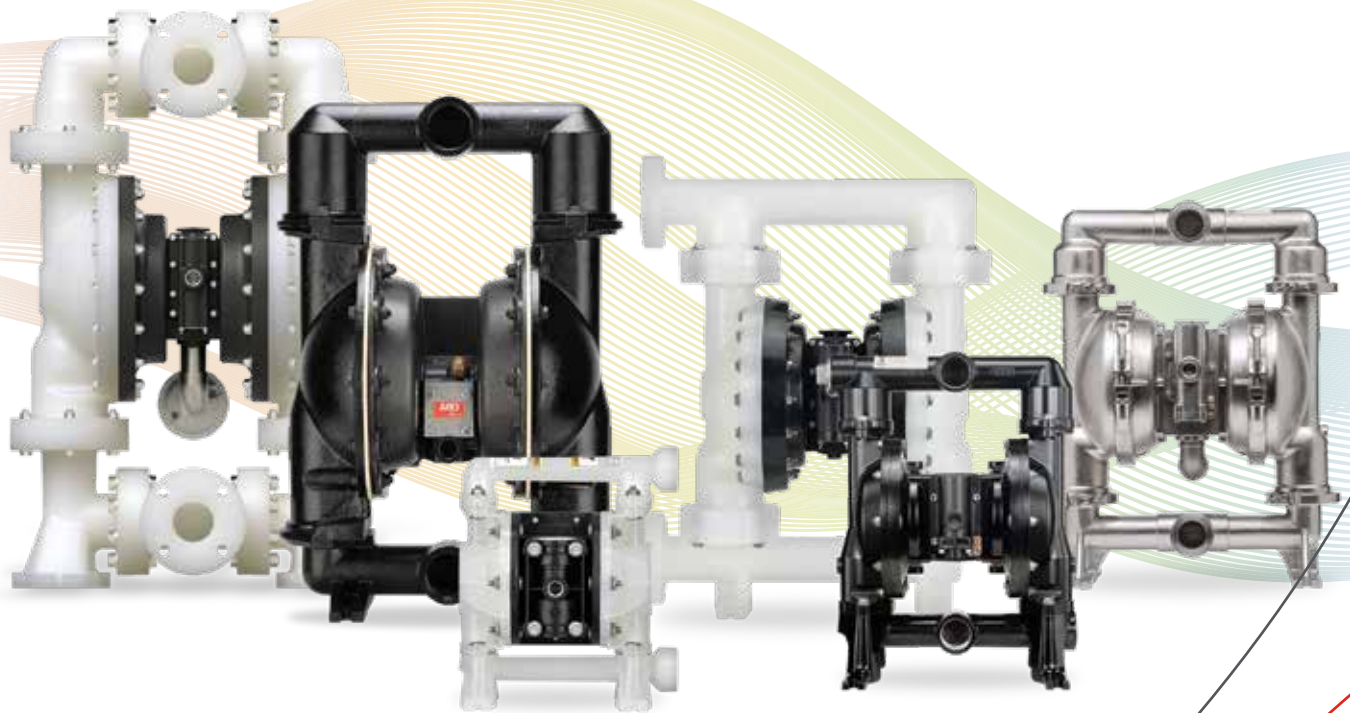
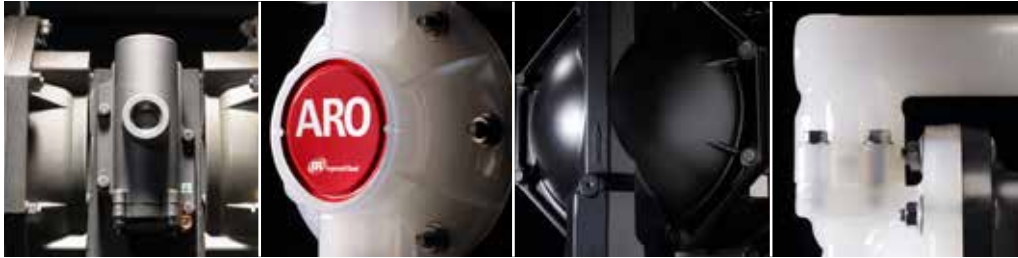


# ARO<sup>®</sup>

## PRO AND EXPERT SERIES AIR OPERATED DIAPHRAGM PUMPS

1/4" THROUGH 3" FLUID PORTS





## ARO® Air Operated Diaphragm Pumps

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

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

### Metallic Materials:

Aluminium  
Cast Iron  
Stainless Steel  
Hastelloy®

### Non-Metallic Materials:

Polypropylene  
Conductive Polypropylene  
Acetal  
PVDF  
Conductive PVDF

## The Value of ARO® Air Operated Diaphragm Pumps

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



## ARO® Product and Technical Support

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

**At ARO® we make success flow**



# The Heart of your Process

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

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

## Industries

Aerospace

Automotive

Ceramic

Chemical Processing

Machine Builders – Formulation

Mining and Construction

Oil / Gas Petrochemical

Paint and Finishing

Pharmaceutical and Cosmetics

Print Shop and Ink Manufacture

Shipbuilding and Marine



# ARO® Diaphragm Pumps

ARO® Air Operated Diaphragm Pumps are designed for general use. They can easily pump from clean, light viscosity fluids to corrosive, abrasive medium viscosity fluids and can transfer large particles without damage. Due to their pneumatic motor, they can be used in potentially explosive areas. Most of the ARO® Diaphragm Pumps are ATEX certified (CE ExII 2GD X).

## EXP is Automation Ready

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

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

## Highly flexible

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

## Self-priming

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

## Wide range of material configurations

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



5-Year warranty

## ARO® Diaphragm Pumps Range and Applications

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

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

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

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

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

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

### ▶ Specialty Application Pumps

Pumps providing the same high level of performance and satisfaction but in a design tailored for your specific application. This range includes many specific models





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



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



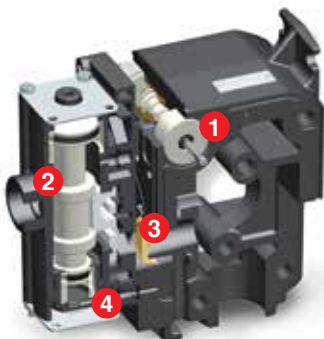
**Reliability:** Lube free patented differential valve both on major air valve and SimulShift™ (pilot valve) provides reliable worry free operation – fluid on demand every time.



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



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



### Patented ARO® Air Motor Technology

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

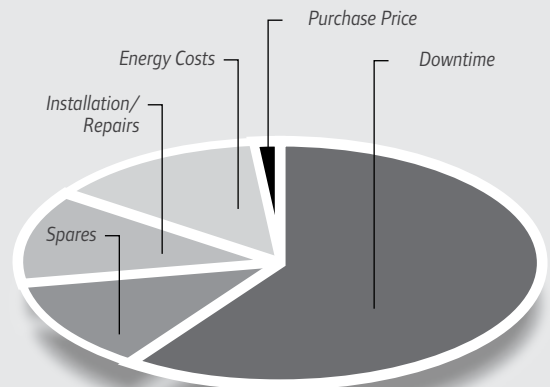
### ARO® Diaphragm Pumps: the best “total cost of ownership” in the industry

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

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

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

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



# ARO® Diaphragm Pumps



## Non-Metallic Models – Range and Performance



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



## Metallic Models – Range and Performance



**EXPERT Series**

**EXPERT Series**

**PRO Series**

**EXPERT Series**

**PRO Series**

**EXPERT Series**

**PRO Series**

**EXPERT Series**

**PRO Series**

**EXPERT Series**

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



# ARO® Diaphragm Pumps



## Specialty Models – Range and Performance



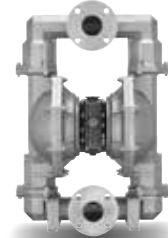
**PP Series**



**PM Series**



**SD Series**



**PH Series**

|                           | Powder Pumps  |                          |                  |                  | Sanitary Pumps        |   |                     |                     |                      |                    | High Pressure Pumps   |                     |   |                                 |                     |     |     |     |
|---------------------------|---|--------------------------|------------------|------------------|-----------------------|---|---------------------|---------------------|----------------------|--------------------|-----------------------|---------------------|---|---------------------------------|---------------------|-----|-----|-----|
| <b>?:1</b>                | 1:1   |                          |                  |                  | 1:1                   |   |                     |                     |                      |                    | 1:1                   |                     |   |                                 | 3:1                 | 2:1 | 2:1 | 2:1 |
| <b>Ø</b>                  | 1"  | 1 1/2"                   | 2"               | 3"               | 1/2"                  | 1"                                      | 1 1/2"              | 2"                  | 3"                   | 1"                 | 2"                    | 1"                  | 2"  | 1"                              | 1 1/2"              | 2"  | 3"  |     |
| <b>1 min.</b>             | Maximum powder density = 721 kg/m <sup>3</sup> (45 lbs/cu ft) |                          |                  |                  | 45.4 L/min (12 gal)   | 198 L/min (52.3 gal)                    | 465 L/min (123 gal) | 651 L/min (172 gal) | 1041 L/min (275 gal) | 204 L/min (54 gal) | 738 L/min (195 gal)   | 50 L/min (13.2 gal) | 238 L/min (63 gal)                          | 348 L/min (92 gal)              | 605 L/min (160 gal) |     |     |     |
| <b>Max. bar</b>           | 6.9 bar (100 psi)   |                          |                  |                  | 6.9 bar (100 psi)     | 8.3 bar (120 psi)                       |                     |                     |                      | 8.3 bar (120 psi)  |                       | 6.9 bar (100 psi)   |   |                                 |                     |     |     |     |
| <b>Material</b>           | 1" NPT<br>1" BSP  | 1 1/2" NPT<br>1 1/2" BSP | 2" NPT<br>2" BSP | 3" NPT<br>3" BSP | 1 1/2" Tri-clamp      |   | 2" Tri-clamp        | 2 1/2" Tri-clamp    | 3" Tri-clamp         | 1 1/2" Tri-clamp   | 2 1/2" Tri-clamp      | 1" NPT<br>1" BSP    | 1 1/2" NPT<br>1 1/2" BSP<br>1 1/2" ANSI DIN | 2" NPT<br>2" BSP<br>2" ANSI DIN | 3" NPT<br>3" BSP    |     |     |     |
| <b>Material</b>           | Aluminum<br>Stainless steel                                   |                          |                  |                  | FDA accepted material |   |                     |                     |                      |                    | FDA accepted material |                     | Stainless steel                             |                                 |                     |     |     |     |
| <b>Max. particle size</b> | Maximum powder particle size = 100 microns (.004 in.)         |                          |                  |                  | 2.4 mm (.09)          | 3.3 mm (.12)                            | 6.4 mm (.25)        | 6.5 mm (.25)        | 9.5 mm (.37)         | 3.2 mm (.12)       | 6.4 mm (.25)          | 3.2 mm (.25)        | 6.4 mm (.25)                                | 6.4 mm (.25)                    | 9.5 mm (.37)        |     |     |     |
| <b>ATEX certified</b>     | All models  |                          |                  |                  | All models            | With aluminium or stainless steel motor |                     |                     |                      | All models         |                       | All models          |   |                                 |                     |     |     |     |

# ARO® Diaphragm Pump Applications

Here are some examples of applications.



**Pit Boss Series**



**PF Series**



**DAB05 Series**



**P Series**



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



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



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



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



3" sanitary pump used to transfer cosmetic basis for shampoos

| Dewatering Pumps     |                       |                       | Flap Valve Pumps                          | Drum Pumps                   |                       | Submersible Pumps   |                     |
|----------------------|-----------------------|-----------------------|---|------------------------------|-----------------------|---------------------|---------------------|
| 1:1                  |                       |                       | 1:1                                       | 1:1                          | 1:1                   | —                   | —                   |
| 1 1/2"               | 2"                    | 3"                    | 2"  | 1/2"                         |                       | 2 1/2"              | 2"                  |
| 302.8 L/min (80 gal) | 590.5 L/min (156 gal) | 821.3 L/min (217 gal) | 651 L/min (172 gal)                       | 45.4 L/min (12 gal)          | 54.5 L/min (14.4 gal) | 757 L/min (200 gal) | 870 L/min (230 gal) |
| 8.3 bar (120 psi)    |                       |                       | 8.3 bar (120 psi)                         | 6.9 bar (100 psi)            |                       | 6.2 bar (90 psi)    |                     |
| 1 1/2" BSP           | 2" BSP                | 3" BSP                | 2" NPT<br>2" BSP                          | Siphon tube                  |                       | Screened inlet      |                     |
| Aluminium            |                       |                       | Aluminium<br>Cast iron<br>Stainless steel | Aluminium<br>Stainless steel | Polypropylene         | Cast iron           |                     |
| 12.7 mm (.50)        | 19.1 mm (.75)         | 25.4 mm (1.0)         | 51 mm (2.0) (semi-solids)                 | 2.4 mm (.09)                 | 2.4 mm (.09)          | 6.4 mm (.25)        | 6.4 mm (.25)        |
| All models           |                       |                       | With aluminium or stainless steel motor   | With aluminium motor         | —                     | —                   | —                   |



---

## Non-Metallic Models

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



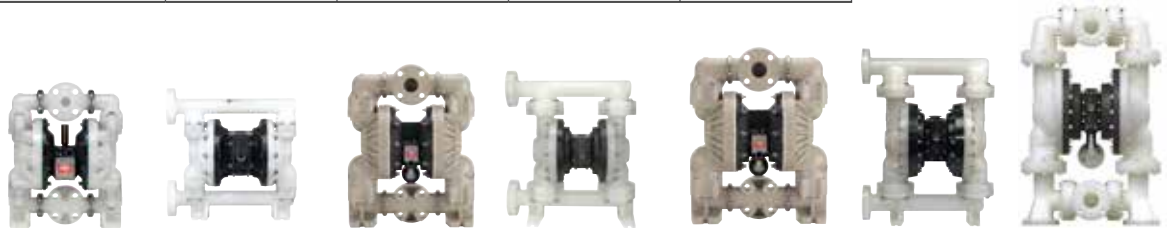
# Non-Metallic Model Overview

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

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



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



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

Compact Series Diaphragm Pumps
  PRO Series Diaphragm Pumps
  EXP Series Diaphragm Pumps

# 1/4" Non-Metallic Models

## COMPACT SERIES PUMPS

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

|                                    |  |
|------------------------------------|--|
| Ratio:                             | 1:1  |
| Maximum Flow gpm (L/min):          | 5.3 (20)   |
| Displacement per cycle gal (l):    | .019 (.072)  |
| Air Inlet (Female):                | 1/4 - 18 PTF SAE Short   |
| Fluid Inlet/Outlet Hybrid:         | Internal Thread 1/4"NPTF/BSPT<br>External Thread 3/4" - 14 NPTF/BSPT |
| Max. operating pressure psi (bar): | 125 (8.6)  |
| Suspended solids max. dia in (mm): | .0625 (1.66)   |
| Weight lbs (kg):                   | 2.86 (1.3) Polypropylene<br>3.88 (1.76) PVDF<br>3.52 (1.60) Acetal   |
| Maximum dry suction lift ft (m) :  | 15 (4.6)   |
| Sound Level:                       | 70 PSI (4.8 bar) 60 Cycles/Min 62.3 db(A)                            |
| Muffler:                           | Integral, Included   |



PD01P-HPS-PCC-A

## Ordering

| Position | 1     | 2 |   | 3 | 4 | 5 |   | 6 | 7 | 8 |   | 9 | 10 | 11 |
|----------|-------|---|---|---|---|---|---|---|---|---|---|---|----|----|
| Example: | PX01P | X | - | H | X | S | - | X | X | X | - | A | X  | X  |

| Position 1<br>Model<br>Series                                  | Position 2<br>Center<br>Section                   | Position 3<br>Fluid<br>Connections | Position 4<br>Wetted<br>Parts  | Position 5<br>Hardware | Position 6<br>Seat<br>Material  | Position 7<br>Ball<br>Material  | Position 8<br>Diaphragm<br>Material                       | Position 9   |
|--|---|------------------------------------|--|------------------------|---|---|---|--|
| PD01 - Standard Pump<br>PE01 - Elec. Interface Accessible Pump | E - Conductive Polypropylene<br>P - Polypropylene | H - 1/4" NPT BSP hybrid            | D - Groundable Acetal*<br>E - Groundable Acetal* (Multiple port)<br>K - Kynar PVDF<br>L - Kynar PVDF (Multiple port)<br>P - Polypropylene<br>R - Polypropylene (Multiple port) | S - Stainless Steel    | D - Acetal<br>K - PVDF<br>P - Polypropylene<br>0 - Polypropylene (Flex-Check spacer)*<br>1 - Acetal (Flex-Check spacer)*<br>2 - PVDF (Flex-Check spacer)* | A - Santoprene®<br>C - Hytrel®<br>G - Nitrile<br>J - Nitrile (Flex-Check only)<br>K - EPR (Flex-Check only)<br>L - Viton® (Flex-Check only)<br>N - Neoprene (Flex-Check only)<br>T - PTFE | A - Santoprene®<br>C - Hytrel®<br>G - Nitrile<br>T - PTFE | Revision Level<br><b>Position 10 &amp; 11 Specialty Code</b><br>Fluid control options for pump with electronic interface (PE03 model). See complete description on page 13 |

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

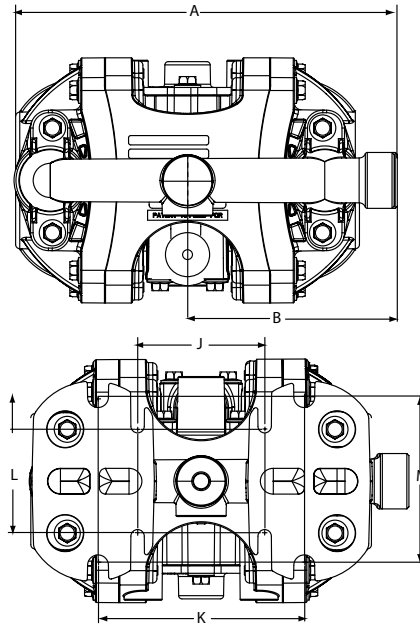
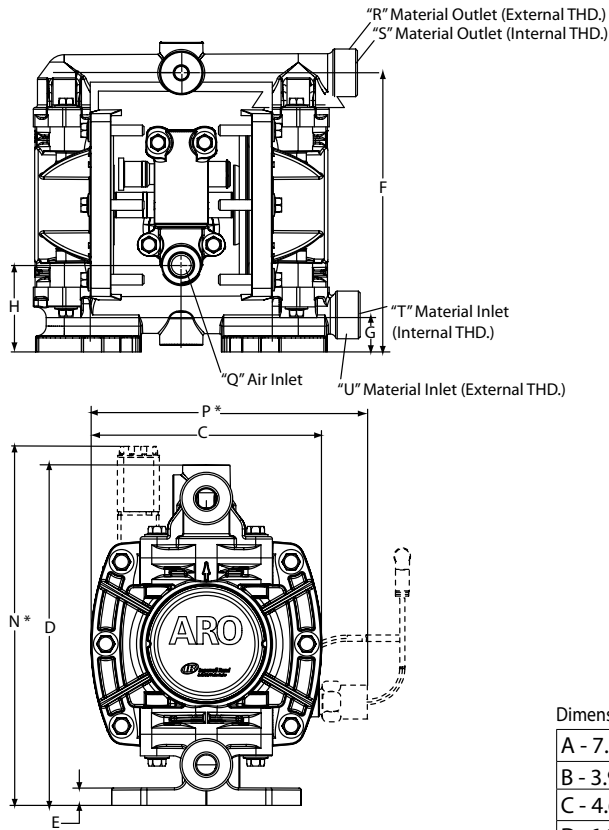
Hytrel® and Viton® are registered trademarks of the DuPont company. Santoprene® is a registered trademark of Monsanto Company, licensed to Advanced Elastomer Systems, L.P.

## Accessories

### Air Line Connection Kit | 66073-1

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

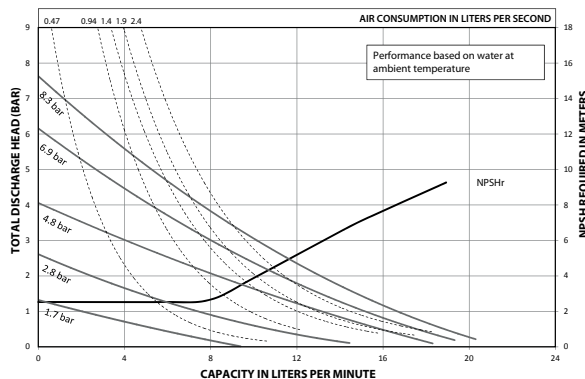
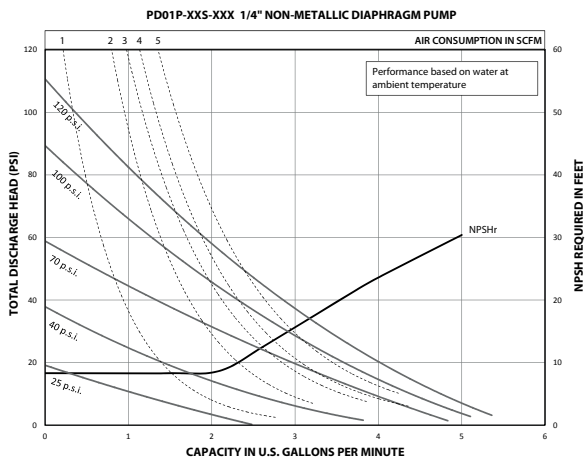
# 1/4" Non-Metallic Dimensions and Flow Charts



## DIMENSIONS

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

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



## Ordering Position 10

### Specialty Code 1 (Blank if no Specialty Code)

- A - Solenoid 120VAC
- B - Solenoid 12VDC
- C - Solenoid 240VAC
- D - Solenoid 24VDC
- E - 12VDC NEC/CEC
- F - 24VDC NEC/CEC

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

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

- E - End of stroke feedback + Leak Detection
- F - End of stroke feedback
- G - End of Stroke ATEX/IECex/NEC/CEC
- H - End of Stroke/Leak Detection ATEX/IECex/NEC/CEC

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



# 3/8" Non-Metallic Models

## COMPACT SERIES PUMPS

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

|                                    |   |                         |
|------------------------------------|---|-------------------------|
| Ratio:                             | 1:1   |                         |
| Maximum Flow gpm (L/min):          | 10.6 (40.1)   | 8.7 (32.9) Flex check   |
| Displacement per cycle gal (l):    | .022 (0.083)  | .018 (0.068) Flex check |
| Air Inlet: (Female)                | 1/4 - 18 PTF SAE Short                              |                         |
| Fluid Inlet/Outlet:                | 3/8 - 18 PTF - 1<br>Rp 3/8 (3/8 - 19 BSP, parallel) |                         |
| Max. operating pressure psi (bar): | 100 (6.9)   |                         |
| Suspended solids max. dia in (mm): | .0625 (1.6)   | Flex check (Fibers)     |
| Weight lbs (kg):                   | PD03P-XDS-XXX                                       | 4.2 (1.9)               |
|                                    | PD03P-XES-XXX                                       | 4.3 (1.9)               |
|                                    | PD03P-XKS-XXX                                       | 4.5 (2.0)               |
|                                    | PD03P-XLS-XXX                                       | 4.6 (2.1)               |
|                                    | PD03P-XPS-XXX                                       | 3.4 (1.6)               |
|                                    | PD03P-XRS-XXX                                       | 3.5 (1.6)               |
| Maximum dry suction lift ft (m):   | 9.25 (2.8)  |                         |
| Sound Level:                       | 70 PSI (4.8 bar) 60 Cycles/Min 72.7 db(A)           |                         |
| Muffler:                           | Integral, Included                                  |                         |



### Ordering

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

| Position 1<br>Model Series                   | Position 2<br>Center Section | Position 3<br>Connections    | Position 4<br>Manifold Material  | Position 5<br>Hardware | Position 6<br>Seat Material  | Position 7<br>Ball Material  | Position 8<br>Diaphragm Material  | Position 9   |
|--|------------------------------|------------------------------|--|------------------------|--|--|---|--|
| D - Standard<br>E - Remote Actuation Capable | P - Polypropylene            | A - 3/8" NPT<br>B - 3/8" BSP | D - Ground. Acetal (single port)<br>E - Ground. Acetal (multiple port)<br>K - PVDF (single port)<br>L - PVDF (multiple port)<br>P - Polypropylene (single port)<br>R - Polypropylene (multiple port) | S - Stainless Steel    | D - Acetal<br>K - PVDF<br>P - Polypropylene<br>S - Stainless Steel<br>O - Flex Check | A - Santoprene<br>C - Hytrel*<br>I - Nitrile<br>N - Neoprene<br>S - Stainless Steel<br>T - PTFE<br>V - Viton | A - Santoprene<br>C - Hytrel*<br>G - Nitrile<br>T - PTFE/<br>Santoprene<br>V - Viton<br><br>* Flex check models | Revision Level<br><br><b>Position 10 &amp; 11 Specialty Code</b><br><br>Fluid control options for pump with electronic interface (PE03 model). See complete description on page 15 |

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

### Accessories

**Air Line Connection Kit** | 66073-1

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

**Cycle Counter Kit** | 66975

**Wall Mount Bracket Kit** | 67388

**Service Repair Kits** | 637428 (air section)  
637429-XX (fluid section)



Air Line Connection Kit  
66073-1

Wall Mount Bracket Kit  
67388

### 3/8" Non-Metallic Dimensions and Flow Charts



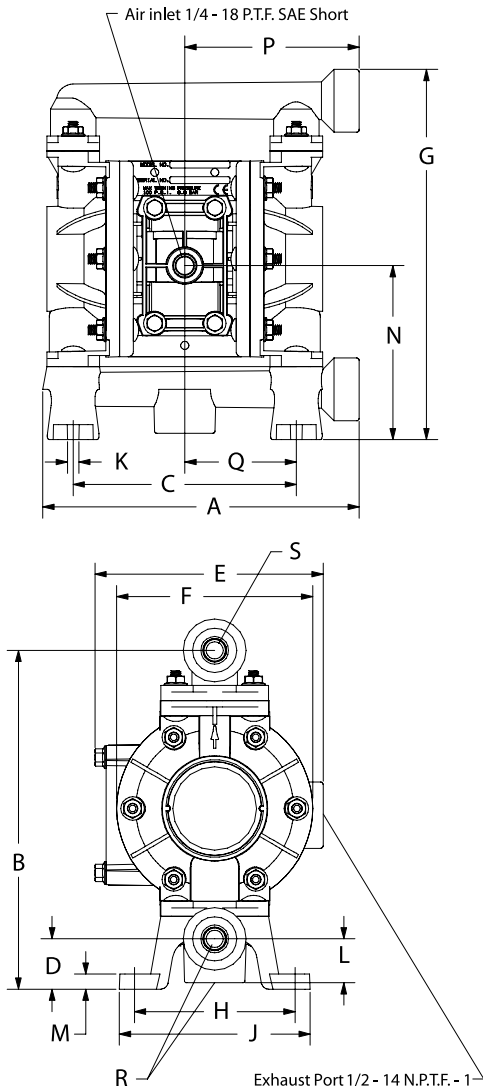
PE03P-APS-PAA-BOS  
with 637442-1 Kit

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

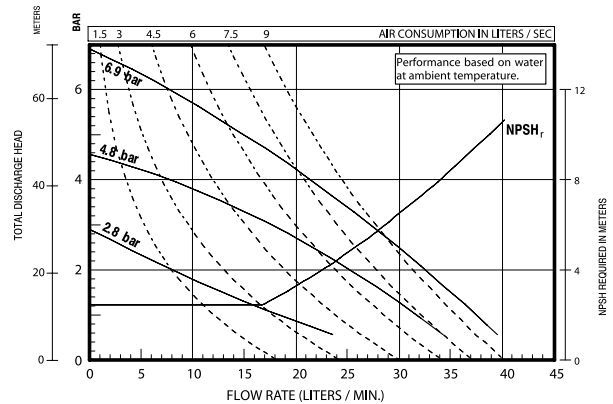
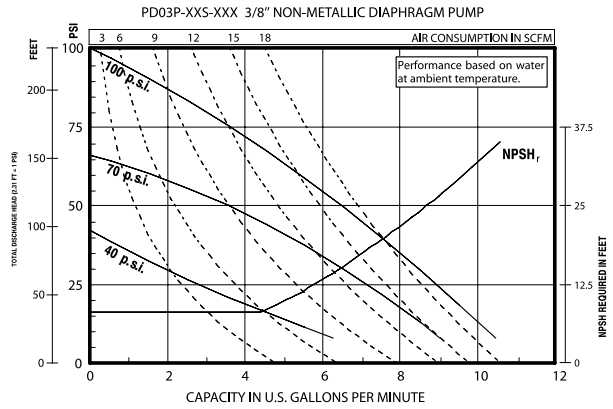
#### DIMENSIONS

