Air Operated Double Diaphragm Pumps TC-X

TC-X250 Plastic

1” Plastic Diaphragm Pump Data Sheet

Max Flow Rate: 170 L/min.
Max Discharge Pressure: 0.7 MPa.
Max Slurry Size: 3.0 mm.
Max Suction Lift: PTFE Dry: 2.5m Rubber Dry: 5.5m. Wet (Primed): 8.0m.
Liquid Connection Size: 1”.
Liquid Connection Configuration: Female Threaded / Flange Side Ports.
Pump Wetted Material Options: PPG, CFPVDF.
Air Motor Material: PPG (Optional CFPP).
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 (×1).
Base & Footprint: Heavy Duty Polypropylene “Multi-footprint” Legs.

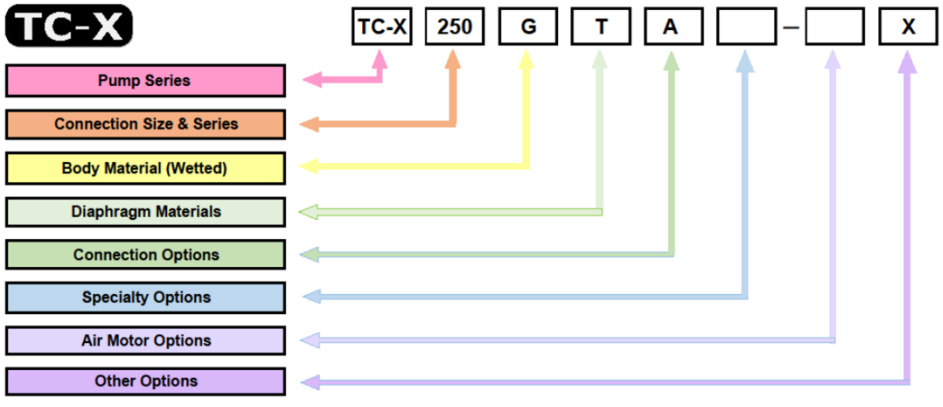
TC-X250G□-FL
1” Flanged
PPG Pump

Description & Features: *1” Plastic AODD Pumps fitted with the Looped C® Air Spool, Ekonol® Seal Rings & Fully Independent Pilot Valves for increased performance, reliability & extended life cycle. Improved air consumption utilizing the new Air Eco-Ring®. Large range of standard & special diaphragm options. Drop-in dimensions & Multi footprint. Fully bolted body, heavy-duty construction & wide sturdy PP plastic base. Manufactured from high grade reinforced engineering plastics for mechanical strength, rigidity, abrasion resistance & chemical stability. 100% oil or 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. Patented design with patents pending. Designed and manufactured in Japan.*

250 Plastic Pump Specifications		
Pump Model	**G□ V□**	**GT VT**
Max Flow Rate	170 L/min [44.9 GPM]	
Max Solids Size	3.0 mm	
Max Discharge Pressure	0.7 MPa [100 psi]	
Supply Air Pressure Range	0.2 – 0.7 MPa [30 - 100 psi]	
Max Suction Lift	PTFE Dry: 2.5 meters. Rubber Dry: 5.5 meters. Wet (Primed): 8.0 meters.	
Max Air Consumption	1500 L/min (ANR) [53.0 SCFM]	
Max Discharge Vol Per Cycle	600 mL	500 mL
Ambient Temp Range	0 – 70°C [32 – 158°F]	
Liquid Temp Range	0 – 60°C [32 – 140°F]	
Inlet & Outlet Connections	1” Female Threaded / Flanged Side 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 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 250 Series Diaphragm Pumps are shipped complete with Heavy Duty Polypropylene Plastic Base, Rubber Feet, Air Inlet Shutoff Valve & External Plastic Exhaust Silencer as Standard Accessories.*

