



FLOW CONTROL

Butt Weld Pipe Fittings





FLOW CONTROL

Butt Weld Fittings

Dimension	: ANSI B16.9, B16.25, B16.28, MSS SP-43, SP-48, SP-59
Material Spec.	: ASTM A403, A240, A312, A234 WPB
Material Grades	: 304, 304L, 316, 316L, CARBON STEEL



90° ELBOW



45° ELBOW



180° ELBOW



EQUAL TEE



REDUCING TEE



CAP



CON. REDUCER



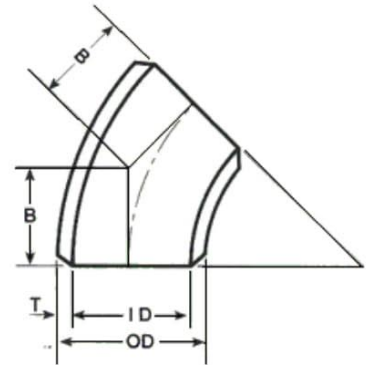
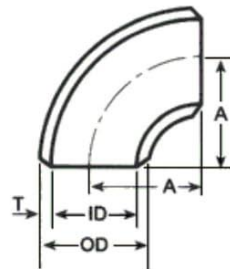
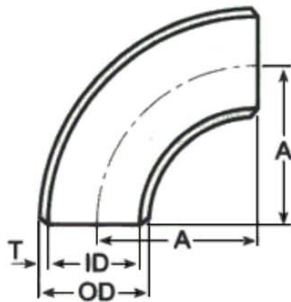
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STUB END

STAINLESS & CARBON STEEL BUTT-WELDING FITTINGS

Long and Short Radius 45°/ 90° Elbows

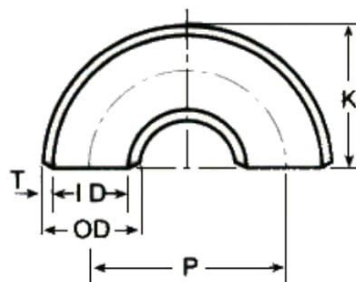
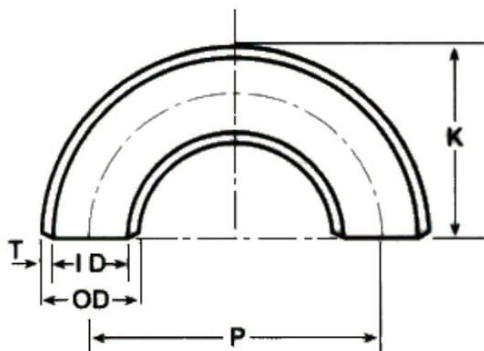


ANSI B16.9 B16.28 (in mm)
* Wellgrow's standard.

Nominal Pipe Size (NPS)	Outside Diameter at Bevel D	Center to End			
		Long Radius Elbows		Short Radius Elbows	
		90 degree. A	45 degree B	90 degree A	45 degree B
1/2	21.3	38.1	15.7	-	-
3/4	26.7	38.1	19.1	-	-
1	33.4	38.1	22.4	25.4	-
1-1/4	42.2	47.8	25.4	31.8	-
1-1/2	48.3	57.2	28.4	38.1	-
2	60.3	76.2	35.1	50.8	-
2-1/2	73.0	95.2	44.4	63.5	-
3	88.9	114.3	50.8	76.2	31.6
3-1/2	101.6	133.4	57.2	88.9	36.8
4	114.3	152.4	63.5	101.6	42.1
5	141.3	190.5	79.2	127.0	52.6
6	168.3	228.6	95.2	152.4	63.4
8	219.1	304.8	127.0	203.2	84.2
10	273.1	381.0	158.8	254.0	105.2
12	323.9	457.2	190.5	304.8	126.3
14	355.6	533.4	222.2	355.6	147.3
16	406.4	609.6	254.0	406.4	168.3
18	457.2	685.8	285.8	457.2	189.4
20	508.0	762.0	317.5	508.0	210.4
22	558.8	838.2	342.9	558.8	231.5
24	609.6	914.4	381.0	609.6	252.5
26	660.4	990.6	406.4	660.4	273.5
28	711.2	1066.8	438.2	711.2	294.6
30	762.0	1143.0	469.9	762.0	315.6
32	812.8	1219.2	501.6	812.8	378.1
34	863.6	1295.4	533.4	863.6	357.7
36	914.4	1371.6	565.2	914.4	378.8
38	965.2	1447.8	599.9	-	-
40	1016.0	1524.0	632.0	1016.0	420.8
42	1066.8	1600.2	660.4	1066.8	441.9
44	1117.6	1676.4	695.5	1117.6	462.9
46	1168.4	1752.6	726.9	-	-
48	1219.2	1828.8	759.0	1219.2	505.0
52*	1320.8	-	-	1320.8	547.1
54*	1371.6	2057.4	852.2	1371.6	568.1
56*	1422.4	2133.6	883.8	1422.4	589.2
60*	1524.0	2286.0	946.9	1524.0	631.3
66*	1676.4	2514.6	1041.6	-	-
68*	1727.0	2591	1073	1727	-
72*	1829.0	2743	1137	1829	-
76*	1930.0	2896	1199	1930	-
80	2032.0	3048	1263	2032	-

