

Liberty LL6

Progressive Cavity Pump

Features

- * Modular Design
- * Maintenance Free
- * Easy Assembly/Disassembly
- * Simple Pin-Joint Connection
- * Non-Pulsating Low Shear
- * NPT Discharge Connection
- * Can Be Run In Either Direction

Pump Description

The Liberty LL6 Progressive Cavity Pump is a low-cost, maintenance free, dependable drop-in replacement pump and is an ideal pump unit for abrasive pump applications such as the mud rotary drilling process for well drilling geotechnical and environment industrial applications due to its robust construction and design.

The Liberty LL6 Series PC Pump is a standard flanged progressive cavity pump manufactured with cast iron or 316 stainless steel casings and designed in 1, 2, and 3 stages for 75, 150, and 225 psi discharge pressures. Higher discharge pressures are available, please contact a Liberty representative for more information.

Flow rates to be achieved from 0-47 GPM (5.20 Gallons per 100 revolutions). The pump units modular design with simple hardened pinned joint drive assembly is a proven design that can handle the most difficult pumping applications. The LL6 Series Progressive Cavity Pump Rotors are typically tool steel or 316 stainless steel with a hard chrome plating for added durability. All other wetted parts are either carbon steel or 316 stainless steel.

The LL6 PC Pump Stators are available in many elastomer materials such as buna, natural rubber, epdm and viton depending upon your application. The standard seal design is a set of gland packing with Lantern Ring and flush connections. Mechanical seal options are readily available.

The Liberty LL6 Progressive Cavity Pump parts are direct aftermarket replacement pump parts for the Moyno™ L8, Tarby™ TL8 and Continental CL6 Series. Please contact your Liberty Process representative to help you select the pumps and parts that are right for your application and budget!

Contact a Liberty Process representative today for more information about the LL6 Series.

Materials

Rotor: Tool Steel & Stainless Steel, Chrome-Plated

Stator: Buna, Rubber, Viton™, EPDM

Motor: 1.5, 2, 3, and 5 hp

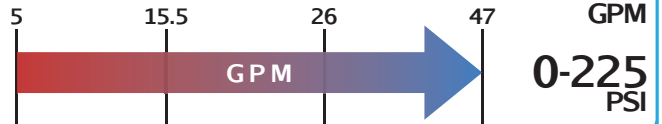
Inlet: 3"

Outlet: 2-1/2"

