

Carbon and Stainless Steel Flanges - ASME/ANSI Class 150 Dimensions

ASME/ANSI B16.5-1996 Pipe Flanges and Flanged Fittings - Class 150 Flanges - outside and inside diameters, bolt circles, numbers and diameters of bolts for Weld neck, Threaded, Slip-on, Lap joint, Socket weld and Blind flanges.

| Pipe Size (inches) | Flange Outside Diameter (inches) | Pipe Outside Diameter (inches) (mm) | Number of Bolt Holes | Bolt Hole Diameter (inches) ¹⁾ | Bolt Circle (inches) |
|-----------------------|--|--|-------------------------|---|-------------------------|
| 1/2 | 3-1/2 | 0.84 21.3 | 4 | 5/8 | 2-3/8 |
| 3/4 | 3-7/8 | 1.05 26.7 | 4 | 5/8 | 2-3/4 |
| 1 | 4-1/4 | 1.32 33.5 | 4 | 5/8 | 3-1/8 |
| 1-1/4 | 4-5/8 | 1.66 42.2 | 4 | 5/8 | 3-1/2 |
| 1-1/2 | 5 | 1.90 48.3 | 4 | 5/8 | 3-7/8 |
| 2 | 6 | 2.38 60.5 | 4 | 3/4 | 4-3/4 |
| 2-1/2 | 7 | 2.88 73.2 | 4 | 3/4 | 5-1/2 |
| 3 | 7-1/2 | 3.50 88.9 | 4 | 3/4 | 6 |
| 3-1/2 | 8-1/2 | 4.00 102 | 8 | 3/4 | 7 |
| 4 | 9 | 4.50 114 | 8 | 3/4 | 7-1/2 |
| 5 | 10 | 5.56 141 | 8 | 7/8 | 8-1/2 |
| 6 | 11 | 6.63 168 | 8 | 7/8 | 9-1/2 |
| 8 | 13-1/2 | 8.63 219 | 8 | 7/8 | 11-3/4 |
| 10 | 16 | 10.75 273 | 12 | 1 | 14-1/4 |
| 12 | 19 | 12.75 324 | 12 | 1 | 17 |
| 14 | 21 | 14.00 356 | 12 | 1-1/8 | 18-3/4 |
| 16 | 23-1/2 | 16.00 406 | 16 | 1-1/8 | 21-1/4 |
| 18 | 25 | 18.00 457 | 16 | 1-1/4 | 22-3/4 |
| 20 | 27-1/2 | 20.00 508 | 20 | 1-1/4 | 25 |
| 24 | 32 | 24.00 610 | 20 | 1-3/8 | 29-1/2 |

Carbon and Stainless Steel Flanges - ASME/ANSI Class 300 Dimensions

ASME/ANSI B16.5-1996 Pipe Flanges and Flanged Fittings - Class 300 Flanges - outside and inside diameters, bolt circles, numbers and diameters of bolts for Weld neck, Threaded, Slip-on, Lap joint, Socket weld and Blind flanges.

| Pipe Size (inches) | Flange Outside Diameter (inches) | Pipe Outside Diameter (inches) (mm) | Number of Bolt Holes | Bolt Hole Diameter (inches) ¹⁾ | Bolt Circle (inches) |
|-----------------------|--|--|-------------------------|---|-------------------------|
| 1/2 | 3-3/4 | 0.84 21.3 | 4 | 5/8 | 2-5/8 |
| 3/4 | 4-5/8 | 1.05 26.7 | 4 | 3/4 | 3-1/4 |
| 1 | 4-7/8 | 1.32 33.5 | 4 | 3/4 | 3-1/2 |
| 1-1/4 | 5-1/4 | 1.66 42.2 | 4 | 3/4 | 3-7/8 |
| 1-1/2 | 6-1/8 | 1.90 48.3 | 4 | 7/8 | 4-1/2 |
| 2 | 6-1/2 | 2.38 60.5 | 8 | 3/4 | 5 |
| 2-1/2 | 7-1/2 | 2.88 73.2 | 8 | 7/8 | 5-7/8 |
| 3 | 8-1/4 | 3.50 88.9 | 8 | 7/8 | 6-5/8 |
| 3-1/2 | 9 | 4.00 102 | 8 | 7/8 | 7-1/4 |
| 4 | 10 | 4.50 114 | 8 | 7/8 | 7-7/8 |
| 5 | 11 | 5.56 141 | 8 | 7/8 | 9-1/4 |
| 6 | 12-1/2 | 6.63 168 | 12 | 7/8 | 10-5/8 |
| 8 | 15 | 8.63 219 | 12 | 1 | 13 |
| 10 | 17-1/2 | 10.75 273 | 16 | 1-1/8 | 15-1/4 |
| 12 | 20-1/2 | 12.75 324 | 16 | 1-1/4 | 17-3/4 |
| 14 | 23 | 14.00 356 | 20 | 1-1/4 | 20-1/4 |
| 16 | 25-1/2 | 16.00 406 | 20 | 1-3/8 | 22-1/2 |
| 18 | 28 | 18.00 457 | 24 | 1-3/8 | 24-3/4 |
| 20 | 30-1/2 | 20.00 508 | 24 | 1-3/8 | 27 |
| 24 | 36 | 24.00 610 | 24 | 1-5/8 | 32 |