STAINLESS & CARBON STEEL BUTT-WELDING FITTINGS

Long and Short Radius 180° Elbows

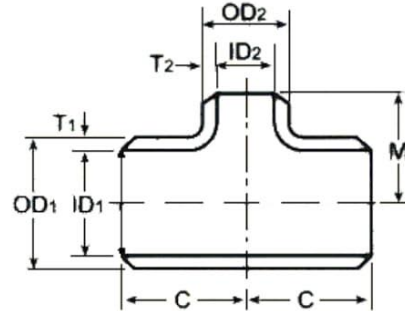
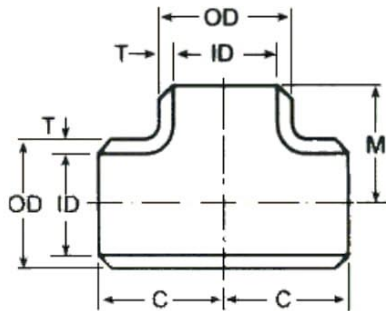


ANSI B16.9 B16.28 (in mm)

Nominal Pipe Size (NPS)	Outside Diameter at Bevel D	Long Radius Elbows		Short Radius Elbows	
		Center to Center. P	Back to Face K	Center to Center. P	Back to Face K
1/2	21.3	76.2	47.8	-	-
3/4	26.7	76.2	50.8	-	-
1	33.4	76.2	55.6	50.8	41.1
1-1/4	42.2	95.2	69.8	63.5	52.3
1-1/2	48.3	114.3	82.6	76.2	62.0
2	60.3	152.4	106.4	101.6	81.0
2-1/2	73.0	109.5	131.8	127.0	100.1
3	88.9	228.6	158.8	152.4	120.7
3-1/2	101.6	266.7	184.2	177.8	139.7
4	114.3	304.8	209.6	203.2	158.8
5	141.3	381.0	261.9	254.0	196.9
6	168.3	457.2	312.7	304.8	236.5
8	219.1	609.6	414.3	406.4	312.7
10	273.1	762.0	517.7	508.0	390.7
12	323.9	914.4	619.3	609.6	466.9
14	355.6	1066.8	711.2	711.2	533.4
16	406.4	1219.2	812.8	812.8	609.6
18	457.2	1371.6	914.4	914.4	685.8
20	508.0	1524.0	1016.0	1016.0	762.0
22	558.8	1676.4	1117.6	1117.6	838.2
24	609.6	1828.8	1219.2	1219.2	914.4

STAINLESS & CARBON STEEL BUTT-WELDING FITTINGS

Equal and Reducing Tees



MSS SP-75 ANSI B16.9 (in mm)
* Wellgrow's standard.

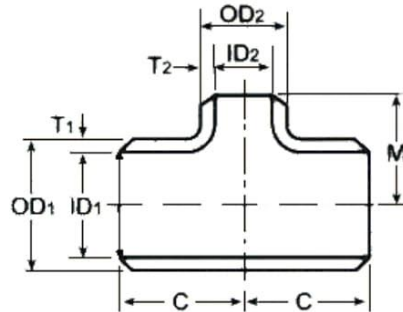
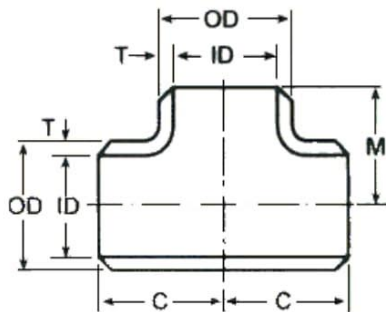
Nominal Pipe Size (NPS)	Outside Diameter At Bevel D		Center to End	
	Run	Outlet	Run C	Outlet (1) M
1/2 x 1/2	21.3	21.3	25.4	25.4
1/2 x 3/8		17.1		25.4
1/2 x 1/4		13.7		25.4
3/4 x 3/4	26.7	26.7	28.4	28.4
3/4 x 1/2		21.3		28.4
3/4 x 3/8		17.1		28.4
1 x 1	33.4	33.4	38.1	38.1
1 x 3/4		26.7		38.1
1 x 1/2		21.3		38.1
1-1/4 x 1-1/4	42.2	42.2	47.8	47.8
1-1/4 x 1		33.4		47.8
1-1/4 x 3/4		26.7		47.8
1-1/4 x 1/2		21.3		47.8
1-1/2 x 1-1/2	48.3	48.3	57.2	57.2
1-1/2 x 1-1/4		42.2		57.2
1-1/2 x 1		33.4		57.2
1-1/2 x 3/4		26.7		57.2
1-1/2 x 1/2		21.3		57.2
2 x 2	60.3	60.3	63.5	63.5
2 x 1-1/2		48.3		60.5
2 x 1-1/4		42.2		57.2
2 x 1		33.4		50.8
2 x 3/4		26.7		44.4
2 x 1/2*		21.3		
2-1/2 x 2-1/2	73.0	73.0	76.2	76.2
2-1/2 x 2		60.3		69.8
2-1/2 x 1-1/2		48.3		66.5
2-1/2 x 1-1/4		42.2		63.5
2-1/2 x 1		33.4		57.2
3 x 3	88.9	88.9	85.9	85.9
3 x 2-1/2		73.0		82.6
3 x 2		60.3		76.2
3 x 1-1/2		48.3		73.2
3 x 1-1/4		42.2		69.8
3 x 1*		33.4		
3-1/2 x 3-1/2	101.6	101.6	95.2	95.2
3-1/2 x 3		88.9		91.9
3-1/2 x 2-1/2		73.0		88.9
3-1/2 x 2		60.3		82.6
3-1/2 x 1-1/2		48.3		79.2

