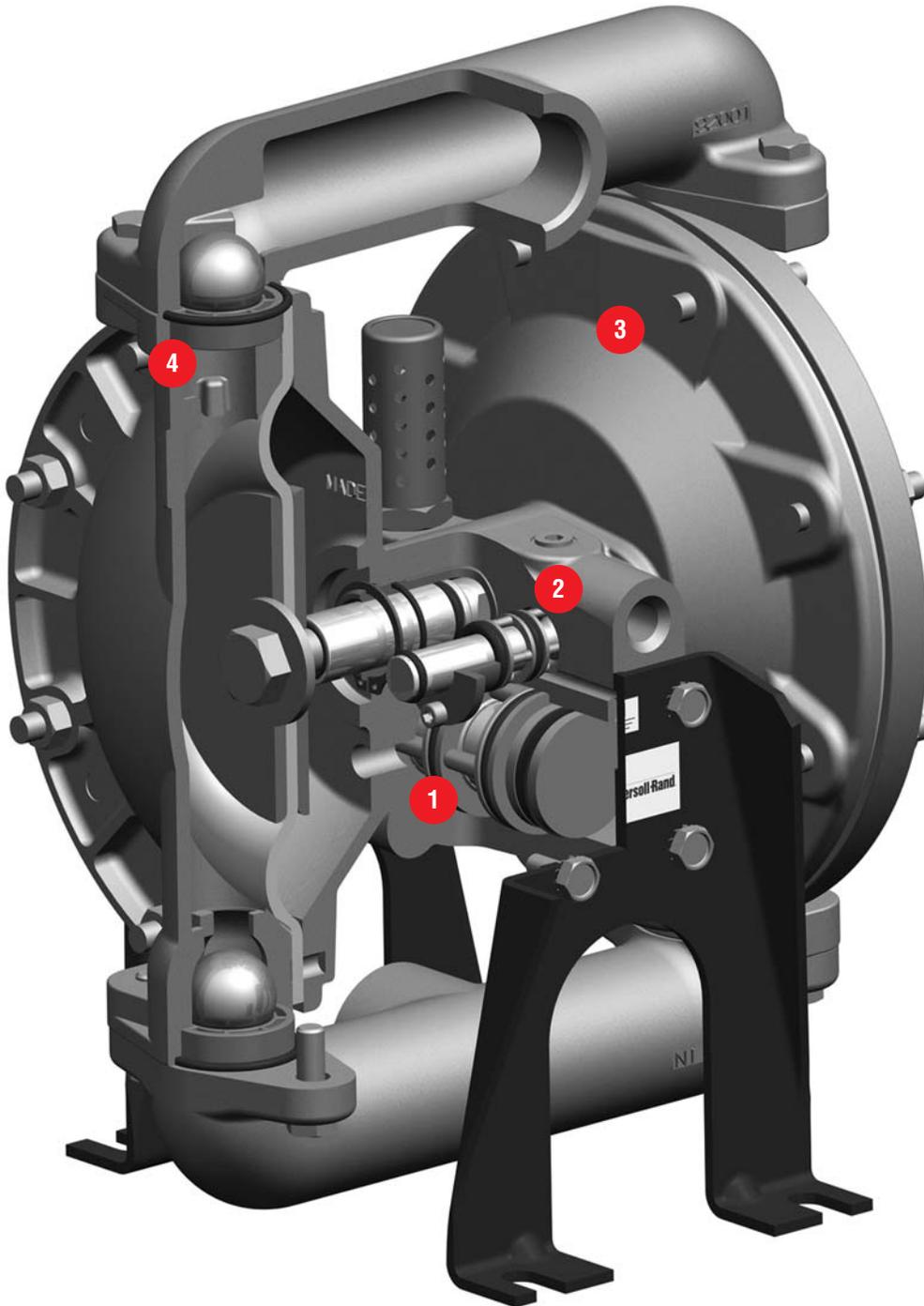


## Value Proposition Pro-Series Pumps



### Ingersoll Rand Diaphragm Pumps: Keys to ARO Air Motor Technology

#### [1] “Unbalanced” Major Air Valve

- Unbalanced valve design eliminates valve centering and pump stall-out, even under low air inlet pressures.
- “O” Ring seals prevent waste of expensive compressed air. Air flow stops when fluid flow stops.
- Maintenance is simple: just replace the worn “O” Rings and “U” Cups.

#### [2] Independent Pilot Rod

- Utilizes pneumatics and mechanical action to shift Pilot Rod. Ensures positive pilot signal, avoiding stall-out.

#### [3] Broad Material Selection

- Options allow you to optimize compatibility between the pump and fluid being moved.
- Non-Metallic Diaphragm Pumps are available in polypropylene, PVDF and groundable acetal. Check models for availability.
- Metallic Diaphragm Pumps are available in aluminum, stainless steel and cast iron. Check models for availability.

