＜Hi-Pフリュームの流速・流量表＞

マニング公式による流速・流量計算

流速 ： $V=1/n\cdot R^{(2/3)}\cdot I^{(1/2)}$ (m/sec)
流量 ： $Q=A\cdot V$ (m^3/sec)

ここで、 n：粗度係数 ＝ 0.014
I：勾配(‰)
R：径深(m)＝A/P
A：通水断面積(㎡)
P：潤辺(m)
※水深＝9割とする。

	H500																					
呼び名	B500×H500		B600×H500		B700×H500		B800×H500		B900×H500		B1000×H500		B1100×H500		B1200×H500		B1300×H500		B1400×H500		B1500×H500	
A	0.21195		0.25695		0.30195		0.34695		0.39195		0.43695		0.48195		0.52695		0.57195		0.61695		0.66195	
P	1.28568		1.38568		1.48568		1.58568		1.68568		1.78568		1.88568		1.98568		2.08568		2.18568		2.28568	
$R^{(2/3)}$	0.30065		0.32518		0.34568		0.36311		0.37813		0.39122		0.40274		0.41296		0.42209		0.43030		0.43773	
I(‰)	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q
100.0	6.79108	1.43937	7.34507	1.88732	7.80810	2.35766	8.20174	2.84559	8.54101	3.34765	8.83671	3.86120	9.09693	4.38427	9.32779	4.91528	9.53408	5.45302	9.71958	5.99649	9.88732	6.54491
75.0	5.88125	1.24653	6.36101	1.63446	6.76201	2.04179	7.10292	2.46436	7.39673	2.89915	7.65282	3.34390	7.87817	3.79688	8.07810	4.25675	8.25676	4.72245	8.41740	5.19311	8.56267	5.66806
50.0	4.80202	1.01779	5.19375	1.33453	5.52116	1.66711	5.79951	2.01214	6.03940	2.36714	6.24850	2.73028	6.43250	3.10014	6.59574	3.47563	6.74161	3.85586	6.87278	4.24016	6.99139	4.62795
40.0	4.29506	0.91034	4.64543	1.19364	4.93827	1.49111	5.18724	1.79971	5.40181	2.11724	5.58883	2.44204	5.75340	2.77285	5.89941	3.10869	6.02988	3.44879	6.14720	3.79252	6.25329	4.13937
35.0	4.01766	0.85154	4.34540	1.11655	4.61933	1.39481	4.85222	1.68348	5.05293	1.98050	5.22787	2.28432	5.38181	2.59376	5.51839	2.90792	5.64044	3.22605	5.75018	3.54757	5.84942	3.87202
30.0	3.71963	0.78838	4.02306	1.03373	4.27667	1.29134	4.49228	1.55860	4.67810	1.83358	4.84007	2.11487	4.98259	2.40136	5.10904	2.69221	5.22203	2.98674	5.32363	3.28441	5.41551	3.58480
25.0	3.39554	0.71968	3.67253	0.94366	3.90405	1.17883	4.10087	1.42280	4.27050	1.67382	4.41836	1.93060	4.54846	2.19213	4.66389	2.45764	4.76704	2.72651	4.85979	2.99825	4.94366	3.27246
20.0	3.03706	0.64370	3.28481	0.84403	3.49189	1.05438	3.66793	1.27259	3.81965	1.49711	3.95190	1.72678	4.06827	1.96070	4.17151	2.19818	4.26377	2.43866	4.34673	2.68172	4.42174	2.92697
18.0	2.88121	0.61067	3.11625	0.80072	3.31269	1.00027	3.47971	1.20729	3.62364	1.42029	3.74910	1.63817	3.85950	1.86009	3.95745	2.08538	4.04497	2.31352	4.12367	2.54410	4.19483	2.77677
16.0	2.71643	0.57575	2.93803	0.75493	3.12324	0.94306	3.28070	1.13824	3.41640	1.33906	3.53468	1.54448	3.63877	1.75371	3.73112	1.96611	3.81363	2.18121	3.88783	2.39860	3.95493	2.61797
14.0	2.54099	0.53856	2.74827	0.70617	2.92152	0.88215	3.06881	1.06472	3.19575	1.25257	3.30639	1.44473	3.40376	1.64044	3.49014	1.83913	3.56733	2.04033	3.63673	2.24368	3.69950	2.44888
12.0	2.35250	0.49861	2.54441	0.65379	2.70480	0.81671	2.84117	0.98574	2.95869	1.15966	3.06113	1.33756	3.15127	1.51875	3.23124	1.70270	3.30270	1.88898	3.36696	2.07725	3.42507	2.26723
10.0	2.14753	0.45517	2.32271	0.59682	2.46914	0.74556	2.59362	0.89986	2.70090	1.05862	2.79441	1.22102	2.87670	1.38643	2.94971	1.55435	3.01494	1.72439	3.07360	1.89626	3.12664	2.06968
9.0	2.03732	0.43181	2.20352	0.56619	2.34243	0.70730	2.46052	0.85368	2.56230	1.00429	2.65101	1.15836	2.72908	1.31528	2.79834	1.47459	2.86022	1.63590	2.91587	1.79895	2.96620	1.96348
8.0	1.92081	0.40712	2.07750	0.53381	2.20846	0.66684	2.31980	0.80485	2.41576	0.94686	2.49940	1.09211	2.57300	1.24006	2.63830	1.39025	2.69665	1.54235	2.74911	1.69606	2.79656	1.85118
7.0	1.79675	0.38082	1.94332	0.49934	2.06583	0.62378	2.16998	0.75287	2.25974	0.88571	2.33797	1.02158	2.40682	1.15997	2.46790	1.30046	2.52248	1.44273	2.57156	1.58652	2.61594	1.73162
6.0	1.66347	0.35257	1.79917	0.46230	1.91259	0.57751	2.00901	0.69703	2.09211	0.82000	2.16454	0.94580	2.22828	1.07392	2.28483	1.20399	2.33536	1.33571	2.38080	1.46883	2.42189	1.60317
5.5	1.59265	0.33756	1.72257	0.44261	1.83116	0.55292	1.92348	0.66735	2.00304	0.78509	2.07239	0.90553	2.13342	1.02820	2.18756	1.15273	2.23594	1.27885	2.27944	1.40630	2.31878	1.53492
5.0	1.51853	0.32185	1.64241	0.42202	1.74594	0.52719	1.83397	0.63630	1.90983	0.74856	1.97595	0.86339	2.03413	0.98035	2.08576	1.09909	2.13189	1.21933	2.17336	1.34085	2.21087	1.46349
4.5	1.44061	0.30534	1.55812	0.40036	1.65635	0.50013	1.73985	0.60364	1.81182	0.71014	1.87455	0.81908	1.92975	0.93004	1.97872	1.04269	2.02248	1.15676	2.06183	1.27205	2.09742	1.38839
4.0	1.35822	0.28787	1.46901	0.37746	1.56162	0.47153	1.64035	0.56912	1.70820	0.66953	1.76734	0.77224	1.81939	0.87686	1.86556	0.98306	1.90682	1.09061	1.94392	1.19930	1.97746	1.30898
3.5	1.27050	0.26928	1.37414	0.35309	1.46076	0.44108	1.53441	0.53236	1.59788	0.62629	1.65320	0.72237	1.70188	0.82022	1.74507	0.91956	1.78366	1.02016	1.81837	1.12184	1.84975	1.22444
3.0	1.17625	0.24931	1.27220	0.32689	1.35240	0.40836	1.42058	0.49287	1.47935	0.57983	1.53056	0.66878	1.57563	0.75937	1.61562	0.85135	1.65135	0.94449	1.68348	1.03862	1.71253	1.13361
2.5	1.07376	0.22758	1.16136	0.29841	1.23457	0.37278	1.29681	0.44993	1.35045	0.52931	1.39721	0.61051	1.43835	0.69321	1.47485	0.77717	1.50747	0.86220	1.53680	0.94813	1.56332	1.03484
2.0	0.96040	0.20356	1.03875	0.26691	1.10423	0.33342	1.15990	0.40243	1.20788	0.47343	1.24970	0.54606	1.28650	0.62003	1.31915	0.69513	1.34832	0.77117	1.37456	0.84803	1.39828	0.92559
1.8	0.91112	0.19311	0.98544	0.25321	1.04757	0.31631	1.10038	0.38178	1.14590	0.44914	1.18557	0.51803	1.22048	0.58821	1.25145	0.65945	1.27913	0.73160	1.30402	0.80452	1.32652	0.87809
1.6	0.85901	0.18207	0.92909	0.23873	0.98765	0.29822	1.03745	0.35994	1.08036	0.42345	1.11777	0.48841	1.15068	0.55457	1.17988	0.62174	1.20598	0.68976	1.22944	0.75850	1.25066	0.82787
1.4	0.80353	0.17031	0.86908	0.22331	0.92387	0.27896	0.97044	0.33669	1.01059	0.39610	1.04557	0.45686	1.07636	0.51875	1.10368	0.58158	1.12809	0.64521	1.15004	0.70952	1.16988	0.77440
1.2	0.74393	0.15768	0.80461	0.20674	0.85533	0.25827	0.89846	0.31172	0.93562	0.36672	0.96801	0.42297	0.99652	0.48027	1.02181	0.53844	1.04441	0.59735	1.06473	0.65689	1.08310	0.71696
1.0	0.67911	0.14394	0.73451	0.18873	0.78081	0.23577	0.82017	0.28456	0.85410	0.33476	0.88367	0.38612	0.90969	0.43843	0.93278	0.49153	0.95341	0.54530	0.97196	0.59965	0.98873	0.65449
0.8	0.60741	0.12874	0.65696	0.16881	0.69838	0.21088	0.73359	0.25452	0.76393	0.29942	0.79038	0.34536	0.81365	0.39214	0.83430	0.43963	0.85275	0.48773	0.86935	0.53635	0.88435	0.58540
0.6	0.52603	0.11149	0.56895	0.14619	0.60481	0.18262	0.63530	0.22042	0.66158	0.25931	0.68449	0.29909	0.70464	0.33960	0.72253	0.38074	0.73851	0.42239	0.75288	0.46449	0.76587	0.50697
0.4	0.42951	0.09103	0.46454	0.11936	0.49383	0.14911	0.51872	0.17997	0.54018	0.21172	0.55888	0.24420	0.57534	0.27729	0.58994	0.31087	0.60299	0.34488	0.61472	0.37925	0.62533	0.41394
0.2	0.30371	0.06437	0.32848	0.08440	0.34919	0.10544	0.36679	0.12726	0.38197	0.14971	0.39519	0.17268	0.40683	0.19607	0.41715	0.21982	0.42638	0.24387	0.43467	0.26817	0.44217	0.29269

＜Hi-Pフリュームの流速・流量表＞

マニング公式による流速・流量計算

流速 ： $V=1/n\cdot R^{(2/3)}\cdot I^{(1/2)}$ (m/sec)
流量 ： $Q=A\cdot V$ (m^3/sec)

ここで、 n：粗度係数 ＝ 0.014
I：勾配(‰)
R：径深(m)＝A/P
A：通水断面積(㎡)
P：潤辺(m)
※水深＝9割とする。

	H600																					
呼び名	B500×H600		B600×H600		B700×H600		B800×H600		B900×H600		B1000×H600		B1100×H600		B1200×H600		B1300×H600		B1400×H600		B1500×H600	
A	0.25547		0.30947		0.36347		0.41747		0.47147		0.52547		0.57947		0.63347		0.68747		0.74147		0.79547	
P	1.46510		1.56510		1.66510		1.76510		1.86510		1.96510		2.06510		2.16510		2.26510		2.36510		2.46510	
$R^{(2/3)}$	0.31212		0.33940		0.36254		0.38245		0.39979		0.41506		0.42861		0.44072		0.45162		0.46149		0.47046	
I(‰)	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q
100.0	7.04997	1.80106	7.66637	2.37251	8.18887	2.97641	8.63858	3.60635	9.03039	4.25756	9.37521	4.92639	9.68126	5.61000	9.95491	6.30614	10.20116	7.01299	10.42401	7.72909	10.62669	8.45321
75.0	6.10545	1.55976	6.63927	2.05465	7.09177	2.57765	7.48123	3.12319	7.82055	3.68715	8.11917	4.26638	8.38422	4.85840	8.62121	5.46128	8.83446	6.07343	9.02745	6.69358	9.20299	7.32070
50.0	4.98508	1.27354	5.42094	1.67762	5.79041	2.10464	6.10840	2.55007	6.38545	3.01055	6.62927	3.48348	6.84568	3.96687	7.03918	4.45911	7.21331	4.95893	7.37089	5.46529	7.51421	5.97733
40.0	4.45879	1.13909	4.84864	1.50051	5.17910	1.88245	5.46352	2.28086	5.71132	2.69272	5.92940	3.11572	6.12297	3.54808	6.29604	3.98835	6.45178	4.43541	6.59272	4.88830	6.72091	5.34628
35.0	4.17082	1.06552	4.53548	1.40359	4.84460	1.76087	5.11066	2.13355	5.34245	2.51880	5.54645	2.91449	5.72751	3.31892	5.88940	3.73076	6.03509	4.14894	6.16693	4.57259	6.28684	5.00099
30.0	3.86143	0.98648	4.19904	1.29948	4.48523	1.63025	4.73155	1.97528	4.94615	2.33196	5.13501	2.69829	5.30264	3.07272	5.45253	3.45401	5.58741	3.84118	5.70946	4.23339	5.82048	4.63002
25.0	3.52498	0.90053	3.83318	1.18625	4.09444	1.48821	4.31929	1.80317	4.51520	2.12878	4.68760	2.46319	4.84063	2.80500	4.97746	3.15307	5.10058	3.50650	5.21200	3.86454	5.31335	4.22661
20.0	3.15284	0.80546	3.42850	1.06102	3.66218	1.33109	3.86329	1.61281	4.03851	1.90404	4.19272	2.20315	4.32959	2.50887	4.45197	2.82019	4.56210	3.13631	4.66176	3.45656	4.75240	3.78039
18.0	2.99105	0.76412	3.25256	1.00657	3.47424	1.26278	3.66504	1.53004	3.83127	1.80633	3.97756	2.09009	4.10741	2.38012	4.22351	2.67547	4.32799	2.97536	4.42253	3.27917	4.50852	3.58639
16.0	2.81999	0.72042	3.06655	0.94901	3.27555	1.19056	3.45543	1.44254	3.61216	1.70303	3.75008	1.97055	3.87250	2.24400	3.98196	2.52245	4.08046	2.80519	4.16960	3.09163	4.25068	3.38129
14.0	2.63786	0.67389	2.86849	0.88771	3.06400	1.11367	3.23226	1.34937	3.37886	1.59303	3.50788	1.84329	3.62240	2.09907	3.72479	2.35954	3.81692	2.62402	3.90031	2.89196	3.97614	3.16290
12.0	2.44218	0.62390	2.65571	0.82186	2.83671	1.03106	2.99249	1.24927	3.12822	1.47486	3.24767	1.70655	3.35369	1.94336	3.44848	2.18451	3.53379	2.42937	3.61098	2.67743	3.68119	2.92828
10.0	2.22940	0.56954	2.42432	0.75025	2.58955	0.94122	2.73176	1.14043	2.85566	1.34636	2.96470	1.55786	3.06148	1.77404	3.14802	1.99418	3.22589	2.21770	3.29636	2.44415	3.36046	2.67315
9.0	2.11499	0.54032	2.29991	0.71175	2.45666	0.89292	2.59158	1.08191	2.70912	1.27727	2.81256	1.47792	2.90438	1.68300	2.98647	1.89184	3.06035	2.10390	3.12720	2.31872	3.18801	2.53597
8.0	1.99403	0.50941	2.16838	0.67105	2.31616	0.84185	2.44336	1.02003	2.55418	1.20422	2.65171	1.39339	2.73827	1.58675	2.81567	1.78364	2.88532	1.98357	2.94835	2.18611	3.00568	2.39093
7.0	1.86525	0.47652	2.02833	0.62771	2.16657	0.78748	2.28555	0.95415	2.38922	1.12645	2.48045	1.30340	2.56142	1.48427	2.63382	1.66845	2.69897	1.85546	2.75793	2.04492	2.81156	2.23651
6.0	1.72688	0.44117	1.87787	0.58114	2.00586	0.72907	2.11601	0.88337	2.21199	1.04289	2.29645	1.20672	2.37141	1.37416	2.43845	1.54468	2.49876	1.71782	2.55335	1.89323	2.60300	2.07061
5.5	1.65336	0.42238	1.79792	0.55640	1.92046	0.69803	2.02593	0.84576	2.11781	0.99848	2.19868	1.15534	2.27046	1.31566	2.33463	1.47892	2.39238	1.64469	2.44465	1.81263	2.49218	1.98245
5.0	1.57642	0.40273	1.71425	0.53051	1.83109	0.66555	1.93165	0.80641	2.01926	0.95202	2.09636	1.10157	2.16480	1.25444	2.22599	1.41010	2.28105	1.56815	2.33088	1.72828	2.37620	1.89020
4.5	1.49552	0.38206	1.62628	0.50328	1.73712	0.63139	1.83252	0.76502	1.91564	0.90317	1.98878	1.04504	2.05371	1.19006	2.11176	1.33774	2.16399	1.48768	2.21127	1.63959	2.25426	1.79320
4.0	1.40999	0.36021	1.53327	0.47450	1.63777	0.59528	1.72772	0.72127	1.80608	0.85151	1.87504	0.98528	1.93625	1.12200	1.99098	1.26123	2.04023	1.40260	2.08480	1.54582	2.12534	1.69064
3.5	1.31893	0.33695	1.43425	0.44386	1.53200	0.55684	1.61613	0.67469	1.68943	0.79652	1.75394	0.92164	1.81120	1.04954	1.86239	1.17977	1.90846	1.31201	1.95015	1.44598	1.98807	1.58145
3.0	1.22109	0.31195	1.32785	0.41093	1.41835	0.51553	1.49625	0.62464	1.56411	0.73743	1.62383	0.85327	1.67684	0.97168	1.72424	1.09225	1.76689	1.21468	1.80549	1.33872	1.84060	1.46414
2.5	1.11470	0.28477	1.21216	0.37513	1.29477	0.47061	1.36588	0.57021	1.42783	0.67318	1.48235	0.77893	1.53074	0.88702	1.57401	0.99709	1.61294	1.10885	1.64818	1.22208	1.68023	1.33657
2.0	0.99702	0.25471	1.08419	0.33552	1.15808	0.42093	1.22168	0.51001	1.27709	0.60211	1.32585	0.69669	1.36914	0.79338	1.40784	0.89182	1.44266	0.99179	1.47418	1.09306	1.50284	1.19546
1.8	0.94585	0.24164	1.02855	0.31831	1.09865	0.39933	1.15899	0.48384	1.21155	0.57121	1.25782	0.66095	1.29888	0.75266	1.33559	0.84606	1.36863	0.94089	1.39853	1.03697	1.42572	1.13412
1.6	0.89176	0.22782	0.96973	0.30010	1.03582	0.37649	1.09270	0.45617	1.14226	0.53854	1.18588	0.62314	1.22459	0.70961	1.25921	0.79767	1.29036	0.88708	1.31854	0.97766	1.34418	1.06925
1.4	0.83416	0.21310	0.90710	0.28072	0.96892	0.35217	1.02213	0.42671	1.06849	0.50376	1.10929	0.58290	1.14550	0.66378	1.17788	0.74615	1.20702	0.82979	1.23339	0.91452	1.25737	1.00020
1.2	0.77229	0.19730	0.83981	0.25990	0.89705	0.32605	0.94631	0.39506	0.98923	0.46639	1.02700	0.53966	1.06053	0.61455	1.09051	0.69081	1.11748	0.76823	1.14189	0.84668	1.16410	0.92601
1.0	0.70500	0.18011	0.76664	0.23725	0.81889	0.29764	0.86386	0.36064	0.90304	0.42576	0.93752	0.49264	0.96813	0.56100	0.99549	0.63061	1.02012	0.70130	1.04240	0.77291	1.06267	0.84532
0.8	0.63057	0.16109	0.68570	0.21220	0.73244	0.26622	0.77266	0.32256	0.80770	0.38081	0.83854	0.44063	0.86592	0.50177	0.89039	0.56404	0.91242	0.62726	0.93235	0.69131	0.95048	0.75608
0.6	0.54609	0.13951	0.59383	0.18377	0.63431	0.23055	0.66914	0.27935	0.69949	0.32979	0.72620	0.38160	0.74991	0.43455	0.77110	0.48847	0.79018	0.54323	0.80744	0.59869	0.82314	0.65478
0.4	0.44588	0.11391	0.48486	0.15005	0.51791	0.18824	0.54635	0.22808	0.57113	0.26927	0.59294	0.31157	0.61230	0.35481	0.62960	0.39883	0.64518	0.44354	0.65927	0.48883	0.67209	0.53463
0.2	0.31528	0.08054	0.34285	0.10610	0.36622	0.13311	0.38633	0.16128	0.40385	0.19040	0.41927	0.22031	0.43296	0.25089	0.44520	0.28202	0.45621	0.31363	0.46618	0.34566	0.47524	0.37804