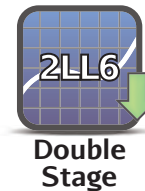
Bases: Carbon and Stainless Steel



Liberty LL6

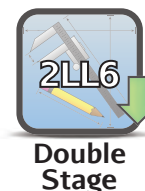


Curves



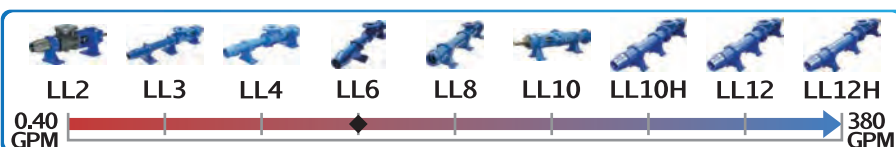
Please Click the Icon

Drawings



Please Click the Icon

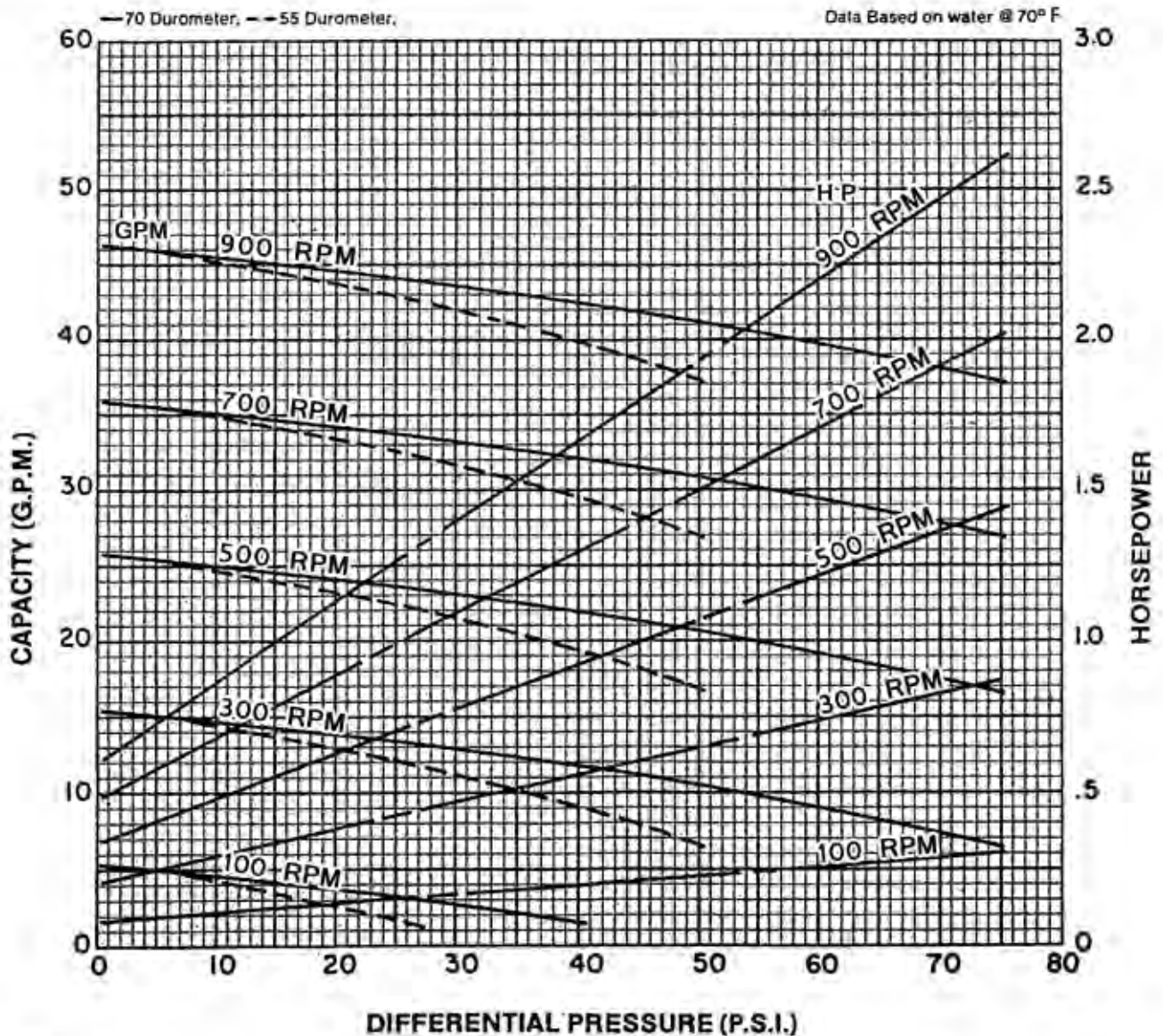
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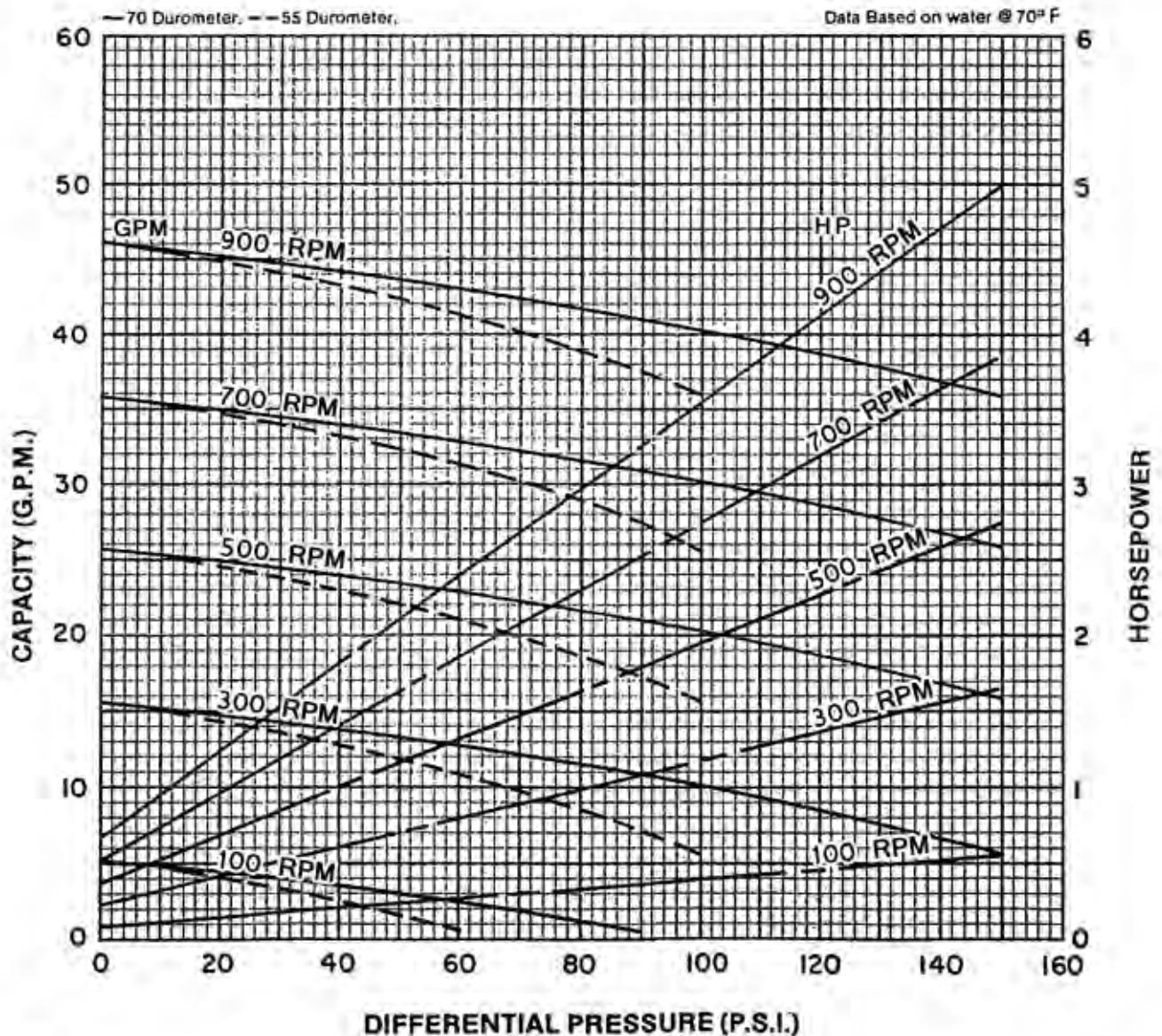
Liberty 1LL6

