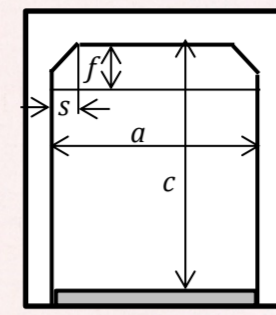


流速・流量表 (8割水深)

※斜字数字は $f < s$ の時です

流速・流量計算式(マニング公式)



全断面面積 $A_0 = a \cdot c - s^2$ (m²)
 $f \geq s$ のとき
 通水断面面積 $A = a(c-f)$ (m²)
 潤 辺 $P_1 = 2(c-f)$ (m)
 プレキャスト部 $P_2 = a$ (m)
 $f < s$ のとき
 通水断面面積 $A = a(c-s) + (s-f)(a-s+f)$ (m²)
 潤 辺 $P_1 = 2(c-s) + 2\sqrt{2}(s-f)$ (m)
 プレキャスト部 $P_2 = a$ (m)

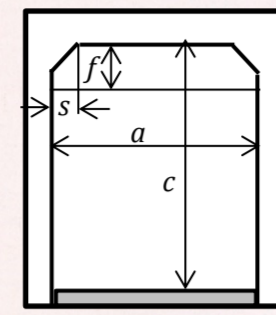
潤 辺 $P = P_1 + P_2$ (m)
 粗度係数 $n = \left\{ \frac{1}{P} (P_1 \cdot n_1^{15} + P_2 \cdot n_2^{15}) \right\}^{1/15}$ (m)
 フレキャスト部 $n_1 =$ (m)
 現場打ち部 $n_2 =$ (m)
 径 深 $R = A/P$ (m)
 流 速 $V = 1/n \cdot R^{2/3} \cdot I^{1/2}$ (m/s)
 流 量 $Q = A \cdot V$ (m³/s)

サイズ	1100×600	1100×700	1100×800	1100×900	1100×1000	1100×1100	1100×1200	1100×1300	1100×1400	1100×1500	1100×1600	1100×1700	1100×1800	1100×1900	1100×2000	1100×2100	1100×2200																		
a = P ₂	1.100	1.100	1.100	1.100	1.100	1.100	1.100	1.100	1.100	1.100	1.100	1.100	1.100	1.100	1.100	1.100	1.100																		
c	0.600	0.700	0.800	0.900	1.000	1.100	1.200	1.300	1.400	1.500	1.600	1.700	1.800	1.900	2.000	2.100	2.200																		
s	0.110	0.110	0.110	0.110	0.110	0.110	0.110	0.110	0.110	0.110	0.110	0.110	0.110	0.110	0.110	0.110	0.110																		
f = c (1 - 0.8)	0.120	0.140	0.160	0.180	0.200	0.220	0.240	0.260	0.280	0.300	0.320	0.340	0.360	0.380	0.400	0.420	0.440																		
p ₁ = 2(c - f) or ...	0.960	1.120	1.280	1.440	1.600	1.760	1.920	2.080	2.240	2.400	2.560	2.720	2.880	3.040	3.200	3.360	3.520																		
n ₁	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.013																		
n ₂	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015																		
全断面面積 A ₀ (m ²)	0.6479	0.7579	0.8679	0.9779	1.0879	1.1979	1.3079	1.4179	1.5279	1.6379	1.7479	1.8579	1.9679	2.0779	2.1879	2.2979	2.4079																		
通水断面面積 A(m ²)	0.5280	0.6160	0.7040	0.7920	0.8800	0.9680	1.0560	1.1440	1.2320	1.3200	1.4080	1.4960	1.5840	1.6720	1.7600	1.8480	1.9360																		
潤 辺 P(m)	2.0600	2.2200	2.3800	2.5400	2.7000	2.8600	3.0200	3.1800	3.3400	3.5000	3.6600	3.8200	3.9800	4.1400	4.3000	4.4600	4.6200																		
径 深 R(m)	0.2563	0.2775	0.2958	0.3118	0.3259	0.3385	0.3497	0.3597	0.3689	0.3771	0.3847	0.3916	0.3980	0.4039	0.4093	0.4143	0.4190																		
粗度係数 n	0.0141	0.0140	0.0139	0.0139	0.0138	0.0138	0.0137	0.0137	0.0137	0.0136	0.0136	0.0136	0.0136	0.0135	0.0135	0.0135	0.0135																		
R ^{2/3}	0.4035	0.4254	0.4439	0.4598	0.4736	0.4857	0.4963	0.5058	0.5143	0.5220	0.5289	0.5353	0.5411	0.5464	0.5513	0.5558	0.5600																		
I(‰)	1/2	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q																		
20.0	0.14142	4.051	2.1390	4.295	2.6455	4.503	3.1702	4.684	3.7096	4.842	4.2611	4.982	4.8226	5.107	5.3926	5.218	5.9698	5.319	6.5531	5.410	7.1418	5.494	7.7352	5.570	8.3326	5.640	8.9335	5.704	9.5377	5.764	10.1446	5.819	10.7541	5.871	11.3658
10.0	0.10000	2.865	1.5125	3.037	1.8707	3.184	2.2417	3.312	2.6231	3.424	3.0130	3.523	3.4101	3.611	3.8131	3.690	4.2213	3.761	4.6338	3.826	5.0500	3.885	5.4696	3.939	5.8920	3.988	6.3170	4.034	6.7441	4.076	7.1733	4.115	7.6043	4.151	8.0368
9.5	0.09747	2.792	1.4742	2.960	1.8233	3.104	2.1849	3.228	2.5567	3.337	2.9367	3.434	3.3237	3.519	3.7166	3.596	4.1144	3.666	4.5164	3.729	4.9222	3.786	5.3311	3.839	5.7428	3.887	6.1570	3.931	6.5734	3.973	6.9917	4.011	7.4117	4.046	7.8333
9.0	0.09487	2.718	1.4349	2.881	1.7747	3.021	2.1266	3.142	2.4885	3.248	2.8584	3.342	3.2351	3.426	3.6175	3.501	4.0047	3.568	4.3960	3.629	4.7909	3.685	5.1889	3.736	5.5896	3.783	6.0052	3.827	6.3981	3.867	6.8052	3.904	7.2141	3.938	7.6244
8.5	0.09220	2.641	1.3945	2.800	1.7247	2.936	2.0667	3.053	2.4184	3.157	2.7779	3.248	3.1440	3.329	3.5155	3.402	3.8918	3.468	4.2721	3.527	4.6559	3.581	5.0427	3.631	5.4322	3.677	5.8239	3.719	6.2178	3.758	6.6135	3.794	7.0108	3.827	7.4096
8.0	0.08944	2.562	1.3528	2.716	1.6732	2.848	2.0050	2.962	2.3462	3.062	2.6949	3.151	3.0501	3.230	3.4106	3.300	3.7756	3.364	4.1446	3.422	4.5169	3.475	4.8921	3.523	5.2700	3.567	5.6501	3.608	6.0321	3.645	6.4160	3.680	6.8015	3.713	7.1884
