

Structural Stud 1000S250-97G90

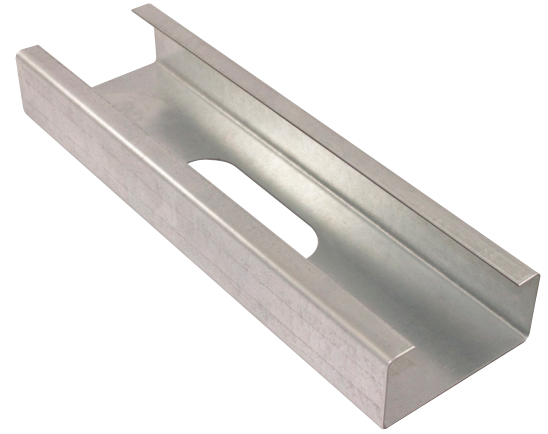
Product Description

12 GA GALV 10.00" WEB X 2.50"
FLANGE C-STUD .097 MIN GAUGE
G-90
G90

Coating

Physical Properties

Design Thickness (in)	0.1017
Minimum Thickness (in)	0.0966
Web Width (in)	10.0000
Flange Width (in)	2.5000
Stiffening Lip (in)	0.6250
Yield Strength (ksi)	50.0000



Gross Section Properties

Cross Sectional Area (A)	1.576
Weight of Member (lb/ft)	5.36
Section Modulus (Sx)	4.367
Moment of Inertia (Ix)	21.834
Radius of Gyration (Rx)	3.722
Gross Moment of Inertia (Iy)	1.073
Gross Radium of Gyration (Ry)	0.825

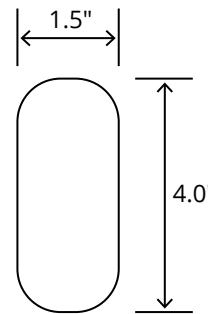
Effective Section Properties

Moment of Inertia for deflection (Ixe)	21.828
Section Modulus (Sxe)	4.181
Allowable Bending moment (Ma)	140.63
Allowable shear force in web (U)(Vag)	9864
Allowable shear at punch (Vanet)	7177

Torsional Properties

St. Venant torsion constant (J x 1000)	5.433
Warping constant (Cw)	21.632
Distance from shear center to neutral axis (Xo)	-1.454
Radii of gyration (Ro)	4.080
Torsional flexural constant (Beta)	0.873

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)

