

ARO

EXPert Series Diaphragm Pumps *3/8" through 3" Fluid Ports*



IR **Ingersoll Rand**
Industrial Technologies

1-1/2" Metallic EXP Models EXPErt Series Pump

Where's Your EXP Opportunity?

- ▷ Tanker / Truck / Train Unloading
- ▷ Bulk Tank / Tank Farm Transfer
- ▷ Waste Water Treatment / Fluid Filtration
- ▷ Formulation
- ▷ Basic Transfer / Supply
- ▷ Packaging / Filling
- ▷ Batching / Blending
- ▷ System Flush
- ▷ Recirculation / Reclamation

Chemical Processing

Formulation Of:

- Soaps
- Detergents
- Cleansing / Polishing Agents
- Paints / Dyes
- Adhesives
- Inks
- Shear Sensitive Materials

Surface Preparation:

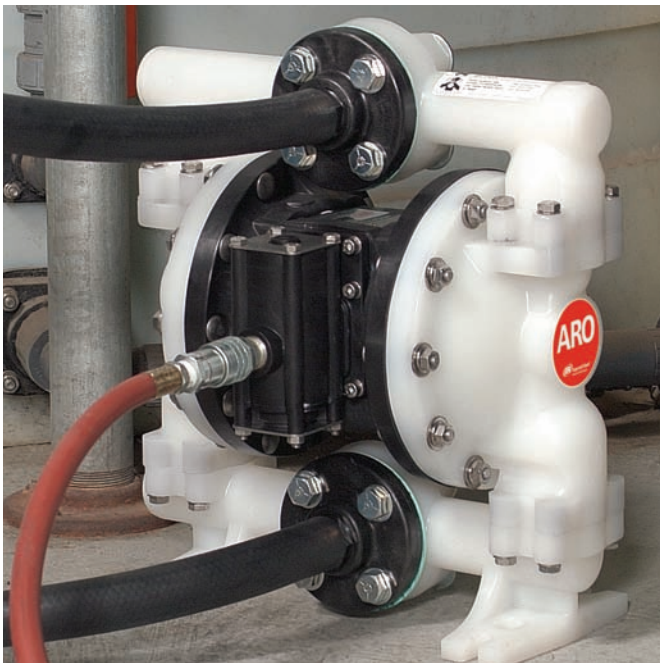
Supply and Transfer of:

- E-Coat
- Etching
- Plating

Pharmaceuticals

Supply and Transfer of:

- FDA Materials



Why Diaphragm Pumps?

- Sealless Design
- Explosion-Proof
- Low Material Shear
- Ease of Maintenance
- Can be Run Dry Without Damage
- Portable
- Self Priming
- Easy-to-Apply

Why ARO® Diaphragm Pumps?

- Efficient: The Best "Total Cost of Ownership" in the Industry
- Worldwide Distribution Network for Sales and Service
- 5-Year Warranty

What Do Your Pumps Cost You?

EXPERT Series Pump

The purchase price of a traditional diaphragm pump is the smallest piece of the total pump cost-of-ownership pie. There are downtime costs, energy costs, parts costs and labor costs to consider as well. Add all these up and you're dealing with a sizeable financial commitment that gets tougher to swallow with each passing quarter. With EXP, you can slice the total cost-of-ownership pie down to a much more digestible size. This is what "Solutionizing" is all about; providing smart products that not only demonstrate superior performance, but earn their keep while they're at it.

EXP Reliability

Traditional Pump Downtime Problems	EXP Solution	The Payoff
Pump Freezing	Quick Dump™ Checks	Downtime from Freezing Eliminated
Pump Stalling	SimulShift™ Valve / Unbalanced Air Valve	Process Production Uptime; No More Hammers or Restart Buttons
Diaphragm Failure	Convolute Diaphragms	Up to 4-Times the Life of Traditional Diaphragms
Air Motor Corrosion Due to Chemical Attack	Engineered Thermoplastic Construction	Extended Pump Life
Pump Leakage	Engineered Bolted Construction	Zero Leakage Downtime Safer, Cleaner Environment Material Cost Savings

EXP Efficiency

Traditional Pump Design Issues	EXP Design Solution	The Payoff
Compressed Air "Blow-By" Caused by Inferior Design	Positive Seal, Ceramic "D" Valve	No Energy Wasted During Pump Idle
Poor Energy Efficiency	Quick Dump Checks SimulShift Valves	Lower Energy Costs

EXP Serviceability

Traditional Pump Service Problems	EXP Service Solution	The Payoff
Labor/Time: Pulling & Replacing Failed Pumps Labor/Time: Tearing Down and Replacing Failed Parts Complex or Incomplete Service Kits	Longer Lasting Wear Parts i.e. Convolute Diaphragms Easy-Access Major Air Valve Simplified Service Kits	Significantly Reduced Labor and Parts Costs
Cost Of Stocking Spares (Inventory)	Longer - Lasting Wear Components Reduced Kits	Reduced Parts Inventory (Tied-Up Capital, Stocking, Taxes, etc.)

Are EXP Energy Savings For Real? Let's Do The Math:

EXP (ARO) Vs. Most "Advanced" Competitor

Test Subjects: 2" (Ports) Polypropylene Constructed Pumps with Teflon Diaphragms

Pump Operation: 8 Hours a Day/5 Days a Week/250 Days a Year = 2,000 Hours

Pump Delivery: 100 GPM @ 25 PSI (Back Pressure)

Energy Cost: \$0.06 Per Kilowatt Hour

EXP Air CFM Advantage: 37 @ 100 GPM

EXP Annual Cost Savings Per Pump: \$618.93

Note: Testing of pumps based on Hydraulic Institute / ANSI (10.6) air-operated pump test guidelines. All tests were conducted on new, out-of-the-box models. Both pumps were tested on Hydraulic Institute - conforming test loop at 25 PSI back pressure, pumping 100 gallons per minute. The fluid being pumped was water. For complete test guidelines and procedure information, contact the manufacturer.

High Performance Diaphragm Pumps

EXPert Series Pump



Productivity

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



Versatility

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



Reliability

Lube Free Patented Differential Valve both on Major air valve and SimulShift (Pilot Valve) provides reliable Worry Free Operation – Fluid On demand every time.



Environmentally Sound

Bolted Construction in conjunction with a wide range of material options provides maximum chemical and leak resistance.



Serviceability

Modular Construction, reduced parts count and simple to use repair kits will minimize repair time and cost.

Don't forget the other compelling reasons to use ARO Diaphragm Pumps: ARO Diaphragm pumps are simple to apply to your application because they are self-priming and can be run at variable flows controlled by air pressure or fluid back pressure. They can handle materials that are abrasive and/or shear sensitive. They can also be run dry without damage to the pump.

The Key To EXP: Patented ARO Air Motor Technology

“Simul-Shift™” Valve

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

“D” Valve

- Provides a positive seal during valve shift.
- Helps insure optimum energy efficiency while avoiding costly air “blow-by.”
- Ceramic construction insures long service life

“Unbalanced” Major Air Valve

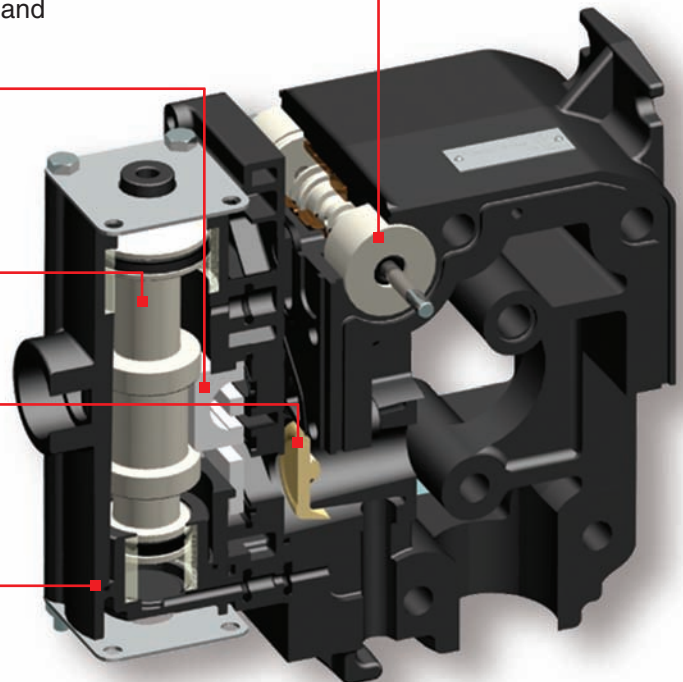
- Unbalanced valve design eliminates valve centering and pump stall-out, even under low air inlet pressures.

“Quick Dump™” Checks

- Eliminates pump ice-up by diverting cold, wet exhaust air away from the major air valve.
- Removes the need for space heaters, hot water taps or other ice preventive contraptions.

Simplified Major Air Valve Block

- New valve block design is easy to access, simple to service and lube free.
- Engineered thermoplastic body combines strength with corrosion resistance.



EXP Motor Cutaway

Patented Valve Technology in Operation

EXPerT Series Pump

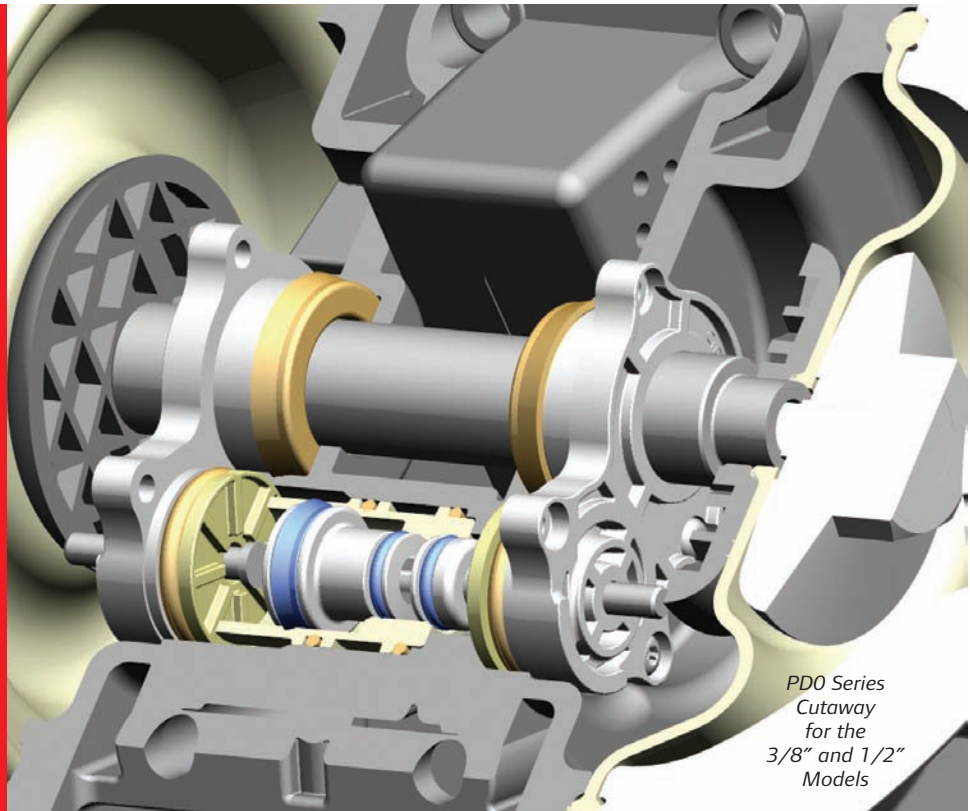
Unbalanced valve design eliminates valve centering and pump stall-out even under low air inlet pressures.

“D” Valve

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

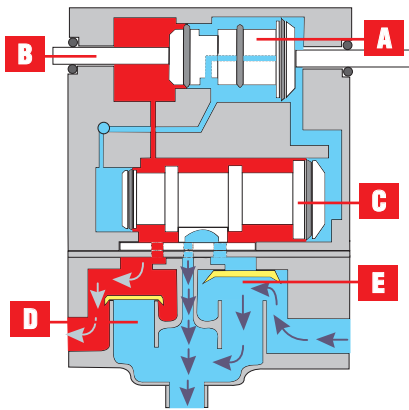
“Simul-Shift” Valve

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



*PDO Series
Cutaway
for the
3/8" and 1/2"
Models*

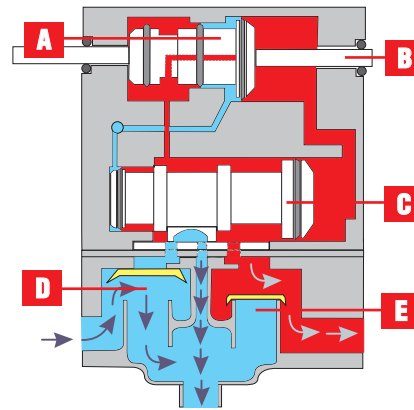
Diaphragm Moving from Left to Right



Diaphragm has pushed actuator pin (B) and Simul-Shift Valve (A) to the right.

- 1.) Compressed Air (red) pneumatically holds the Simul-Shift Valve (A) and the Major Air Valve (C) in position. Large ends of the Simul-Shift Valve (A) and Major Air Valve (C) are vented to exhaust.
- 2.) The left Quick Dump Check (D) blocks the exhaust port. Compressed air flows around Quick Dump Check (D) into the left diaphragm chamber.
- 3.) The right Quick Dump Check (E) lifts to open the exhaust port and allows cold, wet exhaust air (blue) from the right diaphragm chamber to flow into the expansion chamber, while diverting cold, wet exhaust air (blue) from the Major Air Valve.
- 4.) Diaphragm reverses direction (C)

Diaphragm Moving Right to Left



- 1.) The diaphragm pushes the right Actuator Pin (B) mechanically moving the Simul-Shift Valve (A) to the left.
- 2.) Compressed air flows to the large side of the Simul-Shift Valve, pneumatically moving the valve to the position shown.
- 3.) Compressed air also flows to the large end of the Major Air Valve (C), pneumatically shifting it to the left.
- 4.) Shift of the Major Air Valve (C) results in an air pressure differential between the Quick Dump Checks (D&E) - causing the Quick Dump Checks to shift position.
- 5.) The right Quick Dump Check (E) blocks the exhaust port. Compressed air (red) flows around the Quick Dump Check into the right diaphragm chamber.
- 6.) The left Quick Dump Check (D) lifts to open the exhaust port and allows cold, wet exhaust air (blue) from the left diaphragm chamber to flow into the expansion chamber, while diverting cold, wet exhaust air (blue) from the Major Air Valve (C).
- 7.) Diaphragms reverse direction

The Ultimate Process Pump

EXPerT Series Pumps: Non-Metallic Models

From its simple beginnings as a utility dewatering / trash pump, through its various phases of design evolution, the diaphragm pump has been a favorite with process professionals everywhere. Why? Simplicity. The ARO EXP design team has taken this fundamental feature and

engineered efficiency, compatibility and economy into every aspect of the new EXP Diaphragm Pump. Economy in fewer repair parts and labor. Economy in saved energy. Economy in superior performance. Do you want to reduce pump downtime while boosting production? Here it is.

Five Year Warranty

Side Fluid Inlet/Outlet Ports

Easy to install side-porting permits fast plumb-up while avoiding fluid material leaking directly onto the pump. The EXP flange bolt pattern meets both DIN and ANSI requirements.

Long-Lasting Convoluted Diaphragms

EXP convoluted diaphragms can last as long as four times that of traditional diaphragms under normal operating conditions.

Body Materials of Construction

Choose from natural PVDF or natural polypropylene for optimum fluid compatibility and corrosion resistance.

Ribless Fluid Caps

Originally intended to provide greater structural integrity, many non-metallic diaphragm pump designs incorporate ribbed fluid caps. Since that time, state-of-the-art Finite Element Analysis has proven that fluid cap ribs are actually stress points that weaken rather than strengthen overall structural integrity. No ribs also allow for easier cleaning and washdown.

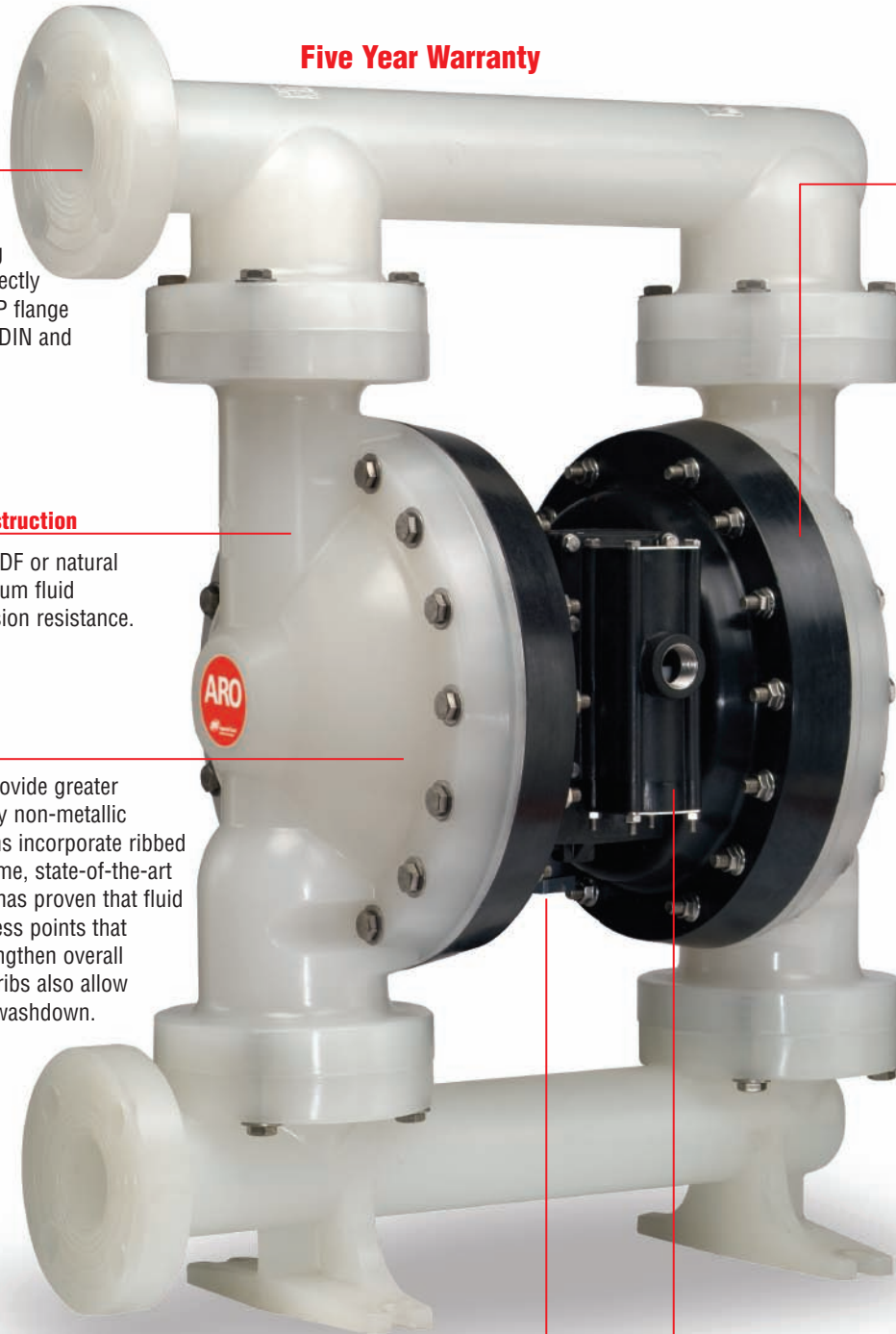
Corrosion - Resistant Center Body

Non-Metallic Air Motor - Featuring a glass-filled polypropylene construction and thermoset vinyl ester, the EXP air motor is both strong and resistant to chemical attack.

Stainless Steel Hardware - EXP air motor and end cap fasteners are made of 316 stainless steel for complete corrosion resistance.

Stall-Free, Ice-Free Air Motor Design

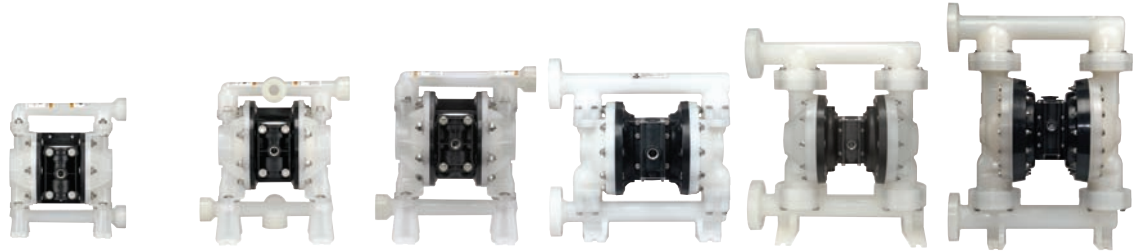
The new EXP air motor has exclusive Simul-Shift™ valve technology to help insure faster pump trip-over with smoother flow. It also features Quick Dump valves; the final answer to pump stalling due to ice build-up.



Model Overview: Non-Metallic

EXPerT Series Pumps: Non-Metallic Models

NON-METALLIC

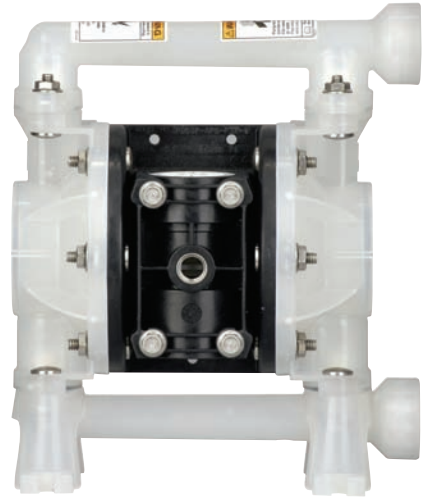


Models:	3/8"	1/2"	3/4"	1"	1-1/2"	2"
Maximum Flow GPM (LPM)	10.6 (40.1)	14.4 (54.5)	14.8 (56)	53 (200)	123 (465)	184 (696)
Max. Discharge Pressure PSI (BAR)	100 (6.9)	100 (6.9)	100 (6.8)	120 (8.3)	120 (8.3)	120 (8.3)
Fluid Ports Inlet/Outlet (BSP)	3/8 - 18 N.P.T.F. - 1 Rp 3/8(3/8-19 BSP) Parallel (Side or Center)	1/2 - 18 N.P.T.F. - 1 Rp 1/2(1/2-14 BSP) Parallel (Side or Center)	3/4 - 14 N.P.T.F. - 1 Rp 3/4(3/4-14 BSP) Parallel	1" ANSI/DIN Flange (Side or Center) 1 - 11-1/2" NPT Rp 1(1-11 BSP) (Center Discharge)	1-1/2" ANSI/DIN Flange (Side or Center)	2" ANSI/DIN Flange (Side Discharge)
Materials of Construction	Acetal Polypropylene PVDF	Acetal Polypropylene PVDF	Polypropylene	Polypropylene PVDF	Polypropylene PVDF	Polypropylene PVDF
Pump Weight lbs (Kg.)	4.16 (1.89) Acetal Single Port 4.26 (1.93) Acetal Multi Port 4.50 (2.04) PVDF Single Port 4.62 (2.10) PVDF Multi Port 3.44 (1.56) Poly Single Port 3.55 (1.59) Poly Multi Port	6.28 (2.85) 6.67 (3.03) 6.78 (3.08) 7.24 (3.28) 5.21 (2.36) 5.44 (2.47)	5.61 (2.54)	19.35 (8.78) Poly Threaded 19.59 (8.89) Poly Center Port 19.87 (9.01) Poly Side Port 25.83 (11.72) PVDF Threaded 26.72 (12.12) PVDF Center Port 27.15 (12.32) PVDF Side Port	42.60 (19.32) Poly Side Port 63.94 (29.0) PVDF Side Port 42.30 (19.19) Poly Center Port 55.94 (25.37) PVDF Center Port	85.3 (38.7) Poly 110.9 (50.3) PVDF
Max. Solids inches (mm)	1/16" (1.6)	3/32" (2.4)	3/32" (2.4)	1/8" (3.2)	1/4" (6.4)	1/4" (6.4)
Maximum Dry Suction Lift ft (m)	9.25 (2.8)	15.0 (4.5)	15.0 (4.5)	19 (5.7)	14 (4.2)	14 (4.2)
Recommended Filter/Regulator Air Line Kit	P39124-600 66073-1	P39124-600 66073-1	P39124-600 66073-1	P39224-600 66073-2	P39334-600 66084-1	P39454-610 66109

3/8" Non-Metallic Models OEM / Transfer Pumps

3/8" Non-Metallic Performance Specifications

Ratio:	1:1		
Maximum GPM (LPM):	10.6 (40.1)	8.7 (32.9)	Flex check
Displacement per cycle Gallons (Liters):	0.022 (.083)	.013 (0.068)	Flex check
Air Inlet (Female):	1/4 - 18 P.T.F. SAE Short		
Fluid Inlet:	3/8 - 18 N.P.T.F. - 1 (side or center) Rp 3/8 (3/8 - 19 BSP side or center)		
Fluid Outlet:	3/8 - 18 N.P.T.F. - 1 (side) Rp 3/8 (3/8 - 19 BSP side)		
Max. operating pressure psi (bar):	100 (6.9)		
Suspended solids max. dia. in. (mm):	1/16" (1.6) Flex check (Fibers)		
Weight lbs (kg):	PD03P-XDS-XXX	4.16 (1.89)	
	PD03P-XES-XXX	4.26 (1.93)	
	PD03P-XKS-XXX	4.50 (2.04)	
	PD03P-XLS-XXX	4.62 (2.10)	
	PD03P-XPS-XXX	3.44 (1.56)	
	PD03P-XRS-XXX	3.55 (1.59)	
Maximum dry suction lift ft (m):	9.25 (2.8)		
Sound Level:	PSI	Cycles / Min	db(A)
	70	60	72.7



Ordering Menu

PX03	P	-	X	X	X	-	XXX
Model Series	Center Section		Connection		Hardware		Specialty Code
PD03 Standard Pump PE03 Remote Actuation Capable	P Polypropylene		A 3/8 -18 N.P.T.F.-1 B Rp 3/8 (3/8 - 19 BSP) Wetted Parts D Groundable Acetal (Single Port) E Groundable Acetal (Multiple Port) K PVDF (Single Port) L PVDF (Multiple Port) P Polypropylene (Single Port) R Polypropylene (Multiple Port)	S	X Stainless Steel		- No Extension Standard A0S Remote Actuation Capable**
					Seat Material	Ball Material	Diaphragm Material
					D Acetal K PVDF P Polypropylene S Stainless Steel O Flex check	A Santoprene® C Hytrel® J Nitrile* N Neoprene* S Stainless Steel T PTFE V Viton®	A Santoprene C Hytrel T PTFE / Santoprene V Viton

*Flex check models

Accessories*

Air Line Connection Kit | Kit No. 66073-1

Kit includes Piggyback Filter/Regulator with gauge, pipe nipple and a 5-foot section of air hose.