＜Hi-Pフリュームの流速・流量表＞

マニング公式による流速・流量計算

流速 ： $V=1/n\cdot R^{(2/3)}\cdot I^{(1/2)}$ （m/sec）
流量 ： $Q=A\cdot V$ （m^3/sec）

ここで、 n：粗度係数 ＝ 0.014
I：勾配（‰）
R：径深（m）＝A/P
A：通水断面積（㎡）
P：潤辺（m）
※水深＝9割とする。

	H700																					
呼び名	B500×H700		B600×H700		B700×H700		B800×H700		B900×H700		B1000×H700		B1100×H700		B1200×H700		B1300×H700		B1400×H700		B1500×H700	
A	0.29898		0.36198		0.42498		0.48798		0.55098		0.61398		0.67698		0.73998		0.80298		0.86598		0.92898	
P	1.64468		1.74468		1.84468		1.94468		2.04468		2.14468		2.24468		2.34468		2.44468		2.54468		2.64468	
$R^{(2/3)}$	0.32090		0.35047		0.37581		0.39783		0.41720		0.43437		0.44973		0.46354		0.47605		0.48743		0.49784	
I(‰)	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q
100.0	7.24846	2.16714	7.91622	2.86551	8.48862	3.60749	8.98617	4.38507	9.42350	5.19216	9.81145	6.02403	10.15827	6.87695	10.47039	7.74788	10.75294	8.63440	11.01003	9.53447	11.24503	10.44641
75.0	6.27735	1.87680	6.85565	2.48161	7.35136	3.12418	7.78225	3.79758	8.16099	4.49654	8.49696	5.21696	8.79732	5.95561	9.06762	6.70986	9.31232	7.47761	9.53496	8.25708	9.73849	9.04686
50.0	5.12544	1.53240	5.59761	2.02622	6.00236	2.55088	6.35418	3.10071	6.66342	3.67141	6.93774	4.25963	7.18298	4.86273	7.40368	5.47858	7.60347	6.10543	7.78527	6.74189	7.95144	7.38673
40.0	4.58433	1.37062	5.00666	1.81231	5.36867	2.28158	5.68335	2.77336	5.95995	3.28381	6.20530	3.80993	6.42465	4.34936	6.62206	4.90019	6.80075	5.46087	6.96335	6.03012	7.11198	6.60689
35.0	4.28825	1.28210	4.68330	1.69526	5.02193	2.13422	5.31629	2.59424	5.57502	3.07172	5.80453	3.56387	6.00971	4.06845	6.19437	4.58371	6.36152	5.10817	6.51362	5.64066	6.65265	6.18018
30.0	3.97015	1.18700	4.33589	1.56951	4.64941	1.97591	4.92193	2.40180	5.16146	2.84386	5.37395	3.29950	5.56391	3.76666	5.73487	4.24369	5.88963	4.72926	6.03044	5.22224	6.15916	5.72174
25.0	3.62423	1.08357	3.95811	1.43276	4.24431	1.80375	4.49308	2.19253	4.71175	2.59608	4.90572	3.01201	5.07913	3.43847	5.23520	3.87394	5.37647	4.31720	5.50501	4.76723	5.62252	5.22321
20.0	3.24161	0.96918	3.54024	1.28150	3.79622	1.61332	4.01874	1.96106	4.21432	2.32201	4.38781	2.69403	4.54291	3.07546	4.68250	3.46496	4.80886	3.86142	4.92383	4.26394	5.02893	4.67178
18.0	3.07526	0.91944	3.35857	1.21574	3.60142	1.53053	3.81251	1.86043	3.99805	2.20285	4.16264	2.55578	4.30979	2.91764	4.44221	3.28715	4.56208	3.66326	4.67116	4.04513	4.77086	4.43203
16.0	2.89938	0.86686	3.16649	1.14621	3.39545	1.44300	3.59447	1.75403	3.76940	2.07686	3.92458	2.40961	4.06331	2.75078	4.18816	3.09915	4.30117	3.45375	4.40401	3.81378	4.49801	4.17856
14.0	2.71213	0.81087	2.96198	1.07218	3.17615	1.34980	3.36232	1.64074	3.52595	1.94273	3.67111	2.25399	3.80087	2.57311	3.91766	2.89899	4.02338	3.23069	4.11958	3.56747	4.20751	3.90869
12.0	2.51094	0.75072	2.74226	0.99264	2.94054	1.24967	3.11290	1.51903	3.26440	1.79862	3.39879	2.08679	3.51893	2.38225	3.62705	2.68394	3.72493	2.99104	3.81399	3.30284	3.89539	3.61874
10.0	2.29216	0.68531	2.50333	0.90616	2.68434	1.14079	2.84168	1.38668	2.97997	1.64190	3.10265	1.90497	3.21233	2.17468	3.31103	2.45010	3.40038	2.73044	3.48168	3.01507	3.55599	3.30344
9.0	2.17454	0.65014	2.37487	0.85966	2.54659	1.08225	2.69585	1.31552	2.82705	1.55765	2.94343	1.80721	3.04748	2.06308	3.14112	2.32437	3.22588	2.59032	3.30301	2.86034	3.37351	3.13392
8.0	2.05017	0.61296	2.23904	0.81049	2.40094	1.02035	2.54167	1.24028	2.66537	1.46857	2.77510	1.70386	2.87319	1.94509	2.96147	2.19143	3.04139	2.44218	3.11411	2.69676	3.18058	2.95470
7.0	1.91776	0.57337	2.09443	0.75814	2.24588	0.95445	2.37752	1.16018	2.49322	1.37371	2.59587	1.59381	2.68762	1.81946	2.77021	2.04990	2.84496	2.28445	2.91298	2.52258	2.97516	2.76386
6.0	1.77550	0.53084	1.93907	0.70190	2.07928	0.88365	2.20115	1.07412	2.30828	1.27182	2.40330	1.47558	2.48826	1.68450	2.56471	1.89783	2.63392	2.11499	2.69690	2.33546	2.75446	2.55884
5.5	1.69991	0.50824	1.85652	0.67202	1.99076	0.84603	2.10744	1.02839	2.21001	1.21767	2.30099	1.41276	2.38232	1.61278	2.45552	1.81704	2.52179	2.02495	2.58208	2.23603	2.63719	2.44990
5.0	1.62081	0.48459	1.77012	0.64075	1.89811	0.80666	2.00937	0.98053	2.10716	1.16100	2.19391	1.34702	2.27146	1.53773	2.34125	1.73248	2.40443	1.93071	2.46192	2.13197	2.51447	2.33589
4.5	1.53763	0.45972	1.67928	0.60787	1.80071	0.76527	1.90625	0.93021	1.99903	1.10143	2.08132	1.27789	2.15489	1.45882	2.22111	1.64358	2.28104	1.83163	2.33558	2.02257	2.38543	2.21602
4.0	1.44969	0.43343	1.58324	0.57310	1.69772	0.72150	1.79723	0.87701	1.88470	1.03843	1.96229	1.20481	2.03165	1.37539	2.09408	1.54958	2.15059	1.72688	2.20201	1.90690	2.24901	2.08929
3.5	1.35606	0.40543	1.48099	0.53609	1.58807	0.67490	1.68116	0.82037	1.76298	0.97137	1.83555	1.12699	1.90044	1.28656	1.95883	1.44950	2.01169	1.61535	2.05979	1.78374	2.10375	1.95434
3.0	1.25547	0.37536	1.37113	0.49632	1.47027	0.62484	1.55645	0.75952	1.63220	0.89931	1.69939	1.04339	1.75946	1.19112	1.81352	1.34197	1.86246	1.49552	1.90699	1.65142	1.94770	1.80937
2.5	1.14608	0.34265	1.25166	0.45308	1.34217	0.57040	1.42084	0.69334	1.48999	0.82095	1.55133	0.95249	1.60616	1.08734	1.65551	1.22504	1.70019	1.36522	1.74084	1.50753	1.77800	1.65173
2.0	1.02509	0.30648	1.11952	0.40524	1.20047	0.51018	1.27084	0.62014	1.33268	0.73428	1.38755	0.85193	1.43660	0.97255	1.48074	1.09572	1.52069	1.22108	1.55705	1.34837	1.59029	1.47735
1.8	0.97248	0.29075	1.06207	0.38445	1.13887	0.48400	1.20562	0.58832	1.26430	0.69660	1.31634	0.80821	1.36287	0.92264	1.40475	1.03949	1.44266	1.15843	1.47715	1.27918	1.50868	1.40153
1.6	0.91687	0.27413	1.00133	0.36246	1.07373	0.45631	1.13667	0.55467	1.19199	0.65676	1.24106	0.76199	1.28493	0.86987	1.32441	0.98004	1.36015	1.09217	1.39267	1.20602	1.42240	1.32138
1.4	0.85765	0.25642	0.93666	0.33905	1.00439	0.42685	1.06326	0.51885	1.11500	0.61434	1.16091	0.71278	1.20194	0.81369	1.23887	0.91674	1.27230	1.02163	1.30272	1.12813	1.33053	1.23604
1.2	0.79403	0.23740	0.86718	0.31390	0.92988	0.39518	0.98439	0.48036	1.03229	0.56877	1.07479	0.65990	1.11278	0.75333	1.14697	0.84873	1.17793	0.94585	1.20609	1.04445	1.23183	1.14435
1.0	0.72485	0.21672	0.79162	0.28655	0.84886	0.36075	0.89862	0.43851	0.94235	0.51922	0.98114	0.60240	1.01583	0.68770	1.04704	0.77479	1.07529	0.86344	1.10100	0.95344	1.12450	1.04464
0.8	0.64832	0.19383	0.70805	0.25630	0.75924	0.32266	0.80375	0.39221	0.84286	0.46440	0.87756	0.53880	0.90858	0.61509	0.93650	0.69299	0.96177	0.77228	0.98477	0.85279	1.00579	0.93436
0.6	0.56146	0.16787	0.61319	0.22196	0.65753	0.27944	0.69607	0.33967	0.72994	0.40218	0.75999	0.46662	0.78686	0.53269	0.81103	0.60015	0.83292	0.66882	0.85283	0.73853	0.87104	0.80918
0.4	0.45843	0.13706	0.50067	0.18123	0.53687	0.22816	0.56834	0.27734	0.59599	0.32838	0.62053	0.38099	0.64247	0.43494	0.66221	0.49002	0.68008	0.54609	0.69634	0.60302	0.71120	0.66069
0.2	0.32416	0.09692	0.35402	0.12815	0.37962	0.16133	0.40187	0.19610	0.42143	0.23220	0.43878	0.26940	0.45429	0.30755	0.46825	0.34650	0.48089	0.38615	0.49238	0.42639	0.50289	0.46717

＜Hi-Pフリュームの流速・流量表＞

マニング公式による流速・流量計算

流速 ： $V=1/n\cdot R^{(2/3)}\cdot I^{(1/2)}$ (m/sec)
流量 ： $Q=A\cdot V$ (m^3/sec)

ここで、 n：粗度係数 ＝ 0.014
I：勾配(‰)
R：径深(m)＝A/P
A：通水断面積(m^2)
P：潤辺(m)
※水深＝9割とする。

	H800																							
呼び名	B500×H800		B600×H800		B700×H800		B800×H800		B900×H800		B1000×H800		B1100×H800		B1200×H800		B1300×H800		B1400×H800		B1500×H800		B1800×H800		B2000×H800	
A	0.33854		0.41054		0.48254		0.55454		0.62654		0.69854		0.77054		0.84254		0.91454		0.98654		1.05854		1.27454		1.41854	
P	1.81520		1.91520		2.01520		2.11520		2.21520		2.31520		2.41520		2.51520		2.61520		2.71520		2.81520		3.11520		3.31520	
$R^{(2/3)}$	0.32643		0.35817		0.38561		0.40963		0.43088		0.44985		0.46690		0.48233		0.49636		0.50918		0.52095		0.55112		0.56783	
I(‰)	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q
100.0	7.37331	2.49616	8.09033	3.32140	8.70994	4.20289	9.25251	5.13089	9.73261	6.09787	10.16109	7.09793	10.54630	8.12635	10.89475	9.17926	11.21167	10.25352	11.50131	11.34650	11.76713	12.45598	12.44850	15.86611	12.82606	18.19428
75.0	6.38547	2.16174	7.00643	2.87642	7.54303	3.63981	8.01291	4.44348	8.42869	5.28091	8.79977	6.14699	9.13336	7.03762	9.43513	7.94947	9.70960	8.87982	9.96042	9.82635	10.19064	10.78720	10.78072	13.74046	11.10769	15.75670
50.0	5.21372	1.76505	5.72073	2.34859	6.15886	2.97190	6.54251	3.62808	6.88199	4.31184	7.18498	5.01900	7.45736	5.74619	7.70375	6.49072	7.92785	7.25034	8.13265	8.02318	8.32062	8.80771	8.80242	11.21904	9.06939	12.86529
40.0	4.66329	1.57871	5.11677	2.10064	5.50865	2.65814	5.85180	3.24506	6.15544	3.85663	6.42644	4.48913	6.67006	5.13955	6.89045	5.80548	7.09089	6.48490	7.27407	7.17616	7.44219	7.87786	7.87312	10.03461	8.11191	11.50707
35.0	4.36211	1.47675	4.78630	1.96497	5.15287	2.48647	5.47386	3.03547	5.75789	3.60755	6.01138	4.19919	6.23927	4.80761	6.44542	5.43052	6.63292	6.06607	6.80427	6.71268	6.96153	7.36906	7.36463	9.38652	7.58800	10.76388
30.0	4.03853	1.36720	4.43126	1.81921	4.77063	2.30202	5.06781	2.81030	5.33077	3.33994	5.56546	3.88770	5.77645	4.45099	5.96730	5.02769	6.14089	5.61609	6.29953	6.21474	6.44512	6.82242	6.81832	8.69022	7.02512	9.96541
25.0	3.68665	1.24808	4.04516	1.66070	4.35497	2.10145	4.62626	2.56545	4.86630	3.04893	5.08055	3.54897	5.27315	4.06317	5.44738	4.58964	5.60584	5.12676	5.75065	5.67325	5.88357	6.22799	6.22425	7.93306	6.41303	9.09714
20.0	3.29744	1.11632	3.61811	1.48538	3.89521	1.87959	4.13785	2.29460	4.35255	2.72705	4.54418	3.17429	4.71645	3.63421	4.87228	4.10509	5.01401	4.58551	5.14354	5.07431	5.26242	5.57048	5.56714	7.09554	5.73599	8.13673
18.0	3.12823	1.05903	3.43244	1.40915	3.69532	1.78314	3.92551	2.17685	4.12920	2.58711	4.31099	3.01140	4.47442	3.44772	4.62225	3.89443	4.75671	4.35020	4.87959	4.81391	4.99237	5.28462	5.28145	6.73142	5.44164	7.71918
16.0	2.94932	0.99846	3.23613	1.32856	3.48398	1.68116	3.70100	2.05235	3.89304	2.43915	4.06444	2.83917	4.21852	3.25054	4.35790	3.67171	4.48467	4.10141	4.60052	4.53860	4.70685	4.98239	4.97940	6.34644	5.13042	7.27771
14.0	2.75884	0.93398	3.02712	1.24275	3.25896	1.57258	3.46197	1.91980	3.64161	2.28161	3.80193	2.65580	3.94606	3.04060	4.07644	3.43456	4.19502	3.83651	4.30340	4.24548	4.40286	4.66060	4.65780	5.93655	4.79907	6.80767
12.0	2.55419	0.86470	2.80257	1.15057	3.01721	1.45592	3.20516	1.77739	3.37147	2.11236	3.51991	2.45880	3.65334	2.81504	3.77405	3.17979	3.88384	3.55193	3.98417	3.93054	4.07625	4.31487	4.31229	5.49619	4.44308	6.30269
10.0	2.33164	0.78935	2.55839	1.05032	2.75433	1.32907	2.92590	1.62253	3.07772	1.92831	3.21322	2.24456	3.33503	2.56977	3.44522	2.90274	3.54544	3.24245	3.63703	3.58808	3.72109	3.93892	3.93656	5.01730	4.05596	5.75354
9.0	2.21199	0.74885	2.42710	0.99642	2.61298	1.26087	2.77575	1.53926	2.91978	1.82936	3.04833	2.12938	3.16389	2.43790	3.26843	2.75378	3.36350	3.07606	3.45039	3.40395	3.53014	3.73679	3.73455	4.75983	3.84782	5.45829
8.0	2.08549	0.70602	2.28829	0.93943	2.46354	1.18876	2.61701	1.45124	2.75280	1.72474	2.87399	2.00760	2.98294	2.29847	3.08150	2.59629	3.17114	2.90013	3.25306	3.20927	3.32825	3.52309	3.52097	4.48762	3.62776	5.14612
7.0	1.95079	0.66042	2.14050	0.87876	2.30443	1.11198	2.44798	1.35750	2.57501	1.61335	2.68837	1.87793	2.79029	2.15003	2.88248	2.42860	2.96633	2.71283	3.04296	3.00200	3.11329	3.29554	3.29356	4.19777	3.39346	4.81376
6.0	1.80608	0.61143	1.98172	0.81358	2.13349	1.02949	2.26639	1.25680	2.38399	1.49367	2.48895	1.73863	2.58330	1.99054	2.66866	2.24845	2.74629	2.51159	2.81723	2.77931	2.88235	3.05108	3.04925	3.88639	3.14173	4.45667
5.5	1.72919	0.58540	1.89735	0.77894	2.04266	0.98567	2.16991	1.20330	2.28250	1.43008	2.38299	1.66461	2.47333	1.90580	2.55505	2.15273	2.62937	2.40466	2.69730	2.66099	2.75964	2.92119	2.91943	3.72093	3.00798	4.26694
5.0	1.64872	0.55816	1.80905	0.74269	1.94760	0.93979	2.06892	1.14730	2.17628	1.36353	2.27209	1.58715	2.35822	1.81710	2.43614	2.05255	2.50701	2.29276	2.57177	2.53715	2.63121	2.78524	2.78357	3.54777	2.86799	4.06836
4.5	1.56411	0.52951	1.71622	0.70458	1.84766	0.89157	1.96275	1.08842	2.06460	1.29355	2.15549	1.50570	2.23721	1.72386	2.31113	1.94722	2.37836	2.17511	2.43980	2.40696	2.49619	2.64232	2.64073	3.36572	2.72082	3.85959
4.0	1.47466	0.49923	1.61807	0.66428	1.74199	0.84058	1.85050	1.02618	1.94652	1.21957	2.03222	1.41959	2.10926	1.62527	2.17895	1.83585	2.24233	2.05070	2.30026	2.26930	2.35343	2.49120	2.48970	3.17322	2.56521	3.63885
3.5	1.37942	0.46699	1.51356	0.62138	1.62948	0.78629	1.73099	0.95990	1.82080	1.14080	1.90097	1.32790	1.97303	1.52030	2.03822	1.71728	2.09751	1.91826	2.15170	2.12274	2.20143	2.33030	2.32890	2.96828	2.39954	3.40384
3.0	1.27709	0.43235	1.40129	0.57529	1.50861	0.72796	1.60258	0.88869	1.68574	1.05618	1.75995	1.22940	1.82667	1.40752	1.88703	1.58990	1.94192	1.77596	1.99208	1.96527	2.03813	2.15744	2.15614	2.74809	2.22154	3.15134
2.5	1.16582	0.39468	1.27919	0.52516	1.37716	0.66453	1.46295	0.81126	1.53886	0.96416	1.60661	1.12228	1.66752	1.28489	1.72261	1.45137	1.77272	1.62122	1.81852	1.79404	1.86055	1.96947	1.96828	2.50865	2.02798	2.87677
2.0	1.04274	0.35301	1.14415	0.46972	1.23177	0.59438	1.30850	0.72562	1.37640	0.86237	1.43700	1.00380	1.49147	1.14924	1.54075	1.29814	1.58557	1.45007	1.62653	1.60464	1.66412	1.76154	1.76048	2.24380	1.81388	2.57306
1.8	0.98923	0.33489	1.08543	0.44561	1.16856	0.56388	1.24135	0.68838	1.30577	0.81812	1.36325	0.95228	1.41493	1.09026	1.46168	1.23152	1.50420	1.37565	1.54306	1.52229	1.57873	1.67115	1.67014	2.12866	1.72080	2.44102
1.6	0.93266	0.31574	1.02335	0.42013	1.10173	0.53163	1.17036	0.64901	1.23109	0.77133	1.28529	0.89783	1.33401	1.02791	1.37809	1.16110	1.41818	1.29698	1.45481	1.43523	1.48844	1.57557	1.57462	2.00692	1.62238	2.30141
1.4	0.87242	0.29535	0.95726	0.39299	1.03057	0.49729	1.09477	0.60709	1.15158	0.72151	1.20228	0.83984	1.24785	0.96152	1.28908	1.08610	1.32658	1.21321	1.36085	1.34253	1.39231	1.47382	1.47293	1.87731	1.51760	2.15278
1.2	0.80771	0.27344	0.88625	0.36384	0.95413	0.46041	1.01356	0.56206	1.06615	0.66799	1.11309	0.77754	1.15529	0.89020	1.19346	1.00554	1.22818	1.12322	1.25991	1.24295	1.28902	1.36448	1.36366	1.73804	1.40502	1.99308
1.0	0.73733	0.24962	0.80903	0.33214	0.87099	0.42029	0.92525	0.51309	0.97326	0.60979	1.01611	0.70979	1.05463	0.81263	1.08948	0.91793	1.12117	1.02535	1.15013	1.13465	1.17671	1.24559	1.24485	1.58661	1.28261	1.81943
0.8	0.65949	0.22326	0.72362	0.29707	0.77904	0.37592	0.82757	0.45892	0.87051	0.54541	0.90884	0.63486	0.94329	0.72684	0.97446	0.82102	1.00280	0.91710	1.02871	1.01486	1.05248	1.11409	1.11343	1.41911	1.14720	1.62735
0.6	0.57113	0.19335	0.62667	0.25727	0.67467	0.32556	0.71670	0.39744	0.75388	0.47234	0.78707	0.54980	0.81691	0.62946	0.84390	0.71102	0.86845	0.79423	0.89089	0.87890	0.91148	0.96484	0.96426	1.22899	0.99350	1.40932
0.4	0.46633	0.15787	0.51168	0.21007	0.55087	0.26582	0.58518	0.32451	0.61554	0.38566	0.64264	0.44891	0.66701	0.51396	0.68904	0.58054	0.70909	0.64849	0.72741	0.71762	0.74422	0.78779	0.78731	1.00346	0.81119	1.15071
0.2	0.32974	0.11163	0.36181	0.14854	0.38952	0.18796	0.41378	0.22946	0.43526	0.27271	0.45442	0.31743	0.47164	0.36342	0.48723	0.41051	0.50140	0.45855	0.51435	0.50743	0.52624	0.55705	0.55671	0.70955	0.57360	0.81367

