

ABOUT STRUCTURAL SHAPES

Carbon Steel Shapes - Bar Size and Structural

When the greatest dimension (length excluded) of a shape is less than 3 inches, it is classified as a bar size shape. However, when at least one of its dimensions (length excluded) is greater than 3 inches, it is classified as a structural shape.

These shapes are used for general structural purposes and for riveted, bolted or welded construction on bridges and buildings.

These shapes can be welded by all welding processes and the results are extremely high quality welds and joints. The design, thickness of section, service requirements, etc. are factors that determine the grade of welding rod to be used.

Standard Designations for Structural Shapes

Angles - An angle is a structural shape whose cross section resembles the letter L. Angles are available with either equal or unequal legs. The dimension and thickness of its legs are used to identify an angle; for example, L6 x 4 x 1/2. The dimension of each leg is measured along the outside of the angle, and for unequal-leg angles, the dimension of the wider leg is always given first, as in the example just cited. The third dimension applies to the thickness of the legs, which always have equal thickness. Angles are used primarily to support, brace, or connect other structural members. They may be used as single members, or they may be used in combinations of two or four to form main members.

“W” Shapes - Doubly-symmetric wide flange shapes used as beams or columns whose inside flange surfaces are substantially parallel. The W-shape is the most widely used structural member for beams, columns, and other load-bearing applications. It has parallel inner and outer flange surfaces that are of constant thickness. This flange design provides greater cross-sectional area in the flanges, which results in greater strength than is provided by the S-shape, which has a slope of approximately 17 degrees on the inner flange surfaces. Includes Wide Flange Beams.

“S” Shapes - Doubly-symmetric shapes produced with inside flange surfaces with a slope of approximately 17 degrees. Includes I-beams.

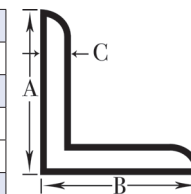
“M” Shapes - Doubly-symmetric shapes that cannot be classified as “W”, “S” or bearing pile shapes. Includes Junior Beams.

“C” Shapes - The C-shape is similar to the S-shape in that its inner flange surface is also sloped approximately 17 degrees. The C-shape is especially useful in locations where a single flat surface on one side is required. When used alone, the C-shape is not very efficient as a beam or column. However, efficient built-up members may be constructed of channels assembled together with other structural shapes and connected by rivets or welds. Includes Channels.

“MC” Shapes - Channels that cannot be classified as “C” shapes. Includes Junior Channels (stair stringers), Ship Channels and Car Channels.

ANGLES - BAR SIZE

| Size A x B x C | Part No. | Estimated Weight - Lbs. | | |
|-------------------------|----------|-------------------------|--------|--------|
| | | Per Ft. | 20 Ft. | 40 Ft. |
| 1/2" x 1/2" x 1/8" | Y0001 | .38 | 7.6 | - |
| 5/8" x 5/8" x 1/8" | - | .48 | 9.6 | - |
| 3/4" x 3/4" x 1/8" | Y0002 | .59 | 11.8 | - |
| 7/8" x 7/8" x 1/8" | - | .70 | 14.0 | - |
| 1" x 5/8" x 1/8" | - | .64 | 12.8 | - |
| 1" x 1" x 1/8" | Y0003 | .80 | 16.0 | 32.0 |
| 1" x 1" x 3/16" | Y0004 | 1.16 | 23.2 | 46.4 |
| 1" x 1" x 1/4" | Y0005 | 1.49 | 29.8 | 59.6 |
| 1-1/4" x 1-1/4" x 1/8" | Y0006 | 1.01 | 20.2 | 40.4 |
| 1-1/4" x 1-1/4" x 3/16" | Y0007 | 1.48 | 29.6 | 59.2 |
| 1-1/4" x 1-1/4" x 1/4" | Y0008 | 1.92 | 38.4 | 76.8 |
| 1-3/8" x 7/8" x 1/8" | - | .91 | 18.2 | 36.4 |
| 1-1/2" x 1-1/2" x 1/8" | Y0009 | 1.23 | 24.6 | 49.2 |
| 1-1/2" x 1-1/2" x 3/16" | Y0010 | 1.80 | 36.0 | 72.0 |
| 1-1/2" x 1-1/2" x 1/4" | Y0011 | 2.34 | 46.8 | 93.6 |
| 1-3/4" x 1-3/4" x 1/8" | - | 1.44 | 28.8 | 57.6 |
| 1-3/4" x 1-3/4" x 3/16" | - | 2.12 | 42.4 | 84.8 |
| 1-3/4" x 1-3/4" x 1/4" | - | 2.77 | 55.4 | 110.8 |
| 2" x 1-1/4" x 3/16" | - | 1.96 | 39.2 | 78.4 |
| 2" x 1-1/2" x 1/8" | - | 1.44 | 28.8 | 57.6 |
| 2" x 1-1/2" x 3/16" | Y0051 | 2.12 | 42.4 | 84.8 |
| 2" x 1-1/2" x 1/4" | - | 2.77 | 55.4 | 110.8 |
| 2" x 2" x 1/8" | Y0015 | 1.65 | 33.0 | 66.0 |
| 2" x 2" x 3/16" | Y0016 | 2.44 | 48.8 | 97.6 |
| 2" x 2" x 1/4" | Y0017 | 3.19 | 63.8 | 127.6 |
| 2" x 2" x 5/16" | - | 3.92 | 78.4 | 156.8 |
| 2" x 2" x 3/8" | Y0019 | 4.70 | 94.0 | 188.0 |
| 2" x 2" x 1/2" | - | 6.00 | 120.0 | 240.0 |
| 2-1/2" x 1-1/2" x 3/16" | - | 2.44 | 48.8 | 97.6 |
| 2-1/2" x 1-1/2" x 1/4" | - | 3.19 | 63.8 | 127.6 |
| 2-1/2" x 1-1/2" x 5/16" | - | 3.92 | 78.4 | 156.8 |
| 2-1/2" x 2-1/2" x 3/16" | Y0020 | 3.07 | 61.4 | 122.8 |
| 2-1/2" x 2-1/2" x 1/4" | Y0021 | 4.10 | 82.0 | 164.0 |
| 2-1/2" x 2-1/2" x 5/16" | - | 5.0 | 100.0 | 200.0 |
| 2-1/2" x 2" x 3/16" | Y0055 | 2.75 | 55.0 | 110.0 |
| 2-1/2" x 2" x 1/4" | Y0056 | 3.62 | 72.4 | 144.8 |
| 2-1/2" x 2" x 5/16" | - | 4.50 | 90.0 | 180.0 |
| 2-1/2" x 2" x 3/8" | - | 5.30 | 106.0 | 212.0 |
| 2-1/2" x 2-1/2" x 3/8" | Y0022 | 5.90 | 118.0 | 236.0 |
| 2-1/2" x 2-1/2" x 1/2" | Y0024 | 7.70 | 154.0 | 308.0 |



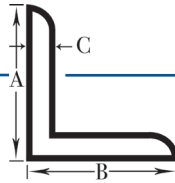
- Conforms to ASTM A36

- Bob Dean Supply stocks 20 Ft. lengths.