Cycle Counter Kit | Kit No. 67386

Provides a closed contact output for monitoring pump operation. Can be used to monitor cycle rates, preventative maintenance and rough flow rate indication.

Service Repair Kits | Kit No. 637428 (air motor)
Kit No. 637429-XX (fluid section)

Wall Mount Bracket | 67388

*Please note pumps are not included with these kits.

**See options on page 45.



Air Line Connection Kit 66073-1

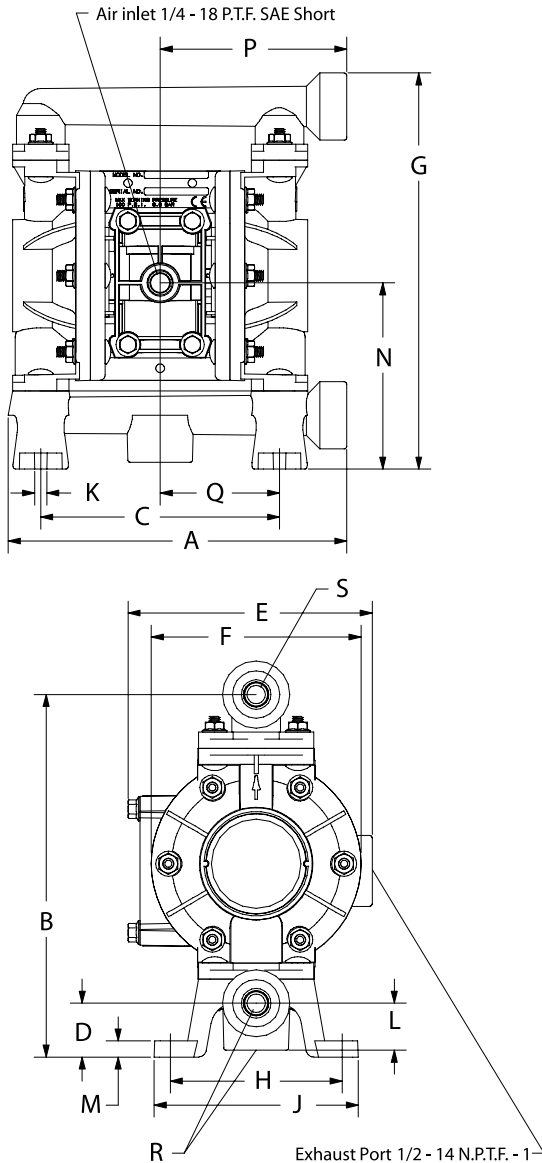


Wall Mount Bracket Kit 67388

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Santoprene® is a registered trademark of Monsanto Company, licensed to Advanced Elastomer Systems, L.P.

3/8" Non-Metallic Dimensions and Flow Curves OEM / Transfer Pumps

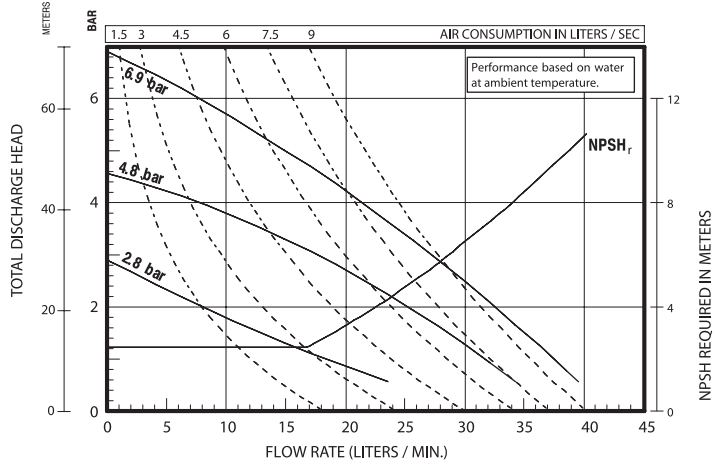
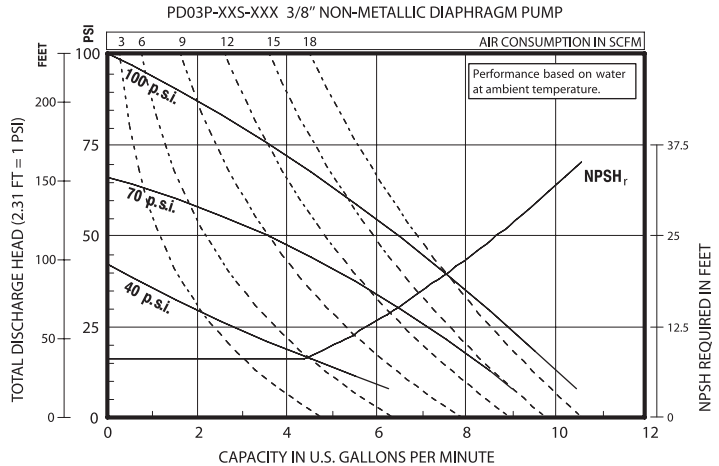
NON-METALLIC



DIMENSIONS

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

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



PE03P-APS-PAA -A0S
with 637442-1 kit

Dual Inlet/Outlet Kits

- 637442-1 (NPT Poly)
- 637442-4 (BSP Poly)
- 637442-3 (NPT PVDF)
- 637442-6 (BSP PVDF)
- 637442-2 (NPT ACETAL)
- 637442-5 (BSP ACETAL)

Note: For dual inlet / outlet configuration, first order a standard pump, then select the appropriate dual inlet/ outlet kit. Upon receipt of pump, replace the original inlet and outlet manifolds with the dual inlet/outlet kit.

For example: PD03P-ARS-PSS (standard pump)
637442-1 (dual inlet/outlet kit)

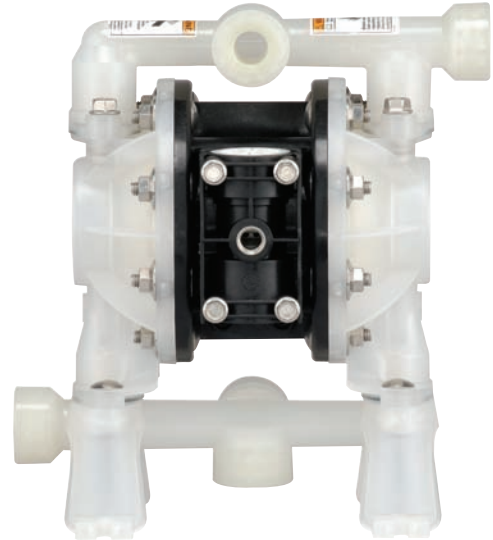
1/2" Non-Metallic Models OEM / Transfer Pumps

1/2" Non-Metallic Performance Specifications

Ratio:	1:1
Maximum GPM (LPM):	14.4 (54.5)
Displacement per cycle Gallons (Liters):	0.039 (.15)
Air Inlet (Female):	1/4 -18 P.T.F. SAE SHORT
Fluid Inlet/Outlet:	1/2 - 14 N.P.T.F. - 1 1/2 -14 BSP, parallel
Max. operating pressure psi (bar):	100 (6.9)
Suspended solids max. dia. in. (mm):	3/32" (2.4)
Weight lbs (kg):	PD05P-XDS-XXX-B 6.28 (2.85) PD05P-XES-XXX-B 6.67 (3.03) PD05P-XKS-XXX-B 6.78 (3.08) PD05P-XLS-XXX-B 7.24 (3.28) PD05P-XPS-XXX-B 5.21 (2.36) PD05P-XRS-XXX-B 5.44 (2.47) Note: PE05P-XXS-XXX-B0S, subtract 0.42 (0.19)
Maximum dry suction lift ft (m):	15.0 (4.5)

Sound Level:

PSI	Cycles / Min	db(A)
70	60	71.0



Ordering Menu

PX05	P	-	X	X	S	-	X	X	X	-	BXX
Model Series	Center Section Material		Fluid Connection	Fluid Caps/ Manifold Material	Hardware Material		Seat Material	Ball Material	Diaphragm Material		Specialty Code
PD05 Standard PE05 Remote Actuation Capable	P Polypropylene		A 1/2" NPT B 1/2" BSP	D Groundable Acetal (single port) E Groundable Acetal (multiple port) K PVDF (single port) L PVDF (multiple port) P Polypropylene (single port) R Polypropylene (multiple port)	S Stainless Steel		D Acetal K PVDF P Polypropylene S Stainless Steel	A Santoprene C Hytrel [†] G Nitrile S Stainless Steel T PTFE/Santoprene U Polyurethane V Viton	A Santoprene C Hytrel [†] G Nitrile T PTFE/Santoprene U Polyurethane V Viton		B Standard B0S Remote Actuation Capable**

[†] Hytrel replaces Buna, Geolast, Polyurethane and Nitrile producing superior chemical compatibility and diaphragm life

Accessories* (for specialty pump application options and additional accessories see pages 40-45)

- Air Line Connection Kit | Kit No. 66073-1**
Kit includes Piggyback Filter/Regulator with gauge, pipe nipple and a 5-foot section of air hose.
- Service Repair Kits | Kit No. 637428 (air motor for PX05P)**
Kit No. 637427-XX (fluid section)
- Muffler Kit | Kit No. 637438 (ported exhaust)**
- Wall Mount Kit | 76763**

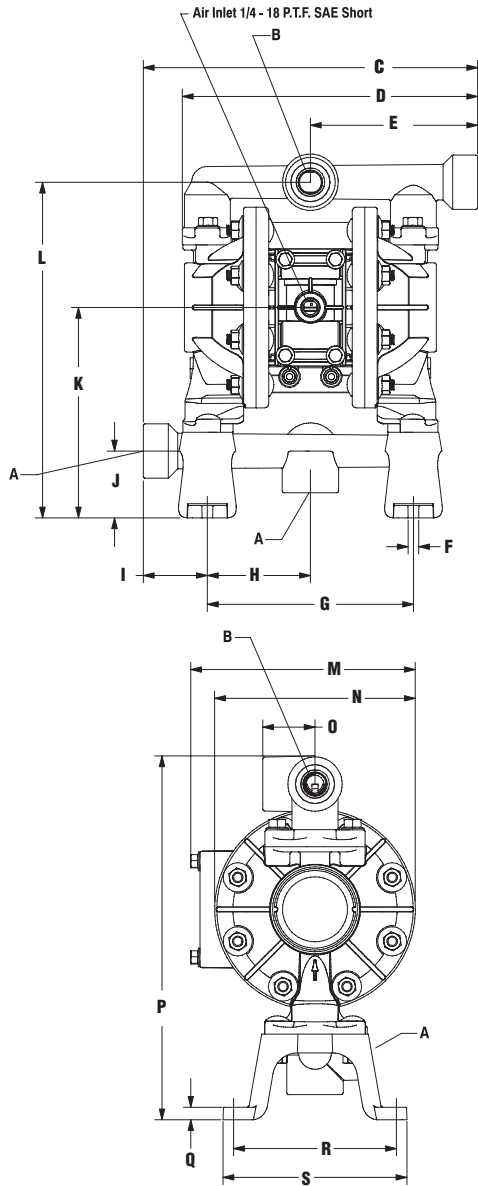
*Please note pumps are not included with these kits.
**See options on page 45.



Air Line Connection Kit 66073-1

1/2" Non-Metallic Dimensions and Flow Curves OEM / Transfer Pumps

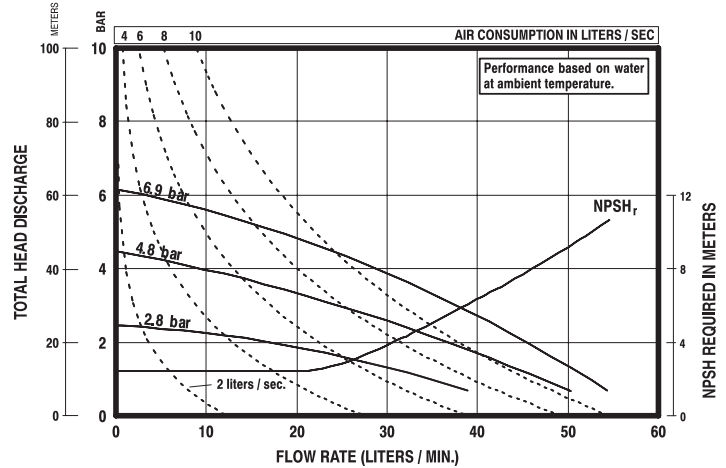
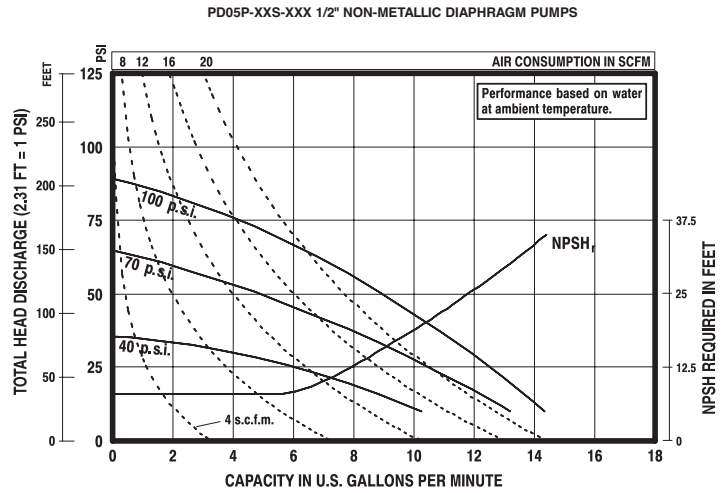
NON-METALLIC



Pump Model	"A" Material Inlet
PD05P- AXS -XXX-B	1/2 - 14 NPTF-1
Pump Model	"B" Material Outlet
PD05P- AXS -XXX-B	1/2 - 14 NPTF-1
Pump Model	"A" Material Inlet
PD05P- BXS -XXX-B	Rp 1/2 (1/2 - 14 BSP, parallel)
Pump Model	"B" Material Outlet
PD05P- BXS -XXX-B	Rp 1/2 (1/2 - 14 BSP, parallel)

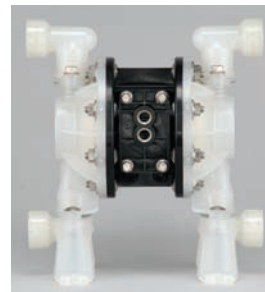
DIMENSIONS

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



Refer to fluids.ingersollrand.com for full size flow curves.

For additional information contact
technical support at (800)495-0276



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

Dual Inlet/Outlet Kits

- 637440-1 (NPT Poly)
- 637440-4 (BSP Poly)
- 637440-2 (NPT Acetal)
- 637440-5 (BSP Acetal)
- 637440-3 (NPT PVDF)
- 637440-6 (BSP PVDF)

Note: For dual inlet / outlet configuration, first order a standard pump, then select the appropriate dual inlet/ outlet kit. Upon receipt of pump, replace the original inlet and outlet manifolds with the dual inlet/outlet kit.

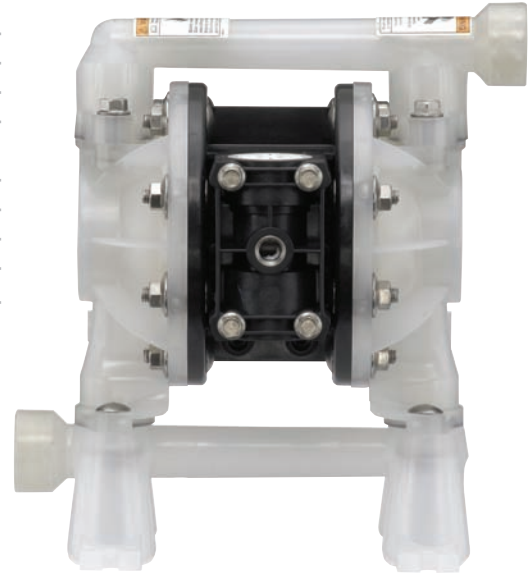
For example: PD05P-ARS-PSS-B (standard pump)
637440-1 (dual inlet/outlet kit)

3/4" Non-Metallic Models OEM / Transfer Pumps

3/4" Non-Metallic Performance Specifications

Ratio:	1:1
Maximum GPM (LPM):	14.8 (56.0)
Displacement per cycle Gallons (Liters):	0.032 (.12)
Air Inlet (Female):	1/4 -18 P.T.F. SAE SHORT
Fluid Inlet/Outlet:	3/4 - N.P.T.F. - 1 Rp 3/4 (3/4 - 14 BSP)
Max. operating pressure psi (bar):	100 (6.9)
Suspended solids max. dia. in. (mm):	3/32" (2.4)
Weight lbs (kg):	5.61 (2.54)
Maximum dry suction lift ft (m):	15.0 (4.5)

Sound Level:	PSI	Cycles / Min	db(A)
	70	60	75.0



Ordering Menu

PD07	P	-	X	P	S	-	X	X	X
Model Series	Center Section Material		Fluid Connection	Fluid Caps/ Manifold Material	Hardware Material		Seat Material	Ball Material	Diaphragm Material
PD07 Standard	P Polypropylene		A 3/4" NPT B 3/4" BSP	P Polypropylene	S Stainless Steel		P Polypropylene	A Santoprene T Teflon/PTFE	A Santoprene C Hytrel [®] T Teflon/PTFE

Accessories

Air Line Connection Kit | Kit No. 66073-1

Kit includes Piggyback Filter/Regulator with gauge, pipe nipple and a 5-foot section of air hose.

Service Repair Kits | Kit No. 637428 (air motor for PX057)

Kit No. 637427-XX (fluid section)

Muffler Kit | Kit No. 637438 (ported exhaust)

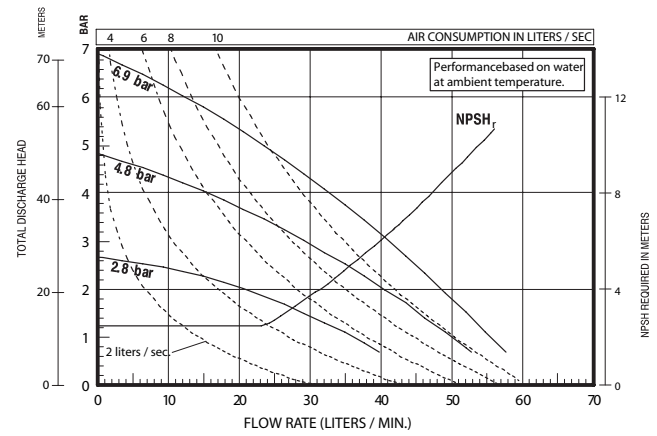
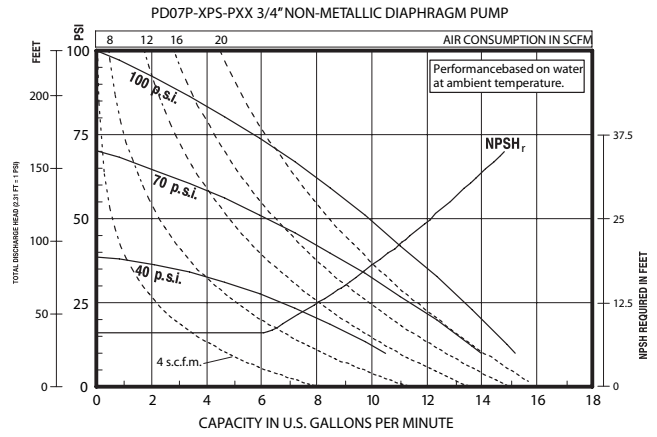
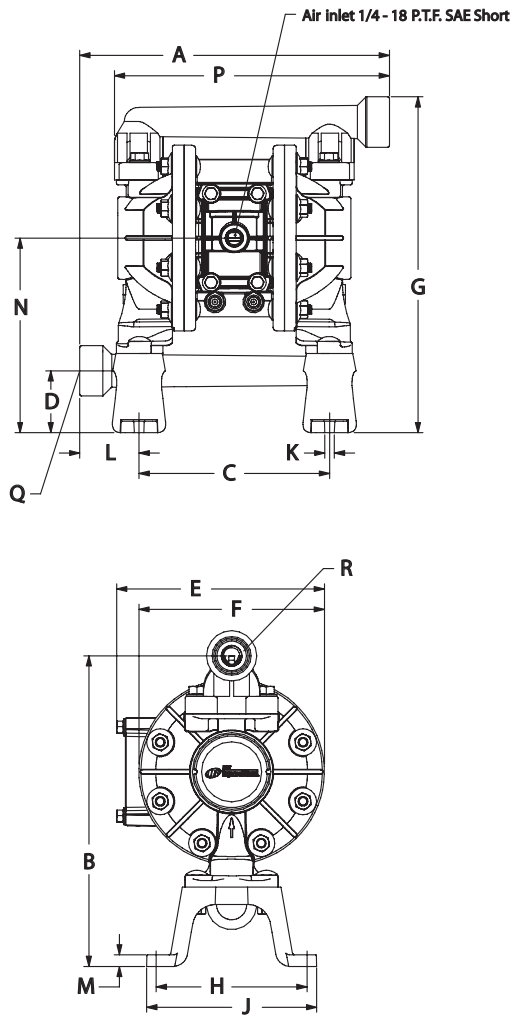
Wall Mount Kit | 76763

*Please note pumps are not included with these kits.



Air Line Connection
Kit 66073-1

3/4" Non-Metallic Dimensions and Flow Curves OEM / Transfer Pumps



Refer to fluids.ingersollrand.com for full size flow curves.

