VEER DOUBLE DIAPHRAGM PUMPS

AIR & ELECTRICALLY OPERATED

Veer®

Series : VAODD

VEER PUMP INDUSTRIES

Plot No. A/56, Bileshwar Ind. Estate, Opp. G.V.M.M.,
Nr. S.P. Ring Road, Odhav, Ahmedabad, Gujarat - 382415.

www.veerpump.in

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समृध्धि की ओर

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The High Performance Pumps...!!

VEER Pumps is India's Leading Manufacturer of Air - Operated Double Diaphragm Pumps, providing reliable pumping solution to wide range of Industries. Pumps are Self-Priming, an handle viscous and abrasive products and can run dry without damage. Additionally, they do not employ costly motors, Variable speed drives, by-pass plumbing or mechanical seals.

CHEMICAL	CERAMIC	ELECTRON
Acid	Glaze	Acid
Caustic	Painting	Alkali
Solvent		Waste Water
Paint		
Shear Sensitive		
Material		

COAL MINE	MACHINERY	AUTOMOBILE
Waste Water	Oil	Oil
Water Seepage	Cutting Fluid	Solvent
	Quenching Oil	Paint
	Acetone	Waste Water
	Electroplate	
	Liquid	
	Liquid Wate	

FOOD & MEDICINE	PRINTING	PAPERMAKING
Liquid Material	Ink	Pulping
Additive		Additive
Condiment		Liquid Watse
Powder		

WASTE WATER TREATMENT	LEATHER & TEXTILE PRINT	POWDER TRANSFER
Additive	Ink	Bulk Specific
Sludge	Treating Fluid	Weight < 0.7
	Waste Water	
	Sldge	

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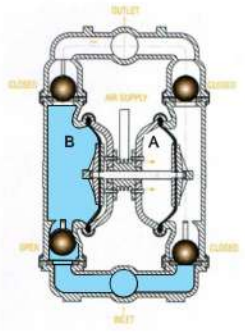
HOW IT WORKS

FIGURE 1 (LEFT STROKE)



The air valve directs pressurizes air to the back side of diaphragm A. The Compressed air is applied directly to the liquid column separated by elastomeric diaphragms. The diaphragm acts as a separation membrane between the Compressed air and liquid, balancing the load and removing mechanical stress from the diaphragm. The compressed air moves the diaphragm away from the center block of the pump. The opposite diaphragm is pulled in by the shaft connected to the pressurized diaphragm. Diaphragm B is on its suction stroke; air behind the diaphragm has been forced out to the atmosphere through the exhaust port of the pump. The movement of diaphragm B toward the center block of the pump creates a vacuum within chamber B. Atmospheric pressure forces fluid into the inlet manifold forcing the inlet valve ball off its seat. Liquid is free to move past the inlet valve ball and fill liquid chamber (see shaded area).

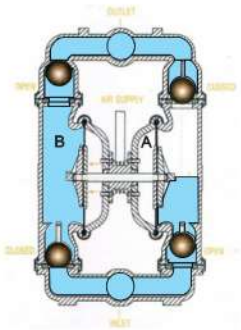
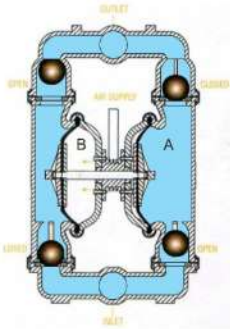


FIGURE 2 (MID STROKE)

When the pressurized diaphragm, diaphragm A, reaches the limit of its discharge stork, the air valve redirect pressurized air to the back side of diaphragm B. The pressurized air forces diaphragm B away from the center block while pulling diaphragm A to the center block. Diaphragm B is now on its discharge stroke. Diaphragm B force the inlet valve ball onto its seat due to the hydraulic forces developed in the liquid chamber and manifold of the pump. These same hydraulic forces lift the discharge valve ball off its seat, while the opposite discharge valve ball is forced onto its seat, forcing fluid to flow through the pump discharge. The movement of Diaphragm A toward the center block of the pump creates a vacuum within liquid chamber A. Atmospheric pressure forces fluid into the inlet manifold of the pump. The inlet valve ball is forced off its seat allowing the fluid being pumped to fill the liquid chamber.