7.5	0.08660	2.481	1.3099	2.630	1.6200	2.758	1.9413	2.868	2.2717	2.965	2.6094	3.051	2.9532	3.127	3.3023	3.196	3.6557	3.257	4.0130	3.313	4.3735	3.364	4.7368	3.411	5.1026	3.454	5.4706	3.493	5.8406	3.530	6.2123	3.564	6.5855	3.595	6.9601
7.0	0.08367	2.397	1.2655	2.541	1.5651	2.664	1.8755	2.771	2.1946	2.865	2.5209	2.947	2.8531	3.021	3.1903	3.087	3.5318	3.147	3.8769	3.201	4.2252	3.250	4.5762	3.295	4.9296	3.337	5.2851	3.375	5.6426	3.410	6.0016	3.443	6.3622	3.473	6.7241
6.5	0.08062	2.310	1.2194	2.448	1.5082	2.567	1.8073	2.670	2.1148	2.760	2.4292	2.840	2.7493	2.911	3.0743	2.975	3.4033	3.032	3.7359	3.084	4.0715	3.132	4.4097	3.175	4.7503	3.215	5.0929	3.252	5.4373	3.286	5.7833	3.318	6.1308	3.347	6.4795
6.0	0.07746	2.219	1.1716	2.352	1.4490	2.466	1.7364	2.565	2.0318	2.652	2.3339	2.729	2.6414	2.797	2.9536	2.858	3.2698	2.913	3.5893	2.963	3.9117	3.009	4.2367	3.051	4.5639	3.089	4.8931	3.124	5.2240	3.157	5.5564	3.187	5.8903	3.216	6.2253
5.5	0.07416	2.124	1.1217	2.252	1.3873	2.361	1.6625	2.456	1.9453	2.539	2.2345	2.613	2.5290	2.678	2.8279	2.737	3.1306	2.789	3.4365	2.837	3.7452	2.881	4.0564	2.921	4.3696	2.958	4.6848	2.991	5.0016	3.023	5.3199	3.052	5.6395	3.079	5.9603
5.0	0.07071	2.026	1.0695	2.147	1.3228	2.252	1.5851	2.342	1.8548	2.421	2.1305	2.491	2.4113	2.553	2.6963	2.609	2.9849	2.660	3.2766	2.705	3.5709	2.747	3.8676	2.785	4.1663	2.820	4.4668	2.852	4.7688	2.882	5.0723	2.910	5.3770	2.935	5.6829
4.8	0.06928	1.985	1.0479	2.104	1.2960	2.206	1.5531	2.295	1.8173	2.372	2.0875	2.441	2.3626	2.502	2.6418	2.556	2.9246	2.606	3.2104	2.651	3.4988	2.691	3.7894	2.729	4.0821	2.763	4.3765	2.795	4.6725	2.824	4.9698	2.851	5.2684	2.876	5.5681
4.6	0.06782	1.943	1.0258	2.060	1.2687	2.160	1.5204	2.246	1.7791	2.322	2.0435	2.389	2.3128	2.449	2.5882	2.503	2.8630	2.551	3.1428	2.595	3.4251	2.635	3.7097	2.671	3.9962	2.705	4.2844	2.736	4.5741	2.764	4.8652	2.791	5.1575	2.816	5.4509
4.5	0.06708	1.922	1.0146	2.037	1.2549	2.136	1.5038	2.222	1.7596	2.297	2.0212	2.363	2.2876	2.422	2.5579	2.475	2.8317	2.523	3.1084	2.566	3.3877	2.606	3.6691	2.642	3.9525	2.675	4.2375	2.706	4.5241	2.734	4.8120	2.760	5.1011	2.785	5.3913
4.4	0.06633	1.900	1.0033	2.014	1.2409	2.112	1.4870	2.197	1.7400	2.271	1.9986	2.337	2.2620	2.395	2.5294	2.448	2.8001	2.495	3.0737	2.538	3.3498	2.577	3.6281	2.613	3.9083	2.645	4.1902	2.676	4.4736	2.704	4.7582	2.729	5.0441	2.754	5.3310
4.2	0.06481	1.856	0.9802	1.968	1.2123	2.064	1.4528	2.146	1.6999	2.219	1.9527	2.283	2.2100	2.340	2.4712	2.391	2.7357	2.438	3.0030	2.479	3.2728	2.518	3.5447	2.552	3.8185	2.585	4.0939	2.614	4.3707	2.641	4.6488	2.667	4.9281	2.690	5.2085
4.0	0.06325	1.812	0.9566	1.921	1.1831	2.014	1.4178	2.095	1.6590	2.165	1.9056	2.228	2.1567	2.284	2.4116	2.334	2.6698	2.379	2.9307	2.420	3.1939	2.457	3.4593	2.491	3.7264	2.522	3.9952	2.551	4.2654	2.578	4.5368	2.602	4.8094	2.625	5.0829
3.8	0.06164	1.766	0.9324	1.872	1.1532	1.963	1.3819	2.042	1.6170	2.111	1.8574	2.172	2.1021	2.226	2.3506	2.275	2.6022	2.319	2.8565	2.358	3.1131	2.395	3.3717	2.428	3.6321	2.458	3.8940	2.486	4.1574	2.512	4.4219	2.537	4.6876	2.559	4.9542
3.6	0.06000	1.719	0.9075	1.822	1.1224	1.911	1.3450	1.987	1.5738	2.054	1.8078	2.114	2.0461	2.167	2.2879	2.214	2.5328	2.257	2.7803	2.295	3.0300	2.331	3.2818	2.363	3.5352	2.393	3.7902	2.420	4.0465	2.445	4.3040	2.469	4.5626	2.491	4.8221
3.5	0.05916	1.695	0.8948	1.797	1.1067	1.884	1.3262	1.959	1.5518	2.026	1.7825	2.084	2.0174	2.136	2.2559	2.183	2.4973	2.225	2.7414	2.263	2.9876	2.298	3.2359	2.330	3.4858	2.359	3.7372	2.386	3.9899	2.411	4.2438	2.434	4.4988	2.456	4.7547
3.2	0.05657	1.620	0.8556	1.718	1.0582	1.801	1.2681	1.874	1.4838	1.937	1.7044	1.993	1.9290	2.043	2.1570	2.087	2.3879	2.128	2.6213	2.164	2.8567	2.197	3.0941	2.228	3.3330	2.256	3.5734	2.282	3.8151	2.306	4.0578	2.328	4.3016	2.348	4.5463
3.0	0.05477	1.569	0.8284	1.663	1.0246	1.744	1.2278	1.814	1.4367	1.875	1.6503	1.930	1.8678	1.978	2.0885	2.021	2.3121	2.0																	

