MODELS

ARO® PRO 1-1/2" Non-Metallic Diaphragm pumps are frequently used in transfer, filling, recirculation and supply in Chemical, Industrial and Water / Wastewater Treatment industries. The 1-1/2" models achieve flow rates of up to 100 g.p.m. (378.5 l.p.m.) with a diverse selection of materials and porting configurations.

Ratio:	1:1	 <p>6661T3-389-C</p>
Maximum Flow:	100 g.p.m. (378.5 l.p.m.)	
Displacement per Cycle:	0.67 Gallons (2.54 Liters)	
Air Inlet (Female):	1/2 - 14 N.P.T.F. - 1	
Fluid Inlet / Outlet:	1-1/2" A.N.S.I./DIN Flange	
Maximum Operating Pressure:	120 PSI (8.3 bar)	
Suspended Solids Maximum Diameter:	1/4 in. (6.4 mm)	
Weight lbs (kg):	6661T3-X-C 62 (28.1)	
Note:	Add 23 lbs (10.4 kg) for Cast Iron Air Motor section	
Maximum Dry Suction Lift ft (m):	14 (4.27)	
Sound Level:	70 PSI; 60 Cycles/Min; 77.7 db (A)	

Ordering

Position	1	2		3	4	5		6
Example:	6661X	X	-	X	X	X	-	C

Position 1 Center Body	Position 2 Fluid Caps Manifold Material	Position 3 Seat Material	Position 4 Ball Check Material	Position 5 Diaphragm Material
T - Aluminum U - Cast Iron	3 - Polypropylene Flange (3-piece manifold) 4 - P.V.D.F. (Kynar)	2 - 316 Stainless Steel 3 - Polypropylene 4 - P.V.D.F. (Kynar) 8 - Hard 400 Stainless Steel	1 - Neoprene 2 - Nitrile 3 - Viton 4 - PTFE 8 - Polyurethane C - Hytrel E - Santoprene	1 - Neoprene 2 - Nitrile 3 - Viton 4 - PTFE / Santoprene 6 - Composite PTFE 9 - Hytrel B - Santoprene

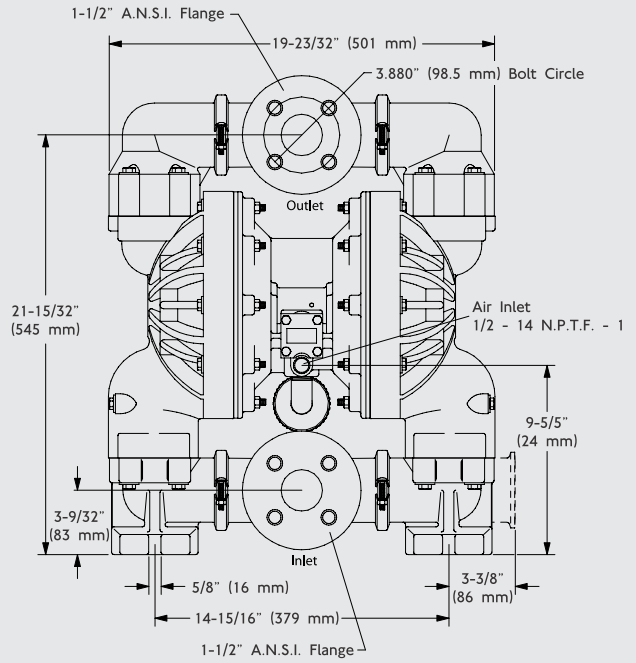
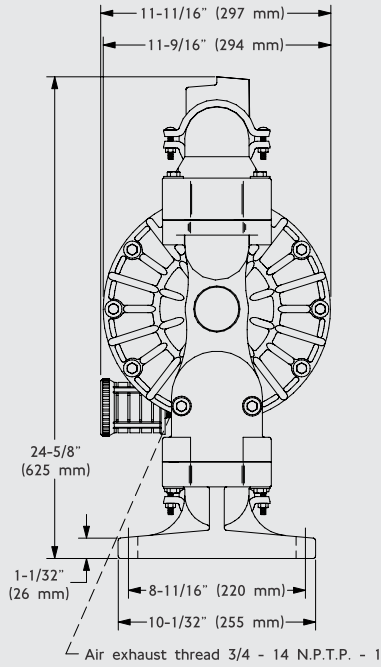
Accessories

- Air Line Connection Kit | 66084-1 (Piggyback Filter / Regulator with gauge, pipe nipple and 5-foot air hose)
- Cycle Counter Kit | 66975
- Service Repair Kits | 637118-C (Air section)
- 637165-XX (Fluid section)
- Flange Connection Kit | 67079 - (Kit meets ANSI specifications).
- Flanges are constructed of glass-filled Polypropylene. Bolts, washers and nuts are Stainless Steel. The gasket is made of 4401 Klinger synthetic fiber nitrile binder.

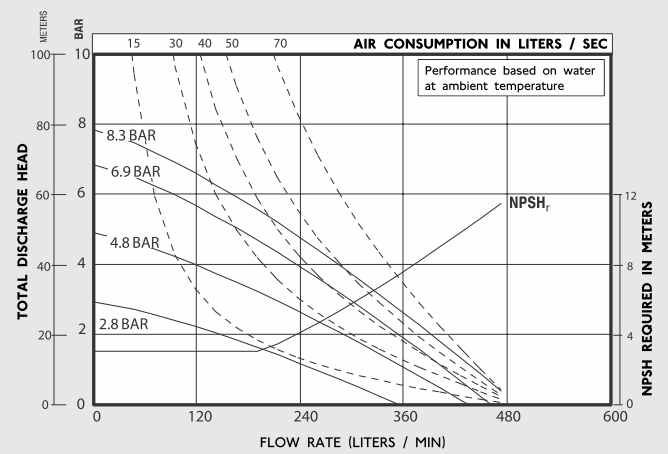
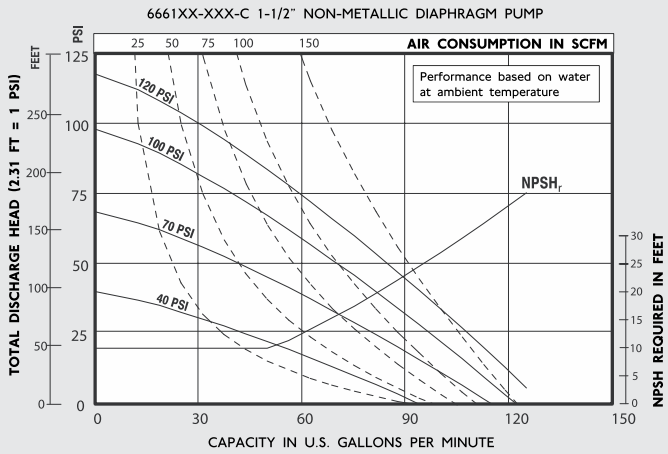


Flange Connection Kit
67078

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



PERFORMANCE CURVES



2" NON-METALLIC MODELS

ARO® PRO 2" Non-Metallic pumps achieve flow rates of up to 145 g.p.m. (548.8 l.p.m.) with a wide array of material and porting configurations. 2" Non-Metallic pumps are often used for transfers, filling, recirculation and batching in the Chemical, Industrial and Water / Wastewater Treatment industries.

Ratio:	1:1
Maximum Flow:	145 g.p.m. (548.8 l.p.m.)
Displacement per Cycle:	0.72 Gallons (2.7 Liters)
Air Inlet (Female):	1/2 - 14 N.P.T.F. - 1
Fluid Inlet / Outlet:	2" A.N.S.I./DIN Flange
Maximum Operating Pressure:	120 PSI (8.3 bar)
Suspended Solids Maximum Diameter:	1/4 in. (6.4 mm)
Weight lbs (kg):	6662A3-X-C 62 (28.1)
Note:	Add 23 lbs (10.4 kg) for Cast Iron Air motor section
Maximum Dry Suction Lift ft (m):	14 (4.27)
Sound Level:	70 PSI; 60 Cycles/Min; 77.7 db (A)



6662A3-333-C

Ordering

Position	1	2		3	4	5		6
Example:	6662X	X	-	X	X	X	-	C

Position 1 Center Body	Position 2 Fluid Caps Manifold Material	Position 3 Seat Material	Position 4 Ball Check Material	Position 5 Diaphragm Material
T - Aluminum U - Cast Iron	3 - Polypropylene Flange (3-piece manifold) 4 - P.V.D.F. (Kynar)	2 - 316 Stainless Steel 3 - Polypropylene 4 - P.V.D.F. (Kynar) 8 - 440 Stainless Steel	1 - Neoprene 2 - Nitrile 3 - Viton 4 - PTFE 8 - Polyurethane C - Hytrel E - Santoprene	1 - Neoprene 2 - Nitrile 3 - Viton 4 - PTFE / Santoprene 6 - Composite PTFE 9 - Hytrel B - Santoprene

Accessories

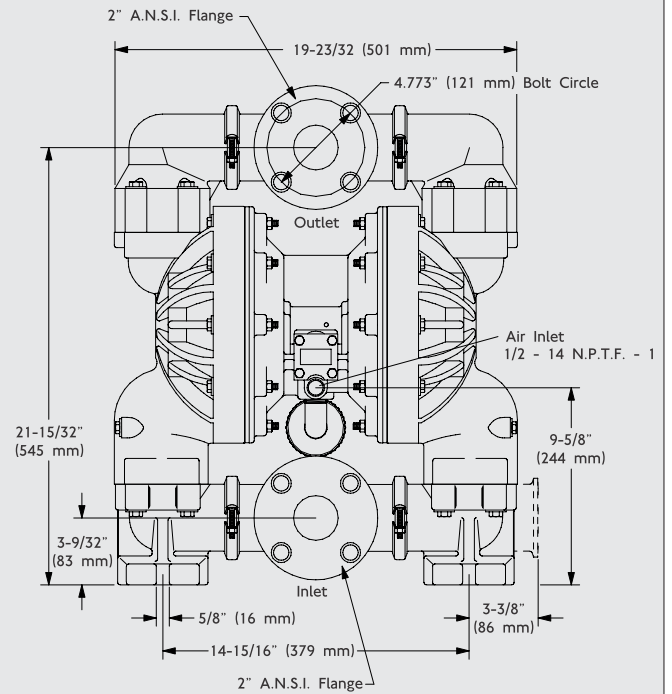
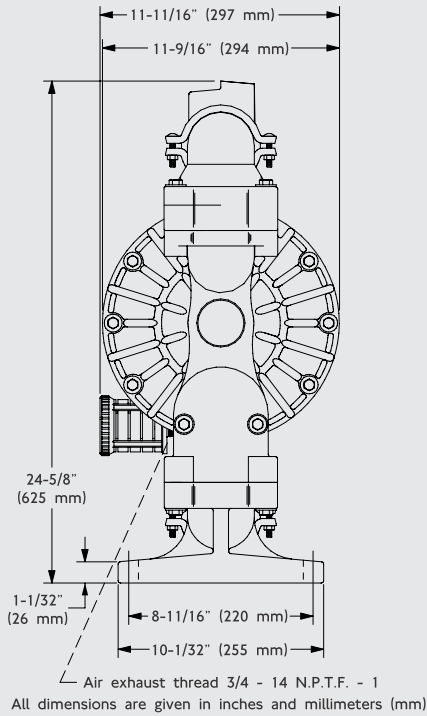
- Air Line Connection Kit | 66084-1 (Piggyback Filter / Regulator with gauge, pipe nipple and 5-foot air hose)
- Cycle Counter Kit | 66975
- Service Repair Kits | 637118-C (Air section)
- 637165-XX (Fluid section)
- Flange Connection Kit | 67079 - (Kit meets ANSI specifications).

Flanges are constructed of glass-filled Polypropylene. Bolts, washers and nuts are Stainless Steel. Gaskets are 4401 Klinger synthetic fiber nitrile binder.

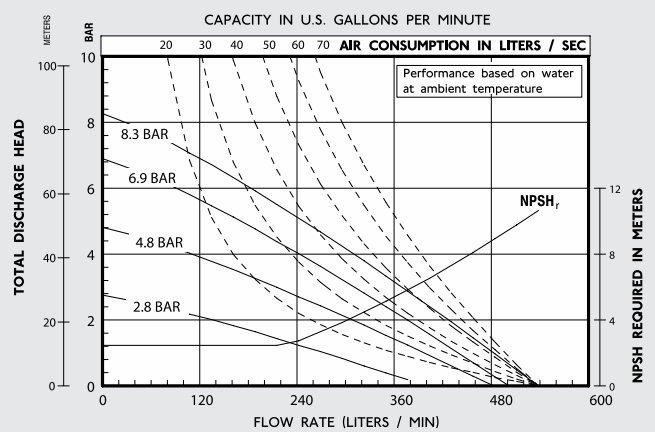
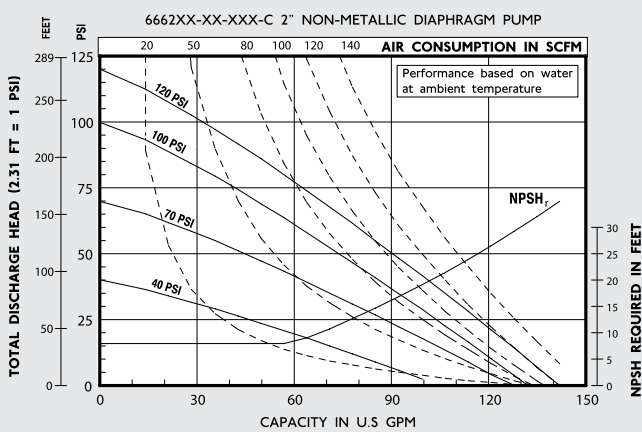


Flange Connection Kit
67078

2" Non-Metallic Dimensions and Flow Charts









PERFORMANCE CURVES





The ARO range of diaphragm pumps, offers a wide range that is compatible with the chemical industry. The metallic offering includes Aluminium, Cast Iron, Stainless Steel and Hastelloy.





