



770.664.6513 (V) 770.664.6565 (F)

Discharge Table For 24" W x 108" L Cutthroat Flume

Document: C-24-108-D-T Rev.: 0 Date: 3-24-00 By: Matt Kazmier

LEVEL		FLOW		
FEET	INCHES	CFS	GPM	MGD
0.01	0.12			
0.02	0.24			
0.03	0.36			
0.04	0.48			
0.05	0.60			
0.06	0.72			
0.07	0.84			
0.08	0.96			
0.09	1.08			
0.10	1.20			
0.11	1.32			
0.12	1.44			
0.13	1.56			
0.14	1.68			
0.15	1.80			
0.16	1.92			
0.17	2.04			
0.18	2.16			
0.19	2.28			
0.20	2.40	0.5784	259.57	0.3738
0.21	2.52	0.6241	280.10	0.4034
0.22	2.64	0.6711	301.19	0.4337
0.23	2.76	0.7193	322.81	0.4649
0.24	2.88	0.7687	344.97	0.4968
0.25	3.00	0.8192	367.66	0.5294
0.26	3.12	0.8709	390.85	0.5629
0.27	3.24	0.9237	414.56	0.5970
0.28	3.36	0.9776	438.75	0.6318
0.29	3.48	1.033	463.44	0.6674
0.30	3.60	1.089	488.61	0.7036
0.31	3.72	1.146	514.26	0.7406
0.32	3.84	1.204	540.37	0.7782
0.33	3.96	1.263	566.94	0.8164
0.34	4.08	1.323	593.97	0.8553
0.35	4.20	1.385	621.44	0.8949
0.36	4.32	1.447	649.36	0.9351
0.37	4.44	1.510	677.72	0.9760
0.38	4.56	1.574	706.51	1.017
0.39	4.68	1.639	735.73	1.059
0.40	4.80	1.705	765.36	1.102
0.41	4.92	1.772	795.42	1.145
0.42	5.04	1.840	825.89	1.189
0.43	5.16	1.909	856.77	1.234
0.44	5.28	1.979	888.06	1.279
0.45	5.40	2.049	919.74	1.324
0.46	5.52	2.121	951.82	1.371
0.47	5.64	2.193	984.30	1.417
0.48	5.76	2.266	1017	1.465
0.49	5.88	2.340	1050	1.513
0.50	6.00	2.415	1084	1.561

LEVEL		FLOW		
FEET	INCHES	CFS	GPM	MGD
0.51	6.12	2.491	1118	1.610
0.52	6.24	2.568	1152	1.660
0.53	6.36	2.645	1187	1.710
0.54	6.48	2.724	1222	1.760
0.55	6.60	2.803	1258	1.811
0.56	6.72	2.883	1294	1.863
0.57	6.84	2.963	1330	1.915
0.58	6.96	3.045	1366	1.968
0.59	7.08	3.127	1403	2.021
0.60	7.20	3.210	1441	2.075
0.61	7.32	3.294	1478	2.129
0.62	7.44	3.379	1516	2.184
0.63	7.56	3.464	1555	2.239
0.64	7.68	3.550	1593	2.294
0.65	7.80	3.637	1632	2.351
0.66	7.92	3.725	1672	2.407
0.67	8.04	3.813	1711	2.464
0.68	8.16	3.902	1751	2.522
0.69	8.28	3.992	1792	2.580
0.70	8.40	4.083	1832	2.639
0.71	8.52	4.174	1873	2.698
0.72	8.64	4.266	1915	2.757
0.73	8.76	4.359	1956	2.817
0.74	8.88	4.452	1998	2.878
0.75	9.00	4.547	2041	2.939
0.76	9.12	4.642	2083	3.000
0.77	9.24	4.737	2126	3.062
0.78	9.36	4.834	2169	3.124
0.79	9.48	4.931	2213	3.187
0.80	9.60	5.028	2257	3.250
0.81	9.72	5.127	2301	3.313
0.82	9.84	5.226	2345	3.377
0.83	9.96	5.326	2390	3.442
0.84	10.08	5.426	2435	3.507
0.85	10.20	5.527	2481	3.572
0.86	10.32	5.629	2526	3.638
0.87	10.44	5.731	2572	3.704
0.88	10.56	5.834	2618	3.771
0.89	10.68	5.938	2665	3.838
0.90	10.80	6.043	2712	3.905
0.91	10.92	6.148	2759	3.973
0.92	11.04	6.253	2806	4.042
0.93	11.16	6.360	2854	4.110
0.94	11.28	6.467	2902	4.179
0.95	11.40	6.574	2951	4.249
0.96	11.52	6.683	2999	4.319
0.97	11.64	6.792	3048	4.389
0.98	11.76	6.901	3097	4.460
0.99	11.88	7.011	3147	4.531
1.00	12.00	7.122	3196	4.603



