



CREATIVE ENGINEERS



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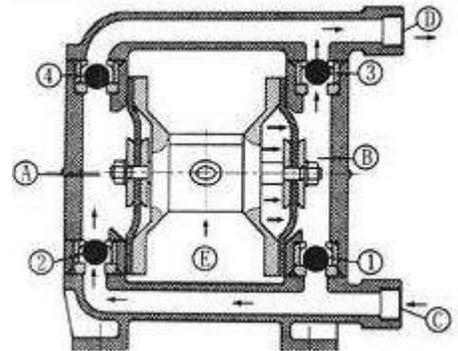
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AIR OPERATED DOUBLE DIAPHRAGM PUMPS

Working Principle :-

The AODD pump is double pumps in one. Chambers A & B are alternatively filled and emptied by drawing liquid in through a common inlet © and out through a common outlet (D). The Diaphragms in each chamber are connected by a common shaft so that they move., backwards together. Compressed dry air is directed by the air valve (E) alternatively behind each diaphragm to power discharge strokes. Pump speed and therefore fluid flow-rate can be infinitely controlled by increasing or decreasing or decreasing air pressure and or volume.



Operation Sequence:-

The Blue arrows show the pump cycle. Fluid is being drawn into inlet (c) by the suction stroke of the diaphragm in chamber B, which opens the ball valve (1) to allow liquid to enter the chamber ,Ball valve (3) is closed by the diaphragm suction. In chamber (A) air has been applied to the rear of the diaphragm to force out the liquid in the chamber through the Ball Valve (4) to the Liquid outlet (d). This discharge stroke closes Ball valve (2) to prevent further liquid entering the chamber. This cycle is repeated to provide a continuous flow o outlet D.

Standard AODD pumps are one : One ratio-maximum outlet pressure never exceed air supply pressure.

Applications :-

To Handle Viscous chemicals , Slurries.
To transfer Explosive liquids , solvents , Acids.
Pharmaceutical liquids creams and compounds.
Semi solid foods , flavours , drinks , wine , beer , alcohols.
Waste water , sewage effluents , coal and lime slurry.
Hydrocarbons , petrol diesel , lubrication oil , vegetable oil.
Paints Emulsions , pigments , thinners , resins.
Ceramics , slip , gazes , clays.



Advantages of AODD Pump :-

No Seal , No Leakage,
Self priming , No need of foot valve,
Variable flow with same pump.
Can be submerge.
Less stock of spare to be maintain.
No Skill person is needed to operation and repair pump.
Light weight , handy in use.
No Rotation , no Wear & Tear hence low maintenance , No Charging.
Pump can run dry.
Stop Automatic on closing of discharge valve.
Can handle 2 to 10 mm size solid particles.
Also can be used upto accuracy 3 to 5%
No Motor , No fire.
In short very simple and versatile pump.

Operation Principle :-

Dry air is given as input to air valve. Air will push both diaphragm alternatively.
Four ball valves will act as NRV for suction and delivery.
As per liquid compatibility MOC of diaphragm, Valve and wetted part selected.

Range :-

Sr No	Model	Material of Casing	Air Press in Bar	Max Solid Size in MM	Suc*Dis BSP	Flow Range in LPM
1	AODD 15	PP , SS , PVDF , AL	7	2.5	0.5"	0-25
2	AODD 25	PP , SS , AL , PVDF	7	3.4	1"	0-59
3	AODD 40	PP , SS , AL	7	5	1.5"	0-137
4	AODD 50	PP , SS , AL	7	6.5	2"	0-295
5	AODD 80	ALUMINIUM	7	10	3"	0-440



The Media AODD pump can handle :-

A full list of chemicals and recommended elastomers is available on request. Or our sales office advice on the best pump & materials for specific media.

Typical range of products you can pump.

ABRASIVES: - Clay slip, Titanium dioxide, frit, Mill scale.

ALCOHOLS ACIDS: - All mineral and organic acids.

CEMENT: - Cement, Mortar.

COSMETICS: - Creams, Emulsions, Detergents.

CAUSTICS

CERAMICS: - Slip glazes, Clay.

DRILLING: - Mud, Grout, Lubricants.

DRINKS: - Soft drinks, spirits, beer, wine, milk.

EXPLOSIVES: - Suspensions of Gun powder explosive, etc.

INKS & DYES: - Printing inks, driers, dyes, sixes and solvents.

FOODS :- Liquid and semi-solid foods, Flavourings.

OILS :- Petrol , Diesel , Hydraulic and cutting oils , lube oils , animal and vegetables oils and greases.

PULPS :- Paper , wood sizes bleaches

RESINS :- Natural and synthetics , water and solvent based, Monomeric and polymeric plastics.

SLUDGE & WASTE :- Sewage , effluents , coal and lime slurry.

SOLVENTS :- Aromatic and allphatics , ketones , aldehydes, esters and chlorinated hydrocarbons , de-icing fluids.

WATER :- All types.

TIMBER PRESERVATIVES: - Creosote, turpentine, copper, naphthenate.

PAINT :- Emulsions , Latexes , Pigments , solvent , resins , thinners,

PHARMACEUTICALS :- Liquids , Creams and Compounds.

PLATING :- Aggressive acids , salts , sludge and effluents.

RUBBER :- Natural and synthetic.

Polypropylene Pump (For acid)



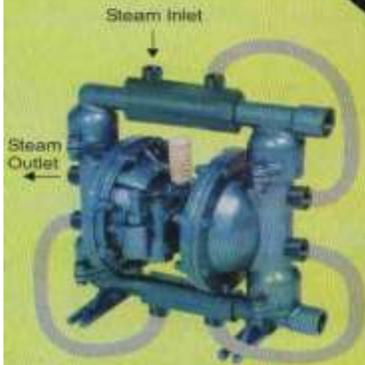
Stainless Steel
for chemical, food



Aluminum
for solvent,
ceramic, paint, etc.



Barrel Pump
upto the last drop of liquid



Steam Jacketed
for Chocalate / Wax



Cast Iron
for waste water