METALLIC MODELS OVERVIEW

MODEL	Compact Series		PRO Series			
	 1/2"	 3/4"	 1"	 1-1/2"	 2"	 3"
Maximum Flow GPM (LPM)	12 (45.4)	13.6 (51.5)	35 (133)	90 (340.7)	172 (651)	237 (897)
Maximum Discharge Pressure PSI (BAR)	100 (6.9)	100 (6.9)	120 (8.3)	120 (8.3)	120 (8.3)	120 (8.3)
Fluid Ports Inlet / Outlet (BSP Available)	1/2" (F) - In / Out	3/4 - 14 N.P.T.F.-2 Rp 3/4 (3/4-14BSP, parallel)	1 - 11-1/2 N.P.T.F. - 1 Rp 1 (1-11 BSP parallel)	1-1/2 11-1/2 N.P.T.F. - 1 Rp 1-1/2 (1-11 BSP parallel)	1-1/2 11-1/2 N.P.T.F. - 1 Rp 2 (2-11 BSP parallel)	3 - 8 N.P.T.F. - 1 Rp 3 (3 - 11 BSP parallel)
Materials of Construction	Aluminum Stainless Steel	Aluminum	Aluminum Stainless Steel Cast Iron	Aluminum Stainless Steel Cast Iron	Aluminum Stainless Steel Cast Iron	Aluminum Stainless Steel Cast Iron
Pump Weight Lbs. (kg.)	10.4 (4.7) PD05A-XAS-X-B 16.6 (7.5) PD05A-XSS-X-B 8.0 (3.7) PD05R-XAS-X-B 14.3 (6.5) PD05R-XSS-X-B	8.74 (3.96)	19 (8.6) Aluminum* 36 (16.3) SS 31 (14.1) Cast Iron* *Add 8 lbs (3.63 kg) for Cast Iron center section	51.5 (23.4) Aluminum* 84.5 (38.3) SS 79.5 (36.1) Cast Iron* *Add 23 lbs (10.4 kg) for Cast Iron center section	65.2 (29.6) 129.9 (58.9) 124.3 (56.4)	109.8 (49.8) 222.2 (100.8) 213.1 (96.7)
Maximum Solids Inches (mm)	3/32 (2.4)	3/32 (2.4)	1/8 (3.2)	1/4 (6.4)	1/4 (6.4)	3/8 (9.5)
Best Selling Models (BSP Available)	PD05A-AAS-FAA-B PD05A-AAS-FCC-B PD05A-AAS-FGG-B PD05A-AAS-FTT-B PD05A-ASS-STT-B PD05R-AAS-PGG-B PD05R-AAS-PTT-B PD05R-ASS-STT-B	PD07R-AAS-FAA PD07R-AAS-FCC PD07R-AAS-FTT PD07R-AAS-PCC PD07R-AAS-PTT	666100-122-C 666100-244-C 666100-322-C 666100-344-C 666100-361-C 666100-362-C 666100-3EB-C 666101-244-C	666150-244-C 666150-322-C 666100-362-C 666150-3EB-C 666151-244-C 666152-281-C 666152-2EB-C 66616B-2EB-C	666250-144-C 666250-444-C 666250-9C9-C 666250-EEB-C 666250-G22-C 666251-EEB-C	666300-144-C 666300-9C9-C 666300-EEB-C 666300-G22-C 666302-EEB-C
Recommended Filter / Regulator	P39124-624	P39124-624	P39224-614	P39334-614	P39354-614	P39454-614
Air Line Kit	66073-1	66073-1	66073-2	66084-1	66312	66109

***PLEASE NOTE** "Rp" is the symbol used to indicate "British Standard Pipe Parallel"

1/2" METALLIC MODELS

Part of the Compact Series of pumps are the 1/2" metallic pumps, which feature big performance. These pumps offer flow rates of up to 14.4 g.p.m. (54.5 l.p.m.) with a wide range of material and porting configurations.

Ratio:	1:1	  PD05R-ASS-PTT-B   PD05A-ASS-FAA-B
Maximum Flow:	12.0 g.p.m. (45.4 l.p.m.)	
Displacement per Cycle:	0.039 Gallons (0.15 Liters)	
Air Inlet (Female):	1/4 - 18 P.T.F. SAE Short (PD05R-X-X-B models) 1/4 - 18 N.P.T.F. - 1 (PD05A-X-X-B models)	
Fluid Inlet / Outlet:	1/2 - 14 N.P.T.F. - 1 Rp 1/2 (1/2 - 14 BSP, parallel)	
Maximum Operating Pressure:	100 PSI (6.9 bar)	
Suspended Solids Maximum Diameter:	3/32 inch (2.4 mm)	
Weight lbs (kg):	PD05A-XAS-XXX-B 10.4 (4.7) PD05A-XSS-XXX-B 16.6 (7.5) PD05R-XAS-XXX-B 8.0 (3.7) PD05R-XSS-XXX-B 14.3 (6.5)	
Maximum Dry Suction Lift ft (m):	15 (4.5)	
Sound Level:	70 PSI; 60 Cycles/Min; 75 db (A)	
	PD05A - 93110; PD05R - Integral	

Ordering

Position	1	2		3	4	5		6	7	8		9		10	11
Example:	PX05	X	-	X	X	S	-	X	X	X	-	B	-	X	X

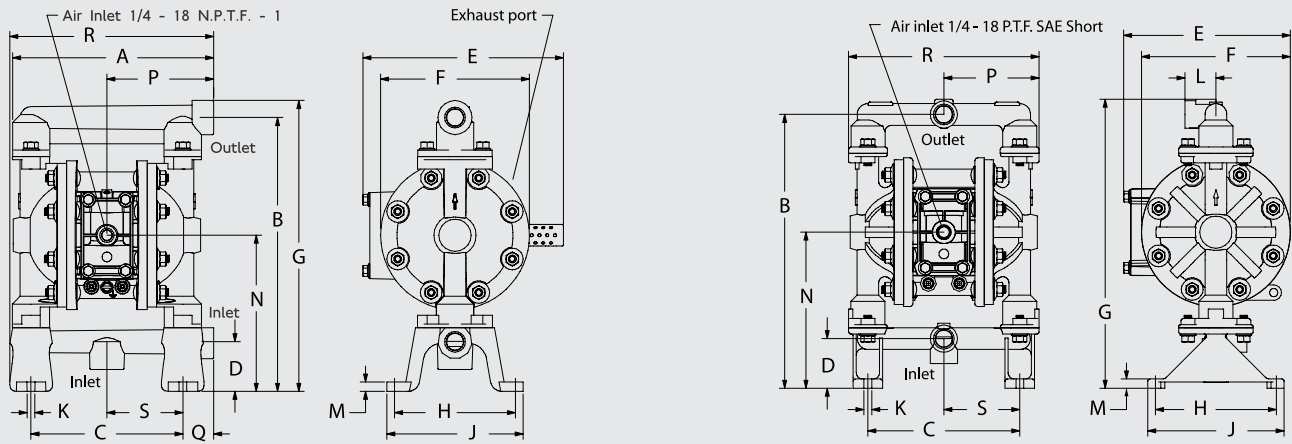
Position 1 Model Series	Position 2 Center Section	Position 3 Connections	Position 4 Manifold Material	Position 5 Hardware	Position 6 Seat Material	Position 7 Ball Material	Position 8 Diaphragm Material	Position 9 Specialty Code
D - Standard E - Remote Actuation Capable	A - Aluminum R - Polypropylene	A - 1/2 - 14 N.P.T.F. - 1 B - Rp 1/2 (1/2 - 14 BSP, parallel)	A - Aluminum S - Stainless Steel	S - Stainless Steel	F - Aluminum P - Polypropylene S - Stainless Steel	A - Santoprene C - Hytrel G - Nitrile S - Stainless Steel T - PTFE U - Polyurethane V - Viton	A - Santoprene C - Hytrel G - Nitrile L - Long-Life PTFE T - PTFE / Santoprene U - Polyurethane V - Viton	Revision Level Position 10 & 11 Specialty Code Fluid control options for pump with electronic interface (PE05 model).

Accessories

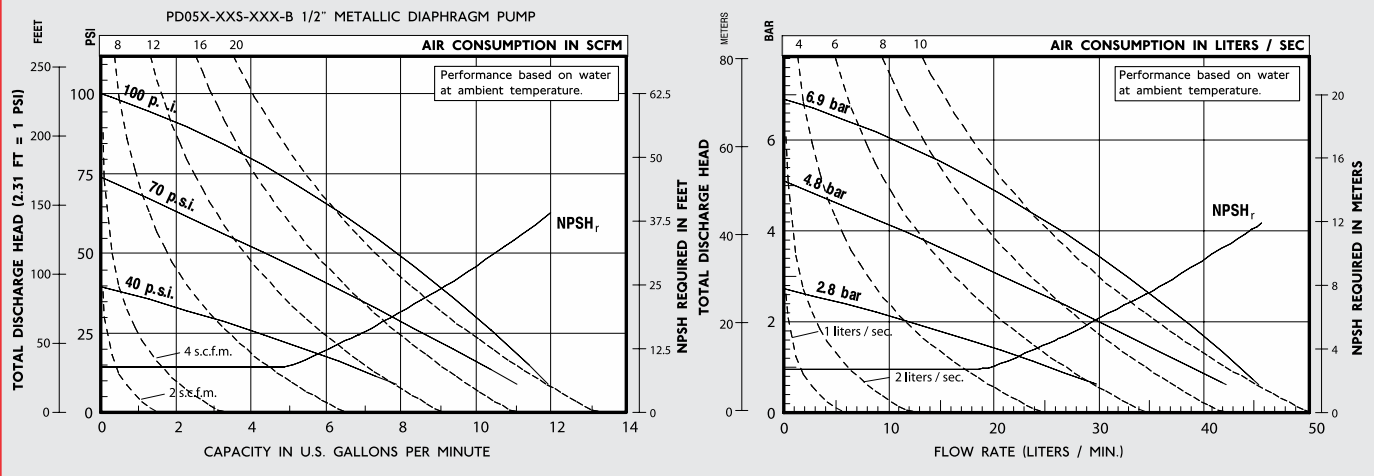
- Air Line Connection Kit | 66073-1
(Piggyback Filter / Regulator with gauge, pipe nipple and 5-foot air hose)
- Cycle Counter Kit | 66975
- Wall Mount Bracket Kit | 76763
- Optional Muffler | 93110 used with a 637438 Kit
- Service Repair Kits | 637428 (Air section)
- 637427-XX (Fluid section)



1/2" Metallic Dimensions and Flow Charts



PERFORMANCE CURVES



DIMENSIONS		
A 8-1/8" (206.0 mm)	G See Below	N 6-5/16" (159.9 mm)
B 11-1/16" (280.4 mm)	H 4-7/8" (123.8 mm)	P See Below
C 6-1/8" (155.6 mm)	J 5-1/2" (139.7 mm)	Q 1-1/4" (31.6 mm)
D 2" (50.8 mm)	K 5/16" (8.0 mm)	R See Below
E See Below	L 1-1/4" (31.8 mm)	S 3-1/16" (77.8 mm)
F 6" (152.4 mm)	M 3/8" (9.5 mm)	-

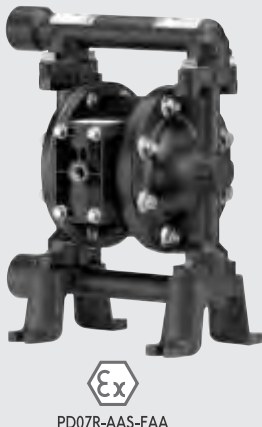
ORDERING POSITION 9	
Specialty Code 1 (Blank if there is no specialty code)	
A - Solenoid 120V AC	G - Solenoid 12V DC ATEX/IECex
B - Solenoid 12V DC	H - Solenoid 24V DC ATEX/IECex
C - Solenoid 240V AC	J - 120V AC NEC/CEC
D - Solenoid 24V DC	K - Solenoid 220V AC ATEX/IECex
E - 12V DC NEC/CEC	N - Solenoid with no coil
F - 24V DC NEC/CEC	0 - Standard Valve Block (No Solenoid)

DIMENSIONS	PD05A-XXS-XXX-B	PD05R-XXS-XXX-B
"E"	8-3/32" (205.5 mm)	6-23/32" (170.6 mm)
"G"	11-3/4" (297.7 mm)	11-21/32" (296.0 mm)
"P"	4-5/16" (109.3 mm)	3-7/32" (97.4 mm)
"R"	8-7/32" (208.5 mm)	7-11/16" (194.9 mm)

ORDERING POSITION 10 + 11	
Specialty Code 2 (Blank if there is no specialty code)	
E - End of Stroke Feedback + Leak Detection	L - Leak Detection
F - End of Stroke Feedback	M - Leak Detection
G - End of Stroke ATEX/IECex/NEC/CEC	ATEX/IECex/NEC/CEC
H - End of Stroke/Leak Detection ATEX/IECex/NEC/CEC	0 - No Option

3/4" METALLIC MODELS

Part of the Compact Series of pumps are the 3/4" metallic pumps, which feature big performance. These pumps offer flow rates of up to 14.8 g.p.m. (56 l.p.m.) with a wide range of material and porting configurations.

