

ARO®

COMPACT AND PRO SERIES DIAPHRAGM PUMPS

FOR GENERAL INDUSTRIAL AND OEM INSTALLATION APPLICATIONS





ARO® is a manufacturer of fluid management products that are skillfully engineered to deliver performance and serviceability, allowing success to flow freely in our customers' businesses. That's why ARO® is fluid intelligence—the smart choice in fluid management products for industrial operations. With over an 85-year legacy of premier product performance and service excellence, ARO® provides fluid management equipment for customers and industries around the globe, including chemical, manufacturing, energy, pharmaceutical, mining and more.

ARO® has the right product to meet our customers' specific needs. We offer air-operated diaphragm pumps, piston pumps and packages, filters, regulators, and lubricators (FRLs), lubrication equipment, and pneumatic valves and cylinders.

Product and Technical Support

Every ARO® product is backed by a highly qualified team of engineers dedicated to designing products that promote success around the world. Because ARO® products are built to be as simple as they are smart, customers benefit from efficient operation and high performance for excellent total cost of ownership.

At ARO® we make success flow

Table of Contents

➤ Features	4
➤ Non-Metallic Models	7
➤ Metallic Models	25
➤ Specialty Pumps	40
3:1 High Ratio Pump	
Pit Boss	
Automatic Dewatering System	
Centrifugal	
Fuel Anti-Freeze / Water Blending	
U/L Approved	
Calcium Chloride Tire Fill	
Drum Pumps	
➤ Accessories	47
➤ Maintenance Kits	52

ARO® Air operated Diaphragm Pumps

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

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

Why ARO® diaphragm pumps?

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

Find your opportunity



ARO® **AUTHENTIC**
ARO PARTS

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

Though a part may look like an ARO® part, unless the part carries the Authentic ARO® Parts name and was bought from one of our authorized distributors, 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 every time.

Visit AROzone.com to learn more.

Smart Motor Design

COMPACT SERIES PUMPS 1/4" - 3/4"

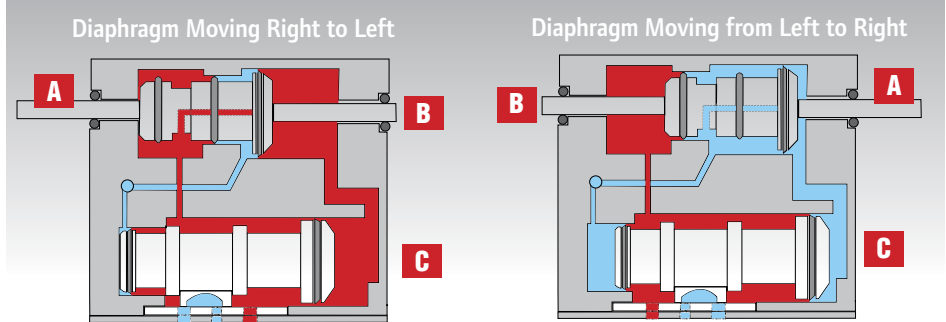
All ARO® Compact Series diaphragm pumps feature an unbalanced valve design, which eliminates valve centering and pump stall-out-even under low air inlet pressures.

"D" Valve

- Provides a positive seal.
- Helps insure optimum energy efficiency while avoiding costly air "blow-by."
- Ceramic construction insures long service life.

"SimulShift™" Valve

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



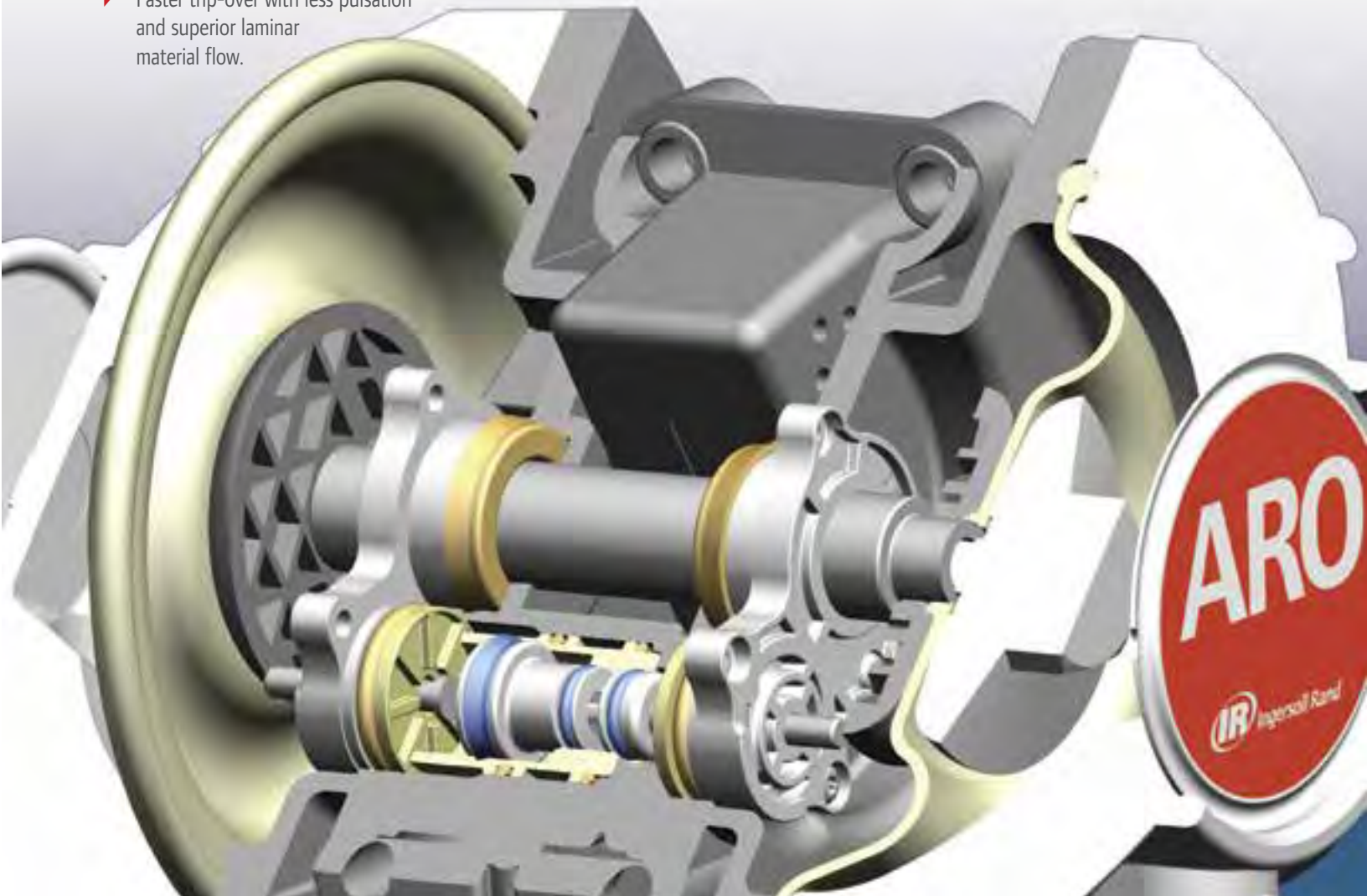
1.) The diaphragm pushes the right Actuator Pin (B) mechanically moving the SimulShift Valve (A) to the left.

2.) Compressed air flows to the large side of the SimulShift Valve, pneumatically moving the valve to the position shown.

3.) Compressed air also flows to the large end of the Major Air Valve (C), pneumatically shifting it to the left.

At end of stroke:

- 1.) Diaphragm pushes Pin (B) and SimulShift Valve (A) to the right.
- 2.) Large ends of SimulShift Valve (A) and 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 Models

The ARO® non-metallic offering consists of polypropylene, acetal and PVDF. All ARO® pumps are available with convoluted diaphragms offering long lasting life and reduced maintenance.

Non-Metallic Model Overview



Model	1/4"	3/8"	1/2"	1/2" Classic	3/4"	1"	1-1/2"	2"
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)	1/4" NPTF/BSPT and 3/4"-14 NPTF/BSPT	3/8 - 18 NPTF - 1 Rp 3/8 (3/8 - 19 BSP)	1/2 - 14 NPTF - 1 Rp 1/2 (1/2 - 14 BSP)	1/2-14 N.P.T.F.-1	3/4 - 14 NPTF-1 Rp 3/4(3/4-14 BSP, parallel)	1" ANSI/DIN Flange 1" (F) Threaded	1-1/2" ANSI Flange	2" ANSI 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)	4.2 (1.9) PD03P-XDS-X 4.3 (1.9) PD03P-XES-X 4.5 (2.0) PD03P-XKS-X 4.6 (2.1) PD03P-XLS-X 3.4 (1.6) PD03P-XPS-X 3.5 (1.6) PD03P-XRS-X	6.3 (2.9) PD05P-XDS-X-B 6.7 (3.0) PD05P-XES-X-B 6.8 (3.1) PD05P-XKS-X-B 7.2 (3.3) PD05P-XLS-X-B 5.2 (2.4) PD05P-XPS-X-B 5.4 (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	P39124-600	P39124-600	P39124-600	P39124-600	P39124-600	P39224-600	P39344-600	P39354-600
Air Line Kit	66073-1	66073-1	66073-1	66073-1	66073-1	66073-1	66084-1	66109

Compact Series PRO Series

1/4" Non-Metallic Models

COMPACT SERIES PUMPS

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

Ratio:	1:1
Maximum Flow gpm (lpm):	5.3 (20)
Displacement per cycle gal (l):	.019 (.072)
Air Inlet (Female):	1/4 - 18 PTF SAE Short
Fluid Inlet/Outlet Hybrid:	Internal Thread 1/4"NPTF/BSPT External Thread 3/4" - 14 NPTF/BSPT
Max. operating pressure psi (bar):	125 (8.6)
Suspended solids max. dia in (mm):	.0625 (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 - Elec. 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 O - Polypropylene (Flex-Check spacer)* 1 - Acetal (Flex-Check spacer)* 2 - PVDF (Flex-Check spacer)*	A - Santoprene® C - Hytrel® G - Nitrile (Flex-Check only) J - Nitrile (Flex-Check only) K - EPDM (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). See complete description on page 9

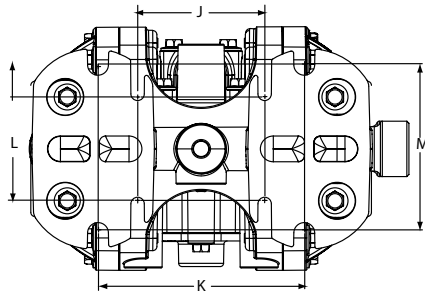
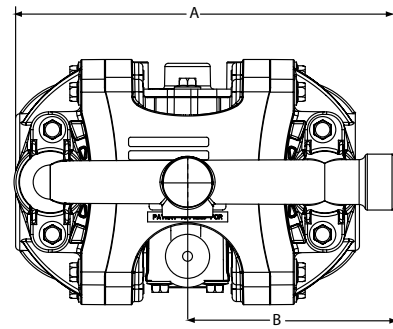
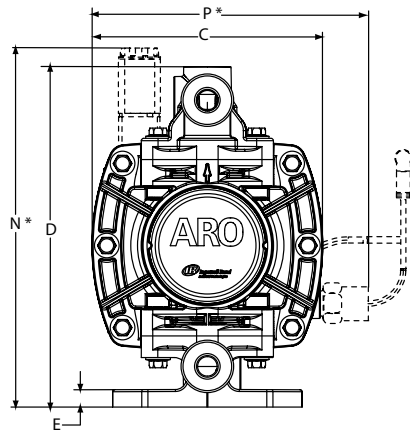
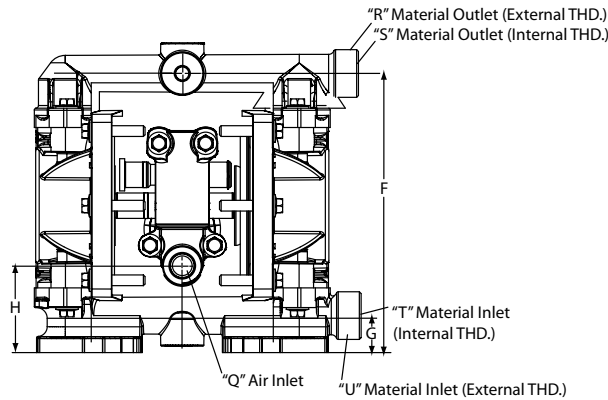
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Accessories

Air Line Connection Kit | 66073-1

(Piggyback Filter/Regulator with gauge, pipe nipple and 5-foot air hose)

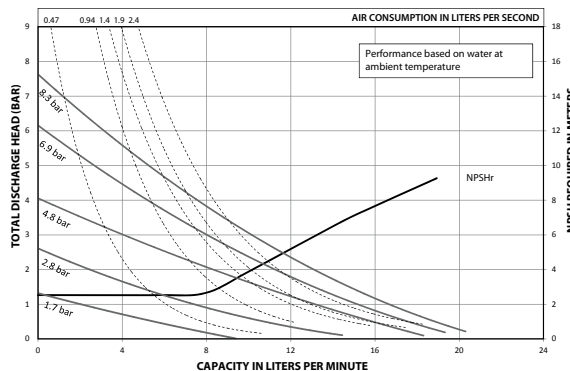
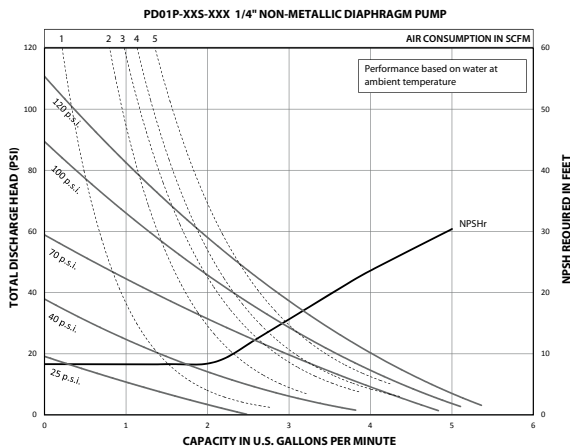
1/4" Non-Metallic Dimensions and Flow Charts



DIMENSIONS

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

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)	



Performance based on an elastomeric fitted pump, flooded suction with water at ambient conditions. Due to varying materials of construction, assembly configurations and operating conditions, published data is for reference only.

Ordering Position 10

Specialty Code 1 (Blank if no Specialty Code)

A - Solenoid 120VAC	G - Solenoid 12VDC ATEX/IECex*
B - Solenoid 12VDC	H - Solenoid 24VDC ATEX/IECex*
C - Solenoid 240VAC	J - 120VAC NEC/CEC*
D - Solenoid 24VDC	K - Solenoid 220VAC ATEX/IECex*
E - 12vDC NEC/CEC*	N - Solenoid with no coil
F - 24vDC NEC/CEC*	O - Standard Valve Block (No Solenoid)

Ordering Position 11

Specialty Code 2 (Blank if no Specialty Code)

E - End of stroke feedback + Leak Detection	L - Leak Detection
F - End of stroke feedback	M - Leak Detection ATEX/IECex/NEC/CEC*
G - End of Stroke ATEX/IECex*	O - No Option
H - End of Stroke/Leak Detection ATEX/IECex*	R - End of Stroke Feedback NEC / CEC*
	T - End of Stroke Feedback + Leak Detection NEC / CEC*

* Acceptable for use in hazardous locations. - NEC / CEC: Class I&II, Div 1&2, Group A-D
- ATEX: Zone 1&2, 21&22

3/8" Non-Metallic Models

COMPACT SERIES PUMPS

Part of our Compact Series of pumps, our 3/8" pumps feature big performance in a small package. They feature flow rates up to 10.6 GPM (40.1 LPM) and a wide range of material and porting configurations.

Ratio:	1:1
Maximum Flow gpm (lpm):	10.6 (40.1) 8.7 (32.9) Flex check
Displacement per cycle gal (l):	.022 (0.083) .018 (0.068) Flex check
Air Inlet: (Female)	1/4 - 18 PTF SAE Short
Fluid Inlet/Outlet:	3/8 - 18 PTF - 1 Rp 3/8 (3/8 - 19 BSP, parallel)
Max. operating pressure psi (bar):	100 (6.9)
Suspended solids max. dia in (mm):	.0625 (1.6) 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	-	A	-	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" NPT 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 J - Nitrile** L - Viton*** N - Neoprene** S - Stainless Steel T - PTFE V - Viton ** Flex check	A - Santoprene® C - Hytrel® G - Nitrile T - PTFE/ Santoprene V - Viton	Revision Level Position 10 & 11 Specialty Code Fluid control options for pump with electronic interface (PE03 model). See complete description on page 11

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Accessories

Air Line Connection Kit | 66073-1

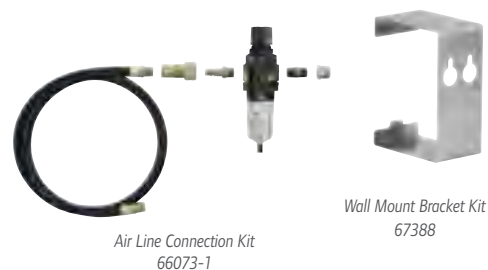
(Piggyback Filter/Regulator with gauge, pipe nipple and 5-foot air hose)

Wall Mount Bracket Kit | 67388

Optional Muffler | used with 637428 kit

Service Repair Kits | 637428 (air section)

637429-XX (fluid section)



3/8" Non-Metallic Dimensions and Flow Charts



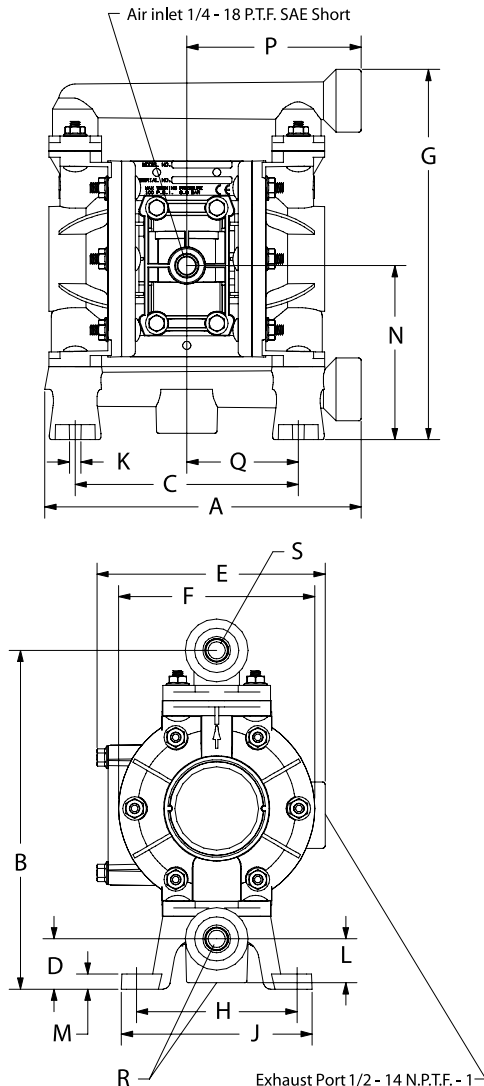
PE03P-APS-PAA-B05
with 637442-1 Kit

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

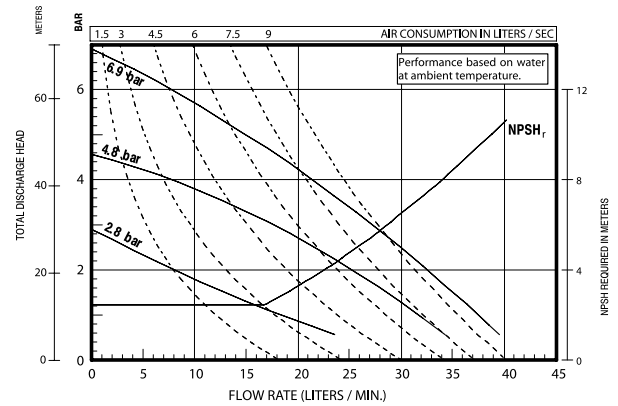
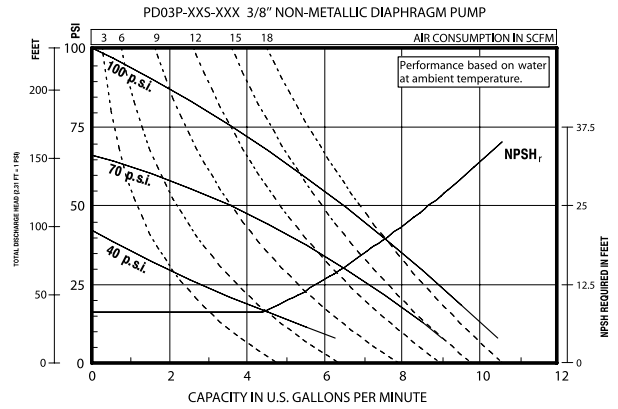
DIMENSIONS

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)

Model	"R" Material Inlet	"S" Material Outlet
PD03P-AXS-XXX	3/8 - 18 N.P.T.F. - 1	3/8 - 18 N.P.T.F. - 1
PD03P-BXS-XXX	Rp 3/8 (3/8 - 19 BSP)	Rp 3/8 (3/8 - 19 BSP)



PERFORMANCE CURVES



Performance based on an elastomeric fitted pump, flooded suction with water at ambient conditions.
Due to varying materials of construction, assembly configurations and operating conditions,
published data is for reference only.

Ordering Position 10

Specialty Code 1 (Blank if no Specialty Code)

A - Solenoid 120VAC	G - Solenoid 12VDC ATEX/IECex*
B - Solenoid 12VDC	H - Solenoid 24VDC ATEX/IECex*
C - Solenoid 240VAC	J - 120VAC NEC/CEC*
D - Solenoid 24VDC	K - Solenoid 220VAC ATEX/IECex*
E - 12vDC NEC/CEC*	N - Solenoid with no coil
F - 24vDC NEC/CEC*	O - Standard Valve Block (No Solenoid)
	P - Ported Motor (No major valve provided)

Ordering Position 11

Specialty Code 2 (Blank if no Specialty Code)

E - End of stroke feedback + Leak Detection	L - Leak Detection
F - End of stroke feedback	M - Leak Detection ATEX/IECex/NEC/CEC*
G - End of Stroke ATEX/IECex*	O - No Option
H - End of Stroke/Leak Detection ATEX/IECex*	R - End of Stroke Feedback NEC / CEC*
	T - End of Stroke Feedback + Leak Detection NEC / CEC*

1/2" Non-Metallic Models

COMPACT SERIES PUMPS

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

Ratio:	1:1
Maximum Flow gpm (lpm):	14.4 (54.5)
Displacement per cycle gal (l):	.039 (.15)
Air Inlet: (Female)	1/4 - 18 PTF SAE Short
Fluid Inlet/Outlet:	1/2 - 14 NPTF - 1 Rp 1/2 (1/2 -14 BSP, parallel)
Max. operating pressure psi (bar):	100 (6.9)
Suspended solids max. dia in (mm):	.09375 (2.4)
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):	15.0 (4.5)
Sound Level:	70 PSI 60 Cycles/Min 75.0 db(A)
Muffler:	Integral, Included



PD05P-ARS-PAA

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 NPTF - 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). See complete description on page 13

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Accessories

Air Line Connection Kit | 66073-1

(Piggyback Filter/Regulator with gauge, pipe nipple and 5-foot air hose)

Wall Mount Bracket Kit | 76763

Optional Muffler | 93110 used with 637438 kit

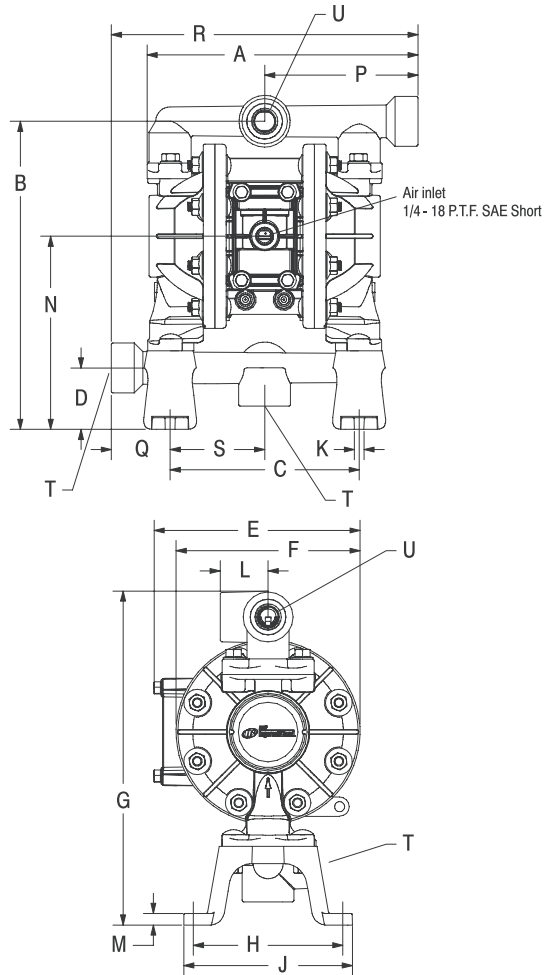
Service Repair Kits | 637428 (air section)

637427-XX (fluid section)



Air Line Connection Kit
66073-1

1/2" Non-Metallic Dimensions and Flow Charts



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)	

Model

PD05P-AXS-XXX-B
PD05P-BXS-XXX-B

"T" Material Inlet

1/2 - 14 N.P.T.F. - 1
Rp 1/2 (1/2 - 14 BSP)

"U" Material Outlet

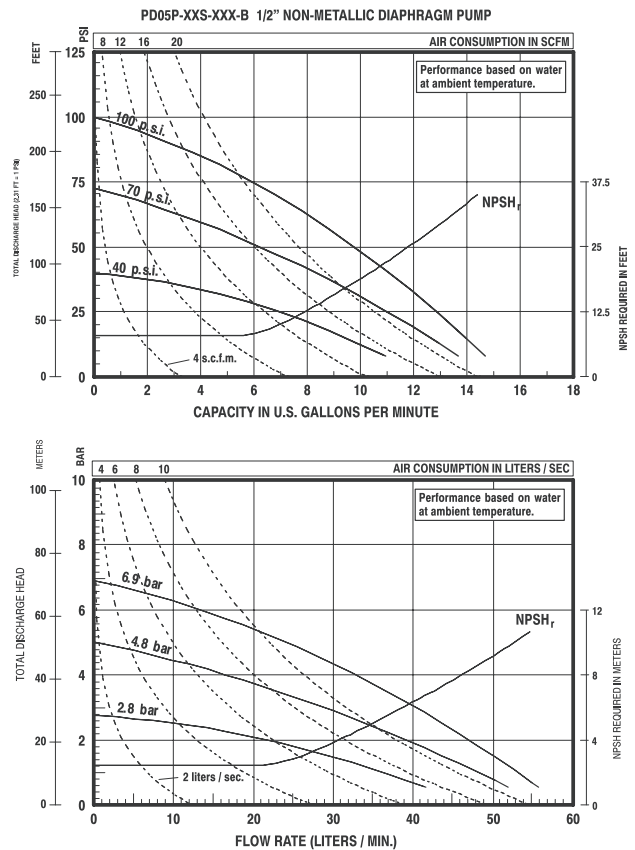
1/2 - 14 N.P.T.F. - 1
Rp 1/2 (1/2 - 14 BSP)



PD05P-APS-PAA-B05
with 637440-1 Kit

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

PERFORMANCE CURVES



Performance based on an elastomeric fitted pump, flooded suction with water at ambient conditions. Due to varying materials of construction, assembly configurations and operating conditions, published data is for reference only.

Ordering Position 10

Specialty Code 1 (Blank if no Specialty Code)

A - Solenoid 120VAC

B - Solenoid 12VDC

C - Solenoid 240VAC

D - Solenoid 24VDC

E - 12VDC NEC/CEC*

F - 24VDC NEC/CEC*

G - Solenoid 12VDC ATEX/IECex*

H - Solenoid 24VDC ATEX/IECex*

J - 120VAC NEC/CEC*

K - Solenoid 220VAC ATEX/IECex*

N - Solenoid with no coil

O - Standard Valve Block (No Solenoid)

P - Ported Motor (No major valve provided)

Ordering Position 11

Specialty Code 2 (Blank if no Specialty Code)

E - End of stroke feedback + Leak Detection

F - End of stroke feedback

G - End of Stroke ATEX/IECex*

H - End of Stroke/Leak Detection ATEX/IECex*

L - Leak Detection

M - Leak Detection ATEX/IECex/NEC/CEC*

O - No Option

R - End of Stroke Feedback NEC / CEC*

T - End of Stroke Feedback + Leak Detection NEC / CEC*

1/2" Classic Style Non-Metallic Models

COMPACT SERIES PUMPS

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

Ratio:	1:1
Maximum Flow gpm (lpm):	ball 13 (49.2) duckbill 10 (37.9)
Displacement per cycle gal (l):	ball .04 (.15) duckbill .032 (0.12)
Air Inlet: (Female)	1/4 - 18 NPTF - 1
Fluid Inlet/Outlet:	1/2 - 14 NPTF - 1
Max. operating pressure psi (bar):	100 (6.9)
Suspended solids max. dia in (mm):	ball .09375 (2.4) 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



66605J-3EB

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® **Flex-check Models	1 - Neoprene 2 - Nitrile 3 - Viton® 4 - PTFE/Santoprene 8 - Polyurethane 9 - Hytrel B - Santoprene® L - Long-Life PTFE	04 - Top Discharge

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Accessories

Air Line Connection Kit | 66073-1

(Piggyback Filter/Regulator with gauge, pipe nipple and 5-foot air hose)

Optional Muffler | 93110 used with 637438 kit

Service Repair Kits | 637141 (air section)

637140-XX (fluid section)

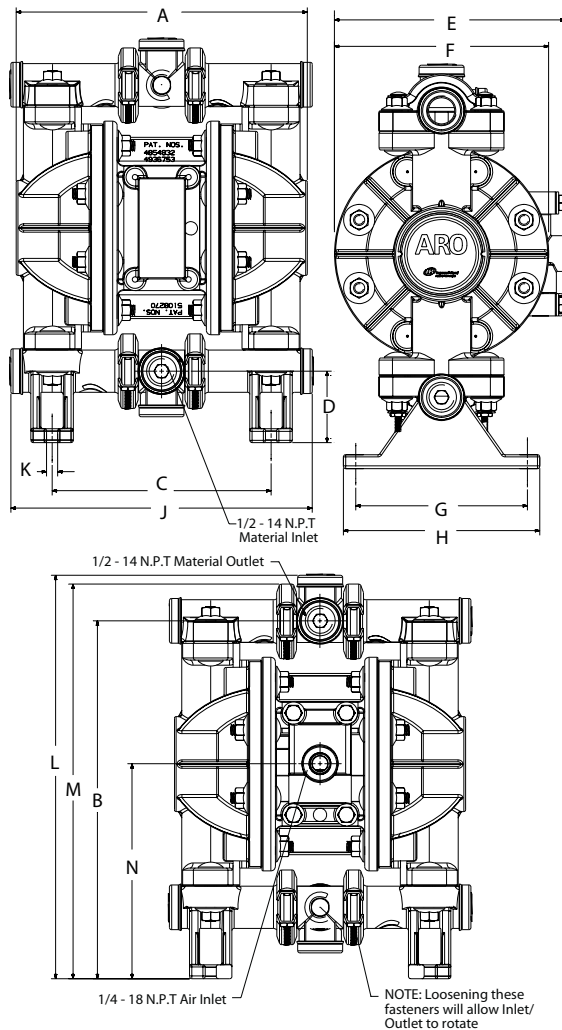


93110



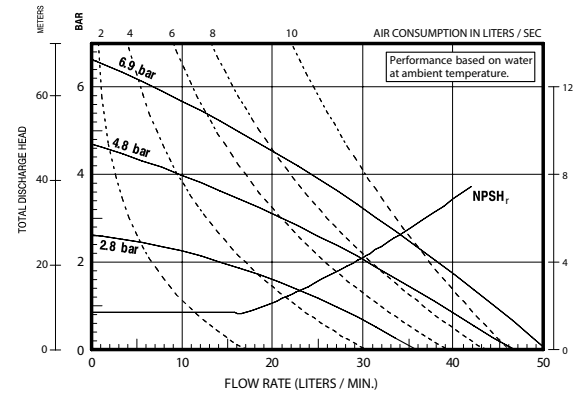
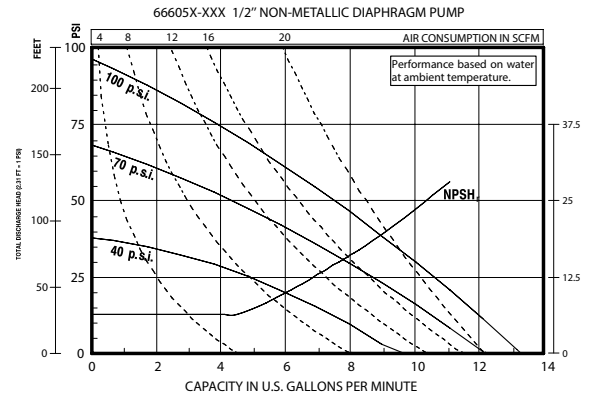
Air Line Connection Kit
66073-1

1/2" Non-Metallic Dimensions and Flow Charts



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

A - 8.155" (207.1 mm)	E - 6.467" (164 mm)	J - 8.44 5" (215 mm)
B - 10.051" (255 mm)	F - 6.000" (152 mm)	K - 0.31 2" (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 - 11.08 4" (282 mm)
	N - 6.040" (153 mm)	



Performance based on an elastomeric fitted pump, flooded suction with water at ambient conditions. Due to varying materials of construction, assembly configurations and operating conditions, published data is for reference only.

3/4" Non-Metallic Models

COMPACT SERIES PUMPS

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

Ratio:	1:1
Maximum Flow gpm (lpm):	14.8 (56)
Displacement per cycle gal (l):	.032 (.12)
Air Inlet: (Female)	1/4 - 18 PTF SAE Short
Fluid Inlet/Outlet:	3/4 - 14 NPTF - 1
	Rp 3/4 (3/4 -14 BSP, parallel)
Max. operating pressure psi (bar):	100 (6.9)
Suspended solids max. dia in (mm):	.09375 (2.4)
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)



PD07P-APS-PAA

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 - 14 - 3/4" NPTF-1 B - Rp 3/4 (3/41/2 -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). See complete description on page 17

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Accessories

Air Line Connection Kit | 66073-1

(Piggyback Filter/Regulator with gauge, pipe nipple and 5-foot air hose)

Muffler Kit | 637438 (ported exhaust) 3/8" NPT

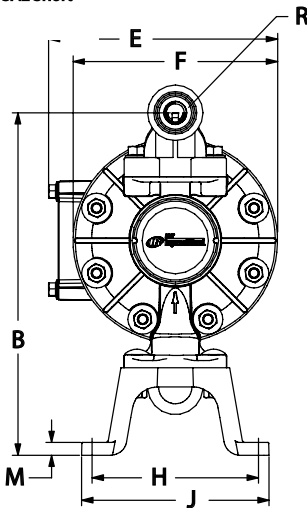
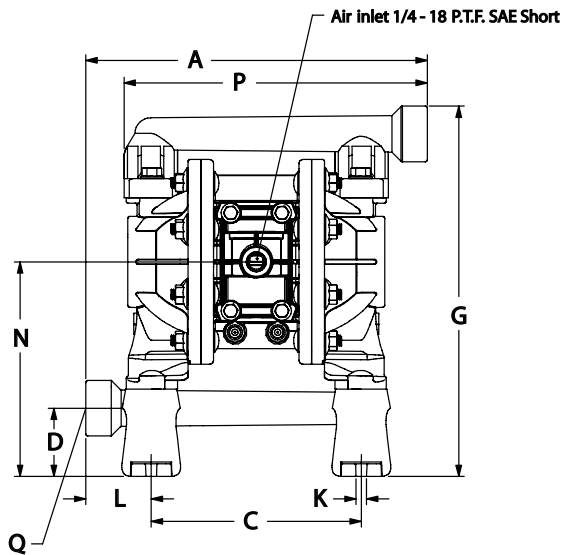
Service Repair Kits | 637428 (air section)
637427-XX (fluid section)

Wall Mount | 76763



Air Line Connection Kit
66073-1

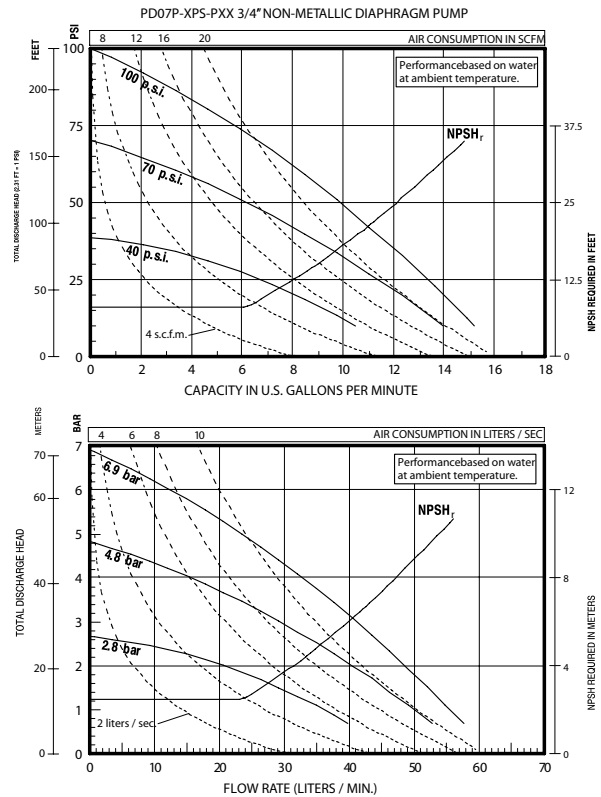
3/4" Non-Metallic Dimensions and Flow Charts



DIMENSIONS

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

Model	"Q" Material Inlet	"R" Material Outlet
PD07P-APS-PXX	3/4- 14N.P.T.F. - 1	3/4- 14N.P.T.F. - 1
PD07P-BPS-PXX	Rp 3/4(3/4- 14BSP)	Rp 3/4(3/4- 14BSP)



Performance based on an elastomeric fitted pump, flooded suction with water at ambient conditions. Due to varying materials of construction, assembly configurations and operating conditions, published data is for reference only.

Ordering Position 10

Specialty Code 1 (Blank if no Specialty Code)

A - Solenoid 120VAC	G - Solenoid 12VDC ATEX/IECex*
B - Solenoid 12VDC	H - Solenoid 24VDC ATEX/IECex*
C - Solenoid 240VAC	J - 120VAC NEC/CEC*
D - Solenoid 24VDC	K - Solenoid 220VAC ATEX/IECex*
E - 12VDC NEC/CEC*	N - Solenoid with no coil
F - 24VDC NEC/CEC*	O - Standard Valve Block (No Solenoid)
	P - Ported Motor (No major valve provided)

Ordering Position 11

Specialty Code 2 (Blank if no Specialty Code)

E - End of stroke feedback + Leak Detection	L - Leak Detection
F - End of stroke feedback	M - Leak Detection ATEX/IECex/NEC/CEC*
G - End of Stroke ATEX/IECex*	O - No Option
H - End of Stroke/Leak Detection ATEX/IECex*	R - End of Stroke Feedback NEC / CEC*
	T - End of Stroke Feedback + Leak Detection NEC / CEC*

1" Non-Metallic Models

PRO SERIES PUMPS

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

Ratio:	1:1
Maximum Flow gpm (lpm):	47 (177.9)
Displacement per cycle gal (l):	.17 (0.64)
Air Inlet: (Female)	1/4 - 18 NPT
Fluid Inlet/Outlet:	1 - 11-1/2 NPTF - 1 Rp 1 (1 - 11 BSP, parallel) 1" ANSI/DIN Hybrid Center Flange
Max. operating pressure psi (bar):	120 (8.3)
Suspended solids max. dia in (mm):	.125 (3.2)
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 Material	Position 3 Seat Material	Position 4 Ball Check Material	Position 5 Diaphragm Material
A - Aluminum B - Cast Iron	3 - Polypropylene ANSI Flange (3-piece manifold) F - Polypropylene Hybrid ANSI/ DIN Flange (one-piece manifold) J - Polypropylene NPT threads (one piece manifold) L - Polypropylene BSP threads (one-piece manifold)	2 - 316 Stainless Steel 3 - Polypropylene 4 - PVDF 8 - Hard 400 Stainless Steel	1 - Neoprene 2 - Nitrile 3 - Viton® 4 - PTFE 5 - EPR 8 - Polyurethane A - 316 Stainless Steel C - Hytrel® E - Santoprene®	1 - Neoprene 2 - Nitrile 3 - Viton® 4 - PTFE/ Santoprene® 5 - EPR 9 - Hytrel® B - Santoprene®

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Accessories

Air Line Connection Kit | 66073-2

(Piggyback Filter/Regulator with gauge, pipe nipple and 5-foot air hose)

Service Repair Kits | 637118-C (air section)

637161-XX-C (fluid section)

Flange Connection Kit | 67078 Kit meets ANSI specifications.

Flange constructed of glass-filled polypropylene. Bolts, washers and nuts are stainless steel. Gasket is 4401 klinger synthetic fiber nitrile binder.