For additional information contact technical support at (800)495-0276

DIMENSIONS

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

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

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

NON-METALLIC

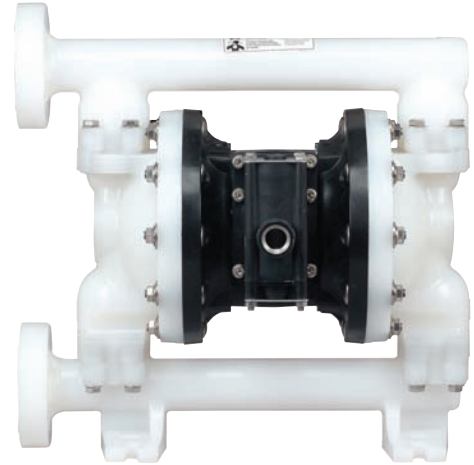
1" Non-Metallic Models OEM / Transfer Pumps

1" Non-Metallic Performance Specifications

Ratio:	1:1
Maximum GPM (LPM):	53 (200)
Displacement per cycle Gallons (Liters):	0.226 (.86)
Air Inlet (Female):	1/4 - 18 N.P.T.
Fluid Inlet:	1 - 11-1/2 N.P.T.F., Rp1(1-11 BSP) 1" A.N.S.I./DIN flange (side or center)
Fluid Outlet:	1 - 11-1/2 N.P.T.F., Rp1(1-11 BSP) 1" A.N.S.I./DIN flange (side or center)
Max. operating pressure psi (bar):	120 (8.3)
Suspended solids max. dia. in.(mm):	1/8" (3.2)
Weight lbs (kg):	Polypropylene, Threaded Port 19.35 (8.78) Polypropylene, Center Ported 19.59 (8.89) Polypropylene, Side Ported 19.87 (9.01) PVDF, Threaded Port 25.83 (11.72) PVDF, Center Ported 26.72 (12.12) PVDF, Side Ported 27.15 (12.32)
Maximum dry suction lift ft(m) :	19 (5.7)

Sound Level:

PSI	Cycles / Min	db(A)
70	60	79.7



Ordering Menu

PX10	X	-	X	X	S	-	X	X	X
Model Series	Center Section		Connection		Hardware		Seat Material		Diaphragm Material
PD10 Standard Pump	E Conductive	A NPTF Thread	S	Stainless Steel	H 440 Stainless Steel (Hard)	A Santoprene			
PE10 Electronic Interface Accessible Pump	P Polypropylene	B BSP Thread	F 1" A.N.S.I./DIN Flange (Side)		K PVDF	C Hytrel			
		Y 1" A.N.S.I./DIN Flange (Center)	Wetted Parts		P Polypropylene	G Nitrile			
			E Conductive		S 316 Stainless Steel	M Medical grade Santoprene			
			K PVDF			T PTFE/Santoprene			
			P Polypropylene			V Viton			
						Ball Material			
						A Santoprene			
						C Hytrel			
						G Nitrile			
						T PTFE			
						V Viton			

Accessories

Air Line Connection Kit* | Kit No. 66073-2

Kit includes Piggyback Filter/Regulator with gauge, pipe nipple and a 5-foot section of air hose.

Diaphragm Failure Detection (DFD)* | Kit No. 67237

Costly production downtime due to pump diaphragm failure and resulting (possibly hazardous) material leakage is a very real problem in many process operations. ARO Diaphragm Failure Detection is one simple, cost-effective way to get your pumps wired for preventive maintenance. (PE10X pump model is required)

Cycle Counter Kit* | Kit No. 67350

Like the odometer on your car, ARO's cycle sensing / cycle counter lets you know how many pump cycles have elapsed so you can be prepared to perform preventive maintenance. The cycle sensor is a cost-efficient way to save maintenance costs while keeping your pump on-line. (PE10X pump model is required)

Service Repair Kits | Kit No. 637397 (air motor for PX10P)

Kit No. 637396-XX (fluid section)

Kit No. 637395-X (major air valve assembly)

Flange Connection Kit | Kit No. 67341-E10N (side flange)

Kit No. 67341-C10N (center flange)

Use with non-metallic EXP pumps with the flange manifold option. Flange kits meet DIN / A.N.S.I. specifications. Flange constructed of glass-filled polypropylene. Bolts, washers and nuts are stainless steel.

*Please note pumps are not included with these kits.

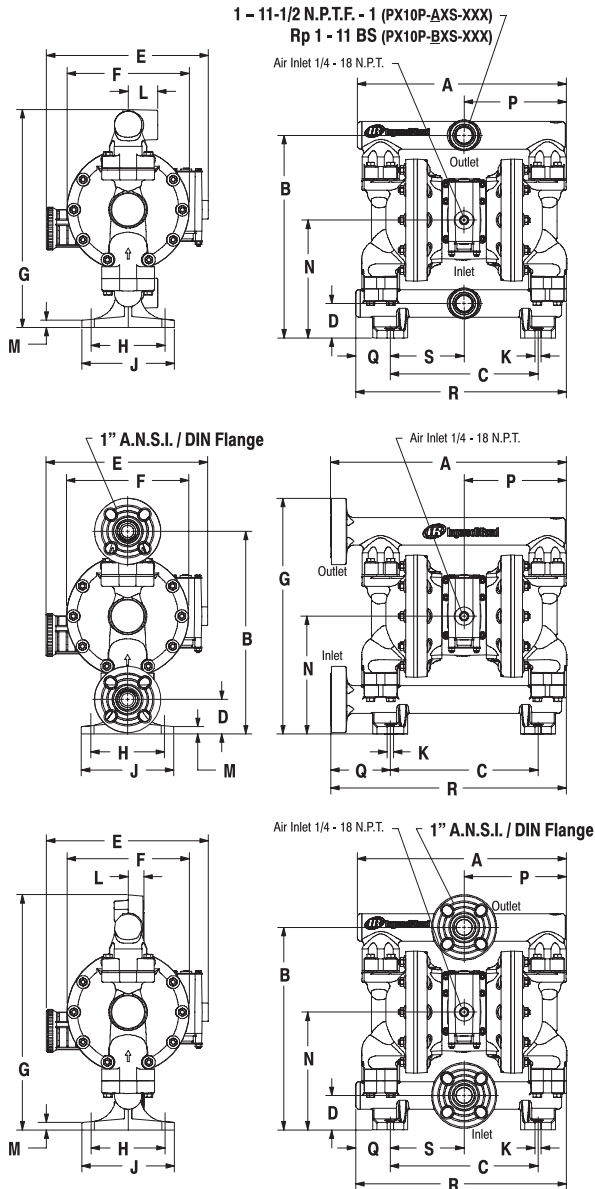


Air Line Connection Kit 66073-2



Flange Connection Kit

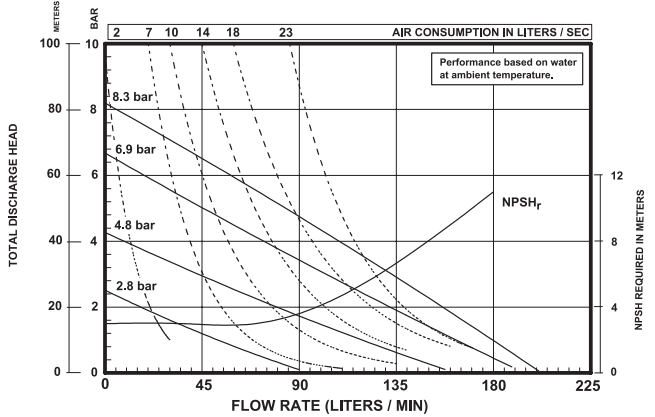
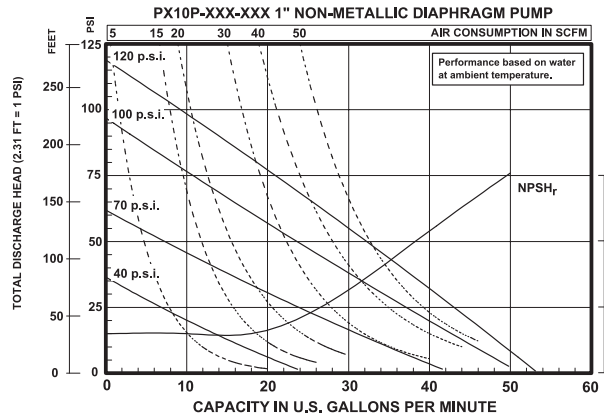
1" Non-Metallic Dimensions and Flow Curves OEM / Transfer Pumps



DIMENSIONS

A - see below	G - see below	N - 8-1/32" (203.4 mm)
B - 13-25/32" (349.8 mm)	H - 5-1/32" (127.6 mm)	P - 6-31/32" (176.6 mm)
C - 10-1/16" (255.3 mm)	J - 6-9/32" (159.6 mm)	Q - see below
D - 2-11/32" (59.4 mm)	K - 7/16" (11.1 mm)	R - see below
E - 11-1/32" (279.5 mm)	L - see below	S - 5-1/32" (127.6 mm)
F - 8-5/16" (211.1 mm)	M - 1/2" (12.7 mm)	

PX10P-AXS-, -BXS- (Threaded)	PX10P-FXS-XXX (End Flange)	PX10P-YXS-XXX (Center Flange)
A - 14-7/32" (361.2 mm)	16-1/32" (407.3 mm)	14-7/32" (361.2 mm)
G - 14-27/32" (376.5 mm)	16-1/32" (407.3 mm)	16" (406.3 mm)
L - 2" (50.8 mm)	-----	1-1/32" (25.6 mm)
Q - 2-3/8" (59.7 mm)	4-1/16" (103.0 mm)	2-3/8" (59.7 mm)
R - 14-11/32" (364.0 mm)	16-1/32" (407.3 mm)	14-11/32" (364.0 mm)



Refer to fluids.ingersollrand.com for full size flow curves.

For additional information contact technical support at (800)495-0276

NON-METALLIC

1-1/2" Non-Metallic Models OEM / Transfer Pumps

1-1/2" Non-Metallic Performance Specifications

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



Ordering Menu

PX15	X	-	X	X	X	-	X	X	X
Model Series	Center Section		Connection		Hardware		Seat Material		Diaphragm Material
PD15 Standard Pump	E Conductive Polypropylene		F 1-1/2" A.N.S.I./DIN Flange (Side)	S	Stainless Steel		H 440 Stainless Steel (Hard)		A Santoprene
PE15 Electronic Interface Accessible Pump	P Polypropylene		Y 1-1/2" A.N.S.I./DIN Flange (Center)				K PVDF		C Hytrel
							P Polypropylene		G Nitrile
							S 316 Stainless Steel		M Medical Grade Santoprene
									T PTFE/Santoprene
									V Viton
			Wetted Parts						Ball Material
			E Conductive Polypropylene						A Santoprene®
			K PVDF						C Hytrel®
			P Polypropylene						G Nitrile
									S 316 Stainless Steel
									T PTFE
									V Viton®

Accessories*

Air Line Connection Kit | Kit No. 66084-1

Kit includes Piggyback Filter/Regulator with gauge, pipe nipple and a 5-foot section of air hose.

Diaphragm Failure Detection (DFD) | Kit No. 67237

Costly production downtime due to pump diaphragm failure and resulting (possibly hazardous) material leakage is a very real problem in many process operations. ARO Diaphragm Failure Detection is one simple, cost-effective way to get your pumps wired for preventive maintenance. (PE15X pump model is required)

Cycle Counter Kit | Kit No. 67350

Like the odometer on your car, ARO's cycle sensing / cycle counter lets you know how many pump cycles have elapsed so you can be prepared to perform preventive maintenance. The cycle sensor is a cost-efficient way to save maintenance costs while keeping your pump on-line. (PE15X pump model is required)

Service Repair Kits | Kit No. 637389 (air motor for PX15P)
Kit No. 637391-XX (fluid section)
Kit No. 637390-X (major air valve assembly)

Flange Connection Kit | Kit No. 67341-E15N (side flange)
Kit No. 67341-C15N (center flange)

Use with non-metallic EXP pumps with the flange manifold option. Flange kits meet A.N.S.I. / DIN specifications. Flange constructed of glass-filled polypropylene. Bolts, washers and nuts are stainless steel.

*Please note pumps are not included with these kits.

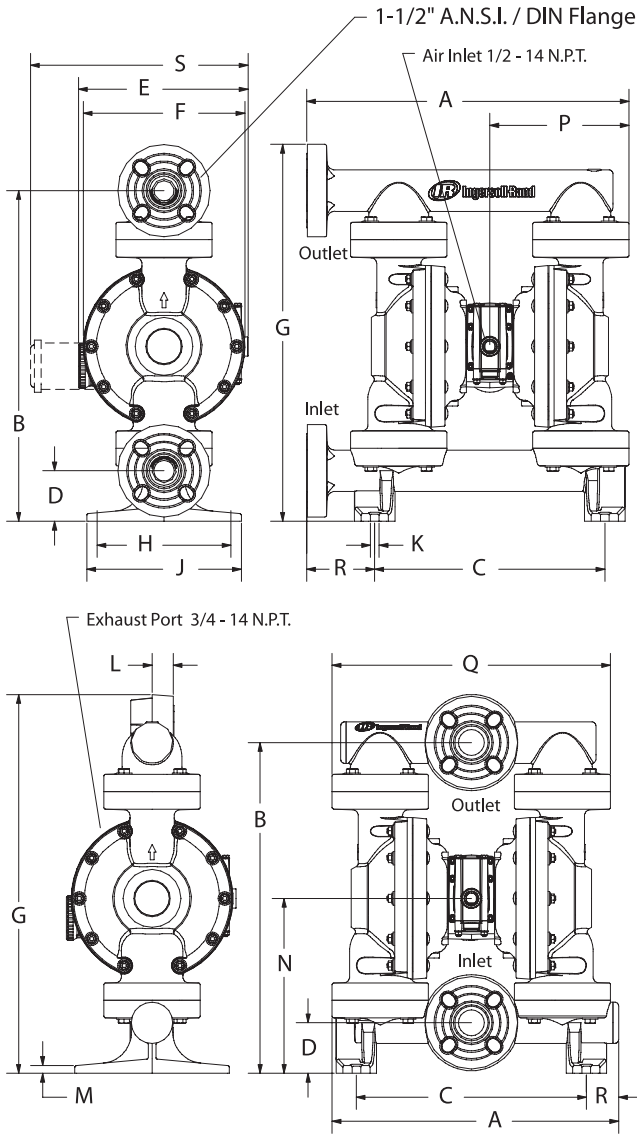


Air Line Connection Kit 66084-1



Flange Connection Kit

1-1/2" Non-Metallic Dimensions and Flow Curves OEM / Transfer Pumps

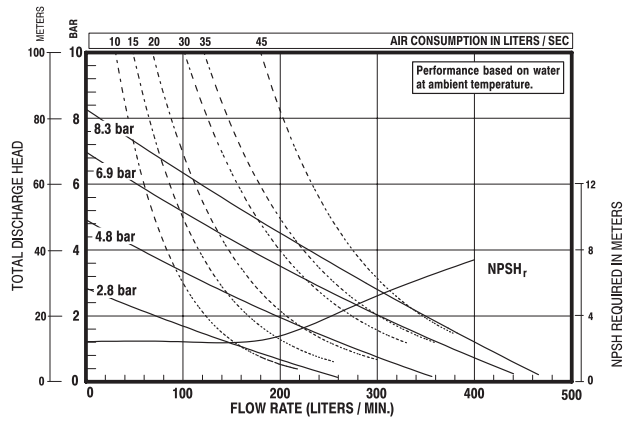
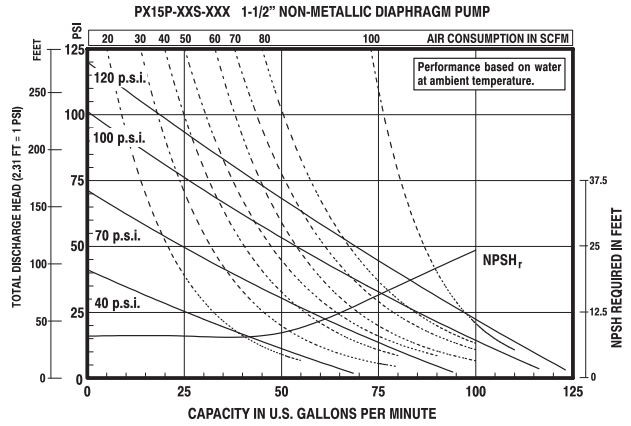


DIMENSIONS

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

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

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



Refer to fluids.ingersollrand.com for full size flow curves.

For additional information contact technical support at (800)495-0276

NON-METALLIC

2" Non-Metallic Models OEM / Transfer Pumps

2" Non-Metallic Performance Specifications

Ratio:	1:1		
Maximum GPM (LPM):	184 (696)		
Displacement per cycle Gallons (Liters):	1.4 (5.3)		
Air Inlet (Female):	3/4" - 14 N.P.T.		
Fluid Inlet:	2" A.N.S.I./DIN flange (side)		
Fluid Outlet:	2" A.N.S.I./DIN flange (side)		
Max. operating pressure psi (bar):	120 (8.3)		
Suspended solids max. dia. in. (mm):	1/4" (6.4)		
Weight lbs (kg):	Polypropylene	85.3 (38.7)	
	PVDF	110.9 (50.3)	
Maximum dry suction lift ft (m):	14 (4.2)		
Sound Level:	PSI	Cycles / Min	db(A)
	70	60	85.0



Ordering Menu

PX20	X	-	F	X	S	-	X	X	X
Model Series	Center Section		Connection		Hardware		Seat Material		Diaphragm Material
PD20 Standard Pump PE20 Electronic Interface Accessible Pump	E Conductive Polypropylene P Polypropylene		F 2" ANSI/DIN Flange (Side)	S	S Stainless Steel		K PVDF P Polypropylene		A Santoprene G Nitrile M Medical Grade Santoprene T PTFE/Santoprene V Viton
			Wetted Parts						Ball Material
			E Conductive Polypropylene K PVDF P Polypropylene						A Santoprene G Nitrile T PTFE V Viton

Accessories*

Air Line Connection Kit | Kit No. 66109

Kit includes Piggyback Filter/Regulator with gauge, pipe nipple and a 5-foot section of air hose.

Diaphragm Failure Detection (DFD) | Kit No. 67237

Costly production downtime due to pump diaphragm failure and resulting (possibly hazardous) material leakage is a very real problem in many process operations. ARO Diaphragm Failure Detection is one simple, cost-effective way to get your pumps wired for preventive maintenance. (PE20X pump model is required)

Cycle Counter Kit | Kit No. 67350-1

Like the odometer on your car, ARO's cycle sensing / cycle counter lets you know how many pump cycles have elapsed so you can be prepared to perform preventive maintenance. The cycle sensor is a cost-efficient way to save maintenance costs while keeping your pump on-line. (PE20X pump model is required)

Service Repair Kits | Kit No. 637369 (air motor for PX20P)
 Kit No. 637373-XX (fluid section)
 Kit No. 637374-X (major air valve assembly)

Continuous-Duty Muffler | Kit No. 67323

Helps reduce possibility of pump freeze-over caused by moisture in air supply. Recommended for continuous-duty and high-flow applications. Muffler features large expansion chamber, permitting cold exhaust air to exit pump.

Flange Connection Kit | Kit No. 67341-E20N

Use with non-metallic EXP pumps with the flange manifold option. Flange kits meet A.N.S.I. / DIN specifications. Flange constructed of glass-filled polypropylene. Bolts, washers and nuts are stainless steel.

*Please note pumps are not included with these kits.



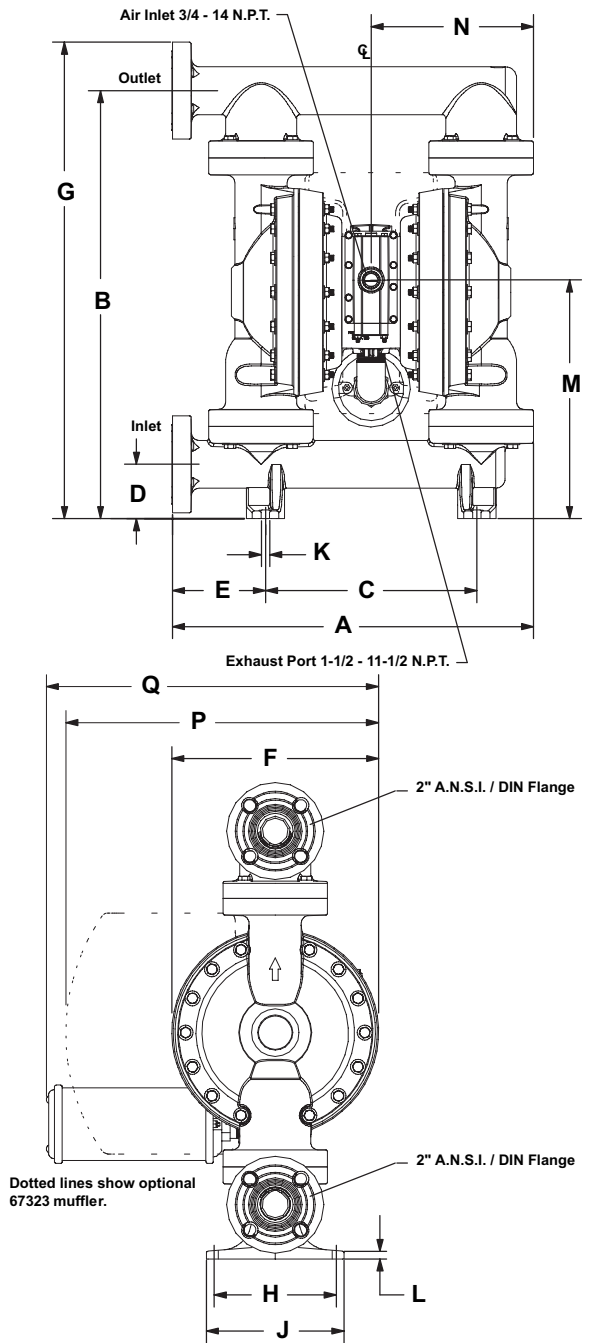
67323 Continuous Duty Muffler



67341-E20N Flange Connection Kit

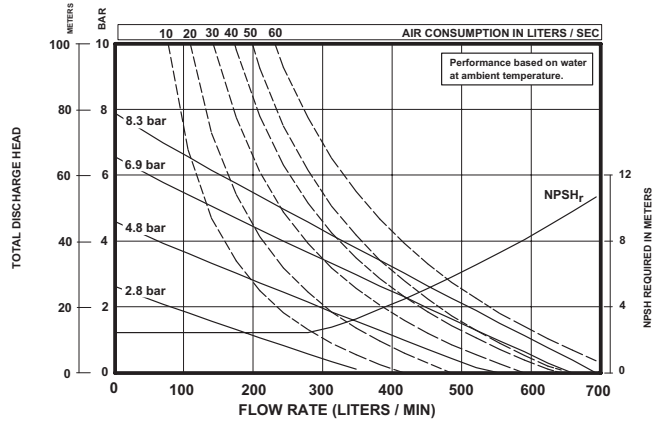
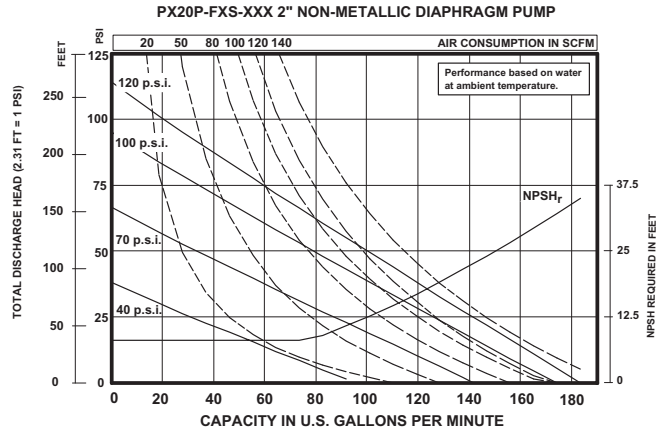
2" Non-Metallic Dimensions and Flow Curves OEM / Transfer Pumps

NON-METALLIC



DIMENSIONS

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



Refer to fluids.ingersollrand.com for full size flow curves.

For additional information contact technical support at (800)495-0276

The Ultimate Process Pump

EXPERT Series Pumps: Metallic Models

From its simple beginnings as a utility / dewatering / trash pump, through its various phases of design evolution, the diaphragm pump has been a favorite with process professionals everywhere. Why? Simplicity. The ARO EXP design team has taken this fundamental feature and engineered efficiency, compatibility and economy into

every aspect of the new EXP Diaphragm Pump. Economy in fewer repair parts and labor. Economy in saved energy. Economy in superior performance. Do you want to reduce pump downtime while boosting production? Here it is.

Inlet/Outlet Port Options

NPT and BSP threaded versions available on stainless steel, aluminum and cast iron models. Center flanges are available in some sizes.

Long-Lasting Convoluted Diaphragms

EXP convoluted diaphragms can last as long as four times that of traditional diaphragms under normal operating conditions.

Five Year Warranty

Body Material

Choose from aluminum, cast iron, Hastelloy® or stainless steel for overall durability and corrosion-resistance in the nastiest of process applications and environments.

