



770.664.6513 (V) 770.664.6565 (F)

Discharge Table For 18" Montana Flume

Document: MON18-D-T Date: 1-26-04 By: Jon Wachter

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	0.51	228.9	0.330
0.21	2.52	0.55	246.8	0.355
0.22	2.64	0.59	264.8	0.381
0.23	2.76	0.63	282.7	0.407
0.24	2.88	0.67	300.7	0.433
0.25	3.00	0.71	318.6	0.459
0.26	3.12	0.76	341.1	0.491
0.27	3.24	0.80	359.0	0.517
0.28	3.36	0.85	381.5	0.549
0.29	3.48	0.90	403.9	0.582
0.30	3.60	0.94	421.9	0.608
0.31	3.72	0.99	444.3	0.640
0.32	3.84	1.04	466.8	0.672
0.33	3.96	1.09	489.2	0.704
0.34	4.08	1.14	511.6	0.737
0.35	4.20	1.19	534.1	0.769
0.36	4.32	1.25	561.0	0.808
0.37	4.44	1.30	583.4	0.840
0.38	4.56	1.36	610.4	0.879
0.39	4.68	1.41	632.8	0.911
0.40	4.80	1.47	659.7	0.950
0.41	4.92	1.53	686.7	0.989
0.42	5.04	1.58	709.1	1.021
0.43	5.16	1.64	736.0	1.060
0.44	5.28	1.70	763.0	1.099
0.45	5.40	1.76	789.9	1.137
0.46	5.52	1.82	816.8	1.176
0.47	5.64	1.88	843.7	1.215
0.48	5.76	1.94	870.7	1.254
0.49	5.88	2.00	897.6	1.293
0.50	6.00	2.06	924.5	1.331

LEVEL		FLOW		
FEET	INCHES	CFS	GPM	MGD
0.51	6.12	2.13	955.9	1.377
0.52	6.24	2.19	982.9	1.415
0.53	6.36	2.25	1010	1.454
0.54	6.48	2.32	1041	1.499
0.55	6.60	2.39	1073	1.545
0.56	6.72	2.45	1100	1.583
0.57	6.84	2.52	1131	1.629
0.58	6.96	2.59	1162	1.674
0.59	7.08	2.66	1194	1.719
0.60	7.20	2.71	1216	1.751
0.61	7.32	2.80	1257	1.810
0.62	7.44	2.87	1288	1.855
0.63	7.56	2.95	1324	1.907
0.64	7.68	3.02	1355	1.952
0.65	7.80	3.09	1387	1.997
0.66	7.92	3.17	1423	2.049
0.67	8.04	3.24	1454	2.094
0.68	8.16	3.31	1486	2.139
0.69	8.28	3.39	1521	2.191
0.70	8.40	3.46	1553	2.236
0.71	8.52	3.54	1589	2.288
0.72	8.64	3.62	1625	2.340
0.73	8.76	3.69	1656	2.385
0.74	8.88	3.77	1692	2.437
0.75	9.00	3.85	1728	2.488
0.76	9.12	3.93	1764	2.540
0.77	9.24	4.01	1800	2.592
0.78	9.36	4.09	1836	2.643
0.79	9.48	4.17	1871	2.695
0.80	9.60	4.26	1912	2.753
0.81	9.72	4.34	1948	2.805
0.82	9.84	4.42	1984	2.857
0.83	9.96	4.50	2020	2.908
0.84	10.08	4.59	2060	2.967
0.85	10.20	4.67	2096	3.018
0.86	10.32	4.76	2136	3.076
0.87	10.44	4.84	2172	3.128
0.88	10.56	4.93	2213	3.186
0.89	10.68	5.01	2248	3.238
0.90	10.80	5.10	2289	3.296
0.91	10.92	5.19	2329	3.354
0.92	11.04	5.28	2370	3.412
0.93	11.16	5.37	2410	3.471
0.94	11.28	5.46	2450	3.529
0.95	11.40	5.55	2491	3.587
0.96	11.52	5.64	2531	3.645
0.97	11.64	5.73	2572	3.703
0.98	11.76	5.82	2612	3.761
0.99	11.88	5.91	2652	3.820
1.00	12.00	6.00	2693	3.878

