

BUTTERFLY VALVE FACE TO FACE DIMENSION COMPARISON API/ASME/EN/BS/JIS

| NPS (MM) | NPS (INCH) | API 609 | | | | | | | | | | BS EN 593 (WAS BS 5155) EN 558.1 | | | | ASME B16.10 (MSS SP-67/68) | | | | | | JIS F7480 | | | | | |
|----------|------------|----------------------------|-----|----------------------------|-----|------|------|------------------------|-----|-------|-----|-----------------------------------|------|--------------------------|------|----------------------------|------|---|------|------------|-------------|------------------------------|-----|-----|-------------------|-----|---------------|
| | | LUG AND WAFER TYPE (CAT A) | | LUG AND WAFER TYPE (CAT B) | | | | DOUBLE FLANGED (CAT B) | | | | DOUBLE FLANGED EN 558-1 SERIES 13 | | WAFER EN 558-1 SERIES 20 | | FLANGED EN 558-1 SERIES 16 | | LUG AND WAFER STYLE (CONCENTRIC) EN 558-1 SERIES 20 | | | GROOVED LUG | LUG AND WAFER STYLE (OFFSET) | | | MARINE HULL VALVE | | |
| | | | | | | | | LONG | | SHORT | | SHORT | LONG | SHORT | LONG | NARROW | WIDE | NARROW | WIDE | EXTRA WIDE | | | | | | | |
| | | 125/150 | 150 | 300 | 600 | 150 | 300 | 600 | 150 | 300 | 600 | PN16 | PN25 | PN16 | PN16 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 300 | 600 | A GROUP (122) |
| 40 | 1.5 | | | | | | | | | | 106 | 140 | 33 | | | | 33 | 37 | 38 | 86 | | | | | | | |
| 50 | 2 | 43 | | | | | | | | | 108 | 150 | 43 | | | | 43 | 44 | 46 | 81 | | | | | | 40 | |
| 65 | 2.5 | 46 | | | | | | | | | 112 | 170 | 46 | | | | 46 | 49 | 51 | 97 | | | | | | 40 | |
| 80 | 3 | 46 | 48 | 48 | 54 | 203 | 282 | 356 | 114 | 180 | 114 | 180 | 46 | 64 | 127 | 127 | 46 | 49 | 51 | 97 | 48 | 48 | 54 | | | 60 | |
| 100 | 4 | 52 | 54 | 54 | 64 | 229 | 305 | 432 | 127 | 190 | 127 | 190 | 52 | 64 | 127 | 178 | 52 | 56 | 57 | 116 | 54 | 54 | 64 | | | 60 | |
| 125 | 5 | 56 | | | | | | | | | 140 | 200 | 56 | 70 | 127 | 190 | 56 | 64 | 65 | 148 | | | | | | 100 | |
| 150 | 6 | 56 | 57 | 59 | 78 | 267 | 403 | 559 | 140 | 210 | 140 | 210 | 56 | 76 | 127 | 203 | 56 | 70 | 71 | 148 | 57 | 59 | 78 | | | 100 | |
| 200 | 8 | 60 | 64 | 73 | 102 | 292 | 419 | 660 | 152 | 230 | 152 | 230 | 60 | 89 | 152 | 216 | 60 | 71 | 75 | 133 | 64 | 73 | 102 | | | 100 | |
| 250 | 10 | 68 | 71 | 83 | 117 | 330 | 457 | 787 | 165 | 250 | 165 | 250 | 68 | 114 | 203 | 381 | 68 | 76 | 79 | 159 | 71 | 83 | 117 | | | 110 | |
| 300 | 12 | 78 | 81 | 92 | 140 | 356 | 502 | 838 | 178 | 270 | 178 | 270 | 78 | 114 | 203 | 381 | 78 | 83 | 86 | 165 | 81 | 92 | 140 | | | 110 | |