Stall-Free, Ice-Free Air Motor Design

The new EXP air motor has exclusive Simul-Shift valve technology to help insure faster pump trip-over with smoother flow. It also features Quick Dump valves; the final answer to pump stalling due to ice build-up.

Bolted Construction

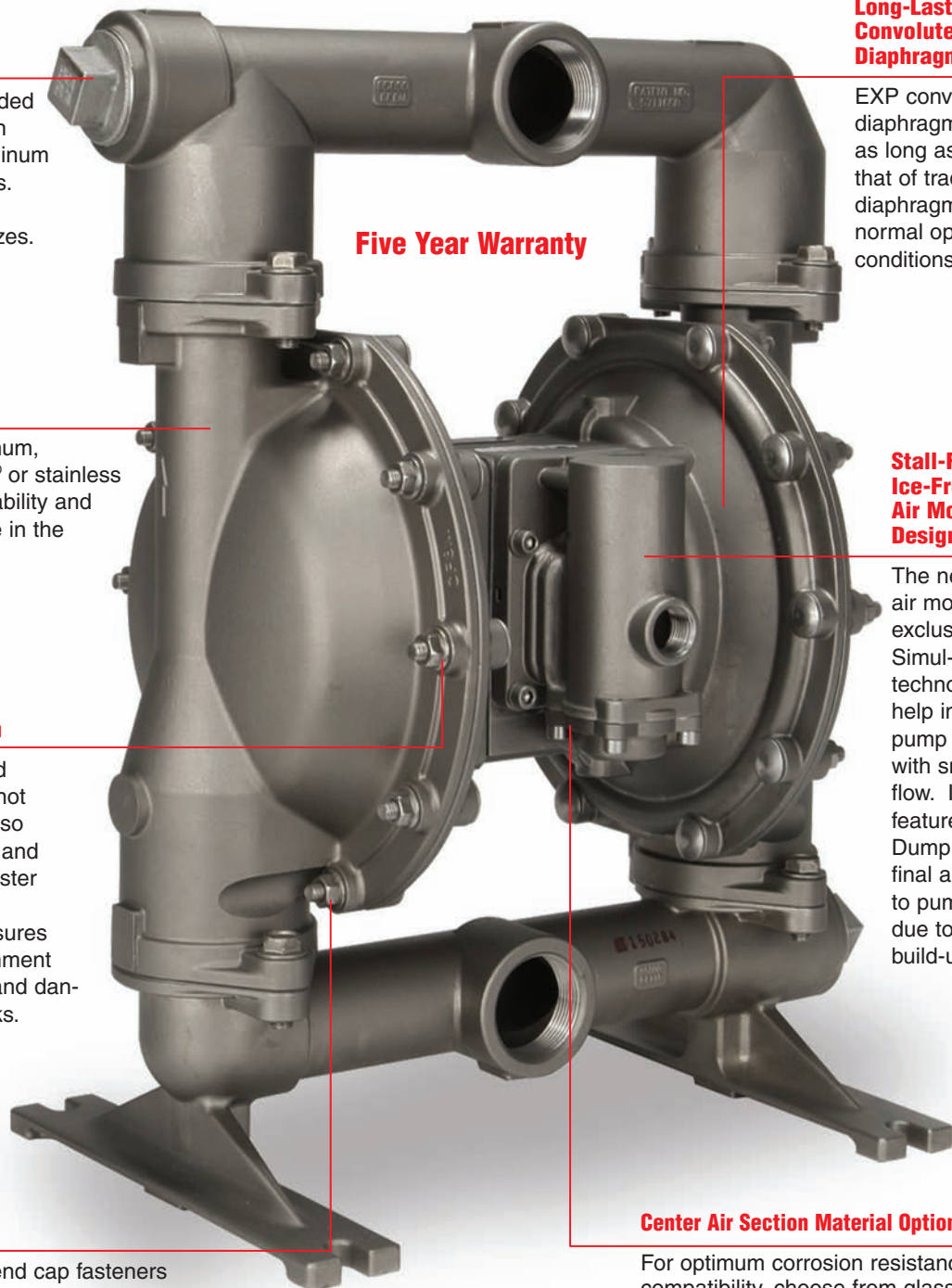
EXP utilizes a bolted construction that is not only leak-tight but also makes disassembly and reassembly much faster and easier. Bolted construction also insures a safer work environment by avoiding messy and dangerous material leaks.

Hardware Options

EXP air motor and end cap fasteners are available in stainless steel for complete corrosion resistance.

Center Air Section Material Options

For optimum corrosion resistance and compatibility, choose from glass-filled polypropylene, aluminum or all stainless steel center sections.



Model Overview: Metallic

EXPert Series Pumps: Metallic Models



Models:	1/2"	3/4"	1"	1-1/2"	2"	3"
Max. Flow GPM (LPM)	12 (45.4)	13.6 (51.5)	52 (197)	123 (465)	172 (651)	275 (1,041)
Maximum Discharge Pressure PSI (BAR)	100 (6.9)	100 (6.8)	120 (8.3)	120 (8.3)	120 (8.3)	120 (8.3)
Fluid Ports Inlet/Outlet (BSP)	3/8 - 18 NPTF-1 Rp 3/8 (3/8-19 BSP Parallel) (Side or Center)	3/4 - 14 NPTF-1 Rp 3/4 (3/4-14 BSP Parallel)	1-11-1/2" NPT Rp1(1-11 BSP) (Side or Center)	1-1/2 - 11-1/2 NPTF Rp1-1/2(1-1/2 -11 BSP) (Side or Center) 1-1/2 ANSI/DIN (SS only/Center)	2" NPTF Rp2(2-11 BSP) (Side or Center) 2" ANSI Flange with 2" pipe tap (SS only/Center)	3" NPTF Rp3(3-11 BSP) (Center)
Materials of Construction	Aluminum Stainless Steel	Aluminum	Aluminum Cast Iron Stainless Steel Hastelloy®	Aluminum Cast Iron Stainless Steel Hastelloy	Aluminum Cast Iron Stainless Steel Hastelloy	Aluminum Cast Iron Stainless Steel Hastelloy
Pump Weight lbs. (Kg.)	10.36 (4.7) AL/AL Motor 16.57 (7.52) SS/AL Motor 8.04 (3.65) AL/Poly Motor 14.25 (6.46) SS/Poly Motor	8.74 (3.96)	20.7 (9.4) Alum. 35.2 (16.0) CI 38.2 (17.3) SS 39.6 (18) Hastelloy add 4.65 (2.11) for Alum. air motor, add 11.09 (5.03) for SS air motor	37.7 (17.1) Alum. 73.2 (33.2) CI 61.2 (27.8) SS 86.9 (39.4) Hastelloy add 3.08 (1.40) for Alum. air motor, add 14.39 (6.53) for SS air motor	64 (29) Alum. 133 (60) CI 122 (55.3) SS Threaded 114 (51.7) SS Flange 122 (55.3) Hastelloy add 34 (15) for CI or SS air motor	113 (51.3) Alum. 197 (89.4) CI 203 (92.1) SS 203 (92.1) Hastelloy add 40 (18.1) for SS air motor
Max. Solids inches (mm)	3/32" (2.4)	3/32" (2.4)	1/8" (3.32)	1/4" (6.4)	1/4" (6.4)	3/8" (9.5)
Max, Dry Suction Lift ft. (m)	15.0 (4.5)	15.0 (4.5)	19 (5.7)	14 (4.2)	19 (5.7)	19 (5.7)
Recommended Filter/Regulator Air Line Kit	P39124-600 66073-1	P39124-600 66073-1	P39224-600 66073-2	P39334-600 66084-1	P39454-610 66109	P39454-610 66109

METALLIC

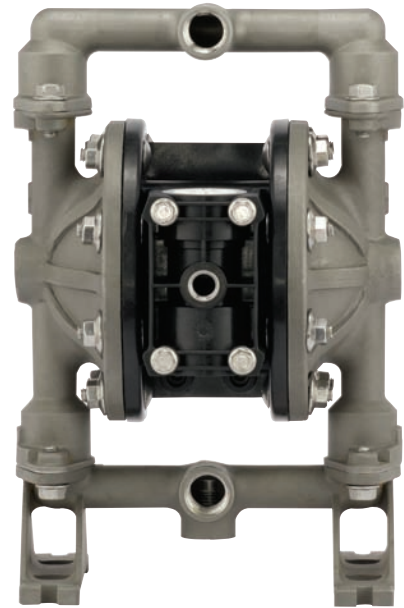
Hastelloy-C® is a registered trademark of Haynes International, Inc.

1/2" Metallic Models

OEM / Transfer Pumps

1/2" Metallic Performance Specifications

Ratio:	1:1		
Maximum GPM (LPM):	12 (45.4)		
Displacement per cycle Gallons (Liters):	0.039 (.15)		
Air Inlet (Female):	1/4 -18 P.T.F. SAE SHORT		
Fluid Inlet/Outlet:	1/2 - 14 N.P.T.F. -1 Rp 1/2(1/2 - 14 BSP, parallel)		
Max. operating pressure psi (bar):	100 (6.9)		
Suspended solids max. dia. in. (mm):	3/32" (2.4)		
Weight lbs (kg):	PD05A-XAS-XXX-B	10.36 (4.7)	
	PD05R-XAS-XXX-B	8.04 (3.65)	
	PD05R-XSS-XXX-B	14.25 (6.46)	
Maximum dry suction lift ft (m):	15.0 (4.5)		
Sound Level:	PSI	Cycles / Min	db(A)
	70	60	71.1



Ordering Menu

	PX05		X	-	X		X		S	-	X		X		X		X		-	BXX
	Model Series		Center Section Material		Fluid Connection		Fluid Caps/ Manifold Material		Hardware Material		Seat Material		Ball Material		Diaphragm Material		Specialty Code			
PD05	Standard	A	Aluminum	A	1/2" N.P.T.	A	Aluminum ¹ (Side port outlet manifold)	S	Stainless Steel	F	Aluminum	A	Santoprene	A	Santoprene	B	Standard			
PE05	Remote Actuation Capable	R	Polypropylene	B	1/2" BSP	S	Stainless Steel (Center port outlet manifold)			P	Polypropylene	C	Hytrel ²	C	Hytrel ²	BOS	Remote Actuation Capable**			
										S	Stainless Steel	G	Nitrile	G	Nitrile					
										T	PTFE	S	Stainless Steel	T	PTFE/ Santoprene					
										U	Polyurethane	T	PTFE	U	Polyurethane					
										V	Viton	U	Polyurethane	V	Viton					
												V	Viton							

¹ Components Anodized to Provide Superior Corrosion and Abrasion Resistance

² Hytrel replaces Buna, Geolast, Polyurethane and Nitrile producing superior chemical compatibility and diaphragm life

Accessories* (for specialty pump application options and additional accessories see pages 40-45)

Air Line Connection Kit* | Kit No. 66073-1

Kit includes Piggyback Filter/Regulator with gauge, pipe nipple and a 5-foot section of air hose.

Service Repair Kits | Kit No. 637428 (air motor for PX05) Kit No. 637427-XX (fluid section)

*Please note pumps are not included with these kits.

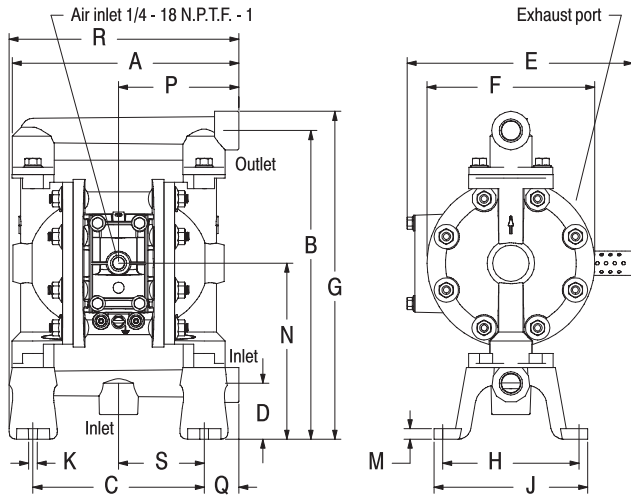
**See options on page 45.



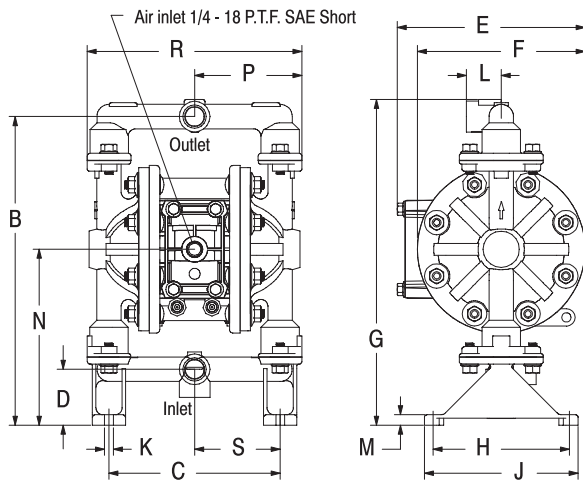
Air Line Connection
Kit 66073-1

1/2" Metallic Dimensions and Flow Curves OEM / Transfer Pumps

PD05A-XAS-XXX-B



PD05R-XSS-XXX-B

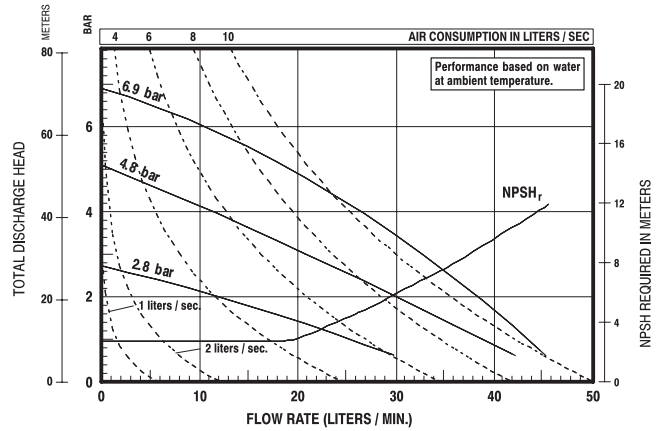
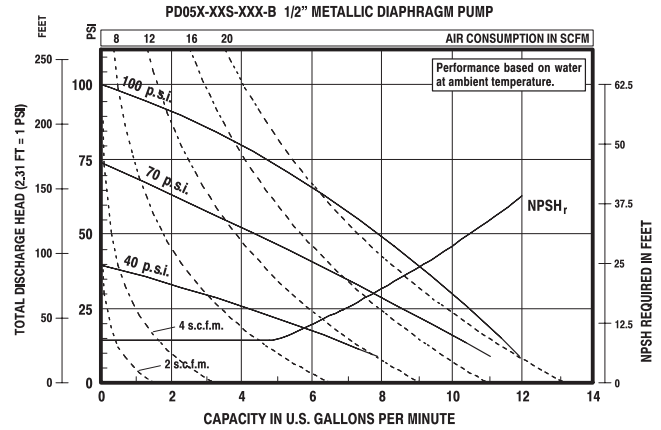


DIMENSIONS

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

Dimension	PD05A-XXS-XXX-B	PD05R-XXS-XXX-B
"E"	8-3/32" (205.5 mm)	6-23/32" (170.6 mm)
"G"	11-3/4" (297.9 mm)	11-21/32" (296.0 mm)
"P"	4-5/16" (109.3 mm)	3-27/32" (97.4 mm)
"R"	8-7/32" (208.5 mm)	7-11/16" (194.9 mm)

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 fluids.ingersollrand.com for full size flow curves.

For additional information contact technical support at (800)495-0276

METALLIC

3/4" Metallic Models OEM / Transfer Pumps

3/4" Metallic Performance Specifications

Ratio:	1:1
Maximum GPM (LPM):	13.6 (51.5)
Displacement per cycle Gallons (Liters):	0.030 (.11)
Air Inlet (Female):	1/4 -18 P.T.F. SAE SHORT
Fluid Inlet/Outlet:	3/4 - 14 N.P.T.F. -2 Rp 3/4(3/4 - 14 BSP)
Max. operating pressure psi (bar):	100 (6.9)
Suspended solids max. dia. in. (mm):	3/32" (2.4)
Weight lbs (kg):	8.74 (3.96)
Maximum dry suction lift ft (m):	15.0 (4.5)

Sound Level:	PSI	Cycles / Min	db(A)
	70	60	75.0



Ordering Menu

PD07	R	-	X	X	S	-	X	X	X
Model Series	Center Section Material		Fluid Connection	Fluid Caps/ Manifold Material	Hardware Material		Seat Material	Ball Material	Diaphragm Material
PD07 Standard	R Polypropylene		A 3/4" N.P.T. B 3/4" BSP	A Aluminum	S Stainless Steel		F Aluminum P Polypropylene S Stainless Steel	A Santoprene C Hytrel T Teflon/PTFE	A Santoprene C Hytrel T Teflon/PTFE

Accessories

Air Line Connection Kit* | Kit No. 66073-1

Kit includes Piggyback Filter/Regulator with gauge, pipe nipple and a 5-foot section of air hose.

Service Repair Kits | Kit No. 637428 (air section)
Kit No. 637427-XX (fluid section)

Muffler Kit | Kit No. 637428 (ported exhaust)

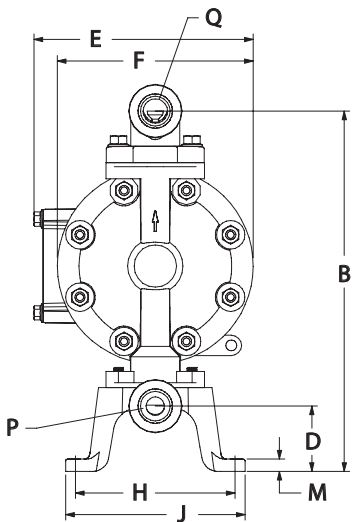
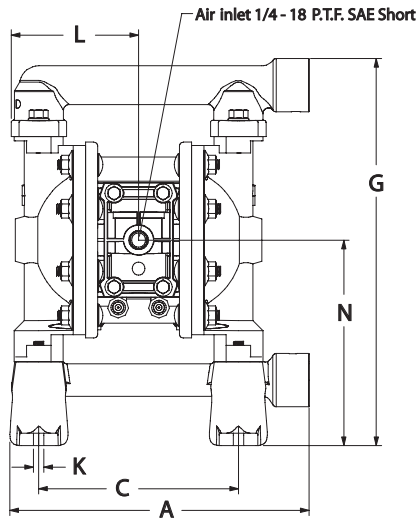
Wall Mount Kit | 76763

*Please note pumps are not included with these kits.



Air Line Connection
Kit 66073-1

3/4" Metallic Dimensions and Flow Curves OEM / Transfer Pumps

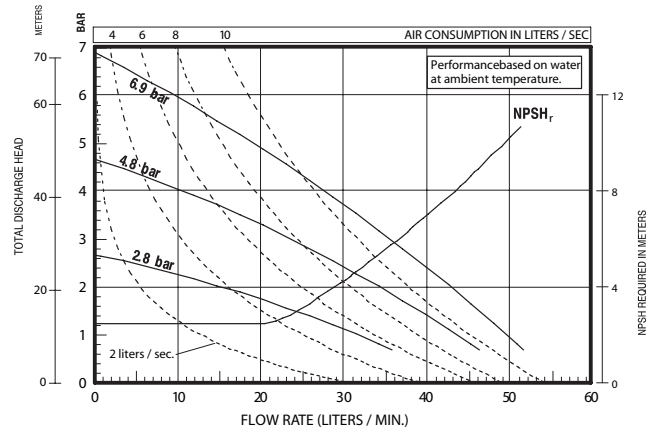
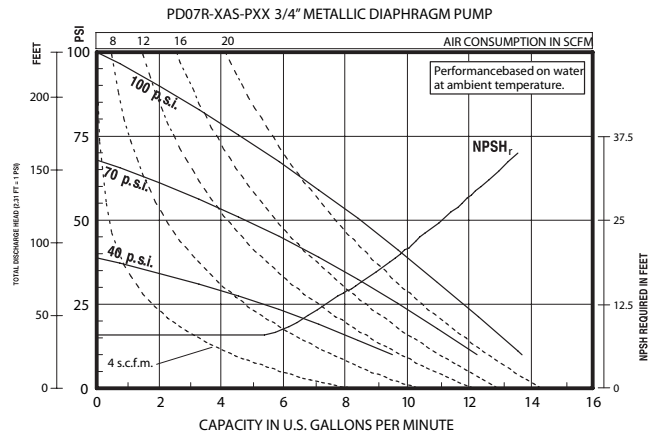


DIMENSIONS

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

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

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



Refer to fluids.ingersollrand.com for full size flow curves.

For additional information contact technical support at (800)495-0276

METALLIC

1" Metallic Models

OEM / Transfer Pumps

1" Metallic Performance Specifications

Ratio:	1:1	
Maximum GPM (LPM):	52 (197)	
Displacement per cycle Gallons (Liters):	0.232 (.88)	
Air Inlet (Female):	1/4 - 18 N.P.T.	
Fluid Inlet:	1 - 11-1/2 N.P.T.F-1, Rp1(1-11 BSP)	
Fluid Outlet:	1 - 11-1/2 N.P.T.F., 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:	PSI	Cycles / Min
	70	60
		db(A)
		79.7



Ordering Menu

PX10	X	-	X	X	X	-	X	X	X
Model Series	Center Section		Connection		Hardware		Seat Material		Diaphragm Material
PD10 Standard Pump	A Aluminum		A NPTF Thread	P Plated Steel		A Santoprene	A Santoprene		
PE10 Electronic Interface Accessible Pump	R Polypropylene		B BSP Thread	S Stainless Steel		C Hytrel	C Hytrel		
	S Stainless Steel					E Carbon Steel	G Nitrile		
			Wetted Parts			F Aluminum	M Medical grade Santoprene		
			A Aluminum			G Nitrile	T PTFE/Santoprene		
			C Cast Iron			H 440 Stainless Steel (Hard)	V Viton		
			H Hastelloy-C			L Hastelloy-C			
			S Stainless Steel			S 316 Stainless Steel	Ball Material		
							A Santoprene		
							C Hytrel		
							G Nitrile		
							S 316 Stainless Steel		
							T PTFE		
							V Viton		

Accessories*

Air Line Connection Kit | Kit No. 66073-2

Kit includes Piggyback Filter/Regulator with gauge, pipe nipple and a 5-foot section of air hose.

