

NOTES:

Section properties and allowable loads are computed in accordance with AISI North American Specification for the Design of Cold-Formed Steel Structural Members, 2012 edition

I_x and I_y are for deflection determination

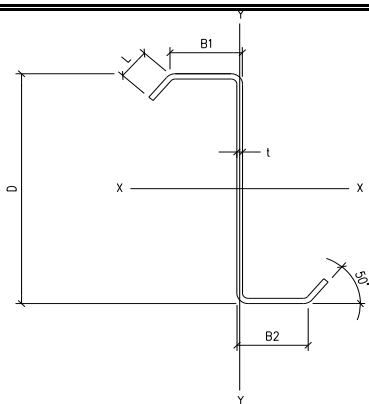
S_e and S_y are for bending

Material is either ASTM A653 Gr. Class 1, A1011 HSLAS Gr. 55 Class 1, or A1011 SS Gr. 55

$F_y = 55$ ksi

$F_u = 70$ ksi

| Section Name | DIMENSIONAL PROPERTIES | | | | | | ALLOWABLES | | | AXIS X-X | | | | AXIS Y-Y | | |
|--------------|------------------------|------|-------------------|-------------------|----------------------------|-------------|--------------------------|--------------------------|--------------|-----------------------------|--|--|---------------|-----------------------------|--------------------------------|---------------|
| | D x B1 x B2 (in) | Gage | Thickness (in) | Weight (lb/ft) | Area (in ²) | Lip (in) | Positive Ma (k-ft) | Negative Ma (k-ft) | Va (kips) | I_x (in ⁴) | Positive S_{xe} (in ³) | Negative S_{xe} (in ³) | R_x (in) | I_y (in ⁴) | S_{ye} (in ³) | R_y (in) |
| 3.5x1.5Z16 | 3.5 x 1.5 x 1.5 | 16 | 0.059 | 1.592 | 0.468 | 0.911 | 1.321 | 1.321 | 3.659 | 0.876 | 0.481 | 0.481 | 1.367 | 0.444 | 0.197 | 0.974 |
| 3.5x1.5Z14 | 3.5 x 1.5 x 1.5 | 14 | 0.070 | 1.889 | 0.556 | 0.930 | 1.608 | 1.608 | 4.310 | 1.029 | 0.586 | 0.586 | 1.361 | 0.530 | 0.246 | 0.977 |
| 3.5x1.5Z13 | 3.5 x 1.5 x 1.5 | 13 | 0.085 | 2.294 | 0.675 | 0.956 | 1.934 | 1.934 | 5.180 | 1.233 | 0.705 | 0.705 | 1.352 | 0.649 | 0.313 | 0.981 |
| 3.5x1.5Z12 | 3.5 x 1.5 x 1.5 | 12 | 0.105 | 2.834 | 0.833 | 0.990 | 2.347 | 2.347 | 6.313 | 1.497 | 0.855 | 0.855 | 1.340 | 0.812 | 0.389 | 0.987 |
| 4.0x3.5Z16 | 4.0 x 3.125 x 3.375 | 16 | 0.059 | 2.395 | 0.704 | 0.911 | 2.110 | 2.105 | 3.842 | 2.003 | 0.769 | 0.767 | 1.687 | 2.580 | 0.483 | 1.914 |
| 4.0x3.5Z14 | 4.0 x 3.125 x 3.375 | 14 | 0.070 | 2.841 | 0.836 | 0.930 | 2.577 | 2.579 | 5.031 | 2.360 | 0.939 | 0.940 | 1.681 | 3.075 | 0.564 | 1.918 |
| 4.0x3.5Z13 | 4.0 x 3.125 x 3.375 | 13 | 0.085 | 3.450 | 1.015 | 0.956 | 3.221 | 3.241 | 6.057 | 2.838 | 1.174 | 1.181 | 1.672 | 3.756 | 0.692 | 1.924 |
| 4.0x3.5Z12 | 4.0 x 3.125 x 3.375 | 12 | 0.105 | 4.262 | 1.253 | 0.990 | 4.325 | 4.240 | 7.396 | 3.460 | 1.576 | 1.545 | 1.662 | 4.677 | 0.990 | 1.932 |
| 4.0x3.0Z16 | 4.0 x 2.625 x 2.875 | 16 | 0.059 | 2.194 | 0.645 | 0.911 | 2.044 | 2.044 | 3.842 | 1.774 | 0.745 | 0.745 | 1.658 | 1.724 | 0.415 | 1.635 |
| 4.0x3.0Z14 | 4.0 x 2.625 x 2.875 | 14 | 0.070 | 2.603 | 0.766 | 0.930 | 2.472 | 2.484 | 5.031 | 2.090 | 0.901 | 0.905 | 1.652 | 2.056 | 0.480 | 1.639 |
| 4.0x3.0Z13 | 4.0 x 2.625 x 2.875 | 13 | 0.085 | 3.161 | 0.930 | 0.956 | 3.224 | 3.115 | 6.057 | 2.512 | 1.175 | 1.135 | 1.644 | 2.513 | 0.668 | 1.644 |
| 4.0x3.0Z12 | 4.0 x 2.625 x 2.875 | 12 | 0.105 | 3.905 | 1.148 | 0.990 | 4.110 | 4.111 | 7.396 | 3.062 | 1.498 | 1.498 | 1.633 | 3.131 | 0.927 | 1.651 |
| 4.0x2.5Z16 | 4.0 x 2.125 x 2.375 | 16 | 0.059 | 1.994 | 0.586 | 0.911 | 1.943 | 1.956 | 3.842 | 1.545 | 0.708 | 0.713 | 1.623 | 1.080 | 0.344 | 1.357 |
| 4.0x2.5Z14 | 4.0 x 2.125 x 2.375 | 14 | 0.070 | 2.365 | 0.696 | 0.930 | 2.414 | 2.401 | 5.031 | 1.819 | 0.879 | 0.875 | 1.617 | 1.288 | 0.434 | 1.361 |
| 4.0x2.5Z13 | 4.0 x 2.125 x 2.375 | 13 | 0.085 | 2.872 | 0.845 | 0.956 | 2.928 | 2.928 | 6.057 | 2.186 | 1.067 | 1.067 | 1.609 | 1.576 | 0.549 | 1.366 |
| 4.0x2.5Z12 | 4.0 x 2.125 x 2.375 | 12 | 0.105 | 3.548 | 1.043 | 0.990 | 3.567 | 3.568 | 7.396 | 2.663 | 1.300 | 1.300 | 1.598 | 1.965 | 0.682 | 1.372 |
| | | | | | | | | | | | | | | | | |
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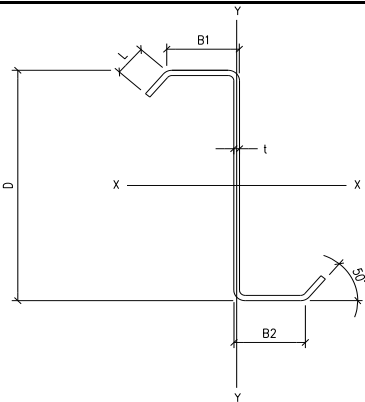
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Material is either ASTM A653 Gr. Class 1, A1011 HSLAS Gr. 55 Class 1, or A1011 SS Gr. 55

