

TECHNICAL INFORMATION

To obtain the capacity of a pump with diameter of cylinder given in table, but with a stroke longer than 24 inches, add or multiply the capacity to represent the required length of stroke.

To obtain the amount of water discharged per minute, multiply the capacity per stroke by the number of strokes per minute. To obtain the amount of water discharged per hour, multiply this figure by 60.

WATER DISCHARGED PER STROKE BY SINGLE ACTION CYLINDERS

Pump Cylinder Diameter (Inches)	Length of Stroke in Inches with Capacity per Stroke in Gallons												Pump Cylinder Area of Circle (Square Inches)
	1	2	3	4	5	6	7	8	10	12	18	24	
1 3/8	.0064	.0128	.0192	.0256	.0320	.0384	.0448	.0512	.0640	.0768	.1152	.1536	1.4849
1 1/2	.0076	.0153	.0229	.0306	.0382	.0459	.0535	.0612	.0765	.0918	.1375	.1832	1.7671
1 5/8	.0090	.0180	.0270	.0360	.0450	.0540	.0630	.0720	.0900	.1080	.1620	.2140	2.0739
1 3/4	.0104	.0208	.0312	.0416	.0512	.0625	.0729	.0833	.1041	.1249	.1872	.2497	2.4053
1 13/16	.0112	.0224	.0336	.0448	.0560	.0672	.0784	.0896	.1120	.1344	.2016	.2688	2.5802
1 7/8	.0120	.0240	.0360	.0480	.0600	.0720	.0840	.0960	.1200	.1440	.2160	.2880	2.7612
1 31/32	.0132	.0263	.0395	.0527	.0659	.0790	.0922	.1054	.1317	.1580	.2371	.3161	3.0440
2	.0136	.0272	.0408	.0544	.0680	.0816	.0952	.1088	.1360	.1632	.2448	.3264	3.1416
2 3/16	.0163	.0325	.0488	.0650	.0812	.0976	.1137	.1300	.1625	.1952	.2928	.3904	3.7584
2 1/4	.0172	.0344	.0516	.0688	.0860	.1033	.1205	.1377	.1721	.2071	.3104	.4137	3.9760
2 1/2	.0212	.0425	.0637	.0850	.1062	.1275	.1487	.1700	.2125	.2550	.3825	.5100	4.9070
2 3/4	.0257	.0514	.0771	.1028	.1285	.1543	.1800	.2057	.2571	.3085	.4628	.6171	5.9395
3	.0306	.0612	.0918	.1224	.1530	.1836	.2142	.2448	.3060	.3672	.5508	.7344	7.0686
3 1/4	.0359	.0719	.1078	.1438	.1795	.2156	.2515	.2875	.3594	.4313	.6469	.8625	8.2957
3 1/2	.0416	.0833	.1249	.1666	.2082	.2499	.2915	.3332	.4165	.4998	.7497	.9996	9.6211
3 3/4	.0479	.0957	.1435	.1914	.2393	.2871	.3350	.3828	.4785	.5743	.8614	1.1485	11.044
4	.0544	.1088	.1632	.2176	.2720	.3264	.3808	.4352	.5440	.6528	.9792	1.3056	12.566
4 1/4	.0614	.1228	.1842	.2457	.3070	.3685	.4299	.4913	.6141	.7370	1.1054	1.4739	14.186
4 1/2	.0688	.1377	.2065	.2754	.3442	.4131	.4819	.5508	.6885	.8262	1.2393	1.6524	15.904
4 3/4	.0767	.1534	.2301	.3068	.3835	.4602	.5369	.6136	.7670	.9204	1.3806	1.8408	17.721
5	.0850	.1700	.2550	.3400	.4250	.5100	.5950	.6800	.8500	1.0200	1.5300	2.0400	19.635
5 1/2	.1028	.2057	.3085	.4114	.5142	.6171	.7199	.8228	1.0285	1.2342	1.8513	2.4684	23.758
5 3/4	.1124	.2248	.3372	.4496	.5620	.6744	.7868	.8992	1.1240	1.3488	2.0232	2.6976	25.967

Capacities are given in U.S. gallons.

WEIGHT LOAD FACTORS

Approximate Weight of Water* and Pipe — per Foot

Type of Drop Pipe	Nominal Size of Pipe (Inches)	Pipe ID (Inches)	Water Volume per Foot (Cu. In.)	Approx. Water Wt. per Foot (lbs.)	Approx. Pipe Wt. per Foot (lbs.)	Approx. Total Wt. per Foot (lbs.)
160 PSI Polyethylene	1	1.049	10.37	0.38	0.26	0.64
	1 1/4	1.380	17.95	0.65	0.43	1.08
Schedule 80 PVC	1	0.957	8.63	0.31	0.40	0.71
	1 1/4	1.278	15.39	0.56	0.55	1.11
	1 1/2	1.500	21.21	0.77	0.66	1.43
	2	1.939	35.43	1.28	0.92	2.20
Schedule 40 Steel Pipe	1	1.049	10.37	0.38	1.68	2.06
	1 1/4	1.380	17.95	0.65	2.28	2.93
	1 1/2	1.610	24.43	0.88	2.73	3.61
	2	2.067	40.27	1.45	3.68	5.13

*1 Cubic Foot Water = 62.4 Lbs. 1 Cubic Inch Water = .036 Lbs.

