OPENCHANNELFLOW

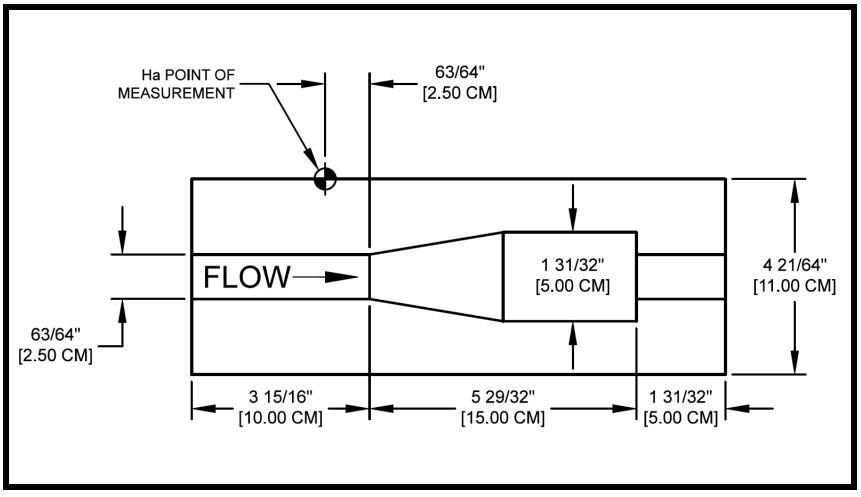
50 mm RBC Flume Discharge Table

80% Submergence Transition ±2% Accuracy

Formulas (H in feet): $GPM = 657.9 (H_{ft.} + 0.0025)^{1.853}$

Formulas (H in millimeters): $L/S = 0.001035 (H_{mm} + 0.75)^{1.853}$

FEET	INCHES	METERS	CFS	GPM	MGD	L/S	M3/HR
0.01	0.12	0.0030					
0.02	0.24	0.0061	0.0013	0.5818	0.0008	0.0367	0.1321
0.03	0.36	0.0091	0.0026	1.150	0.0017	0.0726	0.2611
0.04	0.48	0.0122	0.0042	1.890	0.0027	0.1193	0.4292
0.05	0.60	0.0152	0.0062	2.797	0.0040	0.1765	0.6349
0.06	0.72	0.0183	0.0086	3.863	0.0056	0.2437	0.8770
0.07	0.84	0.0213	0.0113	5.086	0.0073	0.3209	1.155
0.08	0.96	0.0244	0.0144	6.462	0.0093	0.4077	1.467
0.09	1.08	0.0274	0.0178	7.988	0.0115	0.5040	1.813
0.10	1.20	0.0305	0.0215	9.661	0.0139	0.6096	2.193
0.11	1.32	0.0335	0.0256	11.48	0.0165	0.7244	2.606
0.12	1.44	0.0366	0.0299	13.44	0.0194	0.8482	3.052
0.13	1.56	0.0396	0.0346	15.55	0.0224	0.9809	3.530
0.14	1.68	0.0427	0.0396	17.79	0.0256	1.123	4.039
0.15	1.80	0.0457	0.0449	20.17	0.0290	1.273	4.580
0.16	1.92	0.0488	0.0506	22.69	0.0327	1.432	5.152



Source: Wahl, T., Clemmens, A., Replogle, J., Bos, M., Simplified Design of Flumes and Weirs, Irrigation and Drainage, Vol. 54, 2005