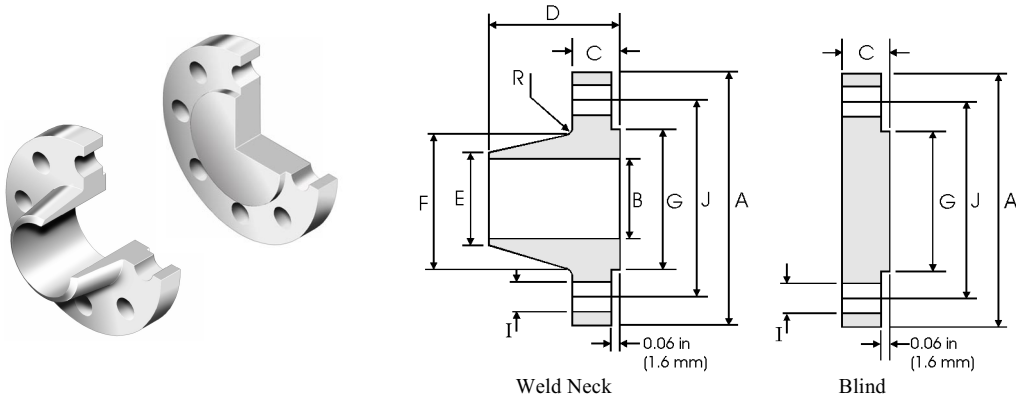


ASME B16.47 Series A (MSS SP-44) Flanges



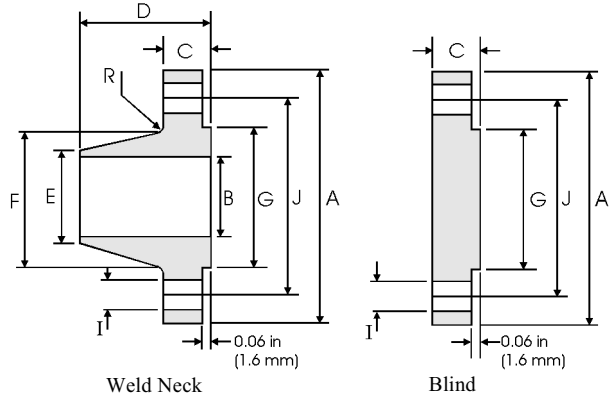
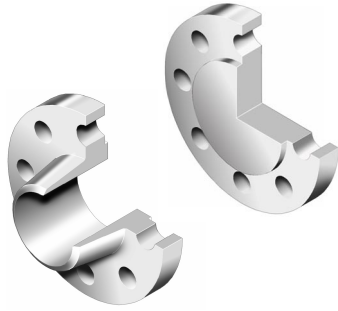
Class 150 lb

| Pipe | Flange Data | | | Hub Data | | | Raised Face | Drilling Data | | | Radius |
|-------------------|------------------|--------------------------|----------------------------|--------------------|------------------------|-----------------|-----------------|-----------------|--------------------|-----------------------------|---------------|
| Nominal Pipe Size | A | C | D | E | F | G | H | I | J | R | |
| | Overall Diameter | WNF Flange Thickness min | Blind Flange Thickness min | Overall Length WNF | Diameter at Weld Bevel | Hub Diameter | Face Diameter | Number of Holes | Bolt Hole Diameter | Diameter of Circle of Holes | Fillet |
| | in mm | in mm | in mm | in mm | in mm | in mm | in mm | | in mm | in mm | in mm |
| 22 | 29.50 749.30 | 1.81 45.97 | 1.81 45.97 | 5.88 149.35 | 22.00 558.80 | 24.00 609.60 | 25.25 641.35 | 20 | 1.38 35.05 | 27.25 692.15 | 0.38 9.65 |
| 26 | 34.25 869.95 | 2.69 68.33 | 2.69 68.33 | 4.75 120.65 | 26.00 660.40 | 26.62 676.15 | 29.50 749.30 | 24 | 1.38 35.05 | 31.75 806.45 | 0.38 9.65 |
| 28 | 36.50 927.10 | 2.81 71.37 | 2.81 71.37 | 4.94 125.48 | 28.00 711.20 | 28.62 726.95 | 31.50 800.10 | 28 | 1.38 35.05 | 34.00 863.60 | 0.44 11.18 |
| 30 | 38.75 984.25 | 2.94 74.68 | 2.94 74.68 | 5.38 136.65 | 30.00 762.00 | 30.75 781.05 | 33.75 857.25 | 28 | 1.38 35.05 | 36.00 914.40 | 0.44 11.18 |
| 32 | 41.75 1060.5 | 3.19 81.03 | 3.19 81.03 | 5.69 144.53 | 32.00 812.80 | 32.75 831.85 | 36.00 914.40 | 28 | 1.62 41.15 | 38.50 977.90 | 0.44 11.18 |
| 34 | 43.75 1111.3 | 3.25 82.55 | 3.25 82.55 | 5.88 149.35 | 34.00 863.60 | 34.75 882.65 | 38.00 965.20 | 32 | 1.62 41.15 | 40.50 1028.7 | 0.50 12.70 |
| 36 | 46.00 1168.4 | 3.56 90.42 | 3.56 90.42 | 6.19 157.23 | 36.00 914.40 | 36.75 933.45 | 40.25 1022.4 | 32 | 1.62 41.15 | 42.75 1085.9 | 0.50 12.70 |
| 38 | 48.75 1238.3 | 3.44 87.38 | 3.44 87.38 | 6.19 157.23 | 38.00 965.20 | 39.00 990.60 | 42.25 1073.2 | 32 | 1.62 41.15 | 45.25 1149.4 | 0.50 12.70 |
| 40 | 50.75 1289.1 | 3.56 90.42 | 3.56 90.42 | 6.44 163.58 | 40.00 1016.0 | 41.00 1041.4 | 44.25 1124.0 | 36 | 1.62 41.15 | 47.25 1200.2 | 0.50 12.70 |
| 42 | 53.00 1346.2 | 3.81 96.77 | 3.81 96.77 | 6.75 171.45 | 42.00 1066.8 | 43.00 1092.2 | 47.00 1193.8 | 36 | 1.62 41.15 | 49.50 1257.3 | 0.50 12.70 |
| 44 | 55.25 1403.4 | 4.00 101.60 | 4.00 101.60 | 7.00 177.80 | 44.00 1117.6 | 45.00 1143.0 | 49.00 1244.6 | 40 | 1.62 41.15 | 51.75 1314.5 | 0.50 12.70 |
| 46 | 57.25 1454.2 | 4.06 103.12 | 4.06 103.12 | 7.31 185.67 | 46.00 1168.4 | 47.12 1196.9 | 51.00 1295.4 | 40 | 1.62 41.15 | 53.75 1365.3 | 0.50 12.70 |
| 48 | 59.50 1511.3 | 4.25 107.95 | 4.25 107.95 | 7.56 192.02 | 48.00 1219.2 | 49.12 1247.7 | 53.50 1358.9 | 44 | 1.62 41.15 | 56.00 1422.4 | 0.50 12.70 |

Notes

- ASME B16.47 Series A flanges (≥ NPS 26) are MSS SP-44 flanges. MSS SP-44 also covers NPS 12 to NPS 24 flanges which are equivalent to ASME B16.5. MSS SP-44 is the only source for the NPS 22 flange dimensions above.
- Dimension B is to be specified by the purchaser. It corresponds to the pipe inside diameter.
- Flat face flanges may be provided at full thickness, C, or with raised face removed (the latter is nonstandard).
- WNF = Weld Neck Flange.
- The large end of the hub may be straight or tapered.
- For ring joint facings see page 8-6. For weld end bevel see page 8-5.
- For tolerances see page 8-4.

