OPENCHANNELFLOW

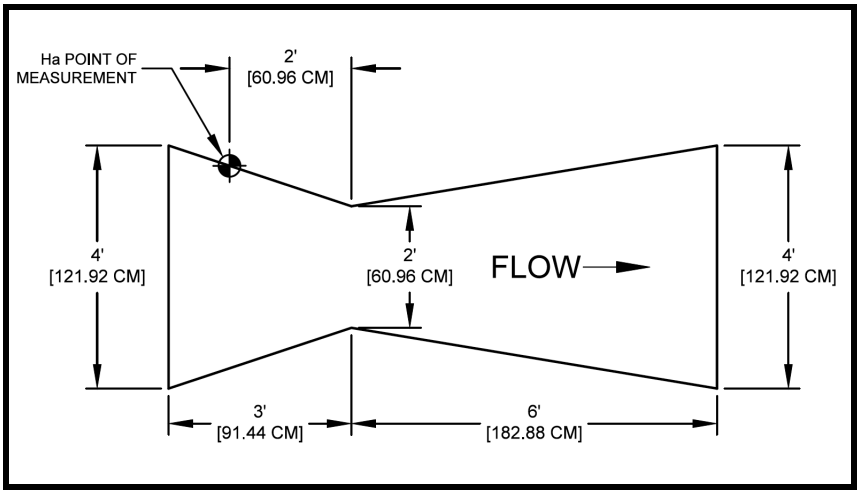
108-Inch L x 24-Inch W Cutthroat Flume Discharge Table

80% Submergence Transition

Formulas (H in feet): CFS = 7.11 $H_{ft.}^{1.56}$ GPM = 3191 $H_{ft.}^{1.56}$ MGD = 4.595 $H_{ft.}^{1.56}$

Formulas (H in meters): L/S = 1284 $H_{m}^{1.56}$ M3/HR = 4624 $H_{m}^{1.56}$

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					
0.07	0.84	0.0213					
0.08	0.96	0.0244					
0.09	1.08	0.0274					
0.10	1.20	0.0305	0.1958	87.89	0.1266	5.546	19.95
0.11	1.32	0.0335	0.2272	102.0	0.1469	6.435	23.15
0.12	1.44	0.0366	0.2603	116.8	0.1682	7.370	26.52
0.13	1.56	0.0396	0.2949	132.3	0.1906	8.351	30.05
0.14	1.68	0.0427	0.3310	148.6	0.2139	9.374	33.73
0.15	1.80	0.0457	0.3686	165.4	0.2382	10.44	37.56
0.16	1.92	0.0488	0.4077	183.0	0.2635	11.54	41.54
0.17	2.04	0.0518	0.4481	201.1	0.2896	12.69	45.66
0.18	2.16	0.0549	0.4899	219.9	0.3166	13.87	49.92
0.19	2.28	0.0579	0.5330	239.2	0.3445	15.09	54.31
0.20	2.40	0.0610	0.5774	259.1	0.3732	16.35	58.84
0.21	2.52	0.0640	0.6231	279.6	0.4027	17.65	63.49
0.22	2.64	0.0671	0.6700	300.7	0.4330	18.97	68.27
0.23	2.76	0.0701	0.7181	322.3	0.4641	20.34	73.17
0.24	2.88	0.0732	0.7674	344.4	0.4959	21.73	78.19
0.25	3.00	0.0762	0.8178	367.0	0.5286	23.16	83.34
0.26	3.12	0.0792	0.8694	390.2	0.5619	24.62	88.59
0.27	3.24	0.0823	0.9221	413.9	0.5960	26.12	93.97
0.28	3.36	0.0853	0.9760	438.0	0.6308	27.64	99.45
0.29	3.48	0.0884	1.031	462.7	0.6663	29.19	105.0
0.30	3.60	0.0914	1.087	487.8	0.7024	30.78	110.8



Note: Discharge is calculated to top of flume

Sources: Cutthroat Flume Discharge Relations, Water Management Technical Paper No. 16, Colorado State University, AER71-72RSB6, March 1972

Generalized Discharge Relations for Cutthroat Flumes, Journal of the Irrigation and Drainage Division, ASCE, Vol. 98, No. IR4, December 1974

OPENCHANNELFLOW

108-Inch L x 24-Inch W Cutthroat Flume Discharge Table

80% Submergence Transition

Formulas (H in feet): CFS = 7.11 $H_{ft.}^{1.56}$ GPM = 3191 $H_{ft.}^{1.56}$ MGD = 4.595 $H_{ft.}^{1.56}$

