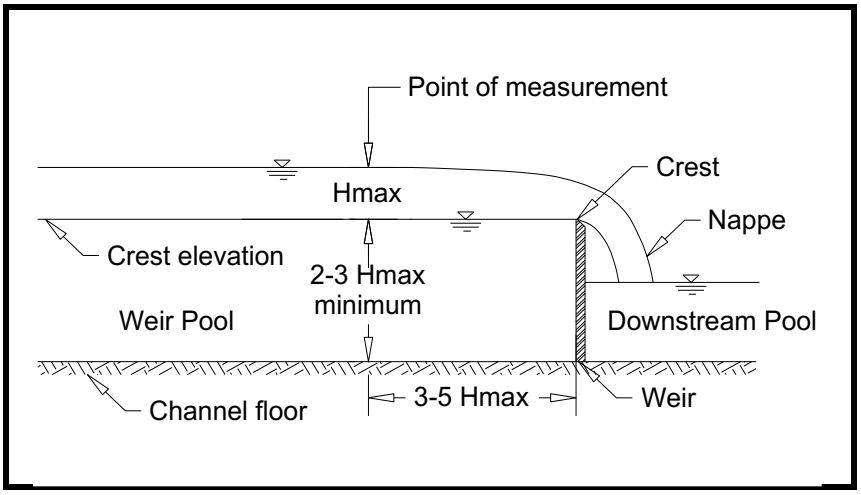
Portable 1-Foot [30.48 cm] Cipolletti Weir Discharge Table

±2-5% Accuracy

Formulas (H in feet): CFS = 3.367 $H_{ft.}^{1.5}$ GPM = 1511 $H_{ft.}^{1.5}$ MGD = 2.176 $H_{ft.}^{1.5}$

Formulas (H in meters): L/S = 557.7 $H_{m}^{1.5}$ M3/HR = 2008 $H_{m}^{1.5}$

FEET	INCHES	METERS	CFS	GPM	MGD	L/S	M3/HR
0.01	0.12	0.0030	Nappe may cling to downstream weir face				
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					
0.10	1.20	0.0305					
0.11	1.32	0.0335					
0.12	1.44	0.0366					
0.13	1.56	0.0396					
0.14	1.68	0.0427					
0.15	1.80	0.0457					
0.16	1.92	0.0488					
0.17	2.04	0.0518					
0.18	2.16	0.0549					
0.19	2.28	0.0579					
0.20	2.40	0.0610	0.3012	135.2	0.1946	8.529	30.69
0.21	2.52	0.0640	0.3240	145.4	0.2094	9.176	33.02
0.22	2.64	0.0671	0.3474	155.9	0.2245	9.839	35.40
0.23	2.76	0.0701	0.3714	166.7	0.2400	10.52	37.85
0.24	2.88	0.0732	0.3959	177.7	0.2559	11.21	40.34
0.25	3.00	0.0762	0.4209	188.9	0.2720	11.92	42.89
0.26	3.12	0.0792	0.4464	200.3	0.2885	12.64	45.49
0.27	3.24	0.0823	0.4724	212.0	0.3053	13.38	48.14
0.28	3.36	0.0853	0.4989	223.9	0.3224	14.13	50.83
0.29	3.48	0.0884	0.5258	236.0	0.3398	14.89	53.58
0.30	3.60	0.0914	0.5533	248.3	0.3576	15.67	56.38



Sources: Skrenter, R., Instrumentation Handbook Water and Wastewater Treatment Plants

ASTM D 5242-92 (2001): Standard Test Method for Open Channel Flow Measurement of Water with Thin-Plate Weirs

OPENCHANNELFLOW

Portable 1-Foot [30.48 cm] Cipolletti Weir Discharge Table

±2-5% Accuracy

Formulas (H in feet): CFS = 3.367 $H_{ft.}^{1.5}$ GPM = 1511 $H_{ft.}^{1.5}$ MGD = 2.176 $H_{ft.}^{1.5}$

Formulas (H in meters): L/S = 557.7 $H_{m}^{1.5}$ M3/HR = 2008 $H_{m}^{1.5}$

FEET	INCHES	METERS	CFS	GPM	MGD	L/S	M3/HR
0.31	3.72	0.0945	0.5811	260.8	0.3756	16.46	59.22
0.32	3.84	0.0975	0.6095	273.5	0.3939	17.26	62.11
0.33	3.96	0.1006	0.6383	286.5	0.4125	18.08	65.04
0.34	4.08	0.1036	0.6675	299.6	0.4314	18.90	68.02
0.35	4.20	0.1067	0.6972	312.9	0.4506	19.74	71.04
0.36	4.32	0.1097	0.7273	326.4	0.4700	20.60	74.11
0.37	4.44	0.1128	0.7578	340.1	0.4898	21.46	77.22
0.38	4.56	0.1158	0.7887	354.0	0.5097	22.34	80.37
0.39	4.68	0.1189	0.8200	368.0	0.5300	23.22	83.56
0.40	4.80	0.1219	0.8518	382.3	0.5505	24.12	86.80
0.41	4.92	0.1250	0.8839	396.7	0.5713	25.03	90.07
0.42	5.04	0.1280	0.9165	411.3	0.5923	25.95	93.39
0.43	5.16	0.1311	0.9494	426.1	0.6136	26.89	96.74
0.44	5.28	0.1341	0.9827	441.0	0.6351	27.83	100.1
0.45	5.40	0.1372	1.016	456.2	0.6569	28.78	103.6
0.46	5.52	0.1402	1.050	471.4	0.6789	29.75	107.0
0.47	5.64	0.1433	1.085	486.9	0.7012	30.72	110.6
0.48	5.76	0.1463	1.120	502.5	0.7237	31.71	114.1
0.49	5.88	0.1494	1.155	518.3	0.7464	32.71	117.7
0.50	6.00	0.1524	1.190	534.3	0.7694	33.71	121.3

Sources: Skrenter, R., Instrumentation Handbook Water and Wastewater Treatment Plants

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