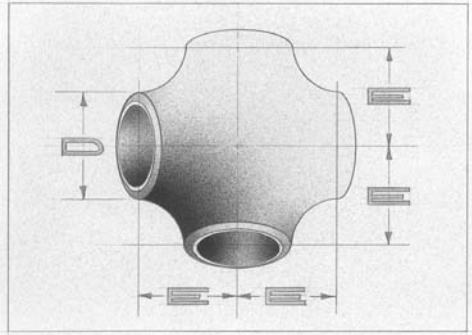


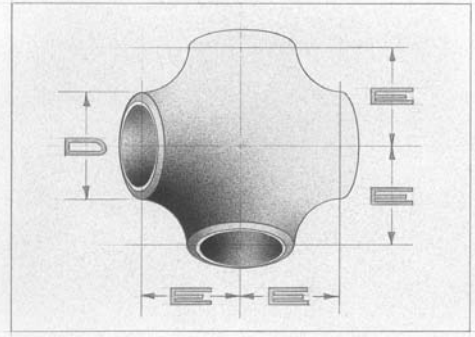
CROSSES



| Key | | | Nominal Wall Thickness: inches mm Inside Diameter: inches mm Approximate Weight: Pounds (see page 3 for Kg) | | | | | | | | | | | | | |
|-------------------|-------------------------------|-------------------|---|--------|--------|---------|-------|--------|----|---------|---------|-----|---------|---------|--------|---------|
| | | | Schedule | | | | | | | | | | | | | |
| Nominal Pipe Size | "D" Outside Diameter at Bevel | "E" Center-to-End | L.W.G. | 10 | 20 | 30 | 40 | STD WT | 60 | XS | 80 | 100 | 120 | 140 | 160 | XXS |
| inches mm | inches mm | inches mm | | | | | | | | | | | | | | |
| 1 1/4" | 1.66 | 1.88 | - | - | - | - | .140 | .140 | - | .191 | .191 | - | - | - | .250 | .382 |
| | | | - | - | - | - | 3.556 | 3.556 | - | 4.851 | 4.851 | - | - | - | 6.350 | 9.703 |
| | | | - | - | - | - | 1.380 | 1.380 | - | 1.278 | 1.278 | - | - | - | 1.160 | .896 |
| | | | 31.75 | 42.16 | 47.75 | - | - | - | - | 35.052 | 35.052 | - | 32.461 | 32.461 | - | - |
| | | | - | - | - | - | 1.5 | 1.5 | - | 1.9 | 1.9 | - | - | - | - | - |
| 1 1/2" | 1.90 | 2.25 | - | - | - | - | .145 | .145 | - | .200 | .200 | - | - | - | .281 | .400 |
| | | | - | - | - | - | 3.683 | 3.683 | - | 5.080 | 5.080 | - | - | - | 7.137 | 10.160 |
| | | | - | - | - | - | 1.610 | 1.610 | - | 1.500 | 1.500 | - | - | - | 1.338 | 1.100 |
| | | | 38.10 | 48.26 | 57.15 | - | - | - | - | 40.894 | 40.894 | - | 38.100 | 38.100 | - | - |
| | | | - | - | - | - | 2.3 | 2.3 | - | 2.8 | 2.8 | - | - | - | - | - |
| 2" | 2.38 | 2.50 | - | - | - | - | .154 | .154 | - | .218 | .218 | - | - | - | .344 | .436 |
| | | | - | - | - | - | 3.912 | 3.912 | - | 5.537 | 5.537 | - | - | - | 8.738 | 11.074 |
| | | | - | - | - | - | 2.067 | 2.067 | - | 1.939 | 1.939 | - | - | - | 1.687 | 1.503 |
| | | | 50.80 | 60.45 | 63.50 | - | - | - | - | 52.502 | 52.502 | - | 49.251 | 49.251 | - | - |
| | | | - | - | - | - | 3.4 | 3.4 | - | 4.2 | 4.2 | - | - | - | - | - |
| 2 1/2" | 2.88 | 3.00 | - | - | - | - | .203 | .203 | - | .276 | .276 | - | - | - | .375 | .552 |
| | | | - | - | - | - | 5.156 | 5.156 | - | 7.010 | 7.010 | - | - | - | 9.525 | 14.021 |
| | | | - | - | - | - | 2.469 | 2.469 | - | 2.323 | 2.323 | - | - | - | 2.125 | 1.771 |
| | | | 63.50 | 73.15 | 76.20 | - | - | - | - | 62.713 | 62.713 | - | 59.004 | 59.004 | - | - |
| | | | - | - | - | - | 5.9 | 5.9 | - | 7.2 | 7.2 | - | - | - | - | - |
| 3" | 3.50 | 3.38 | - | - | - | - | .216 | .216 | - | .300 | .300 | - | - | - | .438 | .600 |
| | | | - | - | - | - | 5.486 | 5.486 | - | 7.620 | 7.620 | - | - | - | 11.125 | 15.240 |
| | | | - | - | - | - | 3.068 | 3.068 | - | 2.900 | 2.900 | - | - | - | 2.624 | 2.300 |