- 40 Ft. lengths available by special order.

ANGLES - STRUCTURAL SIZES

- Conforms to ASTM A36
- Bob Dean Supply stocks 20 Ft. lengths.
- 40 Ft. lengths available by special order.
- Stock items are highlighted in blue.



| Size A x B x C | Part No. | Per Ft. | Estimated Weight - Lbs. | |
|-------------------------|----------|---------|-------------------------|--------|
| | | | 20 Ft. | 40 Ft. |
| 3" x 2" x 3/16" | Y0058 | 3.07 | 61 | 123 |
| 3" x 2" x 1/4" | Y0059 | 4.1 | 82 | 164 |
| 3" x 2" x 5/16" | - | 5.0 | 100 | 200 |
| 3" x 2" x 3/8" | Y0060 | 5.9 | 118 | 236 |
| 3" x 2" x 1/2" | Y0070 | 7.7 | 154 | 308 |
| 3" x 2-1/2" x 3/16" | - | 3.39 | 68 | 136 |
| 3" x 2-1/2" x 1/4" | - | 4.5 | 90 | 180 |
| 3" x 2-1/2" x 5/16" | - | 5.6 | 112 | 224 |
| 3" x 2-1/2" x 3/8" | - | 6.6 | 132 | 264 |
| 3" x 2-1/2" x 1/2" | - | 8.5 | 170 | 340 |
| 3" x 3" x 3/16" | Y0025 | 3.71 | 74 | 148 |
| 3" x 3" x 1/4" | Y0026 | 4.9 | 98 | 196 |
| 3" x 3" x 5/16" | - | 6.1 | 122 | 244 |
| 3" x 3" x 3/8" | Y0028 | 7.2 | 144 | 288 |
| 3" x 3" x 1/2" | Y0029 | 9.4 | 188 | 376 |
| 3-1/2" x 2-1/2" x 1/4" | - | 4.9 | 98 | 196 |
| 3-1/2" x 2-1/2" x 5/16" | - | 6.1 | 122 | 244 |
| 3-1/2" x 2-1/2" x 3/8" | - | 7.2 | 144 | 288 |
| 3-1/2" x 2-1/2" x 1/2" | - | 9.4 | 188 | 376 |
| 3-1/2" x 3" x 1/4" | Y8452 | 5.4 | 108 | 216 |
| 3-1/2" x 3" x 5/16" | - | 6.6 | 132 | 264 |
| 3-1/2" x 3" x 3/8" | - | 7.9 | 158 | 316 |
| 3-1/2" x 3" x 1/2" | - | 10.2 | 204 | 408 |
| 3-1/2" x 3-1/2" x 1/4" | Y0030 | 5.8 | 116 | 232 |
| 3-1/2" x 3-1/2" x 5/16" | - | 7.2 | 144 | 288 |
| 3-1/2" x 3-1/2" x 3/8" | - | 8.5 | 170 | 340 |
| 3-1/2" x 3-1/2" x 7/16" | - | 9.8 | 196 | 392 |
| 3-1/2" x 3-1/2" x 1/2" | - | 11.1 | 222 | 444 |
| 4" x 3" x 1/4" | Y0072 | 5.8 | 116 | 232 |
| 4" x 3" x 5/16" | - | 7.2 | 144 | 288 |
| 4" x 3" x 3/8" | Y0073 | 8.5 | 170 | 340 |
| 4" x 3" x 7/16" | - | 9.8 | 196 | 392 |
| 4" x 3" x 1/2" | - | 11.1 | 222 | 444 |
| 4" x 3" x 5/8" | - | 13.6 | 272 | 544 |
| 4" x 3-1/2" x 1/4" | - | 6.2 | 124 | 248 |

| Size A x B x C | Part No. | Per Ft. | Estimated Weight - Lbs. | |
|---------------------|----------|---------|-------------------------|--------|
| | | | 20 Ft. | 40 Ft. |
| 4" x 3-1/2" x 5/16" | - | 7.7 | 154 | 308 |
| 4" x 3-1/2" x 3/8" | - | 9.1 | 182 | 364 |
| 4" x 3-1/2" x 1/2" | - | 11.9 | 238 | 476 |
| 4" x 3-1/2" x 5/8" | - | 14.7 | 294 | 588 |
| 4" x 4" x 1/4" | Y0034 | 6.6 | 132 | 264 |
| 4" x 4" x 5/16" | - | 8.2 | 164 | 328 |
| 4" x 4" x 3/8" | Y0036 | 9.8 | 196 | 392 |
| 4" x 4" x 7/16" | - | 11.3 | 226 | 452 |
| 4" x 4" x 1/2" | Y0037 | 12.8 | 256 | 512 |
| 4" x 4" x 5/8" | - | 15.7 | 314 | 628 |
| 4" x 4" x 3/4" | Y8501 | 18.5 | 370 | 740 |
| 5" x 3" x 1/4" | Y0075 | 6.6 | 132 | 264 |
| 5" x 3" x 5/16" | - | 8.2 | 164 | 328 |
| 5" x 3" x 3/8" | Y8141 | 9.8 | 196 | 392 |
| 5" x 3" x 1/2" | Y0077 | 12.8 | 256 | 512 |
| 5" x 3-1/2" x 1/4" | - | 7.0 | 140 | 280 |
| 5" x 3-1/2" x 5/16" | Y8453 | 8.7 | 174 | 348 |
| 5" x 3-1/2" x 3/8" | - | 10.4 | 208 | 416 |
| 5" x 3-1/2" x 1/2" | - | 13.6 | 272 | 544 |
| 5" x 3-1/2" x 5/8" | - | 16.8 | 336 | 672 |
| 5" x 3-1/2" x 3/4" | - | 19.8 | 396 | 792 |
| 5" x 5" x 5/16" | - | 10.3 | 206 | 412 |
| 5" x 5" x 3/8" | Y0042 | 12.3 | 246 | 492 |
| 5" x 5" x 7/16" | - | 14.3 | 286 | 572 |
| 5" x 5" x 1/2" | Y8226 | 16.2 | 324 | 648 |
| 5" x 5" x 5/8" | - | 20.0 | 400 | 800 |
| 5" x 5" x 3/4" | - | 23.6 | 472 | 944 |
| 5" x 5" x 7/8" | - | 27.2 | 544 | 1088 |
| 6" x 3-1/2" x 1/4" | - | 7.9 | 158 | 316 |
| 6" x 3-1/2" x 5/16" | - | 9.8 | 196 | 392 |
| 6" x 3-1/2" x 3/8" | - | 11.7 | 234 | 468 |
| 6" x 3-1/2" x 1/2" | - | 15.3 | 306 | 612 |
| 6" x 4" x 5/16" | Y0085 | 10.3 | 206 | 412 |
| 6" x 4" x 3/8" | Y0084 | 12.3 | 246 | 492 |
| 6" x 4" x 7/16" | - | 14.3 | 286 | 572 |
| 6" x 4" x 1/2" | Y0086 | 16.2 | 324 | 648 |
| 6" x 4" x 5/8" | - | 20.0 | 400 | 800 |
| 6" x 4" x 3/4" | - | 23.6 | 472 | 944 |
| 6" x 4" x 7/8" | - | 27.2 | 544 | 1088 |
| 6" x 6" x 5/16" | - | 12.5 | 250 | 500 |

