

ROTATING RIGHT

## MODEL 622T-8 SINGLE ACTING TRIPLEX PUMP



### 622T-8

A 622 horsepower 8" stroke horizontal triplex single acting plunger pump. Available in three fluid end materials at pump speeds up to 260 RPM and two accessory gear reduction unit ratios.

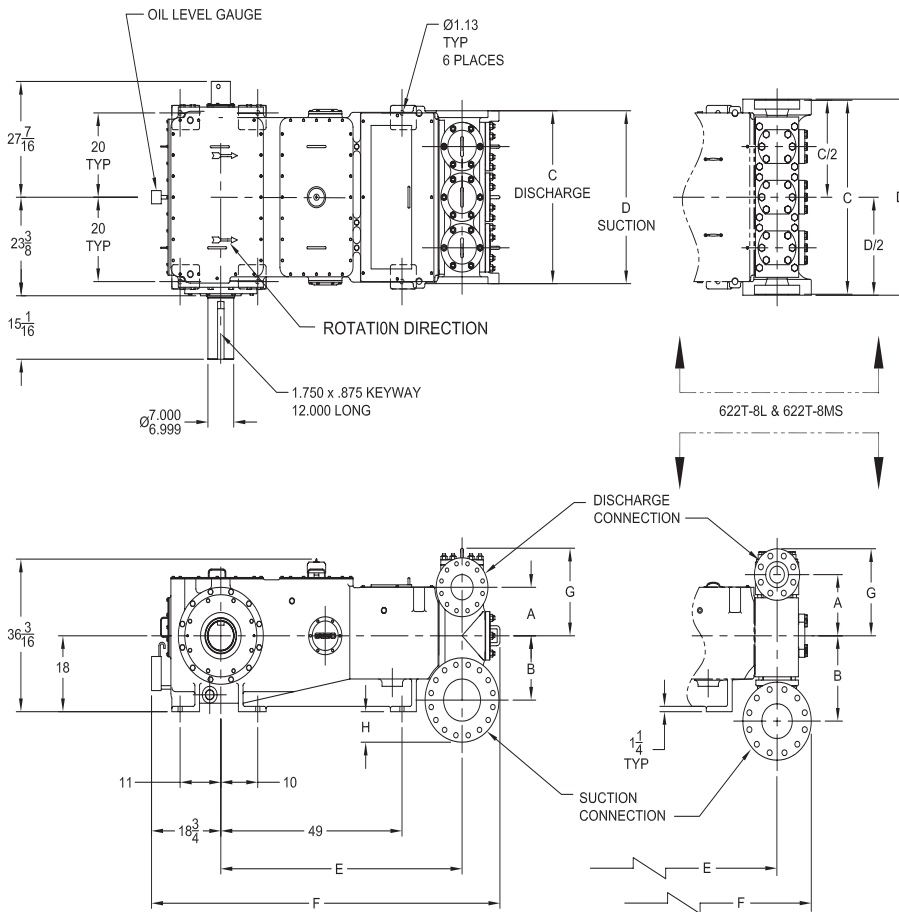
#### Power End Features

- Cast iron power frame
- Forged Steel Crankshaft
- Heavy-duty, tapered roller crankshaft bearings
- Precision type, aluminum alloy crankpin bearings
- Ductile iron connecting rods
- Alloy steel crosshead pins
- Bronze bearing crosshead pin bushings
- Cast iron crossheads with upper/lower oil grooves
- Stainless Steel Extension Rods
- Pressure lubricated power end
- Rated rod load is 35500 lbs.

