

# 59T-3 Triplex Plunger Pump

## Specifications

### Pump Size:

maximum plunger size x stroke length, in.(mm):  
3.00 x 3.500 (76.2 x 88.9)

**Rated BHP (kW) at 420 RPM:** 59 (44)

**Rated plunger load, pounds (kg):** 4760 (2159)

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

"L" model: 970 (6686)

"M" model: 2295 (15825)

"MS" model: 4789 (33017)

"H" model: 10000 (68948)

### Crankshaft extension:

Diameter, in.(mm): 2.500 (63.5)

Length, in (mm): 4.13 (104.9)

Keyway width x depth, in.(mm):

5/8 x 5/16 (15.88 x 7.94)

Maximum recommended sheave diameter, in.(mm): 38 (965.2)

For larger sizes: **Contact Factory**

### Pinion shaft extension,

if gear reducer is supplied, in.(mm)

For belt or chain drive: **N/A**

For direct drive: Diameter: 2.000 (50.8)

Length: 4.250 (108.0)

Keyway width x depth:

1/2 x 1/4 (12.70 x 6.35)

### Accessory gear reduction unit:

3.00:1, 3.12:1, 3.23:1, 3.36:1, 3.49:1,

3.62:1, 3.78:1, 3.94:1, 4.11:1, 4.29:1,

4.48:1, 4.69:1, 4.93:1, 5.17:1

### Oil Capacity, gallons (L)

Crankcase: 2.50 (9.46)

Gear Reducer - varies with ratio:

1.25 to 1.50 (4.73 to 5.68)

### Weight, pump only on

wood shipping skids, pounds (kg)

"L" model: 1100 (499)

"M" model: 980 (445)

"MS" model: 1080 (490)

"H" model: 1035 (469)

