

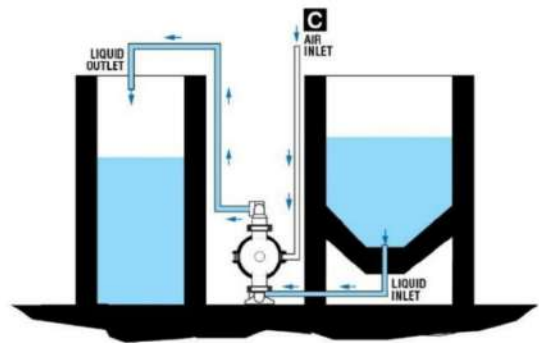
Installations versatility

Positive Suction

That's a typical application for **viscous fluids** where the **suction side** of the Air-Operated Double Diaphragm pump is **under the fluid's level** and the pump draws from the bottom of the tank.

More over, **it is important to install a check valve** between the suction side of the pump and the tank in order to avoid the dispersion of the liquid in case of breakage of the diaphragms.

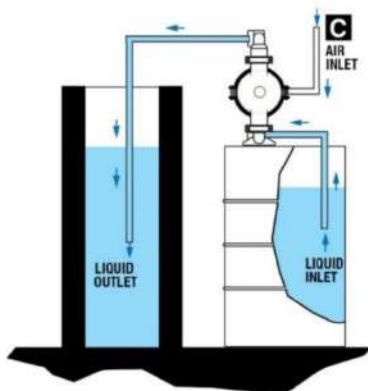
Please contact us for a free technical support!



Negative Suction

This is the standard application for Air-Operated Double Diaphragms Pumps considering their **self-priming ability**. The Air-Tech Pumps can be used for **emptying drums and wells** or others applications where the suction side of the pumps is over the liquid's level of the tank.

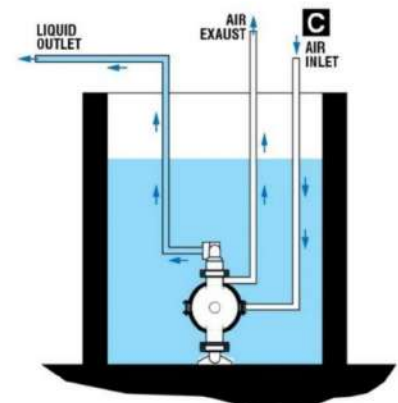
For this kind of applications **is important to know** well the pumping fluid especially **the specific gravity and the viscosity** and the plant conditions because the self-priming ability can change depending of this factors. Please contact us for a free technical support!



Submerged

Air-Tech Pumps are completely **submersibles**. In this case, the pump is located inside the tank in contact with the pumping fluid. For this reason it is important that all the materials of construction submerged in the liquid have a perfect chemical resistance and compatibility.

More over, for submerged applications it is necessary **that the air exhaust is over of the fluid's level**; therefore it is important to install an extension to the exit connection of the air exhaust in order to be port it on the top of the tank. Please contact us for a free technical support!

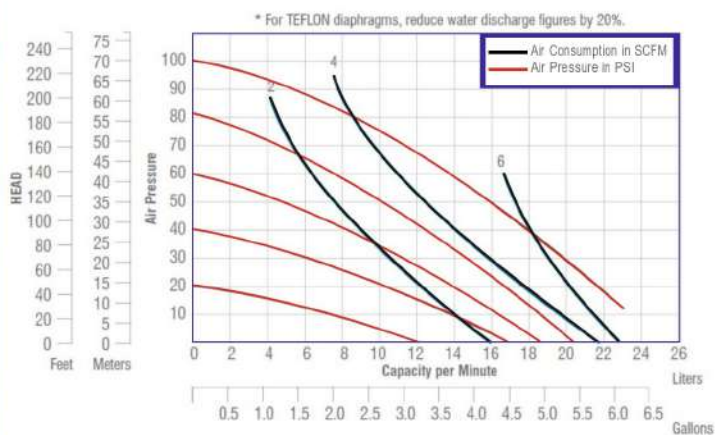


AODD-150 (1/2")



Technical Data

Max Flow Rate	30 LPM
Max Suction Lift – Dry Condition	1.45 m(Rubber Diaphragm)
	0.50 m (PTFE Diaphragm)
Max Suction Lift – Wet Condition	2.83 m(Rubber Diaphragm)
	0.90 m (PTFE Diaphragm)
Max Particle Size	2.0 mm
Air Inlet Pressure	2 - 6 kg/cm ²
Suction Port	(12.07 mm) 1/2" BSP Threaded
Discharge port	(12.07 mm) 1/2" BSP Threaded
Air Inlet Port	3/8" BSP Threaded
Air Exhaust	1/2 " BSP Threaded



Notes :-

- The above data refer to a positive suction head operating with water at room temperature.
- All the information indicated may vary without notice.