Formulas (H in meters): L/S = 1284 $H_{m}^{1.56}$ M3/HR = 4624 $H_{m}^{1.56}$

FEET	INCHES	METERS	CFS	GPM	MGD	L/S	M3/HR
0.31	3.72	0.0945	1.144	513.4	0.7393	32.40	116.6
0.32	3.84	0.0975	1.202	539.5	0.7769	34.04	122.5
0.33	3.96	0.1006	1.261	566.0	0.8151	35.71	128.5
0.34	4.08	0.1036	1.321	593.0	0.8539	37.42	134.6
0.35	4.20	0.1067	1.382	620.4	0.8934	39.15	140.9
0.36	4.32	0.1097	1.444	648.3	0.9335	40.91	147.2
0.37	4.44	0.1128	1.508	676.6	0.9743	42.69	153.6
0.38	4.56	0.1158	1.572	705.3	1.016	44.51	160.1
0.39	4.68	0.1189	1.637	734.5	1.058	46.35	166.8
0.40	4.80	0.1219	1.702	764.1	1.100	48.21	173.5
0.41	4.92	0.1250	1.769	794.1	1.144	50.11	180.3
0.42	5.04	0.1280	1.837	824.5	1.187	52.03	187.2
0.43	5.16	0.1311	1.906	855.3	1.232	53.97	194.2
0.44	5.28	0.1341	1.975	886.6	1.277	55.94	201.3
0.45	5.40	0.1372	2.046	918.2	1.322	57.94	208.5
0.46	5.52	0.1402	2.117	950.2	1.368	59.96	215.7
0.47	5.64	0.1433	2.189	982.6	1.415	62.01	223.1
0.48	5.76	0.1463	2.263	1015	1.462	64.08	230.6
0.49	5.88	0.1494	2.337	1049	1.510	66.17	238.1
0.50	6.00	0.1524	2.411	1082	1.558	68.29	245.7
0.51	6.12	0.1554	2.487	1116	1.607	70.43	253.4
0.52	6.24	0.1585	2.564	1151	1.657	72.60	261.2
0.53	6.36	0.1615	2.641	1185	1.707	74.79	269.1
0.54	6.48	0.1646	2.719	1220	1.757	77.00	277.1
0.55	6.60	0.1676	2.798	1256	1.808	79.24	285.1
0.56	6.72	0.1707	2.878	1292	1.860	81.50	293.2
0.57	6.84	0.1737	2.958	1328	1.912	83.78	301.4
0.58	6.96	0.1768	3.040	1364	1.964	86.08	309.7
0.59	7.08	0.1798	3.122	1401	2.018	88.41	318.1
0.60	7.20	0.1829	3.205	1438	2.071	90.76	326.6
0.61	7.32	0.1859	3.288	1476	2.125	93.13	335.1
0.62	7.44	0.1890	3.373	1514	2.180	95.52	343.7
0.63	7.56	0.1920	3.458	1552	2.235	97.93	352.4
0.64	7.68	0.1951	3.544	1591	2.291	100.4	361.1
0.65	7.80	0.1981	3.631	1630	2.347	102.8	370.0
0.66	7.92	0.2012	3.718	1669	2.403	105.3	378.9
0.67	8.04	0.2042	3.807	1708	2.460	107.8	387.9
0.68	8.16	0.2073	3.896	1748	2.518	110.3	397.0
0.69	8.28	0.2103	3.985	1789	2.576	112.9	406.1
0.70	8.40	0.2134	4.076	1829	2.634	115.4	415.3
0.71	8.52	0.2164	4.167	1870	2.693	118.0	424.6
0.72	8.64	0.2195	4.259	1911	2.753	120.6	434.0
0.73	8.76	0.2225	4.352	1953	2.812	123.2	443.4
0.74	8.88	0.2256	4.445	1995	2.873	125.9	452.9
0.75	9.00	0.2286	4.539	2037	2.934	128.5	462.5
0.76	9.12	0.2316	4.634	2080	2.995	131.2	472.2
0.77	9.24	0.2347	4.729	2123	3.057	133.9	481.9
0.78	9.36	0.2377	4.825	2166	3.119	136.7	491.7
0.79	9.48	0.2408	4.922	2209	3.181	139.4	501.6
0.80	9.60	0.2438	5.020	2253	3.244	142.2	511.5

