

# BD-120—Triplex Plunger Pump

## SPECIFICATIONS:

### General

**Pump Size** (max. plunger size x stroke length),

in. (mm):

4.000 X 4.25 (101.6 X 108.0)

**Rated BHP at 400 rpm (kW):**

151 (113)

**Rated plunger load, lbs (Kg):**

10,500 (4762.7)

**Max. discharge working pressure, psi (kPa):**

• "LC": 1266 (8,727)

• "L": 1768 (12,189)

• "MC": 2641 (18,208)

• "M": 5063 (34,907)

• "H": 13,369 (92,177)

**Crankshaft extension, in. (mm):**

Diameter: 3.375 (85.7)

Length: 7.250 (184.2)

Keyway (width x depth): 7/8 X 7/16 (22.2 X 11.1)

**Max. recommended sheave diameter, in. (mm):**

50 (1270)

38 (965.2) with Overhead Motor Mount Kit

For larger sizes: **Contact Factory**

**Oil Capacity, gallons (L)**

Crankcase: 5 (18.9)

**Weight, pump only on wood shipping skids,**

lbs (Kg):

• "LC": 2727 (1237.0)

• "L": 2080 (943.5)

• "MC": 2272 (1030.5)

• "M": 1930 (875.4)

• "H": 1980 (989.1)

**Standard Materials For Fluid End Bodies:**

"LC": Cast Super Duplex Stainless Steel (2507)

Cast Alloy Steel (8630)

"L": Forged/Plate Carbon Steel

Forged/Plate 316 Stainless Steel

"MC": Cast Super Duplex Stainless Steel (2507)

Cast Alloy Steel (8630)

"M": Forged/Plate Carbon Steel

Forged/Plate 316 Stainless Steel

"H": Forged/Bar 15-5 Stainless Steel

**Options:**

Welded Flange Connections

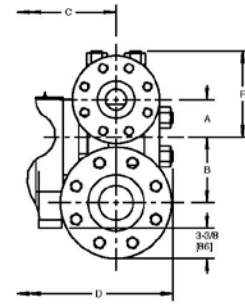
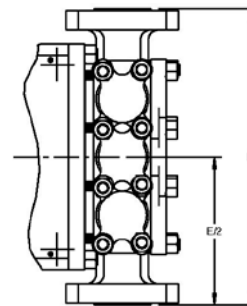
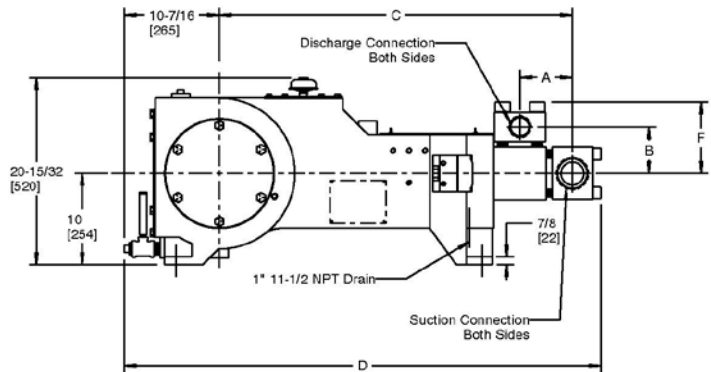
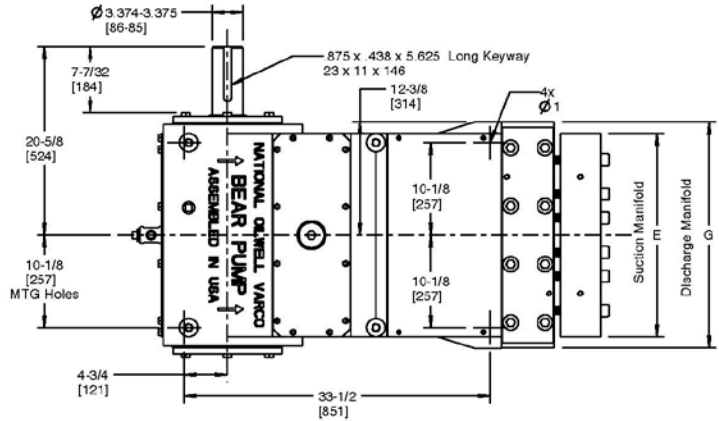
Right or Left Hand Drive

