

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

## — TC-X800 Plastic

### 3" Plastic Diaphragm Pump Data Sheet

- Max Flow Rate:** 820 L/min. (Rubber)
- Max Discharge Pressure:** 0.70 MPa. (Rubber)
- Max Slurry Size:** 10.0 mm.
- Max Suction Lift:** PTFE Dry: 2.0m Rubber Dry: 5.0m. Wet (Primed): 8.0m.
- Liquid Connection Size:** 3".
- Liquid Connection Configuration:** Flanged Centre Ports.
- Pump Wetted Material Options:** Polypropylene (PPG).
- 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 (×1).
- Base & Footprint:** Heavy Duty "Multi-footprint" SUS Steel Legs.



**TC-X800G□J/A**  
3" PPG Flanged Pump  
820 L/min Max

**Description & Features:** New high performance 3" plastic 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. Drop-in dimensions & Multi footprint. Fully bolted body, heavy-duty construction & wide sturdy steel base. Manufactured from high grade reinforced engineering plastics for mechanical strength, rigidity, abrasion resistance & chemical stability. 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.

800 Plastic Pump Specifications		
Pump Model	G□	GT
Max Flow Rate	820 L/min [216.6 GPM]	640 L/min [169.1 GPM]
Max Solids Size	10.0 mm	
Max Discharge Pressure	0.7 MPa [100 psi]	
Supply Air Pressure Range	0.2 – 0.7 MPa [29 - 100 psi]	
Max Suction Lift	PTFE Dry: 2.0 meters. Rubber Dry: 5.0 meters. Wet (Primed): 8.0 meters.	
Max Air Consumption	7500 L/min (ANR) [264.9 SCFM]	
Max Discharge Vol Per Cycle	6800 mL	3200 mL
Ambient Temp Range	0 – 70°C [32 – 158°F]	
Liquid Temp Range	0 – 60°C [32 – 140°F]	
Inlet & Outlet Connections	3" Flanged Centre Ports	

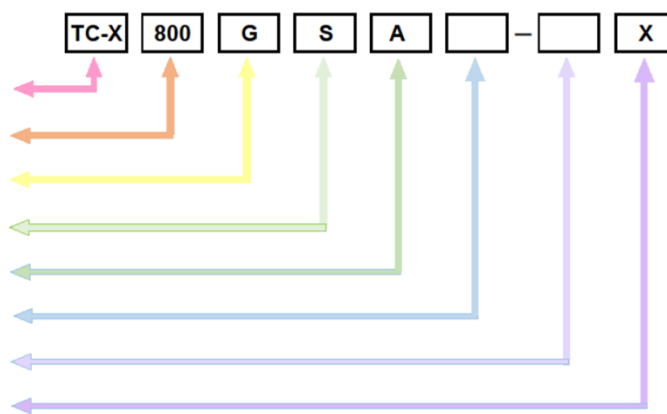
**Note:** Factors affecting a pumps stated liquid flow rate, suction lift & solids handling capabilities include but are not limited to; pump size, diaphragm, ball valve & ball seat, type & materials of construction, air inlet pressure & air flow capability, liquid viscosity, specific gravity, slurry content, ambient & liquid temperature, liquid inlet & liquid outlet width, piping type, piping length & overall piping configuration. A minimum supply air pressure of 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 800 Series Diaphragm Pumps are shipped complete with Heavy Duty SUS Steel Legs, Rubber Feet, Air Inlet Shutoff Valve & External Plastic Exhaust Silencer as Standard Accessories.

