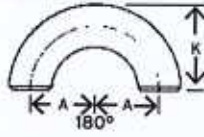


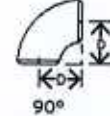
Butt Weld Fittings

CARBON STEEL BUTTWELD FITTINGS TO ASME B16.9, B16.28 & BS.1640

B16.9
LONG RADIUS WELDING ELBOWS, RETURN BENDS & CAPS



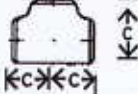
B16.28
SHORT RADIUS WELDING ELBOWS & RETURN BENDS



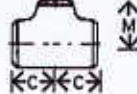
Nominal Sizes shown are $\bullet$ DN: SI Metric Term + NPS: ASME Term

Nom. Size DN		Pipe OD mm	Wall Thickness (mm)													A	B	K	D	V	E. Std. Wt. & Ex. Stg.	Nom. Size DN	
$\bullet$ DN	+ NPS		Sch. 10	Sch. 20	Sch. 30	Std. Wt.	Sch. 40	Sch. 60	X Stg.	Sch. 80	Sch. 100	Sch. 120	Sch. 140	Sch. 160	X.X. Stg.							$\bullet$ DN	+ NPS
15	1/2	21.3	-	-	-	2.77	-	-	3.73	-	-	-	-	4.78	7.47	38	16	47.5	-	-	25.4	15	1/2
20	3/4	26.7	-	-	-	2.87	-	-	3.91	-	-	-	-	5.56	7.82	38	19	43	19	33	25.4	20	3/4
25	1	33.4	-	-	-	3.38	-	-	4.55	-	-	-	-	6.35	9.09	38	22	55.5	25.4	41	38.1	25	1
32	1 1/4	42.2	-	-	-	3.56	-	-	4.85	-	-	-	-	6.35	9.70	47.5	25.4	70	32	52	38.1	32	1 1/4
40	1 1/2	48.3	-	-	-	3.68	-	-	5.08	-	-	-	-	7.14	10.15	57	29	82.5	38	62	38.1	40	1 1/2
50	2	60.3	-	-	-	3.91	-	-	5.54	-	-	-	-	8.74	11.07	76	35	106	51	81	38.1	50	2
65	2 1/2	73	-	-	-	5.16	-	-	7.01	-	-	-	-	9.53	14.02	95	44.5	132	63.5	100	38.1	65	2 1/2
80	3	88.9	-	-	-	5.49	-	-	7.62	-	-	-	-	11.13	15.24	114	51	159	76	121	50.8	80	3
90	3 1/2	101.6	-	-	-	5.74	-	-	8.08	-	-	-	-	16.15	13.3	133	57	184	89	140	63.5	90	3 1/2
100	4	114.3	-	-	-	6.02	-	-	8.56	-	11.13	-	-	13.49	17.12	152	63.5	210	102	159	63.5	100	4
125	5	141.3	-	-	-	6.55	-	-	9.53	-	12.70	-	-	15.88	19.05	190	79	262	127	197	76.2	125	5
150	6	168.3	-	-	-	7.11	-	-	10.97	-	14.27	-	-	18.26	21.95	229	95	313	152	237	88.9	150	6
200	8	219.1	-	6.35	7.04	8.18	-	10.31	12.70	-	15.09	18.26	20.62	23.01	22.23	305	127	414	203	313	102	200	8
250	10	273.1	-	6.35	7.80	9.27	-	12.70	12.70	5.09	18.26	21.44	25.40	28.58	25.40	381	159	517	254	390	127	250	10
300	12	323.9	-	6.35	8.38	9.53	10.31	14.27	12.70	17.48	21.44	25.4	28.58	33.32	25.40	457	190	619	305	467	152	300	12
350	14	355.6	6.35	7.92	9.53	9.53	11.13	15.09	12.70	19.05	23.83	27.79	31.75	35.71	-	533	222	711	356	533	165	350	14
400	16	406.4	6.35	7.92	9.53	9.53	12.70	16.66	12.70	21.44	26.19	30.96	36.53	40.49	-	610	254	813	406	610	178	400	16
450	18	457	6.35	7.92	11.13	9.53	14.27	19.05	12.70	23.83	29.36	34.93	39.67	45.24	-	686	286	914	457	686	203	450	18
500	20	508	6.35	9.53	12.70	9.53	15.09	20.62	12.70	26.19	32.54	38.10	44.45	50.01	-	762	318	1016	508	762	229	500	20
600	24	610	6.35	9.53	14.27	9.53	17.48	24.61	12.70	30.96	38.89	46.02	52.37	59.54	-	914	381	1219	610	914	267	600	24
750	30	762	7.92	12.70	15.88	9.53	-	-	12.70	-	-	-	-	-	-	1143	470	1524	762	1143	267	750	30
900	36	914	7.92	12.70	15.88	9.53	19.05	-	12.70	-	-	-	-	-	-	1372	565	-	914	1372	267	900	36