| 350 | 14 | 78 | 92 | 117 | 155 | 381 | 762 | 889 | 190 | 290 | 190 | 290 | 78 | 127 | 203 | 406 | 78 | 92 | 95 | 178 | 92 | 117 | 155 | | | 120 | |
| 400 | 16 | 102 | 102 | 133 | 178 | 406 | 838 | 991 | 216 | 310 | 216 | 310 | 102 | 140 | 203 | 406 | 79 | 102 | 105 | 178 | 102 | 133 | 178 | | | 130 | |
| 450 | 18 | 114 | 114 | 149 | 200 | 432 | 914 | 1092 | 222 | 330 | 222 | 330 | 114 | 152 | 203 | 406 | 102 | 114 | 117 | 203 | 114 | 149 | 200 | | | 150 | |
| 500 | 20 | 127 | 127 | 159 | 216 | 457 | 991 | 1194 | 229 | 350 | 229 | 350 | 127 | 152 | 203 | 457 | 111 | 127 | 130 | 216 | 127 | 159 | 216 | | | 160 | |
| 550 | 22 | | | | | | | | | | | | | | | | | | | | | | | | | | 170 |
| 600 | 24 | 154 | 154 | 181 | 232 | 508 | 1143 | 1397 | 267 | 390 | 267 | 390 | 154 | 178 | 203 | 457 | | 154 | 157 | 254 | 154 | 181 | 232 | | | 170 | |
| 650 | 26 | | | | 559 | 1245 | 1448 | 292 | 410 | | | | | | | | | | | | | | | | | | 170 |
| 700 | 28 | | | | 610 | 1346 | 1549 | 292 | 430 | 292 | 430 | | 229 | | | | | | | | | | | | | | 180 |
| 750 | 30 | 165 | | | 610 | 1397 | 1651 | 318 | 450 | | | | 305 | | 559 | | 165 | | | | | | | | | | 190 |
| 800 | 32 | | | | 660 | 1524 | 1778 | 318 | 470 | 318 | 470 | | 241 | | | | | | | | | | | | | | 200 |
| 850 | 34 | | | | | | | | | | | | | | | | | | | | | | | | | | 210 |
| 900 | 36 | 200 | | | 771 | 1727 | 2083 | 330 | 510 | 330 | 510 | | 241 | 305 | 559 | | 200 | | | | | | | | | | 230 |
| 950 | 38 | | | | | | | 410 | 530 | | | | | | | | | | | | | | | | | | |
| 1000 | 40 | | | | | | | 410 | 550 | 410 | 550 | | 300 | | | | | | | | | | | | | | 250 |
| 1050 | 42 | 251 | | | | | | 410 | 570 | | | | 305 | | 610 | | 251 | | | | | | | | | | |
| 1100 | 44 | | | | | | | | | | | | | | | | | | | | | | | | | | 280 |
| 1200 | 48 | 276 | | | | | | 470 | 630 | 470 | 630 | | 350 | 381 | 660 | | 276 | | | | | | | | | | 300 |
| 1350 | 54 | | | | | | | | | | | | | 381 | 711 | | | | | | | | | | | | |
| 1400 | 56 | | | | | | | | 530 | 710 | | | 390 | | | | | | | | | | | | | | |
| 1500 | 60 | | | | | | | | | | | | | 381 | 762 | | | | | | | | | | | | |
| 1600 | 64 | | | | | | | | 600 | 790 | | | 440 | | | | | | | | | | | | | | |
| 1650 | 66 | | | | | | | | | | | | | 457 | 864 | | | | | | | | | | | | |
| 1800 | 72 | | | | | | | | 670 | 870 | | | 490 | 457 | 914 | | | | | | | | | | | | |
| 2000 | 80 | | | | | | | | 760 | 950 | | | 540 | | | | | | | | | | | | | | |

