

ACCESORIOS DE TUBERÍA

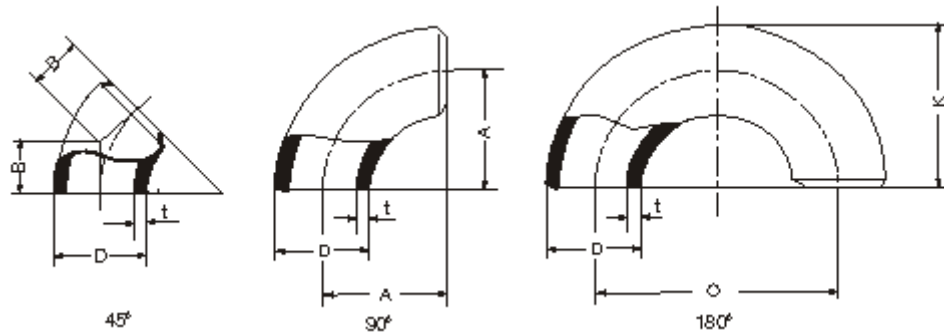
Gestión de Compras suministra accesorios de tubería para el mercado nacional e internacional, según normativas ISO, ANSI, BS, DIN, JIS, China GB/T, KS, etc., así como según especificaciones del cliente.

Fabricamos accesorios de tubería de diferentes especificaciones, para alta, media y baja presión, que son fundamentalmente utilizadas en la industria química y petrolífera. Nuestra gama de productos incluye codos, caps, tes, reducciones, uniones de martillo, etc., realizadas en acero al carbono y acero inoxidable.



ESPECIFICACIONES

- Carbon Steel Pipe Fitting--Elbow
- Long Radius
ASME/ANSI B16.9



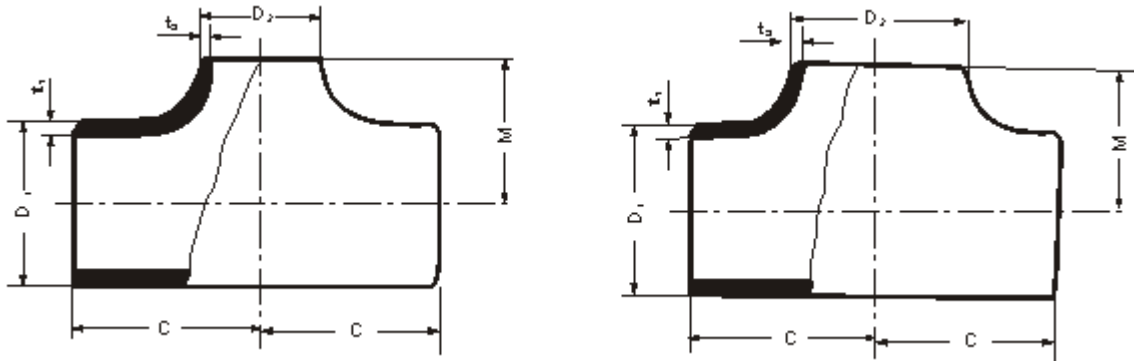
Nominal Pipe Size inch	Dimensions			ii	Wall thickness: t		Approx. Weight			
	Outside Diameter at Bevel: D		Center to End: A/B Center to center: O Back to Face: K mm		Sch. No.	t		45; ā kg	90; ā kg	180; ā kg
	inch	mm				inch	mm			
1/2	0.840	21.3	A=38.1 B=15.7 O=76.2 K=47.8	Std/40 XS/80	0.109 0.147	2.77 3.73	0.04 0.05	0.08 1.10	0.16 0.20	
3/4	1.05	26.7	A=38.1 B=19.1 O=76.2 K=50.8	Std/40 XS/80	0.113 0.154	2.87 3.91	0.04 0.05	0.08 0.10	0.16 0.20	
1	1.315	33.4	A=38.1 B=22.4 O=76.2 K=55.6	Std/40 XS/80 160	0.133 0.179 0.250	3.38 4.55 6.35	0.08 0.10 0.13	0.15 0.19 0.25	0.30 0.38 0.50	
1 1/4	1.660	42.2	A=47.8 B=25.4 O=95.3 K=69.9	Std/40 XS/80 160	0.140 0.191 0.250	3.56 4.85 6.35	0.13 0.17 0.21	0.25 0.33 0.42	0.50 0.66 0.84	
1 1/2	1.900	48.3	A=57.2 B=28.4 O=114.3 K=82.6	Std/40 XS/80 160 XXS	0.145 0.200 0.281 0.400	3.65 5.08 7.14 10.15	0.18 0.25 0.33 0.43	0.36 0.49 0.65 0.86	0.72 0.98 1.30 1.72	
2	2.375	60.3	A=76.2 B=35.1 O=152.4 K=106.4	Std/40 XS/80 160 XXS	0.154 0.218 0.344 0.436	3.91 5.54 8.74 11.07	0.33 0.45 0.67 0.81	0.65 0.90 1.33 1.61	1.30 1.80 2.66 3.22	
2 1/2	2.875	73.0	A=95.3 B=44.5 O=190.5 K=131.8	Std/40 XS/80 160 XXS	0.203 0.276 0.375 0.552	5.16 7.01 9.53 14.02	0.65 0.86 1.12 1.53	1.29 1.71 2.23 3.05	2.58 3.42 4.46 6.10	
3	3.500	88.9	A=114.3 B=50.8 O=228.6 K=158.8	Std/40 XS/80 160 XXS	0.216 0.300 0.438 0.600	5.49 7.62 11.13 15.24	1.02 1.37 1.92 2.49	2.03 2.74 3.83 4.97	4.06 5.48 7.68 9.94	
4	4.500	114.3	A=152.4 B=63.5 O=304.8 K=209.6	Std/40 XS/80 120 160 XXS	0.237 0.337 0.438 0.531 0.674	6.02 8.56 11.13 13.49 17.12	1.93 2.67 3.39 4.02 4.91	3.85 5.34 6.78 8.02 9.82	7.70 10.7 13.6 16.1 19.6	
5	5.563	141.3	A=190.5 B=79.2 O=381.0 K=261.9	Std/40 XS/80 120 160 XXS	0.258 0.375 0.500 0.625 0.750	6.55 9.53 12.70 15.88 19.05	3.26 4.64 6.05 7.35 8.60	6.51 9.27 12.1 14.7 17.2	13.0 18.5 24.2 29.4 34.4	

6	6.625	168.3	A=228.6 B=95.3 O=457.2 K=312.7	Std/40 XS/80 120 160 XXS	0.280 0.432 0.562 0.719 0.864	7.11 10.97 14.27 18.26 21.95	5.05 7.65 9.75 12.1 14.2	10.1 15.3 19.3 24.2 28.4	20.2 30.6 39.0 48.4 56.4
8	8.625	219.1	A=304.8 B=127.0 O=609.6 K=414.3	20 30 Std/40 60 XS/80 100 120 140 160 XXS	0.250 0.277 0.322 0.406 0.500 0.594 0.719 0.812 0.906 0.875	6.35 7.04 8.18 10.31 12.70 15.09 18.26 20.62 23.01 22.23	7.95 8.80 10.2 12.7 15.5 18.2 21.2 24.7 26.7 15.9	15.9 17.6 20.4 25.4 30.9 36.3 43.3 48.3 53.3 51.7	31.8 35.2 40.8 50.5 61.8 72.6 96.6 107 103
10	10.750	273.0	A=381.0 B=158.8 O=762.0 K=517.7	20 30 Std/40 XS/60 80 100 120 140/XXS 160	0.250 0.307 0.365 0.500 0.594 0.719 0.844 1.000 1.125	6.35 7.80 9.27 12.70 15.09 18.26 21.44 25.40 28.58	12.5 15.3 18.1 24.4 28.7 34.3 39.8 46.4 51.5	25.0 60.5 36.1 48.8 57.3 68.6 79.6 92.8 103	50.0 61.0 72.2 97.6 115 137 159 186 206
12	12.750	323.9	A=457.2 B=190.5 O=914.4 K=619.3	20 30 Std 40 XS 60 80 100 120/XXS 140 160	0.250 0.330 0.375 0.406 0.500 0.562 0.688 0.844 1.000 1.125 1.312	6.35 8.38 9.53 10.31 12.70 14.27 17.48 21.44 25.40 28.58 33.32	17.9 23.4 26.6 28.7 35.0 39.1 47.4 57.5 67.0 74.5 85.5	35.7 46.8 53.1 57.8 70.0 78.2 84.7 115.0 134.0 149.0 171.0	71.4 93.6 106.0 115.0 140.0 156.0 189.0 23.0 268.0 298.0 342.0
14	14.000	355.6	A=533.4 B=222.3 O=1033.8 K=711.2	10 20 Std/30 40 XS 60 80 100 120 140 160	0.250 0.312 0.375 0.438 0.500 0.594 0.750 0.938 1.094 1.250 1.406	6.35 7.92 9.53 11.13 12.70 15.09 19.05 23.83 27.79 31.785 35.71	22.9 28.5 34.1 39.6 45.0 53.0 66.0 81.5 94.0 106.0 118.0	45.8 56.9 68.1 79.2 90.0 106.0 132.0 163.0 188.0 212.0 236.0	91.6 114.0 136.0 158.0 180.0 212.0 264.0 326.0 376.0 424.0 472.0
16	16.000	406.4	A=609.6 B=254.0 O=1219.2 K=812.8	10 20 Std/30 XS/40 60 80 100 120 140 160	0.250 0.312 0.375 0.500 0.656 0.844 1.031 1.219 1.438 1.594	6.35 7.92 9.53 12.70 16.66 21.44 26.19 30.96 36.53 40.49	30.0 37.3 44.7 59.0 76.0 97.5 118.0 137.0 160.0 178.0	60.0 74.5 89.3 118.0 153.0 195.0 235.0 274.0 319.0 35.0	120.0 149.0 179.0 236.0 306.0 390.0 470.0 548.0 638.0 700.0
18	18.000	457.0	A=685.8 B=285.8 O=1371.6 K=914.4	10 20 30 Std XS 40 60 80 100 120 140 160	0.250 0.312 0.438 0.375 0.500 0.562 0.720 0.938 1.156 1.375 1.562 1.781	6.35 7.62 11.13 9.53 12.70 14.27 19.05 23.83 29.36 34.93 39.67 45.24	38.1 47.3 66.0 56.5 75.0 84.0 111.0 137.0 167.0 196.0 220.0 246.0	76.1 94.5 132.0 113.0 150.0 168.0 222.0 274.0 334.0 392.0 440.0 492.0	152 189 264 226 300 336 444 548 668 784 880 984
20	20.000	508.0	A=762.0 B=317.5 O=1524.0 K=1016.0	10 Std/20 XS/30 40 60 80 100 120 140 160	0.250 0.375 0.500 0.594 0.812 1.031 1.284 1.500 1.750 1.969	6.35 9.53 12.70 15.09 20.62 26.19 32.54 38.10 44.45 50.01	47.0 70.0 93.0 110.0 149.0 186.0 229.0 264.0 305.0 338.0	94.0 140.0 186.0 219.0 297.0 372.0 547.0 528.0 609.0 676.0	188 280 372 438 594 744 914 1056 1218 1352