ASME B16.47 Series A (MSS SP-44) Flanges



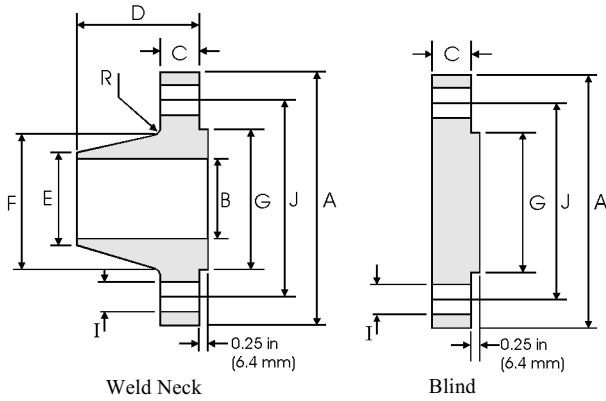
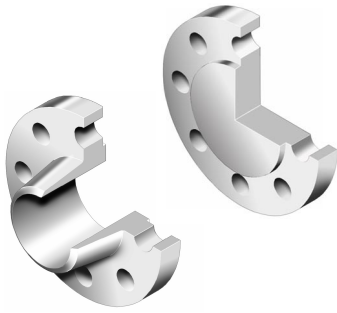
Class 300 lb

| Pipe | Flange Data | | | Hub Data | | Raised Face | Drilling Data | | | Radius | |
|-------------------|------------------|--------------------------|----------------------------|--------------------|------------------------|-----------------|-----------------|-----------------|--------------------|-----------------------------|---------------|
| Nominal Pipe Size | A | C | D | E | F | G | H | I | J | R | |
| | Overall Diameter | WNF Flange Thickness min | Blind Flange Thickness min | Overall Length WNF | Diameter at Weld Bevel | Hub Diameter | Face Diameter | Number of Holes | Bolt Hole Diameter | Diameter of Circle of Holes | Fillet |
| | in mm | in mm | in mm | in mm | in mm | in mm | in mm | | in mm | in mm | in mm |
| 22 | 33.00 838.20 | 2.62 66.55 | 2.62 66.55 | 6.50 165.10 | 22.00 558.80 | 25.25 641.35 | 25.25 641.35 | 24 | 1.62 41.15 | 29.25 742.95 | 0.38 9.65 |
| 26 | 38.25 971.55 | 3.12 79.25 | 3.31 84.07 | 7.25 184.15 | 26.00 660.40 | 28.38 720.85 | 29.50 749.30 | 28 | 1.75 44.45 | 34.50 876.30 | 0.38 9.65 |
| 28 | 40.75 1035.1 | 3.38 85.85 | 3.56 90.42 | 7.75 196.85 | 28.00 711.20 | 30.50 774.70 | 31.50 800.10 | 28 | 1.75 44.45 | 37.00 939.80 | 0.44 11.18 |
| 30 | 43.00 1092.2 | 3.62 91.95 | 3.75 95.25 | 8.25 209.55 | 30.00 762.00 | 32.56 827.02 | 33.75 857.25 | 28 | 1.88 47.75 | 39.25 996.95 | 0.44 11.18 |
| 32 | 45.25 1149.4 | 3.88 98.55 | 3.94 100.08 | 8.75 222.25 | 32.00 812.80 | 34.69 881.13 | 36.00 914.40 | 28 | 2.00 50.80 | 41.50 1054.1 | 0.44 11.18 |
| 34 | 47.50 1205.0 | 4.00 101.60 | 4.12 104.65 | 9.12 231.65 | 34.00 863.60 | 36.88 936.75 | 38.00 965.20 | 28 | 2.00 50.80 | 43.50 1104.9 | 0.50 12.70 |
| 36 | 50.00 1270.0 | 4.12 104.65 | 4.38 111.25 | 9.50 241.30 | 36.00 914.40 | 39.00 990.60 | 40.25 1022.4 | 32 | 2.12 53.85 | 46.00 1168.4 | 0.50 12.70 |
| 38 | 46.00 1168.4 | 4.25 107.95 | 4.25 107.95 | 7.12 180.85 | 38.00 965.20 | 39.12 993.65 | 40.50 1028.7 | 32 | 1.62 41.15 | 43.00 1092.2 | 0.50 12.70 |
| 40 | 48.75 1238.3 | 4.50 114.30 | 4.50 114.30 | 7.62 193.55 | 40.00 1016.0 | 41.25 1047.8 | 42.75 1085.9 | 32 | 1.75 44.45 | 45.50 1155.7 | 0.50 12.70 |
| 42 | 50.75 1289.1 | 4.69 119.13 | 4.69 119.13 | 7.88 200.15 | 42.00 1066.8 | 43.25 1098.6 | 44.75 1136.7 | 32 | 1.75 44.45 | 47.50 1206.6 | 0.50 12.70 |
| 44 | 53.25 1352.6 | 4.88 123.95 | 4.88 123.95 | 8.12 206.25 | 44.00 1117.6 | 45.25 1149.4 | 47.00 1193.8 | 32 | 1.88 47.75 | 49.75 1263.7 | 0.50 12.70 |
| 46 | 55.75 1416.1 | 5.06 128.52 | 5.06 128.52 | 8.50 215.90 | 46.00 1168.4 | 47.38 1203.5 | 49.00 1244.0 | 28 | 2.00 50.80 | 52.00 1320.8 | 0.50 12.70 |
| 48 | 57.75 1466.9 | 5.25 133.35 | 5.25 133.35 | 8.81 223.77 | 48.00 1219.2 | 49.38 1254.3 | 51.25 1301.8 | 32 | 2.00 50.80 | 54.00 1371.6 | 0.50 12.70 |

Notes

- ASME B16.47 Series A flanges (≥ NPS 26) are MSS SP-44 flanges. MSS SP-44 also covers NPS 12 to NPS 24 flanges which are equivalent to ASME B16.5. MSS SP-44 is the only source for the NPS 22 flange dimensions above.
- Dimension B is to be specified by the purchaser. It corresponds to the pipe inside diameter.
- Flat face flanges may be provided at full thickness, C, or with raised face removed (the latter is nonstandard).
- WNF = Weld Neck Flange.
- The large end of the hub may be straight or tapered.
- For ring joint facings see page 8-6. For weld end bevel see page 8-5.
- For tolerances see page 8-4.

