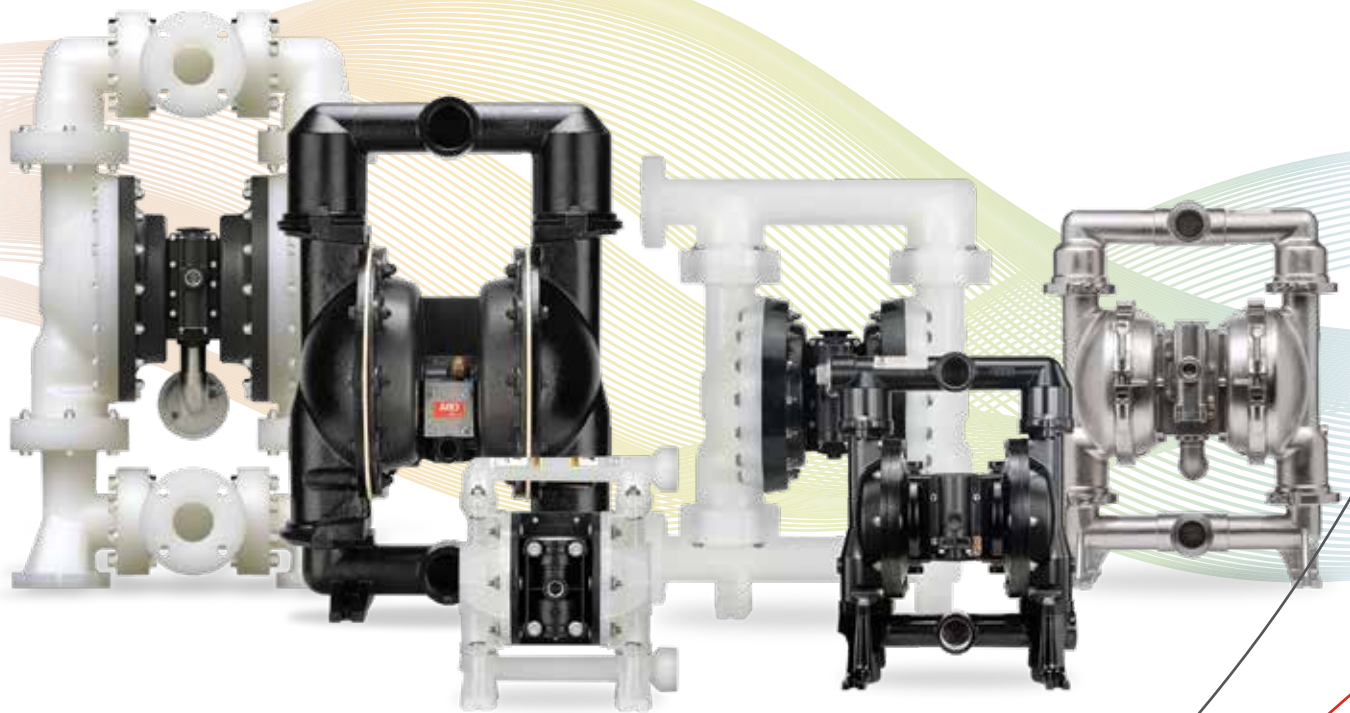
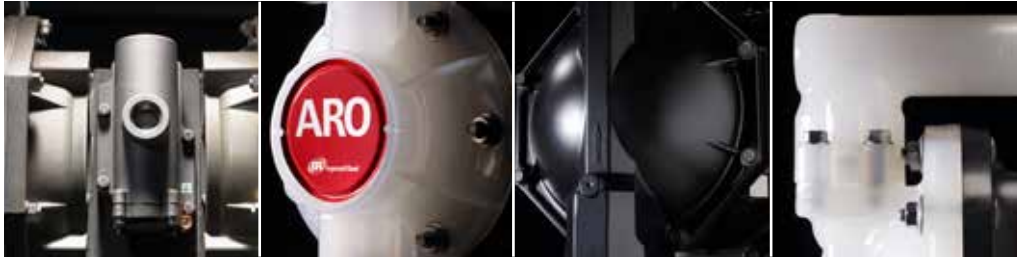


ARO[®]

PRO AND EXPERT 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

The Heart of your Process

Ingersoll Rand / ARO® offers a wide range of Fluid Technologies for today's demanding industries and applications.

- Bulk material transfer and circulation
- Dispensing
- Filling
- Finishing
- Formulation
- High-pressure cleaning
- Lubrication
- Packaging
- Printing flexo/offset

Industries

Aerospace

Automotive

Ceramic

Chemical Processing

Machine Builders – Formulation

Mining and Construction

Oil / Gas Petrochemical

Paint and Finishing

Pharmaceutical and Cosmetics

Print Shop and Ink Manufacture

Shipbuilding and Marine



ARO® Diaphragm Pumps

ARO® Air Operated Diaphragm Pumps are designed for general use. 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 can be used in potentially explosive areas. Most of the ARO® Diaphragm Pumps are ATEX certified (CE ExII 2GD X).

Highly flexible

ARO® diaphragm pumps offer the ability to vary the flow outlet and discharge pressure as slow as one litre (gallon) per minute up to 1079 litres (285 gal) per minute for our larger sizes and adjust fluid pressure up to 8.6 bars (125 psi), with just using an air filter/regulator or a needle valve.

Self-priming

These pumps are self-priming up to an elevation of 8.3 m (27.2 feet) with water and can operate dry without any damage. If the fluid outlet is closed, the pump stops; it restarts with the reopening of the fluid circuit; no pressure relief valve or bypass is necessary.

Wide range of material configurations

The ARO® range of diaphragm pumps offers many materials of construction ideal for the chemical industry: our metallic offering consists of aluminium, cast iron, stainless steel and Hastelloy. Our non-metallic offerings consists of standard and conductive Polypropylene and PVDF, and groundable acetal.



5-Year warranty

ARO® Diaphragm Pumps Range and Applications

▶ **Compact Pumps, 1/4" to 3/4" ports**

Ideal for OEM and general industrial applications, these pumps feature big performance in a small package. Flow rates up to 56 l/min (15 gal) with a large range of material configurations.

▶ **EXP Series Pumps, 1" to 3" ports**

ARO's Process Grade, Expert Series Pumps feature the best total cost of ownership compared to some of our leading competitors. A favorite among process professionals with flow rates up to 1079 l/min (285 gal) and a large range of material configurations.

▶ **Pro Series Pumps, 1" to 3" ports**

ARO's Industrial Grade, Pro-Series Diaphragm Pumps provide high performance and stall-free reliability with flow rates up to 897 l/min (237 gal).

▶ **Specialty Application Pumps**

Pumps providing the same high level of performance and satisfaction but in a design tailored for your specific application. This range includes many specific models (see details pages 8 and 9).



Productivity: Maximized flow rates + Minimized pulsation and air consumption = Maximum Performance.



Versatility: Multiple porting options available along with interface options allow you to customize this pump specifically to your OEM application.



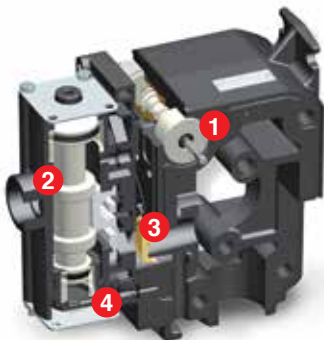
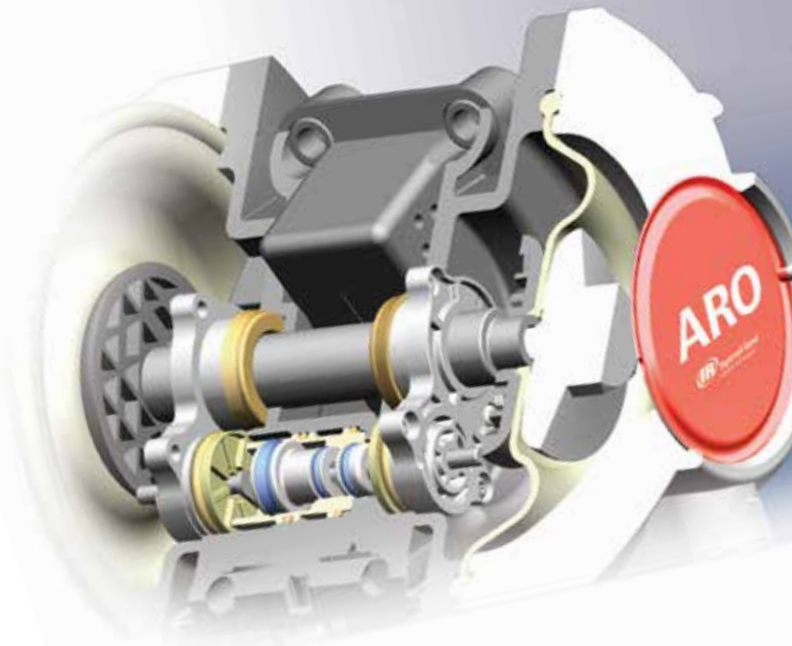
Reliability: Lube free patented differential valve both on major air valve and SimulShift™ (pilot valve) provides reliable worry free operation – fluid on demand every time.



Environmentally Sound: Bolted construction in conjunction with a wide range of material options provides maximum chemical and leak resistance.



Serviceability: Modular construction, reduced parts count and simple to use repair kits minimize repair time and cost.



Patented ARO® Air Motor Technology

- 1 SimulShift™ Valve; avoids stall-out – provides faster pump trip-over with more flow.
- 2 Unbalanced™ Major Air Valve; eliminates pump stall-out, even under low air inlet pressures.
- 3 “D” Valve for optimum energy efficiency while avoiding costly air “blow-by” – ceramic construction for long service life.
- 4 Quick Dump™ Checks, eliminates pump ice-up by diverting cold, wet exhaust air away from the major air valve.

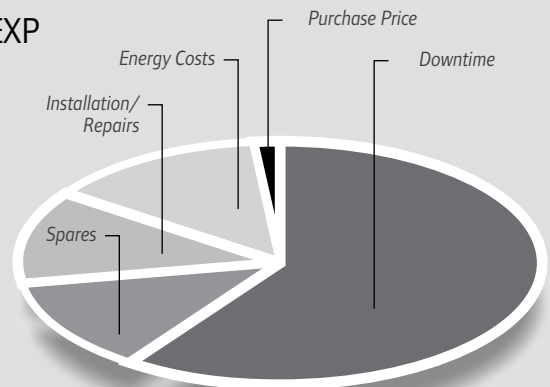
ARO® Diaphragm Pumps: the best “total cost of ownership” in the industry

Energy Efficient: ARO® EXP pumps are 20% to 40% more efficient than competitive models.

Downtime Reduction: The mean time between failure for EXP is up to four-times longer than competitive pumps.

Installation/Repairs and Spare Parts: EXP diaphragms provide up to four-times the life of competitive diaphragms. EXP spares include cost-effective service kits, not the expensive full-motor replacements of some competitors.

EXP Total Value Proposition: EXP provides the best total cost of ownership compared to some of our leading competitors.



ARO® Diaphragm Pumps



Non-Metallic Models – Range and Performance



EXPERT Series
EXPERT Series
EXPERT Series
EXPERT Series
PRO Series
EXPERT Series
PRO Series
EXPERT Series
PRO Series
EXPERT Series
EXPERT Series

	1/4"	3/8"	1/2"	3/4"	1"	1"	1 1/2"	1 1/2"	2"	2"	3"
 1 min. l/min (gal)	20 (5.3 gal)	40.1 (10.6 gal)	54.5 (14.4 gal)	56 (14.8 gal)	178 (47 gal)	200 (53 gal)	378 (100 gal)	465 (123 gal)	549 (145 gal)	696 (184 gal)	1079 (285 gal)
 Max. bar	8.6 bar (125 psi)	6.9 bar (100 psi)	6.9 bar (100 psi)	6.9 bar (100 psi)	8.3 bar (120 psi)	8.3 bar (120 psi)	8.3 bar (120 psi)	8.3 bar (120 psi)	8.3 bar (120 psi)	8.3 bar (120 psi)	8.3 bar (120 psi)
	1/4" NPT 1/4" BSP	3/8" NPT 3/8" BSP	1/2" NPT 1/2" BSP	3/4" NPT 3/4" BSP	1" NPT 1" BSP 1" ANSI/DIN	1" NPT 1" BSP 1" ANSI/DIN	1 1/2" ANSI/DIN	1 1/2" ANSI/DIN	2" ANSI/DIN	2" ANSI/DIN	3" ANSI/DIN
	1/4" NPT 1/4" BSP	3/8" NPT 3/8" BSP	1/2" NPT 1/2" BSP	3/4" NPT 3/4" BSP	1" NPT 1" BSP 1" ANSI/DIN	1" NPT 1" BSP 1" ANSI/DIN	1 1/2" ANSI/DIN	1 1/2" ANSI/DIN	2" ANSI/DIN	2" ANSI/DIN	3" ANSI/DIN
Material	Polypropylene PVDF Groundable acetal	Polypropylene PVDF Groundable acetal	Polypropylene PVDF Groundable acetal	Polypropylene	Polypropylene PVDF	Polypropylene PVDF Conductive polypropylene	Polypropylene PVDF	Polypropylene PVDF Conductive polypropylene	Polypropylene PVDF	Polypropylene PVDF Conductive polypropylene	Polypropylene PVDF Conductive polypropylene
 Max. mm (in)	1.6 mm (.06in)	1.6 mm (.06in)	2.4 mm (.09in)	2.4 mm (.09in)	3.2 mm (.12in)	3.2 mm (.12in)	6.4 mm (.25in)	6.4 mm (.25in)	6.4 mm (.25in)	6.4 mm (.25in)	9.5 mm (.375in)
 ATEX certified	With wetted parts in groundable acetal.	With wetted parts in groundable acetal.	With wetted parts in groundable acetal.	—	—	With conductive polypropylene motor	—	With conductive polypropylene motor	—	With conductive polypropylene motor	—



Metallic Models – Range and Performance



EXPERT Series

EXPERT Series

PRO Series

EXPERT Series

PRO Series

EXPERT Series

PRO Series

EXPERT Series

PRO Series

EXPERT Series

1/2"	3/4"	1"	1"	1 1/2"	1 1/2"	2"	2"	3"	3"
45.4 l/min (12 gal)	51.5 l/min (13.6 gal)	133 l/min (35 gal)	197 l/min (52 gal)	340 l/min (90 gal)	465 l/min (123 gal)	651 l/min (172 gal)	651 l/min (172 gal)	897 l/min (237 gal)	1041 l/min (275 gal)
6.9 bar (100 psi)	6.9 bar (100 psi)	8.3 bar (120 psi)	8.3 bar (120 psi)	8.3 bar (120 psi)	8.3 bar (120 psi)	8.3 bar (120 psi)	8.3 bar (120 psi)	8.3 bar (120 psi)	8.3 bar (120 psi)
1/2" NPT	3/4" NPT	1" NPT	1" NPT	1 1/2" NPT	1 1/2" NPT 1 1/2" BSP	2" NPT	2" NPT 2" BSP	3" NPT	3" NPT
1/2" BSP	3/4" BSP	1" BSP	1" BSP	1 1/2" BSP	1 1/2" ANSI/DIN	2" BSP	2" ANSI/DIN	3" BSP	3" BSP
1/2" NPT	3/4" NPT	1" NPT	1" NPT	1 1/2" NPT	1 1/2" NPT 1 1/2" BSP	2" NPT	2" NPT 2" BSP	3" NPT	3" NPT
1/2" BSP	3/4" BSP	1" BSP	1" BSP	1 1/2" BSP	1 1/2" ANSI/DIN	2" BSP	2" ANSI/DIN	3" BSP	3" BSP
Aluminium	Aluminium	Aluminium	Aluminium	Aluminium	Aluminium	Aluminium	Aluminium	Aluminium	Aluminium
Stainless steel		Cast iron	Cast iron	Cast iron	Cast iron	Cast iron	Cast iron	Cast iron	Cast iron
		Stainless steel	Stainless steel	Stainless steel	Stainless steel	Stainless steel	Stainless steel	Stainless steel	Stainless steel
		Stainless steel	Hastelloy	Stainless steel	Hastelloy	Stainless steel	Hastelloy	Stainless steel	Hastelloy
2.4 mm (.09in)	2.4 mm (.09in)	3.2 mm (.12in)	3.3 mm (.12in)	6.4 mm (.25in)	6.4 mm (.25in)	6.4 mm (.25in)	6.4 mm (.25in)	9.5 mm (.37in)	9.5 mm (.37in)
All models	All models	All models	With aluminium or stainless steel motor	All models	With aluminium or stainless steel motor	All models	With aluminium or stainless steel motor	All models	With aluminium or stainless steel motor

ARO® Diaphragm Pumps



Specialty Models – Range and Performance



	Powder Pumps		Sanitary Pumps					Dewatering Pumps			High Pressure Pumps			
?:1	1:1		1:1					1:1			3:1	2:1	2:1	2:1
Ø	2"	3"	1/2"	1"	1 1/2"	2"	3"	1 1/2"	2"	3"	1"	1 1/2"	2"	3"
1 min. 	Max. powder density = 800 kg/m ³ (45 lbs/cu ft)		49.2 l/min (12.9 gal)	198 l/min (52.3 gal)	465 l/min (123 gal)	651 l/min (172 gal)	1041 l/min (275 gal)	302.8 l/min (80 gal)	590.5 l/min (156 gal)	821.3 l/min (217 gal)	50 l/min (13.2 gal)	238 l/min (63 gal)	348 l/min (92 gal)	605 l/min (160 gal)
Max. bar 	6.9 bar (100 psi)		6.9 bar (100 psi)	8.3 bar (120 psi)			8.3 bar (120 psi)			6.9 bar (100 psi)				
	2" NPT ----- 2" BSP	3" NPT ----- 3" BSP	1 1/2" Tri-clamp	2" Tri-clamp	2 1/2" Tri-clamp	3" Tri-clamp	1 1/2" BSP	2" BSP	3" BSP	1" NPT ----- 1" BSP	1 1/2" NPT ----- 1 1/2" BSP ANSI DIN	2" NPT ----- 2" BSP ANSI DIN	3" NPT ----- 3" BSP	
Matériel	Aluminium ----- Stainless steel		FDA accepted material					Aluminium			Stainless steel			
Max. 	6.4 mm (.25)	9.5 mm (.37)	2.4 mm (.09)	3.3 mm (.12)	6.4 mm (.25)	6.5 mm (.25)	9.5 mm (.37)	12.7 mm (.50)	19.1 mm (.75)	25.4 mm (1.0)	3.2 mm (.25)	6.4 mm (.25)	6.4 mm (.25)	9.5 mm (.37)
ATEX certified 	All models		All models	With aluminium or stainless steel motor			All models			All models				

ARO® Diaphragm Pump Applications

Here are some examples. Other application pictures are presented on page 14.



PF Series

DAB05 Series

P Series

Flap Valve Pumps	Drum Pumps		Submersible Pumps	
1:1	1:1	1:1	—	—
2"	1/2"		2 1/2"	2"
651 l/min (172 gal)	45.4 l/min (12 gal)	54.5 l/min (14.4 gal)	757 l/min (200 gal)	870 l/min (230 gal)
8.3 bar (120 psi)	6.9 bar (100 psi)		6.2 bar (90 psi)	
2" NPT 2" BSP	Siphon tube		Screened inlet	
Aluminium Cast iron Stainless steel	Aluminium Stainless steel	Polypropylene	Cast iron	
51 mm (2.0) (semi-solids)	2.4 mm (.09)	2.4 mm (.09)	6.4 mm (.25)	6.4 mm (.25)
With aluminium or stainless steel motor	With aluminium motor	—	—	—



1 1/2" diaphragm pump installed in a chemical process to transfer chloride methylene



2" stainless steel diaphragm pumps assembled with PVDF pulsation dampeners used to download hydrofluoric acid



UL approved fuel pump 1" size, used assembled on skid dedicated in the aviation to fill and unload kerosene



3" diaphragm pumps mounted on a skid to transfer clay in a ceramic manufacture



3" sanitary pump used to transfer cosmetic basis for shampoos



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.

