

Архангельск (8182)63-90-72
Астана (7172)727-132
Астрахань (8512)99-46-04
Барнаул (3852)73-04-60
Белгород (4722)40-23-64
Брянск (4832)59-03-52
Владивосток (423)249-28-31
Волгоград (844)278-03-48
Вологда (8172)26-41-59
Воронеж (473)204-51-73
Екатеринбург (343)384-55-89
Иваново (4932)77-34-06

Ижевск (3412)26-03-58
Иркутск (395)279-98-46
Казань (843)206-01-48
Калининград (4012)72-03-81
Калуга (4842)92-23-67
Кемерово (3842)65-04-62
Киров (8332)68-02-04
Краснодар (861)203-40-90
Красноярск (391)204-63-61
Курск (4712)77-13-04
Липецк (4742)52-20-81
Киргизия (996)312-96-26-47

Магнитогорск (3519)55-03-13
Москва (495)268-04-70
Мурманск (8152)59-64-93
Набережные Челны (8552)20-53-41
Нижний Новгород (831)429-08-12
Новокузнецк (3843)20-46-81
Новосибирск (383)227-86-73
Омск (3812)21-46-40
Орел (4862)44-53-42
Оренбург (3532)37-68-04
Пенза (8412)22-31-16
Казахстан (772)734-952-31

Пермь (342)205-81-47
Ростов-на-Дону (863)308-18-15
Рязань (4912)46-61-64
Самара (846)206-03-16
Санкт-Петербург (812)309-46-40
Саратов (845)249-38-78
Севастополь (8692)22-31-93
Симферополь (3652)67-13-56
Смоленск (4812)29-41-54
Сочи (862)225-72-31
Ставрополь (8652)20-65-13
Таджикистан (992)427-82-92-69

Сургут (3462)77-98-35
Тверь (4822)63-31-35
Томск (3822)98-41-53
Тула (4872)74-02-29
Тюмень (3452)66-21-18
Ульяновск (8422)24-23-59
Уфа (347)229-48-12
Хабаровск (4212)92-98-04
Челябинск (351)202-03-61
Череповец (8202)49-02-64
Ярославль (4852)69-52-93

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PRO AND EXPERT SERIES AIR OPERATED DIAPHRAGM PUMPS

1/4" THROUGH 3" FLUID PORTS



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

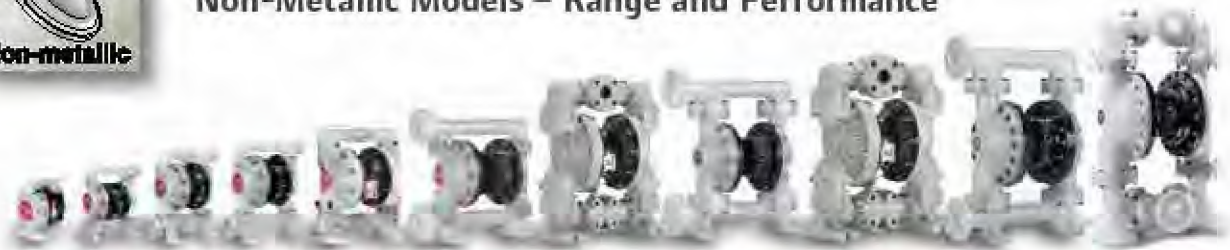
Shipbuilding and Marine



ARO® Diaphragm Pumps



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. 	20 L/min (5.3 gal)	40.1 L/min (10.6 gal)	54.5 L/min (14.4 gal)	56 L/min (14.8 gal)	178 L/min (47 gal)	200 L/min (53 gal)	378 L/min (100 gal)	465 L/min (123 gal)	549 L/min (145 gal)	696 L/min (184 gal)	1079 L/min (285 gal)
Max. 	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" NPT 1" BSP	1 1/2" ANSI/DIN	1 1/2" ANSI/DIN	2" ANSI/DIN	2" ANSI/DIN	3" ANSI (4-hole) or Din (8-hole) Flange
	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" NPT 1" BSP	1 1/2" ANSI/DIN	1 1/2" ANSI/DIN	2" ANSI/DIN	2" ANSI/DIN	3" ANSI (4-hole) or Din (8-hole) Flange
Material	Polypropylene	Polypropylene	Polypropylene	Polypropylene	Polypropylene	Polypropylene	Polypropylene	Polypropylene	Polypropylene	Polypropylene	Polypropylene
	PVDF	PVDF	PVDF		PVDF	Conductive PVDF	PVDF	PVDF	PVDF	PVDF	PVDF
	Groundable acetal	Groundable acetal	Groundable acetal		PVDF	Conductive polypropylene	PVDF	Conductive polypropylene	PVDF	Conductive polypropylene	PVDF
Diaphragm 	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 	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
PRO Series
EXPERT Series
PRO Series
EXPERT Series
PRO Series
EXPERT Series
PRO Series
EXPERT Series

1/2"	3/4"	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)	125 L/min (33 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)	8.3 bar (120 psi)
1/2" NPT	3/4" NPT	3/4" NPT	1" NPT	1" NPT	1 1/2" NPT	1 1/2" NPT	2" NPT	2" NPT	3" NPT	3" NPT
1/2" BSP	3/4" BSP	3/4" BSP	1" BSP	1" BSP	1 1/2" BSP	1 1/2" BSP 1 1/2" ANSI / DIN	2" BSP	2" BSP 2" ANSI / DIN	3" BSP	3" BSP
1/2" NPT	3/4" NPT	3/4" NPT	1" NPT	1" NPT	1 1/2" NPT	1 1/2" NPT	2" NPT	2" NPT	3" NPT	3" NPT
1/2" BSP	3/4" BSP	3/4" BSP	1" BSP	1" BSP	1 1/2" BSP	1 1/2" BSP 1 1/2" ANSI / DIN	2" BSP	2" BSP 2" ANSI / DIN	3" BSP	3" BSP
Aluminium ----- Stainless steel	Aluminium	Aluminium	Aluminium ----- Cast iron ----- Stainless steel	Aluminium ----- Cast Iron ----- Stainless steel ----- Hastelloy	Aluminium ----- Cast Iron ----- Stainless steel	Aluminium ----- Cast iron ----- Stainless steel ----- Hastelloy	Aluminium ----- Cast iron ----- Stainless steel	Aluminium ----- Cast iron ----- Stainless steel ----- Hastelloy	Aluminium ----- Cast iron ----- Stainless steel	Aluminium ----- Cast Iron ----- Stainless steel ----- Hastelloy
2.4 mm (.09in)	2.4 mm (.09in)	3.2 mm (.12in)	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	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



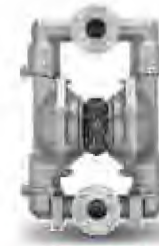
PP Series



PM Series



SD Series



PH Series

	Powder Pumps				Sanitary Pumps						High Pressure Pumps								
	1:1				1:1						3:1 2:1 2:1 2:1								
	1"	1 1/2"	2"	3"	1/2"	1"	1 1/2"	2"	3"	1"	2"	1"	1 1/2"	2"	3"				
	Maximum powder density – 721 kg/m ³ (45 lbs/cu ft)				45.4 L/min (12 gal)	198 L/min (52.3 gal)	465 L/min (123 gal)	651 L/min (172 gal)	1041 L/min (275 gal)	204 L/min (54 gal)	738 L/min (195 gal)	50 L/min (13.2 gal)	238 L/min (63 gal)	348 L/min (92 gal)	605 L/min (160 gal)				
	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)								
	1" NPT	1 1/2" NPT	2" NPT	3" NPT	1 1/2" Tri-clamp	2" Tri-clamp	2 1/2" Tri-clamp	3" Tri-clamp	1 1/2" Tri-clamp	2 1/2" Tri-clamp	1" NPT	1 1/2" NPT	2" NPT	3" NPT	1" BSP	1 1/2" BSP	2" BSP	3" BSP	
Material	Aluminum				FDA accepted material						FDA accepted material				Stainless steel				
	Stainless steel																		
	Maximum powder particle size – 100 microns (.004 in.)				2.4 mm (.09)	3.3 mm (.12)	6.4 mm (.25)	6.5 mm (.25)	9.5 mm (.37)	3.2 mm (.12)	6.4 mm (.25)	3.2 mm (.25)	6.4 mm (.25)	6.4 mm (.25)	9.5 mm (.37)				
	All models				All models		With aluminium or stainless steel motor		All models		All models								

ARO® Diaphragm Pump Applications

Here are some examples of applications.



Pit Boss Series

PF Series

DAB05 Series

P Series

Dewatering Pumps			Flap Valve Pumps		Drum Pumps		Submersible Pumps	
1:1			1:1		1:1 1:1		— —	
1 1/2"	2"	3"	2"		1/2"		2 1/2" 2"	
302.8 L/min (80 gal)	590.5 L/min (156 gal)	821.3 L/min (217 gal)	651 L/min (172 gal)		45.4 L/min (12 gal)		54.5 L/min (14.4 gal)	
8.3 bar (120 psi)			8.3 bar (120 psi)		6.9 bar (100 psi)		6.2 bar (90 psi)	
1 1/2" BSP	2" BSP	3" BSP	2" NPT / 2" BSP		Siphon tube		Screened inlet	
Aluminium			Aluminium / Cast iron / Stainless steel		Aluminium / Polypropylene / Stainless steel		Cast iron	
127 mm (.50)	191 mm (.75)	254 mm (1.0)	51 mm (2.0) (semi-solids)		2.4 mm (.09)		2.4 mm (.09)	
All models			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



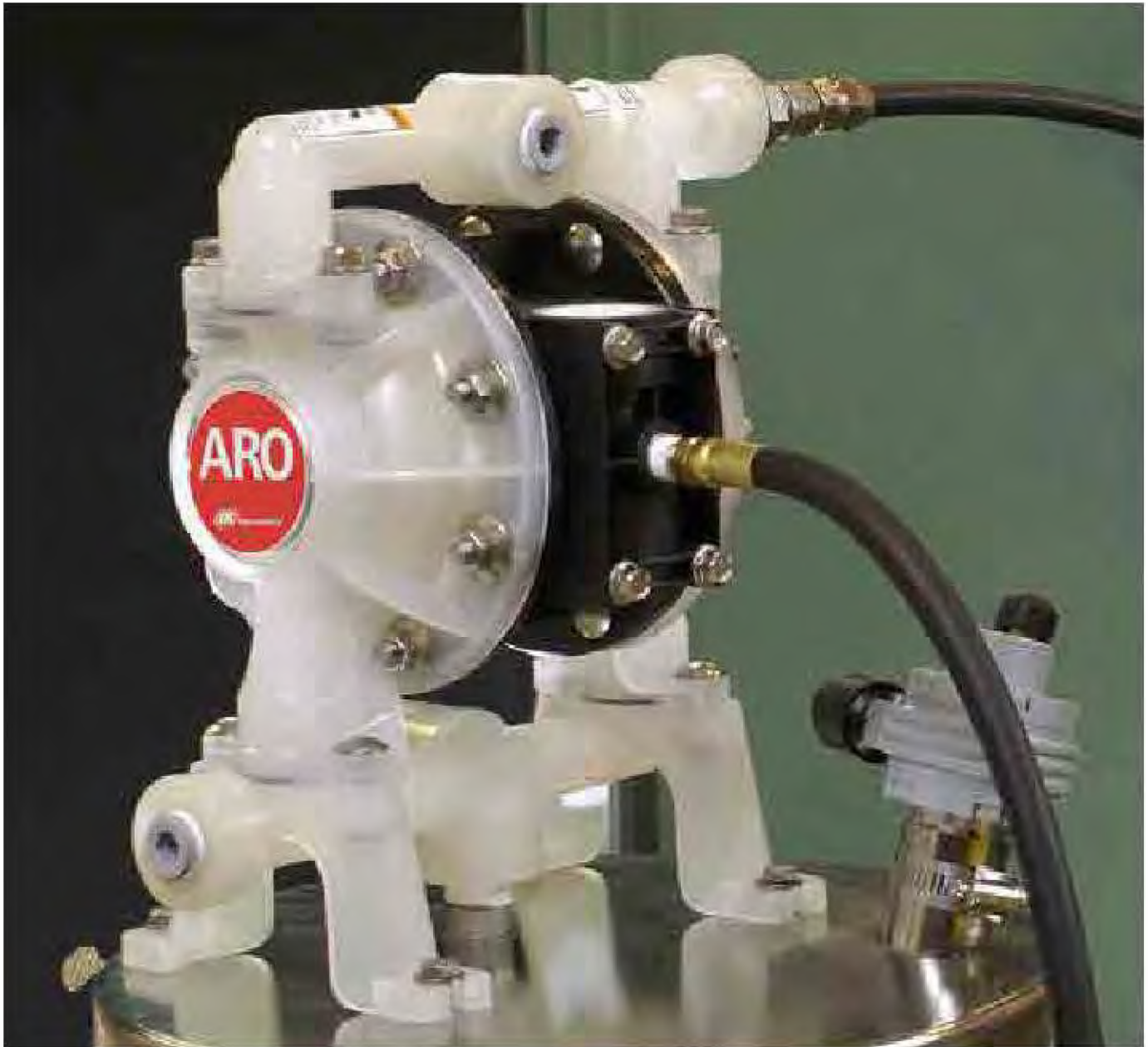
UL approved fuel pump 1" size, used assembled on skid dedicated in the aviation to fill and unload kerosene



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 L/min (gpm)	20 (5.3)	40.1 (10.6)	54.5 (14.4)	49.2 (13)	56 (14.8)
Max. Discharge Pressure bar (psf)	8.6 (125)	6.8 (100)	6.8 (100)	6.9 (100)	6.6 (100)
Material of Construction	Polypropylene Groundable Acetal PVDF	Polypropylene Groundable Acetal PVDF	Polypropylene Groundable Acetal PVDF	Polypropylene Groundable Acetal PVDF	Polypropylene
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 L/min (gpm)	178 (47)	200 (53)	378 (100)	465 (123)	579 (145)	696 (184)	1079 (285)
Max. Discharge Pressure bar (psf)	8.3 (120)	8.3 (120)	8.3 (120)	8.3 (120)	8.3 (120)	8.3 (120)	8.3 (120)
Material of Construction	Polypropylene PVDF	Conductive or Non-conductive Polypropylene or PVDF	Polypropylene PVDF	Polypropylene PVDF Conductive Polypropylene	Polypropylene 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 L/min), a wide range of material options, multi-port versions and the unique hybrid male/female threaded fluid connections.

Ratio:	1:1
Maximum Flow gpm (L/min):	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 (4.8 bar) 60 Cycles/Min 62.3 db(A)
Muffler:	Integral, included



PO01 P-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 Diaphragm Material	Position 7 Ball Material	Position 8 Diaphragm Material	Position 9
PO01 - Standard Pump PE01 - Elec. Interface Accessible Pump	E - Conductive Polypropylene P - Polypropylene	H - 1/4" NPT BSP hybrid	D - Groundable Acetal* E - Groundable Acetal* (Multiple port) K - Kynar PVDF L - Kynar PVDF (Multiple port) P - Polypropylene R - Polypropylene (Multiple port)	S - Stainless Steel	D - Acetal K - PVDF P - Polypropylene O - Polypropylene (Flex-Check spacer)* 1 - Acetal (Flex-Check spacer)* 2 - PVDF (Flex-Check spacer)*	A - Santoprene* C - Hytrel* G - Nitrile J - Nitrile (Flex-Check only) K - EPDM (Flex-Check only) L - Viton* (Flex-Check only) N - Neoprene (Flex-Check only) T - PTFE	A - Santoprene* C - Hytrel* G - Nitrile T - PTFE	Revision Level Position 10 & 11 Specialty Code Fluid control options for pump with electronic interface (PE01 model). See complete description on page 13

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

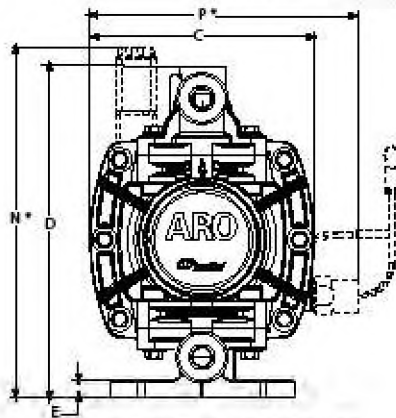
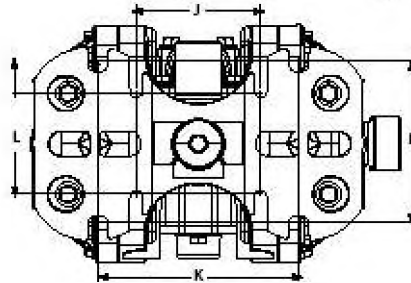
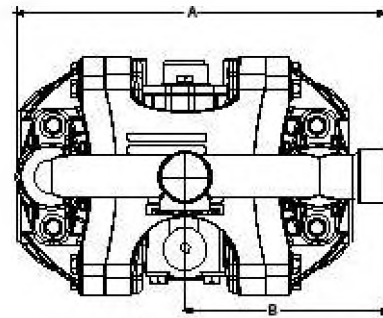
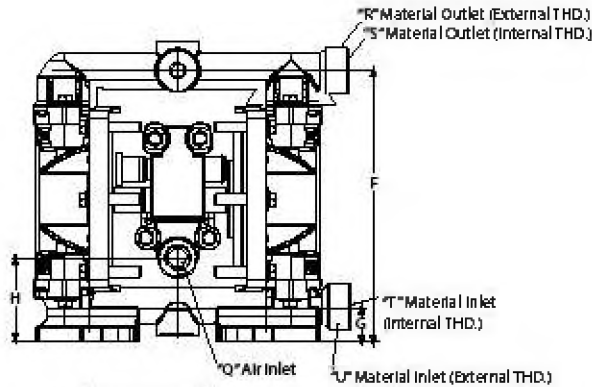
Hytrel* is a registered trademark of DuPont company, Santoprene* is registered trademark of Monsanto and Viton* is a registered trademark of EoconMofel

Accessories

Air Line Connection Kit | 66Q73-1

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

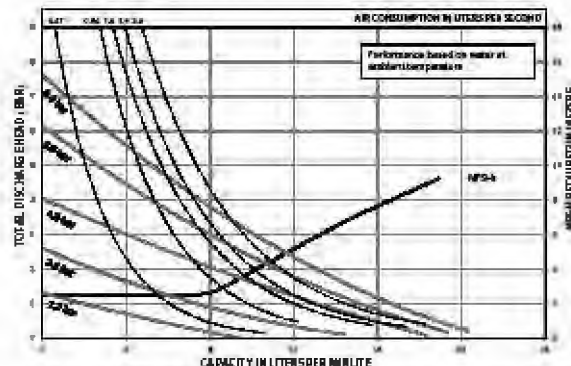
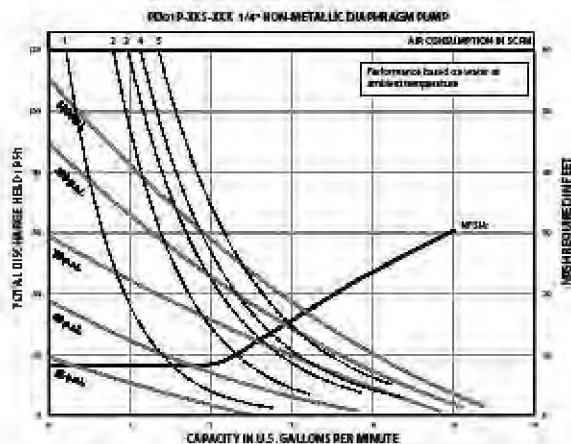
1/4" Non-Metallic Dimensions and Flow Charts



DIMENSIONS

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

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



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

Ordering Position 10

Specialty Code 1 (Blank if no Specialty Code)

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

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

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

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 L/min) and a wide range of material and porting configurations.

Ratio:	1:1	
Maximum Flow gpm (L/min):	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-XBS-XXX	3.5 (1.6)
Maximum dry suction lift ft (m):	9.25 (2.8)	
Sound Level:	70 PSI (4.8 bar) 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 Swit Material	Position 7 Ball Material	Position 8 Triaphragm Material	Position 9
D - Standard E - Remote Actuation Capable	P - Polypropylene	A - 3/8" NPT B - 3/8" BSP	D - Ground Acetal (single port) E - Ground Acetal (multiple port) K - PVDF (single port) L - PVDF (multiple port) P - Polypropylene (single port) R - Polypropylene (multiple port)	S - Stainless Steel	D - Acetal K - PVDF P - Polypropylene S - Stainless Steel O - Flex Check	A - Santoprene* C - Hytrel* I - Nitrile J - Nitrile** L - Viton*** N - Neoprene** S - Stainless Steel T - PTFE V - Viton*	A - Santoprene* C - Hytrel* G - Nitrile T - PTFE/ Santoprene V - Viton*	Revision Level Position 10 & 11 Specialty Code Fluid control options for pump with electronic interface (PE03 model). See complete description on page 15

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

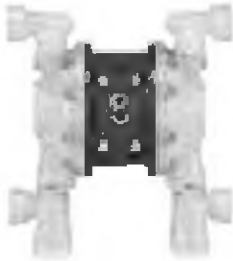
Hytrel® is a registered trademark of DuPont company. Santoprene® is registered trademark of Monsanto and Viton® is a registered trademark of ExxonMobil

Accessories

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



3/8" Non-Metallic Dimensions and Flow Charts



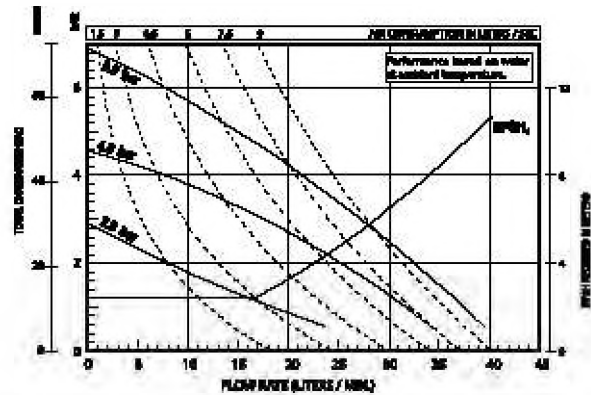
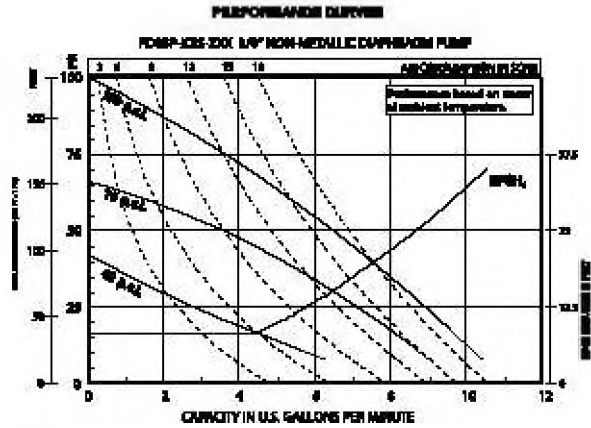
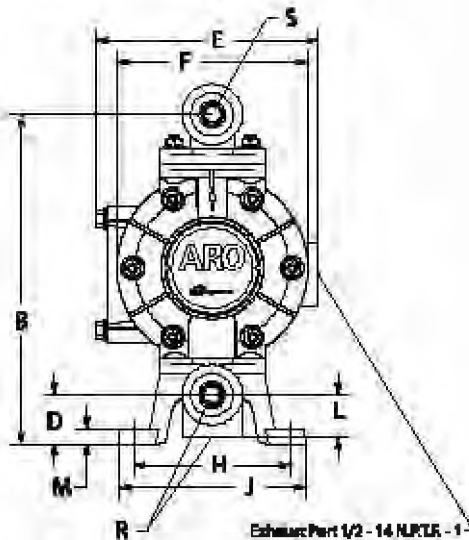
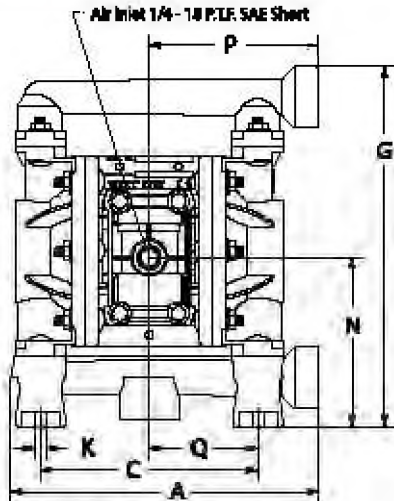
PD03P-AXS-300X
with 637442-1 Kit

- 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" (123.8 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" (148.2 mm) | K 9/32" (7.1 mm) | Q 2-25/32" (79.4 mm) |

- | | | |
|----------------|---------------------------|----------------------------|
| Model | "F" Material Inlet | "S" Material Outlet |
| PD03P-AXS-300X | 3/8" - 18 N.P.T.F. - 1 | 3/8" - 18 N.P.T.F. - 1 |
| PD03P-BXS-300X | Rp 3/8" (3/8" - 19 BSP) | Rp 3/8" (3/8" - 19 BSP) |



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

Ordering Position 10

Specialty Code 1 (Blank if no Specialty Code)

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

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 L/min) and a wide range of material and porting configurations.

