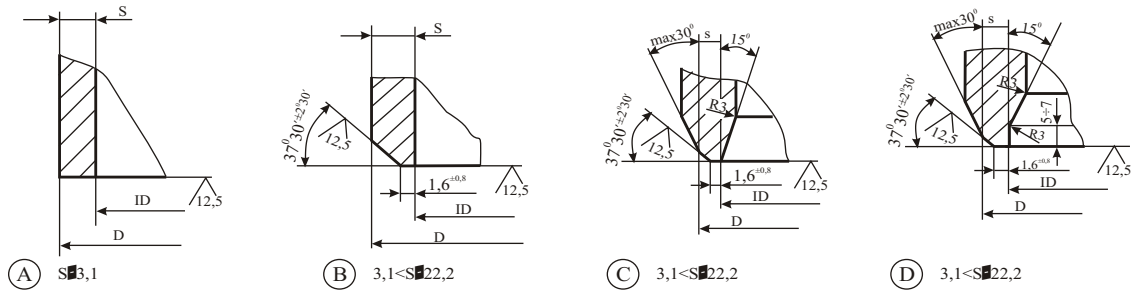


FITTINGS

ANSI B.16.9

DIMENSIONAL TOLERANCES ANSI B.16.9 To ANSI B 16.28

| Nominal size | | Outside Diameter OD (mm) | Inside Diameter ID (mm) | Wall Thickness W | Center to Face A and B (mm) | Center to Center O (mm) | Back to Face K (mm) | U (mm) | Angularity Tolerance Q (mm) | Angularity Tolerance P (mm) |
|--------------|----------------|--------------------------|-------------------------|------------------|-----------------------------|-------------------------|---------------------|--------|-----------------------------|-----------------------------|
| (inches) | (mm) | | | | | | | | | |
| 1/2 - 2 1/2 | 21.3 73.0 | +1.6 -0.8 | +0.8 -0.8 | -12.5% | +1.6 -1.6 | +6.4 -6.4 | +0.8 -0.8 | 0.8 | 1.6 | |
| 3 - 4 | 88.9 114.3 | +1.6 -1.6 | +1.6 | | | | | | | |
| 5 - 8 | 141.3 219.1 | +2.4 -1.6 | -1.6 | | | | | | | |
| 10 - 12 | 273.0 355.6 | +4 | +3.2 | | +2.3 -2.3 | +9.6 -9.6 | +1.6 -1.6 | 2.4 | 4.8 | |
| 14 - 16 | 406.4 | -3.2 | -3.2 | | | | | | | |
| 18 | 457.2 | | | | | | | 3.2 | 9.6 | |



| Nominal Diameter | D | Tolerance | ID | Tolerance | S | | H | Tolerance |
|------------------|-------|-----------|-------|-----------|------|------|-------|-----------|
| | | | | | nom. | min. | | |
| 1/2" | 21.3 | +1.6;-0.8 | 15.8 | +0.8;-0.8 | 2.77 | 2.42 | 25.4 | +3.2;-3.2 |
| 3/4" | 26.7 | +1.6;-0.8 | 20.9 | +0.8;-0.8 | 2.87 | 2.51 | 25.4 | +3.2;-3.2 |
| 1" | 33.4 | +1.6;-0.8 | 26.6 | +0.8;-0.8 | 3.38 | 2.95 | 38.1 | +3.2;-3.2 |
| 1 1/4" | 42.2 | +1.6;-0.8 | 35.1 | +0.8;-0.8 | 3.56 | 3.11 | 38.1 | +3.2;-3.2 |
| 1 1/2" | 48.3 | +1.6;-0.8 | 40.9 | +0.8;-0.8 | 3.68 | 3.21 | 38.1 | +3.2;-3.2 |
| 2" | 60.3 | +1.6;-0.8 | 52.5 | +0.8;-0.8 | 3.91 | 3.41 | 38.1 | +3.2;-3.2 |
| 2 1/2" | 73 | +1.6;-0.8 | 62.7 | +0.8;-0.8 | 5.16 | 4.51 | 38.1 | +3.2;-3.2 |
| 3 1/2" | 88.9 | +1.6;-1.6 | 77.9 | +1.6;-1.6 | 5.49 | 4.79 | 50.8 | +3.2;-3.2 |
| 4" | 101.6 | +1.6;-1.6 | 90.1 | +1.6;-1.6 | 5.74 | 5.01 | 63.5 | +3.2;-3.2 |
| 5" | 114.3 | +1.6;-1.6 | 102.3 | +1.6;-1.6 | 6.02 | 5.26 | 63.5 | +3.2;-3.2 |
| 6" | 141.3 | +2.4;-1.6 | 128.2 | +1.6;-1.6 | 6.55 | 5.72 | 76.2 | +6.3;-6.3 |
| 8" | 168.3 | +2.4;-1.6 | 154.1 | +1.6;-1.6 | 7.11 | 6.21 | 88.9 | +6.3;-6.3 |
| 10" | 219.1 | +2.4;-1.6 | 202.7 | +1.6;-1.6 | 8.18 | 7.15 | 101.6 | +6.3;-6.3 |
| 12" | 273 | +4.0;-3.2 | 254.5 | +3.2;-3.2 | 9.27 | 8.1 | 127 | +6.3;-6.3 |
| 16" | 323.9 | +4.0;-3.2 | 304.8 | +3.2;-3.2 | 9.52 | 8.32 | 152.4 | +6.3;-6.3 |
| 18" | 355.6 | +4.0;-3.2 | 336.6 | +3.2;-3.2 | 9.52 | 8.32 | 165.1 | +6.3;-6.3 |
| 20" | 406.4 | +4.0;-3.2 | 387.4 | +3.2;-3.2 | 9.52 | 8.32 | 177.8 | +6.3;-6.3 |
| | 457.2 | +4.0;-3.2 | 438.2 | +3.2;-3.2 | 9.52 | 8.32 | 203.2 | +6.3;-6.3 |
| | 508 | +6.3;-4.8 | 489 | +4.8;-4.8 | 9.52 | 8.32 | 228.6 | +6.3;-6.3 |

TEST AND CONTROLS THAT CAN BE MADE ON THE BENEFICIARY'S REQUEST

Destructive testing; Stiloscope nondestructive testing; Spectromobile nondestructive testing; Ferrite content checking; Cobalt content establishing for the fittings destined to the nuclear power industry; Strength behaviour testing Rm; Rp0,2; A; Z; KCU; KV; Hardness testing; Heat treatment checking; Visual checking; Size test; Hydraulic pressure test; Crack test; Penetrant liquids test; Fitting U.S. Test > 6" (168 mm); Free iron test for stainless steel fittings; Inter-crystalline corrosion test from the stainless steel fitting; Assurance of the use of the low sulphur and halogen content available materials for the fittings destined for the nuclear power industry.