Carbon and Stainless Steel Flanges - ASME/ANSI Class 400 Dimensions

ASME/ANSI B16.5-1996 Pipe Flanges and Flanged Fittings - Class 400 Flanges - outside and inside diameters, bolt circles, numbers and diameters of bolts for Weld neck, Threaded, Slip-on, Lap joint, Socket weld and Blind flanges.

| Pipe Size (inches) | Flange Outside Diameter (inches) | Pipe Outside Diameter (inches) (mm) | Number of Bolt Holes | Bolt Hole Diameter (inches) ¹⁾ | Bolt Circle (inches) |
|-----------------------|--|--|-------------------------|---|-------------------------|
| 1/2 | 3-3/4 | 0.84 21.3 | 4 | 5/8 | 2-5/8 |
| 3/4 | 4-5/8 | 1.05 26.7 | 4 | 3/4 | 3-1/4 |
| 1 | 4-7/8 | 1.32 33.5 | 4 | 3/4 | 3-1/2 |
| 1-1/4 | 5-1/4 | 1.66 42.2 | 4 | 3/4 | 3-7/8 |
| 1-1/2 | 6-1/8 | 1.90 48.3 | 4 | 7/8 | 4-1/2 |
| 2 | 6-1/2 | 2.38 60.5 | 8 | 3/4 | 5 |
| 2-1/2 | 7-1/2 | 2.88 73.2 | 8 | 7/8 | 5-7/8 |
| 3 | 8-1/4 | 3.50 88.9 | 8 | 7/8 | 6-5/8 |
| 3-1/2 | 9 | 4.00 102 | 8 | 1 | 7-1/4 |
| 4 | 10 | 4.50 114 | 8 | 1 | 8-7/8 |
| 5 | 11 | 5.56 141 | 8 | 1 | 9-1/4 |
| 6 | 12-1/2 | 6.63 168 | 12 | 1 | 10-5/8 |
| 8 | 15 | 8.63 219 | 12 | 1-1/8 | 13 |
| 10 | 17-1/2 | 10.75 273 | 16 | 1-1/4 | 15-1/4 |
| 12 | 20-1/2 | 12.75 324 | 16 | 1-3/8 | 17-3/4 |
| 14 | 23 | 14.00 356 | 20 | 1-3/8 | 20-1/4 |
| 16 | 25-1/2 | 16.00 406 | 20 | 1-1/2 | 22-1/2 |
| 18 | 28 | 18.00 457 | 24 | 1-1/2 | 24-3/4 |
| 20 | 30-1/2 | 20.00 508 | 24 | 1-5/8 | 27 |
| 24 | 36 | 24.00 610 | 24 | 1-7/8 | 32 |

Carbon and Stainless Steel Flanges - ASME/ANSI Class 600 Dimensions

ASME/ANSI B16.5-1996 Pipe Flanges and Flanged Fittings - Class 600 Flanges - outside and inside diameters, bolt circles, numbers and diameters of bolts for Weld neck, Threaded, Slip-on, Lap joint, Socket weld and Blind flanges.

