

Table 2.

TWO-PIPE STEAM

CAPACITY OF PIPES IN SQ. FT. OF RADIATION

A Com- mercial Pipe Size	B Supply Main Branches to Risers Up-Feed Risers Steam and water flowing same direction	C Branches to Risers Steam and water flowing opposite direction	D Branches to Radiators 5 ft. in length or less	E Wet Return Main in 5 ft. Vertical or 1 inch in 5 ft.	F DRY RETURN MAIN Grade in Inches 1 inch 10 ft. 1 inch 20 ft.	G Radiator Valves Supply Return 30 ft. 1 inch in	H Allowance in ft. of pipe for Globe Valves Ells
3/4	40	49	24	1800	140	80	0.8
1	75	75	60	1800	300	170	1.2
1 1/4	150	100	100	2000	650	400	2.1
1 1/2	300	170	160	2000	1000	800	3.2
2	500	220	200	3000	1500	1200	4.2
2 1/2	750	340	300	4000	2500	2000	6.5
3	1000	460	400	5000	3500	3200	9.0
3 1/2	1500	600	500	6000	4500	4000	12.0
4	2000	800	600	7000	5500	5000	15.0
4 1/2	2800	1100	800	8000	6500	6000	19.0
5	3600	1400	1000	9000	7500	7000	22.0
6	6000	2000	1500	10000	8500	8000	26.0
7	9000	2800	2000	11000	9500	9000	30.0
8	13000	3600	2500	12000	10500	10000	33.0
10	23000	5500	4000	14000	12000	11500	41.0
12	37000	8000	6000	16000	14000	13500	48.0
							57.0
							86.0

NOTES

Length Factor. For supply mains where steam and water are flowing in the same direction and for wet returns where lengths are other than 100 ft. multiply the factor here given by the sq. ft. of radiation to obtain the carrying capacity of the pipe.

Length in Feet 200 300 400 500 1000 2000 3000
Factors 0.710 0.576 0.500 0.447 0.316 0.223 0.182

Supply mains to be sized according to Column B.

Where branches to risers are taken from top of main the main should be dripped at the end either by a separate drip line or into the main return line. The end of the main, if reduced, to be one size larger than table calls for. Where branches to risers are taken from bottom of main the main should be dripped at the bottom of the main, if reduced, to be one size larger than table calls for. If this is not done eccentric couplings should be used for making reduction. The bottom of down-feed supply risers should be carried down to the basement level and connected to separate drip mains or into the main return.

In buildings where risers are 100 ft. in length or over, horizontal run-outs, to take care of expansion, or where necessary, due to design of building, should have separate drips, carried down to basement into separate drip main or into the main return.

Table 3.

LOW PRESSURE GRAVITY VAPOR

WITH USE OF THERMOSTATIC TRAPS

CAPACITY OF PIPES IN SQ. FT. OF RADIATION

A Com- mercial Pipe Size	B Supply Main Branches to Risers Up-Feed Risers (dripped) Steam and water flowing same direction	C Branches to Radiators Steam and water flowing opposite direction	D Branches to Radiators 5 ft. in length or less	E Wet Return Main in 5 ft. Vertical or 1 inch in 5 ft.	F DRY RETURN MAINS Grade in Inches 1 inch 10 ft. 1 inch 20 ft.	G Allowance in ft. of pipe for Globe Valves Ells
3/4	40	49	24	1800	140	80
1	75	75	60	1800	300	170
1 1/4	150	100	100	2000	650	400
1 1/2	300	170	160	2000	1000	800
2	500	220	200	3000	1500	1200
2 1/2	750	340	300	4000	2500	2000
3	1000	460	400	5000	3500	3200
3 1/2	1500	600	500	6000	4500	4000
4	2000	800	600	7000	5500	5000
4 1/2	2800	1100	800	8000	6500	6000
5	3600	1400	1000	9000	7500	7000
6	6000	2000	1500	10000	8500	8000
7	9000	2800	2000	11000	9500	9000
8	13000	3600	2500	12000	10500	10000
10	23000	5500	4000	14000	12000	11500
12	37000	8000	6000	16000	14000	13500

NOTES

Length Factor. For supply mains where steam and water are flowing in the same direction and for wet returns where lengths are other than 100 ft. multiply the factor here given by the sq. ft. of radiation to obtain the carrying capacity of the pipe.

Length in Feet 200 300 400 500 1000 2000 3000
Factors 0.710 0.576 0.500 0.447 0.316 0.223 0.182

Supply mains to be sized according to Column B.

Where branches to risers are taken from the top of the main, the main should be dripped at the end either by a separate drip line or into the main dry return line through a trap. The end of steam mains, if reduced, to be one size larger than the table calls for.

Where the main changes size branch connections should be taken from the bottom of the main and either connected into separate drip main or into main dry return line through a trap. If this is not done eccentric couplings should be used for making reductions.

The bottom of risers should be carried down to the basement and connected to separate drip main or into dry return main through a trap. In buildings where risers are 100 ft. in length or over, horizontal run-outs, to take care of expansion, or where necessary, due to the design of the building, should have separate drips, carried down to basement into separate drip main or into the dry return through a trap.