



STX Series

Stainless Steel Transport Pumps

Design

Blackmer's STX Series pumps are made from 316 stainless steel with external ball bearings, non-metallic Duravanes, PTFE elastomers, and Blackmer chemical mechanical seals. The pumps feature an adjustable relief valve, weld flanges and are self-priming. The STX3 has a versatile mounting bracket.

Application

Typical applications are solvents, chemicals, sulfates, vegetable oils, urea and many acids.

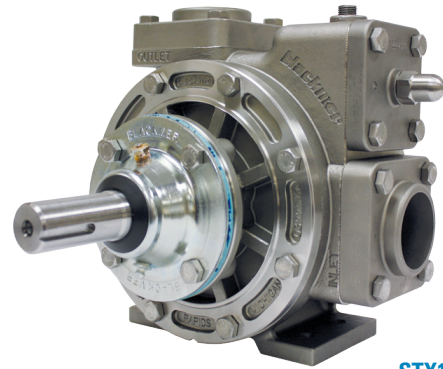
The STX3 offers flow rates up to 250 gpm (946 L/min) with differential pressures up to 125 psi (8.6 bar) and maximum speed of 800 rpm. The STX1220A offers flow rates up to 88 gpm (333 L/min).

Benefit

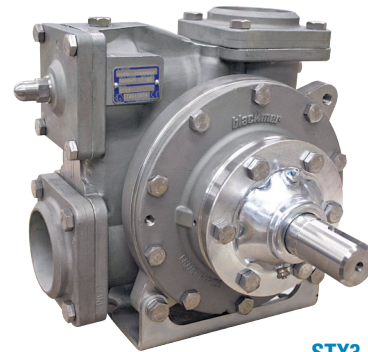
Blackmer's STX3 offers fast fluid off-loading. A typical off-loading of a 6,000 gallon (22,700 liter) tanker can be unloaded as quickly as 24 minutes.

Blackmer's non-metallic vanes self-compensate for wear and allow the STX Series pumps to run dry for short periods of time for self-priming and blowing lines clean, with out pump damage.

The STX Series is designed to offer easy maintenance because the internal wear is limited almost completely to the sliding vanes, which can be replaced with ordinary hand tools.

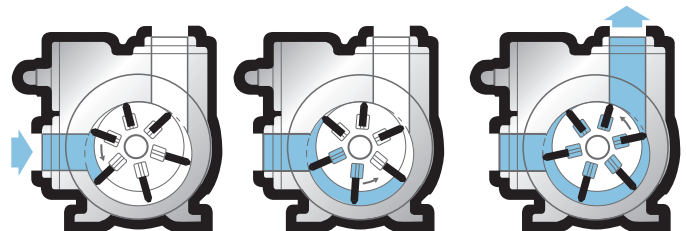


STX1220A



STX3

How Blackmer's sliding vane action works





STX Series Stainless Steel Transport Pumps

Characteristic Flow Rates

Pump Model	Pump Speed	Pump Capacity @ 50 psid (3.45 bar) with 30 ssu (1 cSt) Fluid			Maximum Fluid Viscosity at rpm Shown	
		rpm	US gpm	L/min	m ³ /h	ssu
STX1220A	1,200	88	333	20	100	22
	1,000	72	273	16	100	22
	700	49	185	11	100	22

Pump Model	Pump Speed	Pump Capacity @ 50 psid (3.45 bar) with 100 ssu (22 cSt) Fluid			Maximum Fluid Viscosity at rpm Shown	
		rpm	US gpm	L/min	m ³ /h	ssu
STX3	800	250	946	57	500	105
	600	190	719	43	5,000	1,050
	400	125	473	28	20,000	4,250

Pump Horsepower Requirements

Pump Model	Pump Speed	30 ssu (1 cSt) Viscosity		50 ssu (13 cSt) Viscosity		500 ssu (105 cSt) Viscosity		5,000 ssu (1,050 cSt) Viscosity		10,000 ssu (2,200 cSt) Viscosity		20,000 ssu (4,250 cSt) Viscosity	
		rpm	50 psi (3.45 bar)	100 psi (6.9 bar)	50 psi (3.45 bar)	100 psi (6.9 bar)	50 psi (3.45 bar)	100 psi (6.9 bar)	50 psi (3.45 bar)	100 psi (6.9 bar)	50 psi (3.45 bar)	100 psi (6.9 bar)	50 psi (3.45 bar)
STX1220A	1,200	4.0	6.9	4.2	7.3	—	—	—	—	—	—	—	—
	1,000	3.4	5.6	3.6	6.0	—	—	—	—	—	—	—	—
	700	2.3	3.8	2.4	4.1	—	—	—	—	—	—	—	—
STX3	800	9.5	17.5	9.8	17.9	11.0	19.0	—	—	—	—	—	—
	600	6.7	12.8	6.9	13.2	7.6	13.5	10.0	16.3	—	—	—	—
	400	4.2	8.0	4.3	8.3	4.7	8.5	6.1	10.3	6.9	11.1	8.3	12.4

Refer to Blackmer Characteristic Curves for flow rates and torque requirements for your specific conditions.

Maximum Operating Limits

Pump Model	Nominal Flow Rate			Pump Speed	Viscosity		Differential Pressure		Temperature ¹	
	US gpm	L/min	m ³ /h		rpm	ssu	cSt	psi	bar	°F
STX1220A	92	348	21	1200	100	22	125	8.6	240	115
STX3	250	946	57	800	20,000	4,250	125	8.6	240	115

¹For higher temperature or viscosity conditions, consult factory.

Pump Dimensions

Pump Model	A	B	D	E	G	K	M	Q	S	T	AA	BB	DD		TT	Approx. Weight	
													1/2" HYD Motor Shaft	1" HYD Motor Shaft			
STX1220A	in.	1 1/8	1/4	8	5 1/4	3 1/2	6 1/2	4	8 1/16	6 1/8	3 3/8	8 3/4	8 5/16	10 7/8	10 9/16	12 1/2	70 lbs.
	mm	—	—	203	133	89	165	102	221	156	98	222	211	276	268	308	32 kg

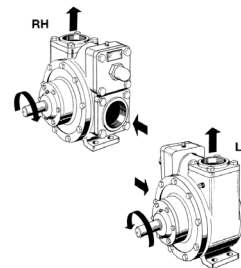
Pump Model	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Approx. Weight	
																STX3
	mm	35	10	54	242	127	283	155	159	133	95	137	203	118	57	60 kg



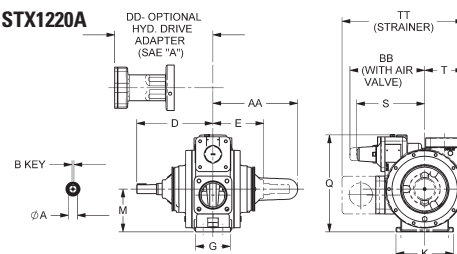
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Pump Rotation

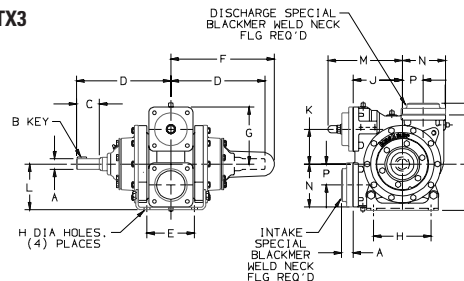
Blackmer's STX pump models are equipped with a double-ended straight-keyed drive shaft for either clockwise (RH) or counterclockwise (LH) rotation.



STX1220A



STX3



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