| Pipe Size (inches) | Flange Outside Diameter (inches) | Pipe Outside Diameter (inches) (mm) | Number of Bolt Holes | Bolt Hole Diameter (inches) ¹⁾ | Bolt Circle (inches) |
|-----------------------|--|--|-------------------------|---|-------------------------|
| 1/2 | 3-3/4 | 0.84 21.3 | 4 | 5/8 | 2-5/8 |
| 3/4 | 4-5/8 | 1.05 26.7 | 4 | 3/4 | 3-1/4 |
| 1 | 4-7/8 | 1.32 33.5 | 4 | 3/4 | 3-1/2 |
| 1-1/4 | 5-1/4 | 1.66 42.2 | 4 | 3/4 | 3-7/8 |
| 1-1/2 | 6-1/8 | 1.90 48.3 | 4 | 7/8 | 4-1/2 |
| 2 | 6-1/2 | 2.38 60.5 | 8 | 3/4 | 5 |
| 2-1/2 | 7-1/2 | 2.88 73.2 | 8 | 7/8 | 5-7/8 |
| 3 | 8-1/4 | 3.50 88.9 | 8 | 7/8 | 6-5/8 |
| 3-1/2 | 9 | 4.00 102 | 8 | 1 | 7-1/4 |
| 4 | 10-3/4 | 4.50 114 | 8 | 1 | 8-1/2 |
| 5 | 13 | 5.56 141 | 8 | 1-1/4 | 10-1/2 |
| 6 | 14 | 6.63 168 | 12 | 1-1/4 | 11-1/2 |
| 8 | 16-1/2 | 8.63 219 | 12 | 1-1/4 | 13-3/4 |
| 10 | 20 | 10.75 273 | 16 | 1-3/8 | 17 |
| 12 | 22 | 12.75 324 | 20 | 1-3/8 | 19-1/4 |
| 14 | 23-3/4 | 14.00 356 | 20 | 1-1/2 | 20-3/4 |
| 16 | 27 | 16.00 406 | 20 | 1-5/8 | 23-3/4 |
| 18 | 29-1/4 | 18.00 457 | 20 | 1-3/4 | 25-3/4 |
| 20 | 32 | 20.00 508 | 24 | 1-3/4 | 28-1/2 |
| 24 | 37 | 24.00 610 | 24 | 2 | 33 |

Carbon and Stainless Steel Flanges - ASME/ANSI Class 900 Dimensions

ASME/ANSI B16.5-1996 Pipe Flanges and Flanged Fittings - Class 900 Flanges - outside and inside diameters, bolt circles, numbers and diameters of bolts for Weld neck, Threaded, Slip-on, Lap joint, Socket weld and Blind flanges.

| Pipe Size (inches) | Flange Outside Diameter (inches) | Pipe Outside Diameter (inches) (mm) | Number of Bolt Holes | Bolt Hole Diameter (inches) ¹⁾ | Bolt Circle (inches) |
|--|--|--|-------------------------|---|-------------------------|
| 1/2 | 4-3/4 | 0.84 21.3 | 4 | 7/8 | 3-1/4 |
| 3/4 | 5-1/8 | 1.05 26.7 | 4 | 7/8 | 3-1/2 |
| 1 | 5-7/8 | 1.32 33.5 | 4 | 1 | 4 |
| 1-1/4 | 6-1/4 | 1.66 42.2 | 4 | 1 | 4-3/8 |
| 1-1/2 | 7 | 1.90 48.3 | 4 | 1-1/8 | 4-7/8 |
| 2 | 8-1/2 | 2.38 60.5 | 8 | 1 | 6-1/2 |
| 2-1/2 | 9-5/8 | 2.88 73.2 | 8 | 1-1/8 | 7-1/2 |
| 3 | 9-1/2 | 3.50 88.9 | 8 | 1-1/8 | 7-1/2 |
| 4 | 11-1/2 | 4.50 114 | 8 | 1-1/4 | 9-1/4 |
| 5 | 13-3/4 | 5.56 141 | 8 | 1-3/8 | 11 |
| 6 | 15 | 6.63 168 | 12 | 1-1/4 | 12-1/2 |
| 8 | 18-1/2 | 8.63 219 | 12 | 1-1/2 | 15-1/2 |
| 10 | 21-1/2 | 10.75 273 | 16 | 1-1/2 | 18-1/2 |
| 12 | 24 | 12.75 324 | 20 | 1-1/2 | 21 |
| 14 | 25-1/4 | 14.00 356 | 20 | 1-5/8 | 22 |
| 16 | 27-3/4 | 16.00 406 | 20 | 1-3/4 | 24-1/4 |
| 18 | 31 | 18.00 457 | 20 | 2 | 27 |
| 20 | 33-3/4 | 20.00 508 | 20 | 2-1/8 | 29-1/2 |
| 24 | 41 | 24.00 610 | 20 | 2-5/8 | 35-1/2 |
| ANSI B16.5 covers only sizes through 24" | | | | | |
| 26 | 42 3/4 | | 20 | 2 7/8 | 37 1/2 |
| 28 | 46 | | 20 | 3 1/8 | 40 1/4 |
| 30 | 48 1/2 | | 20 | 3 1/8 | 42 3/4 |
| 32 | 51 3/4 | | 20 | 3 3/8 | 45 1/2 |
| 34 | 55 | | 20 | 3 5/8 | 48 1/4 |
| 36 | 57 1/2 | | 20 | 3 5/8 | 50 3/4 |

