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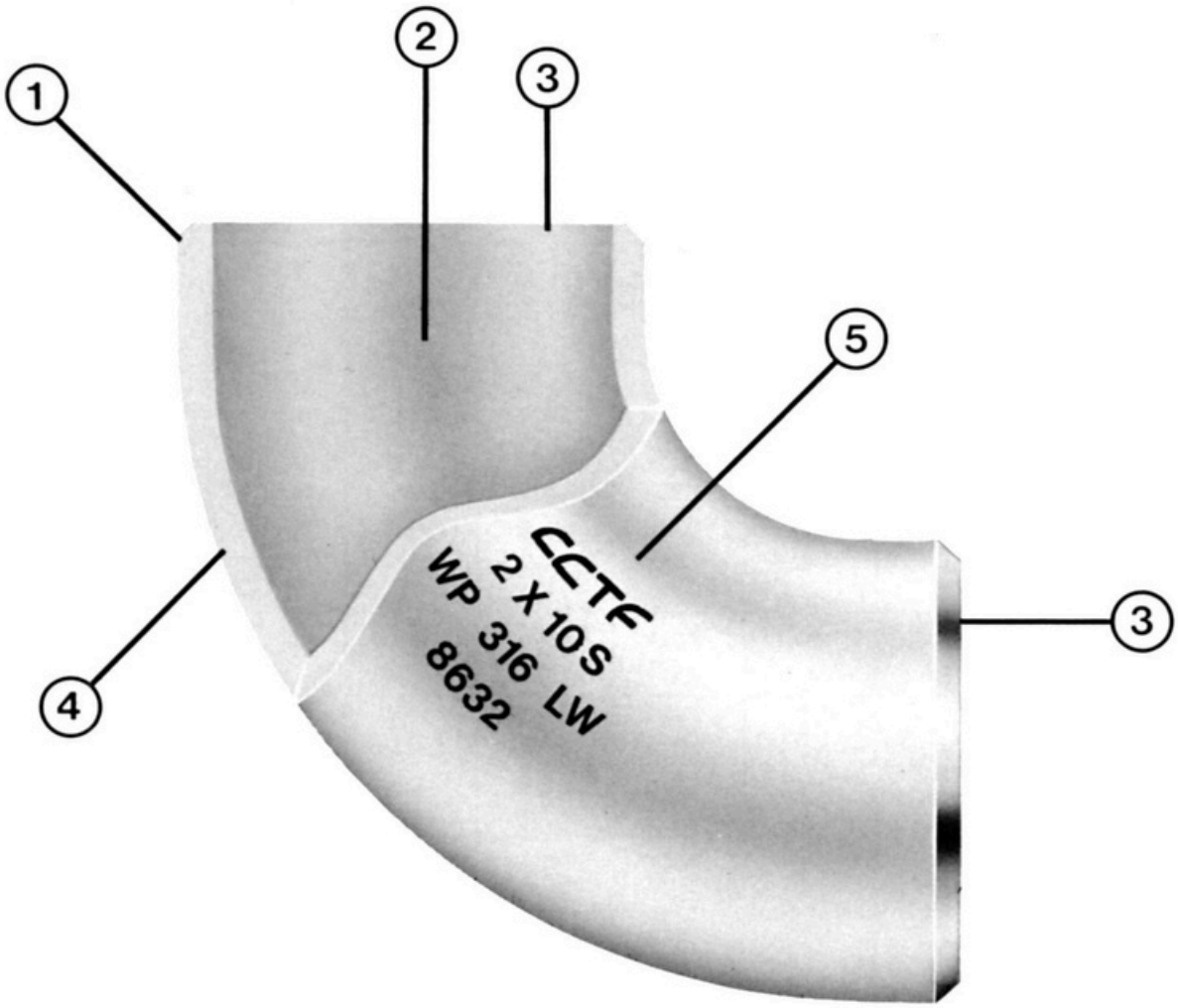
STAINLESS STEELWELDING FITTINGS

INCHES/METRIC



1. Bevels and lands accurately machined for good welding.
2. True diameter maintained throughout the smooth bore for unrestricted flow.
3. Ends are true and square.
4. Full, uniform wall thickness for maximum strength.
5. Clear identification of size, schedule or nominal wall thickness, material and heat code.

Other types and sizes of STAINLESS STEELWELDING FITTINGS
than those shown in this catalogue may be supplied upon request.

STAINLESS STEEL WELDING FITTINGS **INDEX**

MATERIALAND MANUFACTURING SPECIFICATIONS

CCTF Stainless Steel Welding Fittings are manufactured in accordance with the material specifications of ASTM A-403.

This chart gives the Mechanical and Chemical properties of some of the most widely used alloys.

ANSI Pressure Fittings	Corrosion Resistant Fittings	Mechanical			*Chemical									
		Tensile Strength KSI min. (MPa min.)	Yield Strength KSI min. (MPa min.)	El. 2in. 50mm % Longt.	C	Mn	P	S	SI	Ni	Cr	Mo	Ti	Co
WP304	CR 304	75 (515)	30 (205)	35	.08	2.0	0.45	0.30	1.00	8.0-11.0	18.0-20.0			
WP304H	CR 304H	75 (515)	30 (205)	35	.04-1.0	2.0	0.45	.030	1.00	8.0-11.0	18.0-20.0			
WP304L	CR 304L	70 (485)	25 (170)	35	.035d	2.0	.045	.030	1.00	8.0-13.0	18.0-20.0			
WP316	CR 316	75 (515)	30 (205)	35	.08	2.0	0.45	.030	1.00	10.0-14.0	16.0-18.0	2.0-3.0		
WP316H	CR 316H	75 (515)	30 (205)	35	.04-.10	2.0	0.45	.030	1.00	10.0-14.0	16.0-18.0	2.0-3.0		
WP316L	CR 316I	70 (485)	25 (170)	35	.035d	2.0	.045	.030	1.00	10.0-16.0	16.0-18.0	2.0-3.0		
WP321	CR 321	75 (515)	30 (205)	35	.08	2.0	0.45	.030	1.00	9.0-13.0	17.0-20.0		e	
WP321H	CR 321H	75 (515)	30 (205)	35	.04-.10	2.0	0.45	.030	1.00	9.0-13.0	17.0-20.0		c	
WP347	CR 347	75 (515)	30 (205)	35	.08	2.0	0.45	.030	1.00	9.0-13.0	17.0-20.0			a
WP347H	CR 347H	75 (515)	30 (205)	35	.04-.10	2.0	0.45	.030	1.00	9.0-13.0	17.0-20.0			b

* Maximum values except as indicated.

See appropriate spec. for exact values.

eThe titanium content shall not be less than five times the carbon content and not more than .70 per cent.

aThe columbium plus tantalum content shall not be less than ten times the carbon content and not more than 1.10 per cent.

cThe titanium content shall not be less than four times the carbon content and not more than .70 per cent.

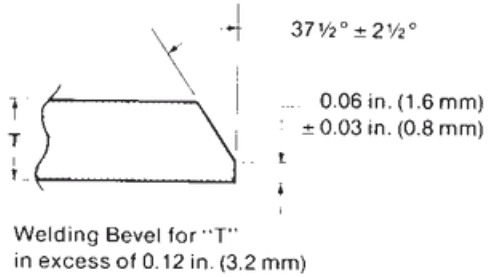
bThe columbium plus tantalum content shall not be less than eight times the carbon content and not more than 1.0 per cent.

dFor small diameter or thin walls or both, where many drawing passes are required, a carbon maximum of .040 per cent is necessary in grades WP304L and WP316L. Small outside diameter tubes are defined as those less than .500 in. (12.7 mm) in outside diameter and light wall tubes as those less than .049 in. (1.24 mm) in average wall thickness (.044 in. (1.12mm) in minimum wall thickness).

