

**Expanding Your Solutions** 

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# "U" - UNPUNCHED U-SHAPED CHANNEL • 2-1/2" x 54 Mil.

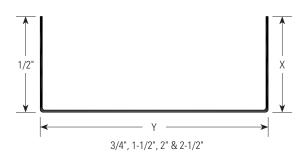
## **Geometric Properties**

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

#### **Steel Thickness**

Thickness (mil)	<b>Design Thickness</b> (in) <sup>1</sup>	Minimum Thickness (in) <sup>1,2</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, 924/A924M, A1003/1003, C955 & C1007
- ICC-ES & SFIA Code Compliance Certification Program
- ICC ESR-3016
- ATI CCRR-0224
- IBC: 2012, 2015, 2018
- CBC: 2013, 2016
- AISI: S100-07, S100-12, S100-16, S200-12, S240-15

**CSI Division:** 05.40.00 – Cold-Formed Metal Framing

#### **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%



# **U-Channel Section Properties**

	Design			Gross Pr	Effective Properties						
Section	Thickness	Area	Weight	lx	Rx	ly	Ry	lx	Sx	Ma	Va
	(in)	(in²)	(lb/ft)	(in <sup>4</sup> )	(in)	(in <sup>4</sup> )	(in)	(in <sup>4</sup> )	(in³)	(in-k)	(lbs)
250U050-54	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 lxx.

# **U-Shaped Channels Allowable Ceiling Spans**

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	Uniform Load																
Section			4 psf Channel Spacing o.c. (in)				6 psf Channel Spacing o.c. (in)					13 psf Channel Spacing o.c. (in)					
			24	36	48	60	72	24	36	48	60	72	24	36	48	60	72
	L/240	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"
25011050 54		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"
250U050-54	L/360	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"

#### Notes:

- 1. Fy = 50 ksi for all sections.
- 2. Multiple span indicates two or more equal spans with channel continuous over interior supports.
- 2. Bearing Lengths = 0.75".
- $\textbf{3.} \ \mathsf{Allowable} \ \mathsf{spans} \ \mathsf{based} \ \mathsf{on} \ \mathsf{the} \ \mathsf{compression} \ \mathsf{flange} \ \mathsf{laterally} \ \mathsf{unbraced}.$



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