ANGLES - STRUCTURAL SIZES

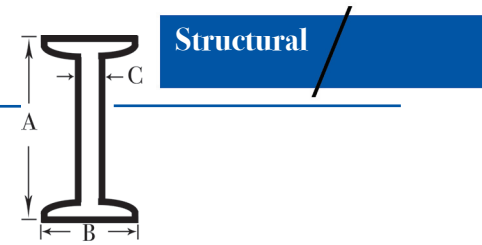
| Size A x B x C | Part No. | Estimated Weight - Lbs. | | |
|------------------|----------|-------------------------|--------|--------|
| | | Per Ft. | 20 Ft. | 40 Ft. |
| 6" x 6" x 3/8" | Y0045 | 14.9 | 298 | 596 |
| 6" x 6" x 7/16" | - | 17.2 | 344 | 688 |
| 6" x 6" x 1/2" | Y0046 | 19.6 | 392 | 784 |
| 6" x 6" x 5/8" | - | 24.2 | 484 | 968 |
| 6" x 6" x 3/4" | - | 28.7 | 574 | 1148 |
| 6" x 6" x 7/8" | - | 33.1 | 662 | 1324 |
| 6" x 6" x 1" | - | 37.4 | 748 | 1496 |
| 7" x 4" x 3/8" | - | 13.6 | 272 | 544 |
| 7" x 4" x 7/16" | - | 15.8 | 316 | 632 |
| 7" x 4" x 1/2" | - | 17.9 | 358 | 716 |
| 7" x 4" x 5/8" | - | 22.1 | 442 | 884 |
| 7" x 4" x 3/4" | - | 26.2 | 524 | 1048 |
| 7" x 4" x 7/8" | - | 30.2 | 604 | 1208 |
| 8" x 4" x 7/16" | - | 17.2 | 344 | 688 |
| 8" x 4" x 1/2" | - | 19.6 | 392 | 784 |
| 8" x 4" x 5/8" | - | 24.2 | 484 | 968 |
| 8" x 4" x 3/4" | - | 28.7 | 574 | 1148 |
| 8" x 4" x 7/8" | - | 33.1 | 662 | 1324 |
| 8" x 4" x 1" | - | 37.4 | 748 | 1496 |
| 8" x 6" x 7/16" | - | 20.2 | 404 | 808 |
| 8" x 6" x 1/2" | - | 23.0 | 460 | 920 |
| 8" x 6" x 5/8" | - | 28.5 | 570 | 1140 |
| 8" x 6" x 3/4" | - | 33.8 | 676 | 1352 |
| 8" x 6" x 7/8" | - | 39.1 | 782 | 1564 |
| 8" x 6" x 1" | - | 44.2 | 884 | 1768 |
| 8" x 8" x 1/2" | Y0087 | 26.4 | 528 | 1056 |
| 8" x 8" x 5/8" | - | 32.7 | 654 | 1308 |
| 8" x 8" x 3/4" | - | 38.9 | 778 | 1556 |
| 8" x 8" x 7/8" | - | 45.0 | 900 | 1800 |
| 8" x 8" x 1" | - | 51.0 | 1020 | 2040 |
| 8" x 8" x 1-1/8" | - | 56.9 | 1138 | 2276 |

JUNIOR BEAMS

- Conforms to ASTM A36
- Lengths Available: 20 Ft. and 40 Ft.

| Size A x B x C | Per Ft. | Estimated Weight - Lbs. | | |
|----------------------|---------|-------------------------|--------|--------|
| | | 20 Ft. | 30 Ft. | 40 Ft. |
| 6" x 1.844" x .114" | 4.4 | 88 | 132 | 176 |
| 8" x 2.281" x .135" | 6.5 | 130 | 195 | 260 |
| 10" x 2.688" x .155" | 9.0 | 180 | 270 | 360 |
| 12" x 3.063" x .175" | 11.8 | 236 | 354 | 472 |

STANDARD "I" BEAMS

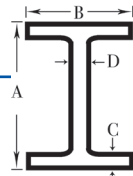


- Conforms to ASTM A36
- Lengths Available: 20 Ft. and 40 Ft.
- Stock items are highlighted in blue.

| A Depth | B Flange | C Web | Per Ft. | Estimated Weight - Lbs. | | | |
|------------|-------------|----------|---------|-------------------------|----------|--------|----------|
| | | | | 20 Ft. | Part No. | 40 Ft. | Part No. |
| 3" | 2.330" | .170" | 5.7 | 114 | Y0770 | 228 | Y0771 |
| 3" | 2.509" | .349" | 7.5 | 150 | - | 300 | - |
| 4" | 2.660" | .190" | 7.7 | 154 | Y0775 | 308 | Y0776 |
| 4" | 2.796" | .326" | 9.5 | 190 | - | 380 | - |
| 5" | 3.000" | .210" | 10.0 | 200 | Y0780 | 400 | Y0781 |
| 5" | 3.284" | .494" | 14.75 | 295 | - | 590 | - |
| 6" | 3.330" | .230" | 12.5 | 250 | Y0785 | 500 | Y0786 |
| 6" | 3.565" | .465" | 17.25 | 345 | Y0886 | 690 | - |
| 7" | 3.660" | .250" | 15.3 | 306 | - | 612 | Y0791 |
| 7" | 3.860" | .450" | 20.0 | 400 | - | 800 | - |
| 8" | 4.000" | .270" | 18.4 | 368 | Y0795 | 736 | Y0796 |
| 8" | 4.171" | .441" | 23.0 | 460 | Y8446 | 920 | - |
| 10" | 4.660" | .310" | 25.4 | 508 | Y0800 | 1016 | Y0801 |
| 10" | 4.944" | .594" | 35.0 | 700 | - | 1400 | - |
| 12" | 5.000" | .350" | 31.8 | 636 | Y0805 | 1272 | Y0806 |
| 12" | 5.078" | .428" | 35.0 | 700 | - | 1400 | - |
| 12" | 5.250" | .460" | 40.8 | 816 | - | 1632 | - |
| 12" | 5.477" | .687" | 50.0 | 1000 | - | 2000 | - |
| 15" | 5.500" | .410" | 42.9 | 858 | Y8407 | 1716 | - |
| 15" | 5.640" | .550" | 50.0 | 1000 | - | 2000 | - |
| 18" | 6.000" | .460" | 54.7 | 1094 | Y8413 | 2188 | - |
| 18" | 6.251" | .711" | 70.0 | 1400 | - | 2800 | - |
| 20" | 6.255" | .505" | 66.0 | 1320 | - | 2640 | - |
| 20" | 6.385" | .635" | 75.0 | 1500 | - | 3000 | - |
| 20" | 7.060" | .660" | 86.0 | 1720 | - | 3440 | - |
| 20" | 7.200" | .800" | 96.0 | 1920 | - | 3840 | - |
| 24" | 7.000" | .500" | 80.0 | 1600 | Y8403 | 3200 | - |
| 24" | 7.125" | .625" | 90.0 | 1800 | - | 3600 | - |
| 24" | 7.245" | .745" | 100.0 | 2000 | - | 4000 | - |
| 24" | 7.870" | .620" | 106.0 | 2120 | - | 4240 | - |
| 24" | 8.050" | .800" | 121.0 | 2420 | - | 4840 | - |