＜Hi-Pフリュームの流速・流量表＞

マニング公式による流速・流量計算

流速 ： $V=1/n\cdot R^{(2/3)}\cdot I^{(1/2)}$ (m/sec)
流量 ： $Q=A\cdot V$ (m^3/sec)

ここで、 n：粗度係数 ＝ 0.014
I：勾配(‰)
R：径深(m)＝A/P
A：通水断面積(m^2)
P：潤辺(m)
※水深＝9割とする。

	H900																							
呼び名	B500×H900		B600×H900		B700×H900		B800×H900		B900×H900		B1000×H900		B1100×H900		B1200×H900		B1300×H900		B1400×H900		B1500×H900		B1800×H900		B2000×H900	
A	0.37710		0.45810		0.53910		0.62010		0.70110		0.78210		0.86310		0.94410		1.02510		1.10610		1.18710		1.43010		1.59210	
P	1.98566		2.08566		2.18566		2.28566		2.38566		2.48566		2.58566		2.68566		2.78566		2.88566		2.98566		3.28566		3.48566	
$R^{(2/3)}$	0.33040		0.36404		0.39330		0.41908		0.44203		0.46261		0.48120		0.49809		0.51352		0.52767		0.54071		0.57433		0.59309	
I(‰)	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q
100.0	7.46288	2.81425	8.22274	3.76684	8.88375	4.78923	9.46612	5.86994	9.98434	7.00002	10.44926	8.17237	10.86922	9.38122	11.25080	10.62188	11.59927	11.89041	11.91895	13.18355	12.21340	14.49853	12.97282	18.55243	13.39663	21.32877
75.0	6.46304	2.43721	7.12110	3.26218	7.69356	4.14760	8.19790	5.08352	8.64670	6.06220	9.04933	7.07748	9.41302	8.12438	9.74348	9.19882	10.04526	10.29740	10.32212	11.41730	10.57712	12.55610	11.23479	16.06687	11.60182	18.47126
50.0	5.27705	1.98998	5.81435	2.66355	6.28176	3.38650	6.69356	4.15068	7.06000	4.94977	7.38874	5.77873	7.68570	6.63353	7.95551	7.51080	8.20192	8.40779	8.42797	9.32218	8.63618	10.25201	9.17317	13.11855	9.47285	15.08172
40.0	4.71994	1.77989	5.20052	2.38236	5.61858	3.02898	5.98690	3.71248	6.31465	4.42720	6.60869	5.16866	6.87430	5.93321	7.11563	6.71787	7.33602	7.52015	7.53821	8.33801	7.72443	9.16967	8.20473	11.73358	8.47277	13.48950
35.0	4.41510	1.66493	4.86464	2.22849	5.25570	2.83335	5.60023	3.47270	5.90682	4.14127	6.18187	4.83484	6.43032	5.55001	6.65606	6.28399	6.86222	7.03446	7.05135	7.79950	7.22555	8.57745	7.67483	10.97577	7.92555	12.61827
30.0	4.08759	1.54143	4.50378	2.06318	4.86583	2.62317	5.18481	3.21510	5.46865	3.83407	5.72330	4.47619	5.95332	5.13831	6.16232	5.81785	6.35318	6.51264	6.52828	7.22093	6.68955	7.94116	7.10551	10.16159	7.33764	11.68226
25.0	3.73144	1.40713	4.11137	1.88342	4.44188	2.39462	4.73306	2.93497	4.99217	3.50001	5.22463	4.08618	5.43461	4.69061	5.62540	5.31094	5.79964	5.94521	5.95948	6.59178	6.10670	7.24926	6.48641	9.27621	6.69831	10.66438
20.0	3.33750	1.25857	3.67732	1.68458	3.97293	2.14181	4.23338	2.62512	4.46513	3.13050	4.67305	3.65479	4.86086	4.19541	5.03151	4.75025	5.18735	5.31755	5.33032	5.89587	5.46200	6.48394	5.80162	8.29690	5.99115	9.53851
18.0	3.16623	1.19399	3.48861	1.59813	3.76906	2.03190	4.01613	2.49040	4.23600	2.96986	4.43325	3.46724	4.61142	3.98012	4.77331	4.50648	4.92115	5.04467	5.05678	5.59330	5.18171	6.15121	5.50390	7.87113	5.68371	9.04903
16.0	2.98515	1.12570	3.28910	1.50674	3.55350	1.91569	3.78645	2.34798	3.99374	2.80001	4.17971	3.26895	4.34769	3.75249	4.50032	4.24875	4.63971	4.75617	4.76758	5.27342	4.88536	5.79941	5.18913	7.42097	5.35865	8.53151
14.0	2.79235	1.05300	3.07667	1.40942	3.32400	1.79197	3.54190	2.19633	3.73580	2.61917	3.90976	3.05782	4.06689	3.51013	4.20966	3.97434	4.34005	4.44899	4.45966	4.93283	4.56984	5.42486	4.85399	6.94169	5.01256	7.98050
12.0	2.58522	0.97489	2.84844	1.30487	3.07742	1.65904	3.27916	2.03341	3.45868	2.42488	3.61973	2.83099	3.76521	3.24975	3.89739	3.67953	4.01811	4.11896	4.12885	4.56692	4.23085	5.02244	4.49392	6.42675	4.64073	7.38851
10.0	2.35997	0.88994	2.60026	1.19118	2.80929	1.51449	2.99345	1.85624	3.15733	2.21360	3.30435	2.58433	3.43715	2.96660	3.55781	3.35893	3.66801	3.76008	3.76910	4.16900	3.86222	4.58484	4.10237	5.86680	4.23639	6.74476
9.0	2.23886	0.84427	2.46682	1.13005	2.66513	1.43677	2.83984	1.76098	2.99530	2.10000	3.13478	2.45171	3.26077	2.81437	3.37524	3.18656	3.47978	3.56712	3.57569	3.95507	3.66402	4.34956	3.89185	5.56573	4.01899	6.39863
8.0	2.11082	0.79599	2.32574	1.06542	2.51270	1.35460	2.67742	1.66027	2.82400	1.97991	2.95550	2.31150	3.07428	2.65341	3.18221	3.00432	3.28077	3.36312	3.37119	3.72887	3.45447	4.10080	3.66927	5.24742	3.78914	6.03269
7.0	1.97449	0.74458	2.17553	0.99661	2.35042	1.26711	2.50450	1.55304	2.64161	1.85203	2.76462	2.16221	2.87573	2.48204	2.97668	2.81028	3.06888	3.14591	3.15346	3.48804	3.23136	3.83595	3.43229	4.90852	3.54441	5.64306
6.0	1.82802	0.68935	2.01415	0.92268	2.17607	1.17312	2.31872	1.43784	2.44566	1.71465	2.55954	2.00182	2.66240	2.29792	2.75587	2.60182	2.84123	2.91254	2.91954	3.22930	2.99166	3.55140	3.17768	4.54440	3.28149	5.22446
5.5	1.75020	0.66000	1.92840	0.88340	2.08342	1.12317	2.22000	1.37662	2.34154	1.64165	2.45057	1.91659	2.54906	2.20009	2.63855	2.49106	2.72027	2.78855	2.79524	3.09181	2.86430	3.40021	3.04240	4.35094	3.14179	5.00204
5.0	1.66875	0.62929	1.83866	0.84229	1.98647	1.07091	2.11669	1.31256	2.23257	1.56525	2.33653	1.82740	2.43043	2.09770	2.51575	2.37512	2.59368	2.65878	2.66516	2.94793	2.73100	3.24197	2.90081	4.14845	2.99558	4.76926
4.5	1.58312	0.59699	1.74431	0.79907	1.88453	1.01595	2.00807	1.24520	2.11800	1.48493	2.21662	1.73362	2.30571	1.99006	2.38665	2.25324	2.46058	2.52234	2.52839	2.79665	2.59085	3.07560	2.75195	3.93556	2.84185	4.52451
4.0	1.49258	0.56285	1.64455	0.75337	1.77675	0.95785	1.89322	1.17399	1.99687	1.40001	2.08985	1.63447	2.17384	1.87624	2.25016	2.12438	2.31985	2.37808	2.38379	2.63671	2.44268	2.89971	2.59456	3.71048	2.67933	4.26576
3.5	1.39618	0.52650	1.53833	0.70471	1.66200	0.89598	1.77095	1.09817	1.86790	1.30958	1.95488	1.52891	2.03345	1.75507	2.10483	1.98717	2.17002	2.22449	2.22983	2.46641	2.28492	2.71243	2.42699	3.47084	2.50628	3.99025
3.0	1.29261	0.48744	1.42422	0.65244	1.53871	0.82952	1.63958	1.01670	1.72934	1.21244	1.80987	1.41550	1.88260	1.62487	1.94870	1.83977	2.00905	2.05948	2.06442	2.28345	2.11542	2.51122	2.24696	3.21338	2.32036	3.69425
2.5	1.17998	0.44497	1.30013	0.59559	1.40464	0.75724	1.49673	0.92812	1.57866	1.10680	1.65217	1.29216	1.71857	1.48330	1.77891	1.67947	1.83401	1.88004	1.88455	2.08450	1.93111	2.29242	2.05118	2.93339	2.11819	3.37237
2.0	1.05541	0.39800	1.16287	0.53271	1.25635	0.67730	1.33871	0.83013	1.41200	0.98995	1.47775	1.15575	1.53714	1.32671	1.59110	1.50216	1.64038	1.68155	1.68559	1.86443	1.72724	2.05041	1.83463	2.62370	1.89457	3.01634
1.8	1.00125	0.37757	1.10320	0.50538	1.19188	0.64254	1.27001	0.78753	1.33954	0.93915	1.40192	1.09644	1.45826	1.25862	1.50945	1.42507	1.55621	1.59527	1.59910	1.76876	1.63860	1.94518	1.74049	2.48907	1.79735	2.86156
1.6	0.94399	0.35598	1.04010	0.47647	1.12372	0.60580	1.19738	0.74250	1.26293	0.88544	1.32174	1.03373	1.37486	1.18664	1.42313	1.34358	1.46720	1.50403	1.50764	1.66760	1.54489	1.83394	1.64095	2.34672	1.69455	2.69789
1.4	0.88302	0.33299	0.97293	0.44570	1.05114	0.56667	1.12005	0.69454	1.18136	0.82825	1.23637	0.96696	1.28606	1.11000	1.33121	1.25680	1.37244	1.40689	1.41027	1.55990	1.44511	1.71549	1.53497	2.19516	1.58511	2.52365
1.2	0.81752	0.30829	0.90076	0.41264	0.97317	0.52464	1.03696	0.64302	1.09373	0.76681	1.14466	0.89524	1.19066	1.02766	1.23246	1.16357	1.27064	1.30253	1.30566	1.44419	1.33791	1.58823	1.42110	2.03232	1.46753	2.33645
1.0	0.74629	0.28143	0.82227	0.37668	0.88838	0.47893	0.94661	0.58699	0.99843	0.70000	1.04493	0.81724	1.08692	0.93812	1.12508	1.06219	1.15993	1.18904	1.19190	1.31836	1.22134	1.44985	1.29728	1.85524	1.33966	2.13287
0.8	0.66750	0.25171	0.73546	0.33691	0.79459	0.42836	0.84668	0.52503	0.89303	0.62610	0.93461	0.73096	0.97217	0.83908	1.00630	0.95005	1.03747	1.06351	1.06606	1.17917	1.09240	1.29679	1.16032	1.65937	1.19823	1.90770
0.6	0.57807	0.21799	0.63693	0.29178	0.68813	0.37097	0.73324	0.45468	0.77338	0.54222	0.80940	0.63303	0.84193	0.72667	0.87148	0.82276	0.89848	0.92103	0.92324	1.02120	0.94605	1.12306	1.00487	1.43706	1.03770	1.65212
0.4	0.47199	0.17799	0.52005	0.23823	0.56186	0.30290	0.59869	0.37125	0.63147	0.44272	0.66087	0.51687	0.68743	0.59332	0.71156	0.67178	0.73360	0.75201	0.75382	0.83380	0.77244	0.91696	0.82047	1.17335	0.84728	1.34895
0.2	0.33375	0.12586	0.36773	0.16846	0.39729	0.21418	0.42334	0.26251	0.44651	0.31305	0.46731	0.36548	0.48609	0.41954	0.50315	0.47502	0.51874	0.53176	0.53303	0.58958	0.54620	0.64839	0.58016	0.82969	0.59912	0.95386

＜Hi-Pフリュームの流速・流量表＞

マニング公式による流速・流量計算

流速 ： $V=1/n\cdot R^{(2/3)}\cdot I^{(1/2)}$ （m/sec）
流量 ： $Q=A\cdot V$ （m^3/sec）

ここで、 n：粗度係数 ＝ 0.014
I：勾配（‰）
R：径深（m）＝A/P
A：通水断面積（㎡）
P：潤辺（m）
※水深＝9割とする。

	H1000																							
呼び名	B500×H1000		B600×H1000		B700×H1000		B800×H1000		B900×H1000		B1000×H1000		B1100×H1000		B1200×H1000		B1300×H1000		B1400×H1000		B1500×H1000		B1800×H1000		B2000×H1000	
A	0.41468		0.50468		0.59468		0.68468		0.77468		0.86468		0.95468		1.04468		1.13468		1.22468		1.31468		1.58468		1.76468	
P	2.15608		2.25608		2.35608		2.45608		2.55608		2.65608		2.75608		2.85608		2.95608		3.05608		3.15608		3.45608		3.65608	
$R^{(2/3)}$	0.33320		0.36850		0.39939		0.42674		0.45120		0.47323		0.49322		0.51146		0.52817		0.54355		0.55776		0.59462		0.61532	
I(‰)	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q
100.0	7.52611	3.12093	8.32364	4.20077	9.02127	5.36477	9.63908	6.59969	10.19148	7.89514	10.68927	9.24280	11.14079	10.63589	11.55262	12.06879	11.93008	13.53682	12.27752	15.03603	12.59853	16.56304	13.43107	21.28395	13.89863	24.52663
75.0	6.51781	2.70281	7.20848	3.63798	7.81265	4.64603	8.34768	5.71549	8.82608	6.83739	9.25718	8.00450	9.64821	9.21095	10.00486	10.45188	10.33175	11.72323	10.63264	13.02158	10.91065	14.34401	11.63164	18.43243	12.03657	21.24069
50.0	5.32177	2.20683	5.88570	2.97040	6.37900	3.79346	6.81586	4.66668	7.20646	5.58270	7.55846	6.53565	7.87773	7.52071	8.16894	8.53393	8.43584	9.57198	8.68152	10.63208	8.90851	11.71184	9.49720	15.05002	9.82782	17.34296
40.0	4.75993	1.97385	5.26433	2.65680	5.70555	3.39298	6.09629	4.17401	6.44566	4.99332	6.76049	5.84566	7.04605	6.72672	7.30652	7.63298	7.54525	8.56144	7.76498	9.50962	7.96801	10.47538	8.49455	13.46114	8.79027	15.51201
35.0	4.45251	1.84637	4.92433	2.48521	5.33705	3.17384	5.70255	3.90442	6.02936	4.67082	6.32386	5.46812	6.59098	6.29228	6.83462	7.13999	7.05793	8.00849	7.26348	8.89544	7.45339	9.79882	7.94593	12.59176	8.22254	14.51015
30.0	4.12222	1.70940	4.55904	2.30086	4.94115	2.93840	5.27954	3.61480	5.58210	4.32434	5.85476	5.06249	6.10206	5.82551	6.32763	6.61035	6.53438	7.41443	6.72467	8.23557	6.90050	9.07195	7.35650	11.65770	7.61260	13.43380
25.0	3.76306	1.56047	4.16182	2.10039	4.51063	2.68238	4.81954	3.29984	5.09574	3.94757	5.34464	4.62140	5.57039	5.31794	5.77631	6.03440	5.96504	6.76841	6.13876	7.51802	6.29927	8.28152	6.71553	10.64197	6.94932	12.26333
20.0	3.36578	1.39572	3.72244	1.87864	4.03443	2.39919	4.31073	2.95147	4.55777	3.53081	4.78039	4.13351	4.98231	4.75651	5.16649	5.39733	5.33530	6.05386	5.49067	6.72431	5.63424	7.40722	6.00656	9.51848	6.21566	10.96865
18.0	3.19306	1.32410	3.53142	1.78224	3.82740	2.27608	4.08951	2.80001	4.32388	3.34962	4.53507	3.92138	4.72664	4.51243	4.90136	5.12035	5.06151	5.74319	5.20891	6.37925	5.34511	7.02711	5.69832	9.03001	5.89669	10.40577
16.0	3.01045	1.24837	3.32945	1.68031	3.60851	2.14591	3.85563	2.63987	4.07659	3.15805	4.27571	3.69712	4.45632	4.25436	4.62105	4.82752	4.77203	5.41473	4.91101	6.01442	5.03941	6.62521	5.37243	8.51358	5.55945	9.81065
14.0	2.81601	1.16774	3.11442	1.57179	3.37545	2.00731	3.60661	2.46937	3.81330	2.95409	3.99956	3.45834	4.16850	3.97958	4.32260	4.51573	4.46383	5.06502	4.59383	5.62597	4.71394	6.19732	5.02544	7.96371	5.20039	9.17702
12.0	2.60712	1.08112	2.88339	1.45519	3.12506	1.85841	3.33907	2.28619	3.53043	2.73495	3.70287	3.20180	3.85928	3.68438	4.00195	4.18076	4.13270	4.68929	4.25306	5.20864	4.36426	5.73761	4.65266	7.37298	4.81463	8.49628
10.0	2.37997	0.98693	2.63216	1.32840	2.85277	1.69649	3.04814	2.08700	3.22283	2.49666	3.38024	2.92283	3.52303	3.36337	3.65326	3.81649	3.77262	4.28072	3.88249	4.75481	3.98401	5.23770	4.24728	6.73058	4.39513	7.75600
9.0	2.25783	0.93628	2.49709	1.26023	2.70638	1.60943	2.89172	1.97990	3.05744	2.36854	3.20678	2.77284	3.34224	3.19077	3.46579	3.62064	3.57902	4.06104	3.68326	4.51081	3.77956	4.96891	4.02932	6.38518	4.16959	7.35799
8.0	2.12871	0.88273	2.35428	1.18816	2.55160	1.51739	2.72634	1.86667	2.88259	2.23308	3.02338	2.61426	3.15109	3.00828	3.26758	3.41358	3.37434	3.82880	3.47261	4.25284	3.56340	4.68473	3.79888	6.02001	3.93113	6.93719
7.0	1.99122	0.82572	2.20223	1.11142	2.38680	1.41938	2.55026	1.74611	2.69641	2.08885	2.82812	2.44542	2.94758	2.81400	3.05654	3.19311	3.15640	3.58150	3.24833	3.97816	3.33326	4.38217	3.55353	5.63121	3.67723	6.48913
6.0	1.84351	0.76447	2.03887	1.02898	2.20975	1.31409	2.36108	1.61658	2.49639	1.93390	2.61833	2.26402	2.72892	2.60525	2.82980	2.95624	2.92226	3.31583	3.00737	3.68307	3.08600	4.05710	3.28993	5.21349	3.40446	6.00778
5.5	1.76503	0.73192	1.95207	0.98517	2.11567	1.25815	2.26056	1.54776	2.39011	1.85157	2.50686	2.16763	2.61275	2.49434	2.70933	2.83038	2.79785	3.17466	2.87933	3.52626	2.95462	3.88438	3.14986	4.99152	3.25952	5.75201
5.0	1.68289	0.69786	1.86122	0.93932	2.01722	1.19960	2.15536	1.47573	2.27888	1.76540	2.39019	2.06675	2.49116	2.37826	2.58324	2.69866	2.66765	3.02693	2.74534	3.36216	2.81712	3.70361	3.00328	4.75924	3.10783	5.48433
4.5	1.59653	0.66205	1.76571	0.89112	1.91370	1.13804	2.04476	1.40001	2.16194	1.67481	2.26754	1.96070	2.36332	2.25621	2.45068	2.56018	2.53075	2.87159	2.60445	3.18962	2.67255	3.51355	2.84916	4.51501	2.94835	5.20289
4.0	1.50522	0.62418	1.66473	0.84016	1.80425	1.07295	1.92782	1.31994	2.03830	1.57903	2.13785	1.84856	2.22816	2.12718	2.31052	2.41375	2.38602	2.70737	2.45550	3.00720	2.51971	3.31261	2.68621	4.25678	2.77973	4.90533
3.5	1.40801	0.58387	1.55721	0.78589	1.68772	1.00365	1.80331	1.23469	1.90665	1.47704	1.99978	1.72917	2.08425	1.98979	2.16130	2.25787	2.23191	2.53250	2.29691	2.81298	2.35697	3.09866	2.51272	3.98186	2.60020	4.58852
3.0	1.30356	0.54056	1.44170	0.72760	1.56253	0.92921	1.66954	1.14310	1.76522	1.36748	1.85144	1.60090	1.92964	1.84219	2.00097	2.09037	2.06635	2.34465	2.12653	2.60432	2.18213	2.86880	2.32633	3.68649	2.40731	4.24813
2.5	1.18998	0.49346	1.31608	0.66420	1.42639	0.84825	1.52407	1.04350	1.61141	1.24833	1.69012	1.46141	1.76151	1.68168	1.82663	1.90824	1.88631	2.14036	1.94125	2.37741	1.99200	2.61884	2.12364	3.36529	2.19757	3.87801
2.0	1.06435	0.44136	1.17714	0.59408	1.27580	0.75869	1.36317	0.93334	1.44129	1.11654	1.51169	1.30713	1.57555	1.50415	1.63379	1.70679	1.68717	1.91440	1.73630	2.12641	1.78170	2.34237	1.89944	3.01000	1.96556	3.46858
1.8	1.00973	0.41871	1.11673	0.56359	1.21033	0.71976	1.29322	0.88544	1.36733	1.05924	1.43412	1.24005	1.49469	1.42695	1.54995	1.61920	1.60059	1.81616	1.64720	2.01729	1.69027	2.22216	1.80197	2.85555	1.86470	3.29060
1.6	0.95199	0.39477	1.05287	0.53136	1.14111	0.67860	1.21926	0.83480	1.28913	0.99866	1.35210	1.16913	1.40921	1.34534	1.46130	1.52659	1.50905	1.71229	1.55300	1.90193	1.59360	2.09507	1.69891	2.69223	1.75805	3.10240
1.4	0.89050	0.36927	0.98487	0.49704	1.06741	0.63477	1.14051	0.78088	1.20587	0.93416	1.26477	1.09362	1.31820	1.25846	1.36692	1.42799	1.41159	1.60170	1.45270	1.77909	1.49068	1.95977	1.58919	2.51836	1.64451	2.90203
1.2	0.82444	0.34188	0.91181	0.46017	0.98823	0.58768	1.05591	0.72296	1.11642	0.86487	1.17095	1.01250	1.22041	1.16510	1.26553	1.32207	1.30688	1.48289	1.34493	1.64711	1.38010	1.81439	1.47130	2.33154	1.52252	2.68676
1.0	0.75261	0.31209	0.83236	0.42008	0.90213	0.53648	0.96391	0.65997	1.01915	0.78952	1.06893	0.92428	1.11408	1.06359	1.15526	1.20688	1.19301	1.35368	1.22775	1.50360	1.25985	1.65630	1.34311	2.12840	1.38986	2.45266
0.8	0.67316	0.27915	0.74449	0.37573	0.80689	0.47984	0.86215	0.59030	0.91155	0.70616	0.95608	0.82670	0.99646	0.95130	1.03330	1.07947	1.06706	1.21077	1.09813	1.34486	1.12685	1.48145	1.20131	1.90369	1.24313	2.19373
0.6	0.58297	0.24175	0.64475	0.32539	0.69878	0.41555	0.74664	0.51121	0.78943	0.61156	0.82799	0.71595	0.86296	0.82385	0.89486	0.93484	0.92410	1.04856	0.95101	1.16468	0.97588	1.28297	1.04037	1.64865	1.07658	1.89982
0.4	0.47599	0.19738	0.52643	0.26568	0.57055	0.33929	0.60963	0.41740	0.64457	0.49934	0.67605	0.58457	0.70461	0.67268	0.73065	0.76330	0.75452	0.85614	0.77650	0.95096	0.79680	1.04754	0.84946	1.34612	0.87903	1.55121
0.2	0.33658	0.13957	0.37224	0.18786	0.40344	0.23992	0.43107	0.29515	0.45578	0.35308	0.47804	0.41335	0.49823	0.47565	0.51665	0.53973	0.53353	0.60539	0.54907	0.67244	0.56342	0.74072	0.60066	0.95185	0.62157	1.09687