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5.3 Face-to-face Dimensions

5.3.1 Face-to-face dimensions for lug- and wafer-type valves shall be as listed in Table 2 and Table 3A. The as-installed and compressed dimension shall be used for valves that utilize nonmetallic liners, sleeves, or auxiliary seals extending from or over the body contact faces. When valve body liners, sleeves, or O-ring seals act as flange-sealing surfaces, separate gaskets should not be used unless specifically recommended by the manufacturer.

CAUTION—Over compression of the seat may occur resulting in torque issues or premature failure of the valve.

5.3.2 Face-to-face dimensions for double-flanged valves shall be as listed in Table 3B for long pattern valves, or Table 3C for short pattern valves.

NOTE Table 3C includes two acceptable variations of face-to-face dimensions for Class 300 category B valves.

5.3.3 Body contact faces of cast iron, ductile iron, and cast copper alloy valves that require separate gaskets shall be finished as specified in MSS SP-6.

Table 2—Face-to-face Dimensions for Category A Valves (Lug- and Wafer-type)

| Valve Size (NPS) | Face-to-face Dimensions | | Maximum Variance ± | |
|---------------------|----------------------------|-------|-----------------------|------|
| | mm | in. | mm | in. |
| 2 | 43 | 1.69 | 1.5 | 0.06 |
| 2 1/2 | 46 | 1.81 | 1.5 | 0.06 |
| 3 | 46 | 1.81 | 1.5 | 0.06 |
| 4 | 52 | 2.06 | 1.5 | 0.06 |
| 5 | 56 | 2.19 | 1.5 | 0.06 |
| 6 | 56 | 2.19 | 1.5 | 0.06 |
| 8 | 60 | 2.38 | 3.3 | 0.13 |
| 10 | 68 | 2.69 | 3.3 | 0.13 |
| 12 | 78 | 3.06 | 3.3 | 0.13 |
| 14 | 78 | 3.06 | 3.3 | 0.13 |
| 16 | 102 | 4.00 | 3.3 | 0.13 |
| 18 | 114 | 4.50 | 3.3 | 0.13 |
| 20 | 127 | 5.00 | 3.3 | 0.13 |
| 24 | 154 | 6.06 | 3.3 | 0.13 |
| 30 | 165 | 6.5 | 6.4 | 0.25 |
| 36 | 200 | 7.88 | 6.4 | 0.25 |
| 42 | 251 | 9.88 | 6.4 | 0.25 |
| 48 | 276 | 10.88 | 6.4 | 0.25 |

NOTE The dimensions listed for NPS 2 through 24 apply to valves for installation between ASME Class 125 or 150 flanges. NPS 30 through 48 are limited to installation between ASME Class 125 and 150 flanges, or MSS SP-44 Class 150 flanges. These dimensions are across body flats (metal-to-metal) (see 5.3.1).

Table 3A—Face-to-face Dimensions for Category B Valves, (Lug- and Wafer-type)

| Valve Size (NPS) | Class 150 | | Class 300 | | Class 600 | | Maximum Variance ± | |
|---------------------|----------------|------|-----------|------|-----------|------|-----------------------|------|
| | mm | in. | mm | in. | mm | in. | mm | in. |
| 3 | 48 | 1.88 | 48 | 1.88 | 54 | 2.12 | 3.3 | 0.13 |
| 4 | 54 | 2.12 | 54 | 2.12 | 64 | 2.50 | 3.3 | 0.13 |
| 6 | 57 | 2.25 | 59 | 2.31 | 78 | 3.06 | 3.3 | 0.13 |
| 8 | 64 | 2.50 | 73 | 2.88 | 102 | 4.00 | 3.3 | 0.13 |
| 10 | 71 | 2.81 | 83 | 3.25 | 117 | 4.62 | 3.3 | 0.13 |
| 12 | 81 | 3.19 | 92 | 3.62 | 140 | 5.50 | 3.3 | 0.13 |
| 14 | 92 | 3.62 | 117 | 4.62 | 155 | 6.12 | 3.3 | 0.13 |
| 16 | 102 | 4.00 | 133 | 5.25 | 178 | 7.00 | 3.3 | 0.13 |
| 18 | 114 | 4.50 | 149 | 5.88 | 200 | 7.88 | 3.3 | 0.13 |
| 20 | 127 | 5.00 | 159 | 6.25 | 216 | 8.50 | 3.3 | 0.13 |
| 24 | 154 | 6.06 | 181 | 7.12 | 232 | 9.13 | 3.3 | 0.13 |
| 26 to 48 | — ^a | | | | | | 6.4 | 0.25 |

^a Dimensions shall be manufacturer's standard or as agreed between purchaser and manufacturer.

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Table 3B—Face-to-face Dimensions for Category B Valves, (Double-flanged Long Pattern) ^a

| Valve Class (NPS) | Class 150 | | Class 300 | | Class 600 | | Maximum Variance ± | |
|----------------------|-----------|-------|-----------|-------|-----------|-------|-----------------------|------|
| | mm | in. | mm | in. | mm | in. | mm | in. |
| 3 | 203 | 8.00 | 282 | 11.12 | 356 | 14.00 | 3.3 | 0.13 |
| 4 | 229 | 9.00 | 305 | 12.00 | 432 | 17.00 | 3.3 | 0.13 |
| 6 | 267 | 10.50 | 403 | 15.88 | 559 | 22.00 | 3.3 | 0.13 |
| 8 | 292 | 11.50 | 418 | 16.50 | 660 | 26.00 | 3.3 | 0.13 |
| 10 | 330 | 13.00 | 457 | 18.00 | 787 | 31.00 | 3.3 | 0.13 |
| 12 | 356 | 14.00 | 502 | 19.75 | 838 | 33.00 | 3.3 | 0.13 |
| 14 | 381 | 15.00 | 762 | 30.00 | 889 | 35.00 | 3.3 | 0.13 |
| 16 | 406 | 16.00 | 838 | 33.00 | 991 | 39.00 | 3.3 | 0.13 |
| 18 | 432 | 17.00 | 914 | 36.00 | 1092 | 43.00 | 3.3 | 0.13 |
| 20 | 457 | 18.00 | 991 | 39.00 | 1194 | 47.00 | 3.3 | 0.13 |
| 24 | 508 | 20.00 | 1143 | 45.00 | 1397 | 55.00 | 4 | 0.16 |
| 26 | 559 | 22.00 | 1245 | 49.00 | 1448 | 57.00 | 4 | 0.16 |
| 28 | 610 | 24.00 | 1346 | 53.00 | 1549 | 61.00 | 4 | 0.16 |
| 30 | 610 | 24.00 | 1397 | 55.00 | 1651 | 65.00 | 4 | 0.16 |
| 32 | 660 | 26.00 | 1524 | 60.00 | 1778 | 70.00 | 4 | 0.16 |
| 36 | 711 | 28.00 | 1727 | 68.00 | 2083 | 82.00 | 5 | 0.19 |