### Nomenclature

**TC-X**

TC-X 800 G S A □ - □ X

- Pump Series
- Connection Size & Series
- Body Material (Wetted)
- Diaphragm Materials
- Connection Options
- Specialty Options
- Air Motor Options
- Other Options

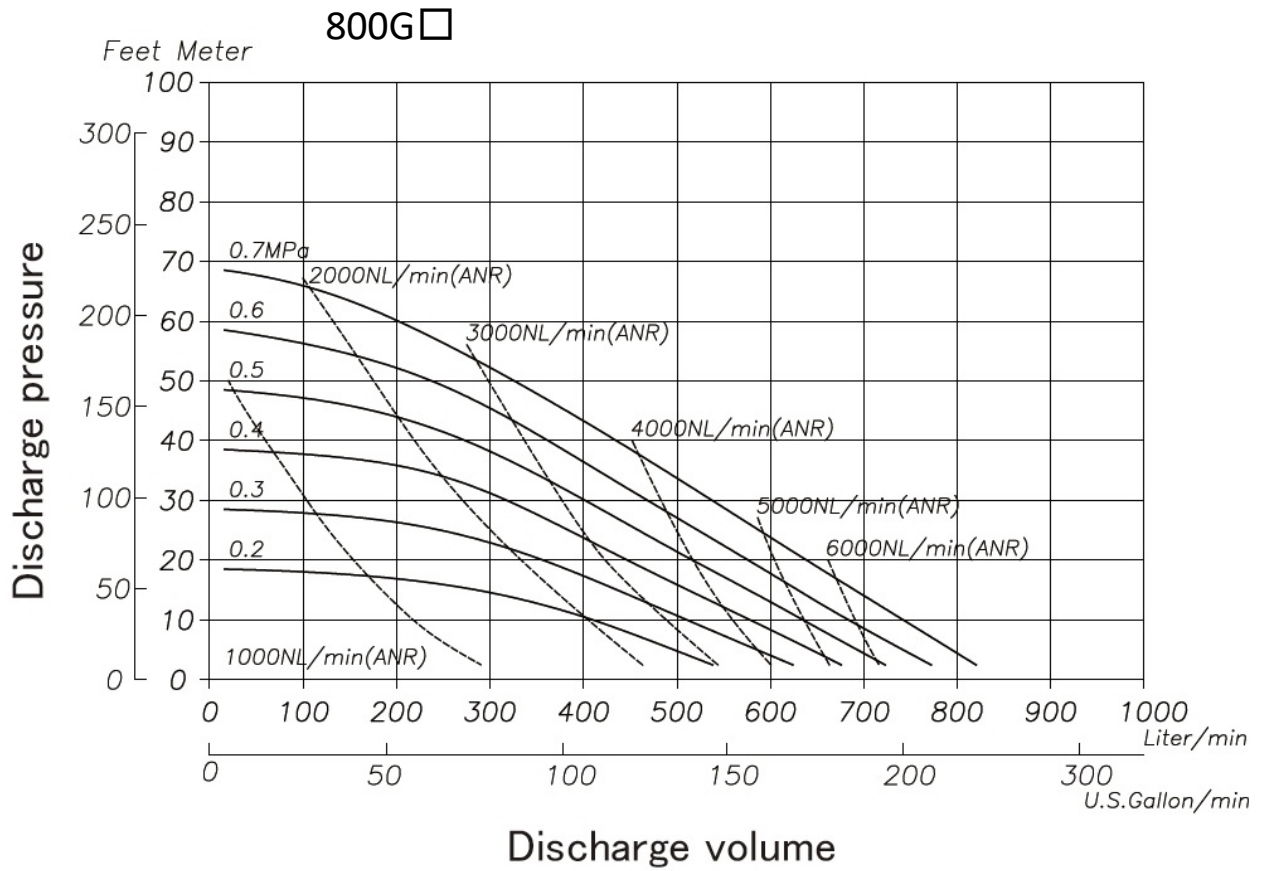


**TC-X800G□J/A**  
3" PPG AODD Pump.

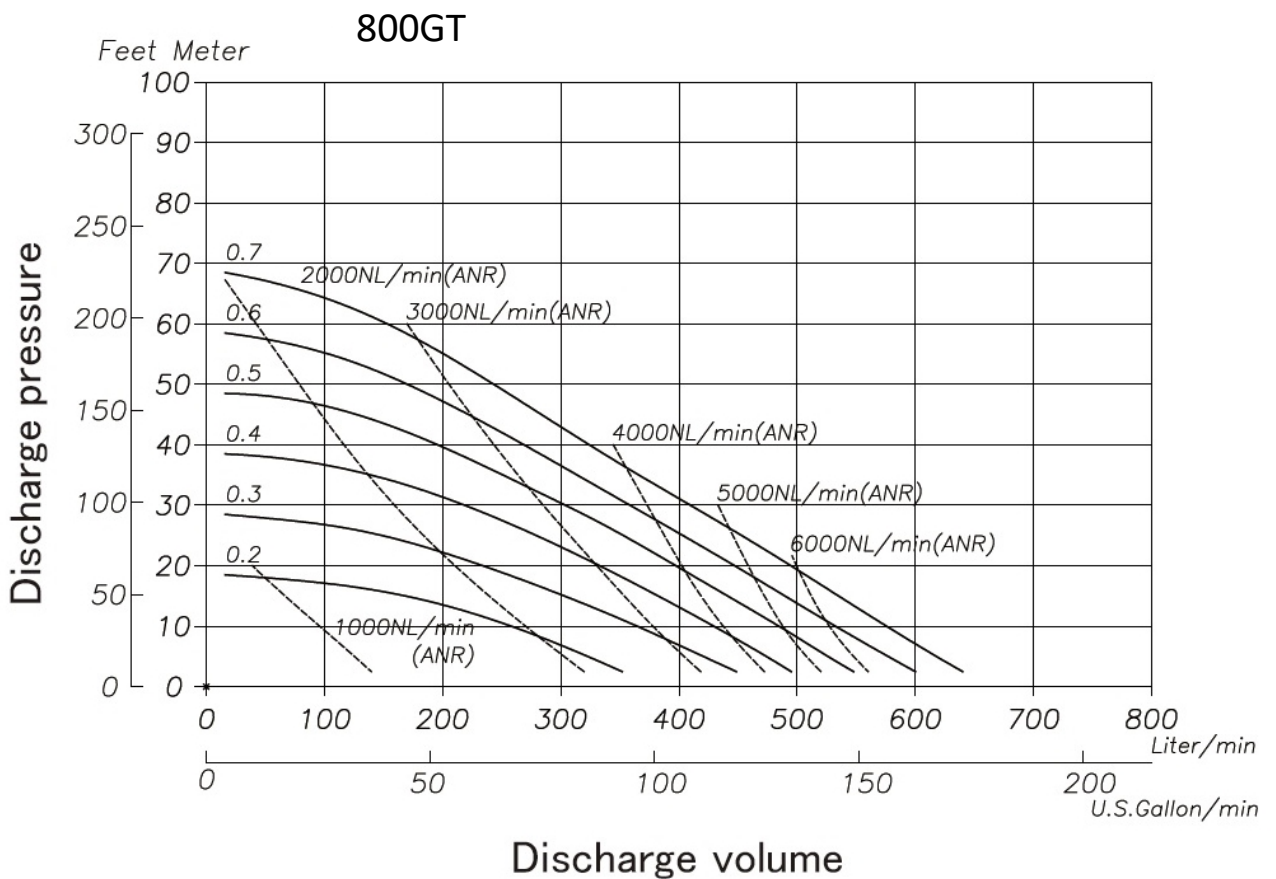


# Pump Performance Curves

## Rubber Diaphragm Curves



## PTFE Diaphragm Curves

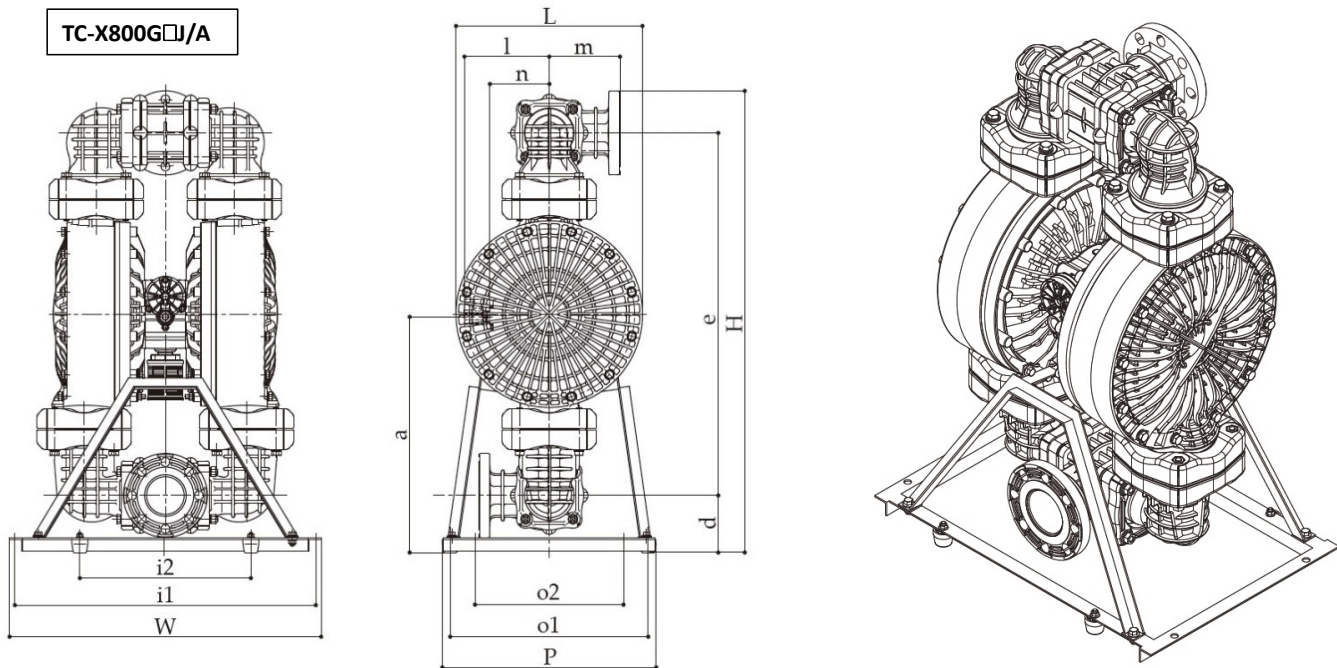


## Wetted Materials Of Construction

MODEL	800GC □	800GN □	800GE □	800GV □	800GT □	800GH □	800GS □