➤ WETTED PARTS M.O.C. :-

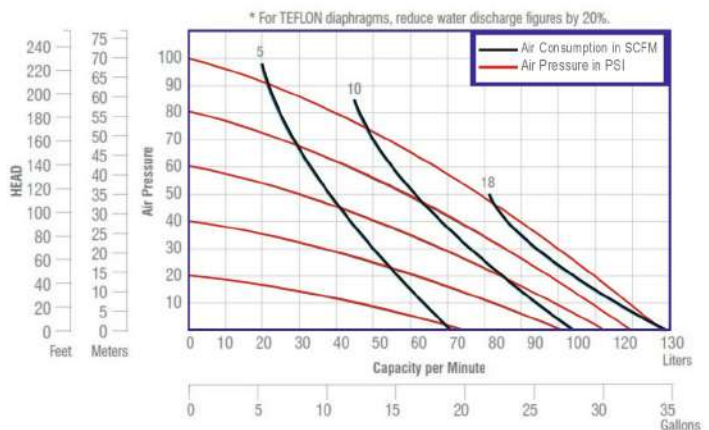
Model	Body	Diaphragm	Ball Valve	Valve Seat	O-ring	Air-Distribution System	Bolted/Clamp
POLYPROPYLENE							
PTT	Polypropylene	PTFE+Santoprene	PTFE	Polypropylene	PTFE/VITON	NSV/PFF	Bolted
PST/PSS	Polypropylene	Santoprene	PTFE/Santoprene	Polypropylene	Neoprene	NSV/PFF	Bolted
PRR	Polypropylene	RUBBER	RUBBER	Polypropylene	Neoprene	NSV/PFF	Bolted
STAINLESS STEEL							
STT	Stainless steel	PTFE+Santoprene	PTFE	Stainless steel	PTFE	NSV	Bolted
SST	Stainless steel	Santoprene	PTFE	Stainless steel	PTFE	NSV	Bolted
ALUMINIUM							
ATT	Aluminium	PTFE+Santoprene	PTFE	Aluminium	PTFE	NSV	Bolted
AST/ASS	Aluminium	Santoprene	PTFE/Santoprene	Aluminium	Neoprene	NSV	Bolted
ARR	Aluminium	RUBBER	RUBBER	Aluminium	Neoprene	NSV	Bolted
PVDF							
KTT	PVDF	PTFE+Santoprene	PTFE	PVDF	PTFE	NSV/PFF	Bolted

AODD-300 (1")



Technical Data

Max Flow Rate	135 LPM
Max Suction Lift – Dry Condition	3.05 m (Rubber Diaphragm)
	2.14 m (PTFE Diaphragm)
Max Suction Lift – Wet Condition	4.89 m (Rubber Diaphragm)
	3.98 m (PTFE Diaphragm)
Max Particle Size	3.17 mm
Air Inlet Pressure	2 - 6 kg/cm ²
Suction Port	(25.4 mm) 1" BSP Threaded/Flanged
Discharge port	(25.4 mm) 1" BSP Threaded/Flanged
Air Inlet Port	3/8" BSP Threaded
Air Exhaust	1/2 " BSP Threaded



Notes :-

- The above data refer to a positive suction head operating with water at room temperature.
- All the information indicated may vary without notice.

