

TABLE 31. TWO-PIPE STEAM
Capacity of Pipes in Sq. Ft. of Radiation

A Com- mercial Pipe Sizes	B Supply Main Branch to Risers (dripped); Up-Feed Risers; Steam and water flowing same direc- tion.	C Branches to Risers Steam and water flowing opposite direction.	D BRANCHES TO RADIATORS		E Wet Return Main	F DRY RETURN MAINS Not Exceeding 400 ft. in Length Graded not less than 1 in. in 30 ft.	G Radiator Valves		H Allowance in ft. of Pipe for
			5 ft. in length or less	5 ft. to 10 ft. length			Supply	Re- turn	
1 1/4	40	40	24	60	800	180	20	40	0.8
1 1/2	75	75	60	100	1,800	420	40	80	1.3
2	150	100	100	200	3,000	900	180	160	2.1
2 1/2	300	170	200	400	6,000	1,500	320	320	3.2
3	450	220	200	600	9,000	2,250	480	480	4.2
3 1/2	600	280	200	800	12,000	3,000	640	640	5.0
4	900	400	200	1,000	18,000	4,500	960	960	7.0
4 1/2	1,500	600	200	1,200	27,000	6,750	1,280	1,280	10.0
5	2,000	800	200	1,400	37,000	10,000	1,600	1,600	12.0
6	2,800	1,000	200	1,600	47,000	13,500	2,000	2,000	14.0
7	3,600	1,200	200	1,800	57,000	18,000	2,400	2,400	15.0
8	4,500	1,400	200	2,000	67,000	22,500	2,800	2,800	18.0
10	6,000	1,800	200	2,400	90,000	30,000	3,800	3,800	22.0
12	8,000	2,400	200	2,800	120,000	40,000	5,100	5,100	26.0
14	10,000	3,000	200	3,200	150,000	50,000	6,400	6,400	31.0
16	12,000	3,600	200	3,600	180,000	60,000	7,700	7,700	36.0
18	14,000	4,200	200	4,000	210,000	70,000	9,000	9,000	41.0
20	16,000	4,800	200	4,400	240,000	80,000	10,300	10,300	46.0
22	18,000	5,400	200	4,800	270,000	90,000	11,600	11,600	51.0
24	20,000	6,000	200	5,200	300,000	10,000	12,900	12,900	56.0
26	22,000	6,600	200	5,600	330,000	11,000	14,200	14,200	61.0
28	24,000	7,200	200	6,000	360,000	12,000	15,500	15,500	66.0
30	26,000	7,800	200	6,400	390,000	13,000	16,800	16,800	71.0
32	28,000	8,400	200	6,800	420,000	14,000	18,100	18,100	76.0
34	30,000	9,000	200	7,200	450,000	15,000	19,400	19,400	81.0
36	32,000	9,600	200	7,600	480,000	16,000	20,700	20,700	86.0
38	34,000	10,200	200	8,000	510,000	17,000	22,000	22,000	91.0
40	36,000	10,800	200	8,400	540,000	18,000	23,300	23,300	96.0
42	38,000	11,400	200	8,800	570,000	19,000	24,600	24,600	101.0
44	40,000	12,000	200	9,200	600,000	20,000	25,900	25,900	106.0
46	42,000	12,600	200	9,600	630,000	21,000	27,200	27,200	111.0
48	44,000	13,200	200	10,000	660,000	22,000	28,500	28,500	116.0
50	46,000	13,800	200	10,400	690,000	23,000	29,800	29,800	121.0
52	48,000	14,400	200	10,800	720,000	24,000	31,100	31,100	126.0
54	50,000	15,000	200	11,200	750,000	25,000	32,400	32,400	131.0
56	52,000	15,600	200	11,600	780,000	26,000	33,700	33,700	136.0
58	54,000	16,200	200	12,000	810,000	27,000	35,000	35,000	141.0
60	56,000	16,800	200	12,400	840,000	28,000	36,300	36,300	146.0
62	58,000	17,400	200	12,800	870,000	29,000	37,600	37,600	151.0
64	60,000	18,000	200	13,200	900,000	30,000	38,900	38,900	156.0
66	62,000	18,600	200	13,600	930,000	31,000	40,200	40,200	161.0
68	64,000	19,200	200	14,000	960,000	32,000	41,500	41,500	166.0
70	66,000	19,800	200	14,400	990,000	33,000	42,800	42,800	171.0
72	68,000	20,400	200	14,800	1,020,000	34,000	44,100	44,100	176.0
74	70,000	21,000	200	15,200	1,050,000	35,000	45,400	45,400	181.0
76	72,000	21,600	200	15,600	1,080,000	36,000	46,700	46,700	186.0
78	74,000	22,200	200	16,000	1,110,000	37,000	48,000	48,000	191.0
80	76,000	22,800	200	16,400	1,140,000	38,000	49,300	49,300	196.0
82	78,000	23,400	200	16,800	1,170,000	39,000	50,600	50,600	201.0
84	80,000	24,000	200	17,200	1,200,000	40,000	51,900	51,900	206.0
86	82,000	24,600	200	17,600	1,230,000	41,000	53,200	53,200	211.0
88	84,000	25,200	200	18,000	1,260,000	42,000	54,500	54,500	216.0
90	86,000	25,800	200	18,400	1,290,000	43,000	55,800	55,800	221.0
92	88,000	26,400	200	18,800	1,320,000	44,000	57,100	57,100	226.0