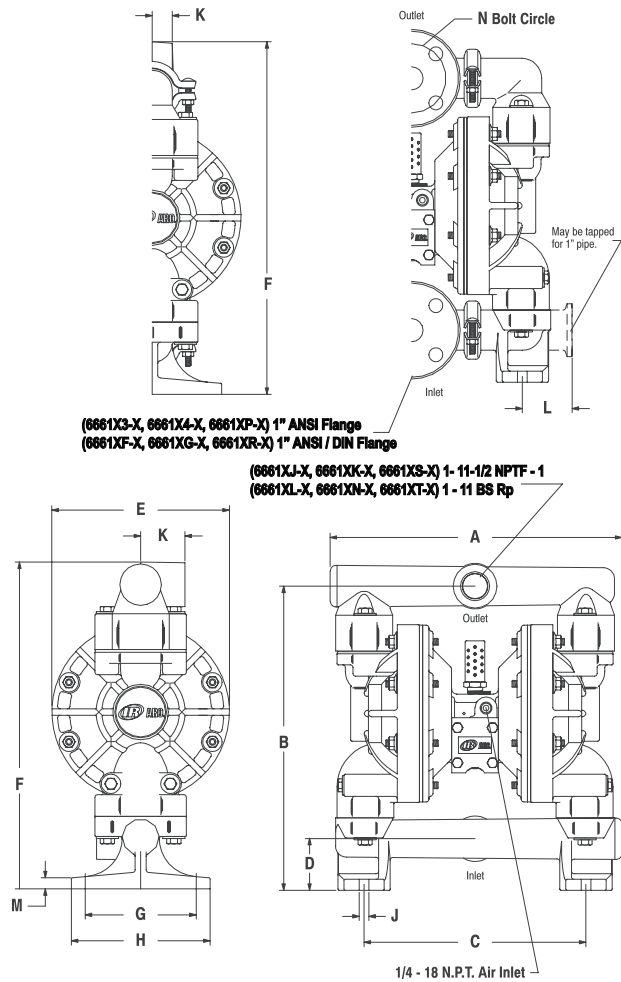


Air Line Connection Kit
66073-2



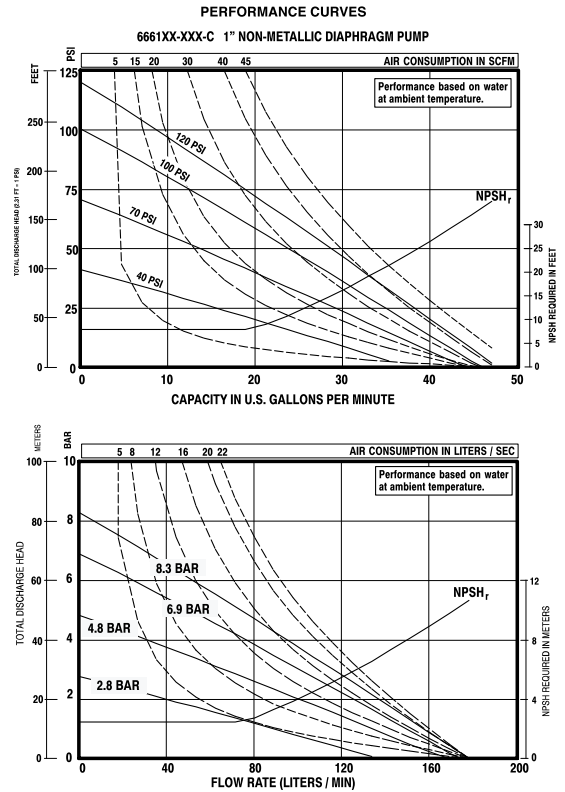
Flange Connection Kit
67078

1" Non-Metallic Dimensions and Flow Charts



DIMENSIONS

	6661X3-X	6661XJ-X 6661XL-X		6661XF-X
A	12-21/32" (321 mm)	13-5/32" (334 mm)	A	13-5/32" (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)
G	5-1/32" (128 mm)	5-1/32" (128 mm)	G	5-1/32" (128 mm)
H	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			



Performance based on an elastomeric fitted pump, flooded suction with water at ambient conditions. Due to varying materials of construction, assembly configurations and operating conditions, published data is for reference only.

1-1/2" Non-Metallic Models

PRO SERIES PUMPS

PRO 1-1/2" non-metallic diaphragm pumps are frequently used in transfer, filling, recirculation and supply in Chemical, Industrial and Water/Wastewater treatment markets. Our 1-1/2" models achieve flow rates of up to 100 GPM (378.5 LPM) and also offer a diverse selection of material and porting configurations.

Ratio:	1:1
Maximum Flow gpm (lpm):	100 (378.5)
Displacement per cycle gal (l):	.67 (2.54)
Air Inlet (Female):	1/2 - 14 NPTF - 1
Fluid Inlet/Outlet:	1-1/2" ANSI Center Flange
Max. operating pressure psi (bar):	120 (8.3)
Suspended solids max. dia in (mm):	.25 (6.4)
Weight lbs (kg):	6661T3-X-C 62 (28.1) Note: Add 23 (10.4) 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)



6661T3-389-C

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 ANSI Flange (3-piece manifold) 4 - PVDF (Kynar)	2 - 316 Stainless Steel 3 - Polypropylene 4 - PVDF 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 9 - Hytrel® B - Santoprene®

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Accessories

Air Line Connection Kit | 66084-1

(Piggyback Filter/Regulator with gauge, pipe nipple and 5-foot air hose)

Service Repair Kits | 637118-C (air section)

637165-XX (fluid section)

Flange Connection Kit | 67079 Kit meets ANSI specifications.

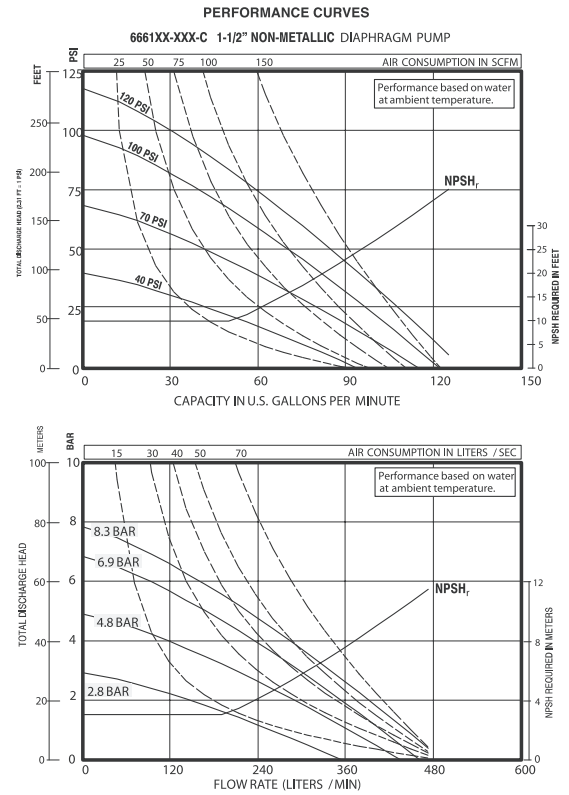
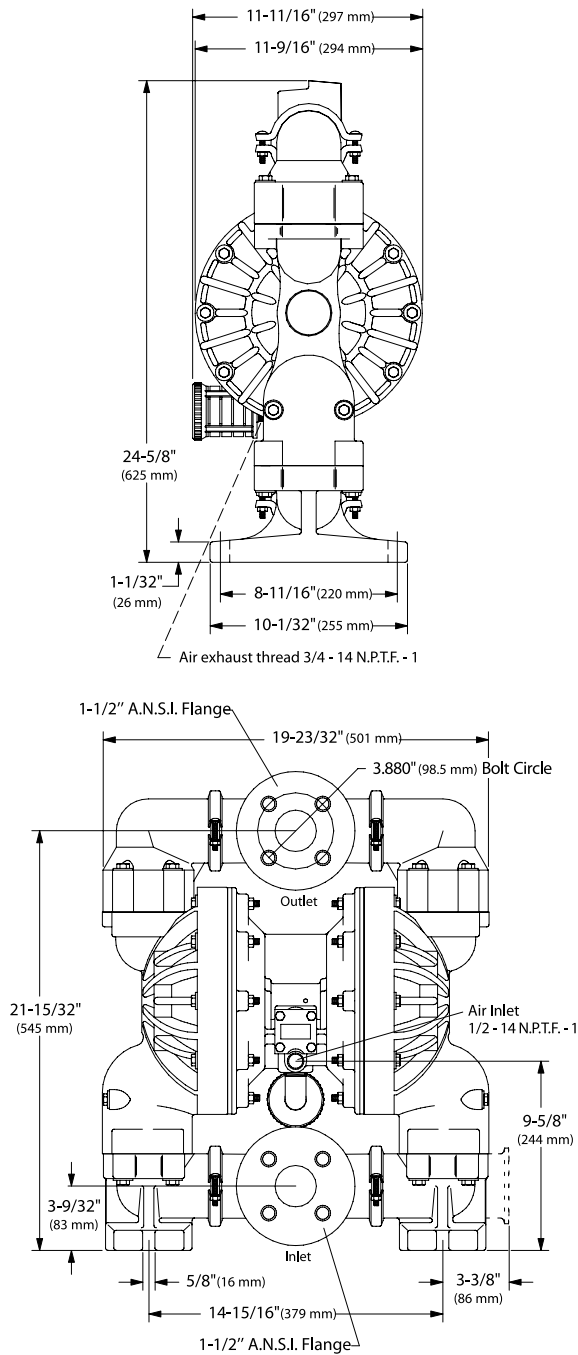
Flange constructed of glass-filled polypropylene. Bolts, washers and nuts are stainless steel. Gasket is 4401 klinger synthetic fiber nitrile binder.



Flange Connection Kit
67079

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

All dimensions are given in inches and millimeters (mm).



Performance based on an elastomeric fitted pump, flooded suction with water at ambient conditions. Due to varying materials of construction, assembly configurations and operating conditions, published data is for reference only.

2" Non-Metallic Models

PRO SERIES PUMPS

ARO® PRO 2" non-metallic pumps achieve flow rates of up to 145 GPM (548.8 LPM) and offer a wide array of material and porting configurations. 2" non-metallic pumps are often used for transfer, filling, recirculation and batching in Chemical, Industrial and Water/Wastewater treatment markets.

Ratio:	1:1
Maximum Flow gpm (lpm):	145 (548.8)
Displacement per cycle gal (l):	.72 (2.7)
Air Inlet (Female):	1/2 - 14 NPTF - 1
Fluid Inlet/Outlet:	2" ANSI Center Flange
Max. operating pressure psi (bar):	120 (8.3)
Suspended solids max. dia in (mm):	.25 (6.4)
Weight lbs (kg):	6662A3-X-C 62 (28.1) Note: Add 23 (10.4) 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
A - Aluminum B - Cast Iron	3 - Polypropylene ANSI Flange (3-piece manifold) 4 - PVDF (Kynar)	2 - 316 Stainless Steel 3 - Polypropylene 4 - PVDF 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 9 - Hytrel® B - Santoprene®

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Accessories

Air Line Connection Kit | 66084-1

(Piggyback Filter/Regulator with gauge, pipe nipple and 5-foot air hose)

Service Repair Kits | 637118-C (air section)

637165-XX (fluid section)

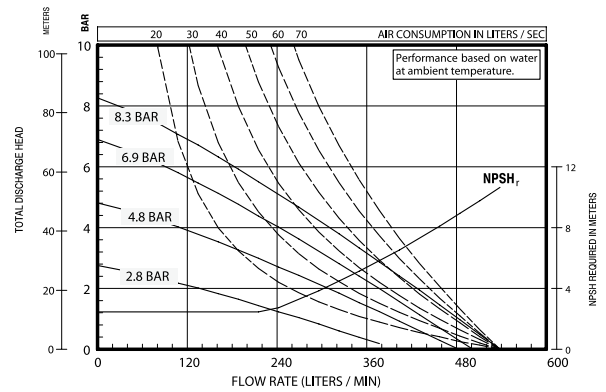
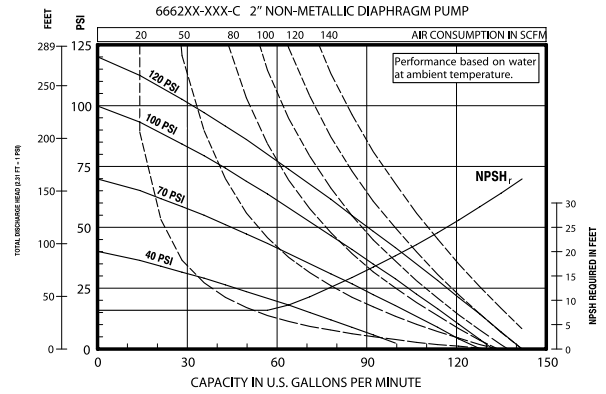
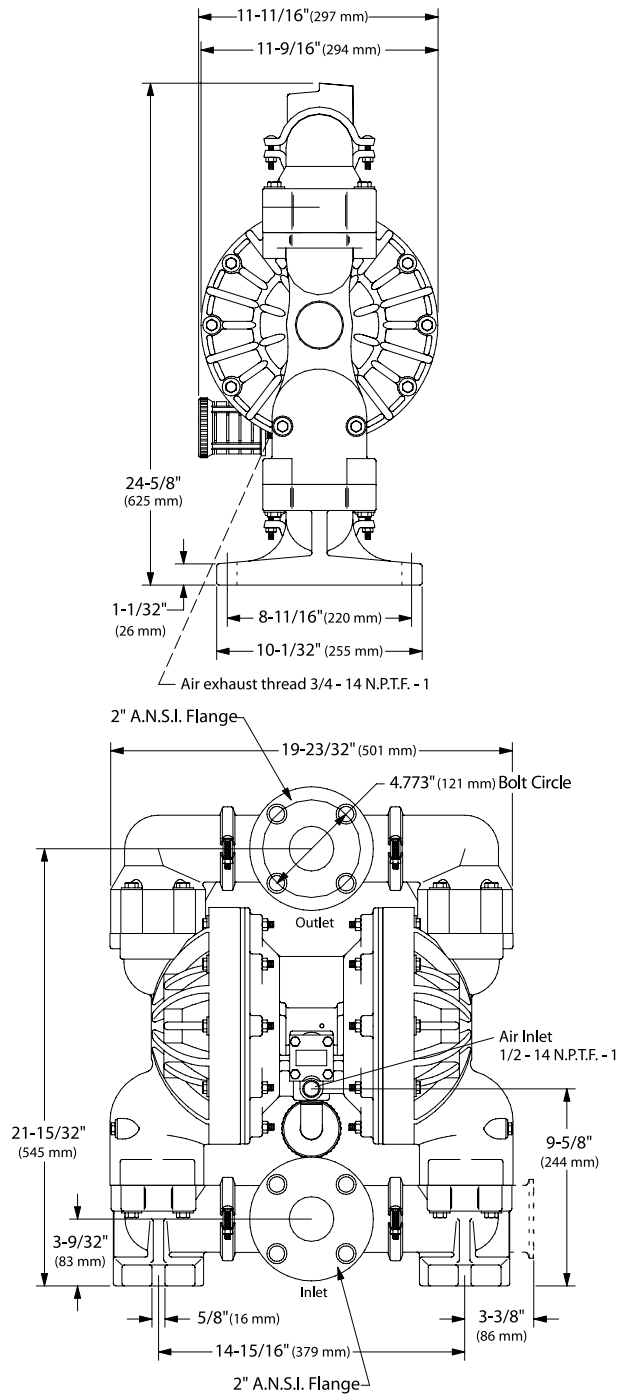
Flange Connection Kit | 67080 Kit meets ANSI specifications. Flange constructed of glass-filled polypropylene. Bolts, washers and nuts are stainless steel. Gasket is 4401 klinger synthetic fiber nitrile binder.



Flange Connection Kit

2" Non-Metallic Dimensions and Flow Charts

All dimensions are given in inches and millimeters (mm).



Performance based on an elastomeric fitted pump, flooded suction with water at ambient conditions. Due to varying materials of construction, assembly configurations and operating conditions, published data is for reference only.



Metallic Models

The ARO® range of diaphragm pumps offers many materials of construction compatible for the chemical industry: Our metallic offering consists of aluminium, cast iron, stainless steel and hastelloy.

Model Overview: Metallic Models



MODEL	1/2"	3/4"	3/4"	1"	1-1/2"	2"	3"
Maximum Flow GPM (LPM)	12 (45.4)	13.6 (51.5)	33 (125)	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)	120 (8.3)
Fluid Ports Inlet/Outlet (BSP Available)	1/2 - 14 NPTF - 1 Rp (1/2 - 14 BSP)	3/4 - 14 NPTF - 2 Rp 3/4(3/4-14BSP, parallel)	3/4 - 14 NPTF 1 (3/4 - 14 BSP)	1 - 11-1/2 NPTF - 1 Rp 1 (1-11 BSP parallel)	1-1/2 11-1/2 NPTF - 1 Rp 1-1/2 (1-11 BSP parallel)	1-1/2 11-1/2 NPTF - 1 Rp /2 (2-11 BSP parallel)	3 - 8 NPTF - 1 Rp 3 (3 - 11 BSP parallel)
Materials of Construction	Aluminum Stainless Steel	Aluminum	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)	17.5 (7.94)	19 (8.6) Aluminum* 29 (13.1) Stainless 31 (14.1) Cast Iron* *add 8-lb(3.63-kg) for cast iron center section	51.5 (23.4) Aluminum* 77.5 (35.2) Stainless 79.5 (36.1) Cast Iron* *add 23-lb(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)	1/8 (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	PD07R-AAS-FAA PD07R-AAS-FCC PD07R-AAS-FTT PD07R-AAS-PCC PD07R-AAS-PTT	666070-122-C 666070-244-C 666070-322-C 666070-344-C 666070-361-C 666070-361-C 666070-3EB-C 666070-244-C	666100-122-C 666100-244-C 666100-322-C 666100-344-C 666100-361-C 666100-361-C 666100-3EB-C 666101-244-C	666150-244-C 666150-322-C 666150-362-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	P39124-600	P39124-600	P39224-600	P39224-600	P39334-600	P39354-600	P39454-610
Air Line Kit	66073-1	66073-1	66073-2	66073-2	66084-1	66312	66109

Compact Series PRO Series

1/2" Metallic Models

COMPACT SERIES PUMPS

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

Ratio:	1:1
Maximum Flow gpm (lpm):	12.0 (45.4)
Displacement per cycle gal (l):	.039 (.15)
Air Inlet (Female):	1/4 - 18 PTF SAE Short (PD05R-X-X-B models) 1/4 - 18 NPTF - 1 (PD05A-X-X-B models)
Fluid Inlet/Outlet:	1/2 - 14 NPTF - 1 Rp 1/2 (1/2 - 14 BSP, parallel)
Max. operating pressure psi (bar):	100 (6.9)
Suspended solids max. dia in (mm):	.09375 (2.4)
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)
Muffler:	PD05A - 93110; PD05R - Integral



PD05A-ASS-FAA-B



PD05R-ASS-PTT-B

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 NPTF - 1 B - Rp 1/2 (1/2 - 14 BSP, parallel)	A - Aluminum S - Stainless Steel	S - Stainless Steel	F - Aluminum P - Poly- propylene 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). See complete description on page 27

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Accessories

Air Line Connection Kit | 66073-1

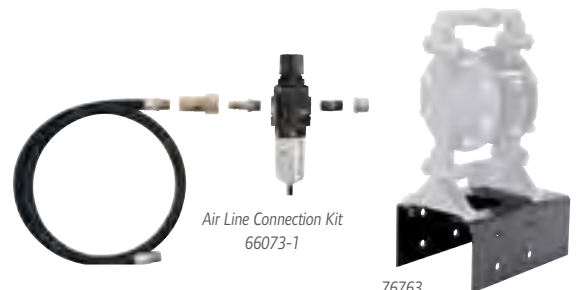
(Piggyback Filter/Regulator with gauge, pipe nipple and 5-foot air hose)

Wall Mount Bracket Kit | 76763

Optional Muffler | 93110 used with 637438 kit

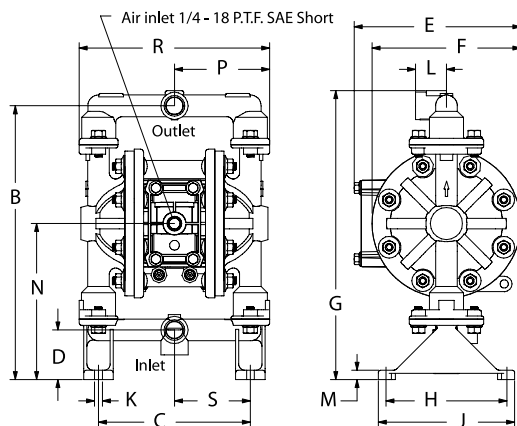
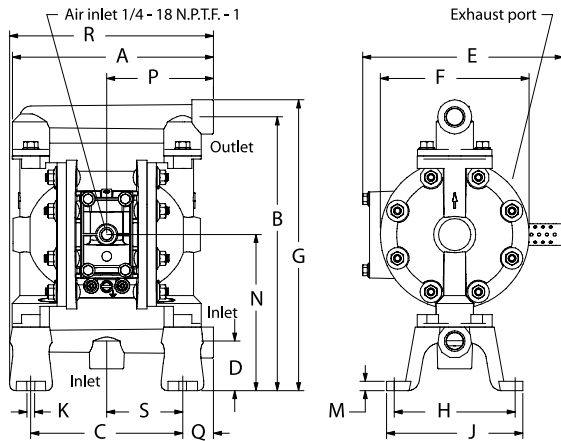
Service Repair Kits | 637428 (air section)

637427-XX (fluid section)



76763

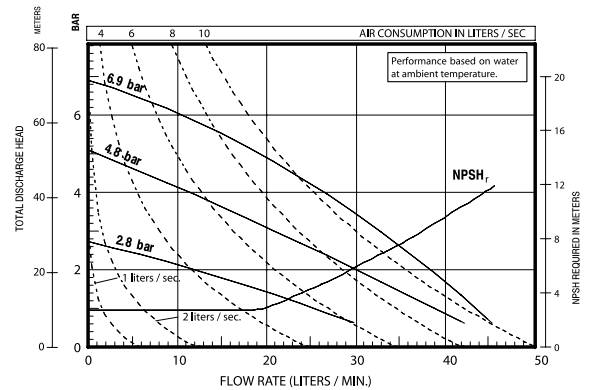
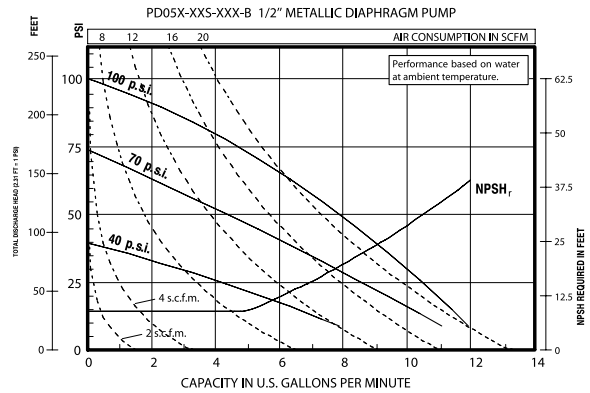
1/2" Metallic Dimensions and Flow Charts



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)	

Dimension	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" (297.9 mm)	11-21/32" (296.0 mm)
"P"	4-5/16" (109.3 mm)	3-27/32" (97.4 mm)
"R"	8-7/32" (208.5 mm)	7-11/16" (194.9 mm)



Performance based on an elastomeric fitted pump, flooded suction with water at ambient conditions. Due to varying materials of construction, assembly configurations and operating conditions, published data is for reference only.

Ordering Position 10

Specialty Code 1 (Blank if no Specialty Code)

A - Solenoid 120VAC	G - Solenoid 12VDC ATEX/IECex*
B - Solenoid 12VDC	H - Solenoid 24VDC ATEX/IECex*
C - Solenoid 240VAC	J - 120VAC NEC/CEC*
D - Solenoid 24VDC	K - Solenoid 220VAC ATEX/IECex*
E - 12VDC NEC/CEC*	N - Solenoid with no coil
F - 24VDC NEC/CEC*	O - Standard Valve Block (No Solenoid)
	P - Ported Motor (No major valve provided)

Ordering Position 11

Specialty Code 2 (Blank if no Specialty Code)

E - End of stroke feedback + Leak Detection	L - Leak Detection
F - End of stroke feedback	M - Leak Detection ATEX/IECex/NEC/CEC*
G - End of Stroke ATEX/IECex*	O - No Option
H - End of Stroke/Leak Detection ATEX/IECex*	R - End of Stroke Feedback NEC / CEC*
	T - End of Stroke Feedback + Leak Detection NEC / CEC*

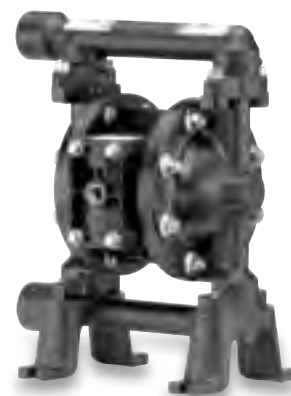
* Acceptable for use in hazardous locations. - NEC / CEC: Class I&II, Div 1&2, Group A-D
- ATEX: Zone 1&2, 21&22

3/4" Metallic Models

COMPACT SERIES PUMPS

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

Ratio:	1:1
Maximum Flow gpm (lpm):	13.6 (51.5)
Displacement per cycle gal (l):	.030 (.11)
Air Inlet (Female):	1/4 - 18 PTF SAE Short
Fluid Inlet/Outlet:	3/4 - 14 NPTF-2
	Rp 3/4 (3/4 -14 BSP, parallel)
Max. operating pressure psi (bar):	100 (6.9)
Suspended solids max. dia in (mm):	.09375 (2.4)
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)



PX07R-AAS-FAA

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 NPTF-2 B - Rp 3/4 (3/4 -14 BSP, parallel)	A - Aluminum	S - SS	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). See complete description on page 29

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Accessories

Air Line Connection Kit | 66073-1

(Piggyback Filter/Regulator with gauge, pipe nipple and 5-foot air hose)

Wall Mount Bracket Kit | 76763

Optional Muffler | 93110 used with 637438 kit

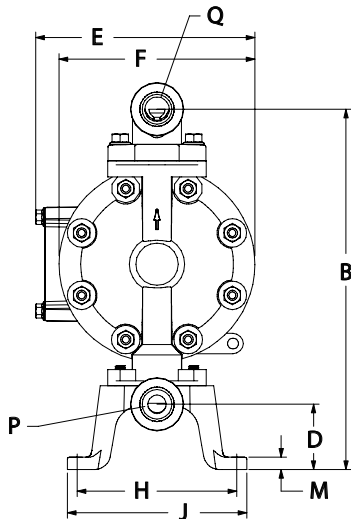
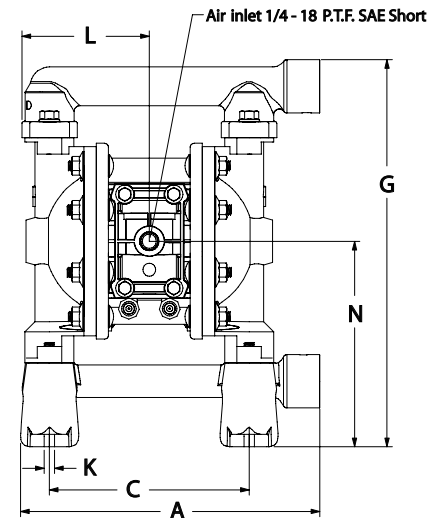
Service Repair Kits | 637428 (air section)

637427-XX (fluid section)



Air Line Connection Kit
66073-1

3/4" Metallic Dimensions and Flow Charts

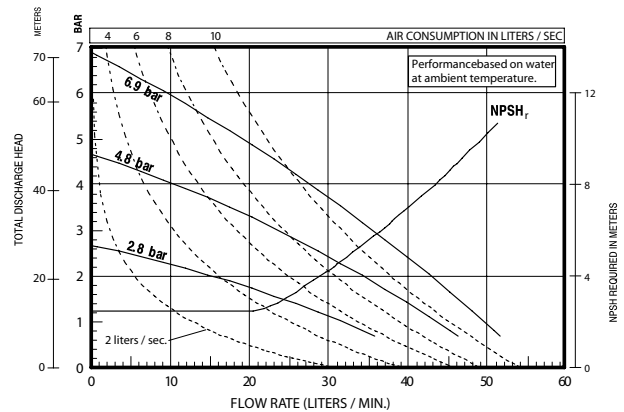
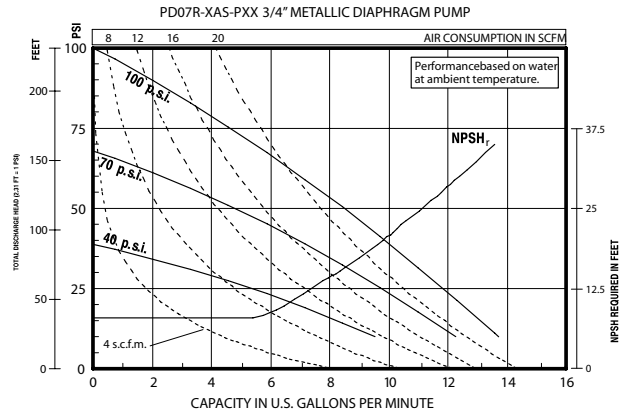


DIMENSIONS

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

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

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



Performance based on an elastomeric fitted pump, flooded suction with water at ambient conditions. Due to varying materials of construction, assembly configurations and operating conditions, published data is for reference only.

Ordering Position 10

Specialty Code 1 (Blank if no Specialty Code)

A - Solenoid 120VAC	G - Solenoid 12VDC ATEX/IECex*
B - Solenoid 12VDC	H - Solenoid 24VDC ATEX/IECex*
C - Solenoid 240VAC	J - 120VAC NEC/CEC*
D - Solenoid 24VDC	K - Solenoid 220VAC ATEX/IECex*
E - 12VDC NEC/CEC*	N - Solenoid with no coil
F - 24VDC NEC/CEC*	O - Standard Valve Block (No Solenoid)
	P - Ported Motor (No major valve provided)

Ordering Position 11

Specialty Code 2 (Blank if no Specialty Code)

E - End of stroke feedback + Leak Detection	L - Leak Detection
F - End of stroke feedback	M - Leak Detection ATEX/IECex/NEC/CEC*
G - End of Stroke ATEX/IECex*	O - No Option
H - End of Stroke/Leak Detection ATEX/IECex*	R - End of Stroke Feedback NEC / CEC*
	T - End of Stroke Feedback + Leak Detection NEC / CEC*

* Acceptable for use in hazardous locations. - NEC / CEC: Class I&II, Div 1&2, Group A-D
- ATEX: Zone 1&2, 21&22

3/4" Metallic Models

COMPACT SERIES PUMPS

ARO® PRO Series 3/4" metallic diaphragm pumps achieve flow rates of up to 33 GPM (125 LPM) and offer a wide array of material and porting configurations. These pumps are often used for transfer, filling, recirculation and batching in Industrial, Mining, Construction, Chemical and Petrochemical markets.

Ratio:	1:1
Maximum Flow gpm (lpm):	33 (125)
Displacement per cycle gal (l):	.15 (.57)
Air Inlet (Female):	1/4 - 18 NPTF - 1
Fluid Inlet/Outlet:	3/4 - 14 NPTF - 1 Rp 3/4 (3/4 - 14 BSP, parallel)
Max. operating pressure psi (bar):	120 (8.3)
Suspended solids max. dia in (mm):	.125 (3.2)
Weight lbs (kg):	666070-1EB-A (aluminum) 17.5 (7.9)
Maximum dry suction lift ft (m):	17 (5.2)
Sound Level:	70 PSI 60 Cycles/Min 78.3 db(A)



66607X-XXX
Aluminum Pump

Ordering

Position		1		2	3	4		5
Example:	6660	XX	-	X	X	X	-	A

Position 1 Center Section Material/Fluid Connection/ Wetted Parts Material/Hardware Material	Position 2 Seat Material	Position 3 Ball Check Material	Position 4 Diaphragm Material
70 - Aluminum Center Section / NPTF Thread / Aluminum Wetted Parts, Single Manifold / Steel 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 9 - Hytrel® B - Santoprene®
80 - Aluminum Center Section / BSP Thread / Aluminum Wetted Parts, Single Manifold / Steel Hardware			
7A - Aluminum Center Section / NPTF Thread / Aluminum Wetted Parts, Single Manifold / Stainless Steel Hardware			
8A - Aluminum Center Section / BSP Thread / Aluminum Wetted Parts, Single Manifold / Stainless Steel Hardware			

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Accessories

Air Line Connection Kit | 66073-2 (Piggyback Filter/Regulator with gauge, pipe nipple and 5-foot air hose)

Service Repair Kits | 637118-C (air section)
637119-XX-C (fluid section)

Wall Mount | 66100

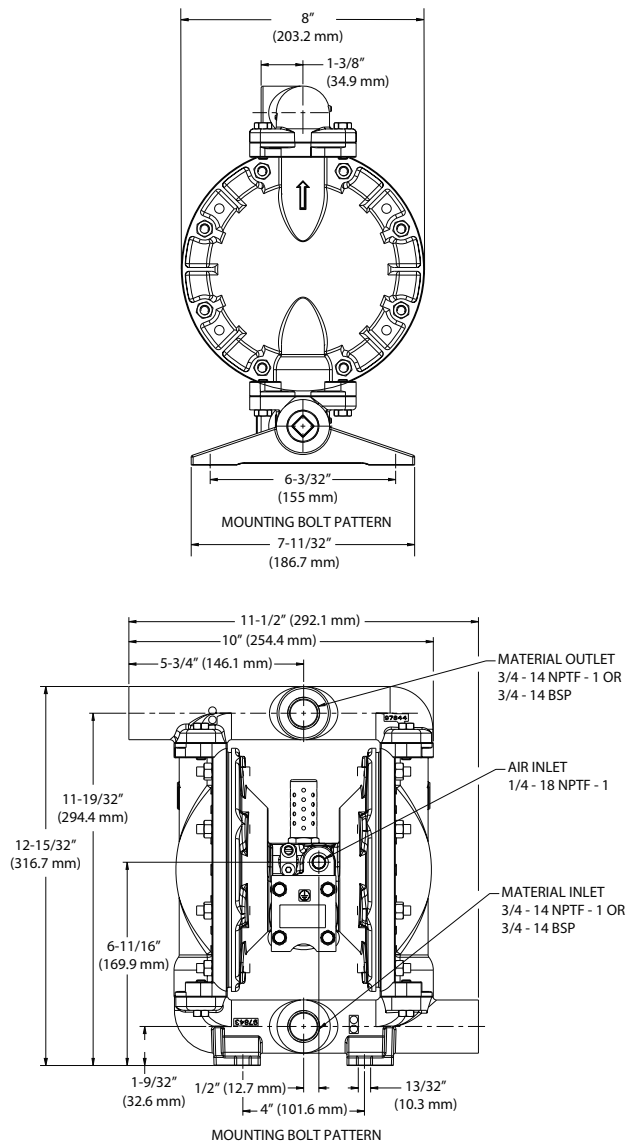


Air Line Connection Kit
66073-2

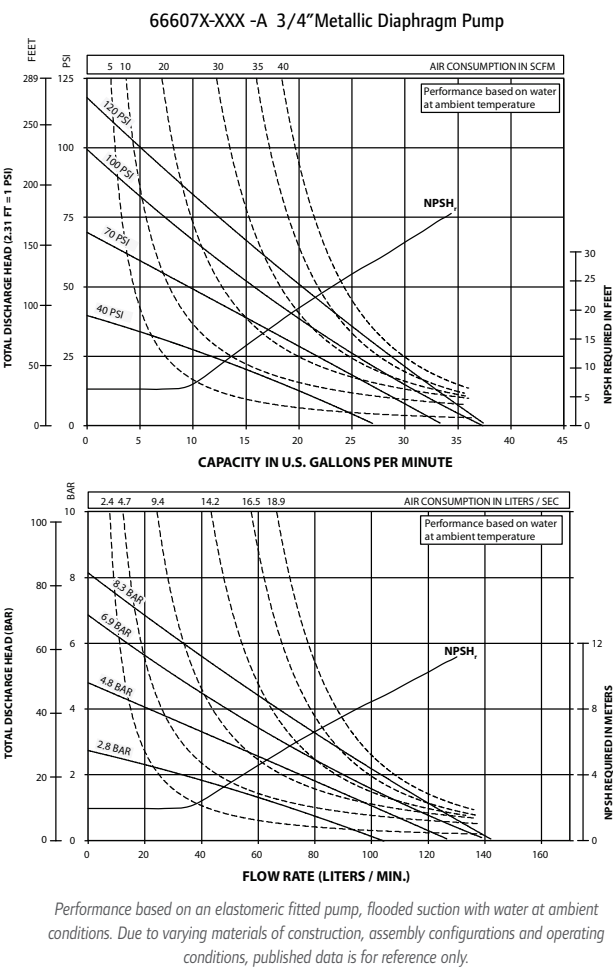


Wall Mount
66100

3/4" Metallic Dimensions and Flow Charts



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



1" Metallic Models

PRO SERIES PUMPS

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

Ratio:	1:1
Maximum Flow gpm (lpm):	35 (133)
Displacement per cycle gal (l):	.16 (.60)
Air Inlet (Female):	1/4 - 18 NPTF - 1
Fluid Inlet/Outlet:	1 - 11-1/2 NPTF - 1 Rp 1 (1-11 BSP parallel)
Max. operating pressure psi (bar):	120 (8.3)
Suspended solids max. dia in (mm):	.125 (3.2)
Weight lbs (kg):	666100-X-C (aluminum) 19 (8.6) 666101-X-C (stainless steel) 29 (13.1) 666102-X-C (cast iron) 31 (14.1) Note: Add 8 (3.63) 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)



6661X0, 1XA, 1X2 & 1XC
Aluminum / Cast Iron
Pump



6661X1 & 1XB
Stainless Steel
Pump

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, NPTF 1 - Cast Iron, NPTF 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 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 9 - Hytrel® B - Santoprene® G - Nitrile

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Accessories

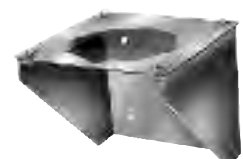
Air Line Connection Kit | 66073-2 (Piggyback Filter/Regulator with gauge, pipe nipple and 5-foot air hose)

Service Repair Kits | 637118-C (air section)
637119-XX-C (fluid section)

Wall Mount | 66100



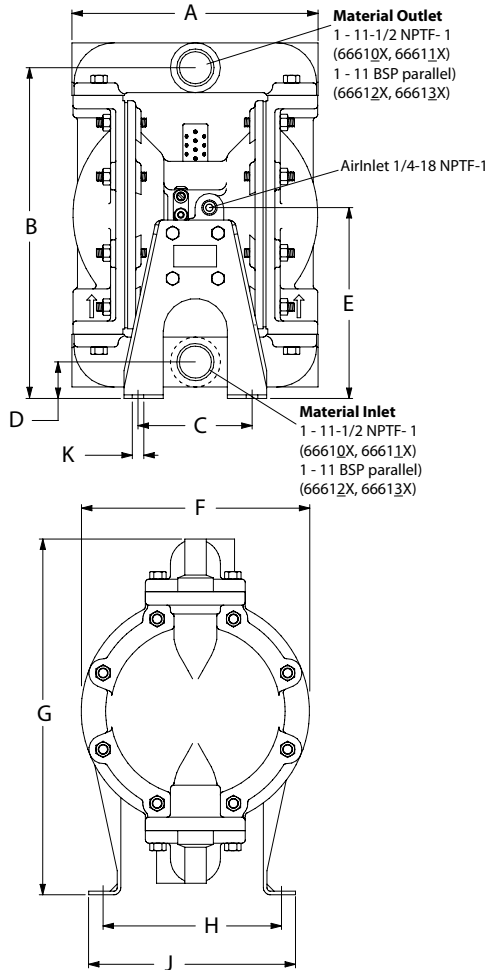
Air Line Connection Kit
66073-2



Wall Mount
66100

1" Metallic Dimensions and Flow Charts

6661X0, 1XA, 1X2 & 1XC

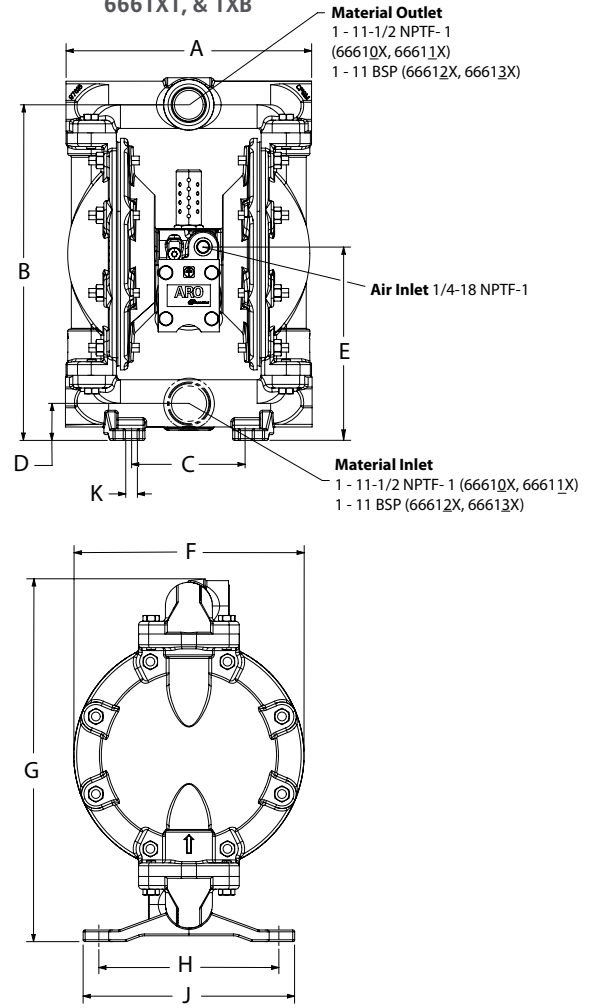


DIMENSIONS

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

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

6661X1, & 1XB



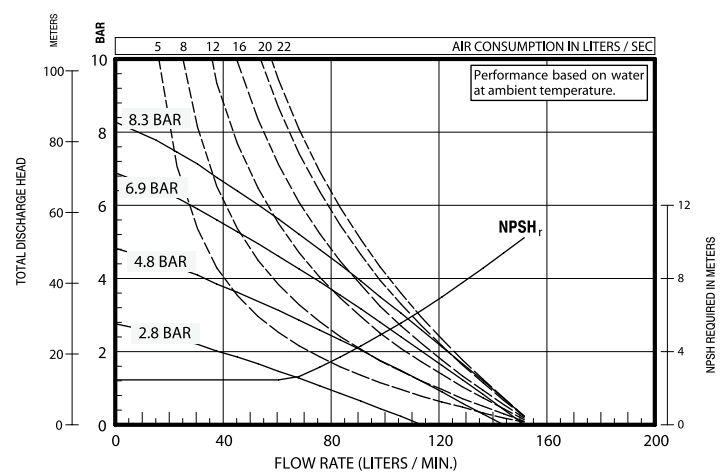
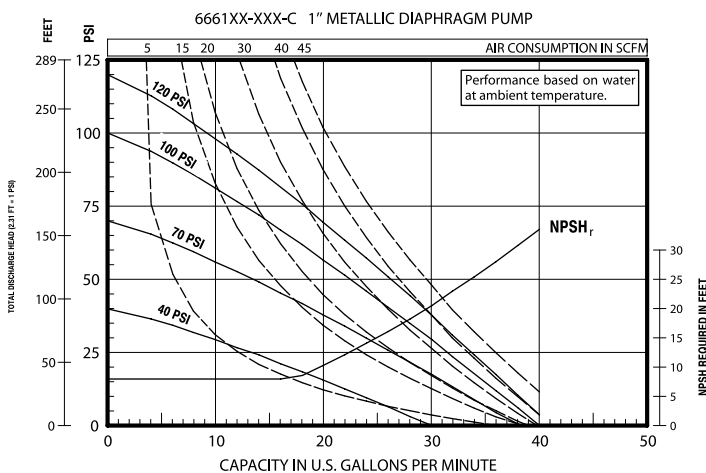
DIMENSIONS

A - 8-9/16" (217.5 mm)	E - 6-1/2" (165 mm)	H - 6-1/8" (155 mm)
B - 11-9/16" (294 mm)	F - 8" (203 mm)	J - 7-5/16" (186 mm)
C - 4" (102 mm)	G - 12-7/16" (315 mm)	K - 13/32" (10 mm)
D - 1-1/4" (32 mm)		

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

PERFORMANCE CURVES

6661XX-XXX-C 1" METALLIC DIAPHRAGM PUMP



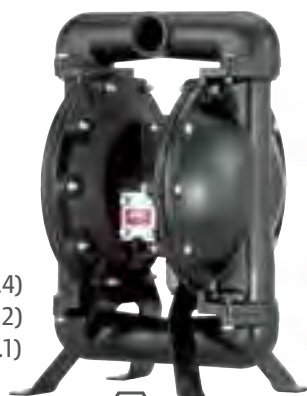
Performance based on an elastomeric fitted pump, flooded suction with water at ambient conditions. Due to varying materials of construction, assembly configurations and operating conditions, published data is for reference only.