Diaphragm Failure Detection (DFD) | Kit No. 67237

Costly production downtime due to pump diaphragm failure and resulting (possibly hazardous) material leakage is a very real problem in many process operations. ARO Diaphragm Failure Detection is one simple, cost-effective way to get your pumps wired for preventive maintenance. (PE10X pump model is required)

Cycle Counter Kit | Kit No. 67350

Like the odometer on your car, ARO's cycle sensing / cycle counter lets you know how many pump cycles have elapsed so you can be prepared to perform preventive maintenance. The cycle sensor is a cost-efficient way to save maintenance costs while keeping your pump on-line. (PE10X pump model is required)

Service Repair Kits | Kit No. 637397 (air motor for PX10A, PX10R and PX10S)

Kit No. 637401-XX (fluid section)

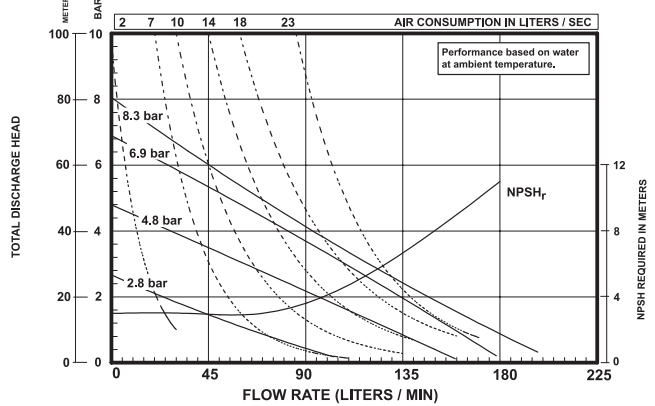
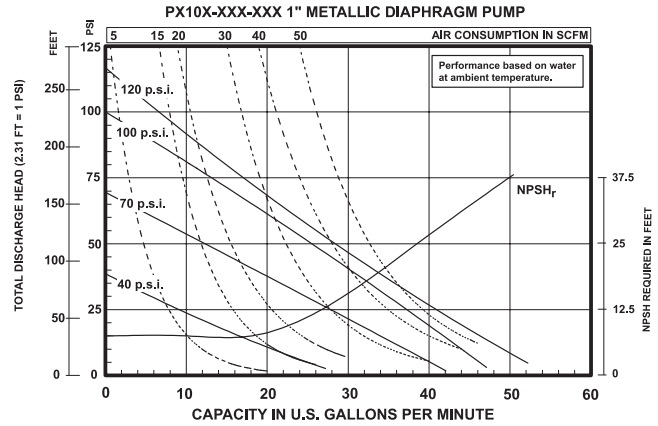
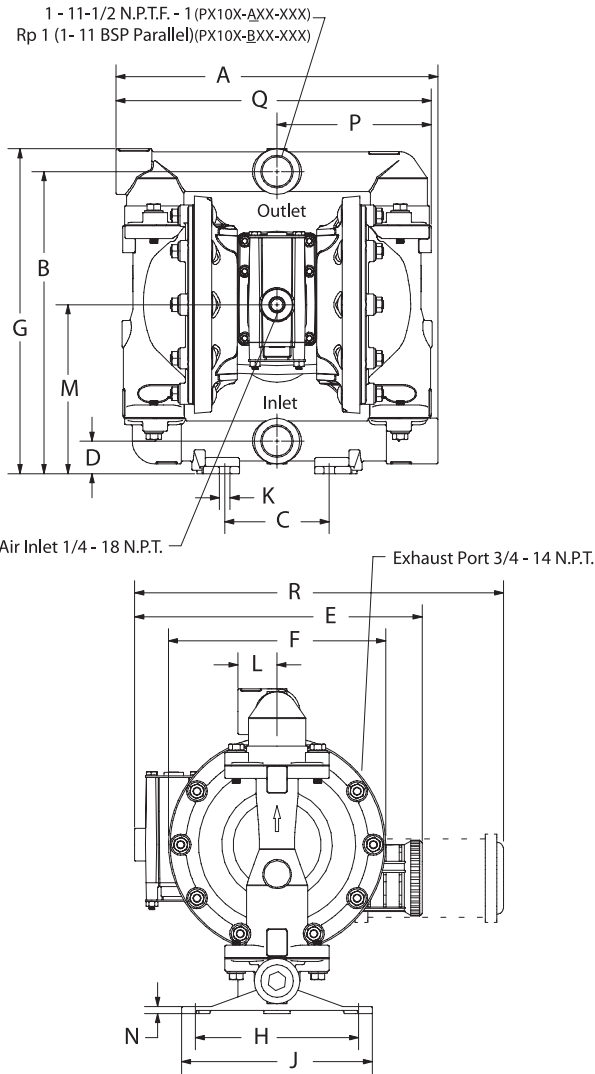
Kit No. 637395-X (major air valve assembly)

*Please note pumps are not included with these kits.



Air Line Connection Kit 66073-2

1" Metallic Dimensions and Flow Curves OEM / Transfer Pumps



Refer to fluids.ingersollrand.com for full size flow curves.

For additional information contact technical support at (800)495-0276

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)	

PX10 _A -XXX-XXX	"E" -----	"F" 8-1/8" (206.4 mm)	"R" 14-1/32" (356.2 mm)
PX10 _B -XXX-XXX	11-1/32" (279.5 mm)	8-5/16" (211.1 mm)	-----
PX10 _S -XXX-XXX	-----	8-3/16" (207.9 mm)	13-27/32" (351.4 mm)

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

1-1/2" Metallic Models OEM / Transfer Pumps

1-1/2" Metallic Performance Specifications

Ratio:	1:1
Maximum GPM (LPM):	123 (465)
Displacement per cycle Gallons (Liters):	0.617 (2.34)
Air Inlet (Female):	1/2 - 14 N.P.T.
Fluid Inlet:	1-1/2" - 11-1/2 N.P.T.F.-1, Rp1-1/2(1-1/2-11 BSP) 1-1/2" A.N.S.I./DIN flange
Fluid Outlet:	1-1/2" - 11-1/2 N.P.T.F.-1, Rp1-1/2(1-1/2-11 BSP) 1-1/2" A.N.S.I./DIN flange
Max. operating pressure psi (bar):	120 (8.3)
Suspended solids max. dia. in.(mm):	1/4" (6.4)
Weight lbs (kg):	PX15R-XAX-XXX 37.7 (17.1) PX15R-XCX-XXX 73.2 (33.2) PX15R-XSX-XXX 61.2 (27.8) PX15R-XHX-XXX 86.9 (39.4) Note: add 3.08 lbs (1.4 kg) for aluminum air motor section add 14.39 lbs (6.53 kg) for stainless steel air motor section
Maximum dry suction lift ft(m):	14 (4.2)

Sound Level:

PSI	Cycles / Min	db(A)
70	50	81.0



Ordering Menu

PX15	X	-	X	X	X	-	X	X	X
Model Series	Center Section		Connection		Hardware		Seat Material		Diaphragm Material
PD15 Standard Pump PE15 Electronic Interface Accessible Pump	A Aluminum R Polypropylene S Stainless Steel		A N.P.T.F. Thread B BSP Thread Y 1-1/2" A.N.S.I./DIN Flange (Center) SS Only Wetted Parts 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 (Hard) L Hastelloy-C S 316 Stainless Steel		A Santoprene C Hytrel G Nitrile M Medical grade Santoprene T PTFE/Santoprene V Viton Ball Material A Santoprene C Hytrel G Nitrile S 316 Stainless Steel T PTFE V Viton

Accessories*

Air Line Connection Kit | Kit No. 66084-1

Kit includes Piggyback Filter/Regulator with gauge, pipe nipple and a 5-foot section of air hose.

Diaphragm Failure Detection (DFD) | Kit No. 67237

Costly production downtime due to pump diaphragm failure and resulting (possibly hazardous) material leakage is a very real problem in many process operations. ARO Diaphragm Failure Detection is one simple, cost-effective way to get your pumps wired for preventive maintenance. (PE15X pump model is required)

Cycle Counter Kit | Kit No. 67350

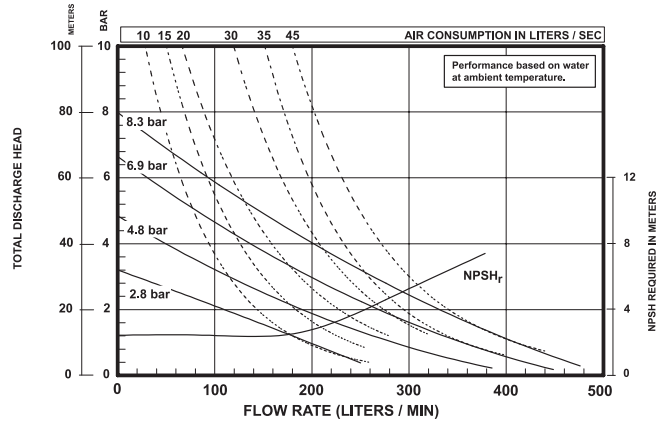
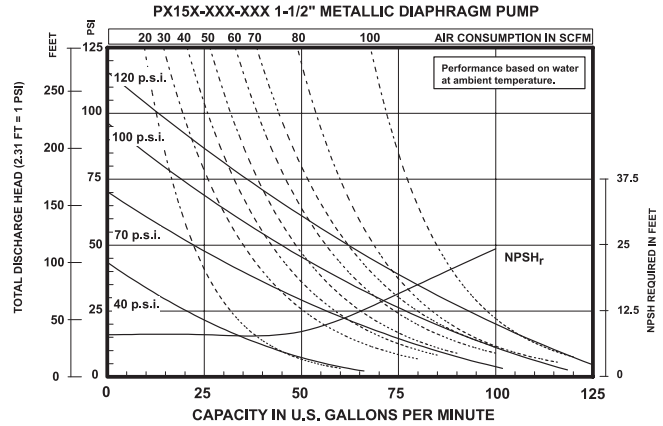
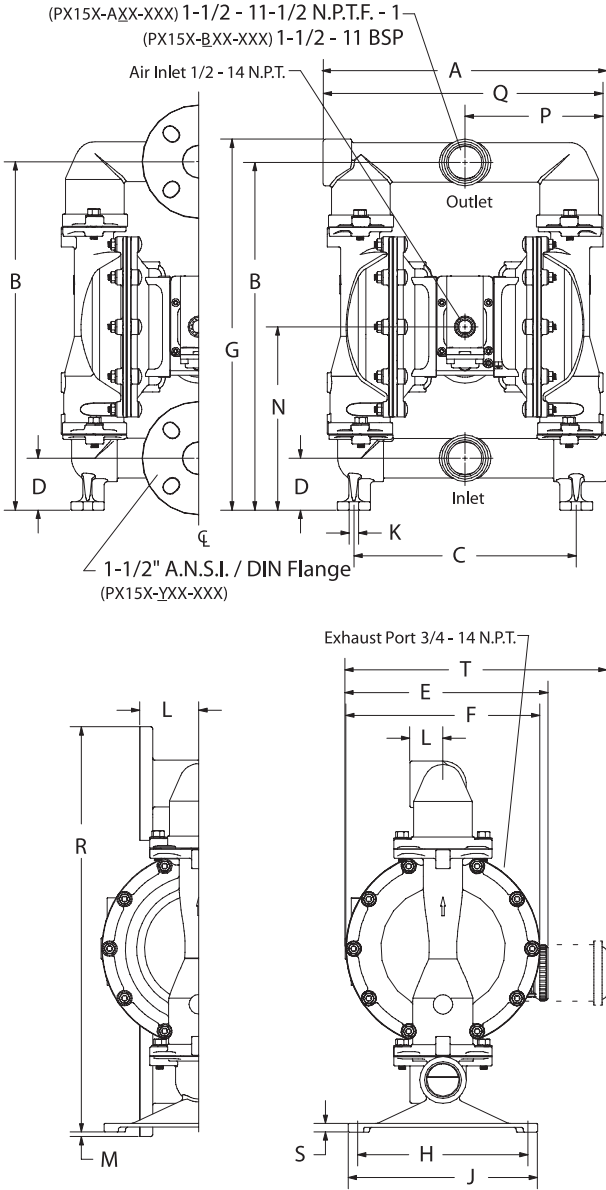
Like the odometer on your car, ARO's cycle sensing / cycle counter lets you know how many pump cycles have elapsed so you can be prepared to perform preventive maintenance. The cycle sensor is a cost-efficient way to save maintenance costs while keeping your pump on-line. (PE15X pump model is required)

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

*Please note pumps are not included with these kits.



1-1/2" Metallic Dimensions and Flow Curves OEM / Transfer Pumps



Refer to fluids.ingersollrand.com for full size flow curves.

For additional information contact technical support at (800)495-0276

DIMENSIONS

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

	"A"	"L"	"P"	"Q"	"S"
PX15X-XAX-XXX	14-7/8" (377.8 mm)	1-3/4" (44.5 mm)	7-7/32" (183.4 mm)	14-23/32" (373.9 mm)	1/2" (12.7 mm)
PX15X-XCX-XXX	14-5/8" (371.5 mm)	1-3/4" (44.5 mm)	7-3/16" (182.6 mm)	14-1/2" (368.3 mm)	1/4" (6.4 mm)
PX15X-XHX-XXX	14-9/16" (370.0 mm)	3-1/8" (79.4 mm)	7-3/16" (182.6 mm)	14-1/2" (368.3 mm)	1/4" (6.4 mm)
PX15X-ASX-XXX, -BS X	14-25/32" (375.5 mm)	1-3/4" (44.5 mm)	7-9/32" (185.0 mm)	14-13/16" (375.5 mm)	15/32" (11.4 mm)
PX15X-YSX-XXX	14-9/16" (370.0 mm)	3-1/8" (79.4 mm)	7-9/32" (185.0 mm)	14-9/16" (370.0 mm)	15/32" (11.4 mm)

	"E"	"T"
PX15A-XXX-XXX	-----	14-1/32" (356.2 mm)
PX15B-XXX-XXX	11-3/32" (281.3 mm)	-----
PX15S-XXX-XXX	-----	13-27/32" (351.4 mm)

METALLIC

2" Metallic Models OEM / Transfer Pumps

2" Metallic Performance Specifications

Ratio:	1:1								
Maximum GPM (LPM):	172 (651)								
Displacement per cycle: @ 100 psi Gallons (Liters)	1.4 (5.3)								
Air Inlet (Female):	3/4 - 14 N.P.T.F.-1								
Fluid Inlet/Outlet (Female):	PX20X-AXX-XXX-B() 2 - 11-1/2 N.P.T.F.-1 PX20X-BXX-XXX-B() Rp 2 (2 - 11 BSP parallel) PX20X-FXX-XXX-B() 2" A.N.S.I./DIN Flange								
Max. operating pressure psi (bar):	120 (8.3)								
Suspended solids max. dia. in. (mm):	1/4" (6.4)								
Maximum dry suction lift ft (m):	14 (4.2)								
Weight lbs (kg):									
	Air Motor	Connection	Wetted	Pump Wgt	Air Motor	Connection	Wetted	Pump Wgt	
PD20A	AL	Thread	AL	91.4 (41.5)	PD20S	SS	Thread	AL	120.3 (54.6)
	AL	Thread	CI	147.4 (66.9)		SS	Thread	CI	176.3 (80)
	AL	Thread	H	155 (70.3)		SS	Thread	H	183.9 (83.4)
	AL	Thread	SS	149.8 (68)		SS	Thread	SS	178.7 (81.1)
	AL	Flange	H	162.2 (73.6)		SS	Flange	H	191.1 (86.7)
	AL	Flange	SS	162.2 (73.6)		SS	Flange	SS	191.1 (86.7)
PD20R	Poly	Thread	CI	165 (74.8)	AL-Aluminum, CI-Cast Iron, H-Hastelloy, SS-Stainless Steel				
	Poly	Thread	H	154 (69.9)					
	Poly	Thread	SS	154 (69.9)					
	Poly	Flange	H	146 (66.2)					
	Poly	Flange	SS	146 (66.2)					



Sound Level:

PSI	Cycles / Min	db(A)
70	50	85.0

Ordering Menu

PX20	X	-	X	X	X	-	X	X	X	-	B
Model Series	Center Section		Connection		Hardware		Seat Material		Diaphragm Material		Ball Material
PD20 Standard Pump	A Aluminum	A	N.P.T.F. Thread	P	Plated Steel	A	Santoprene	A	Santoprene	A	Santoprene
PE20 Electronic Interface Accessible Pump	R Polypropylene w/SS Air Caps	B	BSP Thread	S	Stainless Steel	C	Hytrel	C	Hytrel	C	Hytrel
	S Stainless Steel	F*	2" A.N.S.I./DIN Flange (Center)			E	Carbon Steel	G	Nitrile	G	Nitrile
	Y Polypropylene w/CI Air Caps		Wetted Parts			F	Aluminum	M	Medical Grade Santoprene	M	Medical Grade Santoprene
			A Aluminum ¹			G	Nitrile	T	PTFE/Santoprene	T	PTFE/Santoprene
			C Cast Iron			H	440 Stainless Steel (Hard)	V	Viton	V	Viton
			H Hastelloy			K	PVDF				
			S Stainless Steel			L	Hastelloy-C				
			¹ Stainless Steel pumps only Not available on PD20R-X			S	316 Stainless Steel				

Accessories*

Air Line Connection Kit I Kit No. 66109

Kit includes Piggyback Filter/Regulator with gauge, pipe nipple and a 5-foot section of air hose.

Diaphragm Failure Detection (DFD) | Kit No. 67237

Costly production downtime due to pump diaphragm failure and resulting (possibly hazardous) material leakage is a very real problem in many process operations. ARO Diaphragm Failure Detection is one simple, cost-effective way to get your pumps wired for preventive maintenance. (PE20X pump model is required)

Cycle Counter Kit | Kit No. 67350-1

Like the odometer on your car, ARO's cycle sensing / cycle counter lets you know how many pump cycles have elapsed so you can be prepared to perform preventive maintenance. The cycle sensor is a cost-efficient way to save maintenance costs while keeping your pump on-line. (PE20X pump model is required)

Service Repair Kits | Kit No. 637369 (air motor for PX20R and PX20Y)

Kit No. 637421 (air motor for PX20A and PX20S)

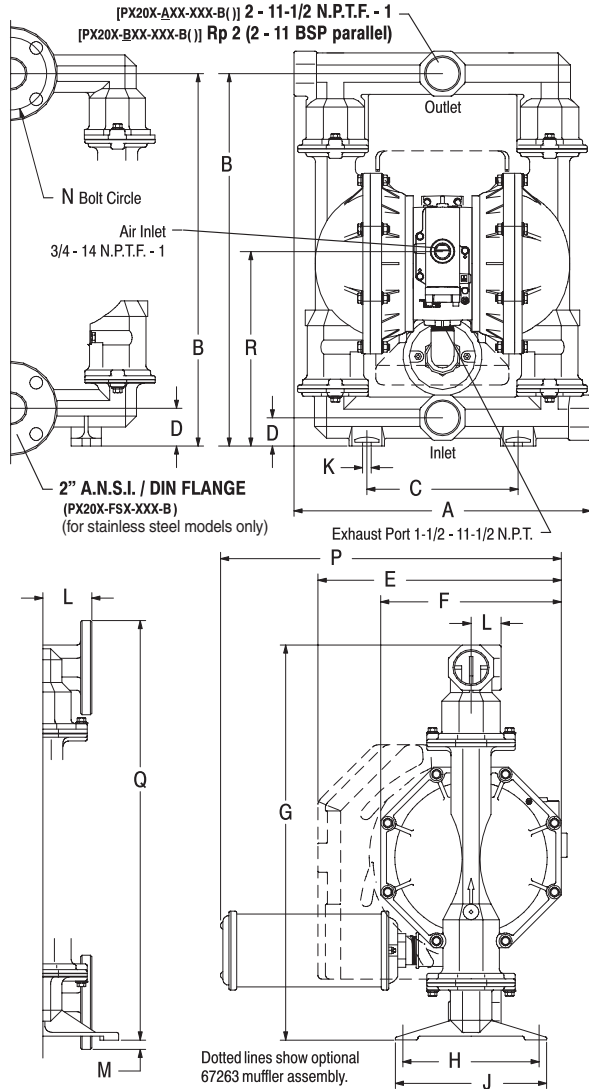
Kit No. 637309-XX (fluid section)

Kit No. 637374-X (major air valve assembly)

*Please note pumps are not included with these kits.



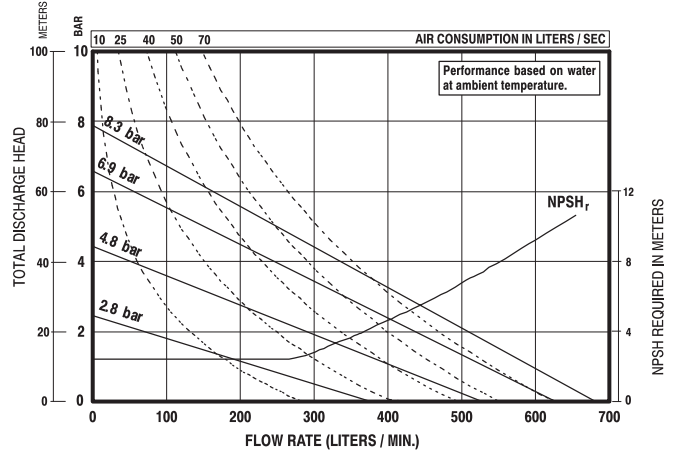
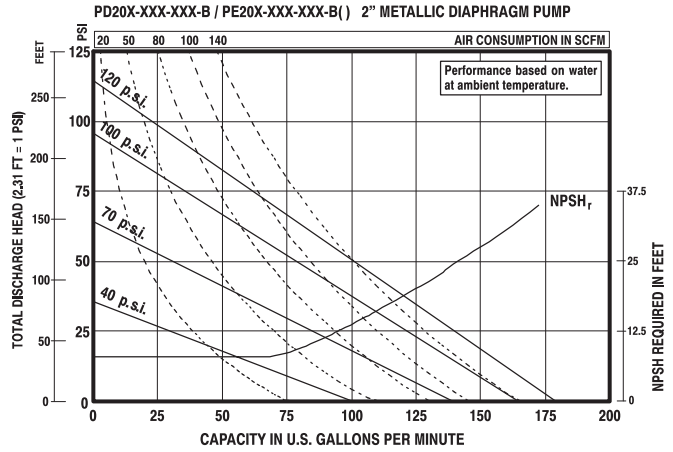
2" Metallic Dimensions and Flow Curves OEM / Transfer Pumps



DIMENSIONS

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

	"A"	"D"	"L"	"R"
PX20X-XAX-XXX-B ()	19-3/4" (501.4 mm)	1-7/8" (47.6 mm)	2" (50.8 mm)	12-15/16" (328.6 mm)
PX20X-XCX-XXX-B ()	19-3/4" (501.4 mm)	1-7/8" (47.6 mm)	2" (50.8 mm)	12-15/16" (328.6 mm)
PX20X-AHX-XXX-B (), -BHX	19-1/4" (488.7 mm)	2-1/2" (63.5 mm)	2-3/32" (53.0 mm)	13-9/16" (344.5 mm)
PX20X-ASX-XXX-B (), -BSX	19-1/4" (488.7 mm)	2-1/2" (63.5 mm)	2-3/32" (53.0 mm)	13-9/16" (344.5 mm)
PX20X-FHX-XXX-B (), -FSX	19-1/4" (488.7 mm)	2-1/2" (63.5 mm)	3-1/4" (82.6 mm)	13-9/16" (344.5 mm)



Refer to fluids.ingersollrand.com for full size flow curves.

For additional information contact technical support at (800)495-0276

Accessories*

Continuous-Duty Muffler | No. 67263

Helps reduce possibility of pump freeze-over caused by moisture in air supply. Recommended for continuous-duty and high-flow applications. Muffler features large expansion chamber, permitting cold exhaust air to exit pump.

67263 Continuous-Duty Muffler would be used to replace 67213 Muffler that comes standard with pump.

*Please note pumps are not included with these kits.



67263 Continuous Duty Muffler

METALLIC

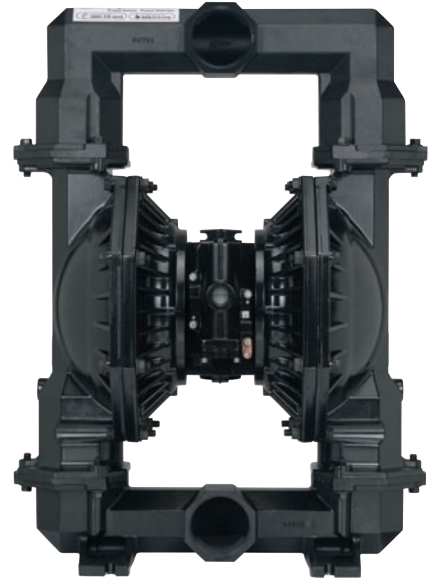
3" Metallic Models OEM / Transfer Pumps

3" Metallic Performance Specifications

Ratio:	1:1
Maximum GPM (LPM):	275 (1041)
Displacement per cycle:	2.8 (10.6)
@ 100 psi Gallons (Liters)	
Air Inlet: (Female)	3/4 - 14 N.P.T.F. - 1
Fluid Inlet / Outlet (Female):	3" - 8 N.P.T.F. - 1 Rp 3 (3 - 11 BSP parallel)
Max. operating pressure psi (bar):	120 (8.3)
Suspended solids max. dia. in. (mm):	3/8 (9.5)
Weight lbs (kg):	PX30A-XAX-XXX-C 129.5 (58.8) PX30A-XCX-XXX-C 216.6 (98.2) PX30A-XSX-XXX-C 228.8 (103.8) PX30A-XHX-XXX-C 249.8 (113.3) PX30R-XCX-XXX-C 242.3 (109.9) PX30R-XSX-XXX-C 253.3 (114.9) <i>Note: Add 40 lbs (18.2 kg) for stainless steel air motor section</i>
Maximum dry suction lift ft (m):	14 (4.2)

Sound Level:

PSI	Cycles / Min	db(A)
70	50	83.0



Ordering Menu

Model Series	Center Section	Connection	Hardware	Seat Material	Diaphragm Material	Ball Material
PD30 Standard Pump	A Aluminum	A N.P.T.F. Thread	P Plated Steel	A Santoprene	A Santoprene	A Santoprene
PE30 Electronic Interface Accessible Pump	R Polypropylene w/SS air Caps S Stainless Steel	B BSP Thread	S Stainless Steel	C Hytrel E Carbon Steel F Aluminum G Nitrile H 440 Stainless Steel (Hard) K PVDF L Hastelloy S 316 Stainless Steel	C Hytrel G Nitrile T PTFE/Santoprene V Viton	C Hytrel G Nitrile T PTFE V Viton
		Wetted Parts A Aluminum ¹ C Cast Iron H Hastelloy-C ¹ S Stainless Steel ¹ Not available on PD30R-X models				

Accessories*

Air Line Connection Kit | Kit No. 66109

Kit includes Piggyback Filter/Regulator with gauge, pipe nipple and a 5-foot section of air hose.

