

## BUTT WELD, CLASS 3000 & BSP FITTINGS SPECIFICATIONS



### Butt Weld fittings in accordance with ASME/ ASTM SA/A 403 and ASME B16.9

ASTM stands for American Society for Testing and Materials. ASME stands for American Society of Mechanical Engineers. Euro Steel offers a range of Stainless Steel Butt Weld fittings in 90° and 45° Elbows, Concentric and Eccentric Reducers, End Caps, Stainless Steel Equal and Reducing Tees, Stub Ends and Weld on Collars. We carry the full range of Buttweld fittings in both grade 304L and 316L schedule 10s, 40s and 80s.

Butt Welded fittings are stocked in accordance to ASTM / ASME SA/A 403 WP - W (Welded), WP - S (Seamless) and WP - WX (welded with X ray). All materials is marked in accordance with the applicable standards and fully traceable to EN 10201 3.1 material certifications. We can also assist with Duplex and Super Duplex materials.

### BSP fittings in accordance with ASTM A351 and ASME B16.3

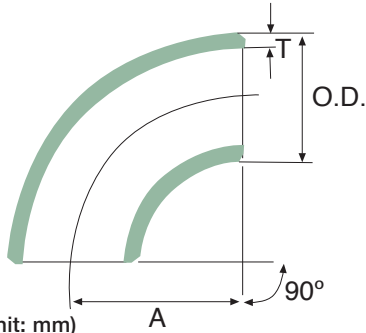
BSP stands for British Standard Pipe (Thread). ASTM stands for American Society for Testing and Materials. ASME stands for American Society of Mechanical Engineers.

Euro Steel offers a comprehensive range of Stainless Steel 150 LBS Rated BSP threaded Investment Cast Fittings. The most commonly requested BSP fittings are from 1/8inch - 4inch. Dimensions are in accordance with the American standard ASME B16.3 1 - Piece Ball Valve, Reducing Bore, 1000 WOG and 3 - Piece Ball Valve, Full Bore, 1000 WOG, BSP threaded are also stocked in grade 316 stainless to compliment our BSP 150LB fittings. These are stocked from 1" - 3". WOG stands for Water, Oil and Gas.

### Class 3000 Fittings in accordance with ASTM A182 and ASME B16.11

In addition to our stock of BSP fittings, is a complete range of Forged High Pressure Class 3000 fittings in socket weld and NPT threaded from 1" - 2". These fittings are manufactured according to ASME / ASTM SA/A 182 with dimensions to ASME B16.11. Stock includes unions, caps, plugs, tees, reducing tees, 90° and 45° Elbows, full couplings, half couplings, reducing couplings. For more information on these high pressure fittings contact Euro Steel.





DIMENSIONS (unit: mm)

Nominal Pipe Sizes in inches	Outside Diameter (OD) in mm	Wall Thickness (T) in mm				
		Sch. 5S	Sch. 10S	STD Sch. 40S	XS Sch. 80S	Centre to End (A)
1/2"	21.34	1.65	2.11	2.77	3.73	38.10
3/4"	26.67	1.65	2.11	2.87	3.91	38.10
1"	33.40	1.65	2.77	3.38	4.55	38.10
1 1/4"	42.16	1.65	2.77	3.56	4.85	47.75
1 1/2"	48.26	1.65	2.77	3.68	5.08	57.15
2"	60.32	1.65	2.77	3.91	5.54	76.20
2 1/2"	73.02	2.11	3.05	5.16	7.01	95.25
3"	88.90	2.11	3.05	5.49	7.62	114.30
3 1/2"	101.60	2.11	3.05	5.74	8.08	133.35
4"	114.30	2.11	3.05	6.02	8.56	152.40
5"	141.30	2.77	3.40	6.55	9.53	190.50
6"	168.27	2.77	3.40	7.11	10.97	228.60
8"	219.08	2.77	3.76	8.18	12.70	304.08
10"	273.05	3.40	4.19	9.27	12.70	381.00
12"	323.85	3.96	4.57	9.53	12.70	457.20
14"	355.60	3.96	4.78	9.53	12.70	533.40
16"	406.40	4.19	4.78	9.53	12.70	609.60
18"	457.20	4.19	4.78	9.53	12.70	685.80
20"	508.00	4.78	5.54	9.53	12.70	762.00
22"	558.80	4.78	5.54	9.53	12.70	838.20
24"	609.60	5.54	6.35	9.53	12.70	914.40
26"	660.40	-	-	-	12.70	990.60
28"	711.20	-	-	-	12.70	1066.80
30"	762.00	6.35	7.92	9.53	12.70	1143.00
32"	812.80	-	-	-	12.70	1219.20
34"	863.60	-	-	-	12.70	1295.40
36"	914.40	-	-	-	12.70	1371.60
38"	965.20	-	-	-	12.70	1447.80
40"	1016.00	-	-	-	12.70	1524.00
42"	1066.80	-	-	-	12.70	1600.20
44"	1117.60	-	-	-	12.70	1676.40
46"	1168.40	-	-	-	12.70	1752.60
48"	1219.20	-	-	-	12.70	1828.80

ASME/ASTM SA/A403 WPS  
(Seamless) ASME B16-9  
ASME/ASTM SA/A403 WPW  
(Welded) ASME B16-9  
ASME/ASTM SA/A403 WPWX  
(Welded, 100% X-Ray) ASME B16-9

Nominal Pipe Sizes in inches	Weight (unit: Kg)			
	Sch. 5S	Sch. 10S	STD Sch. 40S	XS Sch. 80S
1/2"	0.049	0.061	0.078	0.100
3/4"	0.062	0.078	0.103	0.14
1"	0.078	0.128	0.154	0.204
1 1/4"	0.125	0.206	0.260	0.349
1 1/2"	0.170	0.283	0.368	0.507
2"	0.286	0.478	0.652	0.9
2 1/2"	0.576	0.812	1.37	1.79
3"	0.810	1.14	2.04	2.87
3 1/2"	1.08	1.53	2.82	4.00
4"	1.39	1.97	3.84	5.45
5"	2.83	3.42	6.48	9.69
6"	4.03	4.87	9.94	15.99
8"	7.06	10.00	20.10	31.7
10"	13.20	15.50	37	49.83
12"	22.30	25.90	53	72.48
14"	27.9	33.6	69	91.6
16"	38.6	43.9	91	121
18"	48.9	56	116	153
20"	68.9	79	140	188
22"	88.3	96.4	170	229
24"	114	138	206	274
26"	161	201	242	322
28"	183	229	275	369
30"	215	269	324	423
32"	232	290	349.53	466
34"	263	328	395.24	528
36"	294	367	443.71	590
38"		411	497.71	658
40"		454	551.98	729
42"		501	606.16	803
44"		551	669.04	885
46"		602	731.69	966
48"		655	797.28	1051