Ratio:	1:1	
Maximum Flow:	13.6 g.p.m. (51.5 l.p.m.)	
Displacement per Cycle:	0.030 Gallons (0.11 Liters)	
Air Inlet (Female):	1/4 - 18 P.T.F. SAE Short	
Fluid Inlet / Outlet:	3/4 - 14 N.P.T.F.-2 Rp 3/4 (3/4 - 14 BSP, parallel)	
Maximum Operating Pressure:	100 PSI (6.9 bar)	
Suspended Solids Maximum Diameter:	3/32" (2.4 mm)	
Weight lbs (kg):	PX07R 8.74 (3.96) PX07A 11.0 (4.99)	
Maximum Dry Suction Lift ft (m)	15 (4.5)	
Sound Level:	70 PSI; 60 Cycles/Min; 75 db (A)	

Ordering

Position	1	2		3	4	5		6	7	8		9		10	11
Example:	PX07	R	-	X	X	S	-	X	X	X	-	B	-	X	X

Position 1 Model Series	Position 2 Center Section	Position 3 Connections	Position 4 Manifold Material	Position 5 Hardware	Position 6 Seat Material	Position 7 Ball Material	Position 8 Diaphragm Material	Position 9 Specialty Code
D - Standard Pump E - Remote Actuation Capable	A - Aluminum R - Polypropylene	A - 3/4 - 14 N.P.T.F.-2 B - Rp 3/4 (3/4 -14 BSP, parallel)	A - Aluminum	S - Stainless Steel	F - Aluminum P - Polypropylene	A - Santoprene C - Hytrel T - PTFE	A - Santoprene C - Hytrel L - Long-Life PTFE T - PTFE	Revision Level Position 10 & 11 Specialty Code Fluid control options for pump with electronic interface (Pe07 model).

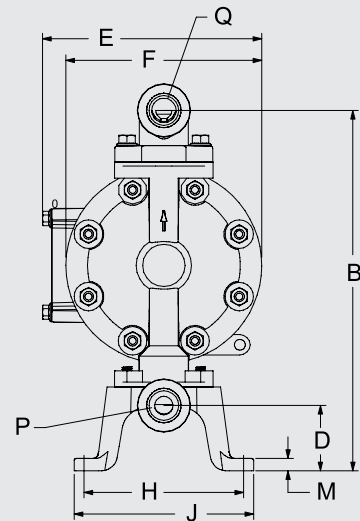
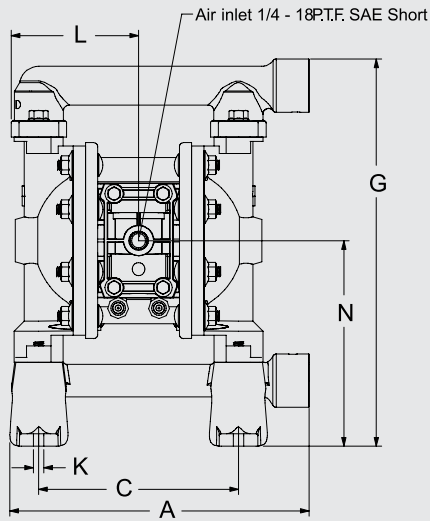
Accessories

- Air Line Connection Kit | 66073-1 (Piggyback Filter / Regulator with gauge, pipe nipple and 5-foot air hose)
- Cycle Counter Kit | 66975
- Wall Mount Bracket Kit | 76763
- Optional Muffler | 93110 used with a 637438 Kit
- Service Repair Kits | 637428 (Air section)
- 637427-XX (Fluid section)

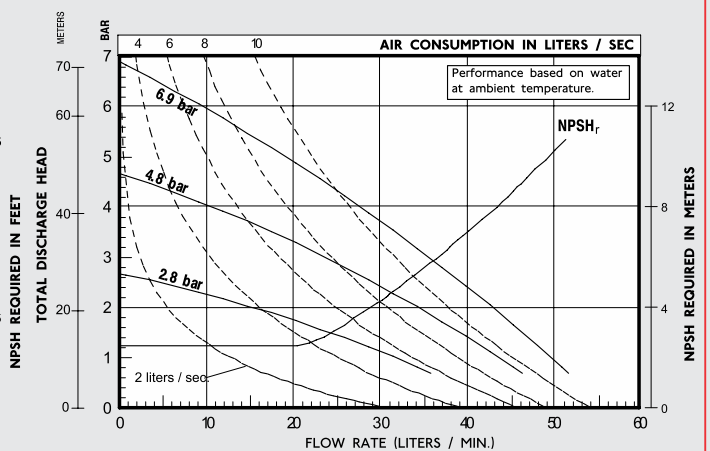
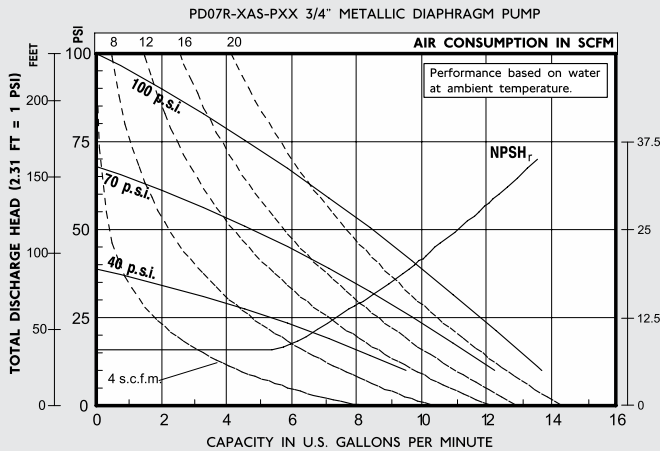


Air Line Connection Kit
66073-1

3/4" Metallic Dimensions and Flow Charts



PERFORMANCE CURVES



MODEL	"P" Material Inlet	"Q" Material Outlet
PD07R-AAS-PXX	3/4 - 14 N.P.T.F. - 2	3/4 - 14 N.P.T.F. - 2
PD07R-BAS-PXX	Rp 3/4 (3/4 - 14 BSP)	Rp 3/4 (3/4 - 14 BSP)

NOTE: Dimensions are shown in inches and mm and supplied for reference only.



ORDERING POSITION 10	
Specialty Code 1 (Blank if there is no Specialty Code)	
A - Solenoid 120V AC	G - Solenoid 12V DC ATEX/IECex
B - Solenoid 12V DC	H - Solenoid 24V DC ATEX/IECex
C - Solenoid 240V AC	J - 120V AC NEC/CEC
D - Solenoid 24V DC	K - Solenoid 220V AC ATEX/IECex
E - 12V DC NEC/CEC	N - Solenoid with no coil
F - 24V DC NEC/CEC	0 - Standard Valve Block (No Solenoid)

DIMENSIONS		
A - 9-9/32" (235.3 mm)	F - 6" (152.4 mm)	L - 3-29/32" (99.2 mm)
B - 11-1/16" (280.4 mm)	G - 11-7/8" (301.2 mm)	M - 3/8" (9.5 mm)
C - 6-1/8" (155.6 mm)	H - 4-29/32" (124.2 mm)	N - 6-5/16" (159.8 mm)
D - 2" (50.8 mm)	J - 5-1/2" (139.7 mm)	-
E - 6-23/32" (170.6 mm)	K - 5/16" (8.0 mm)	-

ORDERING POSITION 11	
Specialty Code 2 (Blank if there is no Specialty Code)	
E - End of Stroke Feedback + Leak Detection	L - Leak Detection
F - End of Stroke Feedback	M - Leak Detection
G - End of Stroke ATEX/IECex/NEC/CEC	ATEX/IECex/NEC/CEC
H - End of Stroke/Leak Detection ATEX/IECex/NEC/CEC	0 - No Option

1" METALLIC MODELS

ARO® PRO 1" Metallic diaphragm pumps, achieve flow rates of up to 35 g.p.m. (133 l.p.m.) with a wide array of material and porting configurations. These pumps are often used for transfers, filling, recirculation and batching in Industrial, Mining, Construction, Chemical and Petrochemical industries.

Ratio:	1:1	 <p>6666100-3EB-C </p>
Maximum Flow:	35 g.p.m. (133 l.p.m.)	
Displacement Per Cycle:	0.16 Gallons (0.60 Liters)	
Air Inlet (Female):	1/4 - 18 N.P.T.F. - 1	
Fluid Inlet / Outlet:	1 - 11-1/2 N.P.T.F. - 1 Rp 1 (1-11 BSP parallel)	
Maximum Operating Pressure:	120 PSI (8.3 bar)	
Suspended Solids Maximum Diameter:	1/8 inch (3.2 mm)	
Weight lbs (kg):	666100-X-C (Aluminum) 19 (8.6) 666101-X-C (Stainless Steel) 36 (16.3) 666102-X-C (Cast Iron) 31 (14.1)	
Note:	Add 8 lbs (3.63 kg) for Cast Iron air motor section	
Maximum Dry Suction Lift ft (m):	20 (6.1)	
Sound Level:	70 PSI; 60 Cycles/Min; 64.5 db (A)	

Ordering

Position	1	2		3	4	5		6
Example:	6661X	X	-	X	X	X	-	C

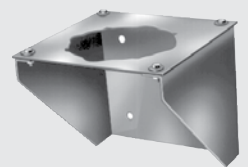
Position 1 Center Body	Position 2 Fluid Caps Manifold Material	Position 3 Seat Material	Position 4 Ball Check Material	Position 5 Diaphragm Material
0 - Aluminum, N.P.T.F. 1 - Cast Iron, N.P.T.F. 2 - Aluminum, BSP 3 - Cast Iron, BSP	0 - Aluminum (Steel hardware) 1 - SS (Steel hardware) 2 - Cast Iron (Steel hardware) 9 - SS, dual outlet (Steel hardware) A - Aluminum (Stainless hardware) B - SS (Stainless hardware) C - Cast Iron (Stainless hardware) D - SS, dual outlet (Stainless hardware)	1 - Aluminum 2 - 316 Stainless Steel 3 - Polypropylene 4 - PVDF (Kynar) 5 - Carbon Steel 8 - Hard 400 Stainless Steel	1 - Neoprene 2 - Nitrile 3 - Viton 4 - PTFE 6 - Acetal 8 - Polyurethane A - Stainless Steel C - Hytrel E - Santoprene	1 - Neoprene 2 - Nitrile 3 - Viton 4 - PTFE / Santoprene 6 - Composite PTFE 9 - Hytrel B - Santoprene G - Nitrile

Accessories

- Air Line Connection Kit | 66073-2 (Piggyback Filter / Regulator with gauge, pipe nipple and 5-foot air hose)
- Cycle Counter Kit | 66975
- Service Repair Kits | 637118-C (Air section)
- 637119-XX-C (Fluid section)

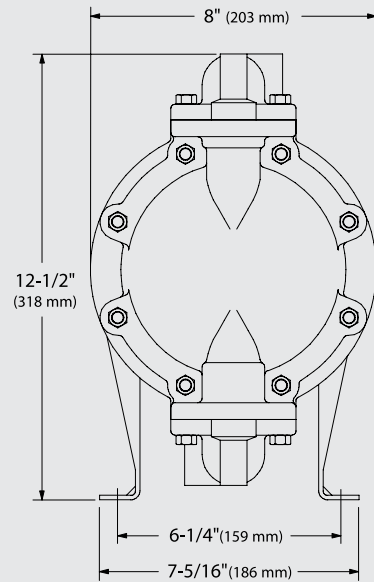
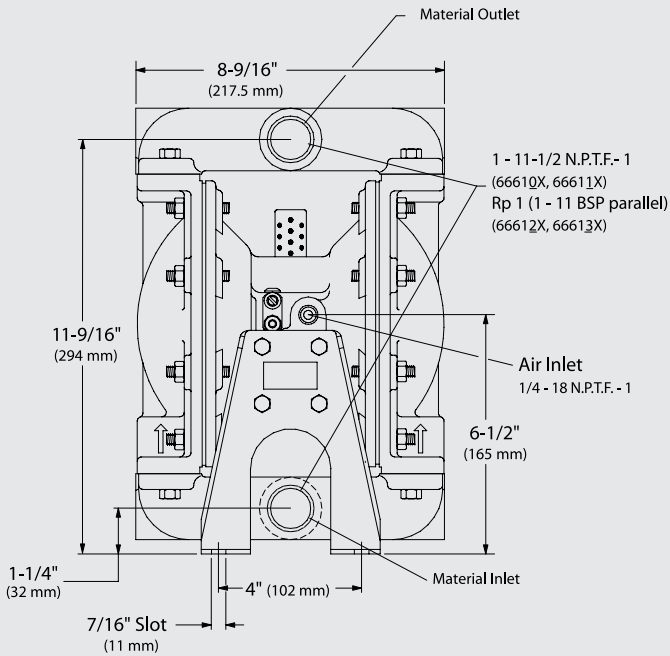


Air Line Connection Kit
66073-2



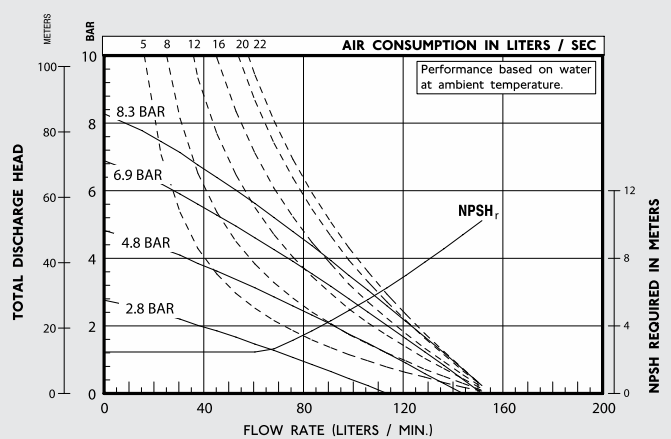
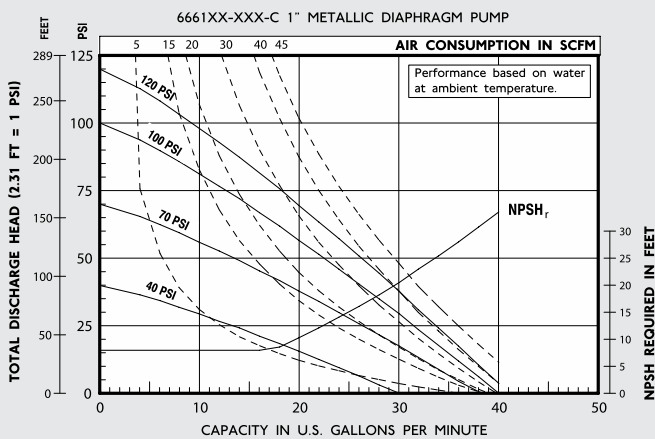
Wall Mount
66100

1" Metallic Dimensions and Flow Charts





(Dimensions shown are for reference only, they are displayed in inches and millimeters (mm).)

