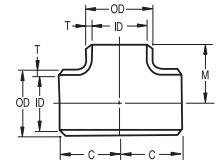


Tee (Straight)

Sch5s, Sch10s, Sch40s, Sch80s



(Unit : mm)

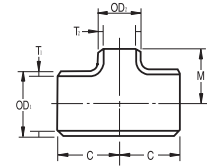
ASME B16.9, MSS SP-43

| Nominal Pipe Size | Outside Diameter O.D | Center to End | | 5S | |
|-------------------|----------------------|---------------|----------|------|-------|
| | | Run C | Outlet M | T | I.D |
| 1/2 | 21.3 | 25 | 25 | 1.65 | 18.0 |
| 3/4 | 26.7 | 29 | 29 | 1.65 | 23.4 |
| 1 | 33.4 | 38 | 38 | 1.65 | 30.1 |
| 1-1/4 | 42.2 | 48 | 48 | 1.65 | 38.9 |
| 1-1/2 | 48.3 | 57 | 57 | 1.65 | 45.0 |
| 2 | 60.3 | 64 | 64 | 1.65 | 57.0 |
| 2-1/2 | 73.0 | 76 | 76 | 2.11 | 68.8 |
| 3 | 88.9 | 86 | 86 | 2.11 | 84.7 |
| 3-1/2 | 101.6 | 95 | 95 | 2.11 | 97.4 |
| 4 | 114.3 | 105 | 105 | 2.11 | 110.1 |
| 5 | 141.3 | 124 | 124 | 2.77 | 135.8 |
| 6 | 168.3 | 143 | 143 | 2.77 | 162.8 |
| 8 | 219.1 | 178 | 178 | 2.77 | 213.6 |
| 10 | 273.0 | 216 | 216 | 3.40 | 266.2 |
| 12 | 323.8 | 254 | 254 | 3.96 | 315.9 |
| 14 | 355.6 | 279 | 279 | 3.96 | 347.7 |
| 16 | 406.4 | 305 | 305 | 4.19 | 398.0 |
| 18 | 457.0 | 343 | 343 | 4.19 | 448.6 |
| 20 | 508.0 | 381 | 381 | 4.78 | 498.4 |
| 22 | 559.0 | 419 | 419 | 4.78 | 549.4 |
| 24 | 610.0 | 432 | 432 | 5.54 | 598.9 |
| 30 | 762.0 | 559 | 559 | 6.35 | 749.3 |

| Nominal Pipe Size | 10S | | 40S | | 80S | |
|-------------------|------|-------|------|-------|-------|-------|
| | T | I.D | T | I.D | T | I.D |
| 1/2 | 2.11 | 17.1 | 2.77 | 15.8 | 3.73 | 13.8 |
| 3/4 | 2.11 | 22.5 | 2.87 | 21.0 | 3.91 | 18.9 |
| 1 | 2.77 | 27.9 | 3.38 | 26.6 | 4.55 | 24.3 |
| 1-1/4 | 2.77 | 36.7 | 3.56 | 35.1 | 4.85 | 32.5 |
| 1-1/2 | 2.77 | 42.8 | 3.68 | 40.9 | 5.08 | 38.1 |
| 2 | 2.77 | 54.8 | 3.91 | 52.5 | 5.54 | 49.2 |
| 2-1/2 | 3.05 | 66.9 | 5.16 | 62.7 | 7.01 | 59.0 |
| 3 | 3.05 | 82.8 | 5.49 | 77.9 | 7.62 | 73.7 |
| 3-1/2 | 3.05 | 95.5 | 5.74 | 90.1 | 8.08 | 85.4 |
| 4 | 3.05 | 108.2 | 6.02 | 102.3 | 8.56 | 97.2 |
| 5 | 3.40 | 134.5 | 6.55 | 128.2 | 9.53 | 122.2 |
| 6 | 3.40 | 161.5 | 7.11 | 154.1 | 10.97 | 146.4 |
| 8 | 3.76 | 211.6 | 8.18 | 202.7 | 12.70 | 193.7 |
| 10 | 4.19 | 264.6 | 9.27 | 254.5 | 12.70 | 247.6 |
| 12 | 4.57 | 314.7 | 9.53 | 304.7 | 12.70 | 298.4 |
| 14 | 4.78 | 346.0 | 9.53 | 336.5 | 12.70 | 330.2 |
| 16 | 4.78 | 396.8 | 9.53 | 387.3 | 12.70 | 381.0 |
| 18 | 4.78 | 447.4 | 9.53 | 437.9 | 12.70 | 431.6 |
| 20 | 5.54 | 496.9 | 9.53 | 488.9 | 12.70 | 482.6 |
| 22 | 5.54 | 547.9 | | | | |
| 24 | 6.35 | 597.3 | 9.53 | 590.9 | 12.70 | 584.6 |
| 30 | 7.92 | 746.2 | | | | |