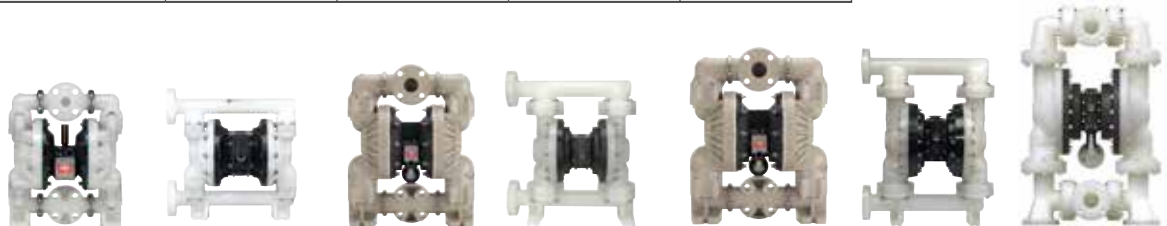
Non-Metallic Model Overview

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.



Models	1/4"	3/8"	1/2"	1/2" Classic	3/4"
Max. Flow lpm (gpm)	20 (5.3)	40.1 (10.6)	54.5 (14.4)	49.2 (13)	56 (14.8)
Max. Discharge Pressure bar (psi)	8.6 (125)	6.8 (100)	6.8 (100)	6.9 (100)	6.8 (100)
Material of Construction	Poly- propyleneGround- able Acetal PVDF	Poly- propylene Groundable Acetal PVDF	Poly- propylene Groundable Acetal PVDF	Poly- propylene Groundable Acetal PVDF	Poly- propylene
Max. Solids mm (in)	1.6 (1/16)	1.6 (1/16)	2.4 (3/32)	2.4 (3/32)	2.4 (3/32)
Max. Dry Suction Lift m (ft)	4.6 (15)	2.8 (9.25)	4.5 (15)	4.5 (15)	4.5 (15)



Models	1"		1-1/2"		2"		3"
Max. Flow lpm (gpm)	178 (47)	200 (53)	378 (100)	465 (123)	579 (145)	696 (184)	1079 (285)
Max. Discharge Pressure bar (psi)	8.3 (120)	8.3 (120)	8.3 (120)	8.3 (120)	8.3 (120)	8.3 (120)	8.3 (120)
Material of Construction	Poly- propylene PVDF	Conductive or Non-conductive Polypropylene or PVDF	Poly- propylene PVDF	Polypropylene PVDF Conductive Polypropylene	Poly- propylene PVDF	Conductive or Non-conductive Polypropylene or PVDF	Polypropylene PVDF
Max. Solids mm (in)	3.2 (1/8)	3.2 (1/8)	6.4 (1/4)	6.4 (1/4)	6.4 (1/4)	6.4 (1/4)	9.5 (3/8)
Max. Dry Suction Lift m (ft)	4.6 (15)	5.7 (19)	4.27 (14)	4.2 (14)	4.27 (14)	4.2 (14)	6.3 (20.5)

Compact Series Diaphragm Pumps
PRO 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.

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

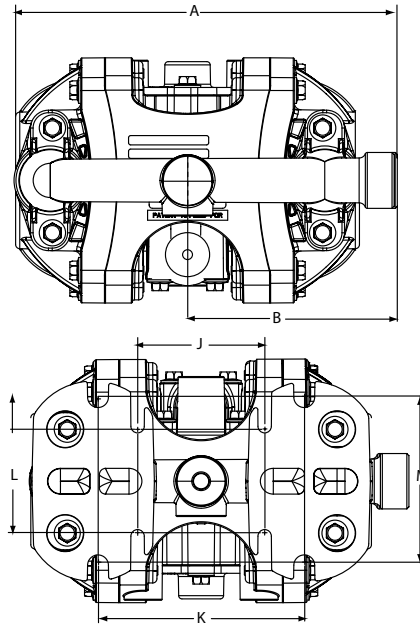
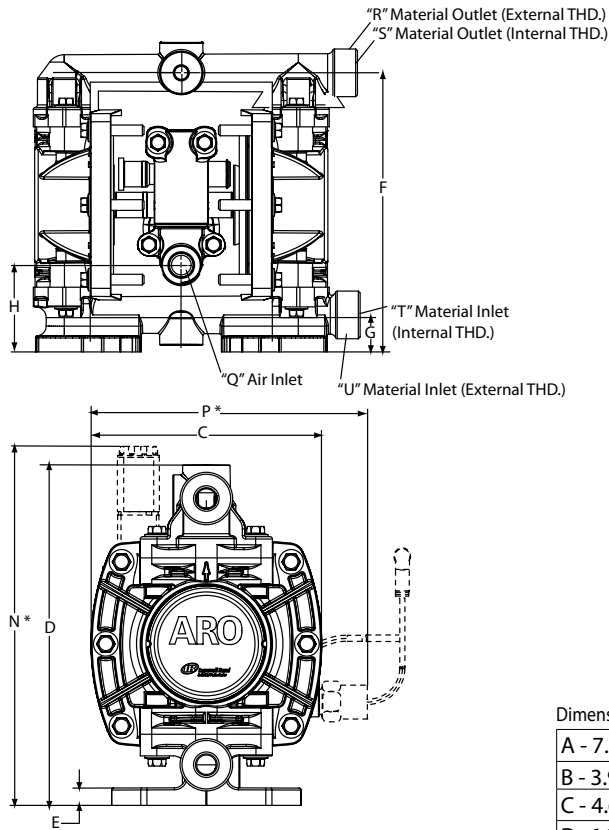
Position 1 Model Series	Position 2 Center Section	Position 3 Fluid Connections	Position 4 Wetted Parts	Position 5 Hardware	Position 6 Seat Material	Position 7 Ball Material	Position 8 Diaphragm Material	Position 9 Revision	Position 10 & 11 Specialty Code
PD01 - Standard Pump PE01 - Elec. Interface Accessible 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 0 - 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 - EPR (Flex-Check only) L - Viton (Flex-Check only) N - Neoprene (Flex-Check only) T - PTFE	A - Santoprene® C - Hytrel® G - Nitrile T - PTFE	A - Revision 1	Fluid control options for pump with electronic interface (PE01 model). See complete description on page 9

Accessories

Air Line Connection Kit | 66073-1

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

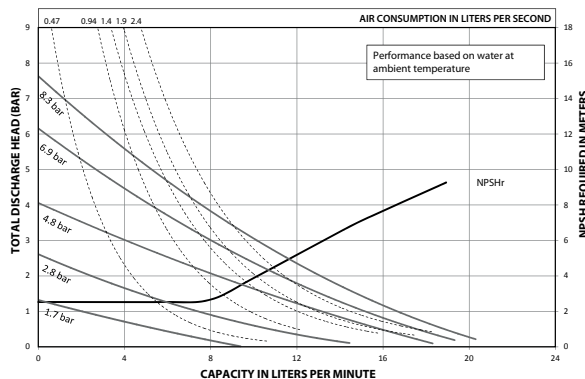
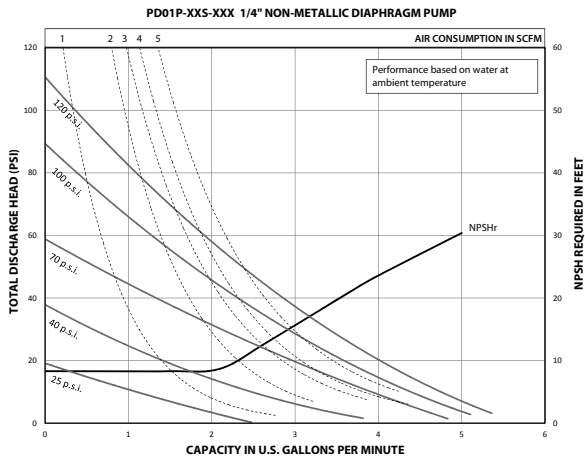
1/4" Non-Metallic Dimensions and Flow Charts



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)	



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)

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/NEC/CEC
- H - End of Stroke/Leak Detection ATEX/IECex/NEC/CEC

- L - Leak Detection
- M - Leak Detection ATEX/IECex/NEC/CEC
- O - No Option

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	-	B	-	X	X

Position 1 Model Series	Position 2 Center Section	Position 3 Connections	Position 4 Manifold Material	Position 5 Hardware	Position 6 Seat Material	Position 7 Ball Material	Position 8 Diaphragm Material	Position 9
D - Standard E - Remote Actuation Capable	P - Polypropylene	A - 3/8" 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 N - Neoprene S - Stainless Steel T - PTFE V - Viton	A - Santoprene C - Hytrel* G - Nitrile T - PTFE/ Santoprene V - Viton * Flex check models	Revision Level Position 10 & 11 Specialty Code Fluid control options for pump with electronic interface (PE03 model). See complete description on page 11

Hytrel® and Viton® are registered trademarks of the DuPont company. Santoprene® is a registered trademark of Monsanto Company, licensed to Advanced Elastomer Systems, L.P.

Accessories

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



3/8" Non-Metallic Dimensions and Flow Charts



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

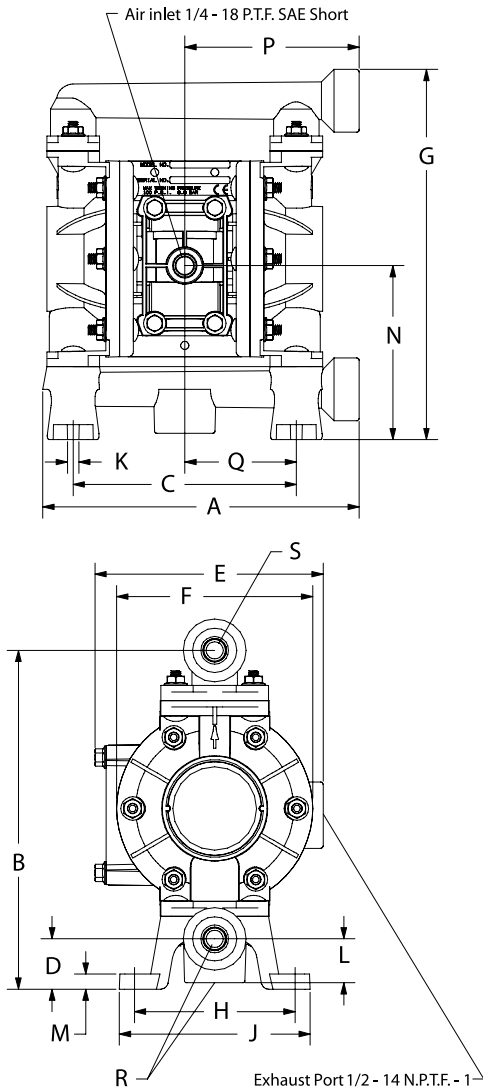
Dual Inlet/Outlet Kits:

- 637442-1 (N.P.T. Poly)
- 637442-4 (BSP Poly)
- 637442-3 (N.P.T. PVDF)
- 637442-6 (BSP PVDF)
- 637442-2 (N.P.T. Acetal)
- 637442-5 (BSP Acetal)

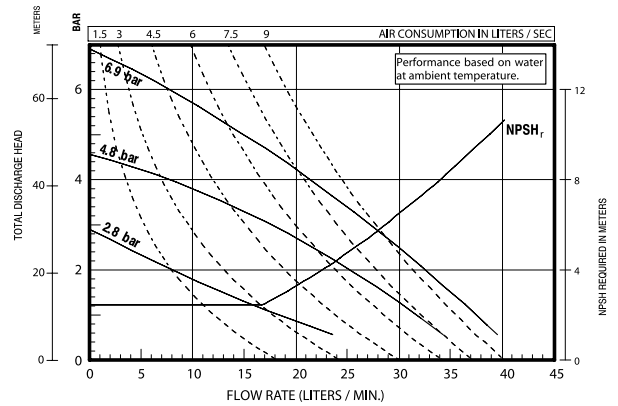
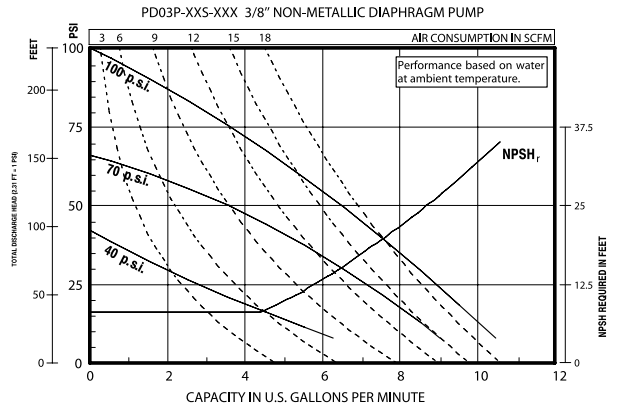
DIMENSIONS

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

- | | | |
|---------------|---------------------------|----------------------------|
| 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



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

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/NEC/CEC | O - No Option |
| H - End of Stroke/Leak Detection ATEX/IECex/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

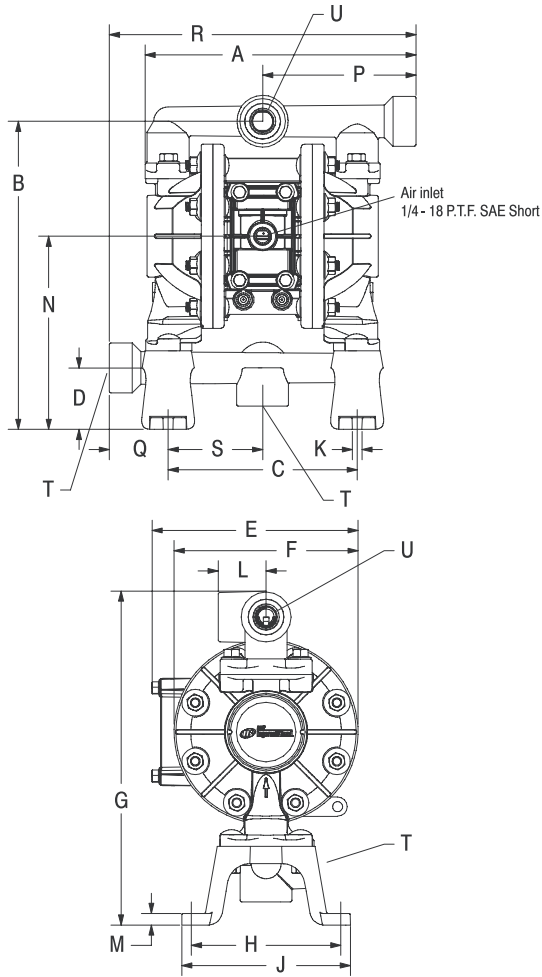
Accessories

- Air Line Connection Kit** | 66073-1
(Piggyback Filter/Regulator with gauge, pipe nipple and 5-foot air hose)
- Cycle Counter Kit** | 66975
- Wall Mount Bracket Kit** | 76763
- Optional Muffler** | 93110 used with 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)	

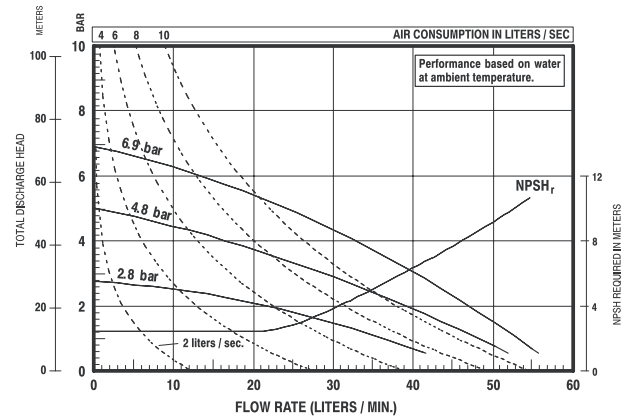
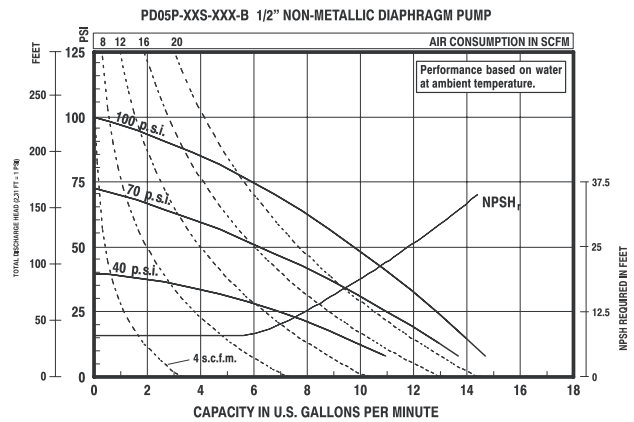
Model	"T" Material Inlet	"U" Material Outlet
PD05P-AXS-XXX-B	1/2 - 14 N.P.T.F. - 1	1/2 - 14 N.P.T.F. - 1
PD05P-BXS-XXX-B	Rp 1/2 (1/2 - 14 BSP)	Rp 1/2 (1/2 - 14 BSP)



PE05P-APS-PAA-B05
with 637440-1 Kit

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

PERFORMANCE CURVES



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

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/NEC/CEC | O - No Option |
| H - End of Stroke/Leak Detection ATEX/IECex/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 **Duckbill models	1 - Neoprene 2 - Nitrile 3 - Viton 4 - PTFE/Santoprene 8 - Polyurethane 9 - Hytrel B - Santoprene L - Long-Life PTFE	04 - Top Discharge

Accessories

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

Cycle Counter Kit | 66975

Optional Muffler | 93110 used with 637438 kit

Service Repair Kits | 637141 (air section)
637140-XX (fluid section)

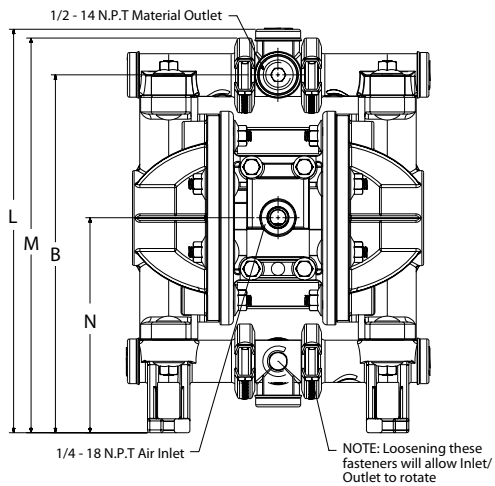
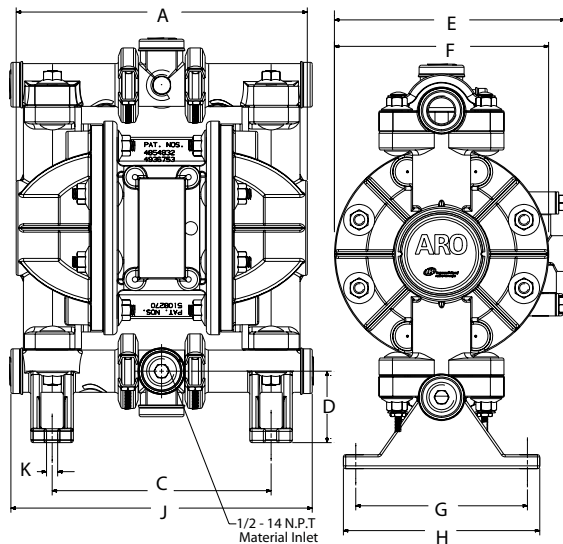


