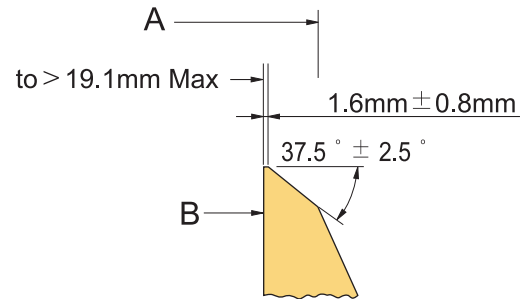
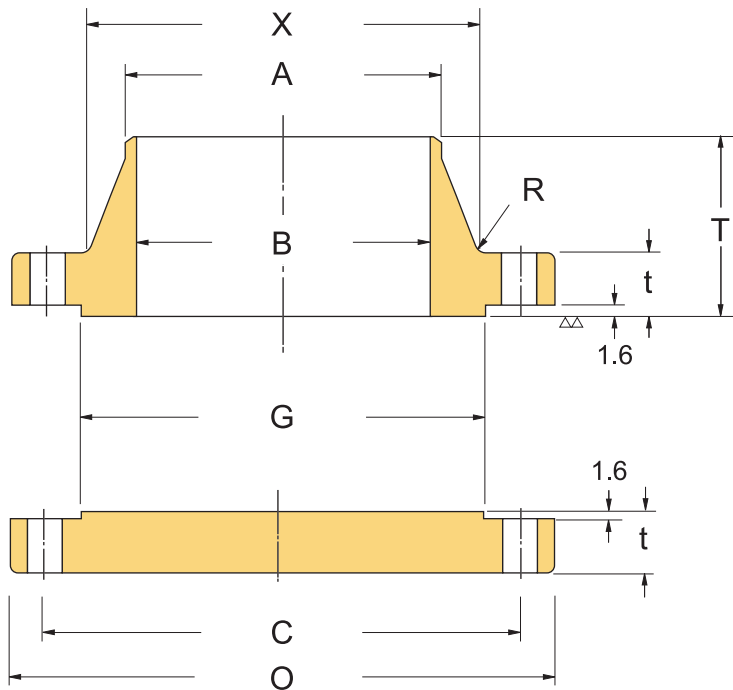




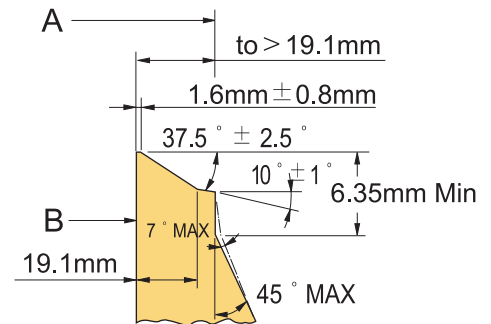
# ANSI/ASME B16.47 SERIES A FLANGES(MSS SP44)

- **Class 150 Flanges**
- **Class 300 Flanges**
- **Class 400 Flanges**
- **Class 600 Flanges**
- **Class 900 Flanges**

