

Maximum Strokes Per Minute													
Piston Diameter & Stroke	2.5"x1"x10'	2.5"x1"x20'	3"x1.25"x10'	3"x1"x20'	3.5"x1.25"x20'	3.5"x1.25"x24'	3.5"x1.25"x28'	4"x1.25"x20'	4"x1.25"x24'	4"x1.25"x28'	4.5"X 20'	4.5"X 28'	
Gallons Per Stroke	2.14	4.28	3.03	6.52	8.72	10.46	12.20	11.78	14.13	16.49	14.68	20.55	
Pump Size (Cartridge)	GPM @ 1800 RPM	Maximum Strokes Per Minute At Each Cartridge Size (Theoretical @100% eff.)											
5	7.5	1.8	0.9	1.2	0.6	0.4	0.4	0.3	0.3	0.3	0.2	0.3	0.2
6	9	2.1	1.1	1.5	0.7	0.5	0.4	0.4	0.4	0.3	0.3	0.3	0.2
8	12	2.8	1.4	2.0	0.9	0.7	0.6	0.5	0.5	0.4	0.4	0.4	0.3
10	15	3.5	1.8	2.5	1.2	0.9	0.7	0.6	0.6	0.5	0.5	0.5	0.4
12	18	4.2	2.1	3.0	1.4	1.0	0.9	0.7	0.8	0.6	0.5	0.6	0.4
14	21	4.9	2.5	3.5	1.6	1.2	1.0	0.9	0.9	0.7	0.6	0.7	0.5
17	25.5	6.0	3.0	4.2	2.0	1.5	1.2	1.0	1.1	0.9	0.8	0.9	0.6
22	33	7.7	3.9	5.4	2.5	1.9	1.6	1.4	1.4	1.2	1.0	1.1	0.8
25	37.5	8.8	4.4	6.2	2.9	2.2	1.8	1.5	1.6	1.3	1.1	1.3	0.9
27	40.5	9.5	4.7	6.7	3.1	2.3	1.9	1.7	1.7	1.4	1.2	1.4	1.0
31	46.5	10.9	5.4	7.7	3.6	2.7	2.2	1.9	2.0	1.6	1.4	1.6	1.1
35	52.5	12.3	6.1	8.7	4.0	3.0	2.5	2.2	2.2	1.9	1.6	1.8	1.3
38	57	13.3	6.7	9.4	4.4	3.3	2.7	2.3	2.4	2.0	1.7	1.9	1.4
42	63	14.7	7.4	10.4	4.8	3.6	3.0	2.6	2.7	2.2	1.9	2.1	1.5
45	67.5	15.8	7.9	11.1	5.2	3.9	3.2	2.8	2.9	2.4	2.0	2.3	1.6
50	75	17.5	8.8	12.4	5.8	4.3	3.6	3.1	3.2	2.7	2.3	2.6	1.8
52	78	18.2	9.1	12.9	6.0	4.5	3.7	3.2	3.3	2.8	2.4	2.7	1.9
62	93	21.7	10.9	15.3	7.1	5.3	4.4	3.8	3.9	3.3	2.8	3.2	2.3
66	99	23.1	11.6	16.3	7.6	5.7	4.7	4.1	4.2	3.5	3.0	3.4	2.4
72	108	25.2	12.6	17.8	8.3	6.2	5.2	4.4	4.6	3.8	3.3	3.7	2.6
Tandem 52+25	115.5	27.0	13.5	19.1	8.9	6.6	5.5	4.7	4.9	4.1	3.5	3.9	2.8
Tandem 62+25	130.5	30.5	15.2	21.5	10.0	7.5	6.2	5.3	5.5	4.6	4.0	4.4	3.2
Tandem 66+25	136.5	31.9	15.9	22.5	10.5	7.8	6.5	5.6	5.8	4.8	4.1	4.6	3.3
Tandem 72+25	145.5	34.0	17.0	24.0	11.2	8.3	7.0	6.0	6.2	5.1	4.4	5.0	3.5

Required Stroke Seconds													
Piston Diameter & Stroke	2.5"x1"x10'	2.5"x1"x20'	3"x1.25"x10'	3"x1"x20'	3.5"x1.25"x20'	3.5"x1.25"x24'	3.5"x1.25"x28'	4"x1.25"x20'	4"x1.25"x24'	4"x1.25"x28'	4.5"X 20'	4.5"X 28'	
Gallons Per Stroke	2.14	4.28	3.03	6.52	8.72	10.46	12.20	11.78	14.13	16.49	14.68	20.55	
Pump Size (Cartridge)	GPM @ 1800 RPM	Seconds Required to Up Stroke At Each Cartridge Size (Theoretical @100% eff.)											