# 45° ELBOWS BUTT WELDED - LONG RADIUS

ASME/ASTM SA/A403 WPS

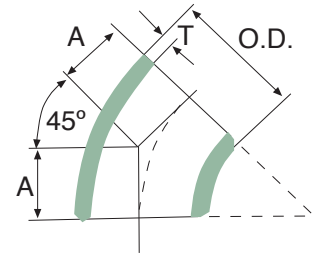
(Seamless) ASME B16-9

ASME/ASTM SA/A403 WPW

(Welded) ASME B16-9

ASME/ASTM SA/A403 WPWX

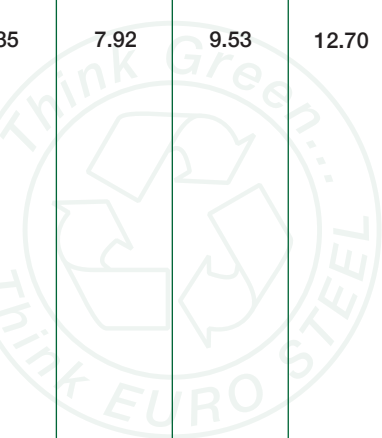
(Welded, 100% X-Ray) ASME B16-9

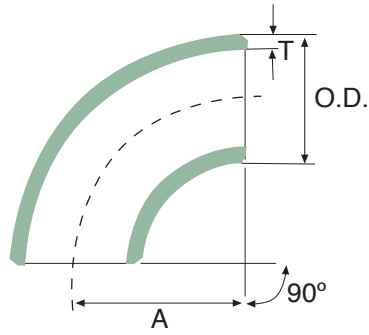


## DIMENSIONS (unit: mm)

Nominal Pipe Sizes in inches	Outside Diameter (OD) in mm	Wall Thickness (T) in mm				
		Sch. 5S	Sch. 10S	STD Sch. 40S	XS Sch. 80S	Centre to End (A)
1/2"	21.34	1.65	2.11	2.77	3.73	15.88
3/4"	26.67	1.65	2.11	2.87	3.91	19
1"	33.40	1.65	2.77	3.38	4.55	22.22
1 1/4"	42.16	1.65	2.77	3.56	4.85	25.40
1 1/2"	48.26	1.65	2.77	3.68	5.08	28.45
2"	60.32	1.65	2.77	3.91	5.54	35.05
2 1/2"	73.02	2.11	3.05	5.16	7.01	44.45
3"	88.90	2.11	3.05	5.49	7.62	50.80
3 1/2"	101.60	2.11	3.05	5.74	8.08	57.15
4"	114.30	2.11	3.05	6.02	8.56	63.50
5"	141.30	2.77	3.40	6.55	9.53	79.25
6"	168.27	2.77	3.40	7.11	10.97	95.25
8"	219.08	2.77	3.76	8.18	12.70	127.00
10"	273.05	3.40	4.19	9.27	12.70	158.75
12"	323.85	3.96	4.57	9.53	12.70	190.50
14"	355.60	3.96	4.78	9.53	12.70	222.25
16"	406.40	4.19	4.78	9.53	12.70	254.00
18"	457.20	4.19	4.78	9.53	12.70	285.75
20"	508.00	4.78	5.54	9.53	12.70	317.50
22"	558.80	4.78	5.54	9.53	12.70	342.90
24"	609.60	5.54	6.35	9.53	12.70	381.00
26"	660.40	-	-	-	-	406.40
28"	711.20	-	-	-	-	438.15
30"	762.00	6.35	7.92	9.53	12.70	469.90
32"	812.80					501.65
34"	863.60					533.40
36"	914.40					565.15
38"	965.20					599.95
40"	1016.00					631.95
42"	1066.80					660.40
44"	1117.60					695.45
46"	1168.40					726.95
48"	1219.20					758.95

Nominal Pipe Sizes in inches	Weight (unit: Kg)			
	Sch. 5S	Sch. 10S	STD Sch. 40S	XS Sch. 80S
1/2"	0.024	0.030	0.039	0.050
3/4"	0.031	0.039	0.052	0.078
1"	0.039	0.064	0.077	0.100
1 1/4"	0.063	0.103	0.130	0.177
1 1/2"	0.085	0.142	0.184	0.254
2"	0.143	0.239	0.326	0.471
2 1/2"	0.288	0.406	0.683	0.897
3"	0.405	0.571	1.02	1.44
3 1/2"	0.540	0.764	1.41	2.05
4"	0.696	0.985	1.92	2.81
5"	1.42	1.71	3.24	4.85
6"	2.01	2.43	4.97	8.02
8"	3.53	5.01	10.10	16.22
10"	6.62	8.3	17.70	25.37
12"	11.10	12.50	28.10	36.8
14"	14.40	17.3	32.93	47.2
16"	19.90	22.7	43.31	62
18"	25.20	28.7	54.99	79
20"	35.5	41.1	68.13	97.2
22"	43	49.80	81.13	118
24"	59	71.3	98.57	141
26"	82.9	104	114.11	166
28"	94.3	118	132.73	190
30"	111	139	152.75	218
32"	120	149	156.24	240
34"	135	169	196.96	272
36"	151	189	221.20	304
38"	169	212	248.15	339
40"	187	234	257.35	376
42"	207	258	301.34	414
44"	227	284	333.68	456
46"	248	310	365.07	498
48"	270	338	397.69	542



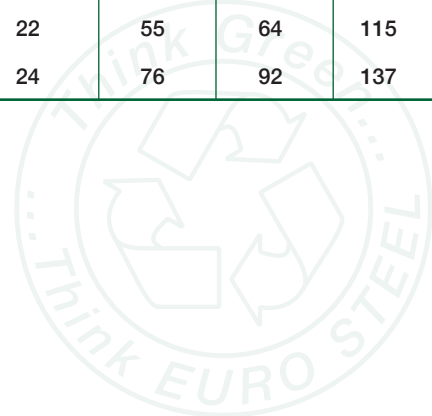


DIMENSIONS (unit: mm)

ASME/ASTM SA/A403 WPS  
 (Seamless) ASME B16-9  
 ASME/ASTM SA/A403 WPW  
 (Welded) ASME B16-9  
 ASME/ASTM SA/A403 WPWX  
 (Welded, 100% X-Ray)  
 ASME B16-9 B16.9  
 (previously B16.28)

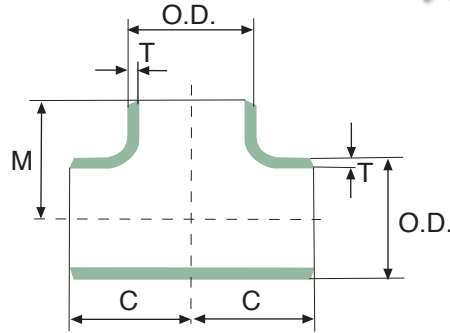
Nominal Pipe Sizes in inches	Outside Diameter (OD) in mm	Wall Thickness (T) in mm				
		Sch. 5S	Sch. 10S	STD Sch. 40S	XS Sch. 80S	Centre to End (A)
1	33.40	1.65	2.77	3.38	4.55	25.40
1 1/4	42.16	1.65	2.77	3.56	4.85	31.75
1 1/2	48.26	1.65	2.77	3.68	5.08	38.10
2	60.32	1.65	2.77	3.91	5.54	50.80
2 1/2	73.02	2.11	3.05	5.16	7.01	63.50
3	88.90	2.11	3.05	5.49	7.62	76.20
3 1/2	101.60	2.11	3.05	5.74	8.08	88.90
4	114.30	2.11	3.05	6.02	8.56	101.60
5	141.30	2.77	3.40	6.55	9.53	127.00
6	168.27	2.77	3.40	7.11	10.97	152.40
8	219.08	2.77	3.76	8.18	12.70	203.20
10	273.05	3.40	4.19	9.27	12.70	254.00
12	323.85	3.96	4.57	9.53	12.70	304.80
14	355.60	3.96	4.78	9.53	12.70	355.60
16	406.40	4.19	4.78	9.53	12.70	406.40
18	457.20	4.19	4.78	9.53	12.70	457.20
20	508.00	4.78	5.54	9.53	12.70	508.00
22	558.80	4.78	5.54	9.53	12.70	558.80
24	609.60	5.54	6.35	9.53	12.70	609.60

Nominal Pipe Sizes in inches	Weight (unit: Kg)			
	Sch. 5S	Sch. 10S	STD Sch. 40S	XS Sch. 80S
1	0.077	0.094	0.118	0.122
1 1/4	0.101	0.152	0.204	0.217
1 1/2	0.114	0.189	0.245	0.317
2	0.191	0.318	0.434	0.593
2 1/2	0.383	0.541	0.909	1.13
3	0.540	0.761	1.36	1.82
3 1/2	0.719	1.02	1.88	2.61
4	0.928	1.31	2.56	3.56
5	1.89	2.28	4.32	6.20
6	2.68	3.24	7.05	10.26
8	4.71	6.68	13.40	20.84
10	8.83	10.40	23.60	32.94
12	14.8	16.70	35.80	47.30
14	18.6	22	46.4	59.25
16	25.60	29.3	61	81.81
18	32	37	77	103.96
20	45	53	95	128.79
22	55	64	115	156.29
24	76	92	137	186.41



# EQUAL TEES

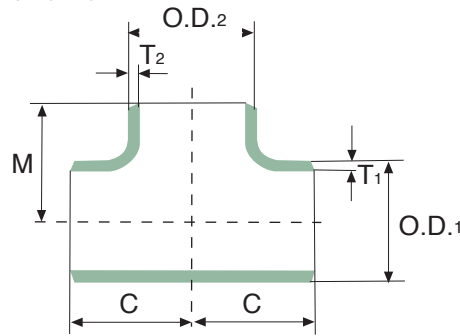
ASME/ASTM SA/A403 WPS  
 (Seamless) ASME B16-9  
 ASME/ASTM SA/A403 WPW  
 (Welded) ASME B16-9  
 ASME/ASTM SA/A403 WPWX  
 (Welded, 100% X-Ray) ASME B16-9



DIMENSIONS (unit: mm)							
Nominal Pipe Sizes in inches	Outside Diameter (OD) in mm	Wall Thickness (T) in mm					
		Sch. 5S	Sch. 10S	STD Sch. 40S	XS Sch. 80S	Centre to End (A)	M
1/2	21.34	1.65	2.11	2.77	3.73	25.40	25.40
3/4	26.67	1.65	2.11	2.87	3.91	28.70	28.70
1	33.40	1.65	2.77	3.38	4.55	38.10	38.10
1 1/4	42.16	1.65	2.77	3.56	4.85	47.75	47.75
1 1/2	48.26	1.65	2.77	3.68	5.08	57.15	57.15
2	60.32	1.65	2.77	3.91	5.54	63.50	63.50
2 1/2	73.02	2.11	3.05	5.16	7.01	76.20	76.20
3	88.90	2.11	3.05	5.49	7.62	85.85	85.85
4	114.30	2.11	3.05	6.02	8.56	104.90	104.90
5	141.30	2.77	3.40	6.55	9.53	123.95	123.95
6	168.27	2.77	3.40	7.11	10.97	143.00	143.00
8	219.08	2.77	3.76	8.18	12.70	177.80	177.80
10	273.05	3.40	4.19	9.27	12.70	215.90	215.90
12	323.85	3.96	4.57	9.53	12.70	254.00	254.00
14	355.60	3.96	4.78	9.53	12.70	279.40	279.40
16	406.40	4.19	4.78	9.53	12.70	304.80	304.80
18	457.20	4.19	4.78	9.53	12.70	342.90	342.90
20	508.00	4.78	5.54	9.53	12.70	381.00	381.00
22	558.80	4.78	5.54	9.53	12.70	419.10	419.10
24	609.60	5.54	6.35	9.53	12.70	431.80	431.80

