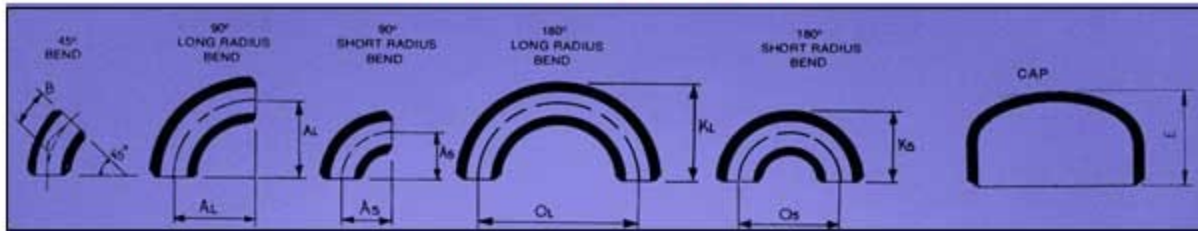


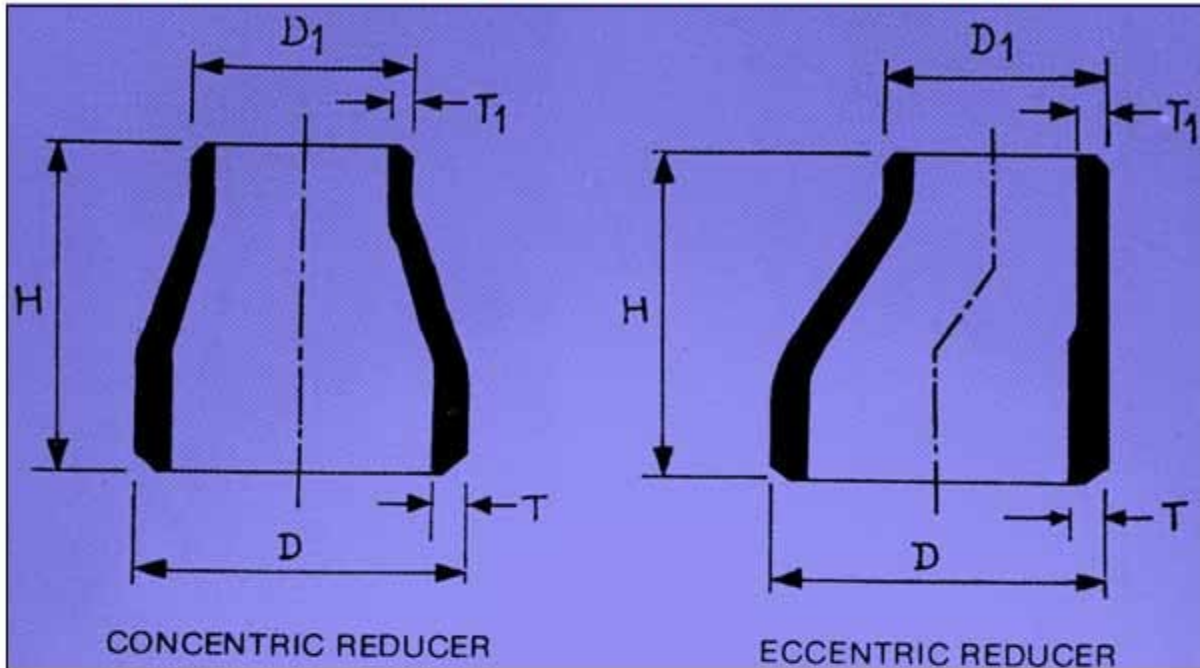
BUTT WELDING ELBOW



DIMENSIONS

NOM. PIPE SIZE		O.D. D	45° BEND B	90° BEND LONG RAD AL	90° BEND SHORT RAD AS	180° BEND LONG RAD		180° BEND SHORT RAD		THICKNESS t			
IN	MM					OL	KL	OS	KS	SCH 10	SCH 40	SCH 80	CAPS E
1/2	15	21.30	16	38		76	49			2.11	2.77	3.73	25.0
3/4	20	26.67	11	29		57	43			2.11	2.87	3.91	25.0
1	25	33.40	22	38	25	76	56	51	41	2.77	3.38	4.55	38.0
1 1/4	32	42.20	25	48	32	95	70	64	52	2.77	3.56	4.85	38.0
1 1/2	40	48.30	29	57	38	114	83	76	62	2.77	3.68	5.08	38.0
2	50	60.30	35	76	51	152	106	102	81	2.77	3.9	5.55	38.0
2 1/2	65	73.00	44	95	64	191	132	127	100	3.05	5.16	7.01	38.0
3	80	88.90	51	114	76	229	159	152	121	3.05	5.49	7.62	51.0
4	100	114.30	64	152	102	305	210	203	159	3.05	6.02	8.55	64.0
5	125	141.30	79	190	127	381	262	254	197	3.40	6.55	9.53	76.0
6	150	168.30	95	229	152	457	313	305	237	3.40	7.11	10.97	89.0
8	200	219.10	127	305	203	610	414	406	313	3.76	8.18	12.7	102.0
10	250	273.00	159	381	254	762	518	508	391	4.19	9.27	15.09	127.0
12	300	323.90	190	457	305	914	619	610	467	4.57	10.31	17.48	152.0
14	350	356.60	222	533	356	1067	711	711	533	4.78	11.13	19.05	165.0
16	400	406.40	254	610	406	1219	813	813	610	4.78	12.70	21.44	178.0
18	450	457.20	286	686	457	1372	914	914	686	4.78	14.27	23.83	203.0
20	500	508.00	318	762	508	1524	1016	1016	762	5.54	15.09	26.19	229.0
24	600	609.60	381	914	610	1829	1219	1219	914	6.35	17.48	30.96	267.0

