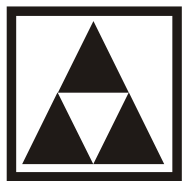


# ***Bran+Luebbe Pumps*** ***P Gear & H Series -*** ***Technical Data***



**ISO 9001  
CERTIFIED**



# **BRAN+LUEBBE**

An SPX Process Equipment Operation

**Technical Data**



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**P Gear Engineering Guidelines**

**Required Motor Horsepower**

- Use 1/2 HP for N-P31's, plunger diameter 42 mm or smaller
- Use 3/4 HP and up for N-P33's or larger
- Use 3/4 HP for N-P31's with pumpheads 50 mm or larger

**Gearbox Reduction Ratios**

GEARBOX REDUCTION RATIOS					
Motor Speed	28:1	44:2	39:2	33:2	28:2
3600	120 SPM	152 SPM	172 SPM	204 SPM	240 SPM
1800	60 SPM	76 SPM	86 SPM	102 SPM	120 SPM
1200	40 SPM	51 SPM	57 SPM	68 SPM	80 SPM

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**Gear Spacers**

Spacers are required in the following cases:

- Two or more adjacent double diaphragm pumpheads
- 50 mm to 63 mm pumpheads are being supplied

Gear spacers for P-gears are available in two widths: Narrow = 5 mm and Large = 110 mm (std)

5 mm spacer is typically used when multi-head pumps are configured with electric stroke length positioners, packed plunger heads < 42 mm diameter.

**Pressure / Temperature Limits of Popular Materials of Construction**

PUMP HEAD TYPE	PRESSURE (psi)	TEMP (°F)*
316SS Plunger with N1 Packing (PTFE)	300	300
316SS Plunger with B3 Packing (Buna N)	1500	200
316SS Plunger with B3L Packing (Buna N)	1500	180
316SS Plunger with K3 Packing (Viton)	1500	285
Polypropylene / PVC Plunger Pump***	150	130
316SS/TFE Diaphragm Pump	1,500**	300
Polypropylene / PVC - Polypropylene/TFE Diaphragm Pump***	150	130

PL6030-CH2

**Notes:**

\* Higher temperature designs available

\*\* Higher pressure designs available

\*\*\*Polypropylene not available in 3 mm and 5 mm plunger or 5mm diaphragm heads

For discharge pressures exceeding 1000 psig, a ceramic or tungsten carbide plunger is recommended. Adders for tungsten carbide are indicated in the pumphead options section of XX.

**H Series Engineering Guidelines**

**Required motor horsepower - Simplex Pump**

**BHP = Q x P x F<sub>g</sub> / 38911**

Q = Flowrate GPH

P = Discharge Pressure PSIG

F<sub>g</sub> = Gearbox Factor

F<sub>g</sub> for H2 = 1.75; F<sub>g</sub> for H3 = 1.50; F<sub>g</sub> for H4 = 1.20

Minimum HP Requirements	H2	H3	H4
One pumphead up to 42 mm	0.5	0.75	1.0
One pumphead greater than 42 mm	0.75	1.0	1.5
Two to Five pumpheads up to 42 mm	0.75	1.0	1.5
Two to Five pumpheads greater than 42 mm	1.0	1.5	2.0

PL6030-CH13

**Note:**

Consult factory for assistance with calculating motor power on multiplex machines.

**Gearbox Reduction Ratios, 30, 30s, 60 mm stroke length (H2, H3, H4, J, C)**

GEARBOX REDUCTION RATIOS					
Motor Speed	28:1	44:2	39:2	33:2	28:2
3600	120 SPM	152 SPM	172 SPM	204 SPM	240 SPM
1800	60 SPM	76 SPM	86 SPM	102 SPM	120 SPM
1200	40 SPM	51 SPM	57 SPM	68 SPM	80 SPM

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**Pressure / Temperature Limits**

