



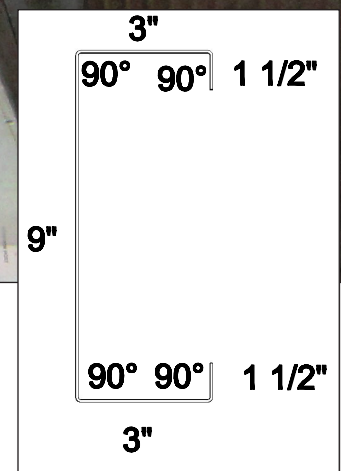
NU-STEEL
IND. (2008) LTD.

C - CHANNEL

12, 14, & 16 Gauge



All the light gauge components come galvanized coated.



TECHNICAL SPECIFICATIONS

Allowable Uniform Load in Pounds per Linear Foot

| Span (ft) | | 9x3x1.5 | | | 9x3.5x1 | | |
|-----------|-------|---------|--------|--------|---------|--------|--------|
| | | 12 Ga. | 14 Ga. | 16 Ga. | 12 Ga. | 14 Ga. | 16 Ga. |
| 10 | Ws | 1424 | 1005 | 687 | 1360 | 939 | 720 |
| | L/180 | 1870 | 1339 | 888 | 1848 | 1304 | 927 |
| 12 | Ws | 989 | 698 | 477 | 944 | 652 | 500 |
| | L/180 | 1082 | 775 | 514 | 1069 | 755 | 536 |
| 14 | Ws | 727 | 513 | 351 | 694 | 479 | 367 |
| | L/180 | 682 | 486 | 324 | 673 | 475 | 358 |
| 16 | Ws | 556 | 392 | 268 | 531 | 367 | 281 |
| | L/180 | 457 | 327 | 217 | 451 | 318 | 228 |
| 18 | Ws | 440 | 310 | 212 | 420 | 290 | 222 |
| | L/180 | 321 | 230 | 152 | 317 | 224 | 159 |
| 20 | Ws | 356 | 251 | 172 | 340 | 235 | 180 |
| | L/180 | 234 | 167 | 111 | 231 | 163 | 116 |
| 22 | Ws | 294 | 208 | 142 | 281 | 194 | 149 |
| | L/180 | 176 | 126 | 83 | 174 | 122 | 87 |
| 24 | Ws | 247 | 174 | 119 | 236 | 163 | 125 |
| | L/180 | 135 | 96 | 64 | 134 | 94 | 87 |
| 26 | Ws | 211 | 149 | 102 | 201 | 139 | 107 |
| | L/180 | 107 | 76 | 51 | 105 | 74 | 53 |
| 28 | Ws | 182 | 128 | 88 | 173 | 120 | 92 |
| | L/180 | 85 | 61 | 40 | 84 | 59 | 42 |
| 30 | Ws | 158 | 112 | 76 | 151 | 104 | 80 |
| | L/180 | 69 | 50 | 33 | 68 | 48 | 34 |

Section Properties (9" Depth x 3" Flange Width x 1.5" Lip)

| Gauge | Thickness (in) | Fy (Ksi) | Area (in ²) | Ix (in ⁴) | Sx (in ³) | rx (in) | Iy (in ⁴) | Sy (in ³) | ry (in) | Eff. Area (in ²) | Ixe (in ⁴) | Sxe (in ³) | Mom. Cap. (ft-kip) | Shear Cap. (kips) | End Bear. (kips) | Int. Bear. (kips) |
|-------|----------------|----------|-------------------------|-----------------------|-----------------------|---------|-----------------------|-----------------------|---------|------------------------------|------------------------|------------------------|--------------------|-------------------|------------------|-------------------|
| 12 | 0.1046 | 50 | 1.79 | 21.42 | 4.76 | 3.5 | 2.44 | 2.46 | 1.17 | 1.354 | 21.39 | 4.75 | 17.8 | 14.74 | 12 | 17.5 |
| 14 | 0.0747 | 50 | 1.3 | 15.73 | 3.5 | 3.48 | 1.82 | 1.82 | 1.18 | 0.85 | 15.32 | 3.35 | 12.56 | 5.55 | 7.94 | 11.6 |
| 16 | 0.0598 | 50 | 1.05 | 12.76 | 2.83 | 3.49 | 1.49 | 1.49 | 1.19 | 0.55 | 10.16 | 2.29 | 8.59 | 2.82 | 6.1 | 8.86 |

Section Properties (9" Depth x 3.5" Flange Width x 1" Lip)

| Gauge | Thickness (in) | Fy (Ksi) | Area (in ²) | Ix (in ⁴) | Sx (in ³) | rx (in) | Iy (in ⁴) | Sy (in ³) | ry (in) | Eff. Area (in ²) | Ixe (in ⁴) | Sxe (in ³) | Mom. Cap. (ft-kip) | Shear Cap. (kips) | End Bear. (kips) | Int. Bear. (kips) |
|-------|----------------|----------|-------------------------|-----------------------|-----------------------|---------|-----------------------|-----------------------|---------|------------------------------|------------------------|------------------------|--------------------|-------------------|------------------|-------------------|
| 12 | 0.1046 | 50 | 1.79 | 22.38 | 4.97 | 3.54 | 2.93 | 2.77 | 1.28 | 1.21 | 21.14 | 4.53 | 17 | 14.74 | 12 | 17.5 |
| 14 | 0.0747 | 50 | 1.3 | 16.42 | 3.65 | 3.55 | 2.19 | 2.06 | 1.3 | 0.74 | 14.92 | 3.13 | 11.74 | 5.55 | 7.94 | 11.6 |
| 16 | 0.0598 | 50 | 1.05 | 13.32 | 2.96 | 3.56 | 1.78 | 1.68 | 1.3 | 0.57 | 10.6 | 2.4 | 9 | 2.82 | 6.1 | 8.86 |

Notes:

- Internal bend radius, R=2t.
- Ix and Sx are for full section.
- Ixe and Sxe are for reduced section.
- Ixe is for deflection determination.
- Section properties are computed in accordance with CSA S136-01 - Limit state design.
- Factored web crippling were determined used a bearing width of three inches at interior span.
- Loads tables are computed in accordance with the requirements of National Building Code of Canada 2005, CSA Specification S136-01 - North American.
- The capacity of the sections are valid only if the members are fully restrained with respect to lateral instability and with respect to torsional loads not applied through the shear centre.
- Figures in the strength row are checked against factored load. The symbol "***" indicates strength capacity has been reached for shear.
- Figures in the row L/180 are load values based on 1/180th of span. For L/360, multiply values by 0.5. Deflection should be checked against specified load.
- All spans are assumed equal. Loads are assumed to be uniformly distributed.



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