93110



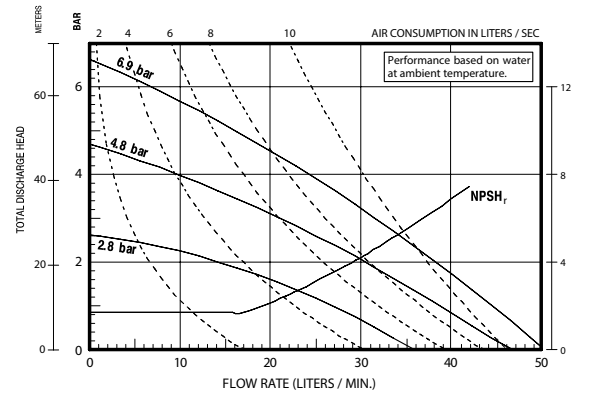
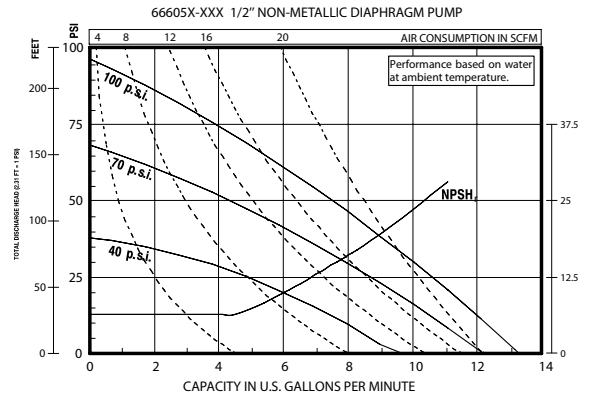
Air Line Connection Kit
66073-1

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) | |



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

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

Accessories

Air Line Connection Kit | 66073-1

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

Cycle Counter Kit | 66975

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

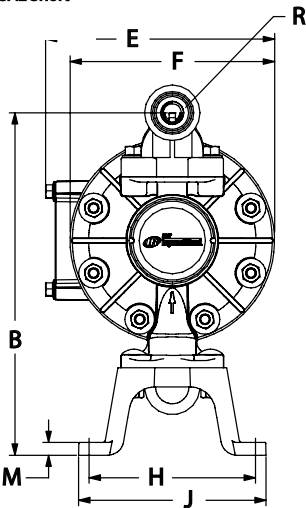
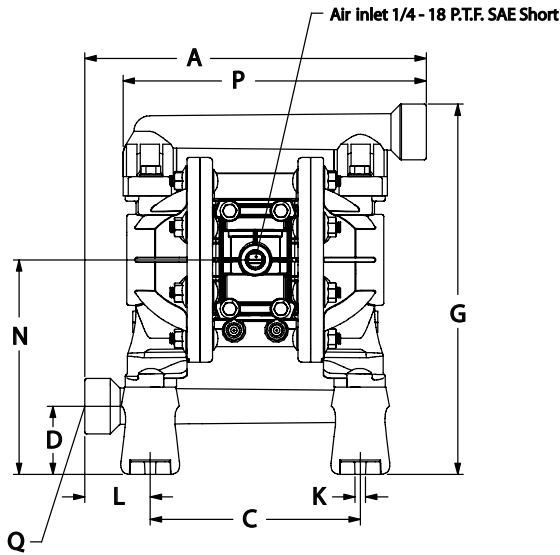
Service Repair Kits | 637428 (air section)
637427-XX (fluid section)

Wall Mount | 76763



Air Line Connection Kit
66073-1

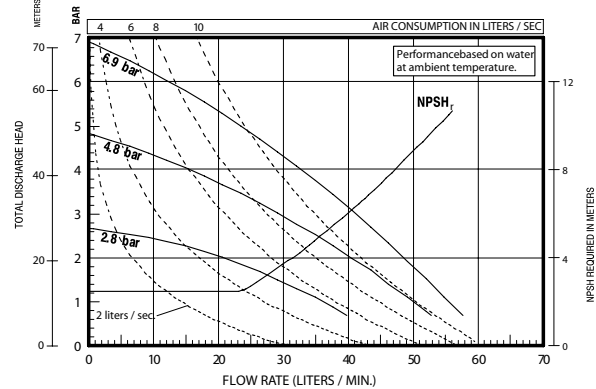
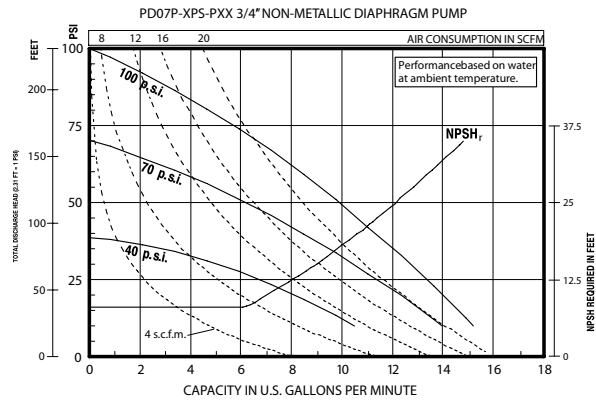
3/4" Non-Metallic Dimensions and Flow Charts



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)



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

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/NEC/CEC	O - No Option
H - End of Stroke/Leak Detection ATEX/IECex/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 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)



6661AJ-3EB-C

6661A3-244-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
A - Aluminum B - Cast Iron	3 - Polypropylene Flange (3-piece manifold) F - Polypropylene Flange (one-piece manifold) J - Polypropylene N.P.T. threads (one piece man- ifold) L - Polypropylene BSP threads (one-piece manifold)	2 - 316 Stainless Steel 3 - Polypropylene 4 - PVDF (Kynar) 8 - Hard 400 Stainless Steel	1 - Neoprene 2 - Nitrile 4 - PTFE 5 - E.P.R. 8 - Polyurethane A - 316 Stainless Steel C - Hytrel E - Santoprene M - Medical Grade Santoprene	1 - Neoprene 2 - Nitrile 4 - PTFE/ Santoprene 5 - E.P.R. 6 - Composite PTFE M - Medical Grade Santoprene

Accessories

Air Line Connection Kit | 66073-2

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

Cycle Counter Kit | 66975

Service Repair Kits | 637118-C (air section)

637161-XX-C (fluid section)

Flange Connection Kit | 67078 Kit meets ANSI specifications.

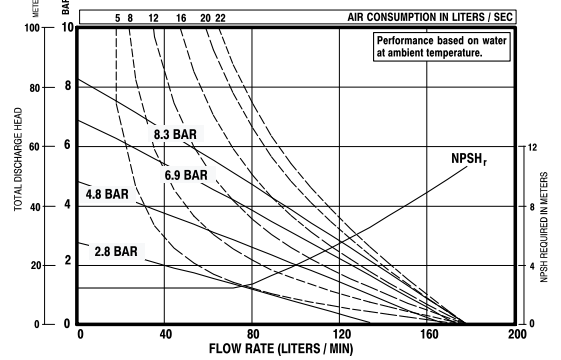
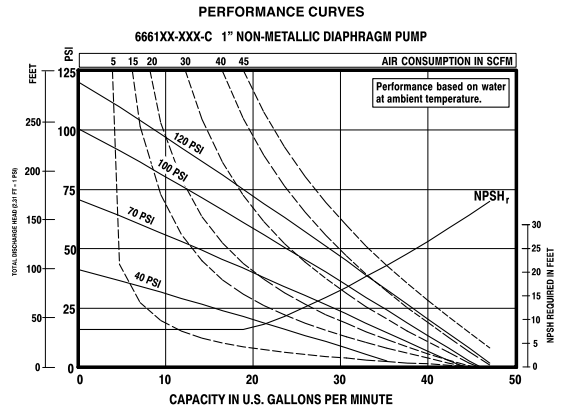
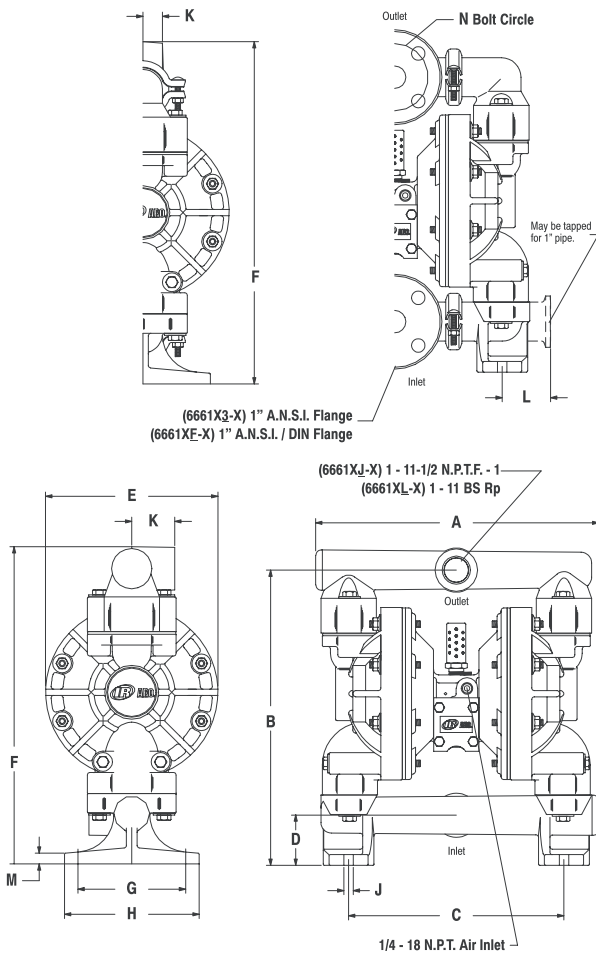
Flange constructed of glass-filled polypropylene. Bolts, washers and nuts are stainless steel. Gasket is 4401 klinger synthetic fiber nitrile binder.



Air Line

Flange Connection Kit
67078

1" Non-Metallic Dimensions and Flow Charts



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

DIMENSIONS

	6661XK-X 6661XN-X 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)

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" A.N.S.I./DIN 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
Example:	PX10	X	-	X	X	S	-	X	X	X	-	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 and 10
PD10 - Standard Pump PE10 - Electronic Interface Accessible Pump	E - Conductive Polypropylene P - Polypropylene	A - NPTF Thread B - BSP Thread F - 1" A.N.S.I./DIN Flange (Side) Y - 1" A.N.S.I./DIN Flange (Center)	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 M - Med. Grade Santoprene® T - PTFE/Santoprene® V - Viton®	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 Counter Kit | 66350

Cycle Sensor Kit | 67350

Service Repair Kits | 637397 (air motor for PX10P), 637396-XX (fluid section),

637395-X (major air valve assembly)

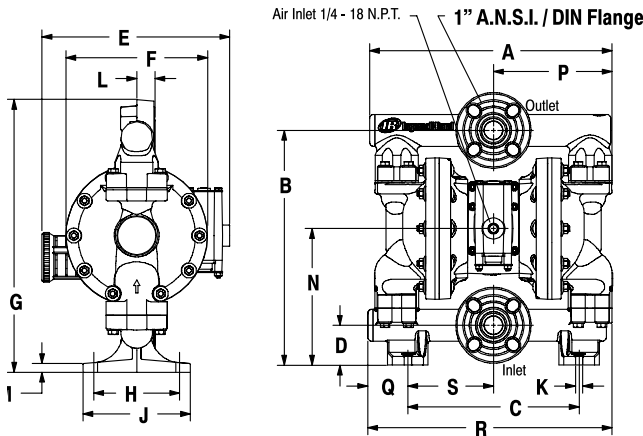
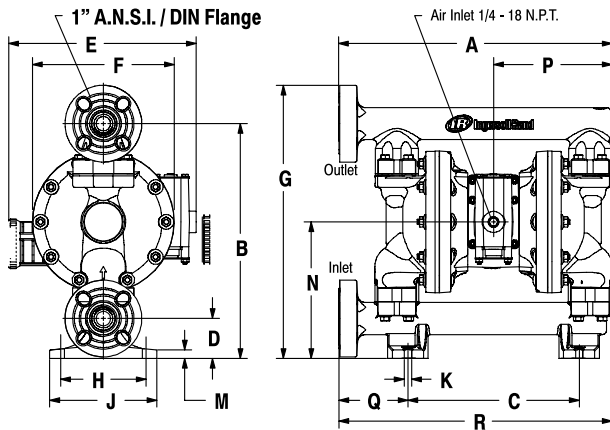
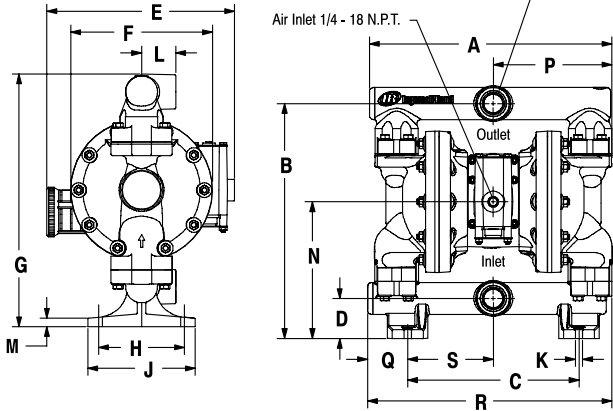
Flange Connection Kits | 67341-E10N (side flange), 67341-C10N (center flange)

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



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)



DIMENSIONS

- A - see below
- B - 13-25/32" (349.8 mm)
- C - 10-1/16" (255.3 mm)
- D - 2-11/32" (59.4 mm)
- E - 11-1/32" (279.5 mm)
- F - 8-5/16" (211.1 mm)

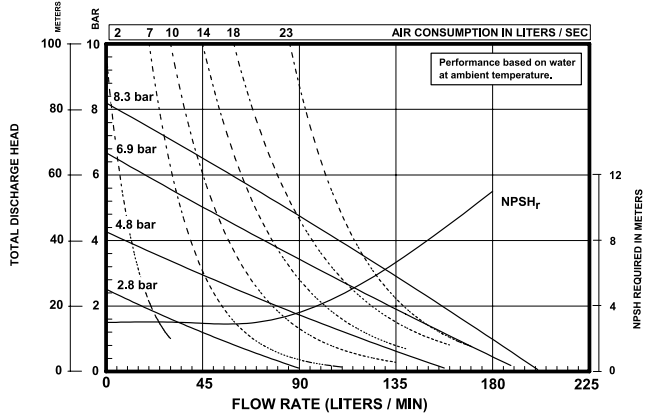
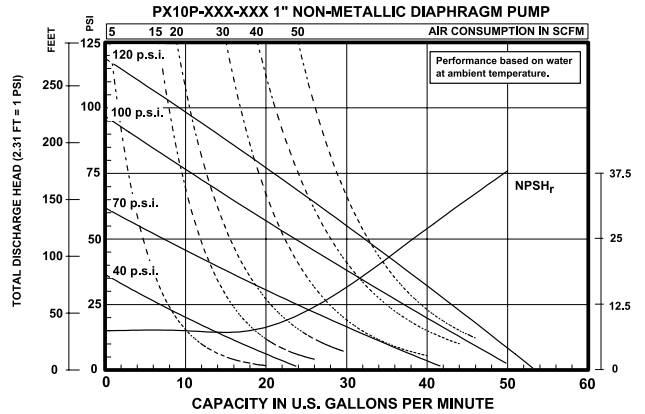
- G - see below
- H - 5-1/32" (127.6 mm)
- J - 6-9/32" (159.6 mm)
- K - 7/16" (11.1 mm)
- L - see below
- M - 1/2" (12.7 mm)

- N - 8-1/32" (203.4 mm)
- P - 6-31/32" (176.6 mm)
- Q - see below
- R - see below
- S - 5-1/32" (127.6 mm)

- PX10P-AXS-, -BXS- (Threaded)
- A - 14-7/32" (361.2 mm)
- G - 14-27/32" (376.5 mm)
- L - 2" (50.8 mm)
- Q - 2-3/8" (59.7 mm)
- R - 14-11/32" (364.0 mm)

- PX10P-EXS-XXX (End Flange)
- 16-1/32" (407.3 mm)
- 16-1/32" (407.3 mm)
-
- 4-1/16" (103.0 mm)
- 16-1/32" (407.3 mm)

- PX10P-YXS-XXX (Center Flange)
- 14-7/32" (361.2 mm)
- 16" (406.3 mm)
- 1-1/32" (25.6 mm)
- 2-3/8" (59.7 mm)
- 14-11/32" (364.0 mm)



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

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

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" A.N.S.I./DIN 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 Flange (3-piece manifold) 4 - P.V.D.F. (Kynar)	2 - 316 Stainless Steel 3 - Polypropylene 4 - P.V.D.F. (Kynar) 8 - Hard 400 Stainless Steel	1 - Neoprene 2 - Nitrile 3 - Viton 4 - PTFE 8 - Polyurethane C - Hytrel E - Santoprene	1 - Neoprene 2 - Nitrile 3 - Viton 4 - PTFE / Santoprene 6 - Composite PTFE 9 - Hytrel B - Santoprene

Accessories

Air Line Connection Kit | 66084-1

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

Cycle Counter Kit | 66975

Service Repair Kits | 637118-C (air section)

637165-XX (fluid section)

Flange Connection Kit | 67079 Kit meets ANSI specifications.

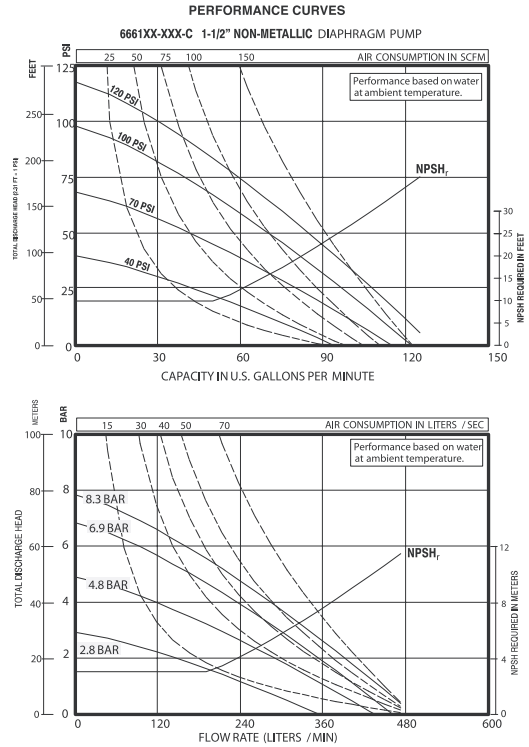
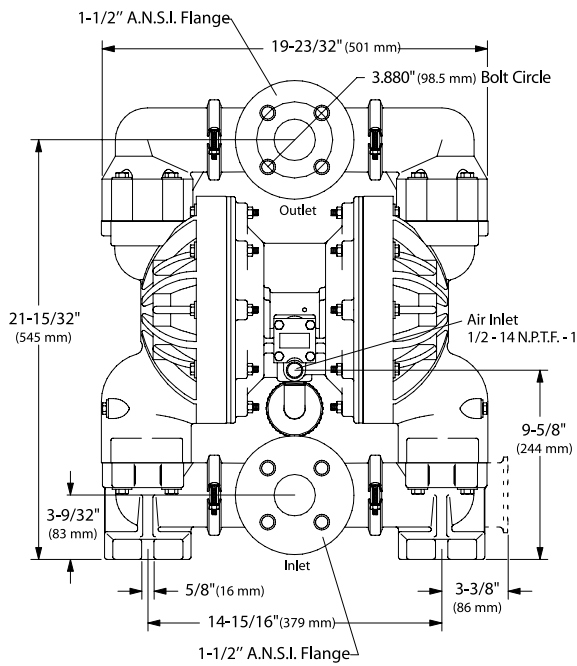
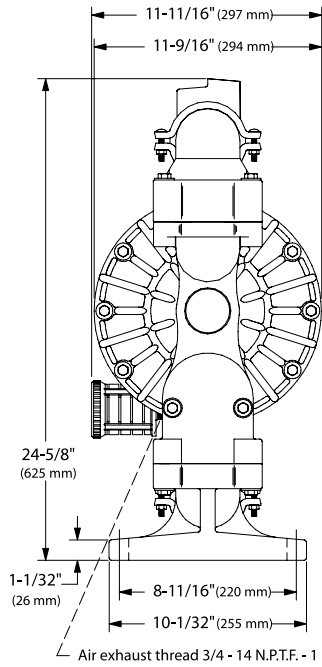
Flange constructed of glass-filled polypropylene. Bolts, washers and nuts are stainless steel. Gasket is 4401 klinger synthetic fiber nitrile binder.



