

# Air-Operated Double Diaphragm Pumps



## 2" TC-X500 Series

The TC-X500 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: 190.2 GPM (720 LPM)  
 Maximum Discharge Head: 280 FT. (85m)  
 Available in: Stainless Steel, Aluminum, Polypropylene, PVDF (Kynar®)  
 Spool valve type: Coil Spring Air Spool  
 Certification: CE, ATEX, FDA (SS models)

SPECIFICATIONS						
Material Code*	A"X"(-FLA)	S"X"(-FLA)	F"X"(-FLA)	AT (-FLA)	ST (-FLA)	FT (-FLA)
<b>Max Flow Rate</b>	190.2 GPM (720 LPM)			132.1 GPM (500 LPM)		
<b>Max Air Pressure</b>	125 PSI (0.85 MPa)			100 PSI (0.7 MPa)		
<b>Max Air Consumption</b>	212 scfm (6000 L/min)			177 scfm (5000 L/min)		
<b>Supply Air Pressure Range <sup>1</sup></b>	14-125 PSI (0.1 - 0.85 MPa)			22-100 PSI (0.15 - 0.7 MPa)		
<b>Liquid Discharge Volume per cycle</b>	118 oz (3500 mL)			44 oz (1300 mL)		
<b>Connection Suction x Discharge</b>	NPT 2"					
<b>Weight</b>	77.2 lbs (35 kg)	121.3 lbs (55 kg)		77.2 lbs (35 kg)	121.3 lbs (55 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: 0.31" (8 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)	V"X"(-FLA)	PT (-FLA)	VT (-FLA)
<b>Max Flow Rate</b>	163.8 GPM (620 LPM)		132.1 GPM (500 LPM)	
<b>Max Air Pressure</b>	100 PSI (0.7 MPa)			
<b>Max Air Consumption</b>	141.3 scfm (4000 L/min)		176.6 scfm (5000 L/min)	
<b>Supply Air Pressure Range <sup>1</sup></b>	14-125 PSI (0.1 - 0.85 MPa)		22-100 PSI (0.15 - 0.7 MPa)	
<b>Liquid Discharge Volume per cycle</b>	118 oz (3500 mL)		68 oz (2000 mL)	
<b>Connection Suction x Discharge</b>	ANSI flange 150 lb JIS 10K 50A (DIN 50 PN 10)			
<b>Weight</b>	83.8 lbs (38 kg)	98.1 lbs (44.5 kg)	83.8 lbs (38 kg)	98.1 lbs (44.5 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: 0.31" (8 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)

## 2" TC-X500 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		
VE	PVDF	EPDM	EPDM	PVDF (SCS13*)	
VV		Viton®	Viton®		
VT		PTFE	PTFE		
VH		Hytrel™	BUNA		
VS		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  
PVDF  
PPG  
Santoprene®  
Hytrel™  
EPDM  
\* SCS13