For the appropriate grade of stainless steel for use with corrosive liquids and gases at various temperatures and pressures, consult your nearest CCTF office.

CCTF Stainless Steel Welding Fittings also conform with one or more of the following standards:

MSS SP-43 Schedules 5s and 10s only
ASME/ANSI B16.9 Welding Fittings, except short radius
ASME/ANSI B36.19M Stainless Steel Pipe
ASME/ANSI B16.28 Short Radius Elbows and Returns



Welding Bevel for "T" in excess of 0.12 in. (3.2 mm)

WELDING BEVELMSS SP-43

Fittings furnished to this standard may be finished with ends cut square for wall thicknesses 0.12in. (3.2 mm) or less. For wall thicknesses in excess of 0.12 in. (3.2 mm), they shall be beveled at 37 1/2˚ plus or minus 2 1/2˚; with root face (land) 0.06 in. (1.6 mm) plus or minus 0.03 in. (0.8 mm).

MATERIALAND MANUFACTURING SPECIFICATIONS

The International System (SI) metric equivalent of British units are shown throughout this catalogue.

NPS (Nominal Pipe Size)	=	DN*, (Nominal Diameter)
Operating Pressure Class	=	PN*, (Pressure Number)
1 inch	=	25.4 millimetres
1 pound, weight	=	0.4536 kilograms
1 pound, pressure	=	0.06895 bars

* From the SI designations, Diamètre Nominal and Pression Nominale

(1) Dimensional Tolerances MSS SP-43

	All Fittings		90° & 45° Elbows, Tees, Crosses	Reducers, Lap-Joint Stub Ends	Caps	(2) Lap-Joint Stub Ends	
NPS / DN	Outside Dia. at Welding End	Wall Thickness	Centre to End A, B, C, M	Overall Length F, H,	Overall Length E	Fillet Radius of Lap R	Outside Diameter of Lap G
1/2 - 1 1/2	±0.3	Not less than 87 1/2% of nominal thickness	±.06	±.06	±.12	+0 -.03	+0 -.03
15 - 40	±1		±2	±2	±4	+0 -1	+0 -1
2 - 3 1/2	±.03		±.06	±.06	±.12	+0 -.03	+0 -.03
50 - 90	±1		±2	±2	±4	+0 -1	+0 -1
4	±.03		±.06	±.06	±.12	+0 -.06	+0 -0.3
100	±1		±2	±2	±4	+0 -2	+0 -1
5 - 8	±.06 -.03		±.06	±.06	±.25	+0 -.06	+0 -.03
125 - 200	+2 -1		±2	±2	±7	+0 -2	+0 -1
10 - 18	+.09 -.03		±.09	±.09	±.25	+0 -.06	+0 -.06
250 - 450	+2 -1		±3	±3	±7	+0 -2	+0 -2
20 - 24	+.12 -.03		±.09	±.09	±.25	+0 -.06	+0 -.06
500 - 600	+3 -1		±3	±3	±7	+0 -2	+0 -2

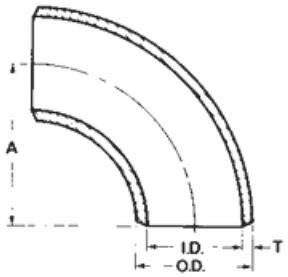
(1) The tolerances in this table are based on those of the MSS SP-43 standard. The tolerances specified by ASME/ANSI B16.9 differ slightly. For precise information on the relevant specifications should be refeerred to.

(2) Refer to page 15.

INCHES
MILLIMETRES

90˚ ELBOW
LONG RADIUS

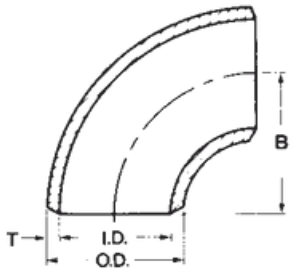
Schedules 5S, 10S, 40S, 80S
MSS SP-43
ASME/ANSI B16.9



			MSS SP-43						ANSI B16.9					
			Schedule 5S			Schedule 10S			Schedule 5S			Schedule 10S		
NPS / DN	Outside Diameter O.D.	Center To End A	Inside Diameter I.D.	Wall Thickness T	Approx. WT.	Inside Diameter I.D.	Wall Thickness T	Approx. WT.	Inside Diameter I.D.	Wall Thickness T	Approx. WT.	Inside Diameter I.D.	Wall Thickness T	Approx. WT.
1/2	.84	1.50	.710	.065	.10	.674	.083	.13	.622	.109	.18	.546	.147	.25
15	21	38	18.00	1.65	.05	17.10	2.10	.06	15.80	2.75	.08	13.90	3.75	.11
3/4	1.05	*1.12	.920	.065	.12	.884	.083	.16	.824	.113	.19	.742	.154	.25
20	27	*29	23.35	1.65	.05	22.45	2.10	.07	20.95	2.85	.09	18.85	3.90	.11
1	1.32	1.50	1.185	.065	.22	1.097	.109	.38	1.049	.133	.40	.957	.179	.50
25	33	38	30.10	1.65	.1	27.85	2.75	.17	26.65	3.40	.18	24.30	4.55	.23
1 1/4	1.66	1.88	1.530	0.65	.29	1.442	.109	.50	1.380	.140	.60	1.278	.191	.90
32	42	48	38.85	1.65	.13	36.65	2.75	.23	35.05	3.55	.27	32.45	4.85	.4
1 1/2	1.90	2.25	1.770	.065	.44	1.682	.109	.75	1.610	.145	.90	1.500	.200	1.15
40	48	57	44.95	1.65	.2	42.70	2.75	.34	40.90	3.70	.4	38.10	5.10	.5
2	2.38	3.00	2.245	.065	.66	2.157	.109	1.1	2.067	.154	1.60	1.939	.218	2.2
50	60	76	57.00	1.65	.3	54.80	2.75	.5	52.50	3.90	.7	49.25	5.55	1
2 1/2	2.88	3.75	2.709	.083	1.24	2.635	.120	.8	2.469	.203	3.25	2.323	.276	4
65	73	95	68.80	2.10	.56	66.95	3.05	1.8	62.70	5.15	1.5	59.00	7.00	1.8
3	3.50	4.50	3.334	.083	1.73	3.260	.120	2.5	3.068	.216	5.0	2.900	.300	6.5
80	89	114	84.70	2.10	.8	82.80	3.05	1.1	77.95	5.50	2.3	73.65	7.60	3
3 1/2	4.00	5.25	3.834	.083	2.35	3.760	.120	3.4	3.548	.226	6.75	3.364	.318	8.4
90	102	133	97.40	2.10	1.1	95.50	3.05	1.5	90.10	5.75	3	85.45	8.10	3.8
4	4.50	6.00	4.334	.083	2.97	4.260	.120	4.3	4.026	.237	9	3.826	.337	13.5
100	114	152	110.10	2.10	1.3	108.20	3.05	1.9	102.25	6.00	4	97.20	8.55	6.1
5	5.56	7.50	5.345	.109	6.01	5.295	.134	7.4	5.047	.258	15.5	4.813	.375	22
125	141	190	135.75	2.75	2.7	134.50	3.40	3.3	128.20	6.55	7	122.25	9.55	10
6	6.62	9.00	6.407	.109	8.94	6.357	.134	11	6.065	.280	24.5	5.761	.432	35
150	168	229	162.75	2.75	4	161.50	3.40	5	154.05	7.10	11	146.35	10.95	15.8
8	8.62	12.00	8.407	.109	15.4	8.329	.148	21	7.981	.322	50	7.625	.500	71
200	219	305	213.55	2.75	6.9	211.55	3.75	9.5	202.70	8.20	22	193.70	12.70	32
10	10.75	15.00	10.482	.134	29.2	10.420	.165	36	10.020	.365	88	9.75	.500	107
250	273	381	266.25	3.40	13.1	264.70	4.20	16	254.5	9.25	40	247.65	12.70	48
12	12.75	18.00	12.420	.156	51.2	12.390	.180	57	12.000	.375	125	11.75	.500	160
300	324	457	315.45	3.95	23	314.70	4.55	26	304.80	9.55	56	298.45	12.70	72