PERFORMANCE CURVES



1-1/2" METALLIC MODELS

ARO® PRO 1-1/2" Metallic Diaphragm pumps achieve flow rates of up to 90 g.p.m. (340.7 l.p.m.) with a wide array of material and porting configurations. These pumps are often used for transfers, filling, recirculation and batching in Paint, Oil & Gas, Mining, Construction, Chemical and Petrochemical industries.

Ratio:	1:1	 <p style="text-align: center;">  666150-3EB-C </p>
Maximum Flow:	90 g.p.m. (340.7 l.p.m.)	
Displacement per Cycle:	0.64 Gallons (2.42 Liters)	
Air Inlet (Female):	1/2 - 14 N.P.T.F. - 1	
Fluid Inlet / Outlet:	1-1/2 11-1/2 N.P.T.F. - 1 Rp 1-1/2 (1-1/2 - 11 BSP parallel)	
Maximum Operating Pressure:	120 PSI (8.3 bar)	
Suspended Solids Maximum Diameter:	1/4 inch (6.4 mm)	
Weight lbs (kg):	666150-X-C (Aluminum) 51.5 (23.4) 666151-X-C (Stainless Steel) 84.5 (38.3) 666152-X-C (Cast Iron) 79.5 (36.1)	
Note:	Add 23 lbs (10.4 kg) for Cast Iron air motor section	
Maximum Dry Suction Lft ft (m):	19 (5.8)	
Sound Level:	70 PSI; 60 Cycles/Min; 80.5 db (A)	

Ordering

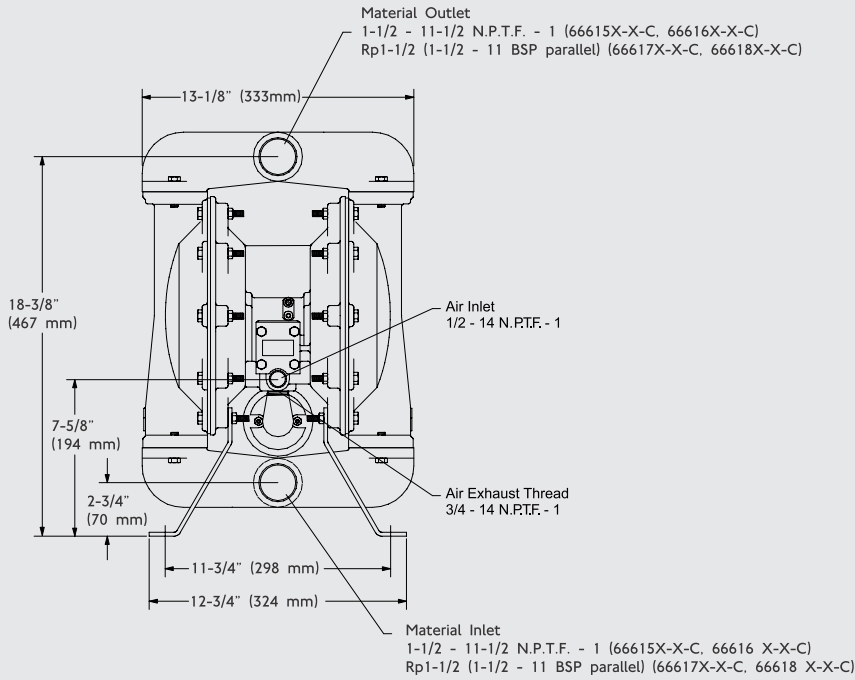
Position	1	2		3	4	5		6
Example:	6661X	X	-	X	X	X	-	C

Position 1 Center Body	Position 2 Fluid Caps Manifold Mat.	Position 3 Seat Material	Position 4 Ball Check Material	Position 5 Diaphragm Material
5 - Aluminum, N.P.T.F. 6 - Cast Iron, N.P.T.F. 7 - Aluminum, BSP 8 - Cast Iron, BSP	0 - Aluminum (Steel hardware) 1 - Stainless Steel (Steel hardware) 2 - Cast Iron (Steel hardware) A - Aluminum, (Stainless hardware) B - Stainless Steel (Stainless hardware) C - Cast Iron (Stainless hardware)	1 - Aluminum 2 - 316 Stainless Steel 3 - Polypropylene 4 - PVDF (Kynar) 5 - Carbon Steel 8 - Hard 400 Stainless Steel	1 - Neoprene 2 - Nitrile 3 - Viton 4 - PTFE 6 - Acetal 8 - Polyurethane A - Stainless Steel C - Hytrel E - Santoprene	1 - Neoprene 2 - Nitrile 3 - Viton 4 - PTFE / Santoprene 6 - Composite PTFE 9 - Hytrel B - Santoprene

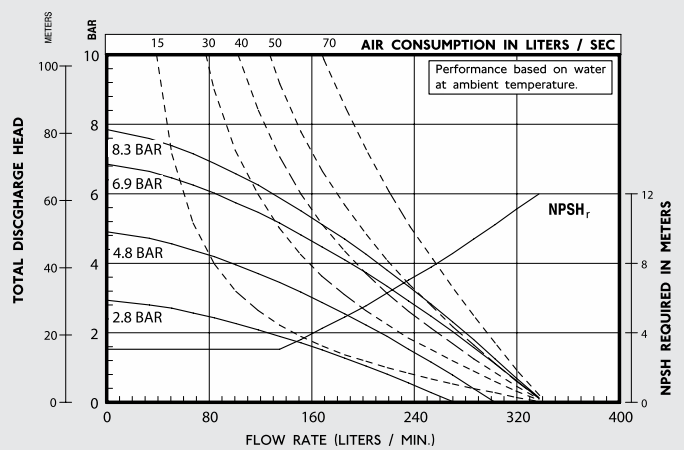
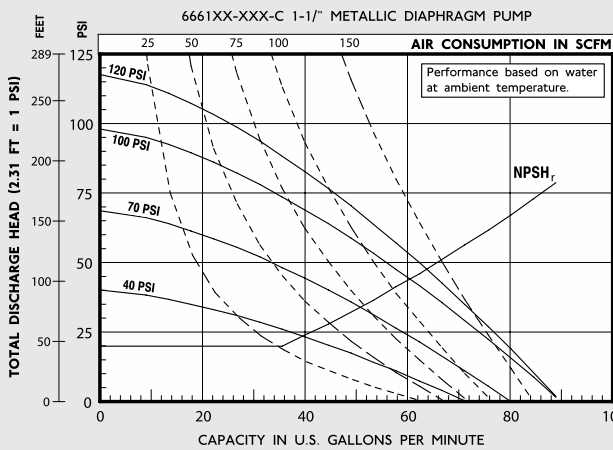
Accessories

- Air Line Connection Kit* | 66084-1 (Piggyback Filter / Regulator with gauge, pipe nipple and 5-foot air hose)
- Cycle Counter Kit | 66975
- Service Repair Kits | 637118-C (Air section)
- 637124-XX (Fluid section)
- Wall Mount | 62133

1-1/2" Metallic Dimensions and Flow Charts




PERFORMANCE CURVES



2" METALLIC MODELS

ARO® PRO 2" Metallic pumps achieve flow rates of up to 172 g.p.m. (651 l.p.m.) with a wide array of material and porting configurations. These pumps are often used for transfers, filling, recirculation and batching in Ceramic, Paint, Oil & Gas, Mining, Construction, Chemical and Petrochemical industries.

Ratio:	1:1	 <p>666252-244-C 67389 Muffler Kit (not shown) included with pump</p>
Maximum Flow:	172 g.p.m. (651 l.p.m.)	
Displacement Per Cycle:	1.4 Gallons (5.3 Liters)	
Air Inlet (Female):	3/4 - 14 N.P.T.F. - 2	
Fluid Inlet / Outlet:	2 - 11-1/2 N.P.T.F. - 1 Rp 2 (2 - 11 BSP, parallel)	
Maximum Operating Pressure:	120 PSI (8.3 bar)	
Suspended Solids Maximum Diameter:	1/4 inch (6.4 mm)	
Weight lbs (kg):	6662X0-XXX-C 65.2 (29.6) 6662X1-XXX-C 129.9 (58.9) 6662X2-XXX-C 124.3 (58.9)	
Maximum Dry Suction Lift ft (m):	27.2 (8.3)	
Sound Level:	70 PSI; 60 Cycles/Min; 85.3 db (A)	

Ordering

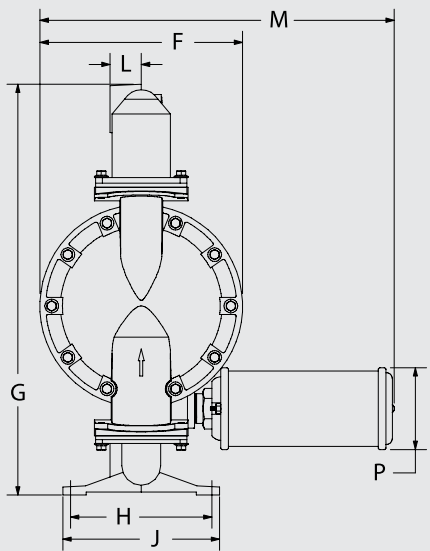
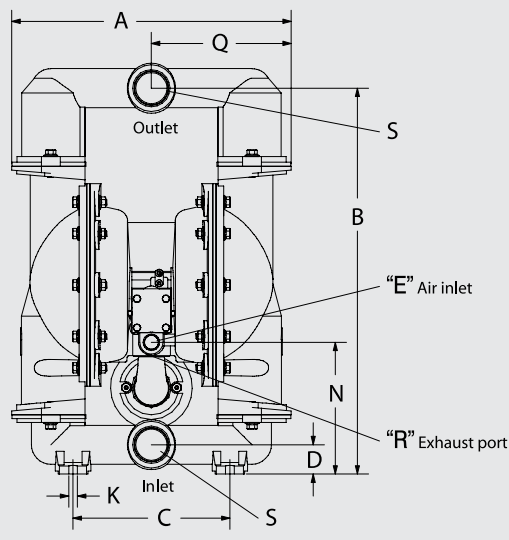
Position	1	2		3	4	5		6
Example:	6662X	X	-	X	X	X	-	C

Position 1 Center Body	Position 2 Fluid Caps Manifold Material	Position 3 Seat Material	Position 4 Ball Check Material	Position 5 Diaphragm Material
5 - Aluminum, N.P.T.F. 7 - Aluminum, BSP	0 - Aluminum (Steel hardware) 1 - Stainless Steel (Steel hardware) 2 - Cast Iron (Steel hardware) A - Aluminum / Stainless Steel B - Stainless Steel / Stainless Steel C - Cast Iron / Stainless Steel	1 - Aluminum 2 - 316 Stainless Steel 4 - PVDF (Kynar) 5 - Carbon Steel 8 - Hard Stainless Steel 9 - Hytrel E - Santoprene G - Nitrile	2 - Nitrile 4 - PTFE A - 316 Stainless Steel C - Hytrel E - Santoprene	2 - Nitrile 4 - PTFE / Santoprene 6 - Composite PTFE 9 - Hytrel B - Santoprene G - Nitrile

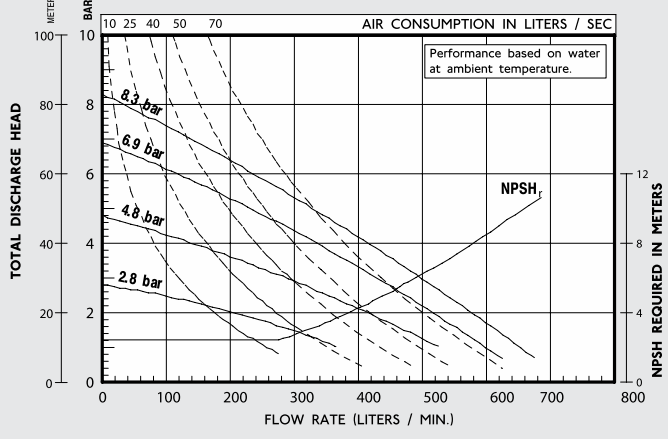
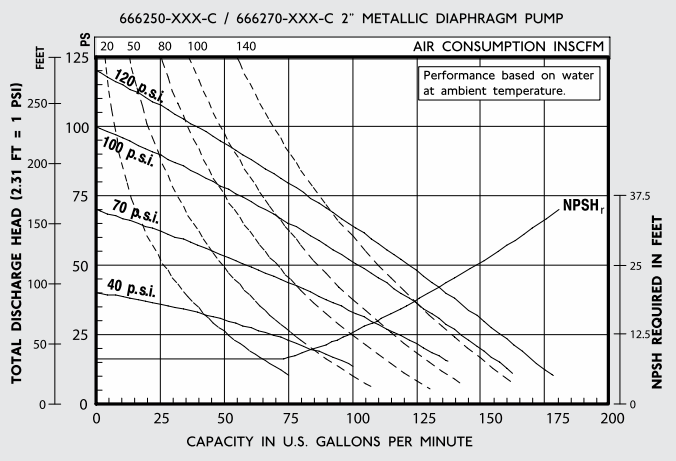
Accessories

- Air Line Connection Kit | 66312
(Piggyback Filter / Regulator with gauge, pipe nipple and 5-foot air hose)
- Cycle Counter Kit | 66975
- Service Repair Kits | 637434 (Air section)
- 637432-XX (fluid section)

2" Metallic Dimensions and Flow Charts



PERFORMANCE CURVES



DIMENSIONS		
A 17-15/16" (455.1 mm)	G 26-3/8" (669.5 mm)	N 8-15/32" (214.6 mm)
B 24-3/4" (628.7 mm)	H 9-1/16" (230.2 mm)	P 5-1/4" (133.4 mm)
C 10-1/16" (255.6 mm)	J 10-1/16" (255.6 mm)	Q 8-13/32" (227.6 mm)
D 1-7/8" (47.6 mm)	K 9/16" (14.3 mm)	R 1-1/4-11-1/2 N.P.T.F.-1
E 3/4 - 14 N.P.T.F. - 1	L 2" (50.8 mm)	S See Below
F 13" (330.2 mm)	M 22-3/4" (577.3 mm)	-



"S" Inlet / Outlet

- 66625-XXX-C 2-11-1/2 N.P.T.F. - 1
- 66627-XXX-C Rp 2 (2-11 BSP parallel)

NOTE: Dimensions are shown in inches (mm) and supplied for reference only. Dimensions are typically rounded off to the nearest 1/16 inch.

