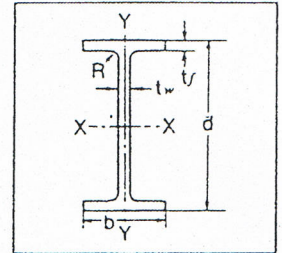


UNIVERSAL BEAMS/COLUMNS



| Section Number and Nominal Size | Weight | | Area of Section, A | | Depth of Section, d | | Flange | | | | Web Thickness t _w | | Corner Radius | |
|----------------------------------|--------|-------|--------------------|-----------------|---------------------|-------|---------|-------|--------------------------|-------|------------------------------|-------|---------------|------|
| | | | | | | | Width b | | Thickness t _f | | | | | |
| mm./(in.) | lbs/ft | kg/m | in. ² | cm ² | in. | mm | in. | mm | in. | mm | in. | mm | in. | mm |
| W10 254 x 146 (10 x 5 3/4) | 30 | 44.64 | 8.85 | 57.10 | 10.47 | 265.9 | 5.819 | 147.8 | 0.510 | 12.90 | 0.300 | 7.62 | 0.30 | 7.62 |
| | 26 | 38.69 | 7.61 | 49.10 | 10.33 | 262.4 | 5.770 | 146.6 | 0.440 | 11.10 | 0.260 | 6.60 | 0.30 | 7.62 |
| | 22 | 32.74 | 6.49 | 41.87 | 10.17 | 258.3 | 5.750 | 146.0 | 0.360 | 9.14 | 0.240 | 6.10 | 0.30 | 7.62 |
| W10 254 x 102 (10 x 4) | 19 | 28.28 | 5.62 | 36.62 | 10.24 | 260.1 | 4.020 | 102.1 | 0.395 | 10.00 | 0.250 | 6.35 | 0.30 | 7.62 |
| | 17 | 25.30 | 4.99 | 32.19 | 10.11 | 256.8 | 4.010 | 101.9 | 0.330 | 8.38 | 0.240 | 6.10 | 0.30 | 7.62 |
| | 15 | 22.32 | 4.41 | 28.45 | 9.99 | 253.7 | 4.000 | 101.6 | 0.270 | 6.88 | 0.230 | 5.84 | 0.30 | 7.62 |
| | 12 | 17.86 | 3.54 | 22.84 | 9.87 | 250.7 | 3.960 | 100.6 | 0.210 | 5.33 | 0.190 | 4.83 | 0.30 | 7.62 |
| W8* 203 x 203 (8 x 8) | 67 | 99.71 | 19.7 | 127.1 | 9.00 | 228.6 | 8.280 | 210.3 | 0.935 | 23.75 | 0.570 | 14.48 | 0.40 | 10.2 |
| | 58 | 86.31 | 17.1 | 110.3 | 8.75 | 222.2 | 8.220 | 208.8 | 0.810 | 20.57 | 0.510 | 12.95 | 0.40 | 10.2 |
| | 48 | 71.43 | 14.1 | 90.97 | 8.50 | 215.9 | 8.110 | 206.0 | 0.685 | 17.40 | 0.400 | 10.16 | 0.40 | 10.2 |
| | 40 | 59.53 | 11.7 | 75.48 | 8.25 | 209.5 | 8.070 | 205.0 | 0.560 | 14.20 | 0.360 | 9.14 | 0.40 | 10.2 |
| | 35 | 52.09 | 10.3 | 66.45 | 8.12 | 206.2 | 8.020 | 203.7 | 0.495 | 12.50 | 0.310 | 7.87 | 0.40 | 10.2 |
| W8 203 x 165 (8 x 6 1/2) | 28 | 41.67 | 8.25 | 53.23 | 8.06 | 204.7 | 6.535 | 166.0 | 0.465 | 11.81 | 0.285 | 7.24 | 0.40 | 10.2 |
| | 24 | 35.72 | 7.08 | 45.68 | 7.93 | 201.4 | 6.495 | 165.0 | 0.400 | 10.16 | 0.245 | 6.22 | 0.40 | 10.2 |
| W8 203 x 133 (8 x 5 1/4) | 21 | 31.25 | 6.16 | 39.74 | 8.28 | 210.3 | 5.270 | 133.9 | 0.400 | 10.10 | 0.250 | 6.35 | 0.30 | 7.62 |