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

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



#### PERFORMANCE CURVES



Refer to [www.AROzone.com](http://www.AROzone.com) for full size flow curves.  
For additional information contact  
technical support at 1.800.495.0276

#### Ordering Position 10

##### Specialty Code 1 (Blank if no Specialty Code)

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

#### Ordering Position 11

##### Specialty Code 2 (Blank if no Specialty Code)

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

# 1/2" Non-Metallic Models

## COMPACT SERIES PUMPS

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

|                                    |  |
|------------------------------------|--|
| Ratio:                             | 1:1  |
| Maximum Flow gpm (L/min):          | 14.4 (54.5)  |
| Displacement per cycle gal (l):    | .039 (.15)   |
| Air Inlet: (Female)                | 1/4 - 18 PTF SAE Short   |
| Fluid Inlet/Outlet:                | 1/2 - 14 NPTF - 1<br>Rp 1/2 (1/2 -14 BSP, parallel)  |
| Max. operating pressure psi (bar): | 100 (6.9)  |
| Suspended solids max. dia in (mm): | .09375 (2.4)   |
| Weight lbs (kg):                   | PD05P-XDS-XXX-B 6.3 (2.9)<br>PD05P-XES-XXX-B 6.7 (3.0)<br>PD05P-XKS-XXX-B 6.8 (3.1)<br>PD05P-XLS-XXX-B 7.2 (3.3)<br>PD05P-XPS-XXX-B 5.2 (2.4)<br>PD05P-XRS-XXX-B 5.4 (2.5) |
| Maximum dry suction lift ft (m):   | 15.0 (4.5)   |
| Sound Level:                       | 70 PSI (4.8 bar) 60 Cycles/Min 75.0 db(A)  |
| Muffler:                           | Integral, Included   |



PD05P-ARS-PAA

### Ordering

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

| Position 1<br>Model<br>Series                      | Position 2<br>Center<br>Section | Position 3<br>Connections   | Position 4<br>Manifold<br>Material   | Position 5<br>Hardware | Position 6<br>Seat<br>Material   | Position 7<br>Ball<br>Material   | Position 8<br>Diaphragm<br>Material   | Position 9   |
|--|---------------------------------|---|--|------------------------|--|--|---|--|
| D - Standard<br>E - Remote<br>Actuation<br>Capable | P - Poly-<br>propylene          | A - 1/2 - 14<br>NPTF - 1<br>B - Rp 1/2<br>(1/2 -14<br>BSP,<br>parallel) | D - Ground. Acetal<br>(single port)<br>E - Ground. Acetal<br>(multiple port)<br>K - PVDF<br>(single port)<br>L - PVDF<br>(multiple port)<br>P - Polypropylene<br>(single port)<br>R - Polypropylene<br>(multiple port) | S - Stainless<br>Steel | D - Acetal<br>K - PVDF<br>P - Poly-<br>propylene<br>S - Stainless<br>Steel | A - Santoprene<br>C - Hytrel*<br>G - Nitrile<br>S - Stainless<br>Steel<br>T - PTFE<br>U -<br>Polyurethane<br>V - Viton | A - Santoprene<br>C - Hytrel*<br>G - Nitrile<br>L - Long-Life<br>PTFE<br>T - PTFE/<br>Santoprene<br>U - Polyurethane<br>V - Viton | Revision Level<br><br><b>Position<br/>10 &amp; 11<br/>Specialty<br/>Code</b><br><br>Fluid control<br>options for pump<br>with electronic<br>interface (PE05<br>model). See com-<br>plete description<br>on page 17 |

### Accessories

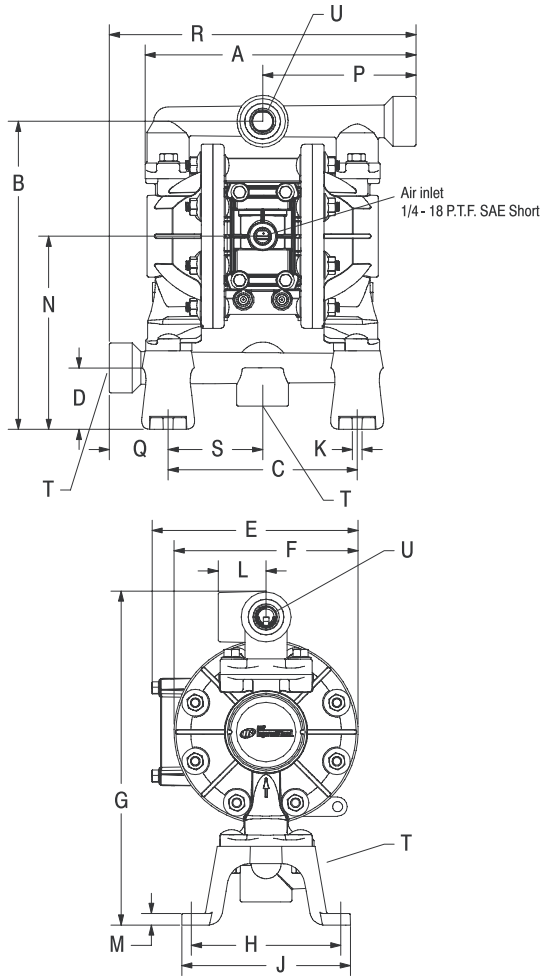
- Air Line Connection Kit** | 66073-1  
(Piggyback Filter/Regulator with gauge, pipe nipple and 5-foot air hose)
- Cycle Counter Kit** | 66975
- Wall Mount Bracket Kit** | 76763
- Optional Muffler** | 93110 used with 637438 kit
- Service Repair Kits** | 637428 (air section)  
637427-XX (fluid section)



Air Line Connection Kit  
66073-1



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



### DIMENSIONS

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

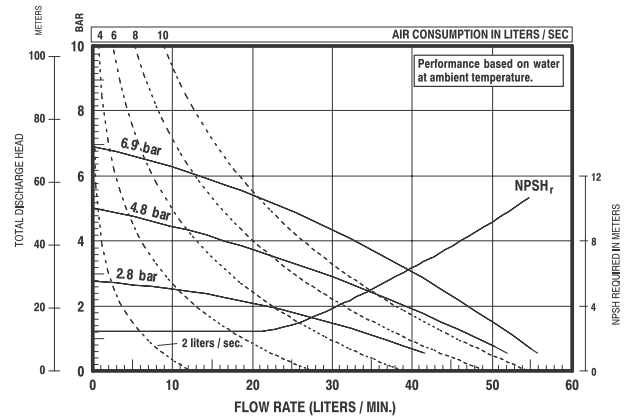
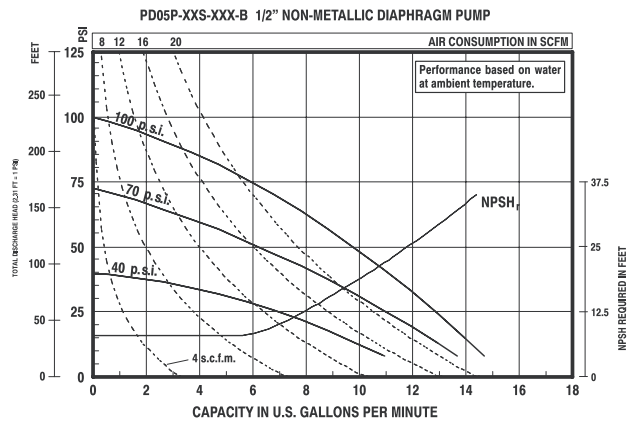
|                 |                           |                            |
|-----------------|---------------------------|----------------------------|
| <b>Model</b>    | <b>"T" Material Inlet</b> | <b>"U" Material Outlet</b> |
| PD05P-AXS-XXX-B | 1/2 - 14 N.P.T.F. - 1     | 1/2 - 14 N.P.T.F. - 1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



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

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

### PERFORMANCE CURVES



Refer to [www.AROzone.com](http://www.AROzone.com) for full size flow curves.  
 For additional information contact  
 technical support at 1.800.495.0276

### Ordering Position 10

#### Specialty Code 1 (Blank if no Specialty Code)

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

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

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

# 1/2" Classic Style Non-Metallic Models

## COMPACT SERIES PUMPS

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

|                                    |   |                      |
|------------------------------------|---|----------------------|
| Ratio:                             | 1:1                                       |                      |
| Maximum Flow gpm (L/min):          | ball 13 (49.2)                            | duckbill 10 (37.9)   |
| Displacement per cycle gal (l):    | ball .04 (.15)                            | duckbill .032 (0.12) |
| Air Inlet: (Female)                | 1/4 - 18 NPTF - 1                         |                      |
| Fluid Inlet/Outlet:                | 1/2 - 14 NPTF - 1                         |                      |
| Max. operating pressure psi (bar): | 100 (6.9)                                 |                      |
| Suspended solids max. dia in (mm): | ball .09375 (2.4)                         | duckbill fibers      |
| Weight lbs (kg):                   | Polypropylene 7.2 (3.3)                   |                      |
|                                    | Groundable Acetal 8.8 (4.0)               |                      |
|                                    | Kynar PVDF 9.5 (4.3)                      |                      |
| Sound Level:                       | 70 PSI (4.8 bar) 60 Cycles/Min 71.1 db(A) |                      |
| Muffler:                           | Integral, Included                        |                      |



66605J-3EB

### Ordering

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

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

### Accessories

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

**Cycle Counter Kit** | 66975

**Optional Muffler** | 93110 used with 637438 kit

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

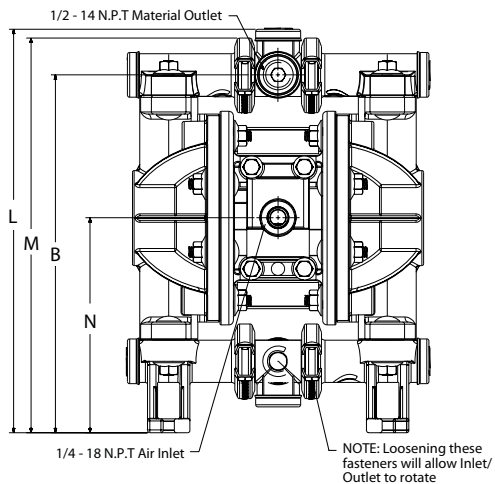
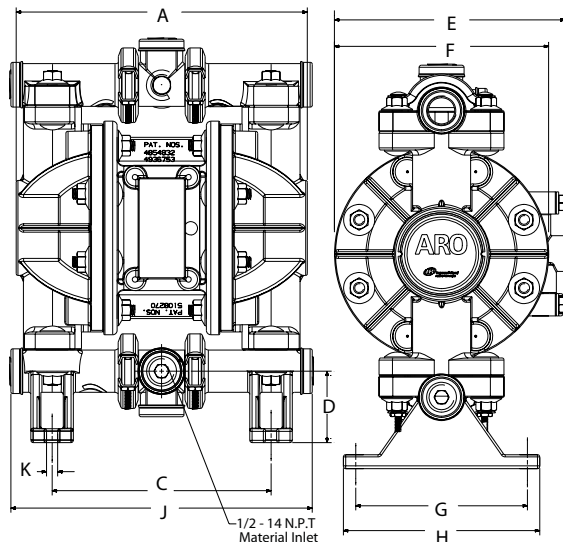


93110



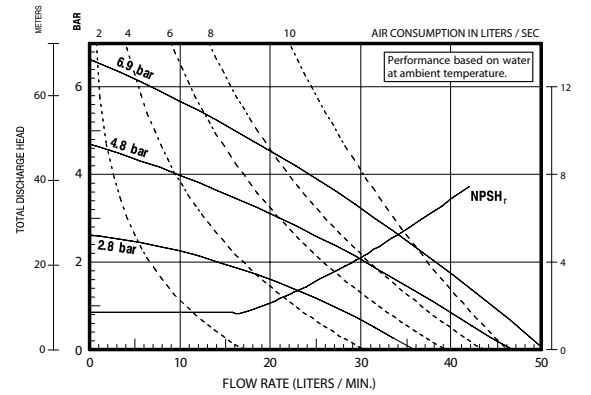
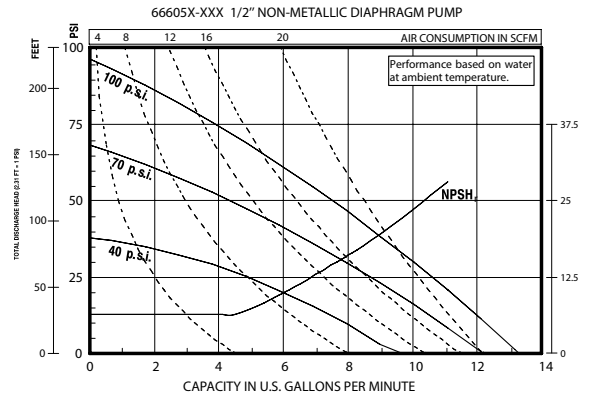
Air Line Connection Kit  
66073-1

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



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

|                       |                       |                       |
|-----------------------|-----------------------|-----------------------|
| A - 8.155" (207.1 mm) | E - 6.467" (164 mm)   | J - 8.44 5" (215 mm)  |
| B - 10.051" (255 mm)  | F - 6.000" (152 mm)   | K - 0.31 2" (8 mm)    |
| C - 6.135" (155.8 mm) | G - 4.812" (122.2 mm) | L - 11.331" (288 mm)  |
| D - 2.005" (51 mm)    | H - 5.500" (140 mm)   | M - 11.08 4" (282 mm) |
|                       | N - 6.040" (153 mm)   |                       |



Refer to [www.AROzone.com](http://www.AROzone.com) for full size flow curves.  
For additional information contact  
technical support at 1.800.495.0276

# 3/4" Non-Metallic Models

## COMPACT SERIES PUMPS

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

|                                    |   |
|------------------------------------|---|
| Ratio:                             | 1:1   |
| Maximum Flow gpm (L/min):          | 14.8 (56)   |
| Displacement per cycle gal (l):    | .032 (.12)  |
| Air Inlet: (Female)                | 1/4 - 18 PTF SAE Short                              |
| Fluid Inlet/Outlet:                | 3/4 - 14 NPTF - 1<br>Rp 3/4 (3/4 -14 BSP, parallel) |
| Max. operating pressure psi (bar): | 100 (6.9)   |
| Suspended solids max. dia in (mm): | .09375 (2.4)  |
| Weight lbs (kg):                   | 5.61 (2.54)   |
| Maximum dry suction lift ft (m):   | 15.0 (4.5)  |
| Sound Level:                       | 70 PSI (4.8 bar) 60 Cycles/Min 75.0 db(A)           |



PD07P-APS-PAA

### Ordering

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

| Position 1<br>Model<br>Series                           | Position 2<br>Center<br>Section | Position 3<br>Connections   | Position 4<br>Manifold<br>Material | Position 5<br>Hardware | Position 6<br>Seat<br>Material | Position 7<br>Ball<br>Material             | Position 8<br>Diaphragm<br>Material                              | Position 9   |
|---|---------------------------------|---|------------------------------------|------------------------|--------------------------------|--|--|--|
| PD07 - Standard Pump<br>PE07 - Remote Actuation Capable | P - Polypropylene               | A - 14 - 3/4" N.P.T.F.-1<br>B - Rp 3/4 (3/41/2 -14 BSP, parallel) | P - Polypropylene (Single Port)    | S - SS                 | P - Polypropylene              | A - Santoprene®<br>C - Hytrel®<br>T - PTFE | A - Santoprene®<br>C - Hytrel®<br>L - Long-Life PTFE<br>T - PTFE | Revision Level<br><br><b>Position 10 &amp; 11 Specialty Code</b><br><br>Fluid control options for pump with electronic interface (PE05 model). See complete description on page 21 |

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

### Accessories

**Air Line Connection Kit** | 66073-1

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

**Cycle Counter Kit** | 66975

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

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

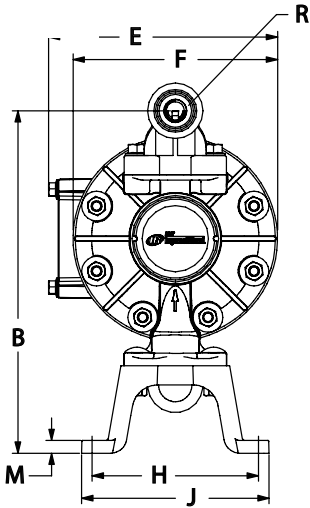
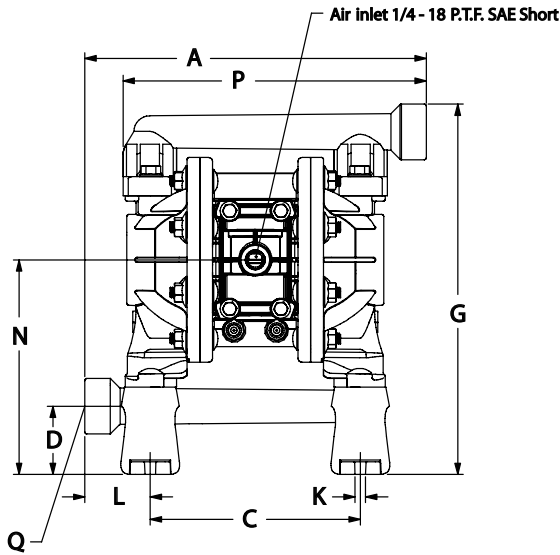
**Wall Mount** | 76763



Air Line Connection Kit  
66073-1



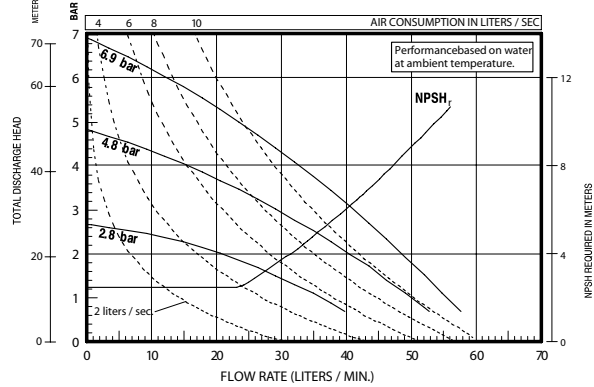
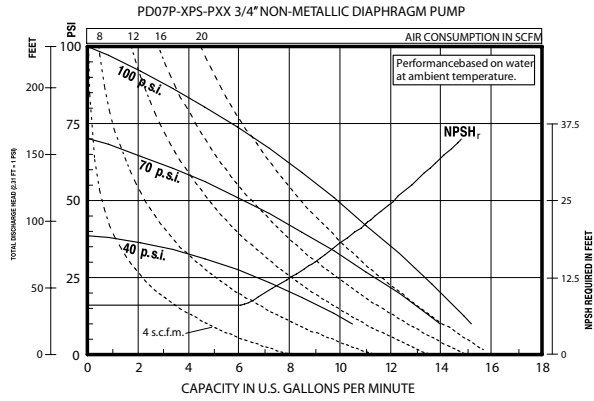
## 3/4" Non-Metallic Dimensions and Flow Charts



### DIMENSIONS

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

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



Refer to [www.AROzone.com](http://www.AROzone.com) for full size flow curves.  
For additional information contact  
technical support at 1.800.495.0276

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

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

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

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

# 1" Non-Metallic Models

## PRO SERIES PUMPS

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

|                                    |   |
|------------------------------------|---|
| Ratio:                             | 1:1   |
| Maximum Flow gpm (L/min):          | 47 (177.9)  |
| Displacement per cycle gal (l):    | .17 (0.64)  |
| Air Inlet: (Female)                | 1/4 - 18 NPT  |
| Fluid Inlet/Outlet:                | 1 - 11-1/2 NPTF - 1<br>Rp 1 (1 - 11 BSP, parallel)<br>1" ANSI/DIN Flange      |
| Max. operating pressure psi (bar): | 120 (8.3)   |
| Suspended solids max. dia in (mm): | .125 (3.2)  |
| Weight lbs (kg):                   | 6661A3-, 1AF-, 1AJ-, 1AL- 20.3 (9.2)<br>6661B3-, 1BF-, 1BJ-, 1BL- 28.8 (13.1) |
| Maximum dry suction lift ft (m):   | 15 (4.6)  |
| Sound Level:                       | 70 PSI (4.8 bar) 60 Cycles/Min 78.3 dB(A)                                     |



6661AJ-3EB-C

6661A3-244-C

## Ordering

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

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

## Accessories

### Air Line Connection Kit | 66073-2

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

### Cycle Counter Kit| 66975

### Service Repair Kits | 637118-C (air section)

637161-XX-C (fluid section)

### Flange Connection Kit | 67078 Kit meets ANSI specifications.

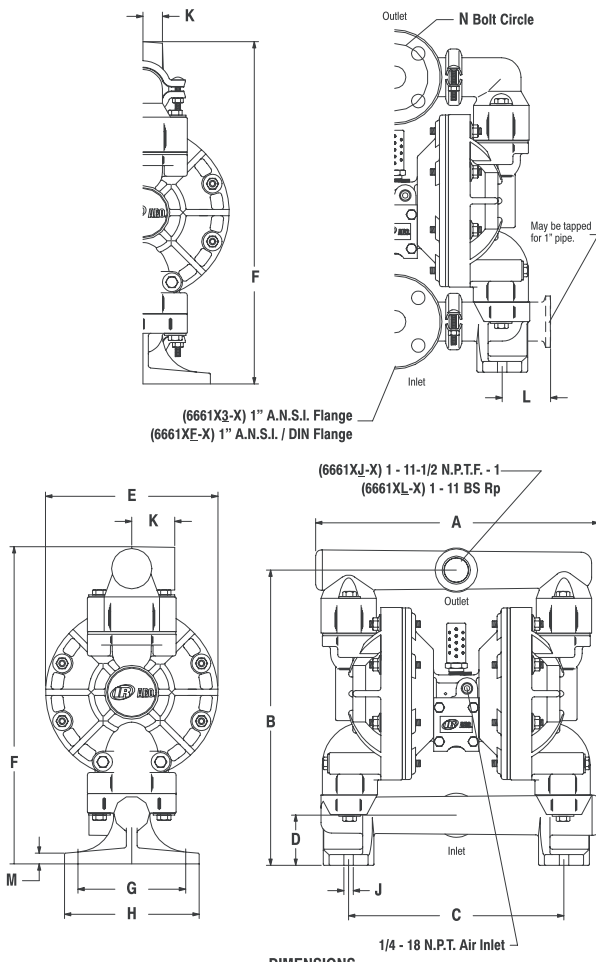
Flange constructed of glass-filled polypropylene. Bolts, washers and nuts are stainless steel. Gasket is 4401 klinger synthetic fiber nitrile binder.