Nomenclature



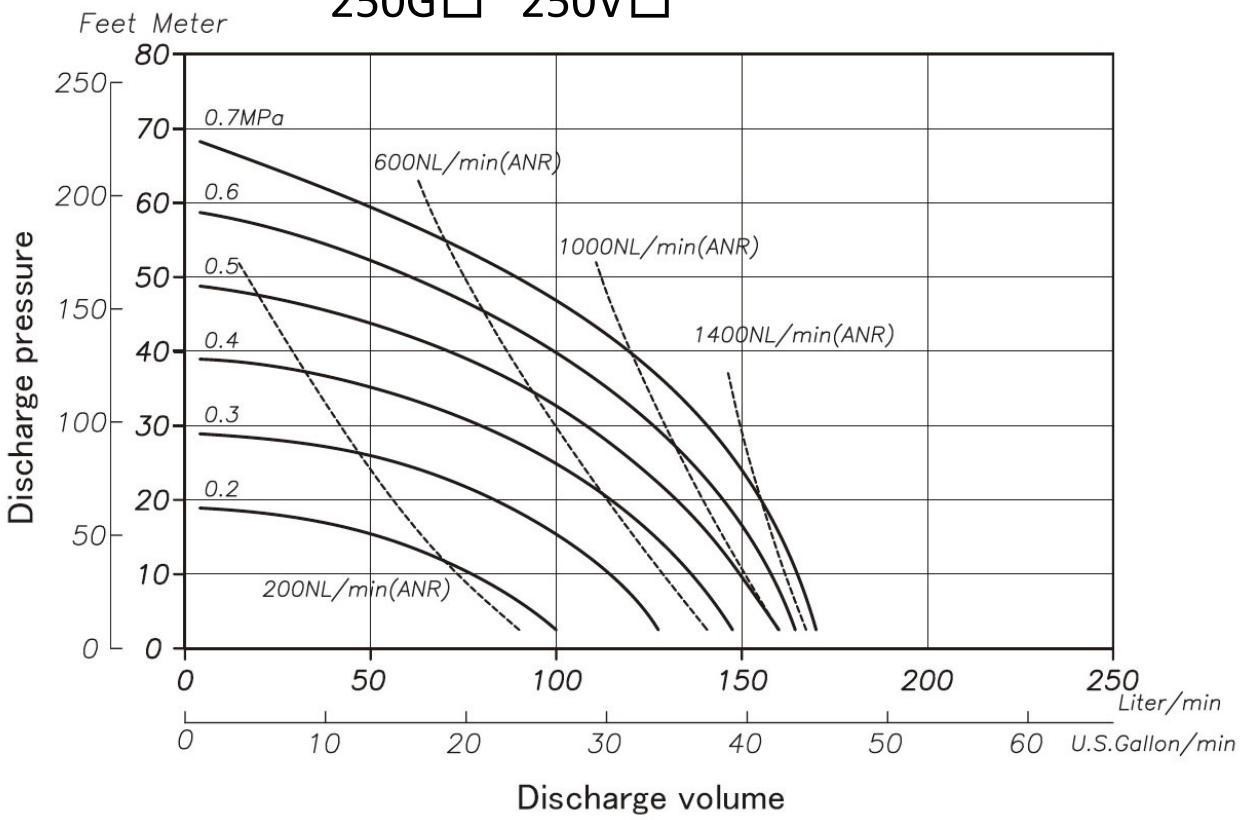
TC-X250CT-X
1” CF Polypropylene AODD Pump.

