



Air-Operated Double Diaphragm Pump



II 2 GD c IIB T4~T5



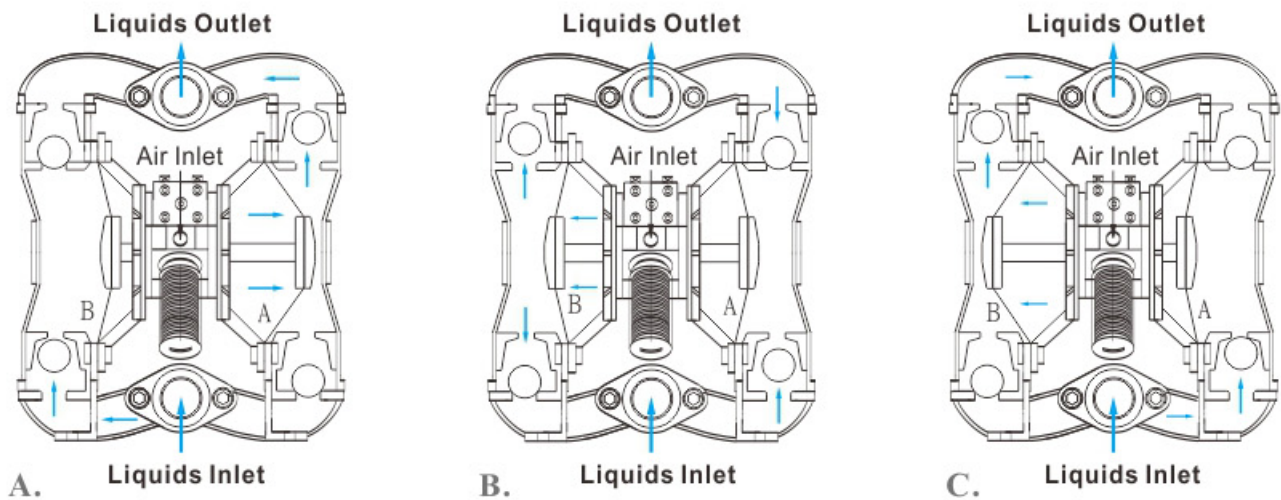
Company Profile

DYI SHENG INDUSTRY CO.,LTD. established in 1986. We have focused entirely on air operated diaphragm pump research and development since 1988. We also passed through CE certificate in 1997 and sale for Europe almost 15 years. We even passed ISO9001 quality certificate in 2007. Provide best quality, nice price, soonest service are our guidance in future. In consideration of business permanently, now we establish TDS brand to be our sales for abroad and to satisfy our customers request in the future.

Air Operated Diaphragm Pump is one of the best pumps to put in use popularly in the world. It's suitable for pumping chemical liquids, food sauce, industrial sludge and any liquids with solids. Now we have 6 size, 13 mode of AOD pump to suit for all kinds of liquids transferred. Our TDS-AOD pumps have the best abrasive resistance about air valve design. We also have Non-stall and Non-thimble patent of pump in the world. This design can save 15~20% air consumption in the same flow rate to compare with other AOD pumps. We believe deeply that TDS-AOD pump will grow up in the future of the world and will be the quality certificate only of the whole world.

Operating Diagram

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Application Profession

- ❑ **Construction and building:** Cement, paint, sewage, pitch, etc.
- ❑ **Chemistry and petroleum:** Chemical Agent, latex, adhesive, solvent, heavy oil, gasoline, etc.
- ❑ **Electronics industry:** Resin, glaze, ceramics transferred and solvent, water circulatory system.
- ❑ **Fiber, leather, paper:** Adhesive, glue, antiseptic, sludge, waste water.
- ❑ **Transferred equipment:** Lubricating Oil, hydraulic Fluid, cutting oil, release agent, waste oil.
- ❑ **Others:** Ink, pottery clay thick liquid, motor oil.



Type Specification Indication

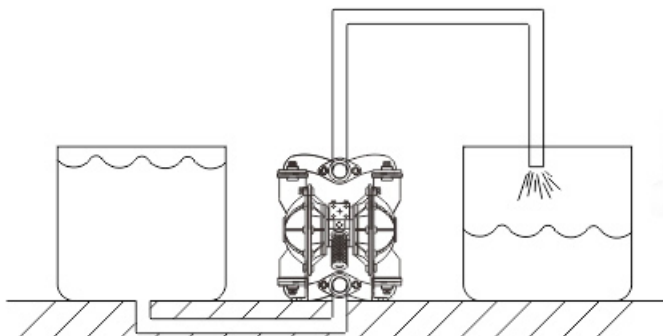
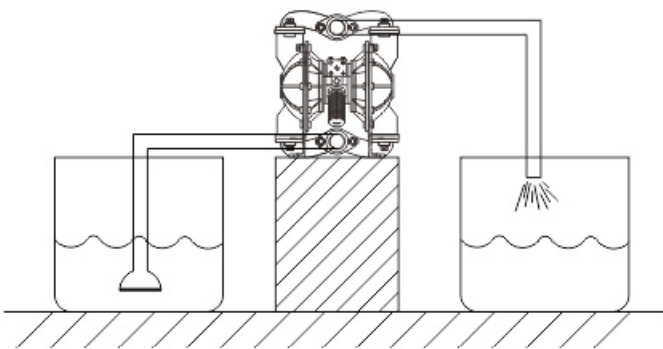
You can choose TDS - AOD Pump in accordance with instruction below.