3" METALLIC MODELS

ARO® PRO 3" Metallic Diaphragm pumps achieve flow rates of up to 237 g.p.m. (897 l.p.m.) with a wide array of material and porting configurations. These pumps are often used for transfers, filling, recirculation and batching in Ceramic, Paint, Oil & Gas, Mining, Construction, Chemical and Petrochemical industries.

Ratio:	1:1	 <p style="text-align: center;">  666252-244-C 67389 Muffler Kit (not shown) included with pump </p>
Maximum Flow:	237 g.p.m. (897 l.p.m.)	
Displacement per Cycle:	2.65 Gallons (10.03 Liters)	
Air Inlet (Female):	3/4 - 14 N.P.T.F. - 2	
Fluid Inlet / Outlet:	3 - 8 N.P.T.F. - 1 Rp 3 (3 - 11 BSP parallel)	
Maximum Operating Pressure:	120 PSI (8.3 bar)	
Suspended Solids Maximum Diameter:	3/8 inch (9.5 mm)	
Weight lbs (kg):	6663X0-XXX-C 109.8 (49.8) 6663X1-XXX-C 222.2 (100.8) 6663X2-XXX-C 213.1 (96.7)	
Maximum Dry Suction Lift ft (m):	17.6 (5.4)	
Sound Level:	70 PSI; 60 Cycles/Min; 86.3 db (A)	

Ordering

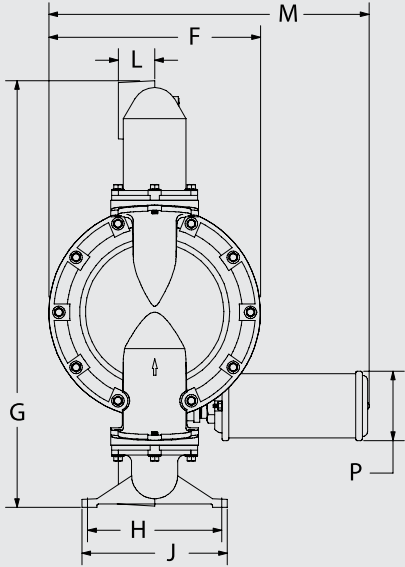
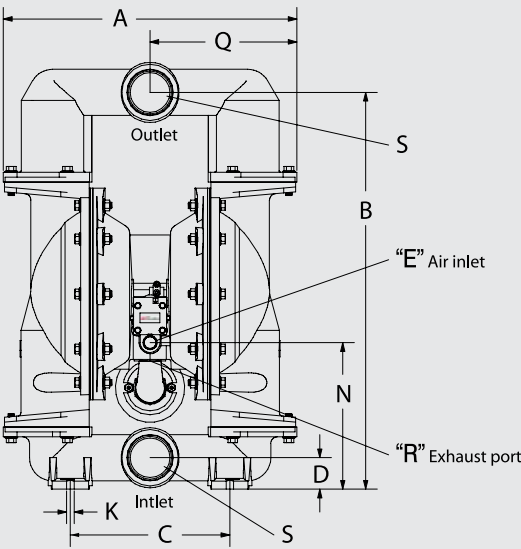
Position	1	2		3	4	5		6
Example:	6663X	X	-	X	X	X	-	C

Position 1 Center Body	Position 2 Fluid Caps Manifold Material	Position 3 Seat Material	Position 4 Ball Check Material	Position 5 Diaphragm Material
0 - Aluminum, N.P.T.F. 2 - Aluminum, BSP	0 - Aluminum (Steel hardware) 1 - Stainless Steel (Steel hardware) 2 - Cast Iron (Steel hardware) A - Aluminum / Stainless Steel B - Stainless Steel / Stainless Steel C - Cast Iron / Stainless Steel	1 - Aluminum 9 - Hytrel E - Santoprene G - Nitrile 2 - 316 Stainless Steel 4 - PVDF (Kynar) 5 - Carbon Steel 8 - Hard Stainless Steel	2 - Nitrile 4 - PTFE C - Hytrel E - Santoprene	2 - Nitrile 4 - PTFE / Santoprene 9 - Hytrel B - Santoprene

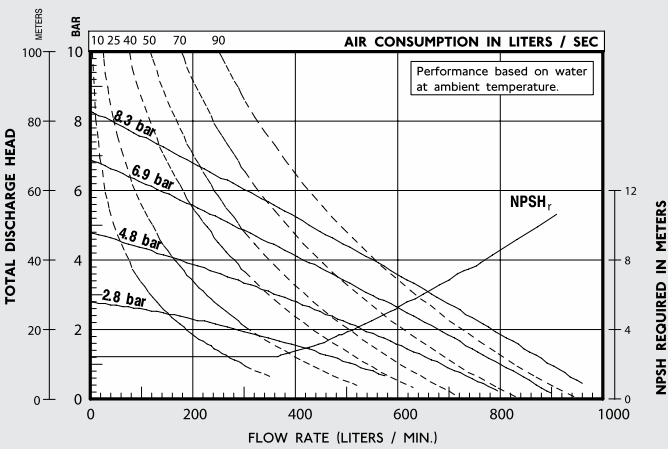
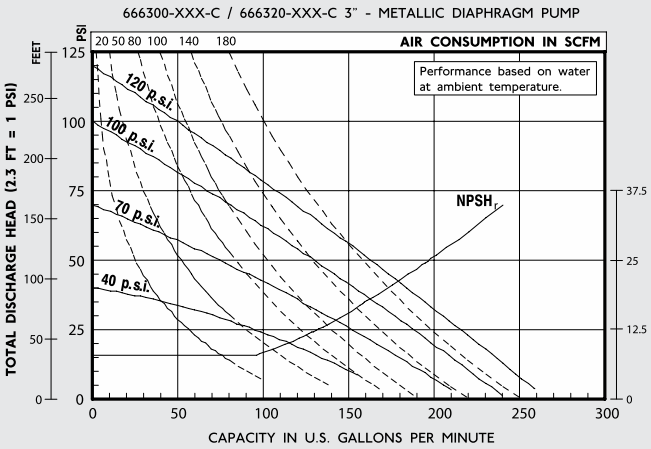
Accessories

- Air Line Connection Kit | 66312 (Piggyback Filter / Regulator with gauge, pipe nipple and 5-foot air hose)
- Cycle Counter Kit | 66975
- Service Repair Kits | 637434 (Air section)
- 637433-XX (Fluid section)

3" Metallic Dimensions and Flow Charts



PERFORMANCE CURVES



DIMENSIONS		
A 22-7/32" (563.9 mm)	G 32-9/32" (819.8 mm)	N 11-3/32" (281.4 mm)
B 30" (762.0 mm)	H 10-5/32" (258.0 mm)	P 5-1/4" (133.4 mm)
C 12-1/16" (306.4 mm)	J 11" (279.4 mm)	Q 11-1/8" (281.9 mm)
D 2-3/8" (60.3 mm)	K 9/16" (14.3 mm)	R 1-1/4 - 11-1/2 N.P.T.F.-1
E 3/4 - 14 N.P.T.F. - 1	L 2-3/4" (69.9 mm)	S (See below)
F 16" (406.4 mm)	M 24-7/16" (620.7 mm)	

"S" Inlet / Outlet


66630-XXX-C 3-8-1/2 N.P.T.F. - 1

66632-XXX-C Rp 3 (3-11 BSP parallel)

NOTE: Dimensions are shown in inches (mm) and supplied for reference only. Dimensions are typically rounded off to the nearest 1/16 inch.

3:1 RATIO HIGH-PRESSURE DIAPHRAGM PUMPS

ARO's Pneumatic 3:1 ratio, High-Pressure Diaphragm pumps, provide effective flow rates of up to 24 g.p.m. (90.7 l.p.m.) at pressures of up to 300 PSI (20.4 bar). Its compact size and footprint makes it a smart choice for a wide variety of industries and OEM's. This pump is useful for feeding filter presses, the transfer of paint, recirculation and high solid coatings, inks, adhesives, filled material, drilling grout, caulking, solvent reclamation and resins.

Ratio:	3:1	 <p>PH10A-ASS-SST</p>
Maximum Flow:	26 g.p.m. (98.4 l.p.m.) - Flooded inlet 12 (45.6) at 125 PSI back pressure	
Displacement per Cycle:	0.06 Gallons (0.23 Liters)	
Air Inlet (Female):	3/8 - 18 N.P.T.F. - 1	
Fluid Inlet:	1 - 11-1/2 N.P.T.F. - 1 Rp 1 (1-11 BSP parallel)	
Fluid Outlet:	1 - 11-1/2 N.P.T.F. - 1 Rp 1 (1-11 BSP parallel)	
Maximum Operating Pressure:	100 PSI (6.9 bar)	
Suspended Solids Maximum Diameter:	1/8 inch (3.2 mm)	
Weight lbs (kg):	94.73 (42.97)	
Maximum Dry Suction Lift ft (m):	5 - 6 ft (1.5 - 1.8m)	
Sound Level:	70 PSI; 60 Cycles/Min; 84.5 db (A)	

Ordering

Position	1	2		3	4	5		6	7
Example:	PH10	A	-	X	S	S	-	XX	T

Position 1 Base Model	Position 2 Center Section	Position 3 Port Size	Position 4 Wetted Parts	Position 5 Hardware	Position 6 Seat/Ball Check Material	Position 7 Diaphragm Material
1" Pump	A - Aluminum	A N.P.T.F. Threads B BSP Threads	S - Stainless Steel	S - Stainless Steel	HH 440 SS / 440 SS SS 316 SS / 316 SS	T - PTFE

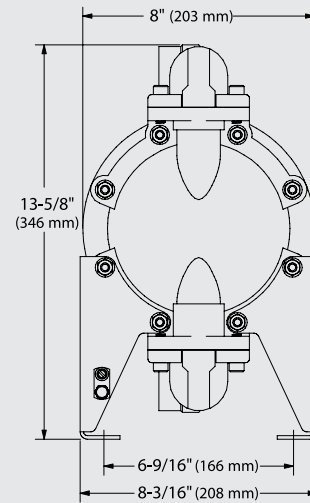
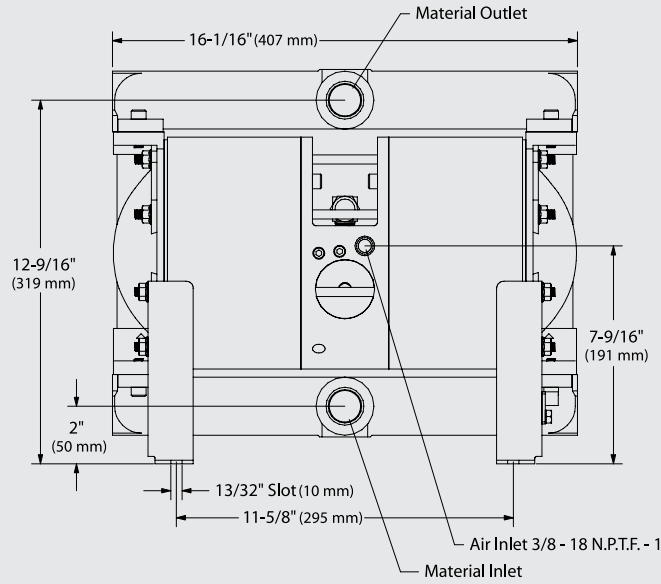
Accessories

- Air Line Filter / Regulator | P39344-614
(Piggyback unit with a 5 micron filter, metal bowl with auto drain, sight glass and 0-125 PSI gauge).
- Service Repair Kits | 637338 (Air section)
- 637339 (PH10X-XXX-XSX Fluid section)
- 637339-1 (PH10X-XXX-XHX Fluid section)
- Wall Mount Bracket | 67142