22	22.000	559.0	A=838.2 B=342.9 O=1676.4 K=1117.6	10	0.250	6.35	57.0	114.0	228
				Std/20	0.375	9.53	85.0	170.0	340
				XS/30	0.500	12.70	113.0	225.0	450
				60	0.875	22.23	194.0	387.0	774
				80	1.125	28.58	246.0	492.0	980
				100	1.375	34.93	297.0	594.0	1188
				120	1.625	41.28	347.0	694.0	1388
				140	1.875	47.63	395.0	790.0	1580
24	24.000	610.0	A=914.4 B=381.0 O=1828.8 K=1219.2	10	0.250	6.35	68	136	272
				Std/20	0.375	9.53	101	202	404
				XS	0.500	12.7	135	268	538
				30	0.561	14.27	151	301	602
				40	0.688	17.48	183	366	732
				60	0.969	24.61	255	510	1020
				80	1.219	30.96	317	634	1268
				100	1.531	38.89	393	486	1572
26	26.000	660.0	A=990.6 B=406.4	10	0.312	7.92	99	198	
				Std	0.375	9.53	119	238	
				XS/20	0.500	12.70	158	316	
28	28.00	711.0	A=1066.8 B=438.2 O= K=	10	0.312	7.92	115	230	
				Std	0.375	9.53	138	276	
				XS/20	0.500	12.70	184	367	
				30	0.625	15.88	228	456	
30	30.000	762.0	A=1143.0 B=469.9	10	0.312	7.92	132	264	
				Std	0.375	9.53	159	618	
				XS/20	0.500	12.70	211	421	
				30	0.625	15.88	262	524	
32	32.000	813.0	A=1219.2 B=501.7	10	0.312	7.92	151	301	
				Std	0.375	9.53	181	362	
				XS/20	0.500	12.70	240	480	
				30	0.625	15.88	299	597	
				40	0.688	17.48	328	656	
34	34.000	864.0	A=11295.4 B=533.4	10	0.312	7.92	170	340	
				Std	0.375	9.53	204	408	
				XS/20	0.500	12.70	271	542	
				30	0.625	15.88	338	675	
				40	0.688	17.48	371	742	
36	36.000	914.0	A=1371.6 B=56.2	10	0.312	7.92	191	381	
				Std	0.375	9.53	229	458	
				XS/20	0.500	12.70	304	608	
				30	0.625	15.88	379	758	
				40	0.750	19.08	453	906	

- Carbon Steel Pipe Fitting--Tee

- ASME/ANSI B16.9



Nominal Pipe Size (NPS) inch	Dimensions				Wall Thickness - Approx. Weight														
	Outside Diameter at Bevel: D1/D2		Center to End		Sch. 20			Sch. 30			STD			Sch. 40			Sch. 60		
	D1 mm	D2 mm	C mm	M mm	t1 mm	t2 mm	kg	t1 mm	t2 mm	kg	t1 mm	t2 mm	kg	t1 mm	t2 mm	kg	t1 mm	t2 mm	kg
1 1/2 1 1/2	48.3	48.3	57.2	57.2	-	-	-	-	-	-	3.68	2.68	0.92	3.68	2.68	0.92	-	-	-
2 3/4	60.3	26.7	63.5	44.5	-	-	-	-	-	-	3.91	2.87	1.49	3.91	2.87	1.49	-	-	-
21		33.4	63.5	50.8	-	-	-	-	-	-		3.38	1.49		3.38	1.49	-	-	-
2 1/4		42.2	63.5	57.2	-	-	-	-	-	-		3.56	1.49		3.56	1.49	-	-	-
2 1/2		48.3	63.5	60.5	-	-	-	-	-	-		3.68	1.49		3.68	1.49	-	-	-
22		60.3	63.5	63.5	-	-	-	-	-	-		3.91	1.49		3.91	1.49	-	-	-
2 1/2 1	70.3	33.4	76.2	57.2	-	-	-	-	-	-	5.16	3.38	2.68	5.16	3.38	2.68	-	-	-
2 1/2 1 1/4		42.2	76.2	63.5	-	-	-	-	-	-		3.56	2.68		3.56	2.68	-	-	-
2 1/2 1 1/2		48.3	76.2	66.5	-	-	-	-	-	-		3.68	2.68		3.68	2.68	-	-	-
2 1/2 2		60.3	76.2	69.9	-	-	-	-	-	-		3.91	2.68		3.91	2.68	-	-	-
2 1/2 2 1/2		73.0	76.2	76.2	-	-	-	-	-	-		5.16	2.68		5.16	2.68	-	-	-
3 1/4	88.9	42.2	85.9	69.9	-	-	-	-	-	-	5.49	3.56	3.75	5.49	3.56	3.75	-	-	-
3 1/2		48.3	85.9	73.2	-	-	-	-	-	-		3.68	3.75		3.68	3.75	-	-	-
32		60.3	85.9	76.2	-	-	-	-	-	-		3.91	3.75		3.91	3.75	-	-	-
3 2 1/2		73.0	85.9	82.6	-	-	-	-	-	-		5.16	3.75		5.16	3.75	-	-	-
33		88.9	85.9	85.9	-	-	-	-	-	-		5.49	3.75		5.49	3.75	-	-	-
4 1 1/2	114.3	48.3	104.6	85.9	-	-	-	-	-	-	6.05	3.68	6.50	6.05	3.68	6.50	-	-	-
42		60.3	104.6	88.9	-	-	-	-	-	-		3.91	6.50		3.91	6.50	-	-	-
4 2 1/2		73.0	104.6	95.3	-	-	-	-	-	-		5.16	6.50		5.16	6.50	-	-	-
43		88.9	104.6	98.6	-	-	-	-	-	-		5.49	6.50		5.49	6.50	-	-	-
44		114.3	104.6	104.6	-	-	-	-	-	-		6.02	6.50		6.02	6.50	-	-	-
52	141.3	60.3	124.7	104.6	-	-	-	-	-	-	6.55	3.91	10.00	6.55	3.91	10.00	-	-	-
5 2 1/2		73.0	124.7	108.0	-	-	-	-	-	-		5.16	10.00		5.16	10.00	-	-	-
53		88.9	124.7	111.3	-	-	-	-	-	-		5.49	10.00		5.49	10.00	-	-	-
54		114.3	124.7	117.3	-	-	-	-	-	-		6.02	10.00		6.02	10.00	-	-	-
55		141.3	124.7	124.3	-	-	-	-	-	-		6.55	10.00		6.55	10.00	-	-	-
6 2 1/2	168.3	73.0	142.7	120.7	-	-	-	-	-	-	7.11	5.16	13.50	7.11	5.16	13.50	-	-	-
63		88.9	142.7	124.0	-	-	-	-	-	-		5.49	13.50		5.49	13.50	-	-	-
64		114.3	142.7	130.0	-	-	-	-	-	-		6.02	13.50		6.02	13.50	-	-	-
65		141.3	142.7	136.7	-	-	-	-	-	-		6.55	13.50		6.55	13.50	-	-	-
66		168.3	142.7	142.7	-	-	-	-	-	-		7.11	13.50		7.11	13.50	-	-	-
84	219.1	114.3	177.8	155.4	-	-	-	-	-	-	8.18	6.02	24.50	8.18	6.02	24.50	-	-	-
85		141.3	177.8	162.1	-	-	-	-	-	-		6.55	24.50		6.55	24.50	-	-	-