PUMP HEAD TYPE	PRESSURE (psi)	TEMP (°F)*
316SS Plunger with N1 Packing (PTFE)	300	300
316SS Plunger with B3 Packing (Buna N)	1500	200
316SS Plunger with B3L Packing (Buna N)	1500	180
316SS Plunger with K3 Packing (Viton)	1500	285
Polypropylene / PVC Plunger Pump***	150	130
316SS/TFE Diaphragm Pump	5,800**	300
Polypropylene / PVC - Polypropylene/TFE Diaphragm Pump***	150	130

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**Notes:**

\* Higher temperature designs available

\*\* Consult factory for pressures above 1500 psi

\*\*\* Consult pumphead selection charts and capacity tables to confirm plunger sizes available

For discharge pressures exceeding 1000 psig, a ceramic or tungsten carbide plunger is recommended. Adders for tungsten carbide are indicated in the pumphead options section of XX.

**Calculating Flowrate (GPH)**

Flowrate (GPH) = (Plunger Diameter-mm)<sup>2</sup> x (Stroke Length-mm) x (Stroke Speed-spm) x Volume Eff / 80,320

**P Gear and H Series Electric Stroke Length Adjustment**

**Electric Stroke Length Control**

An electric stroke length controller and gearbox mounted actuator enhance pump stroke length position control. The multi-turn feedback slidewire in the actuator allows position set point and control accuracy of 0.2%. The linear relationship between stroke length position and pump output is achieved with Bran+Luebbe’s precise stroke position control system, resulting in superb output control and accuracy.

**EASC Option (formerly APCD)**

This enables the pump stroke length to be set automatically from a 4-20mA or equivalent signal from a process controller, computer, etc. The solid state EASC Smart Control Card mounts inside the pump actuator. No external manual controls or indicators are provided.

**AMCC Options**

Bran+Luebbe metering pump controls enable users to improve the high-precision metering and blending capabilities of their pumps through remote automatic and manually controlled operation. Working in response to either multiple recipes, or computer-directed setpoints, the electric positioner varies volume-displacement by adjusting plunger stroke length via front panel (operator interface) or remote commands.

**Electric Stroke Length Actuator Specification - USA**

MODEL	RCS		RCS	
	P	H2, H3, J	H4, C, DA	H5, CS
Gearbox Reference	250		250	
Output torque lb-in	250		250	
Time (seconds) for 100% stroke travel	40	60	120	
RPM	30		30	
Turns	20	30	60	
Volts/HZ	115/60 or 50		115/60 or 50	
Two cam-actuated travel limit switches	5 amps at 125 VAC		5 amps at 125 VAC	
Permanently lubricated	X		X	
Current amps	2.0		2.0	
Duty/cycle (sec.) max on/min.off (1:4)	60/240		60/240	
Conduit connection	3/4" NPT		3/4" NPT	
Signal inputs (using EASC Smart card)	4-20mA, 0-10v, 2-10v, 1-5v		4-20mA, 0-10v, 2-10v, 1-5v	
Signal outputs (using EASC Smart card)	4-20mA, 0-10v, 2-10v, 1-5v		4-20mA, 0-10v, 2-10v, 1-5v	
Ambient Temperature	0° to + 130°F		0° to + 130°F	

PL6030-CH3

**P Gear NPSHR Chart**

Plunger Diameter (mm)	Connection Size (in)	Valve Type	NPSHR at Stroking Speed, for water (ft. of water)									
			40	60	76	86	102	120	152	172	204	240
3	1/2" OD Tube	Triple Ball	0.7	0.7	0.7	0.7	0.7	0.82	1	1.11	1.3	1.5
5			1	1	1	1	1	1.12	1.3	1.61	2	2.56
8			1	1.12	1.33	1.47	1.65	1.78	1.98	2.13	2.31	2.54
12		Double Ball	1.65	1.78	2	2.13	2.31	2.57	2.97	3.41	3.96	4.75
20			2.97	3.1	3.3	3.5	3.63	3.9	4.29	4.7	5.28	6.1
30 - 32			2.64	2.9	3.2	3.6	3.96	4.1	4.29	4.58	4.95	5.48
40 - 42	1/2" NPT	3.3	3.56	3.99	4.25	4.62	5.81	7.59	8.61	9.9	11.8	
50	1" NPT	Cone with Spring	9.24	9.31	9.41	9.48	9.57	9.83	10.2	10.7	11.2	12
56			9.57	9.64	9.74	9.81	9.9	10.3	10.9	11.3	11.9	12.7
62 - 63			9.9	9.97	10.1	10.1	10.2	10.8	11.6	12	12.5	13.3