流速・流量表 (8割水深)

※斜字数字は $f < s$ の時です

流速・流量計算式(マンニング公式)



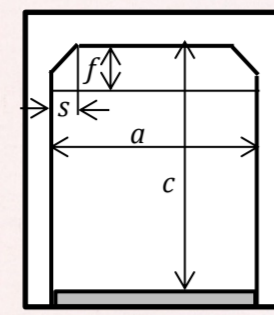
全断面面積 $A_0 = a \cdot c - s^2$ (m²)
 $f \geq s$ のとき
 通水断面面積 $A = a(c-f)$ (m²)
 潤辺 $P_1 = 2(c-f)$ (m)
 現場打ち部 $P_2 = a$ (m)
 $f < s$ のとき
 通水断面面積 $A = a(c-s) + (s-f)(a-s+f)$ (m²)
 潤辺 $P_1 = 2(c-s) + 2\sqrt{2}(s-f)$ (m)
 現場打ち部 $P_2 = a$ (m)

潤辺 $P = P_1 + P_2$ (m)
 粗度係数 $n = \left\{ \frac{1}{P} (P_1^{1.49} + P_2^{1.49}) \right\}^{0.4}$ (m)
 フレキャスト部 $n_1 =$ (m)
 現場打ち部 $n_2 =$ (m)
 径深 $R = A/P$ (m)
 流速 $V = 1/n \cdot R^{2/3} \cdot I^{1/2}$ (m/s)
 流量 $Q = A \cdot V$ (m³/s)