WEIGHT (unit: kg)				
Nominal Pipe Sizes in inches	Weight (unit: Kg)			
	Sch. 5S	Sch. 10S	STD Sch. 40S	XS Sch. 80S
1/2	0.11	0.13	0.16	0.22
3/4	0.129	0.16	0.2	0.294
1	0.18	0.31	0.34	0.399
1 1/4	0.356	0.51	0.59	0.8
1 1/2	0.497	0.76	0.91	1.26
2	0.681	1.24	1.59	2.26
2 1/2	1.20	1.77	2.72	3.7
3	1.34	1.94	3.18	4.42
4	2.15	3.05	5.45	7.74
5	4.48	5.43	9.53	13.8
6	6.64	8.18	15.4	23.8
8	9.24	12.7	25	38.7
10	15.4	16	26	52.9
12	25.1	27.86	39	72.48
14	34	41	74.21	99.78
16	42.5	48.7	88.56	114.23
18	54	62	112.33	150
20	85	99	155	207
22	103	120	188	250
24	153	175	240	319



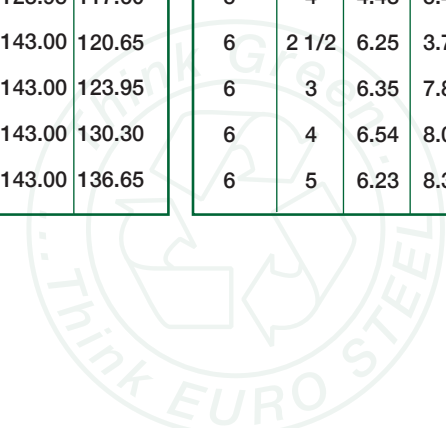


ASME/ASTM SA/A403 WPS  
(Seamless) ASME B16-9  
ASME/ASTM SA/A403 WPW  
(Welded) ASME B16-9  
ASME/ASTM SA/A403 WPWX  
(Welded, 100% X-Ray) ASME B16-9

Nominal Pipe Sizes Run	Outlet	Outside Ø OD <sub>1</sub>	Outside Ø OD <sub>2</sub>	Wall Thickness (T) in mm								Centre to End (C)	Centre to End (M)
				Sch. 5S		Sch. 10S		STD Sch. 40S		XS Sch. 80S			
				T <sub>1</sub>	T <sub>2</sub>	T <sub>1</sub>	T <sub>2</sub>	T <sub>1</sub>	T <sub>2</sub>	T <sub>1</sub>	T <sub>2</sub>		
3/4	1/2	26.67	21.34	1.65	1.65	2.11	2.11	2.87	2.77	3.91	3.73	28.70	28.70
1	1/2	33.40	21.34	1.65	1.65	2.77	2.11	3.38	2.77	4.55	3.73	38.10	38.10
1	3/4	33.40	26.67	1.65	1.65	2.77	2.11	3.38	2.87	4.55	3.91	38.10	38.10
1 1/4	3/4	42.16	26.67	1.65	1.65	2.77	2.11	3.56	2.87	4.85	3.91	47.75	47.75
1 1/4	1	42.16	33.40	1.65	1.65	2.77	2.77	3.56	3.38	4.85	4.55	47.75	47.75
1 1/2	1/2	48.26	21.34	1.65	1.65	2.77	2.11	3.68	2.77	5.08	3.73	57.15	57.15
1 1/2	3/4	48.26	26.67	1.65	1.65	2.77	2.11	3.68	2.87	5.08	3.91	57.15	57.15
1 1/2	1	48.26	33.40	1.65	1.65	2.77	2.77	3.68	3.38	5.08	4.55	57.15	57.15
1 1/2	1 1/4	48.26	42.16	1.65	1.65	2.77	2.77	3.68	3.56	5.08	4.85	57.15	57.15
2	3/4	60.32	26.67	1.65	1.65	2.77	2.11	3.91	2.87	5.54	3.91	63.50	44.45
2	1	60.32	33.40	1.65	1.65	2.77	2.77	3.91	3.38	5.54	4.55	63.50	50.80
2	1 1/4	60.32	42.16	1.65	1.65	2.77	2.77	3.91	3.56	5.54	4.85	63.50	57.15
2	1 1/2	60.32	48.26	1.65	1.65	2.77	2.77	3.91	3.68	5.54	5.08	63.50	60.45
2 1/2	1 1/2	73.02	48.26	2.11	1.65	3.05	2.77	5.16	3.68	7.01	5.08	76.20	66.80
2 1/2	2	73.02	60.32	2.11	1.65	3.05	2.77	5.16	3.91	7.01	5.54	76.20	69.85
3	1 1/2	88.90	48.26	2.11	1.65	3.05	2.77	5.49	3.68	7.62	5.08	85.85	73.15
3	2	88.90	60.32	2.11	1.65	3.05	2.77	5.49	3.91	7.62	5.54	85.85	76.20
3	2 1/2	88.90	73.02	2.11	2.11	3.05	3.05	5.49	5.16	7.62	7.01	85.85	82.55
4	1 1/2	114.30	48.26	2.11	1.65	3.05	2.77	6.02	3.68	8.56	5.08	104.90	85.85
4	2	114.30	60.32	2.11	1.65	3.05	2.77	6.02	3.91	8.56	5.54	104.90	88.90
4	2 1/2	114.30	73.02	2.11	2.11	3.05	3.05	6.02	5.16	8.56	7.01	104.90	95.25
4	3	114.30	88.90	2.11	2.11	3.05	3.05	6.02	5.49	8.56	7.62	104.90	98.55
5	3	141.30	88.90	2.77	2.11	3.40	3.05	6.55	5.49	9.53	7.62	123.95	111.25
5	4	141.30	114.30	2.77	2.11	3.40	3.05	6.55	6.02	9.53	8.56	123.95	117.60
6	2 1/2	168.27	73.02	2.77	2.11	3.40	3.05	7.11	5.16	10.97	7.01	143.00	120.65
6	3	168.27	88.90	2.77	2.11	3.40	3.05	7.11	5.49	10.97	7.62	143.00	123.95
6	4	168.27	114.30	2.77	2.11	3.40	3.05	7.11	6.02	10.97	8.56	143.00	130.30
6	5	168.27	141.30	2.77	2.77	3.40	3.40	7.11	6.55	10.97	9.53	143.00	136.65

Nominal Pipe Sizes in inches	Outlet	Weight (unit: Kg)			
		Sch 5S	Sch. 10S	STD Sch. 40S	XS Sch. 80S
		3/4	1/2	0.14	0.19
1	1/2	0.22	0.36	0.40	0.54
1	3/4	0.23	0.38	0.42	0.57
1 1/4	3/4	0.35	0.58	0.68	0.92
1 1/4	1	0.35	0.58	0.68	0.92
1 1/2	1/2	0.45	0.76	0.91	1.26
1 1/2	3/4	0.48	0.81	0.97	1.34
1 1/2	1	0.49	0.82	0.99	1.37
1 1/2	1 1/4	0.50	0.85	1.02	1.41
2	3/4	0.68	1.15	1.48	2.10
2	1	0.73	1.24	1.59	2.26
2	1 1/4	0.75	1.27	1.63	2.31
2	1 1/2	0.78	1.33	1.70	2.41
2 1/2	1 1/2	1.13	1.63	2.50	3.40
2 1/2	2	1.22	1.77	2.72	3.70
3	1 1/2	1.19	1.73	2.84	3.95
3	2	1.24	1.80	2.95	4.10
3	2 1/2	1.29	1.87	3.06	4.25
4	1 1/2	1.97	2.83	5.06	7.19
4	2	1.99	2.86	5.11	7.26
4	2 1/2	2.00	2.87	5.13	7.28
4	3	2.06	2.95	5.27	7.48
5	3	4.27	5.18	9.08	13.2
5	4	4.48	5.43	9.53	13.8
6	2 1/2	6.25	3.70	14.5	22.4
6	3	6.35	7.82	14.80	22.9
6	4	6.54	8.06	15.2	23.4
6	5	6.23	8.30	15.7	24.1

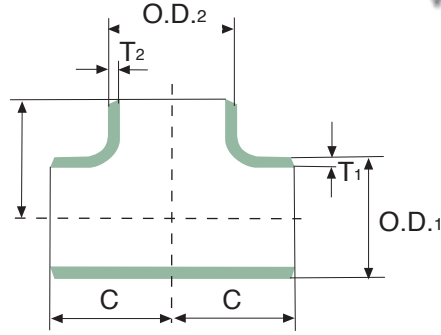
(continued)  
see next page for 8" and larger





