

Air Operated Double Diaphragm Pumps **TC-X**

— TC-X500 Metallic —

2" Metallic Diaphragm Pump Data Sheet



Max Flow Rate: 780 L/min. (Rubber)

Max Discharge Pressure: 0.85 MPa. (Rubber)

Max Slurry Size: 8.0 mm.

Max Suction Lift: PTFE Dry: 3.0m Rubber Dry: 5.5m. Wet (Primed): 8.0m.

Liquid Connection Size: 2".

Liquid Connection Configuration: Flanged Centre Ports / (Female Threaded).

Pump Wetted Material Options: Aluminium, Stainless Steel.

Air Motor Material: Aluminium.

Diaphragm Options: PTFE, CR, NBR, TPEE, TPO, EPDM, FKM.

Check Valve Configuration: Ball Type Check Valves.

Air Motor Model: Looped C® Spring Air Spool.

Exhaust Configuration: External Plastic Exhaust Silencer (x1).

Base & Footprint: Heavy Duty "Multi-footprint" Steel Legs.



TC-X500A□J/A

2" Flanged Pump
780 L/min Max

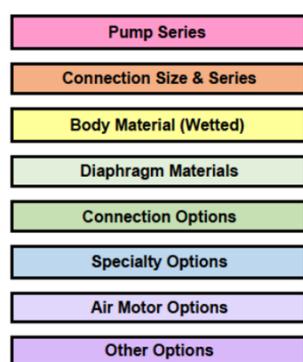
Description & Features: New high performance 2" metallic AODD Pumps fitted with the Looped C® Air Spool, Ekonol® Seal Rings & Fully Independent Pilot Valves for increased performance, reliability & extended life cycle. Very high flow rates. Large solids size. Large range of standard & specialty diaphragm options. Compact size, Drop-in dimensions & Multi footprint. Fully bolted body, heavy-duty construction & wide sturdy steel base. 100% oil & grease lubrication free, offering clean, emissions free, environmentally friendly operation. Easily maintainable with fully modular & replaceable wear parts, outside accessible Air Spool & manual Spool Reset Switch. Fully torqued, leak and operation tested prior to shipment. Designed and manufactured in Japan.

501 Metallic Pump Specifications		
Pump Model	A□ S□	AT ST
Max Flow Rate	780 L/min [206.1 GPM]	580 L/min [153.2 GPM]
Max Solids Size	8.0 mm	
Max Discharge Pressure	0.85 MPa [125 psi]	0.7 MPa [100 psi]
Supply Air Pressure Range	0.2 – 0.85 MPa [29 - 125 psi]	0.2 – 0.7 MPa [29 - 100 psi]
Max Suction Lift	PTFE Dry: 3.0 meters. Rubber Dry: 5.5 meters. Wet (Primed): 8.0 meters.	
Max Air Consumption	6500 L/min (ANR) [229.5 SCFM]	6000 L/min (ANR) [211.8 SCFM]
Max Discharge Vol Per Cycle	3500 mL	2000 mL
Ambient Temp Range	0 – 70°C [32 – 158°F]	
Liquid Temp Range	NBR/CR 0–70°C [32–158°F] TPEE/EPDM 0–80°C [32–176°F] FKM/TPO/PTFE 0–100°C [32–212°F]	
Inlet & Outlet Connections	2" Flanged Centre Ports / (Female Threaded)	

Note: Factors affecting a pumps stated liquid flow rate, suction lift & solids handling capabilities include but are not limited to; pump size, diaphragm, ball valve & ball seat, type & materials of construction, air inlet pressure & air flow capability, liquid viscosity, specific gravity, slurry content, ambient & liquid temperature, liquid inlet & liquid outlet width, piping type, piping length & overall piping configuration. A minimum supply air pressure of 30 PSI (0.2 MPa) is required to operate the pump. If the supply pressure is less than 30PSI (0.2 MPa), the pump may not operate properly. Oil & Grease Lubrication is not required under normal operating conditions. All 500 Series Diaphragm Pumps are shipped complete with Heavy Duty Steel Legs, Rubber Feet, Air Inlet Shutoff Valve & External Plastic Exhaust Silencer as Standard Accessories.

