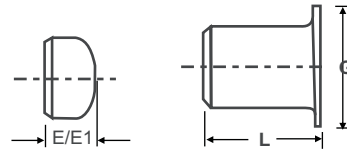
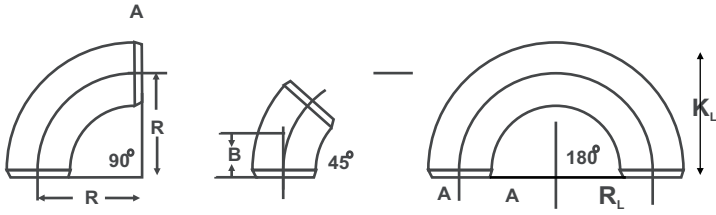


## ELBOWS

## RETURN BENDS

## CAPS

## LAP JOINTS STUB ENDS

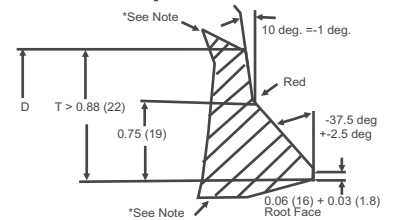
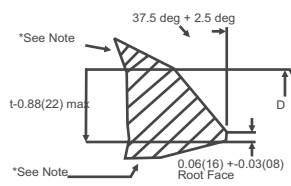


NOM BORE	PIPE OD	RADIUS 'R'			K	E / E1	G	LENGTH 'L'	
		1 D	1.5 D	B (1.5 D)				MSS SP 43	ANSI B 16.9
1/2	21.3	12.7	38.1	15.9	48	25.4	34.9	50.8	76.2
3/4	26.7	19.05	38.1	19.0	51	25.4	42.8	50.8	76.2
1	33.4	25.4	38.1	22.2	56	38.1	50.8	50.8	101.6
1 1/4	42.2	31.75	47.6	25.0	70	38.1	63.5	50.8	101.6
1 1/2	48.3	38.1	57.15	28.6	83	38.1	73.0	50.8	101.6
2	60.3	50.8	76.2	35.0	106	44*	92.0	63.5	152.4
2 1/2	73.0	63.5	95.25	44.0	132	51*	106	63.5	152.4
3	88.9	76.2	114.3	50.8	159	64*	127.0	63.5	152.4
3 1/2	101.6	88.9	133.35	57.2	184	76*	139.7	76.2	152.4
4	114.3	101.6	152.4	63.5	210	76*	157.2	76.2	152.4
5	141.3	127.0	190.5	79.4	262	89*	185.7	76.2	203.2
6	168.3	152.4	228.6	95.3	313	102*	218	88.9	203.2
8	219.1	203.2	304.8	127.0	414	127*	270.0	101.6	203.2
10	373.1	254.0	381.0	158.7	518	152*	324.0	127.0	254.0
12	323.9	304.8	457.2	190.5	619	178*	381.0	152.4	254.0
14	355.6	355.6	533.4	222.2	711	191*	412.8	152.4	305.0
16	406.4	406.4	609.6	254.0	813	203*	470.0	152.4	305.0

NOM BORE	PIPE OD	RADIUS 'R'			K	E / E1	G	LENGTH 'L'	
		1 D	1.5 D	B (1.5 D)				MSS SP 43	ANSI B 16.9
18	457.2	457.2	685.8	285.7	914	229*	533.4	152.4	305.0
20	508.0	508.0	762.0	317.6	1016	254*	584.2	152.4	305.0
22	558.8	558.8	838.2	343.0	1118	254*	641.4	152.4	305.0
24	609.6	609.6	914.4	381.0	1219	305*	692.2	152.4	305.0
26	660.0	660.0	991.0	405.0	--	267.0	--	--	--
28	711.0	711.0	1067.0	438.0	--	267.0	--	--	--
30	762.0	762.0	1143.0	470.0	--	267.0	--	--	--
32	813.0	813.0	1219.0	502.0	--	267.0	--	--	--
34	864.0	864.0	1295.0	533.0	--	267.0	--	--	--
36	914.0	914.0	1372.0	565.0	--	267.0	--	--	--
38	965.0	965.0	1448.0	600.0	--	305.0	--	--	--
40	1016.0	1016.0	1524.0	632.0	--	305.0	--	--	--
42	1067.0	1067.0	1600.0	660.0	--	305.0	--	--	--
44	1118.0	1118.0	1676.0	695.0	--	343.0	--	--	--
46	1168.0	1168.0	1753.0	727.0	--	343.0	--	--	--
48	1219.0	1219.0	1829.0	759.0	--	343.0	--	--	--
--	--	--	--	--	--	--	--	--	--

NORMAL WALL THICKNESS	END PREPARATION
Less than x*	Cut square or slightly chamfer, at mrfs option
x* to 0.88 inch (22)	Plain bevel as in sketch "A" above
More than 0.88 (22)	Compound bevel as in sketch "b" above
	x*=0,19(5) for carbon steel or ferritic alloy steel and 0.12 (4) for austenitic alloy steel.

## ENDS PREPARATION AS PER ANSI B 16.9



## TRANSITION CONTOUR