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**Discharge Table
For
24" W x 108" L Cutthroat Flume**

LEVEL		FLOW		
FEET	INCHES	CFS	GPM	MGD
1.01	12.12	7.233	3246	4.675
1.02	12.24	7.345	3297	4.747
1.03	12.36	7.458	3347	4.820
1.04	12.48	7.571	3398	4.893
1.05	12.60	7.685	3449	4.967
1.06	12.72	7.800	3501	5.041
1.07	12.84	7.915	3552	5.115
1.08	12.96	8.031	3604	5.190
1.09	13.08	8.147	3656	5.265
1.10	13.20	8.264	3709	5.341
1.11	13.32	8.381	3761	5.417
1.12	13.44	8.499	3814	5.493
1.13	13.56	8.618	3868	5.570
1.14	13.68	8.737	3921	5.647
1.15	13.80	8.857	3975	5.724
1.16	13.92	8.978	4029	5.802
1.17	14.04	9.099	4083	5.880
1.18	14.16	9.220	4138	5.959
1.19	14.28	9.342	4193	6.038
1.20	14.40	9.465	4248	6.117
1.21	14.52	9.588	4303	6.197
1.22	14.64	9.712	4359	6.277
1.23	14.76	9.837	4415	6.358
1.24	14.88	9.962	4471	6.438
1.25	15.00	10.09	4527	6.520
1.26	15.12	10.21	4584	6.601
1.27	15.24	10.34	4641	6.683
1.28	15.36	10.47	4698	6.765
1.29	15.48	10.60	4755	6.848
1.30	15.60	10.72	4813	6.931
1.31	15.72	10.85	4871	7.014
1.32	15.84	10.98	4929	7.098
1.33	15.96	11.11	4987	7.182
1.34	16.08	11.24	5046	7.266
1.35	16.20	11.37	5105	7.351
1.36	16.32	11.51	5164	7.436
1.37	16.44	11.64	5223	7.522
1.38	16.56	11.77	5283	7.608
1.39	16.68	11.90	5343	7.694
1.40	16.80	12.04	5403	7.780
1.41	16.92	12.17	5463	7.867
1.42	17.04	12.31	5524	7.954
1.43	17.16	12.44	5584	8.042
1.44	17.28	12.58	5645	8.130
1.45	17.40	12.72	5707	8.218
1.46	17.52	12.85	5768	8.307
1.47	17.64	12.99	5830	8.396
1.48	17.76	13.13	5892	8.485
1.49	17.88	13.27	5954	8.574
1.50	18.00	13.41	6017	8.664

LEVEL		FLOW		
FEET	INCHES	CFS	GPM	MGD
1.51	18.12	13.55	6079	8.755
1.52	18.24	13.69	6142	8.845
1.53	18.36	13.83	6205	8.936
1.54	18.48	13.97	6269	9.028
1.55	18.60	14.11	6332	9.119
1.56	18.72	14.25	6396	9.211
1.57	18.84	14.39	6460	9.303
1.58	18.96	14.54	6525	9.396
1.59	19.08	14.68	6589	9.489
1.60	19.20	14.83	6654	9.582
1.61	19.32	14.97	6719	9.676
1.62	19.44	15.12	6784	9.770
1.63	19.56	15.26	6850	9.864
1.64	19.68	15.41	6915	9.958
1.65	19.80	15.56	6981	10.05
1.66	19.92	15.70	7047	10.15
1.67	20.04	15.85	7114	10.24
1.68	20.16	16.00	7180	10.34
1.69	20.28	16.15	7247	10.44
1.70	20.40	16.30	7314	10.53
1.71	20.52	16.45	7381	10.63
1.72	20.64	16.60	7449	10.73
1.73	20.76	16.75	7516	10.82
1.74	20.88	16.90	7584	10.92
1.75	21.00	17.05	7652	11.02
1.76	21.12	17.20	7721	11.12
1.77	21.24	17.36	7789	11.22
1.78	21.36	17.51	7858	11.32
1.79	21.48	17.66	7927	11.42
1.80	21.60	17.82	7996	11.51
1.81	21.72	17.97	8066	11.61
1.82	21.84	18.13	8135	11.72
1.83	21.96	18.28	8205	11.82
1.84	22.08	18.44	8275	11.92
1.85	22.20	18.59	8345	12.02
1.86	22.32	18.75	8416	12.12
1.87	22.44	18.91	8486	12.22
1.88	22.56	19.07	8557	12.32
1.89	22.68	19.23	8628	12.43
1.90	22.80	19.38	8700	12.53
1.91	22.92	19.54	8771	12.63
1.92	23.04	19.70	8843	12.73
1.93	23.16	19.86	8915	12.84
1.94	23.28	20.03	8987	12.94
1.95	23.40	20.19	9060	13.05
1.96	23.52	20.35	9132	13.15
1.97	23.64	20.51	9205	13.26
1.98	23.76	20.67	9278	13.36
1.99	23.88	20.84	9351	13.47
2.00	24.00	21.00	9425	13.57