#### [4] Diaphragm/Ball Check Options

- Fit your pump with the diaphragms and ball checks needed to maximize fluid compatibility and abrasion resistance.

**Introducing the New High-Performance Pro's: PD05, PD03:** Aro's new Pro Series family has all new members at both ends of the delivery spectrum. In the low-to-medium flow range, we offer our new PD05 (1/2") and PD03 (3/8") models. Featuring our patented air valve technology, including Simul Shift and D-Valve designs, users are assured of stall-free operation, with optimum energy efficiency. These pumps also feature fluid deliveries previously unavailable in port sizes like these: 14.4 GPM (1/2") and 10.4 (3/8")...that's impressive delivery in a small package! ARO pioneered the 1/2", high-demand, low-maintenance diaphragm pump in the eighties - now its time to step it up-with the new Pro PD0s.

**Introducing the New High-Flow Pro's: 666250 and 666300:** At the far end of the fluid delivery spectrum, the new ARO Pro Series 2" and 3" port models feature Aro's patented "Unbalanced", stall-free air valve design and bolted construction for leak-tight integrity. With maximum delivery rates of 172 GPM (2") and 237 GPM (3"), the new high-flow Pros are the ideal answer to big volume applications - where performance with economy are a must.

# 1" Metallic Models Pro-Series Pumps

## 1" Metallic Performance Specifications

Ratio:	1:1	
Maximum Flow:	35-g.p.m. (133-l.p.m.)	
Displacement per cycle:	0.16-Gallons (0.60-Liters)	
Air Inlet: (Female)	1/4 - 18 N.P.T.F. - 1	
Fluid Inlet:	1 - 11-1/2 N.P.T.F. - 1 Rp 1 (1-11 BSP parallel)	
Fluid Outlet:	1 - 11-1/2 N.P.T.F. - 1 Rp 1 (1-11 BSP parallel)	
Max. operating pressure:	120-psi (8.3-bar)	
Suspended solids max. dia.:	1/8-in. (3.2-mm)	
Weight: lbs (kg)	666100-X-C (aluminum)	19 (8.6)
	666101-X-C (stainless)	36 (16.3)
	666102-X-C (cast iron)	31 (14.1)

**Note:** Add 8-lbs (3.63-kg) for cast iron air motor section

Maximum dry suction lift: 20-ft (6.1-m) Rubber fitted



## Ordering Menu

6661X	X	-	X	X	X	-	C
<b>Center Body/ Threads</b>	<b>Fluid Caps/ Manifold Material</b>		<b>Seat Material</b>	<b>Ball Check Material</b>	<b>Diaphragm Material</b>		
0 Aluminum, N.P.T.F.	0 Aluminum (steel hardware)		1 Aluminum	3 Viton	3 Viton		
1 Cast Iron, N.P.T.F.			2 316 Stainless	4 PTFE (Teflon)	4 PTFE (Teflon) /		
2 Aluminum, BSP	1 Stainless Steel (steel hardware)		3 Polypropylene	8 Polyurethane	Santoprene		
3 Cast Iron, BSP	2 Cast Iron (steel hardware)		4 PVDF	A Stainless Steel	9 Hytel		
	9 Stainless Steel, dual outlet (steel hardware)		5 Carbon Steel	C Hytel	B Santoprene		
	A Aluminum, (stainless hardware)		8 Hard 400 Stainless Steel	E Santoprene			
	B Stainless Steel (stainless hardware)						
	C Cast Iron (stainless hardware)						
	D Stainless Steel, dual outlet (stainless hardware)						