Ratio: 1:1
 Maximum Flow gpm (L/min): 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 (.24)
 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 (4.8 bar) 60 Cycles/Min 75.0 db(A)
 Muffler: Integral, included



PD05P-ARS-PA

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 Seal Material	Position 7 Bell Material	Position 8 Diaphragm Material	Position 9
D - Standard E - Remote Actuation Capable	P - Poly- propylene	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 - Poly- propyl- ene 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 com- plete description on page 17

* 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 | 66073-1

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

Wall Mount Bracket Kit | 76763

Optional Muffler | 93110 used with 637438 kit

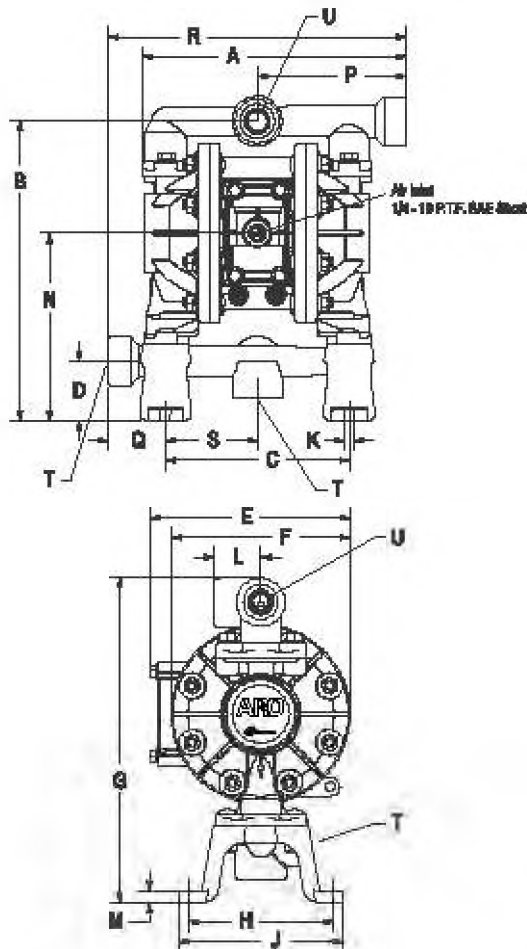
Service Repair Kits | 637428 (air section)

637427-XX (fluid section)



Air Line Connection Kit
66073-1

1/2" Non-Metallic Dimensions and Flow Charts



DIMENSIONS

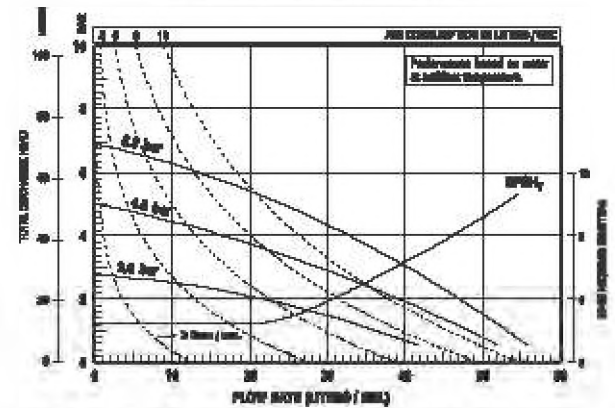
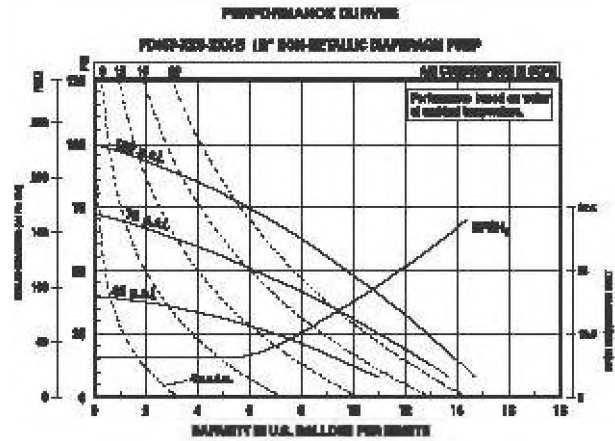
A - 3-7/32" (94.8 mm)	G - 10-7/8" (275.7 mm)	N - 6-6/16" (158.8 mm)
B - 10-1/16" (256.0 mm)	H - 4-7/8" (125.4 mm)	P - 6" (152.0 mm)
C - 4-1/8" (104.8 mm)	J - 5-1/2" (139.7 mm)	Q - 1-5/16" (40.0 mm)
D - 2" (51.8 mm)	K - 3/4" (19.0 mm)	R - 1" (25.4 mm)
E - 8-23/32" (170.4 mm)	L - 1-43/64" (22.7 mm)	S - 2-3/32" (70.2 mm)
F - 1" (25.4 mm)	M - 3/8" (9.5 mm)	

Model	T" Material Inlet	T" Material Outlet
FD65P-432-3000-B	1/2 - 14 NPTF - 1	1/2 - 14 NPTF - 1
FD65P-332-3000-B	1/2 1/2 (1/2 - 14 BSP)	1/2 1/2 (1/2 - 14 BSP)

Dual Inlet - Dual Kit:
 637-440-1 (N.P.T. Poly)
 637-440-4 (BSP Poly)
 637-440-2 (N.P.T. Acetal)
 637-440-3 (N.P.T. PVDF)



FD65P-432-3000-B
 with 637-440-1 Kit



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

Ordering Position 10

Specialty Code 1 (Blank if no Specialty Code)

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

Ordering Position 11

Specialty Code 2 (Blank if no Specialty Code)

E - End of stroke feedback + Leak Detection	L - Leak Detection
F - End of stroke feedback	M - Leak Detection ATEX/IECex/NEC/CEC
G - End of Stroke ATEX/IECex/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 L/min) and a wide range of material and porting configurations.

Ratio:	1:1
Maximum Flow gpm (L/min):	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 (4.8 bar) 60 Cycles/Min 71.1 db(A)
Muffler:	Integral, included



66605-368

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 Case - Check Flty
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*	1 - Neoprene 2 - Nitrile 3 - Viton* 4 - PTFE/Santoprene 8 - Polyurethane 9 - Hytrel* B - Santoprene* L - Long-Life PTFE	04 - Top Discharge

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Accessories

Air Line Connection Kit | 66073-1

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

Optional Muffler | 93110 used with 637438 kit

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

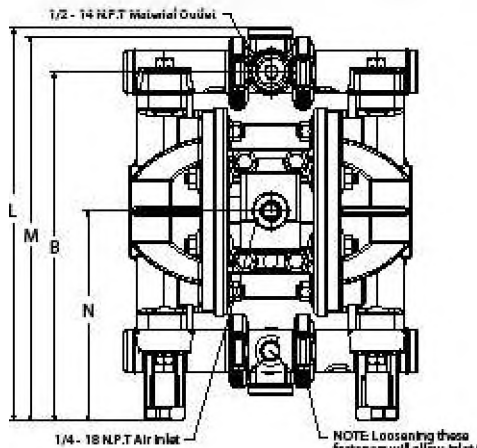
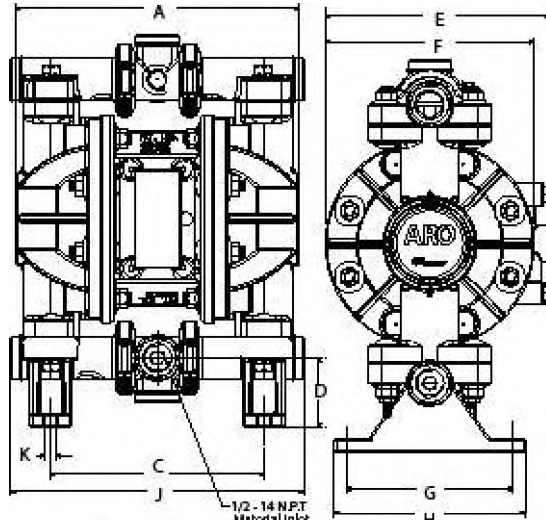


93110



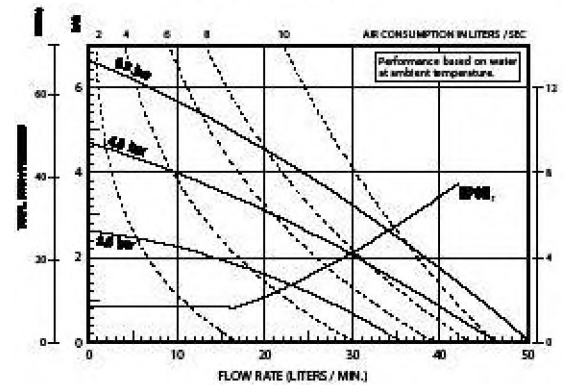
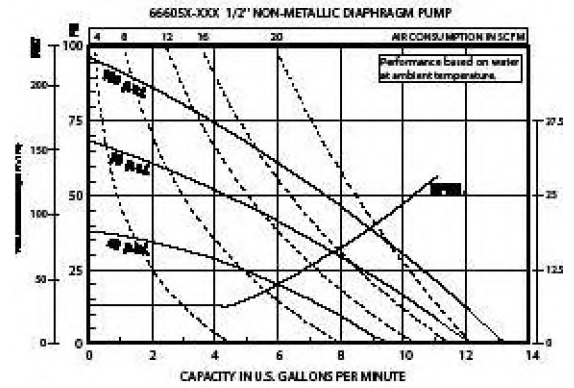
Air Line Connection Kit
66073-1

1/2" Non-Metallic Dimensions and Flow Charts



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

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



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

3/4" Non-Metallic Models

COMPACT SERIES PUMPS

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

Ratio:	1:1
Maximum Flow gpm (L/min):	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 (4.8 bar) 60 Cycles/Min 75.0 db(A)



PD07P-APS-PAA

Ordering

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

Position 1 Model Series	Position 2 Center Section	Position 3 Connections	Position 4 Manifold Material	Position 5 Hardware	Position 6 Inlet Material	Position 7 Ball Assemblies	Position 8 Diaphragm Material	Position 9
PD07 - Standard Pump PE07 - Remote Actuation Capable	P - Polypropylene	A - 14 - 3/4" N.P.T.F. - 1 B - Rp 3/4 (3/4) 1/2 -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 21

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Accessories

Air Line Connection Kit | 66073-1

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

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

Service Repair Kits | 637428 (air section)

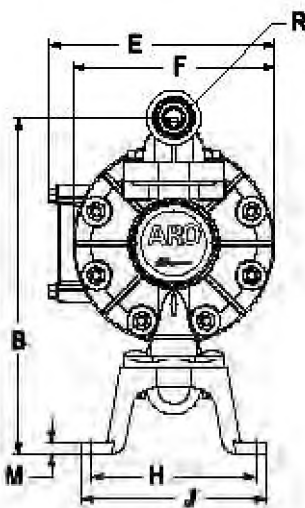
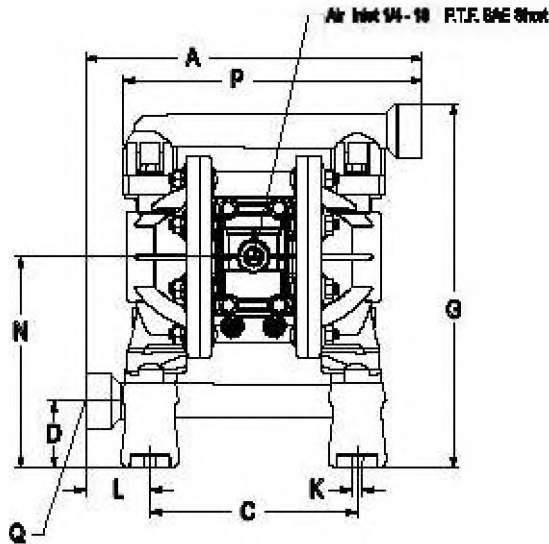
637427-XX (fluid section)

Wall Mount | 76763



Air Line Connection Kit
66073-1

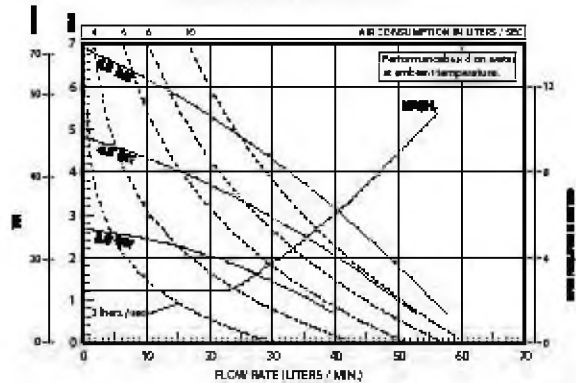
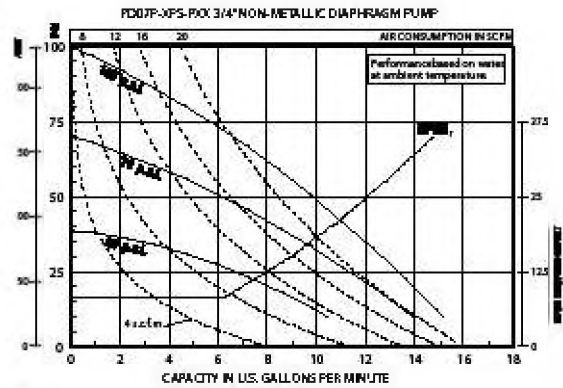
3/4" Non-Metallic Dimensions and Flow Charts



DIMENSIONS

A - 10" (254.2 mm)	F - 6-1/32" (153.1 mm)	L - 1-15/16" (48.9 mm)
B - 10-3/32" (265.1 mm)	G - 10-29/32" (278.8 mm)	M - 3/8" Ø 6 mm)
C - 6-3/16" (157.1 mm)	H - 4-29/32" (124.2 mm)	N - 6-5/16" (160.3 mm)
D - 2" (51.0 mm)	J - 5-17/32" (140.2 mm)	P - 8-7/8" (225.3 mm)
E - 6-3/4" (171.0 mm)	K - 5/16" Ø 0 mm)	

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



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

Ordering Position 10

Specialty Code 1 (Blank if no Specialty Code)

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

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 L/min) 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 (L/min):	47 (177.9)
Displacement per cycle gal (l):	.17 (0.64)
Air Inlet: (Female)	1/4 - 18 NPT
Fluid Inlet/Outlet:	1 - 1 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-, 1A[-, 1A]-, 1A]- 20.3 (9.2) 6661B3-, 1B[-, 1B]-, 1B]- 28.8 (13.1)
Maximum dry suction lift ft (m):	15 (4.6)
Sound Level:	70 PSI (4.8 bar) 60 Cycles/Min 78.3 dB(A)



Ordering

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

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

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Accessories

Air Line Connection Kit | 66073-1

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

Service Repair Kits | 637118-C (air section)

637161-XX-C (fluid section)

Flange Connection Kit | 67078 Kit meets ANSI specifications.

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

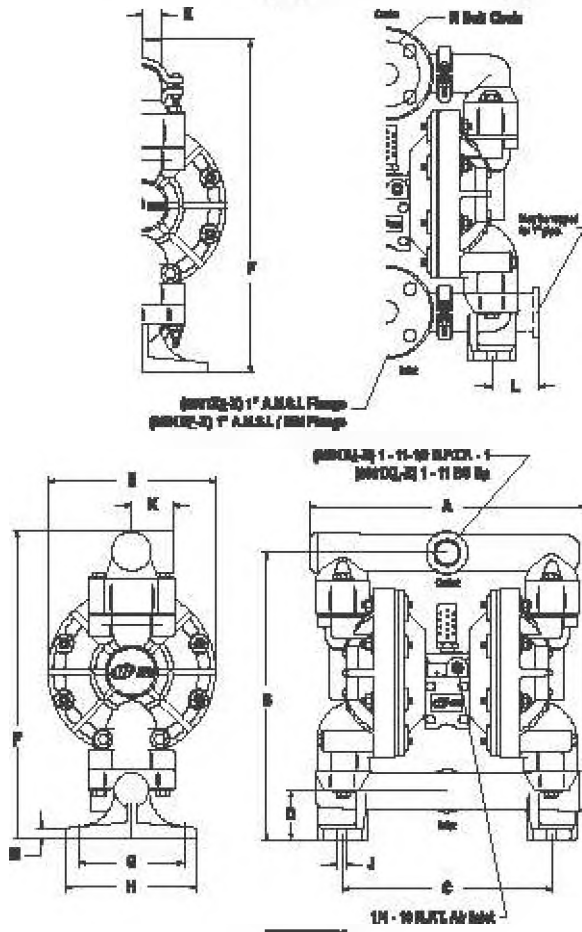


Air Line Connection Kit
66073-2



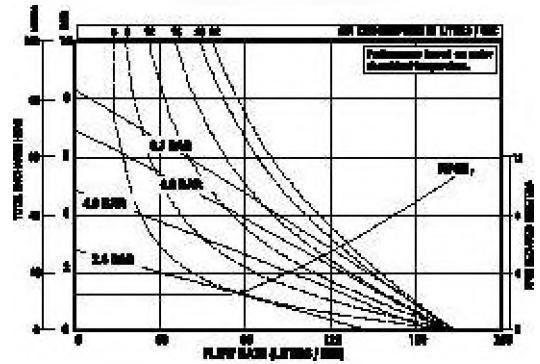
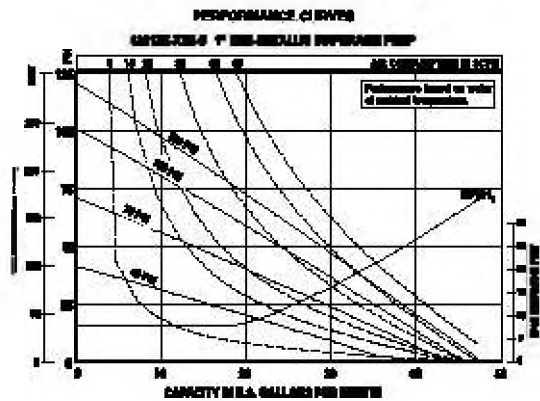
Flange Connection Kit
67078

1" Non-Metallic Dimensions and Flow Charts



DIMENSIONS

	6661XK-X 6661XL-X 6661XJ-X	6661XJ-X 6661XL-X	6661XF-X
A	13-31/32" (321 mm)	13-5/32" (304 mm)	13-5/32" (304 mm)
B	13-25/32" (340 mm)	13-25/32" (340 mm)	13-25/32" (340 mm)
C	10-1/16" (255 mm)	10-1/16" (255 mm)	10-1/16" (255 mm)
D	2-3/8" (59 mm)	2-11/32" (59 mm)	2-11/32" (59 mm)
E	3-1/16" (204 mm)	3-1/16" (204 mm)	3-1/16" (204 mm)
F	18" (406 mm)	14-13/16" (370 mm)	18" (406 mm)
G	5-1/32" (128 mm)	5-1/32" (128 mm)	5-1/32" (128 mm)
H	6-9/32" (160 mm)	6-9/32" (160 mm)	6-9/32" (160 mm)
J	7/16" (11 mm)	7/16" (11 mm)	7/16" (11 mm)
K	1 1/16" (23 mm)	2" (51 mm)	1-1/32" (26 mm)
L	2-9/32" (57 mm)		
M	1/2" (13 mm)	1/2" (13 mm)	1/2" (13 mm)
N	3.140" (80 mm)		3.140" (80 mm)



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

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 L/min) 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 (L/min):	53 (200)
Displacement per cycle Gallons (Liters):	0.226 (0.86)
Air Inlet (Female):	1/4" - 18 N.P.T.
Fluid Inlet/Outlet:	1 - 1 1/2 N.P.T.F., Rp1(1-11 BSP) ANSI/DIN hybrid flange (side or center)
Max. operating pressure psi (bar):	120 (8.3)
Suspended solids max. dia. in.(mm):	1/8" (3.2)
Weight lbs (kg):	Polypropylene, Threaded Port 19.35 (8.78) Polypropylene, Center Ported 19.59 (8.89) Polypropylene, Side Ported 19.87 (9.01) PVDF, Threaded Port 25.83 (11.72) PVDF, Center Ported 26.72 (12.12) PVDF, Side Ported 27.15 (12.32)
Maximum dry suction lift ft(m) :	19 (5.7)
Sound Level:	70 PSI (4.8 bar) 60 Cycles/Min 79.7 db(A)
Muffler Included:	93110



Ordering

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

Position 1 Model Series	Position 2 Center Section	Position 3 Connections	Position 4 Wetted Parts	Position 5 Hardware	Position 6 Frame Material	Position 7 Ball Material	Position 8 Diaphragm Material	Position 9
PE10 - Standard Pump PE10 - Electronic Interface Accessible Pump	E - Conductive Polypropylene P - Polypropylene	A - NPTF Thread B - BSP Thread F - 1" ANSI/DIN Hybrid Side Flange Y - 1" ANSI/DIN Hybrid Center Flange	E - Conductive Polypropylene* K - PVDF N - Conductive PVDF* P - Polypropylene	S - SS	H - 440 SS (Hard) K - PVDF P - Polypropylene S - 316 SS	A - Santoprene® C - Hytrel® G - Nitrile T - PTFE V - Viton®	A - Santoprene® C - Hytrel® G - Buna-N L - Long-Life PTFE T - PTFE/Santoprene® V - Viton®	Revision Level Position 10 & 11 Specialty Code Fluid control options for pump with electronic interface (PE10 model). See complete description on page 25

* Acceptable for use in hazardous locations. - NEC / IEC Classification, Div 1 & 2, Group A-D
- ATEX Zone 1 & 2, 21 & 22

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Accessories

Air Line Connection Kit | 66073-2

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

Diaphragm Failure Detection | 67237

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

Cycle Sensor Kit | 67350

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

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

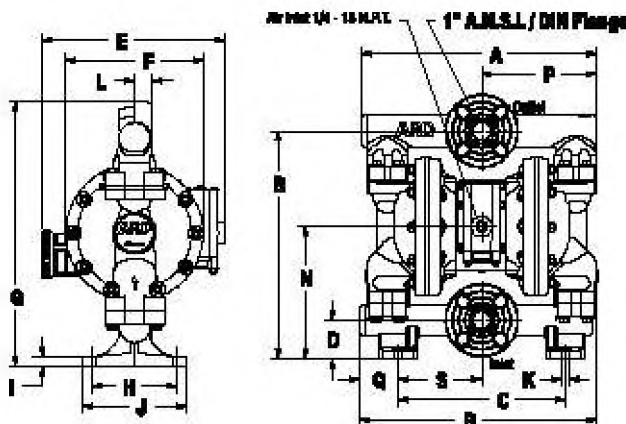
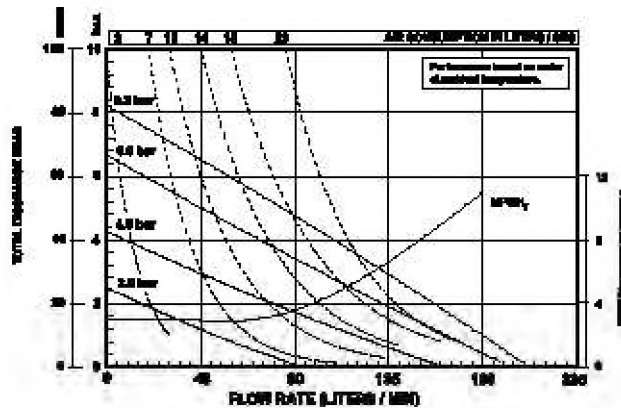
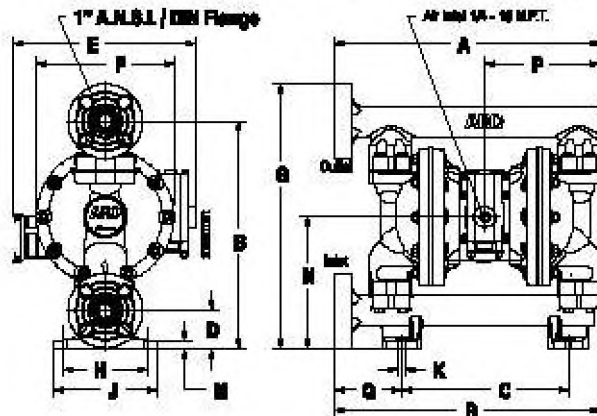
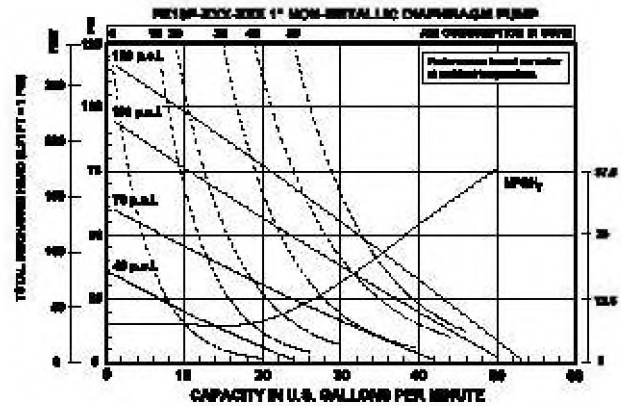
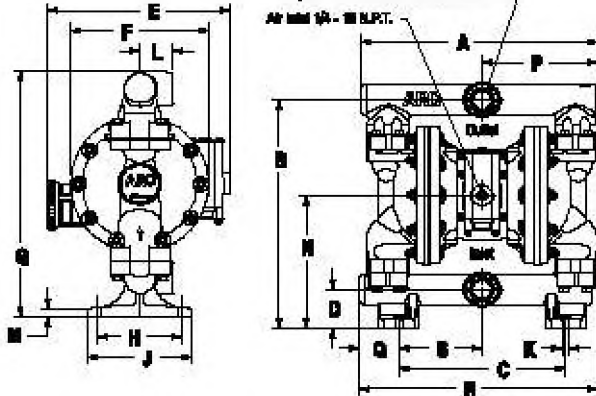
Use with non-metallic EXP pumps with the flange manifold option



Range Connection kit

1" Non-Metallic Dimensions and Flow Charts

1- 11-1/2" H.P.T.F. - 1 (PX10P-5XB-3000)
 Rp 1- 11 BS (PX10P-5XB-3000)



Performance based on an elastomer fit red pump. Flanged section with water at ambient conditions. Due to varying materials of construction, assembly configurations and operating conditions, published data is for reference only.