ASME B16.47 Series A (MSS SP-44) Flanges



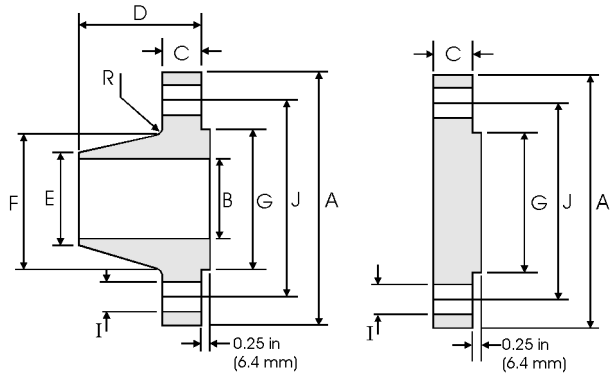
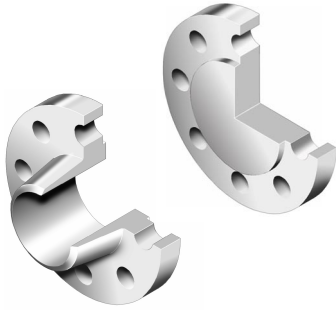
Class 400 lb

| Pipe | Flange Data | | | Hub Data | | | Raised Face | Drilling Data | | | Radius |
|-------------------|------------------|--------------------------|----------------------------|--------------------|------------------------|-----------------|-----------------|-----------------|--------------------|-----------------------------|---------------|
| Nominal Pipe Size | A | C | | D | E | F | G | H | I | J | R |
| | Overall Diameter | WNF Flange Thickness min | Blind Flange Thickness min | Overall Length WNF | Diameter at Weld Bevel | Hub Diameter | Face Diameter | Number of Holes | Bolt Hole Diameter | Diameter of Circle of Holes | Fillet |
| | in mm | in mm | in mm | in mm | in mm | in mm | in mm | | in mm | in mm | in mm |
| 22 | 33.00 838.20 | 2.88 73.15 | 2.88 73.15 | 6.75 171.45 | 22.00 558.80 | 25.25 641.35 | 25.25 641.35 | 24 | 1.75 44.45 | 29.25 742.95 | 0.44 11.18 |
| 26 | 38.25 971.55 | 3.50 88.90 | 3.88 98.55 | 7.62 193.55 | 26.00 660.40 | 28.62 726.95 | 29.50 749.30 | 28 | 1.88 47.75 | 34.50 876.30 | 0.44 11.18 |
| 28 | 40.75 1035.1 | 3.75 95.25 | 4.12 104.65 | 8.12 206.25 | 28.00 711.20 | 30.81 782.57 | 31.50 800.10 | 28 | 2.00 50.80 | 37.00 939.80 | 0.50 12.70 |
| 30 | 43.00 1092.2 | 4.00 101.60 | 4.38 111.25 | 8.62 218.95 | 30.00 762.00 | 32.94 836.68 | 33.75 857.25 | 28 | 2.12 53.85 | 39.25 996.95 | 0.50 12.70 |
| 32 | 45.25 1149.4 | 4.25 107.95 | 4.56 115.82 | 9.12 231.65 | 32.00 812.80 | 35.00 889.00 | 36.00 914.40 | 28 | 2.12 53.85 | 41.50 1054.1 | 0.50 12.70 |
| 34 | 47.50 1206.5 | 4.38 111.25 | 4.81 122.17 | 9.50 241.30 | 34.00 863.60 | 37.19 944.63 | 38.00 965.20 | 28 | 2.12 53.85 | 43.50 1104.9 | 0.56 14.22 |
| 36 | 50.00 1270.0 | 4.50 114.30 | 5.06 128.52 | 9.88 250.95 | 36.00 914.40 | 39.38 1000.3 | 40.25 1022.4 | 32 | 2.12 53.85 | 46.00 1168.4 | 0.56 14.22 |
| 38 | 47.50 1206.5 | 4.88 123.95 | 4.88 123.95 | 8.12 206.25 | 48.00 1219.2 | 39.50 1003.3 | 40.75 1035.1 | 32 | 1.88 47.75 | 44.00 1117.6 | 0.56 14.22 |
| 40 | 50.00 1270.0 | 5.12 130.05 | 5.12 130.05 | 8.50 215.90 | 40.00 1016.0 | 41.50 1054.1 | 43.00 1092.2 | 32 | 2.00 50.80 | 46.25 1174.8 | 0.56 14.22 |
| 42 | 52.00 1320.8 | 5.25 133.35 | 5.25 133.35 | 8.81 223.77 | 42.00 1066.8 | 43.62 1107.9 | 45.00 1143.0 | 32 | 2.00 50.80 | 48.25 1225.6 | 0.56 14.22 |
| 44 | 54.50 1384.3 | 5.50 139.70 | 5.50 139.70 | 9.18 233.17 | 44.00 1117.6 | 45.62 1158.7 | 47.25 1200.2 | 32 | 2.12 53.85 | 50.50 1282.7 | 0.56 14.22 |
| 46 | 56.75 1441.5 | 5.75 146.05 | 5.75 146.05 | 9.62 244.35 | 46.00 1168.4 | 47.75 1212.9 | 49.50 1257.3 | 36 | 2.12 53.85 | 52.75 1339.9 | 0.56 14.22 |
| 48 | 59.50 1511.3 | 6.00 152.40 | 6.00 152.40 | 10.12 257.05 | 48.00 1219.2 | 49.88 1267.0 | 51.50 1308.1 | 28 | 2.38 60.45 | 55.25 1403.4 | 0.56 14.22 |

Notes

- ASME B16.47 Series A flanges (≥ NPS 26) are MSS SP-44 flanges. MSS SP-44 also covers NPS 12 to NPS 24 flanges which are equivalent to ASME B16.5. MSS SP-44 is the only source for the NPS 22 flange dimensions above.
- Class 400 Series A dimensions at NPS 38 and larger also apply to Class 400 Series B flanges.
- Dimension B is to be specified by the purchaser. It corresponds to the pipe inside diameter.
- Flat face flanges may be provided at full thickness, C + raised face, or with raised face removed (the latter is nonstandard).
- WNF = Weld Neck Flange.
- The large end of the hub may be straight or tapered.
- For ring joint facings see page 8-6. For weld end bevel see page 8-5.
- For tolerances see page 8-4.