| | 18 | 26.79 | 5.26 | 33.94 | 8.14 | 206.8 | 5.250 | 133.3 | 0.330 | 8.38 | 0.230 | 5.84 | 0.30 | 7.62 |
| W8 203 x 102 (8 x 4) | 15 | 22.32 | 4.44 | 28.65 | 8.11 | 206.0 | 4.015 | 102.0 | 0.315 | 8.00 | 0.245 | 6.22 | 0.30 | 7.62 |
| | 13 | 19.35 | 3.84 | 24.77 | 7.99 | 202.9 | 4.000 | 101.6 | 0.255 | 6.48 | 0.230 | 5.84 | 0.30 | 7.62 |
| | 10 | 14.88 | 2.96 | 19.10 | 7.89 | 200.4 | 3.940 | 100.1 | 0.205 | 5.21 | 0.170 | 4.32 | 0.30 | 7.62 |
| W6* 152 x 152 (6 x 6) | 25 | 37.20 | 7.34 | 47.35 | 6.38 | 162.1 | 6.080 | 154.4 | 0.455 | 11.50 | 0.320 | 8.13 | 0.25 | 6.35 |
| | 20 | 29.76 | 5.87 | 37.87 | 6.20 | 157.5 | 6.020 | 152.9 | 0.365 | 9.27 | 0.260 | 6.60 | 0.25 | 6.35 |
| | 15 | 22.32 | 4.43 | 28.58 | 5.99 | 152.1 | 5.990 | 152.1 | 0.260 | 6.60 | 0.230 | 5.84 | 0.25 | 6.35 |
| W6 152 x 102 (6 x 4) | 16 | 23.81 | 4.74 | 30.58 | 6.28 | 159.5 | 4.030 | 102.4 | 0.405 | 10.20 | 0.260 | 6.60 | 0.25 | 6.35 |
| | 12 | 17.86 | 3.55 | 22.90 | 6.03 | 153.2 | 4.000 | 101.6 | 0.280 | 7.11 | 0.230 | 5.84 | 0.25 | 6.35 |
| | 9 | 13.39 | 2.68 | 17.29 | 5.90 | 149.9 | 3.940 | 100.1 | 0.215 | 5.46 | 0.170 | 4.32 | 0.25 | 6.35 |
| W5* 127 x 127 (5 x 5) | 19 | 28.28 | 5.56 | 35.87 | 5.15 | 130.8 | 5.030 | 127.8 | 0.430 | 10.90 | 0.270 | 6.86 | 0.30 | 7.62 |
| | 16 | 23.81 | 4.71 | 30.39 | 5.01 | 127.3 | 5.000 | 127.0 | 0.360 | 9.14 | 0.240 | 6.10 | 0.30 | 7.62 |
| W4* 102 x 102 (4 x 4) | 13 | 19.35 | 3.83 | 24.71 | 4.16 | 105.7 | 4.060 | 103.1 | 0.345 | 8.76 | 0.280 | 7.11 | 0.25 | 6.35 |

Note: * The above sizes are classified as Universal Columns

| Axis X-X | | | | | | Axis Y-Y | | | | | | Section Number and Nominal Size |
|------------------|-----------------|------------------|-----------------|----------|------|------------------|-----------------|------------------|-----------------|----------|------|---|
| I_{xx} | | S_{xx} | | r_{xx} | | I_{yy} | | S_{yy} | | r_{yy} | | |
| in. ⁴ | cm ⁴ | in. ³ | cm ³ | in. | cm | in. ⁴ | cm ⁴ | in. ³ | cm ³ | in. | cm | |
| 170 | 7,080 | 32.5 | 533 | 4.38 | 11.1 | 16.8 | 699 | 5.76 | 94.4 | 1.38 | 3.51 | W10 254 x 146 (10 x 5 ³ / ₄) |
| 144 | 5,990 | 27.9 | 457 | 4.35 | 11.0 | 14.1 | 587 | 4.89 | 80.1 | 1.36 | 3.45 | |
| 118 | 4,910 | 23.2 | 380 | 4.27 | 10.8 | 11.4 | 474 | 3.97 | 65.1 | 1.33 | 3.38 | |
| 96.3 | 4,010 | 18.8 | 308 | 4.14 | 10.5 | 4.29 | 179 | 2.14 | 35.1 | 0.874 | 2.22 | W10 254 x 102 (10 x 4) |