Made In Japan

Pump Performance Curves

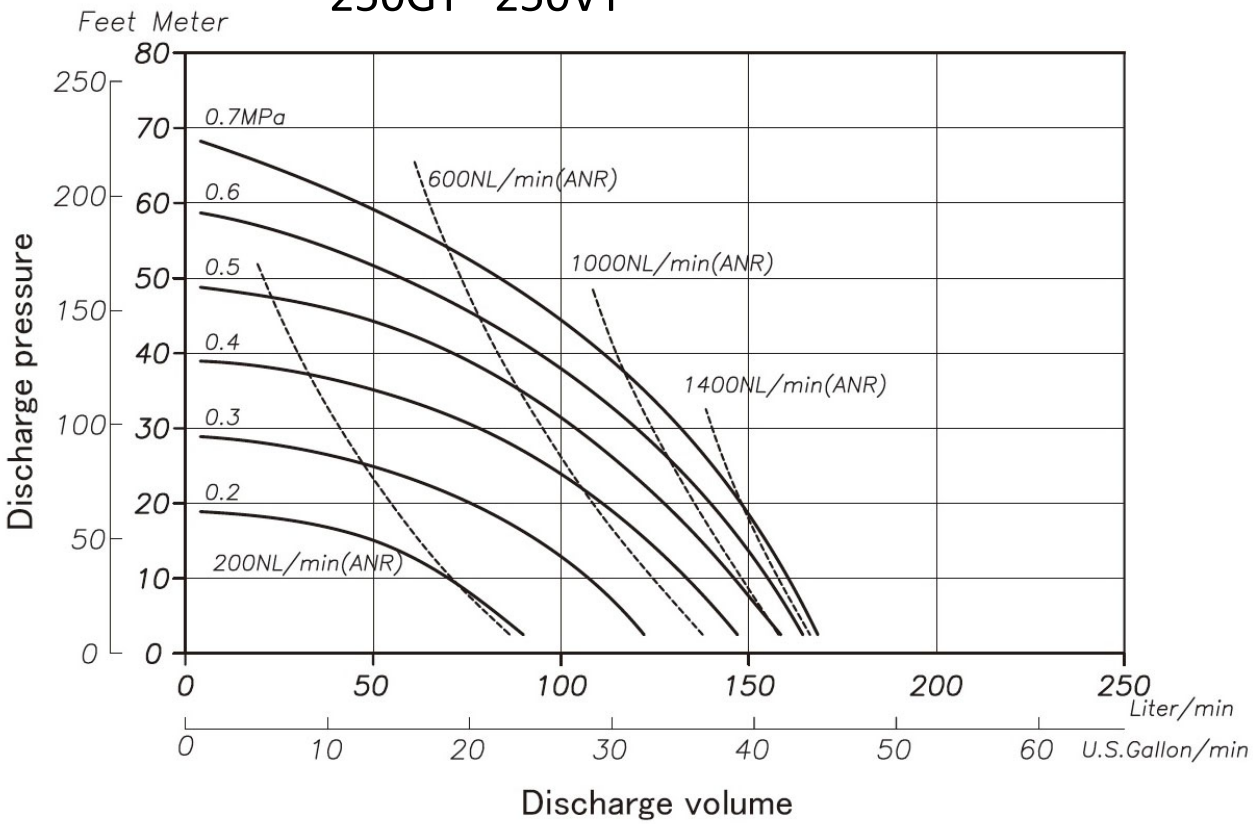
Rubber Diaphragm Curves

250G□ 250V□



PTFE Diaphragm Curves

250GT 250VT



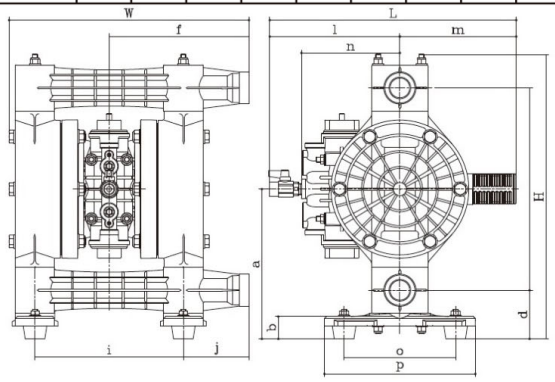
Made In Japan

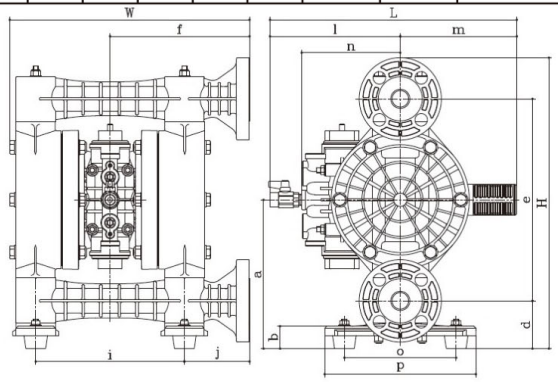
Wetted Materials Of Construction

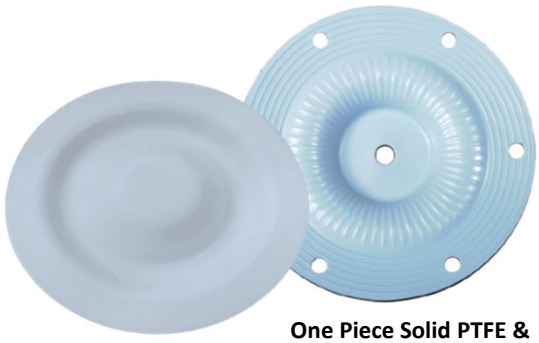
MODEL	250GC ☐	250GN ☐	250GE ☐	250GV ☐	250GT ☐	250GH ☐	250GS ☐	250VE ☐	250VV ☐	250VT ☐	250VH ☐	250VS ☐	250CC ☐	250CN ☐	250CE ☐	250CV ☐	250CT ☐	250CH ☐	250CS ☐
Pump Wetted Parts	PPG							PVDF					PP CONDUCTIVE						
Diaphragm	CR	NBR	EPDM	FKM	PTFE	TPEE	TPO	EPDM	FKM	PTFE	TPEE	TPO	CR	NBR	EPDM	FKM	PTFE	TPEE	TPO
Valve Stopper	PPG							PVDF					PP CONDUCTIVE						
Ball Valve	CR	NBR	EPDM	FKM	PTFE	NBR	EPDM	EPDM	FKM	PTFE	NBR	EPDM	CR	NBR	EPDM	FKM	PTFE	NBR	EPDM
Valve Seat	PPG							PVDF					PP CONDUCTIVE						
Center Disk	PPG							PVDF					PP CONDUCTIVE						
Weight	11.0 kg [24.3 lbs]							12.0 kg [26.4 lbs]					11.0 kg [24.3 lbs]						

Dimensional Drawings

MODEL	H	W	L	a	b	d	e	f	i	j	l	m	n	o	p	AIR INLET	AIR EXH	LIQUID IN/OUT
250G ☐ [250G ☐ N]	427 [16.81]	366 [14.41]	375 [14.76]	226 [8.90]	34 [1.34]	73 [2.87]	307 [12.09]	213 [8.39]	226 [8.90]	100 [3.94]	198 [7.80]	177 [6.97]	150 [5.91]	155 [6.10]	230 [9.06]	Rc3/8 [NPT3/8]	Rc3/4 [NPT3/4]	Rc1 [NPT1]