1-1/2" Metallic Models

PRO SERIES PUMPS

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

Ratio:	1:1
Maximum Flow gpm (lpm):	90 (340.7)
Displacement per cycle gal (l):	.64 (2.42)
Air Inlet (Female):	1/2 - 14 NPTF - 1
Fluid Inlet/Outlet:	1-1/2 11-1/2 NPTF - 1 Rp 1-1/2 (1-1/2 - 11 BSP parallel)
Max. operating pressure psi (bar):	120 (8.3)
Suspended solids max. dia in (mm):	.25 (6.4)
Weight lbs (kg):	666150-X-C (aluminum) 51.5 (23.4) 666151-X-C (stainless steel) 77.5 (35.2) 666152-X-C (cast iron) 79.5 (36.1) Note: Add 23 (10.4) for cast iron air motor section
Maximum dry suction lift ft (m):	19 (5.8)
Sound Level:	70 PSI 60 Cycles/Min 80.5 db(A)



6661X0, 1X2, 1XA, & 1XC
Aluminum / Cast Iron
Pump



6661X1 & 1XB
Stainless Steel
Pump

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
5 - Aluminum, NPTF 6 - Cast Iron, NPTF 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 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 9 - Hytrel® B - Santoprene®

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Accessories

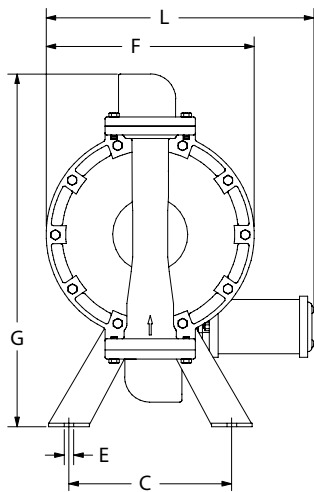
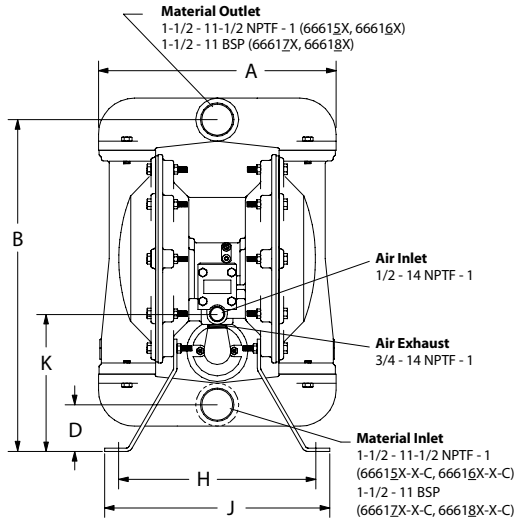
Air Line Connection Kit* | 66084-1 (Piggyback Filter/Regulator with gauge, pipe nipple and 5-foot air hose)

Service Repair Kits | 637118-C (air section)
637124-XX (fluid section)

Wall Mount | 62133

1-1/2" Metallic Dimensions and Flow Charts

6661X0, 1X2, 1XA, & 1XC

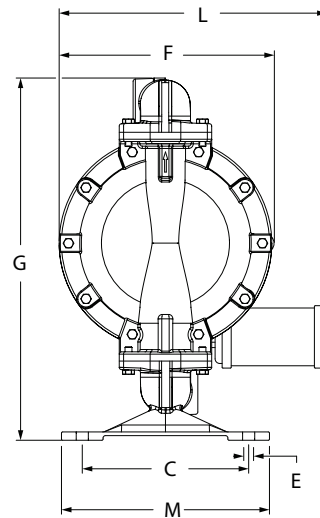
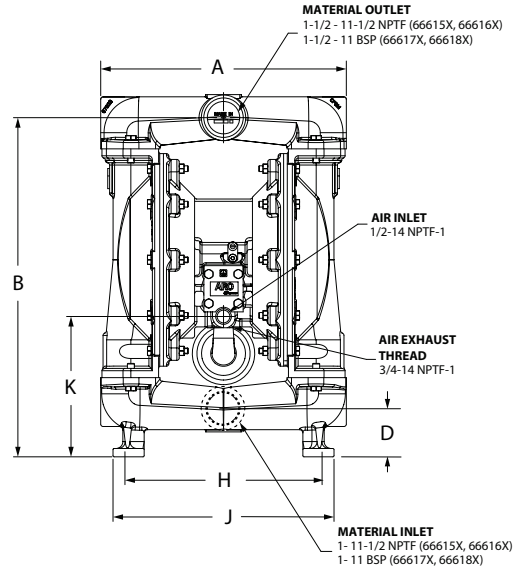


DIMENSIONS

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

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

6661X1 & 1XB



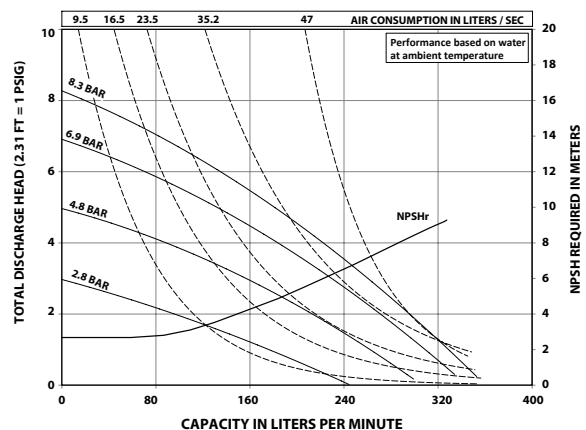
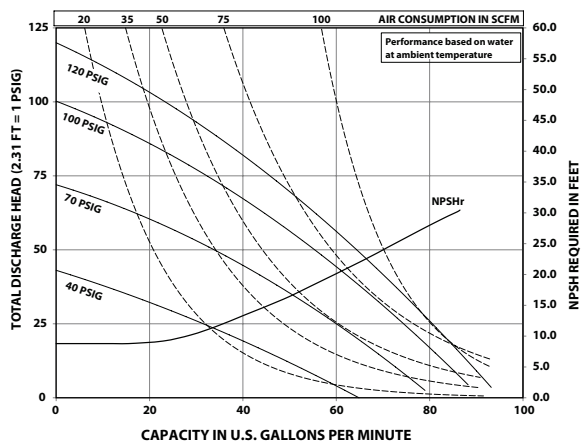
DIMENSIONS

A - 13-5/16" (337 mm)	E - 17/32" (13.5 mm)	J - 12" (305 mm)
B - 18-3/8" (467 mm)	F - 11-1/2" (292 mm)	K - 7-5/8" (194 mm)
C - 9" (229 mm)	G - 19-5/8" (498 mm)	L - 14-1/2" (368 mm)
D - 2-3/4" (70 mm)	H - 10-3/4" (273 mm)	M - 11-1/4" (286 mm)

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

PERFORMANCE CURVES

6661XX-XXX-C 1-1/2" METALLIC DIAPHRAGM PUMP



Performance based on an elastomeric fitted pump, flooded suction with water at ambient conditions. Due to varying materials of construction, assembly configurations and operating conditions, published data is for reference only.

2" Metallic Models

PRO SERIES PUMPS

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

Ratio:	1:1
Maximum Flow gpm (lpm):	172 (651)
Displacement per cycle gal (l):	1.4 (5.3)
Air Inlet (Female):	3/4 - 14 NPTF - 2
Fluid Inlet/Outlet:	2 - 11-1/2 NPTF - 1 Rp 2 (2 - 11 BSP, parallel)
Max. operating pressure psi (bar):	120 (8.3)
Suspended solids max. dia in (mm):	.25 (6.4)
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)



666252-244-C

67389 Muffler Kit (not shown) included with pump

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, NPTF 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 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 9 - Hytrel® B - Santoprene® G - Nitrile

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Accessories

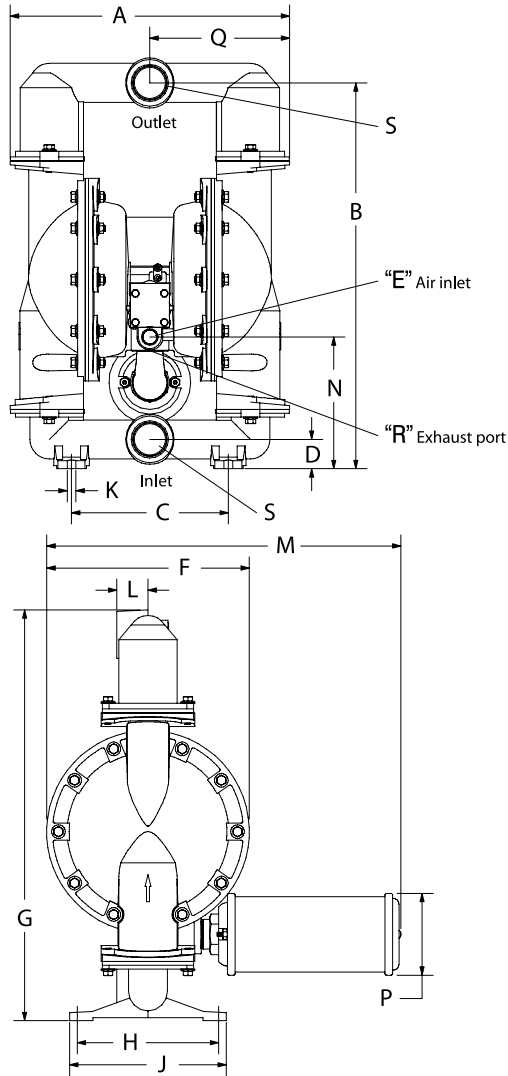
Air Line Connection Kit | 66312

(Piggyback Filter/Regulator with gauge, pipe nipple and 5-foot air hose)

Service Repair Kits | 637434 (air section)

637432-XX (fluid section)

2" Metallic Dimensions and Flow Charts



DIMENSIONS

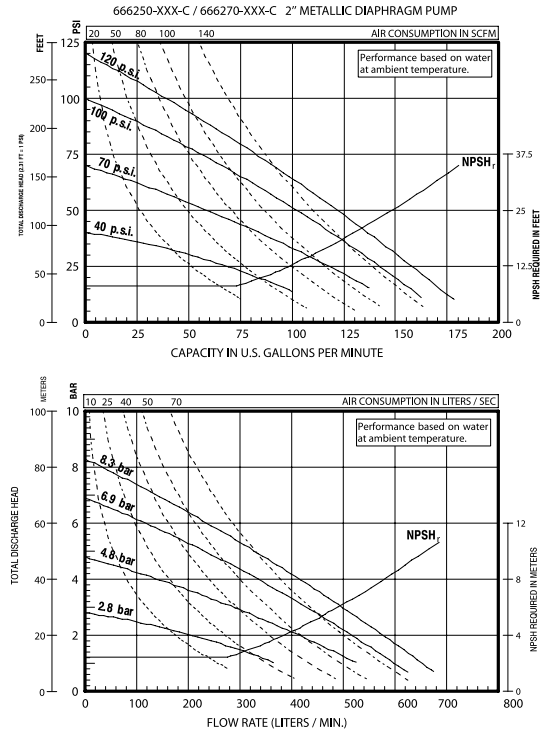
A 17-15/16" (455.1 mm)	G 26-3/8" (669.5 mm)	N 8-15/32" (214.6 mm)
B 24-3/4" (628.7 mm)	H 9-1/16" (230.2 mm)	P 5-1/4" (133.4 mm)
C 10-1/16" (255.6 mm)	J 10-1/16" (255.6 mm)	Q 8-13/32" (227.6 mm)
D 1-7/8" (47.6 mm)	K 9/16" (14.3 mm)	R 1-1/4 - 11-1/2 N.P.T.F.-1
E 3/4 - 14 N.P.T.F. - 1	L 2" (50.8 mm)	S (see 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 and (mm), supplied for reference only and are typically rounded up to the nearest 1/16 inch.

PERFORMANCE CURVES



Performance based on an elastomeric fitted pump, flooded suction with water at ambient conditions. Due to varying materials of construction, assembly configurations and operating conditions, published data is for reference only.

3" Metallic Models

PRO SERIES PUMPS

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

Ratio:	1:1
Maximum Flow gpm (lpm):	237 (897)
Displacement per cycle gal (l):	2.65 (10.03)
Air Inlet (Female):	3/4 - 14 NPTF - 2
Fluid Inlet/Outlet:	3 - 8 NPTF - 1 Rp 3 (3 - 11 BSP parallel)
Max. operating pressure psi (bar):	120 (8.3)
Suspended solids max. dia in (mm):	.375 (9.5)
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)



666322-144-C

67389 Muffler Kit (not shown) included with pump

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, NPTF 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 5 - Carbon Steel 8 - Hard Stainless Steel	2 - Nitrile 4 - PTFE C - Hytrel® E - Santoprene®	2 - Nitrile 4 - PTFE / Santoprene 9 - Hytrel® B - Santoprene®

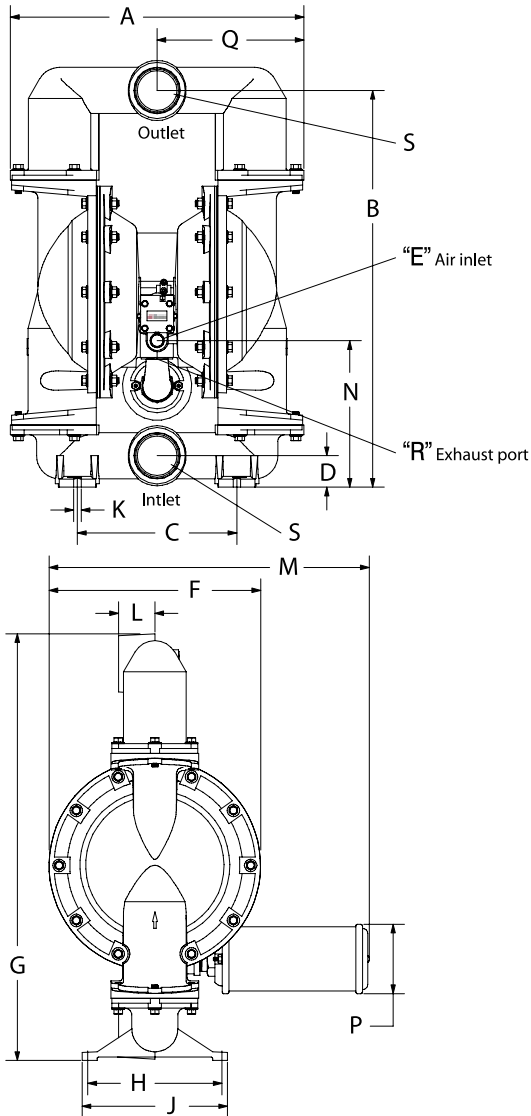
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Accessories

Air Line Connection Kit | 66312 (Piggyback Filter/Regulator with gauge, pipe nipple and 5-foot air hose)

Service Repair Kits | 637434 (air section)
637433-XX (fluid section)

3" Metallic Dimensions and Flow Charts



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)	

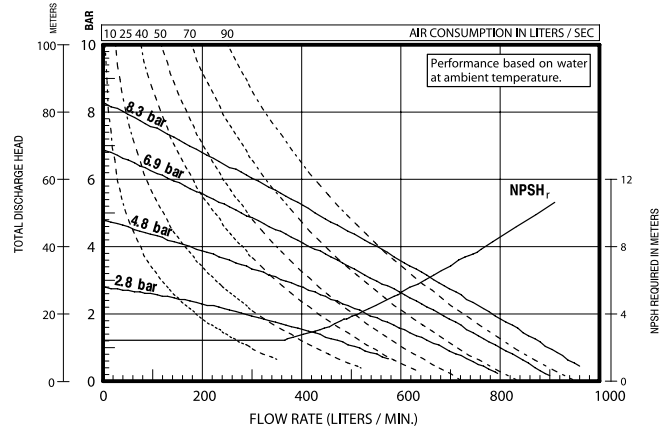
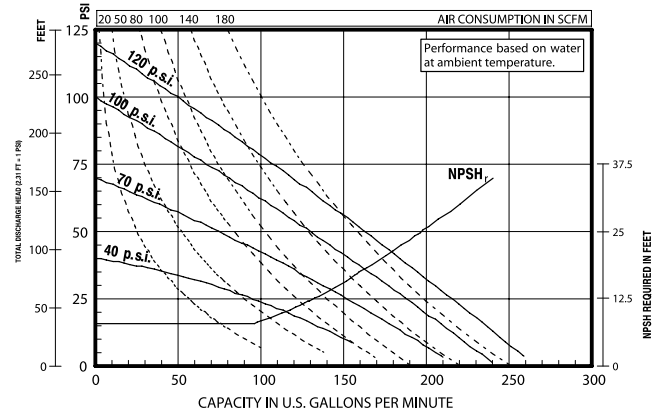
"S" Inlet / Outlet

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

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

PERFORMANCE CURVES

666300-XXX-C / 666320-XXX-C 3" METALLIC DIAPHRAGM PUMP



Performance based on an elastomeric fitted pump, flooded suction with water at ambient conditions. Due to varying materials of construction, assembly configurations and operating conditions, published data is for reference only.

3:1 Ratio High Pressure Diaphragm Pump

SPECIALTY PUMP

ARO's pneumatic 3:1 ratio, high pressure diaphragm pumps provide effective flow rates up to 24 gpm (90.7 lpm) at pressures up to 300 psi (20.4 bar). The compact size and footprint makes this a smart choice for a wide variety of markets 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
Maximum Flow gpm (lpm):	26 (98.4) flooded inlet 12 (45.6) at 125 psi back pressure
Displacement per cycle gal (l):	.06-Gallons (.23)
Air Inlet (Female):	3/8 - 18 NPTF - 1
Fluid Inlet:	1 - 1-1/2 NPTF - 1 Rp 1 (1- 11 BSP parallel)
Fluid Outlet:	1 - 1-1/2 NPTF - 1 Rp 1 (1- 11 BSP parallel)
Max. operating pressure psi (bar):	100 (6.9)
Suspended solids max. dia in (mm):	.125 (3.2)
Weight lbs (kg):	94.73 (42.97)
Maximum dry suction lift ft (m):	5-6 (1.5-1.8)
Sound Level:	70 PSI 60 Cycles/Min 84.5 db(A)



PH10A-ASS-SST

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 - NPTF 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.

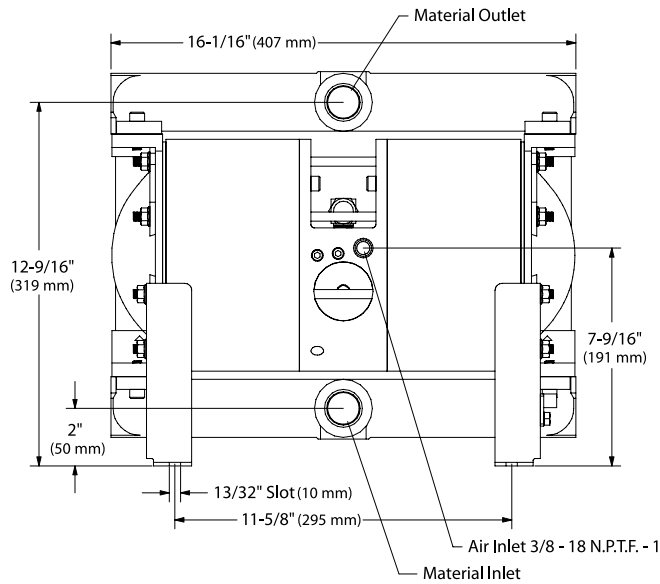
Service Repair Kits | 637338 (air section)
637339 (PH10X-XXX-XSX fluid section)
637339-1 (PH10X-XXX-XHX fluid section)

Wall Mount Bracket | 67142

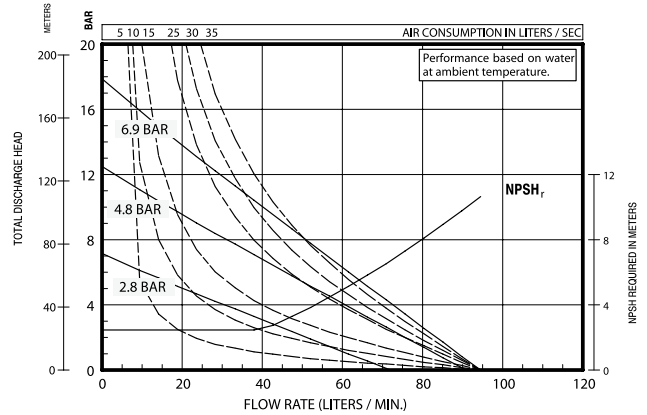
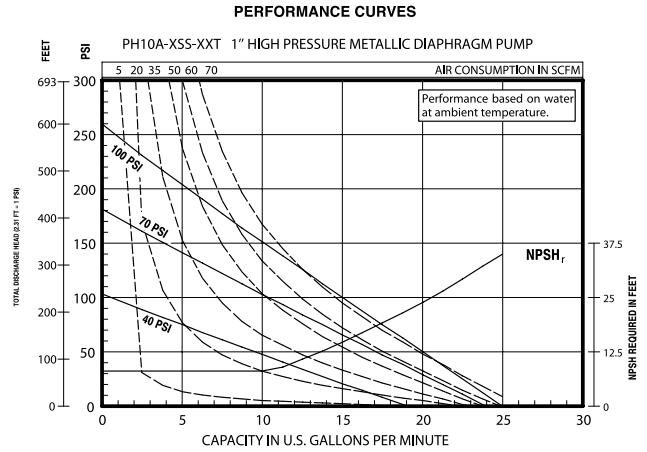
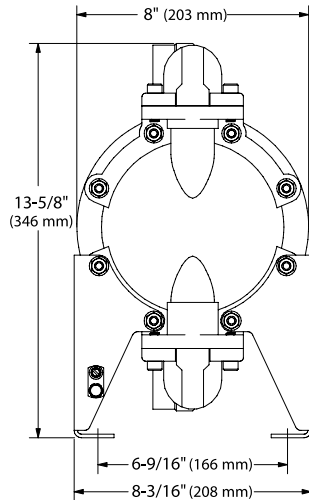


Wall Mount Bracket
67142

High Pressure Diaphragm Pump Dimensions and Flow Charts



Material Inlet Material Outlet
 PH10A-A-SS-XXT 1 - 11-1/2 N.P.T.F. - 1 1 - 11-1/2 N.P.T.F. - 1
 PH10A-B-SS-XXT Rp 1 (1 - 11 BSP parallel) Rp 1 (1 - 11 BSP parallel)



Performance based on an elastomeric fitted pump, flooded suction with water at ambient conditions. Due to varying materials of construction, assembly configurations and operating conditions, published data is for reference only.

Pit Boss Diaphragm Pumps

SPECIALTY PUMP

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're the ideal solution for general transfer, dewatering, and solids-handling applications.

- Comfort-grip handles
- Removable screened inlet
- One-way exhaust check valve - Permits submersible operation



PIT BOSS DEWATERING PUMP	1-1/2"	2"	3"
Max flow-gpm (L/min)	80 (302.8)	156 (590.5)	217 (821.3)
Max discharge pressure-psi (bar)	120 (8.3)	120 (8.3)	120 (8.3)
Max 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:	66M	XX	0	-	1	X	X	-	C

Position 1 Base Model	Position 2 Center Body/ Fluid Connection	Position 3 Fluid cap, Manifold, Mat'l Hardware Material	Position 4 Seat Material	Position 5 Ball Material	Position 6 Diaphragm Material
66M	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 - Santoprene®	2 - Nitrile 9 - Hytrel® B - Santoprene®

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➤ 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

Automatic DeWatering System

SPECIALTY PUMP

Air Operated Control Solution with Liquid Level Sensing

The ARO® Automatic Dewatering System offers automatic on/off controls for Pro and EXP 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 labor and reduce air consumption by avoiding dry running of the pump.

- Simple design is easy to setup and use
- All pneumatic operation eliminates electrical ignition source
- High/Low level control maintains fluid between established levels
- Reduces air consumption by avoiding pump dry running
- Portable system with directly mounted liquid level sensor

SPECIFICATIONS

Temperature Range- °F (°C)	32 – 122 (0 – 50)
Air Supply Pressure- psi (bar)	29 – 101 (2-7)
Weight w/o Pump lbs (kg)	11 (4.8)
Air Connection Size	Rc 3/4"
Sensing Tube lengths - ft (m)	66 (20)
Sensitivity to detect liquid level- in (cm)	2 – 4 (5-10)

SERVICE KITS

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



- ① Bracket
- ② Liquid Level Sensor
- ③ Pneumatic Controlled Valve
- ④ Sensing Tubes with Screen
- ⑤ Pro Series Diaphragm Pump (purchase separately)

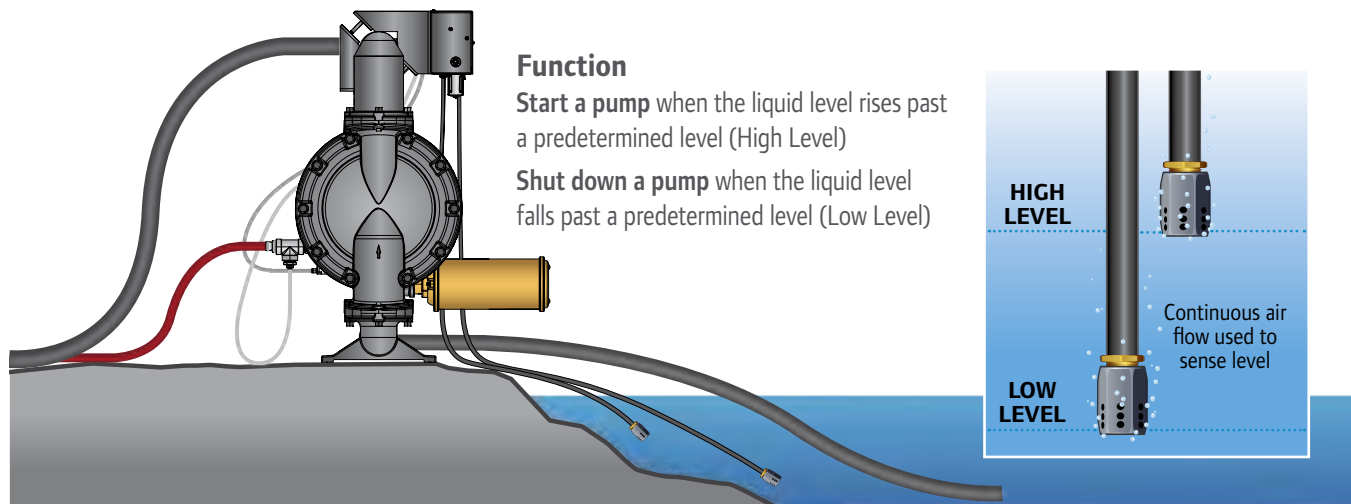
AUTOMATIC DEWATERING SYSTEM

SCD501BN08-V1D Dewatering Kit (without pump)

PUMP COMPATIBILITY

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

➤ Working Principle



Centrifugal Pump Models

SPECIALTY PUMP

ARO's pneumatic centrifugal pumps provide effective flow rates up to 230 gpm (870.5 lpm). 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 gpm (lpm):	200 (757) P237AX-EU
	230 (870.5) P35AX-EU
Air Inlet (Female):	3/4 -14 NPT (P237AX-EU)
	1 - 11-1/2 NPT (P35A1-EU)
Fluid Inlet:	Screened Inlet
Fluid Outlet:	2" NPTF P35A1-EU
	2-1/2" NPTF P237A1-EU
	2-1/2" BSP P237A3-EU
Max. operating pressure psi (bar):	90 (6.2)
Air Consumption in CFM:	P237AX-EU 100
	P35A1-EU 160
Suspended solids max. dia in (mm):	.25 (6.4)
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-GPM (757-LPM)	1 - 2-1/2" NPT 3 - 2-1/2" BSP

Position	1		2		
Example:	P35A	-	1	-	EU

Position 1 Model Series	Position 2 Discharge Thread
230-GPM (870-LPM)	1 - 2" NPT

Accessories

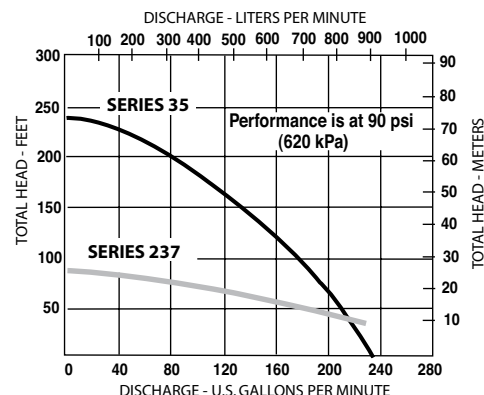
Air Line Unit | C28453-810 for P237AX-EU
C28463-810 for P35A1-EU
C284X3-810 models contain Filter, Regulator and Lubricator units.

Service Repair Kits | Repair parts are ordered individually.

Refer to Operator's Manuals:
P237AX-EU Pumps: Form P6856
P35A1-EU Pumps: Form P7263

Centrifugal Pump Dimensional Data and Flow Charts

Height: inches (mm)	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 Pipe Tap:	P237A1-EU 2-1/2" NPTF
	P237A3-EU 2-1/2" BSP
	P35A1-EU 2" NPTF
Air Inlet Pipe Tap:	P237AX-EU 3/4" NPTF
	P35A1-EU 1" NPTF
Air Inlet Recommended Hose Size: inches (mm)	
	P237AX-EU 3/4 (19)
	P35A1-EU 1 (25.4)
Exhaust Pipe Tap:	P237AX-EU 1-1/4" NPTF
	P35A1-EU 1-1/4" NPTF
Exhaust Recommended Hose Size: inches (mm)	
	P237AX-EU 1-1/4 (31.7)
	P35A1-EU 1-1/4 (31.7)



Refer to www.AROzone.com for full size flow curves.
For additional information contact
technical support at 1.800.495.0276

Fuel, Antifreeze and Calcium Chloride Pumps

SPECIALTY PUMP

U/L Approved Fuel Pump

Model no. 670042, 650717-C, 650718-C, 650719-C

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



Model	Body Material Wetted	Diaphragm/ Ball Material	Air Inlet NPT (F) in	Fluid Inlet/Outlet Material in (mm)	Max Flow gpm (L/min)
1/2" PORT					
670042	Aluminum	Viton/Viton	1/4"	1/2" (13)	12 (45.4)
1" PORT					
650717-C	Aluminum	Viton / Acetal	1/4"	1" / 1" (25.4)	29 (109.9)
1-1/2" PORT					
650718-C	Aluminum	Viton / Acetal	1/2"	1-1/2" (38.1)	75 (283.9)
2" PORT					
650719-C	Aluminum	Viton / Acetal	1/2"	2" (50.8)	75 (283.9)

Antifreeze / Water Blending Pump

Model no. 650715-C

This 1:1 ratio diaphragm pump is designed for mixing anti-freeze and water in 50 / 50 proportion for automotive coolant systems. It has dual inlets to allow simultaneous pumping and blending of antifreeze and water.



Calcium Chloride Tire-fill Pump Package

Model no. 613201-2-C

Designed for the purpose of evacuating and filling tires with calcium chloride ballast solution. Package includes a 666100-441-C, 1" port diaphragm pump. Aluminum construction with neoprene diaphragms and PTFE checks for compatibility with corrosive calcium chloride.

Package includes: 10' dispensing hose, 8' supply hose, 40 mesh strainer, control handle and all required clamps and hardware.



Model	Application	Manifold Material	Diaphragm O-Ring Material	Air Inlet NPT / F in (mm)	Fluid Outlet NPT / F in (mm)	Max gpm (L/min)
1" PORTS						
650715-C	50/50 Mix of Antifreeze and Water	Aluminum	Nitrile	1/4" (6)	1" (25.4)	35 (133)
613201-2-C	Calcium Chloride Tire Filling	Aluminum	Neoprene	1/4" (6)	1" (25.4)	35 (133)

Drum Pumps

SPECIALTY PUMP

Drum Pumps

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

Ratio:	1:1
Maximum Flow gpm (lpm):	11 (41.6)
Displacement per cycle gal (l):	.039 (.15)
Air Inlet (Female):	1/4 -18 NPT
Fluid Inlet:	Siphon Tube for 55-Gallon Drum
Fluid Outlet:	1/2 -14 NPTF - 1
Max. operating pressure psi (bar):	100 (6.8)
Suspended solids max. dia in (mm):	.09375 (2.4)
Shipping Weight lbs (kg):	22 (10) Polypropylene, basic package 26 (11.8) Aluminum, basic package 36 (16.3) Stainless, basic package



Drum Pump Packages

- Package Components Factory-Matched - ARO Drum Pump package components contain 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

Pump Features

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

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 and Seats	Pump Dia. and 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	-	-	-	WATER/COOLANT
DAB05-PPUU-2-A	POLYPROPYLENE	POLYURETHANE	X	-	-	-	WATER/COOLANT
DAB05-PPAA-2-A	POLYPROPYLENE	SANTOPRENE	X	-	-	-	MILD ACIDS & BASES
DAB05-PPCC-2-N	POLYPROPYLENE	HYTREL	X	-	NITRILE	-	WATER/COOLANT
DAB05-PPCC-B-M	POLYPROPYLENE	HYTREL	X	X	NITRILE	NO-DRIP	WATER/COOLANT
DAB05-PPAA-2-B	POLYPROPYLENE	SANTOPRENE	X	-	EPDM	-	MILD ACIDS & BASES
DAB05-PPUU-2-C	POLYPROPYLENE	POLYURETHANE	X	-	VINYL	-	WATER/COOLANT
DAB05-PPCC-B-J	POLYPROPYLENE	HYTREL	X	X	REINFORCED NITRILE	X	WATER/COOLANT
DAB05-PPAA-B-K	POLYPROPYLENE	SANTOPRENE	X	X	EPDM	X	MILD ACIDS & BASES
DAB05-SSTT-2-A	STAINLESS STEEL	PTFE	X	-	-	-	SOLVENT
DAB05-ASTT-2-A	ALUM./SS.	PTFE	X	-	-	-	SOLVENT
DAB05-APCC-2-A	ALUM./POLY.	HYTREL	X	-	-	-	OIL/SOME SOLVENTS
DAB05-APCC-2-O	ALUM./POLY.	HYTREL	X	-	NITRILE	-	OIL/SOME SOLVENTS
DAB05-APCC-B-P	ALUM./POLY.	HYTREL	X	X	NITRILE	NO-DRIP	OIL/SOME SOLVENTS
DAB05-APCC-B-L	ALUM./POLY.	HYTREL	X	X	REINFORCED NITRILE	X	OIL/SOME SOLVENTS
DAB05-ASAA-2-A	ALUM./S.S.	SANTOPRENE	X	-	-	-	WATER/COOLANT

* Consult ARO Chemical Compatibility Guide to select proper pump construction

Accessories

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 the great choice for large flow applications.



P39224-614



P39124-600

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

Pump Size	NPT Model Number	Port Size	Max Inlet Pressure (psi)	Pressure Range (psi)	Max CFM	Micron Element	Size HxWxD (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 w/Guard, Manual Drain

Pump Size	NPT Model Number	Port Size	Max Inlet Pressure (psi)	Pressure Range (psi)	Max CFM	Micron Element	Size HxWxD (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

Cautions of the Use of Polycarbonate Plastic Bowls - Use Only with Compressed Air. 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. Avoid Harmful Substances. 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 the factory with any questions.



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

Accessories



Air Line Connection Kit
66073-1



Flange Connection Kit
637341-E10N



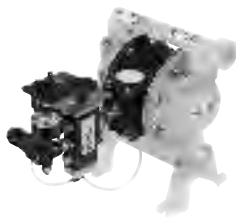
Over-run Control
635040

*Please 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 Kit includes Piggyback Filter/Regulator with gauge, pipe nipple and a 5-foot section of air hose.	66073-1	66073-1	66073-1	66073-1	66073-1	66073-1
Cycle Sensor Kit (close electrical contact type) For monitoring pump operation. Can be used to monitor cycle rates, preventative maintenance and rough flow rate indication.	-	67386	67386	67168	67386	-
Flange Connection Kit Use with non-metallic EXP pumps with the flange manifold option. Flange kits meet DIN / A.N.S.I. specifications. Flange constructed of glass-filled polypropylene. Bolts, washers and nuts are stainless steel. (Gaskets included)	-	-	-	-	-	-
Over-run Control Shuts off pump when excessive cycling occurs due to empty fluid supply container.	-	-	635040	635040	635040	635040
Wall Mount Conveniently mount pump above container. Made of of heavy gauge coated steel. (pump not included) * Does not include hardware	-	67388	76763	-	76763	76763
Countdown Batcher 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 Control pump cycle rate with on/off signal from PLC or other device. Kit includes connector w/36" cable plus components and instructions to install on standard pump. For dosing and batching applications.	-	67165-1 (24VDC) 67165-2 (120VAC)	67165-1 (24VDC) 67165-2 (120VAC)	67165-1 (24VDC) 67165-2 (120VAC)	-	67165-1 (24VDC) for PD05R-X-X-B, 67165-2 (120VAC) for PD05R-X-X-B
Diaphragm Pump Speed Controls Controls air volume supplied to pump, thus permitting operator to control speed of 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	-	-



Wall Mount
76763



Countdown Batcher
67072



Solenoid Actuation Kit
67165-1



Speed Control
104104-N02



Groundable Strap
66885-1

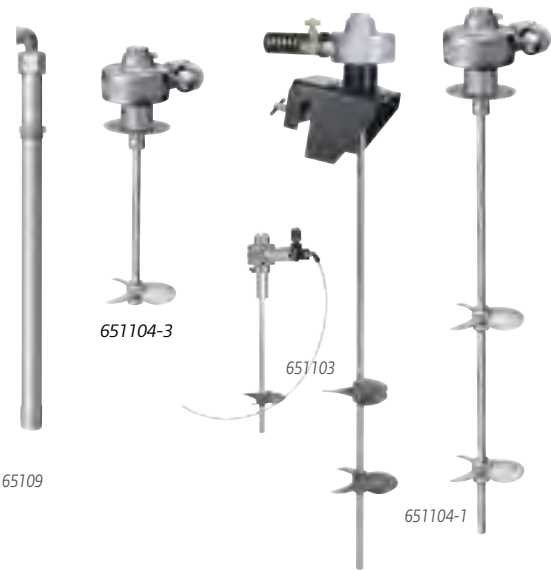
3/4" Metallic	1" Non-Metallic	1-1/2" Non-Metallic	2" Non-Metallic	1" Metallic	1-1/2" Metallic	2" Metallic	3" Metallic	1" 3:1 Ratio
66073-1	66073-2	66084-1	66109	66073-2	66084-1	66109	66109	-
-	67169	67169	67169	67169	67169	-	-	-
-	67078	67079	67080	-	-	-	-	-
635040	635040	23644-400	23644-400	635040	23644-400	635043	635043	-
76763	-	-	-	66100	62133	-	-	67142
67072	67072	67072-1	67072-1	67072	67072-1	-	-	-
-	67166-1 (24VDC) 67166-2 (120VAC)	67166-1 (24VDC) 67166-2 (120VAC)	67166-1 (24VDC) 67166-2 (120VAC)	67166-1 (24VDC) 67166-2 (120VAC)	67166-1 (24VDC) 67166-2 (120VAC)	-	-	-
104104-N02	104104-N02	104104-N04	104104-N04	104104-N02	104104-N04	104104-N06	104104-N06	-
-	-	-	-	66885-1	66885-1	66885-1	66885-1	-

Accessories

Siphon Tubes

For use when pumping from a 55 GAL (200 L) container; siphon tubes are available in PVC, or carbon steel. 1" siphon tubes come with foot valve for positive priming. All models include bung adapter.

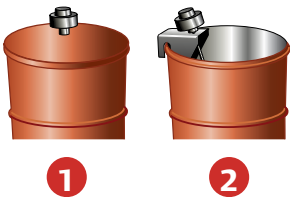
Model no.	Description	For use with pumps
65109	Steel — NPT(F)	1" (Metallic)
66779	PVC — NPT(F)	1" (Non-Metallic)



Material Agitators

Agitators 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 shaft and propellers are constructed of corrosion resistant 316 stainless steel.

Model no.	For drum	Mounting	Power	Motor speed	Propeller dia.	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 pump and agitator where you need.

Model no.	For 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 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



Air Control Actuation Valves

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

MQ3728-120-A for 1/2" and 1" pumps,	24 VDC MQ3728-024-D for 1/2" and 1" pumps
H254SS-120-A for 1-1/2" pumps,	H254SS-024-D for 1-1/2" pumps
MQ3729-120-A for 2" and 3" pumps	MQ3729-024-D for 2" and 3" pumps



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

Accessories

Pulsation Dampeners

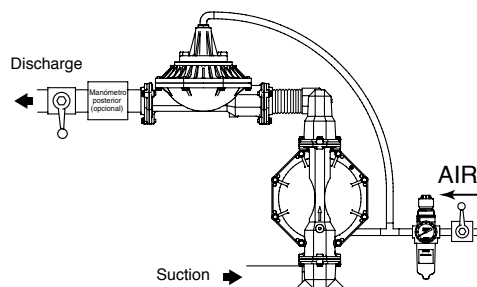
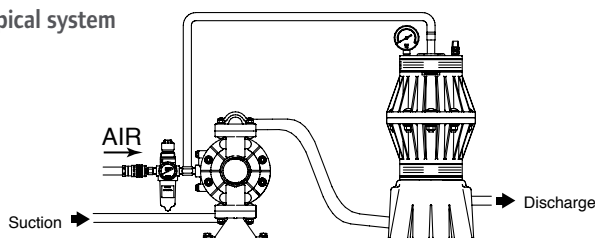
Diaphragm pumps of any type have at least two points in their cycle where they provide no pressure or flow to a process. The unwanted result of this pressure fluctuation can often be material foaming, material pulsation, hydraulic shock or material splashing. While traditional pulsation dampeners can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



Automatic Shock Blockers®

- Automatic Air Adjustment - compensates for fluctuations in fluid pressure without operator intervention.
- Significant Pulsation Reduction - Shock Blockers deliver an average 60% - 80% pulsation reduction in high back pressure applications.
- Built for high-flow/aggressive fluid applications - the 2" models can handle up to 2.6 L maximum fluid volume, and 3" models up to 8.3 L maximum fluid volume.
- Broad Material Range for Compatibility - choose from PVDF, polypropylene, groundable acetal, aluminum, cast iron or stainless steel 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 prevent 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 built tough 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 & Size	Position 2 Air Section	Position 3 Fluid Connection	Position 4 Fluid Section	Position 5 Hardware	Position 6 Dia. 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 P - Polypropylene/Aluminum* R - Polypropylene/ Stainless Steel* S - Stainless Steel	A - NPTF B - BSP F - 2" ANSI/DIN Flange Inlet and Outlet* K - 2" ANSI/DIN Flange Inlet/ NPTF Outlet* L - 2" ANSI/DIN Flange Inlet/ BSPP Outlet*	A - Aluminum C - Cast Iron P - Polypropylene* S - Stainless Steel	P - Carbon Steel S - Stainless Steel	A - Santoprene® G - Nitrile T - PTFE / Santoprene® V - Viton®

Hytrel® is a registered trademark of DuPont company, Santoprene® is registered trademark of Monsanto and Viton® is a registered trademark of ExxonMobil

* Only available with 2" Polypropylene fluid sections.