Source: Design and Calibration of Submerged Open Channel Flow Measurement Structures, Part 3: Cutthroat Flumes, Utah Water Research Laboratory, April 1967.



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**Discharge Table
For
24" W x 108" L Cutthroat Flume**

LEVEL		FLOW		
FEET	INCHES	CFS	GPM	MGD
2.01	24.12	21.16	9498	13.68
2.02	24.24	21.33	9572	13.78
2.03	24.36	21.49	9646	13.89
2.04	24.48	21.66	9720	14.00
2.05	24.60	21.82	9795	14.10
2.06	24.72	21.99	9869	14.21
2.07	24.84	22.16	9944	14.32
2.08	24.96	22.32	10019	14.43
2.09	25.08	22.49	10094	14.54
2.10	25.20	22.66	10170	14.65
2.11	25.32	22.83	10246	14.75
2.12	25.44	23.00	10321	14.86
2.13	25.56	23.17	10397	14.97
2.14	25.68	23.34	10474	15.08
2.15	25.80	23.51	10550	15.19
2.16	25.92	23.68	10627	15.30
2.17	26.04	23.85	10704	15.41
2.18	26.16	24.02	10781	15.52
2.19	26.28	24.19	10858	15.64
2.20	26.40	24.37	10935	15.75
2.21	26.52	24.54	11013	15.86
2.22	26.64	24.71	11091	15.97
2.23	26.76	24.89	11169	16.08
2.24	26.88	25.06	11247	16.20
2.25	27.00	25.24	11326	16.31
2.26	27.12	25.41	11404	16.42
2.27	27.24	25.59	11483	16.54
2.28	27.36	25.76	11562	16.65
2.29	27.48	25.94	11641	16.76
2.30	27.60	26.12	11721	16.88
2.31	27.72	26.29	11800	16.99
2.32	27.84	26.47	11880	17.11
2.33	27.96	26.65	11960	17.22
2.34	28.08	26.83	12040	17.34
2.35	28.20	27.01	12121	17.45
2.36	28.32	27.19	12201	17.57
2.37	28.44	27.37	12282	17.69
2.38	28.56	27.55	12363	17.80
2.39	28.68	27.73	12444	17.92
2.40	28.80	27.91	12525	18.04
2.41	28.92	28.09	12607	18.15
2.42	29.04	28.27	12688	18.27
2.43	29.16	28.45	12770	18.39
2.44	29.28	28.64	12852	18.51
2.45	29.40	28.82	12935	18.63
2.46	29.52	29.00	13017	18.75
2.47	29.64	29.19	13100	18.86
2.48	29.76	29.37	13183	18.98
2.49	29.88	29.56	13266	19.10
2.50	30.00	29.74	13349	19.22

LEVEL		FLOW		
FEET	INCHES	CFS	GPM	MGD
2.51	30.12	29.93	13432	19.34
2.52	30.24	30.12	13516	19.46
2.53	30.36	30.30	13599	19.58
2.54	30.48	30.49	13683	19.71
2.55	30.60	30.68	13768	19.83
2.56	30.72	30.86	13852	19.95
2.57	30.84	31.05	13936	20.07
2.58	30.96	31.24	14021	20.19
2.59	31.08	31.43	14106	20.31