

SPECIFICATIONS — Steel Pipe , Fitting & Flange

Buttweld Fitting

Specification ASTM A234 ASME B16.9

Product Elbow, Tee, Reducer, Caps

Grade WPB

Tensile 60-85 ksi (415-585Mpa)

Yield 35 ksi (240Mpa)

ASTM Standards

CHEW carbon steel welding fittings are manufactured from seamless steel tubing and furnished in accordance with ASTM Standard A-234, with material specifications in accordance with ASTM A-106, Grade B, for fittings made from pipe; ASTM A-515, Grade 65 or 70, for fittings made from plate. CHEW alloy steel welding fittings are furnished in accordance with ASTM standard A-234, with materials specification including A-335, Grade P1, carbon-molybdenum, and Grade P12, P11, P22, P5, P7; P9 chrome molybdenum, for fittings made from pipe. ASTM A-204 Grade B, carbon molybdenum, and ASTM A-387 Grades 12, 11, 22, 5, 7, 9 chrome molybdenum for fittings made from plate. CHEW welding fittings are also available in accordance with ASTM specification A-420 covering low-temperature service, down to -150°F (-101°C).

ASME/ANSI and MSS standards

ASME/ANSI and MSS standards govern fitting dimensions and tolerances, ASME/ANSI B16.9 “Wrought Steel Buttweld Fittings”, is the basic standard. It covers steel butt-welding fittings sizes NPS 1/2 through NPS 48 (DN 15 through DN 1200). Other ASME/ANSI and MSS standards, written to supplement B16.9, are as follows:

ASME/ANSI B16.25: Butt-welding Ends

ASME/ANSI B16.28: Butt-welding short radius elbows and returns

MSS SP-43: Light-wall stainless steel fittings, NPS 3/4 through NPS 24 (DN 20 through DN 600)

MSS SP-75: High Test Wrought Welding Fittings

The following codes and standards influence the manufacture of welding fittings, where applicable.

ASME/ANSI B31.1: Power piping

ASME/ANSI B31.3: Petroleum refinery piping

ASME/ANSI B31.4: Liquid petroleum transportation piping system

ASME/ANSI B31.5: Refrigeration piping

ASME/ANSI B31.8: Gas transmission and distribution piping systems

ANSI/ASME B36.10M: Welded and seamless wrought steel pipe

ANSI/ASME B36.19M: Stainless steel pipe

CSA Z183: Oil pipe line transportation systems

CSA Z184: Gas pipe line systems

CAN3-Z245.11-M91: Requirements for wrought steel butt welding fittings

ASME: Boiler and pressure vessel code



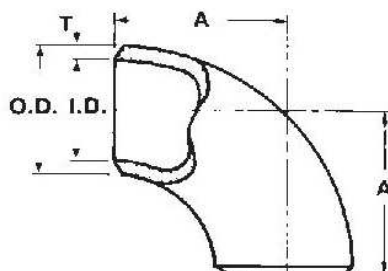
CHEW® PIPE, FITTING AND VALVE

SPECIFICATIONS — Steel Pipe , Fitting & Flange

BW Fittings Dimension Sheet

90° ELBOW LONG RADIUS

Standard, Extra Strong,
Schedule 160, Double Extra Strong
Carbon and ferritic alloy steel,
ASTM A-234
ASME/ANSI B16.9



NPS DN	Outside Diameter at Bevel O.D.	Centre to End A	STANDARD WEIGHT			EXTRA STRONG			SCHEDULE 160			DOUBLE EXTRA STRONG		
			Inside Diameter I.D.	Wall Thickness T	Approx. Weight	Inside Diameter I.D.	Wall Thickness T	Approx. Weight	Inside Diameter I.D.	Wall Thickness T	Approx. Weight	Inside Diameter I.D.	Wall Thickness T	Approx. Weight
1/2	.840	1.50	.622	0.109	0.2	.546	.147	0.2	-	-	-	-	-	-
15	21	38	15.80	2.77	0.09	13.87	3.73	.09	-	-	-	-	-	-
3/4	1.050	(1) 1.12	.824	0.113	0.3	.742	.154	0.2	-	-	-	-	-	-
20	27	29	20.93	2.87	0.14	18.85	3.91	.09	-	-	-	-	-	-
1	1.315	1.50	1.049	0.133	0.4	.957	.179	0.5	0.815	.250	0.6	.599	.358	0.8
25	33	38	26.64	3.38	0.18	24.31	4.55	0.23	20.7	6.35	0.27	15.21	9.09	0.36
1 1/4	1.660	1.88	1.380	0.140	0.5	1.278	.191	0.7	1.160	.250	1.0	.896	.382	1.4
32	42	48	35.05	3.56	0.23	32.46	4.85	0.32	29.5	6.35	0.45	22.76	9.70	0.63
1 1/2	1.900	2.25	1.610	0.145	0.75	1.500	.200	1.0	1.338	.281	1.8	1.100	.400	2.0
40	48	57	40.89	3.68	0.34	38.10	5.08	0.45	34.0	7.14	0.81	27.94	10.16	0.90
2	2.375	3.0	2.067	0.154	1.5	1.939	.218	2.0	1.687	.344	3.2	1.503	.436	3.8
50	60	76	52.50	3.91	0.68	49.25	5.54	0.9	42.9	8.74	1.44	38.18	11.07	1.71
2 1/2	2.875	3.75	2.469	0.203	3.0	2.323	.276	4.0	2.125	.375	6.0	1.771	.552	7.1
65	73	95	62.71	5.16	1.35	59.00	7.01	1.8	54.0	9.53	2.70	44.98	14.02	3.20
3	3.500	4.50	3.068	0.216	4.5	2.900	.300	6.0	2.624	.438	9.0	2.300	.600	11.2
80	89	114	77.93	5.49	2.03	73.66	7.62	2.7	66.7	11.13	4.05	58.42	15.24	5.04
(2) 3 1/2	4.000	5.25	3.548	0.226	6.2	3.364	.318	8.5	-	-	-	(2) 2.728	(2) 6.36	16.2
90	102	133	90.12	5.74	2.8	85.45	8.08	3.83	-	-	-	69.29	16.15	7.3
4	4.500	6.00	4.026	0.237	8.5	3.826	.337	12	3.438	.531	19	3.152	.674	21.2
100	114	152	102.26	6.02	3.8	97.18	8.56	5.4	87.3	13.49	8.5	80.06	17.12	9.5
5	5.563	7.50	5.047	0.258	14.2	4.813	.375	20	4.313	.625	33	4.063	.750	38
125	141	190	128.19	6.55	6.4	122.25	9.53	9.0	109.6	15.88	15	103.20	19.05	17
6	6.625	9.00	6.065	0.280	23	5.761	.432	32	5.187	.719	59	4.897	.864	63
150	168	229	154.05	7.11	10.4	146.33	10.97	14	131.8	18.26	27	124.38	21.95	28
8	8.625	12.00	7.981	0.322	45	7.625	.500	68	6.813	.906	127	6.875	.875	120
200	219	305	202.72	8.18	20	193.68	12.70	31	173.05	23.01	57	174.63	22.23	54
10	10.750	15.00	10.02	0.365	78	9.750	.500	112	8.500	1.125	270			
250	273	381	254.5	9.27	35	247.65	12.70	50	215.90	28.58	122			
12	12.750	18.00	12.00	0.375	118	11.750	.500	150	10.126	1.312	460			
300	324	457	304.8	9.53	53	298.45	12.70	68	257.20	33.53	207			
14	14.000	21.0	13.25	0.375	147	13.00	.500	192	11.188	1.406	563			
350	356	533	336.6	9.53	66	330.2	12.70	86	284.18	35.71	253			
16	16.000	24.0	15.25	0.375	202	15.00	.500	258	12.812	1.594	825			
400	406	610	386.1	9.53	91	381.0	12.70	116	325.42	40.49	371			
18	18.000	27.0	17.25	0.375	256	17.00	.500	326						
450	457	686	438.2	9.53	115	431.8	12.70	147						
20	20.000	30.0	19.25	0.375	310	19.00	.500	420						
500	508	62	489.0	9.53	139	482.6	12.70	189						
22	22.000	33.0	21.25	0.375	394	21.00	.500	520						
550	559	838	539.8	9.53	177	533.4	12.70	234						
24	24.000	36.0	23.25	0.375	446	23.00	.500	606						
600	616	914	590.6	9.53	201	584.2	12.70	273						
26	26.000	39.0	25.25	0.375	550	25.00	.500	729						
650	660	991	641.4	9.53	247	635.0	12.70	328						
30	30.000	45.0	29.25	0.375	736	29.00	.500	953						
750	762	1143	743.0	9.53	331	736.6	12.70	429						
36	36.000	54.0	35.25	0.375	1062	35.00	.500	1412						
900	914	1372	895.4	9.53	478	889.0	12.70	635						
42 ^a	42.000	63.0	41.25	0.375	1370	41.00	.500	1890						
1100	1067	1600	1047.8	9.53	616	1041.1	12.70	820						



