

Western Pacific Products, Inc.

Anything In Or On Your Tank – Ready to Ship

Over 8,000 Part Numbers – Over 26,000 Square Feet of Warehouse – We Ship Worldwide

SPEC SHEET 203/1
Section 200
Effective December 1999
Replaces August 1999

STX3 Stainless Steel TRANSPORT PUMP

Stainless Steel Construction

Blackmer's STX3 is designed to meet a wide range of corrosive and non-corrosive fluids for common carriers. Standard construction: 316 stainless steel with external ball bearings, non-metallic Duravanes, Teflon® elastomers, Blackmer chemical mechanical seals. See Typical Applications List.

Fast Off-Loading

The STX3 offers flow rates up to 250 GPM (946 LPM) with differential pressures up to 125 PSI (8.6 bar or 862 kPa) and maximum speed of 800 RPM. A typical 6,000 gallon (22,700 liter) tanker can be off-loaded as quick as 24 minutes.

Dry Run Capability

Blackmer's non-metallic vanes self-compensate for wear and allow the STX3 to run dry for short periods of time for self-priming and blowing lines clean, without pump damage.

Easy Maintenance

Internal wear is limited almost completely to the sliding-vanes, which can be replaced with ordinary metric hand tools.



Typical applications:

- Solvents
- Chemicals
- Chlorides
- Sulfates
- Vegetable oils
- Urea
- Many acids

Unique Features:

- 316 Stainless Steel
- Self-Priming
- Line Clearing
- Ball Bearing Construction
- Chemical Mechanical Seals
- Adjustable Relief Valve
- Versatile Mounting Bracket

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CHARACTERISTIC FLOW RATES

PUMP SPEED	Pump Capacity @ 3.45 bar (50 psid) with 22 cSt (100 SSU) Fluid			Maximum Fluid Viscosity at RPM Shown	
	RPM	LPM	m3/h	US GPM	cSt
800	946	56	250	105	500
700	832	50	220	105	500
600	719	43	190	1,050	5,000
500	567	34	150	2,200	10,000
400	473	28	125	4,250	20,000

APPLICATION ASSISTANCE

In some applications, selecting the right pump may require more detailed information than can be presented in this Spec Sheet. Blackmer has a worldwide distribution network to assist in specifying the proper pump for your application.

Please contact Blackmer's Application Group at the telephone or fax number listed below for the name of your nearest Blackmer distributor.

PUMP HORSEPOWER REQUIREMENTS

PUMP SPEED	13 cSt (50SSU) Viscosity		105 cSt (500 SSU) Viscosity		1050 cSt (5000 SSU) Viscosity		2200 cSt (10,000 SSU) Viscosity		4250 cSt (20,000 SSU) Viscosity	
	3.45 bar (50 PSI)	6.9 bar (100 PSI)	3.45 bar (50 PSI)	6.9 bar (100 PSI)	3.45 bar (50 PSI)	6.9 bar (100 PSI)	3.45 bar (350 PSI)	6.9 bar (100 PSI)	3.45 bar (50 PSI)	6.9 bar (100 PSI)
800	9.8	17.9	11.0	19.0	—	—	—	—	—	—
700	8.2	15.3	9.2	16.1	—	—	—	—	—	—
600	6.9	13.2	7.6	13.5	10.0	16.3	—	—	—	—
500	5.5	10.6	6.1	11.0	8.0	13.2	9.1	14.3	—	—
400	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.

OPTIONS

• **Hydraulic drive packages:** fully integrated, factory engineered hydraulic drive packages custom matched to the application, along with Blackmer's Hydrive cooler/controller are also available.

MAXIMUM OPERATING LIMITS

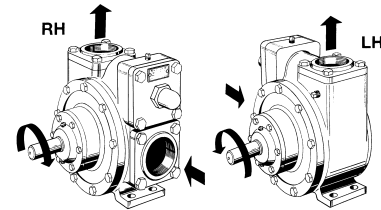
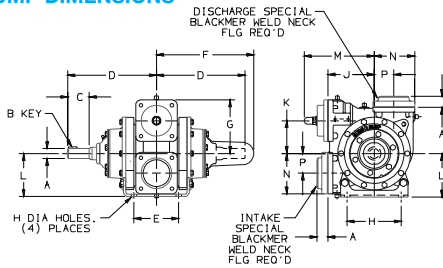
NOMINAL FLOW RATE			PUMP SPEED	VISCOSITY		DIFFERENTIAL PRESSURE		TEMPERATURE ¹	
LPM	m3/h	US GPM		RPM	cSt	SSU	bar	PSI	°C
946	56	250	800	4,250	20,000	8.6	125	115	240

¹ For higher temperature or viscosity conditions, consult factory.

PUMP ROTATION

Blackmer STX3 pump models are equipped with a double-ended straight-keyed drive shaft for either clockwise (RH) or counterclockwise (LH) rotation.

PUMP DIMENSIONS



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	156	150	149	95	137	203	118	57	60 kgs
	IN	1 3/8	5/16	2 1/8	9 1/2	5	11 1/8	6 1/8	6 1/4	5 1/4	3 3/4	5 3/8	8	4 5/8	2 1/4	132 lbs