DSXX-XXX-XXXX-XX

Size	Wetted Body	Center Body	Pipe Type	Diaphragm	Ball Cover	Ball	Ball Seat	Edition
03 : 3/8"	A: Aluminum	A: Aluminum	T: Center	U: UPE	A: Aluminum	S: S.S#316	P: PP	02
04 : 1/2"	S: SUS316		I: Flank	T: PTFE	S: Stainless Steel	T: PTFE	S: Stainless Steel	
06 : 3/4"	P: PPG		F: Center Flange	O: Santoprene	P: PP	B: Bakelite	N: NBR	
10 : 1"			L: Flank Flange	F: PFA/TFM	E: PE	U: TPU	O: Santoprene	
14 : 1-1/2"			D: Double out/in		O: Santoprene	C: Chromium	U: TPU	
20 : 2"					U: TPU	O: Santoprene	T: PTFE	
							H: Hard Stainless Steel	

※Note: ◆ PPG-Polypropylene+Bolivian filament ent

Diagram of Assembling Way



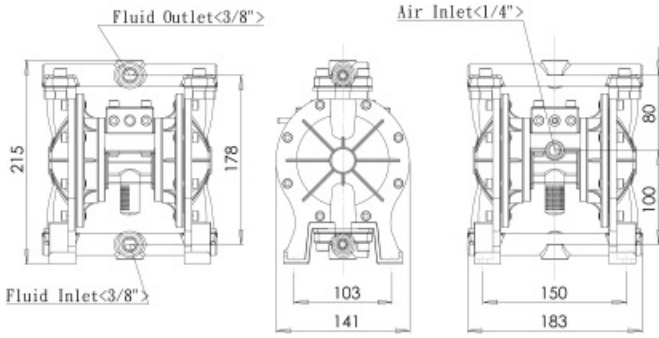
Pump can operate in 1.5~6.5m depth within and it changed because of temperature, pressure, liquid thickness.

Pump use this way in clean barrel through popularly. It operates useful at 0.5~0.8 bar for inlet pressure.

