

Basis For Component Volumes of Table Below.

Boilers: Average water content expressed in Gals. per Net BTU/Hr rating.
Based on data received from various boiler mfrs.

Convectors = .64 Gals / 10,000 BTU/hr.
@ 200°F.

Radiation: Large Tube = .114 Gals/sq.ft.
(Cast Iron) Thin Tube = .056 Gals/sq.ft.
Convectors = 1.5 Gals/ 10,000 BTU/hr. @ 200°F.
Baseboard = 4.7 Gals/ 10,000 BTU/hr. @ 200°F.

Radiation: Baseboard = .37 Gals / 10,000 BTU/hr.
(Non-Ferrous) One Tube ¾" @ 200°F.

Fan Coil & Unit Heater = 0.2 Gals/ 10,000 BTU/hr. @ 180°F.
@ 180°F.

NOTE: Values are only averages. For closer estimate of system volume, use manufacturer's data. Also see pipe volume tables.

MBH 1000's BTU/hr.	Boilers		Radiation							Average Piping Systems		
	Consult Mfr. When Pos.		See Basis for Tables Above							Based on Average Pipe		
	Conventional (Hot Water Tube)	Small Flash Type	Cast Iron				Non-Ferrous			Sizes for 20°F Temp. Drop Design		
Large Tube			Thin Tube	Convector	Baseboard	Convector	Baseboard	Fan Coil & Unit Htr.	One Pipe	Two Pipe	Radiant Panel	
50	12	5.4	28.5	15.7	7	23.5	3.2	1.9	1	7.8	10.5	11
60	14.5	6.4	34.2	16.8	7.5	28.3	4	2.2	1.2	9	12.5	13.5
70	17	7.2	40	19.6	8.7	33	4.5	2.6	1.4	10	14.5	16
80	19.5	8	45.6	22.4	10	37.8	5.2	3	1.6	11.5	17	18.5
90	22	8.6	51.4	25.2	11.25	42.5	5.8	3.3	1.8	13	18	21
100	25	9.4	57	28	12.5	47.1	6.5	3.7	2	14	21	24
125	30	11	71	39	17.7	58.8	8.1	4.6	2.5	18	27	30
150	36	13	85.5	47.8	21	70.8	9.7	5.5	3	22	34	37
175	42	14.5	99	55	24.7	82.8	11.3	6.5	3.5	26	40	44
200	48	16	114	63.8	28.5	94.3	13	7.4	4	30	47	50
250	60		142	79.8	35.6	117.8	16.2	9	5	39	62	65
300	70		171	95.7	42.7	141.5	19.5	11	6	49	78	70
350	84		199	111	49.7	165	22.7	13	7	58	94	
400	95		228	127	57	188.5	26	15	8	70	110	
450	107		256	143	64	212	29.2	17	9	80	130	
500	120		285	157	71	235.8	32.5	19	10	90	150	
600	140		342	191	85.5	282.8	39	22	12	115	190	
700	160		399	223	98.7	330	45.5	26	14	140	225	
800	190		456	251	114	377	52	30	16	165	260	
900	210		513	287	128	424.3	58.5	33	18	195	310	
1000	235		570	319	142	476.5	65	37	20	225	360	
2000	480		1140	638	285	942	130	74	40	540	900	
3000	720		1710	957	427	1414	195	110	60	960	1500	
4000	960		2280	1276	560	1885	260	150	80	1350	2100	
8000	1200		4560	2553	1140	3770	520	300	160	3400	5000	
12000	3000		6840	3830	1710	5655	780	445	240	5000	9000	
16000	3700		9120	5107	2280	7542	1040	580	320	8300	13000	