

# Air-Operated Double Diaphragm Pumps



## 3" TC-X800 Series

The TC-X800 Series pumps offer excellent flow rates and a new heavy duty body design. The pumps can operate with variable air pressures and are suited for both start/stop and fully continuous duty pumping applications. They can easily handle high pressure and long discharge lines.

Maximum Flow Rate: 211.3 GPM (800 LPM)  
 Maximum Discharge Head: 280 FT. (85m)  
 Available in: Stainless Steel, Aluminum, Polypropylene, Cast Iron  
 Spool valve type: Robust Coil Spring Air Motor  
 Certification: CE, ATEX, FDA (SS models)



SPECIFICATIONS						
Material Code*	-FLA or - NPT					
	A"X"	S"X"	F"X"	AT	ST	FT
Max Flow Rate	211.3 GPM (800 LPM)			132.1 GPM (500 LPM)		
Max Air Pressure	125 PSI (0.85 MPa)			100 PSI (0.7 MPa)		
Max Air Consumption	230 scfm (6500 L/min)			177 scfm (5000 L/min)		
Supply Air Pressure Range <sup>1</sup>	14-125 PSI (0.1 - 0.85 MPa)			22-100 PSI (0.15 - 0.7 MPa)		
Liquid Discharge Volume per cycle	230 oz (6800 mL)			44 oz (1300 mL)		
Connection Suction x Discharge	NPT 3" /Flanged type 3" ANSI flange 150 lb - JIS 10K 80A					
Weight	132 lbs (63 kg)	291 lbs (132 kg)		132 lbs (63 kg)	291 lbs (132 kg)	

\* See Chart and Model Number nomenclature on back page for materials  
 Note 1: A supply air pressure of 22 PSI (0.15 MPa) or more is required to operate the pump. If the supply pressure is less than 22 PSI (0.15 MPa), the pump may not operate properly.  
 Pump Liquid Temperature Range: NBR/CR- 32-158°F (0-70°C) TPEE/EPDM- 32-176°F (0-80°C) FKM/TPO/PTFE- 32-212°F (0-100°C)  
 Ambient Temperature Range: 32-158°F (0-70°C)  
 Slurry Recommendation: 0.39" (10 mm) or less  
 Viscosity Limit: Suction lift ~3000 cps (3 Pa-s) Force in ~8000 cps (8 Pa-s) (Please contact your distributor for more details)

Material Code*	P"X"(-FLA)	PT (-FLA)
Max Flow Rate	200.8 GPM (760 LPM)	153.2 GPM (580 LPM)
Max Air Pressure	100 PSI (0.7 MPa)	
Max Air Consumption	194 scfm (5500 L/min)	
Supply Air Pressure Range <sup>1</sup>	14-100 PSI (0.1 - 0.7 MPa)	22-100 PSI (0.15 - 0.7 MPa)
Liquid Discharge Volume per cycle	230 oz (6800 mL)	108 oz (3200 mL)
Connection Suction x Discharge	3" ANSI flange 150 lb JIS 10K 80A	
Weight	155.4 lbs (70.5 kg)	

\* See Chart and Model Number nomenclature on back page for materials  
 Note 1: A supply air pressure of 22 PSI (0.15 MPa) or more is required to operate the pump. If the supply pressure is less than 22 PSI (0.15 MPa), the pump may not operate properly.  
 Pump Liquid Temperature Range: 32-140°F (0-60°C)  
 Ambient Temperature Range: 32-158°F (0-70°C)  
 Slurry Recommendation: 0.39" (10 mm) or less  
 Viscosity Limit: Suction lift ~3000 cps (3 Pa-s) Force in ~8000 cps (8 Pa-s) (Please contact your distributor for more details)

## 3" TC-X800 Series

WET END MATERIALS					
Code	Pump wetted parts	Diaphragm	Ball Valve/Valve Seat	Outer Diaphragm Plate	Center Body
AC	AL Alloy/AL	Neoprene™	Neoprene™	AL	AL
AN		BUNA	BUNA		
AE		EPDM	EPDM		
AV		Viton®	Viton®		
AT		PTFE	PTFE		
AH		Hytrel™	BUNA		
AS		Santoprene®	EPDM		
SC	Cast SS/SS316	Neoprene™	Neoprene™	SS316	
SN		BUNA	BUNA		
SE		EPDM	EPDM		
SV		Viton®	Viton®		
ST		PTFE	PTFE		
SH		Hytrel™	BUNA		
SS		Santoprene®	EPDM		
FC	Cast Iron	Neoprene™	Neoprene™	SS316	
FN		BUNA	BUNA		
FE		EPDM	EPDM		
FV		Viton®	Viton®		
FT		PTFE	PTFE		
FH		Hytrel™	BUNA		
FS		Santoprene®	EPDM		
PC	PPG	Neoprene™	Neoprene™	PPG (SCS13*)	
PN		BUNA	BUNA		
PE		EPDM	EPDM		
PV		Viton®	Viton®		
PT		PTFE	PTFE		
PH		Hytrel™	BUNA		
PS		Santoprene®	EPDM		