Flange Connection Kit
67079

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

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



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

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" A.N.S.I./DIN 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
Example:	PX15	X	-	X	X	S	-	X	X	X	-	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 and 10
PD15 - Standard Pump PE15 - Electronic Interface Accessible Pump	E - Conductive Polypropylene P - Polypropylene	F - 1-1/2" A.N.S.I./DIN Flange (Side) Y - 1-1/2" A.N.S.I./DIN Flange (Center)	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 M - Medical Grade Santoprene® T - PTFE/Santoprene® V - Viton®	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

Cycle Counter Kit | Cycle Counter Kit| 66350

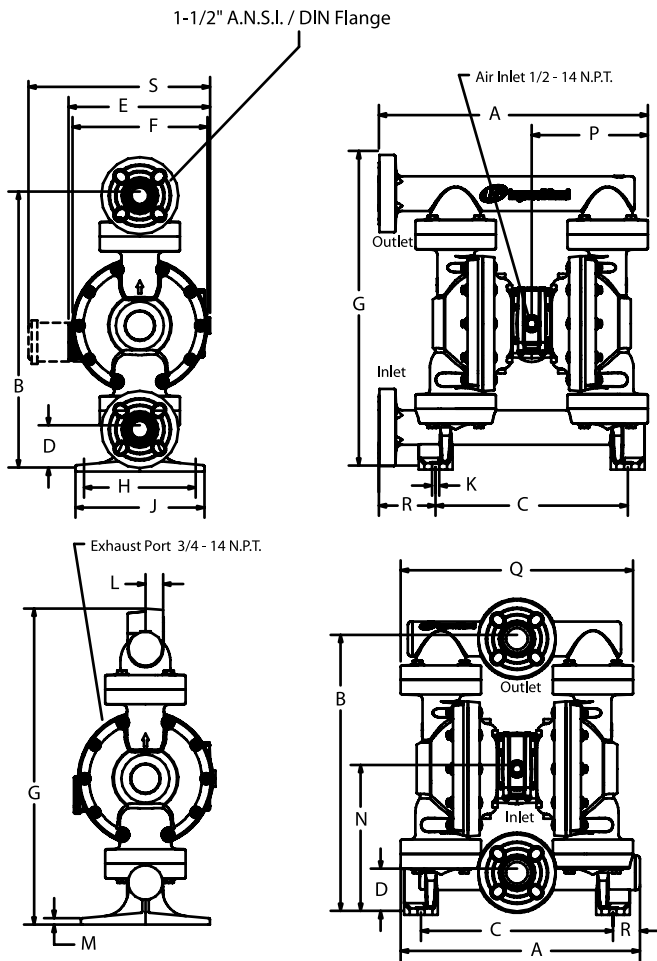
Service Repair Kits | 637389 (air motor for PX15P), 637391-XX (fluid section)
637390-X (major air valve assembly)

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

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



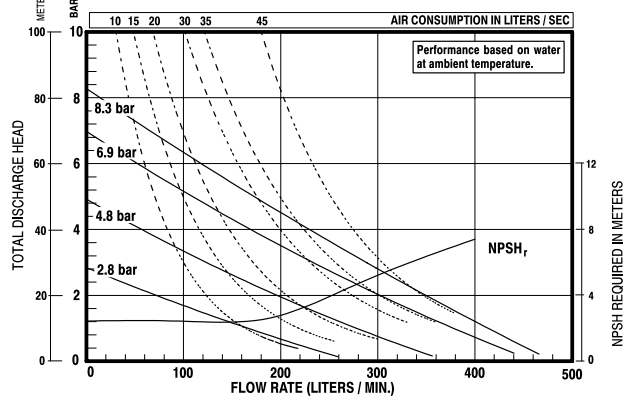
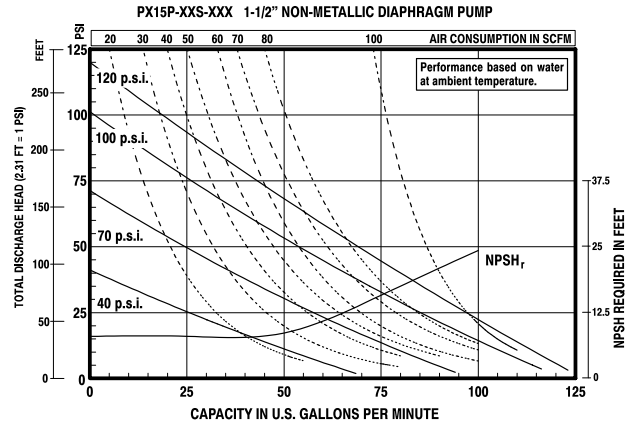
1-1/2" Non-Metallic Dimensions and Flow Charts



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

- | | |
|--|---|
| PX15P- <u>EX</u> S-XXX
(End Flange) | PX15P- <u>XS</u> 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) |

- | | | |
|------------------------|----------------|------------------------|
| PX15 <u>E</u> -XXX-XXX | "E" ----- | "S" 14-1/8" (358.5 mm) |
| PX15 <u>P</u> -XXX-XXX | 11" (279.5 mm) | ----- |



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

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

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" A.N.S.I./DIN 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 Flange (3-piece manifold) 4 - P.V.D.F. (Kynar)	2 - 316 Stainless Steel 3 - Polypropylene 4 - P.V.D.F. (Kynar) 8 - 440 Stainless Steel	1 - Neoprene 2 - Nitrile 3 - Viton 4 - PTFE 8 - Polyurethane C - Hytrel E - Santoprene	1 - Neoprene 2 - Nitrile 3 - Viton 4 - PTFE / Santoprene 6 - Composite PTFEE 9 - Hytrel B - Santoprene

Accessories

Air Line Connection Kit | 66084-1

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

Cycle Counter Kit | 66975

Service Repair Kits | 637118-C (air section)

637165-XX (fluid section)

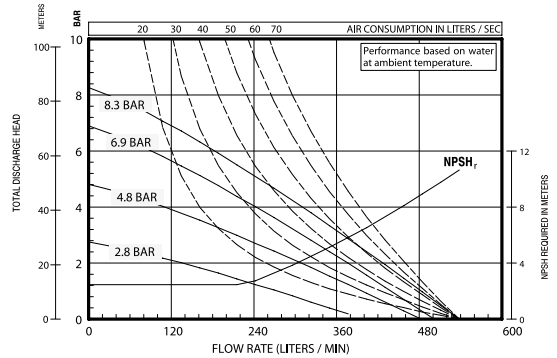
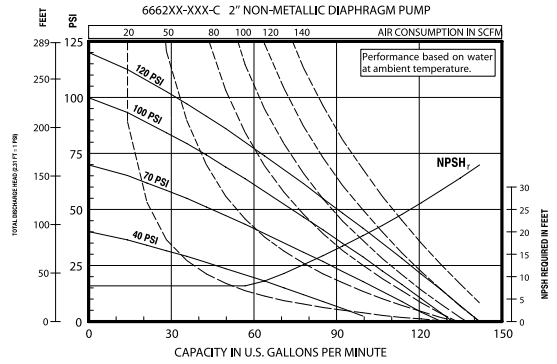
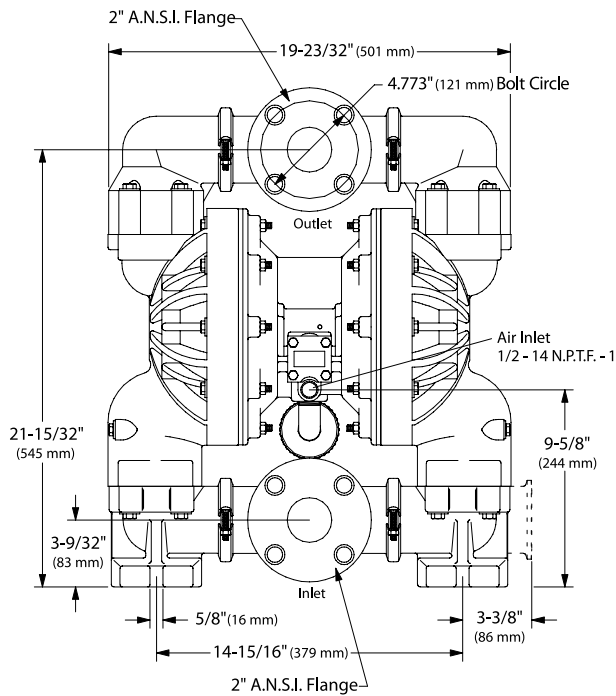
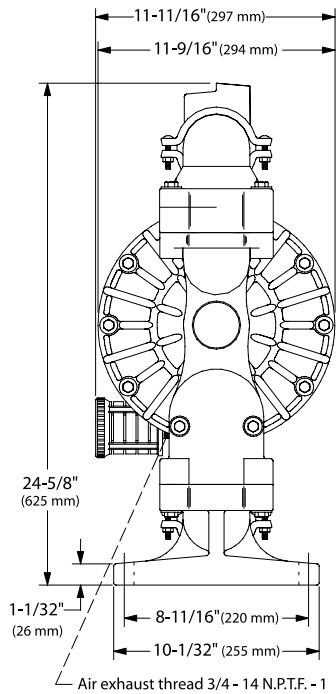
Flange Connection Kit | 67080 Kit meets ANSI specifications. Flange constructed of glass-filled polypropylene. Bolts, washers and nuts are stainless steel. Gasket is 4401 klinger synthetic fiber nitrile binder.



Flange Connection Kit

2" Non-Metallic Dimensions and Flow Charts

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



Refer to www.AROzone.com for full size flow curves.

For additional information contact technical support at 1.800.495.0276

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/Wastewater 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" A.N.S.I./DIN flange (side)
Max. operating pressure psi (bar):	120 (8.3)
Suspended solids max. dia. in. (mm):	1/4" (6.4)
Weight lbs (kg):	Polypropylene 85.3 (38.7) PVDF 110.9 (50.3)
Maximum dry suction lift ft (m):	14 (4.2)
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	-	F	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
PD20 - Standard Pump PE20 - Electronic Interface Accessible Pump	E - Conductive Polypropylene P - Polypropylene	F - 2" A.N.S.I./DIN Flange (Side)	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 M - Medical Grade Santoprene® 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 25

* 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 | Kit No.67237

Cycle Counter Kit | 66350

Cycle Sensor Kit | 67350-1 (PE20X pump model is required)

Service Repair Kits | 637369 (air motor for PX20P), 637373-XX (fluid section), 637374-X (major air valve assembly)

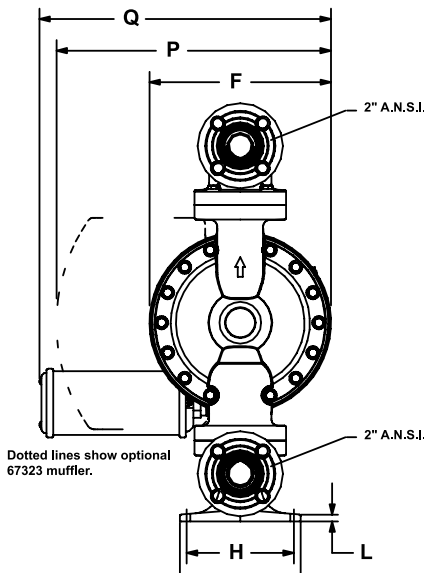
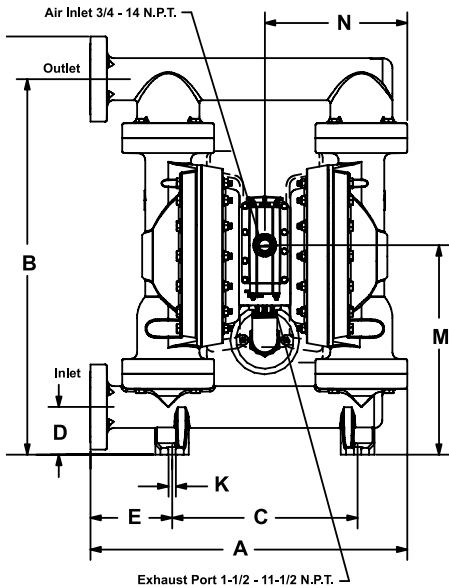
Continuous-Duty Muffler | 67323 Recommended for continuous-duty and high-flow applications. Muffler features large expansion chamber, permitting cold exhaust air to exit pump

Flange Connection Kit | 67341-E20N



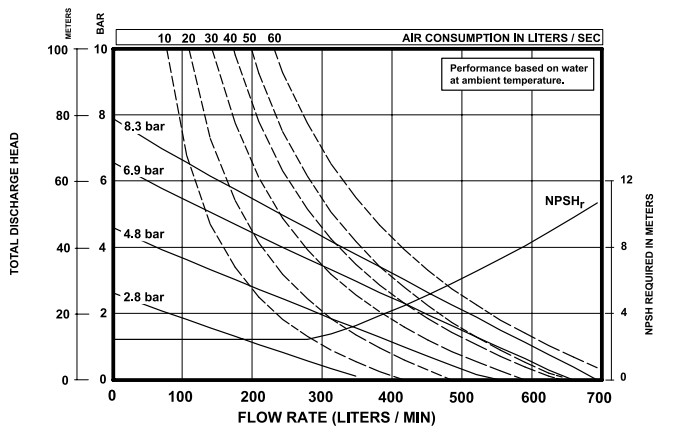
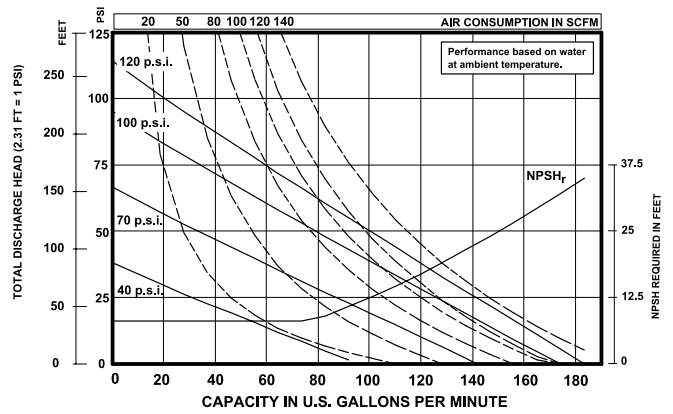
67323
Continuous Duty
Muffler

2" Non-Metallic Dimensions and Flow Charts



- | | |
|-------------------------|-------------------------|
| A - 24-3/16" (614.3mm) | F - 13-7/8" (352.0mm) |
| B - 28-21/32" (728.0mm) | G - 31-29/32" (810.5mm) |
| C - 14-5/32" (360.0mm) | H - 8-3/16" (207.8mm) |
| D - 3-5/8" (92.2mm) | J - 9-7/32" (234.2mm) |
| E - 6-1/4" (158.3mm) | K - 9/16" (14.3mm) |
| L - 1/2" (12.7mm) | |
| M - 16" (405.9mm) | |
| N - 10-7/8" (276.2mm) | |
| P - 20-31/32" (532.2mm) | |
| Q - 22-9/32" (565.5mm) | |

PX20P-FXS-XXX 2" NON-METALLIC DIAPHRAGM PUMP



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

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

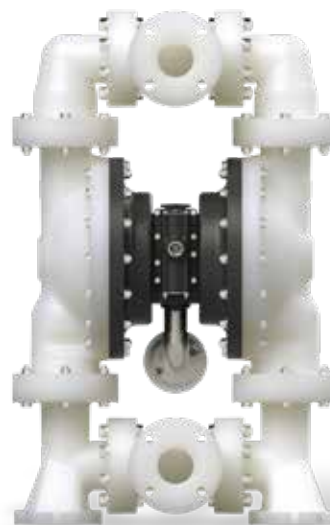
3" Non-Metallic Models

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" A.N.S.I./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" A.N.S.I. 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

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

Hytrel® and Viton® are registered trademarks of the DuPont company. Santoprene® is a registered trademark of Monsanto Company, licensed to Advanced Elastomer Systems, L.P.

Accessories

Air Line Connection Kit | 66109

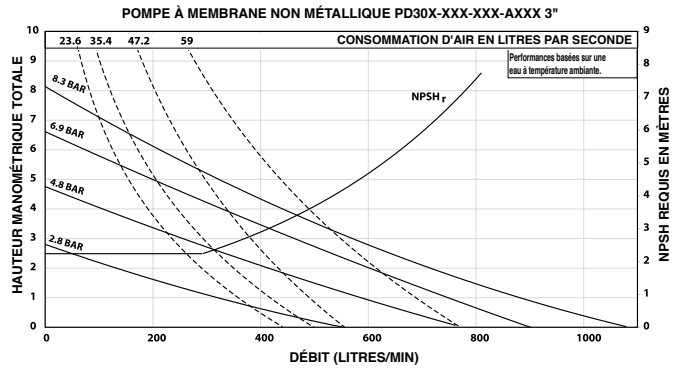
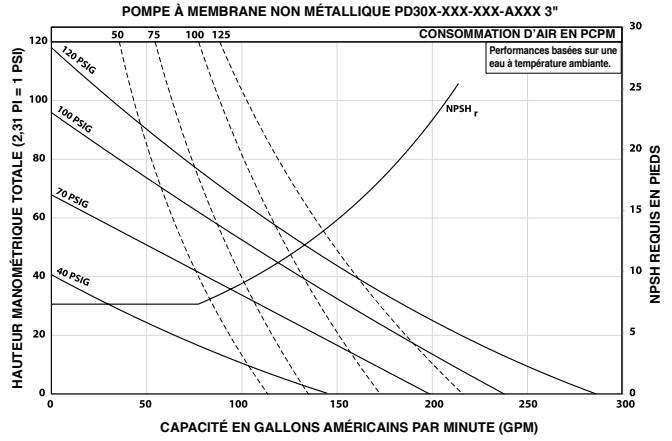
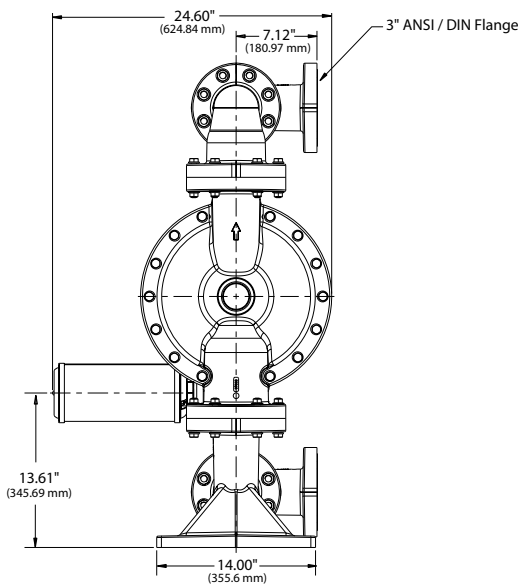
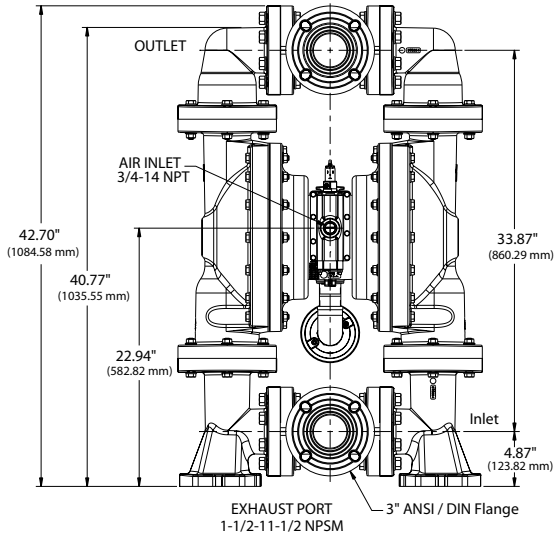
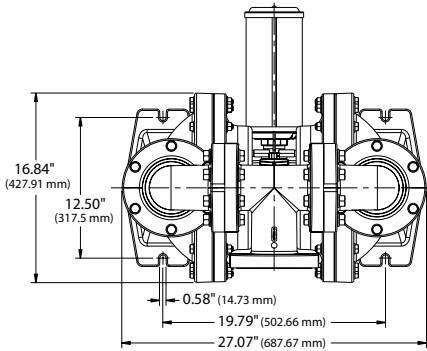
(Piggyback Filter/Regulator with gauge, pipe nipple and 5-foot air hose)

Diaphragm Failure Detection | Kit No.67237

Cycle Sensor Kit | 67350-1(PE30X pump model is required)