WIDE FLANGE BEAMS

- Conforms to ASTM A992 and A572-50
- Standard lengths: 20 Ft. and 40 Ft.



| Nominal Size | Part No. | Estimated Weight - Lbs. | | | | | | |
|--------------|----------|-------------------------|-------------------|--------------------|-----------------|---------|--------|--------|
| | | A Depth | B Flange Width | C Flange Thick. | D Web Thick. | Per Ft. | 40 Ft. | 50 Ft. |
| 4" x 4" | Y0850 | 4.16" | 4.060" | .37" | .280" | 13 | 520 | 650 |
| 5" x 5" | Y0852 | 5.00" | 5.000" | .360" | .240" | 16 | 640 | 800 |
| 5" x 5" | - | 5.15" | 5.030" | .430" | .270" | 19 | 760 | 950 |
| 6" x 4" | Y0856 | 5.90" | 3.940" | .215" | .170" | 9 | 360 | 450 |
| 6" x 4" | Y8665 | 6.00" | 4.000" | .279" | .230" | 12 | 480 | 600 |
| 6" x 4" | - | 6.25" | 4.030" | .404" | .260" | 16 | 640 | 800 |
| 6" x 6" | Y0858 | 5.99" | 5.990" | .260" | .230" | 15 | 600 | 750 |
| 6" x 6" | - | 6.20" | 6.018" | .367" | .258" | 20 | 800 | 1000 |
| 6" x 6" | Y0853 | 6.38" | 6.080" | .455" | .320" | 25 | 1000 | 1250 |
| 8" x 4" | Y0861 | 7.90" | 3.940" | .204" | .170" | 10 | 400 | 500 |
| 8" x 4" | Y8401 | 8.00" | 4.000" | .254" | .230" | 13 | 520 | 650 |
| 8" x 4" | - | 8.12" | 4.015" | .314" | .245" | 15 | 600 | 750 |
| 8" x 5-1/4" | Y0862 | 8.14" | 5.250" | .330" | .230" | 18 | 720 | 900 |
| 8" x 5-1/4" | - | 8.28" | 5.270" | .400" | .250" | 21 | 840 | 1050 |
| 8" x 6-1/2" | Y0864 | 7.93" | 6.500" | .398" | .245" | 24 | 960 | 1200 |
| 8" x 6-1/2" | - | 8.06" | 6.540" | .463" | .285" | 28 | 1120 | 1400 |
| 8" x 8" | Y0866 | 8.00" | 8.000" | .433" | .288" | 31 | 1240 | 1550 |
| 8" x 8" | Y8450 | 8.12" | 8.027" | .493" | .315" | 35 | 1400 | 1750 |
| H | - | 8.00" | 8.083" | .521" | .458" | 40 | 1600 | 2000 |
| 8" x 8" | - | 8.25" | 8.077" | .558" | .365" | 40 | 1600 | 2000 |
| 8" x 8" | - | 8.50" | 8.117" | .683" | .405" | 48 | 1920 | 2400 |
| 8" x 8" | - | 8.75" | 8.222" | .808" | .510" | 58 | 2320 | 2900 |
| 8" x 8" | - | 9.00" | 8.287" | .933" | .575" | 67 | 2680 | 3350 |
| 10" x 4" | - | 9.87" | 3.960" | .210" | .190" | 12 | 480 | 600 |
| 10" x 4" | Y0881 | 10.00" | 4.000" | .269" | .230" | 15 | 600 | 750 |
| 10" x 4" | - | 10.12" | 4.010" | .329" | .240" | 17 | 680 | 850 |
| 10" x 4" | - | 10.25" | 5.020" | .394" | .250" | 19 | 760 | 950 |
| 10" x 5-1/2" | - | 10.17" | 5.750" | .360" | .240" | 22 | 880 | 1100 |
| 10" x 5-1/2" | Y8410 | 10.33" | 5.750" | .440" | .240" | 26 | 1040 | 1300 |
| 10" x 5-1/2" | Y0882 | 10.47" | 5.810" | .510" | .300" | 30 | 1200 | 1500 |
| 10" x 8" | - | 9.75" | 7.964" | .433" | .292" | 33 | 1320 | 1650 |
| 10" x 8" | - | 9.94" | 7.990" | .528" | .318" | 39 | 1560 | 1950 |
| 10" x 8" | - | 10.12" | 8.022" | .618" | .350" | 45 | 1800 | 2250 |
| 10" x 10" | - | 10.00" | 10.000" | .558" | .340" | 49 | 1960 | 2450 |
| 10" x 10" | - | 10.12" | 10.028" | .618" | .368" | 54 | 2160 | 2700 |
| 10" x 10" | - | 10.25" | 10.075" | .683" | .415" | 60 | 2400 | 3000 |
| 10" x 10" | - | 10.40" | 10.130" | .770" | .470" | 68 | 2720 | 3400 |

