www.pricepumps.co.in

OPERATED DOUBLE DIAPHRAGM PUMPS



THE **PRICE** PUMP WHY BUY **PRICE** PUMP



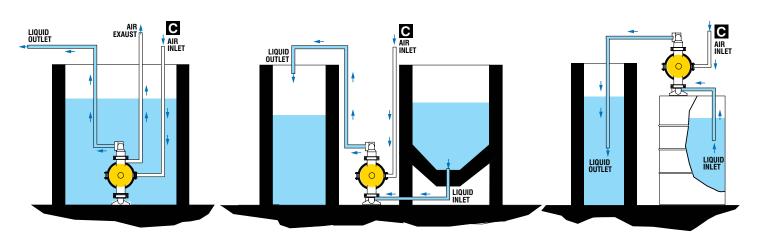
PRICE PUMPS PVT LTD

For over two decades, PRICE Pumps Pvt. Ltd, India's largest manufacturer of air-operated double diaphragm pumps, has been providing the industry experts with the most reliable pumps on the market. PRICE pumps are self-priming, can 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.

WHY BUY PRICE PUMPS

- 1. No electrical motor non sparking.
- 2. No mechanical seals or gland packing.
- 3. The pumps can run dry indefinitely without damage.
- **4.** Safe for use in hazardous/explosive environments.
- **5.** Variable flow simply regulate the inlet air supply to adjust the pump flow from zero to max.
- **6.** If discharge is clogged or closed pump stops immediately; no power consumed, no wear. By opening discharge, flow starts automatically.
- **7.** Self-priming from a dry start up to 6 meters without a foot valve.
- 8. Pressure up to 100 PSI (7 bar).
- **9.** Operates submerged or with flooded suction.
- **10.** No close fitting, sliding or rotating parts so can handle a wide range of fluids with high solid content.
- **11.** Gentle non-shearing action.
- **12**. Quick assembly and disassembly with split clamp bands.
- **13**. Pumps are light weight and portable.

INSTALLATION VERSATILITY



SUBMERGED

PRICE Pumps are totally submersible. It is important that the air exhaust be ported above the level of the fluid, and that the MOC also be compatible.

POSITIVE SUCTION

Pump can draw from the bottom of the vessel. Preferred installation for viscous fluids.

SELF PRIMING / DRUM TRANSFER

The suction capabilities of each pump may vary due to system design, product being pumped, and pump materials of construction.

THE PRICE PUMP HOW A PRICE PUMP WORKS



HOW THE PUMP WORKS

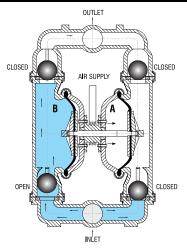


FIGURE 1 (LEFT STROKE)

The air valve directs pressurized 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 the liquid chamber (see shaded area).

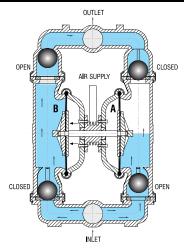


FIGURE 2 (MID STROKE)

When the pressurized diaphragm, diaphragm A, reaches the limit of its discharge stroke, the air valve redirects 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 forces 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.

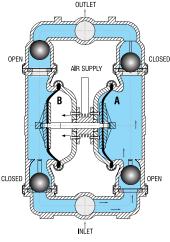
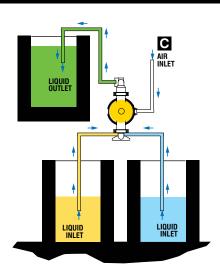


FIGURE 3 (RIGHT STROKE)

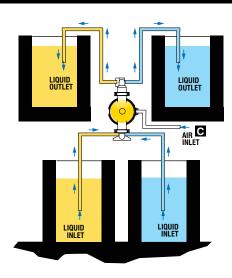
At completion of the stroke, the air valve again redirects air to the back side of diaphragm A, which starts diaphragm B on its exhaust stroke. As the pump reaches its original starting point, each diaphragm has gone through one exhaust and one discharge stroke. This constitutes one complete pumping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

The PRICE diaphragm pump is an air-operated, positive displacement, self-priming pump. These drawings show the flow pattern through the pump upon its initial stroke.