RPM	100	300	500	700	900		
NPSH REQ'D	.6	1.7	2.9	4.1	6.9		
MIN. HP	1/3	3/4	1	1 1/2	2		



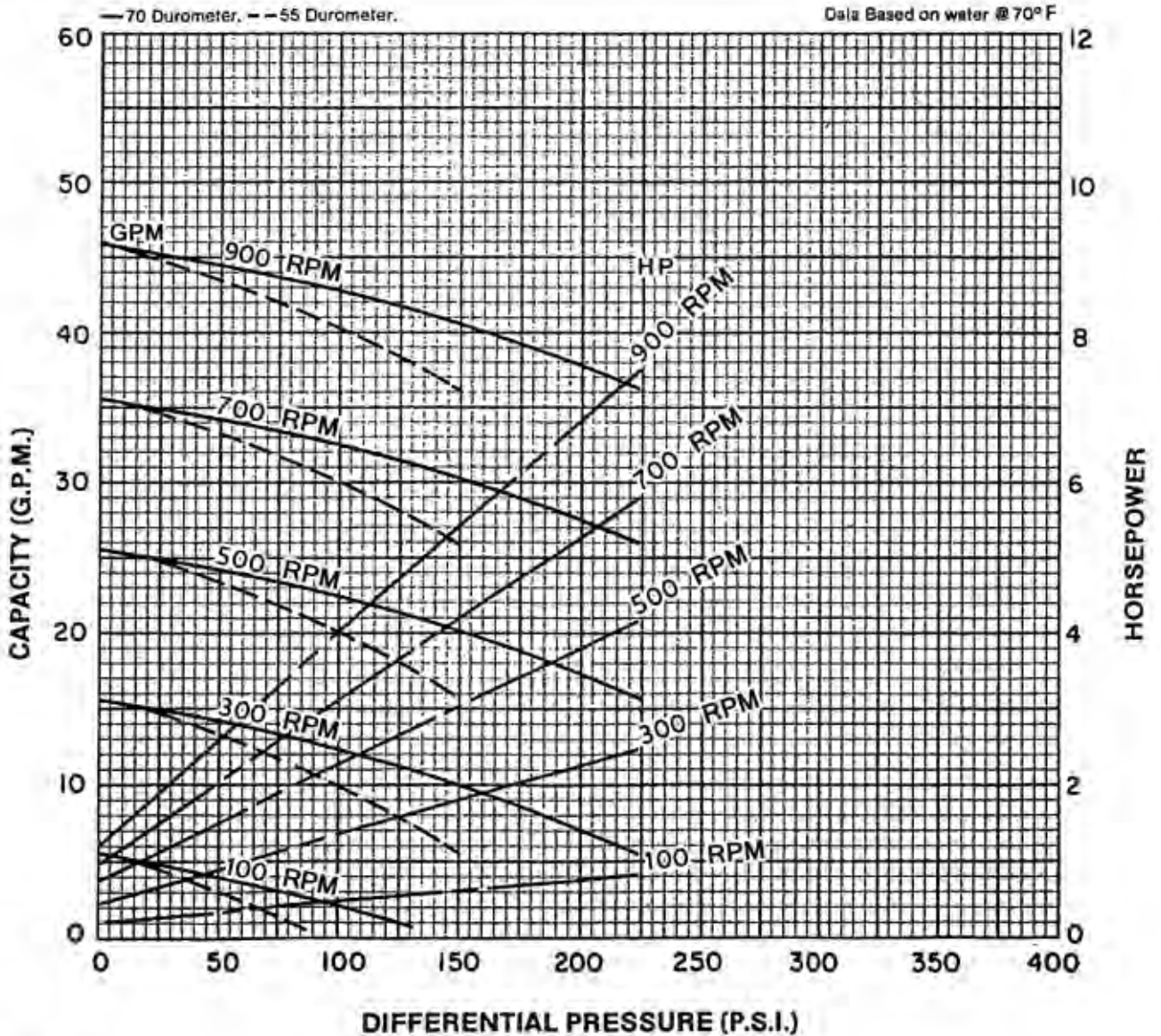
Liberty 2LL6

RPM	100	300	500	700	900		
NPSH REQ'D	.6	1.7	2.9	4.1	6.9		
MIN. HP	1/2	1 1/2	2	3	3		



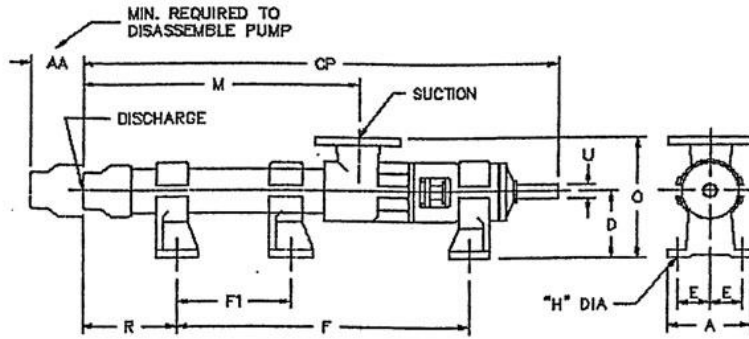
Liberty 3LL6

RPM	100	300	500	700	900		
NPSH REQ'D	6	1.7	2.9	4.1	6.9		
MIN. HP	1	2	3	5	5		





Liberty Pump Series – Dimension Sheet



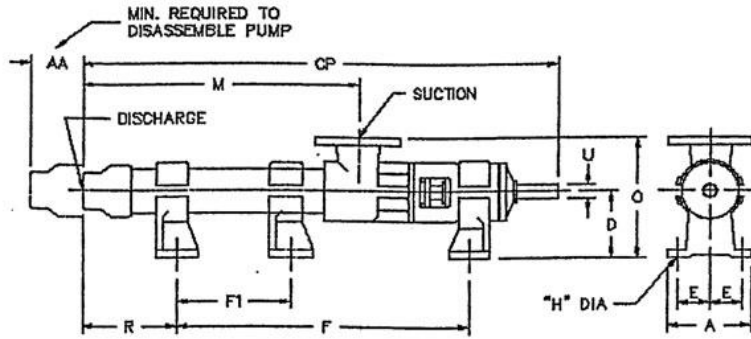
Standard Pump Dimensions

Model	AA	CP	A	D	E	F	F1	H	M	O	R	U	Suct. Size	Disc. Size	Approx. Lbs.
2ML1	6.50	17.31	4.00	3.25	1.56	8.50	-	.37	7.62	5.88	4.56	.62	1.00	.75	22
3ML1	6.50	19.12	4.00	3.25	1.56	9.62	-	.37	9.44	5.88	5.25	.62	1.00	.75	24
6ML1	6.50	24.69	4.00	3.25	1.56	15.75	-	.37	15.00	5.88	4.69	.62	1.00	.75	30
1LL2	6.50	17.25	4.00	3.25	1.56	8.50	-	.37	7.56	5.88	4.50	.62	1.00	.75	22
2LL2	6.50	20.75	4.00	3.25	1.56	10.50	-	.37	11.06	5.88	6.00	.62	1.00	.75	25
3LL2	6.50	24.37	4.00	3.25	1.56	12.00	-	.37	14.69	5.88	8.12	.62	1.00	.75	31
