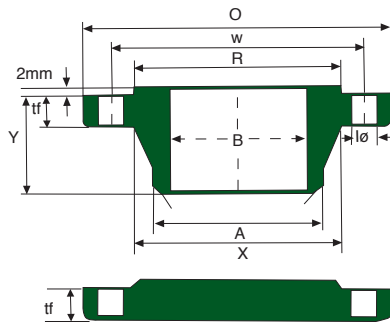


Welding Neck and Blind Flanges

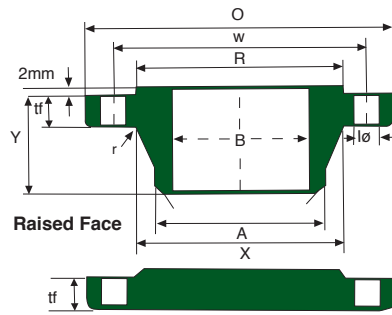
CL 150



ASME B16.47 Series A Equivalent to MSS SP-44

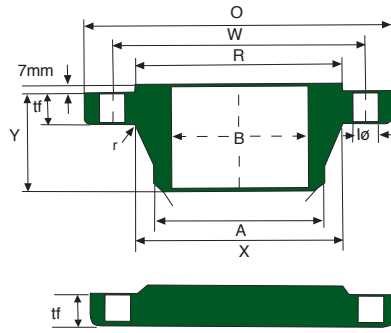
| Pipe | | Flange | | | | Hub | | Raised Face | Drilling Template | | | Min. Fillet Radius |
|------------|--------|--------|------------------------------|-------|--------|--------|------|-------------|-------------------|--------|--------|--------------------|
| Norm. Size | OD mm | O mm | B mm | tf mm | Y mm | A mm | X mm | R mm | Number | lø mm | W mm | r |
| 26" | 660.4 | 870 | To be specified by purchaser | 66.7 | 119 | 660.4 | 676 | 749 | 24 | 34.9 | 806.4 | 10 |
| 28" | 711.2 | 925 | | 69.9 | 124 | 711.2 | 727 | 800 | 28 | 34.9 | 863.6 | 11 |
| 30" | 762.0 | 985 | | 73.1 | 135 | 762.0 | 781 | 857 | 28 | 34.9 | 914.4 | 11 |
| 32" | 812.8 | 1060 | | 79.4 | 143 | 812.8 | 832 | 914 | 28 | 41.3 | 977.9 | 11 |
| 34" | 863.6 | 1110 | | 81.0 | 148 | 863.6 | 883 | 965 | 32 | 41.3 | 1028.7 | 13 |
| 36" | 914.4 | 1170 | | 88.9 | 156 | 914.4 | 933 | 1022 | 32 | 41.3 | 1085.8 | 13 |
| 38" | 965.2 | 1240 | | 85.8 | 156 | 965.2 | 991 | 1073 | 32 | 41.3 | 1149.4 | 13 |
| 40" | 1016.0 | 1290 | | 88.9 | 162 | 1016.0 | 1041 | 1124 | 36 | 41.3 | 1200.2 | 13 |
| 42" | 1066.8 | 1345 | | 95.3 | 170 | 1066.8 | 1092 | 1194 | 36 | 41.3 | 1257.3 | 13 |
| 44" | 1117.6 | 1405 | | 100.1 | 176 | 1117.6 | 1143 | 1245 | 40 | 41.3 | 1314.4 | 13 |
| 46" | 1168.1 | 1455 | | 101.6 | 184 | 1168.4 | 1197 | 1295 | 40 | 41.3 | 1365.2 | 13 |
| 48" | 1219.2 | 1510 | | 106.4 | 191 | 1219.2 | 1248 | 1359 | 44 | 41.3 | 1422.4 | 13 |
| 50" | 1270.0 | 1570 | | 109.6 | 202 | 1270.0 | 1302 | 1410 | 44 | 47.7 | 1479.6 | 13 |
| 52" | 1320.8 | 1625 | | 114.3 | 208 | 1320.8 | 1353 | 1461 | 44 | 47.7 | 1536.7 | 13 |
| 54" | 1371.6 | 1685 | | 119.1 | 214 | 1371.6 | 1403 | 1511 | 44 | 47.7 | 1593.8 | 13 |
| 56" | 1422.4 | 1745 | | 122.3 | 227 | 1422.4 | 1457 | 1575 | 48 | 47.7 | 1651.0 | 13 |
| 58" | 1473.2 | 1805 | 127.0 | 233 | 1473.2 | 1508 | 1626 | 48 | 47.7 | 1708.2 | 13 | |
| 60" | 1524.0 | 1855 | 130.2 | 238 | 1524.0 | 1559 | 1676 | 52 | 47.7 | 1759.0 | 13 | |