94	90,000	27,000	200	19,200	1,350,000	45,000	58,400	58,400	231.0
96	92,000	27,600	200	19,600	1,380,000	46,000	59,700	59,700	236.0
98	94,000	28,200	200	20,000	1,410,000	47,000	61,000	61,000	241.0
100	96,000	28,800	200	20,400	1,440,000	48,000	62,300	62,300	246.0
102	98,000	29,400	200	20,800	1,470,000	49,000	63,600	63,600	251.0
104	100,000	30,000	200	21,200	1,500,000	50,000	64,900	64,900	256.0
106	102,000	30,600	200	21,600	1,530,000	51,000	66,200	66,200	261.0
108	104,000	31,200	200	22,000	1,560,000	52,000	67,500	67,500	266.0
110	106,000	31,800	200	22,400	1,590,000	53,000	68,800	68,800	271.0
112	108,000	32,400	200	22,800	1,620,000	54,000	70,100	70,100	276.0
114	110,000	33,000	200	23,200	1,650,000	55,000	71,400	71,400	281.0
116	112,000	33,600	200	23,600	1,680,000	56,000	72,700	72,700	286.0
118	114,000	34,200	200	24,000	1,710,000	57,000	74,000	74,000	291.0
120	116,000	34,800	200	24,400	1,740,000	58,000	75,300	75,300	296.0
122	118,000	35,400	200	24,800	1,770,000	59,000	76,600	76,600	301.0
124	120,000	36,000	200	25,200	1,800,000	60,000	77,900	77,900	306.0
126	122,000	36,600	200	25,600	1,830,000	61,000	79,200	79,200	311.0
128	124,000	37,200	200	26,000	1,860,000	62,000	80,500	80,500	316.0
130	126,000	37,800	200	26,400	1,890,000	63,000	81,800	81,800	321.0
132	128,000	38,400	200	26,800	1,920,000	64,000	83,100	83,100	326.0
134	130,000	39,000	200	27,200	1,950,000	65,000	84,400	84,400	331.0
136	132,000	39,600	200	27,600	1,980,000	66,000	85,700	85,700	336.0
138	134,000	40,200	200	28,000	2,010,000	67,000	87,000	87,000	341.0
140	136,000	40,800	200	28,400	2,040,000	68,000	88,300	88,300	346.0
142	138,000	41,400	200	28,800	2,070,000	69,000	89,600	89,600	351.0
144	140,000	42,000	200	29,200	2,100,000	70,000	90,900	90,900	356.0
146	142,000	42,600	200	29,600	2,130,000	71,000	92,200	92,200	361.0
148	144,000	43,200	200	30,000	2,160,000	72,000	93,500	93,500	366.0
150	146,000	43,800	200	30,400	2,190,000	73,000	94,800	94,800	371.0
152	148,000	44,400	200	30,800	2,220,000	74,000	96,100	96,100	376.0
154	150,000	45,000	200	31,200	2,250,000	75,000	97,400	97,400	381.0
156	152,000	45,600	200	31,600	2,280,000	76,000	98,700	98,700	386.0
158	154,000	46,200	200	32,000	2,310,000	77,000	100,000	100,000	391.0
160	156,000	46,800	200	32,400	2,340,000	78,000	101,300	101,300	396.0
162	158,000	47,400	200	32,800	2,370,000	79,000	102,600	102,600	401.0
164	160,000	48,000	200	33,200	2,400,000	80,000	103,900	103,900	406.0
166	162,000	48,600	200	33,600	2,430,000	81,000	105,200	105,200	411.0
168	164,000	49,200	200	34,000	2,460,000	82,000	106,500	106,500	416.0
170	166,000	49,800	200	34,400	2,490,000	83,000	107,800	107,800	421.0
172	168,000	50,400	200	34,800	2,520,000	84,000	109,100	109,100	426.0
174	170,000	51,000	200	35,200	2,550,000	85,000	110,400	110,400	431.0
176	172,000	51,600	200	35,600	2,580,000	86,000	111,700	111,700	436.0
178	174,000	52,200	200	36,000	2,610,000	87,000	113,000	113,000	441.0
180	176,000	52,800	200	36,400	2,640,000	88,000	114,300	114,300	446.0
182	178,000	53,400	200	36,800	2,670,000	89,000	115,600	115,600	451.0
184	180,000	54,000	200	37,200	2,700,000	90,000	116,900	116,900	456.0
186	182,000	54,600	200	37,600	2,730,000	91,000	118,200	118,200	461.0
188	184,000	55,200	200	38,000	2,760,000	92,000	119,500	119,500	466.0
190	186,000	55,800	200	38,400	2,790,000	93,000	120,800	120,800	471.0
192	188,000	56,400	200	38,800	2,820,000	94,000	122,100	122,100	476.0
194	190,000	57,000	200	39,200	2,850,000	95,000	123,400	123,400	481.0
196	192,000	57,600	200	39,600	2,880,000	96,000	124,700	124,700	486.0
198	194,000	58,200	200	40,000	2,910,000	97,000	126,000	126,000	491.0
200	196,000	58,800	200	40,400	2,940,000	98,000	127,300	127,300	496.0
202	198,000	59,400	20						