

Structural Stud 800S300-54G90

Product Description 16 GA GALV 8.00" WEB X 3.00" FLANGE C-STUD .054 MIN GAUGE G90 COATED G90

Coating

Physical Properties

Design Thickness (in)	0.0566
Minimum Thickness (in)	0.0538
Web Width (in)	8.0000
Flange Width (in)	3.0000
Stiffening Lip (in)	0.6250
Yield Strength (ksi)	50.0000



Gross Section Properties

Cross Sectional Area (A)	0.839
Weight of Member (lb/ft)	2.86
Section Modulus (Sx)	2.090
Moment of Inertia (Ix)	8.360
Radius of Gyration (Rx)	3.156
Gross Moment of Inertia (Iy)	0.959
Gross Radium of Gyration (Ry)	1.069

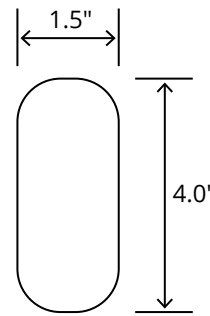
Effective Section Properties

Moment of Inertia for deflection (Ixe)	7.863
Section Modulus (Sxe)	1.535
Allowable Bending moment (Ma)	45.97
Allowable shear force in web (U)(Vag)	2091
Allowable shear at punch (Vanet)	2091

Torsional Properties

St. Venant torsion constant (J x 1000)	0.896
Warping constant (Cw)	12.076
Distance from shear center to neutral axis (Xo)	-2.073
Radii of gyration (Ro)	3.924
Torsional flexural constant (Beta)	0.721

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)