BUTT WELDING REDUCERS-CONCENTRIC & ECCENTRIC

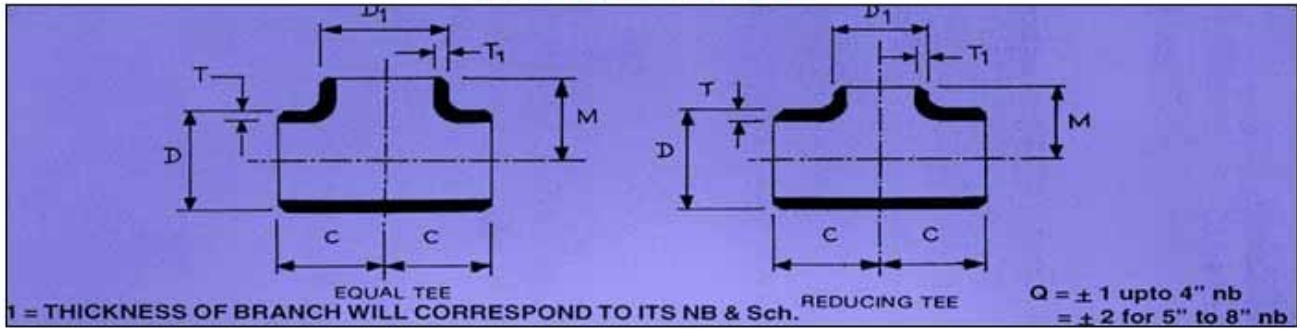


DIMENSIONS

NOMINAL PIPE SIZE		D X D1	THICKNESS				
IN	MM		T X T1 Sch. 10	T X T1 Sch. 40	T x T1 Sch. 80	H	
3/4	x 1/2	20 x 15	26.7 x 21.3	2.11 x 2.11	2.87 x 2.77	3.91 x 3.73	51
1	x 3/4	25 x 20	33.4 x 26.7	2.77 x 2.11	3.38 x 2.87	4.55 x 3.91	51
1	x 1/2	25 x 15	33.4 x 21.3	2.77 x 2.11	3.38 x 2.77	4.55 x 3.73	51
1 1/4	x 1	32 x 25	42.2 x 33.4	2.77 x 2.77	3.56 x 3.38	4.85 x 4.55	51
1 1/4	x 3/4	32 x 20	42.2 x 26.7	2.77 x 2.11	3.56 x 2.87	4.85 x 3.91	51
1 1/4	x 1/2	32 x 15	42.2 x 21.3	2.77 x 2.11	3.56 x 2.77	4.85 x 3.73	51
1 1/2	x 1 1/4	40 x 32	48.3 x 42.2	2.77 x 2.77	3.68 x 3.56	5.08 x 4.85	64
1 1/2	x 1	40 x 25	48.3 x 33.4	2.77 x 2.77	3.68 x 3.38	5.08 x 4.55	64
1 1/2	x 3/4	40 x 20	48.3 x 26.7	2.77 x 2.11	3.68 x 2.87	5.08 x 3.91	64
1 1/2	x 1/2	40 x 15	48.3 x 21.3	2.77 x 2.11	3.68 x 2.77	5.08 x 3.73	64
2	x 1 1/2	50 x 40	60.3 x 48.3	2.77 x 2.77	3.90 x 3.68	5.55 x 5.08	76
2	x 1 1/4	50 x 32	60.3 x 42.2	2.77 x 2.77	3.90 x 3.56	5.55 x 4.85	76
2	x 1	50 x 25	60.3 x 33.4	2.77 x 2.77	3.90 x 3.38	5.55 x 4.55	76
2	x 3/4	50 x 20	60.3 x 26.7	2.77 x 2.11	3.90 x 2.87	5.55 x 3.91	76
2 1/2	x 2	65 x 50	73.0 x 60.3	3.05 x 2.77	5.16 x 3.90	7.01 x 5.55	89
2 1/2	x 1 1/2	65 x 40	73.0 x 48.3	3.05 x 2.77	5.16 x 3.68	7.01 x 5.08	89
2 1/2	x 1	65 x 25	73.0 x 33.4	3.05 x 2.77	5.16 x 3.38	7.01 x 4.55	89
3	x 2 1/2	80 x 65	88.9 x 73.0	3.05 x 3.05	5.5 x 5.16	7.62 X 7.01	89
3	x 2	80 x 50	88.9 x 60.3	3.05 x 2.77	5.5 x 3.09	7.62 X 5.55	89
3	x 1 1/2	80 x 40	88.9 x 48.3	3.05 x 2.77	5.5 x 3.68	7.62 X 5.08	89
3	x 1 1/4	80 x 32	88.9 x 42.2	3.05 x 2.77	5.5 x 3.56	7.62 X 4.85	89
4	x 3	100 x 80	114.3 x 88.9	3.05 x 3.05	6.00 x 5.05	8.55 X 7.62	102
4	x 2 1/2	100 x 65	114.3 x 73.0	3.05 x 3.05	6.00 x 5.16	8.55 X 7.01	102
4	x 2	100 x 50	114.3 x 60.3	3.05 x 2.77	6.00 x 3.90	8.55 X 5.55	102
4	x 1 1/2	100 x 40	114.3 x 48.3	3.05 x 2.77	6.00 x 3.68	8.55 X 5.08	102
5	x 4	125 x 100	141.3 x 114.3	3.40 x 3.05	6.55 x 6.00	9.53 X 8.55	127

