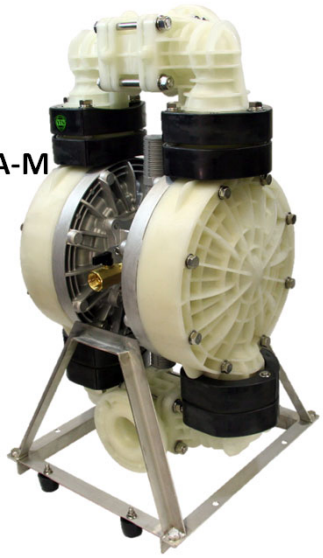
Air Operated Double Diaphragm Pumps TC-X

– TC-X500-M Plastic Mechanical Coil Spring Air Spool

2” Heavy Duty Plastic Diaphragm Pump Data Sheet

Max Flow Rate: 620 L/min. (Rubber)
Liquid Connections: 2” Flanged Centre Ports.
Max Slurry Size: 8.0mm.
Max Suction Lift: PTFE Dry: 2.0m Rubber Dry: 5.0m. Wet (Primed): 8.0m.
Max Discharge Pressure: 0.7 MPa
Check Valve Configuration: Ball Valves.
Pump Wetted Material Options: PPG, CFPVDF.
Diaphragm Options: PTFE, CR, NBR, TPEE, TPO, EPDM, FKM.
Air Motor Material: Aluminium.
Description: Heavy Duty 2” Plastic AODD Pumps available in PPG & CFPVDF. Mechanical Coil Spring Air Spool. Aluminium Air Motor. Flanged Centre Port Connections. Ball Check Valves. Large Range of Standard & Special Diaphragm Options. External Plastic Silencer (×2). SUS Steel Base.

TC-X500G□J/A-M
2” PPG Pump
620 L/min.

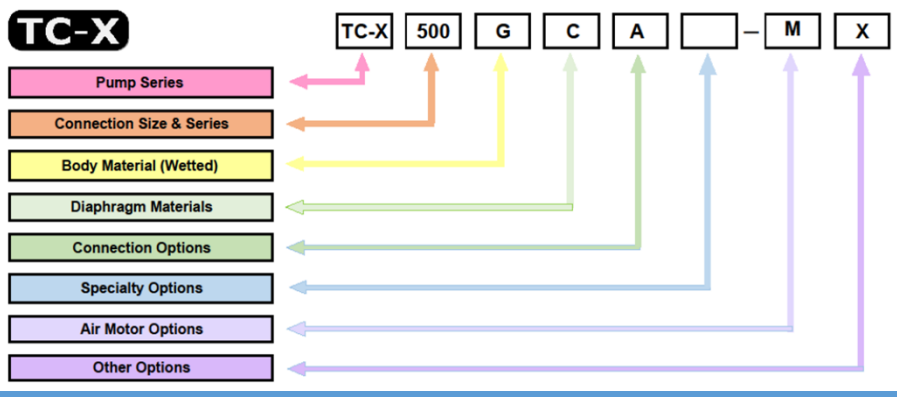


Pump features: *Powerful 2” plastic AODD Pumps specifically designed for very tough & demanding liquid transfer applications. Heavy duty mechanically actuated shifting mechanism with non-centering coil spring assisted Air Spools. Will resist stalling and freezing in all conditions. Able to achieve very high flow rates & high discharge heads reliability and efficiently. Ball Check Valves with large solids handling ability. Drop-in dimensions & footprint. Fully bolted body, heavy weight construction & wide sturdy steel base. Manufactured from high grade reinforced engineering plastics for mechanical strength, rigidity, abrasion resistance & chemical stability. Double external exhaust ports. Oil & grease lubrication free, with zero exhaust air emissions for safe & environmentally friendly operation. Easily maintainable with modular replaceable wear parts & outside accessible Air Spools. Fully torqued, leak and operation tested prior to shipment. Designed and manufactured in Japan.*

500 HD Plastic Pump Specifications		
Pump Model / Material	**G□**	**GT VT**
Max Flow Rate	620 L/min [163.8 GPM]	500 L/min [132.1 GPM]
Max Solids Size	8.0 mm	
Max Discharge Pressure	0.7 MPa [100 psi]	
Supply Air Pressure Range	0.1 – 0.7 MPa [14 - 100 psi]	0.15 – 0.7 MPa [22 - 100 psi]
Max Suction Lift	PTFE Dry: 2.0 meters. Rubber Dry: 5.0 meters. Wet (Primed): 8.0 meters.	
Max Air Consumption	4000 L/min (ANR) [141.3 SCFM]	5000 L/min (ANR) [176.6 SCFM]
Max Discharge Volume Per Cycle	3500 mL	2000 mL
Ambient Temperature Range	0 – 70°C [32 – 158°F]	
Liquid Temperature Range	0 – 60°C [32–140°F]	
Connections: Suction & Discharge	2” Flanged Centre Ports	

