

Structural Stud 1000S250-43G90

Product Description 18 GA GALV 10.00" WEB x 2.50" FLANGE C-STUD .043 MIN GAUGE G90

Coating G90

Physical Properties

Design Thickness (in) 0.0451
 Minimum Thickness (in) 0.0428
 Web Width (in) 10.0000
 Flange Width (in) 2.5000
 Stiffening Lip (in) 0.6250
 Yield Strength (ksi) 33.0000



Gross Section Properties

Cross Sectional Area (A)	0.717
Weight of Member (lb/ft)	2.44
Section Modulus (Sx)	2.041
Moment of Inertia (Ix)	10.205
Radius of Gyration (Rx)	3.771
Gross Moment of Inertia (Iy)	0.531
Gross Radium of Gyration (Ry)	0.860

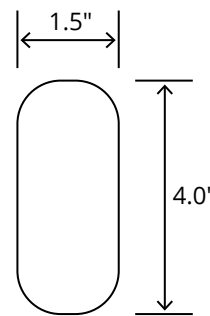
Effective Section Properties

Moment of Inertia for deflection (Ixe)	10.203
Section Modulus (Sxe)	1.617
Allowable Bending moment (Ma)	31.95
Allowable shear force in web (U)(Vag)	836
Allowable shear at punch (Vanet)	836

Torsional Properties

St. Venant torsion constant (J x 1000)	0.486
Warping constant (Cw)	10.481
Distance from shear center to neutral axis (Xo)	-1.518
Radii of gyration (Ro)	4.155
Torsional flexural constant (Beta)	0.867

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)