# REDUCING TEES (cont.)

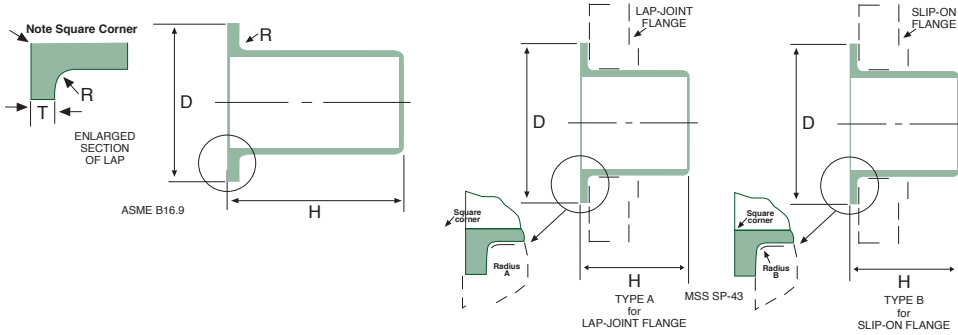
ASME/ASTM SA/A403 WPS  
 (Seamless) ASME B16-9  
 ASME/ASTM SA/A403 WPW  
 (Welded) ASME B16-9  
 ASME/ASTM SA/A403 WPWX  
 (Welded, 100% X-Ray) ASME B16-9



(continued from previous page)

Nominal Pipe Sizes Run	Outlet	Outside Ø OD <sub>1</sub>	Outside Ø OD <sub>2</sub>	Wall Thickness (T) in mm								Centre to End (C)	Centre to End (M)	Nominal Pipe Sizes in inches	Outlet	Weight (unit: Kg)			
				Sch. 5S		Sch. 10S		STD Sch. 40S		XS Sch. 80S						Sch. 5S	Sch. 10S	STD Sch. 40S	XS Sch. 80S
				T <sub>1</sub>	T <sub>2</sub>	T <sub>1</sub>	T <sub>2</sub>	T <sub>1</sub>	T <sub>2</sub>	T <sub>1</sub>	T <sub>2</sub>								
3/4	1/2	26.67	21.34	1.65	1.65	2.11	2.11	2.87	2.77	3.91	3.73	28.70	28.70	3/4	1/2	0.14	0.19	0.23	0.31
1	1/2	33.40	21.34	1.65	1.65	2.77	2.11	3.38	2.77	4.55	3.73	38.10	38.10	1	1/2	0.22	0.36	0.40	0.54
1	3/4	33.40	26.67	1.65	1.65	2.77	2.11	3.38	2.87	4.55	3.91	38.10	38.10	1	3/4	0.23	0.38	0.42	0.57
1 1/4	3/4	42.16	26.67	1.65	1.65	2.77	2.11	3.56	2.87	4.85	3.91	47.75	47.75	1 1/4	3/4	0.35	0.58	0.68	0.92
1 1/4	1	42.16	33.40	1.65	1.65	2.77	2.77	3.56	3.38	4.85	4.55	47.75	47.75	1 1/4	1	0.35	0.58	0.68	0.92
1 1/2	1/2	48.26	21.34	1.65	1.65	2.77	2.11	3.68	2.77	5.08	3.73	57.15	57.15	1 1/2	1/2	0.45	0.76	0.91	1.26
1 1/2	3/4	48.26	26.67	1.65	1.65	2.77	2.11	3.68	2.87	5.08	3.91	57.15	57.15	1 1/2	3/4	0.48	0.81	0.97	1.34
1 1/2	1	48.26	33.40	1.65	1.65	2.77	2.77	3.68	3.38	5.08	4.55	57.15	57.15	1 1/2	1	0.49	0.82	0.99	1.37
1 1/2	1 1/4	48.26	42.16	1.65	1.65	2.77	2.77	3.68	3.56	5.08	4.85	57.15	57.15	1 1/2	1 1/4	0.50	0.85	1.02	1.41
2	3/4	60.32	26.67	1.65	1.65	2.77	2.11	3.91	2.87	5.54	3.91	63.50	44.45	2	3/4	0.68	1.15	1.48	2.10
2	1	60.32	33.40	1.65	1.65	2.77	2.77	3.91	3.38	5.54	4.55	63.50	50.80	2	1	0.73	1.24	1.59	2.26
2	1 1/4	60.32	42.16	1.65	1.65	2.77	2.77	3.91	3.56	5.54	4.85	63.50	57.15	2	1 1/4	0.75	1.27	1.63	2.31
2	1 1/2	60.32	48.26	1.65	1.65	2.77	2.77	3.91	3.68	5.54	5.08	63.50	60.45	2	1 1/2	0.78	1.33	1.70	2.41
2 1/2	1 1/2	73.02	48.26	2.11	1.65	3.05	2.77	5.16	3.68	7.01	5.08	76.20	66.80	2 1/2	1 1/2	1.13	1.63	2.50	3.40
2 1/2	2	73.02	60.32	2.11	1.65	3.05	2.77	5.16	3.91	7.01	5.54	76.20	69.85	2 1/2	2	1.22	1.77	2.72	3.70
3	1 1/2	88.90	48.26	2.11	1.65	3.05	2.77	5.49	3.68	7.62	5.08	85.85	73.15	3	1 1/2	1.19	1.73	2.84	3.95
3	2	88.90	60.32	2.11	1.65	3.05	2.77	5.49	3.91	7.62	5.54	85.85	76.20	3	2	1.24	1.80	2.95	4.10
3	2 1/2	88.90	73.02	2.11	2.11	3.05	3.05	5.49	5.16	7.62	7.01	85.85	82.55	3	2 1/2	1.29	1.87	3.06	4.25
4	1 1/2	114.30	48.26	2.11	1.65	3.05	2.77	6.02	3.68	8.56	5.08	104.90	85.85	4	1 1/2	1.97	2.83	5.06	7.19
4	2	114.30	60.32	2.11	1.65	3.05	2.77	6.02	3.91	8.56	5.54	104.90	88.90	4	2	1.99	2.86	5.11	7.26
4	2 1/2	114.30	73.02	2.11	2.11	3.05	3.05	6.02	5.16	8.56	7.01	104.90	95.25	4	2 1/2	2.00	2.87	5.13	7.28
4	3	114.30	88.90	2.11	2.11	3.05	3.05	6.02	5.49	8.56	7.62	104.90	98.55	4	3	2.06	2.95	5.27	7.48
5	3	141.30	88.90	2.77	2.11	3.40	3.05	6.55	5.49	9.53	7.62	123.95	111.25	5	3	4.27	5.18	9.08	13.2
5	4	141.30	114.30	2.77	2.11	3.40	3.05	6.55	6.02	9.53	8.56	123.95	117.60	5	4	4.48	5.43	9.53	13.8
6	2 1/2	168.27	73.02	2.77	2.11	3.40	3.05	7.11	5.16	10.97	7.01	143.00	120.65	6	2 1/2	6.25	3.70	14.5	22.4
6	3	168.27	88.90	2.77	2.11	3.40	3.05	7.11	5.49	10.97	7.62	143.00	123.95	6	3	6.35	7.82	14.80	22.9
6	4	168.27	114.30	2.77	2.11	3.40	3.05	7.11	6.02	10.97	8.56	143.00	130.30	6	4	6.54	8.06	15.2	23.4
6	5	168.27	141.30	2.77	2.77	3.40	3.40	7.11	6.55	10.97	9.53	143.00	136.65	6	5	6.23	8.30	15.7	24.1

## STUB ENDS: SHORT & LONG Type A & Type B



ASME/ASTM SA/A403 WPS  
(Seamless) ASME B16-9  
ASME/ASTM SA/A403 WPW  
(Welded) ASME B16-9  
ASME/ASTM SA/A403 WPWX  
(Welded, 100% X-Ray) ASME B16-9

