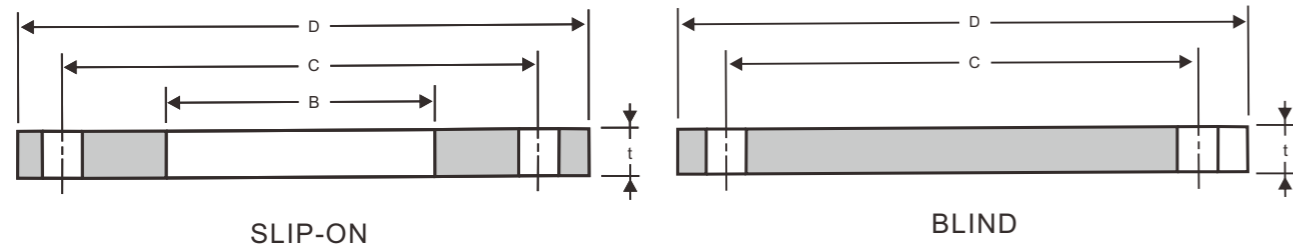


CLASS B&D FLANGE TABLE 2

AWWA Standard Steel Ring Flanges, Class B(86psi) and Class D (175-150 psi)



AWWA C207

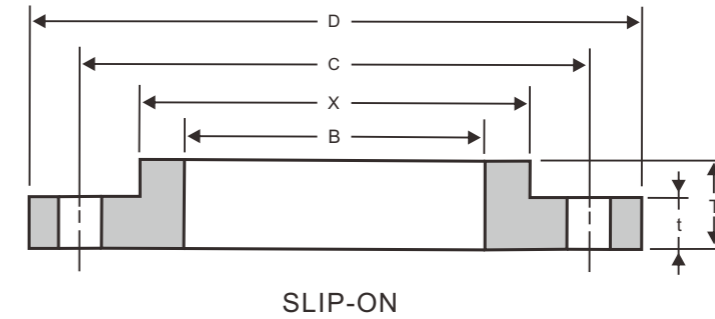
Unit:mm

| Nominal Pipe Size | Outside Diam. D | Bore B | Thickness | | | | DRILLING | | |
|-------------------|--------------------|-----------|------------|-------|------------|-------|------------------------|-----------------|---------------|
| | | | Class B(t) | | Class D(t) | | Bolt Circle Diam. C | Number of Holes | Diam of Holes |
| | | | Slip-on | Blind | Slip-on | Blind | | | |
| 4 | 228.6 | 116.1 | 15.9 | 15.9 | 15.9 | 15.9 | 190.5 | 8 | 19.1 |
| 5 | 254.0 | 143.8 | 15.9 | 15.9 | 15.9 | 16.5 | 215.9 | 8 | 22.2 |
| 6 | 279.4 | 170.7 | 17.5 | 17.5 | 17.5 | 17.6 | 241.3 | 8 | 22.2 |
| 8 | 342.9 | 221.5 | 17.5 | 17.5 | 17.5 | 20.6 | 298.5 | 8 | 22.2 |
| 10 | 406.4 | 276.4 | 17.5 | 17.5 | 17.5 | 24.2 | 362.0 | 12 | 25.4 |
| 12 | 482.6 | 327.2 | 17.5 | 18.3 | 20.6 | 28.4 | 431.8 | 12 | 25.4 |
| 14 | 533.4 | 360.4 | 17.5 | 20.1 | 23.8 | 28.8 | 476.3 | 12 | 28.6 |
| 16 | 596.9 | 411.2 | 17.5 | 22.7 | 25.4 | 32.1 | 539.8 | 16 | 28.6 |
| 18 | 635.0 | 462.0 | 17.5 | 24.1 | 27.0 | 33.8 | 577.9 | 16 | 31.8 |
| 20 | 698.5 | 512.8 | 17.5 | 26.4 | 28.6 | 36.8 | 635.0 | 20 | 31.8 |
| 22 | 749.3 | 563.6 | 19.1 | 28.8 | 30.2 | 39.8 | 692.2 | 20 | 34.9 |
| 24 | 812.8 | 614.4 | 19.1 | 30.9 | 31.8 | 42.2 | 749.3 | 20 | 34.9 |
| 26 | 870.0 | 665.2 | 20.6 | 33.2 | 33.3 | 45.4 | 806.5 | 24 | 34.9 |
| 28 | 927.1 | 716.0 | 22.2 | 35.5 | 33.3 | 48.4 | 863.6 | 28 | 34.9 |
| 30 | 984.3 | 766.8 | 22.2 | 37.5 | 34.9 | 51.0 | 914.4 | 28 | 34.9 |
| 32 | 1060.5 | 817.6 | 23.8 | 40.2 | 38.1 | 54.6 | 977.9 | 28 | 41.3 |
| 34 | 1111.3 | 868.4 | 23.8 | 42.2 | 38.1 | 57.2 | 1028.7 | 32 | 41.3 |
