



PACIFIC PUMP AND POWER

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FRICITION LOSS OF WATER PER 1000 FEET LENGTH OF DR17 HDPE PIPE BASED ON HAZEN & WILLIAMS FORMULA USING C = 150

GAL. PER MIN.	2" HDPE PIPE	4" HDPE PIPE	6" HDPE PIPE	8" HDPE PIPE	10" HDPE PIPE	12" HDPE PIPE	14" HDPE PIPE	16" HDPE PIPE	18" HDPE PIPE	20" HDPE PIPE	22" HDPE PIPE	24" HDPE PIPE	26" HDPE PIPE	28" HDPE PIPE	30" HDPE PIPE	32" HDPE PIPE	34" HDPE PIPE	36" HDPE PIPE	42" HDPE PIPE	48" HDPE PIPE	
	2.079	3.938	5.798	7.55	9.41	11.16	12.253	14.005	15.755	17.507	19.256	21.007	22.758	24.508	26.259	28.009	29.76	31.511	36.762	42.014	
	LOSS IN FEET	LOSS IN FEET	LOSS IN FEET	LOSS IN FEET	LOSS IN FEET	LOSS IN FEET	LOSS IN FEET	LOSS IN FEET	LOSS IN FEET	LOSS IN FEET	LOSS IN FEET	LOSS IN FEET	LOSS IN FEET	LOSS IN FEET	LOSS IN FEET	LOSS IN FEET	LOSS IN FEET	LOSS IN FEET	LOSS IN FEET	LOSS IN FEET	LOSS IN FEET
25	10.78	0.48	0.07	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
50	38.86	1.74	0.26	0.07	0.03	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100	140.09	6.26	0.95	0.26	0.09	0.04	0.03	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
200	505.02	22.57	3.44	0.95	0.33	0.14	0.09	0.05	0.03	0.02	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
300		47.78	7.28	2.01	0.69	0.30	0.19	0.10	0.06	0.03	0.02	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
400		81.36	12.39	3.43	1.17	0.51	0.33	0.17	0.10	0.06	0.04	0.02	0.02	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00
500		122.94	18.72	5.18	1.77	0.77	0.49	0.26	0.14	0.09	0.05	0.04	0.02	0.02	0.01	0.01	0.01	0.01	0.00	0.00	0.00
600		172.26	26.23	7.26	2.49	1.08	0.69	0.36	0.20	0.12	0.08	0.05	0.03	0.02	0.02	0.01	0.01	0.01	0.00	0.00	0.00
700		229.11	34.88	9.65	3.31	1.44	0.92	0.48	0.27	0.16	0.10	0.07	0.05	0.03	0.02	0.02	0.01	0.01	0.01	0.00	0.00
800		293.31	44.66	12.36	4.23	1.85	1.17	0.61	0.34	0.21	0.13	0.09	0.06	0.04	0.03	0.02	0.02	0.01	0.01	0.01	0.00
900		364.72	55.53	15.37	5.26	2.30	1.46	0.76	0.43	0.26	0.16	0.11	0.07	0.05	0.04	0.03	0.02	0.01	0.01	0.01	0.00
1000		443.21	67.48	18.68	6.40	2.79	1.77	0.92	0.52	0.31	0.20	0.13	0.09	0.06	0.04	0.03	0.02	0.02	0.01	0.01	0.00
1200			94.55	26.17	8.96	3.91	2.48	1.29	0.73	0.44	0.28	0.18	0.12	0.09	0.06	0.04	0.03	0.03	0.01	0.01	0.01
1400			125.76	34.80	11.92	5.20	3.30	1.72	0.97	0.58	0.37	0.24	0.16	0.11	0.08	0.06	0.04	0.03	0.02	0.01	0.01
1600			160.99	44.55	15.26	6.65	4.22	2.20	1.24	0.74	0.47	0.31	0.21	0.14	0.10	0.08	0.06	0.04	0.02	0.01	0.01
1800			200.19	55.40	18.97	8.27	5.25	2.74	1.55	0.93	0.58	0.38	0.26	0.18	0.13	0.09	0.07	0.05	0.03	0.01	0.01
2000			243.27	67.32	23.06	10.06	6.38	3.33	1.88	1.12	0.71	0.46	0.31	0.22	0.16	0.11	0.09	0.06	0.03	0.02	0.02
2200			290.18	80.31	27.50	11.99	7.61	3.97	2.24	1.34	0.84	0.55	0.37	0.26	0.19	0.14	0.10	0.08	0.04	0.02	0.02
2400			340.86	94.33	32.31	14.09	8.94	4.67	2.63	1.58	0.99	0.65	0.44	0.31	0.22	0.16	0.12	0.09	0.04	0.02	0.02
2600			395.27	109.39	37.46	16.34	10.37	5.41	3.05	1.83	1.15	0.75	0.51	0.36	0.25	0.19	0.14	0.10	0.05	0.03	0.03
2800			453.35	125.46	42.97	18.74	11.89	6.21	3.50	2.10	1.32	0.86	0.58	0.41	0.29	0.21	0.16	0.12	0.06	0.03	0.03
