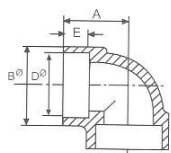


Codo 90° (Roscado)

ASME/ANSI B 16.11

NW	3,000 Lbs.			6,000 Lbs.		
	A	Bø	Weight Peso	A	Bø	Weight Peso
Pulg.	mm.	mm.	kg%	mm.	mm.	kg%
1/4"	24.5	25.5	14	28.5	33.5	30
3/8"	28.5	33.5	27	33.5	38	45.5
1/2"	33.5	38	41.5	38	46	72
3/4"	38	46	65	44.5	55.5	115.5
1"	44.5	55.5	103.5	51	62	161.5
1 1/4"	51	62	130.5	60.5	75.5	267
1 1/2"	60.5	75.5	221.5	63.5	84	320.5
2"	63.5	84	247	86	110	794
2 1/2"	86	110	734	95.5	120.5	985
3"	95.5	120.5	778	114.5	152.5	1,800
4"	114.5	152.5	1,328	---	---	---

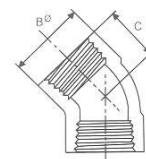


Codo 90° (SW)

ASME/ANSI B 16.11

NW	3,000 Lbs.					6,000 Lbs.				
	A	Bø	Dø	E	Weight Peso	A	Bø	Dø	E	Weight Peso
Pulg.	mm.	mm.	mm.	mm.	kg%	mm.	mm.	mm.	mm.	kg%
1/4"	24.5	25.5	14	13.5	12	---	---	---	---	---
3/8"	24.5	25.5	17.5	11	10.4	---	---	---	---	---
1/2"	28.5	33.5	21.5	12.5	21.8	33.5	38	21.7	14.5	40
3/4"	33.5	38	27.1	14.5	30.8	38	46	27.1	16	62.1
1"	38	46	33.8	16	46.7	44.5	55.5	33.8	17.5	102.1
1 1/4"	44.5	55.5	42.6	17.5	67.1	51	62	42.6	19	132.1
1 1/2"	51	62	48.7	19	90.2	60.5	75.5	48.7	22	237
2"	60.5	75.5	61.1	22	136.1	63.5	84	61.1	22	272.4
2 1/2"	76	92	73.8	34.5	280	86	110	73.8	30	580
3"	86	110	89.8	29	440	95.5	120.5	89.8	32	840
4"	114.5	152.5	115.4	48	1,330	114.5	152.5	115.4	35	1,580

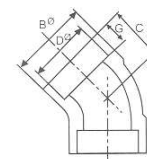




Codo 45° (Roscado)

ASME/ANSI B 16.11

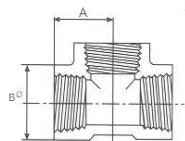
NW	3,000 Lbs.			6,000 Lbs.		
	Bø	C	Weight Peso	Bø	C	Weight Peso
Pulg.	mm.	mm.	kg%	mm.	mm.	kg%
1/4"	25.5	19	11.5	38	25.5	40.5
3/8"	38	25.5	36.5	38	25.5	38.5
1/2"	38	25.5	34	46	28.5	61
3/4"	46	28.5	53.5	55.5	33.5	102
1"	55.5	33.5	92	62	35	117.5
1 1/4"	62	35	96.5	75.5	43	207
1 1/2"	75.5	43	183.5	84	43.5	261
2"	84	43.5	193	101.5	52.5	437
2 1/2"	101.5	52.5	346	120.5	63.5	700
3"	120.5	63.5	545	152.5	79.5	1.416
4"	152.5	79.5	950	----	----	----



Codo 45° (SW)

ASME/ANSI B 16.11

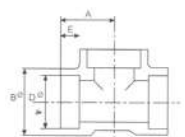
NW	3,000 Lbs.					6,000 Lbs.				
	Bø	C	Dø	G	Weight Peso	Bø	C	Dø	G	Weight Peso
Pulg.	mm.	mm.	mm.	mm.	kg%	mm.	mm.	mm.	mm.	kg%
1/4"	25.5	19	14	9.5	9.5	----	----	----	----	----
3/8"	25.5	19	17.5	11	9	----	----	----	----	----
1/2"	38	25.5	21.5	11	26	38	25.5	21.7	12.5	31
3/4"	38	25.5	27.1	12.5	25	46	28.5	27.1	14.5	52
1"	46	28.5	33.8	14.5	38.1	55.5	33.5	33.8	16	92
1 1/4"	55.5	33.5	42.6	16	60.8	62	35	42.6	14.5	102
1 1/2"	62	35	48.7	16	70.8	75.5	43	48.7	17.5	191.5
2"	75.5	43	61.1	17.5	113.5	84	43.5	61.1	15	228.5
2 1/2"	101.5	52.5	73.8	24	336	101.5	52.5	73.8	20.5	404
3"	118	63.5	89.8	32	470	118	63.5	89.8	28.5	580
4"	146	79.5	115.4	38	900	146	79.5	115.4	38	1,065



TEE (Roscado)

ASME/ANSI B 16.11

NW	3,000 Lbs.			6,000 Lbs.		
	A	Bø	Weight Peso	A	Bø	Weight Peso
Pulg.	mm.	mm.	kg%	mm.	mm.	kg%
1/4"	24.5	25.5	19.5	28.5	33.5	41.5
3/8"	28.5	33.5	38	33.5	38	62.5
1/2"	33.5	38	56	38	46	98
3/4"	38	46	84	44.5	55.5	164.5
1"	44.5	55.5	136	51	62	219
1 1/4"	51	62	164.5	60.5	75.5	331.5
1 1/2"	60.5	75.5	310	63.5	84	442.5
2"	63.5	84	317.5	86	110	850
2 1/2"	86	110	880	95.5	120.5	1,310
3"	95.5	120.5	950	114.5	152.5	2,400
4"	114.5	152.5	1,720	----	----	----



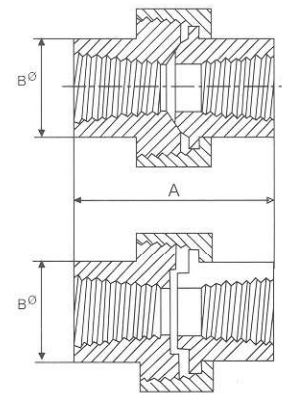
TEE (SW)

ASME/ANSI B 16.11

NW	3,000 Lbs.					6,000 Lbs.				
	A	Bø	Dø	G	Weight Peso	Bø	C	Dø	G	Weight Peso
Pulg.	mm.	mm.	mm.	mm.	kg%	mm.	mm.	mm.	mm.	kg%
1/4"	25.5	25.5	14	13.5	15.5	----	----	----	----	----
3/8"	24.5	25.5	17.5	11	14.1	----	----	----	----	----
1/2"	28.5	33.5	21.7	12.5	30.8	33.5	38	21.7	14.5	52.6
3/4"	33.5	38	27.1	14.5	38.6	38	46	27.1	16	88.1
1"	38	46	33.8	16	60.8	44.5	55.5	33.8	17.5	144
1 1/4"	44.5	55.5	42.6	17.5	93.1	51	62	42.6	19	179.3
1 1/2"	51	62	48.7	19	123.8	60.5	75.5	48.7	22	324
2"	60.5	75.5	61.1	22	191.1	63.5	84	61.1	22	350.5
2 1/2"	76	92	73.8	34.5	370	86	110	73.8	30	880
3"	86	110	89.8	29	550	95.5	120.5	89.8	32	1,050
4"	114.5	152.5	115.4	48	1,900	114.5	152.5	115.4	35	2,220