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

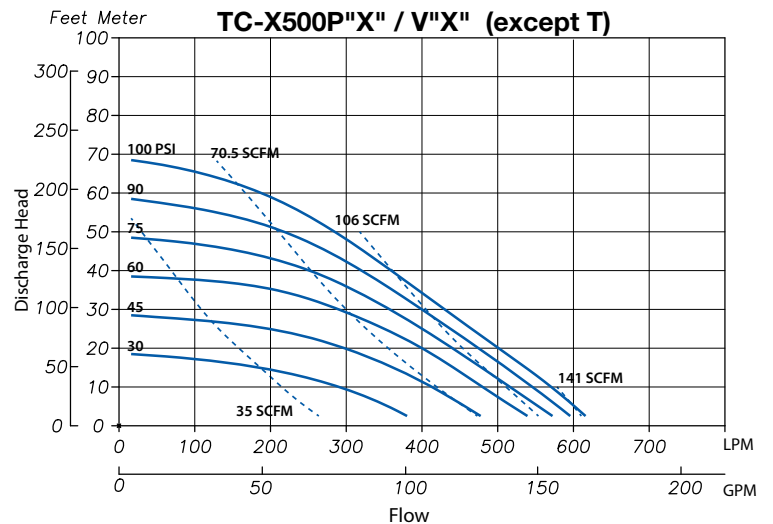
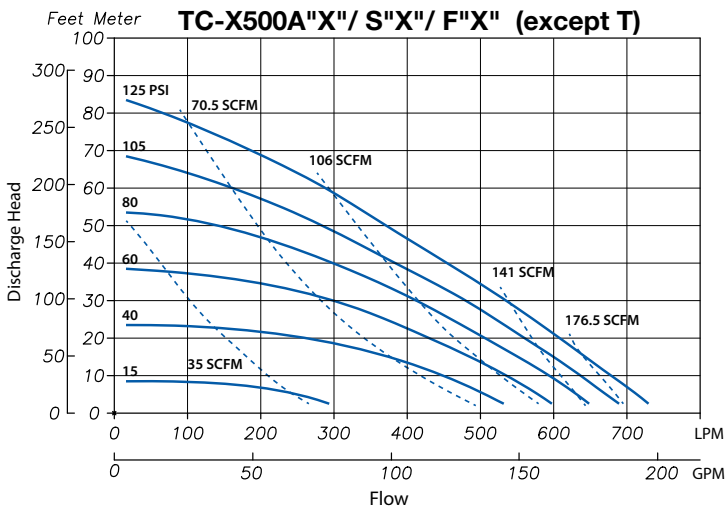
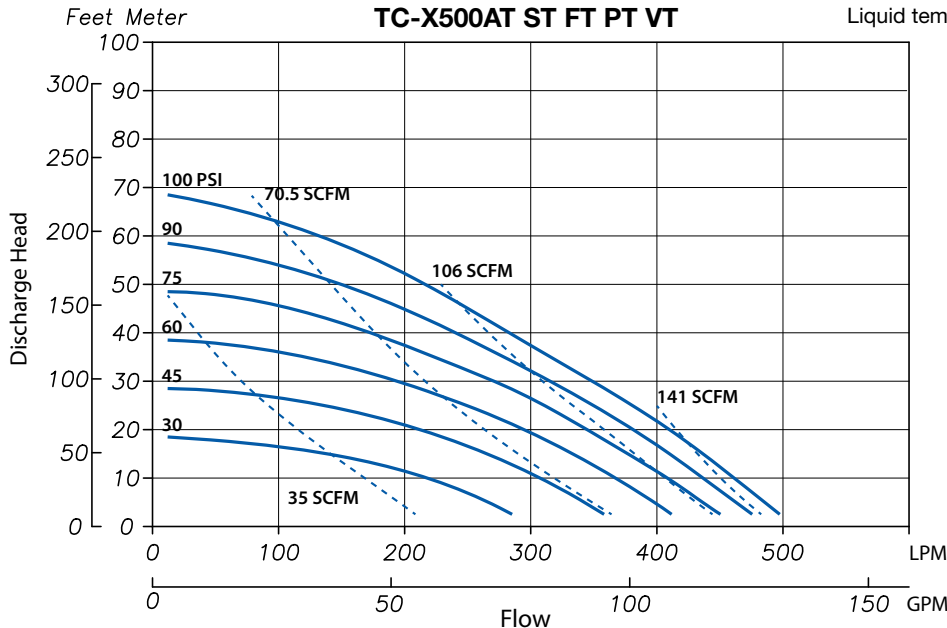
# Air-Operated Double Diaphragm Pumps



## PERFORMANCE CURVES

— Flow  
- - - Air

Conditions:  
4" (10cm) flooded suction.  
Ambient temperature: 73°F (23°C)  
Liquid temperature: 64-68°F (18-20°C)