NOMINAL PIPE SIZE		D X D1	THICKNESS			
IN	MM		T X T1 Sch. 10	T X T1 Sch. 40	T x T1 Sch. 80	H
5 x 3	125 x 80	141.3 x 88.9	3.40 x 3.05	6.55 x 5.05	9.52 x 7.06	127
5 x 2½	125 x 65	141.3 x 73.0	3.40 x 3.05	6.55 x 5.16	9.52 x 7.01	127
5 x 2	125 x 50	141.3 x 60.3	3.40 x 2.77	6.55 x 3.90	9.52 x 5.56	127
6 x 5	150 x 125	168.3 x 141.3	3.40 x 3.40	7.11 x 6.55	10.97 x 9.52	140
6 x 4	150 x 100	168.3 x 114.3	3.40 x 3.05	7.11 x 6.02	10.97 x 8.55	140
6 x 3	150 x 80	168.3 x 88.9	3.40 x 3.05	7.11 x 5.50	10.97 x 7.62	140
6 x 2½	150 x 65	168.3 x 73.0	3.40 x 2.77	7.11 x 5.16	10.97 x 7.01	140
8 x 6	200 x 150	219.1 x 168.3	3.76 x 3.40	8.18 x 7.11	12.70 x 10.97	152
8 x 5	200 x 125	219.1 x 141.3	3.76 x 3.40	8.18 x 6.55	12.70 x 9.53	152
8 x 4	200 x 100	219.1 x 114.3	3.76 x 3.05	8.18 x 6.02	12.70 x 8.55	152
10 x 8	250 x 200	273.0 x 219.1	4.19 x 3.76	9.27 x 8.18	15.09 x 12.70	178
10 x 6	250 x 150	273.0 x 168.3	4.19 x 3.40	9.27 x 7.11	15.09 x 10.97	178
10 x 5	250 x 125	273.0 x 141.3	4.19 x 3.40	9.27 x 6.55	15.09 x 9.52	178
10 x 4	250 x 100	273.0 x 114.3	4.19 x 3.05	9.27 x 6.02	15.09 x 8.56	178
12 x 10	300 x 250	323.9 x 273.0	4.57 x 4.19	10.31 x 9.27	17.50 x 15.09	203
12 x 8	300 x 200	323.9 x 219.1	4.57 x 3.76	10.31 x 8.18	17.50 x 12.07	203
12 x 6	300 x 150	323.9 x 168.3	4.57 x 3.40	10.31 x 7.11	17.50 x 10.97	203
12 x 5	300 x 125	323.9 x 141.3	4.57 x 3.40	10.31 x 6.55	17.50 x 9.52	203
14 x 12	350 x 300	355.6 x 323.9	4.78 x 4.57	11.13 x 10.31	19.10 x 17.50	330
14 x 10	350 x 250	355.6 x 273.0	4.78 x 4.19	11.13 x 9.27	19.10 x 15.09	330
14 x 8	350 x 200	355.6 x 219.1	4.78 x 3.76	11.13 x 8.18	19.10 x 12.70	330
14 x 6	350 x 150	355.6 x 168.3	4.78 x 3.40	11.13 x 7.11	19.10 x 10.97	330