$F_y = 55$ ksi

$F_u = 70$ ksi

| Section Name | DIMENSIONAL PROPERTIES | | | | | | ALLOWABLES | | | AXIS X-X | | | | AXIS Y-Y | | |
|--------------|------------------------|------|-------------------|-------------------|----------------------------|-------------|--------------------------|--------------------------|--------------|-----------------------------|--|--|---------------|-----------------------------|--------------------------------|---------------|
| | D x B1 x B2 (in) | Gage | Thickness (in) | Weight (lb/ft) | Area (in ²) | Lip (in) | Positive Ma (k-ft) | Negative Ma (k-ft) | Va (kips) | I_x (in ⁴) | Positive S_{xe} (in ³) | Negative S_{xe} (in ³) | R_x (in) | I_y (in ⁴) | S_{ye} (in ³) | R_y (in) |
| 4.0x2.0Z16 | 4.0 x 2.0 x 2.0 | 16 | 0.059 | 1.994 | 0.586 | 1.161 | 1.801 | 1.801 | 3.842 | 1.473 | 0.656 | 0.656 | 1.585 | 1.027 | 0.311 | 1.324 |
| 4.0x2.0Z14 | 4.0 x 2.0 x 2.0 | 14 | 0.070 | 2.365 | 0.696 | 1.180 | 2.237 | 2.237 | 5.031 | 1.734 | 0.815 | 0.815 | 1.579 | 1.225 | 0.395 | 1.327 |
| 4.0x2.0Z13 | 4.0 x 2.0 x 2.0 | 13 | 0.085 | 2.872 | 0.845 | 1.206 | 2.831 | 2.831 | 6.057 | 2.081 | 1.032 | 1.032 | 1.570 | 1.498 | 0.510 | 1.332 |
| 4.0x2.0Z12 | 4.0 x 2.0 x 2.0 | 12 | 0.105 | 3.548 | 1.043 | 1.240 | 3.474 | 3.474 | 7.396 | 2.532 | 1.266 | 1.266 | 1.558 | 1.867 | 0.671 | 1.338 |
| 5.0x3.5Z16 | 5.0 x 3.125 x 3.375 | 16 | 0.059 | 2.595 | 0.763 | 0.911 | 2.816 | 2.805 | 3.842 | 3.306 | 1.026 | 1.022 | 2.081 | 2.581 | 0.486 | 1.839 |
| 5.0x3.5Z14 | 5.0 x 3.125 x 3.375 | 14 | 0.070 | 3.079 | 0.906 | 0.930 | 3.431 | 3.430 | 5.409 | 3.900 | 1.250 | 1.250 | 2.075 | 3.076 | 0.568 | 1.843 |
| 5.0x3.5Z13 | 5.0 x 3.125 x 3.375 | 13 | 0.085 | 3.739 | 1.100 | 0.956 | 4.286 | 4.306 | 7.810 | 4.701 | 1.562 | 1.569 | 2.068 | 3.757 | 0.695 | 1.848 |
| 5.0x3.5Z12 | 5.0 x 3.125 x 3.375 | 12 | 0.105 | 4.619 | 1.358 | 0.990 | 5.732 | 5.616 | 9.561 | 5.748 | 2.089 | 2.046 | 2.057 | 4.678 | 0.991 | 1.856 |
| 5.0x3.0Z16 | 5.0 x 2.625 x 2.875 | 16 | 0.059 | 2.395 | 0.704 | 0.911 | 2.732 | 2.727 | 3.842 | 2.945 | 0.995 | 0.994 | 2.045 | 1.725 | 0.416 | 1.565 |
| 5.0x3.0Z14 | 5.0 x 2.625 x 2.875 | 14 | 0.070 | 2.841 | 0.836 | 0.930 | 3.299 | 3.309 | 5.409 | 3.475 | 1.202 | 1.206 | 2.039 | 2.056 | 0.481 | 1.569 |
| 5.0x3.0Z13 | 5.0 x 2.625 x 2.875 | 13 | 0.085 | 3.450 | 1.015 | 0.956 | 4.294 | 4.143 | 7.810 | 4.187 | 1.565 | 1.510 | 2.031 | 2.513 | 0.668 | 1.574 |
| 5.0x3.0Z12 | 5.0 x 2.625 x 2.875 | 12 | 0.105 | 4.262 | 1.253 | 0.990 | 5.507 | 5.503 | 9.561 | 5.119 | 2.007 | 2.005 | 2.021 | 3.132 | 0.926 | 1.581 |
| 5.0x2.5Z16 | 5.0 x 2.125 x 2.375 | 16 | 0.059 | 2.194 | 0.645 | 0.911 | 2.608 | 2.617 | 3.842 | 2.585 | 0.950 | 0.954 | 2.001 | 1.080 | 0.344 | 1.294 |
| 5.0x2.5Z14 | 5.0 x 2.125 x 2.375 | 14 | 0.070 | 2.603 | 0.766 | 0.930 | 3.237 | 3.206 | 5.409 | 3.049 | 1.180 | 1.168 | 1.996 | 1.288 | 0.434 | 1.297 |
| 5.0x2.5Z13 | 5.0 x 2.125 x 2.375 | 13 | 0.085 | 3.161 | 0.930 | 0.956 | 3.944 | 3.944 | 7.810 | 3.674 | 1.437 | 1.437 | 1.988 | 1.576 | 0.548 | 1.302 |
| 5.0x2.5Z12 | 5.0 x 2.125 x 2.375 | 12 | 0.105 | 3.940 | 1.484 | 0.990 | 4.821 | 4.822 | 9.561 | 4.490 | 1.757 | 1.757 | 1.977 | 1.966 | 0.681 | 1.308 |
| | | | | | | | | | | | | | | | | |
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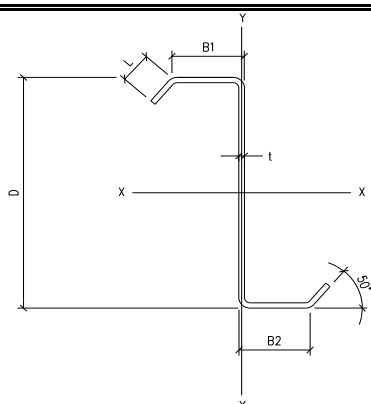
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$F_y = 55$ ksi