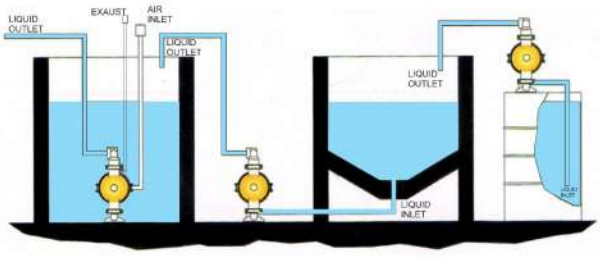
FIGURE 3 (RIGHT STROKE)



At completion of the stroke, the air valve again redirects air to the back side of diaphragm A, which starts diaphragm B on its exhaust stroke. As the pump reaches its original starting point, each diaphragm has gone through one exhaust and one discharge stroke. This constitutes one complete pumping cycle. The pump may take several cycles to completely prime depending on the conditions of the application.

The VEER Diaphragm Pump is air-operated, positive displacement, self-priming pump. These drawings show the flow pattern through the pump upon its initial stroke,

INSTALLATION VERSATILITY



SUBMERGED

VEER Diaphragm Pumps are totally submersible. It is important that the air exhaust be ported above the level of the fluid, and that the materials of construction also be compatible with the fluid that the pump is submerged in.

POSITIVE SUCTION

Pump can draw from the bottom of the vessel. Preferred installation for viscous fluids. for emptying tanks it is important to limit the inlet fluid pressure to approximately 10 PSI (0.69 bar) for Teflon diaphragms and 15 PSI (1.03 bar) for rubber and santoprene diaphragms.

SELF PRIMING

The suction capabilities of each pump may vary due to system design being pumped, and pump material of construction. Please consult the factory with specific criteria.

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SPECIFICATIONS AND PERFORMANCE

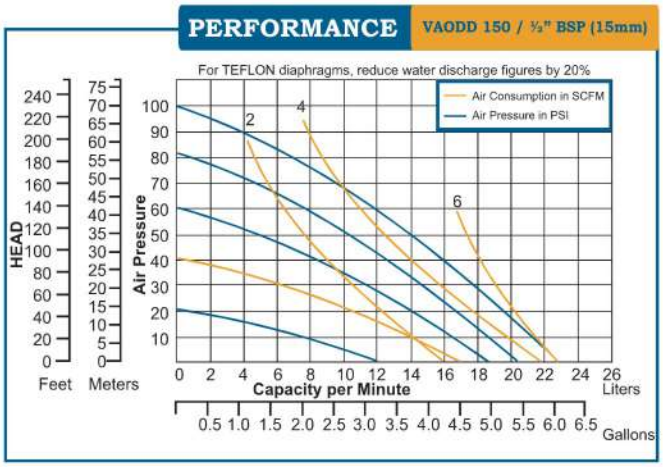
MODEL : VAODD 150 / ½" BSP (15mm)

TECHNICAL SPECIFICATION

Max Flow Rate	:	**35 LPM**
Port Size	:	**Inlet : 12.70mm (½" BSP)**
		Discharge : 12.70mm (½" BSP)
		Air Inlet : (¼" BSP)
		Air Exhaust : 12.70mm (½" BSP)
Suction Lift	:	**Dry : 1.45m (4.75')**
		Wet : 2.83m (9.28')
Teflon	:	**Dry : 0.50m (1.64')**
		Wet : 0.90m (2.95')
Max Particle Size (Dia):		**2mm (0.078")**

MOCs Available

- **PPH**
- **PVDF**
- **SS-316**
- **AL**



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SPECIFICATIONS AND PERFORMANCE

MODEL : VAODD 300 / 1" BSP (25mm)

TECHNICAL SPECIFICATION

Max Flow Rate	:	**135 LPM**
Port Size	:	**Inlet : 25.40mm (1" BSP)**
		Discharge : 25.40mm (1" BSP)
		Air Inlet : (¼" BSP)
		Air Exhaust : 12.70mm (½" BSP)
Suction Lift	:	**Dry : 3.05m (10')**
		Wet : 4.89m (16')
Teflon	:	**Dry : 2.14m (7')**
		Wet : 3.98m (13')
Max Particle Size (Dia)	:	**3.17mm (0.125")**