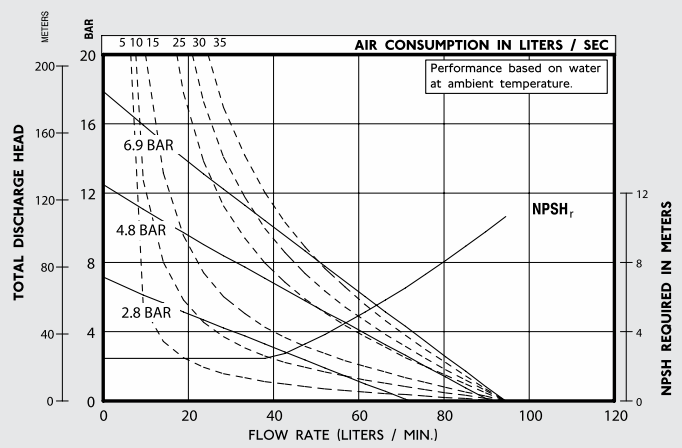
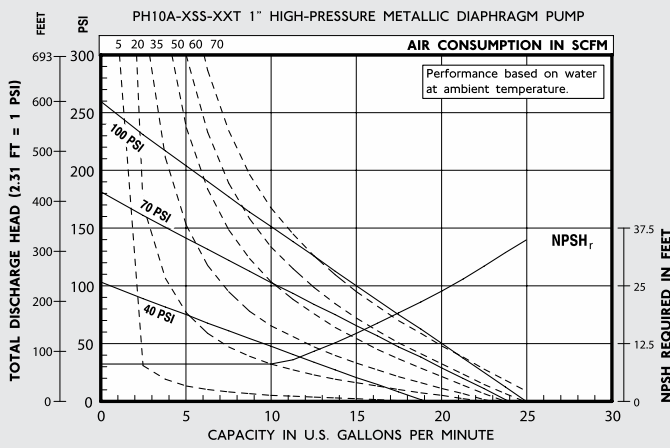


3:1 RATIO HIGH-PRESSURE DIAPHRAGM PUMPS

Specialty Pumps 3:1 Ratio, High-Pressure Diaphragm Pump Dimensions and Flow Curves



PERFORMANCE CURVES



Material Inlet / Outlet

PH10A-ASS-XXT	1-11-1/2 N.P.T.F. - 1	1-11-1/2 N.P.T.F. - 1
PH10A-BSS-XXT	Rp 1 (1-11 BSP parallel)	Rp 1 (1-11 BSP parallel)

PIT BOSS DIAPHRAGM PUMPS

When you purchase an ARO Pit Boss pneumatic diaphragm pump, you can be confident that you're getting industry proven durability, reliability and value. They are the ideal solution for general transfer, dewatering and solids handling applications.

Features

- Comfort-grip Handles
- Removable Screened Inlet
- One-way Exhaust Check Valve (Permits submersible operation)



Pit Bos Dewatering Pump	1-1/2"	2"	3"
Maximum Flow - g.p.m. (L/min)	80 (302.8)	156 (590.5)	217 (821.3)
Maximum Discharge Pressure - PSI (bar)	120 (8.3)	120 (8.3)	120 (8.3)
Maximum Particle Size - Inches (mm)	0.5 (12.7)	0.75 (19.0)	1 (25.4)
Pump Weight - lb (kg)	55 (25)	74 (34)	118 (54)
Fluid Ports	1.5" NPTF and BSP (Female)	2" NPTF and BSP (Female)	3" NPTF and BSP (Female)

Ordering

Position	1	2	3		3	4	5		
Example:	666M	XX	0	-	1	X	X	-	C

Position 1 Base Model	Position 2 Center Body / Fluid Connection	Position 3 Fluid Cap, Manifold, Hardware Material	Position 4 Seat Material	Position 5 Ball Material	Position 6 Diaphragm Material
666M	15 Aluminum / 1-1/2" NPTF 17 Aluminum / 1-1/2" BSP 25 Aluminum / 2" NPTF 27 Aluminum / 2" BSP 30 Aluminum / 3" NPTF 32 Aluminum / 3" BSP	0 Aluminum / Carbon Steel	1 Aluminum	2 Nitrile C Hytrel E Santoprenel	2 Nitrile 9 Hytrel B Santoprene

Accessories	1-1/2"	2"	3"
Filter / Regulator	P39344-614	P39354-614	P39454-614
Air Section Service Kit	637118-C	637434	637434
Fluid Section Service Kit	637469-XX	637468-XX	637467-XX
Muffler Kit	67463	67389	67389

Specialty Pump

Air-Operated Control Solutions with Liquid Level Sensing

The ARO® Automatic Dewatering System offers automatic on / off controls for the PRO range of diaphragm pumps. A pneumatically controlled liquid level sensor, is used to easily control the fluid level, within a desired range. The automatic dewatering system will limit the monitoring labour and reduce air consumption, by avoiding dry running of the pump.

- The simple design is easy to setup and use
- All pneumatic operations eliminate electrical ignition sources
- High / low level control maintains fluid between the established levels
- Reduces air consumption by avoiding dry running of the pump
- A portable system with directly mounted, liquid level sensor



- 1 Bracket
- 2 Liquid Level Sensor
- 3 Pneumatically Controlled Valve
- 4 Sensing Tubes with Screen
- 5 PRO Series Diaphragm Pump (purchased separately)

Specifications

Temperature Range - °F (°C)	32 - 122 (0 - 50)
Air Supply Pressure - PSI (bar)	29 - 101 (2-7)
Weight without Pump - lbs (kg)	11 (4.8)
Air Connection Size	Rc 3/4"
Sensing Tube Lengths - ft (m)	66 (20)
Sensitivity to detect liquid level (cm)	2 - 4 (5-10)

Service Kits

- SS-BQG550 Mounting Bracket
 PNCV-1/2 Pneumatic Controlled Valve
 637523 Sensing Tube & Screen Kit

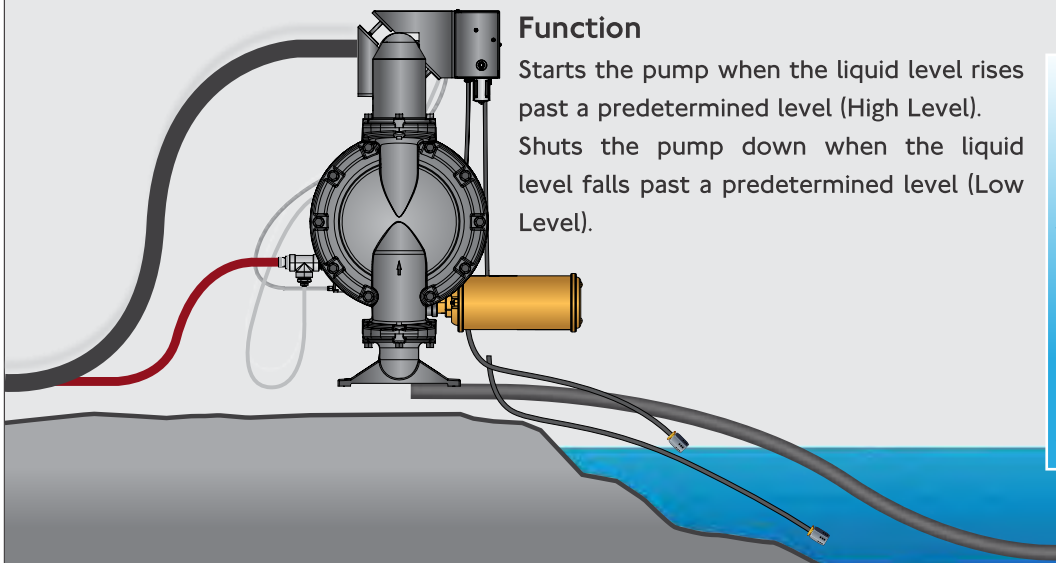
Automatic Dewatering System

SCD501BN08-V1D Dewatering Kit (without pump)

Pump Compatibility

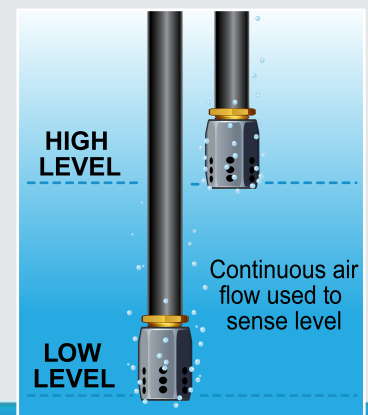
- 2" PRO Series Pump 6662XX-XXX-C
 3" PRO Series Pump 6663XX-XXX-C

Working Principle



Function

Starts the pump when the liquid level rises past a predetermined level (High Level).
 Shuts the pump down when the liquid level falls past a predetermined level (Low Level).



SPECIALITY PUMPS

ARO's Pneumatic Submersible pumps provide effective flow rates of up to 230 g.p.m. (870.5 l.p.m.). Being compact in size, these pumps are useful for dewatering trenches, holes, bilges, pits or other bodies of standing water. These pumps are used by municipalities, utilities, mines, ships, construction and industrial sites.

Maximum Flow: g.p.m. (l.p.m.)	200 (757) P237AX-EU 230 (870.5) P35AX-EU
Air Inlet (Female):	3/4" -14 N.P.T. (P237AX-EU) 1" - 11-1/2" N.P.T. (P35A1-EU)
Fluid Inlet:	Screened Inlet 2" N.P.T.F. P35A1-EU 2-1/2" N.P.T.F. P237A1-EU 2-1/2" BSP P237A3-EU
Max. Operating Pressure:	90 PSI (6.2-bar)
Air Consumption in CFM:	P237AX-EU 100 P35A1-EU 160
Suspended Solids Maximum Diameter:	1/4 inch (6.4 mm)
Pump Housing Material:	P237AX-EU Cast Iron P35A1-EU Cast Iron
Weight: lbs (kg)	P237AX-EU 48 (21.8) P35A1-EU 79 (36)



Ordering

Position	1		2		
Example:	P237A	-	X	-	EU

Position 1 Model Series	Position 2 Discharge Thread
200 g.p.m. (757 l.p.m.)	1 - 2-1/2" N.P.T. 3 - 2-1/2" BSP

Position	1		2		
Example:	P35A	-	1	-	EU

Position 1 Model Series	Position 2 Discharge Thread
230 g.p.m. (870 l.p.m.)	1 - 2" N.P.T.

Accessories

- Air Line Unit | C28453-810 for P237AX-EU
C28463-810 for P35A1-EU
- C284X3-810 models contain a filter, regulator and lubricator unit. Service Repair Kits and Repair Parts are ordered individually.

Refer to Operator's Manuals:

P237AX-EU Pumps: Form P6856
P35A1-EU Pumps: Form P7263

Dimensional Data and Flow Charts

Height: P237AX-EU 17-5/8 (448)
P35A1-EU 22-1/2 (570)

Size of opening pump will pass through: inches (mm)
P237AX-EU 8-3/4 (222) x 8-3/4 (222)
P35A1-EU 8-7/16 (214) x 14-1/16 (357)

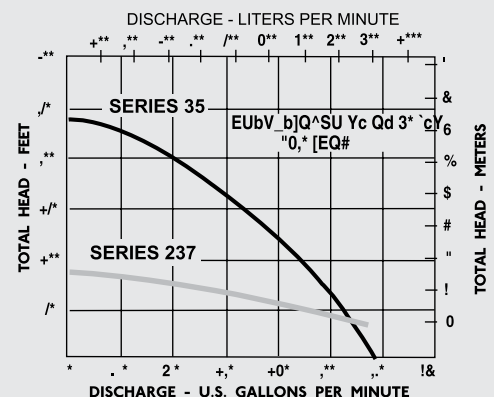
Discharge: P237A1-EU 2-1/2" N.P.T.F.
Pipe Tap: P237A3-EU 2-1/2" BSP
P35A1-EU 2" N.P.T.F.

Air Inlet: P237AX-EU 3/4" N.P.T.F.
Pipe Tap: P35A1-EU 1" N.P.T.F.

Air Inlet Recommended Hose Size: inches (mm)
P237AX-EU 3/4 (19)
P35A1-EU 1 (25.4)

Exhaust: P237AX-EU 1-1/4" N.P.T.F.
Pipe Tap: P35A1-EU 1-1/4" N.P.T.F.

Exhaust Recommended Hose Size: inches (mm)
P237AX-EU 1-1/4 (31.7).
P35A1-EU 1-1/4 (31.7)



Speciality Pumps

Fuel / Anti-freeze / Water Blending Pump

Model No. 650715-C

This 1:1 ratio diaphragm pump, is designed for mixing anti-freeze and water in a 50/50 proportion, for automotive coolant systems. It has dual inlets to allow simultaneous pumping and blending of anti-freeze and water.
2 x 1" NPTF fluid inlets – 1" NPTF fluid outlet.



Underwriters Laboratories Approved Fuel Pump

Model No. 650717-C, 670042, 650718-C and 650719-C

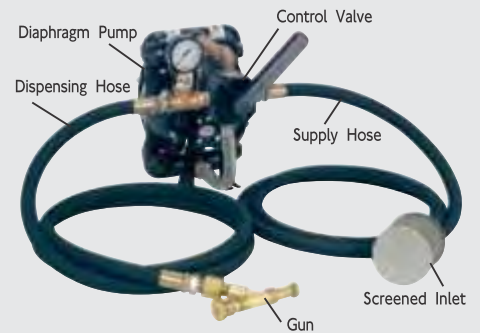
Designed specifically for high volume transfers, bulk-unloading or fueling applications. These pumps meet the UL 79 specification code and are compatible with gasoline, aviation fuel, diesel fuel, fuel oil and kerosene.



Calcium Chloride Tire-fill Pump Package

Model No. 613201-2-C

Designed for evacuating and filling tires with a Calcium Chloride ballast solution. The package includes a 666100-441-C, (1" port diaphragm pump). Also includes check valve and all required clamps and related hardware. Aluminum construction with neoprene diaphragms and PTFE checks for compatibility with corrosive calcium chloride and 60154 hose / strainer / gun assembly were done.