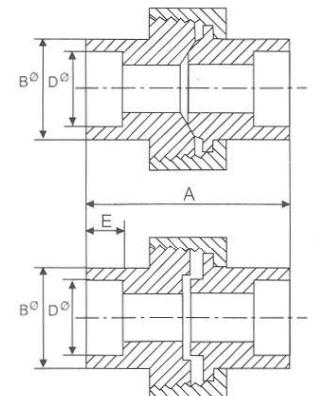
Tuerca de unión (Roscado)

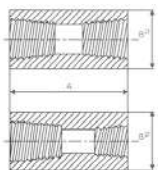
NW	Pulg.	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
3,000 Lbs.	A/mm	45	45	51	57	64	71	79	90
	B Oct/mm	26*	26*	30	36.5	44.6	55*	60.5	73.6
	Weight Peso = kg%	14	20	35	42.5	65	97.5	125.5	201



Tuerca de unión (SW)

NW	Pulg.	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
3,000 Lbs.	A/mm	45	45	47.5	57	64	71	79	90
	B Oct/mm	26*	26*	30.7	36.5	44.6	55*	60.5	73.6
	Dø/mm	17.5	17.5	21.7	27.4	34.1	42.6	49	61.1
	E/mm	11	11	13	14.5	16	17.5	19	22.2
	Weight Peso = kg%	22.5	34	39	48	66	115	142	245

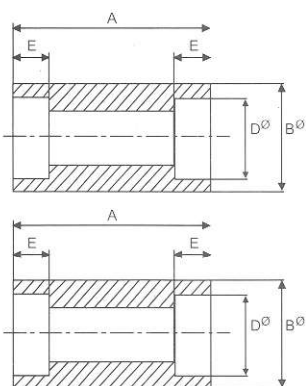




COPLE (Roscado)

ASME/ANSI B 16.11

NW	Pulg.	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"
3,000 Lbs.	A/mm	35	38	47.5	51	60.5	66.5	79	85.5	92	108	120.5
	Dø/mm	19	22	29	35	44.5	57	63.5	76	92	108	140
	Weight Peso = kg%	4.5	5.9	12.7	19.1	38.6	68	99.3	137	207	308	544
6,000 Lbs.	A/mm	35	38	47.5	51	60.5	66.5	79.5	85.5	92	108	120.5
	Dø/mm	25.5	32	38	44.5	57	63.5	76	92	108	127	159
	Weight Peso = kg%	6.3	18.1	31.2	40.8	85.2	105	181	340	419	610	1,030



COPLE (SW)

ASME/ANSI B 16.11

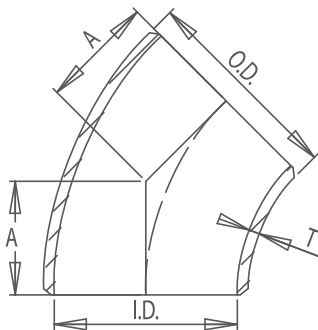
NW	3,000 Lbs.					6,000 Lbs.				
	A	Bø	Dø	E	Weight Peso	A	Bø	Dø	E	Weight Peso
Pulg.	mm.	mm.	mm.	mm.	kg%	mm.	mm.	mm.	mm.	kg%
1/4"	26.5	22	14	10	5	----	----	----	----	----
3/8"	24.9	25.5	17.5	10	6.4	----	----	----	----	----
1/2"	28.2	31.5	21.5	10	12.7	28.2	38	21.7	10	23.2
3/4"	34.2	38	27.1	13	18.6	34.2	44.5	27.1	13	32
1"	36.2	44.5	33.8	13	26.3	36.2	57	33.8	13	63.6
1 1/4"	36.2	57	42.6	13	47.7	36.2	63.5	42.6	13	72.2
1 1/2"	36.2	63.5	48.7	13	56.8	36.2	76	48.7	13	117.2
2"	48.6	76	61.1	16	92.2	48.6	92	61.1	16	207.9
2 1/2"	47.6	92	73.8	16	140	47.6	108	73.8	16	280
3"	47.6	108	89.8	16	180	47.6	127	89.8	16	323
4"	53.8	140	115.4	19.1	323	53.8	159	115.4	19.1	622

CONEXIONES ACERO AL CARBÓN WPB - A 234

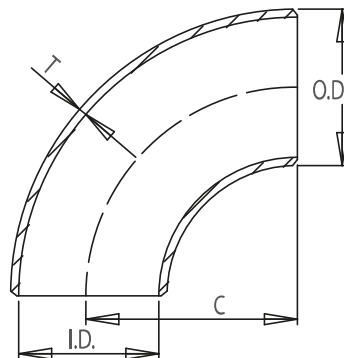
CODO 90° RADIO LARGO

Diámetro		Estándar			Reforzado		
Nominal	Exterior	Diámetro Interior	Espesor de Pared	Peso por Kgs.	Diámetro Interior	Espesor de Pared	Peso por Kgs.
1"	1.315	1.049	0.133	0.18	0.957	0.179	0.22
1 1/4"	1.660	1.380	0.140	0.25	1.278	0.191	0.36
1 1/2"	1.900	1.610	0.145	0.36	1.500	0.200	0.54
2"	2.375	2.067	0.154	0.73	1.939	0.218	0.95
2 1/2"	2.875	2.469	0.203	1.45	2.323	0.276	1.72
3"	3.500	3.068	0.216	2.18	2.900	0.300	2.86
4"	4.500	4.026	0.237	4.04	3.826	0.337	5.67
5"	5.563	5.047	0.258	6.85	4.813	0.375	9.62
6"	6.625	6.065	0.280	10.89	5.761	0.432	15.60
8"	8.625	7.981	0.322	21.70	7.625	0.500	32.27
10"	10.75	10.02	0.365	37.86	9.750	0.500	50.39
12"	12.75	12.00	0.375	55.84	11.75	0.500	71.73
14"	14.00	13.25	0.375	70.37	13.00	0.500	97.25
16"	16.00	15.25	0.375	93.52	15.00	0.500	122.58
18"	18.00	17.25	0.375	119.00	17.00	0.500	158.00
20"	20.00	19.25	0.375	147.00	19.00	0.500	194.00
24"	24.00	23.25	0.375	212.00	23.00	0.500	282.00

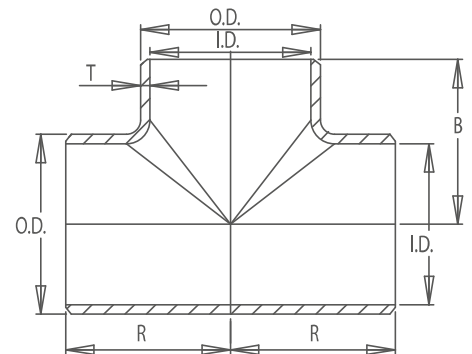
CODO 45° RADIO LARGO



CODO 90° RADIO LARGO



TEE RECTA

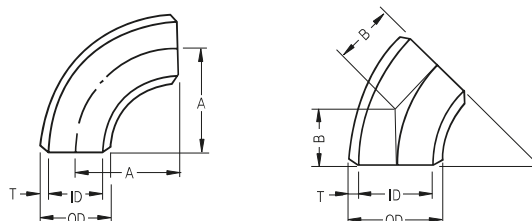


TEE (STRAIGHT)