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

3" Non-Metallic Dimensions and Flow Charts



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

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	
Maximum Flow lpm (gpm)	45.4 (12)	51.5 (13.6)	133 (35)	197 (52)	340.7 (90)	465 (123)
Maximum Discharge Pressure bar (psi)	6.9 (100)	6.9 (100)	8.3 (120)	8.3 (120)	8.3 (120)	8.3 (120)
Material of Construction	Aluminum Stainless Steel	Aluminum	Aluminum Cast Iron Stainless Steel	Aluminum Cast Iron Stainless Steel Hastelloy®	Aluminum Cast Iron Stainless Steel	Aluminum Cast Iron Stainless Steel Hastelloy®
Maximum Solids mm (in)	2.4 (3/32)	2.4 (3/32)	3.2 (1/8)	3.32 (1/8)	6.4 (1/4)	6.4 (1/4)
Maximum Dry Suction Lift m (ft)	4.5 (15)	4.5 (15)	6.1 (20)	5.7 (19)	5.8 (19)	4.2 (14)



Models	2" Metallic		3" Metallic	
Maximum Flow lpm (gpm)	651 (172)	651 (172)	897 (237)	1,041 (275)
Maximum Discharge Pressure bar (psi)	8.3 (120)	8.3 (120)	8.3 (120)	8.3 (120)
Material of Construction	Aluminum Cast Iron Stainless Steel	Aluminum Cast Iron Stainless Steel Hastelloy®	Aluminum Cast Iron Stainless Steel	Aluminum Cast Iron Stainless Steel Hastelloy®
Maximum Solids mm (in)	6.4 (1/4)	6.4 (1/4)	9.5 (3/8)	9.5 (3/8)
Maximum Dry Suction Lift m (ft)	8.3 (27.2)	4.2 (14)	5.4 (17.6)	4.2 (14)

Compact Series Diaphragm Pumps

PRO 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. 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



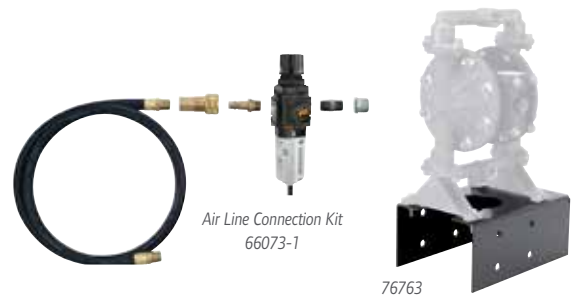
Ordering

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

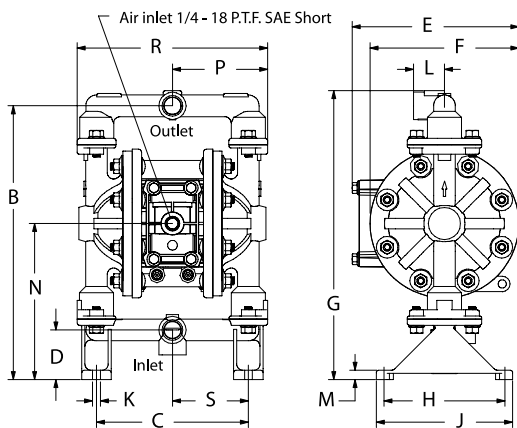
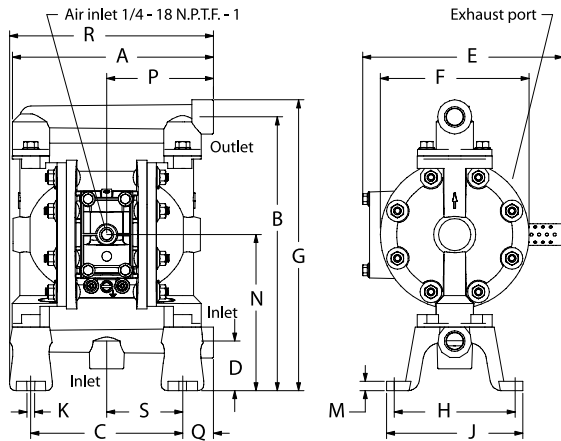
Position 1 Model Series	Position 2 Center Section	Position 3 Connections	Position 4 Manifold Material	Position 5 Hardware	Position 6 Seat Material	Position 7 Ball Material	Position 8 Diaphragm Material	Position 9 Specialty Code
D - Standard E - Remote Actuation Capable	A - Aluminum R - Polypropylene	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 - 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 27

Accessories

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



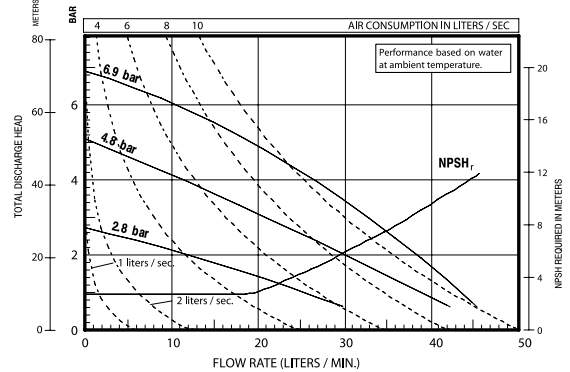
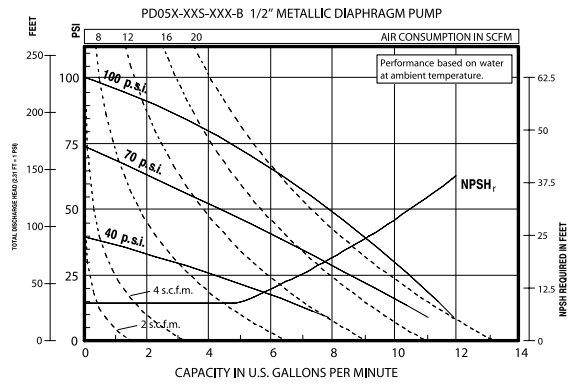
1/2" Metallic Dimensions and Flow Charts



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)



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

Ordering Position 9

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 10 and 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/NEC/CEC	O - No Option
H - End of Stroke/Leak Detection ATEX/IECex/NEC/CEC	

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)



PD07R-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

Accessories

Air Line Connection Kit | 66073-1

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

Cycle Counter Kit | 66975

Wall Mount Bracket Kit | 76763

Optional Muffler | 93110 used with 637438 kit

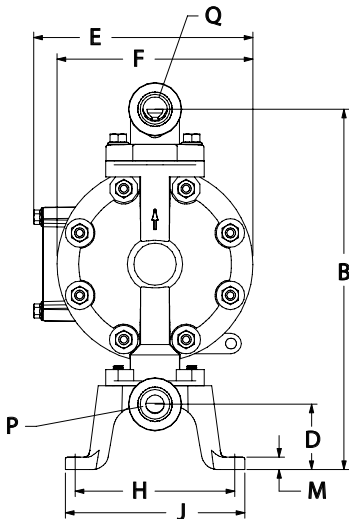
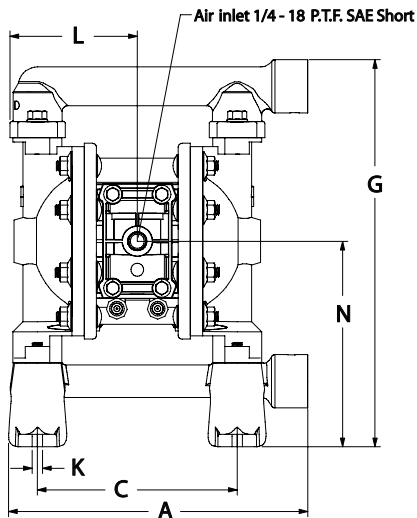
Service Repair Kits | 637428 (air section)

637427-XX (fluid section)



Air Line Connection Kit
66073-1

3/4" Metallic Dimensions and Flow Charts

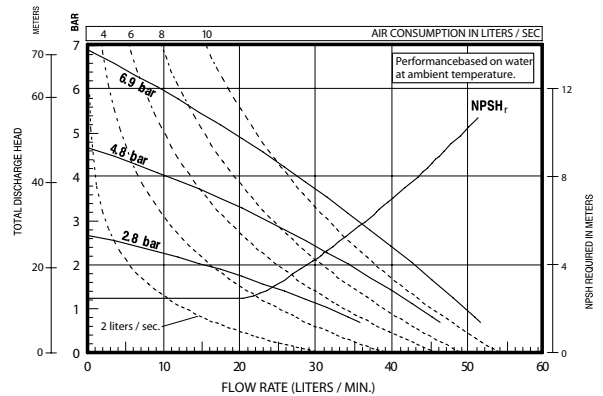
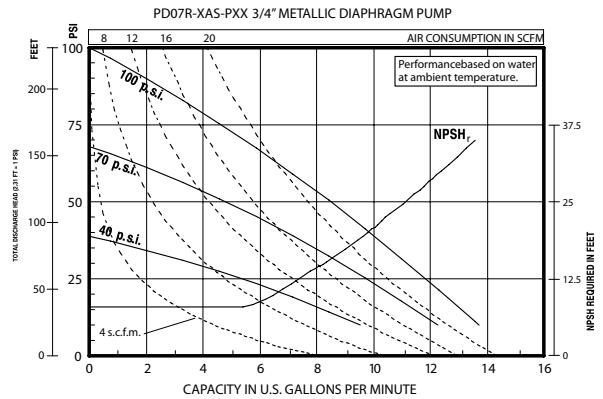


DIMENSIONS

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



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

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/NEC/CEC	O - No Option
H - End of Stroke/Leak Detection ATEX/IECex/NEC/CEC	

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 (Kynar) 5 - Carbon Steel 8 - Hard 400 Stainless Steel	1 - Neoprene 2 - Nitrile 3 - Viton 4 - PTFE 6 - Acetal 8 - Polyurethane A - Stainless Steel C - Hytrel E - Santoprene	1 - Neoprene 2 - Nitrile 3 - Viton 4 - PTFE / Santoprene 6 - Composite PTFE 9 - Hytrel B - Santoprene G - Nitrile

Accessories

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

Cycle Counter Kit | 66975

Service Repair Kits | 637118-C (air section)

637119-XX-C (fluid section)

Wall Mount | 66100



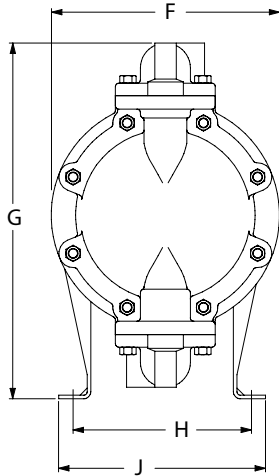
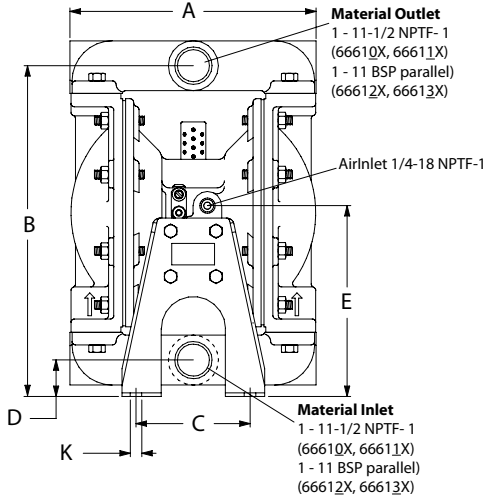
Air Line Connection Kit
66073-2



Wall Mount
66100

1" Metallic Dimensions and Flow Charts

6661X0, 1XA, 1X2 & 1XC

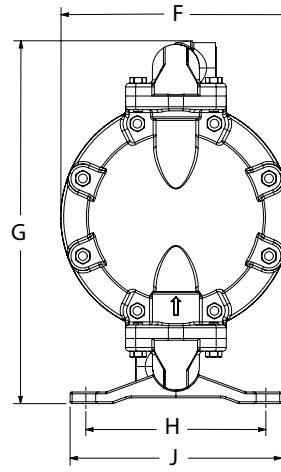
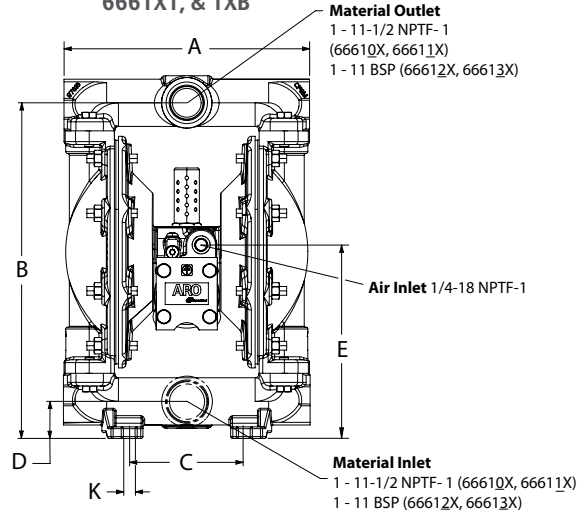


DIMENSIONS

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



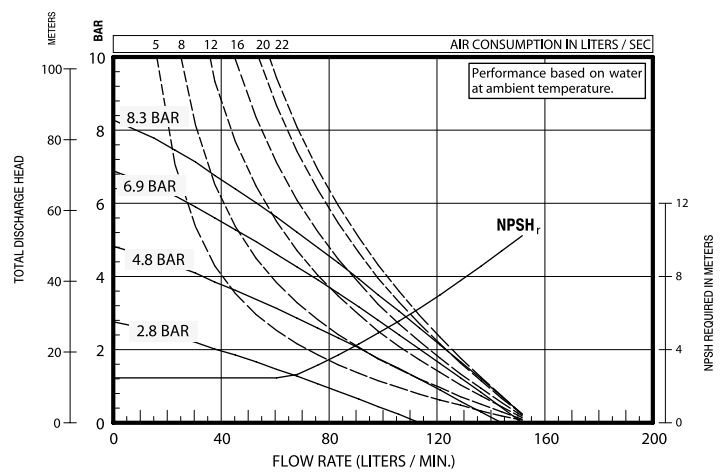
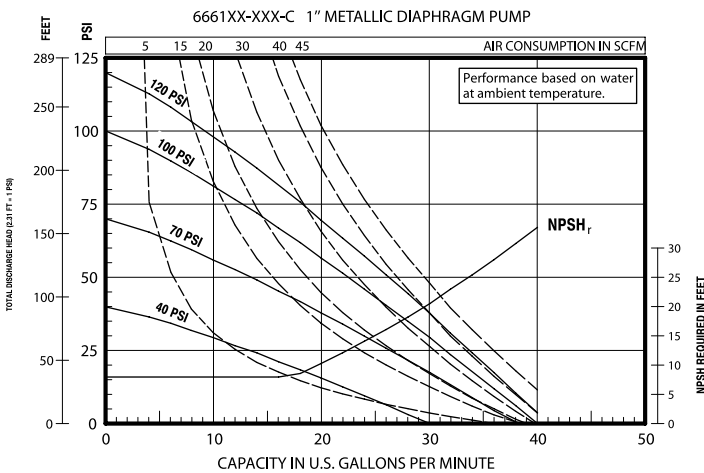
DIMENSIONS

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



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

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-XSX-XXX 38.2 (17.3)
 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(A)
 Muffler Included: 93110



Ordering

Position	1	2		3	4	5		6	7	8		9	10
Example:	PX10	X	-	X	X	X	-	X	X	X	-	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 - Polypropylene S - Stainless Steel*	A - NPTF Thread B - BSP Thread	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 M - Medical Grade Santoprene® T - PTFE/Santoprene® V - Viton®	Fluid control options for pump with electroic interface (PE10 model). See complete description on page 35

* 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
- Cycle Counter Kit | 66350
- Cycle Sensor Kit | 67350 (PE10X pump model is required)
- Service Repair Kits | 637397 (air motor for PX10A, PX10R and PX10S),
 637401-XX (fluid section)
 637395-X (major air valve assembly)

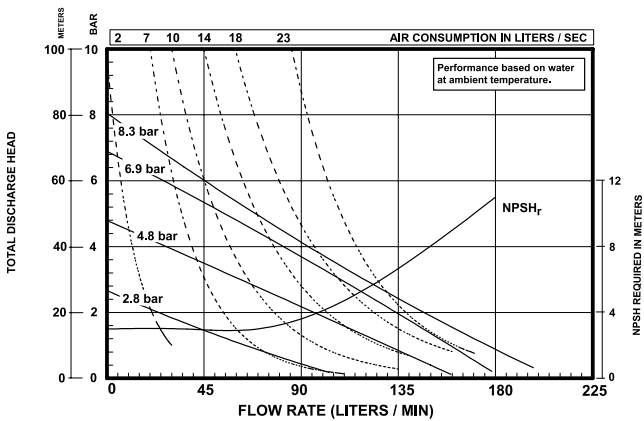
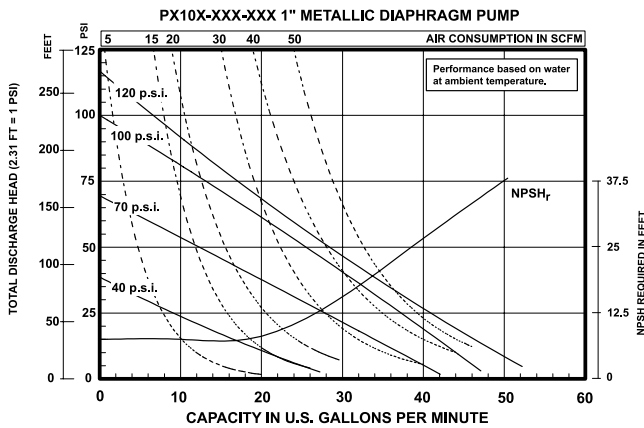
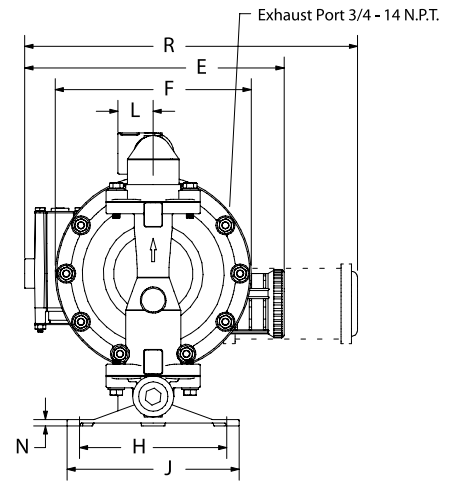
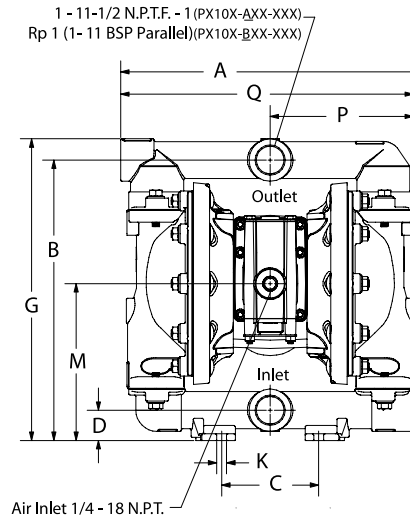
1" Metallic Dimensions and Flow Charts

DIMENSIONS

- A - 12-11/32" (313.2 mm)
- B - 11-9/16" (293.7 mm)
- C - 4" (101.6 mm)
- D - 1-1/4" (31.8 mm)
- E - see below
- F - see below
- G - 12-7/16" (315.9 mm)
- H - 6-1/4" (158.8 mm)
- J - 7-5/16" (185.7 mm)
- K - 13/32" (10.3 mm)
- L - 1-1/2" (38.1 mm)
- M - 6-15/32" (164.3 mm)
- N - see below
- P - 5-27/32" (148.2 mm)
- Q - 12" (304.8 mm)
- R - see below

PX10A-XXX-XXX	"E" -----	8-1/8" (206.4 mm)	"F" -----	14-1/32" (356.2 mm)
PX10R-XXX-XXX	11-1/32" (279.5 mm)	8-5/16" (211.1 mm)	"R" -----	
PX10S-XXX-XXX	-----	8-3/16" (207.9 mm)		