Source: Utah Water Research Laboratory, Design and Calibration of Submerged Open Channel Flow
Measurement Structures, Part 2: Parshall flumes, p.17



Discharge Table For 18" Montana Flume

770.664.6513 (V) 770.664.6906 (F)

LEVEL		FLOW		
FEET	INCHES	CFS	GPM	MGD
1.01	12.12	6.09	2733	3.936
1.02	12.24	6.19	2778	4.001
1.03	12.36	6.28	2818	4.059
1.04	12.48	6.37	2859	4.117
1.05	12.60	6.47	2904	4.182
1.06	12.72	6.56	2944	4.240
1.07	12.84	6.66	2989	4.304
1.08	12.96	6.75	3029	4.363
1.09	13.08	6.85	3074	4.427
1.10	13.20	6.95	3119	4.492
1.11	13.32	7.04	3160	4.550
1.12	13.44	7.14	3204	4.615
1.13	13.56	7.24	3249	4.679
1.14	13.68	7.34	3294	4.744
1.15	13.80	7.44	3339	4.808
1.16	13.92	7.54	3384	4.873
1.17	14.04	7.64	3429	4.938
1.18	14.16	7.74	3474	5.002
1.19	14.28	7.84	3519	5.067
1.20	14.40	7.94	3563	5.132
1.21	14.52	8.05	3613	5.203
1.22	14.64	8.15	3658	5.267
1.23	14.76	8.25	3703	5.332
1.24	14.88	8.36	3752	5.403
1.25	15.00	8.46	3797	5.468
1.26	15.12	8.56	3842	5.532
1.27	15.24	8.67	3891	5.603
1.28	15.36	8.77	3936	5.668
1.29	15.48	8.88	3985	5.739
1.30	15.60	8.99	4035	5.810
1.31	15.72	9.09	4080	5.875
1.32	15.84	9.20	4129	5.946
1.33	15.96	9.30	4174	6.011
1.34	16.08	9.41	4223	6.082
1.35	16.20	9.52	4273	6.153
1.36	16.32	9.63	4322	6.224
1.37	16.44	9.74	4371	6.295
1.38	16.56	9.85	4421	6.366
1.39	16.68	9.96	4470	6.437
1.40	16.80	10.10	4533	6.528
1.41	16.92	10.20	4578	6.592
1.42	17.04	10.30	4623	6.657
1.43	17.16	10.40	4668	6.722
1.44	17.28	10.50	4712	6.786
1.45	17.40	10.60	4757	6.851
1.46	17.52	10.70	4802	6.915
1.47	17.64	10.80	4847	6.980
1.48	17.76	11.00	4937	7.109
1.49	17.88	11.01	4941	7.116
1.50	18.00	11.20	5027	7.239

LEVEL		FLOW		
FEET	INCHES	CFS	GPM	MGD
1.51	18.12	11.30	5071	7.303
1.52	18.24	11.40	5116	7.368
1.53	18.36	11.50	5161	7.432
1.54	18.48	11.70	5251	7.562
1.55	18.60	11.80	5296	7.626
1.56	18.72	11.90	5341	7.691
1.57	18.84	12.00	5386	7.756
1.58	18.96	12.10	5430	7.820
1.59	19.08	12.20	5475	7.885
1.60	19.20	12.40	5565	8.014
1.61	19.32	12.50	5610	8.079
1.62	19.44	12.60	5655	8.143
1.63	19.56	12.70	5700	8.208
1.64	19.68	12.80	5745	8.273
1.65	19.80	13.00	5834	8.402
1.66	19.92	13.10	5879	8.467
1.67	20.04	13.20	5924	8.531
1.68	20.16	13.30	5969	8.596
1.69	20.28	13.50	6059	8.725
1.70	20.40	13.60	6104	8.790
1.71	20.52	13.70	6149	8.854
1.72	20.64	13.80	6193	8.919
1.73	20.76	13.90	6238	8.984
1.74	20.88	14.10	6328	9.113
1.75	21.00	14.20	6373	9.177
1.76	21.12	14.30	6418	9.242
1.77	21.24	14.40	6463	9.307
1.78	21.36	14.60	6552	9.436
1.79	21.48	14.70	6597	9.501
1.80	21.60	14.80	6642	9.565
1.81	21.72	15.00	6732	9.695
1.82	21.84	15.10	6777	9.759
1.83	21.96	15.20	6822	9.824
1.84	22.08	15.30	6867	9.888
1.85	22.20	15.50	6956	10.02
1.86	22.32	15.60	7001	10.08
1.87	22.44	15.70	7046	10.15
1.88	22.56	15.80	7091	10.21
1.89	22.68	16.00	7181	10.34
1.90	22.80	16.10	7226	10.41
1.91	22.92	16.20	7271	10.47
1.92	23.04	16.40	7360	10.60
1.93	23.16	16.50	7405	10.66
1.94	23.28	16.60	7450	10.73
1.95	23.40	16.70	7495	10.79
1.96	23.52	16.90	7585	10.92
1.97	23.64	17.00	7630	10.99
1.98	23.76	17.20	7719	11.12
1.99	23.88	17.30	7764	11.18
2.00	24.00	17.40	7809	11.246