### Standard Materials For Fluid End Bodies

"L" model

Cast Ductile Iron

Forged/Plate Carbon Steel

Cast Nickel-Aluminum-Bronze

Cast Duplex Stainless Steel

"M" model

Cast Ductile Iron

Cast/Forged/Plate Carbon Steel

Cast Nickel-Aluminum-Bronze

Cast Duplex Stainless Steel

"MS" model

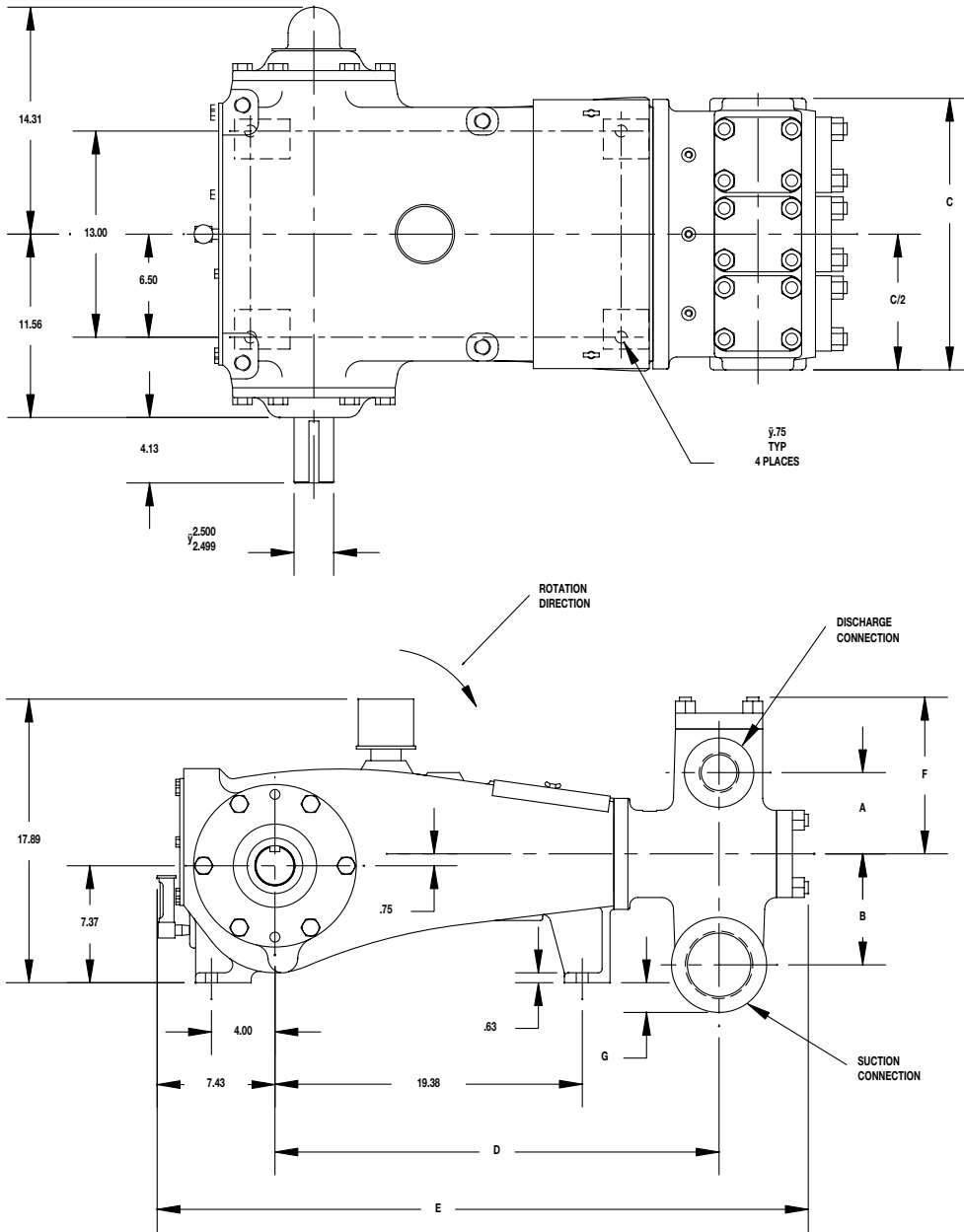
Forged Nickel-Aluminum-Bronze

Forged 316 Stainless Steel

Forged/Plate Carbon Steel

"H" model

Forged 15-5 Stainless Steel



Pump Model	Flange Connections		Dimensions (Inches)						
	Discharge Connection Sizes	Suction Connection Sizes	A	B	C	D	E	F	G
59T-3L	2 1/2 (63.5)-8 NPT	4 (101.6)-8 NPT	5 1/8	7	17 1/8	28	41 1/16	9 7/8	1 7/8
59T-3M	2 (50.8)-11 1/2 NPT	2 1/2 (63.5)-8 NPT	3 7/16	5 3/8	16 5/8	27 3/16	40 5/16	8 1/8	-3/4
59T-3MS	2 (50.8)-11 1/2 NPT	2 (63.5)-8 NPT	4 9/16	5 3/8	16 1/2	26 7/8	40 1/16	9 5/16	-7/8
59T-3H	1 (25.4)-11 1/2 NPT	1 1/2 (38.1)-11 1/2 NPT	3 7/8	4 3/8	28	24 3/4	39 5/8	8 3/16	-7/8

# 59T-3 Triplex Plunger Pump

## Performance Data

PUMP	English Units					50 RPM		150 RPM		250 RPM		300 RPM		350 RPM		420 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
59T-3L (T365AL)	3.000	7.0686	11.0160	0.3213	673	551	16.1	1653	48.19	2754	80.32	3305	96.39	3856	112.5	4627	134.9
	2.875	6.4918	10.1171	0.2951	733	506	14.8	1518	44.26	2530	73.77	3036	88.52	3541	103.3	4250	123.9
	2.750	5.9396	9.2565	0.2700	801	463	13.50	1389	40.50	2315	67.50	2777	80.99	3240	94.49	3888	113.4
	2.625	5.4119	8.4341	0.2460	880	422	12.30	1266	36.90	2109	61.50	2531	73.80	2952	86.10	3543	103.3
	2.500	4.9087	7.6500	0.2231	970	383	11.16	1148	33.47	1913	55.78	2295	66.94	2678	78.09	3213	93.71
59T-3M (T365AM)	2.500	4.9087	7.6500	0.2231	970	383	11.16	1148	33.47	1913	55.78	2295	66.94	2678	78.09	3213	93.71
	2.375	4.4301	6.9041	0.2014	1074	346	10.07	1036	30.21	1727	50.34	2072	60.41	2417	70.48	2900	84.58
	2.250	3.9761	6.1965	0.1807	1197	310	9.04	930	27.11	1550	45.18	1859	54.22	2169	63.26	2603	75.91
	2.125	3.5466	5.5271	0.1612	1342	277	8.06	830	24.18	1382	40.30	1659	48.36	1935	56.42	2322	67.71
	2.000	3.1416	4.8960	0.1428	1515	245	7.14	735	21.42	1224	35.70	1469	42.84	1714	49.98	2057	59.98
	1.875	2.7612	4.3031	0.1255	1724	216	6.28	646	18.83	1076	31.38	1291	37.65	1507	43.93	1808	52.71
	1.750	2.4053	3.7485	0.1093	1979	188	5.47	563	16.40	938	27.33	1125	32.80	1312	38.27	1575	45.92
	1.625	2.0739	3.2321	0.0943	2295	162	4.71	485	14.14	809	23.57	970	28.28	1132	32.99	1358	39.59
59T-3MS (T365MS)	1.500	1.7671	2.7540	0.0803	2694	138	4.02	414	12.05	689	20.08	827	24.10	964	28.11	1157	33.74
	1.375	1.4849	2.3141	0.0675	3206	116	3.37	348	10.12	579	16.87	695	20.25	810	23.62	972	28.35
	1.250	1.2272	1.9125	0.0558	3879	96	2.79	287	8.37	479	13.95	574	16.73	670	19.52	804	23.43
	1.125	0.9940	1.5491	0.0452	4789	78	2.26	233	6.78	388	11.30	465	13.55	543	15.81	651	18.98
59T-3H (T365H)	1.000	0.7854	1.2240	0.0357	6061	62	1.78	184	5.35	306	8.92	368	10.71	429	12.49	515	14.99
	0.875	0.6013	0.9371	0.0273	7916	47	1.37	141	4.10	235	6.83	282	8.20	328	9.57	394	11.48
	0.750	0.4418	0.6885	0.0201	10000	35	1.00	104	3.01	173	5.02	207	6.02	241	7.03	290	8.43
Brake Horsepower Required						7		21		35		42		49		59	