$F_u = 70$ ksi

| Section Name | DIMENSIONAL PROPERTIES | | | | | | ALLOWABLES | | | AXIS X-X | | | | AXIS Y-Y | | |
|--------------|------------------------|------|-------------------|-------------------|----------------------------|-------------|--------------------------|--------------------------|--------------|-----------------------------|--|--|---------------|-----------------------------|--------------------------------|---------------|
| | D x B1 x B2 (in) | Gage | Thickness (in) | Weight (lb/ft) | Area (in ²) | Lip (in) | Positive Ma (k-ft) | Negative Ma (k-ft) | Va (kips) | I_x (in ⁴) | Positive S_{xe} (in ³) | Negative S_{xe} (in ³) | R_x (in) | I_y (in ⁴) | S_{ye} (in ³) | R_y (in) |
| 6.0x2.5Z16 | 6.0 x 2.125 x 2.375 | 16 | 0.059 | 2.395 | 0.704 | 0.911 | 3.330 | 3.333 | 3.319 | 3.948 | 1.213 | 1.215 | 2.368 | 1.080 | 0.344 | 1.239 |
| 6.0x2.5Z14 | 6.0 x 2.125 x 2.375 | 14 | 0.070 | 2.841 | 0.836 | 0.930 | 4.127 | 4.074 | 5.409 | 4.662 | 1.504 | 1.484 | 2.362 | 1.289 | 0.433 | 1.242 |
| 6.0x2.5Z13 | 6.0 x 2.125 x 2.375 | 13 | 0.085 | 3.450 | 1.015 | 0.956 | 5.042 | 5.042 | 7.975 | 5.626 | 1.837 | 1.837 | 2.355 | 1.577 | 0.547 | 1.246 |
| 6.0x2.5Z12 | 6.0 x 2.125 x 2.375 | 12 | 0.105 | 4.262 | 1.253 | 0.990 | 6.177 | 6.178 | 11.727 | 6.891 | 2.251 | 2.251 | 2.345 | 1.966 | 0.680 | 1.253 |
| 7.0x3.5Z16 | 7.0 x 3.125 x 3.375 | 16 | 0.059 | 2.997 | 0.881 | 0.911 | 4.399 | 4.380 | 2.809 | 7.085 | 1.603 | 1.596 | 2.835 | 2.582 | 0.491 | 1.712 |
| 7.0x3.5Z14 | 7.0 x 3.125 x 3.375 | 14 | 0.070 | 3.555 | 1.046 | 0.930 | 5.350 | 5.339 | 4.707 | 8.375 | 1.949 | 1.945 | 2.830 | 3.076 | 0.573 | 1.715 |
| 7.0x3.5Z13 | 7.0 x 3.125 x 3.375 | 13 | 0.085 | 4.317 | 1.270 | 0.956 | 6.671 | 6.686 | 7.975 | 10.118 | 2.431 | 2.436 | 2.823 | 3.758 | 0.701 | 1.720 |
| 7.0x3.5Z12 | 7.0 x 3.125 x 3.375 | 12 | 0.105 | 5.333 | 1.568 | 0.990 | 8.854 | 8.672 | 12.170 | 12.415 | 3.226 | 3.160 | 2.813 | 4.679 | 0.994 | 1.727 |
| 7.0x3.0Z16 | 7.0 x 2.625 x 2.875 | 16 | 0.059 | 2.796 | 0.822 | 0.911 | 4.280 | 4.263 | 2.809 | 6.374 | 1.560 | 1.553 | 2.784 | 1.725 | 0.418 | 1.448 |
| 7.0x3.0Z14 | 7.0 x 2.625 x 2.875 | 14 | 0.070 | 3.317 | 0.976 | 0.930 | 5.156 | 5.160 | 4.707 | 7.534 | 1.879 | 1.880 | 2.779 | 2.057 | 0.483 | 1.452 |
| 7.0x3.0Z13 | 7.0 x 2.625 x 2.875 | 13 | 0.085 | 4.028 | 1.185 | 0.956 | 6.679 | 6.443 | 7.975 | 9.102 | 2.434 | 2.348 | 2.772 | 2.514 | 0.668 | 1.457 |