- A - see below
- B - 13-22/32" (349.0 mm)
- C - 10-1/16" (258.3 mm)
- D - 2-11/32" (56.4 mm)
- E - 11-1/32" (279.5 mm)
- F - 6-41/64" (211.1 mm)

DIMENSIONS

- G - see below
- H - 5-1/32" (127.6 mm)
- J - 5-9/32" (159.8 mm)
- K - 7/16" (11.1 mm)
- L - see below
- M - 1/2" (12.7 mm)
- N - 5-1/32" (200.4 mm)
- P - 6-9/32" (174.6 mm)
- Q - see below
- R - see below
- S - 5-1/32" (127.8 mm)

- PX10P-5XB-3000 (Threaded)
- A - 14-7/32" (361.2 mm)
- G - 14-27/32" (376.8 mm)
- L - 2" (50.8 mm)
- Q - 2-3/8" (59.7 mm)
- R - 14-11/32" (364.0 mm)

- PX10P-5XB-3000 (End Flange)
- 16-1/32" (407.9 mm)
- 16-1/32" (407.9 mm)
- 4-1/16" (100.0 mm)
- 16-1/32" (407.9 mm)

- PX10P-5XB-3000 (Center Flange)
- 14-7/32" (361.2 mm)
- 16" (406.3 mm)
- 1-1/32" (25.4 mm)
- 2-3/8" (59.7 mm)
- 14-11/32" (364.0 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)
- 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 L/min) and also offer a diverse selection of material and porting configurations.

Ratio:	1:1
Maximum Flow gpm (L/min):	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 hft ft (m):	14 (4.27)
Sound Level:	70 PSI (4.8 bar) 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 9 - Hytrel B - Santoprene®

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Accessories

Air Line Connection Kit | 66084-1

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

Service Repair Kits | 637118-C (air section)

637165-XX (fluid section)

Flange Connection Kit | 67079 Kit meets ANSI specifications.

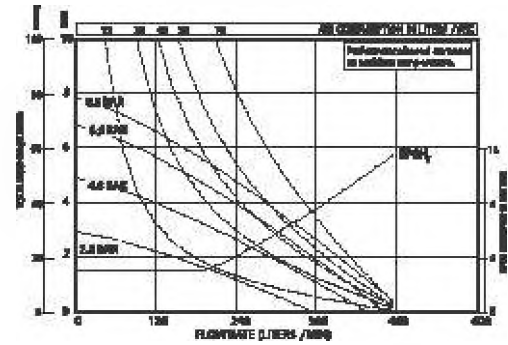
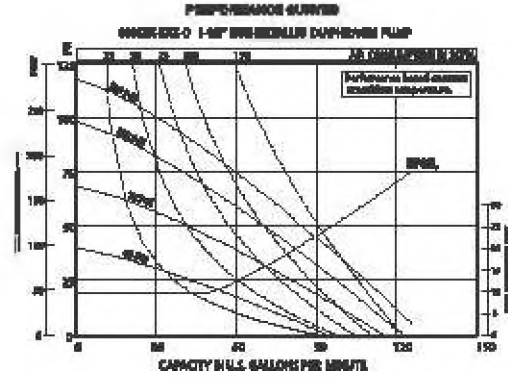
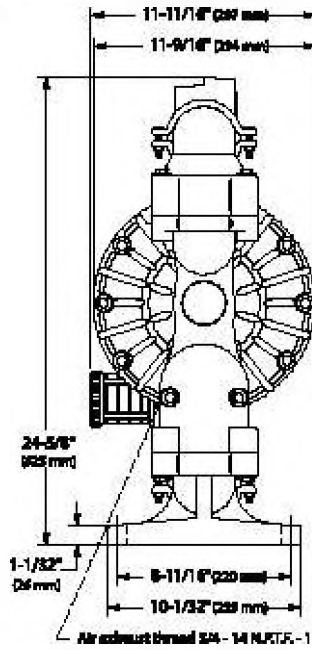
Flange constructed of glass-filled polypropylene. Bolts, washers and nuts are stainless steel. Gasket is 4401 Klinger synthetic fiber nitrile binder.



Flange Connection Kit
67079

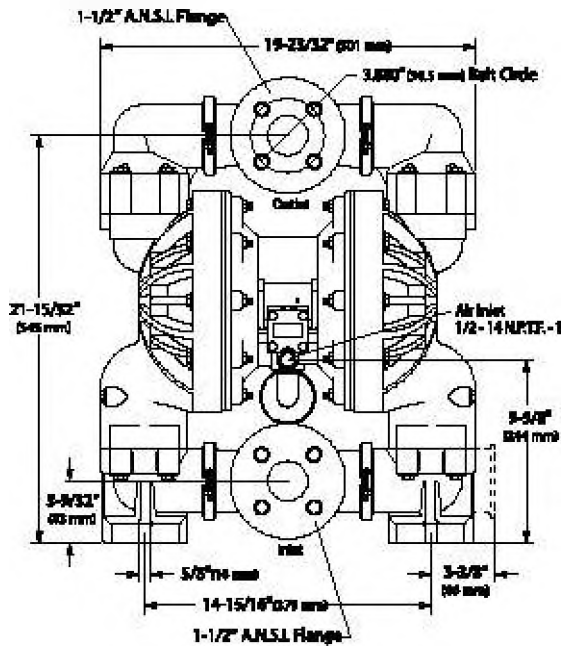
1-1/2" Non-Metallic Dimensions and Flow Charts

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



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

For additional information contact technical support at 1.800.885.0276



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 L/min) and also offer a diverse selection of material and porting configurations.



Ratio:	1:1
Maximum GPM (L/min):	123 (465)
Displacement per cycle Gallons (Liters):	0.617 (2.34)
Air Inlet (Female):	1/2 - 14 N.P.T.
Fluid Inlet/Outlet:	1-1/2" ANSI/DIN hybrid flange (side or center)
Max. operating pressure psi (bar):	120 (8.3)
Suspended solids max. dia. in. (mm):	1/4" (6.4)
Weight lbs (kg):	Polypropylene, Side Ported 42.6 (19.3) PVDF, Side Ported 63.9 (29) Polypropylene, Center Ported 42.3 (19.2) PVDF, Center Ported 55.9 (25.3)
Maximum dry suction lift ft (m) :	14 (4.2)
Sound Level:	70 PSI (4.8 bar) 60 Cycles / Min 81.0 db(A)
Muffler Included:	93139



PX10P-FPS-PTL

Ordering

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

Position 1 Model Series	Position 2 Center Section	Position 3 Connections	Position 4 Wetted Parts	Position 5 Hardware	Position 6 Seat Material	Position 7 Ball Material	Position 8 Diaphragm Material	Position 9
PD15 - Standard Pump PE15 - Electronic Interface Accessible Pump	E - Conductive Polypropylene P - Polypropylene	F - 1-1/2" ANSI/DIN Hybrid Side Flange Y - 1-1/2" ANSI/DIN Hybrid Center Flange	E - Conductive Polypropylene* K - PVDF P - Polypropylene	S - SS	H - 440 SS (Hard) K - PVDF P - Polypropylene S - 316 SS	A - Santoprene® C - Hytrel® G - Nitrile S - 316 SS T - PTFE V - Viton®	A - Santoprene® C - Hytrel® G - Buna-N L - Long-Life PTFE T - PTFE/Santoprene® V - Viton®	Revision Level Position 10 & 11 Specialty Code Fluid control options for pump with electronic interface (PE15 model). See complete description on page 29

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

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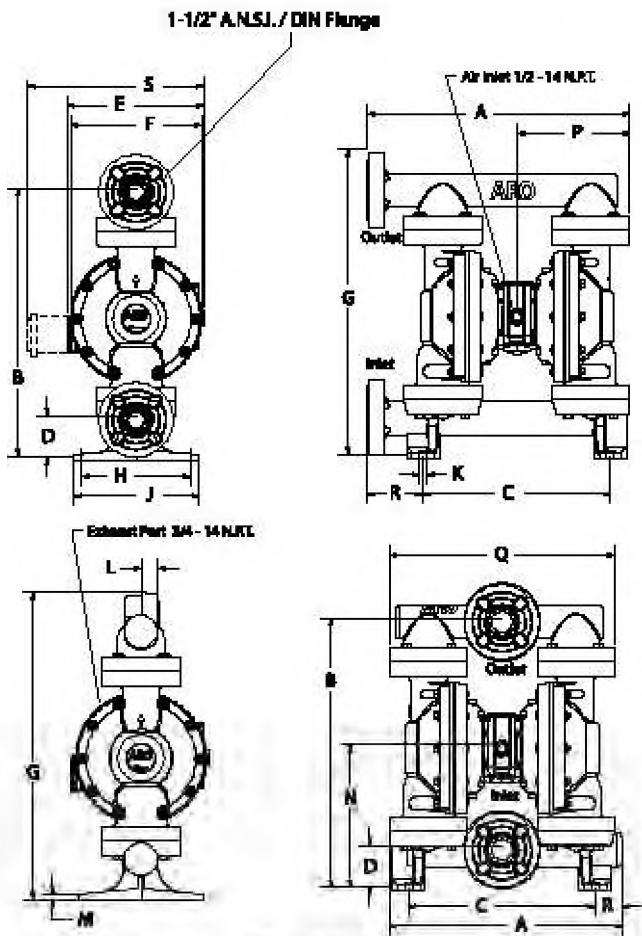
Accessories

- Air Line Connection Kit | 66084-1**
(Piggyback Filter/Regulator with gauge, pipe nipple and 5-foot air hose)
Diaphragm Failure Detection | 67237
- Service Repair Kits | 637389** (air motor for PX15P), 637391-XX (fluid section with seats)
637390-X (major air valve assembly)
- Flange Connection Kit | 67341-E15N** (side flange), 67341-C15N (center flange)
Use with non-metallic EXP pumps with the flange manifold option



Flange Connection Kit

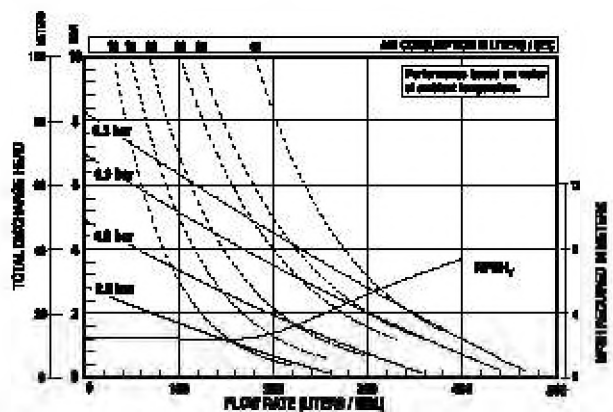
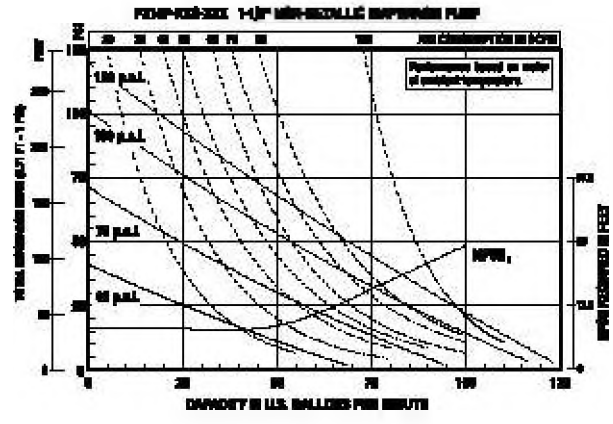
1-1/2" Non-Metallic Dimensions and Flow Charts



- A - see below
- B - 21-15/32" (645.3 mm)
- C - 14-15/16" (579.4 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-ES-XXX
(End Flange) | PX15P-YS-XXX
(Center Flange) |
| A - 20-15/16" (531.8 mm) | 18-19/32" (472.9 mm) |
| G - 24-15/32" (621.5 mm) | 24-18/32" (624.5 mm) |
| L - _____ | 1-3/8" (34.9 mm) |
| Q - _____ | 18-8/32" (459.0 mm) |
| R - 4-7/16" (112.4 mm) | 2-3/32" (53.1 mm) |

- | | | |
|--|----------------------------|--------------------------------|
| PX15E-XXX-XXX
PX15B-XXX-XXX | E
11" (279.5 mm) | S
14-1/8" (358.5 mm) |
|--|----------------------------|--------------------------------|



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

Ordering Position 10

Specialty Code 1 (Blank if no Specialty Code)

- | | |
|---------------------|--|
| A - Solenoid 120VAC | G - Solenoid 12VDC ATEX/IECex* |
| B - Solenoid 12VDC | H - Solenoid 24VDC ATEX/IECex* |
| C - Solenoid 240VAC | J - 120VAC NEC/CEC* |
| D - Solenoid 24VDC | K - Solenoid 220VAC ATEX/IECex* |
| E - 12vDC NEC/CEC* | N - Solenoid with no coil |
| F - 24vDC NEC/CEC* | D - 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, 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 L/min) 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 (L/min):	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 (4.8 bar) 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) 6 - 440 Stainless Steel	1 - Neoprene 2 - Nitrile 3 - Viton® 4 - PTFE 8 - Polyurethane C - Hytrel® E - Santoprene®	1 - Neoprene 2 - Nitrile 3 - Viton® 4 - PTFE / Santoprene 9 - Hytrel® B - Santoprene®

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Accessories

Air Line Connection Kit | 66084-1

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

Service Repair Kits | 637118-C (air section)

637165-XX (fluid section)

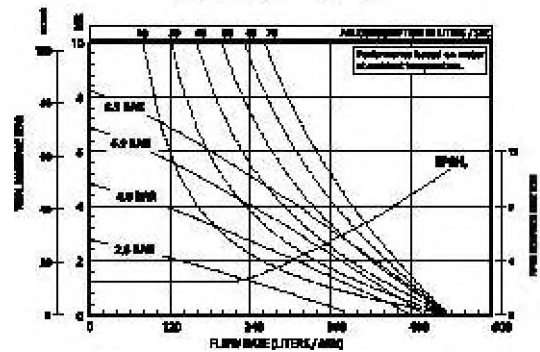
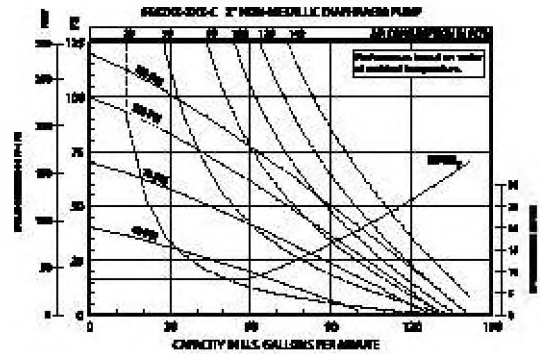
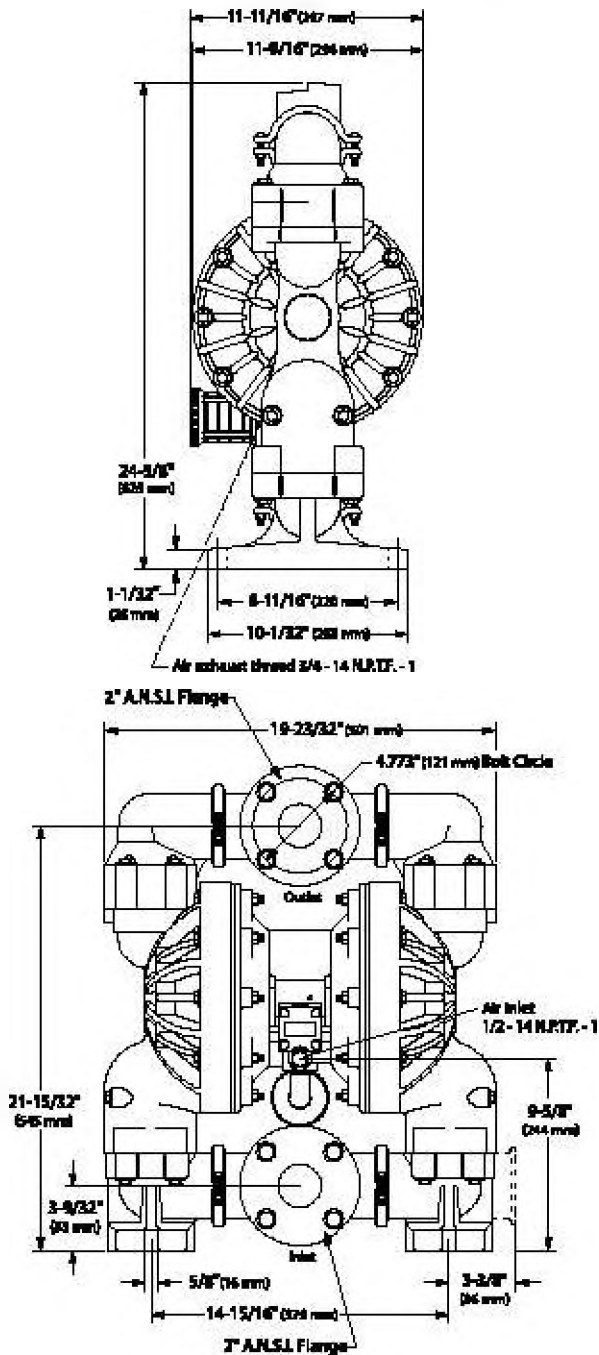
Flange Connection Kit | 67080 Kit meets ANSI specifications. Flange constructed of glass-filled polypropylene. Bolts, washers and nuts are stainless steel. Gasket is 4401 klinger synthetic fiber nitrile binder.



Flange Connection Kit
67080

2" Non-Metallic Dimensions and Flow Charts

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



Refer to www.ARCone.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 L/min) 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 GPM (L/min):	184 (696)
Displacement per cycle Gallons (Liters):	1.4 (5.3)
Air Inlet (Female):	3/4 - 14 N.P.T.
Fluid Inlet/Outlet:	2" ANSI/DIN hybrid flange (side)
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 (4.8 bar) 60 Cycles/Min 85.0 db(A)
Muffler included:	93139

UPGRADE

PUMP FOR REMOTE ACTUATION CAPABILITY



PX20P-FPS-PTL-B

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 Wetted Material	Position 7 Ball Material	Position 8 Diaphragm Material	Position 9
PD20 - Standard Pump PE20 - Electronic Interface Accessible Pump	E - Conductive Polypropylene P - Polypropylene	F - 2" ANSI/DIN Hybrid Side Flange	E - Conductive Polypropylene* K - PVDF N - Conductive PVDF* P - Polypropylene	S - SS	K - PVDF P - Polypropylene	A - Santoprene® C - Hytrel® G - Nitrile T - PTFE V - Viton®	A - Santoprene® C - Hytrel® G - Buna-N L - Long-Life PTFE T - PTFE/Santoprene® V - Viton®	Revision Level Position 10 & 11 Specialty Code Fluid control options for pump with electronic interface (PE20 model). See complete description on page 33

* Acceptable for use in hazardous locations. - NEC / CEC Class I, 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 Sensor Kit | 67350-1 (PE20X pump model is required)

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

Continuous-Duty Muffler | 67323 Recommended for continuous-duty and high-flow applications.

