

Table A9-2. Discharge of fully contracted standard submerged rectangular orifice in ft³/sec. Computed from the formula $Q=0.61A(2g\Delta h)^{0.5}$

Head Δh , ft	Cross-sectional area A of orifice, square feet							
	0.25	0.5	0.75	1.0	1.25	1.5	1.75	2.0
0.01	0.122	0.245	0.367	0.490	0.612	0.734	0.857	0.979
.02	.173	.346	.519	.692	.865	1.04	1.21	1.38
.03	.212	.424	.636	.848	1.06	1.27	1.48	1.70
.04	.245	.490	.734	.979	1.22	1.47	1.71	1.96
.05	.274	.547	.821	1.09	1.37	1.64	1.92	2.19
.06	.300	.600	.899	1.20	1.50	1.80	2.10	2.40
.07	.324	.648	.971	1.30	1.62	1.94	2.27	2.59
.08	.346	.692	1.04	1.38	1.73	2.08	2.42	2.77
.09	.367	.734	1.10	1.47	1.84	2.20	2.57	2.94
.10	.387	.774	1.16	1.55	1.94	2.32	2.71	3.10
.11	.406	.812	1.22	1.62	2.03	2.44	2.84	3.25
.12	.424	.848	1.27	1.70	2.12	2.54	2.97	3.39
.13	.441	.882	1.32	1.76	2.21	2.65	3.09	3.53
.14	.458	.916	1.37	1.83	2.29	2.75	3.21	3.66
.15	.474	.948	1.42	1.90	2.37	2.84	3.32	3.79
.16	.490	.979	1.47	1.96	2.45	2.94	3.43	3.92
.17	.505	1.01	1.51	2.02	2.52	3.03	3.53	4.04
.18	.519	1.04	1.56	2.08	2.60	3.12	3.63	4.15
.19	.533	1.07	1.60	2.13	2.67	3.20	3.73	4.27
.20	.547	1.09	1.64	2.19	2.74	3.28	3.83	4.38
.21	.561	1.12	1.68	2.24	2.80	3.36	3.93	4.49
.22	.574	1.15	1.72	2.30	2.87	3.44	4.02	4.59
.23	.587	1.17	1.76	2.35	2.93	3.52	4.11	4.70
.24	.600	1.20	1.80	2.40	3.00	3.60	4.20	4.80
.25	.612	1.22	1.84	2.45	3.06	3.67	4.28	4.90
.26	.624	1.25	1.87	2.50	3.12	3.74	4.37	4.99
.27	.636	1.27	1.91	2.54	3.18	3.82	4.45	5.09
.28	.648	1.30	1.94	2.59	3.24	3.89	4.53	5.18
.29	.659	1.32	1.98	2.64	3.30	3.95	4.61	5.27
.30	.670	1.34	2.01	2.68	3.35	4.02	4.69	5.36
.31	.681	1.36	2.04	2.73	3.41	4.09	4.77	5.45
.32	.692	1.38	2.08	2.77	3.46	4.15	4.85	5.54
.33	.703	1.41	2.11	2.81	3.52	4.22	4.92	5.62
.34	.714	1.43	2.14	2.85	3.57	4.28	5.00	5.71
.35	.724	1.45	2.17	2.90	3.62	4.34	5.07	5.79
.36	.734	1.47	2.20	2.94	3.67	4.41	5.14	5.87
.37	.744	1.49	2.23	2.98	3.72	4.47	5.21	5.96
.38	.754	1.51	2.26	3.02	3.77	4.53	5.28	6.04
.39	.764	1.53	2.29	3.06	3.82	4.59	5.35	6.11
.40	.774	1.55	2.32	3.10	3.87	4.64	5.42	6.19

Table A9-2. Discharge of fully contracted standard submerged rectangular orifice in ft³/sec. Computed from the formula $Q=0.61A(2g\Delta h)^{0.5}$

Head Δh , ft	Cross-sectional area A of orifice, square feet							
	0.25	0.5	0.75	1.0	1.25	1.5	1.75	2.0
.41	0.784	1.57	2.35	3.13	3.92	4.70	5.49	6.27
.42	.793	1.59	2.38	3.17	3.97	4.76	5.55	6.34
.43	.803	1.61	2.41	3.21	4.01	4.82	5.62	6.42
.44	.812	1.62	2.44	3.25	4.06	4.87	5.68	6.49
.45	.821	1.64	2.46	3.28	4.10	4.93	5.75	6.57
.46	.830	1.66	2.49	3.32	4.15	4.98	5.81	6.64
.47	.839	1.68	2.52	3.36	4.19	5.03	5.87	6.71
.48	.848	1.70	2.54	3.39	4.24	5.09	5.94	6.78
.49	.857	1.71	2.57	3.43	4.28	5.14	6.00	6.85
.50	.865	1.73	2.60	3.46	4.33	5.19	6.06	6.92
.51	.874	1.75	2.62	3.50	4.37	5.24	6.12	6.99
.52	.882	1.76	2.65	3.53	4.41	5.29	6.18	7.06
.53	.891	1.78	2.67	3.56	4.45	5.35	6.24	7.13
.54	.899	1.80	2.70	3.60	4.50	5.40	6.30	7.19
.55	.908	1.82	2.72	3.63	4.54	5.45	6.35	7.26
.56	.916	1.83	2.75	3.66	4.58	5.49	6.41	7.33
.57	.924	1.85	2.77	3.70	4.62	5.54	6.47	7.39
.58	.932	1.86	2.80	3.73	4.66	5.59	6.52	7.46
.59	.940	1.88	2.82	3.76	4.70	5.64	6.58	7.52
.60	.948	1.90	2.84	3.79	4.74	5.69	6.64	7.58
.61	.956	1.91	2.87	3.82	4.78	5.73	6.69	7.65
.62	.964	1.93	2.89	3.85	4.82	5.78	6.75	7.71
.63	.971	1.94	2.91	3.89	4.86	5.83	6.80	7.77
.64	.979	1.96	2.94	3.92	4.90	5.87	6.85	7.83
.65	.987	1.97	2.96	3.95	4.93	5.92	6.91	7.89
.66	.994	1.99	2.98	3.98	4.97	5.97	6.96	7.95
.67	1.00	2.00	3.01	4.01	5.01	6.01	7.01	8.01
.68	1.01	2.02	3.03	4.04	5.05	6.06	7.06	8.07
.69	1.02	2.03	3.05	4.07	5.08	6.10	7.12	8.13
.70	1.02	2.05	3.07	4.10	5.12	6.14	7.17	8.19
.71	1.03	2.06	3.09	4.12	5.16	6.19	7.22	8.25
.72	1.04	2.08	3.12	4.15	5.19	6.23	7.27	8.31
.73	1.05	2.09	3.14	4.18	5.23	6.27	7.32	8.36
.74	1.05	2.11	3.16	4.21	5.26	6.32	7.37	8.42
.75	1.06	2.12	3.18	4.24	5.30	6.36	7.42	8.48
.76	1.07	2.13	3.20	4.27	5.33	6.40	7.47	8.54
.77	1.07	2.15	3.22	4.30	5.37	6.44	7.52	8.59
.78	1.08	2.16	3.24	4.32	5.40	6.49	7.57	8.65
.79	1.09	2.18	3.26	4.35	5.44	6.53	7.61	8.70
.80	1.09	2.19	3.28	4.38	5.47	6.57	7.66	8.76