| 7.0x3.0Z12 | 7.0 x 2.625 x 2.875 | 12 | 0.105 | 4.976 | 1.463 | 0.990 | 8.604 | 8.576 | 12.170 | 11.166 | 3.135 | 3.125 | 2.762 | 3.133 | 0.923 | 1.463 |
| 7.0x2.5Z16 | 7.0 x 2.125 x 2.375 | 16 | 0.059 | 2.595 | 0.763 | 0.911 | 4.107 | 4.105 | 2.809 | 5.663 | 1.496 | 1.496 | 2.724 | 1.081 | 0.344 | 1.190 |
| 7.0x2.5Z14 | 7.0 x 2.125 x 2.375 | 14 | 0.070 | 3.079 | 0.906 | 0.930 | 5.082 | 5.008 | 4.707 | 6.693 | 1.852 | 1.825 | 2.719 | 1.289 | 0.433 | 1.193 |
| 7.0x2.5Z13 | 7.0 x 2.125 x 2.375 | 13 | 0.085 | 3.739 | 1.100 | 0.956 | 6.221 | 6.222 | 7.975 | 8.085 | 2.267 | 2.267 | 2.712 | 1.577 | 0.546 | 1.198 |
| 7.0x2.5Z12 | 7.0 x 2.125 x 2.375 | 12 | 0.105 | 4.619 | 1.358 | 0.990 | 7.632 | 7.632 | 12.170 | 9.918 | 2.781 | 2.781 | 2.702 | 1.967 | 0.679 | 1.203 |
| | | | | | | | | | | | | | | | | |
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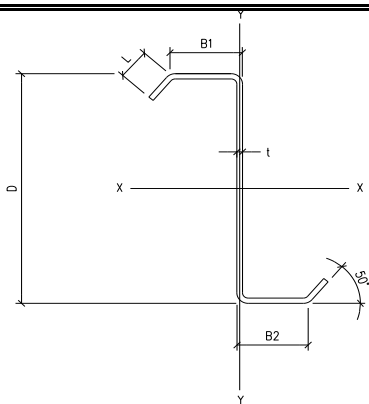
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| Section Name | DIMENSIONAL PROPERTIES | | | | | | ALLOWABLES | | | AXIS X-X | | | | AXIS Y-Y | | |
|--------------|------------------------|------|-------------------|-------------------|----------------------------|-------------|--------------------------|--------------------------|--------------|-----------------------------|--|--|---------------|-----------------------------|--------------------------------|---------------|
| | D x B1 x B2 (in) | Gage | Thickness (in) | Weight (lb/ft) | Area (in ²) | Lip (in) | Positive Ma (k-ft) | Negative Ma (k-ft) | Va (kips) | I_x (in ⁴) | Positive S_{xe} (in ³) | Negative S_{xe} (in ³) | R_x (in) | I_y (in ⁴) | S_{ye} (in ³) | R_y (in) |
| 8.0x3.5Z16 | 8.0 x 3.125 x 3.375 | 16 | 0.059 | 3.197 | 0.940 | 0.911 | 5.016 | 5.049 | 2.435 | 9.620 | 1.828 | 1.840 | 3.199 | 2.581 | 0.493 | 1.657 |
| 8.0x3.5Z14 | 8.0 x 3.125 x 3.375 | 14 | 0.070 | 3.793 | 1.116 | 0.930 | 6.412 | 6.394 | 4.078 | 11.378 | 2.336 | 2.330 | 3.194 | 3.076 | 0.575 | 1.661 |
| 8.0x3.5Z13 | 8.0 x 3.125 x 3.375 | 13 | 0.085 | 4.606 | 1.355 | 0.956 | 7.987 | 7.999 | 7.330 | 13.758 | 2.910 | 2.915 | 3.187 | 3.759 | 0.703 | 1.666 |
| 8.0x3.5Z12 | 8.0 x 3.125 x 3.375 | 12 | 0.105 | 5.690 | 1.673 | 0.990 | 10.565 | 10.350 | 12.170 | 16.898 | 3.850 | 3.771 | 3.178 | 4.680 | 0.995 | 1.672 |
| 8.0x3.0Z16 | 8.0 x 2.625 x 2.875 | 16 | 0.059 | 2.997 | 0.881 | 0.911 | 4.985 | 5.041 | 2.435 | 8.690 | 1.816 | 1.837 | 3.140 | 1.725 | 0.418 | 1.399 |
| 8.0x3.0Z14 | 8.0 x 2.625 x 2.875 | 14 | 0.070 | 3.555 | 1.046 | 0.930 | 6.186 | 6.184 | 4.078 | 10.278 | 2.254 | 2.253 | 3.135 | 2.057 | 0.484 | 1.403 |