	"N"
PX10X-XAX-XXX	1/4" (6.4 mm)
PX10X-XCX-XXX	9/32" (7.1 mm)
PX10X-XHX-XXX	9/32" (7.1 mm)
PX10X-XSX-XXX	9/32" (7.1 mm)



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

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

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)



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 (Kynar) 5 - Carbon Steel 8 - Hard 400 Stainless Steel	1 - Neoprene 2 - Nitrile 3 - Viton 4 - PTFE 6 - Acetal 8 - Polyurethane A - Stainless Steel C - Hytrel E - Santoprene	1 - Neoprene 2 - Nitrile 3 - Viton 4 - PTFE / Santoprene 6 - Composite PTFE 9 - Hytrel B - Santoprene

Accessories

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

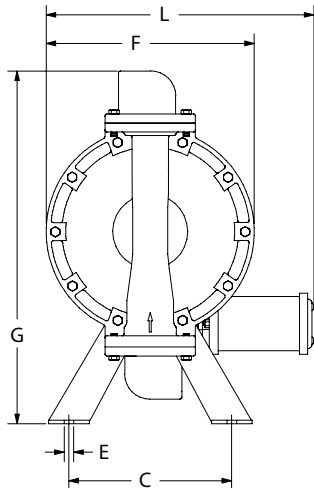
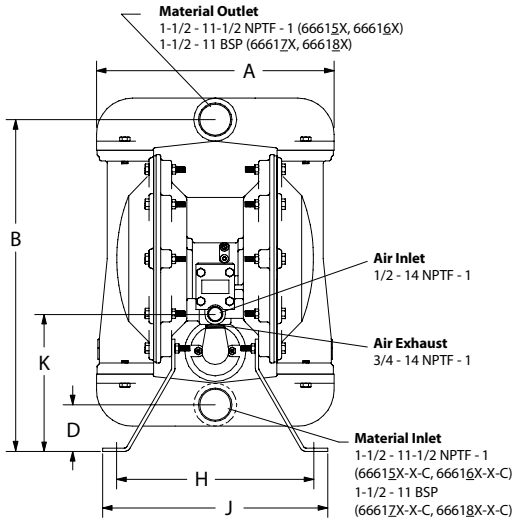
Cycle Counter Kit | 66975

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

Wall Mount | 62133

1-1/2" Metallic Dimensions and Flow Charts

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

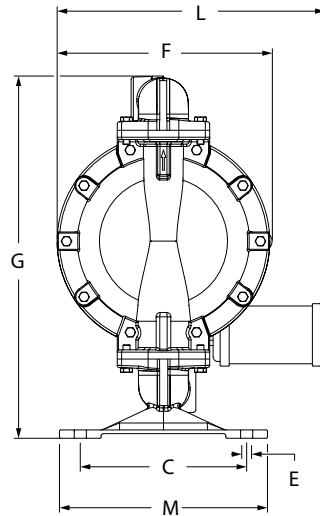
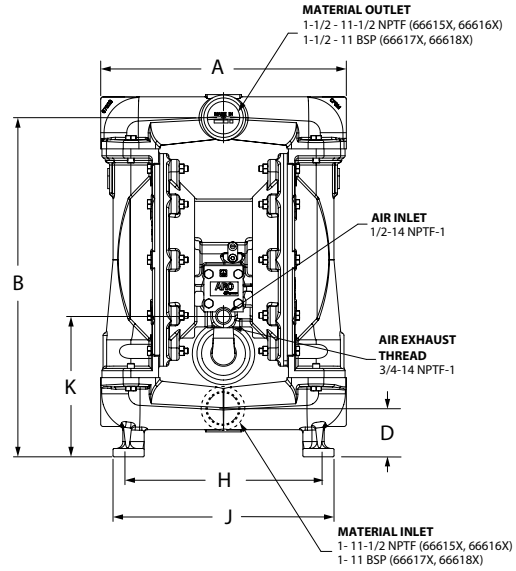


DIMENSIONS

- | | | |
|----------------------|----------------------|------------------------|
| 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



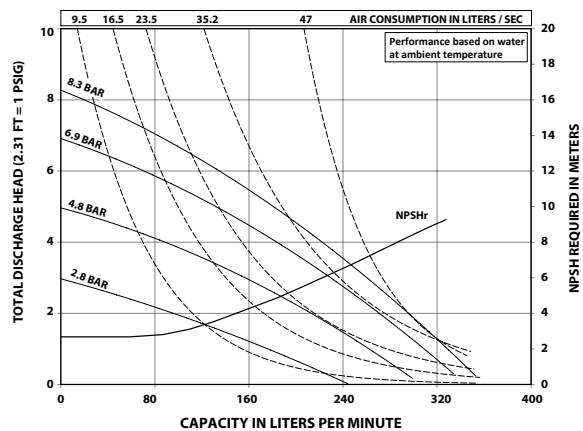
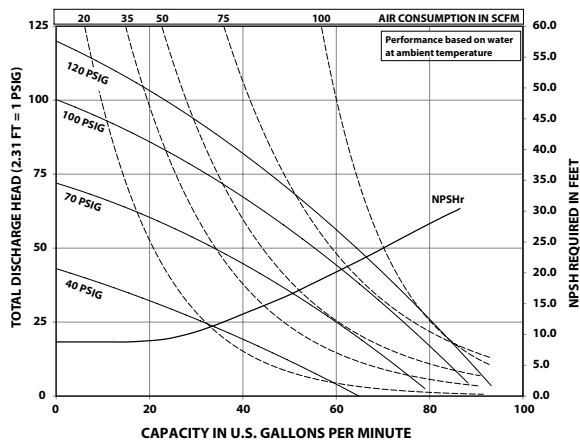
DIMENSIONS

- | | | |
|-----------------------|----------------------|----------------------|
| 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



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

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 (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" - 11-1/2 N.P.T.F.-1, Rp1-1/2(1-1/2-11BSP) 1-1/2" A.N.S.I./DIN 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-XSX-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			
Example:	PX15	X	-	X	X	X	-	X	X	X	-	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" A.N.S.I./DIN Flange (Center) [†] 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 M - Medical Grade Santoprene® T - PTFE/Santoprene® V - Viton®	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

Cycle Counter Kit | 67350

Service Repair Kits | 637389 (air motor for PX15X), Kit No. 637375-XX (fluid section), 637390-X (major air valve assembly)

1-1/2" Metallic Dimensions and Flow Charts

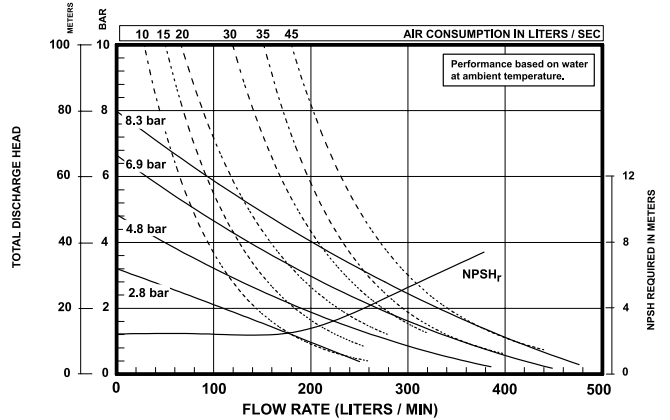
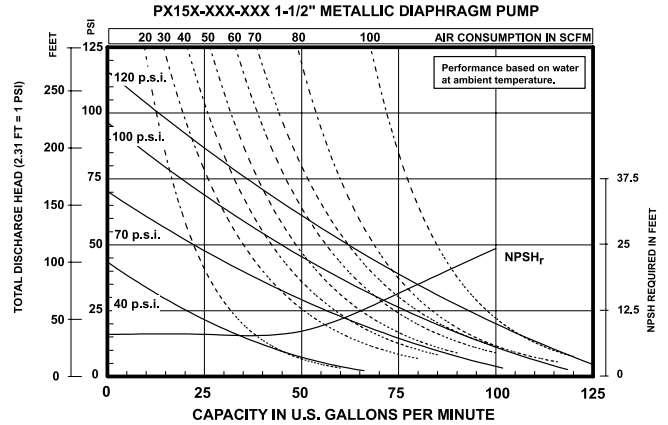
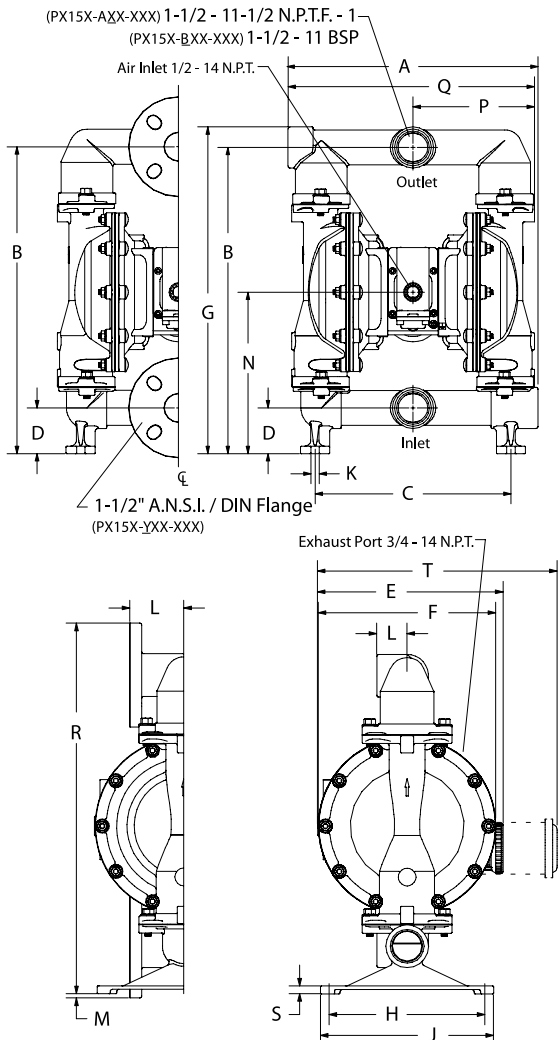
A - see below	G - 19-5/8" (498.1 mm)	N - 9-11/16" (246.0 mm)
B - 18-3/8" (466.7 mm)	H - 9" (228.6 mm)	P - see below
C - 11-3/4" (298.5 mm)	J - 10" (254.0 mm)	Q - see below
D - 2-3/4" (69.9 mm)	K - 1/2" (12.7 mm)	R - 21-7/16" (543.9 mm)
E - see below	L - see below	S - see below
F - 10-1/4" (260.4 mm)	M - 1/4" (6.4 mm)	T - see below

	"A"	"L"
PX15X-AX-XXX	14-7/8" (377.8 mm)	1-3/4" (44.5 mm)
PX15X-XX-XXX	14-5/8" (371.5 mm)	1-3/4" (44.5 mm)
PX15X-HX-XXX	14-9/16" (370.0 mm)	3-1/8" (79.4 mm)
PX15X-ASX-XXX, -BSX	14-25/32" (375.5 mm)	1-3/4" (44.5 mm)
PX15X-YSX-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)



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

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 (Kynar) 5 - Carbon Steel 8 - Hard Stainless Steel 9 - Hytrel E - Santoprene G - Nitrile	2 - Nitrile 4 - PTFE A - 316 Stainless Steel C - Hytrel E - Santoprene	2 - Nitrile 4 - PTFE / Santoprene 6 - Composite PTFE 9 - Hytrel B - Santoprene G - Nitrile

Accessories

Air Line Connection Kit | 66312

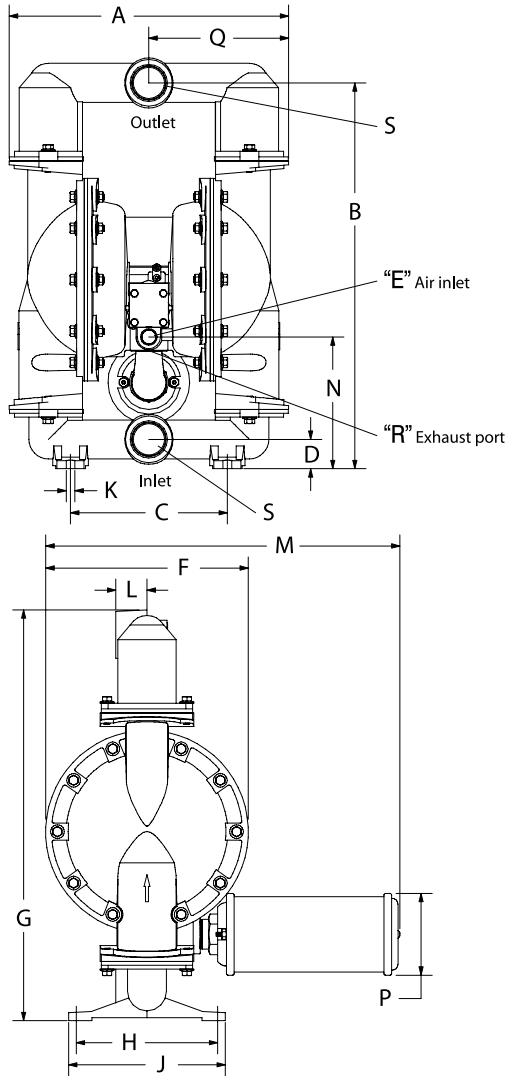
(Piggyback Filter/Regulator with gauge, pipe nipple and 5-foot air hose)

Cycle Counter Kit | 66975

Service Repair Kits | 637434 (air section)

637432-XX (fluid section)

2" Metallic Dimensions and Flow Charts



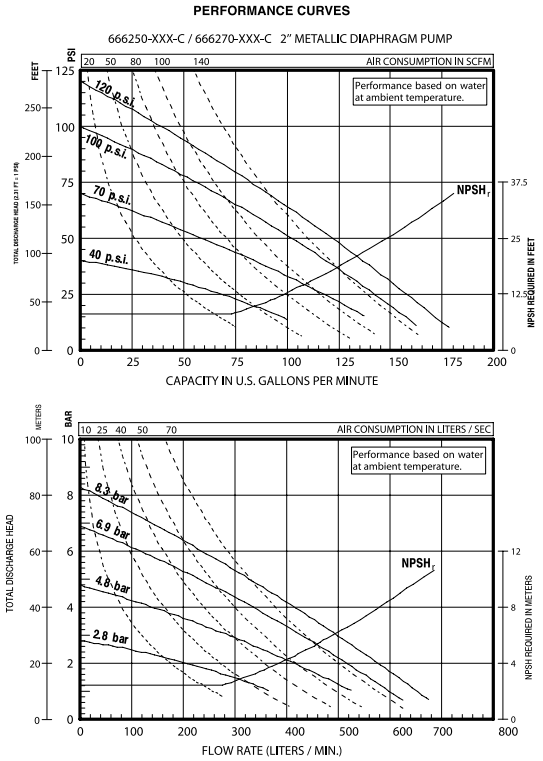
DIMENSIONS

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.



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" A.N.S.I./DIN 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 - Poly-propylene S - Stainless Steel*	A - NPTF Thread B - BSP Thread F [†] - 2" ANSI/DIN Flange Center † 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 M - Med. Grade Santoprene® 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)

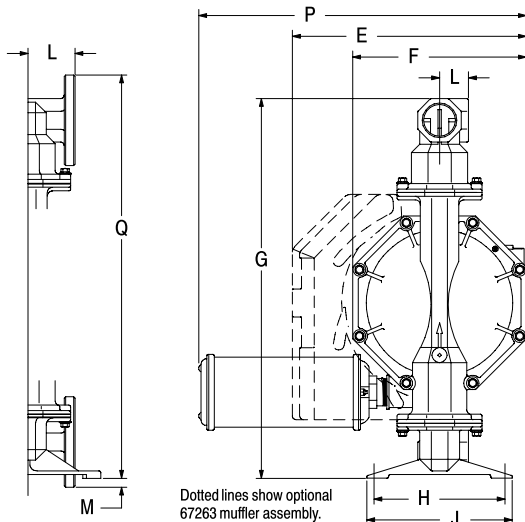
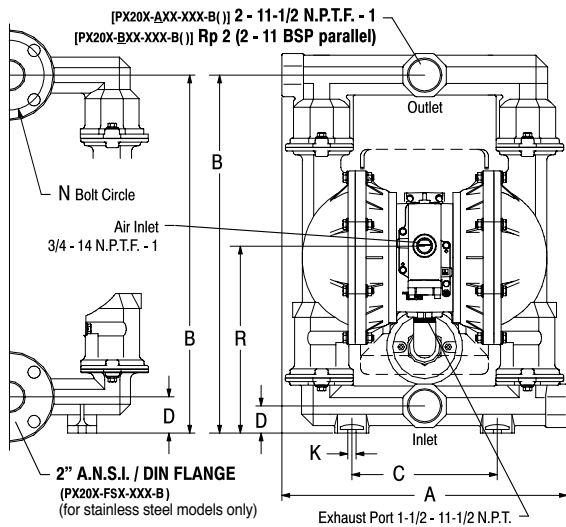
Continuous-Duty Muffler | 67263

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

Cycle Counter Kit | 66350 for PD20R-X and PD20Y-X, 67350-1, (PE20X pump model is required)

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

2" Metallic Dimensions and Flow Charts

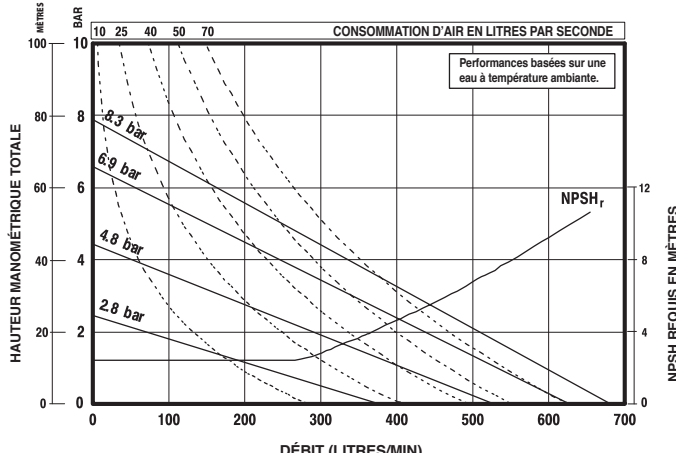
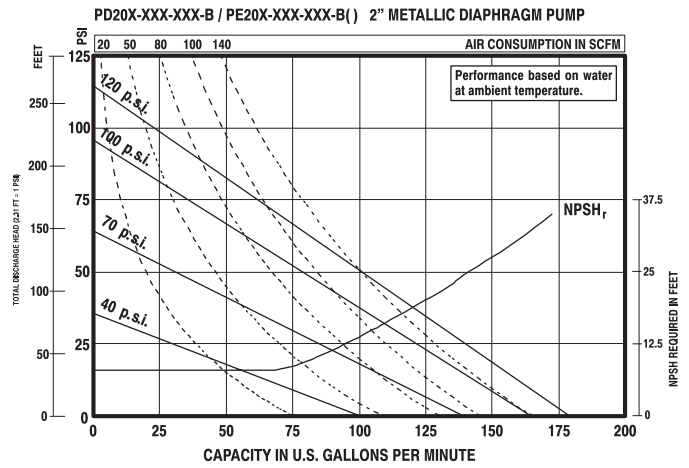


DIMENSIONS

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(), -BH	19-1/4" (488.7 mm)	2-1/2" (63.5 mm)
PX20X-ASX-XXX-B(), -BS	19-1/4" (488.7 mm)	2-1/2" (63.5 mm)
PX20X-FHX-XXX-B(), -FS	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)



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

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 (Kynar) 5 - Carbon Steel 8 - Hard Stainless Steel	2 - Nitrile 4 - PTFE C - Hytrel E - Santoprene	2 - Nitrile 4 - PTFE / Santoprene 9 - Hytrel B - Santoprene