Air Line

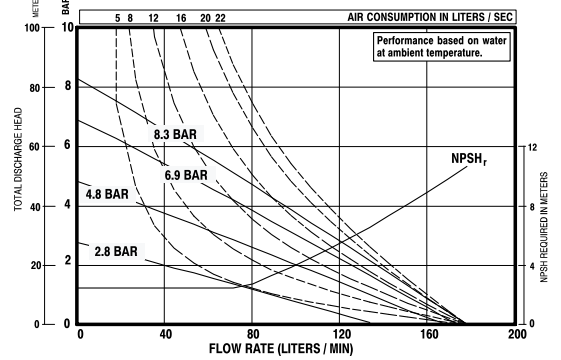
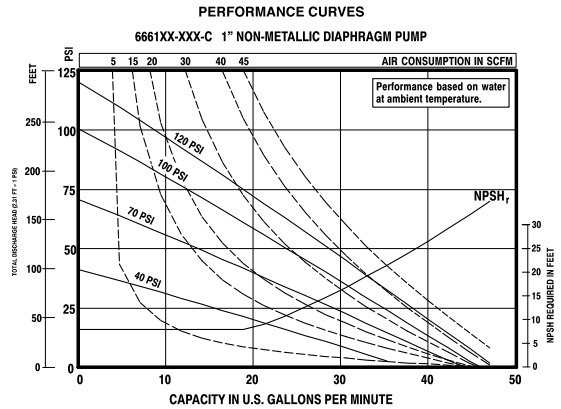
Flange Connection Kit  
67078

# 1" Non-Metallic Dimensions and Flow Charts



## DIMENSIONS

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



Refer to [www.AROzone.com](http://www.AROzone.com) for full size flow curves.  
For additional information contact  
technical support at 1.800.495.0276

# 1" Non-Metallic Models

## EXP SERIES PUMPS

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

|  |  |
|--|--|
| Ratio:                                   | 1:1  |
| Maximum GPM (L/min):                     | 53 (200)   |
| Displacement per cycle Gallons (Liters): | 0.226 (0.86)   |
| Air Inlet (Female):                      | 1/4 - 18 N.P.T.  |
| Fluid Inlet/Outlet:                      | 1 - 1-1/2 N.P.T.F., Rp1(1-11 BSP)<br>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)<br>Polypropylene, Center Ported 19.59 (8.89)<br>Polypropylene, Side Ported 19.87 (9.01)<br>PVDF, Threaded Port 25.83 (11.72)<br>PVDF, Center Ported 26.72 (12.12)<br>PVDF, Side Ported 27.15 (12.32) |
| Maximum dry suction lift ft(m) :         | 19 (5.7)   |
| Sound Level:                             | 70 PSI (4.8 bar) 60 Cycles/Min 79.7 db(A)  |
| Muffler Included:                        | 93110  |



PD10P-FKS-KAA

### Ordering

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

| Position 1<br>Model Series  | Position 2<br>Center Section                      | Position 3<br>Connections   | Position 4<br>Wetted Parts   | Position 5<br>Hardware | Position 6<br>Seat Material                                      | Position 7<br>Ball Material   | Position 8<br>Diaphragm Material   | Position 9   |
|---|---|---|--|------------------------|--|---|--|--|
| PD10 - Standard Pump<br>PE10 - Electronic Interface Accessible Pump | E - Conductive Polypropylene<br>P - Polypropylene | A - NPTF Thread<br>B - BSP Thread<br>F - 1" A.N.S.I./DIN Flange (Side)<br>Y - 1" A.N.S.I./DIN Flange (Center) | E - Conductive Polypropylene*<br>K - PVDF<br>N - Conductive PVDF*<br>P - Polypropylene | S - SS                 | H - 440 SS (Hard)<br>K - PVDF<br>P - Polypropylene<br>S - 316 SS | A - Santoprene®<br>C - Hytrel®<br>G - Nitrile<br>T - PTFE<br>V - Viton® | A - Santoprene®<br>C - Hytrel®<br>G - Buna-N<br>L - Long-Life PTFE<br>M - Med. Grade Santoprene®<br>T - PTFE/Santoprene®<br>V - Viton® | Revision Level<br><b>Position 10 &amp; 11 Specialty Code</b><br>Fluid control options for pump with electronic interface (PE20 model). See complete description on page 25 |

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

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

### Accessories

**Air Line Connection Kit | 66073-2**

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

**Diaphragm Failure Detection | 67237**

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

**Cycle Counter Kit | 66350**

**Cycle Sensor Kit | 67350**

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

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

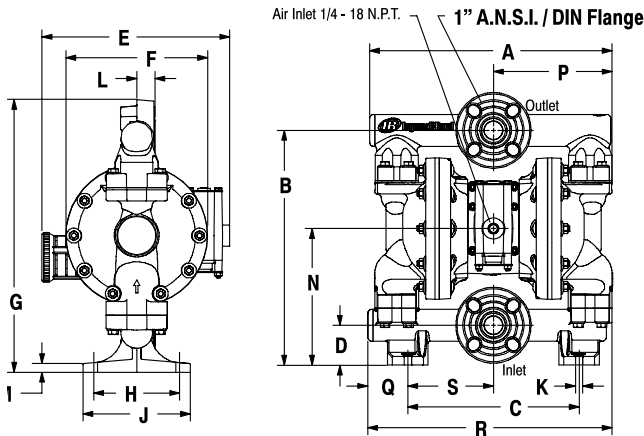
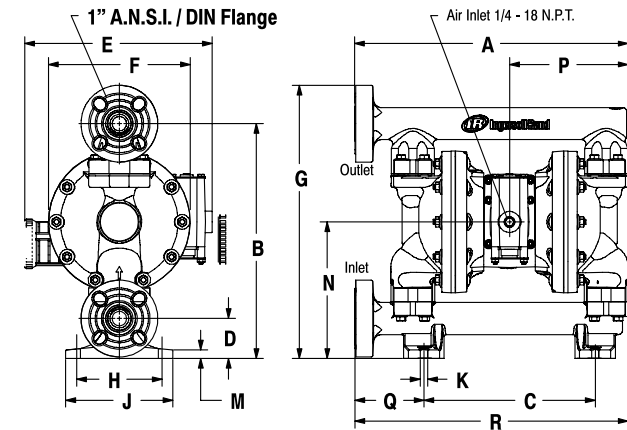
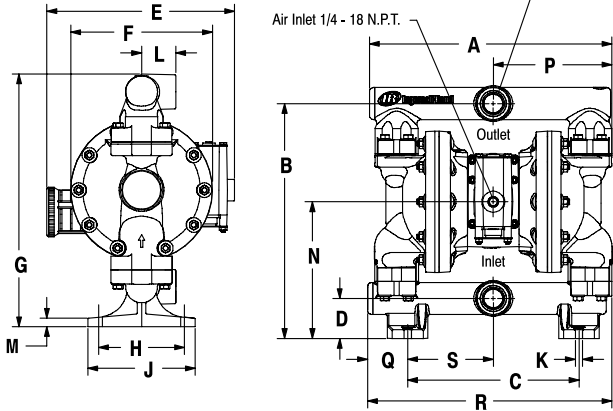
Use with non-metallic EXP pumps with the flange manifold option





# 1" Non-Metallic Dimensions and Flow Charts

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



### DIMENSIONS

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

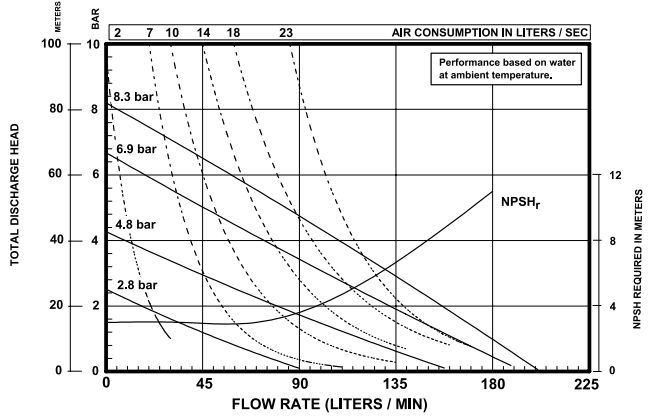
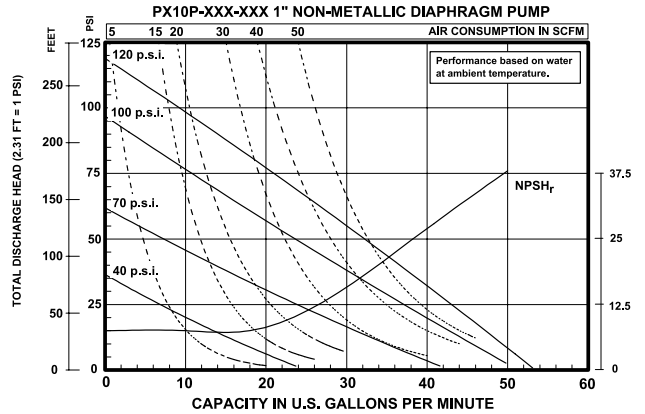
- G - see below
- H - 5-1/32" (127.6 mm)
- J - 6-9/32" (159.6 mm)
- K - 7/16" (11.1 mm)
- L - see below
- M - 1/2" (12.7 mm)

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

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

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

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



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

### Ordering Position 10

#### Specialty Code 1 (Blank if no Specialty Code)

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

### Ordering Position 11

#### Specialty Code 2 (Blank if no Specialty Code)

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

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

# 1-1/2" Non-Metallic Models

## PRO SERIES PUMPS

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

|                                    |   |
|------------------------------------|---|
| Ratio:                             | 1:1   |
| Maximum Flow gpm (L/min):          | 100 (378.5)   |
| Displacement per cycle gal (l):    | .67 (2.54)  |
| Air Inlet (Female):                | 1/2 - 14 NPTF - 1   |
| Fluid Inlet/Outlet:                | 1-1/2" A.N.S.I./DIN Flange  |
| Max. operating pressure psi (bar): | 120 (8.3)   |
| Suspended solids max. dia in (mm): | .25 (6.4)   |
| Weight lbs (kg):                   | 6661T3-X-C 62 (28.1)<br>Note: Add 23 (10.4) for cast iron air motor section |
| Maximum dry suction lift ft (m):   | 14 (4.27)   |
| Sound Level:                       | 70 PSI (4.8 bar) 60 Cycles/Min 77.7 db(A)                                   |



6661T3-389-C

### Ordering

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

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

### Accessories

**Air Line Connection Kit** | 66084-1

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

**Cycle Counter Kit** | 66975

**Service Repair Kits** | 637118-C (air section)

637165-XX (fluid section)

**Flange Connection Kit** | 67079 Kit meets ANSI specifications.

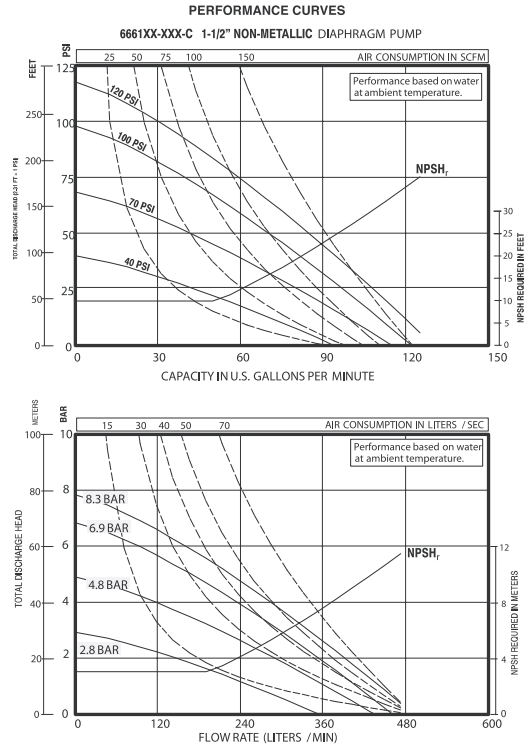
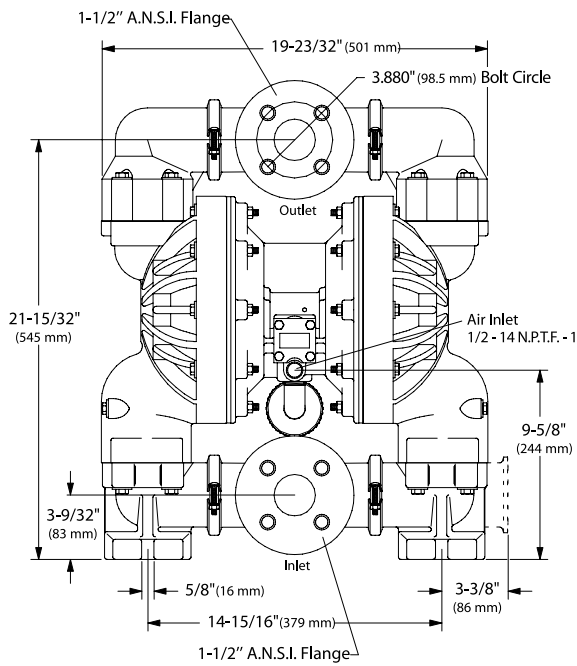
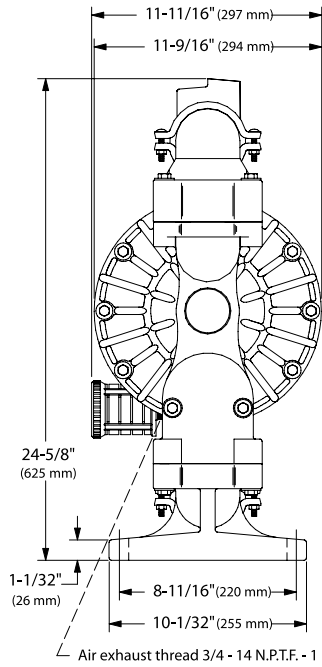
Flange constructed of glass-filled polypropylene. Bolts, washers and nuts are stainless steel. Gasket is 4401 klinger synthetic fiber nitrile binder.



Flange Connection Kit  
67079

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

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



Refer to [www.AROzone.com](http://www.AROzone.com) for full size flow curves.  
For additional information contact  
technical support at 1.800.495.0276

# 1-1/2" Non-Metallic Models

## EXP SERIES PUMPS

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

**UPGRADE**  
PUMP FOR REMOTE  
ACTUATION CAPABILITY

|  |  |
|--|--|
| Ratio:                                   | 1:1  |
| Maximum GPM (L/min):                     | 123 (465)  |
| Displacement per cycle Gallons (Liters): | 0.617 (2.34)   |
| Air Inlet (Female):                      | 1/2 - 14 N.P.T.  |
| Fluid Inlet/Outlet:                      | 1-1/2" 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)<br>PVDF, Side Ported 63.9 (29)<br>Polypropylene, Center Ported 42.3 (19.2)<br>PVDF, Center Ported 55.9 (25.3) |
| Maximum dry suction lift ft (m) :        | 14 (4.2)   |
| Sound Level:                             | 70 PSI (4.8 bar) 60 Cycles / Min 81.0 db(A)  |
| Muffler Included:                        | 93139  |



PX10P-FPS-PTL

## Ordering

| Position        | 1           | 2        | 3 | 4        | 5        | 6        | 7 | 8        | 9        | 10       | 11 |          |          |          |
|-----------------|-------------|----------|---|----------|----------|----------|---|----------|----------|----------|----|----------|----------|----------|
| <b>Example:</b> | <b>PX15</b> | <b>X</b> | - | <b>X</b> | <b>X</b> | <b>S</b> | - | <b>X</b> | <b>X</b> | <b>X</b> | -  | <b>A</b> | <b>X</b> | <b>X</b> |

| Position 1<br>Model<br>Series                                       | Position 2<br>Center<br>Section                   | Position 3<br>Connections  | Position 4<br>Wetted<br>Parts                                  | Position 5<br>Hardware | Position 6<br>Seat<br>Material                                   | Position 7<br>Ball<br>Material  | Position 8<br>Diaphragm<br>Material   | Position 9   |
|---|---|--|--|------------------------|--|---|---|--|
| PD15 - Standard Pump<br>PE15 - Electronic Interface Accessible Pump | E - Conductive Polypropylene<br>P - Polypropylene | F - 1-1/2" A.N.S.I./DIN Flange (Side)<br>Y - 1-1/2" A.N.S.I./DIN Flange (Center) | E - Conductive Polypropylene*<br>K - PVDF<br>P - Polypropylene | S - SS                 | H - 440 SS (Hard)<br>K - PVDF<br>P - Polypropylene<br>S - 316 SS | A - Santoprene®<br>C - Hytrel®<br>G - Nitrile<br>S - 316 SS<br>T - PTFE<br>V - Viton® | A - Santoprene®<br>C - Hytrel®<br>G - Buna-N<br>L - Long-Life PTFE<br>M - Medical Grade Santoprene®<br>T - PTFE/Santoprene®<br>V - Viton® | Revision Level<br><b>Position 10 &amp; 11<br/>Specialty Code</b><br>Fluid control options for pump with electronic interface (PE20 model). See complete description on page 29 |

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

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

## Accessories

**Air Line Connection Kit** | 66084-1

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

**Diaphragm Failure Detection** | 67237

**Cycle Counter Kit** | Cycle Counter Kit| 66350

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

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

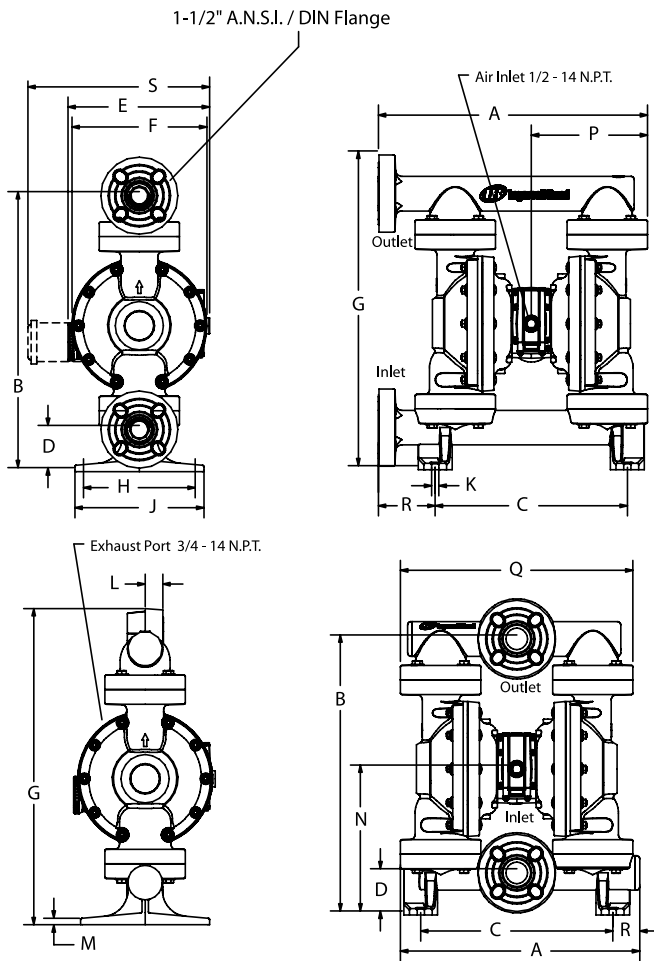
Use with non-metallic EXP pumps with the flange manifold option



Flange Connection Kit



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

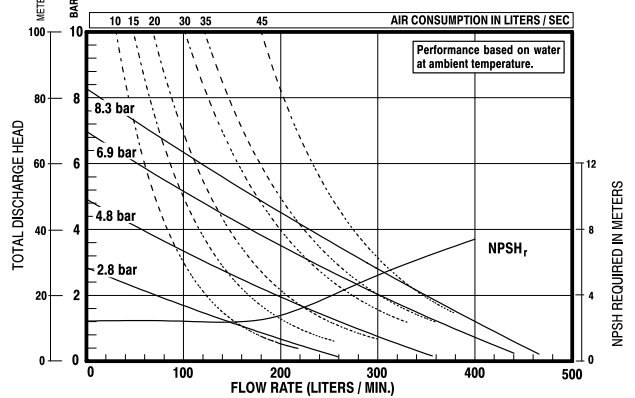
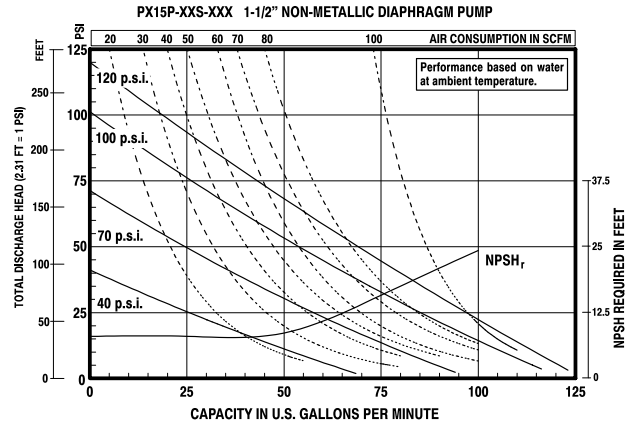


- A - see below
- B - 21-15/32" (545.3 mm)
- C - 14-15/16" (379.4 mm)
- D - 3-9/32" (83.3 mm)
- E - see below
- F - 10-1/2" (266.3 mm)
- G - see below
- H - 8-11/16" (220.7 mm)
- J - 10-1/32" (254.8 mm)
- K - 9/16" (14.3 mm)
- L - see below
- M - 17/32" (13.0 mm)
- N - 11-3/8" (288.4 mm)
- P - 9-1/32"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

- PX15P-**EXS**-XXX  
(End Flange)
- A - 20-15/16" (531.6 mm)
  - G - 24-15/32" (621.5 mm)
  - L - -----
  - Q - -----
  - R - 4-7/16" (112.4 mm)

- PX15P-**YXS**-XXX  
(Center Flange)
- A - 18-19/32" (472.3 mm)
  - G - 24-19/32" (624.5 mm)
  - L - 1-3/8" (34.9 mm)
  - Q - 18-3/32" (459.0 mm)
  - R - 2-3/32" (53.1 mm)

- PX15**E**-XXX-XXX      "E"      -----      "S"      14-1/8" (358.5 mm)
- PX15**P**-XXX-XXX      11" (279.5 mm)      -----



Refer to [www.AROzone.com](http://www.AROzone.com) for full size flow curves.  
For additional information contact technical support at 1.800.495.0276

## Ordering Position 10

### Specialty Code 1 (Blank if no Specialty Code)

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

## Ordering Position 11

### Specialty Code 2 (Blank if no Specialty Code)

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

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

# 2" Non-Metallic Models

## PRO SERIES PUMPS

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

|                                    |  |
|------------------------------------|--|
| Ratio:                             | 1:1  |
| Maximum Flow gpm (L/min):          | 145 (548.8)  |
| Displacement per cycle gal (l):    | .72 (2.7)  |
| Air Inlet (Female):                | 1/2 - 14 NPTF - 1  |
| Fluid Inlet/Outlet:                | 2" A.N.S.I./DIN Flange   |
| Max. operating pressure psi (bar): | 120 (8.3)  |
| Suspended solids max. dia in (mm): | .25 (6.4)  |
| Weight lbs (kg):                   | 6662A3-X-C 62 (28.1)<br>Note: Add 23 (10.4) for cast iron<br>air motor section |
| Maximum dry suction lift ft (m):   | 14 (4.27)  |
| Sound Level:                       | 70 PSI (4.8 bar) 60 Cycles/Min 77.7 db(A)                                      |



6662A3-333-C

## Ordering

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

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

## Accessories

### Air Line Connection Kit | 66084-1

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

### Cycle Counter Kit | 66975

**Service Repair Kits** | 637118-C (air section)

637165-XX (fluid section)

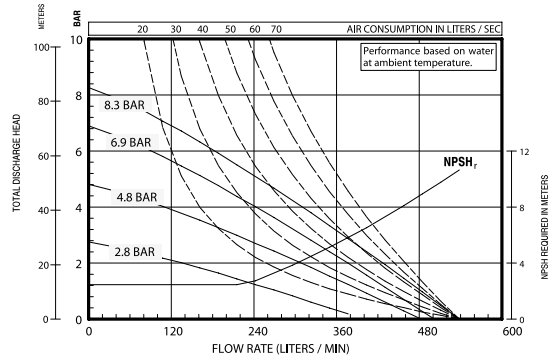
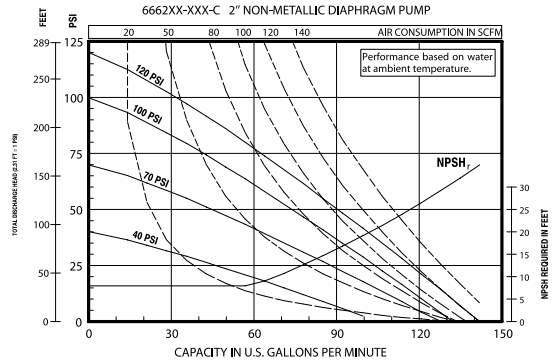
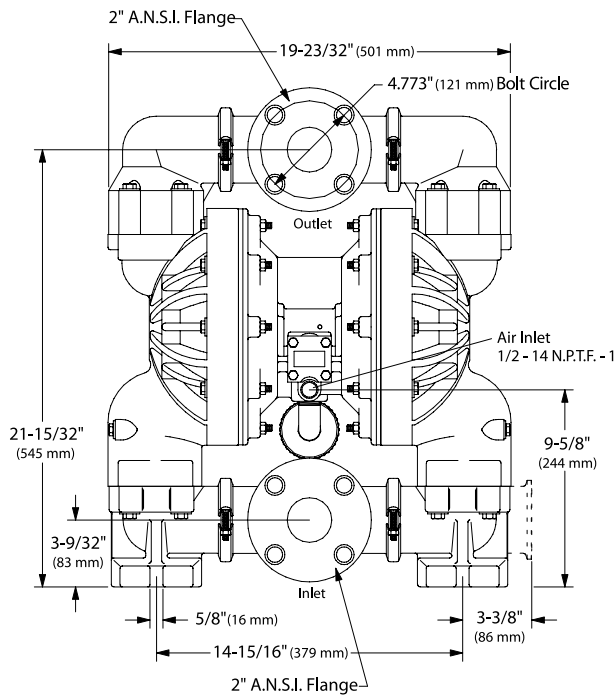
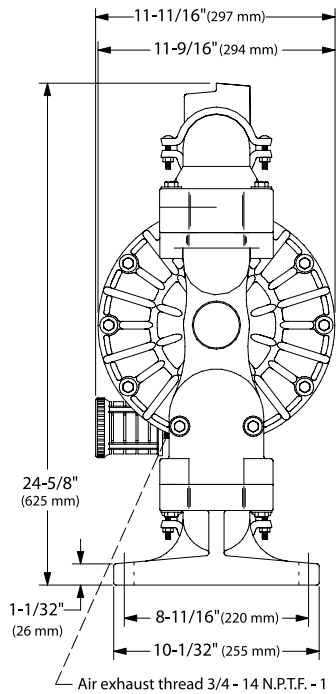
**Flange Connection Kit** | 67080 Kit meets ANSI specifications. Flange constructed of glass-filled polypropylene. Bolts, washers and nuts are stainless steel. Gasket is 4401 klinger synthetic fiber nitrile binder.



Flange Connection Kit  
67080

## 2" Non-Metallic Dimensions and Flow Charts

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



Refer to [www.AROzone.com](http://www.AROzone.com) for full size flow curves.

For additional information contact technical support at 1.800.495.0276

# 2" Non-Metallic Models

## EXP SERIES PUMPS

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

**UPGRADE**  
PUMP FOR REMOTE  
ACTUATION CAPABILITY

|  |  |
|--|--|
| Ratio:                                   | 1:1  |
| Maximum GPM (L/min):                     | 184 (696)                                      |
| Displacement per cycle Gallons (Liters): | 1.4 (5.3)                                      |
| Air Inlet (Female):                      | 3/4 - 14 N.P.T.                                |
| Fluid Inlet/Outlet:                      | 2" 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)<br>PVDF 110.9 (50.3) |
| Maximum dry suction lift ft (m):         | 14 (4.2)                                       |
| Sound Level:                             | 70 PSI (4.8 bar) 60 Cycles/Min 85.0 db(A)      |
| Muffler Included:                        | 93139  |



PX20P-FPS-PTL-B

## Ordering

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

| Position 1<br>Model Series  | Position 2<br>Center Section                      | Position 3<br>Connections         | Position 4<br>Wetted Parts   | Position 5<br>Hardware | Position 6<br>Seat Material   | Position 7<br>Ball Material   | Position 8<br>Diaphragm Material  | Position 9   |
|---|---|-----------------------------------|--|------------------------|-------------------------------|---|---|--|
| PD20 - Standard Pump<br>PE20 - Electronic Interface Accessible Pump | E - Conductive Polypropylene<br>P - Polypropylene | F - 2" A.N.S.I./DIN Flange (Side) | E - Conductive Polypropylene*<br>K - PVDF<br>N - Conductive PVDF*<br>P - Polypropylene | S - SS                 | K - PVDF<br>P - Polypropylene | A - Santoprene®<br>C - Hytrel®<br>G - Nitrile<br>T - PTFE<br>V - Viton® | A - Santoprene®<br>C - Hytrel®<br>G - Buna-N<br>L - Long-Life PTFE<br>M - Medical Grade Santoprene®<br>T - PTFE/Santoprene®<br>V - Viton® | Revision Level<br><b>Position 10 &amp; 11<br/>Specialty Code</b><br>Fluid control options for pump with electronic interface (PE20 model). See complete description on page 33 |

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

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

## Accessories

**Air Line Connection Kit** | 66109

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

**Diaphragm Failure Detection** | Kit No.67237

**Cycle Counter Kit** | 66350

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

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

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

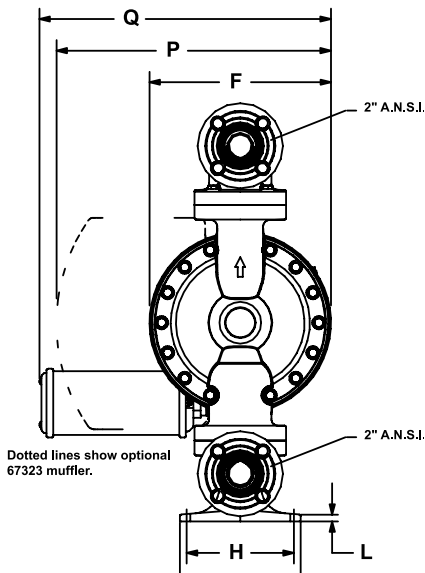
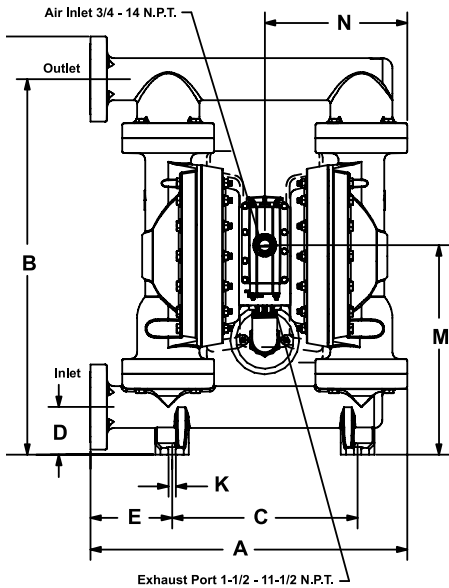
**Flange Connection Kit** | 67341-E20N



67323  
Continuous Duty  
Muffler

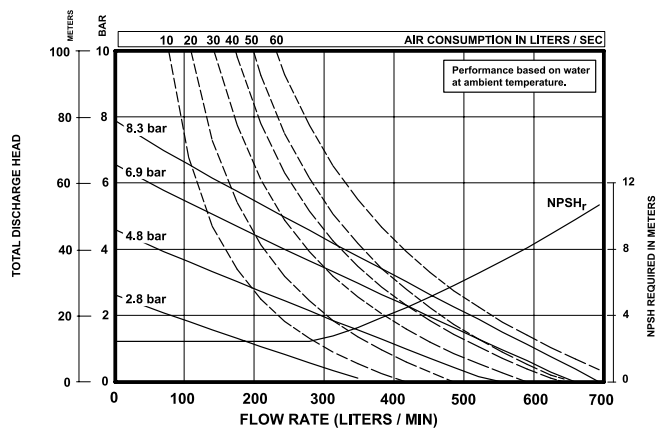
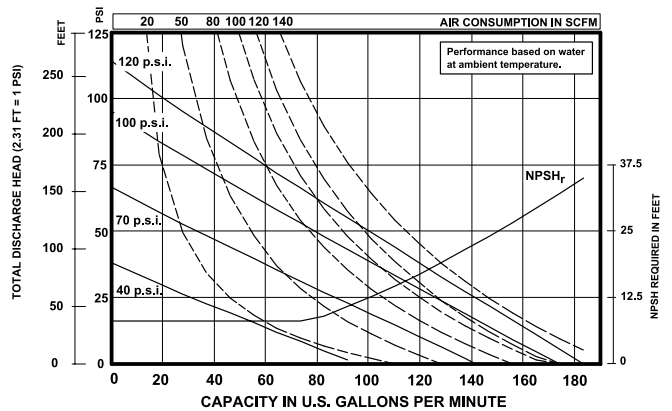


## 2" Non-Metallic Dimensions and Flow Charts



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

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



Refer to [www.AROzone.com](http://www.AROzone.com) for full size flow curves.