＜Hi-Pフリュームの流速・流量表＞

マニング公式による流速・流量計算

流速 ： $V=1/n\cdot R^{(2/3)}\cdot I^{(1/2)}$ （m/sec）
流量 ： $Q=A\cdot V$ （m^3/sec）

ここで、 n：粗度係数 ＝ 0.014
I：勾配（‰）
R：径深（m）＝A/P
A：通水断面積（㎡）
P：潤辺（m）
※水深＝9割とする。

	H1100																					
呼び名	B600×H1100		B700×H1100		B800×H1100		B900×H1100		B1000×H1100		B1100×H1100		B1200×H1100		B1300×H1100		B1400×H1100		B1500×H1100		B1800×H1100		B2000×H1100	
A	0.55026		0.64926		0.74826		0.84726		0.94626		1.04526		1.14426		1.24326		1.34226		1.44126		1.73826		1.93626	
P	2.42646		2.52646		2.62646		2.72646		2.82646		2.92646		3.02646		3.12646		3.22646		3.32646		3.62646		3.82646	
$R^{(2/3)}$	0.37187		0.40421		0.43297		0.45879		0.48215		0.50341		0.52287		0.54076		0.55728		0.57259		0.61247		0.63501	
I(‰)	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q
100.0	8.39979	4.62207	9.13011	5.92782	9.77972	7.31777	10.36296	8.78012	10.89056	10.30530	11.37086	11.88551	11.81041	13.51418	12.21457	15.18589	12.58768	16.89594	12.93338	18.64036	13.83439	24.04777	14.34332	27.77240
75.0	7.27443	4.00283	7.90691	5.13364	8.46949	6.33738	8.97458	7.60380	9.43151	8.92466	9.84745	10.29315	10.22812	11.70363	10.57812	13.15135	10.90125	14.63231	11.20063	16.14302	11.98093	20.82597	12.42168	24.05160
50.0	5.93955	3.26830	6.45596	4.19160	6.91531	5.17445	7.32772	6.20848	7.70079	7.28695	8.04041	8.40432	8.35122	9.55597	8.63700	10.73804	8.90083	11.94723	9.14528	13.18073	9.78239	17.00434	10.14226	19.63805
40.0	5.31249	2.92325	5.77439	3.74908	6.18524	4.62817	6.55411	5.55304	6.88780	6.51765	7.19156	7.51705	7.46956	8.54712	7.72517	9.60439	7.96115	10.68593	8.17979	11.78920	8.74963	15.20913	9.07151	17.56480
35.0	4.96938	2.73445	5.40145	3.50695	5.78576	4.32925	6.13081	5.19439	6.44294	6.09670	6.72709	7.03156	6.98714	7.99510	7.22623	8.98408	7.44697	9.99577	7.65149	11.02779	8.18453	14.22684	8.48562	16.43037
30.0	4.60076	2.53161	5.00077	3.24680	5.35657	4.00811	5.67603	4.80907	5.96501	5.64445	6.22807	6.50995	6.46883	7.40202	6.69019	8.31765	6.89455	9.25428	7.08390	10.20974	7.57740	13.17149	7.85616	15.21157
25.0	4.19990	2.31104	4.56506	2.96391	4.88986	3.65889	5.18148	4.39006	5.44528	5.15265	5.68543	5.94275	5.90521	6.75710	6.10728	7.59294	6.29384	8.44797	6.46669	9.32018	6.91719	12.02387	7.17166	13.88620
20.0	3.75650	2.06705	4.08311	2.65100	4.37362	3.27260	4.63446	3.92659	4.87041	4.60867	5.08520	5.31536	5.28178	6.04373	5.46252	6.79133	5.62938	7.55609	5.78398	8.33622	6.18693	10.75449	6.41453	12.42020
18.0	3.56373	1.96098	3.87358	2.51496	4.14918	3.10467	4.39663	3.72509	4.62048	4.37218	4.82425	5.04260	5.01073	5.73358	5.18220	6.44282	5.34050	7.16834	5.48717	7.90844	5.86943	10.20260	6.08535	11.78282
16.0	3.35992	1.84883	3.65204	2.37112	3.91189	2.92711	4.14518	3.51205	4.35623	4.12213	4.54834	4.75420	4.72417	5.40568	4.88583	6.07436	5.03507	6.75837	5.17335	7.45614	5.53375	9.61910	5.73733	11.10896
14.0	3.14291	1.72942	3.41618	2.21799	3.65924	2.73806	3.87746	3.28522	4.07488	3.85590	4.25458	4.44714	4.41905	5.05654	4.57027	5.68203	4.70988	6.32188	4.83923	6.97459	5.17635	8.99784	5.36678	10.39148
12.0	2.90977	1.60113	3.16276	2.05345	3.38779	2.53495	3.58983	3.04152	3.77260	3.56986	3.93898	4.11726	4.09125	4.68145	4.23125	5.26054	4.36050	5.85292	4.48025	6.45721	4.79237	8.33039	4.96867	9.62064
10.0	2.65625	1.46163	2.88719	1.87454	3.09262	2.31408	3.27705	2.77651	3.44390	3.25882	3.59578	3.75853	3.73478	4.27356	3.86258	4.80219	3.98057	5.34296	4.08989	5.89459	4.37482	7.60457	4.53576	8.78241
9.0	2.51994	1.38662	2.73903	1.77834	2.93392	2.19533	3.10889	2.63404	3.26717	3.09159	3.41126	3.56565	3.54312	4.05425	3.66437	4.55576	3.77630	5.06878	3.88001	5.59210	4.15032	7.21434	4.30300	8.33173
8.0	2.37582	1.30732	2.58239	1.67664	2.76612	2.06978	2.93109	2.48340	3.08032	2.91478	3.21616	3.36172	3.34049	3.82239	3.45480	4.29521	3.56033	4.77889	3.65811	5.27229	3.91296	6.80174	4.05690	7.85521
7.0	2.22238	1.22289	2.41560	1.56835	2.58747	1.93610	2.74178	2.32300	2.88137	2.72653	3.00845	3.14461	3.12474	3.57551	3.23167	4.01781	3.33039	4.47025	3.42185	4.93178	3.66023	6.36243	3.79489	7.34789
6.0	2.05752	1.13217	2.23641	1.45201	2.39553	1.79248	2.53840	2.15068	2.66763	2.52427	2.78528	2.91134	2.89295	3.31029	2.99195	3.71977	3.08334	4.13864	3.16802	4.56594	3.38872	5.89048	3.51338	6.80282
5.5	1.96993	1.08397	2.14120	1.39020	2.29355	1.71617	2.43033	2.05912	2.55406	2.41680	2.66670	2.78739	2.76979	3.16936	2.86457	3.56141	2.95207	3.96245	3.03315	4.37156	3.24445	5.63970	3.36381	6.51321
5.0	1.87825	1.03353	2.04156	1.32550	2.18681	1.63630	2.31723	1.96330	2.43520	2.30433	2.54260	2.65768	2.64089	3.02186	2.73126	3.39567	2.81469	3.77805	2.89199	4.16811	3.09346	5.37724	3.20726	6.21009
4.5	1.78186	0.98049	1.93679	1.25748	2.07459	1.55233	2.19832	1.86255	2.31024	2.18609	2.41212	2.52129	2.50537	2.86679	2.59110	3.22141	2.67025	3.58417	2.74358	3.95421	2.93472	5.10131	3.04268	5.89142
4.0	1.67996	0.92441	1.82602	1.18556	1.95594	1.46355	2.07259	1.75602	2.17811	2.06106	2.27417	2.37710	2.36208	2.70283	2.44291	3.03717	2.51754	3.37919	2.58668	3.72808	2.76688	4.80956	2.86866	5.55447
3.5	1.57146	0.86471	1.70809	1.10899	1.82962	1.36903	1.93873	1.64261	2.03744	1.92795	2.12729	2.22357	2.20953	2.52828	2.28514	2.84102	2.35494	3.16094	2.41961	3.48729	2.58818	4.49893	2.68339	5.19574
3.0	1.45489	0.80057	1.58138	1.02673	1.69390	1.26748	1.79492	1.52076	1.88630	1.78493	1.96949	2.05863	2.04562	2.34072	2.11562	2.63027	2.18025	2.92646	2.24013	3.22861	2.39619	4.16520	2.48434	4.81033
2.5	1.32812	0.73081	1.44360	0.93727	1.54631	1.15704	1.63853	1.38826	1.72195	1.62941	1.79789	1.87926	1.86739	2.13678	1.93129	2.40110	1.99029	2.67149	2.04495	2.94730	2.18741	3.80229	2.26788	4.39121
2.0	1.18791	0.65366	1.29119	0.83832	1.38306	1.03489	1.46554	1.24169	1.54016	1.45739	1.60808	1.68086	1.67024	1.91119	1.72740	2.14761	1.78017	2.38945	1.82906	2.63615	1.95648	3.40087	2.02845	3.92761
1.8	1.12695	0.62012	1.22493	0.79530	1.31209	0.98178	1.39034	1.17798	1.46112	1.38260	1.52556	1.59461	1.58453	1.81311	1.63876	2.03740	1.68881	2.26682	1.73519	2.50086	1.85608	3.22635	1.92436	3.72606
1.6	1.06250	0.58465	1.15488	0.74982	1.23705	0.92564	1.31082	1.11061	1.37756	1.30353	1.43831	1.50341	1.49391	1.70942	1.54503	1.92087	1.59223	2.13719	1.63596	2.35784	1.74993	3.04183	1.81430	3.51296
1.4	0.99388	0.54689	1.08029	0.70139	1.15715	0.86585	1.22616	1.03888	1.28859	1.21934	1.34542	1.40631	1.39743	1.59902	1.44525	1.79682	1.48939	1.99915	1.53030	2.20556	1.63691	2.84538	1.69712	3.28607
1.2	0.92015	0.50632	1.00015	0.64936	1.07131	0.80162	1.13521	0.96182	1.19300	1.12889	1.24561	1.30199	1.29377	1.48041	1.33804	1.66353	1.37891	1.85086	1.41678	2.04195	1.51548	2.63430	1.57123	3.04231
1.0	0.83998	0.46221	0.91301	0.59278	0.97797	0.73178	1.03630	0.87802	1.08906	1.03053	1.13709	1.18855	1.18104	1.35142	1.22146	1.51859	1.25877	1.68960	1.29334	1.86404	1.38344	2.40478	1.43433	2.77724
0.8	0.75130	0.41341	0.81662	0.53020	0.87472	0.65452	0.92689	0.78532	0.97408	0.92173	1.01704	1.06307	1.05636	1.20875	1.09250	1.35826	1.12588	1.51122	1.15680	1.66725	1.23739	2.15091	1.28291	2.48405
0.6	0.65065	0.35803	0.70722	0.45917	0.75753	0.56683	0.80271	0.68010	0.84358	0.79825	0.88078	0.92064	0.91483	1.04680	0.94614	1.17630	0.97504	1.30876	1.00182	1.44388	1.07161	1.86274	1.11103	2.15124
0.4	0.53125	0.29233	0.57744	0.37491	0.61852	0.46281	0.65541	0.55530	0.68878	0.65176	0.71916	0.75171	0.74696	0.85472	0.77252	0.96044	0.79611	1.06859	0.81798	1.17892	0.87496	1.52091	0.90715	1.75648
0.2	0.37565	0.20671	0.40831	0.26510	0.43736	0.32726	0.46345	0.39266	0.48704	0.46087	0.50852	0.53154	0.52818	0.60438	0.54625	0.67913	0.56294	0.75561	0.57840	0.83362	0.61869	1.07544	0.64145	1.24201

＜Hi-Pフリュームの流速・流量表＞

マニング公式による流速・流量計算

流速 ： $V=1/n\cdot R^{(2/3)}\cdot I^{(1/2)}$ (m/sec)
流量 ： $Q=A\cdot V$ (m^3/sec)

ここで、 n：粗度係数 ＝ 0.014
I：勾配(‰)
R：径深(m)＝A/P
A：通水断面積(m^2)
P：潤辺(m)
※水深＝9割とする。

	H1200																					
呼び名	B600×H1200		B700×H1200		B800×H1200		B900×H1200		B1000×H1200		B1100×H1200		B1200×H1200		B1300×H1200		B1400×H1200		B1500×H1200		B1800×H1200		B2000×H1200	
A	0.59486		0.70286		0.81086		0.91886		1.02686		1.13486		1.24286		1.35086		1.45886		1.56686		1.89086		2.10686	
P	2.59682		2.69682		2.79682		2.89682		2.99682		3.09682		3.19682		3.29682		3.39682		3.49682		3.79682		3.99682	
$R^{(2/3)}$	0.37438		0.40802		0.43805		0.46511		0.48967		0.51210		0.53268		0.55167		0.56924		0.58556		0.62829		0.65255	
I(‰)	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q
100.0	8.45643	5.03039	9.21616	6.47767	9.89448	8.02304	10.50567	9.65324	11.06044	11.35752	11.56706	13.12699	12.03210	14.95422	12.46088	16.83290	12.85778	18.75770	13.22645	20.72400	14.19161	26.83435	14.73961	31.05429
75.0	7.32349	4.35645	7.98143	5.60983	8.56887	6.94815	9.09818	8.35995	9.57862	9.83590	10.01736	11.36830	10.42010	12.95073	10.79144	14.57772	11.13516	16.24464	11.45444	17.94750	12.29029	23.23922	12.76488	26.89382
50.0	5.97960	3.55702	6.51681	4.58041	6.99645	5.67314	7.42863	6.82587	7.82091	8.03098	8.17914	9.28218	8.50798	10.57423	8.81117	11.90266	9.09182	13.26369	9.35251	14.65407	10.03498	18.97474	10.42248	21.95871
40.0	5.34832	3.18150	5.82881	4.09684	6.25782	5.07422	6.64437	6.10525	6.99524	7.18313	7.31565	8.30224	7.60977	9.45788	7.88095	10.64606	8.13197	11.86341	8.36514	13.10700	8.97556	16.97153	9.32215	19.64046
35.0	5.00289	2.97602	5.45235	3.83224	5.85365	4.74649	6.21524	5.71094	6.54344	6.71920	6.84316	7.76603	7.11828	8.84703	7.37196	9.95849	7.60677	11.09721	7.82487	12.26048	8.39587	15.87541	8.72007	18.37197
30.0	4.63178	2.75526	5.04790	3.54797	5.41943	4.39440	5.75419	5.28730	6.05805	6.22077	6.33554	7.18995	6.59025	8.19076	6.82510	9.21975	7.04250	10.27402	7.24442	11.35099	7.77306	14.69777	8.07322	17.00914
25.0	4.22822	2.51520	4.60808	3.23884	4.94724	4.01152	5.25284	4.82662	5.53022	5.67876	5.78353	6.56350	6.01605	7.47711	6.23044	8.41645	6.42889	9.37885	6.61322	10.36199	7.09580	13.41716	7.36981	15.52716
20.0	3.78183	2.24966	4.12159	2.89690	4.42494	3.58801	4.69828	4.31706	4.94638	5.07924	5.17294	5.87056	5.38092	6.68773	5.57267	7.52790	5.75017	8.38869	5.91505	9.26806	6.34668	12.00068	6.59175	13.88789
18.0	3.58776	2.13421	3.91008	2.74824	4.19787	3.40388	4.45718	4.09552	4.69255	4.81859	4.90749	5.56931	5.10479	6.34454	5.28670	7.14159	5.45509	7.95821	5.61151	8.79245	6.02099	11.38485	6.25349	13.17523
16.0	3.38257	2.01216	3.68646	2.59107	3.95779	3.20921	4.20227	3.86130	4.42418	4.54301	4.62682	5.25079	4.81284	5.98169	4.98435	6.73316	5.14311	7.50308	5.29058	8.28960	5.67664	10.73373	5.89584	12.42171
14.0	3.16411	1.88220	3.44837	2.42372	3.70217	3.00194	3.93086	3.61191	4.13844	4.24960	4.32800	4.91167	4.50200	5.59536	4.66243	6.29829	4.81094	7.01849	4.94888	7.75420	5.31001	10.04049	5.51506	11.61946
12.0	2.92939	1.74258	3.19257	2.24393	3.42755	2.77926	3.63927	3.34398	3.83145	3.93436	4.00695	4.54733	4.16804	5.18029	4.31658	5.83110	4.45407	6.49786	4.58178	7.17901	4.91612	9.29569	5.10595	10.75752
10.0	2.67416	1.59075	2.91440	2.04842	3.12891	2.53711	3.32219	3.05263	3.49762	3.59157	3.65782	4.15111	3.80488	4.72893	3.94048	5.32304	4.06599	5.93171	4.18257	6.55350	4.48778	8.48576	4.66107	9.82022
9.0	2.53693	1.50912	2.76485	1.94330	2.96834	2.40691	3.15170	2.89597	3.31813	3.40725	3.47012	3.93810	3.60963	4.48626	3.73826	5.04987	3.85733	5.62730	3.96793	6.21719	4.25748	8.05030	4.42188	9.31628
8.0	2.39184	1.42281	2.60672	1.83216	2.79858	2.26926	2.97145	2.73035	3.12836	3.21239	3.27166	3.71288	3.40319	4.22969	3.52447	4.76107	3.63673	5.30548	3.74100	5.86162	4.01399	7.58989	4.16899	8.78348
7.0	2.23736	1.33092	2.43837	1.71383	2.61783	2.12269	2.77954	2.55401	2.92632	3.00492	3.06036	3.47308	3.18339	3.95651	3.29684	4.45357	3.40185	4.96282	3.49939	5.48305	3.75475	7.09971	3.89973	8.21619
6.0	2.07139	1.23219	2.25749	1.58670	2.42364	1.96523	2.57335	2.36455	2.70924	2.78201	2.83334	3.21544	2.94725	3.66302	3.05228	4.12320	3.14950	4.59468	3.23980	5.07631	3.47622	6.57305	3.61045	7.60671
5.5	1.98321	1.17973	2.16138	1.51915	2.32046	1.88157	2.46380	2.26389	2.59390	2.66357	2.71272	3.07856	2.82178	3.50708	2.92234	3.94767	3.01542	4.39908	3.10188	4.86021	3.32823	6.29322	3.45675	7.28289
5.0	1.89092	1.12483	2.06080	1.44845	2.21247	1.79400	2.34914	2.15853	2.47319	2.53962	2.58647	2.93528	2.69046	3.34387	2.78634	3.76396	2.87509	4.19435	2.95752	4.63402	3.17334	6.00034	3.29588	6.94396
4.5	1.79388	1.06711	1.95504	1.37412	2.09894	1.70195	2.22859	2.04776	2.34627	2.40929	2.45374	2.78465	2.55239	3.17226	2.64335	3.57080	2.72755	3.97911	2.80575	4.39622	3.01049	5.69242	3.12674	6.58760
4.0	1.69129	1.00608	1.84323	1.29553	1.97890	1.60461	2.10113	1.93064	2.21209	2.27151	2.31341	2.62540	2.40642	2.99084	2.49218	3.36659	2.57156	3.75155	2.64529	4.14480	2.83832	5.36687	2.94792	6.21085
3.5	1.58205	0.94110	1.72419	1.21186	1.85109	1.50097	1.96543	1.80596	2.06922	2.12480	2.16400	2.45584	2.25100	2.79768	2.33122	3.14915	2.40547	3.50924	2.47444	3.87710	2.65501	5.02025	2.75753	5.80973
3.0	1.46470	0.87129	1.59629	1.12197	1.71377	1.38963	1.81964	1.67199	1.91572	1.96718	2.00347	2.27366	2.08402	2.59015	2.15829	2.91555	2.22703	3.24892	2.29089	3.58950	2.45806	4.64785	2.55298	5.37877
2.5	1.33708	0.79538	1.45720	1.02421	1.56445	1.26855	1.66109	1.52631	1.74881	1.79578	1.82891	2.07556	1.90244	2.36447	1.97024	2.66152	2.03299	2.96585	2.09129	3.27676	2.24389	4.24288	2.33054	4.91012
2.0	1.19592	0.71140	1.30336	0.91608	1.39929	1.13463	1.48573	1.36518	1.56418	1.60619	1.63583	1.85644	1.70160	2.11485	1.76223	2.38053	1.81836	2.65273	1.87050	2.93081	2.00700	3.79496	2.08450	4.39175
1.8	1.13455	0.67490	1.23648	0.86907	1.32748	1.07640	1.40948	1.29511	1.48391	1.52377	1.55188	1.76117	1.61428	2.00632	1.67180	2.25837	1.72505	2.51661	1.77451	2.78041	1.90400	3.60020	1.97753	4.16638
1.6	1.06966	0.63630	1.16576	0.81937	1.25156	1.01484	1.32887	1.22105	1.39905	1.43663	1.46313	1.66045	1.52195	1.89157	1.57619	2.12921	1.62639	2.37268	1.67303	2.62140	1.79511	3.39430	1.86443	3.92809
1.4	1.00058	0.59521	1.09047	0.76645	1.17073	0.94930	1.24305	1.14219	1.30869	1.34384	1.36863	1.55320	1.42366	1.76941	1.47439	1.99169	1.52135	2.21944	1.56497	2.45209	1.67917	3.17508	1.74401	3.67438
1.2	0.92636	0.55105	1.00958	0.70959	1.08389	0.87888	1.15084	1.05746	1.21161	1.24415	1.26711	1.43799	1.31805	1.63815	1.36502	1.84395	1.40850	2.05480	1.44888	2.27019	1.55461	2.93955	1.61464	3.40182
1.0	0.84564	0.50304	0.92162	0.64777	0.98945	0.80231	1.05057	0.96533	1.10604	1.13575	1.15671	1.31270	1.20321	1.49542	1.24609	1.68329	1.28578	1.87577	1.32264	2.07239	1.41916	2.68343	1.47396	3.10543
0.8	0.75637	0.44993	0.82432	0.57938	0.88499	0.71760	0.93966	0.86342	0.98928	1.01585	1.03459	1.17411	1.07618	1.33754	1.11453	1.50557	1.15003	1.67773	1.18301	1.85361	1.26934	2.40014	1.31835	2.77758
0.6	0.65503	0.38965	0.71388	0.50176	0.76642	0.62146	0.81377	0.74774	0.85674	0.87975	0.89598	1.01681	0.93200	1.15835	0.96522	1.30388	0.99596	1.45297	1.02452	1.60528	1.09928	2.07858	1.14173	2.40547
0.4	0.53483	0.31815	0.58288	0.40968	0.62578	0.50742	0.66444	0.61053	0.69952	0.71831	0.73156	0.83022	0.76098	0.94579	0.78810	1.06461	0.81320	1.18634	0.83651	1.31069	0.89756	1.69716	0.93221	1.96404
0.2	0.37818	0.22496	0.41216	0.28969	0.44249	0.35880	0.46983	0.43171	0.49464	0.50793	0.51729	0.58705	0.53809	0.66877	0.55727	0.75279	0.57502	0.83887	0.59150	0.92680	0.63467	1.20007	0.65918	1.38880