PUMP	Metric Units					50 RPM		150 RPM		250 RPM		300 RPM		350 RPM		420 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.
59T-3L (T365AL)	76	45.604	0.0730	0.0203	4643	3.65	1.01	10.95	3.04	18.24	5.07	21.89	6.08	25.54	7.09	30.65	8.51
	73	41.883	0.0670	0.0186	5055	3.35	0.93	10.05	2.79	16.75	4.65	20.10	5.59	23.45	6.52	28.15	7.82
	70	38.320	0.0613	0.0170	5526	3.07	0.85	9.20	2.55	15.33	4.26	18.39	5.11	21.46	5.96	25.75	7.15
	67	34.915	0.0559	0.0155	6064	2.79	0.78	8.38	2.33	13.97	3.88	16.76	4.66	19.55	5.43	23.46	6.52
	64	31.669	0.0507	0.0141	6686	2.53	0.70	7.60	2.11	12.67	3.52	15.20	4.22	17.74	4.93	21.28	5.91
59T-3M (T365AM)	64	31.669	0.0507	0.0141	6686	2.53	0.70	7.60	2.11	12.67	3.52	15.20	4.22	17.74	4.93	21.28	5.91
	60	28.581	0.0457	0.0127	7408	2.29	0.64	6.86	1.91	11.43	3.18	13.72	3.81	16.01	4.45	19.21	5.34
	57	25.652	0.0410	0.0114	8254	2.05	0.57	6.16	1.71	10.26	2.85	12.31	3.42	14.37	3.99	17.24	4.79
	54	22.881	0.0366	0.0102	9254	1.83	0.51	5.49	1.53	9.15	2.54	10.98	3.05	12.81	3.56	15.38	4.27
	51	20.268	0.0324	0.0090	10447	1.62	0.45	4.86	1.35	8.11	2.25	9.73	2.70	11.35	3.15	13.62	3.78
	48	17.814	0.0285	0.0079	11886	1.43	0.40	4.28	1.19	7.13	1.98	8.55	2.38	9.98	2.77	11.97	3.33
	44	15.518	0.0248	0.0069	13645	1.24	0.34	3.72	1.03	6.21	1.72	7.45	2.07	8.69	2.41	10.43	2.90
59T-3MS (T365MS)	41	13.380	0.0214	0.0059	15825	1.07	0.30	3.21	0.89	5.35	1.49	6.42	1.78	7.49	2.08	8.99	2.50
	38	11.401	0.0182	0.0051	18572	0.91	0.25	2.74	0.76	4.56	1.27	5.47	1.52	6.38	1.77	7.66	2.13
	35	9.580	0.0153	0.0043	22102	0.77	0.21	2.30	0.64	3.83	1.06	4.60	1.28	5.36	1.49	6.44	1.79
	32	7.917	0.0127	0.0035	26744	0.63	0.18	1.90	0.53	3.17	0.88	3.80	1.06	4.43	1.23	5.32	1.48
59T-3H (T365H)	29	6.413	0.0103	0.0029	33017	0.51	0.14	1.54	0.43	2.57	0.71	3.08	0.86	3.59	1.00	4.31	1.20
	25	5.067	0.0081	0.0023	41787	0.41	0.11	1.22	0.34	2.03	0.56	2.43	0.68	2.84	0.79	3.41	0.95
	22	3.879	0.0062	0.0017	54579	0.31	0.09	0.93	0.26	1.55	0.43	1.86	0.52	2.17	0.60	2.61	0.72
19	2.850	0.0046	0.0013	68948	0.23	0.06	0.68	0.19	1.14	0.32	1.37	0.38	1.60	0.44	1.92	0.53	
Kilowatts Required						5		16		26		31		37		44	

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