Diaphragm Failure Detection (DFD) | Kit No. 67237

Costly production downtime due to pump diaphragm failure and resulting (possibly hazardous) material leakage is a very real problem in many process operations. ARO Diaphragm Failure Detection is one simple, cost-effective way to get your pumps wired for preventive maintenance. (PE30X pump model is required)

Cycle Counter Kit | No. 67350-1

Like the odometer on your car, ARO's cycle sensing / cycle counter lets you know how many pump cycles have elapsed so you can be prepared to perform preventive maintenance. The cycle sensor is a cost-efficient way to save maintenance costs while keeping your pump on-line. (PE30X pump model is required)

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

Continuous-Duty Muffler | No. 67263

Helps reduce possibility of pump freeze-over caused by moisture in air supply. Recommended for continuous-duty and high-flow applications. Muffler features large expansion chamber, permitting cold exhaust air to exit pump.

67263 Continuous-Duty Muffler would be used to replace 94810 Muffler that comes standard with pump.



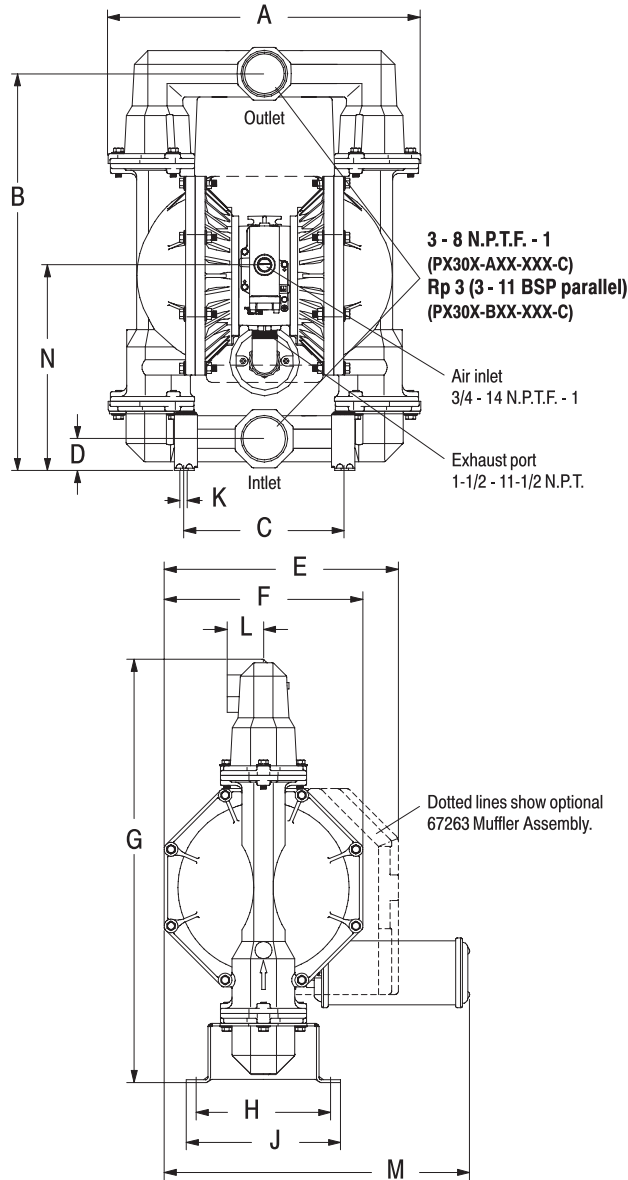
66109 Air Line Connection



67263 Continuous Duty Muffler

*Please note pumps are not included with these kits.

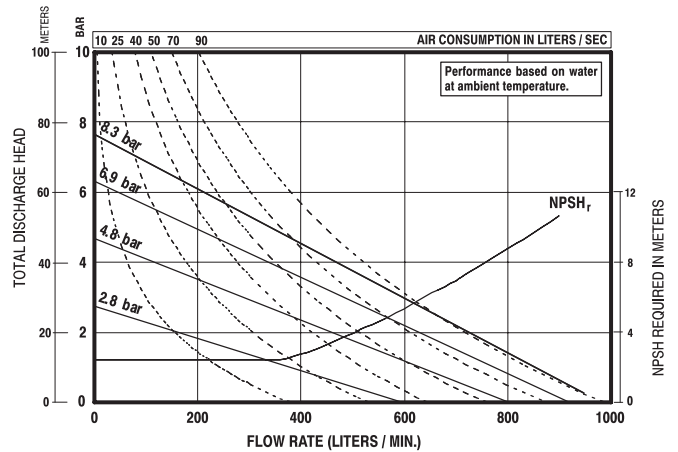
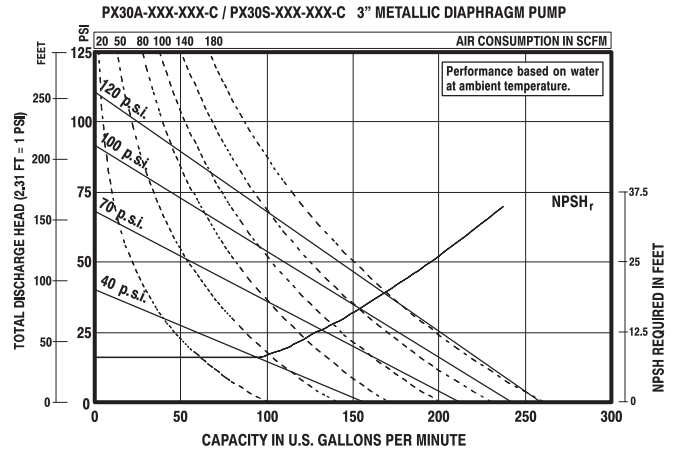
3" Metallic Dimensions and Flow Curves OEM / Transfer Pumps



DIMENSIONS

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

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



Refer to fluids.ingersollrand.com for full size flow curves.

For additional information contact technical support at (800)495-0276

METALLIC

2" Metallic Flap Valve Specialty Pumps

2" Flap Valve Performance Specifications

Ratio:	1:1	
Maximum GPM (LPM):	172 (651)	
Displacement per cycle: @ 100 psi Gallons (Liters)	1.4 (5.3)	
Air Inlet (Female):	3/4 - 14 N.P.T.F.-1	
Fluid Inlet/Outlet (Female):	PF20X-AXX-XXX-B 2 - 11-1/2 N.P.T.F.-1 PF20X-BXX-XXX-B Rp 2 (2 - 11 BSP parallel)	
Max. operating pressure psi (bar):	120 (8.3)	
Suspended solids max. dia. in. (mm):	2" (51)	
Maximum dry suction lift ft (m):	14 (4.2)	
Weight lbs (kg):	PF20X-XAX-SXX-B	74 (34)
	PF20X-XCX-SXX-B	161 (73)
	PF20X-XSX-SXX-B	188 (85)

Sound Level:

PSI	Cycles / Min	db(A)
70	60	85.0



Ordering Menu

PF20	X	-	X	X	X	-	S	X	X	-	B
Model Series	Center Section		Connection		Hardware		Seat Material		Diaphragm Material		Flap Material
PF20 Standard Pump	A Aluminum R Polypropylene w/SS Air Caps S Stainless Steel Y Polypropylene w/Cl Air Caps	A N.P.T.F. Thread B BSP Thread	P S	Plated Steel Stainless Steel	S Stainless Steel	A Santoprene G Nitrile T PTFE/Santoprene V Viton	A EPR G Nitrile U Polyurethane V Viton				
		Wetted Parts	A Aluminum ¹ C Cast Iron S Stainless Steel								
			¹ Not available w/ PD20R or PD20Y option								

Accessories*

Air Line Connection Kit | Kit No. 66109

Kit includes Piggyback Filter/Regulator with gauge, pipe nipple and a 5-foot section of air hose.

Service Repair Kits | Kit No. 637369 (air motor for PF20R and PF20Y)
Kit No. 637421 (air motor for PF20A and PF20S)
Kit No. 637310-XX (fluid section)

Continuous-Duty Muffler | No. 67263

Helps reduce possibility of pump freeze-over caused by moisture in air supply. Recommended for continuous-duty and high-flow applications. Muffler features large expansion chamber, permitting cold exhaust air to exit pump.

67263 Continuous-Duty Muffler would be used to replace 94810 Muffler that comes standard with pump.

Int. Muffler | No. 94117

*Please note pumps are not included with these kits.

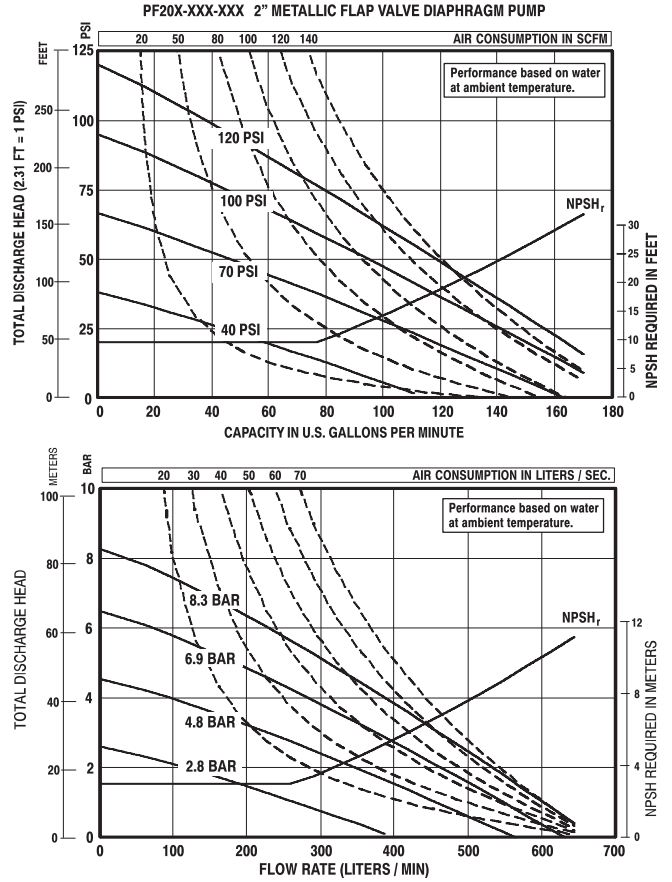
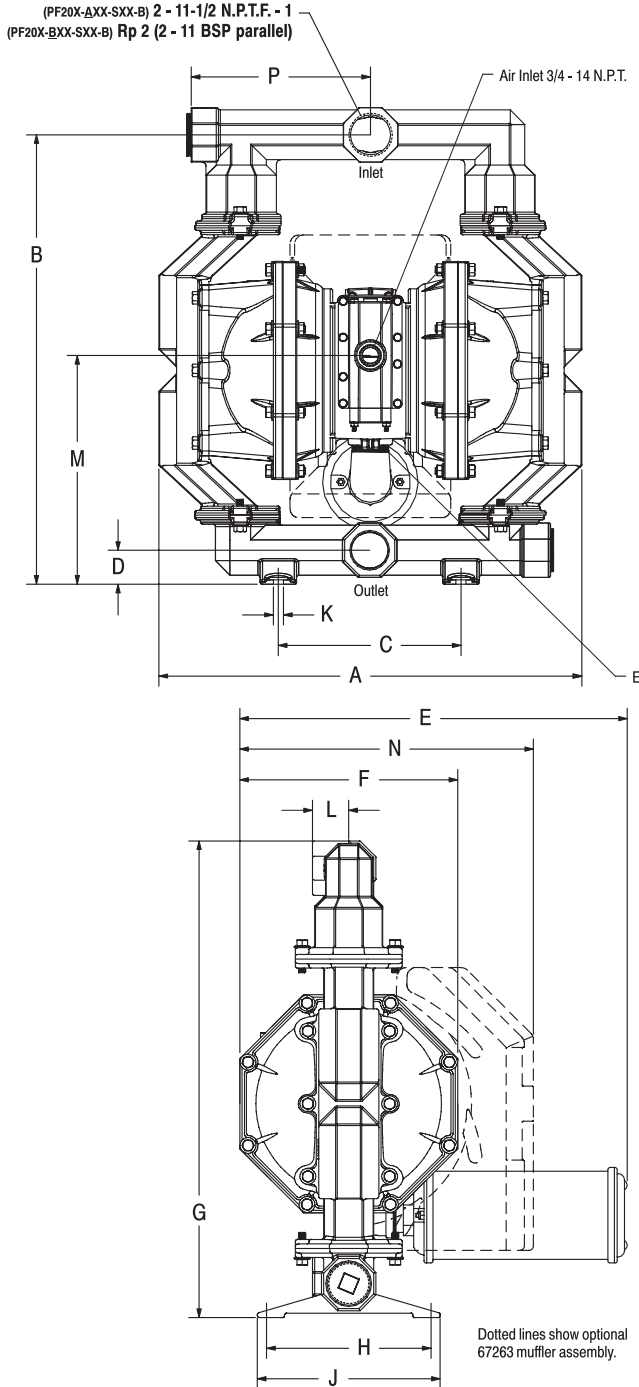


67263 Continuous Duty Muffler



66109 Air Line Connection

2" Metallic Flap Valve Dimensions and Flow Curves Specialty Pumps



Refer to fluids.ingersollrand.com for full size flow curves.

For additional information contact technical support at (800)495-0276

Powder Transfer Specialty Pumps

Challenge:

Transferring and handling your dry process powders quicker, cleaner and at a fraction of the cost associated with installed “systems”.

Performance:

The weights and flowability of powders can be extremely different from one to the next. ARO Transfer Systems have proven to be successful in the transfer of powders ranging from 5 to 45 pounds per cubic foot. For more specific performance information on a special powder application contact ARO at (800)495-0276.

Solution:

ARO’s Powder Transfer System. Transfer and handle your dry process powders faster, cleaner and at a fraction of the cost associated with installed “systems”.

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.
- **Economical and Simple** - Unlike large, complex systems.
- **Portable** - Can be moved from site to site.

Delay Timer

Built-in timer insures proper fluidization of the powder before start-up.

Air Filter / Regulator

Included with pump.

4-Way Efficiency Valve

Reduces the amount of air or other inert gas required for operation. A critical cost and energy-saving feature.

4-Way Efficiency Valve

ARO’s Air valve features patented, stall-free design.

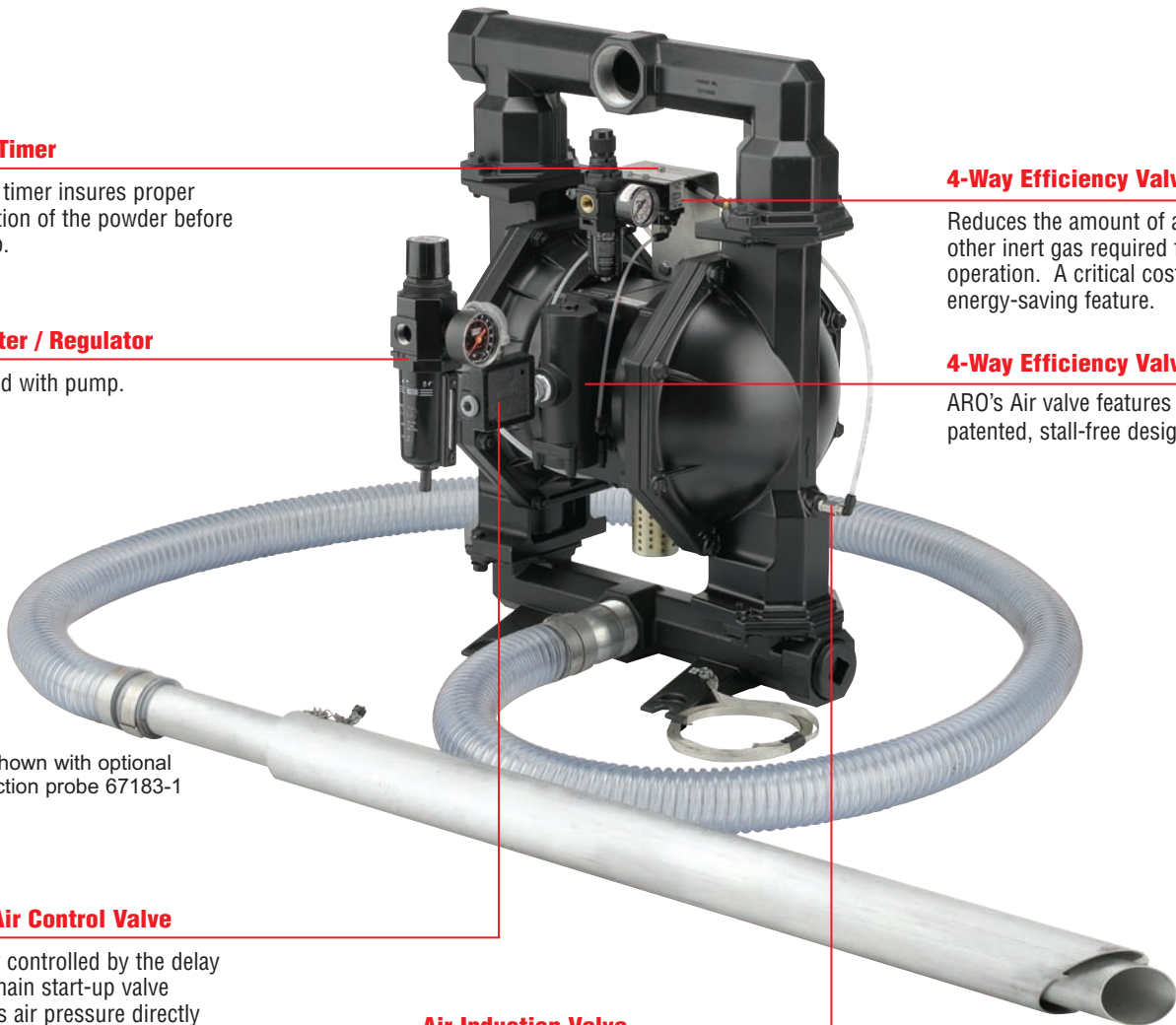
Shown with optional suction probe 67183-1

Main Air Control Valve

Directly controlled by the delay timer, main start-up valve supplies air pressure directly to the pump’s major air valve.

Air Induction Valve

Special valve increases air velocity for optimum powder aeration and diffusion.



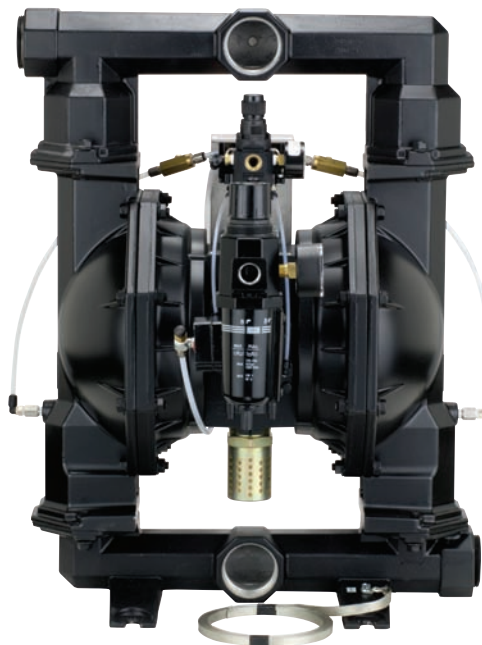
Powder Transfer Specialty Pumps

For the Consistent Trouble Free Transfer of Powders up to 45-lbs. Per Cubic Foot (721 Kgs. Per Cubic Meter) Dry-Weight.

Including: Carbon Black, Expanded Mica, Silicones, Acrylic Resins and Pharmaceuticals

Performance Specifications

Port:	2" and 3"
Material:	Aluminum and Stainless Steel
Max. operating pressure psi (bar):	100 (6.9)
Suspended solids max. dia. in. (mm):	1/4" (6.4) PP20A Models 3/8" (9.5) PP30A Models
Weight: lbs (kg)	PP20A-XAX-AAA 99.4 (45.1) PP20A-XSX-AAA 157.8 (71.6) P30A-XAX-AAA 137.5 (62.4) PP30A-XSX-AAA 236.8 (107.4)



SPECIALTY PUMPS

Ordering Menu

PP20A	-	X	X	X	-	A	A	A
 Model Series		 Connection	 Wetted Parts	 Hardware		 Seat Material	 Diaphragm Material	 Ball Material
2 2" Port		A 2-11-1/2 N.P.T.F. - 1 B Rp2(2-11 BSP) C 2-1/2" Tri-Clamp*	A Aluminum S Stainless Steel	P Plated Steel S Stainless Steel		A Santoprene	A Santoprene M Medical Grade Santoprene	A Santoprene M Medical Grade Santoprene
		* Available only in Stainless Steel with "M" Ball and Diaphragm option						
PP30A	-	X	X	X	-	A	A	A
 Model Series		 Connection	 Wetted Parts	 Hardware		 Seat Material	 Diaphragm Material	 Ball Material
3 3" Port		A 3-8 N.P.T.F. - 1 B Rp3(3-11 BSP)	A Aluminum S Stainless Steel	P Carbon Steel S Stainless Steel		A Santoprene	A Santoprene	A Santoprene

Accessories*

Air Line Connection Kit | Kit No. 66109

Kit includes Piggyback Filter/Regulator with gauge, pipe nipple and a 5-foot section of air hose.

Service Repair Kits | Kit No. 637421 (air section)
Kit No. 637303-XX (fluid section for PP30A)
Kit No. 637309-XX (fluid section for PP20A)

Suction Probe | No. 67183-1

Aluminum Suction Probe - Includes all necessary pump attachment hardware and 10 ft. of groundable hose. Probe can be used with both 2" and 3" ported powder pumps.

*Please note pumps are not included with these kits.



Air Line Connection Kit

Drum Pumps

Specialty Pumps

Drum Pumps

- Choose from Aluminum, Stainless Steel or Polypropylene Body Construction - ARO Drum Pumps are available in three body materials for optimum fluid compatibility.
- 14.4 GPM (54.5 lpm) Flow Capability for non-metallic diaphragm pumps.
- 12.0 GPM (45.4 lpm) Flow Capability for metallic diaphragm pumps.
- 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 - Unlike traditional band-clamp style pumps.
- ARO Diaphragm Drum Pumps utilize bolted fasteners for leak-tight integrity.
- Five Year Warranty.