6ML2	8.37	39.12	5.75	4.12	2.12	25.50	14.00	.44	26.50	7.31	7.94	.75	1.50	.75	55
1LL3	8.37	23.00	5.37	4.12	2.12	11.50	-	.44	10.37	7.31	5.81	.75	1.50	1.25	47
2LL3	8.37	28.31	5.37	4.12	2.12	13.00	-	.44	15.69	7.31	9.62	.75	1.50	1.25	51
3LL3	8.37	33.62	5.37	4.12	2.12	16.50	-	.44	21.00	7.31	11.44	.75	1.50	1.25	55
6ML3	11.37	54.62	7.00	5.50	2.75	37.50	22.00	.56	37.75	9.88	10.12	.94	2.50	1.25	105
1LL4	11.37	30.37	7.00	5.50	2.75	15.75	-	.56	13.50	9.88	7.62	.94	2.50	2.00	85
2LL4	11.37	37.44	7.00	5.50	2.75	22.00	-	.56	20.56	9.88	8.44	.94	2.50	2.00	91
3LL4	11.37	44.50	7.00	5.50	2.75	22.75	-	.56	27.62	9.88	14.75	.94	2.50	2.00	97
6ML4	14.25	71.25	8.62	6.25	3.50	45.00	25.00	.69	49.94	11.25	17.69	1.12	3.00	2.50	171
1LL6	14.25	39.37	8.62	6.25	3.50	20.00	-	.69	18.06	11.25	10.81	1.12	3.00	2.50	141
2LL6	14.25	50.00	8.62	6.25	3.50	26.00	-	.69	28.69	11.25	15.44	1.12	3.00	2.50	159
3LL6	14.25	60.62	8.62	6.25	3.50	38.00	18.00	.69	39.31	11.25	14.06	1.12	3.00	2.50	192
1LL8	18.37	46.31	11.50	8.00	4.50	27.00	-	.88	20.50	14.00	10.06	1.37	4.00	4.00	303
