

ROTATING RIGHT

NATIONAL OILWELL 50T-3 TECHNICAL DATA SHEET

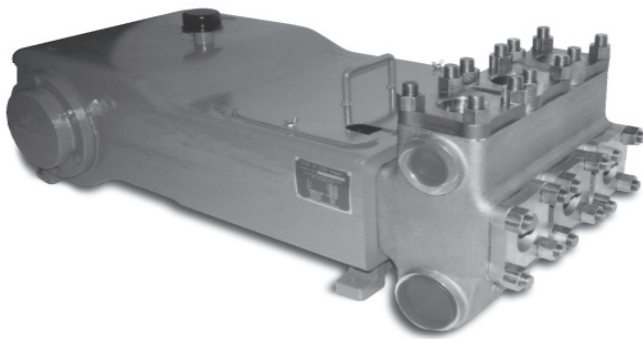


NATIONAL OILWELL

Triplex Plunger Pump

50T-3

Rated input horsepower
"T" Triplex
Stroke length (in.)



This 3" stroke pump is designed for a variety of fluid transfer applications.

Field Connections in. (mm)

Pump Model	Discharge Connection Size	Suction Connection Size
50T-3	1-1/4 (31.8) FNP Threaded.	2 (50.8) FNP Threaded.

Dimensions

Pump Type	Length	Width	Height
50T-3	39-1/2"	24-1/2"	14"

Pump Specifications

Pump Size (Max. Plunger Diameter x Stroke) in. (mm)2 x 3 (50.8 x 76.2)
 Rated BHP At 450 RPM (Kw)50 (37.5)
 Rated Plunger Load, pounds (Kg).....4,400 (2002)

Maximum Working Pressure: PSI (kPa)3,594 (24,727)

Crankshaft Extension: in. (mm)2.5 (63.5)

Weight: - Lbs. (Kg)

Pump Only On Wood Shipping Skids.....900 (405)

Standard Equipment

- Aluminum Bronze Fluid End
- Aluminum Bronze Valve Covers
- Aluminum Bronze Stuffing Boxes & Nuts
- Bronze Stuffing Box Internals
- Ceramic or Metal Plungers
- General Service Plunger Packing
- Stainless Steel Intermediate Rods
- Chamber Cover
- Crankcase Breather

Optional Equipment

- Alternate Fluid End Materials
- Alternate Fluid End Valve Styles
- Custom Designs For Specialized Applications

Accessories

- Packing Lubricator
- Pulsation Dampeners
- Relief Valves
- Valve Service Kit
- Complete Unitization Services

Continuous Duty Performance Data (Volumes Indicated Are Displacement of Incompressible Fluid)

English Units

Plunger Dia. In.	Plunger Area (Sq. In.)	BPD Per RPM	GPM Per RPM	Max. Press. PSI	100 RPM		150 RPM		200 RPM		250 RPM		300 RPM		350 RPM		400 RPM		450 RPM	
					BPD	GPM	BPD	GPM	BPD	GPM	BPD	GPM	BPD	GPM	BPD	GPM	BPD	GPM	BPD	GPM
50T-3																				
1 1/4	1.2272	1.6400	0.0478	3594	164	4.78	246	7.17	328	9.56	410	11.95	492	14.34	574	16.73	656	19.13	738	21.52
1 1/2	1.7672	2.3616	0.0689	2496	236	6.89	354	10.33	472	13.77	590	17.21	708	20.66	827	24.10	945	27.54	1063	30.98
1 3/4	2.4053	3.2143	0.0937	1833	321	9.37	482	14.06	643	18.74	804	23.43	964	28.11	1125	32.80	1286	37.49	1446	42.17
2	3.1416	4.1983	0.1224	1404	420	12.24	630	18.36	840	24.48	1050	30.60	1259	36.72	1469	42.84	1679	48.96	1889	55.08
Brake Horsepower Required:					11		17		22		28		33		39		44		50	

Metric Units

Plunger Dia. mm	Plunger Area Sq. cm.	M ³ /D Per RPM	L/Min. Per RPM	Max. Press. kPa	100RPM		150 RPM		200 RPM		250 RPM		300 RPM		350 RPM		400 RPM		450 RPM	
					M ³ /D	L/Min.	M ³ /D	L/Min.	M ³ /D	L/Min.	M ³ /D	L/Min.	M ³ /D	GPM	M ³ /D	L/Min.	M ³ /D	L/Min.	M ³ /D	L/Min.
50T-3																				
32	7.9174	0.2607	0.1810	"24,780"	26	18.10	39	27.15	52	36.19	65	45.24	78	54.29	91	63.34	104	72.39	117	81.44
38	11.4010	0.3755	0.2606	"17,209"	38	26.06	56	39.09	75	52.12	94	65.15	113	78.18	131	91.21	150	104.24	169	117.27
44	15.5180	0.5110	0.3547	"12,638"	51	35.47	77	53.21	102	70.94	128	88.68	153	106.41	179	124.15	204	141.88	230	159.62
51	20.2684	0.6675	0.4633	"9,680"	67	46.33	100	69.49	133	92.66	167	115.82	200	138.99	234	162.15	267	185.31	300	208.48
Kilowatts Required:					8.2		12.7		16.4		20.9		24.6		29.0		32.8		37.3	

Volume is based on 100% volumetric efficiency. Brake horsepower is based on 90% mechanical efficiency



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