| 36 | 1168.4 | 919.2 | 25.4 | 44.5 | 41.3 | 60.2 | 1085.9 | 32 | 41.3 |
| 38 | 1238.3 | 970.0 | 25.4 | 47.1 | 41.3 | 63.7 | 1149.4 | 32 | 41.3 |
| 40 | 1289.1 | 1020.8 | 25.4 | 49.1 | 41.3 | 66.3 | 1200.2 | 36 | 41.3 |
| 42 | 1346.2 | 1071.6 | 28.6 | 51.4 | 44.5 | 69.3 | 1257.3 | 36 | 41.3 |
| 44 | 1403.4 | 1122.4 | 28.6 | 53.7 | 44.5 | 72.4 | 1314.5 | 40 | 41.3 |
| 46 | 1454.2 | 1173.2 | 28.6 | 55.7 | 44.5 | 75.0 | 1365.3 | 40 | 41.3 |
| 48 | 1511.3 | 1224.0 | 31.8 | 58.0 | 47.6 | 78.0 | 1422.4 | 44 | 41.3 |
| 50 | 1568.5 | 1274.8 | 31.8 | 60.4 | 50.8 | 81.2 | 1479.6 | 44 | 47.6 |
| 52 | 1625.6 | 1325.6 | 31.8 | 62.7 | 50.8 | 84.2 | 1536.7 | 44 | 47.6 |
| 54 | 1682.8 | 1376.4 | 34.9 | 65.0 | 54.0 | 87.2 | 1593.9 | 44 | 47.6 |
| 60 | 1854.2 | 1528.8 | 38.1 | 71.6 | 57.2 | 96.0 | 1759.0 | 52 | 47.6 |
| 66 | 2032.0 | 1681.2 | 41.3 | 78.5 | 63.5 | 105.1 | 1930.4 | 52 | 47.6 |
| 72 | 2197.1 | 1833.6 | 44.5 | 85.2 | 66.7 | 113.8 | 2095.5 | 60 | 47.6 |
| 78 | 2362.2 | 1986.0 | 50.8 | 89.9 | 69.9 | | 2260.6 | 64 | 54.0 |
| 84 | 2533.7 | 2138.4 | 50.8 | | 73.0 | | 2425.7 | 64 | 54.0 |
| 90 | 2705.1 | 2290.8 | 57.2 | | 76.2 | | 2590.8 | 68 | 60.3 |
| 96 | 2876.6 | 2443.2 | 57.2 | | 82.6 | | 2755.9 | 68 | 60.3 |
| 102 | 3048.0 | 2595.6 | 63.5 | | 82.6 | | 2908.3 | 72 | 67 |
| 108 | 3219.5 | 2748.0 | 63.5 | | 85.7 | | 3067.1 | 72 | 67 |
| 114 | 3390.9 | 2900.4 | 69.9 | | 88.9 | | 3219.5 | 76 | 73 |
| 120 | 3562.4 | 3052.8 | 69.9 | | 88.9 | | 3371.9 | 76 | 73 |

Notes:
 (1) For standard finishes for contact face, refer to page 99.
 (2) The Bore(B) shall be 3/16 in. larger than the nominal outside diameter of the pipe, unless otherwise specified

CLASS B&D FLANGES TABLE 3

AWWA Standard Steel Ring Flange, Class B(86psi) and Class D (175-150 psi)