^a The dimensions listed agree with ASME B16.10 for flanged gate valves.

Table 3C—Face-to-face Dimensions for Category B Valves, (Double-flanged Short Pattern)

| Valve Class (NPS) | Class 150 ^a or Class 300 ^a | | Class 300 ^b | | Class 600 ^b | | Maximum Variance ± | |
|----------------------|---|-------|------------------------|-------|------------------------|-------|-----------------------|------|
| | mm | in. | mm | in. | mm | in. | mm | in. |
| 3 | 114 | 4.50 | 180 | 7.09 | 180 | 7.09 | 3.3 | 0.13 |
| 4 | 127 | 5.00 | 190 | 7.48 | 190 | 7.48 | 3.3 | 0.13 |
| 6 | 140 | 5.50 | 210 | 8.27 | 210 | 8.27 | 3.3 | 0.13 |
| 8 | 152 | 6.00 | 230 | 9.06 | 230 | 9.06 | 3.3 | 0.13 |
| 10 | 165 | 6.50 | 250 | 9.84 | 250 | 9.84 | 3.3 | 0.13 |
| 12 | 178 | 7.00 | 270 | 10.63 | 270 | 10.63 | 3.3 | 0.13 |
| 14 | 190 | 7.50 | 290 | 11.42 | 290 | 11.42 | 3.3 | 0.13 |
| 16 | 216 | 8.50 | 310 | 12.20 | 310 | 12.20 | 3.3 | 0.13 |
| 18 | 222 | 8.75 | 330 | 12.99 | 330 | 12.99 | 3.3 | 0.13 |
| 20 | 229 | 9.00 | 350 | 13.78 | 350 | 13.78 | 3.3 | 0.13 |
| 24 | 267 | 10.50 | 390 | 15.35 | 390 | 15.35 | 4 | 0.16 |
| 26 | 292 | 11.50 | 410 | 16.14 | — | — | 4 | 0.16 |
| 28 | 292 | 11.50 | 430 | 16.93 | — | — | 4 | 0.16 |
| 30 | 318 | 12.52 | 450 | 17.72 | — | — | 4 | 0.16 |
| 32 | 318 | 12.52 | 470 | 18.50 | — | — | 4 | 0.16 |
| 36 | 330 | 12.99 | 510 | 20.08 | — | — | 5 | 0.19 |
| 38 | 410 | 16.14 | 530 | 20.87 | — | — | 5 | 0.19 |
| 40 | 410 | 16.14 | 550 | 21.65 | — | — | 5 | 0.19 |
| 42 | 410 | 16.14 | 570 | 22.44 | — | — | 6 | 0.24 |
| 48 | 470 | 18.50 | 630 | 24.80 | — | — | 6 | 0.24 |

NOTE See NOTES TO PURCHASER, B.2.1 d).

^a The dimensions listed agree with ISO 5752 Basic Series 13, EN 558-2 and EN 593.

^b The dimensions listed agree with ISO 5752 Basic Series 14, EN 558-2 and EN 593.

EN 558-1 Valve Face-to-Face Dimensions

| TABLE 5 - Butterfly Valves and Butterfly Control Valves | | | | | | | | | |
|---|-------------|----|------------|-----------------|----------------|-----------------|---------------|---------------|---------------|
| PN / Class | FTF Series | | | | | | | | |
| | Flange type | | Wafer type | | | | | | |
| | 13 | 14 | 16 | 20 ^b | 25 | 53 ^a | 108 CL 150 | 109 CL 300 | 110 CL 600 |
| PN 2.5 - PN 6 | X | X | | X | | X | | | |
| PN 10 - PN 16 | X | X | X | X | X | X | | | |
| PN 25 - PN 40 | X | X | X | X ^c | X | | | | |
| Class 125 - Class 150 | X | X | X | X ^c | X | | X | | |
| Class 300 | | X | X | | X ^c | | | X | |
| Class 600 | | X | | | | | | | X |

^a For PN 2,5; PN 6, PN 10 only.