| Nominal Size | Part No. | Estimated Weight - Lbs. | | | | | | |
|---------------|----------|-------------------------|-------------------|--------------------|-----------------|---------|--------|--------|
| | | A Depth | B Flange Width | C Flange Thick. | D Web Thick. | Per Ft. | 40 Ft. | 50 Ft. |
| 10" x 10" | - | 10.62" | 10.195" | .868" | .535" | 77 | 3080 | 3850 |
| 10" x 10" | - | 10.84" | 10.265" | .990" | .605" | 88 | 3520 | 4400 |
| 10" x 10" | - | 11.12" | 10.345" | 1.118" | .685" | 100 | 4000 | 5000 |
| 10" x 10" | - | 11.38" | 10.415" | 1.248" | .755" | 112 | 4480 | 5600 |
| 12" x 4" | Y8523 | 11.91" | 3.970" | .224" | .200" | 14 | 560 | 700 |
| 12" x 4" | Y8464 | 11.99" | 3.99" | .265" | .220" | 16 | 640 | 800 |
| 12" x 4" | Y8717 | 12.16" | 4.010" | .349" | .240" | 19 | 760 | 950 |
| 12" x 4" | - | 12.31" | 4.030" | .424" | .260" | 22 | 880 | 1100 |
| 12" x 6-1/2" | Y0883 | 12.22" | 6.490" | .380" | .230" | 26 | 1040 | 1300 |
| 12" x 6-1/2" | Y0885 | 12.34" | 6.520" | .440" | .260" | 30 | 1200 | 1500 |
| 12" x 6-1/2" | Y8411 | 12.50" | 6.560" | .520" | .300" | 35 | 1400 | 1750 |
| 12" x 8" | - | 11.94" | 8.000" | .516" | .294" | 40 | 1600 | 2000 |
| 12" x 8" | Y8408 | 12.06" | 8.042" | .576" | .336" | 45 | 1800 | 2250 |
| 12" x 8" | - | 12.19" | 8.077" | .640" | .371" | 50 | 2000 | 2500 |
| 12" x 10" | Y8116 | 12.06" | 10.000" | .576" | .345" | 53 | 2120 | 2650 |
| 12" x 10" | - | 12.19" | 10.014" | .641" | .359" | 58 | 2320 | 2900 |
| 12" x 12" | - | 12.12" | 12.000" | .606" | .390" | 65 | 2600 | 3250 |
| 12" x 12" | - | 12.25" | 12.040" | .671" | .430" | 72 | 2880 | 3600 |
| 12" x 12" | - | 12.38" | 12.080" | .736" | .470" | 79 | 3160 | 3950 |
| 12" x 12" | - | 12.53" | 12.125" | .810" | .515" | 87 | 3480 | 4350 |
| 12" x 12" | - | 12.71" | 12.160" | .900" | .550" | 96 | 3840 | 4800 |
| 12" x 12" | Y8663 | 12.88" | 12.230" | .986" | .620" | 106 | 4240 | 5300 |
| 12" x 12" | Y8561 | 13.12" | 12.320" | 1.106" | .710" | 120 | 4800 | 6000 |
| 12" x 12" | Y8562 | 13.41" | 12.400" | 1.250" | .790" | 136 | 5440 | 6800 |
| 12" x 12" | - | 13.71" | 12.480" | 1.400" | .870" | 152 | 6080 | 7600 |
| 12" x 12" | - | 14.03" | 12.570" | 1.560" | .960" | 170 | 6800 | 8500 |
| 12" x 12" | - | 14.38" | 12.670" | 1.736" | 1.060" | 190 | 7600 | 9500 |
| 14" x 5" | Y8409 | 13.72" | 5.000" | .335" | .230" | 22 | 880 | 1100 |
| 14" x 5" | - | 13.89" | 5.025" | .418" | .255" | 26 | 1040 | 1300 |
| 14" x 6-3/4" | - | 13.86" | 6.733" | .383" | .270" | 30 | 1200 | 1500 |
| 14" x 6-3/4" | - | 14.00" | 6.750" | .453" | .287" | 34 | 1360 | 1700 |
| 14" x 6-3/4" | - | 14.12" | 6.776" | .513" | .313" | 38 | 1520 | 1900 |
| 14" x 8" | - | 13.68" | 8.000" | .528" | .308" | 43 | 1720 | 2150 |
| 14" x 8" | - | 13.81" | 8.031" | .593" | .339" | 48 | 1920 | 2400 |
| 14" x 8" | - | 13.94" | 8.062" | .658" | .370" | 53 | 2120 | 2650 |
| 14" x 10" | - | 13.91" | 10.000" | .643" | .378" | 61 | 2440 | 3050 |
| 14" x 10" | - | 14.06" | 10.040" | .718" | .418" | 68 | 2720 | 3400 |
| 14" x 10" | - | 14.19" | 10.072" | .783" | .450" | 74 | 2960 | 3700 |
| 14" x 10" | Y8406 | 14.31" | 10.130" | .855" | .510" | 82 | 3280 | 4100 |
| 14" x 14-1/2" | - | 14.02" | 14.520" | .710" | .440" | 90 | 3600 | 4500 |