# CLASS 150 FLANGES



BEVEL FOR WALL THICKNESSES(t)  
0.191 IN. TO 0.88 IN. INCLUSIVE



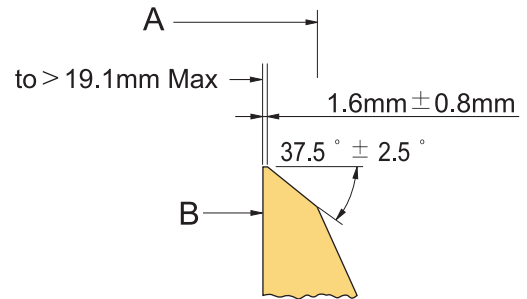
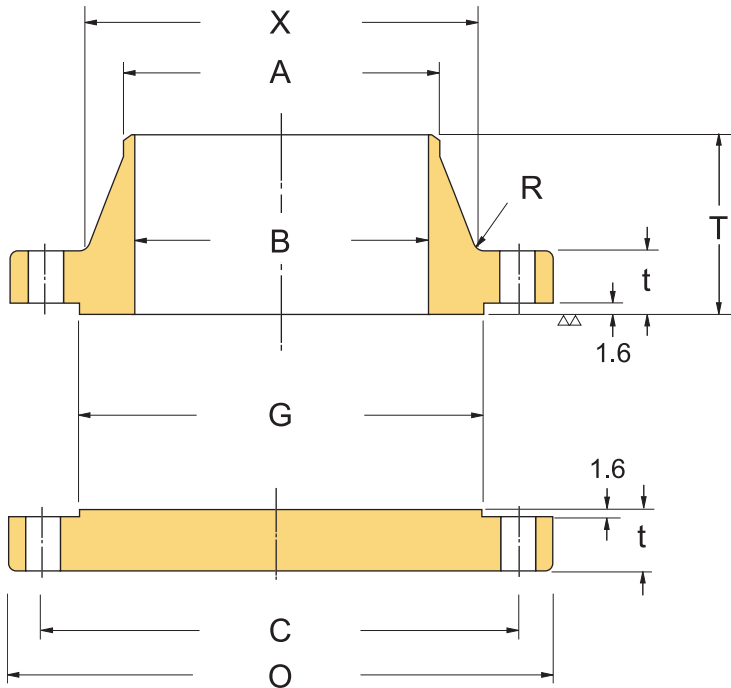
BEVEL FOR WALL THICKNESSES(t)  
GREATER THAN 0.88 IN

## ANSI / ASME B 16.47 SER. A (MSS SP44)

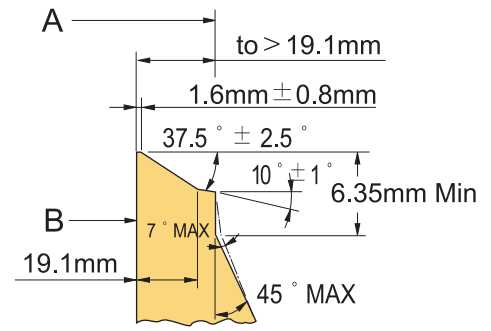
Unit:mm

Nominal Pipe Size	Outside Diam.	THICKNESS		O.D. of Raised Face	Diam. at Base of Hub	Bore	Length Through Hub	Diam. of Hub at Bevel	Radius of Fillet	DRILLING			WEIGHT(kg)	
		Weld Neck	Blind							Bolt Circle Diam.	Dia of Holes	Number of Holes	Weld Neck	Blind
		t	t											
O	t	t	G	X	B	T	A	R	C					
26	870.0	68.3	68.3	749.3	676.1	To be specified by Purchaser	120.7	660.4	9.7	806.5	35.1	24	136.1	318.4
28	927.1	71.4	71.4	800.1	726.9		125.5	711.2	11.2	863.6	35.1	28	156.5	377.8
30	984.3	74.7	74.7	857.3	781.1		136.7	762.0	11.2	914.4	35.1	28	181.4	445.4
32	1060.5	81.0	81.0	914.4	831.9		144.5	812.8	11.2	977.9	41.1	28	229.1	561.1
34	1111.3	82.6	82.6	965.2	882.7		149.4	863.6	12.7	1028.7	41.1	32	244.9	627.8
36	1168.4	90.4	90.4	1022.4	933.5		157.2	914.4	12.7	1085.9	41.1	32	290.3	760.2
38	1283.3	87.4	87.4	1073.2	990.6		157.2	965.2	12.7	1149.4	41.1	32	326.6	825.1
40	1289.1	90.4	90.4	1124.0	1041.4		163.6	1016.0	12.7	1200.2	41.1	36	351.5	925.3
42	1346.2	96.8	96.8	1193.8	1092.2		171.5	1066.8	12.7	1257.3	41.1	36	403.7	1080.0
44	1403.4	101.6	101.6	1244.6	1143.0		177.8	1117.6	12.7	1314.5	41.1	40	449.1	1232.4
46	1454.2	103.1	103.1	1295.4	1196.8		185.7	1168.4	12.7	1365.3	41.1	40	480.8	1343.1
48	1511.3	108.0	108.0	1358.9	1247.6		192.0	1219.2	12.7	1422.4	41.1	44	537.5	1518.7
50	1568.5	111.3	111.3	1409.7	1301.8		203.2	1270.0	12.7	1479.6	47.8	44	576.1	1685.6
52	1625.6	115.8	115.8	1460.5	1352.6		209.6	1320.8	12.7	1536.7	47.8	44	639.6	1885.2
54	1682.8	120.7	120.7	1511.3	1403.4		215.9	1371.6	12.7	1593.9	47.8	44	719.0	2104.3
56	1746.3	124.0	124.0	1574.8	1457.5		228.6	1422.4	12.7	1651.0	47.8	48	798.3	2327.9
58	1803.4	128.5	128.5	1625.6	1508.3		235.0	1473.2	12.7	1708.2	47.8	48	868.6	2574.2
60	1854.2	131.8	131.8	1676.4	1559.1		239.8	1524.0	12.7	1759.0	47.8	52	927.6	2791.5