| 81.9 | 3,410 | 16.2 | 265 | 4.05 | 10.3 | 3.56 | 148 | 1.78 | 29.2 | 0.845 | 2.15 | |
| 68.9 | 2,870 | 13.8 | 226 | 3.95 | 10.0 | 2.89 | 120 | 1.45 | 23.8 | 0.810 | 2.06 | |
| 53.8 | 2,240 | 10.9 | 179 | 3.90 | 9.91 | 2.18 | 90.7 | 1.10 | 18.0 | 0.785 | 1.99 | |
| 272 | 11,300 | 60.4 | 990 | 3.72 | 9.45 | 88.6 | 3,690 | 21.4 | 351 | 2.12 | 5.38 | W8* 203 x 203 (8 x 8) |
| 228 | 9,490 | 52.0 | 852 | 3.65 | 9.27 | 75.1 | 3,130 | 18.3 | 300 | 2.10 | 5.33 | |
| 184 | 7,660 | 43.3 | 710 | 3.61 | 9.17 | 60.9 | 2,530 | 15.0 | 246 | 2.08 | 5.28 | |
| 146 | 6,080 | 35.5 | 582 | 3.53 | 8.97 | 49.1 | 2,040 | 12.2 | 200 | 2.04 | 5.18 | |
| 127 | 5,290 | 31.2 | 511 | 3.51 | 8.92 | 42.6 | 1,770 | 10.6 | 174 | 2.03 | 5.16 | |
| 110 | 4,580 | 27.5 | 451 | 3.47 | 8.81 | 37.1 | 1,540 | 9.27 | 152 | 2.02 | 5.13 | |
| 98.0 | 4,080 | 24.3 | 398 | 3.45 | 8.76 | 21.7 | 903 | 6.63 | 109 | 1.62 | 4.11 | W8 203 x 165 (8 x 6 ¹ / ₂) |
| 82.8 | 3,450 | 20.9 | 342 | 3.42 | 8.69 | 18.3 | 762 | 5.63 | 92.3 | 1.61 | 4.09 | |
| 75.3 | 3,130 | 18.2 | 298 | 3.49 | 8.86 | 9.77 | 407 | 3.71 | 60.8 | 1.26 | 3.20 | W8 203 x 133 (8 x 5 ¹ / ₄) |
| 61.9 | 2,580 | 15.2 | 249 | 3.43 | 8.71 | 7.97 | 332 | 3.04 | 49.8 | 1.23 | 3.12 | |
| 48.0 | 2,000 | 11.8 | 193 | 3.29 | 8.36 | 3.41 | 142 | 1.70 | 27.9 | 0.876 | 2.22 | W8 203 x 102 (8 x 4) |
| 39.6 | 1,650 | 9.91 | 162 | 3.21 | 8.15 | 2.73 | 114 | 1.37 | 22.4 | 0.843 | 2.14 | |
| 30.8 | 1,280 | 7.81 | 128 | 3.22 | 8.18 | 2.09 | 87.0 | 1.06 | 17.4 | 0.841 | 2.14 | |
| 53.4 | 2,220 | 16.7 | 274 | 2.70 | 6.86 | 17.1 | 712 | 5.61 | 91.9 | 1.52 | 3.86 | W6* 152 x 152 (6 x 6) |
| 41.4 | 1,720 | 13.4 | 220 | 2.66 | 6.76 | 13.3 | 554 | 4.41 | 72.3 | 1.50 | 3.81 | |
| 29.1 | 1,210 | 9.72 | 159 | 2.56 | 6.50 | 9.32 | 388 | 3.11 | 51.0 | 1.45 | 3.68 | |
| 32.1 | 1,340 | 10.2 | 167 | 2.60 | 6.60 | 4.43 | 184 | 2.20 | 36.1 | 0.966 | 2.45 | W6 152 x 102 (6 x 4) |
| 22.1 | 920 | 7.31 | 120 | 2.49 | 6.32 | 2.99 | 124 | 1.50 | 24.6 | 0.918 | 2.33 | |
| 16.4 | 683 | 5.56 | 91.1 | 2.47 | 6.27 | 2.20 | 91.6 | 1.11 | 18.2 | 0.905 | 2.30 | |
| 26.3 | 1,090 | 10.2 | 167 | 2.17 | 5.51 | 9.13 | 380 | 3.63 | 59.5 | 1.28 | 3.25 | W5* 127 x 127 (5 x 5) |
| 21.4 | 891 | 8.55 | 140 | 2.13 | 5.41 | 7.51 | 313 | 3.00 | 49.2 | 1.26 | 3.20 | |
| 11.3 | 470 | 5.46 | 89.5 | 1.72 | 4.37 | 3.86 | 161 | 1.90 | 31.1 | 1.00 | 2.54 | W4* 102 x 102 (4 x 4) |