For additional information contact  
technical support at 1.800.495.0276

### Ordering Position 10

#### Specialty Code 1 (Blank if no Specialty Code)

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

### Ordering Position 11

#### Specialty Code 2 (Blank if no Specialty Code)

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

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

# 3" Non-Metallic Models

## EXP SERIES PUMPS

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

|  |  |
|--|--|
| Ratio:                                   | 1:1  |
| Maximum GPM (L/min):                     | 285 (1079)                                     |
| Displacement per cycle Gallons (Liters): | 2.80 (10.6)                                    |
| Air Inlet (Female):                      | 3/4 - 14 N.P.T.                                |
| Fluid Inlet/Outlet:                      | 3" ANSI/DIN flange                             |
| Max. operating pressure psi (bar):       | 120 (8.3)                                      |
| Suspended solids max. dia. in. (mm):     | 3/8" (9.5)                                     |
| Weight lbs (kg):                         | Polypropylene 170 (77.11)<br>PVDF 242 (109.77) |
| Maximum dry suction lift ft (m):         | 20.5 (6.3)                                     |
| Sound Level:                             | 70 PSI (4.8 bar) 60 Cycles/Min 85.0 db(A)      |
| Muffler Included:                        | 67389  |

**UPGRADE**  
PUMP FOR REMOTE  
ACTUATION CAPABILITY



PX30P-DPS-PTL-A

## Ordering

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

| Position 1<br>Model Series   | Position 2<br>Center Section | Position 3<br>Connections                             | Position 4<br>Wetted Parts    | Position 5<br>Hardware | Position 6<br>Seat Material   | Position 7<br>Ball Material   | Position 8<br>Diaphragm Material  | Position 9   |
|--|------------------------------|---|-------------------------------|------------------------|-------------------------------|---|---|--|
| PD30 - Standard Pump<br>PE30† - Electronic Interface Accessible Pump | P - Polypropylene            | D - 3" ANSI 4-hole Flange<br>F - 3" DIN 8-hole Flange | K - PVDF<br>P - Polypropylene | S - SS                 | K - PVDF<br>P - Polypropylene | A - Santoprene®<br>C - Hytrel®<br>G - Nitrile<br>T - PTFE<br>V - Viton® | A - Santoprene®<br>C - Hytrel®<br>G - Buna- N<br>L - Long-Life PTFE<br>T - PTFE/<br>Santoprene® | Revision Level<br><b>Position 10 &amp; 11 Specialty Code</b><br>Fluid control options for pump with electronic interface (PE30 model). See complete description on page 35 |

† Call customer service for availability

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

## Accessories

**Air Line Connection Kit | 66109**

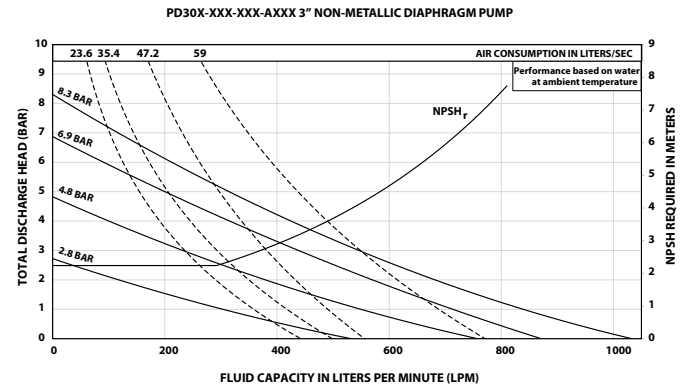
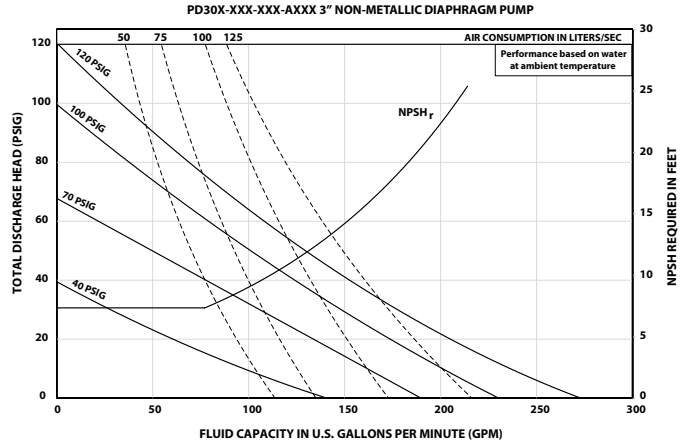
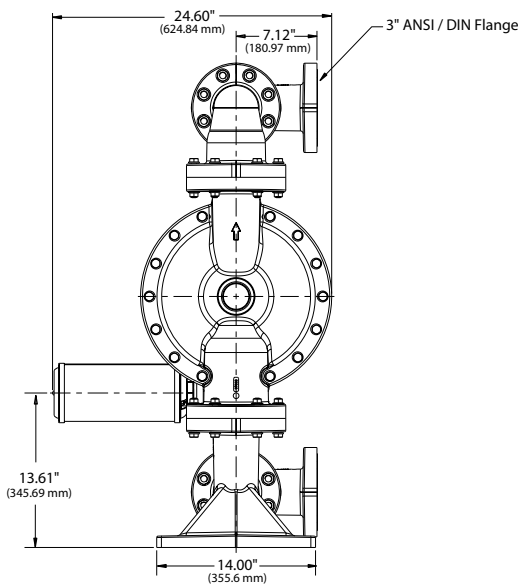
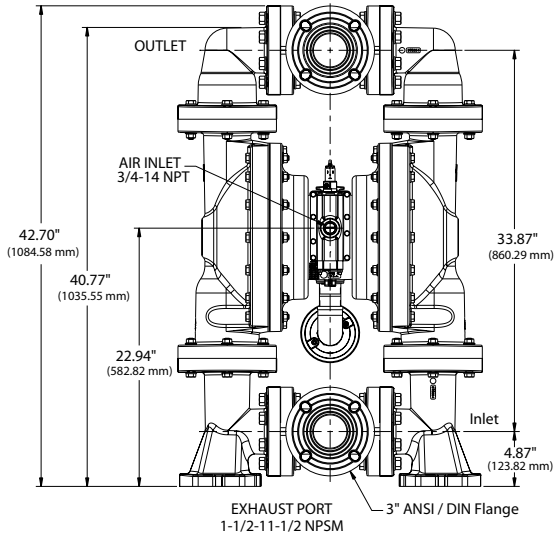
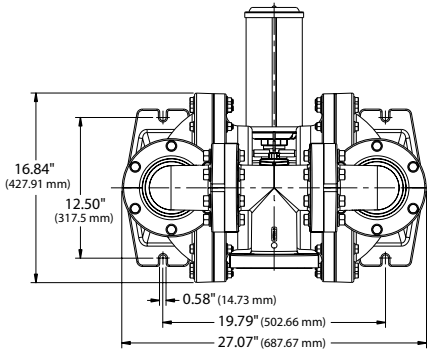
(Piggyback Filter/Regulator with gauge, pipe nipple and 5-foot air hose)

**Diaphragm Failure Detection | Kit No.67237**

**Cycle Sensor Kit | 67350-1**

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

### 3" Non-Metallic Dimensions and Flow Charts



Refer to [www.AROzone.com](http://www.AROzone.com) for full size flow curves.  
For additional information contact technical support at 1.800.495.0276

#### Ordering Position 10

#### Specialty Code 1 (Blank if no Specialty Code)

- A - Solenoid 120VAC
- B - Solenoid 12VDC
- C - Solenoid 240VAC
- D - Solenoid 24VDC
- N - Solenoid with no coil
- O - Standard Valve Block (No Solenoid)
- P - Ported Motor (No major valve provided)

#### Ordering Position 11

#### Specialty Code 2 (Blank if no Specialty Code)

- E - End of stroke feedback + Leak Detection
- F - End of stroke feedback
- L - Leak Detection
- O - No Option



---

## Metallic Models

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

# Metallic Model Overview

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

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

**UPGRADE**  
PUMP FOR REMOTE  
ACTUATION CAPABILITY



| Models                               | 1/2" Metallic               | 3/4" Metallic | 1" Metallic                              |  | 1-1/2" Metallic                          |  |
|--------------------------------------|-----------------------------|---------------|--|--|--|--|
| Maximum Flow L/min (gpm)             | 45.4 (12)                   | 51.5 (13.6)   | 133 (35)                                 | 197 (52)   | 340.7 (90)                               | 465 (123)  |
| Maximum Discharge Pressure bar (psi) | 6.9 (100)                   | 6.9 (100)     | 8.3 (120)                                | 8.3 (120)  | 8.3 (120)                                | 8.3 (120)  |
| Material of Construction             | Aluminum<br>Stainless Steel | Aluminum      | Aluminum<br>Cast Iron<br>Stainless Steel | Aluminum<br>Cast Iron<br>Stainless Steel<br>Hastelloy® | Aluminum<br>Cast Iron<br>Stainless Steel | Aluminum<br>Cast Iron<br>Stainless Steel<br>Hastelloy® |
| Maximum Solids mm (in)               | 2.4 (3/32)                  | 2.4 (3/32)    | 3.2 (1/8)                                | 3.32 (1/8)   | 6.4 (1/4)                                | 6.4 (1/4)  |
| Maximum Dry Suction Lift m (ft)      | 4.5 (15)                    | 4.5 (15)      | 6.1 (20)                                 | 5.7 (19)   | 5.8 (19)                                 | 4.2 (14)   |



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

Compact Series Diaphragm Pumps

PRO Series Diaphragm Pumps

EXP Series Diaphragm Pumps

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



# 1/2" Metallic Models

## COMPACT SERIES PUMPS

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

|                                    |   |
|------------------------------------|---|
| Ratio:                             | 1:1   |
| Maximum Flow gpm (L/min):          | 12.0 (45.4)   |
| Displacement per cycle gal (l):    | .039 (.15)  |
| Air Inlet (Female):                | 1/4 - 18 PTF SAE Short (PD05R-X-X-B models)<br>1/4 - 18 NPTF - 1 (PD05A-X-X-B models)                               |
| Fluid Inlet/Outlet:                | 1/2 - 14 NPTF - 1<br>Rp 1/2 (1/2 - 14 BSP, parallel)  |
| Max. operating pressure psi (bar): | 100 (6.9)   |
| Suspended solids max. dia in (mm): | .09375 (2.4)  |
| Weight lbs (kg):                   | PD05A-XAS-XXX-B 10.4 (4.7)<br>PD05A-XSS-XXX-B 16.6 (7.5)<br>PD05R-XAS-XXX-B 8.0 (3.7)<br>PD05R-XSS-XXX-B 14.3 (6.5) |
| Maximum dry suction lift ft (m):   | 15 (4.5)  |
| Sound Level:                       | 70 PSI (4.8 bar) 60 Cycles/Min 75 db(A)   |
| Muffler:                           | PD05A - 93110; PD05R - Integral   |



### Ordering

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

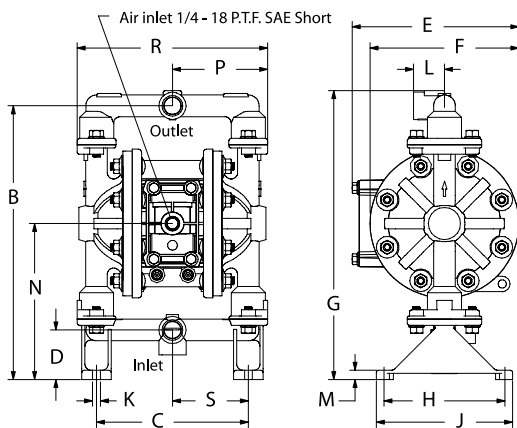
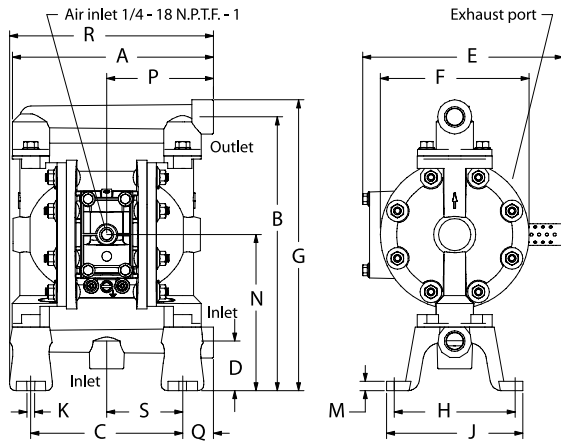
| Position 1<br>Model Series                   | Position 2<br>Center Section      | Position 3<br>Connections                                    | Position 4<br>Manifold Material     | Position 5<br>Hardware | Position 6<br>Seat Material                              | Position 7<br>Ball Material   | Position 8<br>Diaphragm Material  | Position 9<br>Specialty Code   |
|--|-----------------------------------|--|-------------------------------------|------------------------|--|---|---|--|
| D - Standard<br>E - Remote Actuation Capable | A - Aluminum<br>R - Polypropylene | A - 1/2 - 14 NPTF - 1<br>B - Rp 1/2 (1/2 - 14 BSP, parallel) | A - Aluminum<br>S - Stainless Steel | S - Stainless Steel    | F - Aluminum<br>P - Polypropylene<br>S - Stainless Steel | A - Santoprene<br>C - Hytrel<br>G - Nitrile<br>S - Stainless Steel<br>T - PTFE<br>U - Polyurethane<br>V - Viton | A - Santoprene<br>C - Hytrel<br>G - Nitrile<br>L - Long-Life PTFE<br>T - PTFE/Santoprene<br>U - Polyurethane<br>V - Viton | Revision Level<br><br><b>Position 10 &amp; 11 Specialty Code</b><br><br>Fluid control options for pump with electronic interface (PE05 model). See complete description on page 39 |

### Accessories

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



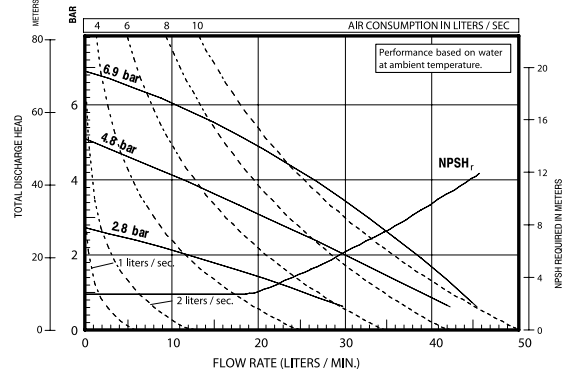
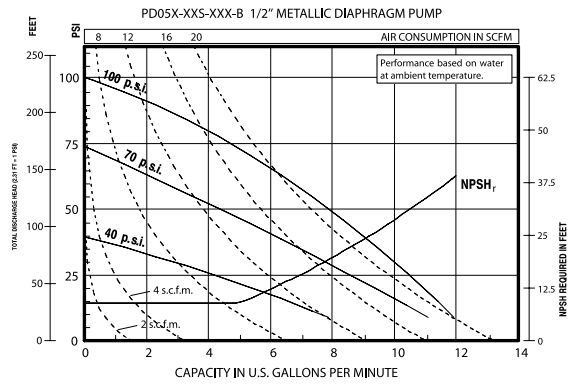
## 1/2" Metallic Dimensions and Flow Charts



### DIMENSIONS

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

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



Refer to [www.AROzone.com](http://www.AROzone.com) for full size flow curves.  
For additional information contact  
technical support at 1.800.495.0276

### Ordering Position 9

#### Specialty Code 1 (Blank if no Specialty Code)

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

### Ordering Position 10 and 11 Specialty Code 2 (Blank if no Specialty Code)

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

# 3/4" Metallic Models

## COMPACT SERIES PUMPS

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

|                                    |   |
|------------------------------------|---|
| Ratio:                             | 1:1                                     |
| Maximum Flow gpm (L/min):          | 13.6 (51.5)                             |
| Displacement per cycle gal (l):    | .030 (.11)                              |
| Air Inlet (Female):                | 1/4 - 18 PTF SAE Short                  |
| Fluid Inlet/Outlet:                | 3/4 - 14 NPTF-2                         |
|                                    | Rp 3/4 (3/4 -14 BSP, parallel)          |
| Max. operating pressure psi (bar): | 100 (6.9)                               |
| Suspended solids max. dia in (mm): | .09375 (2.4)                            |
| Weight lbs (kg):                   | PX07R 8.74 (3.96)                       |
|                                    | PX07A 11.0 (4.99)                       |
| Maximum dry suction lift ft (m):   | 15 (4.5)                                |
| Sound Level:                       | 70 PSI (4.8 bar) 60 Cycles/Min 75 db(A) |



PD07R-AAS-FAA

### Ordering

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

| Position 1<br>Model Series                        | Position 2<br>Center Section       | Position 3<br>Connections                                     | Position 4<br>Wetted Parts | Position 5<br>Hardware | Position 6<br>Seat Material       | Position 7<br>Ball Material                | Position 8<br>Diaphragm Material                                 | Position 9   |
|---|------------------------------------|---|----------------------------|------------------------|-----------------------------------|--|--|--|
| D - Standard Pump<br>E - Remote Actuation Capable | A - Aluminum*<br>R - Polypropylene | A - 3/4 - 14 N.P.T.F.-2<br>B - Rp 3/4 (3/4 -14 BSP, parallel) | A - Aluminum*              | S - SS                 | F - Aluminum<br>P - Polypropylene | A - Santoprene®<br>C - Hytrel®<br>T - PTFE | A - Santoprene®<br>C - Hytrel®<br>L - Long-Life PTFE<br>T - PTFE | Revision Level<br><br><b>Position 10 &amp; 11 Specialty Code</b><br><br>Fluid control options for pump with electronic interface (PE05 model). See complete description on page 41 |

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

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

### Accessories

#### Air Line Connection Kit | 66073-1

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

#### Cycle Counter Kit | 66975

#### Wall Mount Bracket Kit | 76763

#### Optional Muffler | 93110 used with 637438 kit

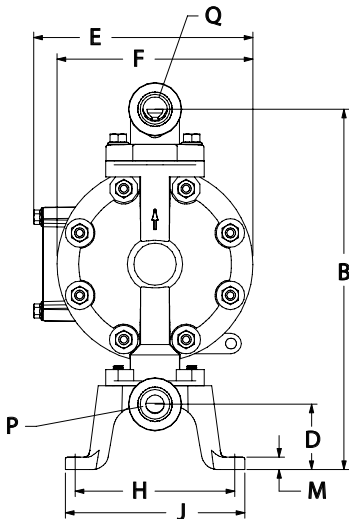
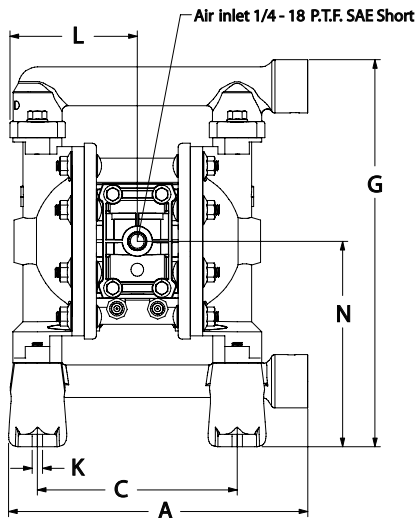
#### Service Repair Kits | 637428 (air section)

637427-XX (fluid section)



Air Line Connection Kit  
66073-1

## 3/4" Metallic Dimensions and Flow Charts

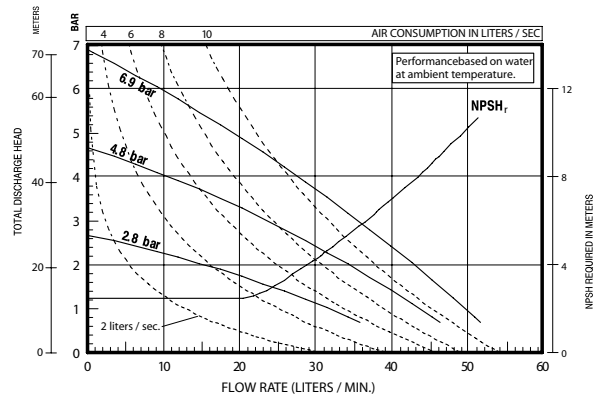
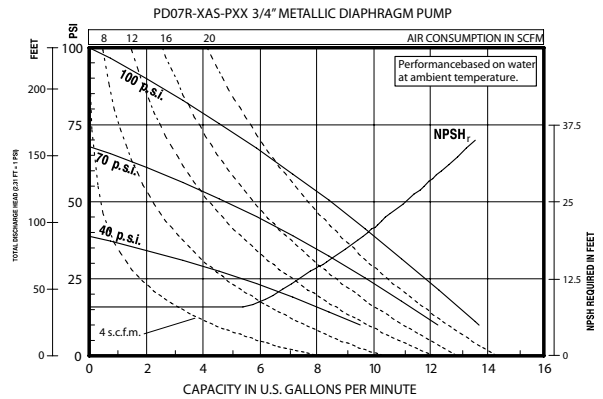


### DIMENSIONS

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

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

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



Refer to [www.AROzone.com](http://www.AROzone.com) for full size flow curves.  
For additional information contact  
technical support at 1.800.495.0276

### Ordering Position 10

#### Specialty Code 1 (Blank if no Specialty Code)

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

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

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

# 1" Metallic Models

## PRO SERIES PUMPS

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

|                                    |  |           |  |
|------------------------------------|--|-----------|--|
| Ratio:                             | 1:1  |           |  |
| Maximum Flow gpm (L/min):          | 35 (133)   |           |  |
| Displacement per cycle gal (l):    | .16 (.60)  |           |  |
| Air Inlet (Female):                | 1/4 - 18 NPTF - 1                                  |           |  |
| Fluid Inlet/Outlet:                | 1 - 11-1/2 NPTF - 1<br>Rp 1 (1-11 BSP parallel)    |           |  |
| Max. operating pressure psi (bar): | 120 (8.3)  |           |  |
| Suspended solids max. dia in (mm): | .125 (3.2)   |           |  |
| Weight lbs (kg):                   | 666100-X-C (aluminum)                              | 19 (8.6)  |  |
|                                    | 666101-X-C (stainless steel)                       | 29 (13.1) |  |
|                                    | 666102-X-C (cast iron)                             | 31 (14.1) |  |
|                                    | Note: Add 8 (3.63) for cast iron air motor section |           |  |
| Maximum dry suction lift ft (m):   | 20 (6.1)   |           |  |
| Sound Level:                       | 70 PSI (4.8 bar) 60 Cycles/Min 78.3dB(A)           |           |  |



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



6661X1 & 1XB  
Stainless Steel  
Pump

### Ordering

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

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

### Accessories

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

**Cycle Counter Kit** | 66975

**Service Repair Kits** | 637118-C (air section)

637119-XX-C (fluid section)

**Wall Mount** | 66100



Air Line Connection Kit  
66073-2

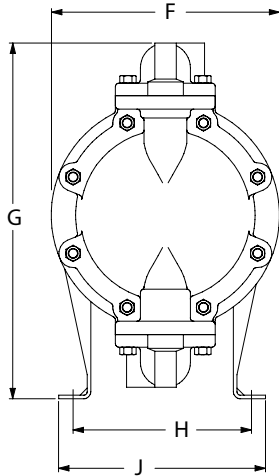
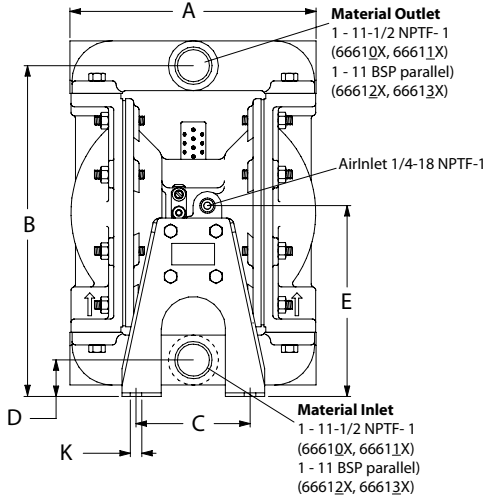