| | | | 76.20 | 88.90 | 85.85 | - | - | - | - | 77.927 | 77.927 | - | 73.660 | 73.660 | - | - |
| | | | - | - | - | - | 8.3 | 8.3 | - | 10.3 | 10.3 | - | - | - | 14.4 | 23.6 |
| 3 1/2" | 4.00 | 3.75 | - | - | - | - | .226 | .226 | - | .318 | .318 | - | - | - | - | .636* |
| | | | - | - | - | - | 5.740 | 5.740 | - | 8.077 | 8.077 | - | - | - | - | 16.154 |
| | | | - | - | - | - | 3.548 | 3.548 | - | 3.364 | 3.364 | - | - | - | - | 2.728 |
| | | | 88.90 | 101.60 | 95.25 | - | - | - | - | 90.119 | 90.119 | - | 85.446 | 85.446 | - | - |
| | | | - | - | - | - | 10.8 | 10.8 | - | 13.8 | 13.8 | - | - | - | - | - |
| 4" | 4.50 | 4.13 | .188 | - | - | - | .237 | .237 | - | .337 | .337 | - | .438 | - | .531 | .674 |
| | | | 4.775 | - | - | - | 6.020 | 6.020 | - | 8.560 | 8.560 | - | 11.125 | - | 13.487 | 17.120 |
| | | | 4.124 | - | - | - | 4.026 | 4.026 | - | 3.826 | 3.826 | - | 3.624 | - | 3.438 | 3.152 |
| | | | 101.60 | 114.30 | 104.90 | 104.749 | - | - | - | 102.260 | 102.260 | - | 97.180 | 97.180 | - | 92.050 |
| | | | - | - | - | - | 13.9 | 13.9 | - | 17.8 | 17.8 | - | 24.0 | - | 26.8 | 28.8 |
| 5" | 5.56 | 4.88 | - | - | - | - | .258 | .258 | - | .375 | .375 | - | .500 | - | .625 | .750 |
| | | | - | - | - | - | 6.553 | 6.553 | - | 9.525 | 9.525 | - | 12.700 | - | 15.875 | 19.050 |
| | | | - | - | - | - | 5.047 | 5.047 | - | 4.813 | 4.813 | - | 4.563 | - | 4.313 | 4.063 |
| | | | 127.00 | 141.22 | 123.95 | - | - | - | - | 128.194 | 128.194 | - | 122.250 | 122.250 | - | 115.900 |
| | | | - | - | - | - | 21.6 | 21.6 | - | 28.2 | 28.2 | - | - | - | - | - |
| 6" | 6.63 | 5.63 | .219 | - | - | - | .280 | .280 | - | .432 | .432 | - | .562 | - | .719 | .864 |
| | | | 5.563 | - | - | - | 7.112 | 7.112 | - | 10.973 | 10.973 | - | 14.275 | - | 18.263 | 21.946 |
| | | | 6.187 | - | - | - | 6.065 | 6.065 | - | 5.761 | 5.761 | - | 5.501 | - | 5.187 | 4.897 |
| | | | 152.40 | 168.40 | 143.00 | 157.150 | - | - | - | 154.051 | 154.051 | - | 146.329 | 146.329 | - | 139.725 |
| | | | - | - | - | - | 31.5 | 31.5 | - | 43.4 | 43.4 | - | 66.7 | - | - | - |

*Not given in ASME B36.10

CROSSES



| Key | | | Nominal Wall Thickness: inches mm Inside Diameter: inches mm Approximate Weight: Pounds (see page 3 for Kg) | | | | | | | | | | | | | |
|-------------------|-------------------------------|-------------------|---|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| | | | Schedule | | | | | | | | | | | | | |
| Nominal Pipe Size | "D" Outside Diameter at Bevel | "E" Center-to-End | L.W.G. | 10 | 20 | 30 | 40 | STD WT | 60 | XS | 80 | 100 | 120 | 140 | 160 | XXS |
| inches mm | inches mm | inches mm | | | | | | | | | | | | | | |