Model	Body Materials (Wetted)	Diaphragm / Ball Material	Air Inlet NPT (F)	Fluid Inlet / Outlet	Maximum Flow g.p.m. (L/min)	Compatible Fluids
			(mm)	Material (mm)		
1" Ports 650717-C	Aluminum	Viton / Acetal	1/4" (6.3 mm)	1" / 1" (25.4 mm)	29 (109.8)	Fuel (UL 79 Approved)
1-1/2" Ports 650718-C	Aluminum	Viton / Acetal	1/2" (12.7 mm)	1-1/2" (38.1 mm)	75 (283.9)	Fuel (UL 79 Approved)
2" Ports 650719-C	Aluminum	Viton / Acetal	3/4" (19.1 mm)	2" (50.8 mm)	105 (397.5)	Fuel (UL 79 Approved)

Model	Application	Manifold Material	Diaphragm, O-ring Material	Air Inlet NPT / F	Fluid Outlet	Maximum g.p.m. (L/min)	Package Includes
				(mm)	NPT / F in (mm)		
1/2" Ports 670042	Fuels	Aluminum	Viton	1/4" (6)	1/2" (13)	12 (45.4)	UL Pump only
1" Ports 650715-C	50/50 mix of Anti-freeze & water	Aluminum	Nitrile	1/4" (6)	1" (25.4)	35 (133)	Pump only
613201-2-C	Calcium Chloride tire filling	Aluminum	Neoprene	1/4" (6)	1" (25.4)	35 (133)	Inlet + outlet hoses, strainer, 8' suction hose, control handle, check valve

DRUM PUMPS

Drum Pumps

ARO Drum Pumps are available in three body materials for optimum fluid compatibility. Choose from an Aluminum, Stainless Steel or Polypropylene body construction.

Ratio:	1:1	
Maximum Flow:	11 g.p.m. (41.6 l.p.m.)	
Displacement per Cycle:	0.039 Gallons (0.15 Liters)	
Air Inlet (Female):	1/4 -18 N.P.T.	
Fluid Inlet:	Siphon Tube for 55 Gallon Drum	
Fluid Outlet:	1/2 -14 N.P.T.F. - 1	
Maximum Operating Pressure:	100 PSI (6.8 bar)	
Suspended Solids Maximum Diameter:	3/32 inch (2.4 mm)	
Shipping Weight: lbs (kg)	22 (10) Polypropylene, basic package 26 (11.8) Aluminum, basic package 36 (16.3) Stainless Steel, basic package	

Pump Features

- **11 g.p.m. Flow Capability** - Drum Pumps offer plenty of capacity, to satisfy a broad range of volume demands, for transfer applications.
- **Stall-Free Operation** - Drum Pumps feature a patented “unbalanced” air valve design, that avoids stall-outs, even under low air-inlet pressures.
- **Bolted Construction** - Drum Pumps utilize bolted fasteners, for leak-tight integrity.
- **5 Year Warranty.**

Drum Pump Packages

- **Package Components are Factory-matched** - A Drum Pump package contains pre-specified, matching materials of construction for complete fluid compatibility.
- **Choose from Basic to Complete** - Drum Pump packages can be ordered in 3 styles:
 - **Basic:** Pump, bung adapter, air safety shut-off, siphon tube, weather seal and base.
 - **Complete / Transfer:** Basic Pump plus Fluid Hose or Fluid Hose with Non-drip Nozzle.
 - **Complete / Dispensing:** Basic Pump plus Foot Valve, Hose and dispensing Nozzle.

Accessories

Air Line Connection Kit | 66073-1. Service Repair Kit | 637458 (Air), 637427-XX (Fluid), 104255 (for repair of P29122-600 piggyback filter / regulator).

Ordering

Model Number	Pump Housing & Seats	Pump Diameter & Balls	Lock Out Valve (P/N 104253-2)	Foot Valve	10' Hose ASM	Dispense Valve	Fluid Service
DAB05-PPTT-2-A	Polypropylene	PTFE	X	-	-	-	Acids & Caustics
DAB05-PPCC-2-A	Polypropylene	Hytrel	X	-	-	-	Oil
DAB05-PPUU-2-A	Polypropylene	Polyurethane	X	-	-	-	Water / Oil
DAB05-PPAA-2-A	Polypropylene	Santoprene	X	-	-	-	Mild Acids / Mild Caustics
DAB05-PPCC-2-N	Polypropylene	Hytrel	X	-	Nitrile	-	Oil
DAB05-PPCC-B-M	Polypropylene	Hytrel	X	X	Nitrile	No-drip	Oil
DAB05-PPAA-2-B	Polypropylene	Santoprene	X	-	EPDM	-	Mild Acids / Mild Caustics
DAB05-PPUU-2-C	Polypropylene	Polyurethane	X	-	Vinyl	-	Water / Oil
DAB05-PPCC-B-J	Polypropylene	Hytrel	X	X	Reinforced Nitrile	X	Oil
DAB05-PPAA-B-K	Polypropylene	Santoprene	X	X	EPDM	X	Mild Acids / Mild Caustics
DAB05-SSTT-2-A	Stainless Steel	PTFE	X	-	-	-	Solvent
DAB05-ASTT-2-A	Aluminium / Stainless Steel	PTFE	X	-	-	-	Solvent
DAB05-APCC-2-A	Aluminium / Polyurethane	Hytrel	X	-	-	-	Oil / Some Solvents
DAB05-APCC-2-O	Aluminium / Polyurethane	Hytrel	X	-	Nitrile	-	Oil / Some Solvents
DAB05-APCC-B-P	Aluminium / Polyurethane	Hytrel	X	X	Nitrile	No-drip	Oil / Some Solvents
DAB05-APCC-B-L	Aluminium / Polyurethane	Hytrel	X	X	Reinforced Nitrile	X	Oil / Some Solvents
DAB05-ASAA-2-A	Aluminium / Stainless Steel	Santoprene	X	-	-	-	Water

Air Filter / Regulator

The ARO-FLO Series units have the potential to extend the life of air-operated equipment, while reducing operating costs. These units efficiently remove solid particles from compressed air lines, making them a great choice for large flow applications.



P39224-614

P39124-600

Piggyback Filter / Regulator, Metal Bowl with Sight Glass, Auto Drain

Pump Size	NPT Model Number	Port Size	Max. Inlet Pressure (PSI)	Pressure Range (PSI)	Max. CFM	Micron Element	Size H x W x D (inches)
1/4" to 3/4"	P39124-624	1/4"	250	0-140	47	5	6.9 x 2.9 x 2.9
1"	P39224-614	1/4"	250	0-140	72	5	9.0 x 2.2 x 3.2
1-1/2"	P39344-614	1/2"	250	0-140	172	5	10.9 x 2.8 x 3.2
2"	P39354-614	3/4"	250	0-140	173	5	10.9 x 2.8 x 3.2
3"	P39454-614	3/4"	250	0-140	236	5	14.7 x 3.5 x 4.1

Piggyback Filter / Regulator, Poly Bowl with Guard, Manual Drain

Pump Size	NPT Model Number	Port Size	Max. Inlet Pressure (PSI)	Pressure Range (PSI)	Max. CFM	Micron Element	Size H x W x D (inches)
1/4" to 3/4"	P39124-600	1/4"	150	0-140	47	5	6.2 x 2.9 x 2.9
1"	P39224-600	1/4"	150	0-140	72	5	8.1 x 2.2 x 3.2
1-1/2"	P39344-600	1/2"	150	0-140	172	5	10.0 x 2.8 x 3.2
2"	P39354-600	3/4"	150	0-140	173	5	10.9 x 2.8 x 3.2

Be cautious when using Polycarbonate plastic bowls. Filters and lubricators with Polycarbonate plastic bowls are specifically designed for compressed air service and their use with any other fluid (liquid or gas), is a misapplication. Some compressor oils, chemical cleaners, solvents, paints and fumes will attack plastic bowls and can cause bowl failure. Do not use with or near these materials. Consult BMG for more information.

Ingersoll Rand attests that ARO-FLO Series filters, regulators, lubricators (1000, 1500, 2000, 3000 Series) and selected accessories are out of scope for ATEX Directive 94/9/EEC or 2014/34/EU. The products listed on the IRITS-1215-197 certificate can be used in group II, category 2 environments; Gas and Dust with temperatures T6 (Ex II 2GD T6), if all conditions set up in the instruction manual are met. Instruction manuals and certificates regarding the ATEX Declaration can be found at AROZONE.COM.



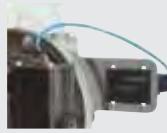
ACCESSORIES



Air Line Connection Kit
66073-1



Diaphragm Failure Detection
67237



Cycle Counter Kit
67350



Flange Connection Kit
637341-E10N



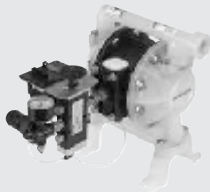
Over-run Control
635040

NOTE: Pumps are not included with these kits.

	1/4" Non-Metallic	3/8" Non-Metallic	1/2" Non-Metallic	1/2" Classic Non-Metallic	3/4" Non-Metallic	1/2" Metallic
Air Line Connection Kit The kit includes a Piggyback Filter / Regulator with a gauge, a pipe nipple and a 5-foot section of air hose.	66073-1	66073-1	66073-1	66073-1	66073-1	66073-1
Diaphragm Failure Detection (DFD) Provides a warning of a diaphragm failure, by sensing the presence of liquid in the air chamber of the pump.	-	-	-	-	-	-
Pneumatic Cycle Counter Kit Like the odometer on your car, the cycle counter lets you know how many pump cycles have lapsed, so you can be prepared to perform preventive maintenance.	-	66975	66975	-	66975	66975
Cycle Sensor Kit (Close Electrical Contact Type) Used to monitor pump operations. Can be used to monitor cycle rates, preventative maintenance and rough flow rate indication.	-	67386	67386	67168	67386	-
Flange Connection Kit Used with non-metallic EXP pumps with the flange manifold option. Flange kits meet DIN / A.N.S.I. specifications. This flange is constructed of glass-filled Polypropylene. Bolts, washers and nuts are Stainless Steel (Gaskets are included).	-	-	-	-	-	-
Over-run Control Shuts off the pump when excessive cycling occurs, due to an empty fluid-supply container.	-	-	635040	635040	635040	635040
Wall Mount Conveniently mounts the pump above the container. Made up of a heavy gauge coated steel. Does not include hardware.	-	67388	76763	-	76763	76763
Countdown Batcher A manual-start batch counter kit, controls the volume of fluid dispensed by controlling the number of pump cycles.	-	67072	67072	-	67072	67072
Solenoid Actuation Kit Controls the pump cycle rate with an on / off signal from PLC or other devices. The kit includes connectors with a 36" cable, components and instructions to install on a standard pump. For dosing and batching applications.	-	67165-1 (24V DC) 67165-2 (120V AC)	67165-1 (24V DC) 67165-2 (120V AC)	67165-1 (24V DC) 67165-2 (120V AC)	-	67165-1 (24V DC) for PD05R-X-X-B, 67165-2 (120V AC) for PD05R-X-X-B
Diaphragm Pump Speed Controls Controls air volume supplied to the pump, thus permitting the operator to control the speed of the pump. Can be panel mounted. Composite body.	104104-N02	104104-N02	104104-N02	104104-N02	104104-N02	104104-N02
Groundable Strap Reliable static control.	-	-	-	66885-1 Acetal Center Body	-	-
Screened Inlet Kit Protects the inlet of the pump from debris in submerged applications.	-	-	-	-	-	-



Wall Mount
76763



Countdown Batcher
67072



Solenoid Actuation Kit
67165-1



Speed Control
104104-N02



Groundable Strap
66885-1



Screened Inlet
67174-15

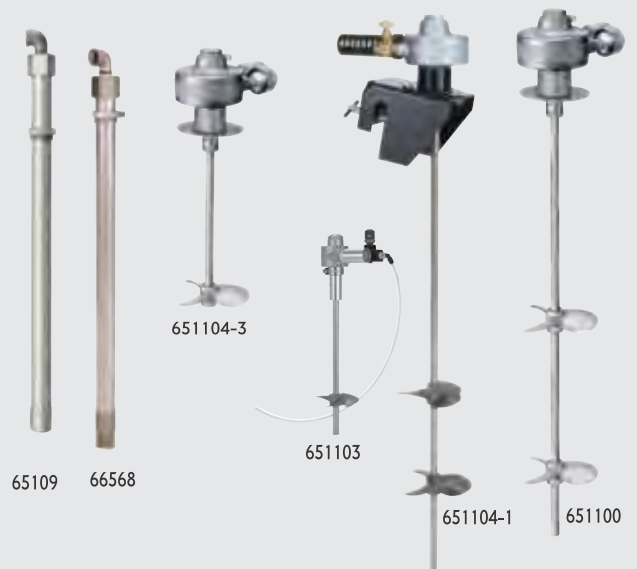
3/4" Metallic	1" Non-Metallic	1-1/2" Non-Metallic	2" Non-Metallic	1" Metallic	1-1/2" Metallic	2" Metallic	3" Metallic	1" 3:1 Ratio
66073-1	66073-2	66084-1	66109	66073-2	66084-1	66109	66109	-
-	-	67237 CI Center Bodies	67237 CI Center Bodies	-	67237 CI Center Bodies	-	-	-
66975	66975	66975	66975	66975	66975	66975	66975	-
-	67169	67169	67169	67169	67169	-	-	-
-	67078	67079	67080	-	-	-	-	-
635040	635040	23644-400	23644-400	635040	23644-400	635043	635043	-
76763	-	-	-	66100	62133	-	-	67142
67072	67072	67072-1	67072-1	67072	67072-1	-	-	-
-	67166-1 (24V DC) 67166-2 (120V AC)	67166-1 (24V DC) 67166-2 (120V AC)	67166-1 (24V DC) 67166-2 (120V AC)	67166-1 (24V DC) 67166-2 (120V AC)	67166-1 (24V DC) 67166-2 (120V AC)	-	-	-
104104-N02	104104-N02	104104-N04	104104-N04	104104-N02	104104-N04	104104-N06	104104-N06	-
-	-	-	-	66885-1	66885-1	66885-1	66885-1	-
-	-	-	-	-	67174-15	67174-20	67174-30	-

ACCESSORIES

Siphon Tubes

Used to pump from a 55 GAL (200 L) container. Siphon tubes are available in PVC, Carbon Steel or 316 Stainless Steel. 1" Siphon tubes come with a foot valve, for positive priming.