*Centre to end dimension Afor NPS 3/4 (DN 20) may be 1.50 (38mm) at the manufacturer's option.

INCHES	POUNDS
MILLIMETRES	KILOGRAMS



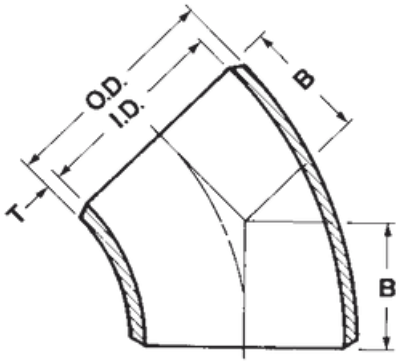
90˚ ELBOW
LONG RADIUS
Schedules 5S, 10S, 40S, 80S
ASME/ANSI B16.28

			Schedule 5S			Schedule 10S			Schedule 40S			Schedule 80S		
NPS DN	Outside Diameter O.D.	Center To End B	Inside Diameter I.D.	Wall Thickness T	Approx. WT.	Inside Diameter I.D.	Wall Thickness T	Approx. WT.	Inside Diameter I.D.	Wall Thickness T	Approx. WT.	Inside Diameter I.D.	Wall Thickness T	Approx. WT.
1	1.32	1.00	1.185	.065	.12	1.097	.109	.23	1.049	.133	.25	.957	.179	.41
25	33	25	30.10	1.65	.05	27.85	2.75	.1	26.65	3.40	.11	24.30	4.55	.18
1 1/4	1.66	1.25	1.530	.065	.25	1.442	.109	.38	1.380	.140	.40	1.278	.191	.63
32	42	32	38.85	1.65	.11	36.65	2.75	.17	35.05	3.55	.18	32.45	4.85	.28
1 1/2	1.90	1.50	1.770	.065	.42	1.682	.109	.49	1.610	.145	.56	1.500	.200	.75
40	48	38	44.95	1.65	.19	42.70	2.75	.22	40.90	3.70	.25	38.10	5.10	.34
2	2.38	2.00	2.245	.065	.63	2.157	.109	.81	2.067	.154	1	1.939	.218	1.5
50	60	51	57.00	1.65	.28	54.80	2.75	.36	52.50	3.90	.45	49.25	5.55	.68
2 1/2	2.88	2.50	2.709	.083	1.22	2.635	.120	1.36	2.469	.203	2.13	2.323	.276	2.8
65	73	64	68.80	2.10	.55	66.95	3.05	.6	62.70	5.15	.96	59.00	7.00	1.3
3	3.50	3.00	3.334	.083	1.7	3.260	.120	2.17	3.068	.216	3	2.900	.300	4.25
80	89	76	84.70	2.10	.8	82.80	3.05	1.0	77.95	5.50	1.4	73.65	7.60	1.9
3 1/2	4.00	3.50	3.834	.083	2.3	3.760	.120	3.03	3.548	.226	4.5	3.364	.318	6
90	102	89	97.40	2.10	1.0	95.50	3.05	1.4	90.10	5.75	2	85.45	8.10	2.7
4	4.50	4.00	4.334	.083	2.95	4.260	.120	3.8	4.026	.237	6.25	3.826	.337	8.5
100	114	102	100.10	2.10	1.3	108.20	3.05	1.7	102.25	6.00	2.8	97.20	8.55	3.8
5	5.56	5.00	5.345	.109	4.24	5.295	.134	5.19	5.047	.258	9.6	4.813	.375	14
125	141	127	135.75	2.75	1.9	134.50	3.40	2.3	128.20	6.55	4.3	122.25	9.55	6.3
6	6.62	6.00	6.407	.109	6.09	6.357	.134	7.45	6.065	.280	18	5.761	.432	23
150	168	152	162.75	2.75	2.7	161.50	3.40	3.4	154.05	7.10	8.1	146.35	10.95	10.4

INCHES	POUNDS
MILLIMETRES	KILOGRAMS

45˚ ELBOW
LONG RADIUS

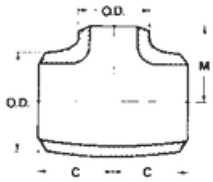
Schedules 5S, 10S, 40S, 80S
MSS SP-43
ASME/ANSI B16.9