Sources: Cutthroat Flume Discharge Relations, Water Management Technical Paper No. 16, Colorado State University, AER71-72RSB6, March 1972

Generalized Discharge Relations for Cutthroat Flumes, Journal of the Irrigation and Drainage Division, ASCE, Vol. 98, No. IR4, December 1974

OPENCHANNELFLOW

108-Inch L x 24-Inch W Cutthroat Flume Discharge Table

80% Submergence Transition

Formulas (H in feet): CFS = 7.11 $H_{ft.}^{1.56}$ GPM = 3191 $H_{ft.}^{1.56}$ MGD = 4.595 $H_{ft.}^{1.56}$

Formulas (H in meters): L/S = 1284 $H_{m}^{1.56}$ M3/HR = 4624 $H_{m}^{1.56}$

FEET	INCHES	METERS	CFS	GPM	MGD	L/S	M3/HR
0.81	9.72	0.2469	5.118	2297	3.308	144.9	521.5
0.82	9.84	0.2499	5.217	2341	3.372	147.7	531.6
0.83	9.96	0.2530	5.317	2386	3.436	150.6	541.8
0.84	10.08	0.2560	5.417	2431	3.501	153.4	552.0
0.85	10.20	0.2591	5.518	2476	3.566	156.3	562.3
0.86	10.32	0.2621	5.619	2522	3.632	159.1	572.6
0.87	10.44	0.2652	5.722	2568	3.698	162.0	583.0
0.88	10.56	0.2682	5.825	2614	3.764	165.0	593.5
0.89	10.68	0.2713	5.928	2661	3.831	167.9	604.1
0.90	10.80	0.2743	6.032	2707	3.899	170.8	614.7
0.91	10.92	0.2774	6.137	2754	3.967	173.8	625.4
0.92	11.04	0.2804	6.243	2802	4.035	176.8	636.1
0.93	11.16	0.2835	6.349	2849	4.103	179.8	647.0
0.94	11.28	0.2865	6.456	2897	4.172	182.8	657.8
0.95	11.40	0.2896	6.563	2946	4.242	185.9	668.8
0.96	11.52	0.2926	6.671	2994	4.312	188.9	679.8
0.97	11.64	0.2957	6.780	3043	4.382	192.0	690.9
0.98	11.76	0.2987	6.889	3092	4.453	195.1	702.0
0.99	11.88	0.3018	6.999	3141	4.524	198.2	713.2
1.00	12.00	0.3048	7.110	3191	4.595	201.4	724.5
1.01	12.12	0.3078	7.221	3241	4.667	204.5	735.8
1.02	12.24	0.3109	7.333	3291	4.739	207.7	747.2
1.03	12.36	0.3139	7.446	3342	4.812	210.9	758.7
1.04	12.48	0.3170	7.559	3392	4.885	214.1	770.2
1.05	12.60	0.3200	7.672	3443	4.959	217.3	781.8
1.06	12.72	0.3231	7.787	3495	5.032	220.5	793.5
1.07	12.84	0.3261	7.901	3546	5.107	223.8	805.2
1.08	12.96	0.3292	8.017	3598	5.181	227.0	816.9
1.09	13.08	0.3322	8.133	3650	5.256	230.3	828.8
1.10	13.20	0.3353	8.250	3702	5.332	233.6	840.7
1.11	13.32	0.3383	8.367	3755	5.408	237.0	852.6
1.12	13.44	0.3414	8.485	3808	5.484	240.3	864.6
1.13	13.56	0.3444	8.603	3861	5.560	243.6	876.7
1.14	13.68	0.3475	8.723	3915	5.637	247.0	888.8
1.15	13.80	0.3505	8.842	3968	5.715	250.4	901.0
1.16	13.92	0.3536	8.962	4022	5.792	253.8	913.3
1.17	14.04	0.3566	9.083	4077	5.870	257.2	925.6
1.18	14.16	0.3597	9.205	4131	5.949	260.7	938.0
1.19	14.28	0.3627	9.327	4186	6.028	264.1	950.4
1.20	14.40	0.3658	9.449	4241	6.107	267.6	962.9
1.21	14.52	0.3688	9.572	4296	6.187	271.1	975.4
1.22	14.64	0.3719	9.696	4352	6.267	274.6	988.0
1.23	14.76	0.3749	9.820	4407	6.347	278.1	1001
1.24	14.88	0.3780	9.945	4463	6.427	281.6	1013
1.25	15.00	0.3810	10.07	4520	6.509	285.2	1026
1.26	15.12	0.3840	10.20	4576	6.590	288.8	1039
1.27	15.24	0.3871	10.32	4633	6.672	292.3	1052
1.28	15.36	0.3901	10.45	4690	6.754	295.9	1065
1.29	15.48	0.3932	10.58	4747	6.836	299.6	1078
1.30	15.60	0.3962	10.71	4805	6.919	303.2	1091