86		168.3	177.8	168.1	-	-	-	-	-	-	7.11	24.50		7.11	24.50	-	-	-	
88		219.1	177.8	177.8	-	-	-	-	-	-	8.18	24.50		8.18	24.50	-	-	-	
104	237.0	114.3	215.9	184.2	-	-	-	-	-	9.27	6.02	39.60	6.02	39.60		-	-	-	
105		141.3	215.9	190.5	-	-	-	-	-	-	6.55	39.60	6.55	39.60		-	-	-	
106		168.3	215.9	193.5	-	-	-	-	-	-	7.11		7.11	39.60		-	-	-	
108		219.1	215.9	203.2	6.35	6.35	33.20	7.80	7.04	38.60		8.18		8.18	39.60	12.70	10.31	10.31	53.60
1010		273.0	215.9	215.9		6.35	34.70		7.80	38.60		9.27		9.27	41.00		12.70	12.70	58.40
125	323.9	141.3	254.0	215.9	-	-	-	-	-	-	9.53	6.55	63.00	6.55	67.20		-	-	-
126		168.3	254.0	218.9	-	-	-	-	-	-	7.11		7.11	67.20		-	-	-	
128		219.1	254.0	228.6	6.35	6.35	41.20	8.38	7.04	54.80		8.18		8.18	67.20	14.27	10.31	10.31	77.50
1210		273.0	254.0	241.3		6.35	43.40		7.80	56.60		9.27		9.27	70.00		12.70	12.70	95.00
1212		323.9	254.0	254.0		6.35	43.40		8.38	56.60		9.53		10.31	70.50		14.27	14.27	95.00
146	355.6	168.3	279.4	238.3	-	-	-	-	-	-	9.53	7.11	11.30	7.11	100.0				
148		219.1	279.4	247.7	7.92	6.35	78.30	9.53	7.04	82.60		8.18		8.18	100.0	15.09	10.31	10.31	127.1
1410		273.0	279.4	257.0		6.35	78.30		7.80	82.60		9.27		9.27	100.0		12.70	12.71	127.1
1412		233.9	279.4	269.7		6.35	80.60		8.38	85.00		9.53		10.31	105.0		14.27	14.27	135.0
1414		355.6	279.4	279.4		7.92	80.60		9.53	85.00		9.53		11.13	105.0		15.09	15.09	135.0
166	406.4	168.3	304.8	263.7	-	-	-	-	-	-	9.53	7.11	12.70	7.11	125.5		-	-	-
168		219.1	304.8	273.1	7.92	6.35	98.00	9.53	7.04	106.5		8.18		8.18	125.5	16.66	10.31	10.31	160.3
1610		273.0	304.8	282.4		6.35	98.00		7.80	106.5		9.27		9.27	125.5		12.70	12.70	162.8
1612		323.0	304.8	295.1		6.35	100.0		8.38	106.5		9.53		10.31	129.8		14.27	14.27	172.9
1614		355.6	304.8	304.8		7.92	100.0		9.53	110.0		9.53		11.13	129.8		15.09	15.09	172.9
1616		406.4	304.8	304.8		7.92	100.0		9.53	110.0		9.53		12.70	129.8		16.66	16.66	180.5

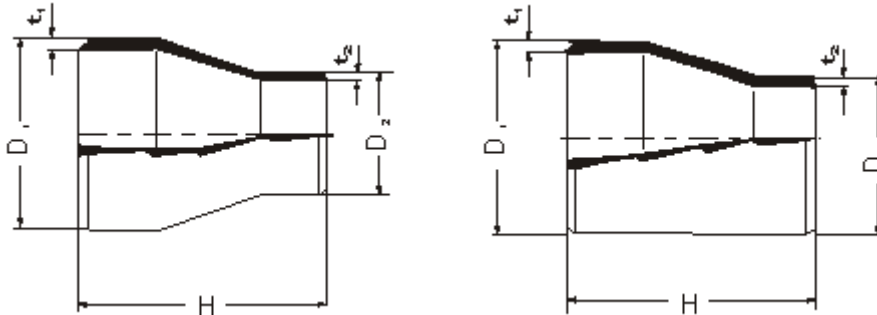
Wall Thickness - Approx.Weight																				
XS			Sch. 80			Sch. 100			Sch. 120			Sch. 140			Sch. 160			XXS		
t ₁ mm	t ₂ mm	kg	t ₁ mm	t ₂ mm	kg	t ₁ mm	t ₂ mm	kg	t ₁ mm	t ₂ mm	kg	t ₁ mm	t ₂ mm	kg	t ₁ mm	t ₂ mm	kg	t ₁ mm	t ₂ mm	kg
5.08	8.05	1.27	5.08	8.05	1.27	-	-	-	-	-	-	-	-	-	7.14	7.14	1.79	10.15	10.15	1.54
5.54	3.91	2.15	5.54	3.91	2.15	-	-	-	-	-	-	-	-	-	8.74	5.56	3.18	11.07	7.82	4.0
	4.55	2.15		4.55	2.15	-	-	-	-	-	-	-	-	-		6.35	3.18		9.09	4.0
	4.85	2.15		4.85	2.15	-	-	-	-	-	-	-	-	-		6.35	3.18		9.70	4.0
	5.08	2.15		5.08	2.15	-	-	-	-	-	-	-	-	-		7.14	3.18		10.15	4.0
	5.54	2.15		5.54	2.15	-	-	-	-	-	-	-	-	-		8.74	3.18		11.07	4.0
7.01	4.55	2.95	7.01	4.55	2.95	-	-	-	-	-	-	-	-	-	9.53	6.35	3.58	14.02	9.09	4.0
	4.85	2.95		4.85	2.95	-	-	-	-	-	-	-	-	-		6.35	3.58		9.70	4.15
	5.08	2.95		5.08	2.95	-	-	-	-	-	-	-	-	-		7.14	3.58		10.15	4.2
	5.54	2.95		5.54	2.95	-	-	-	-	-	-	-	-	-		8.74	3.58		11.07	4.2
	7.01	2.95		7.01	2.95	-	-	-	-	-	-	-	-	-		9.53	3.58		14.02	4.5
7.62	4.85	4.29	7.62	4.85	4.29	-	-	-	-	-	-	-	-	-	11.13	6.35	5.65	15.24	9.70	6.25
	5.08	4.29		5.08	4.29	-	-	-	-	-	-	-	-	-		7.14	5.75		10.15	6.3
	5.54	4.29		5.54	4.29	-	-	-	-	-	-	-	-	-		8.74	5.85		11.07	6.35
	7.01	4.29		7.01	4.29	-	-	-	-	-	-	-	-	-		9.53	6.15		14.02	6.6
	7.62	4.29		7.62	4.29	-	-	-	-	-	-	-	-	-		11.13	6.58		15.24	7.01
8.56	5.08	7.65	8.56	5.08	7.65	-	-	-	-	-	-	-	-	-	13.49	7.14	10.8	17.12	10.15	14.5
	5.54	7.65		5.54	7.65	-	-	-	-	-	-	-	-	-		8.74	10.8		11.07	14.5
	7.01	7.65		7.01	7.65	-	-	-	-	-	-	-	-	-		9.53	10.8		14.02	14.5
	7.62	7.65		7.62	7.65	-	-	-	-	-	-	-	-	-		11.13	11.1		15.24	14.5
	8.56	7.65		8.56	7.65	-	-	-	11.16	11.13	9.0	-	-	-		13.49	11.8		17.12	15.0
9.53	5.54	13.5	9.53	5.54	13.5	-	-	-	-	-	-	-	-	-	15.88	8.74	23.0	19.05	11.07	27.2
	7.01	13.5		7.01	13.5	-	-	-	-	-	-	-	-	-		9.53	23.0		14.02	27.2
	7.62	13.5		7.62	13.5	-	-	-	-	-	-	-	-	-		11.13	23.0		15.24	27.7
	8.56	13.5		8.56	13.5	-	-	-	12.70	11.13	17.5	-	-	-		13.49	23.0		17.12	28.8