#### Fluid End Features

- Bolted Type Valve Covers
- Removable Stuffing Boxes & Glands
- Plungers - Solid Ceramic, or Tungsten Coated
- General service plunger packing

# 622T-8 Triplex Plunger Pump



## Specifications

### Pump Size:

maximum plunger size x stroke length, in.(mm):  
7.000 x 8.000 (177.8 x 203.2)

**Rated BHP (kW) at 260 RPM:** 622 (464)

**Rated plunger load, pounds (kg):** 35500(16103)

**Maximum discharge pressure:** psi (kPa)

"XL" model: 1640 (11307)

"L" model: 2220 (15307)

"M" model: 3705 (25546)

"MS" model: 6170 (42542)

### Crankshaft extension:

Diameter, in.(mm): 7.000 (177.8)

Length, in.(mm): 12.000 (304.8)

Keyway: width x depth, in.(mm):

1  $\frac{3}{4}$  x  $\frac{7}{8}$  (44.45 x 22.22)

Maximum recommended sheave diameter,  
in.(mm): 71 (1803.4)

For larger sizes: **Contact Factory**

### Pinion shaft extension,

if gear reducer is supplied, in.(mm)

For belt or chain drive:

#### Contact Factory

For direct drive: Diameter: 3.000 (76.2)

Length: 4  $\frac{1}{2}$  (114.3)

Keyway (width x depth):

$\frac{3}{4}$  x  $\frac{3}{8}$  (19.2 x 9.5)

**Accessory gear reduction unit:** 4.433, 6.762

**Oil Capacity, gallons (L)**

Crankcase: 48 (181.7)

Gear Reducer - varies with ratio: 7 (26.5)

**Weight, pump only on**

wood shipping skids, pounds (kg) 11125 (5046.3)

Weight varies with pump model

### Standard Materials for Fluid Ends:

"XL" model

Cast Nickel-Aluminum-Bronze

Cast Carbon Steel

Cast Duplex Stainless Steel

"L" & "M" models

Forged Nickel-Aluminum-Bronze

Forged & Plate Carbon Steel

"MS" model

Forged Nickel-Aluminum-Bronze

Forged Carbon Steel

Pump Model	Flange Connections		Dimensions (Inches)							
	Discharge Connection Sizes	Suction Connection Sizes	A	B	C	D	E	F	G	H
622T-8XL	6 (152.4)-ANSI 600 FF	10 (254)-ANSI 600 FF	11 1/2	15 1/4	41	41	62 1/4	94 1/4	20 3/4	7 1/4
622T-8L	4 (101.6)-ANSI 1500 RF	8 (203.2)-ANSI 900 FF	14 1/2	20 1/4	46 1/2	46 1/2	65	93	20 5/8	11 1/2
622T-8MS	3 (76.2)-ANSI 2500 RTJ	6 (152.4)-ANSI 1500 RF	7 15/16	9 1/2	39	51 1/2	65	93	17 3/16	-3/4