16 x 14	400 x 350	406.4 x 355.6	4.78 x 4.78	12.70 x 11.13	21.40 x 19.10	356
16 x 12	400 x 300	406.4 x 323.9	4.78 x 4.57	12.70 x 10.31	21.40 x 17.50	356
16 x 10	400 x 250	406.4 x 273.0	4.78 x 4.19	12.70 x 9.27	21.40 x 15.09	356
16 x 8	400 x 200	406.4 x 219.1	4.78 x 3.76	12.70 x 8.18	21.40 x 12.70	356
16 x 6	400 x 150	406.4 x 168.3	4.78 x 3.40	12.70 x 7.11	21.40 x 10.97	356
18 x 16	450 x 400	457.2 x 406.4	4.78 x 4.78	14.27 x 12.70	23.83 x 21.40	381
18 x 14	450 x 350	457.2 x 355.6	4.78 x 4.78	14.27 x 11.13	23.83 x 19.10	381
18 x 12	450 x 300	457.2 x 323.9	4.78 x 4.78	14.27 x 10.31	23.83 x 17.50	381
18 x 10	450 x 250	457.2 x 273.0	4.78 x 4.19	14.27 x 9.27	23.83 x 15.09	381
18 x 8	450 x 200	457.2 x 219.1	4.78 x 3.76	14.27 x 8.18	23.83 x 12.70	381
20 x 18	500 x 450	508.0 x 457.2	5.54 x 4.78	15.09 x 14.27	26.19 x 23.83	508
20 x 16	500 x 400	508.0 x 406.4	5.54 x 4.78	15.09 x 12.70	26.19 x 21.40	508
20 x 14	500 x 350	508.0 x 355.6	5.54 x 4.78	15.09 x 11.13	26.19 x 19.10	508
20 x 12	500 x 300	508.0 x 323.9	5.54 x 4.57	15.09 x 10.31	26.19 x 17.40	508
20 x 10	500 x 250	508.0 x 273.0	5.54 x 4.19	15.09 x 9.27	26.19 x 15.09	508
20 x 8	500 x 200	508.0 x 219.1	5.54 x 3.76	15.09 x 8.20	26.19 x 12.70	508
24 x 20	600 x 500	610.0 x 508.0	6.35 x 5.54	17.48 x 15.09	30.96 x 26.19	508
24 x 18	600 x 450	610.0 x 457.2	6.35 x 4.78	17.18 x 14.27	30.96 x 23.83	508
24 x 16	600 x 400	610.0 x 406.4	6.35 x 4.78	17.48 x 12.70	30.96 x 21.40	508
24 x 14	600 x 350	610.0 x 355.6	6.35 x 4.78	17.48 x 11.13	30.96 x 19.05	508
24 x 12	600 x 300	610.0 x 323.9	6.35 x 4.57	17.48 x 10.31	30.96 x 17.48	508
24 x 10	600 x 250	610.0 x 273.0	6.35 x 4.19	17.48 x 9.27	30.96 x 15.09	508