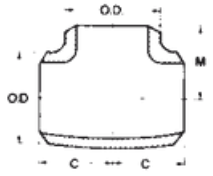


			MSS SP-43						ANSI B16.9					
			Schedule 5S			Schedule 10S			Schedule 40S			Schedule 80S		
NPS DN	Outside Diameter O.D.	Center To End B	Inside Diameter I.D.	Wall Thickness T	Approx. WT.	Inside Diameter I.D.	Wall Thickness T	Approx. WT.	Inside Diameter I.D.	Wall Thickness T	Approx. WT.	Inside Diameter I.D.	Wall Thickness T	Approx. WT.
1/2	.84	.62	.710	.065	.05	.674	.083	.06	.622	.109	.09	.546	.147	.19
15	21	16	18.00	1.65	.02	17.10	2.10	.03	15.80	2.75	.04	13.90	3.75	.09
3/4	1.05	*.44	.920	.065	.06	.884	.083	.08	.824	.113	.09	.742	.154	.19
20	27	*11	23.35	1.65	.03	22.45	2.10	.04	20.95	2.84	.04	18.85	3.90	.09
1	1.32	.88	1.185	.065	.14	1.097	.109	.25	1.049	.133	.25	.957	.179	.31
25	33	22	30.10	1.65	.06	27.85	2.75	.11	26.65	3.40	.11	24.30	4.55	.14
1 1/4	1.66	1.00	1.530	.065	.19	1.442	.109	.33	1.380	.140	.38	1.278	.191	.50
32	42	25	38.85	1.65	.09	36.65	2.75	.15	35.05	3.55	.17	32.45	4.85	.23
1 1/2	1.90	1.12	1.770	.065	.28	1.682	.109	.47	1.610	.145	.40	1.500	.200	.69
40	48	29	44.95	1.65	.13	42.70	2.75	.21	40.90	3.70	.18	38.10	5.10	.31
2	2.38	1.38	2.245	.065	.35	2.157	.109	.60	2.067	.154	.81	1.939	.218	1.19
50	60	35	57.00	1.65	.16	54.80	2.75	.27	52.50	3.90	.36	49.25	5.55	.54
2 1/2	2.88	1.75	2.709	.083	.69	2.635	.120	1.0	2.469	.203	1.75	2.323	.276	2.13
65	73	44	68.80	2.10	.31	66.95	3.05	.45	62.70	5.15	.8	59.00	7.00	.96
3	3.50	2.00	3.334	.083	.89	3.260	.120	1.3	3.068	.216	2.63	2.900	.300	3.5
80	89	51	84.70	2.10	.4	82.80	3.05	.6	77.95	5.50	1.2	73.65	7.60	1.6
3 1/2	4.00	2.25	3.834	.083	1.17	3.760	.120	1.7	3.548	.226	3.5	3.364	.318	4.5
90	102	57	97.40	2.10	.53	95.50	3.05	.77	90.10	5.75	1.6	85.45	8.10	2
4	4.50	2.50	4.334	.083	1.52	4.260	.120	2.2	4.026	.237	4.5	3.826	.337	6.1
100	114	64	110.10	2.10	.68	108.20	3.05	1	102.25	6.00	2	97.20	8.55	2.8
5	5.56	3.12	5.345	.109	3.09	5.295	.134	3.8	5.047	.258	7.5	4.813	.375	10.7
125	141	79	135.75	2.75	1.4	134.50	3.40	1.7	128.20	6.55	3.4	122.25	9.55	4.8
6	6.62	3.75	6.407	.109	4.5	6.357	.134	5.5	6.065	.280	12	5.761	.432	17.5
150	168	95	162.75	2.75	2	161.50	3.40	2.5	154.05	7.10	5.4	146.35	10.95	7.9
8	8.62	5.00	8.407	.109	8.1	8.329	.148	11	7.981	.322	23	7.625	.500	35
200	219	127	213.55	2.75	3.7	211.55	3.75	5	202.70	8.20	10.4	193.70	12.70	15.8
10	10.75	6.25	10.482	.134	14.6	10.420	.165	18	10.020	.365	43	9.75	.500	53
250	273	159	266.25	3.40	6.6	264.70	4.20	8	254.50	9.25	19.4	247.65	12.70	23.9
12	12.75	7.50	12.420	.156	25.5	12.390	.180	29	12.000	.375	62	11.75	.500	84
300	324	190	315.45	3.95	11.5	314.70	4.55	13	304.80	9.55	28	298.45	12.70	38

*Centre to end dimension B for NPS 3/4 (DN 20) may be 0.75 (19mm) at the manufacturer's option.

INCHES	POUNDS
MILLIMETRES	KILOGRAMS





STRAIGHT & REDUCING TEES

Schedules 5S, 10S, 40S, 80S
MSS SP-43
ASME/ANSI B.16.9

NPS / DN	O.D. Outside Dia. Run	O.D. Outside Dia. Outlet	Centre to End C	Centre to End M	Approximate Weight MSS SP-43 SCH. 5S	Approximate Weight MSS SP-43 SCH. 10S	Approximate Weight ANSI B16.9 SCH. 40S	Approximate Weight ANSI B16.9 SCH. 80S
1/2 straight	.84	.84	1.00	1.00	.18	.20	.35	.45
15 straight	21	21	25	25	.08	.09	.16	.2
3/4 x 3/4 x 1/2	1.05	.84	1.12	1.12	.25	.28	.5	.5
20 x 20 x 15	27	21	29	29	.11	.13	.23	.23
3/4 straight	1.05	1.05	1.12	1.12	.21	.28	.45	.6
20 straight	27	27	29	29	.09	.13	.20	.27
1 x 1 x 1/2	1.32	.84	1.50	1.50	.43	.56	.88	1
25 x 25 x 15	33	21	38	38	.19	.25	.40	.45
1 x 1 x 3/4	1.32	1.05	1.50	1.50	.46	.60	.93	1
25 x 25 x 20	33	27	38	38	.21	.27	.42	.45
1 straight	1.32	1.32	1.50	1.50	.35	.60	.75	.88
25 straight	33	33	38	38	.16	.27	.34	.40
1 1/4 x 1 1/4 x 1/2	1.66	.84	1.88	1.88	.65	1.06	1.5	1.75
32 x 32 x 15	42	21	48	48	.29	.48	.68	.79
1 1/4 x 1 1/4 x 3/4	1.66	1.05	1.88	1.88	.67	1.1	1.5	1.75
32 x 32 x 20	42	27	48	48	.30	.50	.68	.79
1 1/4 x 1 1/4 x 1	1.66	1.32	1.88	1.88	.69	1.15	1.5	1.75
32 x 32 x 25	42	33	48	48	.31	.52	.68	.79
1 1/4 straight	1.66	1.66	1.88	1.88	.65	1.1	1.3	1.6
32 straight	42	42	48	48	.29	.50	.59	.72
1 1/2 x 1 1/2 x 1/2	1.90	.84	2.25	2.25	.79	1.33	2	2.5
40 x 40 x 15	48	21	57	57	.36	.60	.9	1.1
1 1/2 x 1 1/2 x 3/4	1.90	1.05	2.25	2.25	.84	1.41	2.13	2.5
40 x 40 x 20	48	27	57	57	.38	.63	.96	1.1
1 1/2 x 1 1/2 x 1	1.90	1.32	2.25	2.25	.86	1.45	2.18	2.5
40 x 40 x 25	48	33	57	57	.39	.65	.98	1.1
1 1/2 x 1 1/2 x 1 1/4	1.90	1.66	2.25	2.25	.89	1.50	2.25	2.5
40 x 40 x 32	48	42	57	57	.40	.68	1.0	1.1
1 1/2 straight	1.90	1.90	2.25	2.25	.89	1.5	2	2.25
40 straight	48	48	57	57	.40	.68	.9	1.0
2 x 2 x 3/4	2.38	1.05	2.50	1.75	.93	1.37	3.25	4
50 x 50 x 20	60	27	64	44	.42	.62	1.46	1.8
2 x 2 x 1	2.38	1.32	2.50	2.00	1.0	1.67	3.50	4.1
50 x 50 x 25	60	33	64	51	.45	.75	1.58	1.9

Continued on page 10…
For wall thicknesses, refer to page 16.