Sources: Cutthroat Flume Discharge Relations, Water Management Technical Paper No. 16, Colorado State University, AER71-72RSB6, March 1972

Generalized Discharge Relations for Cutthroat Flumes, Journal of the Irrigation and Drainage Division, ASCE, Vol. 98, No. IR4, December 1974

OPENCHANNELFLOW

108-Inch L x 24-Inch W Cutthroat Flume Discharge Table

80% Submergence Transition

Formulas (H in feet): CFS = 7.11 $H_{ft.}^{1.56}$ GPM = 3191 $H_{ft.}^{1.56}$ MGD = 4.595 $H_{ft.}^{1.56}$

Formulas (H in meters): L/S = 1284 $H_{m}^{1.56}$ M3/HR = 4624 $H_{m}^{1.56}$

FEET	INCHES	METERS	CFS	GPM	MGD	L/S	M3/HR
1.31	15.72	0.3993	10.83	4863	7.002	306.8	1104
1.32	15.84	0.4023	10.96	4921	7.086	310.5	1117
1.33	15.96	0.4054	11.09	4979	7.170	314.2	1130
1.34	16.08	0.4084	11.22	5037	7.254	317.9	1144
1.35	16.20	0.4115	11.36	5096	7.339	321.6	1157
1.36	16.32	0.4145	11.49	5155	7.424	325.3	1170
1.37	16.44	0.4176	11.62	5214	7.509	329.0	1184
1.38	16.56	0.4206	11.75	5274	7.595	332.8	1197
1.39	16.68	0.4237	11.88	5334	7.681	336.6	1211
1.40	16.80	0.4267	12.02	5394	7.767	340.3	1225
1.41	16.92	0.4298	12.15	5454	7.854	344.1	1238
1.42	17.04	0.4328	12.29	5514	7.941	348.0	1252
1.43	17.16	0.4359	12.42	5575	8.028	351.8	1266
1.44	17.28	0.4389	12.56	5636	8.116	355.6	1280
1.45	17.40	0.4420	12.69	5697	8.204	359.5	1294
1.46	17.52	0.4450	12.83	5759	8.293	363.4	1307
1.47	17.64	0.4481	12.97	5820	8.381	367.3	1321
1.48	17.76	0.4511	13.11	5882	8.471	371.2	1336
1.49	17.88	0.4542	13.24	5944	8.560	375.1	1350
1.50	18.00	0.4572	13.38	6007	8.650	379.0	1364
1.51	18.12	0.4602	13.52	6069	8.740	383.0	1378
1.52	18.24	0.4633	13.66	6132	8.830	386.9	1392
1.53	18.36	0.4663	13.80	6195	8.921	390.9	1407
1.54	18.48	0.4694	13.94	6258	9.012	394.9	1421
1.55	18.60	0.4724	14.09	6322	9.104	398.9	1435
1.56	18.72	0.4755	14.23	6386	9.196	402.9	1450
1.57	18.84	0.4785	14.37	6449	9.288	407.0	1464
1.58	18.96	0.4816	14.51	6514	9.380	411.0	1479
1.59	19.08	0.4846	14.66	6578	9.473	415.1	1494
1.60	19.20	0.4877	14.80	6643	9.566	419.2	1508
1.61	19.32	0.4907	14.95	6708	9.659	423.3	1523
1.62	19.44	0.4938	15.09	6773	9.753	427.4	1538
1.63	19.56	0.4968	15.24	6838	9.847	431.5	1553
1.64	19.68	0.4999	15.38	6904	9.942	435.6	1567
1.65	19.80	0.5029	15.53	6969	10.04	439.8	1582
1.66	19.92	0.5060	15.68	7035	10.13	443.9	1597
1.67	20.04	0.5090	15.82	7102	10.23	448.1	1612
1.68	20.16	0.5121	15.97	7168	10.32	452.3	1628
1.69	20.28	0.5151	16.12	7235	10.42	456.5	1643
1.70	20.40	0.5182	16.27	7302	10.51	460.7	1658
1.71	20.52	0.5212	16.42	7369	10.61	465.0	1673
1.72	20.64	0.5243	16.57	7436	10.71	469.2	1688
1.73	20.76	0.5273	16.72	7504	10.81	473.5	1704
1.74	20.88	0.5304	16.87	7571	10.90	477.8	1719
1.75	21.00	0.5334	17.02	7639	11.00	482.1	1735
1.76	21.12	0.5364	17.17	7708	11.10	486.4	1750
1.77	21.24	0.5395	17.33	7776	11.20	490.7	1766
1.78	21.36	0.5425	17.48	7845	11.30	495.0	1781
1.79	21.48	0.5456	17.63	7914	11.40	499.4	1797
1.80	21.60	0.5486	17.79	7983	11.50	503.7	1812