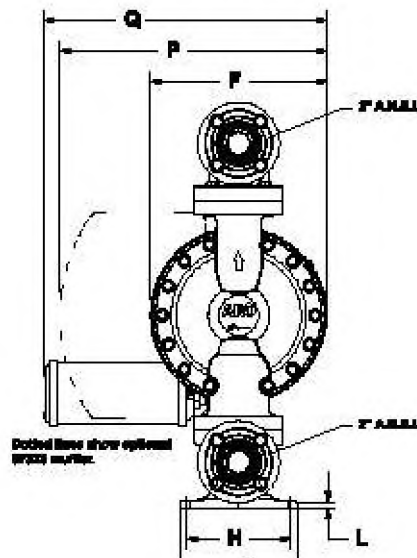
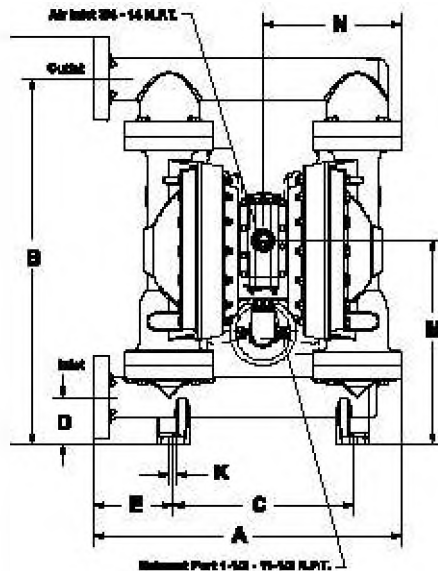
Muffler features large expansion chamber, permitting cold exhaust air to exit pump

Flange Connection Kit | 67341-E20N

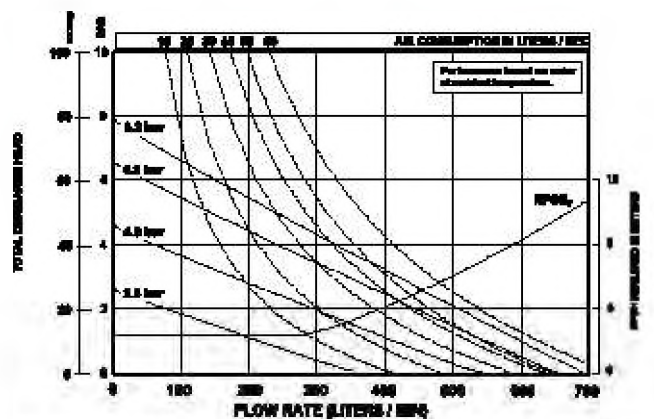
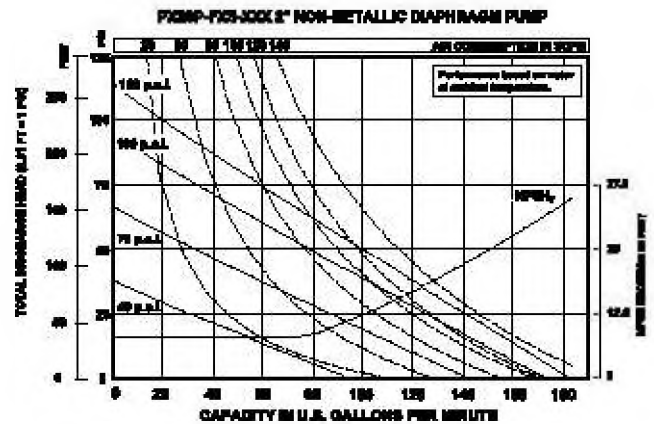


67323
Continuous Duty
Muffler

2" Non-Metallic Dimensions and Flow Charts



- | | |
|-------------------------|-------------------------|
| A - 24-3/16" (614.3mm) | F - 13-7/8" (352.0mm) |
| B - 39-31/32" (728.0mm) | G - 31-29/32" (816.5mm) |
| C - 14-5/32" (361.0mm) | H - 8-3/16" (207.9mm) |
| D - 3-5/8" (92.3mm) | J - 9-7/32" (234.2mm) |
| E - 6-1/4" (158.3mm) | K - 9/16" (14.3mm) |
| L - 1/2" (12.7mm) | |
| M - 16" (406.4mm) | |
| N - 10-7/8" (276.2mm) | |
| P - 20-31/32" (532.2mm) | |
| Q - 22-9/32" (568.5mm) | |



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

Ordering Position 10

Specialty Code 1 (Blank if no Specialty Code)

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

Ordering Position 11

Specialty Code 2 (Blank if no Specialty Code)

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

* Acceptable for use in hazardous locations. - NEC / CEC: Class III, 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 L/min) 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 (L/min):	285 (1079)
Displacement per cycle Gallons (Liters):	2.80 (10.6)
Air Inlet (Female):	3/4 - 14 N.P.T.
Fluid Inlet/Outlet:	3" ANSI/DIN flange
Max. operating pressure psi (bar):	120 (8.3)
Suspended solids max. dia. in. (mm):	3/8" (9.5)
Weight lbs (kg):	Polypropylene 170 (77.11) PVDF 242 (109.77)
Maximum dry suction lift ft (m):	20.5 (6.3)
Sound Level:	70 PSI (4.8 bar) 60 Cycles/Min 85.0 db(A)
Muffler Included:	67389

UPGRADE

PUMP FOR REMOTE
ACTUATION CAPABILITY



PX30P-DPS-PTL-A

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 Seal Material	Position 7 Earl Material	Position 8 Diaphragm Material	Position 9
PD30 - Standard Pump PE30† - Electronic Interface Accessible Pump † Call customer service for availability	P - Polypropylene	D - 3" ANSI 4-hole Flange F - 3" DIN 8-hole Flange	K - PVDF P - Polypropylene	S - SS	K - PVDF P - Polypropylene	A - Santoprene® C - Hytrel® G - Nitrile T - PTFE V - Viton®	A - Santoprene® C - Hytrel® G - Buna-N L - Long-Life PTFE T - PTFE/Santoprene®	Revision Level Position 10 & 11 Specialty Code Fluid control options for pump with electronic interface (PE30 model). See complete description on page 35

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Accessories

Air Line Connection Kit | 66109

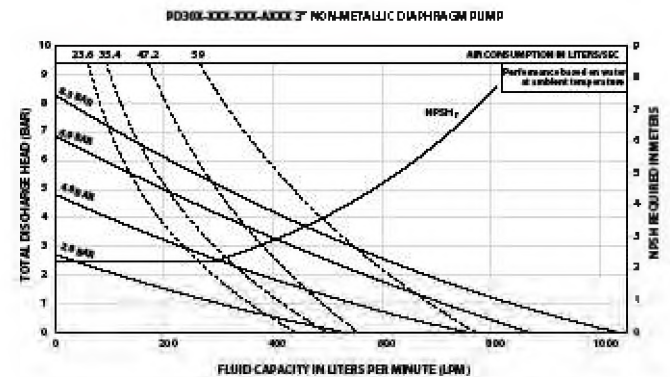
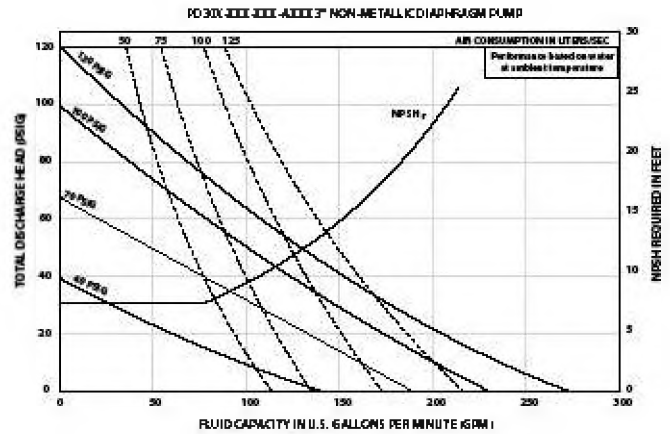
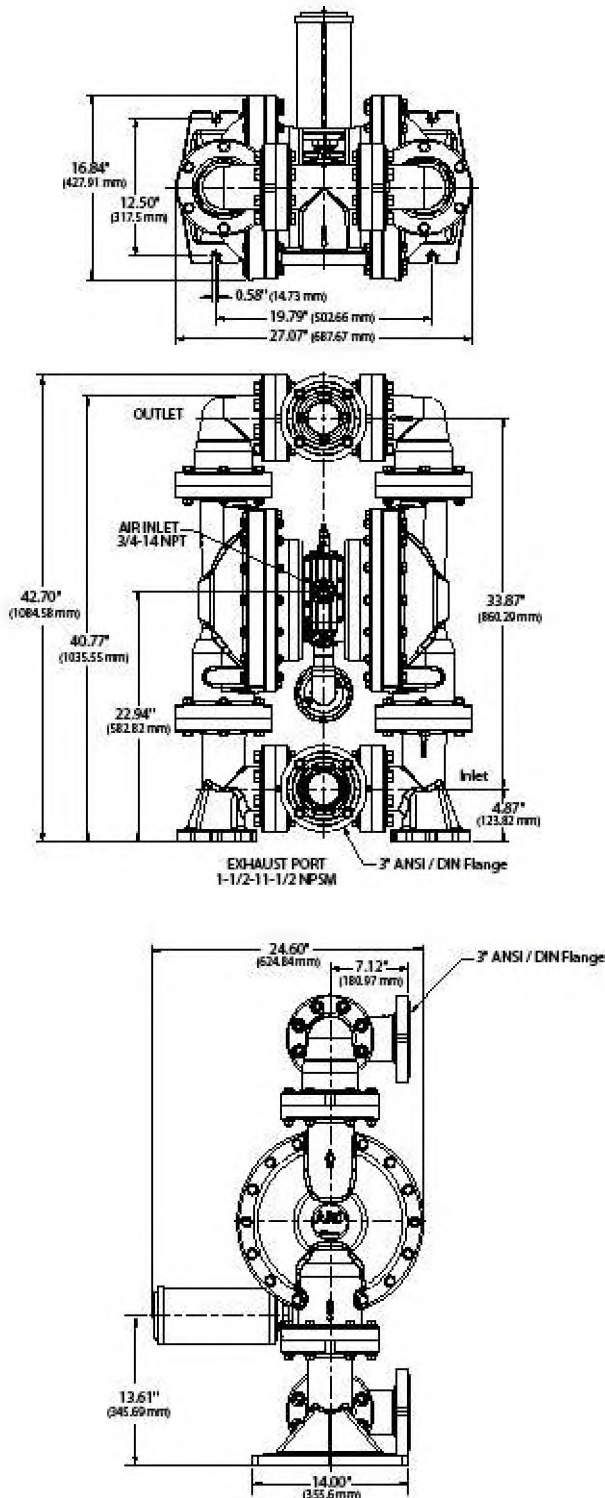
(Piggyback Filter/Regulator with gauge, pipe nipple and 5-foot air hose)

Diaphragm Failure Detection | Kit No. 67237

Service Repair Kits | 637369 (air motor), 637447-XX (fluid section with seats),

637374-X (major air valve assembly)

3" Non-Metallic Dimensions and Flow Charts



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

Ordering Position 10

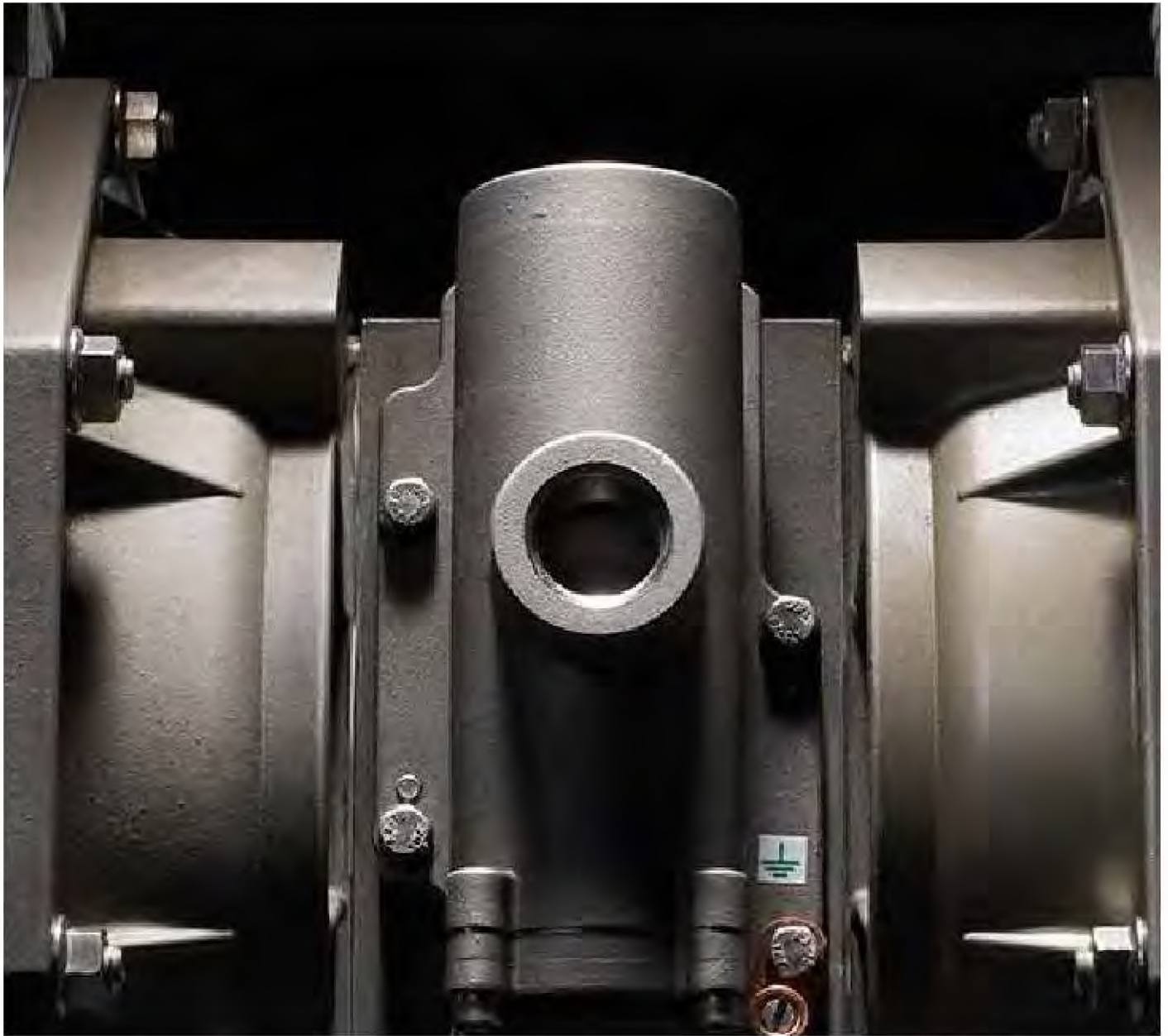
Specialty Code 1 (Blank if no Specialty Code)

- A - Solenoid 120VAC
- B - Solenoid 12VDC
- C - Solenoid 240VAC
- D - Solenoid 24VDC
- 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
- L - Leak Detection
- D - No Option



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.



Models	1/2" Metallic	3/4" Metallic	3/4" Metallic	1" Metallic		1-1/2" Metallic	
Maximum Flow L/min (gpm)	45.4 (12)	51.5 (13.6)	33 (8.75)	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)	8.3 (120)
Material of Construction	Aluminum Stainless Steel	Aluminum	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)	3.2 (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)	5.2 (17)	6.1 (20)	5.7 (19)	5.8 (19)	4.2 (14)



Models	2" Metallic		3" Metallic	
Maximum Flow L/min (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 L/min) and a wide range of material and porting configurations.

Ratio:	1:1
Maximum Flow gpm (L/min):	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 (4.8 bar) 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 Seal 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 com- plete description on page 39

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Accessories

Air Line Connection Kit | 66073-1

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

Wall Mount Bracket Kit | 76763

Optional Muffler | 93110 used with 637438 kit

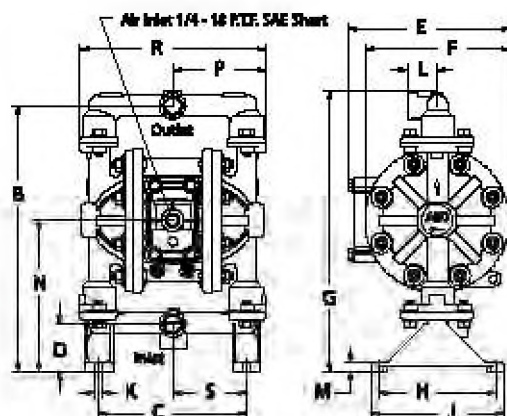
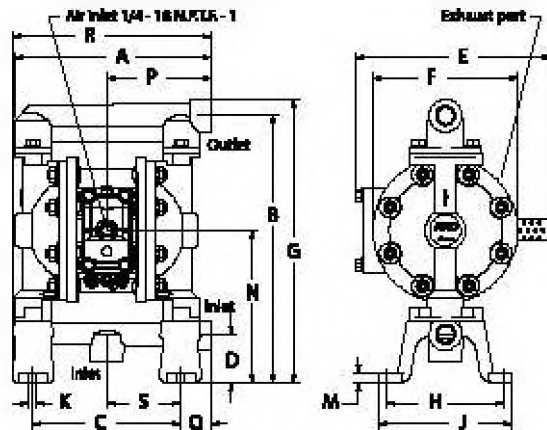
Service Repair Kits | 637428 (air section)

637427-XX (fluid section)



76763

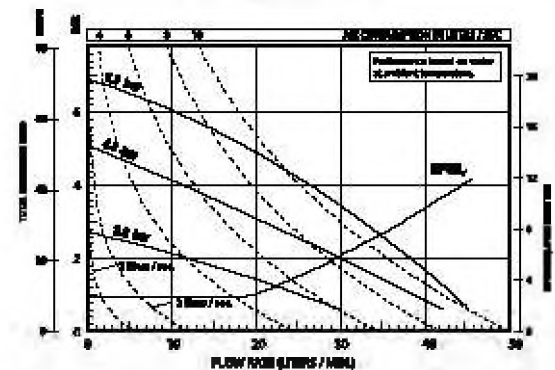
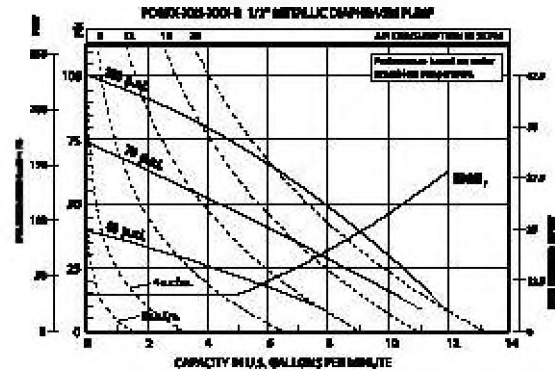
1/2" Metallic Dimensions and Flow Charts



DIMENSIONS

A 8-1/8" (206.0 mm)	G see below	N 6-5/16" (159.9 mm)
B 11-1/16" (280.4 mm)	H 4-7/8" (123.4 mm)	P see below
C 6-1/8" (155.4 mm)	J 5-1/2" (139.7 mm)	Q 1-1/4" (31.8 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	PD08A-303S-K006-B	PD08B-303S-K006-B
E'	8-3/8" (206.5 mm)	6-23/32" (170.6 mm)
G'	11-3/8" (287.9 mm)	11-21/32" (294.0 mm)
T'	4-8/16" (108.8 mm)	3-27/32" (97.4 mm)
T''	6-7/8" (206.5 mm)	7-11/16" (194.9 mm)



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

Ordering Position 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 L/min) and a wide range of material and porting configurations.

Ratio:	1:1
Maximum Flow gpm (L/min):	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 (4.8 bar) 60 Cycles/Min 75 db(A)



PX07R-MS-90A

Ordering

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

Position 1 Model Series	Position 2 Center Section	Position 3 Connections	Position 4 Wetted Parts	Position 5 Hardware	Position 6 Seal Material	Position 7 Ball Material	Position 8 Diaphragm Material	Position 9
D - Standard Pump E - Remote Actuation Capable	A - Aluminum R - Polypropylene	A - 3/4 - 14 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 41.

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Accessories

Air Line Connection Kit | 66073-1

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

Wall Mount Bracket Kit | 76763

Optional Muffler | 93110 Used with 637438 kit

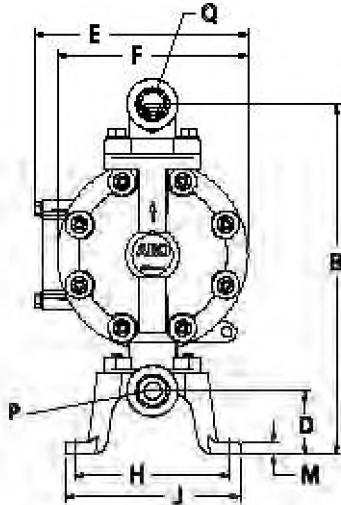
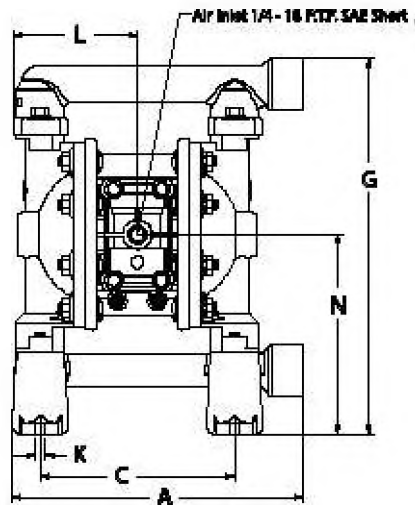
Service Repair Kits | 637428 (air section)

637427-XX (fluid section)



Air Line Connection Kit
66073-1

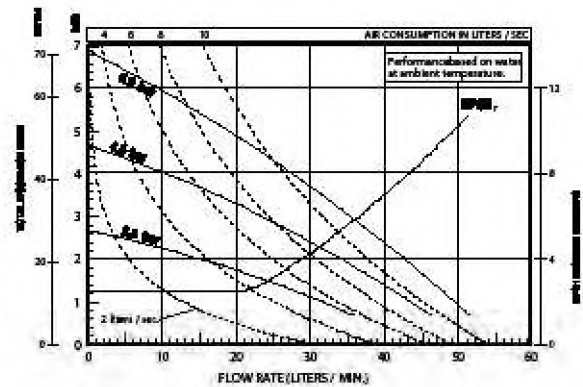
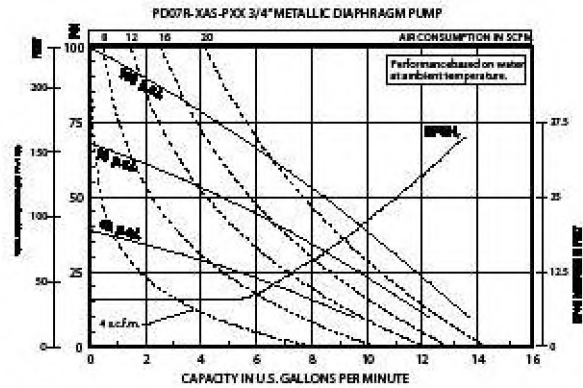
3/4" Metallic Dimensions and Flow Charts



DIMENSIONS

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

Model	Material Inlet	Material Outlet
PD07R-AAS-PXX	3/4- 1/4 N.P.T.F. - 2	3/4- 1/4 N.P.T.F. - 2
PD07R-BAS-PXX	Rp 3/4(3/4- 1/4 BSP)	Rp 3/4(3/4- 1/4 BSP)



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

Ordering Position 10

Specialty Code 1 (Blank if no Specialty Code)

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

Ordering Position 11

Specialty Code 2 (Blank if no Specialty Code)

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

3/4" Metallic Models

COMPACT SERIES PUMPS

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

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



666070XXX
Aluminum Pump

Ordering

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

Position 1 Center Section Material/Fluid Connection/ Wetted Parts Material/Hardware Material	Position 2 Seat Material	Position 3 Ball Check Material	Position 4 Diaphragm Material
70 - Aluminum Center Section / NPTF Thread / Aluminum Wetted Parts, Single Manifold / Steel Hardware	1 - Aluminum 2 - 316 Stainless Steel 3 - Polypropylene	1 - Neoprene 2 - Nitrile 3 - Viton®	1 - Neoprene 2 - Nitrile 3 - Viton®
80 - Aluminum Center Section / BSP Thread / Aluminum Wetted Parts, Single Manifold / Steel Hardware	4 - PVDF (Kynar) 5 - Carbon Steel 8 - Hard 400 Stainless Steel	4 - PTFE 6 - Acetal 8 - Polyurethane A - Stainless Steel C - Hytel® E - Santoprene®	4 - PTFE / Santoprene 9 - Hytel® B - Santoprene®
7A - Aluminum Center Section / NPTF Thread / Aluminum Wetted Parts, Single Manifold / Stainless Steel Hardware			
8A - Aluminum Center Section / BSP Thread / Aluminum Wetted Parts, Single Manifold / Stainless Steel Hardware			

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Accessories

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

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

Wall Mount | 66100

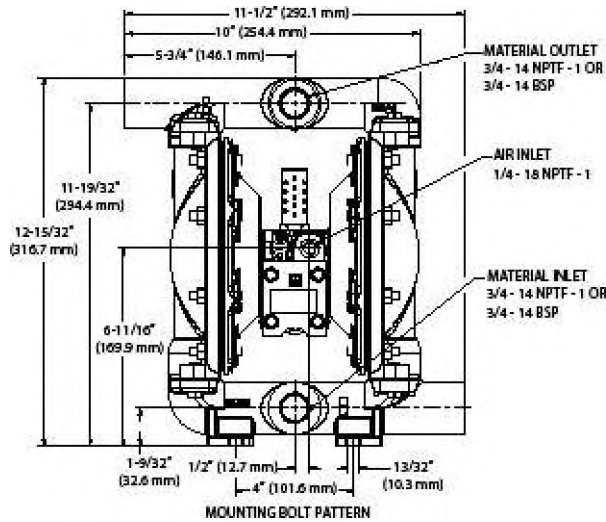
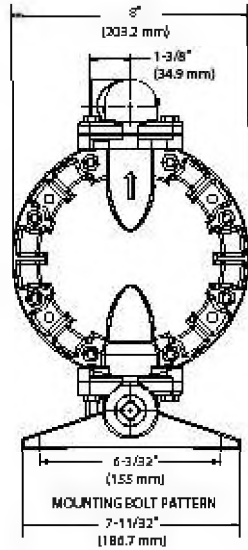