サイズ	1200×600	1200×700	1200×800	1200×900	1200×1000	1200×1100	1200×1200	1200×1300	1200×1400	1200×1500	1200×1600	1200×1700	1200×1800	1200×1900	1200×2000	1200×2100	1200×2200																		
a = P ₂	1.200	1.200	1.200	1.200	1.200	1.200	1.200	1.200	1.200	1.200	1.200	1.200	1.200	1.200	1.200	1.200	1.200																		
c	0.600	0.700	0.800	0.900	1.000	1.100	1.200	1.300	1.400	1.500	1.600	1.700	1.800	1.900	2.000	2.100	2.200																		
s	0.120	0.120	0.120	0.120	0.120	0.120	0.120	0.120	0.120	0.120	0.120	0.120	0.120	0.120	0.120	0.120	0.120																		
f = c (1 - 0.8)	0.120	0.140	0.160	0.180	0.200	0.220	0.240	0.260	0.280	0.300	0.320	0.340	0.360	0.380	0.400	0.420	0.440																		
p ₁ = 2(c - f) or ...	0.960	1.120	1.280	1.440	1.600	1.760	1.920	2.080	2.240	2.400	2.560	2.720	2.880	3.040	3.200	3.360	3.520																		
n ₁	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.013																		
n ₂	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015																		
全断面面積 A ₀ (m ²)	0.7056	0.8256	0.9456	1.0656	1.1856	1.3056	1.4256	1.5456	1.6656	1.7856	1.9056	2.0256	2.1456	2.2656	2.3856	2.5056	2.6256																		
通水断面面積 A(m ₂)	0.5760	0.6720	0.7680	0.8640	0.9600	1.0560	1.1520	1.2480	1.3440	1.4400	1.5360	1.6320	1.7280	1.8240	1.9200	2.0160	2.1120																		
潤辺 P(m)	2.1600	2.3200	2.4800	2.6400	2.8000	2.9600	3.1200	3.2800	3.4400	3.6000	3.7600	3.9200	4.0800	4.2400	4.4000	4.5600	4.7200																		
径深 R(m)	0.2667	0.2897	0.3097	0.3273	0.3429	0.3568	0.3692	0.3805	0.3907	0.4000	0.4085	0.4163	0.4235	0.4302	0.4364	0.4421	0.4475																		
粗度係数 n	0.0141	0.0141	0.0140	0.0139	0.0139	0.0138	0.0138	0.0137	0.0137	0.0137	0.0137	0.0136	0.0136	0.0136	0.0136	0.0135	0.0135																		
R ^{2/3}	0.4143	0.4378	0.4577	0.4749	0.4899	0.5030	0.5147	0.5251	0.5344	0.5429	0.5506	0.5576	0.5640	0.5699	0.5753	0.5803	0.5850																		
I(‰)	1/2	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q																		
20.0	0.14142	4.147	2.3886	4.406	2.9607	4.628	3.5547	4.822	4.1666	4.993	4.7933	5.144	5.4324	5.280	6.0821	5.401	6.7406	5.511	7.4070	5.611	8.0800	5.702	8.7588	5.786	9.4428	5.863	10.1314	5.934	10.8240	6.000	11.5201	6.061	12.2195	6.118	12.9219
10.0	0.10000	2.932	1.6890	3.115	2.0935	3.273	2.5135	3.410	2.9462	3.531	3.3894	3.638	3.8413	3.733	4.3007	3.819	4.7664	3.897	5.2375	3.968	5.7134	4.032	6.1934	4.091	6.6771	4.146	7.1640	4.196	7.6537	4.243	8.1460	4.286	8.6405	4.326	9.1371
9.5	0.09747	2.858	1.6463	3.036	2.0405	3.190	2.4499	3.324	2.8716	3.441	3.3036	3.546	3.7441	3.639	4.1918	3.722	4.6457	3.798	5.1049	3.867	5.5687	3.930	6.0366	3.988	6.5080	4.041	6.9826	4.090	7.4599	4.135	7.9397	4.177	8.4217	4.217	8.9058
9.0	0.09487	2.782	1.6023	2.955	1.9861	3.105	2.3846	3.235	2.7950	3.349	3.2155	3.451	3.6442	3.542	4.0800	3.623	4.5218	3.697	4.9687	3.764	5.4202	3.825	5.8756	3.881	6.3344	3.933	6.7963	3.981	7.2609	4.025	7.7279	4.066	8.1971	4.104	8.6682
8.5	0.09220	2.703	1.5572	2.872	1.9301	3.017	2.3174	3.144	2.7163	3.255	3.1249	3.354	3.5415	3.442	3.9650	3.521	4.3944	3.593	4.8287	3.658	5.2675	3.717	5.7101	3.772	6.1580	3.822	6.6048	3.869	7.0564	3.912	7.5102	3.951	7.9662	3.989	8.4240
8.0	0.08944	2.623	1.5107	2.786	1.8725	2.927	2.2482	3.050	2.6352	3.158	3.0316	3.254	3.4358	3.339	3.8466	3.416	4.2632	3.486	4.6846	3.549	5.1102	3.606	5.5396	3.659	5.9722	3.708	6.4076	3.753	6.8457	3.795	7.2860	3.833	7.7283	3.870	8.1725
7.5	0.08660	2.539	1.4627	2.698	1.8130	2.834	2.1768	2.953	2.5515	3.058	2.9353	3.150	3.3267	3.233	3.7245	3.308	4.1278	3.375	4.5358	3.436	4.9479	3.492	5.3637	3.543	5.7825	3.590	6.2042	3.634	6.6283	3.674	7.0546	3.712	7.4829	3.747	7.9130
7.0	0.08367	2.453	1.4131	2.606	1.7516	2.738	2.1030	2.853	2.4650	2.954	2.8358	3.043	3.2139	3.123	3.5982	3.195	3.9878	3.260	4.3820	3.320	4.7802	3.374	5.1818	3.423	5.5864	3.469	5.9938	3.511	6.4035	3.550	6.8154	3.586	7.2292	3.620	7.6447
6.5	0.08062	2.364	1.3617	2.512	1.6878	2.639	2.0265	2.749	2.3753	2.846	2.7326	2.933	3.0970	3.010	3.4673	3.079	3.8428	3.142	4.2226	3.199	4.6063	3.251	4.9933	3.299	5.3832	3.342	5.7758	3.383	6.1706	3.421	6.5675	3.455	6.9662	3.488	7.3666
6.0	0.07746	2.271	1.3083	2.413	1.6216	2.535	1.9470	2.641	2.2821	2.735	2.6254	2.818	2.9755	2.892	3.3313	2.958	3.6920	3.019	4.0570	3.073	4.4256	3.123	4.7974	3.169	5.1720	3.211	5.5492	3.250	5.9285	3.286	6.3098	3.320	6.6929	3.351	7.0776
5.5	0.07416	2.175	1.2526	2.310	1.5526	2.427	1.8641	2.529	2.1850	2.618	2.5136	2.698	2.8488	2.769	3.1895	2.832	3.5348	2.890	3.8842	2.942	4.2372	2.990	4.5932	3.034	4.9519	3.075	5.3129	3.112	5.6761	3.146	6.0412	3.179	6.4080	3.208	6.7763
5.0	0.07071	2.073	1.1943	2.203	1.4803	2.314	1.7773	2.411	2.0833	2.497	2.3967	2.572	2.7162	2.640	3.0410	2.701	3.3703	2.756	3.7035	2.806	4.0400	2.851	4.3794	2.893	4.7214	2.932	5.0657	2.967	5.4120	3.000	5.7601	3.031	6.1098	3.059	6.4609
4.8	0.06928	2.032	1.1702	2.158	1.4504	2.267	1.7414	2.363	2.0412	2.446	2.3482	2.520	2.6613	2.586	2.9796	2.646	3.3022	2.700	3.6287	2.749	3.9584	2.794	4.2909	2.835	4.6260	2.872	4.9633	2.907	5.3026	2.939	5.6437	2.969	5.9863	2.997	6.3304
4.6	0.06782	1.989	1.1455	2.113	1.4199	2.220	1.7048	2.313	1.9982	2.395	2.2988	2.467	2.6053	2.532	2.9169	2.590	3.2327	2.643	3.5523	2.691	3.8750	2.735	4.2006	2.775	4.5286	2.812	4.8588	2.846	5.1910	2.878	5.5249	2.907	5.8603	2.934	6.1971
4.5	0.06708	1.967	1.1330	2.090	1.4044	2.195	1.6861	2.287	1.9764	2.368	2.2737	2.440	2.5768	2.504	2.8850	2.562	3.1974	2.614	3.5134	2.662	3.8327	2.705	4.1547	2.745	4.4791	2.781	4.8057	2.815	5.1343	2.846	5.4645	2.875	5.7962	2.902	6.1294
4.4	0.06633	1.945	1.1204	2.066	1.3887	2.171	1.6673	2.262	1.9543	2.342	2.2483	2.413	2.5480	2.476	2.8527	2.533	3.1616	2.585	3.4742	2.632	3.7898	2.675	4.1083	2.714	4.4291	2.750	4.7520	2.783	5.0769	2.814	5.4034	2.843	5.7315	2.870	6.0609
4.2	0.06481	1.900	1.0946	2.019	1.3568	2.121	1.6290	2.210	1.9094	2.288	2.1966	2.357	2.4895	2.419	2.7872	2.475	3.0890	2.526	3.3943	2.571	3.7027	2.613	4.0138	2.651	4.3272	2.687	4.6428	2.719	4.9602	2.750	5.2792	2.778	5.5997	2.804	5.9215
4.0	0.06325	1.855	1.0682	1.970	1.3241	2.070	1.5897	2.157	1.8634	2.233	2.1436	2.301	2.4295	2.361	2.7200	2.415	3.0145	2.465	3.3125	2.509	3.6135	2.550	3.9171	2.588	4.2230	2.622	4.5309	2.654	4.8406	2.683	5.1520	2.711	5.4647	2.736	5.7788
3.8	0.06164	1.808	1.0412	1.920	1.2905	2.018	1.5495	2.102	1.8162	2.176	2.0894	2.242	2.3679	2.301	2.6511	2.354	2.9382	2.402	3.2286	2.446	3.5220	2.486	3.8179	2.522	4.1160	2.556	4.4162	2.587	4.7181	2.615	5.0215	2.642	5.3264	2.667	5.6325
3.6	0.06000	1.759	1.0134	1.869	1.2561	1.964	1.5081	2.046	1.7677	2.118	2.0336	2.183	2.3048	2.240	2.5804	2.292	2.8598	2.338	3.1425	2.381	3.4280	2.419	3.7161	2.455	4.0063	2.487	4.2984	2.518	4.5922	2.546	4.8876	2.572	5.1843	2.596	5.4823
3.5	0.05916	1.735	0.9992	1.843	1.2385	1.936	1.4870	2.017	1.7430	2.089	2.0052	2.152	2.2726	2.209	2.5443	2.259	2.8198	2.305	3.0986	2.347	3.3801	2.385	3.6641	2.420	3.9502	2.453	4.2383	2.482	4.5280	2.510	4.8192	2.536	5.1118	2.559	5.4056
3.2	0.05657	1.659	0.9555	1.762	1.1843	1.851	1.4219	1.929	1.6666	1.997	1.9173	2.058	2.1730	2.112	2.4328	2.160	2.6963	2.204	2.9628	2.244	3.2320	2.281	3.5035	2.314	3.7771	2.345	4.0525	2.374	4.3296	2.400	4.6081	2.425	4.8878	2.447	5.1687
3.0	0.05477	1.606	0.9251	1.706	1.1467	1.793	1.3767	1.868	1.6137	1.934	1.8564	1.992	2.1040	2.045	2.3556	2.092	2.6106	2.134	2.8687	2.173	3.1														

