



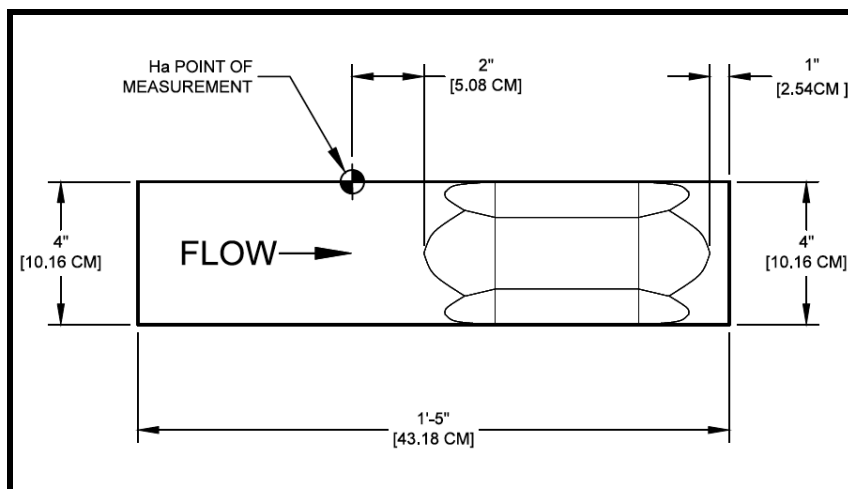
4-Inch Palmer-Bowlus Flume Discharge Table

85% Submergence Transition

Formulas (H in feet): $CFS = 1.68 H_{ft}^{1.9}$
 Formulas (H in meters): $L/S = 468.34 H_m^{1.9}$

$GPM = 754.1 H_{ft}^{1.9}$ $MGD = 1.08 H_{ft}^{1.9}$
 $M3/HR = 1647.88 H_m^{1.9}$

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					
0.06	0.72	0.0183	0.0086	3.860	0.0056	0.2436	0.8763
0.07	0.84	0.0213	0.0112	5.027	0.0072	0.3172	1.141
0.08	0.96	0.0244	0.0141	6.328	0.0091	0.3993	1.437
0.09	1.08	0.0274	0.0174	7.809	0.0112	0.4928	1.773
0.10	1.20	0.0305	0.0210	9.425	0.0136	0.5947	2.140
0.11	1.32	0.0335	0.0249	11.18	0.0161	0.7052	2.537
0.12	1.44	0.0366	0.0293	13.15	0.0189	0.8298	2.986
0.13	1.56	0.0396	0.0340	15.26	0.0220	0.9629	3.465
0.14	1.68	0.0427	0.0392	17.59	0.0253	1.110	3.994
0.15	1.80	0.0457	0.0447	20.06	0.0289	1.266	4.555
0.16	1.92	0.0488	0.0508	22.80	0.0328	1.439	5.177
0.17	2.04	0.0518	0.0572	25.67	0.0370	1.620	5.829
0.18	2.16	0.0549	0.0641	28.77	0.0414	1.815	6.532
0.19	2.28	0.0579	0.0714	32.04	0.0461	2.022	7.276
0.20	2.40	0.0610	0.0790	35.46	0.0511	2.237	8.050
0.21	2.52	0.0640	0.0870	39.05	0.0562	2.464	8.865
0.22	2.64	0.0671	0.0953	42.77	0.0616	2.699	9.711
0.23	2.76	0.0701	0.1038	46.59	0.0671	2.940	10.58
0.24	2.88	0.0732	0.1125	50.49	0.0727	3.186	11.46
0.25	3.00	0.0762	0.1213	54.44	0.0784	3.435	12.36



Note: Formulas fit data within 1% of full scale

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