

Air-Operated Double Diaphragm Pumps



2" TC-X501 Series

The TC-X501 Series pumps offer excellent flow rates and an upgraded 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 piping.

Maximum Flow Rate: 206.1 GPM (780 LPM)
Maximum Discharge Head: 280 FT. (85m)
Available in: Stainless Steel, Aluminum, Cast Iron, Polypropylene, PVDF
Spool valve type: Looped C® Spring Valve
Certification: CE, ATEX, FDA (SS models)



SPECIFICATIONS						
Metallic Material Code*	A"X"	S"X"	F"X"	AT	ST	FT
Max Flow Rate	206.1 GPM (780 LPM)			153.2 GPM (580 LPM)		
Max Air Pressure	125 PSI (0.85 MPa)			100 PSI (0.7 MPa)		
Max Air Consumption	229.5 scfm (6500 L/min)			211.8 scfm (6000 L/min)		
Supply Air Pressure Range ¹	29 -125 PSI (0.2 - 0.85 MPa)			29 -100 PSI (0.2 - 0.7 MPa)		
Liquid Discharge Volume per cycle	118 oz (3500 mL)			68 oz (2000 mL)		
Connection Suction x Discharge	2" NPT / 2" ANSI flange 150 lb					
Weight (NPT)	75.0 lbs (34 kg)	136.7 lbs (62 kg)		75.0 lbs (34 kg)	136.7 lbs (62 kg)	
Weight (Flange)	79.4 lbs (36 kg)	147.7 lbs (67 kg)		79.4 lbs (36 kg)	147.7 lbs (67 kg)	

* See Chart and Model Number nomenclature on back page for materials
Note 1: A supply air pressure of 30 PSI (0.2 MPa) or more is required to operate the pump. If the supply pressure is less than 30 PSI (0.2 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)

Non-Metallic Material Code*	P"X"	V"X"	PT	VT
Max Flow Rate	166.4 GPM (630 LPM)		153.2 GPM (580 LPM)	
Max Air Pressure	100 PSI (0.7 MPa)			
Max Air Consumption	194.3 scfm (5500 L/min)		211.9 scfm (6000 L/min)	
Supply Air Pressure Range ¹	29-100 PSI (0.2 - 0.7 MPa)			
Liquid Discharge Volume per cycle	118 oz (3500 mL)		68 oz (2000 mL)	
Connection Suction x Discharge	2" ANSI flange 150 lb			
Weight	81.5 lbs (37 kg)	117.9 lbs (53.5 kg)	81.5 lbs (37 kg)	117.9 lbs (53.5 kg)

* See Chart and Model Number nomenclature on back page for materials
Note 1: A supply air pressure of 30 PSI (0.2 MPa) or more is required to operate the pump. If the supply pressure is less than 30 PSI (0.2 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)

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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™	SS400	
FN		BUNA	BUNA		
FE		EPDM	EPDM		
FV		Viton®	Viton®		
FT		PTFE	PTFE		
FH		Hytrel™	BUNA		
FS		Santoprene®	EPDM		
PC	PPG	Neoprene™	Neoprene™ / PP	PPG (SCS13*)	
PN		BUNA	BUNA/ PP		
PE		EPDM	EPDM/ PP		
PV		Viton®	Viton®/ PP		
PT		PTFE	PTFE/ PP		
PH		Hytrel™	BUNA/ PP		
PS		Santoprene®	EPDM/ PP		
VE	PVDF	EPDM	EPDM / PTFE	PVDF (SCS13*)	
VV		Viton®	Viton® / PTFE		
VT		PTFE	PTFE		
VH		Hytrel™	BUNA / PTFE		
VS		Santoprene®	EPDM / PTFE		

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)