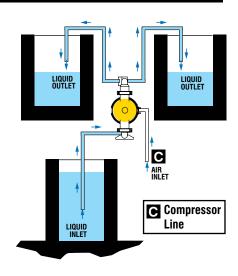
It is assumed the pump has no fluid in it prior to its initial stroke.



MIXING - TWIN SUCTION MANIFOLD



TWIN SUCTION & DELIVERY MANIFOLD



TWIN DELIVERY MANIFOLD



SPECIFICATIONS AND PERFORMANCE 1/2" BSP (15mm) POLYPROPYLENE / PVDF

MOCs Also Available: SS 316, AL



Max Flow Rate: 23Lpm (6gpm)

Port Size: Inlet: 12.70mm (1/2"BSP)

Discharge: 12.70mm (1/2"BSP) **Air Inlet:** 6.35mm (1/4"BSP) **Air Exhaust:** 12.70mm (1/2"BSP)

Suction Lift: Dry: 1.45m (4.75')

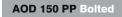
Wet: 2.83m (9.28')

Teflon: Dry: 0.50m (1.64')

Wet: 0.90m (2.95')

Max Particle Size (Dia): 2mm (0.078")







AOD 15 PP Clamped

CLAMPED model available for specific applications

ALSO AVAILABLE IN PVDF



CLAMPED model available for specific applications



SPECIFICATIONS AND PERFORMANCE 1" BSP (25mm) POLYPROPYLENE / PVDF



MOCs Also Available: SS 316, AL

Max Flow Rate: 135Lpm (34gpm)

Port Size: Inlet: 25.40mm (1"BSP)

Discharge: 25.40mm (1"BSP) **Air Inlet:** 9.53mm (3/₈"BSP) **Air Exhaust:** 12.70mm (1/₂"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")

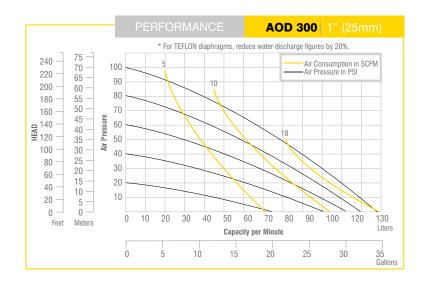


AOD 300 PP Bolted

ALSO AVAILABLE IN PVDF



AOD 300 PVDF Bolted



SPECIFICATIONS AND PERFORMANCE 11/2" BSP (40mm) POLYPROPYLENE / PVDF

MOCs Also Available: SS 316, AL, CI



Max Flow Rate: 270Lpm (72gpm)

Port Size: Inlet: 38.10mm (11/2"BSP)

Discharge: 38.10mm (1¹/₂"BSP) **Air Inlet:** 9.64mm (3/₈"BSP) **Air Exhaust:** 12.70mm (¹/₂"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")



AOD 25 PP Clamped

CLAMPED model available for specific applications



AOD 400 PP Bolted



AOD 40 PP Clamped

CLAMPED model available for specific applications

ALSO AVAILABLE IN PVDF

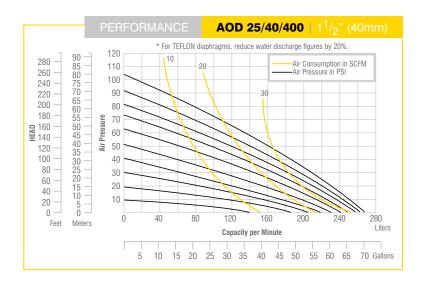


AOD 400 PVDF Bolted



AOD 40 PVDF Clamped

CLAMPED model available for specific applications



SPECIFICATIONS AND PERFORMANCE 2" BSP (50mm) POLYPROPYLENE / PVDF



MOCs Also Available: SS 316, AL, CI

Max Flow Rate: 586Lpm (155gpm)

Port Size: Inlet: 50.80mm (2"BSP)