Overhead Motor Mount Kit

Double Extended Crankshaft

"LC": 900, to 150# Flange Connection. See sales department

"MC": 900, to 150# Flange Connection. See sales department



Pump Model	Flange Connections		Dimensions in inches (mm)						
	Discharge Connection Sizes	Suction Connection Sizes	A	B	C	D	E	F	G
BD-120LC	3" 900# RF FLANGE	6" 150# RF FLANGE	5-7/8	9-3/4	36-15/32	53-29/32	35-1/2	11-1/2	-
BD-120L	3 NPT	4 NPT	6-13/16	6-27/32	40-1/4	54-5/16	25	10-7/32	25
BD-120MC	2-1/2" 900/1500# RF FLANGE	4" 150# RF FLANGE	4-1/8	7-1/4	35-7/8	52-17/32	32-1/2	9-1/2	-
BD-120M	2 NPT	3 NPT	5-3/4	5-3/32	38-5/8	52-5/32	22-1/4	7-13/16	23-5/8
BD-120H	1 NPT	2 NPT	5-13/16	5-7/8	38-1/4	51-7/32	20-3/4	8-7/16	23-1/4

# BD-120—Triplex Plunger Pump

## Performance Data

Pump	English Units					150RPM		200RPM		250RPM		300RPM		350RPM		400RPM	
	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
BD-120LC	4.500	15.9043	30.0972	0.8778	660	4515	131.68	6020	175.57	7525	219.46	9030	263.35	10535	307.24	12039	351.13
	4.375	15.0330	28.4483	0.8297	698	4268	124.46	5690	165.95	7113	207.44	8535	248.92	9957	290.41	11380	331.90
	4.250	14.1862	26.8459	0.7830	740	4027	117.45	5370	156.60	6712	195.75	8054	234.90	9397	274.05	10739	313.20
	4.125	13.3640	25.2900	0.7376	786	3794	110.64	5058	147.52	6323	184.41	7587	221.29	8852	258.17	10116	295.05
	4.000	12.5664	23.7805	0.6936	836	3568	104.04	4757	138.72	5946	173.40	7135	208.08	8324	242.76	9513	277.44
	3.875	11.7932	22.3174	0.6509	890	3348	97.64	4464	130.19	5580	162.73	6696	195.28	7812	227.82	8927	260.37
	3.750	11.0447	20.9008	0.6086	951	3136	91.44	4181	121.92	5226	152.40	6271	182.88	7316	213.36	8361	243.84
	3.625	10.3206	19.5307	0.5696	1017	2930	85.45	3907	113.93	4883	142.41	5860	170.89	6836	199.38	7813	227.86
	3.500	9.6211	18.2069	0.5310	1091	2732	79.66	3642	106.21	4552	132.76	5463	159.31	6373	185.86	7283	212.41
	3.375	8.9462	16.9297	0.4938	1174	2540	74.07	3386	98.76	4233	123.45	5079	148.13	5926	172.82	6772	197.51
3.250	8.2958	15.6988	0.4579	1266	2355	68.68	3140	91.58	3925	114.47	4710	137.36	5495	160.26	6280	183.15	
BD-120L	4.000	12.5664	23.7805	0.6936	836	3568	104.04	4757	138.72	5946	173.40	7135	208.08	8324	242.76	9513	277.44
	3.750	11.0447	20.9008	0.6086	951	3136	91.44	4181	121.92	5226	152.40	6271	182.88	7316	213.36	8361	243.84