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 14psi (0.1 MPa) is required to operate the pump. If the supply pressure is less than 14psi (0.1 MPa), the pump may not operate properly. Oil & Grease Lubrication is not required under normal operating conditions. All 500-M Series Diaphragm Pumps are shipped complete with a Heavy Duty Steel Base, Rubber Feet, Air Inlet Shutoff Valve & 2 Plastic External Exhaust as Standard Accessories.*

Nomenclature



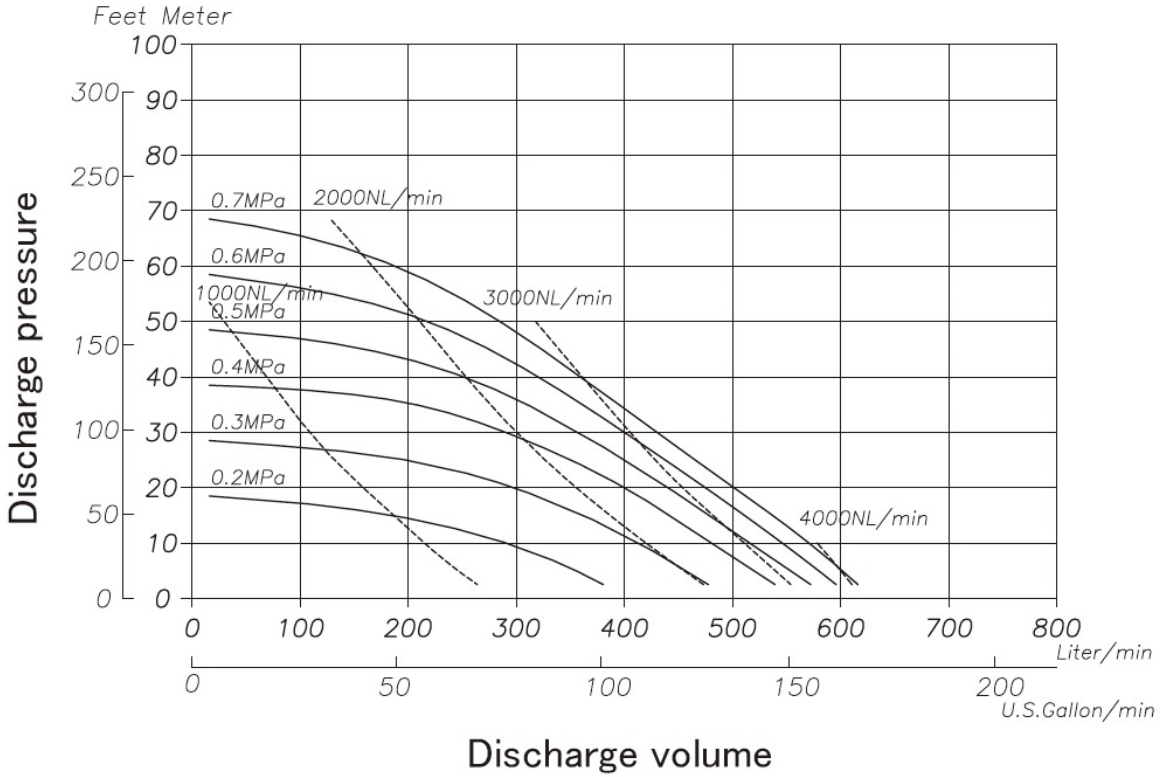
TC-X500VTJ/A-M
2” Flanged CFPVDF AODD Pump.

