

Structural Stud 400S300-97

Product Description

12 GA GALV 4.00" WEB X 3.00"
FLANGE C-STUD .097 MIN
GAUGE
G60

Coating

Physical Properties

Design Thickness (in)	0.1017
Minimum Thickness (in)	0.0966
Web Width (in)	4.0000
Flange Width (in)	3.0000
Stiffening Lip (in)	0.6250
Yield Strength (ksi)	50.0000



Gross Section Properties

Cross Sectional Area (A)	1.067
Weight of Member (lb/ft)	3.63
Section Modulus (Sx)	1.464
Moment of Inertia (Ix)	2.928
Radius of Gyration (Rx)	1.656
Gross Moment of Inertia (Iy)	1.259
Gross Radium of Gyration (Ry)	1.086

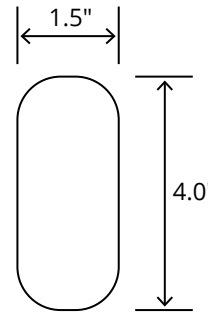
Effective Section Properties

Moment of Inertia for deflection (Ixe)	2.894
Section Modulus (Sxe)	1.307
Allowable Bending moment (Ma)	39.13
Allowable shear force in web (U)(Vag)	6658
Allowable shear at punch (Vanet)	1207

Torsional Properties

St. Venant torsion constant (J x 1000)	3.679
Warping constant (Cw)	4.619
Distance from shear center to neutral axis (Xo)	-2.535
Radii of gyration (Ro)	3.217
Torsional flexural constant (Beta)	0.379

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)

