

## AOD"

(Bolted)



# 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 into the 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.

### **AOD1.5** - \*(-A, -S) -B

#### \*Pump Body Materials

#### A - Aluminum

#### S - Stainless Steel

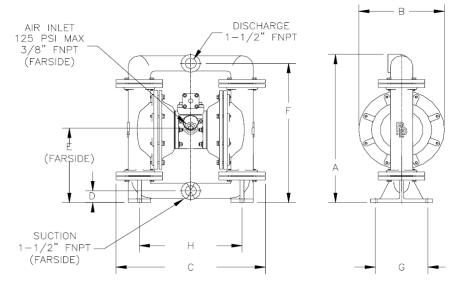
#### **Elastomers**

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

#### **Applications**

- Aircraft Industry
- Automotive
- Beverage Industry
- Chemical and Petroleum
- Glass and Fiberglass

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

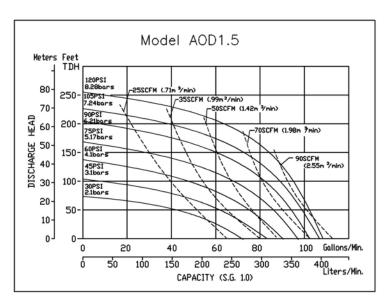


| MODEL (Dimensions)   |             | Aluminum               | Stainless Steel        |  |
|--|-------------|------------------------|------------------------|--|
|  |             | AOD1.5- <b>A</b> xxx-B | AOD1.5- <b>S</b> xxx-B |  |
| SUCTION (Bottom)   | Inches      | 1 1/2 FNPT, BSP        | 1 1/2 FNPT, BSP        |  |
| DISCHARGE (Top)  | Inches      | 1 1/2 FNPT, BSP        | 1 1/2 FNPT, BSP        |  |
| A – Total Height   | Inches (mm) | 20.63 (524)            | 20.63 (524)            |  |
| B – Total Depth  | Inches (mm) | 11 (279)               | 11 (279)               |  |
| C – Total Width  | Inches (mm) | 19.19 (429)            | 19.19 (429)            |  |
| Air Inlet Size   |             | 3/8" FNPT              | 3/8" FNPT              |  |
| Air Exhaust Size   | 9           | 3/8" FNPT              | 3/8" FNPT              |  |
| D – Suction  | Inches (mm) | 1.63 (41)              | 1.63 (41)              |  |
| E – Air Inlet  | Inches (mm) | 10.38 (264)            | 10.38 (264)            |  |
| F – Discharge  | Inches (mm) | 19.38 (492)            | 19.38 (492)            |  |
| G – Mounting   | Inches (mm) | 6.75 (171)             | 6.75 (171)             |  |
| H – Mounting   | Inches (mm) | 13.19 (335)            | 13.19 (335)            |  |
| NOTE Provide the second |             |                        |                        |  |

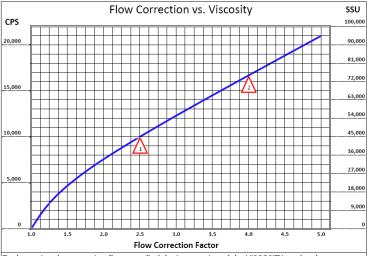
NOTE: Pump dimensions may vary depending on configuration. Dimensions are to be used for reference only.



## AOD1.5 -A, -C, -S (-B)



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)

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

| Technical Data            |       |                    |             |  |  |
|---------------------------|-------|--------------------|-------------|--|--|
| Maximum flow              | GPM   | 105 (400)          |             |  |  |
| Displacement/Stroke       |       | Gal (liters)       |             |  |  |
| Elastomer Diaphragms      |       |                    | 0.35 (1.3)  |  |  |
| Teflon® Diaphragms        |       |                    | 0.20 (.75)  |  |  |
| Max Air Inlet Pressu      | ıre   | PSI (bar)          | 125 (8.8)   |  |  |
| Max Spherical Solids Size |       | IN (mm)            | 3/16 (4.7)  |  |  |
| High Liquid Temp.         | Limit | *(See elastomer sp | ecs. below) |  |  |
| Low Liquid Temp. Limit    |       | °F (°C)            | 32 (0)      |  |  |
| Shipping Weight           |       | Lbs (kg)           |             |  |  |
| Aluminum                  |       |                    | 52 (23.6)   |  |  |
| Stainless Steel           |       |                    | 95 (43.1)   |  |  |

| *Elastomers  Maximum Liquid Temperature |               |           |  |
|---|---------------|-----------|--|
| MATERIAL                                | AL, SS        | Kit P/N   |  |
| Buna-N                                  | 180°F (82°C)  | 44-808-10 |  |
| Neoprene                                | 180°F (82°C)  | 44-808-00 |  |
| Nordel <sup>®</sup>                     | 180°F (82°C)  | 44-808-30 |  |
| Santoprene®                             | 212°F (100°C) | 44-808-60 |  |
| Teflon® AL, SS                          | 212°F (100°C) | 46-480-00 |  |
| Viton®                                  | 248°F (120°C) | 44-808-20 |  |

| Materials of Construction |                          |  |  |
|---------------------------|--------------------------|--|--|
| <b>Bolted Series</b>      | Stainless Steel Aluminu  |  |  |
| Air Valve Housing         | Fiberglass, glass filled |  |  |
| Air Chambers              | Aluminum                 |  |  |
| Spool Housing             | Anodized Aluminum**      |  |  |
| Pump External Finish      | Natural (Not Painted)    |  |  |
| 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<br>(AL, CI, SS) | 20               | (6.1) | 20          | (6.1) |  |
| Teflon®<br>(AL, CI, SS)  | 14               | (4.3) | 22          | (6.7) |  |



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