Made In Japan

Pump Performance Curves

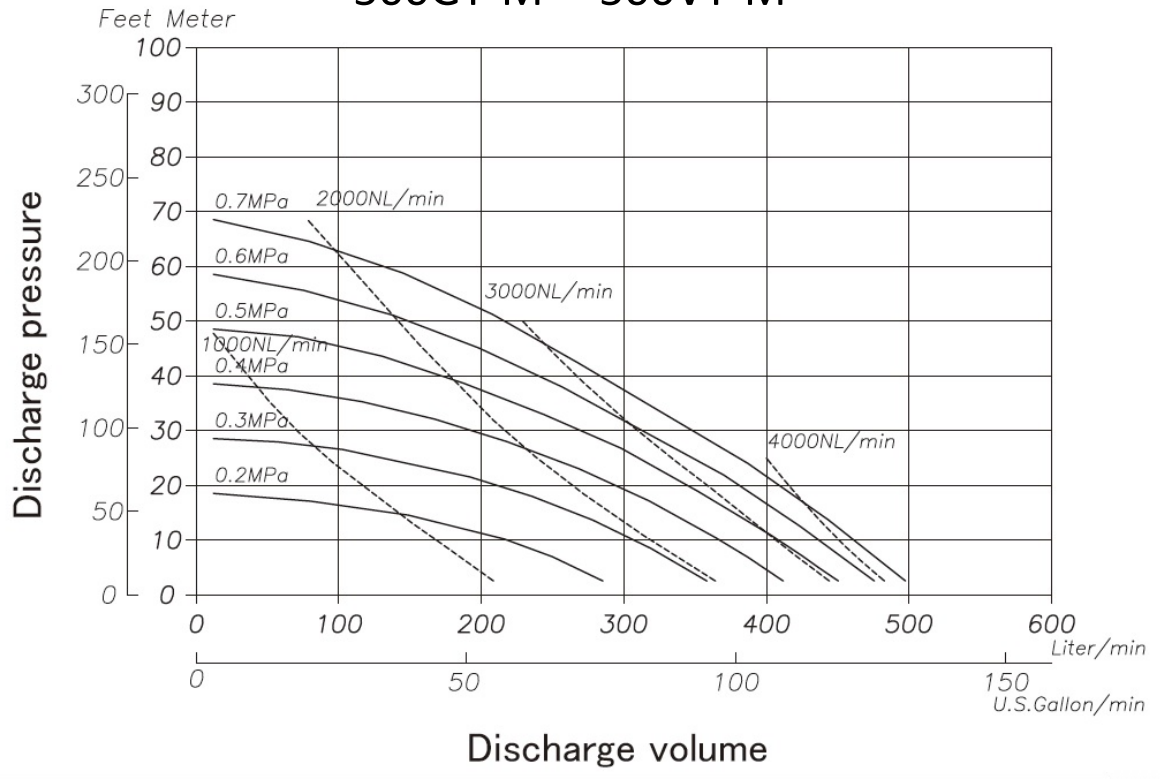
Rubber Diaphragm Curves

500G□-M



PTFE Diaphragm Curves

500GT-M　500VT-M



Made In Japan

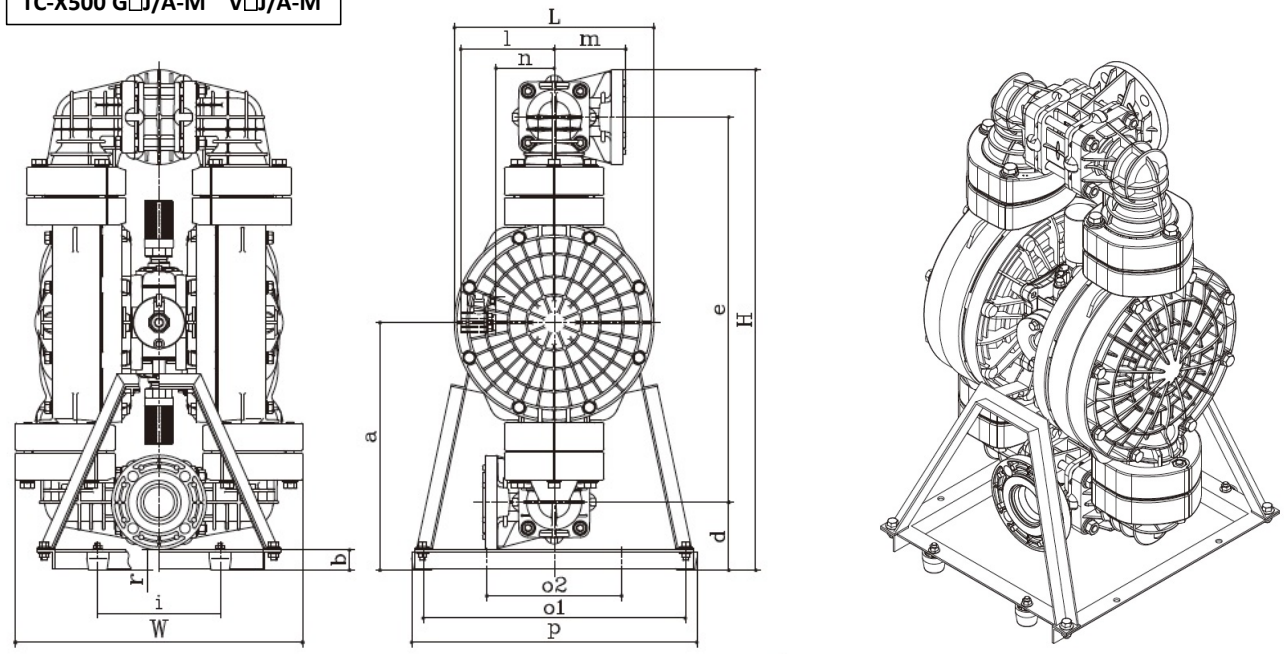
Wetted Materials Of Construction

MODEL	500GC ☐	500GN ☐	500GE ☐	500GV ☐	500GT ☐	500GH ☐	500GS ☐	500VE ☐	500VV ☐	500VT ☐	500VH ☐	500VS ☐
Pump Wetted Parts	PPG							PVDF				
Diaphragm	CR	NBR	EPDM	FKM	PTFE	TPEE	TPO	EPDM	FKM	PTFE	TPEE	TPO
Ball Valve	CR	NBR	EPDM	FKM	PTFE	NBR	EPDM	EPDM	FKM	PTFE	NBR	EPDM
Valve Seat	PP							PTFE				
Center Disk	PPG							PVDF				
Weight	37.5 kg [82.7 lbs]							54.0 kg [119.0 lbs]				

Dimensional Drawings

MODEL	H	W	L	a	b	d	e	i (i1)	i2	l	m	n	o1	o2	p	r	AIR INLET	AIR EXH	LIQUID IN/OUT
500G☐J [500G☐A]	818 [32.20]	469 [18.46]	326 [12.83]	405 [15.94]	33 [1.30]	111 [4.37]	630 [24.80]	200 [7.87]		153 [6.02]	117 [4.61]	95 [3.74]	428 [16.85]	220 [8.66]	466 [18.35]	34 [1.34]	Rc3/4 [NPT3/4]	Rc3/4 [NPT3/4]	Equivalent to JIS Flange 10K50A
500V☐J [500V☐A]	816 [32.13]	462 [18.19]	326 [12.83]	405 [15.94]	33 [1.30]	114 [4.49]	625 [24.61]	200 [7.87]		153 [6.02]	117 [4.61]	95 [3.74]	428 [16.85]	220 [8.66]	466 [18.35]	37 [1.46]			

TC-X500 G☐J/A-M V☐J/A-M



Heavy Duty Mechanical Coil Spring Air Spool.