STRAIGHT TEES (B16.9)



REDUCING TEES (B16.9)



CONCENTRIC & ECCENTRIC
REDUCERS (B16.9)



Nominal Sizes shown are $\bullet$ DN: SI Metric Term + NPS: ASME Term

Nominal Size				C	M	H	Nominal Size				C	M	H	Nominal Size				C	M	H
DN $\bullet$		NPS +					DN $\bullet$		NPS +					DN $\bullet$		NPS +				
Large End	Small End	Large End	Small End				Large End	Small End	Large End	Small End				Large End	Small End	Large End	Small End			
20	20	3/4	3/4	28.6	-	-	100	100	4	4	105	-	-	400	400	16	16	305	-	-
	15		1/2	28.6	28.6	38.1		90		3 1/2	105	102	102		350		14	305	305	356
	25		1	38.1	-	-		80		3	105	98.4	102		300		12	305	295	356
25	20	1	3/4	38.1	38.1	50.8	100	65	4	2 1/2	105	95.3	102	400	250	16	10	305	283	356
	15		1/2	38.1	38.1	50.8		50		2	105	88.9	102		200		8	305	273	356
	32		1 1/4	47.6	-	-		40		1 1/2	105	85.7	102		150		6	305	264	356
32	25	1 1/4	1	47.6	47.6	50.8	125	125	5	5	124	-	-	450	450	18	18	343	-	-
	20		3/4	47.6	47.6	50.8		100		4	124	117	127		400		16	343	330	381
	15		1/2	47.6	47.6	50.8		90		3 1/2	124	114	127		350		14	343	330	381
40	40	1 1/2	1 1/2	57.2	-	-	125	80	5	3	124	111	127	450	300	18	12	343	321	381
	32		1 1/4	57.2	57.2	63.5		65		2 1/2	124	108	127		250		10	343	308	381
	25		1	57.2	57.2	63.5		50		2	124	105	127		200		8	343	298	381
50	20	2	3/4	57.2	57.2	63.5	150	150	6	6	143	-	-	500	500	20	20	381	-	-
	15		1/2	57.2	57.2	63.5		125		5	143	137	140		450		18	381	368	508
	50		2	63.5	-	-		100		4	143	130	140		400		16	381	356	508
65	40	2	1 1/2	63.5	60.3	76.2	150	90	6	3 1/2	143	127	140	500	350	20	14	381	356	508
	32		1 1/4	63.5	57.2	76.2		80		3	143	124	140		300		12	381	346	508
	25		1	63.5	50.8	76.2		65		2 1/2	143	121	140		250		10	381	333	508
80	20	3	3/4	63.5	44.5	76.2	200	200	8	8	178	-	-	600	200	24	8	381	324	508
	65		2 1/2	76.2	-	-		150		6	178	168	152		600		24	432	-	-
	50		2	76.2	69.9	88.9		125		5	178	162	152		500		20	432	432	508
90	40	2 1/2	1 1/2	76.2	66.7	88.9	200	100	8	4	178	155	152	600	450	24	18	432	419	508
	32		1 1/4	76.2	63.5	88.9		80		3	178	152	152		400		16	432	406	508
	25		1	76.2	57.2	88.9		250		10	216	-	-		350		14	432	406	508
90	80	3	3	85.7	-	-	250	200	10	8	216	203	178	750	300	30	12	432	397	508
	65		2 1/2	85.7	82.6	88.9		150		6	216	194	178		250		10	432	384	508
	50		2	85.7	76.2	88.9		125		5	216	191	178		750		30	559	-	-
90	40	3	1 1/2	85.7	73.0	88.9	300	100	12	4	216	184	178	900	600	36	24	559	533	610
	32		1 1/4	85.7	69.9	88.9		300		12	254	-	-		500		20	559	508	610
	25		1	85.7	69.9	88.9		250		10	254	241	203		450		18	559	495	610
90	90	3 1/2	3 1/2	95.3	-	-	350	200	14	8	254	229	203	900	400	36	16	559	483	610
	80		3	95.3	92.1	102		150		6	254	219	203		900		36	673	-	-
	65		2 1/2	95.3	88.9	102		100		4	254	210	203		750		30	673	635	610
90	50	3 1/2	2	95.3	82.6	102	350	350	14	12	279	-	-	900	600	36	24	673	610	610
	40		1 1/2	95.3	79.4	102		300		12	279	270	330		500		20	673	584	610
								200		8	279	248	330		450		18	673	572	610
90	40	3 1/2					350	150	14	6	279	238	330	900		36				

NOTE: All dimensions are in millimetres - (mm)