	9.53	13.5		9.53	13.5	-	-	-	-	12.70	17.5	-	-	-		15.58	23.0		19.05	29.9
10.97	7.01	19.3	10.97	7.01	19.3	-	-	-	-	-	-	-	-	-	18.26	9.53	30.9	21.95	14.02	34.8
	7.62	19.3		7.62	19.3	-	-	-	-	-	-	-	-	-		11.13	30.9		15.24	34.8
	8.56	19.3		8.56	19.3	-	-	-	14.27	11.13	24.0	-	-	-		13.49	32.7		17.12	34.8
	9.53	19.3		9.53	19.3	-	-	-		12.70	24.0	-	-	-		15.88	32.7		19.05	35.6
	10.97	19.3		10.97	19.3	-	-	-		14.27	24.0	-	-	-		18.26	39.5		21.95	35.6
12.70	8.56	34.7	12.70	8.56	34.7	-	-	-	18.26	11.13	43.2	-	-	-	23.01	13.49	51.0	22.23	17.12	50.4
	9.53	34.7		9.53	34.7	-	-	-		12.70	43.2	-	-	-		15.88	55.6		19.05	50.4
	10.97	34.7		10.97	34.7	-	-	-		14.27	49.5	-	-	-		18.26	55.6		21.95	51.3
	12.7	34.7		12.7	34.7	15.09	15.09	43.50		18.26	49.5	20.62	20.62	54.0		23.01	58.0		22.23	55.5
12.7	8.56	53.5	15.09	8.56	59.7	-	-	-	21.44	11.13	71.3	-	-	-	28.58	13.49	85.0	25.40	17.12	79.3
	9.53	53.5		9.53	59.7	-	-	-		12.7	71.3	-	-	-		15.88	91.3		19.05	79.3
	10.97	54.5		10.97	59.7	-	-	-		14.27	81.7	-	-	-		18.26	102.2		21.95	90.9
	12.7	58.4		12.7	65.8	18.26	15.09	73.5		18.26	88.5	25.40	20.62	95.0		23.01	113.0		22.23	90.9
	12.7	58.4		12.7	67.5		18.26	74.0		21.44	93.0		25.40	98.5		28.58	129.3		25.40	98.5
12.7	9.53	74.8	17.48	9.53	85.4	-	-	-	25.4	12.7	102.6		-	-	33.32	15.88	140.3	25.40	19.05	119.5
	10.97	74.8		10.97	85.4	-	-	-		14.27	102.6		-	-	-	18.26	140.3		21.95	119.5
	12.7	74.8		12.7	85.4	21.44	15.09	122.5		18.26	131.2	28.58	20.62	140.0		23.01	152.3		22.23	129.1
	12.7	74.8		12.7	106.2		18.26	124.9		21.44	140.9		25.40	158.0		28.58	163.5		25.40	150.0
	12.7	74.8		12.7	115.0		21.44	136.2		25.4	150.0		28.58	176.5		33.32	183.8		25.40	150.0
12.7	10.97	103.8	19.05	10.97	141.9	-	-	-	27.79	14.27	205.0		-	-	35.71	18.26	250.0	-	-	-
	12.7	103.8		12.7	141.9	-	-	195.0		18.26	220.0	31.75	20.62	230.0		23.01	250.0	-	-	-
	12.7	103.8		12.7	160.0		18.26	195.0		21.44	220.0		25.40	245.0		28.58	265.0	-	-	-
	12.7	103.8		12.7	162.3		21.44	206.0		25.4	235.0		28.58	255.0		33.32	270.0	-	-	-
	12.7	103.8		12.7	162.3		23.83	206.0		27.79	235.0		31.75	255.0		35.71	270.0	-	-	-
12.7	10.97	130.5	21.44	10.97	163.9	-	-	-	30.96	14.27	265.4	-	-	-	40.49	18.26	320.8	-	-	-
	12.7	130.5		12.7	163.9	21.19	15.09	229.8		18.26	265.4	36.53	20.62	295.0		23.01	322.0	-	-	-
	12.7	130.5		15.09	164.9		18.26	229.0		21.44	280.0		25.40	300.0		28.58	330.5	-	-	-
	12.7	130.5		17.48	181.6		21.44	258.2		25.4	280.0		28.58	310.0		33.32	340.0	-	-	-
	12.7	130.5		19.05	195.0		23.83	266.5		27.79	295.0		31.75	340.0		35.71	360.0	-	-	-
	12.7	130.5		21.44	195.0		26.19	270.6		30.96	295.0		36.53	260.0		40.49	389.0	-	-	-

- **Carbon Steel Pipe Fitting--Reducer**

- **ASME/ANSI B16.9**

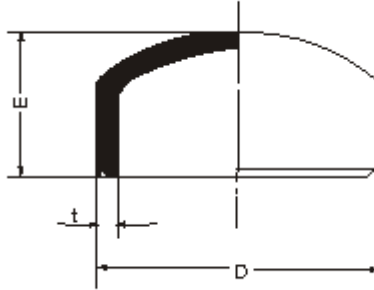


Nominal Pipe Size (NPS) inch	Dimensions			Wall Thickness - Approx. Weight														
	Outside Diameter at Bevel: D1/D2		End to End	Sch. 20			Sch. 30			STD			Sch. 40			Sch. 60		
	D ₁ mm	D ₂ mm	H mm	t ₁ mm	t ₂ mm	kg	t ₁ mm	t ₂ mm	kg	t ₁ mm	t ₂ mm	kg	t ₁ mm	t ₂ mm	kg	t ₁ mm	t ₂ mm	kg
1 ³ / ₄	33.4	26.7	26.7	-	-	-	-	-	-	3.38	2.87	0.14	3.38	2.87	0.14	-	-	-
1 ¹ / ₂ ^S / ₄	48.3	26.7	26.7	-	-	-	-	-	-	3.68	2.87	0.22	3.68	2.87	0.22	-	-	-
11		33.4	33.4	-	-	-	-	-	-		3.38	0.24		3.38	0.24	-	-	-
11 ¹ / ₄		42.2	42.2	-	-	-	-	-	-		3.56	0.26		3.56	0.26	-	-	-
21	60.3	33.4	33.4	-	-	-	-	-	-	3.91	3.38	0.37	3.91	3.38	0.37	-	-	-
21 ¹ / ₄		42.2	42.2	-	-	-	-	-	-		3.56	0.39		3.56	0.39	-	-	-
21 ¹ / ₂		48.3	48.3	-	-	-	-	-	-		3.68	0.41		3.68	0.41	-	-	-
2 ¹ / ₂ 1 ¹ / ₄	73.0	42.2	42.2	-	-	-	-	-	-	5.16	3.56	0.67	5.16	3.56	0.67	-	-	-
2 ¹ / ₂ 1 ¹ / ₂		48.3	48.3	-	-	-	-	-	-		3.68	0.68		3.68	0.68	-	-	-
2 ¹ / ₂ 2		60.3	60.3	-	-	-	-	-	-		3.91	0.73		3.91	0.73	-	-	-
31 ¹ / ₂	88.9	48.3	48.3	-	-	-	-	-	-	5.49	3.68	0.86	5.49	3.68	0.86	-	-	-
32		603.3	60.3	-	-	-	-	-	-		3.91	0.91		3.91	0.91	-	-	-
3 ¹ / ₂		73.0	73.0	-	-	-	-	-	-		5.16	0.98		5.16	0.98	-	-	-
4	114.3	60.3	60.3	-	-	-	-	-	-	6.02	3.91	1.44	6.02	3.91	1.44	-	-	-
4 ¹ / ₂		73.0	73.0	-	-	-	-	-	-		5.16	1.52		5.16	1.52	-	-	-
4		88.0	88.0	-	-	-	-	-	-		5.49	1.59		5.49	1.59	-	-	-
52 ¹ / ₂	141.3	73.0	73.0	-	-	-	-	-	-	6.55	5.16	2.51	6.55	5.16	2.51	-	-	-
5		88.9	88.9	-	-	-	-	-	-		5.49	2.60		5.49	2.60	-	-	-
5		114.3	114.3	-	-	-	-	-	-		6.02	2.72		6.02	2.72	-	-	-
6	168.3	88.9	88.9	-	-	-	-	-	-	7.11	5.49	3.63	7.11	5.49	3.63	-	-	-
6		114.3	114.3	-	-	-	-	-	-		6.02	3.72		6.02	3.72	-	-	-
6		141.3	141.3	-	-	-	-	-	-		6.55	3.93		6.55	3.93	-	-	-
8	219.1	114.3	114.3	-	-	-	-	-	-	8.18	6.02	5.95	8.18	6.02	5.95	-	-	-
8		141.3	141.3	-	-	-	-	-	-		6.55	6.08		6.55	6.08	-	-	-
8		68.3	168.3	-	-	-	-	-	-		7.11	6.31		7.11	6.31	-	-	-
10	273.0	141.3	141.3	-	-	-	-	-	-	9.27	6.55	9.90	9.27	6.55	9.90	-	-	-
10		168.3	168.3	-	-	-	-	-	-		7.11	10.10		7.11	10.10	-	-	-
10		219.1	219.3	6.35	6.35	7.89	7.80	7.04	9.62		8.18	10.50		8.18	10.50	12.70	10.31	-
12	323.9	168.3	168.3	-	-	-	-	-	-	9.53	7.11	14.10	9.53	7.11	16.50	-	-	-
12		219.1	219.3	6.35	6.35	10.70	6.38	7.04	14.00		8.18	14.60		8.18	17.20	14.27	10.31	23.50
12		273.0	273.0		6.35	11.10		7.80	14.60		9.27	15.20		9.27	17.80		12.70	24.30
14	355.6	219.1	219.1	7.92	6.35	23.10	9.53	7.04	27.60	9.53	8.18	26.00	9.53	8.18	32.10	15.09	10.31	43.10
14		273.0	273.0		6.35	24.20		7.80	29.00		9.27	27.40		9.27	33.70		12.70	45.10
14		323.9	323.9		6.35	25.60		8.38	30.60		9.53	28.80		9.53	35.60		14.27	47.70
16	406.4	219.1	219.1	7.92	6.35	27.70	9.53	7.04	33.20	9.53	8.18	31.90	9.53	8.18	43.90	16.66	10.31	56.80
16		273.0	273.0		6.35	28.80		7.80	34.50		9.27	33.10		9.27	45.70		12.70	59.00
16		323.9	323.9		6.35	29.90		8.38	35.80		9.53	34.30		10.31	47.40		14.27	61.40
16		355.6	356.6		7.92	30.50		9.53	36.50		9.53	35.20		11.13	48.30		15.09	62.50