| 8.0x3.0Z13 | 8.0 x 2.625 x 2.875 | 13 | 0.085 | 4.317 | 1.270 | 0.956 | 7.992 | 7.713 | 7.330 | 12.426 | 2.912 | 2.810 | 3.128 | 2.514 | 0.667 | 1.407 |
| 8.0x3.0Z12 | 8.0 x 2.625 x 2.875 | 12 | 0.105 | 5.333 | 1.568 | 0.990 | 10.301 | 10.350 | 12.170 | 15.261 | 3.753 | 3.771 | 3.119 | 3.133 | 0.922 | 1.413 |
| 8.0x2.5Z16 | 8.0 x 2.125 x 2.375 | 16 | 0.059 | 2.796 | 0.822 | 0.911 | 4.909 | 4.932 | 2.435 | 7.759 | 1.789 | 1.797 | 3.072 | 1.081 | 0.344 | 1.146 |
| 8.0x2.5Z14 | 8.0 x 2.125 x 2.375 | 14 | 0.070 | 3.317 | 0.976 | 0.930 | 6.103 | 6.006 | 4.078 | 9.177 | 2.224 | 2.189 | 3.067 | 1.289 | 0.432 | 1.150 |
| 8.0x2.5Z13 | 8.0 x 2.125 x 2.375 | 13 | 0.085 | 4.028 | 1.185 | 0.956 | 7.480 | 7.479 | 7.330 | 11.095 | 2.725 | 2.725 | 3.060 | 1.577 | 0.546 | 1.154 |
| 8.0x2.5Z12 | 8.0 x 2.125 x 2.375 | 12 | 0.105 | 4.976 | 1.463 | 0.990 | 9.185 | 9.186 | 12.170 | 13.624 | 3.347 | 3.347 | 3.051 | 1.967 | 0.678 | 1.160 |
| 9.0x3.5Z16 | 9.0 x 3.125 x 3.375 | 16 | 0.059 | 3.398 | 0.999 | 0.911 | 5.630 | 5.659 | 2.148 | 12.625 | 2.051 | 2.062 | 3.555 | 2.581 | 0.494 | 1.607 |
| 9.0x3.5Z14 | 9.0 x 3.125 x 3.375 | 14 | 0.070 | 4.031 | 1.186 | 0.930 | 7.353 | 7.440 | 3.597 | 14.939 | 2.679 | 2.711 | 3.550 | 3.077 | 0.577 | 1.611 |
| 9.0x3.5Z13 | 9.0 x 3.125 x 3.375 | 13 | 0.085 | 4.895 | 1.440 | 0.956 | 9.385 | 9.392 | 6.463 | 18.075 | 3.419 | 3.422 | 3.543 | 3.759 | 0.705 | 1.616 |
| 9.0x3.5Z12 | 9.0 x 3.125 x 3.375 | 12 | 0.105 | 6.047 | 1.778 | 0.990 | 12.376 | 12.127 | 12.170 | 22.217 | 4.509 | 4.419 | 3.535 | 4.680 | 0.996 | 1.622 |
| | | | | | | | | | | | | | | | | |
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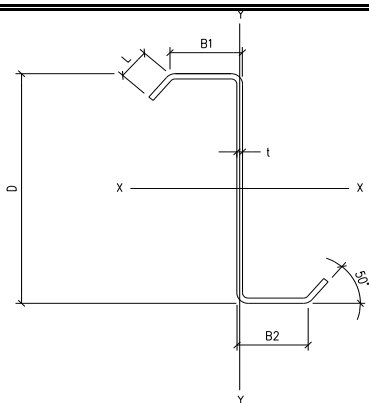
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|--------------|------------------------|------|-------------------|-------------------|----------------------------|-------------|--------------------------|--------------------------|--------------|-----------------------------|--|--|---------------|-----------------------------|--------------------------------|---------------|
| | D x B1 x B2 (in) | Gage | Thickness (in) | Weight (lb/ft) | Area (in ²) | Lip (in) | Positive Ma (k-ft) | Negative Ma (k-ft) | Va (kips) | I_x (in ⁴) | Positive S_{xe} (in ³) | Negative S_{xe} (in ³) | R_x (in) | I_y (in ⁴) | S_{ye} (in ³) | R_y (in) |
| 9.0x3.0Z16 | 9.0 x 2.625 x 2.875 | 16 | 0.059 | 3.197 | 0.940 | 0.911 | 5.584 | 5.634 | 2.148 | 11.446 | 2.035 | 2.053 | 3.489 | 1.726 | 0.419 | 1.355 |