5	7.5	17.1	34.2	24.2	52.2	69.8	83.7	97.6	94.2	113.0	131.9	117.4	164.4
6	9	14.3	28.5	20.2	43.5	58.1	69.7	81.3	78.5	94.2	109.9	97.9	137.0
8	12	10.7	21.4	15.2	32.6	43.6	52.3	61.0	58.9	70.7	82.5	73.4	102.8
10	15	8.6	17.1	12.1	26.1	34.9	41.8	48.8	47.1	56.5	66.0	58.7	82.2
12	18	7.1	14.3	10.1	21.7	29.1	34.9	40.7	39.3	47.1	55.0	48.9	68.5
14	21	6.1	12.2	8.7	18.6	24.9	29.9	34.9	33.7	40.4	47.1	41.9	58.7
17	25.5	5.0	10.1	7.1	15.3	20.5	24.6	28.7	27.7	33.2	38.8	34.5	48.4
22	33	3.9	7.8	5.5	11.9	15.9	19.0	22.2	21.4	25.7	30.0	26.7	37.4
25	37.5	3.4	6.8	4.8	10.4	14.0	16.7	19.5	18.8	22.6	26.4	23.5	32.9
27	40.5	3.2	6.3	4.5	9.7	12.9	15.5	18.1	17.5	20.9	24.4	21.7	30.4
31	46.5	2.8	5.5	3.9	8.4	11.3	13.5	15.7	15.2	18.2	21.3	18.9	26.5
35	52.5	2.4	4.9	3.5	7.5	10.0	12.0	13.9	13.5	16.1	18.8	16.8	23.5
38	57	2.3	4.5	3.2	6.9	9.2	11.0	12.8	12.4	14.9	17.4	15.5	21.6
42	63	2.0	4.1	2.9	6.2	8.3	10.0	11.6	11.2	13.5	15.7	14.0	19.6
45	67.5	1.9	3.8	2.7	5.8	7.8	9.3	10.8	10.5	12.6	14.7	13.0	18.3
50	75	1.7	3.4	2.4	5.2	7.0	8.4	9.8	9.4	11.3	13.2	11.7	16.4
52	78	1.6	3.3	2.3	5.0	6.7	8.0	9.4	9.1	10.9	12.7	11.3	15.8
62	93	1.4	2.8	2.0	4.2	5.6	6.7	7.9	7.6	9.1	10.6	9.5	13.3
66	99	1.3	2.6	1.8	4.0	5.3	6.3	7.4	7.1	8.6	10.0	8.9	12.5
72	108	1.2	2.4	1.7	3.6	4.8	5.8	6.8	6.5	7.9	9.2	8.2	11.4
Tandem 52+25	115.5	1.1	2.2	1.6	3.4	4.5	5.4	6.3	6.1	7.3	8.6	7.6	10.7
Tandem 62+25	130.5	1.0	2.0	1.4	3.0	4.0	4.8	5.6	5.4	6.5	7.6	6.7	9.4
Tandem 66+25	136.5	0.9	1.9	1.3	2.9	3.8	4.6	5.4	5.2	6.2	7.2	6.5	9.0
Tandem 72+25	145.5	0.9	1.8	1.2	2.7	3.6	4.3	5.0	4.9	5.8	6.8	6.1	8.5