## Accessories

### Air Line Connection Kit\*1 Kit No. 66073-2

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

# ENGINEERING DATA

RATIO SERIES: **1:1**

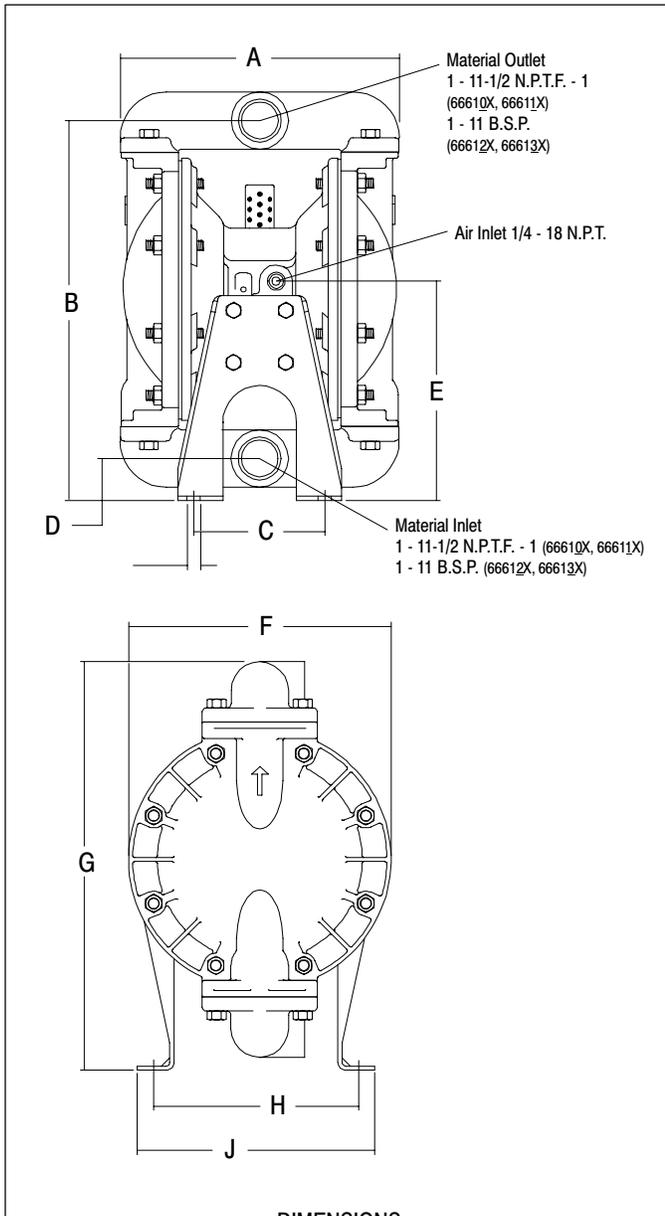
FLUID P.S.I. RANGE: **20 - 120**

6661XX-XXX-C

**1" METALLIC DIAPHRAGM PUMP**

RELEASED: 12-20-96  
 REVISED: 6-15-01  
 S-878

## DIMENSIONAL DATA



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

## SPECIFICATIONS

### CONSTRUCTION

<b>Model Series</b> .....	66610X-XXX-C
<b>Pump Type</b> .....	Metallic, Air Operated, Double Diaphragm
<b>Ratio</b> .....	1:1
<b>Material Inlet / Outlet (female)</b>	
66610X-X and 66611X-X .....	1 - 11-1/2 N.P.T.
66612X-X and 66613X-X .....	1 - 11 B.S.P.
<b>Air Inlet (female)</b> .....	1/4 - 18 N.P.T.
<b>Air Exhaust (female)</b> .....	3/8 - 18 N.P.T.F. - 1
<b>Weight</b>	
Aluminum .....	19 lbs (8.62 kgs)
Cast Iron .....	31 lbs (14.06 kg)
Stainless Steel .....	36 lbs (16.33 kgs)
	(add 8 lbs (3.63 kgs) for cast iron air motor section)
<b>Air Section Service Kit</b> .....	637118-C
<b>Fluid Section Service Kit</b> .....	637119-XX-C

66610X - X   -C  
 637119 -   -C  
                     |  
                     | Diaphragm Material  
                     | Ball Material

EXAMPLE: Model 666100-361-C  
 Fluid Section Service Kit is 637119-61-C

### PERFORMANCE

<b>Air Inlet Pressure Range</b> .....	20 - 120 p.s.i. (1 - 8.3 bar)
<b>Maximum Material Inlet Pressure</b> ...	10 p.s.i. (0.69 bar)
<b>Fluid Pressure Range</b> .....	20 - 120 p.s.i. (1 - 8.3 bar)
<b>Maximum Flow Rate (flooded inlet)</b> .....	35 g.p.m. (133 l.p.m.)
<b>Maximum Particle Size</b> .....	1/8" dia. (3.2 mm)
<b>Maximum Temperature Limits</b>	
Polypropylene seats .....	35° to 150°F (2° to 66°C)
Kynar (PVDF) seats .....	10° to 200°F (-12° to 93°C)
<b>Displacement / Cycle @ 100 p.s.i.</b> ...	0.16 gal. (.60 lit.)
<b>Noise Level @ 70 p.s.i. - 60 c.p.m.</b> ①	64.5 db(A) ②

① Tested with 93110 muffler installed.  
 ② The pump sound pressure level has been updated to an Equivalent Continuous Sound Level (L<sub>Aeq</sub>) to meet the intent of ANSI S1. 13-1971, CAGI-PNEUROPS 5.1 using four microphone locations.

### ACCESSORIES:

- 65010 Neoprene "O" Ring Air Motor Kit
- 65764 Viton "O" Ring Air Motor Kit
- 66073-1 Air Line Kit
- 637167 Abrasion Resistant Conversion Kit

# PERFORMANCE CURVES

