

MSS FLANGES

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

MSS SP-44 – Steel Pipeline Flanges

Issued by:

MSS (Manufacturers Standardization Society of the Valve and Fittings Industry)

This standard covers steel pipeline flanges including:

Weld Neck flanges

Blind flanges

For use in high-pressure transmission pipelines, primarily ASME B31.4 (liquid hydrocarbons) and ASME B31.8 (natural gas).

Dimensions: MSS SP-44 matches ASME B16.47 Series A for larger diameter flanges ($\geq 26''$).

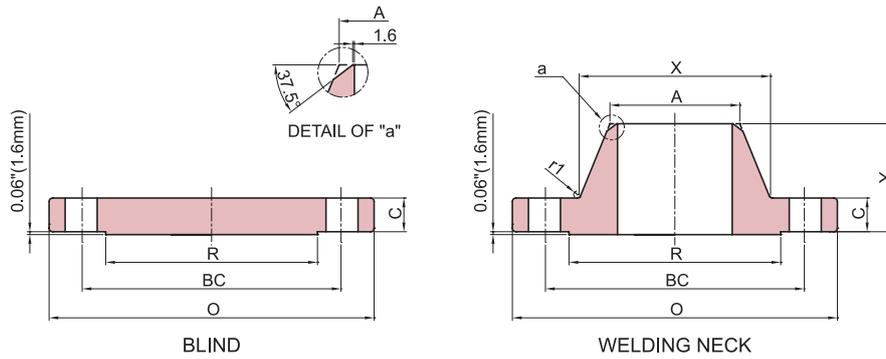
Facing: Raised Face (RF) or RTJ

Bolt Holes: ANSI/ASME B16.5 / B16.47 pattern

Hub Design: Heavy-duty neck for better weldability and pressure containment

CLASS 150 FLANGES

ASME B 16.47 SERIES A, MSS SP44

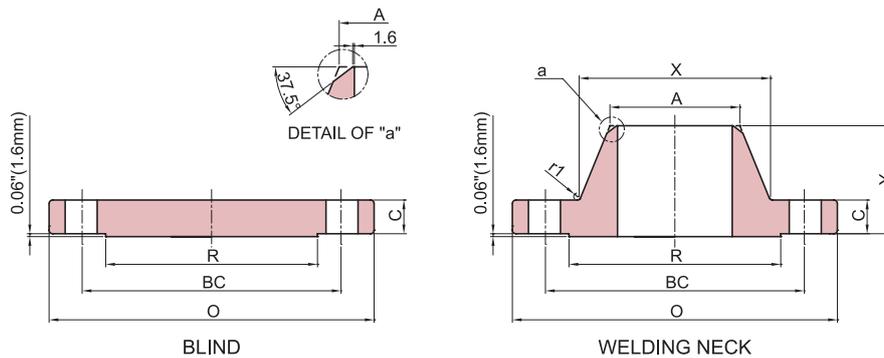


Unit : mm

Nominal Pipe Size	O.D. OF Flange	Thickness		Length Through Hub	Diam. of Hub	Hub Diam. Top	Raised Face Diam.	Drilling			Diam. of Bolt (inch)	Fillet Radius Min.
		W.N.F	Blind					Diam. of Bolt Circle	No. of Bolt Holes	Diam. of Bolt Holes		
		O	C									C
26	870.0	68.3	68.3	120.7	676.1	660.4	749.3	806.5	24	35.1	1 1/4	9.7
28	927.1	71.4	71.4	125.5	726.9	711.2	800.1	863.6	28	35.1	1 1/4	11.2
30	984.3	74.7	74.7	136.7	781.1	762.0	857.3	914.4	28	35.1	1 1/4	11.2
32	1060.5	81.0	81.0	144.5	831.9	812.8	914.4	977.9	28	41.1	1 1/2	11.2
34	1111.3	82.6	82.6	149.4	882.7	863.6	965.2	1028.7	32	41.1	1 1/2	12.7
36	1168.4	90.4	90.4	157.2	933.5	914.4	1022.4	1085.9	32	41.1	1 1/2	12.7
38	1238.3	87.4	87.4	157.2	990.6	965.2	1073.2	1149.4	32	41.1	1 1/2	12.7
40	1289.1	90.4	90.4	163.6	1041.4	1016.0	1124.0	1200.2	36	41.1	1 1/2	12.7
42	1346.2	96.8	96.8	171.5	1092.2	1066.8	1193.8	1257.3	36	41.1	1 1/2	12.7
44	1403.4	101.6	101.6	177.8	1143.0	1117.6	1244.6	1314.5	40	41.1	1 1/2	12.7
46	1454.2	103.1	103.1	185.7	1196.8	1168.4	1295.4	1365.3	40	41.1	1 1/2	12.7
48	1511.3	108.0	108.0	192.0	1247.6	1219.2	1358.9	1422.4	44	41.1	1 1/2	12.7
50	1568.5	111.3	111.3	203.2	1301.8	1270.0	1409.7	1479.6	44	47.8	1 3/4	12.7
52	1625.6	115.8	115.8	209.6	1352.6	1320.8	1460.5	1536.7	44	47.8	1 3/4	12.7
54	1682.8	120.7	120.7	215.9	1403.4	1371.6	1511.3	1593.9	44	47.8	1 3/4	12.7
56	1746.3	124.0	124.0	228.6	1457.5	1422.4	1574.8	1651.0	48	47.8	1 3/4	12.7
58	1803.4	128.5	128.5	235.0	1508.3	1473.2	1625.6	1708.2	48	47.8	1 3/4	12.7
60	1854.2	131.8	131.8	239.8	1559.1	1524.0	1676.4	1759.0	52	47.8	1 3/4	12.7