ASME B16.47 Series A (MSS SP-44) Flanges



Weld Neck

Blind

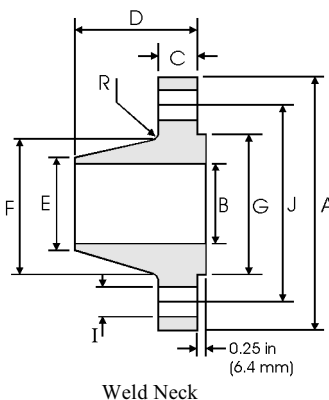
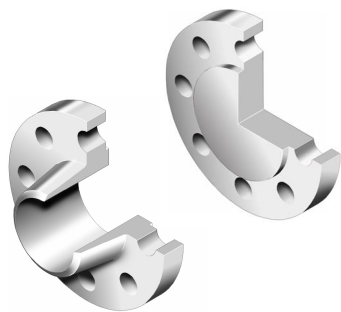
Class 600 lb

| Pipe | Flange Data | | | Hub Data | | Raised Face | Drilling Data | | | Radius | |
|-------------------|------------------|--------------------------|----------------------------|--------------------|------------------------|------------------|------------------|-----------------|--------------------|-----------------------------|-----------------|
| Nominal Pipe Size | A | C | D | E | F | G | H | I | J | R | |
| | Overall Diameter | WNF Flange Thickness min | Blind Flange Thickness min | Overall Length WNF | Diameter at Weld Bevel | Hub Diameter | Face Diameter | Number of Holes | Bolt Hole Diameter | Diameter of Circle of Holes | Fillet |
| | in mm | in mm | in mm | in mm | in mm | in mm | in mm | | in mm | in mm | in mm |
| 22 | 34.25 869.95 | 3.75 95.25 | 3.75 95.25 | 7.75 196.85 | 22.00 558.80 | 26.25 666.75 | 25.25 641.35 | 24 | 1.88 47.75 | 30.62 777.75 | 0.44 11.18 |
| 26 | 40.00 1016.0 | 4.25 107.95 | 4.94 125.48 | 8.75 222.25 | 26.00 660.40 | 29.44 747.78 | 29.50 749.30 | | 28 | 2.00 50.80 | 36.00 914.40 |
| 28 | 42.25 1073.2 | 4.38 111.25 | 5.19 131.83 | 9.25 234.95 | 28.00 711.20 | 31.62 803.15 | 31.50 800.10 | 28 | | 2.12 53.85 | 38.00 965.20 |
| 30 | 44.50 1130.3 | 4.50 114.30 | 5.50 139.70 | 9.75 247.65 | 30.00 762.00 | 33.94 862.08 | 33.75 857.25 | | 28 | 2.12 53.85 | 40.25 1022.4 |
| 32 | 47.00 1193.8 | 4.62 117.35 | 5.81 147.57 | 10.25 260.35 | 32.00 812.80 | 36.12 917.45 | 36.00 914.40 | 28 | | 2.38 60.45 | 42.50 1079.5 |
| 34 | 49.00 1244.6 | 4.75 120.65 | 6.06 153.92 | 10.62 269.75 | 34.00 863.60 | 38.31 973.07 | 38.00 965.20 | | 28 | 2.38 60.45 | 44.50 1130.3 |
| 36 | 51.75 1314.5 | 4.88 123.95 | 6.38 162.05 | 11.12 282.45 | 36.00 914.40 | 40.62 1031.75 | 40.25 1022.35 | 28 | | 2.62 66.55 | 47.00 1193.0 |
| 38 | 50.00 1270.0 | 6.00 152.40 | 6.12 155.45 | 10.00 254.00 | 38.00 965.20 | 40.25 1022.35 | 41.50 1054.10 | | 28 | 2.38 60.45 | 45.75 1162.1 |
| 40 | 52.00 1320.8 | 6.25 158.75 | 6.38 162.05 | 10.38 263.65 | 40.00 1016.0 | 42.25 1073.2 | 43.75 1111.3 | 32 | | 2.38 60.45 | 47.75 1212.9 |
| 42 | 55.25 1403.4 | 6.62 168.15 | 6.75 171.45 | 11.00 279.40 | 42.00 1066.8 | 44.38 1127.3 | 46.00 1168.4 | | 28 | 2.62 66.55 | 50.50 1282.7 |
| 44 | 57.25 1454.2 | 6.81 172.97 | 7.00 177.80 | 11.38 289.05 | 44.00 1117.6 | 46.50 1181.1 | 48.25 1225.6 | 32 | | 2.62 66.55 | 52.50 1333.5 |
| 46 | 59.50 1511.3 | 7.06 179.32 | 7.31 185.67 | 11.81 299.97 | 46.00 1168.4 | 48.62 1235.0 | 50.25 1276.4 | | 32 | 2.62 66.55 | 54.75 1390.7 |
| 48 | 62.75 1593.9 | 7.44 188.98 | 7.69 195.33 | 12.44 315.98 | 48.00 1219.2 | 50.75 1289.1 | 52.50 1333.5 | 32 | | 2.88 73.15 | 57.50 1460.5 |

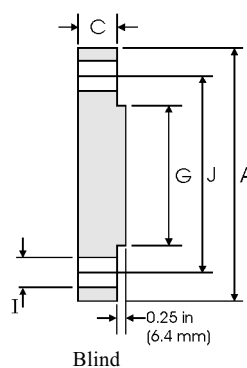
Notes

- ASME B16.47 Series A flanges (≥ NPS 26) are MSS SP-44 flanges. MSS SP-44 also covers NPS 12 to NPS 24 flanges which are equivalent to ASME B16.5. MSS SP-44 is the only source for the NPS 22 flange dimensions above.
- Class 600 Series A dimensions at NPS 38 and larger also apply to Class 600 Series B flanges.
- Dimension B is to be specified by the purchaser. It corresponds to the pipe inside diameter.
- Flat face flanges may be provided at full thickness, C + raised face, or with raised face removed (the latter is nonstandard).
- WNF = Weld Neck Flange.
- The large end of the hub may be straight or tapered.
- For ring joint facings see page 8-6. For weld end bevel see page 8-5.
- For tolerances see page 8-4.

ASME B16.47 Series A (MSS SP-44) Flanges



Weld Neck



Blind

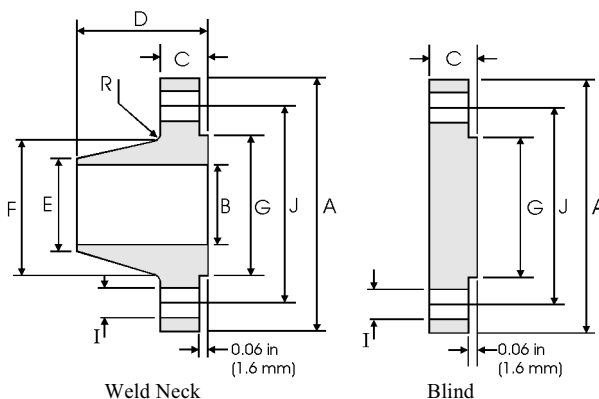
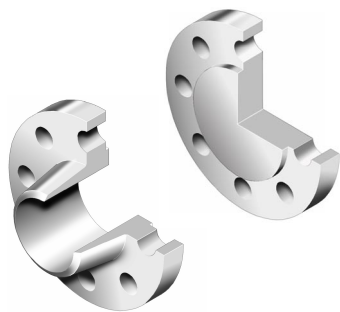
Class 900 lb