CHEW® PIPE, FITTING AND VALVE

- (1) May be furnished as 1.5 in (38mm) at the manufacturer's option.
- (2) 3-1/2XXS is not specified in ASME/ANSI B36.10M.
- (△) Produced from X-rayed, stress-relieved welded pipe. Welds are 100% radiographed in accordance with the requirements of ASME Boiler & Pressure Vessel Code.
- These fittings are also available in other sizes and/or wall thicknesses.

INCHES	POUNDS
MILLIMETRES	KILOGRAMS

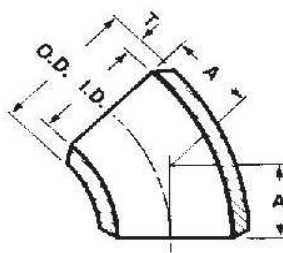
SPECIFICATIONS — Steel Pipe , Fitting & Flange

BW Fittings Dimension Sheet

45° ELBOWS LONG RADIUS

Standard Weight,
Extra Strong, Schedule 160,
Double Extra Strong

Carbon and ferritic alloy steel,
ASTM A-234, ASME/ANSI B16.9



NPS	DN	Outside Diameter at Bevel O.D.	Centre to End Nominal A	STANDARD WEIGHT			EXTRA STRONG			SCHEDULE 160			DOUBLE EXTRA STRONG		
				Inside Diameter I.D.	Wall Thickness T	Approx. Weight	Inside Diameter I.D.	Wall Thickness T	Approx. Weight	Inside Diameter I.D.	Wall Thickness T	Approx. Weight	Inside Diameter I.D.	Wall Thickness T	Approx. Weight
1/2	15	.840	.62	.622	.109	.08	-	-	-	-	-	-	-	-	-
3/4	20	1.050	.44	.824	.113	.08	.742	.154	.16	-	-	-	.434	.308	0.17
1	25	1.315	.88	1.049	.133	.25	.957	.179	.28	.815	.250	.38	.599	.358	.40
1 1/4	32	1.660	1.00	1.380	.140	.33	1.278	.191	.44	1.160	.250	.50	.896	.382	.55
1 1/2	40	1.900	1.12	1.610	.145	.47	1.500	.200	.60	1.338	.281	1.00	1.100	.400	1.15
2	50	2.375	1.38	2.067	.154	.78	1.939	.218	1.05	1.687	.344	1.75	1.503	.436	2.13
2 1/2	65	2.875	1.75	2.469	.203	1.66	2.323	.276	1.91	2.125	.375	3.00	1.771	.552	3.75
3	80	3.500	2.00	3.068	.216	2.25	2.900	.300	3.08	2.624	.438	4.5	2.300	.600	5.75
3 1/2	90	4.000	2.25	3.548	.226	3.16	3.364	.318	4.75	-	-	-	*2.728	*.636	8.65
4	100	4.500	2.50	4.026	.237	4.25	3.826	.337	5.88	3.428	.531	9.5	3.152	.674	10.7
5	125	5.563	3.12	5.047	.258	7.25	4.813	.375	10.0	4.313	.625	4.3	4.063	.750	19
6	150	6.625	3.75	6.065	.280	11.5	5.761	.432	16.7	5.187	.719	30	4.897	.864	32
8	200	8.625	5.00	7.981	.322	22.5	7.625	.500	34	6.813	.906	64	6.875	.875	60
10	250	10.750	6.25	10.02	.365	39	9.750	.500	53	8.500	1.125	135	-	-	-
12	300	12.750	7.50	12.00	.375	59	11.750	.500	74	10.126	1.312	230	-	-	-
14	350	14.000	8.75	13.25	.375	74	13.00	.500	95	11.188	1.406	278	-	-	-
16	400	16.000	10.00	15.25	.375	101	15.00	.500	131	12.812	1.594	415	-	-	-
18	450	18.000	11.25	17.25	.375	128	17.00	.500	170	325.4	40.49	187	-	-	-
20	500	20.000	12.50	19.25	.375	155	19.00	.500	205						
22	550	22.000	13.50	21.25	.375	197	21.00	.500	260						
24	600	24.000	15.00	23.25	.375	223	23.00	.500	295						
26	650	26.000	16.00	25.25	.375	275	25.00	.500	365						
30	750	30.000	18.50	29.25	.375	367	29.00	.500	475						
36	900	36.000	22.25	35.25	.375	531	35.00	.500	706						
42 ^Δ	1100	42.000	26.00	41.25	.375	710	41.00	.500	950						
		1067	860	1047.8	9.53	320	1041.4	12.70	428						



CHEW® PIPE, FITTING AND VALVE

* NPS 3-1/2 (DN 90) XXS is not specified in ASME/ANSI B36.10M.

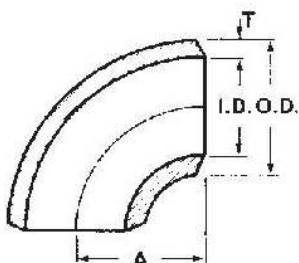
^Δ Produced from x-rayed, stress relieved welded pipe. Welds are 100% radiographed in accordance with the requirements of ASME Boiler & Pressure Vessel Code.

These fittings are also available in other sizes and/or wall thicknesses.