Nominal Pipe Size (NPS)	Outside Diameter At Bevel D		Center to End	
	Run	Outlet	Run C	Outlet (1) M
4 x 4	114.3	114.3	104.6	104.6
4 x 3-1/2		101.6		101.6
4 x 3		88.9		98.6
4 x 2-1/2		73.0		95.2
4 x 2		60.3		88.9
4 x 1-1/2		48.3		85.9
4 x 1-1/4		42.2		
4 x 1*		33.5		
5 x 5	141.3	141.3	124.0	124.0
5 x 4		114.3		117.3
5 x 3-1/2		101.6		114.3
5 x 3		88.9		111.3
5 x 2-1/2		73.0		108.0
5 x 2		60.3		104.6
5 x 1-1/2*		48.3		
6 x 6	168.3	168.3	142.7	142.7
6 x 5		141.3		136.7
6 x 4		114.3		130.0
6 x 3-1/2		101.6		127.0
6 x 3		88.9		124.0
6 x 2-1/2		73.0		120.6
6 x 2*		60.3		
8 x 8	219.1	219.1	177.8	177.8
8 x 6		168.3		168.1
8 x 5		141.3		162.1
8 x 4		114.3		155.4
8 x 3-1/2		101.6		152.4
8 x 3*		88.9		
10 x 10	273.1	273.1	215.9	215.9
10 x 8		219.1		203.2
10 x 6		168.3		193.5
10 x 5		141.3		190.5
10 x 4		114.3		184.2
12 x 12	323.9	323.9	254.0	254.0
12 x 10		273.1		241.3
12 x 8		219.1		228.6
12 x 6		168.3		218.9
12 x 5		141.3		215.9

(1) Outlet dimension "M" for run sizes 14 and larger is recommended but not mandatory.

STAINLESS & CARBON STEEL BUTT-WELDING FITTINGS

Equal and Reducing Tees



MSS SP-75 ANSI B16.9 (in mm)
* Wellgrow's standard.

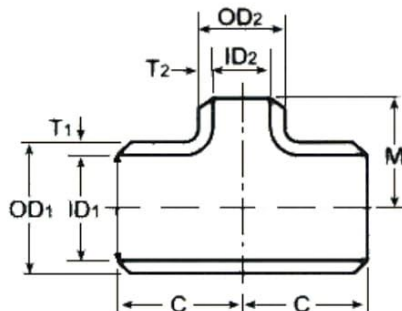
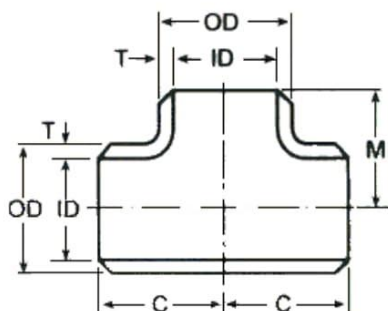
Nominal Pipe Size (NPS)	Outside Diameter At Bevel D		Center to End	
	Run	Outlet	Run C	Outlet (1) M
14 x 14	355.6	355.6	279.4	279.4
14 x 12		323.9		269.7
14 x 10		273.1		257.0
14 x 8		219.1		247.6
14 x 6		168.3		238.3
16 x 16	406.4	406.4	304.8	304.8
16 x 14		355.6		304.8
16 x 12		323.9		295.1
16 x 10		273.1		282.4
16 x 8		219.1		373.0
16 x 6		168.3		263.7
18 x 18	457.2	457.2	342.9	342.9
18 x 16		406.4		330.2
18 x 14		355.6		330.2
18 x 12		323.9		320.5
18 x 10		273.1		307.8
18 x 8		219.1		298.4
20 x 20	508.0	508.0	381.0	381.0
20 x 18		457.2		369.3
20 x 16		406.4		355.6
20 x 14		355.6		355.6
20 x 12		323.9		345.9
20 x 10		273.1		333.2
20 x 8		219.1		323.8
22 x 22	558.8	558.8	419.1	419.1
22 x 20		508.0		406.4
22 x 18		457.2		393.7
22 x 16		406.4		381.0
22 x 14		355.6		381.0
22 x 12		323.9		371.3
22 x 10		273.1		358.6
24 x 24	609.6	609.6	431.8	431.8
24 x 22		558.8		431.8
24 x 20		508.0		431.8
24 x 18		457.2		419.1
24 x 16		406.4		406.4
24 x 14		355.6		406.4
24 x 12		323.9		396.7
24 x 10		273.1		384.0
26 x 26	660.4	660.4	495.3	495.3
26 x 24		609.6		482.6