Tee (Reducing)

Sch5s, Sch10s, Sch40s, Sch80s



ASME B16.9, MSS SP-43

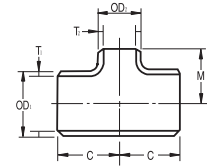
(Unit : mm)

| Nominal Pipe Size | Outside Diameter | | Center to End | | 5S | |
|-----------------------|------------------|-------|---------------|----------|------|------|
| | OD1 | OD2 | Run C | Outlet M | T1 | T2 |
| 3/4 X 3/4 X 1/2 | 26.7 | 21.3 | 29 | 25 | 1.65 | 1.65 |
| 1 X 1 X 3/4 | 33.4 | 26.7 | 38 | 29 | 1.65 | 1.65 |
| 1 X 1 X 1/2 | 33.4 | 21.3 | 38 | 25 | 1.65 | 1.65 |
| 1-1/4 X 1-1/4 X 1 | 42.2 | 33.4 | 48 | 38 | 1.65 | 1.65 |
| 1-1/4 X 1-1/4 X 3/4 | 42.2 | 26.7 | 48 | 29 | 1.65 | 1.65 |
| 1-1/2 X 1-1/2 X 1-1/4 | 48.3 | 42.2 | 57 | 48 | 1.65 | 1.65 |
| 1-1/2 X 1-1/2 X 1 | 48.3 | 33.4 | 57 | 38 | 1.65 | 1.65 |
| 1-1/2 X 1-1/2 X 3/4 | 48.3 | 26.7 | 57 | 29 | 1.65 | 1.65 |
| 2 X 2 X 1-1/2 | 60.3 | 48.3 | 64 | 57 | 1.65 | 1.65 |
| 2 X 2 X 1-1/4 | 60.3 | 42.2 | 64 | 48 | 1.65 | 1.65 |
| 2 X 2 X 1 | 60.3 | 33.4 | 64 | 38 | 1.65 | 1.65 |
| 2-1/2 X 2-1/2 X 2 | 73.0 | 60.3 | 76 | 64 | 2.11 | 1.65 |
| 2-1/2 X 2-1/2 X 1-1/2 | 73.0 | 48.3 | 76 | 57 | 2.11 | 1.65 |
| 2-1/2 X 2-1/2 X 1-1/4 | 73.0 | 42.2 | 76 | 48 | 2.11 | 1.65 |
| 3 X 3 X 2-1/2 | 88.9 | 73.0 | 86 | 76 | 2.11 | 2.11 |
| 3 X 3 X 2 | 88.9 | 60.3 | 86 | 64 | 2.11 | 1.65 |
| 3 X 3 X 1-1/2 | 88.9 | 48.3 | 86 | 57 | 2.11 | 1.65 |
| 3-1/2 X 3-1/2 X 3 | 101.6 | 88.9 | 95 | 86 | 2.11 | 2.11 |
| 3-1/2 X 3-1/2 X 2-1/2 | 101.6 | 73.0 | 95 | 76 | 2.11 | 2.11 |
| 3-1/2 X 3-1/2 X 2 | 101.6 | 60.3 | 95 | 64 | 2.11 | 1.65 |
| 3-1/2 X 3-1/2 X 1-1/2 | 101.6 | 48.3 | 95 | 57 | 2.11 | 1.65 |
| 4 X 4 X 3-1/2 | 114.3 | 101.6 | 105 | 95 | 2.11 | 2.11 |
| 4 X 4 X 3 | 114.3 | 88.9 | 105 | 86 | 2.11 | 2.11 |
| 4 X 4 X 2-1/2 | 114.3 | 73.0 | 105 | 76 | 2.11 | 2.11 |
| 4 X 4 X 2 | 114.3 | 60.3 | 105 | 64 | 2.11 | 1.65 |