INCHES	POUNDS
MILLIMETRES	KILOGRAMS

STRAIGHT & REDUCING TEES continued

NPS / DN	Outside Dia. Run	Outside Dia. Outlet	Centre to End C	Centre to End M	Approximate Weight MSS SP-43 SCH. 5S	Approximate Weight MSS SP-43 SCH. 10S	Approximate Weight ANSI B16.9 SCH. 40S	Approximate Weight ANSI B16.9 SCH. 80S
2 x 2 x 1 1/4	2.38	1.66	2.50	2.25	1.02	1.72	3.6	4.13
50 x 50 x 32	60	42	64	57	.5	.8	1.6	1.9
2 x 2 x 1 1/2	2.38	1.90	2.50	2.38	1.07	1.8	3.75	4.25
50 x 50 x 40	60	48	64	60	.5	.8	1.7	1.9
2 straight	2.38	2.38	2.50	2.50	1.07	1.8	3.5	4
50 straight	60	60	64	64	.5	.8	1.6	1.8
2 1/2 x 2 1/2 x 1	2.88	1.32	3.00	2.25	1.48	2.49	5	7
65 x 65 x 25	73	33	76	57	.7	1.1	2.3	3.2
2 1/2 x 2 1/2 x 1 1/4	2.88	1.66	3.00	2.50	1.55	2.62	5.25	7.06
65 x 65 x 32	73	42	76	64	.7	1.2	2.4	3.2
2 1/2 x 2 1/2 x 1 1/2	2.88	1.90	3.00	2.62	1.63	2.74	5.5	7.13
65 x 65 x 40	73	48	76	67	.7	1.2	2.5	3.2
2 1/2 x 2 1/2 x 2	2.88	2.38	3.00	2.75	1.78	3	6	7.19
65 x 65 x 50	73	60	76	70	.8	1.4	2.7	3.2
2 1/2 straight	2.88	2.88	3.00	3.00	2.07	3	6	7
65 straight	73	73	76	76	.9	1.4	2.7	3.2
3 x 3 x 1 1/4	3.50	1.66	3.38	2.75	2.47	3.61	6.25	7.6
80 x 80 x 32	89	42	86	70	1.1	1.6	2.8	3.4
3 x 3 x 1 1/2	3.50	1.90	3.38	2.88	2.47	3.65	6.25	7.68
80 x 80 x 40	89	48	86	73	1.1	1.6	2.8	3.5
3 x 3 x 2	3.50	2.38	3.38	3.00	2.57	3.75	6.5	8
80 x 80 x 50	89	60	86	76	1.2	1.7	2.9	3.6
3 x 3 x 2 1/2	3.50	2.88	3.38	3.25	2.69	3.9	6.75	8.25
80 x 80 x 65	89	73	86	83	1.2	1.8	3	3.7
3 straight	3.50	3.50	3.38	3.38	2.69	3.9	7	8.5
80 straight	89	89	86	86	1.2	1.8	3.2	3.8
3 1/2 x 3 1/2 x 1 1/2	4.00	1.90	3.75	3.12	3.08	4.2	8	11.5
90 x 90 x 40	102	48	95	79	1.4	1.9	3.6	5.2
3 1/2 x 3 1/2 x 2	4.00	2.38	3.75	3.25	3.19	4.49	8.3	11.8
90 x 90 x 50	102	60	95	83	1.4	2	3.7	5.3
3 1/2 x 3 1/2 x 2 1/2	4.00	2.88	3.75	3.50	3.26	4.73	8.5	12.2
90 x 90 x 65	102	73	95	89	1.5	2.1	3.8	5.5
3 1/2 x 3 1/2 x 3	4.00	3.50	3.75	3.62	3.38	4.9	8.8	12.6
90 x 90 x 80	102	89	95	92	1.5	2.2	4	5.7
3 1/2 straight	4.00	4.00	3.75	3.75	3.38	4.9	9	12
90 straight	102	102	95	95	1.5	2.2	4	5.4
4 x 4 x 1 1/2	4.50	1.90	4.12	3.38	3.7	5.38	11.1	15.2
100 x 100 x 40	114	48	105	86	1.7	2.4	5	6.8
4 x 4 x 2	4.50	2.38	4.12	3.50	3.75	5.43	11.2	15.5
100 x 100 x 50	114	60	105	89	1.7	2.4	5	7
4 x 4 x 2 1/2	4.50	2.88	4.12	3.75	3.77	5.45	11.3	15.5
100 x 100 x 65	114	73	105	95	1.7	2.5	5.1	7
4 x 4 x 3	4.50	3.50	4.12	3.88	3.88	5.6	11.6	15.6
100 x 100 x 80	114	89	105	98	1.8	2.5	5.2	7
4 x 4 x 3 1/2	4.50	4.00	4.12	4.00	3.94	5.7	11.8	15.6
100 x 100 x 90	114	102	105	102	1.8	2.6	5.3	7
4 straight	4.50	4.50	4.12	4.12	3.94	5.7	12	15.7
100 straight	114	114	105	105	1.8	2.6	5.4	7.1

Continued on page 11…
For wall thicknesses, refer to page 16.

INCHES	POUNDS
MILLIMETRES	KILOGRAMS

STRAIGHT & REDUCING TEES continued

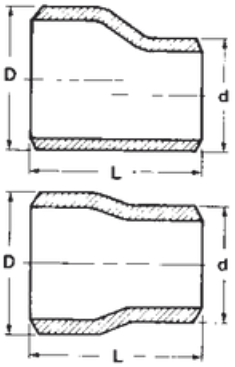
NPS / DN	Outside Dia. Run	Outside Dia. Outlet	Centre to End		Approximate Weight			
					MSS SP-43		ANSI B16.9	
			C	M	SCH. 5S	SCH. 10S	SCH. 40S	SCH. 80S
5 x 5 x 2	5.56	2.38	4.88	4.12	7.52	10.8	19	23.5
125 x 125 x 50	141	60	124	105	3.4	4.9	8.6	10.6
5 x 5 x 2 1/2	5.56	2.88	4.88	4.25	7.7	11.1	19.5	24
125 x 125 x 65	141	73	124	108	3.5	5	8.8	10.8
5 x 5 x 3	5.56	3.50	4.88	4.38	7.91	11.4	20	24.5
125 x 125 x 80	141	89	124	111	3.6	5.1	9	11
5 x 5 x 3 1/2	5.56	4.00	4.88	4.50	8.1	11.7	20.5	25
125 x 125 x 90	141	102	124	114	3.7	5.3	9.2	11.3
5 x 5 x 4	5.56	4.50	4.88	4.62	8.29	12	21	25.5
125 x 125 x 100	141	114	124	117	3.7	5.4	9.5	11.5
5 straight	5.56	5.56	4.88	4.88	9.76	12	21	26
125 straight	141	141	124	124	4.4	5.4	9.5	11.7
6 x 6 x 2 1/2	6.62	2.88	5.62	4.75	12.7	15.7	32	36
150 x 150 x 65	168	73	143	121	5.7	7.1	14.4	16.2
6 x 6 x 3	6.62	3.50	5.62	4.88	12.9	16	32.5	37
150 x 150 x 80	168	89	143	124	5.8	7.2	14.6	16.7
6 x 6 x 3 1/2	6.62	4.00	5.62	5.00	13.1	16.2	33	38.2
150 x 150 x 90	168	102	143	127	5.9	7.3	14.9	17.2
6 x 6 x 4	6.62	4.50	5.62	5.12	13.3	16.5	33.5	39.2
150 x 150 x 100	168	114	143	130	6	7.4	15	17.6
6 x 6 x 5	6.62	5.56	5.62	5.38	13.8	17	34.5	40
150 x 150 x 125	168	141	143	137	6.2	7.7	15.5	18
6 straight	6.62	6.62	5.62	5.62	13.8	17	34	40
150 straight	168	168	143	143	6.2	7.7	15.3	18
8 x 8 x 3 1/2	8.62	4.00	7.00	6.00	19	23.4	50.7	70.5
200 x 200 x 90	219	102	178	152	8.6	10.5	22.8	31.7
8 x 8 x 4	8.62	4.50	7.00	6.12	19.4	23.9	51.7	71.7
200 x 200 x 100	219	114	178	156	8.7	10.8	23.3	32.3
8 x 8 x 5	8.62	5.56	7.00	6.38	19.9	24.5	53	73
200 x 200 x 125	219	141	178	162	9	11	23.9	32.9
8 x 8 x 6	8.62	6.62	7.00	6.62	20.3	25	54	74
200 x 200 x 150	219	168	178	168	9.1	11.3	24.3	33.3
8 straight	8.62	8.62	7.00	7.00	18.4	25	55	75
200 straight	219	219	178	178	8.3	11.3	24.8	33.8
10 x 10 x 6	10.75	6.62	8.50	7.62	26.7	36.3	83	108
250 x 250 x 150	273	168	216	194	12	16.3	37.4	48.6
10 x 10 x 8	10.75	8.62	8.50	8.00	27.2	37	84.5	109
250 x 250 x 200	273	219	216	203	12.2	16.7	38	49
10 straight	10.75	10.75	8.50	8.50	30	37	85	105
250 straight	273	273	216	216	14	16.7	38.3	47.3
12 x 12 x 6	12.75	6.62	10.00	8.62	39.6	51.7	114	165
300 x 300 x 150	324	168	254	219	17.8	23.3	51	74.3
12 x 12 x 8	12.75	8.62	10.00	9.00	40.6	53	117	175
300 x 300 x 250	324	273	254	241	18.6	24.3	53.6	83.3
12 x 12 x 10	12.75	10.75	10.00	9.50	41.4	54	119	185
300 x 300 x 250	324	273	254	241	18.6	24.3	53.6	83.3
12 straight	12.75	12.75	10.00	10.00	46.7	54	120	160
300 straight	324	324	254	254	21	24.3	54	72