Nominal Pipe Size (NPS)	Outside Diameter At Bevel D		Center to End	
	Run	Outlet	Run C	Outlet (1) M
26 x 22		558.8		469.9
26 x 20		508.0		457.2
26 x 18		457.2		444.5
26 x 16		406.4		431.8
26 x 14		355.6		431.8
26 x 12		323.1		422.1
28 x 28	711.2	711.2	520.7	520.7
28 x 26		660.4		520.7
28 x 24		609.6		508.0
28 x 22		558.8		495.3
28 x 20		508.0		482.6
28 x 18		457.2		469.9
28 x 16		406.4		457.2
28 x 14		355.6		457.2
28 x 12		323.1		447.5
30 x 30	762.0	762.0	558.8	558.8
30 x 28		711.2		546.1
30 x 26		660.4		546.1
30 x 24		609.6		533.4
30 x 22		558.8		520.7
30 x 20		508.0		508.0
30 x 18		457.2		495.3
30 x 16		406.4		482.6
30 x 14		355.6		482.6
30 x 12		323.9		472.6
30 x 10		273.1		460.2
32 x 32	812.8	812.8	596.9	596.9
32 x 30		762.0		584.2
32 x 28		711.2		571.5
32 x 26		660.4		571.5
32 x 24		609.6		558.8
32 x 22		558.8		546.1
32 x 20		508.0		533.4
32 x 18		457.2		520.7
32 x 16		406.4		508.0
32 x 14		355.6		508.0
34 x 34	863.6	863.6	635.0	635.0
34 x 32		812.8		622.3
34 x 30		762.0		609.6
34 x 28		711.2		596.9
34 x 26		660.4		596.9

(1) Outlet dimension "M" for run sizes 14 and larger is recommended but not mandatory.

STAINLESS & CARBON STEEL BUTT-WELDING FITTINGS

Equal and Reducing Tees



MSS SP-75 ANSI B16.9 (in mm)
* Wellgrow's standard.

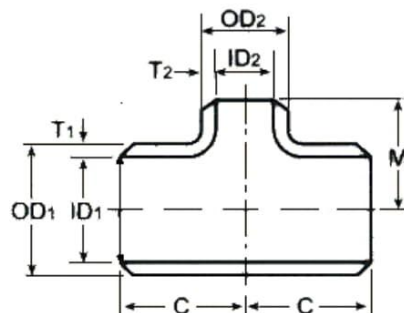
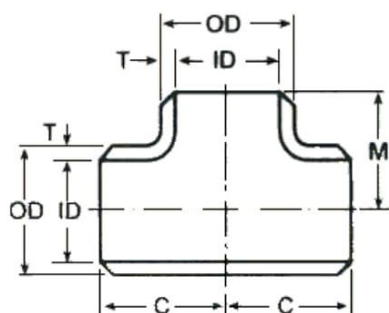
Nominal Pipe Size (NPS)			Outside Diameter At Bevel D		Center to End	
			Run	Outlet	Run C	Outlet (1) M
34	x	24		609.6		584.2
34	x	22		558.8		571.5
34	x	20		508.0		558.8
34	x	18		457.2		546.1
34	x	16		406.4		533.4
36	x	36	914.4	914.4	673.1	673.1
36	x	34		863.6		660.4
36	x	32		812.8		647.7
36	x	30		762.0		635.0
36	x	28		711.2		622.3
36	x	26		660.4		622.3
36	x	24		609.6		609.6
36	x	22		558.8		596.9
36	x	20		508.0		584.2
36	x	18		457.2		571.5
36	x	16		406.4		558.8
38	x	38	965.2	965.2	711.2	711.2
38	x	36		914.4		711.2
38	x	34		863.6		698.5
38	x	32		812.8		685.8
38	x	30		762.0		673.1
38	x	28		711.2		647.7
38	x	26		660.4		647.7
38	x	24		609.6		635.0
38	x	22		558.8		622.3
38	x	20		508.0		609.6
38	x	18		457.2		596.9
40	x	40	1016.0	1016.0	749.3	749.3
40	x	38		965.2		749.3
40	x	36		914.4		736.6
40	x	34		863.6		723.9
40	x	32		812.8		711.2
40	x	30		762.0		698.5
40	x	28		711.2		673.1
40	x	26		660.4		673.1
40	x	24		609.6		660.4
40	x	22		558.8		647.7
40	x	20		508.0		635.0
40	x	18		457.2		622.3
42	x	42	1066.8	1066.8	762.0	711.2
42	x	40		1016.0		711.2