Drum Pump Packages

- Factory-Matched - ARO Drum Pump package components (adapters, siphon tubes, etc.) 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



DAB05-PPCC-B-J
Drum Pump

Ordering

Model	Pump Material	Seat Material	Ball Check and Diaphragm Material	Air Inlet	Fluid Outlet Accessory
Basic Packages (Each package includes Pump, Bung Adapter, Air Shut-off, Siphon Tube, Weather Seal and Base)					
DAB05-APCC-2-A	Aluminum	Polypropylene	Hytrel	Shut-Off Valve	None
DAB05-ASAA-2-A	Aluminum	Stainless	Santoprene	Shut-Off Valve	None
DAB05-ASCC-2-G	Aluminum	Stainless	Hytrel	Piggyback	None
DAB05-ASTT-2-A	Aluminum	Stainless	PTFE	Shut-Off Valve	None
DAB05-PPAA-2-A	Polypropylene	Polypropylene	Santoprene	Shut-Off Valve	None
DAB05-PPCC-2-A	Polypropylene	Polypropylene	Hytrel	Shut-Off Valve	None
DAB05-PPTT-2-A	Polypropylene	Polypropylene	PTFE	Shut-Off Valve	None
DAB05-PPUU-2-A	Polypropylene	Polypropylene	Polyurethane	Shut-Off Valve	None
DAB05-SSTT-2-A	Stainless	Stainless	PTFE	Shut-Off Valve	None
DAB05-SSTT-2-H	Stainless	Stainless	PTFE	Piggyback	None
Transfer Packages (Basic Pump plus Fluid Hose or Fluid Hose with Non-Drip Nozzle)					
DAB05-APCC-2-O	Aluminum	Polypropylene	Hytrel	Shut-Off Valve	10' Nitrile hose**
DAB05-APCC-B-P	Aluminum	Polypropylene	Hytrel	Shut-Off Valve	10' Nitrile hose with non-drip tip**
DAB05-PPAA-2-B	Polypropylene	Polypropylene	Santoprene	Shut-Off Valve	10' E.P.D.M. hose*
DAB05-PPAA-2-E	Polypropylene	Polypropylene	Santoprene	Piggyback	10' E.P.D.M. hose*
DAB05-PPCC-2-M	Polypropylene	Polypropylene	Hytrel	Shut-Off Valve	10' Nitrile hose with non-drip tip*
DAB05-PPCC-2-N	Polypropylene	Polypropylene	Hytrel	Shut-Off Valve	10' Nitrile hose*
DAB05-PPCC-B-M	Polypropylene	Polypropylene	Hytrel	Shut-Off Valve	10' Nitrile hose with non-drip tip*
DAB05-PPUU-2-C	Polypropylene	Polypropylene	Polyurethane	Shut-Off	10' Vinyl hose*
DAB05-PPUU-2-F	Polypropylene	Polypropylene	Polyurethane	Piggyback Filter/Reg	10' Vinyl hose*
Dispensing Packages (Basic Pump plus Foot Valve, Hose and Dispensing Nozzle)					
DAB05-APCC-B-L	Aluminum	Polypropylene	Hytrel	Shut-Off	10' Nitrile hose with Dispensing Bib**
DAB05-PPAA-B-K	Polypropylene	Polypropylene	Santoprene	Shut-Off	10' E.P.D.M. hose with Polypropylene dispensing Nozzle*
DAB05-PPCC-B-J	Polypropylene	Polypropylene	Hytrel	Shut-Off	10' Nitrile hose with Dispensing Bibb*

*for Polypropylene pumps **for Aluminum pumps

Drum Pumps

Specialty Pumps

55-Gallon Drum Bung Adapter Kits

- For applications where half inch diaphragm pumps are used to draw fluid from 55-gallon drums.
- Easily mounts pump in bung opening of drum. Permits easy change-over of pump from empty containers.
- Kit contains Baseplate, Bung Adapter, Bung Seal, Siphon Tube, Weather Seal and Stainless Steel Hardware

Model	Base Material	Bung Adapter	Tube Material	Weather Seal
67231	Polypropylene	Polypropylene	Polypropylene	UHMW-PE
67231-6	Aluminum	Aluminum	Stainless Steel	Viton
67231-7	Stainless Steel	Stainless Steel	Stainless Steel	Viton

Foot Valves

- Attaches to bottom of siphon tube. Allows pump to remain primed during drum changeover.
- Recommended when dispensing nozzle is used.
- Foot Valve contains Housing, Ball Check and O-Ring.

Model	Housing Material	Ball Check	O-Ring	Used with
637336	Polypropylene	Viton	Viton	67231 Bung Adapter Kit
637337	Stainless Steel	Viton	Viton	67231-6 or 673231-7 Bung Adapter Kits

Bulk Tank Adapter Kits

- For applications where pump will be mounted on a bulk tank.
- Kit comes complete with necessary hardware and acts like a bulk head fitting.
- Customer must supply siphon tube to pump.
- Kit contains Baseplate, Bung or Tank Adapter, Seal and Stainless Steel Hardware.

Model	Base Material	Bung Adapter	Seal
67234	Polypropylene	Polypropylene	Viton O-Ring Seal
67234-7	Stainless Steel	Stainless Steel	Viton O-Ring Seal

Hoses

- Hose assemblies feature 1/2" ID hose supplied in 10-foot lengths

Model	Hose Material	Pump Used with	Inlet Fitting / Outlet Fitting	Used with Nozzle (sold separately)
621514-10	EPDM	Polypropylene	Cam Fitting / 1" NPTM	95199 Dispensing Nozzle
621515-10	EPDM	Polypropylene	Cam Fitting / Bare	N/A
621516-10	Nitrile	Polypropylene	Cam Fitting / 1/4 NPTM (Brass)	635129 Dispensing Bibb
621517-10	Nitrile	Polypropylene	Cam Fitting / Bare	N/A
621518-10	Nitrile	Aluminum	Cam Fitting / Bare	N/A
621519-10	Vinyl	Polypropylene	Cam Fitting / Bare	N/A
621520-10	Nitrile	Aluminum	Cam Fitting / 1/4 NPTM (Brass)	635129 Dispensing Bibb
621523-10	Nitrile	Polypropylene	Cam Fitting / Non-Drip Nozzle	N/A
621524-10	Nitrile	Aluminum	Cam Fitting / Non-Drip Nozzle	N/A
622514-10	Nylon	Polypropylene	1/2" NPTM inlet and outlet (316 Stainless fittings)	—

Fluid Dispense Equipment

Model	Description	Used with
95199	Composite Nozzle	Features tough composite (polypropylene) construction for caustic service. Works like gasoline nozzle. Requires 95200 Swivel
95200	Swivel	Polypropylene swivel attaches between hose and 95199 dispensing nozzle. Allows operator to rotate nozzle freely. 1" NPTM x 1" NPTF threads
77617	Oil Tapper Fitting	Used to attach 95183 Oil Tapper to 1/2" Aluminum Pump. Plated carbon steel. 1/2 NPTF x 3/8" NPTF threads.
635129	Dispensing Bibb	Radiator type bibb has 1/4" fluid inlet and non-drip tip. For water or oil service. Zinc die casting with brass and nitrile seals. 1/4" NPTF inlet threads

Pump Outlet Adapter

- Required to connect pump to hose assembly with Cam Fitting

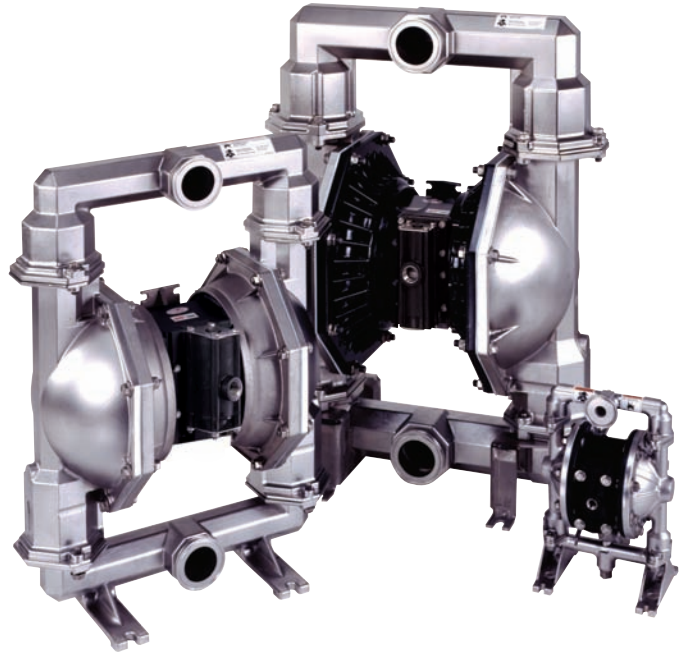
Model	Description	Pump Used with	Inlet / Outlet Threads:
95189	Composite Fitting	Polypropylene	1/2" NPTM / Male Cam Fitting
95190	Aluminum Fitting	Aluminum	1/2" NPTM / Male Cam Fitting

Sanitary Transfer Specialty Pumps

- Constructed of FDA Accepted Materials
- Electro-Polished 316 Stainless Steel Fluid Section
- Bolted Construction with all Stainless Steel Hardware
- All Investment Cast Wetted Parts

Typical Applications:

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



S-Tran Performance Specifications

	PM05X-X-X-A02 (1/2")	PM10X-X-X-A02 (1")	PM15X-X-X-A02 (1-1/2")	PM20X-X-X-B02 (2")	PM30X-X-X-C02 (3")
Ratio:	1:1	1:1	1:1	1:1	1:1
Maximum GPM (lpm):	13.0 (49.2)	52.2 (197.6)	123 (465.6)	172 (651)	275 (1041)
Displacement per Cycle GPM (lpm):	0.040 (.15)	.232 (.88)	.617 (2.34)	1.4 (5.3)	2.8 (10.6)
Air Inlet (Female):	1/4 - 18 N.P.T.	1/4 - 18 N.P.T.	1/2 - 14 N.P.T.	3/4 - 14 N.P.T.F.-1	3/4 - 14 N.P.T.
Fluid Inlet:	1-1/2" Tri-Clamp	1-1/2" Tri-Clamp	2" Tri-Clamp	2-1/2" Tri-Clamp	3" Tri-Clamp
Fluid Outlet:	1-1/2" Tri-Clamp	1-1/2" Tri-Clamp	2" Tri-Clamp	2-1/2" Tri-Clamp	3" Tri-Clamp
Max. Operating Pressure: PSI (bar)	100 (6.9)	120 (8.3)	120 (8.3)	120 (8.3)	120 (8.3)
Suspended solids in.(mm):	3/32" (2.4)	1/8" (3.3)	1/4" (6.4)	1/4" (6.5)	3/8" (9.5)
Weight lbs (kg.):	14.75 (6.7)	PM10A-CSS-X-A02 44.3 (20.1) PM10R-CSS-X-A02 38.2 (17.3) PM10S-CSS-X-A02 51.1 (23.2)	PM15A-CSS-X-A02 61.9 (28.1) PM15R-CSS-X-A02 60.3 (27.3) PM15S-CSS-X-A02 77.9 (35.3)	PM20A-CSS-X-B02 142.8(64.8) PM20R-CSS-X-B02 157.4(71.4) 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 Menu

PMXX	X	-	C	S	S	-	X	X	X	-	X02
Model Series	Center Section		Connection	Wetted Parts	Hardware		Seat Material	Ball Material	Diaphragm Material		
PM05 1/2" Pump	A Aluminum		C Tri-Clamp	S Stainless Steel	S Stainless Steel		A Santoprene	A Santoprene	A Santoprene		A 1/2", 1", 1-1/2" ported pumps
PM10 1" Pump	R Polypropylene						S Stainless Steel	T PTFE	M Medical grade Santoprene		B 2" ported pumps
PM15 1-1/2" Pump	S Stainless Steel							T PTFE/Santoprene	T PTFE/Santoprene		C 3" ported pumps
PM20 2" Pump											
PM30 3" Pump	P Polypropylene PM05P sole designation for 1/2" pumps										

High Pressure Specialty Pumps



670045-X
3" 2:1 Ratio Pump



PH10A-XXX-XXX
3:1 Ratio Pump

The high pressure pumps were developed for applications requiring fluid pressures in excess of the 100 psi developed by traditional pumps. Compared to a standard diaphragm pump, these high-pressure pumps can produce up to 200 psi (2:1 Ratio Pump) and nearly 300 psi (3:1 Ratio Pump), 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. The 3:1 ratio is accomplished by using two power pistons that drive the fluid handling diaphragms.

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

Model	Maximum Gallons GPM (Liters)	Displacement @ 100 PSI Cycles Per Gallons (Liters)	Fluid Inlet/Outlet (female)	Maximum Operating pressure PSI(bar)
2:1 Ratio 3" Diaphragm Pump				
	160 (605.6)	1.4 (5.3)	3-8 N.P.T.F. - 1	200 (13.8)
	160 (605.6)	1.4 (5.3)	Rp 3(3-11BSP Parallel)	200 (13.8)

Accessories: Air line connection kit - 66109
Muffler - 94117

PH30F	-	XSS	-	S		X		X	-	C
2:1 Ratio 3"		Connection				Ball Material		Diaphragm Material		
		A NPTF				A Santoprene		A Santoprene		
		B BSP				T Teflon		T Teflon		
						C Hytrel		C Hytrel		
		Seat Material								
		S Stainless Steel								

3:1 Ratio High-Pressure Pump

- Can generate nearly 300 psi on standard 100 psi shop air
- Stall-Free
- Exceptional material compatibility
- Easy to maintain
- 5-Year warranty

Ideal Transfer of:

- Paint recirculation and high solid coatings
- Inks
- Adhesives
- Filled Material
- Drilling Grout
- Caulking
- Solvent reclamation
- Resins

Model	Maximum Gallons GPM (Liters)	Displacement @ 100 PSI Cycles Per Gallons (Liters)	Fluid Inlet/Outlet (female)	Maximum Operating pressure PSI(bar)
Stainless Steel** Construction - NPT Inlet/Outlet				
PH10A-ASS-HHT	26(98.4)	0.06(.23)	1-Inch	300(20.4)
PH10A-ASS-SST	26(98.4)	0.06(.23)	1-Inch	300(20.4)
Stainless Steel Construction - BSP Inlet/Outlet				
PH10A-BSS-HHT	26(98.4)	0.06(.23)	1-Inch	300(20.4)
PH10A-BSS-SST	26(98.4)	0.06(.23)	1-Inch	300(20.4)

** All Stainless Steel is electro-polished/passivated

PW Series Specialty Pumps

ARO PW10X-X EXP Pumps

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



1" Metallic EXP Performance Specifications

Ratio:	1:1
Maximum GPM (LPM):	60 (227.1)
Displacement per cycle Gallons (Liters):	0.234 (.89)
Air Inlet (Female):	1/2 - 14 N.P.T.
Fluid Inlet:	1-1/2 - 11-1/2 N.P.T.F - 1
Fluid Outlet:	1-1/4 - 11-1/2 N.P.T.F - 1
Max. operating pressure psi (bar):	120 (8.3)
Suspended solids max. dia. in. (mm):	1/8" (3.2)
Weight lbs (kg):	PW10A-XXX-XXX 26.2 (11.9)
Maximum dry suction lift ft (m):	19 (5.8)

Sound Level:

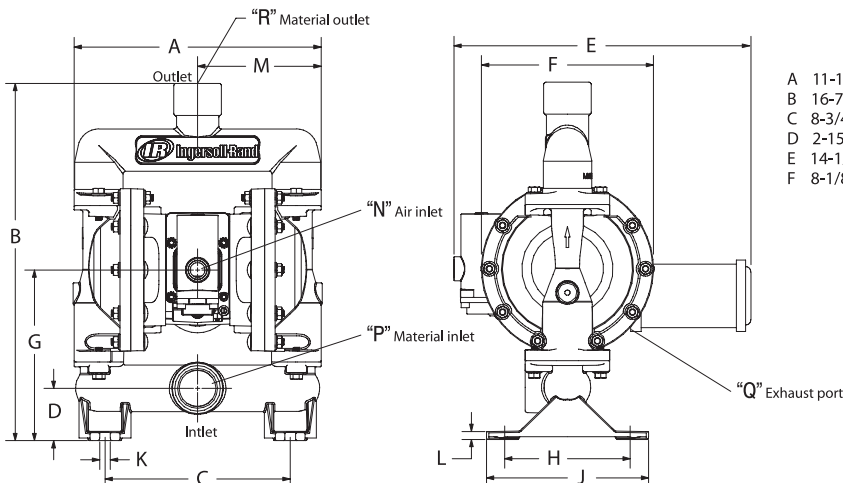
PSI	Cycles / Min	db(A)
70	60	79.7

Ordering Menu

PW10	A	-	A	A	X	-	X	X	X
Model Series	Center Section		Connection	Wetted Parts	Hardware		Seat Material		Diaphragm Material
PW10 Standard Pump	A Aluminum		A N.P.T.F. Thread	A Aluminum	P S Plated Steel Stainless Steel		A Santoprene F Aluminum G Nitrile		A Santoprene G Nitrile T PTFE/ Santoprene
									Ball Material
									A Santoprene G Nitrile T PTFE

Accessories

- Service Repair Kits |** Kit No. 637397 (air motor)
 Kit No. 637401-XX (fluid section)
 Kit No. 637390-X (major air valve assembly)



DIMENSIONS

A 11-11/16" (296.4 mm)	G 8-1/16" (204.7 mm)	N 1/2 - 14 N.P.T.
B 16-7/8" (428.6 mm)	H 5-15/16" (150.8 mm)	P 1-1/2 - 11-1/2 N.P.T.F-1
C 8-3/4" (222.3 mm)	J 7-21/32" (194.5 mm)	Q 3/4 - 14 N.P.T.
D 2-15/32" (62.7 mm)	K 1/2" (12.7 mm)	R 1-1/4 - 11-1/2 N.P.T.F-1
E 14-1/32" (356.2 mm)	L 3/8" (9.5 mm)	
F 8-1/8" (206.4 mm)	M 5-27/32" (148.2 mm)	

U.L. Listed Pumps Specialty Pumps

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

Note: To meet UL79 specifications, pumps utilize pressure relief valves to limit dispensing line pressure to under 50-psi. If line pressure between the pump and dispensing point exceeds 50 psi due to thermal expansion, line compression, backfeed, or gravity, the pressure relief valve opens and bleeds off excess pressure. The relief valve must be plumbed to return the bleed-off fuel to the storage container.

Performance Specifications

Port:	1/2", 1", 1-1/2" and 2"
Ratio:	1:1
Maximum GPM (LPM):	670042: 12 (45.4) 650717-C: 29 (109.8) flooded inlet 650718-C: 75 (283.9) flooded inlet 650719-C: 75 (283.9) flooded inlet
Air Inlet (Female):	670042: 1/4" 650717-C: 1/4" 650718-C: 1/2" 650719-C: 3/4"
Fluid Inlet/Outlet (Female):	670042: 1/2" 650717-C: 1" 650718-C: 1-1/2" 650719-C: 2"
Max. operating pressure psi (bar):	50 (3.4)
Suspended solids max. dia. in. (mm):	670042: 3/32" (2.4) 650717-C: 1/8" (3.2) 650718-C: 1/4" (6.4) 650719-C: 1/4" (6.4)
Weight: lbs (kg)	670042: 10.36 (4.70) 650717-C: 22 (9.9) 650718-C: 60.4 (27.4) 650719-C: 58.4 (26.5)



650717-C
UL Approved Pump

Ordering Menus

Model	Ball	Seat	Diaphragm
670042	Viton	Aluminum	Viton
650717-C	Acetal	PVDF	Viton
650718-C	Acetal	PVDF	Viton
650719-C	Acetal	PVDF	Viton

Accessories

Service Repair Kits | *Kit No. 637118-C (air motor)*
Kit No. 637428 (670042 air motor)
Kit No. 637118-C (650717-C, 650718-C and 650719-C air motor)
Kit No. 637137-63 (650717-C fluid section)
Kit No. 637448 (670042 fluid section)
Kit No. 637138-63 (650718-C and 650719-C fluid section)

Cone Check Pumps Specialty Pumps

ARO Cone-Check Pumps

- Traditional ball checks are replaced with a flexible cone.
- Ideal for pumping slips and slurries found in the stone, clay and glass industry.
- Hexagon opening cut into check permits flow of viscous, abrasive fluids with less turbulence than ball checks.
- Optional top-to-bottom flow of material through pump available.

Performance Specifications

Ratio:	1:1
Maximum GPM (LPM):	85 (321.7)
Displacement per cycle Gallons (Liters):	0.64 (2.42)
Air Inlet (Female):	1/2 - 14 N.P.T.F-1
Fluid Inlet:	1-1/2 - 11-1/2 N.P.T.F - 1
Fluid Outlet:	Rp 1-1/2 (1-1/2 - 11 BSP Parallel)
Suspended solids max. dia. in. (mm):	1/2" (12.7)
Weight lbs (kg):	54.5 (23.4)
Sound Level:	
	PSI Cycles / Min db(A)
	70 60 79.7



Ordering Menu

67005	X	-	0	X	X	-	C	-	03
Model Series	Thread type		Check Type	Check Material	Diaphragm Material				Cone Check Flow
67005 Cone Check Pump	3 N.P.T.F. 9 BSP		0 Cone Check	J Nitrile K E.P.R.	2 Nitrile B Santoprene				03 Bottom Discharge

Accessories

Air Line Connection Kit | Kit No. 66084-1

Kit includes Piggyback Filter/Regulator with gauge, pipe nipple and a 5-foot section of air hose.

Service Repair Kits | Kit No. 637118-C (air motor)
Kit No. 637124-XX (fluid section)

Dewatering Specialty Pumps

Centrifugal Type

- Simple design, few moving parts
- Handles a wide variety of debris-laden applications
- Can also be used for simple transfer requiring high flows (200 + GPM/750 LPM Avg.) with high discharge head (65 feet/20 meters avg.)
- Self-Priming
- Adjustable impeller and impeller cover help maintain peak performance
- Closed-type impeller promotes greater efficiency when pumping against high heads
- Ultra-rugged body construction insures durability
- Lightweight and extremely portable
- Pressurized lubrication of the impeller shaft seals prolongs operational life



P237A1
Centrifugal Pump



P35A1-EU
Centrifugal Pump

Centrifugal Pump Performance Specifications

Maximum Flow GPM (LPM):	200 (757) P237AX-EU 230 (870.5) P35AX-EU
Air Inlet (Female):	3/4 -14 N.P.T. (P237AX-EU) 1 - 11-1/2 N.P.T. (P35A1-EU)
Fluid Inlet:	Screened Inlet
Fluid Outlet:	2" N.P.T.F. P35A1-EU 2-1/2" N.P.T.F. P237A1-EU 2-1/2" BSP P237A3-EU
Max. operating pressure psi (bar):	90 (6.2)
Air Consumption in CFM:	P237AX-EU 100 P35A1-EU 160
Suspended solids max. dia. in. (mm):	1/4" (6.4)
Pump Housing Material:	P237AX-EU Cast Iron P35A1-EU Cast Iron
Weight lbs (kg):	P237AX-EU 48 (21.8) P35A1-EU 79 (36)

Ordering Menus

P237A	X	-	EU
Model Series	Discharge Thread		
200-GPM (757-LPM)	1 2-1/2" N.P.T. 3 2-1/2" BSP		

P35A	1	-	EU
Model Series	Discharge Thread		
230-GPM (870-LPM)	1 2" N.P.T.		

Accessories

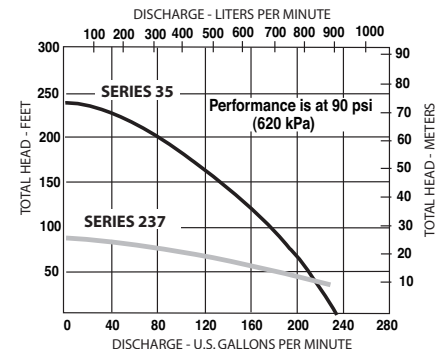
Air Line Unit I C28453-810 for P237AX-EU
C28463-810 for P35A1-EU

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



SPECIALTY PUMPS

Pulsation Dampeners Accessories

Pulsation Dampeners

Diaphragm and piston 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.



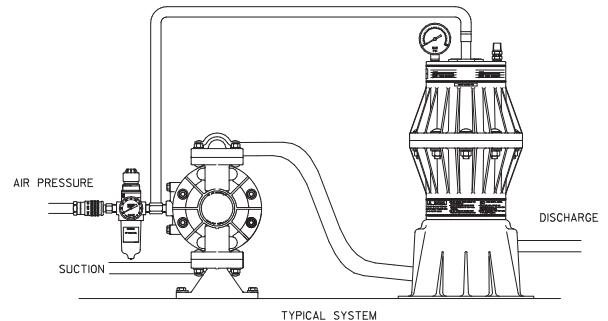
Automatic Shock Blockers

- 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 159 in.³ maximum fluid volume, and 3" models up to 509 in.³ maximum fluid volume.
- Broad Material Range for Compatibility - choose from PVDF, polypropylene, groundable acetal (1" models) or aluminum, cast iron or stainless steel (2" and 3" models) body materials for optimum pump-to-pulsation dampener compatibility.

- Broad Diaphragm/Bladder Fluid Compatibility - choose from Santoprene, Nitrile, PTFE, Hytrel, Viton or Urethane for optimum fluid-to-diaphragm compatibility.
- Perfect for Process Applications - pulsation reduction in long piping runs help prevent costly fluid pipe and downstream valve damage.
- Bolted Construction - for leak-free vessel integrity and a safer work-site.
- Ultra-Rugged Construction for Long service Life - both inside and out, the new Shock Blockers are built tough to deliver worry-free, near pulse-free fluid handling.