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**Notes:**

For double TFE diaphragm pump with suction conditions less than flooded, **add 6.5 ft.**

For cone valves with spring removed, **subtract 6.5 ft.**

\* For optional cone valves with springs, **add 6.5 ft.** (when replacing ball valve or adding 3 psi spring to suction valve).

**P Gear Capacity Chart (in gallons per hour)**

Plunger Diameter (mm)	Connection Size (in)	Pressure max (psig)	Stroke Volume (mL)	GPH									
				10,000 cps max	7,500 cps max	4,500 cps max	2000 cps max			200 cps max			
				Strokes/min									
				40	60	76	86	102	120	152	172	204	240
3	1/2" OD Tube	5700	0.14	0.09	0.13	0.17	0.19	0.22	0.26	0.33	0.38	0.45	0.53
5		5700	0.38	0.24	0.37	0.46	0.52	0.62	0.73	0.93	1.05	1.24	1.46
8		4040	0.98	0.62	0.94	1.19	1.34	1.59	1.87	2.37	2.68	3.18	3.75
12		1815	2.22	1.4	2.11	2.67	3.02	3.58	4.21	5.34	6.04	7.16	8.43
20		696	6.15	3.9	5.85	7.41	8.39	9.95	11.71	14.83	16.78	19.9	23.41
30	1/2" NPT	305	13.85	8.78	13.17	16.68	18.87	22.39	26.34	33.36	37.75	44.77	52.67
32		275	15.68	10.00	14.99	18.99	21.49	25.49	29.99	37.98	42.98	50.98	59.97
40		175	24.5	15.62	23.43	29.67	33.58	39.82	46.85	59.35	67.16	79.65	93.71
42		159	27.14	17.21	25.81	32.69	36.99	43.88	51.62	65.39	73.99	87.75	103.2
50	1" NPT	116	38.47	24.39	36.58	46.33	52.43	62.18	73.16	92.67	104.8	124.3	146.3
56		87	48.25	30.59	45.88	58.12	65.77	78	91.77	116.2	131.5	156	183.5
62		73	59.14	37.5	56.24	71.24	80.62	95.61	112.5	142.5	161.2	191.3	224.9
63		72	61.06	38.74	58.11	73.61	83.29	98.79	116.2	147.2	166.6	197.6	232.4
			<b>RPM</b>	<b>GEAR RATIO</b>									
			<b>3600</b>						28:1	22:1	39:2	33:2	14:1
			<b>1800</b>		28:1	22:1	39:2	33:2	14:1				
			<b>1200</b>	28:1	39:2	33:2	14:1						

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**H2 / J / KA Gear Capacity Chart - 30 mm stroke length (gallons per hour)**