2LL8	18.37	58.75	11.50	8.00	4.50	32.00	-	.88	32.94	14.00	17.50	1.37	4.00	4.00	322
3LL8	18.37	71.12	11.50	8.00	4.50	49.00	24.00	.88	45.31	14.00	12.88	1.37	4.00	4.00	372
1LL10	31.88	53.62	11.50	9.75	4.50	30.00	-	.88	22.37	16.69	10.12	1.88	6.00	5.00	412
2LL10	31.88	64.00	11.50	9.75	4.50	35.50	-	.88	32.75	16.69	15.00	1.88	6.00	5.00	460
3LL10	31.88	74.37	11.50	9.75	4.50	48.00	18.00	.88	43.12	16.69	12.88	1.88	6.00	5.00	545
1LL10H	31.88	59.00	11.50	9.75	4.50	30.00	-	.88	27.75	16.69	15.50	1.88	6.00	5.00	424
2LL10H	31.88	74.37	11.50	9.75	4.50	48.00	18.00	.88	43.12	16.69	12.88	1.88	6.00	5.00	545
1LL12	37.75	70.19	14.50	12.50	6.31	37.50	-	1.00	31.44	21.00	14.69	2.25	8.00	6.00	880
2LL12	37.75	85.88	14.50	12.50	6.31	55.50	20.50	1.00	47.50	21.00	12.37	2.25	8.00	6.00	1075
3LL12	37.75	101.44	14.50	12.50	6.31	69.00	27.00	1.00	62.69	21.00	14.44	2.25	8.00	6.00	1200
1LL12H	37.75	78.00	14.50	12.50	6.31	42.00	-	1.00	39.25	21.00	18.00	2.25	8.00	6.00	945
2LL12H	37.75	101.44	14.50	12.50	6.31	69.00	27.00	1.00	62.69	21.00	14.44	2.25	8.00	6.00	1205

