

All Fittings				90 deg. And 45 deg. Elbows and Tees	Reducers & Lap Joints Stub Ends	Caps	180 deg Returns			Lap Joint Stub Ends		
Nominal Pipe size (NPS)	Outside Diameter at Bewel (1), (2) D	Inside diameter at End (1), (2),(3)	Wall Thickness (3)	Center to end Dimension A,B,C ,M	Center to Overall Length F,H	Overall Length E	Center to Center Dimension O	Back to Face Dimension K	Alignment of ends U	Outside Diameter of Lap G	Fill et Radius of Lap R	Outside Diameter of Barrel
½ to 2/12	1	0.08	Not Less than 87.5% of nominal thickness	2	2	4	7	7	1	+0.1	+0-1	See Table 7 for limiting dimensions
3 to 3/12	1	1.6		2	2	4	7	7	1	+0-1	+0-1	
4	+2 -1	1.6		2	2	4	7	7	1	+0-1	+0.1	
5 to 6	-3 -1	1.6		2	2	7	7	7	1	+0-1	+0.1	
8	+4 -3	1.6		2	2	7	7	7	1	+0-1	+0.2	
10	+4 -3	3.2		2	2	7	10	7	1	+0-1	+0-2	
12 to 18	+4 -3	3.2		2	2	7	10	7	2	+0.2	+0.2	
20 to 24	+6 -5	4.8		3	3	7	10	7	2	+0.2	+0.2	
26 to 30	+7 -5	4.8		5	5	10	-	-	-	-	-	
32 to 48	+7 -5	4.8	5	5	10	-	-	-	-	-		

Nominal Pipe Size (NPS)	Angularity - Tall	
	Off Angle Q	Off Plane P
½ to 4	1	2
5 to 8	2	4
10 to 12	3	5
14 to 16	3	7
18 to 24	4	10
26 to 30	5	10
32 to 42	5	13
44 to 48	5	20

GENERAL NOTE : Dimensions are in millimeters (except NPS) tolerance are equal plus minus except as noted.

NOTES:

- 1) Out of round is the sum of absolute values of plus and minus tolerance.
- 2) This tolerance may be exceed in localized area of formed fittings where increase wall thickness is required to meet design requirements of para 2.2,
- 3) The inside diameter and the nominal wall thickness at ends are to be specified by the purchaser.
- 4) Unless otherwise specified by the purchaser,these tolerances apply to the nominal inside diameter,which equals the difference between the nominal outside diameter and twice the nominal wall thickness.