＜Hi-Pフリュームの流速・流量表＞

マニング公式による流速・流量計算

流速 ： $V=1/n\cdot R^{(2/3)}\cdot I^{(1/2)}$ （m/sec）
流量 ： $Q=A\cdot V$ （m^3/sec）

ここで、 n：粗度係数 ＝ 0.014
I：勾配（‰）
R：径深（m）＝A/P
A：通水断面積（㎡）
P：潤辺（m）
※水深＝9割とする。

	H1300																					
呼び名	B600×H1300		B700×H1300		B800×H1300		B900×H1300		B1000×H1300		B1100×H1300		B1200×H1300		B1300×H1300		B1400×H1300		B1500×H1300		B1800×H1300		B2000×H1300	
A	0.63846		0.75546		0.87246		0.98946		1.10646		1.22346		1.34046		1.45746		1.57446		1.69146		2.04246		2.27646	
P	2.76716		2.86716		2.96716		3.06716		3.16716		3.26716		3.36716		3.46716		3.56716		3.66716		3.96716		4.16716	
$R^{(2/3)}$	0.37618		0.41100		0.44218		0.47037		0.49603		0.51953		0.54116		0.56115		0.57970		0.59697		0.64237		0.66826	
I(‰)	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q
100.0	8.49712	5.42507	9.28350	7.01331	9.98792	8.71406	10.62461	10.51263	11.20424	12.39704	11.73505	14.35736	12.22359	16.38523	12.67517	18.47355	13.09417	20.61625	13.48424	22.80805	14.50957	29.63522	15.09449	34.36200
75.0	7.35872	4.69825	8.03975	6.07371	8.64979	7.54660	9.20119	9.10421	9.70316	10.73616	10.16285	12.43384	10.58594	14.19003	10.97702	15.99857	11.33988	17.85419	11.67770	19.75236	12.56566	25.66486	13.07221	29.75836
50.0	6.00837	3.83610	6.56442	4.95916	7.06253	6.16177	7.51274	7.43356	7.92259	8.76603	8.29793	10.15219	8.64338	11.58611	8.96270	13.06278	9.25898	14.57789	9.53480	16.12773	10.25981	20.95525	10.67342	24.29761
40.0	5.37405	3.43112	5.87140	4.43561	6.31691	5.51125	6.71960	6.64878	7.08618	7.84057	7.42190	9.08040	7.73088	10.36294	8.01648	11.68370	8.28148	13.03886	8.52818	14.42508	9.17666	18.74296	9.54660	21.73245
35.0	5.02696	3.20951	5.49219	4.14913	5.90893	5.15531	6.28561	6.21936	6.62852	7.33419	6.94255	8.49393	7.23157	9.69363	7.49873	10.92910	7.74662	12.19674	7.97739	13.49344	8.58398	17.53244	8.93002	20.32883
30.0	4.65406	2.97143	5.08478	3.84135	5.47061	4.77289	5.81934	5.75800	6.13682	6.79015	6.42755	7.86385	6.69513	8.97455	6.94248	10.11839	7.17197	11.29198	7.38562	12.49248	7.94722	16.23188	8.26759	18.82084
25.0	4.24856	2.71254	4.64175	3.50666	4.99396	4.35703	5.31231	5.25632	5.60212	6.19852	5.86752	7.17868	6.11179	8.19261	6.33759	9.23678	6.54709	10.30813	6.74212	11.40403	7.25478	14.81760	7.54725	17.18101
20.0	3.80003	2.42617	4.15171	3.13645	4.46673	3.89704	4.75147	4.70139	5.01069	5.54413	5.24807	6.42080	5.46655	7.32769	5.66851	8.26163	5.85589	9.21986	6.03034	10.20008	6.48888	13.25328	6.75046	15.36715
18.0	3.60502	2.30166	3.93865	2.97549	4.23752	3.69707	4.50764	4.46013	4.75356	5.25962	4.97876	6.09131	5.18603	6.95167	5.37762	7.83767	5.55539	8.74674	5.72088	9.67664	6.15589	12.57316	6.40405	14.57856
16.0	3.39885	2.17003	3.71340	2.80533	3.99517	3.48563	4.24985	4.20506	4.48170	4.95882	4.69402	5.74295	4.88944	6.55410	5.07007	7.38942	5.23767	8.24650	5.39370	9.12323	5.80383	11.85409	6.03780	13.74481
14.0	3.17933	2.02988	3.47357	2.62414	3.73714	3.26051	3.97537	3.93347	4.19224	4.63855	4.39085	5.37203	4.57365	6.13079	4.74261	6.91216	4.89939	7.71389	5.04534	8.53399	5.42898	11.08847	5.64784	12.85708
12.0	2.94349	1.87930	3.21590	2.42948	3.45992	3.01864	3.68047	3.64168	3.88126	4.29446	4.06514	4.97354	4.23438	5.67602	4.39081	6.39943	4.53595	7.14167	4.67108	7.90094	5.02626	10.26593	5.22889	11.90336
10.0	2.68702	1.71555	2.93570	2.21780	3.15846	2.75563	3.35980	3.32439	3.54309	3.92029	3.71095	4.54020	3.86544	5.18147	4.00824	5.84185	4.14074	6.51943	4.26409	7.21254	4.58833	9.37148	4.77330	10.86623
9.0	2.54913	1.62752	2.78505	2.10399	2.99638	2.61422	3.18738	3.15379	3.36127	3.71911	3.52051	4.30720	3.66708	4.91557	3.80255	5.54206	3.92825	6.18487	4.04527	6.84241	4.35287	8.89056	4.52835	10.30861
8.0	2.40335	1.53444	2.62577	1.98366	2.82501	2.46471	3.00509	2.97342	3.16904	3.50642	3.31917	4.06087	3.45735	4.63444	3.58508	5.22511	3.70359	5.83115	3.81392	6.45109	4.10393	8.38211	4.26937	9.71905
7.0	2.24813	1.43534	2.45618	1.85555	2.64255	2.30552	2.81101	2.78138	2.96436	3.27995	3.10480	3.79860	3.23406	4.33513	3.35353	4.88764	3.46439	5.45454	3.56760	6.03445	3.83887	7.84074	3.99363	9.09134
6.0	2.08136	1.32887	2.27398	1.71790	2.44653	2.13450	2.60249	2.57506	2.74447	3.03665	2.87449	3.51682	2.99416	4.01355	3.10477	4.52508	3.20740	5.04992	3.30295	5.58681	3.55410	7.25911	3.69738	8.41694
5.5	1.99275	1.27229	2.17717	1.64476	2.34237	2.04362	2.49169	2.46543	2.62763	2.90737	2.75211	3.36710	2.86669	3.84268	2.97259	4.33243	3.07086	4.83495	3.16234	5.34897	3.40280	6.95008	3.53997	8.05860
5.0	1.90001	1.21308	2.07585	1.56822	2.23337	1.94853	2.37574	2.35070	2.50534	2.77206	2.62404	3.21041	2.73328	3.66385	2.83425	4.13081	2.92795	4.60994	3.01517	5.10004	3.24444	6.62664	3.37523	7.68358
4.5	1.80251	1.15083	1.96933	1.48775	2.11876	1.84853	2.25382	2.23006	2.37678	2.62981	2.48938	3.04566	2.59301	3.47583	2.68881	3.91883	2.77769	4.37336	2.86044	4.83832	3.07794	6.28657	3.20203	7.28929
4.0	1.69942	1.08501	1.85670	1.40266	1.99758	1.74281	2.12492	2.10252	2.24085	2.47941	2.34701	2.87147	2.44472	3.27705	2.53503	3.69470	2.61883	4.12324	2.69685	4.56161	2.90191	5.92704	3.01890	6.87241
3.5	1.58966	1.01493	1.73678	1.31207	1.86857	1.63025	1.98768	1.96673	2.09612	2.31927	2.19543	2.68602	2.28682	3.06539	2.37131	3.45609	2.44969	3.85694	2.52267	4.26700	2.71449	5.54424	2.82392	6.42854
3.0	1.47174	0.93965	1.60795	1.21474	1.72996	1.50932	1.84024	1.82084	1.94063	2.14723	2.03257	2.48677	2.11719	2.83801	2.19540	3.19971	2.26798	3.57084	2.33554	3.95047	2.51313	5.13297	2.61444	5.95167
2.5	1.34351	0.85778	1.46785	1.10890	1.57923	1.37782	1.67990	1.66219	1.77155	1.96015	1.85547	2.27009	1.93272	2.59073	2.00412	2.92092	2.07037	3.25971	2.13205	3.60628	2.29416	4.68573	2.38665	5.43311
2.0	1.20167	0.76722	1.31288	0.99183	1.41251	1.23236	1.50255	1.48671	1.58452	1.75321	1.65959	2.03044	1.72868	2.31723	1.79254	2.61256	1.85180	2.91559	1.90696	3.22555	2.05196	4.19105	2.13468	4.85951
1.8	1.14001	0.72785	1.24551	0.94093	1.34002	1.16911	1.42544	1.41042	1.50321	1.66324	1.57442	1.92624	1.63997	2.19831	1.70055	2.47848	1.75677	2.76596	1.80910	3.06002	1.94666	3.97598	2.02514	4.61015
1.6	1.07481	0.68622	1.17428	0.88712	1.26338	1.10225	1.34392	1.32976	1.41724	1.56812	1.48438	1.81608	1.54618	2.07259	1.60330	2.33675	1.65630	2.60778	1.70564	2.88502	1.83533	3.74859	1.90932	4.34649
1.4	1.00539	0.64190	1.09844	0.82983	1.18179	1.03106	1.25712	1.24387	1.32570	1.46683	1.38851	1.69879	1.44631	1.93872	1.49975	2.18583	1.54932	2.43934	1.59548	2.69869	1.71680	3.50650	1.78600	4.06576
1.2	0.93081	0.59428	1.01696	0.76827	1.09412	0.95458	1.16387	1.15160	1.22736	1.35802	1.28551	1.57277	1.33903	1.79492	1.38850	2.02368	1.43439	2.25839	1.47712	2.49849	1.58944	3.24637	1.65352	3.76417
1.0	0.84971	0.54251	0.92835	0.70133	0.99879	0.87140	1.06246	1.05126	1.12042	1.23970	1.17350	1.43573	1.22236	1.63852	1.26752	1.84736	1.30942	2.06163	1.34842	2.28080	1.45096	2.96353	1.50945	3.43620
0.8	0.76001	0.48524	0.83034	0.62729	0.89335	0.77941	0.95029	0.94027	1.00214	1.10883	1.04961	1.28416	1.09331	1.46554	1.13370	1.65232	1.17118	1.84398	1.20607	2.04002	1.29778	2.65066	1.35009	3.07343
0.6	0.65818	0.42022	0.71910	0.54325	0.77366	0.67499	0.82298	0.81431	0.86788	0.96027	0.90899	1.11211	0.94684	1.26920	0.98181	1.43095	1.01427	1.59693	1.04448	1.76670	1.12391	2.29554	1.16921	2.66166
0.4	0.53740	0.34311	0.58714	0.44356	0.63169	0.55112	0.67196	0.66488	0.70862	0.78406	0.74219	0.90804	0.77309	1.03630	0.80165	1.16837	0.82815	1.30389	0.85282	1.44251	0.91767	1.87430	0.95466	2.17325
0.2	0.38000	0.24261	0.41517	0.31364	0.44667	0.38970	0.47515	0.47014	0.50107	0.55441	0.52481	0.64208	0.54666	0.73278	0.56685	0.82616	0.58559	0.92199	0.60303	1.02000	0.64889	1.32533	0.67505	1.53672