^b Alternative dimension use: 25 (DN 20); 25 (DN 25); 33 (DN 32).

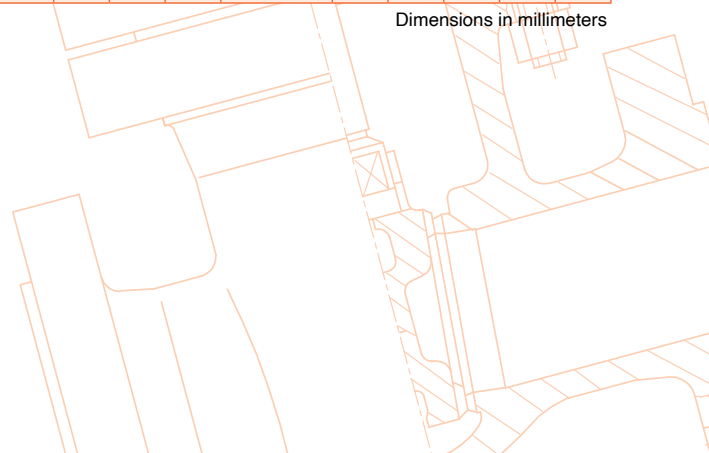
^c Alternative dimension: 92 (DN 350) instead of 78.



| TABLE 2 - Dimensions of Basic Series | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------------------------|------|------|-----|------|------|-----|----------------|----------------|------|-----------------|------|-----|-----|------|-----|-----|-----|-----|------|-----------------|-----------------|-----------------|-----|
| DN | 1 | 2 | 3 | 4 | 5 | 7 | 8 ^a | 9 ^a | 10 | 11 ^a | 12 | 13 | 14 | 15 | 16 | 18 | 19 | 20 | 21 | 22 ^a | 23 ^a | 24 ^a | 25 |
| 10 | 130 | 210 | 102 | - | - | 108 | 90 | 105 | - | - | 130 | - | 115 | - | - | 80 | - | - | - | 65 | 70 | - | - |
| 15 | 130 | 210 | 108 | 140 | 165 | 108 | 90 | 105 | 108 | 57 | 130 | - | 115 | - | - | 80 | 140 | - | 152 | 65 | 70 | 83 | - |
| 20 | 150 | 210 | 117 | 152 | 190 | 117 | 95 | 115 | 117 | 64 | 130 | - | 120 | - | - | 90 | 152 | - | 178 | 70 | 75 | 95 | - |
| 25 | 160 | 230 | 127 | 165 | 216 | 127 | 100 | 115 | 127 | 70 | 140 | - | 125 | 120 | - | 100 | 165 | - | 216 | 80 | 85 | 108 | - |
| 32 | 180 | 230 | 140 | 178 | 229 | 146 | 105 | 130 | 140 | 76 | 165 | - | 130 | 140 | - | 110 | 178 | - | 229 | 90 | 95 | 114 | - |
| 40 | 200 | 260 | 165 | 190 | 241 | 159 | 115 | 130 | 165 | 83 | 165 | 106 | 140 | 240 | 33 | 120 | 190 | 33 | 241 | 95 | 100 | 151 | - |
| 50 | 230 | 260 | 178 | 216 | 292 | 190 | 125 | 150 | 203 | 102 | 203 | 108 | 150 | 250 | 43 | 135 | 216 | 43 | 267 | 105 | 115 | 146 | - |
| 65 | 290 | 300 | 190 | 241 | 330 | 216 | 145 | 170 | 216 | 108 | 222 | 112 | 170 | 270 | 46 | 165 | 241 | 46 | 292 | 115 | 125 | 165 | - |
| 80 | 310 | 340 | 203 | 283 | 356 | 254 | 155 | 190 | 241 | 121 | 241 | 114 | 180 | 280 | 64 | 185 | 283 | 46 | 318 | 125 | 135 | 178 | 49 |
| 100 | 350 | 380 | 229 | 305 | 432 | 305 | 175 | 215 | 292 | 146 | 305 | 127 | 190 | 300 | 64 | 229 | 305 | 52 | 356 | 135 | 146 | 216 | 56 |
| 125 | 400 | 430 | 254 | 381 | 508 | 356 | 200 | 250 | 330 | 178 | 356 | 140 | 200 | 325 | 70 | - | 381 | 56 | 400 | - | - | 254 | 64 |
| 150 | 480 | 500 | 267 | 403 | 559 | 406 | 225 | 275 | 356 | 203 | 394 | 140 | 210 | 350 | 76 | - | 403 | 56 | 444 | - | - | 279 | 70 |