Air Line Connection Kit
66073-2



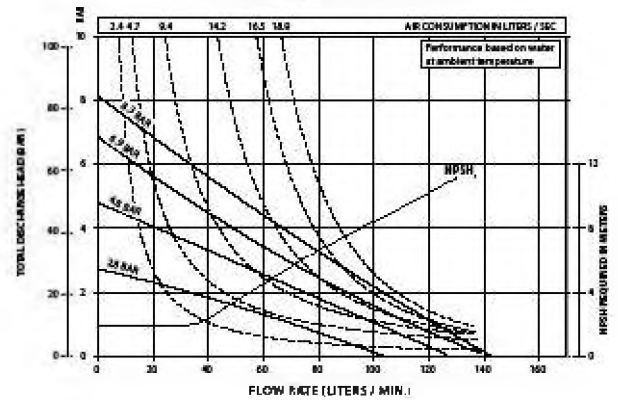
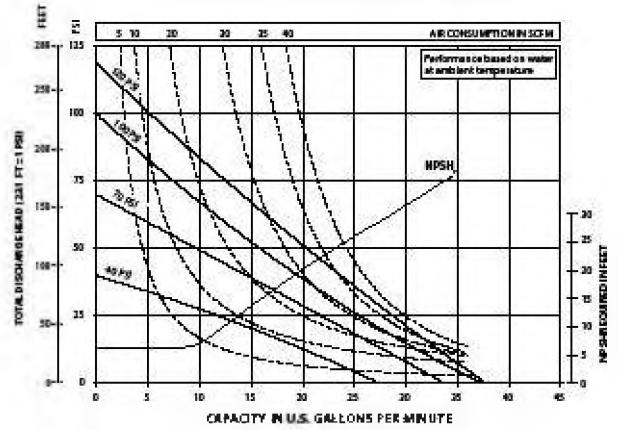
Wall Mount
66100

3/4" Metallic Dimensions and Flow Charts



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

66607X-XXX -A 3/4" Metallic Diaphragm Pump



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

1" Metallic Models

PRO SERIES PUMPS

ARO® PRO 1" metallic diaphragm pumps achieve flow rates of up to 35 GPM (133 L/min) 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 (L/min):	35 (133)
Displacement per cycle gal (l):	.16 (.60)
Air Inlet (Female):	1/4 - 18 NPTF - 1
Fluid Inlet/Outlet:	1 - 1-1/2 NPTF - 1 Rp 1 (1-1) 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 (4.8 bar) 60 Cycles/Min 78.3dB(A)



Ordering

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

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 hard- ware) 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 5 - Acetal 6 - Polyurethane A - Stainless Steel C - Hytrel E - Santoprene	1 - Neoprene 2 - Nitrile 3 - Viton 4 - PTFE / Santoprene 9 - Hytrel B - Santoprene G - Nitrile

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Accessories

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

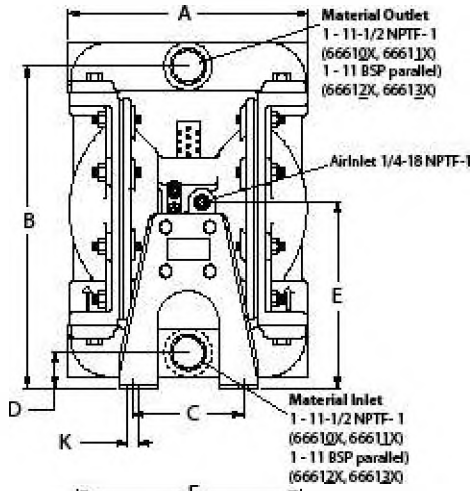
Service Repair Kits | 637118-C (air section)
637119-XX-C (fluid section)

Wall Mount | 66100

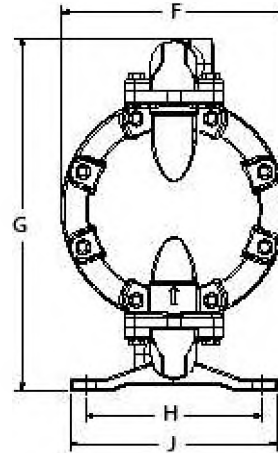
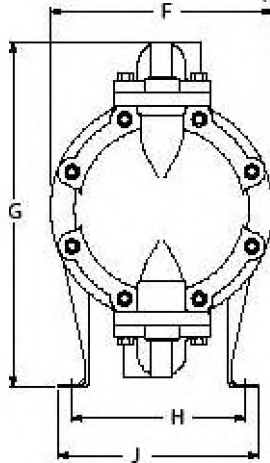
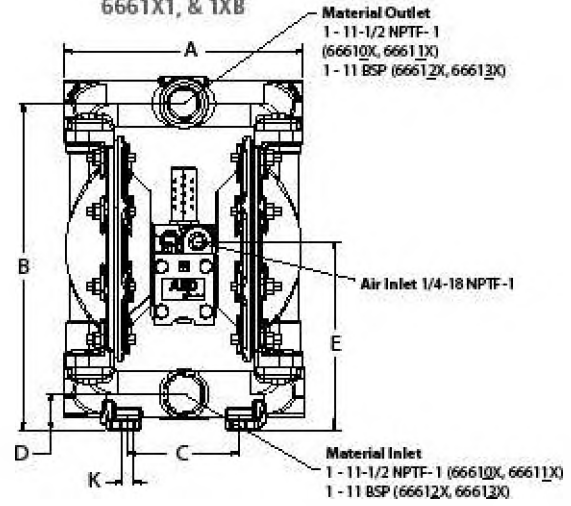


1" Metallic Dimensions and Flow Charts

6661X0, 1XA, 1X2 & 1XC



6661X1, & 1XB



DIMENSIONS

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

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

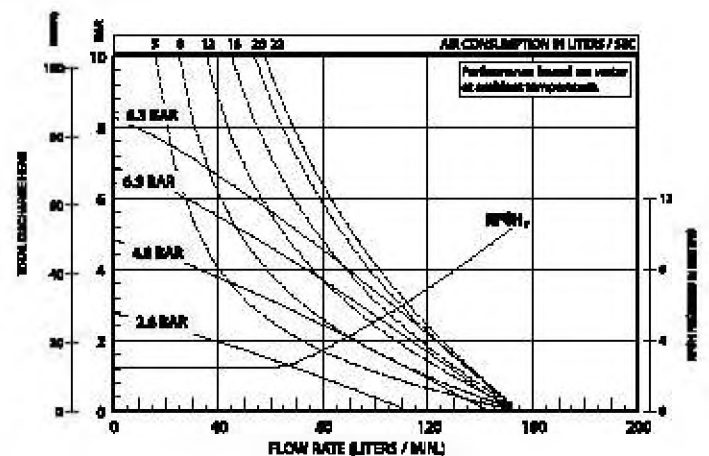
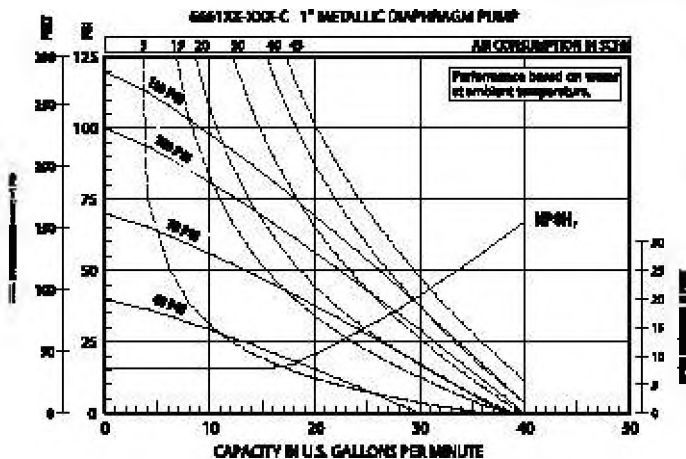
DIMENSIONS

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

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

PERFORMANCE CURVES

6661X0-XXX-C 1" METALLIC DIAPHRAGM PUMP



Refer to www.ARDzone.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 L/min) 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 (L/min):	52 (197)		
Displacement per cycle Gallons (Liters):	0.232 (0.88)		
Air Inlet (Female):	1/4 - 18 N.P.T.		
Fluid Inlet/Outlet:	1 - 1 1/2 N.P.T.F.-L, 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		



PX10A-AAP-AAA-A

Ordering

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

Position 1 Model Series	Position 2 Center Section	Position 3 Connections	Position 4 Wetted Parts	Position 5 Hardware	Position 6 Seal Material	Position 7 Diaphragm 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 T - PTFE/Santoprene® V - Viton®	Revision Level Position 10 & 11 Specialty Code Fluid control options for pump with electronic interface (PE10 model). See complete description on page 47

* Acceptable for use in hazardous locations. - NEC / IEC: 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 Sensor Kit | 67350** (PE10X pump model is required)
- Service Repair Kits | 637397** (air motor for PX10A, PX10R and PX10S)
637401-XX (fluid section with seats)
637395-X (major air valve assembly)

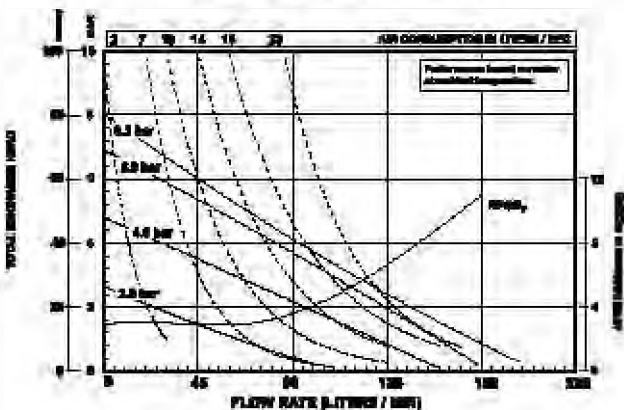
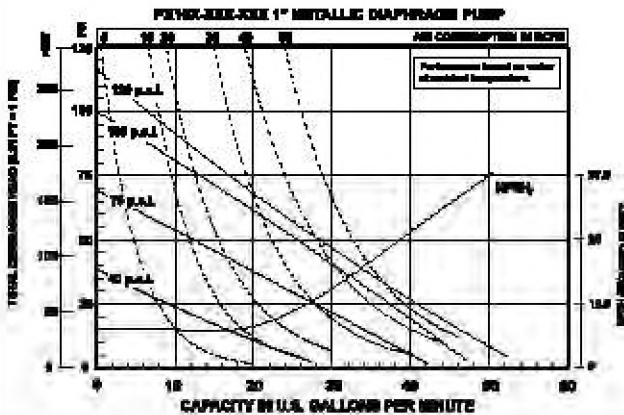
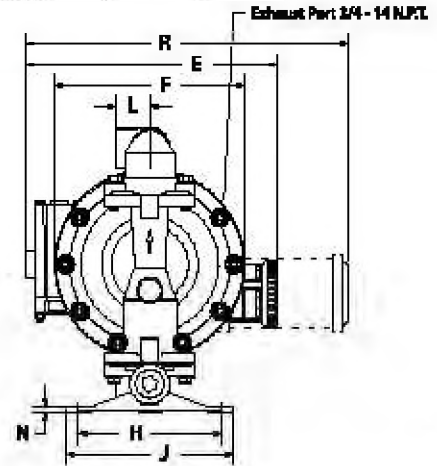
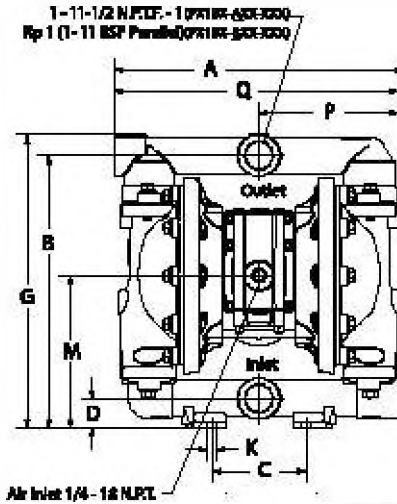
1" Metallic Dimensions and Flow Charts

DIMENSIONS

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

PX106-XXX-XXX	$\frac{E}{F}$	$\frac{T}{R}$	8-1/8" (206.4 mm)	14-1/32" (356.2 mm)
PX108-XXX-XXX	11-1/32" (279.5 mm)	8-5/16" (211.1 mm)		
PX105-XXX-XXX		8-3/16" (207.9 mm)		13-27/32" (351.4 mm)

	$\frac{T}{R}$
PX10X-XXJ-XXX	1/4" (6.4 mm)
PX10X-XXC-XXX	9/32" (7.1 mm)
PX10X-XXD-XXX	9/32" (7.1 mm)
PX10X-XXE-XXX	9/32" (7.1 mm)



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

Ordering Position 10

Specialty Code 1 (Blank if no Specialty Code)

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

Ordering Position 11

Specialty Code 2 (Blank if no Specialty Code)

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

* Acceptable for use in hazardous locations. - NEC / CEC: Class I, 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 L/min) 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 (L/min):	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 (4.8 bar) 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 9 - Hytrel® B - Santoprene®

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

Accessories

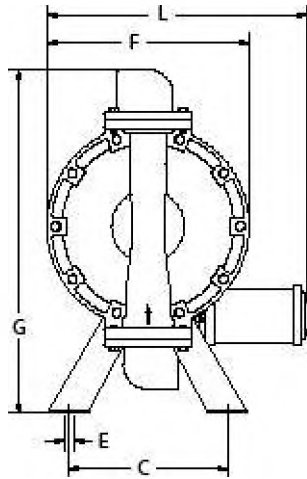
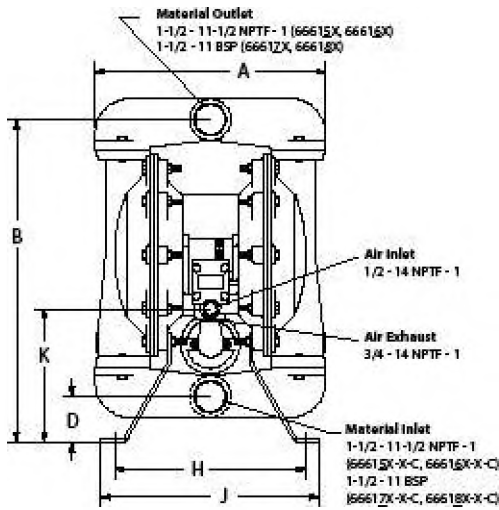
Air Line Connection Kit* | 66084-1 (Piggyback Filter/Regulator with gauge, pipe nipple and 5-foot air hose)

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

Wall Mount | 62133

1-1/2" Metallic Dimensions and Flow Charts

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

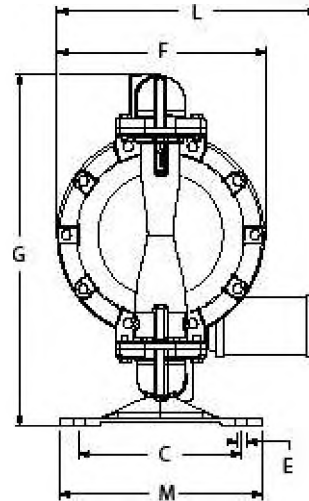
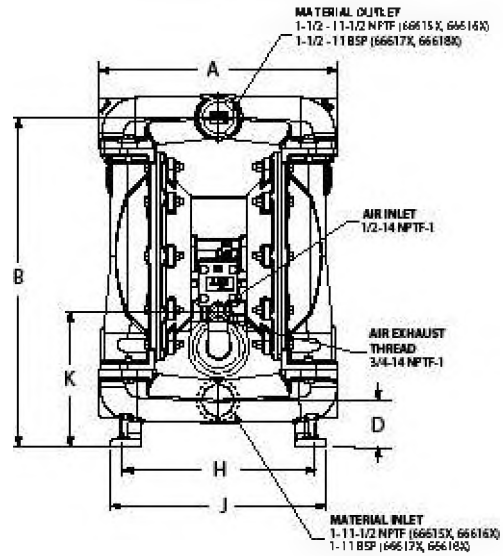


DIMENSIONS

- | | | |
|----------------------|----------------------|------------------------|
| A - 13-1/8" (339 mm) | E - 1/2" (12.7 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



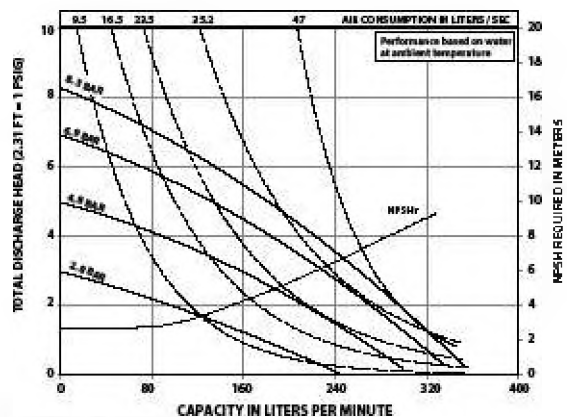
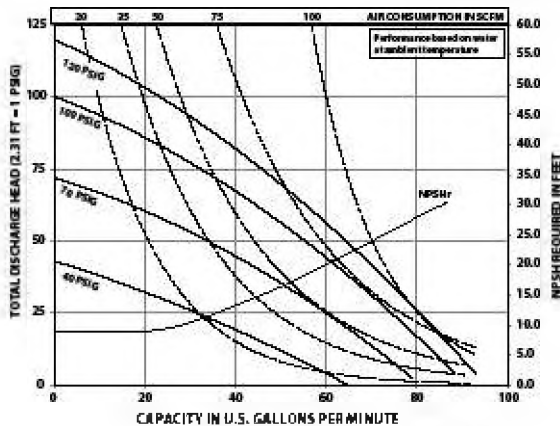
DIMENSIONS

- | | | |
|-----------------------|----------------------|----------------------|
| 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" (289 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.ARDzone.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 L/min) 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.



- Ratio: 1:1
- Maximum GPM (L/min): 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(1-1/2-11 BSP)
1-1/2" ANSI/DIN hybrid flange
- Max. operating pressure psi (bar): 120 (8.3)
- Suspended solids max. dia. in (mm): 1/4" (6.4)
- Weight lbs (kg):
 - PX15R-XAX-XXX 37.7 (17.1)
 - PX15R-XCX-XXX 73.2 (33.2)
 - PX15R-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 (4.8 bar) 50 Cycles/Min 81.0 db(A)
- Muffler Included: 350-568



PX15A-AAP-AAA-A

Ordering

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

Position 1 Model Series	Position 2 Center Section	Position 3 Connections	Position 4 Wetted Parts	Position 5 Hardware	Position 6 Inlet 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 V ¹ - 1-1/2" ANSI/DIN Hybrid Center Flange ¹ Stainless Steel Only	A - Aluminum* C - Cast Iron H - Hastelloy-C* S - Stainless Steel*	P - Plated Steel S - Stainless Steel	A - Santoprene® C - Hytrel® E - Carbon Steel F - Aluminum G - Nitrile H - 440 Stainless Steel L - Hastelloy-C S - 316 Stainless Steel	A - Santoprene® C - Hytrel® G - Nitrile S - 316 SS T - PTFE V - Viton®	A - Santoprene® C - Hytrel® G - Buna-N L - Long-Life PTFE T - PTFE/Santoprene® V - Viton®	Revision Level Position 10 & 11 Specialty Code Fluid control options for pump with electronic interface (PE15 model). See complete description on page 51

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

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

Accessories

Air Line Connection Kit | 66084-1

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

Diaphragm Failure Detection | 67237

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

1-1/2" Metallic Dimensions and Flow Charts

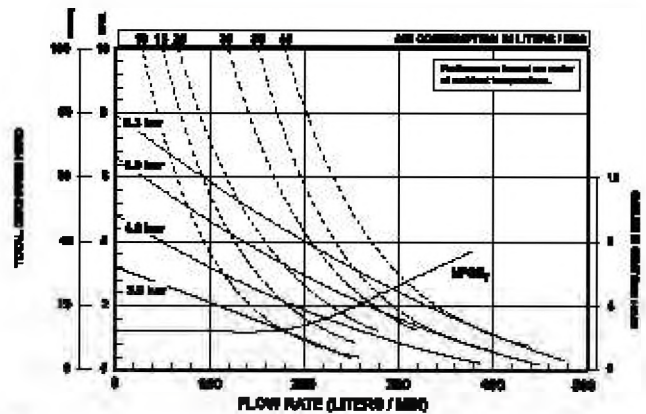
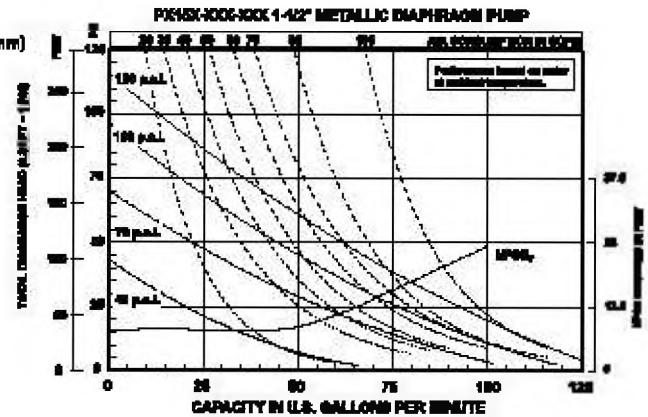
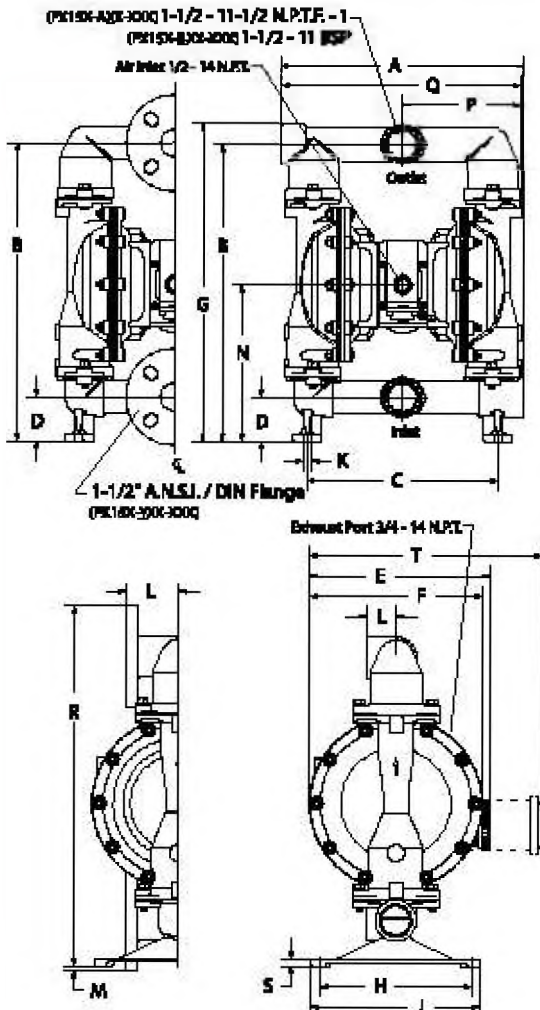
A - see below	G - 19-5/8" (498.1 mm)	N - 9-11/16" (246.0 mm)
B - 18-3/8" (464.7 mm)	H - 9" (228.6 mm)	P - see below
C - 11-3/4" (298.5 mm)	J - 10" (254.0 mm)	Q - see below
D - 2-3/4" (69.9 mm)	K - 1/2" (12.7 mm)	R - 21-7/16" (543.9 mm)
E - see below	L - see below	S - see below
F - 10-1/4" (260.4 mm)	M - 1/4" (6.4 mm)	T - see below