INCHES	POUNDS
MILLIMETRES	KILOGRAMS

SPECIFICATIONS — Steel Pipe , Fitting & Flange

BW Fittings Dimension Sheet



90° ELBOWS SHORT RADIUS

Standard Weight, Extra Strong,
and Double Extra Strong
Carbon and ferritic alloy steel,
ASME/ANSI B16.28,
ASTM A-234

NPS DN	Outside Diameter at Bevel O.D.	Centre to End Nominal A	STANDARD WEIGHT			EXTRA STRONG			DOUBLE EXTRA STRONG		
			Inside Diameter I.D.	Wall Thickness T	Approx. Weight	Inside Diameter I.D.	Wall Thickness T	Approx. Weight	Inside Diameter I.D.	Wall Thickness T	Approx. Weight
1	1.315	1.0	1.049	.133	.25	-	-	-	-	-	-
25	33	25	26.64	3.38	.11	-	-	-	-	-	-
1 1/4	1.660	1.25	1.380	.140	.38	-	-	-	-	-	-
32	42	32	35.05	3.56	.17	-	-	-	-	-	-
1 1/2	1.900	1.5	1.610	.145	.50	1.500	.200	.75	1.100	.400	1.5
40	48	38	40.89	3.68	.23	38.10	5.08	.34	27.94	10.16	.68
2	2.375	2.0	2.067	.154	.88	1.939	.218	1.50	1.503	.436	2.8
50	60	51	52.50	3.91	.40	49.25	5.54	.68	38.13	11.07	1.26
2 1/2	2.875	2.5	2.469	.203	1.75	2.323	.276	2.25	1.771	.552	4.9
65	73	64	62.71	5.16	.79	59.00	7.01	1.01	44.98	14.02	2.21
3	3.500	3.0	3.068	.216	3.00	2.900	.300	3.75	2.300	.600	7.0
80	89	76	77.93	5.49	1.35	73.66	7.62	1.69	58.42	15.24	3.15
3 1/2	4.000	3.5	3.548	.226	4.00	3.364	.318	5.50	(1)2.728	(1).636	10.5
90	102	89	90.12	5.74	1.80	85.45	8.08	2.48	69.29	16.15	4.73
4	4.500	4.0	4.026	.237	6.00	3.826	.337	7.75	3.152	.674	14.1
100	114	102	102.26	6.02	2.70	97.18	8.56	3.5	80.06	17.12	6.35
5	5.563	5.0	5.047	.258	9.5	4.813	.375	13.5	4.063	.750	26
125	141	127	128.19	6.55	4.28	122.25	9.53	6.1	103.20	19.05	12
6	6.625	6.0	6.065	.280	15.5	5.761	.432	22.5	4.897	.864	43
150	168	152	154.05	7.11	7	146.33	10.97	10.1	124.38	21.95	19.4
8	8.625	8.0	7.981	.322	31	7.625	.500	46	6.875	.875	80
200	219	203	202.72	8.18	14	193.68	12.70	21	174.63	22.23	36
10	10.750	10.0	10.02	.365	55	9.750	.500	71			
250	273	254	254.5	9.27	25	147.65	12.70	32			
12	12.750	12.0	12.00	.375	78	11.750	.500	100			
300	324	305	304.8	9.53	35	298.45	12.70	45			
14	14.000	14.0	13.25	.375	104	13.00	.500	132			
350	356	356	336.6	9.53	47	330.02	12.70	59			
16	16.000	16.0	15.25	.375	118	15.00	.500	160			
400	406	406	387.4	9.53	53	381.0	12.70	72			
18	18.000	18.0	17.25	.375	148	17.00	.500	160			
450	457	457	438.2	9.53	67	431.8	12.70	87			
20	20.000	20.0	19.25	.375	210	19.00	.500	280			
500	508	508	489.0	9.53	95	482.6	12.70	126			
24	24.000	24.0	23.25	.375	288	23.00	.500	370			
600	610	610	590.6	9.53	130	584.2	12.70	167			
(2)30	30.000	30.0	29.25	.375	480	29.00	.500	634			
(2)750	762	762	743.0	9.53	216	736.6	12.70	285	CHEW® PIPE, FITTING AND VALVE		
(2)36	36.000	36.0	35.25	.375	695	35.00	.500	940			
(2)900	914	914	895.4	9.53	313	889.0	12.70	423			

(1) NPS 3-1/2 (DN 90) XXS is not specified in ASME/ANSI B36.10.

(2) These sizes not covered in ASME/ANSI B16.28.

These fittings are also available in other sizes and/or wall thicknesses.

INCHES	POUNDS
MILLIMETRES	KILOGRAMS



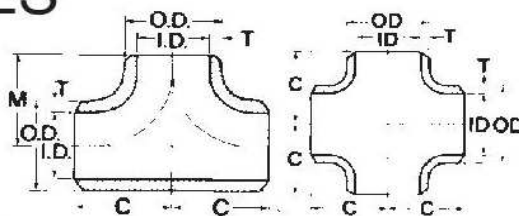
SPECIFICATIONS — Steel Pipe , Fitting & Flange

BW Fittings Dimension Sheet

STRAIGHT TEES & CROSSES*

Standard Weight and
Extra Strong

Carbon and ferritic alloy steel,
ASTM A-234, ASME/ANSI B16.9



NPS	DN	Outside Diameter O.D.	Centre to End, Run. C	Center to End, Outlet M	STANDARD WEIGHT				EXTRA STRONG			
					Inside Diameter I.D.	Wall Thickness T	Approx. Weight Tee	Approx. Weight Cross	Inside Diameter I.D.	Wall Thickness T	Approx. Weight Tee	Approx. Weight Cross
1/2	15	.840	1.00	1.00	.622	.109	.25	-	.546	.147	.34	-
		21	25	25	15.80	2.77	.11	-	187	3.73	.15	-
3/4	20	1.050	1.12	1.12	.824	.113	.37	-	.742	.154	.44	-
		27	29	29	20.93	2.87	.17	-	18.85	3.91	.2	-
1	25	1.315	1.50	1.50	1.049	.133	.63	-	.957	.179	.8	-
		33	38	38	26.64	3.38	.28	-	24.31	4.55	.36	-
1 1/4	32	1.660	1.88	1.88	1.380	.140	1.25	1.60	1.278	.191	1.6	2.20
		42	48	48	35.05	3.56	.57	.72	32.46	4.85	.73	.99
1 1/2	40	1.900	2.25	2.25	1.610	.145	1.5	2.10	1.500	.200	2.0	2.60
		48	57	57	40.89	3.68	.68	.95	38.10	5.08	.9	1.17
2	50	2.375	2.50	2.50	2.067	.154	2.0	2.55	1.939	.218	3.0	3.25
		60	64	64	52.50	3.91	.9	1.15	49.25	5.54	1.3	1.46
2 1/2	65	2.875	3.00	3.00	2.469	.203	4.0	3.40	2.323	.276	5.7	4.15
		73	76	76	62.71	5.16	1.8	1.53	59.00	7.01	2.6	1.87
3	80	3.500	3.38	3.38	3.068	.216	6.0	4.10	2.900	.300	7.7	6.20
		89	86	86	77.93	5.49	2.7	1.85	73.66	7.62	3.5	2.79
3 1/2	90	4.000	3.75	3.75	3.548	.226	7.5	5.65	3.364	.318	10.0	9.50
		102	95	95	90.12	5.74	3.4	2.54	85.45	8.08	.45	4.28
4	100	4.500	4.12	4.12	4.026	.237	10.2	9.25	3.826	.337	14	12.7
		114	105	105	102.3	6.02	4.6	4.16	97.18	8.56	6.3	5.72
5	125	5.563	4.88	4.88	5.047	.258	16	11.20	4.813	.375	23	18.0
		141	125	125	128.2	6.55	7.3	5.04	122.2	9.53	10.4	9.1
6	150	6.625	5.62	5.62	6.065	.280	23.5	25.0	5.761	.432	38.2	31.5
		188	143	143	154.0	7.11	10.7	11	146.3	10.97	17	14
8	200	8.625	7.00	7.00	7.981	.322	44.8	41.5	7.625	.500	67	52.0
		218	178	178	202.7	8.18	20	19	193.7	12.70	30	24
10	250	10.750	8.50	8.50	10.02	.365	74.2	72	9.750	.500	110	85.0
		273	216	216	254.5	9.27	34	32	247.6	12.70	50	38
12	300	12.750	10.0	10.0	12.00	.375	126	96	11.750	.500	165	130
		324	254	254	304.8	9.53	56.70	43	298.4	12.70	74	59
14	350	14.000	11.0	11.0	13.25	.375	159	121	13.00	.500	225	145
		356	279	279	336.6	9.53	71.55	54	330.2	12.70	101	65
16	400	16.000	12.0	12.0	15.25	.375	220	145	15.00	.500	265	180
		406	305	305	387.4	9.53	99.0	65	381.0	12.70	119	81
18	450	18.000	13.5	13.5	17.25	.375	295	170	17.00	.500	358	210
		457	343	343	438.2	9.53	132.8	77	431.8	12.70	161	95
20	500	20.000	15.0	15.0	19.25	.375	363	195	19.00	.500	358	210
		508	381	381	489.0	9.53	163.4	88	482.6	12.70	161	95
22	550	22.000	16.5	16.5	21.25	.375	449	-	21.00	.500	540	-
		559	419	419	539.8	9.53	202	-	533.4	12.70	243	-
24	600	24.000	17.0	17.0	23.25	.375	515	230	23.00	.500	625	300
		10	432	590.6	9.53	259	103	584.2	12.70	281	135	-
26	650	26.000	19.5	19.5	25.25	.375	655	-	25.00	.500	840	-
		860	495	495	641.4	9.53	295	-	635.0	12.70	378	-
30	750	30.000	22.0	22.0	29.25	.375	1010	-	29.00	.500	1175	-
		762	559	559	743.0	9.53	455	-	736.6	12.70	529	-
36	900	36.000	26.5	26.5	35.25	.375	1450	-	35.00	.500	1650	-
		914	673	673	895.4	9.53	653	-	889.0	12.70	743	-
42	1100	42.000	30.0	28.0	41.25	.375	1730	-	41.00	.500	1970	-
		1067	762	711	1048	9.53	779	-	1041	12.70	887	-