WETTED PARTS M.O.C. :-

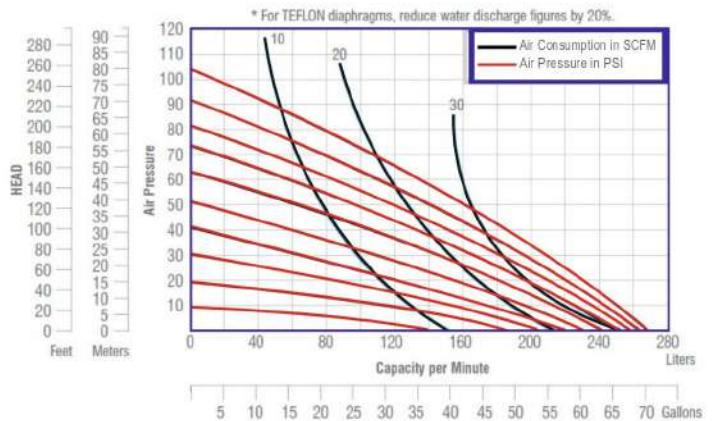
Model	Body	Diaphragm	Ball Valve	Valve Seat	O-ring	Air-Distribution System	Bolted/Clamp
POLYPROPYLENE							
PTT	Polypropylene	PTFE+Santoprene	PTFE	Polypropylene	PTFE/VITON	NSV/PFF	Bolted/Clamp
PST/PSS	Polypropylene	Santoprene	PTFE/Santoprene	Polypropylene	Neoprene	NSV/PFF	Bolted/Clamp
PRR	Polypropylene	RUBBER	RUBBER	Polypropylene	Neoprene	NSV/PFF	Bolted/Clamp
STAINLESS STEEL							
STT	Stainless steel	PTFE+Santoprene	PTFE	Stainless steel	PTFE	NSV/PFF	Bolted
SST	Stainless steel	Santoprene	PTFE	Stainless steel	PTFE	NSV/PFF	Bolted
ALUMINIUM							
ATT	Aluminium	PTFE+Santoprene	PTFE	Aluminium	PTFE	NSV/PFF	Bolted
AST/ASS	Aluminium	Santoprene	PTFE/Santoprene	Aluminium	Neoprene	NSV/PFF	Bolted
ARR	Aluminium	RUBBER	RUBBER	Aluminium	Neoprene	NSV/PFF	Bolted
PVDF							
PVTT	PVDF	PTFE+Santoprene	PTFE	PVDF	PTFE	NSV/PFF	Bolted/Clamp

AODD-400 (1 1/2")



Technical Data

Max Flow Rate	230 LPM
Max Suction Lift – Dry Condition	4.75 m(Rubber Diaphragm)
	3.05 m (PTFE Diaphragm)
Max Suction Lift – Wet Condition	7.62 m(Rubber Diaphragm)
	6.09 m (PTFE Diaphragm)
Max Particle Size	4.76 mm
Air Inlet Pressure	2 - 6 kg/cm ²
Suction Port	(38.0 mm) 1-1/2" BSP Threaded/Flanged
Discharge port	(38.0 mm) 1-1/2" BSP Threaded/Flanged
Air Inlet Port	3/8" BSP Threaded
Air Exhaust	3/4 " BSP Threaded



Notes :-

- The above data refer to a positive suction head operating with water at room temperature.
- All the information indicated may vary without notice.

➤ WETTED PARTS M.O.C. :-

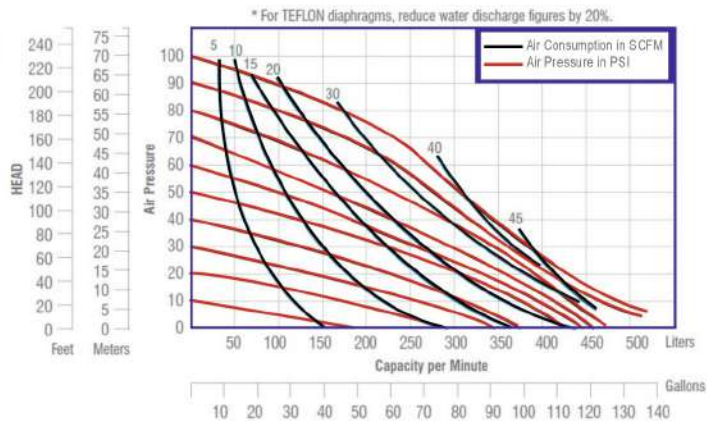
Model	Body	Diaphragm	Ball Valve	Valve Seat	O-ring	Air-Distribution System	Bolted/Clamp
POLYPROPYLENE							
PTT	Polypropylene	PTFE+Santoprene	PTFE	Polypropylene	PTFE/VITON	NSV/PFF	Bolted/Clamp
PST/PSS	Polypropylene	Santoprene	PTFE/Santoprene	Polypropylene	Neoprene	NSV/PFF	Bolted/Clamp
PRR	Polypropylene	RUBBER	RUBBER	Polypropylene	Neoprene	NSV/PFF	Bolted/Clamp
STAINLESS STEEL							
STT	Stainless steel	PTFE+Santoprene	PTFE	Stainless steel	PTFE	NSV/PFF	Bolted
SST	Stainless steel	Santoprene	PTFE	Stainless steel	PTFE	NSV/PFF	Bolted
ALUMINIUM							
ATT	Aluminium	PTFE+Santoprene	PTFE	Aluminium	PTFE	NSV/PFF	Bolted
AST/ASS	Aluminium	Santoprene	PTFE/Santoprene	Aluminium	Neoprene	NSV/PFF	Bolted
ARR	Aluminium	RUBBER	RUBBER	Aluminium	Neoprene	NSV/PFF	Bolted
PVDF							
PVTT	PVDF	PTFE+Santoprene	PTFE	PVDF	PTFE	NSV/PFF	Bolted/Clamp