Mechanically actuated shifting mechanism. Spring assisted non-centering Air Spools. Resists stalling and freezing in all conditions. Outside accessible. Fully modular & replaceable wear components. State of the Art, long life materials of construction. Oil & grease lubrication free design.

Typical Pumping Applications.

- *Pumping Against Very High Back Pressures.*
- *Operating with Very High Air Inlet Pressures.*
- *Frequent or Extended Dead Heading.*
- *Operating at Very Slow Switching Speeds.*
- *Operating with Very Low Air Inlet Pressures.*
- *Pumping Continuously for Very Long Periods.*
- *Frequent Start Stop Applications.*
- *Operating with Very Long Discharge Lines.*
- *Where Pump Icing / Freezing is a Common Occurrence.*
- *Where Air Consumption Efficiency is a Critical Factor.*

TC-X

AODD Pump Capabilities.

Mechanical Coil Spring Spool

Self Priming.	Variable Discharge Pressures.	Inherently Safe Design.
Run Dry.	Transfer Liquid Slurries.	Portable & Easy to Use.
Run up to Dead Head.	Transfer Large Sized Solids.	Transfer Viscous Fluids.
Variable Flow Rates.	Handle Abrasives.	Frequent Start Stop Operation.
Shear Sensitivity.	Transfer Chemicals.	Powered by Compressed Air.

ATEX Compliant
II 2GD c T5

JQA-QMA14279

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For more information about TC-X Pumps please contact: sales@yts-pump.com