Plunger Diameter (mm)	Connection Size (in)	Pressure max (psig)	Stroke Volume (mL)	GPH										
				10,000 cps max		7,500 cps max	4,500 cps max	2000 cps max		200 cps max				
				Strokes/min										
				40	60	76	86	102	120	152	172	204	240	
3	1/2" OD Tube	4600	0.20	0.13	0.20	0.25	0.28	0.34	0.40	0.50	0.57	0.67	0.79	
5		4600	0.57	0.37	0.55	0.70	0.79	0.93	1.10	1.39	1.57	1.87	2.20	
6*		4600	0.82	0.53	0.79	1.00	1.13	1.34	1.58	2.00	2.27	2.69	3.16	
8		4600	1.47	0.94	1.41	1.78	2.01	2.39	2.81	3.56	4.03	4.78	5.62	
10*		4600	2.30	1.46	2.20	2.78	3.15	3.73	4.39	5.56	6.30	7.47	8.78	
12		3120	3.32	2.11	3.16	4.01	4.53	5.38	6.33	8.01	9.07	10.75	12.65	
16		1760	5.91	3.75	5.62	7.12	8.06	9.56	11.24	14.24	16.12	19.12	22.49	
20	1/2" NPT	1120	9.24	5.86	8.78	11.13	12.59	14.93	17.57	22.26	25.18	29.87	35.14	
25		710	14.4	9.15	13.73	17.39	19.67	23.33	27.45	34.77	39.35	46.67	54.91	
30		496	20.7	13.18	19.77	25.04	28.33	33.6	39.53	50.07	56.66	67.2	79.06	
32*		450	23.5	14.99	22.49	28.49	32.23	38.23	44.98	56.97	64.47	76.46	89.96	
36		340	29.9	18.98	28.46	36.05	40.80	48.39	56.93	72.11	81.59	96.77	113.9	
40*		290	37.2	23.43	35.14	44.51	50.37	59.74	70.28	89.02	100.7	119.5	140.6	
42		255	40.7	25.83	38.74	49.07	55.53	65.86	77.48	98.14	111.1	131.7	155.0	
47*	1" NPT	198	50.9	32.34	48.51	61.45	69.54	82.47	97.03	122.9	139.1	164.9	194.1	
50		177	57.7	36.60	54.91	69.55	78.70	93.34	109.8	139.1	157.4	186.7	219.6	
56		142	72.4	45.92	68.87	87.24	98.72	117.1	137.7	174.5	197.4	234.2	275.5	
62	1-1/2" Flange	113	88.7	56.28	84.42	106.9	121.0	143.5	168.8	213.9	242.0	287.0	337.7	
63*		112	92.1	58.11	87.17	110.4	124.9	148.2	174.3	220.8	249.9	296.4	348.7	
68		99	106	67.70	101.6	128.6	145.6	172.6	203.1	257.3	291.1	345.3	406.2	
75		72	129	82.36	123.5	156.5	177.1	210.0	247.1	313.0	354.1	420.0	494.2	
80*		71	148	93.71	140.6	178.0	201.5	238.9	281.1	356.1	402.9	477.9	562.2	
				<b>RPM</b>	<b>GEAR RATIO</b>									
				<b>3600</b>						28:1	22:1	39:2	33:2	14:1
				<b>1800</b>		28:1	22:1	39:2	33:2	14:1				
				<b>1200</b>	28:1									

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**Notes:**

\* Plunger diameter indicated may not be available in all pumphead designs or available by special design only. Consult factory or pumphead selection charts with capacity tables.

Consult factory when selecting stroke speeds above 172 spm.