Wall Mount  
66100



# 1" Metallic Dimensions and Flow Charts

6661X0, 1XA, 1X2 & 1XC

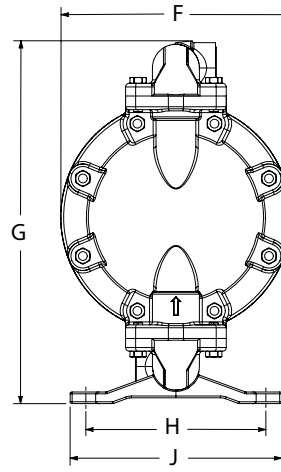
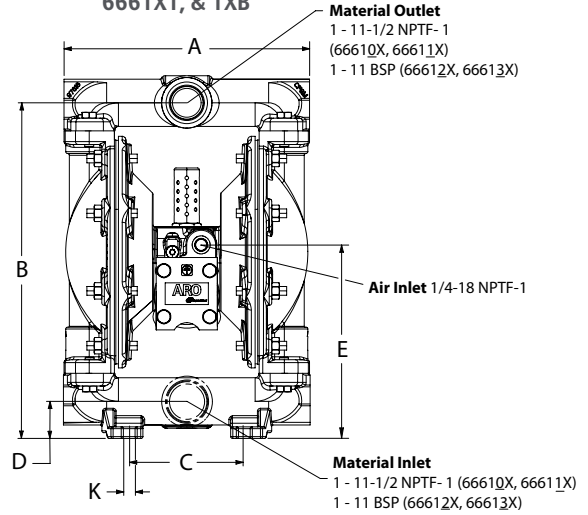


**DIMENSIONS**

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

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

6661X1, & 1XB



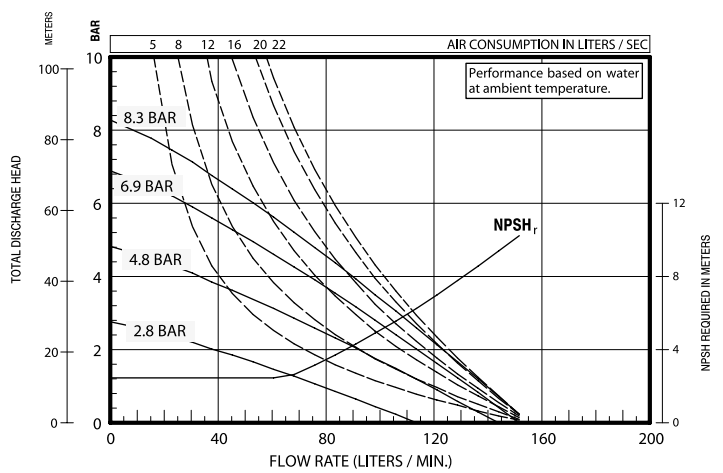
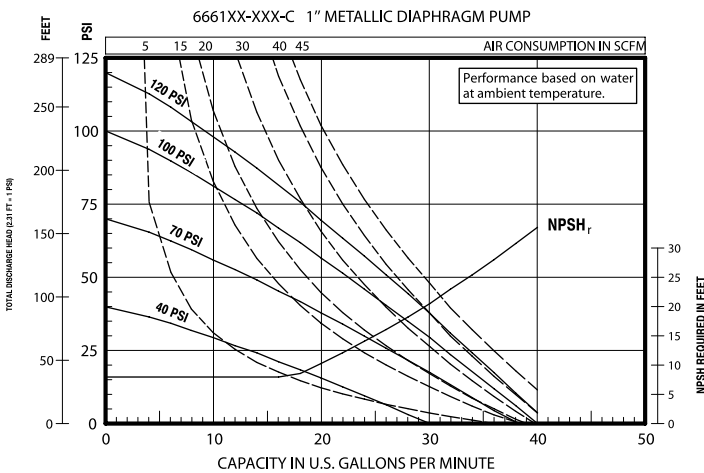
**DIMENSIONS**

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

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

**PERFORMANCE CURVES**

6661XX-XXX-C 1" METALLIC DIAPHRAGM PUMP



Refer to [www.AROzone.com](http://www.AROzone.com) for full size flow curves. For additional information contact technical support at 1.800.495.0276

# 1" Metallic Models

## EXP SERIES PUMPS

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

**UPGRADE**  
PUMP FOR REMOTE  
ACTUATION CAPABILITY

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



PX10A-AAP-AAA-A

### Ordering

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

| Position 1<br>Model<br>Series                                      | Position 2<br>Center<br>Section                            | Position 3<br>Connections         | Position 4<br>Wetted<br>Parts  | Position 5<br>Hardware     | Position 6<br>Seat<br>Material   | Position 7<br>Ball<br>Material  | Position 8<br>Diaphragm<br>Material   | Position 9   |
|--|--|-----------------------------------|--|----------------------------|--|---|---|--|
| PD10- Standard Pump<br>PE10 - Electronic Interface Accessible Pump | A - Aluminum*<br>R - Polypropylene<br>S - Stainless Steel* | A - NPTF Thread<br>B - BSP Thread | A - Aluminum*<br>C - Cast Iron<br>H - Hastelloy-C*<br>S - Stainless Steel* | P - Plated Steel<br>S - SS | A - Santoprene®<br>C - Hytrel®<br>E - Carbon Steel<br>F - Aluminum<br>G - Nitrile<br>H - 440 SS<br>L - Hastelloy-C<br>S - 316 SS | A - Santoprene®<br>C - Hytrel®<br>G - Nitrile<br>S - 316 SS<br>T - PTFE<br>V - Viton® | A - Santoprene®<br>C - Hytrel®<br>G - Buna-N<br>L - Long-Life PTFE<br>M - Medical Grade Santoprene®<br>T - PTFE/Santoprene®<br>V - Viton® | Revision Level<br><b>Position 10 &amp; 11<br/>Specialty Code</b><br>Fluid control options for pump with electronic interface (PE05 model). See complete description on page 45 |

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

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

### Accessories

- Air Line Connection Kit | 66073-2  
(Piggyback Filter/Regulator with gauge, pipe nipple and 5-foot air hose)
- Diaphragm Failure Detection | 67237
- Cycle Counter Kit | 66350
- Cycle Sensor Kit | 67350 (PE10X pump model is required)
- Service Repair Kits | 637397 (air motor for PX10A, PX10R and PX10S),  
637401-XX (fluid section with seats)  
637395-X (major air valve assembly)

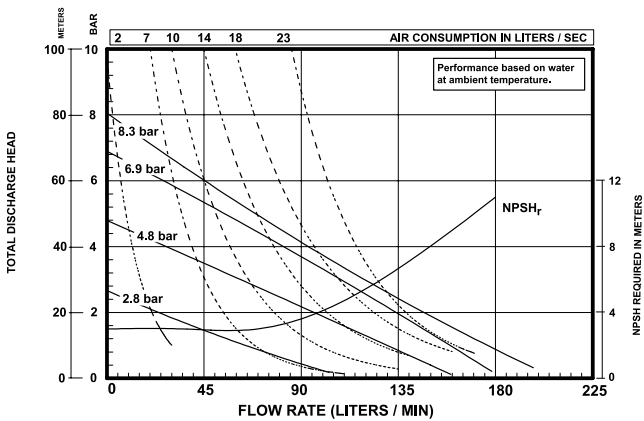
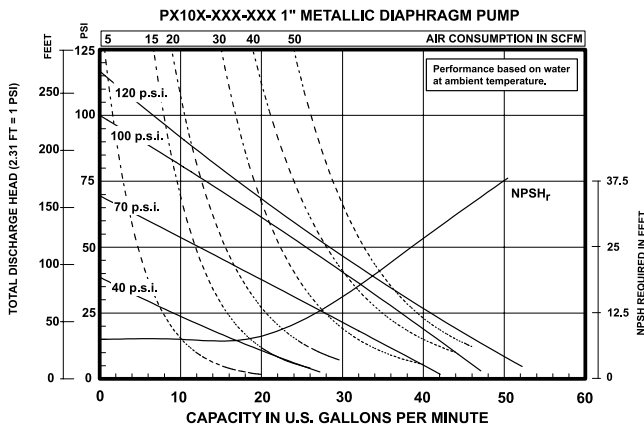
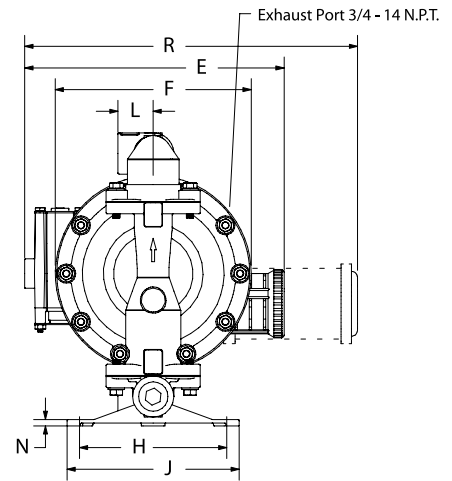
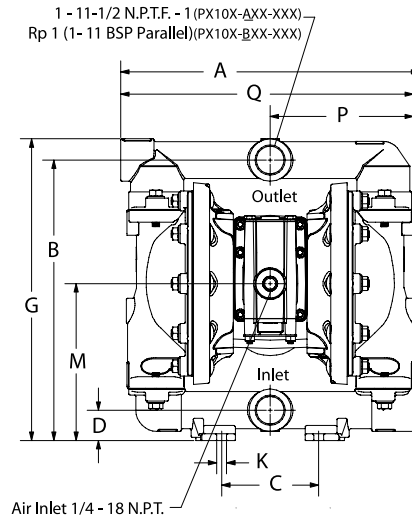
# 1" Metallic Dimensions and Flow Charts

## DIMENSIONS

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

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

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



Refer to [www.AROzone.com](http://www.AROzone.com) for full size flow curves.  
For additional information contact technical support at 1.800.495.0276

### Ordering Position 10

#### Specialty Code 1 (Blank if no Specialty Code)

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

### Ordering Position 11

#### Specialty Code 2 (Blank if no Specialty Code)

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

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

# 1-1/2" Metallic Models

## PRO SERIES PUMPS

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

|                                    |   |             |  |
|------------------------------------|---|-------------|--|
| Ratio:                             | 1:1   |             |  |
| Maximum Flow gpm (L/min):          | 90 (340.7)  |             |  |
| Displacement per cycle gal (l):    | .64 (2.42)  |             |  |
| Air Inlet (Female):                | 1/2 - 14 NPTF - 1   |             |  |
| Fluid Inlet/Outlet:                | 1-1/2 11-1/2 NPTF - 1<br>Rp 1-1/2 (1-1/2 - 11 BSP parallel) |             |  |
| Max. operating pressure psi (bar): | 120 (8.3)   |             |  |
| Suspended solids max. dia in (mm): | .25 (6.4)   |             |  |
| Weight lbs (kg):                   | 666150-X-C (aluminum)                                       | 51.5 (23.4) |  |
|                                    | 666151-X-C (stainless steel)                                | 77.5 (35.2) |  |
|                                    | 666152-X-C (cast iron)                                      | 79.5 (36.1) |  |
|                                    | Note: Add 23 (10.4) for cast iron air motor section         |             |  |
| Maximum dry suction lift ft (m):   | 19 (5.8)  |             |  |
| Sound Level:                       | 70 PSI (4.8 bar) 60 Cycles/Min 80.5 db(A)                   |             |  |



## Ordering

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

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

## Accessories

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

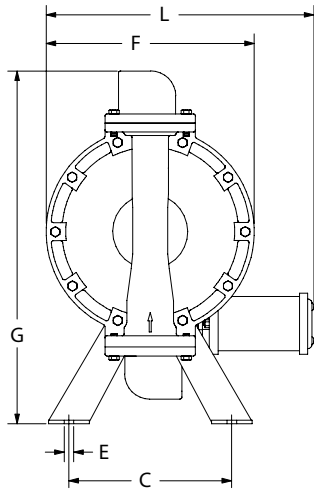
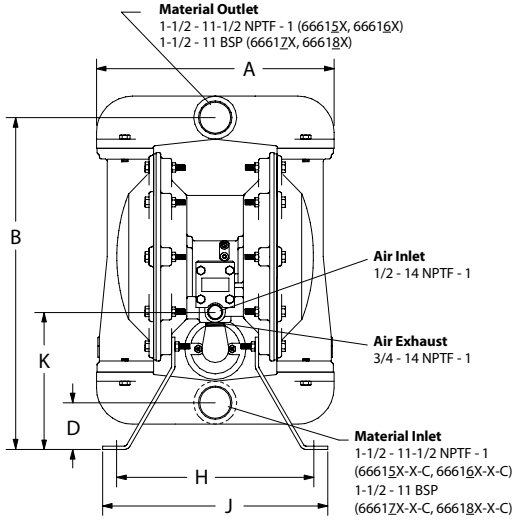
**Cycle Counter Kit** | 66975

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

**Wall Mount** | 62133

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

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

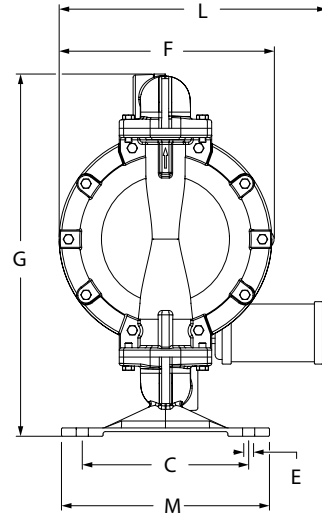
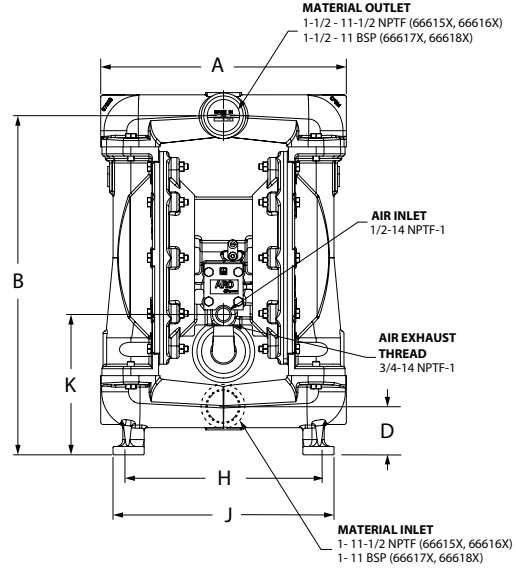


### DIMENSIONS

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

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

## 6661X1 & 1XB



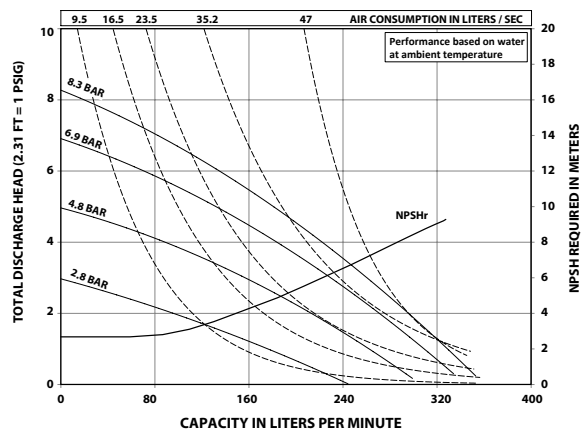
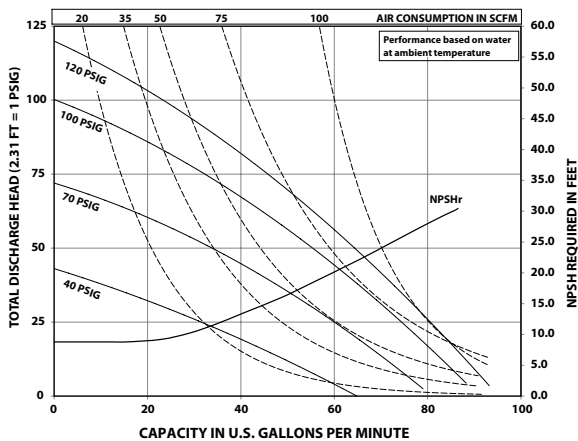
### DIMENSIONS

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

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

### PERFORMANCE CURVES

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



Refer to [www.AROzone.com](http://www.AROzone.com) for full size flow curves. For additional information contact technical support at 1.800.495.0276



# 1-1/2" Metallic Models

EXP SERIES PUMPS

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

**UPGRADE**  
PUMP FOR REMOTE  
ACTUATION CAPABILITY

|  |  |
|--|--|
| Ratio:                                   | 1:1  |
| Maximum GPM (L/min):                     | 123 (465)  |
| Displacement per cycle Gallons (Liters): | 0.617 (2.34)   |
| Air Inlet (Female):                      | 1/2 - 14 N.P.T.  |
| Fluid Inlet/Outlet:                      | 1-1/2" - 11-1/2 N.P.T.F.-1, Rp1-1/2(1-1/2-11BSP)<br>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)<br>PX15R-XCX-XXX 73.2 (33.2)<br>PX15R-XSX-XXX 61.2 (27.8)<br>PX15R-XHX-XXX 86.9 (39.4)             |
|  | Note: add 2.14 lbs (0.97 kg) for aluminum air motor section<br>add 18.14 lbs (8.23 kg) for stainless steel air motor section |
| Maximum dry suction lift ft(m):          | 14 (4.2)   |
| Sound Level:                             | 70 PSI (4.8 bar) 50 Cycles/Min 81.0 db(A)  |
| Muffler Included:                        | 350-568  |



PX15A-AAP-AAA-A

## Ordering

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

| Position 1<br>Model Series  | Position 2<br>Center Section                               | Position 3<br>Connections   | Position 4<br>Wetted Parts   | Position 5<br>Hardware                  | Position 6<br>Seat Material  | Position 7<br>Ball Material   | Position 8<br>Diaphragm Material  | Position 9   |
|---|--|---|--|---|--|---|---|--|
| PD15 - Standard Pump<br>PE15 - Electronic Interface Accessible Pump | A - Aluminum*<br>R - Polypropylene<br>S - Stainless Steel* | A - NPTF Thread<br>B - BSP Thread<br>Y† - 1-1/2" A.N.S.I./DIN Flange (Center)<br>† Stainless Steel Only | A - Aluminum*<br>C - Cast Iron<br>H - Hastelloy-C*<br>S - Stainless Steel* | P - Plated Steel<br>S - Stainless Steel | A - Santoprene®<br>C - Hytrel®<br>E - Carbon Steel<br>F - Aluminum<br>G - Nitrile<br>H - 440 Stainless Steel<br>L - Hastelloy-C<br>S - 316 Stainless Steel | A - Santoprene®<br>C - Hytrel®<br>G - Nitrile<br>S - 316 SS<br>T - PTFE<br>V - Viton® | A - Santoprene®<br>C - Hytrel®<br>G - Buna-N<br>L - Long-Life PTFE<br>M - Medical Grade Santoprene®<br>T - PTFE/Santoprene®<br>V - Viton® | Revision Level<br><b>Position 10 &amp; 11 Specialty Code</b><br>Fluid control options for pump with electronic interface (PE05 model). See complete description on page 49 |

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

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

## Accessories

**Air Line Connection Kit** | 66084-1

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

**Diaphragm Failure Detection** | 67237

**Cycle Counter Kit** | 67350

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

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

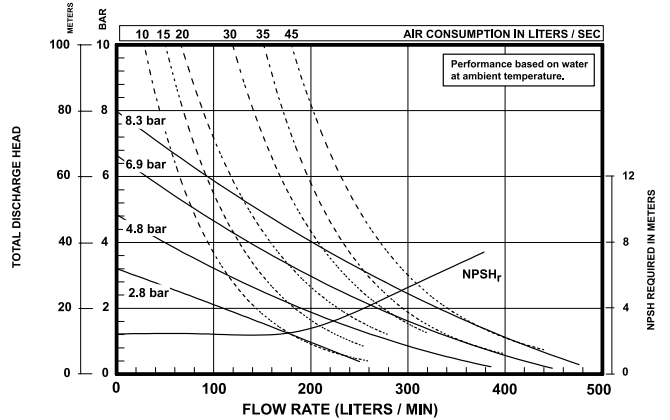
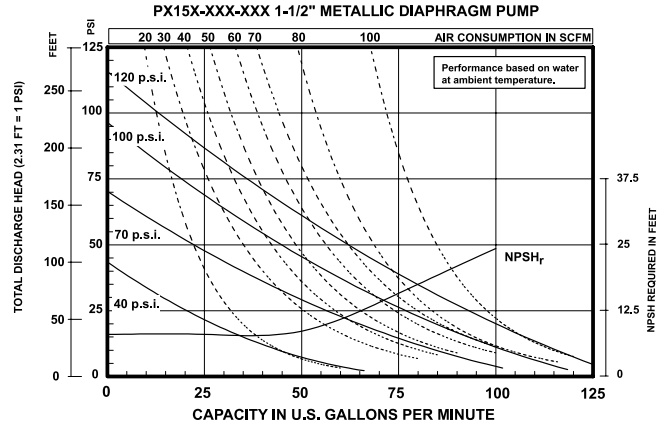
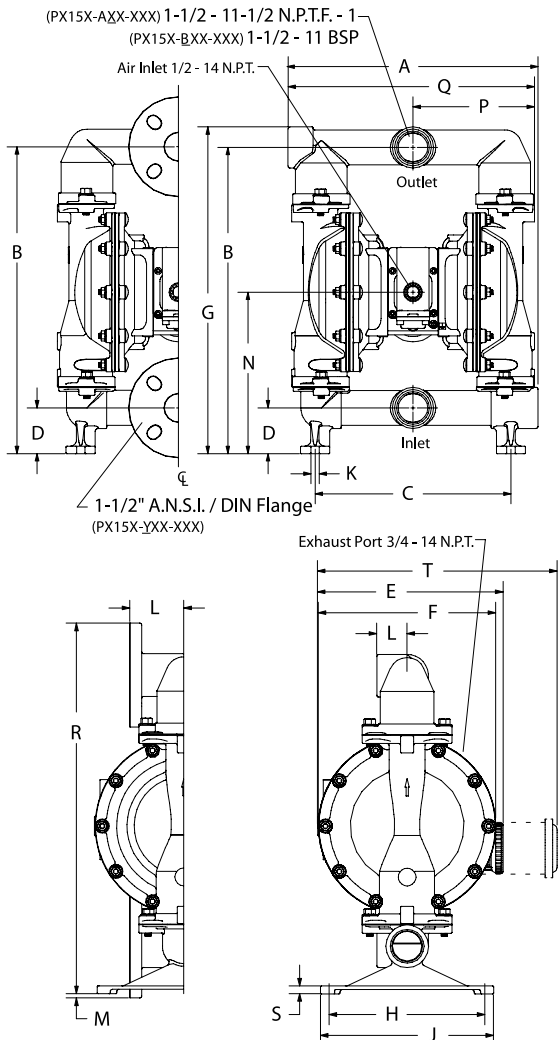
|                        |                        |                         |
|------------------------|------------------------|-------------------------|
| A - see below          | G - 19-5/8" (498.1 mm) | N - 9-11/16" (246.0 mm) |
| B - 18-3/8" (466.7 mm) | H - 9" (228.6 mm)      | P - see below 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

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

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

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

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



### Ordering Position 10

#### Specialty Code 1 (Blank if no Specialty Code)

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

### Ordering Position 11

#### Specialty Code 2 (Blank if no Specialty Code)

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

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

# 2" Metallic Models

## PRO SERIES PUMPS

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

|                                    |  |
|------------------------------------|--|
| Ratio:                             | 1:1  |
| Maximum Flow gpm (L/min):          | 172 (651)  |
| Displacement per cycle gal (l):    | 1.4 (5.3)  |
| Air Inlet (Female):                | 3/4 - 14 NPTF - 2  |
| Fluid Inlet/Outlet:                | 2 - 11-1/2 NPTF - 1<br>Rp 2 (2 - 11 BSP, parallel)                                 |
| Max. operating pressure psi (bar): | 120 (8.3)  |
| Suspended solids max. dia in (mm): | .25 (6.4)  |
| Weight lbs (kg):                   | 6662X0-XXX-C 65.2 (29.6)<br>6662X1-XXX-C 129.9 (58.9)<br>6662X2-XXX-C 124.3 (58.9) |
| Maximum dry suction lift ft (m):   | 27.2 (8.3)   |
| Sound Level:                       | 70 PSI (4.8 bar) 60 Cycles/Min 85.3 db(A)  |



666252-244-C

67389 Muffler Kit (not shown) included with pump

### Ordering

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

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

### Accessories

**Air Line Connection Kit** | 66312

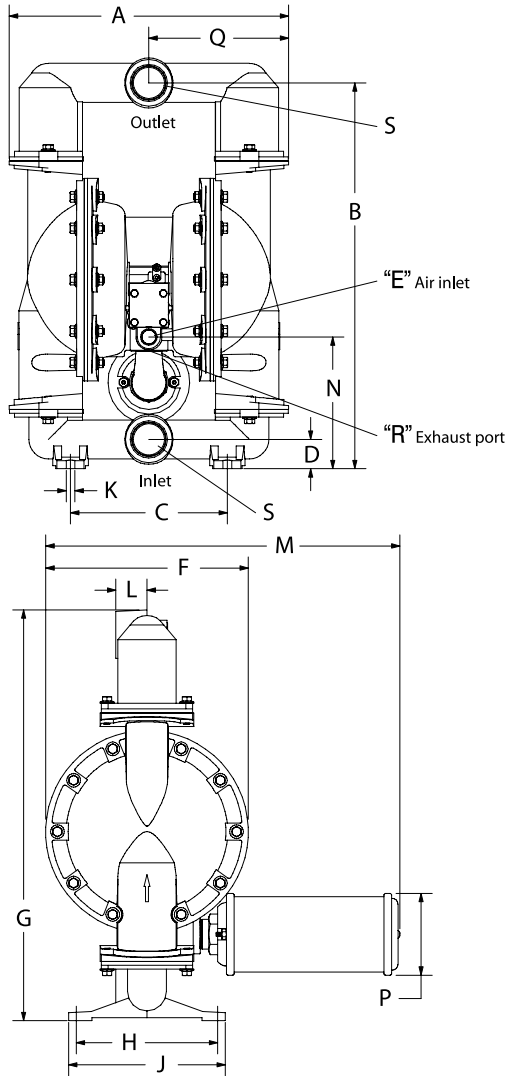
(Piggyback Filter/Regulator with gauge, pipe nipple and 5-foot air hose)

**Cycle Counter Kit** | 66975

**Service Repair Kits** | 637434 (air section)

637432-XX (fluid section)

## 2" Metallic Dimensions and Flow Charts



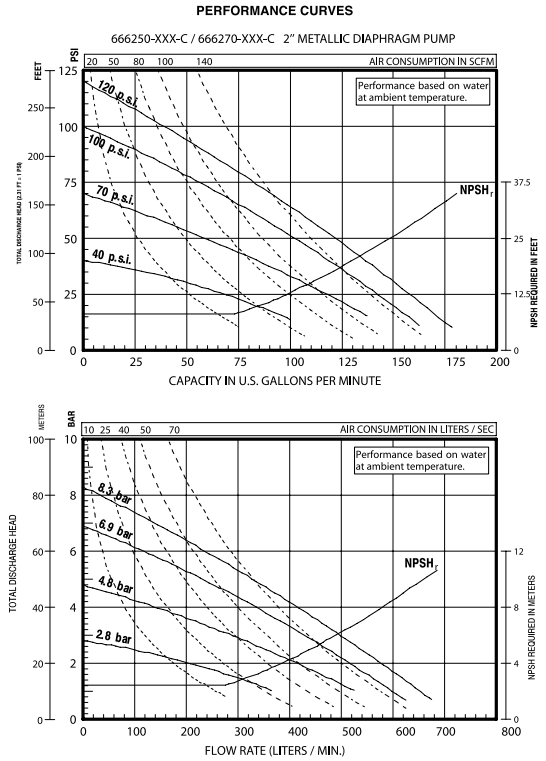
### DIMENSIONS

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

#### "S" Inlet / Outlet

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

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



Refer to [www.AROzone.com](http://www.AROzone.com) for full size flow curves.  
 For additional information contact  
 technical support at 1.800.495.0276