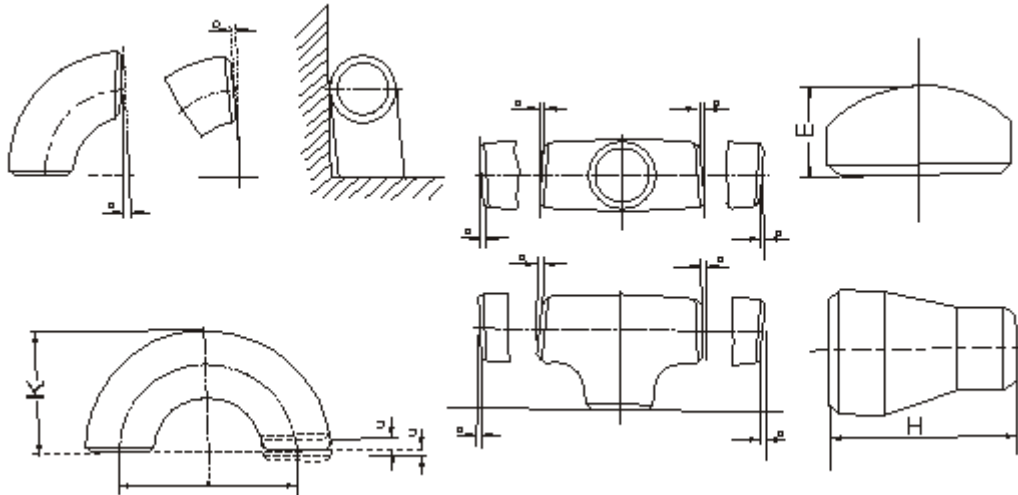
Wall Thickness - Approx.Weight																				
XS			Sch. 80			Sch. 100			Sch. 120			Sch. 140			Sch. 160			XXS		
t ₁ mm	t ₂ mm	kg	t ₁ mm	t ₂ mm	kg	t ₁ mm	t ₂ mm	kg	t ₁ mm	t ₂ mm	kg	t ₁ mm	t ₂ mm	kg	t ₁ mm	t ₂ mm	kg	t ₁ mm	t ₂ mm	kg
4.55	3.91	0.17	4.55	3.91	0.17	-	-	-	-	-	-	-	-	-	6.35	5.56	0.22	-	-	-
5.08	3.91	0.27	5.05	3.91	0.27	-	-	-	-	-	-	-	-	-	7.14	5.56	0.51	10.15	7.82	0.367
	4.55	0.31		4.55	0.31	-	-	-	-	-	-	-	-	-		6.35	0.55		9.09	0.73
	4.85	0.33		4.85	0.33	-	-	-	-	-	-	-	-	-		6.35	0.60		9.70	0.79
5.54	4.55	0.45	5.54	1.55	0.45	-	-	-	-	-	-	-	-	-	8.74	6.35	0.94	11.07	9.09	1.14
	4.85	0.53		1.85	0.53	-	-	-	-	-	-	-	-	-		6.35	0.99		9.70	1.20
	5.08	0.54		5.08	0.54	-	-	-	-	-	-	-	-	-		7.14	1.04		10.15	1.26
7.01	4.85	0.79	7.01	4.85	0.79	-	-	-	-	-	-	-	-	-	9.53	6.35	1.52	14.02	9.70	2.07
	5.08	0.86		5.08	0.86	-	-	-	-	-	-	-	-	-		7.14	1.53		10.15	2.10
	5.54	0.94		5.54	0.94	-	-	-	-	-	-	-	-	-		8.74	1.65		11.07	2.25
7.62	5.08	1.04	7.62	5.08	1.04	-	-	-	-	-	-	-	-	-	11.13	7.14	2.12	15.25	10.15	2.76
	5.54	1.18		5.54	1.18	-	-	-	-	-	-	-	-	-		8.74	2.23		11.07	2.90
	7.01	1.29		7.01	1.29	-	-	-	-	-	-	-	-	-		9.53	2.40		14.02	3.12
8.56	5.54	1.78	8.56	5.51	1.78	-	-	-	-	-	-	-	-	-	13.49	8.74	3.97	17.12	11.07	4.85
	7.01	2.01		7.01	2.01	-	-	-	-	-	-	-	-	-		9.53	4.21		14.02	5.14
	7.62	2.13		7.62	2.13	-	-	-	-	-	-	-	-	-		11.13	4.38		15.24	5.35
9.53	7.01	3.30	9.53	6.01	3.30	-	-	-	-	-	-	-	-	-	15.88	9.53	6.68	19.05	14.02	8.02
	7.62	3.55		7.62	3.55	-	-	-	-	-	-	-	-	-		11.13	7.10		15.24	8.31
	8.56	3.78		8.56	3.78	-	-	-	12.70	11.13	6.09	-	-	-		13.49	7.14		17.12	8.62
10.97	7.62	5.04	10.97	7.62	5.04	-	-	-	-	-	-	-	-	-	18.26	11.13	9.93	21.95	15.24	11.60
	8.56	5.45		8.56	5.45	-	-	-	14.27	11.13	8.20	-	-	-		13.49	10.22		17.12	12.00
	9.53	5.72		9.53	5.72	-	-	-		12.70	8.65	-	-	-		15.88	10.78		19.05	12.60
12.70	8.56	8.44	12.70	8.56	8.44	-	-	-	18.26	11.13	14.00	-	-	-	23.01	13.49	17.30	22.23	17.12	16.70
	9.53	8.85		9.53	8.85	-	-	-		12.70	14.40	-	-	-		15.88	17.80		19.05	17.20
	12.70	9.26		10.97	9.26	-	-	-		14.27	15.00	-	-	-		18.26	18.40		21.95	17.90
12.70	9.53	13.00	15.09	9.53	17.60	-	-	-	21.44	12.70	24.40	-	-	-	28.58	15.88	31.60	25.40	19.05	28.40
	10.97	13.560		10.97	17.90	-	-	-		14.27	24.90	-	-	-		18.26	32.20		21.95	29.00
	12.70	14.20		12.70	18.10	18.26	15.09	21.70		18.26	24.10	25.4	20.62	29.30		23.01	32.50		22.23	29.30
12.70	10.97	18.40	17.48	10.97	27.30	-	-	-	25.40	14.27	38.70	-	-	-	233.32	18.26	79.40	25.40	21.95	38.70
	12.70	19.10		12.70	28.40	21.44	15.09	34.40		18.26	40.20	28.58	20.62	44.80		23.01	51.40		22.23	40.20
	12.70	193.80		15.09	29.50		18.26	35.70		21.44	41.70		25.40	46.30		28.58	53.30		25.40	41.70
12.70	12.70	34.90	19.05	12.70	53.70	23.83	15.09	66.30	27.79	18.26	76.30	31.75	20.62	86.70	35.71	23.01	95.70	-	-	-
	12.70	36.10		15.09	56.30		18.26	69.50		21.44	80.10		25.40	90.40		28.58	100.4	-	-	-
	12.70	37.70		17.48	59.50		21.44	73.30		25.40	84.50		28.58	95.40		33.32	106.0	-	-	-
12.70	12.70	42.60	21.44	12.70	72.40	26.19	15.09	87.20	30.96	18.26	101.8	36.53	20.62	118.6	40.49	23.01	130.1	-	-	-
	12.70	43.70		15.09	75.30		18.26	90.60		21.44	105.8		25.40	123.3		28.58	135.3	-	-	-
	12.70	45.00		17.48	78.20		21.44	94.10		25.40	109.8		28.58	128.1		33.32	140.5	-	-	-
	12.70	46.30		19.05	79.70		23.83	95.90		27.79	111.9		31.75	130.5		35.71	143.1	-	-	-

