

to anchor and so to give freedom for expansion of the piping that no strain therefrom shall be allowed to distort the radiators. When expansion strains from the pipes are permitted to reach these light metal heaters they usually emit sounds of distress which are exceedingly troublesome.

Standards

Several tables of standard dimensions of piping and fittings are appended.

125 LB. CAST IRON FLANGED FITTINGS

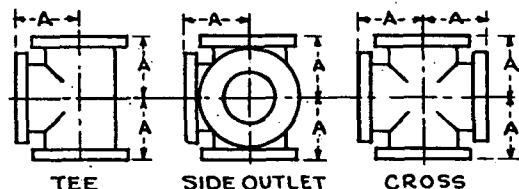


TABLE 5. DIMENSIONS OF TEES AND CROSSES (STRAIGHT SIZES)

NOMINAL PIPE SIZE a-b	A	AA	DIAMETER OF FLANGE	THICKNESS OF FLANGE, MIN.	METAL THICKNESS OF BODY, MIN.
	CENTER TO FACE TEES AND CROSSES b-c	FACE TO FACE TEES AND CROSSES b-c			
1	3 1/2	7	4 1/4	7/16	7/16
1 1/4	3 3/4	7 1/2	4 5/8	1/2	7/16
1 1/2	4	8	5	9/16	7/16
2	4 1/2	9	6	5/8	7/16
2 1/2	5	10	7	11/16	7/16
3	5 1/2	11	7 1/2	3/4	7/16
3 1/2	6	12	8 1/2	13/16	7/16
4	6 1/2	13	9	1 1/16	7/16
5	7 1/2	15	10	1 1/8	7/16
6	8	16	11	1 1/16	7/16
8	9	18	13 1/2	1 1/8	5/8
10	11	22	16	1 3/16	3/4
12	12	24	19	1 1/2	13/16
14 O.D.	14	28	21	1 3/8	1 1/8
16 O.D.	15	30	23 1/2	1 7/8	1 1/4
18 O.D.	16 1/2	33	25	1 7/8	1 1/4
20 O.D.	18	36	27 1/2	1 7/8	1 1/4
24 O.D.	22	44	32	1 7/8	1 1/4
30 O.D.	25	50	38 3/4	2 1/8	1 3/8
36 O.D.	28	56	46	2 3/8	1 3/8
42 O.D.	31	62	53	2 3/8	1 3/8
48 O.D.	34	68	59 1/2	2 3/4	2

All dimensions given in inches.

aSize of all fittings listed indicates nominal inside diameter of port.

bTees, side outlet tees, and crosses, 16 in. and smaller, reducing on the outlet, have the same dimensions center to face, and face to face as straight size fittings, corresponding to the size of the larger opening. Sizes 18 in. and larger, reducing on the outlet, are made in two lengths, depending on the size of the outlet as given in Table 9.

cTees and crosses, reducing on run only, carry same dimensions center to face and face to face as a straight size fitting of the larger opening.

Table 1 is for standard wrought pipe and Table 2 is for extra strong wrought pipe.

Standard roughing-in dimensions for angle type valves are given in Table 3.

The dimensions of elbows, tees and crosses for 125 lb. cast iron screwed fittings are given in Table 4, whereas the dimensions of tees and crosses for 125 lb. cast iron flange fittings are given in Table 5.

Table 7 gives the dimensions of welding neck flanges for standard pipe.

125 LB. CAST IRON FLANGED FITTINGS

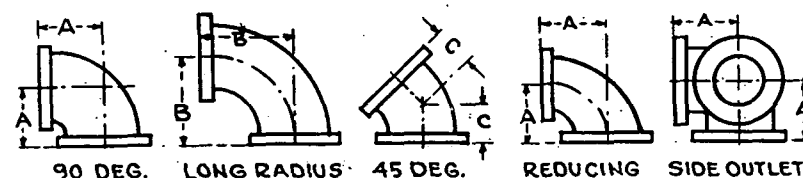


TABLE 6. DIMENSIONS OF ELBOWS

NOMINAL PIPE SIZE a	A	B	C	DIAMETER OF FLANGE	THICKNESS OF FLANGE, MIN.	METAL THICKNESS OF BODY, MIN.
	CENTER TO FACE ELBOW b-d	CENTER TO FACE LONG RADIUS ELBOW b-d	CENTER TO FACE 45 DEG. ELBOW c			
1	3 1/2	5	1 3/4	4 1/4	7/16	7/16
1 1/4	3 3/4	5 1/2	2	4 5/8	1/2	7/16
1 1/2	4	6	2 1/4	5	9/16	7/16
2	4 1/2	6 1/2	2 1/2	6	5/8	7/16
2 1/2	5	7	3	7	11/16	7/16
3	5 1/2	7 3/4	3	7 1/2	3/4	7/16
3 1/2	6	8 1/2	3 1/2	8 1/2	13/16	7/16
4	6 1/2	9	4	9	1 1/16	7/16
5	7 1/2	10 1/4	4 1/2	10	1 1/8	7/16
6	8	11 1/2	5	11	1 1/16	7/16
8	9	14	5 1/2	13 1/2	1 1/8	5/8
10	11	16 1/2	6 1/2	16	1 3/16	3/4
12	12	19	7 1/2	19	1 1/4	13/16
14 O.D.	14	21 1/2	7 1/2	21	1 3/8	1 1/8
16 O.D.	15	24	8	23 1/2	1 7/8	1 1/4
18 O.D.	16 1/2	26 1/2	8 1/2	25	1 7/8	1 1/4
20 O.D.	18	29	9 1/2	27 1/2	1 7/8	1 1/4
24 O.D.	22	34	11	32	1 7/8	1 1/4
30 O.D.	25	41 1/2	15	38 3/4	2 1/8	1 3/8
36 O.D.	28	49	18	46	2 3/8	1 3/8
42 O.D.	31	56 1/2	21	53	2 5/8	1 3/8
48 O.D.	34	64	24	59 1/2	2 3/4	2

All dimensions given in inches.

aSize of all fittings listed indicates nominal inside diameter of port.

bReducing elbows and side outlet elbows carry same dimensions-center to face as straight size elbows, corresponding to the size of the larger opening.

cSpecial degree elbows, ranging from 1 to 45 deg., inclusive, have the same center to face dimensions given in 45 deg. elbows and those over 45 deg. and up to 90 deg. inclusive, shall have the same center to face dimensions given for 90 deg. elbows. The angle designation of an elbow is its deflection from straight line flow and is the angle between the flange faces.

dSide outlet elbows shall have all openings on intersecting center-lines.