# 2" Metallic Models

## EXP SERIES PUMPS

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

**UPGRADE**  
PUMP FOR REMOTE  
ACTUATION CAPABILITY

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



PX20A-AAP-AAA-B

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

## Ordering

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

| Position 1<br>Model<br>Series                                       | Position 2<br>Center<br>Section                            | Position 3<br>Connections   | Position 4<br>Wetted<br>Parts  | Position 5<br>Hardware     | Position 6<br>Seat<br>Material   | Position 7<br>Ball<br>Material  | Position 8<br>Diaphragm<br>Material  | Position 9   |
|---|--|---|--|----------------------------|--|---|--|--|
| PD20 - Standard Pump<br>PE20 - Electronic Interface Accessible Pump | A - Aluminum*<br>R - Polypropylene<br>S - Stainless Steel* | A - NPTF Thread<br>B - BSP Thread<br>F <sup>†</sup> - 2" ANSI/DIN Flange Center<br><br>† Stainless Steel Pumps Only | A - Aluminum*<br>C - Cast Iron<br>H - Hastelloy-C*<br>S - Stainless Steel* | P - Plated Steel<br>S - SS | A - Santoprene®<br>C - Hytrel®<br>E - Carbon Steel<br>F - Aluminum<br>G - Nitrile<br>H - 440 SS<br>K - Kynar/PVDF<br>L - Hastelloy-C<br>S - 316 SS | A - Santoprene®<br>C - Hytrel®<br>G - Nitrile<br>S - 316 SS<br>T - PTFE<br>V - Viton® | A - Santoprene®<br>C - Hytrel®<br>G - Buna-N<br>L - Long-Life PTFE<br>M - Med. Grade Santoprene®<br>T - PTFE/Santoprene®<br>V - Viton® | Revision Level<br><b>Position 10 &amp; 11<br/>Specialty Code</b><br><br>Fluid control options for pump with electronic interface (PE20 model). See complete description on page 53 |

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

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

## Accessories

**Air Line Connection Kit | 66109**

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

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

**Continuous-Duty Muffler | 67263**

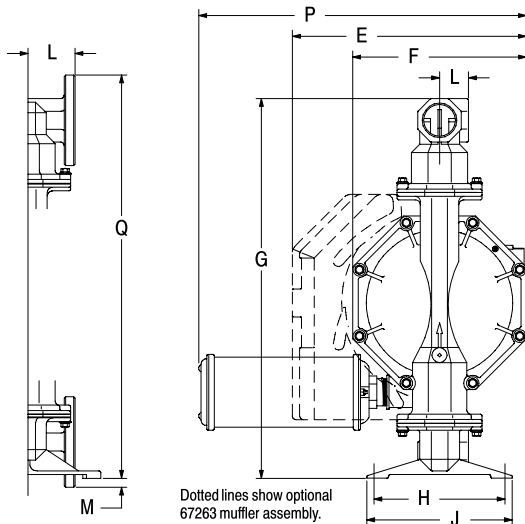
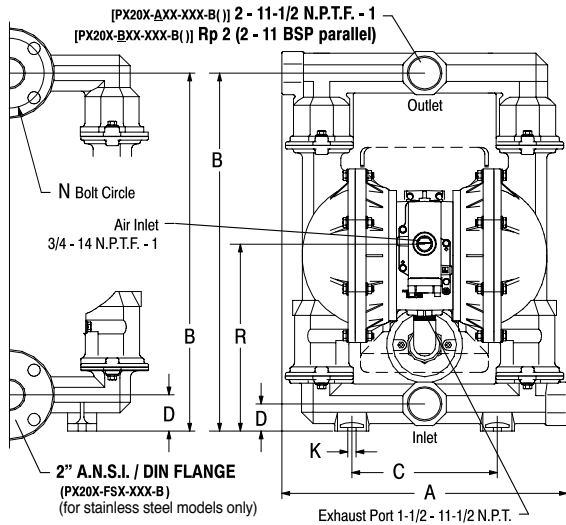
Muffler features large expansion chamber, permitting cold exhaust air to exit pump

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

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



## 2" Metallic Dimensions and Flow Charts

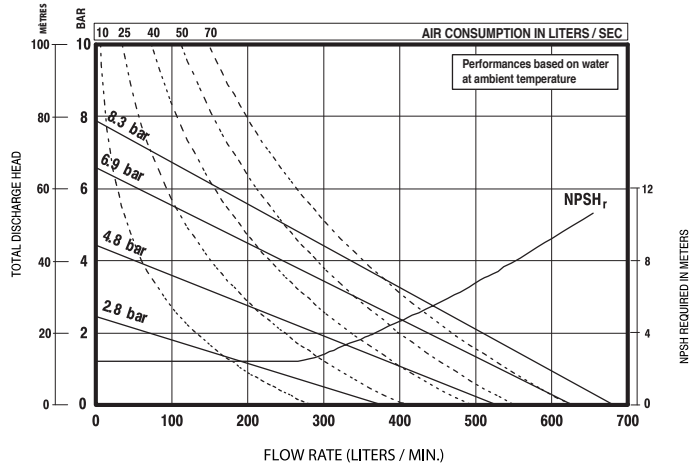
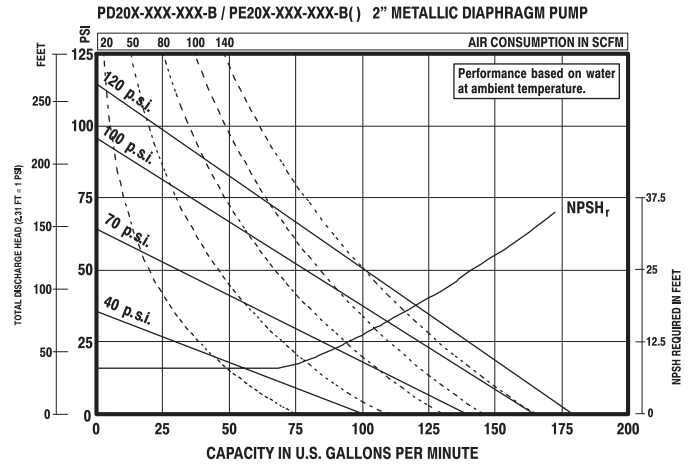


### DIMENSIONS

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

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

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



### Ordering Position 10

#### Specialty Code 1 (Blank if no Specialty Code)

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

### Ordering Position 11

#### Specialty Code 2 (Blank if no Specialty Code)

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

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

# 3" Metallic Models

## PRO SERIES PUMPS

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

|                                    |  |
|------------------------------------|--|
| Ratio:                             | 1:1  |
| Maximum Flow gpm (L/min):          | 237 (897)  |
| Displacement per cycle gal (l):    | 2.65 (10.03)   |
| Air Inlet (Female):                | 3/4 - 14 NPTF - 2  |
| Fluid Inlet/Outlet:                | 3 - 8 NPTF - 1<br>Rp 3 (3 - 11 BSP parallel)   |
| Max. operating pressure psi (bar): | 120 (8.3)  |
| Suspended solids max. dia in (mm): | .375 (9.5)   |
| Weight lbs (kg):                   | 6663X0-XXX-C 109.8 (49.8)<br>6663X1-XXX-C 222.2 (100.8)<br>6663X2-XXX-C 213.1 (96.7) |
| Maximum dry suction lift ft (m):   | 17.6 (5.4)   |
| Sound Level:                       | 70 PSI (4.8 bar) 60 Cycles/Min 86.3 db(A)  |



666322-144-C

67389 Muffler Kit (not shown) included with pump

## Ordering

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

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

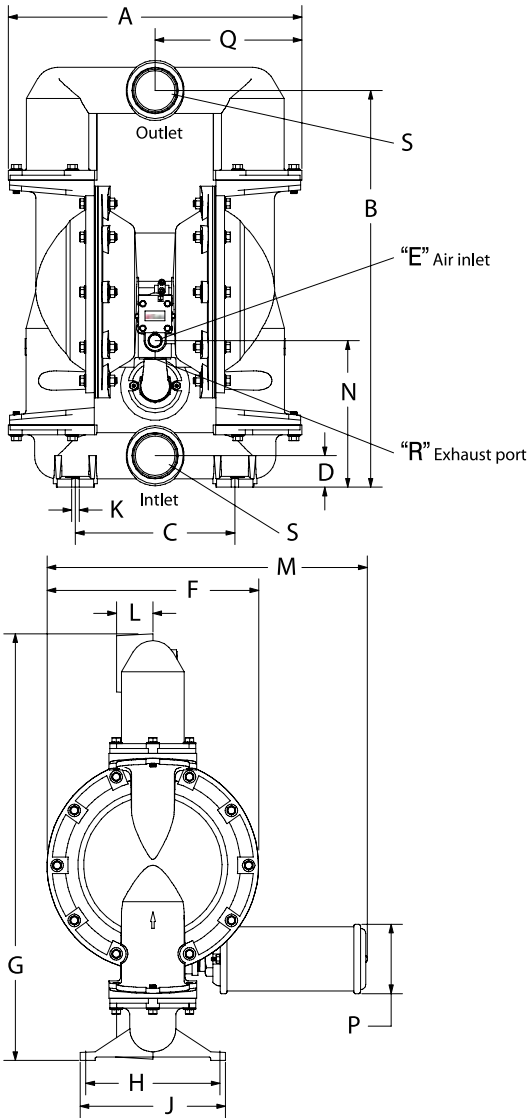
## Accessories

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

**Cycle Counter Kit** | 66975

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

### 3" Metallic Dimensions and Flow Charts



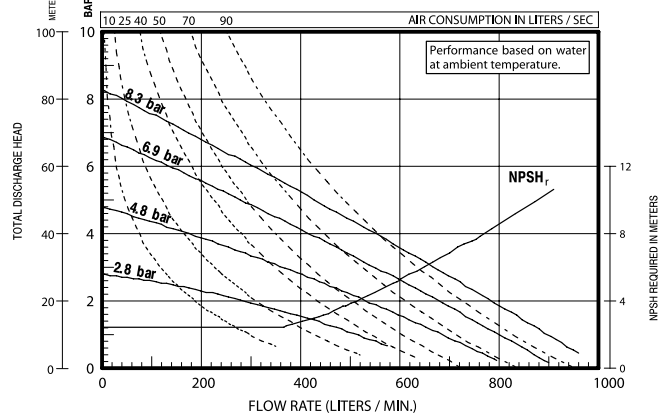
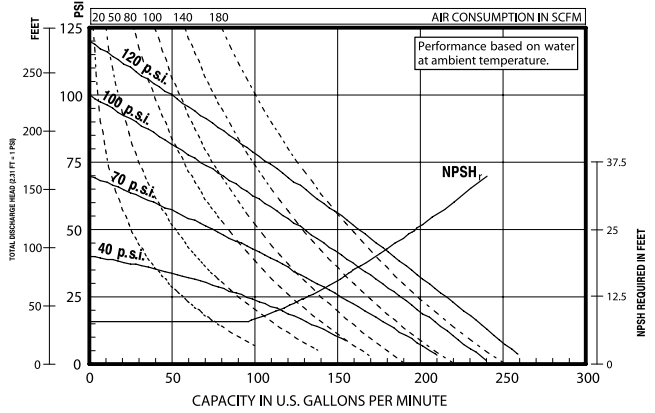
#### DIMENSIONS

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

"S" Inlet / Outlet  
 66630-XXX-C 3 - 8 N.P.T.F. - 1  
 66632-XXX-C Rp 3 (3 - 11 BSP parallel)

#### PERFORMANCE CURVES

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



Refer to [www.AROzone.com](http://www.AROzone.com) for full size flow curves.

For additional information contact  
 technical support at 1.800.495.0276

# 3" Metallic Models

## EXP SERIES PUMPS

ARO® EXP 3" metallic diaphragm pumps achieve flow rates of up to 275 GPM (1041 L/min) and offer a wide array of material and porting configurations. These pumps are often used for transfer, filling, recirculation and batching in ceramic, paint, oil and gas, chemical and petrochemical markets.

**UPGRADE**  
PUMP FOR REMOTE  
ACTUATION CAPABILITY

|                                      |   |
|--------------------------------------|---|
| Ratio:                               | 1:1   |
| Maximum GPM (L/min):                 | 275 (1041)  |
| Displacement per cycle:              | 2.8 (10.6)  |
| @ 100 PSI (6.9 bar) Gallons (Liters) |   |
| Air Inlet: (Female)                  | 3/4 - 14 N.P.T.F. - 1   |
| Fluid Inlet / Outlet (Female):       | 3" - 8 N.P.T.F. - 1<br>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)<br>PX30A-XCX-XXX-C 221.1 (100.3)<br>PX30A-AHX-XXX-C 249.4 (113.3)<br>PX30A-ASX-XXX-C 228.3 (103.8)<br>PX30A-FHX-XXX-C 269.4 (122.3)<br>PX30A-FSX-XXX-C 245.2 (114.4) |
|                                      | Note: Add 40 lbs (18.2 kg) for stainless steel air motor section  |
| Maximum dry suction lift ft (m):     | 14 (4.2)  |
| Sound Level:                         | 70 PSI (4.8 bar) 50 Cycles / Min 83.0db(A)  |
| Muffler Included:                    | 67389   |



PX30A-AAP-AAA-C

## Ordering

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

| Position 1<br>Model Series  | Position 2<br>Center Section  | Position 3<br>Connections  | Position 4<br>Wetted Parts  | Position 5<br>Hardware                  | Position 6<br>Seat Material  | Position 7<br>Ball Material   | Position 8<br>Diaphragm Material   | Position 9   |
|---|---|--|---|---|--|---|--|--|
| PD30 - Standard Pump<br>PE30 - Electronic Interface Accessible Pump | A - Aluminum*<br>R - Polypropylene w/SS<br>Air Caps<br>S - Stainless Steel* | A - NPTF Thread<br>B - BSP Thread<br>D - ANSI 4-hole flange<br>F - DIN 8-hole flange | A - Aluminum*<br>C - Cast Iron<br>H - Hastelloy-C* <sup>†</sup><br>S - Stainless Steel*<br><br><sup>†</sup> Not available on PD30R-X models | P - Plated Steel<br>S - Stainless Steel | A - Santoprene®<br>C - Hytrel®<br>E - Carbon Steel<br>F - Aluminum<br>G - Nitrile<br>H - 440 SS<br>K - PVDF<br>L - Hastelloy<br>S - 316 SS | A - Santoprene®<br>C - Hytrel®<br>G - Nitrile<br>T - PTFE<br>V - Viton® | A - Santoprene®<br>C - Hytrel®<br>G - Buna-N<br>L - Long-Life PTFE<br>T - PTFE/<br>Santoprene®<br>V - Viton® | Revision Level<br><br><b>Position 10 &amp; 11 Specialty Code</b><br><br>Fluid control options for pump with electronic interface (PE30 model). See complete description on page 57 |

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

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

## Accessories

**Air Line Connection Kit** | 66109

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

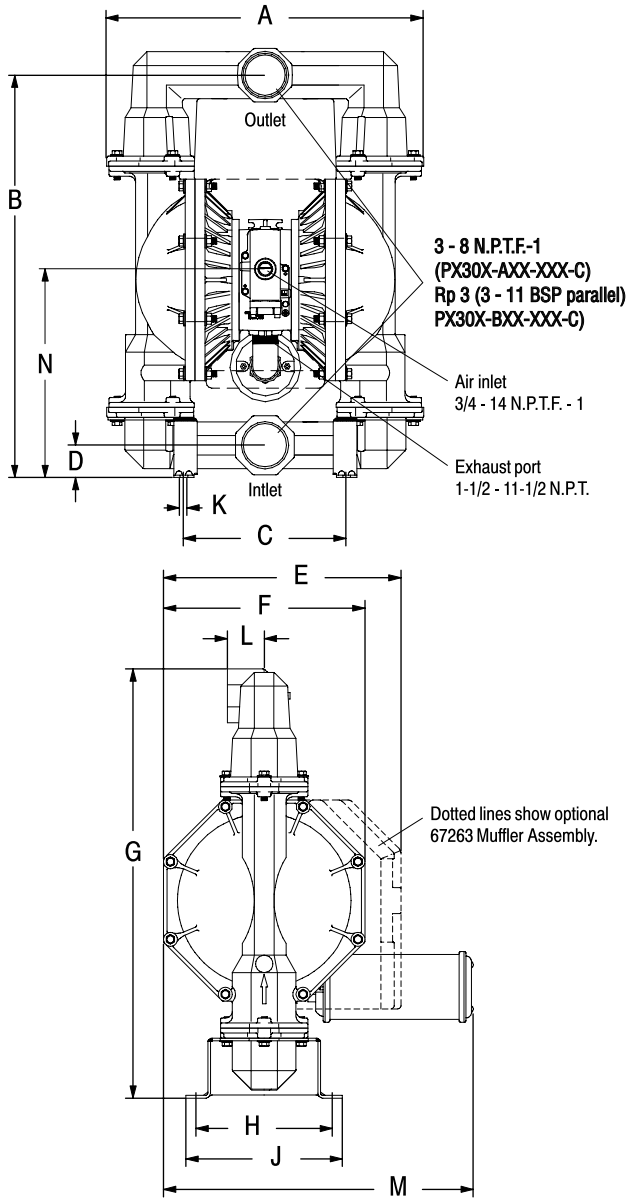
**Diaphragm Failure Detection** | 67237

**Cycle Sensor Kit** | 67350-1

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

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

### 3" Metallic Dimensions and Flow Charts

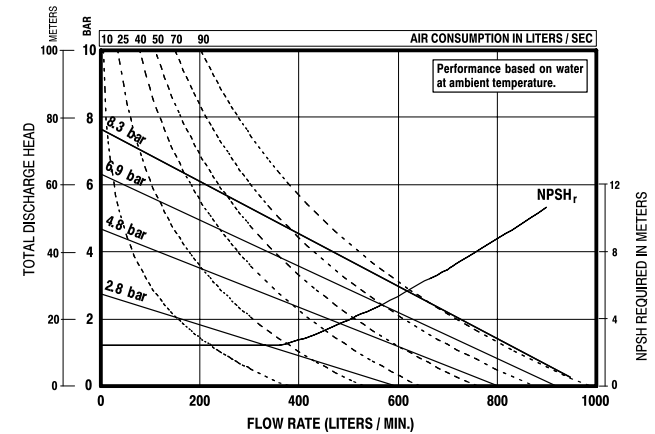
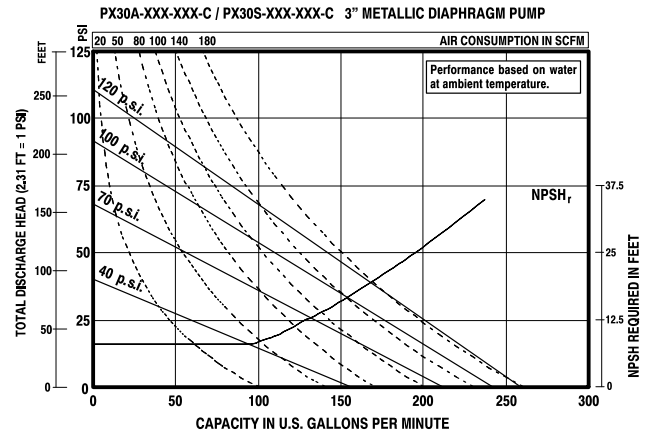


#### DIMENSIONS

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

|                 | "A"                | "D"               |
|-----------------|--------------------|-------------------|
| PX30X-XAX-XXX-C | 23-5/8" (598.7 mm) | 2-3/8" (60.3 mm)  |
| PX30X-XCX-XXX-C | 23-5/8" (598.7 mm) | 2-7/16" (61.1 mm) |
| PX30X-XHX-XXX-C | 23-1/8" (587.3 mm) | 2-3/4" (69.9 mm)  |
| PX30X-XSX-XXX-C | 23-1/8" (587.3 mm) | 2-3/4" (69.9 mm)  |

| "J"                  | "N"                |
|----------------------|--------------------|
| 11" (279.4 mm)       | 15-1/2" (393.7 mm) |
| 11-11/16" (296.1 mm) | 15-1/2" (393.7 mm) |
| 11-11/16" (296.1 mm) | 16" (406.4 mm)     |
| 11-11/16" (296.1 mm) | 16" (406.4 mm)     |



#### Ordering Position 10

##### Specialty Code 1 (Blank if no Specialty Code)

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

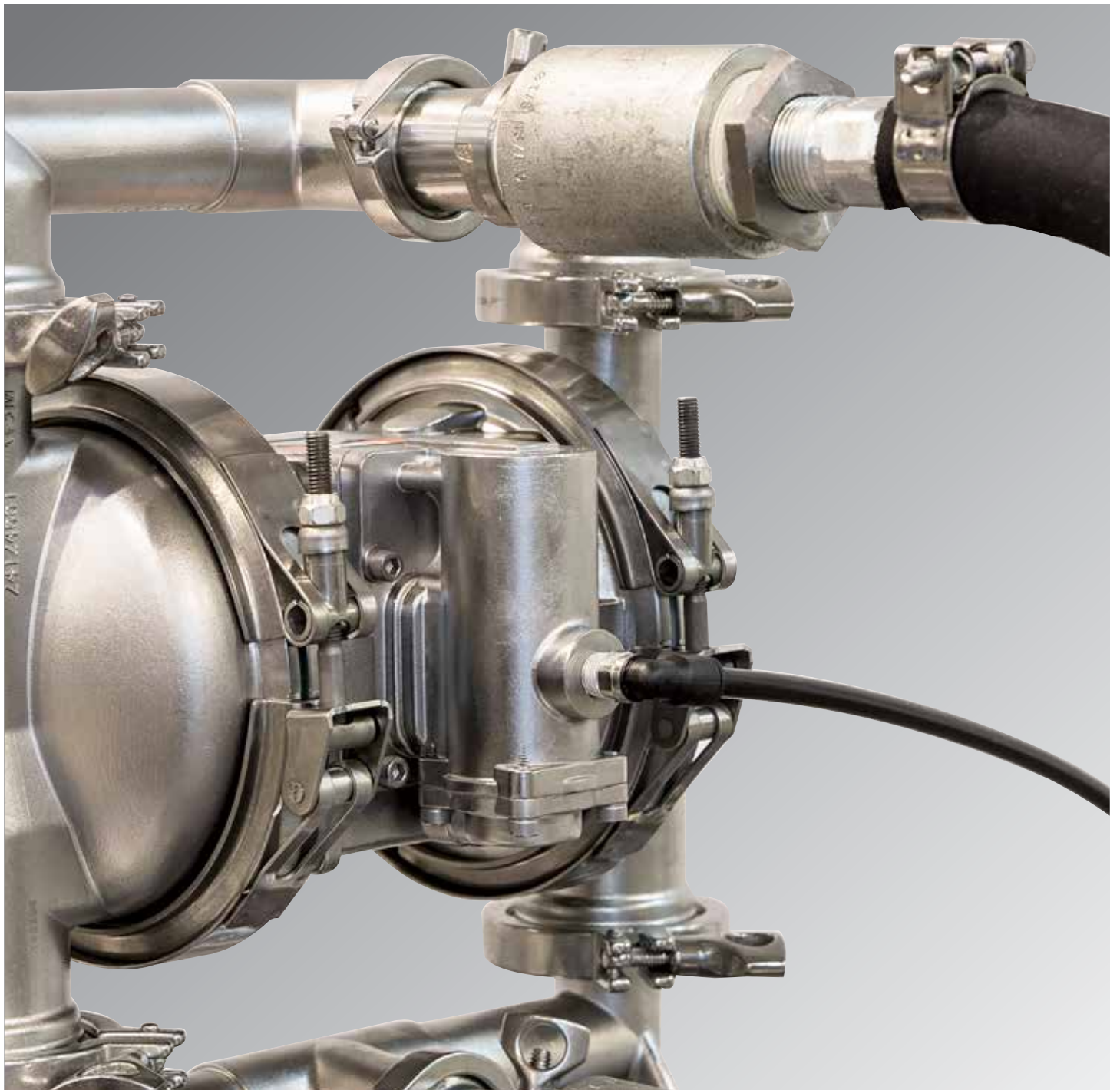
#### Ordering Position 11

##### Specialty Code 2 (Blank if no Specialty Code)

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

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





---

## Specialty Pumps

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

# Powder Transfer

## SPECIALTY PUMP

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

### Replace Manual Powder Processes.

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

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



Optional Suction Probe  
67183-1

### Ordering

| Position | 1            | 2 | 3 | 4 | 5 | 6 | 7 |   |   |
|----------|--------------|---|---|---|---|---|---|---|---|
| Example: | <b>PP10A</b> | - | X | X | X | - | X | X | X |

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

| Position | 1            | 2 | 3 | 4 | 5 | 6 | 7 |   |   |
|----------|--------------|---|---|---|---|---|---|---|---|
| Example: | <b>PP20A</b> | - | X | X | X | - | X | X | X |

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

| Position | 1            | 2 | 3 | 4 | 5 | 6 | 7 |   |   |
|----------|--------------|---|---|---|---|---|---|---|---|
| Example: | <b>PP30A</b> | - | X | X | X | - | X | X | X |

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

\* Acceptable for use in hazardous locations.

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

### Accessories

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

# Sanitary Transfer - Bolted

## SPECIALTY PUMP

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



### Typical Applications:

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

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

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

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

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

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

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

\* Acceptable for use in hazardous locations.