- **Carbon Steel Pipe Fitting-Cap**
- **ASME/ANSI B16.9**



Nominal Pipe Size inch	Dimensions			Wall thickness: t			Approx. Weight kg
	Outside Diameter at Bevel: D		Length: E mm	Sch. No.	t		
	inch	mm			inch	mm	
1	1.315	33.4	38.1	Std/40 XS/80	0.133 0.179	3.38 4.55	0.11 0.14
1 ¹ / ₄	1.660	42.2	38.1	Std/40 XS/80	0.140 0.191	3.56 4.85	0.14 0.19
1 ¹ / ₂	1.900	48.3	38.1	Std/40 XS/80	0.145 0.200	3.65 5.08	0.17 0.23
2	2.375	60.3	38.1	Std/40 XS/80	0.154 0.218	3.91 5.54	0.23 0.33
2 ¹ / ₂	2.875	73.0	38.1	Std/40 XS/80	0.203 0.276	5.16 7.01	0.39 0.53
3	3.500	88.9	50.8	Std/40 XS/80	0.216 0.300	5.49 7.62	0.66 0.92
4	4.500	114.3	63.5	Std/40 XS/80	0.237 0.337	6.02 8.56	1.17 1.67
5	5.563	141.3	76.2	Std/40 XS/80	0.258 0.375	6.55 9.53	1.91 2.78
6	6.625	168.3	88.9	Std/40 XS/80	0.280 0.432	7.11 10.97 14.27	2.90 4.47
8	8.625	219.1	101.6	Std/40 XS/80	0.322 0.500	8.18 12.70	5.19 8.05
10	10.750	273.0	127.0	Std/40 XS/80	0.365 0.500	9.27 12.70	9.15 12.50
12	12.750	323.9	152.4	Std 40 XS	0.375 0.406 0.500	9.53 10.31 12.70	13.30 14.40 17.70
14	14.000	355.6	165.1	Std 40 XS	0.375 0.438 0.500	9.53 11.13 12.70	15.90 18.80 21.20
16	16.000	406.4	177.8	Std XS/40	0.375 0.500	9.53 12.70	20.00 26.70
18	18.000	457.0	203.2	Std XS	0.375 0.500	9.53 12.70	25.60 34.10
20	20.000	508.0	228.6	Std XS	0.375 0.500	9.53 12.70	31.90 42.50
22	22.000	559.0	254.0	Std XS	0.375 0.500	9.53 12.70	38.80 51.70
24	24.000	610.0	266.7	Std XS	0.375 0.500	9.53 12.70	45.10 60.10
26	26.000	660.0	266.7	Std XS	0.375 0.500	9.53 12.70	50.50 67.30
28	28.00	711.0	266.7	Std XS	0.375 0.500	9.53 12.70	56.20 74.90
30	30.000	762.0	266.7	Std XS	0.375 0.500	9.53 12.70	62.10 82.80
32	32.000	813.0	266.7	Std XS	0.375 0.500	9.53 12.70	68.40 91.60
34	34.000	864.0	266.7	Std XS	0.375 0.500	9.53 12.70	75.00 100.00
36	36.000	914.0	266.7	Std XS	0.375 0.500	9.53 12.70	81.90 109.00

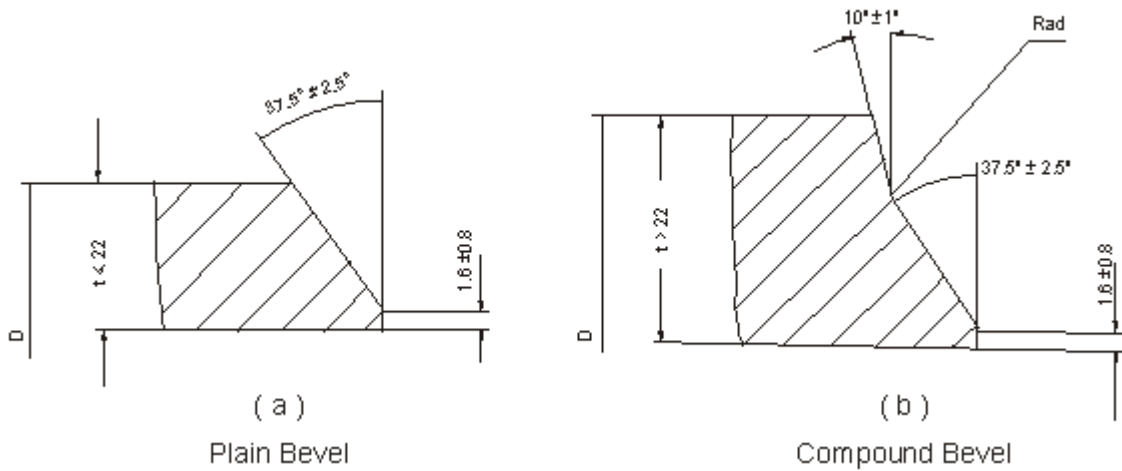
- Tolerance For butt Welding Fittings
- ASME/ANSI B16.9



Tolerances are in millimeters. mm

ASME / ANSI B16.9													
All Fittings				90; 45; Elbows and Tees	Reducers	Caps	180; Returns			Angularity Tolerance			
Nominal Pipe Size	Outside Diameter at Bevel	Inside Diameter at End	Wall Thickness	Center to End Dimension	Overall Length	Overall Length	Center to Center Dimension	Back to face Dimension	Alignment of Ends	Nominal Pipe Size	off Angle	off Plane	
(in)	D	ij	t	A.B.C.M	H	E	O	K	U	(in)	Q	P	
1/2 to 2 1/2	+1.52-0.76	0.76	Not Less Than 87.5% of Nominal Thickness	1.52	1.52	3.05	6.35	6.35	0.76	1/2 to 4	0.76	1.51	
3 to 3 1/2	1.52	1.52		1.52	1.52	3.05	6.35	6.35	0.75	5 to 8	1.52	3.05	
4	1.52	1.52		1.52	1.52	3.05	6.35	6.36	0.76	10 to 12	2.29	4.83	
5 to 8	+2.29-1.52	1.52		1.52	1.52	1.52	6.35	6.35	6.35	0.76	14 to 16	2.29	6.35
10 to 18	+4.06-3.05	3.05		2.29	2.29	6.35	9.65	6.35	1.52	18 to 24	3.05	9.65	
20 to 24	+6.35-4.83	4.83		2.29	2.29	6.35	9.65	6.35	1.52	26 to 30	4.83	9.65	
26 to 30	+6.35-4.83	4.83		3.05	4.83	9.65	-	-	-	32 to 36	4.83	12.7	
32 to 36	+6.35-4.83	4.83		4.83	4.83	9.65	-	-	-	ii			

- **Weld End**
- **Welding Bevel acc.to ASME / ANSI B16.9 and ASME / ANSI B16.28**



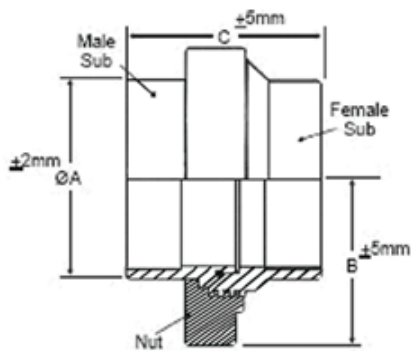
Nominal wall Thickness : t	End Preparation
t < 5mm (for austenitic alloy steel t < 4mm)	Cut square or slightly chamfer at manufacturer ' s option
5 < t < 22mm (4 < t < 22mm)	Plain Bevel as in sketch (a) above
t > 22mm	Compound Bevel as in sketch (b) above

- **Hammer Unions**

Fig 50.

These low pressure and suction union of Fig-50 are made from carbon steel. The nut and O-ring are common in both sizes. Available in 4" or 5" sizes in threaded & socket welded connection. These unions are suitable for 500 PSI wp.

size (inch)	A		B		C				ACME (TPI)	Union		Weight	
	inch	mm	inch	mm	Threaded		socket welded end			Threaded		socket welded end	
					inch	mm	inch	mm	lbsf	kgf	lbsf	kgf	
4"	6.00	152.50	5.07	129.00	6.15	156.21	4.12	104.64	3MOD	28.00	12.70	27.00	12.24
5"	6.00	152.50	5.07	129.00	5.77	146.74	4.12	104.64	3MOD	23.00	10.43	21.50	9.75



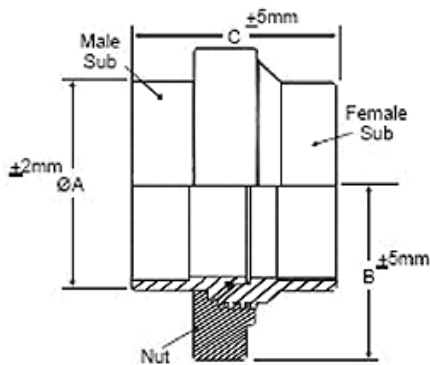
500 PSI CWP (Fig. - 50)



Fig 100.