	"H"	"L"
PX15X-XXK-XXX	14-7/8" (377.8 mm)	1-3/4" (44.5 mm)
PX15X-XXC-XXX	14-5/8" (371.5 mm)	1-3/4" (44.5 mm)
PX15X-XXH-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	11-3/32" (281.9 mm)	14-1/32" (356.2 mm)
PX15B-XXX-XXX		13-27/32" (351.4 mm)
PX15S-XXX-XXX		

"W"	"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	11-3/32" (281.9 mm)	14-1/32" (356.2 mm)
PX15B-XXX-XXX		13-27/32" (351.4 mm)
PX15S-XXX-XXX		



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

Ordering Position 10

Specialty Code 1 (Blank if no Specialty Code)

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

Ordering Position 11

Specialty Code 2 (Blank if no Specialty Code)

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

* Acceptable for use in hazardous locations. - NEC/CEC Class I&II, Div 1&2, Group A-D
- ATEX: Zone 1&2, Z1&22

2" Metallic Models

PRO SERIES PUMPS

ARO® PRO 2" metallic pumps achieve flow rates of up to 172 GPM (651 L/min) 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 (L/min):	172 (651)	
Displacement per cycle gal (l):	1.4 (5.3)	
Air Inlet (Female):	3/4 - 1/4 NPTF - 2	
Fluid Inlet/Outlet:	2 - 1-1/2 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 (4.8 bar) 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
6 - 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 - Hytral® E - Santoprene® G - Nitrile	2 - Nitrile 4 - PTFE A - 316 Stainless Steel C - Hytral® E - Santoprene®	2 - Nitrile 4 - PTFE / Santoprene 9 - Hytral® B - Santoprene® G - Nitrile

Hytral® is a registered trademark of DuPont company. Santoprene® is registered trademark of Monsanto and Vison® is a registered trademark of ExxonMobil

Accessories

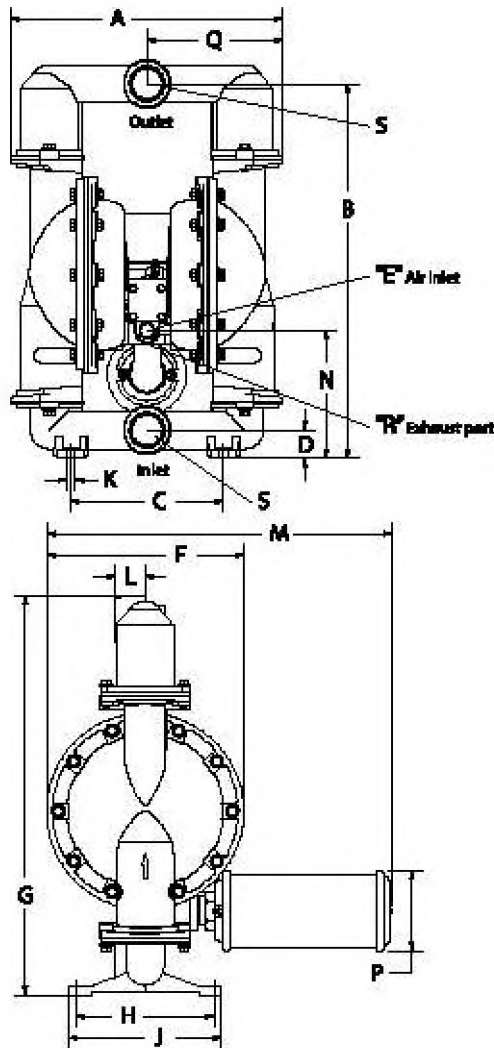
Air Line Connection Kit | 66312

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

Service Repair Kits | 637434 (air section)

637432-XX (fluid section)

2" Metallic Dimensions and Flow Charts



DIMENSIONS

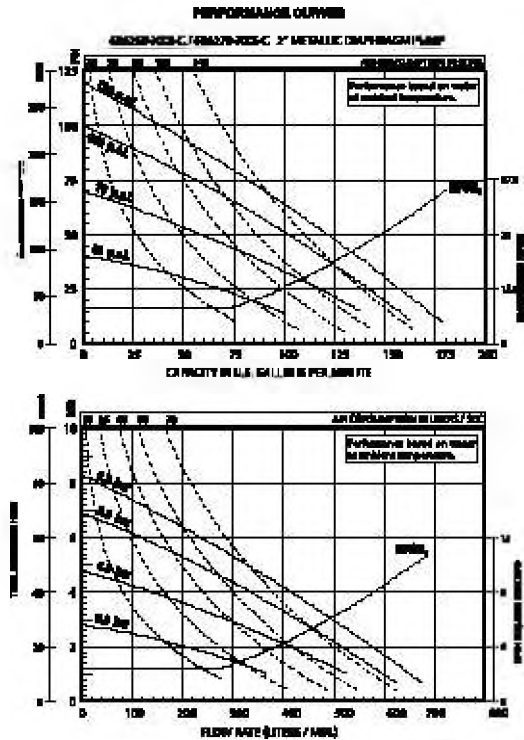
A 17-15/16" (455.1 mm)	G 26-3/8" (683.5 mm)	N 6-15/32" (214.6 mm)
B 24-3/4" (628.7 mm)	H 9-1/16" (230.2 mm)	P 5-1/4" (133.4 mm)
C 10-1/16" (255.6 mm)	J 10-1/16" (255.6 mm)	Q 8-13/32" (227.6 mm)
D 1-7/8" (47.6 mm)	K 9/16" (14.3 mm)	R 1-1/4" - 11-1/2 NPTF-1
E 3/4" - 14 NPTF - 1	L 2" (50.8 mm)	S (see below)
F 13" (330.2 mm)	M 22-3/4" (577.3 mm)	

¹/₂" Inlet / Outlet

44425-XXX-C 2- 11-1/2 NPTF - 1

44427-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.



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

For additional information contact
technical support at 1.800.495.0276

2" Metallic Models

EXP SERIES PUMPS

ARO® EXP 2" metallic pumps achieve flow rates of up to 172 GPM (651 L/min) 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.



Ratio:	1:1
Maximum GPM (L/min):	172 (651)
Displacement per cycle:	1.4 (5.3)
@ 100 PSI (6.9 bar) Gallons (Liters)	
Air Inlet (Female):	3/4 - 14 N.P.T.F.-1
Fluid Inlet/Outlet (Female):	PX20X-AXX-XXX-B 2 - 11-1/2 N.P.T.F.-1 PX20X-BXX-XXX-B Rp 2 (2 - 11 BSP parallel) PX20X-FXX-XXX-B 2" ANSI/DIN hybrid flange
Max. operating pressure psi (bar):	120 (8.3)
Suspended solids max. dia. in. (mm):	1/4" (6.4)
Maximum dry suction lift ft (m):	14 (4.2)
Sound Level:	70 PSF (4.8 bar) 50 Cycles/Min 85.0 db(A)
Muffler included:	67389
Weight lbs (kg):	AL-Aluminum, CI-Cast Iron, H-Hastelloy, SS-Stainless Steel



PX20A-AP-4AA-B

PD20A	Air Motor	Connection	Wetted	Pump Wgt	PD20R	Air Motor	Connection	Wetted	Pump Wgt	PD20S	Air Motor	Connection	Wetted	Pump Wgt
	AL	Thread	AL	91.4 (41.5)		Poly	Thread	O	165 (74.8)		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	149.6 (68)		Poly	Flange	H	153.2 (69.5)		SS	Thread	SS	178.7 (81.1)
AL	Range	H	169.4 (76.8)	Poly	Flange	SS	146 (66.2)	SS	Flange	H	198.3 (89.9)			
AL	Range	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 Seal Material	Position 7 Ball Material	Position 8 Diaphragm Material	Position 9 Revision Level Position 10 & 11 Specialty Code
PD20-Standard Pump PE20-Electronic Interface Accessible Pump	A - Aluminum* R - Polypropylene S - Stainless Steel*	A - NPTF Thread B - BSP Thread F [†] - 2" ANSI/DIN Hybrid Center Flange * Stainless Steel Pumps Only	A - Aluminum* C - Cast Iron H - Hastelloy-C* S - Stainless Steel*	P - Plated Steel S - SS	A - Santoprene® C - Hytrel® E - Carbon Steel F - Aluminum G - Nitrile H - 440 SS K - Kynar/PVDF L - Hastelloy-C S - 316 SS	A - Santoprene® C - Hytrel® G - Nitrile S - 316 SS T - PTFE V - Viton®	A - Santoprene® C - Hytrel® G - Buna-N L - Long-Life PTFE T - PTFE/Santoprene® V - Viton®	Fluid control options for pump with electronic interface (PE20 model). See complete description on page 55

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

Hytrel® is a registered trademark of DuPont company. Santoprene® is registered trademark of Monsanto and Viton® is a registered trademark of EoanMobil

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)

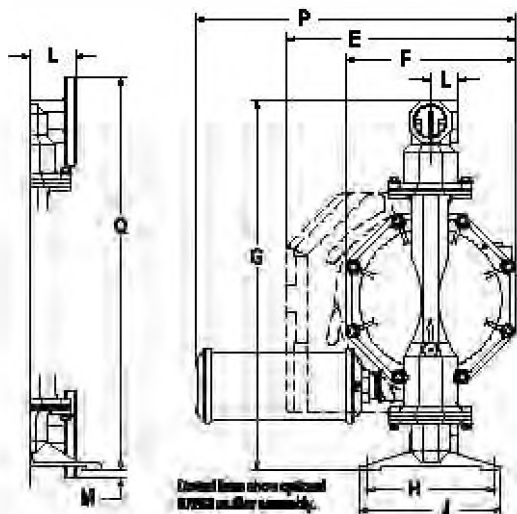
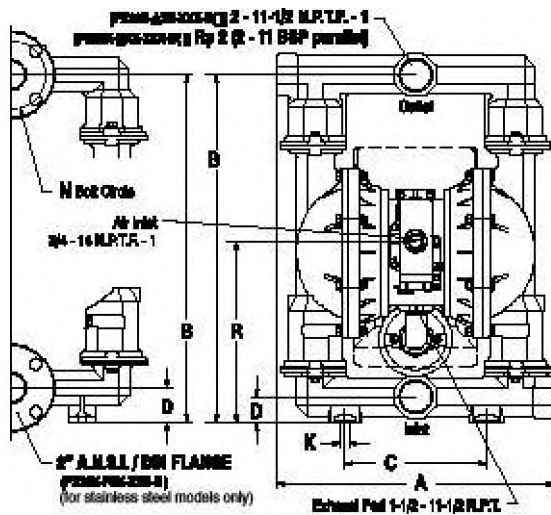
Continuous-Duty Muffler | 67263

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

Service Repair Kits | 637369 (air motor for PX20R and PX20Y), **637421** (air motor for PX20A and PX20S),

637309-XX (fluid section with seats), **637374-X** (major air valve assembly)

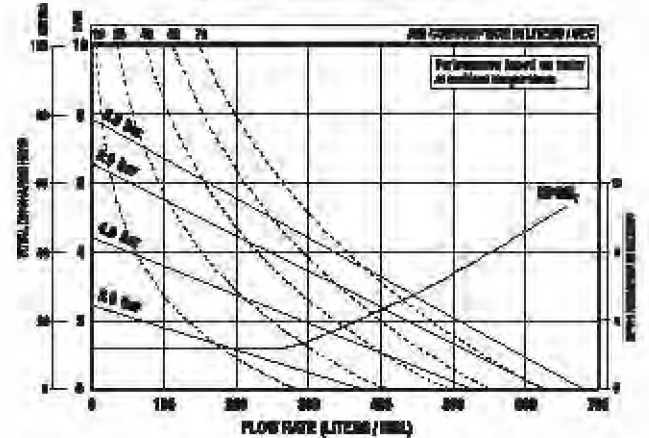
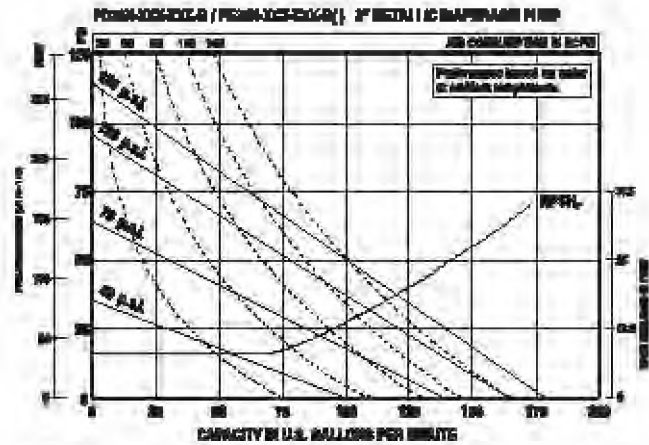
2" Metallic Dimensions and Flow Charts



DIMENSIONS		
A see below	G 29-1/4" (743.0 mm)	M 5/8" (15.8 mm)
B 24-3/4" (628.7 mm)	H 9-1/16" (230.2 mm)	N 4.834" (122.8 mm)
C 19-1/16" (495.0 mm)	J 10-1/16" (259.4 mm)	P 21-5/8" (548 mm)
D see below	K 3/16" (14.3 mm)	Q 27-7/8" (708.0 mm)
E 18-3/16" (471.2 mm)	L see below	R see below
F 12" (304.8 mm)		

	"K"	"R"
PE200-X(X)-300-B()	19-3/4" (501.4 mm)	1-7/8" (47.6 mm)
PE200-X(X)-300-B()	19-3/4" (501.4 mm)	1-7/8" (47.6 mm)
PE200-4(X)-300-B() -BHX	19-1/4" (491.7 mm)	2-1/8" (51.5 mm)
PE200-4(X)-300-B() -BEX	19-1/4" (491.7 mm)	2-1/8" (51.5 mm)
PE200-4(X)-300-B() -BFX	19-1/4" (491.7 mm)	2-1/8" (51.5 mm)

"L"	"T"
2" (50.8 mm)	19-15/16" (500.6 mm)
2" (50.8 mm)	19-15/16" (500.6 mm)
2-3/32" (53.0 mm)	19-1/16" (494.6 mm)
2-3/32" (53.0 mm)	19-1/16" (494.6 mm)
3-1/4" (82.6 mm)	19-1/16" (494.6 mm)



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

Ordering Position 10

Specialty Code 1 (Blank if no Specialty Code)

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

Ordering Position 11

Specialty Code 2 (Blank if no Specialty Code)

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

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

3" Metallic Models

PRO SERIES PUMPS

ARD[®] PRO 3" metallic diaphragm pumps achieve flow rates of up to 237 GPM (897 L/min) 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 (L/min):	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 (4.8 bar) 60 Cycles/Min 86.3 db(A)



666322-144-C

63789 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) 6 - Carbon Steel 8 - Hard Stainless Steel	2 - Nitrile 4 - PTFE C - Hytrel [®] E - Santoprene [®]	2 - Nitrile 4 - PTFE / Santoprene 9 - Hytrel [®] B - Santoprene [®]

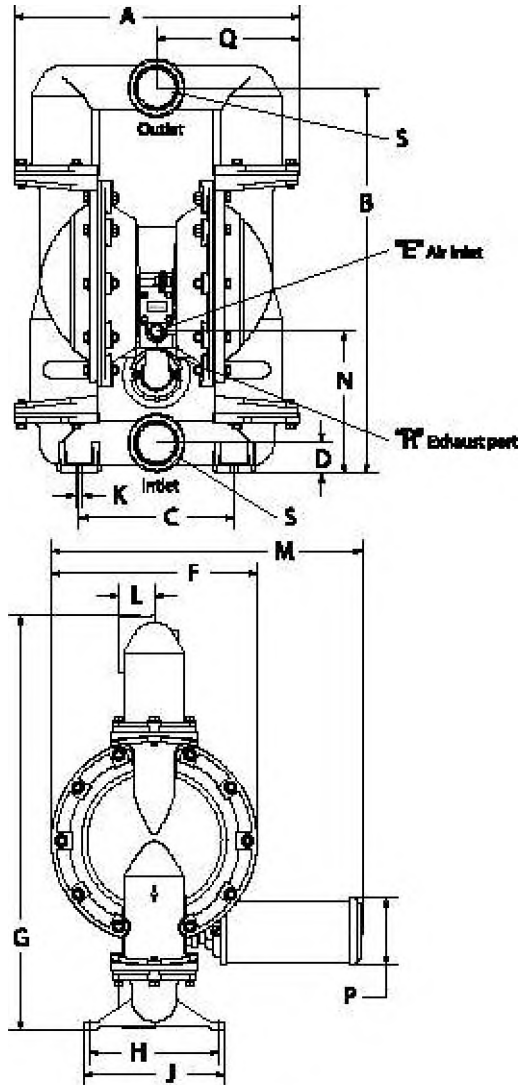
Hytrel[®] is a registered trademark of DuPont company, Santoprene[®] is registered trademark of Monsanto and Viton[®] is a registered trademark of ExxonMobil.

Accessories

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

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

3" Metallic Dimensions and Flow Charts



DIMENSIONS

A 22-7/32" (563.9 mm)	G 32-9/32" (819.8 mm)	N 11-3/32" (281.1 mm)
B 50" (1270.0 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" (143 mm)	R 1-1/4 - 11-1/2 NPTF-1
E 3/4 - 14 NPTF - 1	L 2-3/4" (69.9 mm)	S (see below)
F 16" (406.4 mm)	M 24-7/16" (620.7 mm)	

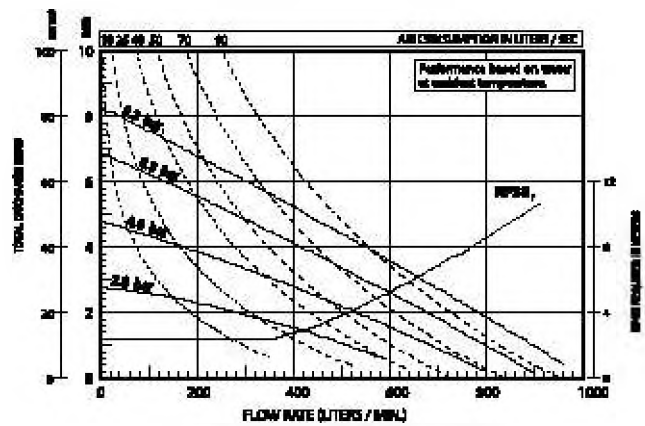
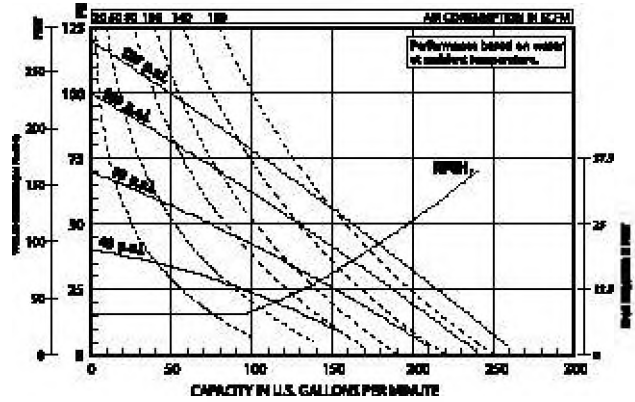
⁵" Inlet / Outlet

66630-3001-C 3 - B NPTF - 1

66632-3001-C Rp 3 (3 - 11 BSP parallel)

PERFORMANCE CURVES

66630-3001-C / 66632-3001-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 (1041 L/min) 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.



Ratio:	1:1
Maximum GPM (L/min):	275 (1041)
Displacement per cycle:	2.8 (10.6)
@ 100 PSI (6.9 bar) Gallons (Liters)	
Air inlet: (Female)	3/4 - 14 N.P.T.F. - 1
Fluid Inlet / Outlet (Female):	3" - 8 N.P.T.F. - 1 Rp 3 (3 - 11 BSP ANSI or DIN Center Flange)
Max. operating pressure psi (bar):	120 (8.3)
Suspended solids max. dia. in. (mm):	3/8 (9.5)
Weight lbs (kg):	PX30A-XAX-XXX-C 129.5 (58.8) PX30A-XCX-XXX-C 221.1 (100.3) PX30A-AHX-XXX-C 249.4 (113.3) PX30A-ASX-XXX-C 228.3 (103.8) PX30A-FHX-XXX-C 269.4 (122.3) PX30A-FSX-XXX-C 245.2 (114.4)
	Note: Add 40 lbs (18.2 kg) for stainless steel air motor section
Maximum dry suction lift ft (m):	14 (4.2)
Sound Level:	70 PSI (4.8 bar) 50 Cycles / Min 83.Odb(A)
Muffler included:	67389



PX30A-4AP-AAA-C

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 Sump 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 ¹ - ANSI 4-hole center flange F ¹ - DIN 4-hole center flange ¹ Stainless Steel Pumps Only	A - Aluminum* C - Cast Iron H ^{**} - Hastelloy-C* S - Stainless Steel* * Not available on PD30R-X models	P - Plated Steel S - Stainless Steel	A - Santoprene* C - Hytrel* E - Carbon Steel F - Aluminum G - Nitrile H - 440 SS K - PVDF L - Hastelloy S - 316 SS	A - Santoprene* C - Hytrel* G - Nitrile T - PTFE V - Viton*	A - Santoprene* C - Hytrel* G - Buna-N L - Long-Life PTFE T - PTFE/Santoprene* V - Viton*	Revision Level Position 10 & 11 Specialty Code Fluid control options for pump with electronic interface (PE30 model). See complete description on page 59

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

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

Accessories

Air Line Connection Kit | 66109

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

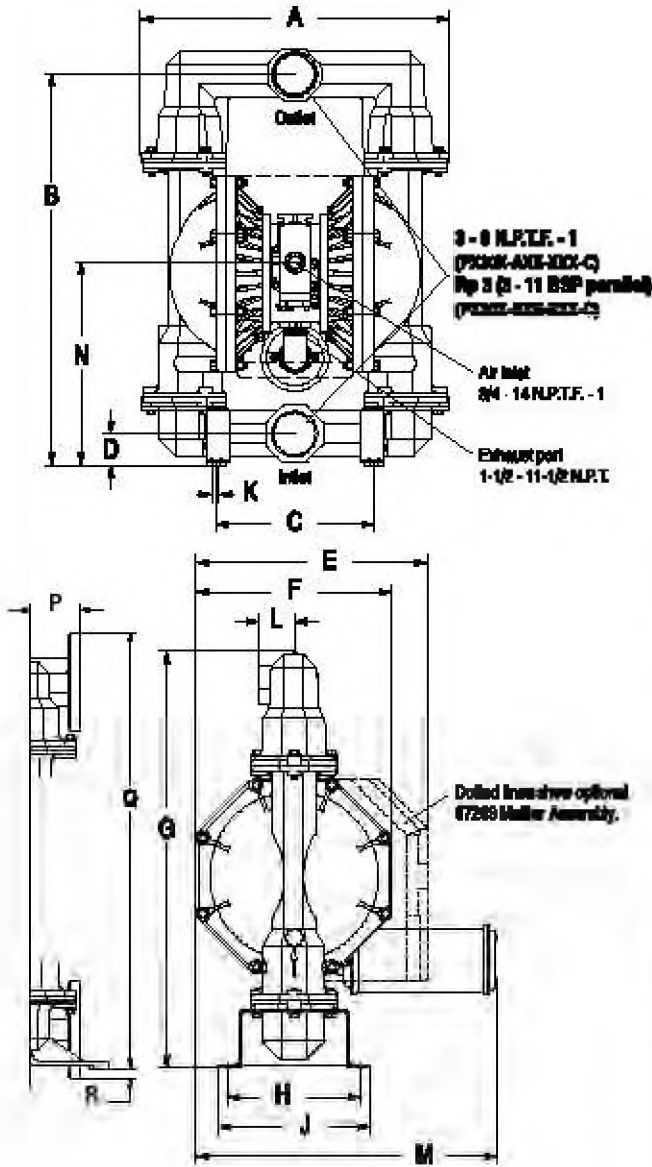
Diaphragm Failure Detection | 67237

Cycle Sensor Kit | 67350-1

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

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

3" Metallic Dimensions and Flow Charts

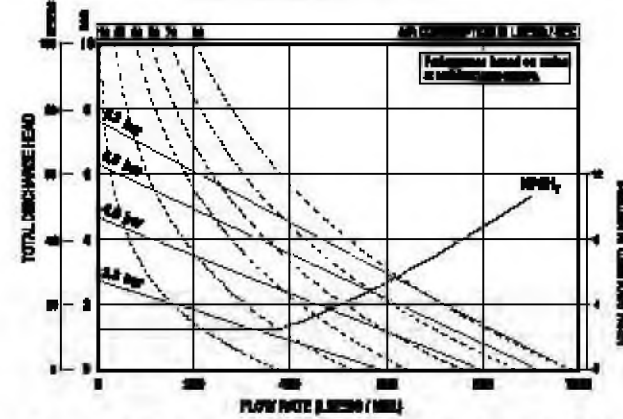
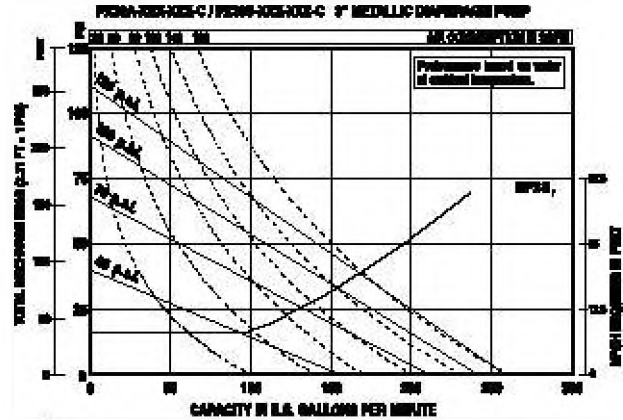


