



## Air Operated Diaphragm **Pump**



## **FEATURES**

- Stall-Free Design Our "posi-shift", tandem spool air distribution valve insures reliable operation in all types of low pressure and start/stop applications. In addition, fewer parts and no o-rings result in easier maintenance.
- Oil-less Air Valve No metal-to-metal wearing surfaces. State-of-the-art materials and precision manufacturing techniques provide the industry's original completely oil-less design. This design means no oil misting environment that would create an unhealthy working condition, and no oil, lubricants or grease to contaminate your products. Our oil-less design results in lower operating and maintenance costs. This design has been field proven and working trouble-free since 1984.
- Externally Serviceable Air Valve No need to disassemble the pump for routine maintenance. The air valve can be quickly and easily maintained with minimal downtime.
- Variety of Elastomers AOD® pumps can be assembled with the elastomer that matches your application; Neoprene, Buna-N, Nordel®, Teflon®, Santoprene®, and Viton® are all available.

## AOD1 - \*(-A, -C, -S)

### \*Pump Body Materials

A - Aluminum

C - Cast Iron

S - Stainless Steel

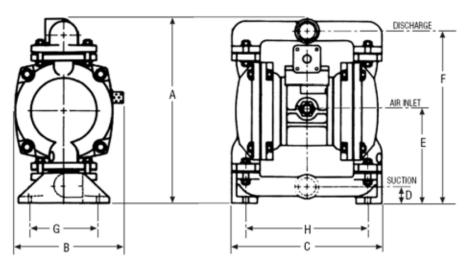
### Buna-N Santoprene® Teflon® Neoprene Nordel® Viton®

- **Applications**
- Aircraft Industry
- Automotive
- · Beverage Industry
- · Chemical and Petroleum
- · Glass and Fiberglass

Marine

Elastomers

- Metal and Steel
- Mine and Construction
- Paper and Wood



MODEL (Dimensions)		Aluminum	Cast Iron	Stainless Steel
		AOD1- <b>A</b> xxx	AOD1-Cxxx	AOD1-Sxxx
SUCTION (Botto	om) Inches	1 FNPT, BSP	1 FNPT, BSP	1 FNPT, BSP
DISCHARGE (To	<b>p)</b> Inches	1 FNPT, BSP	1 FNPT, BSP	1 FNPT, BSP
A – Total Height	Inches (mm)	14.25 (362)	14.25 (362)	14.25 (362)
B – Total Depth	Inches (mm)	7.5 (191)	7.5 (191)	7.5 (191)
C – Total Width	Inches (mm)	11.63 (295)	11.63 (295)	11.19 (284)
Air Inlet Size		3/8" FNPT	3/8" FNPT	3/8" FNPT
Air Exhaust Size		1/2" FNPT	1/2" FNPT	1/2" FNPT
D – Suction	Inches (mm)	1.31 (33)	1.31 (33)	1.31 (33)
E – Air Inlet	Inches (mm)	7.38 (187)	7.38 (187)	7.38 (187)
F – Discharge	Inches (mm)	13.31 (338)	13.31 (338)	13.31 (338)
G – Mounting	Inches (mm)	5.5 (133)	5.5 (133)	5.5 (133)
H – Mounting	Inches (mm)	9.5 (241)	9.5 (241)	9.5 (241)
H – Mounting				

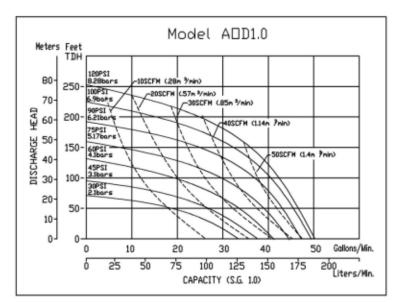
NOTE: Pump dimensions may vary depending on configuration. Dimensions are to be used for reference only.



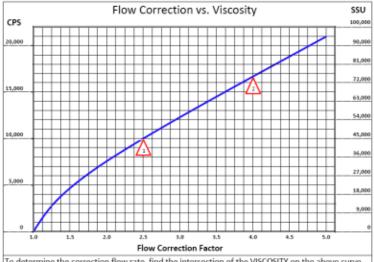
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# AOD1 -A, -C, -S



The performance curves shown and other published literature reflect an average performance for all materials and all elastomers, including Teflon®. Derating of the performance is not necessary for Teflon® fitted pumps.



To determine the correction flow rate, find the intersection of the VISCOSITY on the above curve and read the FLOW CORRECTION FACTOR. Multiply this factor by the desired flow of the pump and use this new flow rate to select a pump from the performance curves.

Example 10,000 CPS = 2.5 Flow Correction Factor.

If viscous flow desired is 42 GPM, then multiply 42 by 2.5 = 105 (GPM equivalent water flow)

Example A 74,000 SSU = 4.0 Flow Correction Factor.

If viscous flow desired is 35 GPM, then multiply 35 by 4.0 = 140 (GPM equivalent water flow)

Technical Data					
Maximum flow G	PM (liters per minute)	50 (190)			
Displacement/Stroke	Gal (liters)				
Elastomer Diaphragms		0.18 (.68)			
Teflon® Diaphragms		0.12 (.45)			
Max Air Inlet Pressure	PSI (bar)	125 (8.8)			
Max Spherical Solids Si	ze IN (mm)	1/8 (3.2)			
High Liquid Temp. Lim	it *(See elastomer sp	*(See elastomer specs. below)			
Low Liquid Temp. Limi	t °F (°C)	32 (0)			
Shipping Weight	Lbs (kg)				
Aluminum		34 (15.4)			
Cast Iron		53 (24.0)			
Stainless Steel		45 (20.4)			

*Elastomers  Maximum Liquid Temperature				
MATERIAL	AL, CI, SS	Kit P/N		
Buna-N	180°F (82°C)	45-761-10		
Neoprene	180°F (82°C)	45-761-00		
Nordel®	180°F (82°C)	45-761-30		
Santoprene®	212°F (100°C)	45-761-60		
Teflon®	212°F (100°C)	46-386-00		
Viton®	248°F (120°C)	45-761-20		

Materials of Construction			
Air Valve Housing Fiberglass, glass filled			
Air Chambers	Aluminum		
Spool Housing	Anodized Aluminum**		
Pump External Finish	Blue Enamel Paint		
Valve Type	Elastomeric Ball		

\*\* - Optional 316 stainless steel, consult factory

Suction Lifts								
Elastomer Type	<u>Dry Prime</u>		Wet Prime					
(Material)	FT (	meters)	FT (	(meters)				
Standard (Cast Iron)	20	(6.1)	20	(6.1)				
Standard (AL, SS)	10	(3.0)	18	(5.5)				
Teflon® (AL, SS)	13	(4.0)	18	(5.5)				