

Power Required for Pumping

Gals. per Min.	Theoretical Horsepower Required to Raise Water (at 60°F) To Different Heights											
	5 feet	10 feet	15 feet	20 feet	25 feet	30 feet	35 feet	40 feet	45 feet	50 feet	60 feet	70 feet
5	0.006	0.013	0.019	0.025	0.032	0.038	0.044	0.051	0.057	0.063	0.076	0.088
10	0.013	0.025	0.038	0.051	0.063	0.076	0.088	0.101	0.114	0.126	0.152	0.177
15	0.019	0.038	0.057	0.076	0.095	0.114	0.133	0.152	0.171	0.190	0.227	0.265
20	0.025	0.051	0.076	0.101	0.126	0.152	0.177	0.202	0.227	0.253	0.303	0.354
25	0.032	0.063	0.095	0.126	0.158	0.190	0.221	0.253	0.284	0.316	0.379	0.442
30	0.038	0.076	0.114	0.152	0.190	0.227	0.265	0.303	0.341	0.379	0.455	0.531
35	0.044	0.088	0.133	0.177	0.221	0.265	0.310	0.354	0.398	0.442	0.531	0.619
40	0.051	0.101	0.152	0.202	0.253	0.303	0.354	0.404	0.455	0.505	0.606	0.707
45	0.057	0.114	0.171	0.227	0.284	0.341	0.398	0.455	0.512	0.568	0.682	0.796
50	0.063	0.126	0.190	0.253	0.316	0.379	0.442	0.505	0.568	0.632	0.758	0.884
60	0.076	0.152	0.227	0.303	0.379	0.455	0.531	0.606	0.682	0.758	0.910	1.061
70	0.088	0.177	0.265	0.354	0.442	0.531	0.619	0.707	0.796	0.884	1.061	1.238
80	0.101	0.202	0.303	0.404	0.505	0.606	0.707	0.808	0.910	1.011	1.213	1.415
90	0.114	0.227	0.341	0.455	0.568	0.682	0.796	0.910	1.023	1.137	1.364	1.592
100	0.126	0.253	0.379	0.505	0.632	0.758	0.884	1.011	1.137	1.263	1.516	1.768
125	0.158	0.316	0.474	0.632	0.790	0.947	1.105	1.263	1.421	1.579	1.895	2.211
150	0.190	0.379	0.568	0.758	0.947	1.137	1.326	1.516	1.705	1.895	2.274	2.653
175	0.221	0.442	0.663	0.881	1.105	1.326	1.547	1.768	1.990	2.211	2.653	3.095
200	0.253	0.505	0.758	1.011	1.263	1.516	1.768	2.021	2.274	2.526	3.032	3.537
250	0.316	0.632	0.947	1.263	1.579	1.895	2.211	2.526	2.842	3.158	3.790	4.421
300	0.379	0.758	1.137	1.516	1.895	2.274	2.653	3.032	3.411	3.790	4.548	5.305
350	0.442	0.884	1.326	1.768	2.211	2.653	3.095	3.537	3.979	4.421	5.305	6.190
400	0.505	1.011	1.516	2.021	2.526	3.032	3.537	4.042	4.548	5.053	6.063	7.074
500	0.632	1.263	1.895	2.526	3.158	3.790	4.421	5.053	5.684	6.316	7.579	8.842

Power Required for Pumping (Continued)

Gals. per Min.	Theoretical Horsepower Required to Raise Water (at 60°F) To Different Heights										
	80 feet	90 feet	100 feet	125 feet	150 feet	175 feet	200 feet	250 feet	300 feet	350 feet	400 feet
5	0.101	0.114	0.126	0.158	0.190	0.221	0.253	0.316	0.379	0.442	0.505
10	0.202	0.227	0.253	0.316	0.379	0.442	0.505	0.632	0.758	0.884	1.011
15	0.303	0.341	0.379	0.474	0.568	0.663	0.758	0.947	1.137	1.326	1.516
20	0.404	0.455	0.505	0.632	0.758	0.884	1.011	1.263	1.516	1.768	2.021
25	0.505	0.568	0.632	0.790	0.947	1.105	1.263	1.579	1.895	2.211	2.526
30	0.606	0.682	0.758	0.947	1.137	1.326	1.516	1.895	2.274	2.653	3.032
35	0.707	0.796	0.884	1.105	1.326	1.547	1.768	2.211	2.653	3.095	3.537
40	0.808	0.910	1.011	1.263	1.516	1.768	2.021	2.526	3.032	3.537	4.042
45	0.910	1.023	1.137	1.421	1.705	1.990	2.274	2.842	3.411	3.979	4.548
50	1.011	1.137	1.263	1.579	1.895	2.211	2.526	3.158	3.790	4.421	5.053
60	1.213	1.364	1.516	1.895	2.274	2.653	3.032	3.790	4.548	5.305	6.063
70	1.415	1.592	1.768	2.211	2.653	3.095	3.537	4.421	5.305	6.190	7.074
80	1.617	1.819	2.021	2.526	3.032	3.537	4.042	5.053	6.063	7.074	8.084
90	1.819	2.046	2.274	2.842	3.411	3.979	4.548	5.684	6.821	7.958	9.095
100	2.021	2.274	2.526	3.158	3.790	4.421	5.053	6.316	7.579	8.842	10.11
125	2.526	2.842	3.158	3.948	4.737	5.527	6.316	7.895	9.474	11.05	12.63
150	3.032	3.411	3.790	4.737	5.684	6.632	7.579	9.474	11.37	13.26	15.16
175	3.537	3.979	4.421	5.527	6.632	7.737	8.842	11.05	13.26	15.47	17.68
200	4.042	4.548	5.053	6.316	7.579	8.842	10.11	12.63	15.16	17.68	20.21
250	5.053	5.684	6.316	7.895	9.474	11.05	12.63	15.79	18.95	22.11	25.26
300	6.063	6.821	7.579	9.474	11.37	13.26	15.16	18.95	22.74	26.53	30.32
350	7.074	7.958	8.842	11.05	13.26	15.47	17.68	22.11	26.53	30.95	35.37
400	8.084	9.095	10.11	12.63	15.16	17.68	20.21	25.26	30.32	35.37	40.42
500	10.11	11.37	12.63	15.79	18.95	22.11	25.26	31.58	37.90	44.21	50.53

Note: For fluids other than water, an approximate value can be reached by multiplying the value in the table by the specific gravity of the fluid. In pumping liquids with a viscosity much higher than that of water, the pump capacity and head are of course reduced.