250G ☐ J [250G ☐ A]	442 [17.40]	365 [14.37]						212 [8.35]		99 [3.90]								Equivalent to JIS Flange 10K25A [Equivalent to ANSI Flange 150 1B]
250V ☐ [250V ☐ N]	427 [16.81]	366 [14.41]						213 [8.39]		100 [3.94]								Rc1 [NPT1]
250V ☐ J [250V ☐ A]	442 [16.81]	365 [14.37]						212 [8.35]		99 [3.90]								Equivalent to JIS Flange 10K25A [Equivalent to ANSI Flange 150 1B]
250C ☐ [250C ☐ N]	427 [16.81]	366 [14.41]						213 [8.39]		100 [3.94]								Rc1 [NPT1]
250C ☐ J [250C ☐ A]	442 [17.40]	365 [14.37]						212 [8.35]		99 [3.90]								Equivalent to JIS Flange 10K25A [Equivalent to ANSI Flange 150 1B]







One Piece Solid PTFE & One-Up® PTFE Diaphragm Options

Looped C® Air Spool

New Generation Spring Assisted Non-Centering Spool. Newly Improved with SUS Non-Centering Looped C® Springs. Original Ekonol® Seal Rings, Improved Spool Shaft. Outside Accessible with fully modular Spool Sleeve. Modern Long Life Materials of Construction. Oil & Grease Lubrication Free Design.

TC-X

Pumps Made In Japan

AODD Pump Capabilities.

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.

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

Looped C®

ATEX Compliant II 2GD c T5

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