



Steel Framing and Metal Lath

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# “U” – Un-Punched U-Shaped Channel, 54 Mil (16 ga. structural)

## Geometric Properties

“U” channels are fabricated in 3/4”, 1-1/2”, 2”, and 2-1/2” widths with 1/2” legs.  
All CEMCO U-Shaped channels are produced from hot-dipped galvanized steel in standard G60 coating weight. G90 is available upon special request.

## Steel Thickness

| Mil thickness | Design Thickness (in.) <sup>1</sup> | Minimum Thickness (in.) <sup>2</sup> |
|---------------|-------------------------------------|--------------------------------------|
| 54            | 0.0566 (1.44 mm)                    | 0.0538 (1.37 mm)                     |

1) Uncoated Steel Thickness. Thickness is for carbon sheet steel  
2) Minimum Thickness represents 95% of the design thickness and is the minimum acceptable thickness delivered to the job site, based on Section A4.3 of the AISI S100-2007.

## Color Code (painted on ends)

54 mil: Green

## ASTM & Code Standards

- ASTM A653/A653M, A924/A924M, & A1003/A1003M
- AISI S100-2007
- 2006 IBC
- 2007 CBC

## LEED Points and Recycled Content

By using CEMCO metal lath products, your project can contribute to earning LEED points for:

- LEED MR 2.1 and 2.2: Construction Waste Management: Up to 2 points.
- LEED MR 4.1 and 4.2: Recycled Content: Up to 2 points.
- LEED MR 5.1 & 5.2: Regional Materials

## CEMCO cold-formed steel framing products contain 30% to 35% recycled steel.

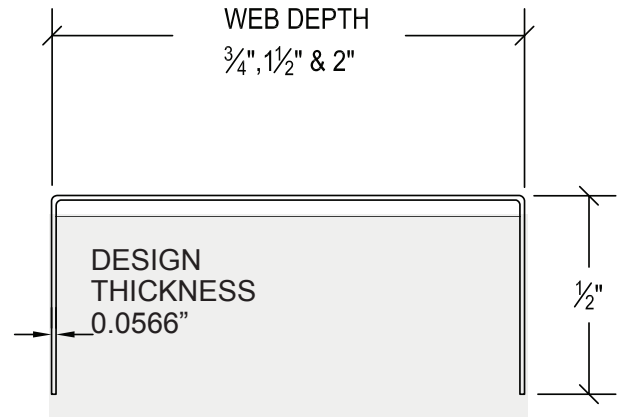
These products are produced from steel consisting of the following contents:

- Total Recycled Content: 32.9%
- Post-Consumer Content: 25.6%
- Pre-Consumer Content: 6.8%
- CEMCO can provide higher recycled content based on blending steel. Please refer to SSMA Tech dated May 2009 to calculate recycled content on blended steel.
- Link to SSMA Tech Note dated May 2009 on LEED® 2.2 Credits for Cold-Formed Steel Framing  
Manufacturers: <http://www.ssma.com/documents/TNO6%20SSMA%20LEED%202.2.pdf>



## Technical Services

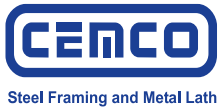
Contact Technical Services at 800.416.2278 for specific information or email to [techservices@cemcosteel.com](mailto:techservices@cemcosteel.com)



## SECTION PROPERTIES - U CHANNELS

| Section    | Design Thickness (in) | Gross Properties   |         |                    |                    |       |                    | Effective Properties 33 ksi |                    |                    |        |
|------------|-----------------------|--------------------|---------|--------------------|--------------------|-------|--------------------|-----------------------------|--------------------|--------------------|--------|
|            |                       | Area               | Weight  | Ix                 | Rx                 | Iy    | Ry                 | Ix                          | Sx                 | Ma                 | Va     |
|            |                       | (in <sup>2</sup> ) | (lb/ft) | (in <sup>4</sup> ) | (in <sup>3</sup> ) | (in)  | (in <sup>4</sup> ) | (in)                        | (in <sup>4</sup> ) | (in <sup>3</sup> ) | (in-k) |
| 75U050-54  | 0.0566                | 0.087              | 0.30    | 0.007              | 0.288              | 0.002 | 0.155              | 0.007                       | 0.019              | 0.45               | 315    |
| 150U050-54 | 0.0566                | 0.129              | 0.44    | 0.039              | 0.547              | 0.003 | 0.144              | 0.039                       | 0.052              | 1.22               | 840    |
| 200U050-54 | 0.0566                | 0.157              | 0.54    | 0.079              | 0.709              | 0.003 | 0.136              | 0.079                       | 0.079              | 1.87               | 1190   |

