



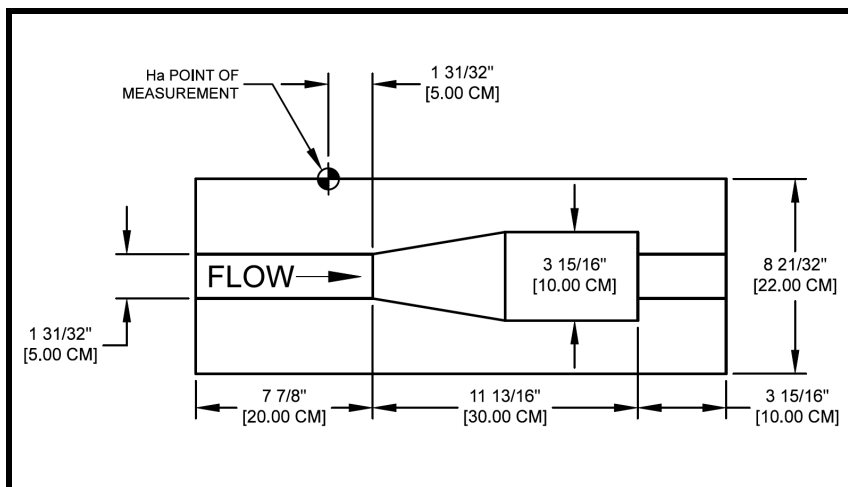
100 mm RBC Flume Discharge Table

80% Submergence Transition ±2% Accuracy

Formulas (H in feet):
Formulas (H in millimeters):

GPM = $1040 (H_{ft} + 0.0073)^{1.867}$
L/S = $0.001514 (H_{mm} + 2.214)^{1.867}$

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	0.0150	6.744	0.0097	0.4255	1.531
0.07	0.84	0.0213	0.0195	8.735	0.0126	0.5512	1.983
0.08	0.96	0.0244	0.0244	10.96	0.0158	0.6917	2.489
0.09	1.08	0.0274	0.0299	13.42	0.0193	0.8469	3.047
0.10	1.20	0.0305	0.0359	16.11	0.0232	1.017	3.658
0.11	1.32	0.0335	0.0424	19.03	0.0274	1.201	4.320
0.12	1.44	0.0366	0.0494	22.17	0.0319	1.399	5.033
0.13	1.56	0.0396	0.0569	25.53	0.0368	1.611	5.796
0.14	1.68	0.0427	0.0649	29.11	0.0419	1.837	6.609
0.15	1.80	0.0457	0.0733	32.91	0.0474	2.077	7.472
0.16	1.92	0.0488	0.0823	36.92	0.0532	2.330	8.383
0.17	2.04	0.0518	0.0917	41.15	0.0593	2.596	9.342
0.18	2.16	0.0549	0.1016	45.59	0.0656	2.877	10.35
0.19	2.28	0.0579	0.1119	50.24	0.0723	3.170	11.41
0.20	2.40	0.0610	0.1228	55.10	0.0793	3.476	12.51
0.21	2.52	0.0640	0.1340	60.16	0.0866	3.796	13.66
0.22	2.64	0.0671	0.1458	65.43	0.0942	4.129	14.86
0.23	2.76	0.0701	0.1580	70.91	0.1021	4.474	16.10
0.24	2.88	0.0732	0.1706	76.59	0.1103	4.833	17.39
0.25	3.00	0.0762	0.1838	82.48	0.1188	5.204	18.72
0.26	3.12	0.0792	0.1973	88.56	0.1275	5.588	20.11
0.27	3.24	0.0823	0.2113	94.85	0.1366	5.985	21.53
0.28	3.36	0.0853	0.2258	101.3	0.1459	6.394	23.01
0.29	3.48	0.0884	0.2407	108.0	0.1555	6.815	24.52
0.30	3.60	0.0914	0.2560	114.9	0.1654	7.250	26.09





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FEET	INCHES	METERS	CFS	GPM	MGD	L/S	M3/HR
0.31	3.72	0.0945	0.2718	122.0	0.1756	7.696	27.69
0.32	3.84	0.0975	0.2880	129.3	0.1861	8.155	29.34

Source:

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