Discharge: 50.80mm (2"BSP) Air Inlet: 12.70mm (1/2"BSP) Air Exhaust: 19.05mm (3/4"BSP)

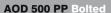
Suction Lift: Dry: 4.57m (15')

Wet: 7.62m (25')

Teflon: Dry: 3.05m (10') **Wet:** 6.09m (20')

Max Particle Size (Dia): 6.35mm (0.250")





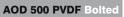


AOD 50 PP Clamped

CLAMPED model available for specific applications

ALSO AVAILABLE IN PVDF

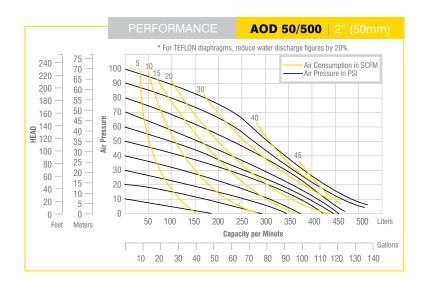






AOD 50 PVDF Clamped

CLAMPED model available for specific applications



SPECIFICATIONS AND PERFORMANCE 3" BSP (80mm) POLYPROPYLENE / PVDF

MOCs Also Available: SS 316, AL, CI



Max Flow Rate: 900Lpm (238gpm)

Port Size: Inlet: 76.20mm (3"BSP)

Discharge: 76.20mm (3"BSP) Air Inlet: 12.70mm (1/2"BSP) Air Exhaust: 19.05mm (3/4"BSP)

Suction Lift: Dry: 6.09m (20')

Wet: 7.62m (25')

Teflon: Dry: 3.05m (10')

Wet: 6.09m (20')
Max Particle Size (Dia): 19.10mm (0.750")

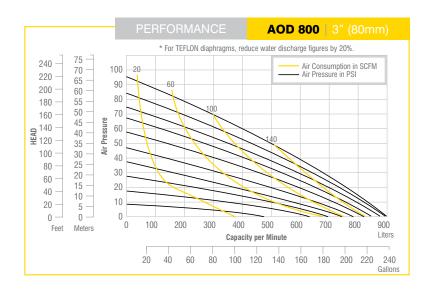


AOD 800 PP Bolted

ALSO AVAILABLE IN PVDF



AOD 800 PVDF Bolted



318 LS SS



SPECIFICATIONS AND PERFORMANCE 1/2" BSP (15mm) STAINLESS STEEL 316

MOCs Also Available: PP, PVDF, AL, CI



Max Flow Rate: 23Lpm (6gpm)

Port Size: Inlet: 12.70mm (1/2"BSP)

Discharge: 12.70mm (1/2"BSP) **Air Inlet:** 6.35mm (1/4"BSP) **Air Exhaust:** 12.70mm (1/2"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")

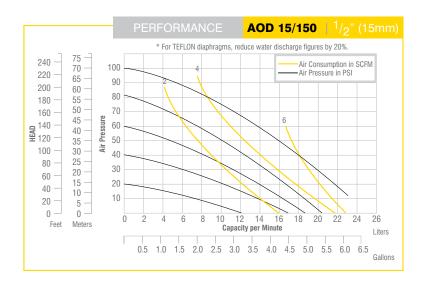






AOD 15 SS Clamped

CLAMPED model available for specific applications



SPECIFICATIONS AND PERFORMANCE 1" BSP (25mm) STAINLESS STEEL 316



MOCs Also Available: PP, PVDF, AL, CI

Max Flow Rate: 135Lpm (34gpm)

Port Size: Inlet: 25.40mm (1"BSP)

Discharge: 25.40mm (1"BSP) **Air Inlet:** 9.53mm (3/8"BSP) **Air Exhaust:** 12.70mm (1/2"BSP)

Suction Lift: Dry: 3.05m (10')

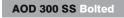
Wet: 4.89m (16')

Teflon: Dry: 2.14m (7')

Wet: 3.98m (13')

Max Particle Size (Dia): 3.17mm (0.125")

