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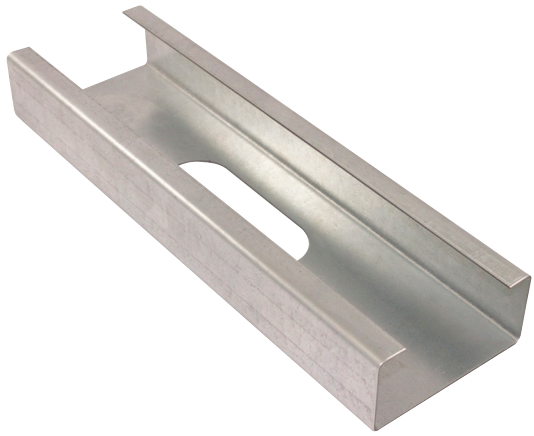
Structural Stud 400S162-97G90

Product Description 12 GA GALV 4.00" WEB X 1.62" FLANGE C-STUD .097 MIN GAUGE G-90

Coating G90



Physical Properties

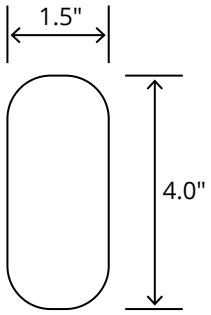
Design Thickness (in)	0.1017
Minimum Thickness (in)	0.0966
Web Width (in)	4.0000
Flange Width (in)	1.6250
Stiffening Lip (in)	0.5000
Yield Strength (ksi)	50.0000

Gross Section Properties	
Cross Sectional Area (A)	0.762
Weight of Member (lb/ft)	2.59
Section Modulus (Sx)	0.907
Moment of Inertia (Ix)	1.813
Radius of Gyration (Rx)	1.542
Gross Moment of Inertia (Iy)	0.250
Gross Radium of Gyration (Ry)	0.572

Effective Section Properties	
Moment of Inertia for deflection (Ixe)	1.813
Section Modulus (Sxe)	0.892
Allowable Bending moment (Ma)	31.65
Allowable shear force in web (U)(Vag)	6658
Allowable shear at punch (Vanet)	1207

Torsional Properties	
St. Venant torsion constant (J x 1000)	2.628
Warping constant (Cw)	0.889
Distance from shear center to neutral axis (Xo)	-1.182
Radii of gyration (Ro)	2.026
Torsional flexural constant (Beta)	0.660

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)