For wall thicknesses, refer to page 16.

INCHES	POUNDS
MILLIMETRES	KILOGRAMS

REDUCERS CONCENTRIC & ECCENTRIC

Schedules 5S, 10S, 40S, 80S
ASME/ANSI B16.9
MSS SP-43



NPS / DN	Length L	Outside Diameter		Approximate Weight			
				MSS SP-43		ANSI B16.9	
		Large End D	Small End d	SCH. 5S	SCH. 10S	SCH. 40S	SCH. 80S
3/4 x 1/2	1.5	1.05	.84	.1	/16	.17	.22
20 x 15	38	27	21	.05	.07	.08	.1
1 x 1/2	2	1.32	.84	.2	.37	.40	.45
25 x 15	51	33	21	.09	.17	.18	.2
1 x 3/4	2	1.32	1.05	.21	.38	.40	.45
25 x 20	51	33	27	.09	.17	.18	.2
1 1/4 x 1/2	2	1.66	.84	.23	.39	.40	.50
32 x 15	51	42	21	.1	.18	.18	.23
1 1/4 x 3/4	2	1.66	1.05	.24	.42	.40	.50
32 x 20	51	42	27	.11	.19	.18	.23
1 1/4 x 1	2	1.66	1.32	.25	.44	.50	.50
32 x 25	51	42	33	.11	.2	.23	.23
1 1/2 x 1/2	2.5	1.90	.84	.24	.49	.50	.65
40 x 15	64	48	21	.11	.22	.23	.3
1 1/2 x 3/4	2.5	1.90	1.05	.26	.53	.54	.70
40 x 20	64	48	27	.12	.24	.24	.32
1 1/2 x 1	2.5	1.90	1.32	.28	.56	.62	.75
40 x 25	64	48	33	.13	.25	.28	.34
1 1/2 x 1 1/4	2.5	1.90	1.66	.32	.59	.70	.78
40 x 32	64	48	42	.14	.27	.32	.35
2 x 3/4	3	2.38	1.05	.29	.71	.70	1.0
50 x 20	76	60	27	.13	.32	.32	.45
2 x 1	3	2.38	1.32	.32	.78	.76	1.1
50 x 25	76	60	33	.14	.35	.34	.5
2 x 1 1/4	3	2.38	1.66	.36	.82	.84	1.15
50 x 32	76	60	42	.16	.37	.38	.62
2 x 1 1/2	3	2.38	1.90	.38	.85	.90	1.2
50 x 40	76	60	48	.17	.38	.41	.54
2 1/2 x 1	3.5	2.88	1.32	.51	1.04	1.25	1.75
65 x 25	89	73	33	.23	.47	.56	.79
2 1/2 x 1 1/4	3.5	2.88	1.66	.54	1.09	1.25	1.85
65 x 32	89	73	42	.24	.49	.56	.83
2 1/2 x 1 1/2	3.5	2.88	1.90	.57	1.12	1.38	1.9
65 x 40	89	73	48	.26	.5	.62	.86
2 1/2 x 2	3.5	2.88	2.38	.62	1.18	1.50	2
65 x 50	89	73	60	.28	.53	.68	.9
3 x 1 1/4	3.5	3.50	1.66	.62	1.33	1.6	2.4
80 x 32	89	89	42	.28	.62	.72	1.1
3 x 1 1/2	3.5	3.50	1.90	.66	1.39	1.7	2.5
80 x 40	89	89	48	.3	.63	.77	1.13
3 x 2	3.5	3.50	2.38	.69	1.45	1.8	2.6
80 x 50	89	89	60	.31	.29	.8	1.17
3 x 2 1/2	3.5	3.50	2.88	.76	1.53	2	2.75
80 x 65	89	89	73	.34	.69	.9	1.24
3 1/2 x 1 1/2	4.0	4.00	1.90	.94	1.73	2.5	3.25
90 x 40	102	102	48	.42	.78	1.13	1.46

Continued on page 13…

For wall thicknesses and inside diameters refer to page 16.