# CLASS 300 FLANGES



BEVEL FOR WALL THICKNESSES(t)  
0.191 IN. TO 0.88 IN. INCLUSIVE



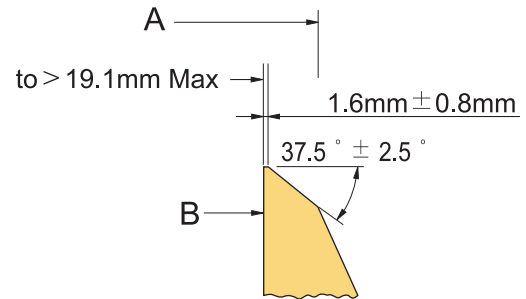
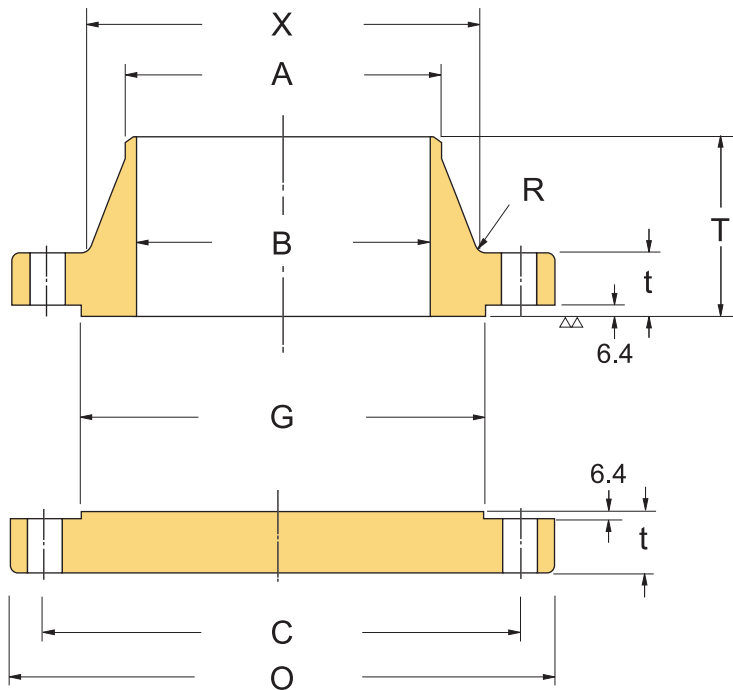
BEVEL FOR WALL THICKNESSES(t)  
GREATER THAN 0.88 IN