Nominal Pipe Size (NPS)			Outside Diameter At Bevel D		Center to End	
			Run	Outlet	Run C	Outlet (1) M
42	x	38		965.2		711.2
42	x	36		914.4		711.2
42	x	34		863.6		711.2
42	x	32		812.8		711.2
42	x	30		762.0		711.2
42	x	28	1066.8	711.2	762.0	698.5
42	x	26		660.4		698.5
42	x	24		609.6		660.4
42	x	22		558.8		660.4
42	x	20		508.0		660.4
42	x	18		457.2		647.7
42	x	16		406.4		635.0
44	x	44	1117.6	1117.6	812.8	762.0
44	x	42		1066.8		762.0
44	x	40		1016.0		749.3
44	x	38		965.2		736.6
44	x	36		914.4		723.9
44	x	34		863.6		723.9
44	x	32		812.8		711.2
44	x	30		762.0		711.2
44	x	28		711.2		698.5
44	x	26		660.4		698.5
44	x	24		609.6		698.5
44	x	22		558.8		685.8
44	x	20		508.0		685.8
46	x	46	1168.4	1168.4	850.9	800.1
46	x	44		1117.6		800.1
46	x	42		1066.8		787.4
46	x	40		1016.0		774.7
46	x	38		965.2		762.0
46	x	36		914.4		762.0
46	x	34		863.6		749.3
46	x	32		812.8		749.3
46	x	30		762.0		736.6
46	x	28		711.2		736.6
46	x	26		660.4		736.6
46	x	24		609.6		723.9
46	x	20*		508.0		723.9
48	x	48	1219.2	1219.2	889.0	838.2
48	x	46		1168.4		838.2
48	x	44		1117.6		838.2

(1) Outlet dimension "M" for run sizes 14 and larger is recommended but not mandatory.

STAINLESS & CARBON STEEL BUTT-WELDING FITTINGS

Equal and Reducing Tees



MSS SP-75 ANSI B16.9 (in mm)
* Wellgrow's standard.

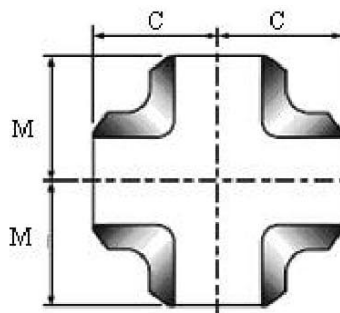
Nominal Pipe Size (NPS)	Outside Diameter At Bevel D		Center to End	
	Run	Outlet	Run C	Outlet (1) M
48 x 42		1066.8		812.8
48 x 40		1016.0		812.8
48 x 38		965.2		812.8
48 x 36		914.4		787.4
48 x 34		863.6		787.4
48 x 32	1219.2	812.8	889.0	787.4
48 x 44		1117.6		838.2
48 x 42		1066.8		812.8
48 x 40		1016.0		812.8
48 x 38		965.2		812.8
48 x 36		914.4		787.4
48 x 34		863.6		787.4
48 x 32		812.8		787.4
48 x 30		762.0		762.0
48 x 28		711.2		762.0
48 x 26		660.4		762.0
48 x 24		609.6		736.6
48 x 22		558.8		736.6
52 x 52*	1320.8	1320.8	965.2	914.4
52 x 48*		1219.2		863.6
52 x 44*		1117.6		812.8
52 x 40*		1016.0		762.0
54 x 54*	1371.6	1371.6	1003.3	952.5
54 x 52*		1320.8		914.4
54 x 48*		1219.2		863.6
54 x 44*		1117.6		863.6
54 x 40*		1016.0		812.8
54 x 28*		711.2		787.4
54 x 20*		508.0		787.4
56 x 56*	1422.4	1422.4	1041.4	965.2
56 x 52*		1320.8		914.4
56 x 48*		1219.2		863.6
56 x 44*		1117.6		812.8
56 x 40*		1016.0		812.8
56 x 28*		711.2		812.8
56 x 20*		508.0		812.8
60 x 60*	1524.0	1524.0	1117.6	1016.0
60 x 56*		1422.4		965.2
60 x 52*		1320.8		914.4
60 x 48*		1219.2		863.6