＜Hi-Pフリュームの流速・流量表＞

マニング公式による流速・流量計算

流速 ： $V=1/n\cdot R^{(2/3)}\cdot I^{(1/2)}$ （m/sec）
流量 ： $Q=A\cdot V$ （m^3/sec）

ここで、 n：粗度係数 ＝ 0.014
I：勾配（‰）
R：径深（m）＝A/P
A：通水断面積（㎡）
P：潤辺（m）
※水深＝9割とする。

	H1400																					
呼び名	B600×H1400		B700×H1400		B800×H1400		B900×H1400		B1000×H1400		B1100×H1400		B1200×H1400		B1300×H1400		B1400×H1400		B1500×H1400		B1800×H1400		B2000×H1400	
A	0.68108		0.80708		0.93308		1.05908		1.18508		1.31108		1.43708		1.56308		1.68908		1.81508		2.19308		2.44508	
P	2.93748		3.03748		3.13748		3.23748		3.33748		3.43748		3.53748		3.63748		3.73748		3.83748		4.13748		4.33748	
$R^{(2/3)}$	0.37741		0.41330		0.44555		0.47477		0.50144		0.52593		0.54852		0.56945		0.58891		0.60706		0.65496		0.68240	
I(‰)	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q
100.0	8.52486	5.80611	9.33557	7.53455	10.06384	9.39037	10.72391	11.35748	11.32638	13.42267	11.87949	15.57496	12.38977	17.80509	12.86251	20.10513	13.30208	22.46828	13.71213	24.88861	14.79396	32.44434	15.41378	37.68793
75.0	7.38275	5.02824	8.08484	6.52511	8.71554	8.13230	9.28718	9.83587	9.80894	11.62438	10.28794	13.48831	10.72986	15.41967	11.13926	17.41155	11.51994	19.45810	11.87506	21.55418	12.81194	28.09761	13.34872	32.63869
50.0	6.02799	4.10554	6.60124	5.32773	7.11621	6.63999	7.58295	8.03095	8.00896	9.49126	8.40007	11.01316	8.76089	12.59010	9.09517	14.21648	9.40599	15.88747	9.69594	17.59891	10.46091	22.94161	10.89919	26.64939
40.0	5.39160	3.67211	5.90433	4.76527	6.36493	5.93899	6.78239	7.18309	7.16343	8.48924	7.51325	9.85047	7.83598	11.26093	8.13496	12.71559	8.41297	14.21018	8.67232	15.74095	9.35652	20.51960	9.74853	23.83594
35.0	5.04338	3.43495	5.52300	4.45750	5.95385	5.55542	6.34435	6.71917	6.70078	7.94096	7.02800	9.21427	7.32989	10.53364	7.60956	11.89435	7.86962	13.29242	8.11221	14.72431	8.75222	19.19432	9.11891	22.29646
30.0	4.66926	3.18014	5.11330	4.12684	5.51219	5.14331	5.87373	6.22075	6.20372	7.35190	6.50667	8.53076	6.78616	9.75225	7.04509	11.01204	7.28585	12.30638	7.51045	13.63207	8.10298	17.77048	8.44247	20.64251
25.0	4.26243	2.90306	4.66778	3.76727	5.03192	4.69518	5.36195	5.67873	5.66319	6.71133	5.93975	7.78749	6.19489	8.90255	6.43125	10.05256	6.65104	11.23414	6.85607	12.44432	7.39698	16.22217	7.70689	18.84396
20.0	3.81243	2.59657	4.17499	3.36955	4.50069	4.19950	4.79588	5.07922	5.06531	6.00280	5.31267	6.96534	5.54087	7.96267	5.75229	8.99129	5.94887	10.04812	6.13225	11.13052	6.61606	14.50955	6.89325	16.85455
18.0	3.61679	2.46332	3.96075	3.19664	4.26973	3.98400	4.54977	4.81857	4.80538	5.69476	5.04004	6.60790	5.25653	7.55405	5.45710	8.52988	5.64359	9.53247	5.81757	10.55935	6.27654	13.76495	6.53951	15.98963
16.0	3.40995	2.32245	3.73423	3.01382	4.02554	3.75615	4.28956	4.54299	4.53055	5.36906	4.75180	6.22999	4.95591	7.12204	5.14500	8.04205	5.32083	8.98731	5.48485	9.95544	5.91758	12.97773	6.16551	15.07517
14.0	3.18971	2.17245	3.49305	2.81917	3.76555	3.51356	4.01252	4.24958	4.23794	5.02230	4.44490	5.82762	4.63583	6.66206	4.81271	7.52265	4.97718	8.40686	5.13061	9.31247	5.53539	12.13955	5.76731	14.10153
12.0	2.95310	2.01130	3.23394	2.61005	3.48622	3.25292	3.71487	3.93434	3.92357	4.64974	4.11518	5.39533	4.29194	6.16786	4.45570	6.96462	4.60798	7.78325	4.75002	8.62167	5.12478	11.23905	5.33949	13.05548
10.0	2.69580	1.83606	2.95217	2.38264	3.18247	2.96950	3.39120	3.59155	3.58172	4.24462	3.75663	4.92524	3.91799	5.63047	4.06748	6.35780	4.20649	7.10510	4.33616	7.87048	4.67826	10.25980	4.87426	11.91796
9.0	2.55746	1.74183	2.80067	2.26036	3.01915	2.81711	3.21717	3.40724	3.39792	4.02681	3.56385	4.67249	3.71693	5.34153	3.85875	6.03153	3.99062	6.74048	4.11364	7.46659	4.43819	9.73331	4.62413	11.30637
8.0	2.41120	1.64222	2.64050	2.13109	2.84649	2.65600	3.03318	3.21238	3.20359	3.79651	3.36003	4.40527	3.50436	5.03605	3.63807	5.68659	3.76240	6.35499	3.87838	7.03957	4.18436	9.17664	4.35967	10.65974
7.0	2.25547	1.53616	2.46996	1.99346	2.66264	2.48446	2.83728	3.00491	2.99668	3.55131	3.14302	4.12075	3.27803	4.71079	3.40310	5.31932	3.51940	5.94455	3.62789	6.58491	3.91411	8.58396	4.07810	9.97128
6.0	2.08816	1.42220	2.28674	1.84558	2.46513	2.30016	2.62681	2.78200	2.77439	3.28787	2.90987	3.81507	3.03486	4.36134	3.15066	4.92473	3.25833	5.50358	3.35877	6.09644	3.62376	7.94720	3.77559	9.23162
5.5	1.99926	1.36166	2.18938	1.76700	2.36018	2.20224	2.51498	2.66357	2.65627	3.14789	2.78599	3.65266	2.90566	4.17567	3.01653	4.71508	3.11961	5.26927	3.21578	5.83690	3.46949	7.60887	3.61485	8.83860
5.0	1.90622	1.29829	2.08750	1.68478	2.25034	2.09975	2.39794	2.53961	2.53266	3.00140	2.65634	3.48267	2.77044	3.98134	2.87614	4.49564	2.97444	5.02407	3.06613	5.56527	3.30803	7.25477	3.44662	8.42726
4.5	1.80840	1.23167	1.98037	1.59832	2.13486	1.99200	2.27488	2.40928	2.40269	2.84738	2.52002	3.30395	2.62827	3.77703	2.72855	4.26494	2.82180	4.76625	2.90878	5.27967	3.13827	6.88248	3.26976	7.99482
4.0	1.70497	1.16122	1.86711	1.50691	2.01277	1.87808	2.14478	2.27149	2.26528	2.68454	2.37590	3.11499	2.47795	3.56101	2.57250	4.02102	2.66042	4.49366	2.74243	4.97773	2.95879	6.48886	3.08276	7.53759
3.5	1.59486	1.08623	1.74652	1.40958	1.88277	1.75678	2.00626	2.12479	2.11897	2.51115	2.22245	2.91381	2.31791	3.33102	2.40636	3.76133	2.48859	4.20343	2.56531	4.65624	2.76770	6.06979	2.88365	7.05075
3.0	1.47655	1.00565	1.61697	1.30502	1.74311	1.62646	1.85744	1.96718	1.96179	2.32488	2.05759	2.69767	2.14597	3.08393	2.22785	3.48231	2.30399	3.89162	2.37501	4.31083	2.56239	5.61953	2.66974	6.52773
2.5	1.34790	0.91803	1.47608	1.19131	1.59123	1.48474	1.69560	1.79578	1.79086	2.12231	1.87831	2.46261	1.95899	2.81523	2.03374	3.17890	2.10324	3.55254	2.16808	3.93524	2.33913	5.12990	2.43713	5.95898
2.0	1.20560	0.82111	1.32025	1.06555	1.42324	1.32800	1.51659	1.60619	1.60179	1.89825	1.68001	2.20263	1.75218	2.51802	1.81903	2.84329	1.88120	3.17750	1.93919	3.51978	2.09218	4.58832	2.17984	5.32988
1.8	1.14373	0.77897	1.25250	1.01087	1.35021	1.25985	1.43876	1.52376	1.51959	1.80084	1.59380	2.08960	1.66226	2.38880	1.72569	2.69739	1.78466	3.01443	1.83968	3.33917	1.98482	4.35287	2.06797	5.05635
1.6	1.07832	0.73442	1.18087	0.95306	1.27299	1.18780	1.35648	1.43662	1.43269	1.69785	1.50265	1.97009	1.56720	2.25219	1.62699	2.54312	1.68259	2.84203	1.73446	3.14818	1.87130	4.10391	1.94971	4.76720
1.4	1.00868	0.68699	1.10460	0.89150	1.19077	1.11108	1.26887	1.34383	1.34016	1.58820	1.40560	1.84285	1.46598	2.10673	1.52191	2.37887	1.57392	2.65848	1.62244	2.94486	1.75044	3.83885	1.82378	4.45929
1.2	0.93385	0.63603	1.02266	0.82537	1.10244	1.02866	1.17475	1.24415	1.24074	1.47038	1.30133	1.70615	1.35723	1.95045	1.40902	2.20241	1.45717	2.46128	1.50209	2.72641	1.62060	3.55411	1.68849	4.12849
1.0	0.85249	0.58061	0.93356	0.75346	1.00638	0.93903	1.07239	1.13575	1.13264	1.34227	1.18795	1.55750	1.23898	1.78051	1.28625	2.01051	1.33021	2.24683	1.37121	2.48886	1.47940	3.24444	1.54138	3.76880
0.8	0.76249	0.51932	0.83500	0.67391	0.90014	0.83990	0.95918	1.01585	1.01306	1.20056	1.06253	1.39306	1.10817	1.59253	1.15046	1.79826	1.18977	2.00962	1.22645	2.22610	1.32321	2.90191	1.37865	3.37091
0.6	0.66033	0.44974	0.72313	0.58362	0.77954	0.72737	0.83067	0.87975	0.87734	1.03972	0.92018	1.20643	0.95971	1.37918	0.99633	1.55734	1.03037	1.74038	1.06214	1.92787	1.14593	2.51312	1.19395	2.91930
0.4	0.53916	0.36721	0.59043	0.47652	0.63649	0.59390	0.67824	0.71831	0.71634	0.84892	0.75133	0.98505	0.78360	1.12610	0.81350	1.27157	0.84130	1.42102	0.86723	1.57409	0.93565	2.05196	0.97485	2.38359
0.2	0.38124	0.25965	0.41750	0.33696	0.45007	0.41995	0.47959	0.50792	0.50653	0.60028	0.53127	0.69654	0.55409	0.79627	0.57523	0.89913	0.59489	1.00482	0.61323	1.11306	0.66161	1.45096	0.68932	1.68544

＜Hi-Pフリュームの流速・流量表＞

マニング公式による流速・流量計算

流速 ： $V=1/n\cdot R^{(2/3)}\cdot I^{(1/2)}$ （m/sec）
流量 ： $Q=A\cdot V$ （m^3/sec）

ここで、 n：粗度係数 ＝ 0.014
I：勾配（‰）
R：径深（m）＝A/P
A：通水断面積（㎡）
P：潤辺（m）
※水深＝9割とする。

	H1500																					
呼び名	B600×H1500		B700×H1500		B800×H1500		B900×H1500		B1000×H1500		B1100×H1500		B1200×H1500		B1300×H1500		B1400×H1500		B1500×H1500		B1800×H1500		B2000×H1500	
A	0.72270		0.85770		0.99270		1.12770		1.26270		1.39770		1.53270		1.66770		1.80270		1.93770		2.34270		2.61270	
P	3.10778		3.20778		3.30778		3.40778		3.50778		3.60778		3.70778		3.80778		3.90778		4.00778		4.30778		4.50778	
$R^{(2/3)}$	0.37816		0.41504		0.44825		0.47843		0.50603		0.53143		0.55492		0.57672		0.59703		0.61601		0.66626		0.69516	
I(‰)	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q
100.0	8.54169	6.17308	9.37474	8.04071	10.12495	10.05104	10.80654	12.18654	11.43011	14.43280	12.00387	16.77781	12.53432	19.21135	13.02675	21.72471	13.48551	24.31033	13.91427	26.96168	15.04922	35.25581	15.70206	41.02477
75.0	7.39732	5.34604	8.11876	6.96346	8.76846	8.70445	9.35874	10.55385	9.89877	12.49918	10.39566	14.53001	10.85504	16.63752	11.28149	18.81414	11.67880	21.05337	12.05011	23.34950	13.03301	30.53243	13.59838	35.52849
50.0	6.03989	4.36503	6.62894	5.68564	7.15942	7.10716	7.64138	8.61718	8.08231	10.20553	8.48802	11.86371	8.86310	13.58447	9.21130	15.36169	9.53570	17.19001	9.83887	19.06478	10.64141	24.92963	11.10303	29.00889
40.0	5.40224	3.90420	5.92911	5.08540	6.40358	6.35683	6.83466	7.70745	7.22904	9.12811	7.59191	10.61121	7.92740	12.15033	8.23884	13.73991	8.52899	15.37521	8.80016	17.05207	9.51796	22.29772	9.93085	25.94633
35.0	5.05333	3.65204	5.54617	4.75695	5.99000	5.94627	6.39324	7.20966	6.76215	8.53857	7.10158	9.92588	7.41540	11.36558	7.70673	12.85251	7.97814	14.38219	8.23179	15.95074	8.90324	20.85762	9.28946	24.27057
30.0	4.67848	3.38114	5.13476	4.40408	5.54566	5.50518	5.91899	6.67485	6.26053	7.90517	6.57479	9.18958	6.86533	10.52249	7.13504	11.89911	7.38632	13.31532	7.62116	14.76752	8.24280	19.31041	8.60037	22.47019
25.0	4.27085	3.08654	4.68737	4.02036	5.06248	5.02552	5.40327	6.09327	5.71506	7.21641	6.00193	8.38890	6.26716	9.60568	6.51337	10.86235	6.74276	12.15517	6.95713	13.48083	7.52461	17.62790	7.85103	20.51239
20.0	3.81996	2.76069	4.19251	3.59592	4.52802	4.49497	4.83283	5.44998	5.11170	6.45454	5.36829	7.50326	5.60552	8.59158	5.82574	9.71559	6.03091	10.87192	6.22265	12.05763	6.73022	15.76689	7.02217	18.34682
18.0	3.62393	2.61901	3.97736	3.41138	4.29565	4.26429	4.58483	5.17031	4.84939	6.12332	5.09281	7.11822	5.31786	8.15068	5.52678	9.21701	5.72142	10.31400	5.90332	11.43886	6.38484	14.95776	6.66182	17.40534
16.0	3.41668	2.46923	3.74990	3.21629	4.04998	4.02042	4.32262	4.87462	4.57205	5.77313	4.80155	6.71113	5.01373	7.68454	5.21070	8.68988	5.39421	9.72414	5.56571	10.78468	6.01969	14.10233	6.28082	16.40990
14.0	3.19601	2.30976	3.50771	3.00856	3.78841	3.76075	4.04344	4.55979	4.27676	5.40026	4.49144	6.27769	4.68991	7.18823	4.87416	8.12864	5.04582	9.09610	5.20624	10.08813	5.63090	13.19151	5.87517	15.35006
12.0	2.95893	2.13842	3.24750	2.78538	3.50739	3.48179	3.74350	4.22154	3.95951	4.99967	4.15826	5.81200	4.34202	6.65501	4.51260	7.52566	4.67152	8.42135	4.82004	9.33979	5.21320	12.21296	5.43935	14.21139
10.0	2.70112	1.95210	2.96455	2.54269	3.20179	3.17842	3.41733	3.85372	3.61452	4.56405	3.79596	5.30561	3.96370	6.07516	4.11942	6.86996	4.26449	7.68760	4.40008	8.52604	4.75898	11.14886	4.96543	12.97318
9.0	2.56251	1.85193	2.81242	2.41221	3.03749	3.01532	3.24196	3.65596	3.42903	4.32984	3.60116	5.03334	3.76030	5.76341	3.90802	6.51740	4.04565	7.29309	4.17428	8.08850	4.51477	10.57675	4.71062	12.30744
8.0	2.41595	1.74601	2.65158	2.27426	2.86377	2.84286	3.05655	3.44687	3.23292	4.08221	3.39521	4.74549	3.54524	5.43379	3.68452	6.14467	3.81428	6.87600	3.93555	7.62592	4.25656	9.97184	4.44121	11.60355
7.0	2.25992	1.63324	2.48032	2.12737	2.67881	2.65925	2.85914	3.22425	3.02412	3.81856	3.17593	4.43900	3.31627	5.08285	3.44655	5.74781	3.56793	6.43191	3.68137	7.13339	3.98165	9.32781	4.15437	10.85412
6.0	2.09228	1.51209	2.29633	1.96956	2.48010	2.46200	2.64705	2.98508	2.79979	3.53529	2.94034	4.10971	3.07027	4.70580	3.19089	5.32145	3.30326	5.95479	3.40829	6.60424	3.68629	8.63587	3.84620	10.04897
5.5	2.00320	1.44771	2.19857	1.88571	2.37451	2.35718	2.53436	2.85800	2.68060	3.38479	2.81516	3.93475	2.93956	4.50546	3.05504	5.09489	3.16263	5.70127	3.26319	6.32308	3.52936	8.26823	3.68246	9.62116
5.0	1.90998	1.38034	2.09626	1.79796	2.26401	2.24748	2.41642	2.72500	2.55585	3.22727	2.68415	3.75164	2.80276	4.29579	2.91287	4.85779	3.01545	5.43595	3.11133	6.02882	3.36511	7.88344	3.51109	9.17342
4.5	1.81197	1.30951	1.98868	1.70569	2.14783	2.13215	2.29241	2.58515	2.42469	3.06166	2.54641	3.55912	2.65893	4.07534	2.76339	4.60851	2.86071	5.15700	2.95166	5.71943	3.19242	7.47888	3.33091	8.70267
4.0	1.70834	1.23462	1.87495	1.60814	2.02499	2.01021	2.16131	2.43731	2.28602	2.88656	2.40077	3.35556	2.50686	3.84226	2.60535	4.34494	2.69710	4.86206	2.78285	5.39233	3.00984	7.05115	3.14041	8.20495
3.5	1.59800	1.15487	1.75385	1.50428	1.89420	1.88037	2.02172	2.27989	2.13838	2.70013	2.24572	3.13884	2.34496	3.59412	2.43708	4.06432	2.52291	4.54805	2.60312	5.04407	2.81545	6.59575	2.93759	7.67504
3.0	1.47946	1.06921	1.62375	1.39269	1.75369	1.74089	1.87175	2.11077	1.97975	2.49983	2.07913	2.90600	2.17101	3.32751	2.25630	3.76283	2.33576	4.21067	2.41002	4.66990	2.60660	6.10648	2.71968	7.10571
2.5	1.35056	0.97605	1.48228	1.27135	1.60090	1.58921	1.70866	1.92686	1.80726	2.28203	1.89798	2.65281	1.98185	3.03758	2.05971	3.43498	2.13225	3.84381	2.20004	4.26302	2.37949	5.57443	2.48271	6.48658
2.0	1.20798	0.87301	1.32579	1.13713	1.43188	1.42143	1.52828	1.72344	1.61646	2.04110	1.69760	2.37274	1.77262	2.71689	1.84226	3.07234	1.90714	3.43800	1.96777	3.81295	2.12828	4.98592	2.22061	5.80179
1.8	1.14599	0.82821	1.25775	1.07877	1.35840	1.34848	1.44985	1.63500	1.53351	1.93636	1.61049	2.25098	1.68166	2.57748	1.74772	2.91467	1.80927	3.26157	1.86680	3.61730	2.01907	4.73008	2.10665	5.50404
1.6	1.08045	0.78084	1.18582	1.01708	1.28072	1.27137	1.36693	1.54149	1.44581	1.82562	1.51838	2.12224	1.58548	2.43007	1.64777	2.74799	1.70580	3.07505	1.76003	3.41041	1.90359	4.45954	1.98617	5.18927
1.4	1.01067	0.73041	1.10923	0.95139	1.19800	1.18925	1.27865	1.44193	1.35243	1.70771	1.42032	1.98518	1.48308	2.27312	1.54135	2.57051	1.59563	2.87644	1.64636	3.19015	1.78065	4.17153	1.85789	4.85411
1.2	0.93570	0.67623	1.02695	0.88082	1.10913	1.10103	1.18380	1.33497	1.25211	1.58104	1.31496	1.83792	1.37307	2.10450	1.42701	2.37982	1.47726	2.66306	1.52423	2.95350	1.64856	3.86208	1.72007	4.49403
1.0	0.85417	0.61731	0.93747	0.80407	1.01250	1.00511	1.08065	1.21865	1.14301	1.44328	1.20039	1.67779	1.25343	1.92113	1.30267	2.17246	1.34855	2.43103	1.39143	2.69617	1.50492	3.52558	1.57021	4.10249
0.8	0.76399	0.55214	0.83850	0.71918	0.90560	0.89899	0.96657	1.09000	1.02234	1.29091	1.07366	1.50065	1.12110	1.71831	1.16515	1.94312	1.20618	2.17438	1.24453	2.41153	1.34604	3.15337	1.40443	3.66935
0.6	0.66164	0.47817	0.72616	0.62283	0.78428	0.77855	0.83707	0.94396	0.88537	1.11796	0.92982	1.29961	0.97090	1.48810	1.00905	1.68279	1.04458	1.88306	1.07779	2.08843	1.16571	2.73091	1.21628	3.17777
0.4	0.54022	0.39042	0.59291	0.50854	0.64036	0.63569	0.68347	0.77075	0.72290	0.91281	0.75919	1.06112	0.79274	1.21503	0.82388	1.37398	0.85290	1.53752	0.88002	1.70521	0.95180	2.22978	0.99309	2.59465
0.2	0.38200	0.27607	0.41925	0.35959	0.45280	0.44949	0.48328	0.54499	0.51117	0.64545	0.53683	0.75033	0.56055	0.85915	0.58257	0.97155	0.60309	1.08719	0.62227	1.20577	0.67302	1.57668	0.70222	1.83469

＜Hi-Pフリュームの流速・流量表＞

マニング公式による流速・流量計算

流速 ： $V=1/n\cdot R^{(2/3)}\cdot I^{(1/2)}$ (m/sec)
流量 ： $Q=A\cdot V$ (m^3/sec)