These low pressure unions are ideal for manifold and applications where CWP does not exceed 1000 PSI.

SIZE	A		B		C		ACME (TPI)	UNION LBSF	WEIGHT KGF
	INCH	MM	INCH	MM	INCH	MM			
1	1.6	40.5	1.95	50	2.57	65	6STD	1.75	0.79
2	2.74	69.5	2.91	74	3.66	93	3MOD	5.73	2.6
2 1/2	3.3	84	3.81	97	4.29	109	3MOD	9.47	4.3
3	4.09	104	4.09	104	4.88	124	3MOD	1.33	6.05
4	5.19	132	5	127	5.78	147	3MOD	19.84	9
5	6.37	162	5.75	146	6.03	153	4STD	33	15
6	7.36	187	6.92	176	6.71	170.5	3STD	46	20.9
8	9.52	242	8	203	7.2	183	3STD	61.72	28



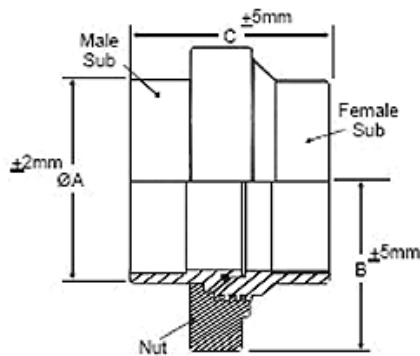
1,000 PSI CWP (Fig. - 100)



Fig 200.

These unions are best suited for medium pressure ranges involving air, water, oil & gas service for cold working pressure upto 2,000 PSI. Upto 4" no O-Ring is used on the male sub. Beyond 4" size, an O-Ring is used on the male sub for sealing. The Figure 200 is a compact and economical union, available with Threaded and ButtWeld ends.

SIZE	A		B		C		ACME (TPI)	UNION LBSF	WEIGHT KGF
	INCH	MM	INCH	MM	INCH	MM			
1	1.59	40.5	1.96	50	2.55	65	6STD	1.76	0.8
1 1/4	2	51	2.11	53.6	2.79	71	6STD	2.2	1
1 1/2	2.28	58	2.52	64	2.73	69.5	6STD	2.42	1.1
2	2.79	71	2.81	74	3.54	90	4STD	5	2.3
2 1/2	3.3	84	3.87	98.5	4.25	108	4STD	9.25	4.2
3	4.17	106	3.89	99	4.52	115	4STD	13.67	6.2
4	5.23	133	4.52	115	4.96	126	3MOD	18.52	8.4
5	6.32	162	5.75	146	6.03	153	4STD	33	15
6	7.5	190.5	6.06	154	6.65	169	3STD	42.5	19.3
8	9.56	243	7.18	182.5	7.15	181.5	3STD	61.7	28
10	11.48	292	9.01	220.7	9.09	231	3STD	90.39	41



2,000 PSI CWP (Fig. - 200)

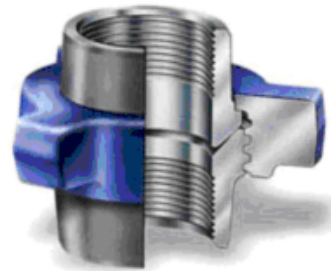
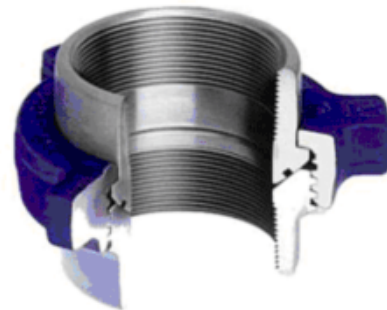
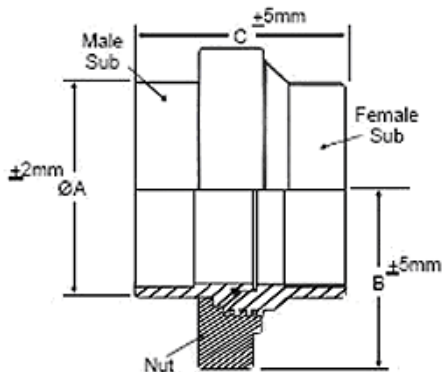


Fig 206.

These unions have an additional 'O' ring on the spherical surface of the male sub providing a leak proof seal. All dimensions of fig:- 200 & Fig-206 are identical.

SIZE	A		B		C		ACME (TPI)	UNION LBSF	WEIGHT KGF
	INCH	MM	INCH	MM	INCH	MM			
1	1.59	40.5	1.96	50	2.55	65	6STD	1.76	0.8
1 1/4	2	51	2.11	53.8	2.79	71	6STD	2.2	1
1 1/2	2.28	58	2.52	64	2.73	69.5	6STD	2.42	1.1
2	2.79	71	2.91	74	3.54	90	4STD	5	2.3
2 1/2	3.3	84	3.87	98.5	4.25	108	4STD	9.25	4.2
3	4.17	106	3.89	99	4.52	115	4STD	13.67	6.2
4	5.23	133	4.52	115	4.96	126	3MOD	18.52	8.4
5	6.32	162	5.75	146	6.03	153	4STD	33	15
6	7.5	190.5	6.06	154	6.65	169	3STD	42.5	19.3
8	9.56	243	7.18	182.5	7.15	181.5	3STD	61.7	28
10	11.49	292	9.01	220.7	9.09	231	3STD	90.39	41

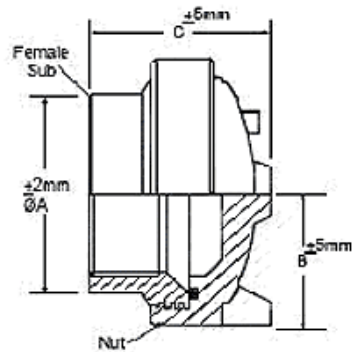


2,000 PSI CWP (Fig. - 206)

Fig 207.

Figure 207 Blanking Caps and unions are fully interchangeable with Figure 200 and 206 unions. For use where the blanking off at the end of a line is desirable. The cap is fitted with an 'O' ring to ensure a leakproof seal.

SIZE	A		B		C		ACME	UNIO	WEIG
	INCH	MM	INCH	MM	INCH	MM	(TPI)	LBSF	KGF
3	4.09	104	2.91	74	3.74	95	4STD	10.36	4.7
4	5.15	131	3.58	91	4.33	110	3MOD	16.3	7.4
6	7.55	192	5	127	5.9	150	3STD	38.13	17.3
8	9.6	245	6.1	155	6.1	220	3STD	70.76	32.1
10	11.53	293	7.16	182	7.16	248	3STD	96.11	43.6



2,000 PSI CWP (Fig. - 207)

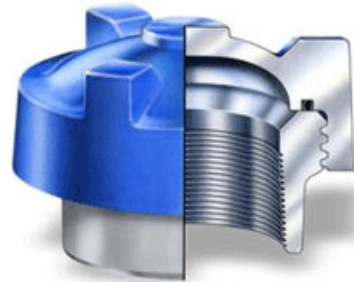
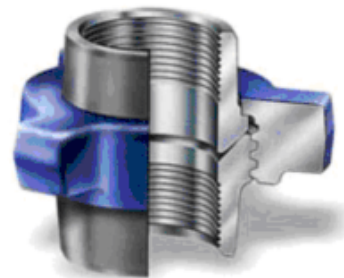
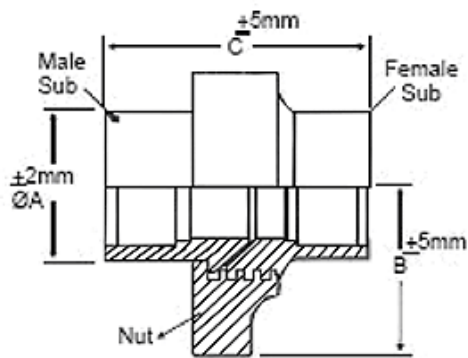


Fig 400.

These unions are rigid in design and have all the three parts made of steel forgings. These unions are best suited for manifold and line connections. Unions from 3 inch through 8 inch sizes have O- rings for primary sealing. From 5" to 8" sizes C.W.P. is 2,500 PSI.

