

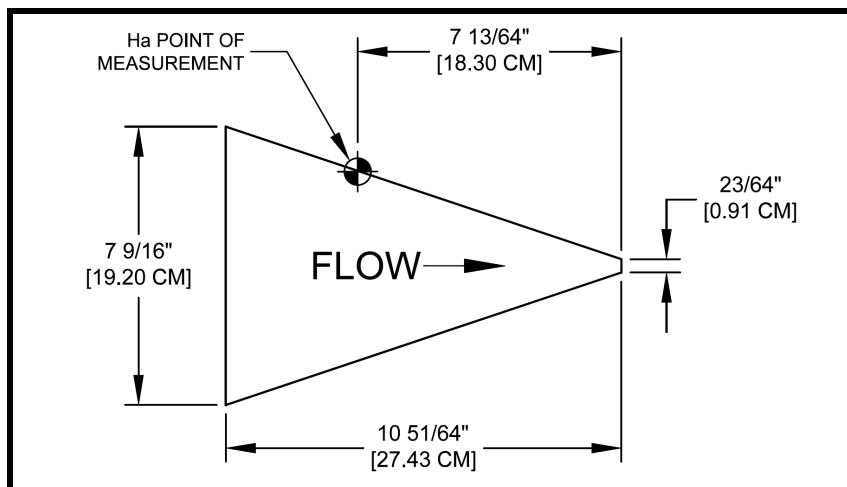


0.6-Foot HS Flume Discharge Table

25-30% Submergence Transition ±2-5% Accuracy

Formulas (H in feet): $CFS = -0.00037 - 0.00043 H_{ft}^{0.5} + 0.1031 H_{ft}^{1.5} + 0.65366 H_{ft}^{2.5}$
 Formulas (H in meters): $L/S = -0.01047723 - 0.0220549 H_m^{0.5} + 17.34926614 H_m^{1.5} + 360.8771555 H_m^{2.5}$

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	0.0002	0.1032	0.0001	0.0065	0.0234
0.03	0.36	0.0091	0.0005	0.2379	0.0003	0.0150	0.0540
0.04	0.48	0.0122	0.0009	0.4084	0.0006	0.0258	0.0927
0.05	0.60	0.0152	0.0014	0.6193	0.0009	0.0391	0.1406
0.06	0.72	0.0183	0.0019	0.8662	0.0012	0.0547	0.1967
0.07	0.84	0.0213	0.0026	1.162	0.0017	0.0733	0.2639
0.08	0.96	0.0244	0.0034	1.503	0.0022	0.0949	0.3414
0.09	1.08	0.0274	0.0042	1.889	0.0027	0.1192	0.4290
0.10	1.20	0.0305	0.0052	2.320	0.0033	0.1464	0.5268
0.11	1.32	0.0335	0.0063	2.805	0.0040	0.1770	0.6369
0.12	1.44	0.0366	0.0074	3.330	0.0048	0.2101	0.7561
0.13	1.56	0.0396	0.0087	3.891	0.0056	0.2455	0.8835
0.14	1.68	0.0427	0.0100	4.488	0.0065	0.2832	1.019
0.15	1.80	0.0457	0.0115	5.161	0.0074	0.3257	1.172
0.16	1.92	0.0488	0.0131	5.879	0.0085	0.3710	1.335
0.17	2.04	0.0518	0.0148	6.642	0.0096	0.4191	1.508
0.18	2.16	0.0549	0.0166	7.450	0.0107	0.4701	1.692
0.19	2.28	0.0579	0.0186	8.348	0.0120	0.5268	1.895
0.20	2.40	0.0610	0.0207	9.290	0.0134	0.5862	2.109
0.21	2.52	0.0640	0.0229	10.28	0.0148	0.6485	2.334
0.22	2.64	0.0671	0.0252	11.31	0.0163	0.7137	2.568
0.23	2.76	0.0701	0.0277	12.43	0.0179	0.7845	2.823
0.24	2.88	0.0732	0.0303	13.60	0.0196	0.8581	3.088
0.25	3.00	0.0762	0.0330	14.81	0.0213	0.9346	3.363
0.26	3.12	0.0792	0.0359	16.11	0.0232	1.017	3.658
0.27	3.24	0.0823	0.0389	17.46	0.0251	1.102	3.964
0.28	3.36	0.0853	0.0421	18.89	0.0272	1.192	4.290
0.29	3.48	0.0884	0.0454	20.38	0.0293	1.286	4.626
0.30	3.60	0.0914	0.0489	21.95	0.0316	1.385	4.983



Curve fitted equation accurate to within 1.5%

Notes:

Discharge is calculated to top of flume

Source: Field Manual for Research in Agricultural Hydrology, Agriculture Handbook No. 224, U.S. Department of Agriculture, February 1972



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FEET	INCHES	METERS	CFS	GPM	MGD	L/S	M3/HR
0.31	3.72	0.0945	0.0524	23.52	0.0339	1.484	5.340
0.32	3.84	0.0975	0.0562	25.22	0.0363	1.592	5.727
0.33	3.96	0.1006	0.0601	26.97	0.0388	1.702	6.124
0.34	4.08	0.1036	0.0641	28.77	0.0414	1.815	6.532
0.35	4.20	0.1067	0.0683	30.65	0.0441	1.934	6.960
0.36	4.32	0.1097	0.0727	32.63	0.0470	2.059	7.408
0.37	4.44	0.1128	0.0772	34.65	0.0499	2.186	7.867
0.38	4.56	0.1158	0.0819	36.76	0.0529	2.319	8.346
0.39	4.68	0.1189	0.0868	38.96	0.0561	2.458	8.845
0.40	4.80	0.1219	0.0918	41.20	0.0593	2.600	9.35
0.41	4.92	0.1250	0.0970	43.53	0.0627	2.747	9.88
0.42	5.04	0.1280	0.1020	45.78	0.0659	2.889	10.39
0.43	5.16	0.1311	0.1080	48.47	0.0698	3.059	11.01
0.44	5.28	0.1341	0.1140	51.16	0.0737	3.228	11.62
0.45	5.40	0.1372	0.1200	53.86	0.0776	3.398	12.23
0.46	5.52	0.1402	0.1260	56.55	0.0814	3.568	12.84
0.47	5.64	0.1433	0.1320	59.24	0.0853	3.738	13.45
0.48	5.76	0.1463	0.1380	61.93	0.0892	3.908	14.06
0.49	5.88	0.1494	0.1450	65.08	0.0937	4.106	14.78
0.50	6.00	0.1524	0.1520	68.22	0.0982	4.305	15.49
0.51	6.12	0.1554	0.1590	71.36	0.1028	4.503	16.20
0.52	6.24	0.1585	0.1660	74.50	0.1073	4.701	16.92
0.53	6.36	0.1615	0.1730	77.64	0.1118	4.899	17.63
0.54	6.48	0.1646	0.1810	81.23	0.1170	5.126	18.44
0.55	6.60	0.1676	0.1880	84.37	0.1215	5.324	19.16
0.56	6.72	0.1707	0.1960	87.96	0.1267	5.551	19.97
0.57	6.84	0.1737	0.2050	92.00	0.1325	5.806	20.89
0.58	6.96	0.1768	0.2130	95.59	0.1377	6.032	21.70
0.59	7.08	0.1798	0.2210	99.18	0.1428	6.259	22.52

Source:

Field Manual for Research in Agricultural Hydrology, Agriculture Handbook No. 224, U.S. Department of Agriculture, February 1972