| Pipe | Flange Data | | | Hub Data | | | Raised Face | Drilling Data | | | Radius |
|-------------------|------------------|--------------------------|----------------------------|--------------------|------------------------|-----------------|-----------------|-----------------|--------------------|-----------------------------|---------------|
| Nominal Pipe Size | A | C | D | E | F | G | H | I | J | R | |
| | Overall Diameter | WNF Flange Thickness min | Blind Flange Thickness min | Overall Length WNF | Diameter at Weld Bevel | Hub Diameter | Face Diameter | Number of Holes | Bolt Hole Diameter | Diameter of Circle of Holes | Fillet |
| | in mm | in mm | in mm | in mm | in mm | in mm | in mm | | in mm | in mm | in mm |
| 26 | 42.75 1085.9 | 5.50 139.70 | 6.31 160.27 | 11.25 285.75 | 26.00 660.40 | 30.50 774.70 | 29.50 749.30 | 20 | 2.88 73.15 | 37.50 952.50 | 0.44 11.18 |
| 28 | 46.00 1168.4 | 5.62 142.75 | 6.75 171.45 | 11.75 298.45 | 28.00 711.20 | 32.75 831.85 | 31.50 800.10 | 20 | 3.12 79.25 | 40.25 1022.4 | 0.50 12.70 |
| 30 | 48.50 1231.9 | 5.88 149.35 | 7.18 182.37 | 12.25 311.15 | 30.00 762.00 | 35.00 889.00 | 33.75 857.25 | 20 | 3.12 79.25 | 42.75 1085.9 | 0.50 12.70 |
| 32 | 51.75 1314.5 | 6.25 158.75 | 7.62 193.55 | 13.00 330.20 | 32.00 812.80 | 37.25 946.15 | 36.00 914.40 | 20 | 3.38 85.85 | 45.50 1155.7 | 0.50 12.70 |
| 34 | 55.00 1397.0 | 6.50 165.10 | 8.06 204.72 | 13.75 349.25 | 34.00 863.60 | 39.62 1006.4 | 38.00 965.20 | 20 | 3.62 91.95 | 48.25 1225.6 | 0.56 14.22 |
| 36 | 57.50 1460.5 | 6.75 171.45 | 8.44 214.38 | 14.25 361.95 | 36.00 914.40 | 41.88 1063.8 | 40.25 1022.4 | 20 | 3.62 91.95 | 50.75 1289.1 | 0.56 14.22 |
| 38 | 57.50 1460.5 | 7.50 190.50 | 8.50 215.90 | 13.88 352.55 | 38.00 965.20 | 42.25 1073.2 | 43.25 1098.6 | 20 | 3.62 91.95 | 50.75 1289.1 | 0.75 19.05 |
| 40 | 59.50 1511.3 | 7.75 196.85 | 8.81 223.77 | 14.31 363.47 | 40.00 1016.0 | 44.38 1127.3 | 45.75 1162.1 | 24 | 3.62 91.95 | 52.75 1339.9 | 0.81 20.57 |
| 42 | 61.50 1562.1 | 8.12 206.25 | 9.12 231.65 | 14.62 371.35 | 42.00 1066.8 | 46.31 1176.3 | 47.75 1212.9 | 24 | 3.62 91.95 | 54.75 1390.7 | 0.81 20.57 |
| 44 | 64.88 1648.0 | 8.44 214.38 | 9.56 242.82 | 15.38 390.65 | 44.00 1117.6 | 48.62 1235.0 | 50.00 1270.0 | 24 | 3.88 98.55 | 57.62 1463.6 | 0.88 22.35 |
| 46 | 68.25 1733.6 | 8.88 225.55 | 10.06 255.52 | 16.18 410.97 | 46.00 1168.4 | 50.88 1292.4 | 52.50 1333.5 | 24 | 4.12 104.65 | 60.50 1536.7 | 0.88 22.35 |
| 48 | 70.25 1784.4 | 9.19 233.43 | 10.38 263.65 | 16.50 419.10 | 48.00 1219.2 | 52.88 1343.2 | 54.50 1384.3 | 24 | 4.12 104.65 | 62.50 1587.5 | 0.94 23.88 |

Notes

- ASME B16.47 Series A flanges (≥ NPS 26) are MSS SP-44 flanges. MSS SP-44 also covers NPS 12 to NPS 24 flanges which are equivalent to ASME B16.5. MSS SP-44 is the only source for the NPS 22 flange dimensions above.
- Class 900 Series A dimensions at NPS 38 and larger also apply to Class 900 Series B flanges.
- Dimension B is to be specified by the purchaser. It corresponds to the pipe inside diameter.
- Flat face flanges may be provided at full thickness, C + raised face, or with raised face removed (the latter is nonstandard).
- WNF = Weld Neck Flange.
- The large end of the hub may be straight or tapered.
- For ring joint facings see page 8-6. For weld end bevel see page 8-5.
- For tolerances see page 8-4.