Tees size 20 NPS (DN 500) and smaller, and Crosses size 16 NPS (DN 400) and smaller, are normally furnished as seamless. Larger size non-seamless Tees and Crosses are produced from X-rayed, stress relieved welded pipe. Welds are 100% radiographed in accordance with the requirements of ASME Boiler & Pressure Vessel Code.

*Reduced outlet crosses available on request. These fittings are also available in other sizes and/or wall thicknesses.

INCHES

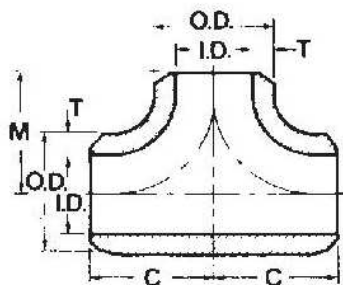
MILLIMETRES

POUNDS

KILOGRAMS

SPECIFICATIONS — Steel Pipe , Fitting & Flange

BW Fittings Dimension Sheet



STRAIGHT TEES

Schedule 160 &
Double Extra Strong
Carbon and ferritic alloy steel,
ASTM A-234,
ASME/ANSI B16.9

NPS DN	Outside Diameter at Bevel O.D.	Centre to End, Run. Nominal C	Center to End, Outlet, Nominal M	SCHEDULE 160			DOUBLE EXTRA STRONG		
				Inside Diameter I.D.	Wall Thickness T	Approx. Weight	Inside Diameter I.D.	Wall Thickness T	Approx. Weight
3/4	1.050	1.12	1.12	.612	.219	.65	.434	.308	1.16
20	27	29	29	15.54	5.6	.29	11.02	7.82	.52
1	1.315	1.50	1.50	.815	.250	1.10	.599	.358	1.25
25	33	38	38	20.70	6.35	.50	15.21	9.09	.56
1 1/4	1.660	1.88	1.88	1.160	.250	2.10	.896	.382	2.32
32	42	48	48	29.46	6.35	.95	22.76	9.70	1.04
1 1/2	1.900	2.25	2.25	1.338	.281	3.00	1.100	.400	3.38
40	48	57	57	33.99	7.14	1.35	27.94	10.16	1.52
2	2.375	2.50	2.50	1.687	.344	4.5	1.503	.436	5.20
50	60	64	64	42.85	8.74	2.03	38.18	11.07	2.34
2 1/2	2.875	3.00	3.00	2.125	.375	7.0	1.771	.552	9.63
65	73	76	76	53.98	9.53	3.15	44.98	14.02	4.33
3	3.500	3.38	3.38	2.624	.438	11.5	2.300	.600	13.5
80	89	86	86	66.65	11.13	5.18	58.42	15.24	6.08
3 1/2	4.000	3.75	3.75	-	-	-	2.728	.636	23
90	102	95	95	-	-	-	69.29	16.15	10.35
4	4.500	4.12	4.12	3.438	.531	21.5	3.152	.674	25
100	114	105	105	87.33	13.49	9.7	80.06	17.12	11
5	5.563	4.88	4.88	4.313	.625	37	4.063	.750	40
125	141	124	124	109.6	15.88	17	103.2	19.05	18
6	6.625	5.62	5.62	5.187	.719	63	4.897	.864	66
150	188	143	143	131.8	18.26	28	124.4	21.95	30
8	8.625	7.00	7.00	6.813	.906	114	6.875	.875	120
200	219	178	178	173.1	23.01	51	174.6	22.23	54
10	10.750	8.50	8.50	8.500	1.125	265	-	-	-
250	273	216	216	215.9	28.58	119	-	-	-
12	12.750	10.00	10.00	10.126	1.312	389	-	-	-
300	324	254	254	257.2	33.32	175	-	-	-
14	14.000	11.00	11.00	11.188	1.406	525	-	-	-
350	356	279	279	284.2	35.71	236	-	-	-
16	16.000	12.00	12.00	12.812	1.594	820	-	-	-
400	406	305	305	325.4	40.49	369	-	-	-



CHEW® PIPE, FITTING AND VALVE

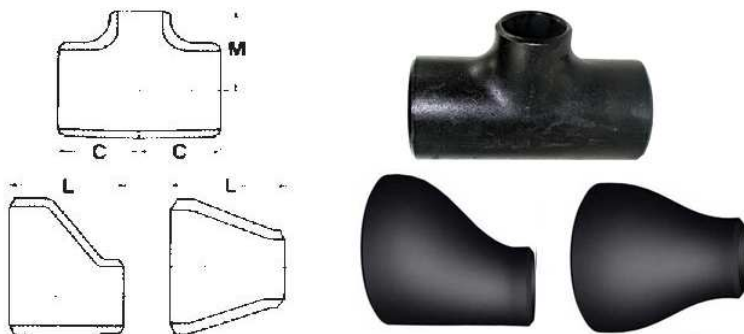
INCHES	POUNDS
MILLIMETRES	KILOGRAMS

SPECIFICATIONS — Steel Pipe , Fitting & Flange

BW Fittings Dimension Sheet

*REDUCING TEES & REDUCERS

Concentric and Eccentric
Standard Weight, Extra Strong,
Schedule 160,
Double Extra Strong
Carbon and ferritic alloy steel,
ASTM A-234, ASME/ANSI B16.9



