



2-Inch Parshall Flume Discharge Table

50% Submergence Transition

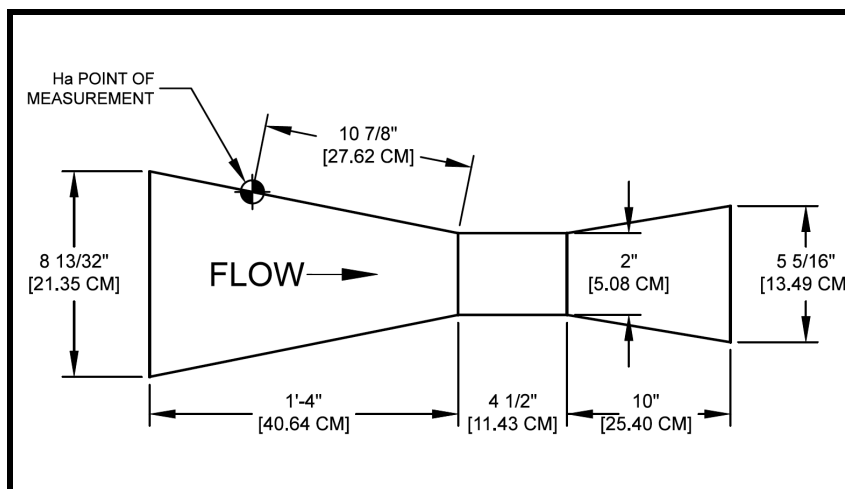
±3-5% Accuracy

Formulas (H in feet): CFS = $0.676 H_{ft}^{1.55}$
 Formulas (H in meters): L/S = $120.7 H_m^{1.55}$

GPM = $303.4 H_{ft}^{1.55}$
 M3/HR = $434.6 H_m^{1.55}$

MGD = $0.4369 H_{ft}^{1.55}$

FEET	INCHES	METERS	CFS	GPM	MGD	L/S	M3/HR
0.01	0.12	0.0030	Excessive error due to fluid-flow properties and boundary conditions				
0.02	0.24	0.0061					
0.03	0.36	0.0091					
0.04	0.48	0.0122					
0.05	0.60	0.0152	0.0065	2.920	0.0042	0.1843	0.6630
0.06	0.72	0.0183	0.0086	3.874	0.0056	0.2444	0.8795
0.07	0.84	0.0213	0.0110	4.919	0.0071	0.3104	1.117
0.08	0.96	0.0244	0.0135	6.050	0.0087	0.3818	1.374
0.09	1.08	0.0274	0.0162	7.262	0.0105	0.4583	1.649
0.10	1.20	0.0305	0.0191	8.551	0.0123	0.5396	1.941
0.11	1.32	0.0335	0.0221	9.912	0.0143	0.6255	2.251
0.12	1.44	0.0366	0.0253	11.34	0.0163	0.7158	2.575
0.13	1.56	0.0396	0.0286	12.84	0.0185	0.8103	2.916
0.14	1.68	0.0427	0.0321	14.40	0.0207	0.9089	3.271
0.15	1.80	0.0457	0.0357	16.03	0.0231	1.012	3.640
0.16	1.92	0.0488	0.0395	17.72	0.0255	1.118	4.023
0.17	2.04	0.0518	0.0434	19.46	0.0280	1.228	4.419
0.18	2.16	0.0549	0.0474	21.27	0.0306	1.342	4.828
0.19	2.28	0.0579	0.0515	23.12	0.0333	1.459	5.250
0.20	2.40	0.0610	0.0558	25.04	0.0361	1.580	5.685
0.21	2.52	0.0640	0.0602	27.00	0.0389	1.704	6.131
0.22	2.64	0.0671	0.0647	29.02	0.0418	1.831	6.590
0.23	2.76	0.0701	0.0693	31.09	0.0448	1.962	7.060
0.24	2.88	0.0732	0.0740	33.21	0.0478	2.096	7.541
0.25	3.00	0.0762	0.0788	35.38	0.0510	2.233	8.034
0.26	3.12	0.0792	0.0838	37.60	0.0541	2.373	8.537
0.27	3.24	0.0823	0.0888	39.87	0.0574	2.516	9.052
0.28	3.36	0.0853	0.0940	42.18	0.0607	2.662	9.577
0.29	3.48	0.0884	0.0992	44.54	0.0641	2.810	10.11
0.30	3.60	0.0914	0.1046	46.94	0.0676	2.962	10.66



Note: Not suitable for use on unscreened sanitary flows

Sources: [Water Measurement Manual](#), 3rd Edition, United States Department of the Interior, Bureau of Reclamation
 ASTM D 1941-91 (2007): Standard Test Method for Open Channel Flow Measurement of Water with Parshall Flume