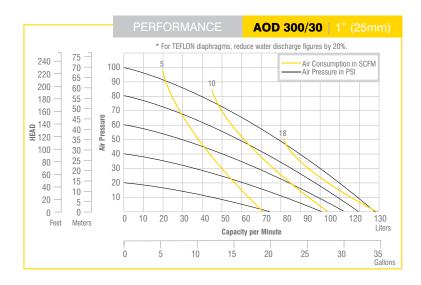






AOD 30 SS Clamped

CLAMPED model available for specific applications



SPECIFICATIONS AND PERFORMANCE 11/2" BSP (40mm) STAINLESS STEEL 316

MOCs Also Available: PP, PVDF, AL, CI



Max Flow Rate: 270Lpm (72gpm)

Port Size: Inlet: 38.10mm (1½"BSP)

Discharge: 38.10mm (11/₂"BSP) **Air Inlet:** 9.64mm (3/₈"BSP) **Air Exhaust:** 12.70mm (1/₂"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")

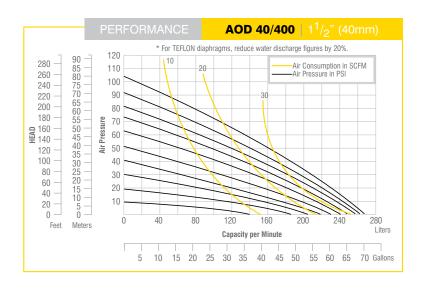




AOD 400 SS Bolted

AOD 40 SS Clamped

CLAMPED model available for specific applications



SPECIFICATIONS AND PERFORMANCE 2" BSP (50mm) STAINLESS STEEL 316



MOCs Also Available: PP, PVDF, AL, CI

Max Flow Rate: 586Lpm (155gpm)

Port Size: Inlet: 50.80mm (2"BSP)

Discharge: 50.80mm (2"BSP) Air Inlet: 12.70mm (1/2"BSP) Air Exhaust: 19.05mm (3/4"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")

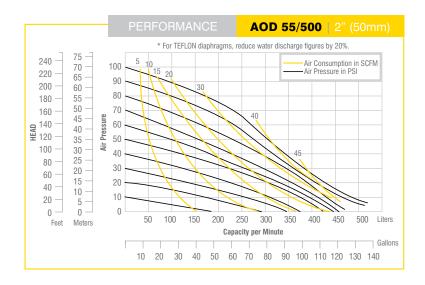


AOD 500 SS Bolted



AOD 55 SS Clamped

CLAMPED model available for specific applications



SPECIFICATIONS AND PERFORMANCE 3" BSP (80mm) STAINLESS STEEL 316

MOCs Also Available: PP, PVDF, AL, CI



Max Flow Rate: 900Lpm (238gpm)

Port Size: Inlet: 76.20mm (3"BSP)

Discharge: 76.20mm (3"BSP) Air Inlet: 12.70mm (1/2"BSP) Air Exhaust: 19.05mm (3/4"BSP)

Suction Lift: Dry: 6.09m (20')

Wet: 7.62m (25')

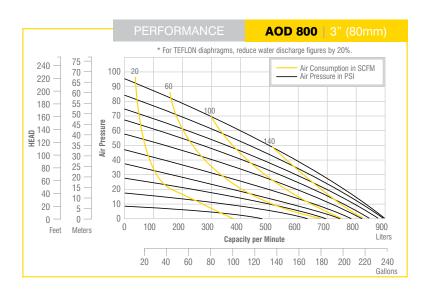
Teflon: Dry: 3.05m (10')