Nominal Pipe Size (NPS)	Outside Diameter At Bevel D		Center to End	
	Run	Outlet	Run C	Outlet (1) M
60 x 40*		1016.0		863.6
60 x 28*		711.2		863.6
60 x 20*		508.0		863.6
64 x 64*	1626.0	1626.0	1194.0	1092.0
64 x 60*		1524.0		1067.0
64 x 56*		1422.0		1016.0
64 x 52*		1321.0		965.0
64 x 48*		1219.0		914
66 x 66*	1676.4	1676.4	1219.2	1066.8
68 x 68*	1727.0	1727.0	1270.0	1168.0
68 x 64*		1626.0		1143.0
68 x 60*		1524.0		1118.0
68 x 56*		1422.0		1067.0
68 x 52*		1321.0		1016.0
68 x 48*		1219.0		965.0
72 x 72*	1829.0	1829.0	1320.0	1245.0
72 x 68*		1727.0		1219.0
72 x 64*		1626.0		1194.0
72 x 60*		1524.0		1168.0
72 x 56*	1829.0	1422.0	1320.0	1118.0
72 x 52*		1321.0		1067.0
72 x 48*		1219.0		1016.0
76 x 76*	1930.0	1930.0	1422.0	1320.0
76 x 72*		1829.0		1295.0
76 x 68*		1727.0		1270.0
76 x 64*		1626.0		1245.0
76 x 60*		1524.0		1219.0
76 x 56*		1422.0		1168.0
76 x 52*		1321.0		1118.0
76 x 48*		1219.0		1067.0
80 x 80*	2032.0	2032.0	1499.0	1397.0
80 x 76*		1930.0		1372.0
80 x 72*		1829.0		1346.0
80 x 68*		1727.0		1321.0
80 x 64*		1626.0		1295.0
80 x 60*		1524.0		1270.0
80 x 56*		1422.0		1219.0
80 x 52*		1321.0		1168.0
80 x 48*		1219.0		1118.0

(1) Outlet dimension "M" for run sizes 14 and larger is recommended but not mandatory.

STAINLESS & CARBON STEEL BUTT-WELDING FITTINGS

Equal and Reducing Crosses



MSS SP-75 ANSI B16.9 (in mm)
* Wellgrow's standard.

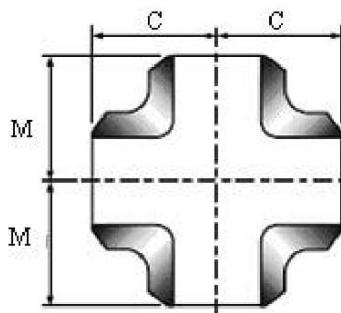
Nominal Pipe Size (NPS)			Outside Diameter At Bevel D		Center to End	
			Run	Outlet	Run C	Outlet (1) M
1/2	x	1/2	21.3	21.3	25.4	25.4
1/2	x	3/8		17.1		25.4
1/2	x	1/4		13.7		25.4
3/4	x	3/4	26.7	26.7	28.4	28.4
3/4	x	1/2		21.3		28.4
3/4	x	3/8		17.1		28.4
1	x	1	33.4	33.4	38.1	38.1
1	x	3/4		26.7		38.1
1	x	1/2		21.3		38.1
1-1/4	x	1-1/4	42.2	42.2	47.8	47.8
1-1/4	x	1		33.4		47.8
1-1/4	x	3/4		26.7		47.8
1-1/4	x	1/2		21.3		47.8
1-1/2	x	1-1/2	48.3	48.3	57.2	57.2
1-1/2	x	1-1/4		42.2		57.2
1-1/2	x	1		33.4		57.2
1-1/2	x	3/4		26.7		57.2
1-1/2	x	1/2		21.3		57.2
2	x	2	60.3	60.3	63.5	63.5
2	x	1-1/2		48.3		60.5
2	x	1-1/4		42.2		57.2
2	x	1		33.4		50.8
2	x	3/4		26.7		44.4
2	x	1/2*		21.3		
2-1/2	x	2-1/2	73.0	73.0	76.2	76.2
2-1/2	x	2		60.3		69.8
2-1/2	x	1-1/2		48.3		66.5
2-1/2	x	1-1/4		42.2		63.5
2-1/2	x	1		33.4		57.2
3	x	3	88.9	88.9	85.9	85.9
3	x	2-1/2		73.0		82.6
3	x	2		60.3		76.2
3	x	1-1/2		48.3		73.2
3	x	1-1/4		42.2		69.8
3	x	1*		33.4		
3-1/2	x	3-1/2	101.6	101.6	95.2	95.2
3-1/2	x	3		88.9		91.9
3-1/2	x	2-1/2		73.0		88.9
3-1/2	x	2		60.3		82.6
3-1/2	x	1-1/2		48.3		79.2