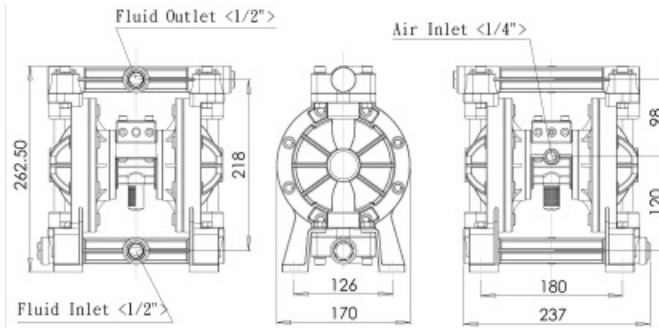


Dimensions

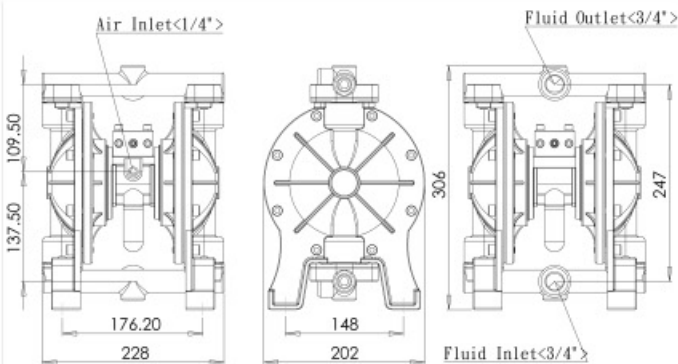
DS03-A



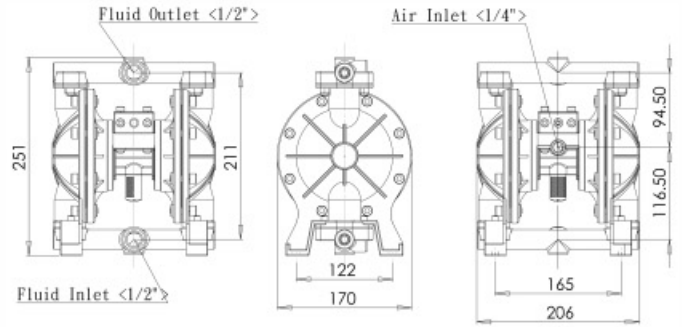
DS04-P



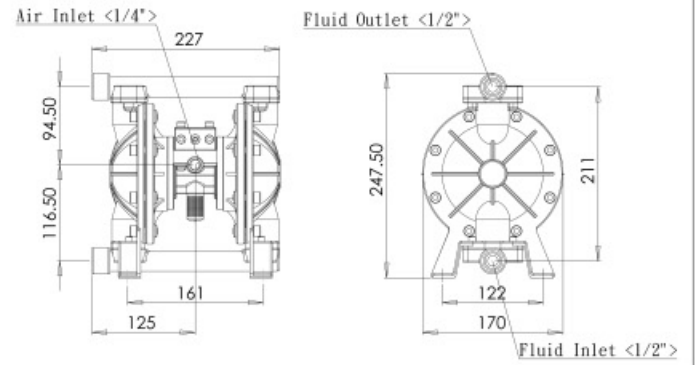
DS06-A



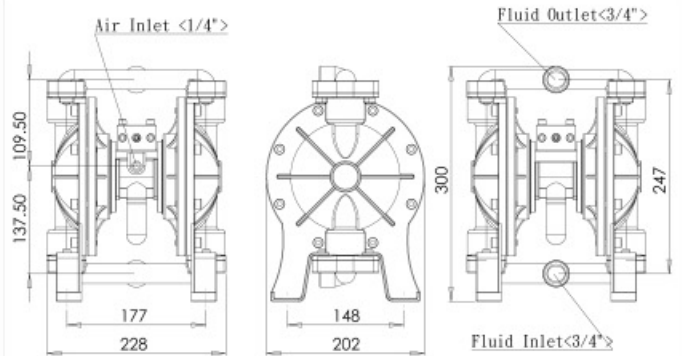
DS04-A



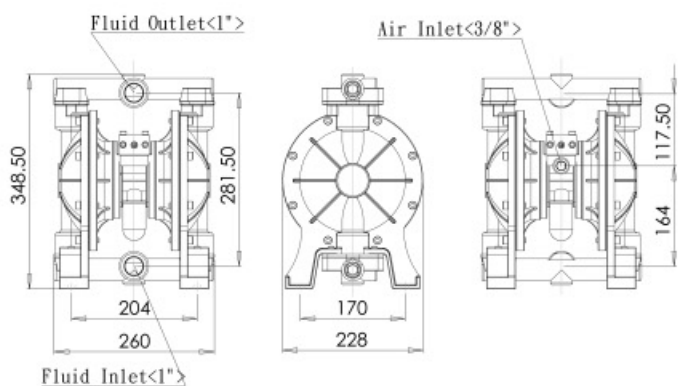
DS04-S



DS06-S

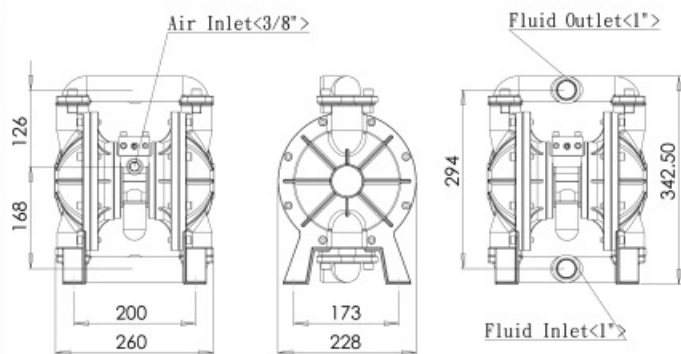


DS10-A

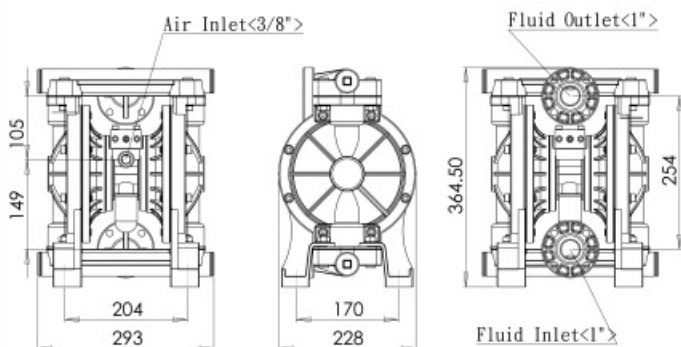




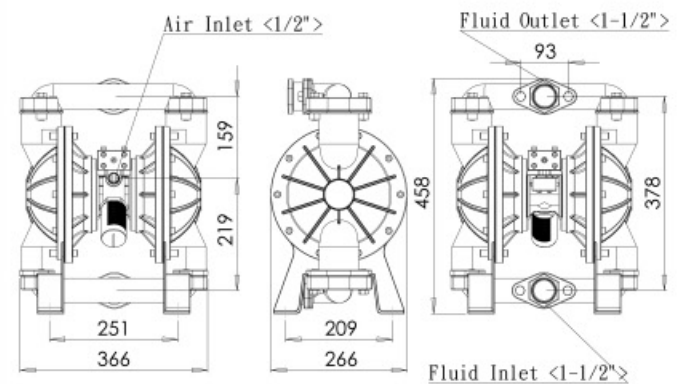
DS10-S



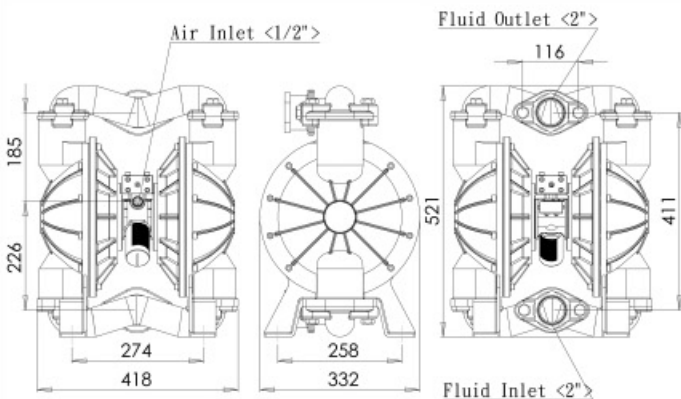
DS10-PAF



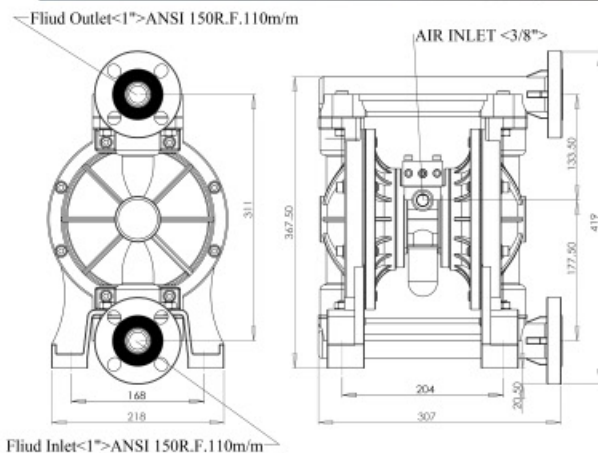
DS14-S



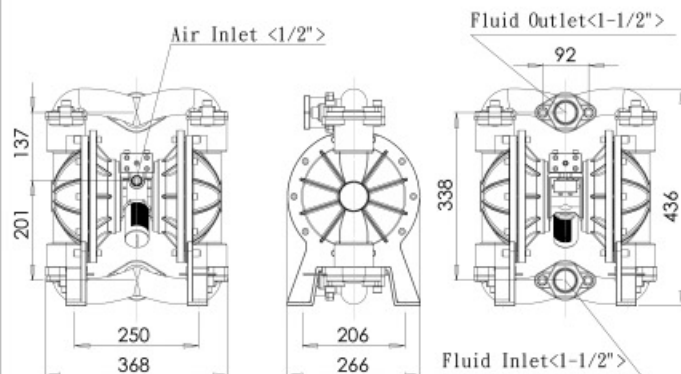
DS20-S



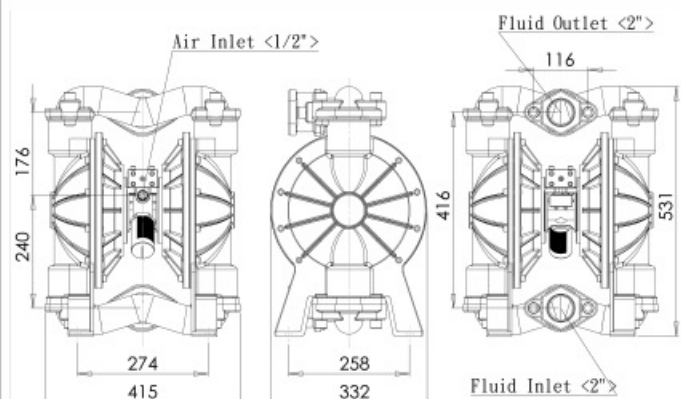
DS10-PAL



DS14-A



DS20-A





Air Operated Diaphragm Pump-DS03