Sources: Cutthroat Flume Discharge Relations, Water Management Technical Paper No. 16, Colorado State University, AER71-72RSB6, March 1972

Generalized Discharge Relations for Cutthroat Flumes, Journal of the Irrigation and Drainage Division, ASCE, Vol. 98, No. IR4, December 1974

OPENCHANNELFLOW

108-Inch L x 24-Inch W Cutthroat Flume Discharge Table

80% Submergence Transition

Formulas (H in feet): CFS = 7.11 $H_{ft.}^{1.56}$ GPM = 3191 $H_{ft.}^{1.56}$ MGD = 4.595 $H_{ft.}^{1.56}$

Formulas (H in meters): L/S = 1284 $H_{m}^{1.56}$ M3/HR = 4624 $H_{m}^{1.56}$

FEET	INCHES	METERS	CFS	GPM	MGD	L/S	M3/HR
1.81	21.72	0.5517	17.94	8052	11.60	508.1	1828
1.82	21.84	0.5547	18.10	8121	11.70	512.5	1844
1.83	21.96	0.5578	18.25	8191	11.80	516.9	1860
1.84	22.08	0.5608	18.41	8261	11.90	521.3	1876
1.85	22.20	0.5639	18.56	8331	12.00	525.7	1892
1.86	22.32	0.5669	18.72	8402	12.10	530.2	1908
1.87	22.44	0.5700	18.88	8472	12.20	534.6	1924
1.88	22.56	0.5730	19.04	8543	12.30	539.1	1940
1.89	22.68	0.5761	19.19	8614	12.40	543.6	1956
1.90	22.80	0.5791	19.35	8685	12.51	548.0	1972
1.91	22.92	0.5822	19.51	8757	12.61	552.6	1988
1.92	23.04	0.5852	19.67	8828	12.71	557.1	2004
1.93	23.16	0.5883	19.83	8900	12.82	561.6	2021
1.94	23.28	0.5913	19.99	8972	12.92	566.2	2037
1.95	23.40	0.5944	20.15	9044	13.02	570.7	2054
1.96	23.52	0.5974	20.31	9117	13.13	575.3	2070
1.97	23.64	0.6005	20.48	9189	13.23	579.9	2086
1.98	23.76	0.6035	20.64	9262	13.34	584.5	2103
1.99	23.88	0.6066	20.80	9335	13.44	589.1	2120
2.00	24.00	0.6096	20.96	9409	13.55	593.7	2136
2.01	24.12	0.6126	21.13	9482	13.65	598.3	2153
2.02	24.24	0.6157	21.29	9556	13.76	603.0	2170
2.03	24.36	0.6187	21.46	9630	13.87	607.7	2186
2.04	24.48	0.6218	21.62	9704	13.97	612.3	2203
2.05	24.60	0.6248	21.79	9778	14.08	617.0	2220
2.06	24.72	0.6279	21.95	9853	14.19	621.7	2237
2.07	24.84	0.6309	22.12	9927	14.30	626.4	2254
2.08	24.96	0.6340	22.29	10002	14.40	631.2	2271
2.09	25.08	0.6370	22.45	10077	14.51	635.9	2288
2.10	25.20	0.6401	22.62	10153	14.62	640.7	2305
2.11	25.32	0.6431	22.79	10228	14.73	645.4	2322
2.12	25.44	0.6462	22.96	10304	14.84	650.2	2340
2.13	25.56	0.6492	23.13	10380	14.95	655.0	2357
2.14	25.68	0.6523	23.30	10456	15.06	659.8	2374
2.15	25.80	0.6553	23.47	10532	15.17	664.6	2391
2.16	25.92	0.6584	23.64	10609	15.28	669.4	2409
2.17	26.04	0.6614	23.81	10686	15.39	674.3	2426
2.18	26.16	0.6645	23.98	10763	15.50	679.1	2444
2.19	26.28	0.6675	24.15	10840	15.61	684.0	2461
2.20	26.40	0.6706	24.32	10917	15.72	688.9	2479
2.21	26.52	0.6736	24.50	10994	15.83	693.8	2496
2.22	26.64	0.6767	24.67	11072	15.94	698.7	2514
2.23	26.76	0.6797	24.84	11150	16.06	703.6	2532
2.24	26.88	0.6828	25.02	11228	16.17	708.5	2549
2.25	27.00	0.6858	25.19	11306	16.28	713.5	2567
2.26	27.12	0.6888	25.37	11385	16.40	718.4	2585
2.27	27.24	0.6919	25.54	11464	16.51	723.4	2603
2.28	27.36	0.6949	25.72	11543	16.62	728.4	2621
2.29	27.48	0.6980	25.89	11622	16.74	733.3	2639
2.30	27.60	0.7010	26.07	11701	16.85	738.3	2657

