

TABLE 5. PIPE SIZES FOR UNDERGROUND SUPPLY MAINS BASED ON A VELOCITY OF 10,000 FT. PER MINUTE

GAGE PRESSURE LB.	LB. STEAM PER MINUTE	TOTAL B.T.U. ABOVE 200 DEG. FAHR. PER HR.	PIPE LOSS B.T.U. PER HOUR, PER FT. LENGTH		LB. STEAM CONDENSED PER HOUR PER FT. LENGTH
			Bare	Covered (10% of Bare)	
1 in. Pipe					
0	2.23	131,100	116	11.6	0.0119
10	3.65	217,200	143	14.3	0.015
20	4.98	298,200	168	16.8	0.0179
40	7.68	461,400	206	20.6	0.0224
60	10.3	627,000	236	23.6	0.0262
80	12.8	780,000	260	26.0	0.0292
100	15.3	936,000	284	28.4	0.0322
120	18.1	1,110,000	304	30.4	0.0349
140	20.6	1,272,000	322	32.2	0.0374
160	23.0	1,416,000	337	33.7	0.0395
180	26.0	1,608,000	355	35.5	0.0420
200	28.5	1,764,000	373	37.3	0.0445
2 in. Pipe					
0	8.70	512,400	209	20.9	0.0216
10	14.2	846,000	258	25.8	0.0270
20	19.4	1,158,000	306	30.6	0.0327
40	29.8	1,794,000	372	37.2	0.0406
60	40.0	2,436,000	426	42.6	0.0472
80	49.7	3,030,000	471	47.1	0.0529
100	59.8	3,660,000	513	51.3	0.0582
120	70.5	4,338,000	548	54.8	0.0631
140	80.4	4,950,000	582	58.2	0.0675
160	89.6	5,520,000	608	60.8	0.0714
180	101.0	6,240,000	641	64.1	0.0760
200	111.0	6,888,000	674	67.4	0.0804
3 in. Pipe					
0	19.2	1,129,200	309	30.9	0.0319
10	31.3	1,860,000	380	38	0.0399
20	42.8	2,562,000	451	45	0.0480
40	65.5	3,588,000	549	55	0.0600
60	87.5	5,280,000	628	63	0.0693
80	108	6,588,000	694	69	0.0775
100	130	7,980,000	756	76	0.0864
120	153	9,420,000	809	81	0.0931
140	174	10,740,000	857	86	0.0999
160	194	11,940,000	897	90	0.1058
180	220	13,560,000	945	94	0.1110
200	240	14,880,000	993	99	0.1180
4 in. Pipe					
0	33.0	1,944,000	397	39.7	0.0404
10	54.0	3,210,000	489	48.9	0.0514
20	73.8	4,422,000	579	57.9	0.0617
40	113	6,840,000	705	70.5	0.0769
60	153	9,300,000	806	80.6	0.0895
80	189	11,520,000	891	89.1	0.1000
100	227	13,920,000	971	97.1	0.110
120	268	16,440,000	1039	103.9	0.119
140	305	18,780,000	1101	110.1	0.128
160	340	21,000,000	1152	115.2	0.135
180	384	23,760,000	1214	121.4	0.144
200	420	25,440,000	1275	127.5	0.152

TABLE 5. PIPE SIZES FOR UNDERGROUND SUPPLY MAINS BASED ON A VELOCITY OF 10,000 FT. PER MINUTE—(Continued)

TABLE 5. PER MINUTE. PER HOUR. PER FT. LENGTH.

GAGE PRESSURE LB.	LB. STEAM PER MINUTE	TOTAL B.T.U. ABOVE 200 DEG. FARR. PER HR.	PIPE LOSS B.T.U. PER HOUR, PER FT. LENGTH		LB. STEAM CONDENSED PER HOUR PER FT. LENGTH
			Bare	Covered (10% of Bare)	
6 in. Pipe					
0	74.6	4,504,000	585	58.5	0.0604
10	122	7,260,000	719	71.9	0.0755
20	167	10,020,000	852	85.2	0.0918
40	256	15,360,000	1037	104	0.1135
60	345	20,880,000	1186	119	0.1320
80	427	26,040,000	1311	131	0.1470
100	514	31,440,000	1428	143	0.1630
120	606	37,260,000	1528	153	0.1760
140	690	42,480,000	1620	162	0.1880
160	770	47,400,000	1694	169	0.1980
180	870	53,700,000	1785	178	0.2110
200	950	58,800,000	1872	187	0.2230
8 in. Pipe					
0	134	7,980,000	760.7	76.1	0.0785
10	218	12,960,000	936.7	93.7	0.0985
20	298	17,940,000	1109.5	110.9	0.118
40	458	27,540,000	1351	135.1	0.147
60	617	37,560,000	1543	154.3	0.171
80	765	46,680,000	1707	170.7	0.191
100	917	56,160,000	1859	185.9	0.212
120	1080	66,480,000	1988	198.8	0.229
140	1230	75,300,000	2107	210.7	0.244
160	1375	84,600,000	2207	220.7	0.258
180	1550	95,400,000	2325	232.5	0.275
200	1700	105,600,000	2443	244.3	0.291
10 in. Pipe					
0	211	12,420,000	949	94.9	0.0978
10	345	19,520,000	1170	117.0	0.1230
20	474	28,380,000	1384	138.4	0.1480
40	730	43,860,000	1685	168.5	0.1840
60	983	59,760,000	1927	192.7	0.2130
80	1210	73,800,000	2132	213.2	0.2390
100	1455	89,100,000	2322	232.2	0.264
120	1670	102,600,000	2486	248.6	0.286
140	1960	120,600,000	2635	263.5	0.306
160	2180	134,400,000	2755	275.5	0.323
180	2470	152,400,000	2903	290.3	0.343
200	2700	166,800,000	3051	305.1	0.364
12 in. Pipe					
0	297	17,460,000	1125	112.5	0.116
10	485	28,860,000	1387	138.7	0.146
20	664	39,900,000	1641	164.1	0.175
40	1020	62,100,000	1999	199.9	0.218
60	1372	83,400,000	2240	224.0	0.248
80	1700	103,800,000	2529	252.9	0.284
100	2040	124,800,000	2753	275.3	0.314
120	2410	148,200,000	2945	294.5	0.340
140	2750	169,200,000	3121	312.1	0.362
160	3060	182,400,000	3266	326.6	0.383
180	3460	213,600,000	3440	344.0	0.406
200	3800	235,200,000	3616	361.6	0.430