Nominal Pipe Sizes	Outside Ø	Wall Thickness (T) in mm				Ø of Lap (D)	Length H		Radius R		Approximate Weight (unit: Kg)				
		Sch. 5S	Sch. 10S	STD Sch. 40S	XS Sch. 80S		Long ASME	ASME Short & MSS	MSS Type A (Max) & ASME	MSS Type B (Max)	Nominal Pipe Sizes in inches	Sch 5S	Sch. 10S	STD Sch. 40S	XS Sch. 80S
1/2	21.34	1.65	2.11	2.77	3.73	34.93	76.20	50.80	3.30	0.76	1/2	0.049	0.062	0.079	0.129
3/4	26.67	1.65	2.11	2.87	3.91	42.88	76.20	50.80	3.30	0.76	3/4	0.064	0.086	0.101	0.17
1	33.40	1.65	2.77	3.38	4.55	50.80	101.60	50.80	3.30	0.76	1	0.82	0.140	0.160	0.240
1 1/4	42.16	1.65	2.77	3.56	4.85	63.50	101.60	50.80	4.83	0.76	1 1/4	0.109	0.178	0.263	0.349
1 1/2	48.26	1.65	2.77	3.68	5.08	73.02	101.60	50.80	6.35	0.76	1 1/2	0.129	0.213	0.376	0.458
2	60.32	1.65	2.77	3.91	5.54	92.07	152.40	63.50	7.87	0.76	2	0.204	0.376	0.471	0.743
2 1/2	73.02	2.11	3.05	5.16	7.01	104.77	152.40	63.50	7.87	0.76	2 1/2	0.313	0.448	0.797	1.060
3	88.90	2.11	3.05	5.49	7.62	127.00	152.40	63.50	9.65	0.76	3	0.4	0.574	1.133	1.508
4	114.30	2.11	3.05	6.02	8.56	157.18	152.40	76.20	11.18	0.76	4	0.606	0.870	1.68	2.56
5	141.30	2.77	3.40	6.55	9.53	185.75	203.20	76.20	11.18	1.52	5	0.985	1.237	2.28	3.601
6	168.27	2.77	3.40	7.11	10.97	215.90	203.20	88.90	12.70	1.52	6	1.34	1.95	3.37	5.57
8	219.08	2.77	3.76	8.18	12.70	269.88	203.20	101.60	12.70	1.52	8	1.96	2.65	5.67	10.12
10	273.05	3.40	4.19	9.27	12.70	323.85	254.00	127.00	12.70	1.52	10	3.57	4.38	9.55	13.95
12	323.85	3.96	4.57	9.53	12.70	381.00	254.00	152.40	12.70	1.52	12	5.85	6.74	13.8	19.93
14	355.60	3.96	4.78	9.53	12.70	412.75	304.80	152.40	12.70	1.52	14	6.42	7.75	15.46	20.62
16	406.40	4.19	4.78	9.53	12.70	469.90	304.80	152.40	12.70	1.52	16	7.91	9.00	17.98	23.98
18	457.20	4.19	4.78	9.53	12.70	533.40	304.80	152.40	12.70	1.52	18	9.24	10.5	21.00	28.00
20	508.00	4.78	5.54	9.53	12.70	584.20	304.80	152.40	12.70	1.52	20	11.7	13.54	23.30	31.07
22	558.80	4.78	5.54	9.53	12.70	641.35	304.80	152.40	12.70	1.52	22	14.1	16.22	25.86	34.00
24	609.60	5.54	6.35	9.53	12.70	692.15	304.80	152.40	12.70	1.52	24	16.5	18.94	28.41	37.88





# CONCENTRIC & ECCENTRIC REDUCERS BUTT WELD (1 of 3)

ASME/ASTM SA/A403 WPS

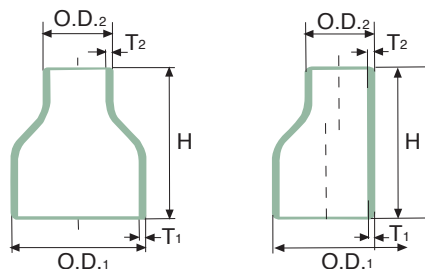
(Seamless) ASME B16-9

ASME/ASTM SA/A403 WPW

(Welded) ASME B16-9

ASME/ASTM SA/A403 WPWX

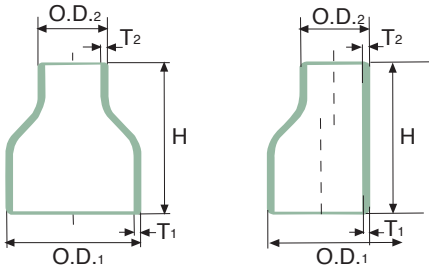
(Welded, 100% X-Ray) ASME B16-9



Nominal Pipe Sizes Run	Outside Ø OD <sub>1</sub>	Outside Ø OD <sub>2</sub>	Wall Thickness (T) in mm										Length H	Weight (unit: Kg)				
			Sch. 5S		Sch. 10S		STD Sch. 40S		XS Sch. 80S		Sch 5S	Sch. 10S		STD Sch. 40S	XS Sch. 80S			
			T <sub>1</sub>	T <sub>2</sub>	T <sub>1</sub>	T <sub>2</sub>	T <sub>1</sub>	T <sub>2</sub>	T <sub>1</sub>	T <sub>2</sub>								
3/4	1/2	26.67	21.34	1.65	1.65	2.11	2.11	2.87	2.77	3.91	3.73	38.10	3/4	1/2	0.054	0.01	0.14	0.18
1	1/2	33.40	21.34	1.65	1.65	2.77	2.11	3.38	2.77	4.55	3.73	50.80	1	1/2	0.09	0.12	0.15	0.22
1	3/4	33.40	26.67	1.65	1.65	2.77	2.11	3.38	2.87	4.55	3.91	50.80	1	3/4	0.09	0.14	0.16	0.22
1 1/4	1	42.16	33.40	1.65	1.65	2.77	2.77	3.56	3.38	4.85	4.55	50.80	1 1/4	1	0.12	0.18	0.22	0.31
1 1/2	1/2	48.26	21.34	1.65	1.65	2.77	2.11	3.68	2.77	5.08	3.73	63.50	1 1/2	1/2	0.11	0.19	0.22	0.32
1 1/2	3/4	48.26	26.67	1.65	1.65	2.77	2.11	3.68	2.87	5.008	3.91	63.50	1 1/2	3/4	0.12	0.21	0.26	0.35
1 1/2	1	48.26	33.40	1.65	1.65	2.77	2.77	3.68	3.38	5.08	4.55	63.50	1 1/2	1	0.14	0.23	0.26	0.39
1 1/2	1 1/4	48.26	42.16	1.65	1.65	2.77	2.77	3.68	3.56	5.08	4.85	63.50	1 1/2	1 1/4	0.16	0.21	0.28	0.44
2	3/4	60.32	26.67	1.65	1.65	2.77	2.11	3.91	2.87	5.54	3.91	76.20	2	3/4	0.15	0.25	0.37	0.458
2	1	60.32	33.40	1.65	1.65	2.77	2.77	3.91	3.38	5.54	4.55	76.20	2	1	0.16	0.27	0.40	0.50
2	1 1/4	60.32	42.16	1.65	1.65	2.77	2.77	3.91	3.56	5.54	4.85	76.20	2	1 1/4	0.17	0.30	0.44	0.54
2	1 1/2	60.32	48.26	1.65	1.65	2.77	2.77	3.91	3.68	5.54	5.08	76.20	2	1 1/2	0.19	0.32	0.45	0.58
2 1/2	1	73.02	33.40	2.11	1.65	3.05	2.77	5.16	3.38	7.01	4.55	88.90	2 1/2	1	0.26	0.37	0.37	0.78
2 1/2	1 1/4	73.02	42.16	2.11	1.65	3.05	2.77	5.16	3.56	7.01	4.85	88.90	2 1/2	1 1/4	0.26	0.37	0.670	0.78
2 1/2	1 1/2	73.02	48.26	2.11	1.65	3.05	2.77	5.16	3.68	7.01	5.08	88.90	2 1/2	1 1/2	0.281	0.41	0.77	0.86
2 1/2	2	73.02	60.32	2.11	1.65	3.05	2.77	5.16	3.91	7.01	5.54	88.90	2 1/2	2	0.31	0.44	0.80	0.92
3	1	88.90	33.40	2.11	1.65	3.05	2.77	5.49	3.38	7.62	4.55	88.90	3	1	0.30	0.43	0.85	0.99
3	1 1/4	88.90	42.16	2.11	1.65	3.05	2.77	5.49	3.56	7.62	4.85	88.90	3	1 1/4	0.31	0.45	0.75	1.01
3	1 1/2	88.90	48.26	2.11	1.65	3.05	2.77	5.49	3.68	7.62	5.08	88.90	3	1 1/2	0.32	0.47	0.97	1.07
3	2	88.90	60.32	2.11	1.65	3.05	2.77	5.49	3.91	7.62	5.54	88.90	3	2	0.34	0.50	1	1.14
3	2 1/2	88.90	73.02	2.11	2.11	3.05	3.05	5.49	5.16	7.62	7.01	88.90	3	2 1/2	0.376	0.56	1.08	1.26
4	1 1/2	114.30	48.26	2.11	1.65	3.05	2.77	6.02	3.68	8.56	5.08	101.60	4	1 1/2	0.51	0.73	1.31	1.86
4	2	114.30	60.32	2.11	1.65	3.05	2.77	6.02	3.91	8.56	5.54	101.60	4	2	0.53	0.76	1.36	1.93
4	2 1/2	114.30	73.02	2.11	2.11	3.05	3.05	6.02	5.16	8.56	7.01	101.60	4	2 1/2	0.58	0.83	1.48	2.10
4	3	114.30	88.90	2.11	2.11	3.05	3.05	6.02	5.49	8.56	7.62	101.60	4	3	0.60	0.86	1.54	2.19
5	3	141.30	88.90	2.77	2.11	3.40	3.05	6.55	5.49	9.53	7.62	127.00	5	3	1.18	1.43	2.5	3.63
5	4	141.30	114.30	2.77	2.11	3.40	3.05	6.55	6.02	9.53	8.56	127.00	5	4	1.28	1.55	2.72	3.94
6	2 1/2	168.27	73.02	2.77	2.11	3.40	3.05	7.11	5.16	10.97	7.01	139.70	6	2 1/2	1.41	1.74	3.29	5.07
6	3	168.27	88.90	2.77	2.11	3.40	3.05	7.11	5.49	10.97	7.62	139.70	6	3	1.56	1.92	3.63	5.59
6	4	168.27	114.30	2.77	2.11	3.40	3.05	7.11	6.02	10.97	8.56	139.70	6	4	1.61	1.99	3.75	5.78
6	5	168.27	141.30	2.77	2.77	3.40	3.40	7.11	6.55	10.97	9.53	139.70	6	5	1.66	2.05	3.86	5.94
8	4	219.08	114.30	2.77	2.11	3.76	3.05	8.18	6.02	12.70	8.56	152.40	8	4	1.85	2.54	4.99	7.73
8	5	219.08	141.30	2.77	2.77	3.76	3.40	8.18	6.55	12.70	9.53	152.40	8	5	2.02	2.78	5.43	8.45
8	6	219.08	168.27	2.77	2.77	3.76	3.40	8.18	7.11	12.70	10.97	152.40	8	6	2.23	3.07	6.02	9.33
10	5	273.05	141.30	3.40	2.77	4.19	3.40	9.27	6.55	12.70	9.53	177.80	10	5	3.81	4.77	9.53	13.1
10	6	273.05	168.27	3.40	2.77	4.19	3.40	9.27	7.11	12.70	10.97	177.80	10	6	3.90	4.88	9.76	13.4
10	8	273.05	219.08	3.40	2.77	4.19	3.76	9.27	8.18	12.70	12.70	177.80	10	8	4	5	9.99	13.7
12	6	323.85	168.27	3.96	2.77	4.57	3.40	9.53	7.11	12.70	10.97	203.20	12	6	6.49	7.47	14.1	18.8
12	8	323.85	219.08	3.96	2.77	4.57	3.76	9.53	8.18	12.70	12.70	203.20	12	8	6.67	7.69	14.5	19.3
12	10	323.85	273.05	3.96	3.40	4.57	4.19	9.53	9.27	12.70	12.70	203.20	12	10	7.08	8.16	15.4	20.5