INCHES	POUNDS
MILLIMETRES	KILOGRAMS

REDUCERS CONCENTRIC & ECCENTRIC continued

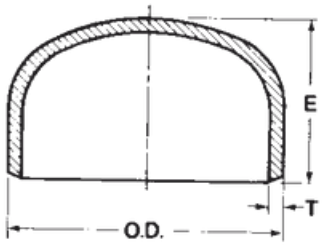
NPS / DN	Length L	Outside Diameter		Approximate Weight			
		Large End D	Small End d	MSS SP-43		ANSI B16.9	
				SCH. 5S	SCH. 10S	SCH. 40S	SCH. 80S
3 1/2 x 2	4.0	4.00	2.38	1.04	1.86	2.75	3.5
90 x 50	102	102	60	.47	.84	1.24	1.6
3 1/2 x 2 1/2	4.0	4.00	2.88	1.09	1.96	2.88	3.5
90 x 65	102	102	73	.49	.88	1.3	1.6
3 1/2 x 3	4.0	4.00	3.50	1.19	2.12	3.15	4
90 x 80	102	102	89	.54	.95	1.42	1.8
4 x 1 1/2	4.0	4.50	1.90	1.02	2.06	2.88	4
100 x 40	102	114	48	.46	.93	1.3	1.8
4 x 2	4.0	4.50	2.38	1.05	2.16	3	4.25
100 x 50	102	114	60	.47	.97	1.35	1.9
4 x 2 1/2	4.0	4.50	2.88	1.15	2.22	3.25	4.38
100 x 65	102	114	73	.52	1.0	1.46	2
4 x 3	4.0	4.50	3.50	1.19	2.28	3.38	4.5
100 x 80	102	114	89	.54	1.03	1.52	2
4 x 3 1/2	4.0	4.50	4.00	1.23	2.41	3.5	4.75
100 x 90	102	114	102	.55	1.08	1.58	2.14
5 x 2	5.0	5.56	2.38	2.12	3.35	5	6.5
125 x 50	127	141	60	.95	1.5	2.3	2.9
5 x 2 1/2	5.0	5.56	2.88	2.22	3.64	5.25	7
125 x 65	127	141	73	1.0	1.64	2.36	3.15
5 x 3	5.0	5.56	3.50	2.33	3.90	5.5	7.5
125 x 80	127	141	89	1.05	1.76	2.48	3.38
5 x 3 1/2	5.0	5.56	4.00	2.44	4.03	5.75	7.75
125 x 90	127	141	102	1.1	1.8	2.59	3.5
5 x 4	5.0	5.56	4.50	2.54	4.29	6	8.25
125 x 100	127	141	114	1.14	1.93	2.7	3.7
6 x 2 1/2	5.5	6.62	2.88	2.83	4.79	7.25	10
150 x 65	140	168	73	1.27	2.16	3.26	4.5
6 x 3	5.5	6.62	3.50	3.12	5.04	8	10.5
150 x 80	140	168	89	1.4	2.27	3.6	4.7
6 x 3 1/2	5.5	6.62	4.00	3.22	5.28	8.25	11
150 x 90	140	168	102	1.45	2.38	3.7	5
6 x 4	5.5	6.62	4.50	3.27	5.52	8.25	11.5
150 x 100	140	168	114	1.47	2.48	3.7	5.2
6 x 5	5.5	6.62	5.56	3.31	5.76	8.5	12
150 x 125	140	168	141	1.5	2.59	3.8	5.4
8 x 3 1/2	6.0	8.62	4.00	3.8	6.9	11	16.5
200 x 90	140	219	102	1.7	3.1	5	7.4
8 x 4	6.0	8.62	4.50	3.95	7.1	11	17
200 x 100	152	219	114	1.78	3.2	5	7.65
8 x 5	6.0	8.62	5.56	4.06	7.51	12	18
200 x 125	152	219	141	1.83	3.38	5.4	8
8 x 6	6.0	8.62	6.62	4.46	7.8	13.2	18.7
200 x 150	152	219	168	2	3.5	5.9	8.4
10 x 4	7.0	10.75	4.50	7.34	10.5	20	25.5
250 x 100	178	273	114	3.3	4.7	9	11.5
10 x 5	7.0	10.75	5.56	7.71	12.6	21	28
250 x 125	178	273	141	3.5	5.7	9.5	12.6
10 x 6	7.0	10.75	6.62	7.89	13.3	21.5	29.5
250 x 150	178	273	168	3.55	6.0	9.7	13.3
10 x 8	7.0	10.75	8.62	8.08	14	22	29.5
250 x 200	178	273	219	3.64	6.3	9.9	13.3
12 x 5	8.0	12.75	5.56	12.9	18.7	30	39
300 x 125	203	324	141	5.8	8.4	13.5	17.6
12 x 6	8.0	12.75	6.62	12.9	19.2	31	40
300 x 150	203	324	168	5.8	8.6	14	18
12 x 8	8.0	12.75	8.62	13.4	20.4	32	42
300 x 200	203	324	219	6.03	9.2	14.4	19
12 x 10	8.0	12.75	10.75	14.1	20.9	34	43.5
300 x 250	203	324	273	6.35	9.4	15.3	19.6

For wall thicknesses and inside diameters refer to page 16.

INCHES	POUNDS
MILLIMETRES	KILOGRAMS

CAPS ▲

Schedules 5S, 10S, 40S, 80S
MSS SP-43
ASME/ANSI B16.9



NPS / DN	Outside Diameter O.D.	Length E	MSS SP-43 Schedule 5S Wall Thickness T	MSS SP-43 Schedule 5S Approx. WT.	MSS SP-43 Schedule 10S Wall Thickness T	MSS SP-43 Schedule 10S Approx. WT.	ANSI B16.9 Schedule 40S Wall Thickness T	ANSI B16.9 Schedule 40S Approx. WT.	ANSI B16.9 Schedule 80S Wall Thickness T	ANSI B16.9 Schedule 80S Approx. WT.
1/2	.84	1.00	.065	.08	.083	.09	.109	.10	.147	.11
15	21	25	1.65	.04	2.10	.04	2.75	.05	3.75	.05
3/4	1.05	1.00	.065	.11	.083	.12	.113	.13	.154	.14
20	.27	25	1.65	.05	2.10	.05	2.85	.06	3.90	.06
1	1.32	1.50	.065	.18	.109	.19	.133	.28	.179	.3
25	33	38	1.65	.08	2.75	.09	3.40	.13	4.55	.14
1 1/4	1.66	1.50	.065	.20	.109	.28	.140	.38	.191	.4
32	42	38	1.65	.09	2.75	.13	3.55	.17	4.85	.18
1 1/2	1.90	1.50	.065	.22	.109	.31	.145	.5	.200	.54
40	48	38	1.65	.1	2.75	.14	3.70	.23	5.10	.24
2	2.38	1.50	.065	.36	.109	.38	.154	.6	.218	.75
50	60	38	1.65	.16	2.75	.17	3.90	.27	5.55	.34
2 1/2	2.88	1.50	.083	.50	.120	.56	.203	1.0	.276	1.1
65	75	38	2.10	.23	3.05	.25	5.15	.45	7.00	.5
3	3.50	2.00	.083	.86	.120	.88	.216	1.6	.300	1.9
80	89	51	2.10	.4	3.05	.4	5.50	.72	7.60	.86
3 1/2	4.00	2.50	.083	1.2	.120	1.25	.226	2.3	.318	2.5
90	102	64	2.10	.54	3.05	.56	5.75	1.0	8.10	1.1
4	4.50	2.50	.083	1.25	.120	1.4	.237	2.7	.337	3.5
100	114	64	2.10	.56	3.05	.6	6.00	1.2	8.55	1.6
5	5.56	3.00	.109	2	.134	2.3	.258	4.1	.375	5.6
125	141	76	2.75	.9	3.40	1.0	6.55	1.8	9.55	2.5
6	6.62	3.50	.109	2.75	.134	3	.280	7.1	.432	10
150	168	89	2.75	1.24	3.40	1.4	7.10	3.2	10.95	4.5
8	8.62	4.00	.109	4.5	.148	5.5	.322	12.5	.500	16.4
200	219	102	2.75	2	3.75	2.5	8.20	5.6	12.70	7.4
10	10.75	5.00	.134	9.5	.165	10.8	.365	20.3	.500	27.3
250	273	127	3.40	4.3	4.20	4.9	9.25	9.1	12.70	12.3
12	12.75	6.00	.156	14	.180	14.4	.375	29	.500	37
300	324	152	3.95	6.3	4.55	6.5	9.55	13	12.70	17

*The shape of these caps conform to the requirements as given in the ASME Boiler and Pressure Vessel Code.