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FEET	INCHES	METERS	CFS	GPM	MGD	L/S	M3/HR
0.31	3.72	0.0945	0.1100	49.39	0.0711	3.116	11.21
0.32	3.84	0.0975	0.1156	51.88	0.0747	3.274	11.78
0.33	3.96	0.1006	0.1212	54.41	0.0784	3.433	12.35
0.34	4.08	0.1036	0.1270	56.99	0.0821	3.596	12.94
0.35	4.20	0.1067	0.1328	59.61	0.0858	3.761	13.53
0.36	4.32	0.1097	0.1387	62.27	0.0897	3.929	14.14
0.37	4.44	0.1128	0.1448	64.97	0.0936	4.100	14.75
0.38	4.56	0.1158	0.1509	67.71	0.0975	4.273	15.37
0.39	4.68	0.1189	0.1571	70.49	0.1015	4.448	16.01
0.40	4.80	0.1219	0.1634	73.31	0.1056	4.626	16.65
0.41	4.92	0.1250	0.1697	76.18	0.1097	4.807	17.30
0.42	5.04	0.1280	0.1762	79.07	0.1139	4.990	17.95
0.43	5.16	0.1311	0.1827	82.01	0.1181	5.175	18.62
0.44	5.28	0.1341	0.1894	84.99	0.1224	5.363	19.30
0.45	5.40	0.1372	0.1961	88.00	0.1267	5.553	19.98
0.46	5.52	0.1402	0.2029	91.05	0.1311	5.745	20.67
0.47	5.64	0.1433	0.2097	94.14	0.1356	5.940	21.37
0.48	5.76	0.1463	0.2167	97.26	0.1401	6.137	22.08
0.49	5.88	0.1494	0.2237	100.4	0.1446	6.336	22.80
0.50	6.00	0.1524	0.2309	103.6	0.1492	6.538	23.52
0.51	6.12	0.1554	0.2381	106.8	0.1539	6.742	24.26
0.52	6.24	0.1585	0.2453	110.1	0.1586	6.948	25.00
0.53	6.36	0.1615	0.2527	113.4	0.1633	7.156	25.75
0.54	6.48	0.1646	0.2601	116.7	0.1681	7.366	26.51
0.55	6.60	0.1676	0.2676	120.1	0.1730	7.579	27.27
0.56	6.72	0.1707	0.2752	123.5	0.1779	7.793	28.04
0.57	6.84	0.1737	0.2828	126.9	0.1828	8.010	28.82
0.58	6.96	0.1768	0.2906	130.4	0.1878	8.229	29.61
0.59	7.08	0.1798	0.2984	133.9	0.1928	8.450	30.40
0.60	7.20	0.1829	0.3063	137.4	0.1979	8.673	31.21
0.61	7.32	0.1859	0.3142	141.0	0.2031	8.898	32.02
0.62	7.44	0.1890	0.3222	144.6	0.2083	9.125	32.83
0.63	7.56	0.1920	0.3303	148.2	0.2135	9.354	33.66
0.64	7.68	0.1951	0.3385	151.9	0.2188	9.586	34.49
0.65	7.80	0.1981	0.3467	155.6	0.2241	9.819	35.33
0.66	7.92	0.2012	0.3550	159.3	0.2294	10.05	36.18
0.67	8.04	0.2042	0.3634	163.1	0.2349	10.29	37.03
0.68	8.16	0.2073	0.3718	166.9	0.2403	10.53	37.89
0.69	8.28	0.2103	0.3803	170.7	0.2458	10.77	38.76
0.70	8.40	0.2134	0.3889	174.5	0.2514	11.01	39.63
0.71	8.52	0.2164	0.3976	178.4	0.2569	11.26	40.51
0.72	8.64	0.2195	0.4063	182.3	0.2626	11.51	41.40
0.73	8.76	0.2225	0.4150	186.3	0.2682	11.75	42.29
0.74	8.88	0.2256	0.4239	190.2	0.2740	12.00	43.19
0.75	9.00	0.2286	0.4328	194.2	0.2797	12.26	44.10
0.76	9.12	0.2316	0.4418	198.3	0.2855	12.51	45.02
0.77	9.24	0.2347	0.4508	202.3	0.2914	12.77	45.94
0.78	9.36	0.2377	0.4599	206.4	0.2973	13.03	46.87
0.79	9.48	0.2408	0.4691	210.5	0.3032	13.29	47.80
0.80	9.60	0.2438	0.4783	214.7	0.3092	13.55	48.74

Sources: [Water Measurement Manual](#), 3rd Edition, United States Department of the Interior, Bureau of Reclamation

ASTM D 1941-91 (2007): Standard Test Method for Open Channel Flow Measurement of Water with Parshall Flume