Nominal Pipe Size (NPS)			Outside Diameter At Bevel D		Center to End	
			Run	Outlet	Run C	Outlet (1) M
4	x	4	114.3	114.3	104.6	104.6
4	x	3-1/2		101.6		101.6
4	x	3		88.9		98.6
4	x	2-1/2		73.0		95.2
4	x	2		60.3		88.9
4	x	1-1/2		48.3		85.9
4	x	1-1/4		42.2		
4	x	1*		33.5		
5	x	5	141.3	141.3	124.0	124.0
5	x	4		114.3		117.3
5	x	3-1/2		101.6		114.3
5	x	3		88.9		111.3
5	x	2-1/2		73.0		108.0
5	x	2		60.3		104.6
5	x	1-1/2*		48.3		
6	x	6	168.3	168.3	142.7	142.7
6	x	5		141.3		136.7
6	x	4		114.3		130.0
6	x	3-1/2		101.6		127.0
6	x	3		88.9		124.0
6	x	2-1/2		73.0		120.6
6	x	2*		60.3		
8	x	8	219.1	219.1	177.8	177.8
8	x	6		168.3		168.1
8	x	5		141.3		162.1
8	x	4		114.3		155.4
8	x	3-1/2		101.6		152.4
8	x	3*		88.9		
10	x	10	273.1	273.1	215.9	215.9
10	x	8		219.1		203.2
10	x	6		168.3		193.5
10	x	5		141.3		190.5
10	x	4		114.3		184.2
12	x	12	323.9	323.9	254.0	254.0
12	x	10		273.1		241.3
12	x	8		219.1		228.6
12	x	6		168.3		218.9
12	x	5		141.3		215.9

(1) Outlet dimension "M" for run sizes 14 and larger is recommended but not mandatory.

STAINLESS & CARBON STEEL BUTT-WELDING FITTINGS

Equal and Reducing Crosses



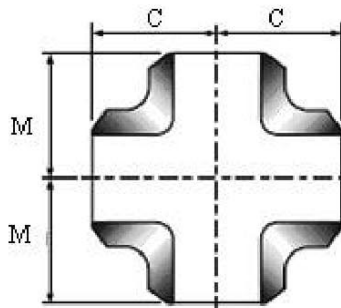
MSS SP-75 ANSI B16.9 (in mm)
* Wellgrow's standard.

Nominal Pipe Size (NPS)	Outside Diameter At Bevel D		Center to End	
	Run	Outlet	Run C	Outlet (1) M
14 x 14	355.6	355.6	279.4	279.4
14 x 12		323.9		269.7
14 x 10		273.1		257.0
14 x 8		219.1		247.6
14 x 6		168.3		238.3
16 x 16	406.4	406.4	304.8	304.8
16 x 14		355.6		304.8
16 x 12		323.9		295.1
16 x 10		273.1		282.4
16 x 8		219.1		373.0
16 x 6		168.3		263.7
18 x 18	457.2	457.2	342.9	342.9
18 x 16		406.4		330.2
18 x 14		355.6		330.2
18 x 12		323.9		320.5
18 x 10		273.1		307.8
18 x 8		219.1		298.4
20 x 20	508.0	508.0	381.0	381.0
20 x 18		457.2		369.3
20 x 16		406.4		355.6
20 x 14		355.6		355.6
20 x 12		323.9		345.9
20 x 10		273.1		333.2
20 x 8		219.1		323.8
22 x 22	558.8	558.8	419.1	419.1
22 x 20		508.0		406.4
22 x 18		457.2		393.7
22 x 16		406.4		381.0
22 x 14		355.6		381.0
22 x 12		323.9		371.3
22 x 10		273.1		358.6
24 x 24	609.6	609.6	431.8	431.8
24 x 22		558.8		431.8
24 x 20		508.0		431.8
24 x 18		457.2		419.1
24 x 16		406.4		406.4
24 x 14		355.6		406.4
24 x 12		323.9		396.7
24 x 10		273.1		384.0
26 x 26	660.4	660.4	495.3	495.3
26 x 24		609.6		482.6
26 x 22		558.8		469.9
26 x 20		508.0		457.2
26 x 18		457.2		444.5
26 x 16		406.4		431.8
26 x 14		355.6		431.8
26 x 12		323.1		422.1
28 x 28	711.2	711.2	520.7	520.7
28 x 26		660.4		520.7
28 x 24		609.6		508.0
28 x 22		558.8		495.3
28 x 20		508.0		482.6
28 x 18		457.2		469.9
28 x 16		406.4		457.2
28 x 14		355.6		457.2
28 x 12		323.1		447.5
30 x 30	762.0	762.0	558.8	558.8
30 x 28		711.2		546.1
30 x 26		660.4		546.1
30 x 24		609.6		533.4
30 x 22		558.8		520.7
30 x 20		508.0		508.0
30 x 18		457.2		495.3
30 x 16		406.4		482.6
30 x 14		355.6		482.6
30 x 12		323.9		472.6
30 x 10		273.1		460.2
32 x 32	812.8	812.8	596.9	596.9
32 x 30		762.0		584.2
32 x 28		711.2		571.5
32 x 26		660.4		571.5
32 x 24		609.6		558.8
32 x 22		558.8		546.1
32 x 20		508.0		533.4
32 x 18		457.2		520.7
32 x 16		406.4		508.0
32 x 14		355.6		508.0
34 x 34	863.6	863.6	635.0	635.0
34 x 32		812.8		622.3
34 x 30		762.0		609.6
34 x 28		711.2		596.9
34 x 26		660.4		596.9