DIMENSIONS

A see below	F 15" (381 mm)	L 2-3/4" (68.9 mm)
B 30" (761.7 mm)	G 32" (812.5 mm)	M 23-3/32" (596.3 mm)
C 12-1/16" (306.5 mm)	H 10-5/8" (269 mm)	N See Below
D see below	J see below	P See Below
E 17-11/16" (449.2 mm)	K 9/16" (14.3 mm)	Q 27-7/8" (708.9 mm)
		R 5/8" (15.9 mm)

	"K"	"T"
PX30X-K2X-300X-C	29-5/8" (756.7 mm)	2-0/8" (50.8 mm)
PX30X-30X-300X-C	29-5/8" (756.7 mm)	2-7/16" (61.3 mm)
PX30X-30X-300X-C	29-1/8" (737.3 mm)	2-3/4" (69.9 mm)
PX30X-30X-300X-C	29-1/8" (737.3 mm)	2-3/4" (69.9 mm)

"J"	"N"	"P"
11" (279.4 mm)	15-1/2" (393.7 mm)	2" (50.8 mm)
11-11/16" (296.1 mm)	15-1/2" (393.7 mm)	2" (50.8 mm)
11-11/16" (296.1 mm)	16" (406.4 mm)	2-3/32" (53.0 mm)
11-11/16" (296.1 mm)	16" (406.4 mm)	2-3/32" (53.0 mm)
		3-1/4" (82.6 mm)



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

Ordering Position 10

Specialty Code 1 (Blank if no Specialty Code)

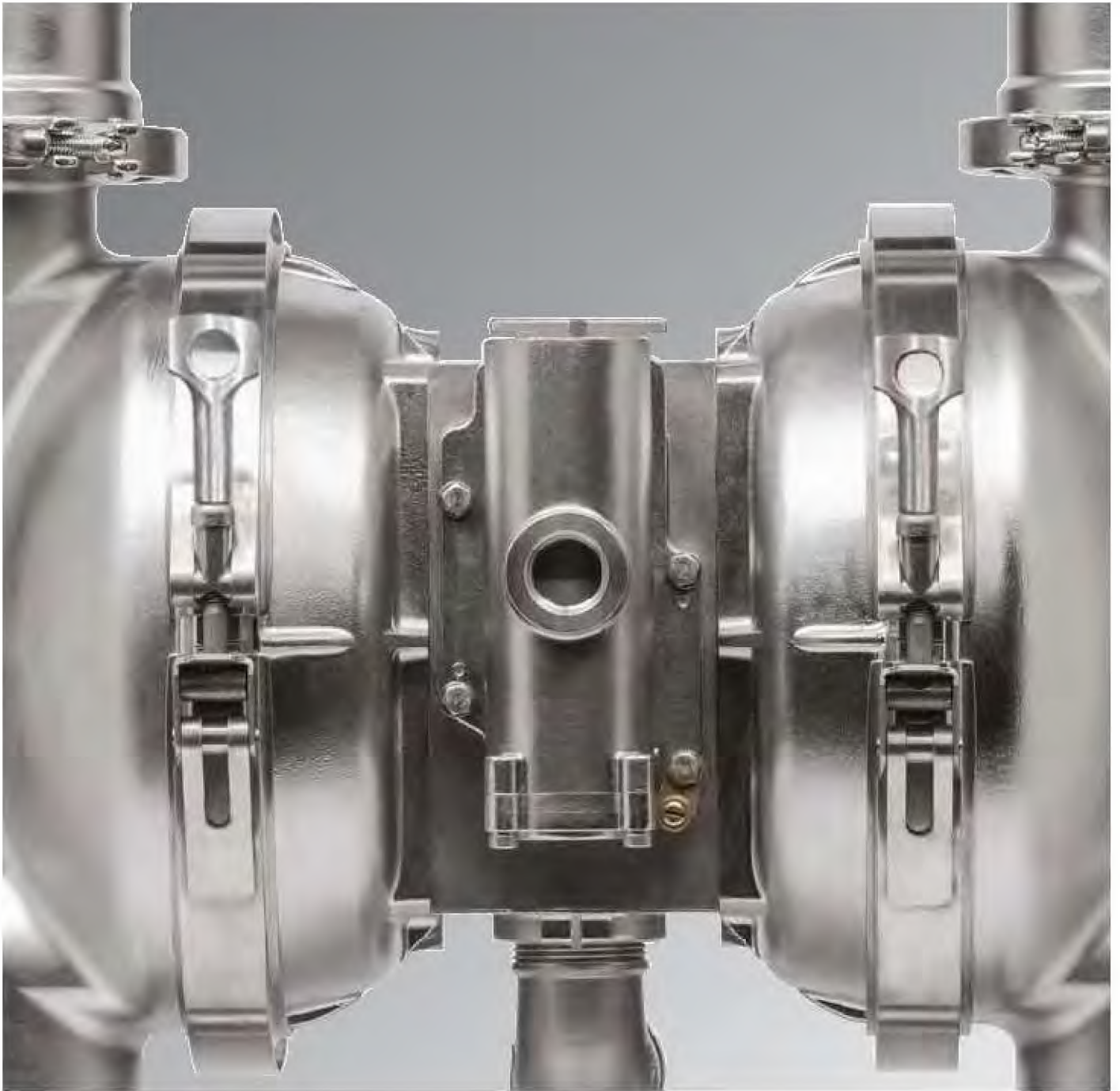
A - Solenoid 120VAC	G - Solenoid 12VDC ATEX/IECex *
B - Solenoid 12VDC	H - Solenoid 24VDC ATEX/IECex *
C - Solenoid 240VAC	J - 120VAC NEC/CEC *
D - Solenoid 24VDC	K - Solenoid 220VAC ATEX/IECex *
E - 12VDC NEC/CEC *	N - Solenoid with no coil
F - 24VDC NEC/CEC *	O - Standard Valve Block (No Solenoid)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

Ordering Position 11

Specialty Code 2 (Blank if no Specialty Code)

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

* Acceptable for use in hazardous locations - NEC / CEC: Class I, 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) PP30A 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)



Optional Section Probe
67183-1

Ordering

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

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

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

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

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

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

* Acceptable for use in hazardous locations

Santoprene® is registered trademark of Monsanto

Accessories

Service Repair Kits | 637397 (air motor PP10A), 637421 (air motor PP20A), 637421 (air motor PP30A)

637401-XX (fluid section PP10A), 637309-XX (fluid section PP20A), 637303-XX (fluid section PP30A)

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

Sanitary Transfer - Bolted

SPECIALTY PUMP

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



Typical Applications:

- | | |
|------------------------|------------------------|
| Food Processing | Paint |
| Cosmetics | Applications Requiring |
| Pharmaceutical | Quick-Disconnect |
| Chemical Additives | Fluid Connections |
| Adhesives (Food grade) | |

	PM05X-X-X-B02 (1/2")	PM10X-X-X-A02 (1")	PM15X-X-X-A02 (1-1/2")	PM20X-X-X-B02 (2")	PM30X-X-X-C02 (3")
Maximum GPM (L/min):	13.0 (49.2)	52.2 (197.6)	123 (465.6)	172 (651)	275 (1041)
Displacement per Cycle GPM (L/min):	0.040 (0.15)	0.232 (0.88)	0.617 (2.34)	1.4 (5.3)	2.8 (10.6)
Air Inlet (Female):	1/4 - 18 PTE SAE Short	1/4 - 18 N.P.T.F	1/2 - 14 N.P.T.F	3/4 - 14 N.P.T.F-1	3/4 - 14 N.P.T.F-1
Fluid Inlet/Outlet:	1-1/2" Tri-Clamp	1-1/2" Tri-Clamp	2" Tri-Clamp	2-1/2" Tri-Clamp	3" Tri-Clamp
Max. Operating Pressure PSI (bar)	100 (6.9)	120 (8.3)	120 (8.3)	120 (8.3)	120 (8.3)
Suspended solids in (mm):	3/32" (2.4)	1/8" (3.3)	1/4" (6.4)	1/4" (6.5)	3/8" (9.5)
Weight lbs (kg):	14.75 (6.7)	PM10A-CSS-X-A02 44.8 (20.3) PM10R-CSS-X-A02 38.2 (17.3) PM10S-CSS-X-A02 51.6 (23.4)	PM15A-CSS-X-A02 62.4 (28.3) PM15R-CSS-X-A02 60.3 (27.3) PM15S-CSS-X-A02 78.4 (35.6)	PM20A-CSS-X-B02 142.8 (64.8) PM20R-CSS-X-B02 183.6 (83.5) PM20S-CSS-X-B02 171.7 (77.9)	PM30A-CSS-X-C02 227.5 (103.2) PM30R-CSS-X-C02 253.3 (114.9) PM30S-CSS-X-C02 267.2 (121.2)
Optional Muffler	93110 (requires 67367 assembly)			67213 (Standard Duty) 67263 (continuous Duty)	67213 (Standard Duty) 67263 (continuous Duty)

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

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

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

Position 10 Specialty Code 1 (blank if no specialty code)		Position 11 Specialty Code 2 (blank if no specialty code)	
A - Solenoid 120VAC, 110VAC + 60VDC	G - Solenoid 12VDC ATEX/IECex*	E - End of stroke feedback + Leak Detection	M - Leak Detection ATEX/IECex/NEC/CEC*
B - Solenoid 12VDC, 24VAC + 22VDC	H - Solenoid 24VDC ATEX/IECex*	F - End of stroke feedback	O - No Option
C - Solenoid 240VAC, 220VAC + 120VDC	J - Solenoid 120VDC NEC/CEC*	G - End of Stroke ATEX/IECex*	R - End of Stroke Feedback NEC / CEC*
D - Solenoid 24VDC, 48VAC + 44VACA	K - Solenoid 220VDC ATEX/IECex*	H - End of Stroke feedback + Leak Detection ATEX / IECex*	T - End of Stroke Feedback + Leak Detection NEC / CEC
E - Solenoid 12VDC NEC/CEC*	N - Solenoid with no coil	L - Leak Detection	
F - Solenoid 24VDC NEC/CEC*	0 - Standard Valve Block (No Solenoid)		

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* Acceptable for use in hazardous locations.

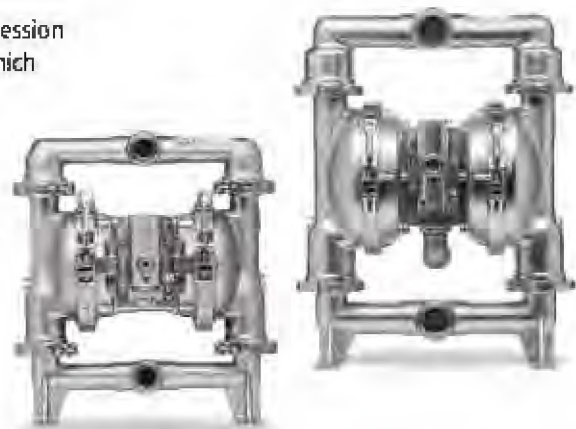
Sanitary Transfer - Clamped

SPECIALTY PUMP

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

SD Series Pumps

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



Applications:

Food / Beverage / Pharmaceutical / Cosmetics

	SD10S-CSS-SXX-B / 1" Pump	SD20S-CSS-SXX-B / 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 (L/min)	54 (204.4)	195 (738)
Displacement per/cycle GPM (L/min) @ 100 PSI (6.9)	0.258 (.976)	1.3 (4.9)
Max. Solids Passage in. (mm)	1/8 (3.2)	1/4 (6.4)
Fluid Inlet/Outlet	1-1/2" Tri-Clamp	2-1/2" Tri-Clamp

Ordering

Position	1	2	3	4	5	6	7	8	9	10	11		
Example:	SDXX	X	-	C	S	S	-	X	X	-	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 Seal Material	Position 7 Seal Material	Position 8 Diaphragm Material	Position 9 Diaphragm Material	Position 11
SD10 - 1" Pump SD20 - 2" Pump	R - White Polypropylene S - 316 SS*	C - Sanitary Tri-Clamp	S - 316L Stainless Steel*	S - Stainless Steel	C - Hytrel K - PVDF S - 316L Stainless Steel	C - Hytrel* M - Medical Grade Santoprene* S - 316L SS T - PTFE	C - Hytrel* M - Med. Grade Sant K - Single Piece PTFE Composite T - PTFE/Santoprene*		Revision Level

Position 10 Specialty Code 1 (blank if no specialty code)	Position 11 Specialty Code 2 (blank if no specialty code)
A - Solenoid 120VAC, 110VAC + 60VDC 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 (90.7L/min) 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 (L/min):	26 (98.4) flooded inlet 12 (45.6) at 125 psi back pressure
Displacement per cycle gal (l):	.06-Gallons (.23)
Air Inlet (Female):	3/8 - 18 NPTF - 1
Fluid Inlet:	1 - 1 1/2 NPTF - 1 Rp 1 (1- 11 BSP parallel)
Fluid Outlet:	1 - 1 1/2 NPTF - 1 Rp 1 (1- 11 BSP parallel)
Max. operating pressure psi (bar):	100 (6.9)
Suspended solids max. dia in (mm):	125 (3.2)
Weight lbs (kg):	94.73 (42.97)
Maximum dry suction lift ft (m):	5-6 (1.5-1.8)
Sound Level:	70 PSI (4.9 bar) 60 Cycles/Min 84.5 db(A)



PH10A-ASS-SS7

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	3 - Stainless Steel	S - Stainless Steel	HH 440 SS/ 440 SS SS 316 SS / 316 SS	L - Long life PTFE 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)

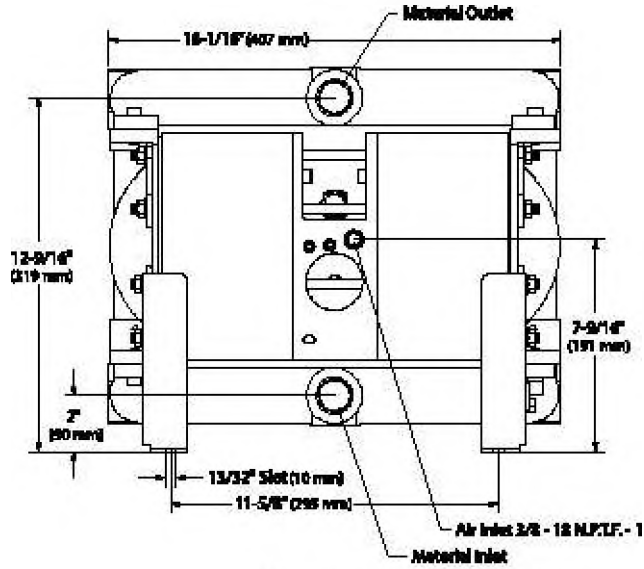
637339-1 (PH10X-XXX-XHX fluid section)

Wall Mount Bracket | 67142

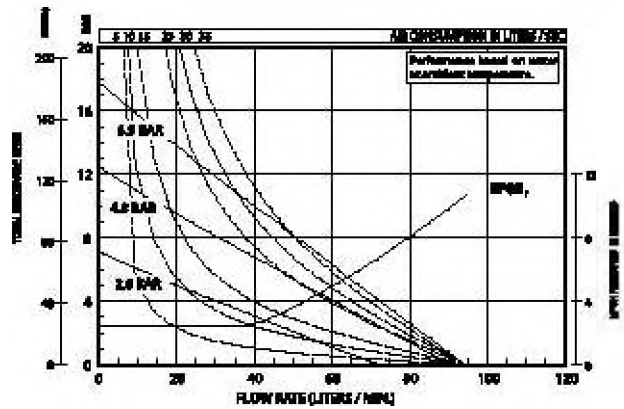
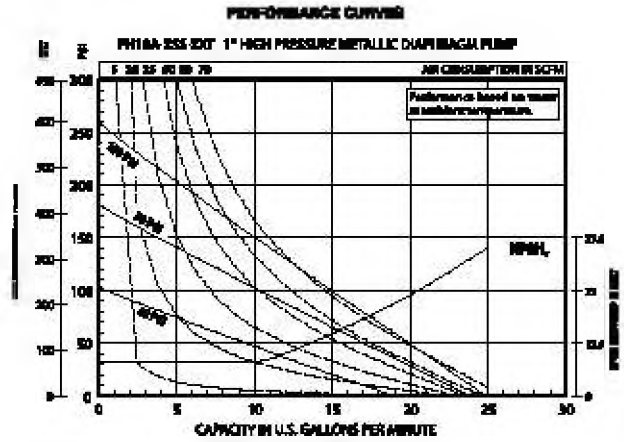
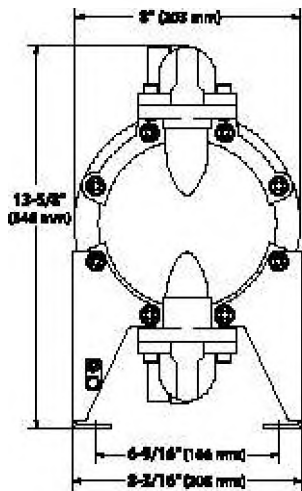


Wall Mount Bracket
67142

High Pressure Diaphragm Pump Dimensions and Flow Charts



	Material Inlet	Material Outlet
PH10A-SS-30T	1 - 1-1/2 NPTF - 1	1 - 1-1/2 NPTF - 1
PH10A-SS-30T	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 (6.9 bar) developed by traditional pumps. Compared to a standard diaphragm pump, the 2:1 ratio high-pressure pump can produce up to 200 PSI (13.8 bar), 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.
- ✔ Convuluted 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



PH30F-BSP-SAA-C

Model	Maximum Gallons GPM (Liters)	Displacement Cycles Per Gallons (Liters) @ 100 PSI (6.9 bar)	Weight (kg)	Suspended Solids Max. Dia. in. (mm)	Maximum Outlet pressure PSI (bar)
2:1 Ratio 1 1/2" Diaphragm Pump	63 (238.48)	0.3 (1.17) for 1 1/2"	88 (39.9)	1/4 (6.4)	200 (13.8)
2:1 Ratio 2" Diaphragm Pump	92 (348.25)	0.64 (2.65) for 2"	146 (66.2)	1/4 (6.4)	200 (13.8)
2:1 Ratio 3" Diaphragm Pump	160 (605.6)	1.4 (5.3) for 3"	268 (121.6)	3/8 (9.5)	200 (13.8)

Ordering

Position	1	2		3		4	5	6		7		
Example:	PHXX	F	-	X	S	P	-	S	X	X	-	C

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

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Accessories

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

Pit Boss Diaphragm Pumps

SPECIALTY PUMP

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

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



PIT BOSS DEWATERING PUMP	1-1/2"	2"	3"
Max flow-gpm (L/min)	80 (302.8)	156 (590.5)	217 (821.3)
Max discharge pressure-psi (bar)	120 (8.3)	120 (8.3)	120 (8.3)
Max particle size-inches (mm)	0.5 (12.7)	0.75 (19.0)	1 (25.4)
Pump weight-lb (kg)	55 (25)	74 (34)	118 (54)
Fluid ports	1.5" NPTF and BSP (female)	2" NPTF and BSP (female)	3" NPTF and BSP (female)

Ordering

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

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

Accessories

	1-1/2"	2"	3"
Filter / regulator	P39344-614	P39354-614	P39454-614
Air section service kit	637118-C	637434	637434
Fluid section service kit	637469-XX	637468-XX	637467-XX
Muffler kit	67463	67389	67389

2" Metallic Flap Valve Models

SPECIALTY PUMP

ARO's pneumatic flap valve diaphragm pumps provide effective flow rates up to 172 gpm (651 L/min). 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 (L/min):	172 (651)
Displacement per cycle:	1.4 (5.3)
@ 100 PSI (6.9 bar) Gallons (Liters)	
Air Inlet (Female):	3/4 - 14 N.P.T.F-1
Fluid Inlet/Outlet (Female):	PF20X-AXX-XXX-B 2 - 1-1/2 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-sold
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 (4.8 bar) 60 Cycles/Min 85.0 db(A)
Muffler:	94810 (optional 94117)



PF20A-AAP-SAA-B

Ordering

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

Position 1 Model Series	Position 2 Center Section	Position 3 Connections	Position 4 Wetted Parts	Position 5 Hardware	Position 6 Sulf Material	Position 7 Flap Material	Position 8 Diaphragm Material	Position 9
PF20 - Standard Pump	A - Aluminum* R - Polypropylene w/SS Air Caps S - Stainless Steel* Y - Polypropylene w/CI Air Caps	A - NPTF Thread B - BSP Thread F - 2" ANSI/DIN Hybrid Center Flange	A ¹ - Aluminum* C - Cast Iron S - Stainless Steel ¹ 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*	Revision Level

* 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-PP11-2-A	POLYPROPYLENE	PTFE	X	-	-	-	ACIDS & CAUSTICS
DAB05-PPCC-2-A	POLYPROPYLENE	HYTREL®	X	-	-	-	WATER/COOLANT
DAB05-PP1U-2-A	POLYPROPYLENE	POLYURETHANE	X	-	-	-	WATER/COOLANT
DAB05-PPAA-2-A	POLYPROPYLENE	SANTOPRNE®	X	-	-	-	MILD ACIDS & BASES
DAB05-PPCC-2-N	POLYPROPYLENE	HYTREL®	X	-	NITRILE	-	WATER/COOLANT
DAB05-PPCC-B-M	POLYPROPYLENE	HYTREL®	X	X	NITRILE	NO-DRIP	WATER/COOLANT
DAB05-PPAA-2-B	POLYPROPYLENE	SANTOPRNE®	X	-	EPDM	-	MILD ACIDS & BASES
DAB05-PP1U-2-C	POLYPROPYLENE	POLYURETHANE	X	-	VINYL	-	WATER/COOLANT
DAB05-PPCC-B-J	POLYPROPYLENE	HYTREL®	X	X	REINFORCED NITRILE	X	WATER/COOLANT
DAB05-PPAA-B-K	POLYPROPYLENE	SANTOPRNE®	X	X	EPDM	X	MILD ACIDS & BASES
DAB05-SST1-2-A	STAINLESS STEEL	PTFE	X	-	-	-	SOLVENT
DAB05-AST1-2-A	ALUM./SS.	PTFE	X	-	-	-	SOLVENT
DAB05-APCC-2-A	ALUM./POLY.	HYTREL®	X	-	-	-	OIL/SOME SOLVENTS
DAB05-APCC-2-G	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.	SANTOPRNE®	X	-	-	-	WATER/COOLANT

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* Consult ARO Chemical Compatibility Guide to select proper pump construction.