| Nominal Pipe Size | 10S | | 40S | | 80S | |
|-----------------------|------|------|------|------|------|------|
| | T1 | T2 | T1 | T2 | T1 | T2 |
| 3/4 X 3/4 X 1/2 | 2.11 | 2.11 | 2.87 | 2.77 | 3.91 | 3.73 |
| 1 X 1 X 3/4 | 2.77 | 2.11 | 3.38 | 2.87 | 4.55 | 3.91 |
| 1 X 1 X 1/2 | 2.77 | 2.11 | 3.38 | 2.77 | 4.55 | 3.73 |
| 1-1/4 X 1-1/4 X 1 | 2.77 | 2.77 | 3.56 | 3.38 | 4.85 | 4.55 |
| 1-1/4 X 1-1/4 X 3/4 | 2.77 | 2.11 | 3.56 | 2.87 | 4.85 | 3.91 |
| 1-1/2 X 1-1/2 X 1-1/4 | 2.77 | 2.77 | 3.68 | 3.56 | 5.08 | 4.85 |
| 1-1/2 X 1-1/2 X 1 | 2.77 | 2.77 | 3.68 | 3.38 | 5.08 | 4.55 |
| 1-1/2 X 1-1/2 X 3/4 | 2.77 | 2.11 | 3.68 | 2.87 | 5.08 | 3.91 |
| 2 X 2 X 1-1/2 | 2.77 | 2.77 | 3.91 | 3.68 | 5.54 | 5.08 |
| 2 X 2 X 1-1/4 | 2.77 | 2.77 | 3.91 | 3.56 | 5.54 | 4.85 |
| 2 X 2 X 1 | 2.77 | 2.77 | 3.91 | 3.38 | 5.54 | 4.55 |
| 2-1/2 X 2-1/2 X 2 | 3.05 | 2.77 | 5.16 | 3.91 | 7.01 | 5.54 |
| 2-1/2 X 2-1/2 X 1-1/2 | 3.05 | 2.77 | 5.16 | 3.68 | 7.01 | 5.08 |
| 2-1/2 X 2-1/2 X 1-1/4 | 3.05 | 2.77 | 5.16 | 3.56 | 7.01 | 4.85 |
| 3 X 3 X 2-1/2 | 3.05 | 3.05 | 5.49 | 5.16 | 7.62 | 7.01 |
| 3 X 3 X 2 | 3.05 | 2.77 | 5.49 | 3.91 | 7.62 | 5.54 |
| 3 X 3 X 1-1/2 | 3.05 | 2.77 | 5.49 | 3.68 | 7.62 | 5.08 |
| 3-1/2 X 3-1/2 X 3 | 3.05 | 3.05 | 5.74 | 5.49 | 8.08 | 7.62 |
| 3-1/2 X 3-1/2 X 2-1/2 | 3.05 | 3.05 | 5.74 | 5.16 | 8.08 | 7.01 |
| 3-1/2 X 3-1/2 X 2 | 3.05 | 2.77 | 5.74 | 3.91 | 8.08 | 5.54 |
| 3-1/2 X 3-1/2 X 1-1/2 | 3.05 | 2.77 | 5.74 | 3.68 | 8.08 | 5.08 |
| 4 X 4 X 3-1/2 | 3.05 | 3.05 | 6.02 | 5.74 | 8.56 | 8.08 |
| 4 X 4 X 3 | 3.05 | 3.05 | 6.02 | 5.49 | 8.56 | 7.62 |
| 4 X 4 X 2-1/2 | 3.05 | 3.05 | 6.02 | 5.16 | 8.56 | 7.01 |
| 4 X 4 X 2 | 3.05 | 2.77 | 6.02 | 3.91 | 8.56 | 5.54 |

Tee (Reducing)