AWWA C207

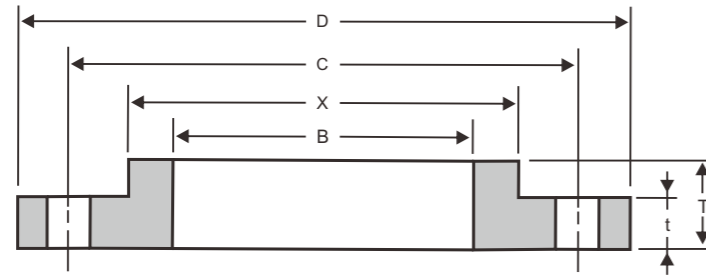
Unit:mm

| Nominal Pipe Size | Outside Diam. D | Bore B | Thickness t | Length Through Hub T | Diam. of Hub at Base X | DRILLING | | |
|-------------------|--------------------|-----------|----------------|-------------------------|---------------------------|------------------------|-----------------|---------------|
| | | | | | | Bolt Circle Diam. C | Number of Holes | Diam of Holes |
| | | | | | | | | |
| 4 | 228.6 | 116.1 | 12.7 | 22.2 | 134.9 | 190.5 | 8 | 19.1 |
| 5 | 254.0 | 143.8 | 14.3 | 31.8 | 160.3 | 215.9 | 8 | 22.2 |
| 6 | 279.4 | 170.7 | 14.3 | 31.8 | 192.1 | 241.3 | 8 | 22.2 |
| 8 | 342.9 | 221.5 | 14.3 | 31.8 | 246.1 | 298.5 | 8 | 22.2 |
| 10 | 406.4 | 276.4 | 17.5 | 31.8 | 304.8 | 362.0 | 12 | 25.4 |
| 12 | 482.6 | 327.2 | 17.5 | 31.8 | 365.1 | 431.8 | 12 | 25.4 |
| 14 | 533.4 | 360.4 | 19.1 | 31.8 | 400.1 | 476.3 | 12 | 28.6 |
| 16 | 596.9 | 411.2 | 19.1 | 31.8 | 457.2 | 539.8 | 16 | 28.6 |
| 18 | 635.0 | 462.0 | 19.1 | 31.8 | 504.8 | 577.9 | 16 | 31.8 |
| 20 | 698.5 | 512.8 | 19.1 | 31.8 | 558.8 | 635.0 | 20 | 31.8 |
| 22 | 749.3 | 563.6 | 25.4 | 44.5 | 616.0 | 692.2 | 20 | 34.9 |
| 24 | 812.8 | 614.4 | 25.4 | 44.5 | 663.6 | 749.3 | 20 | 34.9 |
| 26 | 870.0 | 665.2 | 25.4 | 44.5 | 723.9 | 806.5 | 24 | 34.9 |
| 28 | 927.1 | 716.0 | 25.4 | 44.5 | 774.7 | 863.6 | 28 | 34.9 |
| 30 | 984.3 | 766.8 | 25.4 | 44.5 | 825.5 | 914.4 | 28 | 34.9 |
| 32 | 1060.5 | 817.6 | 28.6 | 44.5 | 882.7 | 977.9 | 28 | 41.3 |
| 34 | 1111.3 | 868.4 | 28.6 | 44.5 | 933.5 | 1028.7 | 32 | 41.3 |
| 36 | 1168.4 | 919.2 | 28.6 | 44.5 | 984.3 | 1085.9 | 32 | 41.3 |
| 38 | 1238.3 | 970.0 | 28.6 | 44.5 | 1035.1 | 1149.4 | 32 | 41.3 |
| 40 | 1289.1 | 1020.8 | 28.6 | 44.5 | 1092.2 | 1200.2 | 36 | 41.3 |
| 42 | 1346.2 | 1071.6 | 31.8 | 44.5 | 1143.0 | 1257.3 | 36 | 41.3 |
| 44 | 1403.4 | 1122.4 | 31.8 | 57.2 | 1193.8 | 1314.5 | 40 | 41.3 |
| 46 | 1454.2 | 1173.2 | 31.8 | 57.2 | 1244.6 | 1365.3 | 40 | 41.3 |
| 48 | 1511.3 | 1224.0 | 34.9 | 63.5 | 1295.4 | 1422.4 | 44 | 41.3 |
| 50 | 1568.5 | 1274.8 | 34.9 | 63.5 | 1346.2 | 1479.6 | 44 | 47.6 |
| 52 | 1625.6 | 1325.6 | 34.9 | 63.5 | 1397.0 | 1536.7 | 44 | 47.6 |
| 54 | 1682.8 | 1376.4 | 34.9 | 63.5 | 1447.8 | 1593.9 | 44 | 47.6 |
| 60 | 1854.2 | 1528.8 | 38.1 | 69.9 | 1600.2 | 1759.0 | 52 | 47.6 |
| 66 | 2032.0 | 1681.2 | 38.1 | 69.9 | 1752.6 | 1930.4 | 52 | 47.6 |
| 72 | 2197.1 | 1833.6 | 38.1 | 69.9 | 1905.0 | 2095.5 | 60 | 47.6 |
| 78 | 2362.2 | 1986.0 | 44.5 | 76.2 | 2063.8 | 2260.6 | 64 | 54.0 |
| 84 | 2533.7 | 2138.4 | 44.5 | 76.2 | 2222.5 | 2425.7 | 64 | 54.0 |
| 90 | 2705.1 | 2290.8 | 50.8 | 82.6 | 2381.3 | 2590.8 | 68 | 60.3 |
| 96 | 2876.6 | 2443.2 | 50.8 | 82.6 | 2540.0 | 2755.9 | 68 | 60.3 |
| 102 | 3048.0 | 2595.6 | 57.2 | 88.9 | 2686.1 | 2908.3 | 72 | 67 |
| 108 | 3219.5 | 2748.0 | 57.2 | 88.9 | 2832.1 | 3067.1 | 72 | 67 |
| 114 | 3390.9 | 2900.4 | 63.5 | 95.3 | 2990.9 | 3219.5 | 76 | 73 |
| 120 | 3562.4 | 3052.8 | 63.5 | 95.3 | 3149.6 | 3371.9 | 76 | 73 |