**H3 Gear Capacity Chart - 30s mm stroke length (gallons per hour)**

Plunger Diameter (mm)	Connection Size (in)	Pressure max (psig)	Stroke Volume (mL)	GPH									
				10,000 cps max		7,500 cps max	4,500 cps max	2000 cps max		200 cps max			
				Strokes/min									
				40	60	76	86	102	120	152	172	204	240
6*	1/2" OD Tube	32,678	0.82	0.53	0.79	1.00	1.13	1.34	1.58	2.00	2.27	2.69	3.16
8		18,391	1.47	0.94	1.41	1.78	2.01	2.39	2.81	3.56	4.03	4.78	5.62
10*		11,763	2.30	1.46	2.20	2.78	3.15	3.73	4.39	5.56	6.30	7.47	8.78
12		8,166	3.32	2.11	3.16	4.01	4.53	5.38	6.33	8.01	9.07	10.75	12.65
16		4,569	5.91	3.75	5.62	7.12	8.06	9.56	11.24	14.24	16.12	19.12	22.49
20	1/2" NPT	2,901	9.24	5.86	8.78	11.13	12.59	14.93	17.57	22.26	25.18	29.87	35.14
25		1,813	14.4	9.15	13.73	17.39	19.67	23.33	27.45	34.77	39.35	46.67	54.91
30		1,262	20.7	13.18	19.77	25.04	28.33	33.60	39.53	50.07	56.66	67.20	79.06
32*		1,160	23.5	14.99	22.49	28.49	32.23	38.23	44.98	56.97	64.47	76.46	89.96
36		870	29.9	18.98	28.46	36.05	40.80	48.39	56.93	72.11	81.59	96.77	113.9
40*		725	37.2	23.43	35.14	44.51	50.37	59.74	70.28	89.02	100.7	119.5	140.6
42		653	40.7	25.83	38.74	49.07	55.53	65.86	77.48	98.14	111.1	131.7	155.0
50	1" NPT	464	57.7	36.60	54.91	69.55	78.70	93.34	109.8	139.1	157.4	186.7	219.6
56		363	72.4	45.92	68.87	87.24	98.72	117.1	137.7	174.5	197.4	234.2	275.5
62	1-1/2" Flange	290	88.7	56.28	84.42	106.9	121.0	143.5	168.8	213.9	242.0	287.0	337.7
63*		290	92.1	58.11	87.17	110.4	124.9	148.2	174.3	220.8	249.9	296.4	348.7
68		247	106	67.70	101.6	128.6	145.6	172.6	203.1	257.3	291.1	345.3	406.2
75		218	129	82.36	123.5	156.5	177.1	210.0	247.1	313.0	354.1	420.0	494.2
80*		181	148	93.71	140.6	178.0	201.5	238.9	281.1	356.1	402.9	477.9	562.2
82		167	155	98.4	147.7	187.0	211.7	251.0	295.3	376.6	423.3	502.0	590.7
90		145	187	118.6	177.9	225.3	255.0	302.4	355.8	453.6	509.9	604.8	711.5
100*		116	231	146.4	219.6	278.1	314.8	373.3	439.2	560.0	629.6	746.7	878.7
				<b>RPM</b>	<b>GEAR RATIO</b>								
				<b>3600</b>					28:1	22:1	39:2	33:2	14:1
				<b>1800</b>		28:1	22:1	39:2	33:2	14:1			
				<b>1200</b>	28:1								

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**Notes:**

\* Plunger diameters may not be available in all pumphead designs or available by special design only. Consult factory or pumphead selection charts with capacity tables.

Consult factory when selecting stroking speeds above 172 spm.

**H4 / C / DA Gear Capacity Chart - 60 mm stroke length (gallons per hour)**

Plunger Diameter (mm)	Connection Size (in)	Pressure max (psig)	Stroke Volume (mL)	GPH									
				10,000 cps max		7,500 cps max	4,500 cps max	2000 cps max		200 cps max			
				Strokes/min									
				40	60	76	86	102	120	152	172	204	240
8	1/2" OD Tube	4,600	2.95	1.87	2.80	3.55	4.02	4.76	5.6	7.10	8.03	9.52	11.20
10*		4,600	4.61	2.92	4.38	5.55	6.28	7.45	8.76	11.10	12.56	14.9	17.5
12		4,600	6.65	4.20	6.30	7.98	9.03	10.7	12.6	15.96	18.06	21.4	25.2
16	1/2" Flange	2,900	11.8	7.5	11.2	14.15	16.0	29.6	22.3	28.3	32.0	38.2	44.6
20		2,900	18.4	11.7	17.5	22.2	25.0	29.8	35.1	44.4	50.2	59.6	70.2
25		2,346	28.2	18.3	27.4	34.7	39.3	46.5	54.8	69.4	78.5	93.0	109.6
30		1,639	41.5	26.3	39.5	50.0	56.5	67.0	78.9	100.0	113.2	134.0	157.8
32*		1450	47.3	29.9	44.9	56.9	64.3	76.2	89.8	113.7	128.8	152.4	179.5
36	1" Flange	1146	59.8	37.9	56.8	72.0	81.5	96.5	113.6	144.0	162.9	193.0	227.2
40*		928	75.0	46.7	70.1	88.7	100.5	119.2	140.2	177.4	200.7	238.3	280.4
42		841	81.4	51.5	77.3	97.8	110.8	131.4	154.6	195.6	221.3	262.8	309.2
50		595	115	73.0	109.5	138.8	157.0	186.1	219.0	277.0	313.4	372.2	438.0
56		464	144	91.4	137.4	174.0	197.0	232.9	274.0	348.0	392.8	465.8	548.0
62	1-1/2" Flange	392	177	112.3	168.4	213.6	241.4	286.5	337.0	427.0	483.2	573.0	674.0
63*		377	187	116.0	173.9	220.5	249.2	295.8	347.9	440.9	498.9	591.6	695.9
68		319	213	135.1	202.6	256.4	290.4	344.2	405.0	513.0	580.5	688.4	810.0
75		261	259	164.3	246.5	312.0	353.3	419.0	493.0	624.0	706.0	838.0	986.0
80*		232	301	187.2	280.8	356.0	402.6	478.1	562.5	711.5	805.2	956.2	1125.0
82		219	310	196.7	295.0	374.0	423.0	502.3	591.0	747.5	846.0	1004.6	1182.0
90		183	374	236.7	355.0	450.5	509.0	604.3	711.0	901.0	1019.5	1208.6	1422.0
100		148	461	292.0	438.0	554.5	627.0	744.1	875.5	1109.0	1255.0	1488.2	1751.0
110		122	558	353.7	530.5	672.0	760.0	901.8	1061.0	1343.0	1519.5	1803.6	2122.0
125	2" Flange	102	721	456.5	685.0	867.5	981.5	1165.0	1370.0	1735.0	1963.5	NR	NR
			<b>RPM</b>	<b>GEAR RATIO</b>									
			<b>3600</b>						28:1	22:1	39:2	33:2	14:1
			<b>1800</b>		28:1	22:1	39:2	33:2	28:2				
			<b>1200</b>	28:1									