流速・流量表 (8割水深)

流速・流量計算式(マンニング公式)



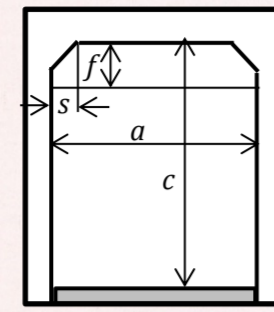
全断面積 $A_0 = a \cdot c - s^2$ (m²)
 $f \geq s$ のとき
 通水断面積 $A = a(c-f)$ (m²)
 潤 辺 $P_1 = 2(c-f)$ (m)
 プレキャスト部 $P_2 = a$ (m)
 $f < s$ のとき
 通水断面積 $A = a(c-s) + (s-f)(a-s+f)$ (m²)
 潤 辺 $P_1 = 2(c-s) + 2\sqrt{2}(s-f)$ (m)
 プレキャスト部 $P_2 = a$ (m)

潤 辺 $P = P_1 + P_2$ (m)
 粗度係数 $n = \left\{ \frac{1}{P} (P_1 n_1^3 + P_2 n_2^3) \right\}^{1/3}$ (m)
 フレキャスト下部 $n_1 =$ (m)
 現場打ち部 $n_2 =$ (m)
 径 深 $R = A/P$ (m)
 流 速 $V = 1/n \cdot R^{2/3} \cdot I^{1/2}$ (m/s)
 流 量 $Q = A \cdot V$ (m³/s)