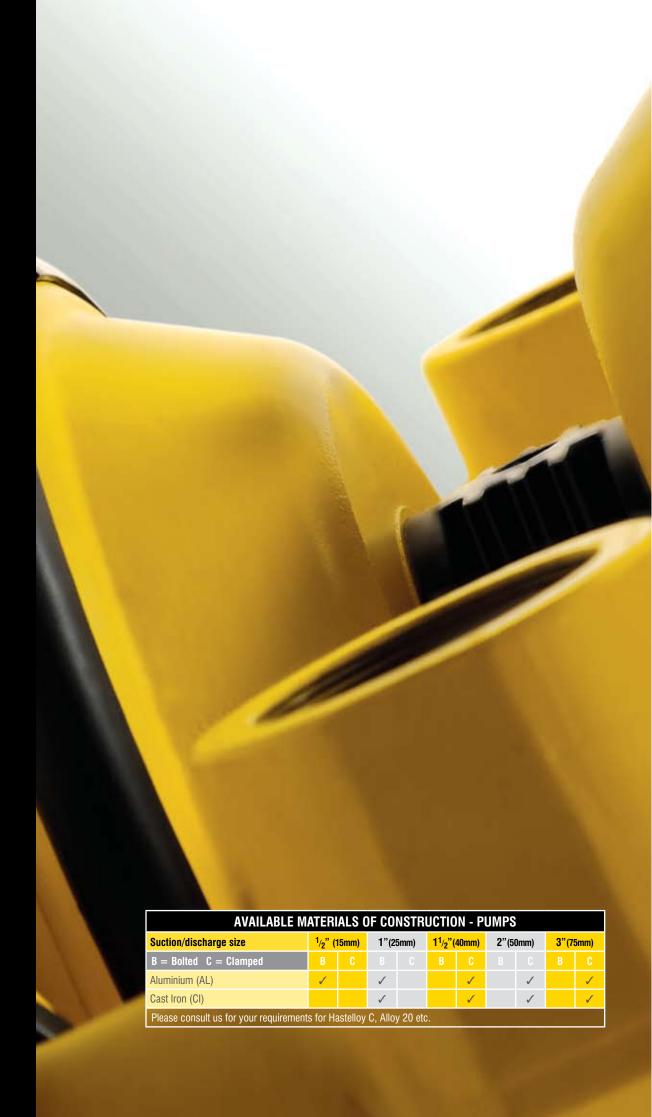
Wet: 6.09m (20')

Max Particle Size (Dia): 19.10mm (0.750")



AOD 800 SS Bolted





SPECIFICATIONS AND PERFORMANCE 1/2" BSP (15mm) ALUMINIUM / CAST IRON

MOCs Also Available: PP, PVDF, SS 316



Max Flow Rate: 23Lpm (6gpm)

Port Size: Inlet: 12.70mm (1/2"BSP)

Discharge: 12.70mm ($^{1}/_{2}$ "BSP) Air Inlet: 6.35mm ($^{1}/_{4}$ "BSP) Air Exhaust: 12.70mm ($^{1}/_{2}$ "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")

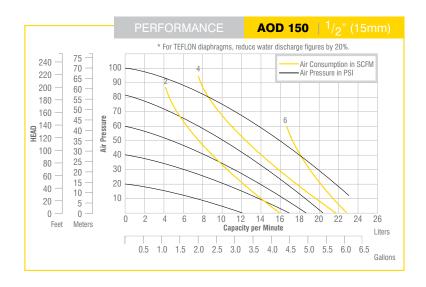


AOD 150 AL Bolted

ALSO AVAILABLE IN CAST IRON



AOD 150 CI Bolted



SPECIFICATIONS AND PERFORMANCE 1" BSP (25mm) ALUMINIUM / CAST IRON



MOCs Also Available: PP, PVDF, SS 316

Max Flow Rate: 135Lpm (34gpm)

Port Size: Inlet: 25.40mm (1"BSP)

Discharge: 25.40mm (1"BSP) **Air Inlet:** 9.53mm (3/₈"BSP) **Air Exhaust:** 12.70mm (1/₂"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")

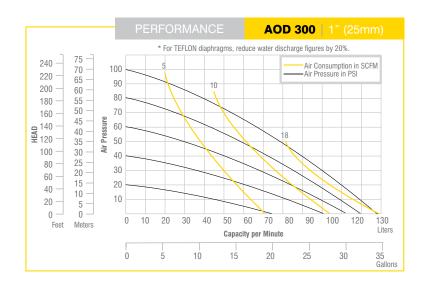


AOD 300 AL Bolted

ALSO AVAILABLE IN CAST IRON



AOD 300 CI Bolted



SPECIFICATIONS AND PERFORMANCE 11/2" BSP (40mm) ALUMINIUM / CAST IRON

MOCs Also Available: PP, PVDF, SS 316



Max Flow Rate: 270Lpm (72gpm)