AL Alloy  
AL  
Cast SS  
SS316  
Cast Iron  
BUNA  
Neoprene™  
Viton®

Aluminum Alloy (ADC12)  
Aluminum (A5056)  
Cast Stainless Steel (SCS14)  
Stainless Steel Grade 316  
Cast Iron (S45C)  
Nitrile Rubber (NBR)  
Chloroprene Rubber (CR)  
Fluoroelastomer (FKM)

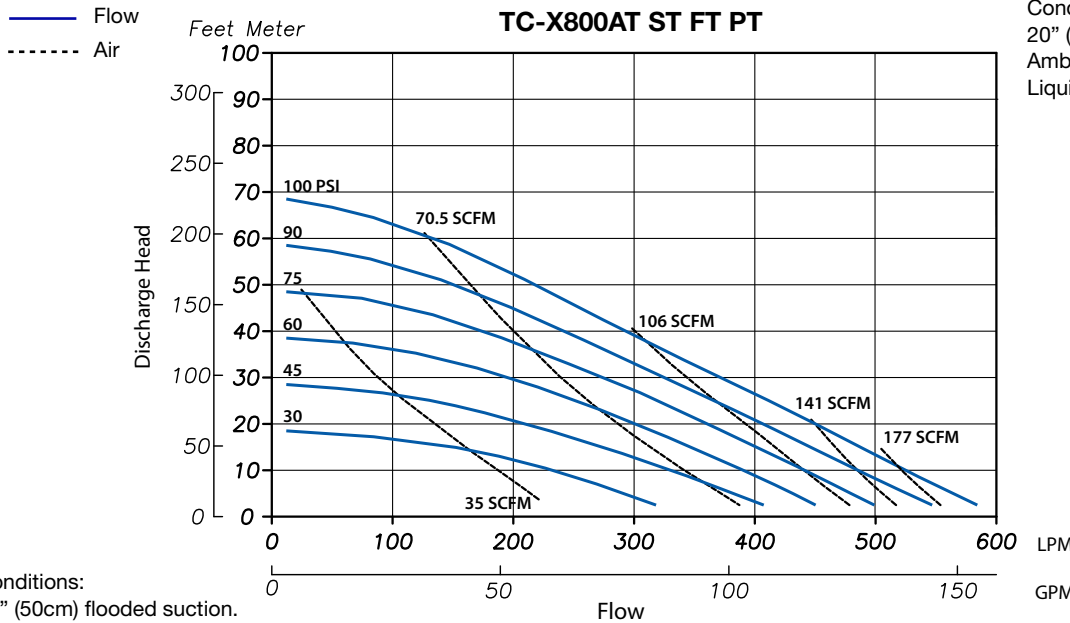
Pure Poly  
PTFE  
PPG  
Santoprene®  
Hytrel™  
EPDM  
\* SCS13

Pure Polypropylene  
Polytetrafluoroethylene (Teflon®)  
Glass Fiber Reinforced Polypropylene  
Thermoplastic PolyOlefin (TPO)  
Thermoplastic Polyester Elastomer (TPEE)  
Ethylene Propylene Diene Monomer (Nordel™)  
Cast Stainless Steel (insert material)

# Air-Operated Double Diaphragm Pumps



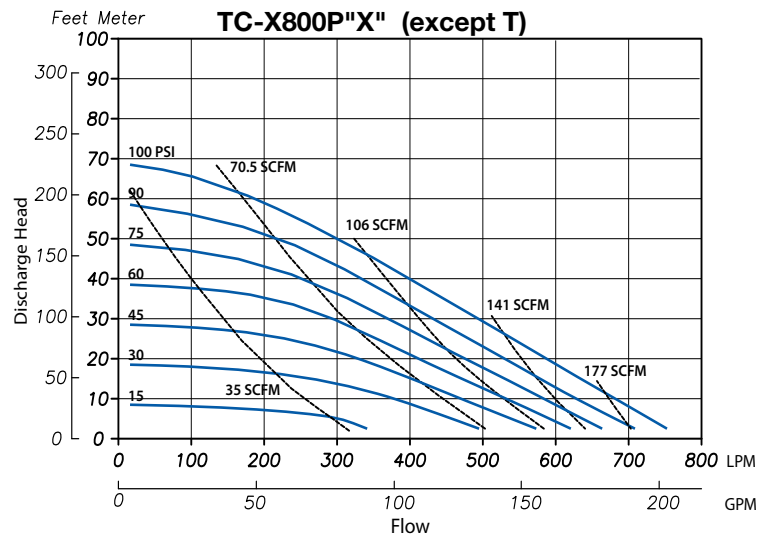
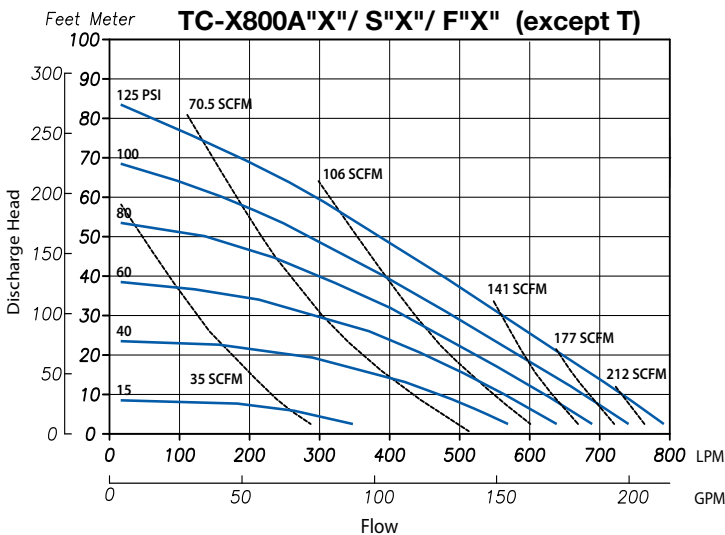
## PERFORMANCE CURVES



