

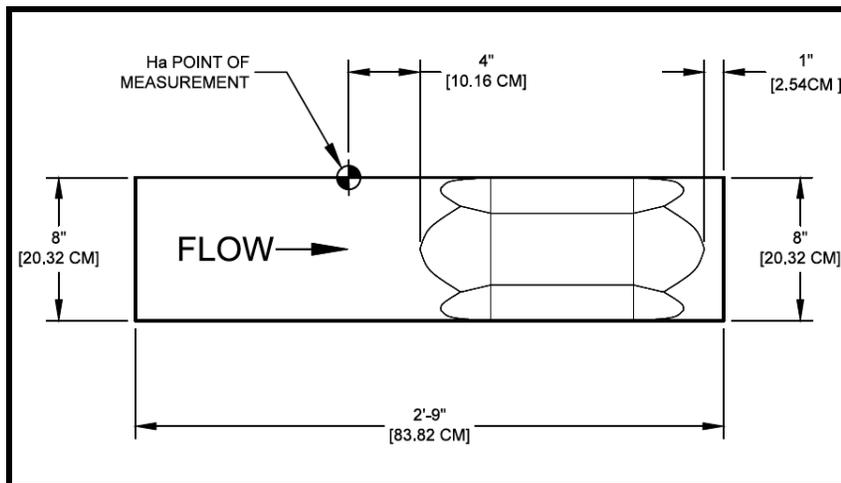
85% Submergence Transition

Formulas (H in feet): CFS = 2.591 H_{ft.}^{1.9}
 Formulas (H in meters): L/S = 722.03 H_m^{1.9}

GPM = 1162.4 H_{ft.}^{1.9} MGD = 1.67 H_{ft.}^{1.9}
 M3/HR = 2599 H_m^{1.9}

FEET	INCHES	METERS	CFS	GPM	MGD	L/S	M3/HR
0.01	0.12	0.0030					
0.02	0.24	0.0061					
0.03	0.36	0.0091					
0.04	0.48	0.0122					
0.05	0.60	0.0152					
0.06	0.72	0.0183					
0.07	0.84	0.0213					
0.08	0.96	0.0244					
0.09	1.08	0.0274	0.0306	13.73	0.0198	0.8666	3.118
0.10	1.20	0.0305	0.0365	16.38	0.0236	1.034	3.719
0.11	1.32	0.0335	0.0429	19.25	0.0277	1.215	4.372
0.12	1.44	0.0366	0.0497	22.31	0.0321	1.408	5.064
0.13	1.56	0.0396	0.0569	25.54	0.0368	1.611	5.798
0.14	1.68	0.0427	0.0646	28.99	0.0418	1.829	6.583
0.15	1.80	0.0457	0.0727	32.63	0.0470	2.059	7.408
0.16	1.92	0.0488	0.0812	36.44	0.0525	2.300	8.274
0.17	2.04	0.0518	0.0903	40.53	0.0584	2.557	9.202
0.18	2.16	0.0549	0.0997	44.75	0.0644	2.824	10.16
0.19	2.28	0.0579	0.1097	49.23	0.0709	3.107	11.18
0.20	2.40	0.0610	0.1202	53.95	0.0777	3.404	12.25
0.21	2.52	0.0640	0.1312	58.88	0.0848	3.716	13.37
0.22	2.64	0.0671	0.1427	64.04	0.0922	4.041	14.54
0.23	2.76	0.0701	0.1547	69.43	0.1000	4.381	15.76
0.24	2.88	0.0732	0.1673	75.08	0.1081	4.738	17.05
0.25	3.00	0.0762	0.1805	81.01	0.1167	5.112	18.39
0.26	3.12	0.0792	0.1943	87.20	0.1256	5.503	19.80
0.27	3.24	0.0823	0.2086	93.62	0.1348	5.908	21.26
0.28	3.36	0.0853	0.2235	100.3	0.1444	6.330	22.77
0.29	3.48	0.0884	0.2391	107.3	0.1545	6.771	24.36
0.30	3.60	0.0914	0.2353	114.6	0.1521	6.664	23.98

Excessive error due to fluid-flow properties and boundary conditions



Note: Formulas fit data within 1% of full scale

Sources: [Isco Open Channel Flow Measurement Handbook](#), 6th Edition



8-Inch Palmer-Bowlus Flume Discharge Table

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Formulas (H in feet): CFS = 2.591 H_{ft}^{1.9}
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GPM = 1162.4 H_{ft}^{1.9} MGD = 1.67 H_{ft}^{1.9}
 M3/HR = 2599 H_m^{1.9}

FEET	INCHES	METERS	CFS	GPM	MGD	L/S	M3/HR
0.31	3.72	0.0945	0.2720	122.1	0.1758	7.703	27.72
0.32	3.84	0.0975	0.2895	129.9	0.1871	8.199	29.50
0.33	3.96	0.1006	0.3075	138.0	0.1987	8.708	31.33
0.34	4.08	0.1036	0.3261	146.4	0.2108	9.235	33.23
0.35	4.20	0.1067	0.3454	155.0	0.2232	9.782	35.20
0.36	4.32	0.1097	0.3652	163.9	0.2360	10.34	37.21
0.37	4.44	0.1128	0.3856	173.1	0.2492	10.92	39.29
0.38	4.56	0.1158	0.4066	182.5	0.2628	11.51	41.43
0.39	4.68	0.1189	0.4281	192.1	0.2767	12.12	43.62
0.40	4.80	0.1219	0.4500	202.0	0.2908	12.74	45.86
0.41	4.92	0.1250	0.4725	212.1	0.3054	13.38	48.15
0.42	5.04	0.1280	0.4954	222.3	0.3202	14.03	50.48
0.43	5.16	0.1311	0.5187	232.8	0.3352	14.69	52.86
0.44	5.28	0.1341	0.5423	243.4	0.3505	15.36	55.26
0.45	5.40	0.1372	0.5663	254.2	0.3660	16.04	57.71
0.46	5.52	0.1402	0.5906	265.1	0.3817	16.73	60.18
0.47	5.64	0.1433	0.6151	276.1	0.3975	17.42	62.68
0.48	5.76	0.1463	0.6399	287.2	0.4136	18.12	65.21
0.49	5.88	0.1494	0.6648	298.4	0.4297	18.83	67.74
0.50	6.00	0.1524	0.6900	309.7	0.4459	19.54	70.31

Note: Formulas fit data within 1% of full scale

Sources: [Isco Open Channel Flow Measurement Handbook](#), 6th Edition