Sources: Cutthroat Flume Discharge Relations, Water Management Technical Paper No. 16, Colorado State University, AER71-72RSB6, March 1972

Generalized Discharge Relations for Cutthroat Flumes, Journal of the Irrigation and Drainage Division, ASCE, Vol. 98, No. IR4, December 1974

OPENCHANNELFLOW

108-Inch L x 24-Inch W Cutthroat Flume Discharge Table

80% Submergence Transition

Formulas (H in feet): CFS = 7.11 $H_{ft.}^{1.56}$ GPM = 3191 $H_{ft.}^{1.56}$ MGD = 4.595 $H_{ft.}^{1.56}$

Formulas (H in meters): L/S = 1284 $H_{m}^{1.56}$ M3/HR = 4624 $H_{m}^{1.56}$

FEET	INCHES	METERS	CFS	GPM	MGD	L/S	M3/HR
2.31	27.72	0.7041	26.25	11780	16.96	743.4	2675
2.32	27.84	0.7071	26.43	11860	17.08	748.4	2693
2.33	27.96	0.7102	26.60	11940	17.19	753.4	2711
2.34	28.08	0.7132	26.78	12020	17.31	758.5	2729
2.35	28.20	0.7163	26.96	12100	17.42	763.5	2747
2.36	28.32	0.7193	27.14	12181	17.54	768.6	2766
2.37	28.44	0.7224	27.32	12261	17.66	773.7	2784
2.38	28.56	0.7254	27.50	12342	17.77	778.8	2802
2.39	28.68	0.7285	27.68	12423	17.89	783.9	2821
2.40	28.80	0.7315	27.86	12504	18.01	789.0	2839
2.41	28.92	0.7346	28.04	12585	18.12	794.2	2858
2.42	29.04	0.7376	28.22	12667	18.24	799.3	2876
2.43	29.16	0.7407	28.41	12749	18.36	804.5	2895
2.44	29.28	0.7437	28.59	12831	18.48	809.6	2913
2.45	29.40	0.7468	28.77	12913	18.60	814.8	2932
2.46	29.52	0.7498	28.96	12995	18.71	820.0	2951
2.47	29.64	0.7529	29.14	13078	18.83	825.2	2969
2.48	29.76	0.7559	29.32	13160	18.95	830.4	2988
2.49	29.88	0.7590	29.51	13243	19.07	835.7	3007
2.50	30.00	0.7620	29.69	13326	19.19	840.9	3026
2.51	30.12	0.7650	29.88	13410	19.31	846.2	3045
2.52	30.24	0.7681	30.06	13493	19.43	851.4	3064
2.53	30.36	0.7711	30.25	13577	19.55	856.7	3083
2.54	30.48	0.7742	30.44	13660	19.67	862.0	3102
2.55	30.60	0.7772	30.62	13744	19.79	867.3	3121
2.56	30.72	0.7803	30.81	13829	19.91	872.6	3140
2.57	30.84	0.7833	31.00	13913	20.04	877.9	3159
2.58	30.96	0.7864	31.19	13997	20.16	883.3	3178
2.59	31.08	0.7894	31.38	14082	20.28	888.6	3197
2.60	31.20	0.7925	31.57	14167	20.40	894.0	3217
2.61	31.32	0.7955	31.76	14252	20.52	899.3	3236
2.62	31.44	0.7986	31.95	14337	20.65	904.7	3255
2.63	31.56	0.8016	32.14	14423	20.77	910.1	3275
2.64	31.68	0.8047	32.33	14509	20.89	915.5	3294
2.65	31.80	0.8077	32.52	14594	21.02	920.9	3314
2.66	31.92	0.8108	32.71	14680	21.14	926.4	3333
2.67	32.04	0.8138	32.90	14767	21.26	931.8	3353
2.68	32.16	0.8169	33.09	14853	21.39	937.2	3372
2.69	32.28	0.8199	33.29	14939	21.51	942.7	3392
2.70	32.40	0.8230	33.48	15026	21.64	948.2	3412
2.71	32.52	0.8260	33.67	15113	21.76	953.7	3431
2.72	32.64	0.8291	33.87	15200	21.89	959.2	3451
2.73	32.76	0.8321	34.06	15287	22.01	964.7	3471
2.74	32.88	0.8352	34.26	15375	22.14	970.2	3491
2.75	33.00	0.8382	34.45	15463	22.27	975.7	3511
2.76	33.12	0.8412	34.65	15550	22.39	981.3	3531
2.77	33.24	0.8443	34.84	15638	22.52	986.8	3551
2.78	33.36	0.8473	35.04	15727	22.65	992.4	3571
2.79	33.48	0.8504	35.24	15815	22.77	997.9	3591
2.80	33.60	0.8534	35.44	15903	22.90	1004	3611