Sch5s, Sch10s, Sch40s, Sch80s



ASME B16.9, MSS SP-43

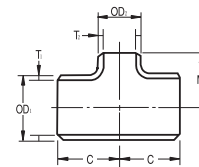
| Nominal Pipe Size | Outside Diameter | | Center to End | | 5S | |
|-------------------|------------------|-------|---------------|----------|------|------|
| | OD1 | OD2 | Run C | Outlet M | T1 | T2 |
| 5X5X4 | 141.3 | 114.3 | 124 | 105 | 2.77 | 2.11 |
| 5X5X3-1/2 | 141.3 | 101.6 | 124 | 95 | 2.77 | 2.11 |
| 5X5X3 | 141.3 | 88.9 | 124 | 86 | 2.77 | 2.11 |
| 5X5X2-1/2 | 141.3 | 73.0 | 124 | 76 | 2.77 | 2.11 |
| 6X6X5 | 168.3 | 141.3 | 143 | 124 | 2.77 | 2.77 |
| 6X6X4 | 168.3 | 114.3 | 143 | 105 | 2.77 | 2.11 |
| 6X6X3-1/2 | 168.3 | 101.6 | 143 | 95 | 2.77 | 2.11 |
| 6X6X3 | 168.3 | 88.9 | 143 | 86 | 2.77 | 2.11 |
| 8X8X6 | 219.1 | 168.3 | 178 | 143 | 2.77 | 2.77 |
| 8X8X5 | 219.1 | 141.3 | 178 | 124 | 2.77 | 2.77 |
| 8X8X4 | 219.1 | 114.3 | 178 | 105 | 2.77 | 2.11 |
| 10X10X8 | 273.0 | 219.1 | 216 | 178 | 3.40 | 2.77 |
| 10X10X6 | 273.0 | 168.3 | 216 | 143 | 3.40 | 2.77 |
| 10X10X5 | 273.0 | 141.3 | 216 | 124 | 3.40 | 2.77 |
| 12X12X10 | 323.8 | 273.0 | 254 | 216 | 3.96 | 3.40 |
| 12X12X8 | 323.8 | 219.1 | 254 | 178 | 3.96 | 2.77 |
| 12X12X6 | 323.8 | 168.3 | 254 | 143 | 3.96 | 2.77 |
| 14X14X12 | 355.6 | 323.8 | 279 | 254 | 3.96 | 3.96 |
| 14X14X10 | 355.6 | 273.0 | 279 | 216 | 3.96 | 3.40 |
| 14X14X8 | 355.6 | 219.1 | 279 | 178 | 3.96 | 2.77 |
| 16X16X14 | 406.4 | 355.6 | 305 | 279 | 4.19 | 3.96 |
| 16X16X12 | 406.4 | 323.8 | 305 | 254 | 4.19 | 3.96 |
| 16X16X10 | 406.4 | 273.0 | 305 | 216 | 4.19 | 3.40 |
| 18X18X16 | 457.0 | 406.4 | 343 | 305 | 4.19 | 4.19 |
| 18X18X14 | 457.0 | 355.6 | 343 | 279 | 4.19 | 3.96 |

(Unit : mm)

| Nominal Pipe Size | 10S | | 40S | | 80S | |
|-------------------|------|------|------|------|-------|-------|
| | T1 | T2 | T1 | T2 | T1 | T2 |
| 5X5X4 | 3.40 | 3.05 | 6.55 | 6.02 | 9.53 | 8.56 |
| 5X5X3-1/2 | 3.40 | 3.05 | 6.55 | 5.74 | 9.53 | 8.08 |
| 5X5X3 | 3.40 | 3.05 | 6.55 | 5.49 | 9.53 | 7.62 |
| 5X5X2-1/2 | 3.40 | 3.05 | 6.55 | 5.16 | 9.53 | 7.01 |
| 6X6X5 | 3.40 | 3.40 | 7.11 | 6.55 | 10.97 | 9.53 |
| 6X6X4 | 3.40 | 3.05 | 7.11 | 6.02 | 10.97 | 8.56 |
| 6X6X3-1/2 | 3.40 | 3.05 | 7.11 | 5.74 | 10.97 | 8.08 |
| 6X6X3 | 3.40 | 3.05 | 7.11 | 5.49 | 10.97 | 7.62 |
| 8X8X6 | 3.76 | 3.40 | 8.18 | 7.11 | 12.70 | 10.97 |
| 8X8X5 | 3.76 | 3.40 | 8.18 | 6.55 | 12.70 | 9.53 |
| 8X8X4 | 3.76 | 3.05 | 8.18 | 6.02 | 12.70 | 8.56 |
| 10X10X8 | 4.19 | 3.76 | 9.27 | 8.18 | 12.70 | 12.70 |
| 10X10X6 | 4.19 | 3.40 | 9.27 | 7.11 | 12.70 | 10.97 |
| 10X10X5 | 4.19 | 3.40 | 9.27 | 6.55 | 12.70 | 9.53 |
| 12X12X10 | 4.57 | 4.19 | 9.53 | 9.27 | 12.70 | 12.70 |
| 12X12X8 | 4.57 | 3.76 | 9.53 | 8.18 | 12.70 | 12.70 |
| 12X12X6 | 4.57 | 3.40 | 9.53 | 7.11 | 12.70 | 10.97 |
| 14X14X12 | 4.78 | 4.57 | 9.53 | 9.53 | 12.70 | 12.70 |
| 14X14X10 | 4.78 | 4.19 | 9.53 | 9.27 | 12.70 | 12.70 |
| 14X14X8 | 4.78 | 3.76 | 9.53 | 8.18 | 12.70 | 12.70 |
| 16X16X14 | 4.78 | 4.78 | 9.53 | 9.53 | 12.70 | 12.70 |
| 16X16X12 | 4.78 | 4.57 | 9.53 | 9.53 | 12.70 | 12.70 |
| 16X16X10 | 4.78 | 4.19 | 9.53 | 9.27 | 12.70 | 12.70 |
| 18X18X16 | 4.78 | 4.78 | 9.53 | 9.53 | 12.70 | 12.70 |
| 18X18X14 | 4.78 | 4.78 | 9.53 | 9.53 | 12.70 | 12.70 |