Notes:
 (1) For standard finishes for contact face, refer to page 99.
 (2) For Slip-on Flanges,(Hub Type Flanges), the hubs can be shaped either vertical from base to top or tapered within the limits of 7 degrees.
 (3) The Bore(B) shall be 3/16 in. larger than the nominal outside diameter of the pipe, unless otherwise specified.

CLASS B&D FLANGE TABLE 4

AWWA Standard Steel Hub Flange, Class E (275 psi)



SLIP-ON

AWWA C207

Unit:mm

| Nominal Pipe Size | Outside Diam. D | Bore B | Thickness t | Length Through Hub T | Diam. of Hub at Base X | DRILLING | | |
|-------------------|--------------------|-----------|----------------|-------------------------|---------------------------|------------------------|-----------------|---------------|
| | | | | | | Bolt Circle Diam. C | Number of Holes | Diam of Holes |
| 4 | 228.6 | 116.1 | 23.8 | 33.3 | 134.9 | 190.5 | 8 | 19.1 |
| 5 | 254.0 | 143.8 | 23.8 | 36.5 | 163.5 | 215.9 | 8 | 22.2 |
| 6 | 279.4 | 170.7 | 25.4 | 39.7 | 192.1 | 241.3 | 8 | 22.2 |
| 8 | 342.9 | 221.5 | 28.6 | 44.5 | 246.1 | 298.5 | 8 | 22.2 |
| 10 | 406.4 | 276.4 | 30.2 | 49.2 | 304.8 | 362.0 | 12 | 25.4 |
| 12 | 482.6 | 327.2 | 31.8 | 55.6 | 365.1 | 431.8 | 12 | 25.4 |
| 14 | 533.4 | 360.4 | 34.9 | 57.2 | 400.1 | 476.3 | 12 | 28.6 |
| 16 | 596.9 | 411.2 | 36.5 | 63.5 | 457.2 | 539.8 | 16 | 28.6 |
| 18 | 635.0 | 462.0 | 39.7 | 68.3 | 504.8 | 577.9 | 16 | 31.8 |
| 20 | 698.5 | 512.8 | 42.9 | 73.0 | 558.8 | 635.0 | 20 | 31.8 |
| 22 | 749.3 | 563.6 | 46.0 | 79.4 | 609.6 | 692.2 | 20 | 34.9 |
| 24 | 812.8 | 614.4 | 47.6 | 82.6 | 663.6 | 749.3 | 20 | 34.9 |
| 26 | 870.0 | 665.2 | 50.8 | 85.7 | 723.9 | 806.5 | 24 | 34.9 |
| 28 | 927.1 | 716.0 | 52.4 | 87.3 | 781.1 | 863.6 | 28 | 34.9 |
| 30 | 984.3 | 766.8 | 54.0 | 88.9 | 831.9 | 914.4 | 28 | 34.9 |
| 32 | 1060.5 | 817.6 | 57.2 | 92.1 | 889.0 | 977.9 | 28 | 41.3 |