WIDE FLANGE BEAMS

| Nominal Size | Part No. | Estimated Weight - Lbs. | | | | | | |
|--------------|----------|-------------------------|-------------------|--------------------|-----------------|---------|--------|--------|
| | | A Depth | B Flange Width | C Flange Thick. | D Web Thick. | Per Ft. | 40 Ft. | 50 Ft. |
| 14"x14-1/2" | - | 14.16" | 14.565" | .780" | .485" | 99 | 3960 | 4950 |
| 14"x14-1/2" | - | 14.32" | 14.605" | .860" | .525" | 109 | 4360 | 5450 |
| 14"x14-1/2" | - | 14.48" | 14.670" | .940" | .590" | 120 | 4800 | 6000 |
| 14"x14-1/2" | - | 14.66" | 14.725" | 1.030" | .645" | 132 | 5280 | 6600 |
| 14" x 16" | - | 14.78" | 15.500" | 1.090" | .680" | 145 | 5800 | 7250 |
| 14" x 16" | - | 14.98" | 15.565" | 1.190" | .745" | 159 | 6360 | 7950 |
| 14" x 16" | - | 15.25" | 15.640" | 1.313" | .820" | 176 | 7040 | 8800 |
| 14" x 16" | - | 15.50" | 15.710" | 1.438" | .890" | 193 | 7720 | 9650 |
| 14" x 16" | - | 15.75" | 15.800" | 1.563" | .980" | 211 | 8440 | 10550 |
| 14" x 16" | - | 16.04" | 15.890" | 1.720" | 1.070" | 233 | 9320 | 11650 |
| 14" x 16" | - | 16.38" | 15.995" | 1.890" | 1.175" | 257 | 10280 | 12850 |
| 14" x 16" | - | 16.74" | 16.110" | 2.070" | 1.290" | 283 | 11320 | 14150 |
| 14" x 16" | - | 17.12" | 16.230" | 2.260" | 1.410" | 311 | 12440 | 15550 |
| 14" x 16" | - | 17.56" | 16.365" | 2.468" | 1.545" | 342 | 13680 | 17100 |
| 14" x 16" | - | 17.94" | 16.475" | 2.658" | 1.655" | 370 | 14800 | 18500 |
| 14" x 16" | - | 18.31" | 16.590" | 2.843" | 1.770" | 398 | 15920 | 19900 |
| 14" x 16" | - | 18.69" | 16.695" | 3.033" | 1.875" | 426 | 17040 | 21300 |
| 14" x 16" | - | 19.05" | 16.828" | 3.213" | 2.008" | 455 | 18200 | 22750 |
| 14" x 16" | - | 19.63" | 17.008" | 3.501" | 2.188" | 500 | 20000 | 25000 |
| 14" x 16" | - | 20.26" | 17.206" | 3.818" | 2.386" | 550 | 22000 | 27500 |
| 14" x 16" | - | 20.94" | 17.418" | 4.157" | 2.598" | 605 | 24200 | 30250 |
| 14" x 16" | - | 21.67" | 17.646" | 4.522" | 2.826" | 665 | 26600 | 33250 |
| 14" x 16" | - | 22.44" | 17.889" | 4.910" | 3.069" | 730 | 29200 | 36500 |
| 16" x 5-1/2" | - | 15.65" | 5.500" | .345" | .250" | 26 | 1040 | 1300 |
| 16" x 5-1/2" | - | 15.84" | 5.525" | .442" | .275" | 31 | 1240 | 1550 |
| 16" x 7" | - | 15.85" | 6.992" | .428" | .299" | 36 | 1440 | 1800 |
| 16" x 7" | Y8454 | 16.00" | 7.000" | .503" | .307" | 40 | 1600 | 2000 |
| 16" x 7" | - | 16.12" | 7.039" | .563" | .346" | 45 | 1800 | 2250 |
| 16" x 7" | Y8402 | 16.25" | 7.073" | .628" | .380" | 50 | 2000 | 2500 |
| 16" x 7" | - | 16.43" | 7.120" | .715" | .430" | 57 | 2280 | 2850 |
| 16"x10-1/4" | - | 16.33" | 10.235" | .665" | .395" | 67 | 2680 | 3350 |
| 16"x10-1/4" | - | 16.52" | 10.295" | .760" | .455" | 77 | 3080 | 3850 |
| 16"x10-1/4" | - | 16.75" | 10.365" | .875" | .525" | 89 | 3560 | 4450 |
| 16"x10-1/4" | - | 16.97" | 10.425" | .985" | .585" | 100 | 4000 | 5000 |
| 18" x 6" | Y8500 | 17.71" | 6.000" | .429" | .298" | 35 | 1400 | 1750 |
| 18" x 6" | - | 17.90" | 6.018" | .524" | .316" | 40 | 1600 | 2000 |
| 18" x 6" | - | 18.06" | 6.060" | .605" | .360" | 46 | 1840 | 2300 |
| 18" x 7-1/2" | - | 18.00" | 7.500" | .570" | .358" | 50 | 2000 | 2500 |
| 18" x 7-1/2" | - | 18.12" | 7.532" | .630" | .390" | 55 | 2200 | 2750 |
| 18" x 7-1/2" | - | 18.25" | 7.558" | .695" | .416" | 60 | 2400 | 3000 |

| Nominal Size | Part No. | Estimated Weight - Lbs. | | | | | | |
|--------------|----------|-------------------------|-------------------|--------------------|-----------------|---------|--------|--------|
| | | A Depth | B Flange Width | C Flange Thick. | D Web Thick. | Per Ft. | 40 Ft. | 50 Ft. |
| 18" x 7-1/2" | - | 18.35" | 7.590" | .750" | .450" | 65 | 2600 | 3250 |
| 18" x 7-1/2" | - | 18.47" | 7.635" | .810" | .495" | 71 | 2840 | 3550 |
| 18" x 11" | - | 18.21" | 11.035" | .680" | .425" | 76 | 3040 | 3800 |
| 18" x 11" | - | 18.39" | 11.090" | .770" | .480" | 86 | 3440 | 4300 |
| 18" x 11" | - | 18.59" | 11.145" | .870" | .535" | 97 | 3880 | 4850 |
| 18" x 11" | Y8718 | 18.73" | 11.200" | .940" | .590" | 106 | 4240 | 5300 |
| 18" x 11" | - | 18.97" | 11.265" | 1.060" | .655" | 119 | 4760 | 5950 |
| 21" x 6-1/2" | - | 20.66" | 6.500" | .451" | .348" | 44 | 1760 | 2200 |
| 21" x 6-1/2" | - | 20.83" | 6.530" | .535" | .380" | 50 | 2000 | 2500 |
| 21" x 6-1/2" | - | 21.06" | 6.555" | .650" | .405" | 57 | 2280 | 2850 |
| 21" x 8-1/4" | - | 20.99" | 8.240" | .615" | .400" | 62 | 2480 | 3100 |
| 21" x 8-1/4" | - | 21.13" | 8.270" | .685" | .430" | 68 | 2720 | 3400 |
| 21" x 8-1/4" | Y8404 | 21.24" | 8.295" | .740" | .455" | 73 | 2920 | 3650 |
| 21" x 8-1/4" | - | 21.43" | 8.355" | .835" | .515" | 83 | 3320 | 4150 |
| 21" x 8-1/4" | - | 21.62" | 8.420" | .930" | .580" | 93 | 3720 | 4650 |
| 21"x12-1/4" | - | 21.36" | 12.290" | .800" | .500" | 101 | 4040 | 5050 |
| 21"x12-1/4" | - | 21.51" | 12.340" | .875" | .550" | 111 | 4440 | 5550 |
| 21"x12-1/4" | - | 21.68" | 12.390" | .960" | .600" | 122 | 4880 | 6100 |
| 21"x12-1/4" | - | 21.83" | 12.440" | 1.035" | .650" | 132 | 5280 | 6600 |
| 21"x12-1/4" | - | 22.06" | 12.510" | 1.150" | .720" | 147 | 5880 | 7350 |
| 24" x 7" | - | 23.55" | 7.000" | .503" | .396" | 55 | 2200 | 2750 |
| 24" x 7" | Y0880 | 23.74" | 7.040" | .590" | .430" | 62 | 2480 | 3100 |
| 24" x 9" | - | 23.71" | 8.961" | .582" | .416" | 68 | 2720 | 3400 |
| 24" x 9" | - | 23.91" | 8.985" | .682" | .440" | 76 | 3040 | 3800 |
| 24" x 9" | - | 24.09" | 9.015" | .772" | .470" | 84 | 3360 | 4200 |
| 24" x 9" | - | 24.29" | 9.061" | .872" | .516" | 94 | 3760 | 4700 |
| 24"x12-3/4" | - | 24.06" | 12.750" | .750" | .500" | 104 | 4160 | 5200 |
| 24"x12-3/4" | - | 24.26" | 12.800" | .850" | .550" | 117 | 4680 | 5850 |
| 24"x12-3/4" | - | 24.48" | 12.855" | .960" | .605" | 131 | 5240 | 6550 |
| 24"x12-3/4" | - | 24.74" | 12.900" | 1.090" | .650" | 146 | 5840 | 7300 |
| 24"x12-3/4" | - | 25.00" | 12.955" | 1.220" | .705" | 162 | 6480 | 8100 |
| 27" x 10" | - | 26.69" | 9.963" | .636" | .463" | 84 | 3360 | 4200 |
| 27" x 10" | - | 26.91" | 9.990" | .747" | .490" | 94 | 3760 | 4700 |
| 27" x 10" | - | 27.07" | 10.018" | .827" | .518" | 102 | 4080 | 5100 |
| 27" x 10" | - | 27.28" | 10.070" | .932" | .570" | 114 | 4560 | 5700 |
| 27" x 14" | - | 27.38" | 13.965" | .975" | .605" | 146 | 5840 | 7300 |
| 27" x 14" | - | 27.59" | 14.020" | 1.080" | .660" | 161 | 6440 | 8050 |
| 27" x 14" | - | 27.81" | 14.085" | 1.190" | .725" | 178 | 7120 | 8900 |
| 30"x10-1/2" | - | 29.64" | 10.458" | .670" | .522" | 99 | 3960 | 4950 |
| 30"x10-1/2" | - | 29.82" | 10.484" | .760" | .548" | 108 | 4320 | 5400 |