Maintenance Kits



637432-XX



637375-XX

Pump type	Models	Air Motor Section	Fluid Section	Major Air Valve Assembly
3/8" Non-Metallic	PD03P, PE03P	637428	637429-XX	
Non-Metallic	PD05P, PE05P	637428	637427-XX	—
1/2" Metallic	PM05P	637389	637375-XX	—
	PD05A, PD05R, PE05A, PE05R	637428	637427-XX	—
Non-Metallic	PD07P	637428	637427-XX	—
3/4" Metallic	PD07R	637428	637427-XX	—
	66607A	637118-C	637119-XX-C	—
Non-Metallic	6661A, 6661B	637118-C	637161-XX-C	—
1" Metallic	66610, 66611, 66612, 66613	637118-C	637119-XX-C	—
	PH10A-XSS-SST	637338	637339	—
Non-Metallic	6661T, 6661U	637118-C	637165-XX	—
1 1/2" Metallic	66615, 66616, 66617, 66618	637118-C	637124-XX	—
	66M170	637118-C	637469-XX	—
Non-Metallic	6662A, 6662B	637118-C	637165-XX	—
2" Metallic	66625, 66627	637434	637432-XX	—
	66M270	637434	637468-XX	—
3" Metallic	66630, 66632	637434	637433-XX	—
	66M320	637434	637467-XX	—
	PH30F-X	637369	637441-XX	637374-X

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 to be used with flexible fluid pipe connectors to isolate the impact of the pump vibration to fixed pipes.



Vibration Isolator

- Reduces up to 96% of vibration transmitted through the mount
- A set of 4 vibration isolators and mounting hardware are included

Port Size	Steel	Aluminum	Non-Metallic
3"	HSX-160	HSK-160	-
2"	HSX-160	HSK-110	HSX-70
1.5"	HSX-70	HSK-40	HSX-70
1"	HSX-20	HSK-20	HSX-20

Pump Airborne Noise Emissions

Pump Airborne Noise Emissions

The pump sound pressure levels published below have been updated to an Equivalent Continuous Sound Level (L_{Aeq}) to meet the intent of ANSI S1.13-1971. CAGI-PNEUROP S5.1 using four microphone locations.

Pump Port Size (Inches)	Air Operating Pressure (PSI)	Cycles/Minute	Sound Pressure (L_{Aeq})
Diaphragm Pumps			
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. Always check material compatibility with a trusted chemical guide.

	Max. Operating Temp Limit F (C)	Scale 1 - 5 (5 is best)		
		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

* Applies to diaphragms only.

** Increased flex life with use of santoprene diaphragm backer.

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

Viscosity Conversion Chart

Centi Poise	Poise	Saybolt Universal (SSU)	Saybolt Furot	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		8				
10	.10	60		9	5	30	16	
15	.15	80	13	10	8	34	17	
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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About Ingersoll Rand

Ingersoll Rand Inc. (NYSE:IR), driven by an entrepreneurial spirit and ownership mindset, is dedicated to helping make life better for our employees, customers and communities. Customers lean on us for our technology-driven excellence in mission-critical flow creation and industrial solutions across 40+ respected brands where our products and services excel in the most complex and harsh conditions. Our employees develop customers for life through their daily commitment to expertise, productivity and efficiency. For more information, visit www.IRCO.com.

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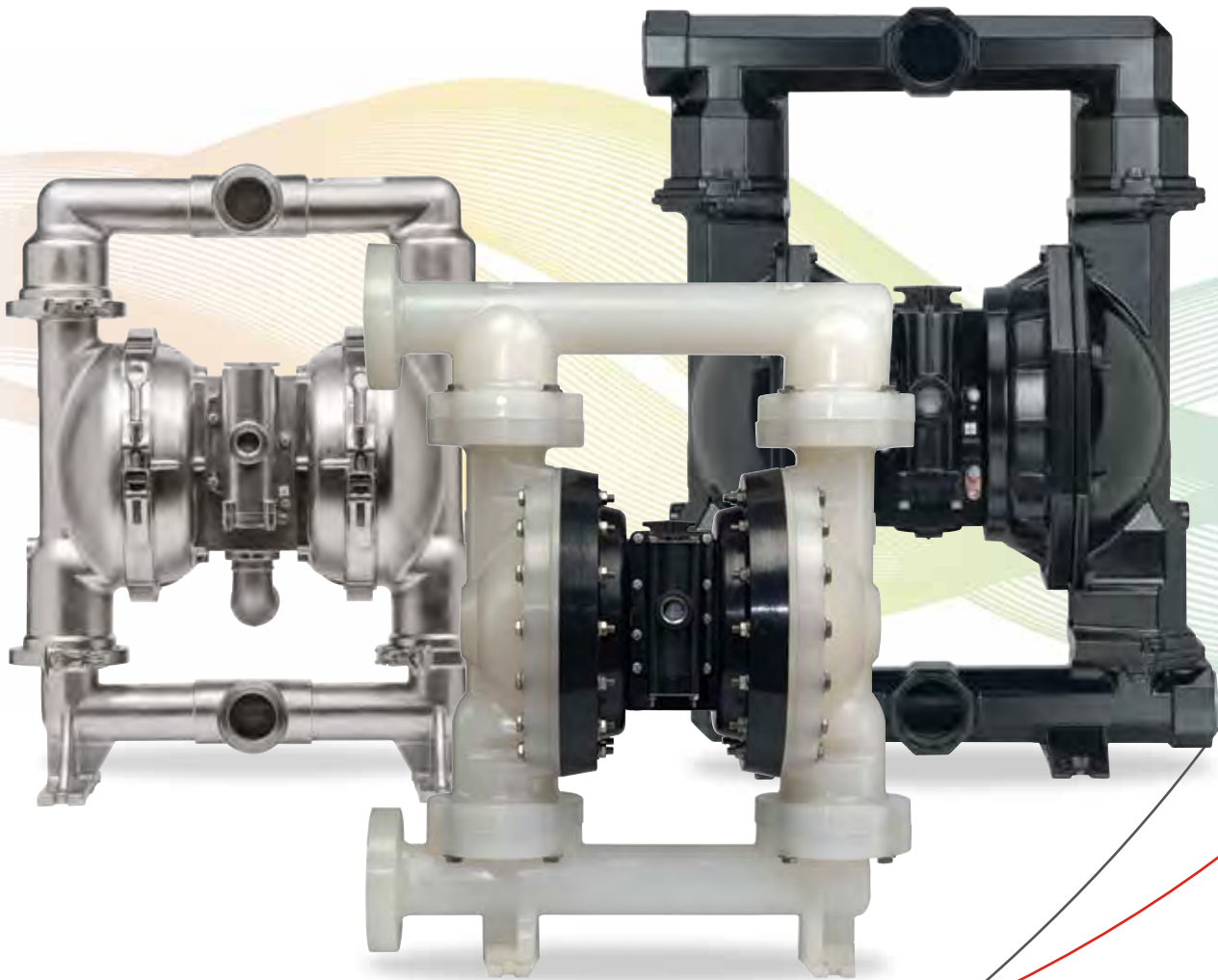
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IRITS-1215-196 EN 0822

ARO®

EXPERT AND COMPACT SERIES AIR OPERATED DIAPHRAGM PUMPS

1/4" THROUGH 3" FLUID PORTS





ARO® Air Operated Diaphragm Pumps

With proven performance in the field and backed by an industry leading 5-year warranty, ARO® air operated diaphragm pumps are a truly versatile fluid handling solution for numerous applications. Known for industry-leading efficiency, reliability, flow rates, and a large range of materials and porting, ARO® has the right pump to deliver consistency in the most demanding situations. The ARO® range of diaphragm pumps offers many materials of construction.

All ARO® pumps are available with convoluted diaphragms offering long product life and reduced maintenance.

Metallic Materials:

Aluminium
Cast Iron
Stainless Steel
Hastelloy®

Non-Metallic Materials:

Polypropylene
Conductive Polypropylene
Acetal
PVDF
Conductive PVDF

The Value of ARO® Air Operated Diaphragm Pumps

- ✓ Sealless design
- ✓ Handles abrasives, solids and corrosives
- ✓ Gentle fluid transfer
- ✓ Low shear
- ✓ Run-dry capability
- ✓ Portable
- ✓ Self priming
- ✓ Easy to install



ARO® Product and Technical Support

Every ARO® product is backed by a highly qualified team of engineers dedicated to designing products that promote success around the world. Because ARO® products are built to be as simple as they are smart, customers benefit from efficient operation and high performance for excellent total cost of ownership.

At ARO® we make success flow

Table of Contents

➤ Features	4
➤ Non-Metallic Pump Overview	9
➤ Non-Metallic Models	10
➤ Metallic Pump Overview	29
➤ Metallic Models	30
➤ Specialty Pumps	42
Flap Valve	
Powder Pump	
Sanitary Transfer	
FDA Compliant	
High Pressure	
PW Series	
Automatic Dewatering	
Drum Pumps	
➤ Accessories	54
➤ Maintenance Kits	60

ARO® EXP Series Diaphragm Pumps

ARO® EXP Series diaphragm pumps include all the benefits of standard air-operating pumps, but with significant additional features and benefits.

- Electronic Interface capability, assuring consistent flow rates and pinpoint control
- Patented SimulShift™ "unstallable" air balanced valve design which avoids stalling issues associated with other pumps
- Quick Dump™ check valves that divert cold exhaust air from ice-prone components, which prevents freezing and downtime
- Solenoid valve conveniently mounted directly to pump's major valve

What is the advantage of having a solenoid in the air valve instead of a solenoid in the airline?

The solenoid actuation allows for accurate cycle rate control and provides a more consistent volume per stroke than is achieved with standard pumps. Additionally, solenoid control allows for a precise number of cycles to be fully completed for improved batch repeatability.



Our EXP Series diaphragm pumps feature an exclusive to ARO® Quick Dump™ valve that reduces icing by keeping cold exhaust air out of the air motor. This patented feature improves reliability and durability when running your pumps at high speeds to reduce downtime and maintenance.

EXP is Automation Ready

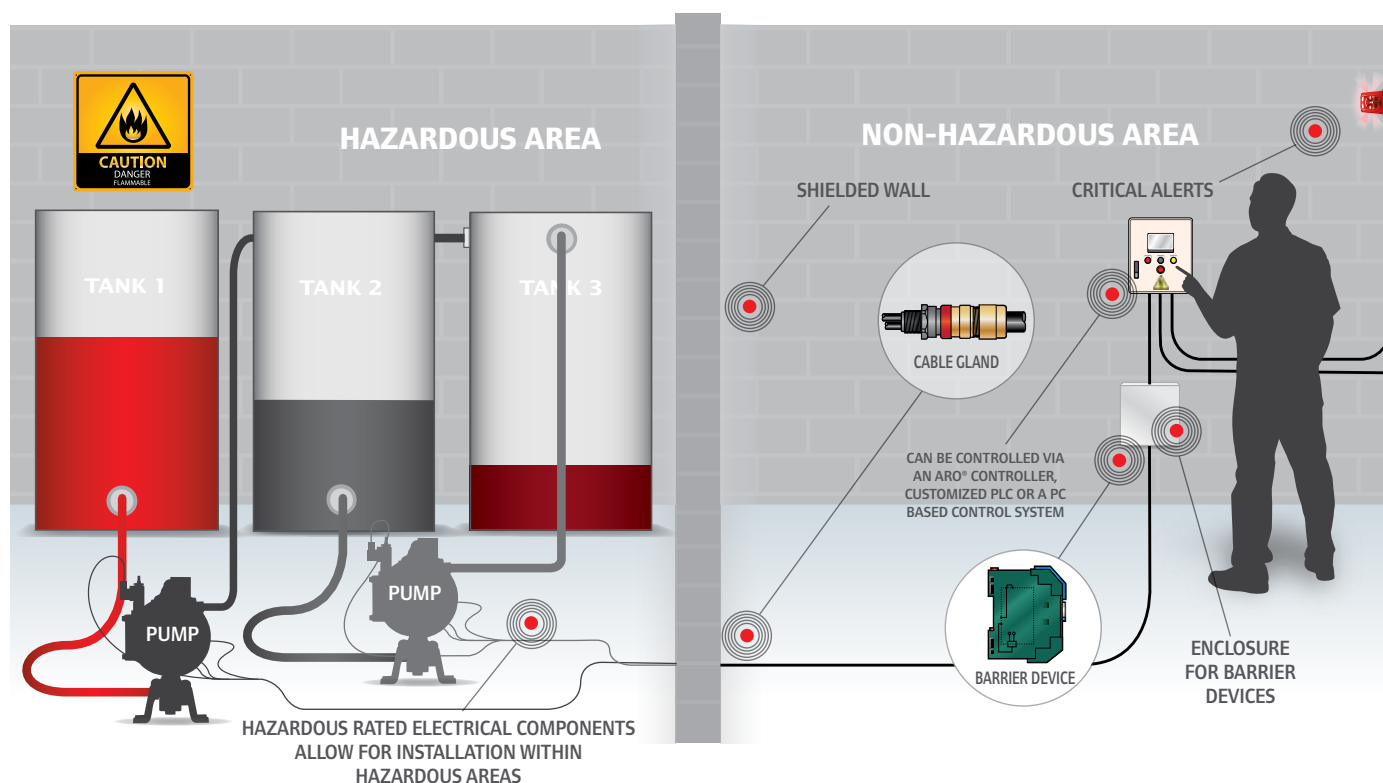
All EXP Series pumps are enhanced with electronic interface capability, providing accurate, electronically controlled dosing. Combine our pump with the ARO® Controller or a PLC or PC based system and switch from inaccurate, inefficient manual processes to intelligent fluid management.

- EXP is compatible with almost any automation system
- Electronic Interface Pumps are now available for hazardous duty environments (ATEX, NEC, and CEC certifications)
- Leak detection option certified for use in ATEX/ and NEC/CEC locations detects diaphragm failure to help reduce costly production downtime
- Internal cycle sensor and end-of-stroke signals track end-of-stroke feedback and pump data
- Preassembled components for hassle-free and error-proof installation

EXP provides safer control and monitoring

ARO® Compact and EXP Electronic Interface pumps are suitable for use in gas and dust environments, including ATEX and North American applications. Hazardous rated electrical components allow for installation within hazardous areas.

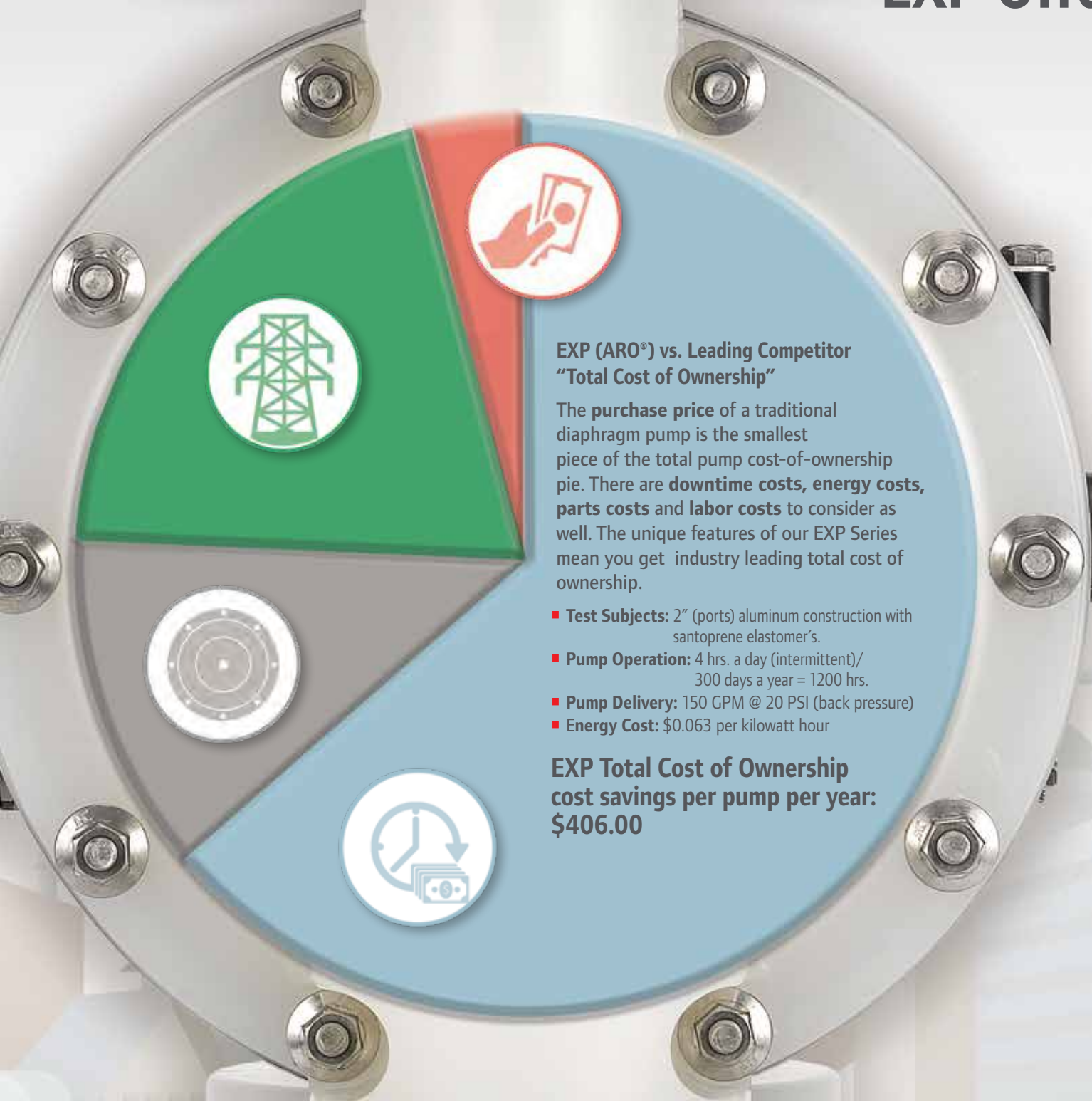
ARO® EXP Electronic Interface pumps are ideal for pumping fluids such as solvents, ethanol or fuels and other potentially flammable materials in HD environments – such as Chemical processing, paint/finishing, energy, ethanol, oil and gas, on-shore and petrochemical and fuel transfer.



- ▶ Operate the pump in the following hazardous locations:
NEC / CEC: Class I&II, Div 1&2 ATEX: Zone 1&2, 21&22
- ▶ Wire the provided sensors and barrier devices per your local code requirements
- ▶ Install controller and barrier devices in a suitable hazardous enclosure or outside the hazardous area



EXP Offers



Note: Testing of pumps based on Hydraulic Institute / ANSI (T0.6) air-operated pump test guidelines. All tests were conducted on new, out-of-the-box models. Both pumps were tested on Hydraulic Institute - conforming test loop at 20 PSI back pressure, pumping 150 gallons per minute. The fluid being pumped was water. For complete test guidelines and procedure information, contact the manufacturer.

Industry leading Total Cost of Ownership

EXP Benefits

RELIABILITY

Traditional Downtime Problems

ARO® EXP Solution



- | | |
|---------------------|---|
| ✗ Pump Freezing | ✓ No Freezing with Quick Dump™ Checks |
| ✗ Pump Stalling | ✓ No Stalling with Unbalanced SimulShift™ Valve |
| ✗ Diaphragm Failure | ✓ Up to 4x Life with Convolute Diaphragms |
| ✗ Pump Leakage | ✓ Engineered Bolted Construction for Safe Operation |
| ✗ Corrosion & Wear | ✓ Anodized Aluminum Fluid Section for Extended Life |

EFFICIENCY

Common Efficiency Issues

ARO® EXP Solution



- | | |
|---|--|
| ✗ Compressed Air “Blow-By” During Pump Idle | ✓ No Air Leakage with Ceramic “D” Valve |
| ✗ Poor Energy Efficiency During Operation | ✓ Lower Energy Usage with Quick Dump and SimulShift Valves |

SERVICEABILITY

Common Serviceability Issues

ARO® EXP Solution



- | | |
|---|--|
| ✗ Time to Pull Failed Pumps for Service | ✓ Longer Lasting Wear Parts
i.e. Convolute Diaphragms |
| ✗ Time to Replace Failed Parts | ✓ Easy-Access Major Air Valve |
| ✗ Complex or Incomplete Service Kits | ✓ Simplified Air and Fluid Service Kits |

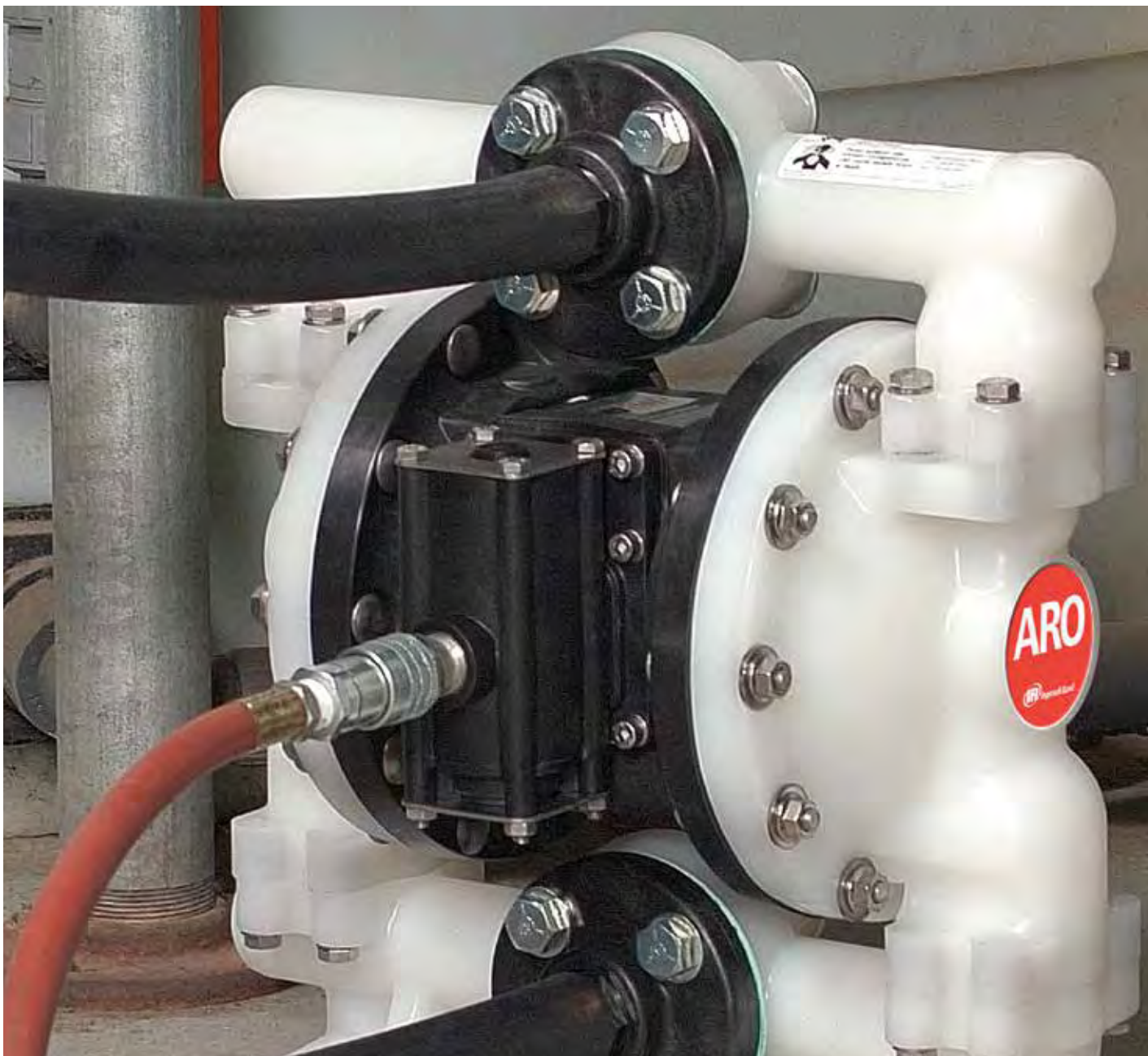
CONTROL AND MONITORING

Common Issues

ARO® EXP Solution



- | | |
|---|---|
| ✗ Time to integrate into control system | ✓ Proven Process Ready Electric Interface Controls |
| ✗ Cost and complexity tied to evolving a manual / unmonitored process | ✓ Upgradeable configurations post Installation
(air to electrical control) |



Non-Metallic Models

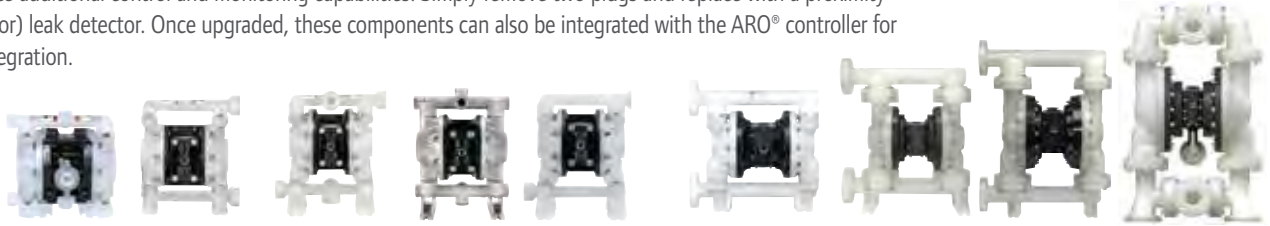
The ARO® EXP Series of non-metallic pumps consists of polypropylene, acetal and PVDF. All ARO® pumps are available with convoluted diaphragms offering long-lasting life and reduced maintenance.

Non-Metallic Model Overview

All 1/4" - 3" Non-metallic PD pumps are now upgradeable!

- PD pumps are manufactured such that solenoid operation, flow monitoring and leak detection functionality can be added at a later date. As your processes mature, this capability allows you to enhance manually operated processes to incorporate additional control and monitoring capabilities. Simply remove two plugs and replace with a proximity sensor and (or) leak detector. Once upgraded, these components can also be integrated with the ARO® controller for seamless integration.

UPGRADE
PUMP FOR REMOTE
ACTUATION CAPABILITY



Models	1/4"	3/8"	1/2"	1/2" Classic	3/4"	1"	1-1/2"	2"	3"
Max.Flow gpm (lpm)	5.3 (20)	10.6 (40.1)	14.4 (54.5)	13 (49.2)	14.8 (56)	53 (200)	123 (465)	184 (696)	285 (1079)
Maximum Discharge Pressure psi (bar)	125 (8.6)	100 (6.8)	100 (6.8)	100 (6'9)	100 (6.8)	120 (8.3)	120 (8.3)	120 (8.3)	120 (8.3)
Fluid Ports Inlet/Outlet (bsp)	1/4" NPTF/BSPT & 3/4"-14 NPTF/BSPT	3/8 - 18 NPTF - 1 Rp 3/8 (3/8 - 19 BSP)	1/2 - 14 NPTF - 1 Rp 1/2 (1/2 - 14 BSP)	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 (Side or Center) 1 - 11-1/2" NPT Rp 1(1-11 BSP) (Center Discharge)	1-1/2" ANSI/DIN Flange (Side or Center)	2" ANSI/DIN Flange (Side or Center)	3" ANSI (4-hole) or Din (8-hole) Flange
Material of Construction	Poly- propylene- Groundable Acetal PVDF	Poly- propylene Groundable Acetal PVDF	Poly- propylene Groundable Acetal PVDF	Poly- propylene Groundable Acetal PVDF	Poly- propylene	Polypropylene PVDF Conductive Polypropylene Conductive PVDF	Poly- propylene PVDF Conductive Poly- propylene	Polypropylene PVDF Conductive Polypropylene Conductive PVDF	Poly- propylene PVDF
Pump Weight lbs (kg)	Poly 2.86 (1.3) PVDF 3.88 (1.76) Acetal 3.52 (1.6)	4.2 (1.9) PD03P-XDS-X 4.3 (1.9) PD03P-XES-X 4.5 (2.0) PD03P-XKS-X 4.6 (2.1) PD03P-XLS-X 3.4 (1.6) PD03P-XPS-X 3.5 (1.6) PD03P-XRS-X	6.3 (2.9) PD05P-XDS-X-B 6.7 (3.0) PD05P-XES-X-B 6.8 (3.1) PD05P-XKS-X-B 7.2 (3.3) PD05P-XLS-X-B 5.2 (2.4) PD05P-XPS-X-B 5.4 (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)	19.35 (8.78) Poly Threaded 19.59 (8.89) Poly Center Port 19.87 (9.01) Poly Side Port 25.83 (11.72) PVDF Threaded 26.72 (12.12) PVDF Center Port 27.15 (12.32) PVDF Side Port	42.30 (19.19) Poly Center Port 42.60 (19.32) Poly Side Port 55.94 (25.37) PVDF Center Port 63.94 (29.0) PVDF Side Port	85.3 (38.7) Poly 110.9 (50.3) PVDF	170 (77.11) Poly 242 (109.77) PVDF
Max. Solids in (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)	3/8 (9.5)
Max. Dry Suction Lift ft (m)	15 (4.6)	9.25 (2.8)	15 (4.5)	15 (4.5)	15 (4.5)	19 (5.7)	14 (4.2)	19.5 (5.9)	20.5 (6.3)
Recommended Filter/ Regulator	P39124-600	P39124-600	P39124-600	P39124-600	P39124-600	P39224-600	P39344-600	P39354-600	P39454-610
Airline Kit	66073-1	66073-1	66073-1	66073-1	66073-1	66073-2	66084-1	66109	66109

Compact Series Diaphragm Pumps

EXP Series Diaphragm Pumps

1/4" Non-Metallic Models

COMPACT SERIES PUMPS

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

UPGRADE
PUMP FOR REMOTE
ACTUATION CAPABILITY

Ratio:	1:1
Maximum Flow:	5.3 g.p.m. (20) l.p.m.
Displacement per cycle:	0.019 Gallons (0.072 Liters)
Air Inlet (Female):	1/4 - 18 PTF SAE Short
Fluid Inlet/Outlet Hybrid:	Internal Thread 1/4"NPTF/BSPT External Thread 3/4" - 14 NPTF/BSPT
Max. operating pressure psi (bar):	125 (8.6)
Suspended solids max. dia. in.(mm):	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
PD01 - Standard Pump PE01- Elec. Interface Accessible Pump	E - Conductive Polypropylene 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 O - 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	Revision Level Position 10 & 11 Specialty Code Fluid control options for pump with electronic interface (PE03 model). See complete description on page 11

* Acceptable for use in hazardous locations. - NEC / CEC: Class I&II, Div 1&2, Group A-D
- ATEX: Zone 1&2, 21&22

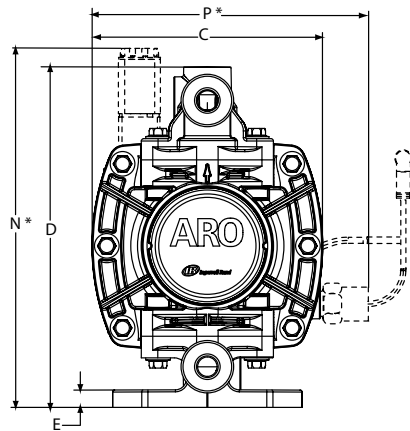
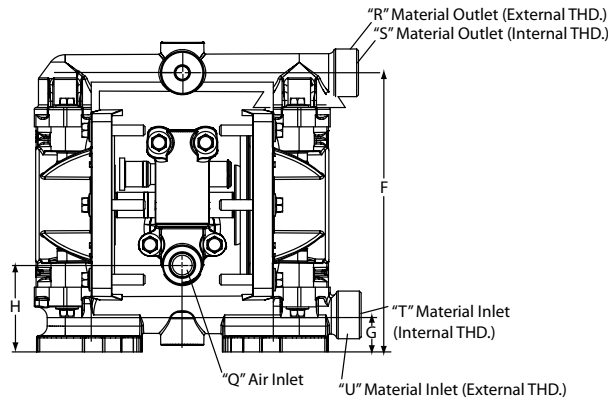
Hytrel® is a registered trademark of DuPont company, Santoprene® is registered trademark of Monsanto and Viton® is a registered trademark of ExxonMobil

Accessories

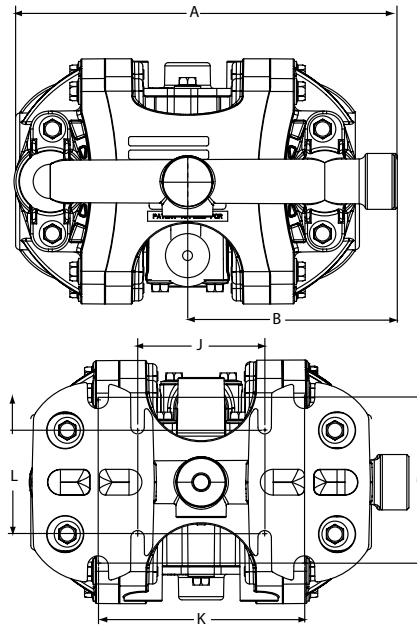
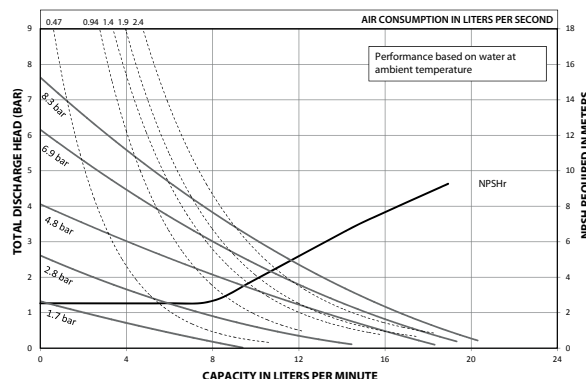
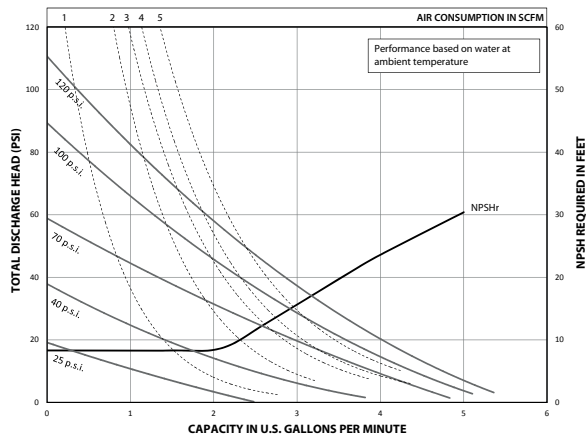
Air Line Connection Kit | 66073-1

(Piggyback Filter/Regulator with gauge, pipe nipple and 5-foot air hose)

1/4" Non-Metallic Dimensions and Flow Charts



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



DIMENSIONS

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

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)	

Ordering Position 10

Specialty Code 1 (Blank if no Specialty Code)

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

Ordering Position 11

Specialty Code 2 (Blank if no Specialty Code)

E - End of stroke feedback + Leak Detection	L - Leak Detection
F - End of stroke feedback	M - Leak Detection ATEX/IECex/NEC/CEC*
G - End of Stroke ATEX/IECex*	O - No Option
H - End of Stroke/Leak Detection ATEX/IECex*	R - End of Stroke Feedback NEC / CEC*
	T - End of Stroke Feedback + Leak Detection NEC / CEC*

* Acceptable for use in hazardous locations. - NEC / CEC: Class I&II, Div 1&2, Group A-D
- ATEX: Zone 1&2, 21&22

Performance based on an elastomeric fitted pump, flooded suction with water at ambient conditions.
Due to varying materials of construction, assembly configurations and operating conditions, published data is for reference only

3/8" Non-Metallic Models

COMPACT SERIES PUMPS

Part of our Compact Series of pumps, our 3/8" pumps feature big performance in a small package. They feature flow rates up to 10.6 GPM (40.1 LPM) and a wide range of material and porting configurations.

UPGRADE
PUMP FOR REMOTE
ACTUATION CAPABILITY

Ratio:	1:1
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)
Max. operating pressure:	100 psi (6.9-bar)
Suspended solids max. dia.:	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



PD03P-APS-PCC

PD03P-ADS-DTT



Ordering

Position	1	2		3	4	5		6	7	8		9	10	11
Example:	PX03	P	-	X	X	S	-	X	X	X	-	A	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 - Poly- propylene	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 - Poly- propylene S - Stainless Steel O - Flex Check	A - Santoprene® C - Hytrel® I - Nitrile J - Nitrile ** L - Viton® ** N - Neoprene** S - Stainless Steel T - PTFE V - Viton® ** Flex check models	A - Santoprene® C - Hytrel® G - Nitrile T - PTFE/ Santoprene® V - Viton®	Revision Level Position 10 & 11 Specialty Code Fluid control options for pump with electronic interface (PE03 model). See com- plete description on page 13

* Acceptable for use in hazardous locations. - NEC / CEC: Class I&II, Div 1&2, Group A-D
- ATEX: Zone 1&2, 21&22

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Viton® is a registered trademark of ExxonMobil

Accessories

Air Line Connection Kit | 66073-1

(Piggyback Filter/Regulator with gauge, pipe nipple and 5-foot air hose)

Wall Mount Bracket Kit | 67388

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



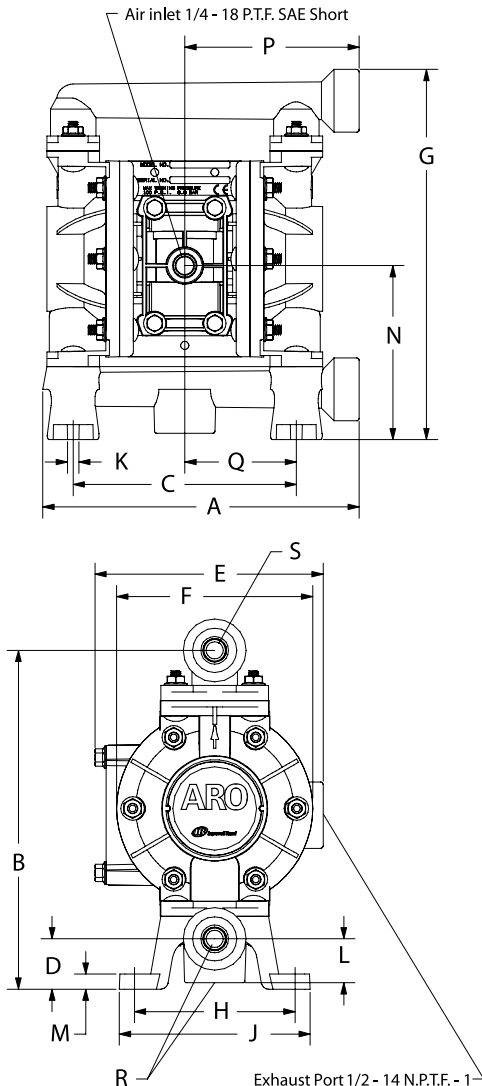
PE03P-APS-PAA-BOS
with 637442-1 Kit

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

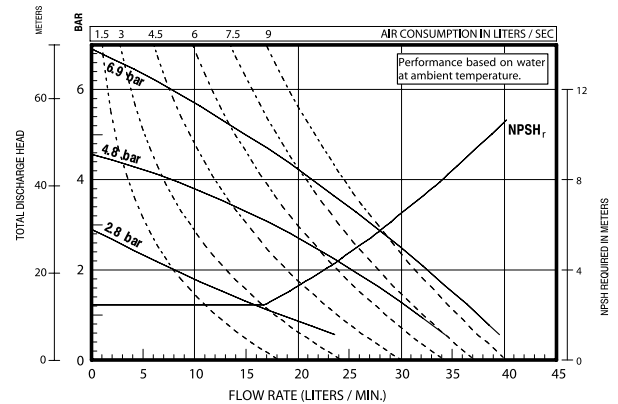
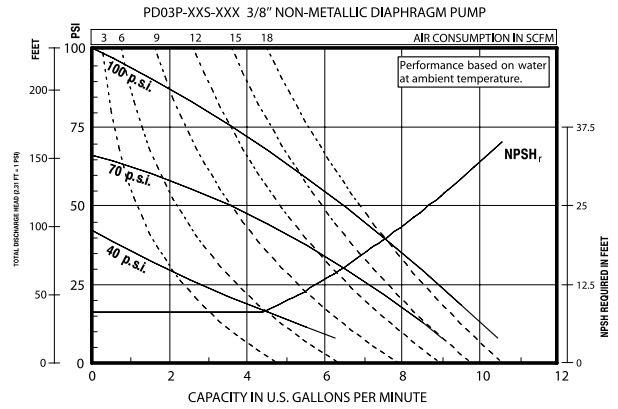
DIMENSIONS

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)

Model	"R" Material Inlet	"S" Material Outlet
PD03P-AXS-XXX	3/8 - 18 N.P.T.F. - 1	3/8 - 18 N.P.T.F. - 1
PD03P-BXS-XXX	Rp 3/8 (3/8 - 19 BSP)	Rp 3/8 (3/8 - 19 BSP)



PERFORMANCE CURVES



Performance based on an elastomeric fitted pump, flooded suction with water at ambient conditions. Due to varying materials of construction, assembly configurations and operating conditions, published data is for reference only

Ordering Position 10

Specialty Code 1 (Blank if no Specialty Code)

A - Solenoid 120VAC	G - Solenoid 12VDC ATEX/IECex*
B - Solenoid 12VDC	H - Solenoid 24VDC ATEX/IECex*
C - Solenoid 240VAC	J - 120VAC NEC/CEC*
D - Solenoid 24VDC	K - Solenoid 220VAC ATEX/IECex*
E - 12vDC NEC/CEC*	N - Solenoid with no coil
F - 24vDC NEC/CEC*	O - Standard Valve Block (No Solenoid)
	P - Ported Motor (No major valve provided)

Ordering Position 11

Specialty Code 2 (Blank if no Specialty Code)

E - End of stroke feedback + Leak Detection	L - Leak Detection
F - End of stroke feedback	M - Leak Detection ATEX/IECex/NEC/CEC*
G - End of Stroke ATEX/IECex*	O - No Option
H - End of Stroke/Leak Detection ATEX/IECex*	R - End of Stroke Feedback NEC / CEC*
	T - End of Stroke Feedback + Leak Detection NEC / CEC*

* Acceptable for use in hazardous locations. - NEC / CEC: Class I&II, Div 1&2, Group A-D
- ATEX: Zone 1&2, 21&22

1/2" Non-Metallic Models

COMPACT SERIES PUMPS

Part of our Compact Series of pumps, our 1/2" compact pumps feature big performance in a small package. They offer flow rates up to 14.4 GPM (54.5 LPM) and a wide range of material and porting configurations.