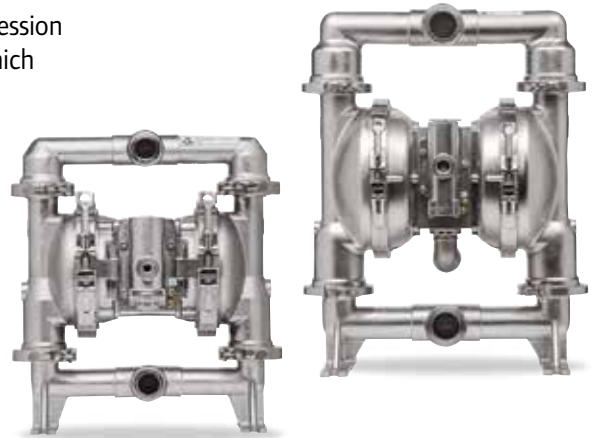
# Sanitary Transfer - Clamped

## SPECIALTY PUMP

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

### SD Series Pumps

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



### Applications:

Food / Beverage / Pharmaceutical / Cosmetics

|  | SD10S-CSS-SXX-B / 1" Pump | SD20S-CSS-SXX-B / 2" Pump |
|--|---------------------------|---------------------------|
| Startup Pressure PSI (bar)                         | 25 (1.723)                | 25 (1.723)                |
| Dry suction lift ft. H2O (m)                       | 16.49 (5.02)              | 18.25 (5.56)              |
| Wet suction lift ft. H2O (m)                       | 31.4 (9.57)               | 31.4 (9.57)               |
| Flow Rate GPM (L/min)                              | 54 (204.4)                | 195 (738)                 |
| Displacement per/cycle GPM (L/min) @ 100 PSI (6.9) | 0.258 (.976)              | 1.3 (4.9)                 |
| Max. Solids Passage in. (mm)                       | 1/8 (3.2)                 | 1/4 (6.4)                 |
| Fluid Inlet/Outlet                                 | 1-1/2" Tri-Clamp          | 2-1/2" Tri-Clamp          |

### Ordering

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

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

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

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

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



# 3:1 Ratio High Pressure Diaphragm Pump

## SPECIALTY PUMP

ARO's pneumatic 3:1 ratio, high pressure diaphragm pumps provide effective flow rates up to 24 gpm (90.7L/min) at pressures up to 300 psi (20.4 bar). The compact size and footprint makes this a smart choice for a wide variety of markets and OEM's. This pump is useful for feeding filter presses, the transfer of paint, recirculation and high solid coatings, inks, adhesives, filled material, drilling grout, caulking, solvent reclamation and resins.

|                                    |   |
|------------------------------------|---|
| Ratio:                             | 3:1   |
| Maximum Flow gpm (L/min):          | 26 (98.4) flooded inlet<br>12 (45.6) at 125 psi back pressure |
| Displacement per cycle gal (l):    | .06-Gallons (.23)   |
| Air Inlet (Female):                | 3/8 - 18 NPTF - 1   |
| Fluid Inlet:                       | 1 - 11-1/2 NPTF - 1<br>Rp 1 (1- 11 BSP parallel)              |
| Fluid Outlet:                      | 1 - 11-1/2 NPTF - 1<br>Rp 1 (1- 11 BSP parallel)              |
| Max. operating pressure psi (bar): | 100 (6.9)   |
| Suspended solids max. dia in (mm): | .125 (3.2)  |
| Weight lbs (kg):                   | 94.73 (42.97)   |
| Maximum dry suction lift ft (m):   | 5-6 (1.5-1.8)   |
| Sound Level:                       | 70 PSI (4.9 bar) 60 Cycles/Min 84.5 db(A)                     |



PH10A-ASS-SST

### Ordering

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

| Position 1<br>Base Model | Position 2<br>Center Section | Position 3<br>Port Size         | Position 4<br>Wetted Parts | Position 5<br>Hardware | Position 6<br>Seat/Ball Check Material  | Position 7<br>Diaphragm Material |
|--------------------------|------------------------------|---------------------------------|----------------------------|------------------------|---|----------------------------------|
| 1" Pump                  | A - Aluminum                 | A NPTF Threads<br>B BSP Threads | S - Stainless Steel        | S - Stainless Steel    | HH 440 SS/ 440 SS<br>SS 316 SS / 316 SS | L - Long life PTFE<br>T - PTFE   |

### Accessories

#### Air Line Filter-Regulator | P39344-614

Piggyback unit with a 5 micron filter, metal bowl with auto drain, sight glass and 0-125-psi gauge.

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

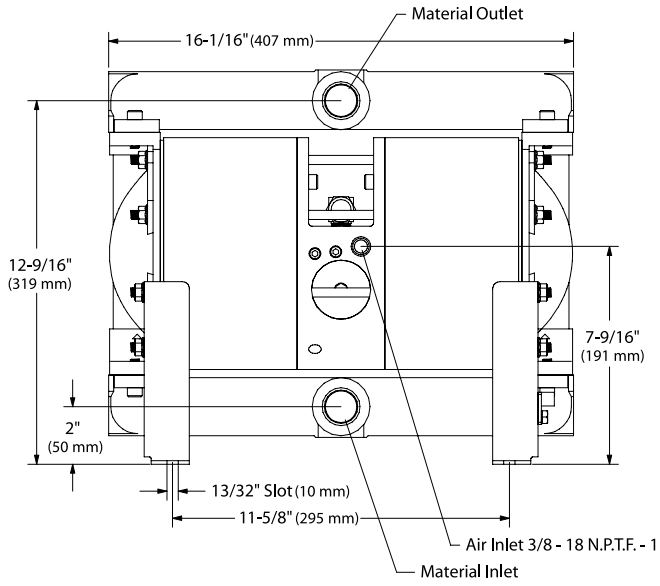
**Wall Mount Bracket** | 67142



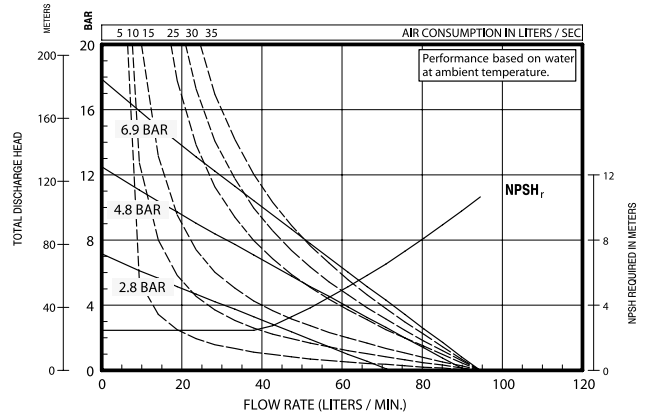
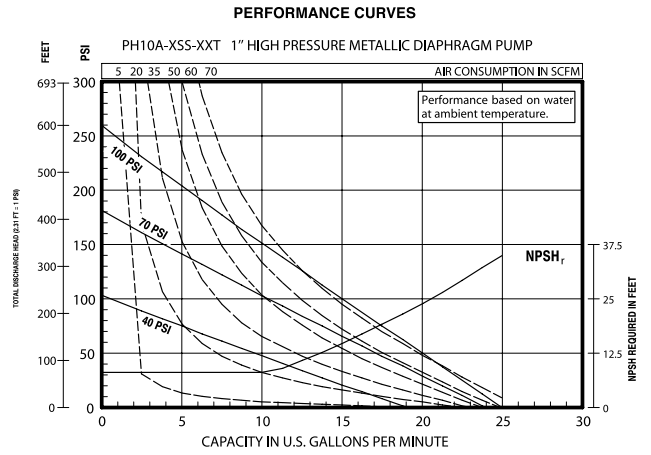
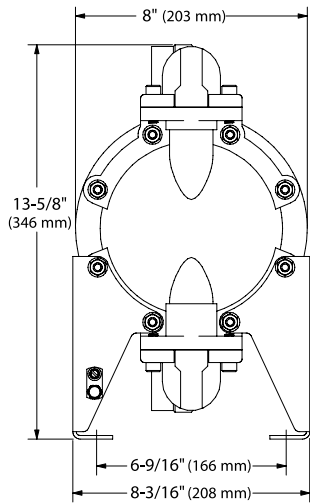
Wall Mount Bracket  
67142



# High Pressure Diaphragm Pump Dimensions and Flow Charts



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



Refer to [www.AROzone.com](http://www.AROzone.com) for full size flow curves.  
 For additional information contact  
 technical support at 1.800.495.0276

# 2:1 Ratio High Pressure

## SPECIALTY PUMP

The high pressure pump was developed for applications requiring fluid pressures in excess of the 100 PSI (6.9 bar) developed by traditional pumps. Compared to a standard diaphragm pump, the 2:1 ratio high-pressure pump can produce up to 200 PSI (13.8 bar), at about half the flow rate.

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

### 2:1 Ratio High-Pressure Pump

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

### Applications:

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



PH30F-BSP-SAA-C

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

### Ordering

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

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

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

### Accessories

|                           | PH15 - 1 1/2" | PH20 - 2"  | PH30 - 3"  |
|---------------------------|---------------|------------|------------|
| Filter/Regulator          | P39344-614    | P39354-614 | P39454-614 |
| Air Line Kit              | 66084-1       | 66109      | 66109      |
| Air Section Service Kit   | 637389        | 637369     | 637369     |
| Fluid Section Service Kit | 637445-XX     | 637446-XX  | 637441-CC  |

# Pit Boss Diaphragm Pumps

## SPECIALTY PUMP

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

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



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

## ➤ Ordering

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

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

## ➤ Accessories

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

# 2" Metallic Flap Valve Models

## SPECIALTY PUMP

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

|                                      |   |
|--------------------------------------|---|
| Ratio:                               | 1:1   |
| Maximum GPM (L/min):                 | 172 (651)   |
| Displacement per cycle:              | 1.4 (5.3)   |
| @ 100 PSI (6.9 bar) Gallons (Liters) |   |
| Air Inlet (Female):                  | 3/4 - 14 N.P.T.F.-1   |
| Fluid Inlet/Outlet (Female):         | PF20X-AXX-XXX-B 2 - 11-1/2 N.P.T.F.-1<br>PF20X-BXX-XXX-B Rp 2 (2 - 11 BSP parallel)   |
| Max. operating pressure psi (bar):   | 120 (8.3)   |
| Suspended solids max. dia. in. (mm): | 2" (51) Semi-solid  |
| Maximum dry suction lift ft (m):     | 14 (4.2)  |
| Weight lbs (kg):                     | PF20A-XAX-SXX-B 97.3 (44.2)<br>PF20A-XCX-SXX-B 166.2 (75.4)<br>PF20A-ASX-SXX-B 166 (75.3)<br>PF20A-BSX-SXX-B 166 (75.3)<br>PF20A-FSX-SXX-B 177.1 (80.3)<br>Add 28.9 lbs (13.1kg) for stainless steel air motor<br>PF20R-XCX-SXX-B 178.7 (81.1)<br>PF20R-XSX- SXX- B 180.6 81.9) |
| Sound Level:                         | 70 PSI (4.8 bar) 60 Cycles/Min 85.0 db(A)   |
| Muffler:                             | 94810 (optional 94117)  |



PF20A-AAP-SAA-B

## Ordering

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

| Position 1<br>Model<br>Series | Position 2<br>Center<br>Section   | Position 3<br>Connections                                   | Position 4<br>Wetted<br>Parts   | Position 5<br>Hardware                  | Position 6<br>Seat<br>Material | Position 7<br>Flap<br>Material                           | Position 8<br>Diaphragm<br>Material                                      | Position 9     |
|-------------------------------|---|---|---|---|--------------------------------|--|--|----------------|
| PF20 - Standard Pump          | A - Aluminum*<br>R - Polypropylene w/SS Air Caps<br>S - Stainless Steel*<br>Y - Polypropylene w/CI Air Caps | A - NPTF Thread<br>B - BSP Thread<br>F - 2" ANSI/DIN Flange | A <sup>†</sup> - Aluminum*<br>C - Cast Iron<br>S - Stainless Steel<br><br><sup>†</sup> Not available with PD20R or PD20Y option | P - Plated Steel<br>S - Stainless Steel | S - Stainless Steel            | A - EPR<br>G - Nitrile<br>U - Polyurethane<br>V - Viton® | A - Santoprene®<br>G - Buna- N<br>T - PTFE/<br>Santoprene®<br>V - Viton® | Revision Level |

\* Acceptable for use in hazardous locations.

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

## Accessories

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

# Drum Pumps

SPECIALTY PUMP

## Drum Pumps

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

|                             |   |
|-----------------------------|---|
| Ratio:                      | 1:1   |
| Maximum Flow:               | 11 gpm (42 L/min)   |
| Displacement per cycle:     | .039-Gallons (.15 Liters)   |
| Air Inlet: (Female)         | 1/4 -18 N.P.T.  |
| Fluid Inlet:                | Siphon Tube for 55-Gallon Drum  |
| Fluid Outlet:               | 1/2 -14 N.P.T.F. - 1  |
| Max. operating pressure:    | 100-psi (6.8 bar)   |
| Suspended solids max. dia.: | 3/32-in. (2.4 mm)   |
| Shipping Weight: lbs (kg)   | 22 (10) Polypropylene, basic package<br>26 (11.8) Aluminum, basic package<br>36 (16.3) Stainless, basic package |

## Drum Pump Packages

- Package Components Factory-Matched - ARO® Drum Pump package components contain pre-specified, matching materials of construction for complete fluid compatibility.
- Choose from Basic to Complete - Drum Pump Packages can be ordered in 3 styles:
- Basic: Pump, Bung Adapter, Air Safety Shut-Off, Siphon Tube, Weather Seal and base
- Complete/Transfer: Basic Pump plus Fluid Hose or Fluid Hose with Non-Drip Nozzle
- Complete/Dispensing: Basic Pump plus Foot Valve, Hose and Dispensing Nozzle

## Ordering

| Model Number   | Pump Housing and Seats | Pump Dia. and Balls | Lock Out Valve (P/N 104253-2) | Foot Valve | 10' Hose ASM       | Dispense Valve | Fluid Service            |
|----------------|------------------------|---------------------|-------------------------------|------------|--------------------|----------------|--------------------------|
| DAB05-PPTT-2-A | POLYPROPYLENE          | PTFE                | X                             | -          | -                  | -              | ACIDS & CAUSTICS         |
| DAB05-PPCC-2-A | POLYPROPYLENE          | HYTREL®             | X                             | -          | -                  | -              | OIL                      |
| DAB05-PPUU-2-A | POLYPROPYLENE          | POLYURETHANE        | X                             | -          | -                  | -              | WATER/OIL                |
| DAB05-PPAA-2-A | POLYPROPYLENE          | SANTOPRENE®         | X                             | -          | -                  | -              | MILD ACIDS/MILD CAUSTICS |
| DAB05-PPCC-2-N | POLYPROPYLENE          | HYTREL®             | X                             | -          | NITRILE            | -              | OIL                      |
| DAB05-PPCC-B-M | POLYPROPYLENE          | HYTREL®             | X                             | X          | NITRILE            | NO-DRIP        | OIL                      |
| DAB05-PPAA-2-B | POLYPROPYLENE          | SANTOPRENE®         | X                             | -          | EPDM               | -              | MILD ACIDS/MILD CAUSTICS |
| DAB05-PPUU-2-C | POLYPROPYLENE          | POLYURETHANE        | X                             | -          | VINYL              | -              | WATER/OIL                |
| DAB05-PPCC-B-J | POLYPROPYLENE          | HYTREL®             | X                             | X          | REINFORCED NITRILE | X              | OIL                      |
| DAB05-PPAA-B-K | POLYPROPYLENE          | SANTOPRENE®         | X                             | X          | EPDM               | X              | MILD ACIDS/MILD CAUSTICS |
| DAB05-SSTT-2-A | STAINLESS STEEL        | PTFE                | X                             | -          | -                  | -              | SOLVENT                  |
| DAB05-ASTT-2-A | ALUM./SS.              | PTFE                | X                             | -          | -                  | -              | SOLVENT                  |
| DAB05-APCC-2-A | ALUM./POLY.            | HYTREL®             | X                             | -          | -                  | -              | OIL/SOME SOLVENTS        |
| DAB05-APCC-2-O | ALUM./POLY.            | HYTREL®             | X                             | -          | NITRILE            | -              | OIL/SOME SOLVENTS        |
| DAB05-APCC-B-P | ALUM./POLY.            | HYTREL®             | X                             | X          | NITRILE            | NO-DRIP        | OIL/SOME SOLVENTS        |
| DAB05-APCC-B-L | ALUM./POLY.            | HYTREL®             | X                             | X          | REINFORCED NITRILE | X              | OIL/SOME SOLVENTS        |
| DAB05-ASAA-2-A | ALUM./S.S.             | SANTOPRENE®         | X                             | -          | -                  | -              | WATER                    |

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



DAB05-PPCC-B-M

## Pump Features

- 11 gpm (42 L/min) Flow Capability - Drum Pumps offer plenty of capacity to satisfy a broad range of transfer application volume demands.
- Stall-Free Operation - ARO® Diaphragm Drum Pumps feature a patented “unbalanced” air valve design that avoids stall-out, even under low air-inlet pressures.
- Bolted Construction - ARO® Diaphragm Drum Pumps utilize bolted fasteners for leak-tight integrity.
- 5-Year Warranty

## Accessories

**Air Line Connection Kit** | 66073-1

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



# Centrifugal Pump Models

## SPECIALTY PUMP

ARO's pneumatic centrifugal pumps provide effective flow rates up to 230 gpm (870.5 L/min). Compact in size, these pumps are useful for dewatering trenches, holes, bilges, pits or other bodies of standing water. These pumps are used by municipalities, utilities, mines, ships, construction and industrial sites.

|                                    |   |
|------------------------------------|---|
| Maximum Flow gpm (L/min):          | 200 (757) P237AX-EU<br>230 (870.5) P35A1-EU                       |
| Air Inlet (Female):                | 3/4 -14 NPT (P237AX-EU)<br>1 - 11-1/2 NPT (P35A1-EU)              |
| Fluid Inlet:                       | Screened Inlet  |
| Fluid Outlet:                      | 2" NPTF P35A1-EU<br>2-1/2" NPTF P237A1-EU<br>2-1/2" BSP P237A3-EU |
| Max. operating pressure psi (bar): | 90 (6.2)  |
| Air Consumption in CFM (L/s):      | P237AX-EU 100 (47.2)<br>P35A1-EU 160 (75.5)                       |
| Suspended solids max. dia in (mm): | .25 (6.4)   |
| Pump Housing Material:             | P237AX-EU Cast Iron<br>P35A1-EU Cast Iron                         |
| Weight lbs (kg):                   | P237AX-EU 48 (21.8)<br>P35A1-EU 79 (36)                           |



P237AX-EU

### Ordering

| Position | 1            | 2 |          |      |
|----------|--------------|---|----------|------|
| Example: | <b>P237A</b> | - | <b>X</b> | - EU |

| Position 1<br>Model Series | Position 2<br>Discharge Thread   |
|----------------------------|----------------------------------|
| 200-GPM (757-L/min)        | 1 - 2-1/2" NPT<br>3 - 2-1/2" BSP |

| Position | 1           | 2 |          |      |
|----------|-------------|---|----------|------|
| Example: | <b>P35A</b> | - | <b>1</b> | - EU |

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

### Accessories

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

**Service Repair Kits** | Repair parts are ordered individually.

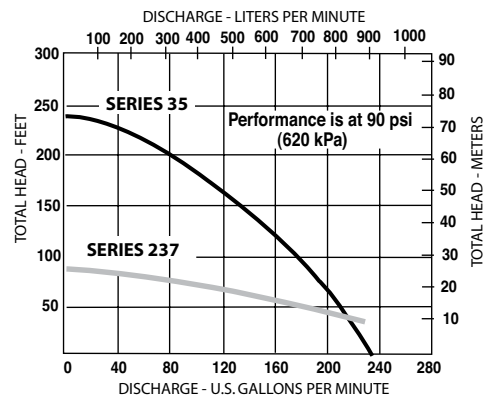
Refer to Operator's Manuals:

P237AX-EU Pumps: Form P6856

P35A1-EU Pumps: Form P7263

### Centrifugal Pump Dimensional Data and Flow Charts

|   |  |
|---|--|
| Height: inches (mm)                                 | P237AX-EU 17-5/8 (448)<br>P35A1-EU 22-1/2 (570)                              |
| Size of opening pump will pass through: inches (mm) | P237AX-EU 8-3/4 (222) x 8-3/4 (222)<br>P35A1-EU 8-7/16 (214) x 14-1/16 (357) |
| Discharge Pipe Tap:                                 | P237A1-EU 2-1/2" NPTF<br>P237A3-EU 2-1/2" BSP<br>P35A1-EU 2" NPTF            |
| Air Inlet Pipe Tap:                                 | P237AX-EU 3/4" NPTF<br>P35A1-EU 1" NPTF                                      |
| Air Inlet Recommended Hose Size: inches (mm)        | P237AX-EU 3/4 (19)<br>P35A1-EU 1 (25.4)                                      |
| Exhaust Pipe Tap:                                   | P237AX-EU 1-1/4" NPTF<br>P35A1-EU 1-1/4" NPTF                                |
| Exhaust Recommended Hose Size: inches (mm)          | P237AX-EU 1-1/4 (31.7)<br>P35A1-EU 1-1/4 (31.7)                              |



Refer to [www.AROzone.com](http://www.AROzone.com) for full size flow curves.

For additional information contact technical support at 1.800.495.0276

# Fuel Antifreeze / Water Blending Pump

SPECIALTY PUMP

## Model no. 650715-C

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

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



## U/L Approved Fuel Pump

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

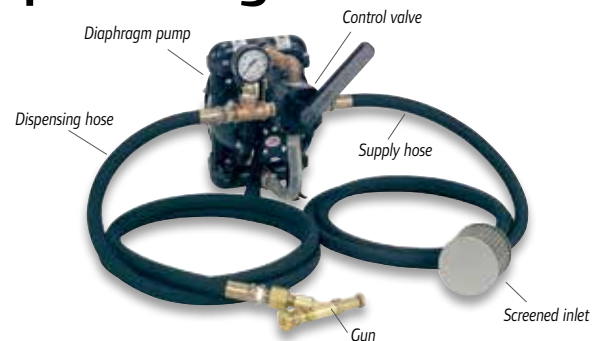
Designed specifically for high volume transfer, bulk-unloading, or fueling applications. These pumps meet UL 79 specification code and are compatible with gasoline, aviation fuel, diesel fuel, fuel oil and kerosene.



## Calcium Chloride Tire-fill Pump Package

### Model no. 613201-2-C

Designed for the purpose of evacuating and filling tires with calcium chloride ballast solution. Package includes a 666100-441-C, 1" port diaphragm pump. Aluminum construction with neoprene diaphragms and PTFE checks for compatibility with corrosive calcium chloride and 60154 hose / strainer / gun assembly. Also includes check valve and all required clamps and related hardware.



| Model               | Body materials (wetted) | Diaphragm / ball material | Air inlet NPT (F) in (mm) | Fluid inlet / outlet material in (mm) | Max flow gpm (L/min) | Compatible fluids     |
|---------------------|-------------------------|---------------------------|---------------------------|---------------------------------------|----------------------|-----------------------|
| <b>1" PORTS</b>     |                         |                           |                           |                                       |                      |                       |
| 650717-C            | Aluminum                | Viton / Acetal            | 1/4" (6.3 mm)             | 1" / 1" (25.4 mm)                     | 29 (109.8)           | Fuel (UL 79 approved) |
| <b>1-1/2" PORTS</b> |                         |                           |                           |                                       |                      |                       |
| 650718-C            | Aluminum                | Viton / Acetal            | 1/2" (12.7 mm)            | 1-1/2" (38.1 mm)                      | 75 (283.9)           | Fuel (UL 79 approved) |
| <b>2" PORTS</b>     |                         |                           |                           |                                       |                      |                       |
| 650719-C            | Aluminum                | Viton / Acetal            | 3/4" (19.1 mm)            | 2" (50.8 mm)                          | 105 (397.5)          | Fuel (UL 79 approved) |

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

# Batching/Flow Control

## CONTROLLER

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



## Choose a Controller

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

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

### Automate Your Process

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

### Real Time System Alerts

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

### Flow Meter Integration

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

### Touch-and-Walk Away

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

### Multi-Pump Control

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

### Simul-Start Pumping

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

## Choose a Pump

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

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

| Position 8<br>Dia. Material   | Position 9     | Position 10<br>Specialty Code 1   | Position 11<br>Specialty Code 2  |
|---|----------------|---|--|
| A - Santoprene®<br>C - Hytrel®<br>G - Nitrile<br>T - PTFE<br>V - Viton® | Revision Level | A - Solenoid 120VAC, 110VAC + 60VDC<br>B - Solenoid 12VDC, 24VAC + 22VDC<br>C - Solenoid 240VAC, 220VAC + 120VDC<br>D - Solenoid 24VDC, 48VAC + 44VACA†<br>E - Solenoid 12VDC NEC/CEC*<br>F - Solenoid 24VDC NEC/CEC*<br>G - Solenoid 12VDC ATEX/IECex*<br>H - Solenoid 24VDC ATEX/IECex*<br>J - 120VDC NEC/CEC*<br>K - Solenoid 220VDC ATEX/IECex*<br>N - Solenoid with no coil<br>O - Standard Valve Block (No Solenoid)<br>P - Ported Motor (No major valve provided)<br>† only solenoid voltages that will work with controller | E - End of stroke feedback + Leak Detection<br>F - End of stroke feedback<br>G - End of Stroke ATEX/IECex*<br>H - End of Stroke feedback + Leak Detection ATEX / IECex*<br>L - Leak Detection<br>M - Leak Detection ATEX/IECex/NEC/CEC*<br>O - No Option<br>R - End of Stroke Feedback NEC / CEC*<br>T - End of Stroke Feedback + Leak Detection NEC / CEC |

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

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

# Electronic Interface Accessories

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

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



## End of Stroke Sensors

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

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

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

## Leak Detection

Minimize unwanted downtime by detecting diaphragm failures.

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

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

## Solenoid Valve Block Kits

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

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

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

## MaxAir 2 Way Valve

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



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

\* Note: Valve and Connector Needs to be purchased.

