



**STANLEY PUMP SUPPLY LTD.**

*"Suppliers of Quality Water Well Products."*

**CONVERSIONS & DATA**

POUNDS PRESSURE	FEET OF HEAD	POUNDS PRESSURE	FEET OF HEAD
1	2.31	19	43.9
2	4.62	20	46.2
3	6.93	25	57.7
4	9.24	30	69.3
5	11.6	35	80.8
6	13.9	40	92.4
7	16.2	45	103.9
8	18.5	50	115.5
9	20.8	55	127.0
10	23.1	60	138.6
11	25.4	65	150.1
12	27.7	70	161.7
13	30.0	75	173.2
14	32.3	80	184.8
15	34.7	85	196.3
16	37	90	207.9
17	39.3	95	219.4
18	41.6	100	231.0

**POUNDS PRESSURE - FEET OF HEAD**

Each pound of pressure developed by a pumping system is equal to 2.31 feet of head (feet of lift). Therefore, 10 pounds of pressure (PSI) will lift water vertically 23.1 feet. The chart on the left converts pressure to feet of head at various settings from 1 to 100 PSI.

This can be calculated for any setting using the following formula:

$$\text{Pounds Per Sq. In.} = \frac{\text{Head in feet}}{2.31}$$

$$\text{Head in Feet} = \text{Pounds Per Sq. In.} \times 2.31$$

**IF YOU HAVE:**

US Gal into IMP Gal	US x 0.83267 = IMP Gal
IMP Gal Into US Gal	IMP x 1.20095 = US Gal
Litre Per Sec to US Gal/Min	x 15.85
Cubic Ft/Min to US Gal/Sec	x 0.1247
Cubic Ft/Sec to US Gal/Min	x 448.8
Cubic Meters/hour to Litre/Sec.	x 0.2778
MM into Inches	MM ÷ 25 = Inches
Meters to Feet	M x 3.28 = Feet
PSI into Ft	PSI x 2.31 = Feet
Bars to PSI	x 14.504
KW into HP	KW x 1.341 = HP
KPA into PSI	x .145
PSI into KPA	x 6.9
Litres/Min into GPM	x .264

**AMOUNT OF WATER  
INVARIOUS SIZES OF WELLS**

Casing Size Depth	U.S. Gal/Ft Water
2"	0.16
3"	0.36
4"	0.66
5"	1.04
6"	1.50
8"	2.60
10"	4.09
12"	5.87
16"	10.44
24"	23.50
36"	52.88
48"	94.00



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**PIPE FRICTION LOSS CHART**