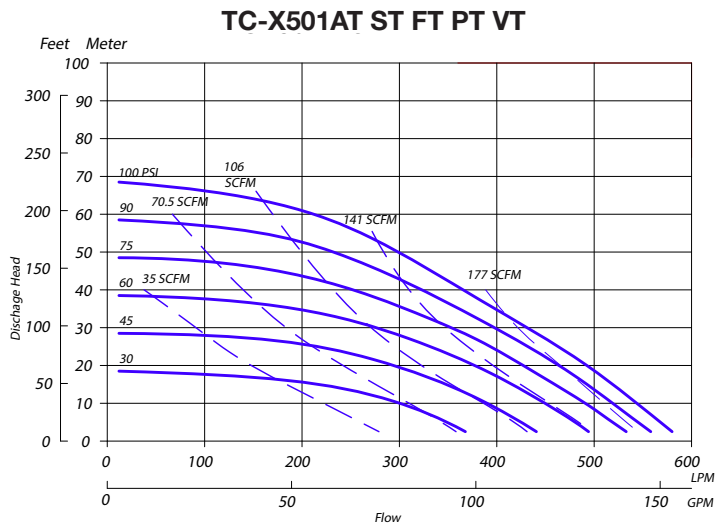
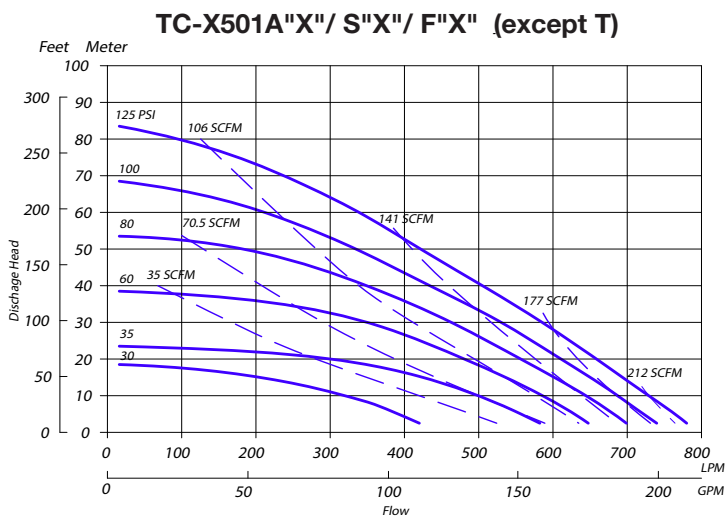
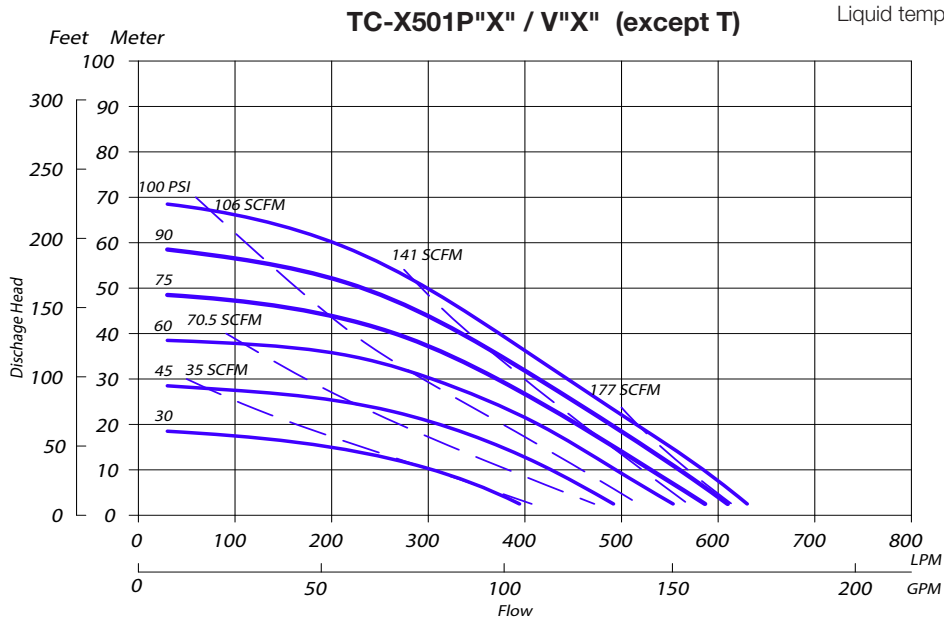
Air-Operated Double Diaphragm Pumps



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: **TC-X** 501 P T - NPT - SP50

Pump Connection Size: 501 (2" x 2")

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

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

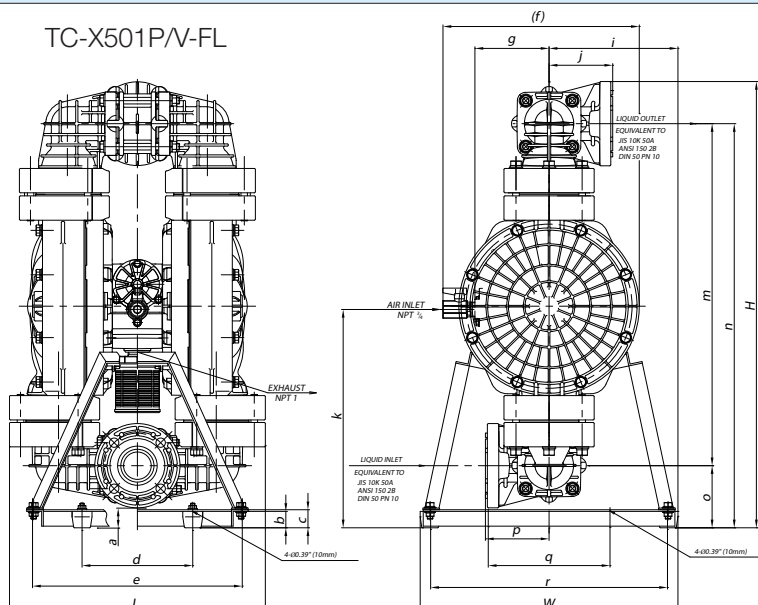
Diaphragm Material:
T: PTFE N: BUNA (NBR)
H: Hytrel™ (TPEE) V: Viton® (FKM)
S: Santoprene® (TPO) E: EPDM
C: Neoprene™ (CR)