BUTT WELDING TEES



DIMENSIONS

RUN NB		BRANCH NB		D		T/T1*			C ± 2	M ± 2
IN	MM	IN	MM	RUN	BRANCH	SCH. 10S	SCH. 40S	SCH. 80S		
½	15	½	15	21.3	21.3		2.77	3.73	25	25
¾	20	¾	20	26.7	26.7	2.11	2.87	3.91	28	28
¾	20	½	15	26.7	21.3				28	25
1	25	1	25	33.4	33.4	2.77	3.38	4.55	38	38
1	25	¾	20	33.4	26.7				38	38
1	25	½	15	33.4	21.3				38	38
1¼	32	1¼	32	42.2	42.2	2.77	3.56	4.85	48	48
1¼	32	1	25	42.2	33.4				48	48
1¼	32	¾	20	42.2	26.7				48	48
1¼	32	½	15	42.2	21.3				48	48
1½	40	1½	40	48.3	48.3	2.77	3.68	5.08	57	57
1½	40	1	25	48.3	33.4				57	57
1½	40	¾	20	48.3	26.7				57	57
1½	40	½	15	48.3	21.3				57	57
2	50	2	50	60.3	60.3	2.77	3.91	5.55	64	64
2	50	1½	40	60.3	48.3				64	60
2	50	1¼	32	60.3	42.2				64	57
2	50	1	25	60.3	33.4				64	51
2	50	¾	20	60.3	26.7				64	44
2½	65	2½	65	73.0	73.0	3.05	5.16	7.01	76	76
2½	65	2	50	73.0	60.3				76	70
2½	65	1½	40	73.0	48.3				76	67
2½	65	1	25	73.0	33.4				76	57
3	80	3	80	88.9	88.9	3.05	5.50	7.62	86	86
3	80	2½	65	88.9	73.0				86	83
3	80	2	50	88.9	60.3				86	76
3	80	1½	40	88.9	48.3				86	73
4	100	4	100	114.3	114.3	3.05	6.02	8.55	105	105
4	100	3	80	114.3	89.9				105	98
4	100	2½	65	114.3	73.0				105	95
4	100	2	50	114.3	60.3				105	89
4	100	1½	40	114.3	48.3				105	86
5	125	5	125	141.3	141.3	3.40	6.55	9.52	124	124
5	125	4	100	141.3	114.3				124	117

RUN NB		BRANCH NB		D		T/T1*			C + 2	M + 2
IN	MM	IN	MM	RUN	BRANCH	SCH. 10S	SCH. 40S	SCH. 80S		
5	125	3	80	141.3	88.90				124	111
5	125	2	50	141.3	60.30				124	105
6	150	6	150	168.3	168.30		7.11	10.97	143	143
6	150	5	125	168.3	141.30	3.40			143	137
6	150	4	100	168.3	114.30				143	130
6	150	3	80	168.3	88.90				143	124
6	150	2½	65	168.3	73.00				143	121
8	200	8	200	219.1	219.10		8.18	12.70	178	178
8	200	6	150	219.1	168.30	3.76			178	168
8	200	5	125	219.1	141.30				178	162
8	200	4	100	219.1	114.30				178	156
10	250	10	250	273.0	273.00		9.27	15.09	216	216
10	250	8	200	273.0	219.10	4.19			216	203
10	250	6	150	273.0	168.30				216	194
10	250	5	125	273.0	141.30				216	191
10	250	4	100	273.0	114.30				216	184
12	300	12	300	323.9	323.90		10.31	17.48	254	254
12	300	10	250	323.9	273.00	4.57			254	241
12	300	8	200	323.9	219.10				254	229
12	300	6	150	323.9	168.30				254	219
12	300	5	125	323.9	141.30				254	216
14	350	14	350	355.6	355.60		11.13	19.05	279	279
14	350	12	300	355.6	323.90	4.78			279	270
14	350	10	250	355.6	273.00				279	257
14	350	8	200	355.6	219.10				279	248
14	350	6	150	355.6	168.30				279	238
16	400	16	400	406.4	406.40		12.70	21.40	305	305
16	400	14	350	406.4	355.60	4.78			305	305
16	400	12	300	406.4	323.90				305	295
16	400	10	250	406.4	273.00				305	283
16	400	8	200	406.4	219.10				305	273
16	400	6	150	406.4	168.30				305	264
18	450	18	450	457.2	457.20		14.27	23.80	343	343
18	450	16	400	457.2	406.40	4.78			343	330
18	450	14	350	457.2	355.60				343	330
18	450	12	300	457.2	323.90				343	321
18	450	10	250	457.2	273.00				343	308
18	450	8	200	457.2	219.10				343	298
20	500	20	500	508.0	508.00		15.09	26.20	381	381
20	500	18	450	508.0	457.20	5.54			381	343
20	500	16	400	508.0	406.40				381	330
20	500	14	350	508.0	355.60				381	330
20	500	12	300	508.0	323.90				381	321
20	500	10	250	508.0	273.00				381	308
20	500	8	200	508.0	219.10				381	298
24	600	24	600	610.0	610.00		17.48	31.00	432	432
24	600	20	500	610.0	508.00	6.35			432	381
24	600	18	450	610.0	457.20				432	343
24	600	16	400	610.0	406.40				432	330
24	600	14	350	610.0	355.60				432	330
24	600	12	300	610.0	323.90				432	321
24	600	10	250	610.0	273.00				432	308