	3.500	9.6211	18.2069	0.5310	1091	2732	79.66	3642	106.21	4552	132.76	5463	159.31	6373	185.86	7283	212.41
	3.250	8.2958	15.6988	0.4579	1266	2355	68.68	3140	91.58	3925	114.47	4710	137.36	5495	160.26	6280	183.15
	3.000	7.0686	13.3765	0.3901	1485	2007	58.52	2676	78.03	3345	97.54	4013	117.04	4682	136.55	5351	156.06
BD-120MC	2.750	5.9396	11.2400	0.3278	1768	1686	49.17	2248	65.57	2810	81.96	3372	98.35	3934	114.74	4496	131.13
	3.125	7.6899	14.5145	0.4233	1369	2178	63.50	2903	84.67	3629	105.83	4355	127.00	5081	148.17	5806	169.34
	3.000	7.0686	13.3765	0.3901	1485	2007	58.52	2676	78.03	3345	97.54	4013	117.04	4682	136.55	5351	156.06
	2.875	6.4918	12.2850	0.3583	1617	1843	53.75	2458	71.66	3072	89.58	3686	107.49	4300	125.41	4915	143.33
	2.750	5.9396	11.2400	0.3278	1768	1686	49.17	2248	65.57	2810	81.96	3372	98.35	3934	114.74	4496	131.13
	2.625	5.4119	10.2414	0.2987	1940	1537	44.81	2049	59.74	2561	74.68	3073	89.61	3584	104.55	4097	119.48
	2.500	4.9087	9.2893	0.2709	2139	1394	40.64	1858	54.19	2323	67.73	2787	81.28	3252	94.83	3716	108.37
	2.375	4.4301	8.3836	0.2445	2370	1258	36.68	1677	48.90	2096	61.13	2516	73.36	2935	85.58	3354	97.81
	2.250	3.9761	7.5243	0.2195	2641	1129	32.92	1505	43.89	1882	54.86	2258	65.84	2634	76.81	3010	87.78
	2.125	3.5466	6.7115	0.1958	2961	1007	29.36	1343	39.15	1678	48.94	2014	58.73	2350	68.51	2685	78.30
BD-120M	2.000	3.1416	5.9451	0.1734	3342	892	26.01	1190	34.68	1487	43.35	1784	52.02	2081	60.69	2379	69.36
	1.875	2.7612	5.2252	0.1524	3803	784	22.86	1046	30.48	1307	38.10	1568	45.72	1829	53.34	2091	60.96
	1.750	2.4053	4.5517	0.1328	4365	683	19.91	911	26.55	1138	33.19	1366	39.83	1594	46.47	1821	53.10
	1.625	2.0739	3.9247	0.1145	5063	589	17.17	785	22.89	982	28.62	1178	34.34	1374	40.06	1570	45.79
	1.500	1.7671	3.3441	0.0975	5942	502	14.63	669	19.51	837	24.38	1004	29.26	1171	34.14	1338	39.01
	1.375	1.4849	2.8100	0.0820	7071	422	12.29	562	16.39	703	20.49	843	24.59	984	28.69	1124	32.78
	1.250	1.2272	2.3223	0.0677	8556	349	10.16	465	13.55	581	16.93	697	20.32	813	23.71	929	27.09
	1.125	0.9940	1.8811	0.0549	10563	283	8.23	377	10.97	471	13.72	565	16.46	659	19.20	753	21.95
	1.000	0.7854	1.4863	0.0433	13369	223	6.50	298	8.67	372	10.84	446	13.00	521	15.17	595	17.34
	<b>Brake Horsepower Required</b>																
					57		76		94		113		132		151		

