

Engineering Information

The Oretical Velocity of Water ft. per Minute

Velocity, ft. per sec = 8.025 √ Hi ft. min = 481.5 √ Hi H = 2.3 P.

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Head over Centre	Velocity (Theor)	Velocity x .6	Orific Diametre (inches)					
			4	5	6	7	8	10
Ins.	Ft./m.	Ft./m. p.m.	G. p.m.	G. p.m.	G. p.m.	G. p.m.	G. p.m.	G. p.m.
10	439	272	148	231				
12	482	298	162	253	364			
14	519	321	175	273	392	535		
16	555	344	188	292	420	573	750	
18	586	363	198	308	447	606	792	
20	621	385	209	327	471	644	839	1312
22	652	404	220	344	495	675	881	1474
26	681	422	230	358	517	704	920	1437

The quality of water discharged over a 90° triangular noten where Q = quantity (cu.ft./min.) and H = Head of water in ins. is given by-Gal./min. = 1,905²H² √ H. Head measured from crest of notch to surface of still water.

The discharged of water over a rectangular notch per inch. Width. For other widths, multiply by width in inches.

Head 7/8 In.	0 In.	1/8 In.	1/7 In.	7/8 In.	1/2 In.	4/8 In.	3/4 In.	
Ins.	Cu. ft.	Cu. ft.	Cu. ft.	Cu. ft.	Cu. ft.	Cu. ft.	Cu. ft.	
0		0.01	0.05	0.09	0.14	0.19	0.26	0.32
2	1.13	1.23	1.35	1.46	1.58	1.70	1.82	1.95
4	3.20	3.35	3.50	3.66	3.81	3.97	4.14	4.30
6	5.87	6.06	6.25	6.44	6.62	6.82	7.01	7.21
8	9.05	9.26	9.47	9.66	9.91	10.13	10.35	10.57
10	12.64	12.88	13.12	13.36	13.60	13.85	14.09	14.34
12	16.62	16.88	17.15	17.41	17.67	17.94	18.21	18.47
14	20.95	21.23	21.51	21.80	22.08	22.37	22.65	22.94
16	25.60	25.90	26.20	26.50	26.80	27.11	27.42	27.72
18	30.54	30.86	31.18	31.50	31.82	32.10	32.47	32.80
20	35.77	36.11	35.46	36.78	37.12	37.46	37.08	38.15

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THE ORETICAL VELOCITY OF WATER FT. PER MINUTE

Velocity, ft. per sec = 8.025 √ Hi ft. min. = 481.5 √ H.

H = 2.3 P.

Head Feet	0	2'	4'	6'	8'	Pressure P lb./in.	Head Feet
0	0	680.94	963.0	1179.43	1369.89	0	0
10	1522.64	1776.96	1801.63	1926.00	2042.81	4.3351	10
30	2637.27	2723.80	2807.63	2889.00	2968.16	13.0032	30
50	3404.73	3472.14	3538.30	3603.21	3667.01	21.6754	50
70	4028.52	4085.67	4142.01	4197.62	4252.51	30.3455	70
90	4567.89	4618.40	4668.34	4717.74	4766.61	39.0356	90
	200	400	600	800	1000	lb./in ²	
0	6809.42	9630.00	11794.29	13618.82	15226.38	0	
25	7222.50	9926.36	12037.50	13830.30	15415.51	10.8377	25
50	7613.19	10214.16	12275.89	14038.08	15602.38	21.6754	50
75	7984.76	10494.05	12509.76	14242.96	15787.04	32.5130	75