ASME B16.47 Series B (API 605) Flanges



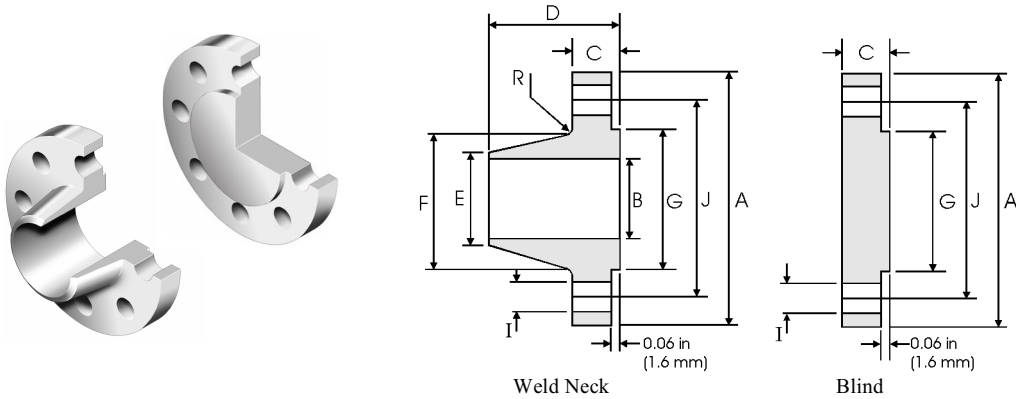
Class 75 lb

| Pipe | Flange Data | | | Hub Data | | | Raised Face | Drilling Data | | | Radius |
|----------|------------------|--------------------------|----------------------------|--------------------|------------------------|------------------|-----------------|-----------------|--------------------|-----------------------------|--------------|
| | A | C | | D | E | F | G | H | I | J | R |
| | Overall Diameter | WNF Flange Thickness min | Blind Flange Thickness min | Overall Length WNF | Diameter at Weld Bevel | Hub Diameter | Face Diameter | Number of Holes | Bolt Hole Diameter | Diameter of Circle of Holes | Fillet |
| in mm | in mm | in mm | in mm | in mm | in mm | in mm | in mm | | in mm | in mm | in mm |
| 26 | 30.00 762.00 | 1.31 33.27 | 1.31 33.27 | 2.31 58.67 | 26.06 661.92 | 26.62 676.15 | 27.75 704.85 | 36 | 0.75 19.05 | 28.50 723.90 | 0.31 7.87 |
| 28 | 32.00 812.80 | 1.31 33.27 | 1.31 33.27 | 2.44 61.98 | 28.06 712.72 | 28.62 726.95 | 29.75 755.65 | 40 | 0.75 19.05 | 30.50 774.70 | 0.31 7.87 |
| 30 | 34.00 863.60 | 1.31 33.27 | 1.31 33.27 | 2.56 65.02 | 30.06 763.52 | 30.62 777.75 | 31.75 806.45 | 44 | 0.75 19.05 | 32.50 825.50 | 0.31 7.87 |
| 32 | 36.00 914.40 | 1.38 35.05 | 1.44 36.58 | 2.75 69.85 | 32.06 814.32 | 32.62 828.55 | 33.75 857.25 | 48 | 0.75 19.05 | 34.50 876.30 | 0.31 7.87 |
| 34 | 38.00 965.20 | 1.38 35.05 | 1.50 38.10 | 2.88 73.15 | 34.06 865.12 | 34.62 879.35 | 35.75 908.05 | 52 | 0.75 19.05 | 36.50 927.10 | 0.31 7.87 |
| 36 | 40.69 1033.5 | 1.44 36.58 | 1.67 42.42 | 3.38 85.85 | 36.06 915.92 | 36.81 934.97 | 38.00 965.20 | 40 | 0.88 22.35 | 39.06 992.12 | 0.38 9.65 |
| 38 | 42.69 1084.3 | 1.50 38.10 | 1.75 44.45 | 3.50 88.90 | 38.06 966.72 | 38.81 985.77 | 40.00 1016.0 | 40 | 0.88 22.35 | 41.06 1042.9 | 0.38 9.65 |
| 40 | 44.69 1135.1 | 1.50 38.10 | 1.75 44.45 | 3.62 91.95 | 40.06 1017.5 | 40.81 1036.57 | 42.0 1066.8 | 44 | 0.88 22.35 | 43.06 1093.7 | 0.38 9.65 |
| 42 | 46.69 1185.9 | 1.56 39.62 | 1.88 47.75 | 3.75 95.25 | 42.06 1068.3 | 42.81 1087.37 | 44.00 1117.6 | 48 | 0.88 22.35 | 45.06 1144.5 | 0.38 9.65 |
| 44 | 49.25 1251.0 | 1.69 42.93 | 1.94 49.28 | 4.12 104.65 | 44.06 1119.1 | 44.88 1139.95 | 46.25 1174.8 | 36 | 1.00 25.40 | 47.38 1203.5 | 0.38 9.65 |
| 46 | 51.25 1301.8 | 1.75 44.45 | 2.00 50.80 | 4.25 107.95 | 46.06 1169.9 | 46.88 1190.75 | 48.25 1225.6 | 40 | 1.00 25.40 | 49.38 1254.3 | 0.38 9.65 |
| 48 | 53.25 1352.6 | 1.81 45.97 | 2.12 53.85 | 4.38 111.25 | 48.06 1220.7 | 48.88 1241.55 | 50.25 1276.4 | 44 | 1.00 25.40 | 51.38 1305.1 | 0.38 9.65 |

Notes

- ASME B16.47 Series B flanges are API 605 flanges. API 605 has been cancelled.
- Class 400 Series A dimensions at NPS 38 and larger also apply to Class 400 Series B flanges.
- Dimension B is to be specified by the purchaser. It corresponds to the pipe inside diameter.
- Flat face flanges may be provided at full thickness, C, or with raised face removed (the latter is nonstandard).
- WNF = Weld Neck Flange.
- The large end of the hub may be straight or tapered.
- For ring joint facings see page 8-6. For weld end bevel see page 8-5.
- For tolerances see page 8-4.

ASME B16.47 Series B (API 605) Flanges



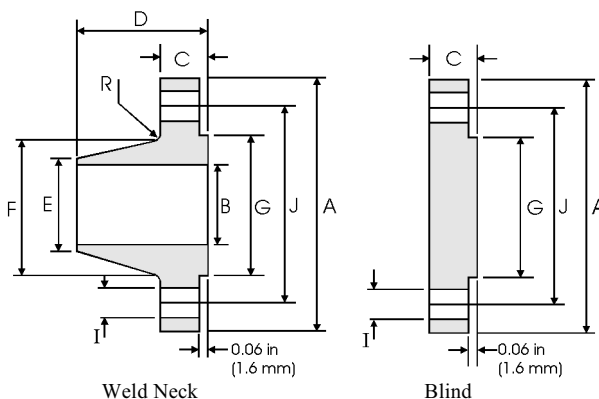
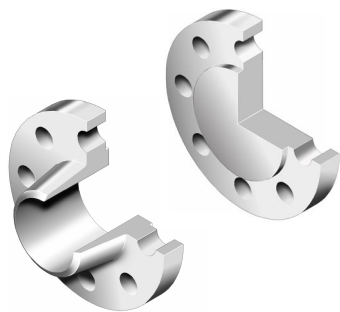
Class 150 lb

| Pipe | Flange Data | | | Hub Data | | | Raised Face | Drilling Data | | | Radius |
|-------------------|------------------|--------------------------|----------------------------|--------------------|------------------------|-----------------|-----------------|-----------------|--------------------|-----------------------------|---------------|
| Nominal Pipe Size | A | C | | D | E | F | G | H | I | J | R |
| | Overall Diameter | WNF Flange Thickness min | Blind Flange Thickness min | Overall Length WNF | Diameter at Weld Bevel | Hub Diameter | Face Diameter | Number of Holes | Bolt Hole Diameter | Diameter of Circle of Holes | Fillet |
| | in mm | in mm | in mm | in mm | in mm | in mm | in mm | | in mm | in mm | in mm |
| 26 | 30.94 785.88 | 1.62 41.15 | 1.75 44.45 | 3.50 88.90 | 26.06 661.92 | 26.94 684.28 | 28.00 711.20 | 36 | 0.88 22.35 | 29.31 744.47 | 0.38 9.65 |
| 28 | 32.94 836.68 | 1.75 44.45 | 1.88 47.75 | 3.75 95.25 | 28.06 712.72 | 28.94 735.08 | 30.00 762.00 | 40 | 0.88 22.35 | 31.31 795.27 | 0.38 9.65 |
| 30 | 34.94 887.48 | 1.75 44.45 | 2.00 50.80 | 3.94 100.08 | 30.06 763.52 | 31.00 787.40 | 32.00 812.80 | 44 | 0.88 22.35 | 33.31 846.07 | 0.38 9.65 |
| 32 | 37.06 941.32 | 1.81 45.97 | 2.12 53.85 | 4.25 107.95 | 32.06 814.32 | 33.06 839.72 | 34.00 863.60 | 48 | 0.88 22.35 | 35.44 900.18 | 0.38 9.65 |
| 34 | 39.56 1004.8 | 1.94 49.28 | 2.25 57.15 | 4.34 110.24 | 34.06 865.12 | 35.12 892.05 | 36.25 920.75 | 40 | 1.00 25.40 | 37.69 957.33 | 0.38 9.65 |
| 36 | 41.62 1057.1 | 2.06 52.32 | 2.31 58.67 | 4.62 117.35 | 36.06 915.92 | 37.19 944.63 | 38.25 971.55 | 44 | 1.00 25.40 | 39.75 1009.7 | 0.38 9.65 |
| 38 | 44.25 1124.0 | 2.12 53.85 | 2.50 63.50 | 4.88 123.95 | 38.12 968.25 | 39.25 996.95 | 40.25 1022.4 | 40 | 1.12 28.45 | 42.12 1069.8 | 0.38 9.65 |
| 40 | 46.25 1174.8 | 2.19 55.63 | 2.62 66.55 | 5.06 128.52 | 40.12 1019.0 | 41.31 1049.3 | 42.50 1079.5 | 44 | 1.12 28.45 | 44.12 1120.6 | 0.38 9.65 |
| 42 | 48.25 1225.6 | 2.31 58.67 | 2.69 68.33 | 5.25 133.35 | 42.12 1069.8 | 43.38 1101.9 | 44.50 1130.3 | 48 | 1.12 28.45 | 46.12 1171.4 | 0.44 11.18 |
| 44 | 50.25 1276.4 | 2.38 60.45 | 2.81 71.37 | 5.38 136.65 | 44.12 1120.6 | 45.38 1152.7 | 46.50 1181.1 | 52 | 1.12 28.45 | 48.12 1222.2 | 0.44 11.18 |
| 46 | 52.81 1341.4 | 2.44 61.98 | 2.94 74.68 | 5.69 144.53 | 46.12 1171.4 | 47.44 1205.0 | 48.62 1234.9 | 40 | 1.25 31.75 | 50.56 1284.2 | 0.44 11.18 |
| 48 | 54.81 1392.2 | 2.56 65.02 | 3.06 77.72 | 5.88 149.35 | 48.12 1222.2 | 49.50 1257.3 | 50.75 1289.1 | 44 | 1.25 31.75 | 52.56 1335.0 | 0.44 11.18 |