90° Elbow (Long, Short)

45° Elbow (Long)

STD, Sch40, X-S, Sch80, Sch160, XX-S



ASME B16.9

(Unit : inch)

Nominal Pipe Size	Outside Diameter O.D	Center to End			STD		Sch40	
		Long		Short	T	I.D	T	I.D
		A	B	A				
1/2	0.840	1.50	0.62		0.109	0.622	0.109	0.622
3/4	1.050	1.50	0.75		0.113	0.824	0.113	0.824
1	1.315	1.50	0.88	1.00	0.133	1.049	0.133	1.049
1- 1/4	1.660	1.88	1.00	1.25	0.140	1.380	0.140	1.380
1- 1/2	1.900	2.25	1.12	1.50	0.145	1.610	0.145	1.610
2	2.375	3.00	1.38	2.00	0.154	2.067	0.154	2.067
2- 1/2	2.875	3.75	1.75	2.50	0.203	2.469	0.203	2.469
3	3.500	4.25	2.00	3.00	0.216	3.068	0.216	3.068
3- 1/2	4.000	5.25	2.25	3.50	0.226	3.548	0.226	3.548
4	4.500	6.00	2.50	4.00	0.237	4.026	0.237	4.026
5	5.563	7.50	3.12	5.00	0.258	5.047	0.258	5.047
6	6.625	9.00	3.75	6.00	0.280	6.065	0.280	6.065
8	8.625	12.00	5.00	8.00	0.322	7.981	0.322	7.981
10	10.750	15.00	6.25	10.00	0.365	10.020	0.365	10.020
12	12.750	18.00	7.50	12.00	0.375	12.000	0.406	11.938
14	14.000	21.00	8.75	14.00	0.375	13.250	0.438	13.124
16	16.000	24.00	10.00	16.00	0.375	15.250	0.500	15.000
18	18.000	27.00	11.25	18.00	0.375	17.250	0.562	16.876
20	20.000	30.00	12.50	20.00	0.375	19.250	0.594	18.812
22	22.000	33.00	13.50	22.00	0.375	21.250		
24	24.000	36.00	15.00	24.00	0.375	23.250	0.688	22.624
26	26.000	39.00	16.00		0.375	25.250		
28	28.000	42.00	17.25		0.375	27.250		
30	30.000	45.00	18.50		0.375	29.250		
32	32.000	48.00	19.75		0.375	31.250	0.688	30.624

X-S		Sch80		Sch160		XX-S		Nominal Pipe Size
T	I.D	T	I.D	T	I.D	T	I.D	
0.147	0.546	0.147	0.546	0.188	0.464	0.294	0.252	1/2
0.154	0.742	0.154	0.742	0.219	0.612	0.308	0.434	3/4
0.179	0.957	0.179	0.957	0.250	0.815	0.358	0.599	1
0.191	1.278	0.191	1.278	0.250	1.160	0.382	0.896	1- 1/4
0.200	1.500	0.200	1.500	0.281	1.338	0.400	1.100	1- 1/2
0.218	1.939	0.218	1.939	0.344	1.687	0.436	1.503	2
0.276	2.323	0.276	2.323	0.375	2.125	0.552	1.771	2- 1/2
0.300	2.900	0.300	2.900	0.438	2.624	0.600	2.800	3
0.318	3.364	0.318	3.364					3- 1/2
0.337	3.826	0.337	3.826	0.531	3.438	0.674	3.152	4
0.375	4.813	0.375	4.813	0.625	4.313	0.750	4.063	5
0.432	5.761	0.432	5.761	0.719	5.187	0.864	4.897	6
0.500	7.625	0.500	7.625	0.906	6.813	0.875	6.875	8
0.500	9.750	0.500	9.750	1.125	8.500	1.000	8.750	10
0.500	11.750	0.688	11.374	1.312	10.126	1.000	10.750	12
0.500	13.000	0.750	12.500	1.406	11.188			14
0.500	15.000	0.844	14.312	1.594	12.812			16
0.500	17.000	0.938	16.124	1.781	14.438			18
0.500	19.000	1.031	17.938	1.969	16.062			20
0.500	21.000	1.125	19.750	2.125	17.750			22
0.500	23.000	1.219	21.562	2.344	19.312			24
0.500	25.000							26
0.500	27.000							28
0.500	29.000							30
0.500	31.000							32

CODO 45° RADIO LARGO

Diámetro		Estándar			Reforzado		
Nominal	Exterior	Diámetro Interior	Espesor de Pared	Peso por Kgs.	Diámetro Interior	Espesor de Pared	Peso por Kgs.
1"	1.315	1.049	0.133	0.10	0.957	0.179	0.13
1 1/4"	1.660	1.380	0.140	0.15	1.278	0.191	0.20
1 1/2"	1.900	1.610	0.145	0.20	1.500	0.200	0.28
2"	2.375	2.067	0.154	0.39	1.939	0.218	0.54
2 1/2"	2.875	2.469	0.203	0.77	2.323	0.276	0.91
3"	3.500	3.068	0.216	1.13	2.900	0.300	1.50
4"	4.500	4.026	0.237	2.04	3.826	0.337	2.81
5"	5.563	5.047	0.258	3.40	4.813	0.375	4.76
6"	6.625	6.065	0.280	5.31	5.761	0.432	7.71
8"	8.625	7.981	0.322	10.57	7.625	0.500	15.56
10"	10.75	10.02	0.365	18.75	9.750	0.500	24.29
12"	12.75	12.00	0.375	27.88	11.75	0.500	35.23
14"	14.00	13.25	0.375	35.46	13.00	0.500	45.40
16"	16.00	15.25	0.375	45.85	15.00	0.500	60.84
18"	18.00	17.25	0.375	60.00	17.00	0.500	79.00
20"	20.00	19.25	0.375	74.00	19.00	0.500	97.00
24"	24.00	23.25	0.375	106.00	23.00	0.500	141.00

TEE RECTA

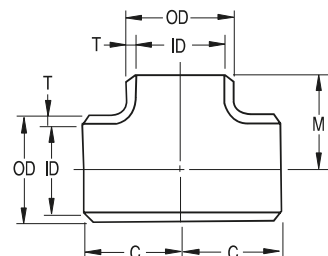
Diámetro		Estándar			Reforzado		
Nominal	Exterior	Diámetro Interior	Espesor de Pared	Peso por Kgs.	Diámetro Interior	Espesor de Pared	Peso por Kgs.
2"	2.375	2.067	0.154	1.43	1.939	0.218	1.87
2 1/2"	2.875	2.469	0.203	2.68	2.323	0.276	3.08
3"	3.500	3.068	0.216	3.82	2.900	0.300	4.50
3 1/2"	4.000	3.548	0.226	5.18	3.364	0.318	6.17
4"	4.500	4.026	0.237	5.99	3.826	0.337	8.44
5"	5.563	5.047	0.258	9.94	4.813	0.375	12.93
6"	6.625	6.065	0.280	16.47	5.761	0.432	19.30
8"	8.625	7.981	0.322	27.69	7.625	0.500	34.50
10"	10.75	10.02	0.365	41.31	9.750	0.500	58.57
12"	12.75	12.00	0.375	66.74	11.75	0.500	84.90
14"	14.00	13.25	0.375	102.60	13.00	0.500	127.12
16"	16.00	15.25	0.375	109.87	15.00	0.500	167.53
18"	18.00	17.25	0.375	151.00	17.00	0.500	193.00
20"	20.00	19.25	0.375	229.00	19.00	0.500	265.00
24"	24.00	23.25	0.375	347.00	23.00	0.500	424.00



