



Expanding Your Solutions

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263 North Covina Lane  
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# "U" - UN-PUNCHED U-SHAPED CHANNEL, 54MIL (16GA STRUCTURAL)

## Geometric Properties

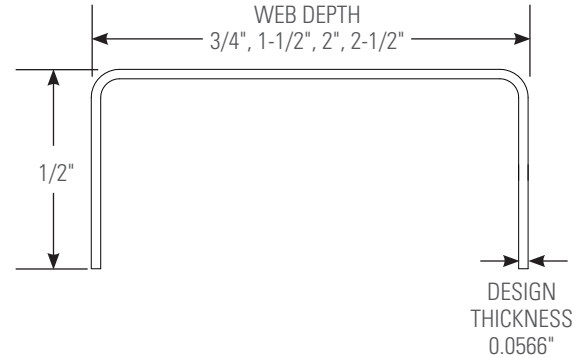
"U" channels are fabricated in 3/4", 1-1/2", 2", and 2-1/2" widths with 1/2" legs. All CEMCO U-Shaped channels are produced from hot-dipped galvanized steel in standard G60 coating weight. G90 is available upon special request.

## 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)

**Notes:**

- 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
- 2012 AISI
- 2012/2015 IBC
- 2010/2013 CBC

## LEED v3 for Building and Design Construction

- MR Credit 2: Construction Waste Management.
- MR Credit 4: Recycled Content.

## LEED v4 for Building and Design Construction

- MR Prerequisite: Construction and Demolition Waste Management Planning.
- MR Credit: Construction and Demolition Waste Management.
- MR Credit: Building Product Disclosure and Optimization – Sourcing of Raw Materials, Option 2.
- MR Credit: Building Product Disclosure and Optimization – Environmental Product Declarations, Options 1 & 2.
- MR Credit: Building Product Disclosure and Optimization – Material Ingredients, Option 1.
- MR Credit: Building Life-Cycle Impact Reduction, Option 4.

## CEMCO cold-formed steel framing products contain 30% to 37% recycled steel.

- Total Recycled Content: 36.9%
- Post-Consumer: 19.8%
- Pre-Consumer: 14.4%

## Sectional Properties - U Channels

Section	Design Thickness (in.)	Gross Properties						Effective Properties 33 ksi			
		Area (in. <sup>2</sup> )	Weight (lb./ft.)	I <sub>x</sub> (in. <sup>4</sup> )	R <sub>x</sub> (in. <sup>3</sup> )	I <sub>y</sub> (in. <sup>4</sup> )	R <sub>y</sub> (in. <sup>3</sup> )	I <sub>x</sub> (in.)	S <sub>x</sub> (in. <sup>3</sup> )	Ma (in. <sup>3</sup> )	Va (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
15U050-54	0.0566	0.129	0.44	0.039	0.547	0.003	0.144	0.039	0.052	1.22	840
20U050-54	0.0566	0.157	0.54	0.079	0.709	0.003	0.136	0.079	0.079	1.87	1190
25U050-54	0.0566	0.186	0.63	0.139	0.866	0.003	0.128	0.0139	0.111	2.64	1540

Notes: 1. For Deflection calculations, use effective I<sub>xx</sub>

## Technical Services

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www.cemcosteel.com



This technical information reflects the most current information available and supersedes any and all previous publications effective February 1, 2016.



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# "U" - UN-PUNCHED U-SHAPED CHANNEL, 54MIL (16GA STRUCTURAL)

## 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"
15U050-54	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"
250U050-54	Single	6' 1"	5' 4"	4' 10"	4' 6"	4' 3"	5' 4"	4' 8"	4' 3"	4' 0"	3' 9"	4' 0"	3' 6"	3' 2"	3' 0"	2' 10"
	Multiple	7' 9"	6' 9"	6' 2"	5' 9"	5' 5"	6' 9"	5' 11"	5' 5"	5' 0"	4' 9"	5' 3"	4' 7"	4' 3"	3' 11"	3' 9"

## 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"
15U050-54	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"
250U050-54	Single	6' 1"	5' 4"	4' 10"	4' 6"	4' 3"	5' 4"	4' 8"	4' 3"	4' 0"	3' 9"	4' 2"	3' 8"	3' 4"	3' 1"	2' 11"
	Multiple	7' 9"	6' 9"	6' 2"	5' 9"	5' 5"	6' 9"	5' 11"	5' 5"	5' 0"	4' 9"	5' 3"	4' 7"	4' 3"	3' 11"	3' 9"

**Span Notes:**

1. Fy = 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.

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