Pump Features

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

Accessories

Air Line Connection Kit | 66073-1

Service Repair Kit | 637458 (air), 637427-XX (fluid),

104255 (for repair of P29122-600 piggyback filter/regulator)

Centrifugal Pump Models

SPECIALTY PUMP

ARO's pneumatic centrifugal pumps provide effective flow rates up to 230 gpm (870.5 L/min). 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 (L/min):	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 (L/s):	P237AX-EU 100 (47.2) P35A1-EU 160 (75.5)
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-L/min)	1 - 2-1/2" NPT 1 - 2-1/2" BSP

Position	1	2		
Example:	P35A	-	1	- EU

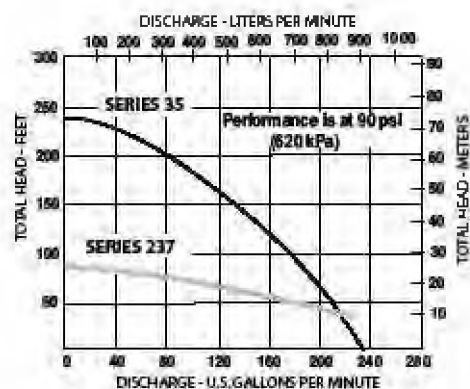
Position 1 Model Series	Position 2 Discharge Thread
230-GPM (870-L/min)	1 - 2" NPT

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.ARO.com for full size flow curves.
For additional information contact
technical support at 1-800-495-0276

Fuel, Antifreeze and Calcium Chloride Pumps

SPECIALTY PUMP

U/L Approved Fuel Pump

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

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



Model	Body Material Wetted	Diaphragm/ Ball Material	Air Inlet NPT (F) in (mm)	Fluid Inlet/Outlet Material in (mm)	Max Flow gpm (L/min)
1/2" PORT					
670042	Fuels	Viton/Viton	1/4" (6.3)	1/2" (13)	12 (45.4)
1" PORT					
650717-C	Aluminum	Viton / Acetal	1/4" (6.3)	1" / 1" (25.4)	29 (109.8)
1-1/2" PORT					
650718-C	Aluminum	Viton / Acetal	1/2" (12.7)	1-1/2" (38.1)	75 (283.9)
2" PORT					
650719-C	Aluminum	Viton / Acetal	3/4" (19.1)	2" (50.8)	105 (397.5)

Antifreeze / Water Blending Pump

► **Model no. 650715-C**

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



Calcium Chloride Tire-fill Pump Package

► **Model no. 613201-2-C**

Designed for the purpose of evacuating and filling tires with calcium chloride ballast solution. Package includes a 650715-C, 1" port diaphragm pump. Aluminum construction with neoprene diaphragms and PTFE checks for compatibility with corrosive calcium chloride.

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



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

Electronic Interface Accessories

STANDARD DUTY - EXP PD SERIES TO PE ELECTRONIC INTERFACE

Available accessories to convert standard EXP pumps (PD) to electronic interface (PE) for standard duty (Non-ATEX- safe area) environments.

TAB A - CYCLE SENSOR / All sensors in this table are provided with M12 connector				
Pump Size	Description	Part Number		
1/4"	Cycle Sensor/Muffler ^{See Note 1}	24110934		
3/8"	Cycle Sensor/Muffler ^{See Note 1}	97048		
1/2" and 3/4"	Cycle Sensor ^{See Note 2}	97053		
1"	Cycle Sensor (Plug Type)	97119		
1 1/2"	Cycle Sensor (Plug Type)	97396		
2" and 3"	Cycle Sensor (Plug Type)	97121		
TAB B - LEAK DETECTION / Two sensors required for one pump				
Pump Size	Description	Part Number		
All	Leak Detection Sensor (Qty 1) w/ PSW 3M-2/90 BNPIN Connector	96270-1		
All	Leak Detection sensor (Qty 1) ^{See Note 3} - no connector	96270-2		
All	Leak Detection Kit ^{See Note 3}	67237		
TAB C - SOLENOID ACTUATION / Both Major Valve conversion kit [tab C.1] and coil [tab C.2] are required				
Pump Size	Center Body Material	Description	Part Number	
1/4"	Black Polypropylene	Major Valve Block	637371-3-N	
3/8", 1/2", 3/4"	Black Polypropylene		637540-3-N	
1"	Aluminum		637541-1-N	
1"	Stainless Steel		637541-2-N	
1"	Black Polypropylene		637541-3-N	
1"	White Polypropylene		637541-4-N	
1 1/2"	Aluminum		637542-1-N	
1 1/2"	Stainless Steel		637542-2-N	
1 1/2"	Black Polypropylene		637542-3-N	
2" and 3"	Aluminum		637543-1-N	
2" and 3"	Stainless Steel		637543-2-N	
2" and 3"	Black Polypropylene		637543-3-N	
2" and 3"	White Polypropylene		637543-4-N	
Tab C.2 - Solenoid Coils ^{See Note 4}				
All	All		12 VDC Coil ^{See Note 5}	116218-38
All	All		24 VDC Coil ^{See Note 5}	116218-39
All	All	120 VAC Coil	116218-33	
All	All	220 VAC Coil	116218-35	

Important Notes:

- Cycle sensor for this pump size is part of the Muffler Cover
- Cycle sensor for this pump size replaces standard Muffler Cover, the installation of Optional Muffler 93110 (metallic) or 93110-1 (plastic) is highly recommended
- Kit includes two sensors and one additional connecting cable that allow to connect the two sensors to one single input channel
- Coils are provided without connector if you are not buying ARO® controller, please foresee to buy a connector (connection standards: Industrial Standard 11mm)
- Coils could also be operated at 24 VAC
- Coils could also be operated at 48 VAC

Electronic Interface Accessories

ATEX PE ELECTRONIC INTERFACE



Available accessories to convert standard EXP pumps (PD) to electronic interface (PE) for hazardous duty (ATEX Group II 2GD X) environments.

TAB D - CYCLE SENSOR* / For ATEX conformity one Sensor [Tab D.1] and one Barrier Amplifier [Tab D.2] are required for one pump			
Pump Size	Description	Part Number	
Tab D.1 - Cycle Sensor - no connector			
1/4"	Cycle Sensor/Muffler ^{See Note 7}	97404	
3/8"	Cycle Sensor/Muffler ^{See Note 7}	97405	
1/2" and 3/4"	Cycle Sensor ⁸	97406	
1"	Cycle Sensor (Plug Type)	97408	
1 1/2"	Cycle Sensor (Plug Type)	97410	
2" and 3"	Cycle Sensor (Plug Type)	97411	
Tab D.2 - Barrier Amplifier / To be placed in SAFE AREA			
All	Barrier Amplifier	97491	
TAB E - LEAK DETECTION / For ATEX conformity two sensors [tab E.1] and one barrier kit [tab E.2] are required for one pump			
Pump Size	Description	Part Number	
Tab E.1 - Leak detection sensor			
All	Leak Detection Sensor (Q.ty 1) ^{See Note 1} - no connector	96270-2	
Tab E.2 - Zener Barrier (kit below includes two identical Zener Barriers to be placed in SAFE AREA + connected as per PE Operator Manual)			
All	Zener Barrier Kit	97414	
TAB F - SOLENOID ACTUATION / Both Major Valve conversion kit [tab F.1] and coil [tab F.2] are required			
Pump Size	Center Body Material	Description	Part Number
Tab F.1 - Major Valve Conversion kit without Coil			
1/4"	Black Polypropylene	Major Valve Block	637371-3-N
3/8", 1/2", 3/4"	Black Polypropylene		637540-3-N
1"	Aluminum		637541-1-N
1"	Stainless Steel		637541-2-N
1"	Black Polypropylene		637541-3-N
1"	White Polypropylene		637541-4-N
1 1/2"	Aluminum		637542-1-N
1 1/2"	Stainless Steel		637542-2-N
1 1/2"	Black Polypropylene		637542-3-N
2" and 3"	Aluminum		637543-1-N
2" and 3"	Stainless Steel		637543-2-N
2" and 3"	Black Polypropylene		637543-3-N
2" and 3"	White Polypropylene		637543-4-N
Tab F.2 - Solenoid Coils ^{See Note 4}			
All	All	12 VDC Coil ^{See Note 5}	117345-38
All	All	24 VDC Coil ^{See Note 6}	117345-39
All	All	220 VAC Coil	117345-35

Important Notes:

- Cycle sensor for this pump size is part of the Muffler Cover
- Cycle sensor for this pump size replaces standard Muffler Cover, the installation of Optional Muffler 93110 (metallic) or 93110-1 (plastic) is highly recommended
- These items are provided with 2m long cables and no connector

Accessories



Air Line Connection Kit
66073-1



Diaphragm Failure Detection
67237



Continuous Duty Muffler
67323



Flange Connection Kit
637341-E10N



Over-run Control
635040

	1/4" Non-Met.	3/8" Non-Met.	1/2" Non-Met.	1/2" Classic Non-Met.	3/4" Non-Met.	1/2" Metallic	3/4" Metallic
Air Line Connection Kit Kit includes Piggyback Filter/Regulator with gauge, pipe, nipple and a 5-foot section of air hose.	66073-1	66073-1	66073-1	66073-1	66073-1	66073-1	66073-1
Leak Detection Provides a warning of diaphragm failure by sensing the presence of liquid in the air chamber of the pump.	Reg. Duty: 67237 ATEX, NEC, CEC: 96270-2 (Qty: 2) & 97414 (Qty: 1)	Reg. Duty: 67237 ATEX, NEC, CEC: 96270-2 (Qty: 2) & 97414 (Qty: 1)	Reg. Duty: 67237 ATEX, NEC, CEC: 96270-2 (Qty: 2) & 97414 (Qty: 1)	-	Reg. Duty: 67237 ATEX, NEC, CEC: 96270-2 (Qty: 2) & 97414 (Qty: 1)	Reg. Duty: 67237 ATEX, NEC, CEC: 96270-2 (Qty: 2) & 97414 (Qty: 1)	Reg. Duty: 67237 ATEX, NEC, CEC: 96270-2 (Qty: 2) & 97414 (Qty: 1)
Cycle Sensor Kit For monitoring pump operation. Can be used to monitor cycle rates, preventative maintenance and rough flow rate indication.	Reg. Duty on Body: 24110834 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: 67188	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 DXP 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
Solenoid Actuation Kit Control pump cycle rate with on/off signal from PLC or other device. Kit includes connector w/36" cable plus components and instructions to install on standard pump. For dosing and batching applications.	-	67165-1 (24VDC) 67165-2 (120VAC)	67165-1 (24VDC) 67165-2 (120VAC)	67165-1 (24VDC) 67165-2 (120VAC)	67165-1 (24VDC) 67165-2 (120VAC)	67165-1 (24VDC) for PDOSR-X-X-B 67165-2 (120VAC) for PDOSR-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-NO2	104104-NO2	104104-NO2	104104-NO2	104104-NO2	104104-NO2	104104-NO2
Groundable Stray Reliable static control.	-	-	-	-	-	66885-1 Acetal Center Body	-



Weld Mount
76763



Solenoid Activation Kit
67165-1



Speed Control
104104-N02

1" Non-Met.	1-1/2" Non-Met.	2" Non-Met.	3" Non-Met.	1" Metallic	1-1/2" Metallic	2" Metallic	3" Metallic	1" 3:1 Ratio
66073-2	66084-1	66109	66109	66073-2	66084-1	66109	66109	-
Reg. Duty: 67237 ATEX, NEC, CEC: 96270-2 (Qty: 2) & 97414 (Qty: 1)	Reg. Duty: 67237 ATEX, NEC, CEC: 96270-2 (Qty: 2) & 97414 (Qty: 1)	Reg. Duty: 67237 ATEX, NEC, CEC: 96270-2 (Qty: 2) & 97414 (Qty: 1)	Reg. Duty: 67237 ATEX, NEC, CEC: 96270-2 (Qty: 2) & 97414 (Qty: 1)	Reg. Duty: 67237 ATEX, NEC, CEC: 96270-2 (Qty: 2) & 97414 (Qty: 1)	Reg. Duty: 67237 ATEX, NEC, CEC: 96270-2 (Qty: 2) & 97414 (Qty: 1)	Reg. Duty: 67237 Haz. Duty: 96270-2 (Qty: 2) & 97414 (Qty: 1)	Reg. Duty: 67237 ATEX, NEC, CEC: 96270-2 (Qty: 2) & 97414 (Qty: 1)	-
Reg. Duty on Major Valve: 67390 Reg. Duty on Body: 97119 ATEX on Body: 97408 & 97491 NEC, CEC on Body: 97408 & 97412	Reg. Duty on Major Valve: 67390 Reg. Duty on Body: 97396 ATEX on Body: 97410 & 97491 NEC, CEC on Body: 97410 & 97412	Reg. Duty on Major Valve: 67391 Reg. Duty on Body: 97121 ATEX on Body: 97411 & 97491 NEC, CEC on Body: 97411 & 97412	Reg. Duty on Major Valve: 67391 Reg. Duty on Body: 97121 ATEX on Body: 97411 & 97491 NEC, CEC on Body: 97411 & 97412	Reg. Duty on Major Valve: 67392 Reg. Duty on Body: 97119 ATEX on Body: 97408 & 97491 NEC, CEC on Body: 97408 & 97412	Reg. Duty on Major Valve: 67392 Reg. Duty on Body: 97396 ATEX on Body: 97410 & 97491 NEC, CEC on Body: 97410 & 97412	Reg. Duty on Major Valve: 67393 Reg. Duty on Body: 97396 ATEX on Body: 97410 & 97491 NEC, CEC on Body: 97410 & 97412	Reg. Duty on Major Valve: 67393 Reg. Duty on Body: 97396 ATEX on Body: 97410 & 97491 NEC, CEC on Body: 97410 & 97412	-
-	-	67263	-	-	-	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
67355-1 (24VDC) for PE10K-X-X 67355-2 (120VAC) for PE10K-X-X	-	67355-1 (24VDC) for PE20K-X-X-B 67355-2 (120VAC) for PE20K-X-X-B	-	67355-1 (24VDC) for PE10K-X-X 67355-2 (120VAC) for PE10K-X-X	-	-	67357-1 (24VDC) PE10K-X-X-C 67357-2 (120VAC) PE10K-X-X-C	-
104104-N02	104104-N04	104104-N04	104104-N06	104104-N02	104104-N04	104104-N06	104104-N06	-
66885-1 Conductive Poly Center Body	66885-1 Conductive Poly Center Body	66885-1 Conductive Poly Center Body	-	66885-1	66885-1	66885-1	66885-1	-

Accessories

Air Filter/Regulator

- ▶ The ARO-FLO Series units 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.



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

Pump Size	NPT Model Number	Port Size	Max Inlet Pressure psi (bar)	Pressure Range psi (bar)	Max CFM (L/s)	Micron Element	Size HxWxD (inches)
1/4" to 3/4"	P39124-624	1/4"	250 (17.2)	0-140 (0-9.7)	47 (22.2)	5	6.9 x 2.9 x 2.9
1"	P39224-614	1/4"	250 (17.2)	0-140 (0-9.7)	72 (34)	5	9.0 x 2.2 x 3.2
1-1/2"	P39344-614	1/2"	250 (17.2)	0-140 (0-9.7)	172 (81.2)	5	10.9 x 2.8 x 3.2
2"	P39354-614	3/4"	250 (17.2)	0-140 (0-9.7)	173 (81.7)	5	10.9 x 2.8 x 3.2
3"	P39454-614	3/4"	250 (17.2)	0-140 (0-9.7)	236 (111.4)	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 (bar)	Pressure Range psi (bar)	Max CFM (L/s)	Micron Element	Size HxWxD (inches)
1/4" to 3/4"	P39124-600	1/4"	150 (10.3)	0-140 (0-9.7)	47 (22.2)	5	6.2 x 2.9 x 2.9
1"	P39224-600	1/4"	150 (10.3)	0-140 (0-9.7)	72 (34)	5	8.1 x 2.2 x 3.2
1-1/2"	P39344-600	1/2"	150 (10.3)	0-140 (0-9.7)	172 (81.2)	5	10.0 x 2.8 x 3.2
2"	P39354-600	3/4"	150 (10.3)	0-140 (0-9.7)	173 (81.7)	5	10.9 x 2.8 x 3.2

Caution of the Use of Polycarbonate Plastic Bowls - Use Only with Compressed Air. Filters and regulators 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.

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,

H25455-120-A for 1-1/2" pumps,

MQ3729-120-A for 2" and 3" pumps

MQ3728-024-D for 1/2" and 1" pumps

H25455-024-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

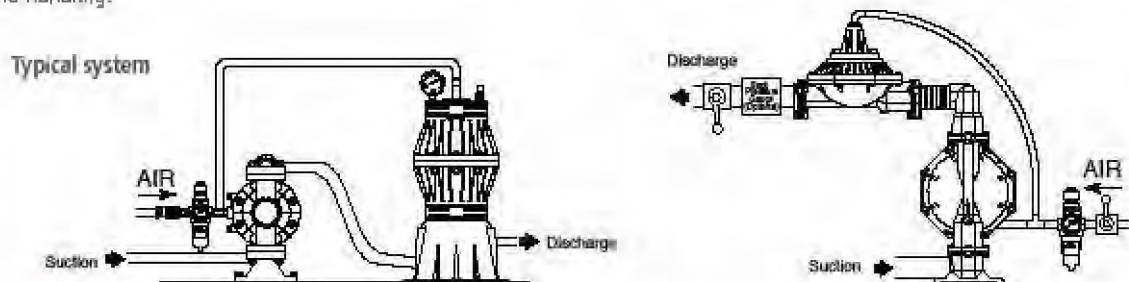
Pulsation Dampeners

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 PVDF, polypropylene, groundable acetal, aluminum, cast iron or stainless steel body materials for optimum pump-to-pulsation dampener compatibility.
- Broad Diaphragm/Bladder Fluid Compatibility - choose from Santoprene, Nitrile, PTFE, Hytrel, Viton or Urethane for optimum fluid-to-diaphragm compatibility.
- Perfect for Process Applications - pulsation reduction in long piping runs help prevent costly fluid pipe and downstream valve damage.
- Bolted construction - for leak-free vessel integrity and a safer work-site.
- Ultra-Rugged Construction for long service life - both inside and out, the Shock Blockers are built tough to deliver worry-free, near pulse-free fluid handling.



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/Bladder
SB10 - 1"	P - Polypropylene K - PVDF (Kynar) D - Conductive Acetal	A - NPTF B - BSP	P - Polypropylene K - PVDF (Kynar) D - Conductive Acetal	S - Stainless Steel 304	A - Santoprene [®] C - Hytrel [®] T - PTFE U - Urethane
SB20 - 2" SB30 - 3"	A - Aluminum S - Stainless Steel P - Polypropylene/ Aluminum* R - Polypropylene/ Stainless Steel* Stainless Steel	A - NPTF B - BSPP F - 2" ANSI/DIN Flange Inlet/ and Outlet* K - 2" ANSI/DIN Flange Inlet/ NPTF Outlet* L - 2" ANSI/DIN Flange Inlet/ BSPP Outlet*	A - Aluminum C - Cast Iron P - Polypropylene* S - Stainless Steel	P - Carbon Steel S - Stainless Steel 304	A - Santoprene [®] G - Nitrile T - PTFE / Santoprene [®] V - Viton [®]

* Only available with 2" Polypropylene fluid sections.

Hytrel[®] is a registered trademark of DuPont company, Santoprene[®] is registered trademark of Muntz and Viton[®] is a registered trademark of Ecolab/Mallory.

Maintenance Kits



637432-XX



637375-XX

Pump Type	Models	Air Motor Section	Fluid Section (with seats)	One Piece Diaphragms	Major Air Valve Assembly
3/8" Non-Metallic	PD03P, PE03P	637428	637429-XX	--	--
1/2" Non-Metallic	PD05P, PE05P	637428	637427-XX	--	--
1/2" Metallic	PM05P	637389	637375-XX	--	--
	PD05A, PD05R, PE05A, PE05R	637428	637427-XX	--	--
3/4" Non-Metallic	PD07P	637428	637427-XX	--	--
3/4" Metallic	PD07R	637428	637427-XX	--	--
1" Non-Metallic	6661A, 6661B	637118-C	637161-XX-C	48495964	--
1" Metallic	66610, 66611, 66612, 66613	637118-C	637119-XX-C	48495964	--
	PH10A-XS5-SST	637338	637339	--	--
1-1/2" Non-Metallic	6661T, 6661U	637118-C	637165-XX	48496806	--
1-1/2" Metallic	66615, 66616, 66617, 66618	637118-C	637124-XX	48496806	--
	66M170	637118-C	637469-XX	--	--
2" Non-Metallic	6662A, 6662B	637118-C	637165-XX	48497374	--
2" Metallic	66625, 66627	637434	637432-XX	48497374	--
	66M270	637434	637468-XX	--	--
3" Metallic	66630, 66632	637434	637433-XX	--	--
	66M320	637434	637467-XX	--	--
	PH30F-X	637369	637441-XX	--	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.

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



Port size	Polypropylene	Aluminum	PVDF	Stainless Steel
1"	HSK-20	HSK-20	HSK-40	HSK-30
1.5"	HSK-40	HSK-40	HSK-40	HSK-70
2"	HSK-110	HSK-110	HSK-110	HSK-100
3"	-	HSK-100	-	HSK-170

Port size	Steel	Aluminum	Non-metallic
1"	HSK-20	HSK-20	HSK-20
1.5"	HSK-40	HSK-40	HSK-20
2"	HSK-100	HSK-110	HSK-20
3"	HSK-100	HSK-100	-

Pump Airborne Noise Emissions

Pump Airborne Noise Emissions

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

Pump Port Size (Inches)	Air Operating Pressure (PSI)	Cycles/Minute	Sound Pressure (LAeq)
Diaphragm Pumps			
1/2	70 PSI (4.8 bar)	60	75.0 db(A)
1	70 PSI (4.8 bar)	60	79.7 db(A) 80.6 db(A)
1-1/2	70 PSI (4.8 bar)	60	81.0 db(A) 82.8 db(A)
2	70 PSI (4.8 bar)	60	*85.0 db(A)
3	70 PSI (4.8 bar)	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.

Viscosity Conversion Chart

Centil Poise	Poise	Saybolt Universal (SBU)	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		B				
10	.10	50		B	5	30	18	
15	.15	50	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	18	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	38	28	72	30	
80	.80	430	42	41	31	81	34	
90	.90	480	48	45	32	86	37	10
100	1.0	530	54	50	34		41	12
120	1.2	580	59	58	41		48	14
140	1.4	690	70	68	45		58	18
160	1.6	780	79	72	50		68	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	108	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	138	89			38
340	3.4	1630	163	142	95			39
360	3.6	1730	173	150	100			41
380	3.8	1850	185	160	108			43
400	4.0	1950	195	170	112			46
420	4.2	2050	205	180	118			48
440	4.4	2160	218	189	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	268	230	153			64
600	6.0	2900	290	250	170			66
700	7.0	3300	338	295	184			76
800	8.0	3680	388	340	223			
900	9.0	4300	430	385	247			
1000	10.0	4800	480	360	284			
1100	11	5200	520	445	293			
1200	12	5620	562	490	323			
1300	13	6100	610	520	350			
1400	14	6460	648	560	372			
1500	15	7000	700	595	400			
1600	16	7500	750	625	426			
1700	17	8000	800	680	466			
1800	18	8500	850	720	496			
1900	19	9000	900	760	520			
2000	20	9400	940	800	540			
2100	21	9850	985	835	565			
2200	22	10300	1030	875	602			
2300	23	10750	1075	910	617			
2400	24	11200	1120	950	645			
2500	25	11600	1160	985	676			
3000	30	14500	1450	1200	832			
3500	35	18500	1850	1400	950			
4000	40	23500	2350	1670	1090			
4500	45	29000	2900	1780	1175			
5000	50	32500	3250		1350			
5500	55	36000	3600		1485			
6000	60	38000	3800		1625			
6500	65	39000	3900		1720			
7000	70	39500	3950		1870			
7500	75	39500	3950		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	139600	13960					
40000	400	195000	19500					
50000	500	231000	23100					
60000	600	277500	27750					
70000	700	323500	32350					
80000	800	370000	37000					
90000	900	416500	41650					
100000	1000	462000	46200					
125000	1250	674000	67400					
150000	1500	894000	89400					
175000	1750	1110000	111000					
200000	2000	1325000	132500					

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