TEE (RECTA)

WPB - A234

STD, Sch40, X-S, Sch80, Sch160, XX-S



(Unit : inch)

ASME B16.9

Nominal Pipe Size	Outside Diameter O.D	Center to End		STD		Sch40	
		Run C	Outlet M	T	I.D	T	I.D
36	36.000	26.50	26.50	0.375	35.250	0.750	34.500
38	38.000	28.00	28.00	0.375	37.250		
40	40.000	29.50	29.50	0.375	39.250		
42	42.000	30.00	28.00	0.375	41.250		
44	44.000	32.00	30.00	0.375	43.250		
46	46.000	33.50	31.50	0.375	45.250		
48	48.000	35.00	33.00	0.375	47.250		

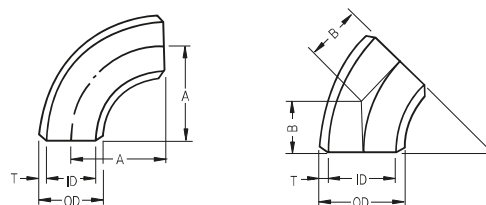
X-S		Sch80		Sch160		XX-S		Nominal Pipe Size
T	I.D	T	I.D	T	I.D	T	I.D	
0.500	35.000							36
0.500	37.000							38
0.500	39.000							40
0.500	41.000							42
0.500	43.000							44
0.500	45.000							46
0.500	47.000							48

- For Bevel Details See Page 356
- For Dimensional Tolerances See Page 362
- For Approx Weight See Page 394~421
- Wall Thickness Conform to ASME B 36.10M Specifications

90° Elbow (Radio Corto)

45° Elbow (Radio Largo)

STD, Sch40, X-S, Sch80, Sch160, XX-S



(Unit : inch)

ASME B16.9

Nominal Pipe Size	Outside Diameter O.D	Center to End			STD		Sch40	
		Long		Short	T	I.D	T	I.D
		A	B	A				
34	34.000	51.00	21.00		0.375	33.250	0.688	32.624
36	36.000	54.00	22.25		0.375	35.250	0.750	34.500
38	38.000	57.00	23.62		0.375	37.250		
40	40.000	60.00	24.88		0.375	39.250		
42	42.000	63.00	26.00		0.375	41.250		
44	44.000	66.00	27.38		0.375	43.250		
46	46.000	69.00	28.62		0.375	45.250		
48	48.000	72.00	29.88		0.375	47.250		

X-S		Sch80		Sch160		XX-S		Nominal Pipe Size
T	I.D	T	I.D	T	I.D	T	I.D	
0.500	33.000							34
0.500	35.000							36
0.500	37.000							38
0.500	39.000							40
0.500	41.000							42
0.500	43.000							44
0.500	45.000							46
0.500	47.000							48

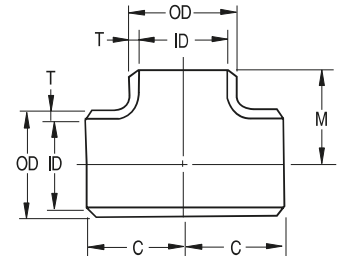
- For Bevel Details See Page 356
- For Dimensional Tolerances See Page 362
- For Approx Weight See Page 394~421
- Wall Thickness Conform to ASME B 36.10M Specifications



TEE (RECTA)

WPB - A234

STD, Sch40, X-S, Sch80, Sch160, XX-S

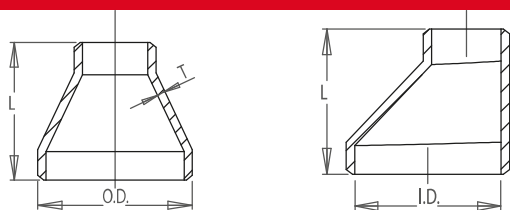


(Unit : inch)

Nominal Pipe Size	Outside Diameter O.D	Center to End		STD		Sch40	
		Run C	Outlet M	T	I.D	T	I.D
1/2	0.840	1.00	1.00	0.109	0.622	0.109	0.622
3/4	1.050	1.12	1.12	0.113	0.824	0.113	0.824
1	1.315	1.50	1.50	0.133	1.049	0.133	1.049
1-1/4	1.660	1.88	1.88	0.140	1.380	0.140	1.380
1-1/2	1.900	2.25	2.25	0.145	1.610	0.145	1.610
2	2.375	2.50	2.50	0.154	2.067	0.154	2.067
2-1/2	2.875	3.00	3.00	0.203	2.469	0.203	2.469
3	3.500	3.38	3.38	0.216	3.068	0.216	3.068
3-1/2	4.000	3.75	3.75	0.226	3.548	0.226	3.548
4	4.500	4.12	4.12	0.237	4.026	0.237	4.026
5	5.563	4.88	4.88	0.258	5.047	0.258	5.047
6	6.625	5.62	5.62	0.280	6.065	0.280	6.065
8	8.625	7.00	7.00	0.322	7.981	0.322	7.981
10	10.750	8.50	8.50	0.365	10.020	0.365	10.020
12	12.750	10.00	10.00	0.375	12.000	0.406	11.938
14	14.000	11.00	11.00	0.375	13.250	0.438	13.124
16	16.000	12.00	12.00	0.375	15.250	0.500	15.000
18	18.000	13.50	13.50	0.375	17.250	0.562	16.876
20	20.000	15.00	15.00	0.375	19.250	0.594	18.812
22	22.000	16.50	16.50	0.375	21.250		
24	24.000	17.00	17.00	0.375	23.250	0.688	22.624
26	26.000	19.50	19.50	0.375	25.250		
28	28.000	20.50	20.50	0.375	27.250		
30	30.000	22.00	22.00	0.375	29.250		
32	32.000	23.50	23.50	0.375	31.250	0.688	30.624
34	34.000	25.00	25.00	0.375	33.250	0.688	32.624

X-S		Sch80		Sch160		XX-S		Nominal Pipe Size
T	I.D	T	I.D	T	I.D	T	I.D	
0.147	0.546	0.147	0.546	0.188	0.464	0.294	0.252	1/2
0.154	0.742	0.154	0.742	0.219	0.612	0.308	0.434	3/4
0.179	0.957	0.179	0.957	0.250	0.815	0.358	0.599	1
0.191	1.278	0.191	1.278	0.250	1.160	0.382	0.896	1-1/4
0.200	1.500	0.200	1.500	0.281	1.338	0.400	1.100	1-1/2
0.218	1.939	0.218	1.939	0.344	1.687	0.436	1.503	2
0.276	2.323	0.276	2.323	0.375	2.125	0.552	1.771	2-1/2
0.300	2.900	0.300	2.900	0.438	2.624	0.600	2.300	3
0.318	3.364	0.318	3.364					3-1/2
0.337	3.826	0.337	3.826	0.531	3.438	0.674	3.152	4
0.375	4.813	0.375	4.813	0.625	4.313	0.750	4.063	5
0.432	5.761	0.432	5.761	0.719	5.187	0.864	4.897	6
0.500	7.625	0.500	7.625	0.906	6.813	0.875	6.875	8
0.500	9.750	0.594	9.562	1.125	8.500	1.000	8.750	10
0.500	11.750	0.688	11.374	1.312	10.126	1.000	10.750	12
0.500	13.000	0.750	12.500	1.406	11.188			14
0.500	15.000	0.844	14.312	1.594	12.812			16
0.500	17.000	0.938	16.124	1.781	14.438			18
0.500	19.000	1.031	17.938	1.969	16.062			20
0.500	21.000	1.125	19.750	2.125	17.750			22
0.500	23.000	1.219	21.562	2.344	19.312			24
0.500	25.000							26
0.500	27.000							28
0.500	29.000							30
0.500	31.000							32
0.500	33.000							34