# 622T-8 Triplex Plunger Pump

## Performance Data

PUMP	English Units					100 RPM		150 RPM		175 RPM		200 RPM		225 RPM		260 RPM	
	Plunger Dia. In.	Plunger Area Sq. In.	BPD per RPM	GPM per RPM	Max. Press. PSI	BPD	GPM	BPD	GPM	BPD	GPM	BPD	GPM	BPD	GPM	BPD	GPM
622T-8XL (T600-7)	7.000	38.4845	137.0875	3.9984	922	13709	399.8	20564	599.8	23991	699.7	27418	799.7	30845	899.6	35643	1039.6
	6.750	35.7847	127.4704	3.7179	992	12748	371.8	19121	557.7	22308	650.6	25495	743.6	28681	836.5	33143	966.7
	6.500	33.1830	118.2030	3.4476	1070	11821	344.8	17731	517.1	20686	603.3	23641	689.5	26596	775.7	30733	896.4
	6.250	30.6796	109.2853	3.1875	1157	10929	318.7	16393	478.1	19125	557.8	21858	637.5	24590	717.2	28415	828.7
	6.000	28.2743	100.7174	2.9376	1256	10072	293.8	15108	440.6	17626	514.1	20144	587.5	22662	661.0	26187	763.8
	5.750	25.9672	92.4991	2.6979	1367	9250	269.8	13875	404.7	16188	472.1	18500	539.6	20813	607.0	24050	701.5
	5.500	23.7583	84.6306	2.4684	1494	8464	246.8	12695	370.3	14811	432.0	16927	493.7	19042	555.4	22004	641.8
5.250	21.6475	77.1117	2.2491	1640	7712	224.9	11567	337.4	13495	393.6	15423	449.8	17351	506.0	20050	584.8	
622T-8L (T600-5)	5.000	19.6349	69.9426	2.0400	1808	6995	204.0	10492	306.0	12240	357.0	13989	408.0	15738	459.0	18186	530.4
	4.750	17.7205	63.1232	1.8411	2003	6313	184.1	9469	276.2	11047	322.2	12625	368.2	14203	414.2	16413	478.7
	4.500	15.9043	56.6535	1.6524	2220	5666	165.2	8499	247.9	9915	289.2	11331	330.5	12748	371.8	14730	429.6
	4.250	14.1862	50.5335	1.4739	2220	5054	147.4	7581	221.1	8844	257.9	10107	294.8	11371	331.6	13139	383.2
622T-8M (T600-4)	4.000	12.5664	44.7633	1.3056	2825	4477	130.6	6715	195.8	7834	228.5	8953	261.1	10072	293.8	11639	339.5
	3.750	11.0447	39.3427	1.1475	3214	3935	114.7	5902	172.1	6885	200.8	7869	229.5	8853	258.2	10230	298.3
	3.500	9.6211	34.2719	0.9996	3690	3428	100.0	5141	149.9	5998	174.9	6855	199.9	7712	224.9	8911	259.9
	3.250	8.2958	29.5508	0.8619	3705	2956	86.2	4433	129.3	5172	150.8	5911	172.4	6649	193.9	7684	224.1
622T-8MS (T600-3)	3.000	7.0686	25.1793	0.7344	5022	2518	73.4	3777	110.2	4407	128.5	5036	146.9	5666	165.2	6547	190.9
	2.750	5.9396	21.1576	0.6171	5977	2116	61.7	3174	92.6	3703	108.0	4232	123.4	4761	138.8	5501	160.4
	2.500	4.9087	17.4857	0.5100	6170	1749	51.0	2623	76.5	3060	89.2	3498	102.0	3935	114.7	4547	132.6
Brake Horsepower Required						240		359		419		478		538		622	