## ANSI / ASME B 16.47 SER. A (MSS SP44)

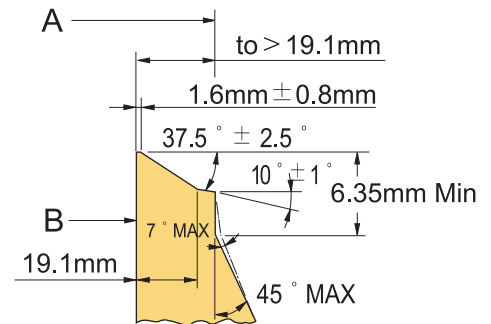
Unit:mm

Nominal Pipe Size	Outside Diam.	THICKNESS		O.D. of Raised Face	Diam. at Base of Hub	Bore	Length Through Hub	Diam. of Hub at Bevel	Radius of Fillet	DRILLING			WEIGHT(kg)	
		Weld Neck	Blind							Bolt Circle Diam.	Dia of Holes	Number of Holes	Weld Neck	Blind
		t	t											
O	t	t	G	X	B	T	A	R	C					
26	971.6	79.2	84.1	749.3	720.9	To be specified by Purchaser	184.2	660.4	9.7	876.3	44.5	28	274.4	489.0
28	1035.1	85.9	90.4	800.1	774.7		196.9	711.2	11.2	939.8	44.5	28	337.9	596.5
30	1092.2	91.9	95.3	857.3	827.0		209.6	762.0	11.2	997.0	47.8	28	394.6	699.9
32	1149.4	98.6	100.1	914.4	881.1		222.3	812.8	11.2	1054.1	50.8	28	455.9	814.2
34	1206.5	101.6	104.6	965.2	936.8		231.6	863.6	12.7	1104.9	50.8	28	519.4	938.0
36	1270.0	104.6	111.3	1022.4	990.6		241.3	914.4	12.7	1168.4	53.8	32	578.3	1105.0
38	1168.4	108.0	108.0	1028.7	993.6		180.8	965.2	12.7	1092.2	41.1	32	315.3	907.7
40	1238.3	114.3	114.3	1085.9	1047.8		193.5	1016.0	12.7	1155.7	44.5	32	381.0	1079.6
42	1289.1	119.1	119.1	1136.7	1098.6		200.2	1066.8	12.7	1206.5	44.5	32	430.9	1219.3
44	1352.6	124.0	124.0	1193.8	1149.4		206.2	1117.6	12.7	1263.7	47.8	32	478.5	1396.6
46	1416.1	128.5	128.5	1244.6	1203.5		215.9	1168.4	12.7	1320.8	50.8	28	560.2	1587.1
48	1466.9	133.4	133.4	1301.8	1254.3		223.8	1219.2	12.7	1371.6	50.8	32	626.0	1767.2
50	1530.4	139.7	139.7	1358.9	1305.1		231.6	1270.0	12.7	1428.8	53.8	32	694.0	2014.9
52	1581.2	144.5	144.5	1409.7	1355.9		238.3	1320.8	12.7	1479.6	53.8	32	753.0	2225.4
54	1657.4	152.4	152.4	1466.9	1409.7		252.5	1371.6	12.7	1549.4	60.5	28	929.9	2578.3
56	1708.2	153.9	153.9	1517.7	1463.5		260.4	1422.4	12.7	1600.2	60.5	28	977.5	2766.1
58	1759.0	158.8	158.8	1574.8	1514.3		266.7	1473.2	12.7	1651.0	60.5	32	1029.7	3025.1
60	1809.8	163.6	163.6	1625.6	1565.1		273.1	1524.0	12.7	1701.8	60.5	32	1120.4	3299.5

# CLASS 400 FLANGES



BEVEL FOR WALL THICKNESSES(t)  
0.191 IN. TO 0.88 IN. INCLUSIVE



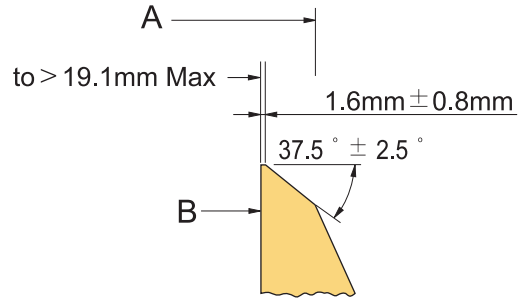
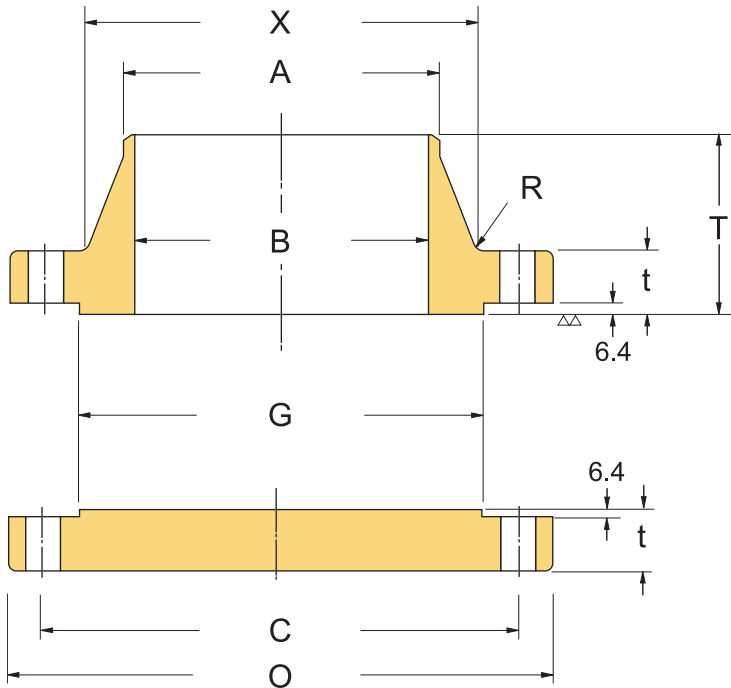
BEVEL FOR WALL THICKNESSES(t)  
GREATER THAN 0.88IN