| 200 | 600 | 550 | 292 | 419 | 660 | 521 | 275 | 325 | 495 | 248 | 457 | 152 | 230 | 400 | 89 | - | 419 | 60 | 533 | - | - | 330 | 71 |
| 250 | 730 | 650 | 330 | 457 | 787 | 635 | 325 | 390 | 622 | 311 | 533 | 165 | 250 | 450 | 114 | - | 457 | 68 | 622 | - | - | 394 | 76 |
| 300 | 850 | 775 | 356 | 502 | 838 | 749 | 375 | 450 | 698 | 349 | 610 | 178 | 270 | 500 | 114 | - | 502 | 78 | 711 | - | - | 419 | 83 |
| 350 | 980 | 900 | 381 | 762 | 889 | - | 425 | 515 | 787 | 394 | 686 | 190 | 290 | 550 | 127 | - | 572 | 78 | 838 | - | - | - | 92 |
| 400 | 1100 | 1025 | 406 | 838 | 991 | - | 475 | 575 | 914 | 457 | 762 | 216 | 310 | 600 | 140 | - | 610 | 102 | 864 | - | - | - | 102 |
| 450 | 1200 | 1150 | 432 | 914 | 1092 | - | 500 | - | 978 | 483 | 864 | 222 | 330 | 650 | 152 | - | 660 | 114 | 978 | - | - | - | 114 |
| 500 | 1250 | 1275 | 457 | 991 | 1194 | - | - | 700 | 978 | - | 914 | 229 | 350 | 700 | 152 | - | 711 | 127 | 1016 | - | - | - | 127 |
| 600 | 1450 | 1400 | 508 | 1143 | 1397 | - | - | - | 1295 | - | 1067 | 267 | 390 | 800 | 178 | - | 787 | 154 | 1346 | - | - | - | 154 |
| 700 | 1650 | 1600 | 610 | - | 1549 | - | - | - | 1448 | - | - | 292 | 430 | 900 | 229 | - | - | 165 | 1499 | - | - | - | - |
| 750 | - | - | 610 | 1397 | 1651 | - | - | - | 1524 | - | - | - | - | - | - | - | - | 165 | 190 | 1594 | - | - | - |
| 800 | 1850 | - | 660 | - | 1651 | - | - | - | 1676 | - | - | 318 | 470 | 1000 | 241 | - | - | 190 | 1778 | - | - | - | - |
| 900 | 2050 | - | 711 | - | 2083 | - | - | - | 1956 | - | - | 330 | 510 | 1100 | 241 | - | - | 200 | 203 | 208 | - | - | - |
| 1000 | 2250 | - | 813 | - | - | - | - | - | - | - | - | 410 | 550 | 1200 | 300 | - | - | 251 | 216 | - | - | - | - |
| 1200 | - | - | - | - | - | - | - | - | - | - | - | 470 | 630 | - | 350 | - | - | 276 | 254 | - | - | - | - |
| 1400 | - | - | - | - | - | - | - | - | - | - | - | 530 | 710 | - | 390 | - | - | 279 | - | - | - | - | - |
| 1600 | - | - | - | - | - | - | - | - | - | - | - | 600 | 790 | - | 440 | - | - | 318 | - | - | - | - | - |
| 1800 | - | - | - | - | - | - | - | - | - | - | - | 670 | 870 | - | 490 | - | - | 356 | - | - | - | - | - |
| 2000 | - | - | - | - | - | - | - | - | - | - | - | 760 | 950 | - | 540 | - | - | 406 | - | - | - | - | - |