# Accessories



Air Line Connection Kit  
66073-1



Diaphragm Failure Detection  
67237



Cycle Counter Kit  
67350



Continuous Duty Muffler  
67323



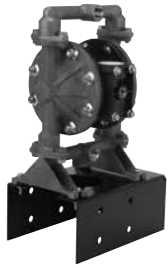
Flange Connection Kit  
637341-E10N



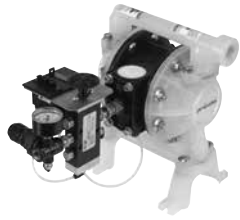
Over-run Control  
635040

|  | 1/4"<br>Non-Met.   | 3/8"<br>Non-Met.  | 1/2"<br>Non-Met.  | 1/2" Classic<br>Non-Met.                  | 3/4"<br>Non-Met.  | 1/2"<br>Metallic  | 3/4"<br>Metallic  |
|--|--|---|---|---|---|---|---|
| <b>Air Line Connection Kit</b><br>Kit includes Piggyback Filter/Regulator with gauge, pipe nipple and a 5-foot section of air hose.  | 66073-1  | 66073-1   | 66073-1   | 66073-1                                   | 66073-1   | 66073-1   | 66073-1   |
| <b>Leak Detection</b><br>Provides a warning of diaphragm failure by sensing the presence of liquid in the air chamber of the pump  | Reg. Duty: 67237<br>ATEX, NEC, CEC:<br>96270-2 (Qty: 2)<br>& 97414 (Qty: 1)                            | Reg. Duty: 67237<br>ATEX, NEC, CEC:<br>96270-2 (Qty: 2)<br>& 97414 (Qty: 1)   | Reg. Duty: 67237<br>ATEX, NEC, CEC:<br>96270-2 (Qty: 2)<br>& 97414 (Qty: 1)   | -   | Reg. Duty: 67237<br>ATEX, NEC, CEC:<br>96270-2 (Qty: 2)<br>& 97414 (Qty: 1)   | Reg. Duty: 67237<br>ATEX, NEC, CEC:<br>96270-2 (Qty: 2)<br>& 97414 (Qty: 1)                         | Reg. Duty: 67237<br>ATEX, NEC, CEC:<br>96270-2 (Qty: 2)<br>& 97414 (Qty: 1)                         |
| <b>Pneumatic Cycle Counter Kit</b><br>Like the odometer on your car, ARO®'s cycle counter lets you know how many pump cycles have elapsed so you can be prepared to perform preventive maintenance   | -  | 66975   | 66975   | -   | 66975   | 66975   | 66975   |
| <b>Cycle Sensor Kit</b><br>For monitoring pump operation. Can be used to monitor cycle rates, preventative maintenance and rough flow rate indication.   | Reg. Duty on<br>Body: 24110934<br>ATEX on Body:<br>97404 & 97491<br>NEC, CEC on Body:<br>97404 & 97412 | Reg. Duty on<br>Major Valve: 67386<br>Reg. Duty on<br>Body: 97048<br>ATEX on Body:<br>97405 & 97491<br>NEC, CEC on Body:<br>97405 & 97412 | Reg. Duty on<br>Major Valve: 67386<br>Reg. Duty on<br>Body: 97053<br>ATEX on Body:<br>97406 & 97491<br>NEC, CEC on Body:<br>97406 & 97412 | Reg. Duty on<br>Major Valve:<br>67168     | Reg. Duty on<br>Major Valve: 67386<br>Reg. Duty on<br>Body: 97053<br>ATEX on Body:<br>97406 & 97491<br>NEC, CEC on Body:<br>97406 & 97412 | Reg. Duty on<br>Body: 97053<br>ATEX on Body:<br>97406 & 97491<br>NEC, CEC on Body:<br>97406 & 97412 | Reg. Duty on<br>Body: 97053<br>ATEX on Body:<br>97406 & 97491<br>NEC, CEC on Body:<br>97406 & 97412 |
| <b>Continuous-Duty Muffler</b><br>Recommended for continuous-duty and high-flow applications. Muffler features large expansion chamber, permitting cold exhaust air to exit pump.  | -  | -   | -   | -   | -   | -   | -   |
| <b>Flange Connection Kit</b><br>Use with non-metallic EXP pumps with the flange manifold option. Flange kits meet DIN / A.N.S.I. specifications. Flange constructed of glass-filled polypropylene. Bolts, washers and nuts are stainless steel. (Gaskets included) | -  | -   | -   | -   | -   | -   | -   |
| <b>Over-run Control</b><br>Shuts off pump when excessive cycling occurs due to empty fluid supply container.   | -  | -   | 635040  | 635040                                    | 635040  | 635040  | 635040  |
| <b>Wall Mount</b><br>Conveniently mount pump above container. Made of heavy gauge coated steel. (pump not included) * Does not include hardware  | -  | 67388   | 76763   | -   | 76763   | 76763   | 76763   |
| <b>Countdown Batcher</b><br>Manual start batch counter kit controls the volume of fluid dispensed by controlling the number of pump cycles. (pump not included)  | -  | 67072   | 67072   | -   | 67072   | 67072   | 67072   |
| <b>Solenoid Actuation Kit</b><br>Control pump cycle rate with on/off signal from PLC or other device. Kit includes connector w/36" cable plus components and instructions to install on standard pump. For dosing and batching applications.                       | -  | 67165-1<br>(24VDC)<br>67165-2<br>(120VAC)   | 67165-1<br>(24VDC)<br>67165-2<br>(120VAC)   | 67165-1<br>(24VDC)<br>67165-2<br>(120VAC) | -   | 67165-1<br>(24VDC)<br>for PD05R-X-X-B<br>67165-2<br>(120VAC)<br>for PD05R-X-X-B                     | -   |
| <b>Diaphragm Pump Speed Controls</b><br>Controls air volume supplied to pump, thus permitting operator to control speed of pump. Can be panel mounted. Composite body.   | 104104-N02   | 104104-N02  | 104104-N02  | 104104-N02                                | 104104-N02  | 104104-N02  | 104104-N02  |





Wall Mount  
76763



Countdown Batcher  
67072



Solenoid Actuation Kit  
67165-1



Speed Control  
104104-N02

| 1" Non-Met.   | 1-1/2" Non-Met.   | 2" Non-Met.   | 3" Non-Met.   | 1" Metallic   | 1-1/2" Metallic   | 2" Metallic   | 3" Metallic   | 1" 3:1 Ratio |
|---|---|---|---|---|---|---|---|--------------|
| 66073-2   | 66084-1   | 66109   | 66109   | 66073-2   | 66084-1   | 66109   | 66109   | -            |
| Reg. Duty: 67237<br>ATEX, NEC, CEC:<br>96270-2 (Qty: 2)<br>& 97414 (Qty: 1)   | Reg. Duty: 67237<br>ATEX, NEC, CEC:<br>96270-2 (Qty: 2)<br>& 97414 (Qty: 1)   | Reg. Duty: 67237<br>ATEX, NEC, CEC:<br>96270-2 (Qty: 2)<br>& 97414 (Qty: 1)   | Reg. Duty: 67237<br>ATEX, NEC, CEC:<br>96270-2 (Qty: 2)<br>& 97414 (Qty: 1)   | Reg. Duty: 67237<br>ATEX, NEC, CEC:<br>96270-2 (Qty: 2)<br>& 97414 (Qty: 1)   | Reg. Duty: 67237<br>ATEX, NEC, CEC:<br>96270-2 (Qty: 2)<br>& 97414 (Qty: 1)   | Reg. Duty: 67237<br>Haz. Duty:<br>96270-2 (Qty: 2)<br>& 97414 (Qty: 1)  | Reg. Duty: 67237<br>ATEX, NEC, CEC:<br>96270-2 (Qty: 2)<br>& 97414 (Qty: 1)   | -            |
| 67350   | 67350   | 67350   | 67350   | 67350   | 67350   | 67350-1   | 67350-1   | -            |
| Reg. Duty on<br>Major Valve: 67390<br>Reg. Duty on<br>Body: 97119<br>ATEX on Body:<br>97408 & 97491<br>NEC, CEC on Body:<br>97408 & 97412 | Reg. Duty on<br>Major Valve: 67390<br>Reg. Duty on<br>Body: 97396<br>ATEX on Body:<br>97410 & 97491<br>NEC, CEC on Body:<br>97410 & 97412 | Reg. Duty on<br>Major Valve: 67391<br>Reg. Duty on<br>Body: 97121<br>ATEX on Body:<br>97411 & 97491<br>NEC, CEC on Body:<br>97411 & 97412 | Reg. Duty on<br>Major Valve: 67391<br>Reg. Duty on<br>Body: 97121<br>ATEX on Body:<br>97411 & 97491<br>NEC, CEC on Body:<br>97411 & 97412 | Reg. Duty on<br>Major Valve: 67392<br>Reg. Duty on<br>Body: 97119<br>ATEX on Body:<br>97408 & 97491<br>NEC, CEC on Body:<br>97408 & 97412 | Reg. Duty on<br>Major Valve: 67392<br>Reg. Duty on<br>Body: 97396<br>ATEX on Body:<br>97410 & 97491<br>NEC, CEC on Body:<br>97410 & 97412 | Reg. Duty on<br>Major Valve: 67393<br>Reg. Duty on<br>Body: 97396<br>ATEX on Body:<br>97410 & 97491<br>NEC, CEC on Body:<br>97410 & 97412 | Reg. Duty on<br>Major Valve: 67393<br>Reg. Duty on<br>Body: 97396<br>ATEX on Body:<br>97410 & 97491<br>NEC, CEC on Body:<br>97410 & 97412 | -            |
| -   | -   | 67323   | -   | -   | -   | 67263   | 67263   | -            |
| 67341-E10N<br>(Side flange)<br>67341-C10N<br>(Center flange)  | 67341-E15N<br>(Side flange)<br>67341-C15N<br>(Center flange)  | 67341-E20N  | -   | -   | -   | -   | -   | -            |
| 635040  | 23644-400   | 23644-400   | 635043  | 635040  | 23644-400   | 23644-400   | 635043  | -            |
| -   | -   | -   | -   | 66100   | 62133   | -   | -   | 67142        |
| 67072   | -   | -   | -   | 67072   | -   | -   | -   | -            |
| 67355-1 (24VDC)<br>for PE10X-X-X<br>67355-2 (120VAC)<br>for PE10X-X-X   | -   | 67355-1 (24VDC)<br>for PE20X-X-X-B<br>67355-2 (120VAC)<br>for PE20X-X-X-B   | -   | 67355-1 (24VDC)<br>for PE10X-X-X<br>67355-2 (120VAC)<br>for PE10X-X-X   | -   | -   | 67357-1 (24VDC)<br>PE30X-X-X-C<br>67357-2 (120VAC)<br>PE30X-X-X-C   | -            |
| 104104-N02  | 104104-N04  | 104104-N04  | 104104-N06  | 104104-N02  | 104104-N04  | 104104-N06  | 104104-N06  | -            |

# Accessories

## Air Filter/Regulator

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



P39224-614



P39124-600

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

| Pump Size    | NPT Model Number | Port Size | Max Inlet Pressure psi (bar) | Pressure Range psi (bar) | Max CFM (L/s) | Micron Element | Size HxWxD (inches) |
|--------------|------------------|-----------|------------------------------|--------------------------|---------------|----------------|---------------------|
| 1/4" to 3/4" | P39124-624       | 1/4"      | 250 (17.2)                   | 0-140 (0-9.7)            | 47 (22.2)     | 5              | 6.9 x 2.9 x 2.9     |
| 1"           | P39224-614       | 1/4"      | 250 (17.2)                   | 0-140 (0-9.7)            | 72 (34)       | 5              | 9.0 x 2.2 x 3.2     |
| 1-1/2"       | P39344-614       | 1/2"      | 250 (17.2)                   | 0-140 (0-9.7)            | 172 (81.2)    | 5              | 10.9 x 2.8 x 3.2    |
| 2"           | P39354-614       | 3/4"      | 250 (17.2)                   | 0-140 (0-9.7)            | 173 (81.7)    | 5              | 10.9 x 2.8 x 3.2    |
| 3"           | P39454-614       | 3/4"      | 250 (17.2)                   | 0-140 (0-9.7)            | 236 (111.4)   | 5              | 14.7 x 3.5 x 4.1    |

## Piggyback Filter/Regulator, Poly Bowl w/Guard, Manual Drain

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

Cautions of the Use of Polycarbonate Plastic Bowls - Use Only with Compressed Air. Filters and lubricators with polycarbonate plastic bowls are specifically designed for compressed air service, and their use with any other fluid (liquid or gas) is a misapplication. Avoid Harmful Substances. Some compressor oils, chemical cleaners, solvents, paints, and fumes will attack plastic bowls and can cause bowl failure. Do not use with or near these materials. Consult the factory with any questions.



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

# Accessories

## Siphon Tubes

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

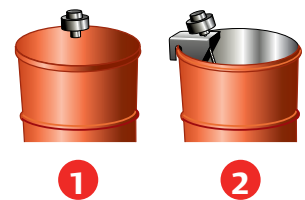
| Model no. | Description    | For use with pumps |
|-----------|----------------|--------------------|
| 65109     | Steel — NPT(F) | 1" (Metallic)      |
| 66779     | PVC — NPT(F)   | 1" (Non-Metallic)  |



## Material Agitators

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

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



## Drum Covers

Durable stainless steel and carbon steel drum covers, accommodate the use of both diaphragm pump and agitator where you need.

| Model no. | For drum       | Material        | For use with agitator: |
|-----------|----------------|-----------------|------------------------|
| 66971     | 5 GAL (20 L)   | Stainless steel | 651100                 |
| 66197     | 55 GAL (200 L) | Carbon steel    | 651104-1               |
| 94422     | 55 GAL (200 L) | Carbon steel    | —                      |



## Pneumatic Liquid Level Sensor\*

Used to control pump.

59916-1 to sense when fluid exceeds a desired level

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

\* 3 or 4- way valve required



Liquid Level Sensor

## Air Control Actuation Valves

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

MQ3728-120-A for 1/2" and 1" pumps,

H2545S-120-A for 1-1/2" pumps,

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

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

H2545S-024-D for 1-1/2" pumps

MQ3729-024-D for 2" and 3" pumps



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

# Accessories

## Pulsation Dampeners

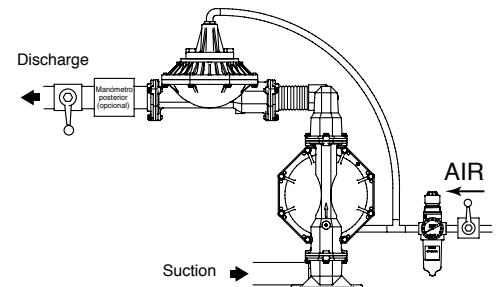
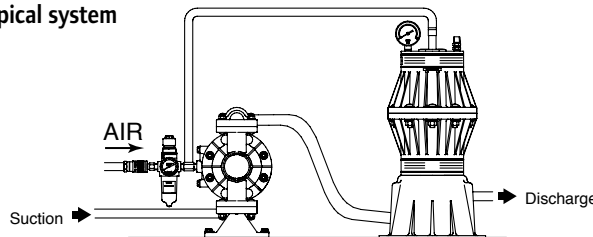
Diaphragm pumps of any type have at least two points in their cycle where they provide no pressure or flow to a process. The unwanted result of this pressure fluctuation can often be material foaming, material pulsation, hydraulic shock or material splashing. While traditional pulsation dampeners can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



## Automatic Shock Blockers®

- Automatic Air Adjustment - compensates for fluctuations in fluid pressure without operator intervention.
- Significant Pulsation Reduction - Shock Blockers deliver an average 60% - 80% pulsation reduction in high back pressure applications.
- Built for high-flow/aggressive fluid applications - the 2" models can handle up to 2.6 L maximum fluid volume, and 3" models up to 8.3 L maximum fluid volume.
- Broad Material Range for Compatibility - choose from Kynar®, polypropylene, groundable acetal (1" models) or aluminum, cast iron or stainless steel (2" and 3" models) body materials for optimum pump-to-pulsation dampener compatibility.
- Broad Diaphragm/Bladder Fluid Compatibility - choose from Santoprene, Nitrile, PTFE, Hytrel, Viton or Urethane for optimum fluid-to-diaphragm compatibility.
- Perfect for Process Applications - pulsation reduction in long piping runs help prevent costly fluid pipe and downstream valve damage.
- Bolted construction - for leak-free vessel integrity and a safer work-site.
- Ultra-Rugged Construction for Long service Life - both inside and out, the Shock Blockers are built tough to deliver worry-free, near pulse-free fluid handling.

Typical system



## Ordering

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

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

# Maintenance Kits



637432-XX



48495964



637375-XX

| Pump type                  | Models                     | Air Motor Section | Fluid Section (with seats) | One Piece Diaphragms | Major Air Valve Assembly |
|----------------------------|----------------------------|-------------------|----------------------------|----------------------|--------------------------|
| <b>3/8"</b> Non-Metallic   | PD03P, PE03P               | <b>637428</b>     | <b>637429-XX</b>           | —                    | —                        |
|                            | PD05P, PE05P               | <b>637428</b>     | <b>637427-XX</b>           | —                    | —                        |
| <b>1/2"</b> Metallic       | PM05P                      | <b>637389</b>     | <b>637375-XX</b>           | —                    | —                        |
|                            | PD05A, PD05R, PE05A, PE05R | <b>637428</b>     | <b>637427-XX</b>           | —                    | —                        |
| <b>3/4"</b> Non-Metallic   | PD07P                      | <b>637428</b>     | <b>637427-XX</b>           | —                    | —                        |
|                            | PD07R                      | <b>637428</b>     | <b>637427-XX</b>           | —                    | —                        |
| <b>1"</b> Non-Metallic     | 6661A, 6661B               | <b>637118-C</b>   | <b>637161-XX-C</b>         | <b>48495964</b>      | —                        |
|                            | 66610, 66611, 66612, 66613 | <b>637118-C</b>   | <b>637119-XX-C</b>         | <b>48495964</b>      | —                        |
|                            | PH10A-XSS-SST              | <b>637338</b>     | <b>637339</b>              | —                    | —                        |
| <b>1 1/2"</b> Non-Metallic | 6661T, 6661U               | <b>637118-C</b>   | <b>637165-XX</b>           | <b>48496806</b>      | —                        |
|                            | 66615, 66616, 66617, 66618 | <b>637118-C</b>   | <b>637124-XX</b>           | <b>48496806</b>      | —                        |
|                            | 66M170                     | <b>637118-C</b>   | <b>637469-XX</b>           | —                    | —                        |
| <b>2"</b> Non-Metallic     | 6662A, 6662B               | <b>637118-C</b>   | <b>637165-XX</b>           | <b>48497374</b>      | —                        |
|                            | 66625, 66627               | <b>637434</b>     | <b>637432-XX</b>           | <b>48497374</b>      | —                        |
|                            | 66M270                     | <b>637434</b>     | <b>637468-XX</b>           | —                    | —                        |
| <b>3"</b> Metallic         | 66630, 66632               | <b>637434</b>     | <b>637433-XX</b>           | —                    | —                        |
|                            | 66M320                     | <b>637434</b>     | <b>637467-XX</b>           | —                    | —                        |
|                            | PH30F-X                    | <b>637369</b>     | <b>637441-XX</b>           | —                    | <b>637374-X</b>          |

## ARO Vibration Isolators

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



Vibration Isolator

- Reduces up to 96% of vibration transmitted through the mount
- A set of 4 vibration isolators and mounting hardware are included
- Smart design: different kit sizes depending on pump weight

| Model Number (4 per kit) | CPN         | Description (Max. weight of pump with fluid) |
|--------------------------|-------------|--|
| HSK-20                   | 47532069001 | Vibration Isolator Kit 20 KG (44 LB)         |
| HSK-40                   | 47532069002 | Vibration Isolator Kit 40 KG (88 LB)         |
| HSK-70                   | 47532069003 | Vibration Isolator Kit 70 KG (154 LB)        |
| HSK-110                  | 47532069004 | Vibration Isolator Kit 110 KG (243 LB)       |
| HSK-160                  | 47636854001 | Vibration Isolator Kit 160 KG (353 LB)       |

# Pump Airborne Noise Emissions

## Pump Airborne Noise Emissions

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

| Pump Port Size (Inches) | Air Operating Pressure (PSI) | Cycles/Minute | Sound Pressure (LAeq) |
|-------------------------|------------------------------|---------------|-----------------------|
| <b>Diaphragm Pumps</b>  |                              |               |                       |
| 1/2                     | 70 PSI (4.8 bar)             | 60            | 75.0 db(A)            |
| 1                       | 70 PSI (4.8 bar)             | 60            | 79.7 db(A)            |
| 1-1/2                   | 70 PSI (4.8 bar)             | 60            | 81.0 db(A)            |
|                         |                              |               | 82.8 db(A)            |
| 2                       | 70 PSI (4.8 bar)             | 60            | *85.0 db(A)           |
| 3                       | 70 PSI (4.8 bar)             | 50            | *83.0 db(A)           |

## Material Service Guideline

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

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

\* Applies to diaphragms only.

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

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

# Viscosity Conversion Chart

| Centi Poise | Poise | Saybolt Universal (SSU) | Saybolt Furol | Ford No. 3 | Ford No. 4 | Zahn No. 1 | Zahn No. 2 | Zahn No. 3 |
|-------------|-------|-------------------------|---------------|------------|------------|------------|------------|------------|
| 1           | .01   | 31                      |               |            |            |            |            |            |
| 2           | .02   | 34                      |               |            |            |            |            |            |
| 4           | .04   | 38                      |               |            |            |            |            |            |
| 7           | .07   | 47                      |               | 8          |            |            |            |            |
| 10          | .10   | 60                      |               | 9          | 5          | 30         | 16         |            |
| 15          | .15   | 80                      | 13            | 10         | 8          | 34         | 17         |            |
| 20          | .20   | 100                     | 15            | 12         | 10         | 37         | 18         |            |
| 25          | .24   | 130                     | 17            | 15         | 12         | 41         | 19         |            |
| 30          | .30   | 160                     | 19            | 19         | 14         | 44         | 20         |            |
| 40          | .40   | 210                     | 24            | 25         | 18         | 52         | 22         |            |
| 50          | .50   | 260                     | 29            | 29         | 22         | 60         | 24         |            |
| 60          | .60   | 320                     | 34            | 33         | 25         | 68         | 27         |            |
| 70          | .70   | 370                     | 39            | 36         | 28         | 72         | 30         |            |
| 80          | .80   | 430                     | 42            | 41         | 31         | 81         | 34         |            |
| 90          | .90   | 480                     | 49            | 45         | 32         | 88         | 37         | 10         |
| 100         | 1.0   | 530                     | 54            | 50         | 34         |            | 41         | 12         |
| 120         | 1.2   | 580                     | 59            | 58         | 41         |            | 49         | 14         |
| 140         | 1.4   | 690                     | 70            | 66         | 45         |            | 58         | 16         |
| 160         | 1.6   | 790                     | 79            | 72         | 50         |            | 66         | 18         |
| 180         | 1.8   | 900                     | 91            | 81         | 54         |            | 74         | 20         |
| 200         | 2.0   | 1000                    | 100           | 90         | 58         |            | 82         | 23         |
| 220         | 2.2   | 1100                    | 110           | 98         | 62         |            | 88         | 25         |
| 240         | 2.4   | 1200                    | 120           | 106        | 65         |            |            | 27         |
| 260         | 2.6   | 1280                    | 128           | 115        | 68         |            |            | 30         |
| 280         | 2.8   | 1380                    | 138           | 122        | 70         |            |            | 32         |
| 300         | 3.0   | 1475                    | 148           | 130        | 74         |            |            | 34         |
| 320         | 3.2   | 1530                    | 153           | 136        | 89         |            |            | 36         |
| 340         | 3.4   | 1630                    | 163           | 142        | 95         |            |            | 39         |
| 360         | 3.6   | 1730                    | 173           | 150        | 100        |            |            | 41         |
| 380         | 3.8   | 1850                    | 185           | 160        | 106        |            |            | 43         |
| 400         | 4.0   | 1950                    | 195           | 170        | 112        |            |            | 46         |
| 420         | 4.2   | 2050                    | 205           | 180        | 118        |            |            | 48         |
| 440         | 4.4   | 2160                    | 216           | 188        | 124        |            |            | 50         |
| 460         | 4.6   | 2270                    | 227           | 200        | 130        |            |            | 52         |
| 480         | 4.8   | 2380                    | 238           | 210        | 137        |            |            | 54         |
| 500         | 5.0   | 2480                    | 248           | 218        | 143        |            |            | 58         |
| 550         | 5.5   | 2660                    | 266           | 230        | 153        |            |            | 64         |
| 600         | 6.0   | 2900                    | 290           | 250        | 170        |            |            | 68         |
| 700         | 7.0   | 3380                    | 338           | 295        | 194        |            |            | 76         |
| 800         | 8.0   | 3880                    | 388           | 340        | 223        |            |            |            |
| 900         | 9.0   | 4300                    | 430           | 365        | 247        |            |            |            |
| 1000        | 10.0  | 4600                    | 460           | 390        | 264        |            |            |            |
| 1100        | 11    | 5200                    | 520           | 445        | 299        |            |            |            |
| 1200        | 12    | 5620                    | 562           | 480        | 323        |            |            |            |
| 1300        | 13    | 6100                    | 610           | 520        | 350        |            |            |            |
| 1400        | 14    | 6480                    | 648           | 550        | 372        |            |            |            |
| 1500        | 15    | 7000                    | 700           | 595        | 400        |            |            |            |
| 1600        | 16    | 7500                    | 750           | 635        | 430        |            |            |            |
| 1700        | 17    | 8000                    | 800           | 680        | 460        |            |            |            |
| 1800        | 18    | 8500                    | 850           | 720        | 490        |            |            |            |
| 1900        | 19    | 9000                    | 900           | 760        | 520        |            |            |            |
| 2000        | 20    | 9400                    | 940           | 800        | 540        |            |            |            |
| 2100        | 21    | 9850                    | 985           | 835        | 565        |            |            |            |
| 2200        | 22    | 10300                   | 1030          | 875        | 592        |            |            |            |
| 2300        | 23    | 10750                   | 1075          | 910        | 617        |            |            |            |
| 2400        | 24    | 11200                   | 1120          | 950        | 645        |            |            |            |
| 2500        | 25    | 11600                   | 1160          | 985        | 676        |            |            |            |
| 3000        | 30    | 14500                   | 1450          | 1230       | 833        |            |            |            |
| 3500        | 35    | 16500                   | 1650          | 1400       | 950        |            |            |            |
| 4000        | 40    | 18500                   | 1850          | 1570       | 1060       |            |            |            |
| 4500        | 45    | 21000                   | 2100          | 1780       | 1175       |            |            |            |
| 5000        | 50    | 23500                   | 2350          |            | 1350       |            |            |            |
| 5500        | 55    | 26000                   | 2600          |            | 1495       |            |            |            |
| 6000        | 60    | 28000                   | 2800          |            | 1605       |            |            |            |
| 6500        | 65    | 30000                   | 3000          |            | 1720       |            |            |            |
| 7000        | 70    | 32500                   | 3250          |            | 1870       |            |            |            |
| 7500        | 75    | 35000                   | 3500          |            | 2010       |            |            |            |
| 8000        | 80    | 37000                   | 3700          |            | 2120       |            |            |            |
| 8500        | 85    | 39500                   | 3950          |            | 2270       |            |            |            |
| 9000        | 90    | 41000                   | 4100          |            | 2360       |            |            |            |
| 9500        | 95    | 43000                   | 4350          |            | 2470       |            |            |            |
| 10000       | 100   | 46500                   | 4650          |            | 2670       |            |            |            |
| 15000       | 150   | 69400                   | 6940          |            |            |            |            |            |
| 20000       | 200   | 92500                   | 9250          |            |            |            |            |            |
| 30000       | 300   | 138600                  | 13860         |            |            |            |            |            |
| 40000       | 400   | 185000                  | 18500         |            |            |            |            |            |
| 50000       | 500   | 231000                  | 23100         |            |            |            |            |            |
| 60000       | 600   | 277500                  | 27750         |            |            |            |            |            |
| 70000       | 700   | 323500                  | 32350         |            |            |            |            |            |
| 80000       | 800   | 370000                  | 37000         |            |            |            |            |            |
| 90000       | 900   | 415500                  | 41550         |            |            |            |            |            |
| 100000      | 1000  | 462000                  | 46200         |            |            |            |            |            |
| 125000      | 1250  | 578000                  | 57800         |            |            |            |            |            |
| 150000      | 1500  | 694000                  | 69400         |            |            |            |            |            |
| 175000      | 1750  | 810000                  | 81000         |            |            |            |            |            |
| 200000      | 2000  | 925000                  | 92500         |            |            |            |            |            |



# ARO<sup>®</sup> AUTHENTIC ARO PARTS

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

## Why Authentic ARO<sup>®</sup> Parts?

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

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



## Authentic ARO<sup>®</sup> Parts include:

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

## ARO<sup>®</sup> Long-Life PTFE diaphragms keeps your pumps flowing

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

\*as measured by mean time between failure



## About ARO<sup>®</sup>

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

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

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

# ARO<sup>®</sup>

Distributed by:

[www.AROzone.com](http://www.AROzone.com)    [youtube.com/aropumps](https://youtube.com/aropumps)

**North America**

800 495-0276  
[arotechsupport@irco.com](mailto:arotechsupport@irco.com)  
[arocustomerservice.com](mailto:arocustomerservice.com)

**Latin America**

0800 77 123 36  
[aro-hotline-sc@irco.com](mailto:aro-hotline-sc@irco.com)  
[aro-hotline-nc@irco.com](mailto:aro-hotline-nc@irco.com)

**Europe**

[fluid\\_management\\_emea@irco.com](mailto:fluid_management_emea@irco.com)

**India/Middle East/Africa**

1 800 103 9324  
[aropumps.India@irco.com](mailto:aropumps.India@irco.com) (India)  
[fluid\\_management\\_emea@irco.com](mailto:fluid_management_emea@irco.com)

**Asia Pacific (AP)**

8008202128/4008202128  
[aroaphotline@irco.com](mailto:aroaphotline@irco.com)  
[arozone.cn](http://arozone.cn)

# ARO®

ARO® is a brand of Ingersoll Rand. Ingersoll Rand (NYSE:IR) advances the quality of life by creating comfortable, sustainable and efficient environments. Our people and our family of brands—including Club Car®, Ingersoll Rand®, Thermo King® and Trane®—work together to enhance the quality and comfort of air in homes and buildings; transport and protect food and perishables; and increase industrial productivity and efficiency. We are a \$14 billion global business committed to a world of sustainable progress and enduring results. For more information, visit [www.ingersollrand.com](http://www.ingersollrand.com).