Pump Wetted Parts	PPG						
Diaphragm	CR	NBR	EPDM	FKM	PTFE	TPEE	TPO
Ball Valve	CR	NBR	EPDM	FKM	PTFE	NBR	EPDM
Valve Seat	PP						
Center Disk	PPG						
Weight	70.0 kg [154.3 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
800G□J	1044 [41.10]	705 [27.76]	422 [16.61]	533 [20.98]		129 [5.08]	820 [32.28]	681 [26.81]	387 [15.24]	192 [7.56]	160 [6.30]	134 [5.28]	448 [17.64]	336 [13.23]	484 [19.06]		Rc3/4 [NPT3/4]	Rc1 [NPT1]	Equivalent to JIS Flange 10K80A



### 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.



### Independent Pilot Valves

Unique & Fully Independent Pilot Valves. Independent Static Sealing Design allows for Short Stroke Operation & High Cyclic Speeds. Heavy Duty Construction with Spring Loaded Shock Absorption. Fully Modular and Replaceable. No Dynamic O-ring Seals, Gaskets or Stacked Assemblies. Large Air Porting Capability, Dirt and Moisture Friendly. Oil & Grease Lubrication Free Design.



# TC-X

## 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](mailto:sales@yts-pump.com)

Looped C®

CE Ex ATEX Compliant II 2GD c T5



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