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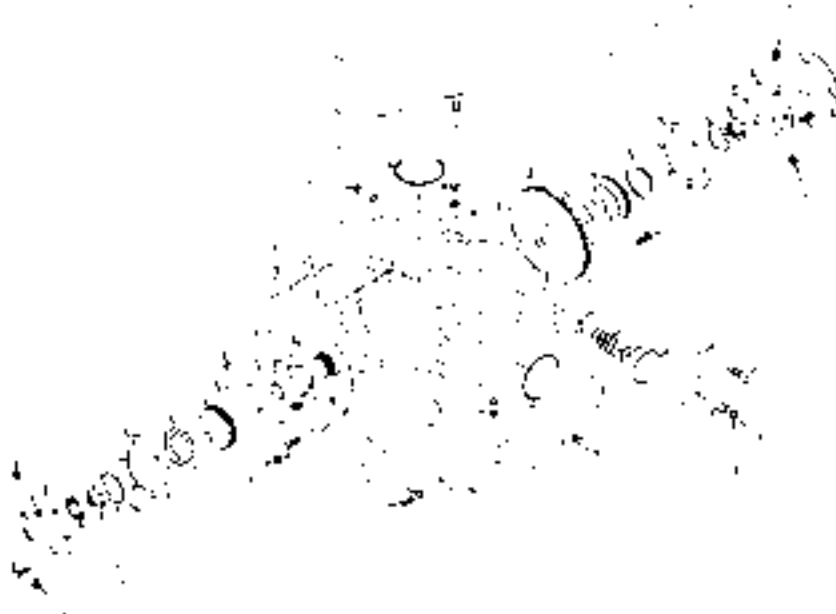
BLACKMER PARTS LIST

MODEL: STX3

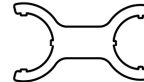
(See Instructions 288/H for Installation, Operation and Maintenance)

961822 **PARTS LIST**
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Section	203
Effective	June 2002
Replaces	Jan 2002



LOCKNUT TOOL



REF. NO.	DESCRIPTION	PARTS PER PUMP	PART NO.	REF. NO.	DESCRIPTION	PARTS PER PUMP	PART NO.
1	Cap – Relief Valve (R/V)	1	413151	28	Capscrew – Bearing Cover	12	924031
2	Adjusting Screw – R/V	1	433101	30	Capscrew – Foot Bracket	4	924071
4	Cover – R/V	1	415301	30A	Lockwasher – Bracket (12 mm STS)	4	909586
5	Capscrew – R/V Cover	4	924036	32	Mounting Bracket	1	832225
7	Spring Guide – R/V	1	423101	35	Key – Shaft (10mm Metric)	1	909146
8	Spring – R/V (51- 75 psi)	1	471632		Key – Shaft (5/16" Domestic)		909206
	Spring – R/V (76 –110 psi)		471632	42	Flange – 3" Weld	2	652201
	Spring – R/V (111-125 psi)		471615	42A	O-Ring – Flange	2	702101
9	Valve – R/V	1	455301	42B	Capscrew – Flange	8	924071
10	O-Ring – R/V Cover	1	702079	72	O-Ring – Head	2	702233
12	Cylinder	1	022225	73	Plug – ¼" BSP	3	908199
13	Rotor & Shaft	1	262225	73A	Pipe Plug – ¼" NPT Socket Head	2	908192
14	Vane – Duravane	6	094500	73B	Plug – Weep Hole	4	340000
20	Head	2	032225	76	Grease Fitting	2	317815
21	Capscrew – Head	20	924036	76A	Grease Relief Fitting	2	701992
24	Bearing	2	903172	77	Push Rod	3	122225
24A	Locknut w/setscrew	2	903582	88	Seal Ring – R/V Cap	1	533101
24B	Lockwasher	2	903524	104	Oil Seal	2	331908
24C	Setscrew – Locknut	2	924060	153	Mechanical Seal	2	332260
26	Gasket – Bearing Cover	2	381817	186	Shaft Protector	1	341801
27	Bearing Cover	0 – 1	042225		Tool – Locknut		903091

Keep this parts list with Installation, Operation, and Maintenance Instructions. Viton and Teflon are Registered Trademarks of E.I. DuPont.

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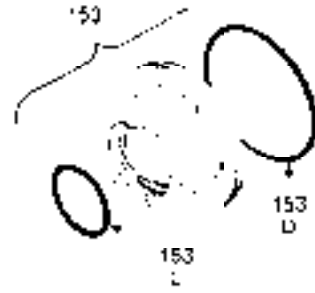
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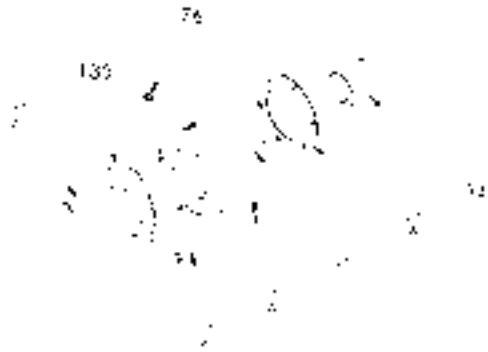
MECHANICAL SEAL

REF. NO.	DESCRIPTION	PARTS PER PUMP	PART NO.
153	Mechanical Seal Complete – Silicon Carbide Stationary Seat, Teflon O-Ring, Custom Carbon Rotating Seal Face with Teflon Seal Ring (LACT)	2	332260
153D	O-Ring – Stationary (Teflon)	2	702080
153L	Seal Ring – Teflon	2	**



OPTIONAL HYDRAULIC MOTOR ADAPTER PARTS

REF. NO.	PART NAME	PARTS PER PUMP	PART NO.
See Below	Hydraulic Motor Adapter Kit	See Below	892228
26A	Gasket – Hydraulic Motor Adapter	1	381817
28A	Capscrew – Hydraulic Motor Adapter / head	6	924037
34	Coupling w/ Setscrew	1	906969
35	Key - Coupling	1	909184
76	Grease Fitting	1	317815
76A	Grease Relief Fitting	1	701992
135	Hydraulic Motor Adapter	1	041829
135A	Capscrew – Adapter / Motor	2	920510



* Hydraulic Motor Adapter Kits shipped prior to Spring 2002 were of a two piece design – refer to page 206-A09.

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