(continued) see next page for 14" and larger

Stock availability and service varies from branch to branch. Information provided as a guide only and is subject to our normal disclaimer on our website



ASME/ASTM SA/A403 WPS  
(Seamless) ASME B16-9  
ASME/ASTM SA/A403 WPW  
(Welded) ASME B16-9  
ASME/ASTM SA/A403 WPWX  
(Welded, 100% X-Ray) ASME B16-9

(continued from previous page)

Nominal Pipe Sizes Run	Outside Ø OD <sub>1</sub>	Outside Ø OD <sub>2</sub>	Wall Thickness (T) in mm								Length H	Weight (unit: Kg)					
			Sch. 5S		Sch. 10S		STD Sch. 40S		XS Sch. 80S			Sch 5S	Sch. 10S	STD Sch. 40S	XS Sch. 80S		
			T <sub>1</sub>	T <sub>2</sub>	T <sub>1</sub>	T <sub>2</sub>	T <sub>1</sub>	T <sub>2</sub>	T <sub>1</sub>	T <sub>2</sub>							
14 12	355.60	323.85	4.78	4.57	7.92	6.35	9.53	9.53	12.70	12.70	330.20	14	12	15.0	24.8	27.2	36.2
14 10	355.60	273.05	4.78	4.19	7.92	6.35	9.53	9.27	12.70	12.70	330.20	14	10	14.8	24.5	26.9	35.8
14 8	355.60	219.08	4.78	3.76	7.92	6.35	9.53	8.18	12.70	12.70	330.20	14	8	14.6	24.2	26.6	35.4
14 6	355.60	168.27	4.78	3.40	7.92	-	9.53	7.11	12.70	10.97	330.20	14	6	14.5	23.9	26.3	35.0
16 14	406.40	355.60	4.78	4.78	7.92	7.92	9.53	9.53	12.70	12.70	355.60	16	14	17.7	29.3	32.2	42.8
16 12	406.40	323.85	4.78	4.57	7.92	6.35	9.53	9.53	12.70	12.70	355.60	16	12	17.5	28.9	31.8	42.3
16 10	406.40	273.05	4.78	4.19	7.92	6.35	9.53	9.27	12.70	12.70	355.60	16	10	17.4	28.8	31.6	42
16 8	406.40	219.08	4.78	3.76	7.92	6.35	9.53	8.18	12.70	12.70	355.60	16	8	17.1	28.3	31.1	41.4
18 16	457.20	406.40	4.78	4.78	7.92	7.92	9.53	9.53	12.70	12.70	381.00	18	16	21.2	35.1	38.6	51.3
18 14	457.20	355.60	4.78	4.78	7.92	7.92	9.53	9.53	12.70	12.70	381.00	18	14	21.0	34.7	38.1	50.7
18 12	457.20	323.85	4.78	4.57	7.92	6.35	9.53	9.53	12.70	12.70	381.00	18	12	20.7	34.02	37.87	50.1
18 10	457.20	273.05	4.78	4.19	7.92	6.35	9.53	9.27	12.70	12.70	381.00	18	10	20.5	33.9	37.2	49.5
20 18	508.00	457.20	5.54	4.78	9.53	7.92	9.53	9.53	12.70	12.70	508.00	20	18	36.4	56.8	56.8	75.5
20 16	508.00	406.40	5.54	4.78	9.53	7.92	9.53	9.53	12.70	12.70	508.00	20	16	36.01	56.3	56.3	74.9
20 14	508.00	355.60	5.54	4.78	9.53	7.92	9.53	9.53	12.70	12.70	508.00	20	14	35.5	55.4	55.4	73.7
20 12	508.00	323.85	5.54	4.57	9.53	6.35	9.53	9.53	12.70	12.70	508.00	20	12	34.9	54.5	54.5	72.5
22 20	558.80	508.00	5.54	5.54	9.53	9.53	9.53	9.53	12.70	12.70	508.00	22	20	41.3	64.5	64.5	85.8
22 18	558.80	457.20	5.54	4.78	9.53	7.92	9.53	9.53	12.70	12.70	508.00	22	18	40.01	62.7	62.7	83.4
22 16	558.80	406.40	5.54	4.78	9.53	7.92	9.53	9.53	12.70	12.70	508.00	22	16	38.01	59.5	59.5	79.1
22 14	558.80	355.60	5.54	4.78	9.53	7.92	9.53	9.53	12.70	12.70	508.00	22	14	35.7	55.8	55.8	74.2
24 22	609.60	558.80	6.35	5.54	9.53	9.53	9.53	9.53	12.70	12.70	508.00	24	22	51.1	70.0	70.0	93.1
24 20	609.60	508.00	6.35	5.54	9.53	9.53	9.53	9.53	12.70	12.70	508.00	24	20	49.7	68.1	68.1	90.6
24 18	609.60	457.20	6.35	4.78	9.53	7.92	9.53	9.53	12.70	12.70	508.00	24	18	49.1	67.2	67.2	89.4
24 16	609.60	406.40	6.35	4.78	9.53	7.92	9.53	9.53	12.70	12.70	508.00	24	16	48.0	65.8	65.8	87.5
24 14	609.60	355.60	6.35	4.78	9.53	7.92	9.53	9.53	12.70	12.70	508.00	24	14	46.5	63.7	63.7	84.7
26 24	660.40	609.60			12.70	9.53	9.53	9.53	12.70	12.70	609.60	26	24		125	94	125
26 20	660.40	508.00			12.70	9.53	9.53	9.53	12.70	12.70	609.60	26	20		115	86.3	115
26 18	660.40	457.20			12.70	7.92	9.53	9.53	12.70	12.70	609.60	26	18		110	82.6	110
26 16	660.40	406.40			12.70	7.92	9.53	9.53	12.70	12.70	609.60	26	16		104	78.0	104.0
28 26	711.20	660.40			12.70	12.70	9.53	9.53	12.70	12.70	609.60	28	26		136	102	136
28 24	711.20	609.60			12.70	9.53	9.53	9.53	12.70	12.70	609.60	28	24		130	98.1	130
28 20	711.20	508.00			12.70	9.53	9.53	9.53	12.70	12.70	609.60	28	20		120	90.3	120
28 18	711.20	457.20			12.70	7.92	9.53	9.53	12.70	12.70	609.60	28	18		114	86.0	114
30 28	762.00	711.20			12.70	12.70	9.53	9.53	12.70	12.70	609.60	30	28		145	109	145
30 26	762.00	660.40			12.70	12.70	9.53	9.53	12.70	12.70	609.60	30	26		140	105	140
30 24	762.00	609.60			12.70	9.53	9.53	9.53	12.70	12.70	609.60	30	24		136	102	136
30 22	762.00	558.00			12.70	9.53	9.53	9.53	12.70	12.70	609.60	30	22		133	100	133
32 30	812.80	762.00			12.70	12.70	9.53	9.53	12.70	12.70	609.60	32	30		156	117	156
32 28	812.80	711.20			12.70	12.70	9.53	9.53	12.70	12.70	609.60	32	28		150	113	150

