



$$Q = 1.84 \times B \times h^{1.5} \times 60$$

(フランシスの公式)

Q : 流量 (m³/min)
 h : せきの越流水位 (m)
 B : せきの幅 (m)

B (m)	1.500
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単位 : m³/min

h (m)	0.000	0.001	0.002	0.003	0.004	0.005	0.006	0.007	0.008	0.009
0.01	0.1656	0.1911	0.2177	0.2455	0.2743	0.3042	0.3352	0.3671	0.3999	0.4337
0.02	0.4684	0.5040	0.5404	0.5776	0.6157	0.6546	0.6943	0.7347	0.7759	0.8178
0.03	0.8605	0.9039	0.9479	0.9927	1.0382	1.0843	1.1311	1.1786	1.2267	1.2754
0.04	1.3248	1.3748	1.4254	1.4766	1.5284	1.5808	1.6338	1.6874	1.7415	1.7962
0.05	1.8515	1.9073	1.9637	2.0206	2.0780	2.1360	2.1945	2.2536	2.3131	2.3732
0.06	2.4338	2.4949	2.5565	2.6186	2.6812	2.7443	2.8079	2.8719	2.9365	3.0015
0.07	3.0670	3.1329	3.1993	3.2662	3.3336	3.4014	3.4696	3.5383	3.6075	3.6771
0.08	3.7471	3.8176	3.8885	3.9598	4.0316	4.1038	4.1765	4.2495	4.3230	4.3969
0.09	4.4712	4.5459	4.6211	4.6966	4.7726	4.8489	4.9257	5.0029	5.0804	5.1584
0.10	5.2367	5.3155	5.3946	5.4741	5.5541	5.6344	5.7150	5.7961	5.8775	5.9594
0.11	6.0416	6.1241	6.2071	6.2904	6.3741	6.4581	6.5426	6.6273	6.7125	6.7980
0.12	6.8839	6.9701	7.0567	7.1436	7.2309	7.3186	7.4066	7.4949	7.5836	7.6726
0.13	7.7620	7.8518	7.9418	8.0323	8.1230	8.2141	8.3056	8.3973	8.4894	8.5819
0.14	8.6747	8.7678	8.8612	8.9550	9.0491	9.1435	9.2382	9.3333	9.4287	9.5244
0.15	9.6205	9.7169	9.8135	9.9105	10.0079	10.1055	10.2035	10.3017	10.4003	10.4992
0.16	10.5984	10.6979	10.7977	10.8979	10.9983	11.0991	11.2001	11.3015	11.4031	11.5051
0.17	11.6074	11.7099	11.8128	11.9160	12.0194	12.1232	12.2273	12.3316	12.4363	12.5412
0.18	12.6465	12.7520	12.8578	12.9639	13.0703	13.1770	13.2840	13.3913	13.4989	13.6067
0.19	13.7148	13.8233	13.9320	14.0409	14.1502	14.2598	14.3696	14.4797	14.5901	14.7008
0.20	14.8117	14.9229	15.0344	15.1462	15.2583	15.3706	15.4832	15.5961	15.7092	15.8227
0.21	15.9364	16.0503	16.1646	16.2791	16.3939	16.5089	16.6242	16.7398	16.8556	16.9717
0.22	17.0881	17.2048	17.3217	17.4388	17.5563	17.6740	17.7919	17.9101	18.0286	18.1474
0.23	18.2664	18.3856	18.5051	18.6249	18.7449	18.8652	18.9858	19.1066	19.2276	19.3489
0.24	19.4705	19.5923	19.7144	19.8367	19.9593	20.0821	20.2052	20.3285	20.4521	20.5759
0.25	20.7000	20.8243	20.9489	21.0737	21.1988	21.3241	21.4497	21.5755	21.7015	21.8278
0.26	21.9543	22.0811	22.2081	22.3354	22.4629	22.5907	22.7187	22.8469	22.9754	23.1041
0.27	23.2330	23.3622	23.4917	23.6213	23.7512	23.8814	24.0118	24.1424	24.2732	24.4043
0.28	24.5356	24.6672	24.7990	24.9310	25.0633	25.1958	25.3285	25.4615	25.5946	25.7281
0.29	25.8617	25.9956	26.1297	26.2641	26.3986	26.5334	26.6685	26.8037	26.9392	27.0749
0.30	27.2109	27.3470	27.4834	27.6200	27.7569	27.8940	28.0313	28.1688	28.3065	28.4445

【 使用例 】

h=13.5cm=0.135m の場合には Q=8.2141m³/min となる。(下表を参照)

h (m)	0.000	0.001	0.002	0.003	0.004	0.005	0.006	0.007	0.008	0.009
0.10	5.2367	5.3155	5.3946	5.4741	5.5541	↓ ↓ ↓	5.7150	5.7961	5.8775	5.9594
0.11	6.0416	6.1241	6.2071	6.2904	6.3741		6.5426	6.6273	6.7125	6.7980
0.12	6.8839	6.9701	7.0567	7.1436	7.2309		7.4066	7.4949	7.5836	7.6726
0.13	→	→	→	→	→	8.2141	8.3056	8.3973	8.4894	8.5819
0.14	8.6747	8.7678	8.8612	8.9550	9.0491	9.1435	9.2382	9.3333	9.4287	9.5244
0.15	9.6205	9.7169	9.8135	9.9105	10.0079	10.1055	10.2035	10.3017	10.4003	10.4992