Port Size: Inlet: 38.10mm (1½"BSP)

Discharge: 38.10mm (1¹/₂"BSP) **Air Inlet:** 9.64mm (3/₈"BSP) **Air Exhaust:** 12.70mm (¹/₂"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")

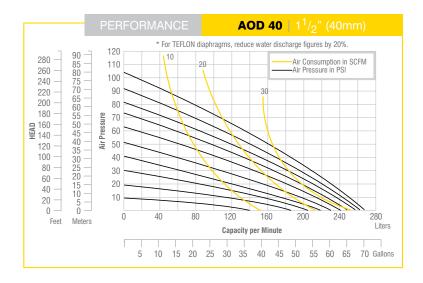


AOD 40 AL Clamped

ALSO AVAILABLE IN CAST IRON



AOD 40 CI Clamped



SPECIFICATIONS AND PERFORMANCE 2" BSP (50mm) ALUMINIUM / CAST IRON



MOCs Also Available: PP, PVDF, SS 316

Max Flow Rate: 586Lpm (155gpm)
Port Size: Inlet: 50.80mm (2"BSP)

Discharge: 50.80mm (2"BSP)

Air Inlet: 12.70mm (1/2"BSP)

Air Exhaust: 19.05mm (3/4"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")

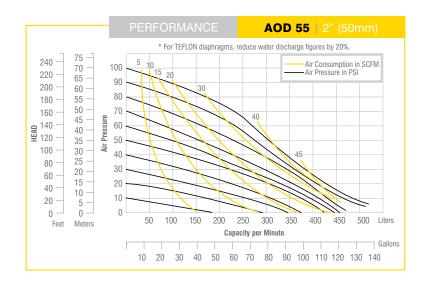


AOD 55 AL Clamped

ALSO AVAILABLE IN CAST IRON



AOD 55 CI Clamped



SPECIFICATIONS AND PERFORMANCE 3" BSP (80mm) ALUMINIUM / CAST IRON

MOCs Also Available: PP, PVDF, SS 316



Max Flow Rate: 900Lpm (238gpm)

Port Size: Inlet: 76.20mm (3"BSP)
Discharge: 76.20mm (3"BSP)

Air Inlet: 12.70mm (1/2"BSP) **Air Exhaust**: 19.05mm (3/4"BSP)

Suction Lift: Dry: 6.09m (20')

Wet: 7.62m (25')
Teflon: Dry: 3.05m (10')

Wet: 6.09m (20')

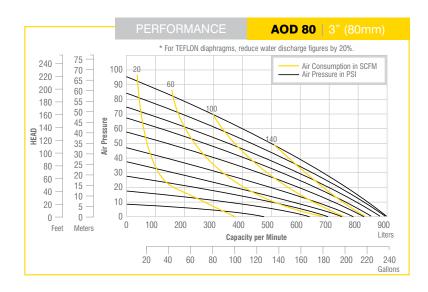
Max Particle Size (Dia): 19.10mm (0.750")



AOD 80 AL Clamped

ALSO AVAILABLE IN CAST IRON





PRICE ADD-ON ACCESSORIES: Suction Hoses • Delivery Hoses • Air Inlet Connectors • P U Tubing • FRL (Filter Regulator Lubricator) • Needle Valves • Flange Connections • Drum Pump Kit • Hose Clips • Vibration Dampner (Foot Mounted) • Strainers • Air Outlet Mufflers • Pulsation Dampners •



SANITARY AND BIO-PHRAMACEUTICAL PUMPS by Price Pumps Pvt.Ltd offer a wide range of solutions

for various food, beverage, dairy, personal care and bio-pharmaceutical applications. This newly launched range has been engineered to meet the highest standards and requirements in the industry. Our pumps have the versatility you require, safety you need and the capability of efficiently pumping a wide range of viscosities, solids and shear sensitive products. These pumps are offered with passivated stainless steel components, available in multiple sizes and with various surface finishes.