Notes

- ASME B16.47 Series B flanges are API 605 flanges. API 605 has been cancelled.
- Dimension B is to be specified by the purchaser. It corresponds to the pipe inside diameter.
- Flat face flanges may be provided at full thickness, C, or with raised face removed (the latter is nonstandard).
- WNF = Weld Neck Flange.
- The large end of the hub may be straight or tapered.
- For ring joint facings see page 8-6. For weld end bevel see page 8-5.
- For tolerances see page 8-4.

ASME B16.47 Series B (API 605) Flanges



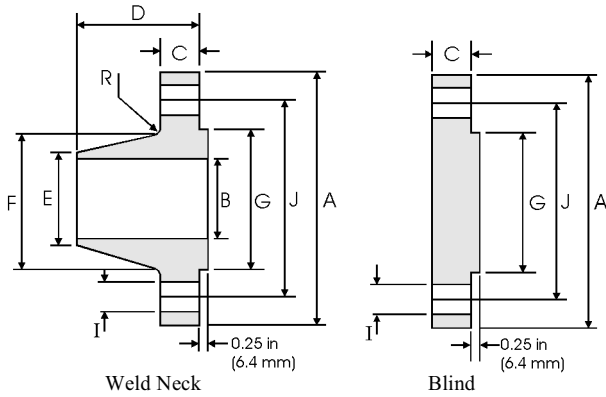
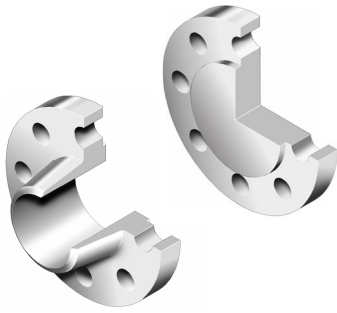
Class 300 lb

| Pipe | Flange Data | | | Hub Data | | | Raised Face | Drilling Data | | | Radius |
|-------------------|------------------|--------------------------|----------------------------|--------------------|------------------------|-----------------|-----------------|-----------------|--------------------|-----------------------------|---------------|
| Nominal Pipe Size | A | C | | D | E | F | G | H | I | J | R |
| | Overall Diameter | WNF Flange Thickness min | Blind Flange Thickness min | Overall Length WNF | Diameter at Weld Bevel | Hub Diameter | Face Diameter | Number of Holes | Bolt Hole Diameter | Diameter of Circle of Holes | Fillet |
| | in mm | in mm | in mm | in mm | in mm | in mm | in mm | | in mm | in mm | in mm |
| 26 | 34.12 866.65 | 3.50 88.90 | 3.50 88.90 | 5.69 144.53 | 26.19 665.23 | 27.62 701.55 | 29.00 736.60 | 32 | 1.38 35.05 | 31.62 803.15 | 0.56 14.22 |
| 28 | 36.25 920.75 | 3.50 88.90 | 3.50 88.90 | 5.88 149.35 | 28.19 716.03 | 29.75 755.65 | 31.00 787.40 | 36 | 1.38 35.05 | 33.75 857.25 | 0.56 14.22 |
| 30 | 39.00 990.60 | 3.69 93.73 | 3.69 93.73 | 6.22 157.99 | 30.25 768.35 | 32.00 812.80 | 33.25 844.55 | 36 | 1.50 38.10 | 36.25 920.75 | 0.56 14.22 |
| 32 | 41.50 1054.1 | 4.06 103.12 | 4.06 103.12 | 6.62 168.15 | 32.25 819.15 | 34.00 863.60 | 35.50 901.70 | 32 | 1.62 41.15 | 38.50 977.90 | 0.62 15.75 |
| 34 | 43.62 1107.9 | 4.06 103.12 | 4.06 103.12 | 6.81 172.97 | 34.25 869.95 | 36.12 917.45 | 37.50 952.50 | 36 | 1.62 41.15 | 40.62 1031.7 | 0.62 15.75 |
| 36 | 46.12 1171.4 | 4.06 103.12 | 4.06 103.12 | 7.12 180.85 | 36.25 920.75 | 38.00 965.20 | 39.75 1009.7 | 32 | 1.75 44.45 | 42.88 1089.2 | 0.62 15.75 |
| 38 | 48.12 1222.2 | 4.38 111.25 | 4.38 111.25 | 7.56 192.02 | 38.25 971.55 | 40.00 1016.0 | 41.75 1060.5 | 36 | 1.75 44.45 | 44.88 1140.0 | 0.62 15.75 |
| 40 | 50.12 1273.0 | 4.56 115.82 | 4.56 115.82 | 7.81 198.37 | 40.25 1022.4 | 42.00 1066.8 | 43.88 1114.6 | 40 | 1.75 44.45 | 46.88 1190.8 | 0.62 15.75 |
| 42 | 52.50 1333.5 | 4.69 119.13 | 4.69 119.13 | 8.06 204.72 | 42.31 1074.7 | 44.00 1117.6 | 46.00 1168.4 | 36 | 1.88 47.75 | 49.00 1244.6 | 0.62 15.75 |
| 44 | 54.50 1384.3 | 5.00 127.00 | 5.00 127.00 | 8.44 214.38 | 44.31 1125.5 | 46.19 1173.2 | 48.00 1219.2 | 40 | 1.88 47.75 | 51.00 1295.4 | 0.62 15.75 |
| 46 | 57.50 1460.5 | 5.06 128.52 | 5.12 130.05 | 8.75 222.25 | 46.31 1176.3 | 48.38 1228.9 | 50.00 1270.0 | 36 | 2.00 50.80 | 53.75 1365.3 | 0.62 15.75 |
| 48 | 59.50 1511.3 | 5.06 128.52 | 5.31 134.87 | 8.81 223.77 | 48.31 1227.1 | 50.31 1277.9 | 52.25 1327.2 | 40 | 2.00 50.80 | 55.75 1416.1 | 0.62 15.75 |

Notes

- ASME B16.47 Series B flanges are API 605 flanges. API 605 has been cancelled.
- Dimension B is to be specified by the purchaser. It corresponds to the pipe inside diameter.
- Flat face flanges may be provided at full thickness, C, or with raised face removed (the latter is nonstandard).
- WNF = Weld Neck Flange.
- The large end of the hub may be straight or tapered.
- For ring joint facings see page 8-6. For weld end bevel see page 8-5.
- For tolerances see page 8-4.

