

www.millsteelframing.com | 2905 Lucerne Dr. SE Grand Rapids, MI 49546 | (812) 670-4195

# **Structural Stud**

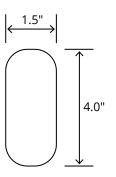
Product Description	16 GA GALV 12.00" WEB x 2.00" FLANGE C-STUD .054 MIN GAUGE
Coating	G60
Physical Properties	
Design Thickness (in)	0.0566
Minimum Thickness (in)	0.0538
Web Width (in)	12.0000
Flange Width (in)	2.0000
Stiffening Lip (in)	0.6250
Yield Strength (ksi)	50.0000

Gross Section Properties	
Cross Sectional Area (A)	0.953
Weight of Member (lb/ft)	3.24
Section Modulus (Sx)	2.945
Moment of Inertia (lx)	17.668
Radius of Gyration (Rx)	4.307
Gross Moment of Inertia (ly)	0.394
Gross Radium of Gyration (Ry)	0.643

<b>Effective Section Properties</b>	
Moment of Inertia for deflection (lxe)	16.335
Section Modulus (Sxe)	2.073
Allowable Bending moment (Ma)	62.07
Allowable shear force in web (U)(Vag)	1377
Allowable shear at punch (Vanet)	1377

Torsional Properties	
St. Venant torsion constant (J x 1000)	1.017
Warping constant (Cw)	11.550
Distance from shear center to neutral axis (Xo)	-1.032
Radii of gyration (Ro)	4.475
Torsional flexural constant (Beta)	0.947

#### **Punch Out**



## ASTM & Code Standards

- AISI S100-12 & ICC ES ESR-4062
- Framing meets ASTM A1003, A653 & C955

#### Notes

- 1. Calculated properties are based on AISI S100-16, North American Specification for Design of Cold-Formed Steel Structural Members.
- 2. The centerline bend radius is based on inside corner radii shown in thickness chart.
- 3. Effective properties incorporate the strength increase from the cold work of forming as applicable per AISI A3.3.2.
- 4. Tabulated gross properties are based on fullunreduced cross section of the studs, away from punch outs.
- 5. For deflection calculations, use the effective moment of inertia.
- 6. Allowable moment includes cold-work of forming.

## **Mill Steel Framing LEED Green Credits**

MR Credit 2	<ul> <li>ConstructionWaste Management – Mill Steel Framing steel framing is 100% recyclable</li> </ul>
MR Credit 4	<ul> <li>Recycled Content – Mill Steel Framing products contain no less than 25.5% post-consumer</li> </ul>
	and 6.8% pre-consumer recycled content
MR Credit 5	• Regional Materials – Mill Steel Framing has manufacturing facilities in Indiana, Alabama & Texas
V4 MR Credits	Building Product Disclosure and Optimization EPD (1 point)
	• Materials Ingredients (1 point) – Construction and Demolition Waste Management (1 point)