*All listed dimensions in inches



Liberty Pump Series – Dimension Sheet



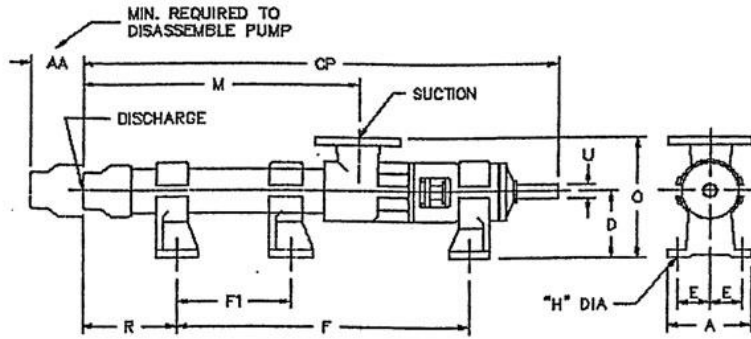
Standard Pump Dimensions

Model	AA	CP	A	D	E	F	F1	H	M	O	R	U	Suct. Size	Disc. Size	Approx. Lbs.
2ML1	6.50	17.31	4.00	3.25	1.56	8.50	-	.37	7.62	5.88	4.56	.62	1.00	.75	22
3ML1	6.50	19.12	4.00	3.25	1.56	9.62	-	.37	9.44	5.88	5.25	.62	1.00	.75	24
6ML1	6.50	24.69	4.00	3.25	1.56	15.75	-	.37	15.00	5.88	4.69	.62	1.00	.75	30
1LL2	6.50	17.25	4.00	3.25	1.56	8.50	-	.37	7.56	5.88	4.50	.62	1.00	.75	22
2LL2	6.50	20.75	4.00	3.25	1.56	10.50	-	.37	11.06	5.88	6.00	.62	1.00	.75	25
3LL2	6.50	24.37	4.00	3.25	1.56	12.00	-	.37	14.69	5.88	8.12	.62	1.00	.75	31
6ML2	8.37	39.12	5.75	4.12	2.12	25.50	14.00	.44	26.50	7.31	7.94	.75	1.50	.75	55
1LL3	8.37	23.00	5.37	4.12	2.12	11.50	-	.44	10.37	7.31	5.81	.75	1.50	1.25	47
2LL3	8.37	28.31	5.37	4.12	2.12	13.00	-	.44	15.69	7.31	9.62	.75	1.50	1.25	51
3LL3	8.37	33.62	5.37	4.12	2.12	16.50	-	.44	21.00	7.31	11.44	.75	1.50	1.25	55
6ML3	11.37	54.62	7.00	5.50	2.75	37.50	22.00	.56	37.75	9.88	10.12	.94	2.50	1.25	105
1LL4	11.37	30.37	7.00	5.50	2.75	15.75	-	.56	13.50	9.88	7.62	.94	2.50	2.00	85
2LL4	11.37	37.44	7.00	5.50	2.75	22.00	-	.56	20.56	9.88	8.44	.94	2.50	2.00	91
3LL4	11.37	44.50	7.00	5.50	2.75	22.75	-	.56	27.62	9.88	14.75	.94	2.50	2.00	97
6ML4	14.25	71.25	8.62	6.25	3.50	45.00	25.00	.69	49.94	11.25	17.69	1.12	3.00	2.50	171
1LL6	14.25	39.37	8.62	6.25	3.50	20.00	-	.69	18.06	11.25	10.81	1.12	3.00	2.50	141
2LL6	14.25	50.00	8.62	6.25	3.50	26.00	-	.69	28.69	11.25	15.44	1.12	3.00	2.50	159
3LL6	14.25	60.62	8.62	6.25	3.50	38.00	18.00	.69	39.31	11.25	14.06	1.12	3.00	2.50	192
1LL8	18.37	46.31	11.50	8.00	4.50	27.00	-	.88	20.50	14.00	10.06	1.37	4.00	4.00	303
2LL8	18.37	58.75	11.50	8.00	4.50	32.00	-	.88	32.94	14.00	17.50	1.37	4.00	4.00	322
3LL8	18.37	71.12	11.50	8.00	4.50	49.00	24.00	.88	45.31	14.00	12.88	1.37	4.00	4.00	372
1LL10	31.88	53.62	11.50	9.75	4.50	30.00	-	.88	22.37	16.69	10.12	1.88	6.00	5.00	412
2LL10	31.88	64.00	11.50	9.75	4.50	35.50	-	.88	32.75	16.69	15.00	1.88	6.00	5.00	460
3LL10	31.88	74.37	11.50	9.75	4.50	48.00	18.00	.88	43.12	16.69	12.88	1.88	6.00	5.00	545
1LL10H	31.88	59.00	11.50	9.75	4.50	30.00	-	.88	27.75	16.69	15.50	1.88	6.00	5.00	424
2LL10H	31.88	74.37	11.50	9.75	4.50	48.00	18.00	.88	43.12	16.69	12.88	1.88	6.00	5.00	545
1LL12	37.75	70.19	14.50	12.50	6.31	37.50	-	1.00	31.44	21.00	14.69	2.25	8.00	6.00	880
2LL12	37.75	85.88	14.50	12.50	6.31	55.50	20.50	1.00	47.50	21.00	12.37	2.25	8.00	6.00	1075
3LL12	37.75	101.44	14.50	12.50	6.31	69.00	27.00	1.00	62.69	21.00	14.44	2.25	8.00	6.00	1200
1LL12H	37.75	78.00	14.50	12.50	6.31	42.00	-	1.00	39.25	21.00	18.00	2.25	8.00	6.00	945
2LL12H	37.75	101.44	14.50	12.50	6.31	69.00	27.00	1.00	62.69	21.00	14.44	2.25	8.00	6.00	1205