Pump	Metric Units					150RPM		200RPM		250RPM		300RPM		350RPM		400RPM		
	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.	
BD-120LC	114	102.608	0.1994	0.0554	4552	29.90	8.31	39.87	11.08	49.84	13.85	59.81	16.81	69.77	19.38	79.74	22.15	
	111	96.987	0.1884	0.0523	4816	28.27	7.85	37.69	10.47	47.11	13.09	56.53	15.70	65.95	18.32	75.37	20.94	
	108	91.524	0.1778	0.0494	5103	26.67	7.41	35.56	9.88	44.46	12.35	53.35	14.82	62.24	17.29	71.13	19.76	
	105	86.219	0.1675	0.0465	5417	25.13	6.98	33.50	9.31	41.88	11.63	50.25	13.96	58.63	16.29	67.01	18.61	
	102	81.073	0.1575	0.0438	5761	23.63	6.56	31.50	8.75	39.38	10.94	47.25	13.13	55.13	15.32	63.01	17.50	
	98	76.085	0.1478	0.0411	6139	22.17	6.16	29.57	8.21	36.96	10.27	44.35	12.32	51.74	14.37	59.13	16.43	
	95	71.256	0.1384	0.0385	6555	20.77	5.77	27.69	7.69	34.61	9.62	41.53	11.54	48.45	13.46	55.38	15.38	
	92	66.584	0.1294	0.0359	7015	19.40	5.39	25.87	7.19	32.34	8.98	38.81	10.78	45.28	12.58	51.75	14.38	
	89	62.072	0.1206	0.0335	7525	18.09	5.03	24.12	6.70	30.15	8.38	36.18	10.05	42.21	11.73	48.24	13.40	
	86	57.717	0.1121	0.0312	8092	16.82	4.67	22.43	6.23	28.03	7.79	33.64	9.35	39.25	10.90	44.86	12.46	
83	53.521	0.1040	0.0289	8727	15.60	4.33	20.80	5.78	26.00	7.22	31.20	8.67	36.39	10.11	41.59	11.56		
BD-120L	102	81.073	0.1575	0.0438	5761	23.63	6.56	31.50	8.75	39.38	10.94	47.25	13.13	55.13	15.32	63.01	17.50	
	95	71.256	0.1384	0.0385	6555	20.77	5.77	27.69	7.69	34.61	9.62	41.53	11.54	48.45	13.46	55.38	15.38	
	89	62.072	0.1206	0.0335	7525	18.09	5.03	24.12	6.70	30.15	8.38	36.18	10.05	42.21	11.73	48.24	13.40	
	83	53.521	0.1040	0.0289	8727	15.60	4.33	20.80	5.78	26.00	7.22	31.20	8.67	36.39	10.11	41.59	11.56	
	76	45.604	0.0886	0.0246	10242	13.29	3.69	17.72	4.92	22.15	6.15	26.58	7.38	31.01	8.62	35.44	9.85	
	70	38.320	0.0745	0.0207	12189	11.17	3.10	14.89	4.14	18.61	5.17	22.34	6.20	26.06	7.24	29.78	8.27	
	BD-120MC	79	49.483	0.0961	0.0267	9439	14.42	4.01	19.23	5.34	24.04	6.68	28.84	8.01	33.65	9.35	38.46	10.68
		76	45.604	0.0886	0.0246	10242	13.29	3.69	17.72	4.92	22.15	6.15	26.58	7.38	31.01	8.62	35.44	9.85
		73	41.883	0.0814	0.0226	11152	12.21	3.39	16.27	4.52	20.34	5.65	24.41	6.78	28.48	7.91	32.55	9.04
		70	38.320	0.0745	0.0207	12189	11.17	3.10	14.89	4.14	18.61	5.17	22.34	6.20	26.06	7.24	29.78	8.27
67		34.915	0.0678	0.0188	13377	10.18	2.83	13.57	3.77	16.96	4.71	20.35	5.65	23.74	6.60	27.13	7.54	
64		31.669	0.0615	0.0171	14748	9.23	2.56	12.31	3.42	15.38	4.27	18.46	5.13	21.54	5.98	24.61	6.84	
60		28.581	0.0555	0.0154	16342	8.33	2.31	11.11	3.09	13.88	3.86	16.66	4.63	19.44	5.40	22.21	6.17	
57		25.652	0.0498	0.0138	18208	7.48	2.08	9.97	2.77	12.46	3.46	14.95	4.15	17.44	4.85	19.94	5.54	
54		22.881	0.0445	0.0123	20413	6.67	1.85	8.89	2.47	11.11	3.09	13.34	3.70	15.56	4.32	17.78	4.94	
51		20.268	0.0394	0.0109	23044	5.91	1.64	7.98	2.19	9.84	2.73	11.81	3.28	13.78	3.83	15.75	4.38	
BD-120M	48	17.814	0.0346	0.0096	26219	5.19	1.44	6.92	1.92	8.65	2.40	10.38	2.88	12.11	3.37	13.84	3.85	
	44	15.518	0.0301	0.0084	30099	4.52	1.26	6.03	1.68	7.54	2.09	9.04	2.51	10.55	2.93	12.06	3.35	
	41	13.380	0.0260	0.0072	34907	3.90	1.08	5.20	1.44	6.50	1.81							