ASME B16.47 Series B (API 605) Flanges



Class 400 lb, 600 lb and 900 lb

| Pipe | Flange Data | | | Hub Data | | | Raised Face | Drilling Data | | | Radius |
|-------------------|------------------|--------------------------|----------------------------|--------------------|------------------------|-----------------|-----------------|-----------------|--------------------|-----------------------------|-----------------|
| Nominal Pipe Size | A | C | D | E | F | G | H | I | J | R | |
| | Overall Diameter | WNF Flange Thickness min | Blind Flange Thickness min | Overall Length WNF | Diameter at Weld Bevel | Hub Diameter | Face Diameter | Number of Holes | Bolt Hole Diameter | Diameter of Circle of Holes | Filllet |
| | in mm | in mm | in mm | in mm | in mm | in mm | in mm | | in mm | in mm | in mm |
| Class 400 | | | | | | | | | | | |
| 26 | 33.50 850.90 | 3.50 88.90 | 3.50 88.90 | 5.88 149.35 | 26.00 660.40 | 27.12 688.85 | 28.00 711.20 | 28 | 1.50 38.10 | 30.75 781.05 | 0.44 11.18 |
| 28 | 36.00 914.40 | 3.75 95.25 | 3.75 95.25 | 6.25 158.90 | 28.00 711.20 | 29.12 739.65 | 30.00 762.00 | | 24 | 1.62 41.15 | 33.00 838.20 |
| 30 | 38.25 971.55 | 4.00 101.60 | 4.00 101.60 | 6.69 169.93 | 30.00 762.00 | 31.25 793.75 | 32.25 825.50 | 28 | 1.62 41.15 | 35.25 895.35 | 0.50 12.70 |
| 32 | 40.75 1035.1 | 4.25 107.95 | 4.25 107.95 | 7.06 179.32 | 32.0 812.80 | 33.25 844.55 | 34.38 873.25 | | 28 | 1.75 44.45 | 37.50 952.50 |
| 34 | 42.75 1085.9 | 4.38 111.25 | 4.38 111.25 | 7.38 187.45 | 34.00 863.60 | 35.38 898.65 | 36.50 927.10 | 32 | 1.75 44.45 | 39.50 1003.3 | 0.56 14.22 |
| 36 | 45.50 1155.7 | 4.69 119.13 | 4.69 119.13 | 7.88 200.15 | 36.00 914.40 | 37.50 952.50 | 38.62 980.95 | | 28 | 1.88 47.75 | 42.00 1066.8 |
| Class 600 | | | | | | | | | | | |
| 26 | 35.00 889.00 | 4.38 111.25 | 4.38 111.25 | 7.12 180.85 | 26.00 660.40 | 27.50 698.50 | 28.62 726.95 | 28 | 1.75 44.45 | 31.75 806.45 | 0.50 12.70 |
| 28 | 37.50 952.50 | 4.56 115.82 | 4.56 115.82 | 7.50 190.50 | 28.00 711.20 | 29.62 752.35 | 30.88 784.35 | | 28 | 1.88 47.75 | 34.00 863.60 |
| 30 | 40.25 1022.4 | 4.94 125.48 | 5.00 127.00 | 8.06 204.72 | 30.00 762.00 | 31.75 806.45 | 33.12 841.25 | 28 | 2.00 50.80 | 36.50 927.10 | 0.50 12.70 |
| 32 | 42.75 1085.9 | 5.12 130.05 | 5.31 134.87 | 8.50 215.90 | 32.00 812.80 | 33.88 860.55 | 35.25 895.35 | | 28 | 2.12 53.85 | 38.75 984.25 |
| 34 | 45.75 1162.1 | 5.56 141.22 | 5.68 144.27 | 9.19 233.43 | 34.00 863.60 | 36.00 914.40 | 37.50 952.50 | 24 | 2.38 60.45 | 41.50 1054.1 | 0.56 14.22 |
| 36 | 47.75 1212.9 | 5.75 146.05 | 5.94 150.88 | 9.56 242.82 | 36.00 914.40 | 38.12 968.25 | 39.75 1009.7 | | 28 | 2.38 60.45 | 43.50 1104.9 |
| Class 900 | | | | | | | | | | | |
| 26 | 40.25 1022.4 | 5.31 134.87 | 6.06 153.92 | 10.19 258.83 | 26.00 660.40 | 29.25 742.95 | 30.00 762.00 | 20 | 2.62 66.55 | 35.50 901.70 | 0.44 11.18 |
| 28 | 43.50 1104.9 | 5.81 147.57 | 6.56 166.62 | 10.88 276.35 | 28.00 711.20 | 31.38 797.05 | 32.25 819.15 | | 20 | 2.88 73.15 | 38.25 971.55 |
| 30 | 46.50 1181.1 | 6.12 155.45 | 6.93 176.02 | 11.38 289.05 | 30.00 762.00 | 33.50 850.90 | 34.50 876.30 | 20 | 3.12 79.25 | 40.75 1035.1 | 0.50 12.70 |
| 32 | 48.75 1238.3 | 6.31 160.27 | 7.31 185.67 | 11.94 303.28 | 32.00 812.80 | 35.75 908.05 | 36.50 927.10 | | 20 | 3.12 79.25 | 43.00 1092.2 |
| 34 | 51.75 1314.5 | 6.75 171.45 | 7.68 195.07 | 12.56 319.02 | 34.00 863.60 | 37.88 962.15 | 39.00 990.60 | 20 | 3.38 85.85 | 45.50 1155.7 | 0.56 14.22 |
| 36 | 53.00 1346.2 | 6.81 172.97 | 7.94 201.68 | 12.81 325.37 | 36.00 914.40 | 40.00 1016.0 | 40.50 1028.7 | | 24 | 3.12 79.25 | 47.25 1200.2 |

Notes

- ASME B16.47 Series B flanges are API 605 flanges. API 605 has been cancelled.
- Refer to ASME B16.47 Series A dimensions for sizes NPS 38 and larger (see pages 8-48 to 8-50).
- Dimension B is to be specified by the purchaser. It corresponds to the pipe inside diameter.
- WNF = Weld Neck Flange.
- Flat face flanges may be provided at full thickness, C + raised face, or with raised face removed (the latter is nonstandard).
- The large end of the hub may be straight or tapered.
- For ring joint facings see page 8-6. For weld end bevel see page 8-5. For tolerances see page 8-4.