CLASS 300 FLANGES

ASME B 16.47 SERIES A, MSS SP44

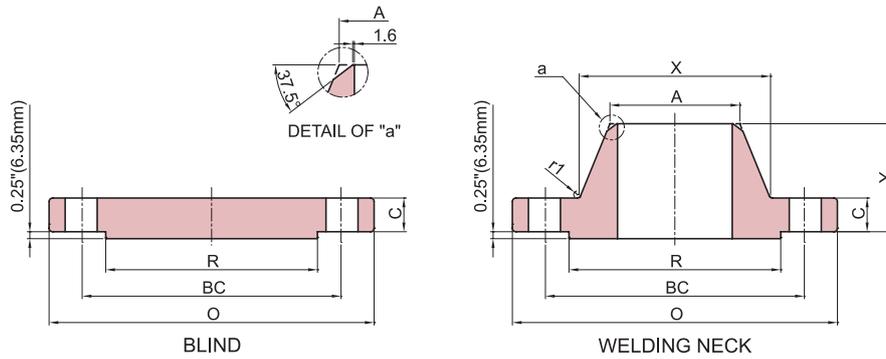


Unit : mm

Nominal Pipe Size	O.D. OF Flange	Thickness		Length Through Hub	Diam. of Hub	Hub Diam. Top	Raised Face Diam.	Drilling			Diam. of Bolt (inch)	Fillet Radius Min.
		W.N.F	Blind					Diam. of Bolt Circle	No. of Bolt Holes	Diam. of Bolt Holes		
		O	C									C
26	971.6	79.2	84.1	184.2	720.9	660.4	749.3	876.3	28	44.5	1 5/8	9.7
28	1035.1	85.9	90.4	196.9	774.7	711.2	800.1	939.8	28	44.5	1 5/8	11.2
30	1092.2	91.9	95.3	209.6	827.0	762.0	857.3	997.0	28	47.8	1 3/4	11.2
32	1149.4	98.6	100.1	222.3	881.1	812.8	914.4	1054.1	28	50.8	1 7/8	11.2
34	1206.5	101.6	104.6	231.6	936.8	863.6	965.2	1104.9	28	50.8	1 7/8	12.7
36	1270.0	104.6	111.3	241.3	990.6	914.4	1022.4	1168.4	32	53.8	2	12.7
38	1168.4	108.0	108.0	180.8	993.6	965.2	1028.7	1092.2	32	41.1	1 1/2	12.7
40	1238.3	114.3	114.3	193.5	1047.8	1016.0	1085.9	1155.7	32	44.5	1 5/8	12.7
42	1289.1	119.1	119.1	200.2	1098.6	1066.8	1136.7	1206.5	32	44.5	1 5/8	12.7
44	1352.6	124.0	124.0	206.2	1149.4	1117.6	1193.8	1263.7	32	47.8	1 3/4	12.7
46	1416.1	128.5	128.5	215.9	1203.5	1168.4	1244.6	1320.8	28	50.8	1 7/8	12.7
48	1466.9	133.4	133.4	223.8	1254.3	1219.2	1301.8	1371.6	32	50.8	1 7/8	12.7
50	1530.4	139.7	139.7	231.6	1305.1	1270.0	1358.9	1428.8	32	53.8	2	12.7
52	1581.2	144.5	144.5	238.3	1355.9	1320.8	1409.7	1479.6	32	53.8	2	12.7
54	1657.4	152.4	152.4	252.5	1409.7	1371.6	1466.9	1549.4	28	60.5	2 1/4	12.7
56	1708.2	153.9	153.9	260.4	1463.5	1422.4	1517.7	1600.2	28	60.5	2 1/4	12.7
58	1759.0	158.8	158.8	266.7	1514.3	1473.2	1574.8	1651.0	32	60.5	2 1/4	12.7
60	1809.8	163.6	163.6	273.1	1565.1	1524.0	1625.6	1701.8	32	60.5	2 1/4	12.7