| 9.0x3.0Z14 | 9.0 x 2.625 x 2.875 | 14 | 0.070 | 3.793 | 1.116 | 0.930 | 7.257 | 7.275 | 3.597 | 13.544 | 2.644 | 2.651 | 3.484 | 2.057 | 0.485 | 1.358 |
| 9.0x3.0Z13 | 9.0 x 2.625 x 2.875 | 13 | 0.085 | 4.606 | 1.355 | 0.956 | 9.385 | 9.063 | 6.463 | 16.386 | 3.420 | 3.302 | 3.478 | 2.515 | 0.667 | 1.363 |
| 9.0x3.0Z12 | 9.0 x 2.625 x 2.875 | 12 | 0.105 | 5.690 | 1.673 | 0.990 | 12.096 | 12.037 | 12.170 | 20.140 | 4.407 | 4.386 | 3.469 | 3.134 | 0.921 | 1.369 |
| 9.0x2.5Z16 | 9.0 x 2.125 x 2.375 | 16 | 0.059 | 2.997 | 0.881 | 0.911 | 5.077 | 5.575 | 2.148 | 10.267 | 1.850 | 2.031 | 3.413 | 1.081 | 0.344 | 1.108 |
| 9.0x2.5Z14 | 9.0 x 2.125 x 2.375 | 14 | 0.070 | 3.555 | 1.046 | 0.930 | 6.563 | 7.070 | 3.597 | 12.148 | 2.391 | 2.576 | 3.409 | 1.290 | 0.432 | 1.111 |
| 9.0x2.5Z13 | 9.0 x 2.125 x 2.375 | 13 | 0.085 | 4.317 | 1.270 | 0.956 | 8.388 | 8.817 | 6.463 | 14.696 | 3.056 | 3.213 | 3.402 | 1.577 | 0.545 | 1.115 |
| 9.0x2.5Z12 | 9.0 x 2.125 x 2.375 | 12 | 0.105 | 5.333 | 1.568 | 0.990 | 10.701 | 10.837 | 12.170 | 18.062 | 3.899 | 3.949 | 3.394 | 1.968 | 0.677 | 1.120 |
| 10.0x3.5Z16 | 10.0 x 3.125 x 3.375 | 16 | 0.059 | 3.598 | 1.058 | 0.911 | 6.245 | 6.270 | 1.922 | 16.130 | 2.275 | 2.284 | 3.904 | 2.582 | 0.496 | 1.562 |
| 10.0x3.5Z14 | 10.0 x 3.125 x 3.375 | 14 | 0.070 | 4.269 | 1.256 | 0.930 | 8.132 | 8.215 | 3.218 | 19.094 | 2.963 | 2.993 | 3.900 | 3.077 | 0.578 | 1.565 |
| 10.0x3.5Z13 | 10.0 x 3.125 x 3.375 | 13 | 0.085 | 5.184 | 1.525 | 0.956 | 10.863 | 10.866 | 5.780 | 23.113 | 3.958 | 3.959 | 3.893 | 3.759 | 0.707 | 1.570 |
| 10.0x3.5Z12 | 10.0 x 3.125 x 3.375 | 12 | 0.105 | 6.404 | 1.883 | 0.990 | 14.286 | 14.002 | 10.941 | 28.426 | 5.205 | 5.102 | 3.885 | 4.681 | 0.997 | 1.576 |
| 10.0x3.0Z16 | 10.0 x 2.625 x 2.875 | 16 | 0.059 | 3.398 | 0.999 | 0.911 | 6.184 | 6.230 | 1.922 | 14.673 | 2.253 | 2.270 | 3.832 | 1.726 | 0.420 | 1.314 |
| 10.0x3.0Z14 | 10.0 x 2.625 x 2.875 | 14 | 0.070 | 4.031 | 1.186 | 0.930 | 8.007 | 8.134 | 3.218 | 17.368 | 2.917 | 2.964 | 3.827 | 2.058 | 0.485 | 1.317 |
| 10.0x3.0Z13 | 10.0 x 2.625 x 2.875 | 13 | 0.085 | 4.895 | 1.440 | 0.956 | 10.858 | 10.492 | 5.780 | 21.022 | 3.956 | 3.823 | 3.821 | 2.515 | 0.667 | 1.322 |
| 10.0x3.0Z12 | 10.0 x 2.625 x 2.875 | 12 | 0.105 | 6.047 | 1.778 | 0.990 | 13.988 | 10.517 | 10.941 | 25.856 | 5.097 | 3.832 | 3.813 | 3.134 | 0.920 | 1.328 |
| | | | | | | | | | | | | | | | | |
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NOTES:

Section properties and allowable loads are computed in accordance with AISI North American Specification for the Design of Cold-Formed Steel Structural Members, 2012 edition

I_x and I_y are for deflection determination

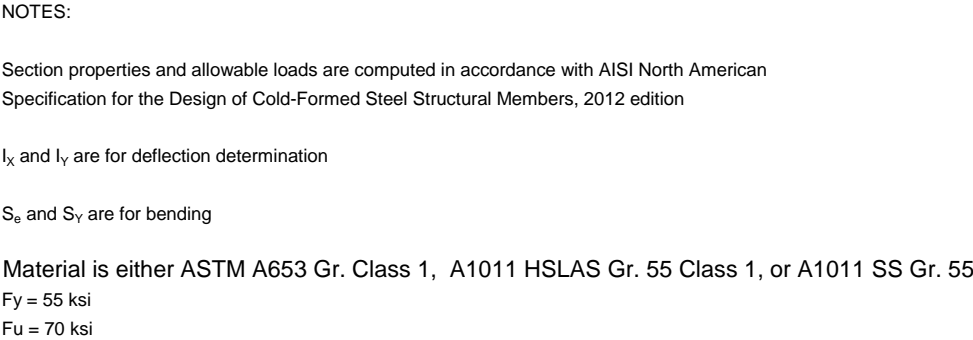
S_e and S_y are for bending

Material is either ASTM A653 Gr. Class 1, A1011 HSLAS Gr. 55 Class 1, or A1011 SS Gr. 55