UPGRADE
PUMP FOR REMOTE
ACTUATION CAPABILITY

Ratio:	1:1
Maximum Flow:	14.4 g.p.m. (54.5 l.p.m.)
Displacement per cycle:	0.039 Gallons (0.15 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)
Max. operating pressure:	100 psi (6.9 bar)
Suspended solids max. dia.:	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)	15.0 (4.5)
Sound Level:	70 PSI 60 Cycles/Min 75.0 db(A)
Muffler:	Integral, Included



PD05P-BRS-PAA

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 - Poly- propylene	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 - Poly- propylene 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 elec- tronic interface (PE05 model). See complete description on page 15

* Acceptable for use in hazardous locations. - NEC / CEC: Class I&II, Div 1&2, Group A-D
- ATEX: Zone 1&2, 21&22

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Viton® is a registered trademark of ExxonMobil

Accessories

Air Line Connection Kit | 66073-1

(Piggyback Filter/Regulator with gauge, pipe nipple and 5-foot air hose)

Wall Mount Bracket Kit | 76763

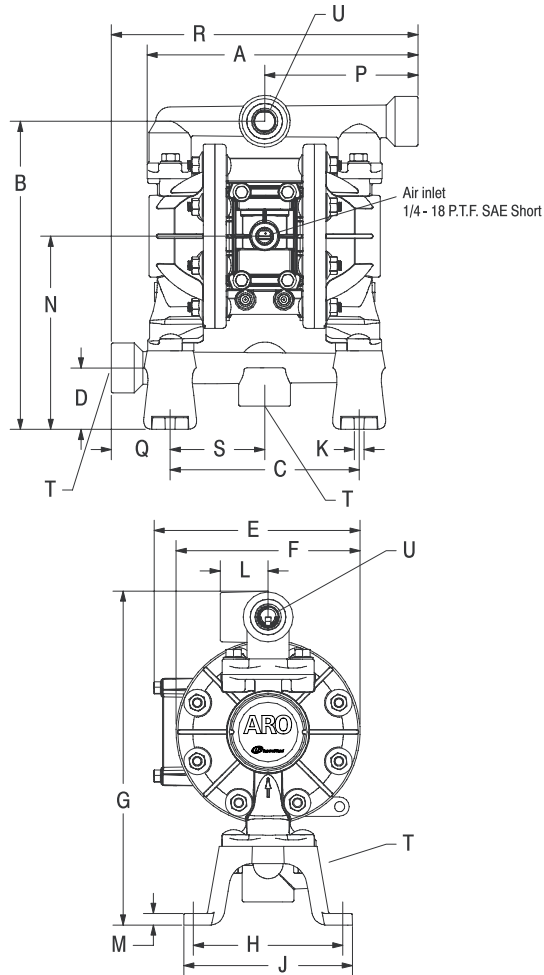
Optional Muffler | 93110 used with 637438 kit

Service Repair Kits | 637428 (air section)
637427-XX (fluid section)



Air Line Connection Kit
66073-1

1/2" Non-Metallic Dimensions and Flow Charts



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)	

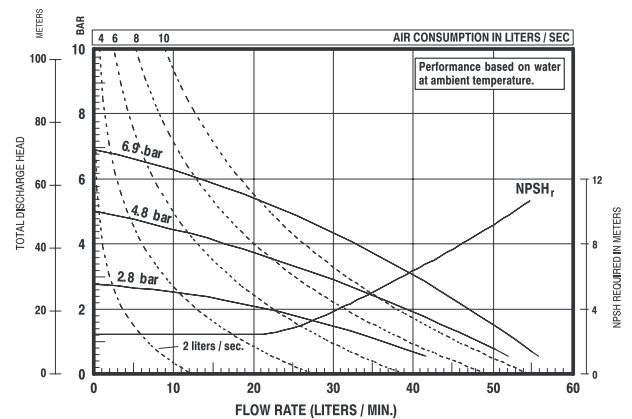
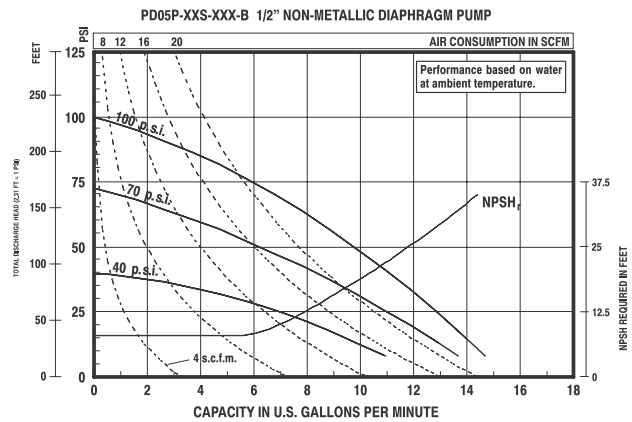
Model	"T" Material Inlet	"U" Material Outlet
PD05P-AXS-XXX-B	1/2 - 14 N.P.T.F. - 1	1/2 - 14 N.P.T.F. - 1
PD05P-BXS-XXX-B	Rp 1/2 (1/2 - 14 BSP)	Rp 1/2 (1/2 - 14 BSP)



PD05P-APS-PAA-B05
with 637440-1 Kit

Dual Inlet/Outlet Kits:
637440-1 (N.P.T. Poly)

PERFORMANCE CURVES



Performance based on an elastomeric fitted pump, flooded suction with water at ambient conditions. Due to varying materials of construction, assembly configurations and operating conditions, published data is for reference only

Ordering Position 10

Specialty Code 1 (Blank if no Specialty Code)

A - Solenoid 120VAC	G - Solenoid 12VDC ATEX/IECex*
B - Solenoid 12VDC	H - Solenoid 24VDC ATEX/IECex*
C - Solenoid 240VAC	J - 120VAC NEC/CEC*
D - Solenoid 24VDC	K - Solenoid 220VAC ATEX/IECex*
E - 12VDC NEC/CEC*	N - Solenoid with no coil
F - 24VDC NEC/CEC*	O - Standard Valve Block (No Solenoid)
	P - Ported Motor (No major valve provided)

Ordering Position 11

Specialty Code 2 (Blank if no Specialty Code)

E - End of stroke feedback + Leak Detection	L - Leak Detection
F - End of stroke feedback	M - Leak Detection ATEX/IECex/NEC/CEC*
G - End of Stroke ATEX/IECex*	O - No Option
H - End of Stroke/Leak Detection ATEX/IECex*	R - End of Stroke Feedback NEC / CEC*
	T - End of Stroke Feedback + Leak Detection NEC / CEC*

* Acceptable for use in hazardous locations. - NEC / CEC: Class I&II, Div 1&2, Group A-D
- ATEX: Zone 1&2, 21&22

1/2" Classic Style Non-Metallic Models

COMPACT SERIES PUMPS

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

Ratio:	1:1
Maximum Flow:	(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. (0.15 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 max. dia.:	(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)
Maximum dry suction lift ft(m) :	15 (4.6)
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 5 - E.P.R. 8 - Polyurethane A - Stainless Steel C - Neoprene** D - Nitrile** E - Santoprene® **Flex check models	1 - Neoprene 2 - Nitrile 3 - Viton® 4 - PTFE/Santoprene® 5 - E.P.R. 8 - Polyurethane 9 - Hytrel® B - Santoprene® L - Long-Life PTFE	04 - Top Discharge

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Accessories

Air Line Connection Kit | 66073-1

(Piggyback Filter/Regulator with gauge, pipe nipple and 5-foot air hose)

Optional Muffler | 93110 used with 637438 kit

Service Repair Kits | 637141 (air section)

637140-XX (fluid section)

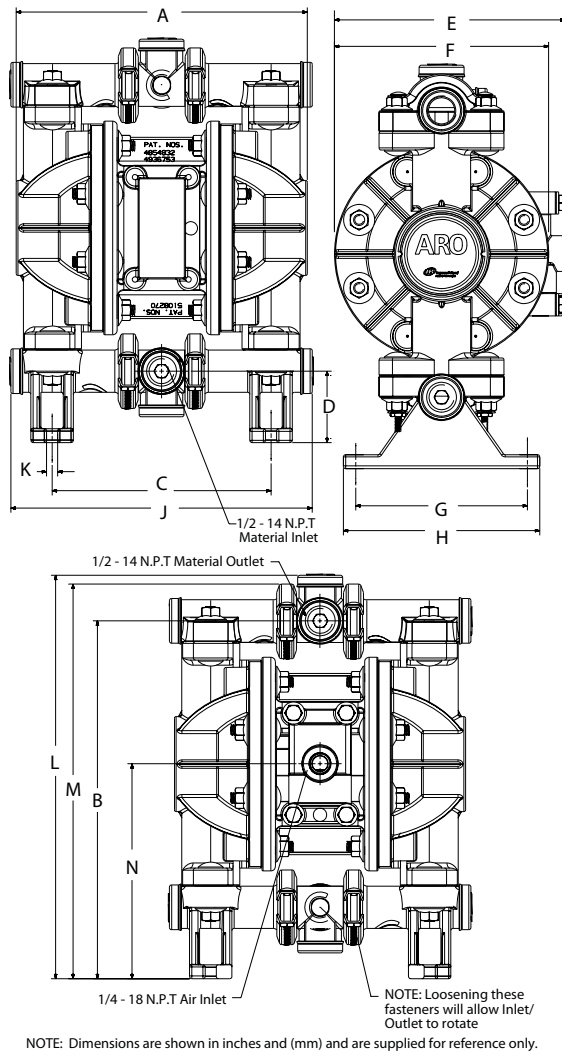


93110

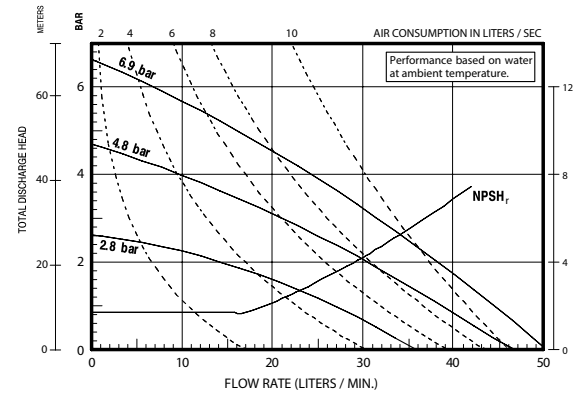
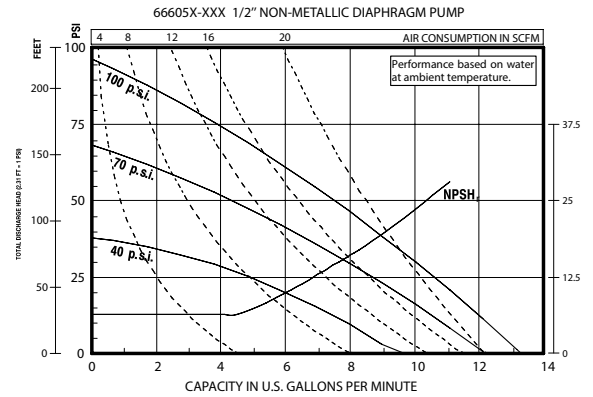


Air Line Connection Kit
66073-1

1/2" Non-Metallic Dimensions and Flow Charts



A - 8.155" (207.1 mm)	E - 6.467" (164 mm)	J - 8.44 5" (215 mm)
B - 10.051" (255 mm)	F - 6.000" (152 mm)	K - 0.31 2" (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 - 11.08 4" (282 mm)
		N - 6.040" (153 mm)



Performance based on an elastomeric fitted pump, flooded suction with water at ambient conditions. Due to varying materials of construction, assembly configurations and operating conditions, published data is for reference only

3/4" Non-Metallic Models

COMPACT SERIES PUMPS

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

UPGRADE
PUMP FOR REMOTE
ACTUATION CAPABILITY

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:	1/2 - 14 N.P.T.F. - 1 Rp 1/2 (1/2 -14 BSP, parallel)
Max. operating pressure:	100 psi (6.9 bar)
Suspended solids max. dia.:	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)
Muffler:	Integral, Included



PD07P-APS-PAA

Ordering

Position	1	2		3	4	5		6	7	8		9	10	11
Example:	PX07	P	-	X	X	S	-	X	X	X	-	A	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 and 10
PD07 - Standard Pump PE07 - Remote Actuation Capable	P - Poly- propylene	A - 14 - 3/4" N.P.T.F.-1 B - Rp 3/4 (3/41/2 -14 BSP, parallel)	P - Poly- propylene (Single Port)	S - SS	P - Poly- propylene	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). See com- plete description on page 19

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Accessories

Air Line Connection Kit | 66073-1

(Piggyback Filter/Regulator with gauge, pipe nipple and 5-foot air hose)

Muffler Kit | 637438 (ported exhaust) 3/8" NPT

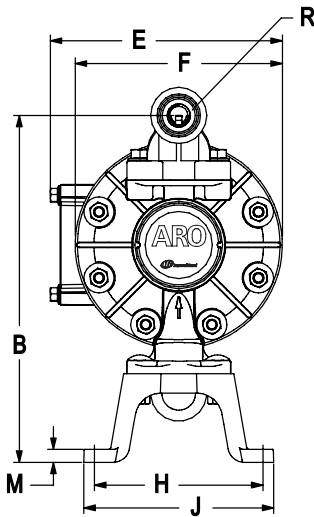
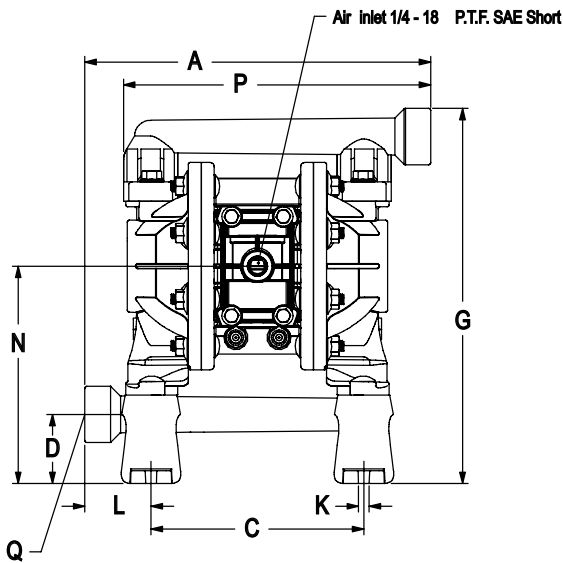
Service Repair Kits | 637428 (air section) 637427-XX (fluid section)

Wall Mount | 76763



Air Line Connection Kit
66073-1

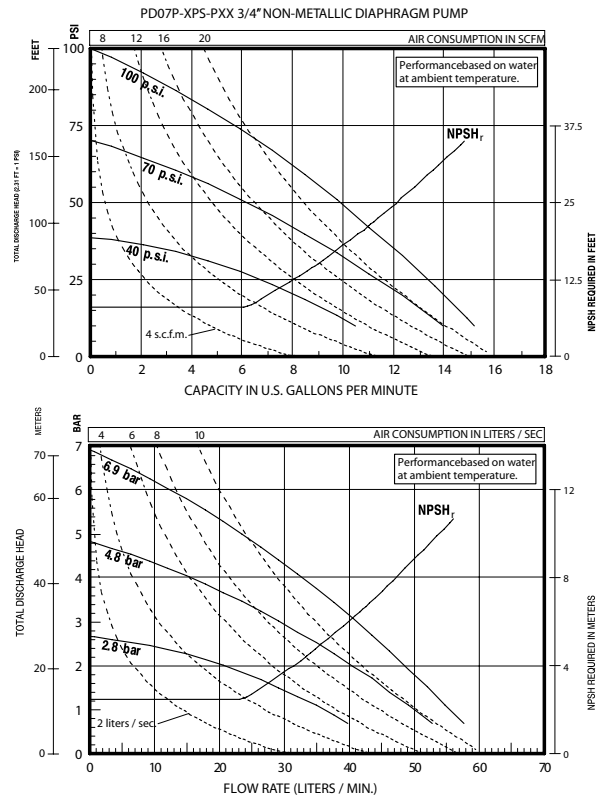
3/4" Non-Metallic Dimensions and Flow Charts



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-A PS-PXX	3/4 - 14 N.P.T.F. - 1	3/4 - 14 N.P.T.F. - 1
PD07P-B PS-PXX	Rp 3/4 (3/4 - 14 BSP)	Rp 3/4 (3/4 - 14 BSP)



Performance based on an elastomeric fitted pump, flooded suction with water at ambient conditions. Due to varying materials of construction, assembly configurations and operating conditions, published data is for reference only

Ordering Position 10

Specialty Code 1 (Blank if no Specialty Code)

A - Solenoid 120VAC	G - Solenoid 12VDC ATEX/IECex*
B - Solenoid 12VDC	H - Solenoid 24VDC ATEX/IECex*
C - Solenoid 240VAC	J - 120VAC NEC/CEC*
D - Solenoid 24VDC	K - Solenoid 220VAC ATEX/IECex*
E - 12vDC NEC/CEC*	N - Solenoid with no coil
F - 24vDC NEC/CEC*	O - Standard Valve Block (No Solenoid)
	P - Ported Motor (No major valve provided)

Ordering Position 11

Specialty Code 2 (Blank if no Specialty Code)

E - End of stroke feedback + Leak Detection	L - Leak Detection
F - End of stroke feedback	M - Leak Detection ATEX/IECex/NEC/CEC*
G - End of Stroke ATEX/IECex*	O - No Option
H - End of Stroke/Leak Detection ATEX/IECex*	R - End of Stroke Feedback NEC / CEC*
	T - End of Stroke Feedback + Leak Detection NEC / CEC*

* Acceptable for use in hazardous locations. - NEC / CEC: Class I&II, Div 1&2, Group A-D
- ATEX: Zone 1&2, 21&22

1" Non-Metallic Models

EXP SERIES PUMPS

ARO® EXP 1" non-metallic diaphragm pumps are a versatile solution for numerous applications. Our EXP 1" models achieve flow rates of up to 53 GPM (200.6 LPM) and offer a wide array of material and porting configurations. These pumps are often used for transfer, filling, recirculation and supply in chemical, industrial and water/wastewater treatment markets.

Ratio:	1:1
Maximum GPM (LPM):	53 (200)
Displacement per cycle Gallons (Liters):	0.226 (0.86)
Air Inlet (Female):	1/4 - 18 N.P.T.
Fluid Inlet/Outlet:	1 - 11-1/2 N.P.T.F., Rp1(1-11 BSP) 1" ANSI/DIN hybrid flange (side or center)
Max. operating pressure psi (bar):	120 (8.3)
Suspended solids max. dia. in.(mm):	1/8" (3.2)
Weight lbs (kg):	Polypropylene, Threaded Port 19.35 (8.78) Polypropylene, Center Ported 19.59 (8.89) Polypropylene, Side Ported 19.87 (9.01) PVDF, Threaded Port 25.83 (11.72) PVDF, Center Ported 26.72 (12.12) PVDF, Side Ported 27.15 (12.32)
Maximum dry suction lift ft(m) :	19 (5.7)
Sound Level:	70 PSI 60 Cycles/Min 79.7 db(A)
Muffler Included:	93110



Ordering

Position	1	2		3	4	5		6	7	8		9	10	11
Example:	PX10	X	-	X	X	S	-	X	X	X	-	A	X	X

Position 1 Model Series	Position 2 Center Section	Position 3 Connections	Position 4 Wetted Parts	Position 5 Hardware	Position 6 Seat Material	Position 7 Ball Material	Position 8 Diaphragm Material	Position 9
PD10 - Standard Pump PE10 - Electronic Interface Accessible Pump	E - Conductive Polypropylene P - Polypropylene	A - NPTF Thread B - BSP Thread F - 1" ANSI/DIN Hybrid Side Flange Y - 1" ANSI/DIN Hybrid Center Flange	E - Conductive Polypropylene* K - PVDF N - Conductive PVDF* P - Polypropylene	S - SS	H - 440 SS (Hard) K - PVDF P - Polypropylene S - 316 SS	A - Santoprene® C - Hytrel® G - Nitrile T - PTFE V - Viton®	A - Santoprene® C - Hytrel® G - Buna-N L - Long-Life PTFE T - PTFE/Santoprene® V - Viton®	Revision Level Position 10 & 11 Specialty Code Fluid control options for pump with electronic interface (PE10 model). See complete description on page 21

* Acceptable for use in hazardous locations. - NEC / CEC: Class I&II, Div 1&2, Group A-D
- ATEX: Zone 1&2, 21&22

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Accessories

Air Line Connection Kit | 66073-2

(Piggyback Filter/Regulator with gauge, pipe nipple and 5-foot air hose)

Diaphragm Failure Detection | 67237

ARO® Diaphragm Failure Detection is a simple, cost-effective way to get your pumps wired for preventive maintenance. (PE10X pump model is required)

Cycle Sensor Kit | 67350

Service Repair Kits | 637397 (air motor for PX10P), 637396-XXX (fluid section with seats), 637395-X (major air valve assembly)

Flange Connection Kits | 67341-E10N (side flange), 67341-C10N (center flange)

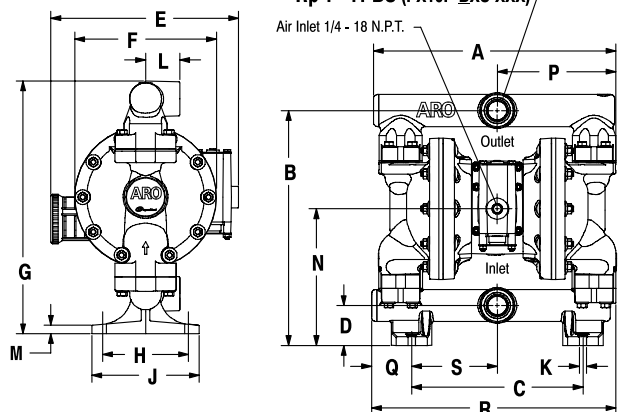
Use with non-metallic EXP pumps with the flange manifold option



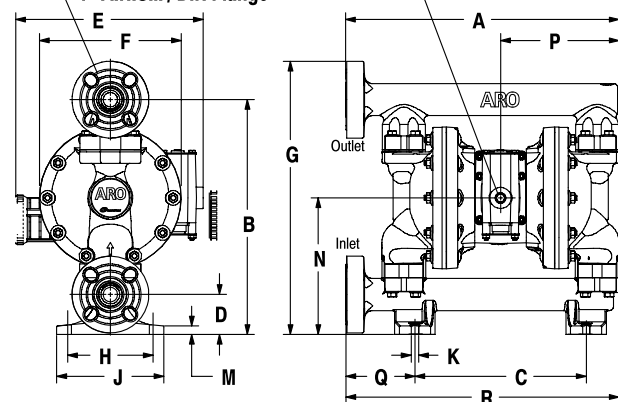
Flange Connection Kit

1" Non-Metallic Dimensions and Flow Charts

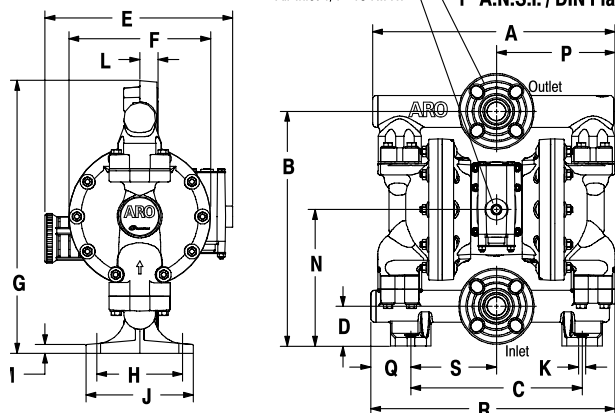
1 - 11-1/2 N.P.T.F. - 1 (PX10P-AXS-XXX)
Rp 1 - 11 BS (PX10P-BXS-XXX)



1" A.N.S.I. / DIN Flange

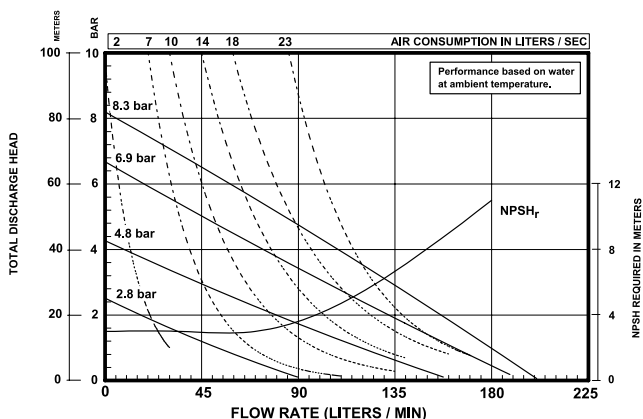
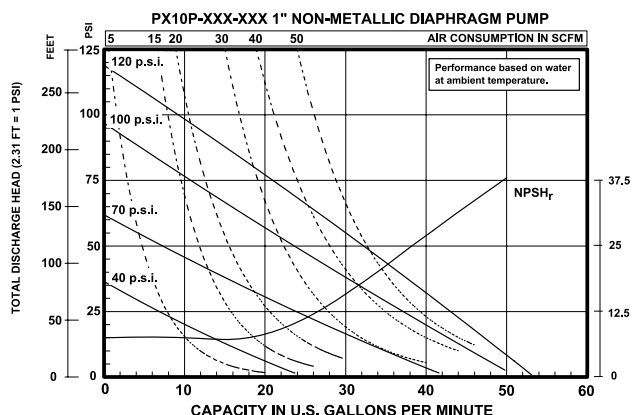


Air Inlet 1/4 - 18 N.P.T. 1" A.N.S.I. / DIN Flange



DIMENSIONS

A - see below	G - see below	N - 8-1/32" (203.4 mm)
B - 13-25/32" (349.8 mm)	H - 5-1/32" (127.6 mm)	P - 6-31/32" (176.6 mm)
C - 10-1/16" (255.3 mm)	J - 6-9/32" (159.6 mm)	Q - see below
D - 2-11/32" (59.4 mm)	K - 7/16" (11.1 mm)	R - see below
E - 11-1/32" (279.5 mm)	L - see below	S - 5-1/32" (127.6 mm)
F - 8-5/16" (211.1 mm)	M - 1/2" (12.7 mm)	
PX10P-AXS-, -BXS- (Threaded)	PX10P-EXS-XXX (End Flange)	PX10P-YXS-XXX (Center Flange)
A - 14-7/32" (361.2 mm)	16-1/32" (407.3 mm)	14-7/32" (361.2 mm)
G - 14-27/32" (376.5 mm)	16-1/32" (407.3 mm)	16" (406.3 mm)
L - 2" (50.8 mm)	-----	1-1/32" (25.6 mm)
Q - 2-3/8" (59.7 mm)	4-1/16" (103.0 mm)	2-3/8" (59.7 mm)
R - 14-11/32" (364.0 mm)	16-1/32" (407.3 mm)	14-11/32" (364.0 mm)



Performance based on an elastomeric fitted pump, flooded suction with water at ambient conditions. Due to varying materials of construction, assembly configurations and operating conditions, published data is for reference only

Ordering Position 10

Specialty Code 1 (Blank if no Specialty Code)

A - Solenoid 120VAC	G - Solenoid 12VDC ATEX/IECex*
B - Solenoid 12VDC	H - Solenoid 24VDC ATEX/IECex*
C - Solenoid 240VAC	J - 120VAC NEC/CEC*
D - Solenoid 24VDC	K - Solenoid 220VAC ATEX/IECex*
E - 12vDC NEC/CEC*	N - Solenoid with no coil
F - 24vDC NEC/CEC*	O - Standard Valve Block (No Solenoid)
	P - Ported Motor (No major valve provided)

Ordering Position 11

Specialty Code 2 (Blank if no Specialty Code)

E - End of stroke feedback + Leak Detection	L - Leak Detection
F - End of stroke feedback	M - Leak Detection ATEX/IECex/NEC/CEC*
G - End of Stroke ATEX/IECex*	O - No Option
H - End of Stroke/Leak Detection ATEX/IECex*	R - End of Stroke Feedback NEC / CEC*
	T - End of Stroke Feedback + Leak Detection NEC / CEC*

* Acceptable for use in hazardous locations. - NEC / CEC: Class I&II, Div 1&2, Group A-D
- ATEX: Zone 1&2, 21&22

1-1/2" Non-Metallic Models

EXP SERIES PUMPS

ARO® 1-1/2" non-metallic diaphragm pumps are frequently used in transfer, filling, recirculation and supply in chemical, industrial and water/wastewater treatment markets. Our 1-1/2" models achieve flow rates of up to 123.1 GPM (465.9 LPM) and also offer a diverse selection of material and porting configurations.

UPGRADE
PUMP FOR REMOTE
ACTUATION CAPABILITY

Ratio:	1:1
Maximum GPM (LPM):	123 (465)
Displacement per cycle Gallons (Liters):	0.617 (2.34)
Air Inlet (Female):	1/2 - 14 N.P.T.
Fluid Inlet/Outlet:	1-1/2" ANSI/DIN hybrid flange (side or center)
Max. operating pressure psi (bar):	120 (8.3)
Suspended solids max. dia. in. (mm):	1/4" (6.4)
Weight lbs (kg):	Polypropylene, Side Ported 42.6 (19.3) PVDF, Side Ported 63.9 (29) Polypropylene, Center Ported 42.3 (19.2) PVDF, Center Ported 55.9 (25.3)
Maximum dry suction lift ft (m) :	14 (4.2)
Sound Level:	70 PSI 60 Cycles / Min 81.0 db(A)
Muffler Included:	93139



Ordering

Position	1	2		3	4	5		6	7	8		9	10	11
Example:	PX15	X	-	X	X	S	-	X	X	X	-	A	X	X

Position 1 Model Series	Position 2 Center Section	Position 3 Connections	Position 4 Wetted Parts	Position 5 Hardware	Position 6 Seat Material	Position 7 Ball Material	Position 8 Diaphragm Material	Position 9
PD15 - Standard Pump PE15 - Electronic Interface Accessible Pump	E - Conductive Polypropylene P - Polypropylene	F - 1-1/2" ANSI/DIN Hybrid Side Flange Y - 1-1/2" ANSI/DIN Hybrid Center Flange	E - Conductive Polypropylene* K - PVDF P - Polypropylene	S - SS	H - 440 SS (Hard) K - PVDF P - Polypropylene S - 316 SS	A - Santoprene® C - Hytrel® G - Nitrile S - 316 SS T - PTFE V - Viton®	A - Santoprene® C - Hytrel® G - Buna-N L - Long-Life PTFE T - PTFE/Santoprene® V - Viton®	Revision Level Position 10 & 11 Specialty Code Fluid control options for pump with electronic interface (PE15 model). See complete description on page 23

* Acceptable for use in hazardous locations. - NEC / CEC: Class I&II, Div 1&2, Group A-D
- ATEX: Zone 1&2, 21&22

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Accessories

Air Line Connection Kit | 66084-1

(Piggyback Filter/Regulator with gauge, pipe nipple and 5-foot air hose)

Diaphragm Failure Detection | 67237

Service Repair Kits | 637389 (air motor for PX15P), 637391-XXX (fluid section with seats), 637390-X (major air valve assembly)

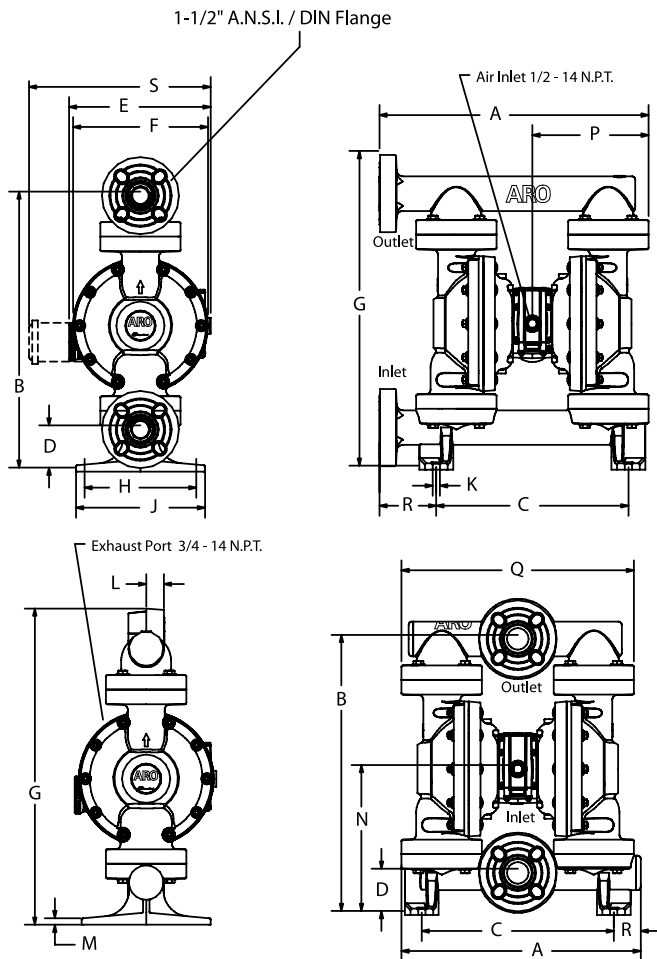
Flange Connection Kit | 67341-E15N (side flange), 67341-C15N (center flange)

Use with non-metallic EXP pumps with the flange manifold option



Flange Connection Kit

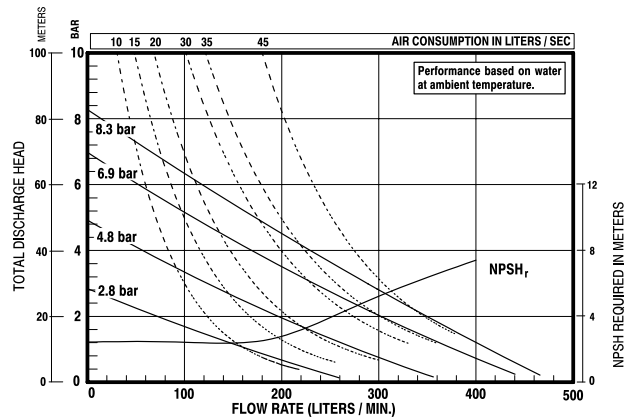
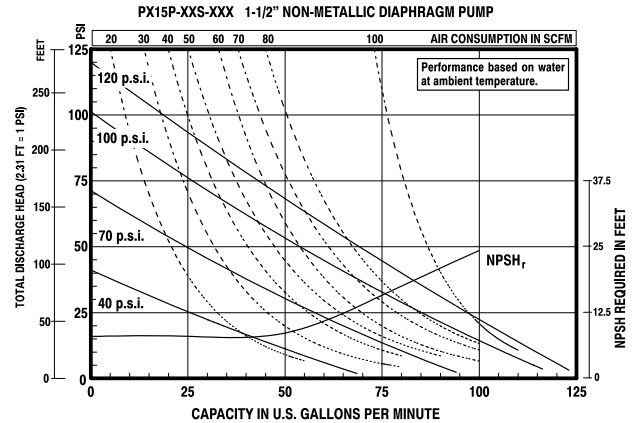
1-1/2" Non-Metallic Dimensions and Flow Charts



A - see below	G - see below	N - 11-3/8" (288.4 mm)
B - 21-15/32" (545.3 mm)	H - 8-11/16" (220.7 mm)	P - 9-1/32" (229.5 mm)
C - 14-15/16" (379.4 mm)	J - 10-1/32" (254.8 mm)	Q - see below
D - 3-9/32" (83.3 mm)	K - 9/16" (14.3 mm)	R - see below
E - see below	L - see below	S - see below
F - 10-1/2" (266.3 mm)	M - 17/32" (13.0 mm)	

PX15P- E XS-XXX (End Flange)	PX15P- X S-XXX (Center Flange)
A - 20-15/16" (531.6 mm)	18-19/32" (472.3 mm)
G - 24-15/32" (621.5 mm)	24-19/32" (624.5 mm)
L - -----	1-3/8" (34.9 mm)
Q - -----	18-3/32" (459.0 mm)
R - 4-7/16" (112.4 mm)	2-3/32" (53.1 mm)

PX15E-XXX-XXX	"E"	"S"
PX15P-XXX-XXX	11" (279.5 mm)	14-1/8" (358.5 mm)



Performance based on an elastomeric fitted pump, flooded suction with water at ambient conditions. Due to varying materials of construction, assembly configurations and operating conditions, published data is for reference only

Ordering Position 10

Specialty Code 1 (Blank if no Specialty Code)

A - Solenoid 120VAC	G - Solenoid 12VDC ATEX/IECex*
B - Solenoid 12VDC	H - Solenoid 24VDC ATEX/IECex*
C - Solenoid 240VAC	J - 120VAC NEC/CEC*
D - Solenoid 24VDC	K - Solenoid 220VAC ATEX/IECex*
E - 12vDC NEC/CEC*	N - Solenoid with no coil
F - 24vDC NEC/CEC*	O - Standard Valve Block (No Solenoid)
	P - Ported Motor (No major valve provided)

Ordering Position 11

Specialty Code 2 (Blank if no Specialty Code)

E - End of stroke feedback + Leak Detection	L - Leak Detection
F - End of stroke feedback	M - Leak Detection ATEX/IECex/NEC/CEC*
G - End of Stroke ATEX/IECex*	O - No Option
H - End of Stroke/Leak Detection ATEX/IECex*	R - End of Stroke Feedback NEC / CEC*
	T - End of Stroke Feedback + Leak Detection NEC / CEC*

* Acceptable for use in hazardous locations. - NEC / CEC: Class I&II, Div 1&2, Group A-D
- ATEX: Zone 1&2, 21&22

2" Non-Metallic Models

EXP SERIES PUMPS

ARO® EXP 2" non-metallic pumps achieve flow rates of up to 184 GPM (696.4 LPM) and offer a wide array of material and porting configurations. 2" non-metallic pumps are often used for transfer, filling, recirculation and batching in Chemical, Industrial and Water/Waste-water treatment markets.

UPGRADE
PUMP FOR REMOTE
ACTUATION CAPABILITY

Ratio:	1:1
Maximum GPM (LPM):	184 (696)
Displacement per cycle Gallons (Liters):	1.4 (5.3)
Air Inlet (Female):	3/4 - 14 N.P.T.
Fluid Inlet/Outlet:	2" ANSI/DIN hybrid flange (side or center)
Max. operating pressure psi (bar):	120 (8.3)
Suspended solids max. dia. in. (mm):	1/4" (6.4)
Weight lbs (kg):	Polypropylene, Side Ported 85.3 (38.7) Polypropylene, Center Ported 89.0 (40.4) PVDF, Side Ported 110.9 (50.3) PVDF, Center Ported 116.8 (53)
Maximum dry suction lift ft (m):	19.5 (5.9)
Sound Level:	70 PSI 60 Cycles/Min 85.0 db(A)
Muffler Included:	93139



Ordering

Position	1	2		3	4	5		6	7	8		9	10	11
Example:	PX20	X	-	X	X	S	-	X	X	X	-	A	X	X

Position 1 Model Series	Position 2 Center Section	Position 3 Connections	Position 4 Wetted Parts	Position 5 Hardware	Position 6 Seat Material	Position 7 Ball Material	Position 8 Diaphragm Material	Position 9
PD20 - Standard Pump PE20 - Electronic Interface Accessible Pump	E - Conductive Polypropylene P - Polypropylene	F - 2" ANSI/DIN Hybrid Side Flange Y - 2" ANSI/DIN Hybrid Center Flange	E - Conductive Polypropylene* K - PVDF N - Conductive PVDF* P - Polypropylene	S - SS	K - PVDF P - Polypropylene	A - Santoprene® C - Hytrel® G - Nitrile T - PTFE V - Viton®	A - Santoprene® C - Hytrel® G - Buna-N L - Long-Life PTFE T - PTFE/Santoprene® V - Viton®	Revision Level Position 10 & 11 Specialty Code Fluid control options for pump with electronic interface (PE20 model). See complete description on next page

* Acceptable for use in hazardous locations. - NEC / CEC: Class I&II, Div 1&2, Group A-D
- ATEX: Zone 1&2, 21&22

Hytrel® is a registered trademark of DuPont company, Santoprene® is registered trademark of Monsanto and Viton® is a registered trademark of ExxonMobil

Accessories

Air Line Connection Kit | 66109

(Piggyback Filter/Regulator with gauge, pipe nipple and 5-foot air hose)

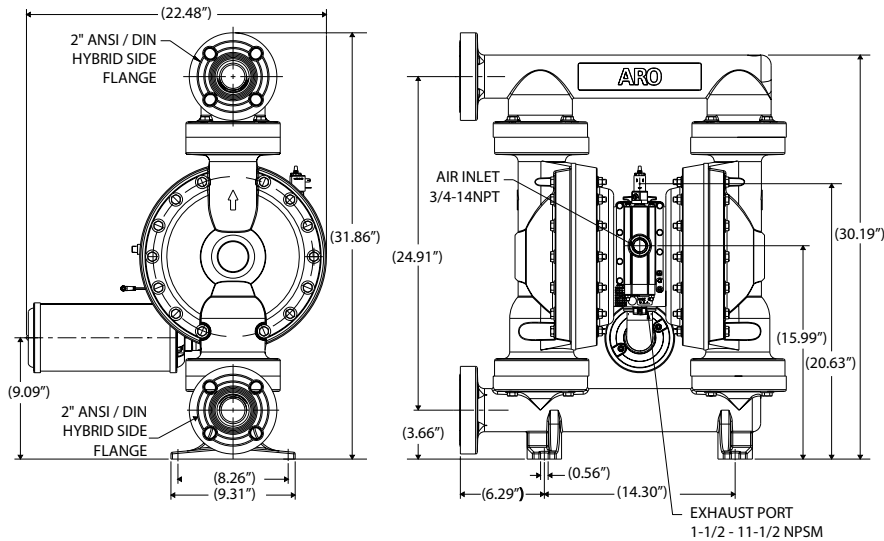
Diaphragm Failure Detection | Kit No.67237

Service Repair Kits | 637369 (air motor for PD20P), 637373-XXX (fluid section with seats),
637374-X (major air valve assembly)

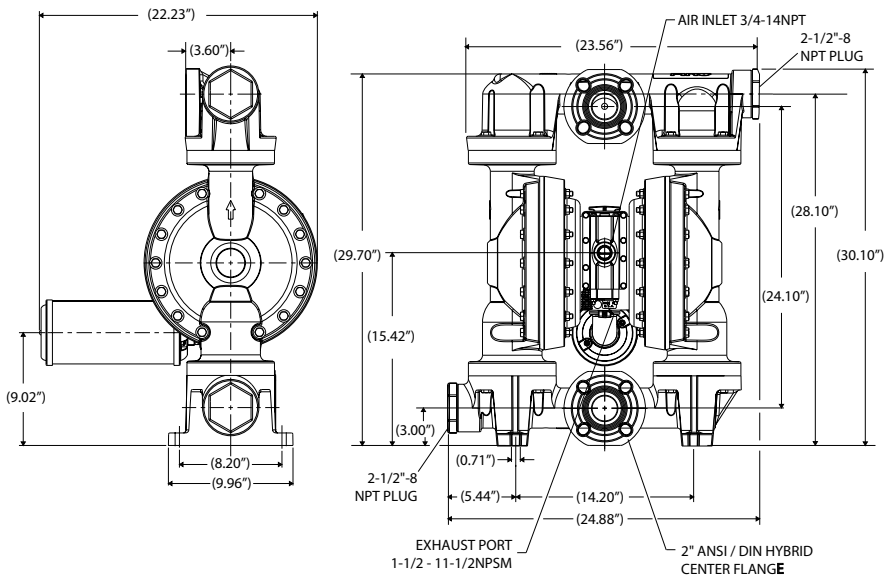
Flange Connection Kit | 67341-E20N

2" Non-Metallic Dimensions and Flow Charts

PX20P-FXS-XXX-AXXX, PX20E-FXS-XXX-AXXX



PX20P-YXS-XXX-AXXX



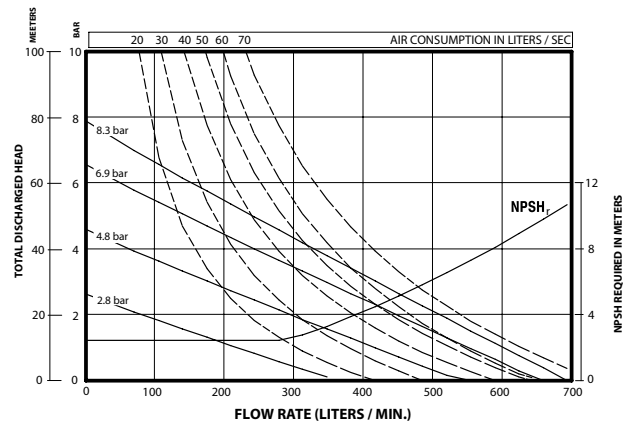
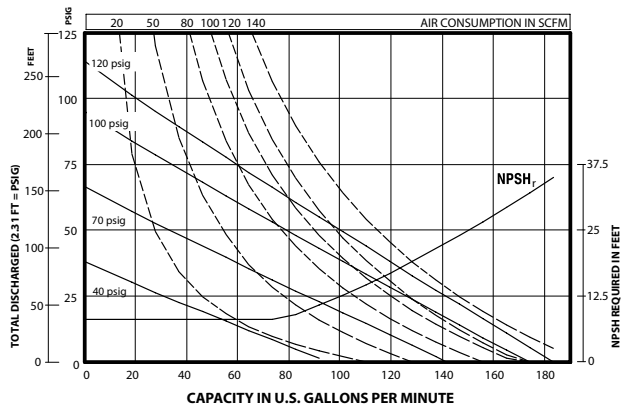
Ordering Position 10 Specialty Code 1 (Blank if no Specialty Code)

- A - Solenoid 120VAC
- B - Solenoid 12VDC
- C - Solenoid 240VAC
- D - Solenoid 24VDC
- E - 12vDC NEC/CEC*
- F - 24vDC NEC/CEC*
- G - Solenoid 12VDC ATEX/IECex*
- H - Solenoid 24VDC ATEX/IECex*
- J - 120VAC NEC/CEC*
- K - Solenoid 220VAC ATEX/IECex*
- N - Solenoid with no coil
- O - Standard Valve Block (No Solenoid)
- P - Ported Motor (No major valve provided)

Ordering Position 11 Specialty Code 2 (Blank if no Specialty Code)

- E - End of stroke feedback + Leak Detection
- F - End of stroke feedback
- G - End of Stroke ATEX/IECex*
- H - End of Stroke/Leak Detection ATEX/IECex*
- L - Leak Detection
- M - Leak Detection ATEX/IECex/NEC/CEC*
- O - No Option
- R - End of Stroke Feedback NEC / CEC*
- T - End of Stroke Feedback + Leak Detection NEC / CEC*

* Acceptable for use in hazardous locations.
- NEC / CEC: Class I&II, Div 1&2, Group A-D
- ATEX: Zone 1&2, 21&22



Performance based on an elastomeric fitted pump (PX20P-FXS-XXX), flooded suction with water at ambient conditions.
Due to varying materials of construction, assembly configurations and operating conditions, published data is for reference only

3" Non-Metallic Models

EXP SERIES PUMPS

ARO® EXP 3" non-metallic pumps achieve flow rates of up to 285 GPM (1079 LPM) and offer a wide array of material and porting configurations. 3" non-metallic pumps are often used for transfer, filling, recirculation and batching in Chemical, Industrial and Water/Wastewater treatment markets.