SIZE	A		B		C		ACME (TPI)	UNION LBSF	WEIGH T KGF
	INCH	MM	INCH	MM	INCH	MM			
1	1.75	44.5	2.28	58	3.54	90	3STD	3	1.35
2	3.06	76.8	3.44	87.5	5.24	133	3STD	11	5
2 1/2	3.54	90	4.17	106	6.18	157	3STD	18.3	7.4
3	4.19	106.6	4.29	109	6.18	157	3STD	19.4	8.8
4	5.23	133	4.74	120.5	8.25	209.7	3STD	28	12.7
5	6.26	159	5.63	143	10.47	266	3STD	48.5	22
5 1/2	6.29	160	5.78	147	10.43	265	3STD	48	21.8
6	7.75	197	6.52	165.6	11.02	280	3STD	75	34
7	7.75	198	6.62	168	11.03	280	3STD	61	27.7
8	9.59	243.5	7.71	196	11.42	290	3STD	94.13	42.7
10	11.75	298.4	9.6	244	11.29	287	3STD	121.2	55
12	13.98	355	10.62	270	11.02	280	3STD	158.7	72

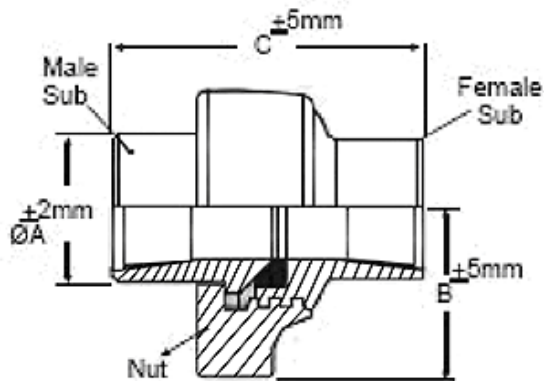


4,000 PSI CWP (Fig. - 400)

Fig. 600.

These unions have wide range of applications including steam service and line connections. These unions are provided with a bronze seat in the female for the effective sealing and prevention of rust formation. Suitable for 6000 PSI CWP.

Size (inch)	A		B		C		ACME (TPI)	Union Weight	
	Inch	mm	Inch	mm	Inch	mm		lbsf	kgf
1	1.75	44.5	2.28	57.5	3.58	91	6STD	3.52	1.6
1 1/2	2.55	65	3.07	78	4.92	125	4STD	9.26	4.2
2	3.07	78	3.7	94	6.42	163	2STD	15.43	7
2 1/2	3.54	90	4.17	106	7.52	191	2STD	20.28	9.2
3	4.25	108	4.54	115.5	8.72	221.5	2STD	27.23	12.4
4	5.27	134	5.19	132	10.04	255	2STD	40	18.1



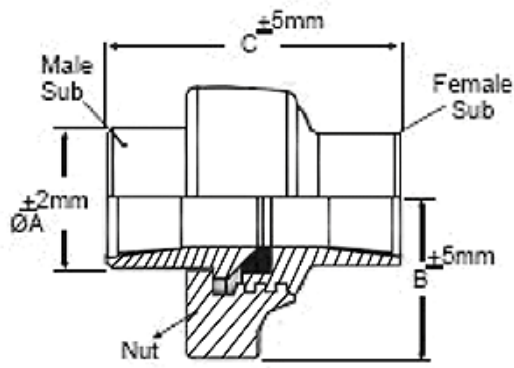
6,000 PSI CWP (FIG - 600)



Fig 602.

These unions are recommended for manifold and line connections truck mounting and in mud services. This union has resilient lip-type seal for positive sealing and also protects secondary metal - to metal seal. Suitable for 6000 PSI

Size (inch)	A		B		C		ACME (TPI)	Union Weight	
	Inch	mm	Inch	mm	Inch	mm		lbsf	kgf
1	1.75	44.5	2.28	57.5	3.58	91	6STD	3.52	1.6
1 1/2	2.55	65	3.07	78	4.92	125	4STD	9.26	4.2
2	3.07	78	3.7	94	6.42	163	2STD	15.43	7
2 1/2	3.54	90	4.17	106	7.52	191	2STD	20.28	9.2
3	4.25	108	4.54	115.5	8.72	221.5	2STD	27.23	12.4
4	5.27	134	5.19	132	10.04	255	2STD	40	18.1



6,000 PSI CWP (FIG - 600)

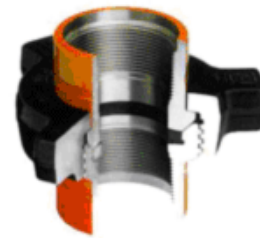
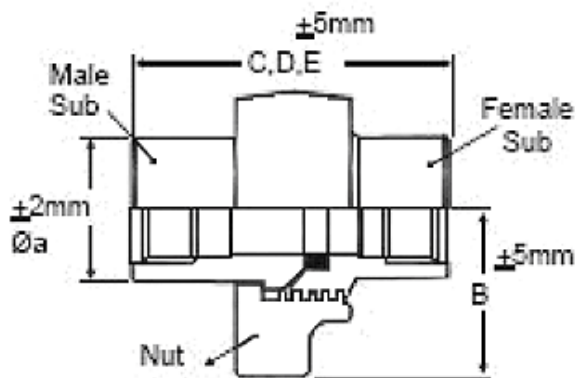


Fig 1002.

These unions are designed for high pressure systems like choke and kill lines, cementing , acidizing, testing and truck mounted system. This union has a liptype seal made of nitrile rubber and subs made of alloy steel, suitable for 10,000 PSI.

SIZE	A		B		C		BUTT WELDED				ACME (TPI)	UNION	WEIGH T
							D SCH-160		E SCH-XXX				
	INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM		LBSF	KGF
1	1.75	44.5	2.28	58	3.5	89	3.5	89	3.5	89	6STD	3.5	1.6
1 1/4	2.6	66	2.95	75	4.88	124	4.88	124	4.88	124	4STD	9.7	4.4
1 1/2	2.55	65	3.18	81	4.88	124	4.88	124	4.88	124	4STD	9.25	4.2
2	3.07	78	3.81	97	5.25	133.5	5.28	133.5	5.28	133.5	3MOD	12.12	5.5
2 1/2	3.46	88	3.78	96	6.18	157	6.18	157	6.18	157	4STD	16	7
2 1/2(EUE)	3.81	97	4	100	5.51	140	-	-	-	-	4STD	17.8	8.1
3	4.25	108	4.52	115	6.22	158	5.51	140	5.51	140	4STD	22.26	10.1
4	5.27	134	5.04	128	8.23	209	5.67	144	5.67	144	4STD	33	15
5	5.55	141	6.1	155	6.22	158	6.22	158	6.22	158	3STD	56	25.4
6	6.62	168.3	6.81	173	6.57	167	6.57	167	6.57	167	3STD	79.8	36.2



10,000 PSI CWP (FIG - 1002)

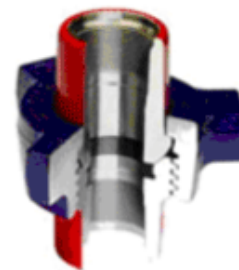
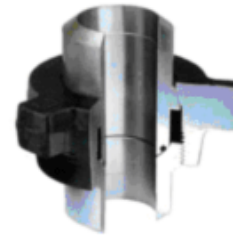
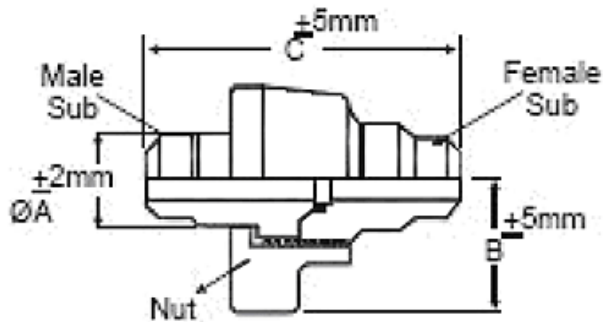


Fig 1003.

These unions protect against electrolytic action. There is no metal - to - metal contact between the subs. A resilient seal ring in the female sub provide additional sealing and protection from corrosion. Suitable for 2000 PSI CWP

SIZE	A		B		C		ACME (TPI)	UNION	WEIGHT
	INCH	MM	INCH	MM	INCH	MM			
5	6.3	160	6.5	165.1	8.15	207	-	86	39
6	7.4	189	7.2	182.8	9.5	241.3	-	142	64



10,000 PSI CWP (FIG - 1004)

▪ **Frac Tank Union**



Threaded tank sub



Weld-on tank sub



Threaded tank sub with seal



Weld-on tank sub with seal



Double seal Threaded tank sub



Double seal Weld-on tank sub



Threaded female sub



Weld-on female sub



Double seal Threaded female sub



Double seal Weld-on female sub



Double seal Hose sub



Hammer nut



Threaded blind



Hose sub (ductile iron)



Hose sub (carbon steel)



- **Front manifold**



- **Frac Hose**



- **Splitter valves**