| 8" | 8.63 | 7.00 | .219 | - | .250 | .277 | .322 | .322 | .406 | .500 | .500 | .594 | .719 | .812 | .906 | .875 |
| | | | 5.563 | - | 6.350 | 7.036 | 8.179 | 8.179 | 10.312 | 12.700 | 12.700 | 15.088 | 18.263 | 20.625 | 23.012 | 22.225 |
| 203.20 | 219.20 | 177.80 | 8.187 | - | 8.125 | 8.071 | 7.981 | 7.981 | 7.813 | 7.625 | 7.625 | 7.437 | 7.187 | 7.001 | 6.813 | 6.875 |
| | | | 206.375 | - | 206.375 | 205.003 | 202.717 | 202.717 | 198.450 | 193.675 | 193.675 | 188.900 | 182.550 | 177.825 | 173.050 | 174.625 |
| | | | - | - | - | - | 57.1 | 57.1 | - | 79.8 | 79.8 | - | - | - | - | - |
| 10" | 10.75 | 8.50 | .219 | - | .250 | .307 | .365 | .365 | .500 | .500 | .594 | .719 | .844 | 1.000 | 1.125 | 1.000 |
| | | | 5.563 | - | 6.350 | 7.798 | 9.271 | 9.271 | 12.700 | 12.700 | 15.088 | 18.263 | 21.438 | 25.400 | 28.575 | 25.400 |
| 254.00 | 273.05 | 215.90 | 10.312 | - | 10.250 | 10.136 | 10.020 | 10.020 | 9.750 | 9.750 | 9.562 | 9.312 | 9.062 | 8.750 | 8.500 | 8.750 |
| | | | 261.925 | - | 260.350 | 257.454 | 254.508 | 254.508 | 247.650 | 247.650 | 242.875 | 236.525 | 230.175 | 222.250 | 215.900 | 222.250 |
| | | | - | - | - | - | 96.0 | 96.0 | 123.0 | 123.0 | - | - | - | - | - | - |
| 12" | 12.75 | 10.00 | .250 | - | .250 | .330 | .406 | .375 | .562 | .500 | .688 | .844 | 1.000 | 1.125 | 1.312 | 1.000 |
| | | | 6.350 | - | 6.350 | 8.382 | 10.312 | 9.525 | 14.275 | 12.700 | 17.475 | 21.438 | 25.400 | 28.575 | 33.325 | 25.400 |
| 304.80 | 323.85 | 254.00 | 12.250 | - | 12.250 | 12.090 | 11.938 | 12.000 | 11.626 | 11.750 | 11.374 | 11.062 | 10.750 | 10.500 | 10.126 | 10.750 |
| | | | 311.150 | - | 311.150 | 307.086 | 303.225 | 304.800 | 295.300 | 298.450 | 288.900 | 280.975 | 273.050 | 266.700 | 257.200 | 273.050 |
| | | | - | - | - | - | 139.0 | 139.0 | 174.0 | 174.0 | - | - | - | - | - | - |
| 14" | 14.00 | 11.00 | .250 | .250 | .312 | .375 | .438 | .375 | .594 | .500 | .750 | .938 | 1.094 | 1.250 | 1.406 | - |
| | | | 6.350 | 6.350 | 7.925 | 9.525 | 11.125 | 9.525 | 15.088 | 12.700 | 19.050 | 23.825 | 27.788 | 31.750 | 35.712 | - |
| 355.60 | 355.60 | 279.40 | 13.500 | 13.500 | 13.376 | 13.250 | 13.124 | 13.250 | 12.812 | 13.000 | 12.500 | 12.124 | 11.812 | 11.500 | 11.188 | - |
| | | | 342.900 | 342.900 | 339.750 | 336.550 | 333.350 | 336.550 | 325.425 | 330.200 | 317.500 | 307.950 | 300.025 | 292.100 | 284.175 | - |
| | | | - | - | - | - | - | 168.0 | - | 214.0 | - | - | - | - | - | - |
| 16" | 16.00 | 12.00 | .250 | .250 | .312 | .375 | .500 | .375 | .656 | .500 | .844 | 1.031 | 1.219 | 1.438 | 1.594 | - |
| | | | 6.350 | 6.350 | 7.925 | 9.525 | 12.700 | 9.525 | 16.662 | 12.700 | 21.438 | 26.187 | 30.963 | 36.525 | 40.488 | - |