Ratio:	1:1
Maximum GPM (LPM):	285 (1079)
Displacement per cycle Gallons (Liters):	2.80 (10.6)
Air Inlet (Female):	3/4 - 14 N.P.T.
Fluid Inlet/Outlet:	3" ANSI/DIN flange
Max. operating pressure psi (bar):	120 (8.3)
Suspended solids max. dia. in. (mm):	3/8" (9.5)
Weight lbs (kg):	Polypropylene 170 (77.11) PVDF 242 (109.77)
Maximum dry suction lift ft (m):	20.5 (6.3)
Sound Level:	70 PSI 60 Cycles/Min 85.0 db(A)
Muffler Included:	67389

UPGRADE
PUMP FOR REMOTE
ACTUATION CAPABILITY



Ordering

Position	1	2		3	4	5		6	7	8		9	10	11
Example:	PX30	P	-	X	X	S	-	X	X	X	-	A	X	X

Position 1 Model Series	Position 2 Center Section	Position 3 Connections	Position 4 Wetted Parts	Position 5 Hardware	Position 6 Seat Material	Position 7 Ball Material	Position 8 Diaphragm Material	Position 9
PD30 - Standard Pump PE30† - Electronic Interface Accessible Pump	P - Polypropylene	D - 3" ANSI 4-hole Flange F - 3" DIN 8-hole Flange	K - PVDF P - Polypropylene	S - SS	K - PVDF P - Polypropylene	A - Santoprene® C - Hytrel® G - Nitrile T - PTFE V - Viton®	A - Santoprene® C - Hytrel® G - Buna-N L - Long-Life PTFE T - PTFE/Santoprene®	Revision Level Position 10 & 11 Specialty Code Fluid control options for pump with electronic interface (PE30 model). See complete description on page 27

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Accessories

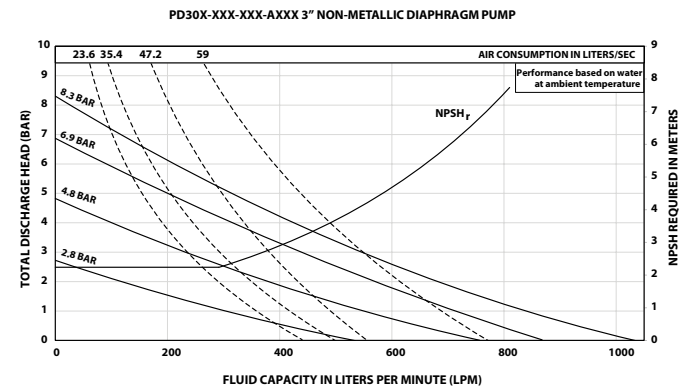
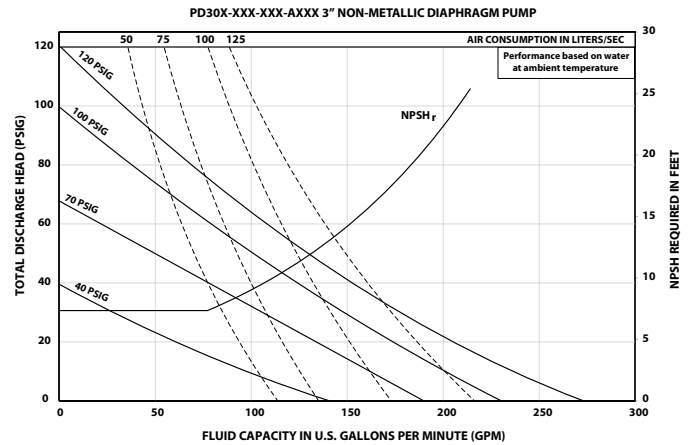
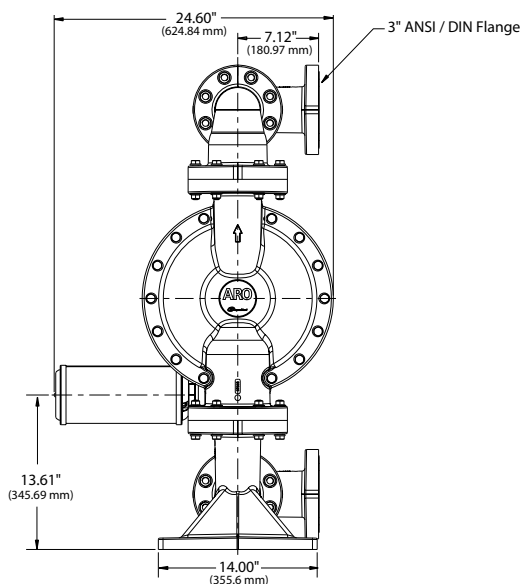
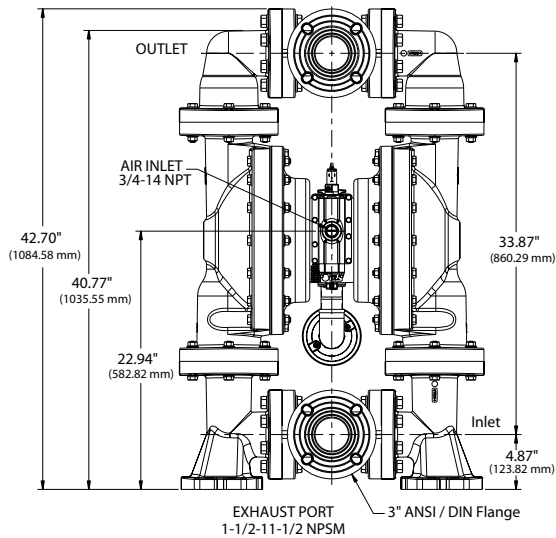
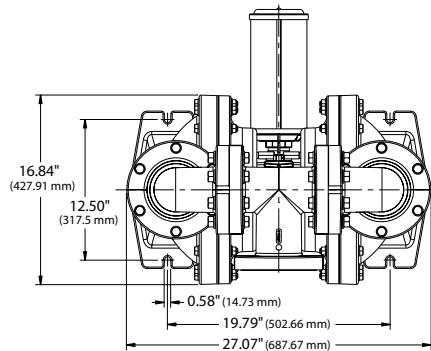
Air Line Connection Kit | 66109

(Piggyback Filter/Regulator with gauge, pipe nipple and 5-foot air hose)

Diaphragm Failure Detection | Kit No.67237

Service Repair Kits | 637369 (air motor), 637447-XXX (fluid section with seats), 637374-X (major air valve assembly)

3" Non-Metallic Dimensions and Flow Charts



Performance based on an elastomeric fitted pump, flooded suction with water at ambient conditions. Due to varying materials of construction, assembly configurations and operating conditions, published data is for reference only

Ordering Position 10

Specialty Code 1 (Blank if no Specialty Code)

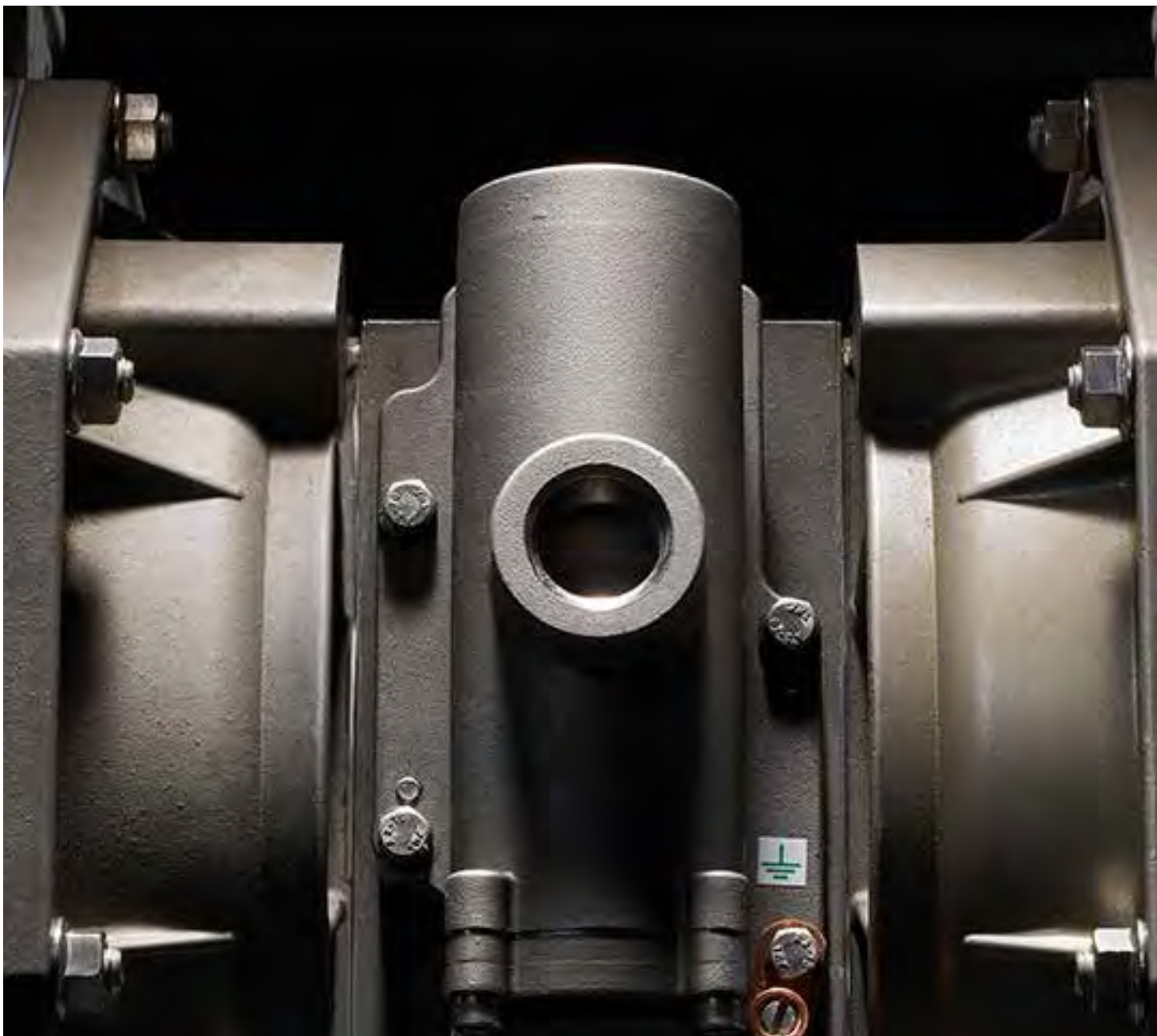
A - Solenoid 120VAC	G - Solenoid 12VDC ATEX/IECex*
B - Solenoid 12VDC	H - Solenoid 24VDC ATEX/IECex*
C - Solenoid 240VAC	J - 120VAC NEC/CEC*
D - Solenoid 24VDC	K - Solenoid 220VAC ATEX/IECex*
E - 12vDC NEC/CEC*	N - Solenoid with no coil
F - 24vDC NEC/CEC*	O - Standard Valve Block (No Solenoid)
	P - Ported Motor (No major valve provided)

Ordering Position 11

Specialty Code 2 (Blank if no Specialty Code)

E - End of stroke feedback + Leak Detection	L - Leak Detection
F - End of stroke feedback	M - Leak Detection ATEX/IECex/NEC/CEC*
G - End of Stroke ATEX/IECex*	O - No Option
H - End of Stroke/Leak Detection ATEX/IECex*	R - End of Stroke Feedback NEC / CEC*
	T - End of Stroke Feedback + Leak Detection NEC / CEC*

* Acceptable for use in hazardous locations. - NEC / CEC: Class I&II, Div 1&2, Group A-D
- ATEX: Zone 1&2, 21&22



Metallic Models

The ARO® range of diaphragm pumps offers many materials of construction compatible for the chemical industry: Our metallic offering consists of aluminium, cast iron, stainless steel and hastelloy.

Metallic Model Overview

All 1/2" - 3" Metallic PD pumps are now upgradeable!

- PD pumps are manufactured such that solenoid operation, flow monitoring and leak detection functionality can be added at a later date. As your processes mature, this capability allows you to enhance manually operated processes to incorporate additional control and monitoring capabilities. Simply remove two plugs and replace with a proximity sensor and (or) leak detector. Call ARO® Technical Service to learn more. Once upgraded, these components can also be integrated with the ARO® controller for seamless integration.

UPGRADE
PUMP FOR REMOTE
ACTUATION CAPABILITY



Models	1/2" Metallic	3/4" Metallic	1" Metallic	1-1/2" Metallic	2" Metallic	3" Metallic
Maximum Flow gpm (lpm)	12 (45.4)	13.6 (51.5)	52 (198)	123 (466)	172 (651)	275 (1,041)
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)	1/2 - 14 NPTF -1 Rp (1/2 - 14 BSP)	3/4 - 14 N.P.T.F.-2 Rp 3/4(3/4-14BSP, parallel)	1-11-1/2" NPT Rp1(1-11 BSP) (Side or Center)	1-1/2 - 11-1/2 NPTF Rp1-1/2(1-1/2 -11 BSP) (Side or Center) 1-1/2 ANSI/DIN (SS only/Center)	2" NPTF Rp2 (2-11 BSP) (Side or Center) 2" ANSI/DIN Flange with 2" pipe tap (SS only/Center)	3" NPTF Rp3(3-11 BSP) (Center) 3" ANSI/DIN Flange
Material of Construction	Aluminum Stainless Steel	Aluminum	Aluminum Cast Iron Stainless Steel Hastelloy®	Aluminum Cast Iron Stainless Steel Hastelloy®	Aluminum Cast Iron Stainless Steel Hastelloy®	Aluminum Cast Iron Stainless Steel Hastelloy®
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)	20.7 (9.4) Alum 35.2 (16.0) CI 38.2 (17.3) SS 39.6 (18.0) Hastelloy add 4.65 (2.11) for Alum. air motor, add 11.09 (5.03) for SS air motor	37.7 (17.1) Alum. 73.2 (33.2) CI 61.2 (27.8) SS 86.9 (39.4) Hastelloy add 3.08 (1.40) for Alum. air motor, add 14.39 (6.53) for SS air motor	64 (29) Alum. 133 (60) CI 122 (55.3) SS Threaded 114 (51.7) SS Flange 122 (55.3) Hastelloy add 34 (15) for CI or SS air motor	113 (51.3) Alum. 197 (89.4) CI 203 (92.1) SS 203 (92.1) Hastelloy add 40 (18.1) for SS air motor
Maximum Solids in (mm)	3/32 (2.4)	3/32 (2.4)	1/8 (3.32)	1/4 (6.4)	1/4 (6.4)	3/8 (9.5)
Maximum Dry Suction Lift ft (m)	15 (4.5)	15 (4.5)	19 (5.7)	14 (4.2)	14 (4.2)	14 (4.2)
Recommended Filter/Regulator	P39124-600	P39124-600	P39224-600	P39344-600	P39444-600	P39454-610
Airline Kit	66073-1	66073-1	66073-2	66084-1	66109	66109

Compact Series Diaphragm Pumps

EXP Series Diaphragm Pumps

Hastelloy-C® is a registered trademark of Haynes International, Inc.

1/2" Metallic Models

COMPACT SERIES PUMPS

Part of our Compact Series of pumps, our 1/2" metallic pumps feature big performance in a small package. They achieve flow rates up to 14.4 GPM (54.5 LPM) and offer a wide range of material and porting configurations.

UPGRADE
PUMP FOR REMOTE
ACTUATION CAPABILITY

Ratio:	1:1
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)
Max. operating pressure:	100-psi (6.9-bar)
Suspended solids max. dia.:	3/32-in. (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)
Muffler:	PD05A - 93110; PD05R - Integral



PD05A-ASS-FAA-B



PD05R-ASS-PTT-B

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 Wetted Parts	Position 5 Hardware	Position 6 Seat Material	Position 7 Ball Material	Position 8 Diaphragm Material	Position 9
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). See complete description on page 31

* Acceptable for use in hazardous locations. - NEC / CEC: Class I&II, Div 1&2, Group A-D
- ATEX: Zone 1&2, 21&22

Hytrel® is a registered trademark of DuPont company, Santoprene® is registered trademark of Monsanto and Viton® is a registered trademark of ExxonMobil

Accessories

Air Line Connection Kit | 66073-1

(Piggyback Filter/Regulator with gauge, pipe nipple and 5-foot air hose)

Wall Mount Bracket Kit | 76763

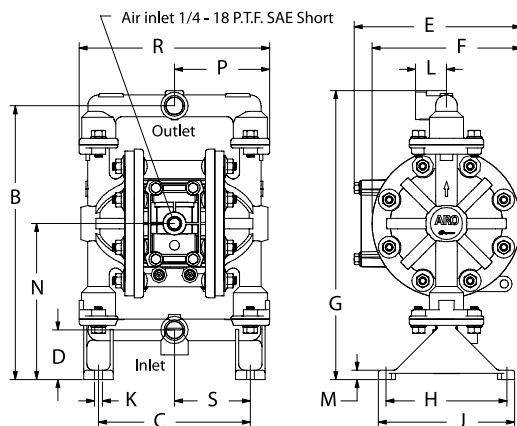
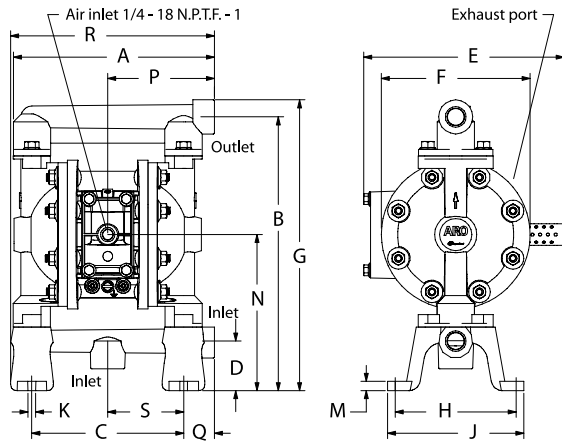
Optional Muffler | 93110 used with 637438 kit

Service Repair Kits | 637428 (air section)
637427-XX (fluid section)



76763

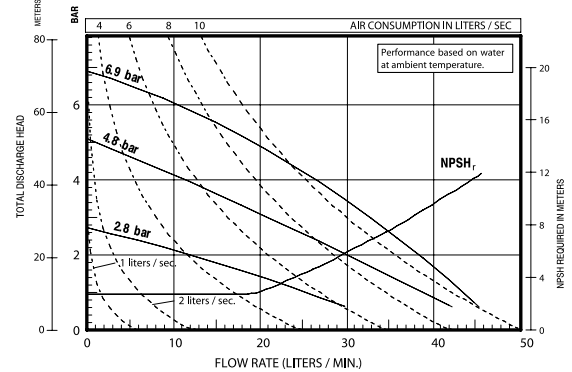
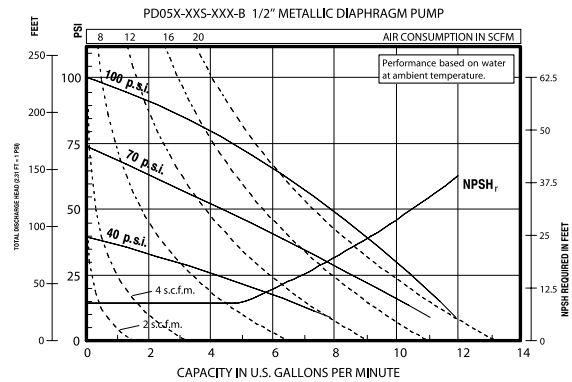
1/2" Metallic Dimensions and Flow Charts



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)		

Dimension	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" (297.9 mm)	11-21/32" (296.0 mm)
"P"	4-5/16" (109.3 mm)	3-27/32" (97.4 mm)
"R"	8-7/32" (208.5 mm)	7-11/16" (194.9 mm)



Performance based on an elastomeric fitted pump, flooded suction with water at ambient conditions. Due to varying materials of construction, assembly configurations and operating conditions, published data is for reference only

Ordering Position 10

Specialty Code 1 (Blank if no Specialty Code)

A - Solenoid 120VAC	G - Solenoid 12VDC ATEX/IECex*
B - Solenoid 12VDC	H - Solenoid 24VDC ATEX/IECex*
C - Solenoid 240VAC	J - 120VAC NEC/CEC*
D - Solenoid 24VDC	K - Solenoid 220VAC ATEX/IECex*
E - 12VDC NEC/CEC*	N - Solenoid with no coil
F - 24VDC NEC/CEC*	O - Standard Valve Block (No Solenoid)
	P - Ported Motor (No major valve provided)

Ordering Position 11

Specialty Code 2 (Blank if no Specialty Code)

E - End of stroke feedback + Leak Detection	L - Leak Detection
F - End of stroke feedback	M - Leak Detection ATEX/IECex/NEC/CEC*
G - End of Stroke ATEX/IECex*	O - No Option
H - End of Stroke/Leak Detection ATEX/IECex*	R - End of Stroke Feedback NEC / CEC*
	T - End of Stroke Feedback + Leak Detection NEC / CEC*

* Acceptable for use in hazardous locations. - NEC / CEC: Class I&II, Div 1&2, Group A-D
- ATEX: Zone 1&2, 21&22

3/4" Metallic Models

COMPACT SERIES PUMPS

Part of our Compact Series of pumps our 3/4" metallic pumps feature big performance in a small package. They achieve flow rates up to 14.8 GPM (56 LPM) and offer a wide range of material and porting configurations.

UPGRADE
PUMP FOR REMOTE
ACTUATION CAPABILITY

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)
Max. operating pressure:	100-psi (6.9-bar)
Suspended solids max. dia.:	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)



PD07R-AAS-FAA

Ordering

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

Position 1 Model Series	Position 2 Center Section	Position 3 Connections	Position 4 Wetted Parts	Position 5 Hardware	Position 6 Seat Material	Position 7 Ball Material	Position 8 Diaphragm Material	Position 9
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 - SS	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). See complete description on page 33

* Acceptable for use in hazardous locations. - NEC / CEC: Class I&II, Div 1&2, Group A-D
- ATEX: Zone 1&2, 21&22

Hytrel® is a registered trademark of DuPont company, Santoprene® is registered trademark of Monsanto and Viton® is a registered trademark of ExxonMobil

Accessories

Air Line Connection Kit | 66073-1

(Piggyback Filter/Regulator with gauge, pipe nipple and 5-foot air hose)

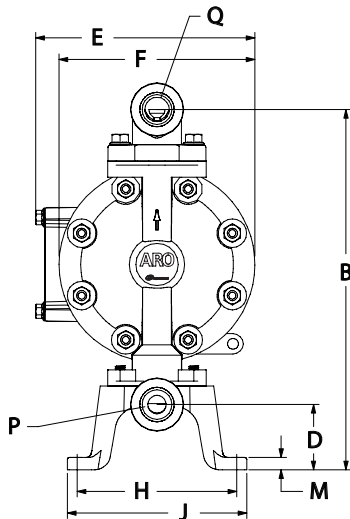
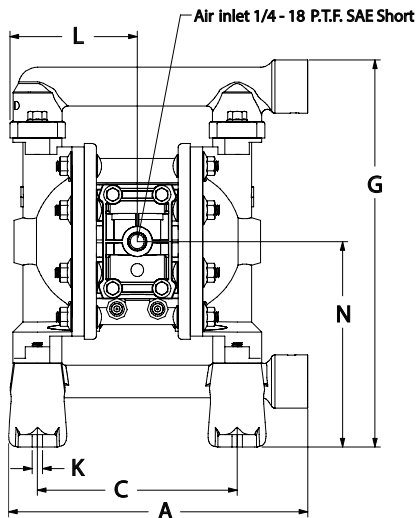
Wall Mount Bracket Kit | 76763

Optional Muffler | 93110 used with 637438 kit

Service Repair Kits | 637428 (air section)
637427-XX (fluid section)



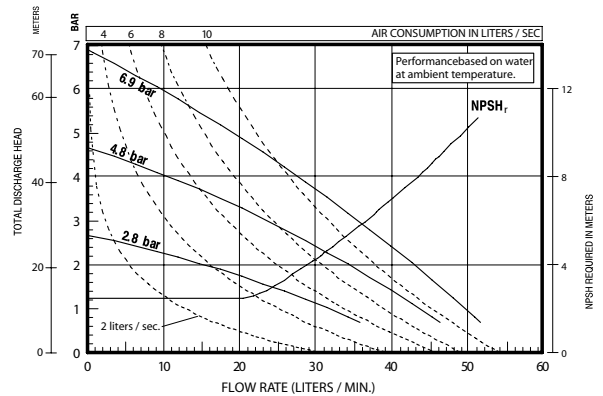
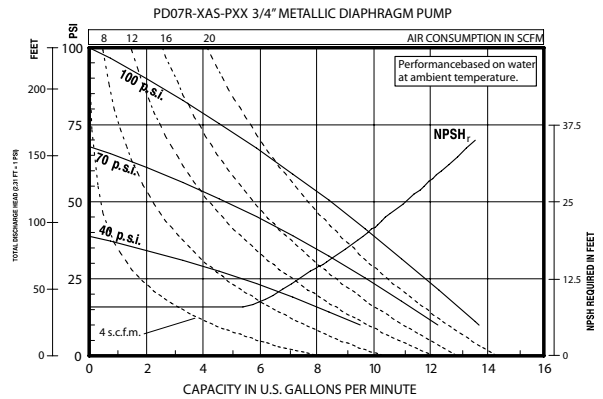
3/4" Metallic Dimensions and Flow Charts



DIMENSIONS

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

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



Performance based on an elastomeric fitted pump, flooded suction with water at ambient conditions. Due to varying materials of construction, assembly configurations and operating conditions, published data is for reference only

Ordering Position 10

Specialty Code 1 (Blank if no Specialty Code)

A - Solenoid 120VAC	G - Solenoid 12VDC ATEX/IECex*
B - Solenoid 12VDC	H - Solenoid 24VDC ATEX/IECex*
C - Solenoid 240VAC	J - 120VAC NEC/CEC*
D - Solenoid 24VDC	K - Solenoid 220VAC ATEX/IECex*
E - 12vDC NEC/CEC*	N - Solenoid with no coil
F - 24vDC NEC/CEC*	O - Standard Valve Block (No Solenoid)
	P - Ported Motor (No major valve provided)

Ordering Position 11

Specialty Code 2 (Blank if no Specialty Code)

E - End of stroke feedback + Leak Detection	L - Leak Detection
F - End of stroke feedback	M - Leak Detection ATEX/IECex/NEC/CEC*
G - End of Stroke ATEX/IECex*	O - No Option
H - End of Stroke/Leak Detection ATEX/IECex*	R - End of Stroke Feedback NEC / CEC*
	T - End of Stroke Feedback + Leak Detection NEC / CEC*

* Acceptable for use in hazardous locations. - NEC / CEC: Class I&II, Div 1&2, Group A-D
- ATEX: Zone 1&2, 21&22

1" Metallic Models

EXP SERIES PUMPS

ARO® EXP 1" metallic diaphragm pumps achieve flow rates of up to 52.2 GPM (197.6 LPM) and offer a wide array of material and porting configurations. These pumps are often used for transfer, filling, recirculation and batching in ceramic, industrial, chemical and petrochemical markets.

UPGRADE
PUMP FOR REMOTE
ACTUATION CAPABILITY

Ratio:	1:1
Maximum GPM (LPM):	52 (197)
Displacement per cycle Gallons (Liters):	0.232 (0.88)
Air Inlet (Female):	1/4 - 18 N.P.T.
Fluid Inlet/Outlet:	1 - 11-1/2 N.P.T.F.-1, Rp1(1-11 BSP)
Max. operating pressure psi (bar):	120 (8.3)
Suspended solids max. dia. in. (mm):	1/8" (3.3)
Weight lbs (kg):	PX10R-XAX-XXX 20.7 (9.4)
	PX10R-XCX-XXX 35.2 (16.0)
	PX10R-XHX-XXX 39.6 (18.0)
	PX10R-ASX-XXX, 38.2 (17.3)
	PX10R-BSX-XXX
	PX10R-FSX-XXX 43.9 (19.9)
Note: Add 4.65 lbs (2.11 kg) for aluminum air motor	
Add 11.09 lbs (5.03 kg) for stainless steel air motor	
Maximum dry suction lift ft(m):	19 (5.7)
Sound Level:	70 PSI 60 Cycles/Min 80.6 db
Muffler Included:	93110



PD10A-AAP-XXX



PD10A-FSS-XXX

Ordering

Position	1	2		3	4	5		6	7	8		9	10	11
Example:	PX10	X	-	X	X	X	-	X	X	X	-	A	X	X

Position 1 Model Series	Position 2 Center Section	Position 3 Connections	Position 4 Wetted Parts	Position 5 Hardware	Position 6 Seat Material	Position 7 Ball Material	Position 8 Diaphragm Material	Position 9
PD10- Standard Pump PE10 - Electronic Interface Accessible Pump	A - Aluminum* R - Poly- propylene S - Stainless Steel*	A - NPTF Thread B - BSP Thread F - 1" ANSI/DIN Hybrid End Flange with Flat Face	A - Aluminum* C - Cast Iron H - Hastelloy-C* S - Stainless Steel*	P - Plated Steel S - SS	A - Santoprene® C - Hytrel® E - Carbon Steel F - Aluminum G - Nitrile H - 440 SS L - Hastelloy-C S - 316 SS	A - Santoprene® C - Hytrel® G - Nitrile S - 316 SS T - PTFE V - Viton®	A - Santoprene® C - Hytrel® G - Buna- N L - Long-Life PTFE T - PTFE/ Santoprene® V - Viton®	Revision Level Position 10 & 11 Specialty Code Fluid control options for pump with electronic interface (PE10 model). See complete description on back page

* Acceptable for use in hazardous locations. - NEC / CEC: Class I&II, Div 1&2, Group A-D
- ATEX: Zone 1&2, 21&22

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Viton® is a registered trademark of ExxonMobil

Accessories

Air Line Connection Kit | 66073-2 (Piggyback Filter/Regulator with gauge, pipe nipple and 5-foot air hose)

Diaphragm Failure Detection | 67237

Cycle Sensor Kit | 67350 (PE10X pump model is required)

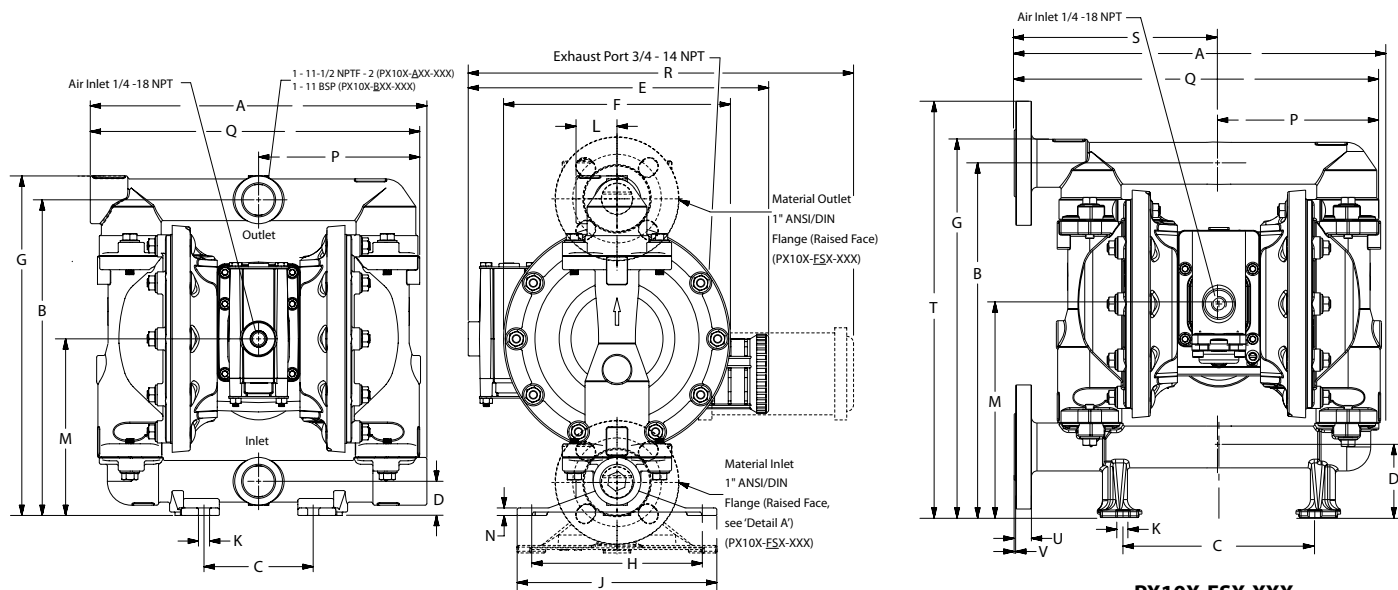
Service Repair Kits | 637397 (air motor for PX10A, PX10R and PX10S),

637401-XXX (fluid section with seats)

637395-X (major air valve assembly)

1" Metallic Dimensions and Flow Charts

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



A - 12.34" (313.4 mm)
B - 11.56" (293.6 mm)
C - 4" (101.6 mm)
D - 1.25" (31.7 mm)

E - see below
F - see below
G - 12.43" (315.7 mm)
H - 6.25" (158.7 mm)

J - 7.31" (185.6 mm)
K - 0.4" (10.1 mm)
L - 1.5" (38.1 mm)
M - 6.46" (164.0 mm)

N - see below
P - 5.84" (148.3 mm)
Q - 12" (304.8 mm)
R - see below

PX10A-XXX-XXX
PX10R-XXX-XXX
PX10S-XXX-XXX

"E"
11.09" (281.6 mm)

"F"
8.12" (206.2 mm)
8.31" (211.0 mm)
8.18" (207.7 mm)

"R"
14.03" (356.3 mm)
13.84" (351.5 mm)

"N"
PX10X-XAX-XXX 0.25" (6.3 mm)
PX10X-XCX-XXX 0.28" (7.1 mm)
PX10X-XHX-XXX 0.28" (7.1 mm)
PX10X-XSX-XXX 0.28" (7.1 mm)

PX10X-FSX-XXX

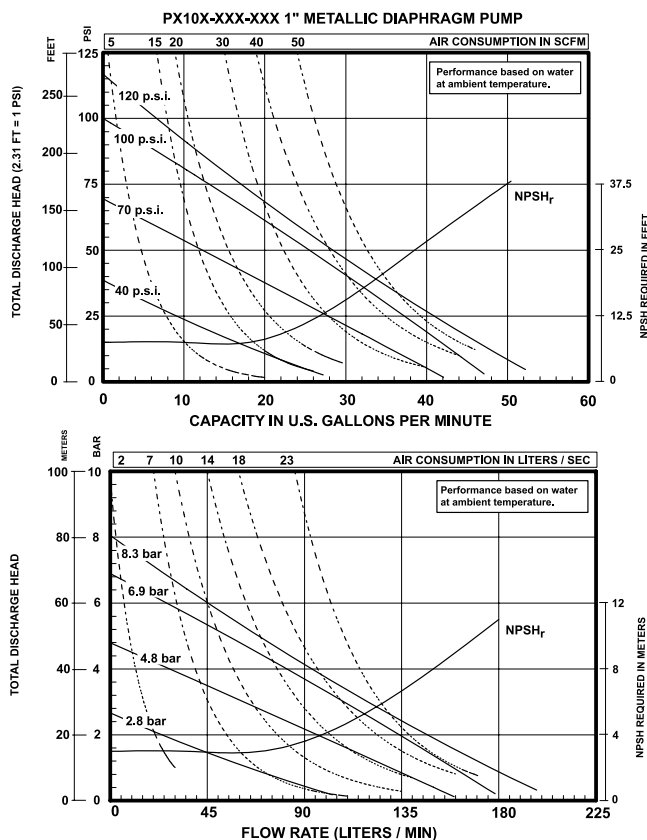
A - 13.37" (339.5 mm)
B - 12.92" (328.1 mm)
C - 7" (177.8 mm)

D - 2.57" (65.2 mm)
G - 13.80" (350.5 mm)
K - 0.4" (10.1 mm)

M - 7.79" (197.8 mm)
N - 9/32" (7.1 mm)
P - 5.83" (148.0 mm)

Q - 13.30" (337.8 mm)
R - 13.83" (351.2 mm)

T - 15.19" (385.8 mm)
U - 0.63" (16.0 mm)
V - 0.60" (15.2 mm)



Ordering Position 10

Specialty Code 1 (Blank if no Specialty Code)

- | | |
|---------------------|--|
| A - Solenoid 120VAC | G - Solenoid 12VDC ATEX/IECex* |
| B - Solenoid 12VDC | H - Solenoid 24VDC ATEX/IECex* |
| C - Solenoid 240VAC | J - 120VAC NEC/CEC* |
| D - Solenoid 24VDC | K - Solenoid 220VAC ATEX/IECex* |
| E - 12VDC NEC/CEC* | N - Solenoid with no coil |
| F - 24VDC NEC/CEC* | O - Standard Valve Block (No Solenoid) |
| | P - Ported Motor (No major valve provided) |

Ordering Position 11

Specialty Code 2 (Blank if no Specialty Code)

- | | |
|--|--|
| E - End of stroke feedback + Leak Detection | L - Leak Detection |
| F - End of stroke feedback | M - Leak Detection ATEX/IECex/NEC/CEC* |
| G - End of Stroke ATEX/IECex* | O - No Option |
| H - End of Stroke/Leak Detection ATEX/IECex* | R - End of Stroke Feedback NEC / CEC* |
| | T - End of Stroke Feedback + Leak Detection NEC / CEC* |

* Acceptable for use in hazardous locations. - NEC / CEC: Class I&II, Div 1&2, Group A-D
- ATEX: Zone 1&2, 21&22

Performance based on an elastomeric fitted pump, flooded suction with water at ambient conditions. Due to varying materials of construction, assembly configurations and operating conditions, published data is for reference only

1-1/2" Metallic Models

EXP SERIES PUMPS

ARO® 1-1/2" metallic diaphragm pumps achieve flow rates of up to 123.1 GPM (465.9 LPM) and offer a wide array of material and porting configurations. These pumps are often used for transfer, filling, recirculation and batching in paint, oil and gas, chemical and petrochemical markets.