| 34 | 1111.3 | 868.4 | 58.7 | 93.7 | 939.8 | 1028.7 | 32 | 41.3 |
| 36 | 1168.4 | 919.2 | 60.3 | 95.3 | 997.0 | 1085.9 | 32 | 41.3 |
| 38 | 1238.3 | 970.0 | 60.3 | 95.3 | 1060.5 | 1149.4 | 32 | 41.3 |
| 40 | 1289.1 | 1020.8 | 63.5 | 98.4 | 1111.3 | 1200.2 | 36 | 41.3 |
| 42 | 1346.2 | 1071.6 | 66.7 | 101.6 | 1168.4 | 1257.3 | 36 | 41.3 |
| 44 | 1403.4 | 1122.4 | 66.7 | 101.6 | 1219.2 | 1314.5 | 40 | 41.3 |
| 46 | 1454.2 | 1173.2 | 68.3 | 103.2 | 1270.0 | 1365.3 | 40 | 41.3 |
| 48 | 1511.3 | 1224.0 | 69.9 | 104.8 | 1327.2 | 1422.4 | 44 | 41.3 |
| 50 | 1568.5 | 1274.8 | 69.9 | 104.8 | 1378.0 | 1479.6 | 44 | 47.6 |
| 52 | 1625.6 | 1325.6 | 73.0 | 108.0 | 1435.1 | 1536.7 | 44 | 47.6 |
| 54 | 1682.8 | 1376.4 | 76.2 | 111.1 | 1492.3 | 1593.9 | 44 | 47.6 |
| 60 | 1854.2 | 1525.8 | 79.4 | 114.3 | 1657.4 | 1759.0 | 52 | 47.6 |
| 66 | 2032.0 | 1681.2 | 85.7 | 123.8 | 1816.1 | 1930.4 | 52 | 47.6 |
| 72 | 2197.1 | 1833.6 | 88.9 | 127.0 | 1993.9 | 2095.5 | 60 | 47.6 |
| 78 | 2362.2 | 1986.0 | 98.4 | 136.5 | 2146.3 | 2260.6 | 64 | 54.0 |
| 84 | 2533.7 | 2138.4 | 98.4 | 136.5 | 2298.7 | 2425.7 | 64 | 54.0 |
| 90 | 2705.1 | 2290.8 | 108.0 | 146.1 | 2457.5 | 2590.8 | 68 | 60.3 |
| 96 | 2876.6 | 2443.2 | 108.0 | 146.1 | 2609.9 | 2755.9 | 68 | 60.3 |
| 102 | 3048.0 | 2595.6 | 117.5 | 155.6 | 2762.3 | 2908.3 | 72 | 67 |
| 108 | 3219.5 | 2748.0 | 117.5 | 155.6 | 2908.3 | 3067.1 | 72 | 67 |
| 114 | 3390.9 | 2900.4 | 127.0 | 165.1 | 3079.8 | 3219.5 | 76 | 73 |
| 120 | 3562.4 | 3052.8 | 127.0 | 165.1 | 3251.2 | 3371.9 | 76 | 73 |

Notes:

- (1) For standard finishes for contact face, refer to page 99.
- (2) For Slip-on Flanges, (Hub Type Flanges), the hubs can be shaped either vertical from base to top or tapered within the limits of 7 degrees.
- (3) The Bore(B) shall be 3/16 in, larger than the nominal outside diameter of the pipe, unless otherwise specified.