Spacers (Consult Factory)
Available to match competitor dimensions

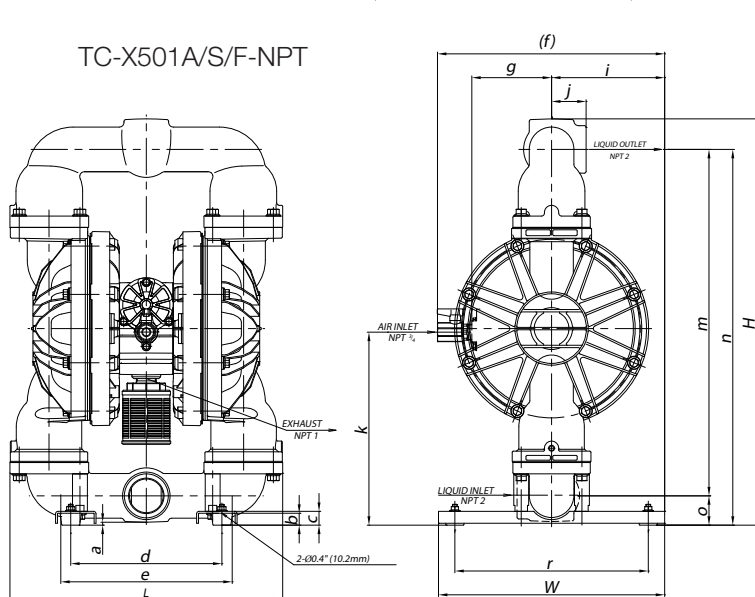
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DIMENSIONS

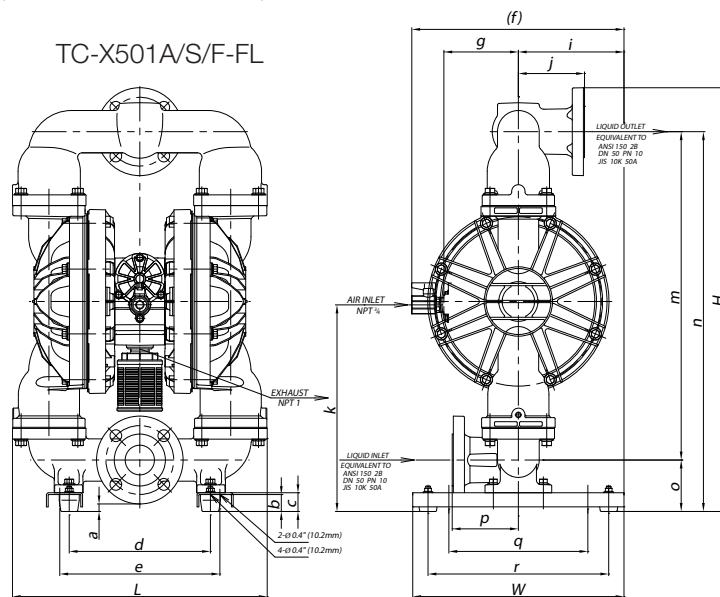
TC-X501P/V-FL



TC-X501A/S/F-NPT



TC-X501A/S/F-FL



MODEL	L	W	H	a	b	c	d	e	f	g	i	j	k	m	n	o	p	q	r
TC-X501-P-FL	18.46 (469)	18.35 (466)	32.20 (818)	1.34 (34)	1.18 (30)	1.30 (33)	7.87 (200)	14.92 (379)	13.98 (355)	5.28 (134)	9.17 (233)	4.61 (117)	15.71 (399)	24.88 (632)	29.25 (743)	4.37 (111)	4.61 (117)	8.66 (220)	16.85 (428)
TC-X501-V-FL	18.19 (462)		32.13 (816)	1.46 (37)								4.53 (115)		24.53 (623)	29.21 (742)	4.69 (119)	4.53 (115)		
TC-X501-A-FL	18.03 (458)	14.96 (380)	29.57 (751)	0.51 (13)	0.79 (20)	0.91 (23)	10.00 (254)	11.34 (288)	15.04 (382)	7.48 (190)	4.69 (119)	14.41 (366)	22.91 (582)	26.50 (673)	3.58 (91)	4.69 (119)	9.84 (250)	12.79 (325)	
TC-X501-F-FL	17.95 (456)																		
TC-X501-S-FL	17.95 (456)																		
TC-X501-A-NPT	18.03 (458)		26.89 (683)	0.20 (5)															
TC-X501-F-NPT	17.95 (456)		26.81 (681)	0.24 (6)								2.28 (58)	12.76 (324)						
TC-X501-S-NPT																24.84 (631)	1.93 (49)		

Note: inches (mm)