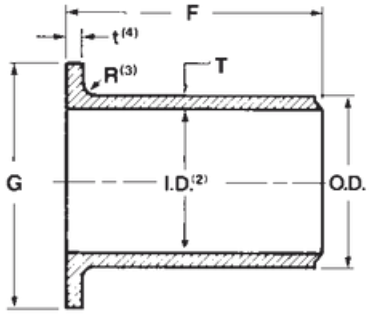
INCHES	POUNDS
MILLIMETRES	KILOGRAMS

LAPJOINTSTUB ENDS

Type A (1)

Schedules 10S & 40S

MSS Length, MSS SP-43
ANSI Length, ASME/ANSI B16.9



NPS / DN	Nominal Outside Diameter O.D.	(5) Lap Diameter G	Fillet Radius R (3)	Schedule 10S			Schedule 40S				
				Wall Thickness T	MSS Length F	MSS Approx. WT.	Wall Thickness T	MSS Length F	MSS Approx. WT.	ANSI Length F	ANSI Approx. WT.
1/2	.84	1.38	0.12	.083	2.00	.17	.109	2.00	.25	3	.30
15	21	35	3	2.11	51	.08	2.75	51	.11	76	.14
3/4	1.05	2.69	0.12	0.83	2.00	.20	.113	2.00	.35	3	.40
20	27	43	3	2.10	51	.09	2.85	51	.16	76	.18
1	1.32	2.00	0.12	.109	2.00	.30	.133	2.00	.40	4	.65
25	33	51	3	2.75	51	.14	3.40	51	.18	102	.29
1 1/4	1.66	2.50	0.19	.109	2.00	.45	.140	2.00	.60	4	.90
32	42	64	5	2.75	51	.2	3.55	51	.27	102	.41
1 1/2	1.90	2.88	0.25	.109	2.00	.55	.145	2.00	.85	4	1.25
40	48	73	6	2.75	51	.25	3.70	51	.38	102	.56
2	2.38	3.62	0.31	.109	2.50	.85	.154	2.50	1.20	6	2.20
50	60	92	8	2.75	64	.38	3.90	64	.5	152	1
2 1/2	2.88	4.12	0.31	.120	2.50	1.05	.203	2.50	1.75	6	3.45
65	73	105	8	3.05	64	.47	5.15	64	.8	152	1.6
3	3.50	5.00	0.38	.120	2.50	1.61	.216	2.50	2.50	6	4.70
80	89	127	10	3.05	64	.72	5.50	64	1.1	152	2.1
3 1/2	4.00	5.50	0.38	.120	3.00	2.07	.226	3.00	3.25	6	5.65
90	102	140	10	3.05	76	.93	5.75	76	1.5	152	2.6
4	4.50	6.19	0.44	.120	3.00	2.52	.237	3.00	4.00	6	6.7
100	114	157	11	3.05	76	1.1	6.00	76	1.8	152	3
5	5.56	7.31	0.44	.134	3.00	3.5	.258	3.00	5.60	8	11.7
125	141	186	11	3.40	76	1.6	6.55	76	2.5	203	5.3
6	6.62	8.50	0.50	.134	3.50	4.8	.280	3.50	8.25	8	15.2
150	168	216	13	3.40	89	2.2	7.10	89	3.7	203	7
8	8.62	10.62	0.50	.148	4.00	7.7	.322	4.00	13.0	8	23.0
200	219	270	13	3.75	102	3.5	8.20	102	5.9	203	10.4
10	10.75	12.75	0.50	.165	5.00	12.1	.365	5.00	23.0	10	40.0
250	273	324	13	4.20	127	5.5	9.25	127	10	254	18
12	12.75	15.00	0.50	.180	6.00	18.0	.375	6.00	33.0	10	49.0
300	324	381	13	4.55	152	8.1	9.55	152	15	254	22

1.Type AStub Ends are used with Lap Joint Flanges.

Type B Stub Ends for use with Slip-on Flanges, available on request.

2. For inside diameter (I.D.) refer to page 16.

3. Nominal and maximum radius.

4. The minimum lap thickness “t” shall not be less than nominal pipe wall thickness T.

5. Nominal and maximum diameter.

For dimensional tolerances, refer to page 5.

INCHES	POUNDS
MILLIMETRES	KILOGRAMS

DIMENSIONS OF WELDED & SEAMLESS STAINLESS STEELPIPE

ASME/ANSI B36.19M

NPS / DN	Outside Diameter All Schedules	Inside Diameter				Nominal Wall Thickness			
		Schedule 5S	Schedule 10S	Schedule 40S	Schedule 80S	Schedule 5S	Schedule 10S	Schedule 40S	Schedule 80S
1/2	.840	.710	.674	.622	.546	.065	.083	.109	.147
15	21.35	18.00	17.10	15.80	13.90	1.65	2.10	2.75	3.75
3/4	1.050	.920	.884	.824	.742	.065	.083	.113	.154
20	26.65	23.35	22.45	20.95	18.85	1.65	2.10	2.85	3.90
1	1.315	1.185	1.097	1.049	.957	.065	.109	.133	.179
25	33.40	30.10	27.85	26.65	24.30	1.65	2.75	3.40	4.55
1 1/4	1.660	1.530	1.442	1.380	1.278	.065	.109	.140	.191
32	42.15	38.85	36.65	35.05	32.45	1.65	2.75	3.55	4.85
1 1/2	1.900	1.770	1.682	1.610	1.500	.065	.109	.145	.200
40	48.25	44.95	42.70	40.90	38.10	1.65	2.75	3.70	5.10
2	2.375	2.245	2.157	2.067	1.939	.065	.109	.154	.218
50	60.35	57.00	54.80	52.50	49.25	1.65	2.75	3.90	5.55
2 1/2	2.875	2.709	2.635	2.469	2.323	.083	.120	.203	.276
65	73.05	68.80	66.95	62.70	59.00	2.10	3.05	5.15	7.00
3	3.500	3.334	3.260	3.068	2.900	.083	.120	.216	.300
80	88.90	84.70	82.80	77.95	73.65	2.10	3.05	5.50	7.60
3 1/2	4.000	3.834	3.760	3.548	3.364	.083	.120	.226	.318
90	101.60	97.40	95.50	90.10	85.45	2.10	3.05	5.75	8.10
4	4.500	4.334	4.260	4.026	3.826	.083	.120	.237	.337
100	114.30	110.10	108.20	102.25	97.20	2.10	3.05	6.00	8.55
5	5.563	5.345	5.295	5.047	4.813	.109	.134	.258	.375
125	141.30	135.75	134.50	128.20	122.25	2.75	3.40	6.55	9.55
6	6.625	6.407	6.357	6.065	5.761	.109	.134	.280	.432
150	168.30	162.75	161.50	154.05	146.35	2.75	3.40	7.10	10.95
8	8.625	8.407	8.329	7.981	7.625	.109	.148	.322	.500
200	219.10	213.55	211.55	202.70	193.70	2.75	3.75	8.20	12.70
10	10.750	10.482	10.420	10.020	9.75	.134	.165	.365	.500*
250	273.05	266.25	264.70	254.50	247.65	3.40	4.20	9.25	12.70
12	12.750	12.420	12.390	12.000	11.75	.156	.180	.375*	.500*
300	323.85	315.45	314.70	304.80	298.45	3.95	4.55	9.55	12.70

*These do not conform to ASME/ANSI B36.10M.

The suffix “S” in the Schedule Number is used to differentiate B36.19M pipe from pipe of B36.10M.

Although great care has been taken in compiling the information contained in this catalogue, CCTF does not accept responsibility for the consequences of any errors, nor for the effects of any subsequent changes made by the various sources of data.