Source: Utah Water Research Laboratory, Design and Calibration of Submerged Open Channel Flow
Measurement Structures, Part 2: Parshall flumes, p.17



770.664.6513 (V) 770.664.6565 (F)

Discharge Table For 18" Montana Flume

LEVEL		FLOW		
FEET	INCHES	CFS	GPM	MGD
2.01	24.12	17.60	7899	11.37
2.02	24.24	17.70	7944	11.44
2.03	24.36	17.80	7989	11.50
2.04	24.48	18.00	8078	11.63
2.05	24.60	18.10	8123	11.70
2.06	24.72	18.20	8168	11.76
2.07	24.84	18.40	8258	11.89
2.08	24.96	18.50	8303	11.96
2.09	25.08	18.70	8393	12.09
2.10	25.20	18.80	8437	12.15
2.11	25.32	18.90	8482	12.22
2.12	25.44	19.00	8527	12.28
2.13	25.56	19.20	8617	12.41
2.14	25.68	19.30	8662	12.47
2.15	25.80	19.50	8752	12.60
2.16	25.92	19.60	8796	12.67
2.17	26.04	19.70	8841	12.73
2.18	26.16	19.90	8931	12.86
2.19	26.28	20.00	8976	12.93
2.20	26.40	20.20	9066	13.06
2.21	26.52	20.30	9111	13.12
2.22	26.64	20.50	9200	13.25
2.23	26.76	20.60	9245	13.31
2.24	26.88	20.70	9290	13.38
2.25	27.00	20.90	9380	13.51
2.26	27.12	21.00	9425	13.57
2.27	27.24	21.20	9515	13.70
2.28	27.36	21.30	9559	13.77
2.29	27.48	21.40	9604	13.83
2.30	27.60	21.60	9694	13.96
2.31	27.72	21.70	9739	14.02
2.32	27.84	21.90	9829	14.15
2.33	27.96	22.00	9874	14.22
2.34	28.08	22.20	9963	14.35
2.35	28.20	22.40	10053	14.48
2.36	28.32	22.50	10098	14.54
2.37	28.44	22.60	10143	14.61
2.38	28.56	22.80	10233	14.74
2.39	28.68	22.90	10278	14.80
2.40	28.80	23.00	10322	14.86
2.41	28.92	23.20	10412	14.99
2.42	29.04	23.30	10457	15.06
2.43	29.16	23.50	10547	15.19
2.44	29.28	23.70	10637	15.32
2.45	29.40	23.80	10681	15.38
2.46	29.52	23.90	10726	15.45
2.47	29.64	24.10	10816	15.58
2.48	29.76	24.20	10861	15.64
2.49	29.88	24.40	10951	15.77
2.50	30.00	24.60	11040	15.90

Source: Utah Water Research Laboratory, Design and Calibration of Submerged Open Channel Flow Measurement Structures, Part 2: Parshall flumes, p.17