MOCs Available

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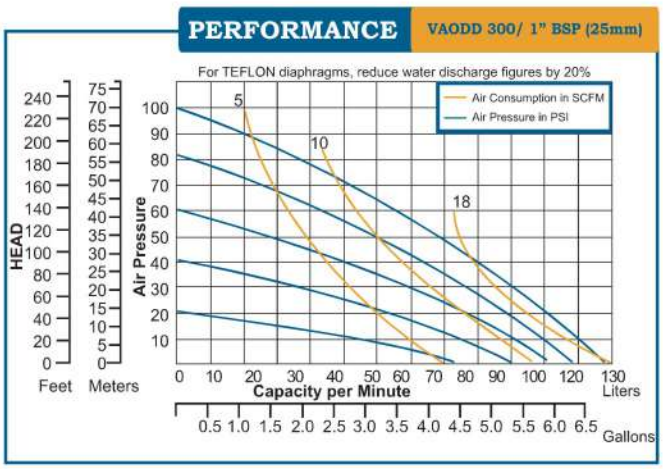
- **AL**

PERFORMANCE — VAODD 300/ 1" BSP (25mm)



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SPECIFICATIONS AND PERFORMANCE

MODEL : VAODD 400 / 1½" BSP (40mm)

TECHNICAL SPECIFICATION

Max Flow Rate	:	**270 LPM**
Port Size	:	**Inlet : 38.10mm (1½" BSP)**
		Discharge : 38.10mm (1½" BSP)
		Air Inlet : (½" BSP)
		Air Exhaust : 12.70mm (½" BSP)
Suction Lift	:	**Dry : 4.57m (15')**
		Wet : 7.62m (25')
Teflon	:	**Dry : 3.05m (10')**
		Wet : 6.09m (20')
Max Particle Size (Dia):		**4.76mm (0.188")**

MOCs Available

- **PPH**
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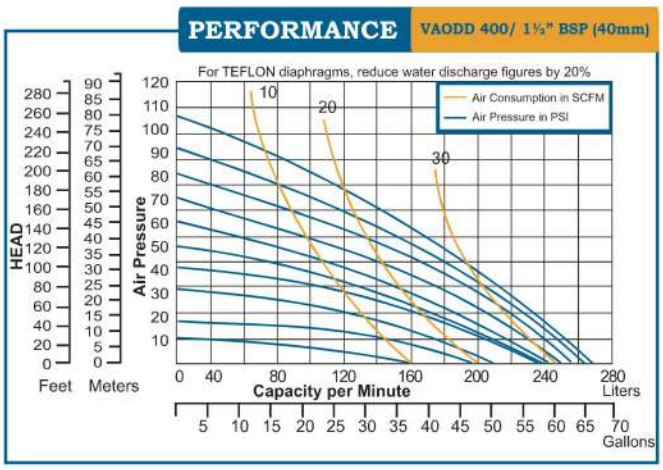
- **SS-316**
- **AL**

PERFORMANCE VAODD 400/ 1½" BSP (40mm)



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SPECIFICATIONS AND PERFORMANCE

MODEL : VAODD 500 / 2" BSP (50mm)

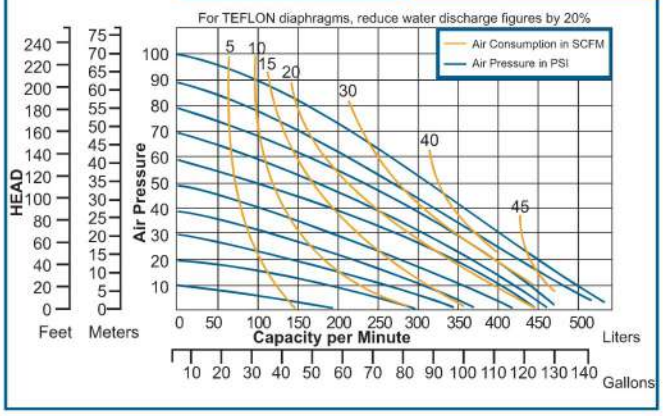
TECHNICAL SPECIFICATION

Max Flow Rate	:	**586 LPM**
Port Size	:	**Inlet : 50.80mm (2" BSP)**
		Discharge : 50.80mm (2" BSP)
		Air Inlet : (½" BSP)
		Air Exhaust : 19.05mm (¾" BSP)
Suction Lift	:	**Dry : 4.57m (15')**
		Wet : 7.62m (25')
Teflon	:	**Dry : 3.05m (10')**
		Wet : 6.09m (20')
Max Particle Size (Dia)	:	**6.35mm (0.250")**

MOCs Available

- **PPH**
- **PVDF**
- **SS-316**
- **AL**

PERFORMANCE — VAODD 500/ 2" BSP (50mm)



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