Conditions:  
20" (50cm) flooded suction.  
Ambient temperature: 77°F (25°C)  
Liquid temperature: 70-77°F (21-25°C)

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20" (50cm) flooded suction.  
Ambient temperature: 73°F (23°C)  
Liquid temperature: 64-68°F (18-20°C)



## MODEL NUMBER NOMENCLATURE

**Series** TC-X    **TC-X** **800** **P** **T** - **NPT** - **XXXX**    **Special options**

**Pump Connection Size**  
800 (3" x 3")

**Connection Type\***  
NPT: Threaded    FDA: Sanitary Clamp Fittings    FLA: Flange  
\*Plastic pumps are only available with flange connection

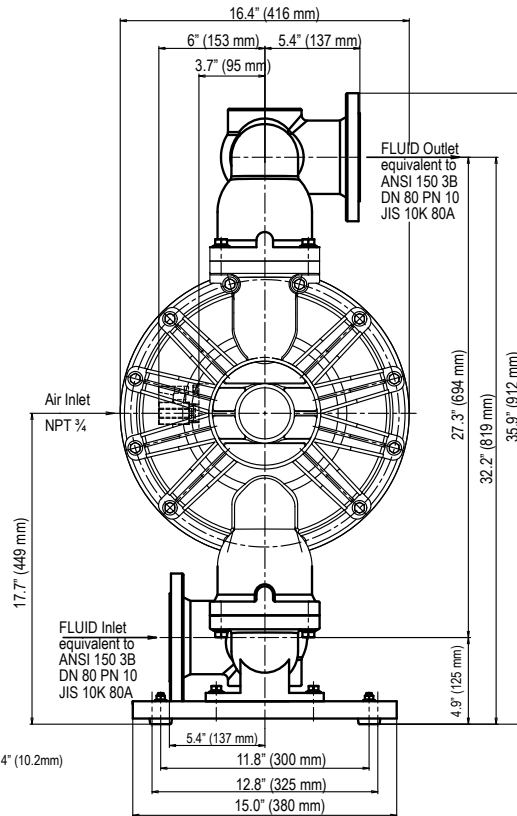
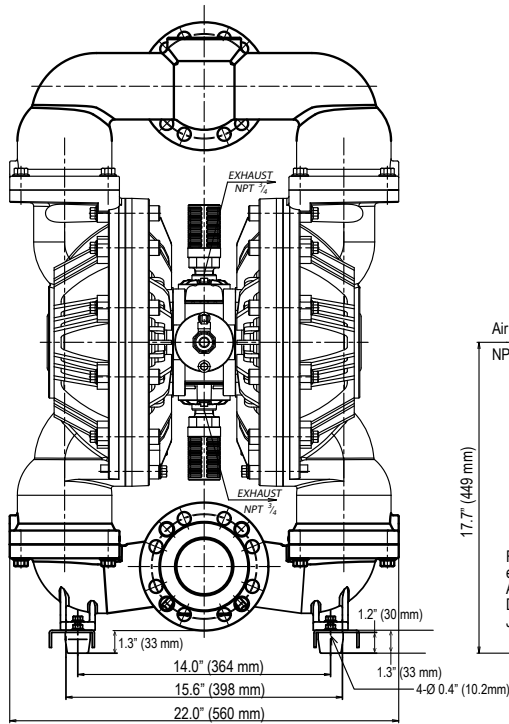
**Pump Body Material (wetted)**  
A: Aluminum (ADC12)    P: PPG  
F: Cast Iron (S45C)  
S: Cast Stainless Steel (SCS14)/SS316

**Diaphragm Material**  
T: PTFE    N: BUNA (NBR)  
H: Hytrel™ (TPEE)    V: Viton® (FKM)  
S: Santoprene® (TPO)    E: EPDM  
C: Neoprene™ (CR)

# Air-Operated Double Diaphragm Pumps

## DIMENSIONS

TC-X800A/F-FL



TC-X800P-FL