Nomenclature

TC-X

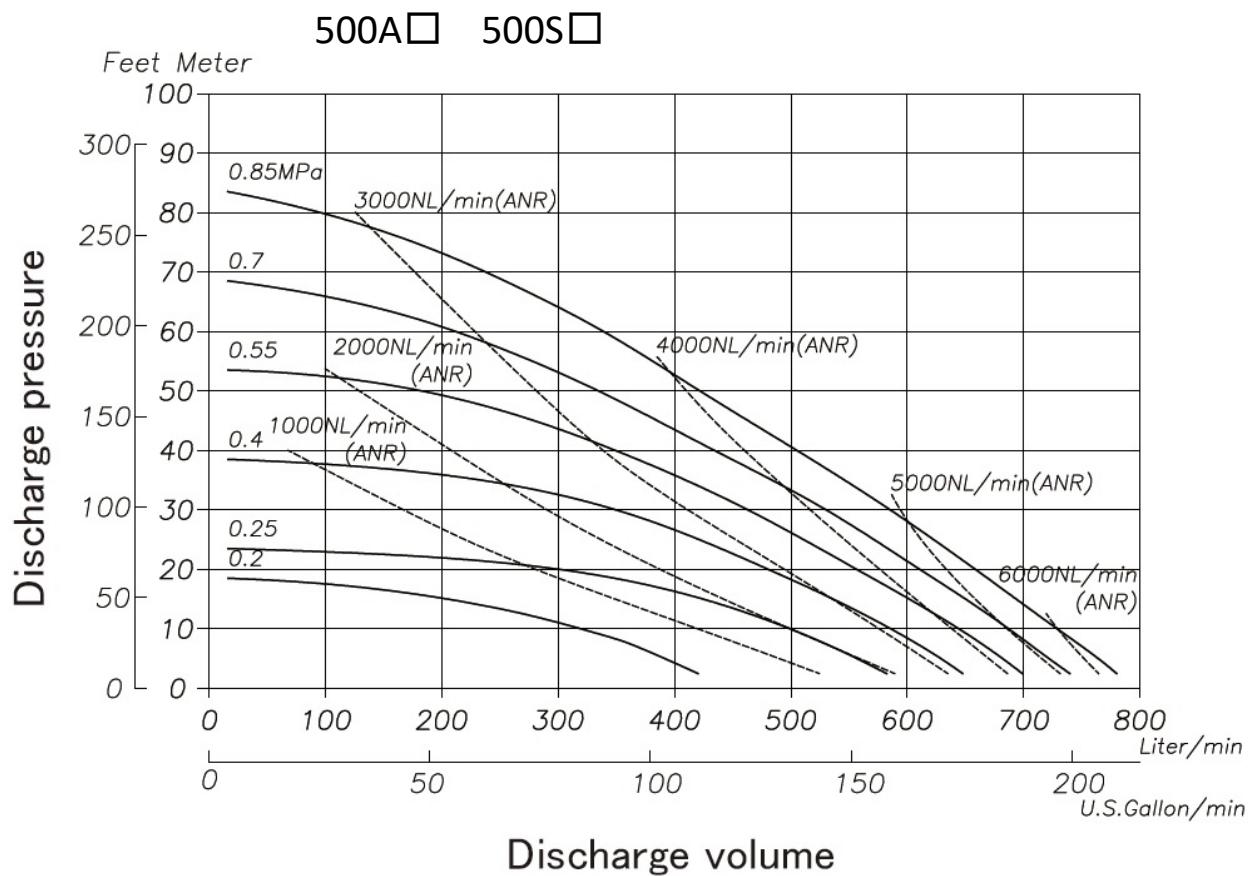


TC-X500A□J/A
2" AODD Pump.