CLASS 600 FLANGES

ASME B 16.47 SERIES A, MSS SP44

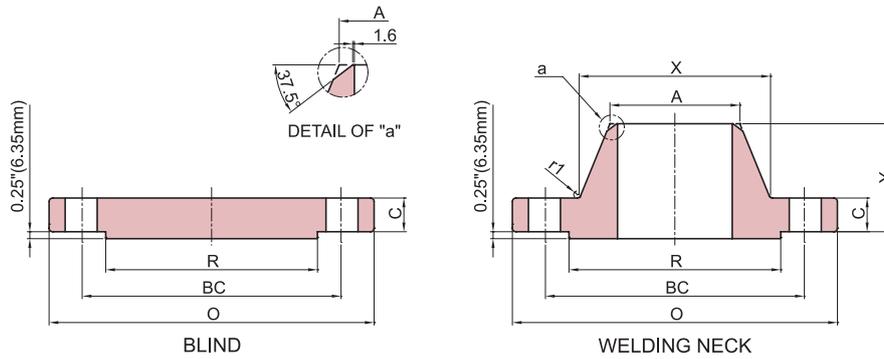


Unit : mm

Nominal Pipe Size	O.D. OF Flange	Thickness		Length Through Hub	Diam. of Hub	Hub Diam. Top	Raised Face Diam.	Drilling			Diam. of Bolt (inch)	Fillet Radius Min.
		W.N.F	Blind					Diam. of Bolt Circle	No. of Bolt Holes	Diam. of Bolt Holes		
		O	C									C
26	1016.0	108.0	125.5	222.3	747.8	660.4	749.3	914.4	28	50.8	1 7/8	12.7
28	1073.2	111.3	131.8	235.0	803.1	711.2	800.1	965.2	28	53.8	2	12.7
30	1130.3	114.3	139.7	247.7	862.1	762.0	857.3	1022.4	28	53.8	2	12.7
32	1193.8	117.3	147.6	260.4	917.4	812.8	914.4	1079.5	28	60.5	2 1/4	12.7
34	1244.6	120.7	153.9	269.7	973.1	863.6	965.2	1130.3	28	60.5	2 1/4	14.2
36	1314.5	124.0	162.1	282.4	1031.7	914.4	1022.4	1193.8	28	66.5	2 1/2	14.2
38	1270.0	152.4	155.4	254.0	1022.4	965.2	1054.1	1162.1	28	60.5	2 1/4	14.2
40	1320.8	158.8	162.1	263.7	1073.2	1016.0	1111.3	1212.9	32	60.5	2 1/4	14.2
42	1403.4	168.1	171.5	279.4	1127.3	1066.8	1168.4	1282.7	28	66.5	2 1/2	14.2
44	1454.2	173.0	177.8	289.1	1181.1	1117.6	1225.6	1333.5	32	66.5	2 1/2	14.2
46	1511.3	179.3	185.7	300.0	1234.9	1168.4	1276.4	1390.7	32	66.5	2 1/2	14.2
48	1593.9	189.0	195.3	316.0	1289.1	1219.2	1333.5	1460.5	32	73.2	2 3/4	14.2
50	1670.1	196.9	203.2	328.7	1343.2	1270.0	1384.3	1524.0	28	79.2	3	14.2
52	1720.9	203.2	209.6	336.6	1394.0	1320.8	1435.1	1574.8	32	79.2	3	14.2
54	1778.0	209.6	217.4	349.3	1447.8	1371.6	1492.3	1632.0	32	79.2	3	14.2
56	1854.2	217.4	225.6	362.0	1501.6	1422.4	1543.1	1695.5	32	85.9	3 1/4	15.7