CONEXION SOLDABLE ACERO AL CARBON



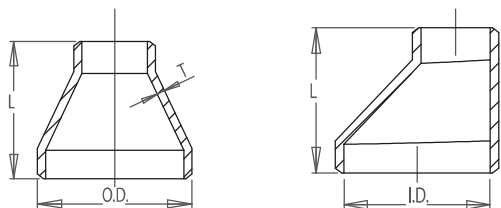
REDUCCIONES CONCENTRICAS Y EXCENTRICAS C-40

WPB - A234

Tamaño del tubo	DIAMETRO GRANDE			DIAMETRO PEQUEÑO			Largo	Nro. de cédula del tubo	Peso aprox. en kilogramos
	Diámetro exterior	Diámetro interior	Espesor de la pared	Diámetro exterior	Diámetro interior	Espesor de la pared			
NPS	O.D.	I.D.	T	O.D.	I.D.	T	L		
¾ x ½	26.7	20.96	2.87	21.3	15.76	2.77	38	40	0.10
1 x ¾	33.4	26.64	3.38	26.7	20.96	2.87	51	40	0.16
1 x ½	33.4	26.64	3.38	21.3	15.76	2.77	51	40	0.16
1 ¼ x 1	42.2	35.08	3.56	33.4	26.64	3.38	51	40	0.22
1 ¼ x ¾	42.2	35.08	3.56	26.7	20.96	2.87	51	40	0.19
1 ¼ x ½	42.2	35.08	3.56	21.3	15.76	2.77	51	40	0.19
1 ½ x 1 ¼	48.3	40.94	3.68	42.2	35.08	3.56	64	40	0.29
1 ½ x 1	48.3	40.94	3.68	33.4	26.64	3.38	64	40	0.26
1 ½ x ¾	48.3	40.94	3.68	26.7	20.96	2.87	64	40	0.25
1 ½ x ½	48.3	40.94	3.68	21.3	15.76	2.77	64	40	0.25
2 x 1 ½	60.3	52.48	3.91	48.3	40.94	3.68	76	40	0.43
2 x 1 ¼	60.3	52.48	3.91	42.2	35.08	3.56	76	40	0.40
2 x 1	60.3	52.48	3.91	33.4	26.64	3.38	76	40	0.37
2 x ¾	60.3	52.48	3.91	26.7	20.96	2.87	76	40	0.34
2 ½ x 2	73.0	62.68	5.16	60.3	52.48	3.91	89	40	0.73
2 ½ x 1 ½	73.0	62.68	5.16	48.3	40.94	3.68	89	40	0.68
2 ½ x 1 ¼	73.0	62.68	5.16	42.2	35.08	3.56	89	40	0.64
2 ½ x 1	73.0	62.68	5.16	33.4	26.64	3.38	89	40	0.59
3 x 2 ½	88.9	77.92	5.49	73.0	62.68	5.16	89	40	1.00
3 x 2	88.9	77.92	5.49	60.3	52.48	3.91	89	40	0.91
3 x 1 ½	88.9	77.92	5.49	48.3	40.94	3.68	89	40	0.86
3 x 1 ¼	88.9	77.92	5.49	42.2	35.08	3.56	89	40	0.82
3 x 1	88.9	77.92	5.49	33.4	26.64	3.38	89	40	0.77
3 ½ x 3	101.6	90.12	5.74	88.9	77.92	5.49	102	40	1.27
3 ½ x 2 ½	101.6	90.12	5.74	73.0	62.68	5.16	102	40	1.22
3 ½ x 2	101.6	90.12	5.74	60.3	52.48	3.91	102	40	1.18
3 ½ x 1 ½	101.6	90.12	5.74	48.3	40.94	3.68	102	40	1.18
3 ½ x 1 ¼	101.6	90.12	5.74	42.2	35.08	3.56	102	40	1.13
4 x 3 ½	114.3	102.26	6.02	101.6	90.12	5.74	102	40	1.59
4 x 3	114.3	102.26	6.02	88.9	77.92	5.49	102	40	1.50
4 x 2 ½	114.3	102.26	6.02	73.0	62.68	5.16	102	40	1.45
4 x 2	114.3	102.26	6.02	60.3	52.48	3.91	102	40	1.41
4 x 1 ½	114.3	102.26	6.02	48.3	40.94	3.68	102	40	1.36