*All listed dimensions in inches



Liberty Pump Series – Dimension Sheet



Standard Pump Dimensions

Model	AA	CP	A	D	E	F	F1	H	M	O	R	U	Suct. Size	Disc. Size	Approx. Lbs.
2ML1	6.50	17.31	4.00	3.25	1.56	8.50	-	.37	7.62	5.88	4.56	.62	1.00	.75	22
3ML1	6.50	19.12	4.00	3.25	1.56	9.62	-	.37	9.44	5.88	5.25	.62	1.00	.75	24
6ML1	6.50	24.69	4.00	3.25	1.56	15.75	-	.37	15.00	5.88	4.69	.62	1.00	.75	30
1LL2	6.50	17.25	4.00	3.25	1.56	8.50	-	.37	7.56	5.88	4.50	.62	1.00	.75	22
2LL2	6.50	20.75	4.00	3.25	1.56	10.50	-	.37	11.06	5.88	6.00	.62	1.00	.75	25
3LL2	6.50	24.37	4.00	3.25	1.56	12.00	-	.37	14.69	5.88	8.12	.62	1.00	.75	31
6ML2	8.37	39.12	5.75	4.12	2.12	25.50	14.00	.44	26.50	7.31	7.94	.75	1.50	.75	55
1LL3	8.37	23.00	5.37	4.12	2.12	11.50	-	.44	10.37	7.31	5.81	.75	1.50	1.25	47
2LL3	8.37	28.31	5.37	4.12	2.12	13.00	-	.44	15.69	7.31	9.62	.75	1.50	1.25	51
3LL3	8.37	33.62	5.37	4.12	2.12	16.50	-	.44	21.00	7.31	11.44	.75	1.50	1.25	55
6ML3	11.37	54.62	7.00	5.50	2.75	37.50	22.00	.56	37.75	9.88	10.12	.94	2.50	1.25	105
1LL4	11.37	30.37	7.00	5.50	2.75	15.75	-	.56	13.50	9.88	7.62	.94	2.50	2.00	85
2LL4	11.37	37.44	7.00	5.50	2.75	22.00	-	.56	20.56	9.88	8.44	.94	2.50	2.00	91
3LL4	11.37	44.50	7.00	5.50	2.75	22.75	-	.56	27.62	9.88	14.75	.94	2.50	2.00	97
6ML4	14.25	71.25	8.62	6.25	3.50	45.00	25.00	.69	49.94	11.25	17.69	1.12	3.00	2.50	171
1LL6	14.25	39.37	8.62	6.25	3.50	20.00	-	.69	18.06	11.25	10.81	1.12	3.00	2.50	141
2LL6	14.25	50.00	8.62	6.25	3.50	26.00	-	.69	28.69	11.25	15.44	1.12	3.00	2.50	159
3LL6	14.25	60.62	8.62	6.25	3.50	38.00	18.00	.69	39.31	11.25	14.06	1.12	3.00	2.50	192
1LL8	18.37	46.31	11.50	8.00	4.50	27.00	-	.88	20.50	14.00	10.06	1.37	4.00	4.00	303
2LL8	18.37	58.75	11.50	8.00	4.50	32.00	-	.88	32.94	14.00	17.50	1.37	4.00	4.00	322
3LL8	18.37	71.12	11.50	8.00	4.50	49.00	24.00	.88	45.31	14.00	12.88	1.37	4.00	4.00	372
1LL10	31.88	53.62	11.50	9.75	4.50	30.00	-	.88	22.37	16.69	10.12	1.88	6.00	5.00	412
2LL10	31.88	64.00	11.50	9.75	4.50	35.50	-	.88	32.75	16.69	15.00	1.88	6.00	5.00	460
3LL10	31.88	74.37	11.50	9.75	4.50	48.00	18.00	.88	43.12	16.69	12.88	1.88	6.00	5.00	545
1LL10H	31.88	59.00	11.50	9.75	4.50	30.00	-	.88	27.75	16.69	15.50	1.88	6.00	5.00	424
2LL10H	31.88	74.37	11.50	9.75	4.50	48.00	18.00	.88	43.12	16.69	12.88	1.88	6.00	5.00	545
1LL12	37.75	70.19	14.50	12.50	6.31	37.50	-	1.00	31.44	21.00	14.69	2.25	8.00	6.00	880
2LL12	37.75	85.88	14.50	12.50	6.31	55.50	20.50	1.00	47.50	21.00	12.37	2.25	8.00	6.00	1075
3LL12	37.75	101.44	14.50	12.50	6.31	69.00	27.00	1.00	62.69	21.00	14.44	2.25	8.00	6.00	1200
1LL12H	37.75	78.00	14.50	12.50	6.31	42.00	-	1.00	39.25	21.00	18.00	2.25	8.00	6.00	945
2LL12H	37.75	101.44	14.50	12.50	6.31	69.00	27.00	1.00	62.69	21.00	14.44	2.25	8.00	6.00	1205

*All listed dimensions in inches