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**Notes:**

\* Plunger diameters may not be available in all pumphead designs or available by special design only. Consult factory or pumphead selection charts with capacity tables.

Consult factory when selecting stroking speeds above 172 spm.

**H2 / H3 / J Gear NPSHR Chart**

Plunger Diameter (mm)	Conn. Size (in)	Valve Type	NPSHR at Stroking Speed, for water (ft. of water)									
			40	60	76	86	102	120	152	172	204	240
3	1/2" OD Tube	Double Ball**	0.6	0.7	0.7	0.7	0.7	1.0	1.3	1.3	1.3	1.4
5			0.9	1	1	1	1	1.3	1.65	2.0	2.0	2.1
6*			1	1.1	1.1	1.1	1.2	1.4	1.4	2.0	2.1	2.2
8			1.5	1.65	1.65	1.65	1.65	2.0	2.01	2.13	2.3	2.3
10*			2.0	2.3	2.3	2.4	2.4	2.8	3.2	3.5	3.6	5.0
12			2.7	2.95	2.9	3.1	3.2	3.6	4.3	4.9	4.9	7.5
16			4.5	4.6	4.6	4.6	4.6	4.9	5.6	5.6	6.2	7.5
20	1/2" NPT		2.4	2.6	2.65	2.8	2.95	3.2	3.6	3.6	3.6	4.5
25			2.7	2.95	3.2	3.2	3.2	3.6	3.9	4.2	4.2	5.3
30			2.9	2.95	3.2	3.2	3.2	3.9	4.2	4.6	4.9	6.7
32*			2.9	2.95	3.2	3.2	3.3	4.0	4.2	4.8	5.4	7.0
36			2.9	3.2	3.3	3.6	3.9	4.2	4.9	6.9	7.5	13.6
40*			3.0	3.1	3.6	4.0	4.5	4.6	7.0	8.6	9.0	17.0
42			3.1	3.6	3.6	4.1	4.6	4.9	7.9	9.5	9.8	18.8
47*	1" NPT	10.0	10.3	10.5	10.6	10.7	11.0	11.4	12.4	13.5	15.0	
50		10.8	11.1	11.3	11.4	11.5	11.8	12.1	13.1	14.1	15.5	
56		11.2	11.5	11.5	11.65	11.8	12.2	12.8	13.4	13.5	15.9	
62	1-1/2" Flange	10.8	11.1	11.3	11.4	11.5	11.8	12.1	12.5	13.1	15.5	
63*		10.8	11.1	11.3	11.4	11.5	11.8	12.1	12.5	13.1	15.5	
68		11.3	11.5	11.5	11.65	11.8	12.1	13.1	13.8	14.1	17.8	
75		11.5	11.8	11.8	11.95	12.1	12.5	13.1	14.1	14.4	17.9	
80*	Flange	14.5	14.8	14.8	14.95	15.1	15.5	16.1	17.1	17.5	20.2	