Old Mode: 15.16

Metallic Type



Net Weight

DS03-AAX-XXXX-02: 4 KG

Diaphragm

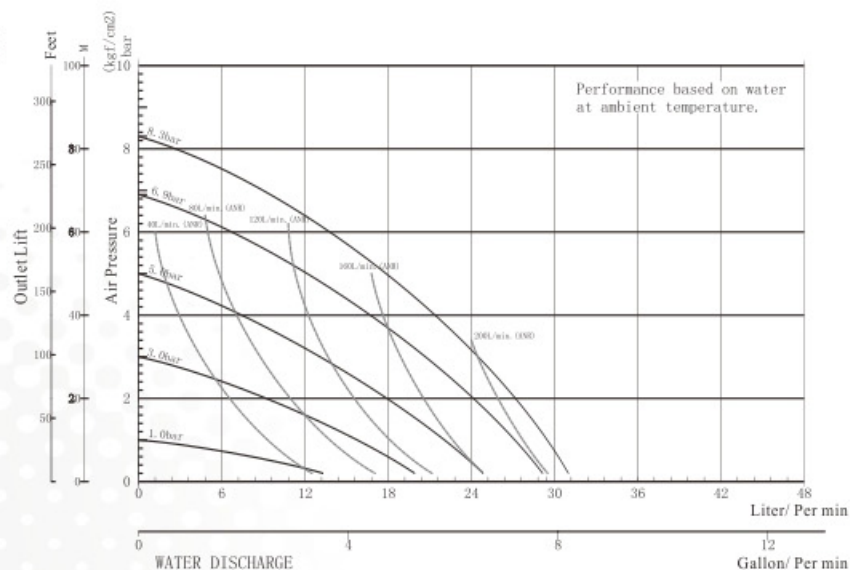
Material	Temperature Range
UPE (U)	-5 to +60°C
PTFE (T)	-30 to +120°C

Specification

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Liquid inlet & outlet	3/8" PT(BSP)
Air inlet	1/4" PT(BSP)
Air outlet	1/4" PT(BSP)
Lowest pressure	0.5Bar(kgf/cm ²) ; 7.25psi
Max pressure	8.3Bar(kgf/cm ²) ; 120psi
Working pressure advised	1.5~5Bar(kgf/cm ²) ; 21.75psi~72.5psi
Quantity / cycle	80ml
Solid limit	Φ1.5mm
Air consumption	240Liter/Per Min. ; 8.47Scfm/Per Min
Inlet lift (deep)	6 m-wet ; 3.7m-dry
Assemble size	22(L)cm x 16(W)cm x 24(H)cm
Max flow rate	8.46 Gallon/Per Min. ; 32 Liter/Per Min.

