

Structural Stud 400S250-97G90

Product Description 12 GA GALV 4.00" WEB X 2.50" FLANGE C-STUD .097 MIN GAUGE
Coating G-90
 G90

Physical Properties
 Design Thickness (in) 0.1017
 Minimum Thickness (in) 0.0966
 Web Width (in) 4.0000
 Flange Width (in) 2.5000
 Stiffening Lip (in) 0.6250
 Yield Strength (ksi) 50.0000

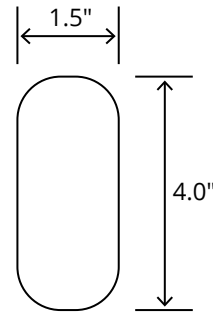


Gross Section Properties	
Cross Sectional Area (A)	0.966
Weight of Member (lb/ft)	3.28
Section Modulus (Sx)	1.271
Moment of Inertia (Ix)	2.542
Radius of Gyration (Rx)	1.623
Gross Moment of Inertia (Iy)	0.801
Gross Radium of Gyration (Ry)	0.911

Effective Section Properties	
Moment of Inertia for deflection (Ixe)	2.542
Section Modulus (Sxe)	1.202
Allowable Bending moment (Ma)	40.44
Allowable shear force in web (U)(Vag)	6658
Allowable shear at punch (Vanet)	1207

Torsional Properties	
St. Venant torsion constant (J x 1000)	3.329
Warping constant (Cw)	2.978
Distance from shear center to neutral axis (Xo)	-2.066
Radii of gyration (Ro)	2.781
Torsional flexural constant (Beta)	0.448

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 full-unreduced 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** • ConstructionWaste Management – Mill Steel Framing steel framing is 100% recyclable
- MR Credit 4** • Recycled Content – Mill Steel Framing products contain no less than 25.5% post-consumer 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)

