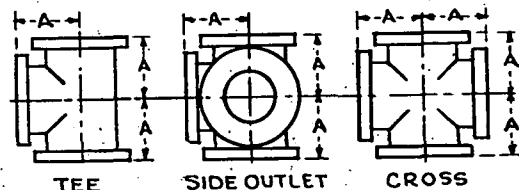


manganese, sulphur, silicon, and copper makes very little difference in the amount or character of corrosion when under water, although under atmospheric exposure the influence of composition is more marked. Corrosion is stimulated by scale adhering to the iron surface, by electric

TABLE 6. AMERICAN STANDARD DIMENSIONS OF TEES AND CROSSES (STRAIGHT SIZES) FOR 125 LB CAST-IRON FLANGED FITTINGS



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

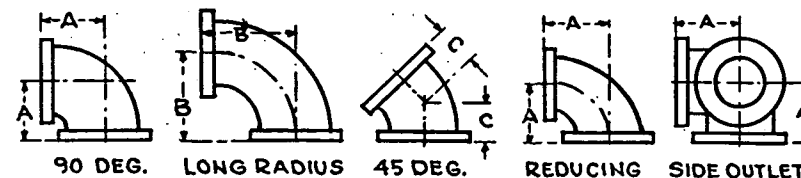
cTees and crosses, reducing on run only, carry same dimensions center to face and face to face as a straight size fitting of the larger opening.

currents from external sources, by acids carried in solution or as gases, by solids that break down in water, by strains due to inadequate annealing and by contact between dissimilar materials.

The best way to deal with corrosive water supply is to treat it at its source. In practice, oxygen removal has been accomplished in two ways,

(1) by deaerating the water mechanically and (2) by fixing the free oxygen by chemical combination. Corrosive action may be retarded by the use of a metal which is electro-positive to that to be protected, such as zinc

TABLE 7. AMERICAN STANDARD DIMENSIONS OF ELBOWS FOR 125 LB CAST-IRON FLANGED FITTINGS



NOMINAL PIPE SIZE a	A CENTER TO FACE ELBOW b-c-d	B CENTER TO FACE LONG RADIUS ELBOW b-c-d	C CENTER TO FACE 45 DEG ELBOW c	DIAMETER OF FLANGE	THICKNESS OF FLANGE, MIN.	METAL THICKNESS OF BODY, MIN.
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	7/16	7/16
1 1/2	4	6	2 1/4	5	7/16	7/16
2	4 1/2	6 1/2	2 1/2	6	7/16	7/16
2 1/2	5	7	3	7	1 1/16	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 1/2	7/16
5	7 1/2	10 1/4	4 1/2	10	1 5/16	7/16
6	8	11 1/2	5	11	1	9/16
8	9	14	5 1/2	13 1/2	1 1/8	5/8
10	11	16 1/2	6 1/2	16	1 3/4	3/4
12	12	19	7 1/2	19	1 1/2	13/16
14 O.D.	14	21 1/2	7 1/2	21	1 3/8	7/8
16 O.D.	15	24	8	23 1/2	1 7/8	1
18 O.D.	16 1/2	26 1/2	8 1/2	25	1 7/8	1 1/16
20 O.D.	18	29	9 1/2	27 1/2	1 11/16	1 1/8
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 7/16
36 O.D.	28	49	18	46	2 3/8	1 5/8
42 O.D.	31	56 1/2	21	53	2 5/8	1 3/4
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 as given for 45 deg elbows and those over 45 deg and up to 90 deg, inclusive, shall have the same center to face dimensions as 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 intersection center-lines.

to protect iron; by the effective neutralization of acid or alkaline contents; by the elimination of ununiform materials; and through the exercise of care in counteracting the effects of stray electric currents.

The introduction into piping systems of various chemical compounds, usually for forming a protective coating of thin deposit, has apparently