(continued) see next page for 32" and larger

# CONCENTRIC & ECCENTRIC REDUCERS BUTT WELD (3 of 3)

ASME/ASTM SA/A403 WPS

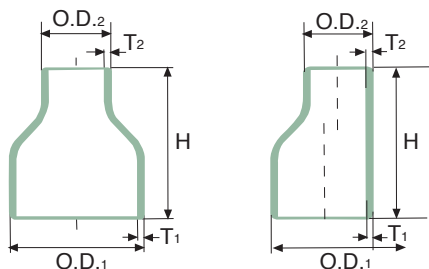
(Seamless) ASME B16-9

ASME/ASTM SA/A403 WPW

(Welded) ASME B16-9

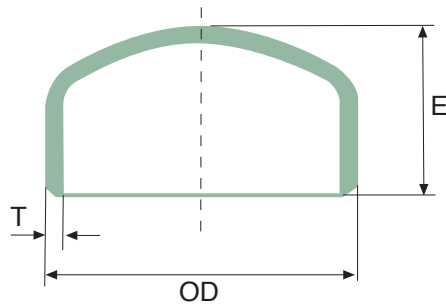
ASME/ASTM SA/A403 WPWX

(Welded, 100% X-Ray) ASME B16-9



(continued from previous page)

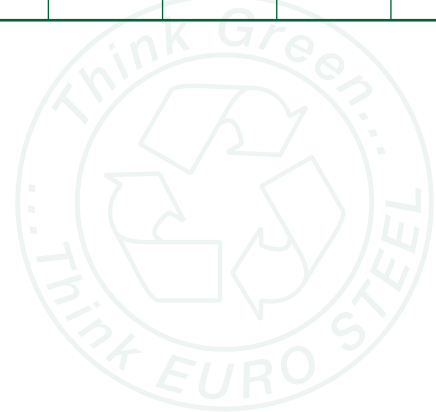
Nominal Pipe Sizes Run	Outside Ø OD <sub>1</sub>	Outside Ø OD <sub>2</sub>	Wall Thickness (T) in mm								Length H	Weight (unit: Kg)				
			Sch. 5S		Sch. 10S		STD Sch. 40S		XS Sch. 80S			Sch 5S	Sch. 10S	STD Sch. 40S	XS Sch. 80S	
			T <sub>1</sub>	T <sub>2</sub>	T <sub>1</sub>	T <sub>2</sub>	T <sub>1</sub>	T <sub>2</sub>	T <sub>1</sub>	T <sub>2</sub>						
32 26	812.80	660.40			12.70	12.70	9.53	9.53	12.70	12.70	609.60	32 26		145	109	145
32 24	812.80	609.60			12.70	9.53	9.53	9.53	12.70	12.70	609.60	32 24		142	107	142
34 32	863.60	812.80			12.70	12.70	9.53	9.53	12.70	12.70	609.60	34 32		165	124	165
34 30	863.60	762.00			12.70	12.70	9.53	9.53	12.70	12.70	609.60	34 30		161	121	161
34 28	863.60	711.20			12.70	12.70	9.53	9.53	12.70	12.70	609.60	34 28		156	117	156
34 26	863.60	660.40			12.70	12.70	9.53	9.53	12.70	12.70	609.60	34 26		150	113	150
36 34	914.40	863.60			12.70	12.70	9.53	9.53	12.70	12.70	609.60	36 34		176	132	176
36 32	914.40	812.80			12.70	12.70	9.53	9.53	12.70	12.70	609.60	36 32		170	128	170
36 30	914.40	762.00			12.70	12.70	9.53	9.53	12.70	12.70	609.60	36 30		165	124	165
36 28	914.40	711.20			12.70	12.70	9.53	9.53	12.70	12.70	609.60	36 28		161	121	161
38 36	965.20	914.40					9.53	9.53	12.70	12.70	609.60	38 36			140	186
38 34	965.20	863.60					9.53	9.53	12.70	12.70	609.60	38 34			135	180
38 32	965.20	812.80					9.53	9.53	12.70	12.70	609.60	38 32			132	176
38 30	965.20	762.00					9.53	9.53	12.70	12.70	609.60	38 30			129	172
38 28	965.20	711.20					9.53	9.53	12.70	12.70	609.60	38 28			127	169
38 26	965.20	660.40					9.53	9.53	12.70	12.70	609.60	38 26			124	165
40 38	1016.00	965.20					9.53	9.53	12.70	12.70	609.60	40 38			147	196
40 36	1016.00	914.40					9.53	9.53	12.70	12.70	609.60	40 36			144	192
40 34	1016.00	863.60					9.53	9.53	12.70	12.70	609.60	40 34			140	186
40 32	1016.00	812.80					9.53	9.53	12.70	12.70	609.60	40 32			137	182
40 30	1016.00	762.00					9.53	9.53	12.70	12.70	609.60	40 30			133	177
42 40	1066.80	1016.00					9.53	9.53	12.70	12.70	609.60	42 40			158	210
42 38	1066.80	965.20					9.53	9.53	12.70	12.70	609.60	42 38			154	205
42 36	1066.80	914.40					9.53	9.53	12.70	12.70	609.60	42 36			151	201
42 34	1066.80	863.60					9.53	9.53	12.70	12.70	609.60	42 34			147	196
42 32	1066.80	812.80					9.53	9.53	12.70	12.70	609.60	42 32			145	193
42 30	1066.80	762.00					9.53	9.53	12.70	12.70	609.60	42 30			142	189
44 42	1117.60	1066.80					9.53	9.53	12.70	12.70	609.60	44 42			163	217
44 40	1117.60	1016.00					9.53	9.53	12.70	12.70	609.60	44 40			158	210
44 38	1117.60	965.20					9.53	9.53	12.70	12.70	609.60	44 38			154	205
44 36	1117.60	914.40					9.53	9.53	12.70	12.70	609.60	44 36			152	202
46 44	1168.40	1117.60					9.53	9.53	12.70	12.70	711.20	46 44			148	263
46 42	1168.40	1066.80					9.53	9.53	12.70	12.70	711.20	46 42			194	258
46 40	1168.40	1016.00					9.53	9.53	12.70	12.70	711.20	46 40			189	251
46 38	1168.40	965.20					9.53	9.53	12.70	12.70	711.20	46 38			185	246
46 36	1168.40	914.40					9.53	9.53	12.70	12.70	711.20	46 36			207	275
48 44	1219.20	1117.60					9.53	9.53	12.70	12.70	711.20	48 44			203	270
48 42	1219.20	1066.80					9.53	9.53	12.70	12.70	711.20	48 42			198	263
48 40	1219.20	1016.00					9.53	9.53	12.70	12.70	711.20	48 40			194	258

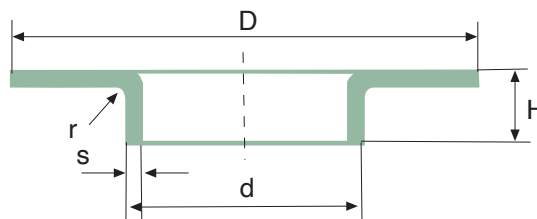


ASME/ASTM SA/A403 WPS  
(Seamless) ASME B16-9

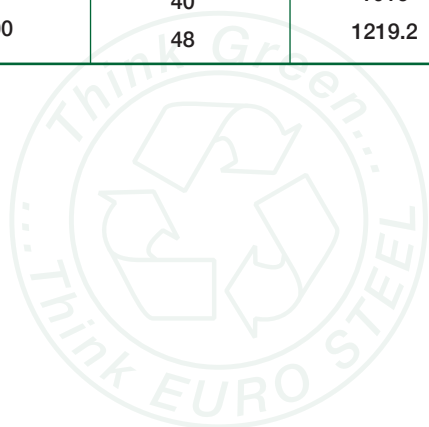
Nominal Pipe Sizes	Outside Ø OD	Wall Thickness (T) in mm				Length E
		Sch. 5S	Sch. 10S	STD Sch. 40S	XS Sch. 80S	
1/2	21.34	1.65	2.11	2.77	3.73	25.40
3/4	26.67	1.65	2.11	2.87	3.91	25.40
1	33.40	1.65	2.77	3.38	4.55	38.10
1 1/4	42.16	1.65	2.77	3.56	4.85	38.10
1 1/2	48.26	1.65	2.77	3.68	5.08	38.10
2	60.32	1.65	2.77	3.91	5.54	38.10
2 1/2	73.02	2.11	3.05	5.16	7.01	38.1
3	88.90	2.11	3.05	5.49	7.62	50.8
4	114.30	2.11	3.05	6.02	8.56	64
5	141.30	2.77	3.40	6.55	9.53	76
6	168.27	2.77	3.40	7.11	10.97	89
8	219.08	2.77	3.76	8.18	12.70	102
10	273.00	3.40	4.19	9.27	12.70	127
12	323.85	3.96	4.57	9.53	12.70	152
14	355.60	3.96	4.78	9.53	12.70	165
16	406.40	4.19	4.78	9.53	12.70	178
18	457.20	4.19	4.78	9.53	12.70	203
20	508.00	4.78	5.54	9.53	12.70	229
24	609.60	5.54	6.35	9.53	12.70	267