Welding Neck and Blind Flanges CL 300



ASME B16.47 Series A Equivalent to MSS SP-44

| Pipe | | Flange | | | | Hub | | Raised Face | Drilling Template | | | Min. Fillet Radius | |
|------------|--------|--------|------------------------------|-------|-------|------|--------|-------------|-------------------|--------|-------|--------------------|----|
| Norm. Size | OD mm | O mm | B mm | tf mm | | Y mm | A mm | X mm | R mm | Number | lø mm | W mm | r |
| | | | | WNF | Blind | | | | | | | | |
| 26" | 660.4 | 970 | To be specified by purchaser | 77.8 | 82.6 | 183 | 660.4 | 721 | 749 | 28 | 44.3 | 876.3 | 10 |
| 28" | 711.2 | 1035 | | 84.2 | 88.9 | 195 | 711.2 | 775 | 800 | 28 | 44.4 | 939.8 | 11 |
| 30" | 762.0 | 1090 | | 90.5 | 93.7 | 208 | 762.0 | 827 | 857 | 28 | 47.6 | 997 | 11 |
| 32" | 812.8 | 1150 | | 96.9 | 98.5 | 221 | 812.8 | 881 | 914 | 28 | 50.8 | 1054.1 | 11 |
| 34" | 863.6 | 1205 | | 100.1 | 103.2 | 230 | 863.6 | 937 | 965 | 28 | 50.8 | 1104.9 | 13 |
| 36" | 914.4 | 1270 | | 103.2 | 109.6 | 240 | 914.4 | 991 | 1022 | 32 | 54 | 1168.4 | 13 |
| 38" | 965.2 | 1170 | | 106.4 | 106.4 | 179 | 965.2 | 994 | 1029 | 32 | 41.2 | 1092.2 | 13 |
| 40" | 1016.0 | 1240 | | 112.8 | 112.8 | 192 | 1016.0 | 1048 | 1086 | 32 | 44.4 | 1155.7 | 13 |
| 42" | 1066.8 | 1290 | | 117.5 | 117.5 | 198 | 1066.8 | 1099 | 1137 | 32 | 44.4 | 1206.5 | 13 |
| 44" | 1117.6 | 1355 | | 122.3 | 122.3 | 205 | 1117.6 | 1149 | 1194 | 32 | 47.6 | 1263.6 | 13 |
| 46" | 1168.1 | 1415 | | 127.0 | 127.0 | 214 | 1168.4 | 1203 | 1245 | 28 | 50.8 | 1320.8 | 13 |
| 48" | 1219.2 | 1465 | | 131.8 | 131.8 | 222 | 1219.2 | 1254 | 1302 | 32 | 50.8 | 1371.6 | 13 |
| 50" | 1270.0 | 1530 | | 138.2 | 138.2 | 230 | 1270.0 | 1305 | 1359 | 32 | 53.9 | 1428.8 | 13 |
| 52" | 1320.8 | 1580 | | 142.9 | 142.9 | 237 | 1320.8 | 1356 | 1410 | 32 | 53.9 | 1479.6 | 13 |
| 54" | 1371.6 | 1660 | | 150.9 | 150.9 | 251 | 1371.6 | 1410 | 1467 | 28 | 60.3 | 1549.4 | 13 |
| 56" | 1422.4 | 1710 | | 152.4 | 152.4 | 259 | 1422.4 | 1464 | 1518 | 28 | 60.3 | 1600.2 | 13 |
| 58" | 1473.2 | 1760 | | 157.2 | 157.2 | 265 | 1473.2 | 1514 | 1575 | 32 | 60.3 | 1651.0 | 13 |
| 60" | 1524.0 | 1810 | | 162.0 | 162.0 | 271 | 1524.0 | 1565 | 1626 | 32 | 60.3 | 1701.8 | 13 |