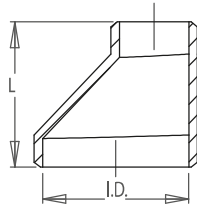
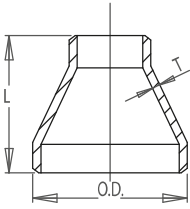
Tamaño del tubo	DIAMETRO GRANDE			DIAMETRO PEQUEÑO			Largo	Nro. de cédula del tubo	Peso aprox. en kilogramos
	Diámetro exterior	Diámetro interior	Espesor de la pared	Diámetro exterior	Diámetro interior	Espesor de la pared			
NPS	O.D.	I.D.	T	O.D.	I.D.	T	L		
4 x 1 ¼	114.3	102.26	6.02	42.16	35.052	3.556	102	40	1.36
4 x 1	114.3	102.26	6.02	33.4	26.64	3.38	102	40	1.27
5 x 4	141.3	128.20	6.55	114.3	102.26	6.02	127	40	2.49
5 x 3 ½	141.3	128.20	6.55	101.6	90.12	5.74	127	40	2.40
5 x 3	141.3	128.20	6.55	88.9	77.92	5.49	127	40	2.31
5 x 2 ½	141.3	128.20	6.55	73.0	62.68	5.16	127	40	2.18
5 x 2	141.3	128.20	6.55	60.3	52.48	3.91	127	40	2.13
6 x 5	168.3	154.08	7.11	141.3	128.20	6.55	140	40	3.45
6 x 4	168.3	154.08	7.11	114.3	102.26	6.02	140	40	3.36
6 x 3 ½	168.3	154.08	7.11	101.6	90.12	5.74	140	40	3.22
6 x 3	168.3	154.08	7.11	88.9	77.92	5.49	140	40	3.13
6 x 2 ½	168.3	154.08	7.11	73.0	62.68	5.16	140	40	2.99
6 x 2	168.3	154.08	7.11	60.3	52.48	3.91	140	40	2.95
8 x 6	219.1	202.74	8.18	168.3	154.08	7.11	152	40	5.58
8 x 5	219.1	202.74	8.18	141.3	128.20	6.55	152	40	5.22
8 x 4	219.1	202.74	8.18	114.3	102.26	6.02	152	40	4.90
8 x 3 ½	219.1	202.74	8.18	101.6	90.12	5.74	152	40	4.81
8 x 3	219.1	202.74	8.18	88.9	77.92	5.49	152	40	4.45
10 x 8	273.0	254.46	9.27	219.1	202.74	8.18	178	40	10.02
10 x 6	273.0	254.46	9.27	168.3	154.08	7.11	178	40	9.39
10 x 5	273.0	254.46	9.27	141.3	128.20	6.55	178	40	8.85
10 x 4	273.0	254.46	9.27	114.3	102.26	6.02	178	40	8.35
12 x 10	323.8	304.74	9.53	273.0	254.46	9.27	203	*	14.70
12 x 8	323.8	304.74	9.53	219.1	202.74	8.18	203	*	13.83
12 x 6	323.8	304.74	9.53	168.3	154.08	7.11	203	*	13.38
12 x 5	323.8	304.74	9.53	141.3	128.20	6.55	203	*	12.61
12 x 4	323.8	304.74	9.53	114.3	102.26	6.02	203	*	11.88
14 x 12	355.6	336.54	9.53	323.8	304.74	9.53	330	*	28.62
14 x 10	355.6	336.54	9.53	273.0	254.46	9.27	330	*	27.85
14 x 8	355.6	336.54	9.53	219.1	202.74	8.18	330	*	27.22
14 x 6	355.6	336.54	9.53	168.3	154.08	7.11	330	*	26.85
16 x 14	406.4	387.34	9.53	355.6	336.54	9.53	356	*	34.20
16 x 12	406.4	387.34	9.53	323.8	304.74	9.53	356	*	32.98
16 x 10	406.4	387.34	9.53	273.0	254.46	9.27	356	*	32.25
16 x 8	406.4	387.34	9.53	219.1	202.74	8.18	356	*	31.48
16 x 6	406.4	387.34	9.53	168.3	154.08	7.11	356	*	30.57
18 x 16	457.0	437.94	9.53	406.4	387.34	9.53	381	*	39.60
18 x 14	457.0	437.94	9.53	355.6	336.54	9.53	381	*	39.01
18 x 12	457.0	437.94	9.53	323.8	304.74	9.53	381	*	38.46
18 x 10	457.0	437.94	9.53	273.0	254.46	9.27	381	*	37.97
18 x 8	457.0	437.94	9.53	219.1	202.74	8.18	381	*	37.08
20 x 18	508.0	488.94	9.53	457.0	437.94	9.53	508	*	55.79
20 x 16	508.0	488.94	9.53	406.4	387.34	9.53	508	*	54.88
20 x 14	508.0	488.94	9.53	355.6	336.54	9.53	508	*	53.98



REDUCCIONES CONCENTRICAS Y EXCENTRICAS

WPB - A234

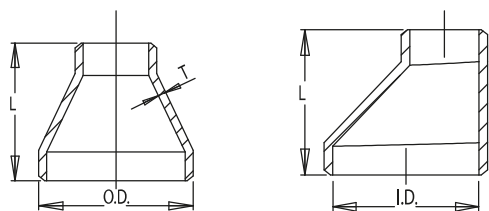
Tamaño del tubo	DIAMETRO GRANDE			DIAMETRO PEQUEÑO			Largo	Nro. de cédula del tubo	Peso aprox. en kilogramos
	Diámetro exterior	Diámetro interior	Espesor de la pared	Diámetro exterior	Diámetro interior	Espesor de la pared			
NPS	O.D.	I.D.	T	O.D.	I.D.	T	L		
20 x 12	508.0	488.94	9.53	323.8	304.74	9.53	508	*	53.52
20 x 10	508.0	488.94	9.53	273.0	254.46	9.27	508	*	53.07
24 x 20	508.0	488.94	9.53	508.0	488.94	9.53	508	*	70.76
24 x 18	610.0	590.94	9.53	457.0	437.94	9.53	508	*	69.40
24 x 16	610.0	590.94	9.53	406.4	387.34	9.53	508	*	68.04
24 x 14	610.0	590.94	9.53	355.6	336.54	9.53	508	*	66.68
24 x 12	610.0	590.94	9.53	323.8	304.74	9.53	508	*	65.32
24 x 10	610.0	590.94	9.53	273.0	254.46	9.27	508	*	63.96
30 x 24	762.0	742.94	9.53	610.0	590.94	9.53	610	*	142.88
30 x 20	762.0	742.94	9.53	508.0	488.94	9.53	610	*	142.88
30 x 18	762.0	742.94	9.53	457.0	437.94	9.53	610	*	142.88
36 x 30	914.0	894.94	9.53	762.0	742.94	9.53	610	*	171.91
36 x 24	914.0	894.94	9.53	610.0	590.94	9.53	610	*	171.91
36 x 20	914.0	894.94	9.53	508.0	488.94	9.53	610	*	171.91
42 x 36	1067.0	1047.94	9.53	914.0	894.94	9.53	610	*	200.94
42 x 30	1067.0	1047.94	9.53	762.0	742.94	9.53	610	*	200.94
42 x 24	1067.0	1047.94	9.53	610.0	590.94	9.53	610	*	200.94
48 x 42	1219.0	1199.94	9.53	1067.0	1047.94	9.53	711	*	238.13
48 x 36	1219.0	1199.94	9.53	914.0	894.94	9.53	711	*	238.13
48 x 30	1219.0	1199.94	9.53	762.0	742.94	9.53	711	*	238.13
48 x 24	1219.0	1200.15	9.53	609.6	590.55	9.53	711	*	238.13



REDUCCIONES CONCENTRICAS Y EXCENTRICAS CXS

WPB - A234

Tamaño del tubo	DIAMETRO GRANDE			DIAMETRO PEQUEÑO			Largo	Nro. de cédula del tubo	Peso aprox. en kilogramos
	Diámetro exterior	Diámetro interior	Espesor de la pared	Diámetro exterior	Diámetro interior	Espesor de la pared			
NPS	O.D.	I.D.	T	O.D.	I.D.	T	L		
¾ x ½	26.7	18.88	3.91	21.3	13.84	3.73	38	80	0.11
1 x ¾	33.4	24.30	4.55	26.7	18.88	3.91	51	80	0.20
1 x ½	33.4	24.30	4.55	21.3	13.84	3.73	51	80	0.19
1 ¼ x 1	42.2	32.50	4.85	33.4	24.30	4.55	51	80	0.26
1 ¼ x ¾	42.2	32.50	4.85	26.7	18.88	3.91	51	80	0.24
1 ¼ x ½	42.2	32.50	4.85	21.3	13.84	3.73	51	80	0.23
1 ½ x 1 ¼	48.3	38.14	5.08	42.2	32.50	4.85	64	80	0.35
1 ½ x 1	48.3	38.14	5.08	33.4	24.30	4.55	64	80	0.33
1 ½ x ¾	48.3	38.14	5.08	26.7	18.88	3.91	64	80	0.29
1 ½ x ½	48.3	38.14	5.08	21.3	13.84	3.73	64	80	0.29
2 x 1 ½	60.3	49.22	5.54	48.3	38.14	5.08	76	80	0.54
2 x 1 ¼	60.3	49.22	5.54	42.2	32.50	4.85	76	80	0.50
2 x 1	60.3	49.22	5.54	33.4	24.30	4.55	76	80	0.45
2 x ¾	60.3	49.22	5.54	26.7	18.88	3.91	76	80	0.43
2 ½ x 2	73.0	58.98	7.01	60.3	49.22	5.54	89	80	0.95
2 ½ x 1 ½	73.0	58.98	7.01	48.3	38.14	5.08	89	80	0.86
2 ½ x 1 ¼	73.0	58.98	7.01	42.2	32.50	4.85	89	80	0.77
2 ½ x 1	73.0	58.98	7.01	33.4	24.30	4.55	89	80	0.68
3 x 2 ½	88.9	73.66	7.62	73.0	58.98	7.01	89	80	1.27
3 x 2	88.9	73.66	7.62	60.3	49.22	5.54	89	80	1.18
3 x 1 ½	88.9	73.66	7.62	48.3	38.14	5.08	89	80	1.09
3 x 1 ¼	88.9	73.66	7.62	42.2	32.50	4.85	89	80	1.04
3 x 1	88.9	73.66	7.62	33.4	24.30	4.55	89	80	1.00
3 ½ x 3	101.6	85.44	8.08	88.9	73.66	7.62	102	80	1.68
3 ½ x 2 ½	101.6	85.44	8.08	73.0	58.98	7.01	102	80	1.59
3 ½ x 2	101.6	85.44	8.08	60.3	49.22	5.54	102	80	1.50
3 ½ x 1 ½	101.6	85.44	8.08	48.3	38.14	5.08	102	80	1.45
3 ½ x 1 ¼	101.6	85.44	8.08	42.2	32.50	4.85	102	80	1.45
4 x 3 ½	114.3	97.18	8.56	101.6	85.44	8.08	102	80	2.22
4 x 3	114.3	97.18	8.56	88.9	73.66	7.62	102	80	2.13
4 x 2 ½	114.3	97.18	8.56	73.0	58.98	7.01	102	80	2.09
4 x 2	114.3	97.18	8.56	60.3	49.22	5.54	102	80	1.95
4 x 1 ½	114.3	97.18	8.56	48.3	38.14	5.08	102	80	1.91