PUMP	Metric Units					100 RPM		150 RPM		175 RPM		200 RPM		225 RPM		260 RPM	
	Plunger Dia. mm	Plunger Area cm <sup>2</sup>	M <sup>3</sup> /Hr per RPM	L/Sec. per RPM	Max. Press. kPa	M <sup>3</sup> /Hr	L/Sec.	M <sup>3</sup> /Hr	L/Sec.	M <sup>3</sup> /Hr	L/Sec.	M <sup>3</sup> /Hr	L/Sec.	M <sup>3</sup> /Hr	L/Sec.	M <sup>3</sup> /Hr	L/Sec.
622T-8XL (T600-7)	178	248.286	0.9080	0.2523	6360	90.8	25.2	136.2	37.8	158.9	44.1	181.6	50.5	204.3	56.8	236.1	65.6
	171	230.868	0.8443	0.2346	6840	84.4	23.5	126.6	35.2	147.8	41.0	168.9	46.9	190.0	52.8	219.5	61.0
	165	214.084	0.7829	0.2175	7376	78.3	21.8	117.4	32.6	137.0	38.1	156.6	43.5	176.2	48.9	203.6	56.6
	159	197.932	0.7239	0.2011	7978	72.4	20.1	108.6	30.2	126.7	35.2	144.8	40.2	162.9	45.2	188.2	52.3
	152	182.415	0.6671	0.1853	8657	66.7	18.5	100.1	27.8	116.7	32.4	133.4	37.1	150.1	41.7	173.5	48.2
	146	167.530	0.6127	0.1702	9426	61.3	17.0	91.9	25.5	107.2	29.8	122.5	34.0	137.9	38.3	159.3	44.3
	140	153.279	0.5606	0.1557	10302	56.1	15.6	84.1	23.4	98.1	27.3	112.1	31.1	126.1	35.0	145.7	40.5
133	139.661	0.5108	0.1419	11307	51.1	14.2	76.6	21.3	89.4	24.8	102.2	28.4	114.9	31.9	132.8	36.9	
622T-8L (T600-5)	127	126.677	0.4633	0.1287	12466	46.3	12.9	69.5	19.3	81.1	22.5	92.7	25.7	104.2	29.0	120.5	33.5
	121	114.326	0.4181	0.1162	13813	41.8	11.6	62.7	17.4	73.2	20.3	83.6	23.2	94.1	26.1	108.7	30.2
	114	102.608	0.3753	0.1042	15307	37.5	10.4	56.3	15.6	65.7	18.2	75.1	20.8	84.4	23.5	97.6	27.1
	108	91.524	0.3347	0.0930	15307	33.5	9.3	50.2	13.9	58.6	16.3	66.9	18.6	75.3	20.9	87.0	24.2
622T-8M (T600-4)	102	81.073	0.2965	0.0824	19478	29.7	8.2	44.5	12.4	51.9	14.4	59.3	16.5	66.7	18.5	77.1	21.4
	95	71.256	0.2606	0.0724	22161	26.1	7.2	39.1	10.9	45.6	12.7	52.1	14.5	58.6	16.3	67.8	18.8
	89	62.072	0.2270	0.0631	25440	22.7	6.3	34.1	9.5	39.7	11.0	45.4	12.6	51.1	14.2	59.0	16.4
83	53.521	0.1957	0.0544	25546	19.6	5.4	29.4	8.2	34.3	9.5	39.1	10.9	44.0	12.2	50.9	14.1	
622T-8MS (T600-3)	76	45.604	0.1668	0.0463	34627	16.7	4.6	25.0	6.9	29.2	8.1	33.4	9.3	37.5	10.4	43.4	12.0
	70	38.320	0.1401	0.0389	41209	14.0	3.9	21.0	5.8	24.5	6.8	28.0	7.8	31.5	8.8	36.4	10.1
	64	31.669	0.1158	0.0322	42542	11.6	3.2	17.4	4.8	20.3	5.6	23.2	6.4	26.1	7.2	30.1	8.4
Kilowatts Required						179		268		312		357		401		464	

For operation below 100 RPM, an auxiliary lubrication system is required.

Volumetric Rate is based on 100% Volumetric Efficiency. Brake Horsepower/Kilowatts Required is based on 90% Mechanical Efficiency.

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## Accessories

Rotating Right offers a full line of accessories to ensure long trouble free and safe operation of your multiplex pumps.

### Accessories Include:

- Pulsation Dampeners - Suction & Discharge
- Vibration Shock Switches
- Liquid Level Gauges & Switches
- Pressure Safety Valves
- Plunger Lubricators
- Fire Safety Valves
- High Discharge Pressure Switch
- Condensate Drain
- N.A.C.E. Valving
- Lubricator Level Controller
- API Valves
- Drive Options



## Expendables



With our worldwide buying power Rotating Right is well equipped to provide a wide range of replacement parts & expendables for virtually all multiplex plunger pumps regardless of make or model.

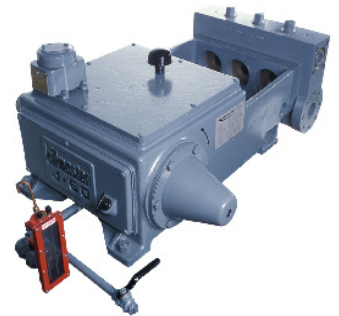


Our expendables inventory includes plungers, packing, brass, valves, bearings, crankshafts, connecting rods and seals.



## Repair & Overhauls

Rotating Right service technicians follow strict quality control procedures for every pump repair and overhaul. The use of consistent and reliable re-manufacturing techniques ensure your equipment is returned to you in "Like New" condition.



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