ここで、 n：粗度係数 ＝ 0.014
I：勾配(‰)
R：径深(m)＝A/P
A：通水断面積(m^2)
P：潤辺(m)
※水深＝9割とする。

	H1600																					
呼び名	B700×H1600		B800×H1600		B900×H1600		B1000×H1600		B1100×H1600		B1200×H1600		B1300×H1600		B1400×H1600		B1500×H1600		B1800×H1600		B2000×H1600	
A	0.90734		1.05134		1.19534		1.33934		1.48334		1.62734		1.77134		1.91534		2.05934		2.49134		2.77934	
P	3.37806		3.47806		3.57806		3.67806		3.77806		3.87806		3.97806		4.07806		4.17806		4.47806		4.67806	
$R^{(2/3)}$	0.41630		0.45041		0.48146		0.50993		0.53618		0.56050		0.58311		0.60422		0.62398		0.67644		0.70673	
I(‰)	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q
100.0	9.40316	8.53186	10.17363	10.69594	10.87513	12.99948	11.51825	15.42685	12.11118	17.96500	12.66041	20.60279	13.17121	23.33069	13.64793	26.14043	14.09421	29.02477	15.27920	38.06568	15.96330	44.36744
75.0	8.14337	7.38881	8.81062	9.26296	9.41814	11.25788	9.97510	13.36005	10.48859	15.55815	10.96424	17.84255	11.40660	20.20497	11.81945	22.63827	12.20595	25.13620	13.23218	32.96586	13.82462	38.42332
50.0	6.64904	6.03294	7.19384	7.56317	7.68988	9.19202	8.14464	10.90844	8.56390	12.70318	8.95226	14.56837	9.31345	16.49729	9.65054	18.48407	9.96611	20.52361	10.80403	26.91651	11.28775	31.37250
40.0	5.94708	5.39602	6.43437	6.76471	6.87804	8.22160	7.28478	9.75680	7.65978	11.36206	8.00715	13.03036	8.33021	14.75563	8.63171	16.53266	8.91396	18.35687	9.66342	24.07486	10.09607	28.06041
35.0	5.56298	5.04751	6.01880	6.32781	6.43381	7.69059	6.81429	9.12665	7.16507	10.62823	7.49000	12.18878	7.79219	13.80262	8.07422	15.46488	8.33825	17.17129	9.03930	22.51997	9.44401	26.24811
30.0	5.15032	4.67309	5.57233	5.85841	5.95655	7.12010	6.30881	8.44964	6.63357	9.83984	6.93439	11.28461	7.21417	12.77875	7.47528	14.31770	7.71972	15.89753	8.36876	20.84943	8.74346	24.30105
25.0	4.70158	4.26593	5.08682	5.34798	5.43757	6.49974	5.75913	7.71343	6.05559	8.98250	6.33021	10.30140	6.58561	11.66535	6.82397	13.07022	7.04711	14.51240	7.63960	19.03284	7.98165	22.18372
20.0	4.20522	3.81556	4.54979	4.78338	4.86351	5.81355	5.15112	6.89910	5.41629	8.03420	5.66191	9.21385	5.89034	10.43379	6.10354	11.69035	6.30312	12.98027	6.83307	17.02350	7.13900	19.84171
18.0	3.98942	3.61976	4.31631	4.53791	4.61393	5.51522	4.88678	6.54506	5.13834	7.62191	5.37136	8.74103	5.58807	9.89837	5.79033	11.09045	5.97967	12.31417	6.48242	16.14991	6.77265	18.82350
16.0	3.76126	3.41274	4.06945	4.27838	4.35005	5.19979	4.60730	6.17074	4.84447	7.18600	5.06416	8.24111	5.26848	9.33227	5.45917	10.45617	5.63769	11.60992	6.11168	15.22627	6.38532	17.74698
14.0	3.51834	3.19233	3.80662	4.00205	4.06910	4.86396	4.30974	5.77221	4.53159	6.72189	4.73709	7.70886	4.92822	8.72955	5.10659	9.78086	5.27357	10.86007	5.71695	14.24287	5.97292	16.60078
12.0	3.25735	2.95552	3.52425	3.70518	3.76726	4.50316	3.99004	5.34402	4.19544	6.22326	4.38570	7.13703	4.56264	8.08199	4.72778	9.05531	4.88238	10.05448	5.29287	13.18634	5.52985	15.36933
10.0	2.97354	2.69801	3.21719	3.38236	3.43902	4.11080	3.64239	4.87840	3.82989	5.68103	4.00357	6.51517	4.16510	7.37781	4.31585	8.26632	4.45698	9.17844	4.83171	12.03743	5.04804	14.03022
9.0	2.82095	2.55956	3.05209	3.20878	3.26254	3.89984	3.45548	4.62806	3.63335	5.38949	3.79812	6.18083	3.95136	6.99920	4.09438	7.84213	4.22826	8.70742	4.58376	11.41970	4.78899	13.31023
8.0	2.65961	2.41317	2.87754	3.02527	3.07595	3.67681	3.25785	4.36337	3.42556	5.08127	3.58091	5.82736	3.72538	6.59891	3.86022	7.39363	3.98645	8.20946	4.32161	10.76660	4.51510	12.54900
7.0	2.48784	2.25732	2.69169	2.82988	2.87729	3.43934	3.04744	4.08156	3.20432	4.75310	3.34963	5.45099	3.48477	6.17271	3.61090	6.91610	3.72898	7.67924	4.04250	10.07124	4.22349	11.73851
6.0	2.30329	2.08987	2.49202	2.61996	2.66385	3.18421	2.82138	3.77879	2.96662	4.40051	3.10115	5.04663	3.22627	5.71482	3.34305	6.40308	3.45236	7.10958	3.74263	9.32416	3.91019	10.86775
5.5	2.20524	2.00090	2.38593	2.50842	2.55044	3.04864	2.70127	3.61792	2.84032	4.21316	2.96913	4.83178	3.08892	5.47153	3.20072	6.13047	3.30539	6.80692	3.58329	8.92719	3.74372	10.40507
5.0	2.10261	1.90778	2.27489	2.39168	2.43175	2.90677	2.57556	3.44955	2.70814	4.01709	2.83095	4.60692	2.94517	5.21690	3.05177	5.84518	3.15156	6.49013	3.41653	8.51174	3.56950	9.92085
4.5	1.99471	1.80988	2.15815	2.26895	2.30696	2.75760	2.44339	3.27253	2.56917	3.81095	2.68568	4.37051	2.79404	4.94919	2.89516	5.54522	2.98983	6.15708	3.24121	8.07496	3.38633	9.41176
4.0	1.88063	1.70637	2.03473	2.13919	2.17503	2.59990	2.30365	3.08537	2.42224	3.59301	2.53208	4.12056	2.63424	4.66613	2.72959	5.22809	2.81884	5.80495	3.05584	7.61314	3.19266	8.87349
3.5	1.75917	1.59617	1.90331	2.00103	2.03455	2.43198	2.15487	2.88610	2.26579	3.36094	2.36855	3.85444	2.46411	4.36478	2.55329	4.89042	2.63679	5.43005	2.85848	7.12145	2.98646	8.30039
3.0	1.62867	1.47776	1.76212	1.85259	1.88363	2.25158	1.99502	2.67201	2.09772	3.11163	2.19285	3.56851	2.28132	4.04099	2.36389	4.52765	2.44119	5.02724	2.64644	6.59318	2.76492	7.68465
2.5	1.48677	1.34901	1.60859	1.69118	1.71951	2.05540	1.82120	2.43921	1.91495	2.84052	2.00179	3.25759	2.08255	3.68890	2.15793	4.13317	2.22849	4.58922	2.41585	6.01870	2.52402	7.01511
2.0	1.32981	1.20659	1.43877	1.51264	1.53798	1.83841	1.62893	2.18169	1.71278	2.54064	1.79045	2.91367	1.86269	3.29946	1.93011	3.69682	1.99322	4.10472	2.16081	5.38331	2.25755	6.27450
1.8	1.26157	1.14467	1.36494	1.43502	1.45905	1.74406	1.54534	2.06974	1.62489	2.41026	1.69857	2.76415	1.76710	3.13013	1.83106	3.50710	1.89094	3.89409	2.04992	5.10705	2.14170	5.95251
1.6	1.18942	1.07921	1.28687	1.35294	1.37561	1.64432	1.45696	1.95136	1.53196	2.27242	1.60143	2.60607	1.66604	2.95112	1.72634	3.30653	1.78279	3.67137	1.93268	4.81496	2.01921	5.61207
1.4	1.11260	1.00951	1.20376	1.26556	1.28676	1.53812	1.36286	1.82533	1.43301	2.12564	1.49800	2.43776	1.55844	2.76053	1.61484	3.09297	1.66765	3.43426	1.80786	4.50399	1.88880	5.24962
1.2	1.03006	0.93461	1.11447	1.17169	1.19131	1.42402	1.26176	1.68993	1.32671	1.96796	1.38688	2.25693	1.44283	2.55574	1.49506	2.86355	1.54394	3.17950	1.67375	4.16988	1.74869	4.86020
1.0	0.94032	0.85319	1.01736	1.06959	1.08751	1.29994	1.15183	1.54269	1.21112	1.79650	1.26604	2.06028	1.31712	2.33307	1.36479	2.61404	1.40942	2.90247	1.52792	3.80657	1.59633	4.43674
0.8	0.84104	0.76311	0.90996	0.95668	0.97270	1.16271	1.03022	1.37981	1.08326	1.60684	1.13238	1.84277	1.17807	2.08676	1.22071	2.33807	1.26062	2.59605	1.36661	3.40469	1.42780	3.96834
0.6	0.72837	0.66088	0.78805	0.82851	0.84238	1.00693	0.89220	1.19496	0.93813	1.39157	0.98067	1.59588	1.02024	1.80719	1.05716	2.02482	1.09173	2.24824	1.18352	2.94855	1.23651	3.43668
0.4	0.59471	0.53960	0.64344	0.67647	0.68780	0.82215	0.72848	0.97568	0.76598	1.13621	0.80071	1.30303	0.83302	1.47556	0.86317	1.65326	0.89140	1.83570	0.96634	2.40748	1.00961	2.80605
0.2	0.42052	0.38155	0.45498	0.47834	0.48635	0.58135	0.51511	0.68991	0.54163	0.80342	0.56619	0.92138	0.58903	1.04337	0.61035	1.16903	0.63031	1.29802	0.68331	1.70236	0.71390	1.98417

＜Hi-Pフリュームの流速・流量表＞

マニング公式による流速・流量計算

流速 ： $V=1/n\cdot R^{(2/3)}\cdot I^{(1/2)}$ (m/sec)
流量 ： $Q=A\cdot V$ (m^3/sec)

ここで、 n：粗度係数 ＝ 0.014
I：勾配(‰)
R：径深(m)＝A/P
A：通水断面積(m^2)
P：潤辺(m)
※水深＝9割とする。

	H1700																			
呼び名	B800×H1700		B900×H1700		B1000×H1700		B1100×H1700		B1200×H1700		B1300×H1700		B1400×H1700		B1500×H1700		B1800×H1700		B2000×H1700	
A	1.10898		1.26198		1.41498		1.56798		1.72098		1.87398		2.02698		2.17998		2.63898		2.94498	
P	3.64834		3.74834		3.84834		3.94834		4.04834		4.14834		4.24834		4.34834		4.64834		4.84834	
$R^{(2/3)}$	0.45208		0.48396		0.51324		0.54028		0.56537		0.58874		0.61060		0.63108		0.68563		0.71723	
I(‰)	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q
100.0	10.21153	11.32438	10.93153	13.79537	11.59284	16.40364	12.20364	19.13506	12.77040	21.97760	13.29839	24.92092	13.79194	27.95599	14.25470	31.07496	15.48689	40.86959	16.20061	47.71047
75.0	8.84345	9.80721	9.46698	11.94714	10.03969	14.20596	10.56866	16.57145	11.05949	19.03316	11.51674	21.58214	11.94417	24.21059	12.34493	26.91170	13.41204	35.39411	14.03014	41.31848
50.0	7.22064	8.00755	7.72976	9.75480	8.19738	11.59913	8.62927	13.53052	9.03004	15.54052	9.40338	17.62175	9.75238	19.76788	10.07959	21.97330	10.95088	28.89915	11.45556	33.73640
40.0	6.45834	7.16217	6.91371	8.72496	7.33196	10.37458	7.71826	12.10208	8.07671	13.89986	8.41064	15.76137	8.72279	17.68092	9.01546	19.65352	9.79477	25.84820	10.24617	30.17477
35.0	6.04122	6.69959	6.46718	8.16145	6.85842	9.70453	7.21977	11.32045	7.55507	13.00212	7.86743	14.74341	8.15942	16.53898	8.43319	18.38419	9.16217	24.17878	9.58441	28.22590
30.0	5.59309	6.20262	5.98745	7.55604	6.34966	8.98464	6.68421	10.48071	6.99464	12.03764	7.28383	13.64975	7.55416	15.31213	7.80762	17.02046	8.48252	22.38520	8.87344	26.13210
25.0	5.10577	5.66220	5.46577	6.89769	5.79642	8.20182	6.10182	9.56753	6.38520	10.98880	6.64919	12.46045	6.89597	13.97799	7.12735	15.53748	7.74344	20.43478	8.10031	23.85525
20.0	4.56674	5.06442	4.88873	6.16948	5.18448	7.33594	5.45763	8.55745	5.71110	9.82869	5.94722	11.14497	6.16794	12.50229	6.37489	13.89713	6.92595	18.27744	7.24514	21.33679
18.0	4.33239	4.80453	4.63786	5.85289	4.91843	6.95948	5.17756	8.11831	5.41802	9.32430	5.64203	10.57305	5.85143	11.86073	6.04776	13.18400	6.57053	17.33950	6.87334	20.24185
16.0	4.08461	4.52975	4.37261	5.51815	4.63714	6.56146	4.88145	7.65402	5.10816	8.79104	5.31936	9.96837	5.51678	11.18240	5.70188	12.42998	6.19475	16.34782	6.48025	19.08421
14.0	3.82081	4.23720	4.09020	5.16175	4.33764	6.13767	4.56618	7.15968	4.77825	8.22327	4.97580	9.32455	5.16047	10.46017	5.33362	11.62718	5.79466	15.29199	6.06171	17.85161
12.0	3.53738	3.92288	3.78679	4.77885	4.01588	5.68239	4.22746	6.62857	4.42380	7.61327	4.60670	8.63286	4.77767	9.68424	4.93797	10.76468	5.36481	14.15763	5.61206	16.52740
10.0	3.22917	3.58108	3.45685	4.36248	3.66598	5.18729	3.85913	6.05104	4.03836	6.94994	4.20532	7.88069	4.36140	8.84047	4.50773	9.82676	4.89738	12.92409	5.12308	15.08737
9.0	3.06346	3.39732	3.27946	4.13861	3.47785	4.92109	3.66109	5.74052	3.83112	6.59328	3.98952	7.47628	4.13758	8.38679	4.27641	9.32249	4.64607	12.26089	4.86018	14.31313
8.0	2.88826	3.20302	3.09190	3.90192	3.27895	4.63965	3.45171	5.41221	3.61201	6.21620	3.76135	7.04869	3.90095	7.90715	4.03184	8.78933	4.38035	11.55966	4.58223	13.49458
7.0	2.70172	2.99615	2.89221	3.64991	3.06718	4.34000	3.22878	5.06266	3.37873	5.81473	3.51842	6.59345	3.64900	7.39645	3.77144	8.22166	4.09744	10.81306	4.28628	12.62301
6.0	2.50130	2.77389	2.67767	3.37917	2.83965	4.01805	2.98927	4.68712	3.12810	5.38340	3.25743	6.10436	3.37832	6.84779	3.49167	7.61177	3.79350	10.01097	3.96832	11.68662
5.5	2.39482	2.65581	2.56367	3.23530	2.71876	3.84699	2.86201	4.48757	2.99492	5.15420	3.11875	5.84448	3.23450	6.55627	3.34302	7.28772	3.63200	9.58478	3.79938	11.18910
5.0	2.28337	2.53221	2.44436	3.08473	2.59224	3.66797	2.72882	4.27874	2.85555	4.91434	2.97361	5.57249	3.08397	6.25115	3.18745	6.94858	3.46297	9.13871	3.62257	10.66840
4.5	2.16619	2.40226	2.31893	2.92644	2.45921	3.47973	2.58878	4.05916	2.70901	4.66215	2.82101	5.28652	2.92571	5.93036	3.02388	6.59200	3.28526	8.66974	3.43667	10.12092
4.0	2.04231	2.26488	2.18631	2.75908	2.31857	3.28073	2.44073	3.82702	2.55408	4.39552	2.65968	4.98419	2.75839	5.59120	2.85094	6.21499	3.09738	8.17392	3.24012	9.54209
3.5	1.91040	2.11860	2.04510	2.58088	2.16882	3.06884	2.28309	3.57984	2.38912	4.11163	2.48790	4.66227	2.58024	5.23009	2.66681	5.81359	2.89733	7.64600	3.03086	8.92582
3.0	1.76869	1.96144	1.89340	2.38943	2.00794	2.84119	2.11373	3.31429	2.21190	3.80664	2.30335	4.31643	2.38883	4.84211	2.46899	5.38235	2.68241	7.07883	2.80603	8.26370
2.5	1.61458	1.79054	1.72843	2.18124	1.83299	2.59364	1.92956	3.02551	2.01918	3.47497	2.10266	3.94034	2.18070	4.42024	2.25387	4.91339	2.44869	6.46204	2.56154	7.54368
2.0	1.44413	1.60151	1.54595	1.95096	1.63948	2.31983	1.72585	2.70610	1.80601	3.10811	1.88068	3.52436	1.95048	3.95358	2.01592	4.39467	2.19018	5.77984	2.29111	6.74727
1.8	1.37002	1.51932	1.46662	1.85085	1.55534	2.20077	1.63729	2.56724	1.71333	2.94861	1.78417	3.34350	1.85038	3.75068	1.91247	4.16915	2.07778	5.48322	2.17354	6.40103
1.6	1.29167	1.43244	1.38274	1.74499	1.46639	2.07491	1.54365	2.42041	1.61534	2.77997	1.68213	3.15228	1.74456	3.53619	1.80309	3.93070	1.95895	5.16963	2.04923	6.03494
1.4	1.20824	1.33991	1.29344	1.63230	1.37168	1.94090	1.44395	2.26408	1.51101	2.60042	1.57349	2.94869	1.63188	3.30779	1.68664	3.67684	1.83243	4.83575	1.91688	5.64517
1.2	1.11862	1.24053	1.19749	1.51121	1.26993	1.79693	1.33684	2.09614	1.39893	2.40753	1.45677	2.72996	1.51083	3.06242	1.56152	3.40408	1.69650	4.47703	1.77469	5.22643
1.0	1.02115	1.13243	1.09315	1.37953	1.15928	1.64036	1.22036	1.91350	1.27704	2.19776	1.32984	2.49209	1.37919	2.79559	1.42547	3.10750	1.54869	4.08696	1.62006	4.77104
0.8	0.91335	1.01289	0.97775	1.23390	1.03690	1.46719	1.09153	1.71150	1.14222	1.96574	1.18944	2.22899	1.23359	2.50046	1.27498	2.77943	1.38519	3.65549	1.44903	4.26736
0.6	0.79098	0.87718	0.84675	1.06858	0.89798	1.27062	0.94529	1.48220	0.98919	1.70238	1.03009	1.93037	1.06832	2.16546	1.10416	2.40705	1.19961	3.16575	1.25489	3.69563
0.4	0.64583	0.71621	0.69137	0.87250	0.73320	1.03746	0.77183	1.21021	0.80767	1.38998	0.84106	1.57613	0.87228	1.76809	0.90155	1.96536	0.97948	2.58483	1.02462	3.01749
0.2	0.45667	0.50644	0.48887	0.61694	0.51845	0.73360	0.54576	0.85574	0.57111	0.98287	0.59472	1.11449	0.61679	1.25022	0.63749	1.38972	0.69259	1.82773	0.72451	2.13367

＜Hi-Pフリュームの流速・流量表＞

マニング公式による流速・流量計算

流速 ： $V=1/n\cdot R^{(2/3)}\cdot I^{(1/2)}$ （m/sec）
流量 ： $Q=A\cdot V$ （m^3/sec）

ここで、 n：粗度係数 ＝ 0.014
I：勾配（‰）
R：径深（m）＝A/P
A：通水断面積（㎡）
P：潤辺（m）
※水深＝9割とする。

	H1800																			
呼び名	B800×H1800		B900×H1800		B1000×H1800		B1100×H1800		B1200×H1800		B1300×H1800		B1400×H1800		B1500×H1800		B1800×H1800		B2000×H1800	
A	1.16564		1.32764		1.48964		1.65164		1.81364		1.97564		2.13764		2.29964		2.78564		3.10964	
P	3.81864		3.91864		4.01864		4.11864		4.21864		4.31864		4.41864		4.51864		4.81864		5.01864	
$R^{(2/3)}$	0.45335		0.48599		0.51602		0.54380		0.56962		0.59371		0.61626		0.63743		0.69396		0.72680	
I(‰)	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q
100.0	10.24022	11.93641	10.97746	14.57411	11.65575	17.36287	12.28324	20.28749	12.86642	23.33505	13.41053	26.49438	13.91989	29.75571	14.39815	33.11056	15.67493	43.66471	16.41678	51.05028
75.0	8.86829	10.33723	9.50676	12.62155	10.09417	15.03668	10.63760	17.56949	11.14265	20.20876	11.61386	22.94481	12.05498	25.76921	12.46916	28.67458	13.57489	37.81476	14.21735	44.21084
50.0	7.24093	8.44032	7.76224	10.30546	8.24186	12.27740	8.68556	14.34542	9.09793	16.50037	9.48267	18.73434	9.84285	21.04047	10.18103	23.41270	11.08385	30.87562	11.60842	36.09801
40.0	6.47648	7.54924	6.94276	9.21749	7.37174	10.98124	7.76860	12.83093	8.13744	14.75839	8.48156	16.75651	8.80371	18.81916	9.10619	20.94096	9.91370	27.61600	10.38288	32.28702
35.0	6.05819	7.06167	6.49435	8.62216	6.89563	10.27201	7.26686	12.00224	7.61188	13.80521	7.93377	15.67427	8.23512	17.60372	8.51806	19.58847	9.27341	25.83238	9.71230	30.20176
30.0	5.60880	6.53784	6.01260	7.98257	6.38412	9.51004	6.72781	11.11192	7.04723	12.78114	7.34525	14.51157	7.62424	16.29788	7.88619	18.13540	8.58551	23.91614	8.99184	27.96139
25.0	5.12011	5.96821	5.48873	7.28706	5.82787	8.68143	6.14162	10.14375	6.43321	11.66753	6.70526	13.24718	6.95995	14.87787	7.19908	16.55529	7.83747	21.83237	8.20839	25.52514
20.0	4.57956	5.33812	4.90927	6.51774	5.21261	7.76491	5.49323	9.07284	5.75404	10.43576	5.99737	11.84864	6.22517	13.30717	6.43905	14.80750	7.01004	19.52745	7.34181	22.83039
18.0	4.34456	5.06419	4.65734	6.18327	4.94511	7.36643	5.21134	8.60726	5.45876	9.90023	5.68960	11.24060	5.90571	12.62428	6.10862	14.04763	6.65031	18.52537	6.96505	21.65880
16.0	4.09609	4.77457	4.39098	5.82964	4.66230	6.94515	4.91330	8.11500	5.14657	9.33403	5.36421	10.59775	5.56796	11.90229	5.75926	13.24422	6.26997	17.46588	6.56671	20.42010
14.0	3.83154	4.46620	4.10739	5.45314	4.36118	6.49659	4.59597	7.59089	4.81417	8.73117	5.01776	9.91329	5.20835	11.13358	5.38729	12.38883	5.86502	16.33783	6.14260	19.10127
12.0	3.54731	4.13489	3.80270	5.04862	4.03767	6.01467	4.25504	7.02779	4.45706	8.08350	4.64554	9.17791	4.82199	10.30768	4.98767	11.46985	5.42996	15.12591	5.68694	17.68434
10.0	3.23824	3.77462	3.47138	4.60874	3.68587	5.49062	3.88430	6.41547	4.06872	7.37919	4.24078	8.37825	4.40186	9.40959	4.55309	10.47047	4.95685	13.80800	5.19144	16.14351
9.0	3.07206	3.58092	3.29324	4.37224	3.49672	5.20885	3.68497	6.08624	3.85993	7.00052	4.02316	7.94832	4.17597	8.92672	4.31945	9.93318	4.70248	13.09942	4.92503	15.31507
8.0	2.89637	3.37612	3.10490	4.12219	3.29674	4.91096	3.47423	5.73818	3.63917	6.60014	3.79307	7.49374	3.93714	8.41619	4.07241	9.36508	4.43354	12.35025	4.64337	14.43921
7.0	2.70931	3.15808	2.90436	3.85594	3.08382	4.59378	3.24984	5.36757	3.40413	6.17387	3.54809	7.00975	3.68286	7.87263	3.80939	8.76023	4.14720	11.55261	4.34347	13.50663
6.0	2.50833	2.92381	2.68892	3.56992	2.85506	4.25301	3.00877	4.96940	3.15162	5.71590	3.28489	6.48976	3.40966	7.28863	3.52681	8.11039	3.83956	10.69563	4.02127	12.50470
5.5	2.40154	2.79933	2.57444	3.41793	2.73351	4.07195	2.88068	4.75785	3.01744	5.47255	3.14505	6.21349	3.26450	6.97833	3.37667	7.76513	3.67610	10.24029	3.85008	11.97236
5.0	2.28978	2.66906	2.45464	3.25888	2.60630	3.88245	2.74662	4.53643	2.87702	5.21788	2.99868	5.92431	3.11258	6.65358	3.21952	7.40374	3.50502	9.76372	3.67090	11.41518
4.5	2.17228	2.53210	2.32867	3.09164	2.47256	3.68322	2.60567	4.30363	2.72938	4.95011	2.84480	5.62030	2.95286	6.31215	3.05431	7.02381	3.32515	9.26267	3.48253	10.82941
4.0	2.04804	2.38728	2.19549	2.91482	2.33115	3.47257	2.45665	4.05750	2.57328	4.66700	2.68211	5.29888	2.78398	5.95115	2.87963	6.62211	3.13499	8.73295	3.28336	10.21007
3.5	1.91577	2.23310	2.05370	2.72657	2.18059	3.24829	2.29798	3.79544	2.40709	4.36559	2.50888	4.95664	2.60417	5.56678	2.69365	6.19443	2.93251	8.16892	3.07130	9.55064
3.0	1.77366	2.06745	1.90135	2.52431	2.01883	3.00733	2.12752	3.51390	2.22853	4.04175	2.32277	4.58896	2.41100	5.15385	2.49383	5.73491	2.71498	7.56296	2.84347	8.84217
2.5	1.61912	1.88731	1.73569	2.30437	1.84294	2.74532	1.94215	3.20773	2.03436	3.68960	2.12039	4.18913	2.20093	4.70480	2.27655	5.23525	2.47842	6.90399	2.59572	8.07175
2.0	1.44819	1.68807	1.55245	2.06109	1.64837	2.45548	1.73711	2.86908	1.81959	3.30008	1.89653	3.74686	1.96857	4.20809	2.03621	4.68255	2.21677	6.17512	2.32168	7.21959
1.8	1.37387	1.60144	1.47278	1.95532	1.56378	2.32947	1.64797	2.72185	1.72621	3.13072	1.79921	3.55459	1.86755	3.99215	1.93171	4.44224	2.10301	5.85823	2.20254	6.84911
1.6	1.29530	1.50985	1.38855	1.84349	1.47435	2.19625	1.55372	2.56619	1.62749	2.95168	1.69631	3.35130	1.76074	3.76383	1.82124	4.18820	1.98274	5.52320	2.07658	6.45742
1.4	1.21164	1.41234	1.29887	1.72443	1.37913	2.05441	1.45337	2.40044	1.52238	2.76105	1.58675	3.13485	1.64702	3.52074	1.70361	3.91769	1.85468	5.16647	1.94246	6.04035
1.2	1.12176	1.30757	1.20252	1.59651	1.27682	1.90200	1.34556	2.22238	1.40945	2.55623	1.46905	2.90231	1.52485	3.25958	1.57724	3.62708	1.71710	4.78322	1.79837	5.59228
1.0	1.02402	1.19364	1.09775	1.45742	1.16557	1.73628	1.22832	2.02874	1.28664	2.33350	1.34105	2.64943	1.39199	2.97557	1.43982	3.31107	1.56749	4.36646	1.64168	5.10503
0.8	0.91591	1.06762	0.98185	1.30354	1.04252	1.55298	1.09865	1.81457	1.15081	2.08716	1.19947	2.36972	1.24503	2.66143	1.28781	2.96150	1.40201	3.90550	1.46836	4.56607
0.6	0.79320	0.92459	0.85031	1.12891	0.90285	1.34492	0.95146	1.57147	0.99663	1.80753	1.03877	2.05224	1.07823	2.30487	1.11528	2.56474	1.21417	3.38224	1.27164	3.95434
0.4	0.64765	0.75493	0.69428	0.92175	0.73717	1.09812	0.77686	1.28309	0.81374	1.47583	0.84816	1.67566	0.88037	1.88191	0.91062	2.09410	0.99137	2.76160	1.03829	3.22871
0.2	0.45796	0.53382	0.49093	0.65178	0.52126	0.77649	0.54932	0.90728	0.57540	1.04357	0.59974	1.18487	0.62252	1.33072	0.64390	1.48074	0.70100	1.95273	0.73418	2.28304