Diagram of Curve





Air Operated Diaphragm Pump-DS04

Old Mode: 20.21

Metallic Type

Net Weight

DS04-AAX-XXXX-02: 4.5 KG

DS04-SAX-XXXX-02: 6.5 KG

Diaphragm

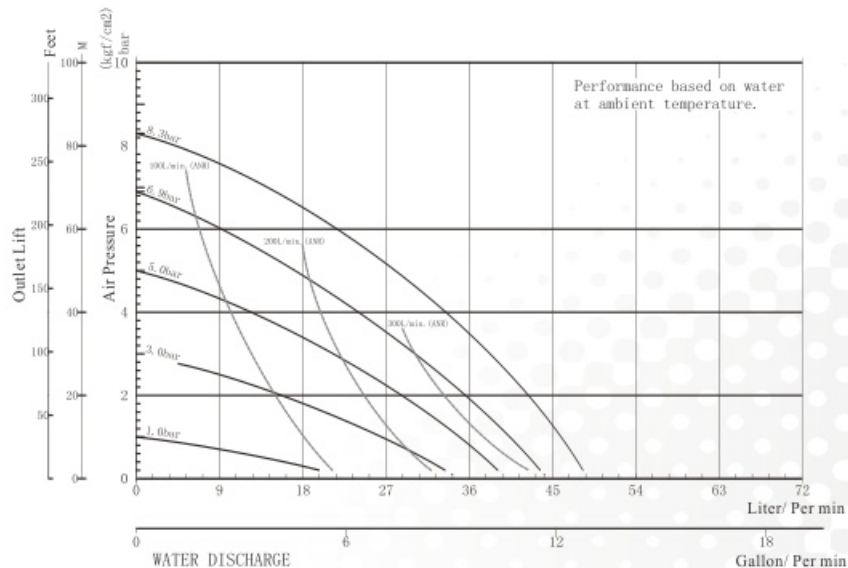
Material	Temperature Range
UPE (U)	-5 to +60°C
PTFE (T)	-30 to +120°C
TFM (F)	-60 to +180°C
Santoprene® (O)	-10 to +80°C



Specification

Liquid inlet & outlet	1/2" PT(BSP)
Air inlet	1/4" PT(BSP)
Air outlet	1/4" PT(BSP)
Lowest pressure	0.5Bar(kgf/cm ²) ; 7.25psi
Max pressure	8.3Bar(kgf/cm ²) ; 120psi
Working pressure advised	1.5~5Bar(kgf/cm ²) ; 21.75psi~72.5psi
Quantity / cycle	120ml
Solid limit	φ2 mm
Air consumption	400Liter/Per Min. ; 14.12Scfm/Per Min
Inlet lift (deep)	6 m-wet ; 3.7m-dry
Assemble size	26(L)cm x 19(W)cm x 30(H)cm
Max flow rate	12.74 Gallon/Per Min. ; 48 Liter/Per Min.

Diagram of Curve





Air Operated Diaphragm Pump-DS04 Old Mode: PP 21 Non-metallic Type



Net Weight
DS04-PAT-XXXX-02: 4 KG

Diaphragm

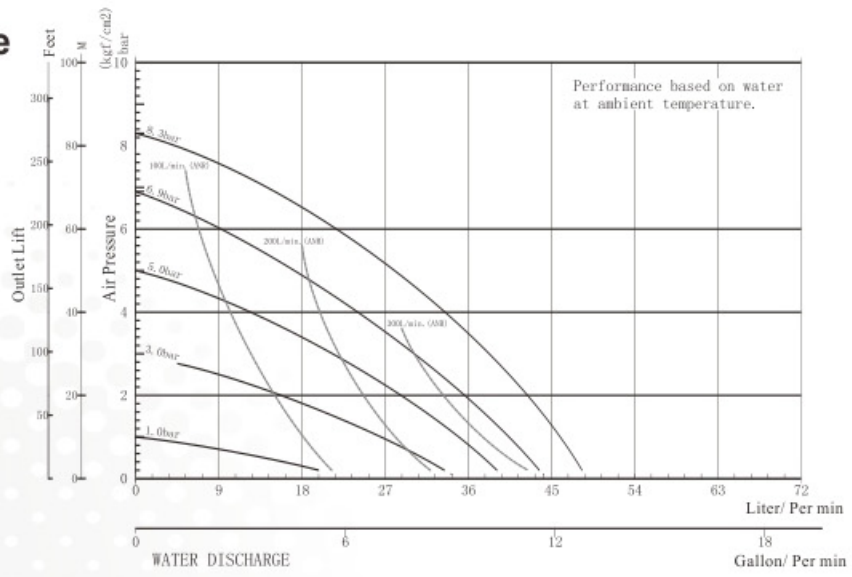
Material	Temperature Range
TFM (F)	-60 to +180°C
Santoprene® (O)	-10 to +80°C

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Specification

Liquid inlet & outlet	1/2" PT(BSP)
Air inlet	1/4" PT(BSP)
Air outlet	1/4" PT(BSP)
Lowest pressure	0.8Bar(kgf/cm ²) ; 11.6psi
Max pressure	7.0Bar(kgf/cm ²) ; 101.5psi
Working pressure advised	1.5~5Bar(kgf/cm ²) ; 21.75psi~72.5psi
Quantity / cycle	120ml
Solid limit	φ2 mm
Air consumption	360Liter/Per Min. ; 12.71Scfm/Per Min
Inlet lift (deep)	6 m-wet; 3.7m-dry
Assemble size	29(L)cm x 20(W)cm x 30(H)cm
Max flow rate	11.08 Gallon/Per Min. ; 42 Liter/Per Min.