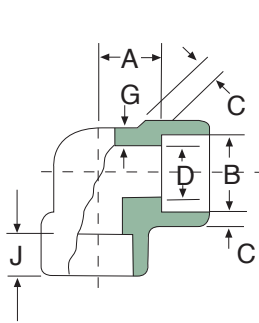
Nominal Pipe Sizes in inches	Approximate Weight (unit: Kg)			
	Sch 5S	Sch. 10S	STD Sch. 40S	XS Sch. 80S
1/2	0.036	0.040	0.046	0.045
3/4	0.049	0.052	0.059	0.086
1	0.081	0.090	0.109	0.13
1 1/4	0.09	0.113	0.171	0.222
1 1/2	0.099	0.14	0.234	0.344
2	0.169	0.17	0.27	0.344
2 1/2	0.227	0.242	0.420	0.512
3	0.39	0.40	0.69	0.84
4	0.566	0.68	1.22	1.61
5	0.907	1.02	1.91	2.55
6	1.11	1.42	3.23	4.24
8	1.74	2.49	5.67	7.76
10	3.26	4.9	9.7	12.3
12	5.47	6.53	13.1	16.6
14	7.19	8.16	15.9	21.11
16	10.99	14.5	22	29.48
18	13.92	18	27	35.92
20	17.19	27	34	40.21
24	27.43	34.5	44.5	61.23



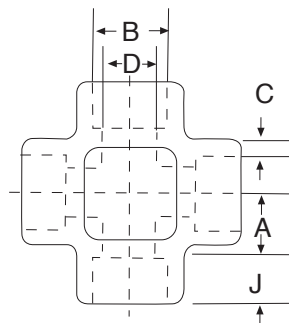


Nominal Diameter DN	Diameter in inches	d (mm)	D (mm)	r	H (mm)	s (mm)
10	3/8	17.2	40	3	9	As per ANSI B36-10/B36-19 or customer specification
15	1/2	21.3	45	3	9	
20	3/4	26.9	58	3	12	
25	1	33.7	68	4	15	
32	1 1/4	42.4	78	4	15	
40	1 1/2	48.3	88	4	17	
50	2	60.3	102	5	23	
65	2 1/2	73	122	5	23	
80	3	88.9	138	5	23	
100	4	114.3	158	5	28	
125	5	141.3	188	5	30	
150	6	168.3	212	5	30	
200	8	219.1	268	5	30	
250	10	273.2	320	5	30	
300	12	323.9	370	6	35	
350	14	355.6	430	6	-	
400	16	406.4	482	6	-	
450	18	457.2	532	6	-	
500	20	508	585	6	-	
600	24	609.6	685	7	-	
700	28	711.2	800	7	-	
800	32	812.8	905	7	-	
900	36	914.4	1005	7	-	
1000	40	1016	1110	8	-	
1200	48	1219.2	1330	8	-	

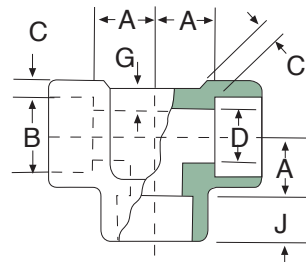




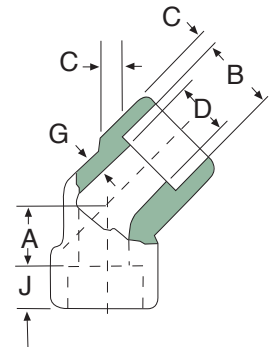
90° ELBOW



CROSS



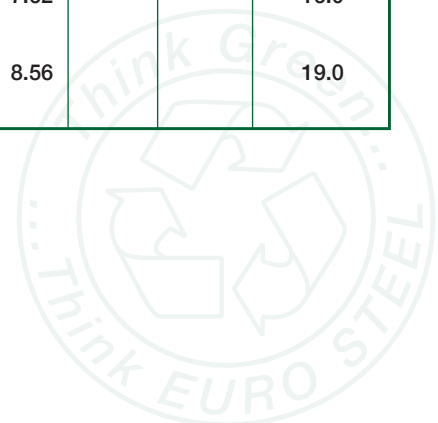
TEE



45° ELBOW

DN	Nominal Pipe Sizes	Socket Bore Ø	Bore Diameter of Fitting D			Socket Wall Thickness C						Body Wall Thickness G			Depth of Socket Min. J
						Class Designation						Class Designation			
			Class Designation			3000	6000	9000		3000	6000	9000	3000	6000	
		B	3000	6000	9000	Ave.	Min.	Ave.	Min.	Ave.	Min.	Min.	Min.	Min.	J
6	1/8	11.2	7.6	4.8		3.18	3.18	3.96	3.43			2.41	3.15		9.5
		10.8	6.1	3.2											
8	1/4	14.6	10.0	7.1		3.78	3.30	4.60	4.01			3.02	3.68		9.5
		14.2	8.5	5.6											
10	3/8	18.0	13.3	9.9		4.01	3.50	5.03	4.37			3.20	4.01		9.5
		17.6	11.8	8.4											
15	1/2	22.2	16.6	12.5	7.2	4.67	4.09	5.97	5.18	9.35	8.18	3.73	4.78	7.47	9.5
		21.8	15.0	11.0	5.6										
20	3/4	27.6	21.7	16.3	11.8	4.90	4.27	6.96	6.04	9.78	8.56	3.91	5.56	7.82	12.5
		27.2	20.2	14.8	10.3										
25	1	34.3	27.4	21.5	16	5.69	4.98	7.92	6.93	11.38	9.96	4.55	6.35	9.09	12.5
		33.9	25.9	19.9	14.5										
32	1 1/4	43.1	35.8	30.2	23.5	6.07	5.28	7.92	6.93	12.14	10.62	4.85	6.35	9.70	12.5
		42.7	34.3	28.7	22										
40	1 1/2	49.2	41.6	34.7	28.7	6.35	5.545	8.92	7.80	12.70	11.12	5.08	7.14	10.15	12.5
		48.8	40.1	33.2	27.2										
50	2	61.7	53.3	43.6	38.9	6.93	6.04	10.92	9.50	13.84	12.12	5.54	8.74	11.07	16.0
		61.2	51.7	42.1	37.4										
65	2 1/2	74.4	64.2			8.76	7.67					7.01			16.0
		73.9	61.2												
80	3	90.3	79.4			9.52	8.30					7.62			16.0
		89.8	76.4												
100	4	115.7	103.8			10.69	9.35					8.56			19.0
		115.2	100.7												

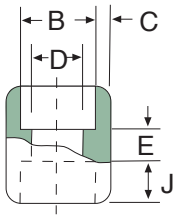
\* Dimensions in mm



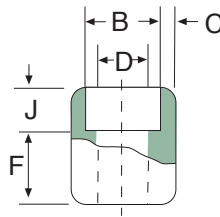


# SOCKET WELD FITTINGS

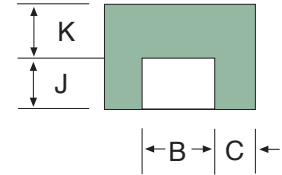
ASME B16.11



COUPLING



HALF COUPLING



CAP

DN	Nom. Pipe Size	Centre to Bottom of Socket -A						Laying Lengths		Tolerances ±			End Wall Thickness K Min.		
		90° Elbows Tees, Crosses			45° Elbows			C-lings	Half C-lings	A	E	F	Class Designation		
		Class Designation			Class Designation								3000	6000	9000
		3000	6000	9000	3000	6000	9000	E	F				3000	6000	9000
6	1/8	11.0	11.0		8.0	8.0		6.5	16.0	1.0	1.5	1.0	4.8	6.4	
8	1/4	11.0	16.5		8.0	8.0		6.5	16.0	1.0	1.5	1.0	4.8	6.4	
10	3/8	13.5	15.5		8.0	11.0		6.5	17.5	1.5	3.0	1.5	4.8	6.4	
15	1/2	15.5	19.0	25.5	11.0	12.5	15.5	9.5	22.5	1.5	3.0	1.5	6.4	7.9	11.2
20	3/4	19.0	22.5	28.5	13.0	14.0	19.0	9.5	24	1.5	3.0	1.5	6.4	7.9	12.7
25	1	22.5	27.0	32.0	14.0	17.5	20.5	12.5	28.5	2.0	4.0	2.0	9.6	11.2	14.2
32	1 1/4	27.0	32.0	35.0	17.5	20.5	22.5	12.5	30.0	2.0	4.0	2.0	9.6	11.2	14.2
40	1 1/2	32.0	38.0	38.0	20.5	25.5	25.5	12.5	32.0	2.0	4.0	2.0	11.2	12.7	15.7
50	2	38.0	41.0	54.0	25.5	28.5	28.5	19.0	41.0	2.0	4.0	2.0	12.7	15.7	19.0
65	2 1/2	41.0			28.5			19.0	43.0	2.5	5.0	2.5	15.7	19.0	
80	3	57.0			32.0			19.0	44.5	2.5	5.0	2.5	19.0	22.4	
100	4	66.5			41.0			19.0	48.0	2.5	5.0	2.5	22.4	28.4	

\* Dimensions in mm