サイズ	1300×600	1300×700	1300×800	1300×900	1300×1000	1300×1100	1300×1200	1200×1300	1300×1400	1300×1500	1300×1600	1300×1700	1300×1800	1300×1900	1300×2000	1300×2100	1300×2200																		
a = P ₂	1.300	1.300	1.300	1.300	1.300	1.300	1.300	1.300	1.300	1.300	1.300	1.300	1.300	1.300	1.300	1.300	1.300																		
c	0.600	0.700	0.800	0.900	1.000	1.100	1.200	1.300	1.400	1.500	1.600	1.700	1.800	1.900	2.000	2.100	2.200																		
s	0.130	0.130	0.130	0.130	0.130	0.130	0.130	0.130	0.130	0.130	0.130	0.130	0.130	0.130	0.130	0.130	0.130																		
f = c (1 - 0.8)	0.120	0.140	0.160	0.180	0.200	0.220	0.240	0.260	0.280	0.300	0.320	0.340	0.360	0.380	0.400	0.420	0.440																		
p ₁ = 2(c - f) or ...	0.968	1.120	1.280	1.440	1.600	1.760	1.920	2.080	2.240	2.400	2.560	2.720	2.880	3.040	3.200	3.360	3.520																		
n ₁	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.013																		
n ₂	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015																		
全断面積 A ₀ (m ²)	0.7631	0.8931	1.0231	1.1531	1.2831	1.4131	1.5431	1.6731	1.8031	1.9331	2.0631	2.1931	2.3231	2.4531	2.5831	2.7131	2.8431																		
通水断面積 A(m ²)	0.6239	0.7280	0.8320	0.9360	1.0400	1.1440	1.2480	1.3520	1.4560	1.5600	1.6640	1.7680	1.8720	1.9760	2.0800	2.1840	2.2880																		
潤 辺 P(m)	2.2683	2.4200	2.5800	2.7400	2.9000	3.0600	3.2200	3.3800	3.5400	3.7000	3.8600	4.0200	4.1800	4.3400	4.5000	4.6600	4.8200																		
径 深 R(m)	0.2751	0.3008	0.3225	0.3416	0.3586	0.3739	0.3876	0.4000	0.4113	0.4216	0.4311	0.4398	0.4478	0.4553	0.4622	0.4687	0.4747																		
粗度係数 n	0.0142	0.0141	0.0140	0.0140	0.0139	0.0139	0.0138	0.0138	0.0138	0.0137	0.0137	0.0137	0.0136	0.0136	0.0136	0.0136	0.0136																		
R ^{2/3}	0.4229	0.4490	0.4703	0.4887	0.5048	0.5190	0.5316	0.5429	0.5531	0.5623	0.5707	0.5783	0.5854	0.5918	0.5978	0.6034	0.6085																		
I(‰)	1/2	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q																		
20.0	0.14142	4.223	2.6347	4.506	3.2801	4.742	3.9451	4.948	4.6314	5.130	5.3355	5.293	6.0546	5.438	6.7865	5.569	7.5292	5.688	8.2814	5.796	9.0419	5.895	9.8096	5.986	10.5836	6.070	11.3633	6.148	12.1479	6.220	12.9371	6.287	13.7304	6.349	14.5272
10.0	0.10000	2.986	1.8630	3.186	2.3194	3.353	2.7896	3.499	3.2749	3.628	3.7728	3.742	4.2813	3.845	4.7987	3.938	5.3240	4.022	5.8559	4.098	6.3936	4.169	6.9364	4.233	7.4837	4.292	8.0350	4.347	8.5899	4.398	9.1479	4.445	9.7088	4.490	10.2723
9.5	0.09747	2.910	1.8159	3.105	2.2606	3.268	2.7189	3.410	3.1920	3.536	3.6773	3.648	4.1729	3.748	4.6772	3.838	5.1892	3.920	5.7076	3.995	6.2317	4.063	6.7608	4.126	7.2942	4.184	7.8316	4.237	8.3724	4.287	8.9163	4.333	9.4630	4.376	10.0122
9.0	0.09487	2.833	1.7674	3.022	2.2003	3.181	2.6464	3.319	3.1068	3.442	3.5792	3.550	4.0616	3.648	4.5525	3.736	5.0508	3.815	5.5554	3.888	6.0655	3.955	6.5804	4.016	7.0997	4.072	7.6227	4.124	8.1491	4.172	8.6785	4.217	9.2106	4.259	9.7452
8.5	0.09220	2.753	1.7176	2.937	2.1383	3.091	2.5719	3.226	3.0193	3.345	3.4783	3.450	3.9471	3.545	4.4242	3.631	4.9084	3.708	5.3988	3.779	5.8946	3.843	6.3950	3.903	6.8997	3.957	7.4079	4.008	7.9195	4.055	8.4340	4.098	8.9511	4.139	9.4706
8.0	0.08944	2.671	1.6663	2.850	2.0745	2.999	2.4951	3.129	2.9292	3.245	3.3745	3.347	3.8293	3.439	4.2921	3.522	4.7619	3.597	5.2376	3.666	5.7186	3.728	6.2041	3.786	6.6936	3.839	7.1868	3.888	7.6830	3.934	8.1822	3.976	8.6838	4.016	9.1878
7.5	0.08660	2.586	1.6134	2.759	2.0086	2.904	2.4158	3.030	2.8361	3.142	3.2673	3.241	3.7077	3.330	4.1558	3.410	4.6107	3.483	5.0713	3.549	5.5370	3.610	6.0071	3.666	6.4811	3.717	6.9585	3.765	7.4391	3.809	7.9223	3.850	8.4081	3.888	8.8961
7.0	0.08367	2.498	1.5587	2.666	1.9405	2.805	2.3339	2.927	2.7400	3.035	3.1565	3.131	3.5820	3.217	4.0149	3.295	4.4543	3.365	4.8994	3.429	5.3493	3.488	5.8034	3.541	6.2613	3.591	6.7226	3.637	7.1868	3.680	7.6537	3.719	8.1230	3.756	8.5944
6.5	0.08062	2.407	1.5020	2.569	1.8699	2.703	2.2490	2.821	2.6403	2.925	3.0417	3.017	3.4517	3.100	3.8689	3.175	4.2923	3.243	4.7211	3.304	5.1547	3.361	5.5923	3.413	6.0336	3.460	6.4781	3.505	6.9254	3.546	7.3753	3.584	7.8275	3.620	8.2818
6.0	0.07746	2.313	1.4431	2.468	1.7966	2.597	2.1608	2.710	2.5367	2.810	2.9224	2.899	3.3163	2.978	3.7171	3.050	4.1239	3.115	4.5359	3.175	4.9524	3.229	5.3729	3.279	5.7969	3.325	6.2239	3.367	6.6537	3.407	7.0860	3.443	7.5204	3.478	7.9569
5.5	0.07416	2.215	1.3817	2.363	1.7201	2.487	2.0688	2.595	2.4287	2.690	2.7980	2.775	3.1751	2.852	3.5588	2.920	3.9484	2.983	4.3428	3.039	4.7416	3.091	5.1442	3.139	5.5501	3.183	5.9589	3.224	6.3704	3.262	6.7843	3.297	7.2003	3.330	7.6181
5.0	0.07071	2.111	1.3174	2.253	1.6400	2.371	1.9725	2.474	2.3157	2.565	2.6678	2.646	3.0273	2.719	3.3932	2.784	3.7646	2.844	4.1407	2.898	4.5209	2.948	4.9048	2.993	5.2918	3.035	5.6816	3.074	6.0740	3.110	6.4686	3.143	6.8652	3.175	7.2636
4.8	0.06928	2.069	1.2907	2.207	1.6069	2.323	1.9327	2.424	2.2689	2.513	2.6139	2.593	2.9661	2.664	3.3247	2.728	3.6885	2.786	4.0571	2.839	4.4296	2.888	4.8057	2.933	5.1849	2.974	5.5668	3.012	5.9513	3.047	6.3379	3.080	6.7265	3.111	7.1169
4.6	0.06782	2.025	1.2636	2.161	1.5731	2.274	1.8920	2.373	2.2211	2.460	2.5588	2.538	2.9037	2.608	3.2547	2.671	3.6109	2.728	3.9716	2.780	4.3363	2.827	4.7045	2.871	5.0757	2.911	5.4496	2.948	5.8260	2.983	6.2044	3.015	6.5848	3.045	6.9670
4.5	0.06708	2.003	1.2498	2.137	1.5559	2.249	1.8713	2.347	2.1969	2.434	2.5309	2.510	2.8720	2.579	3.2191	2.642	3.5714	2.698	3.9282	2.749	4.2889	2.796	4.6531	2.839	5.0202	2.879	5.3901	2.916	5.7623	2.950	6.1366	2.982	6.5129	3.012	6.8909
4.4	0.06633	1.981	1.2358	2.113	1.5385	2.224	1.8504	2.321	2.1723	2.406	2.5026	2.482	2.8399	2.551	3.1831	2.612	3.5315	2.668	3.8843	2.719	4.2410	2.765	4.6011	2.808	4.9641	2.847	5.3298	2.884	5.6979	2.917	6.0681	2.949	6.4401	2.978	6.8139
4.2	0.06481	1.935	1.2074	2.065	1.5031	2.173	1.8078	2.267	2.1224	2.351	2.4450	2.425	2.7746	2.492	3.1099	2.552	3.4503	2.606	3.7950	2.656	4.1435	2.702	4.4953	2.743	4.8500	2.782	5.2073	2.817	5.5669	2.850	5.9285	2.881	6.2920	2.910	6.6572
4.0	0.06325	1.889	1.1783	2.015	1.4669	2.121	1.7643	2.213	2.0712	2.294	2.3861	2.367	2.7077	2.432	3.0350	2.491	3.3672	2.544	3.7036	2.592	4.0437	2.636	4.3870	2.677	4.7331	2.715	5.0818	2.749	5.4327	2.782	5.7857	2.812	6.1404	2.839	6.4968
3.8	0.06164	1.841	1.1484	1.964	1.4297	2.067	1.7196	2.157	2.0188	2.236	2.3257	2.307	2.6391	2.370	2.9581	2.427	3.2819	2.479	3.6098	2.526	3.9413	2.570	4.2759	2.609	4.6133	2.646	4.9531	2.680	5.2952	2.711	5.6392	2.740	5.9849	2.768	6.3323
3.6	0.06000	1.792	1.1178	1.912	1.3916	2.012	1.6737	2.099	1.9649	2.177	2.2637	2.245	2.5688	2.307	2.8792	2.363	3.1944	2.413	3.5135	2.459	3.8361	2.501	4.1618	2.540	4.4902	2.575	4.8210	2.608	5.1539	2.639	5.4888	2.667	5.8253	2.694	6.1634
3.5	0.05916	1.767	1.1022	1.885	1.3721	1.984	1.6503	2.070	1.9375	2.146	2.2320	2.214	2.5328	2.275	2.8390	2.330	3.1497	2.379	3.4644	2.425	3.7825	2.466	4.1036	2.504	4.4274	2.539	4.7536	2.572	5.0819	2.602	5.4120	2.630	5.7438	2.656	6.0772
3.2	0.05657	1.689	1.0539	1.802	1.3120	1.897	1.5780	1.979	1.8526	2.052	2.1342	2.117	2.4218	2.175	2.7146	2.228	3.0117	2.275	3.3126	2.318	3.6168	2.358	3.9238	2.394	4.2334	2.428	4.5453	2.459	4.8592	2.488	5.1749	2.515	5.4921	2.540	5.8109
3.0	0.05477	1.636	1.0204	1.745	1.2704	1.836	1.5279	1.916	1.7937	1.987	2.0664	2.050	2.3449	2.106	2.6284	2.157	2.9161	2.203	3.2074	2.245	3.5019	2.283	3.7992												

流速・流量表 (8割水深)

流速・流量計算式(Manning公式)



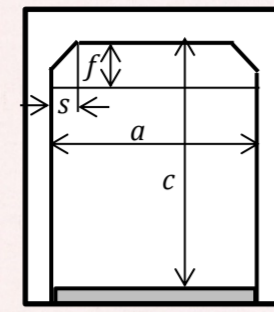
全断面積 $A_0 = a \cdot c - s^2$ (m²)
 $f \geq s$ のとき
 通水断面積 $A = a(c-f)$ (m²)
 潤 辺 $P_1 = 2(c-f)$ (m)
 現場打ち部 $P_2 = a$ (m)
 $f < s$ のとき
 通水断面積 $A = a(c-s) + (s-f)(a-s+f)$ (m²)
 潤 辺 $P_1 = 2(c-s) + 2\sqrt{2}(s-f)$ (m)
 現場打ち部 $P_2 = a$ (m)

潤 辺 $P = P_1 + P_2$ (m)
 粗度係数 $n = \left\{ \frac{1}{P} (P_1 n_1^3 + P_2 n_2^3) \right\}^{1/3}$ (m)
 フレキヤス下部 $n_1 =$ (m)
 現場打ち部 $n_2 =$ (m)
 径 深 $R = A/P$ (m)
 流 速 $V = 1/n \cdot R^{2/3} \cdot J^{1/2}$ (m/s)
 流 量 $Q = A \cdot V$ (m³/s)