^a CTF dimensions for angle pattern valves

Dimensions in millimeters



**TABLE 2 - Dimensions of Basic Series cont'd**

| DN | 26 | 27 | 28 | 29 | 30 | 32 ^a | 33 | 36 | 37 | 38 | 39 | 40 ^a | 41 ^a | 42 ^a | 43 | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 |
|------|------|-----|------|-------|------|-----------------|------|-----|------|------|------|-----------------|-----------------|-----------------|-----|-----|-----|-----|------|------|-----|-----|------|-----|------|
| 10 | - | 115 | 130 | 108 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 15 | - | 115 | 130 | 108 | 150 | 76 | - | - | - | - | - | - | - | - | 90 | 140 | 165 | - | - | 16 | - | - | 25 | - | - |
| 20 | - | 120 | 150 | 117.5 | 160 | 89 | - | 76 | - | - | - | - | - | - | 100 | 152 | 250 | 75 | - | 19 | - | - | 31.5 | - | 229 |
| 25 | - | 125 | 160 | 127 | 160 | 102 | - | 102 | 184 | 197 | 210 | 92 | 98 | 105 | 115 | 210 | 255 | 80 | - | 22 | - | - | 35.5 | - | 254 |
| 32 | - | 130 | 180 | 127 | 180 | 108 | - | - | - | - | - | - | - | - | 130 | 230 | 265 | 90 | - | 28 | - | - | 40 | - | 279 |
| 40 | 240 | 140 | 200 | 136 | 190 | 114 | 152 | 114 | 222 | 235 | 251 | 111 | 117 | 125 | 150 | 240 | 280 | 100 | 180 | 31.5 | - | - | 45 | 38 | 305 |
| 50 | 250 | 150 | 230 | 142 | 200 | 133 | 178 | 124 | 254 | 267 | 286 | 127 | 133 | 143 | 170 | 250 | 300 | 110 | 200 | 40 | 54 | 54 | 56 | 40 | 368 |
| 65 | 290 | 170 | 290 | 154 | 215 | 146 | 216 | - | - | - | - | - | - | - | - | 270 | 340 | 130 | 240 | 46 | 54 | 60 | 63 | 42 | 419 |
| 80 | 310 | 180 | 310 | 160 | 230 | 159 | 254 | 165 | 298 | 317 | 337 | 149 | 159 | 168 | - | 280 | 360 | 150 | 260 | 50 | 57 | 67 | 71 | 44 | 381 |
| 100 | 350 | 190 | 350 | 172 | 250 | 178 | 305 | 194 | 352 | 368 | 394 | 176 | 184 | 197 | - | 300 | 400 | 160 | 300 | 60 | 64 | 67 | 80 | 46 | 457 |
| 125 | 400 | 325 | 400 | 186 | 275 | 200 | 381 | - | - | - | - | - | - | - | - | 350 | 450 | 200 | 350 | 90 | 70 | 83 | 110 | 48 | 551 |
| 150 | 450 | 350 | 450 | 200 | 300 | 222 | 457 | 229 | 451 | 473 | 408 | 225 | 236 | 254 | - | 375 | 500 | 210 | 400 | 106 | 76 | 95 | 125 | 50 | 610 |
| 200 | 550 | 400 | 550 | 228 | 350 | 279 | 584 | 243 | 543 | 568 | 610 | 272 | 284 | 305 | - | 425 | 600 | - | 500 | 140 | 95 | 127 | 160 | 60 | 757 |
| 250 | 650 | 450 | 650 | 255 | 400 | 311 | 711 | 297 | 673 | 708 | 752 | 337 | 354 | 376 | - | 450 | 700 | - | 600 | - | 108 | 140 | 200 | 65 | 838 |
| 300 | 750 | 500 | 750 | 285 | 425 | 356 | 813 | 338 | 737 | 775 | 819 | 368 | 387 | 410 | - | 500 | 800 | - | 700 | - | 143 | 181 | 250 | 75 | 965 |
| 350 | 850 | 550 | 850 | 315 | 475 | - | 889 | - | 889 | 927 | 972 | 445 | 464 | 486 | - | 550 | - | - | 800 | - | 184 | 222 | 280 | 80 | 1029 |
| 400 | 950 | 762 | 950 | 340 | 525 | - | 991 | 400 | 1016 | 1057 | 1108 | 508 | 529 | 554 | - | 600 | - | - | 900 | - | 191 | 232 | - | 95 | 1130 |
| 450 | 1050 | - | - | 360 | 575 | - | 1092 | 457 | - | - | - | - | - | - | - | - | - | - | 1000 | - | 203 | 264 | - | 107 | 1219 |
| 500 | 1150 | 914 | 1150 | 380 | 625 | - | 1194 | 508 | - | - | - | - | - | - | - | - | - | - | 1100 | - | 213 | 292 | - | 120 | 1321 |
| 600 | 1350 | - | - | 425 | 725 | - | 1397 | 610 | - | - | - | - | - | - | - | - | - | - | 1300 | - | 222 | 318 | - | 144 | 1549 |
| 700 | 1550 | - | - | 470 | 825 | - | 1546 | - | - | - | - | - | - | - | - | - | - | - | 1500 | - | 321 | 381 | - | 160 | - |
| 750 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 180 | - |
| 800 | 1750 | - | - | 510 | 925 | - | - | - | - | - | - | - | - | - | - | - | - | - | 1700 | - | 356 | 489 | - | 195 | - |
| 900 | 1950 | - | - | 555 | 1025 | - | - | - | - | - | - | - | - | - | - | - | - | - | 1900 | - | 368 | - | - | 210 | - |
| 1000 | 2150 | - | - | 600 | 1125 | - | - | - | - | - | - | - | - | - | - | - | - | - | 2100 | - | 419 | - | - | - | - |
| 1200 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1400 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1600 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1800 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2000 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

