

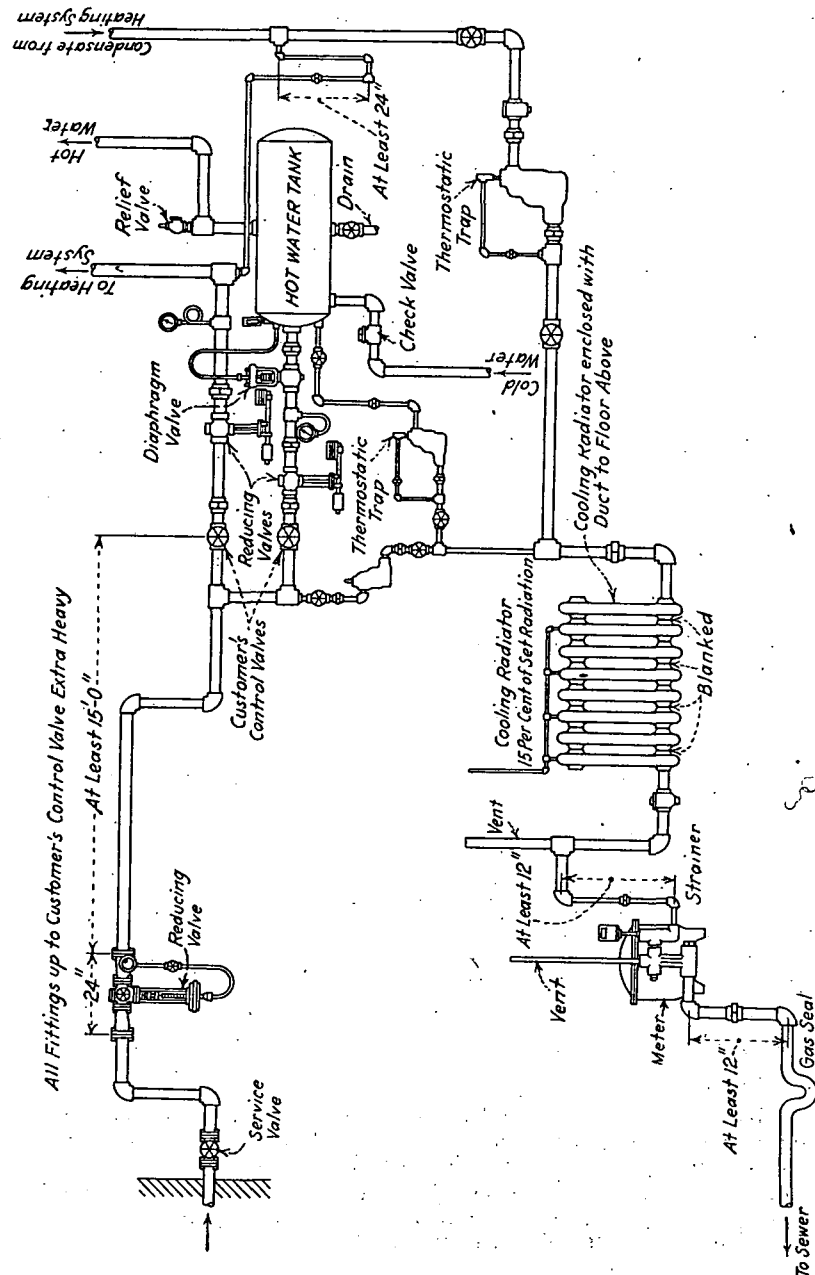


FIG. 1. STEAM SERVICE AND METER CONNECTIONS WITH COOLING RADIATOR

CHAPTER XI—CENTRAL HEATING SYSTEMS

TABLE 3. CAPACITY OF RETURNS FOR UNDERGROUND DISTRIBUTION SYSTEMS IN POUNDS OF CONDENSATE PER HOUR

SIZE* OF PIPE IN.	PITCH OF PIPE PER 100 FT.						
	6"	1'	2'	3'	5'	10'	20'
1	448	998	1890	2240	3490	5490	7490
1 1/4	1740	2490	3990	4880	6480	9480	13500
1 1/2	2700	4190	5740	7480	9480	14500	20900
2	4980	7380	10700	13900	16900	24900	36900
3	13900	22500	30900	37400	50400	74800	105000
4	30900	44800	64800	79700	105000	154000	229000
5	54800	79800	120000	144800	195000	294000	418000
6	90000	138000	187000	237000	312000	449000	660000
8	190000	277000	404000	508000	660000	938000	1380000
10	344000	498000	724000	900000	1190000	1740000	2540000
12	555000	798000	1148000	1499000	1990000	2940000	4380000

*Size of pipe should be increased if same carries any steam.

TABLE 4. STEAM REQUIREMENTS OF BUILDINGS FROM OUTSIDE MAINS IN POUNDS OF STEAM PER HOUR

Sq. Ft. RADIATION	STEAM PRESSURE OF SERVICE MAIN LB. GAGE							
	0	10	20	60	100	140	180	200
200	61.8	61.2	60.8	59.8	59.4	59.2	59.0	58.8
400	123.6	122.5	121.6	119.6	118.8	118.4	118.0	118.0
500	154.5	153	152	149.5	148.4	148	147.5	147
750	232	230	228	224	223	222	221	220
1000	309	306	304	299	297	296	295	294
2500	774	765	760	747	743	740	737	735
5000	1545	1530	1520	1495	1485	1480	1475	1470
7500	2320	2300	2280	2240	2230	2220	2210	2200
10000	3090	3060	3040	2990	2970	2960	2950	2940
12500	3865	3820	3800	3740	3720	3700	3690	3680
15000	4640	4590	4560	4480	4460	4440	4420	4410
20000	6180	6120	6080	5980	5940	5920	5900	5880
25000	7740	7650	7600	7470	7430	7400	7375	7350
30000	9290	9180	9120	8970	8910	8890	8850	8830
40000	12380	12250	12160	11960	11880	11840	11800	11780
50000	15450	15300	15200	14950	14850	14800	14740	14700
75000	23200	22800	22800	22400	22300	22200	22100	22000
100000	30900	30600	30400	29900	29700	29600	29500	29400
125000	38650	38300	38000	37400	37200	37000	36900	36800
150000	46400	45900	45600	44800	44600	44400	44250	44100
175000	54200	53600	53200	52300	52000	51800	51600	51400
200000	61800	61200	60800	59800	59400	59200	59000	58900

Each square foot of radiation transmits 250 B.t.u. per hour.

Table for steam entering buildings at stated pressures then reduced to required amount and condensed in radiator to water at 212 deg. Fahr. 0 pressure. The above table also allows 20 per cent for piping loss in the building.

strain put in the line at the time of installation. This allows for only 60 per cent of all expansion to be taken care of by expansion joints, offsets or bends.

Table 2 gives the length of pipe that should be made up to provide for the expansion. In general the arms should be made up with pipe bends which can be welded into one continuous length.