サイズ	1400×600	1400×700	1400×800	1400×900	1400×1000	1400×1100	1400×1200	1400×1300	1400×1400	1400×1500	1400×1600	1400×1700	1400×1800	1400×1900	1400×2000	1400×2100	1400×2200																		
a = P ₂	1.400	1.400	1.400	1.400	1.400	1.400	1.400	1.400	1.400	1.400	1.400	1.400	1.400	1.400	1.400	1.400	1.400																		
c	0.600	0.700	0.800	0.900	1.000	1.100	1.200	1.300	1.400	1.500	1.600	1.700	1.800	1.900	2.000	2.100	2.200																		
s	0.150	0.150	0.150	0.150	0.150	0.150	0.150	0.150	0.150	0.150	0.150	0.150	0.150	0.150	0.150	0.150	0.150																		
f = c (1 - 0.8)	0.120	0.140	0.160	0.180	0.200	0.220	0.240	0.260	0.280	0.300	0.320	0.340	0.360	0.380	0.400	0.420	0.440																		
p ₁ = 2(c - f) or ...	0.985	1.128	1.280	1.440	1.600	1.760	1.920	2.080	2.240	2.400	2.560	2.720	2.880	3.040	3.200	3.360	3.520																		
n ₁	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.013																		
n ₂	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015																		
全断面積 A ₀ (m ²)	0.8175	0.9575	1.0975	1.2375	1.3775	1.5175	1.6575	1.7975	1.9375	2.0775	2.2175	2.3575	2.4975	2.6375	2.7775	2.9175	3.0575																		
通水断面積 A(m ²)	0.6711	0.7839	0.8960	1.0080	1.1200	1.2320	1.3440	1.4560	1.5680	1.6800	1.7920	1.9040	2.0160	2.1280	2.2400	2.3520	2.4640																		
潤 辺 P(m)	2.3849	2.5283	2.6800	2.8400	3.0000	3.1600	3.3200	3.4800	3.6400	3.8000	3.9600	4.1200	4.2800	4.4400	4.6000	4.7600	4.9200																		
径 深 R(m)	0.2814	0.3101	0.3343	0.3549	0.3733	0.3899	0.4048	0.4184	0.4308	0.4421	0.4525	0.4621	0.4710	0.4793	0.4870	0.4941	0.5008																		
粗度係数 n	0.0142	0.0141	0.0141	0.0140	0.0140	0.0139	0.0139	0.0138	0.0138	0.0138	0.0137	0.0137	0.0137	0.0136	0.0136	0.0136	0.0136																		
R ^{2/3}	0.4294	0.4581	0.4817	0.5013	0.5185	0.5337	0.5472	0.5594	0.5704	0.5803	0.5894	0.5977	0.6054	0.6124	0.6190	0.6250	0.6306																		
I(‰)	1/2	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q																		
20.0	0.14142	4.279	2.8719	4.587	3.5954	4.844	4.3405	5.062	5.1030	5.256	5.8865	5.428	6.6877	5.583	7.5041	5.724	8.3335	5.851	9.1744	5.967	10.0251	6.074	10.8846	6.172	11.7518	6.263	12.6259	6.347	13.5061	6.425	14.3918	6.498	15.2824	6.566	16.1776
10.0	0.10000	3.026	2.0307	3.243	2.5423	3.425	3.0692	3.580	3.6084	3.716	4.1624	3.838	4.7289	3.948	5.3062	4.047	5.8927	4.137	6.4873	4.220	7.0888	4.295	7.6966	4.364	8.3098	4.428	8.9279	4.488	9.5503	4.543	10.1765	4.595	10.8663	4.643	11.4393
9.5	0.09747	2.949	1.9793	3.161	2.4779	3.339	2.9915	3.489	3.5170	3.622	4.0570	3.741	4.6092	3.848	5.1718	3.945	5.7435	4.033	6.3230	4.113	6.9093	4.186	7.5017	4.254	8.0994	4.316	8.7018	4.374	9.3084	4.428	9.9189	4.478	10.5327	4.525	11.1496
9.0	0.09487	2.871	1.9265	3.077	2.4118	3.250	2.9117	3.396	3.4232	3.526	3.9488	3.641	4.4862	3.745	5.0339	3.839	5.5903	3.925	6.1543	4.003	6.7251	4.075	7.3016	4.140	7.8834	4.201	8.4697	4.258	9.0602	4.310	9.6543	4.359	10.2518	4.404	10.8522
8.5	0.09220	2.790	1.8722	2.990	2.3439	3.158	2.8297	3.300	3.3267	3.426	3.8375	3.539	4.3598	3.640	4.8920	3.731	5.4328	3.814	5.9809	3.890	6.5356	3.960	7.0959	4.024	7.6612	4.083	8.2311	4.138	8.8049	4.189	9.3823	4.236	9.9629	4.280	10.5465
8.0	0.08944	2.707	1.8163	2.901	2.2739	3.064	2.7452	3.202	3.2274	3.324	3.7229	3.433	4.2297	3.531	4.7460	3.620	5.2706	3.700	5.8024	3.774	6.3404	3.842	6.8840	3.904	7.4325	3.961	7.9853	4.014	8.5420	4.063	9.1022	4.109	9.6655	4.152	10.2316
7.5	0.08660	2.621	1.7587	2.809	2.2017	2.967	2.6580	3.100	3.1249	3.218	3.6047	3.324	4.0953	3.419	4.5953	3.505	5.1032	3.583	5.6181	3.654	6.1391	3.720	6.6654	3.780	7.1965	3.835	7.7317	3.887	8.2708	3.934	8.8131	3.979	9.3586	4.021	9.9067
7.0	0.08367	2.532	1.6990	2.713	2.1270	2.866	2.5679	2.995	3.0190	3.109	3.4825	3.211	3.9565	3.303	4.4395	3.386	4.9302	3.461	5.4276	3.530	5.9309	3.593	6.4394	3.652	6.9525	3.705	7.4696	3.755	7.9903	3.801	8.5143	3.844	9.0412	3.884	9.5708
6.5	0.08062	2.440	1.6372	2.615	2.0497	2.762	2.4745	2.886	2.9092	2.996	3.3558	3.095	3.8126	3.183	4.2780	3.263	4.7508	3.336	5.2302	3.402	5.7152	3.463	6.2052	3.519	6.6996	3.570	7.1979	3.618	7.6997	3.663	8.2046	3.704	8.7123	3.743	9.2226
6.0	0.07746	2.344	1.5730	2.512	1.9693	2.653	2.3774	2.773	2.7950	2.879	3.2241	2.973	3.6630	3.058	4.1101	3.135	4.5645	3.205	5.0250	3.268	5.4910	3.327	5.9617	3.381	6.4367	3.430	6.9155	3.476	7.3976	3.519	7.8827	3.559	8.3705	3.596	8.8608
5.5	0.07416	2.244	1.5060	2.405	1.8854	2.540	2.2762	2.655	2.6760	2.756	3.0869	2.847	3.5070	2.928	3.9352	3.001	4.3701	3.068	4.8111	3.129	5.2572	3.185	5.7079	3.237	6.1627	3.284	6.6211	3.328	7.0827	3.369	7.5471	3.407	8.0142	3.443	8.4836
5.0	0.07071	2.140	1.4359	2.293	1.7977	2.422	2.1703	2.531	2.5515	2.628	2.9432	2.714	3.3438	2.792	3.7520	2.862	4.1668	2.925	4.5872	2.984	5.0126	3.037	5.4423	3.086	5.8759	3.131	6.3129	3.173	6.7530	3.212	7.1959	3.249	7.6412	3.283	8.0888
4.8	0.06928	2.096	1.4069	2.247	1.7614	2.373	2.1264	2.480	2.4999	2.575	2.8838	2.659	3.2763	2.735	3.6762	2.804	4.0826	2.866	4.4945	2.923	4.9113	2.976	5.3323	3.024	5.7572	3.068	6.1854	3.109	6.6166	3.148	7.0505	3.183	7.4868	3.216	7.9254
4.6	0.06782	2.052	1.3773	2.200	1.7243	2.323	2.0816	2.428	2.4473	2.521	2.8230	2.603	3.2073	2.678	3.5988	2.745	3.9966	2.806	4.3999	2.862	4.8079	2.913	5.2201	2.960	5.6360	3.004	6.0552	3.044	6.4773	3.081	6.9021	3.116	7.3292	3.149	7.7585
4.5	0.06708	2.030	1.3622	2.176	1.7054	2.298	2.0589	2.401	2.4206	2.493	2.7922	2.575	3.1722	2.648	3.5595	2.715	3.9529	2.775	4.3518	2.831	4.7553	2.881	5.1630	2.928	5.5744	2.971	5.9890	3.011	6.4065	3.048	6.8266	3.082	7.2491	3.114	7.6737
4.4	0.06633	2.007	1.3470	2.151	1.6864	2.272	2.0359	2.375	2.3935	2.465	2.7610	2.546	3.1368	2.619	3.5197	2.685	3.9088	2.744	4.3032	2.799	4.7022	2.849	5.1053	2.895	5.5121	2.938	5.9221	2.977	6.3349	3.014	6.7504	3.048	7.1681	3.080	7.5880
4.2	0.06481	1.961	1.3161	2.102	1.6476	2.220	1.9891	2.320	2.3385	2.408	2.6975	2.488	3.0647	2.559	3.4388	2.623	3.8189	2.681	4.2042	2.735	4.5941	2.783	4.9880	2.828	5.3854	2.870	5.7859	2.908	6.1893	2.944	6.5952	2.978	7.0033	3.009	7.4135
4.0	0.06325	1.914	1.2843	2.051	1.6079	2.166	1.9411	2.264	2.2821	2.350	2.6325	2.428	2.9908	2.497	3.3559	2.560	3.7269	2.617	4.1029	2.669	4.4834	2.716	4.8677	2.760	5.2556	2.801	5.6465	2.838	6.0401	2.873	6.4362	2.906	6.8345	2.936	7.2348
3.8	0.06164	1.865	1.2518	1.999	1.5672	2.112	1.8920	2.207	2.2243	2.291	2.5658	2.366	2.9151	2.434	3.2709	2.495	3.6325	2.550	3.9990	2.601	4.3698	2.648	4.7445	2.690	5.1225	2.730	5.5035	2.767	5.8872	2.803	6.2732	2.832	6.6615	2.862	7.0516
3.6	0.06000	1.816	1.2184	1.946	1.5254	2.055	1.8415	2.148	2.1650	2.230	2.4974	2.303	2.8373	2.369	3.1837	2.428	3.5356	2.482	3.8924	2.532	4.2533	2.577	4.6179	2.619	4.9859	2.657	5.3567	2.693	5.7302	2.726	6.1059	2.757	6.4838	2.786	6.8636
3.5	0.05916	1.790	1.2014	1.919	1.5040	2.027	1.8158	2.118	2.1347	2.199	2.4625	2.271	2.7977	2.336	3.1392	2.394	3.4862	2.448	3.8379	2.496	4.1938	2.541	4.5534	2.582	4.9161	2.620	5.2818	2.655	5.6500	2.688	6.0205	2.718	6.3931	2.747	6.7676
3.2	0.05657	1.712	1.1487	1.835	1.4381	1.938	1.7362	2.025	2.0412	2.102	2.3546	2.171	2.6751	2.233	3.0016	2.289	3.3334	2.340	3.6697	2.387	4.0100	2.430	4.3538	2.469	4.7007	2.505	5.0504	2.539	5.4024	2.570	5.7567	2.599	6.1130	2.626	6.4710
3.0	0.05477	1.657	1.1123	1.776	1.3925	1.876	1.6811	1.961	1.9764	2.036	2.2798	2.102	2.5901	2.162	2.9063	2.217	3.2276	2.266	3.5532	2.311	3.8827	2.352													