Carbon and Stainless Steel Flanges - ASME/ANSI Class 1500 Dimensions

ASME/ANSI B16.5-1996 Pipe Flanges and Flanged Fittings - Class 1500 Flanges - outside and inside diameters, bolt circles, numbers and diameters of bolts for Weld neck, Threaded, Slip-on, Lap joint, Socket weld and Blind flanges.

| Pipe Size (inches) | Flange Outside Diameter (inches) | Pipe Outside Diameter (inches) (mm) | Number of Bolt Holes | Bolt Hole Diameter (inches) ¹⁾ | Bolt Circle (inches) |
|-----------------------|--|--|-------------------------|--|-------------------------|
| 1/2 | 4-3/4 | 0.84 21.3 | 4 | 7/8 | 3-1/4 |
| 3/4 | 5-1/8 | 1.05 26.7 | 4 | 7/8 | 3-1/2 |
| 1 | 5-7/8 | 1.32 33.5 | 4 | 1 | 4 |
| 1-1/4 | 6-1/4 | 1.66 42.2 | 4 | 1 | 4-3/8 |
| 1-1/2 | 7 | 1.90 48.3 | 4 | 1-1/8 | 4-7/8 |
| 2 | 8-1/2 | 2.38 60.5 | 8 | 1 | 6-1/2 |
| 2-1/2 | 9-5/8 | 2.88 73.2 | 8 | 1-1/8 | 7-1/2 |
| 3 | 10-1/2 | 3.50 88.9 | 8 | 1-1/4 | 8 |
| 4 | 12-1/4 | 4.50 114 | 8 | 1-3/8 | 9-1/2 |
| 5 | 14-3/4 | 5.56 141 | 8 | 1-5/8 | 11-1/2 |
| 6 | 15-1/2 | 6.63 168 | 12 | 1-1/2 | 12-1/2 |
| 8 | 19 | 8.63 219 | 12 | 1-3/4 | 15-1/2 |
| 10 | 23 | 10.75 273 | 12 | 2 | 19 |
| 12 | 26-1/2 | 12.75 324 | 16 | 2-1/8 | 22-1/2 |
| 14 | 29-1/2 | 14.00 356 | 16 | 2-3/8 | 25 |
| 16 | 32-1/2 | 16.00 406 | 16 | 2-5/8 | 27-3/4 |
| 18 | 36 | 18.00 457 | 16 | 2-7/8 | 30-1/2 |
| 20 | 38-3/4 | 20.00 508 | 16 | 3-1/8 | 32-3/4 |
| 24 | 46 | 24.00 610 | 16 | 3-5/8 | 39 |

Carbon and Stainless Steel Flanges - ASME/ANSI Class 2500 Dimensions

ASME/ANSI B16.5-1996 Pipe Flanges and Flanged Fittings - Class 2500 Flanges - outside and inside diameters, bolt circles, numbers and diameters of bolts for Weld neck, Threaded, Slip-on, Lap joint, Socket weld and Blind flanges.

| Pipe Size (inches) | Flange Outside Diameter (inches) | Pipe Outside Diameter (inches) (mm) | Number of Bolt Holes | Bolt Hole Diameter (inches) ¹⁾ | Bolt Circle (inches) |
|-----------------------|--|--|-------------------------|---|-------------------------|
| 1/2 | 5-1/4 | 0.84 21.3 | 4 | 7/8 | 3-1/2 |
| 3/4 | 5-1/2 | 1.05 26.7 | 4 | 7/8 | 3-3/4 |
| 1 | 6-1/4 | 1.32 33.5 | 4 | 1 | 4-1/4 |
| 1-1/4 | 7-1/4 | 1.66 42.2 | 4 | 1-1/8 | 5-1/8 |
| 1-1/2 | 8 | 1.90 48.3 | 4 | 1-1/4 | 5-3/4 |
| 2 | 9-1/4 | 2.38 60.5 | 8 | 1-1/8 | 6-3/4 |
| 2-1/2 | 10-1/2 | 2.88 73.2 | 8 | 1-1/4 | 7-3/4 |
| 3 | 12 | 3.50 88.9 | 8 | 1-3/8 | 9 |
| 4 | 14 | 4.50 114 | 8 | 1-5/8 | 10-3/4 |
| 5 | 16-1/2 | 5.56 141 | 8 | 1-7/8 | 12-3/4 |
| 6 | 19 | 6.63 168 | 8 | 2-1/8 | 14-1/2 |
| 8 | 21-3/4 | 8.63 219 | 12 | 2-1/8 | 17-1/4 |
| 10 | 26-1/2 | 10.75 273 | 12 | 2-5/8 | 21-1/4 |
| 12 | 30 | 12.75 324 | 12 | 2-7/8 | 24-3/8 |