$F_y = 55$ ksi

$F_u = 70$ ksi

| Section Name | DIMENSIONAL PROPERTIES | | | | | | ALLOWABLES | | | AXIS X-X | | | | AXIS Y-Y | | |
|--------------|------------------------|------|-------------------|-------------------|----------------------------|-------------|--------------------------|--------------------------|--------------|-----------------------------|--|--|---------------|-----------------------------|--------------------------------|---------------|
| | D x B1 x B2 (in) | Gage | Thickness (in) | Weight (lb/ft) | Area (in ²) | Lip (in) | Positive Ma (k-ft) | Negative Ma (k-ft) | Va (kips) | I_x (in ⁴) | Positive S_{xe} (in ³) | Negative S_{xe} (in ³) | R_x (in) | I_y (in ⁴) | S_{ye} (in ³) | R_y (in) |
| 10.0x2.5Z16 | 10.0 x 2.125 x 2.375 | 16 | 0.059 | 3.197 | 0.940 | 0.911 | 5.695 | 5.732 | 1.922 | 13.215 | 2.075 | 2.089 | 3.749 | 1.081 | 0.344 | 1.072 |
| 10.0x2.5Z14 | 10.0 x 2.125 x 2.375 | 14 | 0.070 | 3.793 | 1.116 | 0.930 | 7.384 | 7.286 | 3.218 | 15.642 | 2.690 | 2.655 | 3.745 | 1.290 | 0.431 | 1.075 |
| 10.0x2.5Z13 | 10.0 x 2.125 x 2.375 | 13 | 0.085 | 4.606 | 1.355 | 0.956 | 9.483 | 9.913 | 5.780 | 18.933 | 3.455 | 3.612 | 3.738 | 1.578 | 0.544 | 1.079 |
| 10.0x2.5Z12 | 10.0 x 2.125 x 2.375 | 12 | 0.105 | 5.690 | 1.673 | 0.990 | 12.170 | 12.612 | 10.941 | 23.285 | 4.434 | 4.595 | 3.730 | 1.968 | 0.676 | 1.085 |
| 11.0x3.5Z16 | 11.0 x 3.125 x 3.375 | 16 | 0.059 | 3.799 | 1.117 | 0.911 | 6.860 | 6.882 | 1.739 | 20.165 | 2.500 | 2.508 | 4.248 | 2.582 | 0.496 | 1.520 |
| 11.0x3.5Z14 | 11.0 x 3.125 x 3.375 | 14 | 0.070 | 4.507 | 1.326 | 0.930 | 8.913 | 8.992 | 2.911 | 23.876 | 3.247 | 3.276 | 4.244 | 3.077 | 0.580 | 1.524 |
| 11.0x3.5Z13 | 11.0 x 3.125 x 3.375 | 13 | 0.085 | 5.473 | 1.610 | 0.956 | 12.184 | 12.390 | 5.227 | 28.911 | 4.439 | 4.514 | 4.238 | 3.760 | 0.708 | 1.528 |
| 11.0x3.5Z12 | 11.0 x 3.125 x 3.375 | 12 | 0.105 | 6.761 | 1.988 | 0.990 | 16.294 | 15.975 | 9.891 | 35.577 | 5.937 | 5.821 | 4.230 | 4.681 | 0.997 | 1.534 |
| 11.0x2.5Z16 | 11.0 x 2.125 x 2.375 | 16 | 0.059 | 3.398 | 0.999 | 0.911 | 6.313 | 6.353 | 1.739 | 16.634 | 2.300 | 2.315 | 4.080 | 1.081 | 0.344 | 1.040 |
| 11.0x2.5Z14 | 11.0 x 2.125 x 2.375 | 14 | 0.070 | 4.031 | 1.186 | 0.930 | 8.203 | 8.092 | 2.911 | 19.694 | 2.989 | 2.948 | 4.076 | 1.290 | 0.431 | 1.043 |
| 11.0x2.5Z13 | 11.0 x 2.125 x 2.375 | 13 | 0.085 | 4.895 | 1.440 | 0.956 | 10.577 | 11.058 | 5.227 | 23.846 | 3.854 | 4.029 | 4.070 | 1.578 | 0.544 | 1.047 |
| 11.0x2.5Z12 | 11.0 x 2.125 x 2.375 | 12 | 0.105 | 6.047 | 1.778 | 0.990 | 13.642 | 14.203 | 9.891 | 29.344 | 4.971 | 5.175 | 4.062 | 1.968 | 0.676 | 1.052 |
| 12.0x3.5Z16 | 12.0 x 3.125 x 3.375 | 16 | 0.059 | 3.999 | 1.176 | 0.911 | 7.528 | 7.496 | 1.588 | 24.758 | 2.743 | 2.7313 | 4.588 | 2.582 | 0.497 | 1.482 |
| 12.0x3.5Z14 | 12.0 x 3.125 x 3.375 | 14 | 0.070 | 4.745 | 1.396 | 0.930 | 9.695 | 9.771 | 2.658 | 29.320 | 3.532 | 3.560 | 4.583 | 3.077 | 0.581 | 1.485 |
| 12.0x3.5Z13 | 12.0 x 3.125 x 3.375 | 13 | 0.085 | 5.762 | 1.695 | 0.956 | 13.207 | 13.408 | 4.771 | 35.515 | 4.812 | 4.885 | 4.578 | 3.760 | 0.710 | 1.490 |
| 12.0x3.5Z12 | 12.0 x 3.125 x 3.375 | 12 | 0.105 | 7.118 | 2.093 | 0.990 | 18.401 | 18.046 | 9.024 | 43.721 | 6.705 | 6.575 | 4.570 | 4.681 | 0.998 | 1.495 |
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[illegible]