WIDE FLANGE BEAMS

| Nominal Size | Part No. | Estimated Weight - Lbs. | | | | | | |
|--------------|----------|-------------------------|-------------------|--------------------|-----------------|---------|--------|--------|
| | | A Depth | B Flange Width | C Flange Thick. | D Web Thick. | Per Ft. | 40 Ft. | 50 Ft. |
| 30"x10-1/2" | - | 30.00" | 10.500" | .850" | .564" | 116 | 4640 | 5800 |
| 30"x10-1/2" | - | 30.16" | 10.521" | .930" | .585" | 124 | 4960 | 6200 |
| 30"x10-1/2" | - | 30.30" | 10.551" | 1.000" | .615" | 132 | 5280 | 6600 |
| 30" x 15" | - | 30.44" | 14.985" | 1.065" | .655" | 173 | 6920 | 8650 |
| 30" x 15" | - | 30.68" | 15.040" | 1.185" | .710" | 191 | 7640 | 9550 |
| 30" x 15" | - | 30.94" | 15.105" | 1.315" | .775" | 211 | 8440 | 10550 |
| 33"x11-1/2" | - | 32.86" | 11.484" | .738" | .554" | 118 | 4720 | 5900 |
| 33"x11-1/2" | - | 33.10" | 11.510" | .855" | .580" | 130 | 5200 | 6500 |
| 33"x11-1/2" | - | 33.31" | 11.535" | .960" | .605" | 141 | 5640 | 7050 |
| 33"x11-1/2" | - | 33.50" | 11.565" | 1.055" | .635" | 152 | 6080 | 7600 |
| 33"x15-3/4" | - | 33.68" | 15.745" | 1.150" | .715" | 201 | 8040 | 10050 |
| 33"x15-3/4" | - | 33.93" | 15.805" | 1.275" | .775" | 221 | 8840 | 11050 |
| 33"x15-3/4" | - | 34.18" | 15.860" | 1.400" | .830" | 241 | 9640 | 12050 |
| 36" x 12" | - | 35.55" | 11.945" | .794" | .598" | 135 | 5400 | 6750 |
| 36" x 12" | - | 35.84" | 11.972" | .940" | .625" | 150 | 6000 | 7500 |
| 36" x 12" | - | 36.00" | 12.000" | 1.020" | .653" | 160 | 6400 | 8000 |
| 36" x 12" | - | 36.16" | 12.027" | 1.100" | .680" | 170 | 6800 | 8500 |
| 36" x 12" | - | 36.32" | 12.072" | 1.180" | .725" | 182 | 7280 | 9100 |
| 36" x 12" | - | 36.48" | 12.117" | 1.260" | .770" | 194 | 7760 | 9700 |
| 36" x 12" | - | 36.69" | 12.180" | 1.360" | .830" | 210 | 8400 | 10500 |
| 36"x16-1/2" | - | 35.88" | 16.475" | 1.260" | .765" | 230 | 9200 | 11500 |
| 36"x16-1/2" | - | 36.06" | 16.512" | 1.350" | .802" | 245 | 9800 | 12250 |
| 36"x16-1/2" | - | 36.24" | 16.555" | 1.440" | .845" | 260 | 10400 | 13000 |
| 36"x16-1/2" | - | 36.50" | 16.595" | 1.570" | .885" | 280 | 11200 | 14000 |
| 36"x16-1/2" | - | 36.72" | 16.655" | 1.680" | .945" | 300 | 12000 | 15000 |

CHANNEL - BAR SIZES



- Conforms to ASTM A36
- Standard length: 20 Ft.

| Size - A x B x C | Part No. | Est. Weight - Lbs. | |
|-------------------------|----------|--------------------|--------|
| | | Per Ft. | 20 Ft. |
| 1/2" x 1/4" x 1/8" | - | .28 | 5.6 |
| 3/4" x 5/16" x 1/8" | - | .50 | 10.0 |
| 3/4" x 3.8" x 15 GA | - | .40 | 8.0 |
| 3/4" x 3/8" x 1/8" | - | .54 | 10.8 |
| 7/8" x 3/8" x 1/8" | - | .61 | 12.2 |
| 7/8" x 7/16" x 1/8" | - | .69 | 13.8 |
| 1" x 3/8" x 1/8" | - | .68 | 13.6 |
| 1" x 1/2" x 1/8" | Y0701 | .80 | 16.0 |
| 1-1/8" x 9/16" x 3/16" | - | 1.16 | 23.2 |
| 1-1/4" x 1/2" x 1/8" | Y0702 | 1.00 | 20.0 |
| 1-1/2" x 1/2" x 1/8" | Y0703 | 1.12 | 22.4 |
| 1-1/2" x 9/16" x 3/16" | - | 1.44 | 28.8 |
| 1-1/2" x 3/4" x 1/8" | - | 1.17 | 23.4 |
| 1-1/2" x 1-1/2" x 3/16" | - | 2.65 | 53.0 |
| 1-3/4" x 1/2" x 3/16" | - | 1.55 | 31.0 |
| 2" x 1/2" x 1/8" | Y0704 | 1.43 | 28.6 |
| 2" x 9/16" x 3/16" | - | 1.76 | 35.2 |
| 2" x 5/8" x 1/4" | - | 2.18 | 43.6 |
| 2" x 1" x 1/8" | Y0705 | 1.78 | 35.6 |
| 2" x 1" x 3/16" | Y0706 | 2.59 | 51.8 |
| 2-1/2" x 5/8" x 3/16" | - | 2.27 | 45.4 |

JUNIOR CHANNEL - STAIR STRINGERS



- Conforms to ASTM A36
- Standard length: 20 Ft.

