



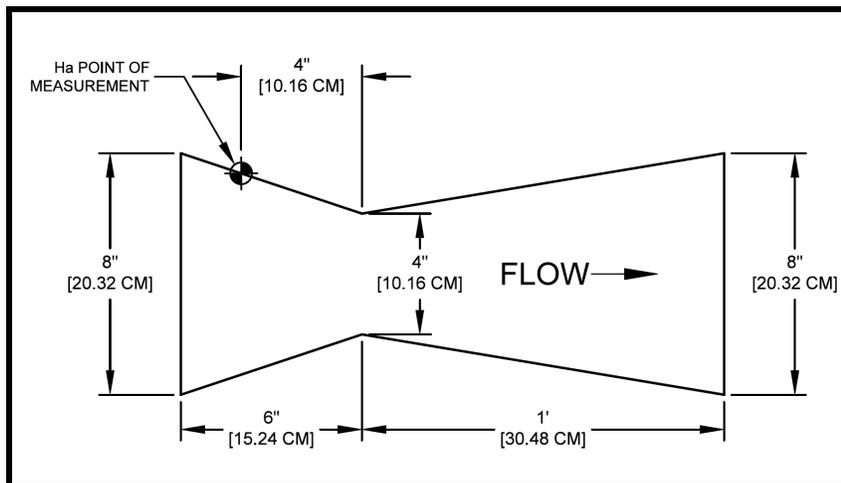
18-Inch L x 4-Inch W Cutthroat Flume Discharge Table

60% Submergence Transition ±3% Accuracy

Formulas (H in feet): CFS = 1.975 H_{ft.}^{2.15} GPM = 886.4 H_{ft.}^{2.15} MGD = 1.276 H_{ft.}^{2.15}
 Formulas (H in meters): L/S = 719.2 H_m^{2.15} M3/HR = 2588 H_m^{2.15}

FEET	INCHES	METERS	CFS	GPM	MGD	L/S	M3/HR
0.01	0.12	0.0030					
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	0.0140	6.275	0.0090	0.3960	1.425
0.11	1.32	0.0335	0.0172	7.702	0.0111	0.4860	1.749
0.12	1.44	0.0366	0.0207	9.287	0.0134	0.5860	2.109
0.13	1.56	0.0396	0.0246	11.03	0.0159	0.6960	2.504
0.14	1.68	0.0427	0.0288	12.94	0.0186	0.8163	2.937
0.15	1.80	0.0457	0.0334	15.00	0.0216	0.9468	3.407
0.16	1.92	0.0488	0.0384	17.24	0.0248	1.088	3.914
0.17	2.04	0.0518	0.0438	19.64	0.0283	1.239	4.459
0.18	2.16	0.0549	0.0495	22.21	0.0320	1.401	5.042
0.19	2.28	0.0579	0.0556	24.94	0.0359	1.574	5.663
0.20	2.40	0.0610	0.0621	27.85	0.0401	1.757	6.323
0.21	2.52	0.0640	0.0689	30.93	0.0445	1.952	7.023
0.22	2.64	0.0671	0.0762	34.18	0.0492	2.157	7.762
0.23	2.76	0.0701	0.0838	37.61	0.0542	2.373	8.540
0.24	2.88	0.0732	0.0918	41.22	0.0594	2.601	9.358
0.25	3.00	0.0762	0.1003	45.00	0.0648	2.839	10.22
0.26	3.12	0.0792	0.1091	48.96	0.0705	3.089	11.12
0.27	3.24	0.0823	0.1183	53.09	0.0765	3.350	12.06
0.28	3.36	0.0853	0.1279	57.41	0.0827	3.623	13.04
0.29	3.48	0.0884	0.1380	61.91	0.0892	3.907	14.06
0.30	3.60	0.0914	0.1484	66.59	0.0959	4.202	15.12

Excessive error due to fluid-flow properties and boundary conditions



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



18-Inch L x 4-Inch W Cutthroat Flume Discharge Table

60% Submergence Transition ±3% Accuracy

Formulas (H in feet): CFS = 1.975 H_{ft.}^{2.15} GPM = 886.4 H_{ft.}^{2.15} MGD = 1.276 H_{ft.}^{2.15}
 Formulas (H in meters): L/S = 719.2 H_m^{2.15} M3/HR = 2588 H_m^{2.15}

FEET	INCHES	METERS	CFS	GPM	MGD	L/S	M3/HR
0.31	3.72	0.0945	0.1592	71.46	0.1029	4.509	16.22
0.32	3.84	0.0975	0.1705	76.51	0.1102	4.828	17.37
0.33	3.96	0.1006	0.1821	81.74	0.1177	5.158	18.56
0.34	4.08	0.1036	0.1942	87.16	0.1255	5.500	19.79
0.35	4.20	0.1067	0.2067	92.76	0.1336	5.853	21.06
0.36	4.32	0.1097	0.2196	98.55	0.1419	6.219	22.38
0.37	4.44	0.1128	0.2329	104.5	0.1505	6.596	23.73
0.38	4.56	0.1158	0.2467	110.7	0.1594	6.985	25.13
0.39	4.68	0.1189	0.2608	117.1	0.1686	7.387	26.58
0.40	4.80	0.1219	0.2754	123.6	0.1780	7.800	28.07
0.41	4.92	0.1250	0.2904	130.3	0.1877	8.225	29.60
0.42	5.04	0.1280	0.3059	137.3	0.1977	8.663	31.17
0.43	5.16	0.1311	0.3218	144.4	0.2079	9.112	32.79
0.44	5.28	0.1341	0.3381	151.7	0.2185	9.574	34.45
0.45	5.40	0.1372	0.3548	159.2	0.2293	10.05	36.15
0.46	5.52	0.1402	0.3720	166.9	0.2404	10.53	37.90
0.47	5.64	0.1433	0.3896	174.8	0.2518	11.03	39.70
0.48	5.76	0.1463	0.4076	182.9	0.2634	11.54	41.53
0.49	5.88	0.1494	0.4261	191.2	0.2754	12.07	43.42
0.50	6.00	0.1524	0.4450	199.7	0.2876	12.60	45.34

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