AODD-500 (2")



Technical Data

Max Flow Rate	350 LPM
Max Suction Lift – Dry Condition	4.57 m(Rubber Diaphragm)
	3.05 m (PTFE Diaphragm)
Max Suction Lift – Wet Condition	7.62 m(Rubber Diaphragm)
	6.09 m (PTFE Diaphragm)
Max Particle Size	6.35 mm
Air Inlet Pressure	2 - 6 kg/cm ²
Suction Port	(50.80 mm) 2" BSP Threaded/Flanged
Discharge port	(50.80 mm) 2" BSP Threaded/Flanged
Air Inlet Port	3/8" BSP Threaded
Air Exhaust	3/4 " BSP Threaded



Notes :-

- The above data refer to a positive suction head operating with water at room temperature.
- All the information indicated may vary without notice.

➤ WETTED PARTS M.O.C. :-

Model	Body	Diaphragm	Ball Valve	Valve Seat	O-ring	Air-Distribution System	Bolted/Clamp
POLYPROPYLENE							
PTT	Polypropylene	PTFE+Santoprene	PTFE	Polypropylene	PTFE/VITON	NSV/PFF	Bolted
PST/PSS	Polypropylene	Santoprene	PTFE/Santoprene	Polypropylene	Neoprene	NSV/PFF	Bolted
PRR	Polypropylene	RUBBER	RUBBER	Polypropylene	Neoprene	NSV/PFF	Bolted
STAINLESS STEEL							
STT	Stainless steel	PTFE+Santoprene	PTFE	Stainless steel	PTFE	NSV/PFF	Bolted
SST	Stainless steel	Santoprene	PTFE	Stainless steel	PTFE	NSV/PFF	Bolted
ALUMINIUM							
ATT	Aluminium	PTFE+Santoprene	PTFE	Aluminium	PTFE	NSV/PFF	Bolted
AST/ASS	Aluminium	Santoprene	PTFE/Santoprene	Aluminium	Neoprene	NSV/PFF	Bolted
ARR	Aluminium	RUBBER	RUBBER	Aluminium	Neoprene	NSV/PFF	Bolted
PVDF							
PVTT	PVDF	PTFE+Santoprene	PTFE	PVDF	PTFE	NSV/PFF	Bolted

How to Select Right Diaphragm Pump for your Application

Follow the steps outlined here to arrive at the best match

a) Gather your application data first, Following data is important.

Fluid to be pumped and its physical and chemical characteristics

- Viscosity
- PH value
- Specific Gravity
- Size of Suspended Solids, if any
- Discharge rate Required
- Head at which discharge is Required
- Suction head if any
- Pipe line diameter intended/existing and no. of bends

b) Select the diaphragm, We offers the following material choices

DIAPHRAGM M.O.C.	DESCRIPTION
a) NEOPRENE	An excellent general purpose diaphragm for use in non-aggressive applications such as water-based slurries well water or sea water. Exhibits excellent flex life and low cost. Temperature range -18°C to + 93°C (0°F to + 200°F)
b) PTFE	Excellent choice when pumping highly aggressive fluids such as aromatic or chlorinated hydrocarbons, acids, caustics, ketones and acetates. Temperature range +4°C to +104°C (+40°F to +220°F)
c) SANTOPRENE	Good abrasion resistance. Low cost. Can handle mild acids and alkalis well. Excellent low cost alternative to PTFE. Excellent suction capabilities Excellent general purpose diaphragm. Temperature range -40°C to +107°C (-40°F to +225°F)
d) Hytrel	Good abrasion resistance. Low cost. Excellent suction capabilities Excellent general purpose diaphragm. Temperature range -29°C to +104°C (-20°F to +220°F)

C) Once the diaphragm material is chosen, select the correct material of construction of the pump. We offers following material of construction choices:

PUMP M.O.C.	DESCRIPTION
Polypropylene	Good alternative low cost choice where fluid is compatible especially chemical compatibility and temperatures. Polypropylene is good between Temperature ranges of +120 C to +1070 C and +320 F to +1750
Aluminium	Good for fluids having pH between 5.5 and 8.5 Temperature only limited only by diaphragm limits
Stainless Steel 316L	Good for stronger concentrated acids and alkaline fluids. Stainless Steel is durable and rugged. Temperature only limited by diaphragm limits