Run	Outlet or Reduced End	Nominal Center-to-End Tees		Nominal Length of Reducers L	APPROXIMATE WEIGHTS							
					STANDARD WEIGHT		EXTRA STRONG		SCHEDULE 160		DOUBLE EXTRA STRONG	
		Run	Outlet		Tee	Reducer	Tee	Reducer	Tee	Reducer	Tee	Reducer
NPS	NPS											
DN	DN	C	M									
1/2	1/4	1.00	1.00	-	.25	-	.27	-	-	-	-	-
15	6	25	25	-	.11	-	.12	-	-	-	-	-
	3/8	1.00	1.00	-	.25	-	.28	-	-	-	-	-
	10	25	25	-	.11	-	.13	-	-	-	-	-
3/4	3/8	1.12	1.12	1.5	.37	.22	.43	.24	.63	.27	-	-
20	10	29	29	38	.17	0.1	.20	.11	.29	.12	-	-
	1/2	1.12	1.12	1.5	.37	.25	.44	.25	.63	.29	1.12	-
	15	29	29	38	.17	0.1	.20	.11	.29	.13	.51	-
1	3/8	1.50	1.50	2.0	.60	.27	.75	.31	.90	.31	-	2.50
25	10	38	38	51	.25	0.1	.34	.14	.41	.14	-	1.13
	1/2	1.50	1.50	2.0	.65	.30	.75	.33	.90	.6	1.14	2.50
	15	38	38	51	.27	0.14	.34	.15	.41	.16	.52	1.13
	3/4	1.50	1.50	2.0	.69	.32	.80	.36	1.00	.41	1.19	2.60
	20	38	38	51	.31	0.15	.40	.16	.45	.19	.54	1.18
1 1/4	1/2	1.88	1.88	2.0	1.3	.34	1.65	.42	1.67	.46	1.95	2.61
32	15	48	48	51	.59	0.15	.75	.19	.76	.21	.88	1.18
	3/4	1.88	1.88	2.0	1.2	.37	1.66	.46	1.68	.51	2.02	2.72
	20	48	48	51	.54	0.17	.75	.21	.76	.23	.92	1.23
	1	1.88	1.88	2.0	1.2	.39	1.90	.49	2.00	.59	2.14	2.894
	25	48	48	51	.54	0.18	.86	.22	.91	.27	.97	1.94
1 1/2	1/2	2.25	2.25	2.5	2.1	.44	2.2	.52	2.41	.66	2.84	2.90
40	15	57	57	64	.95	0.2	1.00	.24	1.09	.30	1.29	1.32
	3/4	2.25	2.25	2.5	1.8	.47	2.3	.55	2.49	.74	2.93	2.96
	20	57	57	64	.82	0.21	1.04	.25	1.13	.34	1.33	1.34
	1	2.25	2.25	2.5	1.7	.50	.4	.61	2.60	.81	3.08	2.99
	25	57	57	64	.77	0.23	1.10	.28	1.18	.37	1.40	1.36
	1 1/4	2.25	2.25	2.5	1.7	.58	2.6	.66	2.90	.90	3.26	3.02
	32	57	57	64	.77	0.26	1.18	.30	1.32	.41	1.48	1.37
2	3/4	2.50	1.75	3.0	2.0	.82	2.7	.89	3.35	1.30	4.26	3.06
50	20	64	44	76	.91	.37	1.22	.40	1.52	.59	1.93	1.39
	1	2.50	2.00	3.0	2.0	.89	2.7	.90	3.60	1.52	4.41	3.12
	25	64	51	76	.91	.40	1.22	.41	1.63	.69	2.00	1.42
	1 1/4	2.50	2.25	3.0	2.1	.94	2.8	1.02	3.75	1.78	4.65	3.20
	32	64	57	76	.95	.43	1.27	.46	1.70	.81	2.11	1.45
	1 1/2	2.50	2.38	3.0	2.2	1.03	2.8	1.20	3.90	1.84	5.18	3.31
	40	64	60	76	1.00	.47	1.27	.54	1.77	.83	2.35	1.50
2 1/2	1	3.00	2.25	3.5	3.0	1.42	4.2	1.55	5.90	2.10	8.00	3.40
65	25	76	57	89	1.36	.64	1.91	.70	2.68	.95	3.63	1.54
	1 1/4	3.00	2.50	3.5	3.2	1.59	4.3	1.75	6.00	2.31	8.40	3.46
	32	76	64	89	1.45	.72	1.95	.79	2.72	1.05	3.81	1.57
	1 1/2	3.00	2.62	3.5	3.5	1.71	4.5	2.02	6.20	2.43	9.13	3.52
	40	76	67	89	1.60	.78	2.04	.92	2.81	1.10	4.14	1.60
	2	3.00	2.75	3.5	3.5	1.84	4.5	2.25	6.60	2.59	9.18	3.64
	50	76	70	89	1.60	2.5	2.04	1.02	3.00	1.17	4.16	1.65
3	3/4	3.38	2.62	3.5	5.0	2.10	6.0	2.45	-	-	-	-
80	25	86	67	89	2.27	1.0	2.72	1.11	-	-	-	-
	1 1/4	3.38	2.75	3.5	5.1	2.28	6.0	2.60	9.20	2.91	12.0	3.75
	32	86	70	89	2.31	1.0	2.72	1.18	4.17	1.32	5.4	1.70
	1 1/2	3.38	2.88	3.5	5.1	2.42	6.12	2.70	9.35	3.10	12.2	3.9
	40	86	73	89	2.31	1.1	2.81	1.22	4.24	1.41	5.5	1.77
	2	3.38	3.00	3.50	5.2	2.56	6.4	2.75	9.68	3.43	12.5	4.00
	50	86	76	89	2.36	1.16	2.95	1.25	4.4	1.6	5.7	1.8