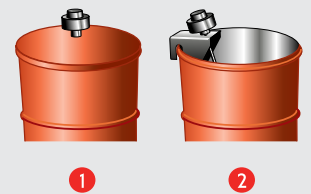
Model No.	Description	For Use with Pumps
65109	Steel — NPT(F)	1" (Metallic)
66568	Stainless Steel — NPT(F)	1" (Metallic)
66568	Stainless Steel filter & Siphon tube	1" (Non-Metallic)
66779	PVC — NPT(F)	1" (Non-Metallic)



Material Agitators

- Agitators are available for both 5 GAL (20 L) and 55 GAL (200 L) containers.
- Air-operated agitator motors generate between 500-1000 RPM (5 GAL, 20 L), and 500-3000 RPM (for 55 GAL, 200 L). Agitator shafts and propellers are constructed from corrosion resistant 316 Stainless Steel.

Model no.	Drum	Mounting	Power	Motor Speed	Propeller Diameter	Axle Length
651100	5 GAL (20 L)	1	0.33 hp	500 - 1000 rpm	4" (102 mm)	12" (305 mm)
651103	55 GAL (200 L)	2	0.75 hp	500 - 3000 rpm	5" (127 mm)	32.6" (830 mm)
651104-1	55 GAL (200 L)	1	0.95 hp	500 - 3000 rpm	5" (127 mm)	32.6" (830 mm)
651104-3	5 GAL (20 L)	1	0.75 hp	500 - 3000 rpm	5" (127 mm)	10.5" (267 mm)



Drum Covers

Durable Stainless Steel and Carbon Steel drum covers accommodate the use of both diaphragm pumps and agitators where needed.

Model No.	Drum	Material	For use with agitator
66971	5 GAL (20 L)	Stainless Steel	651100
66197	55 GAL (200 L)	Carbon Steel	651104-1
94422	55 GAL (200 L)	Carbon Steel	—



Pneumatic Liquid Level Sensor*

Used to control the pump.

- 59916-1 to sense when fluid exceeds a desired level
- 59916-2 to sense when fluid falls below a desired level

* 3- or 4-way valve required



Liquid Level Sensor



MQ3728-120-A used on 1/2" and 1" pumps

Air Control Actuation Valves

The 3-way valve controls air supply to the pump. Activation starts the pump, deactivation cuts-off air supply to the pump and exhausts air from the motor, which prevents stalling.

Pulsation Dampeners

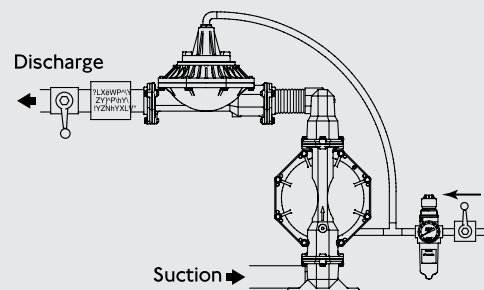
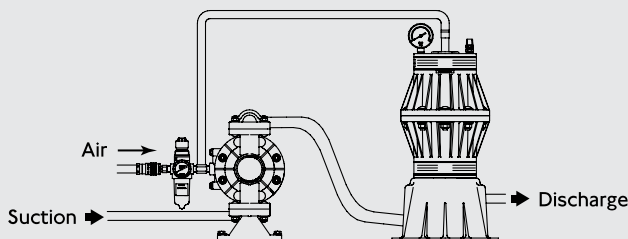
Diaphragm pumps of any type have at least two points in their cycle, where they provide no pressure or flow to a process. The unwanted result of this pressure fluctuation, can often be material foaming, material pulsation, hydraulic shock or material splashing. While traditional pulsation dampeners can help reduce unwanted pulsation and various problems, they also require operator intervention and adjustments from time to time.



Automatic Shock Blockers®

- **Automatic Air Adjustment** - Compensates for fluctuations in the fluid pressure, without operator intervention.
- **Significant Pulsation Reduction** - Shock Blockers deliver an average of 60% - 80% pulsation reduction in high back pressure applications.
- **Built for high-flow / aggressive fluid applications** - The 2" models can handle a maximum of 2.6 L fluid volume, and 3" models a maximum of 8.3 L fluid volume.
- **Broad Material Range for Compatibility** - Choose from Kynar®, Polypropylene, Groundable Acetal (1" models), Aluminum, Cast Iron or Stainless Steel (2" and 3" models) body materials, for optimum pump-to-pulsation dampener compatibility.
- **Broad Diaphragm / Bladder Fluid Compatibility** - Choose from Santoprene, Nitrile, PTFE, Hytrel, Viton or Urethane for optimum fluid-to-diaphragm compatibility.
- **Perfect for Process Applications** - Pulsation reduction in long piping runs, help prevents costly fluid pipe and downstream valve damage.
- **Bolted construction** - For leak-free vessel integrity and a safer work-site.
- **Ultra-Rugged Construction for Long Service Life** - Both inside and out, the Shock Blockers are tough in order to deliver worry-free, near pulse-free fluid handling.

Typical System



Ordering

Position	1	2		3	4	5		6
Example:	SBX0	X	-	X	X	S	-	X

Position 1 Model and Size	Position 2 Air Section	Position 3 Fluid Connection	Position 4 Fluid Section	Position 5 Hardware	Position 6 Diaphragm Material
SB10 - 1"	P - Polypropylene K - PVDF (Kynar) D - Conductive Acetal	A - NPTF B - BSP	P - Polypropylene K - PVDF (Kynar) D - Conductive Acetal	S - Stainless Steel 304	A - Santoprene C - Hytrel® T - PTFE U - Polyurethane
SB20 - 2" SB30 - 3"	A - Aluminum C - Cast Iron S - Stainless Steel	A - NPTF B - BSP	A - Aluminum C - Cast Iron S - Stainless Steel	P - Carbon Steel S - Stainless Steel	A - Santoprene G - Nitrile T - PTFE / Santoprene V - Viton

MAINTENANCE KITS



637432-XX



48495964



637375-XX

Pump Type	Models	Air Motor Section	Fluid Section	One Piece Diaphragms	Major Air Valve Assembly
3/8" Non-Metallic	PD03P, PE03P	637428	637429-XX	—	—
1/2"	Non-Metallic	PD05P, PE05P	637428	637427-XX	—
	Metallic	PM05P	637389	637375-XX	—
		PD05A, PD05R, PE05A, PE05R	637428	637427-XX	—
3/4"	Non-Metallic	PD07P	637428	637427-XX	—
	Metallic	PD07R	637428	637427-XX	—
1"	Non-Metallic	6661A, 6661B	637118-C	637161-XX-C	48495964
	Metallic	66610, 66611, 66612, 66613	637118-C	637119-XX-C	48495964
		PH10A-XSS-SST	637338	637339	—
1 1/2"	Non-Metallic	6661T, 6661U	637118-C	637165-XX	48496806
	Metallic	66615, 66616, 66617, 66618	637118-C	637124-XX	48496806
		66M170	637118-C	637469-XX	—
2"	Non-Metallic	6662A, 6662B	637118-C	637165-XX	48497374
	Metallic	66625, 66627	637434	637432-XX	48497374
		66M270	637434	637468-XX	—
3"	Metallic	66630, 66632	637434	637433-XX	—
		66M320	637434	637467-XX	—
		PH30F-X	637369	637441-XX	—

ARO Vibration Isolators

Protect your pump installation by reducing vibration. ARO Vibration Isolators are used for an efficient reduction of mechanical vibration and stress in the mounting system of an air-operated diaphragm pump. They are recommended for use with flexible fluid pipe connectors, to isolate the impact of the pump vibration to fixed pipes.



Vibration Isolator

Model Number (4 per kit)	CPN	Description (Max. weight of pump with fluid)
HSK-20	47532069001	Vibration Isolator Kit 20 KG (44LB)
HSK-40	47532069002	Vibration Isolator Kit 40 KG (88LB)
HSK-70	47532069003	Vibration Isolator Kit 70 KG (154LB)
HSK-110	47532069004	Vibration Isolator Kit 110 KG (243LB)

PUMP AIRBORNE NOISE EMISSIONS

Pump Airborne Noise Emissions

The pump sound pressure levels published below, have been updated to an Equivalent Continuous Sound Level (LAeq), to meet the intent of ANSI S1.13-1971. CAGI-PNEUROP S5.1 by using four strategically placed microphones.

Pump Port Size (Inches)	Air Operating Pressure (PSI)	Cycles / Minute	Sound Pressure (LAeq)
1/2	70	60	75.0 db(A)
1	70	60	79.7 db(A)
-	-	-	80.6 db(A)
1-1/2	70	60	81.0 db(A)
-	-	-	82.8 db(A)
2	70	60	*85.0 db(A)
3	70	50	*83.0 db(A)

Material Service Guideline

This chart is a quick reference guide only. Always check material compatibility with a trusted chemical guide.

Pump Port Size (Inches)	Max. Temp. °F (°C)	Chemical Resistance	Abrasion Resistance	Flex Life
Acetal	180 (82)	3	3	-
Aluminum	-	1	3	-
Cast Iron	-	3	4	-
Geolast (Nitrile Based)	180 (82)	2	2	3
Hastelloy C	-	5	-	-
Hytrel	150 (66)	2	4	4
Neoprene	200 (93)	2	2	3
Nitrile	180 (82)	2	2	3
Polypropylene	175 (80)	4	2	-
Polyurethane	150 (66)	1	4	4
PTFE	225 (107)	5	2	4**
PVDF	200 (93)	5	2	-
Santoprene	225 (107)	4	4	5
Stain Steel (300 Series)	-	4	4	-
Stain Steel (400 Series)	-	3	5	-
Viton	350 (177)	4	2	1

The scale ranges from 1 - 5 being the best resistance.

* Applies to diaphragms only.

** Increased flex-life with the use of Santoprene diaphragm backer.

NOTE: Temperatures are reference for materials only. Refer to the operator's manual for maximum pump operating temperatures.

Centi Poise	Poise	Saybolt Universal (SSU)	Saybolt Furool	Ford No. 3	Ford No. 4	Zahn No. 1	Zahn No. 2	Zahn No. 3
1	.01	31						
2	.02	34						
4	.04	38						
7	.07	47						
10	.10	60		8				
15	.15	80	13	10	5	30	16	
20	.20	100	15	12	10	37	18	
25	.24	130	17	15	12	41	19	
30	.30	160	19	19	14	44	20	
40	.40	210	24	25	18	52	22	
50	.50	260	29	29	22	60	24	
60	.60	320	34	33	25	68	27	
70	.70	370	39	36	28	72	30	
80	.80	430	42	41	31	81	34	
90	.90	480	49	45	32	88	37	10
100	1.0	530	54	50	34		41	12
120	1.2	580	59	58	41		49	14
140	1.4	690	70	66	45		58	16
160	1.6	790	79	72	50		66	18
180	1.8	900	91	81	54		74	20
200	2.0	1000	100	90	58		82	23
220	2.2	1100	110	98	62		88	25
240	2.4	1200	120	106	65			27
260	2.6	1280	128	115	68			30
280	2.8	1380	138	122	70			32
300	3.0	1475	148	130	74			34
320	3.2	1530	153	136	89			36
340	3.4	1630	163	142	95			39
360	3.6	1730	173	150	100			41
380	3.8	1850	185	160	106			43
400	4.0	1950	195	170	112			46
420	4.2	2050	205	180	118			48
440	4.4	2160	216	188	124			50
460	4.6	2270	227	200	130			52
480	4.8	2380	238	210	137			54
500	5.0	2480	248	218	143			58
550	5.5	2660	266	230	153			64
600	6.0	2900	290	250	170			68
700	7.0	3380	338	295	194			76
800	8.0	3880	388	340	223			
900	9.0	4300	430	365	247			
1000	10.0	4600	460	390	264			
1100	11	5200	520	445	299			
1200	12	5620	562	480	323			
1300	13	6100	610	520	350			
1400	14	6480	648	550	372			
1500	15	7000	700	595	400			
1600	16	7500	750	635	430			
1700	17	8000	800	680	460			
1800	18	8500	850	720	490			
1900	19	9000	900	760	520			
2000	20	9400	940	800	540			
2100	21	9850	985	835	565			
2200	22	10300	1030	875	592			
2300	23	10750	1075	910	617			
2400	24	11200	1120	950	645			
2500	25	11600	1160	985	676			
3000	30	14500	1450	1230	833			
3500	35	16500	1650	1400	950			
4000	40	18500	1850	1570	1060			
4500	45	21000	2100	1780	1175			
5000	50	23500	2350		1350			
5500	55	26000	2600		1495			
6000	60	28000	2800		1605			
6500	65	30000	3000		1720			
7000	70	32500	3250		1870			
7500	75	35000	3500		2010			
8000	80	37000	3700		2120			
8500	85	39500	3950		2270			
9000	90	41000	4100		2360			
9500	95	43000	4350		2470			
10000	100	46500	4650		2670			
15000	150	69400	6940					
20000	200	92500	9250					
30000	300	138600	13860					
40000	400	185000	18500					
50000	500	231000	23100					
60000	600	277500	27750					
70000	700	323500	32350					
80000	800	370000	37000					
90000	900	415500	41550					
100000	1000	462000	46200					
125000	1250	578000	57800					
150000	1500	694000	69400					
175000	1750	810000	81000					
200000	2000	925000	92500					

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