## ANSI / ASME B 16.47 SER. A (MSS SP44)

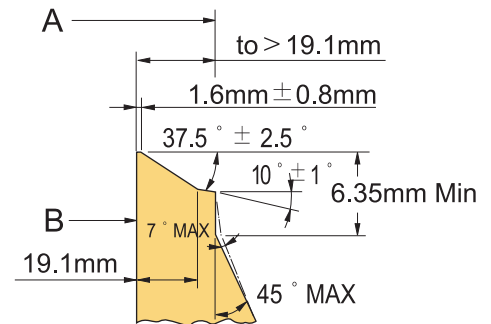
Unit:mm

Nominal Pipe Size	Outside Diam.	THICKNESS		O.D. of Raised Face	Diam. at Base of Hub	Bore	Length Through Hub	Diam. of Hub at Bevel	Radius of Fillet	DRILLING			WEIGHT(kg)	
		Weld Neck	Blind							Bolt Circle Diam.	Dia of Holes	Number of Holes	Weld Neck	Blind
		t	t											
O	t	t	G	X	B	T	A	R	C					
26	971.6	95.3	105.0	749.3	726.9	To be specified by Purchaser	199.9	660.4	11.2	876.3	47.8	28	294.8	572.9
28	1035.1	101.7	111.0	800.1	782.6		212.6	711.2	12.7	939.8	50.8	28	356.1	690.4
30	1092.2	108.0	117.7	857.3	836.7		225.3	762.0	12.7	997.0	53.8	28	410.5	817.4
32	1149.4	114.4	122.2	914.4	889.0		238.0	812.8	12.7	1054.1	53.8	28	483.1	942.1
34	1206.5	117.7	128.6	965.2	944.6		247.7	863.6	14.2	1104.9	53.8	28	544.3	1095.4
36	1270.0	120.7	134.9	1022.4	1000.3		257.4	914.4	14.2	1168.4	53.8	32	607.8	1276.9
38	1206.5	130.4	130.4	1035.1	1003.3		212.6	965.2	14.2	1117.6	47.8	32	424.1	1111.3
40	1270.0	136.4	136.4	1092.2	1054.1		222.3	1016.0	14.2	1174.8	50.8	32	494.4	1291.9
42	1320.8	139.8	139.8	1143.0	1107.9		230.2	1066.8	14.2	1225.6	50.8	32	539.8	1432.9
44	1384.3	146.1	146.1	1200.2	1158.7		239.6	1117.6	14.2	1282.7	53.8	32	623.7	1648.8
46	1441.5	152.5	152.5	1257.3	1212.9		250.7	1168.4	14.2	1339.9	53.8	36	691.7	1868.8
48	1511.3	158.8	158.8	1308.1	1267.0		263.4	1219.2	14.2	1403.4	60.5	28	811.9	2143.7
50	1568.5	163.6	165.2	1361.9	1320.8		274.6	1270.0	14.2	1460.5	60.5	32	884.5	2405.4
52	1619.3	168.5	170.0	1412.7	1371.6		282.8	1320.8	14.2	1511.3	60.5	32	963.9	2641.3
54	1701.8	176.3	177.9	1470.2	1425.4		295.5	1371.6	14.2	1581.2	66.5	28	1163.5	3058.2
56	1752.6	181.2	182.7	1527.0	1479.6		304.9	1422.4	14.2	1632.0	66.5	32	1229.3	3334.9
58	1803.4	184.2	187.2	1577.8	1530.4		312.7	1473.2	14.2	1682.8	66.5	32	1465.1	3622.4
60	1886.0	192.1	195.4	1635.3	1584.5		325.4	1524.0	14.2	1752.6	73.2	32	1732.8	4139.6