CHEW® PIPE, FITTING AND VALVE

INCHES	POUNDS
MILLIMETRES	KILOGRAMS

SPECIFICATIONS — Steel Pipe , Fitting & Flange

BW Fittings Dimension Sheet

*REDUCING TEES & REDUCERS CONCENTRIC AND ECCENTRIC continued

Run	Outlet or Reduced End	Nominal Center-to-End Tees		Nominal Length of Reducers L	APPROXIMATE WEIGHTS									
NPS	NPS	Run	Outlet		STANDARD WEIGHT		EXTRA STRONG		SCHEDULE 160		DOUBLE EXTRA STRONG			
DN	DN	C	M		Tee	Reducer	Tee	Reducer	Tee	Reducer	Tee	Reducer		
	2 1/2	65	3.38 86	3.25 83	3.5 89	6.0 2.72	2.64 1.20	7.5 3.40	2.90 1.32	10.20 4.6	3.75 1.7	13.5 6.1	4.25 1.9	
3 1/2	#1 1/4	32	-	-	4.00 102	7.5 3.40	2.68 1.23	-	3.10 1.45	-	-	-	4.72 2.1	
	90	40	3.75 95	3.12 79	4.00 102	7.5 3.40	2.72 1.23	11.0 5.0	3.20 1.45	-	-	16.3 7.4	5.30 2.4	
		2	3.75 95	3.25 83	4.00 102	8.2 3.72	2.77 1.26	11.2 5.1	3.35 1.52	-	-	16.7 7.6	5.64 2.6	
		2 1/2	3.75 95	3.50 89	4.00 102	8.3 3.76	2.82 1.28	12.0 5.4	3.50 1.59	-	-	17.5 7.9	5.92 2.7	
		3	3.75 95	3.62 92	4.00 102	9.5 4.31	2.88 1.31	12.6 5.7	4.00 1.81	-	-	18.5 8.4	6.20 2.8	
4	#1	25	-	-	4.00 102	12.0 5.44	2.91 1.33	-	4.10 1.95	-	-	-	-	
	100	40	4.12 105	3.38 86	4.00 102	12.0 5.44	2.94 1.33	13.0 5.9	4.30 1.95	16.8 7.6	5.40 2.5	21.5 9.8	6.53 3.0	
		2	4.12 105	3.50 89	4.00 102	9.4 4.26	2.97 1.35	13.0 5.9	4.50 2.04	17.2 7.8	5.59 2.5	22.0 10.0	6.72 3.1	
		2 1/2	4.12 105	3.75 95	4.00 102	9.4 4.26	3.02 1.37	13.6 6.2	4.60 2.1	17.7 8.0	5.64 2.6	22.7 10.3	6.89 3.1	
		3	4.12 105	3.88 98	4.00 102	9.5 4.31	3.08 1.40	14.2 6.4	4.75 2.2	18.5 8.4	5.81 2.6	23.3 10.6	7.10 3.2	
	3 1/2	90	4.12 105	4.00 102	4.00 102	10.0 4.35	3.12 1.42	14.9 6.8	4.90 2.2	-	-	24.5 11	7.40 3.4	
	5	125	2	4.88 124	4.12 105	5.00 127	14.5 6.6	3.28 1.49	18.0 8.1	5.30 2.4	30.5 13.8	7.95 3.6	35.6 16.2	10.5 4.8
			2 1/2	4.88 124	4.25 108	5.00 127	14.5 6.6	3.36 1.52	18.2 8.3	5.50 2.5	31.0 14.1	9.00 4.1	36.2 16.4	12.2 5.5
			3	4.88 124	4.38 111	5.00 127	14.5 6.6	3.55 1.61	18.8 8.5	5.75 2.6	31.7 14.4	10.5 4.8	37.2 17	13.7 6.2
			3 1/2	4.88 124	4.50 114	5.00 127	15.0 6.8	3.69 1.67	20.0 9.1	6.10 2.8	-	-	38.0 17	14.9 6.8
		4	4.88 124	4.62 117	5.00 127	15.1 6.9	3.81 1.74	22.5 10.2	6.50 3.0	33.2 15.1	11.7 5.3	39.0 18	15.5 7.0	
6	150	#2	5.62 143	4.75 121	5.50 140	19.5 8.9	4.28 1.94	30 13.6	7.75 3.5	45.5 20.6	-	53.0 24	-	
		2 1/2	5.62 143	4.75 121	5.50 140	20.0 9.1	4.40 2.00	31 14.1	8.25 3.7	48.2 21.9	13.0 5.9	56.6 26	17.5 7.9	
		3	5.62 143	4.88 124	5.50 140	21.0 9.5	4.64 2.10	31.5 14.3	8.75 4.0	48.9 22.2	15.0 6	57.5 26	18.2 8.3	
		3 1/2	5.62 143	5.00 127	5.50 140	21.5 9.8	4.81 2.18	32.0 14.5	9.50 4.3	-	-	58.5 27	19.0 8.6	
		4	5.62 143	5.12 130	5.50 140	21.5 9.8	5.06 2.30	32.5 14.7	11.00 5.0	50.5 22.9	17.5 7.9	59.3 27	19.7 8.9	
	5	125	5.62 143	5.38 137	5.50 140	23 10.4	5.32 2.41	33.0 15	12.00 5.4	52.6 23.9	19.1 7	62.1 28	21.0 9.5	
	8	200	#3	7.00 178	6.00 152	6.00 152	38 17.2	7.29 3.31	63 29	14.50 6.6	-	28.5 12.9	-	25.7 11.7
			3 1/2	7.00 178	6.70 152	6.00 152	39 17.7	7.65 3.47	63 29	16.0 7.3	-	-	96.5 44	27.1 12.3
			4	7.00 178	6.12 156	6.00 152	40.5 18.4	8.12 3.68	64 29	16.5 7.5	98.7 44.8	33.0 15.0	97.5 44	28.5 13
			5	7.0 178	6.38 162	6.0 152	41.0 18.6	8.53 3.8	65 30	17.0 7.7	101 46	37.0 17	100 45.5	29.7 13.5
		6	7.0 178	6.62 168	6.0 152	44.0 20	9.02 4.1	65 30	18.5 8.4	104 47	41.0 19	104 47	33.0 15	
10	250	#3	8.5 216	7.25 184	7.0 178	72.0 32	11.0 5.0	90 41	21.0 9.5	181 82	-	-	-	
		4	8.5 216	7.25 184	7.0 178	75.0 34	12.5 5.6	92 41	23.0 10.4	183 83	45.0 20.5	-	41.0 19	
		5	8.5 216	7.50 191	7.0 178	75.0 34	15.0 6.8	96 43	25.0 11.3	190 86	49.0 22	-	44.0 20	
		6	8.5 216	7.62 194	7.0 178	79.0 36	17.0 7.7	98 44	28.0 12.7	193 88	53.0 24	-	48.0 22	
		8	8.5 216	8.00 203	7.0 178	79.2 36	21.0 9.5	100 45	29.5 13.4	208 94	59.0 27	-	52.0 24	

*Wall thickness and other pipe size data are in accordance with ASME/ANSI B36.10M.