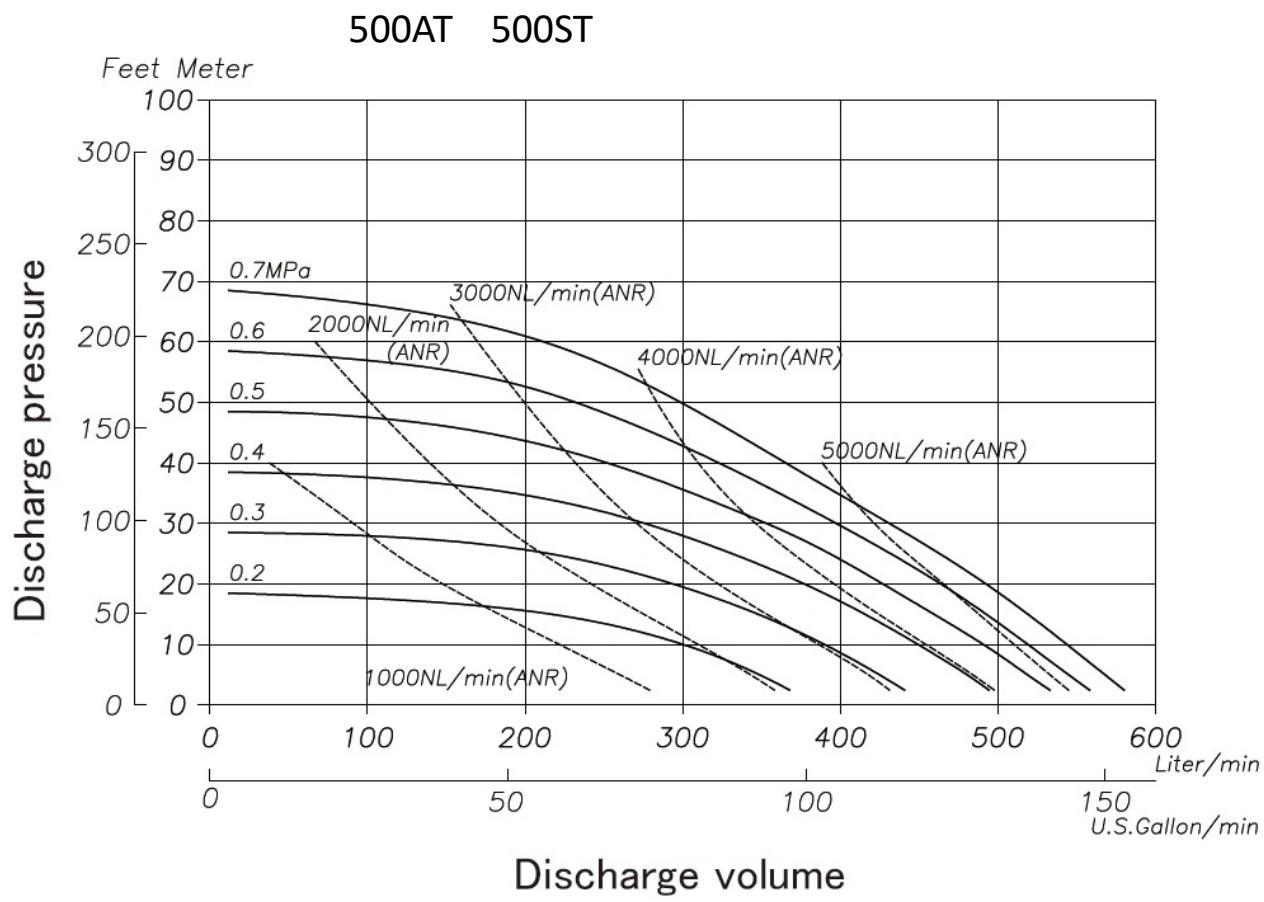


Pump Performance Curves

Rubber Diaphragm Curves



PTFE Diaphragm Curves



Wetted Materials Of Construction

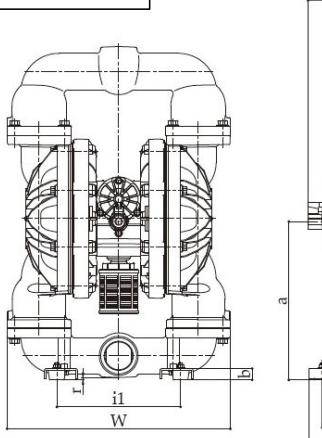
MODEL	500AC	500AN	500AE	500AV	500AT	500AH	500AS	500SC	500SN	500SE	500SV	500ST	500SH	500SS
Pump Wetted Parts	ADC12 • AC4C							SCS14						
Diaphragm	CR	NBR	EPDM	FKM	PTFE	TPEE	TPO	CR	NBR	EPDM	FKM	PTFE	TPEE	TPO
Ball Valve	CR	NBR	EPDM	FKM	PTFE	NBR	EPDM	CR	NBR	EPDM	FKM	PTFE	NBR	EPDM
Valve Seat	CR	NBR	EPDM	FKM	PTFE	NBR	EPDM	CR	NBR	EPDM	FKM	PTFE	NBR	EPDM
Center Disk	A5056							SUS316						
Weight	A [A □ N] : 34.0 kg [75.0 lbs] A □ J [A □ A] : 36.0 kg [79.4 lbs]							S [S □ N] : 62.0 kg [136.7 lbs] S □ J [S □ A] : 67.0 kg [147.7 lbs]						

MODEL	500FC	500FN	500FE	500FV	500FT	500FH	500FS
Pump Wetted Parts	S45C						
Diaphragm	CR	NBR	EPDM	FKM	PTFE	TPEE	TPO
Ball Valve	CR	NBR	EPDM	FKM	PTFE	NBR	EPDM
Valve Seat	CR	NBR	EPDM	FKM	PTFE	NBR	EPDM
Center Disk	SS400						
Weight	F [F □ N] : 62.0 kg [136.7 lbs] F □ J [F □ A] : 67.0 kg [147.7 lbs]						