## MODEL NUMBER NOMENCLATURE

**Series** TC-X

**Pump Connection Size** 500 (2" x 2")

**TC-X 500 P T - NPT - SP50**

**Connection Type**  
NPT: Threaded    FDA: Sanitary Clamp Fittings    FLA: Flange

**Spacers**  
Available to match competitor dimensions

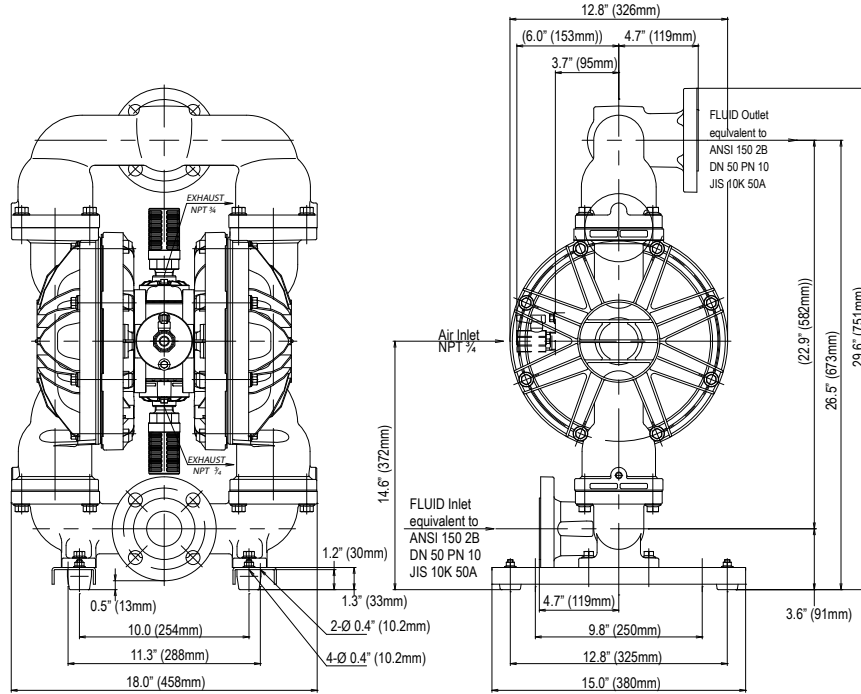
**Pump Body Material (wetted)**  
A: Aluminum (ADC12)    P: PPG  
F: Cast Iron (S45C)    V: PVDF  
S: Cast Stainless Steel (SCS14)/SS316

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

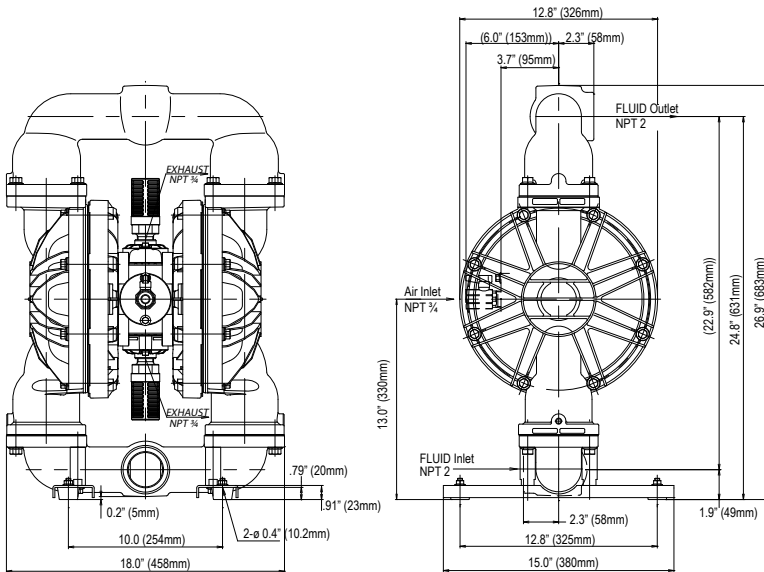
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## DIMENSIONS

TC-X500A/S/F-FL



TC-X500A/S/F-NPT



TC-X500P/V-FL