(1) Outlet dimension "M" for run sizes 14 and larger is recommended but not mandatory.

STAINLESS & CARBON STEEL BUTT-WELDING FITTINGS

Equal and Reducing Crosses



MSS SP-75 ANSI B16.9 (in mm)
* Wellgrow's standard.

Nominal Pipe Size (NPS)			Outside Diameter At Bevel D		Center to End	
			Run	Outlet	Run C	Outlet (1) M
34	x	24		609.6		584.2
34	x	22		558.8		571.5
34	x	20		508.0		558.8
34	x	18		457.2		546.1
34	x	16		406.4		533.4
36	x	36	914.4	914.4	673.1	673.1
36	x	34		863.6		660.4
36	x	32		812.8		647.7
36	x	30		762.0		635.0
36	x	28		711.2		622.3
36	x	26		660.4		622.3
36	x	24		609.6		609.6
36	x	22		558.8		596.9
36	x	20		508.0		584.2
36	x	18		457.2		571.5
36	x	16		406.4		558.8
38	x	38	965.2	965.2	711.2	711.2
38	x	36		914.4		711.2
38	x	34		863.6		698.5
38	x	32		812.8		685.8
38	x	30		762.0		673.1
38	x	28		711.2		647.7
38	x	26		660.4		647.7
38	x	24		609.6		635.0
38	x	22		558.8		622.3
38	x	20		508.0		609.6
38	x	18		457.2		596.9
40	x	40	1016.0	1016.0	749.3	749.3
40	x	38		965.2		749.3
40	x	36		914.4		736.6
40	x	34		863.6		723.9
40	x	32		812.8		711.2
40	x	30		762.0		698.5
40	x	28		711.2		673.1
40	x	26		660.4		673.1
40	x	24		609.6		660.4
40	x	22		558.8		647.7
40	x	20		508.0		635.0
40	x	18		457.2		622.3
42	x	42	1066.8	1066.8	762.0	711.2
42	x	40		1016.0		711.2

Nominal Pipe Size (NPS)			Outside Diameter At Bevel D		Center to End	
			Run	Outlet	Run C	Outlet (1) M
42	x	38		965.2		711.2
42	x	36		914.4		711.2
42	x	34		863.6		711.2
42	x	32		812.8		711.2
42	x	30		762.0		711.2
42	x	28	1066.8	711.2	762.0	698.5
42	x	26		660.4		698.5
42	x	24		609.6		660.4
42	x	22		558.8		660.4
42	x	20		508.0		660.4
42	x	18		457.2		647.7
42	x	16		406.4		635.0
44	x	44	1117.6	1117.6	812.8	762.0
44	x	42		1066.8		762.0
44	x	40		1016.0		749.3
44	x	38		965.2		736.6
44	x	36		914.4		723.9
44	x	34		863.6		723.9
44	x	32		812.8		711.2
44	x	30		762.0		711.2
44	x	28		711.2		698.5
44	x	26		660.4		698.5
44	x	24		609.6		698.5
44	x	22		558.8		685.8
44	x	20		508.0		685.8
46	x	46	1168.4	1168.4	850.9	800.1
46	x	44		1117.6		800.1
46	x	42		1066.8		787.4
46	x	40		1016.0		774.7
46	x	38		965.2		762.0
46	x	36		914.4		762.0
46	x	34		863.6		749.3
46	x	32		812.8		749.3
46	x	30		762.0		736.6
46	x	28		711.2		736.6
46	x	26		660.4		736.6
46	x	24		609.6		723.9
46	x	20*		508.0		723.9
48	x	48	1219.2	1219.2	889.0	838.2
48	x	46		1168.4		838.2
48	x	44		1117.6		838.2

(1) Outlet dimension "M" for run sizes 14 and larger is recommended but not mandatory.