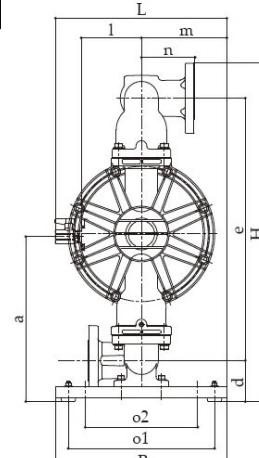
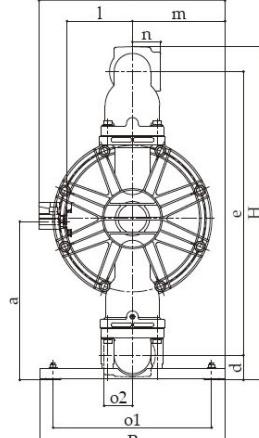
Dimensional Drawings

MODEL	H	W	L	a	b	d	e	i1	i2	I	m	n	o1	o2	P	r	AIR INLET	AIR EXH	LIQUID IN/OUT
500A □ [500A □ N]	683 [26.89]	458 [18.03]	382 [15.04]	324 [12.76]	23 [0.91]	49 [1.93]	582 [22.91]	254 [10.00]		134 [5.28]	190 [7.48]	58 [2.28]	325 [12.80]	58 [2.28]	380 [14.96]	5 [0.20]			Rc2 [NPT2]
500S □ [500S □ N]	681 [26.81]	456 [17.95]	382 [15.04]	324 [12.76]	23 [0.91]	49 [1.93]	582 [22.91]	254 [10.00]		134 [5.28]	190 [7.48]	58 [2.28]	325 [12.80]	58 [2.28]	380 [14.96]	6 [0.24]			Rc3/4 [NPT3/4]
500F □ [500F □ N]	751 [29.57]	458 [18.03]	382 [15.04]	366 [14.41]	33 [1.30]	91 [3.58]	582 [22.91]	288 [11.34]	254 [10.00]	134 [5.28]	190 [7.48]	119 [4.69]	325 [12.80]	250 [9.84]	380 [14.96]	13 [0.51]	Rc1 [NPT1]		Equivalent to JIS Flange 10K50A [Equivalent to ANSI Flange 150 2B]
500A □ J [500A □ A]	751 [29.57]	458 [18.03]	382 [15.04]	366 [14.41]	33 [1.30]	91 [3.58]	582 [22.91]	288 [11.34]	254 [10.00]	134 [5.28]	190 [7.48]	119 [4.69]	325 [12.80]	250 [9.84]	380 [14.96]	13 [0.51]			
500S □ J [500S □ A]	751 [29.57]	458 [18.03]	382 [15.04]	366 [14.41]	33 [1.30]	91 [3.58]	582 [22.91]	288 [11.34]	254 [10.00]	134 [5.28]	190 [7.48]	119 [4.69]	325 [12.80]	250 [9.84]	380 [14.96]	13 [0.51]			
500F □ J [500F □ A]	751 [29.57]	458 [18.03]	382 [15.04]	366 [14.41]	33 [1.30]	91 [3.58]	582 [22.91]	288 [11.34]	254 [10.00]	134 [5.28]	190 [7.48]	119 [4.69]	325 [12.80]	250 [9.84]	380 [14.96]	13 [0.51]			

TC-X500 A□ S□



TC-X500 A□J/A S□J/A



Looped C® Air Spool

New Generation Spring Assisted Non-Centering Spool.

Newly Improved with SUS Non-Centering Looped C® Springs. Original

Ekonol® Seal Rings. Outside Accessible with fully modular Spool Sleeve.

Modern Long Life Materials of Construction. Oil & Grease Lubrication

Free Design. Optional One piece Seal Rings & Metallic Spool Sleeve are also available.



TC-X

AODD Pump Capabilities.

Self Priming.

Run Dry.

Run up to Dead Head.

Variable Flow Rates.

Shear Sensitivity.

Variable Discharge Pressures.

Transfer Liquid Slurries.

Transfer Large Sized Solids.

Handle Abrasives.

Transfer Chemicals.

Inherently Safe Design.

Portable & Easy to Use.

Transfer Viscous Fluids.

Frequent Start Stop Operation.

Powered by Compressed Air.

Looped C®

CE Ex ATEX Compliant II 2GD c T5