FOR SPECIALISED FOOD, BEVERAGE, DAIRY, PERSONAL CARE, PHARMACEUTICAL AND BIO-PHARMACEUTICAL APPLICATIONS



A RANGE OF SANITARY AND BIO-PHRAMACEUTICAL PUMPS

SIZE AVAILABLE: 1, 1¹/₂, 2"
(3" Size Under Development)

FEATURES

- Polished 316L SS construction
- Sizes available 38mm through 50mm (1,1¹/₂, 2")
- Tri-clamp® , DIN or SMS connection available
- Superior product containment
- PTFE (FDA and USP class VI) EPDM diaphragm Options available
- · Sanitary & hygienic applications
- · Delicate / Shear sensitive product handling
- · Swivel stand available
- CIP (clean in place)
- SIP (steam / sterilize in place)
- Multiple certificate levels available
- Contacts surfaces with Ra 8.0 μ m (32 μ -in)

PERFORMANCE DATA

- Max flow rates 487 lpm (137gpm) (Valve Ball)
- Max suction lift 4.5m (15.7') dry 7.3m (25.5') wet (Valve Ball)
- Max Size solids 6.35mm (0.25")

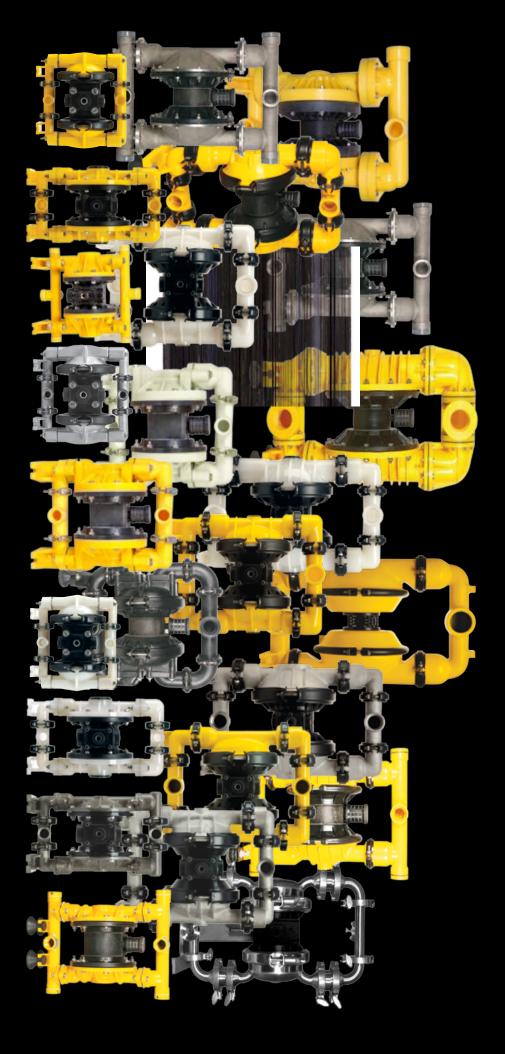
DIFFICULT APPLICATION

- Sauces, Purees & Beverages
- Poultry, Fish & Meat process
- Dairy
- · Prepared Foods
- Fruits, Vegetables & Condiments
- · Bio-pharmaceutical
- · Pharmaceutical products
- · Health & personal care
- Confectionary
- Chromatography, Separation, Purification
- High Purity product transfer
- · Filter press feed pumps
- Process Support
- · Acids, Solvents, Caustics & Alcohol
- · Abrasive media & Solids
- · Chemical injections & Metering
- · Waste water transfer