1" Port Models

Pulsation Dampener Type:	Non-Metallic / Automatic	
Material:	See model description chart	
Weight lbs (kg):	Polypropylene	8.4 (3.8)
	Conductive Acetal	8.6 (3.9)
	PVDF	9.0 (4.1)
Material Inlet/Outlet:	SB10X-AXX 1" - 11-1/2 N.P.T. (Female) (Both are available) SB10X-BXX Rp1(1- 11 BSP)	
Air Inlet:	3/8 - 18 N.P.T.F-1 (Male) (Standard)	
Maximum Air Inlet Pressure psi (bar):	100 (6.9)	
Maximum Material Inlet Pressure psi (bar):	100 (6.9)	
Maximum Temperature Limits:	Polypropylene 35° F - 150° F (+1.6° C - 66° C) Conductive Acetal 10° F - 180° F (-12° C - 82° C) PVDF 10° F - 200° F (-12° C - 93° C)	
Maximum Fluid Volume:	57 in. ³ (0.931 lit)	



Ordering Menu

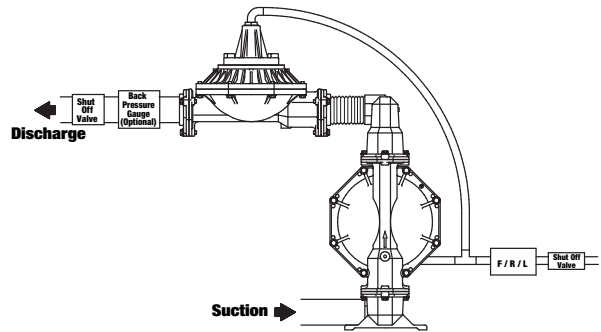
SB	XX	X	-	X	X	X	-	X
Model Series	Blocker Size	Air Body		Thread	Fluid Construction	Hardware		Diaphragm
	10 1-Inch	P Polypropylene (Glass Filled) K PVDF D Conductive Acetal		A N.P.T. B BSP	P Polypropylene (Glass Filled) K PVDF D Conductive Acetal	S Stainless Steel (304)		A Santoprene C Hytrel T PTFE U Urethane

Notice: All possible options are shown in the chart above, however, certain combinations may not be recommended. Consult a representative or the factory if you have questions concerning availability.

Pulsation Dampeners Accessories

2" Port Models

Pulsation Dampener Type:	Metallic / Automatic
Material:	See model description chart
Weight lbs (kg):	Aluminum (fluid cap) 29 (13.2) Cast Iron (fluid cap) 70 (31.8) Stainless St. (fluid cap) 71 (32.2)
Material Inlet/Outlet:	SB20X-AXX-X 2" -11-1/2 N.P.T.F -1 SB20X-BXX-X Rp 2(2-11 BSP)
Air Inlet:	3/4" - 14 N.P.T. (female)
Max. Air Inlet Pressure psi (bar):	120 (8.3)
Max. Material Inlet Pressure psi (bar):	120 (8.3)
Maximum Temperature Limits:	EPR -60° - 280°F (-51° - 138°C) Nitrile 10° - 180°F (-12° - 82°C) Santoprene -40° - 225°F (-40° - 107°C) PTFE 40° - 225°F (4° - 107°C) Viton -40° - 350°F (-40° - 177°C)
Maximum Fluid Volume:	159 in. ³ (2.61 lit.)



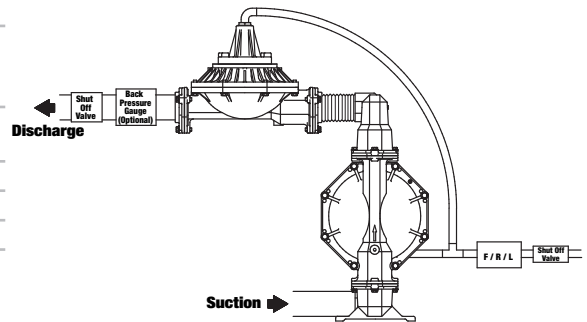
Proper support of piping and pulsation dampener is required.

Ordering Menu

SB	XX	X	-	X	X	X	-	X
Model Series	Blocker Size	Air Body		Thread	Fluid Construction	Hardware		Diaphragm
	20 2-Inch	A Aluminum C Cast Iron S Stainless Steel		A N.P.T.F B BSP	A Aluminum C Cast Iron S Stainless Steel	S Stainless Steel (304) P Plated Steel		A Santoprene G Nitrile T PTFE/ Santoprene V Viton

3" Port Models

Pulsation Dampener Type:	Metallic / Automatic
Material:	See model description chart
Weight lbs (kg):	Aluminum (fluid cap) 41 (18.6) Cast Iron (fluid cap) 94 (42.6) Stain. Steel (fluid cap) 96 (43.5)
Material Inlet/Outlet:	SB30X-AXX-X 3" - 8 N.P.T.-1 SB30X-BXX-X Rp 3(3-11 BSP)
Air Inlet:	3/4" - 14 N.P.T. (female)
Maximum Air Inlet Pressure psi (bar):	120 (8.3)
Maximum Material Inlet Pressure psi (bar):	120 (8.3)
Maximum Temperature Limits:	EPR -60° - 280°F (-51° - 138°C) Nitrile 10° - 180°F (-12° - 82°C) Santoprene -40° - 225°F (-40° - 107°C) PTFE 40° - 225°F (4° - 107°C) Viton -40° - 350°F (-40° - 177°C)
Maximum Fluid Volume:	509 in. ³ (8.34 lit.)



Proper support of piping and pulsation dampener is required.

Ordering Menu

SB	XX	X	-	X	X	X	-	X
Model Series	Blocker Size	Air Body		Thread	Fluid Construction	Hardware		Diaphragm
	30 3-Inch	A Aluminum S Stainless Steel		A N.P.T. B BSP	A Aluminum C Cast Iron S Stainless Steel	S Stainless Steel (304) P Plated Steel		A Santoprene G Nitrile T PTFE/ Santoprene V Viton

Notice: All possible options are shown in the chart above, however, certain combinations may not be recommended. Consult a representative or the factory if you have questions concerning availability.

Covers / Agitators / Wall Mounts / Siphon Tubes / Counting Accessories

Drum Cover

- Available in stainless steel (SS), durable drum cover will accommodate both diaphragm pump and agitator, where needed.

Material Agitators

- Agitators available for both 5 and 55-gallon containers. Air-operated agitator motors generate between 500-1,000 RPM (5 gal. model), and 300-3,000 RPM (55 gal. model). Agitator shaft and propellers are constructed of corrosion-resistant 316 stainless steel.



Description	Model Number	Used With
Drum Cover	66971 (stainless steel)	1/2" Pump 5-Gallon Container
Material Agitator	651100 651103	5-Gallon Container 55-Gallon Container

Wall Mount Brackets

- Sturdy wall mount brackets provide a convenient means of mounting pumps for centralized transfer operations. Mounts are constructed of heavy-gauge, coated steel and include mounting hardware.



Description	Model Number	Used With
Wall Mount Bracket	76763 (Does Not include mounting hardware)	1/2" Pump
	66100	1" Pump (Metallic Only)
	62133	1-1/2" Pump (Metallic Only)
	67142	1" Pump and 3:1 1" Diaphragm Pump

Mini Batch Counter Kit

- Converts a diaphragm pump into a simple batching system. Can be powered by 110VAC or 12-15VDC. Kits include 67161-2 Mini Batch Counter, 59891 Air-to-Electric Interface Switch, CHW-30 Connector, and TB0XXB-X-X Valve.



67337-X Mini Batch Counter Kit with PE10P-X Pump

Description	Kit	Kit Options	Pump Model
Mini Batch Counter Kit	67337-X	-1 (24 VDC)	PE10X, PE10P
		-2 (120 VAC)	PE10X, PE10P
		-3 (No Coil)	PE10X, PE10P
	67338-X	-1 (24 VDC)	PE20X, PE30X
		-2 (120 VAC)	PE20X, PE30X
		-3 (No Coil)	PE20X, PE30X

Ordering Note: Select the PE (Electronic Interface Accessible) model pump for add-on of accessories like the Cycle Actuation Kit, Cycle Counter or Mini Batch Counter.

Siphon Tubes

- For use when pumping from a 55-gallon container, siphon tubes are available in plastic (PVC, PP, PTFE), carbon steel (CS), or 316 stainless steel (SS). 1-inch siphon tubes come with foot valve for positive priming. Both 1/2-inch and 1-inch models include bung adapters and are constructed of corrosion-resistant 316 stainless steel.



Description	Model Number	Used With
Siphon Tubes	61409 PVC 90° N.P.T.(M)	1/2" (Non-Metallic) 55-Gallon Container
	61412 PVC Straight N.P.T.(M)	1/2" (Non-Metallic) 55-Gallon Container
	65109 (CS) N.P.T.(F)	1" (Metallic) 55-Gallon Container
	66568 (SS) N.P.T.(F)	1" (Metallic) 55-Gallon Container
	66779 (PVC) N.P.T.(F)	1" (Non-Metallic) 55-Gallon Container

Countdown Batcher

- Manual start batch counter kit controls the volume of fluid dispensed by controlling the number of pump cycles. (pump not included)



Description	Model No.	Pump Model
Countdown Batcher	67072	PD03P-X-X PD05-X-B, PD05X-X-B PD07P-X, PD07-X PE10X-X-X

Control / Leak Detection / Grounding Strap Accessories

Cycle Actuation Kits

- Kits allow operator to control cycling of an Ingersoll Rand/ARO EXP Pump with an electrical signal from PLC's, pH or Pressure Sensors, or even a simple Line Switch. Electric signal actuates valve, which in turn supplies air to large end of unbalanced valve, allowing pump to cycle. When electrical signal is removed, the pump's air valve resets itself, completing cycle.



Cycle Actuation Kit on PE10P-X Pump

Cycle Counter / Sensor Kits

- Like the odometer on your car, ARO's cycle counter / cycle sensing lets you know how many pump cycles have elapsed so you can be prepared to perform preventive maintenance. The cycle sensor is a cost-efficient way to save maintenance costs while keeping your pump on-line.



67350 Cycle Counter on PE10P-X Pump

Cycle Sensor Kits

- Provides a closed contact output for monitoring pump operation. Can be used to monitor cycle rates, preventive maintenance and rough flow rate indication. Power supply and other devices required to gather, store or manipulate data. (pump not included).



67386 Cycle Sensor

Description	Kit	Kit Options	Pump Model
Cycle Actuation Kit	67165-X	-1 (24 VDC)	PD03P-X-X, PD05P-X-X-B,
		-2 (120 VAC)	PD05R-X-X-B,
		-3 (No Coil)	PM05P-X-X-A02, PD07P-X-X, PD07R-X-X
	67355-X	-1 (24 VDC) -2 (120 VAC) -3 (No Coil)	PE10P-X, PE10X-X, PE15-X, PE15X-X
	67357-X	-1 (24 VDC) -2 (120 VAC) -3 (No Coil)	PE20X-X
Cycle Counter Kit	67350	-	PD10X-X, PD10E-X-X, PE10X0X, PM10X-X-X-A02, PW10X-X
	67350-1	-	PD20R-X-X-B, PD20Y-X-X-B, PE20X-X-X-B, PF20R-X-X-B, PF20Y-X-X-B, PM20X-X-X-B02, PD30R-X-X-B, PE30X-X-C, PM30X-X-X-C02
Cycle Sensor Kit	67386	-	PD03P-X, PD05A-X-X-B, PD05P-X-X-B, PD05R-X-X-B, PD07P-X-X, PD07R-X-X
	67390	-	PD10P-X, PE10P-X, PD10E-X, PD10R-X, PE10R-X, PD15P-X, PE15P-X, PD15E-X, PD15R-X, PE15R-X
	67391	-	PD20P-X, PE20P-X, PD20R-X-B, PE20R-X-B, PD30R-X-C, PE30R-X-C
	67392	-	PD10X-X, PE10X-X, PW10A-X, PD15X-X, PE15X-X
	67393	-	PD20X-X-B, PE20X-X-B, PF20X-B, PP20X-X, PD30X-C, PE30X-X-C, PP30X-X

Ordering Note: Select the PE (Electronic Interface Accessible) model pump for add-on of accessories like the Cycle Actuation Kit, Cycle Counter or Mini Batch Counter.

Diaphragm Failure Detection

- Costly production downtime due to pump diaphragm failure and resulting (possibly hazardous) material leakage is a very real problem in many process operations. ARO Diaphragm Failure Detection is one simple, cost-effective way to get your pumps wired for preventive maintenance.



DFD Kit 67237 on PD15S-X Pump

How ARO Diaphragm Failure Detection (DFD) Works

A refractive infrared light sensor installed into the air side of the diaphragm housing sends and receives a continuous optic signal. If diaphragm failure occurs and fluid enters the air side, the sensor's beam is absorbed and an output signal is sent indicating failure.

Kit Description

67237 Diaphragm Failure Detection Kit

***Ordering Note:** Select the PE (Electronic Interface Accessible) model pump for add-on of accessories like the Diaphragm Failure Detection Kit.

Note: PLC and computer system not included.

Externally Controlled Pumps

- For the ultimate control of your pumping process, choose the "BOS" version of the 1/2", or choose the "AOS" version of the 1" or 1-1/2" EXP Pumps. Air Valves are removed from the pumps, which are then controlled with solenoid or pilot actuated four-way valves. Cycle-rate and speed can be matched to specific application requirements. To order, add "BOS" to the end of the pump's model number. *Example: PE15P-FPS-PTT-A0S*



PE10P-FPS-X-A0S showing air valve removed from center-body of pump.

Pump Model Number

Pump	Model Number
3/8"	PE03P-X-X-A0S
1/2"	PE05P-X-X-B0S, PE05X-X-X-B0S
1"	PE10P-X-X-A0S, PE10X-X-X-A0S
1-1/2"	PE15P-X-X-A0S, PE15X-X-X-A0S
2"	PE20X-X-X-B0S
3"	PE30X-X-X-C0S

Field Conversion Kits

Convert existing 1" and 1-1/2" EXP Pumps to externally controlled models. Kits contain materials needed to complete conversion.

Kit Pump Number

67360	PE10P-XX-A0S, PE10XX-X-A0S
67361	PE15P-XX-A0S, PE15XX-X-A0S
67404	PE20R-X-X-B0S, PE30A-X-X-C0S

Grounding Strap

Description	Model Number
25' grounding cable	66885-1

Air Controls Accessories

Air Line Connection Kits

- Kit includes Piggyback Filter/Regulator with gauge, pipe nipple and a 5-foot section of air hose.



Air Line Connection Kit

Kit Number	Pump Model
66073-1	PD03P-X, PD05P-X, PD05X-X
66073-2	PD10P-X, PD10X-X, PE10P-X, PE10X-X, PM10X-X, PW10X-X
66084-1	PD15P-X, PD15X-X, PE15P-X, PE15X-X, PM15X-X
66109	PD20P-X, PE20P-X, PD20X-X-B, PF20X-X-B, PP20X-X-X, PM20X-X-X-B02, PD30X-X-C, PD03R-X-C, PP30A-X-X, PM30X-X-X-C02

Air Filter/Regulator

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



P39124-600



P39234-600



P39454-610

Ordering Information

Model Number	Description	Pumps Used With	N.P.T. Inlet	Gauge Ports	Max. Inlet PSI	Pressure Range	Max. CFM	Micron Element	Size L x W
1000 Series									
P39124-600	Filter / Reg. w/gauge	1/4", 3/8", and 1/2" (Dia.)	1/4	1/8	150	0-140	47	5	6.2 x 2.9
1500 Series									
P39224-600	Filter / Reg. w/gauge	1/2", 1" Models	1/4	1/8	150	0-140	72	5	8.2 x 2.2
P39234-600	Filter / Reg. w/gauge	3:1 (Dia.)	3/8	1/8	150	0-140	90	5	8.2 x 2.2
2000 Series									
P39334-600	Filter / Reg. w/gauge	1-1/2" Models	1/2	1/8	150	0-140	172	5	9.7 x 2.8
3000 Series									
P39454-610	Filter / Reg. w/gauge and bracket	2" & 3" Models	3/4	1/8	250	0-140	236	5	13.6 x 5.5

Service Kit / Air Line Kits / Air Valve Kits Reference

Service Kits, Air Filter/Regulator Units, Air Line Kits

Pump Port Size	SERVICE KITS		AIR LINE KITS	
	Air Valve Kit	Fluid Section Kit (Diaphragm Material)	Recommended Air Line Filter/Regulator Units	Air Line Kit
3/8" Non-Metallic PD03P, PE03P	637428	637429-XX	P39124-600	66073-1
1/2" Non-Metallic PD05P, PE05P	637428	637427-XX	P39124-600	66073-1
PM05P	637141	637140-XX	P39224-600	66073-2
			P39124-600	66073-1
1/2" Metallic PD05A, PE05A, PD05R PE05R	637428 637428	637427-XX 637427-XX	P39124-600 P39224-600	66073-1 66073-2
3/4" Non-Metallic PD07P	637428	637427-XX	P39124-600	66073-1
3/4" Metallic PD07R	637428	637427-XX	P39124-600	66073-1
1" Non-Metallic PD10P, PE10P, PD10E PE10E	637397	637396-XX	P39224-600	66073-2
1" Metallic PD10A, PE10A, PD10R PE10R, PD10S, PE10S PM10A, PM10R, PM10S PW10A	637397	637401-XX	P39234-600	66073-2
3:1 PH10A-XSS-SST	637338	637339	P39234-600	N/A
1-1/2" Non-Metallic PD15P, PE15P, PD15E PE15E	637389	637391-XX	P39334-600	66084-1
1-1/2" Metallic PD15A, PE15A, PD15R PE15R, PD15S, PE15S PM15A, PM15R, PM15S	637389	637375-XX	P39334-600	66084-1
2" Non-Metallic PD20P, PE20P, PD20E, PE20E	637369	637373-XX	P39454-610	66109
2" Metallic PD20A, PD20S, PE20A PE20S, PM20A, PM20S, PP20A	637421	637309-XX	P39454-610	66109
PD20R, PD20Y, PD20R PE20Y, PM20R	637369	637309-XX	P39454-610	66109
PF20A, PF20S	637421	637310-XX	P39454-610	66109
PF20R, PF20Y	637369	637310-XX	P39454-610	66109
3" Metallic PD30A, PE30A, PD30S PE30S, PP30A, PM30A PM30S	637421	637303-XX	P39454-610	66109
PD30R, PE30R, PM30R	637369	637303-XX	P39454-610	66109
PH30F-X	637369	637441	P39454-610	66109

Upgrade your current 2" and 3" ARO Metallic Pumps to EXP Technology

- Easily update existing PD20X-X and PD30X-X-B pumps to EXP
 - Infield retrofit with valve kit
 - **637374-2:** For aluminum pumps
 - **637374-3:** Aluminum pumps with cycle counter
 - **637374-4:** For stainless steel pumps
 - **637374-5:** Stainless steel with cycle counter
- EXP Valve Kit fits directly onto existing ARO Pump
- EXP Air Valve has fewer parts
 - Provides a 47% parts reduction over the original PD20X-X and PD30X-X-B air valves.
 - Simplifies repairs
 - Lower start-up pressure
 - Long lasting ceramic valve components

Original PD20X-X and PD30X-X-B Air Valve



PD20X-X-B and PD30X-X-C EXP Style Air Valve



ACCESSORIES

Material Service Guideline / Warranty Reference

Material Service Guideline

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

	Maximum Operating Temp Limit F (C)	Chemical Resistance	Scale 1 - 5 (5 is best) 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	-	-
Hytre	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
Stainless Steel (300 Series)	-	4	4	-
Stainless 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.

All ARO Pumps are backed up by our famous 5-year warranty, as a measure of the confidence we place in the quality of these products. A confidence that you can share.

PUMP FIVE-YEAR WARRANTY

Ingersoll Rand/ARO warrants to the original use purchaser of IR/ARO manufactured pumps that Ingersoll Rand/ARO will repair or replace, free of charges, including return shipping costs within the Continental United States of America, any such product which under normal use and service proves defective in material or workmanship, as determined by Ingersoll Rand/ARO Inspection, within FIVE YEARS from date of shipment from Ingersoll Rand/ARO, provided the claimed defective product, or part thereof, is promptly returned to the Ingersoll Rand/ARO factory or Ingersoll Rand/ARO authorized warranty repair center with transportation prepaid.

This warranty does not cover failure of parts or components due to normal wear or damage, which in the judgment of Ingersoll Rand/ARO, arises from misuse, abrasion, corrosion, negligence, accident, substitution of non-Ingersoll Rand/ARO parts, faulty installation or tampering.

If Ingersoll Rand/ARO Inspection discloses no defect in material or workmanship, repair or replacement and return will be made at customary charges.

This warranty covers Ingersoll Rand/ARO manufactured pumps shipped on or after July 4, 1988.

Equipment not covered by Ingersoll Rand/ARO warranty: accessories or components of equipment sold by Ingersoll Rand/ARO that are not manufactured by Ingersoll Rand/ARO (such as switches, hoses, gasoline engines, etc.) are subject to the warranty, if any, of their manufacturer. Ingersoll Rand/ARO will provide the purchaser with reasonable assistance in making such claims.

The foregoing warranty supersedes, voids and is in lieu of all or any other warranties, express or implied, and no warranty or merchantability or fitness for particular purpose is intended or made. Ingersoll Rand/ARO's sole obligation and the original use purchaser's sole remedy is as stated above and in no event shall Ingersoll Rand/ARO be liable for any special, direct, indirect, incidental, consequential or other damages, or expenses of any nature including, without limitation, loss of profits or production time incurred by the original use purchaser or any other party.

Plant Audit

EXPert Series Pumps

Schedule a Fluid Solutions Air-Operated Diaphragm Pump Plant Audit

A pre-audit feasibility study is conducted by an Ingersoll Rand Specialty Distributor or Ingersoll Rand Sales Manager to determine if an audit can enhance your situation or solve your problem. A plant audit is conducted by an Ingersoll Rand SWAT team member who specializes in identifying opportunities and providing solutions. Once the audit is completed, an audit report will be generated that will identify all pumps, their location, as well as the application that they are being used for. This report will indicate the annual customer cost-savings based on reduced energy costs using Ingersoll Rand/ARO EXP pumps.

Plant Air Audit: What's in it for me?

■ Reduced Operating Costs

- Reduce air consumption by up to 40%
- Decreased frequency between repairs
- Lower repair costs

■ Improved Manufacturing Productivity

- Longer mean time between failures
 - Eliminate Stalling – Unbalanced Valve
 - Eliminate Freezing – Non-Icing Valve
 - Leak free integrity – Bolted design
 - Audit Solution Process

■ Finance Program

Budgets are tight, Ingersoll Rand offers a finance program that allows the customer the opportunity to upgrade their pumps to the energy efficient Ingersoll Rand/ARO EXP Pumps. Based on Total Cost of Ownership (energy costs, installation /repair, spares, purchase price, downtime) the Ingersoll Rand/ARO EXP pump could pay for itself within a few months.

To schedule your **FREE** plant audit call (800) 495-0276 or go online at fluids.ingersollrand.com



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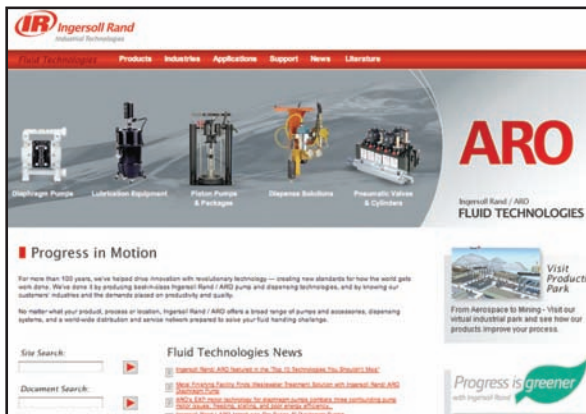
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Progress in Motion



For more than 100 years, we've helped drive innovation with revolutionary technology — creating new standards for how the world gets work done. We've done it by producing best-in-class Ingersoll Rand / ARO pumps and dispensing technologies, and by knowing our customers' industries and the demands placed on productivity and quality.

Get Connected! *fluids.ingersollrand.com*



✓ Easy Access to Operator's Manuals and Product Data

Users can now search with complete or partial model numbers, gaining access to documents in multiple languages

✓ Pump Selection Software

Allows you to identify the best pump for your application



✓ Competitive Model Crossover

Visitors can easily and quickly crossover competitive units to ARO models



✓ Productivity Park

An interactive 3D tour of markets and industries where Ingersoll Rand Fluid Technologies' products are utilized

ARO Diaphragm Pumps are backed by a 5-year warranty on materials and workmanship for your purchasing peace of mind.

ARO's Pump design and manufacturing operations have demonstrated compliance with the quality process, health and safety, technical file and multi-lingual standards set forth by the FEM (Federation Europeene de la Manutention) for the European Union (Communitie Economique).



Ingersoll Rand Industrial Technologies provides products, services and solutions that enhance our customers' energy efficiency, productivity and operations. Our diverse and innovative products range from complete compressed air systems, tools and pumps to material and fluid handling systems and environmentally friendly microturbines. We also enhance productivity through solutions created by Club Car®, the global leader in golf and utility vehicles for businesses and individuals.

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