# CLASS 600 FLANGES



BEVEL FOR WALL THICKNESSES(t)  
0.191 IN. TO 0.88 IN. INCLUSIVE



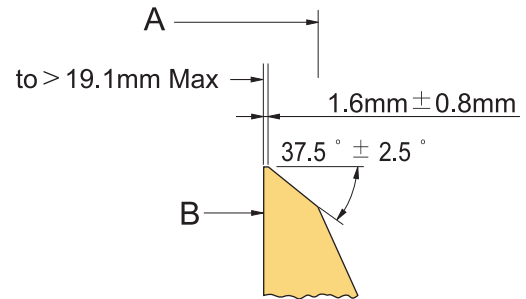
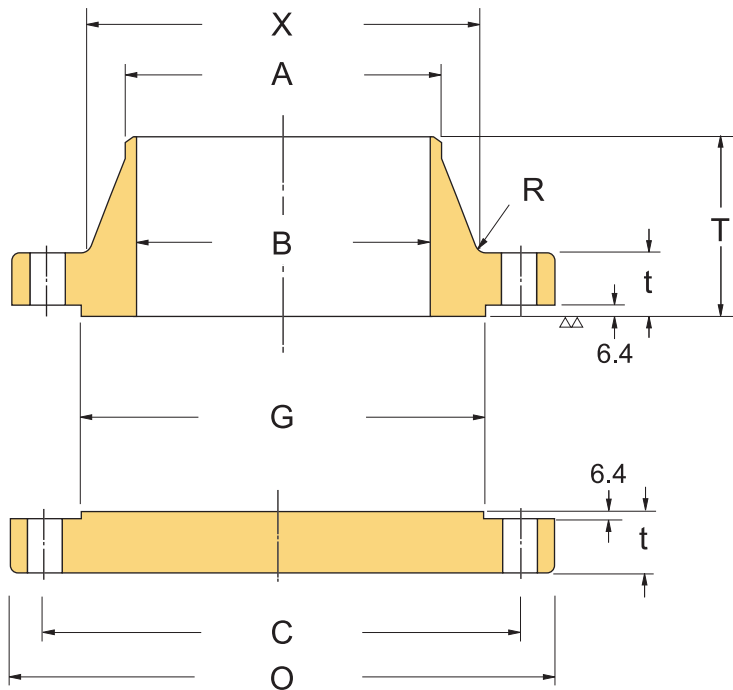
BEVEL FOR WALL THICKNESSES(t)  
GREATER THAN 0.88IN