Accessories

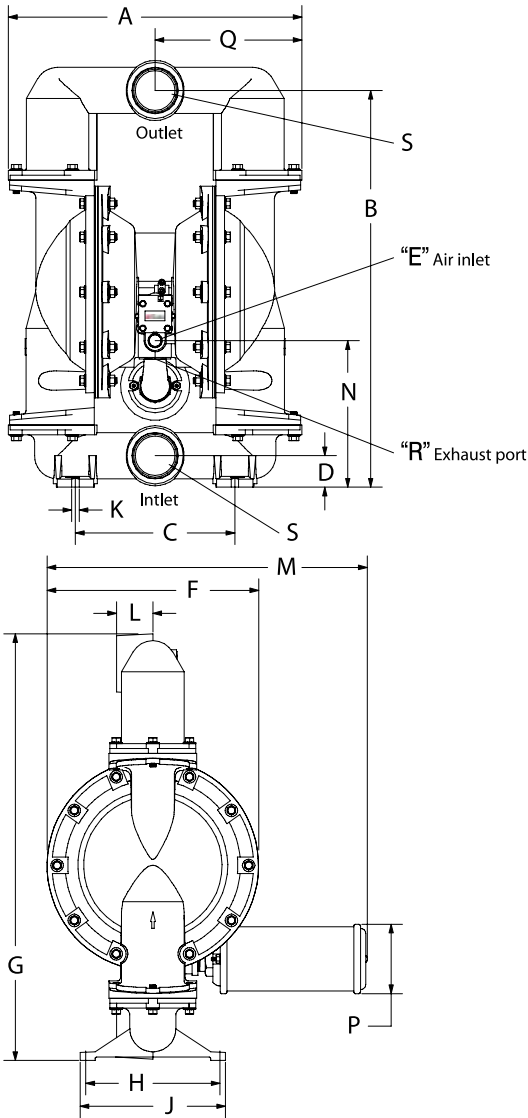
Air Line Connection Kit | 66312 (Piggyback Filter/Regulator with gauge, pipe nipple and 5-foot air hose)

Cycle Counter Kit | 66975

Service Repair Kits | 637434 (air section)

637433-XX (fluid section)

3" Metallic Dimensions and Flow Charts



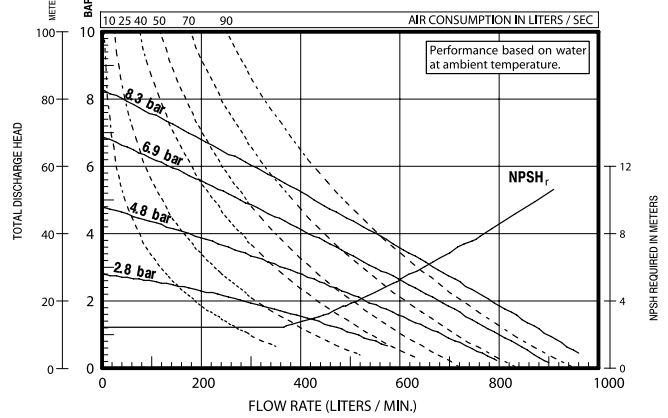
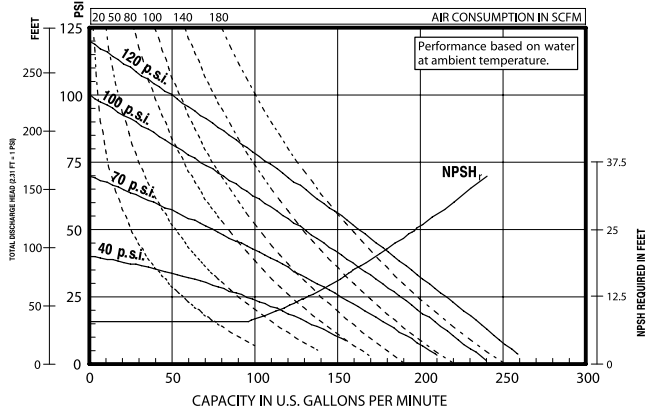
DIMENSIONS

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



Refer to www.AROzone.com for full size flow curves.

For additional information contact
 technical support at 1.800.495.0276

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: @ 100 psi Gallons (Liters)	2.8 (10.6)
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 parallel)
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 flange F - DIN 8-hole flange	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)

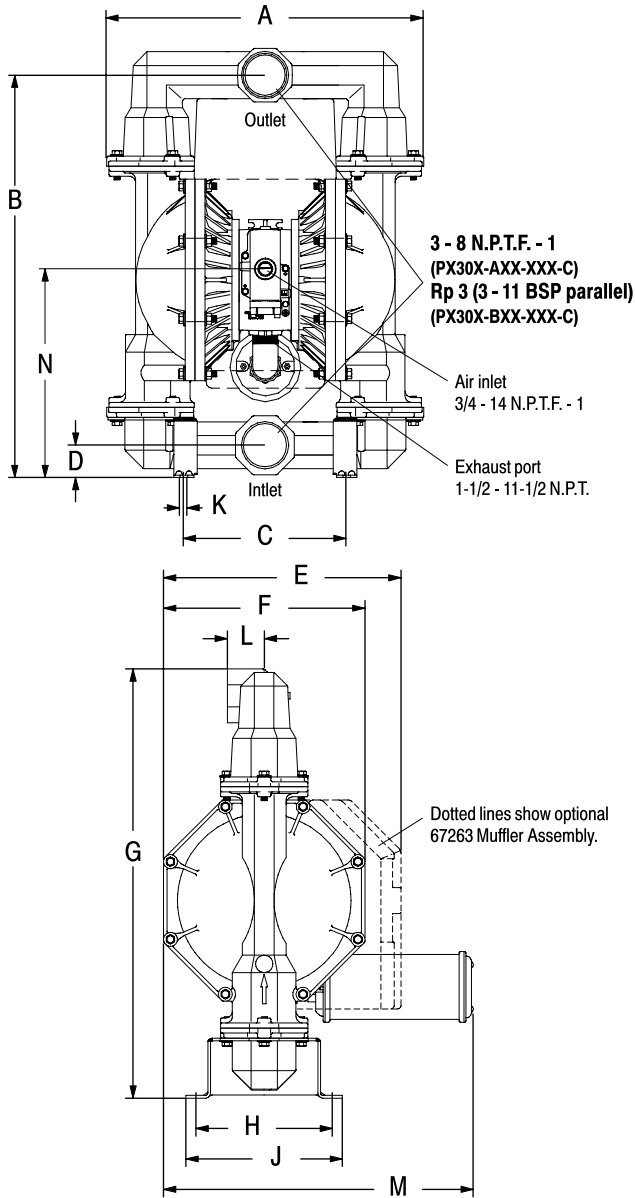
Diaphragm Failure Detection | 67237

Cycle Sensor Kit | 67350-1

Service Repair Kits | 637369 (air motor for PX30R), Kit No. 637421 (air motor for PX30A and PX30S),
637374-X (major air valve assembly), Kit No. 637303-XX (fluid section)

Continuous-Duty Muffler | 67263 Muffler features large expansion chamber, permitting cold exhaust air to exit pump

3" Metallic Dimensions and Flow Charts

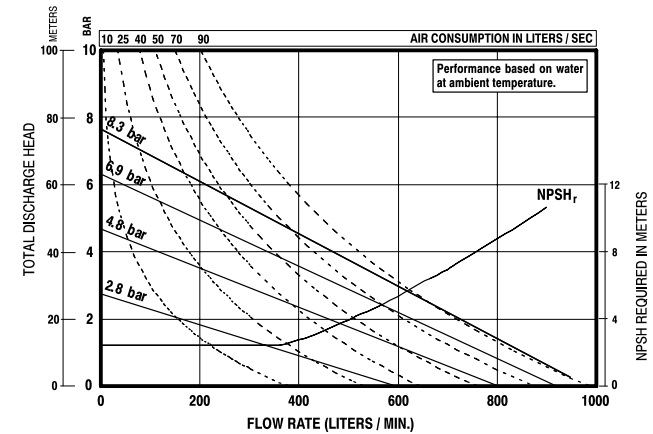
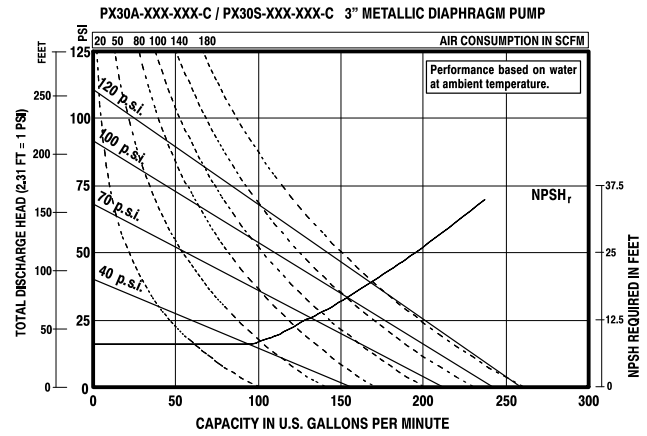


DIMENSIONS

A see below	F 15" (381 mm)	K 9/16" (14.3 mm)
B 30" (761.7 mm)	G 32" (812.5 mm)	L 2-3/4" (69.9 mm)
C 12-1/16" (306.5 mm)	H 10-5/32" (258 mm)	M 23-3/32" (586.3 mm)
D see below	J see below	N see below
E 17-11/16" (449.2 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)
11-11/16" (296.1 mm)	15-1/2" (393.7 mm)
11-11/16" (296.1 mm)	16" (406.4 mm)
11-11/16" (296.1 mm)	16" (406.4 mm)



Ordering Position 10

Specialty Code 1 (Blank if no Specialty Code)

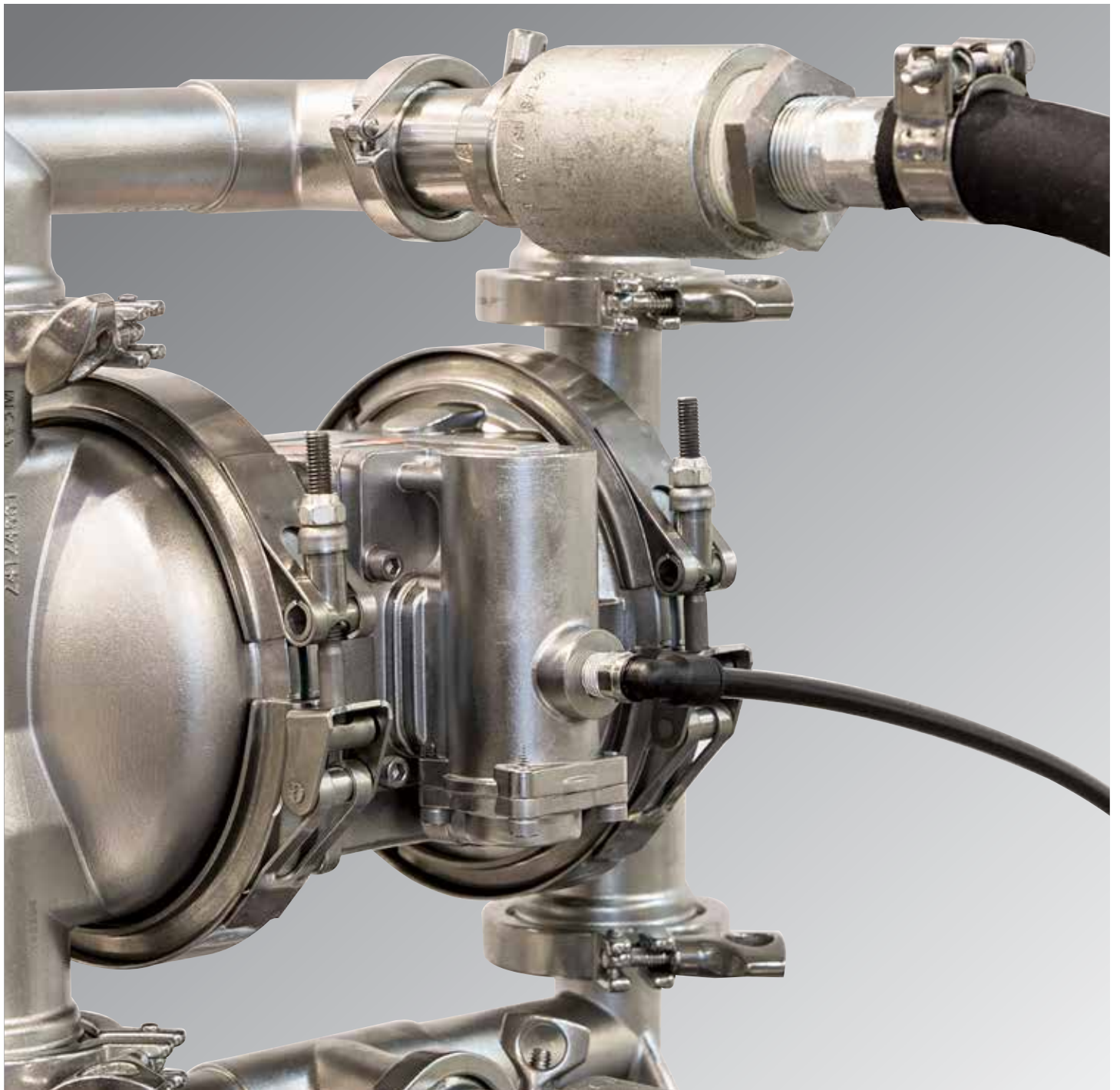
A - Solenoid 120VAC	G - Solenoid 12VDC ATEX/IECex*
B - Solenoid 12VDC	H - Solenoid 24VDC ATEX/IECex*
C - Solenoid 240VAC	J - 120VAC NEC/CEC*
D - Solenoid 24VDC	K - Solenoid 220VAC ATEX/IECex*
E - 12VDC NEC/CEC*	N - Solenoid with no coil
F - 24VDC NEC/CEC*	O - Standard Valve Block (No Solenoid)
	P - Ported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



Specialty Pumps

These Specialty models will provide the same high level of performance and satisfaction but in a design tailored for your specific application.

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 Patented 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) PP20A-XAX-AAA 99.4 (45.1) PP10A-XSX-AAA 50.9 (23.1) 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® M - Medical Grade 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) C - 2" ANSI DIN Flange	A - Aluminum* S - Stainless Steel*	P - Plated Steel S - Stainless Steel	A - Santoprene® S - Stainless Steel	A - Santoprene® M - Medical Grade Santoprene®	A - Santoprene® M - Medical Grade 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.

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Accessories

Service Repair Kits | 637397 (air motor PP10A), 637401-XX (fluid section PP10A), 637421 (air motor PP20A), 637421 (air motor PP30A), 637309-XX (fluid section PP20A), 637303-XX (fluid section PP30A)

Suction Probe: 67183-1 (10ft Long Hose with 2" Diameter. For PP20A & PP30A)

Sanitary Transfer

SPECIALTY PUMP

- Constructed of FDA 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")
Ratio:	1:1	1:1	1:1	1:1	1:1
Maximum GPM (lpm):	13.0 (49.2)	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:	1-1/2" Tri-Clamp	1-1/2" Tri-Clamp	2" Tri-Clamp	2-1/2" Tri-Clamp	3" Tri-Clamp
Fluid 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		
Example:	PMXX	X	-	X	X	X	-	X	X	X	X02
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* P - Polypropylene S - Stainless Steel*	C - Tri-Clamp	S - Stainless Steel*	S - Stainless Steel	A - Santoprene® P - Polypropylene S - Stainless Steel	A - Santoprene® C - Hytrel® G - Nitrile S - Stainless Steel T - PTFE V - Viton®	A - Santoprene® C - Hytrel® G - Nitrile M - Med. Grade Santoprene® T - PTFE/ Santoprene®				

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 * Acceptable for use in hazardous locations.

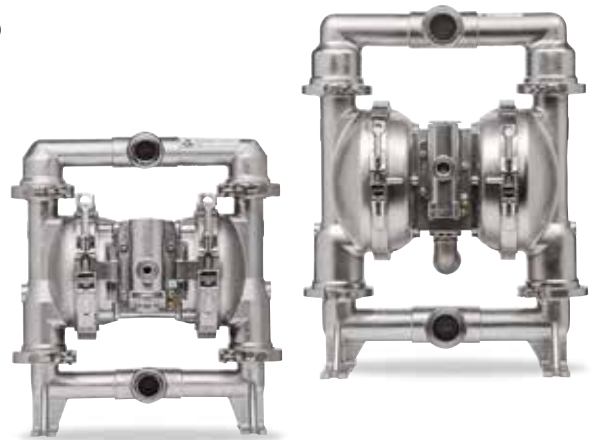
FDA Compliant Pumps

SPECIALTY PUMP

Our SD 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 compliance and high temperature capability.
- ▶ Optional electronic interface capability
- ▶ Optional Single piece composite PTFE diaphragms



Applications:

Food / Beverage / Pharmaceutical / Cosmetics

	SD10S-CSS-SXX-A / 1" Pump	SD20S-CSS-SXX-A / 2" Pump
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				
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
SD10 - 1" Pump SD20 - 2" Pump	R - White Polypropylene S - 316 SS*	C - Sanitary Flange	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®

Position 9 Specialty Code 1 (blank if no specialty code)		Position 10 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

* 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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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 - 11-1/2 NPTF - 1 Rp 1 (1- 11 BSP parallel)
Fluid Outlet:	1 - 11-1/2 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.

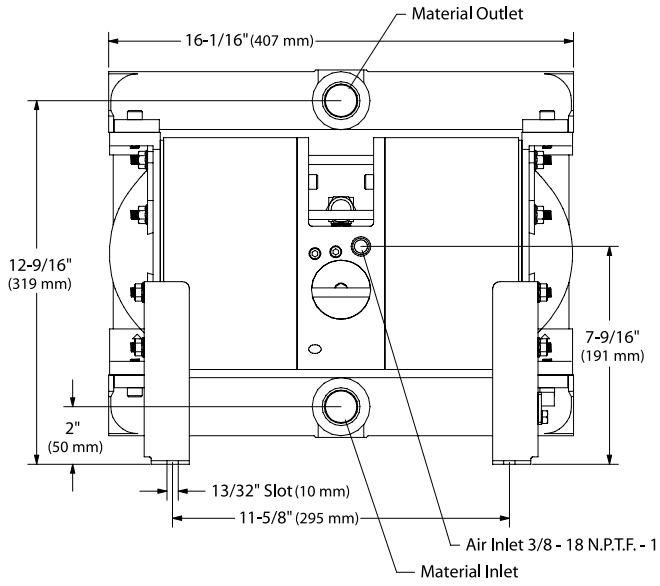
Service Repair Kits | 637338 (air section)
637339 (PH10X-XXX-XSX fluid section)
637339-1 (PH10X-XXX-XHX fluid section)

Wall Mount Bracket | 67142

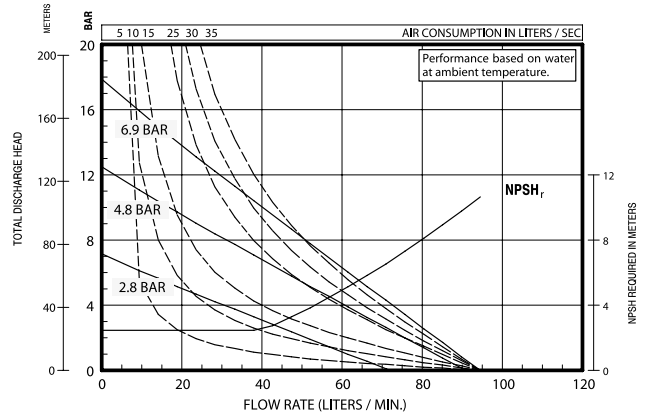
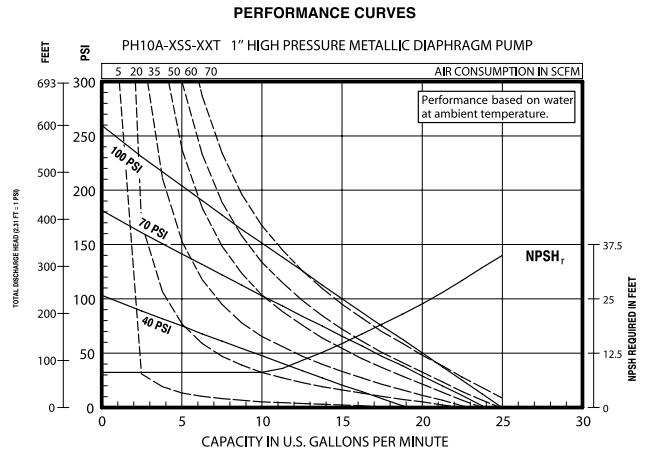
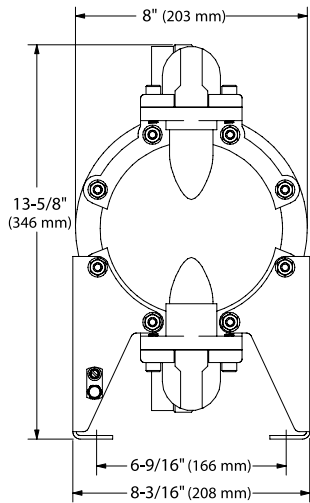


Wall Mount Bracket
67142

High Pressure Diaphragm Pump Dimensions and Flow Charts



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



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

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.
- ▶ Convolutated 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)	0.88 (3.33)	88 (39.9)	1/4 (6.4)	200 (13.8)
2:1 Ratio 2" Diaphragm Pump	92 (348.25)	1.28 (4.8)	146 (66.2)	1/4 (6.4)	200 (13.8)
2:1 Ratio 3" Diaphragm Pump	160 (605.6)	1.4 (5.3)	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 parrallel F - 1-1/2 ANSI /DIN Flange 2" (PH20F) A - 2 - 11-1/2 NPTF-1 B - Rp 2 (2 - 11 BSP parrallel) F - 2" ANSI /DIN Flange 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"
Filter/Regulator	P39344-614	P39354-614	P39454-614
Air Line Kit	66084-1	66109	66109
Air Section Service Kit	637389	637369	637369
Fluid Section Service Kit	637445-XX	637446-XX	637441-CC

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.