Sources: Cutthroat Flume Discharge Relations, Water Management Technical Paper No. 16, Colorado State University, AER71-72RSB6, March 1972

Generalized Discharge Relations for Cutthroat Flumes, Journal of the Irrigation and Drainage Division, ASCE, Vol. 98, No. IR4, December 1974

OPENCHANNELFLOW

108-Inch L x 24-Inch W Cutthroat Flume Discharge Table

80% Submergence Transition

Formulas (H in feet): $CFS = 7.11\ H_{ft.}^{1.56}$ $GPM = 3191\ H_{ft.}^{1.56}$ $MGD = 4.595\ H_{ft.}^{1.56}$

Formulas (H in meters): $L/S = 1284\ H_{m}^{1.56}$ $M3/HR = 4624\ H_{m}^{1.56}$

FEET	INCHES	METERS	CFS	GPM	MGD	L/S	M3/HR
2.81	33.72	0.8565	35.63	15992	23.03	1009	3631
2.82	33.84	0.8595	35.83	16081	23.16	1015	3651
2.83	33.96	0.8626	36.03	16170	23.29	1020	3671
2.84	34.08	0.8656	36.23	16259	23.41	1026	3692
2.85	34.20	0.8687	36.43	16349	23.54	1032	3712
2.86	34.32	0.8717	36.63	16438	23.67	1037	3732
2.87	34.44	0.8748	36.83	16528	23.80	1043	3753
2.88	34.56	0.8778	37.03	16618	23.93	1049	3773
2.89	34.68	0.8809	37.23	16708	24.06	1054	3794
2.90	34.80	0.8839	37.43	16798	24.19	1060	3814
2.91	34.92	0.8870	37.63	16889	24.32	1066	3835
2.92	35.04	0.8900	37.83	16979	24.45	1071	3855
2.93	35.16	0.8931	38.03	17070	24.58	1077	3876
2.94	35.28	0.8961	38.24	17161	24.71	1083	3896
2.95	35.40	0.8992	38.44	17252	24.84	1089	3917
2.96	35.52	0.9022	38.64	17344	24.98	1094	3938
2.97	35.64	0.9053	38.85	17435	25.11	1100	3959
2.98	35.76	0.9083	39.05	17527	25.24	1106	3979
2.99	35.88	0.9114	39.26	17619	25.37	1112	4000
3.00	36.00	0.9144	39.46	17711	25.50	1118	4021

Sources: Cutthroat Flume Discharge Relations, Water Management Technical Paper No. 16, Colorado State University, AER71-72RSB6, March 1972

Generalized Discharge Relations for Cutthroat Flumes, Journal of the Irrigation and Drainage Division, ASCE, Vol. 98, No. IR4, December 1974