REDUCCIONES CONCENTRICAS Y EXCENRICAS CXS

WPB - A234

Tamaño del tubo	DIAMETRO GRANDE			DIAMETRO PEQUEÑO			Largo	Nro. de cédula del tubo	Peso aprox. en kilogramos
	Diámetro exterior	Diámetro interior	Espesor de la pared	Diámetro exterior	Diámetro interior	Espesor de la pared			
NPS	O.D.	I.D.	T	O.D.	I.D.	T	L		
4 x 1 ¼	114.3	97.18	8.56	42.2	32.50	4.85	102	80	1.86
4 x 1	114.3	97.18	8.56	33.4	24.30	4.55	102	80	1.81
5 x 4	141.3	122.24	9.53	114.3	97.18	8.56	127	80	3.40
5 x 3 ½	141.3	122.24	9.53	101.6	85.44	8.08	127	80	3.13
5 x 3	141.3	122.24	9.53	88.9	73.66	7.62	127	80	2.86
5 x 2 ½	141.3	122.24	9.53	73.0	58.98	7.01	127	80	2.77
5 x 2	141.3	122.24	9.53	60.3	49.22	5.54	127	80	2.72
6 x 5	168.3	146.36	10.97	141.3	122.24	9.53	140	80	5.22
6 x 4	168.3	146.36	10.97	114.3	97.18	8.56	140	80	4.85
6 x 3 ½	168.3	146.36	10.97	101.6	85.44	8.08	140	80	4.54
6 x 3	168.3	146.36	10.97	88.9	73.66	7.62	140	80	4.40
6 x 2 ½	168.3	146.36	10.97	73.0	58.98	7.01	140	80	4.13
6 x 2	168.3	146.36	10.97	60.3	49.22	5.54	140	80	3.90
8 x 6	219.1	193.70	12.70	168.3	146.36	10.97	152	80	8.53
8 x 5	219.1	193.70	12.70	141.3	122.24	9.53	152	80	7.98
8 x 4	219.1	193.70	12.70	114.3	97.18	8.56	152	80	7.71
8 x 3 ½	219.1	193.70	12.70	101.6	85.44	8.08	152	80	7.21
8 x 3	219.1	193.70	12.70	88.9	73.66	7.62	152	80	6.80
10 x 8	273.0	247.60	12.70	219.1	193.70	12.70	178	*	13.34
10 x 6	273.0	247.60	12.70	168.3	146.36	10.97	178	*	12.84
10 x 5	273.0	247.60	12.70	141.3	122.24	9.53	178	*	12.20
10 x 4	273.0	247.60	12.70	114.3	97.18	8.56	178	*	10.98
12 x 10	323.8	298.40	12.70	273.0	247.60	12.70	203	*	18.82
12 x 8	323.8	298.40	12.70	219.1	193.70	12.70	203	*	17.51
12 x 6	323.8	298.40	12.70	168.3	146.36	10.97	203	*	16.96
12 x 5	323.8	298.40	12.70	141.3	122.24	9.53	203	*	16.47
12 x 4	323.8	298.40	12.70	114.3	97.18	8.56	203	*	15.74
14 x 12	355.6	330.20	12.70	323.8	298.40	12.70	330	*	36.74
14 x 10	355.6	330.20	12.70	273.0	247.60	12.70	330	*	34.79
14 x 8	355.6	330.20	12.70	219.1	193.70	12.70	330	*	33.84
14 x 6	355.6	330.20	12.70	168.3	146.36	10.97	330	*	32.79
16 x 14	406.40	381.000	12.700	355.6	330.20	12.70	356	*	44.45

REDUCCIONES CONCENTRICAS Y EXCENTRICAS CXS
WPB - A234

Tamaño del tubo	DIAMETRO GRANDE			DIAMETRO PEQUEÑO			Largo	Nro. de cédula del tubo	Peso kilogramos
	Diámetro exterior	Diámetro interior	Espesor de la pared	Diámetro exterior	Diámetro interior	Espesor de la pared			
NPS	O.D.	I.D.	T	O.D.	I.D.	T	L		
16 x 12	406.4	381.00	12.70	323.8	298.40	12.70	356	*	43.45
16 x 10	406.4	381.00	12.70	273.0	247.60	12.70	356	*	42.32
16 x 8	406.4	381.00	12.70	219.1	193.70	12.70	356	*	41.32
16 x 6	406.4	381.00	12.70	168.3	146.36	10.97	356	*	40.73
18 x 16	457.0	431.60	12.70	406.4	381.00	12.70	381	*	53.52
18 x 14	457.0	431.60	12.70	355.6	330.20	12.70	381	*	53.07
18 x 12	457.0	431.60	12.70	323.8	298.40	12.70	381	*	52.16
18 x 10	457.0	431.60	12.70	273.0	247.60	12.70	381	*	51.26
18 x 8	457.0	431.60	12.70	219.1	193.70	12.70	381	*	45.36
20 x 18	508.0	482.60	12.70	457.0	431.60	12.70	508	*	73.48
20 x 16	508.0	482.60	12.70	406.4	381.00	12.70	508	*	72.12
20 x 14	508.0	482.60	12.70	355.6	330.20	12.70	508	*	71.21
20 x 12	508.0	482.60	12.70	323.8	298.40	12.70	508	*	70.31
20 x 10	508.0	482.60	12.70	273.0	247.60	12.70	508	*	68.95
24 x 20	610.0	584.60	12.70	508.0	482.60	12.70	508	*	91.17
24 x 18	610.0	584.60	12.70	457.0	431.60	12.70	508	*	89.36
24 x 16	610.0	584.60	12.70	406.4	381.00	12.70	508	*	88.00
24 x 14	610.0	584.60	12.70	355.6	330.20	12.70	508	*	86.18
24 x 12	610.0	584.60	12.70	323.8	298.40	12.70	508	*	85.27
24 x 10	610.0	584.60	12.70	273.0	247.60	12.70	508	*	84.37
30 x 24	762.0	736.60	12.70	610.0	584.60	12.70	610	*	142.88
30 x 20	762.0	736.60	12.70	508.0	482.60	12.70	610	*	142.88
30 x 18	762.0	736.60	12.70	457.0	431.60	12.70	610	*	142.88
36 x 30	914.0	888.60	12.70	762.0	736.60	12.70	610	*	171.91
36 x 24	914.0	888.60	12.70	610.0	584.60	12.70	610	*	171.91
36 x 20	914.0	888.60	12.70	508.0	482.60	12.70	610	*	171.91
42 x 36	1067.0	1041.60	12.70	914.0	888.60	12.70	610	*	200.94
42 x 30	1067.0	1041.60	12.70	762.0	736.60	12.70	610	*	200.94
42 x 24	1067.0	1041.60	12.70	610.0	584.60	12.70	610	*	200.94
48 x 42	1219.0	1193.60	12.70	1067.0	1041.60	12.70	711	*	238.13
48 x 36	1219.0	1193.60	12.70	914.0	888.60	12.70	711	*	238.13
48 x 30	1219.0	1193.60	12.70	762.0	736.60	12.70	711	*	238.13
48 x 24	1219.0	1193.60	12.70	610.0	584.60	12.70	711	*	238.13