## ANSI / ASME B 16.47 SER. A (MSS SP44)

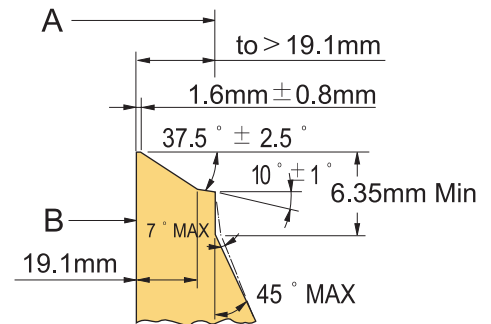
Unit:mm

Nominal Pipe Size	Outside Diam.	THICKNESS		O.D. of Raised Face	Diam. at Base of Hub	Bore	Length Through Hub	Diam. of Hub at Bevel	Radius of Fillet	DRILLING			WEIGHT(kg)	
		Weld Neck	Blind							Bolt Circle Diam.	Dia of Holes	Number of Holes	Weld Neck	Blind
		t	t											
O	t	t	G	X	B	T	A	R	C					
26	1016.0	114.4	131.9	749.3	747.8	To be specified by Purchaser	228.7	660.4	12.7	914.4	50.8	28	426.4	797.9
28	1073.2	117.7	138.2	800.1	803.1		241.4	711.2	12.7	965.2	53.8	28	480.8	934.9
30	1130.3	120.7	146.1	857.3	862.1		254.1	762.0	12.7	1022.4	53.8	28	548.9	1099.1
32	1193.8	123.7	154.0	914.4	917.4		266.8	812.8	12.7	1079.5	60.5	28	623.7	1295.5
34	1244.6	127.1	160.3	965.2	973.1		276.1	863.6	14.2	1130.3	60.5	28	698.5	1468.3
36	1314.5	130.4	168.5	1022.4	1031.7		288.8	914.4	14.2	1193.8	66.5	28	773.4	1724.6
38	1270.0	158.8	161.8	1054.1	1022.4		260.4	965.2	14.2	1162.1	60.5	28	666.8	1544.1
40	1320.8	165.2	168.5	1111.3	1073.2		270.1	1016.0	14.2	1212.9	60.5	32	739.4	1740.9
42	1403.4	174.5	177.9	1168.4	1127.3		285.8	1066.8	14.2	1282.7	66.5	28	920.8	2079.8
44	1454.2	179.4	184.2	1225.6	1181.1		295.5	1117.6	14.2	1333.5	66.5	32	979.8	2315.6
46	1511.3	185.7	192.1	1276.4	1234.9		306.4	1168.4	14.2	1390.7	66.5	32	1093.2	2611.8
48	1593.9	195.4	201.7	1333.5	1289.1		322.4	1219.2	14.2	1460.5	73.2	32	1295.0	3055.9
50	1670.1	203.3	209.6	1384.3	1343.2		335.1	1270.0	14.2	1524.0	79.2	28	1510.5	3490.5
52	1720.9	209.6	216.0	1435.1	1394.0		343.0	1320.8	14.2	1574.8	79.2	32	1614.8	3822.0
54	1778.0	216.0	223.8	1492.3	1447.8		355.7	1371.6	14.2	1632.0	79.2	32	1778.1	4233.4
56	1854.2	223.8	232.0	1543.1	1501.6		368.4	1422.4	15.7	1695.5	85.9	32	1941.4	4776.0
58	1905.0	228.7	238.0	1600.2	1552.4		376.2	1473.2	15.7	1746.3	85.9	32	2104.7	5177.4
60	1993.9	239.8	249.2	1657.4	1609.9		395.3	1524.0	17.5	1822.5	91.9	28	2268.0	5945.8

# CLASS 900 FLANGES



BEVEL FOR WALL THICKNESSES(t)  
0.19IN. TO 0.88 IN. INCLUSIVE



BEVEL FOR WALL THICKNESSES(t)  
GREATER THAN 0.88IN

## ANSI / ASME B 16.47 SER. A (MSS SP44)

Unit:mm

Nominal Pipe Size	Outside Diam.	THICKNESS		O.D. of Raised Face	Diam. at Base of Hub	Bore	Length Through Hub	Diam. of Hub at Bevel	Radius of Fillet	DRILLING			WEIGHT(kg)	
		Weld Neck	Blind							Bolt Circle Diam.	Dia of Holes	Number of Holes	Weld Neck	Blind
		t	t											
O	t	t	G	X	B	T	A	R	C					
26	1085.9	146.1	166.7	749.3	774.7	To be specified by Purchaser	292.2	660.4	11.2	952.5	73.2	20	691.7	1163.9
28	1168.4	149.1	177.9	800.1	831.9		304.9	711.2	12.7	1022.4	79.2	20	821.0	1441.5
30	1231.9	155.8	188.8	857.3	889.0		317.6	762.0	12.7	1085.9	79.2	20	961.6	1704.6
32	1314.5	165.2	199.9	914.4	946.2		336.6	812.8	12.7	1155.7	85.9	20	1154.4	2059.8
34	1397.0	171.5	211.1	965.2	1006.3		355.7	863.6	14.2	1225.6	91.9	20	1347.2	2460.8
36	1460.5	177.9	220.8	1022.4	1063.8		368.4	914.4	14.2	1289.1	91.9	20	1540.0	2816.4
38	1460.5	196.9	222.3	1098.6	1073.2		359.0	965.2	19.1	1289.1	91.9	20	1535.4	2836.4
40	1511.3	203.3	230.2	1162.1	1127.3		369.9	1016.0	20.6	1339.9	91.9	24	1642.0	3148.0
42	1562.1	212.6	238.0	1212.9	1176.3		377.7	1066.8	20.6	1390.7	91.9	24	1796.3	3481.4
44	1648.0	220.8	249.2	1270.0	1234.9		397.1	1117.6	22.4	1463.5	98.6	24	1950.5	4061.5
46	1733.6	232.0	261.9	1333.5	1292.4		417.4	1168.4	22.4	1536.7	104.6	24	2104.7	4729.2
48	1784.4	239.8	270.1	1384.3	1343.2		425.5	1219.2	23.9	1587.5	104.6	24	2258.9	5170.1