^a CTF dimensions for angle pattern valves

Dimensions in millimeters

**TABLE 2 - Dimensions of Basic Series cont'd**

| DN | 107 | 108 | 109 | 110 | 111 | 112 | 113 | 114 | 115 | 116 | 117 | 118 | 119 | 120 | 121 | 122 | 123 | 124 |
|------|-----|-----|-----|-----|------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 10 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 15 | 50 | - | - | - | 273 | 273 | 150 | 210 | 290 | 480 | - | - | - | - | - | 300 | 400 | 435 |
| 20 | 50 | - | - | - | 273 | 273 | 150 | 210 | 290 | 480 | - | - | - | - | - | 300 | - | - |
| 25 | 60 | - | - | - | 273 | 273 | 160 | 230 | 380 | 580 | - | - | - | - | - | 300 | 415 | 470 |
| 32 | 65 | - | - | - | - | - | 230 | 320 | 450 | 580 | - | - | - | - | - | - | - | - |
| 40 | 80 | - | - | - | 311 | 311 | 230 | 320 | 490 | 680 | - | - | - | - | - | 420 | - | - |
| 50 | 95 | - | - | - | 340 | -340 | 230 | 320 | 580 | 680 | 54 | 54 | 60 | 60 | 60 | 416 | 440 | - |
| 65 | 110 | - | - | - | - | - | 290 | - | - | - | 60 | 60 | 67 | 67 | 67 | - | - | - |
| 80 | 145 | 48 | 48 | 54 | 387 | 406 | 310 | - | - | - | 67 | 67 | 73 | 73 | 73 | - | - | - |
| 100 | 170 | 54 | 54 | 64 | 464 | 483 | 350 | - | - | - | 67 | 67 | 73 | 73 | 79 | - | - | - |
| 125 | - | - | - | - | - | - | - | - | - | - | 83 | 83 | - | - | - | - | - | - |
| 150 | - | 57 | 59 | 78 | 600 | 692 | - | - | - | - | 95 | 95 | 98 | 98 | 136 | - | - | - |
| 200 | - | 64 | 73 | 102 | 781 | 838 | - | - | - | - | 127 | 127 | 127 | 127 | 165 | - | - | - |
| 250 | - | 71 | 83 | 117 | 864 | 991 | - | - | - | - | 140 | 140 | 146 | 146 | 213 | - | - | - |
| 300 | - | 81 | 92 | 140 | 1016 | 1130 | - | - | - | - | 181 | 181 | 181 | 181 | 229 | - | - | - |
| 350 | - | 92 | 117 | 155 | - | - | - | - | - | - | 184 | 222 | 184 | 222 | 273 | - | - | - |
| 400 | - | 102 | 133 | 178 | - | - | - | - | - | - | 191 | 232 | 191 | 232 | 305 | - | - | - |
| 450 | - | 114 | 149 | 200 | - | - | - | - | - | - | 203 | 264 | 203 | 264 | 362 | - | - | - |
| 500 | - | 127 | 159 | 216 | - | - | - | - | - | - | 213 | 292 | 219 | 292 | 368 | - | - | - |
| 600 | - | 154 | 181 | 232 | - | - | - | - | - | - | 222 | 318 | 222 | 318 | 438 | - | - | - |
| 700 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 750 | - | - | - | - | - | - | - | - | - | - | 305 | 368 | 305 | 368 | 505 | - | - | - |
| 800 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 900 | - | - | - | - | - | - | - | - | - | - | 368 | 483 | 368 | 483 | 635 | - | - | - |
| 1000 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1200 | - | - | - | - | - | - | - | - | - | - | 524 | 629 | 524 | 629 | - | - | - | - |

^a CTF dimensions for angle pattern valves

Dimensions in millimeters

Butterfly Face to Face Dimensions Comparison - AS