*Loss of Head in Feet Due to Friction per 100 Feet of Pipe*

1/2"				3/4"				1"				1 1/4"			
Flow US Gal. Min.	Steel C=100 ID .622"	Copper C-130 ID .625"	Plastic C=140 ID .622"	Flow US Gal. Min.	Steel C=100 ID .824"	Copper C-130 ID .822"	Plastic C=140 ID .824"	Flow US Gal. Min.	Steel C=100 ID 1.049"	Copper C-130 ID 1.062"	Plastic C=140 ID 1.049"	Flow US Gal. Min.	Steel C=100 ID .622"	Copper C-130 ID .625"	Plastic C=140 ID .622"
0.5	.582	.35	.314	1.5	1.13	.70	.61	2	.595	.345	.322	4	.564	.364	.304
1.0	2.10	1.26	1.14	2.0	1.93	1.21	1.04	3	1.26	.732	.680	5	.853	.545	.460
1.5	4.44	2.67	2.38	2.5	2.91	1.82	1.57	4	2.14	1.24	1.15	6	1.20	.765	.649
2.0	7.57	4.56	4.10	3.0	4.08	2.56	2.21	5	3.42	1.88	1.75	7	1.59	1.02	.860
2.5	11.4	6.88	6.15	3.5	5.42	3.4	2.93	6	4.54	2.63	2.45	8	2.04	1.31	1.10
3.0	16.0	9.66	8.65	4.0	6.94	4.36	3.74	8	7.73	4.50	4.16	10	3.08	1.98	1.67
3.5	21.3	12.9	11.5	4.5	8.63	5.4	4.66	10	11.7	6.77	6.31	12	4.31	2.75	2.33
4.0	27.3	16.4	14.8	5.0	10.5	6.57	5.66	12	16.4	9.47	8.85	14	5.73	3.64	3.10
4.5	33.9	20.4	18.3	6.0	14.7	9.22	7.95	14	21.8	12.6	11.8	16	7.34	4.68	3.96
5.0	41.2	24.8	22.2	7.0	19.6	12.2	10.6	16	27.9	16.2	15.1	18	9.13	5.81	4.93
5.5	49.2	29.5	26.6	8.0	25.0	15.7	13.5	18	34.7	20.1	18.7	20	11.1	7.10	6.00
6.0	57.8	34.8	31.2	9.0	31.1	19.5	16.8	20	42.1	24.4	22.8	25	16.8	10.7	9.06
6.5	67.0	40.2	36.2	10.0	37.8	23.7	20.4	22	50.2	28.8	27.1	30	23.5	15.0	12.7
7.0	76.8	46.1	41.5	11.0	45.1	28.2	24.4	24	59.0	34.0	31.9	35	31.2	20.0	16.9
7.5	87.3	52.5	47.2	12.0	53.0	33.2	28.6	26	68.4	39.7	36.9	40	40.0	25.6	21.6
8.0	98.3	59.4	53.0	13.0	61.5	38.5	33.2	28	78.5	45.5	42.5	50	60.4	38.7	32.6
8.5	110.0	66.0	59.5	14.0	70.5	44.2	38.0	30	89.2	51.6	48.1	60	84.7	54.1	45.6
9.0	122.0	73.5	66.0	16.0	90.2	56.6	48.6	35	119.0	68.7	64.3	70	114.0	72.2	61.5
9.5	135.0	81.0	73.0	18.0	112.0	70.4	60.5	40	152.0	88.0	82.0	80	144.0	92.4	77.9
10.0	149.0	89.4	80.5	20.0	136.0	83.6	73.5	45	189.0	109.0	102.0	90	179.0	115.0	96.6

1 1/2"				2"			
Flow US Gal. Min.	Steel C=100 ID 1.049"	Copper C-130 ID 1.062"	Plastic C=140 ID 1.049"	Flow US Gal. Min.	Steel C=100 ID 2.067"	Copper C-130 ID 2.062"	Plastic C=140 ID 2.067"
4	.267	.165	.144	10	.431	.268	.233
6	.565	.358	.305	15	.916	.569	.495
8	.962	.611	.520	20	1.55	.962	.839
10	1.45	.923	.785	25	2.35	1.45	1.27
12	2.04	1.29	1.10	30	3.29	2.03	1.78
14	2.71	1.71	1.46	35	4.37	2.71	2.36
16	3.47	2.2	1.87	40	5.60	3.47	3.03
18	4.31	2.75	2.33	45	6.96	4.31	3.76
20	5.24	3.31	2.83	50	8.46	5.24	4.57
25	7.90	5.00	4.26	55	10.1	6.22	5.46
30	11.1	7.00	6.0	60	11.9	7.34	6.44
35	14.7	9.35	7.94	70	15.8	9.78	8.53
40	18.9	12.00	10.2	80	20.2	12.5	10.9
45	23.4	14.9	12.63	90	25.1	15.6	13.6
50	28.5	18.1	15.4	100	30.5	18.9	16.5
55	34.0	21.5	18.35	110	36.4	22.5	19.7
60	40.0	25.3	21.6	120	42.7	26.6	23.1
65	46.4	29.0	25.1	130	49.6	30.7	26.8
70	53.2	33.8	28.7	140	56.9	35.2	30.6
75	60.4	38.0	32.6	150	64.7	40.1	35.0
80	68.1	43.1	36.8	160	72.8	45.1	39.3
85	76.2	47.6	41.2	170	81.4	50.5	44.0
90	84.7	53.6	45.7	180	90.5	56.1	48.9
95	93.6	58.8	50.5	190	100.0	62.0	54.0
100	103.0	65.1	56.6	200	110.0	68.0	59.4

**NOTE:**  
The shaded area is recommended for normal operation.