THE **PRICE** PUMP INDUSTRIES SERVED



Automotive Industry: Grinding emulsion, oil, coolant, hydraulic fluid, sulfuric, automotive primer, soluble oil, varnish disposal, varnish additives, degreasing baths, cutting oil, water and glycol mixture, paint Aviation: Aircraft fuelling and drainage, satellite refueling, solid rocket propellant, missile silos **Beverage Industry:** Yeast, diatomaceous earth slurry, hot pulp, liquid hops, sugar syrup, concentrates, gas-liquid mixtures, wine, fruit pulp, fruit juice, corn syrup **Ceramics:** Slip, glaze, enamel slip, effluent, clay, clay slurry, lime slurry, kaolin slurry Chemical Industry: Acids, alkalies, solvents, suspensions, dispersions, magnesium hydroxide, varnishes, sump water, resins, latex, adhesives, effluent sludge, stabilizers, filter press, electrolytes Construction Industry: Sump and pit drainage, cement slurry, ceramic tile adhesive, rock slurry, ceiling coating paints, texture spray Cosmetics: Lotions, creams, shampoos, emulsions, hand creams, surfactants, hair permanents, soaps Electronics Industry: Solvents, electroplating baths, ultrapure liquids, carrier fluids for ultrasonic washing, sulfuric, nitric and acid wastes, etching acids, MEK, acetone, polishing compounds Food: Brine, chocolate, vinegar, molasses, dog food, vegetable oil, soy bean oil, honey, cat food, HCL, animal blood Furniture Industry: Adhesives, varnishes, dispersions, solvents, stains, Elmer's Glue, white good glue, solvents, glue (5-6000 cps) epoxy, starch adhesives, spray packages Mining: Sump gallery drainage, water drainage, coal sludge and rock slurry, cement slurry, grounting mortar, oil transfer, explosive slurry, adhesive, lube oil, foaming Municipalities: Tank and sump drainage, sewer cleaning, chemicals, contaminated surface water, emergency pumping, spill clean-up, waste oil, oil/water separators Paints & Coatings: Resins, solvents, acrylic, wood preservative stain, concrete paints, varnishes, titanium dioxide slurry, primers, stains, dispersions, varnish cleaning baths, alkalyd resin Pharmaceutical Industry: Vegetables extracts, tablet pastes, ointments, alcohols, filtering aids, ultra filtration. Blood plasma, waste solvents, sump waste Plating: Anodic sludge, electroplating baths, varnishes, enamels, solvents, cleaning baths, filtering Pulp/Paper/Packaging: Latex, adhesives, paints, resins, printing inks, dispersions, TiO2 slurry, Kaolin clay, hydrogen peroxide Refineries: Tank roof drainage, oil sludge, tank cleaning, tank moat drainage, portable pumping Road Tanker Trucks: Loading and draining of tank by means of pump on vehicle, tank vehicle washing facilities, acid spraying, foaming Shipbuilding: Tank and bilge drainage, ship cleaning, stripping, oil skimming, seawater Smelters, Foundries & Dye Casting: Metal slurry, hydroxide and carbide slurry, dust scrubbing slurry, back wash for flushing of cores, mold release **Textile & Carpet:** Dyeing chemical, scotch guard, starch and sizing, resins, dyes, latex Water and Sewage Treatment: Milk of lime, thin slurry, effluents, chemicals, charging of filter presses, polymer, waste water **Utility:** Contaminated liquids, charging of scrubbers, milk of lime, transformer oil, resins



AVAILABLE MATERIALS OF CONSTRUCTION - PUMPS	ERIA	LS 0) F	ISN	RUC	NOIT	- PU	MPS		
Suction/discharge size	1/2" (1	5mm)	1"(2	jimm)	11/2"(1/2" (15mm) 1"(25mm) 11/2"(40mm) 2"(50mm) 3"(75mm)	2"(50		3"(75	mm)
B = Bolted C = Clamped		ဂ								ဂ
Polypropylene (PP)	< < <	<	<		<	4 4 4 4	<	<	<	
Polyvinylidene Fluoride (PVDF)	<	<	<		<	4 4 4 4	<	<	<	
Stainless Steel (SS)	<	<	<	<	<		<	<	<	
Aluminium (AL)	< <		<			< <		<		<
Cast Iron (CI)			<			< < < < < < < < < < < < < < < < < < < <		<		<
Please consult us for your requirements for Hastelloy C. Alloy 20 etc.	iremen	nts for	Haste	llov C	. Allov	20 etc				



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Air Operated Double Diaphragm Pumps

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