UPGRADE
PUMP FOR REMOTE
ACTUATION CAPABILITY

Ratio:	1:1
Maximum GPM (LPM):	123 (466)
Displacement per cycle Gallons (Liters):	0.617 (2.34)
Air Inlet (Female):	1/2 - 14 N.P.T.
Fluid Inlet/Outlet:	1-1/2" - 11-1/2 N.P.T.F.-1, Rp1-1/2(1-1/2-11BSP) 1-1/2" ANSI/DIN hybrid flange
Max. operating pressure psi (bar):	120 (8.3)
Suspended solids max. dia. in.(mm):	1/4" (6.4)
Weight lbs (kg):	PX15R-XAX-XXX 37.7 (17.1) PX15R-XCX-XXX 73.2 (33.2) PX15R-XXS-XXX 61.2 (27.8) PX15R-XHX-XXX 86.9 (39.4)
	Note: add 2.14 lbs (0.97 kg) for aluminum air motor section add 18.14 lbs (8.23 kg) for stainless steel air motor section
Maximum dry suction lift ft(m):	14 (4.2)
Sound Level:	70 PSI 50 Cycles/Min 81.0 db(A)
Muffler Included:	350-568



Ordering

Position	1	2		3	4	5		6	7	8		9	10	11
Example:	PX15	X	-	X	X	X	-	X	X	X	-	A	X	X

Position 1 Model Series	Position 2 Center Section	Position 3 Connections	Position 4 Wetted Parts	Position 5 Hardware	Position 6 Seat Material	Position 7 Ball Material	Position 8 Diaphragm Material	Position 9
PD15 - Standard Pump PE15 - Electronic Interface Accessible Pump	A - Aluminum* R - Polypropylene S - Stainless Steel*	A - NPTF Thread B - BSP Thread Y [†] - 1-1/2" ANSI/DIN Hybrid Center Flange [†] Stainless Steel Only	A - Aluminum* C - Cast Iron H - Hastelloy-C* S - Stainless Steel*	P - Plated Steel S - Stainless Steel	A - Santoprene® C - Hytrel® E - Carbon Steel F - Aluminum G - Nitrile H - 440 Stainless Steel L - Hastelloy-C S - 316 Stainless Steel	A - Santoprene® C - Hytrel® G - Nitrile S - 316 SS T - PTFE V - Viton®	A - Santoprene® C - Hytrel® G - Buna-N L - Long-Life PTFE T - PTFE/Santoprene® V - Viton®	Revision Level Position 10 & 11 Specialty Code Fluid control options for pump with electronic interface (PE15 model). See complete description on page 37

* Acceptable for use in hazardous locations. - NEC / CEC: Class I&II, Div 1&2, Group A-D
- ATEX: Zone 1&2, 21&22

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Accessories

Air Line Connection Kit | 66084-1

(Piggyback Filter/Regulator with gauge, pipe nipple and 5-foot air hose)

Diaphragm Failure Detection | 67237

Service Repair Kits | 637389 (air motor for PX15X), 637375-XXX (fluid section with seats), 637390-X (major air valve assembly)

1-1/2" Metallic Dimensions and Flow Charts

A - see below
B - 18-3/8" (466.7 mm)
C - 11-3/4" (298.5 mm)
D - 2-3/4" (69.9 mm)
E - see below
F - 10-1/4" (260.4 mm)

G - 19-5/8" (498.1 mm)
H - 9" (228.6 mm)
J - 10" (254.0 mm)
K - 1-1/2" (12.7 mm)
L - see below
M - 1/4" (6.4 mm)

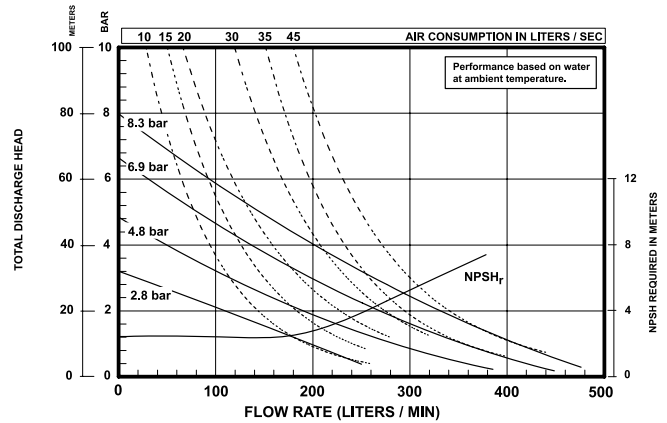
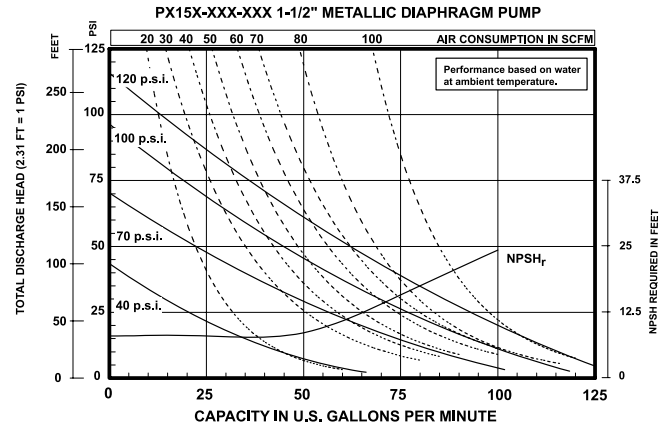
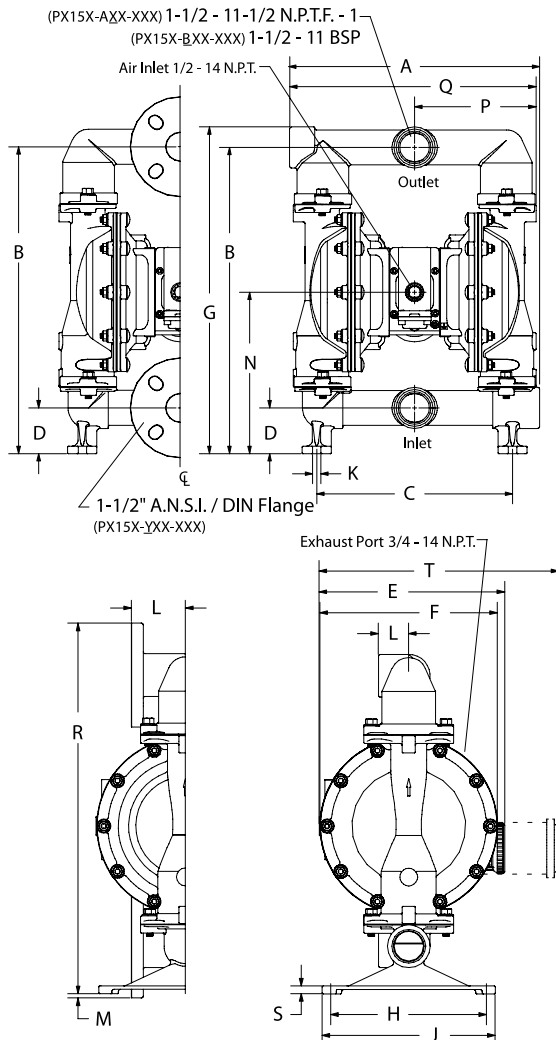
N - 9-11/16" (246.0 mm)
P - see below
Q - see below
R - 21-7/16" (543.9 mm)
S - see below
T - see below

	"A"	"L"
PX15X- <u>X</u> AX-XXX	14-7/8" (377.8 mm)	1-3/4" (44.5 mm)
PX15X- <u>X</u> CX-XXX	14-5/8" (371.5 mm)	1-3/4" (44.5 mm)
PX15X- <u>X</u> HX-XXX	14-9/16" (370.0 mm)	3-1/8" (79.4 mm)
PX15X- <u>A</u> SX-XXX, <u>BS</u> X	14-25/32" (375.5 mm)	1-3/4" (44.5 mm)
PX15X- <u>Y</u> SX-XXX	14-9/16" (370.0 mm)	3-1/8" (79.4 mm)

	"E"	"T"
PX15A-XXX-XXX	-----	14-1/32" (356.2 mm)
PX15R-XXX-XXX	11-3/32" (281.3 mm)	-----
PX15S-XXX-XXX	-----	13-27/32" (351.4 mm)

"P"	"Q"	"S"
7-7/32" (183.4 mm)	14-23/32" (373.9 mm)	1/2" (12.7 mm)
7-3/16" (182.6 mm)	14-1/2" (368.3 mm)	1/4" (6.4 mm)
7-3/16" (182.6 mm)	14-1/2" (368.3 mm)	1/4" (6.4 mm)
7-9/32" (185.0 mm)	14-13/16" (375.5 mm)	15/32" (11.4 mm)
7-9/32" (185.0 mm)	14-9/16" (370.0 mm)	15/32" (11.4 mm)

	"E"	"T"
PX15A-XXX-XXX	-----	14-1/32" (356.2 mm)
PX15R-XXX-XXX	11-3/32" (281.3 mm)	-----
PX15S-XXX-XXX	-----	13-27/32" (351.4 mm)



Performance based on an elastomeric fitted pump, flooded suction with water at ambient conditions. Due to varying materials of construction, assembly configurations and operating conditions, published data is for reference only

Ordering Position 10

Specialty Code 1 (Blank if no Specialty Code)

A - Solenoid 120VAC	G - Solenoid 12VDC ATEX/IECex*
B - Solenoid 12VDC	H - Solenoid 24VDC ATEX/IECex*
C - Solenoid 240VAC	J - 120VAC NEC/CEC*
D - Solenoid 24VDC	K - Solenoid 220VAC ATEX/IECex*
E - 12vDC NEC/CEC*	N - Solenoid with no coil
F - 24vDC NEC/CEC*	O - Standard Valve Block (No Solenoid)
	P - Ported Motor (No major valve provided)

Ordering Position 11

Specialty Code 2 (Blank if no Specialty Code)

E - End of stroke feedback + Leak Detection	L - Leak Detection
F - End of stroke feedback	M - Leak Detection ATEX/IECex/NEC/CEC*
G - End of Stroke ATEX/IECex*	O - No Option
H - End of Stroke/Leak Detection ATEX/IECex*	R - End of Stroke Feedback NEC / CEC*
	T - End of Stroke Feedback + Leak Detection NEC / CEC*

* Acceptable for use in hazardous locations. - NEC / CEC: Class I&II, Div 1&2, Group A-D
- ATEX: Zone 1&2, 21&22

2" Metallic Models

EXP SERIES PUMPS

ARO® EXP 2" metallic pumps achieve flow rates of up to 172 GPM (651 LPM) and offer a wide array of material and porting configurations. These pumps are often used for transfer, filling, recirculation and batching in ceramic, paint, oil and gas, chemical and petrochemical markets.

UPGRADE
PUMP FOR REMOTE
ACTUATION CAPABILITY

Ratio: 1:1
Maximum GPM (LPM): 172 (651)
Displacement per cycle: 1.4 (5.3)
@ 100 psi Gallons (Liters)
Air Inlet (Female): 3/4 - 14 N.P.T.F.-1
Fluid Inlet/Outlet (Female): PX20X-AXX-XXX-B() 2 - 11-1/2 N.P.T.F.-1
PX20X-BXX-XXX-B() Rp 2 (2 - 11 BSP parallel)
PX20X-FXX-XXX-B() 2" ANSI/DIN hybrid flange
Max. operating pressure psi (bar): 120 (8.3)
Suspended solids max. dia. in. (mm): 1/4" (6.4)
Maximum dry suction lift ft (m): 14 (4.2)
Sound Level: 70 PSI 50 Cycles/Min 85.0 db(A)
Muffler Included: 67389

Weight lbs (kg): AL-Aluminum, CI-Cast Iron, H-Hastelloy, SS-Stainless Steel



	Air Motor	Connection	Wetted	Pump Wgt		Air Motor	Connection	Wetted	Pump Wgt		Air Motor	Connection	Wetted	Pump Wgt
PD20A	AL	Thread	AL	91.4 (41.5)	PD20R	Poly	Thread	CI	165 (74.8)	PD20S	SS	Thread	AL	120.3 (54.6)
	AL	Thread	CI	147.4 (66.9)		Poly	Thread	H	154 (69.9)		SS	Thread	CI	176.3 (80)
	AL	Thread	H	155 (70.3)		Poly	Thread	SS	154 (69.9)		SS	Thread	H	183.9 (83.4)
	AL	Thread	SS	149.8 (68)		Poly	Flange	H	153.2 (69.5)		SS	Thread	SS	178.7 (81.1)
	AL	Flange	H	169.4 (76.8)		Poly	Flange	SS	146 (66.2)		SS	Flange	H	198.3 (89.9)
	AL	Flange	SS	162.2 (73.6)							SS	Flange	SS	191.1 (86.7)

Ordering

Position	1	2		3	4	5		6	7	8		9	10	11
Example:	PX20	X	-	X	X	X	-	X	X	X	-	B	X	X

Position 1 Model Series	Position 2 Center Section	Position 3 Connections	Position 4 Wetted Parts	Position 5 Hardware	Position 6 Seat Material	Position 7 Ball Material	Position 8 Diaphragm Material	Position 9
PD20 - Standard Pump PE20 - Electronic Interface Accessible Pump	A - Aluminum* R - Polypropylene S - Stainless Steel*	A - NPTF Thread B - BSP Thread F [†] - 2" ANSI/DIN Hybrid Center Flange † Stainless Steel Pumps Only	A - Aluminum* C - Cast Iron H - Hastelloy-C* S - Stainless Steel*	P - Plated Steel S - SS	A - Santoprene® C - Hytrel® E - Carbon Steel F - Aluminum G - Nitrile H - 440 SS K - Kynar/PVDF L - Hastelloy-C S - 316 SS	A - Santoprene® C - Hytrel® G - Nitrile S - 316 SS T - PTFE V - Viton®	A - Santoprene® C - Hytrel® G - Buna-N L - Long-Life PTFE T - PTFE/Santoprene® V - Viton®	Revision Level Position 10 & 11 Specialty Code Fluid control options for pump with electronic interface (PE20 model). See complete description on page 39

* Acceptable for use in hazardous locations. - NEC / CEC: Class I&II, Div 1&2, Group A-D
- ATEX: Zone 1&2, 21&22

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Accessories

Air Line Connection Kit | 66109

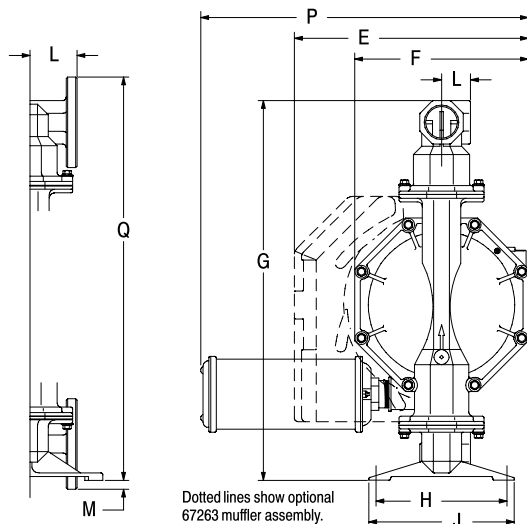
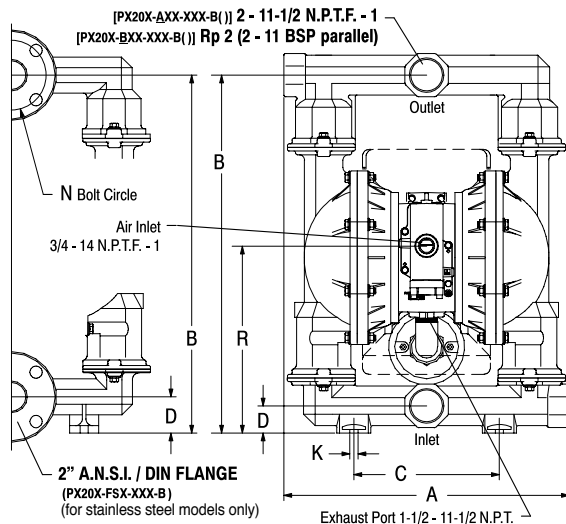
(Piggyback Filter/Regulator with gauge, pipe nipple and 5-foot air hose)

Diaphragm Failure Detection | 67237 (PE20X pump model is required)

Muffler features large expansion chamber, permitting cold exhaust air to exit pump

Service Repair Kits | 637369 (air motor for PX20R and PX20Y), 637421 (air motor for PX20A and PX20S), 637309-XXX (fluid section with seats), 637374-X (major air valve assembly)

2" Metallic Dimensions and Flow Charts

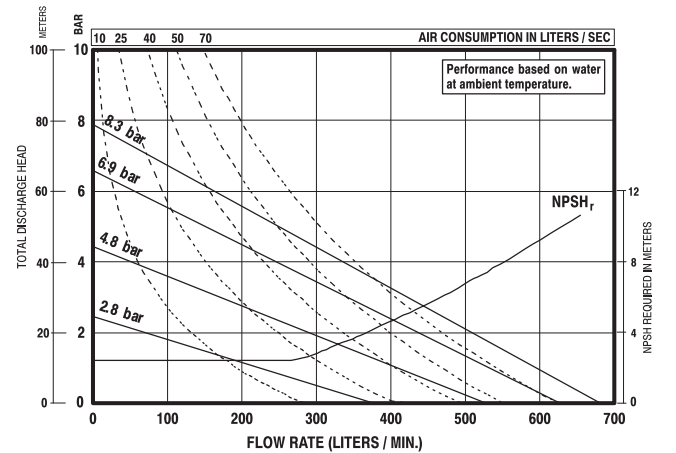
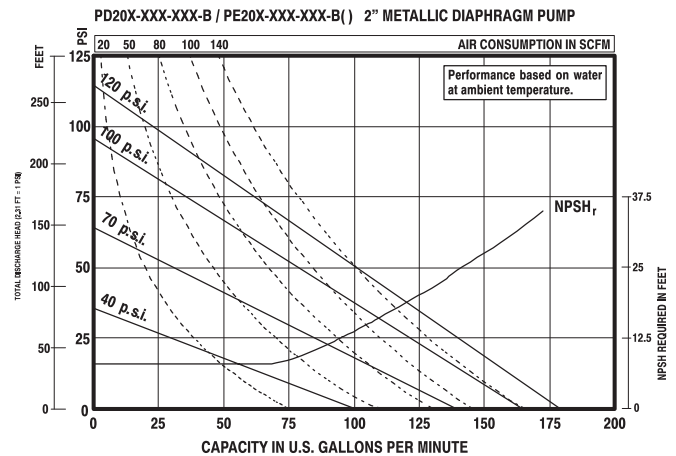


DIMENSIONS

A see below	G 26-1/4" (666.8 mm)	M 5/8" (15.9 mm)
B 24-3/4" (628.7 mm)	H 9-1/16" (230.2 mm)	N 4.834" (122.8 mm)
C 10-1/16" (255.6 mm)	J 10-1/16" (255.6 mm)	P 21-5/8" (548 mm)
D see below	K 9/16" (14.3 mm)	Q 27-7/8" (708.0 mm)
E 16-3/16" (411.2 mm)	L see below	R see below
F 12" (304.8 mm)		

	"A"	"D"
PX20X-XAX-XXX-B()	19-3/4" (501.4 mm)	1-7/8" (47.6 mm)
PX20X-XCX-XXX-B()	19-3/4" (501.4 mm)	1-7/8" (47.6 mm)
PX20X-AHX-XXX-B(), -BHX	19-1/4" (488.7 mm)	2-1/2" (63.5 mm)
PX20X-ASX-XXX-B(), -BSX	19-1/4" (488.7 mm)	2-1/2" (63.5 mm)
PX20X-FHX-XXX-B(), -FSX	19-1/4" (488.7 mm)	2-1/2" (63.5 mm)

"L"	"R"
2" (50.8 mm)	12-15/16" (328.6 mm)
2" (50.8 mm)	12-15/16" (328.6 mm)
2-3/32" (53.0 mm)	13-9/16" (344.5 mm)
2-3/32" (53.0 mm)	13-9/16" (344.5 mm)
3-1/4" (82.6 mm)	13-9/16" (344.5 mm)



Performance based on an elastomeric fitted pump, flooded suction with water at ambient conditions. Due to varying materials of construction, assembly configurations and operating conditions, published data is for reference only

Ordering Position 10

Specialty Code 1 (Blank if no Specialty Code)

A - Solenoid 120VAC	G - Solenoid 12VDC ATEX/IECex*
B - Solenoid 12VDC	H - Solenoid 24VDC ATEX/IECex*
C - Solenoid 240VAC	J - 120VAC NEC/CEC*
D - Solenoid 24VDC	K - Solenoid 220VAC ATEX/IECex*
E - 12VDC NEC/CEC*	N - Solenoid with no coil
F - 24VDC NEC/CEC*	O - Standard Valve Block (No Solenoid)
	P - Ported Motor (No major valve provided)

Ordering Position 11

Specialty Code 2 (Blank if no Specialty Code)

E - End of stroke feedback + Leak Detection	L - Leak Detection
F - End of stroke feedback	M - Leak Detection ATEX/IECex/NEC/CEC*
G - End of Stroke ATEX/IECex*	O - No Option
H - End of Stroke/Leak Detection ATEX/IECex*	R - End of Stroke Feedback NEC / CEC*
	T - End of Stroke Feedback + Leak Detection NEC / CEC*

* Acceptable for use in hazardous locations. - NEC / CEC: Class I&II, Div 1&2, Group A-D
- ATEX: Zone 1&2, 21&22

3" Metallic Models

EXP SERIES PUMPS

ARO® EXP 3" metallic diaphragm pumps achieve flow rates of up to 275 GPM (1040.9 LPM) and offer a wide array of material and porting configurations. These pumps are often used for transfer, filling, recirculation and batching in ceramic, paint, oil and gas, chemical and petrochemical markets.

UPGRADE
PUMP FOR REMOTE
ACTUATION CAPABILITY

Ratio:	1:1
Maximum GPM (LPM):	275 (1041)
Displacement per cycle:	2.8 (10.6)
@ 100 psi Gallons (Liters)	
Air Inlet: (Female)	3/4 - 14 N.P.T.F. - 1
Fluid Inlet / Outlet (Female):	3" - 8 N.P.T.F. - 1 Rp 3 (3 - 11 BSP ANSI or DIN Center Flange)
Max. operating pressure psi (bar):	120 (8.3)
Suspended solids max. dia. in. (mm):	3/8 (9.5)
Weight lbs (kg):	PX30A-XAX-XXX-C 129.5 (58.8) PX30A-XCX-XXX-C 221.1 (100.3) PX30A-AHX-XXX-C 249.4 (113.3) PX30A-ASX-XXX-C 228.3 (103.8) PX30A-FHX-XXX-C 269.4 (122.3) PX30A-FSX-XXX-C 245.2 (114.4)
	Note: Add 40 lbs (18.2 kg) for stainless steel air motor section
Maximum dry suction lift ft (m):	14 (4.2)
Sound Level:	70 PSI 50 Cycles / Min 83.0db(A)
Muffler Included:	67389



Ordering

Position	1	2		3	4	5		6	7	8		9	10	11
Example:	PX30	X	-	X	X	X	-	X	X	X	-	C	X	X

Position 1 Model Series	Position 2 Center Section	Position 3 Connections	Position 4 Wetted Parts	Position 5 Hardware	Position 6 Seat Material	Position 7 Ball Material	Position 8 Diaphragm Material	Position 9
PD30 - Standard Pump PE30 - Electronic Interface Accessible Pump	A - Aluminum* R - Polypropylene w/SS Air Caps S - Stainless Steel*	A - NPTF Thread B - BSP Thread D [†] - ANSI 4-hole center flange F [†] - DIN 4-hole center flange [†] Stainless Steel Pumps Only	A - Aluminum* C - Cast Iron H ^{††} - Hastelloy-C* S - Stainless Steel* ^{††} Not available on PD30R-X models	P - Plated Steel S - Stainless Steel	A - Santoprene® C - Hytrel® E - Carbon Steel F - Aluminum G - Nitrile H - 440 SS K - PVDF L - Hastelloy S - 316 SS	A - Santoprene® C - Hytrel® G - Nitrile T - PTFE V - Viton®	A - Santoprene® C - Hytrel® G - Buna- N L - Long-Life PTFE T - PTFE/ Santoprene® V - Viton®	Revision Level Position 10 & 11 Specialty Code Fluid control options for pump with electronic interface (PE30 model). See complete description on page 41

* Acceptable for use in hazardous locations. - NEC / CEC: Class I&II, Div 1&2, Group A-D
- ATEX: Zone 1&2, 21&22

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Accessories

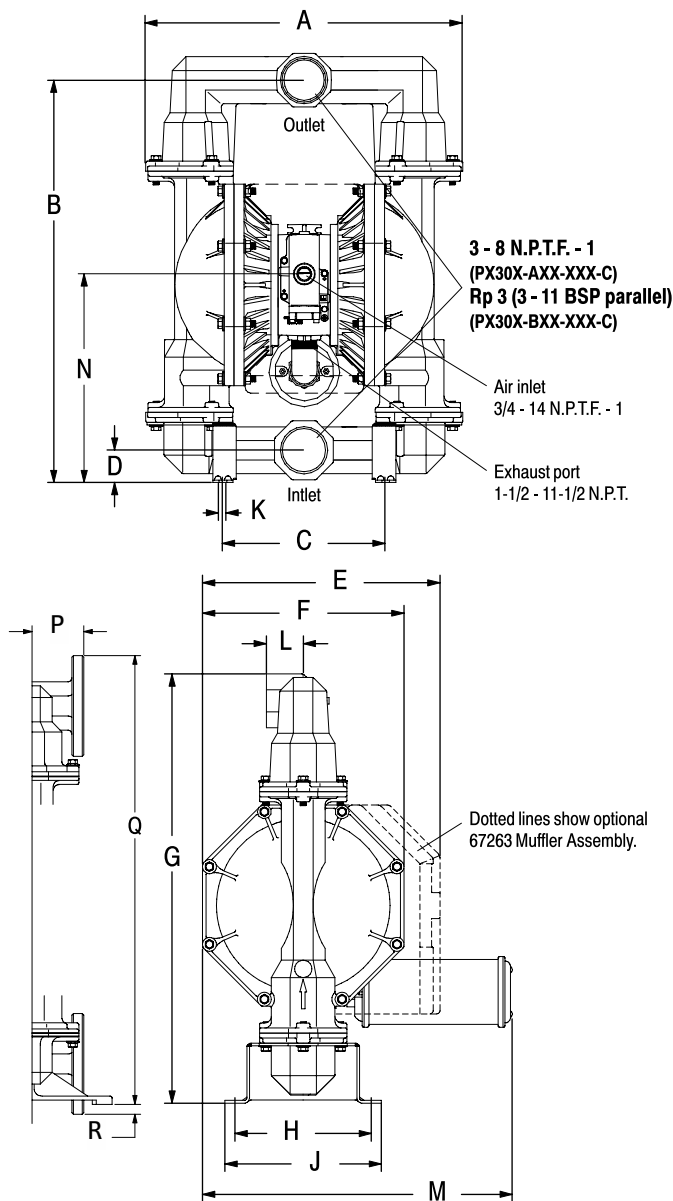
Air Line Connection Kit | 66109

(Piggyback Filter/Regulator with gauge, pipe nipple and 5-foot air hose)

Diaphragm Failure Detection | 67237

Service Repair Kits | 637369 (air motor for PX30R), 637421 (air motor for PX30A and PX30S),
637374-X (major air valve assembly), 637303-XXX (fluid section with seats)

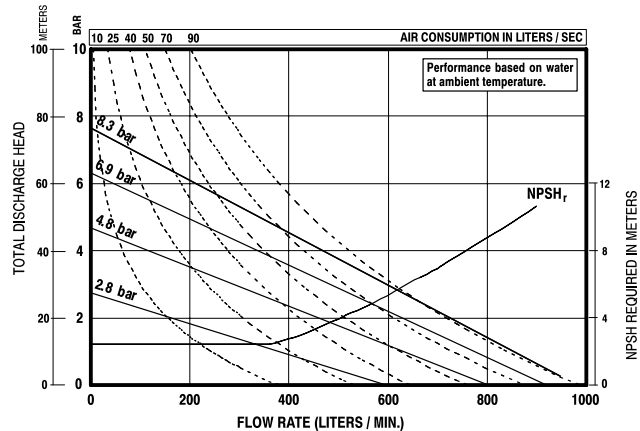
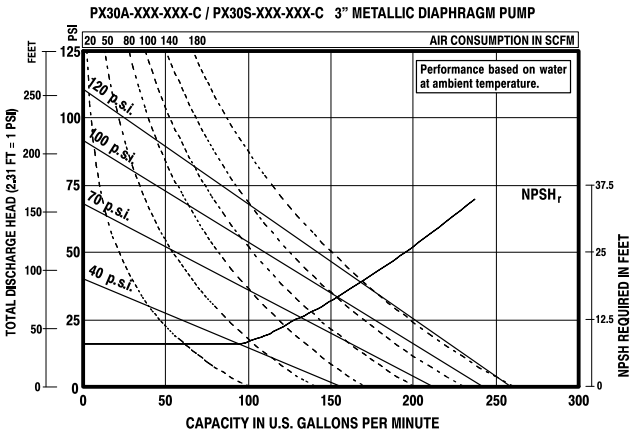
3" Metallic Dimensions and Flow Charts



DIMENSIONS

A see below	F 15" (381 mm)	L 2-3/4" (69.9 mm)
B 30" (761.7 mm)	G 32" (812.5 mm)	M 23-3/32" (586.3 mm)
C 12-1/16" (306.5 mm)	H 10-5/32" (258 mm)	N See Below
D see below	J see below	P See Below
E 17-11/16" (449.2 mm)	K 9/16" (4.3 mm)	Q 27-7/8" (708.0 mm)
		R 5/8" (5.9 mm)

	"A"	"D"
PX30X-XAX-XXX-C	23-5/8" (598.7 mm)	2-3/8" (60.3 mm)
PX30X-XCX-XXX-C	23-5/8" (598.7 mm)	2-7/16" (61.1 mm)
PX30X-XHX-XXX-C	23-1/8" (587.3 mm)	2-3/4" (69.9 mm)
PX30X-XSX-XXX-C	23-1/8" (587.3 mm)	2-3/4" (69.9 mm)
	"J"	"N"
11" (279.4 mm)	15-1/2" (393.7 mm)	2" (50.8 mm)
11-11/16" (296.1 mm)	15-1/2" (393.7 mm)	2" (50.8 mm)
11-11/16" (296.1 mm)	16" (406.4 mm)	2-3/32" (53.0 mm)
11-11/16" (296.1 mm)	16" (406.4 mm)	2-3/32" (53.0 mm)
		3-1/4" (82.6 mm)



Performance based on an elastomeric fitted pump, flooded suction with water at ambient conditions. Due to varying materials of construction, assembly configurations and operating conditions, published data is for reference only

Ordering Position 10

Specialty Code 1 (Blank if no Specialty Code)

A - Solenoid 120VAC	G - Solenoid 12VDC ATEX/IECex*
B - Solenoid 12VDC	H - Solenoid 24VDC ATEX/IECex*
C - Solenoid 240VAC	J - 120VAC NEC/CEC*
D - Solenoid 24VDC	K - Solenoid 220VAC ATEX/IECex*
E - 12VDC NEC/CEC*	N - Solenoid with no coil
F - 24VDC NEC/CEC*	O - Standard Valve Block (No Solenoid)
	P - Ported Motor (No major valve provided)

Ordering Position 11

Specialty Code 2 (Blank if no Specialty Code)

E - End of stroke feedback + Leak Detection	L - Leak Detection
F - End of stroke feedback	M - Leak Detection ATEX/IECex/NEC/CEC*
G - End of Stroke ATEX/IECex*	O - No Option
H - End of Stroke/Leak Detection ATEX/IECex*	R - End of Stroke Feedback NEC / CEC*
	T - End of Stroke Feedback + Leak Detection NEC / CEC*

* Acceptable for use in hazardous locations. - NEC / CEC: Class I&II, Div 1&2, Group A-D
- ATEX: Zone 1&2, 21&22

2" Band Clamp Models - BD Series

SPECIALTY PUMP

ARO's Band Clamp models features the Quick Knock Down (QKD) compression clamp system to facilitate easier cleaning, service and maintenance. 2" BD Series pumps are often used for transfer, filling and recirculation and batching in Chemical (ink), Marine and General Industrial markets.

Ratio:	1:1
Maximum GPM (LPM):	185 (700)
Displacement per cycle Gallons (Liters):	1.4 (5.3)
Air Inlet (Female):	3/4 - 14 NPTF-1
Fluid Inlet/Outlet:	2-11-1/2 NPTF -1 Rp 2(2-11 BSP parallel)
Max. operating pressure psi (bar):	120 (8.3)
Suspended solids max. dia. in. (mm):	1/4" (6.4)
Weight lbs (kg):	75 (34.02)
Maximum dry suction lift ft (m):	18 (5.4)
Maximum wet suction lift ft(m)	31 (9.4)
Sound Level: 70 PSI 60 Cycles/Min	85.0 db(A)
Muffler Included:	67389



Ordering

Position	1	2		3	4	5		6	7	8		9	10	11
Example:	BD20	X		X	A	S		X	X	X		A	X	X

Position 1 Model Series	Position 2 Center Section	Position 3 Connections	Position 4 Wetted Parts	Position 5 Hardware	Position 6 Seat Material	Position 7 Ball Material	Position 8 Diaphragm Material	Position 9
BD20 - Standard Pump	A - Aluminum	A - NPTF Thread B - BSP Thread	A - Aluminum	S - Stainless Steel	A - Santoprene® C - Hytrel® F - Aluminum S - 316L Stainless Steel	A - Santoprene® C - Hytrel® S - Stainless Steel T - PTFE	A - Santoprene® C - Hytrel® K - PTFE Composite T - PTFE/Santoprene®	Revision Level Position 10 & 11 Specialty Code Fluid control options for pump with electronic interface (BE20 model). See complete description on next page

* Acceptable for use in hazardous locations. - NEC / CEC: Class I&II, Div 1&2, Group A-
- ATEX: Zone 1&2, 21&22

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Accessories

Air Line Connection Kit | 66109 (Piggyback Filter/Regulator with gauge, pipe nipple and 5-foot air hose)

Service Repair Kits | 637421 (air motor for BD20A), 637494-XX,
637374-X (major air valve assembly)

2" Metallic Flap Valve Models

SPECIALTY PUMP

ARO®'s pneumatic flap valve diaphragm pumps provide effective flow rates up to 172 gpm (651 lpm). These pumps are designed to handle materials that are stringy, fibrous, large solids (suspended or non-suspended), abrasive, slurries and other applications less suited for ball check style pumps. Flap valve pumps are useful for feeding filter presses, waste treatment, dewatering, filled material transfer and a variety of other demanding applications.

Ratio:	1:1
Maximum GPM (LPM):	172 (651)
Displacement per cycle:	1.4 (5.3)
@ 100 psi Gallons (Liters)	
Air Inlet (Female):	3/4 - 14 N.P.T.F.-1
Fluid Inlet/Outlet (Female):	PF20X-AXX-XXX-B 2 - 11-1/2 N.P.T.F.-1 PF20X-BXX-XXX-B Rp 2 (2 - 11 BSP parallel)
Max. operating pressure psi (bar):	120 (8.3)
Suspended solids max. dia. in. (mm):	2" (51) Semi-solid
Maximum dry suction lift ft (m):	14 (4.2)
Weight lbs (kg):	PF20A-XAX-SXX-B 97.3 (44.2) PF20A-XCX-SXX-B 166.2 (75.4) PF20A-ASX-SXX-B 166 (75.3) PF20A-BSX-SXX-B 166 (75.3) PF20A-FSX-SXX-B 177.1 (80.3) Add 28.9 lbs (13.1kg) for stainless steel air motor PF20R-XCX-SXX-B 178.7 (81.1) PF20R-XSX-SXX-B 180.6 (81.9)
Sound Level:	70 PSI 60 Cycles / Min 85.0 db(A)
Muffler:	94810 (optional 94117)



Ordering

Position	1	2		3	4	5		6	7	8		9
Example:	PF20	X	-	X	X	X	-	S	X	X	-	B

Position 1 Model Series	Position 2 Center Section	Position 3 Connections	Position 4 Wetted Parts	Position 5 Hardware	Position 6 Seat Material	Position 7 Flap Material	Position 8 Diaphragm Material	Position 9
PF20 - Standard Pump	A - Aluminum* R - Polypropylene w/SS Air Caps S - Stainless Steel*	A - NPTF Thread B - BSP Thread F - 2" ANSI/DIN Hybrid Center Flange	A† - Aluminum* C - Cast Iron S - Stainless Steel † Not available with PF20R or PF20Y option	P - Plated Steel S - Stainless Steel	S - Stainless Steel	A - EPR G - Nitrile U - Polyurethane V - Viton®	A - Santoprene® G - Buna- N T - PTFE/ Santoprene® V - Viton®	Revision Level

* Acceptable for use in hazardous locations.

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Accessories

Service Repair Kits | 637421 (air motor)
637310-XX (fluid section)

Powder Transfer

SPECIALTY PUMP

Transfer and handle your dry process powders faster, cleaner and at a fraction of the cost associated with installed “systems.” Consistent trouble-free transfer of powders up to 45-lbs. per cubic foot (721 kgs. per cubic meter) dry-weight, such as carbon black, expanded mica, silicones, acrylic resins, 3D printing powders and pharmaceuticals

Replace Manual Powder Processes.

- Reduce Airborne Contamination - With direct transfer from the powder container to your recipe.
- Unique Air-Induction System - Avoids the possibility of powder pack-out.
- Portable - Can be moved from site to site.

Port:	1", 2" and 3"
Material:	Aluminum and Stainless Steel
Max. operating pressure: psi (bar)	50 (3.4)
Suspended solids maximum: dia. in. (mm)	1/8" (3.3) PP10A Models, 1/4" (6.4) PP20A Models 3/8" (9.5) PP30A Models
Weight: lbs (kg)	PP10A-XAX-AAA 33.3 (15.1) PP10A-XSX-AAA 50.9 (23.1) PP20A-XAX-AAA 99.4 (45.1) PP20A-XSX-AAA 157.8 (71.6) PP30A-XAX-AAA 137.5 (62.4) PP30A-XSX-AAA 236.8 (107.4)



Ordering

Position	1		2	3	4		5	6	7
Example:	PP10A	-	X	X	X	-	X	X	X

Position 1 Model Series	Position 2 Connections	Position 3 Wetted Parts	Position 4 Hardware	Position 5 Seat Material	Position 6 Ball Material	Position 7 Dia. Material
PP10A - 1" Port	A - 1-11-1/2 N.P.T.F - 1 B - Rp1 (1-11 BSP)	A - Aluminum* S - Stainless Steel*	P - Plated Steel S - Stainless Steel	A - Santoprene® S - Stainless Steel	A - Santoprene®	A - Santoprene®

Position	1		2	3	4		5	6	7
Example:	PP20A	-	X	X	X	-	X	X	X

Position 1 Model Series	Position 2 Connections	Position 3 Wetted Parts	Position 4 Hardware	Position 5 Seat Material	Position 6 Ball Material	Position 7 Dia. Material
PP20A - 2" Port	A - 2-11-1/2 NPTF - 1 B - Rp2 (2-11 BSP Parallel)	A - Aluminum* S - Stainless Steel*	P - Plated Steel S - Stainless Steel	A - Santoprene® S - Stainless Steel	A - Santoprene®	A - Santoprene®

Position	1		2	3	4		5	6	7
Example:	PP30A	-	X	X	X	-	X	X	X

Position 1 Model Series	Position 2 Connections	Position 3 Wetted Parts	Position 4 Hardware	Position 5 Seat Material	Position 6 Ball Material	Position 7 Dia. Material
PP30A - 3" Port	A - 3-8 NPTF - 1 B - Rp3 (3-11 BSP parallel) F - 3" ANSI/DIN Flange	A - Aluminum* S - Stainless Steel*	P - Plated Steel S - Stainless Steel	A - Santoprene®	A - Santoprene®	A - Santoprene®

* Acceptable for use in hazardous locations.

Santoprene® is registered trademark of Monsanto

Accessories

Service Repair Kits | 637397 (air motor PP10A), 637421 (air motor PP20A), 637421 (air motor PP30A)
637401-XX (fluid section PP10A), 637309-XX (fluid section PP20A), 637303-XX (fluid section PP30A)
Suction Probe: 67183-1 (10ft Long Hose with 2" Diameter. For PP20A & PP30A)

2:1 Ratio High Pressure

SPECIALTY PUMP

The high pressure pump was developed for applications requiring fluid pressures in excess of the 100 psi developed by traditional pumps. Compared to a standard diaphragm pump, the 2:1 ratio high-pressure pump can produce up to 200 psi, at about half the flow rate.

The 2:1 ratio is accomplished by using the effective surface area of both diaphragms to double the output pressure.

2:1 Ratio High-Pressure Pump

- Bolted construction for leak free integrity.
- Simul-shift and quick dump valve technology for stall free / ice free performance.
- Convolute diaphragms for long life.
- Modular major valve for ease of repair.

Applications:

High viscosity fluids
High solids fluids
Charging filter presses
High head / back pressure



Model	Maximum Gallons GPM (Liters)	Displacement Cycles Per Gallons @ 100 PSI (Liters)	Weight (kg)	Suspended Solids Max. Dia. in. (mm)	Maximum Outlet pressure PSI (bar)
2:1 Ratio 1 1/2" Diaphragm Pump	63 (238.48)	0.3 (1.17) for 1 1/2"	88 (39.9)	1/4 (6.4)	200 (13.8)
2:1 Ratio 2" Diaphragm Pump	92 (348.25)	0.64 (2.65) for 2"	146 (66.2)	1/4 (6.4)	200 (13.8)
2:1 Ratio 3" Diaphragm Pump	160 (605.6)	1.4 (5.3) for 3"	268 (121.6)	3/8 (9.5)	200 (13.8)

Ordering

Position	1	2		3				4	5	6		7
Example:	PHXX	F	-	X	S	P	-	S	X	X	-	C
Position 1 Model Series	Position 2 Center Section	Position 3 Connection			Position 4 Seat Material	Position 5 Ball Material	Position 6 Diaphragm Material			Position 7 Revision Level		
PH15 - 1 1/2" PH20 - 2" PH30 - 3"	F - Conductive Polypropylene/ Stainless Steel	1-1/2" (PH15F) A - 1-1/2 NPTF B - 1-1/2 BSP parallel 2" (PH20F) A - 2 - 11-1/2 NPTF-1 B - Rp 2 (2 - 11 BSP parrallel) 3" (PH30F) A - 3 - 8 NPTF-1 B - Rp 3 (3 - 11 BSP parrallel) F - 3" ANSI /DIN Flange			S - Stainless Steel	A - Santoprene® T - PTFE C - Hytrel®	A - Santoprene® C - Hytrel® L - Long-Life PTFE T - PTFE/Santoprene®			A - 1 1/2" B - 2" C - 3"		

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Accessories

	PH15 - 1 1/2"	PH20 - 2"	PH30 - 3"
Air Line Kit	66084-1	66109	66109
Air Section Service Kit	637389	637369	637369
Fluid Section Service Kit	637445-XX	637446-XX	637441-CC

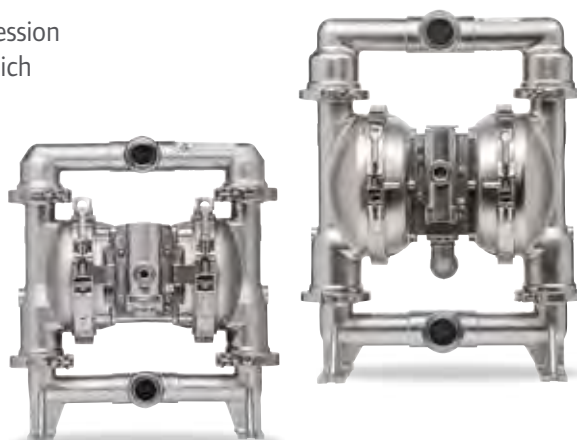
Sanitary Transfer - Clamped

SPECIALTY PUMP

Our FDA Compliant line features the Quick Knock Down (QKD) compression clamp system to facilitate easier cleaning, service and maintenance, which promotes reliability and long product life.