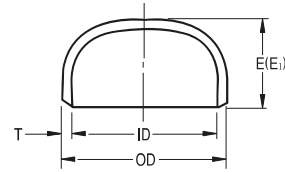
CAP

WPB - A234

STD, Sch40, X-S, Sch80, Sch160, XX-S

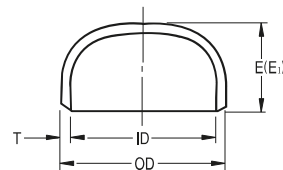
ASME B16.9

Nominal Pipe Size	Outside Diameter	Length E	Limiting Thickness for Length	Length E1	STD		Sch40	
					T	I.D.	T	I.D.
1/2	0.840	1.00	0.18	1.00	0.109	0.622	0.109	0.622
3/4	1.050	1.00	0.15	1.00	0.113	0.824	0.113	0.824
1	1.315	1.50	0.18	1.50	0.133	1.049	0.133	1.049
1-1/4	1.660	1.50	0.19	1.50	0.140	1.380	0.140	1.380
1-1/2	1.900	1.50	0.20	1.50	0.145	1.610	0.145	1.610
2	2.375	1.50	0.22	1.75	0.154	2.067	0.154	2.067
2-1/2	2.875	1.50	0.28	2.00	0.203	2.469	0.203	2.469
3	3.500	2.00	0.30	2.50	0.216	3.068	0.216	3.068
3-1/2	4.000	2.50	0.32	3.00	0.226	3.548	0.226	3.548
4	4.500	2.50	0.34	3.00	0.237	4.026	0.237	4.026
5	5.563	3.00	0.38	3.50	0.258	5.047	0.258	5.047
6	6.625	3.50	0.43	4.00	0.280	6.065	0.280	6.065
8	8.625	4.00	0.50	5.00	0.322	7.981	0.322	7.981
10	10.750	5.00	0.50	6.00	0.365	10.020	0.365	10.020
12	12.750	6.00	0.50	7.00	0.375	12.000	0.406	11.938
14	14.000	6.50	0.50	7.50	0.375	13.250	0.438	13.124
16	16.000	7.00	0.50	8.00	0.375	15.250	0.500	15.000
18	18.000	8.00	0.50	9.00	0.375	17.250	0.562	16.876
20	20.000	9.00	0.50	10.00	0.375	19.250	0.594	18.812
22	22.000	10.00	0.50	10.00	0.375	21.250		
24	24.000	10.50	0.50	12.00	0.375	23.250	0.688	22.624
26	26.000	10.50			0.375	25.250		
28	28.000	10.50			0.375	27.250		
30	30.000	10.50			0.375	29.250		
32	32.000	10.50			0.375	31.250	0.688	30.624
34	34.000	10.50			0.375	33.250	0.688	32.624



(Unit : inch)

X-S		Sch80		Sch160		XX-S		Nominal Pipe Size
T	I.D.	T	I.D.	T	I.D.	T	I.D.	
0.147	0.546	0.147	0.546	0.188	0.464	0.294	0.252	1/2
0.154	0.742	0.154	0.742	0.219	0.612	0.308	0.434	3/4
0.179	0.957	0.179	0.957	0.250	0.815	0.358	0.599	1
0.191	1.278	0.191	1.278	0.250	1.160	0.382	0.896	1-1/4
0.200	1.500	0.200	1.500	0.281	1.338	0.400	1.100	1-1/2
0.218	1.939	0.218	1.939	0.344	1.687	0.436	1.503	2
0.276	2.323	0.276	2.323	0.375	2.125	0.552	1.771	2-1/2
0.300	2.900	0.300	2.900	0.438	3.124	0.600	2.800	3
0.318	3.364	0.318	3.364					3-1/2
0.337	3.826	0.337	3.826	0.531	3.438	0.674	3.152	4
0.375	4.813	0.375	4.813	0.625	4.313	0.750	4.063	5
0.432	5.761	0.432	5.761	0.719	5.187	0.864	4.897	6
0.500	7.625	0.500	7.625	0.906	6.813	0.875	6.875	8
0.500	9.750	0.594	9.750	1.125	8.500	1.000	8.750	10
0.500	11.750	0.688	11.374	1.312	10.124	1.000	10.750	12
0.500	13.000	0.750	12.500	1.406	11.188			14
0.500	15.000	0.844	14.312	1.594	12.812			16
0.500	17.000	0.938	16.124	1.781	14.438			18
0.500	19.000	1.031	17.938	1.969	16.062			20
0.500	21.000	1.125	19.750	2.125	17.750			22
0.500	23.000	1.218	21.575	2.344	19.312			24
0.500	25.000							26
0.500	27.000							28
0.500	29.000							30
0.500	31.000							32
0.500	33.000							34



(Unit : inch)

STD, Sch40, X-S, Sch80, Sch160, XX-S

ASME B16.9

Nominal Pipe Size	Outside Diameter	Length E	Limiting Thickness for Length	Length E1	STD		Sch40	
					T	I.D.	T	I.D.
36	36.000	10.50			0.375	35.250	0.750	34.500
38	38.000	12.00			0.375	37.250		
40	40.000	12.00			0.375	39.250		
42	42.000	12.00			0.375	41.250		
44	44.000	13.50			0.375	43.250		
46	46.000	13.50			0.375	45.250		
48	48.000	13.50			0.375	47.250		

X-S		Sch80		Sch160		XX-S		Nominal Pipe Size
T	I.D.	T	I.D.	T	I.D.	T	I.D.	
0.500	35.000							36
0.500	37.000							38
0.500	39.000							40
0.500	41.000							42
0.500	43.000							44
0.500	45.000							46
0.500	47.000							48

- For Bevel Details See Page 356
- For Dimensional Tolerances See Page 362
- For Approx Weight See Page 394~421
- Wall Thickness Conform to ASME B 36.10M Specifications