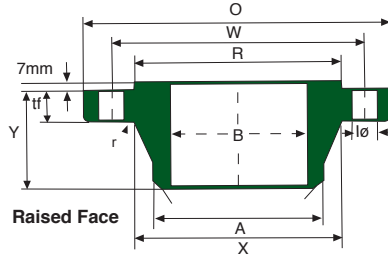
Welding Neck and Blind Flanges CL 600

ASME B16.47 Series A Equivalent to MSS SP-44

| Pipe | | Flange | | | | Hub | | Raised Face | Drilling Template | | | Min. Fillet Radius | |
|------------|--------|--------|------------------------------|-------|-------|------|--------|-------------|-------------------|--------|-------|--------------------|----|
| Norm. Size | OD mm | O mm | B mm | tf mm | | Y mm | A mm | X mm | R mm | Number | l0 mm | W mm | r |
| | | | | WNF | Blind | | | | | | | | |
| 26" | 660.4 | 1015 | To be specified by purchaser | 108.0 | 125.5 | 222 | 660.4 | 748 | 749 | 28 | 50.8 | 914.4 | 13 |
| 28" | 711.2 | 1075 | | 111.2 | 131.8 | 235 | 711.2 | 803 | 800 | 28 | 54 | 965.2 | 13 |
| 30" | 762.0 | 1130 | | 114.3 | 139.7 | 248 | 762.0 | 862 | 857 | 28 | 54 | 1022.3 | 13 |
| 32" | 812.8 | 1195 | | 117.5 | 147.7 | 260 | 812.8 | 918 | 914 | 28 | 60.3 | 1079.5 | 13 |
| 34" | 863.6 | 1245 | | 120.7 | 154 | 270 | 863.6 | 973 | 965 | 28 | 60.3 | 1130.3 | 14 |
| 36" | 914.4 | 1315 | | 123.9 | 162 | 283 | 914.4 | 1032 | 1022 | 32 | 66.7 | 1193.8 | 14 |
| 38" | 965.2 | 1270 | | 152.4 | 155 | 254 | 965.2 | 1022 | 1054 | 32 | 60.3 | 1162.0 | 14 |
| 40" | 1016.0 | 1320 | | 158.8 | 162 | 264 | 1016.0 | 1073 | 1111 | 32 | 60.3 | 1212.8 | 14 |
| 42" | 1066.8 | 1405 | | 168.3 | 171.5 | 278 | 1066.8 | 1127 | 1168 | 28 | 66.7 | 1282.7 | 14 |
| 44" | 1117.6 | 1455 | | 173.1 | 177.8 | 289 | 1117.6 | 1181 | 1226 | 32 | 65.7 | 1333.5 | 14 |
| 46" | 1168.1 | 1510 | | 179.4 | 185.8 | 300 | 1168.4 | 1235 | 1276 | 32 | 65.7 | 1390.6 | 14 |
| 48" | 1219.2 | 1595 | | 189.0 | 195.3 | 316 | 1219.2 | 1289 | 1334 | 32 | 73.0 | 1460.5 | 14 |
| 50" | 1270.0 | 1670 | | 196.9 | 203.2 | 329 | 1270.0 | 1343 | 1384 | 28 | 79.3 | 1524.0 | 14 |
| 52" | 1320.8 | 1720 | | 203.2 | 209.6 | 337 | 1320.8 | 1394 | 1435 | 32 | 79.3 | 1574.8 | 14 |
| 54" | 1371.6 | 1780 | | 209.6 | 217.5 | 349 | 1371.6 | 1448 | 1492 | 32 | 79.3 | 1632.0 | 14 |
| 56" | 1422.4 | 1855 | | 217.5 | 225.5 | 362 | 1422.4 | 1502 | 1543 | 32 | 85.7 | 1695.4 | 16 |
| 58" | 1473.2 | 1905 | | 222.3 | 231.8 | 370 | 1473.2 | 1553 | 1600 | 32 | 85.7 | 1746.2 | 16 |
| 60" | 1524.0 | 1995 | | 233.4 | 242.9 | 389 | 1524.0 | 1610 | 1657 | 28 | 92.0 | 1822.4 | 17 |

Welding Neck and Blind Flanges

CL 900



ASME B16.47 Series A Equivalent to MSS SP-44

| Pipe | | Flange | | | | Hub | | Raised Face | Drilling Template | | | Min. Fillet Radius | |
|------------|--------|--------|------------------------------|-------|-------|------|--------|-------------|-------------------|--------|-------|--------------------|----|
| Norm. Size | OD mm | O mm | B mm | tf mm | | Y mm | A mm | X mm | R mm | Number | lø mm | W mm | r |
| | | | | WNF | Blind | | | | | | | | |
| 26" | 660.4 | 1085 | To be specified by purchaser | 139.7 | 160.4 | 286 | 660.4 | 775 | 749 | 20 | 73.0 | 952.5 | 11 |
| 28" | 711.2 | 1170 | | 142.9 | 171.5 | 298 | 711.2 | 832 | 800 | 20 | 79.4 | 1022.4 | 13 |
| 30" | 762 | 1230 | | 149.3 | 182.6 | 311 | 762.0 | 889 | 857 | 20 | 79.4 | 1085.8 | 13 |
| 32" | 812.8 | 1315 | | 158.8 | 193.7 | 330 | 812.8 | 946 | 914 | 20 | 85.7 | 1155.7 | 13 |
| 34" | 863.6 | 1395 | | 165.1 | 204.8 | 349 | 863.6 | 1006 | 965 | 20 | 92.1 | 1225.6 | 14 |
| 36" | 914.4 | 1460 | | 171.5 | 214.4 | 362 | 914.4 | 1064 | 1022 | 20 | 92.1 | 1289.0 | 14 |
| 38" | 965.2 | 1460 | | 190.5 | 215.9 | 352 | 965.2 | 1073 | 1099 | 20 | 92.1 | 1289.0 | 19 |
| 40" | 1016 | 1510 | | 196.9 | 223.9 | 364 | 1016.0 | 1127 | 1162 | 24 | 92.1 | 1339.8 | 21 |
| 42" | 1066.8 | 1560 | | 206.4 | 231.8 | 371 | 1066.8 | 1176 | 1213 | 24 | 92.1 | 1390.6 | 21 |
| 44" | 1117.6 | 1650 | | 214.4 | 242.9 | 391 | 1117.6 | 1235 | 1270 | 24 | 98.4 | 1463.7 | 22 |
| 46" | 1168.1 | 1735 | | 225.5 | 255.6 | 411 | 1168.4 | 1292 | 1334 | 24 | 104.7 | 1536.7 | 22 |
| 48" | 1219.2 | 1785 | | 233.4 | 263.6 | 419 | 1219.2 | 1343 | 1384 | 24 | 104.7 | 1587.5 | 24 |