NOTES: 1. For Deflection calculations, use effective Ixx



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## ALLOWABLE U-CHANNEL CEILING SPANS - L/240

| Section    |          | 4 psf                     |        |        |        |        | 6 psf                     |       |        |        |        | 13 psf                    |       |       |        |        |
|------------|----------|---------------------------|--------|--------|--------|--------|---------------------------|-------|--------|--------|--------|---------------------------|-------|-------|--------|--------|
|            |          | Channel Spacing (in) o.c. |        |        |        |        | Channel Spacing (in) o.c. |       |        |        |        | Channel Spacing (in) o.c. |       |       |        |        |
|            |          | 24                        | 36     | 48     | 60     | 72     | 24                        | 36    | 48     | 60     | 72     | 24                        | 36    | 48    | 60     | 72     |
| 75U050-54  | Single   | 3' 11"                    | 3' 5"  | 3' 1"  | 2' 10" | 2' 8"  | 3' 5"                     | 3' 0" | 2' 8"  | 2' 6"  | 2' 4"  | 2' 7"                     | 2' 4" | 2' 1" | 1' 11" | 1' 9"  |
|            | Multiple | 4' 10"                    | 4' 2"  | 3' 10" | 3' 7"  | 3' 4"  | 4' 2"                     | 3' 8" | 3' 4"  | 3' 1"  | 2' 10" | 3' 3"                     | 2' 9" | 2' 4" | 2' 1"  | 1' 11" |
| 150U050-54 | Single   | 5' 6"                     | 4' 10" | 4' 5"  | 4' 1"  | 3' 10" | 4' 10"                    | 4' 3" | 3' 10" | 3' 7"  | 3' 5"  | 3' 9"                     | 3' 3" | 3' 0" | 2' 9"  | 2' 7"  |
|            | Multiple | 7' 1"                     | 6' 2"  | 5' 8"  | 5' 3"  | 4' 11" | 6' 2"                     | 5' 5" | 4' 11" | 4' 7"  | 4' 4"  | 4' 10"                    | 4' 2" | 3' 9" | 3' 4"  | 3' 0"  |
| 200U050-54 | Single   | 5' 10"                    | 5' 1"  | 4' 8"  | 4' 4"  | 4' 1"  | 5' 1"                     | 4' 6" | 4' 1"  | 3' 10" | 3' 7"  | 4' 0"                     | 3' 6" | 3' 2" | 3' 0"  | 2' 10" |
|            | Multiple | 7' 5"                     | 6' 6"  | 5' 11" | 5' 6"  | 5' 2"  | 6' 6"                     | 5' 8" | 5' 2"  | 4' 10" | 4' 7"  | 5' 1"                     | 4' 5" | 4' 0" | 3' 9"  | 3' 6"  |

## ALLOWABLE U-CHANNEL CEILING SPANS - L/360

| Section    |          | 4 psf                     |        |        |       |        | 6 psf                     |       |        |        |       | 13 psf                    |       |        |       |        |
|------------|----------|---------------------------|--------|--------|-------|--------|---------------------------|-------|--------|--------|-------|---------------------------|-------|--------|-------|--------|
|            |          | Channel Spacing (in) o.c. |        |        |       |        | Channel Spacing (in) o.c. |       |        |        |       | Channel Spacing (in) o.c. |       |        |       |        |
|            |          | 24                        | 36     | 48     | 60    | 72     | 24                        | 36    | 48     | 60     | 72    | 24                        | 36    | 48     | 60    | 72     |
| 75U050-54  | Single   | 3' 5"                     | 3' 0"  | 2' 8"  | 2' 6" | 2' 4"  | 3' 0"                     | 2' 7" | 2' 4"  | 2' 2"  | 2' 1" | 2' 4"                     | 2' 0" | 1' 10" | 1' 8" | 1' 7"  |
|            | Multiple | 4' 2"                     | 3' 8"  | 3' 4"  | 3' 1" | 2' 11" | 3' 8"                     | 3' 2" | 2' 11" | 2' 8"  | 2' 7" | 2' 10"                    | 2' 6" | 2' 3"  | 2' 1" | 1' 11" |
| 150U050-54 | Single   | 5' 6"                     | 4' 10" | 4' 5"  | 4' 1" | 3' 10" | 4' 10"                    | 4' 3" | 3' 10" | 3' 7"  | 3' 5" | 3' 9"                     | 3' 3" | 3' 0"  | 2' 9" | 2' 7"  |
|            | Multiple | 7' 1"                     | 6' 2"  | 5' 8"  | 5' 3" | 4' 11" | 6' 2"                     | 5' 5" | 4' 11" | 4' 7"  | 4' 4" | 4' 10"                    | 4' 2" | 3' 9"  | 3' 4" | 3' 0"  |
| 200U050-54 | Single   | 5' 10"                    | 5' 1"  | 4' 8"  | 4' 4" | 4' 1"  | 5' 1"                     | 4' 6" | 4' 1"  | 3' 10" | 3' 7" | 4' 0"                     | 3' 6" | 3' 2"  | 3' 0" | 2' 10" |
|            | Multiple | 7' 5"                     | 5' 1"  | 5' 11" | 5' 6" | 5' 2"  | 6' 6"                     | 5' 8" | 5' 2"  | 4' 10" | 4' 7" | 5' 1"                     | 4' 5" | 4' 0"  | 3' 9" | 3' 6"  |

Span Notes: 1.  $F_y = 33$  ksi for all sections 2. Multiple span indicates two or more equal spans with channel continuous over interior supports 3. Bearing Lengths = 0.75" 4. Allowable spans based on the compression flange laterally unbraced