Diagram of Curve





Air Operated Diaphragm Pump-DS06

Old Mode: 27

Metallic Type

Net Weight

DS06-AAX-XXXX-02 : 8 KG
 DS06-SAX-XXXX-02 : 12 KG

Diaphragm

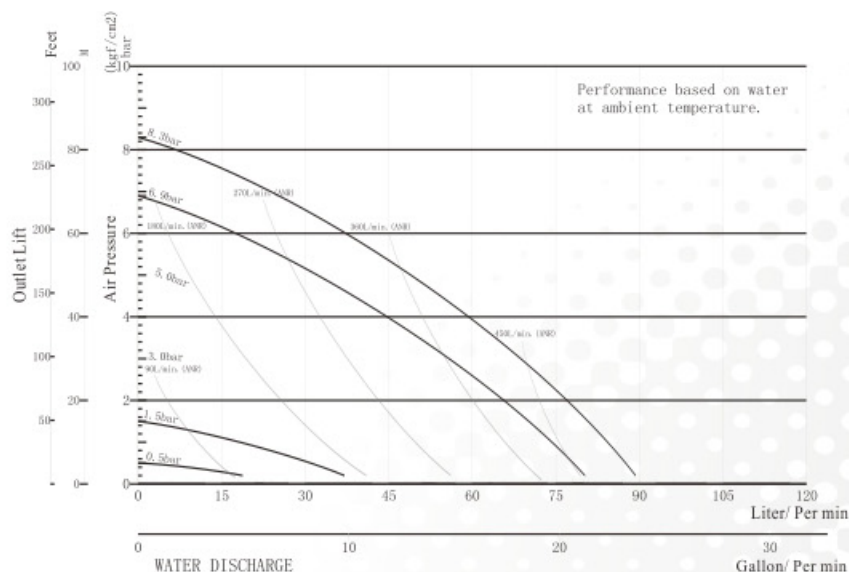
Material	Temperature Range
UPE (U)	-5 to +60°C
PTFE (T)	-30 to +120°C
PFA® (F)	-60 to +180°C
Santoprene® (O)	-10 to +80°C



Specification

Liquid inlet & outlet	3/4" PT(BSP)
Air inlet	1/4" PT(BSP)
Air outlet	3/8" PT(BSP)
Lowest pressure	0.5Bar(kgf/cm ²) ; 7.25psi
Max pressure	8.3Bar(kgf/cm ²) ; 120psi
Working pressure advised	1.5~5Bar(kgf/cm ²) ; 21.75psi~72.5psi
Quantity / cycle	225ml
Solid limit	φ2.4 mm
Air consumption	540Liter/Per Min. ; 19.065Scfm/Per Min
Inlet lift (deep)	6 m-wet ; 4.5m-dry
Assemble size	28(L)cm x 23(W)cm x 37(H)cm
Max flow rate	23.74 Gallon/Per Min. ; 90 Liter/Per Min.

Diagram of Curve





Air Operated Diaphragm Pump-DS10 Old Mode: 31 **Metallic Type**



Net Weight

DS10-AAX-XXXX-02 : 10KG
 DS10-SAX-XXXX-02 : 14KG

Diaphragm

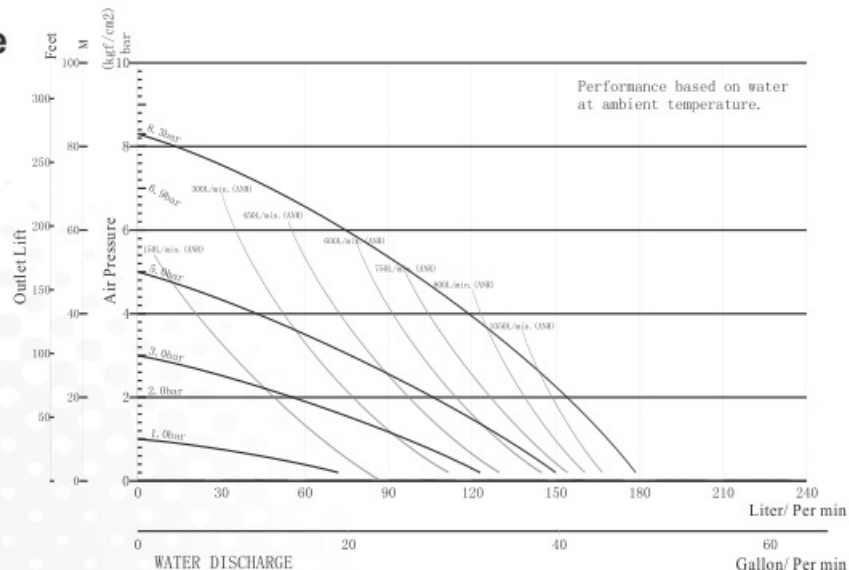
Material	Temperature Range
UPE (U)	-5 to +60°C
PTFE (T)	-30 to +120°C
Santoprene® (O)	-10 to +80°C
PFA® (F)	-60 to +180°C

Specification

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Liquid inlet & outlet	1" PT(BSP)
Air inlet	3/8" PT(BSP)
Air outlet	3/8" PT(BSP)
Lowest pressure	0.5Bar(kgf/cm ²) ; 7.25psi
Max pressure	8.3Bar(kgf/cm ²) ; 120psi
Working pressure advised	1.5~5Bar(kgf/cm ²) ; 21.75psi~72.5psi
Quantity / cycle	450ml
Solid limit	Φ3mm
Air consumption	1200Liter/Per Min. ; 42.36Scfm/Per Min
Inlet lift (deep)	6 m-wet ; 3.7m-dry
Assemble size	29(L)cm x 26(W)cm x 39(H)cm
Max flow rate	47.49 Gallon/Per Min. ; 180 Liter/Per Min.