Tee (Reducing)

Sch5s, Sch10s, Sch40s, Sch80s



ASME B16.9, MSS SP-43

(Unit : mm)

| Nominal Pipe Size | Outside Diameter | | Center to End | | 5S | |
|-------------------|------------------|-------|---------------|----------|------|------|
| | OD1 | OD2 | Run C | Outlet M | T1 | T2 |
| 18 X 18 X 12 | 457.0 | 323.8 | 343 | 254 | 4.19 | 3.96 |
| 20 X 20 X 18 | 508.0 | 457.0 | 381 | 343 | 4.78 | 4.19 |
| 20 X 20 X 16 | 508.0 | 406.4 | 381 | 305 | 4.78 | 4.19 |
| 20 X 20 X 14 | 508.0 | 355.6 | 381 | 279 | 4.78 | 3.96 |
| 22 X 22 X 20 | 559.0 | 508.0 | 419 | 381 | 4.78 | 4.78 |
| 22 X 22 X 18 | 559.0 | 457.0 | 419 | 343 | 4.78 | 4.19 |
| 22 X 22 X 16 | 559.0 | 406.4 | 419 | 305 | 4.78 | 4.19 |
| 24 X 24 X 22 | 610.0 | 559.0 | 432 | 419 | 5.54 | 4.78 |
| 24 X 24 X 20 | 610.0 | 508.0 | 432 | 381 | 5.54 | 4.78 |
| 24 X 24 X 18 | 610.0 | 457.0 | 432 | 343 | 5.54 | 4.19 |
| 30 X 30 X 24 | 762.0 | 610.0 | 559 | 432 | 6.35 | 5.54 |
| 30 X 30 X 22 | 762.0 | 559.0 | 559 | 419 | 6.35 | 4.78 |
| 30 X 30 X 20 | 762.0 | 508.0 | 559 | 381 | 6.35 | 4.78 |

| Nominal Pipe Size | 10S | | 40S | | 80S | |
|-------------------|------|------|------|------|-------|-------|
| | T1 | T2 | T1 | T2 | T1 | T2 |
| 18 X 18 X 12 | 4.78 | 4.57 | 9.53 | 9.53 | 12.70 | 12.70 |
| 20 X 20 X 18 | 5.54 | 4.78 | 9.53 | 9.53 | 12.70 | 12.70 |
| 20 X 20 X 16 | 5.54 | 4.78 | 9.53 | 9.53 | 12.70 | 12.70 |
| 20 X 20 X 14 | 5.54 | 4.78 | 9.53 | 9.53 | 12.70 | 12.70 |
| 22 X 22 X 20 | 5.54 | 5.54 | | 9.53 | | 12.70 |
| 22 X 22 X 18 | 5.54 | 4.78 | | 9.53 | | 12.70 |
| 22 X 22 X 16 | 5.54 | 4.78 | | 9.53 | | 12.70 |
| 24 X 24 X 22 | 6.35 | 5.54 | 9.53 | | 12.70 | |
| 24 X 24 X 20 | 6.35 | 5.54 | 9.53 | 9.53 | 12.70 | 12.70 |
| 24 X 24 X 18 | 6.35 | 4.78 | 9.53 | 9.53 | 12.70 | 12.70 |
| 30 X 30 X 24 | 7.92 | 6.35 | | 9.53 | | 12.70 |
| 30 X 30 X 22 | 7.92 | 5.54 | | | | |
| 30 X 30 X 20 | 7.92 | 5.54 | | 9.53 | | 12.70 |