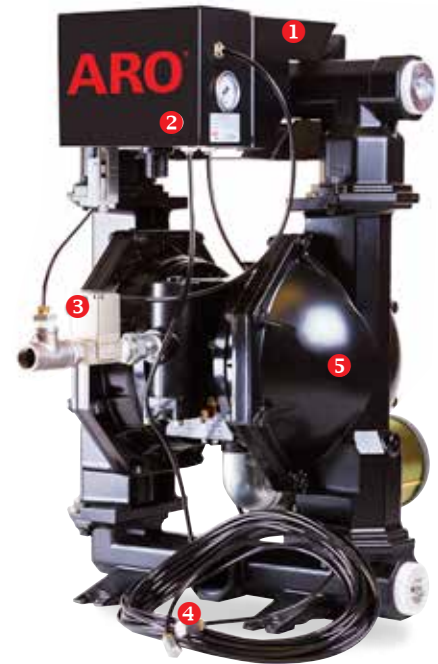
- Simple design is easy to setup and use.
- All pneumatic operation eliminates electrical ignition source.
- High/Low level control maintains fluid between established levels.
- Reduces air consumption by avoiding pump dry running.
- Portable system with directly mounted liquid level sensor.

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



- ❶ Bracket
- ❷ Liquid Level Sensor
- ❸ Pneumatic Controlled Valve
- ❹ Sensing Tubes with Screen
- ❺ Pro/EXP Series Diaphragm Pump (purchase separately)

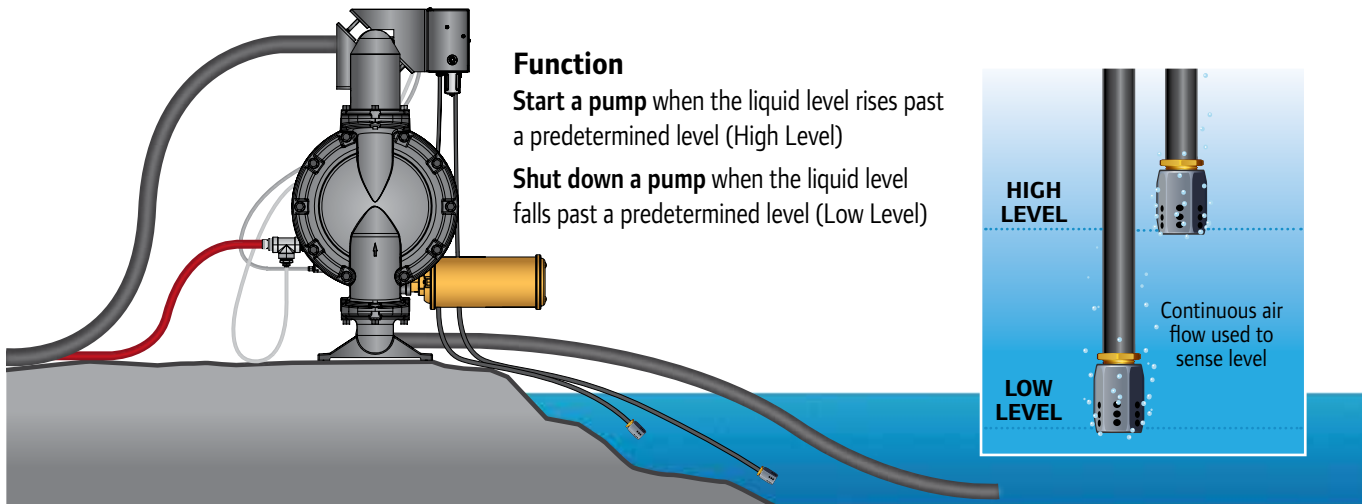
AUTOMATIC DEWATERING SYSTEM

SCD501BN08-V1D	Dewatering Kit (without pump)
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PUMP COMPATIBILITY

2" EXP Series Pump	PX20X-XXX-XXX-X, PX20P-FXS-XXX
3" EXP Series Pump	PX30X-AXX-XXX-X, PX30X-BXX-XXX-X

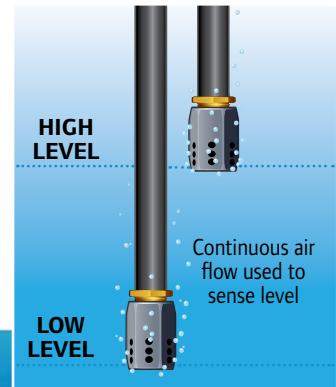
➤ Working Principle



Function

Start a pump when the liquid level rises past a predetermined level (High Level)

Shut down a pump when the liquid level falls past a predetermined level (Low Level)



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: @ 100 psi Gallons (Liters)	1.4 (5.3)
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		
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
PF20 - Standard Pump	A - Aluminum* R - Polypropylene w/SS Air Caps S - Stainless Steel* Y - Polypropylene w/CI Air Caps	A - NPTF Thread B - BSP Thread F - 2" ANSI/DIN Flange	A [†] - Aluminum* C - Cast Iron S - Stainless Steel [†] Not available with PD20R or PD20Y 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®

* Acceptable for use in hazardous locations.

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Accessories

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

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	-	-	-	OIL
DAB05-PPUU-2-A	POLYPROPYLENE	POLYURETHANE	X	-	-	-	WATER/OIL
DAB05-PPAA-2-A	POLYPROPYLENE	SANTOPRENE®	X	-	-	-	MILD ACIDS/MILD CAUSTICS
DAB05-PPCC-2-N	POLYPROPYLENE	HYTREL®	X	-	NITRILE	-	OIL
DAB05-PPCC-B-M	POLYPROPYLENE	HYTREL®	X	X	NITRILE	NO-DRIP	OIL
DAB05-PPAA-2-B	POLYPROPYLENE	SANTOPRENE®	X	-	EPDM	-	MILD ACIDS/MILD CAUSTICS
DAB05-PPUU-2-C	POLYPROPYLENE	POLYURETHANE	X	-	VINYL	-	WATER/OIL
DAB05-PPCC-B-J	POLYPROPYLENE	HYTREL®	X	X	REINFORCED NITRILE	X	OIL
DAB05-PPAA-B-K	POLYPROPYLENE	SANTOPRENE®	X	X	EPDM	X	MILD ACIDS/MILD CAUSTICS
DAB05-SSTT-2-A	STAINLESS STEEL	PTFE	X	-	-	-	SOLVENT
DAB05-ASTT-2-A	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

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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)

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)



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)

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

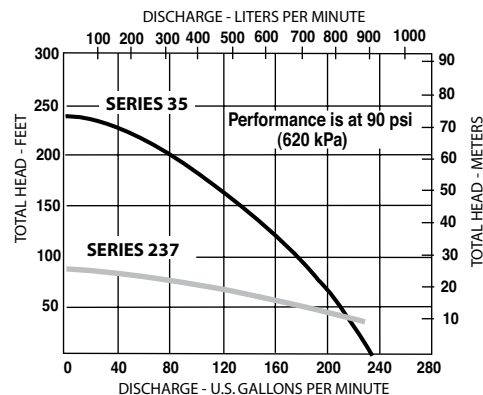
Air Line Unit | C28453-810 for P237AX-EU
C28463-810 for P35A1-EU
C284X3-810 models contain Filter, Regulator and Lubricator units.

Service Repair Kits | Repair parts are ordered individually.

Refer to Operator's Manuals:

P237AX-EU Pumps: Form P6856

P35A1-EU Pumps: Form P7263



Refer to www.AROzone.com for full size flow curves.

For additional information contact technical support at 1.800.495.0276

Fuel Antifreeze / Water Blending Pump

SPECIALTY 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.

2 x 1" NPTF fluid inlets – 1" NPTF fluid outlet.



U/L Approved Fuel Pump

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

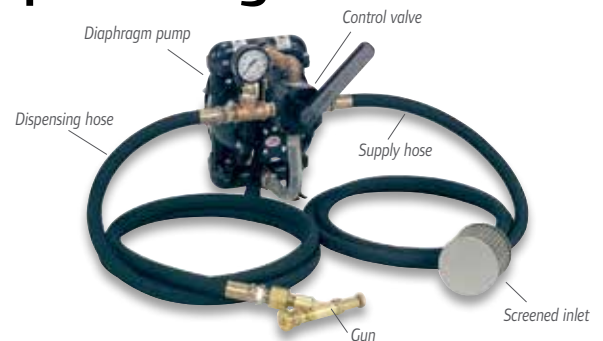
Designed specifically for high volume transfer, bulk-unloading, or fueling applications. These pumps meet UL 79 specification code and are compatible with gasoline, aviation fuel, diesel fuel, fuel oil and kerosene.



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 and 60154 hose / strainer / gun assembly. Also includes check valve and all required clamps and related hardware.



Model	Body materials (wetted)	Diaphragm / ball material	Air inlet NPT (F) in (mm)	Fluid inlet / outlet material in (mm)	Max flow gpm (L/min)	Compatible fluids
1" PORTS						
650717-C	Aluminum	Viton / Acetal	1/4" (6.3 mm)	1" / 1" (25.4 mm)	29 (109.8)	Fuel (UL 79 approved)
1-1/2" PORTS						
650718-C	Aluminum	Viton / Acetal	1/2" (127 mm)	1-1/2" (38.1 mm)	75 (283.9)	Fuel (UL 79 approved)
2" PORTS						
650719-C	Aluminum	Viton / Acetal	3/4" (19.1 mm)	2" (50.8 mm)	105 (397.5)	Fuel (UL 79 approved)

Model	Application	Manifold material	Diaphragm, O-ring material	Air inlet NPT / F in (mm)	Fluid outlet NPT / F in (mm)	Max gpm (L/min)	Package includes
1/2" PORTS							
670042	Fuels	Aluminum	Viton	1/4" (6)	1/2" (13)	12 (45.4)	UL Pump only
1" PORTS							
650715-C	50 / 50 mix of antifreeze and water	Aluminum	Nitrile	1/4" (6)	1" (25.4)	35 (133)	Pump only
613201-2-C	Calcium chloride tire filling	Aluminum	Neoprene	1/4" (6)	1" (25.4)	35 (133)	Inlet and outlet hoses, strainer, 8' suction hose, control handle, check valve

Batching/Flow Control

CONTROLLER

The ARO® Controller works seamlessly with EXP Electronic Interface pumps, and creates a fully automated multi-pump system that helps manufacturers and operators manage fluid easily and intelligently, with less operator oversight required. Migrate to a smart touch-and-walk-away system that helps optimize your costs and production time.



Choose a Controller

Model Options	
Base Controller (No Cables)	651763-XX-0
Interface with 1 Pump	651763-XX-1
Interface with 2 Pumps	651763-XX-2
Cable Assembly, 16 ft.	47517818001
Cable Assembly, 50 ft.	47517818005

XX = **AM** (Americas)
EM (Europe, Middle East, India & Africa)
AP (Asia/Pacific)

Automate Your Process

- Eliminate manual processes and mistakes
- Achieve safer control and monitoring via remote operation
- Accepts leak detection, liquid level sensing and proportional control

Real Time System Alerts

- Remote alerts send operating data
- Triggers can perform auto shut-down
- Notifications can be programmed for maintenance tasks

Flow Meter Integration

- A Flow meter signal provides accurate input for precise volume control
- The controller closes an outlet valve to quickly stop flow when the desired volume is reached
- Integrates with ease and eliminates the need for PLC wiring and programming

Touch-and-Walk Away

- Accurate, electronically controlled dosing
- Includes pre-programmed and user-directed functions
- Closed loop system achieves dispensing repeatability within +/- 1%

Multi-Pump Control

- Control 2 pumps for accurate two part batching processes
- Pre-program up to 5 batches per pump
- Alarm notifies on batch completion

Simul-Start Pumping

- Synchronize your pumps
- Controller can signal 2 pumps to start simultaneously in applications requiring consistent volumetric ratios

Choose a Pump

Position	1	2	3		4	5	6		7	8	9		10	11	12
Example:	PE	05	P	-	A	P	S	-	P	A	A	-	B	D	E

Position 1 Model Series	Position 2 Port Size	Position 3 Center Section Mat.	Position 4 Connection	Position 5 Wetted Parts	Position 6 Hardware	Position 7 Seat Material	Position 8 Ball Material
PE - Electronic Interface	01 - 1/4" Port 03 - 3/8" Port 05 - 1/2" Port 07 - 3/4" Port 10 - 1" Port 15 - 1-1/2" Port 20 - 2" Port 30 - 3" Port	A - Aluminum* P - Polypropylene S - Stainless Steel*	A - NPT Thread B - BSP thread F - A.N.S.I. Side Y - A.N.S.I. Center	A - Aluminum* C - Cast Iron D,E - Groundable Acetal* H - Hastelloy* K,L - PVDF (Kynar) P,R - Polypropylene S - Stainless Steel*	P - Plated Steel S - Stainless Steel	A - Santoprene® C - Hytrel® D - Acetal E - Carbon Steel F - Aluminum G - Nitrile H - 440 SS Hard K - PVDF L - Hastelloy P - Polypropylene S - Stainless Steel	A - Santoprene® C - Hytrel® G - Nitrile S - 316 SS T - PTFE U - Polyurethane V - Viton®

Position 9 Dia. Material	Position 10 Revision	Position 11 Specialty Code 1		Position 12 Specialty Code 2
A - Santoprene® C - Hytrel® G - Nitrile T - PTFE V - Viton®	A - First B - Second C - Third	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 - 120VDC NEC/CEC* K - Solenoid 220VDC ATEX/IECex* N - Solenoid with no coil O - Standard Valve Block (No Solenoid) P - Ported Motor (No major valve provided) † only solenoid voltages that will work with controller	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

* 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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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	
			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



Cycle Counter Kit
67350



Continuous Duty Muffler
67323

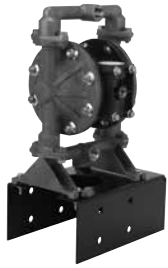


Flange Connection Kit
637341-E10N

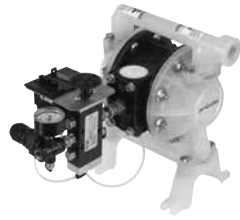


Over-run Control
635040

	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)
Pneumatic Cycle Counter Kit Like the odometer on your car, ARO®'s cycle counter lets you know how many pump cycles have elapsed so you can be prepared to perform preventive maintenance	-	66975	66975	-	66975	66975	66975
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
Continuous-Duty Muffler Recommended for continuous-duty and high-flow applications. Muffler features large expansion chamber, permitting cold exhaust air to exit pump.	-	-	-	-	-	-	-
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) 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



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)	-
67350	67350	67350	67350	67350	67350	67350-1	67350-1	-
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	-
-	-	67323	-	-	-	67263	67263	-
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	67072-1	67072-1	-	67072	67072-1	-	-	-
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	-

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 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

Accessories

Siphon Tubes

For use when pumping from a 55 GAL (200 L) container; siphon tubes are available in PVC, carbon steel, or 316 stainless steel. 1" siphon tubes come with foot valve for positive priming. All models include bung adapter.

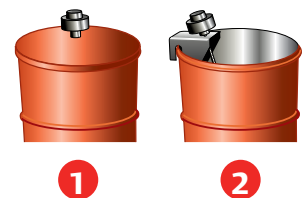
Model no.	Description	For use with pumps
65109	Steel — NPT(F)	1" (Metallic)
66779	PVC — NPT(F)	1" (Non-Metallic)



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



Liquid Level Sensor

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

24 VDC 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

Pulsation Dampeners

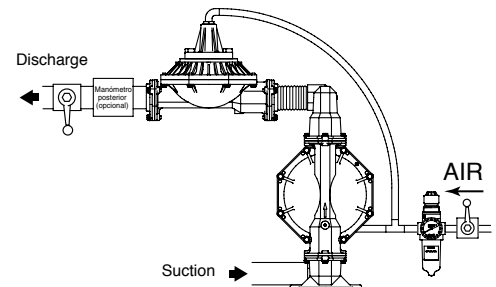
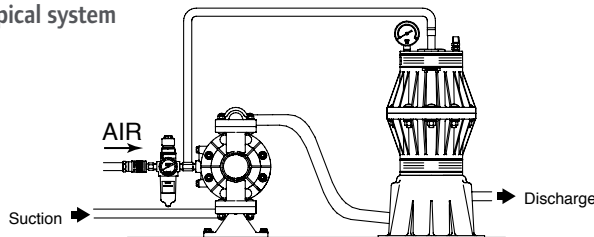
Diaphragm pumps of any type have at least two points in their cycle where they provide no pressure or flow to a process. The unwanted result of this pressure fluctuation can often be material foaming, material pulsation, hydraulic shock or material splashing. While traditional pulsation dampeners can 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 Kynar®, polypropylene, groundable acetal (1" models) or aluminum, cast iron or stainless steel (2" and 3" models) body materials for optimum pump-to-pulsation dampener compatibility.
- Broad Diaphragm/Bladder Fluid Compatibility - choose from Santoprene, Nitrile, PTFE, Hytrel, Viton or Urethane for optimum fluid-to-diaphragm compatibility.
- Perfect for Process Applications - pulsation reduction in long piping runs help 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 - Polyurethane
SB20 - 2" SB30 - 3"	A - Aluminum C - Cast Iron S - Stainless Steel	A - NPTF B - BSP	A - Aluminum C - Cast Iron S - Stainless Steel	P - Carbon Steel S - Stainless Steel	A - Santoprene G - Nitrile T - PTFE / Santoprene V - Viton

Maintenance Kits



637432-XX



48495964



637375-XX

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

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

Pump Airborne Noise Emissions

Viscosity Conversion Chart

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 (LAeq)
Diaphragm Pumps			
1/2	70	60	75.0 db(A)
1	70	60	79.7 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.

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

* 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.

Centi Poise	Poise	Saybolt Universal (SSU)	Saybolt Furol	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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www.pompy-przemyslowe.pl
+48 48 366 27 20, 366 26 19
zapytanie@ekohelp.com.pl

www.AROzone.com youtube.com/aropumps

North America

800 495-0276
arotechsupport@irco.com
arocustomerservice.com

Latin America

0800 77 123 36
aro-hotline-sc@irco.com
aro-hotline-nc@irco.com

Europe

fluid_management_emea@irco.com

India/Middle East/Africa

1 800 103 9324
aropumps.India@irco.com (India)
fluid_management_emea@irco.com

Asia Pacific (AP)

8008202128/4008202128
aroaphotline@irco.com
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