Diagram of Curve





Air Operated Diaphragm Pump-DS10 Old Mode: PP31 Non-metallic Type

Net Weight

DS10-PAX-XXXX-02: 7.5 KG

Diaphragm

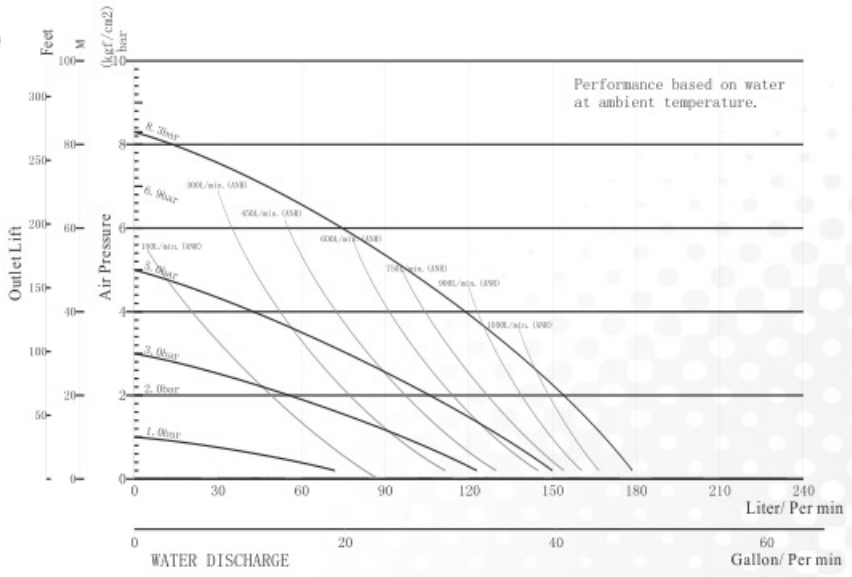
Material	Temperature Range
UPE (U)	-5 to +60°C
PTFE (T)	-30 to +120°C
Santoprene® (O)	-10 to +80°C
PFA (F)	-60 to +180°C



Specification

Liquid inlet & outlet	L: ANSI 150R.F. ϕ 110m/m F: JIS B 2211-1977 ; 5 kg/cm ² ϕ 25m/m
Air inlet	3/8" PT(BSP)
Air outlet	3/8" PT(BSP)
Lowest pressure	0.5Bar(kgf/cm ²) ; 7.25psi
Max pressure	7Bar(kgf/cm ²) ; 101.5psi
Working pressure advised	1.5~5Bar(kgf/cm ²) ; 21.75psi~72.5psi
Quantity / cycle	450ml
Solid limit	ϕ 3mm
Air consumption	1080Liter/Per Min. ; 38.12Scfm/Per Min
Inlet lift (deep)	6 m-wet ; 3.7m-dry
Assemble size	(F) 32(L)cm x 26(W)cm x 41(H)cm (L) 34(L)cm x 26(W)cm x 48(H)cm
Max flow rate	44.32 Gallon/Per Min. ; 168 Liter/Per Min.

Diagram of Curve





Air Operated Diaphragm Pump-DS14 Old Mode: 41 **Metallic Type**



Net Weight

DS14-AAX-XXXX-02 : 18 KG
 DS14-SAX-XXXX-02 : 28 KG

Diaphragm

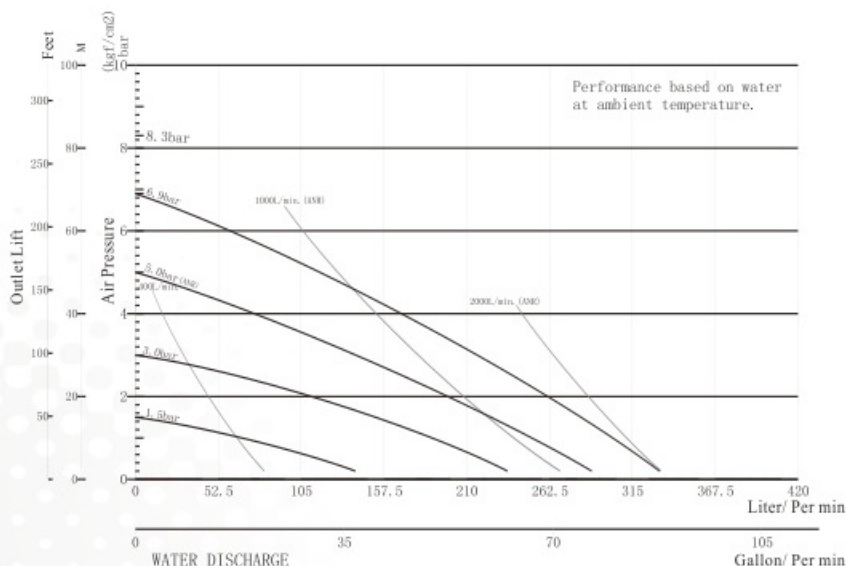
Material	Temperature Range
UPE (U)	-5 to +60°C
PTFE (T)	-30 to +120°C
Santoprene® (O)	-10 to +80°C
TFM (F)	-60 to +180°C

Specification

11

Liquid inlet & outlet	1-1/2" PT(BSP)
Air inlet	1/2" PT(BSP)
Air outlet	1" PT(BSP)
Lowest pressure	1.2Bar(kgf/cm ²) ; 17.4psi
Max pressure	8.3Bar(kgf/cm ²) ; 120psi
Working pressure advised	2~5.5Bar(kgf/cm ²) ; 29psi~79.75psi
Quantity / cycle	1.45L
Solid limit	Φ4.8~6mm
Air consumption	2400Liter/Per Min. ; 84.72Scfm/Per Min
Inlet lift (deep)	6 m-wet ; 3.7m-dry
Assemble size	39(L)cm x 29(W)cm x 46(H)cm
Max flow rate	89.7 Gallon/Per Min. ; 340 Liter/Per Min.