＜Hi-Pフリュームの流速・流量表＞

マニング公式による流速・流量計算

流速 ： $V=1/n\cdot R^{(2/3)}\cdot I^{(1/2)}$ （m/sec）
流量 ： $Q=A\cdot V$ （m^3/sec）

ここで、 n：粗度係数 ＝ 0.014
I：勾配（‰）
R：径深（m）＝A/P
A：通水断面積（㎡）
P：潤辺（m）
※水深＝9割とする。

	H1900															
呼び名	B1000×H1900		B1100×H1900		B1200×H1900		B1300×H1900		B1400×H1900		B1500×H1900		B1800×H1900		B2000×H1900	
A	1.56330		1.73430		1.90530		2.07630		2.24730		2.41830		2.93130		3.27330	
P	4.18890		4.28890		4.38890		4.48890		4.58890		4.68890		4.98890		5.18890	
$R^{(2/3)}$	0.51836		0.54683		0.57333		0.59809		0.62130		0.64312		0.70152		0.73554	
I(‰)	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q
100.0	11.70847	18.30385	12.35163	21.42143	12.95022	24.67405	13.50948	28.04973	14.03375	31.53805	14.52663	35.12975	15.84561	46.44824	16.61418	54.38320
75.0	10.13983	15.85160	10.69682	18.55149	11.21522	21.36836	11.69956	24.29180	12.15358	27.31274	12.58043	30.42325	13.72270	40.22535	14.38830	47.09722
50.0	8.27914	12.94278	8.73392	15.14724	9.15719	17.44719	9.55265	19.83417	9.92336	22.30077	10.27188	24.84049	11.20454	32.84387	11.74800	38.45473
40.0	7.40509	11.57638	7.81185	13.54809	8.19044	15.60525	8.54415	17.74022	8.87572	19.94641	9.18745	22.21801	10.02164	29.37643	10.50773	34.39495
35.0	6.92682	10.82870	7.30732	12.67309	7.66145	14.59736	7.99232	16.59445	8.30248	18.65816	8.59407	20.78304	9.37439	27.47915	9.82908	32.17353
30.0	6.41299	10.02543	6.76526	11.73299	7.09313	13.51454	7.39945	15.36348	7.68660	17.27410	7.95656	19.24135	8.67900	25.44075	9.09996	29.78690
25.0	5.85424	9.15193	6.17581	10.71071	6.47511	12.33703	6.75474	14.02487	7.01687	15.76901	7.26331	17.56486	7.92280	23.22410	8.30709	27.19160
20.0	5.23619	8.18574	5.52382	9.57996	5.79151	11.03456	6.04162	12.54422	6.27608	14.10423	6.49650	15.71049	7.08637	20.77228	7.43009	24.32091
18.0	4.96748	7.76566	5.24035	9.08834	5.49431	10.46831	5.73159	11.90050	5.95401	13.38045	6.16313	14.90430	6.72272	19.70631	7.04880	23.07284
16.0	4.68339	7.32154	4.94065	8.56857	5.18009	9.86963	5.40379	11.21989	5.61350	12.61522	5.81065	14.05189	6.33824	18.57928	6.64567	21.75327
14.0	4.38091	6.84868	4.62156	8.01517	4.84553	9.23219	5.05479	10.49526	5.25095	11.80046	5.43537	13.14436	5.92888	17.37933	6.21646	20.34834
12.0	4.05593	6.34064	4.27873	7.42060	4.48609	8.54735	4.67982	9.71671	4.86143	10.92509	5.03217	12.16930	5.48908	16.09014	5.75532	18.83889
10.0	3.70254	5.78818	3.90593	6.77405	4.09522	7.80262	4.27207	8.87010	4.43786	9.97320	4.59372	11.10899	5.01082	14.68822	5.25387	17.19749
9.0	3.51254	5.49115	3.70549	6.42643	3.88507	7.40222	4.05285	8.41493	4.21012	9.46140	4.35799	10.53893	4.75368	13.93446	4.98425	16.31495
8.0	3.31166	5.17712	3.49357	6.05890	3.66287	6.97887	3.82106	7.93367	3.96934	8.92030	4.10875	9.93619	4.48182	13.13756	4.69920	15.38189
7.0	3.09777	4.84274	3.26793	5.66757	3.42631	6.52815	3.57427	7.42126	3.71298	8.34418	3.84338	9.29445	4.19235	12.28904	4.39570	14.38844
6.0	2.86798	4.48351	3.02552	5.24716	3.17214	6.04388	3.30913	6.87075	3.43755	7.72521	3.55828	8.60499	3.88137	11.37746	4.06963	13.32112
5.5	2.74588	4.29263	2.89671	5.02376	3.03710	5.78659	3.16825	6.57824	3.29121	7.39634	3.40680	8.23866	3.71612	10.89306	3.89637	12.75399
5.0	2.61809	4.09286	2.76191	4.78998	2.89576	5.51729	3.02081	6.27211	3.13804	7.05212	3.24825	7.85524	3.54319	10.38615	3.71504	12.16044
4.5	2.48374	3.88283	2.62018	4.54418	2.74716	5.23416	2.86579	5.95024	2.97701	6.69023	3.08156	7.45214	3.36136	9.85315	3.52440	11.53642
4.0	2.34169	3.66076	2.47033	4.28429	2.59004	4.93480	2.70190	5.60995	2.80675	6.30761	2.90533	7.02596	3.16912	9.28964	3.32284	10.87665
3.5	2.19045	3.42433	2.31078	4.00759	2.42276	4.61608	2.52739	5.24762	2.62547	5.90022	2.71768	6.57217	2.96444	8.68966	3.10823	10.17417
3.0	2.02797	3.17033	2.13936	3.71029	2.24304	4.27366	2.33991	4.85836	2.43072	5.46256	2.51609	6.08466	2.74454	8.04507	2.87766	9.41944
2.5	1.85127	2.89409	1.95296	3.38702	2.04761	3.90131	2.13604	4.43506	2.21893	4.98660	2.29686	5.55450	2.50541	7.34411	2.62693	8.59873
2.0	1.65583	2.58856	1.74678	3.02944	1.83144	3.48944	1.91053	3.96683	1.98467	4.46015	2.05438	4.96811	2.24091	6.56878	2.34960	7.69095
1.8	1.57086	2.45573	1.65714	2.87398	1.73745	3.31036	1.81249	3.76327	1.88282	4.23126	1.94895	4.71315	2.12591	6.23168	2.22903	7.29628
1.6	1.48102	2.31528	1.56237	2.70962	1.63809	3.12105	1.70883	3.54804	1.77514	3.98927	1.83749	4.44360	2.00433	5.87529	2.10155	6.87900
1.4	1.38536	2.16573	1.46146	2.53461	1.53229	2.91947	1.59846	3.31888	1.66050	3.73164	1.71881	4.15660	1.87488	5.49584	1.96582	6.43472
1.2	1.28260	2.00509	1.35305	2.34659	1.41863	2.70292	1.47989	3.07270	1.53732	3.45482	1.59131	3.84826	1.73580	5.08815	1.81999	5.95737
1.0	1.17085	1.83039	1.23516	2.14214	1.29502	2.46740	1.35095	2.80498	1.40337	3.15379	1.45266	3.51297	1.58456	4.64482	1.66142	5.43833
0.8	1.04724	1.63715	1.10476	1.91599	1.15830	2.20691	1.20832	2.50883	1.25522	2.82086	1.29930	3.14210	1.41727	4.15444	1.48602	4.86419
0.6	0.90693	1.41780	0.95675	1.65929	1.00312	1.91124	1.04644	2.17272	1.08705	2.44293	1.12523	2.72114	1.22740	3.59788	1.28693	4.21251
0.4	0.74051	1.15764	0.78119	1.35482	0.81904	1.56052	0.85441	1.77401	0.88757	1.99464	0.91874	2.22179	1.00216	2.93763	1.05077	3.43949
0.2	0.52362	0.81858	0.55238	0.95799	0.57915	1.10345	0.60416	1.25442	0.62761	1.41043	0.64965	1.57105	0.70864	2.07724	0.74301	2.43209

＜Hi-Pフリュームの流速・流量表＞

マニング公式による流速・流量計算

流速 ： $V=1/n\cdot R^{(2/3)}\cdot I^{(1/2)}$ （m/sec）
流量 ： $Q=A\cdot V$ （m^3/sec）

ここで、 n：粗度係数 ＝ 0.014
I：勾配（‰）
R：径深（m）＝A/P
A：通水断面積（㎡）
P：潤辺（m）
※水深＝9割とする。

	H2000																			
呼び名	B1000×H2000		B1100×H2000		B1200×H2000		B1300×H2000		B1400×H2000		B1500×H2000		B1600×H2000		B1700×H2000		B1800×H2000		B2000×H2000	
A	1.63598		1.81598		1.99598		2.17598		2.35598		2.53598		2.71598		2.89598		3.07598		3.43598	
P	4.35918		4.45918		4.55918		4.65918		4.75918		4.85918		4.95918		5.05918		5.15918		5.35918	
$R^{(2/3)}$	0.52029		0.54942		0.57656		0.60195		0.62579		0.64822		0.66939		0.68941		0.70838		0.74354	
I(‰)	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q
100.0	11.75224	19.22643	12.41012	22.53653	13.02322	25.99409	13.59676	29.58628	14.13508	33.30197	14.64178	37.13126	15.11993	41.06543	15.57216	45.09666	16.00076	49.21802	16.79475	57.70643
75.0	10.17774	16.65058	10.74748	19.51721	11.27844	22.51154	11.77514	25.62247	12.24134	28.84035	12.68015	32.15661	13.09424	35.56369	13.48589	39.05487	13.85706	42.62404	14.54468	49.97523
50.0	8.31009	13.59514	8.77528	15.93573	9.20880	18.38058	9.61436	20.92066	9.99501	23.54804	10.35330	26.25576	10.69140	29.03763	11.01118	31.88816	11.31424	34.80238	11.87568	40.80460
40.0	7.43277	12.15986	7.84885	14.25335	8.23661	16.44011	8.59935	18.71201	8.93981	21.06201	9.26027	23.48386	9.56268	25.97205	9.84870	28.52164	10.11977	31.12821	10.62193	36.49674
35.0	6.95272	11.37451	7.34193	13.33280	7.70464	15.37831	8.04395	17.50347	8.36243	19.70172	8.66219	21.96714	8.94507	24.29463	9.21262	26.67956	9.46618	29.11778	9.93591	34.13959
30.0	6.43697	10.53075	6.79730	12.34376	7.13311	14.23754	7.44725	16.20507	7.74210	18.24023	8.01963	20.33762	8.28153	22.49247	8.52922	24.70045	8.76398	26.95783	9.19886	31.60710
25.0	5.87612	9.61321	6.20506	11.26826	6.51161	12.99704	6.79838	14.79314	7.06754	16.65098	7.32089	18.56563	7.55996	20.53270	7.78608	22.54833	8.00038	24.60901	8.39737	28.85320
20.0	5.25576	8.59832	5.54997	10.07863	5.82416	11.62491	6.08066	13.23139	6.32140	14.89309	6.54800	16.60560	6.76184	18.36502	6.96408	20.16784	7.15576	22.01097	7.51084	25.80710
18.0	4.98605	8.15708	5.26517	9.56144	5.52528	11.02835	5.76862	12.55240	5.99701	14.12884	6.21198	15.75346	6.41484	17.42258	6.60671	19.13290	6.78855	20.88144	7.12541	24.48277
16.0	4.70090	7.69058	4.96405	9.01462	5.20929	10.39764	5.43871	11.83452	5.65403	13.32078	5.85671	14.85250	6.04797	16.42617	6.22886	18.03865	6.40030	19.68719	6.71790	23.08257
14.0	4.39729	7.19388	4.64344	8.43239	4.87284	9.72609	5.08744	11.07017	5.28886	12.46045	5.47845	13.89324	5.65736	15.36528	5.82657	16.87363	5.98693	18.41568	6.28402	21.59177
12.0	4.07110	6.66024	4.29899	7.80688	4.51137	9.00460	4.71006	10.24900	4.89654	11.53615	5.07206	12.86264	5.23770	14.22549	5.39436	15.62196	5.54282	17.04960	5.81787	19.99008
10.0	3.71639	6.07994	3.92442	7.12667	4.11830	8.22004	4.29967	9.35600	4.46990	10.53100	4.63014	11.74194	4.78134	12.98602	4.92435	14.26082	5.05988	15.56409	5.31097	18.24839
9.0	3.52567	5.76793	3.72304	6.76097	3.90696	7.79821	4.07903	8.87589	4.24052	9.99058	4.39253	11.13937	4.53598	12.31963	4.67165	13.52900	4.80023	14.76541	5.03842	17.31191
8.0	3.32404	5.43806	3.51011	6.37429	3.68352	7.35223	3.84575	8.36828	3.99800	9.41921	4.14132	10.50230	4.27656	11.61505	4.40447	12.75526	4.52570	13.92096	4.75027	16.32183
7.0	3.10935	5.08683	3.28341	5.96261	3.44562	6.87739	3.59737	7.82781	3.73979	8.81087	3.87385	9.82401	4.00036	10.86490	4.12001	11.93147	4.23340	13.02185	4.44347	15.26767
6.0	2.87870	4.70950	3.03985	5.52031	3.19002	6.36722	3.33051	7.24712	3.46237	8.15727	3.58649	9.09527	3.70361	10.05893	3.81439	11.04640	3.91937	12.05590	4.11386	14.13514
5.5	2.75615	4.50901	2.91043	5.28528	3.05422	6.09616	3.18872	6.93859	3.31497	7.81000	3.43380	8.70805	3.54594	9.63070	3.65200	10.57612	3.75251	11.54265	3.93872	13.53336
5.0	2.62788	4.29916	2.77499	5.03933	2.91208	5.81245	3.04033	6.61570	3.16070	7.44655	3.27400	8.30280	3.38092	9.18251	3.48204	10.08392	3.57788	11.00549	3.75542	12.90355
4.5	2.49303	4.07855	2.63258	4.78071	2.76264	5.51417	2.88431	6.27620	2.99850	7.06441	3.10599	7.87673	3.20742	8.71129	3.30335	9.56644	3.39427	10.44071	3.56270	12.24137
4.0	2.35045	3.84529	2.48202	4.50730	2.60464	5.19881	2.71935	5.91725	2.82702	6.66040	2.92836	7.42626	3.02399	8.21310	3.11443	9.01933	3.20015	9.84360	3.35895	11.54129
3.5	2.19864	3.59693	2.32172	4.21620	2.43642	4.86305	2.54372	5.53508	2.64443	6.23022	2.73923	6.94663	2.82868	7.68264	2.91328	8.43680	2.99347	9.20785	3.14201	10.79588
3.0	2.03555	3.33012	2.14950	3.90345	2.25569	4.50231	2.35503	5.12450	2.44827	5.76808	2.53603	6.43132	2.61885	7.11274	2.69718	7.81098	2.77141	8.52480	2.90894	9.99506
2.5	1.85819	3.03996	1.96221	3.56333	2.05915	4.11002	2.14984	4.67801	2.23495	5.26550	2.31507	5.87097	2.39067	6.49301	2.46218	7.13042	2.52994	7.78204	2.65548	9.12418
2.0	1.66202	2.71903	1.75506	3.18715	1.84176	3.67612	1.92287	4.18413	1.99900	4.70960	2.07066	5.25115	2.13828	5.80753	2.20224	6.37764	2.26285	6.96048	2.37514	8.16093
1.8	1.57673	2.57950	1.66499	3.02359	1.74725	3.48748	1.82420	3.96942	1.89642	4.46793	1.96440	4.98168	2.02855	5.50950	2.08922	6.05034	2.14673	6.60330	2.25325	7.74212
1.6	1.48655	2.43197	1.56977	2.85067	1.64732	3.28802	1.71987	3.74240	1.78796	4.21240	1.85205	4.69676	1.91254	5.19442	1.96974	5.70433	2.02395	6.22563	2.12439	7.29936
1.4	1.39054	2.27490	1.46839	2.66657	1.54093	3.07567	1.60879	3.50069	1.67249	3.94035	1.73244	4.39343	1.78901	4.85892	1.84252	5.33590	1.89324	5.82357	1.98718	6.82791
1.2	1.28739	2.10614	1.35946	2.46875	1.42662	2.84750	1.48945	3.24101	1.54842	3.64805	1.60393	4.06753	1.65631	4.49850	1.70584	4.94008	1.75280	5.39158	1.83977	6.32141
1.0	1.17522	1.92264	1.24101	2.25365	1.30232	2.59940	1.35968	2.95864	1.41351	3.33020	1.46418	3.71313	1.51199	4.10653	1.55722	4.50968	1.60008	4.92181	1.67947	5.77063
0.8	1.05115	1.71966	1.10999	2.01572	1.16483	2.32498	1.21613	2.64627	1.26428	2.97862	1.30960	3.32112	1.35237	3.67301	1.39282	4.03358	1.43115	4.40219	1.50217	5.16143
0.6	0.91032	1.48927	0.96128	1.74567	1.00877	2.01348	1.05320	2.29174	1.09490	2.57956	1.13415	2.87618	1.17118	3.18090	1.20621	3.49316	1.23941	3.81240	1.30092	4.46994
0.4	0.74328	1.21599	0.78488	1.42533	0.82366	1.64401	0.85993	1.87119	0.89398	2.10620	0.92603	2.34839	0.95627	2.59721	0.98487	2.85216	1.01198	3.11283	1.06219	3.64966
0.2	0.52558	0.85984	0.55500	1.00787	0.58242	1.16250	0.60807	1.32315	0.63214	1.48931	0.65480	1.66056	0.67618	1.83649	0.69641	2.01679	0.71558	2.20111	0.75108	2.58070