| 406.40 | 406.40 | 304.80 | 15.500 | 15.500 | 15.376 | 15.250 | 15.000 | 15.250 | 14.688 | 15.000 | 14.312 | 13.938 | 13.562 | 13.124 | 12.812 | - |
| | | | 393.700 | 393.700 | 390.550 | 387.350 | 381.000 | 387.350 | 373.075 | 381.000 | 363.525 | 354.025 | 344.475 | 333.350 | 325.425 | - |
| | | | - | - | - | 216.0 | 216.0 | 216.0 | 274.0 | 274.0 | - | - | - | - | - | - |
| 18" | 18.00 | 13.50 | .250 | .250 | .312 | .438 | .562 | .375 | .750 | .500 | .938 | 1.156 | 1.375 | 1.562 | 1.781 | - |
| | | | 6.350 | 6.350 | 7.925 | 11.125 | 14.275 | 9.525 | 19.050 | 12.700 | 23.825 | 29.362 | 34.925 | 39.675 | 45.237 | - |
| 457.20 | 457.20 | 342.90 | 17.500 | 17.500 | 17.376 | 17.124 | 16.876 | 17.250 | 16.500 | 17.000 | 16.124 | 15.688 | 15.250 | 14.876 | 14.438 | - |
| | | | 444.500 | 444.500 | 441.350 | 434.950 | 428.650 | 438.150 | 419.100 | 431.800 | 409.550 | 398.475 | 387.350 | 377.850 | 366.725 | - |
| | | | - | - | - | - | - | 278.0 | - | 352.0 | - | - | - | - | - | - |
| 20" | 20.00 | 15.00 | .250 | .250 | .375 | .500 | .594 | .375 | .812 | .500 | 1.031 | 1.281 | 1.500 | 1.750 | 1.969 | - |
| | | | 6.350 | 6.350 | 9.525 | 12.700 | 15.088 | 9.525 | 20.625 | 12.700 | 26.187 | 32.537 | 38.100 | 44.450 | 50.013 | - |
| 508.00 | 508.00 | 381.00 | 19.500 | 19.500 | 19.250 | 19.000 | 18.812 | 19.250 | 18.376 | 19.000 | 17.938 | 17.438 | 17.000 | 16.500 | 16.062 | - |
| | | | 495.300 | 495.300 | 488.950 | 482.600 | 477.825 | 488.950 | 466.750 | 482.600 | 455.625 | 442.925 | 431.800 | 419.100 | 407.975 | - |
| | | | - | - | 348.0 | 348.0 | - | 348.0 | - | 438.0 | - | - | - | - | - | - |
| 22" | 22.00 | 16.50 | - | .250 | .375 | .500 | - | .375 | .875 | .500 | 1.125 | 1.375 | 1.625 | 1.875 | 2.125 | - |
| | | | - | 6.350 | 9.525 | 12.700 | - | 9.525 | 22.225 | 12.700 | 28.575 | 34.925 | 41.275 | 47.625 | 53.975 | - |
| 558.80 | 558.80 | 419.10 | - | 21.500 | 21.250 | 21.000 | - | 21.250 | 20.250 | 21.000 | 19.750 | 19.250 | 18.750 | 18.250 | 17.750 | - |
| | | | - | 546.100 | 539.750 | 533.400 | - | 539.750 | 514.350 | 533.400 | 501.650 | 488.950 | 476.250 | 463.550 | 450.850 | - |
| | | | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 24" | 24.00 | 17.00 | .250 | .250 | .375 | .562 | .688 | .375 | .969 | .500 | 1.219 | 1.531 | 1.812 | 2.062 | 2.344 | - |
| | | | 6.350 | 6.350 | 9.525 | 14.275 | 17.475 | 9.525 | 24.613 | 12.700 | 30.963 | 38.887 | 46.025 | 52.375 | 59.538 | - |
| 609.60 | 609.60 | 431.80 | 23.500 | 23.500 | 23.250 | 22.876 | 22.624 | 23.250 | 22.062 | 23.000 | 21.562 | 20.938 | 20.376 | 19.876 | 19.312 | - |
| | | | 596.900 | 596.900 | 590.550 | 581.050 | 574.650 | 590.550 | 560.375 | 584.200 | 547.675 | 531.825 | 517.550 | 504.850 | 490.525 | - |
| | | | - | - | 488.0 | - | - | 488.0 | - | 610.0 | - | - | - | - | - | - |