Diagram of Curve





Air Operated Diaphragm Pump-DS20 Old Mode: 51 **Metallic Type**

Net Weight

DS20-AAX-XXXX-02: 28 KG
 DS20-SAX-XXXX-02: 54 KG

Diaphragm

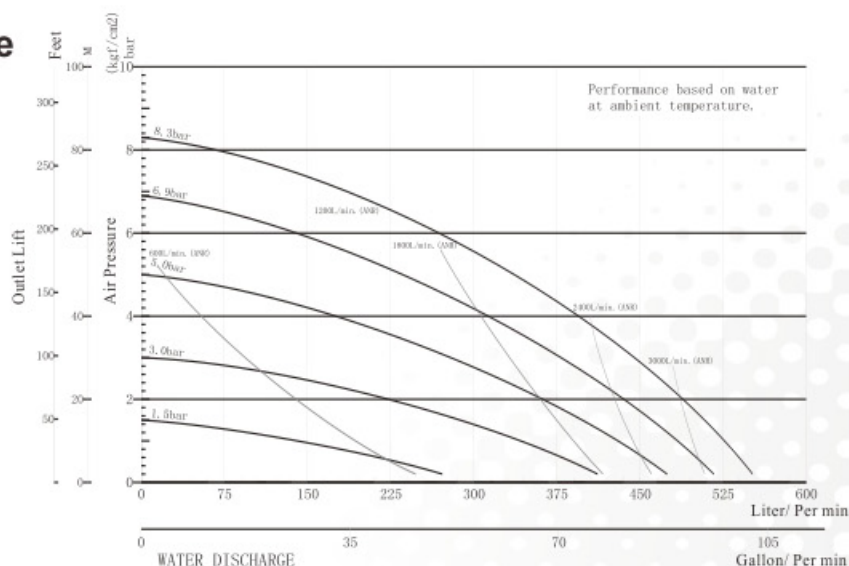
Material	Temperature Range
UPE (U)	-5 to +60°C
PTFE (T)	-30 to +120°C
Santoprene® (O)	-10 to +80°C



Specification

Liquid inlet & outlet	2" PT(BSP)
Air inlet	1/2" PT(BSP)
Air outlet	1" PT(BSP)
Lowest pressure	1.2Bar(kgf/cm ²) ; 17.4psi
Max pressure	8.3Bar(kgf/cm ²) ; 120psi
Working pressure advised	2~5.5Bar(kgf/cm ²) ; 29psi~79.75psi
Quantity / cycle	2.5L
Solid limit	Φ6.4~8mm
Air consumption	3600Liter/Per Min. ; 127.08Scfm/Per Min
Inlet lift (deep)	6 m-wet ; 3.7m-dry
Assemble size	43(L)cm x 34(W)cm x 54(H)cm
Max flow rate	147.75 Gallon/Per Min. ; 560 Liter/Per Min.

Diagram of Curve





Pump Type and Liquids Serviceability Specification

DSX-AAX-UXXS-X-----

Paint, solvent, ink, glue, pulp, heavy oil, toluene, benzene

DSX-AAX-TXXS-X-----

High temperature liquid, resin, metal scrap solution, gasoline, xylene, acetone

DSX-AAX-OXBO-X-----

Mud, sludge, waste water, lubrication oil, motor oil, cutting oil, turbine oil

DSX-PXX-OPTP-X-----

Seawater, hydrogen peroxide solution, acid and alkali, floats the clean water

DSX-PXX-TPTP-X-----

Inferior sodium nitrite, hydrochloric acid, aqua regia, phosphoric acid, boric acid, liquid medicine

DSX-SAX-UXXS-X-----

Glycol, alcohol, sodium hydroxide, nitric acid, carbonic acid, fruit acid, enzyme, sodium nitrate, ethanol, citric acid, wastewater, liquid caustic soda, methyl alcohol, isopropyl alcohol, glycol

DSX-SAX-TXXS-X-----

Polyvinyl chloride, ammonia, asphalt, sulfuric acid, chromic acid, electroplate solution, high temperature sauce, chili sauce, coal oil, volatile oil, carrier oil, immiscible fluids, freezing mixture, degreasing agent, methylene chloride

DSX-SAX-OXXS-X-----

Jam, juice, acetic acid, leaven, slops, balsam, olive oil, defoamer

DSX-AAX-OXCO-X-----

Methyl alcohol, release agent, casting fluid

※ DS04-AAX-OXSO-X-----

Glaze, pottery clay thick liquid, bolivian filament

※ DS10-SAX-UUUU-X-----

Liquids with silicon

Note: • It's possible to use unsuitable because of liquids density, thickness and temperature.

- Please make sure wear-resisting property if necessary.
- Please inquiry with us directly about other liquids in addition this information above-mentioned.
- Please see P.2 above the type-specification comparison.
- Please inquiry to us about the type-specification noted "※" advanced.