流速・流量表 (8割水深)

流速・流量計算式(Manning公式)



全断面積 $A_0 = a \cdot c - s^2$ (m²)
 $f \geq s$ のとき
 通水断面積 $A = a(c-f)$ (m²)
 潤 辺 $P_1 = 2(c-f)$ (m)
 プレキャスト部 $P_2 = a$ (m)
 $f < s$ のとき
 通水断面積 $A = a(c-s) + (s-f)(a-s+f)$ (m²)
 潤 辺 $P_1 = 2(c-s) + 2\sqrt{2}(s-f)$ (m)
 プレキャスト部 $P_2 = a$ (m)

潤 辺 $P = P_1 + P_2$ (m)
 粗度係数 $n = \left\{ \frac{1}{P} (P_1 n_1^3 + P_2 n_2^3) \right\}^{1/3}$ (m)
 シレキヤス下部 $n_1 =$ (m)
 現場打ち部 $n_2 =$ (m)
 径 深 $R = A/P$ (m)
 流 速 $V = 1/n \cdot R^{2/3} \cdot I^{1/2}$ (m/s)
 流 量 $Q = A \cdot V$ (m³/s)

サイズ	1500×600	1500×700	1500×800	1500×900	1500×1000	1500×1100	1500×1200	1500×1300	1500×1400	1500×1500	1500×1600	1500×1700	1500×1800	1500×1900	1500×2000	1500×2100	1500×2200																		
a = P ₂	1.500	1.500	1.500	1.500	1.500	1.500	1.500	1.500	1.500	1.500	1.500	1.500	1.500	1.500	1.500	1.500	1.500																		
c	0.600	0.700	0.800	0.900	1.000	1.100	1.200	1.300	1.400	1.500	1.600	1.700	1.800	1.900	2.000	2.100	2.200																		
s	0.150	0.150	0.150	0.150	0.150	0.150	0.150	0.150	0.150	0.150	0.150	0.150	0.150	0.150	0.150	0.150	0.150																		
f = c (1 - 0.8)	0.120	0.140	0.160	0.180	0.200	0.220	0.240	0.260	0.280	0.300	0.320	0.340	0.360	0.380	0.400	0.420	0.440																		
p ₁ = 2(c - f) or ...	0.985	1.128	1.280	1.440	1.600	1.760	1.920	2.080	2.240	2.400	2.560	2.720	2.880	3.040	3.200	3.360	3.520																		
n ₁	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.013																		
n ₂	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015																		
全断面積 A ₀ (m ²)	0.8775	1.0275	1.1775	1.3275	1.4775	1.6275	1.7775	1.9275	2.0775	2.2275	2.3775	2.5275	2.6775	2.8275	2.9775	3.1275	3.2775																		
通水断面積 A(m ²)	0.7191	0.8399	0.9600	1.0800	1.2000	1.3200	1.4400	1.5600	1.6800	1.8000	1.9200	2.0400	2.1600	2.2800	2.4000	2.5200	2.6400																		
潤 辺 P(m)	2.4849	2.6283	2.7800	2.9400	3.1000	3.2600	3.4200	3.5800	3.7400	3.9000	4.0600	4.2200	4.3800	4.5400	4.7000	4.8600	5.0200																		
径 深 R(m)	0.2894	0.3196	0.3453	0.3673	0.3871	0.4049	0.4211	0.4358	0.4492	0.4615	0.4729	0.4834	0.4932	0.5022	0.5106	0.5185	0.5259																		
粗度係数 n	0.0142	0.0142	0.0141	0.0140	0.0140	0.0139	0.0139	0.0139	0.0138	0.0138	0.0138	0.0137	0.0137	0.0137	0.0137	0.0136	0.0136																		
R ^{2/3}	0.4375	0.4674	0.4922	0.5129	0.5311	0.5473	0.5618	0.5748	0.5865	0.5972	0.6070	0.6159	0.6242	0.6318	0.6389	0.6454	0.6515																		
I(‰)	1/2	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q																		
20.0	0.14142	4.350	3.1280	4.669	3.9212	4.938	4.7404	5.167	5.5806	5.371	6.4451	5.553	7.3303	5.718	8.2334	5.867	9.1519	6.002	10.0838	6.126	11.0275	6.240	11.9816	6.346	12.9449	6.443	13.9164	6.533	14.8953	6.617	15.8808	6.695	16.8723	6.769	17.8691
10.0	0.10000	3.076	2.2118	3.301	2.7727	3.492	3.3520	3.654	3.9460	3.798	4.5574	3.927	5.1833	4.043	5.8219	4.148	6.4714	4.244	7.1303	4.332	7.7976	4.413	8.4723	4.487	9.1534	4.556	9.8404	4.620	10.5326	4.679	11.2294	4.734	11.9305	4.786	12.6354
9.5	0.09747	2.998	2.1558	3.218	2.7025	3.403	3.2671	3.561	3.8461	3.702	4.4420	3.827	5.0521	3.941	5.6745	4.043	6.3075	4.137	6.9498	4.222	7.6002	4.301	8.2577	4.373	8.9217	4.440	9.5912	4.503	10.2659	4.560	10.9451	4.614	11.6284	4.665	12.3154
9.0	0.09487	2.918	2.0983	3.132	2.6304	3.312	3.1800	3.466	3.7435	3.603	4.3235	3.725	4.9173	3.836	5.5231	3.935	6.1393	4.026	6.7644	4.110	7.3975	4.186	8.0375	4.257	8.6837	4.322	9.3354	4.382	10.0532	4.491	11.3182	4.541	11.9870		
8.5	0.09220	2.836	2.0392	3.044	2.5563	3.219	3.0904	3.369	3.6381	3.501	4.2017	3.620	4.7788	3.727	5.3675	3.825	5.9663	3.913	6.5738	3.994	7.1891	4.068	7.8110	4.137	8.4390	4.200	9.0724	4.259	9.7106	4.314	10.3530	4.365	10.9994	4.413	11.6492
8.0	0.08944	2.751	1.9783	2.953	2.4800	3.123	2.9981	3.268	3.5294	3.397	4.0762	3.512	4.6361	3.616	5.2073	3.710	5.7882	3.796	6.3776	3.875	6.9744	3.947	7.5778	4.013	8.1871	4.075	8.8015	4.132	9.4206	4.185	10.0439	4.235	10.6709	4.281	11.3014
7.5	0.08660	2.664	1.9155	2.859	2.4012	3.024	2.9029	3.164	3.4174	3.289	3.9468	3.401	4.4889	3.501	5.0419	3.593	5.6044	3.676	6.1751	3.752	6.7529	3.821	7.3372	3.886	7.9271	3.945	8.5220	4.001	9.1215	4.052	9.7250	4.100	10.3321	4.145	10.9425
7.0	0.08367	2.573	1.8506	2.762	2.3198	2.921	2.8045	3.057	3.3015	3.177	3.8130	3.285	4.3367	3.383	4.8710	3.471	5.4143	3.551	5.9657	3.624	6.5240	3.692	7.0884	3.754	7.6583	3.812	8.2331	3.865	8.8122	3.915	9.3952	3.961	9.9818	4.004	10.5715
6.5	0.08062	2.480	1.7832	2.662	2.2354	2.815	2.7025	2.946	3.1814	3.062	3.6743	3.166	4.1789	3.260	4.6938	3.344	5.2174	3.422	5.7487	3.493	6.2866	3.558	6.8306	3.618	7.3797	3.673	7.9336	3.724	8.4916	3.772	9.0534	3.817	9.6187	3.859	10.1870
6.0	0.07746	2.383	1.7133	2.557	2.1477	2.705	2.5964	2.830	3.0566	2.942	3.5301	3.042	4.0150	3.132	4.5096	3.213	5.0127	3.288	5.5231	3.356	6.0400	3.418	6.5626	3.476	7.0902	3.529	7.6223	3.578	8.1585	3.624	8.6983	3.667	9.2413	3.707	9.7873
5.5	0.07416	2.281	1.6403	2.448	2.0563	2.589	2.4859	2.710	2.9265	2.817	3.3798	2.912	3.8441	2.998	4.3176	3.076	4.7993	3.148	5.2880	3.213	5.7829	3.273	6.2832	3.328	6.7884	3.379	7.2978	3.426	7.8112	3.470	8.3280	3.511	8.8479	3.549	9.3706
5.0	0.07071	2.175	1.5640	2.334	1.9606	2.469	2.3702	2.584	2.7903	2.685	3.2225	2.777	3.6652	2.859	4.1167	2.933	4.5760	3.001	5.0419	3.063	5.5138	3.120	5.9908	3.173	6.4725	3.221	6.9582	3.267	7.4477	3.308	7.9404	3.348	8.4361	3.384	8.9346
4.8	0.06928	2.131	1.5324	2.287	1.9210	2.419	2.3223	2.531	2.7339	2.631	3.1574	2.721	3.5911	2.801	4.0335	2.874	4.4835	2.941	4.9400	3.001	5.4024	3.057	5.8698	3.109	6.3417	3.156	6.8176	3.201	7.2972	3.242	7.7800	3.280	8.2657	3.316	8.7540
4.6	0.06782	2.086	1.5001	2.239	1.8805	2.368	2.2734	2.478	2.6763	2.576	3.0909	2.663	3.5155	2.742	3.9486	2.814	4.3891	2.879	4.8360	2.938	5.2886	2.993	5.7462	3.043	6.2082	3.090	6.6741	3.133	7.1435	3.173	7.6162	3.211	8.0916	3.246	8.5697
4.5	0.06708	2.063	1.4837	2.215	1.8600	2.342	2.2486	2.451	2.6471	2.548	3.0572	2.634	3.4771	2.712	3.9055	2.783	4.3411	2.847	4.7832	2.906	5.2308	2.960	5.6834	3.010	6.1403	3.056	6.6011	3.099	7.0655	3.139	7.5329	3.176	8.0032	3.211	8.4761
4.4	0.06633	2.040	1.4672	2.190	1.8392	2.316	2.2235	2.424	2.6175	2.519	3.0230	2.605	3.4382	2.682	3.8618	2.752	4.2926	2.815	4.7297	2.874	5.1724	2.927	5.6199	2.976	6.0717	3.022	6.5274	3.064	6.9865	3.104	7.4488	3.140	7.9138	3.175	8.3814
4.2	0.06481	1.993	1.4334	2.139	1.7969	2.263	2.1723	2.368	2.5573	2.461	2.9535	2.545	3.3592	2.620	3.7730	2.688	4.1939	2.751	4.6210	2.807	5.0534	2.860	5.4907	2.908	5.9321	2.952	6.3773	2.994	6.8259	3.032	7.2775	3.068	7.7318	3.102	8.1887
4.0	0.06325	1.945	1.3989	2.088	1.7536	2.208	2.1200	2.311	2.4957	2.402	2.8823	2.484	3.2782	2.557	3.6821	2.624	4.0929	2.684	4.5096	2.740	4.9317	2.791	5.3583	2.838	5.7891	2.881	6.2236	2.922	6.6614	2.959	7.1021	2.994	7.5455	3.027	7.9913
3.8	0.06164	1.896	1.3635	2.035	1.7092	2.152	2.0663	2.252	2.4325	2.341	2.8093	2.421	3.1952	2.492	3.5889	2.562	4.3954	2.624	4.8068	2.720	5.2227	2.766	5.6426	2.808	6.0660	2.848	6.4927	2.884	6.9223	2.918	7.3544	2.950	7.7890		
3.6	0.06000	1.846	1.3271	1.981	1.6636	2.095	2.0112	2.192	2.3676	2.279	2.7344	2.356	3.1100	2.426	3.4931	2.489	3.8828	2.547	4.2782	2.599	4.6786	2.648	5.0834	2.692	5.4921	2.733	5.9042	2.772	6.3195	2.807	6.7377	2.841	7.1583	2.872	7.5812
3.5	0.05916	1.820	1.3085	1.953	1.6404	2.066	1.9831	2.162	2.3345	2.247	2.6962	2.323	3.0665	2.392	3.4443	2.454	3.8285	2.511	4.2184	2.563	4.6131	2.611	5.0123	2.655	5.4152	2.695	5.8217	2.733	6.2312	2.768	6.6434	2.801	7.0582	2.832	7.4752
3.2	0.05657	1.740	1.2512	1.867	1.5685	1.975	1.8962	2.067	2.2322	2.148	2.5780	2.221	2.9321	2.287	3.2934	2.347	3.6608	2.401	4.0335	2.451	4.4110	2.496	4.7926	2.538	5.1780	2.577	5.5666	2.613	5.9581	2.647	6.3523	2.678	6.7489	2.707	7.1476
3.0	0.05477	1.685	1.2115	1.808	1.5187	1.912	1.8360	2.001	2.1613	2.080	2.4962	2.151	2.8390	2.214	3.1888	2.272	3.5445	2.325	3.9054	2.373	4.2709	2.417	4.6405	2.458	5.0135	2.495	5								