| A Depth | B Flange Width | C Web Thickness | Per Foot | Estimated Weight - Lbs. | | |
|------------|-------------------|--------------------|----------|-------------------------|--------|--------|
| | | | | Part No. | 20 Ft. | 40 Ft. |
| 8" | 1.875" | .180" | 8.5 | - | 170 | 340 |
| 10" | 1.125" | .150" | 6.5 | Y8470 | 130 | 260 |
| 10" | 1.500" | .170" | 8.4 | Y0707 | 168 | 336 |
| 12" | 1.500" | .190" | 10.6 | Y8098 | 212 | 424 |

CHANNELS - STANDARD STRUCTURAL *

- Conforms to ASTM A36
- Lengths Available: 20 Ft. and 40 Ft.
- Stock items are highlighted in blue.



| A Depth | B Flange Width | C Web Thickness | Lbs/Foot | Estimated Weight - Lbs. | | Part No. | |
|------------|-------------------|--------------------|----------|-------------------------|--------|----------|-------|
| | | | | 20 Ft. | 40 Ft. | | |
| 3" | 1.375" | .130" | 3.5 | 70 | - | 140 | - |
| 3" | 1.410" | .170" | 4.1 | 82 | Y0730 | 164 | Y0731 |
| 3" | 1.498" | .258" | 5.0 | 100 | Y0732 | 200 | - |
| 3" | 1.596" | .356" | 6.0 | 120 | Y8537 | 240 | Y8538 |
| 4" | 1.580" | .180" | 5.4 | 108 | Y0733 | 216 | Y0734 |
| 4" | 1.647" | .247" | 6.25 | 125 | - | 250 | - |
| 4" | 1.720" | .320" | 7.25 | 145 | Y8508 | 290 | - |
| 5" | 1.750" | .190" | 6.7 | 134 | Y0735 | 268 | - |
| 5" | 1.885" | .325" | 9.0 | 180 | - | 360 | - |
| 6" | 1.920" | .200" | 8.2 | 164 | Y0737 | 328 | Y0738 |
| 6" | 2.034" | .314" | 10.5 | 245 | Y0739 | 490 | Y8463 |
| 6" | 2.157" | .437" | 13.0 | 260 | Y8489 | 520 | - |
| 7" | 2.090" | .210" | 9.8 | 196 | Y0740 | 392 | - |
| 7" | 2.194" | .314" | 12.25 | 245 | - | 490 | - |
| 7" | 2.299" | .419" | 14.75 | 295 | - | 590 | - |
| 8" | 1.875" | .180" | 8.5 | 170 | - | 340 | - |
| 8" | 2.260" | .220" | 11.5 | 230 | Y0743 | 460 | - |
| 8" | 2.343" | .303" | 13.75 | 275 | - | 550 | Y0744 |
| 8" | 2.527" | .487" | 18.75 | 375 | - | 750 | - |
| 9" | 2.430" | .230" | 13.4 | 268 | Y0860 | 536 | - |
| 9" | 2.485" | .285" | 15.0 | 300 | - | 600 | - |
| 9" | 2.648" | .448" | 20.0 | 400 | - | 800 | - |
| 10" | 2.600" | .240" | 15.3 | 306 | Y0750 | 612 | - |
| 10" | 2.739" | .379" | 20.0 | 400 | - | 800 | - |
| 10" | 2.886" | .526" | 25.0 | 500 | - | 1000 | - |
| 10" | 3.033" | .673" | 30.0 | 600 | - | 1200 | - |
| 12" | 2.940" | .280" | 20.7 | 414 | Y0755 | 828 | Y0756 |
| 12" | 3.047" | .387" | 25.0 | 500 | - | 1000 | - |
| 12" | 3.170" | .510" | 30.0 | 600 | Y8478 | 1200 | - |
| 15" | 3.400" | .400" | 33.9 | 678 | Y0758 | 1356 | - |
| 15" | 3.520" | .520" | 40.0 | 800 | - | 1600 | - |
| 15" | 3.716" | .716" | 50.0 | 1000 | - | 2000 | - |

*Please Note: Ship and Car Channels are available by special order.

PLATE GRADES

LOW CARBON PLATE - Manufactured to three separate carbon ranges that relate to the thickness and end use requirements. Plates 3/4" and smaller are produced to the lowest carbon range (.10 to .20) for maximum cold forming and welding properties. In 3/4" to 1-1/2" plate the carbon range is .15 to .25 which gives improved machining while retaining its forming and welding properties. Plates over 1-1/2" have carbon in the range of .20 to .33. This is a killed steel that provides the best combination of strength, weldability and structural soundness.

ASTM A709 / GRADE 36 PLATE - A structural quality product designed for use in welded, bolted, or riveted fabrications such as oil rigs, buildings and bridges. Produces with a minimum yield of 36,000 psi. A36 plate can be used in the construction of a variety of lightweight structures and equipment where good welding properties are important.

ASTM 514B (T1 & TYPE A REG) STRUCTURAL QUALITY - A quenched and tempered high strength alloy steel designed for construction type applications and produced to minimum mechanical properties. T1 plate provides good formability, high strength, toughness at subzero temperatures, and weldability with minimal preheating requirements.

ASTM A285 / GRADE C - Fire box and flange quality designed for fusion welded boilers and pressure vessels where moderate strength and good forming are required.

ASTM A515 / GRADE 70 - Greater strength than A285 and intended for mid- and high temperature boilers and pressure vessels. It is silicon killed, coarse grained steel that required careful welding techniques.

ASTM A516 / GRADE 70 - Similar to A515 but intended for lower temperatures. Finer grain and improved notched toughness.

ASTM A572 / GRADE 50 - INX-EXTEN has a 50,000 psi minimum strength level. Offers high strength in combination with good formability and weldability. Atmospheric corrosion resistance is similar to plain carbon steel. SAE J410 and Grade 950X.

PLATE - AVERAGE MECHANICAL PROPERTIES

| Grade | Tensile Strength | Minimum Yield | Elong. in 2" Min % | Misc. Properties |
|-------------------------|-------------------------------|------------------------------|-----------------------|----------------------|
| Low Carbon < 3/4" | - | - | - | .10 to .20 carbon |
| Low Carbon 3/4"- 1-1/2" | - | - | - | .15 to .25 carbon |
| Low Carbon > 1-1/2" | - | - | - | .20 to .33 carbon |
| ASTM A36 | 50,000 psi to 80,000 psi | 36,000 psi | 23 | .25 to .29 carbon |
| ASTM A514 T1-A | 105,000 psi to 135,000 psi | 90,000 psi to 100,000 psi | 17 to 18 | .229 to .293 Brinell |
| ASTM A285 Grade C | 55,000 psi to 65,000 psi | 30,000 psi | 25 | .28 carbon |
| ASTM A515 Grade 70 | 70,000 psi to 85,000 psi | 38,000 psi | 17 | .31 to .35 carbon |
| ASTM A516 Grade 70 | 70,000 psi to 85,000 psi | 38,000 psi | 17 | .27 to .31 carbon |
| ASTM A572 Grade 50 | 65,000 psi | 50,000 psi | 21 | .23 carbon |