58	1905.0	222.3	231.6	369.8	1552.4	1473.2	1600.2	1746.3	32	85.9	3 1/4	15.7
60	1993.9	233.4	242.8	388.9	1609.9	1524.0	1657.4	1822.5	28	91.9	3 1/2	17.5

CLASS 900 FLANGES

ASME B 16.47 SERIES A, MSS SP44



Unit : mm

Nominal Pipe Size	O.D. OF Flange	Thickness		Length Through Hub	Diam. of Hub	Hub Diam. Top	Raised Face Diam.	Drilling			Diam. of Bolt (inch)	Fillet Radius Min.
		W.N.F	Blind					Diam. of Bolt Circle	No. of Bolt Holes	Diam. of Bolt Holes		
		O	C									C
26	1085.9	139.7	160.3	285.8	774.7	660.4	749.3	952.5	20	73.2	2 3/4	11.2
28	1168.4	142.7	171.5	298.5	831.9	711.2	800.1	1022.4	20	79.2	3	12.7
30	1231.9	149.4	182.4	311.2	889.0	762.0	857.3	1085.9	20	79.2	3	12.7
32	1314.5	158.8	193.5	330.2	946.2	812.8	914.4	1155.7	20	85.9	3 1/4	12.7
34	1397.0	165.1	204.7	349.3	1006.3	863.6	965.2	1225.6	20	91.9	3 1/2	14.2
36	1460.5	171.5	214.4	362.0	1063.8	914.4	1022.4	1289.1	20	91.9	3 1/2	14.2
38	1460.5	190.5	215.9	352.6	1073.2	965.2	1098.6	1289.1	20	91.9	3 1/2	19.1
40	1511.3	196.9	223.8	363.5	1127.3	1016.0	1162.1	1339.9	24	91.9	3 1/2	20.6
42	1562.1	206.2	231.6	371.3	1176.3	1066.8	1212.9	1390.7	24	91.9	3 1/2	20.6
44	1648.0	214.4	242.8	390.7	1234.9	1117.6	1270.0	1463.5	24	98.6	3 3/4	22.4
46	1733.6	225.6	255.5	411.0	1292.4	1168.4	1333.5	1536.7	24	104.6	4	22.4
48	1784.4	233.4	263.7	419.1	1343.2	1219.2	1384.3	1587.5	24	104.6	4	23.9
50												
52												
54												
56												
58												
60												

To be specified by customer.