INCHES	POUNDS
MILLIMETRES	KILOGRAMS



CHEW PIPE, FITTING AND FLANGE

SPECIFICATIONS — Steel Pipe , Fitting & Flange

BW Fittings Dimension Sheet

REDUCING TEES & REDUCERS CONCENTRIC AND ECCENTRIC continued

NPS	Outlet or Reduced End NPS	DN	Nominal Center-to-End Tees		Nominal Length of Reducers L	APPROXIMATE WEIGHTS							
			Run	Outlet		STANDARD WEIGHT		EXTRA STRONG		SCHEDULE 160		DOUBLE EXTRA STRONG	
			C	M		Tee	Reducer	Tee	Reducer	Tee	Reducer	Tee	Reducer
12	#4	100	10.0	8.50	8.0	101	23.0	132	32	301	-	-	-
			254	216	203	46	10.4	59	14.5	137	-	-	-
	5	125	10.0	8.50	8.0	105	25.0	134	33	305	72.0	-	67.0
			254	216	203	47	11.3	60	15	139	32.5	-	30
	6	150	10.0	8.63	8.0	105	28.0	136	34	308	75.0	-	69.0
			254	219	203	47	12.6	61	15.5	140	34	-	31
	8	200	10.0	9.00	8.0	105	30.0	140	36	315	83.0	-	72.0
			254	229	203	47	13.5	63	16	143	38	-	33
	10	250	10.0	9.50	8.0	130	32.0	148	39	332	94.0	-	75.0
			254	241	203	59	14.4	67	18	151	43	-	34
14	#6	150	11.0	9.38	13.0	146	58.0	184	59	410	110	-	-
			279	238	330	66	26	83	27	186	50	-	-
	8	200	11.0	9.75	13.0	147	59.5	187	61	435	125	-	-
			279	248	330	66	27	84	28	197	57	-	-
	10	250	11.0	10.13	13.0	149	61.0	190	62	470	137	-	-
			29	257	330	67	27	86	28	213	62	-	-
	12	300	11.0	10.63	13.0	152	64.0	196	75	495	153	-	-
			279	270	330	68	29	88	34	225	69	-	-
	#6	400	12.0	10.38	14.0	179	-	231	-	540	-	-	-
			305	264	356	81	-	104	-	245	-	-	-
16	8	200	12.0	10.75	14.0	186	69.0	236	89	565	168	-	-
			305	273	356	84	31	106	40	256	76	-	-
	10	250	12.0	11.13	14.0	196	72.0	248	95	610	190	-	-
			305	283	356	88	32	111	43	277	86	-	-
	12	300	12.0	11.63	14.0	211	75.0	259	101	675	220	-	-
			305	295	356	95	34	117	48	340	120	-	-
	14	350	12.0	12.00	14.0	219	80	261	106	750	265	-	-
			305	305	356	99	36	117	48	340	120	-	-
	#8	450	13.5	11.75	15.0	236	-	302	-	-	-	-	-
			343	298	381	106	-	136	-	-	-	-	-
18	10	250	13.5	12.13	15.0	249	81	311	112	-	-	-	-
			343	308	381	112	36	140	51	-	-	-	-
	12	300	13.5	12.63	15.0	261	82	332	115	-	-	-	-
			343	321	381	117	37	149	52	-	-	-	-
	14	350	13.5	13.00	15.0	270	84	340	117	-	-	-	-
			343	330	381	122	38	153	53	-	-	-	-
	16	400	13.5	13.00	15.0	282	85	352	119	-	-	-	-
			343	330	381	127	38	158	54	-	-	-	-
	#8	500	15.0	12.75	20.0	294	-	379	-	-	-	-	-
			381	324	508	133	-	172	-	-	-	-	-
20	#10	250	15.0	13.13	20.0	307	-	385	-	-	-	-	-
			381	333	508	139	-	175	-	-	-	-	-
	12	300	15.0	13.63	20.0	316	110	401	149	-	-	-	-
			381	346	508	143	50	182	68	-	-	-	-
	14	350	15.0	14.00	20.0	329	117	418	153	-	-	-	-
			381	356	508	149	53	190	69	-	-	-	-
	16	400	15.0	14.00	20.0	341	123	432	158	-	-	-	-
			381	356	508	155	56	196	72	-	-	-	-
	18	450	15.0	14.50	20.0	355	126	449	165	-	-	-	-
			381	368	508	161	57	204	75	-	-	-	-
22	#10	250	16.5	14.13	20.0	366	-	471	-	-	-	-	-
			419	359	508	166	-	214	-	-	-	-	-
	#12	300	16.5	14.63	20.0	382	-	479	-	-	-	-	-
			419	371	508	173	-	217	-	-	-	-	-
	14	350	16.5	15.00	20.0	395	128	487	168	-	-	-	-
			419	381	508	179	58	221	76	-	-	-	-
	16	400	16.5	15.00	20.0	412	133	499	171	-	-	-	-
			419	381	508	187	60	226	78	-	-	-	-
	18	450	16.5	15.50	20.0	429	140	522	175	-	-	-	-
			419	394	508	195	64	237	79	-	-	-	-
24	#10	250	16.5	16.00	20.0	443	143	540	181	-	-	-	-
			419	406	508	201	65	245	82	-	-	-	-
	#12	300	17.0	15.13	20.0	451	149	556	183	-	-	-	-
			43	384	508	25	68	252	83	-	-	-	-
	16	350	17.0	15.63	20.0	455	152	562	187	-	-	-	-
			432	397	508	206	69	255	85	-	-	-	-
	#14	400	17.0	16.00	20.0	268	154	571	191	-	-	-	-
			432	406	508	12	70	259	87	-	-	-	-
	16	400	17.0	16.00	20.0	479	156	585	194	-	-	-	-
			432	406	508	217	71	285	88	-	-	-	-



SPECIFICATIONS — Steel Pipe , Fitting & Flange

BW Fittings Dimension Sheet

REDUCING TEES & REDUCERS CONCENTRIC AND ECCENTRIC continued

NPS	DN	Outlet or Reduced End		Nominal Center-to-End Tees		Nominal Length of Reducers L	APPROXIMATE WEIGHTS							
		NPS	DN	Run	Outlet		STANDARD WEIGHT		EXTRA STRONG		SCHEDULE 160		DOUBLE EXTRA STRONG	
				C	M		Tee	Reducer	Tee	Reducer	Tee	Reducer	Tee	Reducer
24	600	18		17.0	16.50	20.0	490	160	597	198	-	-	-	-
			450	432	419	508	222	73	271	90	-	-	-	-
		20		17.0	17.00	20.0	506	165	614	205	-	-	-	-
			500	432	432	508	230	75	279	93	-	-	-	-
26	650	#△12		19.5	16.63	□ 24.0	534	-	665	-	-	-	-	-
			300	495	422	610	242	-	302	-	-	-	-	-
		△14		19.5	17.00	□ 24.0	547	-	679	-	-	-	-	-
			350	495	432	610	248	-	308	-	-	-	-	-
		△16		19.5	17.00	24.0	561	-	691	-	-	-	-	-
			400	495	432	610	254	-	313	-	-	-	-	-
		18		19.5	17.50	24.0	575	170	714	215	-	-	-	-
			450	495	444	610	261	77	324	98	-	-	-	-
		20		19.5	18.00	24.0	592	172	733	221	-	-	-	-
			500	495	457	610	268	78	332	100	-	-	-	-
		22		19.5	18.50	24.0	623	174	756	229	-	-	-	-
			550	495	470	610	283	79	343	104	-	-	-	-
		24		19.5	19.00	24.0	643	177	780	235	-	-	-	-
			600	495	483	610	292	80	354	107	-	-	-	-
30	750	△14		22.0	19.0	□ 24.0	675	-	865	-	-	-	-	-
			350	559	483	610	305	-	392	-	-	-	-	-
		△16		22.0	19.0	□ 24.0	690	-	895	-	-	-	-	-
			400	559	483	610	313	-	406	-	-	-	-	-
		△18		22.0	19.5	□ 24.0	721	-	932	-	-	-	-	-
			450	559	495	610	327	-	423	-	-	-	-	-
		20		22.0	20.0	□ 24.0	744	180	978	264	-	-	-	-
			500	559	508	610	337	82	444	120	-	-	-	-
		22		22.0	20.5	24.0	768	200	1031	270	-	-	-	-
			550	559	521	610	348	91	468	122	-	-	-	-
		24		22.0	21.0	24.0	792	215	1050	275	-	-	-	-
			600	559	533	610	359	98	476	125	-	-	-	-
		26		22.0	21.5	24.0	845	235	1085	282	-	-	-	-
			650	559	546	610	383	107	492	128	-	-	-	-
36	900	△16		26.5	22.0	□ 24.0	1280	-	1220	-	-	-	-	-
			400	673	559	610	581	-	553	-	-	-	-	-
		△18		26.5	22.5	□ 24.0	1305	-	1310	-	-	-	-	-
			450	673	572	610	592	-	594	-	-	-	-	-
		△20		26.5	23.0	□ 24.0	1360	319	1395	320	-	-	-	-
			500	673	584	610	617	141	633	145	-	-	-	-
		△22		26.5	23.5	□ 24.0	1390	-	146	-	-	-	-	-
			550	673	597	610	631	-	665	-	-	-	-	-
		24		26.5	24.0	24.0	1410	340	1510	360	-	-	-	-
			600	673	610	610	640	154	685	163	-	-	-	-
		26		26.5	24.5	24.0	1425	-	1555	-	-	-	-	-
			650	673	622	610	646	-	705	-	-	-	-	-
		30		26.5	25.0	24.0	1432	375	1595	385	-	-	-	-
			750	673	635	610	650	170	723	175	-	-	-	-
42	1100	△18		30.0	25.5	24.0	1550	-	1770	-	-	-	-	-
			450	762	648	610	703	-	803	-	-	-	-	-
		△20		30.0	26.0	24.0	1590	-	1810	-	-	-	-	-
			500	762	660	610	721	-	821	-	-	-	-	-
		△22		30.0	26.0	24.0	1630	-	1850	-	-	-	-	-
			550	762	660	610	739	-	839	-	-	-	-	-
		△24		30.0	26.0	24.0	1645	390	1865	405	-	-	-	-
			600	762	660	610	745	177	846	184	-	-	-	-
		△26		30.0	27.5	24.0	1665	425	1890	440	-	-	-	-
			650	762	698	610	755	193	857	200	-	-	-	-
		30		30.0	28.0	□ 24.0	1690	445	1910	465	-	-	-	-
			750	762	711	610	767	202	866	211	-	-	-	-
		36		30.0	28.0	□ 24.0	1710	470	1935	495	-	-	-	-
			900	762	711	610	776	213	878	225	-	-	-	-

When ordering Reducing Tees, specify the run pipe size first, followed by the outlet size. Example 2 x 2 x 1.