SD Series Pumps

- Quick Knock Down (QKD) design facilitates rapid disassembly.
- Flow-rate optimized. Better overall performance, low material shear.
- Electropolish stainless-steel 316L construction, FDA and CE 1935/2004 accepted materials and high temperature capability.
- Optional electronic interface capability
- Optional Single piece composite PTFE diaphragms



Applications:

Food / Beverage / Pharmaceutical / Cosmetics

	1" Pump SD10S-CSS-SXX-B	2" Pump SD20S-CSS-SXX-B
Startup Pressure PSI (bar)	25 (1.723)	25 (1.723)
Dry suction lift ft. H2O (m)	16.49 (5.02)	18.25 (5.56)
Wet suction lift ft. H2O (m)	31.4 (9.57)	31.4 (9.57)
Flow Rate GPM (lpm)	54 (204.4)	195 (738)
Displacement per/cycle GPM @ 100 PSI (lpm)	0.258 (.976)	1.3 (4.9)
Max. Solids Passage in. (mm)	1/8 (3.2)	1/4 (6.4)
Fluid Inlet/Outlet	1-1/2" Tri-Clamp	2-1/2" Tri-Clamp

Ordering

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

Position 1 Model Series	Position 2 Center Section	Position 3 Port	Position 4 Fluid Caps & Manifold Mat.	Position 5 Hardware	Position 6 Seat Material	Position 7 Ball Material	Position 8 Diaphragm Material	Position 9
SD10 - 1" Pump SD20 - 2" Pump	R - White Polypropylene S - 316 SS*	C - Sanitary Tri-Clamp	S - 316L Stainless Steel*	S - Stainless Steel	C - Hytrel K - PVDF S - 316L Stainless Steel	C - Hytrel® M - Medical Grade Santoprene® S - 316L SS T - PTFE	C - Hytrel® M - Med. Grade Sant. K - Single Piece PTFE Composite T - PTFE/Santoprene®	Revision Level

Position 10 Specialty Code 1 (blank if no specialty code)					Position 11 Specialty Code 2 (blank if no specialty code)				
A - Solenoid 120VAC, 110VAC + 60VDC	K - Solenoid 220VDC ATEX/IECex*				E - End of stroke feedback + Leak Detection				
B - Solenoid 12VDC, 24VAC + 22VDC	N - Solenoid with no coil				F - End of stroke feedback				
C - Solenoid 240VAC, 220VAC + 120VDC	O - Standard Valve Block (No Solenoid)				G - End of Stroke ATEX/IECex*				
D - Solenoid 24VDC, 48VAC + 44VACA					H - End of Stroke feedback + Leak Detection ATEX / IECex*				
E - Solenoid 12VDC NEC/CEC*					L - Leak Detection				
F - Solenoid 24VDC NEC/CEC*					M - Leak Detection ATEX/IECex/NEC/CEC*				
G - Solenoid 12VDC ATEX/IECex*					O - No Option				
H - Solenoid 24VDC ATEX/IECex*					R - End of Stroke Feedback NEC / CEC*				
J - Solenoid 120VDC NEC/CEC*					T - End of Stroke Feedback + Leak Detection NEC / CEC				

* Acceptable for use in hazardous locations. - NEC / CEC: Class I&II, Div 1&2, Group A-D
- ATEX: Zone 1&2, 21&22

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Sanitary Transfer - Bolted

SPECIALTY PUMP

- Constructed of FDA and CE 1935/2004 accepted materials.
- Electro-polished 316 stainless steel fluid section.
- Bolted construction with all stainless steel hardware.
- All investment cast wetted parts.

Typical Applications:

Food Processing
Cosmetics
Pharmaceutical
Chemical Additives
Adhesives (Food grade)

Paint
Applications Requiring
Quick-Disconnect
Fluid Connections



	PM05X-X-X-B02 (1/2")	PM10X-X-X-A02 (1")	PM15X-X-X-A02 (1-1/2")	PM20X-X-X-B02 (2")	PM30X-X-X-C02 (3")
Maximum GPM (lpm):	13.0 (45.4)	52.2 (197.6)	123 (465.6)	172 (651)	275 (1041)
Displacement per Cycle GPM (lpm):	0.040 (0.15)	0.232 (0.88)	0.617 (2.34)	1.4 (5.3)	2.8 (10.6)
Air Inlet (Female):	1/4 - 18 PTE SAE Short	1/4 - 18 N.P.T.F	1/2 - 14 N.P.T.F	3/4 - 14 N.P.T.F-1	3/4 - 14 N.P.T.F-1
Fluid Inlet/Outlet:	1-1/2" Tri-Clamp	1-1/2" Tri-Clamp	2" Tri-Clamp	2-1/2" Tri-Clamp	3" Tri-Clamp
Max. Operating Pressure: PSI (bar)	100 (6.9)	120 (8.3)	120 (8.3)	120 (8.3)	120 (8.3)
Suspended solids in.(mm):	3/32" (2.4)	1/8" (3.3)	1/4" (6.4)	1/4" (6.5)	3/8" (9.5)
Weight lbs (kg.):	14.75 (6.7)	PM10A-CSS-X-A02 44.8 (20.3)	PM15A-CSS-X-A02 62.4 (28.3)	PM20A-CSS-X-B02 142.8 (64.8)	PM30A-CSS-X-C02 227.5 (103.2)
		PM10R-CSS-X-A02 38.2 (17.3)	PM15R-CSS-X-A02 60.3 (27.3)	PM20R-CSS-X-B02 183.6 (83.5)	PM30R-CSS-X-C02 253.3 (114.9)
		PM10S-CSS-X-A02 51.6 (23.4)	PM15S-CSS-X-A02 78.4 (35.6)	PM20S-CSS-X-B02 171.7 (77.9)	PM30S-CSS-X-C02 267.2 (121.2)
Optional Muffler	93110 (requires 67367 assembly)			67213 (Standard Duty) 67263 (continuous Duty)	67213 (Standard Duty) 67263 (continuous Duty)

Ordering (Not all options available for each pump size, consult operator's manual for available options.)

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

Position 1 Model Series	Position 2 Center Section	Position 3 Connection	Position 4 Wetted Parts	Position 5 Hardware	Position 6 Seat Material	Position 7 Ball Material	Position 8 Diaphragm Material	Position 9 Revision Level
PM05 - 1/2" Pump PM10 - 1" Pump PM15 - 1-1/2" Pump PM20 - 2" Pump PM30 - 3" Pump	A - Aluminum* R - Polypropylene S - Stainless Steel*	C - Tri-Clamp	S - Stainless Steel*	S - Stainless Steel	M - Medical Grade Santoprene® P - Polypropylene S - Stainless Steel	C - Hytrel® G - Nitrile M - Medical Grade Santoprene® S - Stain. Steel T - PTFE V - Viton	C - Hytrel® G - Nitrile M - Medical Grade Santoprene® T - PTFE/ Santoprene®	1/2" - B 1" - A 1-1/2" - A 2" - B 3" - C

Position 10 Specialty Code 1 (blank if no specialty code)			Position 11 Specialty Code 2 (blank if no specialty code)		
A - Solenoid 120VAC, 110VAC + 60VDC B - Solenoid 12VDC, 24VAC + 22VDC C - Solenoid 240VAC, 220VAC + 120VDC D - Solenoid 24VDC, 48VAC + 44VACA E - Solenoid 12VDC NEC/CEC* F - Solenoid 24VDC NEC/CEC*	G - Solenoid 12VDC ATEX/IECex* H - Solenoid 24VDC ATEX/IECex* J - Solenoid 120VDC NEC/CEC* K - Solenoid 220VDC ATEX/IECex* N - Solenoid with no coil O - Standard Valve Block (No Solenoid)		E - End of stroke feedback + Leak Detection F - End of stroke feedback G - End of Stroke ATEX/IECex* H - End of Stroke feedback + Leak Detection ATEX / IECex* L - Leak Detection	M - Leak Detection ATEX/IECex/NEC/CEC* O - No Option R - End of Stroke Feedback NEC / CEC* T - End of Stroke Feedback + Leak Detection NEC / CEC	

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* Acceptable for use in hazardous locations.

1" PW Series

SPECIALTY PUMP

ARO® PW10X-X EXP Pumps

- Upgrade to EXP from existing Wilden® P4,T4 or M4 pumps, or Versa-Matic® E4 pumps.
- The ARO® PW10X-X matches the fluid inlet/outlet port dimensions of these other pumps
- Leave the stalling issues and leaking band-clamps behind.

Ratio:	1:1
Maximum GPM (LPM):	60 (227.1)
Displacement per cycle Gallons (Liters):	0.234 (0.89)
Air Inlet (Female):	1/2 - 14 N.P.T.
Fluid Inlet:	1-1/2 - 11-1/2 N.P.T.F - 1
Fluid Outlet:	1-1/4 - 11-1/2 N.P.T.F. - 1
Max. operating pressure psi (bar):	120 (8.3)
Suspended solids max. dia. in. (mm):	1/8" (3.3)
Weight lbs (kg):	PW10A-XXX-XXX 25.7 (11.7)
Maximum dry suction lift ft (m):	19 (5.8)
Sound Level:	70 PSI 60 Cycles / Min 80.6 db(A)



Ordering

Position	1	2		3	4	5		6	7	8
Example:	PW10	A	-	X	X	X	-	X	X	X

Position 1 Model Series	Position 2 Center Section	Position 3 Connection	Position 4 Wetted Parts	Position 5 Hardware	Position 6 Seat Material	Position 7 Ball Material	Position 8 Diaphragm Material
PW10 - Standard Pump	A - Aluminum	A - NPTF Thread	A - Aluminum	P - Plated Steel S - Stainless Steel	A - Santoprene® C - Hytrel® F - Aluminum G - Nitrile	A - Santoprene® C - Hytrel® G - Nitrile T - PTFE V - Viton®	A - Santoprene® C - Hytrel® G - Nitrile T - PTFE/ Santoprene® V - Viton®

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Accessories

Service Repair Kits | 637397 (air motor)
637410-XXX (fluid section with seats)

2" PW Series

SPECIALTY PUMP

ARO® PW20P-YPX-XXX EXP Pumps

- Upgrade to EXP from existing Wilden® P800 or PS800 pumps, or Versa-Matic® U2 pumps.
- ARO® pump matches the fluid inlet/outlet port dimensions of the pumps and it matches Wilden's mounting feet location.
- Leave the stalling issues and complex maintenance procedures behind.
- ARO® has the lowest total cost of ownership over the competition.

Ratio:	1:1
Maximum GPM (LPM):	184 (696)
Displacement per cycle Gallons (Liters):	1.4 (5.3)
Air Inlet (Female):	3/4 - 14 N.P.T.
Fluid Inlet/Outlet:	2" ANSI/DIN hybrid flange (center)
Max. operating pressure psi (bar):	120 (8.3)
Suspended solids max. dia. in. (mm):	1/4" (6.4)
Weight lbs (kg):	Polypropylene 89.0 (40.4) PVDF 116.8 (53)
Maximum dry suction lift ft (m):	19.5 (5.9)
Sound Level:	70 PSI 60 Cycles / Min 85.0 db(A)



Ordering

Position	1	2		3	4	5		6	7	8
Example:	PW20	P	-	Y	P	S	-	X	X	X

Position 1 Model Series	Position 2 Center Section	Position 3 Connection	Position 4 Wetted Parts	Position 5 Hardware	Position 6 Seat Material	Position 7 Ball Material	Position 8 Diaphragm Material
PW20 - Standard Pump	P - Polypropylene	Y - 2" ANSI/DIN Hybrid Center Flange	K - PVDF P - Polypropylene	S - Stainless Steel	K - PVDF P - Polypropylene	A - Santoprene® C - Hytrel® G - Nitrile T - PTFE V - Viton®	A - Santoprene® C - Hytrel® G - Nitrile L - Long Life PTFE T - PTFE/ Santoprene® V - Viton®

Hytrel® is a registered trademark of DuPont company, Santoprene® is registered trademark of Monsanto, Viton® is a registered trademark of ExxonMobil, VERSA-MATIC® is a registered trademark of Versa-Matic Pump Company (IDEX Corp) and Wilden® is a registered trade name of Wilden Pump and Engineering Company, a Dover Resources Company.

Accessories

Service Repair Kits | 637369 (air motor),
637373-XXX (fluid section with seats),
637374-X (major air valve assembly)

Flange Connection Kit | 67341-E20N

Diaphragm Failure Detection | Kit No.67237

Air Line Connection Kit | 66109 (Piggyback Filter/Regulator with gauge, pipe nipple and 5-foot air hose)



Air Line Connection Kit
66109

Automatic DeWatering System

SPECIALTY PUMP

Air Operated Control Solution with Liquid Level Sensing

The ARO® Automatic Dewatering System offers automatic on/off controls for Pro and EXP 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 labor and reduce air consumption by avoiding dry running of the pump.

Featured

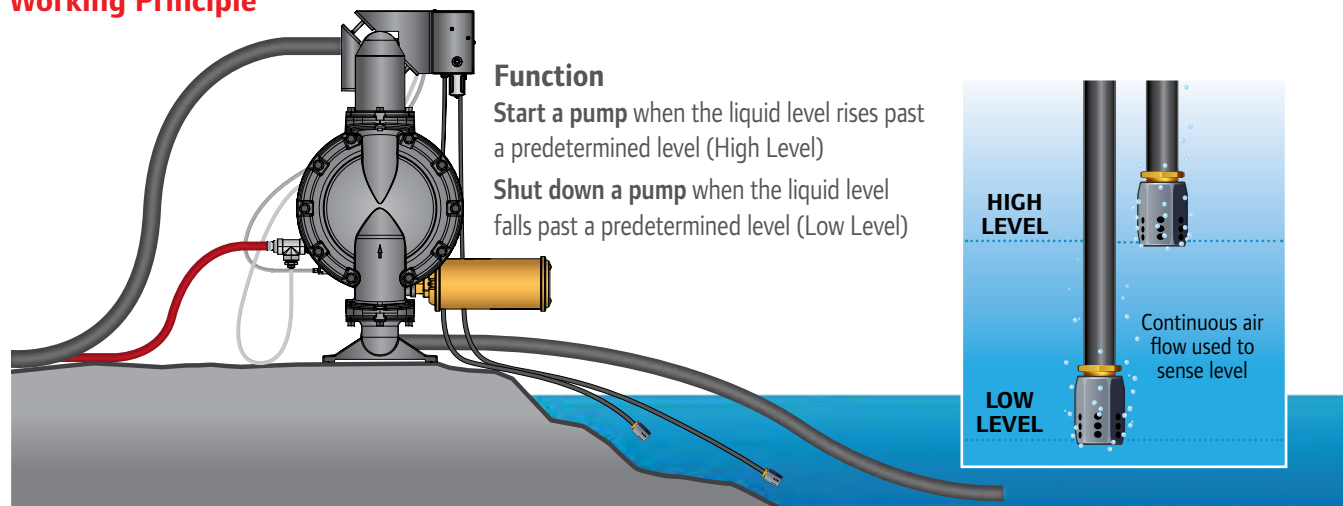
- Simple design is easy to setup and use
- All pneumatic operation eliminates electrical ignition source
- High/Low level control maintains fluid between established levels
- Reduces air consumption by avoiding pump dry running
- Portable system with directly mounted liquid level sensor

AUTOMATIC DEWATERING SYSTEM	
SCD501BN08-V1D	Dewatering Kit (without pump)
PUMP COMPATIBILITY	
2" EXP Series Pump	PX20X-XXX-XXX-X, PX20P-FXS-XXX
2" PRO Series Pump	6662XX-XXX-C
3" EXP Series Pump	PX30X-AXX-XXX-X, PX30X-BXX-XXX-X
3" PRO Series Pump	6663XX-XXX-C
Other EXP/Pro Series are compatible with remotely mounted Liquid Level Sensor by reducing air inlet fitting from 3/4"-14 NPTF-1 to necessary size.	



- ➊ Bracket
- ➋ Liquid Level Sensor
- ➌ Pneumatic Controlled Valve
- ➍ Sensing Tubes with Screen
- ➎ Pro/EXP Series Diaphragm Pump (purchase separately)

Working Principle



Drum Pumps

SPECIALTY PUMP

Drum Pumps

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

Ratio:	1:1
Maximum Flow:	11-g.p.m. (41.6-l.p.m.)
Displacement per cycle:	.039-Gallons (.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
Max. operating pressure:	100-psi (6.8-bar)
Suspended solids max. dia.:	3/32-in. (2.4-mm)
Shipping Weight: lbs (kg)	22 (10) Polypropylene, basic package 26 (11.8) Aluminum, basic package 36 (16.3) Stainless, basic package

Drum Pump Packages

- Package Components Factory-Matched - ARO® Drum Pump package components contain 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

Ordering

Model Number	Pump Housing and Seats	Pump Dia. and 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	-	-	-	WATER/COOLANT
DAB05-PPUU-2-A	POLYPROPYLENE	POLYURETHANE	X	-	-	-	WATER/COOLANT
DAB05-PPAA-2-A	POLYPROPYLENE	SANTOPRENE®	X	-	-	-	MILD ACIDS & BASES
DAB05-PPCC-2-N	POLYPROPYLENE	HYTREL®	X	-	NITRILE	-	WATER/COOLANT
DAB05-PPCC-B-M	POLYPROPYLENE	HYTREL®	X	X	NITRILE	NO-DRIP	WATER/COOLANT
DAB05-PPAA-2-B	POLYPROPYLENE	SANTOPRENE®	X	-	EPDM	-	MILD ACIDS & BASES
DAB05-PPUU-2-C	POLYPROPYLENE	POLYURETHANE	X	-	VINYL	-	WATER/COOLANT
DAB05-PPCC-B-J	POLYPROPYLENE	HYTREL®	X	X	REINFORCED NITRILE	X	WATER/COOLANT
DAB05-PPAA-B-K	POLYPROPYLENE	SANTOPRENE®	X	X	EPDM	X	MILD ACIDS & BASES
DAB05-SSTT-2-A	STAINLESS STEEL	PTFE	X	-	-	-	SOLVENT
DAB05-ASTT-2-A	ALUM./SS.	PTFE	X	-	-	-	SOLVENT
DAB05-APCC-2-A	ALUM./POLY.	HYTREL®	X	-	-	-	OIL/SOME SOLVENTS
DAB05-APCC-2-O	ALUM./POLY.	HYTREL®	X	-	NITRILE	-	OIL/SOME SOLVENTS
DAB05-APCC-B-P	ALUM./POLY.	HYTREL®	X	X	NITRILE	NO-DRIP	OIL/SOME SOLVENTS
DAB05-APCC-B-L	ALUM./POLY.	HYTREL®	X	X	REINFORCED NITRILE	X	OIL/SOME SOLVENTS
DAB05-ASAA-2-A	ALUM./S.S.	SANTOPRENE®	X	-	-	-	WATER/COOLANT

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* Consult ARO Chemical Compatibility Guide to select proper pump construction



Pump Features

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

Accessories

Air Line Connection Kit | 66073-1

Service Repair Kit | 637458 (air), 637427-XX (fluid), 104255 (for repair of P29122-600 piggyback filter/regulator)

Electronic Interface Accessories

Quickly find your accessories, leak detection sensors, end of stroke sensors, and solenoid valve block kits



Upgrade your Compact or EXP pump with electric interface accessories to integrate seamlessly into automated processes. Whether you have a PLC automated process or ARO®'s batching/flow controller these accessories can provide remote operation, remove wasteful manual processes and improve uptime through proactive maintenance solutions. Consult with your ARO® representative or Tech Support to learn which accessories will work best for your pump and application.

End of Stroke Sensors

Used to monitor cycle rates for preventative maintenance and determining volume transferred in batching applications.

End of Stroke Sensing for Cycle Counting			
Compact/ EXP Port Size	Regular Duty	Hazardous Duty*: ATEX	Hazardous Duty*: NEC, CEC
1/4"	24110934	97404 & 97491	97404 & 97412
3/8"	97048	97405 & 97491	97405 & 97412
1/2" & 3/4"	97053	97406 & 97491	97406 & 97412
1"	97119	97408 & 97491	97408 & 97412
1 1/2"	97396	97410 & 97491	97410 & 97412
2" & 3"	97121	97411 & 97491	97411 & 97412

* Note: hazardous options require both an end of stroke sensor and barrier amplifier

Leak Detection

Minimize unwanted downtime by detecting diaphragm failures.

Leak Detection Sensing		
Compact/ EXP Port Size	Regular Duty	Hazardous Duty*: ATEX, NEC, CEC
1/4"	67237	96270-2 (Qty: 2) & 97414 (Qty: 1)
3/8"	67237	96270-2 (Qty: 2) & 97414 (Qty: 1)
1/2" & 3/4"	67237	96270-2 (Qty: 2) & 97414 (Qty: 1)
1"	67237	96270-2 (Qty: 2) & 97414 (Qty: 1)
1 1/2"	67237	96270-2 (Qty: 2) & 97414 (Qty: 1)
2" & 3"	67237	96270-2 (Qty: 2) & 97414 (Qty: 1)

* Note: hazardous options require both 2 leak detection sensors (1 for each diaphragm) and (2) Zener barriers

Solenoid Valve Block Kits

Replaced existing major valve with a solenoid actuated main valve. Each time the solenoid is energized or de-energized the pump will stroke one time. With combination of a PLC or ARO® controller, precise batching can be achieved.

Position	1	2	3
Example:	637371	- X	- X
Position 1 Base Part Number		Position 2 Valve Block Material	Position 3 Solenoid Coil Valve Block Mtrl.
1/4"	637371	1- Aluminum	A = 120 VAC
3/8", 1/2", 3/4"	637540	2- Stainless Steel	B = 12 VDC
1"	637541	3- Black Polypropylene	C = 240 VAC
1 1/2"	637542	4- White Polypropylene	D = 24 VDC
2" & 3"	637543		E = 12 VDC NEC/CEC
			F = 24 VDC NEC/CEC
			G = 12 VDC ATEX/IECex
			H = 24 VDC ATEX/IECex
			J = 120 VAC NEC/CEC
			K = 220 VAC ATEX/IECex
			N = No Coil *

* Note: a no coil option can be purchased where multiple environments exist within your facility. Contact your ARO® Representative or Tech Support for the correct solenoid coil for your application.

MaxAir 2 Way Valve

Controls the inlet air to the pump for simple on/off controls. Die-cast brass body, Stainless Stem and Buna-N diaphragms provide excellent durability.



Pump Port Size	24VDC Valve and Connector*	120VAC Valve and Connector*
1/4" to 1"	TB03EB-024-D and CSN-30	TB03EB-120-A and CSN-30
1-1/2"	TB04EB-024-D and CSN-30	TB04EB-120-A and CSN-30
2" to 3"	TB06HB-024-D and CSN-30	TB06HB-120-A and CSN-3

* Note: Valve and Connector Needs to be purchased.

Accessories



Air Line Connection Kit
66073-1



Diaphragm Failure Detection
67237



Continuous Duty Muffler
67323



Flange Connection Kit
637341-E10N



Over-run Control
635040

	1/4" Non-Met.	3/8" Non-Met.	1/2" Non-Met.	1/2" Classic Non-Met.	3/4" Non-Met.	1/2" Metallic	3/4" Metallic
Air Line Connection Kit Kit includes Piggyback Filter/Regulator with gauge, pipe nipple and a 5-foot section of air hose.	66073-1	66073-1	66073-1	66073-1	66073-1	66073-1	66073-1
Leak Detection Provides a warning of diaphragm failure by sensing the presence of liquid in the air chamber of the pump	Reg. Duty: 67237 ATEX, NEC, CEC: 96270-2 (Qty: 2) & 97414 (Qty: 1)	Reg. Duty: 67237 ATEX, NEC, CEC: 96270-2 (Qty: 2) & 97414 (Qty: 1)	Reg. Duty: 67237 ATEX, NEC, CEC: 96270-2 (Qty: 2) & 97414 (Qty: 1)	-	Reg. Duty: 67237 ATEX, NEC, CEC: 96270-2 (Qty: 2) & 97414 (Qty: 1)	Reg. Duty: 67237 ATEX, NEC, CEC: 96270-2 (Qty: 2) & 97414 (Qty: 1)	Reg. Duty: 67237 ATEX, NEC, CEC: 96270-2 (Qty: 2) & 97414 (Qty: 1)
Cycle Sensor Kit For monitoring pump operation. Can be used to monitor cycle rates, preventative maintenance and rough flow rate indication.	Reg. Duty on Body: 24110934 ATEX on Body: 97404 & 97491 NEC, CEC on Body: 97404 & 97412	Reg. Duty on Major Valve: 67386 Reg. Duty on Body: 97048 ATEX on Body: 97405 & 97491 NEC, CEC on Body: 97405 & 97412	Reg. Duty on Major Valve: 67386 Reg. Duty on Body: 97053 ATEX on Body: 97406 & 97491 NEC, CEC on Body: 97406 & 97412	Reg. Duty on Major Valve: 67168	Reg. Duty on Major Valve: 67386 Reg. Duty on Body: 97053 ATEX on Body: 97406 & 97491 NEC, CEC on Body: 97406 & 97412	Reg. Duty on Body: 97053 ATEX on Body: 97406 & 97491 NEC, CEC on Body: 97406 & 97412	Reg. Duty on Body: 97053 ATEX on Body: 97406 & 97491 NEC, CEC on Body: 97406 & 97412
Cycle Counter Kits Counts pumps cycles to help establish and sustain a preventative maintenance program. Battery based counter with NEMA 4X/IP65 enclosure.	-	-	-	-	-	-	-
Flange Connection Kit Use with non-metallic EXP pumps with the flange manifold option. Flange kits meet DIN / A.N.S.I. specifications. Flange constructed of glass-filled polypropylene. Bolts, washers and nuts are stainless steel. (Gaskets included)	-	-	-	-	-	-	-
Over-run Control Shuts off pump when excessive cycling occurs due to empty fluid supply container.	-	-	635040	635040	635040	635040	635040
Wall Mount Conveniently mount pump above container. Made of heavy gauge coated steel. (pump not included) * Does not include hardware	-	67388	76763	-	76763	76763	76763
Countdown Batcher Manual start batch counter kit controls the volume of fluid dispensed by controlling the number of pump cycles. (pump not included)	-	67072	67072	-	67072	67072	67072
Solenoid Actuation Kit Control pump cycle rate with on/off signal from PLC or other device. Kit includes connector w/36" cable plus components and instructions to install on standard pump. For dosing and batching applications.	-	67165-1 (24VDC) 67165-2 (120VAC)	67165-1 (24VDC) 67165-2 (120VAC)	67165-1 (24VDC) 67165-2 (120VAC)	67165-1 (24VDC) 67165-2 (120VAC)	67165-1 (24VDC) for PD05R-X-X-B 67165-2 (120VAC) for PD05R-X-X-B	-
Diaphragm Pump Speed Controls Controls air volume supplied to pump, thus permitting operator to control speed of pump. Can be panel mounted. Composite body.	104104-N02	104104-N02	104104-N02	104104-N02	104104-N02	104104-N02	104104-N02
Groundable Strap Reliable static control.	-	-	-	-	-	66885-1 Acetal Center Body	-



Wall Mount
76763



Countdown Batcher
67072



Solenoid Actuation Kit
67165-1



Speed Control
104104-N02

1" Non-Met.	1-1/2" Non-Met.	2" Non-Met.	3" Non-Met.	1" Metallic	1-1/2" Metallic	2" Metallic	3" Metallic	1" 3:1 Ratio
66073-2	66084-1	66109	66109	66073-2	66084-1	66109	66109	-
Reg. Duty: 67237 ATEX, NEC, CEC: 96270-2 (Qty: 2) & 97414 (Qty: 1)	Reg. Duty: 67237 ATEX, NEC, CEC: 96270-2 (Qty: 2) & 97414 (Qty: 1)	Reg. Duty: 67237 ATEX, NEC, CEC: 96270-2 (Qty: 2) & 97414 (Qty: 1)	Reg. Duty: 67237 ATEX, NEC, CEC: 96270-2 (Qty: 2) & 97414 (Qty: 1)	Reg. Duty: 67237 ATEX, NEC, CEC: 96270-2 (Qty: 2) & 97414 (Qty: 1)	Reg. Duty: 67237 ATEX, NEC, CEC: 96270-2 (Qty: 2) & 97414 (Qty: 1)	Reg. Duty: 67237 Haz. Duty: 96270-2 (Qty: 2) & 97414 (Qty: 1)	Reg. Duty: 67237 ATEX, NEC, CEC: 96270-2 (Qty: 2) & 97414 (Qty: 1)	-
Reg. Duty on Major Valve: 67390 Reg. Duty on Body: 97119 ATEX on Body: 97408 & 97491 NEC, CEC on Body: 97408 & 97412	Reg. Duty on Major Valve: 67390 Reg. Duty on Body: 97396 ATEX on Body: 97410 & 97491 NEC, CEC on Body: 97410 & 97412	Reg. Duty on Major Valve: 67391 Reg. Duty on Body: 97121 ATEX on Body: 97411 & 97491 NEC, CEC on Body: 97411 & 97412	Reg. Duty on Major Valve: 67391 Reg. Duty on Body: 97121 ATEX on Body: 97411 & 97491 NEC, CEC on Body: 97411 & 97412	Reg. Duty on Major Valve: 67392 Reg. Duty on Body: 97119 ATEX on Body: 97408 & 97491 NEC, CEC on Body: 97408 & 97412	Reg. Duty on Major Valve: 67392 Reg. Duty on Body: 97396 ATEX on Body: 97410 & 97491 NEC, CEC on Body: 97410 & 97412	Reg. Duty on Major Valve: 67393 Reg. Duty on Body: 97396 ATEX on Body: 97410 & 97491 NEC, CEC on Body: 97410 & 97412	Reg. Duty on Major Valve: 67393 Reg. Duty on Body: 97396 ATEX on Body: 97410 & 97491 NEC, CEC on Body: 97410 & 97412	-
67571-3	67571-6	67571-9	67571-11	67571-2 (Metallic Center Body) 67571-1 (Non-Metallic Center Body)	67571-5 (Metallic Center Body) 67571-4 (Non-Metallic Center Body)	67571-8 (Metallic Center Body) 67571-7 (Non-Metallic Center Body)	67571-10 (Metallic Center Body) 67571-9 (Non-Metallic Center Body)	-
67341-E10N (Side flange) 67341-C10N (Center flange)	67341-E15N (Side flange) 67341-C15N (Center flange)	67341-E20N	-	-	-	-	-	-
635040	23644-400	23644-400	635043	635040	23644-400	23644-400	635043	-
-	-	-	-	66100	62133	-	-	67142
67072	-	-	-	67072	-	-	-	-
67355-1 (24VDC) for PE10X-X-X 67355-2 (120VAC) for PE10X-X-X	-	67355-1 (24VDC) for PE20X-X-X-B 67355-2 (120VAC) for PE20X-X-X-B	-	67355-1 (24VDC) for PE10X-X-X 67355-2 (120VAC) for PE10X-X-X	-	-	67357-1 (24VDC) PE30X-X-X-C 67357-2 (120VAC) PE30X-X-X-C	-
104104-N02	104104-N04	104104-N04	104104-N06	104104-N02	104104-N04	104104-N06	104104-N06	-
66885-1 Conductive Poly Center Body	66885-1 Conductive Poly Center Body	66885-1 Conductive Poly Center Body		66885-1	66885-1	66885-1	66885-1	-

Accessories

Air Filter/Regulator

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



P39224-614



P39124-600

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

Pump Size	NPT Model Number	Port Size	Max Inlet Pressure (psi)	Pressure Range (psi)	Max CFM	Micron Element	Size HxWxD (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 w/Guard, Manual Drain

Pump Size	NPT Model Number	Port Size	Max Inlet Pressure (psi)	Pressure Range (psi)	Max CFM	Micron Element	Size HxWxD (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

Cautions of the Use of Polycarbonate Plastic Bowls - Use Only with Compressed Air. 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. Avoid Harmful Substances. 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 the factory with any questions.



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

Air Control Actuation Valves

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

MQ3728-120-A for 1/2" and 1" pumps,
H2545S-120-A for 1-1/2" pumps,
MQ3729-120-A for 2" and 3" pumps
MQ3728-024-D for 1/2" and 1" pumps
H2545S-024-D for 1-1/2" pumps
MQ3729-024-D for 2" and 3" pumps



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

Accessories

Siphon Tubes

For use when pumping from a 55 GAL (200 L) container; siphon tubes are available in PVC or carbon steel. 1" siphon tubes come with foot valve for positive priming. All models include bung adapter.

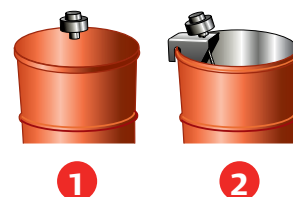
Model no.	Description	For use with pumps
65109	Steel — NPT(F)	1" (Metallic)
66779	PVC — NPT(F)	1" (Non-Metallic)



Material Agitators

Agitators 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 shaft and propellers are constructed of corrosion resistant 316 stainless steel.

Model no.	For drum	Mounting	Power	Motor speed	Propeller dia.	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 pump and agitator where you need.

Model no.	For 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 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



Accessories

Digital Cycle Counter Kits

The ARO® Cycle Counters Kits provides an accurate way to count pump cycles to help establish and sustain a preventative maintenance program. The cycle counter can be mounted on the pump with the provided enclosure or remotely mounted in a separate panel up to 25 ft. (7.6m) away. The unit uses a magnet located at the end of the major air valve and hall effect sensor to register a complete pump cycle.

- Easy to Install, no drilling or tapping needed to install kit
- Lithium Battery Based Counter with 7-10 years battery life
- Enclosure and counter meets NEMA 4X/ IP65 specification
- Large 0.35" (8.9 mm) character height on LCD display
- Front reset button can be disabled to prevent unattended resets
- Corrosion resistant stainless steel mounting bracket and hardware



Remote Panel Mounting Components



Pump Mounted Kits

Ordering Options

	Remote Panel Mounting	Pump Mounted Kit
Counter w/Digital Display	✓	✓
Major Spool w/Magnet	✓	✓
Hall Effect Sensor w/Bracket	✓	✓
NEMA 4X Enclosure		✓

Remote Panel Mounting				
Pump Type	Port Size	Non - Metallic Fluid Section and Center Body	Metallic Fluid Section	
			Non - Metallic Center Body	Metallic Center Body
EXP Series	1", 1-1/2"	98244* + 67390**	98244* + 67392**	
	2" and 3"	98244* + 67391**	98244* + 67393**	

* Counter ** Spool and Sensor Kit

Pump Mounted Kit				
Pump Type	Port Size	Non - Metallic Fluid Section and Center Body	Metallic Fluid Section	
			Non - Metallic Center Body	Metallic Center Body
EXP Series	1"	67571-3	67571-1	67571-2
	1-1/2"	67571-6	67571-4	67571-5
	2"	67571-9	67571-7	67571-8
	3"	67571-11	67571-9	67571-10

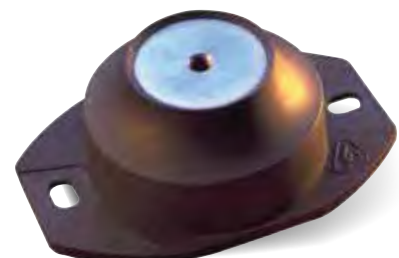


ARO® Vibration Isolators

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 to be used with flexible fluid pipe connectors to isolate the impact of the pump vibration to fixed pipes.

- ✓ Reduces up to 96% of vibration transmitted through the mount.
- ✓ A set of 4 vibration isolators and mounting hardware are included

Port size	Polypropylene	Aluminum	PVDF	Stainless Steel
3"	HSK-160	HSK-160	HSK-160	HSK-160
2"	HSK-110	HSK-110	HSK-110	HSK-160
1.5"	HSK-40	HSK-40	HSK-40	HSK-70
1"	HSK-20	HSK-20	HSK-40	HSK-40



Vibration Isolator

Accessories

Pulsation Dampeners

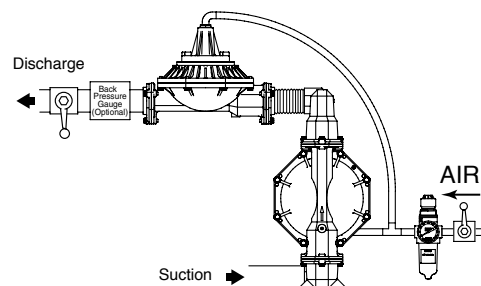
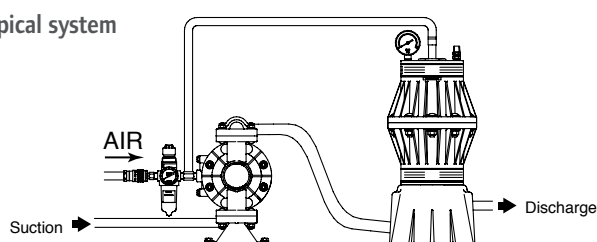
Diaphragm pumps of any type have at least two points in their cycle where they provide no pressure or flow to a process. The unwanted result of this pressure fluctuation can often be material foaming, material pulsation, hydraulic shock or material splashing. While traditional pulsation dampeners can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



Automatic Shock Blockers®

- Automatic Air Adjustment - compensates for fluctuations in fluid pressure without operator intervention.
- Significant Pulsation Reduction - Shock Blockers deliver an average 60% - 80% pulsation reduction in high back pressure applications.
- Built for high-flow/aggressive fluid applications - the 2" models can handle up to 2.6 L maximum fluid volume, and 3" models up to 8.3 L maximum fluid volume.
- Broad Material Range for Compatibility - choose from PVDF, polypropylene, groundable acetal, aluminum, cast iron or stainless steel 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 prevent 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 built tough 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 - Urethane
SB20 - 2" SB30 - 3"	A - Aluminum S - Stainless Steel P - Polypropylene/ Aluminum* R - Polypropylene/ Stainless Steel* Stainless Steel	A - NPTF B - BSPP F - 2" ANSI/DIN Flange Inlet and Outlet* K - 2" ANSI/DIN Flange Inlet/ NPTF Outlet* L - 2" ANSI/DIN Flange Inlet/ BSPP Outlet*	A - Aluminum C - Cast Iron P - Polypropylene* S - Stainless Steel	P - Carbon Steel S - Stainless Steel 304	A - Santoprene® G- Nitrile T - PTFE / Santoprene® V - Viton®

* Only available with 2" Polypropylene fluid sections.

Hytrel® is a registered trademark of DuPont company, Santoprene® is registered trademark of Monsanto and Viton® is a registered trademark of ExxonMobil

Maintenance Kits



Pump Type	Models	Air Motor Section	Fluid Section (without seats)	Major Air Valve Assembly
3/8" Non-Metallic	PD03P, PE03P	637428	637429-XX	—
Non-Metallic	PD05P, PE05P, PM05R	637428	637427-XX	—
1/2" Metallic	PM05P	637141	637140-XX	—
	PD05A, PD05R, PE05A, PE05R	637428	637427-XX	—
3/4" Non-Metallic	PD07P	637428	637427-XX	—
Metallic	PD07R	637428	637427-XX	—
Non-Metallic	PD10P, PE10P, PD10E, PE10E	637397	637396-XX	637395-X
1" Metallic	PD10A, PD10R, PD10S, PE10A, PE10R, PE10S, PM10A, PM10R, PM10S	637397	637401-XX	637395-X
	PH10A-XSS-SST	637338	637339	—
	SD10S, SD10R	637495	637496-XX	637496-X
Non-Metallic	PD15P, PE15P, PD15E, PE15E	637389	637391-XX	637390-X
1 1/2" Metallic	PD15A, PD15R, PD15S, PE15A, PE15R, PE15S, PM15A, PM15R, PM15S	637389	637375-XX	637390-X
Non-Metallic	PD20P, PE20P, PD20E, PE20E	637369	637373-XX	637374-X
2" Metallic	PD20R, PD20Y, PE20R, PE20Y, PM20R	637369	637309-XX	637374-X
	PD20A, PD20S, PE20A, PE20S, PM20A, PM20S, PP20A	637421	637309-XX	637374-X
	PF20A, PF20S	637421	637310-XX	637374-X
	PF20A	637421	637309-XX	—
	PF20R, PF20Y	637369	637310-XX	637374-X
	SD20S, SD20R	637497	637494-XX	637498-X
	BD20A	637421	637494-XX	637374-X
3" Non-Metallic	PD30P, PE30P	637369	637447-XX	637374-X
Metallic	PD30R, PE30R, PM30R	637369	637303-XX	637374-X
	PD30A, PD30S, PE30A, PE30S, PP30A, PM30A, PM30S	637421	637303-XX	637374-X
	PH30F-X	637369	637441-XX	637374-X



Exactly built and designed by ARO®, Authentic ARO® Parts are the only replacement parts you can count on to restore your ARO® equipment to the equipment's original performance and quality, while backing up your warranty and ATEX hazardous duty certification.

Why Authentic ARO® Parts?

Without Authentic ARO® name, it does not carry the ARO® promise and runs the risk of subpar chemical, metallurgical, and mechanical properties.

And, only Authentic ARO® Parts ensure that our pumps continue to meet the strict requirements for ATEX and CE certifications.

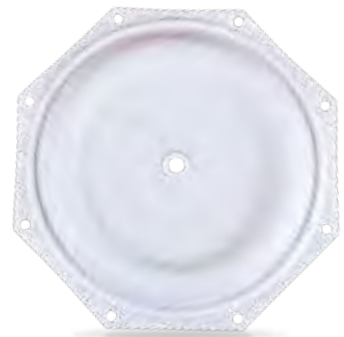
Authentic ARO® Parts include:

- Diaphragm Pump Parts and Accessories
- Piston Pump Parts and Accessories
- Lubrication Parts and Accessories
- FRL Parts and Accessories

ARO® Long-Life PTFE diaphragms keeps your pumps flowing

- Proven 2 time increase in service life over standard PTFE*
- Made with uniquely formulated PTFE that provides greater flex life
- Same great chemical resistance as conventional PTFE
- Seamless replacement for your existing PTFE diaphragms

*as measured by mean time between failure



About ARO®



ARO® is a worldwide manufacturer of fluid management products that are skillfully engineered to deliver performance and serviceability, allowing success to flow freely in our customers' businesses. That's why ARO® is fluid intelligence—the smart choice in fluid management products for industrial operations.

With over an 85-year legacy of premier product performance and service excellence, ARO® provides fluid management equipment for customers and industries around the globe, including chemical, manufacturing, energy, pharmaceutical, mining and more.

ARO® has the right product to meet our customers' specific needs. We offer air-operated diaphragm pumps, piston pumps and packages, filters, regulators, and lubricators (FRLs), lubrication equipment, pneumatic valves and cylinders.

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