PL6030-CH9

**Notes:**

For double TFE diaphragm pump with suction conditions less than flooded, **add 6.5 ft.**

For cone valves with spring removed, **subtract 6.5 ft.**

For optional cone valves with springs, **add 6.5 ft.** (when replacing suction ball valve with 3 psi cone valve).

\* Plunger diameters may not be available in all pumphead designs or available by special design only. Consult factory or pumphead selection charts with capacity tables.

H4 / C Gear NPSHR Chart

Plunger Diameter (mm)	Conn. Size (in)	Valve Type	NPSHR at Stroking Speed, for water (ft. of water)									
			40	60	76	86	102	120	152	172	204	240
8	1/2" OD Tube	Double Ball**	1.76	1.97	1.97	2.15	2.3	2.6	3.2	3.9	3.9	4.0
10			2.1	2.6	2.6	3.1	3.6	3.9	4.9	5.3	6.2	7.8
12			3.2	3.6	3.6	4.1	4.6	4.9	5.9	6.5	6.5	8.8
16	1/2" Flange		2.7	2.95	3.2	3.2	3.2	3.6	3.9	3.9	3.9	5.6
20			2.6	2.95	2.95	3.3	3.6	3.9	4.6	4.9	4.9	6.75
25			2.9	3.2	3.2	3.6	3.9	4.2	5.2	6.9	7.5	7.6
30			3.2	3.6	3.9	4.25	4.6	4.9	7.9	9.5	9.8	10.0
32*			3.2	3.6	3.9	4.25	4.6	4.9	8.1	9.7	10.0	10.5
36	1" Flange		10.8	11.1	11.1	11.3	11.5	11.8	12.5	12.8	12.8	12.9
40*			10.8	11.1	11.1	11.3	11.5	11.8	12.5	13.0	13.2	13.5
42			10.8	11.1	11.1	11.3	11.5	11.8	12.8	13.1	13.5	13.6
50			11.5	11.8	11.8	12.2	12.5	12.8	14.1	15.4	16.1	16.2
56		11.5	11.8	11.8	12.2	12.5	12.8	14.1	15.4	16.1	16.2	
62	1-1/2" Flange	Cone with Spring	11.5	11.8	11.8	12.2	12.5	12.8	13.8	14.1	14.4	15.8
63*			11.5	11.8	11.8	12.2	12.5	12.8	13.8	14.1	14.4	15.8
68			11.9	12.1	12.1	12.4	12.8	13.1	13.81	15.1	15.7	16.1
75			11.9	12.1	12.1	12.4	12.8	13.1	14.1	15.7	16.4	16.5
80*			12.5	12.7	12.9	13.2	13.6	13.9	14.6	15.9	17.0	17.5
82			11.5	11.8	11.8	12.2	12.5	12.8	13.5	14.4	14.7	15.8
90			11.9	12.1	12.1	12.4	12.8	13.1	14.1	15.7	16.4	16.5
100			12.1	12.5	12.5	12.8	13.1	13.5	15.1	18.1	19.0	20.0
110			12.1	12.5	12.7	12.9	13.1	13.5	15.4	19.7	22.3	23.0
125	2" Flange	11.8	12.1	12	12.3	12.5	12.85	13.8	18.0	20.0	22.0	

PL6030-CH10

**Notes:**

For double TFE diaphragm pump with suction conditions less than flooded, **add 6.5 ft.**

For cone valves with spring removed, **subtract 6.5 ft.**

For optional cone valves with springs, **add 6.5 ft.** (when replacing suction ball valve with 3 psi cone valve).

\* Plunger diameters may not be available in all pumphead designs or available by special design only. Consult factory or pumphead selection charts with capacity tables.



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