3000			515.07	142.54	48.82	21.29	13.51	7.05	3.98	2.38	1.50	0.98	0.66	0.46	0.33	0.24	0.18	0.14	0.06	0.03	0.03
3500				189.58	64.93	28.32	17.97	9.38	5.29	3.17	1.99	1.30	0.88	0.62	0.44	0.32	0.24	0.18	0.09	0.04	0.04
4000				242.71	83.12	36.25	23.01	12.01	6.77	4.05	2.55	1.67	1.13	0.79	0.56	0.41	0.31	0.23	0.11	0.06	0.06
4500				301.80	103.36	45.08	28.61	14.93	8.42	5.04	3.17	2.08	1.41	0.98	0.70	0.51	0.38	0.29	0.14	0.07	0.07
5000				366.74	125.61	54.78	34.77	18.15	10.23	6.13	3.85	2.52	1.71	1.19	0.85	0.62	0.46	0.35	0.17	0.09	0.09
5500				437.46	149.83	65.34	41.47	21.64	12.21	7.31	4.60	3.01	2.04	1.42	1.02	0.74	0.55	0.42	0.20	0.10	0.10
6000				513.87	175.99	76.75	48.71	25.42	14.34	8.58	5.40	3.54	2.40	1.67	1.19	0.87	0.65	0.49	0.23	0.12	0.12
7000					234.07	102.08	64.79	33.82	19.07	11.42	7.18	4.70	3.19	2.22	1.59	1.16	0.86	0.65	0.31	0.16	0.16
8000					299.67	130.69	82.95	43.29	24.41	14.61	9.20	6.02	4.08	2.84	2.03	1.49	1.11	0.84	0.40	0.21	0.21
9000					372.62	162.50	103.14	53.83	30.35	18.17	11.43	7.49	5.07	3.54	2.53	1.85	1.38	1.04	0.49	0.26	0.26
10000					452.81	197.47	125.34	65.42	36.89	22.08	13.90	9.10	6.16	4.30	3.07	2.24	1.67	1.27	0.60	0.31	0.31
11000						235.55	149.50	78.03	44.00	26.34	16.57	10.85	7.35	5.13	3.66	2.68	1.99	1.51	0.71	0.37	0.37
12000						276.69	175.62	91.66	51.69	30.94	19.47	12.75	8.64	6.02	4.30	3.14	2.34	1.77	0.84	0.44	0.44
13000						320.85	203.64	106.29	59.93	35.88	22.58	14.78	10.01	6.98	4.99	3.65	2.71	2.06	0.97	0.51	0.51
14000						368.00	233.57	121.90	68.74	41.15	25.89	16.95	11.48	8.01	5.72	4.18	3.11	2.36	1.11	0.58	0.58
15000						418.10	265.37	138.50	78.10	46.76	29.42	19.26	13.05	9.10	6.50	4.75	3.54	2.68	1.27	0.66	0.66
16000						471.12	299.02	156.06	88.00	52.69	33.15	21.71	14.70	10.25	7.33	5.35	3.99	3.02	1.43	0.74	0.74
17000							334.51	174.59	98.45	58.94	37.08	24.28	16.45	11.47	8.20	5.99	4.46	3.38	1.60	0.83	0.83
18000							371.82	194.06	109.43	65.51	41.22	26.99	18.28	12.75	9.11	6.66	4.96	3.75	1.77	0.93	0.93
19000							410.93	214.47	120.94	72.40	45.56	29.83	20.21	14.09	10.07	7.36	5.48	4.15	1.96	1.02	1.02
20000							451.84	235.82	132.98	79.61	50.09	32.80	22.22	15.49	11.07	8.09	6.02	4.56	2.15	1.13	1.13
22000								281.29	158.62	94.96	59.75	39.12	26.50	18.48	13.21	9.65	7.19	5.44	2.57	1.34	1.34
24000								330.42	186.33	111.55	70.19	45.96	31.13	21.71	15.52	11.34	8.44	6.39	3.02	1.58	1.58
26000								383.16	216.06	129.35	81.39	53.29	36.10	25.17	17.99	13.15	9.79	7.41	3.50	1.83	1.83
28000								439.46	247.81	148.36	93.35	61.12	41.40	28.87	20.64	15.08	11.23	8.50	4.02	2.10	2.10
30000								499.29	281.55	168.56	106.06	69.44	47.04	32.80	23.45	17.13	12.75	9.66	4.56	2.38	2.38
35000									374.46	224.18	141.06	92.36	62.56	43.63	31.19	22.78	16.96	12.84	6.07	3.17	3.17
40000									479.39	287.00	180.58	118.24	80.09	55.85	39.92	29.17	21.72	16.44	7.77	4.06	4.06
45000										356.88	224.55	147.03	99.59	69.45	49.64	36.27	27.00	20.45	9.66	5.04	5.04
50000										433.68	272.87	178.67	121.03	84.40	60.33	44.07	32.81	24.85	11.74	6.13	6.13
60000											382.33	250.34	169.58	118.26	84.53	61.76	45.98	34.81	16.45	8.59	8.59
70000											508.51	332.96	225.54	157.28	112.42	82.13	61.15	46.30	21.87	11.42	11.42