When ordering Reducers, specify the Large End first, followed by the Small End size and the type. Example: 2 x 1 eccentric.

These fittings are also available in other sizes and/or wall thicknesses.

Wall thickness and other pipe size data are in accordance with ASME/ANSI B36.10M.

This size of Reducing Outlet Tee is not covered in ANSI B16.9

△ This size of Reducer is not covered in ANSI B16.9

□ This size of Reducer supplied concentric, only.

INCHES	POUNDS
MILLIMETRES	KILOGRAMS

Tees size 20 NPS (DN 500) and smaller, and Reducers size 24 NPS (DN 600) and smaller, are normally furnished as seamless. Larger size non-seamless Tees and Reducers are produced from X-rayed, stress relieved welded pipe. Welds are 100% radiographed in accordance with the requirements of the ASME Boiler & Pressure Vessel Code.



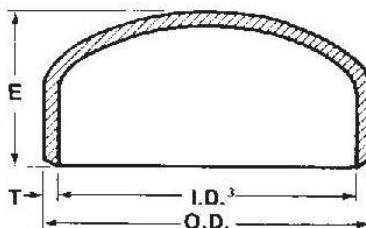
CHEW® PIPE, FITTING AND VALVE

SPECIFICATIONS — Steel Pipe , Fitting & Flange

BW Fittings Dimension Sheet

CAPS

Standard, Extra Strong,
Schedule 160,
Double Extra Strong
Carbon and ferritic alloy steel,
ASTM A-234
ASME/ANSI B16.9



NPS DN	Outside Diameter at Bevel O.D.	STANDARD WEIGHT			EXTRA STRONG			SCHEDULE 160			DOUBLE EXTRA STRONG		
		Wall Thickness T	Nominal Length (1) E	Approx. Weight	Wall Thickness T	Nominal Length (1) E	Approx. Weight	Wall Thickness T	Nominal Length (1) E	Approx. Weight	Wall Thickness T	Nominal Length (1) E	Approx. Weight
1/2	.840	.109	1.0	.1	.147	1.0	.09	-	-	-	-	-	-
15	21	2.77	25	.05	3.73	25	.04	-	-	-	-	-	-
3/4	1.050	.113	1.0	.1	.154	1.0	.1	-	-	-	-	-	-
20	27	2.87	25	.05	3.91	25	.05	-	-	-	-	-	-
1	1.315	.133	1.5	.2	.179	1.5	.2	.250	1.5	.4	.38	1.5	1.0
25	33	3.38	38	.09	4.55	38	.09	6.35	38	.2	9.09	38	.45
1 1/4	1.660	.140	1.5	.3	.191	1.5	.4	.250	1.5	.5	.382	1.5	1.5
32	42	3.56	38	.14	4.85	38	.18	6.35	38	.2	9.70	38	.68
1 1/2	1.900	.145	1.5	.4	.200	1.5	.5	.281	1.5	.6	.400	1.5	2.5
40	48	3.68	38	.18	5.08	38	.23	7.14	38	.3	10.16	38	1.1
2	2.375	.154	1.5	.6	.218	1.5	.8	.344	1.75	1.25	.436	1.75	3.0
50	60	3.91	38	.27	5.54	38	.36	8.74	44	.6	11.07	44	1.4
2 1/2	2.875	.203	1.5	.9	.276	1.5	1.0	.375	2.0	1.75	.552	2.0	4.0
65	73	5.16	38	.41	7.01	38	.45	9.53	51	.8	14.02	51	1.8
3	3.500	.216	2.0	1.4	.300	2.0	2.0	.438	2.5	2.9	.600	2.5	6.0
80	89	5.49	51	.64	7.62	51	.91	11.13	64	1.3	15.24	64	2.7
3 1/2	4.000	.226	2.5	2.2	.318	2.5	2.8	-	-	-	(2) .636	3.0	7.5
90	102	5.74	64	1.0	8.08	64	1.3	-	-	-	(2) 16.15	76	3.4
4	4.500	.237	2.5	3.0	.337	2.5	3.5	.531	3.0	5.9	.674	3.0	9.0
100	114	6.02	64	1.4	8.56	64	1.6	13.49	76	2.7	17.12	76	4.1
5	5.563	.258	3.0	4.5	.375	3.0	5.8	.625	3.5	10	.750	3.5	13.5
125	141	6.55	78	2.0	9.53	76	2.6	15.88	89	4.5	19.05	89	5.1
6	6.625	.280	3.5	7.2	.432	3.5	9.2	.719	4.0	15	.864	4.0	18
150	168	7.11	89	3.3	10.97	89	4.2	18.26	102	6.8	21.95	102	8.2
8	8.625	.322	4.0	12.0	.500	4.0	15	.906	5.0	31	.875	5.0	26
200	219	8.18	102	5.4	12.70	102	6.8	23.01	127	14	22.23	127	12
10	10.750	.365	5.0	18	.500	5.0	25	1.125	6.0	57	-	-	-
250	273	9.27	127	8.2	12.70	127	11.3	28.58	152	26	-	-	-
12	12.750	.375	6.0	27	.500	6.0	35	1.312	7.0	95	-	-	-
300	324	9.53	152	12	12.70	152	16	33.32	178	43	-	-	-
14	14.000	.375	6.5	33	.500	6.5	43	1.406	7.5	130	-	-	-
350	356	9.53	165	15	12.70	185	20	35.71	191	59	-	-	-
16	16.000	.375	7.0	42	.500	7.0	54	1.594	8.0	165	-	-	-
400	405	9.53	178	19	12.70	178	25	40.49	203	75	-	-	-
18	18.000	.375	8.0	55	.500	8.0	73	-	-	-	-	-	-
450	457	9.53	203	25	12.70	203	33	-	-	-	-	-	-
20	20.000	.375	9.0	68	.500	9.0	90	-	-	-	-	-	-
500	508	9.53	229	31	12.70	229	41	-	-	-	-	-	-
22	22.000	.375	10.0	86	.500	10.0	110	-	-	-	-	-	-
550	559	9.53	254	39	12.70	254	50	-	-	-	-	-	-
24	24.000	.375	10.5	96	.500	10.5	127	-	-	-	-	-	-
600	610	9.53	267	44	12.70	267	58	-	-	-	-	-	-
26	26.000	.375	10.5	110	.500	10.5	145	-	-	-	-	-	-
650	680	9.53	267	50	12.70	267	66	-	-	-	-	-	-
30	30.000	.375	10.5	132	.500	10.5	175	-	-	-	-	-	-
750	762	9.53	267	60	12.70	267	79	-	-	-	-	-	-
36	36.000	.375	10.5	192	.500	10.5	235	-	-	-	-	-	-
900	914	9.53	267	87	12.70	267	107	-	-	-	-	-	-
42	42.000	.375	12.0	225	.500	12.0	295	-	-	-	-	-	-
1100	1067	9.53	305	102	12.70	305	134	-	-	-	-	-	-



PIPE, FITTING AND VALVE

INCHES	POUNDS
MILLIMETRES	KILOGRAMS